McPHAIL ASSOCIATES, INC

Geotechnical Engineers

NOTICE OF INTENT FOR DISCHARGE UNDER MASSACHUSETTS REMEDIAL GENERAL PERMIT MAG910000

455-475 GENEVA AVENUE

DORCHESTER MASSACHUSETTS

to

U.S. Environmental Protection Agency
and
Massachusetts Department of
Environmental Protection

March 18, 2011

Project No. 4762

McPHAIL ASSOCIATES, INC

Geotechnical Engineers

March 18, 2011

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

Massachusetts Department of Environmental Protection
Division of Watershed Management
627 Main Street
Worcester, MA 01608

Attention: Mr. Robert D. Kubit

Reference: 455-475 Geneva Avenue; Boston, Massachusetts
Notice of Intent for Construction Dewatering Discharge Under Massachusetts Remedial General Discharge MAG910000

Ladies and Gentlemen:

On behalf of Viet-Aid, Inc. McPhail Associates, Inc. has prepared the attached Notice of Intent for coverage under the Massachusetts Remedial General Permit MAG910000 (RGP) for the temporary discharge of groundwater into the Neposet River via a storm drain system during construction at the above referenced site. Refer to **Figure 1** entitled Project Location Plan for the general site locus.

These services were performed and this permit application was prepared with the authorization of Viet-Aid, Inc. These services are subject to the limitations contained in **Attachment A**.

Fronting onto Bloomfield Street to the northwest, the subject site is bounded by Geneva Avenue to the northeast, Tonawanda Street to the southeast, and residential buildings to the southwest. The subject site is situated in the Dorchester section of Boston, Massachusetts in an area that is generally occupied by residential properties. The subject site consists of a 19,984 square-foot parcel of land which is currently undergoing redevelopment. The limits of the subject site are shown on **Figure 2**, which is based on a plan entitled "Existing Conditions Plan of Land" dated April 7, 2010 and prepared by Feldman Professional Land Surveyors.

The site is listed with the Massachusetts Department of Environmental Protection (MA DEP) under Release Tracking Number (RTN) 3-29662 as a result of a release of 2-methylnaphthalene to soil. In summary, during a subsurface investigation to pre-characterize site soil for off-site disposal, reportable concentrations of 2-methylnaphthalene were detected in fill material at the eastern portion of the subject site. The impacted soil was encountered at depths ranging from approximately 6 feet to 10 feet below ground surface. The analysis of groundwater obtained from monitoring wells at the site did not detect reportable concentrations of petroleum hydrocarbons or constituents. The excavation, management, and off-site disposal of the impacted soil is being performed under a Release Abatement Measure (RAM) Plan.

2269 Massachusetts Avenue
Cambridge, Massachusetts 02140
617 / 868-1420
617 / 868-1423 (Fax)

The proposed scope of development is understood to consist of a 4-story wood-framed residential building containing twenty-seven (27) residential units with a basement below the southeastern portion of the building. The building is planned to occupy an approximate 9,174 square foot plan area and the basement will occupy an approximate 2,896 square foot plan area. The proposed basement floor elevation is understood to be located 8 feet below the first floor level. The foundation support for the proposed structure will be provided by a conventional spread footing foundation system bearing directly on the natural deposit glacial till or on structural fill placed over the natural glacial till.

Based upon the groundwater levels observed within explorations completed at the site, it is anticipated that dewatering will be required for construction of the proposed building foundation and basement. In addition, rainwater is anticipated to accumulate within localized trenches after periods of heavy precipitation.

A sedimentation settling tank and bag filter will be required to settle and filter particulate matter out of the water to meet allowable total suspended solids (TSS) discharge limits established by the US EPA and Massachusetts DEP prior to discharge. Specifically, a 5,000-gallon capacity settling tank and 5 micron bag filter in series will be incorporated into the discharge system in order to meet allowable discharge limits for TSS established by the RGP and also to control levels of total metals in the discharge. It is estimated that continuous and intermittent groundwater discharge required during the foundation construction will be on the order of 50 to 70 gallons per minute (gpm). This estimate of discharge does not include surface runoff which will be removed from the excavation during the limited duration of a rain storm and shortly thereafter. A schematic of the treatment system is shown on **Figure 3**.

A review of plans of the City of Boston existing sewer and storm drain systems indicates that the area surrounding the subject site is serviced by a dedicated storm drain located beneath Bloomfield Street which bounds the northeastern side of the site. Specifically, a 12-inch diameter dedicated storm drain located beneath Bloomfield Street flows east connecting to a 54-inch storm drain located beneath Geneva Avenue. The Geneva Avenue storm drain runs from southeast to northwest eventually discharging to the mouth of the Neponset River, a Class SB water body. The location of the relevant catch basin with relation to the site is indicated on **Figure 2**. The location of discharge into the Neponset River is shown in a plan provided by the Boston Water and Sewer Commission which is included as **Figures 4**.

In conclusion, it is our opinion that groundwater at the site is acceptable for discharge into the storm drain system and ultimately into the Neponset River 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, INC

Geotechnical Engineers

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, INC.

William J. Burns

Peter J. DeChaves, L.S.P.
Enclosures

F:\WP5\REPORTS\4762-DGP.wpd

WJB/pjd

FIGURE 1

McPHAIL ASSOCIATES, INC.
Geotechnical Engineers
2269 Massachusetts Avenue
Cambridge, MA 02140
617/868-1420
617/868-1423 (Fax)

N

SCALE 1:25,000

PROJECT LOCATION PLAN

455-475 GENEVA AVENUE

DORCHESTER MASSACHUSETTS

FIGURE 2

BLOOMFIELD (PUBLIC ~ 40' WIDE) STREET

(L-2854)

APPROXIMATE DISCHARGE LOCATION

GENEVA (PUBLIC ~ 50' WIDE) AVENUE

CHARLES STREET

(L-2728)

TONAWANDA (PUBLIC ~ 50' WIDE) STREET

(L-2852)

NORTH

LEGEND

— APPROXIMATE LOCATION OF BORINGS PERFORMED BY CARR-DEE CORP. DURING NOVEMBER 2007 FOR McPHAIL ASSOCIATES, INC.

(OW) — INDICATES OBSERVATION WELL INSTALLED WITHIN COMPLETED BORING

— APPROXIMATE LOCATION OF TEST PITS PERFORMED BY LINCOLN TREE AND LANDSCAPE DURING AUGUST 1999 FOR McPHAIL ASSOCIATES, INC.

— APPROXIMATE LOCATION OF TEST PIT PERFORMED BY FEENEY BROTHERS CONSTRUCTION ON APRIL 9, 2010 FOR McPHAIL ASSOCIATES, INC.

— DIRECTION OF FLOW

REFERENCE: THIS PLAN WAS PREPARED FROM A 20-SCALE DRAWING ENTITLED "EXISTING CONDITIONS PLAN OF LAND" DATED APRIL 7, 2010 BY FELDMAN PROFESSIONAL LAND SURVEYORS

B-1 (OW)

B-2 (OW)

B-3

TP-1

TP-2

TP-3

TP-4

TP-5

TP-6

TP-7

TP-8

TP-9

TP-10

TP-11

TP-11A

TP-101

TP-102

TP-103

TP-104

TP-105

TP-106

TP-107

APPROXIMATE LIMITS OF SUBJECT SITE

AREA = 19,985 S.F. "VACANT"

LOT 1

LOT 2

LOT J

LOT K

LOT L

LOT M

LOT O

N/F NGUYEN BOOK 34000 PAGE 010

N/F ANIBAL C. TOLENTINO MARIA SILVEIRA TOLENTINO BOOK 10802 PAGE 224

L.C.C. 11637A

L.C.C. 6130B

GRAPHIC SCALE

30 0 30 60

FILE NAME: 4762-E02_RGP

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455-475 GENEVA AVENUE
DORCHESTER MASSACHUSETTS

SUBSURFACE EXPLORATION PLAN

FOR

VIET - AID

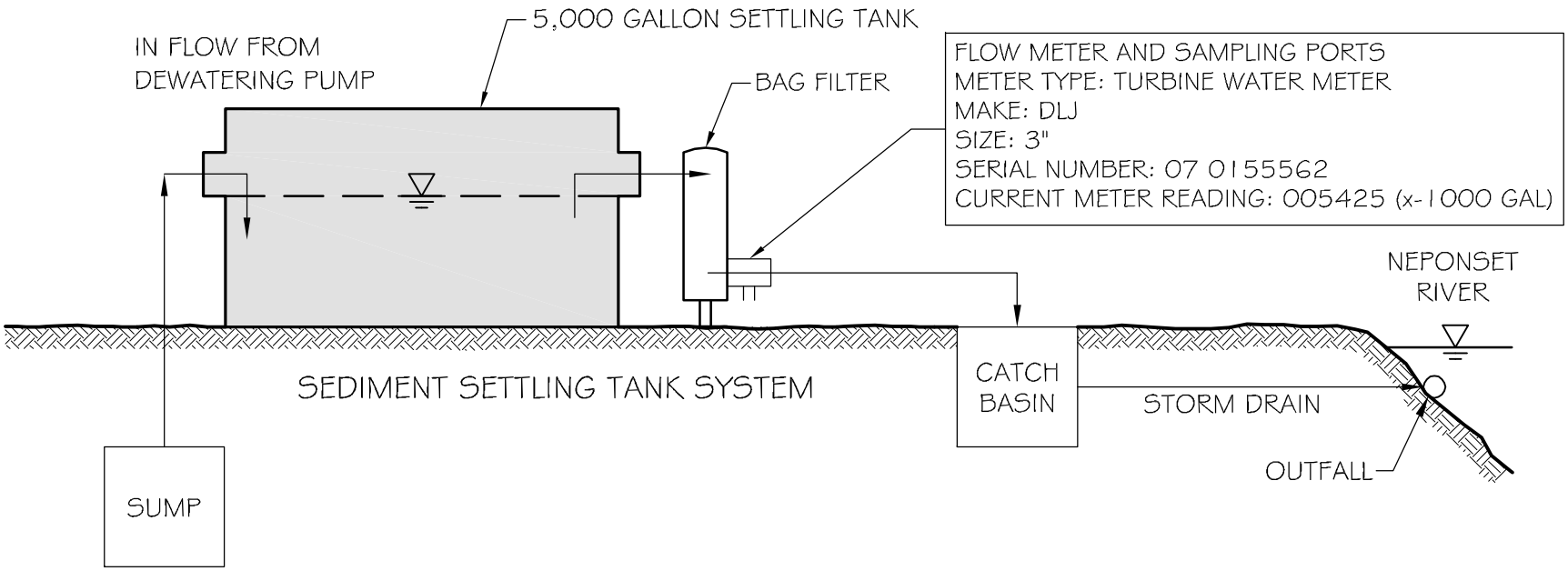
BY

McPHAIL ASSOCIATES, INC.
CONSULTING GEOTECHNICAL ENGINEERS

Date: MARCH 2011	Dwn: I.J.M.	Chkd: W.J.B.	Scale: 1" = 30'
Project No: 4762			

FILE NAME: 4762-E03

FIGURE 3



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455-475 GENEVA AVENUE

BOSTON MASSACHUSETTS

SCHEMATIC OF WATER FLOW

FOR

VIET-AID, INC.

