UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 1
5 Post Office Square, Suite 100
BOSTON, MA 02109-3912

CERTIFIED MAIL RETURN RECEIPT REQUESTED

JUL 30 2014

James Heighton
Senior Project Manager
Fan Pier Development LLC
One Marina Park Drive
Boston, MA 02210

Re: Authorization to discharge under the Remediation General Permit (RGP) – MAG910000. One Marina Park Drive site located at One Marina Park Drive, Boston, MA 02210. Suffolk County; Authorization # MAG910632

Dear Mr. Heighton:

Based on the review of a Notice of Intent (NOI) submitted by Benjamin E. Downing of McPhail Associates, LLC on behalf of Fan Pier Development LLC, for the site referenced above, the U.S. Environmental Protection Agency (EPA) hereby authorizes you, as the named Owner and Operator, to discharge in accordance with the provisions of the RGP at that site. Your authorization number is listed above.

The checklist enclosed with this RGP authorization indicates the pollutants which you are required to monitor. Also indicated on the checklist are the effluent limits, test methods and minimum levels (MLs) for each pollutant. Please note that the checklist does not represent the complete requirements of the RGP. Operators must comply with all of the applicable requirements of this permit, including influent and effluent monitoring, narrative water quality standards, record keeping, and reporting requirements, found in Parts I and II, and Appendices I – VIII of the RGP. See EPA's website for the complete RGP and other information at: http://www.epa.gov/region1/npdes/mass.html#dgp.

Please also note that the enclosed checklist includes parameters which you have marked "Believed Present" in the notice of intent (NOI). It is important to let you know that the laboratory data accompanying the NOI for the "Sump Pit" and the "Garage Sump" could not be used in the development of this authorization. The Sump Pit data is older than the two years required by the RGP and the recent laboratory information dated May 14, 2014 for the Garage Sump was reported to be the results of effluent analysis rather than the resultant of unfiltered (influent) analysis required by the RGP. Therefore, the authorization was instead based on the historic contamination of (Parcel F) the site. You may request an adjustment to the check list after you have collected six months of data by using a notice of change (NOC).

Also, please note that the metals included on the checklist are dilution dependent pollutants and subject to limitations based on selected dilution ranges and technology-based ceiling limitations. With the absence of dilution of freshwater into tidal water, EPA determined that the Dilution Factor Range (DFR) for each parameter for this site is in the one and five (1-5) range. (See the RGP Appendix IV for Massachusetts facilities). Therefore, the limits for arsenic of 36 ug/L, copper of 3.7 ug/L, lead of 8.5 ug/L, nickel of 8.2 ug/L, selenium of 71 ug/L, zinc of 85.6 ug/L and iron of 1,000 ug/L, are required to achieve permit compliance at your site.

Also, please note that based on Part I. Section C.7., of the RGP reissuance issued on September 9, 2010, dilution factors may be available for discharges to saline waters but only with approval of the flow modeling information from the State prior to the submission of the NOI. Any other dilution factor based on estimated values such as the dilution factor of 80 proposed in your NOI is no longer accepted by EPA.

Finally, please note the checklist of pollutants attached to this authorization is subject to a recertification if the operations at the site result in a discharge lasting longer than six months. A recertification can be submitted to EPA within six (6) to twelve (12) months of operations in accordance with the 2010 RGP regulations.

This general permit and authorization to discharge will expire on September 9, 2015. You have reported that this project termination is unknown. If the project termination date exceeds the September 9, 2015 expiration date you are required to reapply for coverage by submitting a Notice of Intent (NOI) after the RGP is reissued. Also, regardless of your project termination date you are required to submit a Notice of Termination (NOT) to the attention of the contact person indicated below within 30 days of project completion.

Thank you in advance for your cooperation in this matter. Please contact Victor Alvarez at 617-918-1572 or Alvarez.Victor@epa.gov, if you have any questions.

Sincerely,

Thelma Murphy

Thelma Murphy, Chief
Storm Water and Construction
Permits Section

Enclosure

cc: Robert Kubit, MassDEP
Stephen Shea, BWSC
Benjamin E Downing, McPhail Associates LLC

2010 Remediation General Permit
Summary of Monitoring Parameters[1]

NPDES Authorization Number:	**MAG910632**
Authorization Issued:	July, 2014
Facility/Site Name:	One Marina Park Drive
Facility/Site Address:	One Marina Park Drive, Boston, MA 02210, Suffolk County
	Email address of owner: jheighton@fallon.company.com
Legal Name of Operator:	Fan Pier Development LLC
Operator contact name, title, and Address:	James Heighton, Senior Project Manager
	Email: Same as the Owner
Estimated date of the site's Completion:	Completion date unknown
Category and Sub-Category:	Category IV – Miscellaneous Related Discharges. Subcategory D. Long term Remediation of Contaminated Sumps and Dikes
RGP Termination Date:	September 10, 2015
Receiving Water:	Boston Harbor

Monitoring & Limits are applicable if checked. All samples are to be collected as grab samples

	Parameter	**Effluent Limit/Method#/ML** (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
√	1. Total Suspended Solids (TSS)	30 milligrams/liter (mg/L) **, 50 mg/L for hydrostatic testing ** Me#160.2/ML5ug/L
	2. Total Residual Chlorine (TRC) [1]	Freshwater = 11 ug/L ** Saltwater = 7.5 ug/L **/ Me#330.5/ML 20ug/L
√	3. Total Petroleum Hydrocarbons (TPH)	5.0 mg/L/ Me# 1664A/ML 5.0mg/L
√	4. Cyanide (CN) [2, 3]	Freshwater = 5.2 ug/l ** Saltwater = 1.0 ug/L **/ Me#335.4/ML 10ug/L
	5. Benzene (B)	5ug/L /50.0 ug/L for hydrostatic testing only/ Me#8260C/ML 2 ug/L
	6. Toluene (T)	(limited as ug/L total BTEX)/ Me#8260C/ ML 2ug/L
	7. Ethylbenzene (E)	(limited as ug/L total BTEX) Me#8260C/ ML 2ug/L
	8. (m,p,o) Xylenes (X)	(limited as ug/L total BTEX) Me#8260C/ ML 2ug/L

	Parameter	Effluent Limit/Method#/ML (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
	9. Total Benzene, Toluene, Ethyl Benzene, and Xylenes (BTEX) [4]	100 ug/L/ Me#8260C/ ML 2ug/L
	10. Ethylene Dibromide (EDB) (1,2- Dibromoethane)	0.05 ug/l/ Me#8260C/ ML 10ug/L
	11. Methyl-tert-Butyl Ether (MtBE)	70.0 ug/l/Me#8260C/ML 10ug/L
	12.tert-Butyl Alcohol (TBA) (TertiaryButanol)	Monitor Only(ug/L)/Me#8260C/ML 10ug/L
	13. tert-Amyl Methyl Ether (TAME)	Monitor Only(ug/L)/Me#8260C/ML 10ug/L
	14. Naphthalene [5]	20 ug/L /Me#8260C/ML 2ug/L
	15. Carbon Tetrachloride	4.4 ug/L /Me#8260C/ ML 5ug/L
	16. 1,2 Dichlorobenzene (o-DCB)	600 ug/L /Me#8260C/ ML 5ug/L
	17. 1,3 Dichlorobenzene (m-DCB)	320 ug/L /Me#8260C/ ML 5ug/L
	18. 1,4 Dichlorobenzene (p-DCB)	5.0 ug/L /Me#8260C/ ML 5ug/L
	18a. Total dichlorobenzene	763 ug/L - NH only /Me#8260C/ ML 5ug/L
	19. 1,1 Dichloroethane (DCA)	70 ug/L /Me#8260C/ ML 5ug/L
	20. 1,2 Dichloroethane (DCA)	5.0 ug/L /Me#8260C/ ML 5ug/L
	21. 1,1 Dichloroethene (DCE)	3.2 ug/L/Me#8260C/ ML 5ug/L
	22. cis-1,2 Dichloroethene (DCE)	70 ug/L/Me#8260C/ ML 5ug/L
	23. Methylene Chloride	4.6 ug/L/Me#8260C/ ML 5ug/L
	24. Tetrachloroethene (PCE)	5.0 ug/L/Me#8260C/ ML 5ug/L
	25. 1,1,1 Trichloro-ethane (TCA)	200 ug/L/Me#8260C/ ML 5ug/L
	26. 1,1,2 Trichloro-ethane (TCA)	5.0 ug/L /Me#8260C/ ML 5ug/L
	27. Trichloroethene (TCE)	5.0 ug/L /Me#8260C/ ML 5ug/L
	28. Vinyl Chloride (Chloroethene)	2.0 ug/L /Me#8260C/ ML 5ug/L
√	29. Acetone	Monitor Only(ug/L)/Me#8260C/ML 50ug/L
	30. 1,4 Dioxane	Monitor Only /Me#1624C/ML 50ug/L
	31. Total Phenols	300 ug/L Me#420.1&420.2/ML 2 ug/L/ Me# 420.4 /ML 50ug/L
	32. Pentachlorophenol (PCP)	1.0 ug/L /Me#8270D/ML 5ug/L,Me#604 &625/ML 10ug/L
	33. Total Phthalates (Phthalate esters) [6]	3.0 ug/L ** /Me#8270D/ML 5ug/L, Me#606/ML 10ug/L& Me#625/ML 5ug/L
	34. Bis (2-Ethylhexyl) Phthalate [Di- (ethylhexyl) Phthalate]	6.0 ug/L /Me#8270D/ML 5ug/L,Me#606/ML 10ug/L & Me#625/ML 5ug/L

	Parameter	Effluent Limit/Method#/ML (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
	35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	10.0 ug/L
√	a. Benzo(a) Anthracene [7]	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
√	b. Benzo(a) Pyrene [7]	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
√	c. Benzo(b)Fluoranthene [7]	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
√	d. Benzo(k)Fluoranthene [7]	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
√	e. Chrysene [7]	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
√	f. Dibenzo(a,h)anthracene [7]	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
√	g. Indeno(1,2,3-cd) Pyrene [7]	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML5ug/L
	36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)	100 ug/L
√	h. Acenaphthene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
√	i. Acenaphthylene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
√	j. Anthracene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
√	k. Benzo(ghi) Perylene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
√	l. Fluoranthene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
√	m. Fluorene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
√	n. Naphthalene [5]	20 ug/l / Me#8270/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
√	o. Phenanthrene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
√	p. Pyrene	X/Me#8270D/ML5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
√	37. Total Polychlorinated Biphenyls (PCBs) [8, 9]	0.000064 ug/L/Me# 608/ ML 0.5 ug/L
√	38. Chloride	Monitor only/Me# 300.0/ ML 100 ug/L

	Metal Parameters	Total Recoverable MA/Metal Limit H [10] = 50 mg/l CaCO3, Units = ug/l [(11/12)]		Minimum level=ML	
			Saltwater Limits		
	39. Antimony	5.6		ML	10
√	40. Arsenic **		36	ML	20
√	41. Cadmium **		8.9	ML	10
	42. Chromium III (trivalent) **		100	ML	15
	43. Chromium VI (hexavalent) **		50.3	ML	10
√	44. Copper **		3.7	ML	15
√	45. Lead **		8.5	ML	20
	46. Mercury **		1.1	ML	02
√	47. Nickel **		8.2	ML	20
√	48. Selenium **		71	ML	20
	49. Silver		2.2	ML	10
√	50. Zinc **		85.6	ML	15
√	51. Iron	1,000		ML	20

	Other Parameters	Limit
√	52. Instantaneous Flow	Site specific in CFS
√	53. Total Flow	Site specific in CFS
	54. pH Range for Class A & Class B Waters in MA	6.5-8.3; 1/Month/Grab[13]
√	55. pH Range for Class SA & Class SB Waters in MA	6.5-8.3; 1/Month/Grab[13]
	56. pH Range for Class B Waters in NH	6.5-8; 1/Month/Grab[13]
	57. Daily maximum temperature - Warm water fisheries	83°F; 1/Month/Grab[14]
	58. Daily maximum temperature - Cold water fisheries	68°F; 1/Month/Grab[14]
	59. Maximum Change in Temperature in MA - Any Class A water body	1.5°F; 1/Month/Grab[14]
	60. Maximum Change in Temperature in MA - Any Class B water body- Warm Water	5°F; 1/Month/Grab[14]
	61. Maximum Change in Temperature in MA – Any Class B water body - Cold water and Lakes/Ponds	3°F; 1/Month/Grab[14]
	62. Maximum Change in Temperature in MA – Any Class SA water body - Coastal	1.5°F; 1/Month/Grab[14]
	63. Maximum Change in Temperature in MA – Any Class SB water body - July to September	1.5°F; 1/Month/Grab[14]
	64. Maximum Change in Temperature in MA –Any Class SB water body - October to June	4°F; 1/Month/Grab[14]

Footnotes:

[1] Although the maximum values for TRC are 11ug/l and 7.5 ug/l for freshwater, and saltwater respectively, the compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI (i.e., Method 330.5, 20 ug/l).
[2] Limits for cyanide are based on EPA's water quality criteria expressed as micrograms per liter. There is currently no EPA approved test method for free cyanide. Therefore, total cyanide must be reported.
[3] Although the maximum values for cyanide are 5.2 ug/l and 1.0 ug/l for freshwater and saltwater, respectively, the compliance limits are equal to the minimum level (ML) of the Method 335.4 as listed in Appendix VI (i.e., 10 ug/l).
[4] BTEX = sum of Benzene, Toluene, Ethylbenzene, and total Xylenes.
[5] Naphthalene can be reported as both a purgeable (VOC) and extractable (SVOC) organic compound. If both VOC and SVOC are analyzed, the highest value must be used unless the QC criteria for one of the analyses is not met. In such cases, the value from the analysis meeting the QC criteria must be used.
[6] The sum of individual phthalate compounds (not including the #34, Bis (2-Ethylhexyl) Phthalate. The compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI.
Total values calculated for reporting on NOIs and discharge monitoring reports shall be calculated by adding the measured concentration of each constituent. If the measurement of a constituent is less than the ML, the permittee shall use a value of zero for that constituent. For each test, the permittee shall also attach the raw data for each constituent to the discharge monitoring report, including the minimum level and minimum detection level for the analysis.
[7] Although the maximum value for the individual PAH compounds is 0.0038 ug/l, the compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI.
[8] In the November 2002 WQC, EPA has revised the definition of Total PCBs for aquatic life as total PCBs is the sum of all homologue, all isomer, all congener, or all "Oroclor analyses."Total values calculated for reporting on NOIs and discharge monitoring reports shall be calculated by adding the measured concentration of each constituent. If the measure of a constituent is less than the ML, the permittee shall use a value of zero for that constituent. For each test, the permittee shall also attach the raw data for each constituent to the discharge monitoring report, including the minimum level and minimum detection level for the analysis.
[9]Although the maximum value for total PCBs is 0.000064 ug/l, the compliance limit is equal to the minimum level (ML) of the test method used as listed in Appendix VI (i.e., 0.5 ug/l for Method 608 or 0.00005 ug/l when Method 1668a is approved).
[10] Hardness. Cadmium, Chromium III, Copper, Lead, Nickel, Silver, and Zinc are Hardness Dependent.
[11] For a Dilution Factor (DF) from 1 to 5, metals limits are calculated using DF times the base limit for the metal. See Appendix IV. For example, iron limits are calculated using DF x 1,000ug/L (the iron base limit). Therefore DF is 1.5, the iron limit will be 1,500 ug/L; DF 2, then iron limit =1,000 x 2 =2,000 ug/L., etc. not to exceed the DF=5.
[12] Minimum Level (ML) is the lowest level at which the analytical system gives a recognizable signal and acceptable calibration point for the analyte. The ML represents the lowest concentration at which an analyte can be measured with a known level of confidence. The ML is calculated by multiplying the laboratory-determined method detection limit by 3.18 (see 40 CFR Part 136, Appendix B).
[13] pH sampling for compliance with permit limits may be performed using field methods as provided for in EPA test Method 150.1.
[14] Temperature sampling per Method 170.1

McPHAIL ASSOCIATES, LLC

NOTICE OF INTENT FOR DISCHARGE UNDER MASSACHUSETTS REMEDIAL GENERAL PERMIT MAG910000

ONE MARINA PARK DRIVE

BOSTON MASSACHUSETTS

to

U.S. Environmental Protection Agency

July 14, 2014

Project No. 4426.9.FN

McPHAIL ASSOCIATES, LLC

July 14, 2014

U.S Environmental Protection Agency
RGP-NOC Processing Municipal Assistance Unit (CMU)
1 Congress Street, Suite 1100
Boston, MA 02114-2023

Attention: RGP-NOC Processing

Reference: One Marina Park Drive; Boston, Massachusetts
Notice of Intent for Foundation Drainage Discharge Under Massachusetts
Remedial General Permit MAG910000

Ladies and Gentlemen:

The purpose of this letter report is to provide a summary of the site and groundwater quality information in support of an application for approval from the U.S. Environmental Protection Agency (EPA) for the discharge of groundwater into Boston's Inner Harbor collected from the foundation drainage system at the One Marina Park Drive building located on Parcel F of the Fan Pier development site in Boston, Massachusetts. Refer to **Figure 1,** Project Location Plan, for the general site locus.

These services were performed and this report was prepared in accordance with the authorization of Fan Pier Development LLC. These services are subject to the limitations contained in **Appendix A**.

The Fan Pier development site is comprised of nine (9) individual parcels designated as A through I which occupy an approximate 21-acre site bounded by Fan Pier Cove and Boston Inner Harbor to the north, the John Joseph Moakley Federal Courthouse and Courthouse Way to the west, Northern Avenue to the south, and a surface parking area to the east. In addition to the One Marina Park Drive building on Parcel F, Fan Pier is currently occupied by the 50 Northern Avenue building on Parcel A, the 11 Fan Pier Boulevard building on Parcel B, the Louis Boston retail building on Parcel D and a public green space on Parcel G. New buildings on Parcels C and I are currently under construction. The Fan Pier site is shown on the attached **Parcel Location Plan**, **Figure 2**.

Based on preliminary precharacterization completed in 1999, the entire 21-acre Fan Pier property, including Parcel F, was listed as an MCP site under Release Tracking Number (RTN) 3-19647 on June 14, 2000. Reportable conditions consisted of the presence of total petroleum hydrocarbons (TPH) and hazardous materials (lead, PCBs, and polynuclear aromatic hydrocarbons (PAHs)) in historical urban fill and underlying organic soils at the site at concentrations exceeding RCS-1 reportable concentrations. In addition, more recent subsurface explorations have identified additional releases of PCBs, acetone, arsenic, and cadmium in the fill material at the Parcels A, B, C and F sites. These releases were listed under RTNs 3-27188, 3-28129, 3-30038 and 3-31700.

The buildings located on Parcels A, B and F each have three contiguous levels of below-grade parking. Foundation drainage lines were installed below the three parcels, with all drainage lines flowing to a sump pit located within the lowest level of the One Marina Park Drive building on Parcel F. The future developments on Parcels C, D and E are planned to be contiguous with the existing below-grade parking levels and the new foundation drainage lines will also be directed to the sump pit in the One Marina Park Drive building.

GEOTECHNICAL AND GEOENVIRONMENTAL ENGINEERS
2269 Massachusetts Avenue
Cambridge, Massachusetts 02140
617 / 868-1420

The water collected in the sump pit in the One Marina Park Drive building will be treated and then discharged into an adjacent storm drain line along Marina Park Drive. The storm drain along Marina Park Drive flows to the north and then to the east across the public green space on Parcel G before connecting to a 30-inch drain line which flows north and discharges into Boston's Inner Harbor. **Figure 3** shows the route of the storm drains along Marina Park Drive and the public green space to the harbor. A rate of discharge of 2 to 5 GPM is currently anticipated for the foundation drainage system. Once Parcels C, D and E are tied into the foundation drainage system, the rate of discharge is anticipated to increase to 3 to 10 GPM.

A groundwater sample was collected from the sump pit in the One Marina Park Drive building in July 2011 and submitted for chemical analysis. The results of the chemical analysis indicated concentrations of cyanide and select metals at concentrations above the RGP discharge limits.

A treatment system consisting of settling tanks, bag filters, and resin chambers has been installed at the One Marina Park Drive sump pit. Based on the results of an effluent sample collected from the treatment system in May 2014, it is our opinion that levels of the tested compounds are below the RGP discharge limits established by the US EPA. A schematic of the treatment system is shown on **Figures 4A** and **4B**.

Should the results of future testing indicate an exceedance of the RGP limit concentrations, appropriate treatment will be implemented to address the exceedances. In addition, should other contaminants be detected within the discharge water at levels that exceed the effluent limitations, mitigative measures will be implemented to meet the allowable discharge limits.

In conclusion, it is our opinion that the treated groundwater at the site is acceptable for discharge directly into Boston's Inner Harbor under a Remedial General Permit. Sampling and analysis of the effluent will be carried out in accordance with the terms of the Remedial General Permit.

Supplemental information appended to this letter in support of the RGP includes the following;

- Notice of Intent Transmittal Form for Permit Application (**Appendix B**);
- A summary of groundwater analysis (**Appendix C, Table 1**);
- A review of Areas of Critical Concern and Endangered and Threatened Species (**Appendix D**);
- A review of National Historic Places (**Attachment E**); and
- Best Management Practice Plan (**Appendix F**).

McPHAIL ASSOCIATES, LLC

We trust that the above satisfies your present requirements. Should you have any questions or comments concerning the above, please do not hesitate to contact us.

Very truly yours,

McPHAIL ASSOCIATES, LLC

Benjamin E. Downing

Peter J. DeChaves, L.S.P.

Enclosures
F:\WP5\REPORTS\4426 Parcel F RGP 071414.wpd
BED/pjd

FIGURE 1

McPHAIL ASSOCIATES, LLC
Geotechnical and Geoenvironmental Engineers
2269 Massachusetts Avenue
Cambridge, MA 02140
617/868-1420
617/868-1423 (Fax)
www.mcphailgeo.com

N

SCALE 1:25,000

PROJECT LOCATION PLAN

FAN PIER

BOSTON MASSACHUSETTS

FIGURE 2

NORTH

JOHN JOSEPH MOAKLEY FEDERAL COURTHOUSE

COURTHOUSE WAY

PARCEL A

PARCEL B

PARCEL C

PARCEL D

PARCEL E

PARCEL F

PARCEL G

PARCEL H

PARCEL I

APPROXIMATE LIMITS OF FORMER PIER 1/PIER 2 SLIP

APPROXIMATE LIMITS OF FORMER PIER 2/PIER 4 SLIP

ONE MARINA PARK DRIVE

BOSTON HARBOR

FAN PIER COVE

NORTHERN AVENUE (74.00' WIDE - PUBLIC)

INSTITUTE OF CONTEMPORARY ART (ICA) 4-5 STORY GLASS & CONCRETE

ICA LEASE PARCEL AREA=38,363±S.F.

LEASE LINE

TOTAL AREA=894,240±S.F. =20.534±ACRES (INCLUDES ICA LEASE AREA, BRA PARCEL D & COURTHOUSE WAY)

LIMITS OF LICENSE NO. 1681 6/11/35

LIMITS OF LICENSE NO. 5554 5/28/69

LIMITS OF LICENSE NO. 5852 4/21/71

BRA PARCEL D BOOK 31530, PAGE 317 PEDESTRIAN & MOTOR VEHICLE ACCESS

VEHICLE AND PEDESTRIAN PEDESTRIAN ACCESS EASEMENT

N/F UNITED STATES OF AMERICA

N/F PIER FOUR, INC BOOK 8191 PAGE 344

REFERENCE: THIS PLAN WAS PREPARED FROM A 20-SCALE DRAWING ENTITLED "TOPOGRAPHIC PLAN OF LAND" DATED JANUARY 17, 2007 BY NITSCH ENGINEERING, A 50-SCALE DRAWING ENTITLED "ELEVATION CONTOURS OF TOP NATURAL INORGANIC SOIL DATED MARCH 1, 2004 AND PREPARED BY HALEY AND ALDRICH, INC. AND PROGRESS DRAWINGS DATED MAY 17, 2013 PROVIDED ELECTRONICALLY AND PREPARED BY BRENNAN BEER GORMAN ARCHITECTS

GRAPHIC SCALE

100 0 100 200

FILE NAME: H:\Acad\JOBS\4426\Parcel R\RGP14426-FO2.dwg

McPHAIL ASSOCIATES, LLC
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Cambridge, MA 02140
617/868-1420
617/868-1423 (Fax)
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ONE MARINA PARK DRIVE
BOSTON MASSACHUSETTS

PARCEL LOCATION PLAN

FOR

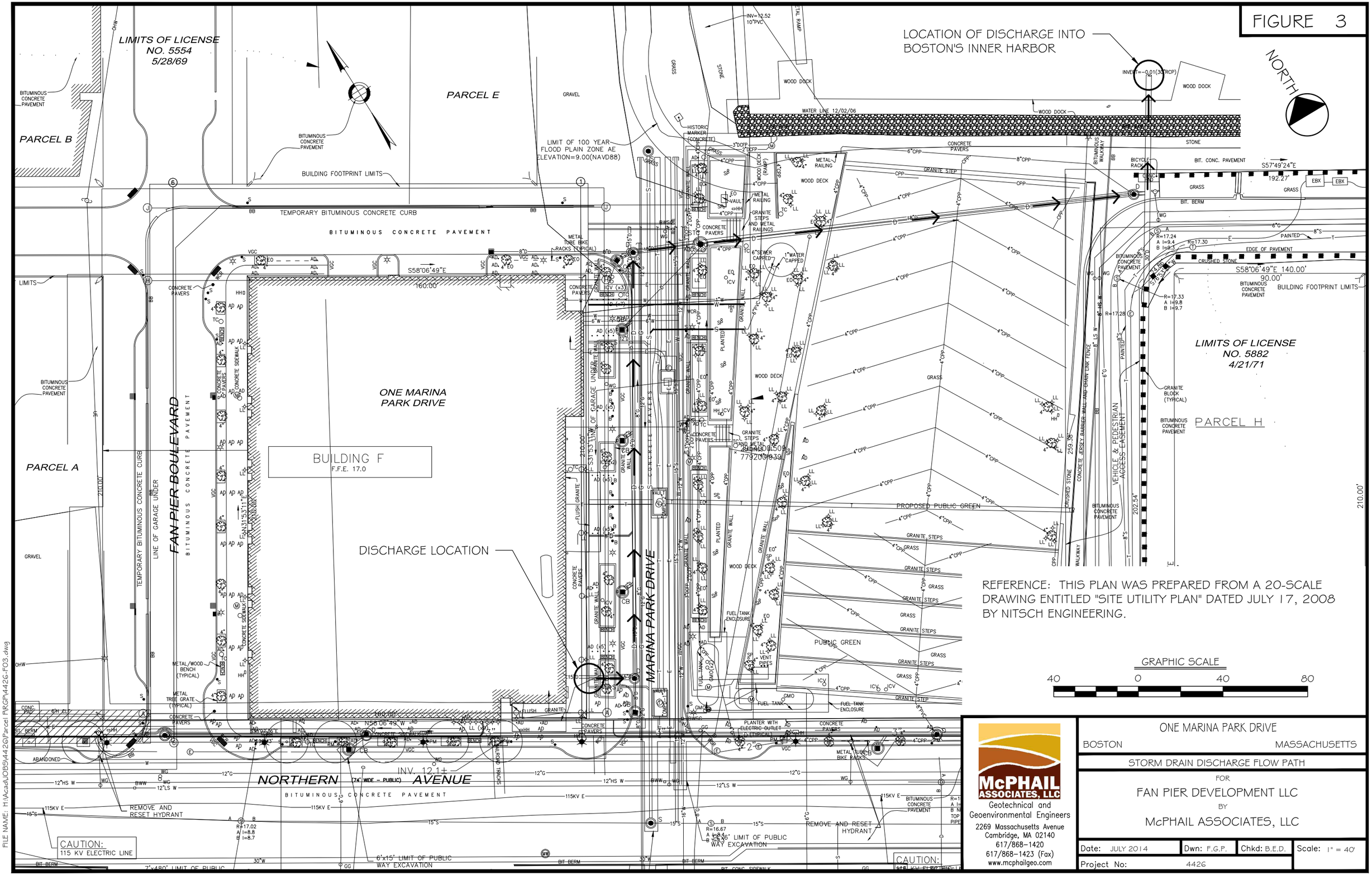
FAN PIER DEVELOPMENT LLC

BY

McPHAIL ASSOCIATES, LLC

Date: JULY 2014	Dwn: F.G.P.	Chkd: B.E.D.	Scale: 1" = 100'
Project No: 4426			

FIGURE 3



REFERENCE: THIS PLAN WAS PREPARED FROM A 20-SCALE DRAWING ENTITLED "SITE UTILITY PLAN" DATED JULY 17, 2008 BY NITSCH ENGINEERING.

