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## Phase II Environmental Site Assessment

778-796 Parker Street and 77 Terrace  
Street  
Boston, Massachusetts

November 2021

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## 1.0 INTRODUCTION

Weston & Sampson Engineers, Inc. (Weston & Sampson), on behalf of the City of Boston's Department of Neighborhood Development (DND), has prepared this Phase II Environmental Site Assessment (ESA) report for 778-796 Parker Street and 77 Terrace Street in Boston, Massachusetts (the "Site").

It is our understanding that Boston DND would like to obtain cleanup funding to prepare the Site for future redevelopment as residential use. The objective is to assess the Site for potential environmental impacts which may be encountered during construction of the proposed redevelopment. Additional assessment was performed to fill data gaps from previous investigations and to aid in the preparation of a Brownfields Cleanup Grant Application. Weston & Sampson conducted a limited test pit program including soil sampling and analysis.

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## 2.0 BACKGROUND

The Site currently exists as an undeveloped, fenced-in lot consisting of 11 parcels in the Mission Hill neighborhood of Boston, Massachusetts. The Site has a history of both residential (778-796 Parker Street) and industrial (77 Terrace Street) use. Based on a review of the documents provided by DND and the publicly available documents on file with Massachusetts Department of Environmental Protection's (MassDEP) Waste Site/Reportable Release File Viewer, the Site has a documented release history and is regulated under the Massachusetts Contingency Plan (MCP). The Site has two Release Tracking Numbers (RTNs).

RTN 3-20251 was for a release on 77 Terrace Street. According to a December 2001 Class B-1 Release Abatement Outcome (RAO), soil throughout 77 Terrace Street is impacted with lead and polycyclic aromatic hydrocarbons (PAHs) at concentrations that exceed the Reportable Concentrations for category S-1 (RCS-1) and applicable MCP Method 1 Cleanup Standards. The RAO report concluded that the concentrations were consistent with background levels typically found in anthropogenic urban fill material containing wood and coal ash.

More recent assessment activity conducted throughout the Site in 2014, identified similar lead and PAH impacts to soil, resulting in a second RTN (3-32280) that included all parcels. RTN 3-32280 is currently in Tier 1D status. Redevelopment of the Site is further complicated by the presence of former building foundations and construction & demolition (C&D) at and below the subsurface. Copies of prior assessment reports are provided in **Appendix A**.

Despite the documented presence of imported urban fill at the Site and a history of industrial use, neither site investigation (i.e., 2001 or 2014) included analysis for polychlorinated biphenyls (PCBs) in soil. Because the presence of PCBs in soil can have a large impact on both the path to regulatory closure and the cost of redevelopment, understanding if PCBs are present in Site soil, and at what concentrations, is important to any conceptual cost estimates that will be required for the Grant Application.

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### 3.0 STATEMENT OF OBJECTIVES

We have performed a Phase II Environmental Site Assessment at the properties located at 778-796 Parker Street and 77 Terrace Street in Boston, Massachusetts. The objective was to assess the Site for potential environmental impacts which may be encountered during construction of the proposed redevelopment. Additional assessment was performed to fill data gaps from previous investigations and to aid in the preparation of a Brownfields Cleanup Grant Application.

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## 4.0 INTRODUCTION

### 4.1 Test Pit Excavation

Between October 21 and 22, 2021, Weston & Sampson performed additional assessment at the Site to evaluate environmental contamination within areas of proposed construction. Weston & Sampson documented the excavation of eight (8) test pits (TP-1 to TP-8) to depths of up to 8 feet below grade surface (bgs). See attached Figure 2 for test pit locations. Test pit logs are included as **Appendix B**.

Weston & Sampson observed fill material soil in the test pits to depths of up to 8 feet below grade surface (bgs). The fill consisted of loosely packed, fine to medium silty sand (loam) with trace cobbles, trace gravel, and trace debris (brick, asphalt, metal, glass, wood, and roots).

### 4.2 Soil Sampling, Field Screening and Analysis

Weston & Sampson documented the test pit advancement and collected soil samples for field screening and laboratory analysis. The soil samples were field screened with a photoionization detector (PID) for total organic volatiles (TOVs). PID field screening did not identify significant impacts, as detectable TOVs were all below 1 part per million by volume (ppmv). Weston & Sampson did not observe visual (staining) or olfactory evidence of contamination.

The test pits were advanced to 8 feet bgs or until hitting groundwater or refusal. Groundwater was not encountered at any of the test pits at the Site, but refusal was encountered between 4 and 7.5 feet bgs at multiple locations (TP-2, TP-3, TP-4, TP-6, and TP-8). Refusal was due to large pieces of concrete that were too large for the mini excavator to break up or remove. It was assumed that the concrete was from old foundations and building materials.

At each test pit, a shallow and a deep sample was collected and analyzed for MCP 14 Metals and PCBs. A matrix spike (MS) and a matrix spike duplicate (MSD) were taken and ran against TP-1 (6-8) for MCP 14 Metals. An Extractable Petroleum Hydrocarbons (EPH) with target Polynuclear Aromatic Hydrocarbons (PAHs) and a Volatile Organic Compounds (VOCs) sample were taken at each test pit at the depth interval with the highest PID reading, plus 3 extras. A duplicate sample (DUP-1) was taken at TP-1 (0-2) and run for MCP 14 Metals, PCBs, EPH with targeted PAHs, and VOCs. All samples were submitted to Con-Test Analytical Laboratory. See Table 1 for the summary of soil analytical results. A copy of the laboratory analytical report is included as **Appendix C**.

As shown in Table 1, analysis of the soil samples identified concentrations of arsenic, lead, chromium, and PAHs (benzo[a]pyrene, and dibenz[a,h]anthracene) exceeding applicable MCP Method 1 Cleanup Standards for the Site. Low levels of PCBs, VOCs, and various EPH with target PAHs were detected in multiple test pits with concentrations below the MCP Method 1 Cleanup Standards.

## 5.0 CONCEPTUAL SITE MODEL

The Site is approximately 1.3 acres and consists of 11 contiguous parcels in a mixed residential/commercial area in the Mission Hill neighborhood of Boston. No buildings or permanent structures are currently present at the Site. The Site was most recently used by the local community for gardening and passive open space.

The 77 Terrace Street parcel was developed as a brewery from the late 1800s through the early 1900s. This parcel was later owned by a distillery in the 1940s and later repurposed as a plumbing supplier by the early 1960s. The ten contiguous parcels along Parker Street (778-796 Parker Street) were developed for residential use sometime prior to the late 1800s. All of the Site buildings were demolished between 1964 and 1988 and the Site has remained vacant since that time. Several assessment activities have been completed to date, but no cleanup/remediation has occurred at the Site.

Environmental investigations have revealed that the Site is underlain by an urban fill interspersed with debris and impacted by elevated concentrations of lead across the Site. Arsenic, cadmium, chromium, and polycyclic aromatic hydrocarbons (PAHs) have also been detected at various locations at concentrations exceeding the applicable MCP Method 1 Cleanup Standards. The Method 1 Soil Standards are a conservative measure of site risk.

The source of the urban fill material is unknown; however, emplacement of undocumented fill material was a common development practice as recently as the mid-twentieth century. Earlier reports indicated that the nature of the fill (containing building debris and with voids) would not be suitable for construction.

Groundwater has not been encountered at the Site during assessment activities by Weston & Sampson or others to depths of greater than 20 feet bgs; however, based on the nature and type of contamination impacts to groundwater are not expected.

Conceptually, release mechanisms that could potentially cause exposure to receptors are direct contact with soil, wind driven dust, storm water runoff, and plant uptake. Potentially affected human receptors under current use risk scenarios include neighbors at the adjacent properties and trespassers exposed to contaminated soil via inhalation of fugitive dust and/or dermal adsorption. There is also potential exposure to terrestrial biota via uptake, ingestion, and dermal adsorption.

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## 6.0 CONCLUSIONS

Based on the data, the concentrations appear to be consistent with earlier data. The presence of lead appears to be driving risk at the Site. Although no hot spots were identified, elevated concentrations of lead were detected across the Site. In order to achieve regulatory closure under the MCP, it appears that soil containing lead, likely from historic fill and/or lead-based paint in debris, will need to be removed or capped to prevent exposure. Additionally, from a geotechnical perspective, the condition of the unstructured fill is unknown but appears to be unsuitable for construction and would therefore need to be removed, or ground improvement techniques used to support new construction.

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## 7.0 LIMITATIONS

This report was prepared for the use of DND exclusively. The findings provided by Weston & Sampson in this report are based solely on the information reported in this document. Future sampling, and/or information that was not available to Weston & Sampson at the time of the study, may result in a modification of the findings stated in this report.

Should additional information become available concerning this Site or neighboring properties, which could directly impact the Site in the future, that information should be made available to Weston & Sampson for review so that, if necessary, conclusions presented in this report may be modified. The conclusions of this report are based on Site conditions observed by Weston & Sampson personnel at the time of the study, information provided by DND and samples collected and analyzed on the dates shown or stated in this report. This report has been prepared in accordance with generally accepted engineering and geological practices. No other warranty, express or implied, is made.

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FIGURES

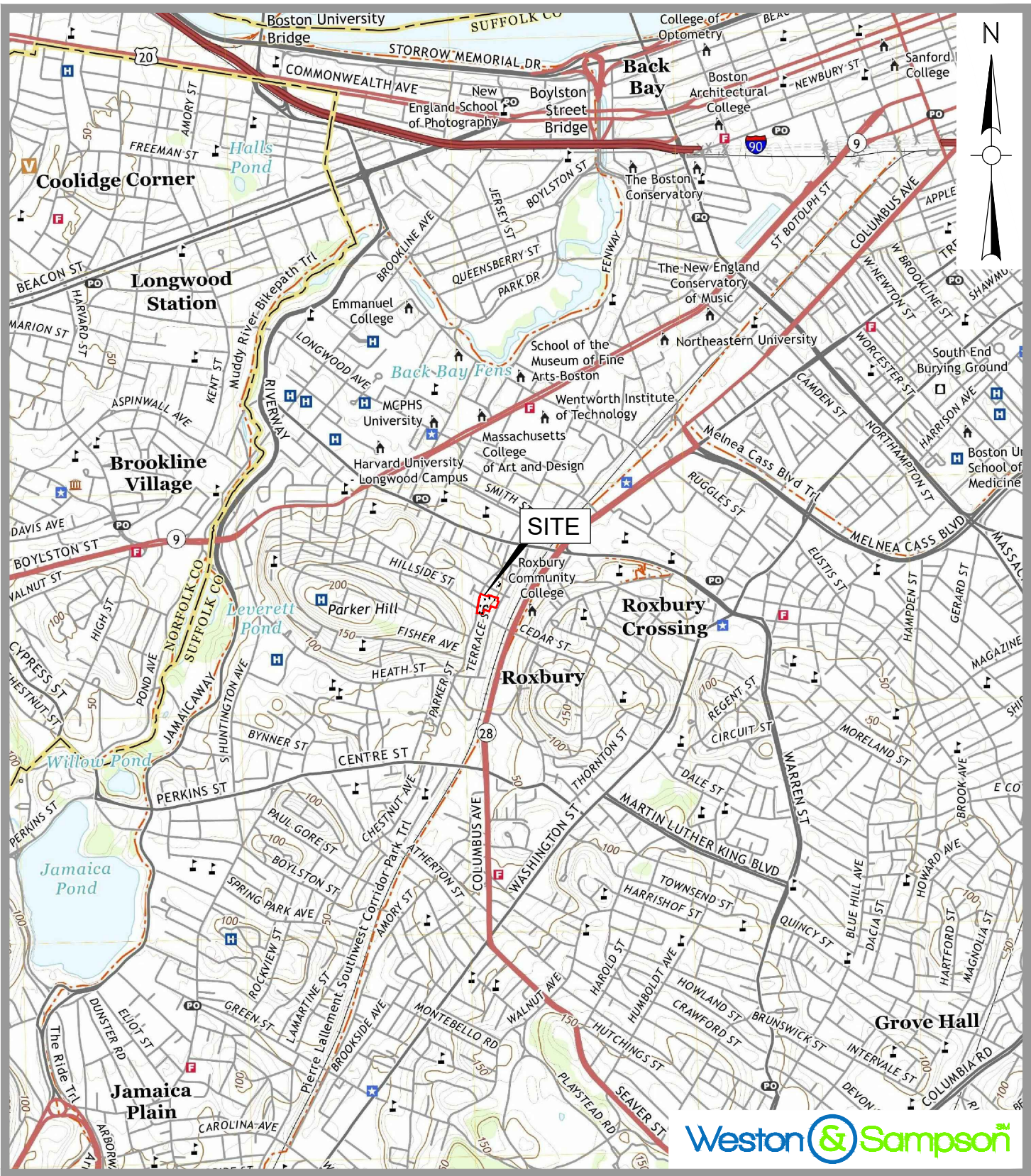
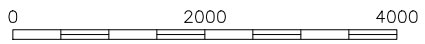


FIGURE 1  
 778-796 PARKER STREET AND 77 TERRACE STREET  
 MISSION HILL, BOSTON, MASSACHUSETTS  
**LOCUS MAP**  
 SCALE: 1"=2000'

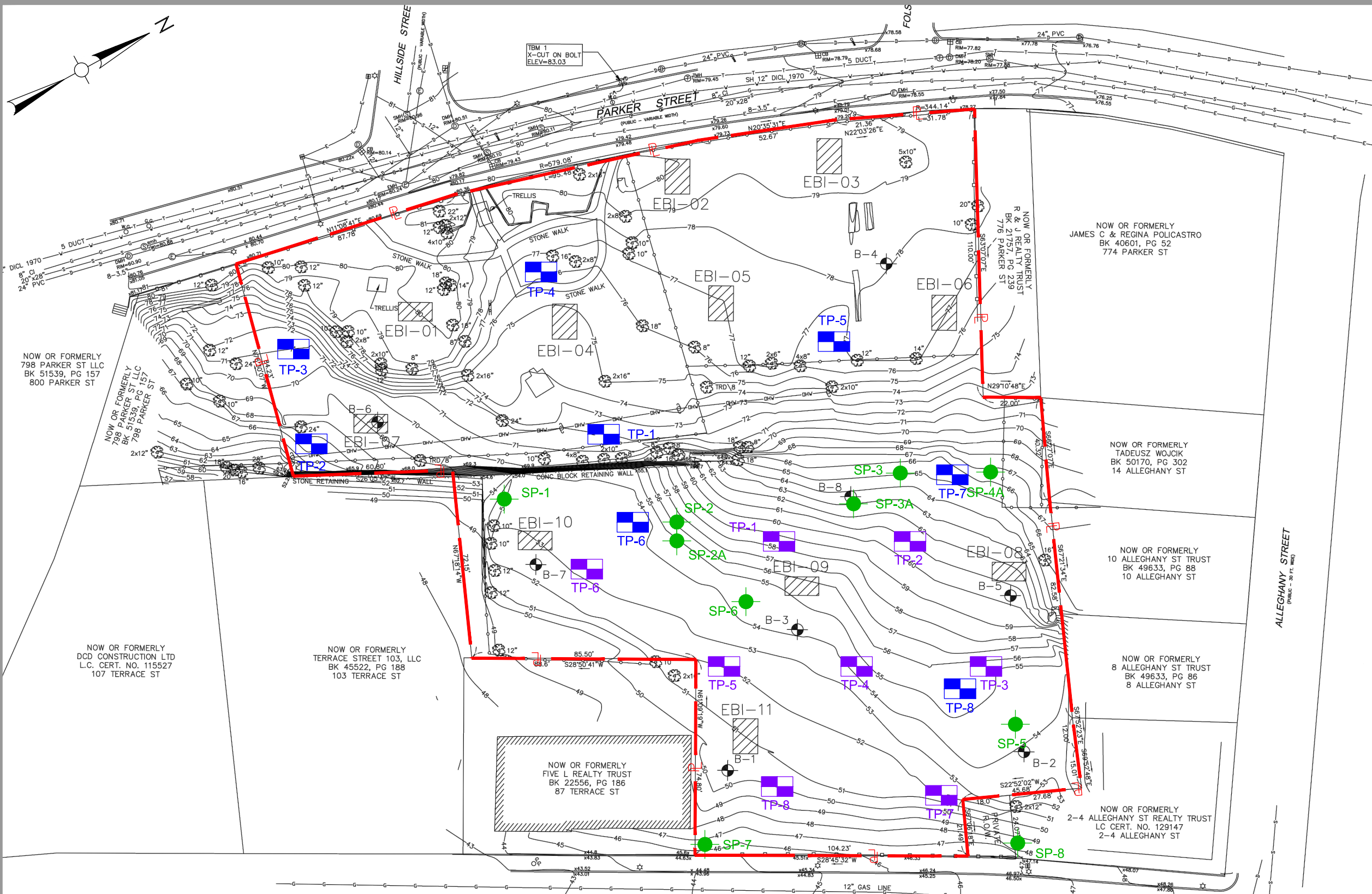


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Rev: 1.7 Date: 08/12/2019

**Weston & Sampson**





**LEGEND**

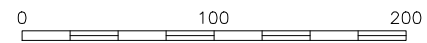
(S)	SEWER MANHOLE
(E)	ELECTRIC MANHOLE
(T)	TELEPHONE MANHOLE
(D)	DRAIN MANHOLE
(CB)	CATCHBASIN
(LP)	LIGHT POLE
(EH)	ELECTRIC HANDHOLD
(UP)	UTILITY POLE
(FH)	FIRE HYDRANT
(WG)	WATER GATE
(BG)	BWW
(GG)	GAS GATE
(S)	SIGN
(DT)	DECIDUOUS TREE
(S)	STUMP
---	1' FT. CONTOUR
---	5' FT. CONTOUR
---	SEWER LINE
---	DRAIN LINE
---	WATER LINE
---	GAS LINE
---	UNDERGROUND ELECTRIC LINE
---	OVERHEAD WIRES
---	WOOD FENCE
---	CHAIN LINK FENCE

(Symbol)	WESTON & SAMPSON TEST PIT LOCATION (2021)
(Symbol)	EBI SOIL BORING LOCATION (2014)
(Symbol)	EBI TEST PIT LOCATION (2014)
(Symbol)	WOODARD AND CURRAN SOIL BORING LOCATION (2001)
(Symbol)	COL ER & COLANTONIO, INC. TEST PIT LOCATION (2000)
(Symbol)	PROPERTY BOUNDARY

- NOTES:**
1. BASE MAP IS REFERENCED FROM "EXISTING CONDITIONS PLAN, 778-796 PARKER STREET & 77 TERRACE STREET, SCALE 1" = 20" CREATED BY DESIGN CONSULTANTS, INC. ON JANUARY 16, 2014.
  2. EBI SOIL BORING AND TEST PIT LOCATIONS ARE REFERENCED FROM "EXISTING CONDITIONS PLAN, 778-796 PARKER STREET & 77 TERRACE STREET, SCALE: 1" = 20" CREATED BY DESIGN CONSULTANTS, INC. ON JANUARY 16, 2014.
  3. WOODARD AND CURRAN SOIL BORING AND TEST PIT LOCATIONS ARE REFERENCED FROM "FIGURE 2, SITE PLAN, 77 TERRACE STREET, BOSTON, MA, SCALE: NTS" CREATED BY WOODARD AND CURRAN IN DECEMBER 2001.



**FIGURE 2**  
**778-796 PARKER STREET AND 77 TERRACE STREET**  
**MISSION HILL, BOSTON, MASSACHUSETTS**  
**SITE PLAN**  
 SCALE: 1"=40'



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Rev: 1.7 Date: 08/12/2019

# MassDEP - Bureau of Waste Site Cleanup

## Phase 1 Site Assessment Map: 500 feet & 0.5 Mile Radii

### Site Information:

778-796 PARKER STREET & 77 TERRACE STREET  
BOSTON, MA

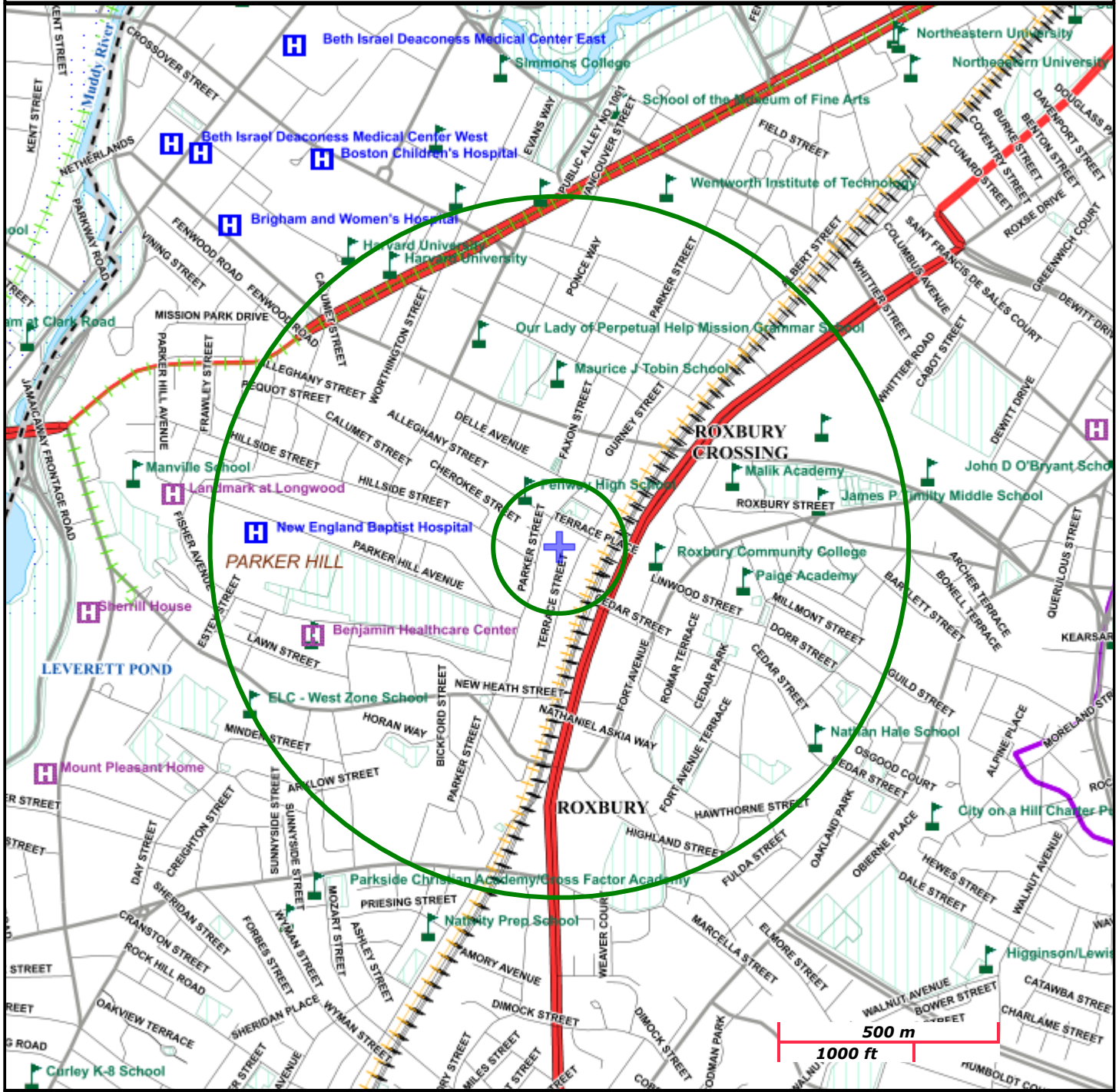
NAD83 UTM Meters:  
4688489mN , 327121mE (Zone: 19)  
October 22, 2021

The information shown is the best available at the date of printing. However, it may be incomplete. The responsible party and LSP are ultimately responsible for ascertaining the true conditions surrounding the site. Metadata for data layers shown on this map can be found at:  
<https://www.mass.gov/orgs/massgis-bureau-of-geographic-information>.



# MassDEP

Commonwealth of Massachusetts  
Department of Environmental Protection



Roads: Limited Access, Divided, Other Hwy, Major Road, Minor Road, Track, Trail	PWS Protection Areas: Zone II, IWPA, Zone A	
Boundaries: Town, County, DEP Region; Train; Powerline; Pipeline; Aqueduct	Hydrography: Open Water, PWS Reservoir, Tidal Flat	
Basins: Major, PWS; Streams: Perennial, Intermittent, Man Made Shore, Dam	Wetlands: Freshwater, Saltwater, Cranberry Bog	
Aquifers: Medium Yield, High Yield, EPA Sole Source	FEMA 100yr Floodplain; Protected Open Space; ACEC	
Non Potential Drinking Water Source Area: Medium, High (Yield)	Est. Rare Wetland Wildlife Hab; Vernal Pool: Cert., Potential	
	Solid Waste Landfill; PWS: Com. GW, SW, Emerg., Non-Com.	

**TABLES**

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**TABLE 1  
SUMMARY OF SOIL ANALYTICAL RESULTS  
778-796 PARKER STREET & 77 TERRACE STREET  
BOSTON, MASSACHUSETTS**

Parameter	Units	RCS-1	S-1/GW-1	S-1/GW-3	TP-1				TP-2		TP-3		TP-4		TP-5			TP-6			TP-7			TP-8	
					0 - 2 ft	DUP-1	RPD	6 - 8 ft	0 - 2 ft	6 - 8 ft	2 - 4 ft	5 - 6 ft	0 - 2 ft	2 - 4 ft	0 - 2 ft	4 - 6 ft	6 - 8 ft	0 - 2 ft	4 - 5 ft	5 - 6 ft	0 - 2 ft	2 - 4 ft	4 - 6 ft	0 - 2 ft	6 - 8 ft
<b>Metals - 6010D/7471B</b>																									
Arsenic	mg/kg	20	20	20	<b>11</b>	<b>12</b>	9%	<b>3.8</b>	<b>16</b>	<b>22</b>	<b>9.9</b>	< 3.5	< 3.7	< 3.6	< 3.7	< 3.8	< 3.6	<b>4.8</b>	<b>7.3</b>	<b>9.7</b>	<b>19</b>	<b>25</b>	<b>13</b>	<b>7.3</b>	<b>4.2</b>
Barium	mg/kg	1,000	1,000	1,000	<b>230</b>	<b>230</b>	0%	<b>71</b>	<b>220</b>	<b>190</b>	<b>160</b>	<b>49</b>	<b>53</b>	<b>55</b>	<b>47</b>	<b>73</b>	<b>55</b>	<b>240</b>	<b>91</b>	<b>240</b>	<b>440</b>	<b>270</b>	<b>140</b>	<b>400</b>	<b>86</b>
Beryllium	mg/kg	90	90	90	<b>0.49</b>	<b>0.5</b>	2%	<b>0.35</b>	<b>0.65</b>	<b>0.66</b>	<b>0.44</b>	<b>0.41</b>	<b>0.46</b>	<b>0.6</b>	<b>0.33</b>	<b>0.39</b>	<b>0.4</b>	<b>0.6</b>	<b>0.44</b>	<b>0.44</b>	<b>0.43</b>	<b>0.34</b>	<b>0.36</b>	<b>0.48</b>	<b>0.3</b>
Cadmium	mg/kg	70	70	70	<b>1</b>	<b>1</b>	0%	< 0.36	<b>1.2</b>	<b>1.2</b>	<b>1.1</b>	< 0.35	<b>0.45</b>	< 0.36	< 0.37	<b>0.52</b>	< 0.36	<b>2.3</b>	<b>0.55</b>	<b>1.2</b>	<b>1.6</b>	<b>1.2</b>	<b>0.97</b>	<b>2.6</b>	<b>0.6</b>
Chromium	mg/kg	100	100	100	<b>23</b>	<b>19</b>	19%	<b>10</b>	<b>21</b>	<b>27</b>	<b>18</b>	<b>15</b>	<b>16</b>	<b>12</b>	<b>11</b>	<b>16</b>	<b>15</b>	<b>28</b>	<b>29</b>	<b>36</b>	<b>81</b>	<b>240</b>	<b>34</b>	<b>26</b>	<b>11</b>
Lead	mg/kg	200	200	200	<b>1,100</b>	<b>1,100</b>	0%	<b>240</b>	<b>530</b>	<b>730</b>	<b>1,400</b>	<b>49</b>	<b>130</b>	<b>110</b>	<b>100</b>	<b>240</b>	<b>56</b>	<b>1,200</b>	<b>390</b>	<b>650</b>	<b>970</b>	<b>1,200</b>	<b>900</b>	<b>930</b>	<b>220</b>
Mercury	mg/kg	20	20	20	<b>0.9</b>	<b>0.78</b>	14%	<b>0.11</b>	<b>0.4</b>	<b>0.83</b>	<b>1.2</b>	<b>0.13</b>	<b>0.18</b>	<b>0.15</b>	<b>0.59</b>	<b>0.46</b>	<b>0.053</b>	<b>0.43</b>	<b>1.3</b>	<b>1.1</b>	<b>0.54</b>	<b>0.27</b>	<b>0.19</b>	<b>0.76</b>	<b>0.15</b>
Nickel	mg/kg	600	600	600	<b>17</b>	<b>16</b>	6%	<b>9.6</b>	<b>21</b>	<b>15</b>	<b>14</b>	<b>12</b>	<b>16</b>	<b>12</b>	<b>11</b>	<b>13</b>	<b>12</b>	<b>28</b>	<b>21</b>	<b>29</b>	<b>58</b>	<b>72</b>	<b>37</b>	<b>21</b>	<b>7.8</b>
Vanadium	mg/kg	400	400	400	<b>44</b>	<b>47</b>	7%	<b>20</b>	<b>42</b>	<b>31</b>	<b>34</b>	<b>31</b>	<b>35</b>	<b>27</b>	<b>24</b>	<b>29</b>	<b>28</b>	<b>41</b>	<b>30</b>	<b>34</b>	<b>39</b>	<b>39</b>	<b>30</b>	<b>45</b>	<b>23</b>
Zinc	mg/kg	1,000	1,000	1,000	<b>350</b>	<b>350</b>	0%	<b>110</b>	<b>280</b>	<b>340</b>	<b>340</b>	<b>53</b>	<b>110</b>	<b>73</b>	<b>69</b>	<b>140</b>	<b>34</b>	<b>550</b>	<b>310</b>	<b>440</b>	<b>800</b>	<b>770</b>	<b>490</b>	<b>490</b>	<b>440</b>
<b>Polychlorinated Biphenyls (PCBs) - 8082A</b>																									
Aroclor 1248	mg/kg	1	1	1	< 0.097	< 0.095	--	< 0.087	< 0.096	< 0.089	< 0.094	< 0.09	< 0.09	< 0.089	<b>0.18</b>	< 0.09	< 0.09	<b>0.21</b>	< 0.091	< 0.1	< 0.1	< 0.09	< 0.098	< 0.09	< 0.09
Aroclor 1254	mg/kg	1	1	1	< 0.097	< 0.095	--	< 0.087	< 0.096	< 0.089	< 0.094	< 0.09	< 0.09	< 0.089	<b>0.3</b>	< 0.09	< 0.09	<b>0.38</b>	< 0.091	<b>0.19</b>	< 0.1	< 0.09	< 0.098	< 0.09	< 0.09
Aroclor 1260	mg/kg	1	1	1	< 0.097	< 0.095	--	< 0.087	< 0.096	< 0.089	< 0.094	< 0.09	< 0.09	< 0.089	<b>0.095</b>	< 0.09	< 0.09	< 0.095	< 0.091	< 0.1	<b>0.16</b>	<b>0.11</b>	< 0.098	< 0.09	< 0.09
Total PCBs	mg/kg	1	1	1	ND	ND	--	ND	ND	ND	ND	ND	ND	ND	<b>0.575</b>	ND	ND	<b>0.59</b>	ND	<b>0.19</b>	<b>0.16</b>	<b>0.11</b>	ND	ND	ND
<b>Volatile Organic Compounds (VOCs) - 8260C-D</b>																									
Benzene	mg/kg	2	2	40	< 0.002	< 0.0018	--	NA	NA	< 0.002	< 0.002	NA	NA	< 0.002	<b>0.0016</b>	< 0.001	NA	< 0.002	<b>0.0025</b>	NA	NA	< 0	< 0.002	< 0	NA
<b>Extractable Petroleum Hydrocarbons (EPH)</b>																									
2-Methylnaphthalene	mg/kg	0.7	0.7	300	< 0.12	< 0.12	--	NA	NA	< 0.11	<b>0.26</b>	NA	NA	< 0.56	<b>0.17</b>	< 0.22	NA	<b>0.14</b>	< 0.11	NA	NA	< 0.12	< 0.12	< 0.12	NA
Acenaphthene	mg/kg	4	4	1,000	< 0.12	< 0.12	--	NA	NA	<b>0.21</b>	<b>0.79</b>	NA	NA	< 0.56	<b>0.73</b>	< 0.22	NA	<b>0.46</b>	<b>0.39</b>	NA	NA	<b>0.25</b>	<b>0.25</b>	<b>0.21</b>	NA
Anthracene	mg/kg	1,000	1,000	1,000	< 0.12	<b>0.13</b>	--	NA	NA	<b>0.68</b>	<b>1.9</b>	NA	NA	< 0.56	<b>1.7</b>	< 0.22	NA	<b>1.3</b>	<b>0.8</b>	NA	NA	<b>0.78</b>	<b>0.89</b>	<b>0.51</b>	NA
Benzo(a)anthracene	mg/kg	7	7	7	<b>0.52</b>	<b>0.61</b>	16%	NA	NA	<b>1.1</b>	<b>4</b>	NA	NA	< 0.56	<b>5.1</b>	<b>0.39</b>	NA	<b>4.9</b>	<b>3.8</b>	NA	NA	<b>3.2</b>	<b>3</b>	<b>1.9</b>	NA
Benzo(k)fluoranthene	mg/kg	70	70	70	<b>0.23</b>	<b>0.28</b>	20%	NA	NA	<b>0.4</b>	<b>1.5</b>	NA	NA	< 0.56	<b>2.2</b>	< 0.22	NA	<b>2</b>	<b>1.8</b>	NA	NA	<b>1.1</b>	<b>1</b>	<b>0.88</b>	NA
Benzo(a)pyrene	mg/kg	2	2	2	<b>0.95</b>	<b>1.1</b>	15%	NA	NA	<b>1.2</b>	<b>3.6</b>	NA	NA	< 0.56	<b>5.1</b>	<b>0.64</b>	NA	<b>4.8</b>	<b>3.7</b>	NA	NA	<b>3.2</b>	<b>2.7</b>	<b>2.3</b>	NA
Benzo(b)fluoranthene	mg/kg	7	7	7	<b>0.65</b>	<b>0.77</b>	17%	NA	NA	<b>1.1</b>	<b>4.2</b>	NA	NA	< 0.56	<b>5.8</b>	<b>0.56</b>	NA	<b>5.6</b>	<b>4.7</b>	NA	NA	<b>4.1</b>	<b>3</b>	<b>2.4</b>	NA
Benzog,h,i)perylene	mg/kg	1,000	1,000	1,000	<b>0.32</b>	<b>0.37</b>	14%	NA	NA	<b>0.47</b>	<b>1.9</b>	NA	NA	< 0.56	<b>3</b>	<b>0.38</b>	NA	<b>2.3</b>	<b>2.4</b>	NA	NA	<b>2.6</b>	<b>1.7</b>	<b>1.1</b>	NA
Chrysene	mg/kg	70	70	70	<b>0.55</b>	<b>0.65</b>	17%	NA	NA	<b>1.1</b>	<b>3.9</b>	NA	NA	< 0.56	<b>4.9</b>	<b>0.4</b>	NA	<b>4.8</b>	<b>3.9</b>	NA	NA	<b>3.4</b>	<b>3</b>	<b>2</b>	NA
Dibenz(a,h)anthracene	mg/kg	0.7	0.7	0.7	< 0.12	< 0.12	--	NA	NA	<b>0.15</b>	<b>0.58</b>	NA	NA	< 0.56	<b>0.79</b>	< 0.22	NA	<b>0.65</b>	<b>0.71</b>	NA	NA	<b>0.76</b>	<b>0.35</b>	<b>0.29</b>	NA
Fluoranthene	mg/kg	1,000	1,000	1,000	<b>0.98</b>	<b>1.1</b>	12%	NA	NA	<b>2.3</b>	<b>8.9</b>	NA	NA	<b>0.84</b>	<b>11</b>	<b>0.69</b>	NA	<b>9.6</b>	<b>6.1</b>	NA	NA	<b>4.3</b>	<b>4.7</b>	<b>3.8</b>	NA
Fluorene	mg/kg	1,000	1,000	1,000	< 0.12	< 0.12	--	NA	NA	<b>0.26</b>	<b>0.9</b>	NA	NA	< 0.56	<b>0.7</b>	< 0.22	NA	<b>0.47</b>	<b>0.32</b>	NA	NA	<b>0.25</b>	<b>0.34</b>	<b>0.21</b>	NA
Indeno(1,2,3-cd)pyrene	mg/kg	7	7	7	<b>0.31</b>	<b>0.35</b>	12%	NA	NA	<b>0.6</b>	<b>2.1</b>	NA	NA	< 0.56	<b>2.9</b>	< 0.22	NA	<b>2.5</b>	<b>2.5</b>	NA	NA	<b>1.8</b>	<b>1.2</b>	<b>1.2</b>	NA
Naphthalene	mg/kg	4	4	500	< 0.12	< 0.12	--	NA	NA	<b>0.13</b>	<b>0.4</b>	NA	NA	< 0.56	<b>0.3</b>	< 0.22	NA	<b>0.23</b>	<b>0.22</b>	NA	NA	< 0.12	< 0.12	< 0.12	NA
Phenanthrene	mg/kg	10	10	500	<b>0.57</b>	<b>0.63</b>	10%	NA	NA	<b>2.4</b>	<b>8.4</b>	NA	NA	< 0.56	<b>7.7</b>	<b>0.35</b>	NA	<b>5.5</b>	<b>3.6</b>	NA	NA	<b>3.1</b>	<b>3.5</b>	<b>2.5</b>	NA
Pyrene	mg/kg	1,000	1,000	1,000	<b>1</b>	<b>1.2</b>	18%	NA	NA	<b>2.1</b>	<b>8.3</b>	NA	NA	<b>0.96</b>	<b>11</b>	<b>0.8</b>	NA	<b>9.7</b>	<b>6.6</b>	NA	NA	<b>5.4</b>	<b>5.9</b>	<b>3.9</b>	NA
C11-C22 Aromatics	mg/kg	1,000	1,000	1,000	<b>23</b>	<b>33</b>	36%	NA	NA	<b>33</b>	<b>85</b>	NA	NA	<b>100</b>	<b>190</b>	<b>100</b>	NA	<b>180</b>	<b>180</b>	NA	NA	<b>690</b>	<b>370</b>	<b>75</b>	NA
C19-C36 Aliphatics	mg/kg	3,000	3,000	3,000	<b>18</b>	<b>23</b>	24%	NA	NA	< 11	<b>22</b>	NA	NA	<b>93</b>	<b>250</b>	<b>85</b>	NA	<b>200</b>	<b>220</b>	NA	NA	<b>1000</b>	<b>350</b>	<b>78</b>	NA
C9-C18 Aliphatics	mg/kg	1,000	1,000	1,000	< 12	< 12	--	NA	NA	< 11	< 12	NA	NA	< 56	< 11	< 22	NA	< 12	<b>12</b>	NA	NA	<b>81</b>	<b>32</b>	< 12	NA
<b>Percent Solids - 2540G</b>																									
% Solids	% Weight	NS	NS	NS	<b>82.2</b>	<b>84.1</b>	2%	<b>92.1</b>	<b>82.9</b>	<b>89.8</b>	<b>84.7</b>	<b>93.9</b>	<b>89.5</b>	<b>90.1</b>	<b>91.2</b>	<b>89</b>	<b>91.3</b>	<b>83.9</b>	<b>87.9</b>	<b>84.6</b>	<b>84.6</b>	<b>85.7</b>	<b>82</b>	<b>85.8</b>	<b>87</b>

QA/QC by AGH on 11/1/2021

- Notes:**  
MCP Massachusetts Contingency Plan, 310 CMR 40.0000  
mg/kg milligrams per kilogram  
-- No comparison because analytes were not detected above laboratory reporting limits  
RPD Relative Percent Difference between the sample result and the blind field duplicate result  
< not detected above laboratory reporting limit  
NA Not Analyzed  
ND Non-Detect  
NS No Standard  
**Bold** Detected above laboratory reporting limit  
**Bold** Detected above MCP Method 1 Cleanup Standards



**APPENDIX A**  
Prior Assessment Reports

SCANNED

**PHASE I ENVIRONMENTAL SITE  
ASSESSMENT**

**77 TERRACE STREET  
ROXBURY, MASSACHUSETTS  
3-20251**

N/A-C

**December 20, 2000**

*Prepared for:*

**City of Boston  
Department of Neighborhood Development  
26 Court Street, 9<sup>th</sup> Floor  
Boston, MA 02108**

*Prepared by:*

**Coler & Colantonio, Inc.  
101 Accord Park Drive  
Norwell, Massachusetts 02061-1685  
(781)-982-5400**

**Project No. 11-665.00**

**COLER &  
COLANTONIO** INC.

ENGINEERS AND SCIENTISTS

December 20, 2000

Margaret Bursaw  
City of Boston  
Department of Neighborhood Development  
26 Court Street, 9<sup>th</sup> Floor  
Boston, MA 02108

**RE: Phase 1 Environmental Site Assessment  
77 Terrace Street  
Roxbury, Massachusetts**

Dear Ms. Bursaw:

Enclosed please find the *Environmental Site Assessment* report completed by Coler & Colantonio, Inc. (C&C) for the above-referenced address. The assessment was completed in accordance with the American Society for Testing and Materials *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessments (E-1527-97)* standard.

C&C appreciates the opportunity to be of service to you in this matter. Please contact us with any questions or comments.

Sincerely,  
COLER & COLANTONIO, INC.



Mark Germano, L.S.P.

Assistant Division Manager, Environmental Services Department

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Table 3	Soil Analytical Data (page 14)

**FIGURES**

Figure 1	Locus Map
Figure 2	Site Plan
Figure 3	Orthophotograph
Figure 4	Assessors Map

**APPENDICES**

Appendix A	DataMap Technology Corporation Environmental FirstSearch™ Report
Appendix B	Copy of Field Card
Appendix C	Sanborn Fire Insurance Maps
Appendix D	Test Pit Logs
Appendix E	Laboratory Analytical Data
Appendix F	Release Notification Form (BWSC-103)

## 1.0 INTRODUCTION

Coler & Colantonio, Inc. (C&C) was contracted by the Boston Department of Neighborhood Development (DND) to conduct a Phase I Environmental Site Assessment of a parcel of land located at 77 Terrace Street in the Roxbury section of Boston, Massachusetts (See Figure 1). Refer to Figure 2 – Site Plan for a graphical depiction of the parcel boundaries and Section 2.2 for a verbal description of the property. The property will be described herein as the "Site". The Site encompasses a total of 28,300 square feet.

The assessment was conducted in general accordance with the American Society for Testing and Materials (ASTM) Standard E 1527-97 and E 1903: Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.

### 1.1 Purpose

The purpose of this environmental site assessment process is to assess environmental conditions on the Site. This assessment is completed by conducting an inquiry designed to identify recognized environmental conditions as defined in ASTM E1527-97 and E 1903.

### 1.2 Special Terms

ACEC	area of critical environmental concern
AST	aboveground storage tank
ASTM	American Society for Testing and Materials
CERCLIS	Comprehensive Environmental Response Compensation Liability Information System
DEP	Massachusetts Department of Environmental Protection
EPA	United States Environmental Protection Agency
NPL	National Priority List
OHM	oil and hazardous material
RCRA	Resource Conservation and Recovery Act
TPH	total petroleum hydrocarbons
USGS	United States Geologic Survey
UST	underground storage tank
VOC	volatile organic compounds

### 1.3 Limiting Conditions and Methodology Used

The assessment was conducted in general accordance with ASTM E1527-97 *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*, adopted for the purpose of providing a standard investigative approach that would be sufficient to provide "appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice." This assessment does not meet the requirements of a Phase I investigation under the Massachusetts Contingency Plan (310 CMR 40.0000). The purpose set forth was accomplished by completing the following tasks:

1. A field investigation, including a limited visual surficial inspection of the property and a review of neighboring sites, was conducted by C&C.
2. A subsurface investigation consisting of eight test pits dug at various locations on the Site. Soil samples were obtained from the test pits. Headspace screening and laboratory analyses were conducted on these soil samples.
3. The following agencies and organizations were contacted and inquiries were made in reference to past ownership, complaints, or violations concerning the environmental quality of the Site:
  - o The Boston Assessor's Office
  - o The Boston Board of Health
  - o The Boston Conservation Commission
  - o The Boston Fire Department
  - o The Massachusetts Department of Environmental Protection (DEP)
  - o DataMap Technology Corporation (DataMap)
  - o The Sanborn Library, LLC.

## **2.0 SITE DESCRIPTION**

### **2.1 Location and Legal Description (See Figures 1 and 4)**

The Site is located at 77 Terrace Street in Boston, Massachusetts (See Figure 1). This parcel is identified on the Boston Assessors Map (Figure 4) as Lot 196 and comprises approximately 28,300 square feet. The parcel is irregular in shape and slopes to the south.

### **2.2 Site and Vicinity Characteristics (See Figure 2)**

Based on the assessors mapping, the Site's address is considered to be 77 Terrace Street.

To the west, the Site borders a brick building with a sign indicating janitorial cleaning supplies were once stored there. This brick building includes a large, brick smokestack. The building is said to currently be used for storage. Following the brick building to the west, is a parking area and restaurant. To the north and east, the Site borders residential land. On the south, the Site borders Terrace Street.

### **2.3 Description of Structures, Roads and Other Improvements**

The Site occupies approximately 28,300 square feet and no structures currently exist on the Site. Evidence of former buildings was found during the subsurface investigation and Site walkover. This evidence includes a concrete area and concrete foundation in the northwestern corner of the Site and evidence of brick walls and concrete foundations found in various test pits dug on the Site (see test pit logs).



## **2.4 Site Reconnaissance**

A walkover of the Site was conducted by C&C on August 4, 2000. C&C walked along the edge of the property line, and through the middle section of the Site. The majority of the parcel was observed to be an open field with heavy vegetation. The lower (southern) portion of the Site is covered with grass. The upper (northern) portion of the Site is covered with grass, bushes, small trees, and bamboo. The Site was absent of permanent structures. The parcel increased in elevation from south to north.

Along the southern border of the property is a 4' high wooden stockade fence. The northern and western borders of the Site are marked by a chain link fence that is approximately 8' high. On the east, the Site borders residential properties. Access to the Site was gained via a gap in the wooden stockade fence on the southern border of the property. There was some "casual" dumping observed on the Site. This dumping was located sporadically throughout the Site and consisted of paper, plastic, cans, and glass bottles. Based on a cursory inspection of the ground surface proximal to these areas of dumping, no soil staining or stressed vegetation was observed.

Assessment of abutting properties was not conducted as part of this assessment.

## **2.5 Utilities**

It is believed that all buildings in the vicinity of this Site are serviced by municipal water. No wells were noted as being on neighboring properties in files from the DEP.

There are no known water supply wells on the property.

Aboveground utility lines were observed on-Site. A utility pole is located along the northern border of the Site with overhead lines connecting to the west. Water, sewer, fire alarm, and electrical utility lines are believed to be located in the right-of-way beneath Terrace Street. Gas lines are believed to be located beneath the sidewalk on Terrace Street. What is believed to be an abandoned gas line was encountered while a test pit was being dug in the western portion of the Site. No other utilities are known to be located on-Site.

## **2.6 Environmental Liens or Specialized Knowledge**

No environmental liens, as described in the ASTM standard, are known to be placed upon the Site's property titles.

## **2.7 Current Uses of the Property**

The Site is currently undeveloped, open land.

## **2.8 Current and Past Uses of Property and Adjoining Properties**

According to a Sanborn Maps, the Site is believed to have been vacant in 1888.

The 1897 Sanborn Map for the Site lists the Site as being "The Union Brewing Company." No buildings are shown to be located on what is now the Site. Buildings believed to be still standing to the west of the Site are shown. It is not listed what these buildings were used for. The Site is listed as having steam heat, coal fuel, and gas and electric lights, although this listing may be referring to the buildings mentioned above.

The 1919 Sanborn Map shows the "J.W. Kenney Park Brewery" to be closed. The buildings to the west of the Site are still present. No buildings are shown on the Site.

The City of Boston Inspectional Services had on file an application to construct a building proposed to be used for storing and shipping. The permit read "alcohol storage." This application was approved and the permit was valid from April 27, 1945 to May 14, 1946. No copy of the building blueprint was available and it is not known if the building was ever built. At the time of the application the Site was listed as being owned by the Highland Distillery, G.C. Funk, President. It should be noted however, that the description of what the building was to be constructed of (floor and foundation of reinforced concrete, walls of brick) and the proposed dimensions of the building roughly match foundations and brick walls encountered during test pit excavation.

A 1950 Sanborn Map again shows the Site to have no buildings. The building that is now a storage area (southwest corner of Site) is listed as being a Laundry. The building to the west of the Site that is now a restaurant is shown to be a private garage.

A 1964 Sanborn Map shows the Site to have no buildings, but to be a part of the "Standard Plumbing Supply Co." The building off of the Site to the west that is now used as a storage area was then a machine shop. The building off the Site to the west that is now a restaurant was then a private garage.

The 1988, 1990, 1992, 1993, 1994, and 1995 Sanborn Maps show no buildings on the Site. Buildings located to the west of the Site are shown to be existing, but writing on them is illegible.

The Site is currently vacant and vegetated. Nearby properties are residential and commercial.

## **3.0 STANDARD ENVIRONMENTAL RECORDS REVIEW**

A review of standard federal, state and local environmental record sources pertaining to the Site and the surrounding area was conducted. The findings of this review are summarized below.

### **3.1 New England Datamap Technology Corporation Results**

A review of state and federal regulatory records was conducted via an on-line search with New England DataMap Technology Corporation (Datamap) on July 27, 2000. The minimum search distances suggested in the ASTM guidance document were used in order to evaluate the potential

migration of off-site contamination onto the Site. As summarized in Table 1, six federal and four state databases were searched in accordance with ASTM 1527-97. Refer to Appendix A for a copy of the Datamap report.

TABLE 1 Federal and State Environmental Record Sources		
Environmental Record Source	Search Distance	Number Identified
Federal NPL Site List	1.0 mile	0
Federal CERCLIS List	0.5 mile	0
Federal RCRA Corrective Action List	1.0 mile	0
Federal RCRA TSD Facilities List	0.5 mile	0
Federal RCRA Generator List	Property and adjoining	0
Federal ERNS List	Property	0
State Sites List	0.5 mile	13
State Spills List (includes Leaking USTs in Mass.)	0.25 mile	13
State Solid Waste Landfills	0.5 mile	0
State Registered UST List	Property and adjoining	0

As summarized above, no Federally listed sites were identified within the specified radii; thirteen State Sites and thirteen State Spill Sites were identified. Refer to Table 2 for a summary of identified State Sites and State Spill Sites. It should be noted that C&C re-calculated each identified property's distance from the Site's approximate boundaries; the distances listed in the DATAMAP report represent the properties' distance from the rectangular area used to denote the Site.

**TABLE 2**  
**State Sites and State Spill Sites**

ID #, Property Name and Address	Distance/ Direction from Site (miles)	Information From DATAMAP Report
<b>STATE SITES</b>		
RTN 3-11668 133 Halleck St	0.32 NE	September 1995. Site status is listed as being a Tier 2. No other data was provided in the Datamap report.
RTN 3-4345 282 Highland St	0.40 SE	July 1993. Site status: Tier 1B. Release to groundwater and soil. petroleum present. Municipal site.
RTN 3-1367 1600 Tremont St	0.39 NW	LTBI April 1987. Confirmed: July 1993. Current status: Phase 2, Tier 2. Gas station, gasoline present. Release to groundwater and soil.
RTN 3-3584 89-117 Bickford & Centre St	0.44 SW	April 1991. Current status: Phase 2, Tier 2. RAO Class A-3 filed in June 1995. Petroleum, metals, VOCs present. Industrial/manufacturing site. Unknown contents contained in drums.
RTN 3-1646 Fmr Manufacturers Prentiss St	0.38 NE	July 1988. No further information was available.
RTN 3-2962 Mass College of Arts 621 Huntington Ave	0.48 NW	January 1990. Virgin oil present. Current status: P.A., Tier 2.
RTN 3-3429 MBTA-Parcel 22 1177-1229 Tremont St	0.50 NE	January 1991. Current status: Phase 2, DEF Tier 1B. Gasoline present. Release to groundwater and soil. Industrial site. RAO Class A-2 submitted in October 1999.
RTN 3-2624 MBTA-Parcel 25 Tremont St & Columbus Ave	0.21 NE	January 1990. No further information was available.
RTN 3-12332 Mission Hill Ledge 1610-1618 Tremont St	0.40 NW	April 1996. TCE, TPH, and vinyl chloride releases. Release to groundwater and soil. Site status: Tier 2.
RTN 3-1809 MWRA Headworks 47 Ward St	0.42 NE	January 1989. Current status: Phase 1. No further information was available.
RTN 3-3259 670 Huntington Ave	0.42 NW	July 1990. Current status: P.A., NFA. Gas station, gasoline present. Groundwater and soil release.
RTN 3-4606 Sunoco Service Station 634 Huntington Ave	0.46 NW	October 1993. Gas station, gasoline present. Release to groundwater and soil. Current status: P.A., NDS.
RTN 3-1641 Former Factories/Utilities New Dudley St	0.37 NE	July 1988. Current status: P.A., Def Tier 1B.

STATE SPILL SITES		
<u>Spill N91-1724</u> Tremont & Parker St	0.16 NE	December 1991. Abandoned drum, 11-50 gallons of unknown material spilled.
<u>RTN 3-10770</u> Carmel St & Delle Ave	0.21 NW	March 1994. Release of waste oil from drums. 40 gallons released. RAO: March 1995.
<u>RTN 3-11071</u> Express Auto Sales 848 Parker St	0.21 SW	June 1994. Release of waste oil from drums/AST. RAO: February 1995.
<u>RTN 3-12460</u> Tremont & New Dudley Sts.	0.20 NE	May 1995. Release of 1,1-biphenyl, chloro-derivs, (69 mg/kg.) RAO Class A-1 filed August 1995. RAO Class A-3 filed May 1996.
<u>RTN 3-10529</u> Maurice Tobin School 40 Smith St	0.25 NW	February 1994. Release of 35 gallons of fuel oil #2 from a UST. TPH released, 128000 mg/kg. IRA completed April 1994. RAO completed February 1995.
<u>RTN 3-13968</u> Mission Hill 6 Pontiac St	0.24 NW	July 1996. Release of 1010 & 20 gallons of waste oil from drums. IRA: February 1997. RAO Class A-2: March 1997.
<u>RTN 3-14429</u> Mission Hill Housing Apts 8 Smith St	0.22 NE	October 1996. Release of 262 ppm of fuel oil #6 from a UST. IRA & RAO: June 1999.
<u>RTN 3-16725</u> 148 Ter (Terrace?) St	0.16 SW	April 1998. Release of petroleum based oil (4490 ppm), fuel oil #6 (120 ppm), & fuel oil #2 (120 ppm) from UST and pipe. IRA: April 1998. Phase I & RAO Class A-2: June 1998.
<u>RTN 3-16573</u> 87-103 Ter (Terrace?) St	0.11 SW	March 1998. Releases of Benz(A)Anthracene (15.2 mg/kg), Indeno(1,2,3-CD)Pyrene (3.4 mg/kg), Chrysene (17.2 mg/kg), Benzo(A)Pyrene (5.1 mg/kg) & Benz(E)Acephenanthrylene (7.7 mg/kg). RAO Class A-3: May 1998.
<u>Spill N92-0130</u> 222 Parker Hill Ave	0.25 SW	February 1992. Release of #2 Fuel oil. Impact to soil.
<u>RTN 3-11516</u> Roxbury Crossing New Dudley & Tremont St	0.20 NE	August 1994. Release of Ethene, tetrachloro (420 ppm), Ethene, thrichloro (43 ppm), Benzene, 1,3,5-trimethyl (130 ppm), Benzene, ethenyl (170 ppm), Benzene, chloro (230 ppm), Benzene, ethyl (2000 ppm), Benzene, dimethyl (3400 ppm), unknown oil (14000 ppm), Benzene, methyl (6300 ppm), Benzene, 1,2-dichloro (800 ppm). IRA: January 1995. RAO Class A-1: August 1995.
<u>Spill N90-0312</u> 1545 Tremont St	0.25 NW	March 1990. Leak of #6 fuel oil from an AST. Impact to soil.
<u>Spill N90-2030</u> 165 Terrace St	0.18 SW	December 1990. Asphalt spill, unknown gallons. Petroleum hazard. Impact to soil.



### 3.2 Massachusetts Department of Environmental Protection – Northeast Region

C&C reviewed files for five States and State Spill Sites identified within 0.5 mile of the Site at DEP – Northeast Region office on August 7 & 8, 2000.

RTN 3-2624  
MBTA Parcel 25  
1403-1419 Tremont St  
Boston, MA

In October 1988, Rizzo Associates, Inc. (Rizzo) completed a Site Assessment for the above-mentioned property. Based on the findings of this investigation Rizzo recommended a subsurface investigation. In December 1988, Rizzo completed a Phase I investigation that included subsurface work. This study included the installation of 10 soil borings and 1 groundwater monitoring well. In March 1989 two additional monitoring wells were installed on the Site. VOC and TPH tests were run on groundwater samples with results coming in at 0.6 ppm and 1.1 ppm, respectively. Based on these findings, Rizzo concluded that there had been a minor release of petroleum into the fill material beneath the site but that groundwater impact was not demonstrated. The DEP was contacted because findings constituted a release under Chapter 21E. Groundwater sampling was also done on the site in June of 1996. VOC and TPH levels above the analytical method detection limits were found to be present. An LSP Evaluation Opinion submitted to the DEP by Rizzo concluded "that the low level contaminants detected during the 1989 investigation were below the RCs (Reportable Conditions) currently in effect and have naturally biodegraded or dissipated in the groundwater." It was the opinion of the LSP that "the subject location is not a site where a release of oil and/or hazardous material has been shown to occur...the site requires no further investigation or response actions."

Based on the location of this release in relation to the subject Site, the potential for this release to pose an environmental threat to the subject Site is considered to be low.

RTN 3-13968  
6 Pontiac Street  
Boston, MA

According to an IRA Status Report completed by Wadleigh Environmental (Wadleigh) in November of 1996, this was the site of a release of an unknown oily substance on July 2, 1996. The oily substance was discovered to be seeping out of a garage door owned by the Boston Fire Department, Emergency Response Unit. Upon investigation, a 55-gallon drum was discovered to be leaking from a hole in its bottom. Approximately 10-20 gallons appeared to have leaked from the drum.

From July 2 to August 30, 1996 Wadleigh excavated from two separate holes, removed, and stockpiled approximately 35 cubic yards of petroleum contaminated soils from the area of concern. Perched groundwater was encountered during the excavation, but no sheen was detected. Laboratory analysis of soil samples from the sidewalls of the excavation revealed elevated

concentrations of PAH's. It was determined that additional excavations were necessary to remove contaminated soil from the sidewall area of Excavation 1.

On September 14, 1996 Wadleigh excavated, removed, and stockpiled an additional 15 cubic yards of contaminated soil (a total of approximately 50 cubic yards to that date).

On October 4, 1996 Wadleigh excavated, removed, and stockpiled an additional 10 cubic yards of contaminated soil from Excavation 1 (a total of approximately 60 cubic yards).

Based upon the reported conditions and the location of this release site to the subject Site, the potential for this release to pose an environmental threat to the subject Site is considered to be low.

RTN 3-11071  
Automotive Express  
848 Parker Street  
Boston, MA

According to a memorandum issued by the MA DEP on February 8, 1995, on June 2, 1994 a release of an unknown volume of waste oil to a storm drain was reported to the DEP. DEP personnel met with Boston Police Department-Special Hazards Officer Joseph McNiff. According to Officer McNiff the site was the location of a business classified as an illegal "chop-shop."

Upon investigation, DEP personnel determined that an estimated 1/4" of old, emulsified petroleum, most likely waste oil, was present on water within the catchbasin located directly downgradient of the Automotive Express. Based on visual evidence, it was DEP personnel's conclusion that the oil had originated at the Automotive Express. DEP personnel also observed four 55-gallon drums on the site. It was later determined that two of the drums were empty, one was completely filled with waste oil and another was partially filled with waste oil. Extremely sloppy housekeeping was also observed on the site. Evidence listed included a heavily petroleum stained asphalt driveway, the above-mentioned drums, at least one abandoned and empty 275-gallon AST, and a plethora of automobile waste (similar to a junkyard).

DEP personnel made numerous follow-up visits to the site. Based in large part on observations conducted on June 15, 1994, it was concluded by DEP personnel that "site conditions no longer represent Emergency Response Branch issues, and the release of oil to the catchbasin has been remediated." Additionally, the two 55-gallon drums containing oil were removed from the site.

Based upon the reported conditions and the location of this release site to the subject Site, the potential for this release to pose an environmental threat to the subject Site is considered to be low.

### **3.3 Physical Setting Sources**

Review of the USGS Boston South, Massachusetts 7.5-Minute Topographical Quadrangle maps indicates that on-Site topographic elevations range between approximately 20 to 25 meters above mean sea level. The closest named surface water bodies, Dorchester Bay and the Neponset River, are located well over 500 feet to the north and the southwest of the Site, respectively. Refer to Figure 1 - Locus Map.



Review of the ACEC map of Massachusetts (2000) indicates that the Site is not located within the geographical boundaries of an ACEC.

A review of the Boston South Quadrangle of the Massachusetts DEP-Bureau of Waste Site Cleanup map does not list the Site as a potential aquifer or water supply source.

According to the Soil Survey for Norfolk and Suffolk Counties, Massachusetts, from the United States Department of Agriculture (September 1989), the soil classifications for the Site is Hollis-Rock outcrop-Charlton complex (HrD). Areas of HrD are typically moderately steep soils and areas of exposed bedrock on hills and ridges where relief is controlled by underlying bedrock. In a typical area of this map unit 30% is Hollis soil, 30% is rock outcrops, 25% is Charlton soil and 15% is other soils.

The shallow, somewhat excessively drained Hollis soil is on the tops of ridges or near rock outcrops. The surface of the Hollis soil is black fine sandy loam and is about 2" thick. The subsoil is a dark yellowish brown fine sandy loam and is about 11" thick. Bedrock is often found at about 14". Bedrock is generally granite, diorite, or conglomerate.

The very deep, well drained Charlton soil is on side slopes and foot slopes. Stones and boulders 10" to 10' in diameter cover 0-15% of the surface. The surface of Charlton soil is black fine sandy loam and is about 1" thick. The subsoil is dark brown fine sandy loam and is about 5" thick. The subsoil is yellowish brown fine sandy loam, 30" thick. In some areas the subsoil is redder. Stones and boulders cover 1-15% of the surface.

Most of the soils in this complex are woodland, with few individual homesites. Management concerns include slope, and on Hollis soil, the shallow depth to bedrock. Slope is the main limitation to use of these soils as building sites. The Hollis and Charlton soils are in capability subclass Vlls.

### **3.4 Conservation Commission**

No files were available at the Boston Conservation Commission for 77 Terrace Street.

### **3.5 Ownership**

The current owner of the property is listed on the Assessors field card as the City of Boston by tax foreclosure. Previous owners of the Site are mentioned in Section 2.8. Details of land transfer dates were not known. A copy of the Assessor Field Card for the Site can be found in Appendix B.

### **3.6 Sanborn Fire Insurance Maps**

Sanborn maps coverage exists for the Site and vicinity. Copies of Sanborn maps made available to C&C are included in Appendix C.

### **3.7 Orthographic Photographs**

C&C reviewed orthophotographic photographs (Figure 3) of the Site and surrounding area. The photograph is believed to have been taken in 1995. The orthophotographic photographs was downloaded from MassGIS. They depict the site as undeveloped land. According to these photographs, no permanent structures are located on-Site.

### **3.8 Boston Health Department**

There have been no known releases of OHM on-Site.

## **4.0 INFORMATION FROM SITE RECONNAISSANCE AND INTERVIEWS**

### **4.1 Hazardous Substances in Identified Containers**

No hazardous substances in identified containers were observed during the Site reconnaissance.

### **4.2 Hazardous Substances in Unidentified Containers**

No hazardous substances in unidentified containers were observed on the Site during the Site reconnaissance. During test pit excavation, the remains of what was believed to once have been a steel drum was encountered. Due to the age and state of decay of the drum, C&C was unable to determine what, if anything, the drum had once contained.

### **4.3 Storage Tanks**

C&C did not observe any aboveground storage tanks (ASTs) or evidence of possible underground storage tanks (USTs) on the Site during the Site reconnaissance.

In order to obtain information regarding the presence of storage tanks on abutting and adjacent properties, C&C conducted an on-line database search with New England Datamap Technology Corporation. According to information contained in their *Environmental FirstSearch Report*, one UST was once located at 103 Terrace Street at No Dust Industries Inc. The tank is listed as having been removed, although no date of removal is listed. The tank is said to have been installed in 1971 and was a 6000-gallon steel tank. No indication was given as to the contents of the tank.

C&C conducted a file review at the Boston Fire Department on August 16, 2000. According to department records, one 5000-gallon fuel tank is listed as being located at 77 Terrace Street. This tank is listed as having been last inspected in 1959. No subsequent record of removal or abandonment was identified.

### **4.4 Indications of Polychlorinated Biphenyls**

No indications of Polychlorinated Biphenyls (PCBs) were found during the Site reconnaissance. No transformers or other potential PCB containing vessels were observed.

## **4.5 Indications of Solid Waste Disposal**

Casual dumping of items such as glass, paper, plastic, and metal was observed during the Site walkover. No soil staining or chemical odors were noted in the vicinity of the dumped materials. Additionally, various materials were encountered while excavating the eight test pits. A detailed account of what was found can be found in the test pit log. In general, items such as brick, concrete, car parts, glass, and metal scraps were encountered.

## **5.0 SUBSURFACE INVESTIGATION**

### **5.1 Test Pits**

On August 4, 2000, Dowling Corporation (Dowling) excavated eight test pits (designated TP-1 through TP-8). See Figure 2 (Site Plan) for the locations of these test pits. The purpose of the test pits was to assess soil quality on the Site. Descriptions of soil encountered while excavating the test pits are included in the attached Test Pit Logs (Appendix D). In general, the test pits contained urban fill and organic material. Urban rubble was encountered in all of the test pits including, but not limited to: brick, concrete, wood, metal, car parts, cans and bottles. In TP 1, 2, 4, and 7, portions of brick walls and/or concrete foundations were encountered as described in the appended Boring Logs. Composite soil samples were collected by C&C from each test pit at depths ranging from approximately 2 to 12 feet below ground surface (bgs) and were submitted to Spectrum Analytical, Inc. (SAI) for analysis for Extractable Petroleum Hydrocarbons (EPH), VOCs, PAH's, and metals. A complete copy of the analytical results can be found in Appendix E. No groundwater was encountered during the excavation of the eight test pits.

### **5.2 Headspace Screening**

Composite samples were taken from each of the test pits. A headspace reading using a Photoionization Detector (PID) was taken for each of the samples. The readings ranged from 0.0 ppm in TP-02 to 16.0 ppm in TP-01. PID readings for each sample are listed on the respective test pit log.

### **5.3 Laboratory Analytical Results**

Soil samples from each test pit were submitted to SAI for EPH and Total RCRA8 Metals analyses. Additionally, the three samples with the highest PID readings (see test pit logs) were submitted for VOC analysis by EPA Method 8260. Complete results are included in Appendix E. Concentrations detected for C19-C36 Aliphatic Hydrocarbons, C11-C22 Aromatic Hydrocarbons, Benzo (a) Anthracene, Chrysene, Benzo (b) Fluoranthene, Benzo (a) Pyrene, Indeno (1,2,3-cd) pyrene, and Lead exceeded Reportable Concentrations per 310 CMR 40.1600 in one or more samples.

C19-C36 Aromatic Hydrocarbons were found to be exceeding RCS1 Standards in only TP-01 (6,100 mg/kg). C11-C22 Aromatic Hydrocarbons exceeded acceptable limits in both TP-01 and TP-06 (1,784 and 233 mg/kg respectively). Benzo (a) Anthracene levels were exceeded in each test pit. The range was between 870 and 11,000 mg/kg (TP-03 and TP-06). The level for Chrysene

was exceeded only in TP-06 (8,500 mg/kg). Benzo (b) Fluoranthene exceeded RCS1 Standards in all test pits except for TP-03, with ranges from 790 to 5,300 mg/kg (TP-08 and TP-06, respectively). Benzo (a) Pyrene levels were exceeded in test pits 02, 04, 05, 06, and 07. The range was from 740 to 3,400 mg/kg (TP-07 and TP-06, respectively). Indeno (1,2,3-cd) pyrene levels were exceeded in TP-01 and TP-06 with levels of 780 and 2,100 mg/kg. Acceptable lead levels were exceeded in every test pit except TP-07. Levels of the exceedences ranged from 357 to 1,370 mg/kg. See Table 3 for a list of analytes detected above laboratory limits.

## 6.0 CONCLUSIONS

- 6.1 The Site is comprised of a vacant parcel of land at 77 Terrace Street, encompassing approximately 28,300 square feet in Boston, Massachusetts. Overall, the Site topographically slopes upward to the north.
- 6.2 Properties in the vicinity of the Site are currently residential and commercial. Much of the land in the vicinity of the Site is developed.
- 6.3 C&C observed casual dumping on the Site of glass, cans, scrap metal, paper and plastic. However, no indication of oil, hazardous materials, or staining was observed relative to these materials. Upon excavation of the test pits, items such as car parts, brick, concrete, metal, and wood were observed.
- 6.4 Thirteen (13) State Sites and thirteen (13) State Spill Sites were identified within 0.5 mile and 0.25 mile of the Site, respectively. Based on the nature and location of these identified sites and the distances from these properties to the subject site, the potential for them to impact the Site is judged to be low.
- 6.5 Exceedences of Reportable Conditions trigger a 120 day notification per 310 CMR 40.0315. Persons responsible for notifying the DEP shall do so within 120 days after obtaining knowledge that a release has met one or more criteria set forth by the MCP. This Site potentially has met one of the criteria by having the measurement of one or more hazardous materials in soil or groundwater at an amount equal or greater than the RC described in 310 CMR 40.0360 through 40.0369 and listed in 40.1600.
- 6.6 C&C was unable to determine the source of contamination during the site reconnaissance or the subsurface investigation.

## 7.0 RECOMMENDATIONS

- 7.1 C&C recommends further site assessment activities to define the extent and source of the contamination or to determine if the contamination may represent a background condition in which case notification of DEP would not be required. Assessment activities may include additional test pits or monitoring wells. A ground penetrating radar survey may help to determine if a UST is still present on the Site.

**TABLE 3**  
**Soil Analytical Data\***  
**77 Terrace Street, Roxbury, MA**  
**Sampled August 4, 2000**

Sample ID	TP-01	TP-02	TP-03	TP-04	TP-05	TP-06	TP-07	TP-08	RCS1 Standard
Depth	2-6'	2-12.5'	2-5'	2-6'	2-10.5'	2-4'	2-8'	2'	
<b>VOCs (ug/kg)</b>									
Napthalene	<65.0	NA	NA	NA	<48.0	98	NA	<50.0	1,000,000
Trichlorofluoromethane	<65.0	NA	NA	NA	<48.0	<62.0	NA	1500	10,000,000
<b>EPH Aliphatics/Aromatics (mg/kg)</b>									
C9-C18 Aliphatic Hydrocarbons	760	<30	<30	<30	<30	<30	<30	<30	1,000
C19-C36 Aliphatic Hydrocarbons	<b>6,100</b>	130	75	56	85	79	37	84	2,500
C11-C22 Aromatic Hydrocarbons	<b>1,784</b>	95	89	90	95	<b>233</b>	70	77	200
<b>EPH Target PAH Analytes (ug/kg)</b>									
Napthalene	240	<150	<160	<160	190	3,000	220	<150	4000
2-Methylnapthalene	<150	<150	<160	<150	<150	980	<150	<150	4000
Acenaphthene	680	360	<160	<160	410	3,600	510	160	100,000
Fluorene	480	300	<160	<160	370	4,300	530	<150	NA
Phenanthrene	4,400	3,600	1,100	1,200	3,500	27,000	4,500	1,600	100,000
Anthracene	710	820	220	230	800	9,000	1,100	390	1,000,000
Fluoranthene	4,300	4,400	2,000	2,300	4,400	26,000	4,600	3,100	1,000,000
Pyrene	4,600	3,900	2,100	2,400	3,900	22,000	3,900	2,800	700,000
Benzo (a) Anthracene	<b>1,200</b>	<b>1,900</b>	<b>870</b>	<b>1,100</b>	<b>1,900</b>	<b>11,000</b>	<b>1,800</b>	<b>1,300</b>	700
Chrysene	1,500	1,800	980	1,300	1,900	<b>8,500</b>	1,900	1,300	7,000
Benzo (b) Fluoranthene	<b>810</b>	<b>1,200</b>	<b>560</b>	<b>1,100</b>	<b>1,400</b>	<b>5,300</b>	<b>1,200</b>	<b>790</b>	700
Benzo (k) Fluoranthene	440	690	300	500	560	2,000	450	340	1,000,000
Benzo (a) Pyrene	590	<b>1,000</b>	400	<b>880</b>	<b>940</b>	<b>3,400</b>	<b>740</b>	530	700
Indeno (1,2,3-cd) Pyrene	<b>780</b>	530	280	620	570	<b>2,100</b>	360	320	700
Dibenzo (a,h) Anthracene	240	190	<160	180	<150	540	<150	<150	700
Benzo (g,h,i) Perylene	870	780	160	730	640	2,900	390	450	1,000,000
<b>Metals Analysis (Total RCRA8 Metals) (mg/kg)</b>									
Total Arsenic	16.6	14.4	8.22	6.78	5.59	3.82	3.29	5.90	30
Total Barium	224	470	171	85.3	113	125	63.6	69.0	1000
Total Cadmium	10.5	11.5	6.49	4.20	3.96	6.87	3.62	4.45	30
Total Chromium	25.2	64.6	17.6	11.2	16.6	18.0	12.1	18.4	1000
Total Lead	<b>1,230</b>	<b>1,240</b>	<b>602</b>	<b>357</b>	<b>463</b>	<b>1,370</b>	178	<b>442</b>	300
Total Mercury	0.883	0.483	2.97	<0.202	0.666	0.994	0.213	0.584	20

Bold= Exceeds applicable RCS1 Standard

NA=Not Applicable

\*=Only data detected above laboratory reporting limits in at least one test pit is included on the table.



## 8.0 STATEMENT OF LIMITATIONS

The observations described in this report were made under the conditions and dates stated herein. The conclusions presented in the report were based solely upon the services described herein, and not on scientific tasks or procedures beyond the scope of described services or the time and budgetary constraints imposed by the Client. The work described in this report was carried out in accordance with the Terms & Conditions of Engagement.

In preparing this report, Coler & Colantonio, Inc. (C&C) has relied on certain information provided by federal, state, local officials and other parties referenced herein, and on information contained in the files of federal, state and/or local agencies available to C&C at the time of the investigation. C&C did not attempt to independently verify the accuracy or completeness of all information received during the course of this project. C&C is not responsible for the accuracy of information provided by others.

In the event that bank counsel or title examiner for the Client obtains information on environmental or hazardous waste issues at the site not contained in this report, such information should be brought to the attention of C&C forthwith. C&C will evaluate such information and, on the basis of this evaluation, may modify the conclusions stated in this report.

Observations were made of the site and of structures on the site only on those dates as indicated within this report. Where access to portions of the site was unavailable or limited, C&C renders no opinion as to the presence of hazardous material or oil, or to the presence of indirect evidence relating to hazardous material or oil, in that portion of the site.

The conclusions contained in this report may be based, in part, on the data obtained from a limited number of soil and/or groundwater samples obtained from the site, as noted in the scope of work and the report. The nature and extent of variations between these samples may not become evident without further exploration. If variations or other latent conditions then appear evident, it will be necessary to reevaluate the conclusions of this report.

Where quantitative laboratory testing was performed as part of the site assessment, such analyses have been conducted by an independent laboratory. C&C has relied upon the data provided, and has not conducted an evaluation of the reliability of these data.

Chemical analyses have been performed for specific parameters during the course of this investigation, as described in the text. However, it should be noted that additional chemical constituents not searched for during the current study may be present in soil and/or groundwater at the site.

The conclusions and recommendations contained in this report are based in part upon various types of chemical data and are contingent upon their validity. These data have been reviewed and interpretations made in the report. Moreover, it should be noted that variations in the types and concentrations of contaminants and variations in their flow paths may occur due to seasonal water table fluctuations, past disposal practices, the passage of time, and other factors. Should additional chemical data become available in the future, these data should be reviewed by C&C, and the conclusions and recommendations presented herein modified accordingly.

**FIGURES**

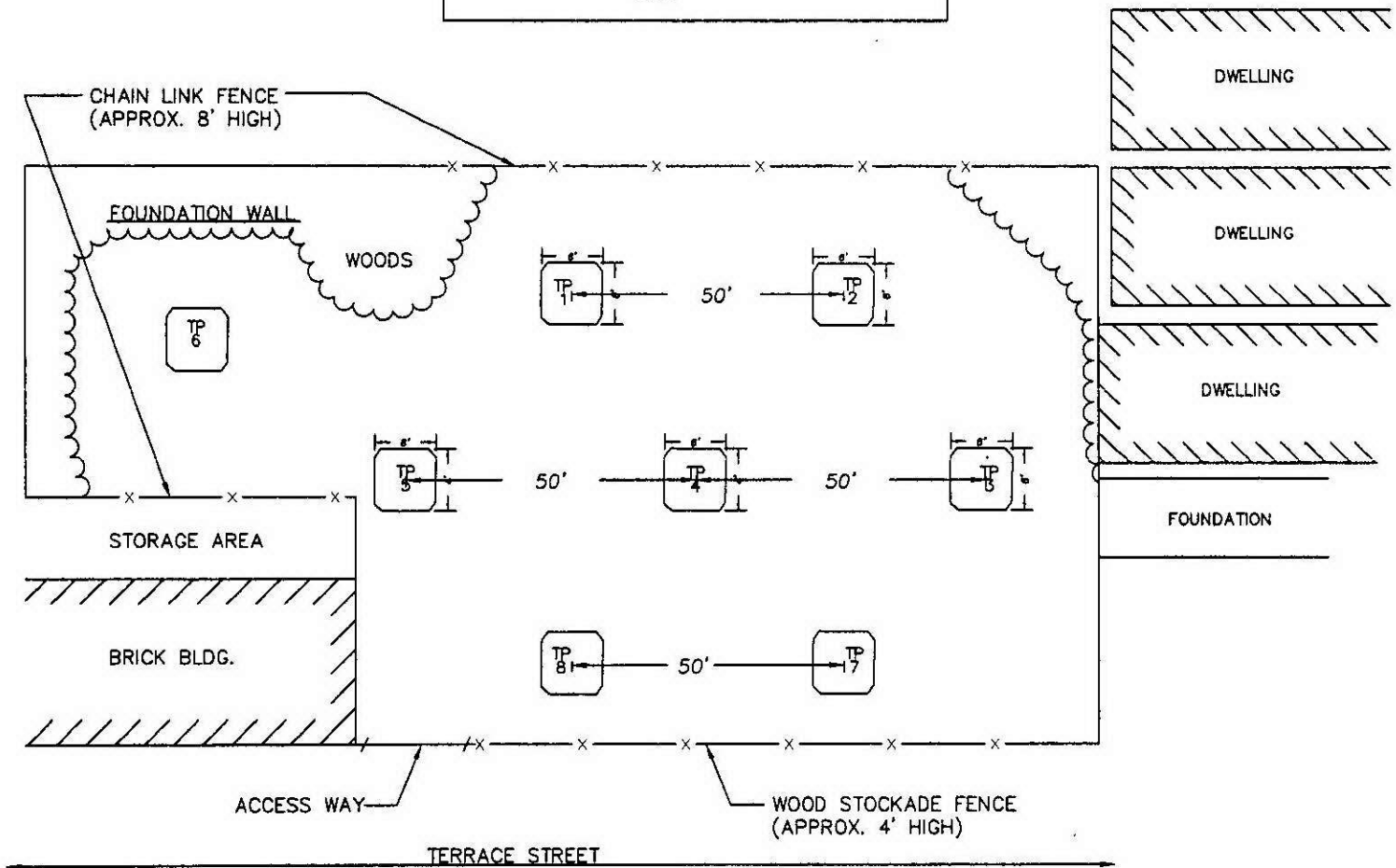
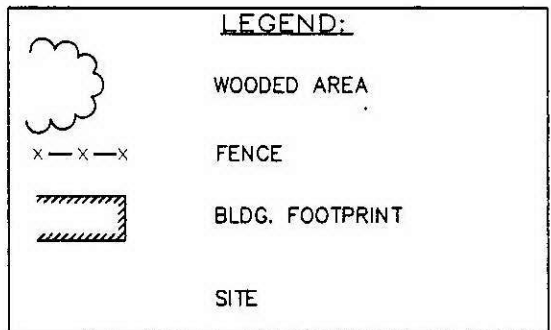
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USGS Boston South, Massachusetts  
Topographic Quadrangle  
(Norfolk County)





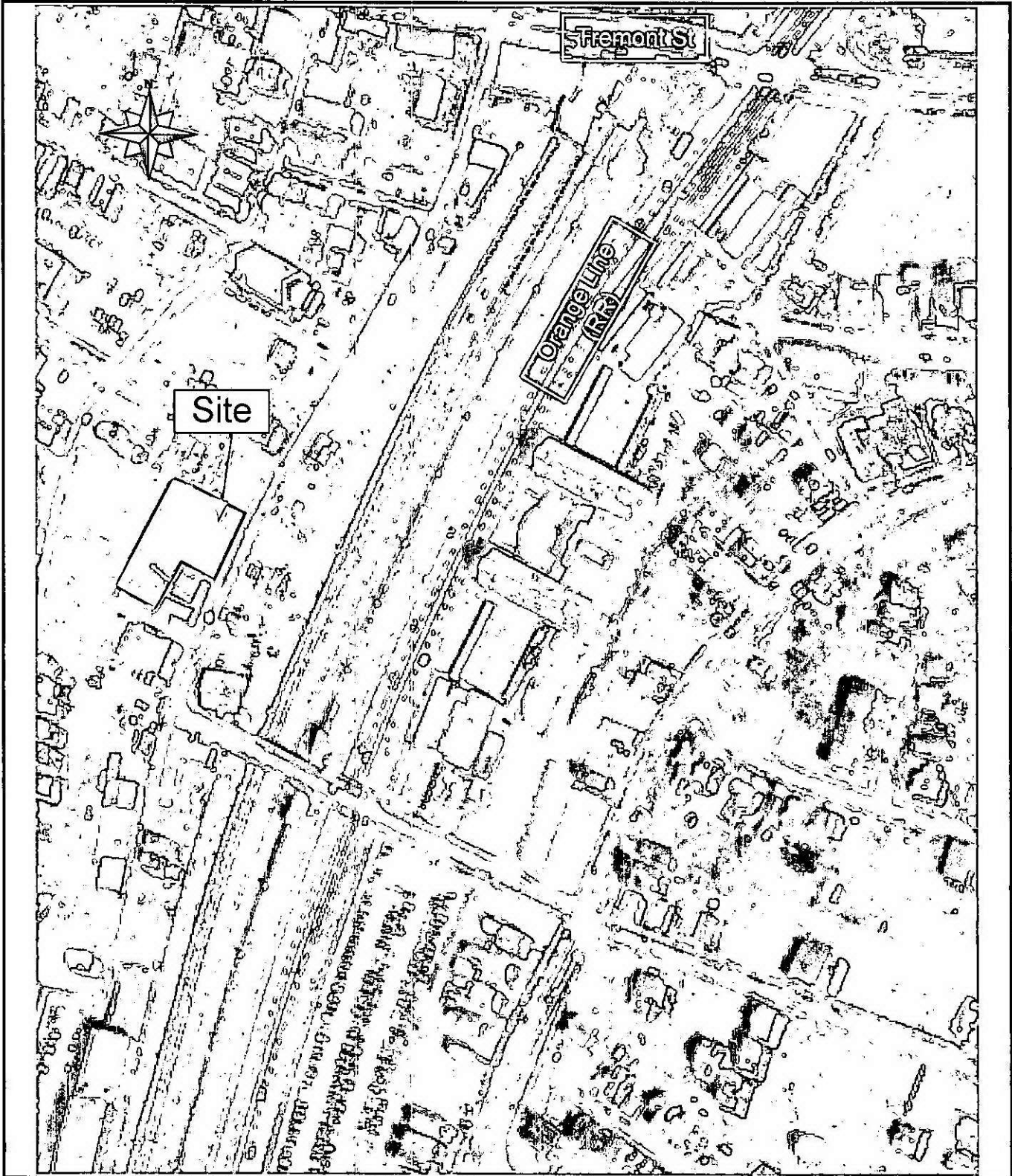
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 DWG. NO.: 11-665

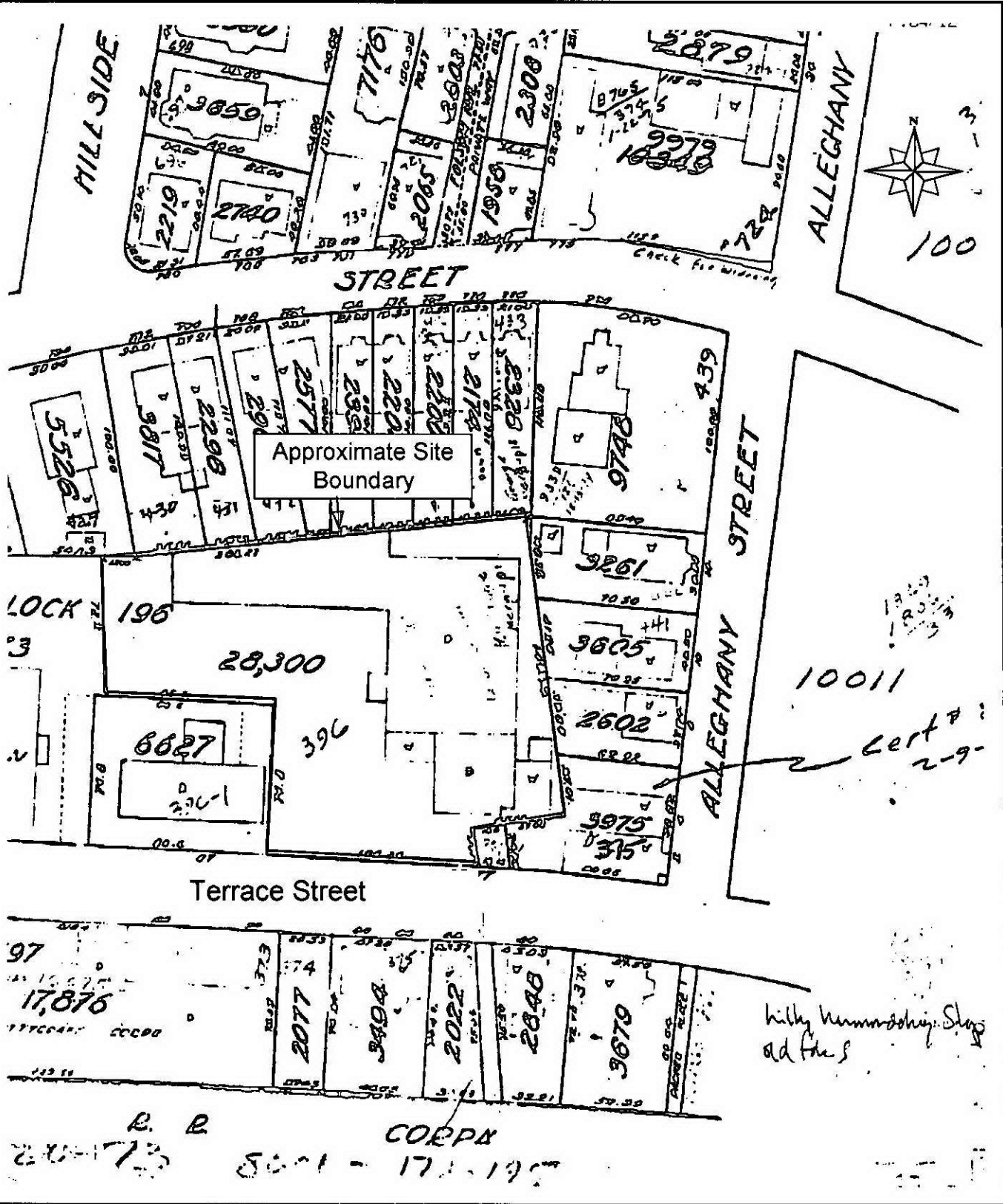
**TITLE:**  
 FIG.2- SITE PLAN  
 77 TERRACE STREET  
 BOSTON, MA

**COLER & COLANTONIO**  
 ENGINEERS AND SCIENTISTS

101 Accord Park Drive,  
 Norwell, MA 02061-1695

(781) 882-5400





**APPENDIX A**

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**DataMap Technology Corporation Environmental FirstSearch™ Report**

# *DataMap Technology Corporation*

## Environmental FirstSearch™ Report

**TARGET PROPERTY:**

**77 TERRACE ST  
BOSTON MA 02120  
Job Number: 3-10-11**

**PREPARED FOR:**

**Coler & Colantonio, Inc.  
101 Accord Park Drive  
Norwell, MA 02061**

07-27-00



*Tel: (781) 320-3720*

*Fax: (781) 320-3715*

**Environmental FirstSearch  
Search Summary Report**

**Target Site:** 77 TERRACE ST  
BOSTON MA 02120

**FirstSearch Summary**

Database	Sel	Updated	Radius	Site	1/8	1/4	1/2	1/2 >	ZIP	TOTALS
NPL	Y	01-19-00	1.00	0	0	0	0	0	0	0
CERCLIS	Y	04-16-00	0.50	0	0	0	0	-	0	0
RCRA TSD	Y	06-24-00	1.00	0	0	0	0	0	0	0
RCRA COR	Y	06-24-00	1.00	0	0	0	0	0	0	0
RCRA GEN	Y	06-24-00	0.25	0	2	1	-	-	0	3
RCRA NLR	N	10-18-99	0.25	-	-	-	-	-	-	-
ERNS	Y	01-06-00	0.25	0	1	5	-	-	1	7
NPDES	N	10-18-99	0.25	-	-	-	-	-	-	-
FINDS	N	09-21-99	0.25	-	-	-	-	-	-	-
TRIS	N	07-16-98	0.25	-	-	-	-	-	-	-
State Sites	Y	05-10-00	1.00	0	0	1	12	58	3	74
Spills-1990	Y	06-09-00	0.50	0	1	12	31	-	7	51
Spills-1980	N	03-10-98	0.25	-	-	-	-	-	-	-
SWL	Y	12-07-99	0.50	0	0	0	0	-	0	0
Permits	N	NA	0.25	-	-	-	-	-	-	-
Other	N	NA	0.25	-	-	-	-	-	-	-
REG UST/AST	Y	03-29-00	0.25	0	1	0	-	-	1	2
Leaking UST	N	NA	0.50	-	-	-	-	-	-	-
State Wells	N	12-02-99	0.50	-	-	-	-	-	-	-
Aquifers	N	01-20-99	0.50	-	-	-	-	-	-	-
ACEC	N	01-20-99	0.50	-	-	-	-	-	-	-
Wetlands	N	12-31-99	0.50	-	-	-	-	-	-	-
Floodplains	N	09-01-96	0.50	-	-	-	-	-	-	-
Receptors	Y	01-01-95	0.50	0	0	0	1	-	0	1
Nuclear Permits	N	04-30-99	0.50	-	-	-	-	-	-	-
Historic/Landmark	N	09-01-99	0.50	-	-	-	-	-	-	-
Federal Land Use	N	06-17-98	0.50	-	-	-	-	-	-	-
Federal Wells	N	NA	0.50	-	-	-	-	-	-	-
Releases(Air/Water)	N	NA	0.25	-	-	-	-	-	-	-
- TOTALS -				0	5	19	44	58	12	138

**Notice of Disclaimer**

Due to the limitations, constraints, inaccuracies and incompleteness of government information and computer mapping data currently available to DataMap Technology Corp., certain conventions have been utilized in preparing the locations of all federal, state and local agency sites residing in DataMap Technology Corp.'s databases. All EPA NPL and state landfill sites are depicted by a rectangle approximating their location and size. The boundaries of the rectangles represent the eastern and western most longitudes; the northern and southern most latitudes. As such, the mapped areas may exceed the actual areas and do not represent the actual boundaries of these properties. All other sites are depicted by a point representing their approximate address location and make no attempt to represent the actual areas of the associated property. Actual boundaries and locations of individual properties can be found in the files residing at the agency responsible for such information.

**Waiver of Liability**

Although DataMap Technology Corp. uses its best efforts to research the actual location of each site, DataMap Technology Corp. does not and can not warrant the accuracy of these sites with regard to exact location and size. All authorized users of DataMap Technology Corp.'s services proceeding are signifying an understanding of DataMap Technology Corp.'s searching and mapping conventions, and agree to waive any and all liability claims associated with search and map results showing incomplete and or inaccurate site locations.



**Environmental FirstSearch  
Site Information Report**

**Request Date:** 07-27-00  
**Requestor Name:** Rena Chadwick  
**Standard:** ASTM

**Search Type:** COORD  
**Job Number:** 7-3-10-11  
**FILTERED REPORT**

**Target Address:** 77 TERRACE ST  
 BOSTON MA 02120

*Demographics*

<b>Sites:</b> 138	<b>Non-Geocoded:</b> 12	<b>Population:</b> 23242
<b>Radon:</b> 4.5 PC/L		

*Site Location*

	<u>Degrees (Decimal)</u>	<u>Degrees (Min/Sec)</u>	<u>UTMs</u>
<b>Longitude:</b>	-71.097888	-71:5:52	<b>Easting:</b> 327148.651
<b>Latitude:</b>	42.329504	42:19:46	<b>Northing:</b> 4688279.13
			<b>Zone:</b> 19

*Comment*

<b>Comment:</b> 77 TERRACE ST, BOSTON, MA
---

*Additional Requests/Services*

<b>Adjacent ZIP Codes:</b> 1.00 Mile(s)	<b>Services:</b>
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<u>ZIP</u>	<u>Requested?</u>	<u>Date</u>																																																																	
<table border="1"> <thead> <tr> <th>Code</th> <th>City Name</th> <th>ST</th> <th>Dist/Dir</th> <th>Sel</th> </tr> </thead> <tbody> <tr><td>02115</td><td>BOSTON</td><td>MA</td><td>0.43 NW</td><td>Y</td></tr> <tr><td>02118</td><td>BOSTON</td><td>MA</td><td>0.88 NE</td><td>Y</td></tr> <tr><td>02119</td><td>BOSTON</td><td>MA</td><td>0.08 SE</td><td>Y</td></tr> <tr><td>02121</td><td>BOSTON</td><td>MA</td><td>0.86 SE</td><td>Y</td></tr> <tr><td>02130</td><td>JAMAICA PLAIN</td><td>MA</td><td>0.23 SW</td><td>Y</td></tr> <tr><td>02215</td><td>BOSTON</td><td>MA</td><td>0.76 NW</td><td>Y</td></tr> <tr><td>02445</td><td>BROOKLINE</td><td>MA</td><td>0.76 NW</td><td>Y</td></tr> <tr><td>02446</td><td>BROOKLINE</td><td>MA</td><td>0.85 NW</td><td>Y</td></tr> </tbody> </table>	Code	City Name	ST	Dist/Dir	Sel	02115	BOSTON	MA	0.43 NW	Y	02118	BOSTON	MA	0.88 NE	Y	02119	BOSTON	MA	0.08 SE	Y	02121	BOSTON	MA	0.86 SE	Y	02130	JAMAICA PLAIN	MA	0.23 SW	Y	02215	BOSTON	MA	0.76 NW	Y	02445	BROOKLINE	MA	0.76 NW	Y	02446	BROOKLINE	MA	0.85 NW	Y	<table border="1"> <tbody> <tr><td>Sanborns</td><td>Y</td><td>07/27/00</td></tr> <tr><td>Aerial Photographs</td><td>N</td><td></td></tr> <tr><td>Topo Maps (hardcopy)</td><td>N</td><td></td></tr> <tr><td>City Directories</td><td>N</td><td></td></tr> <tr><td>Title Search</td><td>N</td><td></td></tr> <tr><td>Municipal Reports</td><td>N</td><td></td></tr> <tr><td>Online Topo Map</td><td>N</td><td></td></tr> </tbody> </table>	Sanborns	Y	07/27/00	Aerial Photographs	N		Topo Maps (hardcopy)	N		City Directories	N		Title Search	N		Municipal Reports	N		Online Topo Map	N	
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## Environmental FirstSearch Sites Summary Report

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

**TOTAL:** 138      **GEOCODED:** 126      **NON GEOCODED:** 12      **SELECTED:** 0

ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
1	RCRAGN	BOSTON CLUTCH WORKS INC MAD001048370/VGN	1486 TREMONT ST ROXBURY MA 02120	0.18 NW	3
2	RCRAGN	CROSSING AUTO BODY CO INC MAD057822959/VGN	30 TERRACE ST ROXBURY MA 02120	0.09 NE	4
3	RCRAGN	FRANKS AUTO BODY REPAIR MAD985269422/SGN	118 TERRACE ST ROXBURY MA 02120	0.12 SW	5
4	ERNS	UNKNOWN 425790/UNKNOWN (EPA REGIONS	DELLE AVE OFF PARKER STREET ROXBURY MA 02120	0.15 NW	8
5	ERNS	UNKNOWN 239782	TREMONT & PARKER ST ROXBURY MA 02120	0.16 NE	9
6	ERNS	UNKNOWN 365898/UNKNOWN (EPA REGIONS	SIDEWALK, 62 DELLE AVENUE ROXBURY MA 02120	0.19 NW	10
7	ERNS	H20272/UNKNOWN	ROXBURY MA 02120	0.16 NE	9
8	ERNS	D40394/UNKNOWN	ROXBURY MA 02120	0.08 NE	11
9	ERNS	D40815/UNKNOWN	ROXBURY MA 02120	0.18 NW	12
10	STATE	ABANDONED BLDG 3-0011668/TIER 2	133 HALLECK ST      ROX ROXBURY MA 02120	0.32 NE	13
11	STATE	APARTMENT BUILDING 3-0001789/TIER 2	2 PALACE RD BOSTON MA 02115	0.53 NW	14
12	STATE	BANI AUTO REPAIR 3-0004744/TIER 2	1891 COLUMBUS AVE      ROX ROXBURY MA 02119	0.81 SW	15
13	STATE	BARTLET ST STATION 3-0011907/TIER 2	2565 WASHINGTON ST ROXBURY MA 02119	0.55 SE	16
14	STATE	BOSTON DPW GARAGE 3-0004345/DEF TIER 1B	282 HIGHLAND ST      ROX ROXBURY MA 02119	0.40 SE	2
15	STATE	BOSTON EDISON CO 3-0004309/RAO	KENT & STATION STS BROOKLINE MA 02146	0.97 NW	17
16	STATE	BOSTON HOUSING AUTHORITY 3-0001804/TIER 2	125 AMORY ST      JP ROXBURY MA 02119	0.71 SW	18
17	STATE	BOWEN CLEANERS (FMR) 3-0004461/TIER 2	2326-2328 WASHINGTON ST      ROX ROXBURY MA 02119	0.70 NE	19
18	STATE	BRIGHAM & WOMEN S HOSPITAL 3-0002596/NFA	75 FRANCIS ST BOSTON MA 02115	0.69 NW	20
19	STATE	BROOKLINE PLACE 3-0001188/RAO	11 PEARL ST BROOKLINE MA 02146	0.97 NW	21
20	STATE	CHILDRENS HOSPITAL 3-0000243/NFA	BINNEY ST BOSTON MA 02115	0.71 NW	22



**Environmental FirstSearch  
Sites Summary Report**

**TARGET SITE:** 77 TERRACE ST  
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**TOTAL:** 138      **GEOCODED:** 126      **NON GEOCODED:** 12      **SELECTED:** 0

ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
21	STATE	CITGO GASOLINE STATION 3-0001367/TIER 2	1600 TREMONT ST ROX ROXBURY MA 02120	0.39 NW	23
22	STATE	CITGO GASOLINE STATION 3-0003905/UNCLASSIFIED	3048-3055 WASHINGTON ST ROX ROXBURY MA 02119	0.93 SE	24
23	STATE	CITGO GASOLINE STATION 3-0011431/TIER 2	3055 WASHINGTON ST ROX ROXBURY MA 02119	0.94 SW	25
24	STATE	COLOUR PICTURE/PAPERMAGIC 3-0000001/NFA	76 ATHERTON ST JP ROXBURY MA 02119	0.81 SW	26
25	STATE	COMMERCIAL PROPERTY 3-0003584/TIER 2	89-117 BICKFORD & CENTRE STJP JAMAICA PLAIN MA 02130	0.44 SW	27
26	STATE	COMMERCIAL PROPERTY 3-0002070/RAO	1302-1318 BOYLSTON ST BOSTON - BACK MA 02215	1.00 NW	28
27	STATE	CUMBERLAND FARMS GULF 3-0004814/RAO	25 WASHINGTON ST BROOKLINE MA 02146	0.88 NW	29
28	STATE	DEVELOPMENT PROPERTY 3-0001985/DEF TIER 1B	74-88 QUEENSBURY ST BOSTON - BACK MA 02215	0.87 NW	30
29	STATE	DUDLEY STREET CONDOS 3-0000703/DEF TIER 1B	252-256 DUDLEY ST ROX ROXBURY MA 02119	0.93 SE	31
30	STATE	EXXON SERVICE STATION # 3-0849 3-0011603/TIER 2	1420 BOYLSTON ST BOSTON - BACK MA 02215	0.98 NW	32
31	STATE	FACTORIES/UTILITIES (FMR) 3-0001641/DEF TIER 1B	NEW DUDLEY ST ROXBURY MA 02120	0.37 NE	33
32	STATE	GASOLINE STATION 3-0003786/DEF TIER 1B	188 WARREN ST ROX ROXBURY MA 02119	0.86 SE	34
33	STATE	GASOLINE STATION 3-0012222/TIER 2	3055 WASHINGTON ST ROX ROXBURY MA 02119	0.94 SW	25
34	STATE	GASOMETER (FMR) 3-0001749/NDS	COLUMBUS AVE & CAMDEN ST ROXBURY MA 02118	0.98 NE	35
35	STATE	GETTY SERVICE STATION 3-0001470/NFA	475 BROOKLINE AVE BOSTON - BACK MA 02215	0.81 NW	36
36	STATE	INSTITUTIONAL PROPERTY 3-0002222/NDS	206-214 RIVERWAY BOSTON - BACK MA 02215	0.95 NW	37
37	STATE	MACHINE SHOPS (FMR) 3-0001645/NDS	WHITTER ST ROX ROXBURY MA 02120	0.57 NE	38
38	STATE	MANUFACTURERS (FMR) 3-0001646/NDS	PRENTISS ST ROX ROXBURY MA 02120	0.38 NE	39
39	STATE	MASS COLLEGE OF ARTS 3-0002962/TIER 2	621 HUNTINGTON AVE BOSTON MA 02115	0.48 NW	7
40	STATE	MBTA 3-0002860/TIER 2	2565 WASHINGTON ST ROX ROXBURY MA 02119	0.59 SE	40

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**TOTAL:** 138      **GEOCODED:** 126      **NON GEOCODED:** 12      **SELECTED:** 0

ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
41	STATE	MBTA - PARCEL 22 3-0003429/DEF TIER 1B	1177-1229 TREMONT ST ROXBURY MA 02120	ROX 0.50 NE	41
42	STATE	MBTA - PARCEL 25 3-0002624/NFA	TREMONT ST & COLUMBUS AVE ROXBURY MA 02120	ROX 0.21 NE	42
43	STATE	MBTA - PARCELS A,69,70&71 3-0003573/DEF TIER 1B	AMORY & BET CENTRE STS ROXBURY MA 02119	JP 0.59 SW	43
44	STATE	MBTA - PROPERTY 3-0003938/TIER 2	3060-3070 WASHINGTON ST ROXBURY MA 02119	ROX 0.97 SW	44
45	STATE	MISSION HILL LEDGE 3-0012332/TIER 2	1610-1618 TREMONT ST ROXBURY MA 02120	0.40 NW	45
46	STATE	MOBIL SERVICE STATION #01-EKW 3-0001396/RAO	541 HUNTINGTON AVE ROXBURY MA 02120	0.54 NE	46
47	STATE	MOBIL STATION #01-QAN 3-0003297/NFA	168 WARREN ST ROXBURY MA 02119	ROX 0.80 SE	47
48	STATE	MUSEUM OF FINE ARTS 3-0000901/NFA	20-26 MUSEUM RD BOSTON MA 02115	0.60 NE	48
49	STATE	MWRA HEADWORKS 3-0001809/NFA	47 WARD ST ROXBURY MA 02120	ROX 0.42 NE	49
50	STATE	NEW ENG BAPTIST HOSP - LOT #12 3-0004147/RAO	PARKER HILL AVE & SACHEM ST ROXBURY MA 02120	STROX 0.51 NW	50
51	STATE	NEW ENGLAND DEACONESS HOSPITAL 3-0003856/NFA	194 PILGRIM RD BOSTON - BACK MA 02215	0.84 NW	51
52	STATE	NEW ENGLAND TELEPHONE 3-0004344/RAO	85 BRAGDON ST ROXBURY MA 02119	ROX 0.73 SW	52
53	STATE	NORTHEASTERN UNIV-RYDER HALL 3-0011510/TIER 2	11 LEON ST BOSTON MA 02115	0.68 NE	53
54	STATE	NORTHEASTERN UNIVERSITY 3-0004060/DEF TIER 1B	122 ST STEPHEN ST BOSTON MA 02115	0.89 NE	54
55	STATE	NORTHEASTERN UNIVERSITY 3-0011611/TIER 2	FORSYTH ST BOSTON MA 02115	0.74 NE	55
56	STATE	PARKER HILL HOSPITAL 3-0003536/NFA	53 PARKER HILL AVE ROXBURY MA 02120	ROX 0.62 NW	56
57	STATE	PARKING LOT 3-0003503/TIER 2	COLUMBUS AVE & ST CYPRIANS ROXBURY MA 02120	ROX 0.77 NE	57
58	STATE	PLATING CO(FMR) 3-0001649/DEF TIER 1B	FULDA ST ROXBURY MA 02119	ROX 0.54 SE	58
59	STATE	PROPERTY 3-0011577/TIER 2	1375 BOYLSTON ST BOSTON - BACK MA 02215	1.00 NW	59
60	STATE	PROPERTY 3-0003259/NFA	670 HUNTINGTON AVE ROXBURY MA 02120	0.42 NW	6

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ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
61	STATE	PROPERTY 3-0012393/TIER 2	117 PARK DR BOSTON - BACK MA 02215	0.84 NE	60
62	STATE	PROPERTY 3-0012392/TIER 2	111 PARK DR BOSTON - BACK MA 02215	0.85 NE	61
63	STATE	PROPERTY 3-0000740/NFA	1010 HARRISON AVE      ROX ROXBURY MA 02119	0.95 NE	62
64	STATE	PROPERTY 3-0002721/NFA	69 CHARLAME RD. ROXBURY MA 02119	0.96 SE	63
65	STATE	PROPERTY 3-0001745/DEF TIER 1B	16 COBDEN ST      ROX ROXBURY MA 02119	0.90 SE	64
66	STATE	PROPERTY 3-0012391/TIER 2	35 PARK DR BOSTON - BACK MA 02215	1.00 NE	65
67	STATE	PROPERTY 3-0002897/TIER 2	191-195 PARK DR BOSTON - BACK MA 02215	0.80 NW	66
68	STATE	ROPE MANUFACTURER (FMR) 3-0001748/NDS	COLUMBUS AVE & CAMDEN ST ROXBURY MA 02120	0.96 NE	67
69	STATE	SIMMONS COLLEGE 3-0000738/DEF TIER 1B	321 BROOKLINE AVE BOSTON - BACK MA 02215	0.88 NW	68
70	STATE	SOUTHWEST CORRIDOR PARCEL 18 3-0000739/TIER 2	TREMONT & RUGGLES STS      ROX ROXBURY MA 02120	0.64 NE	1
71	STATE	STAR MARKET #138 3-0012349/TIER 2	33 KILMARNOCK ST BOSTON - BACK MA 02215	0.99 NW	69
72	STATE	SUNOCO SERVICE STATION 3-0004606/NDS	634 HUNTINGTON AVE ROXBURY MA 02120	0.46 NW	70
73	STATE	TEXACO GASOLINE STATION 3-0011149/TIER 2	525 HUNTINGTON AVE      ROX ROXBURY MA 02120	0.56 NE	71
74	STATE	THE BROOK HOUSE 3-0011545/TIER 2	33 POND AVE BROOKLINE MA 02146	0.83 NW	72
75	STATE	UPTOWN GARAGE 3-0001939/TIER 2	10 GAINSBOROUGH ST BOSTON MA 02115	0.97 NE	73
76	STATE	US POST OFFICE CONSTRUCTN SITE 3-0002109/NFA	ROXBURY ST & SHAWMUT AVE      ROX ROXBURY MA 02119	0.61 SE	74
77	STATE	VA MEDICAL CENTER 3-0014588	150 SOUTH HUNTINGTON AVE      JP JAMAICA PLAIN MA 02130	0.67 SW	75
78	STATE	WIT (WENTWORTH) 3-0000736/RAO	HUNTINGTON AVE BOSTON MA 02115	0.54 NE	76
79	STATE	WIT - BAKER HALL 3-0004218/TIER 2	620 HUNTINGTON AVE ROXBURY MA 02120	0.53 NE	77
80	STATE	WIT - MICKELSON HALL 3-0004476/TIER 2	584-594 HUNTINGTON AVE BOSTON MA 02115	0.53 NE	77

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**TARGET SITE:** 77 TERRACE ST  
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77 TERRACE ST, BOSTON, MA

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ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
81	SPILLS	ABANDONED BLDG 3-0011668/72 HR	133 HALLECK ST ROXBURY MA 02120	0.32 NE	13
82	SPILLS	ABANDONED DRUM N91-1724	TREMONT ST/PARKER ST ROXBURY MA 02120	0.16 NE	9
83	SPILLS	APT BLDG 3-0010387/TWO HR	21 HIGHLAND AVE ROXBURY MA 02119	0.27 SE	78
84	SPILLS	ASBESTOS DUMPING N92-1304	YALE & MACELLA ST ROXBURY MA 02119	0.49 SE	79
85	SPILLS	BECO TRANSFORMER N93-0101	BICKFORD & HEATH STS JAMAICA PLAIN MA 02130	0.29 SW	80
86	SPILLS	BOSTON HOUSING AUTHORITY 3-0014653/TWO HR	42 HORAN WAY JAMAICA PLAIN MA 02130	0.44 SW	81
87	SPILLS	CORNER OF CARMEL ST 3-0010770/TWO HR	DELLE AVE ROXBURY MA 02120	0.21 NW	82
88	SPILLS	CROSS STREET CALUMET 3-0019287/120 DY	1610-1618 TREMONT ST ROXBURY MA 02119	0.38 NW	83
89	SPILLS	EXPRESS AUTO SALES/EXPRESS AUTOMOTI 3-0011071/TWO HR	848 PARKER ST ROXBURY MA 02119	0.21 SW	84
90	SPILLS	FMR ROXBURY GAS LIGHT CO GASOMETER 3-0019140/120 DY	61 HORADAN WAY ROXBURY MA 02119	0.32 NE	85
91	SPILLS	HEATH ST 3-0013118/120 DY	13-17 WALDEN ST JAMAICA PLAIN MA 02130	0.46 SW	86
92	SPILLS	HUNTINGTON MOBIL N93-0348	634 HUNTINGTON AVE ROXBURY MA 02120	0.46 NW	70
93	SPILLS	INTERSECTION OF HUNTINGTON & WORTH 3-0011388/120 DY	651 HUNTINGTON AVE BOSTON MA 02115	0.45 NW	87
94	SPILLS	INTERSECTION WITH TREMONT ST 3-0012460/120 DY	NEW DUDLEY ST ROXBURY MA 02120	0.20 NE	88
95	SPILLS	MA COLLEGE OF ART PARKING LOT 3-0014618/120 DY	WARD ST/HUNTINGTON AVE BOSTON - BACK MA 02115	0.46 NW	89
96	SPILLS	MAURICE TOBIN SCHOOL 3-0010529/TWO HR	40 SMITH ST ROXBURY MA 02120	0.25 NW	90
97	SPILLS	MINION HILL CORNER PARKER 3-0012315/72 HR	61-67 HORADAN WAY ROXBURY MA 02120	0.32 NE	85
98	SPILLS	MISSION HILL 3-0014718/TWO HR	121 HILLSIDE ST ROXBURY MA 02119	0.37 NW	91
99	SPILLS	MISSION HILL 3-0013968/TWO HR	6 PONTIAC ST ROXBURY MA 02120	0.24 NW	92
100	SPILLS	MISSION HILL HOUSING COMPLEX 3-0010018/TWO HR	HORADAN WAY/TOBIN CT ROXBURY MA 02120	0.32 NW	93

**Environmental FirstSearch  
Sites Summary Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

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ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
101	SPILLS	MISSION HILL HOUSING PROJECT 3-0018187/TWO HR	19 HORADAN WAY ROXBURY MA 02119	0.30 NE	94
102	SPILLS	MISSION HOUSING APARTMENTS 3-0014429/72 HR	8 SMITH ST ROXBURY MA 02120	0.22 NE	95
103	SPILLS	NASDI CONSTRUCTION SITE 3-0019376/TWO HR	33 MCGREEVY WAY ROXBURY MA 02119	0.36 NE	96
104	SPILLS	NEAR BINGHAM CIR 3-0012332/72 HR	1610-1618 TREMONT ST ROXBURY MA 02120	0.40 NW	45
105	SPILLS	NO LOCATION AID 3-0012977/72 HR	22 CENTRE ST ROXBURY MA 02119	0.27 NE	97
106	SPILLS	NO LOCATION AID 3-0012096/TWO HR	26 CENTRE ST ROXBURY MA 02119	0.27 NE	98
107	SPILLS	NO LOCATION AID 3-0012007/72 HR	27 HIGHLAND AVE ROXBURY MA 02119	0.26 SE	99
108	SPILLS	NO LOCATION AID 3-0019290/120 DY	620 HUNTINGTON AVE BOSTON MA 02115	0.48 NW	100
109	SPILLS	NO LOCATION AID 3-0016725/72 HR	148 TER ST ROXBURY MA 02119	0.16 SW	101
110	SPILLS	NO LOCATION AID 3-0012084/72 HR	1540 COLUMBUS AVE ROXBURY MA 02119	0.48 SW	102
111	SPILLS	NO LOCATION AID 3-0016573/120 DY	87 TO 103 TER ST ROXBURY MA 02119	0.11 SW	103
112	SPILLS	NO LOCATION AID 3-0019007/120 DY	262 TO 264 NORFOLK AVE ROXBURY MA 02119	0.41 SE	104
113	SPILLS	NO LOCATION AID 3-0018929/72 HR	262 TO 264 NORFOLK AVE ROXBURY MA 02119	0.41 SE	104
114	SPILLS	NO LOCATION AID 3-0017378/120 DY	622 TO 670 HUNTINGTON AVE BOSTON MA 02115	0.42 NW	6
115	SPILLS	NO LOCATION AID 3-0010129/AST/PIPE	746 HUNTINGTON AVE BOSTON - BACK MA 02115	0.49 NW	105
116	SPILLS	OFF CENTRE ST 3-0013557/TWO HR	21 HIGHLAND AVE ROXBURY MA 02119	0.27 SE	78
117	SPILLS	PUBLIC FACILITIES DEPT N92-1154	282 HIGHLAND ST ROXBURY MA 02119	0.40 SE	2
118	SPILLS	RESIDENCE N93-0251	290 HIGHLAND ST ROXBURY MA 02119	0.41 SE	106
119	SPILLS	RESIDENTIAL N92-0130	222 PARKER HILL AVE ROXBURY MA 02120	0.25 SW	107
120	SPILLS	ROXBURY CROSSING 3-0011516/TWO HR	NEW DUDLEY & TREMONT STS ROXBURY MA 02120	0.20 NE	88

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Sites Summary Report**

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**TOTAL:** 138      **GEOCODED:** 126      **NON GEOCODED:** 12      **SELECTED:** 0

ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
121	SPILLS	N90-0559	670 HUNTINGTON AVE ROXBURY MA 02120	0.42 NW	6
122	SPILLS	N90-0312	1545 TREMONT ST. ROXBURY MA 02120	0.25 NW	108
123	SPILLS	N90-2030	165 TERRACE ST. ROXBURY MA 02120	0.18 SW	109
124	SPILLS	N90-0718	670 HUNTINGTON AVE ROXBURY MA 02120	0.42 NW	6
125	UST	NO DUST INDUSTRIES INC 0-014614	103 TERRACE ST ROXBURY MA 02120	0.11 SW	103
126	HOSP	PETER BENT BRIGHAM HOSPITAL 587	MA	0.50 NW	110

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127	ERNS	D21375/FIX FAC	1020 COLUMBUS AVE. ROXBURY MA 02120	NON GC	
128	STATE	PARECL P3 3-0015009	TREMONT AND WHITTIER STS ROXBURY MA 02120	ROX NON GC	
129	STATE	PARCEL RC-9 3-0014223	1601 WASHINGTON ST ROXBURY MA 02118	NON GC	
130	STATE	ROTCH PLAYGROUND 3-0014892	RANDOLPH AND ALBANY STS ROXBURY MA 02119	ROX NON GC	
131	SPILLS	BOSTON EDISON 3-0017827/120 DY	10 CEDAR ST OFF GENEVA RD EAST BOSTON MA 02128	NON GC	
132	SPILLS	NORTH OF OVERPASS AMTRAK RAIL LINE 3-0018158/TWO HR	NORFOLK ST BOSTON MA	NON GC	
133	SPILLS	BRA PARCEL R 14 3-0018113/120 DY	ELMWOOD AND NEW DUDLEY ST ROXBURY MA 02119	NON GC	
134	SPILLS	MISSION CHURCH N PORTION OF PWR PLA 3-0019449/120 DY	1545 TREMONT ST BOSTON MA 02119	NON GC	
135	SPILLS	NO LOCATION AID 3-0018408/TWO HR	DUDLEY ST ROXBURY MA 02119	NON GC	
136	SPILLS	VACANT LOT 3-0017584/120 DY	THORNTON VALE VALENTINE FULDA ROXBURY MA 02119	NON GC	
137	SPILLS	VARIOUS PARCELS INDICATED ON RNF FO 3-0018125/120 DY	HOWARD ST ROXBURY MA 02119	NON GC	
138	UST	ROXBURY CROSSING STATION 0-040313	TREMONT ST ROXBURY MA 02120	NON GC	



**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

<b>RCRA GENERATOR SITE</b>			
<b>SEARCH ID:</b> 1	<b>DIST/DIR:</b> 0.18 NW	<b>MAP ID:</b> 3	
<b>NAME:</b> BOSTON CLUTCH WORKS INC <b>ADDRESS:</b> 1486 TREMONT ST ROXBURY MA 02120 <b>CONTACT:</b> DAVID EPSTEIN		<b>REV:</b> <b>ID1:</b> MAD001048370 <b>ID2:</b> <b>STATUS:</b> VGN <b>PHONE:</b> 6175551212	
<b>ADDRESS:</b> OWNERSTREET OWNERCITY MA 99999		<b>NOTIFIED:</b> <b>PART A:</b>	
<b>ACTIVITIES:</b> VG: GENERATES LESS THAN 100 KG/MONTH OF HAZARDOUS WASTE			
<b>CM+E LIST:</b> <b>RAATS:</b>	<b>VIOL DATE:</b> <b>ACTION DATE:</b>	<b>AGENCY:</b> <b>DOCKET:</b>	<b>UPDATED:</b> 11-10-98 <b>UPDATED:</b> 06-24-96
<b>VIOL:</b> <b>NUM:</b> <b>ENF:</b> <b>DATE:</b>	<b>ASSESS:</b>	<b>SETTLE:</b>	

<b>RCRA GENERATOR SITE</b>			
<b>SEARCH ID:</b> 2	<b>DIST/DIR:</b> 0.09 NE	<b>MAP ID:</b> 4	
<b>NAME:</b> CROSSING AUTO BODY CO INC <b>ADDRESS:</b> 30 TERRACE ST ROXBURY MA 02120 <b>CONTACT:</b> CROSSING AUTO BODY CO INC		<b>REV:</b> <b>ID1:</b> MAD057822959 <b>ID2:</b> <b>STATUS:</b> VGN <b>PHONE:</b> 6175551212	
<b>ADDRESS:</b> OWNERSTREET OWNERCITY MA 99999		<b>NOTIFIED:</b> <b>PART A:</b>	
<b>ACTIVITIES:</b> VG: GENERATES LESS THAN 100 KG/MONTH OF HAZARDOUS WASTE			
<b>CM+E LIST:</b> <b>RAATS:</b>	<b>VIOL DATE:</b> <b>ACTION DATE:</b>	<b>AGENCY:</b> <b>DOCKET:</b>	<b>UPDATED:</b> 11-10-98 <b>UPDATED:</b> 06-24-96
<b>VIOL:</b> <b>NUM:</b> <b>ENF:</b> <b>DATE:</b>	<b>ASSESS:</b>	<b>SETTLE:</b>	



**Environmental FirstSearch  
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**TARGET SITE:** 77 TERRACE ST  
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77 TERRACE ST, BOSTON, MA

<b>EMERGENCY RESPONSE NOTIFICATION SITE</b>		
<b>SEARCH ID:</b> 4	<b>DIST/DIR:</b> 0.15 NW	<b>MAP ID:</b> 8
<b>NAME:</b> UNKNOWN <b>ADDRESS:</b> DELLE AVE OFF PARKER STREET ROXBURY MA 02120 SUFFOLK <b>CONTACT:</b>		<b>REV:</b> 12/29/93 <b>ID1:</b> 425790 <b>ID2:</b> <b>STATUS:</b> UNKNOWN (EPA REGIONS) <b>PHONE:</b>
<b><u>SPILL INFORMATION</u></b>		
<b>DATE OF SPILL:</b>	12/29/93	<b>TIME OF SPILL:</b> 1219
<b>PRODUCT RELEASED (1):</b>	OIL	
<b>QUANTITY (1):</b>	10	
<b>UNITS (1):</b>	GAL	
<b>PRODUCT RELEASED (2):</b>		
<b>QUANTITY (2):</b>		
<b>UNITS (2):</b>		
<b>PRODUCT RELEASED (3):</b>		
<b>QUANTITY (3):</b>		
<b>UNITS (3):</b>		
<b><u>MEDIUM/MEDIA AFFECTED</u></b>		
<b>AIR:</b>	NO	<b>GROUNDWATER:</b> NO
<b>LAND:</b>	NO	<b>FIXED FACILITY:</b> YES
<b>WATER:</b>	NO	<b>OTHER:</b> NO
<b>WATERBODY AFFECTED BY RELEASE:</b>		
<b><u>CAUSE OF RELEASE</u></b>		
<b>DUMPING:</b>	NO	<b>EQUIPMENT FAILURE:</b> YES
<b>NATURAL PHENOMENON:</b>	NO	<b>OPERATOR ERROR:</b> NO
<b>OTHER CAUSE:</b>	NO	<b>TRANSP. ACCIDENT:</b> NO
<b>UNKNOWN:</b>	NO	
<b>ACTIONS TAKEN:</b> FIRE DEPT RESPONDED.		
<b>RELEASE DETECTION:</b> 55 GAL DRUM, BLACK AT PLASTIC BAG COVER 1/4 FULL. DRUM DROPPED OFF		
<b>MISC. NOTES:</b> FIRE DEPT REQUESTED THAT DRUM BE REMOVED. EPA DOES NOT HAVE AUTHORITY TO REMOVE NON THREATING OIL, RICE CALLED JOANNE FAGAN DEP. RICE CALLED BACK OFFICER SMIDDY ABOUT CONVERSATION AT DEP RE TIM BOYLE DEP TO HANDLE. FYI TO CID S DAV		
<b><u>DISCHARGER INFORMATION</u></b>		
<b>DISCHARGER ID:</b>	425790	<b>DUN &amp; BRADSTREET #:</b>
<b>TYPE OF DISCHARGER:</b>	UNKNOWN	
<b>NAME OF DISCHARGER:</b>	UNKNOWN	
<b>ADDRESS:</b>	UNKNOWN	



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**TARGET SITE:** 77 TERRACE ST  
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**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

EMERGENCY RESPONSE NOTIFICATION SITE			
<b>SEARCH ID:</b> 6	<b>DIST/DIR:</b> 0.19 NW	<b>MAP ID:</b> 10	
<b>NAME:</b> UNKNOWN <b>ADDRESS:</b> SIDEWALK, 62 DELLE AVENUE ROXBURY MA  <b>CONTACT:</b>		<b>REV:</b> 3/28/94 <b>ID1:</b> 365898 <b>ID2:</b> <b>STATUS:</b> UNKNOWN (EPA REGIONS) <b>PHONE:</b>	
<b><u>SPILL INFORMATION</u></b>			
<b>DATE OF SPILL:</b>	3/28/94	<b>TIME OF SPILL:</b>	1815
<b>PRODUCT RELEASED (1):</b>	#2 FUEL		
<b>QUANTITY (1):</b>	1		
<b>UNITS (1):</b>	OTH		
<b>PRODUCT RELEASED (2):</b>			
<b>QUANTITY (2):</b>			
<b>UNITS (2):</b>			
<b>PRODUCT RELEASED (3):</b>			
<b>QUANTITY (3):</b>			
<b>UNITS (3):</b>			
<b><u>MEDIUM/MEDIA AFFECTED</u></b>			
<b>AIR:</b>	NO	<b>GROUNDWATER:</b>	NO
<b>LAND:</b>	YES	<b>FIXED FACILITY:</b>	NO
<b>WATER:</b>	NO	<b>OTHER:</b>	NO
<b>WATERBODY AFFECTED BY RELEASE:</b>			
<b><u>CAUSE OF RELEASE</u></b>			
<b>DUMPING:</b>	YES	<b>EQUIPMENT FAILURE:</b>	NO
<b>NATURAL PHENOMENON:</b>	NO	<b>OPERATOR ERROR:</b>	NO
<b>OTHER CAUSE:</b>	NO	<b>TRANSP. ACCIDENT:</b>	NO
<b>UNKNOWN:</b>	NO		
<b>ACTIONS TAKEN:</b> POLICE AND FIRE DEPT. SECURED ARA - ASKED DEP BUT THEY REFUSE REQUEST.			
<b>RELEASE DETECTION:</b> DRUM OF USED MOTOR OIL DRUM WAS DISCARDED FILLED WITH OIL			
<b>MISC. NOTES:</b>			
<b><u>DISCHARGER INFORMATION</u></b>			
<b>DISCHARGER ID:</b>	365898	<b>DUN &amp; BRADSTREET #:</b>	
<b>TYPE OF DISCHARGER:</b>	UNKNOWN		
<b>NAME OF DISCHARGER:</b>	UNKNOWN		
<b>ADDRESS:</b>	UNKNOWN		





**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

EMERGENCY RESPONSE NOTIFICATION SITE	
<b>SEARCH ID:</b> 9	<b>DIST/DIR:</b> 0.18 NW <b>MAP ID:</b> 12
<b>NAME:</b> <b>ADDRESS:</b> ROXBURY MA 02120 <b>CONTACT:</b> UNKNOWN	<b>REV:</b> 06-03-94 <b>ID1:</b> D40815 <b>ID2:</b> <b>STATUS:</b> UNKNOWN <b>PHONE:</b>
<b>CERCLIS (Y/N):</b>	
<b>MAT:</b> MOTOR OIL IN DRUM	<b>QUANT:</b> 1.00 <b>OTHER</b>
<b>LOCATION:</b> SIDEWALK, 62 DELLE AVENUE	<b>REPORTED:</b> 19940328
<b>CITY:</b> UNKNOWN	<b>MEDIUM:</b> LAND
<b>SOURCE:</b> UNKNOWN DRUM OF USED MOTOR OIL	
<b>CAUSE:</b> DUMPING DRUM WAS DISCARDED FILLED WITH OIL	
<b>ACT:</b> POLICE AND FIRE DEPT. SECURED ARA - ASKED DEP BUT THEY REFUSE RE	
<b>BY:</b> DEP	

**Environmental FirstSearch**  
**Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE

**SEARCH ID:** 10

**DIST/DIR:** 0.32 NE

**MAP ID:** 13

**NAME:** ABANDONED BLDG  
**ADDRESS:** 133 HALLECK ST ROX  
BOSTON MA 02115

**REV:** 05/10/00  
**ID1:** 3-0011668  
**ID2:** 6501  
**STATUS:** TIER 2  
**PHONE:**

**CONTACT:**

**LTBI:**

**CONFIRMED:**

**DELETED:**

**REMOVED:**

**SITE INFORMATION:**

**INITIATED:**  
**ACTION BY:**

**CURRENT STATUS:**  
**SITE STATUS:** TIER 2

**ACTION TAKEN (REM CODE):**  
**REQ TYPE:**

**REQ DUE:**

**SITE DESCRIPTION:**  
**SITE ACTIONS:**

**TS DATE:** 9/12/95  
**RA STATUS:** RECPT  
**AUL DATE:**  
**LSP:** WARREN

**RAS TYPE:** TCLASS  
**RAO CLASS:**  
**AUL RESTRICTION:**

**TS DATE:** 9/12/95  
**RA STATUS:** TRANS  
**AUL DATE:**  
**LSP:**

**RAS TYPE:** FEND  
**RAO CLASS:**  
**AUL RESTRICTION:**

**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE			
<b>SEARCH ID:</b> 11	<b>DIST/DIR:</b> 0.53 NW		
<b>MAP ID:</b> 14			
<b>NAME:</b> APARTMENT BUILDING <b>ADDRESS:</b> 2 PALACE RD BOSTON MA  <b>CONTACT:</b>	<b>REV:</b> 05/10/00 <b>ID1:</b> 3-0001789 <b>ID2:</b> <b>STATUS:</b> TIER 2 <b>PHONE:</b>		
<b>LTBI:</b> 1/15/89	<b>CONFIRMED:</b>	<b>DELETED:</b>	<b>REMOVED:</b>
<b>SITE INFORMATION:</b>			
<b>INITIATED:</b> OTH		<b>CURRENT STATUS:</b> PHASE 1	
<b>ACTION BY:</b>		<b>SITE STATUS:</b> TIER 2	
<b>ACTION TAKEN (REM CODE):</b>			
<b>REQ TYPE:</b>		<b>REQ DUE:</b>	
<b>SITE DESCRIPTION:</b>			
<b>SITE ACTIONS:</b>			
<b>TS DATE:</b> 8/10/95 <b>RA STATUS:</b> CSRCVD <b>AUL DATE:</b> <b>LSP:</b> DONOVAN	<b>RAS TYPE:</b> PHASE1 <b>RAO CLASS:</b> <b>AUL RESTRICTION:</b>		
<b>TS DATE:</b> 8/10/95 <b>RA STATUS:</b> <b>AUL DATE:</b> <b>LSP:</b> DONOVAN	<b>RAS TYPE:</b> TCLASS <b>RAO CLASS:</b> <b>AUL RESTRICTION:</b>		
<b>TS DATE:</b> 8/9/95 <b>RA STATUS:</b> RECPT <b>AUL DATE:</b> <b>LSP:</b> DONOVAN	<b>RAS TYPE:</b> LSP-FA <b>RAO CLASS:</b> <b>AUL RESTRICTION:</b>		

**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE

**SEARCH ID:** 12

**DIST/DIR:** 0.81 SW

**MAP ID:** 15

**NAME:** BANI AUTO REPAIR  
**ADDRESS:** 1891 COLUMBUS AVE ROX  
BOSTON MA 02118

**REV:** 05/10/00  
**ID1:** 3-0004744  
**ID2:**  
**STATUS:** TIER 2  
**PHONE:**

**CONTACT:**

**LTBI:** 10/1/93

**CONFIRMED:**

**DELETED:**

**REMOVED:**

**SITE INFORMATION:**

**INITIATED:** ERB  
**ACTION BY:** RP ONLY

**CURRENT STATUS:** P.A. L  
**SITE STATUS:** TIER 2

**ACTION TAKEN (REM CODE):** A  
**REQ TYPE:**

**REQ DUE:**

**SITE DESCRIPTION:** GAS STATION; GROUNDWATER RELEASE THREAT; CONTAINED IN A LUST; PETROLEUM PRESENT;  
RELEASE TO SOIL;

**OTHER CONTAMINATION:**  
**OTHER RELEASES:**  
**OTHER PROBLEMS:**  
**OTHER TYPE OF SITE:**

**SITE ACTIONS:**

**TS DATE:** 8/8/97  
**RA STATUS:** CSRCVD  
**AUL DATE:**  
**LSP:** EKLUND

**RAS TYPE:** PHASE1  
**RAO CLASS:**  
**AUL RESTRICTION:**

**TS DATE:** 8/8/97  
**RA STATUS:**  
**AUL DATE:**  
**LSP:** EKLUND

**RAS TYPE:** TCLASS  
**RAO CLASS:**  
**AUL RESTRICTION:**



**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE			
<b>SEARCH ID:</b> 13	<b>DIST/DIR:</b> 0.55 SE	<b>MAP ID:</b> 16	
<b>NAME:</b> BARTLET ST STATION <b>ADDRESS:</b> 2565 WASHINGTON ST BOSTON MA 02119		<b>REV:</b> 05/10/00 <b>ID1:</b> 3-0011907 <b>ID2:</b> <b>STATUS:</b> TIER 2 <b>PHONE:</b>	
<b>CONTACT:</b>			
<b>LTBI:</b>	<b>CONFIRMED:</b>	<b>DELETED:</b>	<b>REMOVED:</b>
<b>SITE INFORMATION:</b>			
<b>INITIATED:</b>		<b>CURRENT STATUS:</b>	
<b>ACTION BY:</b>		<b>SITE STATUS:</b>	TIER 2
<b>ACTION TAKEN (REM CODE):</b>		<b>REQ DUE:</b>	
<b>REQ TYPE:</b>			
<b>SITE DESCRIPTION:</b> RELEASE TO SOIL; WASTE OIL PRESENT;			
<b>OTHER CONTAMINATION:</b>			
<b>OTHER RELEASES:</b>			
<b>OTHER PROBLEMS:</b>			
<b>OTHER TYPE OF SITE:</b>			
<b>SITE ACTIONS:</b>			
<b>TS DATE:</b> 12/30/96 <b>RA STATUS:</b> TRANS <b>AUL DATE:</b> <b>LSP:</b>		<b>RAS TYPE:</b> FEND <b>RAO CLASS:</b> <b>AUL RESTRICTION:</b>	
<b>TS DATE:</b> 12/30/96 <b>RA STATUS:</b> RECPT <b>AUL DATE:</b> <b>LSP:</b> HUGHTO		<b>RAS TYPE:</b> TCLASS <b>RAO CLASS:</b> <b>AUL RESTRICTION:</b>	

**Environmental FirstSearch  
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**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE

**SEARCH ID:** 14                      **DIST/DIR:** 0.40 SE                      **MAP ID:** 2

**NAME:** BOSTON DPW GARAGE  
**ADDRESS:** 282 HIGHLAND ST      ROX  
BOSTON MA 02108

**REV:** 05/10/00  
**ID1:** 3-0004345  
**ID2:**  
**STATUS:** DEF TIER 1B  
**PHONE:**

**CONTACT:**

**LTBI:** 7/15/93                      **CONFIRMED:**                      **DELETED:**                      **REMOVED:**

**SITE INFORMATION:**

**INITIATED:** ERB  
**ACTION BY:** RP ONLY

**CURRENT STATUS:** P.A. L  
**SITE STATUS:** DEF TIER 1B

**ACTION TAKEN (REM CODE):**  
**REQ TYPE:** NON-PRIOR

**REQ DUE:** 8/2/97

**SITE DESCRIPTION:** GROUNDWATER RELEASE; CONTAINED IN A LUST; PETROLEUM PRESENT; MUNICIPAL SITE;  
RELEASE TO SOIL;

**OTHER CONTAMINATION:**

**OTHER RELEASES:**

**OTHER PROBLEMS:**

**OTHER TYPE OF SITE:** DPW GARAGE

**SITE ACTIONS:**

**Environmental FirstSearch  
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**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

<b>STATE SITE</b>			
<b>SEARCH ID:</b> 15	<b>DIST/DIR:</b> 0.97 NW	<b>MAP ID:</b> 17	
<b>NAME:</b> BOSTON EDISON CO <b>ADDRESS:</b> KENT & STATION STS BROOKLINE MA	<b>REV:</b> 05/10/00 <b>ID1:</b> 3-0004309 <b>ID2:</b> <b>STATUS:</b> RAO <b>PHONE:</b>	<b>CONTACT:</b>	
<b>LTBI:</b> 7/15/93	<b>CONFIRMED:</b>	<b>DELETED:</b>	<b>REMOVED:</b>
<b>SITE INFORMATION:</b>			
<b>INITIATED:</b> ERB <b>ACTION BY:</b> RP ONLY	<b>CURRENT STATUS:</b> P.A. L <b>SITE STATUS:</b> RAO		
<b>ACTION TAKEN (REM CODE):</b>			
<b>REQ TYPE:</b>	<b>REQ DUE:</b>		
<b>SITE DESCRIPTION:</b> PETROLEUM PRESENT; RELEASE TO SOIL;			
<b>OTHER CONTAMINATION:</b> UNDERGROUND CABLE LINE			
<b>OTHER RELEASES:</b>			
<b>OTHER PROBLEMS:</b>			
<b>OTHER TYPE OF SITE:</b> PUBLIC STREET			
<b>SITE ACTIONS:</b>			
<b>TS DATE:</b> 3/11/97 <b>RA STATUS:</b> CSRCVD <b>AUL DATE:</b> <b>LSP:</b> VIRGADAMO	<b>RAS TYPE:</b> PHASEII <b>RAO CLASS:</b> <b>AUL RESTRICTION:</b>		
<b>TS DATE:</b> 10/4/96 <b>RA STATUS:</b> <b>AUL DATE:</b> <b>LSP:</b> VIRGADAMO	<b>RAS TYPE:</b> TCLASS <b>RAO CLASS:</b> <b>AUL RESTRICTION:</b>		
<b>TS DATE:</b> 10/4/96 <b>RA STATUS:</b> CSRCVD <b>AUL DATE:</b> <b>LSP:</b> VIRGADAMO	<b>RAS TYPE:</b> PHASEI <b>RAO CLASS:</b> <b>AUL RESTRICTION:</b>		
<b>TS DATE:</b> 12/2/96 <b>RA STATUS:</b> SOW <b>AUL DATE:</b> <b>LSP:</b> VIRGADAMO	<b>RAS TYPE:</b> PHASEII <b>RAO CLASS:</b> <b>AUL RESTRICTION:</b>		
<b>TS DATE:</b> 3/11/97	<b>RAS TYPE:</b> RAO		

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*Environmental FirstSearch  
Site Detail Report*

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE

**SEARCH ID:** 15

**DIST/DIR:** 0.97 NW

**MAP ID:** 17

**NAME:** BOSTON EDISON CO  
**ADDRESS:** KENT & STATION STS  
BROOKLINE MA

**REV:** 05/10/00  
**ID1:** 3-0004309  
**ID2:**  
**STATUS:** RAO  
**PHONE:**

**CONTACT:**

**RA STATUS:** RAORCD  
**AUL DATE:**  
**LSP:** VIRGADAMO

**RAO CLASS:** A-2  
**AUL RESTRICTION:** NON

**TS DATE:** 10/4/96  
**RA STATUS:** RECPT  
**AUL DATE:**  
**LSP:** VIRGADAMO

**RAS TYPE:** LSP-FA  
**RAO CLASS:**  
**AUL RESTRICTION:**

# Environmental FirstSearch Site Detail Report

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

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STATE SITE			
<b>SEARCH ID:</b> 16	<b>DIST/DIR:</b> 0.71 SW	<b>MAP ID:</b> 18	
<b>NAME:</b> BOSTON HOUSING AUTHORITY <b>ADDRESS:</b> 125 AMORY ST JP BOSTON MA		<b>REV:</b> 05/10/00 <b>ID1:</b> 3-0001304 <b>ID2:</b> <b>STATUS:</b> TIER 2 <b>PHONE:</b>	
<b>CONTACT:</b>			
<b>LTBI:</b> 1/15/89	<b>CONFIRMED:</b>	<b>DELETED:</b>	<b>REMOVED:</b>
<b>SITE INFORMATION:</b>			
<b>INITIATED:</b> UNSL		<b>CURRENT STATUS:</b> PHASE 1	
<b>ACTION BY:</b>		<b>SITE STATUS:</b> TIER 2	
<b>ACTION TAKEN (REM CODE):</b>			
<b>REQ TYPE:</b>		<b>REQ DUE:</b>	
<b>SITE DESCRIPTION:</b>			
<b>SITE ACTIONS:</b>			
<b>TS DATE:</b> 6/1/99		<b>RAS TYPE:</b> PHASEII	
<b>RA STATUS:</b> NDMDRC		<b>RAO CLASS:</b>	
<b>AUL DATE:</b>		<b>AUL RESTRICTION:</b>	
<b>LSP:</b>			
<b>TS DATE:</b> 11/8/99		<b>RAS TYPE:</b> RAM	
<b>RA STATUS:</b> STRCVD		<b>RAO CLASS:</b>	
<b>AUL DATE:</b>		<b>AUL RESTRICTION:</b>	
<b>LSP:</b> BURGESS			
<b>TS DATE:</b> 11/8/99		<b>RAS TYPE:</b> RAM	
<b>RA STATUS:</b> PLANMD		<b>RAO CLASS:</b>	
<b>AUL DATE:</b>		<b>AUL RESTRICTION:</b>	
<b>LSP:</b> BURGESS			
<b>TS DATE:</b> 11/4/99		<b>RAS TYPE:</b> PHASEII	
<b>RA STATUS:</b> NDMDRC		<b>RAO CLASS:</b>	
<b>AUL DATE:</b>		<b>AUL RESTRICTION:</b>	
<b>LSP:</b>			
<b>TS DATE:</b> 8/6/98		<b>RAS TYPE:</b> PHASEII	
<b>RA STATUS:</b> SOW		<b>RAO CLASS:</b>	
<b>AUL DATE:</b>		<b>AUL RESTRICTION:</b>	
<b>LSP:</b> GREGSON			
<b>TS DATE:</b> 5/29/97		<b>RAS TYPE:</b> PHASEI	
<b>RA STATUS:</b> CSRCVD		<b>RAO CLASS:</b>	

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Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