BY

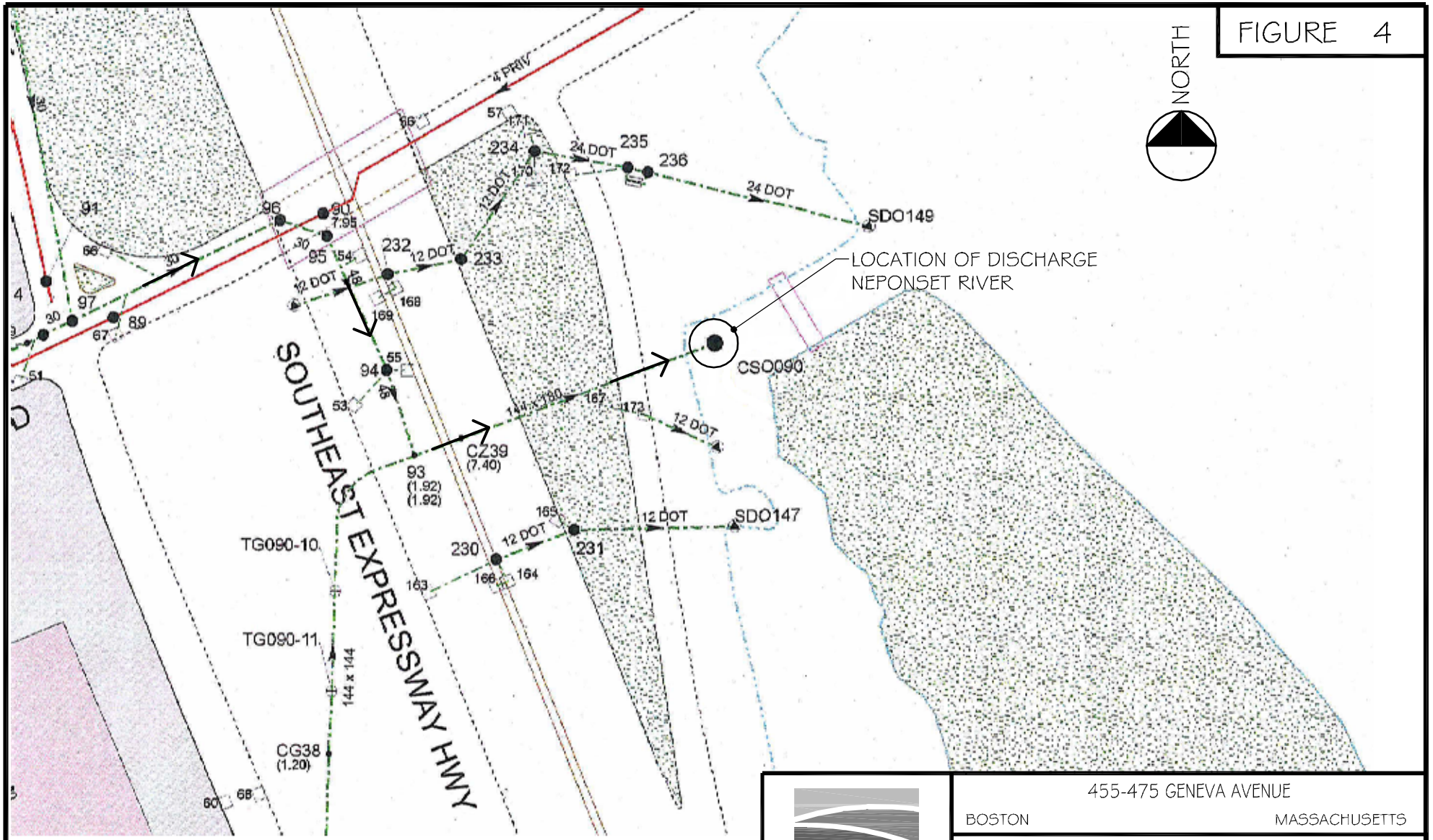
McPHAIL ASSOCIATES, INC.

CONSULTING GEOTECHNICAL ENGINEERS

Date: MARCH 2011	Dwn: M.B.S.	Chkd: W.J.B.	Scale: N.T.S.
Project No: 4762			

FILE NAME: 4762-E04

FIGURE 4



LEGEND

← — INDICATES DIRECTION OF FLOW

REFERENCE: CITY OF CAMBRIDGE ON-LINE SEWER AND WATER ATLAS DATABASE.

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455-475 GENEVA AVENUE

BOSTON MASSACHUSETTS

STORM DRAIN DISCHARGE FLOW PLAN

FOR

VIET-AID, INC.

BY

McPHAIL ASSOCIATES, INC.

CONSULTING GEOTECHNICAL ENGINEERS

Date: MARCH 2011	Dwn: M.B.S.	Chkd: W.J.B.	Scale: 1" = 100'
Project No: 4762			

McPHAIL ASSOCIATES, INC

Geotechnical Engineers

ATTACHMENT A

LIMITATIONS

The purpose of this report is to present the results of testing of groundwater samples obtained from a monitoring well on the property located at 455-475 Geneva Avenue in the Dorchester section of Boston, Massachusetts, in support of an application for approval of construction site dewatering discharge into surface waters of the Commonwealth of Massachusetts under 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 widely spaced subsurface explorations become evident in the future, it will 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 chemical 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.

Chemical 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 chemical 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 Viet Aid, Inc. This report and the findings contained herein shall not, in whole or in part, be disseminated or conveyed to any other party nor used in whole or in part by any other party without prior written consent of McPhail Associates, Inc.

McPHAIL ASSOCIATES, INC

Geotechnical Engineers

APPENDIX B

Notice of Intent Transmittal Form

BWSC Dewatering Permit 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**: Bloomfield Gardens		**Facility/site** mailing address:		
Location of **facility/site**: longitude: -71.065466 latitude: 42.299819	Facility SIC code(s):	Street: 455-475 Geneva Avenue		
b) Name of **facility/site owner:** Viet-Aid, Inc.		Town: Dorchester		
Email address of facility/site owner: my@vietaid.org		State: Massachusetts	Zip: 02112	County: Suffolk
Telephone no. of facility/site **owner**: 617-822-3717				
Fax no. of facility/site **owner**:		**Owner** is (check one): 1. Federal ○ 2. State/Tribal ○ 3. Private ◉ 4. Other ○ if so, describe:		
Address of **owner** (if different from site):				
Street: 42 Charles Street, Suite E				
Town: Dorchester	State: MA	Zip: 02112	County: Suffolk	
c) Legal name of **operator**: Metro Equipment Corporation	**Operator** telephone no: 617-524-0414			
	Operator fax no.: 617-524-0464	**Operator** email: rsullivan@metroequipmentcorp		
Operator contact name and title: Richard Sullivan, Project Manager				
Address of **operator** (if different from owner):	Street: 27 Dixwell Street			
Town: Roxbury	State: MA	Zip: 02119	County: Suffolk	

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 ◉, if Y, number:
2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge?
Y ○ N ◉, if Y, date and tracking #:
3. Is the discharge a "new discharge" as defined by 40 CFR 122.2? Y ○ N ◉
4. For sites in Massachusetts, is the discharge covered under the Massachusetts Contingency Plan (MCP) and exempt from state permitting? Y ◉ N ○

e) Is site/facility subject to any State permitting, license, or other action which is causing the generation of discharge? Y ○ N ◉
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 ◉,
if Y, number:
2. Final Dewatering General Permit? Y ○ N ◉,
if Y, number:
3. EPA Construction General Permit? Y ○ N ◉,
if Y, number:
4. Individual NPDES permit? Y ○ N ◉,
if Y, number:
5. any other water quality related individual or general permit? Y ○ N ◉, if Y, number:

g) Is the site/facility located within or does it discharge to an Area of Critical Environmental Concern (ACEC)? Y ◉ N ○

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:

Temporary Construction Dewatering of Groundwater during excavation for building foundations

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 0.156 Is maximum flow a **design value**? Y ○ N ◉
Average flow (include units) 0.109 ft3/s Is average flow a design value or estimate? estimate

3) Latitude and longitude of each discharge within 100 feet:
pt.1: lat 42.29 long -71.065 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 03/21/2011 end 11/01/2011