McPHAIL ASSOCIATES, LLC
Geotechnical and Geoenvironmental Engineers
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Cambridge, MA 02140
617/868-1420
617/868-1423 (Fax)
www.mcphailgeo.com

ONE MARINA PARK DRIVE

BOSTON MASSACHUSETTS

STORM DRAIN DISCHARGE FLOW PATH

FOR

FAN PIER DEVELOPMENT LLC

BY

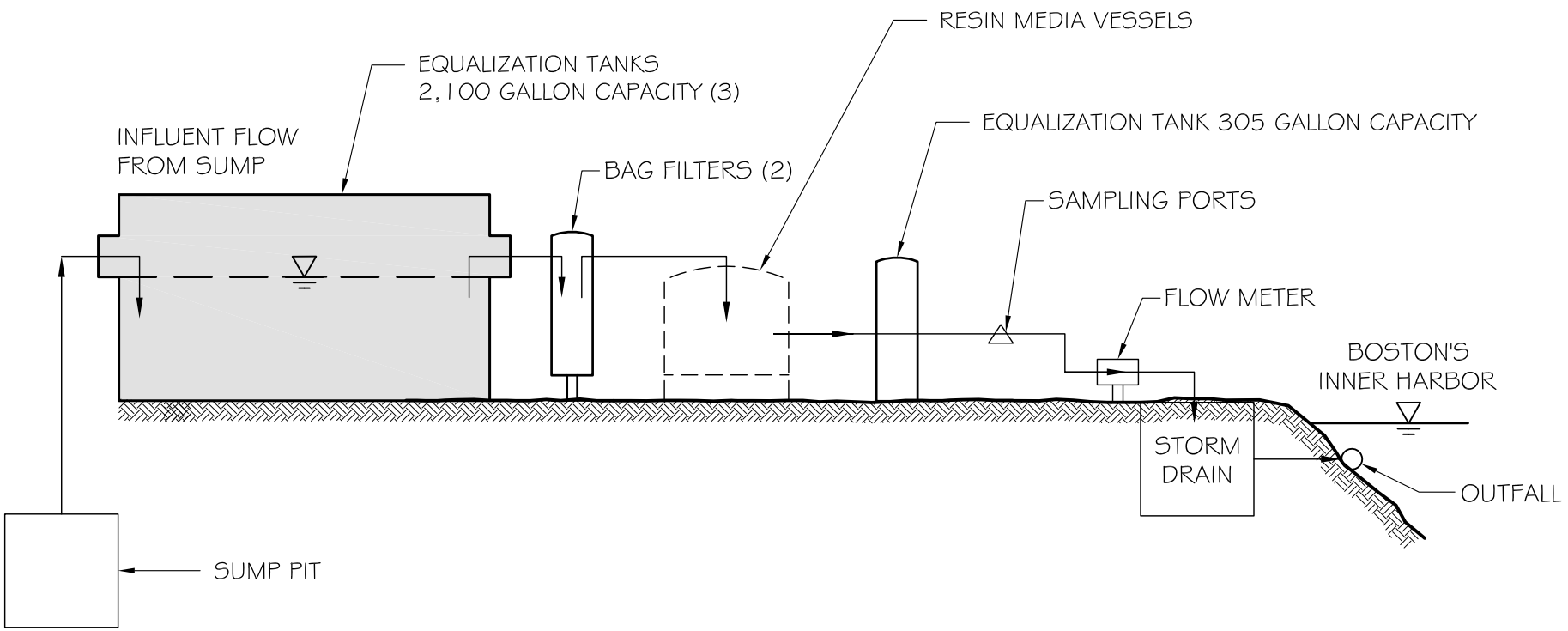
McPHAIL ASSOCIATES, LLC

Date: JULY 2014	Dwn: F.G.P.	Chkd: B.E.D.	Scale: 1" = 40'
Project No: 4426			

FILE NAME: H:\Acad\JOBS\4426\Parcel R\RGP\4426-F03.dwg

FILE NAME: H:\Acad\JOBS\4426\Parcel F\RGP\4426-F04.dwg

FIGURE 4A



McPHAIL ASSOCIATES, LLC
Geotechnical and
Geoenvironmental Engineers
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Cambridge, MA 02140
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www.mcphailgeo.com

ONE MARINA PARK DRIVE
BOSTON MASSACHUSETTS

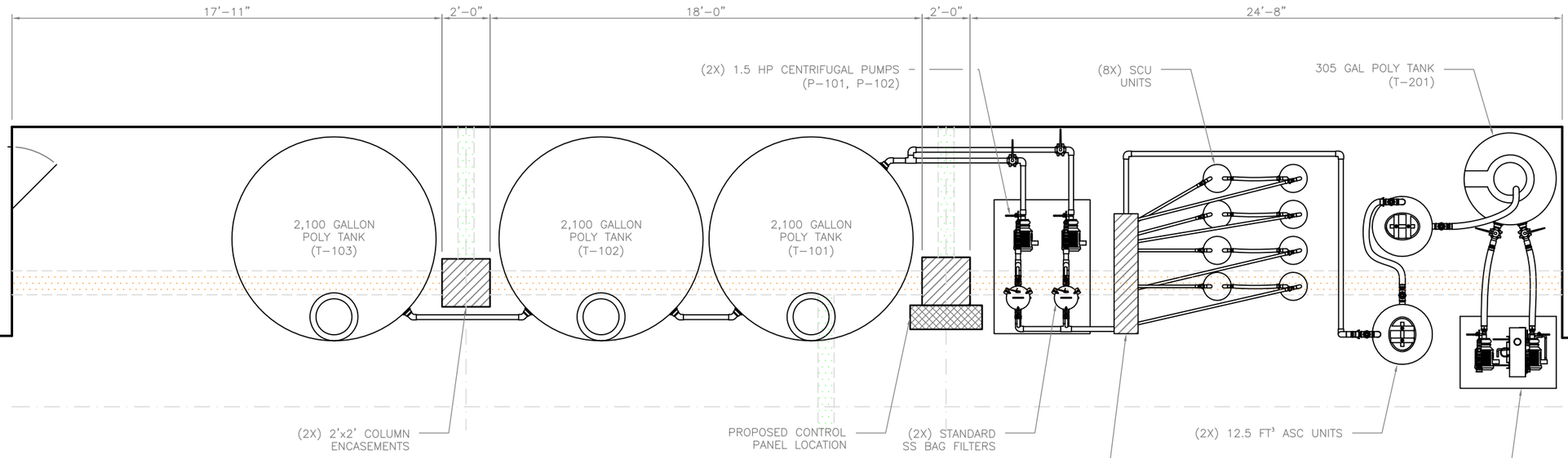
SCHEMATIC OF TREATMENT SYSTEM

FOR
FAN PIER DEVELOPMENT LLC
BY
McPHAIL ASSOCIATES, LLC
CONSULTING GEOTECHNICAL ENGINEERS

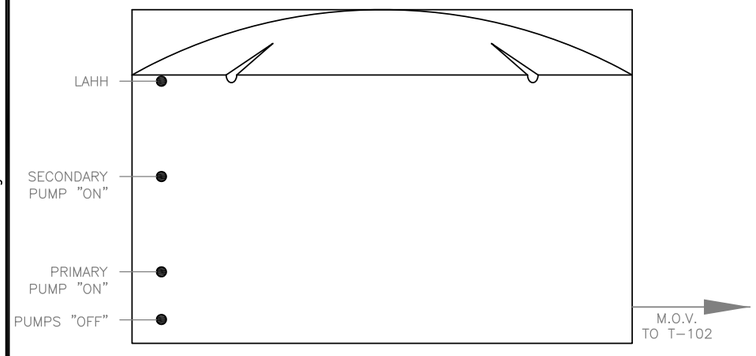
Date: JULY 2014	Dwn: F.G.P.	Chkd: B.E.D.	Scale: N.T.S.
Project No: 4426			

Figure 4B

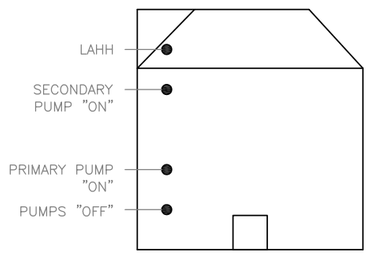
BUILDING F WATER TREATMENT SYSTEM
PLAN VIEW

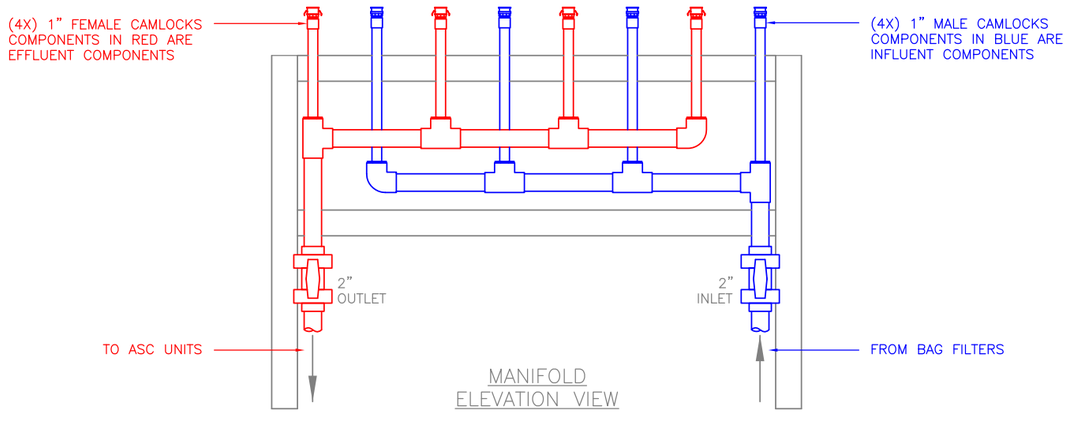


T-101 FLOAT SCHEDULE



T-201 FLOAT SCHEDULE





MANIFOLD ELEVATION VIEW

NOTES:

1) NOT ALL VALVES, CONNECTIONS, ETC. SHOWN FOR CLARITY
2) GARAGE ACCESS VIA RAMPS RESTRICTED TO 8'-0" CLEARANCE

NO.	REVISIONS	DATE
E	REVISED PER COMMENTS	09/20/13
D	REVISED AS PER CM	04/12/13
C	REVISION C	09/05/12
B	ADDED SECONDARY TRAIN	07/26/12

FAN PIER / TURNER CONSTRUCTION
30 GPM TREATMENT SYSTEM
EQUIPMENT LAYOUT

SCALE:	NTS	APPROVED BY:	TJM	DRAWN BY:	BJK
DATE:	07/26/12				

GROUND/WATER TREATMENT & TECHNOLOGY
39 RIVER STREET
MILLBURY, MA 01527

DWG SIZE:	B	SHEET:	1 OF 1	DRAWING NUMBER:	16-2381-LYT	E

T:\Cad Files\Projects\16-2381 Q-3665\16-2381-LYT Rev-E Fan Pier Boston.dwg

McPHAIL ASSOCIATES, LLC

APPENDIX A

LIMITATIONS

The purpose of this report is to present the results of testing of groundwater samples obtained from a sump pit located within the One Marina Park Drive building at Fan Pier Parcel F in Boston, Massachusetts, in support of an application for approval of foundation drainage system discharge into surface waters of the Commonwealth of Massachusetts under the US EPA's Massachusetts Remedial General Permit MAG910000.

The observations were made under the conditions stated in this report. The conclusions presented above were based on these observations. If variations in the nature and extent of subsurface conditions between the specific subsurface explorations that were performed become evident in the future, it may be necessary to re-evaluate the conclusions presented herein after performing on-site observations and noting the characteristics of any variations.

The conclusions submitted in this report are based in part upon analytical test data obtained from analysis of groundwater samples, and are contingent upon their validity. The data have been reviewed, and interpretations have been made in the text. It should also be noted that fluctuations in the types and levels of contaminants and variations in their flow paths may occur due to changes in seasonal water table, past practices used in disposal and other factors.

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

This report and application have been prepared on behalf of and for the exclusive use of Fan Pier Development LLC. This report and the findings contained herein shall not, in whole or in part, be disseminated or conveyed to any other party except relevant governmental agencies associated with the subject permit application, nor used in whole or in part by any other party, without the prior written consent of McPhail Associates, LLC.

McPHAIL ASSOCIATES, LLC

APPENDIX B

Notice of Intent Transmittal Form

B. Suggested Form for Notice of Intent (NOI) for the Remediation General Permit

1. General facility/site information. Please provide the following information about the site:

a) Name of **facility/site**: One Marina Park Drive		**Facility/site** mailing address:		
Location of **facility/site**: longitude: -71.045479 latitude: 42.352942	Facility SIC code(s):	Street: One Marina Park Drive		
b) Name of **facility/site owner:** Fan Pier Development LLC		Town: Boston		
Email address of facility/site owner: jheighton@falloncompany.com		State: MA	Zip: 02210	County: Suffolk
Telephone no. of facility/site **owner**: 617-737-4100				
Fax no. of facility/site **owner**: 617-737-4101		**Owner** is (check one): 1. Federal ○ 2. State/Tribal ○ 3. Private ◉ 4. Other ○ if so, describe:		
Address of **owner** (if different from site):				
Street: One Marina Park Drive				
Town: Boston	State: MA	Zip: 02210	County: Suffolk	
c) Legal name of **operator**:		**Operator** telephone no: 617-737-4100		
Fan Pier Development LLC		**Operator** fax no.: 617-737-4101	**Operator** email: jheighton@falloncompany.com	
Operator contact name and title: James Heighton, Senior Project Manager				
Address of **operator** (if different from owner):	Street:			
Town:	State:	Zip:	County:	

d) Check Y for "yes" or N for "no" for the following:
1. Has a prior NPDES permit exclusion been granted for the discharge? Y__ N__X__, if Y, number:
2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge?
Y__X__ N__, if Y, date and tracking #: 9/20/2007 MAG910329
3. Is the discharge a "new discharge" as defined by 40 CFR 122.2? Y__ N__X__
4. For sites in Massachusetts, is the discharge covered under the Massachusetts Contingency Plan (MCP) and exempt from state permitting? Y__X__N__

e) Is site/facility subject to any State permitting, license, or other action which is causing the generation of discharge? Y__ N__X__
If Y, please list:
1. site identification # assigned by the state of NH or MA:
2. permit or license # assigned:
3. state agency contact information: name, location, and telephone number:

f) Is the site/facility covered by any other EPA permit, including:
1. Multi-Sector General Permit? Y__ N__X__,
if Y, number:
2. Final Dewatering General Permit? Y__ N__X__,
if Y, number:
3. EPA Construction General Permit? Y__X__N__,
if Y, number:
4. Individual NPDES permit? Y__ N__X__,
if Y, number:
5. any other water quality related individual or general permit? Y__ N__X__, if Y, number:

g) Is the site/facility located within or does it discharge to an Area of Critical Environmental Concern (ACEC)? Y__ N__X__

h) Based on the facility/site information and any historical sampling data, identify the sub-category into which the potential discharge falls.

Activity Category	**Activity Sub-Category**
I - Petroleum Related Site Remediation	A. Gasoline Only Sites ☐ B. Fuel Oils and Other Oil Sites (including Residential Non-Business Remediation Discharges) ☐ C. Petroleum Sites with Additional Contamination ☐
II - Non Petroleum Site Remediation	A. Volatile Organic Compound (VOC) Only Sites ☐ B. VOC Sites with Additional Contamination ☐ C. Primarily Heavy Metal Sites ☐
III - Contaminated Construction Dewatering	A. General Urban Fill Sites ☐ B. Known Contaminated Sites ☐

IV - Miscellaneous Related Discharges	A. Aquifer Pump Testing to Evaluate Formerly Contaminated Sites ☐ B. Well Development/Rehabilitation at Contaminated/Formerly Contaminated Sites ☐ C. Hydrostatic Testing of Pipelines and Tanks ☐ D. Long-Term Remediation of Contaminated Sumps and Dikes ☒ E. Short-term Contaminated Dredging Drain Back Waters (if not covered by 401/404 permit) ☐

2. Discharge information. Please provide information about the discharge, (attaching additional sheets as necessary) including:

a) Describe the discharge activities for which the owner/applicant is seeking coverage:

Foundation Drainage/Sump Pit Discharge

b) Provide the following information about each discharge:

1) Number of discharge points: 1

2) What is the **maximum** and **average flow rate** of discharge (in cubic feet per second, ft^3/s)?
Max. flow: 0.022 Is maximum flow a **design value**? Y ○ N ◉
Average flow (include units): 5 gpm Is average flow a design value or estimate? estimate

3) Latitude and longitude of each discharge within 100 feet:
pt.1: lat. 42.353153 long. -71.043907 pt.2: lat. ____ long. ____;
pt.3: lat. ____ long. ____ pt.4: lat. ____ long. ____;
pt.5: lat. ____ long. ____ pt.6: lat. ____ long. ____;
pt.7: lat. ____ long. ____ pt.8: lat. ____ long. ____; etc.

4) If hydrostatic testing, total volume of the discharge (gals): ____

5) Is the discharge intermittent ◉ or seasonal ○?
Is discharge ongoing? Y ○ N ◉

c) Expected dates of discharge (mm/dd/yy): start: Aug 1, 2014 end: -

d) Please attach a line drawing or flow schematic showing water flow through the facility including:
1. sources of intake water, 2. contributing flow from the operation, 3. treatment units, and 4. discharge points and receiving waters(s). Refer to Figure 4 in the attached report

3. Contaminant information.

a) Based on the sub-category selected (see Appendix III), indicate whether each listed chemical is **believed present** or **believed absent** in the potential discharge. Attach additional sheets as needed.

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
1. Total Suspended Solids (TSS)		☐	☒	1	grab	30,2540D	5	7.6	2	7.6	1
2. Total Residual Chlorine (TRC)		☒	☐	1	grab	30,4500Cl-D	20	ND	0		
3. Total Petroleum Hydrocarbons (TPH)		☒	☐	1	grab	74,1664A	4000	ND	0		
4. Cyanide (CN)	57125	☐	☒	1	grab	30,4500CN-CE	5	15	0.04	15	.02
5. Benzene (B)	71432	☒	☐	1	grab	5,624	1	ND	0		
6. Toluene (T)	108883	☒	☐	1	grab	5,624	1	ND	0		
7. Ethylbenzene (E)	100414	☒	☐	1	grab	5,624	1	ND	0		
8. (m,p,o) Xylenes (X)	108883; 106423; 95476; 1330207	☒	☐	1	grab	5,624	2	ND	0		
9. Total BTEX [2]	n/a	☒	☐	1	grab	5,624'		ND	0		
10. Ethylene Dibromide (EDB) (1,2-Dibromoethane) [3]	106934	☒	☐	1	grab	14,504.1	0.01	ND	0		
11. Methyl-tert-Butyl Ether (MtBE)	1634044	☒	☐	1	grab	5,624	20	ND	0		
12. tert-Butyl Alcohol (TBA) (Tertiary-Butanol)	75650	☒	☐	1	grab	5,624	100	ND	0		

***** Numbering system is provided to allow cross-referencing to Effluent Limits and Monitoring Requirements by Sub-Category included in Appendix III, as well as the Test Methods and Minimum Levels associated with each parameter provided in Appendix VI.

[2] BTEX = Sum of Benzene, Toluene, Ethylbenzene, total Xylenes.

[3] EDB is a groundwater contaminant at fuel spill and pesticide application sites in New England.

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
13. tert-Amyl Methyl Ether (TAME)	9940508	☒	☐	1	grab	5,624	20	ND	0		
14. Naphthalene	91203	☒	☐	1	grab	1,8270D-SIM	0.2	ND	0		
15. Carbon Tetrachloride	56235	☒	☐	1	grab	5,624	1	ND	0		
16. 1,2 Dichlorobenzene (o-DCB)	95501	☒	☐	1	grab	5,624	5	ND	0		
17. 1,3 Dichlorobenzene (m-DCB)	541731	☒	☐	1	grab	5,624	5	ND	0		
18. 1,4 Dichlorobenzene (p-DCB)	106467	☒	☐	1	grab	5,624	5	ND	0		
18a. Total dichlorobenzene		☒	☐	1	grab	5,624	5	ND	0		
19. 1,1 Dichloroethane (DCA)	75343	☒	☐	1	grab	5,624	1.5	ND	0		
20. 1,2 Dichloroethane (DCA)	107062	☒	☐	1	grab	5,624	1.5	ND	0		
21. 1,1 Dichloroethene (DCE)	75354	☒	☐	1	grab	5,624	1	ND	0		
22. cis-1,2 Dichloroethene (DCE)	156592	☒	☐	1	grab	5,624	1	ND	0		
23. Methylene Chloride	75092	☒	☐	1	grab	5,624	5	ND	0		
24. Tetrachloroethene (PCE)	127184	☒	☐	1	grab	5,624	1.5	ND	0		
25. 1,1,1 Trichloro-ethane (TCA)	71556	☒	☐	1	grab	5,624	2	ND	0		
26. 1,1,2 Trichloro-ethane (TCA)	79005	☒	☐	1	grab	5,624	1.5	ND	0		
27. Trichloroethene (TCE)	79016	☒	☐	1	grab	5,624	1	ND	0		

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
28. Vinyl Chloride (Chloroethene)	75014	☒	☐	1	grab	5,624	2	ND	0		
29. Acetone	67641	☒	☐	1	grab	5,624	10	ND	0		
30. 1,4 Dioxane	123911	☒	☐	1	grab	5,624	2000	ND	0		
31. Total Phenols	108952	☒	☐	1	grab	4, 420.1	150	ND	0		
32. Pentachlorophenol (PCP)	87865	☒	☐	1	grab	1,8270D-SIM	0.8	ND	0		
33. Total Phthalates (Phthalate esters) [4]		☒	☐	1	grab	1,8270D	5	ND	0		
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	117817	☒	☐	1	grab	1,8270D	3	ND	0		
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)		☒	☐	1	grab	1,8270D-SIM	0.2	ND	0		
a. Benzo(a) Anthracene	56553	☒	☐	1	grab	1,8270D-SIM	0.2	ND	0		
b. Benzo(a) Pyrene	50328	☒	☐	1	grab	1,8270D-SIM	0.2	ND	0		
c. Benzo(b)Fluoranthene	205992	☒	☐	1	grab	1,8270D-SIM	0.2	ND	0		
d. Benzo(k)Fluoranthene	207089	☒	☐	1	grab	1,8270D-SIM	0.2	ND	0		
e. Chrysene	21801	☒	☐	1	grab	1,8270D-SIM	0.2	ND	0		
f. Dibenzo(a,h)anthracene	53703	☒	☐	1	grab	1,8270D-SIM	0.2	ND	0		
g. Indeno(1,2,3-cd) Pyrene	193395	☒	☐	1	grab	1,8270D-SIM	0.2	ND	0		
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)		☒	☐	21	grab	1,8270D-SIM	0.2	ND	0		

[4] The sum of individual phthalate compounds.

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
h. Acenaphthene	83329	☒	☐	1	grab	1,8270D-SIM	0.2	ND	0		
i. Acenaphthylene	208968	☒	☐	1	grab	1,8270D-SIM	0.2	ND	0		
j. Anthracene	120127	☒	☐	1	grab	1,8270D-SIM	0.2	ND	0		
k. Benzo(ghi) Perylene	191242	☒	☐	1	grab	1,8270D-SIM	0.2	ND	0		
l. Fluoranthene	206440	☒	☐	1	grab	1,8270D-SIM	0.2	ND	0		
m. Fluorene	86737	☒	☐	1	grab	1,8270D-SIM	0.2	ND	0		
n. Naphthalene	91203	☒	☐	1	grab	1,8270D-SIM	0.2	ND	0		
o. Phenanthrene	85018	☒	☐	1	grab	1,8270D-SIM	0.2	ND	0		
p. Pyrene	129000	☒	☐	1	grab	1,8270D-SIM	0.2	ND	0		
37. Total Polychlorinated Biphenyls (PCBs)	85687; 84742; 117840; 84662; 131113; 117817.	☒	☐	1	grab	5,608	0.25	ND	0		
38. Chloride	16887006	☒	☐	1	grab	44,300.0		5,200,000	13,739	5,200,000	6,869
39. Antimony	7440360	☒	☐	1	grab	1,6020A	10	ND	0		
40. Arsenic	7440382	☐	☒	1	grab	1,6020A	5	7.4	0.013	7.4	0.01
41. Cadmium	7440439	☒	☐	1	grab	1,6020A	2	ND	0		
42. Chromium III (trivalent)	16065831	☒	☐	1	grab	1,6020A	5	ND	0		
43. Chromium VI (hexavalent)	18540299	☒	☐	1	grab	30,3500CR-D	50	ND	0		
44. Copper	7440508	☐	☒	1	grab	1,6020A	5	123.8	0.33	123.8	0.16
45. Lead	7439921	☐	☒	1	grab	1,6020A	5	23.6	0.06	23.6	0.03
46. Mercury	7439976	☒	☐	1	grab	3,245.1	0.2	ND	0		
47. Nickel	7440020	☐	☒	1	grab	1,6020A	5	9.6	0.034	12.91	0.017
48. Selenium	7782492	☐	☒	1	grab	1,6020A	10	15	0.4	15	0.02
49. Silver	7440224	☒	☐	1	grab	1,6020A	4	ND	0		
50. Zinc	7440666	☐	☒	1	grab	1,6020A	50	114.2	0.3	114.2	0.15
51. Iron	7439896	☐	☒	1	grab	19,200.7	50	860	2.27	860	1.14
Other (describe):		☐	☐								

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
		☐	☐								
		☐	☐								

b) For discharges where **metals** are believed present, please fill out the following (attach results of any calculations):

Step 1: Do any of the metals in the influent exceed the effluent limits in Appendix III (i.e., the limits set at zero dilution)? Y◉ N○	If yes, which metals? Copper, Lead, Nickel and Zinc
Step 2: For any metals which exceed the **Appendix III** limits, calculate the **dilution factor (DF)** using the formula in Part I.A.3.c (step 2) of the NOI instructions or as determined by the State prior to the submission of this NOI. What is the dilution factor for applicable metals? Metal: Copper DF: 80 Metal: Lead DF: 80 Metal: Nickel DF: 80 Metal: Zinc DF: 80 Etc.	Look up the limit calculated at the corresponding dilution factor in **Appendix IV.** Do any of the metals in the **influent** have the potential to exceed the corresponding **effluent** limits in Appendix IV (i.e., is the influent concentration above the limit set at the calculated dilution factor)? Y○ N◉ If Y, list which metals:

4. Treatment system information. Please describe the treatment system using separate sheets as necessary, including:

a) A description of the treatment system, including a schematic of the proposed or existing treatment system:

Equalization tanks, bag filters, and resin media vessels

b) Identify each applicable treatment unit (check all that apply):	Frac. tank ☐	Air stripper ☐	Oil/water separator ☐	Equalization tanks ☒	Bag filter ☒	GAC filter ☐
	Chlorination ☐	De-chlorination ☐	Other (please describe):	resin media vessels		

c) Proposed **average** and **maximum flow rates** (gallons per minute) for the discharge and the **design flow rate**(s) (gallons per minute) of the treatment system:
Average flow rate of discharge 5 gpm Maximum flow rate of treatment system 10 gpm
Design flow rate of treatment system 30 gpm

d) A description of chemical additives being used or planned to be used (attach MSDS sheets):

None

5. Receiving surface water(s). Please provide information about the receiving water(s), using separate sheets as necessary:

a) Identify the discharge pathway:	Direct to receiving water ☐	Within facility (sewer) ☐	Storm drain ☒	Wetlands ☐	Other (describe):

b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters:

Discharge into storm drain below Marina Park Drive that discharges into Boston's Inner Harbor. See attached report for further details and a plan.

c) Attach a detailed map(s) indicating the site location and location of the outfall to the receiving water:
1. For multiple discharges, number the discharges sequentially.
2. For indirect dischargers, indicate the location of the discharge to the indirect conveyance and the discharge to surface water
The map should also include the location and distance to the nearest sanitary sewer as well as the locus of nearby sensitive receptors (based on USGS topographical mapping), such as surface waters, drinking water supplies, and wetland areas.

d) Provide the state water quality classification of the receiving water SB

e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water N/A cfs
Please attach any calculation sheets used to support stream flow and dilution calculations.

f) Is the receiving water a listed 303(d) water quality impaired or limited water? Y ○ N ◉ If yes, for which pollutant(s)?