<b>STATE SITE</b>		
<b>SEARCH ID:</b> 17	<b>DIST/DIR:</b> 0.70 NE	<b>MAP ID:</b> 19
<b>NAME:</b> BOWEN CLEANERS (FMR) <b>ADDRESS:</b> 2326-2328 WASHINGTON ST ROX BOSTON MA 02119  <b>CONTACT:</b>		<b>REV:</b> 05/10/00 <b>ID1:</b> 3-0004461 <b>ID2:</b> <b>STATUS:</b> TIER 2 <b>PHONE:</b>
<b>LTBI:</b> 7/15/93	<b>CONFIRMED:</b> 10/1/93	<b>DELETED:</b> <b>REMOVED:</b>
<b>SITE INFORMATION:</b>		
<b>INITIATED:</b> WAIV	<b>CURRENT STATUS:</b> PHASE 2	
<b>ACTION BY:</b> RP ONLY	<b>SITE STATUS:</b> TIER 2	
<b>ACTION TAKEN (REM CODE):</b>		
<b>REQ TYPE:</b>	<b>REQ DUE:</b>	
<b>SITE DESCRIPTION:</b> AIR RELEASE; FORMER; CONTAINED IN DRUMS; COMMERCIAL SITE; CHLORINATED SOLVENTS PRESENT; GROUNDWATER RELEASE; RELEASE TO SOIL;		
<b>OTHER CONTAMINATION:</b>		
<b>OTHER RELEASES:</b>		
<b>OTHER PROBLEMS:</b>		
<b>OTHER TYPE OF SITE:</b> DRY CLEANER		
<b>SITE ACTIONS:</b>		
<b>TS DATE:</b> 6/10/99	<b>RAS TYPE:</b> TIER2EXT	
<b>RA STATUS:</b> RECPT	<b>RAO CLASS:</b>	
<b>AUL DATE:</b>	<b>AUL RESTRICTION:</b>	
<b>LSP:</b> BERGER		
<b>TS DATE:</b> 12/17/99	<b>RAS TYPE:</b> RAM	
<b>RA STATUS:</b> STRCVD	<b>RAO CLASS:</b>	
<b>AUL DATE:</b>	<b>AUL RESTRICTION:</b>	
<b>LSP:</b> BERGER		
<b>TS DATE:</b> 6/10/99	<b>RAS TYPE:</b> RAM	
<b>RA STATUS:</b> PLANMD	<b>RAO CLASS:</b>	
<b>AUL DATE:</b>	<b>AUL RESTRICTION:</b>	
<b>LSP:</b> BERGER		
<b>TS DATE:</b> 12/31/98	<b>RAS TYPE:</b> RAM	
<b>RA STATUS:</b> STRCVD	<b>RAO CLASS:</b>	
<b>AUL DATE:</b>	<b>AUL RESTRICTION:</b>	
<b>LSP:</b> BERGER		

- Continued on next page -

**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE

**SEARCH ID:** 17

**DIST/DIR:** 0.70 NE

**MAP ID:** 19

**NAME:** BOWEN CLEANERS (FMR)  
**ADDRESS:** 2326-2328 WASHINGTON ST ROX  
BOSTON MA 02119

**REV:** 05/10/00  
**ID1:** 3-0004461  
**ID2:**  
**STATUS:** TIER 2  
**PHONE:**

**CONTACT:**

**TS DATE:** 8/6/98  
**RA STATUS:** PLANWR  
**AUL DATE:**  
**LSP:** BERGER

**RAS TYPE:** RAM  
**RAO CLASS:**  
**AUL RESTRICTION:**

**TS DATE:** 8/6/98  
**RA STATUS:**  
**AUL DATE:**  
**LSP:** BERGER

**RAS TYPE:** TIER2EXT  
**RAO CLASS:**  
**AUL RESTRICTION:**

**TS DATE:** 6/10/99  
**RA STATUS:** STRCVD  
**AUL DATE:**  
**LSP:** BERGER

**RAS TYPE:** RAM  
**RAO CLASS:**  
**AUL RESTRICTION:**

**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE			
<b>SEARCH ID:</b> 18	<b>DIST/DIR:</b> 0.69 NW	<b>MAP ID:</b> 20	
<b>NAME:</b> BRIGHAM & WOMEN S HOSPITAL	<b>REV:</b> 05/10/00		
<b>ADDRESS:</b> 75 FRANCIS ST BOSTON MA	<b>ID1:</b> 3-0002596		
<b>CONTACT:</b>	<b>ID2:</b>		
	<b>STATUS:</b> NFA		
	<b>PHONE:</b>		
<b>LTBI:</b> 1/15/90	<b>CONFIRMED:</b> 10/15/91	<b>DELETED:</b>	<b>REMOVED:</b>
<b>SITE INFORMATION:</b>			
<b>INITIATED:</b> ERB	<b>CURRENT STATUS:</b> PHASE 2		
<b>ACTION BY:</b> RP ONLY	<b>SITE STATUS:</b> NFA		
<b>ACTION TAKEN (REM CODE):</b>			
<b>REQ TYPE:</b>	<b>REQ DUE:</b>		
<b>SITE DESCRIPTION:</b> INDUSTRIAL SITE; GROUNDWATER RELEASE; CONTAINED IN A LUST; VIRGIN OIL PRESENT; PETROLEUM PRESENT; RELEASE TO SOIL;			
<b>OTHER CONTAMINATION:</b>			
<b>OTHER RELEASES:</b>			
<b>OTHER PROBLEMS:</b>			
<b>OTHER TYPE OF SITE:</b> HOSPITAL			
<b>SITE ACTIONS:</b>			
<b>TS DATE:</b> 9/30/93	<b>RAS TYPE:</b> WCS-PERM		
<b>RA STATUS:</b>	<b>RAO CLASS:</b>		
<b>AUL DATE:</b>	<b>AUL RESTRICTION:</b>		
<b>LSP:</b>			





**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE		
<b>SEARCH ID:</b> 19	<b>DIST/DIR:</b> 0.97 NW	<b>MAP ID:</b> 21
<b>NAME:</b> BROOKLINE PLACE <b>ADDRESS:</b> 11 PEARL ST BROOKLINE MA		<b>REV:</b> 05/10/00 <b>ID1:</b> 3-0001188 <b>ID2:</b> <b>STATUS:</b> RAO <b>PHONE:</b>
<b>CONTACT:</b>		
<b>RA STATUS:</b> RECPT <b>AUL DATE:</b> <b>LSP:</b> FELDMAN		<b>RAO CLASS:</b> <b>AUL RESTRICTION:</b>



**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE			
<b>SEARCH ID:</b> 21	<b>DIST/DIR:</b> 0.39 NW	<b>MAP ID:</b> 23	
<b>NAME:</b> CITGO GASOLINE STATION <b>ADDRESS:</b> 1600 TREMONT ST ROX BOSTON MA		<b>REV:</b> 05/10/00 <b>ID1:</b> 3-0001367 <b>ID2:</b> <b>STATUS:</b> TIER 2 <b>PHONE:</b>	
<b>CONTACT:</b>			
<b>LTBI:</b> 4/15/87	<b>CONFIRMED:</b> 7/15/93	<b>DELETED:</b>	<b>REMOVED:</b>
<b>SITE INFORMATION:</b>			
<b>INITIATED:</b> ERB		<b>CURRENT STATUS:</b> PHASE 2	
<b>ACTION BY:</b> RP ONLY		<b>SITE STATUS:</b> TIER 2	
<b>ACTION TAKEN (REM CODE):</b>			
<b>REQ TYPE:</b>		<b>REQ DUE:</b>	
<b>SITE DESCRIPTION:</b> GAS STATION; GASOLINE PRESENT; GROUNDWATER RELEASE; CONTAINED IN A LUST; RELEASE TO SOIL;			
<b>OTHER CONTAMINATION:</b>			
<b>OTHER RELEASES:</b>			
<b>OTHER PROBLEMS:</b>			
<b>OTHER TYPE OF SITE:</b>			
<b>SITE ACTIONS:</b>			
<b>TS DATE:</b> 2/25/99		<b>RAS TYPE:</b> RAM	
<b>RA STATUS:</b> STRCVD		<b>RAO CLASS:</b>	
<b>AUL DATE:</b>		<b>AUL RESTRICTION:</b>	
<b>LSP:</b> LANDYN			
<b>TS DATE:</b> 4/23/98		<b>RAS TYPE:</b> RAM	
<b>RA STATUS:</b> PLANWR		<b>RAO CLASS:</b>	
<b>AUL DATE:</b>		<b>AUL RESTRICTION:</b>	
<b>LSP:</b> THIBODEAU			
<b>TS DATE:</b> 8/25/99		<b>RAS TYPE:</b> RAM	
<b>RA STATUS:</b> STRCVD		<b>RAO CLASS:</b>	
<b>AUL DATE:</b>		<b>AUL RESTRICTION:</b>	
<b>LSP:</b> LANDYN			
<b>TS DATE:</b> 4/12/00		<b>RAS TYPE:</b> RAM	
<b>RA STATUS:</b> CSRCVD		<b>RAO CLASS:</b>	
<b>AUL DATE:</b>		<b>AUL RESTRICTION:</b>	
<b>LSP:</b> CAMPBELL			

- Continued on next page -



**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE			
<b>SEARCH ID:</b> 22	<b>DIST/DIR:</b> 0.93 SE	<b>MAP ID:</b> 24	
<b>NAME:</b> CITGO GASOLINE STATION		<b>REV:</b> 05/10/90	
<b>ADDRESS:</b> 3048-3055 WASHINGTON ST ROX BOSTON MA 02130		<b>ID1:</b> 3-0003905	
<b>CONTACT:</b>		<b>ID2:</b>	
		<b>STATUS:</b> UNCLASSIFIED	
		<b>PHONE:</b>	
<b>LTBI:</b> 4/15/92	<b>CONFIRMED:</b> 7/15/92	<b>DELETED:</b>	<b>REMOVED:</b>
<b>SITE INFORMATION:</b>			
<b>INITIATED:</b> ERB		<b>CURRENT STATUS:</b> PHASE I C	
<b>ACTION BY:</b> RP ONLY		<b>SITE STATUS:</b> UNCLASSIFIED	
<b>ACTION TAKEN (REM CODE):</b>			
<b>REQ TYPE:</b>		<b>REQ DUE:</b>	
<b>SITE DESCRIPTION:</b> GAS STATION; GASOLINE PRESENT; CONTAINED IN A LUST; RELEASE TO SOIL;			
<b>OTHER CONTAMINATION:</b>			
<b>OTHER RELEASES:</b>			
<b>OTHER PROBLEMS:</b>			
<b>OTHER TYPE OF SITE:</b>			
<b>SITE ACTIONS:</b>			
<b>TS DATE:</b> 8/15/95		<b>RAS TYPE:</b> PHASE I	
<b>RA STATUS:</b> CSRCVD		<b>RAO CLASS:</b>	
<b>AUL DATE:</b>		<b>AUL RESTRICTION:</b>	
<b>LSP:</b> LUKER			
<b>TS DATE:</b> 8/15/95		<b>RAS TYPE:</b> TCLASS	
<b>RA STATUS:</b>		<b>RAO CLASS:</b>	
<b>AUL DATE:</b>		<b>AUL RESTRICTION:</b>	
<b>LSP:</b> LUKER			
<b>TS DATE:</b> 8/14/95		<b>RAS TYPE:</b> LSP-FA	
<b>RA STATUS:</b> RECPT		<b>RAO CLASS:</b>	
<b>AUL DATE:</b>		<b>AUL RESTRICTION:</b>	
<b>LSP:</b> LUKER			
<b>TS DATE:</b> 6/9/97		<b>RAS TYPE:</b> PHASE II	
<b>RA STATUS:</b> SOW		<b>RAO CLASS:</b>	
<b>AUL DATE:</b>		<b>AUL RESTRICTION:</b>	
<b>LSP:</b> LUKER			
<b>TS DATE:</b> 8/7/97		<b>RAS TYPE:</b> PHASE II	

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*Environmental FirstSearch  
Site Detail Report*

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE

**SEARCH ID:** 22

**DIST/DIR:** 0.93 SE

**MAP ID:** 24

**NAME:** CITGO GASOLINE STATION  
**ADDRESS:** 3048-3055 WASHINGTON ST ROX  
BOSTON MA 02130

**REV:** 05/10/00  
**ID1:** 3-0003905  
**ID2:**  
**STATUS:** UNCLASSIFIED  
**PHONE:**

**CONTACT:**

**RA STATUS:** CSRCVD  
**AUL DATE:**  
**LSP:** LUKER

**RAO CLASS:**  
**AUL RESTRICTION:**

**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE			
<b>SEARCH ID:</b> 23	<b>DIST/DIR:</b> 0.94 SW	<b>MAP ID:</b> 25	
<b>NAME:</b> CITGO GASOLINE STATION	<b>REV:</b> 05/10/00		
<b>ADDRESS:</b> 3055 WASHINGTON ST ROX BOSTON MA 02130	<b>ID1:</b> 3-0011431		
<b>CONTACT:</b>	<b>ID2:</b>		
	<b>STATUS:</b> TIER 2		
	<b>PHONE:</b>		
<b>LTBI:</b>	<b>CONFIRMED:</b>	<b>DELETED:</b>	<b>REMOVED:</b>
<b>SITE INFORMATION:</b>			
<b>INITIATED:</b>	<b>CURRENT STATUS:</b>		
<b>ACTION BY:</b>	<b>SITE STATUS:</b> TIER 2		
<b>ACTION TAKEN (REM CODE):</b>			
<b>REQ TYPE:</b>	<b>REQ DUE:</b>		
<b>SITE DESCRIPTION:</b> COMMERCIAL SITE; GASOLINE PRESENT; CONTAINED IN A LUST; RELEASE TO SOIL;			
<b>OTHER CONTAMINATION:</b>			
<b>OTHER RELEASES:</b>			
<b>OTHER PROBLEMS:</b>			
<b>OTHER TYPE OF SITE:</b>			
<b>SITE ACTIONS:</b>			
<b>TS DATE:</b> 8/15/95	<b>RAS TYPE:</b>	<b>TCLASS</b>	
<b>RA STATUS:</b> RECPT	<b>RAO CLASS:</b>		
<b>AUL DATE:</b>	<b>AUL RESTRICTION:</b>		
<b>LSP:</b> LUKER			
<b>TS DATE:</b> 8/15/95	<b>RAS TYPE:</b>	<b>FEND</b>	
<b>RA STATUS:</b> TRANS	<b>RAO CLASS:</b>		
<b>AUL DATE:</b>	<b>AUL RESTRICTION:</b>		
<b>LSP:</b>			



## Environmental FirstSearch Site Detail Report

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE			
<b>SEARCH ID:</b> 25	<b>DIST/DIR:</b> 0.44 SW	<b>MAP ID:</b> 27	
<b>NAME:</b> COMMERCIAL PROPERTY <b>ADDRESS:</b> 89-117 BICKFORD & CENTRE STJP BOSTON MA 02130		<b>REV:</b> 05/10/00 <b>ID1:</b> 3-0003584 <b>ID2:</b> <b>STATUS:</b> TIER 2 <b>PHONE:</b>	
<b>CONTACT:</b>			
<b>LTBI:</b> 4/15/91	<b>CONFIRMED:</b> 10/15/92	<b>DELETED:</b>	<b>REMOVED:</b>
<b>SITE INFORMATION:</b>			
<b>INITIATED:</b> UNSL		<b>CURRENT STATUS:</b> PHASE 2	
<b>ACTION BY:</b> RP ONLY		<b>SITE STATUS:</b> TIER 2	
<b>ACTION TAKEN (REM CODE):</b>		<b>REQ DUE:</b>	
<b>REQ TYPE:</b>			
<b>SITE DESCRIPTION:</b> CONTAINED IN DRUMS; FORMER; INDUSTRIAL SITE; GROUNDWATER RELEASE; CONTAINED IN A LUST; MANUFACTURING FACILITY; PETROLEUM PRESENT; METALS PRESENT; RELEASE TO SOIL; UNKNOWN AS TO WHAT IS CONTAINED IN; V.O.C. S PRESENT;			
<b>OTHER CONTAMINATION:</b>			
<b>OTHER RELEASES:</b>			
<b>OTHER PROBLEMS:</b>			
<b>OTHER TYPE OF SITE:</b>			
<b>SITE ACTIONS:</b>			
<b>TS DATE:</b> 6/29/95		<b>RAS TYPE:</b> PHASEII	
<b>RA STATUS:</b> CSRCVD		<b>RAO CLASS:</b>	
<b>AUL DATE:</b>		<b>AUL RESTRICTION:</b>	
<b>LSP:</b> STEVENSON			
<b>TS DATE:</b> 6/30/94		<b>RAS TYPE:</b> WAIV-RCLAS	
<b>RA STATUS:</b>		<b>RAO CLASS:</b>	
<b>AUL DATE:</b>		<b>AUL RESTRICTION:</b>	
<b>LSP:</b> STEVENSON			
<b>TS DATE:</b> 7/7/94		<b>RAS TYPE:</b> RAM	
<b>RA STATUS:</b> FEEREC		<b>RAO CLASS:</b>	
<b>AUL DATE:</b>		<b>AUL RESTRICTION:</b>	
<b>LSP:</b>			
<b>TS DATE:</b> 7/7/94		<b>RAS TYPE:</b> PHASEII	
<b>RA STATUS:</b> CSRCVD		<b>RAO CLASS:</b>	
<b>AUL DATE:</b>		<b>AUL RESTRICTION:</b>	
<b>LSP:</b> STEVENSON			

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**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE

**SEARCH ID:** 25

**DIST/DIR:** 0.44 SW

**MAP ID:** 27

**NAME:** COMMERCIAL PROPERTY  
**ADDRESS:** 89-117 BICKFORD & CENTRE STJP  
BOSTON MA 02130

**REV:** 05/10/00  
**ID1:** 3-0003584  
**ID2:**  
**STATUS:** TIER 2  
**PHONE:**

**CONTACT:**

**TS DATE:** 12/23/94  
**RA STATUS:** STRCVD  
**AUL DATE:**  
**LSP:** STEVENSON

**RAS TYPE:** RAM  
**RAO CLASS:**  
**AUL RESTRICTION:**

**TS DATE:** 6/29/95  
**RA STATUS:** CSRCVD  
**AUL DATE:**  
**LSP:** STEVENSON

**RAS TYPE:** RAM  
**RAO CLASS:**  
**AUL RESTRICTION:**

**TS DATE:** 6/29/95  
**RA STATUS:** RAORCD  
**AUL DATE:** 6/28/95  
**LSP:** STEVENSON

**RAS TYPE:** RAO-P  
**RAO CLASS:** A-3  
**AUL RESTRICTION:** NOT

**TS DATE:** 7/7/94  
**RA STATUS:** PLANWR  
**AUL DATE:**  
**LSP:** STEVENSON

**RAS TYPE:** RAM  
**RAO CLASS:**  
**AUL RESTRICTION:**

**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST BOSTON, MA

STATE SITE			
<b>SEARCH ID:</b> 26	<b>DIST/DIR:</b> 1.00 NW	<b>MAP ID:</b> 28	
<b>NAME:</b> COMMERCIAL PROPERTY <b>ADDRESS:</b> 1302-1318 BOYLSTON ST BOSTON MA	<b>REV:</b> 05/10/00 <b>ID1:</b> 3-0002070 <b>ID2:</b> <b>STATUS:</b> RAO <b>PHONE:</b>		
<b>CONTACT:</b>			
<b>LTBI:</b> 4/15/89	<b>CONFIRMED:</b>	<b>DELETED:</b>	<b>REMOVED:</b>
<b>SITE INFORMATION:</b>			
<b>INITIATED:</b> UNSL <b>ACTION BY:</b>	<b>CURRENT STATUS:</b> PHASE 1 L <b>SITE STATUS:</b> RAO		
<b>ACTION TAKEN (REM CODE):</b> <b>REQ TYPE:</b>	<b>REQ DUE:</b>		
<b>SITE DESCRIPTION:</b> CHLORINATED SOLVENTS PRESENT; COMMERCIAL SITE;			
<b>OTHER CONTAMINATION:</b>			
<b>OTHER RELEASES:</b>			
<b>OTHER PROBLEMS:</b>			
<b>OTHER TYPE OF SITE:</b>			
<b>SITE ACTIONS:</b>			
<b>TS DATE:</b> 8/1/96 <b>RA STATUS:</b> <b>AUL DATE:</b> <b>LSP:</b> EKLUND	<b>RAS TYPE:</b> <b>RAO CLASS:</b> <b>AUL RESTRICTION:</b>	<b>LSP-RAOEQ</b> <b>B-1</b> <b>NON</b>	



*Environmental FirstSearch  
Site Detail Report*

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE

**SEARCH ID:** 27                      **DIST/DIR:** 0.88 NW                      **MAP ID:** 29

**NAME:** CUMBERLAND FARMS GULF  
**ADDRESS:** 25 WASHINGTON ST  
BROOKLINE MA 02147

**REV:** 05/10/00  
**ID1:** 3-0004814  
**ID2:**  
**STATUS:** RAO  
**PHONE:**

**CONTACT:**

**LTBI:** 10/1/93                      **CONFIRMED:** 10/1/93                      **DELETED:**                      **REMOVED:**

**SITE INFORMATION:**

**INITIATED:** WAIV  
**ACTION BY:** RP ONLY

**CURRENT STATUS:** PHASE 2  
**SITE STATUS:** RAO

**ACTION TAKEN (REM CODE):**  
**REQ TYPE:**

**REQ DUE:**

**SITE DESCRIPTION:** GASOLINE PRESENT; GAS STATION; GROUNDWATER RELEASE; CONTAINED IN A LUST; RELEASE TO SOIL;

**OTHER CONTAMINATION:**

**OTHER RELEASES:**  
**OTHER PROBLEMS:**  
**OTHER TYPE OF SITE:**

**SITE ACTIONS:**

**TS DATE:** 12/29/95  
**RA STATUS:**  
**AUL DATE:**  
**LSP:** BINGHAM

**RAS TYPE:** RAO  
**RAO CLASS:** A-2  
**AUL RESTRICTION:** NON

**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE			
<b>SEARCH ID:</b> 28	<b>DIST/DIR:</b> 0.87 NW	<b>MAP ID:</b> 30	
<b>NAME:</b> DEVELOPMENT PROPERTY <b>ADDRESS:</b> 74-88 QUEENSBURY ST BOSTON MA  <b>CONTACT:</b>	<b>REV:</b> 05/10/00 <b>ID1:</b> 3-0001985 <b>ID2:</b> <b>STATUS:</b> DEF TIER 1B <b>PHONE:</b>		
<b>LTBI:</b> 1/15/89	<b>CONFIRMED:</b> 4/15/89	<b>DELETED:</b>	<b>REMOVED:</b>
<b>SITE INFORMATION:</b>			
<b>INITIATED:</b> OTH	<b>CURRENT STATUS:</b> PHASE 2		
<b>ACTION BY:</b> RP ONLY	<b>SITE STATUS:</b> DEF TIER 1B		
<b>ACTION TAKEN (REM CODE):</b>			
<b>REQ TYPE:</b>	<b>REQ DUE:</b>		
<b>SITE DESCRIPTION:</b> CHLORINATED SOLVENTS PRESENT; FORMER; COMMERCIAL SITE; GROUNDWATER RELEASE; PETROLEUM PRESENT; RELEASE TO SOIL; UNKNOWN AS TO WHAT IS CONTAINED IN;			
<b>OTHER CONTAMINATION:</b>			
<b>OTHER RELEASES:</b>			
<b>OTHER PROBLEMS:</b>			
<b>OTHER TYPE OF SITE:</b>			
<b>SITE ACTIONS:</b>			
<b>TS DATE:</b> 1/29/98	<b>RAS TYPE:</b> PHASE I		
<b>RA STATUS:</b> CSRCVD	<b>RAO CLASS:</b>		
<b>AUL DATE:</b>	<b>AUL RESTRICTION:</b>		
<b>LSP:</b> COBBETT			
<b>TS DATE:</b> 1/29/98	<b>RAS TYPE:</b> RAO		
<b>RA STATUS:</b>	<b>RAO CLASS:</b> A-2		
<b>AUL DATE:</b>	<b>AUL RESTRICTION:</b> NON		
<b>LSP:</b> COBBETT			



**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE			
<b>SEARCH ID:</b> 30	<b>DIST/DIR:</b> 0.98 NW	<b>MAP ID:</b> 32	
<b>NAME:</b> EXXON SERVICE STATION # 3-0849 <b>ADDRESS:</b> 1420 BOYLSTON ST BOSTON MA 02215		<b>REV:</b> 05/10/00 <b>ID1:</b> 3-0011603 <b>ID2:</b> <b>STATUS:</b> TIER 2 <b>PHONE:</b>	
<b>CONTACT:</b>			
<b>LTBI:</b>	<b>CONFIRMED:</b>	<b>DELETED:</b>	<b>REMOVED:</b>
<b>SITE INFORMATION:</b>			
<b>INITIATED:</b>		<b>CURRENT STATUS:</b>	
<b>ACTION BY:</b>		<b>SITE STATUS:</b> TIER 2	
<b>ACTION TAKEN (REM CODE):</b>			
<b>REQ TYPE:</b>		<b>REQ DUE:</b>	
<b>SITE DESCRIPTION:</b>			
<b>SITE ACTIONS:</b>			
<b>TS DATE:</b> 9/18/95		<b>RAS TYPE:</b> FEND	
<b>RA STATUS:</b> TRANS		<b>RAO CLASS:</b>	
<b>AUL DATE:</b>		<b>AUL RESTRICTION:</b>	
<b>LSP:</b>			
<b>TS DATE:</b> 9/18/95		<b>RAS TYPE:</b> TCLASS	
<b>RA STATUS:</b> RECPT		<b>RAO CLASS:</b>	
<b>AUL DATE:</b>		<b>AUL RESTRICTION:</b>	
<b>LSP:</b> POMEROY			

*Environmental FirstSearch  
Site Detail Report*

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE

**SEARCH ID:** 31

**DIST/DIR:** 0.37 NE

**MAP ID:** 33

**NAME:** FACTORIES/UTILITIES (FMR)  
**ADDRESS:** NEW DUDLEY ST  
BOSTON MA

**REV:** 05/10/00  
**ID1:** 3-0001641  
**ID2:**  
**STATUS:** DEF TIER 1B  
**PHONE:**

**CONTACT:**

**LTBI:** 7/15/88

**CONFIRMED:**

**DELETED:**

**REMOVED:**

**SITE INFORMATION:**

**INITIATED:** SAB  
**ACTION BY:** DEP ONLY

**CURRENT STATUS:** P.A. L  
**SITE STATUS:** DEF TIER 1B

**ACTION TAKEN (REM CODE):**  
**REQ TYPE:**

**REQ DUE:**

**SITE DESCRIPTION:**  
**SITE ACTIONS:**

**TS DATE:** 5/7/96  
**RA STATUS:**  
**AUL DATE:**  
**LSP:**

**RAS TYPE:** DEP-CSD  
**RAO CLASS:**  
**AUL RESTRICTION:**

**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE			
<b>SEARCH ID:</b> 32	<b>DIST/DIR:</b> 0.86 SE	<b>MAP ID:</b> 34	
<b>NAME:</b> GASOLINE STATION <b>ADDRESS:</b> 188 WARREN ST ROX BOSTON MA  <b>CONTACT:</b>	<b>REV:</b> 05/10/00 <b>ID1:</b> 3-0003786 <b>ID2:</b> <b>STATUS:</b> DEF TIER 1B <b>PHONE:</b>		
<b>LTBI:</b> 1/15/92	<b>CONFIRMED:</b>	<b>DELETED:</b>	<b>REMOVED:</b>
<b>SITE INFORMATION:</b>			
<b>INITIATED:</b> ERB	<b>CURRENT STATUS:</b> P.A. L		
<b>ACTION BY:</b> RP ONLY	<b>SITE STATUS:</b> DEF TIER 1B		
<b>ACTION TAKEN (REM CODE):</b> D			
<b>REQ TYPE:</b> NON-PRIOR	<b>REQ DUE:</b> 8/2/97		
<b>SITE DESCRIPTION:</b> GAS STATION; GASOLINE PRESENT; GROUNDWATER RELEASE; CONTAINED IN A LUST; RELEASE TO SOIL; WASTE OIL PRESENT;			
<b>OTHER CONTAMINATION:</b>			
<b>OTHER RELEASES:</b>			
<b>OTHER PROBLEMS:</b>			
<b>OTHER TYPE OF SITE:</b>			
<b>SITE ACTIONS:</b>			





**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON,-MA

<b>STATE SITE</b>		
<b>SEARCH ID:</b> 34	<b>DIST/DIR:</b> 0.98 NE	<b>MAP ID:</b> 35
<b>NAME:</b> GASOMETER (FMR) <b>ADDRESS:</b> COLUMBUS AVE & CAMDEN ST BOSTON MA	<b>REV:</b> 05/10/00 <b>ID1:</b> 3-0001749 <b>ID2:</b> <b>STATUS:</b> NDS <b>PHONE:</b>	
<b>CONTACT:</b>		
<b>LTBI:</b> 7/15/88	<b>CONFIRMED:</b>	<b>DELETED:</b> <b>REMOVED:</b>
<b>SITE INFORMATION:</b>		
<b>INITIATED:</b> SAB <b>ACTION BY:</b> DEP ONLY	<b>CURRENT STATUS:</b> P.A. L <b>SITE STATUS:</b> NDS	
<b>ACTION TAKEN (REM CODE):</b> <b>REQ TYPE:</b>	<b>REQ DUE:</b>	
<b>SITE DESCRIPTION:</b> PETROLEUM PRESENT; RESIDENTIAL SITE;		
<b>OTHER CONTAMINATION:</b>		
<b>OTHER RELEASES:</b> KEROSENE		
<b>OTHER PROBLEMS:</b>		
<b>OTHER TYPE OF SITE:</b>		
<b>SITE ACTIONS:</b>		
<b>TS DATE:</b> 5/6/96 <b>RA STATUS:</b> <b>AUL DATE:</b> <b>LSP:</b>	<b>RAS TYPE:</b> <b>RAO CLASS:</b> <b>AUL RESTRICTION:</b>	DEP-NDS

**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE

**SEARCH ID:** 35

**DIST/DIR:** 0.81 NW

**MAP ID:** 36

**NAME:** GETTY SERVICE STATION  
**ADDRESS:** 475 BROOKLINE AVE  
BOSTON MA

**REV:** 05/10/00  
**ID1:** 3-0001470  
**ID2:**  
**STATUS:** NFA  
**PHONE:**

**CONTACT:**

**LTBI:** 7/15/91

**CONFIRMED:** 7/15/91

**DELETED:**

**REMOVED:**

**SITE INFORMATION:**

**INITIATED:** ERB  
**ACTION BY:** RP ONLY

**CURRENT STATUS:** PHASE 2  
**SITE STATUS:** NFA

**ACTION TAKEN (REM CODE):**  
**REQ TYPE:**

**REQ DUE:**

**SITE DESCRIPTION:** GAS STATION; FORMER; GROUNDWATER RELEASE; CONTAINED IN A LUST; PETROLEUM  
PRESENT; RELEASE TO SOIL;

**OTHER CONTAMINATION:**

**OTHER RELEASES:**  
**OTHER PROBLEMS:**  
**OTHER TYPE OF SITE:**

**SITE ACTIONS:**

**TS DATE:** 6/7/96  
**RA STATUS:**  
**AUL DATE:**  
**LSP:**

**RAS TYPE:** WCS-PERM  
**RAO CLASS:**  
**AUL RESTRICTION:**

**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE			
<b>SEARCH ID:</b> 36	<b>DIST/DIR:</b> 0.95 NW	<b>MAP ID:</b> 37	
<b>NAME:</b> INSTITUTIONAL PROPERTY	<b>REV:</b> 05/10/00		
<b>ADDRESS:</b> 206-214 RIVERWAY BOSTON MA	<b>ID1:</b> 3-0002222		
<b>CONTACT:</b>	<b>ID2:</b>		
	<b>STATUS:</b> NDS		
	<b>PHONE:</b>		
<b>LTBI:</b> 10/15/89	<b>CONFIRMED:</b>	<b>DELETED:</b>	<b>REMOVED:</b>
<b>SITE INFORMATION:</b>			
<b>INITIATED:</b> UNSL	<b>CURRENT STATUS:</b>	P.A.	L
<b>ACTION BY:</b>	<b>SITE STATUS:</b>	NDS	
<b>ACTION TAKEN (REM CODE):</b>	<b>REQ DUE:</b>		
<b>REQ TYPE:</b>			
<b>SITE DESCRIPTION:</b>			
<b>SITE ACTIONS:</b>			
<b>TS DATE:</b> 4/26/96	<b>RAS TYPE:</b>	DEP-CSD	
<b>RA STATUS:</b>	<b>RAO CLASS:</b>		
<b>AUL DATE:</b>	<b>AUL RESTRICTION:</b>		
<b>LSP:</b>			



**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE	
<b>SEARCH ID:</b> 38	<b>DIST/DIR:</b> 0.38 NE
<b>MAP ID:</b> 39	
<b>NAME:</b> MANUFACTURERS (FMR) <b>ADDRESS:</b> PRENTISS ST ROX BOSTON MA	<b>REV:</b> 05/10/00 <b>ID1:</b> 3-0001646 <b>ID2:</b> <b>STATUS:</b> NDS <b>PHONE:</b>
<b>CONTACT:</b>	
<b>LTBI:</b> 7/15/88	<b>CONFIRMED:</b>
	<b>DELETED:</b>
	<b>REMOVED:</b>
<b>SITE INFORMATION:</b>	
<b>INITIATED:</b> SAB	<b>CURRENT STATUS:</b> P.A. L
<b>ACTION BY:</b> DEP ONLY	<b>SITE STATUS:</b> NDS
<b>ACTION TAKEN (REM CODE):</b>	
<b>REQ TYPE:</b>	<b>REQ DUE:</b>
<b>SITE DESCRIPTION:</b>	
<b>SITE ACTIONS:</b>	
<b>TS DATE:</b> 5/10/96	<b>RAS TYPE:</b> DEP-NDS
<b>RA STATUS:</b>	<b>RAO CLASS:</b>
<b>AUL DATE:</b>	<b>AUL RESTRICTION:</b>
<b>LSP:</b>	





*Environmental FirstSearch  
Site Detail Report*

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE		
<b>SEARCH ID:</b> 39	<b>DIST/DIR:</b> 0.48 NW	<b>MAP ID:</b> 7
<b>NAME:</b> MASS COLLEGE OF ARTS <b>ADDRESS:</b> 621 HUNTINGTON AVE BOSTON MA	<b>REV:</b> 05/10/00 <b>ID1:</b> 3-0002962 <b>ID2:</b> <b>STATUS:</b> TIER 2 <b>PHONE:</b>	
<b>CONTACT:</b>		
<b>RA STATUS:</b> CSRCVD <b>AUL DATE:</b> <b>LSP:</b> VETERE	<b>RAO CLASS:</b> <b>AUL RESTRICTION:</b>	



**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE	
<b>SEARCH ID:</b> 40	<b>DIST/DIR:</b> 0.59 SE
<b>MAP ID:</b> 40	
<b>NAME:</b> MBTA <b>ADDRESS:</b> 2565 WASHINGTON ST ROX BOSTON MA  <b>CONTACT:</b>	<b>REV:</b> 05/10/00 <b>ID1:</b> 3-0002860 <b>ID2:</b> <b>STATUS:</b> TIER 2 <b>PHONE:</b>
<b>RA STATUS:</b> CSRCVD <b>AUL DATE:</b> <b>LSP:</b> HUGHTO	<b>RAO CLASS:</b> <b>AUL RESTRICTION:</b>
<b>TS DATE:</b> 7/31/98 <b>RA STATUS:</b> SOW <b>AUL DATE:</b> <b>LSP:</b> HUGHTO	<b>RAS TYPE:</b> PHASEII <b>RAO CLASS:</b> <b>AUL RESTRICTION:</b>
<b>TS DATE:</b> 8/1/96 <b>RA STATUS:</b> RECPT. <b>AUL DATE:</b> <b>LSP:</b> HUGHTO	<b>RAS TYPE:</b> LSP-FA <b>RAO CLASS:</b> <b>AUL RESTRICTION:</b>
<b>TS DATE:</b> 8/2/96 <b>RA STATUS:</b> CSRCVD <b>AUL DATE:</b> <b>LSP:</b> HUGHTO	<b>RAS TYPE:</b> PHASEI <b>RAO CLASS:</b> <b>AUL RESTRICTION:</b>
<b>TS DATE:</b> 8/2/96 <b>RA STATUS:</b> <b>AUL DATE:</b> <b>LSP:</b> HUGHTO	<b>RAS TYPE:</b> TCLASS <b>RAO CLASS:</b> <b>AUL RESTRICTION:</b>



**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE			
<b>SEARCH ID:</b> 42	<b>DIST/DIR:</b> 0.21 NE	<b>MAP ID:</b> 42	
<b>NAME:</b> MBTA - PARCEL 25 <b>ADDRESS:</b> TREMONT ST & COLUMBUS AVE ROX BOSTON MA		<b>REV:</b> 05/10/00 <b>ID1:</b> 3-0002524 <b>ID2:</b> <b>STATUS:</b> NFA <b>PHONE:</b>	
<b>CONTACT:</b>			
<b>LTBI:</b> 1/15/90	<b>CONFIRMED:</b>	<b>DELETED:</b>	<b>REMOVED:</b>
<b>SITE INFORMATION:</b>			
<b>INITIATED:</b> UNSL		<b>CURRENT STATUS:</b> P.A. L	
<b>ACTION BY:</b>		<b>SITE STATUS:</b> NFA	
<b>ACTION TAKEN (REM CODE):</b>			
<b>REQ TYPE:</b>		<b>REQ DUE:</b>	
<b>SITE DESCRIPTION:</b>			
<b>SITE ACTIONS:</b>			
<b>TS DATE:</b> 4/24/96		<b>RAS TYPE:</b> DEP-NDS	
<b>RA STATUS:</b>		<b>RAO CLASS:</b>	
<b>AUL DATE:</b>		<b>AUL RESTRICTION:</b>	
<b>LSP:</b>			
<b>TS DATE:</b> 8/2/96		<b>RAS TYPE:</b> LSP-NFA	
<b>RA STATUS:</b> RECPT		<b>RAO CLASS:</b>	
<b>AUL DATE:</b>		<b>AUL RESTRICTION:</b>	
<b>LSP:</b> HUGHTO			



**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

**STATE SITE**

**SEARCH ID:** 43

**DIST/DIR:** 0.59 SW

**MAP ID:** 43

**NAME:** MBTA - PARCELS A,69,70&71  
**ADDRESS:** AMORY & BET CENTRE STS JP  
BOSTON MA 02130

**REV:** 05/10/00  
**ID1:** 3-0003573  
**ID2:**  
**STATUS:** DEF TIER 1B  
**PHONE:**

**CONTACT:**

**LTBI:** 4/15/91

**CONFIRMED:**

**DELETED:**

**REMOVED:**

**SITE INFORMATION:**

**INITIATED:** UNSL  
**ACTION BY:**

**CURRENT STATUS:** PHASE 1 L  
**SITE STATUS:** DEF TIER 1B

**ACTION TAKEN (REM CODE):**  
**REQ TYPE:** NON-PRIOR

**REQ DUE:** 8/2/97

**SITE DESCRIPTION:** CHLORINATED SOLVENTS PRESENT; FORMER; CONTAINED IN DRUMS; INDUSTRIAL SITE;  
GROUNDWATER RELEASE; CONTAINED IN A LUST; PETROLEUM PRESENT; RELEASE TO SOIL;

**OTHER CONTAMINATION:**  
**OTHER RELEASES:**  
**OTHER PROBLEMS:**  
**OTHER TYPE OF SITE:**

**SITE ACTIONS:**

**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE			
<b>SEARCH ID:</b> 44	<b>DIST/DIR:</b> 0.97 SW	<b>MAP ID:</b> 44	
<b>NAME:</b> MBTA - PROPERTY <b>ADDRESS:</b> 3060-3070 WASHINGTON ST ROX BOSTON MA		<b>REV:</b> 05/10/00 <b>IDI:</b> 3-0003938 <b>ID2:</b> <b>STATUS:</b> TIER 2 <b>PHONE:</b>	
<b>CONTACT:</b>			
<b>LTBI:</b> 4/15/92	<b>CONFIRMED:</b> 7/15/93	<b>DELETED:</b>	<b>REMOVED:</b>
<b>SITE INFORMATION:</b>			
<b>INITIATED:</b> UNSL		<b>CURRENT STATUS:</b> PHASE 2	
<b>ACTION BY:</b> RP ONLY		<b>SITE STATUS:</b> TIER 2	
<b>ACTION TAKEN (REM CODE):</b>		<b>REQ DUE:</b>	
<b>REQ TYPE:</b>			
<b>SITE DESCRIPTION:</b> AIR RELEASE THREAT; CYANIDE PRESENT; FORMER; GROUNDWATER RELEASE THREAT; MUNICIPAL SITE; PETROLEUM PRESENT; METALS PRESENT; RELEASE TO SOIL; UNKNOWN AS TO WHAT IS CONTAINED IN; UTILITY SITE;			
<b>OTHER CONTAMINATION:</b>			
<b>OTHER RELEASES:</b> LEAD			
<b>OTHER PROBLEMS:</b>			
<b>OTHER TYPE OF SITE:</b> MBTA STATION			
<b>SITE ACTIONS:</b>			
<b>TS DATE:</b> 10/6/97		<b>RAS TYPE:</b> RAO	
<b>RA STATUS:</b>		<b>RAO CLASS:</b> A-3	
<b>AUL DATE:</b> 10/2/97		<b>AUL RESTRICTION:</b> NOT	
<b>LSP:</b> ANKSTITUS			

**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE

**SEARCH ID:** 45

**DIST/DIR:** 0.40 NW

**MAP ID:** 45

**NAME:** MISSION HILL LEDGE  
**ADDRESS:** 1610-1618 TREMONT ST  
BOSTON MA 02120

**REV:** 05/10/00  
**ID1:** 3-0012332  
**ID2:**  
**STATUS:** TIER 2  
**PHONE:**

**CONTACT:**

**LTBI:**

**CONFIRMED:**

**DELETED:**

**REMOVED:**

**SITE INFORMATION:**

**INITIATED:**  
**ACTION BY:**

**CURRENT STATUS:**  
**SITE STATUS:** TIER 2

**ACTION TAKEN (REM CODE):**  
**REQ TYPE:**

**REQ DUE:**

**SITE DESCRIPTION:** GROUNDWATER RELEASE; RELEASE TO SOIL;

**OTHER CONTAMINATION:**

**OTHER RELEASES:** TCE AND TPH AND VINYL CHLORIDE  
**OTHER PROBLEMS:**  
**OTHER TYPE OF SITE:**

**SITE ACTIONS:**

**TS DATE:** 4/5/96  
**RA STATUS:** RECPT  
**AUL DATE:**  
**LSP:** GEVALT

**RAS TYPE:** TCLASS  
**RAO CLASS:**  
**AUL RESTRICTION:**

**TS DATE:** 4/5/96  
**RA STATUS:** TRANS  
**AUL DATE:**  
**LSP:**

**RAS TYPE:** FEND  
**RAO CLASS:**  
**AUL RESTRICTION:**

**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE			
<b>SEARCH ID:</b> 46	<b>DIST/DIR:</b> 0.54 NE	<b>MAP ID:</b> 46	
<b>NAME:</b> MOBIL SERVICE STATION #01-EKW <b>ADDRESS:</b> 541 HUNTINGTON AVE BOSTON MA		<b>REV:</b> 05/10/00 <b>ID1:</b> 3-0001396 <b>ID2:</b> <b>STATUS:</b> RAO <b>PHONE:</b>	
<b>CONTACT:</b>			
<b>LTBI:</b> 1/15/90	<b>CONFIRMED:</b> 7/15/90	<b>DELETED:</b>	<b>REMOVED:</b>
<b>SITE INFORMATION:</b>			
<b>INITIATED:</b> UNSL		<b>CURRENT STATUS:</b> PHASE 2	
<b>ACTION BY:</b> RP ONLY		<b>SITE STATUS:</b> RAO	
<b>ACTION TAKEN (REM CODE):</b> C			
<b>REQ TYPE:</b>		<b>REQ DUE:</b>	
<b>SITE DESCRIPTION:</b> GAS STATION; FORMER; GASOLINE PRESENT; GROUNDWATER RELEASE; CONTAINED IN A LUST; PETROLEUM PRESENT; VIRGIN OIL PRESENT; RELEASE TO SOIL;			
<b>OTHER CONTAMINATION:</b>			
<b>OTHER RELEASES:</b>			
<b>OTHER PROBLEMS:</b>			
<b>OTHER TYPE OF SITE:</b>			
<b>SITE ACTIONS:</b>			
<b>TS DATE:</b> 7/15/96		<b>RAS TYPE:</b> RAO	
<b>RA STATUS:</b> RAORCD		<b>RAO CLASS:</b> C	
<b>AUL DATE:</b>		<b>AUL RESTRICTION:</b> NON	
<b>LSP:</b> BINGHAM			
<b>TS DATE:</b> 5/29/96		<b>RAS TYPE:</b> PHASEII	
<b>RA STATUS:</b> CSRCVD		<b>RAO CLASS:</b>	
<b>AUL DATE:</b>		<b>AUL RESTRICTION:</b>	
<b>LSP:</b> BINGHAM			
<b>TS DATE:</b> 4/25/96		<b>RAS TYPE:</b> TIER2EXT	
<b>RA STATUS:</b> RECPT		<b>RAO CLASS:</b>	
<b>AUL DATE:</b>		<b>AUL RESTRICTION:</b>	
<b>LSP:</b> BINGHAM			
<b>TS DATE:</b> 5/23/95		<b>RAS TYPE:</b> TIER2EXT	
<b>RA STATUS:</b>		<b>RAO CLASS:</b>	
<b>AUL DATE:</b>		<b>AUL RESTRICTION:</b>	
<b>LSP:</b>			



**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE			
<b>SEARCH ID:</b> 48	<b>DIST/DIR:</b> 0.60 NE	<b>MAP ID:</b> 48	
<b>NAME:</b> MUSEUM OF FINE ARTS <b>ADDRESS:</b> 20-26 MUSEUM RD BOSTON MA		<b>REV:</b> 05/10/00 <b>ID1:</b> 3-0000901 <b>ID2:</b> <b>STATUS:</b> NFA <b>PHONE:</b>	
<b>CONTACT:</b>			
<b>LTBI:</b> 10/15/88	<b>CONFIRMED:</b>	<b>DELETED:</b>	<b>REMOVED:</b>
<b>SITE INFORMATION:</b>			
<b>INITIATED:</b> UNSL		<b>CURRENT STATUS:</b> PHASE 1 L	
<b>ACTION BY:</b>		<b>SITE STATUS:</b> NFA	
<b>ACTION TAKEN (REM CODE):</b>			
<b>REQ TYPE:</b>		<b>REQ DUE:</b>	
<b>SITE DESCRIPTION:</b>			
<b>SITE ACTIONS:</b>			
<b>TS DATE:</b> 8/2/95		<b>RAS TYPE:</b> LSP-NFA	
<b>RA STATUS:</b>		<b>RAO CLASS:</b>	
<b>AUL DATE:</b>		<b>AUL RESTRICTION:</b>	
<b>LSP:</b> CURTIS			

*Environmental FirstSearch  
Site Detail Report*

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE

**SEARCH ID:** 49

**DIST/DIR:** 0.42 NE

**MAP ID:** 49

**NAME:** MWRA HEADWORKS  
**ADDRESS:** 47 WARD ST ROX  
BOSTON MA

**REV:** 05/10/00  
**ID1:** 3-0001809  
**ID2:**  
**STATUS:** NFA  
**PHONE:**

**CONTACT:**

**LTBI:** 1/15/89

**CONFIRMED:**

**DELETED:**

**REMOVED:**

**SITE INFORMATION:**

**INITIATED:** UNSL  
**ACTION BY:**

**CURRENT STATUS:** PHASE I L  
**SITE STATUS:** NFA

**ACTION TAKEN (REM CODE):**  
**REQ TYPE:**

**REQ DUE:**

**SITE DESCRIPTION:**  
**SITE ACTIONS:**

**TS DATE:** 8/1/95  
**RA STATUS:**  
**AUL DATE:**  
**LSP:**

**RAS TYPE:** CON-NFA  
**RAO CLASS:**  
**AUL RESTRICTION:**



**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

<b>STATE SITE</b>		
<b>SEARCH ID:</b> 50	<b>DIST/DIR:</b> 0.51 NW	<b>MAP ID:</b> 50
<b>NAME:</b> NEW ENG BAPTIST HOSP - LOT #12 <b>ADDRESS:</b> PARKER HILL AVE & SACHEM STROX BOSTON MA 02120	<b>REV:</b> 05/10/00 <b>ID1:</b> 3-0004147 <b>ID2:</b> <b>STATUS:</b> RAO <b>PHONE:</b>	
<b>CONTACT:</b>		
<b>LTBI:</b> 1/15/93	<b>CONFIRMED:</b>	<b>DELETED:</b>
		<b>REMOVED:</b>
<b>SITE INFORMATION:</b>		
<b>INITIATED:</b> SAB <b>ACTION BY:</b>	<b>CURRENT STATUS:</b> P.A. L <b>SITE STATUS:</b> RAO	
<b>ACTION TAKEN (REM CODE):</b> <b>REQ TYPE:</b>	<b>REQ DUE:</b>	
<b>SITE DESCRIPTION:</b> GROUNDWATER RELEASE; CONTAINED IN A LUST; VIRGIN OIL PRESENT; RELEASE TO SOIL;		
<b>OTHER CONTAMINATION:</b>		
<b>OTHER RELEASES:</b>		
<b>OTHER PROBLEMS:</b>		
<b>OTHER TYPE OF SITE:</b> HOSPITAL PARKING LOT		
<b>SITE ACTIONS:</b>		
<b>TS DATE:</b> 3/7/95 <b>RA STATUS:</b> <b>AUL DATE:</b> <b>LSP:</b> ENGELS	<b>RAS TYPE:</b> RAO <b>RAO CLASS:</b> A-2 <b>AUL RESTRICTION:</b> NON	



# Environmental FirstSearch Site Detail Report

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE	
<b>SEARCH ID:</b> 52	<b>DIST/DIR:</b> 0.73 SW
<b>MAP ID:</b> 52	
<b>NAME:</b> NEW ENGLAND TELEPHONE <b>ADDRESS:</b> 85 BRAGDON ST ROX BOSTON MA 02017  <b>CONTACT:</b>	<b>REV:</b> 05/10/00 <b>ID1:</b> 3-0004344 <b>ID2:</b> <b>STATUS:</b> RAO <b>PHONE:</b>
<b>LTBI:</b> 7/15/93 <b>CONFIRMED:</b> 10/1/93 <b>DELETED:</b> <b>REMOVED:</b>	
<b>SITE INFORMATION:</b>	
<b>INITIATED:</b> ERB <b>ACTION BY:</b> RP ONLY	<b>CURRENT STATUS:</b> PHASE 2 <b>SITE STATUS:</b> RAO
<b>ACTION TAKEN (REM CODE):</b> A,D <b>REQ TYPE:</b>	<b>REQ DUE:</b>
<b>SITE DESCRIPTION:</b> COMMERCIAL SITE; FORMER; GASOLINE PRESENT; INDUSTRIAL SITE; GROUNDWATER RELEASE; CONTAINED IN A LUST; PETROLEUM PRESENT; RELEASE TO SOIL; V.O.C. S PRESENT;	
<b>OTHER CONTAMINATION:</b> <b>OTHER RELEASES:</b> <b>OTHER PROBLEMS:</b> <b>OTHER TYPE OF SITE:</b> AUTO MAINTENANCE FACILITY & GARAGE	
<b>SITE ACTIONS:</b>	
<b>TS DATE:</b> 7/20/94 <b>RA STATUS:</b> STRCVD <b>AUL DATE:</b> <b>LSP:</b> STONE	<b>RAS TYPE:</b> IRA <b>RAO CLASS:</b> <b>AUL RESTRICTION:</b>
<b>TS DATE:</b> 6/8/95 <b>RA STATUS:</b> CSRCVD <b>AUL DATE:</b> <b>LSP:</b> BLAKE	<b>RAS TYPE:</b> PHASE I <b>RAO CLASS:</b> <b>AUL RESTRICTION:</b>
<b>TS DATE:</b> 11/9/95 <b>RA STATUS:</b> RAORCD <b>AUL DATE:</b> <b>LSP:</b> BLAKE	<b>RAS TYPE:</b> RAO <b>RAO CLASS:</b> A-2 <b>AUL RESTRICTION:</b> NON
<b>TS DATE:</b> 11/9/95 <b>RA STATUS:</b> CSRCVD <b>AUL DATE:</b> <b>LSP:</b> BLAKE	<b>RAS TYPE:</b> IRA <b>RAO CLASS:</b> <b>AUL RESTRICTION:</b>

- Continued on next page -



**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE			
<b>SEARCH ID:</b> 53	<b>DIST/DIR:</b> 0.68 NE	<b>MAP ID:</b> 53	
<b>NAME:</b> NORTHEASTERN UNIV-RYDER HALL <b>ADDRESS:</b> 11 LEON ST BOSTON MA  <b>CONTACT:</b>		<b>REV:</b> 05/10/00 <b>IDI:</b> 3-0011510 <b>ID2:</b> <b>STATUS:</b> TIER 2 <b>PHONE:</b>	
<b>LTBI:</b>	<b>CONFIRMED:</b>	<b>DELETED:</b>	<b>REMOVED:</b>
<b>SITE INFORMATION:</b>			
<b>INITIATED:</b>		<b>CURRENT STATUS:</b>	
<b>ACTION BY:</b>		<b>SITE STATUS:</b> TIER 2	
<b>ACTION TAKEN (REM CODE):</b>		<b>REQ DUE:</b>	
<b>REQ TYPE:</b>			
<b>SITE DESCRIPTION:</b>			
<b>SITE ACTIONS:</b>			
<b>TS DATE:</b> 8/22/95		<b>RAS TYPE:</b> FEND	
<b>RA STATUS:</b> TRANS		<b>RAO CLASS:</b>	
<b>AUL DATE:</b>		<b>AUL RESTRICTION:</b>	
<b>LSP:</b>			
<b>TS DATE:</b> 8/22/95		<b>RAS TYPE:</b> TCLASS	
<b>RA STATUS:</b> RECPT		<b>RAO CLASS:</b>	
<b>AUL DATE:</b>		<b>AUL RESTRICTION:</b>	
<b>LSP:</b> GEVALT			

**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE

**SEARCH ID:** 54                      **DIST/DIR:** 0.89 NE                      **MAP ID:** 54

**NAME:** NORTHEASTERN UNIVERSITY  
**ADDRESS:** 122 ST STEPHEN ST  
BOSTON MA 02115

**REV:** 05/10/00  
**ID1:** 3-0004060  
**ID2:**  
**STATUS:** DEF TIER 1B  
**PHONE:**

**CONTACT:**

**LTBI:** 10/15/92                      **CONFIRMED:** 7/15/93                      **DELETED:**                      **REMOVED:**

**SITE INFORMATION:**

**INITIATED:** ERB  
**ACTION BY:** RP ONLY

**CURRENT STATUS:** PHASE I C  
**SITE STATUS:** DEF TIER 1B

**ACTION TAKEN (REM CODE):** A  
**REQ TYPE:**

**REQ DUE:**

**SITE DESCRIPTION:** GROUNDWATER RELEASE; CONTAINED IN A LUST; PETROLEUM PRESENT; RELEASE TO SOIL;

**OTHER CONTAMINATION:**

**OTHER RELEASES:**

**OTHER PROBLEMS:**

**OTHER TYPE OF SITE:** UNIVERSITY

**SITE ACTIONS:**

**TS DATE:** 7/17/98  
**RA STATUS:** CSRCVD  
**AUL DATE:**  
**LSP:** STIMPSON

**RAS TYPE:** PHASEI  
**RAO CLASS:**  
**AUL RESTRICTION:**

**TS DATE:** 7/17/98  
**RA STATUS:**  
**AUL DATE:**  
**LSP:** STIMPSON

**RAS TYPE:** TCLASS  
**RAO CLASS:**  
**AUL RESTRICTION:**

**TS DATE:** 1/14/99  
**RA STATUS:** SOW  
**AUL DATE:**  
**LSP:** STIMPSON

**RAS TYPE:** PHASEII  
**RAO CLASS:**  
**AUL RESTRICTION:**

**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE			
<b>SEARCH ID:</b> 55	<b>DIST/DIR:</b> 0.74 NE	<b>MAP ID:</b> 55	
<b>NAME:</b> NORTHEASTERN UNIVERSITY <b>ADDRESS:</b> FORSYTH ST BOSTON MA 02115		<b>REV:</b> 05/10/00 <b>ID1:</b> 3-0011511 <b>ID2:</b> <b>STATUS:</b> TIER 2 <b>PHONE:</b>	
<b>CONTACT:</b>			
<b>LTBI:</b>	<b>CONFIRMED:</b>	<b>DELETED:</b>	<b>REMOVED:</b>
<b>SITE INFORMATION:</b>			
<b>INITIATED:</b>		<b>CURRENT STATUS:</b>	
<b>ACTION BY:</b>		<b>SITE STATUS:</b> TIER 2	
<b>ACTION TAKEN (REM CODE):</b>		<b>REQ DUE:</b>	
<b>REQ TYPE:</b>			
<b>SITE DESCRIPTION:</b> GROUNDWATER RELEASE; RELEASE TO SOIL;			
<b>OTHER CONTAMINATION:</b>			
<b>OTHER RELEASES:</b> HAZARDOUS MATERIAL			
<b>OTHER PROBLEMS:</b>			
<b>OTHER TYPE OF SITE:</b>			
<b>SITE ACTIONS:</b>			
<b>TS DATE:</b> 9/27/95		<b>RAS TYPE:</b> TCLASS	
<b>RA STATUS:</b> RECPT		<b>RAO CLASS:</b>	
<b>AUL DATE:</b>		<b>AUL RESTRICTION:</b>	
<b>LSP:</b> GEVALT			
<b>TS DATE:</b> 9/27/95		<b>RAS TYPE:</b> FEND	
<b>RA STATUS:</b> TRANS		<b>RAO CLASS:</b>	
<b>AUL DATE:</b>		<b>AUL RESTRICTION:</b>	
<b>LSP:</b>			



**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE

**SEARCH ID:** 56

**DIST/DIR:** 0.62 NW

**MAP ID:** 56

**NAME:** PARKER HILL HOSPITAL  
**ADDRESS:** 53 PARKER HILL AVE ROX  
BOSTON MA 02120

**REV:** 05/10/00  
**ID1:** 3-0003536  
**ID2:**  
**STATUS:** NFA  
**PHONE:**

**CONTACT:**

**LTBI:** 10/1/93

**CONFIRMED:** 10/1/93

**DELETED:**

**REMOVED:**

**SITE INFORMATION:**

**INITIATED:** UNSL  
**ACTION BY:** RP ONLY

**CURRENT STATUS:** PHASE 2  
**SITE STATUS:** NFA

**ACTION TAKEN (REM CODE):**  
**REQ TYPE:**

**REQ DUE:**

**SITE DESCRIPTION:** GROUNDWATER RELEASE; CONTAINED IN A LUST; VIRGIN OIL PRESENT; RELEASE TO SOIL;

**OTHER CONTAMINATION:**

**OTHER RELEASES:**  
**OTHER PROBLEMS:**  
**OTHER TYPE OF SITE:** HOSPITAL

**SITE ACTIONS:**

**TS DATE:** 5/10/94  
**RA STATUS:**  
**AUL DATE:**  
**LSP:**

**RAS TYPE:** WCS-PERM  
**RAO CLASS:**  
**AUL RESTRICTION:**

**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE			
<b>SEARCH ID:</b> 57	<b>DIST/DIR:</b> 0.77 NE	<b>MAP ID:</b> 57	
<b>NAME:</b> PARKING LOT <b>ADDRESS:</b> COLUMBUS AVE & ST CYPRIANS ROX BOSTON MA		<b>REV:</b> 05/10/00 <b>ID1:</b> 3-0003503 <b>ID2:</b> <b>STATUS:</b> TIER 2 <b>PHONE:</b>	
<b>CONTACT:</b>			
<b>LTBI:</b> 4/15/91	<b>CONFIRMED:</b> 4/15/91	<b>DELETED:</b>	<b>REMOVED:</b>
<b>SITE INFORMATION:</b>			
<b>INITIATED:</b> WAIV		<b>CURRENT STATUS:</b> PHASE 2	
<b>ACTION BY:</b> RP ONLY		<b>SITE STATUS:</b> TIER 2	
<b>ACTION TAKEN (REM CODE):</b>			
<b>REQ TYPE:</b>		<b>REQ DUE:</b>	
<b>SITE DESCRIPTION:</b> GROUNDWATER RELEASE THREAT; PCBs PRESENT METALS PRESENT; PETROLEUM PRESENT; RELEASE TO SOIL; UNDEVELOPED SITE;			
<b>OTHER CONTAMINATION:</b> FILL MATERIAL			
<b>OTHER RELEASES:</b>			
<b>OTHER PROBLEMS:</b>			
<b>OTHER TYPE OF SITE:</b>			
<b>SITE ACTIONS:</b>			
<b>TS DATE:</b> 9/11/98		<b>RAS TYPE:</b> TIER2EXT	
<b>RA STATUS:</b> RECPT		<b>RAO CLASS:</b>	
<b>AUL DATE:</b>		<b>AUL RESTRICTION:</b>	
<b>LSP:</b> JOHNSON			
<b>TS DATE:</b> 3/15/99		<b>RAS TYPE:</b> PHASEII	
<b>RA STATUS:</b> CSRCVD		<b>RAO CLASS:</b>	
<b>AUL DATE:</b>		<b>AUL RESTRICTION:</b>	
<b>LSP:</b> JOHNSON			
<b>TS DATE:</b> 10/30/98		<b>RAS TYPE:</b> PHASEII	
<b>RA STATUS:</b> SOW		<b>RAO CLASS:</b>	
<b>AUL DATE:</b>		<b>AUL RESTRICTION:</b>	
<b>LSP:</b> JOHNSON			
<b>TS DATE:</b> 3/20/97		<b>RAS TYPE:</b> TIER2EXT	
<b>RA STATUS:</b>		<b>RAO CLASS:</b>	
<b>AUL DATE:</b>		<b>AUL RESTRICTION:</b>	
<b>LSP:</b> JOHNSON			

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*Environmental FirstSearch  
Site Detail Report*

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE

**SEARCH ID:** 57

**DIST/DIR:** 0.77 NE

**MAP ID:** 57

**NAME:** PARKING LOT  
**ADDRESS:** COLUMBUS AVE & ST CYPRIANS ROX  
BOSTON MA

**REV:** 05/10/00  
**IDI:** 3-0003503  
**ID2:**  
**STATUS:** TIER 2  
**PHONE:**

**CONTACT:**

**TS DATE:** 12/13/99  
**RA STATUS:** RECPT  
**AUL DATE:**  
**LSP:** JOHNSON

**RAS TYPE:** TIER2EXT  
**RAO CLASS:**  
**AUL RESTRICTION:**

**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE			
<b>SEARCH ID:</b> 58	<b>DIST/DIR:</b> 0.54 SE	<b>MAP ID:</b> 58	
<b>NAME:</b> PLATING CO(FMR)	<b>REV:</b> 05/10/00		
<b>ADDRESS:</b> FULDA ST ROX BOSTON MA	<b>IDI:</b> 3-0001649		
<b>CONTACT:</b>	<b>ID2:</b>		
	<b>STATUS:</b> DEF TIER 1B		
	<b>PHONE:</b>		
<b>LTBI:</b> 7/15/88	<b>CONFIRMED:</b>	<b>DELETED:</b>	<b>REMOVED:</b>
<b>SITE INFORMATION:</b>			
<b>INITIATED:</b> SAB	<b>CURRENT STATUS:</b> P.A. L		
<b>ACTION BY:</b> DEP ONLY	<b>SITE STATUS:</b> DEF TIER 1B		
<b>ACTION TAKEN (REM CODE):</b>			
<b>REQ TYPE:</b>	<b>REQ DUE:</b>		
<b>SITE DESCRIPTION:</b>			
<b>SITE ACTIONS:</b>			
<b>TS DATE:</b> 5/9/96	<b>RAS TYPE:</b> DEP-CSD		
<b>RA STATUS:</b>	<b>RAO CLASS:</b>		
<b>AUL DATE:</b>	<b>AUL RESTRICTION:</b>		
<b>LSP:</b>			



**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE	
<b>SEARCH ID:</b> 60	<b>DIST/DIR:</b> 0.42 NW
<b>MAP ID:</b> 6	
<b>NAME:</b> PROPERTY <b>ADDRESS:</b> 670 HUNTINGTON AVE BOSTON MA	<b>REV:</b> 05/10/00 <b>ID1:</b> 3-0002259 <b>ID2:</b> <b>STATUS:</b> NFA <b>PHONE:</b>
<b>CONTACT:</b>	
<b>LTBI:</b> 7/15/90	<b>CONFIRMED:</b> <b>DELETED:</b> <b>REMOVED:</b>
<b>SITE INFORMATION:</b>	
<b>INITIATED:</b> ERB <b>ACTION BY:</b>	<b>CURRENT STATUS:</b> P.A. L <b>SITE STATUS:</b> NFA
<b>ACTION TAKEN (REM CODE):</b> A <b>REQ TYPE:</b>	<b>REQ DUE:</b>
<b>SITE DESCRIPTION:</b> GAS STATION; GASOLINE PRESENT; GROUNDWATER RELEASE THREAT; CONTAINED IN A LUST; RELEASE TO SOIL;	
<b>OTHER CONTAMINATION:</b> <b>OTHER RELEASES:</b> <b>OTHER PROBLEMS:</b> <b>OTHER TYPE OF SITE:</b>	
<b>SITE ACTIONS:</b>	
<b>TS DATE:</b> 11/26/96 <b>RA STATUS:</b> <b>AUL DATE:</b> <b>LSP:</b> EKLUND	<b>RAS TYPE:</b> LSP-NFA <b>RAO CLASS:</b> <b>AUL RESTRICTION:</b>

**Environmental FirstSearch**  
**Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE

**SEARCH ID:** 61                      **DIST/DIR:** 0.84 NE                      **MAP ID:** 60

<b>NAME:</b> PROPERTY	<b>REV:</b> 05/10/00
<b>ADDRESS:</b> 117 PARK DR	<b>ID1:</b> 3-0012393
BOSTON MA 02215	<b>ID2:</b>
<b>CONTACT:</b>	<b>STATUS:</b> TIER 2
	<b>PHONE:</b>

**LTBI:**                      **CONFIRMED:**                      **DELETED:**                      **REMOVED:**

**SITE INFORMATION:**

<b>INITIATED:</b>	<b>CURRENT STATUS:</b>
<b>ACTION BY:</b>	<b>SITE STATUS:</b> TIER 2

<b>ACTION TAKEN (REM CODE):</b>	<b>REQ DUE:</b>
<b>REQ TYPE:</b>	

**SITE DESCRIPTION:**  
**SITE ACTIONS:**

<b>TS DATE:</b> 4/22/96	<b>RAS TYPE:</b> TCLASS
<b>RA STATUS:</b> RECPT	<b>RAO CLASS:</b>
<b>AUL DATE:</b>	<b>AUL RESTRICTION:</b>
<b>LSP:</b> ALVING	

<b>TS DATE:</b> 4/22/96	<b>RAS TYPE:</b> FEND
<b>RA STATUS:</b> TRANS	<b>RAO CLASS:</b>
<b>AUL DATE:</b>	<b>AUL RESTRICTION:</b>
<b>LSP:</b>	



**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE			
<b>SEARCH ID:</b> 62	<b>DIST/DIR:</b> 0.85 NE	<b>MAP ID:</b> 61	
<b>NAME:</b> PROPERTY <b>ADDRESS:</b> 111 PARK DR BOSTON MA 02215  <b>CONTACT:</b>	<b>REV:</b> 05/10/00 <b>ID1:</b> 3-0012392 <b>ID2:</b> <b>STATUS:</b> TIER 2 <b>PHONE:</b>		
<b>LTBI:</b>	<b>CONFIRMED:</b>	<b>DELETED:</b>	<b>REMOVED:</b>
<b>SITE INFORMATION:</b>			
<b>INITIATED:</b>		<b>CURRENT STATUS:</b>	
<b>ACTION BY:</b>		<b>SITE STATUS:</b> TIER 2	
<b>ACTION TAKEN (REM CODE):</b>		<b>REQ DUE:</b>	
<b>REQ TYPE:</b>			
<b>SITE DESCRIPTION:</b>			
<b>SITE ACTIONS:</b>			
<b>TS DATE:</b> 4/22/96 <b>RA STATUS:</b> RECPT <b>AUL DATE:</b> <b>LSP:</b> ALVING	<b>RAS TYPE:</b> TCLASS <b>RAO CLASS:</b> <b>AUL RESTRICTION:</b>		
<b>TS DATE:</b> 4/22/96 <b>RA STATUS:</b> TRANS <b>AUL DATE:</b> <b>LSP:</b>	<b>RAS TYPE:</b> FEND <b>RAO CLASS:</b> <b>AUL RESTRICTION:</b>		



**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE			
<b>SEARCH ID:</b> 64	<b>DIST/DIR:</b> 0.96 SE	<b>MAP ID:</b> 63	
<b>NAME:</b> PROPERTY <b>ADDRESS:</b> 69 CHARLAME RD. BOSTON MA 02119		<b>REV:</b> 05/10/00 <b>ID1:</b> 3-0002721 <b>ID2:</b> <b>STATUS:</b> NFA <b>PHONE:</b>	
<b>CONTACT:</b>			
<b>LTBI:</b> 1/15/90	<b>CONFIRMED:</b>	<b>DELETED:</b>	<b>REMOVED:</b>
<b>SITE INFORMATION:</b>			
<b>INITIATED:</b> UNSL		<b>CURRENT STATUS:</b> P.A. L	
<b>ACTION BY:</b> RP ONLY		<b>SITE STATUS:</b> NFA	
<b>ACTION TAKEN (REM CODE):</b>			
<b>REQ TYPE:</b>		<b>REQ DUE:</b>	
<b>SITE DESCRIPTION:</b>			
<b>SITE ACTIONS:</b>			
<b>TS DATE:</b> 8/9/96		<b>RAS TYPE:</b> CON-NFA	
<b>RA STATUS:</b>		<b>RAO CLASS:</b>	
<b>AUL DATE:</b>		<b>AUL RESTRICTION:</b>	
<b>LSP:</b>			

*Environmental FirstSearch  
Site Detail Report*

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE

**SEARCH ID:** 65

**DIST/DIR:** 0.90 SE

**MAP ID:** 64

**NAME:** PROPERTY  
**ADDRESS:** 16 COBDEN ST ROX  
BOSTON MA

**REV:** 05/10/00  
**ID1:** 3-0001745  
**ID2:**  
**STATUS:** DEF TIER 1B  
**PHONE:**

**CONTACT:**

**LTBI:** 4/15/87

**CONFIRMED:**

**DELETED:**

**REMOVED:**

**SITE INFORMATION:**

**INITIATED:** SAB  
**ACTION BY:** RP ONLY

**CURRENT STATUS:** P.A. L  
**SITE STATUS:** DEF TIER 1B

**ACTION TAKEN (REM CODE):**  
**REQ TYPE:** NON-PRIOR

**REQ DUE:** 8/2/95

**SITE DESCRIPTION:** RESIDENTIAL SITE;

**OTHER CONTAMINATION:**

**OTHER RELEASES:**  
**OTHER PROBLEMS:**  
**OTHER TYPE OF SITE:**

**SITE ACTIONS:**

**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE	
<b>SEARCH ID:</b> 66	<b>DIST/DIR:</b> 1.00 NE <b>MAP ID:</b> 65
<b>NAME:</b> PROPERTY <b>ADDRESS:</b> 35 PARK DR BOSTON MA 02215  <b>CONTACT:</b>	<b>REV:</b> 05/10/00 <b>ID1:</b> 3-0012391 <b>ID2:</b> <b>STATUS:</b> TIER 2 <b>PHONE:</b>
<b>LTBI:</b> <b>CONFIRMED:</b> <b>DELETED:</b> <b>REMOVED:</b>  <b>SITE INFORMATION:</b>  <b>INITIATED:</b> <b>CURRENT STATUS:</b> <b>ACTION BY:</b> <b>SITE STATUS:</b> TIER 2  <b>ACTION TAKEN (REM CODE):</b> <b>REQ TYPE:</b> <b>REQ DUE:</b>  <b>SITE DESCRIPTION:</b> <b>SITE ACTIONS:</b>  <b>TS DATE:</b> 4/22/96 <b>RAS TYPE:</b> TCLASS <b>RA STATUS:</b> RECPT <b>RAO CLASS:</b> <b>AUL DATE:</b> <b>AUL RESTRICTION:</b> <b>LSP:</b> ALVING  <b>TS DATE:</b> 4/22/96 <b>RAS TYPE:</b> FEND <b>RA STATUS:</b> TRANS <b>RAO CLASS:</b> <b>AUL DATE:</b> <b>AUL RESTRICTION:</b> <b>LSP:</b>	



**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE			
<b>SEARCH ID:</b> 68	<b>DIST/DIR:</b> 0.96 NE	<b>MAP ID:</b> 67	
<b>NAME:</b> ROPE MANUFACTURER (FMR)	<b>REV:</b> 05/10/00		
<b>ADDRESS:</b> COLUMBUS AVE & CAMDEN ST BOSTON MA	<b>ID1:</b> 3-0001748		
<b>CONTACT:</b>	<b>ID2:</b>		
	<b>STATUS:</b> NDS		
	<b>PHONE:</b>		
<b>LTBI:</b> 7/15/88	<b>CONFIRMED:</b>	<b>DELETED:</b>	<b>REMOVED:</b>
<b>SITE INFORMATION:</b>			
<b>INITIATED:</b> SAB	<b>CURRENT STATUS:</b> P.A. L		
<b>ACTION BY:</b> DEP ONLY	<b>SITE STATUS:</b> NDS		
<b>ACTION TAKEN (REM CODE):</b>	<b>REQ DUE:</b>		
<b>REQ TYPE:</b>			
<b>SITE DESCRIPTION:</b>			
<b>SITE ACTIONS:</b>			
<b>TS DATE:</b> 2/5/97	<b>RAS TYPE:</b> DEP-NDS		
<b>RA STATUS:</b>	<b>RAO CLASS:</b>		
<b>AUL DATE:</b>	<b>AUL RESTRICTION:</b>		
<b>LSP:</b>			

**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE

**SEARCH ID:** 69                      **DIST/DIR:** 0.88 NW                      **MAP ID:** 68

<b>NAME:</b> SIMMONS COLLEGE	<b>REV:</b> 05/10/00
<b>ADDRESS:</b> 321 BROOKLINE AVE BOSTON MA	<b>ID1:</b> 3-0000738
	<b>ID2:</b>
<b>CONTACT:</b>	<b>STATUS:</b> DEF TIER 1B
	<b>PHONE:</b>

**LTBI:** 1/15/90                      **CONFIRMED:**                      **DELETED:**                      **REMOVED:**

**SITE INFORMATION:**

<b>INITIATED:</b> RE	<b>CURRENT STATUS:</b> P.A. L
<b>ACTION BY:</b>	<b>SITE STATUS:</b> DEF TIER 1B

<b>ACTION TAKEN (REM CODE):</b>	<b>REQ DUE:</b>
<b>REQ TYPE:</b>	

**SITE DESCRIPTION:**  
**SITE ACTIONS:**

<b>TS DATE:</b> 6/15/98	<b>RAS TYPE:</b> PHASE1
<b>RA STATUS:</b> CSRCVD	<b>RAO CLASS:</b>
<b>AUL DATE:</b>	<b>AUL RESTRICTION:</b>
<b>LSP:</b> LUKER	

<b>TS DATE:</b> 6/15/98	<b>RAS TYPE:</b> TCLASS
<b>RA STATUS:</b>	<b>RAO CLASS:</b>
<b>AUL DATE:</b>	<b>AUL RESTRICTION:</b>
<b>LSP:</b> LUKER	

<b>TS DATE:</b> 9/25/98	<b>RAS TYPE:</b> RAO
<b>RA STATUS:</b> RAORCD	<b>RAO CLASS:</b> A-2
<b>AUL DATE:</b>	<b>AUL RESTRICTION:</b> NON
<b>LSP:</b> LUKER	



# Environmental FirstSearch Site Detail Report

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE			
<b>SEARCH ID:</b> 70	<b>DIST/DIR:</b> 0.64 NE	<b>MAP ID:</b> 1	
<b>NAME:</b> SOUTHWEST CORRIDOR PARCEL 18		<b>REV:</b> 05/10/00	
<b>ADDRESS:</b> TREMONT & RUGGLES STS ROX BOSTON MA 02119		<b>ID1:</b> 3-0000739	
<b>CONTACT:</b>		<b>ID2:</b> MAD985278076	
		<b>STATUS:</b> TIER 2	
		<b>PHONE:</b>	
<b>LTBI:</b> 10/15/88	<b>CONFIRMED:</b> 4/15/89	<b>DELETED:</b>	<b>REMOVED:</b>
<b>SITE INFORMATION:</b>			
<b>INITIATED:</b> RE		<b>CURRENT STATUS:</b> PHASE 2	
<b>ACTION BY:</b> RP ONLY		<b>SITE STATUS:</b> TIER 2	
<b>ACTION TAKEN (REM CODE):</b>			
<b>REQ TYPE:</b>		<b>REQ DUE:</b>	
<b>SITE DESCRIPTION:</b> COMMERCIAL SITE; FORMER; INDUSTRIAL SITE; CONTAINED IN A LUST; PETROLEUM PRESENT; RELEASE TO SOIL; V.O.C. S PRESENT; UNKNOWN AS TO WHAT IS CONTAINED IN;			
<b>OTHER CONTAMINATION:</b>			
<b>OTHER RELEASES:</b>			
<b>OTHER PROBLEMS:</b>			
<b>OTHER TYPE OF SITE:</b>			
<b>SITE ACTIONS:</b>			
<b>TS DATE:</b> 12/24/98		<b>RAS TYPE:</b> RAO	
<b>RA STATUS:</b> RAORCD		<b>RAO CLASS:</b> B-1	
<b>AUL DATE:</b>		<b>AUL RESTRICTION:</b> NON	
<b>LSP:</b> HUGHTO			
<b>TS DATE:</b> 4/14/97		<b>RAS TYPE:</b> TIER2TRANS	
<b>RA STATUS:</b> RECPT		<b>RAO CLASS:</b>	
<b>AUL DATE:</b>		<b>AUL RESTRICTION:</b>	
<b>LSP:</b> JOHNSON			
<b>TS DATE:</b> 12/30/96		<b>RAS TYPE:</b> TIER2EXT	
<b>RA STATUS:</b>		<b>RAO CLASS:</b>	
<b>AUL DATE:</b>		<b>AUL RESTRICTION:</b>	
<b>LSP:</b> HUGHTO			
<b>TS DATE:</b> 10/31/97		<b>RAS TYPE:</b> RAO-P	
<b>RA STATUS:</b> RAORCD		<b>RAO CLASS:</b> A-3	
<b>AUL DATE:</b>		<b>AUL RESTRICTION:</b> NOT	
<b>LSP:</b> JOHNSON			

- Continued on next page -

*Environmental FirstSearch  
Site Detail Report*

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE

**SEARCH ID:** 70                      **DIST/DIR:** 0.64 NE                      **MAP ID:** 1

**NAME:** SOUTHWEST CORRIDOR PARCEL 18  
**ADDRESS:** TREMONT & RUGGLES STS ROX  
BOSTON MA 02119

**REV:** 05/10/00  
**ID1:** 3-0000739  
**ID2:** MAD985278076  
**STATUS:** TIER 2  
**PHONE:**

**CONTACT:**

**TS DATE:** 11/4/97  
**RA STATUS:** FEEREC  
**AUL DATE:**  
**LSP:**

**RAS TYPE:** RAO  
**RAO CLASS:**  
**AUL RESTRICTION:**

**TS DATE:** 12/29/97  
**RA STATUS:** RECPT  
**AUL DATE:**  
**LSP:** HUGHTO

**RAS TYPE:** TIER2EXT  
**RAO CLASS:**  
**AUL RESTRICTION:**

**TS DATE:** 4/23/97  
**RA STATUS:** RECPT  
**AUL DATE:**  
**LSP:** JOHNSON

**RAS TYPE:** TIER2EXT  
**RAO CLASS:**  
**AUL RESTRICTION:**

**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

<b>STATE SITE</b>		
<b>SEARCH ID:</b> 71	<b>DIST/DIR:</b> 0.99 NW	<b>MAP ID:</b> 69
<b>NAME:</b> STAR MARKET #138 <b>ADDRESS:</b> 33 KILMARNOCK ST BOSTON MA 02215	<b>REV:</b> 05/10/00 <b>ID1:</b> 3-0012349 <b>ID2:</b> <b>STATUS:</b> TIER 2 <b>PHONE:</b>	
<b>CONTACT:</b>		
<b>LTBI:</b>	<b>CONFIRMED:</b>	<b>DELETED:</b>
		<b>REMOVED:</b>
<b>SITE INFORMATION:</b>		
<b>INITIATED:</b>	<b>CURRENT STATUS:</b>	
<b>ACTION BY:</b>	<b>SITE STATUS:</b> TIER 2	
<b>ACTION TAKEN (REM CODE):</b>		
<b>REQ TYPE:</b>	<b>REQ DUE:</b>	
<b>SITE DESCRIPTION:</b> RELEASE TO SOIL;		
<b>OTHER CONTAMINATION:</b>		
<b>OTHER RELEASES:</b> TPH		
<b>OTHER PROBLEMS:</b>		
<b>OTHER TYPE OF SITE:</b>		
<b>SITE ACTIONS:</b>		
<b>TS DATE:</b> 4/8/96	<b>RAS TYPE:</b>	FEND
<b>RA STATUS:</b> TRANS	<b>RAO CLASS:</b>	
<b>AUL DATE:</b>	<b>AUL RESTRICTION:</b>	
<b>LSP:</b>		
<b>TS DATE:</b> 4/8/96	<b>RAS TYPE:</b>	TCLASS
<b>RA STATUS:</b> RECPT	<b>RAO CLASS:</b>	
<b>AUL DATE:</b>	<b>AUL RESTRICTION:</b>	
<b>LSP:</b> GEVALT		



**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

<b>STATE SITE</b>			
<b>SEARCH ID:</b> 73	<b>DIST/DIR:</b> 0.56 NE	<b>MAP ID:</b> 71	
<b>NAME:</b> TEXACO GASOLINE STATION <b>ADDRESS:</b> 525 HUNTINGTON AVE ROX BOSTON MA 02119	<b>REV:</b> 05/10/00 <b>ID1:</b> 3-0011149 <b>ID2:</b> <b>STATUS:</b> TIER 2 <b>PHONE:</b>		
<b>CONTACT:</b>			
<b>LTBI:</b>	<b>CONFIRMED:</b>	<b>DELETED:</b>	<b>REMOVED:</b>
<b>SITE INFORMATION:</b>			
<b>INITIATED:</b>		<b>CURRENT STATUS:</b>	
<b>ACTION BY:</b>		<b>SITE STATUS:</b> TIER 2	
<b>ACTION TAKEN (REM CODE):</b>		<b>REQ DUE:</b>	
<b>REQ TYPE:</b>			
<b>SITE DESCRIPTION:</b> AIR RELEASE; COMMERCIAL SITE; GASOLINE PRESENT; GROUNDWATER RELEASE; CONTAINED IN A LUST;			
<b>OTHER CONTAMINATION:</b>			
<b>OTHER RELEASES:</b>			
<b>OTHER PROBLEMS:</b>			
<b>OTHER TYPE OF SITE:</b>			
<b>SITE ACTIONS:</b>			
<b>TS DATE:</b> 6/15/95 <b>RA STATUS:</b> RECPT <b>AUL DATE:</b> <b>LSP:</b> BINGHAM	<b>RAS TYPE:</b> TCLASS <b>RAO CLASS:</b> <b>AUL RESTRICTION:</b>		
<b>TS DATE:</b> 6/15/95 <b>RA STATUS:</b> TRANS <b>AUL DATE:</b> <b>LSP:</b>	<b>RAS TYPE:</b> FEND <b>RAO CLASS:</b> <b>AUL RESTRICTION:</b>		

**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE

**SEARCH ID:** 74                      **DIST/DIR:** 0.83 NW                      **MAP ID:** 72

**NAME:** THE BROOK HOUSE  
**ADDRESS:** 33 POND AVE  
BROOKLINE MA 02146

**REV:** 05/10/00  
**ID1:** 3-0011545  
**ID2:**  
**STATUS:** TIER 2  
**PHONE:**

**CONTACT:**

**LTBI:**                      **CONFIRMED:**                      **DELETED:**                      **REMOVED:**

**SITE INFORMATION:**

**INITIATED:**                      **CURRENT STATUS:**  
**ACTION BY:**                      **SITE STATUS:** TIER 2

**ACTION TAKEN (REM CODE):**                      **REQ DUE:**  
**REQ TYPE:**

**SITE DESCRIPTION:**  
**SITE ACTIONS:**

**TS DATE:** 8/31/95                      **RAS TYPE:** TCLASS  
**RA STATUS:** RECPT                      **RAO CLASS:**  
**AUL DATE:**                      **AUL RESTRICTION:**  
**LSP:** STAMATOV

**TS DATE:** 8/31/95                      **RAS TYPE:** FEND  
**RA STATUS:** TRANS                      **RAO CLASS:**  
**AUL DATE:**                      **AUL RESTRICTION:**  
**LSP:**

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**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE	
<b>SEARCH ID:</b> 76	<b>DIST/DIR:</b> 0.61 SE <span style="float: right;"><b>MAP ID:</b> 74</span>
<b>NAME:</b> US POST OFFICE CONSTRUCTN SITE <b>ADDRESS:</b> ROXBURY ST & SHAWMUT AVE ROX BOSTON MA  <b>CONTACT:</b>	<b>REV:</b> 05/10/00 <b>ID1:</b> 3-0002109 <b>ID2:</b> <b>STATUS:</b> NFA <b>PHONE:</b>
<b>LTBI:</b> 4/15/89	<b>CONFIRMED:</b>
	<b>DELETED:</b>
	<b>REMOVED:</b>
<b>SITE INFORMATION:</b>	
<b>INITIATED:</b> UNSL	<b>CURRENT STATUS:</b> PHASE I L
<b>ACTION BY:</b> RP ONLY	<b>SITE STATUS:</b> NFA
<b>ACTION TAKEN (REM CODE):</b>	<b>REQ DUE:</b>
<b>REQ TYPE:</b>	
<b>SITE DESCRIPTION:</b> CHLORINATED SOLVENTS PRESENT; FORMER; GAS STATION; GASOLINE PRESENT; GROUNDWATER RELEASE; CONTAINED IN A LUST; PETROLEUM PRESENT; UNKNOWN AS TO WHAT IS CONTAINED IN;	
<b>OTHER CONTAMINATION:</b>	
<b>OTHER RELEASES:</b>	
<b>OTHER PROBLEMS:</b>	
<b>OTHER TYPE OF SITE:</b>	
<b>SITE ACTIONS:</b>	
<b>TS DATE:</b> 7/15/96	<b>RAS TYPE:</b> LSP-NFA
<b>RA STATUS:</b>	<b>RAO CLASS:</b>
<b>AUL DATE:</b>	<b>AUL RESTRICTION:</b>
<b>LSP:</b> JOHNSON	



**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE			
<b>SEARCH ID:</b> 78	<b>DIST/DIR:</b> 0.54 NE	<b>MAP ID:</b> 76	
<b>NAME:</b> WIT (WENTWORTH)	<b>REV:</b> 05/10/00		
<b>ADDRESS:</b> HUNTINGTON AVE BOSTON MA	<b>ID1:</b> 3-0000736		
<b>CONTACT:</b>	<b>ID2:</b>		
	<b>STATUS:</b> RAO		
	<b>PHONE:</b>		
<b>LTBI:</b> 10/15/88	<b>CONFIRMED:</b>	<b>DELETED:</b>	<b>REMOVED:</b>
<b>SITE INFORMATION:</b>			
<b>INITIATED:</b> UNSL	<b>CURRENT STATUS:</b> PHASE 1 L		
<b>ACTION BY:</b>	<b>SITE STATUS:</b> RAO		
<b>ACTION TAKEN (REM CODE):</b>	<b>REQ DUE:</b>		
<b>REQ TYPE:</b>			
<b>SITE DESCRIPTION:</b>			
<b>SITE ACTIONS:</b>			
<b>TS DATE:</b> 4/19/96	<b>RAS TYPE:</b> RAO		
<b>RA STATUS:</b>	<b>RAO CLASS:</b> A-2		
<b>AUL DATE:</b>	<b>AUL RESTRICTION:</b> NON		
<b>LSP:</b> WARREN			
<b>TS DATE:</b> 8/8/95	<b>RAS TYPE:</b> LSP-FA		
<b>RA STATUS:</b> RECPT	<b>RAO CLASS:</b>		
<b>AUL DATE:</b>	<b>AUL RESTRICTION:</b>		
<b>LSP:</b> WARREN			



**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SITE			
<b>SEARCH ID:</b> 80	<b>DIST/DIR:</b> 0.53 NE	<b>MAP ID:</b> 77	
<b>NAME:</b> WIT - MICKELSON HALL	<b>REV:</b> 05/10/00		
<b>ADDRESS:</b> 584-594 HUNTINGTON AVE BOSTON MA 02115	<b>ID1:</b> 3-0004476		
<b>CONTACT:</b>	<b>ID2:</b>		
	<b>STATUS:</b> TIER 2		
	<b>PHONE:</b>		
<b>LTBI:</b> 7/15/93	<b>CONFIRMED:</b> 10/1/93	<b>DELETED:</b>	<b>REMOVED:</b>
<b>SITE INFORMATION:</b>			
<b>INITIATED:</b> UNSL	<b>CURRENT STATUS:</b> PHASE 2		
<b>ACTION BY:</b> RP ONLY	<b>SITE STATUS:</b> TIER 2		
<b>ACTION TAKEN (REM CODE):</b>			
<b>REQ TYPE:</b>	<b>REQ DUE:</b>		
<b>SITE DESCRIPTION:</b> FORMER; COAL GAS PRESENT; GROUNDWATER RELEASE; VIRGIN OIL PRESENT; PETROLEUM PRESENT; RELEASE TO SOIL; V.O.C. S PRESENT; ALTOGETHER UNCONTAINED; WASTE OIL PRESENT;			
<b>OTHER CONTAMINATION:</b> POSSIBLE LAST			
<b>OTHER RELEASES:</b>			
<b>OTHER PROBLEMS:</b>			
<b>OTHER TYPE OF SITE:</b> AUTO DEALER & SERVICE CTR.			
<b>SITE ACTIONS:</b>			
<b>TS DATE:</b> 8/25/99	<b>RAS TYPE:</b> RAO		
<b>RA STATUS:</b> FEEREC	<b>RAO CLASS:</b>		
<b>AUL DATE:</b>	<b>AUL RESTRICTION:</b>		
<b>LSP:</b>			
<b>TS DATE:</b> 8/20/99	<b>RAS TYPE:</b> RAO		
<b>RA STATUS:</b> RAORCD	<b>RAO CLASS:</b> B-1		
<b>AUL DATE:</b>	<b>AUL RESTRICTION:</b> NON		
<b>LSP:</b> WARREN			
<b>TS DATE:</b> 12/17/98	<b>RAS TYPE:</b> TIER2EXT		
<b>RA STATUS:</b>	<b>RAO CLASS:</b>		
<b>AUL DATE:</b>	<b>AUL RESTRICTION:</b>		
<b>LSP:</b> WARREN			



**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SPILLS SITE	
<b>SEARCH ID:</b> 81	<b>DIST/DIR:</b> 0.32 NE <b>MAP ID:</b> 13
<b>NAME:</b> ABANDONED BLDG <b>ADDRESS:</b> 133 HALLECK ST BOSTON MA 02119	<b>REV:</b> 06/09/00 <b>ID1:</b> 3-0011668 <b>ID2:</b> <b>STATUS:</b> 72 HR <b>PHONE:</b>
<b>CONTACT:</b>	
<b>ACTION TAKEN:</b> Response Action Outcome <b>ACTION STATUS:</b> RAO Statement Received <b>TYPE OF RESPONSE ACT. OUTCOME:</b> A2 - A PERMANENT SOLUTION HAS BEEN ACHIEVED: CONTAMINATION HAS NOT BEEN REDUCED TO BACKGROUND <b>ACTIVITY USE LIMITATION:</b> NONE <b>LSP ID NUMBER:</b> 6501	<b>ACTION DATE:</b> 05/08/1997

**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

**STATE SPILLS SITE**

**SEARCH ID:** 82

**DIST/DIR:** 0.16 NE

**MAP ID:** 9

**NAME:** ABANDONED DRUM  
**ADDRESS:** TREMONT ST/PARKER ST  
BOSTON MA  
SUFFOLK  
**CONTACT:** DOWLING, J

**REV:**  
**ID1:** N91-1724  
**ID2:** 0000  
**STATUS:**  
**PHONE:**

**CASE CLOSED?** YES  
**SPILL DATE:** 19911208  
**DATE REPORTED:** 19911208  
**SPILL NOTIFIER:** CHIEF M/FD

**SPILL TIME:** 05:43AM  
**REPORT TIME:** 07:41AM  
**NOTIFIER PHONE:**

**SPILL DESCRIPTION:**

**INCIDENT:** DUMPING  
**MATERIAL SPILLED:** OTHER MATERIAL -->  
**AMT RPTD SPILLED:** 1-10 DRUMS  
**SOURCE OF SPILL:** DRUM  
**PET/HAZ:** UNKNOWN  
**PCB LEVEL:** NONE

**ACTUAL AMT SPILLED:** 11-50 GALLONS  
**VIR/WASTE:** WASTE

**ENVIRONMENTAL IMPACT:**

**LUST?:** NO  
**CONTRACTOR:** CLEAN HARBORS  
**DAYS/CLOSE:** 1

**SOIL CONTAMINATED?:**  
**PREPARE REPORT:**



**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SPILLS SITE	
<b>SEARCH ID:</b> 83	<b>DIST/DIR:</b> 0.27 SE <b>MAP ID:</b> 78
<b>NAME:</b> APT BLDG <b>ADDRESS:</b> 21 HIGHLAND AVE BOSTON MA 02119	<b>REV:</b> 06/09/00 <b>ID1:</b> 3-0010387 <b>ID2:</b> <b>STATUS:</b> TWO HR <b>PHONE:</b>
<b>CONTACT:</b>	
<b>RELEASE NOTIFICATION DATE:</b> 1/2/94	
<b>RELEASE SOURCE:</b> AST	
<b>RELEASE SOURCE:</b> PIPE	
<b>TYPE OF CHEMICAL RELEASED:</b> FUEL OIL #2	
<b>AMOUNT RELEASED:</b> 100 GAL	
<b>TYPE OF PROPERTY:</b> RESIDENTIAL	
<b>ACTION TAKEN:</b> Response Action Outcome	<b>ACTION DATE:</b> 08/05/1994
<b>ACTION STATUS:</b> RAO Statement Received	
<b>TYPE OF RESPONSE ACT. OUTCOME:</b> A1 - A PERMANENT SOLUTION HAS BEEN ACHIEVED: CONTAMINATION HAS BEEN REDUCED TO BACKGROUND OR A THREAT OF A RELEASE HAS BEEN ELIMINATED	
<b>ACTIVITY USE LIMITATION:</b> NONE	
<b>LSP ID NUMBER:</b> 2891	
<b>ACTION TAKEN:</b> Immediate Response Action	<b>ACTION DATE:</b> 01/06/1994
<b>ACTION STATUS:</b> Oral Approval of Plan	
<b>TYPE OF RESPONSE ACT. OUTCOME:</b>	
<b>ACTIVITY USE LIMITATION:</b>	
<b>LSP ID NUMBER:</b> 2891	

**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

**STATE SPILLS SITE**

**SEARCH ID:** 84                      **DIST/DIR:** 0.49 SE                      **MAP ID:** 79

<b>NAME:</b> ASBESTOS DUMPING	<b>REV:</b>
<b>ADDRESS:</b> YALE & MACELLA ST	<b>ID1:</b> N92-1304
BOSTON MA	<b>ID2:</b> 0000
SUFFOLK	<b>STATUS:</b>
<b>CONTACT:</b> JORDAN, J	<b>PHONE:</b>

<b>CASE CLOSED?</b> YES	<b>SPILL TIME:</b> 03:00PM
<b>SPILL DATE:</b> 19921007	<b>REPORT TIME:</b> 03:00PM
<b>DATE REPORTED:</b> 19921007	<b>NOTIFIER PHONE:</b>
<b>SPILL NOTIFIER:</b> CAPT PETER CLIFFORD/FD	

**SPILL DESCRIPTION:**

<b>INCIDENT:</b> DUMPING	
<b>MATERIAL SPILLED:</b> ASBESTOS	
<b>AMT RPTD SPILLED:</b> 1-10 CUBIC YDS	<b>ACTUAL AMT SPILLED:</b> 1-10 CUBIC YDS
<b>SOURCE OF SPILL:</b> -----	
<b>PET/HAZ:</b> HAZARDOUS	<b>VIR/WASTE:</b> -----
<b>PCB LEVEL:</b> -----	

**ENVIRONMENTAL IMPACT:**

<b>LUST?:</b> NO	<b>SOIL CONTAMINATED?:</b>
<b>CONTRACTOR:</b> NATIONAL ABATEMENT	<b>PREPARE REPORT:</b>
<b>DAYS/CLOSE:</b> 1	

# Environmental FirstSearch Site Detail Report

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SPILLS SITE			
SEARCH ID:	DIST/DIR:	MAP ID:	
85	0.29 SW	80	
<b>NAME:</b>	BECO TRANSFORMER	<b>REV:</b>	
<b>ADDRESS:</b>	BICKFORD & HEATH STS BOSTON MA SUFFOLK	<b>ID1:</b>	N93-0101
<b>CONTACT:</b>	MACAULEY, J	<b>ID2:</b>	0000
		<b>STATUS:</b>	
		<b>PHONE:</b>	
<b>CASE CLOSED?</b>	YES	<b>SPILL TIME:</b>	01:30PM
<b>SPILL DATE:</b>	19930125	<b>REPORT TIME:</b>	03:55PM
<b>DATE REPORTED:</b>	19930125	<b>NOTIFIER PHONE:</b>	
<b>SPILL NOTIFIER:</b>	JERRY SHEA/BECO		
<b>SPILL DESCRIPTION:</b>			
<b>INCIDENT:</b>	OTHER RELEASE > PUMPING		
<b>MATERIAL SPILLED:</b>	TRANSFORMER OIL		
<b>AMT RPTD SPILLED:</b>	1-10 GALLONS	<b>ACTUAL AMT SPILLED:</b>	----- GALLONS
<b>SOURCE OF SPILL:</b>	TRANSFORMER		
<b>PET/HAZ:</b>	PETROLEUM	<b>VIR/WASTE:</b>	WASTE
<b>PCB LEVEL:</b>	51-500 PPM		
<b>ENVIRONMENTAL IMPACT:</b>			
<b>LUST?:</b>	NO	<b>SOIL CONTAMINATED?:</b>	
<b>CONTRACTOR:</b>	NOT USED	<b>PREPARE REPORT:</b>	
<b>DAYS/CLOSE:</b>	0		

**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

**STATE SPILLS SITE**

**SEARCH ID:** 86                      **DIST/DIR:** 0.44 SW                      **MAP ID:** 81

**NAME:** BOSTON HOUSING AUTHORITY  
**ADDRESS:** 42 HORAN WAY  
BOSTON MA 02130

**REV:** 06/09/00  
**ID1:** 3-0014653  
**ID2:**  
**STATUS:** TWO HR  
**PHONE:**

**CONTACT:**

**RELEASE NOTIFICATION DATE:** 12/20/96

**RELEASE SOURCE:** PIPE

**RELEASE SOURCE:** TANKER

**TYPE OF CHEMICAL RELEASED:** FUEL OIL #4  
**AMOUNT RELEASED:** 100 GAL

**TYPE OF PROPERTY:** RESIDENTIAL

**ACTION TAKEN:** Immediate Response Action                      **ACTION DATE:** 12/27/1996  
**ACTION STATUS:** Oral Approval of Plan  
**TYPE OF RESPONSE ACT. OUTCOME:**  
**ACTIVITY USE LIMITATION:**  
**LSP ID NUMBER:** 1847

**ACTION TAKEN:** Response Action Outcome                      **ACTION DATE:** 02/20/1997  
**ACTION STATUS:** RAO Statement Received  
**TYPE OF RESPONSE ACT. OUTCOME:** A1 - A PERMANENT SOLUTION HAS BEEN ACHIEVED: CONTAMINATION HAS BEEN  
REDUCED TO BACKGROUND OR A THREAT OF A RELEASE HAS BEEN ELIMINATED  
**ACTIVITY USE LIMITATION:** NONE  
**LSP ID NUMBER:** 3497

**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SPILLS SITE			
<b>SEARCH ID:</b> 87	<b>DIST/DIR:</b> 0.21 NW	<b>MAP ID:</b> 82	
<b>NAME:</b> CORNER OF CARMEL ST <b>ADDRESS:</b> DELLE AVE BOSTON MA 02119	<b>REV:</b> 06/09/00 <b>IDI1:</b> 3-0010770 <b>ID2:</b> <b>STATUS:</b> TWO HR <b>PHONE:</b>		
<b>CONTACT:</b>			
<b>RELEASE NOTIFICATION DATE:</b> 3/28/94			
<b>RELEASE SOURCE:</b> DRUMS			
<b>TYPE OF CHEMICAL RELEASED:</b> WASTE OIL			
<b>AMOUNT RELEASED:</b> 40 GAL			
<b>TYPE OF PROPERTY:</b> RESIDENTIAL			
<b>ACTION TAKEN:</b> Response Action Outcome DEP Lead <b>ACTION STATUS:</b> RAO Statement Received	<b>ACTION DATE:</b> 03/15/1995		
<b>TYPE OF RESPONSE ACT. OUTCOME:</b>			
<b>ACTIVITY USE LIMITATION:</b>			
<b>LSP ID NUMBER:</b> 2413			
<b>ACTION TAKEN:</b> Immediate Response Action DEP Lead <b>ACTION STATUS:</b> Work Started	<b>ACTION DATE:</b> 03/28/1994		
<b>TYPE OF RESPONSE ACT. OUTCOME:</b>			
<b>ACTIVITY USE LIMITATION:</b>			
<b>LSP ID NUMBER:</b> 2413			

**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

**STATE SPILLS SITE**

**SEARCH ID:** 88                      **DIST/DIR:** 0.38 NW                      **MAP ID:** 83

**NAME:** CROSS STREET CALUMET  
**ADDRESS:** 1610-1618 TREMONT ST  
BOSTON MA 02119

**REV:** 06/09/00  
**ID1:** 3-0019287  
**ID2:**  
**STATUS:** 120 DY  
**PHONE:**

**CONTACT:**

**RELEASE NOTIFICATION DATE:** 2/14/00

**STATE SPILLS SITE**

**SEARCH ID:** 89                      **DIST/DIR:** 0.21 SW                      **MAP ID:** 84

**NAME:** EXPRESS AUTO SALES/EXPRESS AUTOMOTIVE  
**ADDRESS:** 848 PARKER ST  
BOSTON MA 02119

**REV:** 06/09/00  
**ID1:** 3-0011071  
**ID2:**  
**STATUS:** TWO HR  
**PHONE:**

**CONTACT:**

**RELEASE NOTIFICATION DATE:** 6/2/94

**RELEASE SOURCE:** AST

**RELEASE SOURCE:** DRUMS

**TYPE OF CHEMICAL RELEASED:** WASTE OIL  
**AMOUNT RELEASED:**

**TYPE OF PROPERTY:** COMMERCIAL

**ACTION TAKEN:** Immediate Response Action                      **ACTION DATE:** 06/03/1994  
**ACTION STATUS:** Oral Approval of Plan

**TYPE OF RESPONSE ACT. OUTCOME:**

**ACTIVITY USE LIMITATION:**

**LSP ID NUMBER:** 7022

**ACTION TAKEN:** Response Action Outcome DEP Lead                      **ACTION DATE:** 02/10/1995  
**ACTION STATUS:** RAO Statement Received

**TYPE OF RESPONSE ACT. OUTCOME:**

**ACTIVITY USE LIMITATION:**

**LSP ID NUMBER:** 7022

**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SPILLS SITE		
<b>SEARCH ID:</b> 90	<b>DIST/DIR:</b> 0.32 NE	<b>MAP ID:</b> 85
<b>NAME:</b> FMR ROXBURY GAS LIGHT CO GASOMETER <b>ADDRESS:</b> 61 HORADAN WAY BOSTON MA 02119		<b>REV:</b> 06/09/00 <b>ID1:</b> 3-0019140 <b>ID2:</b> <b>STATUS:</b> 120 DY <b>PHONE:</b>
<b>CONTACT:</b>		
<b>RELEASE NOTIFICATION DATE:</b> 1/5/00		
<b>TYPE OF CHEMICAL RELEASED:</b> BENZ[A]ANTHRACENE <b>AMOUNT RELEASED:</b> 5.7 MG/KG		
<b>TYPE OF CHEMICAL RELEASED:</b> BENZ[E]ACEPHENANTHRYLENE <b>AMOUNT RELEASED:</b> 4.2 MG/KG		
<b>TYPE OF CHEMICAL RELEASED:</b> BENZO[A]PYRENE <b>AMOUNT RELEASED:</b> 3.9 MG/KG		
<b>TYPE OF CHEMICAL RELEASED:</b> INDENO(1,2,3-CD)PYRENE <b>AMOUNT RELEASED:</b> 2.9 MG/KG		
<b>TYPE OF CHEMICAL RELEASED:</b> ARSENIC <b>AMOUNT RELEASED:</b> 33 MG/KG		
<b>TYPE OF CHEMICAL RELEASED:</b> LEAD <b>AMOUNT RELEASED:</b> 5700 MG/KG		
<b>TYPE OF CHEMICAL RELEASED:</b> MERCURY <b>AMOUNT RELEASED:</b> 24 UG/L		
<b>TYPE OF CHEMICAL RELEASED:</b> CYANIDE <b>AMOUNT RELEASED:</b> 10 UG/L		





**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SPILLS SITE	
<b>SEARCH ID:</b> 91	<b>DIST/DIR:</b> 0.46 SW
<b>MAP ID:</b> 86	
<b>NAME:</b> HEATH ST <b>ADDRESS:</b> 13-17 WALDEN ST BOSTON MA 02130	<b>REV:</b> 06/09/00 <b>ID1:</b> 3-0013118 <b>ID2:</b> <b>STATUS:</b> 120 DY <b>PHONE:</b>
<b>CONTACT:</b>	
<b>ACTIVITY USE LIMITATION:</b> <b>LSP ID NUMBER:</b> 6324	
<b>ACTION TAKEN:</b> <b>ACTION STATUS:</b> <b>TYPE OF RESPONSE ACT. OUTCOME:</b> A2 - A PERMANENT SOLUTION HAS BEEN ACHIEVED: CONTAMINATION HAS NOT BEEN REDUCED TO BACKGROUND <b>ACTIVITY USE LIMITATION:</b> NONE <b>LSP ID NUMBER:</b> 6324	<b>Response Action Outcome</b> Revised Statement or Transmittal Received <b>ACTION DATE:</b> 06/03/1997

**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

**STATE SPILLS SITE**

**SEARCH ID:** 92

**DIST/DIR:** 0.46 NW

**MAP ID:** 70

**NAME:** HUNTINGTON MOBIL  
**ADDRESS:** 634 HUNTINGTON AVE  
BOSTON MA  
SUFFOLK  
**CONTACT:** BRESNAHAN, C

**REV:**  
**ID1:** N93-0348  
**ID2:** 3-4606  
**STATUS:**  
**PHONE:**

**CASE CLOSED?** YES  
**SPILL DATE:** 19930330  
**DATE REPORTED:** 19930330  
**SPILL NOTIFIER:** DAVE LEVSKY/CONTAMINATION TECH

**SPILL TIME:**  
**REPORT TIME:** \_\_\_\_\_  
**NOTIFIER PHONE:**

**SPILL DESCRIPTION:**

**INCIDENT:** TANK REMOVAL  
**MATERIAL SPILLED:** WASTE OIL  
**AMT RPTD SPILLED:** \_\_\_\_\_  
**SOURCE OF SPILL:** U.S.T.  
**PET/HAZ:** PETROLEUM  
**PCB LEVEL:** \_\_\_\_\_

**ACTUAL AMT SPILLED:** \_\_\_\_\_  
**VIR/WASTE:** WASTE

**ENVIRONMENTAL IMPACT:** \_\_\_\_\_

**LUST?:** ---  
**CONTRACTOR:** NOT USED  
**DAYS/CLOSE:** 0

**SOIL CONTAMINATED?:**  
**PREPARE REPORT:**

**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SPILLS SITE			
<b>SEARCH ID:</b> 93	<b>DIST/DIR:</b> 0.45 NW	<b>MAP ID:</b> 87	
<b>NAME:</b> INTERSECTION OF HUNTINGTON & WORTHINGTON	<b>REV:</b> 06/09/00		
<b>ADDRESS:</b> 651 HUNTINGTON AVE BOSTON MA 02115	<b>IDI:</b> 3-0011388		
	<b>ID2:</b>		
<b>CONTACT:</b>	<b>STATUS:</b> 120 DY		
	<b>PHONE:</b>		
<b>RELEASE NOTIFICATION DATE:</b> 7/28/94			
<b>TYPE OF CHEMICAL RELEASED:</b> TOTAL PETROLEUM HYDROCARBONS (TPH)			
<b>AMOUNT RELEASED:</b> 1700 PPM			
<b>ACTION TAKEN:</b> Response Action Outcome	<b>ACTION DATE:</b> 02/06/1995		
<b>ACTION STATUS:</b> Fee Received			
<b>TYPE OF RESPONSE ACT. OUTCOME:</b> A1 - A PERMANENT SOLUTION HAS BEEN ACHIEVED: CONTAMINATION HAS BEEN REDUCED TO BACKGROUND OR A THREAT OF A RELEASE HAS BEEN ELIMINATED			
<b>ACTIVITY USE LIMITATION:</b> NONE			
<b>LSP ID NUMBER:</b> 9290			
<b>ACTION TAKEN:</b> Release Abatement Measure	<b>ACTION DATE:</b> 02/06/1995		
<b>ACTION STATUS:</b> Completion Statement Received			
<b>TYPE OF RESPONSE ACT. OUTCOME:</b>			
<b>ACTIVITY USE LIMITATION:</b>			
<b>LSP ID NUMBER:</b> 9290			



**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SPILLS SITE			
<b>SEARCH ID:</b> 95	<b>DIST/DIR:</b> 0.46 NW	<b>MAP ID:</b> 89	
<b>NAME:</b> MA COLLEGE OF ART PARKING LOT <b>ADDRESS:</b> WARD ST/HUNTINGTON AVE BOSTON MA 02115		<b>REV:</b> 06/09/00 <b>ID1:</b> 3-0014618 <b>ID2:</b> <b>STATUS:</b> 120 DY <b>PHONE:</b>	
<b>CONTACT:</b>			
<b>RELEASE NOTIFICATION DATE:</b> 12/11/96			
<b>TYPE OF CHEMICAL RELEASED:</b> LEAD <b>AMOUNT RELEASED:</b> 660 MG/KG			
<b>ACTION TAKEN:</b> Response Action Outcome <b>ACTION STATUS:</b> RAO Statement Received <b>TYPE OF RESPONSE ACT. OUTCOME:</b> B1 - Remedial actions have not been conducted because a level of No Significant Risk exists. <b>ACTIVITY USE LIMITATION:</b> NONE <b>LSP ID NUMBER:</b> 2413		<b>ACTION DATE:</b> 11/12/1997	



**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SPILLS SITE	
<b>SEARCH ID:</b> 97	<b>DIST/DIR:</b> 0.32 NE
<b>MAP ID:</b> 85	
<b>NAME:</b> MINION HILL CORNER PARKER <b>ADDRESS:</b> 61-67 HORADAN WAY BOSTON MA 02119	<b>REV:</b> 06/09/00 <b>ID1:</b> 3-0012315 <b>ID2:</b> <b>STATUS:</b> 72 HR <b>PHONE:</b>
<b>CONTACT:</b>	
<b>RELEASE NOTIFICATION DATE:</b> 3/27/95	
<b>RELEASE SOURCE:</b> PIPE	
<b>RELEASE SOURCE:</b> UST	
<b>TYPE OF CHEMICAL RELEASED:</b> FUEL OIL #6 <b>AMOUNT RELEASED:</b>	
<b>TYPE OF CHEMICAL RELEASED:</b> FUEL OIL #4 <b>AMOUNT RELEASED:</b> 6160 MG/KG	
<b>TYPE OF CHEMICAL RELEASED:</b> FUEL OIL #4 <b>AMOUNT RELEASED:</b> 185 PPMV	
<b>TYPE OF PROPERTY:</b> RESIDENTIAL	
<b>ACTION TAKEN:</b> Immediate Response Action <b>ACTION STATUS:</b> Completion Statement Received <b>TYPE OF RESPONSE ACT. OUTCOME:</b> <b>ACTIVITY USE LIMITATION:</b> <b>LSP ID NUMBER:</b> 3370	<b>ACTION DATE:</b> 07/27/1995
<b>ACTION TAKEN:</b> Response Action Outcome <b>ACTION STATUS:</b> RAO Statement Received <b>TYPE OF RESPONSE ACT. OUTCOME:</b> A2 - A PERMANENT SOLUTION HAS BEEN ACHIEVED: CONTAMINATION HAS NOT BEEN REDUCED TO BACKGROUND <b>ACTIVITY USE LIMITATION:</b> NONE <b>LSP ID NUMBER:</b> 3370	<b>ACTION DATE:</b> 07/27/1995





**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SPILLS SITE	
<b>SEARCH ID:</b> 99	<b>DIST/DIR:</b> 0.24 NW
<b>MAP ID:</b> 92	
<b>NAME:</b> MISSION HILL <b>ADDRESS:</b> 6 PONTIAC ST BOSTON MA 02120	<b>REV:</b> 06/09/00 <b>ID1:</b> 3-0013968 <b>ID2:</b> <b>STATUS:</b> TWO HR <b>PHONE:</b>
<b>CONTACT:</b>	
<b>RELEASE NOTIFICATION DATE:</b> 7/2/96	
<b>RELEASE SOURCE:</b> DRUMS	
<b>TYPE OF CHEMICAL RELEASED:</b> WASTE OIL <b>AMOUNT RELEASED:</b> 1010 GAL	
<b>TYPE OF CHEMICAL RELEASED:</b> WASTE OIL <b>AMOUNT RELEASED:</b> 20 GAL	
<b>TYPE OF PROPERTY:</b> RESIDENTIAL	
<b>ACTION TAKEN:</b> Response Action Outcome <b>ACTION STATUS:</b> Fee Received <b>TYPE OF RESPONSE ACT. OUTCOME:</b> A2 - A PERMANENT SOLUTION HAS BEEN ACHIEVED: CONTAMINATION HAS NOT BEEN REDUCED TO BACKGROUND <b>ACTIVITY USE LIMITATION:</b> NONE <b>LSP ID NUMBER:</b> 2003	<b>ACTION DATE:</b> 03/31/1997
<b>ACTION TAKEN:</b> Immediate Response Action <b>ACTION STATUS:</b> Completion Statement Received <b>TYPE OF RESPONSE ACT. OUTCOME:</b> <b>ACTIVITY USE LIMITATION:</b> <b>LSP ID NUMBER:</b> 2003	<b>ACTION DATE:</b> 02/28/1997

**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

**STATE SPILLS SITE**

**SEARCH ID:** 100

**DIST/DIR:** 0.32 NW

**MAP ID:** 93

**NAME:** MISSION HILL HOUSING COMPLEX  
**ADDRESS:** HORIDAN WAY/TOBIN CT  
BOSTON MA 02119

**REV:** 06/09/00  
**ID1:** 3-0010018  
**ID2:**  
**STATUS:** TWO HR  
**PHONE:**

**CONTACT:**

**RELEASE NOTIFICATION DATE:** 10/5/93

**RELEASE SOURCE:** PIPE

**TYPE OF CHEMICAL RELEASED:** FUEL OIL #4  
**AMOUNT RELEASED:** 50 GAL

**TYPE OF PROPERTY:** RESIDENTIAL

**ACTION TAKEN:** Response Action Outcome      **ACTION DATE:** 01/04/1994  
**ACTION STATUS:** RAO Statement Received  
**TYPE OF RESPONSE ACT. OUTCOME:** A2 - A PERMANENT SOLUTION HAS BEEN ACHIEVED: CONTAMINATION HAS NOT  
BEEN REDUCED TO BACKGROUND  
**ACTIVITY USE LIMITATION:** NONE  
**LSP ID NUMBER:** 6643

**ACTION TAKEN:** Immediate Response Action      **ACTION DATE:** 01/05/1994  
**ACTION STATUS:** Written Approval of Plan  
**TYPE OF RESPONSE ACT. OUTCOME:**  
**ACTIVITY USE LIMITATION:**  
**LSP ID NUMBER:** 6643

**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11 -  
77 TERRACE ST, BOSTON, MA

**STATE SPILLS SITE**

**SEARCH ID:** 101

**DIST/DIR:** 0.30 NE

**MAP ID:** 94

**NAME:** MISSION HILL HOUSING PROJECT  
**ADDRESS:** 19 HORADAN WAY  
BOSTON MA 02119

**REV:** 06/09/00  
**ID1:** 3-0018187  
**ID2:**  
**STATUS:** TWO HR  
**PHONE:**

**CONTACT:**

**RELEASE NOTIFICATION DATE:** 4/12/99

**RELEASE SOURCE:** UST

**TYPE OF CHEMICAL RELEASED:** FUEL OIL #6  
**AMOUNT RELEASED:** 10 GAL

**TYPE OF PROPERTY:** RESIDENTIAL

**TYPE OF PROPERTY:** MUNICIPAL

**ACTION TAKEN:** Immediate Response Action      **ACTION DATE:** 06/18/1999  
**ACTION STATUS:** Completion Statement Received  
**TYPE OF RESPONSE ACT. OUTCOME:**  
**ACTIVITY USE LIMITATION:**  
**LSP ID NUMBER:** 9984

**ACTION TAKEN:** Phase I      **ACTION DATE:** 11/12/1999  
**ACTION STATUS:** Completion Statement Received  
**TYPE OF RESPONSE ACT. OUTCOME:**  
**ACTIVITY USE LIMITATION:**  
**LSP ID NUMBER:** 9984

**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

**STATE SPILLS SITE**

**SEARCH ID:** 102

**DIST/DIR:** 0.22 NE

**MAP ID:** 95

**NAME:** MISSION HOUSING APARTMENTS  
**ADDRESS:** 8 SMITH ST  
BOSTON MA 02119

**REV:** 06/09/00  
**ID1:** 3-0014429  
**ID2:**  
**STATUS:** 72 HR  
**PHONE:**

**CONTACT:**

**RELEASE NOTIFICATION DATE:** 10/25/96

**RELEASE SOURCE:** UST

**TYPE OF CHEMICAL RELEASED:** FUEL OIL #6  
**AMOUNT RELEASED:** 262 PPMV

**ACTION TAKEN:** Response Action Outcome      **ACTION DATE:** 06/16/1999  
**ACTION STATUS:** Fee Received

**TYPE OF RESPONSE ACT. OUTCOME:** A2 - A PERMANENT SOLUTION HAS BEEN ACHIEVED: CONTAMINATION HAS NOT BEEN REDUCED TO BACKGROUND

**ACTIVITY USE LIMITATION:** NONE  
**LSP ID NUMBER:** 2791

**ACTION TAKEN:** Immediate Response Action      **ACTION DATE:** 06/16/1999  
**ACTION STATUS:** Completion Statement Received  
**TYPE OF RESPONSE ACT. OUTCOME:**  
**ACTIVITY USE LIMITATION:**  
**LSP ID NUMBER:** 2791

**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SPILLS SITE	
<b>SEARCH ID:</b> 103	<b>DIST/DIR:</b> 0.36 NE
<b>MAP ID:</b> 96	
<b>NAME:</b> NASDI CONSTRUCTION SITE <b>ADDRESS:</b> 33 MCGREEVY WAY BOSTON MA 02119	<b>REV:</b> 06/09/00 <b>IDI:</b> 3-0019376 <b>ID2:</b> <b>STATUS:</b> TWO HR <b>PHONE:</b>
<b>CONTACT:</b>	
<b>RELEASE NOTIFICATION DATE:</b> 3/16/00	
<b>RELEASE SOURCE:</b> TRANSFORM	
<b>TYPE OF CHEMICAL RELEASED:</b> UNKNOWN CHEMICAL OF UNKNOWN TYPE <b>AMOUNT RELEASED:</b> 50 GAL	
<b>TYPE OF CHEMICAL RELEASED:</b> UNKNOWN CHEMICAL OF TYPE - OIL <b>AMOUNT RELEASED:</b> 80 GAL	
<b>TYPE OF PROPERTY:</b> RESIDENTIAL	
<b>ACTION TAKEN:</b> Immediate Response Action <b>ACTION STATUS:</b> Oral Approval of Plan <b>TYPE OF RESPONSE ACT. OUTCOME:</b> <b>ACTIVITY USE LIMITATION:</b> <b>LSP ID NUMBER:</b> 5222	<b>ACTION DATE:</b> 03/16/2000
<b>ACTION TAKEN:</b> Response Action Outcome <b>ACTION STATUS:</b> RAO Statement Received <b>TYPE OF RESPONSE ACT. OUTCOME:</b> A2 - A PERMANENT SOLUTION HAS BEEN ACHIEVED: CONTAMINATION HAS NOT BEEN REDUCED TO BACKGROUND <b>ACTIVITY USE LIMITATION:</b> NONE <b>LSP ID NUMBER:</b> 6016	<b>ACTION DATE:</b> 03/22/2000



**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SPILLS SITE	
<b>SEARCH ID:</b> 104	<b>DIST/DIR:</b> 0.40 NW
<b>MAP ID:</b> 45	
<b>NAME:</b> NEAR BINGHAM CIR	<b>REV:</b> 06/09/00
<b>ADDRESS:</b> 1610-1618 TREMONT ST BOSTON MA 02120	<b>ID1:</b> 3-0012332
	<b>ID2:</b>
<b>CONTACT:</b>	<b>STATUS:</b> 72 HR
	<b>PHONE:</b>
<b>LSP ID NUMBER:</b> 9290	
<b>ACTION TAKEN:</b> Phase III	<b>ACTION DATE:</b> 06/28/1999
<b>ACTION STATUS:</b> NDMDRC	
<b>TYPE OF RESPONSE ACT. OUTCOME:</b>	
<b>ACTIVITY USE LIMITATION:</b>	
<b>LSP ID NUMBER:</b> 4128	
<b>ACTION TAKEN:</b> Tier Classification	<b>ACTION DATE:</b> 04/05/1996
<b>ACTION STATUS:</b> Tier 2 Classification	
<b>TYPE OF RESPONSE ACT. OUTCOME:</b>	
<b>ACTIVITY USE LIMITATION:</b>	
<b>LSP ID NUMBER:</b> 9290	

*Environmental FirstSearch  
Site Detail Report*

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON,-MA

STATE SPILLS SITE

**SEARCH ID:** 105

**DIST/DIR:** 0.27 NE

**MAP ID:** 97

**NAME:** NO LOCATION AID  
**ADDRESS:** 22 CENTRE ST  
BOSTON MA 02119

**REV:** 06/09/00  
**ID1:** 3-0012977  
**ID2:**  
**STATUS:** 72 HR  
**PHONE:**

**CONTACT:**

**RELEASE NOTIFICATION DATE:** 9/28/95

**RELEASE SOURCE:** UST

**TYPE OF CHEMICAL RELEASED:** DIESEL FUEL  
**AMOUNT RELEASED:**

**TYPE OF PROPERTY:** COMMERCIAL

**ACTION TAKEN:** Immediate Response Action  
**ACTION STATUS:** Oral Approval of Plan  
**TYPE OF RESPONSE ACT. OUTCOME:**  
**ACTIVITY USE LIMITATION:**  
**LSP ID NUMBER:** 2152  
**ACTION DATE:** 09/28/1995



**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SPILLS SITE		
<b>SEARCH ID:</b> 106	<b>DIST/DIR:</b> 0.27 NE	<b>MAP ID:</b> 98
<b>NAME:</b> NO LOCATION AID <b>ADDRESS:</b> 26 CENTRE ST BOSTON MA 02119		<b>REV:</b> 06/09/00 <b>ID1:</b> 3-0012096 <b>ID2:</b> <b>STATUS:</b> TWO HR <b>PHONE:</b>
<b>CONTACT:</b>		
<b>RELEASE NOTIFICATION DATE:</b>	1/24/95	
<b>RELEASE SOURCE:</b>	AST	
<b>RELEASE SOURCE:</b>	DRUMS	
<b>TYPE OF CHEMICAL RELEASED:</b>	WASTE OIL	
<b>AMOUNT RELEASED:</b>	200 GAL	
<b>TYPE OF CHEMICAL RELEASED:</b>	OIL	
<b>AMOUNT RELEASED:</b>		
<b>TYPE OF PROPERTY:</b>	RESIDENTIAL	
<b>ACTION TAKEN:</b>	Response Action Outcome	<b>ACTION DATE:</b> 12/07/1995
<b>ACTION STATUS:</b>	Fee Received	
<b>TYPE OF RESPONSE ACT. OUTCOME:</b> A1 - A PERMANENT SOLUTION HAS BEEN ACHIEVED: CONTAMINATION HAS BEEN REDUCED TO BACKGROUND OR A THREAT OF A RELEASE HAS BEEN ELIMINATED		
<b>ACTIVITY USE LIMITATION:</b>	NONE	
<b>LSP ID NUMBER:</b>	8223	
<b>ACTION TAKEN:</b>	Release Abatement Measure	<b>ACTION DATE:</b> 10/04/1995
<b>ACTION STATUS:</b>	Written Plan Received	
<b>TYPE OF RESPONSE ACT. OUTCOME:</b>		
<b>ACTIVITY USE LIMITATION:</b>		
<b>LSP ID NUMBER:</b>	8223	
<b>ACTION TAKEN:</b>	Immediate Response Action	<b>ACTION DATE:</b> 03/24/1995
<b>ACTION STATUS:</b>	Completion Statement Received	
<b>TYPE OF RESPONSE ACT. OUTCOME:</b>		
<b>ACTIVITY USE LIMITATION:</b>		
<b>LSP ID NUMBER:</b>	8959	



**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11 -  
77 TERRACE ST, BOSTON, MA

STATE SPILLS SITE	
<b>SEARCH ID:</b> 109	<b>DIST/DIR:</b> 0.16 SW
<b>MAP ID:</b> 101	
<b>NAME:</b> NO LOCATION AID <b>ADDRESS:</b> 148 TER ST BOSTON MA 02119	<b>REV:</b> 06/09/00 <b>ID1:</b> 3-0016725 <b>ID2:</b> <b>STATUS:</b> 72 HR <b>PHONE:</b>
<b>CONTACT:</b>	
<b>RELEASE NOTIFICATION DATE:</b> 4/27/98	
<b>RELEASE SOURCE:</b> PIPE	
<b>RELEASE SOURCE:</b> UST	
<b>TYPE OF CHEMICAL RELEASED:</b> PETROLEUM BASED OIL <b>AMOUNT RELEASED:</b> 4490 MG/KG	
<b>TYPE OF CHEMICAL RELEASED:</b> FUEL OIL #6 <b>AMOUNT RELEASED:</b> 120 PPMV	
<b>TYPE OF CHEMICAL RELEASED:</b> FUEL OIL #2 <b>AMOUNT RELEASED:</b> 120 PPMV	
<b>TYPE OF PROPERTY:</b> COMMERCIAL	
<b>TYPE OF PROPERTY:</b> INDUSTRIAL	
<b>ACTION TAKEN:</b> Immediate Response Action <b>ACTION STATUS:</b> Oral Approval of Plan <b>TYPE OF RESPONSE ACT. OUTCOME:</b> <b>ACTIVITY USE LIMITATION:</b> <b>LSP ID NUMBER:</b> 5103	<b>ACTION DATE:</b> 04/27/1998
<b>ACTION TAKEN:</b> Phase I <b>ACTION STATUS:</b> Completion Statement Received <b>TYPE OF RESPONSE ACT. OUTCOME:</b> <b>ACTIVITY USE LIMITATION:</b> <b>LSP ID NUMBER:</b> 8630	<b>ACTION DATE:</b> 06/29/1998
<b>ACTION TAKEN:</b> Response Action Outcome <b>ACTION STATUS:</b> RAO Statement Received <b>TYPE OF RESPONSE ACT. OUTCOME:</b> A2 - A PERMANENT SOLUTION HAS BEEN ACHIEVED: CONTAMINATION HAS NOT BEEN REDUCED TO BACKGROUND <b>ACTIVITY USE LIMITATION:</b> <b>LSP ID NUMBER:</b> 8630	<b>ACTION DATE:</b> 06/29/1998

**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SPILLS SITE

**SEARCH ID:** 110

**DIST/DIR:** 0.48 SW

**MAP ID:** 102

**NAME:** NO LOCATION AID  
**ADDRESS:** 1540 COLUMBUS AVE  
BOSTON MA 02119

**REV:** 06/09/00  
**ID1:** 3-0012084  
**ID2:**  
**STATUS:** 72 HR  
**PHONE:**

**CONTACT:**

**RELEASE NOTIFICATION DATE:** 1/20/95

**RELEASE SOURCE:** UST

**TYPE OF CHEMICAL RELEASED:** WASTE OIL  
**AMOUNT RELEASED:**

**TYPE OF CHEMICAL RELEASED:** WASTE OIL  
**AMOUNT RELEASED:** 150 PPMV

**TYPE OF PROPERTY:** MUNICIPAL

**ACTION TAKEN:** Response Action Outcome      **ACTION DATE:** 02/08/1996  
**ACTION STATUS:** Fee Received

**TYPE OF RESPONSE ACT. OUTCOME:** A2 - A PERMANENT SOLUTION HAS BEEN ACHIEVED: CONTAMINATION HAS NOT BEEN REDUCED TO BACKGROUND

**ACTIVITY USE LIMITATION:** NONE  
**LSP ID NUMBER:** 7218

**ACTION TAKEN:** Release Abatement Measure      **ACTION DATE:** 01/26/1996  
**ACTION STATUS:** Completion Statement Received

**TYPE OF RESPONSE ACT. OUTCOME:**  
**ACTIVITY USE LIMITATION:**  
**LSP ID NUMBER:** 2003

**ACTION TAKEN:** Immediate Response Action      **ACTION DATE:** 05/25/1995  
**ACTION STATUS:** Completion Statement Received

**TYPE OF RESPONSE ACT. OUTCOME:**  
**ACTIVITY USE LIMITATION:**  
**LSP ID NUMBER:** 2003

**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SPILLS SITE		
<b>SEARCH ID:</b> 111	<b>DIST/DIR:</b> 0.11 SW	<b>MAP ID:</b> 103
<b>NAME:</b> NO LOCATION AID <b>ADDRESS:</b> 87 TO 103 TER ST BOSTON MA 02119  <b>CONTACT:</b>	<b>REV:</b> 06/09/90 <b>ID1:</b> 3-0016573 <b>ID2:</b> <b>STATUS:</b> 120 DY <b>PHONE:</b>	
<b>RELEASE NOTIFICATION DATE:</b> 3/9/98  <b>TYPE OF CHEMICAL RELEASED:</b> BENZ[A]ANTHRACENE <b>AMOUNT RELEASED:</b> 15.2 MG/KG  <b>TYPE OF CHEMICAL RELEASED:</b> INDENO(1,2,3-CD)PYRENE <b>AMOUNT RELEASED:</b> 3.4 MG/KG  <b>TYPE OF CHEMICAL RELEASED:</b> CHRYSENE <b>AMOUNT RELEASED:</b> 17.2 MG/KG  <b>TYPE OF CHEMICAL RELEASED:</b> BENZO[A]PYRENE <b>AMOUNT RELEASED:</b> 5.1 MG/KG  <b>TYPE OF CHEMICAL RELEASED:</b> BENZ[E]ACEPHENANTHRYLENE <b>AMOUNT RELEASED:</b> 7.7 MG/KG  <b>ACTION TAKEN:</b> Response Action Outcome <b>ACTION DATE:</b> 05/04/1998 <b>ACTION STATUS:</b> RAO Statement Received <b>TYPE OF RESPONSE ACT. OUTCOME:</b> A3 - A PERMANENT SOLUTION HAS BEEN ACHIEVED: CONTAMINATION HAS NOT BEEN REDUCED TO BACKGROUND AND AN ACTIVITY AND USE LIMITATION (AUL) HAS BEEN IMPLEMENTED <b>ACTIVITY USE LIMITATION:</b> NOTICE <b>LSP ID NUMBER:</b> 2003  <b>ACTION TAKEN:</b> Activity and Use Limitation <b>ACTION DATE:</b> 05/04/1998 <b>ACTION STATUS:</b> Transmittal Received <b>TYPE OF RESPONSE ACT. OUTCOME:</b> <b>ACTIVITY USE LIMITATION:</b> <b>LSP ID NUMBER:</b> 2003		



**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SPILLS SITE	
<b>SEARCH ID:</b> 114	<b>DIST/DIR:</b> 0.42 NW
<b>MAP ID:</b> 6	
<b>NAME:</b> NO LOCATION AID	<b>REV:</b> 06/09/00
<b>ADDRESS:</b> 622 TO 670 HUNTINGTON AVE BOSTON MA 02115	<b>ID1:</b> 3-0017378
	<b>ID2:</b>
<b>CONTACT:</b>	<b>STATUS:</b> 120 DAY
	<b>PHONE:</b>
<b>RELEASE NOTIFICATION DATE:</b> 10/1/98	
<b>TYPE OF CHEMICAL RELEASED:</b> 2-METHYLNAPHTHALENE	
<b>AMOUNT RELEASED:</b> 4 MG/KG	
<b>ACTION TAKEN:</b> Phase I	<b>ACTION DATE:</b> 10/01/1999
<b>ACTION STATUS:</b> Completion Statement Received	
<b>TYPE OF RESPONSE ACT. OUTCOME:</b>	
<b>ACTIVITY USE LIMITATION:</b>	
<b>LSP ID NUMBER:</b> 5876	
<b>ACTION TAKEN:</b> Tier Classification	<b>ACTION DATE:</b> 10/01/1999
<b>ACTION STATUS:</b> Tier 2 Classification	
<b>TYPE OF RESPONSE ACT. OUTCOME:</b>	
<b>ACTIVITY USE LIMITATION:</b>	
<b>LSP ID NUMBER:</b> 5876	





**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SPILLS SITE	
<b>SEARCH ID:</b> 116	<b>DIST/DIR:</b> 0.27 SE
<b>MAP ID:</b> 78	
<b>NAME:</b> OFF CENTRE ST <b>ADDRESS:</b> 21 HIGHLAND AVE BOSTON MA 02119	<b>REV:</b> 06/09/00 <b>ID1:</b> 3-0013557 <b>ID2:</b> <b>STATUS:</b> TWO HR <b>PHONE:</b>
<b>CONTACT:</b>	
<b>RELEASE NOTIFICATION DATE:</b> 3/14/96	
<b>RELEASE SOURCE:</b> PIPE	
<b>RELEASE SOURCE:</b> TANKER	
<b>TYPE OF CHEMICAL RELEASED:</b> FUEL OIL #2	
<b>AMOUNT RELEASED:</b> 15 GAL	
<b>TYPE OF PROPERTY:</b> COMMERCIAL	
<b>TYPE OF PROPERTY:</b> RESIDENTIAL	
<b>ACTION TAKEN:</b> Response Action Outcome	<b>ACTION DATE:</b> 03/20/1997
<b>ACTION STATUS:</b> Fee Received	
<b>TYPE OF RESPONSE ACT. OUTCOME:</b> A1 - A PERMANENT SOLUTION HAS BEEN ACHIEVED: CONTAMINATION HAS BEEN REDUCED TO BACKGROUND OR A THREAT OF A RELEASE HAS BEEN ELIMINATED	
<b>ACTIVITY USE LIMITATION:</b> NONE	
<b>LSP ID NUMBER:</b> 2791	

**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SPILLS SITE

**SEARCH ID:** 117                      **DIST/DIR:** 0.40 SE                      **MAP ID:** 2

<b>NAME:</b>	PUBLIC FACILITIES DEPT	<b>REV:</b>	
<b>ADDRESS:</b>	282 HIGHLAND ST	<b>ID1:</b>	N92-1154
	BOSTON MA	<b>ID2:</b>	3-4345
	SUFFOLK	<b>STATUS:</b>	
<b>CONTACT:</b>	FAGAN, J	<b>PHONE:</b>	

<b>CASE CLOSED?</b>	YES	<b>SPILL TIME:</b>	
<b>SPILL DATE:</b>	19920910	<b>REPORT TIME:</b>	12:15PM
<b>DATE REPORTED:</b>	19920910	<b>NOTIFIER PHONE:</b>	
<b>SPILL NOTIFIER:</b>	PAUL VIGLANT/BRIGGS ASSOC		

**SPILL DESCRIPTION:**

<b>INCIDENT:</b>	TANK REMOVAL		
<b>MATERIAL SPILLED:</b>	DIESEL FUEL		
<b>AMT RPTD SPILLED:</b>	SHEEN -----	<b>ACTUAL AMT SPILLED:</b>	SHEEN -----
<b>SOURCE OF SPILL:</b>	U.S.T.		
<b>PET/HAZ:</b>	PETROLEUM	<b>VIR/WASTE:</b>	VIRGIN
<b>PCB LEVEL:</b>	NONE		

**ENVIRONMENTAL IMPACT:** SOIL

<b>LUST?:</b>	---	<b>SOIL CONTAMINATED?:</b>	
<b>CONTRACTOR:</b>	NOT USED	<b>PREPARE REPORT:</b>	
<b>DAYS/CLOSE:</b>	0		

**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

<b>STATE SPILLS SITE</b>		
<b>SEARCH ID:</b> 118	<b>DIST/DIR:</b> 0.41 SE	<b>MAP ID:</b> 106
<b>NAME:</b> RESIDENCE <b>ADDRESS:</b> 290 HIGHLAND ST BOSTON MA SUFFOLK <b>CONTACT:</b> ARMSTRONG, V	<b>REV:</b> <b>ID1:</b> N93-0251 <b>ID2:</b> 0000 <b>STATUS:</b> <b>PHONE:</b>	
<b>CASE CLOSED?</b> YES <b>SPILL DATE:</b> 19930308 <b>DATE REPORTED:</b> 19930308 <b>SPILL NOTIFIER:</b> ANONYMOUS	<b>SPILL TIME:</b> <b>REPORT TIME:</b> 03:00PM <b>NOTIFIER PHONE:</b>	
<b>SPILL DESCRIPTION:</b>  <b>INCIDENT:</b> DUMPING <b>MATERIAL SPILLED:</b> LUBRICATING OIL <b>AMT RPTD SPILLED:</b> ----- <b>SOURCE OF SPILL:</b> VEHICLE <b>PET/HAZ:</b> PETROLEUM <b>PCB LEVEL:</b> -----	<b>ACTUAL AMT SPILLED:</b> -----  <b>VIR/WASTE:</b> WASTE	
<b>ENVIRONMENTAL IMPACT:</b>  <b>LUST?:</b> NO <b>CONTRACTOR:</b> NOT USED <b>DAYS/CLOSE:</b> 0	<b>SOIL CONTAMINATED?:</b> <b>PREPARE REPORT:</b>	

**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SPILLS SITE

**SEARCH ID:** 119

**DIST/DIR:** 0.25 SW

**MAP ID:** 107

**NAME:** RESIDENTIAL  
**ADDRESS:** 222 PARKER HILL AVE  
BOSTON MA  
SUFFOLK  
**CONTACT:** BOYLE, T

**REV:**  
**ID1:** N92-0130  
**ID2:** 0000  
**STATUS:**  
**PHONE:**

**CASE CLOSED?** YES  
**SPILL DATE:** 19920203  
**DATE REPORTED:** 19920203  
**SPILL NOTIFIER:** JACK THOMPSON/ATLAS OIL

**SPILL TIME:**  
**REPORT TIME:** 04:15PM  
**NOTIFIER PHONE:**

**SPILL DESCRIPTION:**

**INCIDENT:** LEAK  
**MATERIAL SPILLED:** #2 FUEL OIL  
**AMT RPTD SPILLED:** UNKNOWN -----  
**SOURCE OF SPILL:** OTHER SOURCE > U/G LINE  
**PET/HAZ:** PETROLEUM  
**PCB LEVEL:** NONE

**ACTUAL AMT SPILLED:** UNKNOWN -----  
**VIR/WASTE:** VIRGIN

**ENVIRONMENTAL IMPACT:** SOIL

**LUST?:** NO  
**CONTRACTOR:** NOT USED  
**DAYS/CLOSE:** 23

**SOIL CONTAMINATED?:**  
**PREPARE REPORT:**

**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SPILLS SITE	
<b>SEARCH ID:</b> 120	<b>DIST/DIR:</b> 0.20 NE
<b>MAP ID:</b> 88	
<b>NAME:</b> ROXBURY CROSSING <b>ADDRESS:</b> NEW DUDLEY & TREMONT STS BOSTON MA 02119	<b>REV:</b> 06/09/00 <b>ID1:</b> 3-0011516 <b>ID2:</b> <b>STATUS:</b> TWO HR <b>PHONE:</b>
<b>CONTACT:</b>	
<b>RELEASE NOTIFICATION DATE:</b> 8/23/94	
<b>RELEASE SOURCE:</b> SANI SEWER	
<b>TYPE OF CHEMICAL RELEASED:</b> ETHENE, TETRACHLORO- <b>AMOUNT RELEASED:</b> 420 PPM	
<b>TYPE OF CHEMICAL RELEASED:</b> ETHENE, TRICHLORO- <b>AMOUNT RELEASED:</b> 43 PPM	
<b>TYPE OF CHEMICAL RELEASED:</b> BENZENE, 1,3,5-TRIMETHYL- <b>AMOUNT RELEASED:</b> 130 PPM	
<b>TYPE OF CHEMICAL RELEASED:</b> BENZENE, ETHENYL- <b>AMOUNT RELEASED:</b> 170 PPM	
<b>TYPE OF CHEMICAL RELEASED:</b> BENZENE, CHLORO- <b>AMOUNT RELEASED:</b> 230 PPM	
<b>TYPE OF CHEMICAL RELEASED:</b> BENZENE, ETHYL- <b>AMOUNT RELEASED:</b> 2000 PPM	
<b>TYPE OF CHEMICAL RELEASED:</b> BENZENE, DIMETHYL <b>AMOUNT RELEASED:</b> 3400 PPM	
<b>TYPE OF CHEMICAL RELEASED:</b> UNKNOWN CHEMICAL OF TYPE - OIL <b>AMOUNT RELEASED:</b> 14000 PPM	
<b>TYPE OF CHEMICAL RELEASED:</b> BENZENE, METHYL- <b>AMOUNT RELEASED:</b> 6300 PPM	
<b>TYPE OF CHEMICAL RELEASED:</b> BENZENE, 1,2-DICHLORO- <b>AMOUNT RELEASED:</b> 800 PPM	
<b>TYPE OF PROPERTY:</b> STATE	
<b>ACTION TAKEN:-</b> Response Action Outcome <b>ACTION STATUS:</b> RAO Statement Received <b>TYPE OF RESPONSE ACT. OUTCOME:</b> AI - A PERMANENT SOLUTION HAS BEEN ACHIEVED: CONTAMINATION HAS BEEN REDUCED TO BACKGROUND OR A THREAT OF A RELEASE HAS BEEN ELIMINATED <b>ACTIVITY USE LIMITATION:</b> NONE <b>LSP ID NUMBER:</b> 5711	<b>ACTION DATE:</b> 08/23/1995
<b>ACTION TAKEN:</b> Immediate Response Action <b>ACTION STATUS:</b> Completion Statement Received	<b>ACTION DATE:</b> 01/17/1995