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). See Attached

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			12000			
2. Total Residual Chlorine (TRC)		☒	☐		grab	30 2540D					
3. Total Petroleum Hydrocarbons (TPH)		☒	☐	1	grab	1664A	4000 ug/l	ND			
4. Cyanide (CN)	57125	☒	☐								
5. Benzene (B)	71432	☒	☐	1	grab	GC/MS 624	1 ug/l	ND			
6. Toluene (T)	108883	☒	☐	1	grab	GC/MS 624	1 ug/l	ND			
7. Ethylbenzene (E)	100414	☒	☐	1	grab	GC/MS 624	1 ug/l	ND			
8. (m,p,o) Xylenes (X)	108883; 106423; 95476; 1330207	☐	☒	1	grab	GC/MS 624	1 ug/l	1.2	0.00046		
9. Total BTEX [2]	n/a	☐	☒	1	grab	GC/MS 624	1 ug/l	1.2			
10. Ethylene Dibromide (EDB) (1,2-Dibromoethane) [3]	106934	☒	☐	1	grab	GC 504.1	0.01 ug/l	ND			
11. Methyl-tert-Butyl Ether (MtBE)	1634044	☒	☐	1	grab	GC/MS 624	20/ug/l	ND			
12. tert-Butyl Alcohol (TBA) (Tertiary-Butanol)	75650	☒	☐	1	grab	GC/MS 624	100 ug/l	ND			

***** 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	GC/MS 624	20 ug/l	ND			
14. Naphthalene	91203	☐	☒	1	grab	GC/MS 624	5 ug/l	ND			
15. Carbon Tetrachloride	56235	☒	☐	1	grab	GC/MS 624	1 ug/l	ND			
16. 1,2 Dichlorobenzene (o-DCB)	95501	☒	☐	1	grab	GC/MS 624	5 ug/l	ND			
17. 1,3 Dichlorobenzene (m-DCB)	541731	☒	☐	1	grab	GC/MS 624	5 ug/l	ND			
18. 1,4 Dichlorobenzene (p-DCB)	106467	☒	☐	1	grab	GC/MS 624	5 ug/l	ND			
18a. Total dichlorobenzene		☒	☐	1	grab	GC/MS 624	5 ug/l	ND			
19. 1,1 Dichloroethane (DCA)	75343	☒	☐	1	grab	GC/MS 624	1.5 ug/l	ND			
20. 1,2 Dichloroethane (DCA)	107062	☒	☐	1	grab	GC/MS 624	1.5 ug/l	ND			
21. 1,1 Dichloroethene (DCE)	75354	☒	☐	1	grab	GC/MS 624	1.5 ug/l	ND			
22. cis-1,2 Dichloroethene (DCE)	156592	☒	☐	1	grab	GC/MS 624	1 ug/l	ND			
23. Methylene Chloride	75092	☒	☐	1	grab	GC/MS 624	5 ug/l	ND			
24. Tetrachloroethene (PCE)	127184	☒	☐	1	grab	GC/MS 624	1.5 ug/l	ND			
25. 1,1,1 Trichloro-ethane (TCA)	71556	☒	☐	1	grab	GC/MS 624	1 ug/l	ND			
26. 1,1,2 Trichloro-ethane (TCA)	79005	☒	☐	1	grab	GC/MS 624	1.5 ug/l	ND			
27. Trichloroethene (TCE)	79016	☒	☐	1	grab	GC/MS 624	1 ug/l	ND			

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	GC/MS 624	2 ug/l	ND			
29. Acetone	67641	☐	☒	1	grab	GC/MS 624		50	0.019		
30. 1,4 Dioxane	123911	☒	☐	1	grab	GC/MS 624	2000 ug/l	ND			
31. Total Phenols	108952	☐	☒	1	grab	420.1	150 ug/l	ND			
32. Pentachlorophenol (PCP)	87865	☒	☐	1	grab	GC/MS 8270C	4 ug/l	ND			
33. Total Phthalates (Phthalate esters) [4]		☒	☐	1	grab	GC/MS 8270C		ND			
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	117817	☒	☐	1	grab	GC/MS 8270C	5 ug/l	ND			
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)		☒	☐	1	grab	GC/MS 8270C		ND			
a. Benzo(a) Anthracene	56553	☒	☐	1	grab	GC/MS 8270C	1 ug/l	ND			
b. Benzo(a) Pyrene	50328	☒	☐	1	grab	GC/MS 8270C	1 ug/l	ND			
c. Benzo(b)Fluoranthene	205992	☒	☐	1	grab	GC/MS 8270C	1 ug/l	ND			
d. Benzo(k)Fluoranthene	207089	☒	☐	1	grab	GC/MS 8270C	1 ug/l	ND			
e. Chrysene	21801	☒	☐	1	grab	GC/MS 8270C	1 ug/l	ND			
f. Dibenzo(a,h)anthracene	53703	☒	☐	1	grab	GC/MS 8270C	1 ug/l	ND			
g. Indeno(1,2,3-cd) Pyrene	193395	☒	☐	1	grab	GC/MS 8270C	1 ug/l	ND			
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)		☒	☐	1	grab	GC/MS 8270C		17.4	.032		

[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	GC/MS 8270C		3.6	0.00665		
i. Acenaphthylene	208968	☐	☒	1	grab	GC/MS 8270C	1 ug/l	ND			
j. Anthracene	120127	☐	☒	1	grab	GC/MS 8270C	1 ug/l	ND			
k. Benzo(ghi) Perylene	191242	☐	☒	1	grab	GC/MS 8270C	1 ug/l	ND			
l. Fluoranthene	206440	☐	☒	1	grab	GC/MS 8270C	1 ug/l	ND			
m. Fluorene	86737	☐	☒	1	grab	GC/MS 8270C		4.6	0.0085		
n. Naphthalene	91203	☐	☒	1	grab	GC/MS 8270C		5.8	0.0107		
o. Phenanthrene	85018	☐	☒	1	grab	GC/MS 8270C		3.4	0.00629		
p. Pyrene	129000	☐	☒	1	grab	GC/MS 8270C	1 ug/l	ND			
37. Total Polychlorinated Biphenyls (PCBs)	85687; 84742; 117840; 84662; 131113; 117817.	☒	☐	1	grab	GC 608	0.25 ug/l	ND			
38. Chloride	16887006	☐	☒	1	grab	4500CL-E		180000	332.9		
39. Antimony	7440360	☐	☒	1	grab	6020		2.1	0.00388		
40. Arsenic	7440382	☐	☒	1	grab	6020		2.3	0.00425		
41. Cadmium	7440439	☒	☐	1	grab	6020	0.2 ug/l	ND			
42. Chromium III (trivalent)	16065831	☐	☒	1	grab	6020		0.5	0.00092		
43. Chromium VI (hexavalent)	18540299	☒	☐								
44. Copper	7440508	☐	☒	1	grab	6020		5.7	0.01054		
45. Lead	7439921	☐	☒	1	grab	6020		13.7	0.02533		
46. Mercury	7439976	☒	☐	1	grab	6020	0.2 ug/l	ND			
47. Nickel	7440020	☐	☒	1	grab	6020		2.5	0.00462		
48. Selenium	7782492	☐	☒	1	grab	6020		2	.00369		
49. Silver	7440224	☐	☒	1	grab	6020	0.4 ug/l	ND			
50. Zinc	7440666	☐	☒	1	grab	6020		23	.042538		
51. Iron	7439896	☐	☒	1	grab	6020		290	0.53634		
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)
1-methylnaphthalene		☐	☒	1	grab	GC/MS 8270C		34	0.06288		
2-methylnaphthalene		☐	☒	1	grab	GC/MS 8270C		20	0.03698		

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 and Lead
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: 0-5 Metal: Lead DF: 0-5 Metal: DF: Metal: DF: 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: Copper and Lead

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:

A 5,000 gallon fractation tank and bag filter in series. See attached figure.

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):			

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 50 gpm Maximum flow rate of treatment system 70 gpm
Design flow rate of treatment system 100 gpm

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

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:
See attached

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 not calculated 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)?
Priority Organics, Metals,
Is there a final TMDL? Y ⊙ N ○ If yes, for which pollutant(s)? Pathogens/Bacteria

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.

See attached report

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:	Bloomfield Gardens
Operator signature:	
Printed Name &Title:	Richard Sullivan
Date:	3/10/11

Boston Water and Sewer Commission
980 Harrison Avenue
Boston, MA 02119-2540

DEWATERING DISCHARGE PERMIT APPLICATION

OWNER / AUTHORIZED APPLICANT PROVIDE INFORMATION HERE:

Company Name: Viet-Aid, Inc. Address: 42 Charles Street, Suite E, Dorchester

Phone number: 617-822-3717 Fax number: _____

Contact person name: My Lam Title: Project Manager

Cell number: _____ Email address: my@vietaid.org

Permit Request (check one): ☒ New Application ☐ Permit Extension ☐ Other (Specify):_____

Owner's Information (if different from above):

Owner of property being dewatered: _____

Owner's mailing address: _____ Phone number: _____

Location of Discharge & Proposed Treatment System(s):

Street number and name: 455-475 Geneva Avenue Neighborhood Dorchester

Discharge is to a: ☐ Sanitary Sewer ☐ Combined Sewer ☒ Storm Drain ☐ Other (specify):_____

Describe Proposed Pre-Treatment System(s): 5,000-gallon settling tank and bag filter

BWSC Outfall No. CS0090 Receiving Waters Neponset River

Temporary Discharges (Provide Anticipated Dates of Discharge): From 03/21/2011 To 11/01/2011

☐ Groundwater Remediation	☐ Tank Removal/Installation	☒ Foundation Excavation
☐ Utility/Manhole Pumping	☐ Test Pipe	☒ Trench Excavation
☐ Accumulated Surface Water	☐ Hydrogeologic Testing	☐ Other _____

Permanent Discharges

☐ Foundation Drainage	☐ Crawl Space/Footing Drain
☐ Accumulated Surface Water	☐ Non-contact/Uncontaminated Cooling
☐ Non-contact/Uncontaminated Process	☐ Other; _____

---

1. Attach a Site Plan showing the source of the discharge and the location of the point of discharge (i.e. the sewer pipe or catch basin). Include meter type, meter number, size, make and start reading. Note. All discharges to the Commission's sewer system will be assessed current sewer charges.
2. If discharging to a sanitary or combined sewer, attach a copy of MWRA's Sewer Use Discharge permit or application.
3. If discharging to a separate storm drain, attach a copy of EPA's NPDES Permit or NOI application, or NPDES Permit exclusion letter for the discharge, as well as other relevant information.
4. Dewatering Drainage Permit will be denied or revoked if applicant fails to obtain the necessary permits from MWRA or EPA.