Is there a final TMDL? Y ○ N ◉ If yes, for which pollutant(s)?

6. ESA and NHPA Eligibility.

Please provide the following information according to requirements of Permit Parts I.A.4 and I.A.5 Appendices II and VII.

a) Using the instructions in Appendix VII and information on Appendix II, under which criterion listed in Part I.C are you eligible for coverage under this general permit?

A ◉ B ○ C ○ D ○ E ○ F ○

b) If you selected Criterion D or F, has consultation with the federal services been completed? Y ○ N ○ Underway ○

c) If consultation with U.S. Fish and Wildlife Service and/or NOAA Fisheries Service was completed, was a written concurrence finding that the discharge is "not likely to adversely affect" listed species or critical habitat received? Y ○ N ○

d) Attach documentation of ESA eligibility as described in the NOI instructions and required by Appendix VII, Part I.C, Step 4.

e) Using the instructions in Appendix VII, under which criterion listed in Part II.C are you eligible for coverage under this general permit?

1 ○ 2 ◉ 3 ○

f) If Criterion 3 was selected, attach all written correspondence with the State or Tribal historic preservation officers, including any terms and conditions that outline measures the applicant must follow to mitigate or prevent adverse effects due to activities regulated by the RGP.

7. Supplemental information.

Please provide any supplemental information. Attach any analytical data used to support the application. Attach any certification(s) required by the general permit.

8. Signature Requirements: The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22, including the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Facility/Site Name:	One Marina Park Drive
Operator signature:	James L Heighton
Printed Name &Title:	James L. HeighTow Senior Project Manager
Date:	7/14/14

McPHAIL ASSOCIATES, LLC

APPENDIX C

RESULTS OF GROUNDWATER ANALYSIS

On July 5, 2011 and May 14, 2014, McPhail Associates, LLC obtained samples of groundwater from a sump pit located within the lowest level of the One Marina Park Drive building and submitted the samples to a certified laboratory for analysis for the presence of parameters required under the EPA's Remediation General Permit (RGP) application, including pH, total suspended solids (TSS), total residual chlorine, total petroleum hydrocarbons (TPH), cyanide, volatile organic compounds (VOCs) including total benzene, toluene, ethylbenzene and xylenes (BTEX), polyaromatic hydrocarbons (PAHs), total phenols, PCBs, and total recoverable metals. The sample collected in 2011 was taken as an influent sample directly from the sump pit and the sample collected in 2014 was taken as an effluent sample from the treatment system that has been installed at the site.

The results of the laboratory analysis are summarized in Table 1 included in Appendix C. The results of laboratory analysis indicate the following:

1. **pH**: The influent sample collected in 2011 was not tested for pH. The effluent sample exhibited a pH level of 7.3 Standard Units (S.U.), which is within the recommended range of 6.5 to 8.3 S.U. for discharge into salt water.

2. **TSS**: Total suspended solids (TSS) were detected in the tested samples at concentrations of 7.6 milligrams per liter (mg/l) and 13 mg/l in the influent and effluent samples, respectively.

3. **VOCs**: The groundwater samples indicated no detected levels of any of the target VOCs, including BTEX.

4. **TPH**: Laboratory analysis of the groundwater samples indicated no detectable levels of TPH.

5. **PAHs and Total Phenols**: The laboratory reported no detectable levels of Group 1 or Group 2 PAHs. Total Phenols were not detected in either groundwater sample.

6. **PCBs:** The laboratory results indicated no detectable levels of PCBs.

McPHAIL ASSOCIATES, LLC

7. **Cyanide**: Cyanide was detected at a concentration of 15 micrograms per liter (ug/l) in the influent sample which exceeds the RGP effluent limit of 1 ug/l. Cyanide was not detected above the laboratory method detection limit of 5 ug/l in the effluent sample.

8. **Total Metals**: The laboratory reported no detectable levels of antimony, cadmium, chromium III, chromium VI, mercury or silver in the submitted influent sample of groundwater collected in July 2011. Levels of arsenic, copper, lead, nickel, selenium, zinc and iron were detected in the influent sample at concentrations of 7.4 ug/l, 123.8 ug/l, 23.6 ug/l, 9.6 ug/l. 15 ug/l, 114.2 ug/l and 860 ug/l, respectively. The detected levels of arsenic, selenium and iron are below the applicable EPA effluent limits for discharge to a salt water body.

   The detected levels of copper, lead, nickel and zinc in the influent sample from July 2011 exceed the EPA effluent limits of 3.7 ug/l, 8.5 ug/l, 8.2 ug/l and 85.6 ug/l, respectively, for discharge into a salt water body. Approval has been obtained from the Massachusetts Department of Environmental Protection (DEP) to utilize a dilution factor. Dilution factor (DF) calculations and the approval to use a DF from the DEP are attached. The purpose of the DF calculation is to establish Total Recoverable Limits for metals, taking into consideration the anticipated dilution of the detected analytes upon discharge into Boston Harbor. A DF of 419 was calculated. Conservatively, we applied a DF of 80 to calculate the Total Recoverable Limits for metals.

   The results of the testing on the effluent sample collected in May 2014 indicated levels of arsenic, nickel and lead at concentrations of 5.9 ug/l, 5.49 ug/l and 60 ug/l, respectively. The laboratory reported no detectable levels of antimony, cadmium, chromium III, chromium VI, copper, lead, mercury, selenium, silver or zinc. The levels of tested metals in the effluent sample are below the EPA effluent limits.

TABLE 1

ANALYTICAL TEST RESULTS--GROUNDWATER

Fan Pier Parcel F;
Boston, Massachusetts
Project Number 4426

LOCATION		RGP Limits (Saltwater)		SUMP	GARAGE SUMP
SAMPLING DATE				7/5/2011	5/14/2014
SAMPLE TYPE				INFLUENT	EFFLUENT
LAB SAMPLE ID				L1109892	L1410334-01
			Units		L1410334-01 R1
1	Solids, Total Suspended	30	mg/l	7.6	13
	pH (H)	6.5-8.3	SU		7.3
2	Total Residual Chlorine	7.5	ug/l	ND(20)	ND(20)
3	TPH	5000	ug/l	ND(4000)	ND(4000)
4	Total Cyanide	1	ug/l	15	ND(5)
5	Benzene	Total BTEX	ug/l	ND(1)	ND(0.5)
6	Toluene	Total BTEX	ug/l	ND(1)	ND(0.75)
7	Ethylbenzene	Total BTEX	ug/l	ND(1)	ND(0.5)
8	Xylene (Total)	Total BTEX	ug/l	ND(2)	ND(1)
9	Total BTEX	100	ug/l	ND	ND
10	1,2-Dibromoethane	0.05	ug/l	ND(0.01)	ND(2)
11	Methyl tert butyl ether	70	ug/l	ND(20)	ND(1)
12	Tert-Butyl Alcohol	Monitor Only	ug/l	ND(100)	ND(10)
13	Tertiary-Amyl Methyl Ether	Monitor Only	ug/l	ND(20)	ND(2)
14	Naphthalene	20	ug/l	ND(0.2)	ND(2.5)
15	Carbon tetrachloride	4.44	ug/l	ND(1)	ND(0.5)
16	1,2-Dichlorobenzene	600	ug/l	ND(5)	ND(2.5)
17	1,3-Dichlorobenzene	320	ug/l	ND(5)	ND(2.5)
18	1,4-Dichlorobenzene	5	ug/l	ND(5)	ND(2.5)
19	1,1-Dichloroethane	70	ug/l	ND(1.5)	ND(0.75)
20	1,2-Dichloroethane	5	ug/l	ND(1.5)	ND(0.5)
21	1,1-Dichloroethene	3.2	ug/l	ND(1)	ND(0.5)
22	cis-1,2-Dichloroethene	70	ug/l	ND(1)	ND(0.5)
23	Methylene chloride	4.6	ug/l	ND(5)	ND(3)
24	Tetrachloroethene	5	ug/l	ND(1.5)	ND(0.5)
25	1,1,1-Trichloroethane	200	ug/l	ND(2)	ND(0.5)
26	1,1,2-Trichloroethane	5	ug/l	ND(1.5)	ND(0.75)
27	Trichloroethene	5	ug/l	ND(1)	ND(0.5)
28	Vinyl chloride	2	ug/l	ND(2)	ND(1)
29	Acetone	Monitor Only	ug/l	ND(10)	ND(5)
30	1,4-Dioxane	Monitor Only	ug/l	ND(2000)	ND(3)
31	Total Phenolics	300	ug/l	ND(150)	ND(30)
32	Pentachlorophenol	1	ug/l	ND(0.8)	ND(0.8)
33	Total Phthalates (Phthalate esters)	3	ug/l	ND	ND(5)
34	Bis(2-ethylhexyl)phthalate	6	ug/l	ND(3)	ND(3)
35	Total Group I PAHs	10	ug/l	ND	ND
a	Benzo(a)anthracene	0.0038	ug/l	ND(0.2)	ND(0.2)
b	Benzo(a)pyrene	0.0038	ug/l	ND(0.2)	ND(0.2)
c	Benzo(b)fluoranthene	0.0038	ug/l	ND(0.2)	ND(0.2)
d	Benzo(k)fluoranthene	0.0038	ug/l	ND(0.2)	ND(0.2)
e	Chrysene	0.0038	ug/l	ND(0.2)	ND(0.2)
f	Dibenzo(a,h)anthracene	0.0038	ug/l	ND(0.2)	ND(0.2)
g	Indeno(1,2,3-cd)Pyrene	0.0038	ug/l	ND(0.2)	ND(0.2)

Shading indicates an exceedence of the RGP Standards
ND--not detected above laboratory detection limit

TABLE 1

ANALYTICAL TEST RESULTS--GROUNDWATER

Fan Pier Parcel F;
Boston, Massachusetts
Project Number 4426

LOCATION		RGP Limits (Saltwater)		SUMP	GARAGE SUMP
SAMPLING DATE				7/5/2011	5/14/2014
SAMPLE TYPE				INFLUENT	EFFLUENT
LAB SAMPLE ID				L1109892	L1410334-01
			Units		L1410334-01 R1
36	Total Group II PAHs	10	ug/l	ND	ND
h	Acenaphthene	Total Group II PAH	ug/l	ND(0.2)	ND(0.2)
i	Acenaphthylene	Total Group II PAH	ug/l	ND(0.2)	ND(0.2)
j	Anthracene	Total Group II PAH	ug/l	ND(0.2)	ND(0.2)
k	Benzo(ghi)perylene	Total Group II PAH	ug/l	ND(0.2)	ND(0.2)
l	Fluoranthene	Total Group II PAH	ug/l	ND(0.2)	ND(0.2)
m	Fluorene	Total Group II PAH	ug/l	ND(0.2)	ND(0.2)
n	Naphthalene	20	ug/l	ND(0.2)	ND(0.2)
o	Phenanthrene	Total Group II PAH	ug/l	ND(0.2)	ND(0.2)
p	Pyrene	Total Group II PAH	ug/l	ND(0.2)	ND(0.2)
37	Total PCBs	0.000046	ug/l	ND(0.25)	ND(0.25)
38	Chloride	Monitor Only	ug/l	5,200,000	7,120,000
	Total Recoverable Metal Limits				
39	Antimony, Total	5.6	ug/l	ND(10)	ND(10)
40	Arsenic, Total	36	ug/l	7.40	5.90
41	Cadmium, Total	8.9	ug/l	ND(2)	ND(2)
42	Chromium, Trivalent	100	ug/l	ND(5)	ND(10)
43	Chromium, Hexavalent	50.3	ug/l	ND(50)	ND(10)
44	Copper, Total	3.7	ug/l	123.8	ND(10)
45	Lead, Total	8.5	ug/l	23.6	ND(5)
46	Mercury, Total	1.1	ug/l	ND(0.2)	ND(0.2)
47	Nickel, Total	8.2	ug/l	9.60	5.49
48	Selenium, Total	71	ug/l	15	ND(50)
49	Silver, Total	2.2	ug/l	ND(4)	ND(4)
50	Zinc, Total	85.6	ug/l	114.2	ND(100)
51	Iron, Total	1000	ug/l	860	60

Shading indicates an exceedence of the RGP Standards
ND--not detected above laboratory detection limit

MCPHAIL ASSOCIATES, LLC
Consulting Geotechnical Engineers
2269 MASSACHUSETTS AVENUE
CAMBRIDGE, MA 02140

JOB 4426 - Fan Pier
SHEET NO. 1 OF 2
CALCULATED BY BEC DATE 7/9/14
CHECKED BY JWP DATE 7/10/14
SCALE

One Marina Park Drive

Discharge Dilution Calculations

Max. Expected Flow = 10 GPM

10 GPM × 1,440 m/day × 0.134 ft^3/gal = 1,930 ft^3/day (cfd)

Mixing Volume (MV)

- outfall is located in Fan Pier cove
  - extends between Fan Pier and the ICA
  - area is approximately 42,500 ft^2
- Mean range of tide in Boston = 9.5 ft/tide

$MV = 42{,}500\ ft^2 \times 9.5\ ft/tide \times 2\ tides/day$
$= 807{,}500\ ft^3/day$

Dilution Factor (DF)

- use Equation $DF = (Q_d + Q_s)/Q_d$

DF = Dilution Factor

Q_d = Daily Discharge to Recieving Body

Q_s = Daily Recieving Body Mixing Volume

MCPHAIL ASSOCIATES, LLC
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2269 MASSACHUSETTS AVENUE
CAMBRIDGE, MA 02140

JOB 4426 – Fan Pier

SHEET NO. 2 OF 2

CALCULATED BY BEJ DATE 7/9/14

CHECKED BY [signature] DATE 7/10/14

SCALE

$$DF = (1{,}930 \text{ cfd} + 807{,}500 \text{ cfd}) / 1{,}930 \text{ cfd}$$

$$= 419$$

Conservatively assume $DF = 80$

Benjamin Downing

From: Kubit, Robert (DEP) <robert.kubit@state.ma.us>
Sent: Thursday, July 10, 2014 9:56 AM
To: Benjamin Downing
Subject: RE: One Marina Park Drive - RGP Permit Application [Filed 10 Jul 2014 09:54]

Good morning Ben,

According to the Remediation General Permit, Part I.C.7, footnote 8: "Dilution factors may be available for discharges to saline waters but only with approval of the flow modeling
information from the State prior to the submission of the NOI."

I have reviewed the submitted dilution factor calculations for the discharge at Fan Pier in Boston Harbor. The method and final result of a dilution factor of 80 are approved by the MassDEP.

If I can be of further help, please let me know.

Bob

Robert Kubit, P.E.
MassDEP
Division of Watershed Management
627 Main Street
Worcester MA 01608
Telephone: (508) 767-2854
Email: robert.kubit@state.ma.us
Fax: (508) 791-4131

From: Benjamin Downing [mailto:BDowning@mcphailgeo.com]
Sent: Thursday, July 10, 2014 9:38 AM
To: Kubit, Robert (DEP)
Cc: Jonathan Patch
Subject: One Marina Park Drive - RGP Permit Application

Good morning Bob,

We are working on an RGP permit application for the One Marina Park Drive building located at Fan Pier in Boston. The water collected in the foundation drainage system is going to be treated and then discharged into a storm drain which flows into Boston Harbor. Our groundwater testing results indicated copper concentrations above the RGP permit limit of 3.7 ug/l, so we were looking to use a dilution factor for this discharge even though the outfall is in saltwater. Would you mind reviewing the attached calculations and letting us know if it would be acceptable for us to use a dilution factor for this site? Thank you.

Benjamin E. Downing

McPhail Associates, LLC
2269 Massachusetts Avenue
Cambridge, MA 02140
Tel: 617-868-1420 Ext. 323
Direct: 617-349-7323

ANALYTICAL REPORT

Lab Number:	L1109892
Client:	McPhail Associates 2269 Massachusetts Avenue Cambridge, MA 02140
ATTN:	Ambrose Donovan
Phone:	(617) 868-1420
Project Name:	ONE MARINA PARK DRIVE SUMP PIT
Project Number:	4426.9.B2
Report Date:	07/15/11

Certifications & Approvals: MA (M-MA086), NY NELAC (11148), CT (PH-0574), NH (2003), NJ (MA935), RI (LAO00065), ME (MA0086), PA (Registration #68-03671), USDA (Permit #S-72578), US Army Corps of Engineers, Naval FESC.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: ONE MARINA PARK DRIVE SUMP PIT
Project Number: 4426.9.B2

Lab Number: L1109892
Report Date: 07/15/11

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1109892-01	SUMP 070511	BOSTON, MA	07/05/11 09:00
L1109892-02	SUMP 070511 ADDITIONAL VOLUME	BOSTON, MA	07/05/11 09:00
L1109892-03	TRIP BLANK	BOSTON, MA	07/05/11 00:00

Project Name: ONE MARINA PARK DRIVE SUMP PIT **Lab Number:** L1109892
Project Number: 4426.9.B2 **Report Date:** 07/15/11

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

For additional information, please contact Client Services at 800-624-9220.

Sample Receipt

A Trip Blank was received in the laboratory but not listed on the Chain of Custody. At the client's request, the Trip Blank was not analyzed.

Semivolatile Organics

The WG477877-2/-3 LCS/LCSD recoveries, associated with L1109892-01, were above the acceptance criteria for 2,4-Dinitrotoluene (102%/100%), P-Chloro-M-Cresol (112%/108%) and Pentachlorophenol (111%/104%); however, the associated sample was non-detect for these target compounds. The results of the original analysis are reported.

Metals

L1109892-01 has elevated detection limit for all analytes, with the exception of Iron and Mercury, due to the

Project Name:	ONE MARINA PARK DRIVE SUMP PIT	**Lab Number:**	L1109892
Project Number:	4426.9.B2	**Report Date:**	07/15/11

Case Narrative (continued)

dilution required by the high concentrations of non-target analytes. The requested reporting limits were not achieved.

Phenolics, Total

L1109892-01 has an elevated detection limit due to the dilution required by the sample matrix.

Chromium, Hexavalent

L1109892-01 has an elevated detection limit due to the dilution required by the sample matrix.

The WG477240-4 MS recovery (80%), performed on L1109892-01, is below the acceptance criteria. This has been attributed to matrix interference.

Chloride

L1109892-01 has an elevated detection limit due to the dilution required by the sample matrix.

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

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 07/15/11

ORGANICS

VOLATILES

Project Name: ONE MARINA PARK DRIVE SUMP PIT **Lab Number:** L1109892

Project Number: 4426.9.B2 **Report Date:** 07/15/11

SAMPLE RESULTS

Lab ID:	L1109892-01	Date Collected:	07/05/11 09:00
Client ID:	SUMP 070511	Date Received:	07/05/11
Sample Location:	BOSTON, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	14,504.1	Extraction Date:	07/14/11 12:00
Analytical Date:	07/14/11 17:13		
Analyst:	SH		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Pesticides by GC - Westborough Lab						
1,2-Dibromoethane	ND		ug/l	0.010	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	0.010	--	1

Project Name: ONE MARINA PARK DRIVE SUMP PIT **Lab Number:** L1109892

Project Number: 4426.9.B2 **Report Date:** 07/15/11

SAMPLE RESULTS

Lab ID:	L1109892-01	Date Collected:	07/05/11 09:00
Client ID:	SUMP 070511	Date Received:	07/05/11
Sample Location:	BOSTON, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	5,624		
Analytical Date:	07/06/11 08:40		
Analyst:	TT		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	5.0	--	1
1,1-Dichloroethane	ND		ug/l	1.5	--	1
Chloroform	ND		ug/l	1.5	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane[1]	ND		ug/l	3.5	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.5	--	1
2-Chloroethylvinyl ether	ND		ug/l	10	--	1
Tetrachloroethene	ND		ug/l	1.5	--	1
Chlorobenzene	ND		ug/l	3.5	--	1
Trichlorofluoromethane	ND		ug/l	5.0	--	1
1,2-Dichloroethane	ND		ug/l	1.5	--	1
1,1,1-Trichloroethane	ND		ug/l	2.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	1.5	--	1
cis-1,3-Dichloropropene	ND		ug/l	1.5	--	1
Bromoform	ND		ug/l	1.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	1.0	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	10	--	1
Bromomethane	ND		ug/l	5.0	--	1
Vinyl chloride	ND		ug/l	2.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.5	--	1
cis-1,2-Dichloroethene[1]	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	5.0	--	1
1,3-Dichlorobenzene	ND		ug/l	5.0	--	1

Project Name: ONE MARINA PARK DRIVE SUMP PIT **Lab Number:** L1109892

Project Number: 4426.9.B2 **Report Date:** 07/15/11

SAMPLE RESULTS

Lab ID: L1109892-01 Date Collected: 07/05/11 09:00

Client ID: SUMP 070511 Date Received: 07/05/11

Sample Location: BOSTON, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,4-Dichlorobenzene	ND		ug/l	5.0	--	1
p/m-Xylene[1]	ND		ug/l	2.0	--	1
o-xylene[1]	ND		ug/l	1.0	--	1
Xylene (Total)[1]	ND		ug/l	2.0	--	1
Styrene[1]	ND		ug/l	1.0	--	1
Acetone[1]	ND		ug/l	10	--	1
Carbon disulfide[1]	ND		ug/l	5.0	--	1
2-Butanone[1]	ND		ug/l	10	--	1
Vinyl acetate[1]	ND		ug/l	20	--	1
4-Methyl-2-pentanone[1]	ND		ug/l	10	--	1
2-Hexanone[1]	ND		ug/l	10	--	1
Acrolein[1]	ND		ug/l	8.0	--	1
Acrylonitrile[1]	ND		ug/l	10	--	1
Methyl tert butyl ether[1]	ND		ug/l	20	--	1
Dibromomethane[1]	ND		ug/l	1.0	--	1
1,4-Dioxane[1]	ND		ug/l	2000	--	1
Tert-Butyl Alcohol[1]	ND		ug/l	100	--	1
Tertiary-Amyl Methyl Ether[1]	ND		ug/l	20	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	94		80-120
Fluorobenzene	93		80-120
4-Bromofluorobenzene	116		80-120

Project Name: ONE MARINA PARK DRIVE SUMP PIT **Lab Number:** L1109892

Project Number: 4426.9.B2 **Report Date:** 07/15/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 5,624
Analytical Date: 07/06/11 07:32
Analyst: TT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG477279-2					
Methylene chloride	ND		ug/l	5.0	--
1,1-Dichloroethane	ND		ug/l	1.5	--
Chloroform	ND		ug/l	1.5	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane[1]	ND		ug/l	3.5	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.5	--
2-Chloroethylvinyl ether	ND		ug/l	10	--
Tetrachloroethene	ND		ug/l	1.5	--
Chlorobenzene	ND		ug/l	3.5	--
Trichlorofluoromethane	ND		ug/l	5.0	--
1,2-Dichloroethane	ND		ug/l	1.5	--
1,1,1-Trichloroethane	ND		ug/l	2.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	1.5	--
cis-1,3-Dichloropropene	ND		ug/l	1.5	--
Bromoform	ND		ug/l	1.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	1.0	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	10	--
Bromomethane	ND		ug/l	5.0	--
Vinyl chloride	ND		ug/l	2.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.5	--
cis-1,2-Dichloroethene[1]	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	5.0	--
1,3-Dichlorobenzene	ND		ug/l	5.0	--

Project Name: ONE MARINA PARK DRIVE SUMP PIT **Lab Number:** L1109892

Project Number: 4426.9.B2 **Report Date:** 07/15/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 5,624
Analytical Date: 07/06/11 07:32
Analyst: TT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG477279-2					
1,4-Dichlorobenzene	ND		ug/l	5.0	--
p/m-Xylene[1]	ND		ug/l	2.0	--
o-xylene[1]	ND		ug/l	1.0	--
Xylene (Total)[1]	ND		ug/l	2.0	--
Styrene[1]	ND		ug/l	1.0	--
Acetone[1]	ND		ug/l	10	--
Carbon disulfide[1]	ND		ug/l	5.0	--
2-Butanone[1]	ND		ug/l	10	--
Vinyl acetate[1]	ND		ug/l	20	--
4-Methyl-2-pentanone[1]	ND		ug/l	10	--
2-Hexanone[1]	ND		ug/l	10	--
Acrolein[1]	ND		ug/l	8.0	--
Acrylonitrile[1]	ND		ug/l	10	--
Methyl tert butyl ether[1]	ND		ug/l	20	--
Dibromomethane[1]	ND		ug/l	1.0	--
1,4-Dioxane[1]	ND		ug/l	2000	--
Tert-Butyl Alcohol[1]	ND		ug/l	100	--
Tertiary-Amyl Methyl Ether[1]	ND		ug/l	20	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	95		80-120
Fluorobenzene	94		80-120
4-Bromofluorobenzene	116		80-120