- Continued on next page -

*Environmental FirstSearch  
Site Detail Report*

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SPILLS SITE

**SEARCH ID:** 120

**DIST/DIR:** 0.20 NE

**MAP ID:** 88

**NAME:** ROXBURY CROSSING  
**ADDRESS:** NEW DUDLEY & TREMONT STS  
BOSTON MA 02119

**REV:** 06/09/00  
**ID1:** 3-0011516  
**ID2:**  
**STATUS:** TWO HR  
**PHONE:**

**CONTACT:**

**TYPE OF RESPONSE ACT. OUTCOME:**

**ACTIVITY USE LIMITATION:**

**LSP ID NUMBER:** 8494

**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

<b>STATE SPILLS SITE</b>			
<b>SEARCH ID:</b> 121	<b>DIST/DIR:</b> 0.42 NW	<b>MAP ID:</b> 6	
<b>NAME:</b>		<b>REV:</b>	
<b>ADDRESS:</b> 670 HUNTINGTON AVE BOSTON MA SUFFOLK		<b>ID1:</b> N90-0559	
<b>CONTACT:</b> MACAFEE, K		<b>ID2:</b> 3-3259	
		<b>STATUS:</b>	
		<b>PHONE:</b>	
<b>CASE CLOSED?</b>	YES		
<b>SPILL DATE:</b>	19900418	<b>SPILL TIME:</b>	03:15PM
<b>DATE REPORTED:</b>	19900418	<b>REPORT TIME:</b>	01:00PM
<b>SPILL NOTIFIER:</b>	GATNICK/BOSTON FD	<b>NOTIFIER PHONE:</b>	
<b>SPILL DESCRIPTION:</b>			
<b>INCIDENT:</b>	TANK REMOVAL		
<b>MATERIAL SPILLED:</b>	GASOLINE		
<b>AMT RPTD SPILLED:</b>	UNKNOWN GALLONS	<b>ACTUAL AMT SPILLED:</b>	UNKNOWN GALLONS
<b>SOURCE OF SPILL:</b>	U.S.T.		
<b>PET/HAZ:</b>	PETROLEUM	<b>VIR/WASTE:</b>	VIRGIN
<b>PCB LEVEL:</b>	NONE		
<b>ENVIRONMENTAL IMPACT:</b>	SOIL		
<b>LUST?:</b>	YES	<b>SOIL CONTAMINATED?:</b>	
<b>CONTRACTOR:</b>	NOT USED	<b>PREPARE REPORT:</b>	
<b>DAYS/CLOSE:</b>	0		





**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11 \_  
77 TERRACE ST, BOSTON, MA

STATE SPILLS SITE			
<b>SEARCH ID:</b> 123	<b>DIST/DIR:</b> 0.18 SW	<b>MAP ID:</b> 109	
<b>NAME:</b>		<b>REV:</b>	
<b>ADDRESS:</b> 165 TERRACE ST. BOSTON MA SUFFOLK		<b>ID1:</b> N90-2030	
<b>CONTACT:</b> GORRASI, M		<b>ID2:</b> 0000	
		<b>STATUS:</b>	
		<b>PHONE:</b>	
<b>CASE CLOSED?</b>	YES	<b>SPILL TIME:</b>	
<b>SPILL DATE:</b>		<b>REPORT TIME:</b>	
<b>DATE REPORTED:</b>	19901214	<b>NOTIFIER PHONE:</b>	
<b>SPILL NOTIFIER:</b>	FRANK MUCCI		
<b>SPILL DESCRIPTION:</b>			
<b>INCIDENT:</b>	-----		
<b>MATERIAL SPILLED:</b>	ASPHALT	<b>ACTUAL AMT SPILLED:</b>	UNKNOWN GALLONS
<b>AMT RPTD SPILLED:</b>	UNKNOWN GALLONS	<b>VIR/WASTE:</b>	-----
<b>SOURCE OF SPILL:</b>	-----		
<b>PET/HAZ:</b>	PETROLEUM		
<b>PCB LEVEL:</b>	UNKNOWN		
<b>ENVIRONMENTAL IMPACT:</b>	SOIL		
<b>LUST?:</b>	NO	<b>SOIL CONTAMINATED?:</b>	
<b>CONTRACTOR:</b>	NOT USED	<b>PREPARE REPORT:</b>	
<b>DAYS/CLOSE:</b>	1		

**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

STATE SPILLS SITE

**SEARCH ID:** 124

**DIST/DIR:** 0.42 NW

**MAP ID:** 6

**NAME:**  
**ADDRESS:** 670 HUNTINGTON AVE  
BOSTON MA  
SUFFOLK  
**CONTACT:** STUGER, B

**REV:**  
**ID1:** N90-0718  
**ID2:** 3-3259  
**STATUS:**  
**PHONE:**

**CASE CLOSED?** YES  
**SPILL DATE:** 19900509  
**DATE REPORTED:** 19900509  
**SPILL NOTIFIER:** STEVE DIMITRADAS

**SPILL TIME:**  
**REPORT TIME:**  
**NOTIFIER PHONE:**

**SPILL DESCRIPTION:**

**INCIDENT:** TANK REMOVAL  
**MATERIAL SPILLED:** GASOLINE  
**AMT RPTD SPILLED:** UNKNOWN GALLONS  
**SOURCE OF SPILL:** U.S.T.  
**PET/HAZ:** PETROLEUM  
**PCB LEVEL:** NONE

**ACTUAL AMT SPILLED:** UNKNOWN GALLONS  
**VIR/WASTE:** VIRGIN

**ENVIRONMENTAL IMPACT:** SOIL

**LUST?:** NO  
**CONTRACTOR:** NOT USED  
**DAYS/CLOSE:** 0

**SOIL CONTAMINATED?:**  
**PREPARE REPORT:**

**Environmental FirstSearch  
Site Detail Report**

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

REGISTERED UNDERGROUND STORAGE TANKS	
<b>SEARCH ID:</b> 125	<b>DIST/DIR:</b> 0.11 SW
<b>MAP ID:</b> 103	
<b>NAME:</b> NO DUST INDUSTRIES INC <b>ADDRESS:</b> 103 TERRACE ST ROXBURY MA 02120  <b>CONTACT:</b> JOHN H. BURGE	<b>REV:</b> 03/29/00 <b>ID1:</b> 0-014614 <b>ID2:</b> <b>STATUS:</b> <b>PHONE:</b> (617) 427-1268
<b>TOTAL NUMBER OF TANKS:</b> 1	
<b><u>OWNER INFORMATION</u></b>	
<b>OWNER NAME:</b> NO DUST INDUSTRIES INC <b>OWNER ADDRESS:</b> 103 TERRACE ST ROXBURY MA 02120 <b>OWNER TELEPHONE:</b> (617) 427-1268 <b>OWNER TYPE:</b> Private	
<b><u>FACILITY INSURANCE INFORMATION</u></b>	
<b>COMMERCIAL INSURANCE?:</b> NO <b>SELF INSURED?:</b> NO <b>RISK RETENTION GROUP RESPONSIBILITY?:</b> NO <b>GUARANTEE FINANCIAL RESPONSIBILITY?:</b> NO <b>TRUST FUND FINANCIAL RESPONSIBILITY?:</b> NO <b>SURETY BOND FINANCIAL RESPONSIBILITY?:</b> NO <b>STATE FUND FINANCIAL RESPONSIBILITY?:</b> NO <b>OTHER TYPES OF INSURANCE:</b> Normal	
<b><u>FACILITY GROUNDWATER INFORMATION</u></b>	
<b>WITHIN DRINKING SUPPLY PROTECTION AREA?:</b> NO <b>WITHIN A WELLHEAD PROTECTION AREA?:</b> NO <b>WITHIN 100 FEET OF A WETLAND?:</b> NO <b>WITHIN 300 FEET OF A BODY OF WATER?:</b> NO <b>TOWN FIRE DEPARTMENT CODE:</b> 25035	
<b>TANK NUMBER:</b> 1 <b>TANK STATUS:</b> Removed <b>CONTENTS:</b> Other <b>DATE INSTALLED:</b> 5/21/71 0:00:00 <b>DATE REMOVED:</b>	<b>PIPE STATUS:</b> <b>CAPACITY:</b> 6000 GALLONS <b>DATE LAST USED:</b>
<b>HAS LEAK EVER BEEN DETECTED?:</b> NO <b>IF DETECTED, WAS DEP NOTIFIED OF LEAK?:</b> NO <b>DEP TRACKING NUMBER:</b> <b>TANK LEAK DETECTION METHOD:</b> <b>PIPING LEAK DETECTION METHOD:</b>	
<b>TANK MATERIAL/CONSTRUCTION:</b> Bare Steel <b>PIPE MATERIAL/CONSTRUCTION:</b> <b>IS TANK LINED?:</b> NO <b>DOES TANK HAVE EXCAVATION LINER?:</b> NO <b>INSTALL INSFTD BY ENGINEER?:</b> NO <b>INSTALL INSPTD BY IMPLEMENTING AGCY?:</b> NO <b>DATE OF LAST TIGHTNESS TEST:</b>	

*Environmental FirstSearch  
Site Detail Report*

**TARGET SITE:** 77 TERRACE ST  
BOSTON MA 02120

**JOB:** 3-10-11  
77 TERRACE ST, BOSTON, MA

HOSP

**SEARCH ID:** 126

**DIST/DIR:** 0.50 NW

**MAP ID:** 110

**NAME:** PETER BENT BRIGHAM HOSPITAL  
**ADDRESS:** MA

**REV:**  
**ID1:** 587  
**ID2:**  
**STATUS:**  
**PHONE:**

**CONTACT:**

NO DETAILS AVAILABLE

**Environmental FirstSearch**  
**Street Name Report for Streets within .5 Mile(s) of Target Property**

**TARGET SITE:** 77 TERRACE ST  
 BOSTON MA 02120

**JOB:** 3-10-11  
 77 TERRACE ST, BOSTON, MA

Street Name	Dist/Dir	Street Name	Dist/Dir
Alleghany St	0.01 NE	King St	0.28 NE
Alton Ct	0.25 NW	Lamartine St	0.48 SW
Alvah Kittredge Park	0.28 SE	Lambert Ave	0.40 SE
Anita Ter	0.16 NE	Lambert St	0.30 SE
Annunciation Rd	0.41 NE	Lawn St	0.39 SW
Arklow St	0.48 SW	Linden Park St	0.33 NE
Bartlett St	0.34 NE	Linwood Sq	0.21 SE
Beech Glen St	0.27 SE	Linwood St	0.15 SE
Bickford Ave	0.31 SW	Logan St	0.40 SE
Bickford St	0.29 SW	Longwood Ave	0.43 NW
Blanchard St	0.38 SE	Marcella St	0.25 SE
Bromley St	0.24 SW	McGreevey Way	0.33 NE
Bucknam St	0.34 SW	Merton Pl	0.19 SE
Burney St	0.17 NW	Millmont St	0.30 SE
Calumet St	0.15 SW	Minden St	0.46 SW
Carmel St	0.21 NW	Mindoro St	0.26 NE
Cedar Park	0.25 SE	Morley St	0.29 SE
Cedar Sq	0.50 SE	Morton Pl	0.13 NE
Cedar St	0.08 SW	Mulvey Ter	0.42 SE
Centre Pl	0.15 SE	New Dudley St	0.20 NE
Centre St	0.15 SE	New Heath St	0.23 SW
Centre Street Ter	0.25 SE	Newark St	0.13 SE
Cherokee St	0.14 NW	Norfolk St	0.31 SE
Chestnut Ave	0.50 SW	Oakview Ave	0.32 SE
Chicamauga Park	0.38 SE	Oregon Ct	0.30 NW
Columbus Ave	0.07 SE	Oscar St	0.05 NE
Conant St	0.39 NW	Oswald St	0.35 NW
Cornelia Ct	0.32 NW	Palace Rd	0.49 NW
Darling St	0.44 NW	Parker Hill Ave	0.13 SW
Decatur Ave	0.06 SE	Parker St	0.05 NW
Delle Ave	0.09 NW	Pequot St	0.44 NW
Dorr St	0.30 SE	Plant Ct	0.45 SW
Dudley Pl	0.50 SE	Pontiac St	0.23 NW
Dudley St	0.36 NE	Prentiss St	0.35 NE
Eldora St	0.50 NW	Putnam Pl	0.46 NE
Eliot Ter	0.30 NE	Putnam St	0.44 SE
Ellis St	0.47 SE	Racine Ct	0.21 NE
Elmwood St	0.17 NE	Ritchie St	0.49 SW
Estey St	0.48 SW	Rockledge St	0.41 SE
Faxon St	0.16 NW	Romar Ter	0.20 SE
Fenwood Rd	0.50 NW	Round Hill St	0.50 SW
Fisher Ave	0.21 SW	Roxbury St	0.17 NE
Folsom Ave	0.05 SW	S Whitney St	0.33 NW
Fort Ave	0.18 SE	Sachem St	0.39 NW
Fort Avenue Ter	0.33 SE	Schiller St	0.44 SW
Francis St	0.48 NW	Sewall St	0.12 NW
French Ter	0.08 NE	Shattuck St	0.45 NW
Fulda St	0.47 SE	Slayton Way	0.50 SE

**Environmental FirstSearch**  
**Street Name Report for Streets within .5 Mile(s) of Target Property**

**TARGET SITE:** 77 TERRACE ST  
 BOSTON MA 02120

**JOB:** 3-10-11  
 77 TERRACE ST, BOSTON, MA

Street Name	Dist/Dir	Street Name	Dist/Dir
Gardner St	0.17 NE	Smith St	0.22 NE
Gay Head St	0.48 SW	SOUTH Whitney St	0.33 NW
Gay St	0.43 NE	St Alphonsus St	0.27 NW
Gore St	0.09 NE	Station St	0.26 NE
Guild St	0.42 SE	Stockwell St	0.48 NW
Gurney St	0.17 NE	Suffolk Pl	0.47 NE
Halleck St	0.26 NE	Terrace Pl	0.01 NE
Harleston St	0.23 NW	Terrace St	0.01 NE
Harrington Ave	0.16 SE	Thornton St	0.48 SE
Hawthorne St	0.44 SE	Thwing St	0.43 SE
Hayden St	0.44 SW	Tobin Ct	0.27 NW
Heath St	0.25 SW	Torpie St	0.36 NW
Highland Ave	0.25 NE	Tremont St	0.15 NE
Highland Park Ave	0.21 SE	Twombly Pl	0.05 SW
Highland Park St	0.28 SE	Vale St	0.49 SE
Highland Pl	0.32 SE	Vancouver St	0.42 NW
Highland St	0.30 SE	Vitale Pl	0.05 SE
Highland Ter	0.25 SE	Wait St	0.48 NW
Hillside St	0.07 SW	Walden St	0.42 SW
Horadan Way	0.28 NE	Ward St	0.38 NE
Horan Way	0.42 SW	Waymount St	0.49 NW
Huban Ct	0.24 NE	Wensley St	0.25 SW
Huntington Ave	0.45 NW	Wigglesworth St	0.41 NW
Iroquois St	0.25 NW	Willoughby Pl	0.38 SE
John Eliot Sq	0.34 NE	Wise St	0.49 SW
Judge St	0.25 NW	Worthington St	0.37 NW
Juniper St	0.49 SE		
Kenilworth St	0.47 SE		



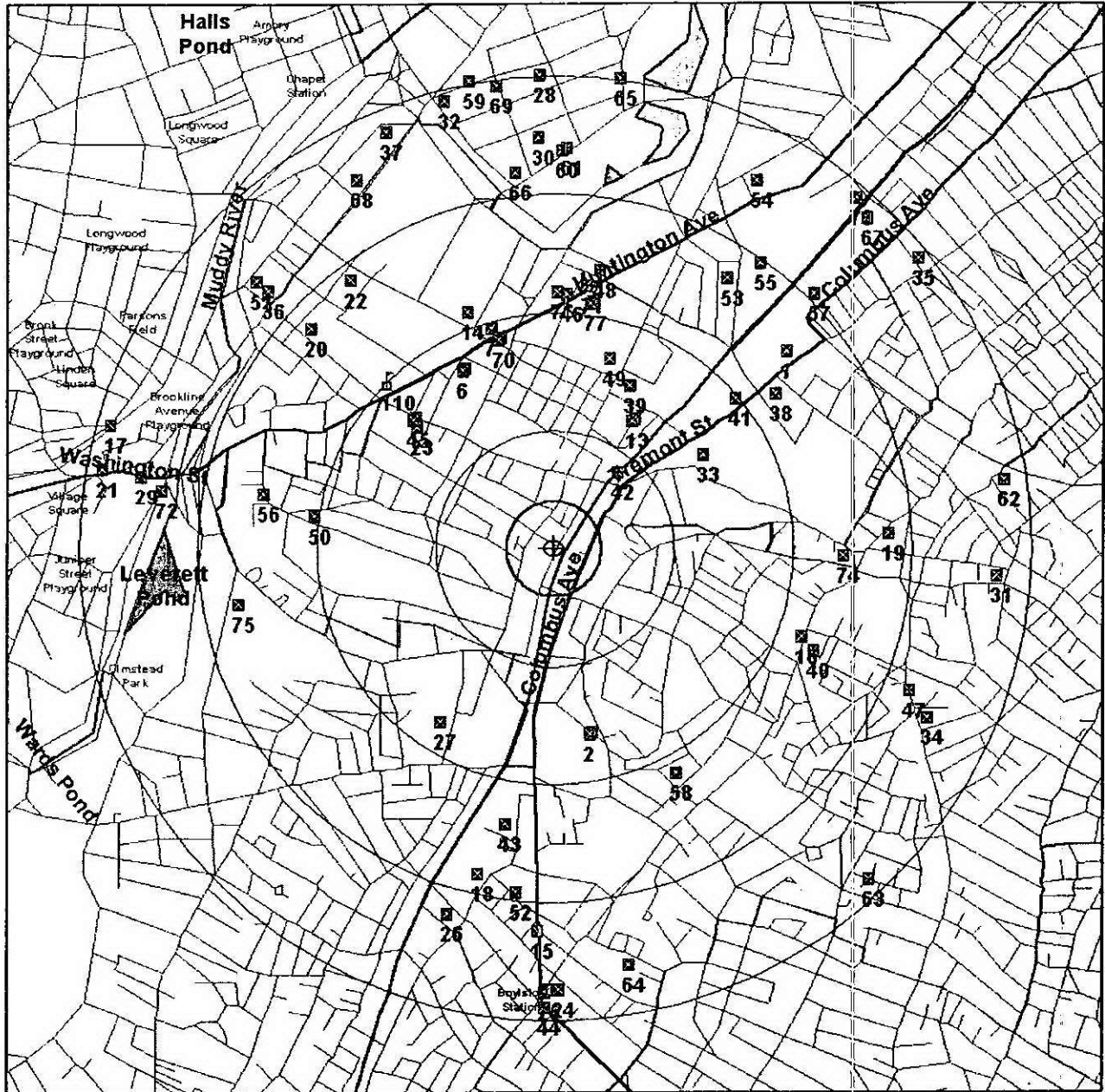
# Environmental FirstSearch

1 Mile Radius

ASTM Map: NPL, RCACOR, STATE Sites



## 77 TERRACE ST, BOSTON MA 02120



Source: 1999 U.S. Census TIGER Files

Target Site (Latitude: 42.329504 Longitude: -71.097888)

Identified Site, Multiple Sites, Receptor

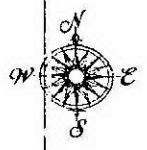
NPL, Solid Waste Landfill (SWL) or Hazardous Waste

Railroads

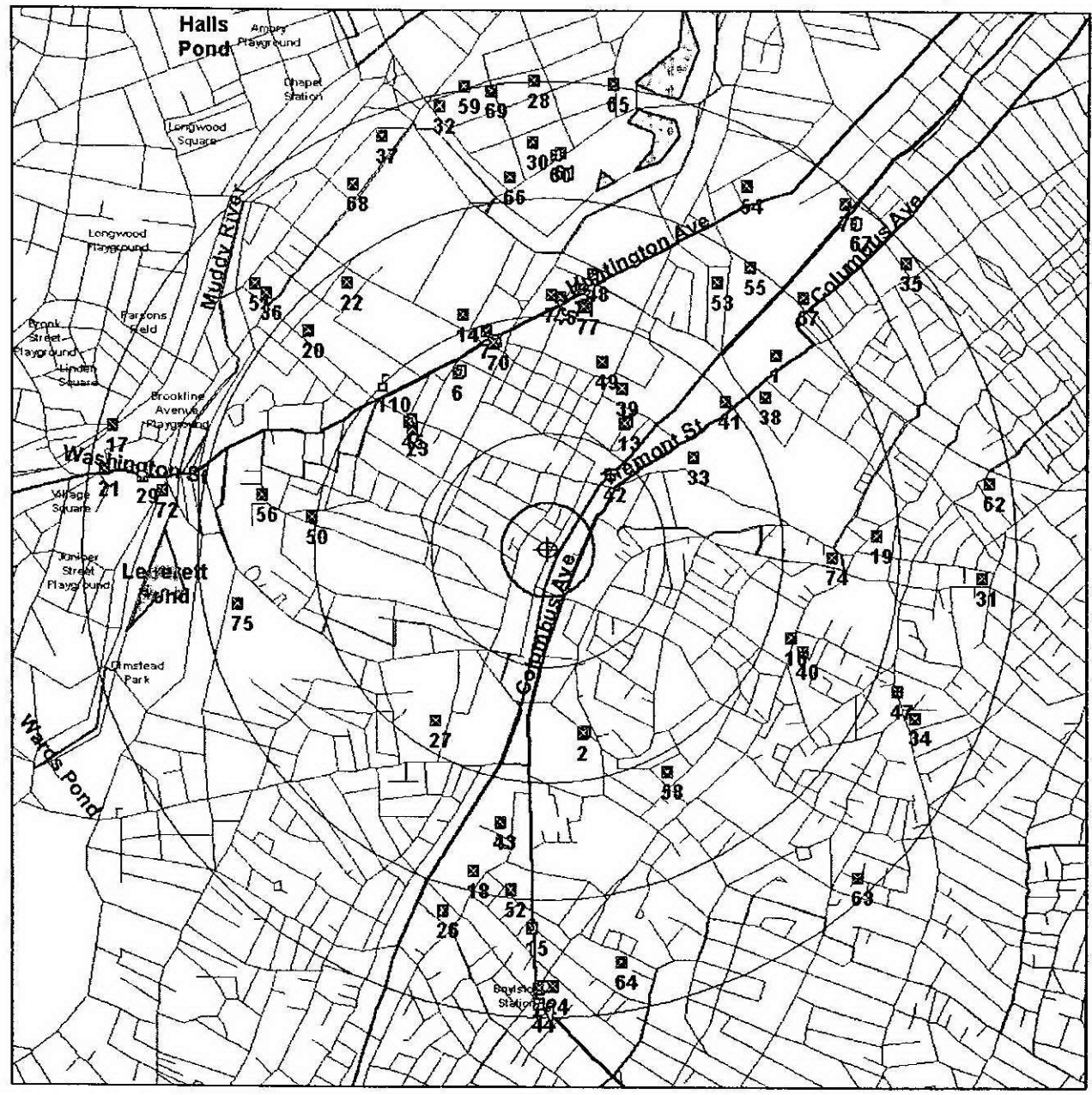
Black Rings Represent 1/4 Mile Radii; Red Ring Represents 500 ft. Radius



**Environmental FirstSearch**  
 1 Mile Radius  
 ASTM Map: NPL, RCRACOR, STATE Sites



**77 TERRACE ST, BOSTON MA 02120**



Source: 1999 U.S. Census TIGER Files

- Target Site (Latitude: 42.329504 Longitude: -71.097888) .....
- Identified Site, Multiple Sites, Receptor .....
- NPL, Solid Waste Landfill (SWL) or Hazardous Waste .....
- Railroads .....

Black Rings Represent 1/4 Mile Radii; Red Ring Represents 500 ft. Radius





# Environmental FirstSearch

.5 Mile Radius  
ASTM Map: CERCLIS, RCRATSD, SPILLS90, SWL



77 TERRACE ST, BOSTON MA 02120



Source: 1999 U.S. Census TIGER Files

- Target Site (Latitude: 42.329504 Longitude: -71.097888) .....
- Identified Site, Multiple Sites, Receptor .....
- NPL, Solid Waste Landfill (SWL) or Hazardous Waste .....
- Railroads .....

Black Rings Represent 1/4 Mile Radii; Red Ring Represents 500 ft. Radius

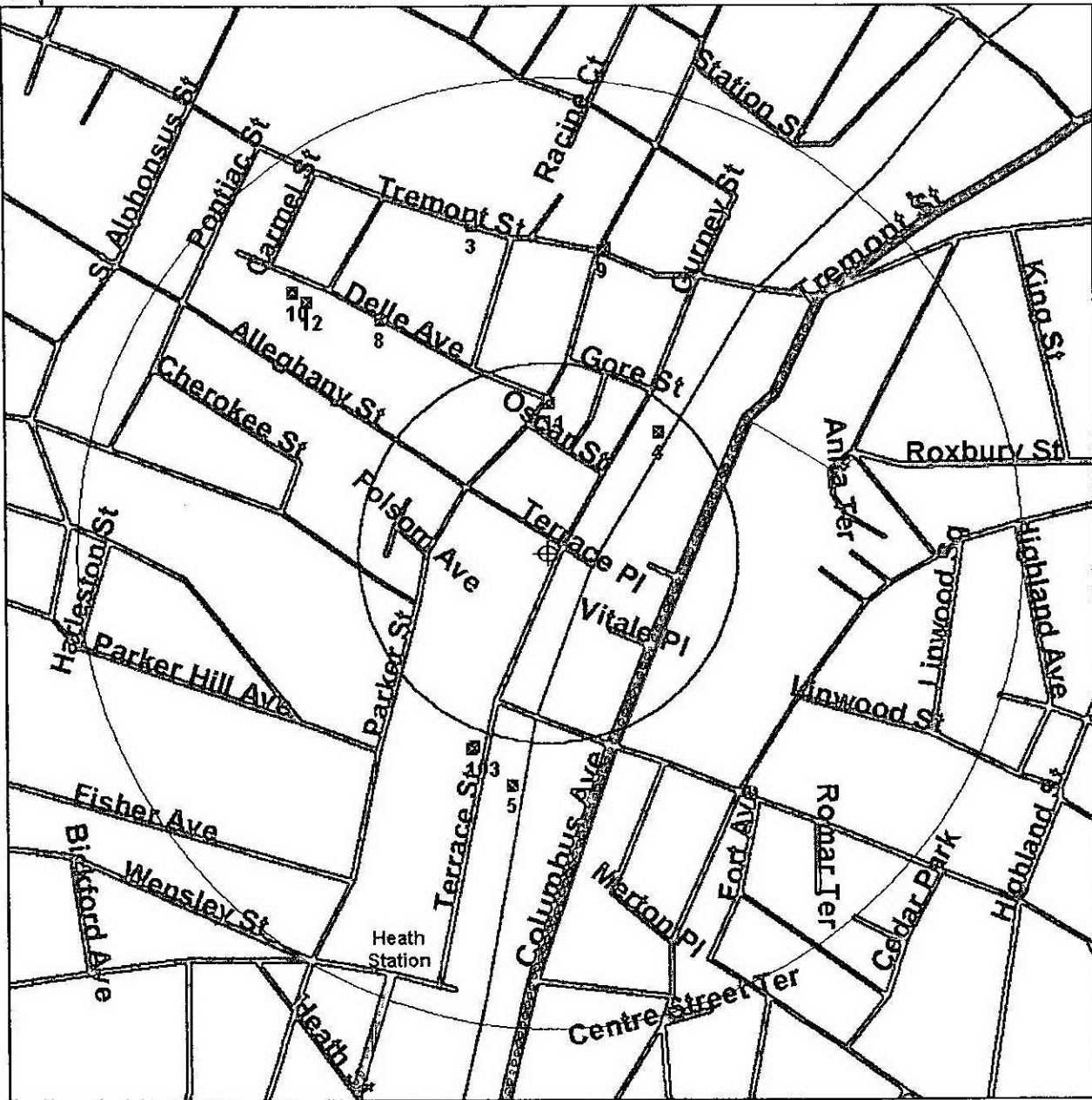
# Environmental FirstSearch

.25 Mile Radius

ASTM Map: RCRA GEN, ERNS, UST



77 TERRACE ST, BOSTON MA 02120



Source: 1999 U.S. Census TIGER Files

- Target Site (Latitude: 42.329504 Longitude: -71.097888) .....
- Identified Site, Multiple Sites, Receptor .....
- NPL, Solid Waste Landfill (SWL) or Hazardous Waste .....
- Railroads .....

Black Rings Represent 1/4 Mile Radii; Red Ring Represents 500 ft. Radius

**APPENDIX B**

---

**Field Card**

TERRACE	ST	77		
Street Name	St Sfx	St #	St# Sfx	Ward
Owner:	CITY OF BOSTON BY FCL		Parcel ID:	10/00396/000

**Assessing Information Center - Basic Data**

Bldg Value:	0	Latest Transfer Date:	05/15/87
Land Value:	99,000	Book/Page:	13648232
Total Value:	99,000	Land Use-Legal:	E Gross TAX: .00
Condo Unit #:		Res Xmpt:	N Tax Status: E
		Lotsize:	28,300 Clause :
1 Owners:		Title Code:	Clause :
<b>001</b> CITY OF BOSTON BY FCL			
		Mailing Address (current):	
		CITY OF BOSTON BY FCL	
		77 TERRACE ST	
		ROXBURY CROSSING 02120	

Use up-down arr, 'L' (LATEST tax), 'H' (Val Hist).

APPENDIX C

**Sanborn Fire Insurance Maps**



**Environmental  
Data  
Resources, Inc.**  
an *edr* company

"Linking Technology with Tradition"

# Sanborn™ Map Report

**Ship to:**

Ms. Beth Christensen  
New England Datamap  
450 Washington Street  
Dedham, MA 02026

**Order Date:** 7/28/2000

**Completion Date:** 07/28/2000

**Inquiry #:** 522460.1s

**P.O. #:** NA

**Site Name:** 77 Terrace St

**Address:** 77 Terrace St

**City/State:** Boston, MA 02120

**Cross Streets:**

1012696KJG

781-320-3720

Based on client-supplied information, fire insurance maps for the following years were identified

1888 - 1 - map	1993 - 1 - map
1897 - 1 - map	1994 - 1 - map
1919 - 1 - map	1995 - 1 - map
1950 - 1 - map	
1964 - 1 - map	
1988 - 1 - map	
1990 - 1 - map	
1992 - 1 - map	

Total Maps: 11

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**APPENDIX D**

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**Test Pit Logs**

# TEST PIT LOG

Location Address or Lot No.: 77 Terrace Street, Boston, MA

## On-Site Review

Test Pit Number: TP1      Date: August 4, 2000      Weather: P. Sunny, recent rain; 70°

Location: See Site Plan

Vegetation: Open field with some brush, wooded along most edges

Distances from:

Open Water Body      -Greater than 0.5 miles  
Possible Wet Area      - None

### Test Pit Observation Log

Depth from Surface (feet)	Geologic Observations
0-6'	Orange/rust color. Fine-coarse sand. Fill material. Some organic silt, some gravel. Rubble-brick, concrete, wood, ash (coal/wood), various metal objects including a possible former steel drum and sheet metal, cans, bottles. 1 beam support column attached to concrete also encountered. PID reading of 16 ppm (2-6').
	Refusal at 6' due to foundation.

Depth to Groundwater: No groundwater was encountered during this excavation

S.A.A. = Same as Above



# TEST PIT LOG

Location Address or Lot No.: 77 Terrace Street, Boston, MA

## On-Site Review

Test Pit Number: TP2

Date: August 4, 2000

Weather: P. Sunny, recent rain; 70°

Location: See Site Plan

Vegetation: Open field with some brush, wooded along most edges

Distances from:

Open Water Body

-Greater than 0.5 miles

Possible Wet Area

- None

### Test Pit Observation Log

Depth from Surface (feet)	Geologic Observations
0-12.5'	Fine-coarse sand. Fill material. Some organic silt, some gravel. Debris encountered: not as much wood as TP1, lots of brick, sheet metal, pipe, conduit(?), tires, inner tubes, concrete fragments (up to 3x2'). Brick wall formed northern wall of excavation. High concentrations of organic soil. Not as much ash as TP1. PID reading of 0.0 ppm.
	12.5' was approximate limit of backhoe. Bottom of fill not encountered.

Depth to Groundwater: No groundwater was encountered during this excavation

S.A.A. = Same as Above

# TEST PIT LOG

Location Address or Lot No.: 77 Terrace Street, Boston, MA

## On-Site Review

Test Pit Number: TP3

Date: August 4, 2000

Weather: P. Sunny, recent rain; 70°

Location: See Site Plan

Vegetation: Open field with some brush, wooded along most edges

Distances from:

Open Water Body - Greater than 0.5 miles

Possible Wet Area - None

## Test Pit Observation Log

Depth from Surface (feet)	Geologic Observations
0-5'	Ash, organic topsoil. Some organic silt, some gravel. Main soil was fill material, a fine-coarse sand. Debris encountered: not as much wood, brick, concrete and metal as TP1 and TP2. PID reading of 2.7 ppm.
	5' = bottom of excavation.

Depth to Groundwater: No groundwater was encountered during this excavation

S.A.A. = Same as Above

# TEST PIT LOG

Location Address or Lot No.: 77 Terrace Street, Boston, MA

## On-Site Review

Test Pit Number: TP4

Date: August 4, 2000

Weather: P. Sunny, recent rain; 70°

Location: See Site Plan

Vegetation: Open field with some brush, wooded along most edges

Distances from:

Open Water Body - Greater than 0.5 miles

Possible Wet Area - None

### Test Pit Observation Log

Depth from Surface (feet)	Geologic Observations
0-2'	Brown, organic medium sand.
2-3'	Black, ash-like layer.
3-6'	Brick rubble. North wall of excavation was concrete foundation. Debris encountered throughout excavation: scrap metal, tire material, brick (lots), pipe, and small boulders (up to 2'). PID= 3.0 ppm.
	6'= bottom of excavation.

Depth to Groundwater: No groundwater was encountered during this excavation

S.F.A. = Same as Above

# TEST PIT LOG

Location Address or Lot No.; 77 Terrace Street, Boston, MA

## On-Site Review

Test Pit Number: TP5

Date: August 4, 2000

Weather: P. Sunny, recent rain; 70°

Location: See Site Plan

Vegetation: Open field with some brush, wooded along most edges

Distances from:

Open Water Body - Greater than 0.5 miles

Possible Wet Area - None

## Test Pit Observation Log

Depth from Surface (feet)	Geologic Observations
0-5'	Fill material, a fine-coarse sand. Bricks and scrap metal. Pipe, possible an old gas line (2" diameter) was found at the base of this layer. Pipe runs north/south.
5-7'	Top 6"-black layer. Middle 9"-sandy brown layer. Bottom 6"- black layer.
7-10.5'	Gray. Lighter. Possible till with clay matrix. Not clear if material is natural or not. Very bottom of excavation may have been beginning to become more organic. PID= 3.4 (composite of entire excavation).
	10.5'= bottom of excavation.

Depth to Groundwater: No groundwater was encountered during this excavation

S.A. = Same as Above

# TEST PIT LOG

Location Address or Lot No.: 77 Terrace Street, Boston, MA

## On-Site Review

Test Pit Number: TP6

Date: August 4, 2000

Weather: P. Sunny, recent rain; 70°

Location: See Site Plan

Vegetation: Open field with some brush, wooded along most edges

Distances from:

Open Water Body - Greater than 0.5 miles

Possible Wet Area - None

### Test Pit Observation Log

Depth from Surface (feet)	Geologic Observations
0-4'	Fill material, a fine-coarse sand. Debris encountered: bricks, scrap metal, car parts (tires, wheels, metal, car seat), concrete. PID= 3.9 ppm.
	Refusal at 4'

Depth to Groundwater: No groundwater was encountered during this excavation

S.A.A. = Same as Above

# TEST PIT LOG

Location Address or Lot No.: 77 Terrace Street, Boston, MA

## On-Site Review

Test Pit Number: TP7      Date: August 4, 2000      Weather: P. Sunny, recent rain; 70°  
 Location: See Site Plan  
 Vegetation: Open field with some brush, wooded along most edges  
 Distances from:  
     Open Water Body      -Greater than 0.5 miles  
     Possible Wet Area      - None

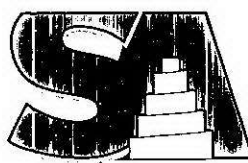
<b>Test Pit Observation Log</b>	
Depth from Surface (feet)	Geologic Observations
0-4'	Fill material, a brown, fine-coarse sand.
4-5'	Brick colored fill layer, fine-coarse sand. North wall of pit was a brick wall from 4-6'.
5-6'	Black layer, fine-coarse sand. North wall of pit was a brick wall from 4-6', foundation beneath that to base of pit.
6-8'	Gray layer, fine-coarse sand. Looked more clay-like than other layers. At base of excavation soil was brown. Debris encountered throughout excavation: cables, brick, metal scraps, wood. North wall of pit was a brick wall from 4-6', foundation beneath that to base of pit. PID reading (composite of entire pit)= 2.4 ppm.
	8'= bottom of excavation.

**Depth to Groundwater:** No groundwater was encountered during this excavation  
 S.F.A. = Same as Above

**APPENDIX E**

---

**Laboratory Analytical Data**



SPECTRUM ANALYTICAL, INC.

Featuring

HANIBAL TECHNOLOGY

Massachusetts Certification # M-MA138

Rhode Island # 98 Maine # MA138

Florida # E87600 / 87562

New Hampshire # 2538

Connecticut # PH-0777

New York # 11393

Coler & Colantonio  
101 Accord Pk. Drive  
Norwell, MA 02061

8/22/00

Attn: Mark Germano

Client Project Number: 11-665

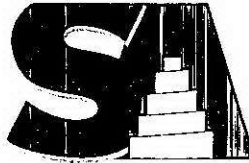
Location: Terrace St - Roxbury, MA

<u>Laboratory ID</u>	<u>Client Sample ID</u>	<u>Analyses Requested</u>
AC01132	TP-01	VOCs by GC/MS VOC Extraction (solid) % Solids Ultrasonic Extraction EPH Aliphatics/Aromatics EPH Target PAH Analytes Metals Digestion Mercury Digestion Total RCRA8 Metals Total Mercury
AC01133	TP-02	% Solids Ultrasonic Extraction EPH Aliphatics/Aromatics EPH Target PAH Analytes Metals Digestion Mercury Digestion Total RCRA8 Metals Total Mercury
AC01134	TP-03	% Solids Ultrasonic Extraction EPH Aliphatics/Aromatics EPH Target PAH Analytes Metals Digestion Mercury Digestion Total RCRA8 Metals Total Mercury
135	TP-04	% Solids

ENVIRONMENTAL ANALYSES

Page 1 of 3





SPECTRUM ANALYTICAL, INC.

Featuring

HANIBAL TECHNOLOGY

Client Project Number: 11-665

Location: Terrace St - Roxbury, MA

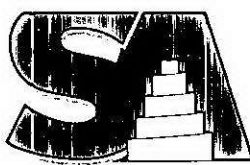
<u>Laboratory ID</u>	<u>Client Sample ID</u>	<u>Analyses Requested</u>
AC01135	TP-04	Ultrasonic Extraction EPH Aliphatics/Aromatics EPH Target PAH Analytes Metals Digestion Mercury Digestion Total RCRA8 Metals Total Mercury
AC01136	TP-05	VOCs by GC/MS VOC Extraction (solid) % Solids Ultrasonic Extraction EPH Aliphatics/Aromatics EPH Target PAH Analytes Metals Digestion Mercury Digestion Total RCRA8 Metals Total Mercury
AC01137	TP-06	VOCs by GC/MS VOC Extraction (solid) % Solids Ultrasonic Extraction EPH Aliphatics/Aromatics EPH Target PAH Analytes Metals Digestion Mercury Digestion Total RCRA8 Metals Total Mercury
AC01138	TP-07	% Solids Ultrasonic Extraction EPH Aliphatics/Aromatics EPH Target PAH Analytes Metals Digestion Mercury Digestion Total RCRA8 Metals Total Mercury

ENVIRONMENTAL ANALYSES

Page 2 of 3

11 Almgren Drive • Agawam, Massachusetts 01001 • 1-800-789-9115 • 413-789-9018 • Fax 413-789-4076

24 Tobey Road • Bloomfield, Connecticut 06002 • 860-242-6294 • Fax 860-242-4012



SPECTRUM ANALYTICAL, INC.

Featuring

HANIBAL TECHNOLOGY

Client Project Number: 11-665

Location: Terrace St - Roxbury, MA

Laboratory ID

AC01139

Client Sample ID

Tp-08

Analyses Requested

VOCs by GC/MS  
VOC Extraction (solid)  
% Solids  
Ultrasonic Extraction  
EPH Aliphatics/Aromatics  
EPH Target PAH Analytes  
Metals Digestion  
Mercury Digestion  
Total RCRA8 Metals  
Total Mercury

I attest that all information contained within this report has been reviewed for accuracy and checked against all quality control requirements outlined in each applicable method including any data obtained from a subcontract laboratory.

Authorized by:

Hamibal C. Tayeh

President/Laboratory Director

## SPECTRUM ANALYTICAL, INC.

## Laboratory Report

Location: Terrace St - Roxbury, MA

Client: C&amp;C

Lab ID No: AC01132

Client Id: TP-01

Client Project No: 11-665

Submittal Date: 8/8/00

Collection Date: 8/4/00

Matrix: Soil

Parameter	Results	Units	Reporting Limit	Start Date	End Date	Analyst	Method
<b>VOC Preparation</b>							
VOC Extraction (solid)	Field ext			8/4/00	8/4/00		SW846 5035
<b>Volatile Organic Compounds</b>							
<i>VOCs by GC/MS</i>							
Acetone	Not detected	ug/Kg	6500	8/15/00	8/15/00	GM	SW846 8260B
Acrylonitrile	Not detected	ug/Kg	650	8/15/00	8/15/00	GM	SW846 8260B
Benzene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
Bromobenzene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
Bromochloromethane	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
Bromodichloromethane	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
Bromoform	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
Bromomethane	Not detected	ug/Kg	130	8/15/00	8/15/00	GM	SW846 8260B
2-Butanone (MEK)	Not detected	ug/Kg	3250	8/15/00	8/15/00	GM	SW846 8260B
n-Butylbenzene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
sec-Butylbenzene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
tert-Butylbenzene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
Carbon disulfide	Not detected	ug/Kg	325	8/15/00	8/15/00	GM	SW846 8260B
Carbon tetrachloride	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
Chlorobenzene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
Chloroethane	Not detected	ug/Kg	130	8/15/00	8/15/00	GM	SW846 8260B
Chloroform	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
Chloromethane	Not detected	ug/Kg	130	8/15/00	8/15/00	GM	SW846 8260B
2-Chlorotoluene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
4-Chlorotoluene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
1,2-Dibromo-3-chloropropane (DBCP)	Not detected	ug/Kg	130	8/15/00	8/15/00	GM	SW846 8260B
Dibromochloromethane	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
1,2-Dibromoethane (EDB)	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
Dibromomethane	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
1,2-Dichlorobenzene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
1,3-Dichlorobenzene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
1,4-Dichlorobenzene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
Dichlorodifluoromethane	Not detected	ug/Kg	130	8/15/00	8/15/00	GM	SW846 8260B
1,1-Dichloroethane	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
1,2-Dichloroethane	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
1,1-Dichloroethene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B

Parameter	Results	Units	Reporting Limit	Start Date	End Date	Analyst	Method
cis-1,2-Dichloroethene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
trans-1,2-Dichloroethene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
1,2-Dichloropropane	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
1,3-Dichloropropane	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
2,2-Dichloropropane	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
1,1-Dichloropropene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
cis-1,3-Dichloropropene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
trans-1,3-Dichloropropene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
Ethylbenzene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
Hexachlorobutadiene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
2-Hexanone (MBK)	Not detected	ug/Kg	6500	8/15/00	8/15/00	GM	SW846 8260B
Isopropylbenzene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
4-Isopropyltoluene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
Methyl-tert-butyl ether (MTBE)	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
4-Methyl-2-pentanone (MIBK)	Not detected	ug/Kg	1300	8/15/00	8/15/00	GM	SW846 8260B
Methylene chloride	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
Naphthalene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
n-Propylbenzene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
Styrene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
1,1,1,2-Tetrachloroethane	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
1,1,2,2-Tetrachloroethane	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
Tetrachloroethene (PCE)	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
Toluene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
1,2,3-Trichlorobenzene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
1,2,4-Trichlorobenzene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
1,1,1-Trichloroethane	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
1,1,2-Trichloroethane	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
Trichloroethene (TCE)	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
Trichlorofluoromethane	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
1,2,3-Trichloropropane	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
1,2,4-Trimethylbenzene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
1,3,5-Trimethylbenzene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
Vinyl chloride	Not detected	ug/Kg	130	8/15/00	8/15/00	GM	SW846 8260B
m,p-Xylenes	Not detected	ug/Kg	130	8/15/00	8/15/00	GM	SW846 8260B
o-Xylene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260B
4-Bromofluorobenzene (%SR)	104	ug/Kg	0.000	8/15/00	8/15/00	GM	SW846 8260B
1,4-Difluorobenzene (%SR)	98	ug/Kg	0.000	8/15/00	8/15/00	GM	SW846 8260B
Chlorobenzene-d5 (%SR)	96	ug/Kg	0.000	8/15/00	8/15/00	GM	SW846 8260B

**TPH Preparation**

Ultrasonic Extraction	Completed			8/10/00	8/10/00	AP	SW846 3550B
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**Petroleum Hydrocarbon Analysis**

Parameter	Results	Units	Reporting Limit	Start Date	End Date	Analyst	Method
<b>EPH Aliphatics/Aromatics</b>							
C9-C18 Aliphatic Hydrocarbons	760	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-1
C19-C36 Aliphatic Hydrocarbons	6,100	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-1
C11-C22 Aromatic Hydrocarbons	1,784	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-1
Unadjusted C11-C22 Aromatics	1,806	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-1
Carbon Chain Dilution Factor	1	mg/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
<b>EPH Target PAH Analytes</b>							
Naphthalene	240	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
2-Methylnaphthalene	Not detected	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Acenaphthylene	Not detected	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Acenaphthene	680	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Fluorene	480	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Phenanthrene	4,400	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Anthracene	710	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Fluoranthene	4,300	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Pyrene	4,600	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (a) anthracene	1,200	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Chrysene	1,500	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (b) fluoranthene	810	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (k) fluoranthene	440	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (a) pyrene	590	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Indeno (1,2,3-cd) pyrene	780	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Dibenzo (a,h) anthracene	240	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (g,h,i) perylene	870	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
1-Chloro-octadecane Aliphatic (%SR)	51	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
Ortho-Terphenyl Aromatic (%SR)	50	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
2-Bromonaphthalene Fractionation (%SR)	98	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
2-Fluorobiphenyl Fractionation (%SR)	90	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
Target Analyte Dilution Factor	1	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
<b>Metals Preparation</b>							
Mercury Digestion	Completed			8/18/00	8/18/00	EP	EPA 245.1
Metals Digestion	Completed			8/18/00	8/18/00	EP	EPA 200.7
<b>Metals Analysis</b>							
<b>Total RCRA8 Metals</b>							
Total Arsenic	16.6	mg/Kg	2.98	8/21/00	8/21/00	CR	EPA 200.7
Total Barium	224	mg/Kg	0.993	8/21/00	8/21/00	CR	EPA 200.7
Total Cadmium	10.5	mg/Kg	0.497	8/21/00	8/21/00	CR	EPA 200.7
Total Chromium	25.2	mg/Kg	0.993	8/21/00	8/21/00	CR	EPA 200.7
Total Lead	1,230	mg/Kg	1.49	8/21/00	8/21/00	CR	EPA 200.7
Total Selenium	Below det lim	mg/Kg	2.98	8/21/00	8/21/00	CR	EPA 200.7
Total Silver	Below det lim	mg/Kg	1.99	8/21/00	8/21/00	CR	EPA 200.7

Parameter	Results	Units	Reporting Limit	Start Date	End Date	Analyst	Method
Total Mercury	0.883	mg/Kg	0.206	8/21/00	8/21/00	YV	EPA 245.1
% Solids	83.8	%		8/10/00	8/10/00	AP	SM2540 B Mod



Parameter	Results	Units	Reporting Limit	Start Date	End Date	Analyst	Method
<b>TPH Preparation</b>							
Ultrasonic Extraction	Completed			8/10/00	8/10/00	AP	SW846 3550B
<b>Petroleum Hydrocarbon Analysis</b>							
<i>EPH Aliphatics/Aromatics</i>							
C9-C18 Aliphatic Hydrocarbons	Not detected	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-1
C19-C36 Aliphatic Hydrocarbons	130	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-1
C11-C22 Aromatic Hydrocarbons	95	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-1
Unadjusted C11-C22 Aromatics	117	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-1
Carbon Chain Dilution Factor	1	mg/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
<i>EPH Target PAH Analytes</i>							
Naphthalene	Not detected	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
2-Methylnaphthalene	Not detected	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Acenaphthylene	Not detected	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Acenaphthene	360	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Fluorene	300	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Phenanthrene	3,600	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Anthracene	820	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Fluoranthene	4,400	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Pyrene	3,900	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (a) anthracene	1,900	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Chrysene	1,800	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (b) fluoranthene	1,200	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (k) fluoranthene	690	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (a) pyrene	1,000	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Indeno (1,2,3-cd) pyrene	530	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Dibenzo (a,h) anthracene	190	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (g,h,i) perylene	780	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
1-Chloro-octadecane Aliphatic (%SR)	98	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
Ortho-Terphenyl Aromatic (%SR)	98	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
2-Bromonaphthalene Fractionation (%SR)	74	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
2-Fluorobiphenyl Fractionation (%SR)	66	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
Target Analyte Dilution Factor	1	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
<b>Metals Preparation</b>							
Mercury Digestion	Completed			8/18/00	8/18/00	EP	EPA 245.1
Metals Digestion	Completed			8/18/00	8/18/00	EP	EPA 200.7
<b>Metals Analysis</b>							
<i>Total RCRA8 Metals</i>							
Total Arsenic	14.4	mg/Kg	2.93	8/21/00	8/21/00	CR	EPA 200.7
Total Barium	470	mg/Kg	0.977	8/21/00	8/21/00	CR	EPA 200.7
Total Cadmium	11.5	mg/Kg	0.489	8/21/00	8/21/00	CR	EPA 200.7

Parameter	Results	Units	Reporting Limit	Start Date	End Date	Analyst	Method
Total Chromium	64.6	mg/Kg	0.977	8/21/00	8/21/00	CR	EPA 200.7
Total Lead	1,240	mg/Kg	1.47	8/21/00	8/21/00	CR	EPA 200.7
Total Selenium	Below det lim	mg/Kg	2.93	8/21/00	8/21/00	CR	EPA 200.7
Total Silver	Below det lim	mg/Kg	1.95	8/21/00	8/21/00	CR	EPA 200.7
Total Mercury	0.483	mg/Kg	0.206	8/21/00	8/21/00	YV	EPA 245.1
% Solids	85.3	%		8/10/00	8/10/00	AP	SM2540 B Mod



Parameter	Results	Units	Reporting Limit	Start Date	End Date	Analyst	Method
<b>TPH Preparation</b>							
Ultrasonic Extraction	Completed			8/10/00	8/10/00	AP	SW846 3550B
<b>Petroleum Hydrocarbon Analysis</b>							
<i>EPH Aliphatics/Aromatics</i>							
C9-C18 Aliphatic Hydrocarbons	Not detected	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-1
C19-C36 Aliphatic Hydrocarbons	75	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-1
C11-C22 Aromatic Hydrocarbons	89	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-1
Unadjusted C11-C22 Aromatics	98	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-1
Carbon Chain Dilution Factor	1	mg/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
<i>EPH Target PAH Analytes</i>							
Naphthalene	Not detected	ug/Kg	160	8/18/00	8/18/00	LR	MA EPH 98-1
2-Methylnaphthalene	Not detected	ug/Kg	160	8/18/00	8/18/00	LR	MA EPH 98-1
Acenaphthylene	Not detected	ug/Kg	160	8/18/00	8/18/00	LR	MA EPH 98-1
Acenaphthene	Not detected	ug/Kg	160	8/18/00	8/18/00	LR	MA EPH 98-1
Fluorene	Not detected	ug/Kg	160	8/18/00	8/18/00	LR	MA EPH 98-1
Phenanthrene	1,100	ug/Kg	160	8/18/00	8/18/00	LR	MA EPH 98-1
Anthracene	220	ug/Kg	160	8/18/00	8/18/00	LR	MA EPH 98-1
Fluoranthene	2,000	ug/Kg	160	8/18/00	8/18/00	LR	MA EPH 98-1
Pyrene	2,100	ug/Kg	160	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (a) anthracene	870	ug/Kg	160	8/18/00	8/18/00	LR	MA EPH 98-1
Chrysene	980	ug/Kg	160	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (b) fluoranthene	560	ug/Kg	160	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (k) fluoranthene	300	ug/Kg	160	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (a) pyrene	400	ug/Kg	160	8/18/00	8/18/00	LR	MA EPH 98-1
Indeno (1,2,3-cd) pyrene	280	ug/Kg	160	8/18/00	8/18/00	LR	MA EPH 98-1
Dibenzo (a,h) anthracene	Not detected	ug/Kg	160	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (g,h,i) perylene	160	ug/Kg	160	8/18/00	8/18/00	LR	MA EPH 98-1
1-Chloro-octadecane Aliphatic (%SR)	63	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
Ortho-Terphenyl Aromatic (%SR)	63	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
2-Bromonaphthalene Fractionation (%SR)	77	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
2-Fluorobiphenyl Fractionation (%SR)	69	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
Target Analyte Dilution Factor	1	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
<b>Metals Preparation</b>							
Mercury Digestion	Completed			8/18/00	8/18/00	EP	EPA 245.1
Metals Digestion	Completed			8/18/00	8/18/00	EP	EPA 200.7
<b>Metals Analysis</b>							
<i>Total RCRA8 Metals</i>							
Total Arsenic	8.22	mg/Kg	2.93	8/21/00	3/21/00	CR	EPA 200.7
Total Barium	171	mg/Kg	0.976	8/21/00	3/21/00	CR	EPA 200.7
Total Cadmium	6.49	mg/Kg	0.488	8/21/00	3/21/00	CR	EPA 200.7

Parameter	Results	Units	Reporting Limit	Start Date	End Date	Analyst	Method
Total Chromium	17.6	mg/Kg	0.976	8/21/00	8/21/00	CR	EPA 200.7
Total Lead	602	mg/Kg	1.46	8/21/00	8/21/00	CR	EPA 200.7
Total Selenium	Below det lim	mg/Kg	2.93	8/21/00	8/21/00	CR	EPA 200.7
Total Silver	Below det lim	mg/Kg	1.95	8/21/00	8/21/00	CR	EPA 200.7
Total Mercury	2.97	mg/Kg	0.205	8/21/00	8/21/00	YV	EPA 245.1
% Solids	85.2	%		8/10/00	8/10/00	AP	SM2540 B Mod

Parameter	Results	Units	Reporting Limit	Start Date	End Date	Analyst	Method
<b>TPH Preparation</b>							
Ultrasonic Extraction	Completed			8/10/00	8/10/00	AP	SW846 3550B
<b>Petroleum Hydrocarbon Analysis</b>							
<i>EPH Aliphatics/Aromatics</i>							
C9-C18 Aliphatic Hydrocarbons	Not detected	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-1
C19-C36 Aliphatic Hydrocarbons	56	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-1
C11-C22 Aromatic Hydrocarbons	90	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-1
Unadjusted C11-C22 Aromatics	102	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-1
Carbon Chain Dilution Factor	1	mg/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
<i>EPH Target PAH Analytes</i>							
Naphthalene	Not detected	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
2-Methylnaphthalene	Not detected	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Acenaphthylene	Not detected	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Acenaphthene	Not detected	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Fluorene	Not detected	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Phenanthrene	1,200	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Anthracene	230	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Fluoranthene	2,300	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Pyrene	2,400	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (a) anthracene	1,100	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Chrysene	1,300	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (b) fluoranthene	1,100	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (k) fluoranthene	500	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (a) pyrene	880	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Indeno (1,2,3-cd) pyrene	620	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Dibenzo (a,h) anthracene	180	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (g,h,i) perylene	730	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
1-Chloro-octadecane Aliphatic (%SR)	85	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
Ortho-Terphenyl Aromatic (%SR)	50	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
2-Bromonaphthalene Fractionation (%SR)	79	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
2-Fluorobiphenyl Fractionation (%SR)	68	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
Target Analyte Dilution Factor	1	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
<b>Metals Preparation</b>							
Mercury Digestion	Completed			8/18/00	8/18/00	EP	EPA 245.1
Metals Digestion	Completed			8/18/00	8/18/00	EP	EPA 200.7
<b>Metals Analysis</b>							
<i>Total RCRA8 Metals</i>							
Total Arsenic	6.78	mg/Kg	2.93	8/21/00	8/21/00	CR	EPA 200.7
Total Barium	85.3	mg/Kg	0.976	8/21/00	8/21/00	CR	EPA 200.7
Total Cadmium	4.20	mg/Kg	0.488	8/21/00	8/21/00	CR	EPA 200.7

Parameter	Results	Units	Reporting Limit	Start Date	End Date	Analyst	Method
Total Chromium	11.2	mg/Kg	0.976	8/21/00	8/21/00	CR	EPA 200.7
Total Lead	357	mg/Kg	1.46	8/21/00	8/21/00	CR	EPA 200.7
Total Selenium	Below det lim	mg/Kg	2.93	8/21/00	8/21/00	CR	EPA 200.7
Total Silver	Below det lim	mg/Kg	1.95	8/21/00	8/21/00	CR	EPA 200.7
Total Mercury	Below det lim	mg/Kg	0.202	8/21/00	8/21/00	YV	EPA 245.1
% Solids	85.9	%		8/10/00	8/10/00	AP	SM2540 B Mod

Parameter	Results	Units	Reporting Limit	Start Date	End Date	Analyst	Method
<b>VOC Preparation</b>							
VOC Extraction (solid)	Field ext			8/4/00	8/4/00		SW846 5035
<b>Volatile Organic Compounds</b>							
<i>VOCs by GC/MS</i>							
Acetone	Not detected	ug/Kg	4800	8/15/00	8/15/00	GM	SW846 8260B
Acrylonitrile	Not detected	ug/Kg	480	8/15/00	8/15/00	GM	SW846 8260B
Benzene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
Bromobenzene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
Bromochloromethane	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
Bromodichloromethane	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
Bromoform	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
Bromomethane	Not detected	ug/Kg	96.0	8/15/00	8/15/00	GM	SW846 8260B
2-Butanone (MEK)	Not detected	ug/Kg	2400	8/15/00	8/15/00	GM	SW846 8260B
n-Butylbenzene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
sec-Butylbenzene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
tert-Butylbenzene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
Carbon disulfide	Not detected	ug/Kg	240	8/15/00	8/15/00	GM	SW846 8260B
Carbon tetrachloride	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
Chlorobenzene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
Chloroethane	Not detected	ug/Kg	96.0	8/15/00	8/15/00	GM	SW846 8260B
Chloroform	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
Chloromethane	Not detected	ug/Kg	96.0	8/15/00	8/15/00	GM	SW846 8260B
2-Chlorotoluene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
4-Chlorotoluene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
1,2-Dibromo-3-chloropropane (DBCP)	Not detected	ug/Kg	96.0	8/15/00	8/15/00	GM	SW846 8260B
Dibromochloromethane	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
1,2-Dibromoethane (EDB)	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
Dibromomethane	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
1,2-Dichlorobenzene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
1,3-Dichlorobenzene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
1,4-Dichlorobenzene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
Dichlorodifluoromethane	Not detected	ug/Kg	96.0	8/15/00	8/15/00	GM	SW846 8260B
1,1-Dichloroethane	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
1,2-Dichloroethane	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
1,1-Dichloroethene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
cis-1,2-Dichloroethene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
trans-1,2-Dichloroethene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
1,2-Dichloropropane	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
1,3-Dichloropropane	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
2,2-Dichloropropane	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
1,1-Dichloropropene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B

Parameter	Results	Units	Reporting Limit	Start Date	End Date	Analyst	Method
cis-1,3-Dichloropropene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
trans-1,3-Dichloropropene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
Ethylbenzene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
Hexachlorobutadiene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
2-Hexanone (MBK)	Not detected	ug/Kg	4800	8/15/00	8/15/00	GM	SW846 8260B
Isopropylbenzene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
4-Isopropyltoluene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
Methyl-tert-butyl ether (MTBE)	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
4-Methyl-2-pentanone (MIBK)	Not detected	ug/Kg	960	8/15/00	8/15/00	GM	SW846 8260B
Methylene chloride	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
Naphthalene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
n-Propylbenzene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
Styrene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
1,1,1,2-Tetrachloroethane	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
1,1,2,2-Tetrachloroethane	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
Tetrachloroethene (PCE)	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
Toluene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
1,2,3-Trichlorobenzene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
1,2,4-Trichlorobenzene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
1,1,1-Trichloroethane	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
1,1,2-Trichloroethane	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
Trichloroethene (TCE)	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
Trichlorofluoromethane	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
1,2,3-Trichloropropane	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
1,2,4-Trimethylbenzene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
1,3,5-Trimethylbenzene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
Vinyl chloride	Not detected	ug/Kg	96.0	8/15/00	8/15/00	GM	SW846 8260B
m,p-Xylenes	Not detected	ug/Kg	96.0	8/15/00	8/15/00	GM	SW846 8260B
o-Xylene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260B
4-Bromofluorobenzene (%SR)	103	ug/Kg	0.000	8/15/00	8/15/00	GM	SW846 8260B
1,4-Difluorobenzene (%SR)	102	ug/Kg	0.000	8/15/00	8/15/00	GM	SW846 8260B
Chlorobenzene-d5 (%SR)	102	ug/Kg	0.000	8/15/00	8/15/00	GM	SW846 8260B

**TPH Preparation**

Ultrasonic Extraction	Completed			8/10/00	8/10/00	AP	SW846 3550B
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**Petroleum Hydrocarbon Analysis****EPH Aliphatics/Aromatics**

C9-C18 Aliphatic Hydrocarbons	Not detected	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-1
C19-C36 Aliphatic Hydrocarbons	85	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-1
C11-C22 Aromatic Hydrocarbons	95	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-1
Unadjusted C11-C22 Aromatics	117	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-1
Carbon Chain Dilution Factor	1	mg/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1



Parameter	Results	Units	Reporting Limit	Start Date	End Date	Analyst	Method
<b>EPH Target PAH Analytes</b>							
Naphthalene	190	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
2-Methylnaphthalene	Not detected	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Acenaphthylene	Not detected	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Acenaphthene	410	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Fluorene	370	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Phenanthrene	3,500	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Anthracene	800	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Fluoranthene	4,400	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Pyrene	3,900	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (a) anthracene	1,900	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Chrysene	1,900	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (b) fluoranthene	1,400	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (k) fluoranthene	560	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (a) pyrene	940	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Indeno (1,2,3-cd) pyrene	570	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Dibenzo (a,h) anthracene	Not detected	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (g,h,i) perylene	640	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
1-Chloro-octadecane Aliphatic (%SR)	54	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
Ortho-Terphenyl Aromatic (%SR)	52	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
2-Bromonaphthalene Fractionation (%SR)	74	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
2-Fluorobiphenyl Fractionation (%SR)	64	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
Target Analyte Dilution Factor	1	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
<b>Metals Preparation</b>							
Mercury Digestion	Completed			8/18/00	8/18/00	EP	EPA 245.1
Metals Digestion	Completed			8/18/00	8/18/00	EP	EPA 200.7
<b>Metals Analysis</b>							
<b>Total RCRA8 Metals</b>							
Total Arsenic	5.59	mg/Kg	2.87	8/21/00	8/21/00	CR	EPA 200.7
Total Barium	113	mg/Kg	0.955	8/21/00	8/21/00	CR	EPA 200.7
Total Cadmium	3.96	mg/Kg	0.478	8/21/00	8/21/00	CR	EPA 200.7
Total Chromium	16.6	mg/Kg	0.955	8/21/00	8/21/00	CR	EPA 200.7
Total Lead	463	mg/Kg	1.43	8/21/00	8/21/00	CR	EPA 200.7
Total Selenium	Below det lim	mg/Kg	2.87	8/21/00	8/21/00	CR	EPA 200.7
Total Silver	Below det lim	mg/Kg	1.91	8/21/00	8/21/00	CR	EPA 200.7
Total Mercury	0.666	mg/Kg	0.207	8/21/00	8/21/00	YV	EPA 245.1
% Solids	86.8	%		8/10/00	8/10/00	AP	SM2540 B Mod

Parameter	Results	Units	Reporting Limit	Start Date	End Date	Analyst	Method
<b>VOC Preparation</b>							
VOC Extraction (solid)	Field ext			8/4/00	8/4/00		SW846 5035
<b>Volatile Organic Compounds</b>							
<i>VOCs by GC/MS</i>							
Acetone	Not detected	ug/Kg	6200	8/15/00	8/15/00	GM	SW846 8260B
Acrylonitrile	Not detected	ug/Kg	620	8/15/00	8/15/00	GM	SW846 8260B
Benzene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
Bromobenzene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
Bromo-chloromethane	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
Bromodichloromethane	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
Bromoform	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
Bromomethane	Not detected	ug/Kg	124	8/15/00	8/15/00	GM	SW846 8260B
2-Butanone (MEK)	Not detected	ug/Kg	3100	8/15/00	8/15/00	GM	SW846 8260B
n-Butylbenzene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
sec-Butylbenzene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
tert-Butylbenzene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
Carbon disulfide	Not detected	ug/Kg	310	8/15/00	8/15/00	GM	SW846 8260B
Carbon tetrachloride	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
Chlorobenzene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
Chloroethane	Not detected	ug/Kg	124	8/15/00	8/15/00	GM	SW846 8260B
Chloroform	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
Chloromethane	Not detected	ug/Kg	124	8/15/00	8/15/00	GM	SW846 8260B
2-Chlorotoluene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
4-Chlorotoluene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
1,2-Dibromo-3-chloropropane (DBCP)	Not detected	ug/Kg	124	8/15/00	8/15/00	GM	SW846 8260B
Dibromochloromethane	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
1,2-Dibromoethane (EDB)	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
Dibromomethane	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
1,2-Dichlorobenzene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
1,3-Dichlorobenzene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
1,4-Dichlorobenzene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
Dichlorodifluoromethane	Not detected	ug/Kg	124	8/15/00	8/15/00	GM	SW846 8260B
1,1-Dichloroethane	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
1,2-Dichloroethane	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
1,1-Dichloroethene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
cis-1,2-Dichloroethene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
trans-1,2-Dichloroethene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
1,2-Dichloropropane	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
1,3-Dichloropropane	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
2,2-Dichloropropane	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
1,1-Dichloropropene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B



Parameter	Results	Units	Reporting Limit	Start Date	End Date	Analyst	Method
cis-1,3-Dichloropropene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
trans-1,3-Dichloropropene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
Ethylbenzene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
Hexachlorobutadiene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
2-Hexanone (MBK)	Not detected	ug/Kg	6200	8/15/00	8/15/00	GM	SW846 8260B
Isopropylbenzene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
4-Isopropyltoluene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
Methyl-tert-butyl ether (MTBE)	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
4-Methyl-2-pentanone (MIBK)	Not detected	ug/Kg	1240	8/15/00	8/15/00	GM	SW846 8260B
Methylene chloride	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
Naphthalene	98	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
n-Propylbenzene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
Styrene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
1,1,1,2-Tetrachloroethane	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
1,1,2,2-Tetrachloroethane	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
Tetrachloroethene (PCE)	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
Toluene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
1,2,3-Trichlorobenzene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
1,2,4-Trichlorobenzene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
1,1,1-Trichloroethane	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
1,1,2-Trichloroethane	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
Trichloroethene (TCE)	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
Trichlorofluoromethane	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
1,2,3-Trichloropropane	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
1,2,4-Trimethylbenzene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
1,3,5-Trimethylbenzene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
Vinyl chloride	Not detected	ug/Kg	124	8/15/00	8/15/00	GM	SW846 8260B
m,p-Xylenes	Not detected	ug/Kg	124	8/15/00	8/15/00	GM	SW846 8260B
o-Xylene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260B
4-Bromofluorobenzene (%SR)	108	ug/Kg	0.000	8/15/00	8/15/00	GM	SW846 8260B
1,4-Difluorobenzene (%SR)	100	ug/Kg	0.000	8/15/00	8/15/00	GM	SW846 8260B
Chlorobenzene-d5 (%SR)	101	ug/Kg	0.000	8/15/00	8/15/00	GM	SW846 8260B
<b>TPH Preparation</b>							
Ultrasonic Extraction	Completed			8/10/00	8/10/00	AP	SW846 3550B
<b>Petroleum Hydrocarbon Analysis</b>							
<i>EPH Aliphatics/Aromatics</i>							
C9-C18 Aliphatic Hydrocarbons	Not detected	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-1
C19-C36 Aliphatic Hydrocarbons	79	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-1
C11-C22 Aromatic Hydrocarbons	233	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-1
Unadjusted C11-C22 Aromatics	364	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-1
Carbon Chain Dilution Factor	1	mg/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1

Parameter	Results	Units	Reporting Limit	Start Date	End Date	Analyst	Method
<b>EPH Target PAH Analytes</b>							
Naphthalene	3,000	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
2-Methylnaphthalene	980	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Acenaphthylene	Not detected	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Acenaphthene	3,600	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Fluorene	4,300	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Phenanthrene	27,000	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Anthracene	9,000	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Fluoranthene	26,000	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Pyrene	22,000	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (a) anthracene	11,000	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Chrysene	8,500	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (b) fluoranthene	5,300	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (k) fluoranthene	2,000	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (a) pyrene	3,400	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Indeno (1,2,3-cd) pyrene	2,100	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Dibenzo (a,h) anthracene	540	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (g,h,i) perylene	2,900	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
1-Chloro-octadecane Aliphatic (%SR)	95	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
Ortho-Terphenyl Aromatic (%SR)	56	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
2-Bromonaphthalene Fractionation (%SR)	105	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
2-Fluorobiphenyl Fractionation (%SR)	94	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
Target Analyte Dilution Factor	1	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
<b>Metals Preparation</b>							
Mercury Digestion	Completed			8/18/00	8/18/00	EP	EPA 245.1
Metals Digestion	Completed			8/18/00	8/18/00	EP	EPA 200.7
<b>Metals Analysis</b>							
<b>Total RCRA8 Metals</b>							
Total Arsenic	3.82	mg/Kg	2.88	8/21/00	8/21/00	CR	EPA 200.7
Total Barium	125	mg/Kg	0.959	8/21/00	8/21/00	CR	EPA 200.7
Total Cadmium	6.87	mg/Kg	0.480	8/21/00	8/21/00	CR	EPA 200.7
Total Chromium	18.0	mg/Kg	0.959	8/21/00	8/21/00	CR	EPA 200.7
Total Lead	1,370	mg/Kg	1.44	8/21/00	8/21/00	CR	EPA 200.7
Total Selenium	Below det lim	mg/Kg	2.88	8/21/00	8/21/00	CR	EPA 200.7
Total Silver	Below det lim	mg/Kg	1.92	8/21/00	8/21/00	CR	EPA 200.7
Total Mercury	0.994	mg/Kg	0.200	8/21/00	8/21/00	YV	EPA 245.1
% Solids	86.7	%		8/10/00	8/10/00	AP	SM2540 B Mod

Parameter	Results	Units	Reporting Limit	Start Date	End Date	Analyst	Method
<b>TPH Preparation</b>							
Ultrasonic Extraction	Completed			8/10/00	8/10/00	AP	SW846 3550B
<b>Petroleum Hydrocarbon Analysis</b>							
<i>EPH Aliphatics/Aromatics</i>							
C9-C18 Aliphatic Hydrocarbons	Not detected	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-1
C19-C36 Aliphatic Hydrocarbons	37	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-1
C11-C22 Aromatic Hydrocarbons	70	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-1
Unadjusted C11-C22 Aromatics	93	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-1
Carbon Chain Dilution Factor	1	mg/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
<i>EPH Target PAH Analytes</i>							
Naphthalene	220	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
2-Methylnaphthalene	Not detected	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Acenaphthylene	Not detected	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Acenaphthene	510	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Fluorene	530	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Phenanthrene	4,500	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Anthracene	1,100	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Fluoranthene	4,600	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Pyrene	3,900	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (a) anthracene	1,800	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Chrysene	1,900	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (b) fluoranthene	1,200	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (k) fluoranthene	450	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (a) pyrene	740	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Indeno (1,2,3-cd) pyrene	360	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Dibenzo (a,h) anthracene	Not detected	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (g,h,i) perylene	390	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
1-Chloro-octadecane Aliphatic (%SR)	89	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
Ortho-Terphenyl Aromatic (%SR)	59	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
2-Bromonaphthalene Fractionation (%SR)	72	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
2-Fluorobiphenyl Fractionation (%SR)	66	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
Target Analyte Dilution Factor	1	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
<b>Metals Preparation</b>							
Mercury Digestion	Completed			8/18/00	8/18/00	EP	EPA 245.1
Metals Digestion	Completed			8/18/00	8/18/00	EP	EPA 200.7
<b>Metals Analysis</b>							
<i>Total RCRA8 Metals</i>							
Total Arsenic	3.29	mg/Kg	2.76	8/21/00	8/21/00	CR	EPA 200.7
Total Barium	63.6	mg/Kg	0.920	8/21/00	8/21/00	CR	EPA 200.7
Total Cadmium	3.62	mg/Kg	0.460	8/21/00	8/21/00	CR	EPA 200.7

Parameter	Results	Units	Reporting Limit	Start Date	End Date	Analyst	Method
Total Chromium	12.1	mg/Kg	0.920	8/21/00	8/21/00	CR	EPA 200.7
Total Lead	178	mg/Kg	1.38	8/21/00	8/21/00	CR	EPA 200.7
Total Selenium	Below det lim	mg/Kg	2.76	8/21/00	8/21/00	CR	EPA 200.7
Total Silver	Below det lim	mg/Kg	1.84	8/21/00	8/21/00	CR	EPA 200.7
Total Mercury	0.213	mg/Kg	0.195	8/21/00	8/21/00	YV	EPA 245.1
% Solids	90.4	%		8/10/00	8/10/00	AP	SM2540 B Mod

Parameter	Results	Units	Reporting Limit	Start Date	End Date	Analyst	Method
<b>VOC Preparation</b>							
VOC Extraction (solid)	Field ext			8/4/00	8/4/00		SW846 5035
<b>Volatile Organic Compounds</b>							
<i>VOCs by GC/MS</i>							
Acetone	Not detected	ug/Kg	5000	8/15/00	8/16/00	GW	SW846 8260B
Acrylonitrile	Not detected	ug/Kg	500	8/15/00	8/16/00	GW	SW846 8260B
Benzene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
Bromobenzene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
Bromochloromethane	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
Bromodichloromethane	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
Bromoform	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
Bromomethane	Not detected	ug/Kg	100	8/15/00	8/16/00	GW	SW846 8260B
2-Butanone (MEK)	Not detected	ug/Kg	2500	8/15/00	8/16/00	GW	SW846 8260B
n-Butylbenzene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
sec-Butylbenzene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
tert-Butylbenzene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
Carbon disulfide	Not detected	ug/Kg	250	8/15/00	8/16/00	GW	SW846 8260B
Carbon tetrachloride	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
Chlorobenzene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
Chloroethane	Not detected	ug/Kg	100	8/15/00	8/16/00	GW	SW846 8260B
Chloroform	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
Chloromethane	Not detected	ug/Kg	100	8/15/00	8/16/00	GW	SW846 8260B
2-Chlorotoluene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
4-Chlorotoluene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
1,2-Dibromo-3-chloropropane (DBCP)	Not detected	ug/Kg	100	8/15/00	8/16/00	GW	SW846 8260B
Dibromochloromethane	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
1,2-Dibromoethane (EDB)	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
Dibromomethane	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
1,2-Dichlorobenzene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
1,3-Dichlorobenzene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
1,4-Dichlorobenzene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
Dichlorodifluoromethane	Not detected	ug/Kg	100	8/15/00	8/16/00	GW	SW846 8260B
1,1-Dichloroethane	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
1,2-Dichloroethane	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
1,1-Dichloroethene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
cis-1,2-Dichloroethene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
trans-1,2-Dichloroethene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
1,2-Dichloropropane	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
1,3-Dichloropropane	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
2,2-Dichloropropane	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
1,1-Dichloropropene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B



Parameter	Results	Units	Reporting Limit	Start Date	End Date	Analyst	Method
cis-1,3-Dichloropropene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
trans-1,3-Dichloropropene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
Ethylbenzene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
Hexachlorobutadiene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
2-Hexanone (MBK)	Not detected	ug/Kg	5000	8/15/00	8/16/00	GW	SW846 8260B
Isopropylbenzene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
4-Isopropyltoluene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
Methyl-tert-butyl ether (MTBE)	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
4-Methyl-2-pentanone (MIBK)	Not detected	ug/Kg	1000	8/15/00	8/16/00	GW	SW846 8260B
Methylene chloride	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
Naphthalene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
n-Propylbenzene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
Styrene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
1,1,1,2-Tetrachloroethane	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
1,1,2,2-Tetrachloroethane	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
Tetrachloroethene (PCE)	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
Toluene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
1,2,3-Trichlorobenzene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
1,2,4-Trichlorobenzene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
1,1,3-Trichloroethane	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
1,1,2-Trichloroethane	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
Trichloroethene (TCE)	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
Trichlorofluoromethane	1,500	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
1,2,3-Trichloropropane	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
1,2,4-Trimethylbenzene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
1,3,5-Trimethylbenzene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
Vinyl chloride	Not detected	ug/Kg	100	8/15/00	8/16/00	GW	SW846 8260B
m,p-Xylenes	Not detected	ug/Kg	100	8/15/00	8/16/00	GW	SW846 8260B
o-Xylene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260B
4-Bromofluorobenzene (%SR)	115	ug/Kg	0.000	8/15/00	8/16/00	GW	SW846 8260B
1,4-Difluorobenzene (%SR)	111	ug/Kg	0.000	8/15/00	8/16/00	GW	SW846 8260B
Chlorobenzene-d5 (%SR)	98	ug/Kg	0.000	8/15/00	8/16/00	GW	SW846 8260B

**TPH Preparation**

Ultrasonic Extraction	Completed			8/10/00	8/10/00	AP	SW846 3550B
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**Petroleum Hydrocarbon Analysis****EPA Aliphatics/Aromatics**

C9-C18 Aliphatic Hydrocarbons	Not detected	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-1
C19-C36 Aliphatic Hydrocarbons	84	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-1
C11-C22 Aromatic Hydrocarbons	77	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-1
Unadjusted C11-C22 Aromatics	90	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-1
Carbon Chain Dilution Factor	1	mg/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1

Parameter	Results	Units	Reporting Limit	Start Date	End Date	Analyst	Method
<b>EPH Target PAH Analytes</b>							
Naphthalene	Not detected	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
2-Methylnaphthalene	Not detected	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Acenaphthylene	Not detected	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Acenaphthene	160	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Fluorene	Not detected	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Phenanthrene	1,600	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Anthracene	390	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Fluoranthene	3,100	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Pyrene	2,800	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (a) anthracene	1,300	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Chrysene	1,300	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (b) fluoranthene	790	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (k) fluoranthene	340	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (a) pyrene	530	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Indeno (1,2,3-cd) pyrene	320	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Dibenzo (a,h) anthracene	Not detected	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (g,h,i) perylene	450	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
1-Chloro-octadecane Aliphatic (%SR)	67	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
Ortho-Terphenyl Aromatic (%SR)	61	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
2-Bromonaphthalene Fractionation (%SR)	85	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
2-Fluorobiphenyl Fractionation (%SR)	72	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
Target Analyte Dilution Factor	1	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
<b>Metals Preparation</b>							
Mercury Digestion	Completed			8/18/00	8/18/00	EP	EPA 245.1
Metals Digestion	Completed			8/18/00	8/18/00	EP	EPA 200.7
<b>Metals Analysis</b>							
<b>Total RCRA8 Metals</b>							
Total Arsenic	5.90	mg/Kg	2.89	8/21/00	8/21/00	CR	EPA 200.7
Total Barium	69.0	mg/Kg	0.962	8/21/00	8/21/00	CR	EPA 200.7
Total Cadmium	4.45	mg/Kg	0.481	8/21/00	8/21/00	CR	EPA 200.7
Total Chromium	18.4	mg/Kg	0.962	8/21/00	8/21/00	CR	EPA 200.7
Total Lead	442	mg/Kg	1.44	8/21/00	8/21/00	CR	EPA 200.7
Total Selenium	Below det lim	mg/Kg	2.89	8/21/00	8/21/00	CR	EPA 200.7
Total Silver	Below det lim	mg/Kg	1.92	8/21/00	8/21/00	CR	EPA 200.7
Total Mercury	0.584	mg/Kg	0.202	8/21/00	8/21/00	YV	EPA 245.1
% Solids	86.3	%		8/10/00	8/10/00	AP	SM2540 B Mod

Parameter	Results	Units	Reporting Limit	Start Date	End Date	Analyst	Method
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The following outlines the condition of all EPH samples contained within this report upon laboratory receipt.

Matrix	<input type="checkbox"/> Aqueous	<input checked="" type="checkbox"/> Soil	<input type="checkbox"/> Sediment	<input type="checkbox"/> Other:	
Containers	<input checked="" type="checkbox"/> Satisfactory	<input type="checkbox"/> Broken	<input type="checkbox"/> Leaking		
Aqueous Preservative	<input type="checkbox"/> N/A	<input type="checkbox"/> pH<2	<input type="checkbox"/> pH>2	<input type="checkbox"/> pH adjusted to ≤2 in lab	Comment:
Temperature	<input type="checkbox"/> Received on ice	<input checked="" type="checkbox"/> Received cold	<input type="checkbox"/> Received ambient	<input type="checkbox"/> Received with temp blank:	

Were all QA/QC procedures followed as required by the EPH method? Yes      No     

Were any significant modifications made to the EPH method, as specified in Section 11.3? Yes \* see below

Were all performance/acceptance standards for required QA/QC procedures achieved? Yes      No     

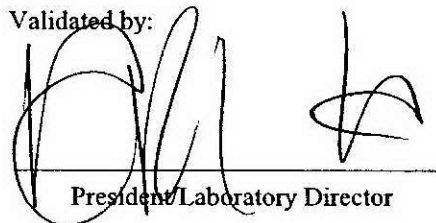
\* Sample(s) was run via GCMS using all QC criteria specified in the method.

I attest that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Reviewed by:

Validated by:

\_\_\_\_\_  
Quality Service/Quality Assurance Depts.

  
\_\_\_\_\_  
President/Laboratory Director

8/22/00





SPECTRUM ANALYTICAL, INC.

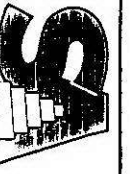
Featuring  
HANIBAL TECHNOLOGY

Laboratory Report Supplement  
References

SW 846	Test Methods for Evaluating Solid Waste. Third edition, 1998
40 CFR 136	Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act
40 CFR 141	National Primary Drinking Water Regulations
40 CFR 143	National Secondary Drinking Water Regulations
40 CFR 160	Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), Good Laboratory Practice Standards
APHA-AWWA-WPCF	Standard Methods for the Examination of Water and Wastewater. 19 <sup>th</sup> edition, 1995
ASTM D 3328	Standard Methods for the Comparison of Waterborne Petroleum Oils by Gas Chromatography
EPA 540/G-87/003	Data Quality Objectives for Remediation Response Activities, Development Process
EPA 600/4-79-012	Quality Assurance Handbook for Analytical Quality Control in Water and Wastewater Laboratories
EPA 600/4-79-019	Handbook for Analytical Quality Control in Water and Wastewater Laboratories
EPA 600/4-79-020	Method for the Chemical Analysis of Water and Wastes
EPA 600/4-82-057	Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater
EPA 600/4-85/056	Choosing Cost-Effective QA/QC Programs for Chemical Analysis
EPA 600/4-88/039	Method for the Determination of Organic Compounds in Drinking Water
CT ETPH	Analysis of Extractable Total Petroleum Hydrocarbons (ETPH)
MADEP EPH	Method for the Determination of Extractable Petroleum Hydrocarbons (EPH)
MADEP VPH	Method for the Determination of Volatile Petroleum Hydrocarbons (VPH)
QAMS 004/80	Guidelines and Specifications for Preparing Quality Assurance Program Plans, USEPA Office of Monitoring System and Quality Assurance
GC-D-52-77	Oil Spill Identification System

Acronyms & Abbreviations

AA	Atomic Absorption	MS	Matrix Spike
ASTM	American Society for Testing and Materials	MSD	Matrix Spike Duplicate
BOD	Biological Oxygen Demand	NTU	Nephelometric Turbidity Units
°C	degree(s) Celsius	PAHs	Polynuclear Aromatic Hydrocarbons
COD	Chemical Oxygen Demand	PCBs	Polychlorinated Biphenyls
CMR	Code of Massachusetts Regulations	PID	Photo Ionization Detector
DEP	Department of Environmental Protection	PQL	Practical Quantitation Limit
DI	De-ionized	R	Recovery (%R: Percent Recovery)
DO	Dissolved Oxygen	RSD	Relative Standard Deviation
EPA	Environmental Protection Agency	SM	Standard Method
EPH	Extractable Petroleum Hydrocarbons	SR	Surrogate Recovery (%SR)
FID	Flame Ionization Detector	SW	Solid Waste
GC	Gas Chromatograph	THM	Trihalomethane(s)
GC / MS	Gas Chromatograph / Mass Spectrometer	TOC	Total Organic Carbon
ICP	Inductively Coupled Plasma	TOX	Total Organic Halogen
Id	Identification	TPH	Total Petroleum Hydrocarbons
MCL	Maximum Contaminant Level	VOC	Volatile Organic Compound
MDL	Minimum Detection Limit	VPH	Volatile Petroleum Hydrocarbons



SPECTRUM ANALYTICAL, INC.  
Featuring  
HANBAL TECHNOLOGY

# CHAIN OF CUSTODY RECORD

Special Handling

- Standard TAT - 7 to 10 bus
- Rush TAT - Date Needed:
- All TATs are subject to laboratory
- Min. 24-hour notification is nee
- All samples are disposed of after unless otherwise instructed.

Page      of     

Report To: Coles & Colaninno  
101 Annapolis Pk. DC  
Northwell, WA 02061

Invoice To:     

Project No.: 11-6165

Site Name: Terrace St.

Location: Robburg

Sampler(s): JFD

Project Mgr.: Wack Seaman

P.O. No.: 11-6165 RQN:     

1=Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> 2=HCl 3=H<sub>2</sub>SO<sub>4</sub> 4=HNO<sub>3</sub> 5=NaOH 6=Ascorbic Acid  
7=CH<sub>3</sub>OH 8=NaHSO<sub>4</sub> 9=      10=     

Containers:

Analyses:

Note

DW=Drinking Water GW=Groundwater WW=Wastewater  
SW=Surface Water SO=Soil SL=Sludge O=Oil A=Air  
X1=      X2=      X3=     

G=Grab C=Composite

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix	Preservative	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Eliminate	EPH	ReRA
ABO1133	TP-01	8/4/02	9A	C	SO	7	1	1				✓	✓
ABO1133	TP-02		10A	C		7	1	1			✓	✓	No 8260
ABO1134	TP-03		10:30A	C		7	1	1			✓	✓	
ABO1135	TP-04		11:30A	C		7	1	1			✓	✓	No 8260
ABO1136	TP-05		12:30P	C		7	1	1			✓	✓	
ABO1137	TP-06		1P	C		7	1	1			✓	✓	
ABO1138	TP-07		2P	C		7	1	1			✓	✓	
ABO1139	TP-08		3P	C		7	1	1			✓	✓	

Additional Instructions:     

Relinquished By:     

Received By:     

Date:     

Relinquished for Tom Galy

8-8-02

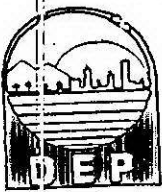
Fax results when available to (      )

E-mail results when available to

**APPENDIX F**

---

**Release Notification Form  
BWSC-103**



RELEASE NOTIFICATION & NOTIFICATION RETRACTION  
FORM

Pursuant to 310 CMR 40.0335 and 310 CMR 40.0371 (Subpart

Release Tracking  
Number

[ ] - [ ]

If assigned by DEP

A. RELEASE OR THREAT OF RELEASE LOCATION:

Street: 77 Terrace Street Location Aid: \_\_\_\_\_  
City/Town: Boston (Roxbury) ZIP Code: 02120

B. THIS FORM IS BEING USED

(check one)

- Submit a Release Notification (complete all sections of this form).
- Submit a Retraction of a Previously Reported Notification of a Release or Threat of Release (complete Sections A, B, E, F and G of this form). You MUST attach the supporting documentation required by 310 CMR 40.0335.

C. INFORMATION DESCRIBING THE RELEASE OR THREAT OF RELEASE (TOR):

Date and time you obtained knowledge of the Release or TOR. 09/21/00 Time: \_\_\_\_\_ Specify:  AM  PM

The date you obtained knowledge is always required. The time you obtained knowledge is not required if reporting only 120 Day Conditions.

IF KNOWN, record date and time release or TOR occurred. \_\_\_\_\_ Time: \_\_\_\_\_ Specify:  AM  PM

Check here if you previously provided an Oral Notification to DEP (2 Hour and 72 Hour Reporting Conditions only).

Provide date and time of Oral Notification. \_\_\_\_\_ Time: \_\_\_\_\_ Specify:  AM  PM

Check all Notification Thresholds that apply to the Release or Threat of Release: (for more information see 310 CMR 40.0310 - 40.0315)

2 HOUR REPORTING CONDITIONS

72 HOUR REPORTING CONDITIONS

120 DAY REPORTING CONDITIONS

Sudden Release

Subsurface Non-Aqueous Phase Liquid (NAPL) Equal to or Greater than 1/2 Inch

Release of Hazardous Material(s) to Soil or Groundwater Exceeding Reportable Concentration(s)

Threat of Sudden Release

Underground Storage Tank (UST) Release

Release of Oil to Soil Exceeding Reportable Concentration(s) and Affecting More than 2 Cubic Yards

Oil Sheen on Surface Water

Threat of UST Release

Release of Oil to Groundwater Exceeding Reportable Concentration(s)

Poses Imminent Hazard

Release to Groundwater near Water Supply

Subsurface Non-Aqueous Phase Liquid (NAPL) Equal to or Greater than 1/8 Inch and Less than 1/2 Inch

Could Pose Imminent Hazard

Release Detected in Private Well

Release to Storm Drain

Sanitary Sewer Release (Imminent Hazard Only)

List below the Oils or Hazardous Materials that exceed their Reportable Concentration or Reportable Quantity by the greatest amount. If necessary, attach a list of additional Oil and Hazardous Material substances subject to reporting.

Name and Quantities of Oils (O) and Hazardous Materials (HM) Released:

Reportable Concentrations Exceeded, if Applicable (RCS-1, RCS-2, RCGW-1, RCGW-2)

O or HM Released

O HM (check one)

CAS # (if known)

Amount or Concentration

Units

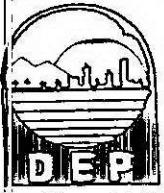
See attached sheet

D. ADDITIONAL INVOLVED PARTIES:

Check here if attaching names and addresses of owners of properties affected by the Release or Threat of Release, other than an owner who is submitting this Release Notification (required).

Check here if attaching Licensed Site Professional (LSP) name and address (optional).

You may write in names and addresses on the bottom of the second page of this form.



RELEASE NOTIFICATION & NOTIFICATION RETRACTION  
FORM

Pursuant to 310 CMR 40.0335 and 310 CMR 40.0371 (Subpart C)

Release Tracking  
Number [ ] - [ ]  
If assigned by DEP

E. PERSON REQUIRED TO NOTIFY:

Name of Organization: Boston Department of Neighborhood Development  
Name of Contact: Margaret S. Bursaw Title: Senior Project Manager  
Street: 26 Court Street, 9th Floor  
City/Town: Boston State: MA ZIP Code: 02108  
Telephone: 617-635-0103 Ext.: \_\_\_\_\_ FAX: 617-635-0282  
(optional)

F. RELATIONSHIP OF PERSON REQUIRED TO NOTIFY TO RELEASE OR THREAT OF RELEASE: (check one)

- RP or PRP Specify  Owner  Operator  Generator  Transporter  Other RP or PRP: \_\_\_\_\_
- Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G.L. c. 21E, s. 2)
- Agency or Public Utility on a Right of Way (as defined by M.G.L. c. 21E, s. 5(j))
- Any Person Otherwise Required to Notify Specify \_\_\_\_\_ Relationship: \_\_\_\_\_

G. CERTIFICATION OF PERSON REQUIRED TO NOTIFY:

Margaret S. Bursaw, attest under the pains and penalties of perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form, (ii) that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained in this submittal is, to the best of my knowledge and belief, true, accurate and complete, and (iii) that I am fully authorized to make this attestation on behalf of the entity legally responsible for this submittal. I/the person or entity on whose behalf this submittal is made am/is aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

By: [Signature] AGENT FOR Title: Senior Project Manager  
(signature)  
For Boston Department of Neighborhood Dev. Date: \_\_\_\_\_  
(print name of person or entity recorded in Section E)

Enter address of the person providing certification, if different from address recorded in Section E:

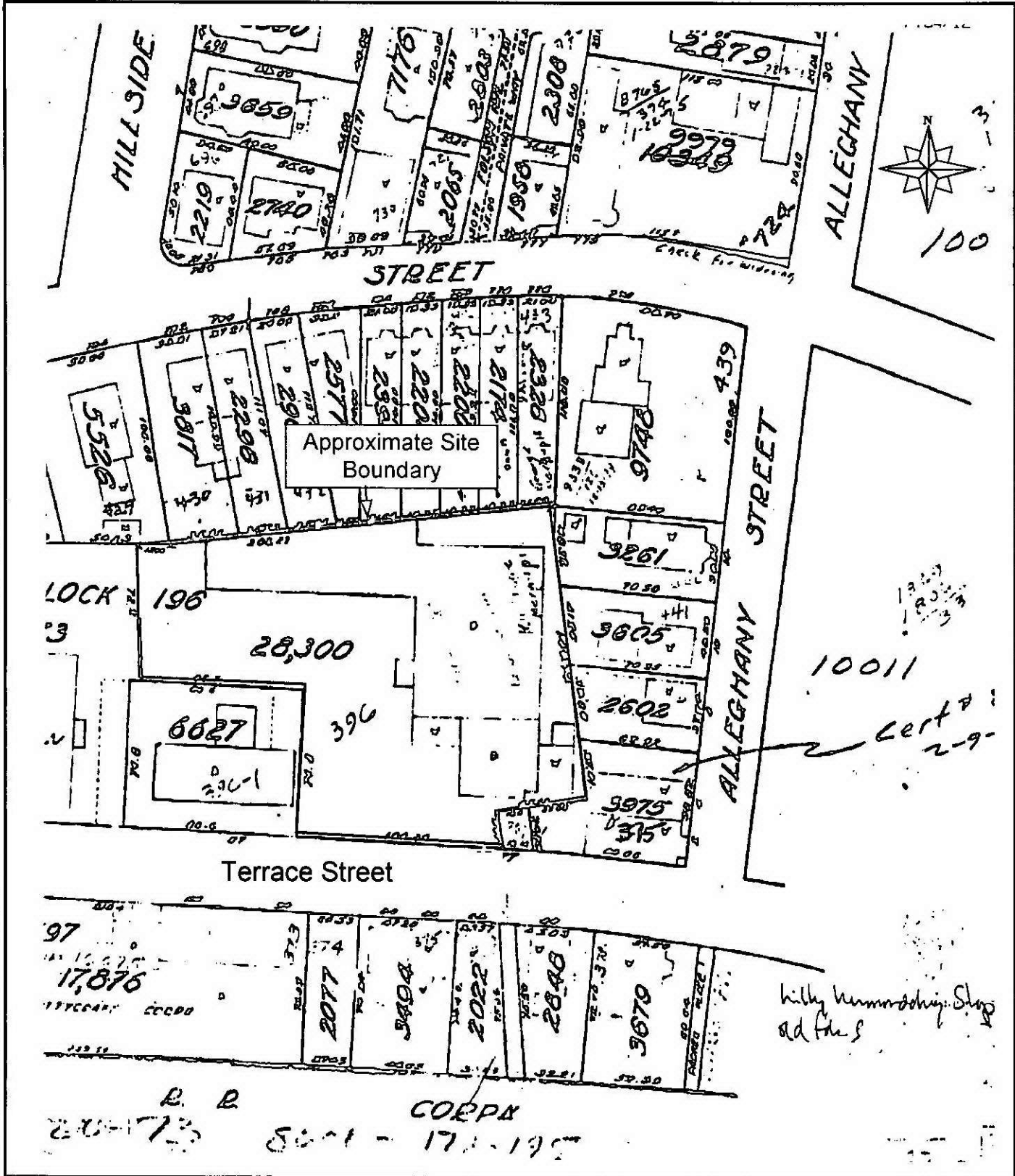
Street: \_\_\_\_\_  
City/Town: \_\_\_\_\_ State: \_\_\_\_\_ ZIP Code: \_\_\_\_\_  
Telephone: \_\_\_\_\_ Ext.: \_\_\_\_\_ FAX: \_\_\_\_\_  
(optional)

YOU MUST COMPLETE ALL RELEVANT SECTIONS OF THIS FORM OR DEP MAY RETURN THE DOCUMENT AS INCOMPLETE. IF YOU SUBMIT AN INCOMPLETE FORM, YOU MAY BE PENALIZED FOR MISSING A REQUIRED DEADLINE.

BWSC-103  
77 Terrace Street  
Boston (Roxbury), MA 02120

<b>0 or HM Released</b>	<b>Amount or Concentration</b>	<b>Units</b>	<b>Standard Exceeded</b>
C19-C36 Aliphatics	6100	mg/kg	RCS-1
C11-C22 Aromatics	233-1784	mg/kg	RCS-1
Benzo (a) Anthracene	870-11000	ug/kg	RCS-1
Chrysene	8500	ug/kg	RCS-1
Benzo (b) Fluoranthene	790-5300	ug/kg	RCS-1
Benzo (a) Pyrene	740-3400	ug/kg	RCS-1
Indeno (1,2,3-cd) Pyrene	780-2100	ug/kg	RCS-1
Lead	357-1370	mg/kg	RCS-1





SCANNED  
SCANNED



SCANNED

**CLASS B-1 RESPONSE ACTION  
OUTCOME STATEMENT**

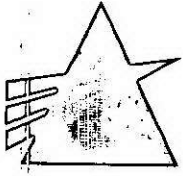
**DEPARTMENT OF NEIGHBORHOOD  
DEVELOPMENT  
77 TERRACE STREET  
BOSTON (ROXBURY), MASSACHUSETTS  
MADEP RTN 3-20251**

**Prepared for:**

Department of Neighborhood Development  
26 Court Street  
Boston, MA 02108

**Prepared by:**

Woodard & Curran Inc.  
980 Washington Street  
Dedham, Massachusetts 02026



**WOODARD & CURRAN**  
Engineering • Science • Operations

December 27, 2001

Department of Environmental Protection  
Northeast Regional Office  
205-A Lowell Street  
Wilmington, MA 01887

**Subject:** Class B-1 RAO Statement  
77 Terrace Street, Boston (Roxbury), MA  
RTN 3-20251

*NIAL*

Data Entry:

On behalf of the City of Boston Department of Neighborhood Development, Woodard & Curran Inc. is submitting the attached Class B-1 RAO Statement and associated BWSC-104 Transmittal Form with original signatures for the referenced release.

Sincerely,

**WOODARD & CURRAN INC.**

Craig Blake, P.E., LSP  
Senior Project Manager

205897.01

Enclosure

cc: David Foley, DND  
Margaret Bursaw, DND



RESPONSE ACTION OUTCOME (RAO) STATEMENT &  
DOWNGRADIANT PROPERTY STATUS TRANSMITTAL FORM

Release Tracking Number

Pursuant to 310 CMR 40.0180 (Subpart B), 40.0580 (Subpart E) & 40.1056 (Subpart J)

3 - 20251

A. SITE OR DOWNGRADIANT PROPERTY LOCATION:

Site Name: (optional) \_\_\_\_\_  
Street: 77 Terrace Street Location Aid: \_\_\_\_\_  
City/Town: Boston (Roxbury) ZIP Code: 02120

Check here if this Site location is Tier Classified. If a Tier I Permit has been issued, state the Permit Number: \_\_\_\_\_

Related Release Tracking Numbers that this Form Addresses: \_\_\_\_\_

If submitting an RAO Statement, you must document the location of the Site or the location and boundaries of the Disposal Site subject to this Statement. If submitting an RAO Statement for a PORTION of a Disposal Site, you must document the location and boundaries for both the portion subject to this submittal and, to the extent defined, the entire Disposal Site. If submitting a Downgradient Property Status Submittal, you must provide a site plan of the property subject to the submittal and, to the extent defined, the Disposal Site.

B. THIS FORM IS BEING USED TO: (check all that apply)

Submit a Response Action Outcome (RAO) Statement (complete Sections A, B, C, D, E, F, H, I, J and L).

Check here if this is a revised RAO Statement. Date of Prior Submittal: \_\_\_\_\_

Check here if any Response Actions remain to be taken to address conditions associated with any of the Releases whose Release Tracking Numbers are listed above. This RAO Statement will record only an RAO-Partial Statement for those Release Tracking Numbers.

Specify Affected Release Tracking Numbers: \_\_\_\_\_

Submit an optional Phase I Completion Statement supporting an RAO Statement or Downgradient Property Status Submittal (complete Sections A, B, H, I, J, and L).

Submit a Downgradient Property Status Submittal (complete Sections A, B, G, H, I, J and K).

Check here if this is a revised Downgradient Property Status Submittal. Date of Prior Submittal: \_\_\_\_\_

Submit a Termination of a Downgradient Property Status Submittal (complete Sections A, B, I, J and L).

Submit a Periodic Review Opinion evaluating the status of a Temporary Solution (complete Sections A, B, H, I, J and L).

Specify one:  For a Class C RAO  For a Waiver Completion Statement indicating a Temporary Solution

Provide Submittal Date of RAO Statement or Waiver Completion Statement: \_\_\_\_\_

You must attach all supporting documentation required for each use of form indicated, including copies of any Legal Notices and Notices to Public Officials required by 310 CMR 40.1400.

RECEIVED

DEC 27 2001

C. DESCRIPTION OF RESPONSE ACTIONS: (check all that apply)

Assessment and/or Monitoring Only

Removal of Contaminated Soils

Re-use, Recycling or treatment

On Site  Off Site Est. Vol.: \_\_\_\_\_ cubic yards

Describe: \_\_\_\_\_

Landfill  Cover  Disposal Est. Vol.: \_\_\_\_\_ cubic yards

Removal of Drums, Tanks or Containers

Describe: \_\_\_\_\_

Removal of Other Contaminated Media

Specify Type and Volume: \_\_\_\_\_

Other Response Actions

Describe: \_\_\_\_\_

Deployment of Absorbent or Contaminant Materials

Temporary Covers or Caps

Bioremediation

Soil Vapor Extraction

Structure Venting System

Product or NAPL Recovery

Groundwater Treatment Systems

Air Sparging

Temporary Water Supplies

Temporary Evacuation or Relocation of Residents

Fencing and Sign Posting

DEP  
NORTHEAST REGIONAL OFFICE

SECTION C IS CONTINUED ON THE NEXT PAGE.



RESPONSE ACTION OUTCOME (RAO) STATEMENT &
DOWNGRADIENT PROPERTY STATUS TRANSMITTAL FORM

Release Tracking Number

Pursuant to 310 CMR 40.0180 (Subpart B), 40.0580 (Subpart E) & 40.1056 (Subpart J)

3 - 20251

C. DESCRIPTIONS OF RESPONSE ACTIONS: (continued)

Check here if any Response Action(s) that serve as the basis for this RAO Statement involve the use of Innovative Technologies. (DEP is interested in using this information to create an Innovative Technologies Clearinghouse.)

Describe Technologies:

D. TRANSPORT OF REMEDIATION WASTE: (if Remediation Waste has been sent to an off-site facility, answer the following questions)

Name of Facility: NA

Town and State:

Quantity of Remediation Waste Transported to Date:

E. RESPONSE ACTION OUTCOME CLASS:

Specify the Class of Response Action Outcome that applies to the Site or Disposal Site. Select ONLY one Class:

- Class A-1 RAO: Specify one of the following:
Class A-2 RAO: You MUST provide justification that reducing contamination to background levels is infeasible.
Class A-3 RAO: You MUST provide both an implemented Activity and Use Limitation (AUL) and justification that reducing contamination to background levels is infeasible.
Class B-1 RAO: Specify one of the following:
Class B-2 RAO: You MUST provide an implemented AUL.
Class C RAO: Check here if you will conduct post-RAO Operation, Maintenance and Monitoring at the Site.

F. RESPONSE ACTION OUTCOME INFORMATION:

If an RAO Compliance Fee is required, check here to certify that the fee has been submitted. You MUST attach a photocopy of the payment.

Check here if submitting one or more AULs. You must attach an AUL Transmittal Form (BWSC-113) and a copy of each implemented AUL related to this RAO Statement. Specify the type of AUL(s) below: (required for all Class A-3 RAOs and Class B-2 RAOs)

Notice of Activity and Use Limitation Grant of Environmental Restriction Number of AULs attached:

Specify the Risk Characterization Method(s) used to achieve the RAO described above and all Soil and Groundwater Categories applicable to the Site.

More than one Soil Category and more than one Groundwater Category may apply at a Site. Be sure to check off all APPLICABLE categories, even if more stringent soil and groundwater standards were met.

Risk Characterization Method(s) Used: Method 1 Method 2 Method 3
Soil Category(ies) Applicable: S-1 S-2 S-3
Groundwater Category(ies) Applicable: GW-1 GW-2 GW-3

When submitting any Class A-1 RAO or Class B-1 RAO where contamination is consistent with background levels, do NOT specify a Risk Characterization Method.

When submitting any Class A-2 RAO or Class B-1 RAO where contamination is NOT consistent with background levels, you cannot use an AUL to maintain a level of no significant risk. Therefore, you must meet S-1 Soil Standards, if using Risk Characterization Method 1.



RESPONSE ACTION OUTCOME (RAO) STATEMENT &
DOWNGRADIANT PROPERTY STATUS TRANSMITTAL FORM

Release Tracking Number

Pursuant to 310 CMR 40.0180 (Subpart B), 40.0580 (Subpart E) & 40.1056 (Subpart J)

3 - 20251

G. DOWNGRADIANT PROPERTY STATUS SUBMITTAL:

- If a Downgradient Property Status Submittal Compliance Fee is required, check here to certify that the fee has been submitted. You MUST attach a photocopy of the payment.
Check here if a Release(s) of Oil or Hazardous Material(s), other than that which is the subject of this submittal, has occurred at this property.
Release Tracking Number(s):
Check here if the Releases identified above require further Response Actions pursuant to 310 CMR 40.0000.

Required documentation for a Downgradient Property Status Submittal includes, but is not limited to, copies of notices provided to owners and operators of both upgradient and downgradient abutting properties and of any known or suspected source properties.

H. LSP OPINION:

I attest under the pains and penalties of perjury that I have personally examined and am familiar with this transmittal form, including any and all documents accompanying this submittal. In my professional opinion and judgment based upon application of (i) the standard of care in 309 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and (iii) the provisions of 309 CMR 4.03(5), to the best of my knowledge, information and belief,

> if Section B indicates that a Downgradient Property Status Submittal is being provided, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed and implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in 310 CMR 40.0183(2)(b), and (iii) complies(y) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> if Section B indicates that either an RAO Statement, Phase I Completion Statement and/or Periodic Review Opinion is being provided, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed and implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and (iii) complies(y) with the identified provisions of all orders, permits, and approvals identified in this submittal.

I am aware that significant penalties may result, including, but not limited to, possible fines and imprisonment, if I submit information which I know to be false, inaccurate or materially incomplete.

- Check here if the Response Action(s) on which this opinion is based, if any, are (were) subject to any order(s), permit(s) and/or approval(s) issued by DEP or EPA. If the box is checked, you MUST attach a statement identifying the applicable provisions thereof.

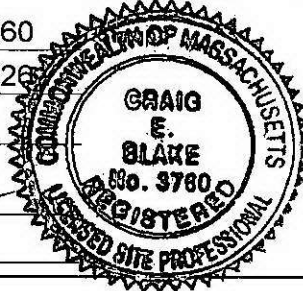
LSP Name: Craig Blake LSP #: 3760

Telephone: 781-251-0200 Ext.: 2426

FAX: (optional)

Signature: [Handwritten Signature]

Date: 12/24/01



I. PERSON MAKING SUBMITTAL:

Name of Organization: City of Boston, Department of Neighborhood Development

Name of Contact: Margaret S. Bursaw Title: Senior Project Manager

Street: 26 Court Street, 9th Floor

City/Town: Boston State: MA ZIP Code: 02108

Telephone: (617) 635-0103 Ext.: FAX: (optional)

J. RELATIONSHIP TO SITE OF PERSON MAKING SUBMITTAL: (check one)

[X] RP or PRP Specify: [X] Owner [ ] Operator [ ] Generator [ ] Transporter Other RP or PRP:

[ ] Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G.L. c. 21E, s. 2)

[ ] Agency or Public Utility on a Right of Way (as defined by M.G.L. c. 21E, s. 5(j))

[ ] Any Other Person Submitting This Form Specify Relationship:





RESPONSE ACTION OUTCOME (RAO) STATEMENT &
DOWNGRADE PROPERTY STATUS TRANSMITTAL FORM

Release Tracking Number

Pursuant to 310 CMR 40.0180 (Subpart B), 40.0580 (Subpart E) & 40.1056 (Subpart J)

3 - 20251

K. CERTIFICATION OF PERSON SUBMITTING DOWNGRADE PROPERTY STATUS SUBMITTAL:

I, \_\_\_\_\_, attest under the pains and penalties of perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form; (ii) that, based on my inquiry of the/those individual(s) immediately responsible for obtaining the information, the material information contained herein is, to the best of my knowledge, information and belief, true, accurate and complete; and (iii) that, to the best of my knowledge, information and belief, I/the person(s) or entity(ies) on whose behalf this submittal is made satisfy(ies) the criteria in 310 CMR 40.0183(2); (iv) that I/the person(s) or entity(ies) on whose behalf this submittal is made have provided notice in accordance with 310 CMR 40.0183(5); and (v) that I am fully authorized to make this attestation on behalf of the person(s) or entity(ies) legally responsible for this submittal. I/the person(s) or entity(ies) on whose behalf this submittal is made is/are aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

By: \_\_\_\_\_ Title: \_\_\_\_\_
(signature)
For: \_\_\_\_\_ Date: \_\_\_\_\_
(print name of person or entity recorded in Section I)

Enter address of the person providing certification, if different from address recorded in Section I:

Street: \_\_\_\_\_
City/Town: \_\_\_\_\_ State: \_\_\_\_\_ ZIP Code: \_\_\_\_\_
Telephone: \_\_\_\_\_ Ext.: \_\_\_\_\_ FAX: (optional) \_\_\_\_\_

L. CERTIFICATION OF PERSON MAKING SUBMITTAL:

If you are completing only a Downgradient Property Status Submittal, you do not need to complete this section of the form.


I, Margaret S. Bursaw, attest under the pains and penalties of perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form, (ii) that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained in this submittal is, to the best of my knowledge and belief, true, accurate and complete, and (iii) that I am fully authorized to make this attestation on behalf of the entity legally responsible for this submittal. I/the person or entity on whose behalf this submittal is made am/is aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

By: [Signature] AGENT FOR Title: Senior Project Manager
(signature)
For: City of Boston, Department of Neighborhood Development Date: 12/24/01
(print name of person or entity recorded in Section I)

Enter address of person providing certification, if different from address recorded in Section I:

Street: \_\_\_\_\_
City/Town: \_\_\_\_\_ State: \_\_\_\_\_ ZIP Code: \_\_\_\_\_
Telephone: \_\_\_\_\_ Ext.: \_\_\_\_\_ FAX: (optional) \_\_\_\_\_

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12-26-01	122601CR	RAO FEE STATE REGUL	750.00	.00	750.00
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**CLASS B-1 RESPONSE ACTION  
OUTCOME STATEMENT**

**DEPARTMENT OF NEIGHBORHOOD DEVELOPMENT  
77 TERRACE STREET  
BOSTON, MASSACHUSETTS**

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**APPENDICES**

Appendix A	Response Action Outcome (RAO) Transmittal Form (BWSC-104)
Appendix B	Public Notification of RAO Availability
Appendix C	Test Pit Logs
Appendix D	Soil Logs
Appendix E	Hager GeoScience, Inc. Geophysical Report
Appendix F	Test Pit Analytical Reports
Appendix G	Soil Probe Analytical Reports

## 1.0 INTRODUCTION

The following information is provided in support of a Class B-1 Response Action Outcome (RAO) Statement prepared on behalf of The City of Boston Department of Neighborhood Development (DND) for the identified release site at 77 Terrace Street in Boston (Roxbury), Massachusetts. The RAO Statement has been prepared by Woodard & Curran Inc. (W&C), in accordance with the Massachusetts Contingency Plan (MCP) 310 CMR 40.0000, for the Massachusetts Department of Environmental Protection Release Tracking Number (RTN) 3-20251.

The RAO Statement is supported by site characterization information obtained during initial site investigation actions completed at the 77 Terrace Street site in accordance with 310 CMR 40.0405(1). These activities included the preparation of an ASTM Phase I Environmental Site Assessment (ESA) in December 2000 of the property at 77 Terrace Street, Roxbury, Massachusetts by Coler & Colantonio, Inc. (Coler) and additional subsurface and geophysical investigations conducted by W&C and as described in this RAO Statement.

## 2.0 SITE DESCRIPTION AND HISTORY

This section provides the description and background of the property, and a summary of the response investigations completed at the release Site. The Site is associated with a 120-day "release" that was encountered during the completion of an ASTM Phase I Environmental Site Assessment at the 77 Terrace Street property. On December 21, 2000, DND submitted the 120-day release notification to the Department of Environmental Protection (DEP) for levels of Extractable Petroleum Hydrocarbons (EPH), Polynuclear Aromatic Hydrocarbons (PAHs) and lead which exceeded applicable Reportable Concentrations under the Massachusetts Contingency Plan (MCP). DEP subsequently assigned Release Tracking Number (RTN) 3-20251 to this release.

### 2.1 SITE DESCRIPTION

The property is located at 77 Terrace Street in Roxbury (Boston), Massachusetts. This parcel is identified on the Boston Assessors Map as Lot 196 and comprises approximately 28,300 square feet. Based on the nature of the site conditions encountered and for the purposes of this RAO Statement, the "Site" is defined as the entire property at 77 Terrace Street. These site conditions are described in Sections 2, 3 and 4 below. A Locus Map of the Site is provided as Figure 1. A Site Plan of the Site is shown as Figure 2. The Disposal

Site is illustrated in Figure 3. The latitude of the Site is North 42° 19' 46" and the longitude is West 71° 05' 53". The UTM coordinates are <sup>3</sup>27<sup>164</sup> mE and <sup>46</sup>88<sup>493</sup> mN.

The Site is located in a mixed residential/commercial area of Roxbury. To the west, the Site borders a brick building with a sign indicating janitorial cleaning supplies were once stored there. This brick building also includes a large brick smokestack. The building is said to currently be used for storage. Beyond the brick building to the west is a parking area and a restaurant. To the north and east, the Site borders residential property. On the south, the Site borders Terrace Street. Across Terrace Street from the Site are commercial establishments.

The Site occupies approximately 28,300 square feet and no structures currently exist on the Site. Evidence of former buildings was found during subsurface investigations and a site walkover. This evidence includes a concrete area and foundation visible in the northwestern portion of the Site and evidence of brick walls and concrete foundations found in various test pits completed on the Site.

In December 2000, Coler performed an ASTM Phase I ESA of the property that summarized the results of a site reconnaissance, a review of historical records, a federal and state environmental database search, and a limited test pit excavation and soil sampling program. Coler identified extractable petroleum hydrocarbons (EPH), polynuclear aromatic hydrocarbons (PAHs), and lead at concentrations exceeding the applicable Massachusetts Contingency Plan reportable concentrations for RCS-1 soils, but was not able to identify a source of the contamination. The possible presence of a 5,000-gallon underground storage tank (UST) was identified by Coler as a result of their UST records research. Coler recommended a ground penetrating radar (GPR) survey to assess whether the UST remained on the property as a potential source.

Woodard & Curran conducted a site walkover on June 12, 2001. The Site was observed to be open and heavily vegetated with brush and tall grass. No soil staining or stressed vegetation was observed. The general topography of the Site slopes down to the south.

Aboveground utilities were observed on the Site. A utility pole located along the northern Site property line has overhead lines connecting to the west. Water, sewer, fire alarm and electrical utility lines are believed to be located in the Terrace Street right-of-way. An apparent abandoned underground gas pipe was encountered during the completion of a test pit (TP5) by Coler in August 2000. There is no evidence of other utilities on the Site.

### 2.1.1 Physical Setting

Review of the USGS Boston South, Massachusetts 7.5-Minute Topographical Quadrangle maps indicates that on-Site topographic elevations range between approximately 20 to 25 meters above mean sea level. Refer to Figure 1. The closest named surface water bodies, Dorchester Bay and the Neponset River, are located well over 500 feet to the north and the southwest of the Site, respectively.

Review of the ACEC map of Massachusetts (2000) indicates that the Site is not located within the geographical boundaries of an ACEC. A review of the Massachusetts DEP-Bureau of Waste Site Cleanup GIS map does not show the Site within the boundary of a potential aquifer or water supply source.

According to the Soil Survey for Norfolk and Suffolk Counties, Massachusetts, from the United States Department of Agriculture (September 1989), the soil classifications for the Site is Hollis-Rock outcrop-Charlton complex (HrD). Areas of HrD are typically moderately steep soils and areas of exposed bedrock on hills and ridges where relief is controlled by underlying bedrock. In a typical area of this map unit 30% is Hollis soil, 30% is rock outcrops, 25% is Charlton soil and 15% is other soils. Most of the Site soils are presently comprised of recent (<100 year old) urban fill and rubble.

## 2.2 SITE HISTORY

In order to document the historical use of the Site, Woodard & Curran reviewed the 1897, 1919, 1950, 1964 and 1995 Sanborn Fire Insurance Maps for the area obtained during the preparation of the Phase I ESA. The 1897 Sanborn Map lists the Site as being "The Union Brewing Company." The northeastern corner of the property is shown to contain a "Wagon Shed", "Keg Shed", "Cooper", "Cold Storage Cooler" and other smaller buildings associated with the brewery. Buildings, including a large brick smokestack, still standing to the west of the Site are shown to exist on the 1897 Map. The same buildings are shown on the 1919 Sanborn Map, but are designated "J.W. Kenney Park Brewery", which is shown as "closed" on the map.

The 1950 Sanborn Map shows that the "Wagon Shed", "Keg Shed" and "Cooper" buildings had been removed from the Site, leaving only the "Cold Storage Cooler" remaining on the eastern section of the Site.

The 1964 Sanborn Map obtained for the Site shows the Site to be the location of the Standard Plumbing Supply Co., with additional buildings being located along the northern

property boundary. The 1995 Sanborn Map of the area shows the property at 77 Terrace Street as vacant with no buildings on the property.

As part of the Phase I ESA, Coler performed a database search of federal and state environmental files. The results of the database search confirmed that there were no disposal or spill sites on or in the immediate vicinity of 77 Terrace Street. Based on their review of the DEP files for three listed sites, located within 0.25 miles of the Site, Coler concluded that these sites were unlikely to have impacted the 77 Terrace Street Site.

A file review of the Boston Fire Department records performed by Coler on August 16, 2000, indicated that one 5,000-gallon fuel tank was located at 77 Terrace. The tank is listed as having been last inspected in 1959. There was no subsequent record of removal or abandonment of the tank.

### **3.0 SITE INVESTIGATIONS**

#### **3.1 TEST PITS COMPLETED BY COLER DURING PHASE I ESA**

On August 4, 2000, Dowling Corporation (Dowling) excavated eight test pits (designated TP-1 through TP-8) on the property at 77 Terrace Street under the supervision of Coler. See Figure 2 (Site Plan) for the locations of these test pits. The purpose of the test pits was to assess soil quality on the property and search for the 5,000-gallon UST potentially remaining at the Site. No groundwater was encountered during the excavation of the eight test pits.

Descriptions of soil encountered while excavating the test pits are included in the attached Test Pit Logs (Appendix C). In general, the test pits contained urban fill, wood, wood ash and coal ash and organic material. Urban rubble was encountered in all of the test pits including, but not limited to: brick, concrete, wood, metal car parts, cans and bottles. Coal ash and wood ash were encountered in the urban rubble was encountered at all test pit locations the entire depth of the test pit, with the exception of test pit TP-5 where the rubble was evident down to a depth of 5 feet. In TP-2, the limits of urban fill extended below the extent of the 12.5-foot test pit excavation. Ash was visually evident in test pits TP-1, TP-2, TP-3 and TP-4.

Refusal was encountered at shallow depths (2-6 feet) at three test pit locations. In TP-1, TP-2, TP-4, and TP-7, portions of brick walls and/or concrete foundations were encountered as described in the appended Boring Logs. Based on the available subsurface information, refusal was due to buried debris and foundations encountered, and not encountered bedrock.



Composite soil samples were collected by C&C from each test pit at depths ranging from approximately 2 to 12 feet below ground surface (bgs) and were submitted to Spectrum Analytical, Inc. (SAI) for analysis for Extractable Petroleum Hydrocarbons (EPH), volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons (PAHs), and metals. A copy of the analytical reports can be found in Appendix F.

### **3.1.1 Headspace Screening**

Coler obtained headspace readings using a Photoionization Detector (PID) from composite soil samples taken from each of the test pit excavations. The readings ranged from 0.0 ppm in TP-2 to 16.0 ppm in TP-1. PID readings for each sample are listed on the respective test pit logs in Appendix C.

### **3.1.2 Laboratory Analytical Results**

Soil samples from each test pit were submitted by Coler to SAI for EPH and Total RCRA8 Metals analyses. Additionally, the three samples with the highest PID readings (see test pit logs) were submitted for VOC analysis by EPA Method 8260. Complete results are included in Appendix F. Concentrations detected for C19-C36 Aliphatic Hydrocarbons, C11-C22 Aromatic Hydrocarbons, Benzo(a)Anthracene, Chrysene, Benzo(b)Fluoranthene, Benzo(a)Pyrene, Indeno(1,2,3-cd)pyrene, and Lead exceeded Reportable Concentrations (RCs) per 310 CMR 40.1600 in one or more of the samples. The RCS-1 Reportable Concentrations were applicable due to the proximity (within 500 feet) of the property to residences. Refer to Table 1 for a summary of the comparisons of detected concentrations to the applicable RCs.

Although there is significant evidence that the compounds exceeding the reportable concentrations are solely attributable to the wood ash and coal ash encountered throughout the property during the test pit activities, Coler recommended that DND notify DEP of the release conditions. DND submitted the 120-day release notification to DEP on December 21, 2000. Release tracking number (RTN) 3-20251 was assigned to the release site. The Phase I ESA field investigation did not identify a source of the encountered chemicals, but Coler recommended that a geophysical survey be conducted to assess whether a UST remained on the property.

### 3.2 GEOPHYSICAL INVESTIGATION

A geophysical survey of the Site was performed by Hager GeoScience, Inc. under the supervision of W&C on August 13 and 15, 2001. The objective of the survey was to determine if a 5,000-gallon UST identified during the records search by Coler remained on the property. The survey was performed using a combination of electromagnetic (EM) terrain conductivity and ground penetrating radar (GPR). The EM terrain conductivity was used to survey the entire Site and the GPR focused in those areas identified as EM anomalies.

Hager GeoScience concluded, upon completion of the geophysical investigation, that there were no detectable USTs on the Site. A copy of the Hager GeoScience, Inc. report is appended as Appendix E.

### 3.3 SOIL BORINGS (WOODARD & CURRAN)

On October 16, 2001, Woodard & Curran oversaw the advancement of ten (10) direct-push 1.5-inch diameter soil probes on the Site. The probe locations were chosen to be representative of areas of the Site not likely to have been impacted by historical site activities so as to characterize "background" conditions at the Site. One soil probe, SP-6, was located in the vicinity of TP-1 to provide additional characterization of the subsurface soils in the area of TP-1 where EPH exceedances were identified by Coler. The probe locations are shown in Figure 2.

The soil probes were advanced to depths ranging from 2 to 13 feet below bgs. Refusal was encountered at 9 of the 10 locations. Based on the historic use of the Site and the concrete and brick rubble encountered throughout the Site, the "refusal" was assumed to be due to encountered concrete and rubble. No odors were observed during the advancement of the soil probes. Sands and gravels were encountered in each probe location.

Wood ash and coal ash were identified as being present in five (5) of the eight (8) probe locations where a soil sample was obtained. At probe location SP-1, the ash was identified in the 0 to 4-foot soil sample and coal ash and coal slag was observed at 6.5 to 7 feet bgs. Concrete and brick were observed in the soil samples obtained from the entire depth (12 feet) of the probe. Probe SP-2A was advanced to a depth of 7 feet (refusal) and concrete and brick were observed throughout the depth of the probe. Probe SP-3A also encountered concrete and brick the entire depth, down to refusal at 6.5 feet bgs. Probe SP-4A encountered refusal at 7 feet bgs, while also encountering concrete, brick, wood ash and coal ash the full depth of the probe.

Probe SP-5 (refusal at 13 feet) encountered concrete and brick the full depth of the probe and coal ash and wood ash at a depth of 4 to 8 feet bgs. Probe SP-6 (refusal at 10 feet) encountered urban rubble/fill material, coal ash and wood ash throughout the entire depth of the probe. Probes SP-7 (refusal at 10 feet) and SP-8 (refusal at 5 feet) did not observe any ash, but the urban rubble (concrete and brick) was evident in SP-8 the full depth of the probe. No groundwater was encountered during the soil probe activities. Soil logs are appended as Appendix D.

Soil samples were obtained from the soil probe locations at various depths to provide a more comprehensive characterization of the subsurface soils at the Site. The soil samples were submitted to Alpha Analytical Laboratories, Inc. (Alpha) for analysis for EPH and total lead. A copy of the analytical reports can be found in Appendix G.

### 3.3.1 Headspace Screening

A headspace reading using a Photoionization Detector (PID) was taken from each of the soil samples. The readings ranged from 0.0 ppm in SP-1 to 4.2 ppm in SP-3A. PID readings for each sample are listed on the respective soil boring log.

### 3.3.2 Laboratory Analytical Results

Soil samples from each soil probe location were submitted to Alpha for EPH, including the target analytes, and total lead analyses. The complete analytical reports are included in Appendix G. PAHs were reported at consistent concentrations in each of the soil probe soil samples, independent of depth of the soil sample. Lead concentrations reported in the soil samples ranged from 79 to 5,800 mg/kg. The reported EPH concentrations were consistent spatially throughout the Site with the exception of the EPH levels reported in the soil sample obtained at probe SP-6 at a depth of 0-4 feet. There were no C9-C18 aliphatic hydrocarbons detected in any of the samples with the exception of the SP-6 (0/4) sample. The SP-6 (0/4) C9-C18 aliphatic hydrocarbon concentration was reported at 1,780 mg/Kg. The concentrations of C19-C36 aliphatic hydrocarbons ranged from none detected to 441 mg/Kg. The C19-C36 aliphatic hydrocarbons concentration in SP-6 (0/4) was reported at 9,700 mg/Kg. The concentrations of reported C11-C22 aromatic hydrocarbons ranged from 39.9 mg/Kg to 638 mg/Kg. The C11-C22 aromatic hydrocarbon concentration reported at SP-6 (0/4) was 8,940 mg/Kg. See Table 2 for a summary of the analytical results.



None of the detected concentrations exceeded the Upper Concentration Limit (UCL) for the compound. The detected EPH concentrations in the SP-6 (0/4) soil sample are attributed to the wood ash and coal ash that was prevalent in the soil sample.

### **3.4 RESPONSE ACTIONS**

Other than the preliminary investigations described herein, there have been no response actions completed at the Site.

### **3.5 MANAGEMENT OF REMEDIAL WASTE**

There has not been any remedial waste generated at the Site.

### **4.0 ESTABLISHING SITE BACKGROUND LEVELS**

The subsurface soil investigation, including the test pits and soil probes, performed at the Site has documented that a significant portion of the Site has been built up over the years with "urban fill." This urban fill consists of wood ash, coal ash, coal slag, concrete, brick, and wood. Test pits and soil probes completed at the Site have documented that this urban fill extends the full extent of the Site. The one soil sampling location, soil probe SP-7, that did not contain visual evidence of either urban fill or ash, was the only location where soil analytical results did not indicate an impact by the anthropogenic urban fill/ash material.

### **4.1 COMPARISON TO ANTHROPOGENIC LEVELS**

The presence of PAHs in soil at urban locations is common due to the historical practice of using coal ash and wood ash as fill material at these locations. The PAHs are formed as a result of the incomplete burning of hydrocarbons, such as coal, oil, gasoline, and garbage. The DEP has studied the ranges of PAH contamination encountered in urban fill and has developed proposed "Anthropogenic Background Levels" for both accessible soils (S-1) and those soils not readily accessible (S-2/S-3) to assist in evaluating urban background contamination levels. The average PAH soil contamination concentrations found in the 23 soil samples obtained at the Site during the test pit and soil probe investigations are compared to the proposed S-2/S-3 Anthropogenic Background Levels in Table 3. The S-2/S-3 soil classification is appropriate for the Site as the Site is totally fenced and the Site soils are therefore not readily accessible to the public.

Adjacent to the Site on the western property boundary, is a building with a large smokestack that, according to the Sanborn Maps of the area, has been in existence since 1897. As the predominant wind directions are southwest and northwest in the Boston area, the Site is located downwind from this large smokestack. The presence of the smokestack on the immediately adjacent property to the west of the Site, in conjunction with the documented ash observed in the on-site soils and the lack of any potential other sources of the PAH detected, suggest that the PAHs encountered in the Site soils are not the result of a "release" at the Site, but representative of "background" anthropogenic conditions at the Site. The MCP (310 CMR 40.006) defines a "release" as any "spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing into the environment." The MCP (310 CMR 40.006) defines "background" as "those levels of oil and hazardous material that would exist in the absence of the disposal site of concern which are either: (a) ubiquitous and consistently present in the environment at and in the vicinity of the disposal site of concern; and attributable to geologic or ecologic conditions or atmospheric deposition of industrial process or engine emissions; or (b) attributable to coal ash or wood ash associated with fill material."

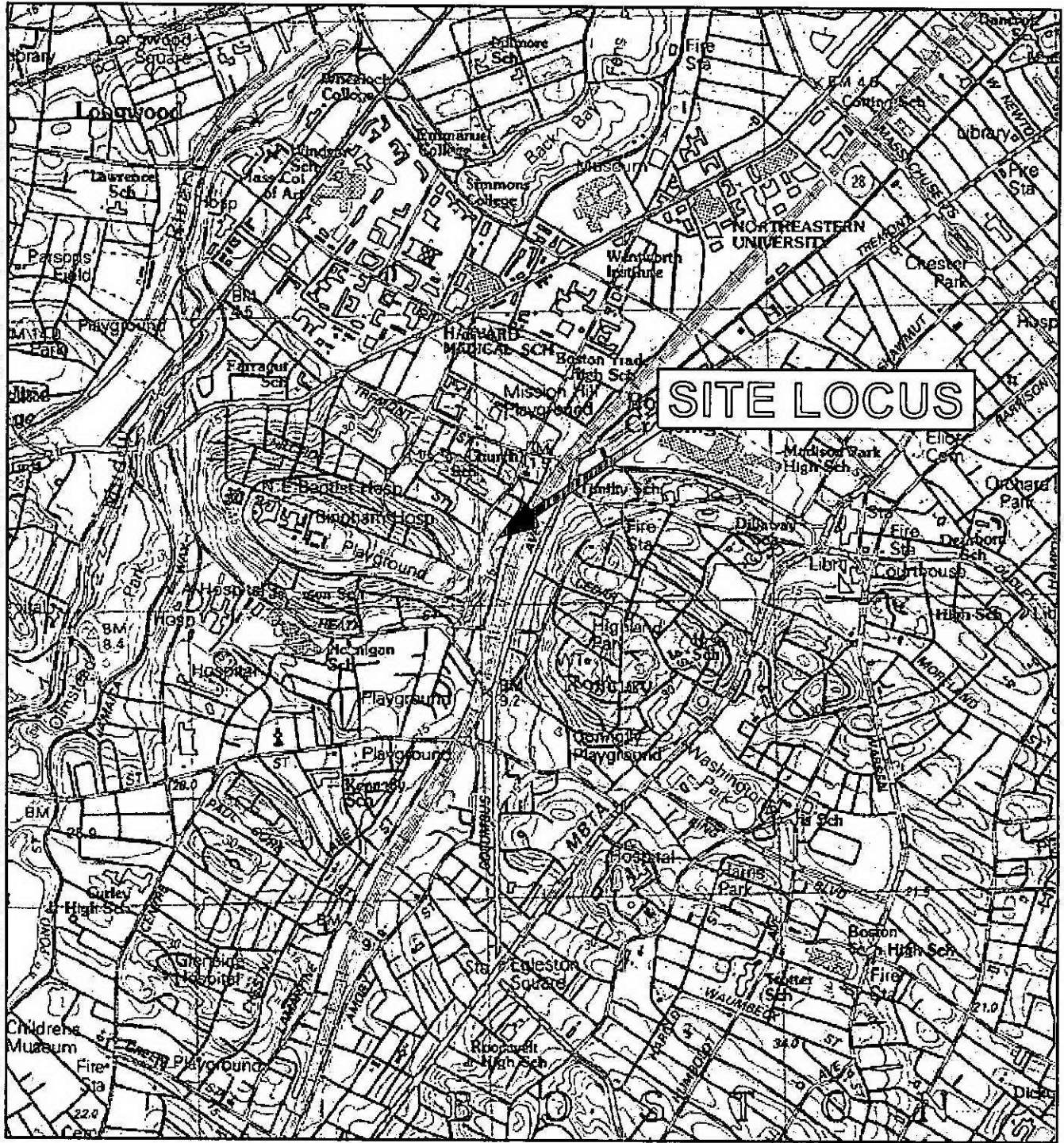
The subsurface investigation performed at the Site has not identified any potential "source" of the lead, EPH and PAH compounds found in the soil, other than the wood ash and coal ash found throughout the Site. The detected concentrations of lead, EPH and PAH are consistent with the proposed S-2/S-3 anthropogenic background levels established by the DEP for "urban fill" sites such as 77 Terrace Street.

## 5.0 CONCLUSIONS

Based on Site observations, W&C has concluded that the levels of soil impacts encountered at the Site are consistent with both background levels at the Site and background levels typically found in anthropogenic urban fill soils containing coal ash and wood ash. In accordance with 310 CMR 40.1020(2), as the Site conditions are representative of "background" conditions, a level of No Significant Risk shall be deemed to exist and no further response actions are required. The conditions of a Class B-1 Response Action Outcome (RAO), as outlined in 310 CMR 40.1046 (1), have been met.

## 6.0 REFERENCES

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**SITE LOCUS**

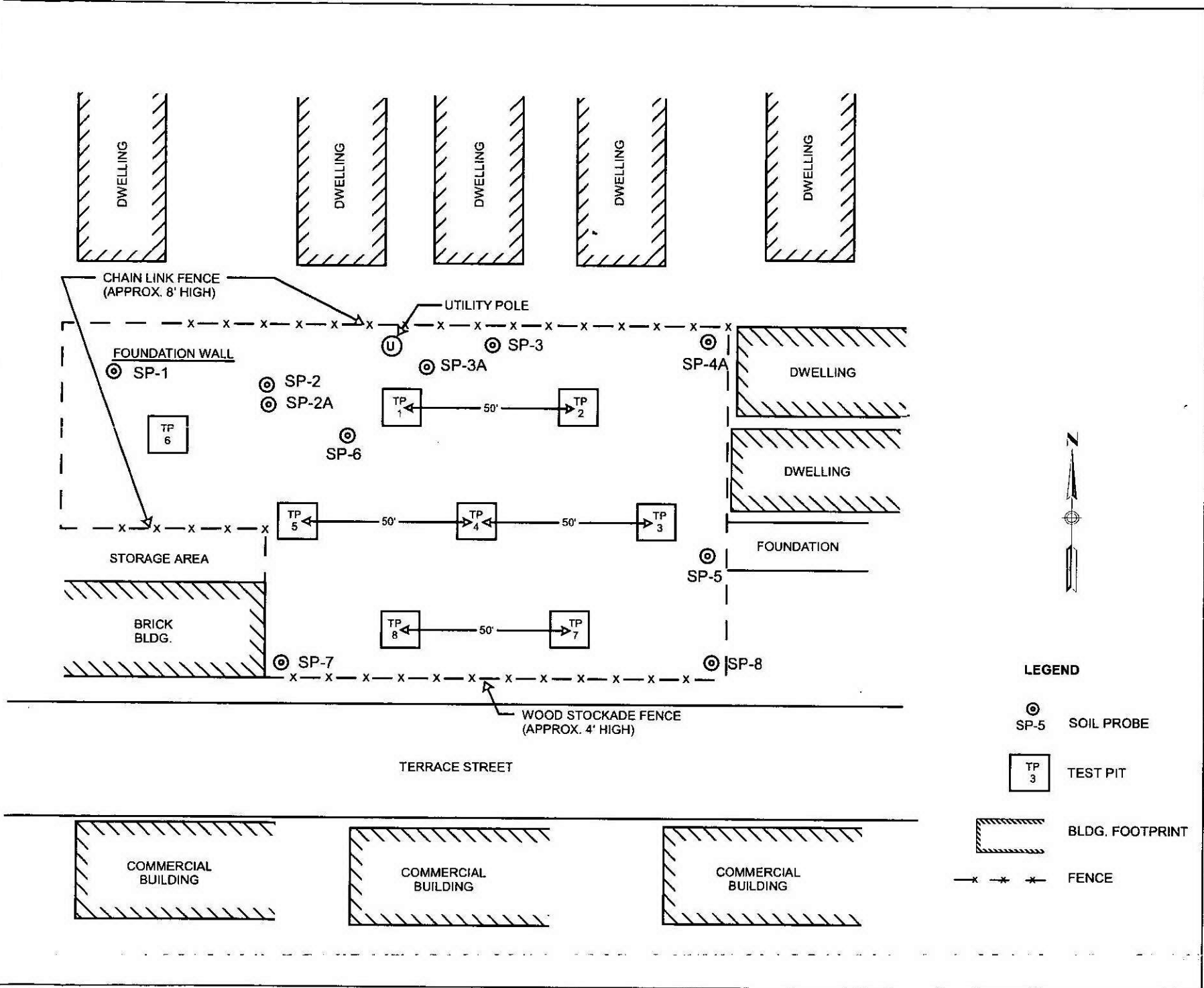


Base Map Source:  
TOPO!™ © 2000  
Wildflower Productions

DES.BY:	DR.BY: CJP	CK.BY: CB
77 TERRACE STREET BOSTON, MA		
FIGURE 1 SITE LOCUS		
SCALE: AS SHOWN	JOB NO.: 205897.01	
DATE: DECEMBER 2001	FILE NAME: SITELOCUS.CNV	

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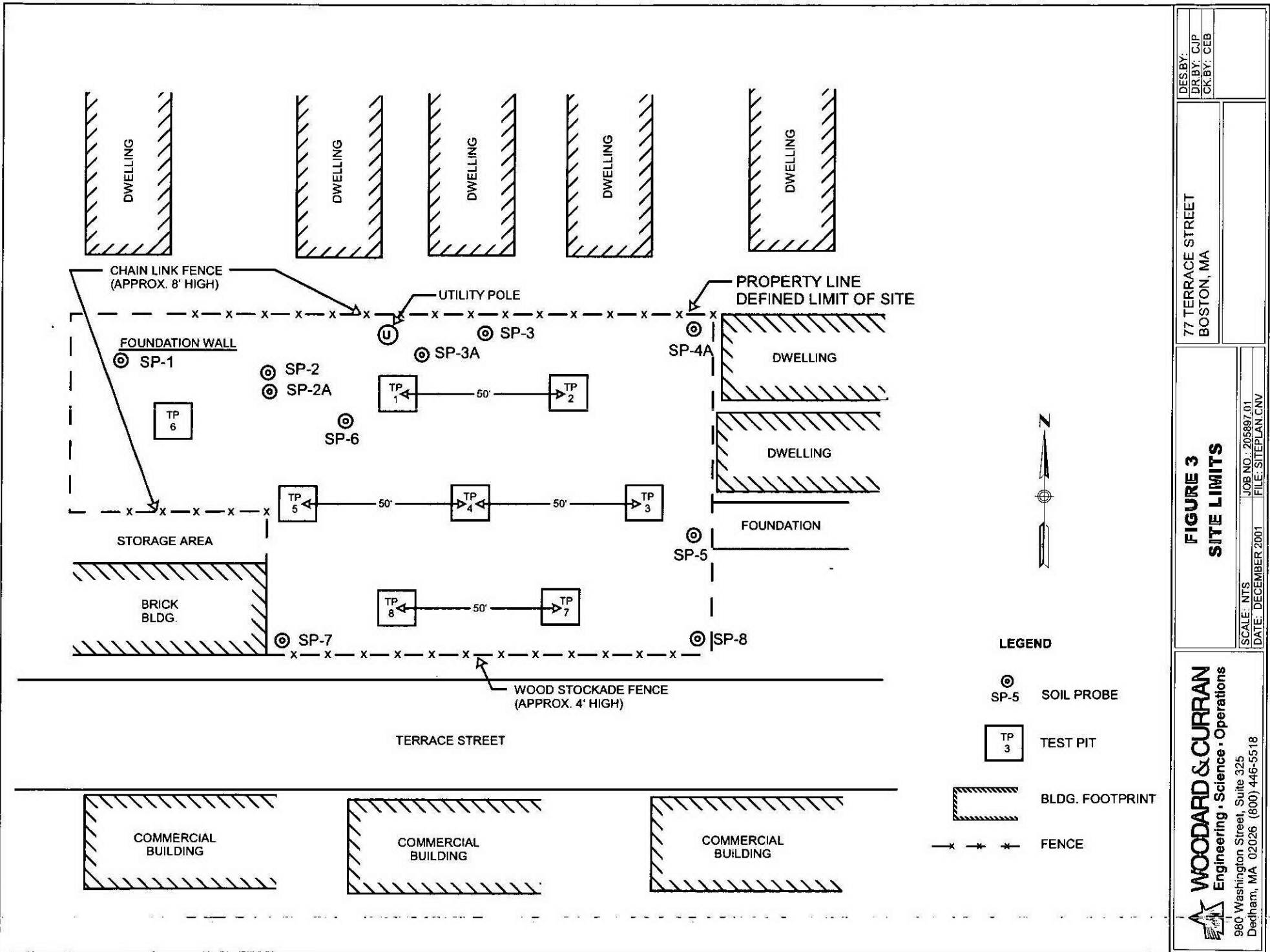




**LEGEND**

- ⊙ SP-5 SOIL PROBE
- TP 3 TEST PIT
- ▨ BLDG. FOOTPRINT
- x-x-x- FENCE

<p>DES. BY: CJP          DR. BY: CJP          CK. BY: CEB</p>	<p>77 TERRACE STREET          BOSTON, MA</p>
<p><b>FIGURE 2          SITE PLAN</b></p>	
<p>SCALE: NTS          DATE: DECEMBER 2001</p>	<p>JOB NO.: 205897.01          FILE: SITEPLAN.CNV</p>
<p><b>WOODARD &amp; CURRAN</b>          Engineering • Science • Operations</p> <p>980 Washington Street, Suite 325          Dedham, MA 02026 (800) 446-5518</p>	



DESIGN: NTS  
 DRAWN: CJP  
 CHECKED: CEB

77 TERRACE STREET  
 BOSTON, MA

**FIGURE 3  
 SITE LIMITS**

SCALE: NTS  
 DATE: DECEMBER 2001  
 JOB NO.: 205897.01  
 FILE: SITEPLAN.CNV

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- LEGEND**
- ⊙ SP-5 SOIL PROBE
  - TP 3 TEST PIT
  - ▬ BLDG. FOOTPRINT
  - x-x-x- FENCE



TABLE 1

SUMMARY OF TEST PIT SOIL ANALYTICAL DATA\*  
77 Terrace Street, Roxbury MA  
Sampled August 4, 2000

Sample ID Sample Depth	TP-1 2 - 6'	TP-2 2 - 12.5'	TP-3 2 - 5'	TP-4 2 - 6'	TP-5 2 - 10.5'	TP-6 2 - 4'	TP-7 2 - 8'	TP-8 0 - 2'	Reportable Concentration RCS-1
<b>VOCs (mg/Kg)</b>									
Trichlorofluoromethane	< 0.065	NA	NA	NA	< 0.048	< 0.062	NA	1.5	10,000
<b>EPH Aliphatics/Aromatics (mg/Kg)</b>									
C9-C18 Aliphatic Hydrocarbons	760	< 30	< 30	< 30	< 30	< 30	< 30	< 30	1,000
C19-C36 Aliphatic Hydrocarbons	<b>6,100</b>	130	75	56	85	79	37	84	2,500
C11-C22 Aromatic Hydrocarbons	<b>1,784</b>	95	89	90	95	<b>233</b>	70	77	200
<b>EPH Target PAH Analytes (mg/Kg)</b>									
Naphthalene	0.240	< 0.150	< 0.160	< 0.160	0.190	3.0	0.220	< 0.150	4
2-Methylnaphthalene	< 0.150	< 0.150	< 0.160	< 0.150	< 0.150	0.980	< 0.150	< 0.150	4
Acenaphthene	0.680	0.360	< 0.160	< 0.160	0.410	3.6	0.510	0.160	100
Fluorene	0.480	0.300	< 0.160	< 0.160	0.370	4.3	0.530	< 0.150	NA
Phenanthrene	4.4	3.6	1.1	1.2	3.5	27.0	4.5	1.6	100
Anthracene	0.710	0.820	0.220	0.230	0.800	9.0	1.1	0.390	1,000
Fluoranthene	4.3	4.4	2.0	2.3	4.4	26.0	4.6	3.1	1,000
Pyrene	4.6	3.9	2.1	2.4	3.9	22.0	3.9	2.8	700
Benzo(a)anthracene	1.2	1.9	<b>0.870</b>	1.1	1.9	<b>11.0</b>	1.8	1.3	0.7
Chrysene	1.5	1.8	0.980	1.3	1.9	<b>8.5</b>	1.9	1.3	7
Benzo(b)fluoranthene	<b>0.810</b>	1.2	0.560	1.1	1.4	<b>5.3</b>	1.2	<b>0.790</b>	0.7
Benzo(k)fluoranthene	0.440	0.690	0.300	0.500	0.560	2.0	0.450	0.340	1,000
Benzo(a)pyrene	0.590	1.0	0.400	<b>0.880</b>	<b>0.940</b>	<b>3.4</b>	<b>0.740</b>	0.530	0.7
Indeno(1,2,3-cd)pyrene	<b>0.780</b>	0.530	0.280	0.620	0.570	2.1	0.360	0.320	0.7
Dibenzo(a,h)anthracene	0.240	0.190	< 0.160	0.180	< 0.150	0.540	< 0.150	< 0.150	0.7
Benzo(g,h,i)perylene	0.870	0.780	0.016	0.730	0.640	2.9	0.390	0.450	1,000
<b>Metals Analysis (mg/Kg)</b>									
Total Arsenic	16.6	14.4	8.22	6.78	5.59	3.82	3.29	5.9	30
Total Barium	224	470	171	85.3	113	125	63.6	69	1,000
Total Cadmium	10.5	11.5	6.49	4.2	3.96	6.87	3.62	4.45	30
Total Chromium	25.2	64.6	17.6	11.2	16.6	18	12.1	18.4	1,000
Total Lead	<b>1,230</b>	<b>1,240</b>	<b>602</b>	<b>357</b>	<b>463</b>	<b>1,370</b>	178	<b>442</b>	300
Total Mercury	0.883	0.483	2.97	< 0.202	0.666	0.994	0.213	0.584	20

Bold = Exceeds applicable Reportable Concentration (RCS-1)

NA = Not Applicable

\*Results obtained by Coler & Colantonio. Only data detected above laboratory reporting limits in at least one test pit is included on the table.