Submit Completed Application to: Boston Water and Sewer Commission
Engineering Customer Services
980 Harrison Avenue, Boston, MA 02119
Attn: Francis M. McLaughlin, Manager Engineering Customer Services
E-mail: MclaughlinF@bwsc.org
Phone: 617-989-7208 Fax: 617-989-7716

BWSC Use Only: Date Received _____ Comments: _____

McPHAIL ASSOCIATES, INC

Geotechnical Engineers

APPENDIX C

RESULTS OF GROUNDWATER ANALYSIS

As part of a subsurface investigation performed in November 2007, McPhail Associates, Inc. installed observation well B-1 (OW) and B-2(OW) at the subject site. On November 21, 2007 a sample of groundwater was obtained from B-1(OW) and B-2(OW) and was submitted for laboratory analysis for the presence of volatile petroleum hydrocarbons (VPH) and volatile organic compounds (VOC). The location of the observation well is shown on **Figure 2** and the results of analysis are summarized in **Table 1**.

The analysis did not detect the presence of VPH or VOC at concentrations which exceeded the MCP RCGW-2 reporting thresholds.

On February 23, 2011, March 3, and 11, 2011, McPhail Associates, Inc. obtained a sample of groundwater within a storage tank at the subject site. The groundwater was pumped in the tank from foundations excavations at the site for temporary storage. The samples of the groundwater obtained from the tank was submitted to a certified laboratory and analyzed for the presence of compounds required under Category III of the EPA's Remediation General Permit (RGP) application for contaminated construction dewatering for urban fill sites and known contaminated sites. Specifically, the laboratory analysis included total suspended solids (TSS), total chloride, total petroleum hydrocarbons (TPH),volatile organic compounds (VOCs) including total benzene, toluene, ethylbenzene and xylenes (BTEX), poly-aromatic hydrocarbons (PAHs) and semi-volatile organic compounds (SVOCs) including total phenols and total phthalates, pesticides and PCBs, and total recoverable metals. In addition a sample was submitted to the laboratory for dissolved lead analysis

The results of the laboratory analysis are summarized in **Table 2**. The results of laboratory analysis indicate the following:

1. **TSS:** The analysis of two groundwater samples obtained from the storage tank indicated varying concentrations of Total suspended solids (TSS) ranging from not detcted in excess of the laboratory method detection limits to 12 milligrams per liter (mg/l). The limit established by the US EPA for discharge into surface water is 30 mg/l. However, it is likely that construction activities associated with the proposed site development will cause concentrations of TSS in the influent to fluctuate which will require mitigation. As a result, groundwater will be pre-treated by passing the water through one (1) 5,000 gallon sediment settling tank and a 5 micron bag filter prior to discharge in order to reduce the concentration of TSS in the effluent.

2. **VOCs:** With the exception of acetone and total xylenes, the analysis did not detect levels VOCs, in excess of the laboratory method detection limit. The results of the analysis indicated the presence of total xylenes and acetone at concentrations of 1.2 micrograms per liter (ug/l) and 50 ug/l, respectively. The detected level of total xylenes is below the RGP limit for total BTEX of 100 ug/l. The RGP permit has not established a limit for acetone.

3. **TPH:** Laboratory analysis of a groundwater sample obtained from the storage tank indicated no detectable level of TPH.

4. **PAHs and SVOCs:** The laboratory reported no detectable levels of Group I PAH, pentachlorophenol, total phenols, no bis(2-ethylhexyl)phthalate and total phthalates. However, Group II PAHs; acenaphthene, fluorene, naphthalene, and phenanthrene were detected at concentrations of 3.6 ug/l, 4.6 ug/l, 5.8 ug/l, and 3.4 ug/l, respectively. In summary, the total detected level of 17.4 ug/l for the Group II PAH is below the RGP limits for discharge into salt water.

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

6. **Total Chloride:** Total chloride was detected in a tested groundwater sample obtained from the storage tank at a concentration of 18000 ug/l.

7. **Total Metals:** The laboratory reported no detectable levels of cadmium, mercury, and silver. Levels of antimony, arsenic, chromium, copper, lead, nickel, selenium, zinc and iron were reported at levels of 2.1ug/l, 2.3 ug/l, 0.5 ug/l, 5.7 ug/l, 13.7 ug/l, 2.5 ug/l, 2 ug/l, 23 ug/l and 290 ug/l, respectively. With the exception of copper and lead, the detected levels of metals were below the EPA effluent limits for discharge to a saltwater body.

The detected levels of copper and lead exceed the EPA effluent limit of 3.7 and 8.5 ug/l, respectively, for discharge into a saltwater body. To further assess the presence of lead in the groundwater, an additional groundwater sample was obtained which was passed through an 8.5 micron filter and re-analyzed for the presence of dissolved lead. The subsequent analytical results indicated that the concentration of lead was significantly reduced to 0.5 ug/l which is below the RGP limit. Given the effectiveness of the filtration and based upon the presence of a silt present in the glacial till which underlies the subject site, lead and copper are considered attributable to fine silt particles suspended in the sample. In order to reduce the levels of fine silt particles in the effluent and therefore reducing levels of lead and copper to below the RGP limit, groundwater will be passed through a 5 micron filter prior to off-site discharge.

TABLE 1
ANALYTICAL RESULTS-GROUNDWATER

455-475 Geneva Avenue;
Dorchester, Massachusetts
Job # 4762

LOCATION		**B-1 (OW)**	**B-2 (OW)**
SAMPLING DATE		**21-NOV-07**	**21-NOV-07**
LAB SAMPLE ID	**GW-2**	**L0717453-01**	**L0717453-02**
Volatile Organic Compounds (ug/l)			
1,2,4-Trimethylbenzene		ND	**40**
Ethylbenzene	**30000**	ND	**1.5**
Isopropylbenzene		ND	**5.1**
n-Butylbenzene		ND	**5.8**
n-Propylbenzene		ND	**6.2**
Naphthalene	**1000**	ND	**23**
p-Isopropyltoluene		ND	**3**
p/m-Xylene	**9000**	ND	**1.8**
sec-Butylbenzene		ND	**7.5**
Toluene	**8000**	**6.8**	**29**
Volatile Petroleum Hydrocarbons (ug/l)			
C5-C8 Aliphatics	**1000**	ND	ND
C9-C10 Aromatics	**5000**	ND	**610**
C9-C12 Aliphatics	**1000**	ND	**210**

ND - Not Detected
Bold - Detected below GW-2 Standard

TABLE 2
RGP Permit Application Groudwater Chemical Analysis

455-475 Geneva Avenue
Boston, Massachusetts
Project No. 4762

Sample ID		RGP Limits	Units	TANK-1	TANK-1 DISCHARGE	FRAC TANK
Date Sampled				2/23/2011	3/3/2011	3/11/2011
Lab ID				L1102398-01	L1102805-01	L1103263
1	Total Suspended Solids	30	mg/L			12
1	Total Chloride	7.5	ug/L	ND [20]	180000	
2	TPH	5.0	mg/L	ND [4]		
3	Benzene	5.0	ug/L	ND [1]		
4	Toluene	Total BTEX	ug/L	ND [1]		
5	Ethylbenzene	Total BTEX	ug/L	ND [1]		
6	Total Xylenes	Total BTEX	ug/L	1.2		
7	**Total BTEX**	100.0	ug/L	1.2		
8	Ethylene Dibromide (1,2-Dibromoethane)	0.05	ug/L	ND [0.01]		
9	MTBE	70.0	ug/L	ND [20]		
10	tert-Butyl Alcohol	Monitor only	ug/L	ND [100]		
11	tert-Amyl Methyl Ether	Monitor only	ug/L	ND [20]		
12	Naphthalene	20	ug/L	ND [0.2]		
13	Carbon Tetrachloride	4.4	ug/L	ND [1]		
14	1,4 Dichlorobenzene	5.0	ug/L	ND [5]		
15	1,2 Dichlorobenzene	600	ug/L	ND [5]		
16	1,3 Dichlorobenzene	320	ug/L	ND [5]		
17	1,1 Dichloroethane	70	ug/L	ND [1.5]		
18	1,2 Dichloroethane	5.0	ug/L	ND [1.5]		
19	1,1 Dichloroethylene	3.2	ug/L	ND [1]		
20	cis-1,2 Dichloroethyelene	70	ug/L	ND [1]		
21	Dichloromethane (Methylene Chloride)	4.6	ug/L	ND [5]		
22	Tetrachloroethylene	5.0	ug/L	ND [1.5]		
23	1,1,1 Trichloroethane	300	ug/L	ND [2]		
24	1,1,2 Trichloroethane	5.0	ug/L	ND [1.5]		
25	Trichloroethylene	5.0	ug/L	ND [1]		
26	Vinyl Chloride	2.0	ug/L	ND [2]		
27	Acetone	Monitor only	ug/L	50		
28	1,4 Dioxane	Monitor only	ug/L	ND [2,000]		
29	total Phenols	300	ug/L		ND [150]	
30	Pentachlorophenol	1.0	ug/L		ND [4]	
31	Total Phthalates (phthalate esthers)	3.0	ug/L		ND	
32	Bis (2-Ethylhexyl) Phthalate	6.0	ug/L		ND [5]	
33	**Total Group 1 PAH**	10	ug/L		ND	
a	Benzo(a)anthracene	0.0038	ug/L		ND [1]	
b	Benzo(a)pyrene	0.0038	ug/L		ND [1]	
c	Benzo(b)fluoranthene	0.0038	ug/L		ND [1]	
d	Benzo(k)fluoranthene	0.0038	ug/L		ND [1]	
e	Chrysene	0.0038	ug/L		ND [1]	
f	Dibenzo(a,h)anthracene	0.0038	ug/L		ND [1]	
g	Indeno (1,2,3-cd)pyrene	0.0038	ug/L		ND [1]	
36	**Total Group II PAH**	100	ug/L		17.4	
h	Acenaphthene	Total Group II PAH	ug/L		3.6	
i	Acenaphthylene	Total Group II PAH	ug/L		ND [1]	
j	Anthracene	Total Group II PAH	ug/L		ND [1]	
k	Benzo(ghi)perylene	Total Group II PAH	ug/L		ND [1]	
l	Fluoranthene	Total Group II PAH	ug/L		ND [1]	
m	Fluorene	Total Group II PAH	ug/L		4.6	
n	naphthalene	Total Group II PAH	ug/L		5.8	
o	Phenanthrene	Total Group II PAH	ug/L		3.4	
p	Pyrene	Total Group II PAH	ug/L		ND [1]	
37	**Total PCBs**	0.000064	ug/L		ND [0.5]	
	Total Recoverable Metal Limits	H= 50 mg/l CaCO3				
38	Antimony	5.6	ug/L	2.1		
39	Arsenic	36	ug/L	2.3		
40	Cadmium	8.9	ug/L	ND [0.2]		
41	Chromium Total	50.3	ug/L	0.5		
42	Copper	3.7	ug/L	5.7		
43	Lead	8.5	ug/L	13.7		
44	Dissolved Lead		ug/L			0.5
46	Mercury	1.1	ug/L	ND [0.2]		
47	Nickel	8.2	ug/L	2.5		
48	Selenium	71.0	ug/L	2		
49	Silver	2.2	ug/L	ND [0.4]		
50	Zinc	85.6	ug/L	23		
51	Iron	1000	ug/L	290		