Project Name: ONE MARINA PARK DRIVE SUMP PIT
Project Number: 4426.9.B2

Lab Number: L1109892
Report Date: 07/15/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 14,504.1
Analytical Date: 07/14/11 16:11
Analyst: SH

Extraction Date: 07/14/11 12:00

Parameter	Result	Qualifier	Units	RL	MDL
Pesticides by GC - Westborough Lab for sample(s): 01 Batch: WG478957-1					
1,2-Dibromoethane	ND		ug/l	0.010	--
1,2-Dibromo-3-chloropropane	ND		ug/l	0.010	--

Lab Control Sample Analysis

Batch Quality Control

Project Name: ONE MARINA PARK DRIVE SUMP PIT

Project Number: 4426.9.B2

Lab Number: L1109892

Report Date: 07/15/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG477279-1								
Methylene chloride	117		-		1-221	-		30
1,1-Dichloroethane	110		-		59-155	-		30
Chloroform	118		-		51-138	-		30
Carbon tetrachloride	136		-		70-140	-		30
1,2-Dichloropropane[1]	102		-		1-210	-		30
Dibromochloromethane	127		-		53-149	-		30
1,1,2-Trichloroethane	109		-		52-150	-		30
2-Chloroethylvinyl ether	89		-		1-305	-		30
Tetrachloroethene	119		-		64-148	-		30
Chlorobenzene	107		-		37-160	-		30
Trichlorofluoromethane	127		-		17-181	-		30
1,2-Dichloroethane	125		-		49-155	-		30
1,1,1-Trichloroethane	133		-		52-162	-		30
Bromodichloromethane	125		-		35-155	-		30
trans-1,3-Dichloropropene	122		-		17-183	-		30
cis-1,3-Dichloropropene	118		-		1-227	-		30
Bromoform	126		-		45-169	-		30
1,1,2,2-Tetrachloroethane	103		-		46-157	-		30
Benzene	112		-		37-151	-		30
Toluene	117		-		47-150	-		30
Ethylbenzene	104		-		37-162	-		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: ONE MARINA PARK DRIVE SUMP PIT

Project Number: 4426.9.B2

Lab Number: L1109892

Report Date: 07/15/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG477279-1								
Chloromethane	66		-		1-273	-		30
Bromomethane	97		-		1-242	-		30
Vinyl chloride	68		-		1-251	-		30
Chloroethane	81		-		14-230	-		30
1,1-Dichloroethene	107		-		1-234	-		30
trans-1,2-Dichloroethene	112		-		54-156	-		30
cis-1,2-Dichloroethene[1]	106		-		60-140	-		30
Trichloroethene	112		-		71-157	-		30
1,2-Dichlorobenzene	106		-		18-190	-		30
1,3-Dichlorobenzene	101		-		59-156	-		30
1,4-Dichlorobenzene	109		-		18-190	-		30
p/m-Xylene[1]	103		-		40-160	-		30
o-Xylene[1]	98		-		40-160	-		30
XYLENE (TOTAL)[1]	102		-		40-160	-		30
Styrene[1]	156		-		40-160	-		30
Acetone[1]	89		-		40-160	-		30
Carbon disulfide[1]	140		-		40-160	-		30
2-Butanone[1]	86		-		40-160	-		30
Vinyl acetate[1]	134		-		40-160	-		30
4-Methyl-2-pentanone[1]	94		-		40-160	-		30
2-Hexanone[1]	91		-		40-160	-		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: ONE MARINA PARK DRIVE SUMP PIT

Project Number: 4426.9.B2

Lab Number: L1109892

Report Date: 07/15/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG477279-1								
Acrolein[1]	106		-		40-160	-		30
Acrylonitrile[1]	79		-		40-160	-		30
Dibromomethane[1]	99		-		70-130	-		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Pentafluorobenzene	104				80-120
Fluorobenzene	97				80-120
4-Bromofluorobenzene	103				80-120

Pesticides by GC - Westborough Lab Associated sample(s): 01 Batch: WG478957-2								
1,2-Dibromoethane	99		-		70-130	-		20
1,2-Dibromo-3-chloropropane	96		-		70-130	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: ONE MARINA PARK DRIVE SUMP PIT
Project Number: 4426.9.B2

Lab Number: L1109892
Report Date: 07/15/11

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG477279-3 QC Sample: L1109892-01 Client ID: SUMP 070511												
Methylene chloride	ND	20	23	117		-	-		1-221	-		30
1,1-Dichloroethane	ND	20	22	113		-	-		59-155	-		30
Chloroform	ND	20	25	126		-	-		51-138	-		30
Carbon tetrachloride	ND	20	28	140		-	-		70-140	-		30
1,2-Dichloropropane[1]	ND	20	22	109		-	-		1-210	-		30
Dibromochloromethane	ND	20	26	129		-	-		53-149	-		30
1,1,2-Trichloroethane	ND	20	22	111		-	-		52-150	-		30
2-Chloroethylvinyl ether	ND	20	16	80		-	-		1-305	-		30
Tetrachloroethene	ND	20	23	114		-	-		64-148	-		30
Chlorobenzene	ND	20	22	108		-	-		37-160	-		30
Trichlorofluoromethane	ND	20	26	130		-	-		17-181	-		30
1,2-Dichloroethane	ND	20	26	132		-	-		49-155	-		30
1,1,1-Trichloroethane	ND	20	28	140		-	-		52-162	-		30
Bromodichloromethane	ND	20	25	126		-	-		35-155	-		30
trans-1,3-Dichloropropene	ND	20	24	119		-	-		17-183	-		30
cis-1,3-Dichloropropene	ND	20	21	107		-	-		1-227	-		30
Bromoform	ND	20	27	135		-	-		45-169	-		30
1,1,2,2-Tetrachloroethane	ND	20	23	113		-	-		46-157	-		30
Benzene	ND	20	23	116		-	-		35-151	-		30
Toluene	ND	20	23	113		-	-		47-150	-		30
Ethylbenzene	ND	20	21	106		-	-		37-162	-		30

Matrix Spike Analysis
Batch Quality Control

Project Name: ONE MARINA PARK DRIVE SUMP PIT
Project Number: 4426.9.B2

Lab Number: L1109892
Report Date: 07/15/11

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG477279-3 QC Sample: L1109892-01 Client ID: SUMP 070511												
Chloromethane	ND	20	12	60		-	-		1-273	-		30
Bromomethane	ND	20	13	67		-	-		1-242	-		30
Vinyl chloride	ND	20	14	71		-	-		1-251	-		30
Chloroethane	ND	20	13	66		-	-		14-230	-		30
1,1-Dichloroethene	ND	20	22	112		-	-		1-234	-		30
trans-1,2-Dichloroethene	ND	20	23	113		-	-		54-156	-		30
cis-1,2-Dichloroethene[1]	ND	20	22	108		-	-		60-140	-		30
Trichloroethene	ND	20	23	116		-	-		71-157	-		30
1,2-Dichlorobenzene	ND	20	21	107		-	-		18-190	-		30
1,3-Dichlorobenzene	ND	20	20	99		-	-		59-156	-		30
1,4-Dichlorobenzene	ND	20	22	108		-	-		18-190	-		30
p/m-Xylene[1]	ND	40	42	104		-	-		40-160	-		30
o-Xylene[1]	ND	20	20	100		-	-		40-160	-		30
XYLENE (TOTAL)[1]	ND	60	62	103		-	-		40-160	-		30
Styrene[1]	ND	20	32	158		-	-		40-160	-		30
Acetone[1]	ND	50	49	99		-	-		40-160	-		30
Carbon disulfide[1]	ND	20	27	134		-	-		40-160	-		30
2-Butanone[1]	ND	50	42	84		-	-		40-160	-		30
Vinyl acetate[1]	ND	40	40	101		-	-		40-160	-		30
4-Methyl-2-pentanone[1]	ND	50	45	90		-	-		40-160	-		30
2-Hexanone[1]	ND	50	45	91		-	-		40-160	-		30

Matrix Spike Analysis
Batch Quality Control

Project Name: ONE MARINA PARK DRIVE SUMP PIT
Project Number: 4426.9.B2

Lab Number: L1109892
Report Date: 07/15/11

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG477279-3 QC Sample: L1109892-01 Client ID: SUMP 070511												
Acrolein[1]	ND	40	45	112		-	-		40-160	-		30
Acrylonitrile[1]	ND	40	40	100		-	-		40-160	-		30
Dibromomethane[1]	ND	20	19	93		-	-			-		30

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
4-Bromofluorobenzene	103				80-120
Fluorobenzene	100				80-120
Pentafluorobenzene	106				80-120

Pesticides by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG478957-3 QC Sample: L1109892-01 Client ID: SUMP 070511												
1,2-Dibromoethane	ND	0.239	0.225	94		-	-		70-130	-		20
1,2-Dibromo-3-chloropropane	ND	0.239	0.201	84		-	-		70-130	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: ONE MARINA PARK DRIVE SUMP PIT
Project Number: 4426.9.B2

Lab Number: L1109892
Report Date: 07/15/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG477279-4 QC Sample: L1109892-01 Client ID: SUMP 070511						
Methylene chloride	ND	ND	ug/l	NC		30
1,1-Dichloroethane	ND	ND	ug/l	NC		30
Chloroform	ND	ND	ug/l	NC		30
Carbon tetrachloride	ND	ND	ug/l	NC		30
1,2-Dichloropropane[1]	ND	ND	ug/l	NC		30
Dibromochloromethane	ND	ND	ug/l	NC		30
1,1,2-Trichloroethane	ND	ND	ug/l	NC		30
2-Chloroethylvinyl ether	ND	ND	ug/l	NC		30
Tetrachloroethene	ND	ND	ug/l	NC		30
Chlorobenzene	ND	ND	ug/l	NC		30
Trichlorofluoromethane	ND	ND	ug/l	NC		30
1,2-Dichloroethane	ND	ND	ug/l	NC		30
1,1,1-Trichloroethane	ND	ND	ug/l	NC		30
Bromodichloromethane	ND	ND	ug/l	NC		30
trans-1,3-Dichloropropene	ND	ND	ug/l	NC		30
cis-1,3-Dichloropropene	ND	ND	ug/l	NC		30
Bromoform	ND	ND	ug/l	NC		30
1,1,2,2-Tetrachloroethane	ND	ND	ug/l	NC		30
Benzene	ND	ND	ug/l	NC		30

Lab Duplicate Analysis
Batch Quality Control

Project Name: ONE MARINA PARK DRIVE SUMP PIT
Project Number: 4426.9.B2

Lab Number: L1109892
Report Date: 07/15/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG477279-4 QC Sample: L1109892-01 Client ID: SUMP 070511					
Toluene	ND	ND	ug/l	NC	30
Ethylbenzene	ND	ND	ug/l	NC	30
Chloromethane	ND	ND	ug/l	NC	30
Bromomethane	ND	ND	ug/l	NC	30
Vinyl chloride	ND	ND	ug/l	NC	30
Chloroethane	ND	ND	ug/l	NC	30
1,1-Dichloroethene	ND	ND	ug/l	NC	30
trans-1,2-Dichloroethene	ND	ND	ug/l	NC	30
cis-1,2-Dichloroethene[1]	ND	ND	ug/l	NC	30
Trichloroethene	ND	ND	ug/l	NC	30
1,2-Dichlorobenzene	ND	ND	ug/l	NC	30
1,3-Dichlorobenzene	ND	ND	ug/l	NC	30
1,4-Dichlorobenzene	ND	ND	ug/l	NC	30
p/m-Xylene[1]	ND	ND	ug/l	NC	30
o-xylene[1]	ND	ND	ug/l	NC	30
Xylene (Total)[1]	ND	ND	ug/l	NC	30
Styrene[1]	ND	ND	ug/l	NC	30
Acetone[1]	ND	ND	ug/l	NC	30
Carbon disulfide[1]	ND	ND	ug/l	NC	30

Lab Duplicate Analysis
Batch Quality Control

Project Name: ONE MARINA PARK DRIVE SUMP PIT
Project Number: 4426.9.B2

Lab Number: L1109892
Report Date: 07/15/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG477279-4 QC Sample: L1109892-01 Client ID: SUMP 070511					
2-Butanone[1]	ND	ND	ug/l	NC	30
Vinyl acetate[1]	ND	ND	ug/l	NC	30
4-Methyl-2-pentanone[1]	ND	ND	ug/l	NC	30
2-Hexanone[1]	ND	ND	ug/l	NC	30
Acrolein[1]	ND	ND	ug/l	NC	30
Acrylonitrile[1]	ND	ND	ug/l	NC	30
Methyl tert butyl ether[1]	ND	ND	ug/l	NC	30
Dibromomethane[1]	ND	ND	ug/l	NC	30
1,4-Dioxane[1]	ND	ND	ug/l	NC	30
Tert-Butyl Alcohol[1]	ND	ND	ug/l	NC	30
Tertiary-Amyl Methyl Ether[1]	ND	ND	ug/l	NC	30

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	94		95		80-120
Fluorobenzene	93		94		80-120
4-Bromofluorobenzene	116		115		80-120

SEMIVOLATILES

Project Name: ONE MARINA PARK DRIVE SUMP PIT **Lab Number:** L1109892

Project Number: 4426.9.B2 **Report Date:** 07/15/11

SAMPLE RESULTS

Lab ID:	L1109892-01	Date Collected:	07/05/11 09:00
Client ID:	SUMP 070511	Date Received:	07/05/11
Sample Location:	BOSTON, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270C	Extraction Date:	07/08/11 10:38
Analytical Date:	07/10/11 19:14		
Analyst:	JB		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzidine	ND		ug/l	20	--	1
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	--	1
1,2-Dichlorobenzene	ND		ug/l	2.0	--	1
1,3-Dichlorobenzene	ND		ug/l	2.0	--	1
1,4-Dichlorobenzene	ND		ug/l	2.0	--	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	--	1
2,4-Dinitrotoluene	ND		ug/l	5.0	--	1
2,6-Dinitrotoluene	ND		ug/l	5.0	--	1
Azobenzene	ND		ug/l	2.0	--	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	--	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	--	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	--	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	--	1
Hexachlorocyclopentadiene	ND		ug/l	20	--	1
Isophorone	ND		ug/l	5.0	--	1
Nitrobenzene	ND		ug/l	2.0	--	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/l	2.0	--	1
Bis(2-Ethylhexyl)phthalate	ND		ug/l	3.0	--	1
Butyl benzyl phthalate	ND		ug/l	5.0	--	1
Di-n-butylphthalate	ND		ug/l	5.0	--	1
Di-n-octylphthalate	ND		ug/l	5.0	--	1
Diethyl phthalate	ND		ug/l	5.0	--	1
Dimethyl phthalate	ND		ug/l	5.0	--	1
Aniline	ND		ug/l	2.0	--	1
4-Chloroaniline	ND		ug/l	5.0	--	1
2-Nitroaniline	ND		ug/l	5.0	--	1
3-Nitroaniline	ND		ug/l	5.0	--	1
4-Nitroaniline	ND		ug/l	5.0	--	1
Dibenzofuran	ND		ug/l	2.0	--	1
n-Nitrosodimethylamine	ND		ug/l	2.0	--	1

Project Name: ONE MARINA PARK DRIVE SUMP PIT **Lab Number:** L1109892

Project Number: 4426.9.B2 **Report Date:** 07/15/11

SAMPLE RESULTS

Lab ID: L1109892-01 Date Collected: 07/05/11 09:00

Client ID: SUMP 070511 Date Received: 07/05/11

Sample Location: BOSTON, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,6-Trichlorophenol	ND		ug/l	5.0	--	1
P-Chloro-M-Cresol	ND		ug/l	2.0	--	1
2-Chlorophenol	ND		ug/l	2.0	--	1
2,4-Dichlorophenol	ND		ug/l	5.0	--	1
2,4-Dimethylphenol	ND		ug/l	5.0	--	1
2-Nitrophenol	ND		ug/l	10	--	1
4-Nitrophenol	ND		ug/l	10	--	1
2,4-Dinitrophenol	ND		ug/l	20	--	1
4,6-Dinitro-o-cresol	ND		ug/l	10	--	1
Phenol	ND		ug/l	5.0	--	1
2-Methylphenol	ND		ug/l	5.0	--	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	--	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	--	1
Benzoic Acid	ND		ug/l	50	--	1
Benzyl Alcohol	ND		ug/l	2.0	--	1
Carbazole	ND		ug/l	2.0	--	1
Pyridine	ND		ug/l	5.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	54		21-120
Phenol-d6	41		10-120
Nitrobenzene-d5	86		23-120
2-Fluorobiphenyl	86		15-120
2,4,6-Tribromophenol	91		10-120
4-Terphenyl-d14	103		41-149

Project Name: ONE MARINA PARK DRIVE SUMP PIT **Lab Number:** L1109892

Project Number: 4426.9.B2 **Report Date:** 07/15/11

SAMPLE RESULTS

Lab ID:	L1109892-01	Date Collected:	07/05/11 09:00
Client ID:	SUMP 070511	Date Received:	07/05/11
Sample Location:	BOSTON, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270C-SIM	Extraction Date:	07/08/11 10:41
Analytical Date:	07/11/11 14:18		
Analyst:	AS		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.20	--	1
2-Chloronaphthalene	ND		ug/l	0.20	--	1
Fluoranthene	ND		ug/l	0.20	--	1
Hexachlorobutadiene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	0.20	--	1
Benzo(a)anthracene	ND		ug/l	0.20	--	1
Benzo(a)pyrene	ND		ug/l	0.20	--	1
Benzo(b)fluoranthene	ND		ug/l	0.20	--	1
Benzo(k)fluoranthene	ND		ug/l	0.20	--	1
Chrysene	ND		ug/l	0.20	--	1
Acenaphthylene	ND		ug/l	0.20	--	1
Anthracene	ND		ug/l	0.20	--	1
Benzo(ghi)perylene	ND		ug/l	0.20	--	1
Fluorene	ND		ug/l	0.20	--	1
Phenanthrene	ND		ug/l	0.20	--	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/l	0.20	--	1
Pyrene	ND		ug/l	0.20	--	1
1-Methylnaphthalene	ND		ug/l	0.20	--	1
2-Methylnaphthalene	ND		ug/l	0.20	--	1
Pentachlorophenol	ND		ug/l	0.80	--	1
Hexachlorobenzene	ND		ug/l	0.80	--	1
Hexachloroethane	ND		ug/l	0.80	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	57		21-120
Phenol-d6	41		10-120
Nitrobenzene-d5	85		23-120
2-Fluorobiphenyl	76		15-120
2,4,6-Tribromophenol	92		10-120
4-Terphenyl-d14	82		41-149

Project Name: ONE MARINA PARK DRIVE SUMP PIT
Project Number: 4426.9.B2
Lab Number: L1109892
Report Date: 07/15/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270C
Analytical Date: 07/10/11 18:01
Analyst: JB

Extraction Method: EPA 3510C
Extraction Date: 07/08/11 10:38

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG477877-1					
Acenaphthene	ND		ug/l	2.0	--
Benzidine	ND		ug/l	20	--
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--
Hexachlorobenzene	ND		ug/l	2.0	--
Bis(2-chloroethyl)ether	ND		ug/l	2.0	--
2-Chloronaphthalene	ND		ug/l	2.0	--
1,2-Dichlorobenzene	ND		ug/l	2.0	--
1,3-Dichlorobenzene	ND		ug/l	2.0	--
1,4-Dichlorobenzene	ND		ug/l	2.0	--
3,3'-Dichlorobenzidine	ND		ug/l	5.0	--
2,4-Dinitrotoluene	ND		ug/l	5.0	--
2,6-Dinitrotoluene	ND		ug/l	5.0	--
Azobenzene	ND		ug/l	2.0	--
Fluoranthene	ND		ug/l	2.0	--
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	--
4-Bromophenyl phenyl ether	ND		ug/l	2.0	--
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	--
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	--
Hexachlorobutadiene	ND		ug/l	2.0	--
Hexachlorocyclopentadiene	ND		ug/l	20	--
Hexachloroethane	ND		ug/l	2.0	--
Isophorone	ND		ug/l	5.0	--
Naphthalene	ND		ug/l	2.0	--
Nitrobenzene	ND		ug/l	2.0	--
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/l	2.0	--
Bis(2-Ethylhexyl)phthalate	ND		ug/l	3.0	--
Butyl benzyl phthalate	ND		ug/l	5.0	--
Di-n-butylphthalate	ND		ug/l	5.0	--
Di-n-octylphthalate	ND		ug/l	5.0	--
Diethyl phthalate	ND		ug/l	5.0	--
Dimethyl phthalate	ND		ug/l	5.0	--

Project Name: ONE MARINA PARK DRIVE SUMP PIT
Project Number: 4426.9.B2

Lab Number: L1109892
Report Date: 07/15/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270C
Analytical Date: 07/10/11 18:01
Analyst: JB

Extraction Method: EPA 3510C
Extraction Date: 07/08/11 10:38

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG477877-1					
Benzo(a)anthracene	ND		ug/l	2.0	--
Benzo(a)pyrene	ND		ug/l	2.0	--
Benzo(b)fluoranthene	ND		ug/l	2.0	--
Benzo(k)fluoranthene	ND		ug/l	2.0	--
Chrysene	ND		ug/l	2.0	--
Acenaphthylene	ND		ug/l	2.0	--
Anthracene	ND		ug/l	2.0	--
Benzo(ghi)perylene	ND		ug/l	2.0	--
Fluorene	ND		ug/l	2.0	--
Phenanthrene	ND		ug/l	2.0	--
Dibenzo(a,h)anthracene	ND		ug/l	2.0	--
Indeno(1,2,3-cd)Pyrene	ND		ug/l	2.0	--
Pyrene	ND		ug/l	2.0	--
Aniline	ND		ug/l	2.0	--
4-Chloroaniline	ND		ug/l	5.0	--
1-Methylnaphthalene	ND		ug/l	2.0	--
2-Nitroaniline	ND		ug/l	5.0	--
3-Nitroaniline	ND		ug/l	5.0	--
4-Nitroaniline	ND		ug/l	5.0	--
Dibenzofuran	ND		ug/l	2.0	--
2-Methylnaphthalene	ND		ug/l	2.0	--
n-Nitrosodimethylamine	ND		ug/l	2.0	--
2,4,6-Trichlorophenol	ND		ug/l	5.0	--
P-Chloro-M-Cresol	ND		ug/l	2.0	--
2-Chlorophenol	ND		ug/l	2.0	--
2,4-Dichlorophenol	ND		ug/l	5.0	--
2,4-Dimethylphenol	ND		ug/l	5.0	--
2-Nitrophenol	ND		ug/l	10	--
4-Nitrophenol	ND		ug/l	10	--
2,4-Dinitrophenol	ND		ug/l	20	--
4,6-Dinitro-o-cresol	ND		ug/l	10	--

Project Name: ONE MARINA PARK DRIVE SUMP PIT
Project Number: 4426.9.B2
Lab Number: L1109892
Report Date: 07/15/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270C
Analytical Date: 07/10/11 18:01
Analyst: JB

Extraction Method: EPA 3510C
Extraction Date: 07/08/11 10:38

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG477877-1					
Pentachlorophenol	ND		ug/l	10	--
Phenol	ND		ug/l	5.0	--
2-Methylphenol	ND		ug/l	5.0	--
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	--
2,4,5-Trichlorophenol	ND		ug/l	5.0	--
Benzoic Acid	ND		ug/l	50	--
Benzyl Alcohol	ND		ug/l	2.0	--
Carbazole	ND		ug/l	2.0	--
Pyridine	ND		ug/l	5.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	56		21-120
Phenol-d6	40		10-120
Nitrobenzene-d5	84		23-120
2-Fluorobiphenyl	82		15-120
2,4,6-Tribromophenol	96		10-120
4-Terphenyl-d14	110		41-149

Project Name: ONE MARINA PARK DRIVE SUMP PIT
Project Number: 4426.9.B2

Lab Number: L1109892
Report Date: 07/15/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270C-SIM
Analytical Date: 07/11/11 12:54
Analyst: AS

Extraction Method: EPA 3510C
Extraction Date: 07/08/11 10:41

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG477878-1					
Acenaphthene	ND		ug/l	0.20	--
2-Chloronaphthalene	ND		ug/l	0.20	--
Fluoranthene	ND		ug/l	0.20	--
Hexachlorobutadiene	ND		ug/l	0.50	--
Naphthalene	ND		ug/l	0.20	--
Benzo(a)anthracene	ND		ug/l	0.20	--
Benzo(a)pyrene	ND		ug/l	0.20	--
Benzo(b)fluoranthene	ND		ug/l	0.20	--
Benzo(k)fluoranthene	ND		ug/l	0.20	--
Chrysene	ND		ug/l	0.20	--
Acenaphthylene	ND		ug/l	0.20	--
Anthracene	ND		ug/l	0.20	--
Benzo(ghi)perylene	ND		ug/l	0.20	--
Fluorene	ND		ug/l	0.20	--
Phenanthrene	ND		ug/l	0.20	--
Dibenzo(a,h)anthracene	ND		ug/l	0.20	--
Indeno(1,2,3-cd)Pyrene	ND		ug/l	0.20	--
Pyrene	ND		ug/l	0.20	--
1-Methylnaphthalene	ND		ug/l	0.20	--
2-Methylnaphthalene	ND		ug/l	0.20	--
Pentachlorophenol	ND		ug/l	0.80	--
Hexachlorobenzene	ND		ug/l	0.80	--
Hexachloroethane	ND		ug/l	0.80	--

Project Name: ONE MARINA PARK DRIVE SUMP PIT
Project Number: 4426.9.B2
Lab Number: L1109892
Report Date: 07/15/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270C-SIM
Analytical Date: 07/11/11 12:54
Analyst: AS

Extraction Method: EPA 3510C
Extraction Date: 07/08/11 10:41

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG477878-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	48		21-120
Phenol-d6	33		10-120
Nitrobenzene-d5	75		23-120
2-Fluorobiphenyl	61		15-120
2,4,6-Tribromophenol	110		10-120
4-Terphenyl-d14	94		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: ONE MARINA PARK DRIVE SUMP PIT

Project Number: 4426.9.B2

Lab Number: L1109892

Report Date: 07/15/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG477877-2 WG477877-3								
Acenaphthene	99		98		37-111	1		30
1,2,4-Trichlorobenzene	90		89		39-98	1		30
2-Chloronaphthalene	126		125		40-140	1		30
1,2-Dichlorobenzene	82		84		40-140	2		30
1,4-Dichlorobenzene	80		82		36-97	2		30
2,4-Dinitrotoluene	**102**	Q	**100**	Q	24-96	2		30
2,6-Dinitrotoluene	96		93		40-140	3		30
Fluoranthene	113		110		40-140	3		30
4-Chlorophenyl phenyl ether	108		105		40-140	3		30
n-Nitrosodi-n-propylamine	108		103		41-116	5		30
Butyl benzyl phthalate	111		108		40-140	3		30
Anthracene	110		108		40-140	2		30
Pyrene	112		109		26-127	3		30
P-Chloro-M-Cresol	**112**	Q	**108**	Q	23-97	4		30
2-Chlorophenol	98		94		27-123	4		30
2-Nitrophenol	107		101		30-130	6		30
4-Nitrophenol	66		60		10-80	10		30
2,4-Dinitrophenol	75		75		20-130	0		30
Pentachlorophenol	**111**	Q	**104**	Q	9-103	7		30
Phenol	54		51		12-110	6		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: ONE MARINA PARK DRIVE SUMP PIT