**TABLE 2**  
**CONCENTRATION OF CHEMICALS DETECTED IN SOIL PROBE SAMPLES**  
77 Terrace Street,  
Roxbury, Massachusetts

Sample Location Identifier: Date Sampled: Sample Depth (Feet bgs):	SP-1-4/8 10/26/01 4-8	SP-1-8/12 10/26/01 8-12	SP-2A-0/4 10/26/01 0-4	SP-2A-4/8 10/26/01 4-7	SP-3A-0/4 10/26/01 0-4	SP-3A-4/8 10/26/01 4-6.5	SP-4A-0/4 10/26/01 0-4	SP-4A-4/8 10/26/01 4-7	SP-5-0/4 10/26/01 0-4	SP-5-8/12 10/26/01 8-12	SP-6-0/4 10/26/01 0-4	SP-6-4/8 10/26/01 4-8	SP-7-4/8 10/26/01 4-8	SP-8-0/4 10/26/01 0-4	SP-8-4/8 10/26/01 4-5
<b><i>EPH</i></b>															
Naphthalene	<2.60	<1.58	0.566	<0.556	<2.75	<0.526	1.1	4.87	<2.78	<1.09	<4.38	<2.75	<0.595	<4.26	<11.1
2-Methylnaphthalene	<2.60	<1.58	<0.556	<0.556	<2.75	<0.526	0.608	3.27	<2.78	<1.09	<4.38	<2.75	<0.595	<4.26	<11.1
Acenaphthylene	<2.60	<1.58	<0.556	<0.556	3.25	<0.526	<0.556	<2.91	<2.78	<1.09	<4.38	<2.75	<0.595	<4.26	<11.1
Acenaphthene	<2.60	<1.58	<0.556	<0.556	<2.75	<0.526	1.99	11.8	<2.78	<1.09	<4.38	<2.75	<0.595	<4.26	3.95
Fluorene	<2.60	<1.58	<0.556	<0.556	<2.75	<0.526	1.42	10.5	<2.78	<1.09	<4.38	<2.75	<0.595	<4.26	<11.1
Phenanthrene	15.7	2.98	4.00	1.81	4.85	<0.526	21.4	86.8	8.99	2.28	<4.38	11.6	1.33	<4.26	1.32
Anthracene	3.7	<1.58	1.02	<0.556	3.03	<0.526	4.41	19.4	<2.78	<1.09	<4.38	3.01	<0.595	<4.26	<11.1
Fluoranthene	26.5	3.95	4.16	2.55	62.2	2.28	20.9	67.8	10.4	4.02	<4.38	12.0	1.26	<4.26	2.26
Pyrene	22.0	3.28	3.56	2.09	54.0	1.92	15.3	67.9	7.74	3.38	6.95	8.73	0.906	<4.26	1.72
Benzo(a)anthracene	11.1	1.75	1.72	1.16	32.0	1.08	8.50	26.6	4.57	2.09	<4.38	4.48	<0.595	<4.26	<11.1
Chrysene	13.1	2.01	2.00	1.36	27.5	1.06	9.51	28.9	5.22	2.42	15.6	5.13	0.618	<4.26	1.15
Benzo(b)fluoranthene	8.96	<1.58	1.54	1.12	23.9	1.26	7.31	22	5.37	2.90	7.27	4.99	<0.595	<4.26	1.12
Benzo(k)fluoranthene	12.5	2.17	2.38	1.72	32.0	1.02	9.81	21.5	4.51	2.50	<4.38	4.38	<0.595	<4.26	1.16
Benzo(a)pyrene	9.52	1.62	1.94	1.27	28.1	1.27	7.84	20.8	5.03	2.43	<4.38	4.36	<0.595	<4.26	<11.1
Indeno(1,2,3-cd)pyrene	5.35	<1.58	1.16	0.763	17.0	0.793	4.35	12.2	2.97	1.90	6.30	2.81	<0.595	<4.26	<11.1
Dibenzo(a,h)anthracene	<2.60	<1.58	<0.556	<0.556	6.34	<0.526	1.15	6.19	<2.78	<1.09	<4.38	<2.75	<0.595	<4.26	<11.1
Benzo(g,h,i)perylene	5.71	<1.58	1.42	0.949	19.4	0.712	4.45	8.42	2.85	1.93	<4.38	<2.75	<0.595	<4.26	<11.1
C9-C18 Aliphatic Hydrocarbons	<52.1	<31.6	<11.1	<11.1	<54.9	<10.5	<11.1	<58.1	<55.6	<21.7	1,780	<54.9	<11.9	<85.1	<22.2
C19-C36 Aliphatic Hydrocarbons	55	36.6	51.5	52.6	78.4	<10.5	58.1	<58.1	108	61.5	9,700	228	<11.9	441	67.7
C11-C22 Aromatic Hydrocarbons	350	70.5	114	103	546	58.0	259	638	301	152	8,940	239	39.9	547	118
<b><i>Metals</i></b>															
Total Lead	340	140	160	290	840	79	5,800	1,700	3,700	700	3,900	670	350	450	190
Notes: Concentrations are in mg/kg = milligrams per kilogram. Results obtained by Woodard & Curran from soil probes. < = Less than minimum reporting limit as indicated by the laboratory.															



**TABLE 3**  
**COMPARISON OF SITE SOIL BACKGROUND CONCENTRATIONS**  
**TO DEP ANTHROPOGENIC LEVELS**

77 Terrace Street,  
Roxbury, Massachussets

	Average Concentration Site Soils	Anthropogenic Background Levels S-2/S-3 Soils*
<b>EPH Aliphatics/Aromatics (mg/Kg)</b>		
C9-C18 Aliphatic Hydrocarbons	126	NL
C19-C36 Aliphatic Hydrocarbons	766	NL
C11-C22 Aromatic Hydrocarbons	653	NL
<b>EPH Target PAH Analytes (mg/Kg)</b>		
Naphthalene	1.02	1.4
2-Methylnaphthalene	0.80	1
Acenaphthylene	1.13	1
Acenaphthene	1.56	1.9
Fluorene	1.56	2.3
Phenanthrene	9.33	15
Anthracene	2.66	3.8
Fluoranthene	12.0	14
Pyrene	10.7	16
Benzo(a)anthracene	5.49	8.5
Chrysene	5.95	7.3
Benzo(b)fluoranthene	4.49	8.4
Benzo(k)fluoranthene	4.59	4
Benzo(a)pyrene	4.47	7.4
Indeno(1,2,3-cd)pyrene	3.04	2.8
Dibenzo(a,h)anthracene	1.37	1.1
Benzo(g,h,i)perylene	2.83	3.1
<b>Metals Analysis (mg/Kg)</b>		
Total Arsenic	8.08	17
Total Barium	165	45
Total Cadmium	6.45	3
Total Chromium	23	39
Total Lead	1,095	570
Total Mercury	0.86	1.4

\* Proposed DEP PAH Background Levels for Compounds of Concern at Site  
NL - No Proposed Background Level

**APPENDIX A**

**Response Action Outcome (RAO)  
Transmittal Form (BWSC-104)**



RESPONSE ACTION OUTCOME (RAO) STATEMENT &
DOWNGRADEMENT PROPERTY STATUS TRANSMITTAL FORM

Release Tracking Number

Pursuant to 310 CMR 40.0180 (Subpart B), 40.0580 (Subpart E) & 40.1056 (Subpart J)

3 - 20251

A. SITE OR DOWNGRADEMENT PROPERTY LOCATION:

Site Name: (optional)
Street: 77 Terrace Street Location Aid:
City/Town: Boston (Roxbury) ZIP Code: 02120

Check here if this Site location is Tier Classified. If a Tier I Permit has been issued, state the Permit Number:
Related Release Tracking Numbers that this Form Addresses:

If submitting an RAO Statement, you must document the location of the Site or the location and boundaries of the Disposal Site subject to this Statement. If submitting an RAO Statement for a PORTION of a Disposal Site, you must document the location and boundaries for both the portion subject to this submittal and, to the extent defined, the entire Disposal Site. If submitting a Downgradient Property Status Submittal, you must provide a site plan of the property subject to the submittal and, to the extent defined, the Disposal Site.

B. THIS FORM IS BEING USED TO: (check all that apply)

- Submit a Response Action Outcome (RAO) Statement (complete Sections A, B, C, D, E, F, H, I, J and L).
Check here if this is a revised RAO Statement. Date of Prior Submittal:
Check here if any Response Actions remain to be taken to address conditions associated with any of the Releases whose Release Tracking Numbers are listed above. This RAO Statement will record only an RAO-Partial Statement for those Release Tracking Numbers.
Specify Affected Release Tracking Numbers:
Submit an optional Phase I Completion Statement supporting an RAO Statement or Downgradient Property Status Submittal (complete Sections A, B, H, I, J, and L).
Submit a Downgradient Property Status Submittal (complete Sections A, B, G, H, I, J and K).
Check here if this is a revised Downgradient Property Status Submittal. Date of Prior Submittal:
Submit a Termination of a Downgradient Property Status Submittal (complete Sections A, B, I, J and L).
Submit a Periodic Review Opinion evaluating the status of a Temporary Solution (complete Sections A, B, H, I, J and L).
Specify one: For a Class C RAO For a Waiver Completion Statement indicating a Temporary Solution
Provide Submittal Date of RAO Statement or Waiver Completion Statement:

You must attach all supporting documentation required for each use of form indicated, including copies of any Legal Notices and Notices to Public Officials required by 310 CMR 40.1400.

C. DESCRIPTION OF RESPONSE ACTIONS: (check all that apply)

- Assessment and/or Monitoring Only
Removal of Contaminated Soils
Re-use, Recycling or Treatment
On Site Off Site Est. Vol.: cubic yards
Describe:
Landfill Cover Disposal Est. Vol.: cubic yards
Removal of Drums, Tanks or Containers
Describe:
Removal of Other Contaminated Media
Specify Type and Volume:
Other Response Actions
Describe:
Deployment of Absorbant or Contaminant Materials
Temporary Covers or Caps
Bioremediation
Soil Vapor Extraction
Structure Venting System
Product or NAPL Recovery
Groundwater Treatment Systems
Air Sparging
Temporary Water Supplies
Temporary Evacuation or Relocation of Residents
Fencing and Sign Posting

SECTION C IS CONTINUED ON THE NEXT PAGE.



RESPONSE ACTION OUTCOME (RAO) STATEMENT &
DOWNGRADE PROPERTY STATUS TRANSMITTAL FORM

Release Tracking Number

Pursuant to 310 CMR 40.0180 (Subpart B), 40.0580 (Subpart E) & 40.1056 (Subpart J)

3 - 20251

C. DESCRIPTIONS OF RESPONSE ACTIONS: (continued)

Check here if any Response Action(s) that serve as the basis for this RAO Statement involve the use of Innovative Technologies. (DEP is interested in using this information to create an Innovative Technologies Clearinghouse.)

Describe Technologies:

D. TRANSPORT OF REMEDIATION WASTE: (if Remediation Waste has been sent to an off-site facility, answer the following questions)

Name of Facility: NA

Town and State:

Quantity of Remediation Waste Transported to Date:

E. RESPONSE ACTION OUTCOME CLASS:

Specify the Class of Response Action Outcome that applies to the Site or Disposal Site. Select ONLY one Class:

Class A-1 RAO: Specify one of the following:

Contamination has been reduced to background levels. A Threat of Release has been eliminated.

Class A-2 RAO: You MUST provide justification that reducing contamination to background levels is infeasible.

Class A-3 RAO: You MUST provide both an implemented Activity and Use Limitation (AUL) and justification that reducing contamination to background levels is infeasible.

If applicable, provide the earlier of the AUL expiration date or date the design life of the remedy will end:

Class B-1 RAO: Specify one of the following:

Contamination is consistent with background levels. Contamination is NOT consistent with background levels.

Class B-2 RAO: You MUST provide an implemented AUL.

If applicable, provide the AUL expiration date:

Class C RAO: Check here if you will conduct post-RAO Operation, Maintenance and Monitoring at the Site.

Specify One: Passive Operation and Maintenance, Monitoring Only, Active Operation and Maintenance (defined at 310 CMR 40.0006)

F. RESPONSE ACTION OUTCOME INFORMATION:

If an RAO Compliance Fee is required, check here to certify that the fee has been submitted. You MUST attach a photocopy of the payment.

Check here if submitting one or more AULs. You must attach an AUL Transmittal Form (BWSC-113) and a copy of each implemented AUL related to this RAO Statement. Specify the type of AUL(s) below: (required for all Class A-3 RAOs and Class B-2 RAOs)

Notice of Activity and Use Limitation, Grant of Environmental Restriction, Number of AULs attached:

Specify the Risk Characterization Method(s) used to achieve the RAO described above and all Soil and Groundwater Categories applicable to the Site.

More than one Soil Category and more than one Groundwater Category may apply at a Site. Be sure to check off all APPLICABLE categories, even if more stringent soil and groundwater standards were met.

Risk Characterization Method(s) Used: Method 1, Method 2, Method 3
Soil Category(ies) Applicable: S-1, S-2, S-3
Groundwater Category(ies) Applicable: GW-1, GW-2, GW-3

When submitting any Class A-1 RAO or Class B-1 RAO where contamination is consistent with background levels, do NOT specify a Risk Characterization Method.

When submitting any Class A-2 RAO or Class B-1 RAO where contamination is NOT consistent with background levels, you cannot use an AUL to maintain a level of no significant risk. Therefore, you must meet S-1 Soil Standards, if using Risk Characterization Method 1.



RESPONSE ACTION OUTCOME (RAO) STATEMENT &  
DOWNGRADE PROPERTY STATUS TRANSMITTAL FORM

Release Tracking Number

Pursuant to 310 CMR 40.0180 (Subpart B), 40.0580 (Subpart E) & 40.1056 (Subpart J)

3 - 20251

G. DOWNGRADE PROPERTY STATUS SUBMITTAL:

- If a Downgradient Property Status Submittal Compliance Fee is required, check here to certify that the fee has been submitted. You **MUST** attach a photocopy of the payment.
- Check here if a Release(s) of Oil or Hazardous Material(s), other than that which is the subject of this submittal, has occurred at this property.  
Release Tracking Number(s): \_\_\_\_\_
- Check here if the Releases identified above require further Response Actions pursuant to 310 CMR 40.0000.

Required documentation for a Downgradient Property Status Submittal includes, but is not limited to, copies of notices provided to owners and operators of both upgradient and downgradient abutting properties and of any known or suspected source properties.

H. LSP OPINION:

I attest under the pains and penalties of perjury that I have personally examined and am familiar with this transmittal form, including any and all documents accompanying this submittal. In my professional opinion and judgment based upon application of (i) the standard of care in 309 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and (iii) the provisions of 309 CMR 4.03(5), to the best of my knowledge, information and belief,

> if Section B indicates that a Downgradient Property Status Submittal is being provided, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed and implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in 310 CMR 40.0183(2)(b), and (iii) complies(y) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> if Section B indicates that either an RAO Statement, Phase I Completion Statement and/or Periodic Review Opinion is being provided, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed and implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and (iii) complies(y) with the identified provisions of all orders, permits, and approvals identified in this submittal.

I am aware that significant penalties may result, including, but not limited to, possible fines and imprisonment, if I submit information which I know to be false, inaccurate or materially incomplete.

- Check here if the Response Action(s) on which this opinion is based, if any, are (were) subject to any order(s), permit(s) and/or approval(s) issued by DEP or EPA. If the box is checked, you **MUST** attach a statement identifying the applicable provisions thereof.

LSP Name: Craig Blake

LSP #: 3760

Telephone: 781-251-0200

Ext.: 2426

FAX: (optional) \_\_\_\_\_

Signature: Craig Blake

Date: 12/24/01



I. PERSON MAKING SUBMITTAL:

Name of Organization: City of Boston, Department of Neighborhood Development

Name of Contact: Margaret S. Bursaw

Title: Senior Project Manager

Street: 26 Court Street, 9th Floor

City/Town: Boston

State: MA

ZIP Code: 02108

Telephone: (617) 635-0103

Ext.: \_\_\_\_\_

FAX: (optional) \_\_\_\_\_

J. RELATIONSHIP TO SITE OF PERSON MAKING SUBMITTAL: (check one)

- RP or PRP Specify:  Owner  Operator  Generator  Transporter Other RP or PRP: \_\_\_\_\_
- Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G.L. c. 21E, s. 2)
- Agency or Public Utility on a Right of Way (as defined by M.G.L. c. 21E, s. 5(j))
- Any Other Person Submitting This Form Specify Relationship: \_\_\_\_\_





RESPONSE ACTION OUTCOME (RAO) STATEMENT &  
DOWNGRADIANT PROPERTY STATUS TRANSMITTAL FORM

Release Tracking Number

Pursuant to 310 CMR 40.0180 (Subpart B), 40.0580 (Subpart E) & 40.1056 (Subpart J)

3 - 20251

K. CERTIFICATION OF PERSON SUBMITTING DOWNGRADIANT PROPERTY STATUS SUBMITTAL:

I, \_\_\_\_\_, attest under the pains and penalties of perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form; (ii) that, based on my inquiry of the/those individual(s) immediately responsible for obtaining the information, the material information contained herein is, to the best of my knowledge, information and belief, true, accurate and complete; and (iii) that, to the best of my knowledge, information and belief, I/the person(s) or entity(ies) on whose behalf this submittal is made satisfy(ies) the criteria in 310 CMR 40.0183(2); (iv) that I/the person(s) or entity(ies) on whose behalf this submittal is made have provided notice in accordance with 310 CMR 40.0183(5); and (v) that I am fully authorized to make this attestation on behalf of the person(s) or entity(ies) legally responsible for this submittal. I/the person(s) or entity(ies) on whose behalf this submittal is made is/are aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

By: \_\_\_\_\_ Title: \_\_\_\_\_  
(signature)

For: \_\_\_\_\_ Date: \_\_\_\_\_  
(print name of person or entity recorded in Section I)

Enter address of the person providing certification, if different from address recorded in Section I:

Street: \_\_\_\_\_  
City/Town: \_\_\_\_\_ State: \_\_\_\_\_ ZIP Code: \_\_\_\_\_  
Telephone: \_\_\_\_\_ Ext.: \_\_\_\_\_ FAX: (optional) \_\_\_\_\_

L. CERTIFICATION OF PERSON MAKING SUBMITTAL:

If you are completing only a Downgradient Property Status Submittal, you do not need to complete this section of the form.

I, Margaret S. Bursaw, attest under the pains and penalties of perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form, (ii) that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained in this submittal is, to the best of my knowledge and belief, true, accurate and complete, and (iii) that I am fully authorized to make this attestation on behalf of the entity legally responsible for this submittal. I/the person or entity on whose behalf this submittal is made am/is aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

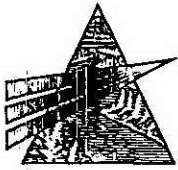
By: [Signature] AGENT FOR Title: Senior Project Manager  
(signature)

For: City of Boston, Department of Neighborhood Development Date: 12/24/01  
(print name of person or entity recorded in Section I)

Enter address of person providing certification, if different from address recorded in Section I:

Street: \_\_\_\_\_  
City/Town: \_\_\_\_\_ State: \_\_\_\_\_ ZIP Code: \_\_\_\_\_  
Telephone: \_\_\_\_\_ Ext.: \_\_\_\_\_ FAX: (optional) \_\_\_\_\_

YOU MUST COMPLETE ALL RELEVANT SECTIONS OF THIS FORM OR DEP MAY RETURN THE DOCUMENT AS INCOMPLETE. IF YOU SUBMIT AN INCOMPLETE FORM, YOU MAY BE PENALIZED FOR MISSING A REQUIRED DEADLINE, AND YOU MAY INCUR ADDITIONAL COMPLIANCE FEES.



**WOODARD & CURRAN**  
Engineering • Science • Operations

CORPORATE OFFICES: Maine, Massachusetts,  
New Hampshire, Connecticut, Illinois, Florida  
Operational offices throughout the U.S.

December 27, 2001

Department of Environmental Protection  
P.O. Box 4062  
Boston, MA 02211

**Subject:** RAO Fee  
77 Terrace Street, Boston (Roxbury), MA  
RTN 3-20251

Dear Sir:

On behalf of the City of Boston Department of Neighborhood Development, Woodard & Curran Inc. is submitting the RAO Fee of \$750 and a copy of the first page of the BWSC-104 Transmittal Form for the referenced release.

Sincerely,


**WOODARD & CURRAN INC.**

Craig Blake, P.E., LSP  
Senior Project Manager

205897.01

Enclosure

cc: Margaret Bursaw, DND  
David Foley, DND

DATE	INVOICE NO.	DESCRIPTION	INVOICE AMOUNT	DEDUCTION	BALANCE		
12-26-01	122601CR	RAO FEE STATE REGUL	750.00	.00	750.00		
 <b>WOODARD &amp; CURRAN</b> Engineering • Science • Operations 41 Hutchins Drive • Portland, Maine 04102 207-774-2112 • 1-800-426-4262							
CHECK DATE	12-26-01	CHECK NUMBER	116686	TOTALS	750.00	.00	750.00

PLEASE DETACH THIS PORTION AND RETAIN FOR YOUR RECORDS.

 **WOODARD & CURRAN**  
 Engineering • Science • Operations

FLEET BANK  
PORTLAND, MAINE

51-44  
119

116686

Pay: \*\*\*\*\*Seven hundred fifty dollars and no cents  
 DATE: December 26, 2001 CHECK NO.: 116686 AMOUNT: \$\*\*\*\*\*750.00

COMMONWEALTH OF MASSACHUSETTS

PAY TO THE ORDER OF



Checks over \$2500 require two signatures

⑈ 116686 ⑈ ⑆ 011900445 ⑆ 67847 ⑈





RESPONSE ACTION OUTCOME (RAO) STATEMENT &
DOWNGRADIANT PROPERTY STATUS TRANSMITTAL FORM

Release Tracking Number

Pursuant to 310 CMR 40.0180 (Subpart B), 40.0580 (Subpart E) & 40.1056 (Subpart J)

3 - 20251

A. SITE OR DOWNGRADIANT PROPERTY LOCATION:

Site Name: (optional)
Street: 77 Terrace Street
City/Town: Boston (Roxbury)
ZIP Code: 02120

Check here if this Site location is Tier Classified. If a Tier I Permit has been issued, state the Permit Number:
Related Release Tracking Numbers that this Form Addresses:

If submitting an RAO Statement, you must document the location of the Site or the location and boundaries of the Disposal Site subject to this Statement. If submitting an RAO Statement for a PORTION of a Disposal Site, you must document the location and boundaries for both the portion subject to this submittal and, to the extent defined, the entire Disposal Site. If submitting a Downgradient Property Status Submittal, you must provide a site plan of the property subject to the submittal and, to the extent defined, the Disposal Site.

B. THIS FORM IS BEING USED TO: (check all that apply)

- Submit a Response Action Outcome (RAO) Statement (complete Sections A, B, C, D, E, F, H, I, J and L).
Submit an optional Phase I Completion Statement supporting an RAO Statement or Downgradient Property Status Submittal (complete Sections A, B, H, I, J, and L).
Submit a Downgradient Property Status Submittal (complete Sections A, B, G, H, I, J and K).
Submit a Termination of a Downgradient Property Status Submittal (complete Sections A, B, I, J and L).
Submit a Periodic Review Opinion evaluating the status of a Temporary Solution (complete Sections A, B, H, I, J and L).

You must attach all supporting documentation required for each use of form indicated, including copies of any Legal Notices and Notices to Public Officials required by 310 CMR 40.1400.

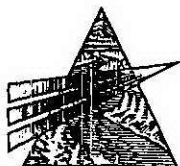
C. DESCRIPTION OF RESPONSE ACTIONS: (check all that apply)

- Assessment and/or Monitoring Only
Removal of Contaminated Soils
Removal of Drums, Tanks or Containers
Removal of Other Contaminated Media
Other Response Actions
Deployment of Absorbant or Contaminant Materials
Temporary Covers or Caps
Bioremediation
Soil Vapor Extraction
Structure Venting System
Product or NAPL Recovery
Groundwater Treatment Systems
Air Sparging
Temporary Water Supplies
Temporary Evacuation or Relocation of Residents
Fencing and Sign Posting

SECTION C IS CONTINUED ON THE NEXT PAGE.

**APPENDIX B**

**Public Notification of RAO Availability**



**WOODARD & CURRAN**  
Engineering • Science • Operations

CORPORATE OFFICES: Maine, Massachusetts,  
New Hampshire, Connecticut, Illinois, Florida  
*Operational offices throughout the U.S.*

December 27, 2001

Mayor Thomas Menino  
C/o Mr. Richard McGuinness  
Conservation Planner  
Environmental Department, Room 805  
Boston City Hall  
Boston, MA 02201

Re: **Availability of a Response Action Outcome Statement**  
77 Terrace Street  
Boston (Roxbury), MA  
RTN 3-20251

Dear Mayor Menino:

On behalf of the City of Boston Department of Neighborhood Development, Woodard & Curran Inc. is providing notification pursuant to the Massachusetts Contingency Plan (MCP) 310 CMR 40.1403 of the submission of a Response Action Outcome (RAO) Statement to the Massachusetts Department of Environmental Protection (DEP) for the above referenced site. A copy of the RAO is available at the DEP Northeast Regional Office located at 205-A Lowell Street in Wilmington, MA. Any additional public notification required by the MCP will be forwarded to your office.

Should you have any questions regarding this submittal, please do not hesitate to contact me at (781) 251-0200.

Sincerely,  
**WOODARD & CURRAN INC.**

Craig E. Blake, P.E., LSP

cc: Mr. David Foley, DND Project Manager  
Ms. Margaret Bursaw, DND Senior Project Manager  
Bureau of Waste Site Cleanup, DEP-Northeast Region  
Mr. John Auerbach, Director Boston Public Health Commission

**APPENDIX C**

**Test Pit Logs**

# TEST PIT LOG

Location Address or Lot No.: 77 Terrace Street, Boston, MA

## On-Site Review

Test Pit Number: TP1

Date: August 4, 2000

Weather: P. Sunny, recent rain; 70°

Location: See Site Plan

Vegetation: Open field with some brush, wooded along most edges

Distances from:

Open Water Body            -Greater than 0.5 miles  
Possible Wet Area           - None

Test Pit Observation Log	
Depth from Surface (feet)	Geologic Observations
0-6'	Orange/rust color. Fine-coarse sand. Fill material. Some organic silt, some gravel. Rubble-brick, concrete, wood, ash (coal/wood), various metal objects including a possible former steel drum and sheet metal, cans, bottles. I beam support column attached to concrete also encountered. PID reading of 16 ppm (2-6').
	Refusal at 6' due to foundation.

Depth to Groundwater: No groundwater was encountered during this excavation  
S.A.A. = Same as Above

# TEST PIT LOG

Location Address or Lot No.: 77 Terrace Street, Boston, MA

## On-Site Review

Test Pit Number: TP2

Date: August 4, 2000

Weather: P. Sunny, recent rain; 70°

Location: See Site Plan

Vegetation: Open field with some brush, wooded along most edges

Distances from:

Open Water Body

-Greater than 0.5 miles

Possible Wet Area

- None

### Test Pit Observation Log

Depth from Surface (feet)	Geologic Observations
0-12.5'	Fine-coarse sand. Fill material. Some organic silt, some gravel. Debris encountered: not as much wood as TP1, lots of brick, sheet metal, pipe, conduit(?), tires, inner tubes, concrete fragments (up to 3x2'). Brick wall formed northern wall of excavation. High concentrations of organic soil. Not as much ash as TP1. PID reading of 0.0 ppm.
	12.5' was approximate limit of backhoe. Bottom of fill not encountered.

Depth to Groundwater: No groundwater was encountered during this excavation

S.A.A. = Same as Above

# TEST PIT LOG

Location Address or Lot No.: 77 Terrace Street, Boston, MA

## On-Site Review

Test Pit Number: TP3

Date: August 4, 2000

Weather: P. Sunny, recent rain; 70°

Location: See Site Plan

Vegetation: Open field with some brush, wooded along most edges

Distances from:

Open Water Body - Greater than 0.5 miles

Possible Wet Area - None

### Test Pit Observation Log

Depth from Surface (feet)	Geologic Observations
0-5'	Ash, organic topsoil. Some organic silt, some gravel. Main soil was fill material, a fine-coarse sand. Debris encountered: not as much wood, brick, concrete and metal as TP1 and TP2. PID reading of 2.7 ppm.
	5' = bottom of excavation.

Depth to Groundwater: No groundwater was encountered during this excavation

S.A.A. = Same as Above



# TEST PIT LOG

Location Address or Lot No.: 77 Terrace Street, Boston, MA

## On-Site Review

Test Pit Number: TP4

Date: August 4, 2000

Weather: P. Sunny, recent rain; 70°

Location: See Site Plan

Vegetation: Open field with some brush, wooded along most edges

Distances from:

Open Water Body

-Greater than 0.5 miles

Possible Wet Area

- None

### Test Pit Observation Log

Depth from Surface (feet)	Geologic Observations
0-2'	Brown, organic medium sand.
2-3'	Black, ash-like layer.
3-6'	Brick rubble. North wall of excavation was concrete foundation. Debris encountered throughout excavation: scrap metal, tire material, brick (lots), pipe, and small boulders (up to 2'). PID= 3.0 ppm.
	6'= bottom of excavation.

Depth to Groundwater: No groundwater was encountered during this excavation

S.A.A. = Same as Above

# TEST PIT LOG

Location Address or Lot No.: 77 Terrace Street, Boston, MA

## On-Site Review

Test Pit Number: TP5

Date: August 4, 2000

Weather: P. Sunny, recent rain; 70°

Location: See Site Plan

Vegetation: Open field with some brush, wooded along most edges

Distances from:

Open Water Body

-Greater than 0.5 miles

Possible Wet Area

- None

### Test Pit Observation Log

Depth from Surface (feet)	Geologic Observations
0-5'	Fill material, a fine-coarse sand. Bricks and scrap metal. Pipe, possible an old gas line (2" diameter) was found at the base of this layer. Pipe runs north/south.
5-7'	Top 6"-black layer. Middle 9"-sandy brown layer. Bottom 6"- black layer.
7-10.5'	Gray. Lighter. Possible till with clay matrix. Not clear if material is natural or not. Very bottom of excavation may have been beginning to become more organic. PID= 3.4 (composite of entire excavation).
	10.5'= bottom of excavation.

Depth to Groundwater: No groundwater was encountered during this excavation

S.A.A. = Same as Above

# TEST PIT LOG

Location Address or Lot No.: 77 Terrace Street, Boston, MA

## On-Site Review

Test Pit Number: TP6

Date: August 4, 2000

Weather: P. Sunny, recent rain; 70°

Location: See Site Plan

Vegetation: Open field with some brush, wooded along most edges

Distances from:

Open Water Body - Greater than 0.5 miles  
Possible Wet Area - None

### Test Pit Observation Log

Depth from Surface (feet)	Geologic Observations
0-4'	Fill material, a fine-coarse sand. Debris encountered: bricks, scrap metal, car parts (tires, wheels, metal, car seat), concrete. PID= 3.9 ppm.
	Refusal at 4'

Depth to Groundwater: No groundwater was encountered during this excavation

S.A.A. = Same as Above

# TEST PIT LOG

Location Address or Lot No.: 77 Terrace Street, Boston, MA

## On-Site Review

Test Pit Number: TP7

Date: August 4, 2000

Weather: P. Sunny, recent rain; 70°

Location: See Site Plan

Vegetation: Open field with some brush, wooded along most edges

Distances from:

Open Water Body

-Greater than 0.5 miles

Possible Wet Area

- None

### Test Pit Observation Log

Depth from Surface (feet)	Geologic Observations
0-4'	Fill material, a brown, fine-coarse sand.
4-5'	Brick colored fill layer, fine-coarse sand. North wall of pit was a brick wall from 4-6'.
5-6'	Black layer, fine-coarse sand. North wall of pit was a brick wall from 4-6', foundation beneath that to base of pit.
6-8'	Gray layer, fine-coarse sand. Looked more clay-like than other layers. At base of excavation soil was brown. Debris encountered throughout excavation: cables, brick, metal scraps, wood. North wall of pit was a brick wall from 4-6', foundation beneath that to base of pit. PID reading (composite of entire pit)= 2.4 ppm.
	8'= bottom of excavation.

Depth to Groundwater: No groundwater was encountered during this excavation

S.A.A. = Same as Above

# TEST PIT LOG

Location Address or Lot No.: 77 Terrace Street, Boston, MA

## On-Site Review

Test Pit Number: TP8

Date: August 4, 2000

Weather: P. Sunny, recent rain; 70°

Location: See Site Plan

Vegetation: Open field with some brush, wooded along most edges

Distances from:

Open Water Body

-Greater than 0.5 miles

Possible Wet Area

- None

### Test Pit Observation Log

Depth from Surface (feet)	Geologic Observations
0-2'	Fill material, a brown, fine-coarse sand. Brick debris. PID= 4.5 ppm.
	Refusal at 2'.

Depth to Groundwater: No groundwater was encountered during this excavation

S.A.A. = Same as Above

**APPENDIX D**

**Soil Logs**

**WOODARD & CURRAN**

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**SOIL BORING LOG**980 Washington Street  
Dedham, Massachusetts 02026**SITE LOCATION**77 Terrace Street  
Boston, Massachusetts**BORING****NUMBER**

SP-1

START DATE	<u>10/16/01</u>	WELL DEPTH	<u>NA</u>	PAGE  1 of 1
CONTRACTOR	<u>Zebra Drilling</u>	WELL DIAMET	<u>NA</u>	
DRILLER		RISER LENGTH	<u>NA</u>	
ENGINEER	<u>Brian LaPierre</u>	SCREEN LENG	<u>NA</u>	
DRILLING METHOD	<u>Direct Push</u>	SLOT SIZE	<u>NA</u>	
BORING DEPTH	<u>12 Feet</u>			

Depth (Feet)	Sample Range	Rec. Length	PID (ppm)	Field Description and Remarks
0	0'-4'	36 inches	0.8	Concrete pad present. Fine to medium SAND, some fine angular gravel.
2				Stratified layers of concrete and brick fragments. Sample was dry. Wood and coal ash observed.
4	4'-8'	48 inches	1.0	4' to 6' - Light Brown, medium to fine SAND, some fine angular gravel.
6				Stratified layers of coarse sand and concrete fragments. Dry. 6' to 8' - Brown, medium to fine SAND, some brick fragment. Coal ash and slag layer observed from 6.5' to 7'. Dry.
8	8'-12'	40 inches	1.2	Brownish gray medium to fine SAND, some fine angular gravel.
10				Concrete and brick fragments observed in sample. Dry.  End of Boring 12 feet.
12	12'-16'			
14				
16	16'-20'			
18				
20	20'-24'			
22				
24	24'-28'			
26				
28	28'-32'			
30				
32	32'-36'			
34				



# WOODARD & CURRAN

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## SOIL BORING LOG

980 Washington Street  
Dedham, Massachusetts 02026

### SITE LOCATION

77 Terrace Street  
Boston, Massachusetts

### BORING NUMBER

SP-2

START DATE	<u>10/16/01</u>	WELL DEPTH	_____	<b>PAGE</b>  1 of 1
CONTRACTOR	<u>Zebra Drilling</u>	WELL DIAMETER	_____	
DRILLER	_____	RISER LENGTH	_____	
ENGINEER	<u>Brian LaPierre</u>	SCREEN LENGTH	_____	
DRILLING METHOD	<u>Direct Push</u>	SLOT SIZE	_____	
BORING DEPTH	<u>2 Feet</u>			

Depth (Feet)	Sample Range	Rec. Length	PID (ppm)	Field Description and Remarks
0	0'-2'			Concrete pad present.
2				Refusal at 2 feet below grade.
4	4'-8'			
6				
8	8'-12'			
10				
12	12'-16'			
14				
16	16'-20'			
18				
20	20'-24'			
22				
24	24'-28'			
26				
28	28'-32'			
30				
32	32'-36'			
34				



**WOODARD & CURRAN**

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**SOIL BORING LOG**980 Washington Street  
Dedham, Massachusetts 02026**SITE LOCATION**77 Terrace Street  
Boston, Massachusetts**BORING  
NUMBER**

SP-2A

START DATE	10/16/01	WELL DEPTH		<b>PAGE</b>  1 of 1
CONTRACTOR	Zebra Drilling	WELL DIAMETER		
DRILLER		RISER LENGTH		
ENGINEER	Brian LaPierre	SCREEN LENGTH		
DRILLING METHOD	Direct Push	SLOT SIZE		
BORING DEPTH	7 Feet			

Depth (Feet)	Sample Range	Rec. Length	PID (ppm)	Field Description and Remarks
0	0'-4'	40	1.0	Brown, fine to medium SAND, some angular gravel.
2				Stratified layers of concrete and brick fragments. Sample was dry. Wood and coal ash observed.
4	4'-7'	36	0.8	Light Brown, medium to fine SAND, some fine angular gravel, trace silt.
6				Fill material (concrete and brick) observed throughout sample. Dry No ash was observed.
8	8'-12'			Refusal at 7 feet below grade.
10				
12	12'-16'			
14				
16	16'-20'			
18				
20	20'-24'			
22				
24	24'-28'			
26				
28	28'-32'			
30				
32	32'-36'			
34				

**WOODARD & CURRAN**

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**SOIL BORING LOG**980 Washington Street  
Dedham, Massachusetts 02026**SITE LOCATION**77 Terrace Street  
Boston, Massachusetts**BORING****NUMBER**

SP-3

START DATE	10/16/01	WELL DEPTH		<b>PAGE</b>  1 of 1
CONTRACTOR	Zebra Drilling	WELL DIAMETER		
DRILLER		RISER LENGTH		
ENGINEER	Brian LaPierre	SCREEN LENGTH		
DRILLING METHOD	Direct Push	SLOT SIZE		
BORING DEPTH	2 Feet			

Depth (Feet)	Sample Range	Rec. Length	PID (ppm)	Field Description and Remarks
0	0'-2'			Refusal at 2 feet below grade.
2				
4	4'-8'			
6				
8	8'-12'			
10				
12	12'-16'			
14				
16	16'-20'			
18				
20	20'-24'			
22				
24	24'-28'			
26				
28	28'-32'			
30				
32	32'-36'			
34				

**WOODARD & CURRAN**

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**SOIL BORING LOG**980 Washington Street  
Dedham, Massachusetts 02026**SITE LOCATION**  
77 Terrace Street  
Boston, Massachusetts**BORING NUMBER**  
SP-3A

START DATE	<u>10/16/01</u>	WELL DEPTH	_____	<b>PAGE</b>  1 of 1
CONTRACTOR	<u>Zebra Drilling</u>	WELL DIAMETER	_____	
DRILLER	_____	RISER LENGTH	_____	
ENGINEER	<u>Brian LaPierre</u>	SCREEN LENGTH	_____	
DRILLING METHOD	<u>Direct Push</u>	SLOT SIZE	_____	
BORING DEPTH	<u>6.5 Feet</u>			

Depth (Feet)	Sample Range	Rec. Length	PID (ppm)	Field Description and Remarks
0	0'-4'	36	1.2	Dark brown, fine to medium SAND, some fine sub-rounded gravel. Dry. Fill material (concrete and brick fragments) observed in sample. No ash was observed.
2				
4	4'-7'	36	4.2	Dark brown, medium to fine SAND, some fine sub-rounded gravel. Fill material (concrete) observed throughout sample. Dry. No ash was observed. Refusal at 6.5 feet below grade.
6				
8	8'-12'			
10				
12	12'-16'			
14				
16	16'-20'			
18				
20	20'-24'			
22				
24	24'-28'			
26				
28	28'-32'			
30				
32	32'-36'			
34				



**WOODARD & CURRAN**  
 Engineering • Science • Operations  
**SOIL BORING LOG**  
 980 Washington Street  
 Dedham, Massachusetts 02026

**SITE LOCATION**  
 77 Terrace Street  
 Boston, Massachusetts

**BORING NUMBER**  
 SP-4

START DATE	<u>10/16/01</u>	WELL DEPTH	_____	<b>PAGE</b>  1 of 1
CONTRACTOR	<u>Zebra Drilling</u>	WELL DIAMETER	_____	
DRILLER	_____	RISER LENGTH	_____	
ENGINEER	<u>Brian LaPierre</u>	SCREEN LENGTH	_____	
DRILLING METHOD	<u>Direct Push</u>	SLOT SIZE	_____	
BORING DEPTH	<u>3 Feet</u>			

Depth (Feet)	Sample Range	Rec. Length	PID (ppm)	Field Description and Remarks
0	0'-3'	36 inches	1.0	Brown medium to fine SAND, some fine gravel. Dry. Fill material (brick and concrete) was observed through out sample. Refusal at 3 feet below grade.
2				
4	4'-8'			
6				
8	8'-12'			
10				
12	12'-16'			
14				
16	16'-20'			
18				
20	20'-24'			
22				
24	24'-28'			
26				
28	28'-32'			
30				
32	32'-36'			
34				

**WOODARD & CURRAN**

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**SOIL BORING LOG**980 Washington Street  
Dedham, Massachusetts 02026**SITE LOCATION**77 Terrace Street  
Boston, Massachusetts**BORING  
NUMBER**

SP-4A

START DATE	<u>10/16/01</u>	WELL DEPTH	_____	<b>PAGE</b>  1 of 1
CONTRACTOR	<u>Zebra Drilling</u>	WELL DIAMETER	_____	
DRILLER	_____	RISER LENGTH	_____	
ENGINEER	<u>Brian LaPierre</u>	SCREEN LENGTH	_____	
DRILLING METHOD	<u>Direct Push</u>	SLOT SIZE	_____	
BORING DEPTH	<u>7 Feet</u>			

Depth (Feet)	Sample Range	Rec. Length	PID (ppm)	Field Description and Remarks
0	0'-4'	36 inches	3.5	Dark brown, fine to medium SAND, some fine sub-rounded gravel. Dry. Fill material (concrete and brick fragments) observed in sample. Coal and/or wood ash was observed through out sample.
2				
4	4'-7'	36 inches	0.1	
6				Dark brown, medium to fine SAND, some fine sub-rounded gravel. Fill material (concrete brick fragments) observed throughout sample. Dry Coal and/or wood ash was observed through out sample. Refusal at 7.0 feet below grade.
8	8'-12'			
10				
12	12'-16'			
14				
16	16'-20'			
18				
20	20'-24'			
22				
24	24'-28'			
26				
28	28'-32'			
30				
32	32'-36'			
34				

**WOODARD & CURRAN**

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**SOIL BORING LOG**980 Washington Street  
Dedham, Massachusetts 02026**SITE LOCATION**77 Terrace Street  
Boston, Massachusetts**BORING****NUMBER**

SP-5

START DATE	<u>10/16/01</u>	WELL DEPTH	_____	<b>PAGE</b>  1 of 1
CONTRACTOR	<u>Zebra Drilling</u>	WELL DIAMETER	_____	
DRILLER	_____	RISER LENGTH	_____	
ENGINEER	<u>Brian LaPierre</u>	SCREEN LENGTH	_____	
DRILLING METHOD	<u>Direct Push</u>	SLOT SIZE	_____	
BORING DEPTH	<u>13 Feet</u>			

Depth (Feet)	Sample Range	Rec. Length	PID (ppm)	Field Description and Remarks
0	0'-4'	36 inches	0.3	Brown, fine to medium SAND, little fine angular gravel. Dry.
2				Fill material (brick and concrete) observed in sample. No ash observed in sample.
4	4'-8'	30 inches	0.1	Brown, fine to medium SAND, some angular gravel. Dry.
6				Fill material (concrete, brick, and wood) observed in sample. Coal and/or wood ash observed through out sample.
8	8'-12'	12 inches	0.1	Brown medium to fine SAND, little fine gravel. Dry.
10				Fill material (brick fragments) observed in sample. No ash observed.
12	12'-13'	12 inches	0.0	Brown medium to fine SAND, little fine gravel. Dry
14				Fill material (concrete and brick fragments) observed in sample. No ash observed.
16	16'-20'			Refusal at 13 feet below grade.
18				
20	20'-24'			
22				
24	24'-28'			
26				
28	28'-32'			
30				
32	32'-36'			
34				

**WOODARD & CURRAN**

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**SOIL BORING LOG**980 Washington Street  
Dedham, Massachusetts 02026**SITE LOCATION**77 Terrace Street  
Boston, Massachusetts**BORING  
NUMBER**

SP-6

START DATE	<u>10/16/01</u>	WELL DEPTH	_____	<b>PAGE</b>  1 of 1
CONTRACTOR	<u>Zebra Drilling</u>	WELL DIAMETER	_____	
DRILLER	_____	RISER LENGTH	_____	
ENGINEER	<u>Brian LaPierre</u>	SCREEN LENGTH	_____	
DRILLING METHOD	<u>Direct Push</u>	SLOT SIZE	_____	
BORING DEPTH	<u>10 Feet</u>			

Depth (Feet)	Sample Range	Rec. Length	PID (ppm)	Field Description and Remarks
0	0'-4'	30 inches	0.2	Brown, fine to medium SAND, little fine angular gravel. Dry
2				Fill material (brick and concrete) observed in sample. Coal and/or wood ash observed through out sample.
4	4'-8'	40 inches	0.5	Brown, fine to medium SAND, some angular gravel. Dry.
6				Fill material (concrete, brick, and wood) observed in sample. Coal and/or wood ash observed in sample.
8	8'-10'	20 inches	0.7	Brown medium to fine SAND, little fine gravel. Dry.
10				Fill material (Concrete, brick, coal, and slag fragments) observed in sample. Coal and/or wood ash observed in sample. Refusal at 10 feet below grade.
12	12'-16'			
14				
16	16'-20'			
18				
20	20'-24'			
22				
24	24'-28'			
26				
28	28'-32'			
30				
32	32'-36'			
34				



# WOODARD & CURRAN

Engineering • Science • Operations

## SOIL BORING LOG

980 Washington Street  
Dedham, Massachusetts 02026

### SITE LOCATION

77 Terrace Street  
Boston, Massachusetts

### BORING NUMBER

SP-7

START DATE	<u>10/16/01</u>	WELL DEPTH	_____	PAGE  1 of 1
CONTRACTOR	<u>Zebra Drilling</u>	WELL DIAMETER	_____	
DRILLER	_____	RISER LENGTH	_____	
ENGINEER	<u>Brian LaPierre</u>	SCREEN LENGTH	_____	
DRILLING METHOD	<u>Direct Push</u>	SLOT SIZE	_____	
BORING DEPTH	<u>10 Feet</u>			

Depth (Feet)	Sample Range	Rec. Length	PID (ppm)	Field Description and Remarks
0	0'-4'	40 inches	1.4	Brown, fine to medium SAND, some fine angular gravel. Dry.
2				Fill material (concrete) observed in sample. No ash observed in sample.
4	4'-8'	40 inches	0.6	Dark brown, fine SAND, some angular gravel, little silt. Moist at 7 feet.
6				No fill material or ash was observed in sample.
8	8'-10'	24 inches	1.2	Brown medium to fine SAND, some fine gravel. Dry.
10				No fill material or ash was observed in sample. Refusal at 10 feet below grade.
12	12'-16'			
14				
16	16'-20'			
18				
20	20'-24'			
22				
24	24'-28'			
26				
28	28'-32'			
30				
32	32'-36'			
34				



**WOODARD & CURRAN**

Engineering • Science • Operations

**SOIL BORING LOG**980 Washington Street  
Dedham, Massachusetts 02026**SITE LOCATION**77 Terrace Street  
Boston, Massachusetts**BORING****NUMBER**

SP-8

START DATE	10/16/01	WELL DEPTH	_____	<b>PAGE</b>  1 of 1
CONTRACTOR	Zebra Drilling	WELL DIAMETER	_____	
DRILLER	_____	RISER LENGTH	_____	
ENGINEER	Brian LaPierre	SCREEN LENGTH	_____	
DRILLING METHOD	Direct Push	SLOT SIZE	_____	
BORING DEPTH	5 Feet			

Depth (Feet)	Sample Range	Rec. Length	PID (ppm)	Field Description and Remarks
0	0'-4'	40 inches	0.6	Brown, fine to medium SAND, little fine angular gravel. Dry. Fill material (brick and concrete) observed in sample.
2				No ash observed in sample.
4	4'-5'	6 inches	1.4	Brown, fine to medium SAND, some angular gravel. Dry. Fill material (concrete and brick) observed in sample.
5				No ash observed in sample. Refusal at 5 feet below grade.
8	8'-12'			
10'				
12	12'-16'			
14				
16	16'-20'			
18				
20	20'-24'			
22				
24	24'-28'			
26				
28	28'-32'			
30				
32	32'-36'			
34				

**APPENDIX E**

**Hager GeoScience, Inc. Geophysical Report**

**GEOPHYSICAL SURVEY  
77 TERRACE STREET  
ROXBURY, MASSACHUSETTS**

*Prepared for:*

Woodard & Curran  
980 Washington Street  
Dedham, Massachusetts 02026

*Prepared by:*

Hager GeoScience, Inc.  
596 Main Street  
Woburn, Massachusetts 01801

File 200142  
August 2001

*Hager GeoScience, Inc.*

## INTRODUCTION

In August 2001, Woodard & Curran (W&C) contracted with Hager GeoScience, Inc. (HGI) of Woburn, Massachusetts to perform a geophysical survey at 77 Terrace Street in Roxbury, Massachusetts. A 5,000-gallon UST was reportedly present at the site, a former brewery owned by the Boston Department of Neighborhood Development. The objective of the survey was to determine if this UST was present and, if so, to locate it accurately.

The site is currently an open brush-covered lot with a brick building in the southwest corner. W&C arranged with the Boston Department of Neighborhood Development to have the brush cleared prior to HGI's survey.

## PROCEDURE

HGI personnel performed the geophysical survey on August 13 and 15, 2001. A W&C representative designated the survey area, which was laid out using fiberglass tape and pin flags. The fence on the Terrace Street side was designated the 0N baseline, and traverses were laid out parallel and perpendicular to it.

The survey was performed using a combination of electromagnetic (EM) terrain conductivity and ground penetrating radar (GPR). The techniques and their limitations are discussed in more detail in a separate section at the end of this report. EM terrain conductivity was used to survey the entire site, followed by focused GPR in areas of EM anomalies. Figure 1 shows the locations of EM and GPR survey traverses plotted to scale on a site plan developed from HGI field notes.

### EM Terrain Conductivity

The EM survey was performed using a GEM-300 multi-frequency electromagnetic profiler. The GEM-300 is a new type of electromagnetic instrument that uses multiple EM frequencies to enhance the detection of targets at varying depths. The GEM measures both the in-phase and quadrature-phase (conductivity) response of buried objects to an induced electromagnetic field. Metal objects are generally detected from the in-phase data.

EM traverses were made across the survey area at 10-foot spacing in two perpendicular directions. Data along each traverse were collected continuously and simultaneously at five frequencies between 330 and 11850 Hertz. After completion of the fieldwork, the EM data were downloaded and analyzed using Magmapper® software. The EM data were transferred to a PC at the HGI office and preliminary EM contour maps prepared for the follow-up GPR traverses.

Geophysical Survey  
77 Terrace Street  
Roxbury, Massachusetts

File 200142  
Page 2

Final EM contour plots were prepared using SURFER® for Windows software.

### **Ground Penetrating Radar**

The GPR survey was performed in areas of EM anomalies using a Geophysical Survey Systems, Inc., SIR System 2 digital ground penetrating radar system with 400 MHz antenna and survey wheel. The GPR signal range was set at 80 nanoseconds (ns), for an estimated depth penetration of 12 to 14 feet. GPR data were displayed on a color monitor and simultaneously recorded on a hard drive for later processing and interpretation, as necessary.

Based on visual inspection, most of the EM targets could be eliminated from further investigation. Thus, GPR was used to investigate anomalies only in the southwest corner of the survey area. Traverses in this area were spaced five feet or less apart, with one diagonal traverse across the area from southwest to northeast (Figure 1).

### **RESULTS**

The results of the geophysical survey at 77 Terrace Street are shown in Figure 2, a filled color contour plot of EM data. The interpretation incorporates the results of both the EM and GPR surveys, as well as visual inspection by our field crew.

All the EM anomalies indicated with the letter "M" in Figure 2 could be attributed to surface or near-surface metal. The large anomaly in the southwest portion of the survey area appears to be caused by a large, partially exposed metal tire rim. GPR detected no buried target at that location.

### **CONCLUSIONS**

We did not detect any USTs in the area surveyed at 77 Terrace Street.

## THE GEOPHYSICAL TECHNIQUES

### GROUND PENETRATING RADAR

#### Description of the Method

The principle of ground penetrating radar (GPR) is the same as that of police radar, except that GPR transmits electromagnetic energy into the ground, and the energy is reflected back to the surface from interfaces between materials with contrasting electrical (dielectric and conductivity) and physical properties. The greater the contrast between two materials in the subsurface, the stronger the reflection observed on the GPR record. The depth of GPR signal penetration depends on the properties of the subsurface materials and the frequency of the antenna used to collect radar data. The lower the antenna frequency, the deeper the signal penetration but the lower the signal resolution.

We collect GPR data using a Geophysical Survey Systems SIR System 2 digital ground penetrating radar unit, which consists of a 486 computer connected to a transmit/receive antenna. Radar data are collected in discrete measurements (stacking) or continuous profile mode while moving the antenna across the ground and displayed in color on the computer monitor; they are simultaneously recorded on a 6-Gbyte hard drive for later processing and interpretation using proprietary RADAN® software. Hard copies of the data may also be printed out in the field on a thermal printer.

The horizontal scale of the GPR record shows distance along the survey traverse. In the continuous data collection mode, the horizontal scale on each GPR record is determined by the antenna speed. When a survey wheel is used, the GPR record is automatically marked at specified intervals along the survey line. The vertical scale of the radar records is determined by the recording interval, which represents the maximum two-way travel time in which data are recorded. The conversion of two-way travel time to depth depends on the propagation velocity of the GPR signal, which is site specific.

The size, shape, and amplitude of GPR reflections are used to interpret GPR data. Metal objects such as USTs and utilities produce reflections with high amplitude and distinctive hyperbolic shapes in GPR records when traverses are made perpendicular to their long axes. Clay or concrete pipes and boulders may produce radar signatures of similar shape but lower amplitude. The boundaries between saturated and unsaturated materials, sand and clay, and bedrock and overburden, generally also produce strong reflections.

#### Data Analysis and Interpretation

The horizontal scale of the GPR record shows distance along the survey traverse. In the continuous data collection mode, the horizontal scale on each GPR record is determined by the antenna speed. When a survey wheel is used, as at this site, the GPR record is automatically marked at specified intervals (chosen as one foot for this survey) along the survey line. The vertical scale of the radar records is determined by the recording interval. The recording interval represents the maximum two-way travel time in which data are recorded. The conversion of two-way travel time to depth depends on the propagation velocity of the GPR signal, which is site specific. In the absence of site-specific subsurface information about stratigraphy, we estimate propagation velocities from handbook values and experience at similar sites.

The size, shape, and amplitude of GPR reflections are used to interpret GPR data. Metal objects such as USTs and utilities produce reflections with high amplitude and distinctive hyperbolic shapes in GPR records when traverses are made perpendicular to their long axes. Clay or concrete pipes and boulders may produce radar signatures of similar shape but lower amplitude. The boundaries between saturated and unsaturated materials, sand and clay, and bedrock and overburden, generally also produce strong reflections.

#### **Limitations of the Method**

GPR signal penetration is site specific, determined by the dielectric properties of local soil and fill materials. GPR signals propagate well in resistive materials such as sand and gravel; however, soils containing clay, ash- or cinder-laden fill, or fill saturated with brackish or otherwise conductive groundwater cause GPR signal attenuation and loss of target resolution (i.e., limited detection of small objects). Concrete containing rebar or mesh also inhibits signal penetration.

Interpreted depths of objects detected using GPR are based on on-site calibration, handbook values, and/or estimated GPR signal propagation velocities from similar sites. GPR velocities and depth estimates may vary if the medium of investigation or soil water content is not uniform throughout the site. (Electromagnetic waves do not travel as fast through water as air, so the distance to a reflector below the water table may appear farther than in actuality.)

Utilities are interpreted on the basis of reflectors of similar size and depth that show a linear trend, but GPR cannot unambiguously determine that all such reflectors are related. Fiberglass USTs or utilities composed of plastic or clay may be difficult to detect, as well as objects underneath reinforced concrete pads.

Changes in the speed at which the GPR antenna is moved between stations causes slight variations in distance interpolations, and hence in interpreted object positions.

The GPR antenna produces a cone-shaped signal pattern that emanates approximately 45 degrees from horizontal fore and aft of the antenna. Therefore, buried objects may be detected before the antenna is located directly over them, and GPR anomalies may appear larger than actual target dimensions.

GPR is an interpretive method, based on the subjective identification of reflection patterns that may not uniquely identify a subsurface target. Borings, test pits, or site utility plans must verify the results.



## EM TERRAIN CONDUCTIVITY

### Description of the Method

The EM technique operates on the principle that secondary electric and magnetic currents can be induced in metal objects and conductive bodies, such as USTs, utilities, and leachate, when an electric field is applied. This instrumentation measures the secondary magnetic field strength relative to the primary magnetic field and converts it directly into a conductivity value. Both the quadrature-phase (conductivity) and in-phase components of the secondary electric field are measured and values plotted in parts per million (ppm). In general, the quadrature-phase (conductivity) data provide information about soil and groundwater conditions, while the in-phase data provide information about metal objects. The instrument response is more affected by near-surface than by deeper material.

We collect terrain conductivity data using a GEM-300 multi-frequency electromagnetic profiler. The GEM-300 is an electromagnetic induction-type instrument that measures terrain conductivity without electrodes or direct soil contact. The instrument is a hand-held, bistatic EM sensor that operates in the frequency-domain mode. It is field-programmable to operate at simultaneous, multiple frequencies between 90 Hz and 22 kHz. The GEM sensor contains a transmitter and receiver coil separated by about 5.5 feet, along with a third "bucking coil" that removes the primary field from the receiver coil. All coils are molded into a single board in a fixed geometry.

A removable signal-processing console is attached to the board, from which data are downloaded to a computer and processed. The GEM-300 is capable of detecting underground targets and features to a depth of 26 feet.

### Data Analysis and Interpretation

Terrain conductivity surveys are commonly used to determine the lateral extent of fill and detect buried metal objects, utilities, and conductive leachate plumes. Typically, terrain conductivity values measured on fill materials are irregular and highly variable over short distances due to metal and the heterogeneous materials in the subsurface. The edge of fill materials is marked by a change to smoothly varying terrain conductivity values that represent native soils.

At sites free of metal objects and other cultural interference, the terrain conductivity measured at a particular location is controlled by the soil lithology and/or the conductivity of the ground water. In the presence of metal, conductivity values are often negative ("polarity reversals") and highly irregular. However, the exact identification of objects cannot be determined from the terrain conductivity data alone. The in-phase component helps confirm the location of metal objects when correlated with conductivity data. Irregular or high positive or negative in-phase values may be caused by metal objects and help define their lateral extent.

Leachate plumes are generally recognized by relatively smoothly varying, but anomalously elevated, conductivity values, compared to background values for a given site. The value of the in-phase component resulting from conductive plumes generally shows little or no variation.



**Limitations of the Method**

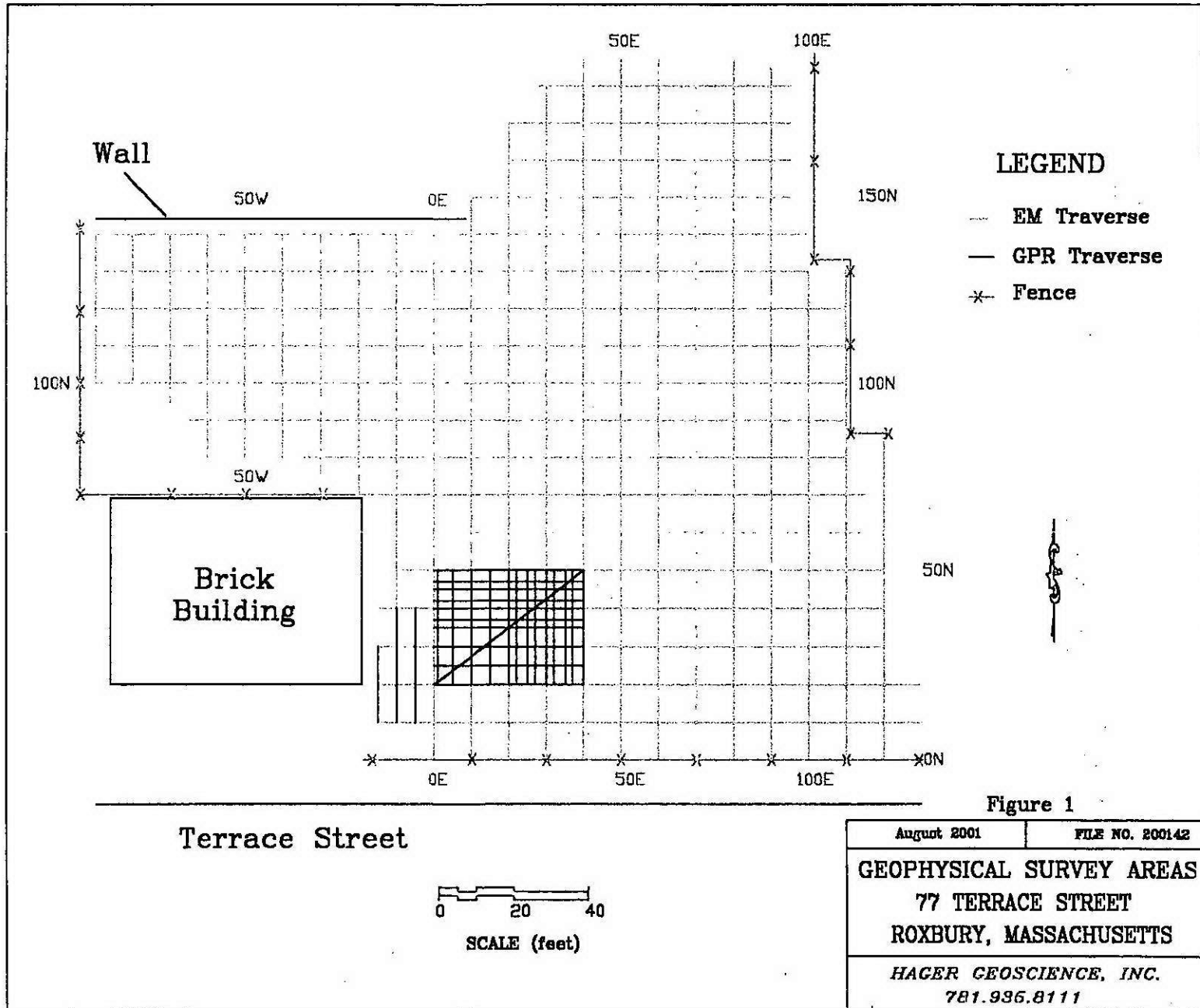
EM conductivity values are influenced by proximity to aboveground metal objects, such as fences, vehicles, or buildings. Magnetic fields produced along overhead power lines also interfere with terrain conductivity readings.

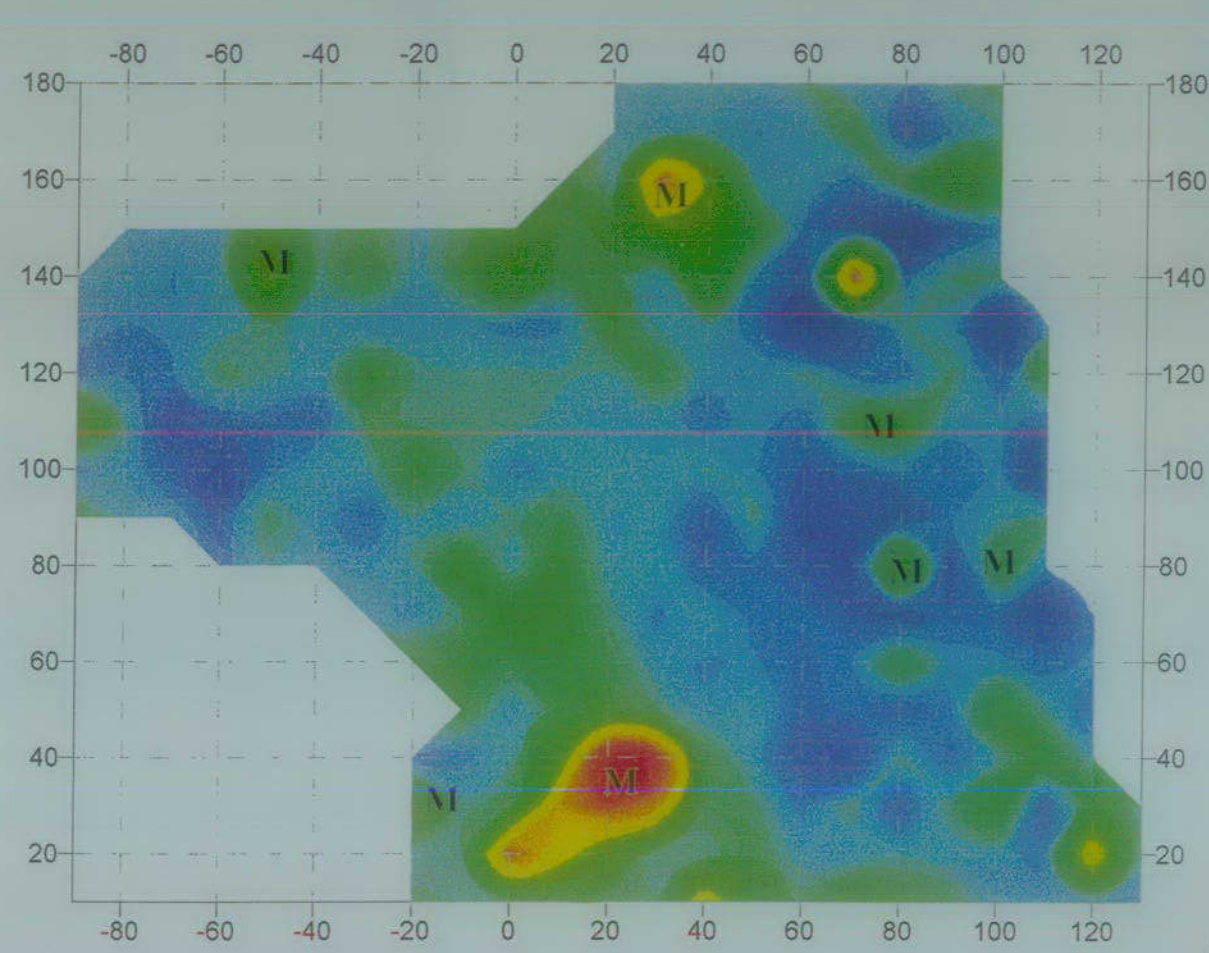
The shape and amplitude of conductivity and in-phase anomalies do not uniquely describe a buried object or material. Rather, they are influenced by the orientation of EM survey lines and the buried object(s) relative to north, and the orientation of the EM sensor relative to these buried object(s). To better locate the source(s) of EM conductivity and in-phase anomalies, data are frequently collected in two perpendicular directions.

High ambient conductivity readings (from a conductivity plume, sludge, or naturally occurring geologic condition) may mask anomalous conductivity values caused by metal objects. Evaluating the in-phase component of the data minimizes this effect.

Closely buried utilities may produce anomalies that interfere with each other. Hence, in areas where numerous utilities are present, the observed anomaly may result from an interference pattern and may not uniquely describe the location of a specific utility. Further, anomalies often appear larger than the object that produces them.

Smaller utilities, or utilities constructed from reinforced concrete, may be masked by larger utilities constructed of metal. Nonmetallic fill such as unreinforced concrete rubble and utilities constructed from PVC, clay, or unreinforced concrete will not be detected.

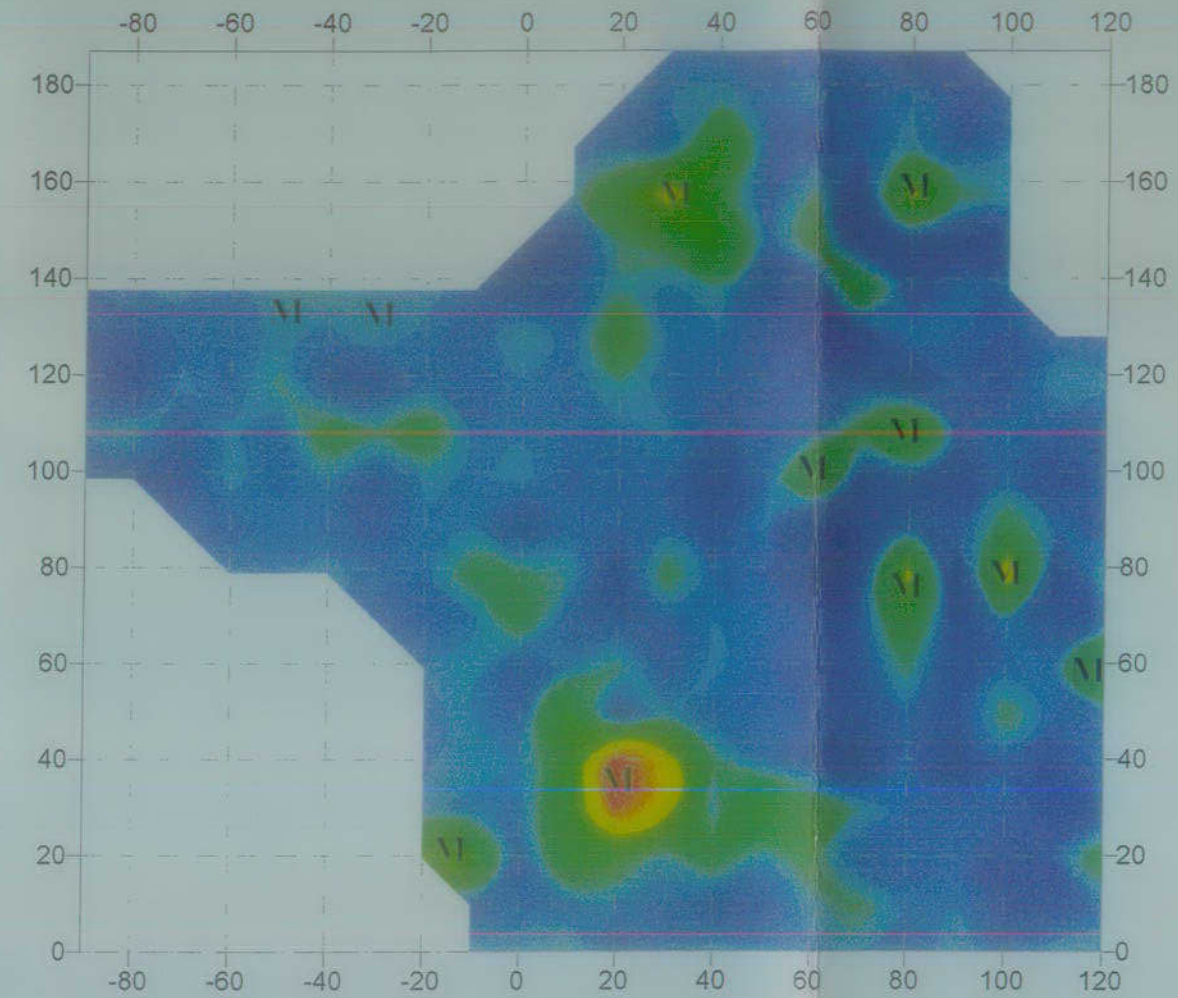




East-West Traverses  
In-Phase Values  
Frequency = 310 HERTZ



Surface Metal M



North-South Traverses  
In-Phase Values  
Frequency = 310 HERTZ

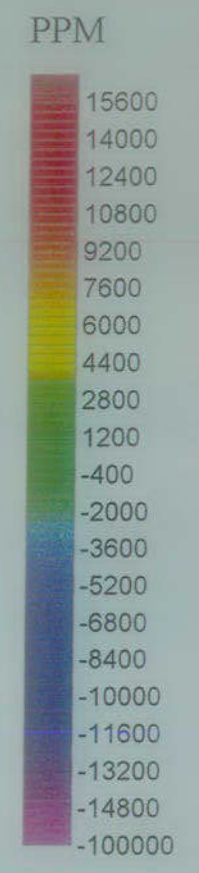


Figure 2

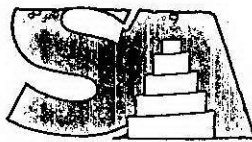
EM/GPR Interpretation Map  
77 Terrace Street  
Roxbury, Massachusetts

Hager GeoScience, Inc.  
596 Main Street, Woburn, MA  
Tel 781.935.8111 Fax 781.935.2717



**APPENDIX F**

**Test Pit Analytical Reports**



SPECTRUM ANALYTICAL, INC.

Featuring

**HANIBAL TECHNOLOGY**

Massachusetts Certification # M-MA138

Rhode Island # 98 Maine # MA138

Florida # E87600 / 87562

New Hampshire # 2538

Connecticut # PH-0777

New York # 11393

Coler & Colantonio  
101 Accord Pk. Drive  
Norwell, MA 02061

8/22/00

Attn: Mark Germano

Client Project Number: 11-665

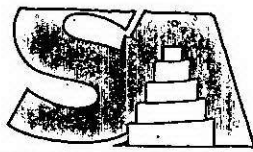
Location: Terrace St - Roxbury, MA

<u>Laboratory ID</u>	<u>Client Sample ID</u>	<u>Analyses Requested</u>
AC01132	TP-01	VOCs by GC/MS VOC Extraction (solid) % Solids Ultrasonic Extraction EPH Aliphatics/Aromatics EPH Target PAH Analytes Metals Digestion Mercury Digestion Total RCRA8 Metals Total Mercury
AC01133	TP-02	% Solids Ultrasonic Extraction EPH Aliphatics/Aromatics EPH Target PAH Analytes Metals Digestion Mercury Digestion Total RCRA8 Metals Total Mercury
AC01134	TP-03	% Solids Ultrasonic Extraction EPH Aliphatics/Aromatics EPH Target PAH Analytes Metals Digestion Mercury Digestion Total RCRA8 Metals Total Mercury
135	TP-04	% Solids

ENVIRONMENTAL ANALYSES

Page 1 of 3

11 Almgren Drive • Agawam, Massachusetts 01001 • 1-800-789-9115 • 413-789-9018 • Fax 413-789-4076  
24 Tobey Road • Bloomfield, Connecticut 06002 • 860-242-6294 • Fax 860-242-4012



SPECTRUM ANALYTICAL, INC.

Featuring

HANIBAL TECHNOLOGY

Client Project Number: 11-665

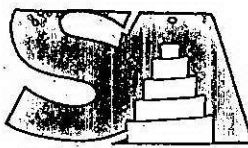
Location: Terrace St - Roxbury, MA

<u>Laboratory ID</u>	<u>Client Sample ID</u>	<u>Analyses Requested</u>
AC01135	TP-04	Ultrasonic Extraction EPH Aliphatics/Aromatics EPH Target PAH Analytes Metals Digestion Mercury Digestion Total RCRA8 Metals
AC01136	TP-05	Total Mercury VOCs by GC/MS VOC Extraction (solid) % Solids Ultrasonic Extraction EPH Aliphatics/Aromatics EPH Target PAH Analytes Metals Digestion Mercury Digestion Total RCRA8 Metals
AC01137	TP-06	Total Mercury VOCs by GC/MS VOC Extraction (solid) % Solids Ultrasonic Extraction EPH Aliphatics/Aromatics EPH Target PAH Analytes Metals Digestion Mercury Digestion Total RCRA8 Metals
AC01138	TP-07	Total Mercury % Solids Ultrasonic Extraction EPH Aliphatics/Aromatics EPH Target PAH Analytes Metals Digestion Mercury Digestion Total RCRA8 Metals Total Mercury

ENVIRONMENTAL ANALYSES

Page 2 of 3

11 Almgren Drive • Agawam, Massachusetts 01001 • 1-800-789-9115 • 413-789-9018 • Fax 413-789-4076  
24 Tobey Road • Bloomfield, Connecticut 06002 • 860-242-6294 • Fax 860-242-4012



SPECTRUM ANALYTICAL, INC.

Featuring

HANIBAL TECHNOLOGY

Client Project Number: 11-665

Location: Terrace St - Roxbury, MA

Laboratory ID

AC01139

Client Sample ID

Tp-08

Analyses Requested

- VOCs by GC/MS
- VOC Extraction (solid)
- % Solids
- Ultrasonic Extraction
- EPH Aliphatics/Aromatics
- EPH Target PAH Analytes
- Metals Digestion
- Mercury Digestion
- Total RCRA8 Metals
- Total Mercury

I attest that all information contained within this report has been reviewed for accuracy and checked against all quality control requirements outlined in each applicable method including any data obtained from a subcontract laboratory.

Authorized by:

Hamibal C. Tayeh  
President/Laboratory Director

# SPECTRUM ANALYTICAL, INC.

## Laboratory Report

Location: Terrace St - Roxbury, MA  
 Client: C&C  
 Lab ID No: AC01132  
 Client Id: TP-01

Client Project No: 11-665  
 Submittal Date: 8/8/00  
 Collection Date: 8/4/00  
 Matrix: Soil

Parameter	Results	Units	Reporting Limit	Start Date	End Date	Analyst	Method
<b>VOC Preparation</b>							
VOC Extraction (solid)	Field ext			8/4/00	8/4/00		SW846 503
<b>Volatile Organic Compounds</b>							
<i>VOCs by GC/MS</i>							
Acetone	Not detected	ug/Kg	6500	8/15/00	8/15/00	GM	SW846 8260
Acrylonitrile	Not detected	ug/Kg	650	8/15/00	8/15/00	GM	SW846 8260
Benzene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
Bromobenzene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
Bromochloromethane	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
Bromodichloromethane	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
Bromoform	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
Bromomethane	Not detected	ug/Kg	130	8/15/00	8/15/00	GM	SW846 8260
2-Butanone (MEK)	Not detected	ug/Kg	3250	8/15/00	8/15/00	GM	SW846 8260
n-Butylbenzene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
sec-Butylbenzene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
tert-Butylbenzene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
Carbon disulfide	Not detected	ug/Kg	325	8/15/00	8/15/00	GM	SW846 8260
Carbon tetrachloride	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
Chlorobenzene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
Chloroethane	Not detected	ug/Kg	130	8/15/00	8/15/00	GM	SW846 8260
Chloroform	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
Chloromethane	Not detected	ug/Kg	130	8/15/00	8/15/00	GM	SW846 8260
2-Chlorotoluene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
4-Chlorotoluene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
1,2-Dibromo-3-chloropropane (DBCP)	Not detected	ug/Kg	130	8/15/00	8/15/00	GM	SW846 8260
Dibromochloromethane	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
1,2-Dibromoethane (EDB)	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
Dibromomethane	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
1,2-Dichlorobenzene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
1,3-Dichlorobenzene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
1,4-Dichlorobenzene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
Dichlorodifluoromethane	Not detected	ug/Kg	130	8/15/00	8/15/00	GM	SW846 8260
1,1-Dichloroethane	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
1,2-Dichloroethane	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
1,1-Dichloroethene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260



Parameter	Results	Units	Reporting Limit	Start Date	End Date	Analyst	Method
cis-1,2-Dichloroethene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
trans-1,2-Dichloroethene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
1,2-Dichloropropane	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
1,3-Dichloropropane	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
2,2-Dichloropropane	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
1,1-Dichloropropene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
cis-1,3-Dichloropropene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
trans-1,3-Dichloropropene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
Ethylbenzene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
Hexachlorobutadiene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
2-Hexanone (MBK)	Not detected	ug/Kg	6500	8/15/00	8/15/00	GM	SW846 8260
Isopropylbenzene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
4-Isopropyltoluene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
Methyl-tert-butyl ether (MTBE)	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
4-Methyl-2-pentanone (MIBK)	Not detected	ug/Kg	1300	8/15/00	8/15/00	GM	SW846 8260
Methylene chloride	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
Naphthalene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
m-Propylbenzene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
Styrene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
1,1,1,2-Tetrachloroethane	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
1,1,2,2-Tetrachloroethane	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
Tetrachloroethene (PCE)	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
Toluene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
1,2,3-Trichlorobenzene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
1,2,4-Trichlorobenzene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
1,1,1-Trichloroethane	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
1,1,2-Trichloroethane	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
Trichloroethene (TCE)	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
Trichlorofluoromethane	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
1,2,3-Trichloropropane	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
1,2,4-Trimethylbenzene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
1,3,5-Trimethylbenzene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
Vinyl chloride	Not detected	ug/Kg	130	8/15/00	8/15/00	GM	SW846 8260
m,p-Xylenes	Not detected	ug/Kg	130	8/15/00	8/15/00	GM	SW846 8260
o-Xylene	Not detected	ug/Kg	65.0	8/15/00	8/15/00	GM	SW846 8260
4-Bromofluorobenzene (%SR)	104	ug/Kg	0.000	8/15/00	8/15/00	GM	SW846 8260
1,4-Difluorobenzene (%SR)	98	ug/Kg	0.000	8/15/00	8/15/00	GM	SW846 8260
Chlorobenzene-d5 (%SR)	96	ug/Kg	0.000	8/15/00	8/15/00	GM	SW846 8260

## TPH Preparation

Ultrasonic Extraction	Completed			8/10/00	8/10/00	AP	SW846 3550
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## Petroleum Hydrocarbon Analysis

Parameter	Results	Units	Reporting Limit	Start Date	End Date	Analyst	Method
<b>EPH Aliphatics/Aromatics</b>							
C9-C18 Aliphatic Hydrocarbons	760	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98
C19-C36 Aliphatic Hydrocarbons	6,100	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98
C11-C22 Aromatic Hydrocarbons	1,784	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98
Unadjusted C11-C22 Aromatics	1,806	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98
Carbon Chain Dilution Factor	1	mg/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98
<b>EPH Target PAH Analytes</b>							
Naphthalene	240	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
2-Methylnaphthalene	Not detected	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
Acenaphthylene	Not detected	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
Acenaphthene	680	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
Fluorene	480	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
Phenanthrene	4,400	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
Anthracene	710	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
Fluoranthene	4,300	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
Pyrene	4,600	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
Benzo (a) anthracene	1,200	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
Chrysene	1,500	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
Benzo (b) fluoranthene	810	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
Benzo (k) fluoranthene	440	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
Benzo (a) pyrene	590	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
Indeno (1,2,3-cd) pyrene	780	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
Dibenzo (a,h) anthracene	240	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
Benzo (g,h,i) perylene	870	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
1-Chloro-octadecane Aliphatic (%SR)	51	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98
Ortho-Terphenyl Aromatic (%SR)	50	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98
2-Bromonaphthalene Fractionation (%SR)	98	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98
2-Fluorobiphenyl Fractionation (%SR)	90	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98
Target Analyte Dilution Factor	1	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98
<b>Metals Preparation</b>							
Mercury Digestion	Completed			8/18/00	8/18/00	EP	EPA 245.1
Metals Digestion	Completed			8/18/00	8/18/00	EP	EPA 200.7
<b>Metals Analysis</b>							
<b>Total RCRA8 Metals</b>							
Total Arsenic	16.6	mg/Kg	2.98	8/21/00	8/21/00	CR	EPA 200.7
Total Barium	224	mg/Kg	0.993	8/21/00	8/21/00	CR	EPA 200.7
Total Cadmium	10.5	mg/Kg	0.497	8/21/00	8/21/00	CR	EPA 200.7
Total Chromium	25.2	mg/Kg	0.993	8/21/00	8/21/00	CR	EPA 200.7
Total Lead	1,230	mg/Kg	1.49	8/21/00	8/21/00	CR	EPA 200.7
Total Selenium	Below det lim	mg/Kg	2.98	8/21/00	8/21/00	CR	EPA 200.7
Total Silver	Below det lim	mg/Kg	1.99	8/21/00	8/21/00	CR	EPA 200.7

Parameter	Results	Units	Reporting Limit	Start Date	End Date	Analyst	Method
Total Mercury	0.883	mg/Kg	0.206	8/21/00	8/21/00	YV	EPA 245.1
% Solids	83.8	%		8/10/00	8/10/00	AP	SM2540 B M

Parameter	Results	Units	Reporting Limit	Start Date	End Date	Analyst	Method
<b>TPH Preparation</b>							
Ultrasonic Extraction	Completed			8/10/00	8/10/00	AP	SW846 355C
<b>Petroleum Hydrocarbon Analysis</b>							
<i>EPH Aliphatics/Aromatics</i>							
C9-C18 Aliphatic Hydrocarbons	Not detected	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-
C19-C36 Aliphatic Hydrocarbons	130	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-
C11-C22 Aromatic Hydrocarbons	95	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-
Unadjusted C11-C22 Aromatics	117	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-
Carbon Chain Dilution Factor	1	mg/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-
<i>EPH Target PAH Analytes</i>							
Naphthalene	Not detected	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
2-Methylnaphthalene	Not detected	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Acenaphthylene	Not detected	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Acenaphthene	360	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Fluorene	300	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Phenanthrene	3,600	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Anthracene	820	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Fluoranthene	4,400	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Pyrene	3,900	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Benzo (a) anthracene	1,900	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Chrysene	1,800	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (b) fluoranthene	1,200	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (k) fluoranthene	690	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (a) pyrene	1,000	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Indeno (1,2,3-cd) pyrene	530	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Dibenzo (a,h) anthracene	190	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (g,h,i) perylene	780	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
1-Chloro-octadecane Aliphatic (%SR)	98	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
Ortho-Terphenyl Aromatic (%SR)	98	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
2-Bromonaphthalene Fractionation (%SR)	74	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
2-Fluorobiphenyl Fractionation (%SR)	66	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
Target Analyte Dilution Factor	1	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
<b>Metals Preparation</b>							
Mercury Digestion	Completed			8/18/00	8/18/00	EP	EPA 245.1
Metals Digestion	Completed			8/18/00	8/18/00	EP	EPA 200.7
<b>Metals Analysis</b>							
<i>Total RCRA8 Metals</i>							
Total Arsenic	14.4	mg/Kg	2.93	8/21/00	8/21/00	CR	EPA 200.7
Total Barium	470	mg/Kg	0.977	8/21/00	8/21/00	CR	EPA 200.7
Total Cadmium	11.5	mg/Kg	0.489	8/21/00	8/21/00	CR	EPA 200.7

Parameter	Results	Units	Reporting Limit	Start Date	End Date	Analyst	Method
Total Chromium	64.6	mg/Kg	0.977	8/21/00	8/21/00	CR	EPA 200.7
Total Lead	1,240	mg/Kg	1.47	8/21/00	8/21/00	CR	EPA 200.7
Total Selenium	Below det lim	mg/Kg	2.93	8/21/00	8/21/00	CR	EPA 200.7
Total Silver	Below det lim	mg/Kg	1.95	8/21/00	8/21/00	CR	EPA 200.7
Total Mercury	0.483	mg/Kg	0.206	8/21/00	8/21/00	YV	EPA 245.1
% Solids	85.3	%		8/10/00	8/10/00	AP	SM2540 B M



Parameter	Results	Units	Reporting Limit	Start Date	End Date	Analyst	Method
<b>TPH Preparation</b>							
Ultrasonic Extraction	Completed			8/10/00	8/10/00	AP	SW846 3550
<b>Petroleum Hydrocarbon Analysis</b>							
<i>EPH Aliphatics/Aromatics</i>							
C9-C18 Aliphatic Hydrocarbons	Not detected	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-
C19-C36 Aliphatic Hydrocarbons	75	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-
C11-C22 Aromatic Hydrocarbons	89	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-
Unadjusted C11-C22 Aromatics	98	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-
Carbon Chain Dilution Factor	1	mg/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-
<i>EPH Target PAH Analytes</i>							
Naphthalene	Not detected	ug/Kg	160	8/18/00	8/18/00	LR	MA EPH 98-
2-Methylnaphthalene	Not detected	ug/Kg	160	8/18/00	8/18/00	LR	MA EPH 98-
Acenaphthylene	Not detected	ug/Kg	160	8/18/00	8/18/00	LR	MA EPH 98-
Acenaphthene	Not detected	ug/Kg	160	8/18/00	8/18/00	LR	MA EPH 98-
Fluorene	Not detected	ug/Kg	160	8/18/00	8/18/00	LR	MA EPH 98-
Phenanthrene	1,100	ug/Kg	160	8/18/00	8/18/00	LR	MA EPH 98-
Anthracene	220	ug/Kg	160	8/18/00	8/18/00	LR	MA EPH 98-
Fluoranthene	2,000	ug/Kg	160	8/18/00	8/18/00	LR	MA EPH 98-
Pyrene	2,100	ug/Kg	160	8/18/00	8/18/00	LR	MA EPH 98-
Benzo (a) anthracene	870	ug/Kg	160	8/18/00	8/18/00	LR	MA EPH 98-
Chrysene	980	ug/Kg	160	8/18/00	8/18/00	LR	MA EPH 98-
Benzo (b) fluoranthene	560	ug/Kg	160	8/18/00	8/18/00	LR	MA EPH 98-
Benzo (k) fluoranthene	300	ug/Kg	160	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (a) pyrene	400	ug/Kg	160	8/18/00	8/18/00	LR	MA EPH 98-1
Indeno (1,2,3-cd) pyrene	280	ug/Kg	160	8/18/00	8/18/00	LR	MA EPH 98-1
Dibenzo (a,h) anthracene	Not detected	ug/Kg	160	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (g,h,i) perylene	160	ug/Kg	160	8/18/00	8/18/00	LR	MA EPH 98-1
1-Chloro-octadecane Aliphatic (%SR)	63	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
Ortho-Terphenyl Aromatic (%SR)	63	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
2-Bromonaphthalene Fractionation (%SR)	77	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
2-Fluorobiphenyl Fractionation (%SR)	69	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
Target Analyte Dilution Factor	1	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
<b>Metals Preparation</b>							
Mercury Digestion	Completed			8/18/00	8/18/00	EP	EPA 245.1
Metals Digestion	Completed			8/18/00	8/18/00	EP	EPA 200.7
<b>Metals Analysis</b>							
<i>Total RCRA8 Metals</i>							
Total Arsenic	8.22	mg/Kg	2.93	8/21/00	8/21/00	CR	EPA 200.7
Total Barium	171	mg/Kg	0.976	8/21/00	8/21/00	CR	EPA 200.7
Total Cadmium	6.49	mg/Kg	0.488	8/21/00	8/21/00	CR	EPA 200.7

Parameter	Results	Units	Reporting Limit	Start Date	End Date	Analyst	Method
Total Chromium	17.6	mg/Kg	0.976	8/21/00	8/21/00	CR	EPA 200.7
Total Lead	602	mg/Kg	1.46	8/21/00	8/21/00	CR	EPA 200.7
Total Selenium	Below det lim	mg/Kg	2.93	8/21/00	8/21/00	CR	EPA 200.7
Total Silver	Below det lim	mg/Kg	1.95	8/21/00	8/21/00	CR	EPA 200.7
Total Mercury	2.97	mg/Kg	0.205	8/21/00	8/21/00	YV	EPA 245.1
% Solids	85.2	%		8/10/00	8/10/00	AP	SM2540 B M



Parameter	Results	Units	Reporting Limit	Start Date	End Date	Analyst	Method
<b>PH Preparation</b>							
Ultrasonic Extraction	Completed			8/10/00	8/10/00	AP	SW846 3550
<b>Petroleum Hydrocarbon Analysis</b>							
<i>EPH Aliphatics/Aromatics</i>							
C9-C18 Aliphatic Hydrocarbons	Not detected	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-
C19-C36 Aliphatic Hydrocarbons	56	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-
C11-C22 Aromatic Hydrocarbons	90	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-
Unadjusted C11-C22 Aromatics	102	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-
Carbon Chain Dilution Factor	1	mg/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-
<i>EPH Target PAH Analytes</i>							
Naphthalene	Not detected	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
2-Methylnaphthalene	Not detected	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Acenaphthylene	Not detected	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Acenaphthene	Not detected	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Fluorene	Not detected	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Phenanthrene	1,200	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Anthracene	230	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Fluoranthene	2,300	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Pyrene	2,400	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Benzo (a) anthracene	1,100	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Chrysene	1,300	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (b) fluoranthene	1,100	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (k) fluoranthene	500	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (a) pyrene	880	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Indeno (1,2,3-cd) pyrene	620	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Dibenzo (a,h) anthracene	180	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
Benzo (g,h,i) perylene	730	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
1-Chloro-octadecane Aliphatic (%SR)	85	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
Ortho-Terphenyl Aromatic (%SR)	50	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
2-Bromonaphthalene Fractionation (%SR)	79	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
2-Fluorobiphenyl Fractionation (%SR)	68	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
Target Analyte Dilution Factor	1	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
<b>Metals Preparation</b>							
Mercury Digestion	Completed			8/18/00	8/18/00	EP	EPA 245.1
Metals Digestion	Completed			8/18/00	8/18/00	EP	EPA 200.7
<b>Metals Analysis</b>							
<i>Total RCRA8 Metals</i>							
Total Arsenic	6.78	mg/Kg	2.93	8/21/00	8/21/00	CR	EPA 200.7
Total Barium	85.3	mg/Kg	0.976	8/21/00	8/21/00	CR	EPA 200.7
Total Cadmium	4.20	mg/Kg	0.488	8/21/00	8/21/00	CR	EPA 200.7

Parameter	Results	Units	Reporting Limit	Start Date	End Date	Analyst	Method
Total Chromium	11.2	mg/Kg	0.976	8/21/00	8/21/00	CR	EPA 200.7
Total Lead	357	mg/Kg	1.46	8/21/00	8/21/00	CR	EPA 200.7
Total Selenium	Below det lim	mg/Kg	2.93	8/21/00	8/21/00	CR	EPA 200.7
Total Silver	Below det lim	mg/Kg	1.95	8/21/00	8/21/00	CR	EPA 200.7
Total Mercury	Below det lim	mg/Kg	0.202	8/21/00	8/21/00	YV	EPA 245.1
% Solids	85.9	%		8/10/00	8/10/00	AP	SM2540 B M

Parameter	Results	Units	Reporting Limit	Start Date	End Date	Analyst	Method
VOC Preparation							
VOC Extraction (solid)	Field ext						
Volatile Organic Compounds				8/4/00	8/4/00		SW846 503
VOCs by GC/MS							
Acetone	Not detected	ug/Kg	4800	8/15/00	8/15/00	GM	SW846 8260
Acrylonitrile	Not detected	ug/Kg	480	8/15/00	8/15/00	GM	SW846 8260
Benzene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
Bromobenzene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
Bromochloromethane	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
Bromodichloromethane	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
Bromoform	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
Bromomethane	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
2-Butanone (MEK)	Not detected	ug/Kg	96.0	8/15/00	8/15/00	GM	SW846 8260
n-Butylbenzene	Not detected	ug/Kg	2400	8/15/00	8/15/00	GM	SW846 8260
sec-Butylbenzene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
tert-Butylbenzene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
Carbon disulfide	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
Carbon tetrachloride	Not detected	ug/Kg	240	8/15/00	8/15/00	GM	SW846 8260
Chlorobenzene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
Chloroethane	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
Chloroform	Not detected	ug/Kg	96.0	8/15/00	8/15/00	GM	SW846 8260
Chloromethane	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
2-Chlorotoluene	Not detected	ug/Kg	96.0	8/15/00	8/15/00	GM	SW846 8260
4-Chlorotoluene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
1,2-Dibromo-3-chloropropane (DBCP)	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
Dibromochloromethane	Not detected	ug/Kg	96.0	8/15/00	8/15/00	GM	SW846 8260
1,2-Dibromoethane (EDB)	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
Dibromomethane	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
1,2-Dichlorobenzene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
1,3-Dichlorobenzene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
1,4-Dichlorobenzene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
Dichlorodifluoromethane	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
1,1-Dichloroethane	Not detected	ug/Kg	96.0	8/15/00	8/15/00	GM	SW846 8260
1,2-Dichloroethane	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
1,1-Dichloroethene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
cis-1,2-Dichloroethene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
trans-1,2-Dichloroethene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
1,2-Dichloropropane	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
1,3-Dichloropropane	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
2,2-Dichloropropane	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
1,1-Dichloropropene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260

Parameter	Results	Units	Reporting Limit	Start Date	End Date	Analyst	Method
cis-1,3-Dichloropropene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
trans-1,3-Dichloropropene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
Ethylbenzene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
Hexachlorobutadiene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
2-Hexanone (MBK)	Not detected	ug/Kg	4800	8/15/00	8/15/00	GM	SW846 8260
Isopropylbenzene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
4-Isopropyltoluene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
Methyl-tert-butyl ether (MTBE)	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
4-Methyl-2-pentanone (MIBK)	Not detected	ug/Kg	960	8/15/00	8/15/00	GM	SW846 8260
Methylene chloride	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
Naphthalene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
n-Propylbenzene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
Styrene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
1,1,1,2-Tetrachloroethane	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
1,1,2,2-Tetrachloroethane	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
Tetrachloroethene (PCE)	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
Toluene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
1,2,3-Trichlorobenzene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
1,2,4-Trichlorobenzene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
1,1,1-Trichloroethane	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
1,1,2-Trichloroethane	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
Trichloroethene (TCE)	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
Trichlorofluoromethane	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
1,2,3-Trichloropropane	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
1,2,4-Trimethylbenzene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
1,3,5-Trimethylbenzene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
Vinyl chloride	Not detected	ug/Kg	96.0	8/15/00	8/15/00	GM	SW846 8260
m,p-Xylenes	Not detected	ug/Kg	96.0	8/15/00	8/15/00	GM	SW846 8260
o-Xylene	Not detected	ug/Kg	48.0	8/15/00	8/15/00	GM	SW846 8260
4-Bromofluorobenzene (%SR)	103	ug/Kg	0.000	8/15/00	8/15/00	GM	SW846 8260
1,4-Difluorobenzene (%SR)	102	ug/Kg	0.000	8/15/00	8/15/00	GM	SW846 8260
Chlorobenzene-d5 (%SR)	102	ug/Kg	0.000	8/15/00	8/15/00	GM	SW846 8260
<b>TPH Preparation</b>							
Ultrasonic Extraction	Completed			8/10/00	8/10/00	AP	SW846 3550
<b>Petroleum Hydrocarbon Analysis</b>							
<i>EPH Aliphatics/Aromatics</i>							
C9-C18 Aliphatic Hydrocarbons	Not detected	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-
C19-C36 Aliphatic Hydrocarbons	85	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-
C11-C22 Aromatic Hydrocarbons	95	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-
Unadjusted C11-C22 Aromatics	117	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-
Carbon Chain Dilution Factor	1	mg/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-

Parameter	Results	Units	Reporting Limit	Start Date	End Date	Analyst	Method
<b>EPH Target PAH Analytes</b>							
Naphthalene	190	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
2-Methylnaphthalene	Not detected	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Acenaphthylene	Not detected	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Acenaphthene	410	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Fluorene	370	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Phenanthrene	3,500	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Anthracene	800	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Fluoranthene	4,400	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Pyrene	3,900	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Benzo (a) anthracene	1,900	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Chrysene	1,900	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Benzo (b) fluoranthene	1,400	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Benzo (k) fluoranthene	560	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Benzo (a) pyrene	940	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Indeno (1,2,3-cd) pyrene	570	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Dibenzo (a,h) anthracene	Not detected	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Benzo (g,h,i) perylene	640	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
1-Chloro-octadecane Aliphatic (%SR)	54	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
Ortho-Terphenyl Aromatic (%SR)	52	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
2-Bromonaphthalene Fractionation (%SR)	74	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
2-Fluorobiphenyl Fractionation (%SR)	64	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
Target Analyte Dilution Factor	1	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
<b>Metals Preparation</b>							
Mercury Digestion	Completed			8/18/00	8/18/00	EP	EPA 245.1
Metals Digestion	Completed			8/18/00	8/18/00	EP	EPA 200.7
<b>Metals Analysis</b>							
<b>Total RCRA8 Metals</b>							
Total Arsenic	5.59	mg/Kg	2.87	8/21/00	8/21/00	CR	EPA 200.7
Total Barium	113	mg/Kg	0.955	8/21/00	8/21/00	CR	EPA 200.7
Total Cadmium	3.96	mg/Kg	0.478	8/21/00	8/21/00	CR	EPA 200.7
Total Chromium	16.6	mg/Kg	0.955	8/21/00	8/21/00	CR	EPA 200.7
Total Lead	463	mg/Kg	1.43	8/21/00	8/21/00	CR	EPA 200.7
Total Selenium	Below det lim	mg/Kg	2.87	8/21/00	8/21/00	CR	EPA 200.7
Total Silver	Below det lim	mg/Kg	1.91	8/21/00	8/21/00	CR	EPA 200.7
Total Mercury	0.666	mg/Kg	0.207	8/21/00	8/21/00	YV	EPA 245.1
% Solids	86.8	%		8/10/00	8/10/00	AP	SM2540 B Moc



Parameter	Results	Units	Reporting Limit	Start Date	End Date	Analyst	Method
<b>VOC Preparation</b>							
VOC Extraction (solid)	Field ext			8/4/00	8/4/00		SW846 5035
<b>Volatile Organic Compounds</b>							
<i>VOCs by GC/MS</i>							
Acetone	Not detected	ug/Kg	6200	8/15/00	8/15/00	GM	SW846 8260I
Acrylonitrile	Not detected	ug/Kg	620	8/15/00	8/15/00	GM	SW846 8260I
Benzene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260I
Bromobenzene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260I
Bromochloromethane	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260I
Bromodichloromethane	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260I
Bromoform	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260I
Bromomethane	Not detected	ug/Kg	124	8/15/00	8/15/00	GM	SW846 8260I
2-Butanone (MEK)	Not detected	ug/Kg	3100	8/15/00	8/15/00	GM	SW846 8260I
n-Butylbenzene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260E
sec-Butylbenzene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260E
tert-Butylbenzene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260E
Carbon disulfide	Not detected	ug/Kg	310	8/15/00	8/15/00	GM	SW846 8260E
Carbon tetrachloride	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260E
Chlorobenzene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260E
Chloroethane	Not detected	ug/Kg	124	8/15/00	8/15/00	GM	SW846 8260E
Chloroform	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260E
Chloromethane	Not detected	ug/Kg	124	8/15/00	8/15/00	GM	SW846 8260E
2-Chlorotoluene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260E
4-Chlorotoluene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260E
1,2-Dibromo-3-chloropropane (DBCP)	Not detected	ug/Kg	124	8/15/00	8/15/00	GM	SW846 8260E
Dibromochloromethane	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260E
1,2-Dibromoethane (EDB)	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260E
Dibromomethane	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260E
1,2-Dichlorobenzene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260E
1,3-Dichlorobenzene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260E
1,4-Dichlorobenzene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260E
Dichlorodifluoromethane	Not detected	ug/Kg	124	8/15/00	8/15/00	GM	SW846 8260E
1,1-Dichloroethane	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260E
1,2-Dichloroethane	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260E
1,1-Dichloroethene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260E
cis-1,2-Dichloroethene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260E
trans-1,2-Dichloroethene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260E
1,2-Dichloropropane	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260E
1,3-Dichloropropane	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260E
2,2-Dichloropropane	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260E
1,1-Dichloropropene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 8260E

Parameter	Results	Units	Reporting Limit	Start Date	End Date	Analyst	Method
cis-1,3-Dichloropropene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 826
trans-1,3-Dichloropropene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 826
Ethylbenzene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 826
Hexachlorobutadiene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 826
2-Hexanone (MBK)	Not detected	ug/Kg	6200	8/15/00	8/15/00	GM	SW846 826
Isopropylbenzene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 826
4-Isopropyltoluene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 826
Methyl-tert-butyl ether (MTBE)	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 826
4-Methyl-2-pentanone (MIBK)	Not detected	ug/Kg	1240	8/15/00	8/15/00	GM	SW846 826
Methylene chloride	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 826
Naphthalene	98	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 826
n-Propylbenzene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 826
Styrene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 826
1,1,1,2-Tetrachloroethane	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 826
1,1,2,2-Tetrachloroethane	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 826
Tetrachloroethene (PCE)	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 826
Toluene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 826
1,2,3-Trichlorobenzene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 826
1,2,4-Trichlorobenzene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 826
1,1,1-Trichloroethane	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 826
1,1,2-Trichloroethane	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 826
Trichloroethene (TCE)	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 826
Trichlorofluoromethane	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 826
1,2,3-Trichloropropane	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 826
1,2,4-Trimethylbenzene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 826
1,3,5-Trimethylbenzene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 826
Vinyl chloride	Not detected	ug/Kg	124	8/15/00	8/15/00	GM	SW846 826
m,p-Xylenes	Not detected	ug/Kg	124	8/15/00	8/15/00	GM	SW846 826
o-Xylene	Not detected	ug/Kg	62.0	8/15/00	8/15/00	GM	SW846 826
4-Bromofluorobenzene (%SR)	108	ug/Kg	0.000	8/15/00	8/15/00	GM	SW846 826
1,4-Difluorobenzene (%SR)	100	ug/Kg	0.000	8/15/00	8/15/00	GM	SW846 826
Chlorobenzene-d5 (%SR)	101	ug/Kg	0.000	8/15/00	8/15/00	GM	SW846 826
<b>TPH Preparation</b>							
Ultrasonic Extraction	Completed			8/10/00	8/10/00	AP	SW846 3550I
<b>Petroleum Hydrocarbon Analysis</b>							
<i>EPH Aliphatics/Aromatics</i>							
C9-C18 Aliphatic Hydrocarbons	Not detected	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-
C19-C36 Aliphatic Hydrocarbons	79	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-
C11-C22 Aromatic Hydrocarbons	233	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-
Unadjusted C11-C22 Aromatics	364	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-
Carbon Chain Dilution Factor	1	mg/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-



Parameter	Results	Units	Reporting Limit	Start Date	End Date	Analyst	Method
<b>EPH Target PAH Analytes</b>							
Naphthalene	3,000	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
2-Methylnaphthalene	980	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
Acenaphthylene	Not detected	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
Acenaphthene	3,600	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
Fluorene	4,300	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
Phenanthrene	27,000	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
Anthracene	9,000	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
Fluoranthene	26,000	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
Pyrene	22,000	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
Benzo (a) anthracene	11,000	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
Chrysene	8,500	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
Benzo (b) fluoranthene	5,300	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
Benzo (k) fluoranthene	2,000	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
Benzo (a) pyrene	3,400	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
Indeno (1,2,3-cd) pyrene	2,100	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
Dibenzo (a,h) anthracene	540	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
Benzo (g,h,i) perylene	2,900	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
1-Chloro-octadecane Aliphatic (%SR)	95	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98
Ortho-Terphenyl Aromatic (%SR)	56	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98
2-Bromonaphthalene Fractionation (%SR)	105	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98
2-Fluorobiphenyl Fractionation (%SR)	94	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98
Target Analyte Dilution Factor	1	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98
<b>Metals Preparation</b>							
Mercury Digestion	Completed			8/18/00	8/18/00	EP	EPA 245.1
Metals Digestion	Completed			8/18/00	8/18/00	EP	EPA 200.7
<b>Metals Analysis</b>							
<b>Total RCRA8 Metals</b>							
Total Arsenic	3.82	mg/Kg	2.88	8/21/00	8/21/00	CR	EPA 200.7
Total Barium	125	mg/Kg	0.959	8/21/00	8/21/00	CR	EPA 200.7
Total Cadmium	6.87	mg/Kg	0.480	8/21/00	8/21/00	CR	EPA 200.7
Total Chromium	18.0	mg/Kg	0.959	8/21/00	8/21/00	CR	EPA 200.7
Total Lead	1,370	mg/Kg	1.44	8/21/00	8/21/00	CR	EPA 200.7
Total Selenium	Below det lim	mg/Kg	2.88	8/21/00	8/21/00	CR	EPA 200.7
Total Silver	Below det lim	mg/Kg	1.92	8/21/00	8/21/00	CR	EPA 200.7
Total Mercury	0.994	mg/Kg	0.200	8/21/00	8/21/00	YV	EPA 245.1
% Solids	86.7	%		8/10/00	8/10/00	AP	SM2540 B N

Parameter	Results	Units	Reporting Limit	Start Date	End Date	Analyst	Method
<b>TPH Preparation</b>							
Ultrasonic Extraction	Completed			8/10/00	8/10/00	AP	SW846 3550
<b>Petroleum Hydrocarbon Analysis</b>							
<i>EPH Aliphatics/Aromatics</i>							
C9-C18 Aliphatic Hydrocarbons	Not detected	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-
C19-C36 Aliphatic Hydrocarbons	37	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-
C11-C22 Aromatic Hydrocarbons	70	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-
Unadjusted C11-C22 Aromatics	93	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-
Carbon Chain Dilution Factor	1	mg/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-
<i>EPH Target PAH Analytes</i>							
Naphthalene	220	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
2-Methylnaphthalene	Not detected	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Acenaphthylene	Not detected	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Acenaphthene	510	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Fluorene	530	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Phenanthrene	4,500	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Anthracene	1,100	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Fluoranthene	4,600	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Pyrene	3,900	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Benzo (a) anthracene	1,800	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Chrysene	1,900	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Benzo (b) fluoranthene	1,200	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Benzo (k) fluoranthene	450	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Benzo (a) pyrene	740	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Indeno (1,2,3-cd) pyrene	360	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Dibenzo (a,h) anthracene	Not detected	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-
Benzo (g,h,i) perylene	390	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98-1
1-Chloro-octadecane Aliphatic (%SR)	89	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
Ortho-Terphenyl Aromatic (%SR)	59	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
2-Bromonaphthalene Fractionation (%SR)	72	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
2-Fluorobiphenyl Fractionation (%SR)	66	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
Target Analyte Dilution Factor	1	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-1
<b>Metals Preparation</b>							
Mercury Digestion	Completed			8/18/00	8/18/00	EP	EPA 245.1
Metals Digestion	Completed			8/18/00	8/18/00	EP	EPA 200.7
<b>Metals Analysis</b>							
<i>Total RCRA8 Metals</i>							
Total Arsenic	3.29	mg/Kg	2.76	8/21/00	8/21/00	CR	EPA 200.7
Total Barium	63.6	mg/Kg	0.920	8/21/00	8/21/00	CR	EPA 200.7
Total Cadmium	3.62	mg/Kg	0.460	8/21/00	8/21/00	CR	EPA 200.7

Parameter	Results	Units	Reporting Limit	Start Date	End Date	Analyst	Method
Total Chromium	12.1	mg/Kg	0.920	8/21/00	8/21/00	CR	EPA 200.7
Total Lead	178	mg/Kg	1.38	8/21/00	8/21/00	CR	EPA 200.7
Total Selenium	Below det lim	mg/Kg	2.76	8/21/00	8/21/00	CR	EPA 200.7
Total Silver	Below det lim	mg/Kg	1.84	8/21/00	8/21/00	CR	EPA 200.7
Total Mercury	0.213	mg/Kg	0.195	8/21/00	8/21/00	YV	EPA 245.1
% Solids	90.4	%		8/10/00	8/10/00	AP	SM2540 B M

Parameter	Results	Units	Reporting Limit	Start Date	End Date	Analyst	Method
<b>VOC Preparation</b>							
VOC Extraction (solid)	Field ext			8/4/00	8/4/00		SW846 503
<b>Volatile Organic Compounds</b>							
<b>VOCs by GC/MS</b>							
Acetone	Not detected	ug/Kg	5000	8/15/00	8/16/00	GW	SW846 8260
Acrylonitrile	Not detected	ug/Kg	500	8/15/00	8/16/00	GW	SW846 8260
Benzene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
Bromobenzene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
Bromochloromethane	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
Bromodichloromethane	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
Bromoform	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
Bromomethane	Not detected	ug/Kg	100	8/15/00	8/16/00	GW	SW846 8260
2-Butanone (MEK)	Not detected	ug/Kg	2500	8/15/00	8/16/00	GW	SW846 8260
n-Butylbenzene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
sec-Butylbenzene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
tert-Butylbenzene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
Carbon disulfide	Not detected	ug/Kg	250	8/15/00	8/16/00	GW	SW846 8260
Carbon tetrachloride	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
Chlorobenzene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
Chloroethane	Not detected	ug/Kg	100	8/15/00	8/16/00	GW	SW846 8260
Chloroform	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
Chloromethane	Not detected	ug/Kg	100	8/15/00	8/16/00	GW	SW846 8260
2-Chlorotoluene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
4-Chlorotoluene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
1,2-Dibromo-3-chloropropane (DBCP)	Not detected	ug/Kg	100	8/15/00	8/16/00	GW	SW846 8260
Dibromochloromethane	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
1,2-Dibromoethane (EDB)	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
Dibromomethane	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
1,2-Dichlorobenzene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
1,3-Dichlorobenzene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
1,4-Dichlorobenzene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
Dichlorodifluoromethane	Not detected	ug/Kg	100	8/15/00	8/16/00	GW	SW846 8260
1,1-Dichloroethane	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
1,2-Dichloroethane	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
1,1-Dichloroethene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
cis-1,2-Dichloroethene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
trans-1,2-Dichloroethene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
1,2-Dichloropropane	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
1,3-Dichloropropane	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
2,2-Dichloropropane	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
1,1-Dichloropropene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260

Parameter	Results	Units	Reporting Limit	Start Date	End Date	Analyst	Method
cis-1,3-Dichloropropene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
trans-1,3-Dichloropropene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
Ethylbenzene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
Hexachlorobutadiene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
2-Hexanone (MBK)	Not detected	ug/Kg	5000	8/15/00	8/16/00	GW	SW846 8260
Isopropylbenzene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
4-Isopropyltoluene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
Methyl-tert-butyl ether (MTBE)	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
4-Methyl-2-pentanone (MIBK)	Not detected	ug/Kg	1000	8/15/00	8/16/00	GW	SW846 8260
Methylene chloride	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
Naphthalene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
n-Propylbenzene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
Styrene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
1,1,1,2-Tetrachloroethane	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
1,1,2,2-Tetrachloroethane	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
Tetrachloroethene (PCE)	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
Toluene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
1,2,3-Trichlorobenzene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
1,2,4-Trichlorobenzene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
1,1,1-Trichloroethane	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
1,1,2-Trichloroethane	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
Trichloroethene (TCE)	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
Trichlorofluoromethane	1,500	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
1,2,3-Trichloropropane	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
1,2,4-Trimethylbenzene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
1,3,5-Trimethylbenzene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
Vinyl chloride	Not detected	ug/Kg	100	8/15/00	8/16/00	GW	SW846 8260
m,p-Xylenes	Not detected	ug/Kg	100	8/15/00	8/16/00	GW	SW846 8260
o-Xylene	Not detected	ug/Kg	50.0	8/15/00	8/16/00	GW	SW846 8260
4-Bromofluorobenzene (%SR)	115	ug/Kg	0.000	8/15/00	8/16/00	GW	SW846 8260
1,4-Difluorobenzene (%SR)	111	ug/Kg	0.000	8/15/00	8/16/00	GW	SW846 8260
Chlorobenzene-d5 (%SR)	98	ug/Kg	0.000	8/15/00	8/16/00	GW	SW846 8260
<b>TPH Preparation</b>							
Ultrasonic Extraction	Completed			8/10/00	8/10/00	AP	SW846 3550
<b>Petroleum Hydrocarbon Analysis</b>							
<i>EPH Aliphatics/Aromatics</i>							
C9-C18 Aliphatic Hydrocarbons	Not detected	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-
C19-C36 Aliphatic Hydrocarbons	84	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-
C11-C22 Aromatic Hydrocarbons	77	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-
Unadjusted C11-C22 Aromatics	90	mg/Kg	30	8/18/00	8/18/00	LR	MA EPH 98-
Carbon Chain Dilution Factor	1	mg/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98-



Parameter	Results	Units	Reporting Limit	Start Date	End Date	Analyst	Method
<b>EPH Target PAH Analytes</b>							
Naphthalene	Not detected	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
2-Methylnaphthalene	Not detected	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
Acenaphthylene	Not detected	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
Acenaphthene	160	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
Fluorene	Not detected	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
Phenanthrene	1,600	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
Anthracene	390	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
Fluoranthene	3,100	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
Pyrene	2,800	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
Benzo (a) anthracene	1,300	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
Chrysene	1,300	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
Benzo (b) fluoranthene	790	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
Benzo (k) fluoranthene	340	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
Benzo (a) pyrene	530	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
Indeno (1,2,3-cd) pyrene	320	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
Dibenzo (a,h) anthracene	Not detected	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
Benzo (g,h,i) perylene	450	ug/Kg	150	8/18/00	8/18/00	LR	MA EPH 98
1-Chloro-octadecane Aliphatic (%SR)	67	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98
Ortho-Terphenyl Aromatic (%SR)	61	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98
2-Bromonaphthalene Fractionation (%SR)	85	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98
2-Fluorobiphenyl Fractionation (%SR)	72	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98
Target Analyte Dilution Factor	1	ug/Kg	0.	8/18/00	8/18/00	LR	MA EPH 98
<b>Metals Preparation</b>							
Mercury Digestion	Completed			8/18/00	8/18/00	EP	EPA 245.1
Metals Digestion	Completed			8/18/00	8/18/00	EP	EPA 200.7
<b>Metals Analysis</b>							
<b>Total RCRA8 Metals</b>							
Total Arsenic	5.90	mg/Kg	2.89	8/21/00	8/21/00	CR	EPA 200.7
Total Barium	69.0	mg/Kg	0.962	8/21/00	8/21/00	CR	EPA 200.7
Total Cadmium	4.45	mg/Kg	0.481	8/21/00	8/21/00	CR	EPA 200.7
Total Chromium	18.4	mg/Kg	0.962	8/21/00	8/21/00	CR	EPA 200.7
Total Lead	442	mg/Kg	1.44	8/21/00	8/21/00	CR	EPA 200.7
Total Selenium	Below det lim	mg/Kg	2.89	8/21/00	8/21/00	CR	EPA 200.7
Total Silver	Below det lim	mg/Kg	1.92	8/21/00	8/21/00	CR	EPA 200.7
Total Mercury	0.584	mg/Kg	0.202	8/21/00	8/21/00	YV	EPA 245.1
% Solids	86.3	%		8/10/00	8/10/00	AP	SM2540 B Mc

Parameter	Results	Units	Reporting Limit	Start Date	End Date	Analyst	Method
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The following outlines the condition of all EPH samples contained within this report upon laboratory receipt.

Matrix	<input type="checkbox"/> Aqueous	<input checked="" type="checkbox"/> Soil	<input type="checkbox"/> Sediment	<input type="checkbox"/> Other:	
Containers	<input checked="" type="checkbox"/> Satisfactory	<input type="checkbox"/> Broken	<input type="checkbox"/> Leaking		
Aqueous Preservative	<input type="checkbox"/> N/A	<input type="checkbox"/> pH ≤ 2	<input type="checkbox"/> pH > 2	<input type="checkbox"/> pH adjusted to ≤ 2 in lab	Comment:
Temperature	<input type="checkbox"/> Received on ice	<input checked="" type="checkbox"/> Received cold	<input type="checkbox"/> Received ambient	<input type="checkbox"/> Received with temp blank:	

Were all QA/QC procedures followed as required by the EPH method? Yes    No   

Were any significant modifications made to the EPH method, as specified in Section 11.3? Yes \* see below

Were all performance/acceptance standards for required QA/QC procedures achieved? Yes    No   

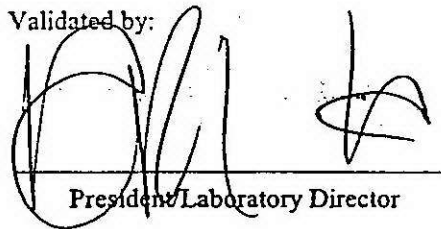
\* Sample(s) was run via GCMS using all QC criteria specified in the method.

I attest that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Reviewed by:

Validated by:

\_\_\_\_\_  
Quality Service/Quality Assurance Depts.

  
\_\_\_\_\_  
President/Laboratory Director

8/22/00





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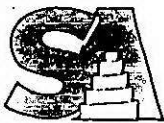
Laboratory Report Supplement

References

SW 846	Test Methods for Evaluating Solid Waste. Third edition, 1998
40 CFR 136	Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act
40 CFR 141	National Primary Drinking Water Regulations
40 CFR 143	National Secondary Drinking Water Regulations
40 CFR 160	Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), Good Laboratory Practice Standards
APHA-AWWA-WPCF	Standard Methods for the Examination of Water and Wastewater. 19 <sup>th</sup> edition, 1995
ASTM D 3328	Standard Methods for the Comparison of Waterborne Petroleum Oils by Gas Chromatography
EPA 540/G-87/003	Data Quality Objectives for Remediation Response Activities, Development Process
EPA 600/4-79-012	Quality Assurance Handbook for Analytical Quality Control in Water and Wastewater Laboratories
EPA 600/4-79-019	Handbook for Analytical Quality Control in Water and Wastewater Laboratories
EPA 600/4-79-020	Method for the Chemical Analysis of Water and Wastes
EPA 600/4-82-057	Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater
EPA 600/4-85/056	Choosing Cost-Effective QA/QC Programs for Chemical Analysis
EPA 600/4-88/039	Method for the Determination of Organic Compounds in Drinking Water
CT ETPH	Analysis of Extractable Total Petroleum Hydrocarbons (ETPH)
MADEP EPH	Method for the Determination of Extractable Petroleum Hydrocarbons (EPH)
MADEP VPH	Method for the Determination of Volatile Petroleum Hydrocarbons (VPH)
QAMS 004/80	Guidelines and Specifications for Preparing Quality Assurance Program Plans, USEPA Office of Monitoring System and Quality Assurance
GC-D-52-77	Oil Spill Identification System

Acronyms & Abbreviations

AA	Atomic Absorption	MS	Matrix Spike
ASTM	American Society for Testing and Materials	MSD	Matrix Spike Duplicate
BOD	Biological Oxygen Demand	NTU	Nephelometric Turbidity Units
°C	degree(s) Celsius	PAHs	Polynuclear Aromatic Hydrocarbons
COD	Chemical Oxygen Demand	PCBs	Polychlorinated Biphenyls
CMR	Code of Massachusetts Regulations	PID	Photo Ionization Detector
DEP	Department of Environmental Protection	PQL	Practical Quantitation Limit
DI	De-ionized	R	Recovery (%R: Percent Recovery)
DO	Dissolved Oxygen	RSD	Relative Standard Deviation
EPA	Environmental Protection Agency	SM	Standard Method
EPH	Extractable Petroleum Hydrocarbons	SR	Surrogate Recovery (%SR)
FID	Flame Ionization Detector	SW	Solid Waste
GC	Gas Chromatograph	THM	Trihalomethane(s)
GC/MS	Gas Chromatograph / Mass Spectrometer	TOC	Total Organic Carbon
ICP	Inductively Coupled Plasma	TOX	Total Organic Halogen
Id	Identification	TPH	Total Petroleum Hydrocarbons
MCL	Maximum Contaminant Level	VOC	Volatile Organic Compound
MDL	Minimum Detection Limit	VPH	Volatile Petroleum Hydrocarbons



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# CHAIN OF CUSTODY RECORD

Page \_\_\_\_\_ of \_\_\_\_\_

Special Handling:

- Standard TAT - 7 to 10 business days
- Rush TAT - Date Needed: \_\_\_\_\_
- All TATs are subject to laboratory approval.
- Min. 24-hour notification is needed for rushes.
- All samples are disposed of after 60 days unless otherwise instructed.

Report To: Coles & Colantoni  
101 Acornal Pk. Dr.  
Norwell, MA 02061

Invoice To: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Project No.: 11-665  
Site Name: Terrace St.  
Location: Roxbury State: MA  
Sampler(s): JFD

Project Mgr.: Mark Gerardo

P.O. No.: 11-665 RQN: \_\_\_\_\_

1=Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> 2=HCl 3=H<sub>2</sub>SO<sub>4</sub> 4=HNO<sub>3</sub> 5=NaOH 6=Ascorbic Acid  
7=CH<sub>3</sub>OH 8=NaHSO<sub>4</sub> 9=\_\_\_\_\_ 10=\_\_\_\_\_

Containers:

Analyses:

Notes:

DW=Drinking Water GW=Groundwater WW=Wastewater  
SW=Surface Water SO=Soil SL=Sludge O=Oil A=Air  
X1=\_\_\_\_\_ X2=\_\_\_\_\_ X3=\_\_\_\_\_

G=Grab C=Composite

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix	Preservative	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	8020	EPH	PCRA 8
AB01132	TP-01	8/4/00	9A	C	SO	7	1	1			✓	✓	✓
AB01133	TP-02		10A	C		7	1	1			✓	✓	✓
AB01134	TP-03		10:30A	C		7	1	1			✓	✓	✓
AB01135	TP-04		11:30A	C		7	1	1			✓	✓	✓
AB01136	TP-05		12:30P	C		7	1	1			✓	✓	✓
AB01137	TP-06		1P	C		7	1	1			✓	✓	✓
AB01138	TP-07		2P	C		7	1	1			✓	✓	✓
AB01139	TP-08		3P	C		7	1	1			✓	✓	✓

No 8220 for TP-02  
No 8220 for TP-04

Additional Instructions: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
 Fax results when available to (\_\_\_\_\_) \_\_\_\_\_  
 E-mail results when available to \_\_\_\_\_

Relinquished By:	Received By:	Date:	Time:
<u>Preservative for Tim Valley</u> <u>8/5/00 @ 12:10 PM</u> <u>M. Heath</u>	<u>M. Heath</u>	<u>8-8-00</u>	<u>12:10</u>
		<u>8-8-00</u>	<u>16:50</u>

**APPENDIX G**

**Soil Probe Analytical Reports**

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive  
Westborough, Massachusetts 01581-1019  
(508) 898-9220

MA:M-MA-086 NH:200395-B/C CT:PH-0574 ME:MA086 RI:65 NY:11148

CERTIFICATE OF ANALYSIS

Client: Woodard & Curran, Inc.

Laboratory Job Number: L0110092

Address: 980 Washington Street

Invoice Number: 56404

Dedham, MA 02026

Date Received: 29-OCT-01

Attn: Mr. Craig Blake

Date Reported: 05-NOV-01

Project Number: 205843

Delivery Method: Alpha

Site: DND-TERRACE ST.

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ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0110092-01	SP-1-4/8	77 TERRACE ST.
L0110092-02	SP-1-8/12	77 TERRACE ST.
L0110092-03	SP-2A-0/4	77 TERRACE ST.
L0110092-04	SP-2A-4/8	77 TERRACE ST.
L0110092-05	SP-3A-0/4	77 TERRACE ST.
L0110092-06	SP-3A-4/8	77 TERRACE ST.
L0110092-07	SP-4A-0/4	77 TERRACE ST.
L0110092-08	SP-4A-4/8	77 TERRACE ST.
L0110092-09	SP-5-0/4	77 TERRACE ST.
L0110092-10	SP-5-8/12	77 TERRACE ST.
L0110092-11	SP-6-0/4	77 TERRACE ST.
L0110092-12	SP-6-4/8	77 TERRACE ST.
L0110092-13	SP-7-4/8	77 TERRACE ST.
L0110092-14	SP-8-0/4	77 TERRACE ST.
L0110092-15	SP-8-4/8	77 TERRACE ST.

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

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Authorized by: Scott McLean

Scott McLean - Laboratory Director  
This document electronically signed

ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

MA:M-MA-086 NH:200395-B/C CT:PH-0574 ME:MA086 RI:65

Laboratory Sample Number: L0110092-01  
 SP-1-4/8  
 Sample Matrix: SOIL  
 Condition of Sample: Satisfactory  
 Number & Type of Containers: 1-Amber  
 Date Collected: 26-OCT-2001 10:15  
 Date Received : 29-OCT-2001  
 Date Reported : 05-NOV-2001  
 Field Prep: None

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Solids, Total	96.	%	0.10	30 2540G		1031 20:48	AT
Total Metals				1 3051			
Lead, Total	340	mg/kg	2.1	1 6010B	1030 15:00	1031 22:32	RW

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0110092-01  
SP-1-4/8

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	

Extractable Petroleum Hydrocarbons				46 98-1	1031 18:00	1104 10:49	RL
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Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Sample extraction method:	Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO
Please note to subtract the method blank from the stated result.	
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.	
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.	

C9-C18 Aliphatics	ND	mg/kg	52.1
C19-C36 Aliphatics	55.0	mg/kg	52.1
C11-C22 Aromatics	484.	mg/kg	52.1
C11-C22 Aromatics, Adjusted	350.	mg/kg	52.1
Naphthalene	ND	mg/kg	2.60
2-Methylnaphthalene	ND	mg/kg	2.60
Acenaphthylene	ND	mg/kg	2.60
Acenaphthene	ND	mg/kg	2.60
Fluorene	ND	mg/kg	2.60
Phenanthrene	15.7	mg/kg	2.60
Anthracene	3.70	mg/kg	2.60
Fluoranthene	26.5	mg/kg	2.60
Pyrene	22.0	mg/kg	2.60
Benzo(a)anthracene	11.1	mg/kg	2.60
Chrysene	13.1	mg/kg	2.60
Benzo(b)fluoranthene	8.96	mg/kg	2.60
Benzo(k)fluoranthene	12.5	mg/kg	2.60
Benzo(a)pyrene	9.52	mg/kg	2.60
Indeno(1,2,3-cd)Pyrene	5.35	mg/kg	2.60
Dibenzo(a,h)anthracene	ND	mg/kg	2.60
Benzo(ghi)perylene	5.71	mg/kg	2.60

Surrogate Recovery

Chloro-Octadecane	91.0	%
o-Terphenyl	70.0	%
2-Fluorobiphenyl	71.0	%
2-Bromonaphthalene	79.0	%

Comments: Complete list of References and Glossary of Terms found in Addendum I



ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

MA:M-MA-086 NH:200395-B/C CT:PH-0574 ME:MA086 RI:65

Laboratory Sample Number: L0110092-02 Date Collected: 26-OCT-2001 10:30  
 SP-1-8/12 Date Received : 29-OCT-2001  
 Sample Matrix: SOIL Date Reported : 05-NOV-2001  
 Condition of Sample: Satisfactory Field Prep: None  
 Number & Type of Containers: 1-Amber

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Solids, Total	95.	%	0.10	30 2540G			1031 20:48 AT
Total Metals				1 3051			
Lead, Total	140	mg/kg	2.1	1 6010B	1030 15:00	1031 22:44	RW

Comments: Complete list of References and Glossary of Terms found in Addendum I



ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0110092-02  
 SP-1-8/12

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	

Extractable Petroleum Hydrocarbons				46 98-1		1031 18:00	1104 11:35 RL
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Quality Control Information

Condition of sample received: Satisfactory  
 Sample temperature upon receipt: Received on Ice  
 Sample extraction method: Extracted Per the Method  
 Were all QA/QC procedures REQUIRED by the method followed? YES  
 Were all performance/acceptance standards for the required procedures achieved? YES  
 Were significant modifications made to the method as specified in Sect 11.3? NO  
 Please note to subtract the method blank from the stated result.  
 The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.  
 The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	31.6
C19-C36 Aliphatics	36.6	mg/kg	31.6
C11-C22 Aromatics	88.2	mg/kg	31.6
C11-C22 Aromatics, Adjusted	70.5	mg/kg	31.6
Naphthalene	ND	mg/kg	1.58
2-Methylnaphthalene	ND	mg/kg	1.58
Acenaphthylene	ND	mg/kg	1.58
Acenaphthene	ND	mg/kg	1.58
Fluorene	ND	mg/kg	1.58
Phenanthrene	2.98	mg/kg	1.58
Anthracene	ND	mg/kg	1.58
Fluoranthene	3.95	mg/kg	1.58
Pyrene	3.28	mg/kg	1.58
Benzo (a) anthracene	1.75	mg/kg	1.58
Chrysene	2.01	mg/kg	1.58
Benzo (b) fluoranthene	ND	mg/kg	1.58
Benzo (k) fluoranthene	2.17	mg/kg	1.58
Benzo (a) pyrene	1.62	mg/kg	1.58
Irdeno (1,2,3-cd) Pyrene	ND	mg/kg	1.58
Dibenzo (a,h) anthracene	ND	mg/kg	1.58
Benzo (ghi) perylene	ND	mg/kg	1.58

Surrogate Recovery

Chloro-Octadecane	71.0	%
o-Terphenyl	93.0	%
2-Fluorobiphenyl	79.0	%
2-Bromonaphthalene	77.0	%

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

MA:M-MA-086 NH:200395-B/C CT:PH-0574 ME:MA086 RI:65

Laboratory Sample Number: L0110092-03 Date Collected: 26-OCT-2001 10:50  
 SP-2A-0/4 Date Received : 29-OCT-2001  
 Sample Matrix: SOIL Date Reported : 05-NOV-2001  
 Condition of Sample: Satisfactory Field Prep: None  
 Number & Type of Containers: 1-Amber

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Solids, Total	90.	%	0.10	30 2540G		1031 20:48	AT
Total Metals				1 3051			
Lead, Total	160	mg/kg	2.2	1 6010B	1030 15:00	1031 22:57	RW

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0110092-03  
SP-2A-0/4

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP    ANAL	ID
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Extractable Petroleum Hydrocarbons				46 98-1	1031 18:00 1104 12:21 RL	
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Quality Control Information

Condition of sample received:	Satisfactory	
Sample temperature upon receipt:	Received on Ice	
Sample extraction method:	Extracted Per the Method	
Were all QA/QC procedures REQUIRED by the method followed?		YES
Were all performance/acceptance standards for the required procedures achieved?		YES
Were significant modifications made to the method as specified in Sect 11.3?		NO
Please note to subtract the method blank from the stated result.		
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.		
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.		

C9-C18 Aliphatics	ND	mg/kg	11.1
C19-C36 Aliphatics	51.9	mg/kg	11.1
C11-C22 Aromatics	140.	mg/kg	11.1
C11-C22 Aromatics, Adjusted	114.	mg/kg	11.1
Naphthalene	0.566	mg/kg	0.556
2-Methylnaphthalene	ND	mg/kg	0.556
Acenaphthylene	ND	mg/kg	0.556
Acenaphthene	ND	mg/kg	0.556
Fluorene	ND	mg/kg	0.556
Phenanthrene	4.00	mg/kg	0.556
Anthracene	1.02	mg/kg	0.556
Fluoranthene	4.16	mg/kg	0.556
Pyrene	3.56	mg/kg	0.556
Benzo (a) anthracene	1.72	mg/kg	0.556
Chrysene	2.00	mg/kg	0.556
Benzo (b) fluoranthene	1.54	mg/kg	0.556
Benzo (k) fluoranthene	2.38	mg/kg	0.556
Benzo (a) pyrene	1.94	mg/kg	0.556
Indeno (1,2,3-cd) Pyrene	1.16	mg/kg	0.556
Dibenzo (a,h) anthracene	ND	mg/kg	0.556
Benzo (ghi) perylene	1.42	mg/kg	0.556

Surrogate Recovery

Chloro-Octadecane	83.0	%
o-Terphenyl	79.0	%
2-Fluorobiphenyl	71.0	%
2-Bromonaphthalene	64.0	%

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

MA:M-MA-086 NH:200395-B/C CT:PH-0574 ME:MA086 RI:65

Laboratory Sample Number: L0110092-04 Date Collected: 26-OCT-2001 10:55  
 SP-2A-4/8 Date Received : 29-OCT-2001  
 Sample Matrix: SOIL Date Reported : 05-NOV-2001  
 Condition of Sample: Satisfactory Field Prep: None  
 Number & Type of Containers: 1-Amber

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Solids, Total	90.	%	0.10	30 2540G			1031 20:48 AT
Total Metals				1 3051			
Lead, Total	290	mg/kg	2.2	1 6010B	1030 15:00	1031 23:22	RW

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0110092-04  
SP-2A-4/8

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Extractable Petroleum Hydrocarbons				46-98-1	1031	18:00	1104 13:07 RL

Quality Control Information

Condition of sample received:	Satisfactory	
Sample temperature upon receipt:	Received on Ice	
Sample extraction method:	Extracted Per the Method	
Were all QA/QC procedures REQUIRED by the method followed?		YES
Were all performance/acceptance standards for the required procedures achieved?		YES
Were significant modifications made to the method as specified in Sect 11.3?		NO
Please note to subtract the method blank from the stated result.		
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.		
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.		

C9-C18 Aliphatics	ND	mg/kg	11.1
C19-C36 Aliphatics	52.6	mg/kg	11.1
C11-C22 Aromatics	118.	mg/kg	11.1
C11-C22 Aromatics, Adjusted	103.	mg/kg	11.1
Naphthalene	ND	mg/kg	0.556
2-Methylnaphthalene	ND	mg/kg	0.556
Acenaphthylene	ND	mg/kg	0.556
Acenaphthene	ND	mg/kg	0.556
Fluorene	ND	mg/kg	0.556
Phenanthrene	1.81	mg/kg	0.556
Anthracene	ND	mg/kg	0.556
Fluoranthene	2.55	mg/kg	0.556
Pyrene	2.09	mg/kg	0.556
Benzo (a) anthracene	1.16	mg/kg	0.556
Chrysene	1.36	mg/kg	0.556
Benzo (b) fluoranthene	1.12	mg/kg	0.556
Benzo (k) fluoranthene	1.72	mg/kg	0.556
Benzo (a) pyrene	1.27	mg/kg	0.556
Indeno (1, 2, 3-cd) Pyrene	0.763	mg/kg	0.556
Dibenzo (a, h) anthracene	ND	mg/kg	0.556
Benzo (ghi) perylene	0.949	mg/kg	0.556

Surrogate Recovery

Chloro-Octadecane	57.0	%
o-Terphenyl	71.0	%
2-Fluorobiphenyl	86.0	%
2-Bromonaphthalene	81.0	%

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

MA:M-MA-086 NH:200395-B/C CT:PH-0574 ME:MA086 RI:65

Laboratory Sample Number: L0110092-05  
 SP-3A-0/4  
 Sample Matrix: SOIL  
 Condition of Sample: Satisfactory  
 Number & Type of Containers: 1-Amber  
 Date Collected: 26-OCT-2001 11:10  
 Date Received : 29-OCT-2001  
 Date Reported : 05-NOV-2001  
 Field Prep: None

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Solids, Total	91.	%	0.10	30 2540G			1031 20:48 AT
Total Metals				1 3051			
Lead, Total	840	mg/kg	2.2	1 6010B	1030 15:00	1031 23:28	RW

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0110092-05  
 SP-3A-0/4

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Extractable Petroleum Hydrocarbons				46 98-1		1031 18:00	1105 15:26 RL

Quality Control Information

Condition of sample received: Satisfactory  
 Sample temperature upon receipt: Received on Ice  
 Sample extraction method: Extracted Per the Method  
 Were all QA/QC procedures REQUIRED by the method followed? YES  
 Were all performance/acceptance standards for the required procedures achieved? YES  
 Were significant modifications made to the method as specified in Sect 11.3? NO  
 Please note to subtract the method blank from the stated result.  
 The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.  
 The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	54.9
C19-C36 Aliphatics	78.4	mg/kg	54.9
C11-C22 Aromatics	855.	mg/kg	54.9
C11-C22 Aromatics, Adjusted	546.	mg/kg	54.9
Naphthalene	ND	mg/kg	2.75
2-Methylnaphthalene	ND	mg/kg	2.75
Acenaphthylene	3.25	mg/kg	2.75
Acenaphthene	ND	mg/kg	2.75
Fluorene	ND	mg/kg	2.75
Phenanthrene	4.85	mg/kg	2.75
Anthracene	3.03	mg/kg	2.75
Fluoranthene	62.2	mg/kg	2.75
Pyrene	54.0	mg/kg	2.75
Benzo (a) anthracene	32.0	mg/kg	2.75
Chrysene	27.5	mg/kg	2.75
Benzo (b) fluoranthene	23.9	mg/kg	2.75
Benzo (k) fluoranthene	32.0	mg/kg	2.75
Benzo (a) pyrene	28.1	mg/kg	2.75
Indeno (1,2,3-cd) Pyrene	17.0	mg/kg	2.75
Dibenzo (a, h) anthracene	6.34	mg/kg	2.75
Benzo (ghi) perylene	14.9	mg/kg	2.75

Surrogate Recovery

Chloro-Octadecane	77.0	%
o-Terphenyl	92.0	%
2-Fluorobiphenyl	94.0	%
2-Bromonaphthalene	81.0	%

Comments: Complete list of References and Glossary of Terms found in Addendum I



ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

MA:M-MA-086 NH:200395-B/C CT:PH-0574 ME:MA086 RI:65

Laboratory Sample Number: L0110092-06

Date Collected: 26-OCT-2001 11:15

Sample Matrix: SP-3A-4/8  
 SOIL

Date Received : 29-OCT-2001

Date Reported : 05-NOV-2001

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
*Solids, Total	95.	%	0.10	30 2540G			1031 20:48 AT
Total Metals				1 3051			
Lead, Total	79.	mg/kg	2.1	1 6010B	1030 15:00	1031 23:34	RW

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0110092-06  
SP-3A-4/8

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Extractable Petroleum Hydrocarbons				46 98-1	1031 18:00	1104 14:38	RL

Quality Control Information

Condition of sample received: Satisfactory  
 Sample temperature upon receipt: Received on Ice  
 Sample extraction method: Extracted Per the Method  
 Were all QA/QC procedures REQUIRED by the method followed? YES  
 Were all performance/acceptance standards for the required procedures achieved? YES  
 Were significant modifications made to the method as specified in Sect 11.3? NO  
 Please note to subtract the method blank from the stated result.  
 The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.  
 The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	10.5
C19-C36 Aliphatics	ND	mg/kg	10.5
C11-C22 Aromatics	69.4	mg/kg	10.5
C11-C22 Aromatics, Adjusted	58.0	mg/kg	10.5
Naphthalene	ND	mg/kg	0.526
2-Methylnaphthalene	ND	mg/kg	0.526
Acenaphthylene	ND	mg/kg	0.526
Acenaphthene	ND	mg/kg	0.526
Fluorene	ND	mg/kg	0.526
Phenanthrene	ND	mg/kg	0.526
Anthracene	ND	mg/kg	0.526
Fluoranthene	2.28	mg/kg	0.526
Pyrene	1.92	mg/kg	0.526
Benzo (a) anthracene	1.08	mg/kg	0.526
Chrysene	1.06	mg/kg	0.526
Benzo (b) fluoranthene	1.26	mg/kg	0.526
Benzo (k) fluoranthene	1.02	mg/kg	0.526
Benzo (a) pyrene	1.27	mg/kg	0.526
Indeno (1, 2, 3-cd) Pyrene	0.793	mg/kg	0.526
Dibenzo (a, h) anthracene	ND	mg/kg	0.526
Benzo (ghi) perylene	0.712	mg/kg	0.526

Surrogate Recovery

Chloro-Octadecane	64.0	%
o-Terphenyl	112.	%
2-Fluorobiphenyl	92.0	%
2-Bromonaphthalene	89.0	%

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

MA:M-MA-086 NH:200395-B/C CT:PH-0574 ME:MA086 RI:65

Laboratory Sample Number: L0110092-07  
 SP-4A-0/4  
 Sample Matrix: SOIL  
 Condition of Sample: Satisfactory  
 Number & Type of Containers: 1-Amber  
 Date Collected: 26-OCT-2001 11:25  
 Date Received : 29-OCT-2001  
 Date Reported : 05-NOV-2001  
 Field Prep: None

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Solids, Total	90.	%	0.10	30 2540G			1031 20:48 AT
Total Metals				1 3051			
Lead, Total	5800	mg/kg	22.	1 6010B	1030 15:00	1101 13:00	RW

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0110092-07  
SP-4A-0/4

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP      ANAL	ID
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Extractable Petroleum Hydrocarbons				46 98-1	1031 18:00 1104 16:55 RL	
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Quality Control Information

Condition of sample received:	Satisfactory	
Sample temperature upon receipt:	Received on Ice	
Sample extraction method:	Extracted Per the Method	
Were all QA/QC procedures REQUIRED by the method followed?		YES
Were all performance/acceptance standards for the required procedures achieved?		YES
Were significant modifications made to the method as specified in Sect 11.3?		NO

Please note to subtract the method blank from the stated result.