ND = denotes none detected above laboratory method detection limits
Shaded areas indicated exceedance of RGP Limit

ALPHA ANALYTICAL

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com
MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LAO00065 NY:11148 NJ:MA935 Army:USACE

CERTIFICATE OF ANALYSIS

Client: McPhail Associates

Address: 2269 Massachusetts Avenue
Cambridge, MA 02140

Attn: Mr. Ambrose Donovan

Project Number: 4762

Laboratory Job Number: L1102398

Date Received: 23-FEB-2011

Date Reported: 28-FEB-2011

Delivery Method: Alpha

Site: BLOOMFIELD GARDENS

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L1102398-01	TANK-1	DORCESTER, MA

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

Authorized by: Elizabeth A. Simmons
Technical Representative

ALPHA ANALYTICAL
NARRATIVE REPORT

Laboratory Job Number: L1102398

Report Submission

This final report replaces the partial report issued February 25, 2011 and includes the results of all requested analyses.

The sample was received in accordance with the chain of custody and no significant deviations were encountered during preparation or analysis unless otherwise noted below.

Sample Receipt

All analyses performed were provided by the client.

Volatile Organics

L1102398-01: The pH of the sample was less than two. It should be noted that 2-Chloroethylvinyl ether breaks down under acidic conditions.

Metals

The WG456214-3 Laboratory Duplicate RPD, performed on L1102398-01, is above the acceptance criteria for Antimony (24%); however, the sample and duplicate results are less than five times the reporting limit. Therefore, the RPD is valid.

The WG456214-4 MS recoveries, performed on L1102398-01, are below the acceptance criteria for Chromium (79%) and Silver (79%). A post digestion spike was performed with acceptable recoveries of Chromium (99%) and Silver (95%).

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LAO00065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L1102398-01
TANK-1
Sample Matrix: WATER

Date Collected: 23-FEB-2011 14:15
Date Received : 23-FEB-2011
Date Reported : 28-FEB-2011

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 4-Amber,2-Plastic,4-Vial

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
General Chemistry - Westborough Lab								
TPH	ND	mg/l	4.00	74	1664A	0224 19:30	0225 13:00	JO
Total Metals - Westborough Lab								
Antimony, Total	0.0021	mg/l	0.0005	1	6020	0223 20:40	0225 13:40	RC
Arsenic, Total	0.0023	mg/l	0.0005	1	6020	0223 20:40	0225 13:40	RC
Cadmium, Total	ND	mg/l	0.0002	1	6020	0223 20:40	0225 13:40	RC
Chromium, Total	0.0005	mg/l	0.0005	1	6020	0223 20:40	0225 13:40	RC
Copper, Total	0.0057	mg/l	0.0005	1	6020	0223 20:40	0225 13:40	RC
Iron, Total	0.29	mg/l	0.05	19	200.7	0223 20:40	0224 12:13	MG
Lead, Total	0.0137	mg/l	0.0005	1	6020	0223 20:40	0225 13:40	RC
Mercury, Total	ND	mg/l	0.0002	3	245.1	0224 12:00	0225 10:33	DM
Nickel, Total	0.0025	mg/l	0.0005	1	6020	0223 20:40	0225 13:40	RC
Selenium, Total	0.002	mg/l	0.001	1	6020	0223 20:40	0225 13:40	RC
Silver, Total	ND	mg/l	0.0004	1	6020	0223 20:40	0225 13:40	RC
Zinc, Total	0.0230	mg/l	0.0050	1	6020	0223 20:40	0225 13:40	RC
Pesticides by GC - Westborough Lab				14	504.1	0225 09:00	0225 09:56	SS
1,2-Dibromoethane	ND	ug/l	0.010					
1,2-Dibromo-3-chloropropane	ND	ug/l	0.010					
Volatile Organics by GC/MS - Westborough Lab				5	624		0224 07:48	TT
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	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					

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L1102398-01
TANK-1

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by GC/MS - Westborough Lab cont'd				5	624		0224 07:48	TT
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	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					
1,4-Dichlorobenzene	ND	ug/l	5.0					
p/m-Xylene	ND	ug/l	2.0					
o-xylene	1.2	ug/l	1.0					
Xylene (Total)	ND	ug/l	2.0					
Styrene	ND	ug/l	1.0					
Acetone	50	ug/l	10					
Carbon disulfide	ND	ug/l	5.0					
2-Butanone	ND	ug/l	10					
Vinyl acetate	ND	ug/l	20.					
4-Methyl-2-pentanone	ND	ug/l	10.					
2-Hexanone	ND	ug/l	10.					
Acrolein	ND	ug/l	8.0					
Acrylonitrile	ND	ug/l	10.					
Methyl tert butyl ether	ND	ug/l	20.					
Dibromomethane	ND	ug/l	1.0					
1,4-Dioxane	ND	ug/l	2000					
Tert-Butyl Alcohol	ND	ug/l	100					
Tertiary-Amyl Methyl Ether	ND	ug/l	20.					
Surrogate(s)	Recovery		QC Criteria					
Pentafluorobenzene	96.0	%	80-120					
Fluorobenzene	102	%	80-120					
4-Bromofluorobenzene	105	%	80-120					

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L1102398

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
General Chemistry - Westborough Lab for sample(s) 01 (L1102398-01, WG456365-4)					
TPH	ND	ND	mg/l	NC	34
Total Metals - Westborough Lab for sample(s) 01 (L1102398-01, WG456214-3)					
Antimony, Total	0.0021	0.0016	mg/l	24	20
Arsenic, Total	0.0023	0.0023	mg/l	2	20
Cadmium, Total	ND	ND	mg/l	NC	20
Chromium, Total	0.0005	0.0005	mg/l	0	20
Copper, Total	0.0057	0.0057	mg/l	1	20
Lead, Total	0.0137	0.0139	mg/l	2	20
Nickel, Total	0.0025	0.0025	mg/l	3	20
Selenium, Total	0.002	0.002	mg/l	0	20
Silver, Total	ND	ND	mg/l	NC	20
Zinc, Total	0.0230	0.0212	mg/l	8	20
Total Metals - Westborough Lab for sample(s) 01 (L1102398-01, WG456213-3)					
Iron, Total	0.29	0.27	mg/l	7	20
Total Metals - Westborough Lab for sample(s) 01 (L1102420-01, WG456298-3)					
Mercury, Total	0.0003	0.0003	mg/l	3	20
Volatile Organics by GC/MS - Westborough Lab for sample(s) 01 (L1102269-02, WG455879-4)					
Benzene	ND	ND	ug/l	NC	30
Surrogate(s)	Recovery				QC Criteria
Pentafluorobenzene	95.0	90.0	%		80-120
Fluorobenzene	100	97.0	%		80-120
4-Bromofluorobenzene	110	106	%		80-120

ALPHA ANALYTICAL
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L1102398

Parameter	% Recovery	QC Criteria
General Chemistry - Westborough Lab LCS for sample(s) 01 (WG456365-1)		
TPH	90	64-132
Total Metals - Westborough Lab LCS for sample(s) 01 (WG456214-2)		
Antimony, Total	82	80-120
Arsenic, Total	84	80-120
Cadmium, Total	88	80-120
Chromium, Total	83	80-120
Copper, Total	87	80-120
Lead, Total	85	80-120
Nickel, Total	87	80-120
Selenium, Total	84	80-120
Silver, Total	82	80-120
Zinc, Total	86	80-120
Total Metals - Westborough Lab LCS for sample(s) 01 (WG456213-2)		
Iron, Total	100	85-115
Total Metals - Westborough Lab LCS for sample(s) 01 (WG456298-2)		
Mercury, Total	96	85-115
Pesticides by GC - Westborough Lab LCS for sample(s) 01 (WG456273-2)		
1,2-Dibromoethane	94	70-130
1,2-Dibromo-3-chloropropane	93	70-130
Volatile Organics by GC/MS - Westborough Lab LCS for sample(s) 01 (WG455879-5)		
Methylene chloride	89	1-221
1,1-Dichloroethane	120	59-155
Chloroform	114	51-138
Carbon tetrachloride	133	70-140
1,2-Dichloropropane	116	1-210
Dibromochloromethane	116	53-149
1,1,2-Trichloroethane	119	52-150
2-Chloroethylvinyl ether	104	1-305
Tetrachloroethene	133	64-148
Chlorobenzene	114	37-160
Trichlorofluoromethane	106	17-181
1,2-Dichloroethane	107	49-155
1,1,1-Trichloroethane	120	52-162
Bromodichloromethane	116	35-155
trans-1,3-Dichloropropene	112	17-183
cis-1,3-Dichloropropene	111	1-227
Bromoform	110	45-169
1,1,2,2-Tetrachloroethane	110	46-157
Benzene	117	37-151
Toluene	116	47-150
Ethylbenzene	121	37-162
Chloromethane	188	1-273
Bromomethane	112	1-242