Project Number: 4426.9.B2

Lab Number: L1109892

Report Date: 07/15/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG477877-2 WG477877-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	68		65		21-120
Phenol-d6	51		49		10-120
Nitrobenzene-d5	103		101		23-120
2-Fluorobiphenyl	103		100		15-120
2,4,6-Tribromophenol	110		109		10-120
4-Terphenyl-d14	120		119		41-149

Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG477878-2 WG477878-3								
Acenaphthene	89		92		37-111	3		40
2-Chloronaphthalene	110		114		40-140	4		40
Fluoranthene	107		98		40-140	9		40
Anthracene	105		90		40-140	15		40
Pyrene	103		94		26-127	9		40
Pentachlorophenol	86		80		9-103	7		40

Lab Control Sample Analysis

Batch Quality Control

Project Name: ONE MARINA PARK DRIVE SUMP PIT

Project Number: 4426.9.B2

Lab Number: L1109892

Report Date: 07/15/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG477878-2 WG477878-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	69		61		21-120
Phenol-d6	48		43		10-120
Nitrobenzene-d5	106		101		23-120
2-Fluorobiphenyl	82		78		15-120
2,4,6-Tribromophenol	85		77		10-120
4-Terphenyl-d14	103		93		41-149

PCBS

Project Name: ONE MARINA PARK DRIVE SUMP PIT **Lab Number:** L1109892

Project Number: 4426.9.B2 **Report Date:** 07/15/11

SAMPLE RESULTS

Lab ID:	L1109892-01	Date Collected:	07/05/11 09:00
Client ID:	SUMP 070511	Date Received:	07/05/11
Sample Location:	BOSTON, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 608
Analytical Method:	5,608	Extraction Date:	07/08/11 09:07
Analytical Date:	07/10/11 14:27	Cleanup Method1:	EPA 3665A
Analyst:	SH	Cleanup Date1:	07/10/11
		Cleanup Method2:	EPA 3660B
		Cleanup Date2:	07/10/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Polychlorinated Biphenyls by GC - Westborough Lab						
Aroclor 1016	ND		ug/l	0.250	--	1
Aroclor 1221	ND		ug/l	0.250	--	1
Aroclor 1232	ND		ug/l	0.250	--	1
Aroclor 1242	ND		ug/l	0.250	--	1
Aroclor 1248	ND		ug/l	0.250	--	1
Aroclor 1254	ND		ug/l	0.250	--	1
Aroclor 1260	ND		ug/l	0.250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	68		30-150	A
Decachlorobiphenyl	51		30-150	A

Project Name: ONE MARINA PARK DRIVE SUMP PIT

Project Number: 4426.9.B2

Lab Number: L1109892

Report Date: 07/15/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 5,608
Analytical Date: 07/10/11 13:37
Analyst: SH

Extraction Method: EPA 608
Extraction Date: 07/08/11 09:07
Cleanup Method1: EPA 3665A
Cleanup Date1: 07/10/11
Cleanup Method2: EPA 3660B
Cleanup Date2: 07/10/11

Parameter	Result	Qualifier	Units	RL	MDL
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01 Batch: WG477850-1					
Aroclor 1016	ND		ug/l	0.250	--
Aroclor 1221	ND		ug/l	0.250	--
Aroclor 1232	ND		ug/l	0.250	--
Aroclor 1242	ND		ug/l	0.250	--
Aroclor 1248	ND		ug/l	0.250	--
Aroclor 1254	ND		ug/l	0.250	--
Aroclor 1260	ND		ug/l	0.250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	52		30-150	A
Decachlorobiphenyl	53		30-150	A

Matrix Spike Analysis
Batch Quality Control

Project Name: ONE MARINA PARK DRIVE SUMP PIT
Project Number: 4426.9.B2

Lab Number: L1109892
Report Date: 07/15/11

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 070511 QC Batch ID: WG477850-3 QC Sample: L1109892-01 Client ID: SUMP												
Aroclor 1016	ND	2	1.39	70		-	-		40-126	-		30
Aroclor 1260	ND	2	1.00	50		-	-		40-127	-		30

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria	*Column*
2,4,5,6-Tetrachloro-m-xylene	71				30-150	A
Decachlorobiphenyl	54				30-150	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: ONE MARINA PARK DRIVE SUMP PIT

Project Number: 4426.9.B2

Lab Number: L1109892

Report Date: 07/15/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 Batch: WG477850-2								
Aroclor 1016	58		-		40-126	-		30
Aroclor 1260	58		-		40-127	-		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	52				30-150	A
Decachlorobiphenyl	71				30-150	A

Lab Duplicate Analysis
Batch Quality Control

Project Name: ONE MARINA PARK DRIVE SUMP PIT
Project Number: 4426.9.B2

Lab Number: L1109892
Report Date: 07/15/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG477850-4 QC Sample: L1109892-01 Client ID: SUMP 070511						
Aroclor 1016	ND	ND	ug/l	NC		30
Aroclor 1221	ND	ND	ug/l	NC		30
Aroclor 1232	ND	ND	ug/l	NC		30
Aroclor 1242	ND	ND	ug/l	NC		30
Aroclor 1248	ND	ND	ug/l	NC		30
Aroclor 1254	ND	ND	ug/l	NC		30
Aroclor 1260	ND	ND	ug/l	NC		30

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	68		77		30-150	A
Decachlorobiphenyl	51		67		30-150	A

METALS

Project Name: ONE MARINA PARK DRIVE SUMP PIT
Lab Number: L1109892
Project Number: 4426.9.B2
Report Date: 07/15/11

SAMPLE RESULTS

Lab ID: L1109892-01
Client ID: SUMP 070511
Sample Location: BOSTON, MA
Matrix: Water
Date Collected: 07/05/11 09:00
Date Received: 07/05/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Antimony, Total	ND		mg/l	0.0100	--	10	07/07/11 12:08	07/11/11 06:14	EPA 3005A	1,6020	BM
Arsenic, Total	0.0074		mg/l	0.0050	--	10	07/07/11 12:08	07/11/11 06:14	EPA 3005A	1,6020	BM
Cadmium, Total	ND		mg/l	0.0020	--	10	07/07/11 12:08	07/11/11 06:14	EPA 3005A	1,6020	BM
Chromium, Total	ND		mg/l	0.0050	--	10	07/07/11 12:08	07/11/11 06:14	EPA 3005A	1,6020	BM
Copper, Total	0.1238		mg/l	0.0050	--	10	07/07/11 12:08	07/11/11 06:14	EPA 3005A	1,6020	BM
Iron, Total	0.86		mg/l	0.05	--	1	07/06/11 13:22	07/11/11 11:32	EPA 3005A	19,200.7	AI
Lead, Total	0.0236		mg/l	0.0050	--	10	07/07/11 12:08	07/11/11 06:14	EPA 3005A	1,6020	BM
Mercury, Total	ND		mg/l	0.0002	--	1	07/06/11 17:01	07/07/11 11:57	EPA 245.1	3,245.1	AH
Nickel, Total	0.0096		mg/l	0.0050	--	10	07/07/11 12:08	07/11/11 06:14	EPA 3005A	1,6020	BM
Selenium, Total	0.015		mg/l	0.010	--	10	07/07/11 12:08	07/11/11 06:14	EPA 3005A	1,6020	BM
Silver, Total	ND		mg/l	0.0040	--	10	07/07/11 12:08	07/11/11 06:14	EPA 3005A	1,6020	BM
Zinc, Total	0.1142		mg/l	0.0500	--	10	07/07/11 12:08	07/11/11 06:14	EPA 3005A	1,6020	BM

Project Name: ONE MARINA PARK DRIVE SUMP PIT **Lab Number:** L1109892

Project Number: 4426.9.B2 **Report Date:** 07/15/11

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01 Batch: WG477456-1										
Mercury, Total	ND		mg/l	0.0002	--	1	07/06/11 17:01	07/07/11 11:41	3,245.1	AH

Prep Information

Digestion Method: EPA 245.1

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01 Batch: WG477606-1										
Iron, Total	ND		mg/l	0.05	--	1	07/06/11 13:22	07/11/11 10:53	19,200.7	AI

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01 Batch: WG477884-1										
Antimony, Total	ND		mg/l	0.0010	--	1	07/07/11 12:08	07/11/11 02:31	1,6020	BM
Arsenic, Total	ND		mg/l	0.0005	--	1	07/07/11 12:08	07/11/11 02:31	1,6020	BM
Cadmium, Total	ND		mg/l	0.0002	--	1	07/07/11 12:08	07/11/11 02:31	1,6020	BM
Chromium, Total	ND		mg/l	0.0005	--	1	07/07/11 12:08	07/11/11 02:31	1,6020	BM
Copper, Total	ND		mg/l	0.0005	--	1	07/07/11 12:08	07/11/11 02:31	1,6020	BM
Lead, Total	ND		mg/l	0.0005	--	1	07/07/11 12:08	07/11/11 02:31	1,6020	BM
Nickel, Total	ND		mg/l	0.0005	--	1	07/07/11 12:08	07/11/11 02:31	1,6020	BM
Selenium, Total	ND		mg/l	0.001	--	1	07/07/11 12:08	07/11/11 02:31	1,6020	BM
Silver, Total	ND		mg/l	0.0004	--	1	07/07/11 12:08	07/11/11 02:31	1,6020	BM
Zinc, Total	ND		mg/l	0.0050	--	1	07/07/11 12:08	07/11/11 02:31	1,6020	BM

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: ONE MARINA PARK DRIVE SUMP PIT

Project Number: 4426.9.B2

Lab Number: L1109892

Report Date: 07/15/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG477456-2								
Mercury, Total	102		-		85-115	-		
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG477606-2								
Iron, Total	92		-		85-115	-		
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG477884-2								
Antimony, Total	92		-		80-120	-		
Arsenic, Total	102		-		80-120	-		
Cadmium, Total	104		-		80-120	-		
Chromium, Total	91		-		80-120	-		
Copper, Total	96		-		80-120	-		
Lead, Total	100		-		80-120	-		
Nickel, Total	97		-		80-120	-		
Selenium, Total	102		-		80-120	-		
Silver, Total	93		-		80-120	-		
Zinc, Total	100		-		80-120	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: ONE MARINA PARK DRIVE SUMP PIT
Project Number: 4426.9.B2

Lab Number: L1109892
Report Date: 07/15/11

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG477456-4 QC Sample: L1109836-02 Client ID: MS Sample												
Mercury, Total	ND	0.001	0.0013	126		-	-		70-130	-		20
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG477606-4 QC Sample: L1109854-01 Client ID: MS Sample												
Iron, Total	0.73	1	1.7	97		-	-		75-125	-		20
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG477884-4 QC Sample: L1109892-01 Client ID: SUMP 070511												
Antimony, Total	ND	0.5	0.5325	106		-	-		80-120	-		20
Arsenic, Total	0.0074	0.12	0.1371	108		-	-		80-120	-		20
Cadmium, Total	ND	0.051	0.0532	104		-	-		80-120	-		20
Chromium, Total	ND	0.2	0.1958	98		-	-		80-120	-		20
Copper, Total	0.1238	0.25	0.3616	95		-	-		80-120	-		20
Lead, Total	0.0236	0.51	0.5817	109		-	-		80-120	-		20
Nickel, Total	0.0096	0.5	0.4908	96		-	-		80-120	-		20
Selenium, Total	0.015	0.12	0.130	96		-	-		80-120	-		20
Silver, Total	ND	0.05	0.0476	95		-	-		80-120	-		20
Zinc, Total	0.1142	0.5	0.5698	91		-	-		80-120	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: ONE MARINA PARK DRIVE SUMP PIT
Project Number: 4426.9.B2

Lab Number: L1109892
Report Date: 07/15/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG477456-3 QC Sample: L1109836-02 Client ID: DUP Sample						
Mercury, Total	ND	ND	mg/l	NC		20
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG477606-3 QC Sample: L1109854-01 Client ID: DUP Sample						
Iron, Total	0.73	0.80	mg/l	9		20
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG477884-3 QC Sample: L1109892-01 Client ID: SUMP 070511						
Antimony, Total	ND	ND	mg/l	NC		20
Arsenic, Total	0.0074	0.0072	mg/l	2		20
Cadmium, Total	ND	ND	mg/l	NC		20
Chromium, Total	ND	ND	mg/l	NC		20
Copper, Total	0.1238	0.1191	mg/l	4		20
Lead, Total	0.0236	0.0228	mg/l	4		20
Nickel, Total	0.0096	0.0094	mg/l	2		20
Selenium, Total	0.015	0.017	mg/l	17		20
Silver, Total	ND	ND	mg/l	NC		20
Zinc, Total	0.1142	0.1114	mg/l	2		20

INORGANICS
&
MISCELLANEOUS

Project Name: ONE MARINA PARK DRIVE SUMP PIT
Project Number: 4426.9.B2
Lab Number: L1109892
Report Date: 07/15/11

SAMPLE RESULTS

Lab ID: L1109892-01
Client ID: SUMP 070511
Sample Location: BOSTON, MA
Matrix: Water
Date Collected: 07/05/11 09:00
Date Received: 07/05/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	7.6		mg/l	5.0	NA	1	-	07/06/11 21:45	30,2540D	DW
Cyanide, Total	0.015		mg/l	0.005	--	1	07/07/11 11:00	07/07/11 18:48	30,4500CN-CE	JO
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	07/05/11 19:30	30,4500CL-D	KK
TPH	ND		mg/l	4.00	--	1	07/07/11 19:30	07/08/11 13:45	74,1664A	JO
Phenolics, Total	ND		mg/l	0.15	--	5	07/06/11 16:45	07/07/11 19:53	4,420.1	TP
Chromium, Hexavalent	ND		mg/l	0.050	--	5	07/05/11 22:00	07/05/11 22:19	30,3500CR-D	KK
Anions by Ion Chromatography - Westborough Lab										
Chloride	5200		mg/l	500	--	1000	-	07/07/11 04:23	44,300.0	AU

Project Name: ONE MARINA PARK DRIVE SUMP PIT **Lab Number:** L1109892

Project Number: 4426.9.B2 **Report Date:** 07/15/11

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG477222-1										
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	07/05/11 19:30	30,4500CL-D	KK
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG477240-1										
Chromium, Hexavalent	ND		mg/l	0.010	--	1	07/05/11 22:00	07/05/11 22:18	30,3500CR-D	KK
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG477473-1										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	07/06/11 21:45	30,2540D	DW
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG477498-1										
Phenolics, Total	ND		mg/l	0.03	--	1	07/06/11 16:45	07/07/11 19:43	4,420.1	TP
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG477610-2										
Cyanide, Total	ND		mg/l	0.005	--	1	07/07/11 11:00	07/07/11 18:36	30,4500CN-CE	JO
Anions by Ion Chromatography - Westborough Lab for sample(s): 01 Batch: WG477715-1										
Chloride	ND		mg/l	0.50	--	1	-	07/07/11 02:35	44,300.0	AU
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG477733-2										
TPH	ND		mg/l	4.00	--	1	07/07/11 19:30	07/08/11 13:45	74,1664A	JO

Lab Control Sample Analysis

Batch Quality Control

Project Name: ONE MARINA PARK DRIVE SUMP PIT

Project Number: 4426.9.B2

Lab Number: L1109892

Report Date: 07/15/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG477222-2								
Chlorine, Total Residual	97		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG477240-2								
Chromium, Hexavalent	97		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG477498-2								
Phenolics, Total	108		-		82-111	-		12
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG477610-1								
Cyanide, Total	107		-		90-110	-		
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 Batch: WG477715-2								
Chloride	108		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG477733-1								
TPH	90		-		64-132	-		34

Matrix Spike Analysis
Batch Quality Control

Project Name: ONE MARINA PARK DRIVE SUMP PIT
Project Number: 4426.9.B2

Lab Number: L1109892
Report Date: 07/15/11

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG477240-4 QC Sample: L1109892-01 Client ID: SUMP 070511												
Chromium, Hexavalent	ND	0.1	0.080	**80**	Q	-	-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG477498-3 QC Sample: L1109736-08 Client ID: MS Sample												
Phenolics, Total	ND	0.8	0.83	104		-	-		77-124	-		12
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG477610-3 QC Sample: L1109594-01 Client ID: MS Sample												
Cyanide, Total	ND	0.2	0.218	109		-	-		90-110	-		30
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG477715-3 QC Sample: L1108946-07 Client ID: MS Sample												
Chloride	51	200	250	99		-	-		40-151	-		18
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG477733-3 QC Sample: L1109933-03 Client ID: MS Sample												
TPH	ND	20.6	16.6	80		-	-		64-132	-		34

Lab Duplicate Analysis
Batch Quality Control

Project Name: ONE MARINA PARK DRIVE SUMP PIT
Project Number: 4426.9.B2

Lab Number: L1109892
Report Date: 07/15/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG477222-3 QC Sample: L1109874-01 Client ID: DUP Sample						
Chlorine, Total Residual	0.06	0.06	mg/l	0		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG477240-3 QC Sample: L1109892-01 Client ID: SUMP 070511						
Chromium, Hexavalent	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG477473-2 QC Sample: L1109892-01 Client ID: SUMP 070511						
Solids, Total Suspended	7.6	8.4	mg/l	10		32
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG477498-4 QC Sample: L1109736-02 Client ID: DUP Sample						
Phenolics, Total	ND	0.03	mg/l	NC		12
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG477610-4 QC Sample: L1109892-01 Client ID: SUMP 070511						
Cyanide, Total	0.015	0.021	mg/l	30		30
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG477715-4 QC Sample: L1108946-07 Client ID: DUP Sample						
Chloride	51	49	mg/l	4		18
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG477733-4 QC Sample: L1109957-02 Client ID: DUP Sample						
TPH	ND	ND	mg/l	NC		34

Project Name: ONE MARINA PARK DRIVE SUMP PIT
Project Number: 4426.9.B2

Lab Number: L1109892
Report Date: 07/15/11

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler	
A	Absent
B	Absent
C	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1109892-01A	Vial Na2S2O3 preserved	A	N/A	2.7	Y	Absent	624(3)
L1109892-01B	Vial Na2S2O3 preserved	A	N/A	2.7	Y	Absent	624(3)
L1109892-01C	Vial Na2S2O3 preserved	A	N/A	2.7	Y	Absent	624(3)
L1109892-01D	Vial Na2S2O3 preserved	A	N/A	2.7	Y	Absent	504(14)
L1109892-01E	Vial Na2S2O3 preserved	A	N/A	2.7	Y	Absent	504(14)
L1109892-01F	Plastic 1000ml unpreserved	C	7	2.9	Y	Absent	TSS-2540(7)
L1109892-01G	Plastic 500ml unpreserved	B	7	2.4	Y	Absent	CL-300(28),HEXCR-3500(1)
L1109892-01H	Plastic 500ml unpreserved	B	7	2.4	Y	Absent	TRC-4500(1)
L1109892-01I	Plastic 250ml NaOH preserved	B	>12	2.4	Y	Absent	TCN-4500(14)
L1109892-01J	Plastic 250ml HNO3 preserved	B	<2	2.4	Y	Absent	SE-6020T(180),CR-6020T(180),NI-6020T(180),CU-6020T(180),ZN-6020T(180),FE-UI(180),PB-6020T(180),HG-U(28),AS-6020T(180),SB-6020T(180),AG-6020T(180),CD-6020T(180)
L1109892-01K	Amber 500ml H2SO4preserved	A	<2	2.7	Y	Absent	TPHENOL-420(28)
L1109892-01L	Amber 1000ml Na2S2O3	A	7	2.7	Y	Absent	PCB-608(7)
L1109892-01M	Amber 1000ml Na2S2O3	A	7	2.7	Y	Absent	PCB-608(7)
L1109892-01N	Amber 1000ml HCl preserved	B	N/A	2.4	Y	Absent	TPH-1664(28)
L1109892-01O	Amber 1000ml HCl preserved	B	N/A	2.4	Y	Absent	TPH-1664(28)
L1109892-01P	Amber 1000ml unpreserved	B	7	2.4	Y	Absent	8270TCL(7),8270TCL-SIM(7)
L1109892-01Q	Amber 1000ml unpreserved	C	7	2.9	Y	Absent	8270TCL(7),8270TCL-SIM(7)
L1109892-01R	Vial Na2S2O3 preserved	A	N/A	2.7	Y	Absent	624(3)
L1109892-01S	Vial Na2S2O3 preserved	A	N/A	2.7	Y	Absent	624(3)
L1109892-01T	Vial Na2S2O3 preserved	A	N/A	2.7	Y	Absent	624(3)
L1109892-01U	Plastic 1000ml unpreserved	C	7	2.9	Y	Absent	TSS-2540(7)

*Values in parentheses indicate holding time in days

Project Name: ONE MARINA PARK DRIVE SUMP PIT
Project Number: 4426.9.B2

Lab Number: L1109892
Report Date: 07/15/11

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1109892-01V	Plastic 1000ml unpreserved	C	7	2.9	Y	Absent	TSS-2540(7)
L1109892-01W	Plastic 500ml unpreserved	B	7	2.4	Y	Absent	HEXCR-3500(1)
L1109892-01X	Plastic 500ml unpreserved	C	7	2.9	Y	Absent	HEXCR-3500(1)
L1109892-01Y	Plastic 500ml unpreserved	B	7	2.4	Y	Absent	TRC-4500(1)
L1109892-01Z	Plastic 500ml unpreserved	C	7	2.9	Y	Absent	TRC-4500(1)
L1109892-02A	Plastic 250ml NaOH preserved	B	>12	2.4	Y	Absent	HOLD(14)
L1109892-02B	Plastic 250ml NaOH preserved	B	>12	2.4	Y	Absent	HOLD(14)
L1109892-02C	Amber 1000ml HCl preserved	C	N/A	2.9	Y	Absent	HOLD(14)
L1109892-02D	Amber 1000ml HCl preserved	B	N/A	2.4	Y	Absent	HOLD(14)
L1109892-02E	Amber 1000ml HCl preserved	C	N/A	2.9	Y	Absent	HOLD(14)
L1109892-02F	Amber 1000ml HCl preserved	C	N/A	2.9	Y	Absent	HOLD(14)
L1109892-03A	Vial Na2S2O3 preserved	A	N/A	2.7	Y	Absent	HOLD(14)
L1109892-03B	Vial Na2S2O3 preserved	A	N/A	2.7	Y	Absent	HOLD(14)
L1109892-03C	Vial Na2S2O3 preserved	C	N/A	2.9	Y	Absent	HOLD(14)

Container Comments

L1109892-01J

*Values in parentheses indicate holding time in days

Project Name:	ONE MARINA PARK DRIVE SUMP PIT	**Lab Number:**	L1109892
Project Number:	4426.9.B2	**Report Date:**	07/15/11

GLOSSARY

Acronyms

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less

Report Format: Data Usability Report

Project Name:	ONE MARINA PARK DRIVE SUMP PIT	**Lab Number:**	L1109892
Project Number:	4426.9.B2	**Report Date:**	07/15/11

Data Qualifiers

than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name:	ONE MARINA PARK DRIVE SUMP PIT	**Lab Number:**	L1109892
Project Number:	4426.9.B2	**Report Date:**	07/15/11

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.

3 Methods for the Determination of Metals in Environmental Samples, Supplement I. EPA/600/R-94/111. May 1994.

4 Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020. Revised March 1983.

5 Methods for the Organic Chemical Analysis of Municipal and Industrial Wastewater. Appendix A, Part 136, 40 CFR (Code of Federal Regulations).

14 Methods for the Determination of Organic Compounds in Finished Drinking Water and Raw Source Water. EPA/600/4-88/039, Revised July 1991.

19 Inductively Coupled Plasma Atomic Emission Spectrometric Method for Trace Element Analysis of Water and Wastes. Appendix C, Part 136, 40 CFR (Code of Federal Regulations). July 1, 1999 edition.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

44 Methods for the Determination of Inorganic Substances in Environmental Samples, EPA/600/R-93/100, August 1993.

74 Method 1664,Revision A: N-Hexane Extractable Material (HEM; Oil & Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry, EPA-821-R-98-002, February 1999.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised June 7, 2011 - Westboro Facility

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

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

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

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

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3.3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

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

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, SM2320B, 2510B, 2540C, 2540D, 426C, 4500Cl-D, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NH3-H, 4500NO3-F, 4500P-B, 4500P-E, 5210B, 5220D, 5310C, EPA 200.7, 200.8, 245.1. Organic Parameters: 608, 624, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

*Solid Waste/Soil (*Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

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

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl, V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Aldrin, Dieldrin, DDD, DDE, DDT, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B;Enterolert-QT: SM9222D-MF.)

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

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 1664A, SW-846 9010, 9030, 9040B, 9050A, SM426C, SM2120B, 2310B, 2320B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3510C, 5030B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A, 8151A.)

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

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

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

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 7196A, 9010B, 9030B, 1010, 1030, 1311, 1312, 3005A, 3050B, 7471A, 9014, 9012A, 9040B, 9045C, 9050A, 9065. Organic Parameters: SW-846 8015B, 8081A, 8082, 8151A, 8330, 8260B, 8270C, 8270C-SIM, 3540C, 3545, 3546, 3550B, 3580A, 3630C, 5030B, 5035L, 5035H, NJ OQA-QAM-025 Rev.7, NJ EPH.)

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

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-04-1-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 9010B, 9030B.. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: 1010, 1030, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8015B, 8081A, 8151A, 8330, 8082, 3540C, 3545, 3546, 3580, 5030B, 5035.)