The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.

The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	11.1
C19-C36 Aliphatics	58.1	mg/kg	11.1
C11-C22 Aromatics	379.	mg/kg	11.1
C11-C22 Aromatics, Adjusted	259.	mg/kg	11.1
Naphthalene	1.10	mg/kg	0.556
2-Methylnaphthalene	0.608	mg/kg	0.556
Acenaphthylene	ND	mg/kg	0.556
Acenaphthene	1.99	mg/kg	0.556
Fluorene	1.42	mg/kg	0.556
Phenanthrene	21.4	mg/kg	0.556
Anthracene	4.41	mg/kg	0.556
Fluoranthene	20.9	mg/kg	0.556
Pyrene	15.3	mg/kg	0.556
Benzo (a) anthracene	8.50	mg/kg	0.556
Chrysene	9.51	mg/kg	0.556
Benzo (b) fluoranthene	7.31	mg/kg	0.556
Benzo (k) fluoranthene	9.81	mg/kg	0.556
Benzo (a) pyrene	7.84	mg/kg	0.556
Indeno (1,2,3-cd) Pyrene	4.35	mg/kg	0.556
Dibenzo (a,h) anthracene	1.15	mg/kg	0.556
Benzo (ghi) perylene	4.45	mg/kg	0.556

Surrogate Recovery

Chloro-Octadecane	72.0	%
o-Terphenyl	57.0	%
2-Fluorobiphenyl	84.0	%
2-Bromonaphthalene	86.0	%

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

MA:M-MA-086 NH:200395-B/C CT:PH-0574 ME:MA086 RI:65

Laboratory Sample Number: L0110092-08  
 SP-4A-4/8  
 Sample Matrix: SOIL  
 Condition of Sample: Satisfactory  
 Number & Type of Containers: 1-Amber  
 Date Collected: 26-OCT-2001 11:30  
 Date Received : 29-OCT-2001  
 Date Reported : 05-NOV-2001  
 Field Prep: None

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Solids, Total	86.	%	0.10	30 2540G			1031 20:48 AT
Total Metals				1 3051			
Lead, Total	1700	mg/kg	2.3	1 6010B	1030 15:00	1031 23:45	RW

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0110092-08  
 SP-4A-4/8

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	

Extractable Petroleum Hydrocarbons				46.98-1	1031.18.00	1105.14.48	RL
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Quality Control Information

Condition of sample received:	Satisfactory	
Sample temperature upon receipt:	Received on Ice	
Sample extraction method:	Extracted Per the Method	
Were all QA/QC procedures REQUIRED by the method followed?		YES
Were all performance/acceptance standards for the required procedures achieved?		YES
Were significant modifications made to the method as specified in Sect 11.3?		NO
Please note to subtract the method blank from the stated result.		
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.		
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.		

C9-C18 Aliphatics	ND	mg/kg	58.1
C19-C36 Aliphatics	ND	mg/kg	58.1
C11-C22 Aromatics	1060	mg/kg	58.1
C11-C22 Aromatics, Adjusted	638.	mg/kg	58.1
Naphthalene	4.87	mg/kg	2.91
2-Methylnaphthalene	3.27	mg/kg	2.91
Acenaphthylene	ND	mg/kg	2.91
Acenaphthene	11.8	mg/kg	2.91
Fluorene	10.5	mg/kg	2.91
Phenanthrene	86.8	mg/kg	2.91
Anthracene	19.4	mg/kg	2.91
Fluoranthene	67.8	mg/kg	2.91
Pyrene	67.9	mg/kg	2.91
Benzo (a) anthracene	26.6	mg/kg	2.91
Chrysene	28.9	mg/kg	2.91
Benzo (b) fluoranthene	22.0	mg/kg	2.91
Benzo (k) fluoranthene	21.5	mg/kg	2.91
Benzo (a) pyrene	20.8	mg/kg	2.91
Indeno (1,2,3-cd) Pyrene	12.2	mg/kg	2.91
Dibenzo (a,h) anthracene	6.19	mg/kg	2.91
Benzo (ghi) perylene	8.42	mg/kg	2.91

Surrogate Recovery

Chloro-Octadecane	76.0	%
o-Terphenyl	95.0	%
2-Fluorobiphenyl	106.	%
2-Bromonaphthalene	104.	%

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

MA:M-MA-086 NH:200395-B/C CT:PH-0574 ME:MA086 RI:65

Laboratory Sample Number: L0110092-09 Date Collected: 26-OCT-2001 11:40  
 SP-5-0/4 Date Received : 29-OCT-2001  
 Sample Matrix: SOIL Date Reported : 05-NOV-2001  
 Condition of Sample: Satisfactory Field Prep: None  
 Number & Type of Containers: 1-Amber

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Solids, Total	90.	%	0.10	30 2540G			1031 20:48 AT
Total Metals				1 3051			
Lead, Total	3700	mg/kg	22.	1 6010B	1030 15:00	1101 13:05	RW

Comments: Complete list of References and Glossary of Terms found in Addendum I



ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0110092-09  
SP-5-0/4

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	

Extractable Petroleum Hydrocarbons				46 98-1	1031 18:00	1104 18:27	RL
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Quality Control Information

Condition of sample received:	Satisfactory	
Sample temperature upon receipt:	Received on Ice	
Sample extraction method:	Extracted Per the Method	
Were all QA/QC procedures REQUIRED by the method followed?		YES
Were all performance/acceptance standards for the required procedures achieved?		YES
Were significant modifications made to the method as specified in Sect 11.3?		NO
Please note to subtract the method blank from the stated result.		
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.		
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.		

C9-C18 Aliphatics	ND	mg/kg	55.6
C19-C36 Aliphatics	108.	mg/kg	55.6
C11-C22 Aromatics	359.	mg/kg	55.6
C11-C22 Aromatics, Adjusted	301.	mg/kg	55.6
Naphthalene	ND	mg/kg	2.78
2-Methylnaphthalene	ND	mg/kg	2.78
Acenaphthylene	ND	mg/kg	2.78
Acenaphthene	ND	mg/kg	2.78
Fluorene	ND	mg/kg	2.78
Phenanthrene	8.99	mg/kg	2.78
Anthracene	ND	mg/kg	2.78
Fluoranthene	10.4	mg/kg	2.78
Pyrene	7.74	mg/kg	2.78
Benzo (a) anthracene	4.57	mg/kg	2.78
Chrysene	5.22	mg/kg	2.78
Benzo (b) fluoranthene	5.37	mg/kg	2.78
Benzo (k) fluoranthene	4.51	mg/kg	2.78
Benzo (a) pyrene	5.03	mg/kg	2.78
Indeno (1, 2, 3-cd) Pyrene	2.97	mg/kg	2.78
Dibenzo (a, h) anthracene	ND	mg/kg	2.78
Benzo (ghi) perylene	2.85	mg/kg	2.78

Surrogate Recovery

Chloro-Octadecane	73.0	%
o-Terphenyl	87.0	%
2-Fluorobiphenyl	86.0	%
2-Bromonaphthalene	84.0	%

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

MA:M-MA-086 NH:200395-B/C CT:PH-0574 ME:MA086 RI:65

Laboratory Sample Number: L0110092-10 Date Collected: 26-OCT-2001 11:45  
 SP-5-8/12 Date Received : 29-OCT-2001  
 Sample Matrix: SOIL Date Reported : 05-NOV-2001  
 Condition of Sample: Satisfactory Field Prep: None  
 Number & Type of Containers: 1-Amber

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Solids, Total	92.	%	0.10	30 2540G			1031 20:48 AT
Total Metals				1 3051			
Lead, Total	700	mg/kg	2.1	1 6010B	1030 15:00	1031 23:57	RW

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0110092-10  
SP-5-8/12

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	

Extractable Petroleum Hydrocarbons				46 98-1	1031 18:00	1104 19:12	RL
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Quality Control Information

Condition of sample received:	Satisfactory	
Sample temperature upon receipt:	Received on Ice	
Sample extraction method:	Extracted Per the Method	
Were all QA/QC procedures REQUIRED by the method followed?		YES
Were all performance/acceptance standards for the required procedures achieved?		YES
Were significant modifications made to the method as specified in Sect 11.3?		NO
Please note to subtract the method blank from the stated result.		
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.		
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.		

C9-C18 Aliphatics	ND	mg/kg	21.7
C19-C36 Aliphatics	61.5	mg/kg	21.7
C11-C22 Aromatics	178.	mg/kg	21.7
C11-C22 Aromatics, Adjusted	152.	mg/kg	21.7
Naphthalene	ND	mg/kg	1.09
2-Methylnaphthalene	ND	mg/kg	1.09
Acenaphthylene	ND	mg/kg	1.09
Acenaphthene	ND	mg/kg	1.09
Fluorene	ND	mg/kg	1.09
Phenanthrene	2.28	mg/kg	1.09
Anthracene	ND	mg/kg	1.09
Fluoranthene	4.02	mg/kg	1.09
Pyrene	3.38	mg/kg	1.09
Benzo (a) anthracene	2.09	mg/kg	1.09
Chrysene	2.42	mg/kg	1.09
Benzo (b) fluoranthene	2.90	mg/kg	1.09
Benzo (k) fluoranthene	2.50	mg/kg	1.09
Benzo (a) pyrene	2.43	mg/kg	1.09
Indeno (1,2,3-cd) Pyrene	1.90	mg/kg	1.09
Dibenzo (a,h) anthracene	ND	mg/kg	1.09
Benzo (ghi) perylene	1.93	mg/kg	1.09

Surrogate Recovery

Chloro-Octadecane	48.0	%
o-Terphenyl	60.0	%
2-Fluorobiphenyl	72.0	%
2-Bromonaphthalene	74.0	%

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

MA:M-MA-086 NH:200395-B/C CT:PH-0574 ME:MA086 RI:65

Laboratory Sample Number: L0110092-11 Date Collected: 26-OCT-2001 12:20  
 SP-6-0/4 Date Received : 29-OCT-2001  
 Sample Matrix: SOIL Date Reported : 05-NOV-2001  
 Condition of Sample: Satisfactory Field Prep: None  
 Number & Type of Containers: 1-Amber

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Solids, Total	80.	%	0.10	30 2540G			1031 20:48 AT
Total Metals				1 3051			
Lead, Total	3900	mg/kg	25.	1 6010B	1030 15:00	1101 13:10	RW

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0110092-11  
 SP-6-0/4

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	

Extractable Petroleum Hydrocarbons				46 98-1		1031 18:00	1104 19:58 RL
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Quality Control Information

Condition of sample received:	Satisfactory	
Sample temperature upon receipt:	Received on Ice	
Sample extraction method:	Extracted Per the Method	
Were all QA/QC procedures REQUIRED by the method followed?		YES
Were all performance/acceptance standards for the required procedures achieved?		YES
Were significant modifications made to the method as specified in Sect 11.3?		NO
Please note to subtract the method blank from the stated result.		
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.		
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.		

C9-C18 Aliphatics	1780	mg/kg	87.5
C19-C36 Aliphatics	9700	mg/kg	87.5
C11-C22 Aromatics	8980	mg/kg	87.5
C11-C22 Aromatics, Adjusted	8940	mg/kg	87.5
Naphthalene	ND	mg/kg	4.38
2-Methylnaphthalene	ND	mg/kg	4.38
Acenaphthylene	ND	mg/kg	4.38
Acenaphthene	ND	mg/kg	4.38
Fluorene	ND	mg/kg	4.38
Phenanthrene	ND	mg/kg	4.38
Anthracene	ND	mg/kg	4.38
Fluoranthene	ND	mg/kg	4.38
Pyrene	6.95	mg/kg	4.38
Benzo (a) anthracene	ND	mg/kg	4.38
Chrysene	15.6	mg/kg	4.38
Benzo (b) fluoranthene	7.27	mg/kg	4.38
Benzo (k) fluoranthene	ND	mg/kg	4.38
Benzo (a) pyrene	ND	mg/kg	4.38
Indeno (1,2,3-cd) Pyrene	6.30	mg/kg	4.38
Dibenzo (a, h) anthracene	ND	mg/kg	4.38
Benzo (ghi) perylene	ND	mg/kg	4.38

Surrogate Recovery

Chloro-Octadecane	86.0	%
o-Terphenyl	74.0	%
2-Fluorobiphenyl	81.0	%
2-Bromonaphthalene	82.0	%

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

MA:M-MA-086 NH:200395-B/C CT:PH-0574 ME:MA086 RI:65

Laboratory Sample Number: L0110092-12

Date Collected: 26-OCT-2001 12:30

Sample Matrix: SP-6-4/8  
 SOIL

Date Received : 29-OCT-2001

Date Reported : 05-NOV-2001

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Solids, Total	91.	%	0.10	30 2540G			1031 20:48 AT
Total Metals				1 3051			
Lead, Total	670	mg/kg	2.2	1 6010B	1030 15:00	1101 00:09	RW

Comments: Complete list of References and Glossary of Terms found in Addendum I

**ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0110092-12  
SP-6-4/8

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	

Extractable Petroleum Hydrocarbons	46 98-1	1031 18:00 1104 20:44	RL
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**Quality Control Information**

Condition of sample received:	Satisfactory	
Sample temperature upon receipt:	Received on Ice	
Sample extraction method:	Extracted Per the Method	
Were all QA/QC procedures REQUIRED by the method followed?		YES
Were all performance/acceptance standards for the required procedures achieved?		YES
Were significant modifications made to the method as specified in Sect 11.3?		NO
Please note to subtract the method blank from the stated result.		
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.		
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.		

C9-C18 Aliphatics	ND	mg/kg	54.9
C19-C36 Aliphatics	228.	mg/kg	54.9
C11-C22 Aromatics	300.	mg/kg	54.9
C11-C22 Aromatics, Adjusted	239.	mg/kg	54.9
Naphthalene	ND	mg/kg	2.75
2-Methylnaphthalene	ND	mg/kg	2.75
Acenaphthylene	ND	mg/kg	2.75
Acenaphthene	ND	mg/kg	2.75
Fluorene	ND	mg/kg	2.75
Phenanthrene	11.6	mg/kg	2.75
Anthracene	3.01	mg/kg	2.75
Fluoranthene	12.0	mg/kg	2.75
Pyrene	8.73	mg/kg	2.75
Benzo(a)anthracene	4.48	mg/kg	2.75
Chrysene	5.13	mg/kg	2.75
Benzo(b)fluoranthene	4.99	mg/kg	2.75
Benzo(k)fluoranthene	4.38	mg/kg	2.75
Benzo(a)pyrene	4.36	mg/kg	2.75
Indeno(1,2,3-cd)Pyrene	2.81	mg/kg	2.75
Dibenzo(a,h)anthracene	ND	mg/kg	2.75
Benzo(ghi)perylene	ND	mg/kg	2.75

**Surrogate Recovery**

Chloro-Octadecane	57.0	%
o-Terphenyl	46.0	%
2-Fluorobiphenyl	68.0	%
2-Bromonaphthalene	66.0	%

Comments: Complete list of References and Glossary of Terms found in Addendum I



ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

MA:M-MA-086 NH:200395-B/C CT:PH-0574 ME:MA086 RI:65

Laboratory Sample Number: L0110092-13  
 SP-7-4/8  
 Sample Matrix: SOIL  
 Condition of Sample: Satisfactory  
 Number & Type of Containers: 1-Amber  
 Date Collected: 26-OCT-2001 12:45  
 Date Received : 29-OCT-2001  
 Date Reported : 05-NOV-2001  
 Field Prep: None

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Solids, Total	84.	%	0.10	30 2540G		1031 20:48	AT
Total Metals				1 3051			
Lead, Total	350	mg/kg	2.4	1 6010B	1030 15:00	1101 00:15	RW

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0110092-13  
SP-7-4/8

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Extractable Petroleum Hydrocarbons				46 98-1	1031 18:00	1104 21:30	RL

Quality Control Information

Condition of sample received: Satisfactory  
 Sample temperature upon receipt: Received on Ice  
 Sample extraction method: Extracted Per the Method  
 Were all QA/QC procedures REQUIRED by the method followed? YES  
 Were all performance/acceptance standards for the required procedures achieved? YES  
 Were significant modifications made to the method as specified in Sect 11.3? NO  
 Please note to subtract the method blank from the stated result.  
 The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.  
 The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	11.9
C19-C36 Aliphatics	ND	mg/kg	11.9
C11-C22 Aromatics	44.0	mg/kg	11.9
C11-C22 Aromatics, Adjusted	39.9	mg/kg	11.9
Naphthalene	ND	mg/kg	0.595
2-Methylnaphthalene	ND	mg/kg	0.595
Acenaphthylene	ND	mg/kg	0.595
Acenaphthene	ND	mg/kg	0.595
Fluorene	ND	mg/kg	0.595
Phenanthrene	1.33	mg/kg	0.595
Anthracene	ND	mg/kg	0.595
Fluoranthene	1.26	mg/kg	0.595
Pyrene	0.906	mg/kg	0.595
Benzo(a)anthracene	ND	mg/kg	0.595
Chrysene	0.618	mg/kg	0.595
Benzo(b)fluoranthene	ND	mg/kg	0.595
Benzo(k)fluoranthene	ND	mg/kg	0.595
Benzo(a)pyrene	ND	mg/kg	0.595
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.595
Dibenzo(a,h)anthracene	ND	mg/kg	0.595
Benzo(ghi)perylene	ND	mg/kg	0.595

Surrogate Recovery

Chloro-Octadecane	41.0	%
o-Terphenyl	52.0	%
2-Fluorobiphenyl	79.0	%
2-Bromonaphthalene	80.0	%

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

MA:M-MA-086 NH:200395-B/C CT:PH-0574 ME:MA086 RI:65

Laboratory Sample Number: L0110092-14 Date Collected: 26-OCT-2001 13:15  
 SP-8-0/4 Date Received : 29-OCT-2001  
 Sample Matrix: SOIL Date Reported : 05-NOV-2001  
 Condition of Sample: Satisfactory Field Prep: None  
 Number & Type of Containers: 1-Amber

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Solids, Total	94.	%	0.10	30 2540G			1031 20:48 AT
Total Metals				1 3051			
Lead, Total	450	mg/kg	2.1	1 6010B	1030 15:00	1101 00:40	RW

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0110092-14  
SP-8-0/4

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	

Extractable Petroleum Hydrocarbons	46 98-1	1031 18:00 1104 22:15 RL
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Quality Control Information

Condition of sample received: Satisfactory  
 Sample temperature upon receipt: Received on Ice  
 Sample extraction method: Extracted Per the Method  
 Were all QA/QC procedures REQUIRED by the method followed? YES  
 Were all performance/acceptance standards for the required procedures achieved? YES  
 Were significant modifications made to the method as specified in Sect 11.3? NO  
 Please note to subtract the method blank from the stated result.  
 The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.  
 The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	85.1
C19-C36 Aliphatics	441.	mg/kg	85.1
C11-C22 Aromatics	547.	mg/kg	85.1
C11-C22 Aromatics, Adjusted	547.	mg/kg	85.1
Naphthalene	ND	mg/kg	4.26
2-Methylnaphthalene	ND	mg/kg	4.26
Acenaphthylene	ND	mg/kg	4.26
Acenaphthene	ND	mg/kg	4.26
Fluorene	ND	mg/kg	4.26
Phenanthrene	ND	mg/kg	4.26
Anthracene	ND	mg/kg	4.26
Fluoranthene	ND	mg/kg	4.26
Pyrene	ND	mg/kg	4.26
Benzo(a)anthracene	ND	mg/kg	4.26
Chrysene	ND	mg/kg	4.26
Benzo(b)fluoranthene	ND	mg/kg	4.26
Benzo(k)fluoranthene	ND	mg/kg	4.26
Benzo(a)pyrene	ND	mg/kg	4.26
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	4.26
Dibenzo(a,h)anthracene	ND	mg/kg	4.26
Benzo(ghi)perylene	ND	mg/kg	4.26

Surrogate Recovery

Chloro-Octadecane	72.0	%
o-Terphenyl	98.0	%
2-Fluorobiphenyl	75.0	%
2-Bromonaphthalene	78.0	%

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

MA:M-MA-086 NH:200395-B/C CT:PH-0574 ME:MA086 RI:65

Laboratory Sample Number: L0110092-15  
 Date Collected: 26-OCT-2001 13:40  
 Sample Matrix: SP-8-4/8  
 Date Received: 29-OCT-2001  
 SOIL  
 Date Reported: 05-NOV-2001  
 Condition of Sample: Satisfactory  
 Field Prep: None  
 Number & Type of Containers: 1-Amber

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Solids, Total	90.	%	0.10	30 2540G			1031 20:48 AT
Total Metals				1 3051			
Lead, Total	190	mg/kg	2.2	1 6010B	1030 15:00	1101 00:46	RW

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0110092-15  
SP-8-4/8

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	

Extractable Petroleum Hydrocarbons				46 98-1	1031	18:00	1104	23:01	RL
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Quality Control Information

Condition of sample received:	Satisfactory	
Sample temperature upon receipt:	Received on Ice	
Sample extraction method:	Extracted Per the Method	
Were all QA/QC procedures REQUIRED by the method followed?		YES
Were all performance/acceptance standards for the required procedures achieved?		YES
Were significant modifications made to the method as specified in Sect 11.3?		NO
Please note to subtract the method blank from the stated result.		
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.		
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.		

C9-C18 Aliphatics	ND	mg/kg	22.2
C19-C36 Aliphatics	67.7	mg/kg	22.2
C11-C22 Aromatics	131.	mg/kg	22.2
C11-C22 Aromatics, Adjusted	118.	mg/kg	22.2
Naphthalene	ND	mg/kg	1.11
2-Methylnaphthalene	ND	mg/kg	1.11
Acenaphthylene	ND	mg/kg	1.11
Acenaphthene	3.95	mg/kg	1.11
Fluorene	ND	mg/kg	1.11
Phenanthrene	1.32	mg/kg	1.11
Anthracene	ND	mg/kg	1.11
Fluoranthene	2.26	mg/kg	1.11
Pyrene	1.72	mg/kg	1.11
Benzo (a) anthracene	ND	mg/kg	1.11
Chrysene	1.15	mg/kg	1.11
Benzo (b) fluoranthene	1.12	mg/kg	1.11
Benzo (k) fluoranthene	1.16	mg/kg	1.11
Benzo (a) pyrene	ND	mg/kg	1.11
Indeno (1,2,3-cd) Pyrene	ND	mg/kg	1.11
Dibenzo (a,h) anthracene	ND	mg/kg	1.11
Benzo (ghi) perylene	ND	mg/kg	1.11

Surrogate Recovery

Chloro-Octadecane	64.0	%
o-Terphenyl	81.0	%
2-Fluorobiphenyl	68.0	%
2-Bromonaphthalene	72.0	%

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0110092

Parameter	Value 1	Value 2	RPD	Units
Solids, Total for sample(s) 01-15 (L0110092-01, WG96524)				
Solids, Total	96.	95.	1	%
Total Metals for sample(s) 01-15 (L0110092-01, WG96449)				
Lead, Total	340	280	19	mg/kg
Extractable Petroleum Hydrocarbons for sample(s) 01-15 (L0110092-01, WG96567)				
C9-C18 Aliphatics	ND	ND	NC	mg/kg
C19-C36 Aliphatics	55.0	ND	NC	mg/kg
C11-C22 Aromatics	484.	400.	19	mg/kg
C11-C22 Aromatics, Adjusted	350.	290.	19	mg/kg
Naphthalene	ND	ND	NC	mg/kg
2-Methylnaphthalene	ND	ND	NC	mg/kg
Acenaphthylene	ND	ND	NC	mg/kg
Acenaphthene	ND	ND	NC	mg/kg
Fluorene	ND	ND	NC	mg/kg
Phenanthrene	15.7	9.37	50	mg/kg
Anthracene	3.70	ND	NC	mg/kg
Fluoranthene	26.5	23.2	13	mg/kg
Pyrene	22.0	19.5	12	mg/kg
Benzo (a) anthracene	11.1	9.33	17	mg/kg
Chrysene	13.1	10.4	23	mg/kg
Benzo (b) fluoranthene	8.96	8.02	11	mg/kg
Benzo (k) fluoranthene	12.5	11.2	11	mg/kg
Benzo (a) pyrene	9.52	8.53	11	mg/kg
Indeno (1, 2, 3-cd) Pyrene	5.35	4.82	10	mg/kg
Dibenzo (a, h) anthracene	ND	ND	NC	mg/kg
Benzo (ghi) perylene	5.71	5.24	9	mg/kg
Surrogate Recovery				
Chloro-Octadecane	91.0	61.0	39	%
o-Terphenyl	70.0	75.0	7	%
2-Fluorobiphenyl	71.0	80.0	12	%
2-Bromonaphthalene	79.0	81.0	3	%



ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0110092

Parameter	% Recovery
Total Metals LCS for sample(s) 01-15 (WG96449)	
Lead, Total	100
Extractable Petroleum Hydrocarbons LCS for sample(s) 01-15 (WG96567)	
Naphthalene	77
Acenaphthene	88
Anthracene	105
Pyrene	99
Chrysene	104
Nonane (C9)	121
Tetradecane (C14)	95
Nonadecane (C19)	96
Eicosane (C20)	99
Octacosane (C28)	97
Surrogate Recovery	
Chloro-Octadecane	81
o-Terphenyl	121
2-Fluorobiphenyl	81
2-Bromonaphthalene	78
Total Metals SPIKE for sample(s) 01-15 (L0110092-02, WG96449)	
Lead, Total	95

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0110092

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01-15							
Total Metals				1	3051		
Lead, Total	ND	mg/kg	2.0	1	6010B	1030 15:00	1031 22:20 RW
Blank Analysis for sample(s) 01-15							
Extractable Petroleum Hydrocarbons				46	98-1	1031 18:00	1104 08:32 RL
C9-C18 Aliphatics	ND	mg/kg	10.0				
C19-C36 Aliphatics	ND	mg/kg	10.0				
C11-C22 Aromatics	ND	mg/kg	10.0				
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.0				
Naphthalene	ND	mg/kg	0.500				
2-Methylnaphthalene	ND	mg/kg	0.500				
Acenaphthylene	ND	mg/kg	0.500				
Aceraphthene	ND	mg/kg	0.500				
Fluorene	ND	mg/kg	0.500				
Phenanthrene	ND	mg/kg	0.500				
Anthracene	ND	mg/kg	0.500				
Fluoranthene	ND	mg/kg	0.500				
Pyrene	ND	mg/kg	0.500				
Benzo(a)anthracene	ND	mg/kg	0.500				
Chrysene	ND	mg/kg	0.500				
Benzo(b)fluoranthene	ND	mg/kg	0.500				
Benzo(k)fluoranthene	ND	mg/kg	0.500				
Benzo(a)pyrene	ND	mg/kg	0.500				
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.500				
Dibenzo(a,h)anthracene	ND	mg/kg	0.500				
Benzo(ghi)perylene	ND	mg/kg	0.500				
Surrogate Recovery							
Chloro-Octadecane	73.0	%					
o-Terphenyl	92.0	%					
2-Fluorobiphenyl	65.0	%					
2-Bromonaphthalene	62.0	%					

ALPHA ANALYTICAL LABORATORIES  
ADDENDUM I

REFERENCES

1. Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Update III, 1997.
30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.
46. Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), Massachusetts Department of Environmental Protection, (MADEP-EPH-98-1), January 1998.

GLOSSARY OF TERMS AND SYMBOLS

REF Reference number in which test method may be found.

METHOD Method number by which analysis was performed.

ID Initials of the analyst.

LIMITATION OF LIABILITIES

Alpha Analytical, Inc. 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, Inc., shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical, Inc. 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, Inc.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding times and splitting of samples in the field.

## Quality Control Acceptance Criteria

### Volatile Organics by Method 8260B

surrogate spike % recovery	AQ Limits		Soil Limits			
	LCL	UCL	LCL	UCL		
1,2-Dichloroethane-d <sub>4</sub>	75%	125%	75%	125%		
4-Bromofluorobenzene	75%	125%	75%	125%		
Toluene-d <sub>8</sub>	75%	125%	75%	125%		
Dibromofluoromethane	75%	125%	75%	125%		
matrix spike / matrix spike duplicate (MS/MSD) & lab control sample (LCS)	percent recovery					
	AQ Limits		Soil Limits		duplicate and/or MSD	
	LCL	UCL	LCL	UCL	AQ Limits RPD	Soil Limits RPD
1,1-Dichloroethene	61%	145%	59%	172%	all target compounds	
Trichloroethene	71%	120%	62%	137%	20%	30%
Chlorobenzene	75%	130%	60%	133%		
Benzene	76%	127%	66%	142%		
Toluene	76%	125%	59%	139%		

### Volatile Organics by Method 8021B

surrogate spike % recovery	AQ Limits		Soil Limits			
	LCL	UCL	LCL	UCL		
4-Bromochlorobenzene	70%	110%	70%	120%		
4-Bromofluorobenzene	70%	110%	70%	120%		
matrix spike / matrix spike duplicate (MS/MSD) & lab control sample (LCS)	percent recovery					
	AQ Limits		Soil Limits		duplicate and/or MSD	
	LCL	UCL	LCL	UCL	AQ Limits RPD	Soil Limits RPD
1,1-Dichloroethene	70%	130%	70%	130%	all target compounds	
Trichloroethene	70%	130%	70%	130%	20%	30%
Chlorobenzene	70%	130%	70%	130%		
Benzene	70%	130%	70%	130%		
Toluene	70%	130%	70%	130%		
Ethylbenzene	70%	130%	70%	130%		

### Semi-Volatile Organics by Method 8270C (includes PAHs)

surrogate spike % recovery	AQ Limits		Soil Limits			
	LCL	UCL	LCL	UCL		
Nitrobenzene-d <sub>5</sub>	23%	120%	23%	120%		
Phenol-d <sub>6</sub>	10%	120%	10%	120%		
2-Fluorophenol	21%	120%	25%	120%		
2-Fluorobiphenyl	43%	120%	30%	120%		
p-Terphenyl-d <sub>14</sub>	33%	120%	18%	120%		
2,4,6-Tribromophenol	10%	120%	19%	120%		
matrix spike / matrix spike duplicate (MS/MSD) & lab control sample (LCS)	percent recovery					
	AQ Limits		Soil Limits		duplicate and/or MSD	
	LCL	UCL	LCL	UCL	AQ Limits RPD	Soil Limits RPD
1,2,4-Trichlorobenzene	39%	98%	38%	107%	all target compounds	
Acenaphthene	46%	118%	31%	137%	40%	50%
2,4-Dinitrotoluene	24%	96%	28%	89%		
Pyrene	26%	127%	35%	142%		
N-Nitroso-di-n-propylamine	41%	116%	41%	126%		
1,4-Dichlorobenzene	36%	97%	28%	104%		
Pentachlorophenol	9%	103%	17%	109%		
Phenol	12%	110%	26%	90%		
2-Chlorophenol	27%	123%	25%	102%		
4-Chloro-3-methylphenol	23%	97%	26%	103%		
4-Nitrophenol	10%	80%	11%	114%		

## Quality Control Acceptance Criteria

### PCB/Pesticides by Method 8082/8081

surrogate spike % recovery	AQ Limits		Soil Limits			
	LCL	UCL	LCL	UCL		
2,4,5,6-Tetrachloro-m-xylene	40%	120%	40%	120%		
Decachlorobiphenyl	40%	120%	40%	120%		
matrix spike / matrix spike duplicate (MS/MSD) & lab control sample (LCS)	percent recovery				duplicate and/or MSD	
	AQ Limits		Soil Limits		AQ Limits	Soil Limits
	LCL	UCL	LCL	UCL	RPD	RPD
Lindane	56%	123%	46%	127%	all target compounds 30%	50%
Heptachlor	40%	131%	35%	130%		
Aldrin	40%	120%	34%	132%		
Dieldrin	52%	126%	31%	134%		
Endrin	56%	121%	42%	139%		
4,4'-DDT	38%	127%	23%	134%		
Aroclor 1242/1016	40%	140%	40%	140%		
Aroclor 1260	40%	140%	40%	140%		

### Volatile Petroleum Hydrocarbons (VPH) by MA DEP 98-1

surrogate spike % recovery	AQ Limits		Soil Limits			
	LCL	UCL	LCL	UCL		
2,5-Dibromotoluene	70%	130%	70%	130%		
laboratory control sample (LCS)	percent recovery				duplicate	
	AQ Limits		Soil Limits		AQ Limits	Soil Limits
	LCL	UCL	LCL	UCL	RPD	RPD
all compounds	70%	130%	70%	130%	50%	50%

### Extractable Petroleum Hydrocarbons (EPH) by MA DEP 98-1

surrogate spike % recovery	AQ Limits		Soil Limits			
	LCL	UCL	LCL	UCL		
Chloro-octadecane	40%	140%	40%	140%		
ortho-Terphenyl	40%	140%	40%	140%		
2-Fluorobiphenyl (fractionation)	40%	140%	40%	140%		
2-Bromonaphthalene (fractionation)	40%	140%	40%	140%		
laboratory control sample (LCS)	percent recovery				duplicate	
	AQ Limits		Soil Limits		AQ Limits	Soil Limits
	LCL	UCL	LCL	UCL	RPD	RPD
all compounds	40%	140%	40%	140%	50%	50%

### TPH (GC-FID) by Method 8100M

surrogate spike % recovery	AQ Limits		Soil Limits		duplicate	
	LCL	UCL	LCL	UCL	AQ Limits	Soil Limits
	LCL	UCL	LCL	UCL	RPD	RPD
ortho-Terphenyl	40%	140%	40%	140%	40%	40%

### TPH by Method 418.1

matrix spike (MS) & laboratory control sample (LCS)	percent recovery				duplicate	
	AQ Limits		Soil Limits		AQ Limits	Soil Limits
	LCL	UCL	LCL	UCL	RPD	RPD
TPH	60%	140%	60%	140%	40%	40%

## Quality Control Acceptance Criteria

### Trace Metals by Method 6010B/7000 series

matrix spike (MS) & laboratory control sample (LCS)	percent recovery				duplicate	
	AQ Limits		Soil Limits		AQ Limits	Soil Limits
	LCL	UCL	LCL	UCL	RPD	RPD
target analyte	75%	125%	70%	140%	20%	35%

### Mercury by Method 7470A/7471A

matrix spike (MS) & laboratory control sample (LCS)	percent recovery				duplicate	
	AQ Limits		Soil Limits		AQ Limits	Soil Limits
	LCL	UCL	LCL	UCL	RPD	RPD
mercury	70%	130%	60%	140%	35%	45%

### Total Cyanide by Method 9010B

matrix spike (MS) & laboratory control sample (LCS)	percent recovery				duplicate	
	AQ Limits		Soil Limits		AQ Limits	Soil Limits
	LCL	UCL	LCL	UCL	RPD	RPD
cyanide	80%	120%	65%	135%	30%	40%

### Total Phenol by Method 9065

matrix spike (MS) & laboratory control sample (LCS)	percent recovery				duplicate	
	AQ Limits		Soil Limits		AQ Limits	Soil Limits
	LCL	UCL	LCL	UCL	RPD	RPD
phenol	70%	130%	65%	135%	20%	30%



# ALPHA Analytical Laboratories, Inc.

Eight Walkup Drive Westborough, MA 01581  
 PH: 508.898.9220 FAX: 508.898.9193 www.alpha-lab.com

## CHAIN OF CUSTODY

No 17903

Sheet \_\_\_ of \_\_\_

ALPHA Job #:

0110082

Date Rec'd in Lab:

10/29/04

Date Due:

11/5/04

Client Name: Worland + Curran, Inc.

Client Address: 960 Washington Street - 325

Deerham, MA

Phone #: 781-251-0900 FAX #: 781-251-0947

Project Name: BND-Terrace St

Project Location: 77 Terrace St

Project #: 20580043

Project Manager: Craig Bicke

Report To: Craig Bicke

Bill To:

PO#: 205843

- Standard TAT
- RUSH TAT \_\_\_\_\_ (# days)
- FAX Results
- State Forms
- SMART Report

Comments: (Please note specific method, detection limit or reporting requirements.)

Please handwritten all complex

Pa 1 of 2

### ANALYSIS REQUEST

ALPHA Lab #	Sample ID	Matrix/Source *	Sampling Date	Sampling Time	Sampler's Initials	Solubles: Field Filtered? (Y/N)	EDH w/ target analysis	Dial lead (Pb)										
10082.1	SP-1-418	S	10/29/04	10:15	BRK	H	X	X										
2	SP-1-6112	S	10/29/04	10:50	BRK		X	X										
3	SP-2a-014	S		10:50	BRK		X	X										
4	SP-2a-418	S		10:55	BRK		X	X										
5	SP-3a-014	S		11:10	BRK		X	X										
6	SP-3a-418	S		11:15	BRK		X	X										
7	SP-4a-014	S		11:25	BRK		X	X										
8	SP-4a-418	S		11:30	BRK		X	X										
9	SP-5-014	S		11:40	BRK		X	X										
10	SP-5-6112	S		11:45	BRK		X	X										
11	SP-6-014	S		12:20	BRK		X	X										

Transfers Accepted By:	Date	Time
<i>J. Branch</i>	10/29	10:30
<i>J. Branch</i>	10/29	1:30

Transfers Relinquished By:
<i>J. Branch</i>

All samples submitted are subject to Alpha's standard Terms and Conditions.

\* See Reverse side for Matrix, Container, and Preservative Codes.

# of Containers: 11 11 11

Container Type: \* B G G

Preservative: \* A A A



# ALPHA Analytical Laboratories, Inc.

Eight Walkup Drive Westborough, MA 01581  
 PH: 508.898.9220 FAX: 508.898.9193 www.alphalab.com

## CHAIN OF CUSTODY

No 17904

Sheet \_\_\_ of \_\_\_

ALPHA Job #:

0110052

Date Rec'd in Lab:

10/23/01

Date Due:

11/5/01

Client Name: Woodland + Curran Inc

Client Address: 960 Washington St 325

Deedham, MA

Phone #: 781-251-0200 FAX #: 781-251-0617

Project Name: DND - Terrace St

Project Location: 77 Terrace St

Project #: 205643

Project Manager: C. Blake

Report To: C. Blake

Bill To: Woodland + Curran, Inc

PO#: 205643

- Standard TAT
- RUSH TAT \_\_\_\_\_ (# days)
- FAX Results
- State Forms
- SMART Report

Comments: (Please note specific method, detection limit or reporting requirements.)

Please homogenize all samples.

Pg 2 of 2

### ANALYSIS REQUEST

ALPHA Lab #	Sample ID	Matrix/Source *	Sampling Date	Sampling Time	Sampler's Initials	Solubles: Field Filtered? (Y/N)	EPH w/ target analytes	Det Level (DL)										
10092-12	SP-6-4/E	S	10/26	12:30	BL	✓	X	X										
13	SP-7-4/E	S		12:45	BL		X	X										
14	SP-8-4/E	S		13:15	BL		X	X										
15	SP-8-4/E	S		13:40	BL	✓	X	X										

Transfers Accepted By:	Date	Time
<i>[Signature]</i>	10/29	10:30
<i>[Signature]</i>	10/23/01	1:10

Transfers Relinquished By:
<i>[Signature]</i>

All samples submitted are subject to Alpha's standard Terms and Conditions.

\* See Reverse side for Matrix, Container, and Preservative Codes.

# of Containers: 4 4 4  
 Container Type: \*25G G G  
 Preservative: \*HCl A A

# Limited Subsurface Environmental and Geotechnical Investigation Report

---

778-796 Parker Street and 77 Terrace Street  
Boston, Massachusetts

EBI Project No. 12130296

February 24, 2014



Prepared for:

Sebastian Mariscal Studio  
35 Medford Street # 211  
Somerville, MA 02143

Prepared by:



February 14, 2014

Mr. Sebastian Mariscal  
Sebastian Mariscal Studio  
35 Medford Street #211  
Somerville, MA 02143

Subject: Limited Subsurface and Geotechnical Investigation Report  
778-796 Parker Avenue and 77 Terrace Street, Boston, Massachusetts  
EBI Project No. 12130296

Dear Mr. Mariscal:

In accordance with the Proposal and Standard Conditions for Engagement approved by yourself on December 20, 2014, EBI Consulting (dba EBI Consulting, hereinafter "EBI") is pleased to submit this Limited Subsurface and Geotechnical Investigation Report (Report) for the above-referenced property (herein referred to as the Subject Property).

This Report is addressed to *Sebastian Mariscal Studio* and such other persons as may be designated by *Sebastian Mariscal Studio* and respective successors and assigns. This Report is for the use and benefit of, and may be relied upon by, *Sebastian Mariscal Studio* or any affiliates; initial and subsequent holders from time to time of any debt and/or debt securities secured, directly or indirectly, any participation interest in such debt; any indenture trustee, servicer, or other agent acting on behalf of such holders of such debt and/or debt securities; rating agencies; and the institutional provider(s) from time to time of any liquidity facility or credit support for such financings, and their respective successors and assigns.

The information contained in this report has received appropriate technical review and approval. The conclusions represent professional judgments and are founded upon the findings of the investigations identified in the report and the interpretation of such data based on our experience and expertise according to the existing standard of care. No other warranty or limitation exists, either express or implied.

The conclusions of this Report are based on soil analytical data prepared by Con-Test Laboratories, soil screening results obtained utilizing a field screening instrument, and field observations recorded by EBI and Polaris Consultants personnel.

There are no intended or unintended third party beneficiaries to this Report, except as expressly stated herein.

EBI is an independent contractor, not an employee of either the issuer or the borrower, and its compensation was not based on the findings or recommendations made in the Report or on the closing of any business transaction.

Thank you for the opportunity to prepare this Report, and assist you with this project. Please call us if you have any questions or if we may be of further assistance.

Respectfully submitted,  
**EBI CONSULTING**




Daniel Bellucci  
Author/Environmental  
Scientist

Paul Costello  
Geotech. Consultant  
(617) 689-1010



William Mallio  
Reviewer/LSP  
(781) 418-2318



Richard T. MacAulay  
Managing Director

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## I.0 INTRODUCTION

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In accordance with our Proposal and Standard Conditions for Engagement, EBI Consulting (EBI) is pleased to submit our *Limited Subsurface and Geotechnical Investigation Report* on the property located at 778-796 Parker Avenue and 77 Terrace Street in Boston, Massachusetts (the Subject Property). Daniel Bellucci of EBI Consulting and Paul Costello of Polaris Consultants (Polaris) conducted the Limited Subsurface and Geotechnical Investigation at the Subject Property on January 20, 21, 22 and 24, 2014.

### Background

EBI was requested to conduct a Limited Subsurface and Geotechnical Investigation at the above referenced property for the purpose of obtaining pre-redevelopment environmental and geotechnical characterization data. According to a Class B-I RAO previously filed for the southern part of the site abutting Terrace Street (MassDep's Tracking Number is RTN 3-20251) Lead and polycyclic aromatic hydrocarbons were identified in the soils at the Site. The presence of these contaminants may present a threat to future residents of the Subject Property and may also lead to significant costs in site development. Based on the findings of the previous investigation and review of the site history, EBI proposed to evaluate the following site characteristics:

- Distribution of lead concentrations in the soil and EPH concentrations at selected sampling points at depths 0- 12 feet below the ground surface (bgs);
- The leaching characteristic of lead for possible classification of some of the soils as hazardous wastes, should they need to be excavated and disposed, and,
- Determine whether the groundwater has impacted by historical uses of the Subject Property.

EBI Reviewed a Class B-I Response Action Outcome (RAO) Statement completed by Woodard & Curran, Inc. (W&C) in December of 2001. The Class B-I RAO Statement associated with the Subject Property is summarized below:

- In August 2000, Coler & Colantonio, Inc. (Coler) oversaw the excavation of 8 soil test pits on the 77 Terrace Street parcel. The soil encountered during the excavation of soil test pits included urban fill, wood, wood ash, coal ash and organic material. Urban rubble was observed and included brick, concrete, wood, metal car parts, cans and bottles. Refusal was encountered at shallow depths (2-6 feet) in several test pits based on the presence of buried debris and foundations (Not bedrock). Concentrations of PAHs and lead were detected above RC S-I standards in soil samples collected. Coler recommended a 120-day release notification be submitted to the MADEP. Release Tracking Number (RTN) 3-20251 was assigned to the site. It should be noted that RTN 3-20251 applies only to the 77 Parker Street parcel.
- A geophysical survey of the site was conducted in 2001 under the supervision of W&C to determine if a suspect 5,000-gallon UST remained at the property. The results of the survey did not reveal any detectable USTs on the site.
- On October 16, 2001, W&C oversaw the advancement of ten (10) soil borings at the site. Wood ash and coal ash were observed in 5 of the 8 eight borings advanced. Refusal was

encountered at depths ranging from 2 to 13 feet bgs in 9 of the 10 locations. Concentrations of lead ranged from 79 to 5,800 mg/kg in the soil samples analyzed. EPH concentrations were detected below the Upper Concentration Limit (UCL) for each compound.

## Conclusions

- Based on site observations, W&C concluded that the levels of soil impacts at the site are consistent with both background levels at the site and background levels typically found in anthropogenic urban fill soils containing coal ash and wood ash. In accordance with 310 CMR 40.1020(2), as the site conditions are representative of “background” conditions, a level of No Significant Risk shall be deemed to exist and not further response actions are required. The conditions of a Class B-I Response Action Outcome (RAO), as outlined in 310 CMR 20.1046(1), had been met. Changes in the definition of background since W & C’s filing of the RAO require that the new use, as a residential development, be reevaluated and the potential risk reassessed.

## **2.0 PURPOSE AND SCOPE OF WORK**

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This investigation was conducted utilizing a standard of good commercial and customary practice that was generally consistent with the ASTM Practice E 1903-97. Any significant scope-of-work additions, deletions or deviations to ASTM Practice E 1903-97 are noted below or in the corresponding sections of this report. Because the purpose of the study involved determination of geotechnical characteristics of underlying soils for foundations, this report contains geotechnical data as well as environmental data.

The primary purpose of this investigation was to evaluate the subsurface soil conditions throughout the Subject Property to assist in the proposed development of the Subject Property. Information obtained during the advancement of soil borings and test pits was evaluated from an environmental and geotechnical perspective.

In order to achieve the objectives of this investigation, EBI performed the following tasks:

- Contacted the local utility locating service Dig Safe (Ticket #'s 20140202892 and 2014020274) and the Boston Water and Sewer Commission (BWSC) prior to undertaking subsurface explorations on-site.
- Obtained a short form permit with the City of Boston Inspectional Services Department (ISD) (Permit # SF318935) for the installation of soil borings and test pits at the 77 Terrace Street and 778-796 Parker Street properties.
- Obtained a Street Occupancy Permit with the City of Boston Public Works Department (PWD) and Transportation Department for parking spaces equivalent to 320 square feet.
- Advanced eight (8) borings by hollow stem auger to depths of 15.1 to 35.1 feet below ground surface (bgs).
- Excavated eleven (11) test pits in a grid pattern across the Subject Property to depths of 5 to 14 feet bgs.
- Selected soil samples were from the test pit excavations and split-spoon boring samples based on field observations; prepared, and submitted the samples under chain-of-custody documentation to a Massachusetts State-certified independent laboratory for analysis of lead, with selected samples analyzed for Toxicity Characteristic Leaching Procedure (TCLP) lead, extractable petroleum hydrocarbons (EPH) by the MADEP Method and RCRA 8 Metals. See Section 4.5 and 4.6 for additional details.
- Prepared this summary of pertinent information obtained during this investigation including accompanying illustrations and appendices, along with EBI's findings and preliminary conclusions regarding the presence or absence of contamination in soils and beneath the Subject Property in the areas investigated. Additionally, geotechnical data is included in the this summary.

A detailed description of investigation methods is provided in Section 4.0 of this report.



## **3.0 SUBJECT PROPERTY DESCRIPTION/PHYSICAL SETTING**

### **3.1 SUBJECT PROPERTY DESCRIPTION**

The Subject Property is known as the 778-796 Parker Avenue and 77 Terrace Street in Boston (Mission Hill), Massachusetts. The Subject Property consists of multiple parcels located between Parker Street and Terrace Street. The combined area of the Subject Property includes approximately 1.325 acres. There are currently no buildings located on the Subject Property. Historic Sanborn maps indicate the 77 Terrace Street property was formerly occupied by an industrial/manufacturing type building, while the 778-796 Parker Street properties were historically occupied by single family residential dwellings. At the time of the investigation, the 778-796 Parker Street was being utilized by local residents as a community garden and park area.

According to the City Boston Online Assessor's Database, the Subject Property is owned by the City of Boston FCL.

Figure 1 is a Subject Property Locus Map showing the location of the Subject Property on a street map of Boston, Massachusetts. Figure 2 is a Subject Property Location map showing the location of the Subject Property on a section of the United States Geological Survey Boston South, Massachusetts topographic quadrangle.

### **3.2 PHYSICAL SETTING**

#### Regional Geology/Bedrock

Information concerning the geology of the Subject Property was obtained from the USGS Map of the Physical Divisions of the United States (1946). The Subject Property is located within the Seaboard Lowland section of the New England physiographic province, which consists of peneplains less than 500 feet above sea level, which have been post-maturely eroded and glaciated.

#### Surficial

According to the Soil Survey of Norfolk and Suffolk Counties, the Subject Property is located in an area comprised of Hollis-Rock outcrops-Charlton Complex. This soil type is characterized by shallow, friable loamy ablation till derived from igneous and metamorphic rock, with 15 to 35 percent slopes. Soils in the Mission Hill area of the Boston are typical classified as the "Roxbury Conglomerate" which include clast-supported pebble and cobble conglomerates.

No indication of cross-lot runoff, swales, drainage flows, or active rills or gullies were observed on the Subject Property. Soil stratigraphy encountered during the completion of soil borings consisted of urban and demolition fill material associated with historic industrial uses of the Subject Property, along with former residences located throughout the Parker Street parcels. The fill material observed was generally consistent in nature throughout Subject Property, with major components including brick, concrete and ash distributed throughout fine to coarse sands, silts and gravels. Minor components of

observed in the fill material included glass, tires, ceramics, steel fragments and wiring, asphalt and some plastic. The fill material varied in depths ranging from 2 to 21 feet bgs. The fill material was underlain by dense native glacial till material comprised of silts, sands, gravels and rock fragments. The surficial soils are discussed further in Sections 4.4.

### Hydrogeology

Groundwater was not encountered in the soil borings advanced at the Subject Property. Perched groundwater was encountered in boring B-5 at a depth of 22 feet bgs. The perched water was determined to be associated with a large void space observed in test pit EBI-08 (Adjacent to B-5).

Local groundwater gradient is expected to follow surface topography; therefore, groundwater flow near the Subject Property is expected to flow to the east-southeast. Groundwater depths and flow gradients are best evaluated by a subsurface investigation involving the installation of at least three groundwater-monitoring wells, survey of well elevations, and precise measurements of hydraulic head. Calculation of groundwater flow directions based on relative differences of hydraulic head on the Subject Property was not included in this scope of work.

## **4.0 FIELD ACTIVITIES**

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### **4.1 RATIONALE FOR SOIL BORING AND TEST PIT PLACEMENT**

On January 20 through 23, 2014, EBI conducted a Limited Subsurface and Geotechnical Investigation to assess subsurface conditions throughout the Subject Property. The areas investigated during the excavation of 11 soil test pits and advancement of 8 soil borings are described below:

- The soil test pits were placed in a grid pattern across the 778-796 Parker Street parcels to provide maximum coverage across the property and identify areas of urban fill. Additional soil test pits were added to the original scope of work to address areas of concern on the 77 Terrace Street based on observations made during the advancement of the geotechnical soil borings.
- The geotechnical soil borings were placed strategically throughout the Subject Property to gather preliminary data for developing foundation recommendations and for assisting in developing the Soil Management Plan. The purpose of the borings was to identify depth and nature of urban fill material over native soils, and the potential bearing capacity of the subgrade.

The boring and test pit location map is provided in Appendix A.

### **4.2 PRE-DRILLING/EXCAVATION ACTIVITIES**

Dowling Corporation (Dowling) of Wrentham, Massachusetts was retained by EBI for the excavation of soil test pits. Dowling requested Dig Safe and BWSC to mark-out the location of Subject Property utilities on January 8, 2013. Clearance for drilling at the Subject Property was granted for after 14:00 on January 13, 2014. In addition, EBI obtained a Short Form Permit from the Boston ISD for the excavation of soil test pits and advancement of soil borings on the Subject Property. A Street Occupancy Permit was obtained from the Boston PWD and Transportation Department for the use of two parking spaces along Parker Street for the mobilization of equipment to the site. Copies of the Boston ISD Short Form and Boston PWD and Transportation Street Occupancy Permits are included in Appendix F. The fence along Parker Street was temporarily removed to allow site access for heavy equipment. No additional pre-drilling/excavation activities were performed as part of this investigation.

### **4.3 SOIL TEST PIT EXCAVATION**

A total of eleven (11) test pits were excavated throughout the Subject Property on January 20 and 21, 2014. The test pits were excavated using a tracked excavator operated by Dowling. Seven test pits were excavated throughout the Parker Street parcels and oriented in a grid-pattern to provide maximum spatial coverage of the area. Four test pits were excavated throughout the 77 Terrace Street parcel based on observations made during soil borings, data from previous investigations and evidence of filled/depressed areas. The test pits were excavated to a maximum depth of 14 feet bgs. Dense native glacial till material along with building rubble prevented excavation to the target depth of 14 feet bgs in several locations. The soil profiles were observed, and the depth of fill material ranged from 2 to 13 feet bgs. Soil samples were collected from the observed urban fill materials and native glacial tills at the

discretion of EBI field personnel. EBI recorded the soil profiles of each test pit including the physical characteristics of each soil sample onto soil test pit logs presented in Appendix C.

#### 4.4 ADVANCEMENT OF SOIL BORINGS

Carr-Dee of Medford, Massachusetts, drilled boreholes B-1 through B-8 between January 21 and January 24, 2014, to depths ranging from 15.1 feet to 35.1 feet. The borings were advanced using small diameter (2¼-inch) hollow stem augers or drive-and-washing techniques with 3-inch casing. Soil samples were obtained using a 2-inch split spoon sampler and Standard Penetration Test (SPT) procedures. Soil samples were generally collected at the ground surface and then following at 5-foot intervals. The drilling operations were observed by a senior geotechnical engineer from Polaris who recorded observations and logged the results. The Polaris boring logs are provided in Appendix C.

The borings and test pits generally encountered the following from the ground surface to depth:

- **FILL** – All explorations encountered a loose to very dense layer of silty sand and sandy silt, with gravel and varying amounts of brick and concrete fragments, wood and metal (FILL). The fill layer was encountered to approximate depths of 3.5- to 21-feet, and was typically 5 to 11 feet deep. The fill was deepest and largely consisted of construction demolition debris at the location of the former Terrace Street building (B-5 and EBI-08). In this area large voids were also present in the fill.
- **SAND and GRAVEL** – Below the fill, all borings and seven test pits encountered a natural medium dense to very dense sand and gravel with varying amounts of silt. The natural sand and gravel layer appears to be a glacial till deposit and was encountered to approximate depths of 15.1 to 35.1 feet.

Groundwater was observed in only one boring (B-5) at a depth of about 22 feet (El. 16.5). The water appears to be associated with a large void space encountered in the former basement area (see test pit EBI-08 and EBI-09) and appears to be “perched” water.

The subsurface conditions also include former foundation walls and footings that may result in differential settlement if not properly removed. The complete Geotechnical Investigation Letter Report is included in Appendix E.

#### 4.5 FIELD SCREENING

The vapor headspace of each soil sample was field-screened using a photoionization detector (PID). The PID provides a reading of total ionizable VOCs. The PID was calibrated with an isobutylene standard, to measure total VOCs as isobutylene equivalents. The PID has a practical sensitivity of approximately one part per million by volume (ppmV). PID readings should not be considered as exact measurements, but as relative readings of VOCs between locations. The soil samples were placed in a ziplock bag approximately three-quarters full with the soil to be analyzed, which was sealed for approximately 10 minutes in a warm (>60° F) location for equilibration. The headspace analysis was conducted by

inserting the probe of the PID through an opening in the zip-lock bag and into the space above the soil sample.

No elevated PID readings above background were observed in any of the soil samples collected.

#### **4.6 SOIL SAMPLING AND ANALYSIS**

Selected soil samples were collected in laboratory-provided sample containers. Each sample was labeled/logged onto a chain-of-custody form, and placed in a cooler with ice for preservation in accordance with current Federal EPA SW-846 (3rd ed.). The samples were submitted to an independent qualified laboratory (*Contest*) for analyses. Each soil sample collected was analyzed for total lead. Selected soil samples were additionally analyzed for EPH by the MADEP Method and one sample for RCRA 8 metals by EPA Method 6010. EBI submitted soil samples exhibiting the highest concentrations of total lead for TCLP lead analysis. A table including sampling locations, depths, laboratory analytical parameters and a brief material description is included in Appendix B (Table 5).

#### **4.7 ABANDONMENT OF BORINGS AND TEST PITS**

Upon completion of the soil sampling activities, each soil boring was filled with the soil cuttings generated during the sampling activities. The test pits were backfilled and compacted with overburden soils removed during excavation.

## 5.0 RESULTS

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Soil boring and test pit locations are illustrated on Figure 3, Site Plan.

### 5.1 SOIL ANALYSIS RESULTS

Each soil sample collected was analyzed for total lead. Selected soil samples were additionally analyzed for EPH by the MADEP Method and RCRA 8 Metals by EPA Method 6010. EBI submitted soil samples exhibiting the highest concentrations of total lead for TCLP lead analysis. Laboratory analytical data is summarized on Tables I-4 included in Appendix B.

The analytical results revealed that concentrations of lead, EPH compounds, barium, cadmium, chromium and mercury were detected above laboratory detection limits in the soil samples collected. The soil analytical data was compared to the Massachusetts Contingency Plan (MCP) Reportable Concentrations (RCs) for Soil Category I (S-I).

The highest concentrations of lead were generally observed in the soil samples collected from the observed urban fill materials. Concentrations of lead above the MCP RC S-I standard (300 mg/kg) were detected in soil samples collected from fill material in the following soil samples: EBI-02 (0-4', 6'), EBI-03 (5'), EBI-04 (0-3.5'), EBI-05 (0-4'), EBI-06 (0-4'), EBI-07 (0-2'), EBI-08 (0-5'), EB-10 (0-4'), EBI-11 (0-4'), B-1 (0-2') and B-2 (5-5.5'). Additionally, lead was detected above 300 mg/kg in the soil sample collected from native glacial till material in the soil sample collected from EBI-04 (11.5').

EBI selected the 8 soil samples exhibiting the highest total lead concentrations for analysis of TCLP lead. EBI-02 (6'), EBI-03 (5'), EBI-04 (0-3.5'), EBI-05 (0-4'), EBI-06 (0-4'), EBI-07 (0-2'), EBI-08 (0-5') and EBI-10 (0-4') were selected for TCLP lead analysis. While not a regulatory reporting criteria within the MCP system, TCLP lead analysis was conducted on selected soil samples for the determination of approximate soil disposal costs based on the leaching characteristics of the urban fill soils.

EPH compounds were detected above MCP RC S-I standards in the soil samples collected from the observed urban fill materials in samples EBI-07 (0-2') and EBI-08 (0-5'). However, the compounds detected (Benzo(a)pyrene, benzo(b)fluoranthene and dibenz(a,h)anthracene) are considered to be derived from coal ash, representative of background conditions and exempt from regulatory reporting under the MCP.

The sample collected from EBI-02 (6') was additionally analyzed for RCRA 8 Metals. Lead and cadmium both exceeded respective MCP RC S-I standards.

Laboratory soil analytical results and complete laboratory data sheets and chain-of-custody documentation are presented in Appendix D.

## 6.0 FINDINGS & CONCLUSIONS

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The results of EBI's Limited Subsurface and Geotechnical Investigation revealed:

- Concentrations of lead above MCP RC S-I standards were observed in the soil samples collected from the urban fill material located throughout the Subject Property. The concentrations of lead ranged from 5.7 to 3,000 mg/kg in the soil samples collected. Based on the presence of lead in soil at concentrations exceeding the RC S-I standard of 300 mg/kg, a reportable condition currently exists at the Subject Property as defined in the Massachusetts Contingency Plan, 310 CMR 40.0000. In addition, several EPH compounds and cadmium were detected at concentrations exceeding RC S-I standards. As discussed in Section 1.0 Background, RTN: 3-2025I was assigned to the 77 Parker Street parcel in 2000 based on the detection of lead and EPH compounds in soil. No previous environmental investigations are known for the parcels abutting Parker Street.
- The eight soil samples exhibiting the highest concentrations of total lead were submitted for TCLP lead analysis. The results of the TCLP lead analysis revealed only one sample (EB-05 (0-4')) exceeded the RCRA Hazardous Waste standard of 5 mg/L. The remaining soil samples run for TCLP lead did not exceed the 5 mg/L standard for classification as a RCRA Hazardous Waste.
- The existence of a 3.5-foot to 21-foot deep layer of urban fill and construction demolition debris (with wood, brick, concrete and steel) is an unsuitable bearing material that will require excavation/removal from below the proposed slabs and footings. In addition, it has been observed that this fill and debris material has large voids and, in its current state is clearly unsuitable for foundations.
- The subsurface conditions also include former foundation walls and footings that may result in differential settlement if not properly removed. Depending on the location of the former structures in relation to the proposed foundation, the structures must be removed in their entirety or to a minimum depth of 3 feet below proposed subgrades.
- Approximately 21,300 cubic yards of impacted urban fill exists at the site, which may require offsite disposition at various facilities. Five (5) offsite disposition options were identified for management of fill material and include the following types; offsite beneficial reuse at a similar property, reuse as cover material at instate unlined, reuse as cover material at an instate lined landfill, disposal at an out of state landfill and disposal at an out of state hazardous waste landfill. Estimated soil volumes and associated cost estimates for offsite disposition are included in Table 6, Appendix B. Our estimate for management and offsite disposition of fill material was based on the following assumptions; Site dimensions provided in the Existing Conditions Plan (Figure 3), Soil sampling intervals were designated as an individual "Grid" for the purpose of allocating certain fill material to various offsite disposal locations, observed depth of fill in test pits and boreholes and soil analytical data, laboratory analytical results of fill/soil and comparison of physical and chemical quality of fill material and soil to offsite reuse and disposal locations.



- In practice, when site specific Cut and Fill and Management Plans are developed, some of the native soils, and limited types of fill materials in non-structural areas, may be reused on site. For example, to fill the large voids found in the abandoned cellar discovered on the Terrace Street side, near Test Pit EBI-08 and Boring B-5 (See Figure 2).

## 7.0 RECOMMENDATIONS

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Based on the findings and conclusions of this investigation, EBI recommends the following:

### Environmental Recommendations:

- Concentrations of lead, EPH compounds and cadmium were detected above applicable MCP RC S-I standards during the subsurface investigation conducted on January 20 and 21, 2014. Impacts from onsite urban fill material exist throughout the Subject Property. Based upon the presence of lead, EPH compounds and cadmium in soil at concentrations exceeding the applicable RC S-I standards, a 120-day reporting condition exists at the entire Subject Property. EBI recommends the detection of lead, EPH compounds and cadmium above RC S-I standards at the 778-796 Parker Street parcels be reported under the existing RTN: 3-20251 assigned to the 77 Terrace Street parcel. The property owner/operator is required to notify the Massachusetts Department of Environmental Protection (MADEP) of the conditions encountered at the property within 120 days of obtaining knowledge of the condition.
- The low concentrations of TCLP lead observed in soil suggest in-state disposal options may be available for onsite urban soils. EBI recommends the development and implementation of an Excavated Materials Management Plan (EMMP) during the proposed redevelopment of the Subject Property. This EMMP should be developed in parallel with a Cut and Fill and Management Plan to assure most efficient management of suitable and unsuitable material present at the property. Pre-characterization of onsite soils will be required to finalize offsite disposition of excess excavated material. The general process is for 500 cubic yard piles to be sampled and the samples characterized for disposal. The results of the characterization tests will determine the appropriate disposal option. Based upon information collected and reviewed as of the time of this report, EBI has prepared a Preliminary Cost Estimate for Transportation and Disposal of Regulated material from 77 Terrace Street of \$855,292. This should be considered as an estimate  $\pm 25\%$ . A breakdown of the Preliminary Cost Estimate is included in Appendix G.

### Geotechnical Recommendations:

- In the event that pockets of deeper fill are encountered, the fill shall be removed and replaced with clean structural fill that is compacted to 95% of the maximum dry density as determined by modified proctor (ASTM D1557-C). Clean structural fill with a 3-inch maximum stone size shall also be placed against foundations and walls. For design purposes, the structural fill shall be assumed to have a dry unit weight of 120 pounds per cubic foot (pcf); a friction angle of  $28^\circ$ ; a coefficient of passive earth pressure ( $k_p$ ) of 2.77; and a coefficient of active earth pressure ( $k_a$ ) of 0.36.
- A professional structural engineer shall be engaged to design all structures in accordance with the Massachusetts State Building Code. The structural engineer shall determine the appropriate factors of safety and the varying surcharge loads against each structure. We also recommend

that a licensed geotechnical engineer be engaged during the design and construction process to ensure that our recommendations have been met.

- All excavations shall be carefully designed and managed so as not to undermine adjacent structures, sidewalks and roadways, or violate local, state and federal safety requirements, such as Jackie's Law and OSHA standards. The minimum ratio to prevent undermining of adjacent footings and structures is 1 horizontal to 1 vertical (1H: 1V).
- The foundations are anticipated to be founded in dense to very dense SAND and GRAVEL (GLACIAL TILL) or compacted structural fill. In accordance with the Massachusetts Building Code (780 CMR 18, Table 1804.3), the allowable net bearing pressure of the natural dense SAND and GRAVEL is 6 tons per square foot (TSF). Footings that bear on compacted structural fill should be designed for 2 TSF.
- Should retaining walls be required, they should also be designed in accordance with the State Building Code and in accordance with AASHTO requirements (abutting state and/or highway property). The walls shall have a minimum lateral earth pressure of 30 pcf (30 psf/ft). Factors of Safety shall be 2.0 for overturning and bearing, 1.5 for sliding and seismic.
- Footings dimensions shall be designed in accordance with the Massachusetts State Building Code (780 CMR 18). The minimum footing vertical depth shall be 1 foot and the minimum horizontal width of continuous footings shall be 2 feet. The bottom of footings shall be placed a minimum of 4-feet below the final grade for frost protection.
- Given the nature of the Site groundwater and dense natural soils, there is low potential for liquefaction. The structural engineer shall determine what structures need to be designed for seismic loads (780 CMR 1610.2). The Site has a Class C profile as defined in 780 CMR 1615.0 (ASCE 7 Section 9.4.1.2.1). Under 780 CMR 1610.0 (Table 1604.11) the seismic loads for Boston are  $S_s=0.29$  and  $S_1=0.068$ .
- In light of the proposed foundation profile, subsurface penetration of surface flow and its impact on foundations, particularly the west side of the foundation walls, must be a consideration. Efforts must also be made to decrease potential excess pore pressures against the foundation walls. Therefore, we recommend that structural details incorporate best management groundwater practices in accordance with the Massachusetts State Building Code (780 CMR 1806.5 and 1807.4.2). Section 1807.4.2 allows for the use of a properly filtered gravel or crushed stone as a foundation drain. The drain shall extend a minimum of 12-inches outside the edge of the footing and shall not extend to 6-inches from the top of the footing. If a drain tile or perforated pipe is used the pipe invert shall not be higher than the floor elevation.
- A vapor barrier should be required below slabs and damp/water proofing and insulation should be incorporated into the foundation details as recommended by a structural engineer.
- Backfill along the outside of the foundation walls should be limited until the walls are fully constructed around the perimeter creating a braced framed to support the lateral soil pressures. Backfilling should be completed evenly around the perimeter. In light of the interior

wall heights, the foundation systems may need to be anchored or temporarily braced to prevent lateral sliding from soil pressures.

- The existing fill material is non-homogeneous with varying amounts of deleterious material (wood), concrete, brick, asphalt and steel. The material also has environmental concerns. However, in an effort to reduce costs, the on-site processing of the fill materials into an approved common fill may be allowed. Asphalt, brick and concrete (ABC) can be crushed and reused in accordance with the Massachusetts Department of Environmental ABC Policy. Common fill must be free of deleterious material that can decay and must meet the environmental standards established by the project Licensed Site Professional. Common fill placement should be limited and clearly defined in the project final design drawings and specifications.

## 8.0 LIMITATIONS

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This *Report* was prepared for the use of *Sebastian Mariscal Studio*. It was performed in accordance with generally accepted practices of other consultants undertaking similar studies at the same time and in the same locale under like circumstances. The conclusions provided by EBI are based solely on the information obtained during the subsurface investigation. EBI renders no opinion as to the presence of potential contamination in the areas not investigated. The observations in this *Report* are valid on the date of the investigation. Any additional information that becomes available concerning the Subject Property should be provided to EBI so that our conclusions may be revised and modified, if necessary. This *Report* has been prepared in accordance with the proposal approved by *Sebastian Mariscal Studio* and with the limitations described in *Attachment A*, all of which are integral parts of this *Report*. No other warranty, expressed or implied, is made.

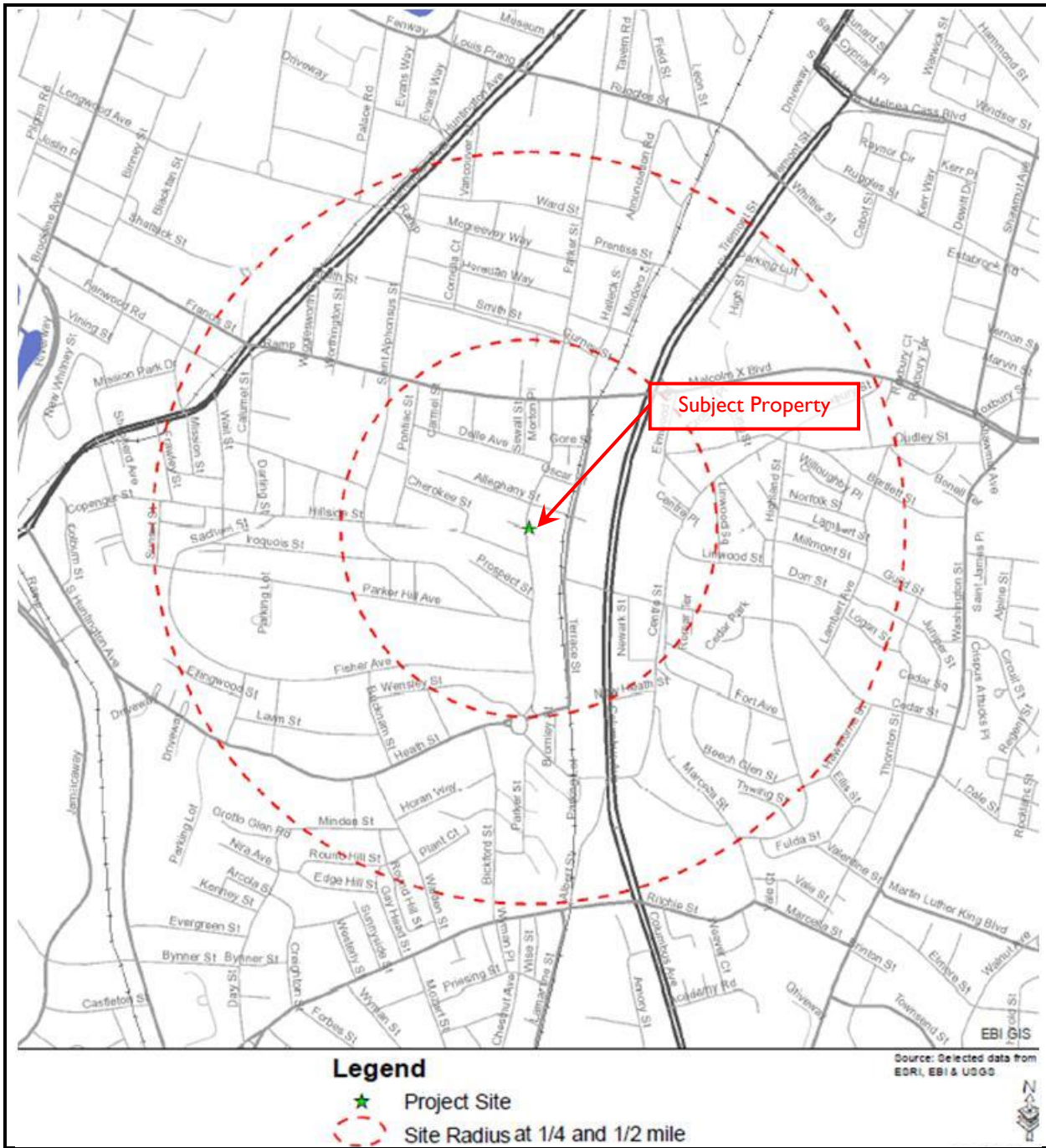
## ATTACHMENT A LIMITATIONS

1. The observations described in this *Report* were made under the conditions stated herein. The conclusions presented are based solely upon the services described, and not on scientific tasks or procedures beyond the scope of described services or the time and budgetary constraints imposed by Client. The work described in this *Report* was carried out in accordance with terms and conditions in our *Authorization Letter and Agreement for Environmental Services* regarding the Site, which are incorporated herein by references.
  2. In preparing this *Report*, EBI has relied on certain information provided by state and other referenced parties, and on information contained in the files of federal, state and/or local agencies available to EBI at the time of the assessment. Although there may have been some degree of overlap in the information provided by these various sources, EBI did not attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of these *Environmental Services*.
  3. Observations were made of the Site and of structures on the Site as indicated within the *Report*. Where access to portions of the Site or to structures on the Site was unavailable or limited, EBI renders no opinion as to the presence of oil or hazardous materials (OHM) in that portion of the Site or structure. In addition, EBI renders no opinion as to the presence of OHM or the presence of indirect evidence relating to OHM where direct observation of the interior walls, floor, or ceiling of a structure on a Site was obstructed by objects or coverings on or over these surfaces. No representations concerning insulating material is expressed or implied.
  4. EBI did not perform testing or analyses to determine the presence or concentration of asbestos, radon, or lead at the Site unless specifically stated otherwise in the *Report*. Similarly, no investigation of dust or air quality was conducted unless specifically stated otherwise in the *Report*.
  5. The purpose of this *Report* is to assess the physical characteristics of the Site with respect to the presence of OHM in the environment. No specific attempt was made to determine the compliance of present or past owners or operators of the Site with federal, state, or local laws or regulations (environmental or otherwise).
  6. Except as noted in the *Report*, no quantitative laboratory testing was performed as part of the assessment. Where such analyses have been conducted by an outside laboratory, EBI has relied upon the data provided, and has not conducted an independent evaluation of the reliability of this data.
  7. Any qualitative or quantitative information regarding the Site, which was not available to EBI at the time of this assessment may result in a modification of the representations made herein.
  8. It is acknowledged that EBI judgments shall not be based on scientific or technical test or procedures beyond the scope of the Services or beyond the time and budgetary constraints imposed by Client. It is acknowledged further that EBI conclusions shall not rest on pure science but on such considerations as economic feasibility and available alternatives. Client also acknowledges that, because geologic and soil formations are inherently random, variable, and indeterminate in nature, the Services and opinions provided under this Agreement with respect to such Services, are not guaranteed to be a representation of actual conditions on the Site, which are also subject to change with time as a result of natural or man-made processes, including water permeation. In performing the Services, EBI shall use that degree of care and skill ordinarily exercised by environmental consultants or engineers performing similar services in the same or similar locality. The standard of care shall be determined solely at the time the Services are rendered and not according to standards utilized at a later date. The Services shall be rendered without any other warranty, expressed or implied, including, without limitation, the warranty of merchant ability and the warranty of fitness for a particular purpose.
  9. Client and EBI agree that to the fullest extent permitted by law, EBI shall not be liable to Client for any special, indirect or consequential damages whatsoever, whether caused by EBI's negligence, errors, omissions, strict liability, breach of contract, breach of warranty or other cause of causes whatsoever.
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**APPENDIX A**  
**FIGURES**

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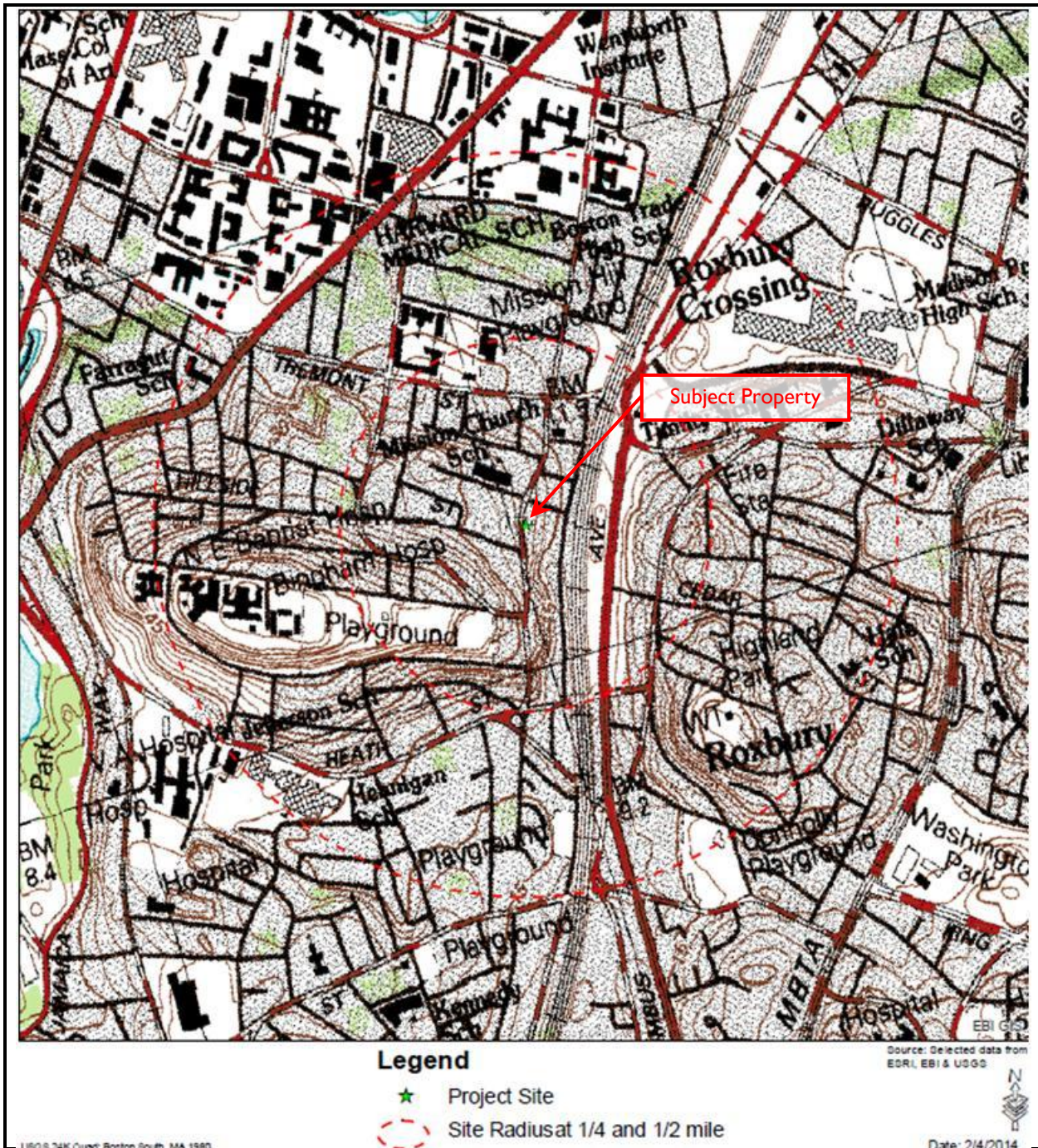




Site Location Map



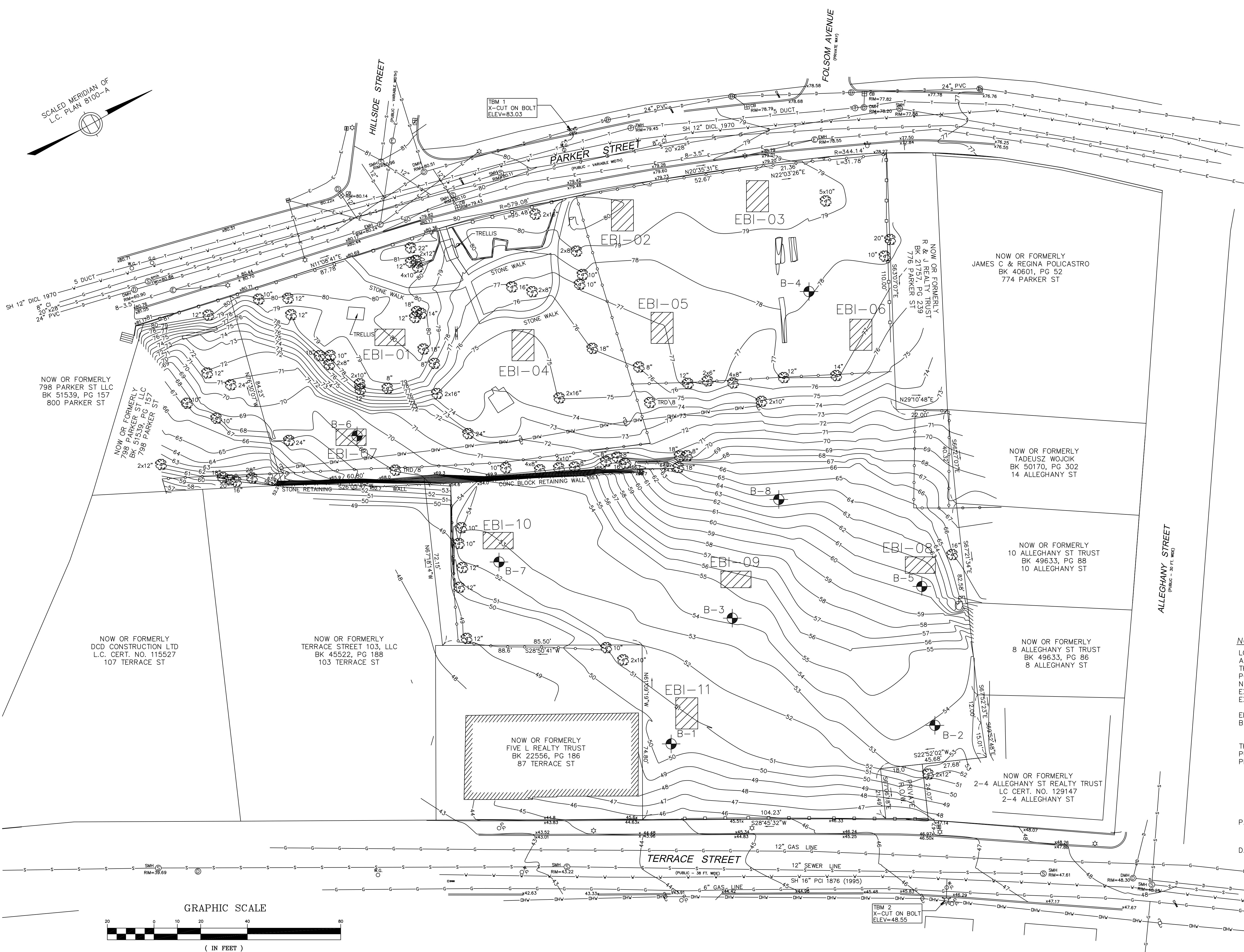
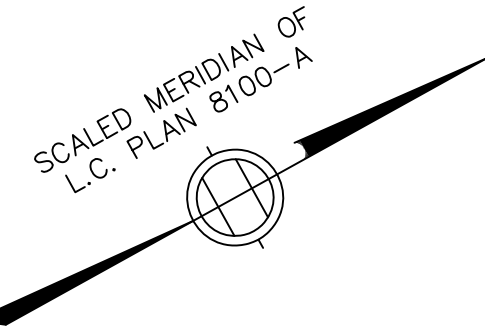




Topographic Map







**LOCUS TITLE INFORMATION**

77 TERRACE ST CITY OF BOSTON FORCLOSURE  
FINAL DECREE IN BK 13648 PG 232

778, 780, 782, 784 & 796 PARKER ST. - SHOWN AS OWNED  
BY CITY OF BOSTON PER ASSESSORS

786 PARKER ST - CITY OF BOSTON FORCLOSURE  
FINAL DECREE IN BK 8830 PG 68

788 PARKER ST - CITY OF BOSTON FORCLOSURE  
FINAL DECREE IN BK 8830 PG 47

790, 792 & 794 PARKER ST - CITY OF BOSTON  
DEED IN BK 14273 PG 184

PLAN REFERENCES: PLAN IN BK. 6607 PG. 76 DATED MAY 6, 1950  
PLAN IN BK. 6561 PG. 289 DATED MARCH, 1948  
PLAN IN BK. 6493 PG. 589 DATED NOV., 1948  
PLAN IN BK. 2070 PG. END DATED FEB. 8, 1892  
PLAN IN BK. 1079 PG. 266 DATED OCT. 1871  
LAND COURT PLAN NO. 8100-A  
LAND COURT PLAN NO. 7188-A

ASSESSORS: PARCEL ID 1000428000, 1000429000, 1000430000,  
1000431000, 1000432000, 1000433000, 1000434000,  
1000435000, 1000436000, 1000437000 and  
1000396000

- LEGEND**
- ⊙ SEWER MANHOLE
  - ⊕ ELECTRIC MANHOLE
  - Ⓣ TELEPHONE MANHOLE
  - ⊖ DRAIN MANHOLE
  - ⊞ CATCHBASIN
  - ⊛ LIGHT POLE
  - ⊞⊞⊞ ELECTRIC HANDHOLD
  - ⊞⊞⊞ UTILITY POLE
  - ⊞⊞⊞ FIRE HYDRANT
  - ⊞⊞⊞ WATER GATE
  - ⊞⊞⊞ BWW
  - ⊞⊞⊞ GAS GATE
  - ⊞⊞⊞ SIGN
  - ⊞⊞⊞ DECIDUOUS TREE
  - ⊞⊞⊞ STUMP
  - 51 --- 1' FT. CONTOUR
  - 50 --- 5' FT. CONTOUR
  - S --- S --- SEWER LINE
  - D --- D --- DRAIN LINE
  - W --- W --- WATER LINE
  - G --- G --- GAS LINE
  - DHV --- DHV --- UNDERGROUND ELECTRIC LIN
  - OHV --- OHV --- OVERHEAD WIRES
  - O --- O --- WOOD FENCE
  - C --- C --- CHAIN LINK FENCE

**NOTES**

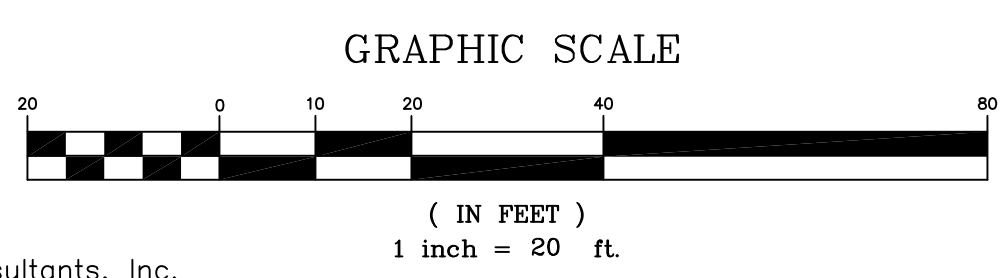
LOCATION OF UTILITIES SHOWN HEREON ARE THE RESULT OF SURFACE EVIDENCE AS LOCATED BY FIELD SURVEY, PLANS OF RECORD, INFORMATION FURNISHED BY THE RESPECTIVE UTILITY COMPANIES, AND OTHER AVAILABLE SOURCES IN POSSESSION OF DESIGN CONSULTANTS INC. AS OF THIS DATE. THIS PLAN DOES NOT NECESSARILY DEPICT THE EXACT LOCATION OF ALL UTILITIES WHICH MAY EXIST AT THIS TIME WITHIN THE PREMISES SURVEYED, CALL DIGSAFE BEFORE EXCAVATION.

ELEVATIONS DEPICTED HEREON ARE ON CITY OF BOSTON SEWER BASE DATUM BASED ON BENCHMARKS SHOWN ON CITY OF BOSTON SEWER PLANS.

THE PURPOSE OF THIS PLAN IS TO SHOW THE EXISTING CONDITIONS FOR DESIGN PURPOSES, AND IS THE RESULT OF AN ON-THE-GROUND INSTRUMENT SURVEY PERFORMED ON DECEMBER 16-29, 2013, BY DESIGN CONSULTANTS, INC.

P.L.S. EVERETT J. CHANDLER, P.L.S. MASS. REGISTRATION NO. 41783

DATE \_\_\_\_\_



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**Design Consultants, Inc.**  
Consulting Engineers and Surveyors

120 MIDDLESEX AVENUE  
SOMERVILLE, MA 02145  
617-776-3350

68 PLEASANT STREET  
NEWBURYPORT, MA 01950  
978-358-7173

SCALE:		FIELD: LG	
HORIZ: 1" = 20'		CALCS: BD	
VERT: _____		CHECKED: EJC	
		APPROVED: EJC	
NO.	DATE	BY	REVISIONS

EXISTING CONDITIONS PLAN

778-796 PARKER STREET  
& 77 TERRACE STREET

PLAN OF LAND IN  
BOSTON (MISSION HILL), MA  
SURVEYED FOR  
SEBASTIAN MARISCAL STUDIO

PROJECT NO.  
2013-144

DATE: JAN. 16, 2014

SHEET NO.  
1 OF 1

**APPENDIX B**  
**SOIL TABLES**

---

778-796 Parker Street and 77 Terrace Street Boston, Massachusetts Table 1												
Parameter	Reportable	SAMPLING LOCATION										
	RCS-1	EBI-01 (0-5')	EBI-02 (0-4')	EBI-02 (6')	EBI-02 (7-8')	EBI-02 (14')	EBI-03 (0-4')	EBI-03 (5')	EBI-03 (5.5-7')	EBI-03 (12')	EBI-04 (0-3.5')	EBI-04 (5-6')
Sampling Date		1/20/2014	1/20/2014	1/20/2014	1/20/2014	1/20/2014	1/20/2014	1/20/2014	1/20/2014	1/20/2014	1/20/2014	1/20/2014
Sample Depth		0-5 Feet	0-4 Feet	6- Feet	7-8 Feet	14- Feet	0-4 Feet	5- Feet	5.5-7 Feet	12- Feet	0-3.5 Feet	5-6 Feet
<b>MADEP-EPH-04-1.1 (mg/Kg dry)</b>												
C9-C18 ALIPHATICS	1000	NT	NT	42	NT	NT	NT	ND (12)	ND (11)	NT	ND (12)	NT
C19-C36 ALIPHATICS	3000	NT	NT	45	NT	NT	NT	15	ND (11)	NT	48	NT
UNADJUSTED C11-C22 AROMATICS	~	NT	NT	54	NT	NT	NT	ND (12)	ND (11)	NT	55	NT
C11-C22 AROMATICS	1000	NT	NT	53	NT	NT	NT	ND (12)	ND (11)	NT	49	NT
ACENAPHTHENE	4	NT	NT	ND (0.13)	NT	NT	NT	ND (0.12)	ND (0.11)	NT	ND (0.12)	NT
ACENAPHTHYLENE	1	NT	NT	ND (0.13)	NT	NT	NT	ND (0.12)	ND (0.11)	NT	ND (0.12)	NT
ANTHRACENE	1000	NT	NT	ND (0.13)	NT	NT	NT	ND (0.12)	ND (0.11)	NT	ND (0.12)	NT
BENZO(A)ANTHRACENE	7	NT	NT	0.14	NT	NT	NT	ND (0.12)	ND (0.11)	NT	0.47	NT
BENZO(A)PYRENE	2	NT	NT	ND (0.13)	NT	NT	NT	ND (0.12)	ND (0.11)	NT	0.52	NT
BENZO(B)FLUORANTHENE	7	NT	NT	ND (0.13)	NT	NT	NT	0.16	ND (0.11)	NT	0.86	NT
BENZO(G,H,I)PERYLENE	1000	NT	NT	ND (0.13)	NT	NT	NT	ND (0.12)	ND (0.11)	NT	0.39	NT
BENZO(K)FLUORANTHENE	70	NT	NT	ND (0.13)	NT	NT	NT	ND (0.12)	ND (0.11)	NT	0.28	NT
CHRYSENE	70	NT	NT	0.17	NT	NT	NT	0.13	ND (0.11)	NT	0.51	NT
DIBENZ(A,H)ANTHRACENE	0.7	NT	NT	ND (0.13)	NT	NT	NT	ND (0.12)	ND (0.11)	NT	ND (0.12)	NT
FLUORANTHENE	1000	NT	NT	0.36	NT	NT	NT	0.21	ND (0.11)	NT	1.0	NT
FLUORENE	1000	NT	NT	ND (0.13)	NT	NT	NT	ND (0.12)	ND (0.11)	NT	ND (0.12)	NT
INDENO(1,2,3-CD)PYRENE	7	NT	NT	ND (0.13)	NT	NT	NT	ND (0.12)	ND (0.11)	NT	0.42	NT
2-METHYLNAPHTHALENE	0.7	NT	NT	ND (0.13)	NT	NT	NT	ND (0.12)	ND (0.11)	NT	ND (0.12)	NT
NAPHTHALENE	4	NT	NT	ND (0.13)	NT	NT	NT	ND (0.12)	ND (0.11)	NT	ND (0.12)	NT
PHENANTHRENE	10	NT	NT	ND (0.13)	NT	NT	NT	0.16	ND (0.11)	NT	0.45	NT
PYRENE	1000	NT	NT	0.28	NT	NT	NT	0.20	ND (0.11)	NT	1.0	NT
<b>SM 2540G (% Wt)</b>												
% Solids	~	89.7	86.3	77.9	89.9	88.6	83.9	85.3	90.2	91.6	81.8	90.4
<b>SW-846 6010C (mg/Kg dry) Metals Digestion</b>												
LEAD	300	130	<b>470</b>	<b>3000</b>	17	8.3	300	<b>500</b>	21	8.1	<b>1300</b>	5.7
<b>SW-846 6010C (mg/L) 1311 TCLP EXT</b>												
LEAD	~	NT	NT	0.61	NT	NT	NT	2.8	NT	NT	0.89	NT
NOTES:												
1. An asterisk (*) following a detection limit indicates that the minimum laboratory reporting limit exceeds one or more of the regulatory criteria.												
2. ND = Not detected above the lab reporting limits shown in parenthesis.												
3. NT = Not tested.												
4. ~ = No Method 1 Standard or UCL available												
5. Shaded values exceed the MCP Reportable Concentrations (RCs).												
6. Bolded values exceed the Method 1 Cleanup Standards.												

Mission Hill, Boston

## 778-796 Parker Street and 77 Terrace Street

Boston, Massachusetts

Table 2

Parameter	Reportable	SAMPLING LOCATION										
	RCS-1	EBI-04 (11.5')	EBI-05 (0-4')	EBI-05 (5-6')	EBI-05 (14')	EBI-06 (0-4')	EBI-06 (6-7')	EBI-06 (10')	EBI-07 (0-2')	EBI-07 (5-7')	EBI-07 (14')	EBI-08 (0-5')
Sampling Date		1/20/2014	1/20/2014	1/20/2014	1/20/2014	1/21/2014	1/21/2014	1/21/2014	1/20/2014	1/20/2014	1/20/2014	1/21/2014
Sample Depth		11.5- Feet	0-4 Feet	5-6 Feet	14- Feet	0-4 Feet	6-7 Feet	10- Feet	0-2 Feet	5-7 Feet	14- Feet	0-5 Feet
<b>MADEP-EPH-04-1.1 (mg/Kg dry)</b>												
C9-C18 ALIPHATICS	1000	NT	NT	NT	NT	12	NT	NT	14	NT	NT	ND (12)
C19-C36 ALIPHATICS	3000	NT	NT	NT	NT	90	NT	NT	24	NT	NT	64
UNADJUSTED C11-C22 AROMATICS	~	NT	NT	NT	NT	340	NT	NT	170	NT	NT	230
C11-C22 AROMATICS	1000	NT	NT	NT	NT	320	NT	NT	130	NT	NT	170
ACENAPHTHENE	4	NT	NT	NT	NT	0.18	NT	NT	0.84	NT	NT	0.83
ACENAPHTHYLENE	1	NT	NT	NT	NT	ND (0.12)	NT	NT	ND (0.12)	NT	NT	0.14
ANTHRACENE	1000	NT	NT	NT	NT	0.81	NT	NT	2.1	NT	NT	1.6
BENZO(A)ANTHRACENE	7	NT	NT	NT	NT	1.9	NT	NT	3.0	NT	NT	4.2
BENZO(A)PYRENE	2	NT	NT	NT	NT	1.5	NT	NT	<b>2.6</b>	NT	NT	<b>5.6</b>
BENZO(B)FLUORANTHENE	7	NT	NT	NT	NT	2.4	NT	NT	3.7	NT	NT	<b>7.4</b>
BENZO(G,H,I)PERYLENE	1000	NT	NT	NT	NT	1.0	NT	NT	1.3	NT	NT	3.6
BENZO(K)FLUORANTHENE	70	NT	NT	NT	NT	0.64	NT	NT	1.2	NT	NT	2.7
CHRYSENE	70	NT	NT	NT	NT	1.4	NT	NT	3.2	NT	NT	4.7
DIBENZ(A,H)ANTHRACENE	0.7	NT	NT	NT	NT	0.25	NT	NT	0.47	NT	NT	<b>1.1</b>
FLUORANTHENE	1000	NT	NT	NT	NT	2.9	NT	NT	8.3	NT	NT	9.0
FLUORENE	1000	NT	NT	NT	NT	0.33	NT	NT	1.0	NT	NT	0.68
INDENO(1,2,3-CD)PYRENE	7	NT	NT	NT	NT	0.77	NT	NT	1.6	NT	NT	4.8
2-METHYLNAPHTHALENE	0.7	NT	NT	NT	NT	ND (0.12)	NT	NT	0.33	NT	NT	0.30
NAPHTHALENE	4	NT	NT	NT	NT	0.12	NT	NT	0.35	NT	NT	0.62
PHENANTHRENE	10	NT	NT	NT	NT	2.6	NT	NT	8.5	NT	NT	7.5
PYRENE	1000	NT	NT	NT	NT	3.8	NT	NT	7.9	NT	NT	10
<b>SM 2540G (% Wt)</b>												
% Solids	~	93.0	79.1	92.9	93.5	82.9	90.5	91.0	83.7	91.5	97.1	84.5
<b>SW-846 6010C (mg/Kg dry) Metals Digestion</b>												
LEAD	300	<b>560</b>	<b>1800</b>	8.4	9.3	<b>2700</b>	6.2	66	<b>420</b>	7.4	7.8	<b>1300</b>
<b>SW-846 6010C (mg/L) 1311 TCLP EXT</b>												
LEAD	~	NT	<b>6.9</b>	NT	NT	2.1	NT	NT	0.30	NT	NT	1.2
NOTES:												
1. An asterisk (*) following a detection limit indicates that the minimum laboratory reporting limit exceeds one or more of the regulatory criteria												
2. ND = Not detected above the lab reporting limits shown in parenthesis.												
3. NT = Not tested.												
4. ~ = No Method 1 Standard or UCL available												
5. Shaded values exceed the MCP Reportable Concentrations (RCs).												
6. Bolded values exceed the Method 1 Cleanup Standards.												

Mission Hill, Boston

778-796 Parker Street and 77 Terrace Street Boston, Massachusetts Table 3									
Parameter	Reportable	SAMPLING LOCATION							
	RCS-1	EBI-09 (0-4')	EBI-09 (13')	EBI-10 (0-4')	EBI-10 (8')	EBI-11 (0-4')	B-1 (10-12')	B-2 (0-2')	B-2 (5-5.5')
Sampling Date		1/21/2014	1/21/2014	1/21/2014	1/21/2014	1/21/2014	1/21/2014	1/21/2014	1/21/2014
Sample Depth		0-4 Feet	13- Feet	0-4 Feet	8- Feet	0-4 Feet	10 Feet	0-2 Feet	5-5.5 Feet
<b>MADEP-EPH-04-1.1 (mg/Kg dry)</b>									
C9-C18 ALIPHATICS	1000	ND (11)	NT	24	NT	ND (11)	NT	NT	NT
C19-C36 ALIPHATICS	3000	60	NT	290	NT	81	NT	NT	NT
UNADJUSTED C11-C22 AROMATICS	~	84	NT	240	NT	140	NT	NT	NT
C11-C22 AROMATICS	1000	71	NT	190	NT	100	NT	NT	NT
ACENAPHTHENE	4	0.12	NT	0.54	NT	0.43	NT	NT	NT
ACENAPHTHYLENE	1	ND (0.11)	NT	ND (0.24)	NT	ND (0.11)	NT	NT	NT
ANTHRACENE	1000	0.28	NT	1.4	NT	0.97	NT	NT	NT
BENZO(A)ANTHRACENE	7	0.90	NT	3.8	NT	2.6	NT	NT	NT
BENZO(A)PYRENE	2	0.92	NT	<b>4.3</b>	NT	<b>2.5</b>	NT	NT	NT
BENZO(B)FLUORANTHENE	7	1.4	NT	6.0	NT	3.7	NT	NT	NT
BENZO(G,H,I)PERYLENE	1000	0.57	NT	3.3	NT	1.5	NT	NT	NT
BENZO(K)FLUORANTHENE	70	0.46	NT	2.2	NT	1.3	NT	NT	NT
CHRYSENE	70	1.0	NT	4.1	NT	2.7	NT	NT	NT
DIBENZ(A,H)ANTHRACENE	0.7	0.23	NT	<b>0.88</b>	NT	0.51	NT	NT	NT
FLUORANTHENE	1000	2.1	NT	9.5	NT	6.5	NT	NT	NT
FLUORENE	1000	0.14	NT	0.56	NT	0.42	NT	NT	NT
INDENO(1,2,3-CD)PYRENE	7	0.66	NT	3.6	NT	1.8	NT	NT	NT
2-METHYLNAPHTHALENE	0.7	ND (0.11)	NT	0.24	NT	ND (0.11)	NT	NT	NT
NAPHTHALENE	4	ND (0.11)	NT	0.39	NT	0.21	NT	NT	NT
PHENANTHRENE	10	1.4	NT	6.2	NT	4.7	NT	NT	NT
PYRENE	1000	2.1	NT	9.1	NT	6.2	NT	NT	NT
<b>SM 2540G (% Wt)</b>									
% Solids	~	87.0	87.0	82.6	89.1	86.6	90.6	84.4	85.2
<b>SW-846 6010C (mg/Kg dry) Metals Digestion</b>									
LEAD	300	220	290	<b>810</b>	100	<b>490</b>	45	<b>500</b>	<b>590</b>
<b>SW-846 6010C (mg/L) 1311 TCLP EXT</b>									
LEAD	~	NT	NT	0.65	NT	NT	NT	NT	NT
NOTES:									
1. An asterisk (*) following a detection limit indicates that the minimum laboratory reporting limit exceeds one or more of the regulatory criteria.									
2. ND = Not detected above the lab reporting limits shown in parenthesis.									
3. NT = Not tested.									
4. ~ = No Method 1 Standard or UCL available									
5. Shaded values exceed the MCP Reportable Concentrations (RCs).									
6. Bolded values exceed the Method 1 Cleanup Standards.									



Mission Hill, Boston

**778-796 Parker Street and 77 Terrace Street  
Boston, Massachusetts  
Table 4**

Parameter	Reportable Concentrations	SAMPLING LOCATION
	RCS-1	EBI-02 (6')
Sampling Date		1/20/2014
Sample Depth		6- Feet
<b>SM 2540G (% Wt)</b>		
% Solids	~	81.2
<b>SW-846 6010C (mg/Kg dry) Metals Digestion</b>		
ARSENIC	20	ND (2.9)
BARIUM	1000	360
CADMIUM	2	<b>5.0</b>
CHROMIUM	30	17
LEAD	300	<b>2800</b>
SELENIUM	400	ND (5.7)
SILVER	100	ND (0.57)
<b>SW-846 6010C (mg/L) 1311 TCLP EXT</b>		
LEAD	~	0.61
<b>SW-846 7471B (mg/Kg dry) Metals Digestion</b>		
MERCURY	20	0.80
NOTES:		
1. An asterisk (*) following a detection limit indicates that the minimum laboratory reporting limit exceeds one or more		
2. ND = Not detected above the lab reporting limits shown in parenthesis.		
3. NT = Not tested.		
4. ~ = No Method 1 Standard or UCL available		
5. Shaded values exceed the MCP Reportable Concentrations (RCs).		
6. Bolded values exceed the Method 1 Cleanup Standards.		

**778-796 Parker Street and 77 Terrace Street  
Boston, Massachusetts  
Table 5-Soil Sampling Summary**

EXCAVATION ID	SAMPLE DATE	ANALYSIS	INTERVAL (Feet bgs)	SOIL DESCRIPTION	Potential Offsite Disposition by Facility
EBI-01	1/20/2014	Pb	0-5	Fill Material	Instate Unlined
EBI-02	1/20/2014	Pb	0-4	Fill Material	Instate Unlined
	1/20/2014	Pb, EPH, TCLP Lead	6		Out of State
	1/20/2014	Pb	7-8	Glacial Till (Native)	Like Site
	1/20/2014	Pb	14		
EBI-03	1/20/2014	Pb	0-4	Fill Material	Instate Unlined
	1/20/2014	Pb, EPH, TCLP Lead	5		
	1/20/2014 1/20/2014	Pb, EPH Pb	5.5-7 12	Glacial Till (Native)	Like Site
EBI-04	1/20/2014	Pb, EPH, TCLP Lead	0-3.5	Fill Material	Lined
	1/20/2014	Pb	5-6	Glacial Till (Native)	Like Site
	1/20/2014	Pb	11.5		Instate Unlined
EBI-05	1/20/2014	Pb, EPH, TCLP Lead	0-4	Fill Material	Haz Waste (Treat.Lined LF)
	1/20/2014	Pb	5-6	Glacial Till (Native)	Like Site
	1/20/2014	Pb	14		
EBI-06	1/21/2014	Pb, EPH, TCLP Lead	0-4	Fill Material	Out of State
	1/21/2014	Pb	6-7		Like Site
	1/21/2014	Pb	10	Glacial Till (Native)	Like Site
EBI-07	1/20/2014	Pb, EPH, TCLP Lead	0-2	Fill Material	Instate Unlined
	1/20/2014	Pb	5-7	Glacial Till (Native)	Like Site
	1/20/2014	Pb	14		
EBI-08	1/21/2014	Pb, EPH, TCLP Lead	0-5	Fill Material	Lined
EBI-09	1/21/2014	Pb, EPH	0-4	Fill Material	Instate Unlined
	1/21/2014	Pb	13	Glacial Till (Native)	Instate Unlined
EBI-10	1/21/2014	Pb, EPH	0-4	Fill Material	Instate Unlined
	1/21/2014	Pb	8	Glacial Till (Native)	Instate Unlined
EBI-11	1/21/2014	Pb, EPH	0-4	Fill Material	Instate Unlined
<b>SOIL BORINGS</b>					
B-1	1/21/2014	Pb	10-12	Glacial Till (Native)	Like Site
B-2	1/21/2014	Pb	0-2	Fill Material	Instate Unlined
	1/21/2014	Pb	5-5.5		

Pb= Lead  
 EPH= Extractable Petroleum Hydrocarbons  
 TCLP= Toxicity Characteristic Leaching Procedure

**APPENDIX C**  
**BORING AND TEST PIT LOGS**

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## BORING LOG

Project: 77 Terrace Street & Parker  
 Location: Mission Hill, Boston  
 Client: EBI Consulting  
 Driller: Carr-Dee  
 Drilling Methods: 3" H.S.A.  
 Weather: Sunny, Cold, 20's  
 Logged By: PGC Date: 1/21/14  
 Checked By: Date:

SEE PLAN

Boring Locus Map

Boring No: B-1  
 Location: 22' West & 14' North of SE Building Corner  
 Approx. Ground Elevation: 50.3 (COB Datum)  
 Approx. Groundwater Elevation:  
 Date/Time of Groundwater Elevation:  
 Datum: City of Boston Sewer  
 Project No. 184-1301.00

Depth (feet)	Sample No.	Blows per 6-inch	Pen./ Rec.	Soil Description	Stratum Change Depth (feet)	PID Readings (ppm)	Well Construction Observations	Note No.	
1	S1	4	24"/2"	Dark brown. silty fine to medium SAND with gravel, occ. brick, concrete & organics, medium dense (FILL)					
2		9 13 8							
3					FILL				
4									
5									
6	S2	14	24"/14"	Red, bricks, dense (FILL)					
7		38 9 20							
8									
9					9'				
10								Est. BOF	
11	S3	16	24"/8"	Gray brown, silty SAND and GRAVEL, medium dense (GLACIAL TILL)				At EI 40	
12		9 18 21							
13					TILL				
14									
15									
	S4	100/1"	1"/1"	Similar to above (GLACIAL TILL).				1	
16									
17				Bottom of Exploration at 15'-1"					
18									
19									
20									

Lead (10-12')  
 45 mg/kg

**NOTES:**

1. The glacial deposit is a very dense, highly consolidated Roxbury Conglomerate matrix.

**LEGEND**

S - Split Spoon Sample	O/A - Sample Collected Off the Augers
UT - Undisturbed Tube Sample	
Trace - Approximately 0 to 10%	Some - Approximately 20 to 35%
Little - Approximately 10 to 20%	And - Approximately 35 to 50%
0-10 Coarse Soil N Value - Loose	30-50 Coarse Soil N Value - Dense
10-30 Coarse Soil N Value - Medium Dense	>50 Coarse Soil N Value - Very Dense
0-4 Fine Soil N Value - Soft	8-15 Fine Soil N Value - Stiff
	>30 Fine Soil N Value - Hard
4-8 Fine Soil N Value - Medium Stiff	15-30 Fine Soil N Value - Very Stiff

## BORING LOG

Project: 77 Terrace Street & Parker  
 Location: Mission Hill, Boston  
 Client: EBI Consulting  
 Driller: Carr-Dee  
 Drilling Methods: 3" H.S.A.  
 Weather: Sunny, Cold, 20's  
 Logged By: PGC Date: 1/21/14  
 Checked By: Date:

SEE PLAN

Boring Locus Map

Boring No: B-2  
 Location: 40' West & 20' South of SE P/L Corner  
 Approx. Ground Elevation: 53.8 (COB Datum)  
 Approx. Groundwater Elevation:  
 Date/Time of Groundwater Elevation:  
 Datum: City of Boston Sewer  
 Project No. 184-1301.00

Lead  
(0-2') 500  
mg/kg

Lead  
(5-5.5')  
590 mg/kg

Depth (feet)	Sample No.	Blows per 6-inch	Pen./ Rec.	Soil Description	Stratum Change Depth (feet)	PID Readings (ppm)	Well Construction Observations	Note No.
1	S1	1 3 4	24"/12"	Dark brown. silty fine to medium SAND with gravel, occ. brick, concrete & organics, loose (FILL)				
2		2						
3					FILL			
4								
5								
		76		Dark brown. silty fine to medium SAND				
6	S2	34 20	24"/14"	with gravel, occ. brick, concrete & organics, very dense (FILL)				
7		22						
8					FILL			
9								
10								
11	S3	6 18	24"/8"	Top 9" - Similar to above, medium dense (FILL)	11'			
12		15 16		Bot 9" - Gray brown, silty SAND with gravel, dense (GLACIAL TILL)				Est. BOF
13					TILL			At EI 42
14								
15								
	S4	100/1"	1"/1"	Gray brown, silty SAND with gravel, rock fragments, very dense (GLACIAL TILL)				1
16								
17				Bottom of Exploration at 15'-1"				
18								
19								
20								

**NOTES:**

1. The glacial deposit is a very dense, highly consolidated Roxbury Conglomerate matrix.

**LEGEND**

S - Split Spoon Sample	O/A - Sample Collected Off the Augers
UT - Undisturbed Tube Sample	
Trace - Approximately 0 to 10%	Some - Approximately 20 to 35%
Little - Approximately 10 to 20%	And - Approximately 35 to 50%
0-10 Coarse Soil N Value - Loose	30-50 Coarse Soil N Value - Dense
10-30 Coarse Soil N Value - Medium Dense	>50 Coarse Soil N Value - Very Dense
0-4 Fine Soil N Value - Soft	8-15 Fine Soil N Value - Stiff
4-8 Fine Soil N Value - Medium Stiff	>30 Fine Soil N Value - Hard

## BORING LOG

Project: 77 Terrace Street & Parker  
 Location: Mission Hill, Boston  
 Client: EBI Consulting  
 Driller: Carr-Dee  
 Drilling Methods: 3" H.S.A.  
 Weather: Sunny, Cold, 10's  
 Logged By: PGC Date: 1/24/14  
 Checked By: Date:

SEE PLAN

Boring Locus Map

Boring No: B-3  
 Location: 40' North and 40' West of Existing Bldg.  
 Approx. Ground Elevation: 54.2 (COB Datum)  
 Approx. Groundwater Elevation:  
 Date/Time of Groundwater Elevation:  
 Datum: City of Boston Sewer  
 Project No. 184-1301.00

Depth (feet)	Sample No.	Blows per 6-inch	Pen./ Rec.	Soil Description	Stratum Change Depth (feet)	PID Readings (ppm)	Well Construction Observations	Note No.
1	S1	4 40 55	18"/9"	Dark brown. Silty fine to medium SAND with gravel, occ. brick, concrete & organics, very dense (FILL)				Est. BOF
2								
3								1
4					FILL			
5								
6	S2	9 15 18 40	24"/14"	Dark brown silty, fine to medium SAND, with gravel, occ. brick, concrete, dense (FILL)				
7								
8								2
9					FILL			
10					10'			Est. BOF
	S3	100/1"	1"/0"	O/A - Light brown, silty f-m SAND with gravel, very dense (GLACIAL TILL)				El. 44
11								
12								3
13								
14					TILL			4
15								
	S4	56	1"/1"	Light brown, silty f-m SAND with gravel, very dense (GLACIAL TILL)				
16								
17								
18								
19								
20								

**NOTES:**

1. Obstruction at 3 feet.
2. Obstruction at 7 feet.
3. Sample S3 was taken off the augers.
4. The glacial deposit is a very dense, highly consolidated Roxbury Conglomerate matrix.

**LEGEND**

S - Split Spoon Sample	O/A - Sample Collected Off the Augers
UT - Undisturbed Tube Sample	
Trace - Approximately 0 to 10%	Some - Approximately 20 to 35%
Little - Approximately 10 to 20%	And - Approximately 35 to 50%
0-10 Coarse Soil N Value - Loose	30-50 Coarse Soil N Value - Dense
10-30 Coarse Soil N Value - Medium Dense	>50 Coarse Soil N Value - Very Dense
0-4 Fine Soil N Value - Soft	8-15 Fine Soil N Value - Stiff
	>30 Fine Soil N Value - Hard
4-8 Fine Soil N Value - Medium Stiff	15-30 Fine Soil N Value - Very Stiff

## BORING LOG

Project: 77 Terrace Street & Parker  
 Location: Mission Hill, Boston  
 Client: EBI Consulting  
 Driller: Carr-Dee  
 Drilling Methods: 3" H.S.A.  
 Weather: Sunny, Cold, 10's  
 Logged By: PGC Date: 1/24/14  
 Checked By: Date:

SEE PLAN

Boring No: B-3  
 Location: 40' North and 40' West of Existing Bldg.  
 Approx. Ground Elevation: 54.2 (COB Datum)  
 Approx. Groundwater Elevation:  
 Date/Time of Groundwater Elevation:  
 Datum: City of Boston Sewer  
 Project No. 184-1301.00

Boring Locus Map

Depth (feet)	Sample No.	Blows per 6-inch	Pen./ Rec.	Soil Description	Stratum Change Depth (feet)	PID Readings (ppm)	Well Construction Observations	Note No.
21	S5	100/1"	1"/1"	Light brown, f-m silty SAND with gravel, very dense (GLACIAL TILL)				
22								
23					TILL			4
24								
25								
26	S6	100/1"	1"/1"	Light brown, f-m silty SAND with gravel, very dense (GLACIAL TILL)				
27								
28					TILL			
29								
30								
31	S7	100/1"	1"/0"	O/A - Light brown, f-m silty SAND with gravel, very dense (GLACIAL TILL)				5
32				Bottom of Exploration at 30'-1"				
33								
34								
35								
36								
37								
38								
39								
40								

**NOTES:**

4. The glacial deposit is a very dense, highly consolidated Roxbury Conglomerate matrix.
5. Sample S7 was taken off the augers.

**LEGEND**

S - Split Spoon Sample	O/A - Sample Collected Off the Augers
UT - Undisturbed Tube Sample	
Trace - Approximately 0 to 10%	Some - Approximately 20 to 35%
Little - Approximately 10 to 20%	And - Approximately 35 to 50%
0-10 Coarse Soil N Value - Loose	30-50 Coarse Soil N Value - Dense
10-30 Coarse Soil N Value - Medium Dense	>50 Coarse Soil N Value - Very Dense
0-4 Fine Soil N Value - Soft	8-15 Fine Soil N Value - Stiff
	>30 Fine Soil N Value - Hard
4-8 Fine Soil N Value - Medium Stiff	15-30 Fine Soil N Value - Very Stiff



## BORING LOG

Project: 77 Terrace Street & Parker  
 Location: Mission Hill, Boston  
 Client: EBI Consulting  
 Driller: Carr-Dee  
 Drilling Methods: 4" Casing Drive & Wash  
 Weather: Sunny, Cold, 10's  
 Logged By: PGC Date: 1/23/14  
 Checked By: Date:

SEE PLAN

Boring Locus Map

Boring No: B-4  
 Location: 55' East & 35' South of Existing C.L.F.  
 Approx. Ground Elevation: 78.1 (COB Datum)  
 Approx. Groundwater Elevation:  
 Date/Time of Groundwater Elevation:  
 Datum: City of Boston Sewer  
 Project No. 184-1301.00

Depth (feet)	Sample No.	Blows per 6-inch	Pen./Rec.	Soil Description	Stratum Change Depth (feet)	PID Readings (ppm)	Well Construction Observations	Note No.
1	S1	2	24"/15"	Dark brown. fine to medium sandy SILT with gravel, occ. brick, concrete & organics, stiff (FILL)				
2		3 6 16						
3					FILL			
4								
5								
6	S2	2	24"/16"	Brown gray. fine to medium sandy SILT with gravel, occ. brick, concrete, very stiff (FILL)				
7		17 46 9						
8					9'			
9								
10								
	S3	100/4"	1"/1"	Gray brown f-c SAND and gravel, little silt, very dense (GLACIAL TILL)				Est. BOF
11								At EI 68
12					TILL			
13								
14								
15								
	S4	100/6"	6"/2"	Similar to above (GLACIAL TILL).				
16								
17								
18								
19								
20								

**NOTES:**

1. The glacial deposit is a very dense, highly consolidated Roxbury Conglomerate matrix.

**LEGEND**

S - Split Spoon Sample	O/A - Sample Collected Off the Augers
UT - Undisturbed Tube Sample	
Trace - Approximately 0 to 10%	Some - Approximately 20 to 35%
Little - Approximately 10 to 20%	And - Approximately 35 to 50%
0-10 Coarse Soil N Value - Loose	30-50 Coarse Soil N Value - Dense
10-30 Coarse Soil N Value - Medium Dense	>50 Coarse Soil N Value - Very Dense
0-4 Fine Soil N Value - Soft	8-15 Fine Soil N Value - Stiff
	>30 Fine Soil N Value - Hard
4-8 Fine Soil N Value - Medium Stiff	15-30 Fine Soil N Value - Very Stiff

## BORING LOG

Project: [77 Terrace Street & Parker](#)  
 Location: [Mission Hill, Boston](#)  
 Client: [EBI Consulting](#)  
 Driller: [Carr-Dee](#)  
 Drilling Methods: 4" Casing Drive & Wash  
 Weather: Sunny, Cold, 10's  
 Logged By: [PGC](#) Date: 1/23/14  
 Checked By: Date:

SEE PLAN

Boring Locus Map

Boring No: B-4  
 Location: 55' East & 35' South of Existing C.L.F.  
 Approx. Ground Elevation: 78.1 (COB Datum)  
 Approx. Groundwater Elevation:  
 Date/Time of Groundwater Elevation:  
 Datum: City of Boston Sewer  
 Project No. [184-1301.00](#)

Depth (feet)	Sample No.	Blows per 6-inch	Pen./ Rec.	Soil Description	Stratum Change Depth (feet)	PID Readings (ppm)	Well Construction Observations	Note No.
21	S5	17 100	12"/2"	Gray brown, silty SAND with gravel, wet, very dense (GLACIAL TILL)				
22								
23					TILL			
24								
25								
	S6	100/1"	1"/1"	Gray brown, silty SAND with gravel, wet, very dense (GLACIAL TILL)				
26								
27								
28					TILL			
29								
30								
31	S7	100/1"	12"/7"	Gray brown, silty SAND with gravel, wet, very dense (GLACIAL TILL)				
32				Bottom of Exploration at 31'-0"				
33								
34								
35								
36								
37								
38								
39								
40								

NOTES:

LEGEND

S - Split Spoon Sample	O/A - Sample Collected Off the Augers
UT - Undisturbed Tube Sample	
Trace - Approximately 0 to 10%	Some - Approximately 20 to 35%
Little - Approximately 10 to 20%	And - Approximately 35 to 50%
0-10 Coarse Soil N Value - Loose	30-50 Coarse Soil N Value - Dense
10-30 Coarse Soil N Value - Medium Dense	>50 Coarse Soil N Value - Very Dense
0-4 Fine Soil N Value - Soft	8-15 Fine Soil N Value - Stiff
	>30 Fine Soil N Value - Hard
4-8 Fine Soil N Value - Medium Stiff	15-30 Fine Soil N Value - Very Stiff

## BORING LOG

Project: 77 Terrace Street & Parker  
 Location: Mission Hill, Boston  
 Client: EBI Consulting  
 Driller: Carr-Dee  
 Drilling Methods: 3" H.S.A.  
 Weather: Sunny, Cold, 20's  
 Logged By: PGC Date: 1/21/14  
 Checked By: Date:

SEE PLAN

Boring Locus Map

Boring No: B-5  
 Location: 60' West of B-2  
 Approx. Ground Elevation: 60.5 (COB Datum)  
 Approx. Groundwater Elevation:  
 Date/Time of Groundwater Elevation:  
 Datum: City of Boston Sewer  
 Project No. 184-1301.00

Depth (feet)	Sample No.	Blows per 6-inch	Pen./ Rec.	Soil Description	Stratum Change Depth (feet)	PID Readings (ppm)	Well Construction Observations	Note No.
1	S1	3 7 8 11	24"/12"	Dark brown. silty fine to medium SAND with gravel, occ. brick, concrete & organics, loose (FILL)				
2								
3								
4					FILL			
5								
	S2	100/3"	3"/1"	Similar to above, very dense (FILL)				
6								1
7								
8				SEE TEST PIT LOG EBI-08	FILL			2
9								
10								
11	S3	5 5 5 4	24"/0"	No Recovery (FILL)				
12								
13					FILL			
14								
15								
16	S4	1 1 2 1	24"/0"	No Recovery (FILL)				
17								Est. BOF At EI 44
18								
19								
20								

**NOTES:**

1. Spoon bouncing from 5.5 to 7 feet.
2. Weight of rods and augers from 7' to 10', void space in former basement.

**LEGEND**

S - Split Spoon Sample	O/A - Sample Collected Off the Augers
UT - Undisturbed Tube Sample	
Trace - Approximately 0 to 10%	Some - Approximately 20 to 35%
Little - Approximately 10 to 20%	And - Approximately 35 to 50%
0-10 Coarse Soil N Value - Loose	30-50 Coarse Soil N Value - Dense
10-30 Coarse Soil N Value - Medium Dense	>50 Coarse Soil N Value - Very Dense
0-4 Fine Soil N Value - Soft	8-15 Fine Soil N Value - Stiff
	>30 Fine Soil N Value - Hard
4-8 Fine Soil N Value - Medium Stiff	15-30 Fine Soil N Value - Very Stiff

## BORING LOG

Project: 77 Terrace Street & Parker Location: Mission Hill, Boston Client: EBI Consulting Driller: Carr-Dee Drilling Methods: 3" H.S.A. Weather: Sunny, Cold, 20's Logged By: PGC                      Date: 1/21/14 Checked By:                              Date:	SEE PLAN  Boring Locus Map	Boring No: B-5 Location: 60' West of B-2 Approx. Ground Elevation: 60.5 (COB Datum) Approx. Groundwater Elevation: 38.5 (Perched) Date/Time of Groundwater Obs.: 1/21/14 @ 1:00 PM Datum: City of Boston Sewer Project No. 184-1301.00
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Depth (feet)	Sample No.	Blows per 6-inch	Pen./ Rec.	Soil Description	Stratum Change Depth (feet)	PID Readings (ppm)	Well Construction Observations	Note No.
21	S5	2-2 100/0"	12"/2"	Brown, wood (FILL)	FILL 21'			3
22					▼ -			4
23								
24					TILL			
25								
	S6	100/1"	1"/1"	Gray brown, silty SAND with gravel, wet, very dense (GLACIAL TILL)				
26								
27								
28					TILL			5
29								
30								
	S7	100/1"	1"/1"	Gray brown, silty SAND with gravel, wet, very dense (GLACIAL TILL)				
31								
32				Bottom of Exploration at 30'-1"				6
33								
34								
35								
36								
37								
38								
39								
40								

**NOTES:**

3. Spoon bouncing at 20 feet.
4. Observed perched water at about 22 feet.
5. The glacial deposit is a very dense, highly consolidated Roxbury Conglomerate matrix.
6. Instructed the Contractor to excavate Test Pit EBI-08 in the vicinity of the borehole.

**LEGEND**

S - Split Spoon Sample	O/A - Sample Collected Off the Augers
UT - Undisturbed Tube Sample	
Trace - Approximately 0 to 10%	Some - Approximately 20 to 35%
Little - Approximately 10 to 20%	And - Approximately 35 to 50%
0-10 Coarse Soil N Value - Loose	30-50 Coarse Soil N Value - Dense
10-30 Coarse Soil N Value - Medium Dense	>50 Coarse Soil N Value - Very Dense
0-4 Fine Soil N Value - Soft	8-15 Fine Soil N Value - Stiff
	>30 Fine Soil N Value - Hard
4-8 Fine Soil N Value - Medium Stiff	15-30 Fine Soil N Value - Very Stiff

## BORING LOG

Project: 77 Terrace Street & Parker  
 Location: Mission Hill, Boston  
 Client: EBI Consulting  
 Driller: Carr-Dee  
 Drilling Methods: 3" H.S.A.  
 Weather: Sunny, Cold, 10's  
 Logged By: PGC Date: 1/23/14  
 Checked By: Date:

SEE PLAN

Boring Locus Map

Boring No: B-6  
 Location: 50' South of building & 22' W of wall face  
 Approx. Ground Elevation: 69.3 (COB Datum)  
 Approx. Groundwater Elevation:  
 Date/Time of Groundwater Elevation:  
 Datum: City of Boston Sewer  
 Project No. 184-1301.00

Depth (feet)	Sample No.	Blows per 6-inch	Pen./Rec.	Soil Description	Stratum Change Depth (feet)	PID Readings (ppm)	Well Construction Observations	Note No.
1	S1	5	24"/16"	Dark brown. fine to medium sandy SILT with gravel, occ. brick, concrete & organics, stiff (FILL)				Est. BOF
2		6 5 7						El. 68
3					FILL			
4								
5								
6	S2	34 100	12"/7"	Dark brown silty, fine to medium SAND, with gravel, occ. brick, concrete, very dense (FILL)				
7								
8								1
9								
10								
11	S3	28-32 50/3"	15"/7"	Light brown, silty SAND with gravel, very dense (GLACIAL TILL)				
12								
13					TILL			2
14								
15								3
16	S4	56 100	12"/6"	Light brown, silty SAND with gravel, very dense (GLACIAL TILL)				
17								
18								
19								
20								

**NOTES:**

1. Obstruction at 7 feet.
2. Obstruction at 12 feet.
3. The glacial deposit is a very dense, highly consolidated Roxbury Conglomerate matrix.

**LEGEND**

S - Split Spoon Sample	O/A - Sample Collected Off the Augers
UT - Undisturbed Tube Sample	
Trace - Approximately 0 to 10%	Some - Approximately 20 to 35%
Little - Approximately 10 to 20%	And - Approximately 35 to 50%
0-10 Coarse Soil N Value - Loose	30-50 Coarse Soil N Value - Dense
10-30 Coarse Soil N Value - Medium Dense	>50 Coarse Soil N Value - Very Dense
0-4 Fine Soil N Value - Soft	8-15 Fine Soil N Value - Stiff
	>30 Fine Soil N Value - Hard
4-8 Fine Soil N Value - Medium Stiff	15-30 Fine Soil N Value - Very Stiff

## BORING LOG

Project: 77 Terrace Street & Parker  
 Location: Mission Hill, Boston  
 Client: EBI Consulting  
 Driller: Carr-Dee  
 Drilling Methods: 3" H.S.A.  
 Weather: Sunny, Cold, 10's  
 Logged By: PGC Date: 1/23/14  
 Checked By: Date:

SEE PLAN

Boring No: B-6  
 Location: 50' South of building & 22' W of wall face  
 Approx. Ground Elevation: 69.3 (COB Datum)  
 Approx. Groundwater Elevation:  
 Date/Time of Groundwater Elevation:  
 Datum: City of Boston Sewer  
 Project No. 184-1301.00

Boring Locus Map

Depth (feet)	Sample No.	Blows per 6-inch	Pen./ Rec.	Soil Description	Stratum Change Depth (feet)	PID Readings (ppm)	Well Construction Observations	Note No.
21	S5	100	6"/3"	Gray brown, silty f-m SAND with gravel, very dense (GLACIAL TILL)				
22								
23					TILL			
24								
25								
26	S6	100/5"	5"/1"	Gray brown, silty f-m SAND with gravel, very dense (GLACIAL TILL)				
27								
28					TILL			
29								
30								
31	S6	100	6"/3"	Gray brown, silty f-m SAND with gravel, very dense (GLACIAL TILL)				
32								
33					TILL			
34								
35								
36	S6	100/1"	1"/1"	Gray brown, silty f-m SAND with gravel, very dense (GLACIAL TILL)				
37				Bottom of Exploration at 35'-1"				
38								
39								
40								

NOTES:

LEGEND

S - Split Spoon Sample	O/A - Sample Collected Off the Augers
UT - Undisturbed Tube Sample	
Trace - Approximately 0 to 10%	Some - Approximately 20 to 35%
Little - Approximately 10 to 20%	And - Approximately 35 to 50%
0-10 Coarse Soil N Value - Loose	30-50 Coarse Soil N Value - Dense
10-30 Coarse Soil N Value - Medium Dense	>50 Coarse Soil N Value - Very Dense
0-4 Fine Soil N Value - Soft	8-15 Fine Soil N Value - Stiff
	>30 Fine Soil N Value - Hard
4-8 Fine Soil N Value - Medium Stiff	15-30 Fine Soil N Value - Very Stiff

## BORING LOG

Project: [77 Terrace Street & Parker](#)  
 Location: [Mission Hill, Boston](#)  
 Client: [EBI Consulting](#)  
 Driller: [Carr-Dee](#)  
 Drilling Methods: 3" H.S.A.  
 Weather: Sunny, Cold, 20's  
 Logged By: [PGC](#) Date: 1/21/14  
 Checked By: Date:

SEE PLAN

Boring Locus Map

Boring No: B-7  
 Location: 35' E of ret. wall & 20' North of south P/L  
 Approx. Ground Elevation: 52.5 (COB Datum)  
 Approx. Groundwater Elevation:  
 Date/Time of Groundwater Elevation:  
 Datum: City of Boston Sewer  
 Project No. [184-1301.00](#)

Depth (feet)	Sample No.	Blows per 6-inch	Pen./ Rec.	Soil Description	Stratum Change Depth (feet)	PID Readings (ppm)	Well Construction Observations	Note No.
1	S1	4	24"/12"	Dark brown, silty fine to medium SAND with gravel, occ. brick, concrete & organics, medium dense (FILL)				
2		12						
3					FILL			
4					4'			
5								
6	S2	14	24"/14"	Gray brown, silty f-m SAND with gravel, dense (GLACIAL TILL)				
7		20						
8								
9					TILL			Est. BOF At EI 44
10								
11	S4	100/3"	3"/1"	Light brown, silty SAND with gravel, very dense (GLACIAL TILL)				
12								
13								
14					TILL			1
15								
16	S4	100/1"	1"/0"	Light brown, silty SAND with gravel, very dense (GLACIAL TILL)				
17				Bottom of Exploration at 15'-1"				
18								
19								
20								

**NOTES:**

1. The glacial deposit is a very dense, highly consolidated Roxbury Conglomerate matrix.

**LEGEND**

S - Split Spoon Sample	O/A - Sample Collected Off the Augers
UT - Undisturbed Tube Sample	
Trace - Approximately 0 to 10%	Some - Approximately 20 to 35%
Little - Approximately 10 to 20%	And - Approximately 35 to 50%
0-10 Coarse Soil N Value - Loose	30-50 Coarse Soil N Value - Dense
10-30 Coarse Soil N Value - Medium Dense	>50 Coarse Soil N Value - Very Dense
0-4 Fine Soil N Value - Soft	8-15 Fine Soil N Value - Stiff
	>30 Fine Soil N Value - Hard
4-8 Fine Soil N Value - Medium Stiff	15-30 Fine Soil N Value - Very Stiff



## BORING LOG

Project: 77 Terrace Street & Parker  
 Location: Mission Hill, Boston  
 Client: EBI Consulting  
 Driller: Carr-Dee  
 Drilling Methods: 3" H.S.A.  
 Weather: Sunny, Cold, 20's  
 Logged By: PGC Date: 1/21/14  
 Checked By: Date:

SEE PLAN

Boring Locus Map

Boring No: B-8

Location: Middle of Site, 58' S and 20' E of C.L.F.  
 Approx. Ground Elevation: 63.5 (COB Datum)  
 Approx. Groundwater Elevation:  
 Date/Time of Groundwater Elevation:  
 Datum: City of Boston Sewer  
 Project No. 184-1301.00

Depth (feet)	Sample No.	Blows per 6-inch	Pen./ Rec.	Soil Description	Stratum Change Depth (feet)	PID Readings (ppm)	Well Construction Observations	Note No.
1	S1	2	24"/12"	Dark brown, silty fine to medium SAND with gravel, occ. brick, concrete & organics, medium dense (FILL)				
2		6						
3		10						
4		8			FILL 3.5'			
5								
6	S2	29	24"/14"	Light brown, silty f-m SAND with gravel, very dense (GLACIAL TILL)				
7		48						
8		41						
9		40			TILL			
10								
11	S2	81	24"/12"	Light brown, silty f-m SAND with gravel, dense (GLACIAL TILL)				
12		35						
13		30						
14		32						
15					TILL			
16	S4	100/1"	1"/0"	Light brown, silty SAND with gravel, very dense (GLACIAL TILL)				1
17								
18								
19								
20								Est. BOF At EI 44

**NOTES:**

1. The glacial deposit is a very dense, highly consolidated Roxbury conglomerate matrix.

**LEGEND**

S - Split Spoon Sample	O/A - Sample Collected Off the Augers
UT - Undisturbed Tube Sample	
Trace - Approximately 0 to 10%	Some - Approximately 20 to 35%
Little - Approximately 10 to 20%	And - Approximately 35 to 50%
0-10 Coarse Soil N Value - Loose	30-50 Coarse Soil N Value - Dense
10-30 Coarse Soil N Value - Medium Dense	>50 Coarse Soil N Value - Very Dense
0-4 Fine Soil N Value - Soft	8-15 Fine Soil N Value - Stiff
	>30 Fine Soil N Value - Hard
4-8 Fine Soil N Value - Medium Stiff	15-30 Fine Soil N Value - Very Stiff

## BORING LOG

Project: [77 Terrace Street & Parker](#)  
 Location: [Mission Hill, Boston](#)  
 Client: [EBI Consulting](#)  
 Driller: [Carr-Dee](#)  
 Drilling Methods: 3" H.S.A.  
 Weather: Sunny, Cold, 20's  
 Logged By: [PGC](#) Date: 1/21/14  
 Checked By: Date:

SEE PLAN

Boring Locus Map

Boring No: B-8

Location: Middle of Site, 58'W and 20' S of C.L.F.  
 Approx. Ground Elevation:  
 Approx. Groundwater Elevation:  
 Date/Time of Groundwater Obs.:  
 Datum: City of Boston Sewer  
 Project No. [184-1301.00](#)

Depth (feet)	Sample No.	Blows per 6-inch	Pen./Rec.	Soil Description	Stratum Change Depth (feet)	PID Readings (ppm)	Well Construction Observations	Note No.
	S6	100/1"	1"/1"	Light brown, silty SAND with gravel, very dense (GLACIAL TILL)				1
21								
22								2
23				Bottom of Exploration at 22'-0"				
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								

NOTES:

1. The glacial deposit is a very dense, highly consolidated Roxbury Conglomerate matrix.
2. Auger refusal at a depth of 22 feet on possible sound bedrock.