ALPHA ANALYTICAL
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L1102398

Continued

Parameter	% Recovery	QC Criteria
Volatile Organics by GC/MS - Westborough Lab LCS for sample(s) 01 (WG455879-5)		
Vinyl chloride	80	1-251
Chloroethane	94	14-230
1,1-Dichloroethene	118	1-234
trans-1,2-Dichloroethene	131	54-156
cis-1,2-Dichloroethene	117	60-140
Trichloroethene	118	71-157
1,2-Dichlorobenzene	114	18-190
1,3-Dichlorobenzene	113	59-156
1,4-Dichlorobenzene	116	18-190
p/m-Xylene	116	40-160
o-Xylene	110	40-160
XYLENE (TOTAL)	114	40-160
Styrene	103	40-160
Acetone	76	40-160
Carbon disulfide	101	40-160
2-Butanone	101	40-160
Vinyl acetate	112	40-160
4-Methyl-2-pentanone	107	40-160
2-Hexanone	104	40-160
Acrolein	75	40-160
Acrylonitrile	100	40-160
Dibromomethane	98	70-130
Surrogate(s)		
Pentafluorobenzene	98	80-120
Fluorobenzene	101	80-120
4-Bromofluorobenzene	101	80-120
General Chemistry - Westborough Lab SPIKE for sample(s) 01 (L1101296-90, WG456365-3)		
TPH	76	64-132
Total Metals - Westborough Lab SPIKE for sample(s) 01 (L1102398-01, WG456214-4)		
Antimony, Total	81	80-120
Arsenic, Total	83	80-120
Cadmium, Total	86	80-120
Chromium, Total	79	80-120
Copper, Total	83	80-120
Lead, Total	84	80-120
Nickel, Total	82	80-120
Selenium, Total	82	80-120
Silver, Total	79	80-120
Zinc, Total	80	80-120
Total Metals - Westborough Lab SPIKE for sample(s) 01 (L1102398-01, WG456213-4)		
Iron, Total	101	75-125

ALPHA ANALYTICAL
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L1102398

Continued

Parameter	% Recovery	QC Criteria
Total Metals - Westborough Lab SPIKE for sample(s) 01 (L1102420-01, WG456298-4)		
Mercury, Total	112	70-130
Pesticides by GC - Westborough Lab SPIKE for sample(s) 01 (L1102398-01, WG456273-3)		
1,2-Dibromoethane	95	70-130
1,2-Dibromo-3-chloropropane	75	70-130
Volatile Organics by GC/MS - Westborough Lab SPIKE for sample(s) 01 (L1102269-01, WG455879-3)		
Methylene chloride	79	1-221
1,1-Dichloroethane	105	59-155
Chloroform	100	51-138
Carbon tetrachloride	119	70-140
1,2-Dichloropropane	102	1-210
Dibromochloromethane	113	53-149
1,1,2-Trichloroethane	115	52-150
2-Chloroethylvinyl ether	105	1-305
Tetrachloroethene	120	64-148
Chlorobenzene	97	37-160
Trichlorofluoromethane	98	17-181
1,2-Dichloroethane	98	49-155
1,1,1-Trichloroethane	105	52-162
Bromodichloromethane	110	35-155
trans-1,3-Dichloropropene	104	17-183
cis-1,3-Dichloropropene	97	1-227
Bromoform	102	45-169
1,1,2,2-Tetrachloroethane	105	46-157
Benzene	103	35-151
Toluene	106	47-150
Ethylbenzene	102	37-162
Chloromethane	155	1-273
Bromomethane	74	1-242
Vinyl chloride	73	1-251
Chloroethane	80	14-230
1,1-Dichloroethene	105	1-234
trans-1,2-Dichloroethene	116	54-156
cis-1,2-Dichloroethene	103	60-140
Trichloroethene	102	71-157
1,2-Dichlorobenzene	102	18-190
1,3-Dichlorobenzene	102	59-156
1,4-Dichlorobenzene	101	18-190
p/m-Xylene	97	40-160
o-Xylene	93	40-160
XYLENE (TOTAL)	96	40-160
Styrene	88	40-160
Acetone	89	40-160
Carbon disulfide	89	40-160
2-Butanone	104	40-160
Vinyl acetate	124	40-160
4-Methyl-2-pentanone	113	40-160

ALPHA ANALYTICAL
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L1102398

Continued

Parameter	% Recovery	QC Criteria
Volatile Organics by GC/MS - Westborough Lab	SPIKE for sample(s) 01 (L1102269-01, WG455879-3)	
2-Hexanone	113	40-160
Acrolein	51	40-160
Acrylonitrile	93	40-160
Dibromomethane	92	
Surrogate(s)		
Pentafluorobenzene	97	80-120
Fluorobenzene	99	80-120
4-Bromofluorobenzene	96	80-120

ALPHA ANALYTICAL
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L1102398

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG456365-2)								
General Chemistry - Westborough Lab								
TPH	ND	mg/l	4.00	74	1664A	0224 19:30	0225 13:00	JO
Blank Analysis for sample(s) 01 (WG456214-1)								
Total Metals - Westborough Lab								
Antimony, Total	ND	mg/l	0.0005	1	6020	0223 20:40	0225 13:28	RC
Arsenic, Total	ND	mg/l	0.0005	1	6020	0223 20:40	0225 13:28	RC
Cadmium, Total	ND	mg/l	0.0002	1	6020	0223 20:40	0225 13:28	RC
Chromium, Total	ND	mg/l	0.0005	1	6020	0223 20:40	0225 13:28	RC
Copper, Total	ND	mg/l	0.0005	1	6020	0223 20:40	0225 13:28	RC
Lead, Total	ND	mg/l	0.0005	1	6020	0223 20:40	0225 13:28	RC
Nickel, Total	ND	mg/l	0.0005	1	6020	0223 20:40	0225 13:28	RC
Selenium, Total	ND	mg/l	0.001	1	6020	0223 20:40	0225 13:28	RC
Silver, Total	ND	mg/l	0.0004	1	6020	0223 20:40	0225 13:28	RC
Zinc, Total	ND	mg/l	0.0050	1	6020	0223 20:40	0225 13:28	RC
Blank Analysis for sample(s) 01 (WG456213-1)								
Total Metals - Westborough Lab				19	200.7			
Iron, Total	ND	mg/l	0.05	19	200.7	0223 20:40	0224 12:03	MG
Blank Analysis for sample(s) 01 (WG456298-1)								
Total Metals - Westborough Lab								
Mercury, Total	ND	mg/l	0.0002	3	245.1	0224 12:00	0225 10:18	DM
Blank Analysis for sample(s) 01 (WG456273-1)								
Pesticides by GC - Westborough Lab				14	504.1	0224 11:00	0225 09:20	SS
1,2-Dibromoethane	ND	ug/l	0.010					
1,2-Dibromo-3-chloropropane	ND	ug/l	0.010					
Blank Analysis for sample(s) 01 (WG455879-6)								
Volatile Organics by GC/MS - Westborough Lab				5	624		0224 07:12	TT
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	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					

ALPHA ANALYTICAL
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L1102398

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG455879-6)							
Volatile Organics by GC/MS - Westborough Lab cont'd				5 624		0224 07:12	TT
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	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				
1,4-Dichlorobenzene	ND	ug/l	5.0				
p/m-Xylene	ND	ug/l	2.0				
o-xylene	ND	ug/l	1.0				
Xylene (Total)	ND	ug/l	2.0				
Styrene	ND	ug/l	1.0				
Acetone	ND	ug/l	10.				
Carbon disulfide	ND	ug/l	5.0				
2-Butanone	ND	ug/l	10.				
Vinyl acetate	ND	ug/l	20.				
4-Methyl-2-pentanone	ND	ug/l	10.				
2-Hexanone	ND	ug/l	10.				
Acrolein	ND	ug/l	8.0				
Acrylonitrile	ND	ug/l	10.				
Methyl tert butyl ether	ND	ug/l	20.				
Dibromomethane	ND	ug/l	1.0				
1,4-Dioxane	ND	ug/l	2000				
Tert-Butyl Alcohol	ND	ug/l	100				
Tertiary-Amyl Methyl Ether	ND	ug/l	20.				
Surrogate(s)	Recovery		QC Criteria				
Pentafluorobenzene	96.0	%	80-120				
Fluorobenzene	102	%	80-120				
4-Bromofluorobenzene	110	%	80-120				

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.

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.

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.

GLOSSARY OF TERMS AND SYMBOLS

REF	Reference number in which test method may be found.
METHOD	Method number by which analysis was performed.
ID	Initials of the analyst.
ND	Not detected in comparison to the reported detection limit.
NI	Not Ignitable.
ug/cart	Micrograms per Cartridge.
H	The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

LIMITATION OF LIABILITIES

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

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

Certificate/Approval Program Summary

Last revised February 23, 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.)

Analytes Not Accredited by NELAP
Certification is not available by NELAP for the following analytes: **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. **EPA 350.1** for Ammonia in a Soil matrix.

ALPHA ANALYTICAL

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

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

CHAIN OF COUSTODY

PAGE ____ OF ____

Date Rec'd in Lab: 2/23/11

ALPHA Job #: L1102398

Project Information

Project Name: Bloomfield gardens
Project Location: Dorcaster, MA
Project #: 4762
Project Manager: PJD
ALPHA Quote #:

Report Information - Data Deliverables

☐ FAX ☐ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Client Information

Client: McPheil Assoc
Address: 2269 Mass Ave
Cambridge, MA
Phone: 617 868 1420
Fax: (1423)
Email:

☐ These samples have been previously analyzed by Alpha

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved!) 48 hr

Date Due: 2/25/11 Time:

Regulatory Requirements/Report Limits

State /Fed Program NPDES Criteria RGP

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

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

Other Project Specific Requirements/Comments/Detection Limits:

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

ANALYSIS: NPDES RGP Permit

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	Analysis				Sample Specific Comments	TOTAL # BOTTLES
2398.1	Tank-1	2/23/11	1415	GW	DJK	X	X	X	X		12

PLEASE ANSWER QUESTIONS ABOVE!