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

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

Non-Potable Water (Inorganic Parameters: EPA 1312. Organic Parameters: EPA 3510C, 5030B, 625, 624, 608, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3050B, 6010B, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065, SM 4500NH3-H. Organic Parameters: 3540C, 3545, 3546, 3550B**,**

3580A, 3630C, 5035, 8015B, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

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

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476-09-1. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 376.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

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

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

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6020, 245.1, 245.2, 7470A, 9040B, 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 5220D, 5310C, 2320B, 2540C, 3005A, 3015, 9010B, 9056. Organic Parameters: EPA 8260B, 8270C, 8330A, 625, 8082, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

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

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

CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 7/5/11

ALPHA Job #: L1109892

Client Information

Client: McPhail Associates, Inc.
Address: 2269 Massachusetts Avenue
Cambridge, MA 02140
Phone: 6178681420
Fax: 6178681423
Email: jwp@mcphailgeo.com

☐ These samples have been Previously analyzed by Alpha

Project Information

Project Name: One Marina Park Drive Sump Pit
Project Location: Boston, MA
Project #: 4426.9.B2
Project Manager: Jonathan W. Patch
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ Rush (ONLY IF PRE-APPROVED)

Due Date: 7/11/11 Time:

Other Project Specific Requirements/Comments/Detection Limits:
RGP Effluent Standards

Report Information Data Deliverables

☐ FAX ☐ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program	Criteria
EPA RGP	

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?
☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	504	624	Total Metals	TSS	PCBs	TRC	TCN	Total Phenol	8270 w/ PAH SIM	TPH-1664	Hex Cr	Chloride	Sample Specific Comments	TOTAL # BOTTLES
09892-1	Sump ~~070111~~ 070511	~~07/01/11~~ 7/5/11	~~4 PM~~ 9AM	GW	JM	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒		32
Container Type						V	V	D	P	A	P	D	A	A	A	P	P		
Preservative						H	H	C	A	A	A	E	D	A	B	A	A		

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

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	7/5/11 10:30	[signature]	7/5/11 1600
[signature]	7/5/11 1735	[signature]	7/5/11 1735

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

FORM NO: 01-01(I) (rev. 30-JUL-07)

ANALYTICAL REPORT

Lab Number:	L1410334
Client:	McPhail Associates 2269 Massachusetts Avenue Cambridge, MA 02140
ATTN:	Ambrose Donovan
Phone:	(617) 868-1420
Project Name:	FAN PIER PARCELS F
Project Number:	4426.9.FN
Report Date:	05/22/14

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: FAN PIER PARCELS F
Project Number: 4426.9.FN

Lab Number: L1410334
Report Date: 05/22/14

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1410334-01	GARAGE SUMP	BOSTON, MA	05/14/14 14:00
L1410334-02	TRIP BLANK	BOSTON, MA	05/14/14 00:00

Project Name: FAN PIER PARCELS F
Project Number: 4426.9.FN

Lab Number: L1410334
Report Date: 05/22/14

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

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

Project Name:	FAN PIER PARCELS F	**Lab Number:**	L1410334
Project Number:	4426.9.FN	**Report Date:**	05/22/14

Case Narrative (continued)

Metals

L1410334-01 has elevated detection limit for all elements, with the exception of iron and mercury, due to the dilution required by the high concentrations of non-target elements.

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

Authorized Signature: Lisa Westerlind

Title: Technical Director/Representative Date: 05/22/14

ORGANICS

VOLATILES

Project Name: FAN PIER PARCELS F **Lab Number:** L1410334

Project Number: 4426.9.FN **Report Date:** 05/22/14

SAMPLE RESULTS

Lab ID: L1410334-01
Client ID: GARAGE SUMP
Sample Location: BOSTON, MA
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 05/16/14 17:06
Analyst: MM

Date Collected: 05/14/14 14:00
Date Received: 05/14/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	3.0	--	1
1,1-Dichloroethane	ND		ug/l	0.75	--	1
Chloroform	ND		ug/l	0.75	--	1
Carbon tetrachloride	ND		ug/l	0.50	--	1
1,2-Dichloropropane	ND		ug/l	1.8	--	1
Dibromochloromethane	ND		ug/l	0.50	--	1
1,1,2-Trichloroethane	ND		ug/l	0.75	--	1
Tetrachloroethene	ND		ug/l	0.50	--	1
Chlorobenzene	ND		ug/l	0.50	--	1
Trichlorofluoromethane	ND		ug/l	2.5	--	1
1,2-Dichloroethane	ND		ug/l	0.50	--	1
1,1,1-Trichloroethane	ND		ug/l	0.50	--	1
Bromodichloromethane	ND		ug/l	0.50	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.5	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	0.75	--	1
Ethylbenzene	ND		ug/l	0.50	--	1
Chloromethane	ND		ug/l	2.5	--	1
Bromomethane	ND		ug/l	1.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	1.0	--	1
1,1-Dichloroethene	ND		ug/l	0.50	--	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	--	1
1,2-Dichloroethene, Total	ND		ug/l	0.50	--	1
Trichloroethene	ND		ug/l	0.50	--	1
1,2-Dichlorobenzene	ND		ug/l	2.5	--	1

Project Name: FAN PIER PARCELS F **Lab Number:** L1410334

Project Number: 4426.9.FN **Report Date:** 05/22/14

SAMPLE RESULTS

Lab ID: L1410334-01 Date Collected: 05/14/14 14:00

Client ID: GARAGE SUMP Date Received: 05/14/14

Sample Location: BOSTON, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	--	1
1,4-Dichlorobenzene	ND		ug/l	2.5	--	1
Methyl tert butyl ether	ND		ug/l	1.0	--	1
p/m-Xylene	ND		ug/l	1.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	--	1
Dibromomethane	ND		ug/l	5.0	--	1
1,4-Dichlorobutane	ND		ug/l	5.0	--	1
1,2,3-Trichloropropane	ND		ug/l	5.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	5.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	5.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
Vinyl acetate	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Ethyl methacrylate	ND		ug/l	5.0	--	1
Acrylonitrile	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.5	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.5	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.5	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Bromobenzene	ND		ug/l	2.5	--	1
n-Butylbenzene	ND		ug/l	0.50	--	1
sec-Butylbenzene	ND		ug/l	0.50	--	1
tert-Butylbenzene	ND		ug/l	2.5	--	1
o-Chlorotoluene	ND		ug/l	2.5	--	1
p-Chlorotoluene	ND		ug/l	2.5	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--	1
Hexachlorobutadiene	ND		ug/l	0.50	--	1
Isopropylbenzene	ND		ug/l	0.50	--	1
p-Isopropyltoluene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	2.5	--	1
n-Propylbenzene	ND		ug/l	0.50	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--	1

Project Name: FAN PIER PARCELS F **Lab Number:** L1410334

Project Number: 4426.9.FN **Report Date:** 05/22/14

SAMPLE RESULTS

Lab ID: L1410334-01 Date Collected: 05/14/14 14:00

Client ID: GARAGE SUMP Date Received: 05/14/14

Sample Location: BOSTON, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--	1
Ethyl ether	ND		ug/l	2.5	--	1
Tert-Butyl Alcohol	ND		ug/l	10	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	119		70-130

Project Name: FAN PIER PARCELS F
Lab Number: L1410334
Project Number: 4426.9.FN
Report Date: 05/22/14

SAMPLE RESULTS

Lab ID:	L1410334-01	Date Collected:	05/14/14 14:00
Client ID:	GARAGE SUMP	Date Received:	05/14/14
Sample Location:	BOSTON, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	1,8260C-SIM(M)		
Analytical Date:	05/16/14 17:06		
Analyst:	MM		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - Westborough Lab						
1,4-Dioxane	ND		ug/l	3.0	--	1

Project Name: FAN PIER PARCELS F
Lab Number: L1410334
Project Number: 4426.9.FN
Report Date: 05/22/14

SAMPLE RESULTS

Lab ID:	L1410334-01	Date Collected:	05/14/14 14:00
Client ID:	GARAGE SUMP	Date Received:	05/14/14
Sample Location:	BOSTON, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	14,504.1	Extraction Date:	05/15/14 07:30
Analytical Date:	05/15/14 09:14		
Analyst:	SH		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Microextractables by GC - Westborough Lab							
1,2-Dibromoethane	ND		ug/l	0.010	--	1	A
1,2-Dibromo-3-chloropropane	ND		ug/l	0.010	--	1	A

Project Name: FAN PIER PARCELS F **Lab Number:** L1410334

Project Number: 4426.9.FN **Report Date:** 05/22/14

SAMPLE RESULTS

Lab ID:	L1410334-02	Date Collected:	05/14/14 00:00
Client ID:	TRIP BLANK	Date Received:	05/14/14
Sample Location:	BOSTON, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	1,8260C		
Analytical Date:	05/16/14 16:04		
Analyst:	PD		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	3.0	--	1
1,1-Dichloroethane	ND		ug/l	0.75	--	1
Chloroform	ND		ug/l	0.75	--	1
Carbon tetrachloride	ND		ug/l	0.50	--	1
1,2-Dichloropropane	ND		ug/l	1.8	--	1
Dibromochloromethane	ND		ug/l	0.50	--	1
1,1,2-Trichloroethane	ND		ug/l	0.75	--	1
Tetrachloroethene	ND		ug/l	0.50	--	1
Chlorobenzene	ND		ug/l	0.50	--	1
Trichlorofluoromethane	ND		ug/l	2.5	--	1
1,2-Dichloroethane	ND		ug/l	0.50	--	1
1,1,1-Trichloroethane	ND		ug/l	0.50	--	1
Bromodichloromethane	ND		ug/l	0.50	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.5	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	0.75	--	1
Ethylbenzene	ND		ug/l	0.50	--	1
Chloromethane	ND		ug/l	2.5	--	1
Bromomethane	ND		ug/l	1.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	1.0	--	1
1,1-Dichloroethene	ND		ug/l	0.50	--	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	--	1
1,2-Dichloroethene, Total	ND		ug/l	0.50	--	1
Trichloroethene	ND		ug/l	0.50	--	1
1,2-Dichlorobenzene	ND		ug/l	2.5	--	1

Project Name: FAN PIER PARCELS F **Lab Number:** L1410334

Project Number: 4426.9.FN **Report Date:** 05/22/14

SAMPLE RESULTS

Lab ID: L1410334-02 Date Collected: 05/14/14 00:00

Client ID: TRIP BLANK Date Received: 05/14/14

Sample Location: BOSTON, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	--	1
1,4-Dichlorobenzene	ND		ug/l	2.5	--	1
Methyl tert butyl ether	ND		ug/l	1.0	--	1
p/m-Xylene	ND		ug/l	1.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	--	1
Dibromomethane	ND		ug/l	5.0	--	1
1,4-Dichlorobutane	ND		ug/l	5.0	--	1
1,2,3-Trichloropropane	ND		ug/l	5.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	5.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	5.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
Vinyl acetate	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Ethyl methacrylate	ND		ug/l	5.0	--	1
Acrylonitrile	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.5	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.5	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.5	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Bromobenzene	ND		ug/l	2.5	--	1
n-Butylbenzene	ND		ug/l	0.50	--	1
sec-Butylbenzene	ND		ug/l	0.50	--	1
tert-Butylbenzene	ND		ug/l	2.5	--	1
o-Chlorotoluene	ND		ug/l	2.5	--	1
p-Chlorotoluene	ND		ug/l	2.5	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--	1
Hexachlorobutadiene	ND		ug/l	0.50	--	1
Isopropylbenzene	ND		ug/l	0.50	--	1
p-Isopropyltoluene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	2.5	--	1
n-Propylbenzene	ND		ug/l	0.50	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--	1

Project Name: FAN PIER PARCELS F **Lab Number:** L1410334

Project Number: 4426.9.FN **Report Date:** 05/22/14

SAMPLE RESULTS

Lab ID: L1410334-02 Date Collected: 05/14/14 00:00

Client ID: TRIP BLANK Date Received: 05/14/14

Sample Location: BOSTON, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--	1
Ethyl ether	ND		ug/l	2.5	--	1
Tert-Butyl Alcohol	ND		ug/l	10	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	85		70-130
Dibromofluoromethane	99		70-130

Project Name: FAN PIER PARCELS F
Lab Number: L1410334
Project Number: 4426.9.FN
Report Date: 05/22/14

SAMPLE RESULTS

Lab ID:	L1410334-02	Date Collected:	05/14/14 00:00
Client ID:	TRIP BLANK	Date Received:	05/14/14
Sample Location:	BOSTON, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	14,504.1	Extraction Date:	05/19/14 10:30
Analytical Date:	05/19/14 15:44		
Analyst:	GP		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Microextractables by GC - Westborough Lab							
1,2-Dibromoethane	ND		ug/l	0.010	--	1	A

Project Name: FAN PIER PARCELS F
Project Number: 4426.9.FN

Lab Number: L1410334
Report Date: 05/22/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 14,504.1
Analytical Date: 05/15/14 08:09
Analyst: SH

Extraction Date: 05/15/14 07:30

Parameter	Result	Qualifier	Units	RL	MDL	
Microextractables by GC - Westborough Lab for sample(s): 01 Batch: WG689717-1						
1,2-Dibromoethane	ND		ug/l	0.010	--	A
1,2-Dibromo-3-chloropropane	ND		ug/l	0.010	--	A

Project Name: FAN PIER PARCELS F
Project Number: 4426.9.FN

Lab Number: L1410334
Report Date: 05/22/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C-SIM(M)
Analytical Date: 05/16/14 07:47
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG690098-3					
1,4-Dioxane	ND		ug/l	3.0	--

Project Name: FAN PIER PARCELS F
Project Number: 4426.9.FN

Lab Number: L1410334
Report Date: 05/22/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 05/16/14 07:47
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG690099-3					
Methylene chloride	ND		ug/l	3.0	--
1,1-Dichloroethane	ND		ug/l	0.75	--
Chloroform	ND		ug/l	0.75	--
Carbon tetrachloride	ND		ug/l	0.50	--
1,2-Dichloropropane	ND		ug/l	1.8	--
Dibromochloromethane	ND		ug/l	0.50	--
1,1,2-Trichloroethane	ND		ug/l	0.75	--
2-Chloroethylvinyl ether	ND		ug/l	10	--
Tetrachloroethene	ND		ug/l	0.50	--
Chlorobenzene	ND		ug/l	0.50	--
Trichlorofluoromethane	ND		ug/l	2.5	--
1,2-Dichloroethane	ND		ug/l	0.50	--
1,1,1-Trichloroethane	ND		ug/l	0.50	--
Bromodichloromethane	ND		ug/l	0.50	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.5	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	0.75	--
Ethylbenzene	ND		ug/l	0.50	--
Chloromethane	ND		ug/l	2.5	--
Bromomethane	ND		ug/l	1.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	1.0	--
1,1-Dichloroethene	ND		ug/l	0.50	--
trans-1,2-Dichloroethene	ND		ug/l	0.75	--
1,2-Dichloroethene, Total	ND		ug/l	0.50	--
Trichloroethene	ND		ug/l	0.50	--
1,2-Dichlorobenzene	ND		ug/l	2.5	--

Project Name: FAN PIER PARCELS F
Project Number: 4426.9.FN

Lab Number: L1410334
Report Date: 05/22/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 05/16/14 07:47
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG690099-3					
1,3-Dichlorobenzene	ND		ug/l	2.5	--
1,4-Dichlorobenzene	ND		ug/l	2.5	--
Methyl tert butyl ether	ND		ug/l	1.0	--
p/m-Xylene	ND		ug/l	1.0	--
o-Xylene	ND		ug/l	1.0	--
Xylenes, Total	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	0.50	--
Dibromomethane	ND		ug/l	5.0	--
1,4-Dichlorobutane	ND		ug/l	5.0	--
1,2,3-Trichloropropane	ND		ug/l	5.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	5.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	5.0	--
2-Butanone	ND		ug/l	5.0	--
Vinyl acetate	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Ethyl methacrylate	ND		ug/l	5.0	--
Acrylonitrile	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.5	--
Tetrahydrofuran	ND		ug/l	5.0	--
2,2-Dichloropropane	ND		ug/l	2.5	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.5	--
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--
Bromobenzene	ND		ug/l	2.5	--
n-Butylbenzene	ND		ug/l	0.50	--
sec-Butylbenzene	ND		ug/l	0.50	--
tert-Butylbenzene	ND		ug/l	2.5	--
o-Chlorotoluene	ND		ug/l	2.5	--

Project Name: FAN PIER PARCELS F
Project Number: 4426.9.FN

Lab Number: L1410334
Report Date: 05/22/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 05/16/14 07:47
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG690099-3					
p-Chlorotoluene	ND		ug/l	2.5	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--
Hexachlorobutadiene	ND		ug/l	0.50	--
Isopropylbenzene	ND		ug/l	0.50	--
p-Isopropyltoluene	ND		ug/l	0.50	--
Naphthalene	ND		ug/l	2.5	--
n-Propylbenzene	ND		ug/l	0.50	--
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--
1,3,5-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--
Ethyl ether	ND		ug/l	2.5	--
Methyl Acetate	ND		ug/l	10	--
Ethyl Acetate	ND		ug/l	10	--
Isopropyl Ether	ND		ug/l	2.0	--
Cyclohexane	ND		ug/l	10	--
Tert-Butyl Alcohol	ND		ug/l	10	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	10	--
Methyl cyclohexane	ND		ug/l	10	--
p-Diethylbenzene	ND		ug/l	2.0	--
4-Ethyltoluene	ND		ug/l	2.0	--
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	--

Project Name: FAN PIER PARCELS F
Project Number: 4426.9.FN

Lab Number: L1410334
Report Date: 05/22/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 05/16/14 07:47
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG690099-3					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	107		70-130

Project Name: FAN PIER PARCELS F
Project Number: 4426.9.FN

Lab Number: L1410334
Report Date: 05/22/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 05/16/14 10:52
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG690258-3					
Methylene chloride	ND		ug/l	3.0	--
1,1-Dichloroethane	ND		ug/l	0.75	--
Chloroform	ND		ug/l	0.75	--
Carbon tetrachloride	ND		ug/l	0.50	--
1,2-Dichloropropane	ND		ug/l	1.8	--
Dibromochloromethane	ND		ug/l	0.50	--
1,1,2-Trichloroethane	ND		ug/l	0.75	--
2-Chloroethylvinyl ether	ND		ug/l	10	--
Tetrachloroethene	ND		ug/l	0.50	--
Chlorobenzene	ND		ug/l	0.50	--
Trichlorofluoromethane	ND		ug/l	2.5	--
1,2-Dichloroethane	ND		ug/l	0.50	--
1,1,1-Trichloroethane	ND		ug/l	0.50	--
Bromodichloromethane	ND		ug/l	0.50	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,3-Dichloropropene, Total	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.5	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	0.75	--
Ethylbenzene	ND		ug/l	0.50	--
Chloromethane	ND		ug/l	2.5	--
Bromomethane	ND		ug/l	1.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	1.0	--
1,1-Dichloroethene	ND		ug/l	0.50	--
trans-1,2-Dichloroethene	ND		ug/l	0.75	--
1,2-Dichloroethene, Total	ND		ug/l	0.50	--
Trichloroethene	ND		ug/l	0.50	--

Project Name: FAN PIER PARCELS F
Project Number: 4426.9.FN

Lab Number: L1410334
Report Date: 05/22/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 05/16/14 10:52
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG690258-3					
1,2-Dichlorobenzene	ND		ug/l	2.5	--
1,3-Dichlorobenzene	ND		ug/l	2.5	--
1,4-Dichlorobenzene	ND		ug/l	2.5	--
Methyl tert butyl ether	ND		ug/l	1.0	--
p/m-Xylene	ND		ug/l	1.0	--
o-Xylene	ND		ug/l	1.0	--
Xylenes, Total	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	0.50	--
Dibromomethane	ND		ug/l	5.0	--
1,4-Dichlorobutane	ND		ug/l	5.0	--
Iodomethane	ND		ug/l	5.0	--
1,2,3-Trichloropropane	ND		ug/l	5.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	5.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	5.0	--
2-Butanone	ND		ug/l	5.0	--
Vinyl acetate	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Ethyl methacrylate	ND		ug/l	5.0	--
Acrylonitrile	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.5	--
Tetrahydrofuran	ND		ug/l	5.0	--
2,2-Dichloropropane	ND		ug/l	2.5	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.5	--
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--
Bromobenzene	ND		ug/l	2.5	--
n-Butylbenzene	ND		ug/l	0.50	--
sec-Butylbenzene	ND		ug/l	0.50	--

Project Name: FAN PIER PARCELS F
Project Number: 4426.9.FN

Lab Number: L1410334
Report Date: 05/22/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 05/16/14 10:52
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG690258-3					
tert-Butylbenzene	ND		ug/l	2.5	--
o-Chlorotoluene	ND		ug/l	2.5	--
p-Chlorotoluene	ND		ug/l	2.5	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--
Hexachlorobutadiene	ND		ug/l	0.50	--
Isopropylbenzene	ND		ug/l	0.50	--
p-Isopropyltoluene	ND		ug/l	0.50	--
Naphthalene	ND		ug/l	2.5	--
n-Propylbenzene	ND		ug/l	0.50	--
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--
1,3,5-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--
Halothane	ND		ug/l	2.5	--
Ethyl ether	ND		ug/l	2.5	--
Methyl Acetate	ND		ug/l	10	--
Ethyl Acetate	ND		ug/l	10	--
Isopropyl Ether	ND		ug/l	2.0	--
Cyclohexane	ND		ug/l	10	--
Tert-Butyl Alcohol	ND		ug/l	10	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	10	--
Methyl cyclohexane	ND		ug/l	10	--
p-Diethylbenzene	ND		ug/l	2.0	--
4-Ethyltoluene	ND		ug/l	2.0	--
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	--

Project Name: FAN PIER PARCELS F
Project Number: 4426.9.FN

Lab Number: L1410334
Report Date: 05/22/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 05/16/14 10:52
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG690258-3					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	85		70-130
Dibromofluoromethane	99		70-130

Project Name: FAN PIER PARCELS F
Project Number: 4426.9.FN

Lab Number: L1410334
Report Date: 05/22/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 14,504.1
Analytical Date: 05/19/14 13:42
Analyst: GP

Extraction Date: 05/19/14 10:30

Parameter	Result	Qualifier	Units	RL	MDL	
Microextractables by GC - Westborough Lab for sample(s): 02 Batch: WG690566-1						
1,2-Dibromoethane	ND		ug/l	0.010	--	A
1,2-Dibromo-3-chloropropane	ND		ug/l	0.010	--	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: FAN PIER PARCELS F

Project Number: 4426.9.FN

Lab Number: L1410334

Report Date: 05/22/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Microextractables by GC - Westborough Lab	Associated sample(s): 01		Batch: WG689717-2						
1,2-Dibromoethane	113		-		70-130	-		20	A
1,2-Dibromo-3-chloropropane	101		-		70-130	-		20	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: FAN PIER PARCELS F

Project Number: 4426.9.FN

Lab Number: L1410334

Report Date: 05/22/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG690098-1 WG690098-2								
1,4-Dioxane	93		102		70-130	9		25

Lab Control Sample Analysis

Batch Quality Control

Project Name: FAN PIER PARCELS F

Project Number: 4426.9.FN

Lab Number: L1410334

Report Date: 05/22/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG690099-1 WG690099-2								
Methylene chloride	117		108		70-130	8		20
1,1-Dichloroethane	103		100		70-130	3		20
Chloroform	95		98		70-130	3		20
Carbon tetrachloride	99		102		63-132	3		20
1,2-Dichloropropane	102		101		70-130	1		20
Dibromochloromethane	104		94		63-130	10		20
1,1,2-Trichloroethane	105		95		70-130	10		20
2-Chloroethylvinyl ether	86		87		70-130	1		20
Tetrachloroethene	121		110		70-130	10		20
Chlorobenzene	107		102		75-130	5		25
Trichlorofluoromethane	89		83		62-150	7		20
1,2-Dichloroethane	100		100		70-130	0		20
1,1,1-Trichloroethane	96		100		67-130	4		20
Bromodichloromethane	94		94		67-130	0		20
trans-1,3-Dichloropropene	98		91		70-130	7		20
cis-1,3-Dichloropropene	99		96		70-130	3		20
1,1-Dichloropropene	101		105		70-130	4		20
Bromoform	93		92		54-136	1		20
1,1,2,2-Tetrachloroethane	109		100		67-130	9		20
Benzene	103		105		70-130	2		25
Toluene	104		102		70-130	2		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: FAN PIER PARCELS F
Project Number: 4426.9.FN

Lab Number: L1410334
Report Date: 05/22/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG690099-1 WG690099-2								
Ethylbenzene	105		102		70-130	3		20
Chloromethane	96		90		64-130	6		20
Bromomethane	77		69		39-139	11		20
Vinyl chloride	93		88		55-140	6		20
Chloroethane	102		88		55-138	15		20
1,1-Dichloroethene	97		90		61-145	7		25
trans-1,2-Dichloroethene	101		97		70-130	4		20
Trichloroethene	106		106		70-130	0		25
1,2-Dichlorobenzene	114		108		70-130	5		20
1,3-Dichlorobenzene	110		105		70-130	5		20
1,4-Dichlorobenzene	111		105		70-130	6		20
Methyl tert butyl ether	113		94		63-130	18		20
p/m-Xylene	103		100		70-130	3		20
o-Xylene	103		100		70-130	3		20
cis-1,2-Dichloroethene	106		108		70-130	2		20
Dibromomethane	110		101		70-130	9		20
1,4-Dichlorobutane	98		96		70-130	2		20
1,2,3-Trichloropropane	115		102		64-130	12		20
Styrene	101		96		70-130	5		20
Dichlorodifluoromethane	84		82		36-147	2		20
Acetone	80		67		58-148	18		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FAN PIER PARCELS F

Project Number: 4426.9.FN

Lab Number: L1410334

Report Date: 05/22/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG690099-1 WG690099-2								
Carbon disulfide	90		87		51-130	3		20
2-Butanone	108		95		63-138	13		20
Vinyl acetate	102		100		70-130	2		20
4-Methyl-2-pentanone	120		106		59-130	12		20
2-Hexanone	104		92		57-130	12		20
Ethyl methacrylate	114		106		70-130	7		20
Acrylonitrile	**137**	Q	112		70-130	20		20
Bromochloromethane	114		108		70-130	5		20
Tetrahydrofuran	105		102		58-130	3		20
2,2-Dichloropropane	88		92		63-133	4		20
1,2-Dibromoethane	114		100		70-130	13		20
1,3-Dichloropropane	112		102		70-130	9		20
1,1,1,2-Tetrachloroethane	98		94		64-130	4		20
Bromobenzene	116		111		70-130	4		20
n-Butylbenzene	102		100		53-136	2		20
sec-Butylbenzene	103		103		70-130	0		20
tert-Butylbenzene	106		105		70-130	1		20
o-Chlorotoluene	100		99		70-130	1		20
p-Chlorotoluene	104		100		70-130	4		20
1,2-Dibromo-3-chloropropane	98		89		41-144	10		20
Hexachlorobutadiene	**131**	Q	125		63-130	5		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FAN PIER PARCELS F

Project Number: 4426.9.FN

Lab Number: L1410334

Report Date: 05/22/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG690099-1 WG690099-2								
Isopropylbenzene	104		103		70-130	1		20
p-Isopropyltoluene	108		104		70-130	4		20
Naphthalene	115		100		70-130	14		20
n-Propylbenzene	101		102		69-130	1		20
1,2,3-Trichlorobenzene	129		114		70-130	12		20
1,2,4-Trichlorobenzene	121		112		70-130	8		20
1,3,5-Trimethylbenzene	103		100		64-130	3		20
1,3,5-Trichlorobenzene	121		112		70-130	8		20
1,2,4-Trimethylbenzene	104		103		70-130	1		20
trans-1,4-Dichloro-2-butene	88		80		70-130	10		20
Ethyl ether	112		95		59-134	16		20
Methyl Acetate	114		92		70-130	**21**	Q	20
Ethyl Acetate	104		97		70-130	7		20
Isopropyl Ether	102		93		70-130	9		20
Cyclohexane	96		102		70-130	6		20
Tert-Butyl Alcohol	108		92		70-130	16		20
Ethyl-Tert-Butyl-Ether	99		95		70-130	4		20
Tertiary-Amyl Methyl Ether	103		96		66-130	7		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	101		94		70-130	7		20
Methyl cyclohexane	107		106		70-130	1		20
p-Diethylbenzene	107		105		70-130	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FAN PIER PARCELS F

Project Number: 4426.9.FN

Lab Number: L1410334

Report Date: 05/22/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG690099-1 WG690099-2								
4-Ethyltoluene	102		102		70-130	0		20
1,2,4,5-Tetramethylbenzene	108		101		70-130	7		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	86		93		70-130
Toluene-d8	100		99		70-130
4-Bromofluorobenzene	94		100		70-130
Dibromofluoromethane	92		97		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: FAN PIER PARCELS F