LEGEND

S - Split Spoon Sample	O/A - Sample Collected Off the Augers
UT - Undisturbed Tube Sample	
Trace - Approximately 0 to 10%	Some - Approximately 20 to 35%
Little - Approximately 10 to 20%	And - Approximately 35 to 50%
0-10 Coarse Soil N Value - Loose	30-50 Coarse Soil N Value - Dense
10-30 Coarse Soil N Value - Medium Dense	>50 Coarse Soil N Value - Very Dense
0-4 Fine Soil N Value - Soft	8-15 Fine Soil N Value - Stiff
	>30 Fine Soil N Value - Hard
4-8 Fine Soil N Value - Medium Stiff	15-30 Fine Soil N Value - Very Stiff

**Test Pit Logs**  
**778-796 Parker Street and 77 Terrace Street**  
**Boston, Massachusetts**  
**Appendix C**

<b>EBI-01</b>	
Scale in Feet	Description
0-5	Fill material- Major components include SAND (Fine to coarse), cobbles, concrete and asphalt. Minor components include brick, ash and organic material. Bedrock not encountered at a final depth of 5 feet bgs *Note- Excavation terminated at 5 feet bgs based on site conditions and limited space Lead: (0-5') = 130 mg/kg
* bgs- below ground surface	



<b>EBI-02</b>	
Scale in Feet	Description
0 to 6 Eastern portion of excavation	Fill material- Major components include SAND (Fine to coarse), cobbles and brick.  Minor components include concrete, ash, ceramic fragments, metal pipes and organic material. Lead: <b>(0-4')= 470 mg/kg;</b> <b>(6') = 3,000 mg/kg</b>
0 to 10 Western portion of excavation	Fill material- Major components include SAND (Fine to coarse), cobbles and brick.  Minor components include concrete, ash, ceramic fragments, metal pipes and organic material. Lead: <b>(7-8')= 17 mg/kg</b>
6 to 14 Eastern portion of excavation	Native Material- Glacial till comprised of SAND (Fine to coarse) with some SILT and cobbles (Roxbury Conglomerate); light brown; dry
10 to 14 Eastern portion of excavation	Native Material- Glacial till comprised of SAND (Fine to coarse) with some SILT and cobbles (Roxbury Conglomerate); light brown; dry  Lead: <b>(14') = 8.3 mg/kg</b>
Bedrock not encountered to a completion depth of 14 feet bgs	
* bgs- below ground surface	
<b>Lead exceeds MCP RC S-1 Standard (300 mg/kg)</b>	



EBI-03							
Scale in Feet	Description						
0 to 5	Fill material- Major components include top soil (shallow) SAND (Fine), cobbles and brick. Minor components include concrete, ash and organic material. Ash layer noted at 5 feet bgs Lead: (0-4')= 300 mg/kg (5') = 500 mg/kg						
5 to 12	Native Material- Glacial till comprised of SAND (Fine to coarse) with some SILT, cobbles and boulders (Roxbury Conglomerate); light brown; dry Lead: (5.5-7.5')= 21 mg/kg (12')= 8.3 mg/kg						
Bedrock not encountered to a completion depth of 12 feet bgs. Large boulder prevents further excavation							
* bgs- below ground surface							
<b>Lead exceeds MCP RC S-1 Standard (300 mg/kg)</b>							



<b>EBI-04</b>	
Scale in Feet	Description
0 to 3.5	Fill material- Major components include SAND (Fine to coarse), cobbles and brick. Minor components include concrete, ash, woody material and organic material. Lead: <b>(0-3.5') = 1,300 mg/kg</b>
3.5 to 11.5	Native Material- Glacial till comprised of SAND (Fine to coarse) with some SILT, cobbles and boulders (Roxbury Conglomerate); light brown; dry Lead: (5-6') = 5.7 mg/kg <b>(11.5') = 560 mg/kg</b>
Dense Glacial Till encountered at 7 feet bgs and slopes significantly to a depth of 11.5 bgs	
* bgs- below ground surface	
<b>Lead exceeds MCP RC S-1 Standard (300 mg/kg)</b>	



<b>EBI-05</b>	
Scale in Feet	Description
0 to 4	Fill material- Major components include SAND (Fine to coarse), cobbles and brick. Minor components include concrete, ash, glass, metal pipes and organic material. Lead: <b>(0-4') = 1,800 mg/kg</b>
4 to 14	Native Material- Glacial till comprised of SAND (Fine to medium) with some SILT, cobbles (Roxbury Conglomerate); light brown; dry Lead: (5-6') = 8.4 mg/kg (14') = 9.3 mg/kg
Bedrock not encountered to a completion depth of 14 feet bgs	
* bgs- below ground surface	
<b>Lead exceeds MCP RC S-1 Standard (300 mg/kg)</b>	





<b>EBI-06</b>	
Scale in Feet	Description
0 to 2	Top soil; dark brown; dry Lead: <b>(0-4') = 2,700 mg/kg</b>
2 to 7	Fill material- Major components include SAND (Fine to coarse) and cobbles. Minor components include concrete, ash, brick, ceramic fragments, steel rebar and organic material. Lead: (6-7') = 6.2 mg/kg
7 to 10	Native Material- Glacial till comprised of SAND (Fine to medium) with some SILT and cobbles (Roxbury Conglomerate); light brown; dry Lead: (10') = 66 mg/kg
Dense Glacial Till encountered at 10 feet bgs across bottom of excavation	
* bgs- below ground surface	
Lead exceeds MCP RC S-1 Standard (300 mg/kg)	



<b>EBI-07</b>	
Scale in Feet	Description
0 to 2	Fill material- Major components include SAND (Fine to coarse) and cobbles. Minor components include brick, ash, and organic material. Lead: <b>(0-2') = 420 m/kg</b> Benzo(a)pyrene: <b>(0-2') = 2.6 mg/kg</b>
2 to 14	Native Material- Glacial till comprised of SAND (Fine to medium) with some SILT, cobbles (Roxbury Conglomerate); light brown; dry Lead: (5-7') = 7.4 mg/kg (14') = 7.8 mg/kg
Bedrock not encountered to a completion depth of 14 feet bgs	
* bgs- below ground surface	
<b>Lead exceeds MCP RC S-1 Standard (300 mg/kg)</b>	



<b>EBI-08 (B-5 Location)</b>	
Scale in Feet	Description
0 to 5	Fill material- Major components include SAND (Fine to coarse), cobbles, brick and concrete Minor components include ash, metal piping, tires, and organic material. Lead: <b>(0-5') = 1,400 mg/kg</b> Benzo(a)pyrene: <b>(0-5') = 2.6 mg/kg</b> Benzo(b)fluroanthene: <b>(0-5') = 7.4 mg/kg</b> Dibenz(a,h)anthracene: <b>(0-5') = 1.1 mg/kg</b>
5 to ~ 20	Steel I-beam and concrete floor from previous structure observed. Large void space from former building observed, the extent of the void space is unknown.
Bedrock not encountered to a completion depth of 6 feet bgs	
* bgs- below ground surface	
<b>Lead exceeds MCP RC S-1 Standard (300 mg/kg)</b>	



EBI-09							
Scale in Feet	Description						
0 to 13	Fill material- Major components include SAND (Fine to coarse), cobbles, brick and concrete						
	Minor components include ash, metal wires, asphalt, tires, and organic material.						
	Lead:	(0-4') = 220 mg/kg					
	(13') = 290 mg/kg						
Bedrock not encountered to a completion depth of 13 feet bgs							
* bgs- below ground surface							



EBI-10 (B-7 Location)									
Scale in Feet	Description								
0 to 6	Fill material- Major components include SAND (Fine to coarse), cobbles and brick Minor components include ash, plastic and metal pipes, tires, and organic material. Lead: (0-4') = <b>810 mg/kg</b> Benzo(a)pyrene: (0-4') = <b>4.3 mg/kg</b> Dibenz(a,h)anthracene: (0-4') = <b>0.88 mg/kg</b>								
6 to 8	Native Material- Glacial till comprised of SAND (Fine to medium) with some SILT, cobbles (Roxbury Conglomerate); light brown; dry Lead: (8') = 100 mg/kg								
Bedrock not encountered to a completion depth of 8 feet bgs. Test pit terminated due to time constraints.									
* bgs- below ground surface									
<b>Lead exceeds MCP RC S-1 Standard (300 mg/kg)</b>									



<b>EBI-11 (B-1 Location)</b>	
Scale in Feet	Description
0 to 4	Fill material- Major components include SAND (Fine to coarse), cobbles and brick Minor components include ash, metal pipes, and organic material. Lead: <b>(0-4') = 490 mg/kg</b> Benzo(a)pyrene: <b>(0-4') = 2.5 mg/kg</b>
Bedrock not encountered to a completion depth of 4 feet bgs. Test pit terminated due to time constraints.	
* bgs- below ground surface	
<b>Lead exceeds MCP RC S-1 Standard (300 mg/kg)</b>	

**APPENDIX D**  
**LABORATORY ANALYTICAL RESULTS AND CHAIN-OF-CUSTODY DOCUMENTATION**

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February 6, 2014

Dan Bellucci  
EBI Consultants  
21 B Street  
Burlington, MA 01803

Project Location: Mission Hill, Boston  
Client Job Number:  
Project Number: 12130296  
Laboratory Work Order Number: 14A0842

Enclosed are results of analyses for samples received by the laboratory on January 30, 2014. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Meghan E. Kelley  
Project Manager

EBI Consultants  
21 B Street  
Burlington, MA 01803  
ATTN: Dan Bellucci

REPORT DATE: 2/6/2014

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 12130296

**ANALYTICAL SUMMARY**

WORK ORDER NUMBER: 14A0842

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Mission Hill, Boston

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
EBI-10 (0-4')	14A0842-01	Soil		SW-846 1311 SW-846 6010C	

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

For method 6010, only lead was requested and reported.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

A handwritten signature in black ink, appearing to read "M. Erickson", is written on a light gray rectangular background.

Michael A. Erickson  
Laboratory Director

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0842

Date Received: 1/30/2014

Field Sample #: EBI-10 (0-4')

Sampled: 1/21/2014 15:00

Sample ID: 14A0842-01

Sample Matrix: Soil

TCLP - Metals Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Lead	0.65	0.010	mg/L	1		SW-846 6010C	2/4/14	2/4/14 14:16	OP

**Sample Extraction Data**

Prep Method: SW-846 3010A-SW-846 6010C

Leachates were extracted on 2/3/2014 per SW-846 1311 in Batch B089734

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
14A0842-01 [EBI-10 (0-4)]	B089811	50.0	50.0	02/04/14

**QUALITY CONTROL**

**TCLP - Metals Analyses - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B089811 - SW-846 3010A</b>										
<b>Blank (B089811-BLK1)</b>				Prepared & Analyzed: 02/04/14						
Lead	ND	0.010	mg/L							
<b>LCS (B089811-BS1)</b>				Prepared & Analyzed: 02/04/14						
Lead	0.460	0.010	mg/L	0.500		91.9	80-120			
<b>LCS Dup (B089811-BSD1)</b>				Prepared & Analyzed: 02/04/14						
Lead	0.453	0.010	mg/L	0.500		90.6	80-120	1.44	20	

**FLAG/QUALIFIER SUMMARY**

- \* QC result is outside of established limits.
- † Wide recovery limits established for difficult compound.
- ‡ Wide RPD limits established for difficult compound.
- # Data exceeded client recommended or regulatory level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.



**CERTIFICATIONS**

**Certified Analyses included in this Report**

Analyte	Certifications
---------	----------------

*SW-846 6010C in Water*

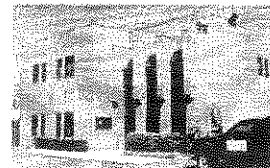
Lead NY,CT,ME,NC,NH,VA,NJ

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC	100033	02/1/2016
MA	Massachusetts DEP	M-MA100	06/30/2014
CT	Connecticut Department of Public Health	PH-0567	09/30/2015
NY	New York State Department of Health	10899 NELAP	04/1/2014
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2014
RI	Rhode Island Department of Health	LAO00112	12/30/2014
NC	North Carolina Div. of Water Quality	652	12/31/2014
NJ	New Jersey DEP	MA007 NELAP	06/30/2014
FL	Florida Department of Health	E871027 NELAP	06/30/2014
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2014
WA	State of Washington Department of Ecology	C2065	02/23/2014
ME	State of Maine	2011028	06/9/2015
VA	Commonwealth of Virginia	460217	12/14/2014
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2014



39 Spruce St.  
 East Longmeadow, MA. 01028  
 P: 413-525-2332  
 F: 413-525-6405  
 www.contestlabs.com



### Sample Receipt Checklist

CLIENT NAME: EBI Consulting RECEIVED BY: KOB DATE: 1-22-14

- 1) Was the chain(s) of custody relinquished and signed?  Yes No No CoC Included  
 2) Does the chain agree with the samples?  Yes No  
 If not, explain:  
 3) Are all the samples in good condition?  Yes No  
 If not, explain:

4) How were the samples received:  
 On Ice  Direct from Sampling  Ambient  In Cooler(s)

Were the samples received in Temperature Compliance of (2-6°C)?  Yes No N/A

Temperature °C by Temp blank \_\_\_\_\_ Temperature °C by Temp gun 5.5°

5) Are there Dissolved samples for the lab to filter? Yes  No

Who was notified \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

6) Are there any RUSH or SHORT HOLDING TIME samples? Yes  No

Who was notified \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

7) Location where samples are stored:

19

Permission to subcontract samples? Yes No  
 (Walk-in clients only) if not already approved  
 Client Signature: \_\_\_\_\_

8) Do all samples have the proper Acid pH: Yes No  N/A

9) Do all samples have the proper Base pH: Yes No  N/A

10) Was the PC notified of any discrepancies with the CoC vs the samples: Yes No  N/A

### Containers received at Con-Test

	# of containers		# of containers
1 Liter Amber		8 oz amber/clear jar	<u>6</u>
500 mL Amber		4 oz amber/clear jar	
250 mL Amber (8oz amber)		2 oz amber/clear jar	
1 Liter Plastic		Plastic Bag / Ziploc	
500 mL Plastic		SOC Kit	
250 mL plastic		Non-ConTest Container	
40 mL Vial - type listed below		Perchlorate Kit	
Coisure / bacteria bottle		Flashpoint bottle	
Dissolved Oxygen bottle		Other glass jar	
Encore		Other	

Laboratory Comments:

40 mL vials: # HCl \_\_\_\_\_ # Methanol \_\_\_\_\_

Time and Date Frozen:

Doc# 277 # Bisulfate \_\_\_\_\_ # DI Water \_\_\_\_\_

Rev. 4 August 2013 # Thiosulfate \_\_\_\_\_ Unpreserved \_\_\_\_\_

**Log-in Sample Receipt Checklist**

(Rejection Criteria Listing - Using Sample Acceptance Policy)

Any False statement will be brought to the attention of Client

Question	Answer (True/False)		Comment
	T	F/NA	
1) The cooler's custody seal, if present, is intact.		NA	
2) The cooler or samples do not appear to have been compromised or tampered with.	T		
3) Samples were received on ice.	T		
4) Cooler Temperature is acceptable.	T		
5) Cooler Temperature is recorded.	T		
6) COC is filled out in ink and legible.	T		
7) COC is filled out with all pertinent information.	T		
8) Field Sampler's name present on COC.	T		
9) There are no discrepancies between the sample IDs on the container and the COC.	T		
10) Samples are received within Holding Time.	T		
11) Sample containers have legible labels.	T		
12) Containers are not broken or leaking.	T		
13) Air Cassettes are not broken/open.		NA	
14) Sample collection date/times are provided.	T		
15) Appropriate sample containers are used.	T		
16) Proper collection media used.	T		
17) No headspace sample bottles are completely filled.	T		
18) There is sufficient volume for all requested analyses, including any requested MS/MSDs.	T		
19) Trip blanks provided if applicable.		NA	
20) VOA sample vials do not have head space or bubble is <6mm (1/4") in diameter.		NA	
21) Samples do not require splitting or compositing.	T		

Who notified of False statements?

Date/Time:

Doc #277 Rev. 4 August 2013

Log-In Technician Initials: KOB

Date/Time: 1-22-14 1500

## Meghan Kelley

---

**From:** William Mallio [wmallio@ebiconsulting.com]  
**Sent:** Thursday, January 30, 2014 3:37 AM  
**To:** Meghan Kelley; Daniel Bellucci  
**Cc:** Richard T. MacAulay  
**Subject:** RE: Mission Hill, Boston Lab Data

Meghan- Please include sample EBI 10 (0-4) in the batch for TCLP test for lead. Bill Mallio

---

**From:** Meghan Kelley [mailto:mkelley@contestlabs.com]  
**Sent:** Wednesday, January 29, 2014 3:38 PM  
**To:** William Mallio; Daniel Bellucci  
**Cc:** Richard T. MacAulay  
**Subject:** RE: Mission Hill, Boston Lab Data

All set Bill, pricing per sample is \$32.00.

---

**From:** William Mallio [mailto:wmallio@ebiconsulting.com]  
**Sent:** Wednesday, January 29, 2014 3:12 PM  
**To:** Meghan Kelley; Daniel Bellucci  
**Cc:** Richard T. MacAulay  
**Subject:** RE: Mission Hill, Boston Lab Data

Meghan- I would like to run TCLP for lead on the following samples: (1) EBI 04 (0-3.5); (2) EBI 06 (0-4); (3) EBI 07 (0-2) and (4) EBI 08 (0-5). Please run on 5 day standard TAT. Thank you. Could you inform me of the cost per sample? Thanks. If questions, please call me on 617-872-6420. Bill Mallio

---

**From:** Meghan Kelley [mailto:mkelley@contestlabs.com]  
**Sent:** Tuesday, January 28, 2014 4:08 PM  
**To:** Daniel Bellucci  
**Cc:** William Mallio  
**Subject:** RE: Mission Hill, Boston Lab Data

All set Dan, moving forward he should get all the data for Mission Hill.

---

**From:** Daniel Bellucci [mailto:dbellucci@ebiconsulting.com]  
**Sent:** Tuesday, January 28, 2014 4:01 PM  
**To:** Meghan Kelley  
**Cc:** William Mallio  
**Subject:** Mission Hill, Boston Lab Data

Meghan, can you please copy Bill Mallio (CC'd) on all lab data generated for this project?

Thank you,  
Dan

**Daniel Bellucci**  
Environmental Scientist  
P: 781.418.2344  
21 B Street | Burlington, MA 01803  
[dbellucci@ebiconsulting.com](mailto:dbellucci@ebiconsulting.com)  
Visit our new website: [www.ebiconsulting.com](http://www.ebiconsulting.com)

*Please consider the environment before printing this email*

**MADEP MCP Analytical Method Report Certification Form**

Laboratory Name: Con-Test Analytical Laboratory Project #: 14A0842  
 Project Location: Mission Hill, Boston RTN: \_\_\_\_\_

This Form provides certifications for the following data set: [list Laboratory Sample ID Number(s)]  
14A0842-01

Matrices: Soil

**CAM Protocol (check all that below)**

8260 VOC CAM II A ( )	7470/7471 Hg CAM IIIB ( )	MassDEP VPH CAM IV A ( )	8081 Pesticides CAM V B ( )	7196 Hex Cr CAM VI B ( )	MassDEP APH CAM IX A ( )
8270 SVOC CAM II B ( )	7010 Metals CAM III C ( )	MassDEP EPH CAM IV A ( )	8151 Herbicides CAM V C ( )	8330 Explosives CAM VIII A ( )	TO-15 VOC CAM IX B ( )
6010 Metals CAM III A (X)	6020 Metals CAM III D ( )	8082 PCB CAM V A ( )	9014 Total Cyanide/PAC CAM VI A ( )	6860 Perchlorate CAM VIII B ( )	

**Affirmative response to Questions A through F is required for "Presumptive Certainty" status**

<b>A</b>	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>B</b>	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>C</b>	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>D</b>	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>E a</b>	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	<input type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>E b</b>	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	<input type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>F</b>	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all No responses to Questions A through E)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>

**A response to questions G, H and I below is required for "Presumptive Certainty" status**

<b>G</b>	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
----------	---	--

**Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.**

<b>H</b>	Were all QC performance standards specified in the CAM protocol(s) achieved?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>I</b>	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <sup>1</sup>

<sup>1</sup> All Negative responses must be addressed in an attached Environmental Laboratory case narrative.

**I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.**

Signature: \_\_\_\_\_ Michael A. Erickson Position: Laboratory Director  
 Printed Name: Michael A. Erickson Date: 02/06/14



February 5, 2014

Dan Bellucci  
EBI Consultants  
21 B Street  
Burlington, MA 01803

Project Location: Mission Hill, Boston  
Client Job Number:  
Project Number: 12130296  
Laboratory Work Order Number: 14A0821

Enclosed are results of analyses for samples received by the laboratory on January 29, 2014. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Meghan E. Kelley  
Project Manager

EBI Consultants  
21 B Street  
Burlington, MA 01803  
ATTN: Dan Bellucci

REPORT DATE: 2/5/2014

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 12130296

**ANALYTICAL SUMMARY**

WORK ORDER NUMBER: 14A0821

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Mission Hill, Boston

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
EBI-07 (0-2)	14A0821-01	Soil		SW-846 1311 SW-846 6010C	
EBI-04 (0-3.5)	14A0821-02	Soil		SW-846 1311 SW-846 6010C	
EBI-06 (0-4)	14A0821-03	Soil		SW-846 1311 SW-846 6010C	
EBI-08 (0-5)	14A0821-04	Soil		SW-846 1311 SW-846 6010C	

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

For method 6010, only lead was requested and reported.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

A handwritten signature in black ink, appearing to read "M. Erickson", is written on a light gray rectangular background.

Michael A. Erickson  
Laboratory Director

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0821

Date Received: 1/29/2014

Field Sample #: EBI-07 (0-2)

Sampled: 1/20/2014 16:00

Sample ID: 14A0821-01

Sample Matrix: Soil

TCLP - Metals Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Lead	0.30	0.010	mg/L	1		SW-846 6010C	2/4/14	2/4/14 13:39	OP

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0821

Date Received: 1/29/2014

Field Sample #: EBI-04 (0-3.5)

Sampled: 1/20/2014 16:40

Sample ID: 14A0821-02

Sample Matrix: Soil

TCLP - Metals Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Lead	0.89	0.010	mg/L	1		SW-846 6010C	2/4/14	2/4/14 13:45	OP

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0821

Date Received: 1/29/2014

Sampled: 1/21/2014 09:50

Field Sample #: EBI-06 (0-4)

Sample ID: 14A0821-03

Sample Matrix: Soil

TCLP - Metals Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Lead	2.1	0.010	mg/L	1		SW-846 6010C	2/4/14	2/4/14 13:51	OP

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0821

Date Received: 1/29/2014

Field Sample #: EBI-08 (0-5)

Sampled: 1/21/2014 13:20

Sample ID: 14A0821-04

Sample Matrix: Soil

TCLP - Metals Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Lead	1.2	0.010	mg/L	1		SW-846 6010C	2/4/14	2/4/14 14:10	OP



**Sample Extraction Data**

Prep Method: SW-846 3010A-SW-846 6010C

Leachates were extracted on 2/3/2014 per SW-846 1311 in Batch B089734

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
14A0821-01 [EBI-07 (0-2)]	B089811	50.0	50.0	02/04/14
14A0821-02 [EBI-04 (0-3.5)]	B089811	50.0	50.0	02/04/14
14A0821-03 [EBI-06 (0-4)]	B089811	50.0	50.0	02/04/14
14A0821-04 [EBI-08 (0-5)]	B089811	50.0	50.0	02/04/14

**QUALITY CONTROL**

**TCLP - Metals Analyses - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B089811 - SW-846 3010A</b>										
<b>Blank (B089811-BLK1)</b>				Prepared & Analyzed: 02/04/14						
Lead	ND	0.010	mg/L							
<b>LCS (B089811-BS1)</b>				Prepared & Analyzed: 02/04/14						
Lead	0.460	0.010	mg/L	0.500		91.9	80-120			
<b>LCS Dup (B089811-BSD1)</b>				Prepared & Analyzed: 02/04/14						
Lead	0.453	0.010	mg/L	0.500		90.6	80-120	1.44	20	

**FLAG/QUALIFIER SUMMARY**

- \* QC result is outside of established limits.
- † Wide recovery limits established for difficult compound.
- ‡ Wide RPD limits established for difficult compound.
- # Data exceeded client recommended or regulatory level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

**CERTIFICATIONS**

**Certified Analyses included in this Report**

Analyte	Certifications
---------	----------------

*SW-846 6010C in Water*

Lead NY,CT,ME,NC,NH,VA,NJ

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC	100033	02/1/2016
MA	Massachusetts DEP	M-MA100	06/30/2014
CT	Connecticut Department of Public Health	PH-0567	09/30/2015
NY	New York State Department of Health	10899 NELAP	04/1/2014
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2014
RI	Rhode Island Department of Health	LAO00112	12/30/2014
NC	North Carolina Div. of Water Quality	652	12/31/2014
NJ	New Jersey DEP	MA007 NELAP	06/30/2014
FL	Florida Department of Health	E871027 NELAP	06/30/2014
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2014
WA	State of Washington Department of Ecology	C2065	02/23/2014
ME	State of Maine	2011028	06/9/2015
VA	Commonwealth of Virginia	460217	12/14/2014
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2014



14A0821



**con-test**  
ANALYTICAL LABORATORY

Phone: 413-525-2332  
Fax: 413-525-8405  
Email: info@contestlabs.com  
www.contestlabs.com

**CHAIN OF CUSTODY RECORD**

39 Spruce Street  
East longmeadow, MA 01028

Rev 04.05.12

Company Name: EBI Consulting  
Address: 21 B St.  
Burlington, MA  
Attention: Meghan Kelley  
Project Location: MISSION Hill  
Sampled By: D. Bellucci  
Project Proposal Provided? (for billing purposes)  
 yes \_\_\_\_\_ proposal date

Telephone: (781) 418 2344  
Project # \_\_\_\_\_  
Client PO# \_\_\_\_\_  
DATA DELIVERY (check all that apply)  
 FAX  EMAIL  WEBSITE  
Fax # \_\_\_\_\_  
Email: \_\_\_\_\_  
Format:  PDF  EXCEL  OGIS  
 OTHER  
 "Enhanced Data Package"

ANALYSIS REQUESTED										
Lead										
EPH										
TCIP Pb										

# of Containers  
\*\* Preservation  
\*\*\* Container Code

**Dissolved Metals**  
 Field Filtered  
 Lab to Filter

\*\*\* Cont. Code:  
A=amber glass  
G=glass  
P=plastic  
ST=sterile  
V= vial  
S=summa can  
T=tedar bag  
O=Other

\*\* Preservation  
I = Iced  
H = HCL  
M = Methanol  
N = Nitric Acid  
S = Sulfuric Acid  
B = Sodium bisulfate  
X = Na hydroxide  
T = Na thiosulfate  
O = Other

Con-Test Lab ID <small>(laboratory use only)</small>	Client Sample ID / Description	Collection		Composite	Grab	*Matrix Code	Conc Code
		Beginning Date/Time	Ending Date/Time				
11	<del>B-1</del> B-1 (0-12')	01/21/14	0750	X	X		
12	B-2 (0-2')		0830	X			
13	B-2 (5-5.5')		0910	X			
14	EBI-08 (0-3')		1330	X	X		
15	EBI-09 (0-4')		1400	X	X		
16	EBI-09 (13')		1415	X	X		

Comments:

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:  
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature) [Signature] Date/Time: 01/21/14

Received by: (signature) [Signature] Date/Time: 1/21/14 1700

Relinquished by: (signature) [Signature] Date/Time: 1/21/14 1700

Received by: (signature) [Signature] Date/Time: 1/21/14 1700

Turnaround <sup>††</sup>

7-Day  
 10-Day  
 Other 4

RUSH <sup>†</sup>

24-Hr  48-Hr  
 72-Hr  4-Day  
 Require lab approval

Detection Limit Requirements

Massachusetts: \_\_\_\_\_  
Connecticut: \_\_\_\_\_  
Other: \_\_\_\_\_

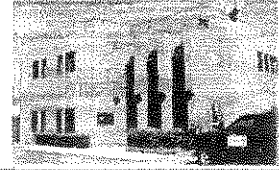
Is your project MCP or RCP ?

MCP Form Required  
 RCP Form Required  
 MA State DW Form Required PWSID # \_\_\_\_\_

NECAC & AIHA-LAP, LLC Accredited  
WBE/DBE Certified

<sup>††</sup> TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT. PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT

39 Spruce St.  
 East Longmeadow, MA. 01028  
 P: 413-525-2332  
 F: 413-525-6405  
 www.contestlabs.com



### Sample Receipt Checklist

CLIENT NAME: EBI Consulting RECEIVED BY: RLR DATE: 1/21/14

- 1) Was the chain(s) of custody relinquished and signed?  Yes  No  No CoC Included  
 2) Does the chain agree with the samples?  Yes  No  
 If not, explain:  
 3) Are all the samples in good condition?  Yes  No  
 If not, explain:

4) How were the samples received:

On Ice  Direct from Sampling  Ambient  In Cooler(s)

Were the samples received in Temperature Compliance of (2-6°C)?  Yes  No  N/A

Temperature °C by Temp blank \_\_\_\_\_ Temperature °C by Temp gun 2.4°C

5) Are there Dissolved samples for the lab to filter? Yes  No

Who was notified \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

6) Are there any RUSH or SHORT HOLDING TIME samples? Yes  No

Who was notified \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

7) Location where samples are stored:

19

Permission to subcontract samples? Yes  No   
 (Walk-in clients only) if not already approved  
 Client Signature: \_\_\_\_\_

8) Do all samples have the proper Acid pH: Yes  No  N/A

9) Do all samples have the proper Base pH: Yes  No  N/A

10) Was the PC notified of any discrepancies with the CoC vs the samples: Yes  No  N/A

### Containers received at Con-Test

	# of containers		# of containers
1 Liter Amber		8 oz <u>amber</u> /clear jar	<u>39</u>
500 mL Amber		4 oz amber/clear jar	
250 mL Amber (8oz amber)		2 oz amber/clear jar	
1 Liter Plastic		Plastic Bag / Ziploc	
500 mL Plastic		SOC Kit	
250 mL plastic		Non-ConTest Container	
40 mL Vial - type listed below		Perchlorate Kit	
Colisure / bacteria bottle		Flashpoint bottle	
Dissolved Oxygen bottle		Other glass jar	
Encore		Other	

Laboratory Comments:

40 mL vials: # HCl \_\_\_\_\_ # Methanol \_\_\_\_\_  
 # Bisulfate \_\_\_\_\_ # DI Water \_\_\_\_\_  
 # Thiosulfate \_\_\_\_\_ Unpreserved \_\_\_\_\_

Time and Date Frozen:

**Log In Sample Receipt Checklist**

(Rejection Criteria Listing - Using Sample Acceptance Policy)

Any False statement will be brought to the attention of Client

Question	Answer (True/False)		Comment
	T	F/NA	
1) The cooler's custody seal, if present, is intact.	T		
2) The cooler or samples do not appear to have been compromised or tampered with.	T		
3) Samples were received on ice.	T		
4) Cooler Temperature is acceptable.	T		
5) Cooler Temperature is recorded.	T		
6) COC is filled out in ink and legible.	T		
7) COC is filled out with all pertinent information.	T		
8) Field Sampler's name present on COC.	T		
9) There are no discrepancies between the sample IDs on the container and the COC.	T		
10) Samples are received within Holding Time.	T		
11) Sample containers have legible labels.	T		
12) Containers are not broken or leaking.	T		
13) Air Cassettes are not broken/open.		NA	
14) Sample collection date/times are provided.	T		
15) Appropriate sample containers are used.	T		
16) Proper collection media used.	T		
17) No headspace sample bottles are completely filled.	T		
18) There is sufficient volume for all requested analyses, including any requested MS/MSDs.	T		
19) Trip blanks provided if applicable.		NA	
20) VOA sample vials do not have head space or bubble is <6mm (1/4") in diameter.		NA	
21) Samples do not require splitting or compositing.	T		

Who notified of False statements?

Date/Time:

Doc #277 Rev. 4 August 2013

Log-In Technician Initials:

Date/Time:

RLF 4/21/14 1700



## Meghan Kelley

---

**From:** William Mallio [wmallio@ebiconsulting.com]  
**Sent:** Wednesday, January 29, 2014 3:12 PM  
**To:** Meghan Kelley; Daniel Bellucci  
**Cc:** Richard T. MacAulay  
**Subject:** RE: Mission Hill, Boston Lab Data

Meghan- I would like to run TCLP for lead on the following samples: (1) EBI 04 (0-3.5); (2) EBI 06 (0-4); (3) EBI 07 (0-2) and (4) EBI 08 (0-5). Please run on 5 day standard TAT. Thank you. Could you inform me of the cost per sample? Thanks. If questions, please call me on 617-872-6420. Bill Mallio

---

**From:** Meghan Kelley [mailto:mkelley@contestlabs.com]  
**Sent:** Tuesday, January 28, 2014 4:08 PM  
**To:** Daniel Bellucci  
**Cc:** William Mallio  
**Subject:** RE: Mission Hill, Boston Lab Data

All set Dan, moving forward he should get all the data for Mission Hill.

---

**From:** Daniel Bellucci [mailto:dbellucci@ebiconsulting.com]  
**Sent:** Tuesday, January 28, 2014 4:01 PM  
**To:** Meghan Kelley  
**Cc:** William Mallio  
**Subject:** Mission Hill, Boston Lab Data

Meghan, can you please copy Bill Mallio (CC'd) on all lab data generated for this project?

Thank you,  
Dan

**Daniel Bellucci**  
Environmental Scientist  
P: 781.418.2344  
21 B Street | Burlington, MA 01803  
[dbellucci@ebiconsulting.com](mailto:dbellucci@ebiconsulting.com)  
Visit our new website: [www.ebiconsulting.com](http://www.ebiconsulting.com)



*Please consider the environment before printing this email*

**MADEP MCP Analytical Method Report Certification Form**

Laboratory Name: Con-Test Analytical Laboratory	Project #: 14A0821
Project Location: Mission Hill, Boston	RTN:

This Form provides certifications for the following data set: [list Laboratory Sample ID Number(s)]  
 14A0821-01 thru 14A0821-04

Matrices: Soil

**CAM Protocol (check all that below)**

8260 VOC CAM II A ( )	7470/7471 Hg CAM IIIB ( )	MassDEP VPH CAM IV A ( )	8081 Pesticides CAM V B ( )	7196 Hex Cr CAM VI B ( )	MassDEP APH CAM IX A ( )
8270 SVOC CAM II B ( )	7010 Metals CAM III C ( )	MassDEP EPH CAM IV A ( )	8151 Herbicides CAM V C ( )	8330 Explosives CAM VIII A ( )	TO-15 VOC CAM IX B ( )
6010 Metals CAM III A (X)	6020 Metals CAM III D ( )	8082 PCB CAM V A ( )	9014 Total Cyanide/PAC CAM VI A ( )	6860 Perchlorate CAM VIII B ( )	

**Affirmative response to Questions A through F is required for "Presumptive Certainty" status**

<b>A</b>	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>B</b>	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>C</b>	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>D</b>	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>E a</b>	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	<input type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>E b</b>	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	<input type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>F</b>	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all No responses to Questions A through E)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>

**A response to questions G, H and I below is required for "Presumptive Certainty" status**


<b>G</b>	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
----------	---	--

**Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.**

<b>H</b>	Were all QC performance standards specified in the CAM protocol(s) achieved?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>I</b>	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <sup>1</sup>

<sup>1</sup> All Negative responses must be addressed in an attached Environmental Laboratory case narrative.

**I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.**

Signature: _____ 	Position: Laboratory Director
Printed Name: Michael A. Erickson	Date: 02/04/14

February 4, 2014

Dan Bellucci  
EBI Consultants  
21 B Street  
Burlington, MA 01803

Project Location: Mission Hill, Boston  
Client Job Number:  
Project Number: 12130296  
Laboratory Work Order Number: 14A0795

Enclosed are results of analyses for samples received by the laboratory on January 28, 2014. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Meghan E. Kelley  
Project Manager



39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

EBI Consultants  
21 B Street  
Burlington, MA 01803  
ATTN: Dan Bellucci

REPORT DATE: 2/4/2014

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 12130296

**ANALYTICAL SUMMARY**

WORK ORDER NUMBER: 14A0795

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Mission Hill, Boston

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
EBI-03 (5)	14A0795-01	Soil		SW-846 1311 SW-846 6010C	
EBI-02 (6)	14A0795-02	Soil		SM 2540G SW-846 1311 SW-846 6010C	
EBI-05 (0-4)	14A0795-03	Soil		SW-846 7471B SW-846 1311 SW-846 6010C	

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

For method 6010, only total RCRA 8 metals and TCLP lead were requested and reported.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

A handwritten signature in black ink, appearing to read "M. Erickson", is displayed on a light gray rectangular background.

Michael A. Erickson  
Laboratory Director

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0795

Date Received: 1/28/2014

Field Sample #: EBI-03 (5)

Sampled: 1/20/2014 08:15

Sample ID: 14A0795-01

Sample Matrix: Soil

TCLP - Metals Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Lead	2.8	0.010	mg/L	1		SW-846 6010C	2/4/14	2/4/14 13:22	OP

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0795

Date Received: 1/28/2014

Field Sample #: EBI-02 (6)

Sampled: 1/20/2014 11:00

Sample ID: 14A0795-02

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	2.9	mg/Kg dry	1		SW-846 6010C	1/28/14	1/29/14 15:38	OP
Barium	360	2.9	mg/Kg dry	1		SW-846 6010C	1/28/14	1/29/14 15:38	OP
Cadmium	5.0	0.29	mg/Kg dry	1		SW-846 6010C	1/28/14	1/29/14 15:38	OP
Chromium	17	0.57	mg/Kg dry	1		SW-846 6010C	1/28/14	1/29/14 15:38	OP
Lead	2800	0.85	mg/Kg dry	1		SW-846 6010C	1/21/14	1/22/14 19:24	OP
Mercury	0.80	0.15	mg/Kg dry	5		SW-846 7471B	1/31/14	2/3/14 13:57	SAJ
Selenium	ND	5.7	mg/Kg dry	1		SW-846 6010C	1/28/14	1/29/14 15:38	OP
Silver	ND	0.57	mg/Kg dry	1		SW-846 6010C	1/28/14	1/29/14 15:38	OP

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0795

Date Received: 1/28/2014

Field Sample #: EBI-02 (6)

Sampled: 1/20/2014 11:00

Sample ID: 14A0795-02

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	81.2		% Wt	1		SM 2540G	2/1/14	2/3/14 8:38	MLA



Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0795

Date Received: 1/28/2014

Field Sample #: EBI-02 (6)

Sampled: 1/20/2014 11:00

Sample ID: 14A0795-02

Sample Matrix: Soil

TCLP - Metals Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Lead	0.61	0.010	mg/L	1		SW-846 6010C	2/4/14	2/4/14 13:27	OP

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0795

Date Received: 1/28/2014

Field Sample #: EBI-05 (0-4)

Sampled: 1/20/2014 13:30

Sample ID: 14A0795-03

Sample Matrix: Soil

TCLP - Metals Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Lead	6.9	0.010	mg/L	1		SW-846 6010C	2/4/14	2/4/14 13:33	OP

**Sample Extraction Data**

**Prep Method: % Solids-SM 2540G**

Lab Number [Field ID]	Batch	Date
14A0795-02 [EBI-02 (6)]	B089703	02/01/14

**Prep Method: SW-846 3050B-SW-846 6010C**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
14A0795-02 [EBI-02 (6)]	B089088	1.08	50.0	01/21/14

**Prep Method: SW-846 3050B-SW-846 6010C**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
14A0795-02 [EBI-02 (6)]	B089469	1.07	50.0	01/28/14

**Prep Method: SW-846 3010A-SW-846 6010C**

Leachates were extracted on 2/3/2014 per SW-846 1311 in Batch B089734

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
14A0795-01 [EBI-03 (5)]	B089811	50.0	50.0	02/04/14
14A0795-02 [EBI-02 (6)]	B089811	50.0	50.0	02/04/14
14A0795-03 [EBI-05 (0-4)]	B089811	50.0	50.0	02/04/14

**Prep Method: SW-846 7471-SW-846 7471B**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
14A0795-02 [EBI-02 (6)]	B089616	0.605	50.0	01/31/14

**QUALITY CONTROL**

**Metals Analyses (Total) - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B089088 - SW-846 3050B</b>										
<b>Blank (B089088-BLK1)</b> Prepared: 01/21/14 Analyzed: 01/22/14										
Lead	ND	0.75	mg/Kg wet							
<b>LCS (B089088-BS1)</b> Prepared: 01/21/14 Analyzed: 01/22/14										
Lead	104	1.5	mg/Kg wet	115		90.6	82.4-117.8			
<b>LCS Dup (B089088-BSD1)</b> Prepared: 01/21/14 Analyzed: 01/22/14										
Lead	102	1.5	mg/Kg wet	115		88.6	82.4-117.8	2.24	30	
<b>MRL Check (B089088-MRL1)</b> Prepared: 01/21/14 Analyzed: 01/22/14										
Lead	0.624	0.71	mg/Kg wet	0.709		88.0	80-120			
<b>Batch B089469 - SW-846 3050B</b>										
<b>Blank (B089469-BLK1)</b> Prepared: 01/28/14 Analyzed: 01/29/14										
Arsenic	ND	2.5	mg/Kg wet							
Barium	ND	2.5	mg/Kg wet							
Cadmium	ND	0.25	mg/Kg wet							
Chromium	ND	0.50	mg/Kg wet							
Selenium	ND	5.0	mg/Kg wet							
Silver	ND	0.50	mg/Kg wet							
<b>LCS (B089469-BS1)</b> Prepared: 01/28/14 Analyzed: 01/29/14										
Arsenic	103	5.0	mg/Kg wet	99.6		103	83-117.6			
Barium	305	5.0	mg/Kg wet	310		98.4	83.2-117.5			
Cadmium	170	0.50	mg/Kg wet	182		93.4	83.1-116.9			
Chromium	134	0.99	mg/Kg wet	136		98.2	81.6-117.6			
Selenium	151	9.9	mg/Kg wet	150		101	80-120			
Silver	36.1	0.99	mg/Kg wet	40.4		89.4	66.2-133.8			
<b>LCS Dup (B089469-BSD1)</b> Prepared: 01/28/14 Analyzed: 01/29/14										
Arsenic	100	5.0	mg/Kg wet	99.6		101	83-117.6	2.50	30	
Barium	294	5.0	mg/Kg wet	310		94.9	83.2-117.5	3.64	30	
Cadmium	168	0.50	mg/Kg wet	182		92.4	83.1-116.9	1.08	30	
Chromium	132	1.0	mg/Kg wet	136		97.2	81.6-117.6	1.03	30	
Selenium	145	10	mg/Kg wet	150		96.6	80-120	4.38	30	
Silver	35.1	1.0	mg/Kg wet	40.4		86.9	66.2-133.8	2.84	30	
<b>Batch B089616 - SW-846 7471</b>										
<b>Blank (B089616-BLK1)</b> Prepared: 01/31/14 Analyzed: 02/03/14										
Mercury	ND	0.025	mg/Kg wet							

**QUALITY CONTROL**

**Metals Analyses (Total) - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B089616 - SW-846 7471</b>										
<b>LCS (B089616-BS1)</b>					Prepared: 01/31/14 Analyzed: 02/03/14					
Mercury	4.14	0.33	mg/Kg wet	4.05		102	71.6-128.1			
<b>LCS Dup (B089616-BSD1)</b>					Prepared: 01/31/14 Analyzed: 02/03/14					
Mercury	4.13	0.33	mg/Kg wet	4.05		102	71.6-128.1	0.306	30	

**QUALITY CONTROL**

**TCLP - Metals Analyses - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B089811 - SW-846 3010A</b>										
<b>Blank (B089811-BLK1)</b>				Prepared & Analyzed: 02/04/14						
Lead	ND	0.010	mg/L							
<b>LCS (B089811-BS1)</b>				Prepared & Analyzed: 02/04/14						
Lead	0.460	0.010	mg/L	0.500		91.9	80-120			
<b>LCS Dup (B089811-BSD1)</b>				Prepared & Analyzed: 02/04/14						
Lead	0.453	0.010	mg/L	0.500		90.6	80-120	1.44	20	

**FLAG/QUALIFIER SUMMARY**

- \* QC result is outside of established limits.
- † Wide recovery limits established for difficult compound.
- ‡ Wide RPD limits established for difficult compound.
- # Data exceeded client recommended or regulatory level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

**CERTIFICATIONS**

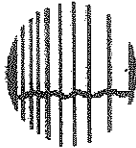
**Certified Analyses included in this Report**

Analyte	Certifications
<b>SW-846 6010C in Soil</b>	
Arsenic	CT,NH,NY,ME,NC,VA,NJ
Barium	CT,NH,NY,ME,NC,VA,NJ
Cadmium	CT,NH,NY,ME,NC,VA,NJ
Chromium	CT,NH,NY,ME,NC,VA,NJ
Lead	CT,NH,NY,AIHA,ME,NC,VA,NJ
Selenium	CT,NH,NY,ME,NC,VA,NJ
Silver	CT,NH,NY,ME,NC,VA,NJ
<b>SW-846 6010C in Water</b>	
Lead	NY,CT,ME,NC,NH,VA,NJ
<b>SW-846 7471B in Soil</b>	
Mercury	CT,NH,NY,NC,ME,VA,NJ

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC	100033	02/1/2016
MA	Massachusetts DEP	M-MA100	06/30/2014
CT	Connecticut Department of Public Health	PH-0567	09/30/2015
NY	New York State Department of Health	10899 NELAP	04/1/2014
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2014
RI	Rhode Island Department of Health	LAO00112	12/30/2014
NC	North Carolina Div. of Water Quality	652	12/31/2014
NJ	New Jersey DEP	MA007 NELAP	06/30/2014
FL	Florida Department of Health	E871027 NELAP	06/30/2014
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2014
WA	State of Washington Department of Ecology	C2065	02/23/2014
ME	State of Maine	2011028	06/9/2015
VA	Commonwealth of Virginia	460217	12/14/2014
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2014





con-test

ANALYTICAL LABORATORY

Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com

CHAIN OF CUSTODY RECORD

39 Spruce Street
East longmeadow, MA 01028

14A0795

413594 (MP)
Rev 04.05.12

Company Name: EBI Consulting
Address: 21 B St
Burlington, MA 01803
Attention: Meg Don Kelley
Project Location: Mission Hill, Boston
Sampled By: J. Bellucci
Project Proposal Provided? (for billing purposes)
yes \_\_\_\_\_ proposal date \_\_\_\_\_

Telephone: 781-418-2344
Project #: 42130296
Client PO#
DATA DELIVERY (check all that apply)
FAX [ ] EMAIL [x] WEBSITE [ ]
Fax #
Email:
Format: PDF [x] EXCEL [ ] OGIS [ ]
OTHER [ ]
"Enhanced Data Package" [ ]

Table with columns for Lead, ERH, Rockas Metals, TCIP Pb and rows for sample IDs 01-10.

# of Containers
\*\* Preservation
\*\*\* Container Code
Dissolved Metals
Field Filtered
Lab to Filter
\*\*\* Cont. Code:
A=amber glass
G=glass
P=plastic
ST=sterile
V=vial
S=summa can
T=tedlar bag
O=Other
\*\*\* Preservation
I=iced
H=HCL
M=Methanol
N=Nitric Acid
S=Sulfuric Acid
B=Sodium bisulfate
X=Na hydroxide
T=Na thiosulfate
O=Other
\*\*\* Matrix Code:
GW=groundwater
WW=wastewater
DW=drinking water
A=air
S=soil/solid
SL=sludge
O=other

Main data table with columns: Con-Test Lab ID, Client Sample ID / Description, Beginning Date/Time, Ending Date/Time, Composite, Grab, Matrix Code, Conc Code.

Comments:
Reactivata per Dan B, on a standard TAT.
MUGO 1/28/14

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature) Date/Time: 1/21/14 15:40
Received by: (signature) Date/Time: 1/20/14 15:40
Relinquished by: (signature) Date/Time: 1/20/14 17:45
Received by: (signature) Date/Time: 1/20/14 17:45

Turnaround \*\*
7-Day [ ]
10-Day [ ]
Other 5-day [x]
RUSH †
24-Hr [ ] 48-Hr [ ]
72-Hr [ ] 4-Day [ ]
† Require lab approval

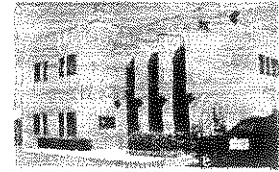
Detection Limit Requirements
Massachusetts:
Connecticut:
Other:

Is your project MCP or RCP?
MCP Form Required [x]
RCP Form Required [ ]
MA State DW Form Required [ ]
PWSID #
NELAC & AIHA-LAP, LLC Accredited
WBE/DBE Certified

\*\* TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT. PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT



39 Spruce St.  
 East Longmeadow, MA. 01028  
 P: 413-525-2332  
 F: 413-525-6405  
 www.contestlabs.com



**Sample Receipt Checklist**

CLIENT NAME: EBI Consulting RECEIVED BY: KOB DATE: 1-20-14

- 1) Was the chain(s) of custody relinquished and signed?  Yes  No No CoC Included
- 2) Does the chain agree with the samples?  Yes  No  
If not, explain:
- 3) Are all the samples in good condition?  Yes  No  
If not, explain:
- 4) How were the samples received:

On Ice  Direct from Sampling  Ambient  In Cooler(s)

Were the samples received in Temperature Compliance of (2-6°C)?  Yes  No N/A

Temperature °C by Temp blank \_\_\_\_\_ Temperature °C by Temp gun 9.5°C

5) Are there Dissolved samples for the lab to filter? Yes  No

Who was notified \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

6) Are there any RUSH or SHORT HOLDING TIME samples? Yes  No

Who was notified \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

7) Location where samples are stored:

19

Permission to subcontract samples? Yes No  
 (Walk-in clients only) if not already approved  
 Client Signature: \_\_\_\_\_

8) Do all samples have the proper Acid pH: Yes No  N/A

9) Do all samples have the proper Base pH: Yes No  N/A

10) Was the PC notified of any discrepancies with the CoC vs the samples: Yes No N/A

**Containers received at Con-Test**

	# of containers		# of containers
1 Liter Amber		8 oz <u>amber/clear jar</u>	<u>22</u>
500 mL Amber		4 oz amber/clear jar	
250 mL Amber (8oz amber)		2 oz amber/clear jar	
1 Liter Plastic		Plastic Bag / Ziploc	
500 mL Plastic		SOC Kit	
250 mL plastic		Non-ConTest Container	
40 mL Vial - type listed below		Perchlorate Kit	
Colisure / bacteria bottle		Flashpoint bottle	
Dissolved Oxygen bottle		Other glass jar	
Encore		Other	

Laboratory Comments:

40 mL vials: # HCl \_\_\_\_\_ # Methanol \_\_\_\_\_  
 # Bisulfate \_\_\_\_\_ # DI Water \_\_\_\_\_  
 # Thiosulfate \_\_\_\_\_ Unpreserved \_\_\_\_\_

Time and Date Frozen:

Doc# 277

Rev. 4 August 2013

**Login Sample Receipt Checklist**  
 (Rejection Criteria Listing - Using Sample Acceptance Policy)  
 Any False statement will be brought to the attention of Client

Question	Answer (True/False)		Comment
	T/F/NA		
1) The cooler's custody seal, if present, is intact.	NA		
2) The cooler or samples do not appear to have been compromised or tampered with.	T		
3) Samples were received on ice.	T		
4) Cooler Temperature is acceptable.	T		
5) Cooler Temperature is recorded.	T		
6) COC is filled out in ink and legible.	T		
7) COC is filled out with all pertinent information.	T		
8) Field Sampler's name present on COC.	T		
9) There are no discrepancies between the sample IDs on the container and the COC.	T		
10) Samples are received within Holding Time.	T		
11) Sample containers have legible labels.	T		
12) Containers are not broken or leaking.	T		
13) Air Cassettes are not broken/open.	NA		
14) Sample collection date/times are provided.	T		
15) Appropriate sample containers are used.	T		
16) Proper collection media used.	T		
17) No headspace sample bottles are completely filled.	T		
18) There is sufficient volume for all requested analyses, including any requested MS/MSDs.	T		
19) Trip blanks provided if applicable.	NA		
20) VOA sample vials do not have head space or bubble is <6mm (1/4") in diameter.	NA		
21) Samples do not require splitting or compositing.	T		

Doc #277 Rev. 4 August 2013      Who notified of False statements?  
 Log-In Technician Initials: **KOB**

Date/Time:  
 Date/Time: **1-28-14 1745**

**MADEP MCP Analytical Method Report Certification Form**

Laboratory Name: Con-Test Analytical Laboratory Project #: 14A0795  
 Project Location: Mission Hill, Boston RTN: \_\_\_\_\_

This Form provides certifications for the following data set: [list Laboratory Sample ID Number(s)]  
14A0795-01 thru 14A0795-03

Matrices: Soil

**CAM Protocol (check all that below)**

8260 VOC CAM II A ( )	7470/7471 Hg CAM IIIB (X)	MassDEP VPH CAM IV A ( )	8081 Pesticides CAM V B ( )	7196 Hex Cr CAM VI B ( )	MassDEP APH CAM IX A ( )
8270 SVOC CAM II B ( )	7010 Metals CAM III C ( )	MassDEP EPH CAM IV A ( )	8151 Herbicides CAM V C ( )	8330 Explosives CAM VIII A ( )	TO-15 VOC CAM IX B ( )
6010 Metals CAM III A (X)	6020 Metals CAM III D ( )	8082 PCB CAM V A ( )	9014 Total Cyanide/PAC CAM VI A ( )	6860 Perchlorate CAM VIII B ( )	

**Affirmative response to Questions A through F is required for "Presumptive Certainty" status**

<b>A</b>	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>B</b>	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>C</b>	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>D</b>	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>E a</b>	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	<input type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>E b</b>	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	<input type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>F</b>	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all No responses to Questions A through E)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>

**A response to questions G, H and I below is required for "Presumptive Certainty" status**

<b>G</b>	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
----------	---	--

**Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.**

<b>H</b>	Were all QC performance standards specified in the CAM protocol(s) achieved?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>I</b>	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <sup>1</sup>

<sup>1</sup> All Negative responses must be addressed in an attached Environmental Laboratory case narrative.

**I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.**

Signature: \_\_\_\_\_ *M Erickson* \_\_\_\_\_ Position: Laboratory Director  
 Printed Name: Michael A. Erickson Date: 02/04/14

January 29, 2014

Dan Bellucci  
EBI Consultants  
21 B Street  
Burlington, MA 01803

Project Location: Mission Hill, Boston  
Client Job Number:  
Project Number: 12130296  
Laboratory Work Order Number: 14A0650

Enclosed are results of analyses for samples received by the laboratory on January 22, 2014. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Meghan E. Kelley  
Project Manager

EBI Consultants  
21 B Street  
Burlington, MA 01803  
ATTN: Dan Bellucci

REPORT DATE: 1/29/2014

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 12130296

**ANALYTICAL SUMMARY**

WORK ORDER NUMBER: 14A0650

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Mission Hill, Boston

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
EBI-10 (0-4')	14A0650-01	Soil		MADEP-EPH-04-1.1 SM 2540G SW-846 6010C	
EBI-10 (8')	14A0650-02	Soil		SM 2540G SW-846 6010C	
EBI-11 (0-4')	14A0650-03	Soil		MADEP-EPH-04-1.1 SM 2540G SW-846 6010C	

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

For method 6010, only lead was requested and reported.

**MADEP-EPH-04-1.1**

**Qualifications:**

---

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.

**Analyte & Samples(s) Qualified:**

**n-Nonane**

B089187-BS1

---

**MADEP-EPH-04-1.1**

SPE cartridge contamination with non-petroleum compounds, if present, is verified by GC/MS in each method blank per extraction batch and excluded from C11-C22 aromatic range fraction in all samples in the batch. No significant modifications were made to the method.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Michael A. Erickson  
Laboratory Director



Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0650

Date Received: 1/22/2014

Field Sample #: EBI-10 (0-4')

Sampled: 1/21/2014 15:00

Sample ID: 14A0650-01

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses - EPH

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
C9-C18 Aliphatics	24	24	mg/Kg dry	2		MADEP-EPH-04-1.1	1/22/14	1/27/14 8:59	SCS
C19-C36 Aliphatics	290	24	mg/Kg dry	2		MADEP-EPH-04-1.1	1/22/14	1/27/14 8:59	SCS
Unadjusted C11-C22 Aromatics	240	24	mg/Kg dry	2		MADEP-EPH-04-1.1	1/22/14	1/27/14 8:59	SCS
C11-C22 Aromatics	190	24	mg/Kg dry	2		MADEP-EPH-04-1.1	1/22/14	1/27/14 8:59	SCS
Acenaphthene	0.54	0.24	mg/Kg dry	2		MADEP-EPH-04-1.1	1/22/14	1/27/14 8:59	SCS
Acenaphthylene	ND	0.24	mg/Kg dry	2		MADEP-EPH-04-1.1	1/22/14	1/27/14 8:59	SCS
Anthracene	1.4	0.24	mg/Kg dry	2		MADEP-EPH-04-1.1	1/22/14	1/27/14 8:59	SCS
Benzo(a)anthracene	3.8	0.24	mg/Kg dry	2		MADEP-EPH-04-1.1	1/22/14	1/27/14 8:59	SCS
Benzo(a)pyrene	4.3	0.24	mg/Kg dry	2		MADEP-EPH-04-1.1	1/22/14	1/27/14 8:59	SCS
Benzo(b)fluoranthene	6.0	0.24	mg/Kg dry	2		MADEP-EPH-04-1.1	1/22/14	1/27/14 8:59	SCS
Benzo(g,h,i)perylene	3.3	0.24	mg/Kg dry	2		MADEP-EPH-04-1.1	1/22/14	1/27/14 8:59	SCS
Benzo(k)fluoranthene	2.2	0.24	mg/Kg dry	2		MADEP-EPH-04-1.1	1/22/14	1/27/14 8:59	SCS
Chrysene	4.1	0.24	mg/Kg dry	2		MADEP-EPH-04-1.1	1/22/14	1/27/14 8:59	SCS
Dibenz(a,h)anthracene	0.88	0.24	mg/Kg dry	2		MADEP-EPH-04-1.1	1/22/14	1/27/14 8:59	SCS
Fluoranthene	9.5	0.24	mg/Kg dry	2		MADEP-EPH-04-1.1	1/22/14	1/27/14 8:59	SCS
Fluorene	0.56	0.24	mg/Kg dry	2		MADEP-EPH-04-1.1	1/22/14	1/27/14 8:59	SCS
Indeno(1,2,3-cd)pyrene	3.6	0.24	mg/Kg dry	2		MADEP-EPH-04-1.1	1/22/14	1/27/14 8:59	SCS
2-Methylnaphthalene	0.24	0.24	mg/Kg dry	2		MADEP-EPH-04-1.1	1/22/14	1/27/14 8:59	SCS
Naphthalene	0.39	0.24	mg/Kg dry	2		MADEP-EPH-04-1.1	1/22/14	1/27/14 8:59	SCS
Phenanthrene	6.2	0.24	mg/Kg dry	2		MADEP-EPH-04-1.1	1/22/14	1/27/14 8:59	SCS
Pyrene	9.1	0.24	mg/Kg dry	2		MADEP-EPH-04-1.1	1/22/14	1/27/14 8:59	SCS
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
Chlorooctadecane (COD)		46.3	40-140					1/27/14 8:59	
o-Terphenyl (OTP)		63.3	40-140					1/27/14 8:59	
2-Bromonaphthalene		114	40-140					1/27/14 8:59	
2-Fluorobiphenyl		122	40-140					1/27/14 8:59	

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0650

Date Received: 1/22/2014

Field Sample #: EBI-10 (0-4')

Sampled: 1/21/2014 15:00

Sample ID: 14A0650-01

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Lead	810	0.86	mg/Kg dry	1		SW-846 6010C	1/23/14	1/24/14 13:14	OP

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0650

Date Received: 1/22/2014

Field Sample #: EBI-10 (0-4')

Sampled: 1/21/2014 15:00

Sample ID: 14A0650-01

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/PHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	82.6		% Wt	1		SM 2540G	1/27/14	1/28/14 8:09	MXG

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0650

Date Received: 1/22/2014

Field Sample #: EBI-10 (8')

Sampled: 1/21/2014 15:15

Sample ID: 14A0650-02

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Lead	100	0.78	mg/Kg dry	1		SW-846 6010C	1/23/14	1/24/14 13:19	OP

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0650

Date Received: 1/22/2014

Field Sample #: EBI-10 (8')

Sampled: 1/21/2014 15:15

Sample ID: 14A0650-02

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/PHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	89.1		% Wt	1		SM 2540G	1/27/14	1/28/14 8:09	MXG

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0650

Date Received: 1/22/2014

Field Sample #: EBI-11 (0-4')

Sampled: 1/21/2014 15:20

Sample ID: 14A0650-03

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses - EPH

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
C9-C18 Aliphatics	ND	11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 9:20	SCS
C19-C36 Aliphatics	81	11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 9:20	SCS
Unadjusted C11-C22 Aromatics	140	11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 9:20	SCS
C11-C22 Aromatics	100	11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 9:20	SCS
Acenaphthene	0.43	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 9:20	SCS
Acenaphthylene	ND	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 9:20	SCS
Anthracene	0.97	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 9:20	SCS
Benzo(a)anthracene	2.6	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 9:20	SCS
Benzo(a)pyrene	2.5	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 9:20	SCS
Benzo(b)fluoranthene	3.7	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 9:20	SCS
Benzo(g,h,i)perylene	1.5	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 9:20	SCS
Benzo(k)fluoranthene	1.3	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 9:20	SCS
Chrysene	2.7	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 9:20	SCS
Dibenz(a,h)anthracene	0.51	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 9:20	SCS
Fluoranthene	6.5	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 9:20	SCS
Fluorene	0.42	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 9:20	SCS
Indeno(1,2,3-cd)pyrene	1.8	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 9:20	SCS
2-Methylnaphthalene	ND	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 9:20	SCS
Naphthalene	0.21	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 9:20	SCS
Phenanthrene	4.7	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 9:20	SCS
Pyrene	6.2	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 9:20	SCS

Surrogates	% Recovery	Recovery Limits	Flag/Qual
Chlorooctadecane (COD)	48.1	40-140	
o-Terphenyl (OTP)	58.0	40-140	
2-Bromonaphthalene	88.9	40-140	
2-Fluorobiphenyl	98.7	40-140	

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0650

Date Received: 1/22/2014

Field Sample #: EBI-11 (0-4')

Sampled: 1/21/2014 15:20

Sample ID: 14A0650-03

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Lead	490	0.81	mg/Kg dry	1		SW-846 6010C	1/23/14	1/24/14 13:24	OP

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0650

Date Received: 1/22/2014

Field Sample #: EBI-11 (0-4')

Sampled: 1/21/2014 15:20

Sample ID: 14A0650-03

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	86.6		% Wt	1		SM 2540G	1/27/14	1/28/14 8:09	MXG



**Sample Extraction Data**

**Prep Method: SW-846 3546-MADEP-EPH-04-1.1**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
14A0650-01 [EBI-10 (0-4')]	B089187	20.3	2.00	01/22/14
14A0650-03 [EBI-11 (0-4')]	B089187	20.5	2.00	01/22/14

**Prep Method: % Solids-SM 2540G**

Lab Number [Field ID]	Batch	Date
14A0650-01 [EBI-10 (0-4')]	B089423	01/27/14
14A0650-02 [EBI-10 (8')]	B089423	01/27/14
14A0650-03 [EBI-11 (0-4')]	B089423	01/27/14

**Prep Method: SW-846 3050B-SW-846 6010C**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
14A0650-01 [EBI-10 (0-4')]	B089243	1.06	50.0	01/23/14
14A0650-02 [EBI-10 (8')]	B089243	1.08	50.0	01/23/14
14A0650-03 [EBI-11 (0-4')]	B089243	1.07	50.0	01/23/14

**QUALITY CONTROL**

**Petroleum Hydrocarbons Analyses - EPH - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B089187 - SW-846 3546**

**Blank (B089187-BLK1)**

Prepared: 01/22/14 Analyzed: 01/26/14

C9-C18 Aliphatics	ND	10	mg/Kg wet							
C19-C36 Aliphatics	ND	10	mg/Kg wet							
Unadjusted C11-C22 Aromatics	ND	10	mg/Kg wet							
C11-C22 Aromatics	ND	10	mg/Kg wet							
Acenaphthene	ND	0.10	mg/Kg wet							
Acenaphthylene	ND	0.10	mg/Kg wet							
Anthracene	ND	0.10	mg/Kg wet							
Benzo(a)anthracene	ND	0.10	mg/Kg wet							
Benzo(a)pyrene	ND	0.10	mg/Kg wet							
Benzo(b)fluoranthene	ND	0.10	mg/Kg wet							
Benzo(g,h,i)perylene	ND	0.10	mg/Kg wet							
Benzo(k)fluoranthene	ND	0.10	mg/Kg wet							
Chrysene	ND	0.10	mg/Kg wet							
Dibenz(a,h)anthracene	ND	0.10	mg/Kg wet							
Fluoranthene	ND	0.10	mg/Kg wet							
Fluorene	ND	0.10	mg/Kg wet							
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg wet							
2-Methylnaphthalene	ND	0.10	mg/Kg wet							
Naphthalene	ND	0.10	mg/Kg wet							
Phenanthrene	ND	0.10	mg/Kg wet							
Pyrene	ND	0.10	mg/Kg wet							
n-Decane	ND	0.10	mg/Kg wet							
n-Docosane	ND	0.10	mg/Kg wet							
n-Dodecane	ND	0.10	mg/Kg wet							
n-Eicosane	ND	0.10	mg/Kg wet							
n-Hexacosane	ND	0.10	mg/Kg wet							
n-Hexadecane	ND	0.10	mg/Kg wet							
n-Hexatriacontane	ND	0.10	mg/Kg wet							
n-Nonadecane	ND	0.10	mg/Kg wet							
n-Nonane	ND	0.10	mg/Kg wet							
n-Octacosane	ND	0.10	mg/Kg wet							
n-Octadecane	ND	0.10	mg/Kg wet							
n-Tetracosane	ND	0.10	mg/Kg wet							
n-Tetradecane	ND	0.10	mg/Kg wet							
n-Triacontane	ND	0.10	mg/Kg wet							
Naphthalene-aliphatic fraction	ND	0.10	mg/Kg wet							
2-Methylnaphthalene-aliphatic fraction	ND	0.10	mg/Kg wet							
Surrogate: Chlorooctadecane (COD)	3.63		mg/Kg wet	4.99		72.8	40-140			
Surrogate: o-Terphenyl (OTP)	4.60		mg/Kg wet	5.00		92.0	40-140			
Surrogate: 2-Bromonaphthalene	5.04		mg/Kg wet	5.00		101	40-140			
Surrogate: 2-Fluorobiphenyl	5.34		mg/Kg wet	5.00		107	40-140			

**LCS (B089187-BS1)**

Prepared: 01/22/14 Analyzed: 01/26/14

Acenaphthene	4.12	0.10	mg/Kg wet	5.00		82.5	40-140			
Acenaphthylene	4.04	0.10	mg/Kg wet	5.00		80.7	40-140			
Anthracene	4.42	0.10	mg/Kg wet	5.00		88.5	40-140			
Benzo(a)anthracene	4.51	0.10	mg/Kg wet	5.00		90.2	40-140			
Benzo(a)pyrene	4.29	0.10	mg/Kg wet	5.00		85.9	40-140			
Benzo(b)fluoranthene	4.50	0.10	mg/Kg wet	5.00		89.9	40-140			
Benzo(g,h,i)perylene	4.70	0.10	mg/Kg wet	5.00		94.0	40-140			
Benzo(k)fluoranthene	4.53	0.10	mg/Kg wet	5.00		90.6	40-140			
Chrysene	4.28	0.10	mg/Kg wet	5.00		85.6	40-140			

QUALITY CONTROL

Petroleum Hydrocarbons Analyses - EPH - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B089187 - SW-846 3546

LCS (B089187-BS1)

Prepared: 01/22/14 Analyzed: 01/26/14

Dibenz(a,h)anthracene	4.76	0.10	mg/Kg wet	5.00		95.3	40-140			
Fluoranthene	4.38	0.10	mg/Kg wet	5.00		87.5	40-140			
Fluorene	4.24	0.10	mg/Kg wet	5.00		84.8	40-140			
Indeno(1,2,3-cd)pyrene	4.70	0.10	mg/Kg wet	5.00		94.0	40-140			
2-Methylnaphthalene	3.92	0.10	mg/Kg wet	5.00		78.4	40-140			
Naphthalene	3.60	0.10	mg/Kg wet	5.00		72.0	40-140			
Phenanthrene	4.34	0.10	mg/Kg wet	5.00		86.8	40-140			
Pyrene	4.28	0.10	mg/Kg wet	5.00		85.6	40-140			
n-Decane	2.28	0.10	mg/Kg wet	5.00		45.5	40-140			
n-Docosane	3.85	0.10	mg/Kg wet	5.00		77.0	40-140			
n-Dodecane	2.80	0.10	mg/Kg wet	5.00		56.0	40-140			
n-Eicosane	3.71	0.10	mg/Kg wet	5.00		74.3	40-140			
n-Hexacosane	3.96	0.10	mg/Kg wet	5.00		79.3	40-140			
n-Hexadecane	3.46	0.10	mg/Kg wet	5.00		69.1	40-140			
n-Hexatriacontane	4.03	0.10	mg/Kg wet	5.00		80.5	40-140			
n-Nonadecane	3.68	0.10	mg/Kg wet	5.00		73.7	40-140			
<b>n-Nonane</b>	1.47	0.10	mg/Kg wet	5.00		<b>29.4</b> *	30-140			L-07
n-Octacosane	3.88	0.10	mg/Kg wet	5.00		77.7	40-140			
n-Octadecane	3.65	0.10	mg/Kg wet	5.00		73.1	40-140			
n-Tetracosane	3.86	0.10	mg/Kg wet	5.00		77.1	40-140			
n-Tetradecane	3.09	0.10	mg/Kg wet	5.00		61.9	40-140			
n-Triacontane	4.01	0.10	mg/Kg wet	5.00		80.1	40-140			
Naphthalene-aliphatic fraction	ND	0.10	mg/Kg wet	5.00			0-5			
2-Methylnaphthalene-aliphatic fraction	ND	0.10	mg/Kg wet	5.00			0-5			
Surrogate: Chlorooctadecane (COD)	3.23		mg/Kg wet	4.99		64.7	40-140			
Surrogate: o-Terphenyl (OTP)	4.27		mg/Kg wet	5.00		85.4	40-140			
Surrogate: 2-Bromonaphthalene	5.51		mg/Kg wet	5.00		110	40-140			
Surrogate: 2-Fluorobiphenyl	5.88		mg/Kg wet	5.00		118	40-140			

LCS Dup (B089187-BS1)

Prepared: 01/22/14 Analyzed: 01/26/14

Acenaphthene	4.11	0.10	mg/Kg wet	5.00		82.3	40-140	0.238	25	
Acenaphthylene	4.08	0.10	mg/Kg wet	5.00		81.7	40-140	1.16	25	
Anthracene	4.16	0.10	mg/Kg wet	5.00		83.2	40-140	6.09	25	
Benzo(a)anthracene	4.22	0.10	mg/Kg wet	5.00		84.4	40-140	6.66	25	
Benzo(a)pyrene	4.02	0.10	mg/Kg wet	5.00		80.5	40-140	6.48	25	
Benzo(b)fluoranthene	4.20	0.10	mg/Kg wet	5.00		83.9	40-140	6.88	25	
Benzo(g,h,i)perylene	4.40	0.10	mg/Kg wet	5.00		88.0	40-140	6.65	25	
Benzo(k)fluoranthene	4.24	0.10	mg/Kg wet	5.00		84.9	40-140	6.47	25	
Chrysene	4.01	0.10	mg/Kg wet	5.00		80.2	40-140	6.45	25	
Dibenz(a,h)anthracene	4.47	0.10	mg/Kg wet	5.00		89.4	40-140	6.38	25	
Fluoranthene	4.08	0.10	mg/Kg wet	5.00		81.6	40-140	7.04	25	
Fluorene	4.13	0.10	mg/Kg wet	5.00		82.6	40-140	2.69	25	
Indeno(1,2,3-cd)pyrene	4.38	0.10	mg/Kg wet	5.00		87.6	40-140	6.97	25	
2-Methylnaphthalene	4.14	0.10	mg/Kg wet	5.00		82.9	40-140	5.49	25	
Naphthalene	3.91	0.10	mg/Kg wet	5.00		78.1	40-140	8.10	25	
Phenanthrene	4.11	0.10	mg/Kg wet	5.00		82.2	40-140	5.46	25	
Pyrene	3.99	0.10	mg/Kg wet	5.00		79.7	40-140	7.11	25	
n-Decane	2.61	0.10	mg/Kg wet	5.00		52.2	40-140	13.6	25	
n-Docosane	3.78	0.10	mg/Kg wet	5.00		75.5	40-140	1.91	25	
n-Dodecane	3.19	0.10	mg/Kg wet	5.00		63.8	40-140	13.1	25	
n-Eicosane	3.65	0.10	mg/Kg wet	5.00		72.9	40-140	1.82	25	
n-Hexacosane	3.82	0.10	mg/Kg wet	5.00		76.3	40-140	3.79	25	

**QUALITY CONTROL**

**Petroleum Hydrocarbons Analyses - EPH - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B089187 - SW-846 3546</b>										
<b>LCS Dup (B089187-BSD1)</b>										
					Prepared: 01/22/14 Analyzed: 01/26/14					
n-Hexadecane	3.54	0.10	mg/Kg wet	5.00		70.7	40-140	2.25	25	
n-Hexatriacontane	3.84	0.10	mg/Kg wet	5.00		76.9	40-140	4.63	25	
n-Nonadecane	3.63	0.10	mg/Kg wet	5.00		72.6	40-140	1.38	25	
n-Nonane	1.70	0.10	mg/Kg wet	5.00		34.1	30-140	14.8	25	
n-Octacosane	3.73	0.10	mg/Kg wet	5.00		74.5	40-140	4.16	25	
n-Octadecane	3.63	0.10	mg/Kg wet	5.00		72.7	40-140	0.535	25	
n-Tetracosane	3.76	0.10	mg/Kg wet	5.00		75.3	40-140	2.45	25	
n-Tetradecane	3.33	0.10	mg/Kg wet	5.00		66.5	40-140	7.21	25	
n-Triacontane	3.82	0.10	mg/Kg wet	5.00		76.4	40-140	4.72	25	
Naphthalene-aliphatic fraction	ND	0.10	mg/Kg wet	5.00			0-5			
2-Methylnaphthalene-aliphatic fraction	ND	0.10	mg/Kg wet	5.00			0-5			
Surrogate: Chlorooctadecane (COD)	3.15		mg/Kg wet	4.99		63.2	40-140			
Surrogate: o-Terphenyl (OTP)	3.92		mg/Kg wet	5.00		78.3	40-140			
Surrogate: 2-Bromonaphthalene	5.22		mg/Kg wet	5.00		104	40-140			
Surrogate: 2-Fluorobiphenyl	5.56		mg/Kg wet	5.00		111	40-140			

**QUALITY CONTROL**

**Metals Analyses (Total) - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B089243 - SW-846 3050B</b>										
<b>Blank (B089243-BLK1)</b>										
					Prepared: 01/23/14 Analyzed: 01/24/14					
Lead	ND	0.75	mg/Kg wet							
<b>LCS (B089243-BS1)</b>										
					Prepared: 01/23/14 Analyzed: 01/24/14					
Lead	110	1.5	mg/Kg wet	115		95.3	82.4-117.8			
<b>LCS Dup (B089243-BSD1)</b>										
					Prepared: 01/23/14 Analyzed: 01/24/14					
Lead	113	1.5	mg/Kg wet	115		98.1	82.4-117.8	2.88	30	
<b>MRL Check (B089243-MRL1)</b>										
					Prepared: 01/23/14 Analyzed: 01/24/14					
Lead	0.616	0.72	mg/Kg wet	0.717		85.9	80-120			

**FLAG/QUALIFIER SUMMARY**

- \* QC result is outside of established limits.
  - † Wide recovery limits established for difficult compound.
  - ‡ Wide RPD limits established for difficult compound.
  - # Data exceeded client recommended or regulatory level
- Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.  
No results have been blank subtracted unless specified in the case narrative section.
- L-07 Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.

**CERTIFICATIONS**

**Certified Analyses included in this Report**

Analyte	Certifications
<b>MADEP-EPH-04-1.1 in Soil</b>	
C9-C18 Aliphatics	CT,NC,WA,ME,ME,NH-P
C19-C36 Aliphatics	CT,NC,WA,ME,ME,NH-P
Unadjusted C11-C22 Aromatics	CT,NC,WA,ME,ME,NH-P
C11-C22 Aromatics	CT,NC,WA,ME,ME,NH-P
Acenaphthene	CT,NC,WA,ME,ME,NH-P
Acenaphthylene	CT,NC,WA,ME,ME,NH-P
Anthracene	CT,NC,WA,ME,ME,NH-P
Benzo(a)anthracene	CT,NC,WA,ME,ME,NH-P
Benzo(a)pyrene	CT,NC,WA,ME,ME,NH-P
Benzo(b)fluoranthene	CT,NC,WA,ME,ME,NH-P
Benzo(g,h,i)perylene	CT,NC,WA,ME,ME,NH-P
Benzo(k)fluoranthene	CT,NC,WA,ME,ME,NH-P
Chrysene	CT,NC,WA,ME,ME,NH-P
Dibenz(a,h)anthracene	CT,NC,WA,ME,ME,NH-P
Fluoranthene	CT,NC,WA,ME,ME,NH-P
Fluorene	CT,NC,WA,ME,ME
Indeno(1,2,3-cd)pyrene	CT,NC,WA,ME,ME,NH-P
2-Methylnaphthalene	CT,NC,WA,ME,ME
Naphthalene	CT,NC,WA,ME,ME,NH-P
Phenanthrene	CT,NC,WA,ME,ME,NH-P
Pyrene	CT,NC,WA,ME,ME,NH-P

**SW-846 6010C in Soil**

Lead CT,NH,NY,AIHA,ME,NC,VA,NJ

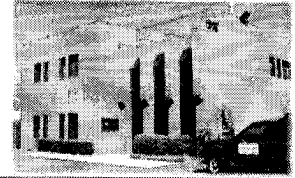
The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC	100033	02/1/2016
MA	Massachusetts DEP	M-MA100	06/30/2014
CT	Connecticut Department of Public Health	PH-0567	09/30/2015
NY	New York State Department of Health	10899 NELAP	04/1/2014
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2014
RI	Rhode Island Department of Health	LAO00112	12/30/2014
NC	North Carolina Div. of Water Quality	652	12/31/2014
NJ	New Jersey DEP	MA007 NELAP	06/30/2014
FL	Florida Department of Health	E871027 NELAP	06/30/2014
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2014
WA	State of Washington Department of Ecology	C2065	02/23/2014
ME	State of Maine	2011028	06/9/2015
VA	Commonwealth of Virginia	460217	12/14/2014
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2014





39 Spruce St.  
 East Longmeadow, MA. 01028  
 P: 413-525-2332  
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 www.contestlabs.com



### Sample Receipt Checklist

CLIENT NAME: EBI Consulting RECEIVED BY: KOB DATE: 1-22-14

- 1) Was the chain(s) of custody relinquished and signed?  Yes No No CoC Included
- 2) Does the chain agree with the samples?  Yes No  
If not, explain:
- 3) Are all the samples in good condition?  Yes No  
If not, explain:

4) How were the samples received:  
 On Ice  Direct from Sampling  Ambient  In Cooler(s)

Were the samples received in Temperature Compliance of (2-6°C)?  Yes No N/A

Temperature °C by Temp blank \_\_\_\_\_ Temperature °C by Temp gun 5.5°

5) Are there Dissolved samples for the lab to filter? Yes  No  
 Who was notified \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

6) Are there any RUSH or SHORT HOLDING TIME samples? Yes  No  
 Who was notified \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

7) Location where samples are stored: 19 Permission to subcontract samples? Yes No  
 (Walk-in clients only) if not already approved  
 Client Signature: \_\_\_\_\_

8) Do all samples have the proper Acid pH: Yes No  N/A

9) Do all samples have the proper Base pH: Yes No  N/A

10) Was the PC notified of any discrepancies with the CoC vs the samples: Yes No  N/A

### Containers received at Con-Test

	# of containers		# of containers
1 Liter Amber		8 oz amber/clear jar	6
500 mL Amber		4 oz amber/clear jar	
250 mL Amber (8oz amber)		2 oz amber/clear jar	
1 Liter Plastic		Plastic Bag / Ziploc	
500 mL Plastic		SOC Kit	
250 mL plastic		Non-ConTest Container	
40 mL Vial - type listed below		Perchlorate Kit	
Colisure / bacteria bottle		Flashpoint bottle	
Dissolved Oxygen bottle		Other glass jar	
Encore		Other	

Laboratory Comments:

40 mL vials: # HCl \_\_\_\_\_ # Methanol \_\_\_\_\_  
 # Bisulfate \_\_\_\_\_ # DI Water \_\_\_\_\_  
 # Thiosulfate \_\_\_\_\_ Unpreserved \_\_\_\_\_

Time and Date Frozen: \_\_\_\_\_

**Login Sample Receipt Checklist**  
**(Rejection Criteria Listing - Using Sample Acceptance Policy)**  
**Any False statement will be brought to the attention of Client**

<u>Question</u>	<u>Answer (True/False)</u>		<u>Comment</u>
	T/F/NA		
1) The cooler's custody seal, if present, is intact.	NA		
2) The cooler or samples do not appear to have been compromised or tampered with.	T		
3) Samples were received on ice.	T		
4) Cooler Temperature is acceptable.	T		
5) Cooler Temperature is recorded.	T		
6) COC is filled out in ink and legible.	T		
7) COC is filled out with all pertinent information.	T		
8) Field Sampler's name present on COC.	T		
9) There are no discrepancies between the sample IDs on the container and the COC.	T		
10) Samples are received within Holding Time.	T		
11) Sample containers have legible labels.	T		
12) Containers are not broken or leaking.	T		
13) Air Cassettes are not broken/open.	NA		
14) Sample collection date/times are provided.	T		
15) Appropriate sample containers are used.	T		
16) Proper collection media used.	T		
17) No headspace sample bottles are completely filled.	T		
18) There is sufficient volume for all requested analyses, including any requested MS/MSDs.	T		
19) Trip blanks provided if applicable.	NA		
20) VOA sample vials do not have head space or bubble is <6mm (1/4") in diameter.	NA		
21) Samples do not require splitting or compositing.	T		

Doc #277 Rev. 4 August 2013      Who notified of False statements?      Date/Time:  
 Log-In Technician Initials: KOB      Date/Time: 1-22-14 1500

**MADEP MCP Analytical Method Report Certification Form**

Laboratory Name: Con-Test Analytical Laboratory	Project #: 14A0650
Project Location: Mission Hill, Boston	RTN:

This Form provides certifications for the following data set: [list Laboratory Sample ID Number(s)]  
 14A0650-01 thru 14A0650-03

Matrices: Soil

**CAM Protocol (check all that below)**

8260 VOC CAM II A ( )	7470/7471 Hg CAM IIIB ( )	MassDEP VPH CAM IV A ( )	8081 Pesticides CAM V B ( )	7196 Hex Cr CAM VI B ( )	MassDEP APH CAM IX A ( )
8270 SVOC CAM II B ( )	7010 Metals CAM III C ( )	MassDEP EPH CAM IV A (X)	8151 Herbicides CAM V C ( )	8330 Explosives CAM VIII A ( )	TO-15 VOC CAM IX B ( )
6010 Metals CAM III A (X)	6020 Metals CAM III D ( )	8082 PCB CAM V A ( )	9014 Total Cyanide/PAC CAM VI A ( )	6860 Perchlorate CAM VIII B ( )	

**Affirmative response to Questions A through F is required for "Presumptive Certainty" status**

<b>A</b>	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>B</b>	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>C</b>	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>D</b>	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>E a</b>	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>E b</b>	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	<input type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>F</b>	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all No responses to Questions A through E)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>

**A response to questions G, H and I below is required for "Presumptive Certainty" status**


<b>G</b>	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
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**Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.**

<b>H</b>	Were all QC performance standards specified in the CAM protocol(s) achieved?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <sup>1</sup>
<b>I</b>	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <sup>1</sup>

<sup>1</sup> All Negative responses must be addressed in an attached Environmental Laboratory case narrative.

**I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.**

Signature: _____ 	Position: Laboratory Director
Printed Name: Michael A. Erickson	Date: 01/29/14

January 28, 2014

Dan Bellucci  
EBI Consultants  
21 B Street  
Burlington, MA 01803

Project Location: Mission Hill, Boston  
Client Job Number:  
Project Number: 12130296  
Laboratory Work Order Number: 14A0610

Enclosed are results of analyses for samples received by the laboratory on January 21, 2014. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Meghan E. Kelley  
Project Manager

EBI Consultants  
 21 B Street  
 Burlington, MA 01803  
 ATTN: Dan Bellucci

REPORT DATE: 1/28/2014

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 12130296

**ANALYTICAL SUMMARY**

WORK ORDER NUMBER: 14A0610

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Mission Hill, Boston

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
EBI-01 (0-5)	14A0610-01	Soil		SM 2540G SW-846 6010C	
EBI-07 (0-2)	14A0610-02	Soil		MADEP-EPH-04-1.1 SM 2540G SW-846 6010C	
EBI-07 (5-7)	14A0610-03	Soil		SM 2540G SW-846 6010C	
EBI-07 (14)	14A0610-04	Soil		SM 2540G SW-846 6010C	
EBI-04 (0-3.5)	14A0610-05	Soil		MADEP-EPH-04-1.1 SM 2540G SW-846 6010C	
EBI-04 (5-6)	14A0610-06	Soil		SM 2540G SW-846 6010C	
EBI-04 (11.5)	14A0610-07	Soil		SM 2540G SW-846 6010C	
EBI-06 (0-4)	14A0610-08	Soil		MADEP-EPH-04-1.1 SM 2540G SW-846 6010C	
EBI-06 (6-7)	14A0610-09	Soil		SM 2540G SW-846 6010C	
EBI-06 (10)	14A0610-10	Soil		SM 2540G SW-846 6010C	
B-1 (0-12)	14A0610-11	Soil		SM 2540G SW-846 6010C	
B-2 (0-2)	14A0610-12	Soil		SM 2540G SW-846 6010C	
B-2 (5-5.5)	14A0610-13	Soil		SM 2540G SW-846 6010C	
EBI-08 (0-5)	14A0610-14	Soil		MADEP-EPH-04-1.1 SM 2540G SW-846 6010C	
EBI-09 (0-4)	14A0610-15	Soil		MADEP-EPH-04-1.1 SM 2540G SW-846 6010C	
EBI-09 (13)	14A0610-16	Soil		SM 2540G SW-846 6010C	

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

For method 6010, only lead was requested and reported.

**MADEP-EPH-04-1.1**

**Qualifications:**

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Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.

**Analyte & Samples(s) Qualified:**

**n-Nonane**

B089187-BS1

**SW-846 6010C**

**Qualifications:**

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Sample to spike ratio is greater than or equal to 4:1. Spiked amount is not representative of the native amount in the sample. Appropriate or meaningful recoveries cannot be calculated.

**Analyte & Samples(s) Qualified:**

**Lead**

14A0610-05[EBI-04 (0-3.5)], B089243-MS1

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**MADEP-EPH-04-1.1**

SPE cartridge contamination with non-petroleum compounds, if present, is verified by GC/MS in each method blank per extraction batch and excluded from C11-C22 aromatic range fraction in all samples in the batch. No significant modifications were made to the method.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Daren J. Damboragian  
Laboratory Manager

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0610

Date Received: 1/21/2014

Field Sample #: EBI-01 (0-5)

Sampled: 1/20/2014 14:30

Sample ID: 14A0610-01

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Lead	130	0.80	mg/Kg dry	1		SW-846 6010C	1/23/14	1/24/14 12:50	OP

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0610

Date Received: 1/21/2014

Field Sample #: EBI-01 (0-5)

Sampled: 1/20/2014 14:30

Sample ID: 14A0610-01

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	89.7		% Wt	1		SM 2540G	1/27/14	1/28/14 7:52	MXG



Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0610

Date Received: 1/21/2014

Field Sample #: EBI-07 (0-2)

Sampled: 1/20/2014 16:00

Sample ID: 14A0610-02

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses - EPH

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
C9-C18 Aliphatics	14	12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 2:25	SCS
C19-C36 Aliphatics	24	12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 2:25	SCS
Unadjusted C11-C22 Aromatics	170	12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 2:25	SCS
C11-C22 Aromatics	130	12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 2:25	SCS
Acenaphthene	0.84	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 2:25	SCS
Acenaphthylene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 2:25	SCS
Anthracene	2.1	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 2:25	SCS
Benzo(a)anthracene	3.0	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 2:25	SCS
Benzo(a)pyrene	2.6	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 2:25	SCS
Benzo(b)fluoranthene	3.7	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 2:25	SCS
Benzo(g,h,i)perylene	1.3	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 2:25	SCS
Benzo(k)fluoranthene	1.2	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 2:25	SCS
Chrysene	3.2	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 2:25	SCS
Dibenz(a,h)anthracene	0.47	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 2:25	SCS
Fluoranthene	8.3	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 2:25	SCS
Fluorene	1.0	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 2:25	SCS
Indeno(1,2,3-cd)pyrene	1.6	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 2:25	SCS
2-Methylnaphthalene	0.33	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 2:25	SCS
Naphthalene	0.35	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 2:25	SCS
Phenanthrene	8.5	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 2:25	SCS
Pyrene	7.9	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 2:25	SCS
Surrogates	% Recovery		Recovery Limits		Flag/Qual				
Chlorooctadecane (COD)	43.8		40-140				1/27/14 2:25		
o-Terphenyl (OTP)	51.3		40-140				1/27/14 2:25		
2-Bromonaphthalene	83.9		40-140				1/27/14 2:25		
2-Fluorobiphenyl	93.3		40-140				1/27/14 2:25		

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0610

Date Received: 1/21/2014

Field Sample #: EBI-07 (0-2)

Sampled: 1/20/2014 16:00

Sample ID: 14A0610-02

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Lead	420	0.84	mg/Kg dry	1		SW-846 6010C	1/23/14	1/24/14 12:55	OP

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0610

Date Received: 1/21/2014

Field Sample #: EBI-07 (0-2)

Sampled: 1/20/2014 16:00

Sample ID: 14A0610-02

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	83.7		% Wt	1		SM 2540G	1/27/14	1/28/14 7:52	MXG

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0610

Date Received: 1/21/2014

Field Sample #: EBI-07 (5-7)

Sampled: 1/20/2014 16:10

Sample ID: 14A0610-03

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Lead	7.4	0.78	mg/Kg dry	1		SW-846 6010C	1/23/14	1/24/14 12:59	OP

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0610

Date Received: 1/21/2014

Field Sample #: EBI-07 (5-7)

Sampled: 1/20/2014 16:10

Sample ID: 14A0610-03

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	91.5		% Wt	1		SM 2540G	1/27/14	1/28/14 7:52	MXG

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0610

Date Received: 1/21/2014

Field Sample #: EBI-07 (14)

Sampled: 1/20/2014 16:20

Sample ID: 14A0610-04

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Lead	7.8	0.75	mg/Kg dry	1		SW-846 6010C	1/23/14	1/24/14 13:04	OP

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0610

Date Received: 1/21/2014

Field Sample #: EBI-07 (14)

Sampled: 1/20/2014 16:20

Sample ID: 14A0610-04

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	97.1		% Wt	1		SM 2540G	1/27/14	1/28/14 7:52	MXG

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0610

Date Received: 1/21/2014

Field Sample #: EBI-04 (0-3.5)

Sampled: 1/20/2014 16:40

Sample ID: 14A0610-05

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses - EPH

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
C9-C18 Aliphatics	ND	12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 2:45	SCS
C19-C36 Aliphatics	48	12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 2:45	SCS
Unadjusted C11-C22 Aromatics	55	12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 2:45	SCS
C11-C22 Aromatics	49	12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 2:45	SCS
Acenaphthene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 2:45	SCS
Acenaphthylene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 2:45	SCS
Anthracene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 2:45	SCS
Benzo(a)anthracene	0.47	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 2:45	SCS
Benzo(a)pyrene	0.52	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 2:45	SCS
Benzo(b)fluoranthene	0.86	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 2:45	SCS
Benzo(g,h,i)perylene	0.39	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 2:45	SCS
Benzo(k)fluoranthene	0.28	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 2:45	SCS
Chrysene	0.51	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 2:45	SCS
Dibenz(a,h)anthracene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 2:45	SCS
Fluoranthene	1.0	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 2:45	SCS
Fluorene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 2:45	SCS
Indeno(1,2,3-cd)pyrene	0.42	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 2:45	SCS
2-Methylnaphthalene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 2:45	SCS
Naphthalene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 2:45	SCS
Phenanthrene	0.45	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 2:45	SCS
Pyrene	1.0	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 2:45	SCS
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
Chlorooctadecane (COD)	48.0	40-140	1/27/14 2:45						
o-Terphenyl (OTP)	59.4	40-140	1/27/14 2:45						
2-Bromonaphthalene	101	40-140	1/27/14 2:45						
2-Fluorobiphenyl	111	40-140	1/27/14 2:45						



Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0610

Date Received: 1/21/2014

Field Sample #: EBI-04 (0-3.5)

Sampled: 1/20/2014 16:40

Sample ID: 14A0610-05

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Lead	1300	0.91	mg/Kg dry	1	MS-19	SW-846 6010C	1/23/14	1/24/14 12:08	OP

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0610

Date Received: 1/21/2014

Field Sample #: EBI-04 (0-3.5)

Sampled: 1/20/2014 16:40

Sample ID: 14A0610-05

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	81.8		% Wt	1		SM 2540G	1/27/14	1/28/14 7:52	MXG

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0610

Date Received: 1/21/2014

Field Sample #: EBI-04 (5-6)

Sampled: 1/20/2014 16:45

Sample ID: 14A0610-06

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Lead	5.7	0.79	mg/Kg dry	1		SW-846 6010C	1/23/14	1/24/14 13:09	OP

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0610

Date Received: 1/21/2014

Field Sample #: EBI-04 (5-6)

Sampled: 1/20/2014 16:45

Sample ID: 14A0610-06

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	90.4		% Wt	1		SM 2540G	1/27/14	1/28/14 7:52	MXG

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0610

Date Received: 1/21/2014

Field Sample #: EBI-04 (11.5)

Sampled: 1/20/2014 16:50

Sample ID: 14A0610-07

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Lead	560	0.77	mg/Kg dry	1		SW-846 6010C	1/21/14	1/22/14 16:34	OP

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0610

Date Received: 1/21/2014

Field Sample #: EBI-04 (11.5)

Sampled: 1/20/2014 16:50

Sample ID: 14A0610-07

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	93.0		% Wt	1		SM 2540G	1/27/14	1/28/14 7:52	MXG

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0610

Date Received: 1/21/2014

Field Sample #: EBI-06 (0-4)

Sampled: 1/21/2014 09:50

Sample ID: 14A0610-08

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses - EPH

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
C9-C18 Aliphatics	12	12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/27/14	1/28/14 11:07	SCS
C19-C36 Aliphatics	90	12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/27/14	1/28/14 11:07	SCS
Unadjusted C11-C22 Aromatics	340	12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/27/14	1/28/14 11:07	SCS
C11-C22 Aromatics	320	12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/27/14	1/28/14 11:07	SCS
Acenaphthene	0.18	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/27/14	1/28/14 11:07	SCS
Acenaphthylene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/27/14	1/28/14 11:07	SCS
Anthracene	0.81	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/27/14	1/28/14 11:07	SCS
Benzo(a)anthracene	1.9	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/27/14	1/28/14 11:07	SCS
Benzo(a)pyrene	1.5	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/27/14	1/28/14 11:07	SCS
Benzo(b)fluoranthene	2.4	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/27/14	1/28/14 11:07	SCS
Benzo(g,h,i)perylene	1.0	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/27/14	1/28/14 11:07	SCS
Benzo(k)fluoranthene	0.64	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/27/14	1/28/14 11:07	SCS
Chrysene	1.4	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/27/14	1/28/14 11:07	SCS
Dibenz(a,h)anthracene	0.25	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/27/14	1/28/14 11:07	SCS
Fluoranthene	2.9	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/27/14	1/28/14 11:07	SCS
Fluorene	0.33	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/27/14	1/28/14 11:07	SCS
Indeno(1,2,3-cd)pyrene	0.77	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/27/14	1/28/14 11:07	SCS
2-Methylnaphthalene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/27/14	1/28/14 11:07	SCS
Naphthalene	0.12	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/27/14	1/28/14 11:07	SCS
Phenanthrene	2.6	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/27/14	1/28/14 11:07	SCS
Pyrene	3.8	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/27/14	1/28/14 11:07	SCS

Surrogates	% Recovery	Recovery Limits	Flag/Qual
Chlorooctadecane (COD)	53.2	40-140	1/28/14 11:07
o-Terphenyl (OTP)	67.6	40-140	1/28/14 11:07
2-Bromonaphthalene	86.6	40-140	1/28/14 11:07
2-Fluorobiphenyl	95.5	40-140	1/28/14 11:07

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0610

Date Received: 1/21/2014

Field Sample #: EBI-06 (0-4)

Sampled: 1/21/2014 09:50

Sample ID: 14A0610-08

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Lead	2700	0.87	mg/Kg dry	1		SW-846 6010C	1/21/14	1/22/14 16:40	OP



Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0610

Date Received: 1/21/2014

Field Sample #: EBI-06 (0-4)

Sampled: 1/21/2014 09:50

Sample ID: 14A0610-08

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	82.9		% Wt	1		SM 2540G	1/27/14	1/28/14 7:52	MXG

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0610

Date Received: 1/21/2014

Field Sample #: EBI-06 (6-7)

Sampled: 1/21/2014 10:00

Sample ID: 14A0610-09

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Lead	6.2	0.77	mg/Kg dry	1		SW-846 6010C	1/21/14	1/22/14 16:45	OP

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0610

Date Received: 1/21/2014

Field Sample #: EBI-06 (6-7)

Sampled: 1/21/2014 10:00

Sample ID: 14A0610-09

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	90.5		% Wt	1		SM 2540G	1/27/14	1/28/14 7:52	MXG

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0610

Date Received: 1/21/2014

Field Sample #: EBI-06 (10)

Sampled: 1/21/2014 10:10

Sample ID: 14A0610-10

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Lead	66	0.81	mg/Kg dry	1		SW-846 6010C	1/21/14	1/22/14 17:06	OP

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0610

Date Received: 1/21/2014

Field Sample #: EBI-06 (10)

Sampled: 1/21/2014 10:10

Sample ID: 14A0610-10

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	91.0		% Wt	1		SM 2540G	1/27/14	1/28/14 7:52	MXG

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0610

Date Received: 1/21/2014

Sampled: 1/21/2014 07:50

Field Sample #: B-1 (0-12)

Sample ID: 14A0610-11

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Lead	45	0.81	mg/Kg dry	1		SW-846 6010C	1/21/14	1/22/14 17:11	OP

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0610

Date Received: 1/21/2014

Sampled: 1/21/2014 07:50

Field Sample #: B-1 (0-12)

Sample ID: 14A0610-11

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	90.6		% Wt	1		SM 2540G	1/27/14	1/28/14 7:52	MXG

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0610

Date Received: 1/21/2014

Sampled: 1/21/2014 08:30

Field Sample #: B-2 (0-2)

Sample ID: 14A0610-12

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Lead	500	0.83	mg/Kg dry	1		SW-846 6010C	1/21/14	1/22/14 17:17	OP



Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0610

Date Received: 1/21/2014

Sampled: 1/21/2014 08:30

Field Sample #: B-2 (0-2)

Sample ID: 14A0610-12

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	84.4		% Wt	1		SM 2540G	1/27/14	1/28/14 7:52	MXG

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0610

Date Received: 1/21/2014

Field Sample #: B-2 (5-5.5)

Sampled: 1/21/2014 09:10

Sample ID: 14A0610-13

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Lead	590	0.82	mg/Kg dry	1		SW-846 6010C	1/21/14	1/22/14 17:22	OP

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0610

Date Received: 1/21/2014

Sampled: 1/21/2014 09:10

Field Sample #: B-2 (5-5.5)

Sample ID: 14A0610-13

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	85.2		% Wt	1		SM 2540G	1/27/14	1/28/14 7:52	MXG

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0610

Date Received: 1/21/2014

Field Sample #: EBI-08 (0-5)

Sampled: 1/21/2014 13:20

Sample ID: 14A0610-14

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses - EPH

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
C9-C18 Aliphatics	ND	12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 3:27	SCS
C19-C36 Aliphatics	64	12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 3:27	SCS
Unadjusted C11-C22 Aromatics	230	12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 3:27	SCS
C11-C22 Aromatics	170	12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 3:27	SCS
Acenaphthene	0.83	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 3:27	SCS
Acenaphthylene	0.14	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 3:27	SCS
Anthracene	1.6	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 3:27	SCS
Benzo(a)anthracene	4.2	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 3:27	SCS
Benzo(a)pyrene	5.6	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 3:27	SCS
Benzo(b)fluoranthene	7.4	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 3:27	SCS
Benzo(g,h,i)perylene	3.6	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 3:27	SCS
Benzo(k)fluoranthene	2.7	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 3:27	SCS
Chrysene	4.7	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 3:27	SCS
Dibenz(a,h)anthracene	1.1	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 3:27	SCS
Fluoranthene	9.0	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 3:27	SCS
Fluorene	0.68	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 3:27	SCS
Indeno(1,2,3-cd)pyrene	4.8	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 3:27	SCS
2-Methylnaphthalene	0.30	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 3:27	SCS
Naphthalene	0.62	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 3:27	SCS
Phenanthrene	7.5	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 3:27	SCS
Pyrene	10	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 3:27	SCS
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
Chlorooctadecane (COD)		57.5	40-140					1/27/14 3:27	
o-Terphenyl (OTP)		68.7	40-140					1/27/14 3:27	
2-Bromonaphthalene		87.5	40-140					1/27/14 3:27	
2-Fluorobiphenyl		96.3	40-140					1/27/14 3:27	

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0610

Date Received: 1/21/2014

Field Sample #: EBI-08 (0-5)

Sampled: 1/21/2014 13:20

Sample ID: 14A0610-14

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Lead	1300	0.86	mg/Kg dry	1		SW-846 6010C	1/21/14	1/22/14 17:28	OP

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0610

Date Received: 1/21/2014

Field Sample #: EBI-08 (0-5)

Sampled: 1/21/2014 13:20

Sample ID: 14A0610-14

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	84.5		% Wt	1		SM 2540G	1/27/14	1/28/14 7:52	MXG

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0610

Date Received: 1/21/2014

Field Sample #: EBI-09 (0-4)

Sampled: 1/21/2014 14:00

Sample ID: 14A0610-15

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses - EPH

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
C9-C18 Aliphatics	ND	11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 3:48	SCS
C19-C36 Aliphatics	60	11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 3:48	SCS
Unadjusted C11-C22 Aromatics	84	11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 3:48	SCS
C11-C22 Aromatics	71	11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 3:48	SCS
Acenaphthene	0.12	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 3:48	SCS
Acenaphthylene	ND	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 3:48	SCS
Anthracene	0.28	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 3:48	SCS
Benzo(a)anthracene	0.90	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 3:48	SCS
Benzo(a)pyrene	0.92	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 3:48	SCS
Benzo(b)fluoranthene	1.4	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 3:48	SCS
Benzo(g,h,i)perylene	0.57	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 3:48	SCS
Benzo(k)fluoranthene	0.46	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 3:48	SCS
Chrysene	1.0	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 3:48	SCS
Dibenz(a,h)anthracene	0.23	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 3:48	SCS
Fluoranthene	2.1	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 3:48	SCS
Fluorene	0.14	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 3:48	SCS
Indeno(1,2,3-cd)pyrene	0.66	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 3:48	SCS
2-Methylnaphthalene	ND	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 3:48	SCS
Naphthalene	ND	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 3:48	SCS
Phenanthrene	1.4	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 3:48	SCS
Pyrene	2.1	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/22/14	1/27/14 3:48	SCS
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
Chlorooctadecane (COD)		63.3	40-140					1/27/14 3:48	
o-Terphenyl (OTP)		70.9	40-140					1/27/14 3:48	
2-Bromonaphthalene		89.2	40-140					1/27/14 3:48	
2-Fluorobiphenyl		98.7	40-140					1/27/14 3:48	

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0610

Date Received: 1/21/2014

Field Sample #: EBI-09 (0-4)

Sampled: 1/21/2014 14:00

Sample ID: 14A0610-15

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Lead	220	0.81	mg/Kg dry	1		SW-846 6010C	1/21/14	1/22/14 17:33	OP



Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0610

Date Received: 1/21/2014

Field Sample #: EBI-09 (0-4)

Sampled: 1/21/2014 14:00

Sample ID: 14A0610-15

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	87.0		% Wt	1		SM 2540G	1/27/14	1/28/14 7:52	MXG

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0610

Date Received: 1/21/2014

Field Sample #: EBI-09 (13)

Sampled: 1/21/2014 14:15

Sample ID: 14A0610-16

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Lead	290	0.83	mg/Kg dry	1		SW-846 6010C	1/21/14	1/22/14 17:39	OP

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0610

Date Received: 1/21/2014

Field Sample #: EBI-09 (13)

Sampled: 1/21/2014 14:15

Sample ID: 14A0610-16

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	87.0		% Wt	1		SM 2540G	1/27/14	1/28/14 7:52	MXG

**Sample Extraction Data**

**Prep Method: SW-846 3546-MADEP-EPH-04-1.1**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
14A0610-02 [EBI-07 (0-2)]	B089187	20.4	2.00	01/22/14
14A0610-05 [EBI-04 (0-3.5)]	B089187	20.3	2.00	01/22/14
14A0610-14 [EBI-08 (0-5)]	B089187	20.3	2.00	01/22/14
14A0610-15 [EBI-09 (0-4)]	B089187	20.2	2.00	01/22/14

**Prep Method: SW-846 3546-MADEP-EPH-04-1.1**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
14A0610-08RE1 [EBI-06 (0-4)]	B089420	20.1	2.00	01/27/14

**Prep Method: % Solids-SM 2540G**

Lab Number [Field ID]	Batch	Date
14A0610-01 [EBI-01 (0-5)]	B089416	01/27/14
14A0610-02 [EBI-07 (0-2)]	B089416	01/27/14
14A0610-03 [EBI-07 (5-7)]	B089416	01/27/14
14A0610-04 [EBI-07 (14)]	B089416	01/27/14
14A0610-05 [EBI-04 (0-3.5)]	B089416	01/27/14
14A0610-06 [EBI-04 (5-6)]	B089416	01/27/14
14A0610-07 [EBI-04 (11.5)]	B089416	01/27/14
14A0610-08 [EBI-06 (0-4)]	B089416	01/27/14
14A0610-09 [EBI-06 (6-7)]	B089416	01/27/14
14A0610-10 [EBI-06 (10)]	B089416	01/27/14
14A0610-11 [B-1 (0-12)]	B089416	01/27/14
14A0610-12 [B-2 (0-2)]	B089416	01/27/14
14A0610-13 [B-2 (5-5.5)]	B089416	01/27/14
14A0610-14 [EBI-08 (0-5)]	B089416	01/27/14
14A0610-15 [EBI-09 (0-4)]	B089416	01/27/14
14A0610-16 [EBI-09 (13)]	B089416	01/27/14

**Prep Method: SW-846 3050B-SW-846 6010C**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
14A0610-07 [EBI-04 (11.5)]	B089090	1.05	50.0	01/21/14
14A0610-08 [EBI-06 (0-4)]	B089090	1.04	50.0	01/21/14
14A0610-09 [EBI-06 (6-7)]	B089090	1.07	50.0	01/21/14
14A0610-10 [EBI-06 (10)]	B089090	1.01	50.0	01/21/14
14A0610-11 [B-1 (0-12)]	B089090	1.02	50.0	01/21/14
14A0610-12 [B-2 (0-2)]	B089090	1.08	50.0	01/21/14
14A0610-13 [B-2 (5-5.5)]	B089090	1.08	50.0	01/21/14
14A0610-14 [EBI-08 (0-5)]	B089090	1.03	50.0	01/21/14
14A0610-15 [EBI-09 (0-4)]	B089090	1.07	50.0	01/21/14
14A0610-16 [EBI-09 (13)]	B089090	1.04	50.0	01/21/14

**Prep Method: SW-846 3050B-SW-846 6010C**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
14A0610-01 [EBI-01 (0-5)]	B089243	1.05	50.0	01/23/14
14A0610-02 [EBI-07 (0-2)]	B089243	1.07	50.0	01/23/14
14A0610-03 [EBI-07 (5-7)]	B089243	1.06	50.0	01/23/14

**Sample Extraction Data**

**Prep Method: SW-846 3050B-SW-846 6010C**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
14A0610-04 [EBI-07 (14)]	B089243	1.03	50.0	01/23/14
14A0610-05 [EBI-04 (0-3.5)]	B089243	1.01	50.0	01/23/14
14A0610-06 [EBI-04 (5-6)]	B089243	1.06	50.0	01/23/14

**QUALITY CONTROL**

**Petroleum Hydrocarbons Analyses - EPH - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B089187 - SW-846 3546**

**Blank (B089187-BLK1)**

Prepared: 01/22/14 Analyzed: 01/26/14

C9-C18 Aliphatics	ND	10	mg/Kg wet							
C19-C36 Aliphatics	ND	10	mg/Kg wet							
Unadjusted C11-C22 Aromatics	ND	10	mg/Kg wet							
C11-C22 Aromatics	ND	10	mg/Kg wet							
Acenaphthene	ND	0.10	mg/Kg wet							
Acenaphthylene	ND	0.10	mg/Kg wet							
Anthracene	ND	0.10	mg/Kg wet							
Benzo(a)anthracene	ND	0.10	mg/Kg wet							
Benzo(a)pyrene	ND	0.10	mg/Kg wet							
Benzo(b)fluoranthene	ND	0.10	mg/Kg wet							
Benzo(g,h,i)perylene	ND	0.10	mg/Kg wet							
Benzo(k)fluoranthene	ND	0.10	mg/Kg wet							
Chrysene	ND	0.10	mg/Kg wet							
Dibenz(a,h)anthracene	ND	0.10	mg/Kg wet							
Fluoranthene	ND	0.10	mg/Kg wet							
Fluorene	ND	0.10	mg/Kg wet							
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg wet							
2-Methylnaphthalene	ND	0.10	mg/Kg wet							
Naphthalene	ND	0.10	mg/Kg wet							
Phenanthrene	ND	0.10	mg/Kg wet							
Pyrene	ND	0.10	mg/Kg wet							
n-Decane	ND	0.10	mg/Kg wet							
n-Docosane	ND	0.10	mg/Kg wet							
n-Dodecane	ND	0.10	mg/Kg wet							
n-Eicosane	ND	0.10	mg/Kg wet							
n-Hexacosane	ND	0.10	mg/Kg wet							
n-Hexadecane	ND	0.10	mg/Kg wet							
n-Hexatriacontane	ND	0.10	mg/Kg wet							
n-Nonadecane	ND	0.10	mg/Kg wet							
n-Nonane	ND	0.10	mg/Kg wet							
n-Octacosane	ND	0.10	mg/Kg wet							
n-Octadecane	ND	0.10	mg/Kg wet							
n-Tetracosane	ND	0.10	mg/Kg wet							
n-Tetradecane	ND	0.10	mg/Kg wet							
n-Triacontane	ND	0.10	mg/Kg wet							
Naphthalene-aliphatic fraction	ND	0.10	mg/Kg wet							
2-Methylnaphthalene-aliphatic fraction	ND	0.10	mg/Kg wet							
Surrogate: Chlorooctadecane (COD)	3.63		mg/Kg wet	4.99		72.8	40-140			
Surrogate: o-Terphenyl (OTP)	4.60		mg/Kg wet	5.00		92.0	40-140			
Surrogate: 2-Bromonaphthalene	5.04		mg/Kg wet	5.00		101	40-140			
Surrogate: 2-Fluorobiphenyl	5.34		mg/Kg wet	5.00		107	40-140			

**LCS (B089187-BS1)**

Prepared: 01/22/14 Analyzed: 01/26/14

Acenaphthene	4.12	0.10	mg/Kg wet	5.00		82.5	40-140			
Acenaphthylene	4.04	0.10	mg/Kg wet	5.00		80.7	40-140			
Anthracene	4.42	0.10	mg/Kg wet	5.00		88.5	40-140			
Benzo(a)anthracene	4.51	0.10	mg/Kg wet	5.00		90.2	40-140			
Benzo(a)pyrene	4.29	0.10	mg/Kg wet	5.00		85.9	40-140			
Benzo(b)fluoranthene	4.50	0.10	mg/Kg wet	5.00		89.9	40-140			
Benzo(g,h,i)perylene	4.70	0.10	mg/Kg wet	5.00		94.0	40-140			
Benzo(k)fluoranthene	4.53	0.10	mg/Kg wet	5.00		90.6	40-140			
Chrysene	4.28	0.10	mg/Kg wet	5.00		85.6	40-140			

QUALITY CONTROL

Petroleum Hydrocarbons Analyses - EPH - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B089187 - SW-846 3546

LCS (B089187-BS1)

Prepared: 01/22/14 Analyzed: 01/26/14

Dibenz(a,h)anthracene	4.76	0.10	mg/Kg wet	5.00		95.3	40-140			
Fluoranthene	4.38	0.10	mg/Kg wet	5.00		87.5	40-140			
Fluorene	4.24	0.10	mg/Kg wet	5.00		84.8	40-140			
Indeno(1,2,3-cd)pyrene	4.70	0.10	mg/Kg wet	5.00		94.0	40-140			
2-Methylnaphthalene	3.92	0.10	mg/Kg wet	5.00		78.4	40-140			
Naphthalene	3.60	0.10	mg/Kg wet	5.00		72.0	40-140			
Phenanthrene	4.34	0.10	mg/Kg wet	5.00		86.8	40-140			
Pyrene	4.28	0.10	mg/Kg wet	5.00		85.6	40-140			
n-Decane	2.28	0.10	mg/Kg wet	5.00		45.5	40-140			
n-Docosane	3.85	0.10	mg/Kg wet	5.00		77.0	40-140			
n-Dodecane	2.80	0.10	mg/Kg wet	5.00		56.0	40-140			
n-Eicosane	3.71	0.10	mg/Kg wet	5.00		74.3	40-140			
n-Hexacosane	3.96	0.10	mg/Kg wet	5.00		79.3	40-140			
n-Hexadecane	3.46	0.10	mg/Kg wet	5.00		69.1	40-140			
n-Hexatriacontane	4.03	0.10	mg/Kg wet	5.00		80.5	40-140			
n-Nonadecane	3.68	0.10	mg/Kg wet	5.00		73.7	40-140			
<b>n-Nonane</b>	1.47	0.10	mg/Kg wet	5.00		<b>29.4</b> *	30-140			L-07
n-Octacosane	3.88	0.10	mg/Kg wet	5.00		77.7	40-140			
n-Octadecane	3.65	0.10	mg/Kg wet	5.00		73.1	40-140			
n-Tetracosane	3.86	0.10	mg/Kg wet	5.00		77.1	40-140			
n-Tetradecane	3.09	0.10	mg/Kg wet	5.00		61.9	40-140			
n-Triacontane	4.01	0.10	mg/Kg wet	5.00		80.1	40-140			
Naphthalene-aliphatic fraction	ND	0.10	mg/Kg wet	5.00			0-5			
2-Methylnaphthalene-aliphatic fraction	ND	0.10	mg/Kg wet	5.00			0-5			
Surrogate: Chlorooctadecane (COD)	3.23		mg/Kg wet	4.99		64.7	40-140			
Surrogate: o-Terphenyl (OTP)	4.27		mg/Kg wet	5.00		85.4	40-140			
Surrogate: 2-Bromonaphthalene	5.51		mg/Kg wet	5.00		110	40-140			
Surrogate: 2-Fluorobiphenyl	5.88		mg/Kg wet	5.00		118	40-140			

LCS Dup (B089187-BS1)

Prepared: 01/22/14 Analyzed: 01/26/14

Acenaphthene	4.11	0.10	mg/Kg wet	5.00		82.3	40-140	0.238	25	
Acenaphthylene	4.08	0.10	mg/Kg wet	5.00		81.7	40-140	1.16	25	
Anthracene	4.16	0.10	mg/Kg wet	5.00		83.2	40-140	6.09	25	
Benzo(a)anthracene	4.22	0.10	mg/Kg wet	5.00		84.4	40-140	6.66	25	
Benzo(a)pyrene	4.02	0.10	mg/Kg wet	5.00		80.5	40-140	6.48	25	
Benzo(b)fluoranthene	4.20	0.10	mg/Kg wet	5.00		83.9	40-140	6.88	25	
Benzo(g,h,i)perylene	4.40	0.10	mg/Kg wet	5.00		88.0	40-140	6.65	25	
Benzo(k)fluoranthene	4.24	0.10	mg/Kg wet	5.00		84.9	40-140	6.47	25	
Chrysene	4.01	0.10	mg/Kg wet	5.00		80.2	40-140	6.45	25	
Dibenz(a,h)anthracene	4.47	0.10	mg/Kg wet	5.00		89.4	40-140	6.38	25	
Fluoranthene	4.08	0.10	mg/Kg wet	5.00		81.6	40-140	7.04	25	
Fluorene	4.13	0.10	mg/Kg wet	5.00		82.6	40-140	2.69	25	
Indeno(1,2,3-cd)pyrene	4.38	0.10	mg/Kg wet	5.00		87.6	40-140	6.97	25	
2-Methylnaphthalene	4.14	0.10	mg/Kg wet	5.00		82.9	40-140	5.49	25	
Naphthalene	3.91	0.10	mg/Kg wet	5.00		78.1	40-140	8.10	25	
Phenanthrene	4.11	0.10	mg/Kg wet	5.00		82.2	40-140	5.46	25	
Pyrene	3.99	0.10	mg/Kg wet	5.00		79.7	40-140	7.11	25	
n-Decane	2.61	0.10	mg/Kg wet	5.00		52.2	40-140	13.6	25	
n-Docosane	3.78	0.10	mg/Kg wet	5.00		75.5	40-140	1.91	25	
n-Dodecane	3.19	0.10	mg/Kg wet	5.00		63.8	40-140	13.1	25	
n-Eicosane	3.65	0.10	mg/Kg wet	5.00		72.9	40-140	1.82	25	
n-Hexacosane	3.82	0.10	mg/Kg wet	5.00		76.3	40-140	3.79	25	

**QUALITY CONTROL**

**Petroleum Hydrocarbons Analyses - EPH - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B089187 - SW-846 3546**

**LCS Dup (B089187-BSD1)**

Prepared: 01/22/14 Analyzed: 01/26/14

n-Hexadecane	3.54	0.10	mg/Kg wet	5.00		70.7	40-140	2.25	25	
n-Hexatriacontane	3.84	0.10	mg/Kg wet	5.00		76.9	40-140	4.63	25	
n-Nonadecane	3.63	0.10	mg/Kg wet	5.00		72.6	40-140	1.38	25	
n-Nonane	1.70	0.10	mg/Kg wet	5.00		34.1	30-140	14.8	25	
n-Octacosane	3.73	0.10	mg/Kg wet	5.00		74.5	40-140	4.16	25	
n-Octadecane	3.63	0.10	mg/Kg wet	5.00		72.7	40-140	0.535	25	
n-Tetracosane	3.76	0.10	mg/Kg wet	5.00		75.3	40-140	2.45	25	
n-Tetradecane	3.33	0.10	mg/Kg wet	5.00		66.5	40-140	7.21	25	
n-Triacontane	3.82	0.10	mg/Kg wet	5.00		76.4	40-140	4.72	25	
Naphthalene-aliphatic fraction	ND	0.10	mg/Kg wet	5.00			0-5			
2-Methylnaphthalene-aliphatic fraction	ND	0.10	mg/Kg wet	5.00			0-5			
Surrogate: Chlorooctadecane (COD)	3.15		mg/Kg wet	4.99		63.2	40-140			
Surrogate: o-Terphenyl (OTP)	3.92		mg/Kg wet	5.00		78.3	40-140			
Surrogate: 2-Bromonaphthalene	5.22		mg/Kg wet	5.00		104	40-140			
Surrogate: 2-Fluorobiphenyl	5.56		mg/Kg wet	5.00		111	40-140			

**Batch B089420 - SW-846 3546**

**Blank (B089420-BLK1)**

Prepared: 01/27/14 Analyzed: 01/28/14

C9-C18 Aliphatics	ND	10	mg/Kg wet							
C19-C36 Aliphatics	ND	10	mg/Kg wet							
Unadjusted C11-C22 Aromatics	ND	10	mg/Kg wet							
C11-C22 Aromatics	ND	10	mg/Kg wet							
Acenaphthene	ND	0.10	mg/Kg wet							
Acenaphthylene	ND	0.10	mg/Kg wet							
Anthracene	ND	0.10	mg/Kg wet							
Benzo(a)anthracene	ND	0.10	mg/Kg wet							
Benzo(a)pyrene	ND	0.10	mg/Kg wet							
Benzo(b)fluoranthene	ND	0.10	mg/Kg wet							
Benzo(g,h,i)perylene	ND	0.10	mg/Kg wet							
Benzo(k)fluoranthene	ND	0.10	mg/Kg wet							
Chrysene	ND	0.10	mg/Kg wet							
Dibenz(a,h)anthracene	ND	0.10	mg/Kg wet							
Fluoranthene	ND	0.10	mg/Kg wet							
Fluorene	ND	0.10	mg/Kg wet							
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg wet							
2-Methylnaphthalene	ND	0.10	mg/Kg wet							
Naphthalene	ND	0.10	mg/Kg wet							
Phenanthrene	ND	0.10	mg/Kg wet							
Pyrene	ND	0.10	mg/Kg wet							
n-Decane	ND	0.10	mg/Kg wet							
n-Docosane	ND	0.10	mg/Kg wet							
n-Dodecane	ND	0.10	mg/Kg wet							
n-Eicosane	ND	0.10	mg/Kg wet							
n-Hexacosane	ND	0.10	mg/Kg wet							
n-Hexadecane	ND	0.10	mg/Kg wet							
n-Hexatriacontane	ND	0.10	mg/Kg wet							
n-Nonadecane	ND	0.10	mg/Kg wet							
n-Nonane	ND	0.10	mg/Kg wet							
n-Octacosane	ND	0.10	mg/Kg wet							
n-Octadecane	ND	0.10	mg/Kg wet							
n-Tetracosane	ND	0.10	mg/Kg wet							
n-Tetradecane	ND	0.10	mg/Kg wet							



**QUALITY CONTROL**

**Petroleum Hydrocarbons Analyses - EPH - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B089420 - SW-846 3546</b>										
<b>Blank (B089420-BLK1)</b>										
Prepared: 01/27/14 Analyzed: 01/28/14										
n-Triacontane	ND	0.10	mg/Kg wet							
Naphthalene-aliphatic fraction	ND	0.10	mg/Kg wet							
2-Methylnaphthalene-aliphatic fraction	ND	0.10	mg/Kg wet							
Surrogate: Chlorooctadecane (COD)	3.39		mg/Kg wet	4.99		67.9	40-140			
Surrogate: o-Terphenyl (OTP)	4.12		mg/Kg wet	5.00		82.3	40-140			
Surrogate: 2-Bromonaphthalene	4.40		mg/Kg wet	5.00		88.1	40-140			
Surrogate: 2-Fluorobiphenyl	4.60		mg/Kg wet	5.00		91.9	40-140			
<b>LCS (B089420-BS1)</b>										
Prepared: 01/27/14 Analyzed: 01/28/14										
Acenaphthene	3.83	0.10	mg/Kg wet	5.00		76.5	40-140			
Acenaphthylene	3.76	0.10	mg/Kg wet	5.00		75.3	40-140			
Anthracene	4.07	0.10	mg/Kg wet	5.00		81.4	40-140			
Benzo(a)anthracene	4.36	0.10	mg/Kg wet	5.00		87.3	40-140			
Benzo(a)pyrene	4.15	0.10	mg/Kg wet	5.00		82.9	40-140			
Benzo(b)fluoranthene	4.40	0.10	mg/Kg wet	5.00		88.0	40-140			
Benzo(g,h,i)perylene	4.58	0.10	mg/Kg wet	5.00		91.5	40-140			
Benzo(k)fluoranthene	4.31	0.10	mg/Kg wet	5.00		86.2	40-140			
Chrysene	4.07	0.10	mg/Kg wet	5.00		81.5	40-140			
Dibenz(a,h)anthracene	4.55	0.10	mg/Kg wet	5.00		91.0	40-140			
Fluoranthene	4.19	0.10	mg/Kg wet	5.00		83.7	40-140			
Fluorene	3.87	0.10	mg/Kg wet	5.00		77.4	40-140			
Indeno(1,2,3-cd)pyrene	4.56	0.10	mg/Kg wet	5.00		91.2	40-140			
2-Methylnaphthalene	3.80	0.10	mg/Kg wet	5.00		76.0	40-140			
Naphthalene	3.59	0.10	mg/Kg wet	5.00		71.7	40-140			
Phenanthrene	3.99	0.10	mg/Kg wet	5.00		79.8	40-140			
Pyrene	4.10	0.10	mg/Kg wet	5.00		82.1	40-140			
n-Decane	2.82	0.10	mg/Kg wet	5.00		56.5	40-140			
n-Docosane	4.15	0.10	mg/Kg wet	5.00		82.9	40-140			
n-Dodecane	3.18	0.10	mg/Kg wet	5.00		63.5	40-140			
n-Eicosane	3.94	0.10	mg/Kg wet	5.00		78.9	40-140			
n-Hexacosane	4.20	0.10	mg/Kg wet	5.00		84.0	40-140			
n-Hexadecane	3.49	0.10	mg/Kg wet	5.00		69.9	40-140			
n-Hexatriacontane	4.17	0.10	mg/Kg wet	5.00		83.4	40-140			
n-Nonadecane	3.85	0.10	mg/Kg wet	5.00		77.1	40-140			
n-Nonane	2.17	0.10	mg/Kg wet	5.00		43.5	30-140			
n-Octacosane	4.10	0.10	mg/Kg wet	5.00		82.0	40-140			
n-Octadecane	3.78	0.10	mg/Kg wet	5.00		75.6	40-140			
n-Tetracosane	4.13	0.10	mg/Kg wet	5.00		82.6	40-140			
n-Tetradecane	3.29	0.10	mg/Kg wet	5.00		65.8	40-140			
n-Triacontane	4.22	0.10	mg/Kg wet	5.00		84.3	40-140			
Naphthalene-aliphatic fraction	ND	0.10	mg/Kg wet	5.00			0-5			
2-Methylnaphthalene-aliphatic fraction	ND	0.10	mg/Kg wet	5.00			0-5			
Surrogate: Chlorooctadecane (COD)	3.51		mg/Kg wet	4.99		70.3	40-140			
Surrogate: o-Terphenyl (OTP)	4.09		mg/Kg wet	5.00		81.7	40-140			
Surrogate: 2-Bromonaphthalene	4.38		mg/Kg wet	5.00		87.6	40-140			
Surrogate: 2-Fluorobiphenyl	4.65		mg/Kg wet	5.00		92.9	40-140			

QUALITY CONTROL

Petroleum Hydrocarbons Analyses - EPH - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B089420 - SW-846 3546</b>										
<b>LCS Dup (B089420-BSD1)</b>										
					Prepared: 01/27/14 Analyzed: 01/28/14					
Acenaphthene	3.95	0.10	mg/Kg wet	5.00		79.0	40-140	3.14	25	
Acenaphthylene	3.86	0.10	mg/Kg wet	5.00		77.2	40-140	2.57	25	
Anthracene	4.26	0.10	mg/Kg wet	5.00		85.3	40-140	4.64	25	
Benzo(a)anthracene	4.37	0.10	mg/Kg wet	5.00		87.4	40-140	0.206	25	
Benzo(a)pyrene	4.15	0.10	mg/Kg wet	5.00		82.9	40-140	0.0121	25	
Benzo(b)fluoranthene	4.40	0.10	mg/Kg wet	5.00		87.9	40-140	0.0955	25	
Benzo(g,h,i)perylene	4.57	0.10	mg/Kg wet	5.00		91.4	40-140	0.0853	25	
Benzo(k)fluoranthene	4.32	0.10	mg/Kg wet	5.00		86.4	40-140	0.195	25	
Chrysene	4.07	0.10	mg/Kg wet	5.00		81.4	40-140	0.0638	25	
Dibenz(a,h)anthracene	4.55	0.10	mg/Kg wet	5.00		90.9	40-140	0.0835	25	
Fluoranthene	4.24	0.10	mg/Kg wet	5.00		84.7	40-140	1.17	25	
Fluorene	4.09	0.10	mg/Kg wet	5.00		81.8	40-140	5.54	25	
Indeno(1,2,3-cd)pyrene	4.56	0.10	mg/Kg wet	5.00		91.1	40-140	0.110	25	
2-Methylnaphthalene	3.81	0.10	mg/Kg wet	5.00		76.2	40-140	0.271	25	
Naphthalene	3.46	0.10	mg/Kg wet	5.00		69.3	40-140	3.49	25	
Phenanthrene	4.20	0.10	mg/Kg wet	5.00		84.1	40-140	5.26	25	
Pyrene	4.14	0.10	mg/Kg wet	5.00		82.8	40-140	0.909	25	
n-Decane	2.54	0.10	mg/Kg wet	5.00		50.8	40-140	10.6	25	
n-Docosane	4.28	0.10	mg/Kg wet	5.00		85.6	40-140	3.14	25	
n-Dodecane	3.10	0.10	mg/Kg wet	5.00		62.1	40-140	2.28	25	
n-Eicosane	4.10	0.10	mg/Kg wet	5.00		82.0	40-140	3.92	25	
n-Hexacosane	4.36	0.10	mg/Kg wet	5.00		87.1	40-140	3.62	25	
n-Hexadecane	3.80	0.10	mg/Kg wet	5.00		76.0	40-140	8.49	25	
n-Hexatriacontane	4.32	0.10	mg/Kg wet	5.00		86.3	40-140	3.44	25	
n-Nonadecane	4.05	0.10	mg/Kg wet	5.00		81.0	40-140	4.94	25	
n-Nonane	1.76	0.10	mg/Kg wet	5.00		35.1	30-140	21.2	25	
n-Octacosane	4.25	0.10	mg/Kg wet	5.00		85.0	40-140	3.58	25	
n-Octadecane	4.01	0.10	mg/Kg wet	5.00		80.2	40-140	5.91	25	
n-Tetracosane	4.27	0.10	mg/Kg wet	5.00		85.4	40-140	3.37	25	
n-Tetradecane	3.45	0.10	mg/Kg wet	5.00		68.9	40-140	4.63	25	
n-Triacontane	4.36	0.10	mg/Kg wet	5.00		87.1	40-140	3.28	25	
Naphthalene-aliphatic fraction	ND	0.10	mg/Kg wet	5.00			0-5			
2-Methylnaphthalene-aliphatic fraction	ND	0.10	mg/Kg wet	5.00			0-5			
Surrogate: Chlorooctadecane (COD)	3.51		mg/Kg wet	4.99		70.3	40-140			
Surrogate: o-Terphenyl (OTP)	4.07		mg/Kg wet	5.00		81.4	40-140			
Surrogate: 2-Bromonaphthalene	4.30		mg/Kg wet	5.00		86.1	40-140			
Surrogate: 2-Fluorobiphenyl	4.68		mg/Kg wet	5.00		93.5	40-140			



39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

**QUALITY CONTROL**

**Metals Analyses (Total) - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B089090 - SW-846 3050B</b>										
<b>Blank (B089090-BLK1)</b> Prepared: 01/21/14 Analyzed: 01/22/14										
Lead	ND	0.75	mg/Kg wet							
<b>LCS (B089090-BS1)</b> Prepared: 01/21/14 Analyzed: 01/22/14										
Lead	113	1.5	mg/Kg wet	115		98.5	82.4-117.8			
<b>LCS Dup (B089090-BSD1)</b> Prepared: 01/21/14 Analyzed: 01/22/14										
Lead	110	1.5	mg/Kg wet	115		95.9	82.4-117.8	2.67	30	
<b>MRL Check (B089090-MRL1)</b> Prepared: 01/21/14 Analyzed: 01/22/14										
Lead	0.696	0.73	mg/Kg wet	0.730		95.3	80-120			
<b>Batch B089243 - SW-846 3050B</b>										
<b>Blank (B089243-BLK1)</b> Prepared: 01/23/14 Analyzed: 01/24/14										
Lead	ND	0.75	mg/Kg wet							
<b>LCS (B089243-BS1)</b> Prepared: 01/23/14 Analyzed: 01/24/14										
Lead	110	1.5	mg/Kg wet	115		95.3	82.4-117.8			
<b>LCS Dup (B089243-BSD1)</b> Prepared: 01/23/14 Analyzed: 01/24/14										
Lead	113	1.5	mg/Kg wet	115		98.1	82.4-117.8	2.88	30	
<b>Duplicate (B089243-DUP1)</b> <b>Source: 14A0610-05</b> Prepared: 01/23/14 Analyzed: 01/24/14										
Lead	1320	0.92	mg/Kg dry		1330			0.374	35	
<b>MRL Check (B089243-MRL1)</b> Prepared: 01/23/14 Analyzed: 01/24/14										
Lead	0.616	0.72	mg/Kg wet	0.717		85.9	80-120			
<b>Matrix Spike (B089243-MS1)</b> <b>Source: 14A0610-05</b> Prepared: 01/23/14 Analyzed: 01/24/14										
Lead	1350	0.86	mg/Kg dry	28.7	1330	74.6	* 75-125			MS-19

**QUALITY CONTROL**

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B089416 - % Solids</b>										
<b>Duplicate (B089416-DUP1)</b>	<b>Source: 14A0610-03</b>			Prepared: 01/27/14 Analyzed: 01/28/14						
% Solids	89.1		% Wt		91.5			2.66	20	
<b>Duplicate (B089416-DUP2)</b>	<b>Source: 14A0610-10</b>			Prepared: 01/27/14 Analyzed: 01/28/14						
% Solids	90.5		% Wt		91.0			0.551	20	

**FLAG/QUALIFIER SUMMARY**

- \* QC result is outside of established limits.
  - † Wide recovery limits established for difficult compound.
  - ‡ Wide RPD limits established for difficult compound.
  - # Data exceeded client recommended or regulatory level
- Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.  
No results have been blank subtracted unless specified in the case narrative section.
- L-07 Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.
- MS-19 Sample to spike ratio is greater than or equal to 4:1. Spiked amount is not representative of the native amount in the sample. Appropriate or meaningful recoveries cannot be calculated.

**CERTIFICATIONS**

**Certified Analyses included in this Report**

Analyte	Certifications
<b>MADEP-EPH-04-1.1 in Soil</b>	
C9-C18 Aliphatics	CT,NC,WA,ME,ME,NH-P
C19-C36 Aliphatics	CT,NC,WA,ME,ME,NH-P
Unadjusted C11-C22 Aromatics	CT,NC,WA,ME,ME,NH-P
C11-C22 Aromatics	CT,NC,WA,ME,ME,NH-P
Acenaphthene	CT,NC,WA,ME,ME,NH-P
Acenaphthylene	CT,NC,WA,ME,ME,NH-P
Anthracene	CT,NC,WA,ME,ME,NH-P
Benzo(a)anthracene	CT,NC,WA,ME,ME,NH-P
Benzo(a)pyrene	CT,NC,WA,ME,ME,NH-P
Benzo(b)fluoranthene	CT,NC,WA,ME,ME,NH-P
Benzo(g,h,i)perylene	CT,NC,WA,ME,ME,NH-P
Benzo(k)fluoranthene	CT,NC,WA,ME,ME,NH-P
Chrysene	CT,NC,WA,ME,ME,NH-P
Dibenz(a,h)anthracene	CT,NC,WA,ME,ME,NH-P
Fluoranthene	CT,NC,WA,ME,ME,NH-P
Fluorene	CT,NC,WA,ME,ME
Indeno(1,2,3-cd)pyrene	CT,NC,WA,ME,ME,NH-P
2-Methylnaphthalene	CT,NC,WA,ME,ME
Naphthalene	CT,NC,WA,ME,ME,NH-P
Phenanthrene	CT,NC,WA,ME,ME,NH-P
Pyrene	CT,NC,WA,ME,ME,NH-P

**SW-846 6010C in Soil**

Lead CT,NH,NY,AIHA,ME,NC,VA,NJ

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC	100033	02/1/2016
MA	Massachusetts DEP	M-MA100	06/30/2014
CT	Connecticut Department of Public Health	PH-0567	09/30/2015
NY	New York State Department of Health	10899 NELAP	04/1/2014
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2014
RI	Rhode Island Department of Health	LAO00112	12/30/2014
NC	North Carolina Div. of Water Quality	652	12/31/2014
NJ	New Jersey DEP	MA007 NELAP	06/30/2014
FL	Florida Department of Health	E871027 NELAP	06/30/2014
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2014
WA	State of Washington Department of Ecology	C2065	02/23/2014
ME	State of Maine	2011028	06/9/2015
VA	Commonwealth of Virginia	460217	12/14/2014
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2014







39 Spruce St.  
 East Longmeadow, MA. 01028  
 P: 413-525-2332  
 F: 413-525-6405  
 www.contestlabs.com



### Sample Receipt Checklist

CLIENT NAME: EBI Consulting RECEIVED BY: RLA DATE: 1/21/14

- 1) Was the chain(s) of custody relinquished and signed? **Yes** No No CoC Included  
 2) Does the chain agree with the samples? **Yes** No  
 If not, explain:  
 3) Are all the samples in good condition? **Yes** No  
 If not, explain:

4) How were the samples received:  
 On Ice  Direct from Sampling  Ambient  In Cooler(s)

Were the samples received in Temperature Compliance of (2-6°C)? **Yes** No N/A  
 Temperature °C by Temp blank \_\_\_\_\_ Temperature °C by Temp gun 2.4C

5) Are there Dissolved samples for the lab to filter? Yes **No**  
 Who was notified \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

6) Are there any RUSH or SHORT HOLDING TIME samples? Yes **No**  
 Who was notified \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

7) Location where samples are stored: 19  
 Permission to subcontract samples? Yes No  
 (Walk-in clients only) if not already approved  
 Client Signature: \_\_\_\_\_

8) Do all samples have the proper Acid pH: Yes No **N/A** \_\_\_\_\_

9) Do all samples have the proper Base pH: Yes No **N/A** \_\_\_\_\_

10) Was the PC notified of any discrepancies with the CoC vs the samples: Yes No **N/A**

### Containers received at Con-Test

	# of containers		# of containers
1 Liter Amber		8 oz <b>amber</b> /clear jar	<u>29</u>
500 mL Amber		4 oz amber/clear jar	
250 mL Amber (8oz amber)		2 oz amber/clear jar	
1 Liter Plastic		Plastic Bag / Ziploc	
500 mL Plastic		SOC Kit	
250 mL plastic		Non-ConTest Container	
40 mL Vial - type listed below		Perchlorate Kit	
Colisure / bacteria bottle		Flashpoint bottle	
Dissolved Oxygen bottle		Other glass jar	
Encore		Other	

Laboratory Comments:

40 mL vials: # HCl \_\_\_\_\_ # Methanol \_\_\_\_\_  
 # Bisulfate \_\_\_\_\_ # DI Water \_\_\_\_\_  
 # Thiosulfate \_\_\_\_\_ Unpreserved \_\_\_\_\_  
 Time and Date Frozen: \_\_\_\_\_

**Login Sample Receipt Checklist**  
**(Rejection Criteria Listing - Using Sample Acceptance Policy)**  
**Any False statement will be brought to the attention of Client**

<u>Question</u>	<u>Answer (True/False)</u>		<u>Comment</u>
	T	F/NA	
1) The cooler's custody seal, if present, is intact.	T		
2) The cooler or samples do not appear to have been compromised or tampered with.	T		
3) Samples were received on ice.	T		
4) Cooler Temperature is acceptable.	T		
5) Cooler Temperature is recorded.	T		
6) COC is filled out in ink and legible.	T		
7) COC is filled out with all pertinent information.	T		
8) Field Sampler's name present on COC.	T		
9) There are no discrepancies between the sample IDs on the container and the COC.	T		
10) Samples are received within Holding Time.	T		
11) Sample containers have legible labels.	T		
12) Containers are not broken or leaking.	T		
13) Air Cassettes are not broken/open.	NA		
14) Sample collection date/times are provided.	T		
15) Appropriate sample containers are used.	T		
16) Proper collection media used.	T		
17) No headspace sample bottles are completely filled.	T		
18) There is sufficient volume for all requested analyses, including any requested MS/MSDs.	T		
19) Trip blanks provided if applicable.	NA		
20) VOA sample vials do not have head space or bubble is <6mm (1/4") in diameter.	NA		
21) Samples do not require splitting or compositing.	T		

Doc #277 Rev. 4 August 2013

**Who notified of False statements?**  
**Log-In Technician Initials:**

**Date/Time:**  
**Date/Time:**

RLF 1/21/14 1700



January 27, 2014

Dan Bellucci  
EBI Consultants  
21 B Street  
Burlington, MA 01803

Project Location: Mission Hill, Boston  
Client Job Number:  
Project Number: 12130296  
Laboratory Work Order Number: 14A0594

Enclosed are results of analyses for samples received by the laboratory on January 20, 2014. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Meghan E. Kelley  
Project Manager

EBI Consultants  
 21 B Street  
 Burlington, MA 01803  
 ATTN: Dan Bellucci

REPORT DATE: 1/27/2014

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 12130296

**ANALYTICAL SUMMARY**

WORK ORDER NUMBER: 14A0594

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Mission Hill, Boston

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
EBI-03 (0-4)	14A0594-01	Soil		SM 2540G SW-846 6010C	
EBI-03 (5)	14A0594-02	Soil		MADEP-EPH-04-1.1 SM 2540G SW-846 6010C	
EBI-03 (5.5-7)	14A0594-03	Soil		MADEP-EPH-04-1.1 SM 2540G SW-846 6010C	
EBI-03 (12)	14A0594-04	Soil		SM 2540G SW-846 6010C	
EBI-02 (0-4)	14A0594-05	Soil		SM 2540G SW-846 6010C	
EBI-02 (6)	14A0594-06	Soil		MADEP-EPH-04-1.1 SM 2540G SW-846 6010C	
EBI-02 (7-8)	14A0594-07	Soil		SM 2540G SW-846 6010C	
EBI-02 (14)	14A0594-08	Soil		SM 2540G SW-846 6010C	
EBI-05 (0-4)	14A0594-09	Soil		SM 2540G SW-846 6010C	
EBI-05 (5-6)	14A0594-10	Soil		SM 2540G SW-846 6010C	
EBI-05 (14')	14A0594-11	Soil		SM 2540G SW-846 6010C	

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.  
For method 6010, only lead was requested and reported.

**MADEP-EPH-04-1.1**

**Qualifications:**

Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.

**Analyte & Samples(s) Qualified:**

**C9-C18 Aliphatics, n-Nonane**

14A0594-02[EBI-03 (5)], 14A0594-03[EBI-03 (5.5-7)], 14A0594-06[EBI-02 (6)], B089084-BLK1, B089084-BS1, B089084-BSD1

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.