Container Type	A	P	P	V
Preservative	B	A	C	B

IS YOUR PROJECT MA MCP *or* CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	2/23/11 1525	[signature]	2/23/11 1610
[signature]	2/23/11 1705	[signature]	2/23/11 1705

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

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

ALPHA ANALYTICAL

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com
MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LAO00065 NY:11148 NJ:MA935 Army:USACE

CERTIFICATE OF ANALYSIS

Client: McPhail Associates

Address: 2269 Massachusetts Avenue
Cambridge, MA 02140

Attn: Mr. Ambrose Donovan

Project Number: 4762

Laboratory Job Number: L1102805

Date Received: 03-MAR-2011

Date Reported: 07-MAR-2011

Delivery Method: Alpha

Site: BLOOMFIELD GARDENS

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L1102805-01	TANK-1 DISCHARGE	DORCHESTER, MA

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

Authorized by: Michelle M. Morris
Technical Representative

ALPHA ANALYTICAL
NARRATIVE REPORT

Laboratory Job Number: L1102805

The samples were received in accordance with the chain of custody and no significant deviations were encountered during preparation or analysis unless otherwise noted below.

Semivolatile Organics

The WG457331-3 LCSD recovery, associated with L1102805-01, was above the acceptance criteria for 2,4-Dinitrotoluene (97%); however, the associated sample was non-detect for this target compound. The results of the original analysis are reported.

Semivolatile Organics - SIM

L1102805-01 has elevated detection limits due to the 5x dilution required by the elevated concentrations of target compounds in the sample.

Chloride

L1102805-01 has an elevated detection limit due to the 10x dilution required to quantitate the result within the calibration range.

Phenolics, Total

L1102805-01 has an elevated detection limit due to the 5x dilution required by the sample matrix.

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LAO00065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L1102805-01
TANK-1 DISCHARGE
Sample Matrix: WATER

Date Collected: 03-MAR-2011 13:00
Date Received : 03-MAR-2011
Date Reported : 07-MAR-2011

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 5-Amber,1-Plastic

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
General Chemistry - Westborough Lab								
Chloride	180	mg/l	10	30	4500CL-E		0304 20:21	LA
Phenolics, Total	ND	mg/l	0.15	4	420.1	0302 19:30	0303 23:22	TP
Semivolatile Organics by GC/MS - Westborough Lab				1	8270C	0304 02:43	0304 14:43	ND
Benzidine	ND	ug/l	50.					
1,2,4-Trichlorobenzene	ND	ug/l	5.0					
Bis(2-chloroethyl)ether	ND	ug/l	5.0					
1,2-Dichlorobenzene	ND	ug/l	5.0					
1,3-Dichlorobenzene	ND	ug/l	5.0					
1,4-Dichlorobenzene	ND	ug/l	5.0					
3,3'-Dichlorobenzidine	ND	ug/l	50.					
2,4-Dinitrotoluene	ND	ug/l	6.0					
2,6-Dinitrotoluene	ND	ug/l	5.0					
Azobenzene	ND	ug/l	5.0					
4-Chlorophenyl phenyl ether	ND	ug/l	5.0					
4-Bromophenyl phenyl ether	ND	ug/l	5.0					
Bis(2-chloroisopropyl)ether	ND	ug/l	5.0					
Bis(2-chloroethoxy)methane	ND	ug/l	5.0					
Hexachlorocyclopentadiene	ND	ug/l	30.					
Isophorone	ND	ug/l	5.0					
Nitrobenzene	ND	ug/l	5.0					
NitrosoDiPhenylAmine(NDPA)/DPA	ND	ug/l	15.					
Bis(2-Ethylhexyl)phthalate	ND	ug/l	5.0					
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	20.					
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	7.0					
Dibenzofuran	ND	ug/l	5.0					
n-Nitrosodimethylamine	ND	ug/l	50.					
2,4,6-Trichlorophenol	ND	ug/l	5.0					
P-Chloro-M-Cresol	ND	ug/l	5.0					

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L1102805-01
TANK-1 DISCHARGE

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Semivolatile Organics by GC/MS - Westborough Lab cont'd				1	8270C	0304 02:43	0304 14:43	ND
2-Chlorophenol	ND	ug/l	6.0					
2,4-Dichlorophenol	ND	ug/l	10.					
2,4-Dimethylphenol	ND	ug/l	10.					
2-Nitrophenol	ND	ug/l	20.					
4-Nitrophenol	ND	ug/l	10.					
2,4-Dinitrophenol	ND	ug/l	30.					
4,6-Dinitro-o-cresol	ND	ug/l	20.					
Phenol	ND	ug/l	7.0					
2-Methylphenol	ND	ug/l	6.0					
3-Methylphenol/4-Methylphenol	ND	ug/l	6.0					
2,4,5-Trichlorophenol	ND	ug/l	5.0					
Benzoic Acid	ND	ug/l	50.					
Benzyl Alcohol	ND	ug/l	10.					
Carbazole	ND	ug/l	5.0					
Pyridine	ND	ug/l	50.					
Surrogate(s)	Recovery		QC Criteria					
2-Fluorophenol	25.0	%	21-120					
Phenol-d6	20.0	%	10-120					
Nitrobenzene-d5	44.0	%	23-120					
2-Fluorobiphenyl	46.0	%	15-120					
2,4,6-Tribromophenol	58.0	%	10-120					
4-Terphenyl-d14	52.0	%	33-120					
Semivolatile Organics by GC/MS-SIM - Westborough Lab				1	8270C-SIM	0304 22:11	0305 13:41	AS
Acenaphthene	3.6	ug/l	1.0					
2-Chloronaphthalene	ND	ug/l	1.0					
Fluoranthene	ND	ug/l	1.0					
Hexachlorobutadiene	ND	ug/l	2.5					
Naphthalene	5.8	ug/l	1.0					
Benzo(a)anthracene	ND	ug/l	1.0					
Benzo(a)pyrene	ND	ug/l	1.0					
Benzo(b)fluoranthene	ND	ug/l	1.0					
Benzo(k)fluoranthene	ND	ug/l	1.0					
Chrysene	ND	ug/l	1.0					
Acenaphthylene	ND	ug/l	1.0					
Anthracene	ND	ug/l	1.0					
Benzo(ghi)perylene	ND	ug/l	1.0					
Fluorene	4.6	ug/l	1.0					
Phenanthrene	3.4	ug/l	1.0					
Dibenzo(a,h)anthracene	ND	ug/l	1.0					
Indeno(1,2,3-cd)Pyrene	ND	ug/l	1.0					
Pyrene	ND	ug/l	1.0					
1-Methylnaphthalene	34	ug/l	1.0					
2-Methylnaphthalene	20	ug/l	1.0					
Pentachlorophenol	ND	ug/l	4.0					
Hexachlorobenzene	ND	ug/l	4.0					
Hexachloroethane	ND	ug/l	4.0					

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L1102805-01
TANK-1 DISCHARGE

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Semivolatile Organics by GC/MS-SIM - Westborough Lab cont'				1	8270C-SIM	0304 22:11	0305 13:41	AS
Surrogate(s)	Recovery		QC Criteria					
2-Fluorophenol	45.0	%	21-120					
Phenol-d6	34.0	%	10-120					
Nitrobenzene-d5	71.0	%	23-120					
2-Fluorobiphenyl	81.0	%	15-120					
2,4,6-Tribromophenol	89.0	%	10-120					
4-Terphenyl-d14	106	%	33-120					
Polychlorinated Biphenyls by GC - Westborough Lab				5	608	0304 02:48	0307 12:56	SS
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(s)	Recovery		QC Criteria					
2,4,5,6-Tetrachloro-m-xylene	115	%	30-150					
Decachlorobiphenyl	129	%	30-150					

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L1102805

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
General Chemistry - Westborough Lab for sample(s) 01 (L1102805-01, WG457441-4)					
Chloride	180	190	mg/l	5	7
General Chemistry - Westborough Lab for sample(s) 01 (L1102805-01, WG457320-4)					
Phenolics, Total	ND	ND	mg/l	NC	12
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s) 01 (L1102805-01, WG457333-4)					
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(s)	Recovery				QC Criteria
2,4,5,6-Tetrachloro-m-xylene	115	91.0	%		30-150
Decachlorobiphenyl	129	97.0	%		30-150

ALPHA ANALYTICAL
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L1102805

Parameter	% Recovery	QC Criteria
General Chemistry - Westborough Lab LCS for sample(s) 01 (WG457441-2)		
Chloride	100	90-110
General Chemistry - Westborough Lab LCS for sample(s) 01 (WG457320-2)		
Phenolics, Total	100	82-111
Polychlorinated Biphenyls by GC - Westborough Lab LCS for sample(s) 01 (WG457333-2)		
Aroclor 1016	73	40-126
Aroclor 1260	84	40-127
Surrogate(s)		
2,4,5,6-Tetrachloro-m-xylene	60	30-150
Decachlorobiphenyl	77	30-150
General Chemistry - Westborough Lab SPIKE for sample(s) 01 (L1102805-01, WG457441-3)		
Chloride	98	58-140
General Chemistry - Westborough Lab SPIKE for sample(s) 01 (L1102805-01, WG457320-3)		
Phenolics, Total	99	77-124
Polychlorinated Biphenyls by GC - Westborough Lab SPIKE for sample(s) 01 (L1102805-01, WG457333		
Aroclor 1016	107	40-126
Aroclor 1260	121	40-127
Surrogate(s)		
2,4,5,6-Tetrachloro-m-xylene	90	30-150
Decachlorobiphenyl	106	30-150