Project Number: 4426.9.FN

Lab Number: L1410334

Report Date: 05/22/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG690258-1 WG690258-2								
Methylene chloride	93		93		70-130	0		20
1,1-Dichloroethane	99		97		70-130	2		20
Chloroform	103		102		70-130	1		20
Carbon tetrachloride	102		99		63-132	3		20
1,2-Dichloropropane	96		96		70-130	0		20
Dibromochloromethane	92		92		63-130	0		20
1,1,2-Trichloroethane	99		100		70-130	1		20
2-Chloroethylvinyl ether	86		88		70-130	2		20
Tetrachloroethene	100		98		70-130	2		20
Chlorobenzene	96		95		75-130	1		25
Trichlorofluoromethane	112		107		62-150	5		20
1,2-Dichloroethane	99		99		70-130	0		20
1,1,1-Trichloroethane	103		101		67-130	2		20
Bromodichloromethane	95		94		67-130	1		20
trans-1,3-Dichloropropene	99		100		70-130	1		20
cis-1,3-Dichloropropene	94		94		70-130	0		20
1,1-Dichloropropene	101		99		70-130	2		20
Bromoform	85		86		54-136	1		20
1,1,2,2-Tetrachloroethane	79		80		67-130	1		20
Benzene	98		97		70-130	1		25
Toluene	96		94		70-130	2		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: FAN PIER PARCELS F
Project Number: 4426.9.FN

Lab Number: L1410334
Report Date: 05/22/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG690258-1 WG690258-2								
Ethylbenzene	99		98		70-130	1		20
Chloromethane	99		90		64-130	10		20
Bromomethane	81		88		39-139	8		20
Vinyl chloride	93		92		55-140	1		20
Chloroethane	119		115		55-138	3		20
1,1-Dichloroethene	102		97		61-145	5		25
trans-1,2-Dichloroethene	100		98		70-130	2		20
Trichloroethene	100		98		70-130	2		25
1,2-Dichlorobenzene	94		92		70-130	2		20
1,3-Dichlorobenzene	98		96		70-130	2		20
1,4-Dichlorobenzene	98		96		70-130	2		20
Methyl tert butyl ether	98		99		63-130	1		20
p/m-Xylene	108		107		70-130	1		20
o-Xylene	105		104		70-130	1		20
cis-1,2-Dichloroethene	99		98		70-130	1		20
Dibromomethane	94		94		70-130	0		20
1,4-Dichlorobutane	85		85		70-130	0		20
Iodomethane	**69**	Q	77		70-130	11		20
1,2,3-Trichloropropane	86		94		64-130	9		20
Styrene	108		107		70-130	1		20
Dichlorodifluoromethane	92		89		36-147	3		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FAN PIER PARCELS F

Project Number: 4426.9.FN

Lab Number: L1410334

Report Date: 05/22/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG690258-1 WG690258-2								
Acetone	87		86		58-148	1		20
Carbon disulfide	100		96		51-130	4		20
2-Butanone	102		105		63-138	3		20
Vinyl acetate	102		104		70-130	2		20
4-Methyl-2-pentanone	85		87		59-130	2		20
2-Hexanone	93		96		57-130	3		20
Ethyl methacrylate	91		94		70-130	3		20
Acrylonitrile	95		94		70-130	1		20
Bromochloromethane	98		98		70-130	0		20
Tetrahydrofuran	88		90		58-130	2		20
2,2-Dichloropropane	107		104		63-133	3		20
1,2-Dibromoethane	92		92		70-130	0		20
1,3-Dichloropropane	95		94		70-130	1		20
1,1,1,2-Tetrachloroethane	102		101		64-130	1		20
Bromobenzene	79		78		70-130	1		20
n-Butylbenzene	109		104		53-136	5		20
sec-Butylbenzene	98		95		70-130	3		20
tert-Butylbenzene	91		89		70-130	2		20
o-Chlorotoluene	94		92		70-130	2		20
p-Chlorotoluene	90		90		70-130	0		20
1,2-Dibromo-3-chloropropane	86		84		41-144	2		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: FAN PIER PARCELS F
Project Number: 4426.9.FN

Lab Number: L1410334
Report Date: 05/22/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG690258-1 WG690258-2								
Hexachlorobutadiene	101		100		63-130	1		20
Isopropylbenzene	82		81		70-130	1		20
p-Isopropyltoluene	100		97		70-130	3		20
Naphthalene	**67**	Q	**66**	Q	70-130	2		20
n-Propylbenzene	89		88		69-130	1		20
1,2,3-Trichlorobenzene	**67**	Q	**66**	Q	70-130	2		20
1,2,4-Trichlorobenzene	89		87		70-130	2		20
1,3,5-Trimethylbenzene	100		98		64-130	2		20
1,3,5-Trichlorobenzene	100		95		70-130	5		20
1,2,4-Trimethylbenzene	95		93		70-130	2		20
trans-1,4-Dichloro-2-butene	76		80		70-130	5		20
Halothane	102		99		70-130	3		20
Ethyl ether	108		106		59-134	2		20
Methyl Acetate	91		93		70-130	2		20
Ethyl Acetate	91		93		70-130	2		20
Isopropyl Ether	101		100		70-130	1		20
Cyclohexane	105		102		70-130	3		20
Tert-Butyl Alcohol	82		84		70-130	2		20
Ethyl-Tert-Butyl-Ether	100		101		70-130	1		20
Tertiary-Amyl Methyl Ether	95		97		66-130	2		20
1,4-Dioxane	60		66		56-162	10		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FAN PIER PARCELS F

Project Number: 4426.9.FN

Lab Number: L1410334

Report Date: 05/22/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG690258-1 WG690258-2								
1,1,2-Trichloro-1,2,2-Trifluoroethane	111		107		70-130	4		20
Methyl cyclohexane	103		101		70-130	2		20
p-Diethylbenzene	101		97		70-130	4		20
4-Ethyltoluene	94		93		70-130	1		20
1,2,4,5-Tetramethylbenzene	100		95		70-130	5		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	107		107		70-130
Toluene-d8	99		99		70-130
4-Bromofluorobenzene	84		85		70-130
Dibromofluoromethane	106		106		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: FAN PIER PARCELS F

Project Number: 4426.9.FN

Lab Number: L1410334

Report Date: 05/22/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Microextractables by GC - Westborough Lab	Associated sample(s): 02		Batch: WG690566-2						
1,2-Dibromoethane	114		-		70-130	-		20	A
1,2-Dibromo-3-chloropropane	113		-		70-130	-		20	A

Matrix Spike Analysis
Batch Quality Control

Project Name: FAN PIER PARCELS F
Project Number: 4426.9.FN

Lab Number: L1410334
Report Date: 05/22/14

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits	Column
Microextractables by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG689717-3 QC Sample: L1410336-01 Client ID: MS Sample													
1,2-Dibromoethane	ND	0.26	0.308	119		-	-		70-130	-		20	A
1,2-Dibromo-3-chloropropane	ND	0.26	0.276	106		-	-		70-130	-		20	A

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits	Column
Microextractables by GC - Westborough Lab Associated sample(s): 02 QC Batch ID: WG690566-3 QC Sample: L1410488-01 Client ID: MS Sample													
1,2-Dibromoethane	ND	0.254	0.279	110		-	-		70-130	-		20	A
1,2-Dibromo-3-chloropropane	ND	0.254	0.251	99		-	-		70-130	-		20	A

SEMIVOLATILES

Project Name: FAN PIER PARCELS F **Lab Number:** L1410334

Project Number: 4426.9.FN **Report Date:** 05/22/14

SAMPLE RESULTS

Lab ID:	L1410334-01	Date Collected:	05/14/14 14:00
Client ID:	GARAGE SUMP	Date Received:	05/14/14
Sample Location:	BOSTON, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270D	Extraction Date:	05/20/14 09:56
Analytical Date:	05/20/14 15:18		
Analyst:	RC		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzidine	ND		ug/l	20	--	1
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	--	1
1,2-Dichlorobenzene	ND		ug/l	2.0	--	1
1,3-Dichlorobenzene	ND		ug/l	2.0	--	1
1,4-Dichlorobenzene	ND		ug/l	2.0	--	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	--	1
2,4-Dinitrotoluene	ND		ug/l	5.0	--	1
2,6-Dinitrotoluene	ND		ug/l	5.0	--	1
Azobenzene	ND		ug/l	2.0	--	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	--	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	--	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	--	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	--	1
Hexachlorocyclopentadiene	ND		ug/l	20	--	1
Isophorone	ND		ug/l	5.0	--	1
Nitrobenzene	ND		ug/l	2.0	--	1
NDPA/DPA	ND		ug/l	2.0	--	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	--	1
Butyl benzyl phthalate	ND		ug/l	5.0	--	1
Di-n-butylphthalate	ND		ug/l	5.0	--	1
Di-n-octylphthalate	ND		ug/l	5.0	--	1
Diethyl phthalate	ND		ug/l	5.0	--	1
Dimethyl phthalate	ND		ug/l	5.0	--	1
Aniline	ND		ug/l	2.0	--	1
4-Chloroaniline	ND		ug/l	5.0	--	1
2-Nitroaniline	ND		ug/l	5.0	--	1
3-Nitroaniline	ND		ug/l	5.0	--	1
4-Nitroaniline	ND		ug/l	5.0	--	1
Dibenzofuran	ND		ug/l	2.0	--	1
n-Nitrosodimethylamine	ND		ug/l	2.0	--	1

Project Name: FAN PIER PARCELS F **Lab Number:** L1410334

Project Number: 4426.9.FN **Report Date:** 05/22/14

SAMPLE RESULTS

Lab ID: L1410334-01 Date Collected: 05/14/14 14:00

Client ID: GARAGE SUMP Date Received: 05/14/14

Sample Location: BOSTON, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,6-Trichlorophenol	ND		ug/l	5.0	--	1
p-Chloro-m-cresol	ND		ug/l	2.0	--	1
2-Chlorophenol	ND		ug/l	2.0	--	1
2,4-Dichlorophenol	ND		ug/l	5.0	--	1
2,4-Dimethylphenol	ND		ug/l	5.0	--	1
2-Nitrophenol	ND		ug/l	10	--	1
4-Nitrophenol	ND		ug/l	10	--	1
2,4-Dinitrophenol	ND		ug/l	20	--	1
4,6-Dinitro-o-cresol	ND		ug/l	10	--	1
Phenol	ND		ug/l	5.0	--	1
2-Methylphenol	ND		ug/l	5.0	--	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	--	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	--	1
Benzoic Acid	ND		ug/l	50	--	1
Benzyl Alcohol	ND		ug/l	2.0	--	1
Carbazole	ND		ug/l	2.0	--	1
Pyridine	ND		ug/l	5.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	48		21-120
Phenol-d6	31		10-120
Nitrobenzene-d5	70		23-120
2-Fluorobiphenyl	71		15-120
2,4,6-Tribromophenol	79		10-120
4-Terphenyl-d14	93		41-149

Project Name: FAN PIER PARCELS F **Lab Number:** L1410334

Project Number: 4426.9.FN **Report Date:** 05/22/14

SAMPLE RESULTS

Lab ID:	L1410334-01	Date Collected:	05/14/14 14:00
Client ID:	GARAGE SUMP	Date Received:	05/14/14
Sample Location:	BOSTON, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270D-SIM	Extraction Date:	05/16/14 06:08
Analytical Date:	05/19/14 17:07		
Analyst:	MW		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.20	--	1
2-Chloronaphthalene	ND		ug/l	0.20	--	1
Fluoranthene	ND		ug/l	0.20	--	1
Hexachlorobutadiene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	0.20	--	1
Benzo(a)anthracene	ND		ug/l	0.20	--	1
Benzo(a)pyrene	ND		ug/l	0.20	--	1
Benzo(b)fluoranthene	ND		ug/l	0.20	--	1
Benzo(k)fluoranthene	ND		ug/l	0.20	--	1
Chrysene	ND		ug/l	0.20	--	1
Acenaphthylene	ND		ug/l	0.20	--	1
Anthracene	ND		ug/l	0.20	--	1
Benzo(ghi)perylene	ND		ug/l	0.20	--	1
Fluorene	ND		ug/l	0.20	--	1
Phenanthrene	ND		ug/l	0.20	--	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/l	0.20	--	1
Pyrene	ND		ug/l	0.20	--	1
1-Methylnaphthalene	ND		ug/l	0.20	--	1
2-Methylnaphthalene	ND		ug/l	0.20	--	1
Pentachlorophenol	ND		ug/l	0.80	--	1
Hexachlorobenzene	ND		ug/l	0.80	--	1
Hexachloroethane	ND		ug/l	0.80	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	38		21-120
Phenol-d6	28		10-120
Nitrobenzene-d5	102		23-120
2-Fluorobiphenyl	64		15-120
2,4,6-Tribromophenol	86		10-120
4-Terphenyl-d14	80		41-149

Project Name: FAN PIER PARCELS F
Project Number: 4426.9.FN

Lab Number: L1410334
Report Date: 05/22/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 05/19/14 15:38
Analyst: MW

Extraction Method: EPA 3510C
Extraction Date: 05/16/14 06:08

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG690047-1					
Acenaphthene	ND		ug/l	0.20	--
2-Chloronaphthalene	ND		ug/l	0.20	--
Fluoranthene	ND		ug/l	0.20	--
Hexachlorobutadiene	ND		ug/l	0.50	--
Naphthalene	ND		ug/l	0.20	--
Benzo(a)anthracene	ND		ug/l	0.20	--
Benzo(a)pyrene	ND		ug/l	0.20	--
Benzo(b)fluoranthene	ND		ug/l	0.20	--
Benzo(k)fluoranthene	ND		ug/l	0.20	--
Chrysene	ND		ug/l	0.20	--
Acenaphthylene	ND		ug/l	0.20	--
Anthracene	ND		ug/l	0.20	--
Benzo(ghi)perylene	ND		ug/l	0.20	--
Fluorene	ND		ug/l	0.20	--
Phenanthrene	ND		ug/l	0.20	--
Dibenzo(a,h)anthracene	ND		ug/l	0.20	--
Indeno(1,2,3-cd)Pyrene	ND		ug/l	0.20	--
Pyrene	ND		ug/l	0.20	--
1-Methylnaphthalene	ND		ug/l	0.20	--
2-Methylnaphthalene	ND		ug/l	0.20	--
Pentachlorophenol	ND		ug/l	0.80	--
Hexachlorobenzene	ND		ug/l	0.80	--
Hexachloroethane	ND		ug/l	0.80	--

Project Name: FAN PIER PARCELS F
Project Number: 4426.9.FN

Lab Number: L1410334
Report Date: 05/22/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 05/19/14 15:38
Analyst: MW

Extraction Method: EPA 3510C
Extraction Date: 05/16/14 06:08

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG690047-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	40		21-120
Phenol-d6	29		10-120
Nitrobenzene-d5	103		23-120
2-Fluorobiphenyl	62		15-120
2,4,6-Tribromophenol	82		10-120
4-Terphenyl-d14	71		41-149

Project Name: FAN PIER PARCELS F
Project Number: 4426.9.FN

Lab Number: L1410334
Report Date: 05/22/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 05/20/14 14:01
Analyst: RC

Extraction Method: EPA 3510C
Extraction Date: 05/20/14 09:56

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG690936-1					
Benzidine	ND		ug/l	20	--
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--
Bis(2-chloroethyl)ether	ND		ug/l	2.0	--
1,2-Dichlorobenzene	ND		ug/l	2.0	--
1,3-Dichlorobenzene	ND		ug/l	2.0	--
1,4-Dichlorobenzene	ND		ug/l	2.0	--
3,3'-Dichlorobenzidine	ND		ug/l	5.0	--
2,4-Dinitrotoluene	ND		ug/l	5.0	--
2,6-Dinitrotoluene	ND		ug/l	5.0	--
Azobenzene	ND		ug/l	2.0	--
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	--
4-Bromophenyl phenyl ether	ND		ug/l	2.0	--
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	--
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	--
Hexachlorocyclopentadiene	ND		ug/l	20	--
Isophorone	ND		ug/l	5.0	--
Nitrobenzene	ND		ug/l	2.0	--
NDPA/DPA	ND		ug/l	2.0	--
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	--
Butyl benzyl phthalate	ND		ug/l	5.0	--
Di-n-butylphthalate	ND		ug/l	5.0	--
Di-n-octylphthalate	ND		ug/l	5.0	--
Diethyl phthalate	ND		ug/l	5.0	--
Dimethyl phthalate	ND		ug/l	5.0	--
Aniline	ND		ug/l	2.0	--
4-Chloroaniline	ND		ug/l	5.0	--
2-Nitroaniline	ND		ug/l	5.0	--
3-Nitroaniline	ND		ug/l	5.0	--
4-Nitroaniline	ND		ug/l	5.0	--
Dibenzofuran	ND		ug/l	2.0	--
n-Nitrosodimethylamine	ND		ug/l	2.0	--

Project Name: FAN PIER PARCELS F
Project Number: 4426.9.FN

Lab Number: L1410334
Report Date: 05/22/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 05/20/14 14:01
Analyst: RC

Extraction Method: EPA 3510C
Extraction Date: 05/20/14 09:56

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG690936-1					
2,4,6-Trichlorophenol	ND		ug/l	5.0	--
p-Chloro-m-cresol	ND		ug/l	2.0	--
2-Chlorophenol	ND		ug/l	2.0	--
2,4-Dichlorophenol	ND		ug/l	5.0	--
2,4-Dimethylphenol	ND		ug/l	5.0	--
2-Nitrophenol	ND		ug/l	10	--
4-Nitrophenol	ND		ug/l	10	--
2,4-Dinitrophenol	ND		ug/l	20	--
4,6-Dinitro-o-cresol	ND		ug/l	10	--
Phenol	ND		ug/l	5.0	--
2-Methylphenol	ND		ug/l	5.0	--
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	--
2,4,5-Trichlorophenol	ND		ug/l	5.0	--
Benzoic Acid	ND		ug/l	50	--
Benzyl Alcohol	ND		ug/l	2.0	--
Carbazole	ND		ug/l	2.0	--
Pyridine	ND		ug/l	5.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	50		21-120
Phenol-d6	32		10-120
Nitrobenzene-d5	73		23-120
2-Fluorobiphenyl	75		15-120
2,4,6-Tribromophenol	74		10-120
4-Terphenyl-d14	99		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: FAN PIER PARCELS F

Project Number: 4426.9.FN

Lab Number: L1410334

Report Date: 05/22/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG690047-2 WG690047-3								
Acenaphthene	59		60		37-111	2		40
2-Chloronaphthalene	58		60		40-140	3		40
Fluoranthene	77		73		40-140	5		40
Hexachlorobutadiene	49		50		40-140	2		40
Naphthalene	57		58		40-140	2		40
Benzo(a)anthracene	84		80		40-140	5		40
Benzo(a)pyrene	72		67		40-140	7		40
Benzo(b)fluoranthene	72		67		40-140	7		40
Benzo(k)fluoranthene	72		65		40-140	10		40
Chrysene	77		71		40-140	8		40
Acenaphthylene	70		72		40-140	3		40
Anthracene	70		68		40-140	3		40
Benzo(ghi)perylene	71		66		40-140	7		40
Fluorene	68		66		40-140	3		40
Phenanthrene	63		60		40-140	5		40
Dibenzo(a,h)anthracene	77		71		40-140	8		40
Indeno(1,2,3-cd)Pyrene	71		67		40-140	6		40
Pyrene	75		72		26-127	4		40
1-Methylnaphthalene	60		62		40-140	3		40
2-Methylnaphthalene	62		63		40-140	2		40
Pentachlorophenol	71		79		9-103	11		40

Lab Control Sample Analysis

Batch Quality Control

Project Name: FAN PIER PARCELS F

Project Number: 4426.9.FN

Lab Number: L1410334

Report Date: 05/22/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG690047-2 WG690047-3								
Hexachlorobenzene	71		69		40-140	3		40
Hexachloroethane	59		60		40-140	2		40

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	35		37		21-120
Phenol-d6	25		26		10-120
Nitrobenzene-d5	88		93		23-120
2-Fluorobiphenyl	57		60		15-120
2,4,6-Tribromophenol	86		83		10-120
4-Terphenyl-d14	71		69		41-149

Lab Control Sample Analysis
Batch Quality Control

Project Name: FAN PIER PARCELS F
Project Number: 4426.9.FN

Lab Number: L1410334
Report Date: 05/22/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG690936-2 WG690936-3								
Benzidine	60		54		10-75	11		30
1,2,4-Trichlorobenzene	68		67		39-98	1		30
Bis(2-chloroethyl)ether	70		69		40-140	1		30
1,2-Dichlorobenzene	66		64		40-140	3		30
1,3-Dichlorobenzene	65		62		40-140	5		30
1,4-Dichlorobenzene	64		62		36-97	3		30
3,3'-Dichlorobenzidine	89		84		40-140	6		30
2,4-Dinitrotoluene	**105**	Q	**102**	Q	24-96	3		30
2,6-Dinitrotoluene	110		105		40-140	5		30
Azobenzene	90		88		40-140	2		30
4-Chlorophenyl phenyl ether	91		88		40-140	3		30
4-Bromophenyl phenyl ether	102		98		40-140	4		30
Bis(2-chloroisopropyl)ether	70		68		40-140	3		30
Bis(2-chloroethoxy)methane	72		70		40-140	3		30
Hexachlorocyclopentadiene	81		79		40-140	3		30
Isophorone	77		74		40-140	4		30
Nitrobenzene	78		78		40-140	0		30
NDPA/DPA	101		98		40-140	3		30
Bis(2-ethylhexyl)phthalate	93		90		40-140	3		30
Butyl benzyl phthalate	110		105		40-140	5		30
Di-n-butylphthalate	112		108		40-140	4		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: FAN PIER PARCELS F
Project Number: 4426.9.FN

Lab Number: L1410334
Report Date: 05/22/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG690936-2 WG690936-3								
Di-n-octylphthalate	103		98		40-140	5		30
Diethyl phthalate	102		99		40-140	3		30
Dimethyl phthalate	99		96		40-140	3		30
Aniline	47		43		40-140	9		30
4-Chloroaniline	77		68		40-140	12		30
2-Nitroaniline	100		99		52-143	1		30
3-Nitroaniline	96		91		25-145	5		30
4-Nitroaniline	102		100		51-143	2		30
Dibenzofuran	86		84		40-140	2		30
n-Nitrosodimethylamine	46		45		22-74	2		30
2,4,6-Trichlorophenol	102		98		30-130	4		30
p-Chloro-m-cresol	96		93		23-97	3		30
2-Chlorophenol	76		74		27-123	3		30
2,4-Dichlorophenol	89		86		30-130	3		30
2,4-Dimethylphenol	78		75		30-130	4		30
2-Nitrophenol	77		76		30-130	1		30
4-Nitrophenol	**92**	Q	**88**	Q	10-80	4		30
2,4-Dinitrophenol	97		93		20-130	4		30
4,6-Dinitro-o-cresol	110		108		20-164	2		30
Phenol	37		36		12-110	3		30
2-Methylphenol	71		68		30-130	4		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: FAN PIER PARCELS F

Project Number: 4426.9.FN

Lab Number: L1410334

Report Date: 05/22/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG690936-2 WG690936-3								
3-Methylphenol/4-Methylphenol	67		65		30-130	3		30
2,4,5-Trichlorophenol	103		102		30-130	1		30
Benzoic Acid	25		32		10-164	25		30
Benzyl Alcohol	66		65		26-116	2		30
Carbazole	102		99		55-144	3		30
Pyridine	32		32		10-66	0		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	53		52		21-120
Phenol-d6	36		35		10-120
Nitrobenzene-d5	75		74		23-120
2-Fluorobiphenyl	79		76		15-120
2,4,6-Tribromophenol	96		94		10-120
4-Terphenyl-d14	111		106		41-149

PCBS

Project Name: FAN PIER PARCELS F
Lab Number: L1410334
Project Number: 4426.9.FN
Report Date: 05/22/14

SAMPLE RESULTS

Lab ID:	L1410334-01	Date Collected:	05/14/14 14:00
Client ID:	GARAGE SUMP	Date Received:	05/14/14
Sample Location:	BOSTON, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 608
Analytical Method:	5,608	Extraction Date:	05/16/14 08:19
Analytical Date:	05/16/14 23:38	Cleanup Method1:	EPA 3665A
Analyst:	JW	Cleanup Date1:	05/16/14
		Cleanup Method2:	EPA 3660B
		Cleanup Date2:	05/16/14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.250	--	1	A
Aroclor 1221	ND		ug/l	0.250	--	1	A
Aroclor 1232	ND		ug/l	0.250	--	1	A
Aroclor 1242	ND		ug/l	0.250	--	1	A
Aroclor 1248	ND		ug/l	0.250	--	1	A
Aroclor 1254	ND		ug/l	0.250	--	1	A
Aroclor 1260	ND		ug/l	0.200	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	94		30-150	A
Decachlorobiphenyl	102		30-150	A

Project Name: FAN PIER PARCELS F

Project Number: 4426.9.FN

Lab Number: L1410334

Report Date: 05/22/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 5,608
Analytical Date: 05/17/14 01:12
Analyst: JW

Extraction Method: EPA 608
Extraction Date: 05/16/14 08:19
Cleanup Method1: EPA 3665A
Cleanup Date1: 05/16/14
Cleanup Method2: EPA 3660B
Cleanup Date2: 05/16/14

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01 Batch: WG690070-1						
Aroclor 1016	ND		ug/l	0.250	--	A
Aroclor 1221	ND		ug/l	0.250	--	A
Aroclor 1232	ND		ug/l	0.250	--	A
Aroclor 1242	ND		ug/l	0.250	--	A
Aroclor 1248	ND		ug/l	0.250	--	A
Aroclor 1254	ND		ug/l	0.250	--	A
Aroclor 1260	ND		ug/l	0.200	--	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	84		30-150	A
Decachlorobiphenyl	115		30-150	A

Matrix Spike Analysis
Batch Quality Control

Project Name: FAN PIER PARCELS F
Project Number: 4426.9.FN

Lab Number: L1410334
Report Date: 05/22/14

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG690070-3 QC Sample: L1410488-01 Client ID: MS Sample													
Aroclor 1016	ND	1.12	0.961	86		-	-		40-140	-		50	A
Aroclor 1260	ND	1.12	0.911	81		-	-		40-140	-		50	A

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	88				30-150	A
Decachlorobiphenyl	107				30-150	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: FAN PIER PARCELS F

Project Number: 4426.9.FN

Lab Number: L1410334

Report Date: 05/22/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 Batch: WG690070-2									
Aroclor 1016	81		-		40-140	-		50	A
Aroclor 1260	88		-		40-140	-		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	79				30-150	A
Decachlorobiphenyl	115				30-150	A