**Analyte & Samples(s) Qualified:**

**n-Decane**

B089084-BS1

**MADEP-EPH-04-1.1**

SPE cartridge contamination with non-petroleum compounds, if present, is verified by GC/MS in each method blank per extraction batch and excluded from C11-C22 aromatic range fraction in all samples in the batch. No significant modifications were made to the method.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Michael A. Erickson  
Laboratory Director

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0594

Date Received: 1/20/2014

Field Sample #: EBI-03 (0-4)

Sampled: 1/20/2014 08:00

Sample ID: 14A0594-01

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Lead	300	0.87	mg/Kg dry	1		SW-846 6010C	1/21/14	1/22/14 16:18	OP

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0594

Date Received: 1/20/2014

Field Sample #: EBI-03 (0-4)

Sampled: 1/20/2014 08:00

Sample ID: 14A0594-01

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	83.9		% Wt	1		SM 2540G	1/24/14	1/27/14 8:44	MXG



Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0594

Date Received: 1/20/2014

Field Sample #: EBI-03 (5)

Sampled: 1/20/2014 08:15

Sample ID: 14A0594-02

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses - EPH

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
C9-C18 Aliphatics	ND	12	mg/Kg dry	1	L-04	MADEP-EPH-04-1.1	1/21/14	1/24/14 0:53	SCS
C19-C36 Aliphatics	15	12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 0:53	SCS
Unadjusted C11-C22 Aromatics	ND	12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 0:53	SCS
C11-C22 Aromatics	ND	12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 0:53	SCS
Acenaphthene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 0:53	SCS
Acenaphthylene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 0:53	SCS
Anthracene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 0:53	SCS
Benzo(a)anthracene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 0:53	SCS
Benzo(a)pyrene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 0:53	SCS
Benzo(b)fluoranthene	0.16	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 0:53	SCS
Benzo(g,h,i)perylene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 0:53	SCS
Benzo(k)fluoranthene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 0:53	SCS
Chrysene	0.13	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 0:53	SCS
Dibenz(a,h)anthracene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 0:53	SCS
Fluoranthene	0.21	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 0:53	SCS
Fluorene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 0:53	SCS
Indeno(1,2,3-cd)pyrene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 0:53	SCS
2-Methylnaphthalene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 0:53	SCS
Naphthalene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 0:53	SCS
Phenanthrene	0.16	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 0:53	SCS
Pyrene	0.20	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 0:53	SCS
<b>Surrogates</b>		<b>% Recovery</b>	<b>Recovery Limits</b>		<b>Flag/Qual</b>				
Chlorooctadecane (COD)		69.8	40-140					1/24/14 0:53	
o-Terphenyl (OTP)		87.8	40-140					1/24/14 0:53	
2-Bromonaphthalene		106	40-140					1/24/14 0:53	
2-Fluorobiphenyl		113	40-140					1/24/14 0:53	

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0594

Date Received: 1/20/2014

Sampled: 1/20/2014 08:15

Field Sample #: EBI-03 (5)

Sample ID: 14A0594-02

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Lead	500	0.86	mg/Kg dry	1		SW-846 6010C	1/21/14	1/22/14 16:23	OP

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0594

Date Received: 1/20/2014

Sampled: 1/20/2014 08:15

Field Sample #: EBI-03 (5)

Sample ID: 14A0594-02

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/PHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	85.3		% Wt	1		SM 2540G	1/24/14	1/27/14 8:44	MXG

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0594

Date Received: 1/20/2014

Field Sample #: EBI-03 (5.5-7)

Sampled: 1/20/2014 09:15

Sample ID: 14A0594-03

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses - EPH

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
C9-C18 Aliphatics	ND	11	mg/Kg dry	1	L-04	MADEP-EPH-04-1.1	1/21/14	1/24/14 0:33	SCS
C19-C36 Aliphatics	ND	11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 0:33	SCS
Unadjusted C11-C22 Aromatics	ND	11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 0:33	SCS
C11-C22 Aromatics	ND	11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 0:33	SCS
Acenaphthene	ND	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 0:33	SCS
Acenaphthylene	ND	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 0:33	SCS
Anthracene	ND	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 0:33	SCS
Benzo(a)anthracene	ND	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 0:33	SCS
Benzo(a)pyrene	ND	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 0:33	SCS
Benzo(b)fluoranthene	ND	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 0:33	SCS
Benzo(g,h,i)perylene	ND	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 0:33	SCS
Benzo(k)fluoranthene	ND	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 0:33	SCS
Chrysene	ND	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 0:33	SCS
Dibenz(a,h)anthracene	ND	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 0:33	SCS
Fluoranthene	ND	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 0:33	SCS
Fluorene	ND	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 0:33	SCS
Indeno(1,2,3-cd)pyrene	ND	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 0:33	SCS
2-Methylnaphthalene	ND	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 0:33	SCS
Naphthalene	ND	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 0:33	SCS
Phenanthrene	ND	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 0:33	SCS
Pyrene	ND	0.11	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 0:33	SCS

Surrogates	% Recovery	Recovery Limits	Flag/Qual
Chlorooctadecane (COD)	68.9	40-140	1/24/14 0:33
o-Terphenyl (OTP)	80.0	40-140	1/24/14 0:33
2-Bromonaphthalene	103	40-140	1/24/14 0:33
2-Fluorobiphenyl	109	40-140	1/24/14 0:33

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0594

Date Received: 1/20/2014

Field Sample #: EBI-03 (5.5-7)

Sampled: 1/20/2014 09:15

Sample ID: 14A0594-03

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Lead	21	0.78	mg/Kg dry	1		SW-846 6010C	1/21/14	1/22/14 16:29	OP

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0594

Date Received: 1/20/2014

Field Sample #: EBI-03 (5.5-7)

Sampled: 1/20/2014 09:15

Sample ID: 14A0594-03

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	90.2		% Wt	1		SM 2540G	1/24/14	1/27/14 8:44	MXG

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0594

Date Received: 1/20/2014

Field Sample #: EBI-03 (12)

Sampled: 1/20/2014 09:30

Sample ID: 14A0594-04

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Lead	8.1	0.77	mg/Kg dry	1		SW-846 6010C	1/21/14	1/22/14 18:47	OP

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0594

Date Received: 1/20/2014

Field Sample #: EBI-03 (12)

Sampled: 1/20/2014 09:30

Sample ID: 14A0594-04

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	91.6		% Wt	1		SM 2540G	1/24/14	1/27/14 8:44	MXG



Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0594

Date Received: 1/20/2014

Field Sample #: EBI-02 (0-4)

Sampled: 1/20/2014 10:40

Sample ID: 14A0594-05

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Lead	470	0.82	mg/Kg dry	1		SW-846 6010C	1/21/14	1/22/14 19:19	OP

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0594

Date Received: 1/20/2014

Field Sample #: EBI-02 (0-4)

Sampled: 1/20/2014 10:40

Sample ID: 14A0594-05

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	86.3		% Wt	1		SM 2540G	1/24/14	1/27/14 8:44	MXG

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0594

Date Received: 1/20/2014

Field Sample #: EBI-02 (6)

Sampled: 1/20/2014 11:00

Sample ID: 14A0594-06

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses - EPH

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
C9-C18 Aliphatics	42	13	mg/Kg dry	1	L-04	MADEP-EPH-04-1.1	1/21/14	1/24/14 2:57	SCS
C19-C36 Aliphatics	45	13	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 2:57	SCS
Unadjusted C11-C22 Aromatics	54	13	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 2:57	SCS
C11-C22 Aromatics	53	13	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 2:57	SCS
Acenaphthene	ND	0.13	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 2:57	SCS
Acenaphthylene	ND	0.13	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 2:57	SCS
Anthracene	ND	0.13	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 2:57	SCS
Benzo(a)anthracene	0.14	0.13	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 2:57	SCS
Benzo(a)pyrene	ND	0.13	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 2:57	SCS
Benzo(b)fluoranthene	ND	0.13	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 2:57	SCS
Benzo(g,h,i)perylene	ND	0.13	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 2:57	SCS
Benzo(k)fluoranthene	ND	0.13	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 2:57	SCS
Chrysene	0.17	0.13	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 2:57	SCS
Dibenz(a,h)anthracene	ND	0.13	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 2:57	SCS
Fluoranthene	0.36	0.13	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 2:57	SCS
Fluorene	ND	0.13	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 2:57	SCS
Indeno(1,2,3-cd)pyrene	ND	0.13	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 2:57	SCS
2-Methylnaphthalene	ND	0.13	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 2:57	SCS
Naphthalene	ND	0.13	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 2:57	SCS
Phenanthrene	ND	0.13	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 2:57	SCS
Pyrene	0.28	0.13	mg/Kg dry	1		MADEP-EPH-04-1.1	1/21/14	1/24/14 2:57	SCS

Surrogates	% Recovery	Recovery Limits	Flag/Qual
Chlorooctadecane (COD)	55.8	40-140	
o-Terphenyl (OTP)	70.7	40-140	
2-Bromonaphthalene	111	40-140	
2-Fluorobiphenyl	118	40-140	

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0594

Date Received: 1/20/2014

Sampled: 1/20/2014 11:00

Field Sample #: EBI-02 (6)

Sample ID: 14A0594-06

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Lead	3000	0.89	mg/Kg dry	1		SW-846 6010C	1/21/14	1/22/14 19:24	OP

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0594

Date Received: 1/20/2014

Sampled: 1/20/2014 11:00

Field Sample #: EBI-02 (6)

Sample ID: 14A0594-06

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	77.9		% Wt	1		SM 2540G	1/24/14	1/27/14 8:44	MXG

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0594

Date Received: 1/20/2014

Field Sample #: EBI-02 (7-8)

Sampled: 1/20/2014 11:10

Sample ID: 14A0594-07

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Lead	17	0.79	mg/Kg dry	1		SW-846 6010C	1/21/14	1/22/14 19:30	OP

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0594

Date Received: 1/20/2014

Field Sample #: EBI-02 (7-8)

Sampled: 1/20/2014 11:10

Sample ID: 14A0594-07

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	89.9		% Wt	1		SM 2540G	1/24/14	1/27/14 8:44	MXG

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0594

Date Received: 1/20/2014

Field Sample #: EBI-02 (14)

Sampled: 1/20/2014 11:15

Sample ID: 14A0594-08

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Lead	8.3	0.84	mg/Kg dry	1		SW-846 6010C	1/21/14	1/22/14 19:35	OP



Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0594

Date Received: 1/20/2014

Sampled: 1/20/2014 11:15

Field Sample #: EBI-02 (14)

Sample ID: 14A0594-08

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	88.6		% Wt	1		SM 2540G	1/24/14	1/27/14 8:44	MXG

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0594

Date Received: 1/20/2014

Field Sample #: EBI-05 (0-4)

Sampled: 1/20/2014 13:30

Sample ID: 14A0594-09

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Lead	1800	0.94	mg/Kg dry	1		SW-846 6010C	1/21/14	1/22/14 19:40	OP

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0594

Date Received: 1/20/2014

Field Sample #: EBI-05 (0-4)

Sampled: 1/20/2014 13:30

Sample ID: 14A0594-09

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	79.1		% Wt	1		SM 2540G	1/24/14	1/27/14 8:44	MXG

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0594

Date Received: 1/20/2014

Field Sample #: EBI-05 (5-6)

Sampled: 1/20/2014 13:40

Sample ID: 14A0594-10

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Lead	8.4	0.76	mg/Kg dry	1		SW-846 6010C	1/23/14	1/24/14 18:04	OP

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0594

Date Received: 1/20/2014

Field Sample #: EBI-05 (5-6)

Sampled: 1/20/2014 13:40

Sample ID: 14A0594-10

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	92.9		% Wt	1		SM 2540G	1/24/14	1/27/14 8:44	MXG

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0594

Date Received: 1/20/2014

Field Sample #: EBI-05 (14')

Sampled: 1/20/2014 13:50

Sample ID: 14A0594-11

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Lead	9.3	0.79	mg/Kg dry	1		SW-846 6010C	1/21/14	1/22/14 19:46	OP

Project Location: Mission Hill, Boston

Sample Description:

Work Order: 14A0594

Date Received: 1/20/2014

Sampled: 1/20/2014 13:50

Field Sample #: EBI-05 (14')

Sample ID: 14A0594-11

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/PHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	93.5		% Wt	1		SM 2540G	1/24/14	1/27/14 8:44	MXG

**Sample Extraction Data**

**Prep Method: SW-846 3546-MADEP-EPH-04-1.1**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
14A0594-02 [EBI-03 (5)]	B089084	20.2	2.00	01/21/14
14A0594-03 [EBI-03 (5.5-7)]	B089084	20.2	2.00	01/21/14
14A0594-06 [EBI-02 (6)]	B089084	20.3	2.00	01/21/14

**Prep Method: % Solids-SM 2540G**

Lab Number [Field ID]	Batch	Date
14A0594-01 [EBI-03 (0-4)]	B089336	01/24/14
14A0594-02 [EBI-03 (5)]	B089336	01/24/14
14A0594-03 [EBI-03 (5.5-7)]	B089336	01/24/14
14A0594-04 [EBI-03 (12)]	B089336	01/24/14
14A0594-05 [EBI-02 (0-4)]	B089336	01/24/14
14A0594-06 [EBI-02 (6)]	B089336	01/24/14
14A0594-07 [EBI-02 (7-8)]	B089336	01/24/14
14A0594-08 [EBI-02 (14)]	B089336	01/24/14
14A0594-09 [EBI-05 (0-4)]	B089336	01/24/14
14A0594-10 [EBI-05 (5-6)]	B089336	01/24/14
14A0594-11 [EBI-05 (14')]	B089336	01/24/14

**Prep Method: SW-846 3050B-SW-846 6010C**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
14A0594-04 [EBI-03 (12)]	B089088	1.06	50.0	01/21/14
14A0594-05 [EBI-02 (0-4)]	B089088	1.05	50.0	01/21/14
14A0594-06 [EBI-02 (6)]	B089088	1.08	50.0	01/21/14
14A0594-07 [EBI-02 (7-8)]	B089088	1.05	50.0	01/21/14
14A0594-08 [EBI-02 (14)]	B089088	1.01	50.0	01/21/14
14A0594-09 [EBI-05 (0-4)]	B089088	1.01	50.0	01/21/14
14A0594-11 [EBI-05 (14')]	B089088	1.01	50.0	01/21/14

**Prep Method: SW-846 3050B-SW-846 6010C**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
14A0594-01 [EBI-03 (0-4)]	B089090	1.03	50.0	01/21/14
14A0594-02 [EBI-03 (5)]	B089090	1.02	50.0	01/21/14
14A0594-03 [EBI-03 (5.5-7)]	B089090	1.07	50.0	01/21/14

**Prep Method: SW-846 3050B-SW-846 6010C**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
14A0594-10RE1 [EBI-05 (5-6)]	B089266	1.06	50.0	01/23/14



QUALITY CONTROL

Petroleum Hydrocarbons Analyses - EPH - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B089084 - SW-846 3546

Blank (B089084-BLK1)

Prepared: 01/21/14 Analyzed: 01/22/14

C9-C18 Aliphatics	ND	10	mg/Kg wet							L-04
C19-C36 Aliphatics	ND	10	mg/Kg wet							
Unadjusted C11-C22 Aromatics	ND	10	mg/Kg wet							
C11-C22 Aromatics	ND	10	mg/Kg wet							
Acenaphthene	ND	0.10	mg/Kg wet							
Acenaphthylene	ND	0.10	mg/Kg wet							
Anthracene	ND	0.10	mg/Kg wet							
Benzo(a)anthracene	ND	0.10	mg/Kg wet							
Benzo(a)pyrene	ND	0.10	mg/Kg wet							
Benzo(b)fluoranthene	ND	0.10	mg/Kg wet							
Benzo(g,h,i)perylene	ND	0.10	mg/Kg wet							
Benzo(k)fluoranthene	ND	0.10	mg/Kg wet							
Chrysene	ND	0.10	mg/Kg wet							
Dibenz(a,h)anthracene	ND	0.10	mg/Kg wet							
Fluoranthene	ND	0.10	mg/Kg wet							
Fluorene	ND	0.10	mg/Kg wet							
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg wet							
2-Methylnaphthalene	ND	0.10	mg/Kg wet							
Naphthalene	ND	0.10	mg/Kg wet							
Phenanthrene	ND	0.10	mg/Kg wet							
Pyrene	ND	0.10	mg/Kg wet							
n-Decane	ND	0.10	mg/Kg wet							
n-Docosane	ND	0.10	mg/Kg wet							
n-Dodecane	ND	0.10	mg/Kg wet							
n-Eicosane	ND	0.10	mg/Kg wet							
n-Hexacosane	ND	0.10	mg/Kg wet							
n-Hexadecane	ND	0.10	mg/Kg wet							
n-Hexatriacontane	ND	0.10	mg/Kg wet							
n-Nonadecane	ND	0.10	mg/Kg wet							
n-Nonane	ND	0.10	mg/Kg wet							L-04
n-Octacosane	ND	0.10	mg/Kg wet							
n-Octadecane	ND	0.10	mg/Kg wet							
n-Tetracosane	ND	0.10	mg/Kg wet							
n-Tetradecane	ND	0.10	mg/Kg wet							
n-Triacontane	ND	0.10	mg/Kg wet							
Naphthalene-aliphatic fraction	ND	0.10	mg/Kg wet							
2-Methylnaphthalene-aliphatic fraction	ND	0.10	mg/Kg wet							

Surrogate: Chlorooctadecane (COD)	3.23		mg/Kg wet	4.99		64.7	40-140			
Surrogate: o-Terphenyl (OTP)	3.78		mg/Kg wet	5.00		75.5	40-140			
Surrogate: 2-Bromonaphthalene	4.33		mg/Kg wet	5.00		86.6	40-140			
Surrogate: 2-Fluorobiphenyl	4.51		mg/Kg wet	5.00		90.1	40-140			

LCS (B089084-BS1)

Prepared: 01/21/14 Analyzed: 01/22/14

Acenaphthene	3.27	0.10	mg/Kg wet	5.00		65.3	40-140			
Acenaphthylene	3.18	0.10	mg/Kg wet	5.00		63.6	40-140			
Anthracene	3.60	0.10	mg/Kg wet	5.00		71.9	40-140			
Benzo(a)anthracene	3.66	0.10	mg/Kg wet	5.00		73.3	40-140			
Benzo(a)pyrene	3.48	0.10	mg/Kg wet	5.00		69.5	40-140			
Benzo(b)fluoranthene	3.68	0.10	mg/Kg wet	5.00		73.6	40-140			
Benzo(g,h,i)perylene	3.81	0.10	mg/Kg wet	5.00		76.1	40-140			
Benzo(k)fluoranthene	3.62	0.10	mg/Kg wet	5.00		72.4	40-140			
Chrysene	3.41	0.10	mg/Kg wet	5.00		68.1	40-140			

QUALITY CONTROL

Petroleum Hydrocarbons Analyses - EPH - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B089084 - SW-846 3546

LCS (B089084-BS1)

Prepared: 01/21/14 Analyzed: 01/22/14

Dibenz(a,h)anthracene	3.81	0.10	mg/Kg wet	5.00		76.2	40-140			
Fluoranthene	3.59	0.10	mg/Kg wet	5.00		71.9	40-140			
Fluorene	3.45	0.10	mg/Kg wet	5.00		69.1	40-140			
Indeno(1,2,3-cd)pyrene	3.82	0.10	mg/Kg wet	5.00		76.4	40-140			
2-Methylnaphthalene	3.01	0.10	mg/Kg wet	5.00		60.1	40-140			
Naphthalene	2.74	0.10	mg/Kg wet	5.00		54.7	40-140			
Phenanthrene	3.57	0.10	mg/Kg wet	5.00		71.4	40-140			
Pyrene	3.50	0.10	mg/Kg wet	5.00		70.1	40-140			
<b>n-Decane</b>	1.99	0.10	mg/Kg wet	5.00		<b>39.8</b>	<b>*</b> 40-140			L-07
n-Docosane	3.56	0.10	mg/Kg wet	5.00		71.1	40-140			
n-Dodecane	2.43	0.10	mg/Kg wet	5.00		48.7	40-140			
n-Eicosane	3.44	0.10	mg/Kg wet	5.00		68.8	40-140			
n-Hexacosane	3.64	0.10	mg/Kg wet	5.00		72.8	40-140			
n-Hexadecane	3.16	0.10	mg/Kg wet	5.00		63.2	40-140			
n-Hexatriacontane	3.61	0.10	mg/Kg wet	5.00		72.1	40-140			
n-Nonadecane	3.40	0.10	mg/Kg wet	5.00		68.0	40-140			
<b>n-Nonane</b>	1.42	0.10	mg/Kg wet	5.00		<b>28.4</b>	<b>*</b> 30-140			L-04
n-Octacosane	3.54	0.10	mg/Kg wet	5.00		70.7	40-140			
n-Octadecane	3.36	0.10	mg/Kg wet	5.00		67.3	40-140			
n-Tetracosane	3.56	0.10	mg/Kg wet	5.00		71.1	40-140			
n-Tetradecane	2.75	0.10	mg/Kg wet	5.00		54.9	40-140			
n-Triacontane	3.61	0.10	mg/Kg wet	5.00		72.2	40-140			
Naphthalene-aliphatic fraction	ND	0.10	mg/Kg wet	5.00			0-5			
2-Methylnaphthalene-aliphatic fraction	ND	0.10	mg/Kg wet	5.00			0-5			
Surrogate: Chlorooctadecane (COD)	3.26		mg/Kg wet	4.99		65.3	40-140			
Surrogate: o-Terphenyl (OTP)	3.67		mg/Kg wet	5.00		73.4	40-140			
Surrogate: 2-Bromonaphthalene	4.23		mg/Kg wet	5.00		84.5	40-140			
Surrogate: 2-Fluorobiphenyl	4.50		mg/Kg wet	5.00		90.0	40-140			

LCS Dup (B089084-BS1)

Prepared: 01/21/14 Analyzed: 01/22/14

Acenaphthene	3.99	0.10	mg/Kg wet	5.00		79.8	40-140	20.0	25	
Acenaphthylene	3.91	0.10	mg/Kg wet	5.00		78.2	40-140	20.5	25	
Anthracene	4.19	0.10	mg/Kg wet	5.00		83.8	40-140	15.3	25	
Benzo(a)anthracene	4.24	0.10	mg/Kg wet	5.00		84.7	40-140	14.5	25	
Benzo(a)pyrene	4.01	0.10	mg/Kg wet	5.00		80.2	40-140	14.3	25	
Benzo(b)fluoranthene	4.25	0.10	mg/Kg wet	5.00		85.0	40-140	14.4	25	
Benzo(g,h,i)perylene	4.38	0.10	mg/Kg wet	5.00		87.6	40-140	13.9	25	
Benzo(k)fluoranthene	4.17	0.10	mg/Kg wet	5.00		83.4	40-140	14.0	25	
Chrysene	3.94	0.10	mg/Kg wet	5.00		78.9	40-140	14.6	25	
Dibenz(a,h)anthracene	4.39	0.10	mg/Kg wet	5.00		87.8	40-140	14.2	25	
Fluoranthene	4.16	0.10	mg/Kg wet	5.00		83.2	40-140	14.6	25	
Fluorene	4.12	0.10	mg/Kg wet	5.00		82.4	40-140	17.6	25	
Indeno(1,2,3-cd)pyrene	4.39	0.10	mg/Kg wet	5.00		87.9	40-140	13.9	25	
2-Methylnaphthalene	3.76	0.10	mg/Kg wet	5.00		75.2	40-140	22.3	25	
Naphthalene	3.42	0.10	mg/Kg wet	5.00		68.5	40-140	22.4	25	
Phenanthrene	4.17	0.10	mg/Kg wet	5.00		83.3	40-140	15.4	25	
Pyrene	4.06	0.10	mg/Kg wet	5.00		81.2	40-140	14.7	25	
n-Decane	2.16	0.10	mg/Kg wet	5.00		43.2	40-140	7.98	25	
n-Docosane	4.01	0.10	mg/Kg wet	5.00		80.2	40-140	12.0	25	
n-Dodecane	2.84	0.10	mg/Kg wet	5.00		56.8	40-140	15.3	25	
n-Eicosane	3.86	0.10	mg/Kg wet	5.00		77.2	40-140	11.5	25	
n-Hexacosane	4.07	0.10	mg/Kg wet	5.00		81.3	40-140	11.0	25	

QUALITY CONTROL

Petroleum Hydrocarbons Analyses - EPH - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B089084 - SW-846 3546</b>										
<b>LCS Dup (B089084-BSD1)</b>										
					Prepared: 01/21/14 Analyzed: 01/22/14					
n-Hexadecane	3.62	0.10	mg/Kg wet	5.00		72.5	40-140	13.7	25	
n-Hexatriacontane	3.89	0.10	mg/Kg wet	5.00		77.8	40-140	7.53	25	
n-Nonadecane	3.82	0.10	mg/Kg wet	5.00		76.5	40-140	11.7	25	
<b>n-Nonane</b>	1.38	0.10	mg/Kg wet	5.00		<b>27.5</b>	<b>*</b> 30-140	2.95	25	L-04
n-Octacosane	3.95	0.10	mg/Kg wet	5.00		79.0	40-140	11.1	25	
n-Octadecane	3.79	0.10	mg/Kg wet	5.00		75.8	40-140	11.9	25	
n-Tetracosane	3.99	0.10	mg/Kg wet	5.00		79.7	40-140	11.4	25	
n-Tetradecane	3.26	0.10	mg/Kg wet	5.00		65.2	40-140	17.2	25	
n-Triacontane	4.02	0.10	mg/Kg wet	5.00		80.4	40-140	10.8	25	
Naphthalene-aliphatic fraction	ND	0.10	mg/Kg wet	5.00			0-5			
2-Methylnaphthalene-aliphatic fraction	ND	0.10	mg/Kg wet	5.00			0-5			
Surrogate: Chlorooctadecane (COD)	3.49		mg/Kg wet	4.99		70.0	40-140			
Surrogate: o-Terphenyl (OTP)	4.03		mg/Kg wet	5.00		80.7	40-140			
Surrogate: 2-Bromonaphthalene	4.36		mg/Kg wet	5.00		87.1	40-140			
Surrogate: 2-Fluorobiphenyl	4.69		mg/Kg wet	5.00		93.7	40-140			

**QUALITY CONTROL**

**Metals Analyses (Total) - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B089088 - SW-846 3050B</b>										
<b>Blank (B089088-BLK1)</b>										
					Prepared: 01/21/14 Analyzed: 01/22/14					
Lead	ND	0.75	mg/Kg wet							
<b>LCS (B089088-BS1)</b>										
					Prepared: 01/21/14 Analyzed: 01/22/14					
Lead	104	1.5	mg/Kg wet	115		90.6	82.4-117.8			
<b>LCS Dup (B089088-BSD1)</b>										
					Prepared: 01/21/14 Analyzed: 01/22/14					
Lead	102	1.5	mg/Kg wet	115		88.6	82.4-117.8	2.24	30	
<b>MRL Check (B089088-MRL1)</b>										
					Prepared: 01/21/14 Analyzed: 01/22/14					
Lead	0.624	0.71	mg/Kg wet	0.709		88.0	80-120			
<b>Batch B089090 - SW-846 3050B</b>										
<b>Blank (B089090-BLK1)</b>										
					Prepared: 01/21/14 Analyzed: 01/22/14					
Lead	ND	0.75	mg/Kg wet							
<b>LCS (B089090-BS1)</b>										
					Prepared: 01/21/14 Analyzed: 01/22/14					
Lead	113	1.5	mg/Kg wet	115		98.5	82.4-117.8			
<b>LCS Dup (B089090-BSD1)</b>										
					Prepared: 01/21/14 Analyzed: 01/22/14					
Lead	110	1.5	mg/Kg wet	115		95.9	82.4-117.8	2.67	30	
<b>MRL Check (B089090-MRL1)</b>										
					Prepared: 01/21/14 Analyzed: 01/22/14					
Lead	0.696	0.73	mg/Kg wet	0.730		95.3	80-120			
<b>Batch B089266 - SW-846 3050B</b>										
<b>Blank (B089266-BLK1)</b>										
					Prepared: 01/23/14 Analyzed: 01/24/14					
Lead	ND	0.75	mg/Kg wet							
<b>LCS (B089266-BS1)</b>										
					Prepared: 01/23/14 Analyzed: 01/24/14					
Lead	96.2	1.5	mg/Kg wet	115		83.6	82.4-117.8			
<b>LCS Dup (B089266-BSD1)</b>										
					Prepared: 01/23/14 Analyzed: 01/24/14					
Lead	110	1.5	mg/Kg wet	115		95.9	82.4-117.8	13.6	30	
<b>MRL Check (B089266-MRL1)</b>										
					Prepared: 01/23/14 Analyzed: 01/24/14					
Lead	0.711	0.70	mg/Kg wet	0.697		102	80-120			

**QUALITY CONTROL**

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B089336 - % Solids**

**Duplicate (B089336-DUP1)**

**Source: 14A0594-01**

Prepared: 01/24/14 Analyzed: 01/27/14

% Solids	83.5		% Wt		83.9			0.478	20	
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**FLAG/QUALIFIER SUMMARY**

- \* QC result is outside of established limits.
  - † Wide recovery limits established for difficult compound.
  - ‡ Wide RPD limits established for difficult compound.
  - # Data exceeded client recommended or regulatory level
- Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.  
No results have been blank subtracted unless specified in the case narrative section.
- L-04 Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.
  - L-07 Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.
  - MS-11 Matrix spike recovery outside of control limits. Possibility of sample matrix effects that lead to a high bias for reported result or non-homogeneous sample aliquots cannot be eliminated.
  - MS-19 Sample to spike ratio is greater than or equal to 4:1. Spiked amount is not representative of the native amount in the sample. Appropriate or meaningful recoveries cannot be calculated.
  - Z-01 Serial dilution is outside control limits.

**CERTIFICATIONS**

**Certified Analyses included in this Report**

Analyte	Certifications
<b>MADEP-EPH-04-1.1 in Soil</b>	
C9-C18 Aliphatics	CT,NC,WA,ME,ME,NH-P
C19-C36 Aliphatics	CT,NC,WA,ME,ME,NH-P
Unadjusted C11-C22 Aromatics	CT,NC,WA,ME,ME,NH-P
C11-C22 Aromatics	CT,NC,WA,ME,ME,NH-P
Acenaphthene	CT,NC,WA,ME,ME,NH-P
Acenaphthylene	CT,NC,WA,ME,ME,NH-P
Anthracene	CT,NC,WA,ME,ME,NH-P
Benzo(a)anthracene	CT,NC,WA,ME,ME,NH-P
Benzo(a)pyrene	CT,NC,WA,ME,ME,NH-P
Benzo(b)fluoranthene	CT,NC,WA,ME,ME,NH-P
Benzo(g,h,i)perylene	CT,NC,WA,ME,ME,NH-P
Benzo(k)fluoranthene	CT,NC,WA,ME,ME,NH-P
Chrysene	CT,NC,WA,ME,ME,NH-P
Dibenz(a,h)anthracene	CT,NC,WA,ME,ME,NH-P
Fluoranthene	CT,NC,WA,ME,ME,NH-P
Fluorene	CT,NC,WA,ME,ME
Indeno(1,2,3-cd)pyrene	CT,NC,WA,ME,ME,NH-P
2-Methylnaphthalene	CT,NC,WA,ME,ME
Naphthalene	CT,NC,WA,ME,ME,NH-P
Phenanthrene	CT,NC,WA,ME,ME,NH-P
Pyrene	CT,NC,WA,ME,ME,NH-P

**SW-846 6010C in Soil**

Lead CT,NH,NY,AIHA,ME,NC,VA,NJ

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

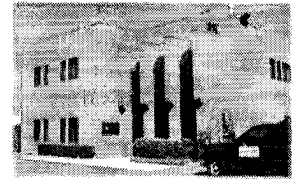
Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC	100033	02/1/2016
MA	Massachusetts DEP	M-MA100	06/30/2014
CT	Connecticut Department of Public Health	PH-0567	09/30/2015
NY	New York State Department of Health	10899 NELAP	04/1/2014
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2014
RI	Rhode Island Department of Health	LAO00112	12/30/2014
NC	North Carolina Div. of Water Quality	652	12/31/2014
NJ	New Jersey DEP	MA007 NELAP	06/30/2014
FL	Florida Department of Health	E871027 NELAP	06/30/2014
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2014
WA	State of Washington Department of Ecology	C2065	02/23/2014
ME	State of Maine	2011028	06/9/2015
VA	Commonwealth of Virginia	460217	12/14/2014
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2014







39 Spruce St.  
 East Longmeadow, MA. 01028  
 P: 413-525-2332  
 F: 413-525-6405  
 www.contestlabs.com



### Sample Receipt Checklist

CLIENT NAME: EBI Consulting RECEIVED BY: KO'S DATE: 1-20-14

- 1) Was the chain(s) of custody relinquished and signed?  Yes  No  No CoC Included
- 2) Does the chain agree with the samples?  Yes  No  
 If not, explain: \_\_\_\_\_
- 3) Are all the samples in good condition?  Yes  No  
 If not, explain: \_\_\_\_\_

4) How were the samples received:

On Ice  Direct from Sampling  Ambient  In Cooler(s)

Were the samples received in Temperature Compliance of (2-6°C)?  Yes  No  N/A

Temperature °C by Temp blank \_\_\_\_\_ Temperature °C by Temp gun 9.5°C

5) Are there Dissolved samples for the lab to filter? Yes  No

Who was notified \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

6) Are there any RUSH or SHORT HOLDING TIME samples? Yes  No

Who was notified \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

7) Location where samples are stored:

19

Permission to subcontract samples? Yes No  
 (Walk-in clients only) if not already approved  
 Client Signature: \_\_\_\_\_

8) Do all samples have the proper Acid pH: Yes No  N/A

9) Do all samples have the proper Base pH: Yes No  N/A

10) Was the PC notified of any discrepancies with the CoC vs the samples: Yes No N/A

### Containers received at Con-Test

	# of containers			# of containers
1 Liter Amber			8 oz amber/clear jar	22
500 mL Amber			4 oz amber/clear jar	
250 mL Amber (8oz amber)			2 oz amber/clear jar	
1 Liter Plastic			Plastic Bag / Ziploc	
500 mL Plastic			SOC Kit	
250 mL plastic			Non-ConTest Container	
40 mL Vial - type listed below			Perchlorate Kit	
Colisure / bacteria bottle			Flashpoint bottle	
Dissolved Oxygen bottle			Other glass jar	
Encore			Other	

Laboratory Comments:

40 mL vials: # HCl _____ # Methanol _____	Time and Date Frozen:
Doc# 277 # Bisulfate _____ # DI Water _____	
Rev. 4 August 2013 # Thiosulfate _____ Unpreserved _____	

Page 2 of 2  
**Login Sample Receipt Checklist**  
 (Rejection Criteria Listing - Using Sample Acceptance Policy)  
 Any False statement will be brought to the attention of Client

Question	Answer (True/False)	Comment
	T/F/NA	
1) The cooler's custody seal, if present, is intact.	NA	
2) The cooler or samples do not appear to have been compromised or tampered with.	T	
3) Samples were received on ice.	T	
4) Cooler Temperature is acceptable.	T	
5) Cooler Temperature is recorded.	T	
6) COC is filled out in ink and legible.	T	
7) COC is filled out with all pertinent information.	T	
8) Field Sampler's name present on COC.	T	
9) There are no discrepancies between the sample IDs on the container and the COC.	T	
10) Samples are received within Holding Time.	T	
11) Sample containers have legible labels.	T	
12) Containers are not broken or leaking.	T	
13) Air Cassettes are not broken/open.	NA	
14) Sample collection date/times are provided.	T	
15) Appropriate sample containers are used.	T	
16) Proper collection media used.	T	
17) No headspace sample bottles are completely filled.	T	
18) There is sufficient volume for all requested analyses, including any requested MS/MSDs.	T	
19) Trip blanks provided if applicable.	NA	
20) VOA sample vials do not have head space or bubble is <6mm (1/4") in diameter.	NA	
21) Samples do not require splitting or compositing.	T	

Doc #277 Rev. 4 August 2013

Who notified of False statements?  
 Log-In Technician Initials: KOB

Date/Time:  
 Date/Time: 1-20-14 1745

**MADEP MCP Analytical Method Report Certification Form**

Laboratory Name: Con-Test Analytical Laboratory Project #: 14A0594  
 Project Location: Mission Hill, Boston RTN: \_\_\_\_\_

This Form provides certifications for the following data set: [list Laboratory Sample ID Number(s)]  
14A0594-01 thru 14A0594-11

Matrices: Soil

**CAM Protocol (check all that below)**

8260 VOC CAM II A ( )	7470/7471 Hg CAM IIIB ( )	MassDEP VPH CAM IV A ( )	8081 Pesticides CAM V B ( )	7196 Hex Cr CAM VI B ( )	MassDEP APH CAM IX A ( )
8270 SVOC CAM II B ( )	7010 Metals CAM III C ( )	MassDEP EPH CAM IV A (X)	8151 Herbicides CAM V C ( )	8330 Explosives CAM VIII A ( )	TO-15 VOC CAM IX B ( )
6010 Metals CAM III A (X)	6020 Metals CAM III D ( )	8082 PCB CAM V A ( )	9014 Total Cyanide/PAC CAM VI A ( )	6860 Perchlorate CAM VIII B ( )	

**Affirmative response to Questions A through F is required for "Presumptive Certainty" status**

<b>A</b>	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>B</b>	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>C</b>	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>D</b>	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>E a</b>	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>E b</b>	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	<input type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>F</b>	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all No responses to Questions A through E)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>

**A response to questions G, H and I below is required for "Presumptive Certainty" status**


<b>G</b>	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
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**Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.**

<b>H</b>	Were all QC performance standards specified in the CAM protocol(s) achieved?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <sup>1</sup>
<b>I</b>	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <sup>1</sup>

<sup>1</sup> All Negative responses must be addressed in an attached Environmental Laboratory case narrative.

**I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.**

Signature:  Position: Laboratory Director  
 Printed Name: Michael A. Erickson Date: 01/27/14

**APPENDIX E**  
**GEOTECHNICAL INVESTIGATION LETTER REPORT**

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February 6, 2014

Richard MacAulay  
EBI Consulting Inc.  
21 B Street  
Burlington, MA 01803

RE: Preliminary Geotechnical Engineering Letter Report  
778-796 Parker Avenue and 77 Terrace Street  
Roxbury, Massachusetts

Dear Mr. MacAulay:

Polaris Consultants, LLC (Polaris) is pleased to provide you with this summary letter report for the Preliminary Geotechnical Investigations conducted for the proposed development at 778-796 Parker Street and 77 Terrace Street. The Site is located in the Mission Hill section of Boston and is shown on the attached Figure 1.

### **Project Understanding**

Polaris has been asked to assist with the collection of additional geotechnical and with the preparation of this Preliminary Geotechnical Letter Report. This letter report will be used for due diligence efforts for the purchase of the Site and to provide some preliminary recommendations in accordance with the updated Massachusetts State Building Code, 8<sup>th</sup> Edition (780 CMR 18.00).

Our Site understanding is based on review of the following information you provided to us:

1. *Class B-1 Response Action Outcome Statement, 77 Terrace Street, Boston (Woodard and Curran Inc., December 2001);*
2. *Phase 1 Environmental Site Assessment, 778-796 Parker Avenue and 77 Terrace Street, Boston (Woodard and Curran, October 2012);*
3. *Proposed Schematic First Floor Plan and Section A, Sebastian Mariscal, November 15, 2013;*
4. *Proposed Development Site Topographic Map, E+ Green Communities, November 21, 2013; and*
5. *Existing Conditions Plan. Design Consultants Inc., dated January 16, 2014.*

The existing Site is about 57,757 square feet (sf) in size and consists of several contiguous lots that abut Terrace Street (27,903 sf) on the east and Parker Avenue (29,854 sf) on the west. The lower Terrace Street parcel is vacant open space and was formerly used for residential housing. Test pit information indicates the land has been filled with extensive construction and demolition (C&D) material and urban fill. Remnants of existing foundation walls and slabs are present throughout this parcel. The fill depth varies across the Site from about 4- to 12-feet-deep and there are environmental concerns, primarily for

accidences of lead (5,800 parts per million). The fill is underlain by sand and gravel with varying amounts of fines, possibly glacial till. The upper Parker Avenue parcels are currently being used as urban gardens. The surface is marked by scattered pieces of C&D, large boulders and possible bedrock outcrops. The existing topography from Parker Avenue to Terrace Street (west to east) drops by about 35 feet, gradually at first and then levelling out over the Terrace Street land. Where the parcels meet is also marked by an abrupt drop of about 20 feet and old concrete and brick retaining wall. All utilities have also been abandoned.

The proposed building will front Terrace Street where it will be three stories high. The first floor living area is about 15,220 square feet and is accompanied by about 12,683 square feet of underground parking. The first floor will be level with Terrace Street. As the second and third floors advance, they cut further back into the existing topography until the proposed rooftop elevation matches the existing Parker Avenue grade. Urban gardens are being proposed for the rooftop. The third floor and roof top areas will cover most of the Site.

The foundation will generally be a slab on grade with no basements. The exterior west side of the foundation walls for the second and third stories will also serve as large retaining walls to hold back the uphill soils and building loads.

### **Proposed Renovations**

It is our understanding that your client (Sebastian Mariscal) is proposing to build a new split three-level residential unit at the Site. The first two floors will be constructed largely on the 77 Terrace Street parcel and the third floor will be stepped up and over the Parker Street lots, as consistent with the existing grades. It is anticipated that roof gardens will be constructed at the Parker Street surface. Therefore, the roof elevation is linked to the grades at Parker Street (about El. 79 to El. 80).

The three stories will face Terrace Street where the existing grade is about El. 44 to El. 48. As a result, the first floor will be at about El. 46 and, in order to allow for proper protection against frost penetration, the bottom of footing depth will be about El. 40 to El. 44. The first floor will consist of residential units fronting Terrace Street and an underground garage in the rear. The second floor residences will be constructed over the first floor residences and garage. The third finished floor residences at Terrace Street will be a single level and below grade at Parker Street. The proposed finished floor grade is about El. 70 and the estimated bottom of footing at Parker Street will be about El. 68. The roof garden will be approximately level with Parker Street, at El. 82.

## Subsurface Investigation Summary

In order to assess existing subsurface conditions, Polaris worked with EBI to develop and implement a subsurface investigation program. The program consisted of drilling eight borings (B-1 through B-8) and excavating eleven test pits (EBI-01 through EBI-11). The subsurface activities were supplemented by an environmental testing program to confirm the historic analytic data and to fill data gaps.

### *Subsurface Stratigraphy*

Carr-Dee drilled boreholes B-1 through B-8 between January 21 and January 24, 2014, to depths ranging from 15.1 feet to 35.1 feet. The borings were advanced using small diameter (2¼-inch) hollow stem augers or drive-and-washing techniques with 3-inch casing. Soil samples were obtained using a 2-inch split spoon sampler and Standard Penetration Test (SPT) procedures. Soil samples were generally collected at the ground surface and then following at 5-foot intervals. The drilling operations were observed by a senior geotechnical engineer from Polaris who recorded observations and logged the results. The Polaris boring logs are provided in Attachment One.

Dowling Corporation excavated eleven boreholes (EBI-01 through EBI-11) on January 20 and January 21, 2014. The test pits were excavated to depths of between 5 and 20 feet deep (EBI-08). Soil samples were generally collected at the ground surface and then following at 5-foot intervals. The drilling operations were observed by a hydrogeologist from EBI who recorded observations and logged the results. The EBI test pit logs are provided in Attachment Two.

The borings and test pits generally encountered the following from the ground surface to depth:

- **FILL** – All explorations encountered a loose to very dense layer of silty sand and sandy silt, with gravel and varying amounts of brick and concrete fragments, wood and metal (FILL). The fill layer was encountered to approximate depths of 3.5- to 21-feet, and was typically 5 to 11 feet deep. The fill was deepest and largely consisted of construction demolition debris at the location of the former Terrace Street building (B-5 and EBI-08). In this area large voids were also present in the fill.
- **SAND and GRAVEL** – Below the fill, all borings and seven test pits encountered a natural medium dense to very dense sand and gravel with varying amounts of silt. The natural sand and gravel layer appears to be a glacial till deposit and was encountered to approximate depths of 15.1 to 35.1 feet.

Groundwater was observed in only one boring (B-5) at a depth of about 22 feet (El. 16.5). The water appears to be associated with a large void space encountered in the former basement area (see test pit EBI-08 and EBI-09) and appears to be “perched” water.



The subsurface conditions also include former foundation walls and footings that may result in differential settlement if not properly removed.

### Conclusions

The geotechnical investigations presented herein provide a general idea of the existing subsurface conditions at the Site. We generally encountered urban fill and construction demolition debris over a dense to very dense glacial till. Groundwater appears to be deep (we encountered water in Boring B-5 but it appears to be “perched” water that may be surface runoff that has found its way into the former building void space we saw in Test Pits EBI-08 and EBI-09). The fill was deepest at the location of the former building basement (B-5 and EBI-08).

A review of the borings indicates that continuous and/or spread footings will be adequate for the Site. The foundation must be ungraded to meet the latest edition of the Massachusetts State Building Code (780 CMR 18). The nature of the proposed foundation requires a significant resistance to lateral loads, particularly from the west side foundation face. The allowable values of sliding friction, adhesion and passive pressure for design shall be determined by a registered design professional (780 CMR 1806.3).

It is anticipated that all unsuitable fill layers will be removed and that footings will bear on the natural SAND and GRAVEL or compacted structural fill. To accomplish this, a review of the borings indicates that an estimated 4 to 6 feet of fill will have to be over excavated and replaced with structural fill in the vicinity of borings B-5 and B-6. In lieu of backfilling, the foundation design may want to consider lowering the footing into the dense natural materials,

Our conclusions and recommendations are as follows:

- The existence of a 3.5- to 21-foot deep layer of urban fill and construction demolition debris (with wood, brick, concrete and steel) will require the excavation of unsuitable bearing materials from below proposed slabs and from below footings. It has also been observed that the fill material has large voids and, in its current state is clearly unsuitable for foundations.
- The subsurface conditions also include former foundation walls and footings that may result in differential settlement if not properly removed. Depending on the location of the former structures in relation to the proposed foundation, the structures must be removed in their entirety or to a minimum depth of 3 feet below proposed subgrades.
- In the event that pockets of deeper fill are encountered, the fill shall be removed and replaced with clean structural fill that is compacted to 95% of the maximum dry density as determined by modified proctor (ASTM DI557-C). Clean structural fill with a 3-inch maximum stone size shall also be placed against foundations and walls. For design purposes, the structural fill shall be assumed to have a dry unit weight of 120 pounds per cubic foot (pcf); a friction angle of 28°; a coefficient of passive earth pressure ( $k_p$ ) of 2.77; and a coefficient of active earth pressure ( $k_A$ ) of 0.36.

- A professional structural engineer shall be engaged to design all structures in accordance with the Massachusetts State Building Code. The structural engineer shall determine the appropriate factors of safety and the varying surcharge loads against each structure. We also recommend that a licensed geotechnical engineer be engaged during the design and construction process to ensure that our recommendations have been met.
- All excavations shall be carefully designed and managed so as not to undermine adjacent structures, sidewalks and roadways, or violate local, state and federal safety requirements, such as Jackie's Law and OSHA standards. The minimum ratio to prevent undermining of adjacent footings and structures is 1 horizontal to 1 vertical (1H: 1V).
- The foundations are anticipated to be founded in dense to very dense SAND and GRAVEL (GLACIAL TILL) or compacted structural fill. In accordance with the Massachusetts Building Code (780 CMR 18, Table 1804.3), the allowable net bearing pressure of the natural dense SAND and GRAVEL is 6 tons per square foot (TSF). Footings that bear on compacted structural fill should be designed for 2 TSF.
- Should retaining walls be required, they should also be designed in accordance with the State Building Code and in accordance with AASHTO requirements (abutting state and/or highway property). The walls shall have a minimum lateral earth pressure of 30 pcf (30 psf/ft). Factors of Safety shall be 2.0 for overturning and bearing, 1.5 for sliding and seismic.
- Footings dimensions shall be designed in accordance with the Massachusetts State Building Code (780 CMR 18). The minimum footing vertical depth shall be 1 foot and the minimum horizontal width of continuous footings shall be 2 feet. The bottom of footings shall be placed a minimum of 4-feet below the final grade for frost protection.
- Given the nature of the Site groundwater and dense natural soils, there is low potential for liquefaction. The structural engineer shall determine what structures need to be designed for seismic loads (780 CMR 1610.2). The Site has a Class C profile as defined in 780 CMR 1615.0 (ASCE 7 Section 9.4.1.2.1). Under 780 CMR 1610.0 (Table 1604.11) the seismic loads for Boston are  $S_S=0.29$  and  $S_1=0.068$ .
- In light of the proposed foundation profile, subsurface penetration of surface flow and its impact on foundations, particularly the west side of the foundation walls, must be a consideration. Efforts must also be made to decrease potential excess pore pressures against the foundation walls. Therefore, we recommend that structural details incorporate best management groundwater practices in accordance with the Massachusetts State Building Code (780 CMR 1806.5 and 1807.4.2). Section 1807.4.2 allows for the use of a properly filtered gravel or crushed stone as a foundation drain. The drain shall extend a minimum of 12-inches outside the edge of the footing and shall not extend to 6-inches from the top of the footing. If a drain tile or perforated pipe is used the pipe invert shall not be higher than the floor elevation.

- A vapor barrier should be required below slabs and damp/water proofing and insulation should be incorporated into the foundation details as recommended by a structural engineer.
- Backfill along the outside of the foundation walls should be limited until the walls are fully constructed around the perimeter creating a braced framed to support the lateral soil pressures. Backfilling should be completed evenly around the perimeter. In light of the interior wall heights, the foundation systems may need to be anchored or temporarily braced to prevent lateral sliding from soil pressures.
- The existing fill material is non-homogeneous with varying amounts of deleterious material (wood), concrete, brick, asphalt and steel. The material also has environmental concerns. However, in an effort to reduce costs, the on-site processing of the fill materials into an approved common fill may be allowed. Asphalt, brick and concrete (ABC) can be crushed and reused in accordance with the Massachusetts Department of Environmental ABC Policy. Common fill must be free of deleterious material that can decay and must meet the environmental standards established by the project Licensed Site Professional. Common fill placement should be limited and clearly defined in the project final design drawings and specifications.

### **Closing**

The analyses and recommendations submitted in this letter report are based in part upon the data obtained from the limited subsurface explorations. The nature and extent of variations across the Site may not become evident until further explorations are conducted or until construction. If variations then appear evident, it will be necessary to reevaluate the recommendations of this letter.

The presence of groundwater, or lack thereof, has been reported based on the observations made during the subsurface explorations and under the conditions stated on the attached logs. However, it is noted that fluctuations in the level of groundwater may occur due to variations in rainfall, temperature, and other factors occurring since the time the borings were advanced.

In the event that any changes in the nature, design or location of the proposed work are planned, the conclusions and recommendations contained in this letter report shall not be considered valid unless the changes are reviewed and conclusions of this report is modified or verified in writing by Polaris Consultants.

This geotechnical investigation report has been prepared for the 778-796 Parker Avenue and 77 Terrace Street project. Our report is intended to be used for preliminary assessment and for the development of planning and initial design recommendations. Our geotechnical recommendations should be revisited once the final layout has been developed and Site Plan design is underway.

Richard MacAulay  
February 6, 2014  
Page 7 of 7

Should you have any questions or require additional information, please do not hesitate to call us.  
We can be reached at 617-750-8135.

Very Truly Yours,

A handwritten signature in black ink that reads "Paul G. Costello". The signature is written in a cursive style with a large, stylized initial "P".

Paul G. Costello, P.E.  
*Project Manager*

Attachments

## FIGURES

**Attachment One**

**Polaris Consultants Boring Logs**



**Attachment Two**

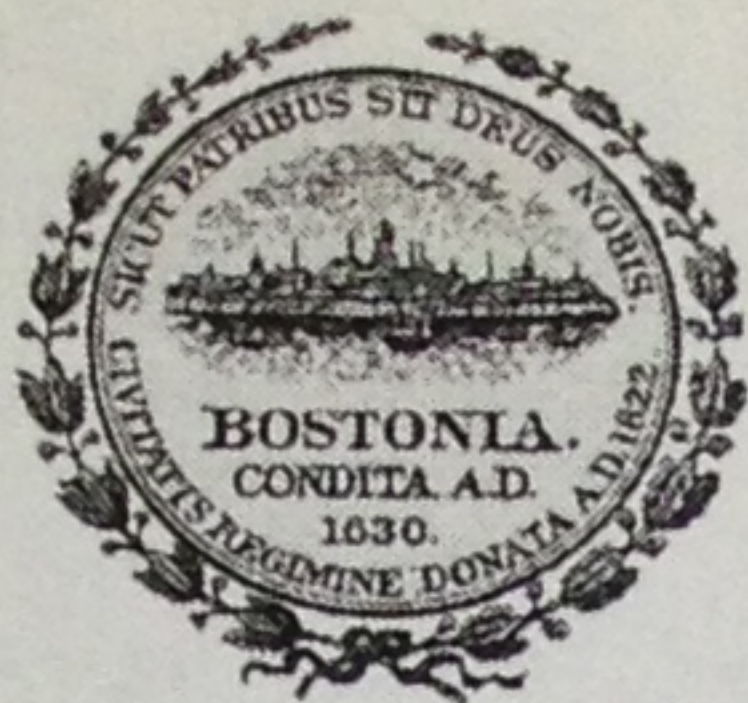
**EBI Consulting Test Pit Logs**



**APPENDIX F**  
**PERMITS**

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Martin J. Walsh  
Mayor

# Boston Inspectional Services Department Building and Structures Division

1010 Massachusetts Avenue Boston, MA 02118 Telephone: (617) 635-5300

Gary P. Moccia  
Inspector of Buildings

# PERMIT

For minor alteration, repair, replacement, renovation & demolition, not to include structural work, egress, or change of occupancy.

Primary Contact: **STEPHEN A DOWLING**

Issue Date: **01/10/2014**

Name of Owner:

Fees: **\$70.00**

Address: **77 Terrace ST  
Mission Hill, MA 02120**

Declared Value: **\$5,000.00**

Legal Occupancy: **soil borings,  
vacant land**

Neighborhood: **Mission Hill** Ward: **10**

Application/Permit No: **SF318035**

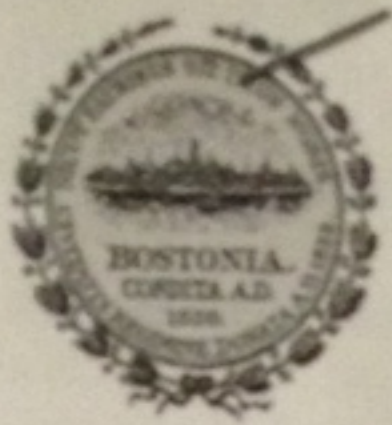
Work Description: **8soil borings and 7 test pits on a vacant property**

- Requirements:**
1. Before any construction commences, this permit must be posted at the front of the street address, affixed to a window and open to public inspection until the completion of work.
  2. Rough inspections are required for: excavation before concrete is poured; before foundation work is covered; when rough wiring or plumbing is completed; prior to insulating or closing of walls.
  3. Final inspections for mechanical and/or electrical shall be done prior to obtaining the final approval by the Building Inspector.
  4. The holder must call the District Inspector to arrange for all inspections: 617 635-5300.

Date	Building Inspector	Insp Type	Date	Building Inspector	Insp Type
Date	Electrical Inspector	Insp Type	Date	Electrical Inspector	Insp Type
Date	Mech Inspector	Insp Type	Date	Mech Inspector	Insp Type

**Construction work is permitted from Mon - Fri, 7am to 6pm, CBC Ord. 16-26.4  
POST THIS PERMIT IN VIEW OF THE PUBLIC WAY OR STREET**





# Public Works Department

Printed: 1/13/2014

## Boston Transportation Department

One City Hall Square Room 715 Boston, MA 02201

Telephone: 617.635.4910 , 617.635.4909 , 617.635.4911

Martin J. Walsh  
Mayor

# Street Occupancy Permit

Permit #:	OCCU-318781	Parking Spaces:	2	Start Date:	01/20/2014	
District:		Square Footage:	320.00	Duration:	4	
Work Type:	Street			Expires:	01/23/2014	
Applicant:	DOWLING CORP			Issued:		
Location:	786 - PARKER ST Mission Hill, 02120					
					Total Fees:	\$71.00

Location Comments: DOWLING CORP

PWD Description Of Work:  
Stand truck at curb to load/unload

BTD Approval Date: 01/13/2014

BTD Description of Work: Stand Truck at Curb	Notes: LOAD/UNLOAD ONLY 781-418-2344
---	---

All Work To Be Performed: 7:00AM TO 4:00PM	No Work To Be Performed:
Exceptions:	Exceptions:

Special Requirements: 1. Temporary Signs Shall be Posted a Minimum 48 Hours in Advance of Occupation of Public Way 2. Leaflets Distributed per BTD Specs 3. Maintain Safe Pedestrian Use of Sidewalk and Thru Traffic.	Notes:
---	--------

Meter Information:

# of Meters	Meter Numbers
No meter information.	

Sign Information:

Quantity	Code	Description
2	T23-P	Traffic Signs - Paper

Police Detail:

# of Officers	Area	Number
No police detail information.		

Police Comments:

No Police Comments



**APPENDIX G**  
**PRELIMINARY COST ESTIMATE FOR TRANSPORTATION AND DISPOSAL OF**  
**REGULATED MATERIAL FROM 77 TERRACE STREET**

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## **Preliminary Cost Estimate for Transportation and Disposal of Regulated material from 77 Terrace Street**

### **1.0 GENERAL DESCRIPTION OF AREAS**

For the purpose of providing a preliminary cost estimate, the site was divided into four areas. The thickness of Fill Material in each area was estimated based on lead content, drilling and test pit logs and review of the previous RAO for part of the site prepared by Woodard & Curran under RTN 3-20251 (2001) for the eastern part of the site nearest Terrace Street. Figure 4 indicates locations of each of the four (4) areas.

**Area 1:** Southwest portion of the site which borders Parker Street. Current use is an Art Park and seating area. There is a large mound of miscellaneous fill including asphalt, building debris and organic material.

**Area 2:** Northwest portion of the site which borders Parker Street which is currently being used by local residents as a Community Garden. The area has urban fill characterized by soil with ash layers, contains bricks, building materials, including foundation remnants as well as some organic material.

**Area 3:** Southeastern part of the site, east of the existing retaining wall and west of an occupied commercial building. This area contains fill material, building materials, ash and some organic debris.

**Area 4:** Northeastern portion of the site, bordered on the east by Terrace St. The area is characterized by miscellaneous fill material containing large pieces of foundation materials, granite blocks, bricks, ash and organic debris. Near the eastern site boundary, an abandoned cellar hole was discovered with some of the remnants of a burned structure and large void spaces.

### **2.0 OFFSITE DISPOSITION OF OPTIONS BY AREA:**

Assignment of disposal options to the fill material in each section is summarized below.

#### **2.1 AREA I - 16,219 SQ. FT**

**Fill Material Description:** The mound was assigned 50% of the fill and the remaining area is 50%. The mound area was estimated to require removal of an average of 7-ft. of fill. The rest of the area an average of 3-ft. of fill.

#### **Selected Facilities:**

1. Out of State Landfill (OOS) – Presence of miscellaneous fill and debris
  - $8109.5 \text{ sq.ft.} \times 7 \text{ ft.} = 56766 \text{ cu.ft.}$  or 2102 cu. yds.
2. Unlined Landfill (ULLF) - Remaining area was characterized based on levels of total lead present in fill material.
  - $8109.5 \times 3 = 32,328 \text{ cu.ft.}$  or 901 cu.yds.

## 2.2 AREA 2 - 13,958 SQ. FT.

**Fill Material Description:** Due to the presence of fill material high lead values, 50% was assigned to OOS and 50% to Instate Lined Landfill (LLF). Average fill thickness to be removed was estimated at 9 ft.

### Selected Facilities:

1. Out of State Landfill (OOS): 1163-cy
2. Instate Lined Landfill (LLF): 1163-cy
  - $6979 \text{ sq.ft.} \times 9 \text{ ft.} = 62,811 \text{ cu. ft. or } 2326 \text{ cu. yd}$

## 2.3 AREA 3 - 6448 SQ. FT.

**Fill Material Description:** Presence of fill material with lead values, average fill thickness estimated as 5 ft.

### Selected Facilities:

1. Unlined Landfill (ULLF)
  - $6448 \times 5 = 32,240 \text{ cu. ft. or } 1194 \text{ cu. yd.}$

## 2.4 AREA 4 - 21,585 SQ. FT.

**Fill Material Description:** Presence of fill material with lead values, depth of fill to be excavated was estimated at 11 ft.

### Selected Facilities:

1. Unlined Landfill (ULLF)
  - $21,585 \times 11 = 237,435 \text{ cu. ft. or } 8,794 \text{ cu. yd.}$

## 3.0 COST SUMMARY

OOS =  $(2102 + 2326) \times \$85 =$  \$376,380

LLF =  $2326 \times \$42 =$  \$97,692

ULLF =  $(901 + 1194 + 8797) \times \$35 =$  \$381,220

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TOTAL = \$855,292

## 4.0 GENERAL COMMENTS:

1. Estimates include general information regarding the management of regulated material only.
2. Non-regulated, natural non-impacted soil is not included in this section.
3. These assignments assume that large pieces of construction debris, granite blocks and foundation debris are removed, as is generally required by landfills.
4. Pricing provided in this section is an estimate and is subject to change based on multiple conditions, including, but not limited to, the following provisions per facility(s); availability, schedule, pricing, acceptance and other facility and/or project conditions/limitations.



**APPENDIX B**  
Test Pit Logs

### TEST PIT LOG

PROJECT NAME/NO.	Parker & Terrace Street	<b>TEST PIT NUMBER</b>
LOCATION	778-796 Parker & 77 Terrace Street, Boston, MA	TP-1
CLIENT	Department of Neighborhood Development	GROUND SURFACE
CONTRACTOR	Strategic Env Services FOREMAN: Eric	ELEVATION
OBSERVED BY	AGH DATE 10/8/21	DEPTH TO GROUNDWATER
CHECKED BY	SAR DATE 10/26/21	N/A

DEPTH BELOW GROUND SURFACE (ft.)	SOIL DESCRIPTION	STRATUM DESCRIPTION
Surface		
1	0 - 5': Loosely packed, dark brown, fine to medium silty SAND, trace brick, cobbles, and gravel.	<b>FILL</b>
2 *		
3		
4		
5		
6	5 - 8': Loosely packed, tan, fine to medium silty SAND, trace brick, cobbles, and gravel.	
7 *		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

<b>NOTES:</b> *PID = 0.1 ppm @ 2 ft, PID = 0.1 ppm @ 8 ft - DUP-1 taken at TP-1(0-2) - MS and MSD taken for metals at TP-1(6-8).	<b>TEST PIT NUMBER</b> TP-1 
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### TEST PIT LOG

PROJECT NAME/NO.	Parker & Terrace Street	<b>TEST PIT NUMBER</b>
LOCATION	778-796 Parker & 77 Terrace Street, Boston, MA	TP-2
CLIENT	Department of Neighborhood Development	GROUND SURFACE
CONTRACTOR	Strategic Env Services FOREMAN: Eric	ELEVATION
OBSERVED BY	AGH DATE 10/8/21	DEPTH TO GROUNDWATER
CHECKED BY	SAR DATE 10/26/21	N/A

DEPTH BELOW GROUND SURFACE (ft.)	SOIL DESCRIPTION	STRATUM DESCRIPTION
Surface		
1	0 - 1': Loosely packed, light brown, fine to medium silty SAND, some organics (roots).	<b>FILL</b>
2	1 - 7.5': Loosely packed, light brown, fine to medium silty SAND, trace cobbles, trace debris (glass, brick, metal).	
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

**NOTES:**  
 \*PID = 0.1 ppm @ 2 ft, PID = 0.1 ppm @ 6.5 ft  
 -VOCs taken at TP-2(6-8)  
 - Refusal at 7.5'

<b>TEST PIT NUMBER</b> TP-2


### TEST PIT LOG

PROJECT NAME/NO.	Parker & Terrace Street	<b>TEST PIT NUMBER</b>
LOCATION	778-796 Parker & 77 Terrace Street, Boston, MA	TP-3
CLIENT	Department of Neighborhood Development	GROUND SURFACE
CONTRACTOR	Strategic Env Services FOREMAN: Eric	ELEVATION
OBSERVED BY	AGH DATE 10/8/21	DEPTH TO GROUNDWATER
CHECKED BY	SAR DATE 10/26/21	N/A

DEPTH BELOW GROUND SURFACE (ft.)	SOIL DESCRIPTION	STRATUM DESCRIPTION
Surface		
1	0 - 6.5': Loosely packed, dark brown, fine to medium silty SAND, trace cobbles, gravel, and debris (brick, glass, metal).	<b>FILL</b>
2		
3		
4 *		
5		
6		
7 *		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		


<p><b>NOTES:</b></p> <ul style="list-style-type: none"> <li>*PID = 0.1 ppm @ 4 ft, PID = 0.0 ppm @ 6 ft</li> <li>- VOCs taken at TP-3(2-4)</li> <li>- Refusal at 6.5' due to large concrete pieces.</li> </ul>	<p><b>TEST PIT NUMBER</b></p> <p>TP-3</p> 
--	---

### TEST PIT LOG

PROJECT NAME/NO.	Parker & Terrace Street	<b>TEST PIT NUMBER</b>
LOCATION	778-796 Parker & 77 Terrace Street, Boston, MA	TP-4
CLIENT	Department of Neighborhood Development	GROUND SURFACE
CONTRACTOR	Strategic Env Services FOREMAN: Eric	ELEVATION
OBSERVED BY	AGH DATE 10/8/21	DEPTH TO GROUNDWATER
CHECKED BY	SAR DATE 10/26/21	N/A

DEPTH BELOW GROUND SURFACE (ft.)	SOIL DESCRIPTION	STRATUM DESCRIPTION
Surface		
1	0 - 4': Loosely packed, dark brown, fine to medium silty SAND, some cobbles, trace gravel, and trace debris (brick, glass, metal). Large pieces of concrete and asphalt.	<b>FILL</b>
2 *		
3		
4 *		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

**NOTES:**  
 \*PID = 0.0 ppm @ 2 ft, PID = 0.0 ppm @ 4 ft  
 - VOCs taken at TP-4(2-4)  
 - Refusal at 4' due to large concrete and asphalt pieces.


<b>TEST PIT NUMBER</b> TP-4


**TEST PIT LOG**

PROJECT NAME/NO.	Parker & Terrace Street		<b>TEST PIT NUMBER</b> TP-5	
LOCATION	778-796 Parker & 77 Terrace Street, Boston, MA			
CLIENT	Department of Neighborhood Development		GROUND SURFACE	
CONTRACTOR	Strategic Env Services	FOREMAN: Eric	ELEVATION --	
OBSERVED BY	AGH	DATE 10/8/21	DEPTH TO GROUNDWATER	
CHECKED BY	SAR	DATE 10/26/21	N/A	

DEPTH BELOW GROUND SURFACE (ft.)	SOIL DESCRIPTION	STRATUM DESCRIPTION
Surface		
1	0 - 8': Loosely packed, dark brown to tan, fine to medium silty SAND, trace cobbles, gravel, and debris (brick, glass, metal).	<b>FILL</b>
2 *		
3		
4 *		
5		
6		
7		
8 *		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

**NOTES:**  
 \*PID = 0.1 ppm @ 2 ft, PID = 0.0 ppm @ 4 ft, and PID = 0.0 ppm @ 8 ft  
 - VOCs taken at TP-5(0-2) and TP-5(4-6)


<b>TEST PIT NUMBER</b> TP-5


### TEST PIT LOG

PROJECT NAME/NO.	Parker & Terrace Street	<b>TEST PIT NUMBER</b>
LOCATION	778-796 Parker & 77 Terrace Street, Boston, MA	TP-6
CLIENT	Department of Neighborhood Development	GROUND SURFACE
CONTRACTOR	Strategic Env Services FOREMAN: Eric	ELEVATION
OBSERVED BY	AGH DATE 10/8/21	DEPTH TO GROUNDWATER
CHECKED BY	SAR DATE 10/26/21	N/A

DEPTH BELOW GROUND SURFACE (ft.)	SOIL DESCRIPTION	STRATUM DESCRIPTION
Surface		
1	0 - 6': Loosely packed, dark brown to tan, fine to medium silty SAND, trace cobbles, gravel, and debris (brick, glass, metal).	<b>FILL</b>
2 *		
3		
4 *		
5		
6 *		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

**NOTES:**  
 \*PID = 0.1 ppm @ 2 ft, PID = 0.1 ppm @ 4 ft, and PID = 0.0 ppm @ 6 ft  
 - VOCs taken at TP-6(0-2) and TP-6(5-6)  
 - Refusal at 6'


<b>TEST PIT NUMBER</b> TP-6


### TEST PIT LOG

PROJECT NAME/NO.	Parker & Terrace Street	<b>TEST PIT NUMBER</b>
LOCATION	778-796 Parker & 77 Terrace Street, Boston, MA	TP-7
CLIENT	Department of Neighborhood Development	GROUND SURFACE
CONTRACTOR	Strategic Env Services FOREMAN: Eric	ELEVATION
OBSERVED BY	AGH DATE 10/8/21	DEPTH TO GROUNDWATER
CHECKED BY	SAR DATE 10/26/21	N/A

DEPTH BELOW GROUND SURFACE (ft.)	SOIL DESCRIPTION	STRATUM DESCRIPTION
Surface		
1	0-6': Brown, fine to coarse silty SAND, some BRICK, trace gravel and debris (metal, glass).	<b>FILL</b>
2 *		
3		
4 *		
5		
6 *		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

**NOTES:**  
 \*PID = 0.1 ppm @ 2 ft, PID = 0.0 ppm @ 4 ft, and PID = 0.0 ppm @ 6 ft  
 - VOCs taken at TP-7(2-4) and TP-7(4-6)

<b>TEST PIT NUMBER</b> TP-7


### TEST PIT LOG

PROJECT NAME/NO.	Parker & Terrace Street	<b>TEST PIT NUMBER</b>
LOCATION	778-796 Parker & 77 Terrace Street, Boston, MA	TP-8
CLIENT	Department of Neighborhood Development	GROUND SURFACE
CONTRACTOR	Strategic Env Services FOREMAN: Eric	ELEVATION
OBSERVED BY	AGH DATE 10/8/21	DEPTH TO GROUNDWATER
CHECKED BY	SAR DATE 10/26/21	N/A

DEPTH BELOW GROUND SURFACE (ft.)	SOIL DESCRIPTION	STRATUM DESCRIPTION
Surface		
1	0 - 7.5': Loosely packed, light brown, fine to medium silty SAND, trace cobbles, trace debris (glass, brick, metal).	<b>FILL</b>
2 *		
3		
4		
5		
6		
7		
8 *		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

<p><b>NOTES:</b></p> <p>*PID = 0.1 ppm @ 2 ft, PID = 0.1 ppm @ 7.5 ft</p> <p>-VOCs taken at TP-8(0-2)</p> <p>- Refusal hit at 7.5'</p>	<p><b>TEST PIT NUMBER</b></p> <p>TP-8</p> 
--	---

### TEST PIT LOG

PROJECT NAME/NO.	Parker & Terrace Street	<b>TEST PIT NUMBER</b>
LOCATION	778-796 Parker & 77 Terrace Street, Boston, MA	TP-1
CLIENT	Department of Neighborhood Development	GROUND SURFACE
CONTRACTOR	Strategic Env Services FOREMAN: Eric	ELEVATION
OBSERVED BY	AGH DATE 10/8/21	DEPTH TO GROUNDWATER
CHECKED BY	SAR DATE 10/26/21	N/A

DEPTH BELOW GROUND SURFACE (ft.)	SOIL DESCRIPTION	STRATUM DESCRIPTION
Surface		
1	0 - 5': Loosely packed, dark brown, fine to medium silty SAND, trace brick, cobbles, and gravel.	<b>FILL</b>
2 *		
3		
4		
5		
6	5 - 8': Loosely packed, tan, fine to medium silty SAND, trace brick, cobbles, and gravel.	
7 *		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

<b>NOTES:</b> *PID = 0.1 ppm @ 2 ft, PID = 0.1 ppm @ 8 ft - DUP-1 taken at TP-1(0-2) - MS and MSD taken for metals at TP-1(6-8).	<b>TEST PIT NUMBER</b> TP-1 
---	---



### TEST PIT LOG

PROJECT NAME/NO.	Parker & Terrace Street	<b>TEST PIT NUMBER</b>
LOCATION	778-796 Parker & 77 Terrace Street, Boston, MA	TP-2
CLIENT	Department of Neighborhood Development	GROUND SURFACE
CONTRACTOR	Strategic Env Services FOREMAN: Eric	ELEVATION
OBSERVED BY	AGH DATE 10/8/21	DEPTH TO GROUNDWATER
CHECKED BY	SAR DATE 10/26/21	N/A

DEPTH BELOW GROUND SURFACE (ft.)	SOIL DESCRIPTION	STRATUM DESCRIPTION
Surface		
1	0 - 1': Loosely packed, light brown, fine to medium silty SAND, some organics (roots).	<b>FILL</b>
2	1 - 7.5': Loosely packed, light brown, fine to medium silty SAND, trace cobbles, trace * debris (glass, brick, metal).	
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

<b>NOTES:</b> *PID = 0.1 ppm @ 2 ft, PID = 0.1 ppm @ 6.5 ft -VOCs taken at TP-2(6-8) - Refusal at 7.5'	<b>TEST PIT NUMBER</b> TP-2 
---	---


**TEST PIT LOG**

PROJECT NAME/NO.	<u>Parker &amp; Terrace Street</u>	<b>TEST PIT NUMBER</b>	
LOCATION	<u>778-796 Parker &amp; 77 Terrace Street, Boston, MA</u>	TP-3	
CLIENT	<u>Department of Neighborhood Development</u>	GROUND SURFACE	
CONTRACTOR	<u>Strategic Env Services</u> FOREMAN: <u>Eric</u>	ELEVATION <u>                  --                  </u>	
OBSERVED BY	<u>AGH</u> DATE <u>10/8/21</u>	DEPTH TO GROUNDWATER	
CHECKED BY	<u>SAR</u> DATE <u>10/26/21</u>	<u>  N/A  </u>	

DEPTH BELOW GROUND SURFACE (ft.)	SOIL DESCRIPTION	STRATUM DESCRIPTION
Surface		
1	0 - 6.5': Loosely packed, dark brown, fine to medium silty SAND, trace cobbles, gravel, and debris (brick, glass, metal).	<b>FILL</b>
2		
3		
4 *		
5		
6		
7 *		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

**NOTES:**  
 \*PID = 0.1 ppm @ 4 ft, PID = 0.0 ppm @ 6 ft  
 - VOCs taken at TP-3(2-4)  
 - Refusal at 6.5' due to large concrete pieces.

**TEST PIT NUMBER**  
TP-3



### TEST PIT LOG

PROJECT NAME/NO.	Parker & Terrace Street	<b>TEST PIT NUMBER</b>
LOCATION	778-796 Parker & 77 Terrace Street, Boston, MA	TP-4
CLIENT	Department of Neighborhood Development	GROUND SURFACE
CONTRACTOR	Strategic Env Services FOREMAN: Eric	ELEVATION
OBSERVED BY	AGH DATE 10/8/21	DEPTH TO GROUNDWATER
CHECKED BY	SAR DATE 10/26/21	N/A

DEPTH BELOW GROUND SURFACE (ft.)	SOIL DESCRIPTION	STRATUM DESCRIPTION
Surface		
1	0 - 4': Loosely packed, dark brown, fine to medium silty SAND, some cobbles, trace gravel, and trace debris (brick, glass, metal). Large pieces of concrete and asphalt.	<b>FILL</b>
2 *		
3		
4 *		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		


<p><b>NOTES:</b></p> <ul style="list-style-type: none"> <li>*PID = 0.0 ppm @ 2 ft, PID = 0.0 ppm @ 4 ft</li> <li>- VOCs taken at TP-4(2-4)</li> <li>- Refusal at 4' due to large concrete and asphalt pieces.</li> </ul>	<p><b>TEST PIT NUMBER</b></p> <p>TP-4</p> 
--	---

**TEST PIT LOG**

PROJECT NAME/NO.	Parker & Terrace Street		<b>TEST PIT NUMBER</b> TP-5	
LOCATION	778-796 Parker & 77 Terrace Street, Boston, MA			
CLIENT	Department of Neighborhood Development		GROUND SURFACE	
CONTRACTOR	Strategic Env Services	FOREMAN: Eric	ELEVATION --	
OBSERVED BY	AGH	DATE 10/8/21	DEPTH TO GROUNDWATER	
CHECKED BY	SAR	DATE 10/26/21	N/A	

DEPTH BELOW GROUND SURFACE (ft.)	SOIL DESCRIPTION	STRATUM DESCRIPTION
Surface		
1	0 - 8': Loosely packed, dark brown to tan, fine to medium silty SAND, trace cobbles, gravel, and debris (brick, glass, metal).	<b>FILL</b>
2 *		
3		
4 *		
5		
6		
7		
8 *		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

**NOTES:**  
 \*PID = 0.1 ppm @ 2 ft, PID = 0.0 ppm @ 4 ft, and PID = 0.0 ppm @ 8 ft  
 - VOCs taken at TP-5(0-2) and TP-5(4-6)


<b>TEST PIT NUMBER</b> TP-5


### TEST PIT LOG

PROJECT NAME/NO.	Parker & Terrace Street	<b>TEST PIT NUMBER</b>
LOCATION	778-796 Parker & 77 Terrace Street, Boston, MA	TP-6
CLIENT	Department of Neighborhood Development	GROUND SURFACE
CONTRACTOR	Strategic Env Services      FOREMAN: Eric	ELEVATION
OBSERVED BY	AGH      DATE 10/8/21	DEPTH TO GROUNDWATER
CHECKED BY	SAR      DATE 10/26/21	N/A

DEPTH BELOW GROUND SURFACE (ft.)	SOIL DESCRIPTION	STRATUM DESCRIPTION
Surface		
1	0 - 6': Loosely packed, dark brown to tan, fine to medium silty SAND, trace cobbles, gravel, and debris (brick, glass, metal).	<b>FILL</b>
2 *		
3		
4 *		
5		
6 *		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

**NOTES:**  
 \*PID = 0.1 ppm @ 2 ft, PID = 0.1 ppm @ 4 ft, and PID = 0.0 ppm @ 6 ft  
 - VOCs taken at TP-6(0-2) and TP-6(5-6)  
 - Refusal at 6'

<b>TEST PIT NUMBER</b> TP-6



**TEST PIT LOG**

PROJECT NAME/NO.	Parker & Terrace Street		<b>TEST PIT NUMBER</b> TP-7	
LOCATION	778-796 Parker & 77 Terrace Street, Boston, MA			
CLIENT	Department of Neighborhood Development		GROUND SURFACE	
CONTRACTOR	Strategic Env Services	FOREMAN: Eric	ELEVATION --	
OBSERVED BY	AGH	DATE 10/8/21	DEPTH TO GROUNDWATER	
CHECKED BY	SAR	DATE 10/26/21	N/A	

DEPTH BELOW GROUND SURFACE (ft.)	SOIL DESCRIPTION	STRATUM DESCRIPTION
Surface		
1	0-6': Brown, fine to coarse silty SAND, some BRICK, trace gravel and debris (metal, glass).	<b>FILL</b>
2 *		
3		
4 *		
5		
6 *		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

**NOTES:**  
 \*PID = 0.1 ppm @ 2 ft, PID = 0.0 ppm @ 4 ft, and PID = 0.0 ppm @ 6 ft  
 - VOCs taken at TP-7(2-4) and TP-7(4-6)

**TEST PIT NUMBER**  
TP-7



### TEST PIT LOG

PROJECT NAME/NO.	Parker & Terrace Street	<b>TEST PIT NUMBER</b>
LOCATION	778-796 Parker & 77 Terrace Street, Boston, MA	TP-8
CLIENT	Department of Neighborhood Development	GROUND SURFACE
CONTRACTOR	Strategic Env Services FOREMAN: Eric	ELEVATION
OBSERVED BY	AGH DATE 10/8/21	DEPTH TO GROUNDWATER
CHECKED BY	SAR DATE 10/26/21	N/A

DEPTH BELOW GROUND SURFACE (ft.)	SOIL DESCRIPTION	STRATUM DESCRIPTION
Surface		
1	0 - 7.5': Loosely packed, light brown, fine to medium silty SAND, trace cobbles, trace debris (glass, brick, metal).	<b>FILL</b>
2 *		
3		
4		
5		
6		
7		
8 *		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

<b>NOTES:</b> *PID = 0.1 ppm @ 2 ft, PID = 0.1 ppm @ 7.5 ft -VOCs taken at TP-8(0-2) - Refusal hit at 7.5'	<b>TEST PIT NUMBER</b> TP-8 
---	---

**APPENDIX C**  
Laboratory Analytical Report



October 18, 2021

Sarah Ruizzo  
Weston & Sampson Engineers MA  
55 Walkers Brook Drive  
Reading, MA 01867

Project Location: Boston, MA  
Client Job Number:  
Project Number: ENG21-0950  
Laboratory Work Order Number: 21J0497

Enclosed are results of analyses for samples as received by the laboratory on October 8, 2021. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kerry K. McGee  
Project Manager

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39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

 Weston & Sampson Engineers MA  
 55 Walkers Brook Drive  
 Reading, MA 01867  
 ATTN: Sarah Ruizzo

REPORT DATE: 10/18/2021

PURCHASE ORDER NUMBER:

PROJECT NUMBER: ENG21-0950

**ANALYTICAL SUMMARY**

WORK ORDER NUMBER: 21J0497

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Boston, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
TP-1 (0-2)	21J0497-01	Soil		MADEP EPH rev 2.1 SM 2540G SW-846 6010D SW-846 7471B SW-846 8082A SW-846 8260D	
TP-1 (6-8)	21J0497-02	Soil		SM 2540G SW-846 6010D SW-846 7471B SW-846 8082A	
TP-2 (0-2)	21J0497-03	Soil		SM 2540G SW-846 6010D SW-846 7471B SW-846 8082A	
TP-2 (6-8)	21J0497-04	Soil		MADEP EPH rev 2.1 SM 2540G SW-846 6010D SW-846 7471B SW-846 8082A SW-846 8260D	
TP-3 (2-4)	21J0497-05	Soil		MADEP EPH rev 2.1 SM 2540G SW-846 6010D SW-846 7471B SW-846 8082A SW-846 8260D	
TP-3 (5-6)	21J0497-06	Soil		SM 2540G SW-846 6010D SW-846 7471B SW-846 8082A	
TP-4 (0-2)	21J0497-07	Soil		SM 2540G SW-846 6010D SW-846 7471B SW-846 8082A	
TP-4 (2-4)	21J0497-08	Soil		MADEP EPH rev 2.1 SM 2540G SW-846 6010D SW-846 7471B SW-846 8082A SW-846 8260D	

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

 Weston & Sampson Engineers MA  
 55 Walkers Brook Drive  
 Reading, MA 01867  
 ATTN: Sarah Ruizzo

REPORT DATE: 10/18/2021

PURCHASE ORDER NUMBER:

PROJECT NUMBER: ENG21-0950

**ANALYTICAL SUMMARY**

WORK ORDER NUMBER: 21J0497

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Boston, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
TP-5 (0-2)	21J0497-09	Soil		MADEP EPH rev 2.1 SM 2540G SW-846 6010D SW-846 7471B SW-846 8082A SW-846 8260D	
TP-5 (6-8)	21J0497-10	Soil		SM 2540G SW-846 6010D SW-846 7471B SW-846 8082A	
TP-6 (5-6)	21J0497-11	Soil		SM 2540G SW-846 6010D SW-846 7471B SW-846 8082A	
TP-6 (0-2)	21J0497-12	Soil		MADEP EPH rev 2.1 SM 2540G SW-846 6010D SW-846 7471B SW-846 8082A SW-846 8260D	
TP-7 (4-6)	21J0497-13	Soil		MADEP EPH rev 2.1 SM 2540G SW-846 6010D SW-846 7471B SW-846 8082A SW-846 8260D	
TP-7 (0-2)	21J0497-14	Soil		SM 2540G SW-846 6010D SW-846 7471B SW-846 8082A	
TP-8 (0-2)	21J0497-15	Soil		MADEP EPH rev 2.1 SM 2540G SW-846 6010D SW-846 7471B SW-846 8082A SW-846 8260D	
TP-8 (6-8)	21J0497-16	Soil		SM 2540G SW-846 6010D SW-846 7471B SW-846 8082A	

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

 Weston & Sampson Engineers MA  
 55 Walkers Brook Drive  
 Reading, MA 01867  
 ATTN: Sarah Ruizzo

REPORT DATE: 10/18/2021

PURCHASE ORDER NUMBER:

PROJECT NUMBER: ENG21-0950

**ANALYTICAL SUMMARY**

WORK ORDER NUMBER: 21J0497

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Boston, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
DUP-1	21J0497-17	Soil		MADEP EPH rev 2.1 SM 2540G SW-846 6010D SW-846 7471B SW-846 8082A SW-846 8260D	
TP-5 (4-6)	21J0497-18	Soil		MADEP EPH rev 2.1 SM 2540G SW-846 6010D SW-846 7471B SW-846 8082A SW-846 8260D	
TP-6 (4-5)	21J0497-19	Soil		MADEP EPH rev 2.1 SM 2540G SW-846 6010D SW-846 7471B SW-846 8082A SW-846 8260D	
TP-7 (2-4)	21J0497-20	Soil		MADEP EPH rev 2.1 SM 2540G SW-846 6010D SW-846 7471B SW-846 8082A SW-846 8260D	

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

**MADEP EPH rev 2.1****Qualifications:****RL-08**

Elevated reporting limit due to sample matrix interference. MA CAM reporting limit not met.

**Analyte & Samples(s) Qualified:****C9-C18 Aliphatics**

21J0497-08RE1[TP-4 (2-4)], 21J0497-18[TP-5 (4-6)]

**SW-846 6010D****Qualifications:****DL-03**

Elevated reporting limit due to matrix interference.

**Analyte & Samples(s) Qualified:****Silver**

21J0497-11[TP-6 (5-6)], 21J0497-13[TP-7 (4-6)], 21J0497-14[TP-7 (0-2)], 21J0497-19[TP-6 (4-5)], 21J0497-20[TP-7 (2-4)]

**MS-07A**

Matrix spike and spike duplicate recovery is outside of control limits. Analysis is in control based on laboratory fortified blank recovery. Possibility of matrix effects that lead to low bias or non-homogeneous sample aliquot cannot be eliminated.

**Analyte & Samples(s) Qualified:****Antimony**

21J0497-02[TP-1 (6-8)], B292102-MS1, B292102-MSD1

**MS-19**

Sample to spike ratio is greater than or equal to 4:1. Spiked amount is not representative of the native amount in the sample. Appropriate or meaningful recoveries cannot be calculated.

**Analyte & Samples(s) Qualified:****Lead**

21J0497-02[TP-1 (6-8)], B292102-MS1, B292102-MSD1

**MS-22**

Either matrix spike or MS duplicate is outside of control limits, but the other is within limits. RPD between the two MS/MSD results is within method specified criteria.

**Analyte & Samples(s) Qualified:**

B292102-MS1, B292102-MSD1

**Z-01**

Either MS or MS duplicate is outside of control limits, but the other is within limits. Possibility of sample matrix effects that lead to a low bias for reported result or non-homogeneous sample aliquots cannot be eliminated. Post spike recovery is 83.1%

**Analyte & Samples(s) Qualified:****Zinc**

21J0497-02[TP-1 (6-8)], B292102-MS1, B292102-MSD1

**SW-846 8082A****Qualifications:****O-32**

A dilution was performed as part of the standard analytical procedure.

**Analyte & Samples(s) Qualified:**

21J0497-01[TP-1 (0-2)], 21J0497-02[TP-1 (6-8)], 21J0497-03[TP-2 (0-2)], 21J0497-04[TP-2 (6-8)], 21J0497-05[TP-3 (2-4)], 21J0497-06[TP-3 (5-6)], 21J0497-07[TP-4 (0-2)], 21J0497-08[TP-4 (2-4)], 21J0497-10[TP-5 (6-8)], 21J0497-13[TP-7 (4-6)], 21J0497-15[TP-8 (0-2)], 21J0497-16[TP-8 (6-8)], 21J0497-17[DUP-1], 21J0497-18[TP-5 (4-6)], 21J0497-19[TP-6 (4-5)]

**SW-846 8260D****Qualifications:**



**V-05**  
 Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.

**Analyte & Samples(s) Qualified:****tert-Amyl Methyl Ether (TAME)**

21J0497-01[TP-1 (0-2)], 21J0497-04[TP-2 (6-8)], 21J0497-05[TP-3 (2-4)], 21J0497-08[TP-4 (2-4)], 21J0497-09[TP-5 (0-2)], 21J0497-12[TP-6 (0-2)], 21J0497-13[TP-7 (4-6)], 21J0497-15[TP-8 (0-2)], 21J0497-17[DUP-1], 21J0497-18[TP-5 (4-6)], 21J0497-19[TP-6 (4-5)], 21J0497-20[TP-7 (2-4)], B292189-BLK1, B292189-BS1, B292189-BSD1, S064132-CCV1

**Tetrahydrofuran**

21J0497-01[TP-1 (0-2)], 21J0497-04[TP-2 (6-8)], 21J0497-05[TP-3 (2-4)], 21J0497-08[TP-4 (2-4)], 21J0497-09[TP-5 (0-2)], 21J0497-12[TP-6 (0-2)], 21J0497-13[TP-7 (4-6)], 21J0497-15[TP-8 (0-2)], 21J0497-17[DUP-1], 21J0497-18[TP-5 (4-6)], 21J0497-19[TP-6 (4-5)], 21J0497-20[TP-7 (2-4)], B292189-BLK1, B292189-BS1, B292189-BSD1, S064132-CCV1

**V-16**  
 Response factor is less than method specified minimum acceptable value. Reduced precision and accuracy may be associated with reported result.

**Analyte & Samples(s) Qualified:****1,4-Dioxane**

S064132-CCV1

**V-20**  
 Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

**Analyte & Samples(s) Qualified:****Dichlorodifluoromethane (Freon 12)**

B292189-BS1, B292189-BSD1, S064132-CCV1

**Trichlorofluoromethane (Freon 11)**

B292189-BS1, B292189-BSD1, S064132-CCV1

**V-34**  
 Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

**Analyte & Samples(s) Qualified:****Bromomethane**

21J0497-01[TP-1 (0-2)], 21J0497-04[TP-2 (6-8)], 21J0497-05[TP-3 (2-4)], 21J0497-08[TP-4 (2-4)], 21J0497-09[TP-5 (0-2)], 21J0497-12[TP-6 (0-2)], 21J0497-13[TP-7 (4-6)], 21J0497-15[TP-8 (0-2)], 21J0497-17[DUP-1], 21J0497-18[TP-5 (4-6)], 21J0497-19[TP-6 (4-5)], 21J0497-20[TP-7 (2-4)], B292189-BLK1, B292189-BS1, B292189-BSD1, S064132-CCV1

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Lisa A. Worthington  
 Technical Representative

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-1 (0-2)

Sampled: 10/8/2021 09:30

Sample ID: 21J0497-01

Sample Matrix: Soil

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.091	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00091	mg/Kg dry	1	V-05	SW-846 8260D	10/11/21	10/11/21 9:19	MFF
Benzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
Bromobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
Bromochloromethane	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
Bromodichloromethane	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
Bromoform	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
Bromomethane	ND	0.0091	mg/Kg dry	1	V-34	SW-846 8260D	10/11/21	10/11/21 9:19	MFF
2-Butanone (MEK)	ND	0.036	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
n-Butylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
sec-Butylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
tert-Butylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00091	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
Carbon Disulfide	ND	0.0091	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
Carbon Tetrachloride	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
Chlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
Chlorodibromomethane	ND	0.00091	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
Chloroethane	ND	0.018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
Chloroform	ND	0.0036	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
Chloromethane	ND	0.0091	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
2-Chlorotoluene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
4-Chlorotoluene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0036	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
1,2-Dibromoethane (EDB)	ND	0.00091	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
Dibromomethane	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
1,2-Dichlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
1,3-Dichlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
1,4-Dichlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
1,1-Dichloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
1,2-Dichloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
1,1-Dichloroethylene	ND	0.0036	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
cis-1,2-Dichloroethylene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
trans-1,2-Dichloroethylene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
1,2-Dichloropropane	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
1,3-Dichloropropane	ND	0.00091	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
2,2-Dichloropropane	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
1,1-Dichloropropene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
cis-1,3-Dichloropropene	ND	0.00091	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
trans-1,3-Dichloropropene	ND	0.00091	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
Diethyl Ether	ND	0.018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
Diisopropyl Ether (DIPE)	ND	0.00091	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
1,4-Dioxane	ND	0.091	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
Ethylbenzene	ND	0.0036	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-1 (0-2)

Sampled: 10/8/2021 09:30

Sample ID: 21J0497-01

Sample Matrix: Soil

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
2-Hexanone (MBK)	ND	0.018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
Isopropylbenzene (Cumene)	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0036	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
Methylene Chloride	ND	0.018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
Naphthalene	ND	0.0036	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
n-Propylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
Styrene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
1,1,1,2-Tetrachloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
1,1,1,2,2-Tetrachloroethane	ND	0.00091	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
Tetrachloroethylene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
Tetrahydrofuran	ND	0.0091	mg/Kg dry	1	V-05	SW-846 8260D	10/11/21	10/11/21 9:19	MFF
Toluene	ND	0.0036	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
1,2,3-Trichlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
1,2,4-Trichlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
1,1,1-Trichloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
1,1,2-Trichloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
Trichloroethylene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0091	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
1,2,3-Trichloropropane	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
1,2,4-Trimethylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
1,3,5-Trimethylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
Vinyl Chloride	ND	0.0091	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
m+p Xylene	ND	0.0073	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF
o-Xylene	ND	0.0036	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:19	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	92.4	70-130	
Toluene-d8	100	70-130	
4-Bromofluorobenzene	87.8	70-130	

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-1 (0-2)

Sampled: 10/8/2021 09:30

Sample ID: 21J0497-01

Sample Matrix: Soil

Sample Flags: O-32

**Polychlorinated Biphenyls By GC/ECD**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.097	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 22:00	TG
Aroclor-1221 [1]	ND	0.097	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 22:00	TG
Aroclor-1232 [1]	ND	0.097	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 22:00	TG
Aroclor-1242 [1]	ND	0.097	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 22:00	TG
Aroclor-1248 [1]	ND	0.097	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 22:00	TG
Aroclor-1254 [1]	ND	0.097	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 22:00	TG
Aroclor-1260 [1]	ND	0.097	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 22:00	TG
Aroclor-1262 [1]	ND	0.097	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 22:00	TG
Aroclor-1268 [1]	ND	0.097	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 22:00	TG
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
Decachlorobiphenyl [1]		86.1	30-150					10/14/21 22:00	
Decachlorobiphenyl [2]		74.2	30-150					10/14/21 22:00	
Tetrachloro-m-xylene [1]		79.1	30-150					10/14/21 22:00	
Tetrachloro-m-xylene [2]		74.0	30-150					10/14/21 22:00	

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Sampled: 10/8/2021 09:30

Sample ID: 21J0497-01

Sample Matrix: Soil

**Petroleum Hydrocarbons Analyses - EPH**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
C9-C18 Aliphatics	ND	12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 18:22	CJM
C19-C36 Aliphatics	18	12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 18:22	CJM
Unadjusted C11-C22 Aromatics	29	12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 18:22	CJM
C11-C22 Aromatics	23	12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 18:22	CJM
Acenaphthene	ND	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 18:22	CJM
Acenaphthylene	ND	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 18:22	CJM
Anthracene	ND	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 18:22	CJM
Benzo(a)anthracene	0.52	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 18:22	CJM
Benzo(a)pyrene	0.95	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 18:22	CJM
Benzo(b)fluoranthene	0.65	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 18:22	CJM
Benzo(g,h,i)perylene	0.32	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 18:22	CJM
Benzo(k)fluoranthene	0.23	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 18:22	CJM
Chrysene	0.55	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 18:22	CJM
Dibenz(a,h)anthracene	ND	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 18:22	CJM
Fluoranthene	0.98	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 18:22	CJM
Fluorene	ND	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 18:22	CJM
Indeno(1,2,3-cd)pyrene	0.31	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 18:22	CJM
2-Methylnaphthalene	ND	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 18:22	CJM
Naphthalene	ND	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 18:22	CJM
Phenanthrene	0.57	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 18:22	CJM
Pyrene	1.0	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 18:22	CJM

Surrogates	% Recovery	Recovery Limits	Flag/Qual
Chlorooctadecane (COD)	67.4	40-140	
o-Terphenyl (OTP)	61.0	40-140	
2-Bromonaphthalene	97.9	40-140	
2-Fluorobiphenyl	99.1	40-140	

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Field Sample #: TP-1 (0-2)

Sampled: 10/8/2021 09:30

Sample ID: 21J0497-01

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	2.0	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 16:57	QNW
Arsenic	11	4.0	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 16:57	QNW
Barium	230	2.0	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 16:57	QNW
Beryllium	0.49	0.20	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 16:57	QNW
Cadmium	1.0	0.40	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 16:57	QNW
Chromium	23	0.80	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 16:57	QNW
Lead	1100	0.60	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 16:57	QNW
Mercury	0.90	0.032	mg/Kg dry	1		SW-846 7471B	10/11/21	10/12/21 8:13	DRL
Nickel	17	0.80	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 16:57	QNW
Selenium	ND	4.0	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 16:57	QNW
Silver	ND	0.40	mg/Kg dry	1		SW-846 6010D	10/9/21	10/12/21 13:32	QNW
Thallium	ND	2.0	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 16:57	QNW
Vanadium	44	0.80	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 16:57	QNW
Zinc	350	0.80	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 16:57	QNW

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Project Location: Boston, MA

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Sampled: 10/8/2021 09:30

Sample ID: 21J0497-01

Sample Matrix: Soil

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	82.2		% Wt	1		SM 2540G	10/12/21	10/13/21 17:22	BMB

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-1 (6-8)

Sampled: 10/8/2021 09:40

Sample ID: 21J0497-02

Sample Matrix: Soil

Sample Flags: O-32

**Polychlorinated Biphenyls By GC/ECD**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.087	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 22:18	TG
Aroclor-1221 [1]	ND	0.087	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 22:18	TG
Aroclor-1232 [1]	ND	0.087	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 22:18	TG
Aroclor-1242 [1]	ND	0.087	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 22:18	TG
Aroclor-1248 [1]	ND	0.087	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 22:18	TG
Aroclor-1254 [1]	ND	0.087	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 22:18	TG
Aroclor-1260 [1]	ND	0.087	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 22:18	TG
Aroclor-1262 [1]	ND	0.087	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 22:18	TG
Aroclor-1268 [1]	ND	0.087	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 22:18	TG
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
Decachlorobiphenyl [1]		88.5	30-150					10/14/21 22:18	
Decachlorobiphenyl [2]		76.6	30-150					10/14/21 22:18	
Tetrachloro-m-xylene [1]		83.3	30-150					10/14/21 22:18	
Tetrachloro-m-xylene [2]		78.7	30-150					10/14/21 22:18	



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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-1 (6-8)

Sampled: 10/8/2021 09:40

Sample ID: 21J0497-02

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.8	mg/Kg dry	1	MS-07A	SW-846 6010D	10/9/21	10/12/21 13:46	QNW
Arsenic	3.8	3.6	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 16:50	QNW
Barium	71	1.8	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 16:50	QNW
Beryllium	0.35	0.18	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 16:50	QNW
Cadmium	ND	0.36	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 16:50	QNW
Chromium	10	0.71	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 16:50	QNW
Lead	240	0.53	mg/Kg dry	1	MS-19	SW-846 6010D	10/9/21	10/11/21 16:50	QNW
Mercury	0.11	0.028	mg/Kg dry	1		SW-846 7471B	10/11/21	10/12/21 8:11	DRL
Nickel	9.6	0.71	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 16:50	QNW
Selenium	ND	3.6	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 16:50	QNW
Silver	ND	0.36	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 16:50	QNW
Thallium	ND	1.8	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 16:50	QNW
Vanadium	20	0.71	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 16:50	QNW
Zinc	110	0.71	mg/Kg dry	1	Z-01	SW-846 6010D	10/9/21	10/11/21 16:50	QNW

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-1 (6-8)

Sampled: 10/8/2021 09:40

Sample ID: 21J0497-02

Sample Matrix: Soil

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	92.1		% Wt	1		SM 2540G	10/12/21	10/13/21 17:22	BMB

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-2 (0-2)

Sampled: 10/8/2021 10:00

Sample ID: 21J0497-03

Sample Matrix: Soil

Sample Flags: O-32

**Polychlorinated Biphenyls By GC/ECD**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.096	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 22:35	TG
Aroclor-1221 [1]	ND	0.096	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 22:35	TG
Aroclor-1232 [1]	ND	0.096	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 22:35	TG
Aroclor-1242 [1]	ND	0.096	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 22:35	TG
Aroclor-1248 [1]	ND	0.096	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 22:35	TG
Aroclor-1254 [1]	ND	0.096	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 22:35	TG
Aroclor-1260 [1]	ND	0.096	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 22:35	TG
Aroclor-1262 [1]	ND	0.096	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 22:35	TG
Aroclor-1268 [1]	ND	0.096	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 22:35	TG
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
Decachlorobiphenyl [1]		83.6	30-150					10/14/21 22:35	
Decachlorobiphenyl [2]		72.3	30-150					10/14/21 22:35	
Tetrachloro-m-xylene [1]		81.3	30-150					10/14/21 22:35	
Tetrachloro-m-xylene [2]		76.0	30-150					10/14/21 22:35	

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-2 (0-2)

Sampled: 10/8/2021 10:00

Sample ID: 21J0497-03

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	2.0	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:03	QNW
Arsenic	16	4.0	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:03	QNW
Barium	220	2.0	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:03	QNW
Beryllium	0.65	0.20	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:03	QNW
Cadmium	1.2	0.40	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:03	QNW
Chromium	21	0.80	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:03	QNW
Lead	530	0.60	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:03	QNW
Mercury	0.40	0.030	mg/Kg dry	1		SW-846 7471B	10/11/21	10/12/21 8:15	DRL
Nickel	21	0.80	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:03	QNW
Selenium	ND	4.0	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:03	QNW
Silver	ND	0.40	mg/Kg dry	1		SW-846 6010D	10/9/21	10/12/21 13:38	QNW
Thallium	ND	2.0	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:03	QNW
Vanadium	42	0.80	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:03	QNW
Zinc	280	0.80	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:03	QNW

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-2 (0-2)

Sampled: 10/8/2021 10:00

Sample ID: 21J0497-03

Sample Matrix: Soil

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	82.9		% Wt	1		SM 2540G	10/12/21	10/13/21 17:22	BMB

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-2 (6-8)

Sampled: 10/8/2021 10:30

Sample ID: 21J0497-04

Sample Matrix: Soil

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.10	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.0010	mg/Kg dry	1	V-05	SW-846 8260D	10/11/21	10/11/21 9:44	MFF
Benzene	ND	0.0020	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
Bromobenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
Bromochloromethane	ND	0.0020	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
Bromodichloromethane	ND	0.0020	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
Bromoform	ND	0.0020	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
Bromomethane	ND	0.010	mg/Kg dry	1	V-34	SW-846 8260D	10/11/21	10/11/21 9:44	MFF
2-Butanone (MEK)	ND	0.041	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
n-Butylbenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
sec-Butylbenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
tert-Butylbenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.0010	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
Carbon Disulfide	ND	0.010	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
Carbon Tetrachloride	ND	0.0020	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
Chlorobenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
Chlorodibromomethane	ND	0.0010	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
Chloroethane	ND	0.020	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
Chloroform	ND	0.0041	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
Chloromethane	ND	0.010	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
2-Chlorotoluene	ND	0.0020	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
4-Chlorotoluene	ND	0.0020	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0041	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
1,2-Dibromoethane (EDB)	ND	0.0010	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
Dibromomethane	ND	0.0020	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
1,2-Dichlorobenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
1,3-Dichlorobenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
1,4-Dichlorobenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.020	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
1,1-Dichloroethane	ND	0.0020	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
1,2-Dichloroethane	ND	0.0020	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
1,1-Dichloroethylene	ND	0.0041	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
cis-1,2-Dichloroethylene	ND	0.0020	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
trans-1,2-Dichloroethylene	ND	0.0020	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
1,2-Dichloropropane	ND	0.0020	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
1,3-Dichloropropane	ND	0.0010	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
2,2-Dichloropropane	ND	0.0020	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
1,1-Dichloropropene	ND	0.0020	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
cis-1,3-Dichloropropene	ND	0.0010	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
trans-1,3-Dichloropropene	ND	0.0010	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
Diethyl Ether	ND	0.020	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
Diisopropyl Ether (DIPE)	ND	0.0010	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
1,4-Dioxane	ND	0.10	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
Ethylbenzene	ND	0.0041	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-2 (6-8)

Sampled: 10/8/2021 10:30

Sample ID: 21J0497-04

Sample Matrix: Soil

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.0020	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
2-Hexanone (MBK)	ND	0.020	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
Isopropylbenzene (Cumene)	ND	0.0020	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0020	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0041	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
Methylene Chloride	ND	0.020	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.020	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
Naphthalene	ND	0.0041	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
n-Propylbenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
Styrene	ND	0.0020	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
1,1,1,2-Tetrachloroethane	ND	0.0020	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
1,1,2,2-Tetrachloroethane	ND	0.0010	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
Tetrachloroethylene	ND	0.0020	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
Tetrahydrofuran	ND	0.010	mg/Kg dry	1	V-05	SW-846 8260D	10/11/21	10/11/21 9:44	MFF
Toluene	ND	0.0041	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
1,2,3-Trichlorobenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
1,2,4-Trichlorobenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
1,1,1-Trichloroethane	ND	0.0020	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
1,1,2-Trichloroethane	ND	0.0020	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
Trichloroethylene	ND	0.0020	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
Trichlorofluoromethane (Freon 11)	ND	0.010	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
1,2,3-Trichloropropane	ND	0.0020	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
1,2,4-Trimethylbenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
1,3,5-Trimethylbenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
Vinyl Chloride	ND	0.010	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
m+p Xylene	ND	0.0081	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF
o-Xylene	ND	0.0041	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 9:44	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	92.8	70-130	
Toluene-d8	100	70-130	
4-Bromofluorobenzene	94.4	70-130	

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-2 (6-8)

Sampled: 10/8/2021 10:30

Sample ID: 21J0497-04

Sample Matrix: Soil

Sample Flags: O-32

**Polychlorinated Biphenyls By GC/ECD**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.089	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 22:53	TG
Aroclor-1221 [1]	ND	0.089	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 22:53	TG
Aroclor-1232 [1]	ND	0.089	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 22:53	TG
Aroclor-1242 [1]	ND	0.089	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 22:53	TG
Aroclor-1248 [1]	ND	0.089	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 22:53	TG
Aroclor-1254 [1]	ND	0.089	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 22:53	TG
Aroclor-1260 [1]	ND	0.089	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 22:53	TG
Aroclor-1262 [1]	ND	0.089	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 22:53	TG
Aroclor-1268 [1]	ND	0.089	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 22:53	TG
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
Decachlorobiphenyl [1]		81.8	30-150					10/14/21 22:53	
Decachlorobiphenyl [2]		79.2	30-150					10/14/21 22:53	
Tetrachloro-m-xylene [1]		82.2	30-150					10/14/21 22:53	
Tetrachloro-m-xylene [2]		74.5	30-150					10/14/21 22:53	



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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-2 (6-8)

Sampled: 10/8/2021 10:30

Sample ID: 21J0497-04

Sample Matrix: Soil

**Petroleum Hydrocarbons Analyses - EPH**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
C9-C18 Aliphatics	ND	11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 19:39	CJM
C19-C36 Aliphatics	ND	11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 19:39	CJM
Unadjusted C11-C22 Aromatics	47	11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 19:39	CJM
C11-C22 Aromatics	33	11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 19:39	CJM
Acenaphthene	0.21	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 19:39	CJM
Acenaphthylene	ND	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 19:39	CJM
Anthracene	0.68	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 19:39	CJM
Benzo(a)anthracene	1.1	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 19:39	CJM
Benzo(a)pyrene	1.2	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 19:39	CJM
Benzo(b)fluoranthene	1.1	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 19:39	CJM
Benzo(g,h,i)perylene	0.47	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 19:39	CJM
Benzo(k)fluoranthene	0.40	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 19:39	CJM
Chrysene	1.1	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 19:39	CJM
Dibenz(a,h)anthracene	0.15	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 19:39	CJM
Fluoranthene	2.3	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 19:39	CJM
Fluorene	0.26	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 19:39	CJM
Indeno(1,2,3-cd)pyrene	0.60	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 19:39	CJM
2-Methylnaphthalene	ND	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 19:39	CJM
Naphthalene	0.13	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 19:39	CJM
Phenanthrene	2.4	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 19:39	CJM
Pyrene	2.1	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 19:39	CJM
<b>Surrogates</b>		<b>% Recovery</b>	<b>Recovery Limits</b>		<b>Flag/Qual</b>				
Chlorooctadecane (COD)		56.4	40-140					10/13/21 19:39	
o-Terphenyl (OTP)		52.0	40-140					10/13/21 19:39	
2-Bromonaphthalene		99.5	40-140					10/13/21 19:39	
2-Fluorobiphenyl		101	40-140					10/13/21 19:39	

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-2 (6-8)

Sampled: 10/8/2021 10:30

Sample ID: 21J0497-04

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.9	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:08	QNW
Arsenic	22	3.7	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:08	QNW
Barium	190	1.9	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:08	QNW
Beryllium	0.66	0.19	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:08	QNW
Cadmium	1.2	0.37	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:08	QNW
Chromium	27	0.75	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:08	QNW
Lead	730	0.56	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:08	QNW
Mercury	0.83	0.031	mg/Kg dry	1		SW-846 7471B	10/11/21	10/12/21 8:16	DRL
Nickel	15	0.75	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:08	QNW
Selenium	ND	3.7	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:08	QNW
Silver	ND	0.37	mg/Kg dry	1		SW-846 6010D	10/9/21	10/12/21 13:44	QNW
Thallium	ND	1.9	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:08	QNW
Vanadium	31	0.75	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:08	QNW
Zinc	340	0.75	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:08	QNW

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

**Field Sample #: TP-2 (6-8)**

Sampled: 10/8/2021 10:30

**Sample ID: 21J0497-04**

Sample Matrix: Soil

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	89.8		% Wt	1		SM 2540G	10/12/21	10/13/21 17:22	BMB

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-3 (2-4)

Sampled: 10/8/2021 11:00

Sample ID: 21J0497-05

Sample Matrix: Soil

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.076	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00076	mg/Kg dry	1	V-05	SW-846 8260D	10/11/21	10/11/21 10:08	MFF
Benzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
Bromobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
Bromochloromethane	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
Bromodichloromethane	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
Bromoform	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
Bromomethane	ND	0.0076	mg/Kg dry	1	V-34	SW-846 8260D	10/11/21	10/11/21 10:08	MFF
2-Butanone (MEK)	ND	0.030	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
n-Butylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
sec-Butylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
tert-Butylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00076	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
Carbon Disulfide	ND	0.0076	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
Carbon Tetrachloride	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
Chlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
Chlorodibromomethane	ND	0.00076	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
Chloroethane	ND	0.015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
Chloroform	ND	0.0030	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
Chloromethane	ND	0.0076	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
2-Chlorotoluene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
4-Chlorotoluene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0030	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
1,2-Dibromoethane (EDB)	ND	0.00076	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
Dibromomethane	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
1,2-Dichlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
1,3-Dichlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
1,4-Dichlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
1,1-Dichloroethane	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
1,2-Dichloroethane	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
1,1-Dichloroethylene	ND	0.0030	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
cis-1,2-Dichloroethylene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
trans-1,2-Dichloroethylene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
1,2-Dichloropropane	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
1,3-Dichloropropane	ND	0.00076	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
2,2-Dichloropropane	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
1,1-Dichloropropene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
cis-1,3-Dichloropropene	ND	0.00076	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
trans-1,3-Dichloropropene	ND	0.00076	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
Diethyl Ether	ND	0.015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
Diisopropyl Ether (DIPE)	ND	0.00076	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
1,4-Dioxane	ND	0.076	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
Ethylbenzene	ND	0.0030	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-3 (2-4)

Sampled: 10/8/2021 11:00

Sample ID: 21J0497-05

Sample Matrix: Soil

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
2-Hexanone (MBK)	ND	0.015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
Isopropylbenzene (Cumene)	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0030	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
Methylene Chloride	ND	0.015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
Naphthalene	ND	0.0030	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
n-Propylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
Styrene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
1,1,1,2-Tetrachloroethane	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
1,1,1,2,2-Tetrachloroethane	ND	0.00076	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
Tetrachloroethylene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
Tetrahydrofuran	ND	0.0076	mg/Kg dry	1	V-05	SW-846 8260D	10/11/21	10/11/21 10:08	MFF
Toluene	ND	0.0030	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
1,2,3-Trichlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
1,2,4-Trichlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
1,1,1-Trichloroethane	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
1,1,2-Trichloroethane	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
Trichloroethylene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0076	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
1,2,3-Trichloropropane	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
1,2,4-Trimethylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
1,3,5-Trimethylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
Vinyl Chloride	ND	0.0076	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
m+p Xylene	ND	0.0061	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF
o-Xylene	ND	0.0030	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:08	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	94.6	70-130	10/11/21 10:08
Toluene-d8	98.2	70-130	10/11/21 10:08
4-Bromofluorobenzene	88.6	70-130	10/11/21 10:08

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-3 (2-4)

Sampled: 10/8/2021 11:00

Sample ID: 21J0497-05

Sample Matrix: Soil

Sample Flags: O-32

**Polychlorinated Biphenyls By GC/ECD**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.094	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 23:10	TG
Aroclor-1221 [1]	ND	0.094	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 23:10	TG
Aroclor-1232 [1]	ND	0.094	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 23:10	TG
Aroclor-1242 [1]	ND	0.094	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 23:10	TG
Aroclor-1248 [1]	ND	0.094	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 23:10	TG
Aroclor-1254 [1]	ND	0.094	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 23:10	TG
Aroclor-1260 [1]	ND	0.094	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 23:10	TG
Aroclor-1262 [1]	ND	0.094	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 23:10	TG
Aroclor-1268 [1]	ND	0.094	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 23:10	TG
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
Decachlorobiphenyl [1]		82.5	30-150					10/14/21 23:10	
Decachlorobiphenyl [2]		75.2	30-150					10/14/21 23:10	
Tetrachloro-m-xylene [1]		80.4	30-150					10/14/21 23:10	
Tetrachloro-m-xylene [2]		73.7	30-150					10/14/21 23:10	

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-3 (2-4)

Sampled: 10/8/2021 11:00

Sample ID: 21J0497-05

Sample Matrix: Soil

**Petroleum Hydrocarbons Analyses - EPH**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
C9-C18 Aliphatics	ND	12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 19:59	CJM
C19-C36 Aliphatics	22	12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 19:59	CJM
Unadjusted C11-C22 Aromatics	140	12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 19:59	CJM
C11-C22 Aromatics	85	12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 19:59	CJM
Acenaphthene	0.79	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 19:59	CJM
Acenaphthylene	ND	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 19:59	CJM
Anthracene	1.9	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 19:59	CJM
Benzo(a)anthracene	4.0	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 19:59	CJM
Benzo(a)pyrene	3.6	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 19:59	CJM
Benzo(b)fluoranthene	4.2	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 19:59	CJM
Benzo(g,h,i)perylene	1.9	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 19:59	CJM
Benzo(k)fluoranthene	1.5	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 19:59	CJM
Chrysene	3.9	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 19:59	CJM
Dibenz(a,h)anthracene	0.58	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 19:59	CJM
Fluoranthene	8.9	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 19:59	CJM
Fluorene	0.90	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 19:59	CJM
Indeno(1,2,3-cd)pyrene	2.1	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 19:59	CJM
2-Methylnaphthalene	0.26	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 19:59	CJM
Naphthalene	0.40	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 19:59	CJM
Phenanthrene	8.4	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 19:59	CJM
Pyrene	8.3	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/13/21 19:59	CJM

Surrogates	% Recovery	Recovery Limits	Flag/Qual
Chlorooctadecane (COD)	48.0	40-140	
o-Terphenyl (OTP)	46.8	40-140	
2-Bromonaphthalene	103	40-140	
2-Fluorobiphenyl	104	40-140	

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-3 (2-4)

Sampled: 10/8/2021 11:00

Sample ID: 21J0497-05

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	2.0	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:14	QNW
Arsenic	9.9	3.9	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:14	QNW
Barium	160	2.0	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:14	QNW
Beryllium	0.44	0.20	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:14	QNW
Cadmium	1.1	0.39	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:14	QNW
Chromium	18	0.78	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:14	QNW
Lead	1400	0.59	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:14	QNW
Mercury	1.2	0.067	mg/Kg dry	2		SW-846 7471B	10/11/21	10/12/21 10:04	DRL
Nickel	14	0.78	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:14	QNW
Selenium	ND	3.9	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:14	QNW
Silver	ND	0.39	mg/Kg dry	1		SW-846 6010D	10/9/21	10/12/21 13:50	QNW
Thallium	ND	2.0	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:14	QNW
Vanadium	34	0.78	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:14	QNW
Zinc	340	0.78	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:14	QNW



39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Sampled: 10/8/2021 11:00

**Field Sample #: TP-3 (2-4)**
**Sample ID: 21J0497-05**

Sample Matrix: Soil

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	84.7		% Wt	1		SM 2540G	10/12/21	10/13/21 17:22	BMB

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-3 (5-6)

Sampled: 10/8/2021 11:30

Sample ID: 21J0497-06

Sample Matrix: Soil

Sample Flags: O-32

**Polychlorinated Biphenyls By GC/ECD**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.085	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 23:28	TG
Aroclor-1221 [1]	ND	0.085	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 23:28	TG
Aroclor-1232 [1]	ND	0.085	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 23:28	TG
Aroclor-1242 [1]	ND	0.085	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 23:28	TG
Aroclor-1248 [1]	ND	0.085	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 23:28	TG
Aroclor-1254 [1]	ND	0.085	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 23:28	TG
Aroclor-1260 [1]	ND	0.085	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 23:28	TG
Aroclor-1262 [1]	ND	0.085	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 23:28	TG
Aroclor-1268 [1]	ND	0.085	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 23:28	TG
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
Decachlorobiphenyl [1]		91.7	30-150					10/14/21 23:28	
Decachlorobiphenyl [2]		79.5	30-150					10/14/21 23:28	
Tetrachloro-m-xylene [1]		80.3	30-150					10/14/21 23:28	
Tetrachloro-m-xylene [2]		76.0	30-150					10/14/21 23:28	

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-3 (5-6)

Sampled: 10/8/2021 11:30

Sample ID: 21J0497-06

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.7	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:31	QNW
Arsenic	ND	3.5	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:31	QNW
Barium	49	1.7	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:31	QNW
Beryllium	0.41	0.17	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:31	QNW
Cadmium	ND	0.35	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:31	QNW
Chromium	15	0.70	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:31	QNW
Lead	49	0.52	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:31	QNW
Mercury	0.13	0.027	mg/Kg dry	1		SW-846 7471B	10/11/21	10/12/21 8:20	DRL
Nickel	12	0.70	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:31	QNW
Selenium	ND	3.5	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:31	QNW
Silver	ND	0.35	mg/Kg dry	1		SW-846 6010D	10/9/21	10/12/21 13:55	QNW
Thallium	ND	1.7	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:31	QNW
Vanadium	31	0.70	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:31	QNW
Zinc	53	0.70	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:31	QNW

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Sampled: 10/8/2021 11:30

Field Sample #: TP-3 (5-6)

Sample ID: 21J0497-06

Sample Matrix: Soil

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	93.9		% Wt	1		SM 2540G	10/12/21	10/13/21 17:22	BMB

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-4 (0-2)

Sampled: 10/8/2021 12:00

Sample ID: 21J0497-07

Sample Matrix: Soil

Sample Flags: O-32

**Polychlorinated Biphenyls By GC/ECD**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.089	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 23:45	TG
Aroclor-1221 [1]	ND	0.089	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 23:45	TG
Aroclor-1232 [1]	ND	0.089	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 23:45	TG
Aroclor-1242 [1]	ND	0.089	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 23:45	TG
Aroclor-1248 [1]	ND	0.089	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 23:45	TG
Aroclor-1254 [1]	ND	0.089	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 23:45	TG
Aroclor-1260 [1]	ND	0.089	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 23:45	TG
Aroclor-1262 [1]	ND	0.089	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 23:45	TG
Aroclor-1268 [1]	ND	0.089	mg/Kg dry	4		SW-846 8082A	10/11/21	10/14/21 23:45	TG
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
Decachlorobiphenyl [1]		72.7	30-150					10/14/21 23:45	
Decachlorobiphenyl [2]		65.0	30-150					10/14/21 23:45	
Tetrachloro-m-xylene [1]		73.1	30-150					10/14/21 23:45	
Tetrachloro-m-xylene [2]		68.5	30-150					10/14/21 23:45	

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-4 (0-2)

Sampled: 10/8/2021 12:00

Sample ID: 21J0497-07

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.8	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:37	QNW
Arsenic	ND	3.7	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:37	QNW
Barium	53	1.8	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:37	QNW
Beryllium	0.46	0.18	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:37	QNW
Cadmium	0.45	0.37	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:37	QNW
Chromium	16	0.73	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:37	QNW
Lead	130	0.55	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:37	QNW
Mercury	0.18	0.031	mg/Kg dry	1		SW-846 7471B	10/11/21	10/12/21 8:22	DRL
Nickel	16	0.73	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:37	QNW
Selenium	ND	3.7	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:37	QNW
Silver	ND	0.37	mg/Kg dry	1		SW-846 6010D	10/9/21	10/12/21 14:01	QNW
Thallium	ND	1.8	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:37	QNW
Vanadium	35	0.73	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:37	QNW
Zinc	110	0.73	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:37	QNW

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-4 (0-2)

Sampled: 10/8/2021 12:00

Sample ID: 21J0497-07

Sample Matrix: Soil

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	89.5		% Wt	1		SM 2540G	10/12/21	10/13/21 17:22	BMB

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-4 (2-4)

Sampled: 10/8/2021 12:30

Sample ID: 21J0497-08

Sample Matrix: Soil

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.074	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00074	mg/Kg dry	1	V-05	SW-846 8260D	10/11/21	10/11/21 10:33	MFF
Benzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
Bromobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
Bromochloromethane	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
Bromodichloromethane	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
Bromoform	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
Bromomethane	ND	0.0074	mg/Kg dry	1	V-34	SW-846 8260D	10/11/21	10/11/21 10:33	MFF
2-Butanone (MEK)	ND	0.030	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
n-Butylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
sec-Butylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
tert-Butylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00074	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
Carbon Disulfide	ND	0.0074	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
Carbon Tetrachloride	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
Chlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
Chlorodibromomethane	ND	0.00074	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
Chloroethane	ND	0.015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
Chloroform	ND	0.0030	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
Chloromethane	ND	0.0074	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
2-Chlorotoluene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
4-Chlorotoluene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0030	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
1,2-Dibromoethane (EDB)	ND	0.00074	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
Dibromomethane	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
1,2-Dichlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
1,3-Dichlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
1,4-Dichlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
1,1-Dichloroethane	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
1,2-Dichloroethane	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
1,1-Dichloroethylene	ND	0.0030	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
cis-1,2-Dichloroethylene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
trans-1,2-Dichloroethylene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
1,2-Dichloropropane	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
1,3-Dichloropropane	ND	0.00074	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
2,2-Dichloropropane	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
1,1-Dichloropropene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
cis-1,3-Dichloropropene	ND	0.00074	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
trans-1,3-Dichloropropene	ND	0.00074	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
Diethyl Ether	ND	0.015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
Diisopropyl Ether (DIPE)	ND	0.00074	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
1,4-Dioxane	ND	0.074	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
Ethylbenzene	ND	0.0030	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF



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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-4 (2-4)

Sampled: 10/8/2021 12:30

Sample ID: 21J0497-08

Sample Matrix: Soil

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
2-Hexanone (MBK)	ND	0.015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
Isopropylbenzene (Cumene)	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0030	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
Methylene Chloride	ND	0.015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
Naphthalene	ND	0.0030	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
n-Propylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
Styrene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
1,1,1,2-Tetrachloroethane	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
1,1,1,2,2-Tetrachloroethane	ND	0.00074	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
Tetrachloroethylene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
Tetrahydrofuran	ND	0.0074	mg/Kg dry	1	V-05	SW-846 8260D	10/11/21	10/11/21 10:33	MFF
Toluene	ND	0.0030	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
1,2,3-Trichlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
1,2,4-Trichlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
1,1,1-Trichloroethane	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
1,1,2-Trichloroethane	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
Trichloroethylene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0074	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
1,2,3-Trichloropropane	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
1,2,4-Trimethylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
1,3,5-Trimethylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
Vinyl Chloride	ND	0.0074	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
m+p Xylene	ND	0.0059	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF
o-Xylene	ND	0.0030	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:33	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	89.4	70-130	10/11/21 10:33
Toluene-d8	101	70-130	10/11/21 10:33
4-Bromofluorobenzene	107	70-130	10/11/21 10:33

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-4 (2-4)

Sampled: 10/8/2021 12:30

Sample ID: 21J0497-08

Sample Matrix: Soil

Sample Flags: O-32

**Polychlorinated Biphenyls By GC/ECD**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.089	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 0:03	TG
Aroclor-1221 [1]	ND	0.089	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 0:03	TG
Aroclor-1232 [1]	ND	0.089	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 0:03	TG
Aroclor-1242 [1]	ND	0.089	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 0:03	TG
Aroclor-1248 [1]	ND	0.089	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 0:03	TG
Aroclor-1254 [1]	ND	0.089	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 0:03	TG
Aroclor-1260 [1]	ND	0.089	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 0:03	TG
Aroclor-1262 [1]	ND	0.089	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 0:03	TG
Aroclor-1268 [1]	ND	0.089	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 0:03	TG
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
Decachlorobiphenyl [1]		55.2	30-150					10/15/21 0:03	
Decachlorobiphenyl [2]		47.4	30-150					10/15/21 0:03	
Tetrachloro-m-xylene [1]		60.0	30-150					10/15/21 0:03	
Tetrachloro-m-xylene [2]		56.3	30-150					10/15/21 0:03	

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-4 (2-4)

Sampled: 10/8/2021 12:30

Sample ID: 21J0497-08

Sample Matrix: Soil

**Petroleum Hydrocarbons Analyses - EPH**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
C9-C18 Aliphatics	ND	56	mg/Kg dry	5	RL-08	MADEP EPH rev 2.1	10/14/21	10/15/21 19:27	CJM
C19-C36 Aliphatics	93	56	mg/Kg dry	5		MADEP EPH rev 2.1	10/14/21	10/15/21 19:27	CJM
Unadjusted C11-C22 Aromatics	100	56	mg/Kg dry	5		MADEP EPH rev 2.1	10/14/21	10/15/21 19:27	CJM
C11-C22 Aromatics	100	56	mg/Kg dry	5		MADEP EPH rev 2.1	10/14/21	10/15/21 19:27	CJM
Acenaphthene	ND	0.56	mg/Kg dry	5		MADEP EPH rev 2.1	10/14/21	10/15/21 19:27	CJM
Acenaphthylene	ND	0.56	mg/Kg dry	5		MADEP EPH rev 2.1	10/14/21	10/15/21 19:27	CJM
Anthracene	ND	0.56	mg/Kg dry	5		MADEP EPH rev 2.1	10/14/21	10/15/21 19:27	CJM
Benzo(a)anthracene	ND	0.56	mg/Kg dry	5		MADEP EPH rev 2.1	10/14/21	10/15/21 19:27	CJM
Benzo(a)pyrene	ND	0.56	mg/Kg dry	5		MADEP EPH rev 2.1	10/14/21	10/15/21 19:27	CJM
Benzo(b)fluoranthene	ND	0.56	mg/Kg dry	5		MADEP EPH rev 2.1	10/14/21	10/15/21 19:27	CJM
Benzo(g,h,i)perylene	ND	0.56	mg/Kg dry	5		MADEP EPH rev 2.1	10/14/21	10/15/21 19:27	CJM
Benzo(k)fluoranthene	ND	0.56	mg/Kg dry	5		MADEP EPH rev 2.1	10/14/21	10/15/21 19:27	CJM
Chrysene	ND	0.56	mg/Kg dry	5		MADEP EPH rev 2.1	10/14/21	10/15/21 19:27	CJM
Dibenz(a,h)anthracene	ND	0.56	mg/Kg dry	5		MADEP EPH rev 2.1	10/14/21	10/15/21 19:27	CJM
Fluoranthene	0.84	0.56	mg/Kg dry	5		MADEP EPH rev 2.1	10/14/21	10/15/21 19:27	CJM
Fluorene	ND	0.56	mg/Kg dry	5		MADEP EPH rev 2.1	10/14/21	10/15/21 19:27	CJM
Indeno(1,2,3-cd)pyrene	ND	0.56	mg/Kg dry	5		MADEP EPH rev 2.1	10/14/21	10/15/21 19:27	CJM
2-Methylnaphthalene	ND	0.56	mg/Kg dry	5		MADEP EPH rev 2.1	10/14/21	10/15/21 19:27	CJM
Naphthalene	ND	0.56	mg/Kg dry	5		MADEP EPH rev 2.1	10/14/21	10/15/21 19:27	CJM
Phenanthrene	ND	0.56	mg/Kg dry	5		MADEP EPH rev 2.1	10/14/21	10/15/21 19:27	CJM
Pyrene	0.96	0.56	mg/Kg dry	5		MADEP EPH rev 2.1	10/14/21	10/15/21 19:27	CJM

Surrogates	% Recovery	Recovery Limits	Flag/Qual
Chlorooctadecane (COD)	53.6	40-140	10/15/21 19:27
o-Terphenyl (OTP)	57.0	40-140	10/15/21 19:27
2-Bromonaphthalene	100	40-140	10/15/21 19:27
2-Fluorobiphenyl	103	40-140	10/15/21 19:27

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-4 (2-4)

Sampled: 10/8/2021 12:30

Sample ID: 21J0497-08

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.8	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:43	QNW
Arsenic	ND	3.6	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:43	QNW
Barium	55	1.8	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:43	QNW
Beryllium	0.60	0.18	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:43	QNW
Cadmium	ND	0.36	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:43	QNW
Chromium	12	0.72	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:43	QNW
Lead	110	0.54	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:43	QNW
Mercury	0.15	0.028	mg/Kg dry	1		SW-846 7471B	10/11/21	10/12/21 8:28	DRL
Nickel	12	0.72	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:43	QNW
Selenium	ND	3.6	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:43	QNW
Silver	ND	0.36	mg/Kg dry	1		SW-846 6010D	10/9/21	10/12/21 14:07	QNW
Thallium	ND	1.8	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:43	QNW
Vanadium	27	0.72	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:43	QNW
Zinc	73	0.72	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:43	QNW

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-4 (2-4)

Sampled: 10/8/2021 12:30

Sample ID: 21J0497-08

Sample Matrix: Soil

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	90.1		% Wt	1		SM 2540G	10/12/21	10/13/21 17:23	BMB

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-5 (0-2)

Sampled: 10/8/2021 12:40

Sample ID: 21J0497-09

Sample Matrix: Soil

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.074	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00074	mg/Kg dry	1	V-05	SW-846 8260D	10/11/21	10/11/21 10:58	MFF
Benzene	0.0016	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
Bromobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
Bromochloromethane	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
Bromodichloromethane	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
Bromoform	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
Bromomethane	ND	0.0074	mg/Kg dry	1	V-34	SW-846 8260D	10/11/21	10/11/21 10:58	MFF
2-Butanone (MEK)	ND	0.030	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
n-Butylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
sec-Butylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
tert-Butylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00074	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
Carbon Disulfide	ND	0.0074	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
Carbon Tetrachloride	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
Chlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
Chlorodibromomethane	ND	0.00074	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
Chloroethane	ND	0.015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
Chloroform	ND	0.0030	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
Chloromethane	ND	0.0074	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
2-Chlorotoluene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
4-Chlorotoluene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0030	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
1,2-Dibromoethane (EDB)	ND	0.00074	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
Dibromomethane	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
1,2-Dichlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
1,3-Dichlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
1,4-Dichlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
1,1-Dichloroethane	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
1,2-Dichloroethane	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
1,1-Dichloroethylene	ND	0.0030	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
cis-1,2-Dichloroethylene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
trans-1,2-Dichloroethylene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
1,2-Dichloropropane	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
1,3-Dichloropropane	ND	0.00074	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
2,2-Dichloropropane	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
1,1-Dichloropropene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
cis-1,3-Dichloropropene	ND	0.00074	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
trans-1,3-Dichloropropene	ND	0.00074	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
Diethyl Ether	ND	0.015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
Diisopropyl Ether (DIPE)	ND	0.00074	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
1,4-Dioxane	ND	0.074	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
Ethylbenzene	ND	0.0030	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-5 (0-2)

Sampled: 10/8/2021 12:40

Sample ID: 21J0497-09

Sample Matrix: Soil

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
2-Hexanone (MBK)	ND	0.015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
Isopropylbenzene (Cumene)	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0030	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
Methylene Chloride	ND	0.015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
Naphthalene	ND	0.0030	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
n-Propylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
Styrene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
1,1,1,2-Tetrachloroethane	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
1,1,1,2,2-Tetrachloroethane	ND	0.00074	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
Tetrachloroethylene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
Tetrahydrofuran	ND	0.0074	mg/Kg dry	1	V-05	SW-846 8260D	10/11/21	10/11/21 10:58	MFF
Toluene	ND	0.0030	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
1,2,3-Trichlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
1,2,4-Trichlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
1,1,1-Trichloroethane	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
1,1,2-Trichloroethane	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
Trichloroethylene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0074	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
1,2,3-Trichloropropane	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
1,2,4-Trimethylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
1,3,5-Trimethylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
Vinyl Chloride	ND	0.0074	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
m+p Xylene	ND	0.0059	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF
o-Xylene	ND	0.0030	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 10:58	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	92.7	70-130	10/11/21 10:58
Toluene-d8	100	70-130	10/11/21 10:58
4-Bromofluorobenzene	103	70-130	10/11/21 10:58

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-5 (0-2)

Sampled: 10/8/2021 12:40

Sample ID: 21J0497-09

Sample Matrix: Soil

**Polychlorinated Biphenyls By GC/ECD**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.088	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 0:20	TG
Aroclor-1221 [1]	ND	0.088	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 0:20	TG
Aroclor-1232 [1]	ND	0.088	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 0:20	TG
Aroclor-1242 [1]	ND	0.088	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 0:20	TG
Aroclor-1248 [1]	0.18	0.088	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 0:20	TG
Aroclor-1254 [1]	0.30	0.088	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 0:20	TG
Aroclor-1260 [2]	0.095	0.088	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 0:20	TG
Aroclor-1262 [1]	ND	0.088	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 0:20	TG
Aroclor-1268 [1]	ND	0.088	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 0:20	TG
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
Decachlorobiphenyl [1]		75.5	30-150					10/15/21 0:20	
Decachlorobiphenyl [2]		72.7	30-150					10/15/21 0:20	
Tetrachloro-m-xylene [1]		79.6	30-150					10/15/21 0:20	
Tetrachloro-m-xylene [2]		73.5	30-150					10/15/21 0:20	



39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-5 (0-2)

Sampled: 10/8/2021 12:40

Sample ID: 21J0497-09

Sample Matrix: Soil

**Petroleum Hydrocarbons Analyses - EPH**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
C9-C18 Aliphatics	ND	11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:08	CJM
C19-C36 Aliphatics	250	44	mg/Kg dry	4		MADEP EPH rev 2.1	10/12/21	10/14/21 15:30	CJM
Unadjusted C11-C22 Aromatics	250	11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:08	CJM
C11-C22 Aromatics	190	11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:08	CJM
Acenaphthene	0.73	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:08	CJM
Acenaphthylene	ND	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:08	CJM
Anthracene	1.7	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:08	CJM
Benzo(a)anthracene	5.1	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:08	CJM
Benzo(a)pyrene	5.1	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:08	CJM
Benzo(b)fluoranthene	5.8	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:08	CJM
Benzo(g,h,i)perylene	3.0	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:08	CJM
Benzo(k)fluoranthene	2.2	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:08	CJM
Chrysene	4.9	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:08	CJM
Dibenz(a,h)anthracene	0.79	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:08	CJM
Fluoranthene	11	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:08	CJM
Fluorene	0.70	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:08	CJM
Indeno(1,2,3-cd)pyrene	2.9	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:08	CJM
2-Methylnaphthalene	0.17	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:08	CJM
Naphthalene	0.30	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:08	CJM
Phenanthrene	7.7	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:08	CJM
Pyrene	11	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:08	CJM

Surrogates	% Recovery	Recovery Limits	Flag/Qual
Chlorooctadecane (COD)	63.6	40-140	10/14/21 12:08
Chlorooctadecane (COD)	55.2	40-140	10/14/21 15:30
o-Terphenyl (OTP)	68.2	40-140	10/14/21 12:08
2-Bromonaphthalene	101	40-140	10/14/21 12:08
2-Fluorobiphenyl	98.3	40-140	10/14/21 12:08

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-5 (0-2)

Sampled: 10/8/2021 12:40

Sample ID: 21J0497-09

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.8	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:49	QNW
Arsenic	ND	3.7	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:49	QNW
Barium	47	1.8	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:49	QNW
Beryllium	0.33	0.18	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:49	QNW
Cadmium	ND	0.37	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:49	QNW
Chromium	11	0.73	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:49	QNW
Lead	100	0.55	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:49	QNW
Mercury	0.59	0.029	mg/Kg dry	1		SW-846 7471B	10/11/21	10/12/21 8:30	DRL
Nickel	11	0.73	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:49	QNW
Selenium	ND	3.7	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:49	QNW
Silver	ND	0.37	mg/Kg dry	1		SW-846 6010D	10/9/21	10/12/21 14:13	QNW
Thallium	ND	1.8	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:49	QNW
Vanadium	24	0.73	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:49	QNW
Zinc	69	0.73	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:49	QNW

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-5 (0-2)

Sampled: 10/8/2021 12:40

Sample ID: 21J0497-09

Sample Matrix: Soil

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	91.2		% Wt	1		SM 2540G	10/12/21	10/13/21 17:23	BMB

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-5 (6-8)

Sampled: 10/8/2021 12:50

Sample ID: 21J0497-10

Sample Matrix: Soil

Sample Flags: O-32

**Polychlorinated Biphenyls By GC/ECD**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.088	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 0:37	TG
Aroclor-1221 [1]	ND	0.088	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 0:37	TG
Aroclor-1232 [1]	ND	0.088	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 0:37	TG
Aroclor-1242 [1]	ND	0.088	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 0:37	TG
Aroclor-1248 [1]	ND	0.088	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 0:37	TG
Aroclor-1254 [1]	ND	0.088	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 0:37	TG
Aroclor-1260 [1]	ND	0.088	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 0:37	TG
Aroclor-1262 [1]	ND	0.088	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 0:37	TG
Aroclor-1268 [1]	ND	0.088	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 0:37	TG
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
Decachlorobiphenyl [1]		82.3	30-150					10/15/21 0:37	
Decachlorobiphenyl [2]		72.1	30-150					10/15/21 0:37	
Tetrachloro-m-xylene [1]		76.7	30-150					10/15/21 0:37	
Tetrachloro-m-xylene [2]		72.9	30-150					10/15/21 0:37	

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-5 (6-8)

Sampled: 10/8/2021 12:50

Sample ID: 21J0497-10

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.8	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:54	QNW
Arsenic	ND	3.6	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:54	QNW
Barium	55	1.8	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:54	QNW
Beryllium	0.40	0.18	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:54	QNW
Cadmium	ND	0.36	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:54	QNW
Chromium	15	0.72	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:54	QNW
Lead	56	0.54	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:54	QNW
Mercury	0.053	0.030	mg/Kg dry	1		SW-846 7471B	10/11/21	10/12/21 8:32	DRL
Nickel	12	0.72	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:54	QNW
Selenium	ND	3.6	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:54	QNW
Silver	ND	0.36	mg/Kg dry	1		SW-846 6010D	10/9/21	10/12/21 14:18	QNW
Thallium	ND	1.8	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:54	QNW
Vanadium	28	0.72	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:54	QNW
Zinc	34	0.72	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 17:54	QNW

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Sampled: 10/8/2021 12:50

Field Sample #: TP-5 (6-8)

Sample ID: 21J0497-10

Sample Matrix: Soil

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	91.3		% Wt	1		SM 2540G	10/12/21	10/13/21 17:23	BMB

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-6 (5-6)

Sampled: 10/8/2021 13:10

Sample ID: 21J0497-11

Sample Matrix: Soil

**Polychlorinated Biphenyls By GC/ECD**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 2:00	TG
Aroclor-1221 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 2:00	TG
Aroclor-1232 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 2:00	TG
Aroclor-1242 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 2:00	TG
Aroclor-1248 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 2:00	TG
Aroclor-1254 [1]	0.19	0.095	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 2:00	TG
Aroclor-1260 [2]	ND	0.095	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 2:00	TG
Aroclor-1262 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 2:00	TG
Aroclor-1268 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 2:00	TG
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
Decachlorobiphenyl [1]		78.6	30-150					10/15/21 2:00	
Decachlorobiphenyl [2]		76.1	30-150					10/15/21 2:00	
Tetrachloro-m-xylene [1]		83.7	30-150					10/15/21 2:00	
Tetrachloro-m-xylene [2]		77.5	30-150					10/15/21 2:00	

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-6 (5-6)

Sampled: 10/8/2021 13:10

Sample ID: 21J0497-11

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.9	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:00	QNW
Arsenic	9.7	3.7	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:00	QNW
Barium	240	1.9	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:00	QNW
Beryllium	0.44	0.19	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:00	QNW
Cadmium	1.2	0.37	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:00	QNW
Chromium	36	0.74	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:00	QNW
Lead	650	0.56	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:00	QNW
Mercury	1.1	0.064	mg/Kg dry	2		SW-846 7471B	10/11/21	10/12/21 10:05	DRL
Nickel	29	0.74	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:00	QNW
Selenium	ND	3.7	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:00	QNW
Silver	ND	1.9	mg/Kg dry	5	DL-03	SW-846 6010D	10/9/21	10/13/21 13:51	QNW
Thallium	ND	1.9	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:00	QNW
Vanadium	34	0.74	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:00	QNW
Zinc	440	0.74	mg/Kg dry	1		SW-846 6010D	10/9/21	10/12/21 14:25	QNW



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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

**Field Sample #: TP-6 (5-6)**

Sampled: 10/8/2021 13:10

**Sample ID: 21J0497-11**

Sample Matrix: Soil

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	84.6		% Wt	1		SM 2540G	10/12/21	10/13/21 17:23	BMB

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-6 (0-2)

Sampled: 10/8/2021 13:00

Sample ID: 21J0497-12

Sample Matrix: Soil

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.086	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00086	mg/Kg dry	1	V-05	SW-846 8260D	10/11/21	10/11/21 11:23	MFF
Benzene	ND	0.0017	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
Bromobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
Bromochloromethane	ND	0.0017	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
Bromodichloromethane	ND	0.0017	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
Bromoform	ND	0.0017	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
Bromomethane	ND	0.0086	mg/Kg dry	1	V-34	SW-846 8260D	10/11/21	10/11/21 11:23	MFF
2-Butanone (MEK)	ND	0.034	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
n-Butylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
sec-Butylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
tert-Butylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00086	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
Carbon Disulfide	ND	0.0086	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
Carbon Tetrachloride	ND	0.0017	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
Chlorobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
Chlorodibromomethane	ND	0.00086	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
Chloroethane	ND	0.017	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
Chloroform	ND	0.0034	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
Chloromethane	ND	0.0086	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
2-Chlorotoluene	ND	0.0017	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
4-Chlorotoluene	ND	0.0017	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0034	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
1,2-Dibromoethane (EDB)	ND	0.00086	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
Dibromomethane	ND	0.0017	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
1,2-Dichlorobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
1,3-Dichlorobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
1,4-Dichlorobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.017	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
1,1-Dichloroethane	ND	0.0017	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
1,2-Dichloroethane	ND	0.0017	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
1,1-Dichloroethylene	ND	0.0034	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
cis-1,2-Dichloroethylene	ND	0.0017	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
trans-1,2-Dichloroethylene	ND	0.0017	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
1,2-Dichloropropane	ND	0.0017	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
1,3-Dichloropropane	ND	0.00086	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
2,2-Dichloropropane	ND	0.0017	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
1,1-Dichloropropene	ND	0.0017	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
cis-1,3-Dichloropropene	ND	0.00086	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
trans-1,3-Dichloropropene	ND	0.00086	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
Diethyl Ether	ND	0.017	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
Diisopropyl Ether (DIPE)	ND	0.00086	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
1,4-Dioxane	ND	0.086	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
Ethylbenzene	ND	0.0034	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-6 (0-2)

Sampled: 10/8/2021 13:00

Sample ID: 21J0497-12

Sample Matrix: Soil

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.0017	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
2-Hexanone (MBK)	ND	0.017	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
Isopropylbenzene (Cumene)	ND	0.0017	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0017	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0034	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
Methylene Chloride	ND	0.017	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.017	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
Naphthalene	ND	0.0034	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
n-Propylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
Styrene	ND	0.0017	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
1,1,1,2-Tetrachloroethane	ND	0.0017	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
1,1,1,2,2-Tetrachloroethane	ND	0.00086	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
Tetrachloroethylene	ND	0.0017	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
Tetrahydrofuran	ND	0.0086	mg/Kg dry	1	V-05	SW-846 8260D	10/11/21	10/11/21 11:23	MFF
Toluene	ND	0.0034	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
1,2,3-Trichlorobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
1,2,4-Trichlorobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
1,1,1-Trichloroethane	ND	0.0017	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
1,1,2-Trichloroethane	ND	0.0017	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
Trichloroethylene	ND	0.0017	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0086	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
1,2,3-Trichloropropane	ND	0.0017	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
1,2,4-Trimethylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
1,3,5-Trimethylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
Vinyl Chloride	ND	0.0086	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
m+p Xylene	ND	0.0069	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF
o-Xylene	ND	0.0034	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:23	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	92.8	70-130	
Toluene-d8	98.4	70-130	
4-Bromofluorobenzene	91.2	70-130	

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-6 (0-2)

Sampled: 10/8/2021 13:00

Sample ID: 21J0497-12

Sample Matrix: Soil

**Polychlorinated Biphenyls By GC/ECD**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 2:18	TG
Aroclor-1221 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 2:18	TG
Aroclor-1232 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 2:18	TG
Aroclor-1242 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 2:18	TG
Aroclor-1248 [1]	0.21	0.095	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 2:18	TG
Aroclor-1254 [2]	0.38	0.095	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 2:18	TG
Aroclor-1260 [2]	ND	0.095	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 2:18	TG
Aroclor-1262 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 2:18	TG
Aroclor-1268 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 2:18	TG
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
Decachlorobiphenyl [1]		78.6	30-150					10/15/21 2:18	
Decachlorobiphenyl [2]		74.8	30-150					10/15/21 2:18	
Tetrachloro-m-xylene [1]		81.6	30-150					10/15/21 2:18	
Tetrachloro-m-xylene [2]		75.1	30-150					10/15/21 2:18	

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-6 (0-2)

Sampled: 10/8/2021 13:00

Sample ID: 21J0497-12

Sample Matrix: Soil

**Petroleum Hydrocarbons Analyses - EPH**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
C9-C18 Aliphatics	ND	12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:27	CJM
C19-C36 Aliphatics	200	48	mg/Kg dry	4		MADEP EPH rev 2.1	10/12/21	10/14/21 15:50	CJM
Unadjusted C11-C22 Aromatics	230	12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:27	CJM
C11-C22 Aromatics	180	12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:27	CJM
Acenaphthene	0.46	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:27	CJM
Acenaphthylene	ND	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:27	CJM
Anthracene	1.3	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:27	CJM
Benzo(a)anthracene	4.9	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:27	CJM
Benzo(a)pyrene	4.8	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:27	CJM
Benzo(b)fluoranthene	5.6	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:27	CJM
Benzo(g,h,i)perylene	2.3	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:27	CJM
Benzo(k)fluoranthene	2.0	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:27	CJM
Chrysene	4.8	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:27	CJM
Dibenz(a,h)anthracene	0.65	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:27	CJM
Fluoranthene	9.6	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:27	CJM
Fluorene	0.47	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:27	CJM
Indeno(1,2,3-cd)pyrene	2.5	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:27	CJM
2-Methylnaphthalene	0.14	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:27	CJM
Naphthalene	0.23	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:27	CJM
Phenanthrene	5.5	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:27	CJM
Pyrene	9.7	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:27	CJM

Surrogates	% Recovery	Recovery Limits	Flag/Qual
Chlorooctadecane (COD)	60.9	40-140	10/14/21 12:27
Chlorooctadecane (COD)	48.2	40-140	10/14/21 15:50
o-Terphenyl (OTP)	60.1	40-140	10/14/21 12:27
2-Bromonaphthalene	101	40-140	10/14/21 12:27
2-Fluorobiphenyl	101	40-140	10/14/21 12:27

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-6 (0-2)

Sampled: 10/8/2021 13:00

Sample ID: 21J0497-12

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	2.0	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:06	QNW
Arsenic	4.8	3.9	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:06	QNW
Barium	240	2.0	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:06	QNW
Beryllium	0.60	0.20	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:06	QNW
Cadmium	2.3	0.39	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:06	QNW
Chromium	28	0.79	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:06	QNW
Lead	1200	0.59	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:06	QNW
Mercury	0.43	0.033	mg/Kg dry	1		SW-846 7471B	10/11/21	10/12/21 8:35	DRL
Nickel	28	0.79	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:06	QNW
Selenium	ND	3.9	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:06	QNW
Silver	ND	0.39	mg/Kg dry	1		SW-846 6010D	10/9/21	10/12/21 14:42	QNW
Thallium	ND	2.0	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:06	QNW
Vanadium	41	0.79	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:06	QNW
Zinc	550	0.79	mg/Kg dry	1		SW-846 6010D	10/9/21	10/12/21 14:42	QNW

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-6 (0-2)

Sampled: 10/8/2021 13:00

Sample ID: 21J0497-12

Sample Matrix: Soil

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	83.9		% Wt	1		SM 2540G	10/12/21	10/13/21 17:23	BMB

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-7 (4-6)

Sampled: 10/8/2021 14:00

Sample ID: 21J0497-13

Sample Matrix: Soil

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.078	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00078	mg/Kg dry	1	V-05	SW-846 8260D	10/11/21	10/11/21 11:48	MFF
Benzene	ND	0.0016	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
Bromobenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
Bromochloromethane	ND	0.0016	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
Bromodichloromethane	ND	0.0016	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
Bromoform	ND	0.0016	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
Bromomethane	ND	0.0078	mg/Kg dry	1	V-34	SW-846 8260D	10/11/21	10/11/21 11:48	MFF
2-Butanone (MEK)	ND	0.031	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
n-Butylbenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
sec-Butylbenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
tert-Butylbenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00078	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
Carbon Disulfide	ND	0.0078	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
Carbon Tetrachloride	ND	0.0016	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
Chlorobenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
Chlorodibromomethane	ND	0.00078	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
Chloroethane	ND	0.016	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
Chloroform	ND	0.0031	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
Chloromethane	ND	0.0078	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
2-Chlorotoluene	ND	0.0016	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
4-Chlorotoluene	ND	0.0016	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0031	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
1,2-Dibromoethane (EDB)	ND	0.00078	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
Dibromomethane	ND	0.0016	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
1,2-Dichlorobenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
1,3-Dichlorobenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
1,4-Dichlorobenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.016	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
1,1-Dichloroethane	ND	0.0016	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
1,2-Dichloroethane	ND	0.0016	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
1,1-Dichloroethylene	ND	0.0031	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
cis-1,2-Dichloroethylene	ND	0.0016	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
trans-1,2-Dichloroethylene	ND	0.0016	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
1,2-Dichloropropane	ND	0.0016	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
1,3-Dichloropropane	ND	0.00078	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
2,2-Dichloropropane	ND	0.0016	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
1,1-Dichloropropene	ND	0.0016	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
cis-1,3-Dichloropropene	ND	0.00078	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
trans-1,3-Dichloropropene	ND	0.00078	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
Diethyl Ether	ND	0.016	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
Diisopropyl Ether (DIPE)	ND	0.00078	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
1,4-Dioxane	ND	0.078	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
Ethylbenzene	ND	0.0031	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF



39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-7 (4-6)

Sampled: 10/8/2021 14:00

Sample ID: 21J0497-13

Sample Matrix: Soil

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.0016	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
2-Hexanone (MBK)	ND	0.016	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
Isopropylbenzene (Cumene)	ND	0.0016	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0016	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0031	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
Methylene Chloride	ND	0.016	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.016	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
Naphthalene	ND	0.0031	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
n-Propylbenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
Styrene	ND	0.0016	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
1,1,1,2-Tetrachloroethane	ND	0.0016	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
1,1,1,2,2-Tetrachloroethane	ND	0.00078	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
Tetrachloroethylene	ND	0.0016	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
Tetrahydrofuran	ND	0.0078	mg/Kg dry	1	V-05	SW-846 8260D	10/11/21	10/11/21 11:48	MFF
Toluene	ND	0.0031	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
1,2,3-Trichlorobenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
1,2,4-Trichlorobenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
1,1,1-Trichloroethane	ND	0.0016	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
1,1,2-Trichloroethane	ND	0.0016	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
Trichloroethylene	ND	0.0016	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0078	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
1,2,3-Trichloropropane	ND	0.0016	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
1,2,4-Trimethylbenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
1,3,5-Trimethylbenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
Vinyl Chloride	ND	0.0078	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
m+p Xylene	ND	0.0063	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF
o-Xylene	ND	0.0031	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 11:48	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	90.3	70-130	10/11/21 11:48
Toluene-d8	98.3	70-130	10/11/21 11:48
4-Bromofluorobenzene	92.7	70-130	10/11/21 11:48

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-7 (4-6)

Sampled: 10/8/2021 14:00

Sample ID: 21J0497-13

Sample Matrix: Soil

Sample Flags: O-32

**Polychlorinated Biphenyls By GC/ECD**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.098	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 2:35	TG
Aroclor-1221 [1]	ND	0.098	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 2:35	TG
Aroclor-1232 [1]	ND	0.098	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 2:35	TG
Aroclor-1242 [1]	ND	0.098	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 2:35	TG
Aroclor-1248 [1]	ND	0.098	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 2:35	TG
Aroclor-1254 [1]	ND	0.098	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 2:35	TG
Aroclor-1260 [1]	ND	0.098	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 2:35	TG
Aroclor-1262 [1]	ND	0.098	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 2:35	TG
Aroclor-1268 [1]	ND	0.098	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 2:35	TG
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
Decachlorobiphenyl [1]		57.1	30-150					10/15/21 2:35	
Decachlorobiphenyl [2]		51.5	30-150					10/15/21 2:35	
Tetrachloro-m-xylene [1]		63.9	30-150					10/15/21 2:35	
Tetrachloro-m-xylene [2]		60.1	30-150					10/15/21 2:35	

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-7 (4-6)

Sampled: 10/8/2021 14:00

Sample ID: 21J0497-13

Sample Matrix: Soil

**Petroleum Hydrocarbons Analyses - EPH**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
C9-C18 Aliphatics	32	12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:47	CJM
C19-C36 Aliphatics	350	61	mg/Kg dry	5		MADEP EPH rev 2.1	10/12/21	10/14/21 16:28	CJM
Unadjusted C11-C22 Aromatics	400	12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:47	CJM
C11-C22 Aromatics	370	12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:47	CJM
Acenaphthene	0.25	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:47	CJM
Acenaphthylene	ND	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:47	CJM
Anthracene	0.89	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:47	CJM
Benzo(a)anthracene	3.0	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:47	CJM
Benzo(a)pyrene	2.7	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:47	CJM
Benzo(b)fluoranthene	3.0	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:47	CJM
Benzo(g,h,i)perylene	1.7	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:47	CJM
Benzo(k)fluoranthene	1.0	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:47	CJM
Chrysene	3.0	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:47	CJM
Dibenz(a,h)anthracene	0.35	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:47	CJM
Fluoranthene	4.7	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:47	CJM
Fluorene	0.34	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:47	CJM
Indeno(1,2,3-cd)pyrene	1.2	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:47	CJM
2-Methylnaphthalene	ND	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:47	CJM
Naphthalene	ND	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:47	CJM
Phenanthrene	3.5	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:47	CJM
Pyrene	5.9	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 12:47	CJM

Surrogates	% Recovery	Recovery Limits	Flag/Qual
Chlorooctadecane (COD)	47.6	40-140	10/14/21 12:47
Chlorooctadecane (COD)	46.6	40-140	10/14/21 16:28
o-Terphenyl (OTP)	48.2	40-140	10/14/21 12:47
2-Bromonaphthalene	90.3	40-140	10/14/21 12:47
2-Fluorobiphenyl	88.5	40-140	10/14/21 12:47

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-7 (4-6)

Sampled: 10/8/2021 14:00

Sample ID: 21J0497-13

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.9	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:11	QNW
Arsenic	13	3.9	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:11	QNW
Barium	140	1.9	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:11	QNW
Beryllium	0.36	0.19	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:11	QNW
Cadmium	0.97	0.39	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:11	QNW
Chromium	34	0.78	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:11	QNW
Lead	900	0.58	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:11	QNW
Mercury	0.19	0.031	mg/Kg dry	1		SW-846 7471B	10/11/21	10/12/21 8:37	DRL
Nickel	37	0.78	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:11	QNW
Selenium	ND	3.9	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:11	QNW
Silver	ND	1.9	mg/Kg dry	5	DL-03	SW-846 6010D	10/9/21	10/13/21 13:56	QNW
Thallium	ND	1.9	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:11	QNW
Vanadium	30	0.78	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:11	QNW
Zinc	490	0.78	mg/Kg dry	1		SW-846 6010D	10/9/21	10/12/21 14:48	QNW

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-7 (4-6)

Sampled: 10/8/2021 14:00

Sample ID: 21J0497-13

Sample Matrix: Soil

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	82.0		% Wt	1		SM 2540G	10/12/21	10/13/21 17:23	BMB

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-7 (0-2)

Sampled: 10/8/2021 13:40

Sample ID: 21J0497-14

Sample Matrix: Soil

**Polychlorinated Biphenyls By GC/ECD**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 2:53	TG
Aroclor-1221 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 2:53	TG
Aroclor-1232 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 2:53	TG
Aroclor-1242 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 2:53	TG
Aroclor-1248 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 2:53	TG
Aroclor-1254 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 2:53	TG
Aroclor-1260 [2]	0.16	0.095	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 2:53	TG
Aroclor-1262 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 2:53	TG
Aroclor-1268 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 2:53	TG
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
Decachlorobiphenyl [1]		81.4	30-150					10/15/21 2:53	
Decachlorobiphenyl [2]		72.4	30-150					10/15/21 2:53	
Tetrachloro-m-xylene [1]		84.4	30-150					10/15/21 2:53	
Tetrachloro-m-xylene [2]		79.3	30-150					10/15/21 2:53	

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-7 (0-2)

Sampled: 10/8/2021 13:40

Sample ID: 21J0497-14

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.9	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:17	QNW
Arsenic	19	3.8	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:17	QNW
Barium	440	1.9	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:17	QNW
Beryllium	0.43	0.19	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:17	QNW
Cadmium	1.6	0.38	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:17	QNW
Chromium	81	0.76	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:17	QNW
Lead	970	0.57	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:17	QNW
Mercury	0.54	0.031	mg/Kg dry	1		SW-846 7471B	10/11/21	10/12/21 8:39	DRL
Nickel	58	0.76	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:17	QNW
Selenium	ND	3.8	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:17	QNW
Silver	ND	1.9	mg/Kg dry	5	DL-03	SW-846 6010D	10/9/21	10/13/21 14:03	QNW
Thallium	ND	1.9	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:17	QNW
Vanadium	39	0.76	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:17	QNW
Zinc	800	0.76	mg/Kg dry	1		SW-846 6010D	10/9/21	10/12/21 14:52	QNW

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-7 (0-2)

Sampled: 10/8/2021 13:40

Sample ID: 21J0497-14

Sample Matrix: Soil

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	84.6		% Wt	1		SM 2540G	10/12/21	10/13/21 17:23	BMB



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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-8 (0-2)

Sampled: 10/8/2021 14:30

Sample ID: 21J0497-15

Sample Matrix: Soil

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.11	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.0011	mg/Kg dry	1	V-05	SW-846 8260D	10/11/21	10/11/21 12:13	MFF
Benzene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
Bromobenzene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
Bromochloromethane	ND	0.0022	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
Bromodichloromethane	ND	0.0022	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
Bromoform	ND	0.0022	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
Bromomethane	ND	0.011	mg/Kg dry	1	V-34	SW-846 8260D	10/11/21	10/11/21 12:13	MFF
2-Butanone (MEK)	ND	0.045	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
n-Butylbenzene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
sec-Butylbenzene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
tert-Butylbenzene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.0011	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
Carbon Disulfide	ND	0.011	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
Carbon Tetrachloride	ND	0.0022	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
Chlorobenzene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
Chlorodibromomethane	ND	0.0011	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
Chloroethane	ND	0.022	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
Chloroform	ND	0.0045	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
Chloromethane	ND	0.011	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
2-Chlorotoluene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
4-Chlorotoluene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0045	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
1,2-Dibromoethane (EDB)	ND	0.0011	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
Dibromomethane	ND	0.0022	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
1,2-Dichlorobenzene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
1,3-Dichlorobenzene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
1,4-Dichlorobenzene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.022	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
1,1-Dichloroethane	ND	0.0022	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
1,2-Dichloroethane	ND	0.0022	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
1,1-Dichloroethylene	ND	0.0045	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
cis-1,2-Dichloroethylene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
trans-1,2-Dichloroethylene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
1,2-Dichloropropane	ND	0.0022	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
1,3-Dichloropropane	ND	0.0011	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
2,2-Dichloropropane	ND	0.0022	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
1,1-Dichloropropene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
cis-1,3-Dichloropropene	ND	0.0011	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
trans-1,3-Dichloropropene	ND	0.0011	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
Diethyl Ether	ND	0.022	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
Diisopropyl Ether (DIPE)	ND	0.0011	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
1,4-Dioxane	ND	0.11	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
Ethylbenzene	ND	0.0045	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-8 (0-2)

Sampled: 10/8/2021 14:30

Sample ID: 21J0497-15

Sample Matrix: Soil

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
2-Hexanone (MBK)	ND	0.022	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
Isopropylbenzene (Cumene)	ND	0.0022	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0022	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0045	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
Methylene Chloride	ND	0.022	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.022	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
Naphthalene	ND	0.0045	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
n-Propylbenzene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
Styrene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
1,1,1,2-Tetrachloroethane	ND	0.0022	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
1,1,1,2,2-Tetrachloroethane	ND	0.0011	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
Tetrachloroethylene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
Tetrahydrofuran	ND	0.011	mg/Kg dry	1	V-05	SW-846 8260D	10/11/21	10/11/21 12:13	MFF
Toluene	ND	0.0045	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
1,2,3-Trichlorobenzene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
1,2,4-Trichlorobenzene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
1,1,1-Trichloroethane	ND	0.0022	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
1,1,2-Trichloroethane	ND	0.0022	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
Trichloroethylene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
Trichlorofluoromethane (Freon 11)	ND	0.011	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
1,2,3-Trichloropropane	ND	0.0022	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
1,2,4-Trimethylbenzene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
1,3,5-Trimethylbenzene	ND	0.0022	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
Vinyl Chloride	ND	0.011	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
m+p Xylene	ND	0.0089	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF
o-Xylene	ND	0.0045	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:13	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	94.1	70-130	10/11/21 12:13
Toluene-d8	99.6	70-130	10/11/21 12:13
4-Bromofluorobenzene	96.6	70-130	10/11/21 12:13

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-8 (0-2)

Sampled: 10/8/2021 14:30

Sample ID: 21J0497-15

Sample Matrix: Soil

Sample Flags: O-32

**Polychlorinated Biphenyls By GC/ECD**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.093	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 3:10	TG
Aroclor-1221 [1]	ND	0.093	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 3:10	TG
Aroclor-1232 [1]	ND	0.093	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 3:10	TG
Aroclor-1242 [1]	ND	0.093	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 3:10	TG
Aroclor-1248 [1]	ND	0.093	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 3:10	TG
Aroclor-1254 [1]	ND	0.093	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 3:10	TG
Aroclor-1260 [2]	ND	0.093	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 3:10	TG
Aroclor-1262 [1]	ND	0.093	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 3:10	TG
Aroclor-1268 [1]	ND	0.093	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 3:10	TG
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
Decachlorobiphenyl [1]		79.1	30-150					10/15/21 3:10	
Decachlorobiphenyl [2]		69.9	30-150					10/15/21 3:10	
Tetrachloro-m-xylene [1]		87.7	30-150					10/15/21 3:10	
Tetrachloro-m-xylene [2]		81.1	30-150					10/15/21 3:10	

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-8 (0-2)

Sampled: 10/8/2021 14:30

Sample ID: 21J0497-15

Sample Matrix: Soil

**Petroleum Hydrocarbons Analyses - EPH**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
C9-C18 Aliphatics	ND	12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 13:26	CJM
C19-C36 Aliphatics	78	12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 13:26	CJM
Unadjusted C11-C22 Aromatics	98	12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 13:26	CJM
C11-C22 Aromatics	75	12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 13:26	CJM
Acenaphthene	0.21	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 13:26	CJM
Acenaphthylene	ND	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 13:26	CJM
Anthracene	0.51	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 13:26	CJM
Benzo(a)anthracene	1.9	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 13:26	CJM
Benzo(a)pyrene	2.3	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 13:26	CJM
Benzo(b)fluoranthene	2.4	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 13:26	CJM
Benzo(g,h,i)perylene	1.1	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 13:26	CJM
Benzo(k)fluoranthene	0.88	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 13:26	CJM
Chrysene	2.0	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 13:26	CJM
Dibenz(a,h)anthracene	0.29	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 13:26	CJM
Fluoranthene	3.8	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 13:26	CJM
Fluorene	0.21	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 13:26	CJM
Indeno(1,2,3-cd)pyrene	1.2	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 13:26	CJM
2-Methylnaphthalene	ND	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 13:26	CJM
Naphthalene	ND	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 13:26	CJM
Phenanthrene	2.5	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 13:26	CJM
Pyrene	3.9	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 13:26	CJM
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
Chlorooctadecane (COD)		55.5	40-140					10/14/21 13:26	
o-Terphenyl (OTP)		53.9	40-140					10/14/21 13:26	
2-Bromonaphthalene		97.0	40-140					10/14/21 13:26	
2-Fluorobiphenyl		97.5	40-140					10/14/21 13:26	

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-8 (0-2)

Sampled: 10/8/2021 14:30

Sample ID: 21J0497-15

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.9	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:23	QNW
Arsenic	7.3	3.8	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:23	QNW
Barium	400	1.9	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:23	QNW
Beryllium	0.48	0.19	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:23	QNW
Cadmium	2.6	0.38	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:23	QNW
Chromium	26	0.76	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:23	QNW
Lead	930	0.57	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:23	QNW
Mercury	0.76	0.029	mg/Kg dry	1		SW-846 7471B	10/11/21	10/12/21 8:41	DRL
Nickel	21	0.76	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:23	QNW
Selenium	ND	3.8	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:23	QNW
Silver	ND	0.38	mg/Kg dry	1		SW-846 6010D	10/9/21	10/12/21 14:58	QNW
Thallium	ND	1.9	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:23	QNW
Vanadium	45	0.76	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:23	QNW
Zinc	490	0.76	mg/Kg dry	1		SW-846 6010D	10/9/21	10/12/21 14:58	QNW

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Sampled: 10/8/2021 14:30

Field Sample #: TP-8 (0-2)

Sample ID: 21J0497-15

Sample Matrix: Soil

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	85.8		% Wt	1		SM 2540G	10/12/21	10/13/21 17:24	BMB

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-8 (6-8)

Sampled: 10/8/2021 14:45

Sample ID: 21J0497-16

Sample Matrix: Soil

Sample Flags: O-32

**Polychlorinated Biphenyls By GC/ECD**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.092	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 3:28	TG
Aroclor-1221 [1]	ND	0.092	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 3:28	TG
Aroclor-1232 [1]	ND	0.092	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 3:28	TG
Aroclor-1242 [1]	ND	0.092	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 3:28	TG
Aroclor-1248 [1]	ND	0.092	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 3:28	TG
Aroclor-1254 [1]	ND	0.092	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 3:28	TG
Aroclor-1260 [1]	ND	0.092	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 3:28	TG
Aroclor-1262 [1]	ND	0.092	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 3:28	TG
Aroclor-1268 [1]	ND	0.092	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 3:28	TG
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
Decachlorobiphenyl [1]		76.7	30-150					10/15/21 3:28	
Decachlorobiphenyl [2]		67.8	30-150					10/15/21 3:28	
Tetrachloro-m-xylene [1]		83.0	30-150					10/15/21 3:28	
Tetrachloro-m-xylene [2]		77.7	30-150					10/15/21 3:28	

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-8 (6-8)

Sampled: 10/8/2021 14:45

Sample ID: 21J0497-16

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.9	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:40	QNW
Arsenic	4.2	3.9	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:40	QNW
Barium	86	1.9	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:40	QNW
Beryllium	0.30	0.19	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:40	QNW
Cadmium	0.60	0.39	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:40	QNW
Chromium	11	0.77	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:40	QNW
Lead	220	0.58	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:40	QNW
Mercury	0.15	0.031	mg/Kg dry	1		SW-846 7471B	10/11/21	10/12/21 8:42	DRL
Nickel	7.8	0.77	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:40	QNW
Selenium	ND	3.9	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:40	QNW
Silver	ND	0.39	mg/Kg dry	1		SW-846 6010D	10/9/21	10/12/21 15:04	QNW
Thallium	ND	1.9	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:40	QNW
Vanadium	23	0.77	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:40	QNW
Zinc	440	0.77	mg/Kg dry	1		SW-846 6010D	10/9/21	10/12/21 15:04	QNW



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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Sampled: 10/8/2021 14:45

**Field Sample #: TP-8 (6-8)**
**Sample ID: 21J0497-16**

Sample Matrix: Soil

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	87.0		% Wt	1		SM 2540G	10/12/21	10/13/21 17:24	BMB

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: DUP-1

Sampled: 10/8/2021 00:00

Sample ID: 21J0497-17

Sample Matrix: Soil

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.090	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00090	mg/Kg dry	1	V-05	SW-846 8260D	10/11/21	10/11/21 12:38	MFF
Benzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
Bromobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
Bromochloromethane	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
Bromodichloromethane	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
Bromoform	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
Bromomethane	ND	0.0090	mg/Kg dry	1	V-34	SW-846 8260D	10/11/21	10/11/21 12:38	MFF
2-Butanone (MEK)	ND	0.036	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
n-Butylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
sec-Butylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
tert-Butylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00090	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
Carbon Disulfide	ND	0.0090	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
Carbon Tetrachloride	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
Chlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
Chlorodibromomethane	ND	0.00090	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
Chloroethane	ND	0.018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
Chloroform	ND	0.0036	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
Chloromethane	ND	0.0090	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
2-Chlorotoluene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
4-Chlorotoluene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0036	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
1,2-Dibromoethane (EDB)	ND	0.00090	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
Dibromomethane	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
1,2-Dichlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
1,3-Dichlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
1,4-Dichlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
1,1-Dichloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
1,2-Dichloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
1,1-Dichloroethylene	ND	0.0036	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
cis-1,2-Dichloroethylene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
trans-1,2-Dichloroethylene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
1,2-Dichloropropane	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
1,3-Dichloropropane	ND	0.00090	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
2,2-Dichloropropane	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
1,1-Dichloropropene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
cis-1,3-Dichloropropene	ND	0.00090	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
trans-1,3-Dichloropropene	ND	0.00090	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
Diethyl Ether	ND	0.018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
Diisopropyl Ether (DIPE)	ND	0.00090	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
1,4-Dioxane	ND	0.090	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
Ethylbenzene	ND	0.0036	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: DUP-1

Sampled: 10/8/2021 00:00

Sample ID: 21J0497-17

Sample Matrix: Soil

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
2-Hexanone (MBK)	ND	0.018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
Isopropylbenzene (Cumene)	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0036	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
Methylene Chloride	ND	0.018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
Naphthalene	ND	0.0036	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
n-Propylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
Styrene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
1,1,1,2-Tetrachloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
1,1,1,2,2-Tetrachloroethane	ND	0.00090	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
Tetrachloroethylene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
Tetrahydrofuran	ND	0.0090	mg/Kg dry	1	V-05	SW-846 8260D	10/11/21	10/11/21 12:38	MFF
Toluene	ND	0.0036	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
1,2,3-Trichlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
1,2,4-Trichlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
1,1,1-Trichloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
1,1,2-Trichloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
Trichloroethylene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0090	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
1,2,3-Trichloropropane	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
1,2,4-Trimethylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
1,3,5-Trimethylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
Vinyl Chloride	ND	0.0090	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
m+p Xylene	ND	0.0072	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF
o-Xylene	ND	0.0036	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 12:38	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	95.5	70-130	10/11/21 12:38
Toluene-d8	99.9	70-130	10/11/21 12:38
4-Bromofluorobenzene	85.9	70-130	10/11/21 12:38

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: DUP-1

Sampled: 10/8/2021 00:00

Sample ID: 21J0497-17

Sample Matrix: Soil

Sample Flags: O-32

**Polychlorinated Biphenyls By GC/ECD**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 3:45	TG
Aroclor-1221 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 3:45	TG
Aroclor-1232 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 3:45	TG
Aroclor-1242 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 3:45	TG
Aroclor-1248 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 3:45	TG
Aroclor-1254 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 3:45	TG
Aroclor-1260 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 3:45	TG
Aroclor-1262 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 3:45	TG
Aroclor-1268 [1]	ND	0.095	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 3:45	TG
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
Decachlorobiphenyl [1]		85.4	30-150					10/15/21 3:45	
Decachlorobiphenyl [2]		73.7	30-150					10/15/21 3:45	
Tetrachloro-m-xylene [1]		86.1	30-150					10/15/21 3:45	
Tetrachloro-m-xylene [2]		80.6	30-150					10/15/21 3:45	

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: DUP-1

Sampled: 10/8/2021 00:00

Sample ID: 21J0497-17

Sample Matrix: Soil

**Petroleum Hydrocarbons Analyses - EPH**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
C9-C18 Aliphatics	ND	12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 13:45	CJM
C19-C36 Aliphatics	23	12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 13:45	CJM
Unadjusted C11-C22 Aromatics	40	12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 13:45	CJM
C11-C22 Aromatics	33	12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 13:45	CJM
Acenaphthene	ND	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 13:45	CJM
Acenaphthylene	ND	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 13:45	CJM
Anthracene	0.13	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 13:45	CJM
Benzo(a)anthracene	0.61	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 13:45	CJM
Benzo(a)pyrene	1.1	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 13:45	CJM
Benzo(b)fluoranthene	0.77	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 13:45	CJM
Benzo(g,h,i)perylene	0.37	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 13:45	CJM
Benzo(k)fluoranthene	0.28	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 13:45	CJM
Chrysene	0.65	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 13:45	CJM
Dibenz(a,h)anthracene	ND	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 13:45	CJM
Fluoranthene	1.1	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 13:45	CJM
Fluorene	ND	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 13:45	CJM
Indeno(1,2,3-cd)pyrene	0.35	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 13:45	CJM
2-Methylnaphthalene	ND	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 13:45	CJM
Naphthalene	ND	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 13:45	CJM
Phenanthrene	0.63	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 13:45	CJM
Pyrene	1.2	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 13:45	CJM

Surrogates	% Recovery	Recovery Limits	Flag/Qual
Chlorooctadecane (COD)	52.7	40-140	
o-Terphenyl (OTP)	51.4	40-140	
2-Bromonaphthalene	93.6	40-140	
2-Fluorobiphenyl	94.8	40-140	

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: DUP-1

Sampled: 10/8/2021 00:00

Sample ID: 21J0497-17

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	2.0	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:46	QNW
Arsenic	12	3.9	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:46	QNW
Barium	230	2.0	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:46	QNW
Beryllium	0.50	0.20	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:46	QNW
Cadmium	1.0	0.39	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:46	QNW
Chromium	19	0.79	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:46	QNW
Lead	1100	0.59	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:46	QNW
Mercury	0.78	0.030	mg/Kg dry	1		SW-846 7471B	10/11/21	10/12/21 8:44	DRL
Nickel	16	0.79	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:46	QNW
Selenium	ND	3.9	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:46	QNW
Silver	ND	0.39	mg/Kg dry	1		SW-846 6010D	10/9/21	10/12/21 15:09	QNW
Thallium	ND	2.0	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:46	QNW
Vanadium	47	0.79	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:46	QNW
Zinc	350	0.79	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:46	QNW

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Sampled: 10/8/2021 00:00

**Field Sample #: DUP-1**
**Sample ID: 21J0497-17**

Sample Matrix: Soil

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	84.1		% Wt	1		SM 2540G	10/12/21	10/13/21 17:24	BMB

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-5 (4-6)

Sampled: 10/8/2021 12:45

Sample ID: 21J0497-18

Sample Matrix: Soil

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.064	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00064	mg/Kg dry	1	V-05	SW-846 8260D	10/11/21	10/11/21 13:03	MFF
Benzene	ND	0.0013	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
Bromobenzene	ND	0.0013	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
Bromochloromethane	ND	0.0013	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
Bromodichloromethane	ND	0.0013	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
Bromoform	ND	0.0013	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
Bromomethane	ND	0.0064	mg/Kg dry	1	V-34	SW-846 8260D	10/11/21	10/11/21 13:03	MFF
2-Butanone (MEK)	ND	0.026	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
n-Butylbenzene	ND	0.0013	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
sec-Butylbenzene	ND	0.0013	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
tert-Butylbenzene	ND	0.0013	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00064	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
Carbon Disulfide	ND	0.0064	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
Carbon Tetrachloride	ND	0.0013	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
Chlorobenzene	ND	0.0013	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
Chlorodibromomethane	ND	0.00064	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
Chloroethane	ND	0.013	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
Chloroform	ND	0.0026	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
Chloromethane	ND	0.0064	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
2-Chlorotoluene	ND	0.0013	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
4-Chlorotoluene	ND	0.0013	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0026	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
1,2-Dibromoethane (EDB)	ND	0.00064	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
Dibromomethane	ND	0.0013	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
1,2-Dichlorobenzene	ND	0.0013	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
1,3-Dichlorobenzene	ND	0.0013	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
1,4-Dichlorobenzene	ND	0.0013	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.013	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
1,1-Dichloroethane	ND	0.0013	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
1,2-Dichloroethane	ND	0.0013	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
1,1-Dichloroethylene	ND	0.0026	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
cis-1,2-Dichloroethylene	ND	0.0013	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
trans-1,2-Dichloroethylene	ND	0.0013	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
1,2-Dichloropropane	ND	0.0013	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
1,3-Dichloropropane	ND	0.00064	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
2,2-Dichloropropane	ND	0.0013	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
1,1-Dichloropropene	ND	0.0013	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
cis-1,3-Dichloropropene	ND	0.00064	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
trans-1,3-Dichloropropene	ND	0.00064	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
Diethyl Ether	ND	0.013	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
Diisopropyl Ether (DIPE)	ND	0.00064	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
1,4-Dioxane	ND	0.064	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
Ethylbenzene	ND	0.0026	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF



39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-5 (4-6)

Sampled: 10/8/2021 12:45

Sample ID: 21J0497-18

Sample Matrix: Soil

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.0013	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
2-Hexanone (MBK)	ND	0.013	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
Isopropylbenzene (Cumene)	ND	0.0013	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0013	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0026	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
Methylene Chloride	ND	0.013	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.013	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
Naphthalene	ND	0.0026	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
n-Propylbenzene	ND	0.0013	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
Styrene	ND	0.0013	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
1,1,1,2-Tetrachloroethane	ND	0.0013	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
1,1,1,2,2-Tetrachloroethane	ND	0.00064	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
Tetrachloroethylene	ND	0.0013	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
Tetrahydrofuran	ND	0.0064	mg/Kg dry	1	V-05	SW-846 8260D	10/11/21	10/11/21 13:03	MFF
Toluene	ND	0.0026	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
1,2,3-Trichlorobenzene	ND	0.0013	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
1,2,4-Trichlorobenzene	ND	0.0013	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
1,1,1-Trichloroethane	ND	0.0013	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
1,1,2-Trichloroethane	ND	0.0013	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
Trichloroethylene	ND	0.0013	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0064	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
1,2,3-Trichloropropane	ND	0.0013	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
1,2,4-Trimethylbenzene	ND	0.0013	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
1,3,5-Trimethylbenzene	ND	0.0013	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
Vinyl Chloride	ND	0.0064	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
m+p Xylene	ND	0.0051	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF
o-Xylene	ND	0.0026	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:03	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	95.6	70-130	10/11/21 13:03
Toluene-d8	98.5	70-130	10/11/21 13:03
4-Bromofluorobenzene	89.4	70-130	10/11/21 13:03

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-5 (4-6)

Sampled: 10/8/2021 12:45

Sample ID: 21J0497-18

Sample Matrix: Soil

Sample Flags: O-32

**Polychlorinated Biphenyls By GC/ECD**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.090	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 4:03	TG
Aroclor-1221 [1]	ND	0.090	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 4:03	TG
Aroclor-1232 [1]	ND	0.090	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 4:03	TG
Aroclor-1242 [1]	ND	0.090	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 4:03	TG
Aroclor-1248 [1]	ND	0.090	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 4:03	TG
Aroclor-1254 [2]	ND	0.090	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 4:03	TG
Aroclor-1260 [1]	ND	0.090	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 4:03	TG
Aroclor-1262 [1]	ND	0.090	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 4:03	TG
Aroclor-1268 [1]	ND	0.090	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 4:03	TG
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
Decachlorobiphenyl [1]		72.0	30-150					10/15/21 4:03	
Decachlorobiphenyl [2]		62.3	30-150					10/15/21 4:03	
Tetrachloro-m-xylene [1]		77.0	30-150					10/15/21 4:03	
Tetrachloro-m-xylene [2]		72.2	30-150					10/15/21 4:03	

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-5 (4-6)

Sampled: 10/8/2021 12:45

Sample ID: 21J0497-18

Sample Matrix: Soil

**Petroleum Hydrocarbons Analyses - EPH**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
C9-C18 Aliphatics	ND	22	mg/Kg dry	2	RL-08	MADEP EPH rev 2.1	10/12/21	10/14/21 14:04	CJM
C19-C36 Aliphatics	85	22	mg/Kg dry	2		MADEP EPH rev 2.1	10/12/21	10/14/21 14:04	CJM
Unadjusted C11-C22 Aromatics	100	22	mg/Kg dry	2		MADEP EPH rev 2.1	10/12/21	10/14/21 14:04	CJM
C11-C22 Aromatics	100	22	mg/Kg dry	2		MADEP EPH rev 2.1	10/12/21	10/14/21 14:04	CJM
Acenaphthene	ND	0.22	mg/Kg dry	2		MADEP EPH rev 2.1	10/12/21	10/14/21 14:04	CJM
Acenaphthylene	ND	0.22	mg/Kg dry	2		MADEP EPH rev 2.1	10/12/21	10/14/21 14:04	CJM
Anthracene	ND	0.22	mg/Kg dry	2		MADEP EPH rev 2.1	10/12/21	10/14/21 14:04	CJM
Benzo(a)anthracene	0.39	0.22	mg/Kg dry	2		MADEP EPH rev 2.1	10/12/21	10/14/21 14:04	CJM
Benzo(a)pyrene	0.64	0.22	mg/Kg dry	2		MADEP EPH rev 2.1	10/12/21	10/14/21 14:04	CJM
Benzo(b)fluoranthene	0.56	0.22	mg/Kg dry	2		MADEP EPH rev 2.1	10/12/21	10/14/21 14:04	CJM
Benzo(g,h,i)perylene	0.38	0.22	mg/Kg dry	2		MADEP EPH rev 2.1	10/12/21	10/14/21 14:04	CJM
Benzo(k)fluoranthene	ND	0.22	mg/Kg dry	2		MADEP EPH rev 2.1	10/12/21	10/14/21 14:04	CJM
Chrysene	0.40	0.22	mg/Kg dry	2		MADEP EPH rev 2.1	10/12/21	10/14/21 14:04	CJM
Dibenz(a,h)anthracene	ND	0.22	mg/Kg dry	2		MADEP EPH rev 2.1	10/12/21	10/14/21 14:04	CJM
Fluoranthene	0.69	0.22	mg/Kg dry	2		MADEP EPH rev 2.1	10/12/21	10/14/21 14:04	CJM
Fluorene	ND	0.22	mg/Kg dry	2		MADEP EPH rev 2.1	10/12/21	10/14/21 14:04	CJM
Indeno(1,2,3-cd)pyrene	ND	0.22	mg/Kg dry	2		MADEP EPH rev 2.1	10/12/21	10/14/21 14:04	CJM
2-Methylnaphthalene	ND	0.22	mg/Kg dry	2		MADEP EPH rev 2.1	10/12/21	10/14/21 14:04	CJM
Naphthalene	ND	0.22	mg/Kg dry	2		MADEP EPH rev 2.1	10/12/21	10/14/21 14:04	CJM
Phenanthrene	0.35	0.22	mg/Kg dry	2		MADEP EPH rev 2.1	10/12/21	10/14/21 14:04	CJM
Pyrene	0.80	0.22	mg/Kg dry	2		MADEP EPH rev 2.1	10/12/21	10/14/21 14:04	CJM

Surrogates	% Recovery	Recovery Limits	Flag/Qual
Chlorooctadecane (COD)	53.2	40-140	10/14/21 14:04
o-Terphenyl (OTP)	54.2	40-140	10/14/21 14:04
2-Bromonaphthalene	95.6	40-140	10/14/21 14:04
2-Fluorobiphenyl	96.9	40-140	10/14/21 14:04

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-5 (4-6)

Sampled: 10/8/2021 12:45

Sample ID: 21J0497-18

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.9	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:52	QNW
Arsenic	ND	3.8	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:52	QNW
Barium	73	1.9	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:52	QNW
Beryllium	0.39	0.19	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:52	QNW
Cadmium	0.52	0.38	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:52	QNW
Chromium	16	0.76	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:52	QNW
Lead	240	0.57	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:52	QNW
Mercury	0.46	0.028	mg/Kg dry	1		SW-846 7471B	10/11/21	10/12/21 8:51	DRL
Nickel	13	0.76	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:52	QNW
Selenium	ND	3.8	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:52	QNW
Silver	ND	0.38	mg/Kg dry	1		SW-846 6010D	10/9/21	10/12/21 15:15	QNW
Thallium	ND	1.9	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:52	QNW
Vanadium	29	0.76	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:52	QNW
Zinc	140	0.76	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:52	QNW

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Sampled: 10/8/2021 12:45

**Field Sample #: TP-5 (4-6)**
**Sample ID: 21J0497-18**

Sample Matrix: Soil

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	89.0		% Wt	1		SM 2540G	10/12/21	10/13/21 17:25	BMB

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-6 (4-5)

Sampled: 10/8/2021 13:05

Sample ID: 21J0497-19

Sample Matrix: Soil

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.072	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00072	mg/Kg dry	1	V-05	SW-846 8260D	10/11/21	10/11/21 13:28	MFF
Benzene	0.0025	0.0014	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
Bromobenzene	ND	0.0014	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
Bromochloromethane	ND	0.0014	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
Bromodichloromethane	ND	0.0014	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
Bromoform	ND	0.0014	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
Bromomethane	ND	0.0072	mg/Kg dry	1	V-34	SW-846 8260D	10/11/21	10/11/21 13:28	MFF
2-Butanone (MEK)	ND	0.029	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
n-Butylbenzene	ND	0.0014	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
sec-Butylbenzene	ND	0.0014	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
tert-Butylbenzene	ND	0.0014	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00072	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
Carbon Disulfide	ND	0.0072	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
Carbon Tetrachloride	ND	0.0014	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
Chlorobenzene	ND	0.0014	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
Chlorodibromomethane	ND	0.00072	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
Chloroethane	ND	0.014	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
Chloroform	ND	0.0029	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
Chloromethane	ND	0.0072	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
2-Chlorotoluene	ND	0.0014	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
4-Chlorotoluene	ND	0.0014	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0029	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
1,2-Dibromoethane (EDB)	ND	0.00072	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
Dibromomethane	ND	0.0014	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
1,2-Dichlorobenzene	ND	0.0014	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
1,3-Dichlorobenzene	ND	0.0014	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
1,4-Dichlorobenzene	ND	0.0014	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.014	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
1,1-Dichloroethane	ND	0.0014	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
1,2-Dichloroethane	ND	0.0014	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
1,1-Dichloroethylene	ND	0.0029	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
cis-1,2-Dichloroethylene	ND	0.0014	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
trans-1,2-Dichloroethylene	ND	0.0014	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
1,2-Dichloropropane	ND	0.0014	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
1,3-Dichloropropane	ND	0.00072	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
2,2-Dichloropropane	ND	0.0014	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
1,1-Dichloropropene	ND	0.0014	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
cis-1,3-Dichloropropene	ND	0.00072	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
trans-1,3-Dichloropropene	ND	0.00072	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
Diethyl Ether	ND	0.014	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
Diisopropyl Ether (DIPE)	ND	0.00072	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
1,4-Dioxane	ND	0.072	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
Ethylbenzene	ND	0.0029	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-6 (4-5)

Sampled: 10/8/2021 13:05

Sample ID: 21J0497-19

Sample Matrix: Soil

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.0014	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
2-Hexanone (MBK)	ND	0.014	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
Isopropylbenzene (Cumene)	ND	0.0014	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0014	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0029	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
Methylene Chloride	ND	0.014	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.014	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
Naphthalene	ND	0.0029	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
n-Propylbenzene	ND	0.0014	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
Styrene	ND	0.0014	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
1,1,1,2-Tetrachloroethane	ND	0.0014	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
1,1,1,2,2-Tetrachloroethane	ND	0.00072	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
Tetrachloroethylene	ND	0.0014	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
Tetrahydrofuran	ND	0.0072	mg/Kg dry	1	V-05	SW-846 8260D	10/11/21	10/11/21 13:28	MFF
Toluene	ND	0.0029	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
1,2,3-Trichlorobenzene	ND	0.0014	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
1,2,4-Trichlorobenzene	ND	0.0014	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
1,1,1-Trichloroethane	ND	0.0014	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
1,1,2-Trichloroethane	ND	0.0014	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
Trichloroethylene	ND	0.0014	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0072	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
1,2,3-Trichloropropane	ND	0.0014	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
1,2,4-Trimethylbenzene	ND	0.0014	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
1,3,5-Trimethylbenzene	ND	0.0014	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
Vinyl Chloride	ND	0.0072	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
m+p Xylene	ND	0.0058	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF
o-Xylene	ND	0.0029	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:28	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	97.5	70-130	10/11/21 13:28
Toluene-d8	101	70-130	10/11/21 13:28
4-Bromofluorobenzene	95.6	70-130	10/11/21 13:28

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-6 (4-5)

Sampled: 10/8/2021 13:05

Sample ID: 21J0497-19

Sample Matrix: Soil

Sample Flags: O-32

**Polychlorinated Biphenyls By GC/ECD**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.091	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 4:20	TG
Aroclor-1221 [1]	ND	0.091	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 4:20	TG
Aroclor-1232 [1]	ND	0.091	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 4:20	TG
Aroclor-1242 [1]	ND	0.091	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 4:20	TG
Aroclor-1248 [1]	ND	0.091	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 4:20	TG
Aroclor-1254 [2]	ND	0.091	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 4:20	TG
Aroclor-1260 [2]	ND	0.091	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 4:20	TG
Aroclor-1262 [1]	ND	0.091	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 4:20	TG
Aroclor-1268 [1]	ND	0.091	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 4:20	TG
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
Decachlorobiphenyl [1]		83.4	30-150					10/15/21 4:20	
Decachlorobiphenyl [2]		77.6	30-150					10/15/21 4:20	
Tetrachloro-m-xylene [1]		92.1	30-150					10/15/21 4:20	
Tetrachloro-m-xylene [2]		85.5	30-150					10/15/21 4:20	



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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-6 (4-5)

Sampled: 10/8/2021 13:05

Sample ID: 21J0497-19

Sample Matrix: Soil

**Petroleum Hydrocarbons Analyses - EPH**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
C9-C18 Aliphatics	12	11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 18:46	CJM
C19-C36 Aliphatics	220	46	mg/Kg dry	4		MADEP EPH rev 2.1	10/12/21	10/15/21 10:46	CJM
Unadjusted C11-C22 Aromatics	220	11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 18:46	CJM
C11-C22 Aromatics	180	11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 18:46	CJM
Acenaphthene	0.39	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 18:46	CJM
Acenaphthylene	ND	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 18:46	CJM
Anthracene	0.80	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 18:46	CJM
Benzo(a)anthracene	3.8	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 18:46	CJM
Benzo(a)pyrene	3.7	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 18:46	CJM
Benzo(b)fluoranthene	4.7	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 18:46	CJM
Benzo(g,h,i)perylene	2.4	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 18:46	CJM
Benzo(k)fluoranthene	1.8	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 18:46	CJM
Chrysene	3.9	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 18:46	CJM
Dibenz(a,h)anthracene	0.71	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 18:46	CJM
Fluoranthene	6.1	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 18:46	CJM
Fluorene	0.32	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 18:46	CJM
Indeno(1,2,3-cd)pyrene	2.5	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 18:46	CJM
2-Methylnaphthalene	ND	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 18:46	CJM
Naphthalene	0.22	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 18:46	CJM
Phenanthrene	3.6	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 18:46	CJM
Pyrene	6.6	0.11	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 18:46	CJM

Surrogates	% Recovery	Recovery Limits	Flag/Qual
Chlorooctadecane (COD)	60.2	40-140	10/14/21 18:46
Chlorooctadecane (COD)	55.5	40-140	10/15/21 10:46
o-Terphenyl (OTP)	64.6	40-140	10/14/21 18:46
2-Bromonaphthalene	94.0	40-140	10/14/21 18:46
2-Fluorobiphenyl	99.7	40-140	10/14/21 18:46

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-6 (4-5)

Sampled: 10/8/2021 13:05

Sample ID: 21J0497-19

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.8	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:57	QNW
Arsenic	7.3	3.6	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:57	QNW
Barium	91	1.8	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:57	QNW
Beryllium	0.44	0.18	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:57	QNW
Cadmium	0.55	0.36	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:57	QNW
Chromium	29	0.71	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:57	QNW
Lead	390	0.54	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:57	QNW
Mercury	1.3	0.059	mg/Kg dry	2		SW-846 7471B	10/11/21	10/12/21 10:07	DRL
Nickel	21	0.71	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:57	QNW
Selenium	ND	3.6	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:57	QNW
Silver	ND	1.8	mg/Kg dry	5	DL-03	SW-846 6010D	10/9/21	10/13/21 14:07	QNW
Thallium	ND	1.8	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:57	QNW
Vanadium	30	0.71	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:57	QNW
Zinc	310	0.71	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 18:57	QNW

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

**Field Sample #: TP-6 (4-5)**

Sampled: 10/8/2021 13:05

**Sample ID: 21J0497-19**

Sample Matrix: Soil

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	87.9		% Wt	1		SM 2540G	10/12/21	10/13/21 17:25	BMB

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-7 (2-4)

Sampled: 10/8/2021 13:50

Sample ID: 21J0497-20

Sample Matrix: Soil

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.090	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00090	mg/Kg dry	1	V-05	SW-846 8260D	10/11/21	10/11/21 13:52	MFF
Benzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
Bromobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
Bromochloromethane	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
Bromodichloromethane	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
Bromoform	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
Bromomethane	ND	0.0090	mg/Kg dry	1	V-34	SW-846 8260D	10/11/21	10/11/21 13:52	MFF
2-Butanone (MEK)	ND	0.036	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
n-Butylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
sec-Butylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
tert-Butylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00090	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
Carbon Disulfide	ND	0.0090	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
Carbon Tetrachloride	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
Chlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
Chlorodibromomethane	ND	0.00090	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
Chloroethane	ND	0.018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
Chloroform	ND	0.0036	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
Chloromethane	ND	0.0090	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
2-Chlorotoluene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
4-Chlorotoluene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0036	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
1,2-Dibromoethane (EDB)	ND	0.00090	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
Dibromomethane	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
1,2-Dichlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
1,3-Dichlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
1,4-Dichlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
1,1-Dichloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
1,2-Dichloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
1,1-Dichloroethylene	ND	0.0036	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
cis-1,2-Dichloroethylene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
trans-1,2-Dichloroethylene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
1,2-Dichloropropane	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
1,3-Dichloropropane	ND	0.00090	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
2,2-Dichloropropane	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
1,1-Dichloropropene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
cis-1,3-Dichloropropene	ND	0.00090	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
trans-1,3-Dichloropropene	ND	0.00090	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
Diethyl Ether	ND	0.018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
Diisopropyl Ether (DIPE)	ND	0.00090	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
1,4-Dioxane	ND	0.090	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
Ethylbenzene	ND	0.0036	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-7 (2-4)

Sampled: 10/8/2021 13:50

Sample ID: 21J0497-20

Sample Matrix: Soil

## Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
2-Hexanone (MBK)	ND	0.018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
Isopropylbenzene (Cumene)	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0036	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
Methylene Chloride	ND	0.018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
Naphthalene	ND	0.0036	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
n-Propylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
Styrene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
1,1,1,2-Tetrachloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
1,1,1,2,2-Tetrachloroethane	ND	0.00090	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
Tetrachloroethylene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
Tetrahydrofuran	ND	0.0090	mg/Kg dry	1	V-05	SW-846 8260D	10/11/21	10/11/21 13:52	MFF
Toluene	ND	0.0036	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
1,2,3-Trichlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
1,2,4-Trichlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
1,1,1-Trichloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
1,1,2-Trichloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
Trichloroethylene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0090	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
1,2,3-Trichloropropane	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
1,2,4-Trimethylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
1,3,5-Trimethylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
Vinyl Chloride	ND	0.0090	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
m+p Xylene	ND	0.0072	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF
o-Xylene	ND	0.0036	mg/Kg dry	1		SW-846 8260D	10/11/21	10/11/21 13:52	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	99.9	70-130	10/11/21 13:52
Toluene-d8	101	70-130	10/11/21 13:52
4-Bromofluorobenzene	91.3	70-130	10/11/21 13:52

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-7 (2-4)

Sampled: 10/8/2021 13:50

Sample ID: 21J0497-20

Sample Matrix: Soil

**Polychlorinated Biphenyls By GC/ECD**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.093	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 4:37	TG
Aroclor-1221 [1]	ND	0.093	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 4:37	TG
Aroclor-1232 [1]	ND	0.093	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 4:37	TG
Aroclor-1242 [1]	ND	0.093	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 4:37	TG
Aroclor-1248 [1]	ND	0.093	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 4:37	TG
Aroclor-1254 [2]	ND	0.093	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 4:37	TG
Aroclor-1260 [2]	0.11	0.093	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 4:37	TG
Aroclor-1262 [1]	ND	0.093	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 4:37	TG
Aroclor-1268 [1]	ND	0.093	mg/Kg dry	4		SW-846 8082A	10/11/21	10/15/21 4:37	TG
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
Decachlorobiphenyl [1]		71.7	30-150					10/15/21 4:37	
Decachlorobiphenyl [2]		71.5	30-150					10/15/21 4:37	
Tetrachloro-m-xylene [1]		79.6	30-150					10/15/21 4:37	
Tetrachloro-m-xylene [2]		72.5	30-150					10/15/21 4:37	

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-7 (2-4)

Sampled: 10/8/2021 13:50

Sample ID: 21J0497-20

Sample Matrix: Soil

**Petroleum Hydrocarbons Analyses - EPH**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
C9-C18 Aliphatics	81	12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 19:07	CJM
C19-C36 Aliphatics	1000	120	mg/Kg dry	10		MADEP EPH rev 2.1	10/12/21	10/15/21 11:06	CJM
Unadjusted C11-C22 Aromatics	720	47	mg/Kg dry	4		MADEP EPH rev 2.1	10/12/21	10/15/21 11:06	CJM
C11-C22 Aromatics	690	47	mg/Kg dry	4		MADEP EPH rev 2.1	10/12/21	10/15/21 11:06	CJM
Acenaphthene	0.25	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 19:07	CJM
Acenaphthylene	ND	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 19:07	CJM
Anthracene	0.78	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 19:07	CJM
Benzo(a)anthracene	3.2	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 19:07	CJM
Benzo(a)pyrene	3.2	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 19:07	CJM
Benzo(b)fluoranthene	4.1	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 19:07	CJM
Benzo(g,h,i)perylene	2.6	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 19:07	CJM
Benzo(k)fluoranthene	1.1	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 19:07	CJM
Chrysene	3.4	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 19:07	CJM
Dibenz(a,h)anthracene	0.76	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 19:07	CJM
Fluoranthene	4.3	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 19:07	CJM
Fluorene	0.25	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 19:07	CJM
Indeno(1,2,3-cd)pyrene	1.8	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 19:07	CJM
2-Methylnaphthalene	ND	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 19:07	CJM
Naphthalene	ND	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 19:07	CJM
Phenanthrene	3.1	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 19:07	CJM
Pyrene	5.4	0.12	mg/Kg dry	1		MADEP EPH rev 2.1	10/12/21	10/14/21 19:07	CJM

Surrogates	% Recovery	Recovery Limits	Flag/Qual
Chlorooctadecane (COD)	50.3	40-140	
Chlorooctadecane (COD)	55.0	40-140	
o-Terphenyl (OTP)	69.9	40-140	
o-Terphenyl (OTP)	65.0	40-140	
2-Bromonaphthalene	98.4	40-140	
2-Fluorobiphenyl	103	40-140	

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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-7 (2-4)

Sampled: 10/8/2021 13:50

Sample ID: 21J0497-20

Sample Matrix: Soil

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.9	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 19:03	QNW
Arsenic	25	3.7	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 19:03	QNW
Barium	270	1.9	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 19:03	QNW
Beryllium	0.34	0.19	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 19:03	QNW
Cadmium	1.2	0.37	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 19:03	QNW
Chromium	240	0.75	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 19:03	QNW
Lead	1200	0.56	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 19:03	QNW
Mercury	0.27	0.031	mg/Kg dry	1		SW-846 7471B	10/11/21	10/12/21 8:55	DRL
Nickel	72	0.75	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 19:03	QNW
Selenium	ND	3.7	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 19:03	QNW
Silver	ND	1.9	mg/Kg dry	5	DL-03	SW-846 6010D	10/9/21	10/13/21 14:53	QNW
Thallium	ND	1.9	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 19:03	QNW
Vanadium	39	0.75	mg/Kg dry	1		SW-846 6010D	10/9/21	10/11/21 19:03	QNW
Zinc	770	0.75	mg/Kg dry	1		SW-846 6010D	10/9/21	10/12/21 15:26	QNW



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Project Location: Boston, MA

Sample Description:

Work Order: 21J0497

Date Received: 10/8/2021

Field Sample #: TP-7 (2-4)

Sampled: 10/8/2021 13:50

Sample ID: 21J0497-20

Sample Matrix: Soil

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	85.7		% Wt	1		SM 2540G	10/12/21	10/13/21 17:25	BMB

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**Sample Extraction Data**
**Prep Method: SW-846 3546 Analytical Method: MADEP EPH rev 2.1**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J0497-01 [TP-1 (0-2)]	B292258	20.0	2.00	10/12/21
21J0497-04 [TP-2 (6-8)]	B292258	20.0	2.00	10/12/21
21J0497-05 [TP-3 (2-4)]	B292258	20.0	2.00	10/12/21
21J0497-09 [TP-5 (0-2)]	B292258	20.0	2.00	10/12/21
21J0497-09RE1 [TP-5 (0-2)]	B292258	20.0	2.00	10/12/21
21J0497-12 [TP-6 (0-2)]	B292258	20.0	2.00	10/12/21
21J0497-12RE1 [TP-6 (0-2)]	B292258	20.0	2.00	10/12/21
21J0497-13 [TP-7 (4-6)]	B292258	20.0	2.00	10/12/21
21J0497-13RE1 [TP-7 (4-6)]	B292258	20.0	2.00	10/12/21
21J0497-15 [TP-8 (0-2)]	B292258	20.0	2.00	10/12/21
21J0497-17 [DUP-1]	B292258	20.0	2.00	10/12/21
21J0497-18 [TP-5 (4-6)]	B292258	20.0	2.00	10/12/21
21J0497-19 [TP-6 (4-5)]	B292258	20.0	2.00	10/12/21
21J0497-19RE1 [TP-6 (4-5)]	B292258	20.0	2.00	10/12/21
21J0497-20 [TP-7 (2-4)]	B292258	20.0	2.00	10/12/21
21J0497-20RE1 [TP-7 (2-4)]	B292258	20.0	2.00	10/12/21

**Prep Method: SW-846 3546 Analytical Method: MADEP EPH rev 2.1**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J0497-08RE1 [TP-4 (2-4)]	B292433	20.0	2.00	10/14/21

**Prep Method: % Solids Analytical Method: SM 2540G**

Lab Number [Field ID]	Batch	Date
21J0497-01 [TP-1 (0-2)]	B292288	10/12/21
21J0497-02 [TP-1 (6-8)]	B292288	10/12/21
21J0497-03 [TP-2 (0-2)]	B292288	10/12/21
21J0497-04 [TP-2 (6-8)]	B292288	10/12/21
21J0497-05 [TP-3 (2-4)]	B292288	10/12/21
21J0497-06 [TP-3 (5-6)]	B292288	10/12/21
21J0497-07 [TP-4 (0-2)]	B292288	10/12/21
21J0497-08 [TP-4 (2-4)]	B292288	10/12/21
21J0497-09 [TP-5 (0-2)]	B292288	10/12/21
21J0497-10 [TP-5 (6-8)]	B292288	10/12/21
21J0497-11 [TP-6 (5-6)]	B292288	10/12/21
21J0497-12 [TP-6 (0-2)]	B292288	10/12/21
21J0497-13 [TP-7 (4-6)]	B292288	10/12/21
21J0497-14 [TP-7 (0-2)]	B292288	10/12/21
21J0497-15 [TP-8 (0-2)]	B292288	10/12/21
21J0497-16 [TP-8 (6-8)]	B292288	10/12/21
21J0497-17 [DUP-1]	B292288	10/12/21
21J0497-18 [TP-5 (4-6)]	B292288	10/12/21
21J0497-19 [TP-6 (4-5)]	B292288	10/12/21
21J0497-20 [TP-7 (2-4)]	B292288	10/12/21

**Prep Method: SW-846 3050B Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J0497-01 [TP-1 (0-2)]	B292102	1.52	50.0	10/09/21
21J0497-02 [TP-1 (6-8)]	B292102	1.52	50.0	10/09/21

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**Sample Extraction Data**
**Prep Method: SW-846 3050B    Analytical Method: SW-846 6010D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J0497-03 [TP-2 (0-2)]	B292102	1.50	50.0	10/09/21
21J0497-04 [TP-2 (6-8)]	B292102	1.49	50.0	10/09/21
21J0497-05 [TP-3 (2-4)]	B292102	1.51	50.0	10/09/21
21J0497-06 [TP-3 (5-6)]	B292102	1.53	50.0	10/09/21
21J0497-07 [TP-4 (0-2)]	B292102	1.52	50.0	10/09/21
21J0497-08 [TP-4 (2-4)]	B292102	1.53	50.0	10/09/21
21J0497-09 [TP-5 (0-2)]	B292102	1.50	50.0	10/09/21
21J0497-10 [TP-5 (6-8)]	B292102	1.52	50.0	10/09/21
21J0497-11 [TP-6 (5-6)]	B292102	1.59	50.0	10/09/21
21J0497-12 [TP-6 (0-2)]	B292102	1.51	50.0	10/09/21
21J0497-13 [TP-7 (4-6)]	B292102	1.57	50.0	10/09/21
21J0497-14 [TP-7 (0-2)]	B292102	1.55	50.0	10/09/21
21J0497-15 [TP-8 (0-2)]	B292102	1.53	50.0	10/09/21
21J0497-16 [TP-8 (6-8)]	B292102	1.49	50.0	10/09/21
21J0497-17 [DUP-1]	B292102	1.51	50.0	10/09/21
21J0497-18 [TP-5 (4-6)]	B292102	1.48	50.0	10/09/21
21J0497-19 [TP-6 (4-5)]	B292102	1.59	50.0	10/09/21
21J0497-20 [TP-7 (2-4)]	B292102	1.56	50.0	10/09/21

**Prep Method: SW-846 7471    Analytical Method: SW-846 7471B**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J0497-01 [TP-1 (0-2)]	B292137	0.566	50.0	10/11/21
21J0497-02 [TP-1 (6-8)]	B292137	0.588	50.0	10/11/21
21J0497-03 [TP-2 (0-2)]	B292137	0.600	50.0	10/11/21
21J0497-04 [TP-2 (6-8)]	B292137	0.545	50.0	10/11/21
21J0497-05 [TP-3 (2-4)]	B292137	0.529	50.0	10/11/21
21J0497-06 [TP-3 (5-6)]	B292137	0.596	50.0	10/11/21
21J0497-07 [TP-4 (0-2)]	B292137	0.548	50.0	10/11/21
21J0497-08 [TP-4 (2-4)]	B292137	0.602	50.0	10/11/21
21J0497-09 [TP-5 (0-2)]	B292137	0.562	50.0	10/11/21
21J0497-10 [TP-5 (6-8)]	B292137	0.548	50.0	10/11/21
21J0497-11 [TP-6 (5-6)]	B292137	0.554	50.0	10/11/21
21J0497-12 [TP-6 (0-2)]	B292137	0.535	50.0	10/11/21
21J0497-13 [TP-7 (4-6)]	B292137	0.586	50.0	10/11/21
21J0497-14 [TP-7 (0-2)]	B292137	0.565	50.0	10/11/21
21J0497-15 [TP-8 (0-2)]	B292137	0.601	50.0	10/11/21
21J0497-16 [TP-8 (6-8)]	B292137	0.558	50.0	10/11/21
21J0497-17 [DUP-1]	B292137	0.588	50.0	10/11/21
21J0497-18 [TP-5 (4-6)]	B292137	0.594	50.0	10/11/21
21J0497-19 [TP-6 (4-5)]	B292137	0.577	50.0	10/11/21
21J0497-20 [TP-7 (2-4)]	B292137	0.558	50.0	10/11/21

**Prep Method: SW-846 3546    Analytical Method: SW-846 8082A**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J0497-01 [TP-1 (0-2)]	B292202	10.0	10.0	10/11/21
21J0497-02 [TP-1 (6-8)]	B292202	10.0	10.0	10/11/21
21J0497-03 [TP-2 (0-2)]	B292202	10.0	10.0	10/11/21
21J0497-04 [TP-2 (6-8)]	B292202	10.0	10.0	10/11/21
21J0497-05 [TP-3 (2-4)]	B292202	10.0	10.0	10/11/21
21J0497-06 [TP-3 (5-6)]	B292202	10.0	10.0	10/11/21
21J0497-07 [TP-4 (0-2)]	B292202	10.0	10.0	10/11/21

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**Sample Extraction Data**
**Prep Method: SW-846 3546    Analytical Method: SW-846 8082A**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J0497-08 [TP-4 (2-4)]	B292202	10.0	10.0	10/11/21
21J0497-09 [TP-5 (0-2)]	B292202	10.0	10.0	10/11/21
21J0497-10 [TP-5 (6-8)]	B292202	10.0	10.0	10/11/21
21J0497-11 [TP-6 (5-6)]	B292202	10.0	10.0	10/11/21
21J0497-12 [TP-6 (0-2)]	B292202	10.0	10.0	10/11/21
21J0497-13 [TP-7 (4-6)]	B292202	10.0	10.0	10/11/21
21J0497-14 [TP-7 (0-2)]	B292202	10.0	10.0	10/11/21
21J0497-15 [TP-8 (0-2)]	B292202	10.0	10.0	10/11/21
21J0497-16 [TP-8 (6-8)]	B292202	10.0	10.0	10/11/21
21J0497-17 [DUP-1]	B292202	10.0	10.0	10/11/21
21J0497-18 [TP-5 (4-6)]	B292202	10.0	10.0	10/11/21
21J0497-19 [TP-6 (4-5)]	B292202	10.0	10.0	10/11/21
21J0497-20 [TP-7 (2-4)]	B292202	10.0	10.0	10/11/21

**Prep Method: SW-846 5035    Analytical Method: SW-846 8260D**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
21J0497-01 [TP-1 (0-2)]	B292189	6.69	10.0	10/11/21
21J0497-04 [TP-2 (6-8)]	B292189	5.48	10.0	10/11/21
21J0497-05 [TP-3 (2-4)]	B292189	7.78	10.0	10/11/21
21J0497-08 [TP-4 (2-4)]	B292189	7.51	10.0	10/11/21
21J0497-09 [TP-5 (0-2)]	B292189	7.42	10.0	10/11/21
21J0497-12 [TP-6 (0-2)]	B292189	6.96	10.0	10/11/21
21J0497-13 [TP-7 (4-6)]	B292189	7.79	10.0	10/11/21
21J0497-15 [TP-8 (0-2)]	B292189	5.23	10.0	10/11/21
21J0497-17 [DUP-1]	B292189	6.63	10.0	10/11/21
21J0497-18 [TP-5 (4-6)]	B292189	8.79	10.0	10/11/21
21J0497-19 [TP-6 (4-5)]	B292189	7.85	10.0	10/11/21
21J0497-20 [TP-7 (2-4)]	B292189	6.46	10.0	10/11/21

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## QUALITY CONTROL

## Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B292189 - SW-846 5035</b>										
<b>Blank (B292189-BLK1)</b>										
Prepared & Analyzed: 10/11/21										
Acetone	ND	0.10	mg/Kg wet							
tert-Amyl Methyl Ether (TAME)	ND	0.0010	mg/Kg wet							V-05
Benzene	ND	0.0020	mg/Kg wet							
Bromobenzene	ND	0.0020	mg/Kg wet							
Bromochloromethane	ND	0.0020	mg/Kg wet							
Bromodichloromethane	ND	0.0020	mg/Kg wet							
Bromoform	ND	0.0020	mg/Kg wet							
Bromomethane	ND	0.010	mg/Kg wet							V-34
2-Butanone (MEK)	ND	0.040	mg/Kg wet							
n-Butylbenzene	ND	0.0020	mg/Kg wet							
sec-Butylbenzene	ND	0.0020	mg/Kg wet							
tert-Butylbenzene	ND	0.0020	mg/Kg wet							
tert-Butyl Ethyl Ether (TBEE)	ND	0.0010	mg/Kg wet							
Carbon Disulfide	ND	0.010	mg/Kg wet							
Carbon Tetrachloride	ND	0.0020	mg/Kg wet							
Chlorobenzene	ND	0.0020	mg/Kg wet							
Chlorodibromomethane	ND	0.0010	mg/Kg wet							
Chloroethane	ND	0.020	mg/Kg wet							
Chloroform	ND	0.0040	mg/Kg wet							
Chloromethane	ND	0.010	mg/Kg wet							
2-Chlorotoluene	ND	0.0020	mg/Kg wet							
4-Chlorotoluene	ND	0.0020	mg/Kg wet							
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0020	mg/Kg wet							
1,2-Dibromoethane (EDB)	ND	0.0010	mg/Kg wet							
Dibromomethane	ND	0.0020	mg/Kg wet							
1,2-Dichlorobenzene	ND	0.0020	mg/Kg wet							
1,3-Dichlorobenzene	ND	0.0020	mg/Kg wet							
1,4-Dichlorobenzene	ND	0.0020	mg/Kg wet							
Dichlorodifluoromethane (Freon 12)	ND	0.020	mg/Kg wet							
1,1-Dichloroethane	ND	0.0020	mg/Kg wet							
1,2-Dichloroethane	ND	0.0020	mg/Kg wet							
1,1-Dichloroethylene	ND	0.0040	mg/Kg wet							
cis-1,2-Dichloroethylene	ND	0.0020	mg/Kg wet							
trans-1,2-Dichloroethylene	ND	0.0020	mg/Kg wet							
1,2-Dichloropropane	ND	0.0020	mg/Kg wet							
1,3-Dichloropropane	ND	0.0010	mg/Kg wet							
2,2-Dichloropropane	ND	0.0020	mg/Kg wet							
1,1-Dichloropropene	ND	0.0020	mg/Kg wet							
cis-1,3-Dichloropropene	ND	0.0010	mg/Kg wet							
trans-1,3-Dichloropropene	ND	0.0010	mg/Kg wet							
Diethyl Ether	ND	0.020	mg/Kg wet							
Diisopropyl Ether (DIPE)	ND	0.0010	mg/Kg wet							
1,4-Dioxane	ND	0.10	mg/Kg wet							
Ethylbenzene	ND	0.0020	mg/Kg wet							
Hexachlorobutadiene	ND	0.0020	mg/Kg wet							
2-Hexanone (MBK)	ND	0.020	mg/Kg wet							
Isopropylbenzene (Cumene)	ND	0.0020	mg/Kg wet							
p-Isopropyltoluene (p-Cymene)	ND	0.0020	mg/Kg wet							
Methyl tert-Butyl Ether (MTBE)	ND	0.0040	mg/Kg wet							
Methylene Chloride	ND	0.020	mg/Kg wet							
4-Methyl-2-pentanone (MIBK)	ND	0.020	mg/Kg wet							
Naphthalene	ND	0.0040	mg/Kg wet							

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**QUALITY CONTROL**
**Volatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B292189 - SW-846 5035</b>										
<b>Blank (B292189-BLK1)</b>										
Prepared & Analyzed: 10/11/21										
n-Propylbenzene	ND	0.0020	mg/Kg wet							
Styrene	ND	0.0020	mg/Kg wet							
1,1,1,2-Tetrachloroethane	ND	0.0020	mg/Kg wet							
1,1,2,2-Tetrachloroethane	ND	0.0010	mg/Kg wet							
Tetrachloroethylene	ND	0.0020	mg/Kg wet							
Tetrahydrofuran	ND	0.010	mg/Kg wet							V-05
Toluene	ND	0.0020	mg/Kg wet							
1,2,3-Trichlorobenzene	ND	0.0020	mg/Kg wet							
1,2,4-Trichlorobenzene	ND	0.0020	mg/Kg wet							
1,1,1-Trichloroethane	ND	0.0020	mg/Kg wet							
1,1,2-Trichloroethane	ND	0.0020	mg/Kg wet							
Trichloroethylene	ND	0.0020	mg/Kg wet							
Trichlorofluoromethane (Freon 11)	ND	0.010	mg/Kg wet							
1,2,3-Trichloropropane	ND	0.0020	mg/Kg wet							
1,2,4-Trimethylbenzene	ND	0.0020	mg/Kg wet							
1,3,5-Trimethylbenzene	ND	0.0020	mg/Kg wet							
Vinyl Chloride	ND	0.010	mg/Kg wet							
m+p Xylene	ND	0.0040	mg/Kg wet							
o-Xylene	ND	0.0020	mg/Kg wet							
Surrogate: 1,2-Dichloroethane-d4	0.0460		mg/Kg wet	0.0500		92.0	70-130			
Surrogate: Toluene-d8	0.0501		mg/Kg wet	0.0500		100	70-130			
Surrogate: 4-Bromofluorobenzene	0.0465		mg/Kg wet	0.0500		93.0	70-130			
<b>LCS (B292189-BS1)</b>										
Prepared & Analyzed: 10/11/21										
Acetone	0.186	0.10	mg/Kg wet	0.200		92.8	40-160			†
tert-Amyl Methyl Ether (TAME)	0.0150	0.0010	mg/Kg wet	0.0200		75.2	70-130			V-05
Benzene	0.0170	0.0020	mg/Kg wet	0.0200		84.9	70-130			
Bromobenzene	0.0178	0.0020	mg/Kg wet	0.0200		89.0	70-130			
Bromochloromethane	0.0179	0.0020	mg/Kg wet	0.0200		89.6	70-130			
Bromodichloromethane	0.0184	0.0020	mg/Kg wet	0.0200		92.0	70-130			
Bromoform	0.0188	0.0020	mg/Kg wet	0.0200		94.0	70-130			
Bromomethane	0.0182	0.010	mg/Kg wet	0.0200		91.2	40-160			V-34 †
2-Butanone (MEK)	0.171	0.040	mg/Kg wet	0.200		85.3	40-160			†
n-Butylbenzene	0.0174	0.0020	mg/Kg wet	0.0200		86.8	70-130			
sec-Butylbenzene	0.0189	0.0020	mg/Kg wet	0.0200		94.3	70-130			
tert-Butylbenzene	0.0191	0.0020	mg/Kg wet	0.0200		95.6	70-130			
tert-Butyl Ethyl Ether (TBEE)	0.0157	0.0010	mg/Kg wet	0.0200		78.6	70-130			
Carbon Disulfide	0.213	0.010	mg/Kg wet	0.200		106	70-130			
Carbon Tetrachloride	0.0187	0.0020	mg/Kg wet	0.0200		93.6	70-130			
Chlorobenzene	0.0205	0.0020	mg/Kg wet	0.0200		102	70-130			
Chlorodibromomethane	0.0197	0.0010	mg/Kg wet	0.0200		98.4	70-130			
Chloroethane	0.0171	0.020	mg/Kg wet	0.0200		85.5	70-130			
Chloroform	0.0171	0.0040	mg/Kg wet	0.0200		85.7	70-130			
Chloromethane	0.0229	0.010	mg/Kg wet	0.0200		115	40-160			†
2-Chlorotoluene	0.0182	0.0020	mg/Kg wet	0.0200		91.1	70-130			
4-Chlorotoluene	0.0181	0.0020	mg/Kg wet	0.0200		90.6	70-130			
1,2-Dibromo-3-chloropropane (DBCP)	0.0161	0.0020	mg/Kg wet	0.0200		80.7	70-130			
1,2-Dibromoethane (EDB)	0.0181	0.0010	mg/Kg wet	0.0200		90.7	70-130			
Dibromomethane	0.0192	0.0020	mg/Kg wet	0.0200		95.9	70-130			
1,2-Dichlorobenzene	0.0182	0.0020	mg/Kg wet	0.0200		90.9	70-130			
1,3-Dichlorobenzene	0.0191	0.0020	mg/Kg wet	0.0200		95.3	70-130			
1,4-Dichlorobenzene	0.0188	0.0020	mg/Kg wet	0.0200		94.0	70-130			

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**QUALITY CONTROL**
**Volatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B292189 - SW-846 5035</b>										
<b>LCS (B292189-BS1)</b>										
Prepared & Analyzed: 10/11/21										
Dichlorodifluoromethane (Freon 12)	0.0286	0.020	mg/Kg wet	0.0200		143	40-160			L-14, V-20 †
1,1-Dichloroethane	0.0178	0.0020	mg/Kg wet	0.0200		88.8	70-130			
1,2-Dichloroethane	0.0195	0.0020	mg/Kg wet	0.0200		97.7	70-130			
1,1-Dichloroethylene	0.0217	0.0040	mg/Kg wet	0.0200		109	70-130			
cis-1,2-Dichloroethylene	0.0182	0.0020	mg/Kg wet	0.0200		90.8	70-130			
trans-1,2-Dichloroethylene	0.0184	0.0020	mg/Kg wet	0.0200		92.2	70-130			
1,2-Dichloropropane	0.0186	0.0020	mg/Kg wet	0.0200		92.9	70-130			
1,3-Dichloropropane	0.0181	0.0010	mg/Kg wet	0.0200		90.5	70-130			
2,2-Dichloropropane	0.0176	0.0020	mg/Kg wet	0.0200		87.9	70-130			
1,1-Dichloropropene	0.0170	0.0020	mg/Kg wet	0.0200		85.0	70-130			
cis-1,3-Dichloropropene	0.0178	0.0010	mg/Kg wet	0.0200		89.0	70-130			
trans-1,3-Dichloropropene	0.0168	0.0010	mg/Kg wet	0.0200		84.1	70-130			
Diethyl Ether	0.0192	0.020	mg/Kg wet	0.0200		95.9	70-130			
Diisopropyl Ether (DIPE)	0.0170	0.0010	mg/Kg wet	0.0200		84.8	70-130			
1,4-Dioxane	0.178	0.10	mg/Kg wet	0.200		89.2	40-160			†
Ethylbenzene	0.0207	0.0020	mg/Kg wet	0.0200		104	70-130			
Hexachlorobutadiene	0.0194	0.0020	mg/Kg wet	0.0200		96.9	70-130			
2-Hexanone (MBK)	0.180	0.020	mg/Kg wet	0.200		89.9	40-160			†
Isopropylbenzene (Cumene)	0.0191	0.0020	mg/Kg wet	0.0200		95.7	70-130			
p-Isopropyltoluene (p-Cymene)	0.0186	0.0020	mg/Kg wet	0.0200		93.1	70-130			
Methyl tert-Butyl Ether (MTBE)	0.0154	0.0040	mg/Kg wet	0.0200		77.2	70-130			
Methylene Chloride	0.0178	0.020	mg/Kg wet	0.0200		89.2	70-130			
4-Methyl-2-pentanone (MIBK)	0.185	0.020	mg/Kg wet	0.200		92.6	40-160			†
Naphthalene	0.0170	0.0040	mg/Kg wet	0.0200		84.9	70-130			
n-Propylbenzene	0.0186	0.0020	mg/Kg wet	0.0200		93.0	70-130			
Styrene	0.0189	0.0020	mg/Kg wet	0.0200		94.5	70-130			
1,1,1,2-Tetrachloroethane	0.0212	0.0020	mg/Kg wet	0.0200		106	70-130			
1,1,1,2,2-Tetrachloroethane	0.0169	0.0010	mg/Kg wet	0.0200		84.5	70-130			
Tetrachloroethylene	0.0200	0.0020	mg/Kg wet	0.0200		100	70-130			
Tetrahydrofuran	0.0150	0.010	mg/Kg wet	0.0200		75.1	70-130			V-05
Toluene	0.0192	0.0020	mg/Kg wet	0.0200		96.0	70-130			
1,2,3-Trichlorobenzene	0.0193	0.0020	mg/Kg wet	0.0200		96.4	70-130			
1,2,4-Trichlorobenzene	0.0182	0.0020	mg/Kg wet	0.0200		91.0	70-130			
1,1,1-Trichloroethane	0.0173	0.0020	mg/Kg wet	0.0200		86.5	70-130			
1,1,2-Trichloroethane	0.0182	0.0020	mg/Kg wet	0.0200		90.8	70-130			
Trichloroethylene	0.0182	0.0020	mg/Kg wet	0.0200		91.2	70-130			
Trichlorofluoromethane (Freon 11)	0.0239	0.010	mg/Kg wet	0.0200		120	70-130			V-20
1,2,3-Trichloropropane	0.0175	0.0020	mg/Kg wet	0.0200		87.5	70-130			
1,2,4-Trimethylbenzene	0.0177	0.0020	mg/Kg wet	0.0200		88.7	70-130			
1,3,5-Trimethylbenzene	0.0182	0.0020	mg/Kg wet	0.0200		91.2	70-130			
Vinyl Chloride	0.0187	0.010	mg/Kg wet	0.0200		93.4	70-130			
m+p Xylene	0.0377	0.0040	mg/Kg wet	0.0400		94.2	70-130			
o-Xylene	0.0179	0.0020	mg/Kg wet	0.0200		89.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0452		mg/Kg wet	0.0500		90.5	70-130			
Surrogate: Toluene-d8	0.0502		mg/Kg wet	0.0500		100	70-130			
Surrogate: 4-Bromofluorobenzene	0.0464		mg/Kg wet	0.0500		92.9	70-130			

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**QUALITY CONTROL**
**Volatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B292189 - SW-846 5035</b>										
<b>LCS Dup (B292189-BSD1)</b>										
Prepared & Analyzed: 10/11/21										
Acetone	0.183	0.10	mg/Kg wet	0.200		91.5	40-160	1.35	20	†
tert-Amyl Methyl Ether (TAME)	0.0142	0.0010	mg/Kg wet	0.0200		71.1	70-130	5.60	20	V-05
Benzene	0.0162	0.0020	mg/Kg wet	0.0200		81.0	70-130	4.79	20	
Bromobenzene	0.0202	0.0020	mg/Kg wet	0.0200		101	70-130	12.5	20	
Bromochloromethane	0.0178	0.0020	mg/Kg wet	0.0200		88.8	70-130	0.874	20	
Bromodichloromethane	0.0181	0.0020	mg/Kg wet	0.0200		90.3	70-130	1.94	20	
Bromoform	0.0207	0.0020	mg/Kg wet	0.0200		103	70-130	9.53	20	
Bromomethane	0.0175	0.010	mg/Kg wet	0.0200		87.7	40-160	3.86	20	V-34 †
2-Butanone (MEK)	0.172	0.040	mg/Kg wet	0.200		86.1	40-160	0.962	20	†
n-Butylbenzene	0.0169	0.0020	mg/Kg wet	0.0200		84.3	70-130	2.95	20	
sec-Butylbenzene	0.0178	0.0020	mg/Kg wet	0.0200		88.9	70-130	5.81	20	
tert-Butylbenzene	0.0187	0.0020	mg/Kg wet	0.0200		93.6	70-130	2.09	20	
tert-Butyl Ethyl Ether (TBEE)	0.0155	0.0010	mg/Kg wet	0.0200		77.7	70-130	1.10	20	
Carbon Disulfide	0.191	0.010	mg/Kg wet	0.200		95.5	70-130	10.8	20	
Carbon Tetrachloride	0.0176	0.0020	mg/Kg wet	0.0200		87.9	70-130	6.24	20	
Chlorobenzene	0.0206	0.0020	mg/Kg wet	0.0200		103	70-130	0.390	20	
Chlorodibromomethane	0.0200	0.0010	mg/Kg wet	0.0200		100	70-130	1.76	20	
Chloroethane	0.0190	0.020	mg/Kg wet	0.0200		94.8	70-130	10.4	20	
Chloroform	0.0162	0.0040	mg/Kg wet	0.0200		80.9	70-130	5.79	20	
Chloromethane	0.0214	0.010	mg/Kg wet	0.0200		107	40-160	6.57	20	†
2-Chlorotoluene	0.0205	0.0020	mg/Kg wet	0.0200		103	70-130	11.8	20	
4-Chlorotoluene	0.0200	0.0020	mg/Kg wet	0.0200		100	70-130	9.94	20	
1,2-Dibromo-3-chloropropane (DBCP)	0.0170	0.0020	mg/Kg wet	0.0200		84.8	70-130	4.91	20	
1,2-Dibromoethane (EDB)	0.0185	0.0010	mg/Kg wet	0.0200		92.3	70-130	1.74	20	
Dibromomethane	0.0190	0.0020	mg/Kg wet	0.0200		94.8	70-130	1.10	20	
1,2-Dichlorobenzene	0.0185	0.0020	mg/Kg wet	0.0200		92.5	70-130	1.76	20	
1,3-Dichlorobenzene	0.0188	0.0020	mg/Kg wet	0.0200		93.8	70-130	1.55	20	
1,4-Dichlorobenzene	0.0187	0.0020	mg/Kg wet	0.0200		93.5	70-130	0.565	20	
Dichlorodifluoromethane (Freon 12)	0.0255	0.020	mg/Kg wet	0.0200		128	40-160	11.5	20	V-20 †
1,1-Dichloroethane	0.0171	0.0020	mg/Kg wet	0.0200		85.7	70-130	3.59	20	
1,2-Dichloroethane	0.0196	0.0020	mg/Kg wet	0.0200		98.2	70-130	0.510	20	
1,1-Dichloroethylene	0.0199	0.0040	mg/Kg wet	0.0200		99.6	70-130	8.64	20	
cis-1,2-Dichloroethylene	0.0174	0.0020	mg/Kg wet	0.0200		86.9	70-130	4.46	20	
trans-1,2-Dichloroethylene	0.0172	0.0020	mg/Kg wet	0.0200		85.9	70-130	7.04	20	
1,2-Dichloropropane	0.0186	0.0020	mg/Kg wet	0.0200		92.8	70-130	0.0538	20	
1,3-Dichloropropane	0.0188	0.0010	mg/Kg wet	0.0200		94.1	70-130	3.90	20	
2,2-Dichloropropane	0.0170	0.0020	mg/Kg wet	0.0200		84.8	70-130	3.61	20	
1,1-Dichloropropene	0.0155	0.0020	mg/Kg wet	0.0200		77.3	70-130	9.52	20	
cis-1,3-Dichloropropene	0.0180	0.0010	mg/Kg wet	0.0200		90.0	70-130	1.13	20	
trans-1,3-Dichloropropene	0.0171	0.0010	mg/Kg wet	0.0200		85.3	70-130	1.45	20	
Diethyl Ether	0.0183	0.020	mg/Kg wet	0.0200		91.6	70-130	4.60	20	
Diisopropyl Ether (DIPE)	0.0165	0.0010	mg/Kg wet	0.0200		82.4	70-130	2.95	20	
1,4-Dioxane	0.173	0.10	mg/Kg wet	0.200		86.6	40-160	2.95	20	†
Ethylbenzene	0.0194	0.0020	mg/Kg wet	0.0200		97.2	70-130	6.49	20	
Hexachlorobutadiene	0.0182	0.0020	mg/Kg wet	0.0200		91.0	70-130	6.35	20	
2-Hexanone (MBK)	0.185	0.020	mg/Kg wet	0.200		92.5	40-160	2.84	20	†
Isopropylbenzene (Cumene)	0.0200	0.0020	mg/Kg wet	0.0200		100	70-130	4.61	20	
p-Isopropyltoluene (p-Cymene)	0.0177	0.0020	mg/Kg wet	0.0200		88.5	70-130	5.15	20	
Methyl tert-Butyl Ether (MTBE)	0.0152	0.0040	mg/Kg wet	0.0200		76.2	70-130	1.41	20	
Methylene Chloride	0.0174	0.020	mg/Kg wet	0.0200		87.0	70-130	2.49	20	
4-Methyl-2-pentanone (MIBK)	0.187	0.020	mg/Kg wet	0.200		93.7	40-160	1.14	20	†
Naphthalene	0.0168	0.0040	mg/Kg wet	0.0200		83.9	70-130	1.22	20	



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**QUALITY CONTROL**
**Volatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B292189 - SW-846 5035</b>										
<b>LCS Dup (B292189-BSD1)</b>										
Prepared & Analyzed: 10/11/21										
n-Propylbenzene	0.0206	0.0020	mg/Kg wet	0.0200		103	70-130	10.3	20	
Styrene	0.0194	0.0020	mg/Kg wet	0.0200		96.8	70-130	2.41	20	
1,1,1,2-Tetrachloroethane	0.0196	0.0020	mg/Kg wet	0.0200		97.9	70-130	7.74	20	
1,1,2,2-Tetrachloroethane	0.0193	0.0010	mg/Kg wet	0.0200		96.3	70-130	13.0	20	
Tetrachloroethylene	0.0198	0.0020	mg/Kg wet	0.0200		99.1	70-130	1.11	20	
Tetrahydrofuran	0.0161	0.010	mg/Kg wet	0.0200		80.4	70-130	6.77	20	V-05
Toluene	0.0187	0.0020	mg/Kg wet	0.0200		93.4	70-130	2.69	20	
1,2,3-Trichlorobenzene	0.0186	0.0020	mg/Kg wet	0.0200		93.0	70-130	3.54	20	
1,2,4-Trichlorobenzene	0.0178	0.0020	mg/Kg wet	0.0200		89.2	70-130	2.02	20	
1,1,1-Trichloroethane	0.0164	0.0020	mg/Kg wet	0.0200		82.2	70-130	5.19	20	
1,1,2-Trichloroethane	0.0184	0.0020	mg/Kg wet	0.0200		92.1	70-130	1.42	20	
Trichloroethylene	0.0178	0.0020	mg/Kg wet	0.0200		88.8	70-130	2.60	20	
Trichlorofluoromethane (Freon 11)	0.0220	0.010	mg/Kg wet	0.0200		110	70-130	8.53	20	V-20
1,2,3-Trichloropropane	0.0198	0.0020	mg/Kg wet	0.0200		98.9	70-130	12.2	20	
1,2,4-Trimethylbenzene	0.0170	0.0020	mg/Kg wet	0.0200		85.2	70-130	3.96	20	
1,3,5-Trimethylbenzene	0.0208	0.0020	mg/Kg wet	0.0200		104	70-130	13.0	20	
Vinyl Chloride	0.0227	0.010	mg/Kg wet	0.0200		114	70-130	19.4	20	
m+p Xylene	0.0351	0.0040	mg/Kg wet	0.0400		87.6	70-130	7.27	20	
o-Xylene	0.0188	0.0020	mg/Kg wet	0.0200		94.1	70-130	4.77	20	
Surrogate: 1,2-Dichloroethane-d4	0.0443		mg/Kg wet	0.0500		88.7	70-130			
Surrogate: Toluene-d8	0.0511		mg/Kg wet	0.0500		102	70-130			
Surrogate: 4-Bromofluorobenzene	0.0531		mg/Kg wet	0.0500		106	70-130			

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**QUALITY CONTROL**
**Polychlorinated Biphenyls By GC/ECD - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B292202 - SW-846 3546</b>										
<b>Blank (B292202-BLK1)</b>										
Prepared: 10/11/21 Analyzed: 10/14/21										
Aroclor-1016	ND	0.020	mg/Kg wet							
Aroclor-1016 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1221	ND	0.020	mg/Kg wet							
Aroclor-1221 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1232	ND	0.020	mg/Kg wet							
Aroclor-1232 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1242	ND	0.020	mg/Kg wet							
Aroclor-1242 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1248	ND	0.020	mg/Kg wet							
Aroclor-1248 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1254	ND	0.020	mg/Kg wet							
Aroclor-1254 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1260	ND	0.020	mg/Kg wet							
Aroclor-1260 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1262	ND	0.020	mg/Kg wet							
Aroclor-1262 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1268	ND	0.020	mg/Kg wet							
Aroclor-1268 [2C]	ND	0.020	mg/Kg wet							
Surrogate: Decachlorobiphenyl	0.199		mg/Kg wet	0.200		99.5	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.179		mg/Kg wet	0.200		89.3	30-150			
Surrogate: Tetrachloro-m-xylene	0.200		mg/Kg wet	0.200		100	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.187		mg/Kg wet	0.200		93.4	30-150			
<b>LCS (B292202-BS1)</b>										
Prepared: 10/11/21 Analyzed: 10/14/21										
Aroclor-1016	0.20	0.020	mg/Kg wet	0.200		98.7	40-140			
Aroclor-1016 [2C]	0.17	0.020	mg/Kg wet	0.200		82.7	40-140			
Aroclor-1260	0.15	0.020	mg/Kg wet	0.200		76.1	40-140			
Aroclor-1260 [2C]	0.16	0.020	mg/Kg wet	0.200		79.5	40-140			
Surrogate: Decachlorobiphenyl	0.209		mg/Kg wet	0.200		105	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.187		mg/Kg wet	0.200		93.7	30-150			
Surrogate: Tetrachloro-m-xylene	0.209		mg/Kg wet	0.200		104	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.192		mg/Kg wet	0.200		96.2	30-150			
<b>LCS Dup (B292202-BSD1)</b>										
Prepared: 10/11/21 Analyzed: 10/14/21										
Aroclor-1016	0.19	0.020	mg/Kg wet	0.200		93.5	40-140	5.35	30	
Aroclor-1016 [2C]	0.16	0.020	mg/Kg wet	0.200		79.9	40-140	3.42	30	
Aroclor-1260	0.14	0.020	mg/Kg wet	0.200		70.9	40-140	7.13	30	
Aroclor-1260 [2C]	0.15	0.020	mg/Kg wet	0.200		73.6	40-140	7.67	30	
Surrogate: Decachlorobiphenyl	0.192		mg/Kg wet	0.200		96.1	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.171		mg/Kg wet	0.200		85.7	30-150			
Surrogate: Tetrachloro-m-xylene	0.192		mg/Kg wet	0.200		96.2	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.178		mg/Kg wet	0.200		89.2	30-150			

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**QUALITY CONTROL**
**Polychlorinated Biphenyls By GC/ECD - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B292202 - SW-846 3546</b>										
<b>Matrix Spike (B292202-MS1)</b>	<b>Source: 21J0497-02</b>			Prepared: 10/11/21 Analyzed: 10/15/21						
Aroclor-1016	0.20	0.087	mg/Kg dry	0.217	ND	92.6	40-140			
Aroclor-1016 [2C]	0.19	0.087	mg/Kg dry	0.217	ND	86.2	40-140			
Aroclor-1260	0.15	0.087	mg/Kg dry	0.217	ND	70.7	40-140			
Aroclor-1260 [2C]	0.16	0.087	mg/Kg dry	0.217	ND	74.2	40-140			
Surrogate: Decachlorobiphenyl	0.184		mg/Kg dry	0.217		84.8	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.159		mg/Kg dry	0.217		73.2	30-150			
Surrogate: Tetrachloro-m-xylene	0.183		mg/Kg dry	0.217		84.2	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.172		mg/Kg dry	0.217		79.0	30-150			
<b>Matrix Spike Dup (B292202-MSD1)</b>	<b>Source: 21J0497-02</b>			Prepared: 10/11/21 Analyzed: 10/15/21						
Aroclor-1016	0.19	0.087	mg/Kg dry	0.217	ND	89.2	40-140	3.79	30	
Aroclor-1016 [2C]	0.20	0.087	mg/Kg dry	0.217	ND	90.9	40-140	5.33	30	
Aroclor-1260	0.16	0.087	mg/Kg dry	0.217	ND	75.4	40-140	6.45	30	
Aroclor-1260 [2C]	0.17	0.087	mg/Kg dry	0.217	ND	78.8	40-140	6.07	30	
Surrogate: Decachlorobiphenyl	0.198		mg/Kg dry	0.217		91.3	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.172		mg/Kg dry	0.217		79.2	30-150			
Surrogate: Tetrachloro-m-xylene	0.195		mg/Kg dry	0.217		89.9	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.183		mg/Kg dry	0.217		84.4	30-150			

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**QUALITY CONTROL**
**Petroleum Hydrocarbons Analyses - EPH - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B292258 - SW-846 3546**
**Blank (B292258-BLK1)**

Prepared: 10/12/21 Analyzed: 10/13/21

C9-C18 Aliphatics	ND	10	mg/Kg wet							
C19-C36 Aliphatics	ND	10	mg/Kg wet							
Unadjusted C11-C22 Aromatics	ND	10	mg/Kg wet							
C11-C22 Aromatics	ND	10	mg/Kg wet							
Acenaphthene	ND	0.10	mg/Kg wet							
Acenaphthylene	ND	0.10	mg/Kg wet							
Anthracene	ND	0.10	mg/Kg wet							
Benzo(a)anthracene	ND	0.10	mg/Kg wet							
Benzo(a)pyrene	ND	0.10	mg/Kg wet							
Benzo(b)fluoranthene	ND	0.10	mg/Kg wet							
Benzo(g,h,i)perylene	ND	0.10	mg/Kg wet							
Benzo(k)fluoranthene	ND	0.10	mg/Kg wet							
Chrysene	ND	0.10	mg/Kg wet							
Dibenz(a,h)anthracene	ND	0.10	mg/Kg wet							
Fluoranthene	ND	0.10	mg/Kg wet							
Fluorene	ND	0.10	mg/Kg wet							
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg wet							
2-Methylnaphthalene	ND	0.10	mg/Kg wet							
Naphthalene	ND	0.10	mg/Kg wet							
Phenanthrene	ND	0.10	mg/Kg wet							
Pyrene	ND	0.10	mg/Kg wet							
Naphthalene-aliphatic fraction	ND	0.10	mg/Kg wet							
2-Methylnaphthalene-aliphatic fraction	ND	0.10	mg/Kg wet							
Surrogate: Chlorooctadecane (COD)	3.87		mg/Kg wet	5.00		77.5	40-140			
Surrogate: o-Terphenyl (OTP)	3.56		mg/Kg wet	5.00		71.3	40-140			
Surrogate: 2-Bromonaphthalene	4.45		mg/Kg wet	5.00		89.1	40-140			
Surrogate: 2-Fluorobiphenyl	4.51		mg/Kg wet	5.00		90.2	40-140			

**LCS (B292258-BS1)**

Prepared: 10/12/21 Analyzed: 10/13/21

C9-C18 Aliphatics	24.3	10	mg/Kg wet	30.0		81.0	40-140			
C19-C36 Aliphatics	37.6	10	mg/Kg wet	40.0		94.0	40-140			
Unadjusted C11-C22 Aromatics	77.3	10	mg/Kg wet	85.0		91.0	40-140			
Acenaphthene	3.79	0.10	mg/Kg wet	5.00		75.9	40-140			
Acenaphthylene	3.60	0.10	mg/Kg wet	5.00		71.9	40-140			
Anthracene	4.35	0.10	mg/Kg wet	5.00		86.9	40-140			
Benzo(a)anthracene	4.72	0.10	mg/Kg wet	5.00		94.3	40-140			
Benzo(a)pyrene	4.66	0.10	mg/Kg wet	5.00		93.1	40-140			
Benzo(b)fluoranthene	5.02	0.10	mg/Kg wet	5.00		100	40-140			
Benzo(g,h,i)perylene	4.20	0.10	mg/Kg wet	5.00		84.1	40-140			
Benzo(k)fluoranthene	3.78	0.10	mg/Kg wet	5.00		75.7	40-140			
Chrysene	4.42	0.10	mg/Kg wet	5.00		88.3	40-140			
Dibenz(a,h)anthracene	4.52	0.10	mg/Kg wet	5.00		90.3	40-140			
Fluoranthene	4.31	0.10	mg/Kg wet	5.00		86.2	40-140			
Fluorene	3.97	0.10	mg/Kg wet	5.00		79.3	40-140			
Indeno(1,2,3-cd)pyrene	4.23	0.10	mg/Kg wet	5.00		84.5	40-140			
2-Methylnaphthalene	3.55	0.10	mg/Kg wet	5.00		70.9	40-140			
Naphthalene	3.35	0.10	mg/Kg wet	5.00		67.1	40-140			
Phenanthrene	4.33	0.10	mg/Kg wet	5.00		86.5	40-140			
Pyrene	4.42	0.10	mg/Kg wet	5.00		88.4	40-140			
Naphthalene-aliphatic fraction	ND	0.10	mg/Kg wet	5.00			0-5			
2-Methylnaphthalene-aliphatic fraction	ND	0.10	mg/Kg wet	5.00			0-5			
Surrogate: Chlorooctadecane (COD)	4.03		mg/Kg wet	5.00		80.6	40-140			

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**QUALITY CONTROL**
**Petroleum Hydrocarbons Analyses - EPH - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B292258 - SW-846 3546</b>										
<b>LCS (B292258-BS1)</b>										
					Prepared: 10/12/21 Analyzed: 10/13/21					
Surrogate: o-Terphenyl (OTP)	3.71		mg/Kg wet	5.00		74.2	40-140			
Surrogate: 2-Bromonaphthalene	4.70		mg/Kg wet	5.00		94.1	40-140			
Surrogate: 2-Fluorobiphenyl	4.74		mg/Kg wet	5.00		94.7	40-140			
<b>LCS Dup (B292258-BSD1)</b>										
					Prepared: 10/12/21 Analyzed: 10/13/21					
C9-C18 Aliphatics	24.1	10	mg/Kg wet	30.0		80.2	40-140	1.03	25	
C19-C36 Aliphatics	37.0	10	mg/Kg wet	40.0		92.4	40-140	1.71	25	
Unadjusted C11-C22 Aromatics	80.3	10	mg/Kg wet	85.0		94.4	40-140	3.73	25	
Acenaphthene	3.81	0.10	mg/Kg wet	5.00		76.3	40-140	0.557	25	
Acenaphthylene	3.61	0.10	mg/Kg wet	5.00		72.1	40-140	0.261	25	
Anthracene	4.48	0.10	mg/Kg wet	5.00		89.6	40-140	3.05	25	
Benzo(a)anthracene	4.90	0.10	mg/Kg wet	5.00		98.1	40-140	3.89	25	
Benzo(a)pyrene	4.86	0.10	mg/Kg wet	5.00		97.2	40-140	4.30	25	
Benzo(b)fluoranthene	5.25	0.10	mg/Kg wet	5.00		105	40-140	4.47	25	
Benzo(g,h,i)perylene	4.44	0.10	mg/Kg wet	5.00		88.9	40-140	5.51	25	
Benzo(k)fluoranthene	3.94	0.10	mg/Kg wet	5.00		78.9	40-140	4.16	25	
Chrysene	4.58	0.10	mg/Kg wet	5.00		91.6	40-140	3.71	25	
Dibenz(a,h)anthracene	4.74	0.10	mg/Kg wet	5.00		94.7	40-140	4.76	25	
Fluoranthene	4.46	0.10	mg/Kg wet	5.00		89.2	40-140	3.37	25	
Fluorene	4.05	0.10	mg/Kg wet	5.00		80.9	40-140	1.98	25	
Indeno(1,2,3-cd)pyrene	4.45	0.10	mg/Kg wet	5.00		88.9	40-140	5.06	25	
2-Methylnaphthalene	3.53	0.10	mg/Kg wet	5.00		70.6	40-140	0.438	25	
Naphthalene	3.36	0.10	mg/Kg wet	5.00		67.3	40-140	0.271	25	
Phenanthrene	4.47	0.10	mg/Kg wet	5.00		89.3	40-140	3.19	25	
Pyrene	4.58	0.10	mg/Kg wet	5.00		91.7	40-140	3.62	25	
Naphthalene-aliphatic fraction	ND	0.10	mg/Kg wet	5.00			0-5			
2-Methylnaphthalene-aliphatic fraction	ND	0.10	mg/Kg wet	5.00			0-5			
Surrogate: Chlorooctadecane (COD)	4.09		mg/Kg wet	5.00		81.7	40-140			
Surrogate: o-Terphenyl (OTP)	3.80		mg/Kg wet	5.00		75.9	40-140			
Surrogate: 2-Bromonaphthalene	4.92		mg/Kg wet	5.00		98.5	40-140			
Surrogate: 2-Fluorobiphenyl	4.99		mg/Kg wet	5.00		99.8	40-140			
<b>Matrix Spike (B292258-MS1)</b>										
					Source: 21J0497-01 Prepared: 10/12/21 Analyzed: 10/13/21					
C9-C18 Aliphatics	24.1	12	mg/Kg dry	36.5	ND	66.1	40-140			
C19-C36 Aliphatics	51.5	12	mg/Kg dry	48.7	18.1	68.8	40-140			
Unadjusted C11-C22 Aromatics	94.6	12	mg/Kg dry	103	28.6	63.8	40-140			
Acenaphthene	3.52	0.12	mg/Kg dry	6.08	0.0670	56.8	40-140			
Acenaphthylene	3.35	0.12	mg/Kg dry	6.08	ND	55.1	40-140			
Anthracene	3.91	0.12	mg/Kg dry	6.08	0.110	62.4	40-140			
Benzo(a)anthracene	4.78	0.12	mg/Kg dry	6.08	0.517	70.1	40-140			
Benzo(a)pyrene	5.30	0.12	mg/Kg dry	6.08	0.948	71.5	40-140			
Benzo(b)fluoranthene	5.12	0.12	mg/Kg dry	6.08	0.652	73.5	40-140			
Benzo(g,h,i)perylene	3.94	0.12	mg/Kg dry	6.08	0.318	59.5	40-140			
Benzo(k)fluoranthene	3.63	0.12	mg/Kg dry	6.08	0.232	55.9	40-140			
Chrysene	4.50	0.12	mg/Kg dry	6.08	0.545	65.1	40-140			
Dibenz(a,h)anthracene	4.04	0.12	mg/Kg dry	6.08	ND	66.4	40-140			
Fluoranthene	4.86	0.12	mg/Kg dry	6.08	0.982	63.8	40-140			
Fluorene	3.58	0.12	mg/Kg dry	6.08	ND	58.9	40-140			
Indeno(1,2,3-cd)pyrene	3.99	0.12	mg/Kg dry	6.08	0.312	60.4	40-140			
2-Methylnaphthalene	3.31	0.12	mg/Kg dry	6.08	ND	54.4	40-140			
Naphthalene	3.13	0.12	mg/Kg dry	6.08	ND	51.5	40-140			
Phenanthrene	4.39	0.12	mg/Kg dry	6.08	0.572	62.8	40-140			

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**QUALITY CONTROL**
**Petroleum Hydrocarbons Analyses - EPH - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B292258 - SW-846 3546**
**Matrix Spike (B292258-MS1)**
**Source: 21J0497-01**

Prepared: 10/12/21 Analyzed: 10/13/21

Pyrene	5.05	0.12	mg/Kg dry	6.08	1.01	66.5	40-140			
Surrogate: Chlorooctadecane (COD)	3.72		mg/Kg dry	6.08		61.2	40-140			
Surrogate: o-Terphenyl (OTP)	3.20		mg/Kg dry	6.08		52.7	40-140			
Surrogate: 2-Bromonaphthalene	5.44		mg/Kg dry	6.08		89.4	40-140			
Surrogate: 2-Fluorobiphenyl	5.46		mg/Kg dry	6.08		89.7	40-140			

**Matrix Spike Dup (B292258-MSD1)**
**Source: 21J0497-01**

Prepared: 10/12/21 Analyzed: 10/13/21

C9-C18 Aliphatics	23.6	12	mg/Kg dry	36.5	ND	64.8	40-140	2.12	50	
C19-C36 Aliphatics	50.6	12	mg/Kg dry	48.7	18.1	66.9	40-140	1.88	50	
Unadjusted C11-C22 Aromatics	112	12	mg/Kg dry	103	28.6	80.7	40-140	16.9	50	
Acenaphthene	3.85	0.12	mg/Kg dry	6.08	0.0670	62.2	40-140	8.76	50	
Acenaphthylene	3.47	0.12	mg/Kg dry	6.08	ND	57.0	40-140	3.39	50	
Anthracene	4.33	0.12	mg/Kg dry	6.08	0.110	69.3	40-140	10.2	50	
Benzo(a)anthracene	5.16	0.12	mg/Kg dry	6.08	0.517	76.3	40-140	7.51	50	
Benzo(a)pyrene	5.26	0.12	mg/Kg dry	6.08	0.948	70.9	40-140	0.735	50	
Benzo(b)fluoranthene	5.39	0.12	mg/Kg dry	6.08	0.652	78.0	40-140	5.23	50	
Benzo(g,h,i)perylene	3.91	0.12	mg/Kg dry	6.08	0.318	59.1	40-140	0.573	50	
Benzo(k)fluoranthene	3.68	0.12	mg/Kg dry	6.08	0.232	56.6	40-140	1.29	50	
Chrysene	4.83	0.12	mg/Kg dry	6.08	0.545	70.5	40-140	7.09	50	
Dibenz(a,h)anthracene	3.84	0.12	mg/Kg dry	6.08	ND	63.2	40-140	4.92	50	
Fluoranthene	6.08	0.12	mg/Kg dry	6.08	0.982	83.9	40-140	22.3	50	
Fluorene	3.95	0.12	mg/Kg dry	6.08	ND	65.0	40-140	9.90	50	
Indeno(1,2,3-cd)pyrene	4.14	0.12	mg/Kg dry	6.08	0.312	63.0	40-140	3.82	50	
2-Methylnaphthalene	3.34	0.12	mg/Kg dry	6.08	ND	55.0	40-140	1.13	50	
Naphthalene	3.08	0.12	mg/Kg dry	6.08	ND	50.7	40-140	1.46	50	
Phenanthrene	6.04	0.12	mg/Kg dry	6.08	0.572	89.9	40-140	31.6	50	
Pyrene	6.21	0.12	mg/Kg dry	6.08	1.01	85.5	40-140	20.5	50	
Surrogate: Chlorooctadecane (COD)	3.61		mg/Kg dry	6.08		59.4	40-140			
Surrogate: o-Terphenyl (OTP)	3.29		mg/Kg dry	6.08		54.0	40-140			
Surrogate: 2-Bromonaphthalene	5.77		mg/Kg dry	6.08		94.9	40-140			
Surrogate: 2-Fluorobiphenyl	5.78		mg/Kg dry	6.08		95.1	40-140			

**Batch B292433 - SW-846 3546**
**Blank (B292433-BLK1)**

Prepared: 10/14/21 Analyzed: 10/15/21

C9-C18 Aliphatics	ND	10	mg/Kg wet							
C19-C36 Aliphatics	ND	10	mg/Kg wet							
Unadjusted C11-C22 Aromatics	ND	10	mg/Kg wet							
C11-C22 Aromatics	ND	10	mg/Kg wet							
Acenaphthene	ND	0.10	mg/Kg wet							
Acenaphthylene	ND	0.10	mg/Kg wet							
Anthracene	ND	0.10	mg/Kg wet							
Benzo(a)anthracene	ND	0.10	mg/Kg wet							
Benzo(a)pyrene	ND	0.10	mg/Kg wet							
Benzo(b)fluoranthene	ND	0.10	mg/Kg wet							
Benzo(g,h,i)perylene	ND	0.10	mg/Kg wet							
Benzo(k)fluoranthene	ND	0.10	mg/Kg wet							
Chrysene	ND	0.10	mg/Kg wet							
Dibenz(a,h)anthracene	ND	0.10	mg/Kg wet							
Fluoranthene	ND	0.10	mg/Kg wet							
Fluorene	ND	0.10	mg/Kg wet							
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg wet							
2-Methylnaphthalene	ND	0.10	mg/Kg wet							

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**QUALITY CONTROL**
**Petroleum Hydrocarbons Analyses - EPH - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B292433 - SW-846 3546</b>										
<b>Blank (B292433-BLK1)</b>										
Prepared: 10/14/21 Analyzed: 10/15/21										
Naphthalene	ND	0.10	mg/Kg wet							
Phenanthrene	ND	0.10	mg/Kg wet							
Pyrene	ND	0.10	mg/Kg wet							
Naphthalene-aliphatic fraction	ND	0.10	mg/Kg wet							
2-Methylnaphthalene-aliphatic fraction	ND	0.10	mg/Kg wet							
Surrogate: Chlorooctadecane (COD)	2.65		mg/Kg wet	5.00		53.0	40-140			
Surrogate: o-Terphenyl (OTP)	2.94		mg/Kg wet	5.00		58.8	40-140			
Surrogate: 2-Bromonaphthalene	4.25		mg/Kg wet	5.00		85.0	40-140			
Surrogate: 2-Fluorobiphenyl	4.33		mg/Kg wet	5.00		86.6	40-140			
<b>LCS (B292433-BS1)</b>										
Prepared: 10/14/21 Analyzed: 10/15/21										
C9-C18 Aliphatics	16.4	10	mg/Kg wet	30.0		54.7	40-140			
C19-C36 Aliphatics	28.8	10	mg/Kg wet	40.0		72.1	40-140			
Unadjusted C11-C22 Aromatics	56.6	10	mg/Kg wet	85.0		66.6	40-140			
Acenaphthene	2.72	0.10	mg/Kg wet	5.00		54.4	40-140			
Acenaphthylene	2.59	0.10	mg/Kg wet	5.00		51.8	40-140			
Anthracene	2.69	0.10	mg/Kg wet	5.00		53.8	40-140			
Benzo(a)anthracene	3.09	0.10	mg/Kg wet	5.00		61.7	40-140			
Benzo(a)pyrene	3.17	0.10	mg/Kg wet	5.00		63.3	40-140			
Benzo(b)fluoranthene	3.46	0.10	mg/Kg wet	5.00		69.2	40-140			
Benzo(g,h,i)perylene	3.01	0.10	mg/Kg wet	5.00		60.1	40-140			
Benzo(k)fluoranthene	2.62	0.10	mg/Kg wet	5.00		52.5	40-140			
Chrysene	3.00	0.10	mg/Kg wet	5.00		60.0	40-140			
Dibenz(a,h)anthracene	3.23	0.10	mg/Kg wet	5.00		64.5	40-140			
Fluoranthene	2.80	0.10	mg/Kg wet	5.00		56.0	40-140			
Fluorene	2.69	0.10	mg/Kg wet	5.00		53.8	40-140			
Indeno(1,2,3-cd)pyrene	3.06	0.10	mg/Kg wet	5.00		61.3	40-140			
2-Methylnaphthalene	2.61	0.10	mg/Kg wet	5.00		52.3	40-140			
Naphthalene	2.45	0.10	mg/Kg wet	5.00		49.1	40-140			
Phenanthrene	2.76	0.10	mg/Kg wet	5.00		55.2	40-140			
Pyrene	2.86	0.10	mg/Kg wet	5.00		57.2	40-140			
Naphthalene-aliphatic fraction	ND	0.10	mg/Kg wet	5.00			0-5			
2-Methylnaphthalene-aliphatic fraction	ND	0.10	mg/Kg wet	5.00			0-5			
Surrogate: Chlorooctadecane (COD)	2.67		mg/Kg wet	5.00		53.3	40-140			
Surrogate: o-Terphenyl (OTP)	2.83		mg/Kg wet	5.00		56.6	40-140			
Surrogate: 2-Bromonaphthalene	4.80		mg/Kg wet	5.00		96.0	40-140			
Surrogate: 2-Fluorobiphenyl	4.98		mg/Kg wet	5.00		99.7	40-140			
<b>LCS Dup (B292433-BSD1)</b>										
Prepared: 10/14/21 Analyzed: 10/15/21										
C9-C18 Aliphatics	16.8	10	mg/Kg wet	30.0		55.9	40-140	2.13	25	
C19-C36 Aliphatics	29.9	10	mg/Kg wet	40.0		74.8	40-140	3.69	25	
Unadjusted C11-C22 Aromatics	60.8	10	mg/Kg wet	85.0		71.5	40-140	7.06	25	
Acenaphthene	3.02	0.10	mg/Kg wet	5.00		60.5	40-140	10.5	25	
Acenaphthylene	2.87	0.10	mg/Kg wet	5.00		57.4	40-140	10.4	25	
Anthracene	3.00	0.10	mg/Kg wet	5.00		60.0	40-140	11.0	25	
Benzo(a)anthracene	3.41	0.10	mg/Kg wet	5.00		68.2	40-140	9.98	25	
Benzo(a)pyrene	3.42	0.10	mg/Kg wet	5.00		68.5	40-140	7.81	25	
Benzo(b)fluoranthene	3.77	0.10	mg/Kg wet	5.00		75.3	40-140	8.53	25	
Benzo(g,h,i)perylene	3.21	0.10	mg/Kg wet	5.00		64.2	40-140	6.50	25	
Benzo(k)fluoranthene	2.85	0.10	mg/Kg wet	5.00		56.9	40-140	8.05	25	
Chrysene	3.30	0.10	mg/Kg wet	5.00		66.1	40-140	9.62	25	
Dibenz(a,h)anthracene	3.44	0.10	mg/Kg wet	5.00		68.7	40-140	6.30	25	

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**QUALITY CONTROL**
**Petroleum Hydrocarbons Analyses - EPH - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B292433 - SW-846 3546</b>									
<b>LCS Dup (B292433-BSD1)</b>					Prepared: 10/14/21 Analyzed: 10/15/21				
Fluoranthene	3.11	0.10	mg/Kg wet	5.00		62.2 40-140	10.5	25	
Fluorene	3.00	0.10	mg/Kg wet	5.00		60.0 40-140	10.9	25	
Indeno(1,2,3-cd)pyrene	3.24	0.10	mg/Kg wet	5.00		64.9 40-140	5.76	25	
2-Methylnaphthalene	2.89	0.10	mg/Kg wet	5.00		57.9 40-140	10.2	25	
Naphthalene	2.67	0.10	mg/Kg wet	5.00		53.5 40-140	8.56	25	
Phenanthrene	3.08	0.10	mg/Kg wet	5.00		61.6 40-140	10.8	25	
Pyrene	3.18	0.10	mg/Kg wet	5.00		63.6 40-140	10.5	25	
Naphthalene-aliphatic fraction	ND	0.10	mg/Kg wet	5.00		0-5			
2-Methylnaphthalene-aliphatic fraction	ND	0.10	mg/Kg wet	5.00		0-5			
Surrogate: Chlorooctadecane (COD)	2.76		mg/Kg wet	5.00		55.3 40-140			
Surrogate: o-Terphenyl (OTP)	3.13		mg/Kg wet	5.00		62.5 40-140			
Surrogate: 2-Bromonaphthalene	5.03		mg/Kg wet	5.00		101 40-140			
Surrogate: 2-Fluorobiphenyl	5.16		mg/Kg wet	5.00		103 40-140			



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**QUALITY CONTROL**
**Metals Analyses (Total) - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B292102 - SW-846 3050B**
**Blank (B292102-BLK1)**

Prepared: 10/09/21 Analyzed: 10/11/21

Antimony	ND	1.7	mg/Kg wet							
Arsenic	ND	3.3	mg/Kg wet							
Barium	ND	1.7	mg/Kg wet							
Beryllium	ND	0.17	mg/Kg wet							
Cadmium	ND	0.33	mg/Kg wet							
Chromium	ND	0.67	mg/Kg wet							
Lead	ND	0.50	mg/Kg wet							
Nickel	ND	0.67	mg/Kg wet							
Selenium	ND	3.3	mg/Kg wet							
Silver	ND	0.33	mg/Kg wet							
Thallium	ND	1.7	mg/Kg wet							
Vanadium	ND	0.67	mg/Kg wet							
Zinc	ND	0.67	mg/Kg wet							

**LCS (B292102-BS1)**

Prepared: 10/09/21 Analyzed: 10/11/21

Antimony	127	5.0	mg/Kg wet	134		94.9	1.9-200.7			
Arsenic	144	10	mg/Kg wet	170		84.9	82.9-117.6			
Barium	172	5.0	mg/Kg wet	183		94.2	82.5-117.5			
Beryllium	105	0.50	mg/Kg wet	116		90.5	83.4-116.4			
Cadmium	79.6	1.0	mg/Kg wet	89.5		89.0	82.8-117.3			
Chromium	94.7	2.0	mg/Kg wet	101		93.7	82.1-117.8			
Lead	125	1.5	mg/Kg wet	140		89.2	82.9-117.1			
Nickel	61.3	2.0	mg/Kg wet	68.3		89.8	82.1-117.7			
Selenium	159	10	mg/Kg wet	182		87.2	79.7-120.3			
Silver	45.8	1.0	mg/Kg wet	50.1		91.4	80.2-120			
Thallium	84.0	5.0	mg/Kg wet	87.7		95.8	81.1-118.6			
Vanadium	148	2.0	mg/Kg wet	153		97.0	79.1-120.9			
Zinc	204	2.0	mg/Kg wet	228		89.4	80.7-118.9			

**LCS Dup (B292102-BSD1)**

Prepared: 10/09/21 Analyzed: 10/11/21

Antimony	141	4.9	mg/Kg wet	134		105	1.9-200.7	10.3	30	
Arsenic	151	9.8	mg/Kg wet	170		89.0	82.9-117.6	4.73	30	
Barium	184	4.9	mg/Kg wet	183		101	82.5-117.5	6.63	20	
Beryllium	113	0.49	mg/Kg wet	116		97.7	83.4-116.4	7.66	30	
Cadmium	88.6	0.98	mg/Kg wet	89.5		99.0	82.8-117.3	10.7	20	
Chromium	103	2.0	mg/Kg wet	101		102	82.1-117.8	8.21	30	
Lead	129	1.5	mg/Kg wet	140		92.4	82.9-117.1	3.47	30	
Nickel	69.0	2.0	mg/Kg wet	68.3		101	82.1-117.7	11.8	30	
Selenium	172	9.8	mg/Kg wet	182		94.3	79.7-120.3	7.72	30	
Silver	48.7	0.98	mg/Kg wet	50.1		97.2	80.2-120	6.17	30	
Thallium	88.0	4.9	mg/Kg wet	87.7		100	81.1-118.6	4.63	30	
Vanadium	157	2.0	mg/Kg wet	153		102	79.1-120.9	5.51	30	
Zinc	217	2.0	mg/Kg wet	228		95.2	80.7-118.9	6.23	30	

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**QUALITY CONTROL**
**Metals Analyses (Total) - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B292102 - SW-846 3050B</b>										
<b>Matrix Spike (B292102-MS1)</b> Source: 21J0497-02 Prepared: 10/09/21 Analyzed: 10/12/21										
Antimony	10.2	1.8	mg/Kg dry	18.1	ND	56.2	* 75-125			MS-07A
Arsenic	16.2	3.6	mg/Kg dry	18.1	3.79	68.6	* 75-125			
Barium	77.9	1.8	mg/Kg dry	18.1	70.5	40.9	* 75-125			
Beryllium	17.8	0.18	mg/Kg dry	18.1	0.348	96.7	75-125			
Cadmium	16.7	0.36	mg/Kg dry	18.1	0.195	91.1	75-125			
Chromium	28.1	0.72	mg/Kg dry	18.1	10.2	99.1	75-125			
Lead	144	0.54	mg/Kg dry	18.1	237	-513	* 75-125			MS-19
Nickel	24.7	0.72	mg/Kg dry	18.1	9.64	83.3	75-125			
Selenium	14.8	3.6	mg/Kg dry	18.1	ND	81.9	75-125			
Silver	16.8	0.36	mg/Kg dry	18.1	ND	92.9	75-125			
Thallium	20.6	1.8	mg/Kg dry	18.1	ND	114	75-125			
Vanadium	39.1	0.72	mg/Kg dry	18.1	19.6	108	75-125			
Zinc	102	0.72	mg/Kg dry	36.1	107	-14.4	* 75-125			Z-01
<b>Matrix Spike Dup (B292102-MSD1)</b> Source: 21J0497-02 Prepared: 10/09/21 Analyzed: 10/12/21										
Antimony	10.7	1.8	mg/Kg dry	18.2	ND	59.1	* 75-125	5.68	35	MS-07A
Arsenic	19.1	3.6	mg/Kg dry	18.2	3.79	84.0	75-125	16.4	35	
Barium	88.0	1.8	mg/Kg dry	18.2	70.5	96.0	75-125	12.1	35	
Beryllium	17.8	0.18	mg/Kg dry	18.2	0.348	96.2	75-125	0.0656	35	
Cadmium	16.8	0.36	mg/Kg dry	18.2	0.195	91.5	75-125	0.982	35	
Chromium	27.5	0.73	mg/Kg dry	18.2	10.2	95.4	75-125	2.02	35	
Lead	262	0.55	mg/Kg dry	18.2	237	138	* 75-125	58.0	* 35	MS-19
Nickel	24.9	0.73	mg/Kg dry	18.2	9.64	83.8	75-125	0.791	35	
Selenium	13.4	3.6	mg/Kg dry	18.2	ND	73.9	* 75-125	9.66	35	
Silver	16.3	0.36	mg/Kg dry	18.2	ND	89.6	75-125	3.02	35	
Thallium	20.6	1.8	mg/Kg dry	18.2	ND	114	75-125	0.266	35	
Vanadium	37.8	0.73	mg/Kg dry	18.2	19.6	100	75-125	3.43	35	
Zinc	125	0.73	mg/Kg dry	36.3	107	49.3	* 75-125	20.4	35	Z-01
<b>Post Spike (B292102-PS1)</b> Source: 21J0497-02 Prepared: 10/09/21 Analyzed: 10/11/21										
Zinc	6.33		mg/L	4.00	3.01	83.1	75-125			
<b>Reference (B292102-SRM1) MRL Check</b> Prepared: 10/09/21 Analyzed: 10/11/21										
Lead	0.421	0.48	mg/Kg wet	0.484		87.0	80-120			
<b>Batch B292137 - SW-846 7471</b>										
<b>Blank (B292137-BLK1)</b> Prepared: 10/11/21 Analyzed: 10/12/21										
Mercury	ND	0.025	mg/Kg wet							
<b>LCS (B292137-BS1)</b> Prepared: 10/11/21 Analyzed: 10/12/21										
Mercury	16.1	0.75	mg/Kg wet	15.6		103	59.3-140.4			

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**QUALITY CONTROL**
**Metals Analyses (Total) - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B292137 - SW-846 7471</b>										
<b>LCS Dup (B292137-BSD1)</b>					Prepared: 10/11/21 Analyzed: 10/12/21					
Mercury	15.6	0.76	mg/Kg wet	15.6		99.9	59.3-140.4	3.17	20	
<b>Matrix Spike (B292137-MS1)</b>					Prepared: 10/11/21 Analyzed: 10/12/21					
Mercury	0.538	0.027	mg/Kg dry	0.361	0.114	117	80-120			
<b>Matrix Spike Dup (B292137-MSD1)</b>					Prepared: 10/11/21 Analyzed: 10/12/21					
Mercury	0.482	0.027	mg/Kg dry	0.357	0.114	103	80-120	11.0	20	

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**QUALITY CONTROL**
**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B292288 - % Solids</b>										
<b>Duplicate (B292288-DUP1)</b>										
			<b>Source: 21J0497-19</b>		Prepared: 10/12/21 Analyzed: 10/13/21					
% Solids	87.5		% Wt		87.9			0.444	5	
<b>Duplicate (B292288-DUP2)</b>										
			<b>Source: 21J0497-20</b>		Prepared: 10/12/21 Analyzed: 10/13/21					
% Solids	85.3		% Wt		85.7			0.427	5	

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## IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

**TP-5 (0-2)**

*SW-846 8082A*

 Lab Sample ID: 21J0497-09 Date(s) Analyzed: 10/15/2021 10/15/2021

 Instrument ID (1): ECD5 Instrument ID (2): ECD5

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1248	1	0.000	0.000	0.000	0.18	
	2	0.000	0.000	0.000	0.15	18.2
Aroclor-1254	1	0.000	0.000	0.000	0.30	
	2	0.000	0.000	0.000	0.29	3.4

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## IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

**TP-6 (5-6)**

*SW-846 8082A*

 Lab Sample ID: 21J0497-11 Date(s) Analyzed: 10/15/2021 10/15/2021

 Instrument ID (1): ECD5 Instrument ID (2): ECD5

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1254	1	0.000	0.000	0.000	0.19	
	2	0.000	0.000	0.000	0.17	11.1

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## IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

**TP-6 (0-2)**

*SW-846 8082A*

 Lab Sample ID: 21J0497-12 Date(s) Analyzed: 10/15/2021 10/15/2021

 Instrument ID (1): ECD5 Instrument ID (2): ECD5

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1248	1	0.000	0.000	0.000	0.21	
	2	0.000	0.000	0.000	0.18	15.4
Aroclor-1254	1	0.000	0.000	0.000	0.32	
	2	0.000	0.000	0.000	0.38	17.1

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## IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

**TP-7 (0-2)**

*SW-846 8082A*

 Lab Sample ID: 21J0497-14 Date(s) Analyzed: 10/15/2021 10/15/2021

 Instrument ID (1): ECD5 Instrument ID (2): ECD5

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1260	1	0.000	0.000	0.000	0.15	
	2	0.000	0.000	0.000	0.16	6.5



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## IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

**TP-7 (2-4)**

*SW-846 8082A*

 Lab Sample ID: 21J0497-20 Date(s) Analyzed: 10/15/2021 10/15/2021

 Instrument ID (1): ECD5 Instrument ID (2): ECD5

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1260	1	0.000	0.000	0.000	0.11	
	2	0.000	0.000	0.000	0.11	0.0

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## IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

**LCS**

*SW-846 8082A*

 Lab Sample ID:                     B292202-BS1                                          Date(s) Analyzed:           10/14/2021                     10/14/2021          

 Instrument ID (1):                     ECD5                                          Instrument ID (2):                     ECD5                    

GC Column (1):                      ID:                      (mm)                      GC Column (2):                      ID:                      (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	0.20	
	2	0.000	0.000	0.000	0.17	16.2
Aroclor-1260	1	0.000	0.000	0.000	0.15	
	2	0.000	0.000	0.000	0.16	6.5



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## IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

**Matrix Spike**

*SW-846 8082A*

 Lab Sample ID:                   B292202-MS1                                        Date(s) Analyzed:           10/15/2021                     10/15/2021          

 Instrument ID (1):                   ECD5                                        Instrument ID (2):                   ECD5                  

GC Column (1):                      ID:                      (mm)                      GC Column (2):                      ID:                      (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	0.20	
	2	0.000	0.000	0.000	0.19	5.1
Aroclor-1260	1	0.000	0.000	0.000	0.15	
	2	0.000	0.000	0.000	0.16	6.5



**FLAG/QUALIFIER SUMMARY**

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
DL-03	Elevated reporting limit due to matrix interference.
L-14	Compound classified by MA CAM as difficult with acceptable recoveries of 40-160%. Recovery does not meet 70-130% criteria but does meet difficult compound criteria.
MS-07A	Matrix spike and spike duplicate recovery is outside of control limits. Analysis is in control based on laboratory fortified blank recovery. Possibility of matrix effects that lead to low bias or non-homogeneous sample aliquot cannot be eliminated.
MS-19	Sample to spike ratio is greater than or equal to 4:1. Spiked amount is not representative of the native amount in the sample. Appropriate or meaningful recoveries cannot be calculated.
MS-22	Either matrix spike or MS duplicate is outside of control limits, but the other is within limits. RPD between the two MS/MSD results is within method specified criteria.
O-32	A dilution was performed as part of the standard analytical procedure.
RL-08	Elevated reporting limit due to sample matrix interference. MA CAM reporting limit not met.
V-05	Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.
V-16	Response factor is less than method specified minimum acceptable value. Reduced precision and accuracy may be associated with reported result.
V-20	Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.
V-34	Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.
Z-01	Either MS or MS duplicate is outside of control limits, but the other is within limits. Possibility of sample matrix effects that lead to a low bias for reported result or non-homogeneous sample aliquots cannot be eliminated. Post spike recovery is 83.1%

**CERTIFICATIONS**
**Certified Analyses included in this Report**

Analyte	Certifications
<b>MADEP EPH rev 2.1 in Soil</b>	
C9-C18 Aliphatics	CT,NC,ME,NH-P
C19-C36 Aliphatics	CT,NC,ME,NH-P
Unadjusted C11-C22 Aromatics	CT,NC,ME,NH-P
C11-C22 Aromatics	CT,NC,ME,NH-P
Acenaphthene	CT,NC,ME,NH-P
Acenaphthylene	CT,NC,ME,NH-P
Anthracene	CT,NC,ME,NH-P
Benzo(a)anthracene	CT,NC,ME,NH-P
Benzo(a)pyrene	CT,NC,ME,NH-P
Benzo(b)fluoranthene	CT,NC,ME,NH-P
Benzo(g,h,i)perylene	CT,NC,ME,NH-P
Benzo(k)fluoranthene	CT,NC,ME,NH-P
Chrysene	CT,NC,ME,NH-P
Dibenz(a,h)anthracene	CT,NC,ME,NH-P
Fluoranthene	CT,NC,ME,NH-P
Fluorene	CT,NC,ME
Indeno(1,2,3-cd)pyrene	CT,NC,ME,NH-P
2-Methylnaphthalene	CT,NC
Naphthalene	CT,NC,ME,NH-P
Phenanthrene	CT,NC,ME,NH-P
Pyrene	CT,NC,ME,NH-P
<b>MADEP EPH rev 2.1 in Water</b>	
C9-C18 Aliphatics	CT,NC,ME,NH-P
C19-C36 Aliphatics	CT,NC,ME,NH-P
Unadjusted C11-C22 Aromatics	CT,NC,ME,NH-P
C11-C22 Aromatics	CT,NC,ME,NH-P
Acenaphthene	CT,NC,ME,NH-P
Acenaphthylene	CT,NC,ME,NH-P
Anthracene	CT,NC,ME,NH-P
Benzo(a)anthracene	CT,NC,ME,NH-P
Benzo(a)pyrene	CT,NC,ME,NH-P
Benzo(b)fluoranthene	CT,NC,ME,NH-P
Benzo(g,h,i)perylene	CT,NC,ME,NH-P
Benzo(k)fluoranthene	CT,NC,ME,NH-P
Chrysene	CT,NC,ME,NH-P
Dibenz(a,h)anthracene	CT,NC,ME,NH-P
Fluoranthene	CT,NC,ME,NH-P
Fluorene	CT,NC,ME
Indeno(1,2,3-cd)pyrene	CT,NC,ME,NH-P
2-Methylnaphthalene	CT,NC
Naphthalene	CT,NC,ME,NH-P
Phenanthrene	CT,NC,ME,NH-P
Pyrene	CT,NC,ME,NH-P
<b>SW-846 6010D in Soil</b>	
Antimony	CT,NH,NY,ME,VA,NC
Arsenic	CT,NH,NY,ME,VA,NC

**CERTIFICATIONS**
**Certified Analyses included in this Report**

Analyte	Certifications
<b><i>SW-846 6010D in Soil</i></b>	
Barium	CT,NH,NY,ME,VA,NC
Beryllium	CT,NH,NY,ME,VA,NC
Cadmium	CT,NH,NY,ME,VA,NC
Chromium	CT,NH,NY,ME,VA,NC
Lead	CT,NH,NY,AIHA,ME,VA,NC
Nickel	CT,NH,NY,ME,VA,NC
Selenium	CT,NH,NY,ME,VA,NC
Silver	CT,NH,NY,ME,VA,NC
Thallium	CT,NH,NY,ME,VA,NC
Vanadium	CT,NH,NY,ME,VA,NC
Zinc	CT,NH,NY,ME,VA,NC
<b><i>SW-846 7471B in Soil</i></b>	
Mercury	CT,NH,NY,NC,ME,VA
<b><i>SW-846 8082A in Soil</i></b>	
Aroclor-1016	CT,NH,NY,NC,ME,VA,PA
Aroclor-1016 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1221	CT,NH,NY,NC,ME,VA,PA
Aroclor-1221 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1232	CT,NH,NY,NC,ME,VA,PA
Aroclor-1232 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1242	CT,NH,NY,NC,ME,VA,PA
Aroclor-1242 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1248	CT,NH,NY,NC,ME,VA,PA
Aroclor-1248 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1254	CT,NH,NY,NC,ME,VA,PA
Aroclor-1254 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1260	CT,NH,NY,NC,ME,VA,PA
Aroclor-1260 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1262	NH,NY,NC,ME,VA,PA
Aroclor-1262 [2C]	NH,NY,NC,ME,VA,PA
Aroclor-1268	NH,NY,NC,ME,VA,PA
Aroclor-1268 [2C]	NH,NY,NC,ME,VA,PA
<b><i>SW-846 8260D in Soil</i></b>	
Acetone	CT,NH,NY,ME
Benzene	CT,NH,NY,ME
Bromobenzene	NH,NY,ME
Bromochloromethane	NH,NY,ME
Bromodichloromethane	CT,NH,NY,ME
Bromoform	CT,NH,NY,ME
Bromomethane	CT,NH,NY,ME
2-Butanone (MEK)	CT,NH,NY,ME
n-Butylbenzene	CT,NH,NY,ME
sec-Butylbenzene	CT,NH,NY,ME
tert-Butylbenzene	CT,NH,NY,ME
Carbon Disulfide	CT,NH,NY,ME
Carbon Tetrachloride	CT,NH,NY,ME



**CERTIFICATIONS**
**Certified Analyses included in this Report**

Analyte	Certifications
<i>SW-846 8260D in Soil</i>	
Chlorobenzene	CT,NH,NY,ME
Chlorodibromomethane	CT,NH,NY,ME
Chloroethane	CT,NH,NY,ME
Chloroform	CT,NH,NY,ME
Chloromethane	CT,NH,NY,ME
2-Chlorotoluene	CT,NH,NY,ME
4-Chlorotoluene	CT,NH,NY,ME
1,2-Dibromo-3-chloropropane (DBCP)	NY
1,2-Dibromoethane (EDB)	NY
Dibromomethane	NH,NY,ME
1,2-Dichlorobenzene	CT,NH,NY,ME
1,3-Dichlorobenzene	CT,NH,NY,ME
1,4-Dichlorobenzene	CT,NH,NY,ME
Dichlorodifluoromethane (Freon 12)	NY,ME
1,1-Dichloroethane	CT,NH,NY,ME
1,2-Dichloroethane	CT,NH,NY,ME
1,1-Dichloroethylene	CT,NH,NY,ME
cis-1,2-Dichloroethylene	CT,NH,NY,ME
trans-1,2-Dichloroethylene	CT,NH,NY,ME
1,2-Dichloropropane	CT,NH,NY,ME
1,3-Dichloropropane	NH,NY,ME
2,2-Dichloropropane	NH,NY,ME
1,1-Dichloropropene	NH,NY,ME
cis-1,3-Dichloropropene	CT,NH,NY,ME
trans-1,3-Dichloropropene	CT,NH,NY,ME
1,4-Dioxane	NY
Ethylbenzene	CT,NH,NY,ME
Hexachlorobutadiene	NH,NY,ME
2-Hexanone (MBK)	CT,NH,NY,ME
Isopropylbenzene (Cumene)	CT,NH,NY,ME
p-Isopropyltoluene (p-Cymene)	NH,NY
Methyl tert-Butyl Ether (MTBE)	NH,NY
Methylene Chloride	CT,NH,NY,ME
4-Methyl-2-pentanone (MIBK)	CT,NH,NY
Naphthalene	NH,NY,ME
n-Propylbenzene	NH,NY
Styrene	CT,NH,NY,ME
1,1,1,2-Tetrachloroethane	CT,NH,NY,ME
1,1,2,2-Tetrachloroethane	CT,NH,NY,ME
Tetrachloroethylene	CT,NH,NY,ME
Toluene	CT,NH,NY,ME
1,2,3-Trichlorobenzene	NY
1,2,4-Trichlorobenzene	NH,NY,ME
1,1,1-Trichloroethane	CT,NH,NY,ME
1,1,2-Trichloroethane	CT,NH,NY,ME
Trichloroethylene	CT,NH,NY,ME
Trichlorofluoromethane (Freon 11)	CT,NH,NY,ME

**CERTIFICATIONS**
**Certified Analyses included in this Report**

Analyte	Certifications
<i>SW-846 8260D in Soil</i>	
1,2,3-Trichloropropane	NH,NY,ME
1,2,4-Trimethylbenzene	CT,NH,NY,ME
1,3,5-Trimethylbenzene	CT,NH,NY,ME
Vinyl Chloride	CT,NH,NY,ME
m+p Xylene	CT,NH,NY,ME
o-Xylene	CT,NH,NY,ME

Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2022
CT	Connecticut Department of Public Health	PH-0165	12/31/2022
NY	New York State Department of Health	10899 NELAP	04/1/2022
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2022
RI	Rhode Island Department of Health	LAO00112	12/30/2021
NC	North Carolina Div. of Water Quality	652	12/31/2021
NJ	New Jersey DEP	MA007 NELAP	06/30/2022
FL	Florida Department of Health	E871027 NELAP	06/30/2022
VT	Vermont Department of Health Lead Laboratory	LL720741	07/30/2022
ME	State of Maine	MA00100	06/9/2023
VA	Commonwealth of Virginia	460217	12/14/2021
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2022
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2022
NC-DW	North Carolina Department of Health	25703	07/31/2022
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2022
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2022







I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples \_\_\_\_\_



**con-test**  
ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

**Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False**

Client WGS  
 Received By al Date 10/8/11 Time 2050  
 How were the samples received? In Cooler T No Cooler \_\_\_\_\_ On Ice T No Ice \_\_\_\_\_  
 Direct from Sampling \_\_\_\_\_ Ambient \_\_\_\_\_ Melted Ice \_\_\_\_\_  
 Were samples within Temperature? 2-6°C T By Gun # 2 Actual Temp - 2.8, 5.6  
 By Blank # \_\_\_\_\_ Actual Temp - \_\_\_\_\_  
 Was Custody Seal Intact? MA Were Samples Tampered with? MA  
 Was COC Relinquished? T Does Chain Agree With Samples? T  
 Are there broken/leaking/loose caps on any samples? F  
 Is COC in ink/ Legible? T Were samples received within holding time? T  
 Did COC include all pertinent Information? Client T Analysis T Sampler Name T  
 Project T ID's T Collection Dates/Times T  
 Are Sample labels filled out and legible? T  
 Are there Lab to Filters? F Who was notified? \_\_\_\_\_  
 Are there Rushes? F Who was notified? \_\_\_\_\_  
 Are there Short Holds? F Who was notified? \_\_\_\_\_  
 Is there enough Volume? T  
 Is there Headspace where applicable? T MS/MSD? T  
 Proper Media/Containers Used? T Is splitting samples required? F  
 Were trip blanks received? F On COC? F  
 Do all samples have the proper pH? MA Acid \_\_\_\_\_ Base \_\_\_\_\_

Vials	Containers:	#	#	#	#
Unp-	1 Liter Amb.		1 Liter Plastic		16 oz Amb.
HCL-	500 mL Amb.		500 mL Plastic		8oz Amb/Clear
Meoh- <u>12</u>	250 mL Amb.		250 mL Plastic		4oz Amb/Clear
Bisulfate- <u>24</u>	Flashpoint		Col./Bacteria		2oz Amb/Clear
DI-	Other Glass		Other Plastic		Encore
Thiosulfate-	SOC Kit		Plastic Bag		Frozen:
Sulfuric-	Perchlorate		Ziplock		

**Unused Media**

Vials	#	Containers:	#	#	#
Unp-		1 Liter Amb.		1 Liter Plastic	16 oz Amb.
HCL-		500 mL Amb.		500 mL Plastic	8oz Amb/Clear
Meoh-		250 mL Amb.		250 mL Plastic	4oz Amb/Clear
Bisulfate-		Col./Bacteria		Flashpoint	2oz Amb/Clear
DI-		Other Plastic		Other Glass	Encore
Thiosulfate-		SOC Kit		Plastic Bag	Frozen:
Sulfuric-		Perchlorate		Ziplock	

Comments:

## MADEP MCP Analytical Method Report Certification Form

Laboratory Name: Con-Test, a Pace Analytical Laboratory	Project #: 21J0497
Project Location: Boston, MA	RTN:

This Form provides certifications for the following data set: [list Laboratory Sample ID Number(s)]  
21J0497-01 thru 21J0497-20

Matrices: Soil

**CAM Protocol (check all that below)**

8260 VOC CAM II A ( )	7470/7471 Hg CAM IIIB (X)	MassDEP VPH CAM IV A ( )	8082 PCB CAM V A (X)	9014 Total Cyanide/PAC CAM VI A ( )	6860 Perchlorate CAM VIII B ( )
8270 SVOC CAM II B ( )	7010 Metals CAM III C ( )	MassDEP VPH CAM IV C ( )	8081 Pesticides CAM V B ( )	7196 Hex Cr CAM VI B ( )	MassDEP APH CAM IX A ( )
6010 Metals CAM III A (X)	6020 Metals CAM III D ( )	MassDEP EPH CAM IV B (X)	8151 Herbicides CAM V C ( )	8330 Explosives CAM VIII A ( )	TO-15 VOC CAM IX B ( )

**Affirmative response to Questions A through F is required for "Presumptive Certainty" status**

<b>A</b>	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>B</b>	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>C</b>	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>D</b>	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>E a</b>	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>E b</b>	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	<input type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>F</b>	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all No responses to Questions A through E)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>

**A response to questions G, H and I below is required for "Presumptive Certainty" status**

<b>G</b>	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <sup>1</sup>
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**Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.**

<b>H</b>	Were all QC performance standards specified in the CAM protocol(s) achieved?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <sup>1</sup>
<b>I</b>	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>

<sup>1</sup>All Negative responses must be addressed in an attached Environmental Laboratory case narrative.

**I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.**

Signature: Lisa Worthington Position: Technical Representative  
Printed Name: Lisa A. Worthington Date: 10/18/21