Lab Duplicate Analysis
Batch Quality Control

Project Name: FAN PIER PARCELS F
Project Number: 4426.9.FN

Lab Number: L1410334
Report Date: 05/22/14

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits	
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG690070-4 QC Sample: L1410488-02 Client ID: DUP Sample							
Aroclor 1016	ND	ND	ug/l	NC		50	A
Aroclor 1221	ND	ND	ug/l	NC		50	A
Aroclor 1232	ND	ND	ug/l	NC		50	A
Aroclor 1242	ND	ND	ug/l	NC		50	A
Aroclor 1248	ND	ND	ug/l	NC		50	A
Aroclor 1254	ND	ND	ug/l	NC		50	A
Aroclor 1260	ND	ND	ug/l	NC		50	A
Aroclor 1262	ND	ND	ug/l	NC		50	A
Aroclor 1268	ND	ND	ug/l	NC		50	A

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	95		85		30-150	A
Decachlorobiphenyl	103		96		30-150	A

METALS

Project Name: FAN PIER PARCELS F
Lab Number: L1410334
Project Number: 4426.9.FN
Report Date: 05/22/14

SAMPLE RESULTS

Lab ID: L1410334-01
Client ID: GARAGE SUMP
Sample Location: BOSTON, MA
Matrix: Water

Date Collected: 05/14/14 14:00
Date Received: 05/14/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Antimony, Total	ND		mg/l	0.01000	--	10	05/16/14 09:28	05/16/14 21:19	EPA 3005A	1,6020A	BM
Arsenic, Total	0.00590		mg/l	0.00500	--	10	05/16/14 09:28	05/16/14 21:19	EPA 3005A	1,6020A	BM
Cadmium, Total	ND		mg/l	0.00200	--	10	05/16/14 09:28	05/16/14 21:19	EPA 3005A	1,6020A	BM
Chromium, Total	ND		mg/l	0.01000	--	10	05/16/14 09:28	05/16/14 21:19	EPA 3005A	1,6020A	BM
Copper, Total	ND		mg/l	0.01000	--	10	05/16/14 09:28	05/16/14 21:19	EPA 3005A	1,6020A	BM
Iron, Total	0.06		mg/l	0.05	--	1	05/16/14 09:28	05/16/14 13:47	EPA 3005A	19,200.7	TT
Lead, Total	ND		mg/l	0.00500	--	10	05/16/14 09:28	05/16/14 21:19	EPA 3005A	1,6020A	BM
Mercury, Total	ND		mg/l	0.0002	--	1	05/15/14 08:59	05/15/14 13:46	EPA 245.1	3,245.1	AK
Nickel, Total	0.00549		mg/l	0.00500	--	10	05/16/14 09:28	05/16/14 21:19	EPA 3005A	1,6020A	BM
Selenium, Total	ND		mg/l	0.0500	--	10	05/16/14 09:28	05/16/14 21:19	EPA 3005A	1,6020A	BM
Silver, Total	ND		mg/l	0.00400	--	10	05/16/14 09:28	05/16/14 21:19	EPA 3005A	1,6020A	BM
Zinc, Total	ND		mg/l	0.1000	--	10	05/16/14 09:28	05/16/14 21:19	EPA 3005A	1,6020A	BM

Project Name: FAN PIER PARCELS F **Lab Number:** L1410334

Project Number: 4426.9.FN **Report Date:** 05/22/14

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01 Batch: WG689747-1										
Mercury, Total	ND		mg/l	0.0002	--	1	05/15/14 08:59	05/15/14 13:19	3,245.1	AK

Prep Information

Digestion Method: EPA 245.1

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01 Batch: WG690088-1										
Antimony, Total	ND		mg/l	0.00100	--	1	05/16/14 09:28	05/16/14 19:32	1,6020A	BM
Arsenic, Total	ND		mg/l	0.00050	--	1	05/16/14 09:28	05/16/14 19:32	1,6020A	BM
Cadmium, Total	ND		mg/l	0.00020	--	1	05/16/14 09:28	05/16/14 19:32	1,6020A	BM
Chromium, Total	ND		mg/l	0.00100	--	1	05/16/14 09:28	05/16/14 19:32	1,6020A	BM
Copper, Total	ND		mg/l	0.00100	--	1	05/16/14 09:28	05/16/14 19:32	1,6020A	BM
Lead, Total	ND		mg/l	0.00050	--	1	05/16/14 09:28	05/16/14 19:32	1,6020A	BM
Nickel, Total	ND		mg/l	0.00050	--	1	05/16/14 09:28	05/16/14 19:32	1,6020A	BM
Selenium, Total	ND		mg/l	0.00500	--	1	05/16/14 09:28	05/16/14 19:32	1,6020A	BM
Silver, Total	ND		mg/l	0.00040	--	1	05/16/14 09:28	05/16/14 19:32	1,6020A	BM
Zinc, Total	ND		mg/l	0.01000	--	1	05/16/14 09:28	05/16/14 19:32	1,6020A	BM

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01 Batch: WG690090-1										
Iron, Total	ND		mg/l	0.05	--	1	05/16/14 09:28	05/16/14 13:24	19,200.7	TT

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: FAN PIER PARCELS F

Project Number: 4426.9.FN

Lab Number: L1410334

Report Date: 05/22/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG689747-2								
Mercury, Total	107		-		85-115	-		
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG690088-2								
Antimony, Total	94		-		80-120	-		
Arsenic, Total	100		-		80-120	-		
Cadmium, Total	106		-		80-120	-		
Chromium, Total	96		-		80-120	-		
Copper, Total	102		-		80-120	-		
Lead, Total	100		-		80-120	-		
Nickel, Total	100		-		80-120	-		
Selenium, Total	108		-		80-120	-		
Silver, Total	98		-		80-120	-		
Zinc, Total	107		-		80-120	-		
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG690090-2								
Iron, Total	100		-		85-115	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: FAN PIER PARCELS F
Project Number: 4426.9.FN

Lab Number: L1410334
Report Date: 05/22/14

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG689747-4 QC Sample: L1410272-01 Client ID: MS Sample												
Mercury, Total	ND	0.005	0.0044	88		-	-		70-130	-		20
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG690088-4 QC Sample: L1410488-01 Client ID: MS Sample												
Antimony, Total	ND	0.5	0.5051	101		-	-		75-125	-		20
Arsenic, Total	0.01377	0.12	0.1361	102		-	-		75-125	-		20
Cadmium, Total	ND	0.051	0.05448	107		-	-		75-125	-		20
Chromium, Total	0.00114	0.2	0.1881	93		-	-		75-125	-		20
Copper, Total	0.00133	0.25	0.2444	97		-	-		75-125	-		20
Lead, Total	0.00226	0.51	0.5128	100		-	-		75-125	-		20
Nickel, Total	0.01248	0.5	0.4946	96		-	-		75-125	-		20
Selenium, Total	ND	0.12	0.126	105		-	-		75-125	-		20
Silver, Total	ND	0.05	0.04856	97		-	-		75-125	-		20
Zinc, Total	0.01586	0.5	0.5184	100		-	-		75-125	-		20
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG690090-4 QC Sample: L1410488-01 Client ID: MS Sample												
Iron, Total	26	1	27	100		-	-		75-125	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: FAN PIER PARCELS F
Project Number: 4426.9.FN

Lab Number: L1410334
Report Date: 05/22/14

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG689747-3 QC Sample: L1410272-01 Client ID: DUP Sample						
Mercury, Total	ND	ND	mg/l	NC		20
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG690088-3 QC Sample: L1410488-01 Client ID: DUP Sample						
Antimony, Total	ND	ND	mg/l	NC		20
Arsenic, Total	0.01377	0.01409	mg/l	2		20
Cadmium, Total	ND	ND	mg/l	NC		20
Chromium, Total	0.00114	0.00105	mg/l	8		20
Copper, Total	0.00133	0.00117	mg/l	13		20
Lead, Total	0.00226	0.00203	mg/l	11		20
Nickel, Total	0.01248	0.01231	mg/l	1		20
Selenium, Total	ND	ND	mg/l	NC		20
Silver, Total	ND	ND	mg/l	NC		20
Zinc, Total	0.01586	0.01572	mg/l	1		20
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG690090-3 QC Sample: L1410488-01 Client ID: DUP Sample						
Iron, Total	26	26	mg/l	0		20

INORGANICS
&
MISCELLANEOUS

Project Name: FAN PIER PARCELS F
Project Number: 4426.9.FN

Lab Number: L1410334
Report Date: 05/22/14

SAMPLE RESULTS

Lab ID: L1410334-01
Client ID: GARAGE SUMP
Sample Location: BOSTON, MA
Matrix: Water

Date Collected: 05/14/14 14:00
Date Received: 05/14/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	13.		mg/l	5.0	NA	1	-	05/16/14 13:50	30,2540D	DW
Cyanide, Total	ND		mg/l	0.005	--	1	05/15/14 11:45	05/15/14 17:29	30,4500CN-CE	JO
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	05/15/14 02:45	30,4500CL-D	DE
pH (H)	7.3		SU	-	NA	1	-	05/15/14 00:24	30,4500H+-B	JA
TPH	ND		mg/l	4.00	--	1	05/16/14 07:45	05/16/14 13:15	74,1664A	ML
Phenolics, Total	ND		mg/l	0.03	--	1	05/15/14 11:00	05/15/14 15:51	4,420.1	TE
Chromium, Hexavalent	ND		mg/l	0.010	--	1	05/15/14 01:00	05/15/14 01:28	30,3500CR-D	DE
Anions by Ion Chromatography - Westborough Lab										
Chloride	7120		mg/l	250	--	500	-	05/15/14 02:25	44,300.0	AU

Project Name: FAN PIER PARCELS F
Project Number: 4426.9.FN
Lab Number: L1410334
Report Date: 05/22/14

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG689687-1										
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	05/15/14 02:45	30,4500CL-D	DE
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG689688-1										
Chromium, Hexavalent	ND		mg/l	0.010	--	1	05/15/14 01:00	05/15/14 01:27	30,3500CR-D	DE
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG689751-1										
Cyanide, Total	ND		mg/l	0.005	--	1	05/15/14 11:45	05/15/14 17:22	30,4500CN-CE	JO
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG689838-1										
Phenolics, Total	ND		mg/l	0.03	--	1	05/15/14 11:00	05/15/14 15:47	4,420.1	TE
Anions by Ion Chromatography - Westborough Lab for sample(s): 01 Batch: WG689946-1										
Chloride	ND		mg/l	0.500	--	1	-	05/14/14 17:25	44,300.0	AU
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG690054-1										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	05/16/14 13:50	30,2540D	DW
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG690112-1										
TPH	ND		mg/l	4.00	--	1	05/16/14 07:45	05/16/14 13:15	74,1664A	ML

Lab Control Sample Analysis

Batch Quality Control

Project Name: FAN PIER PARCELS F

Project Number: 4426.9.FN

Lab Number: L1410334

Report Date: 05/22/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG689681-1								
pH	101		-		99-101	-		5
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG689687-2								
Chlorine, Total Residual	102		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG689688-2								
Chromium, Hexavalent	102		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG689751-2								
Cyanide, Total	103		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG689838-2								
Phenolics, Total	111		-		70-130	-		
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 Batch: WG689946-2								
Chloride	96		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG690112-2								
TPH	80		-		64-132	-		34

Matrix Spike Analysis
Batch Quality Control

Project Name: FAN PIER PARCELS F
Project Number: 4426.9.FN

Lab Number: L1410334
Report Date: 05/22/14

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG689688-4 QC Sample: L1410334-01 Client ID: GARAGE SUMP												
Chromium, Hexavalent	ND	0.1	0.106	106		-	-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG689751-3 QC Sample: L1410334-01 Client ID: GARAGE SUMP												
Cyanide, Total	ND	0.2	0.193	96		-	-		90-110	-		30
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG689838-4 QC Sample: L1410083-04 Client ID: MS Sample												
Phenolics, Total	ND	0.4	0.42	106		-	-		70-130	-		20
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG689946-3 QC Sample: L1410083-04 Client ID: MS Sample												
Chloride	124	100	225	100		-	-		40-151	-		18
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG690112-4 QC Sample: L1410414-03 Client ID: MS Sample												
TPH	4.34	20.4	21.9	86		-	-		64-132	-		34

Lab Duplicate Analysis
Batch Quality Control

Project Name: FAN PIER PARCELS F
Project Number: 4426.9.FN

Lab Number: L1410334
Report Date: 05/22/14

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG689681-2 QC Sample: L1410208-01 Client ID: DUP Sample						
pH	7.4	7.4	SU	0		5
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG689687-3 QC Sample: L1410334-01 Client ID: GARAGE SUMP						
Chlorine, Total Residual	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG689688-3 QC Sample: L1410334-01 Client ID: GARAGE SUMP						
Chromium, Hexavalent	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG689751-4 QC Sample: L1410334-01 Client ID: GARAGE SUMP						
Cyanide, Total	ND	ND	mg/l	NC		30
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG689838-3 QC Sample: L1410083-04 Client ID: DUP Sample						
Phenolics, Total	ND	ND	mg/l	NC		20
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG689946-4 QC Sample: L1410083-04 Client ID: DUP Sample						
Chloride	124	125	mg/l	1		18
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG690054-2 QC Sample: L1410258-01 Client ID: DUP Sample						
Solids, Total Suspended	130	110	mg/l	17		29
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG690112-3 QC Sample: L1410414-01 Client ID: DUP Sample						
TPH	ND	ND	mg/l	NC		34

Project Name: FAN PIER PARCELS F
Project Number: 4426.9.FN

Lab Number: L1410334
Report Date: 05/22/14

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1410334-01A	Vial HCl preserved	A	N/A	3.0	Y	Absent	8260-SIM(14)
L1410334-01B	Vial HCl preserved	A	N/A	3.0	Y	Absent	8260-SIM(14)
L1410334-01C	Vial HCl preserved	A	N/A	3.0	Y	Absent	8260-SIM(14)
L1410334-01D	Vial HCl preserved	A	N/A	3.0	Y	Absent	8260(14)
L1410334-01E	Vial HCl preserved	A	N/A	3.0	Y	Absent	8260(14)
L1410334-01F	Vial HCl preserved	A	N/A	3.0	Y	Absent	8260(14)
L1410334-01G	Vial Na2S2O3 preserved	A	N/A	3.0	Y	Absent	504(14)
L1410334-01H	Vial Na2S2O3 preserved	A	N/A	3.0	Y	Absent	504(14)
L1410334-01I	Plastic 250ml NaOH preserved	A	>12	3.0	Y	Absent	TCN-4500(14)
L1410334-01J	Plastic 250ml HNO3 preserved	A	<2	3.0	Y	Absent	SE-6020T(180),CR-6020T(180),NI-6020T(180),CU-6020T(180),ZN-6020T(180),FE-UI(180),PB-6020T(180),HG-U(28),AS-6020T(180),SB-6020T(180),AG-6020T(180),CD-6020T(180)
L1410334-01K	Plastic 500ml unpreserved	A	8	3.0	Y	Absent	HEXCR-3500(1)
L1410334-01L	Plastic 500ml unpreserved	A	8	3.0	Y	Absent	CL-300(28),TRC-4500(1),PH-4500(.01)
L1410334-01M	Plastic 1000ml unpreserved	A	8	3.0	Y	Absent	TSS-2540(7)
L1410334-01N	Amber 1000ml H2SO4 preserved	A	<2	3.0	Y	Absent	TPHENOL-420(28)
L1410334-01O	Amber 1000ml H2SO4 preserved	A	<2	3.0	Y	Absent	TPHENOL-420(28)
L1410334-01P	Amber 1000ml HCl preserved	A	N/A	3.0	Y	Absent	TPH-1664(28)
L1410334-01Q	Amber 1000ml HCl preserved	A	N/A	3.0	Y	Absent	TPH-1664(28)
L1410334-01R	Amber 1000ml Na2S2O3	A	8	3.0	Y	Absent	PCB-608(7)
L1410334-01S	Amber 1000ml Na2S2O3	A	8	3.0	Y	Absent	PCB-608(7)
L1410334-01T	Amber 1000ml Na2S2O3	A	8	3.0	Y	Absent	8270TCL(7)
L1410334-01U	Amber 1000ml Na2S2O3	A	8	3.0	Y	Absent	8270TCL(7)
L1410334-01V	Amber 1000ml Na2S2O3	A	8	3.0	Y	Absent	8270TCL-SIM(7)
L1410334-01W	Amber 1000ml Na2S2O3	A	8	3.0	Y	Absent	8270TCL-SIM(7)

*Values in parentheses indicate holding time in days

Project Name: FAN PIER PARCELS F
Project Number: 4426.9.FN

Lab Number: L1410334
Report Date: 05/22/14

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1410334-02A	Vial HCl preserved	A	N/A	3.0	Y	Absent	8260(14)
L1410334-02B	Vial Na2S2O3 preserved	A	N/A	3.0	Y	Absent	504(14)
L1410334-02C	Vial Na2S2O3 preserved	A	N/A	3.0	Y	Absent	504(14)

*Values in parentheses indicate holding time in days

Project Name:	FAN PIER PARCELS F	**Lab Number:**	L1410334
Project Number:	4426.9.FN	**Report Date:**	05/22/14

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

Report Format: Data Usability Report

Project Name:	FAN PIER PARCELS F	**Lab Number:**	L1410334
Project Number:	4426.9.FN	**Report Date:**	05/22/14

Data Qualifiers

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name:	FAN PIER PARCELS F	**Lab Number:**	L1410334
Project Number:	4426.9.FN	**Report Date:**	05/22/14

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

3 Methods for the Determination of Metals in Environmental Samples, Supplement I. EPA/600/R-94/111. May 1994.

4 Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020. Revised March 1983.

5 Methods for the Organic Chemical Analysis of Municipal and Industrial Wastewater. Appendix A, Part 136, 40 CFR (Code of Federal Regulations).

14 Methods for the Determination of Organic Compounds in Finished Drinking Water and Raw Source Water. EPA/600/4-88/039, Revised July 1991.

19 Inductively Coupled Plasma Atomic Emission Spectrometric Method for Trace Element Analysis of Water and Wastes. Appendix C, Part 136, 40 CFR (Code of Federal Regulations). July 1, 1999 edition.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

44 Methods for the Determination of Inorganic Substances in Environmental Samples, EPA/600/R-93/100, August 1993.

74 Method 1664,Revision A: N-Hexane Extractable Material (HEM; Oil & Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry, EPA-821-R-98-002, February 1999.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

Last revised April 15, 2014

The following analytes are not included in our NELAP Scope of Accreditation:

Westborough Facility
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.
EPA 8260C: 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene, Iodomethane (methyl iodide), Methyl methacrylate, Azobenzene.
EPA 8330A/B: PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT.
EPA 8270D: 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 625: 4-Chloroaniline, 4-Methylphenol.
SM4500: Soil: Total Phosphorus, TKN, NO2, NO3.
EPA 9071: Total Petroleum Hydrocarbons, Oil & Grease.

Mansfield Facility
EPA 8270D: Biphenyl.
EPA 2540D: TSS
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water
EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7**: Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water
EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA Analytical — World Class Chemistry

Date Rec'd in Lab: 5/14/14

ALPHA Job #: L1410334

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Project Information

Project Name: Fan Pier Parcels F

Project Location: Boston, MA

Project #: 4426.9.FN

Project Manager: BED

ALPHA Quote #:

Client Information

Client: McPhial Associates, LLC

Address: 2269 Massachusetts Avenue

Cambridge, MA 02140

Phone: 617-868-1420

Fax: 617-868-1423

Email: bdowning@mcphailgeo.com

☐ These samples have been Previously analyzed by Alpha

Turn-Around Time

☒ Standard ☐ Rush (ONLY IF PRE-APPROVED)

Due Date: 5/20/14 Time:

Report Information Data Deliverables

☐ FAX ☐ EMAIL

☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program	Criteria
EPA NPDES RGP	

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?

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

Other Project Specific Requirements/Comments/Detection Limits:

ANALYSIS

SAMPLE HANDLING: Filtration ☐ Done ☐ Not Needed ☐ Lab to do; Preservation ☐ Lab to do (Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	pH, Cl, TRC	8260 w/ 1,4 Dioxane	504 (EDB Only)	TSS	8270	8270-SIM	PCB_608	TPH_1664	TPhenol	TCN	HexCr	Total HgFeAgAsCdCrCuNiPbSbSeZn	Sample Specific Comments	TOTAL # BOTTLES
10334-01	Garage Sump	5/14/14	2:00	EFF	MB	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒		23
																		Trip	3
																		Temp	1
Container Type						P	V	V	P	A	A	A	A	A	P	P	P		
Preservative						A	B	H	A	H	H	H	B	D	E	A	C		

Run Trip Blank for 8260 & 504 PR, 5/21

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	5/14/14 2:00	[signature] AAL	5/14/14 1100
[signature]	5/14/14 1700	[signature]	5/14/14 1700

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

FORM NO: 01-01(I) (rev. 5-JAN-12)

Serial_No:05221410:53

CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL — World Class Chemistry

Date Rec'd in Lab: 5/14/14

ALPHA Job #: L1410334

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

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

Project Information

Project Name: Fan Pier Parcels F

Project Location: Boston, MA

Project #: 4426.9.FN

Project Manager: BED

ALPHA Quote #:

Client Information

Client: McPhial Associates, LLC

Address: 2269 Massachusetts Avenue

Cambridge, MA 02140

Phone: 617-868-1420

Fax: 617-868-1423

Email: bdowning@mcphailgeo.com

☐ These samples have been Previously analyzed by Alpha

Turn-Around Time

☒ Standard ☐ Rush (ONLY IF PRE-APPROVED)

Due Date: 5/20/14 Time:

Report Information Data Deliverables

☐ FAX ☐ EMAIL

☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program	Criteria
EPA NPDES RGP	

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?

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

Other Project Specific Requirements/Comments/Detection Limits:

ANALYSIS

SAMPLE HANDLING: *Filtration* ☐ Done ☐ Not Needed ☐ Lab to do; *Preservation* ☐ Lab to do; *(Please specify below)*

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	pH, Cl, TRC	8260 w/ 1,4 Dioxane	504 (EDB Only)	TSS	8270	8270-SIM	PCB_608	TPH_1664	TPhenol	TCN	HexCr	Total HgFeAgAsCdCrCuNiPbSbSeZn	Sample Specific Comments	TOTAL # BOTTLES
10334 01	Garage Sump	5/14/14	2:00	EFF	MG	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒		23
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Trip	3
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Temp	1
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
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						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		

Container Type	P	V	V	P	A	A	A	A	A	P	P	P
Preservative	A	B	H	A	H	H	H	B	D	E	A	C

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	5/14/14 2:00	[signature] AAL	5/14/14 1600
[signature]	5/14/14 1700	[signature]	5/14/14 1700

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

FORM NO: 01-01(I) (rev. 5-JAN-12)

McPHAIL ASSOCIATES, LLC

APPENDIX D

AREAS OF CRITICAL CONCERN,
ENDANGERED AND THREATENED SPECIES

The One Marina Park Drive building is located south of Boston's Inner Harbor within the South Boston Seaport District. Based on a review of the Massachusetts Geographic Information Systems DEP Phase 1 Site Assessment Map, there are no drinking water supplies, no Areas of Critical Environmental Concern, no Sole Source Aquifers, no fish habitats, and no habitats of Species of Special Concern or Threatened or Endangered Species at or within 500-feet of the subject site. No Protected Open Space is indicated within 500-feet of the subject property. Wetlands and a 100-year flood zone are indicated the seawall to the east of the property.

There are no surface water bodies located within the site boundaries however, Boston's Inner Harbor is located approximately 300 feet east of the subject property. In addition, Fort Point Channel is located on the opposite side of the Federal Courthouse, approximately 1,000 feet to the west of the subject property.

A review of the federal listing of threatened and endangered species published by the U.S. Fish and Wildlife Service identified no threatened and/or endangered species or critical habitats at or in the vicinity of the discharge location and/or discharge outfall. In addition, a review of the Massachusetts Division of Fisheries and Wildlife on-line database identified no threatened or endangered species at the point of discharge and/or the discharge outfall.

Based upon the above, the site is considered criterion A pursuant to Appendix VII of the RGP.

McPHAIL ASSOCIATES, LLC

APPENDIX E

NATIONAL REGISTER OF HISTORIC PLACES

The National Register of Historic Places on-line database was reviewed for listings located within the immediate vicinity of the subject site in Boston, Massachusetts. A review of the most recent National Register of Historical Places for Suffolk County, Massachusetts did not identify records or addresses of Historic Places that exist in the immediate vicinity of the subject site and/or outfall location. The nearest National Historic Place to the subject site is the Congress Street Fire Station which is located approximately 0.25 miles to the southwest of the subject site. It is not anticipated that dewatering activities at the subject site will affect the Congress Street Fire Station National Historic Place.

Based upon the above, the site is considered criterion 2 pursuant to Appendix IV of the RGP.

McPHAIL ASSOCIATES, LLC

APPENDIX F

Best Management Practice Plan

A Notice of Intent for a Remediation General Permit (RGP) under the National Pollutant Discharge Elimination System (NPDES) has been submitted to the US Environmental Protection Agency (EPA) for the discharge of groundwater from the foundation drainage system in the One Marina Park Drive building at Fan Pier Parcel F located in Boston, Massachusetts. This Best Management Practices Plan (BMPP) has been prepared as an Appendix to the RGP and will be posted at the site during the time period that discharge is occurring at the site.

Water Treatment and Management

Groundwater is anticipated to be collected in an underslab foundation drainage system and routed to a sump pit located within the lowest level of the One Marina Park Drive building. The collected groundwater will then flow through any necessary treatment systems and discharge into a storm drain line located along Marina Park Drive to the east of the site. The treated water will flow through the storm drains until discharging in Boston's Inner Harbor. Dewatering effluent treatment may consist of equalization tanks, bag filters, and resin media vessels, as required.

Discharge Monitoring and Compliance

Monthly sampling and testing will be conducted at the influent to the system and the treated effluent as required by the RGP.

Monitoring will include checking the condition of the treatment system, assessing the need for treatment system adjustments based on monitoring data, and observing and recording daily flow rates and discharge quantities.

The total monthly flow will be monitored by checking and documenting the flow through the flow meter to be installed on the system. Flow will be maintained below the "system design flow" by regularly monitoring flow and adjusting the amount of construction dewatering as needed.

Monthly monitoring reports will be compiled and maintained at the site.

McPHAIL ASSOCIATES, LLC

System Maintenance

A number of methods will be used to minimize the potential for violations for the term of this permit. Scheduled regular maintenance of the treatment system will be conducted to verify proper operation. Regular maintenance will include checking the condition of the treatment system equipment such as the equalization tanks, bag filters, filters, hoses, pumps, and flow meters. Equipment will be monitored regularly for potential issues or unscheduled maintenance requirements.

Employees who have direct or indirect responsibility for ensuring compliance with the RGP will be trained by the Contractor.

Miscellaneous Items

No adverse affects on designated uses of surrounding surface water bodies is anticipated. The nearest surface water body is Boston Harbor which is located adjacent to the north and east of the subject site. Groundwater collected in the foundation drainage system will be treated prior to being discharged from the site.

Management of Treatment System Materials

Collected groundwater will be pumped directly to the treatment system from the sump pit to minimize handling. The Contractor will establish staging areas for equipment or materials storage that may be possible sources of pollution that will be located away from any dewatering activities, to the extent practicable.

Sediment from the equalization tank used in the treatment system will be characterized and removed from the site to an appropriate receiving facility, in accordance with applicable laws and regulations. Bag filters and resin media vessels will be disposed of as necessary.