ALPHA ANALYTICAL
QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L1102805

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Semivolatile Organics by GC/MS - Westborough Lab for sample(s) 01 (WG457331-2, WG457331-3)					
Acenaphthene	70	74	6	30	37-111
1,2,4-Trichlorobenzene	61	66	8	30	39-98
2-Chloronaphthalene	84	91	8	30	40-140
1,2-Dichlorobenzene	61	66	8	30	40-140
1,4-Dichlorobenzene	60	62	3	30	36-97
2,4-Dinitrotoluene	92	97	5	30	24-96
2,6-Dinitrotoluene	101	106	5	30	40-140
Fluoranthene	90	94	4	30	40-140
4-Chlorophenyl phenyl ether	86	90	5	30	40-140
n-Nitrosodi-n-propylamine	74	84	13	30	41-116
Butyl benzyl phthalate	100	107	7	30	40-140
Anthracene	85	89	5	30	40-140
Pyrene	84	88	5	30	26-127
P-Chloro-M-Cresol	86	93	8	30	23-97
2-Chlorophenol	64	71	10	30	27-123
2-Nitrophenol	76	87	13	30	30-130
4-Nitrophenol	47	43	9	30	10-80
2,4-Dinitrophenol	87	95	9	30	20-130
Pentachlorophenol	70	80	13	30	9-103
Phenol	27	29	7	30	12-110
Surrogate(s)					
2-Fluorophenol	36	37	3		21-120
Phenol-d6	27	27	0		10-120
Nitrobenzene-d5	69	78	12		23-120
2-Fluorobiphenyl	74	84	13		15-120
2,4,6-Tribromophenol	90	94	4		10-120
4-Terphenyl-d14	86	90	5		33-120
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s) 01 (WG457477-2, WG457477-3)					
Acenaphthene	70	77	10	40	37-111
2-Chloronaphthalene	104	119	13	40	40-140
Fluoranthene	89	96	8	40	40-140
Anthracene	87	92	6	40	40-140
Pyrene	83	90	8	40	26-127
Pentachlorophenol	58	75	26	40	9-103
Surrogate(s)					
2-Fluorophenol	39	46	16		21-120
Phenol-d6	25	35	33		10-120
Nitrobenzene-d5	71	76	7		23-120
2-Fluorobiphenyl	72	81	12		15-120
2,4,6-Tribromophenol	85	90	6		10-120
4-Terphenyl-d14	86	93	8		33-120

ALPHA ANALYTICAL
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L1102805

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG457441-1)								
General Chemistry - Westborough Lab								
Chloride	ND	mg/l	1.0	30	4500CL-E		0304 19:24	LA
Blank Analysis for sample(s) 01 (WG457320-1)								
General Chemistry - Westborough Lab								
Phenolics, Total	ND	mg/l	0.03	4	420.1	0302 19:30	0303 23:19	TP
Blank Analysis for sample(s) 01 (WG457331-1)								
Semivolatile Organics by GC/MS - Westborough Lab				1	8270C	0304 02:43	0305 14:49	ND
Acenaphthene	ND	ug/l	5.0					
Benzidine	ND	ug/l	50.					
1,2,4-Trichlorobenzene	ND	ug/l	5.0					
Hexachlorobenzene	ND	ug/l	5.0					
Bis(2-chloroethyl)ether	ND	ug/l	5.0					
2-Chloronaphthalene	ND	ug/l	6.0					
1,2-Dichlorobenzene	ND	ug/l	5.0					
1,3-Dichlorobenzene	ND	ug/l	5.0					
1,4-Dichlorobenzene	ND	ug/l	5.0					
3,3'-Dichlorobenzidine	ND	ug/l	50.					
2,4-Dinitrotoluene	ND	ug/l	6.0					
2,6-Dinitrotoluene	ND	ug/l	5.0					
Azobenzene	ND	ug/l	5.0					
Fluoranthene	ND	ug/l	5.0					
4-Chlorophenyl phenyl ether	ND	ug/l	5.0					
4-Bromophenyl phenyl ether	ND	ug/l	5.0					
Bis(2-chloroisopropyl)ether	ND	ug/l	5.0					
Bis(2-chloroethoxy)methane	ND	ug/l	5.0					
Hexachlorobutadiene	ND	ug/l	10.					
Hexachlorocyclopentadiene	ND	ug/l	30.					
Hexachloroethane	ND	ug/l	5.0					
Isophorone	ND	ug/l	5.0					
Naphthalene	ND	ug/l	5.0					
Nitrobenzene	ND	ug/l	5.0					
NitrosoDiPhenylAmine(NDPA)/DPA	ND	ug/l	15.					
Bis(2-Ethylhexyl)phthalate	ND	ug/l	5.0					
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					
Benzo(a)anthracene	ND	ug/l	5.0					
Benzo(a)pyrene	ND	ug/l	5.0					
Benzo(b)fluoranthene	ND	ug/l	5.0					
Benzo(k)fluoranthene	ND	ug/l	5.0					
Chrysene	ND	ug/l	5.0					

ALPHA ANALYTICAL
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L1102805

Continued

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG457331-1)								
Semivolatile Organics by GC/MS - Westborough Lab cont'd				1	8270C	0304 02:43	0305 14:49	ND
Acenaphthylene	ND	ug/l	5.0					
Anthracene	ND	ug/l	5.0					
Benzo(ghi)perylene	ND	ug/l	5.0					
Fluorene	ND	ug/l	5.0					
Phenanthrene	ND	ug/l	5.0					
Dibenzo(a,h)anthracene	ND	ug/l	5.0					
Indeno(1,2,3-cd)Pyrene	ND	ug/l	7.0					
Pyrene	ND	ug/l	5.0					
Aniline	ND	ug/l	20.					
4-Chloroaniline	ND	ug/l	5.0					
1-Methylnaphthalene	ND	ug/l	5.0					
2-Nitroaniline	ND	ug/l	5.0					
3-Nitroaniline	ND	ug/l	5.0					
4-Nitroaniline	ND	ug/l	7.0					
Dibenzofuran	ND	ug/l	5.0					
2-Methylnaphthalene	ND	ug/l	5.0					
n-Nitrosodimethylamine	ND	ug/l	50.					
2,4,6-Trichlorophenol	ND	ug/l	5.0					
P-Chloro-M-Cresol	ND	ug/l	5.0					
2-Chlorophenol	ND	ug/l	6.0					
2,4-Dichlorophenol	ND	ug/l	10.					
2,4-Dimethylphenol	ND	ug/l	10.					
2-Nitrophenol	ND	ug/l	20.					
4-Nitrophenol	ND	ug/l	10.					
2,4-Dinitrophenol	ND	ug/l	30.					
4,6-Dinitro-o-cresol	ND	ug/l	20.					
Pentachlorophenol	ND	ug/l	10.					
Phenol	ND	ug/l	7.0					
2-Methylphenol	ND	ug/l	6.0					
3-Methylphenol/4-Methylphenol	ND	ug/l	6.0					
2,4,5-Trichlorophenol	ND	ug/l	5.0					
Benzoic Acid	ND	ug/l	50.					
Benzyl Alcohol	ND	ug/l	10.					
Carbazole	ND	ug/l	5.0					
Pyridine	ND	ug/l	50.					
Surrogate(s)	Recovery		QC Criteria					
2-Fluorophenol	30.0	%	21-120					
Phenol-d6	19.0	%	10-120					
Nitrobenzene-d5	54.0	%	23-120					
2-Fluorobiphenyl	61.0	%	15-120					
2,4,6-Tribromophenol	55.0	%	10-120					
4-Terphenyl-d14	75.0	%	33-120					
Blank Analysis for sample(s) 01 (WG457477-1)								
Semivolatile Organics by GC/MS-SIM - Westborough Lab				1	8270C-SIM	0304 22:11	0304 22:37	AS

ALPHA ANALYTICAL
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L1102805

Continued

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG457477-1)								
Semivolatile Organics by GC/MS-SIM - Westborough Lab cont'				1	8270C-SIM	0304 22:11	0304 22:37	AS
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					
Surrogate(s)	Recovery		QC Criteria					
2-Fluorophenol	35.0	%	21-120					
Phenol-d6	23.0	%	10-120					
Nitrobenzene-d5	73.0	%	23-120					
2-Fluorobiphenyl	67.0	%	15-120					
2,4,6-Tribromophenol	64.0	%	10-120					
4-Terphenyl-d14	88.0	%	33-120					
Blank Analysis for sample(s) 01 (WG457333-1)								
Polychlorinated Biphenyls by GC - Westborough Lab				5	608	0304 02:48	0307 12:05	SS
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(s)	Recovery		QC Criteria					
2,4,5,6-Tetrachloro-m-xylene	66.0	%	30-150					
Decachlorobiphenyl	75.0	%	30-150					

REFERENCES

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

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).

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

GLOSSARY OF TERMS AND SYMBOLS

REF	Reference number in which test method may be found.
METHOD	Method number by which analysis was performed.
ID	Initials of the analyst.
ND	Not detected in comparison to the reported detection limit.
NI	Not Ignitable.
ug/cart	Micrograms per Cartridge.
H	The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

LIMITATION OF LIABILITIES

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

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

Certificate/Approval Program Summary

Last revised February 23, 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.)

Analytes Not Accredited by NELAP
Certification is not available by NELAP for the following analytes: **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. **EPA 350.1** for Ammonia in a Soil matrix.

CHAIN OF CUSTODY

PAGE 1 OF 1

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

Date Rec'd in Lab: 3/3/11

ALPHA Job #: L1102805

Client Information

Client: MCPhail Assoc.
Address: 2269 Mass Ave
Cambridge, MA.
Phone: 617-868-1420
Fax: 617-868-1423
Email: PDC@MCPhailGeo.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Bloomfield Gardens
Project Location: Dorchester, MA.
Project #: 4762
Project Manager: Peter DeChaves
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved!)
Date Due: 3/7/11 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
	RGP

MA 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:

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	ANALYSIS: 8270 w/ PAH SIM	PCB's	TPHenol	Chloride	Sample Specific Comments	TOTAL # BOTTLES
02805.1	Tank-1 Discharge	3/3/11	13:00	GW	DJK	X	X	X	X		7
Container Type						A	A	A	P		
Preservative						A	H	D	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
	3/3/11 14:30		3/3/11 16:10
	3/3/11 17:00		3/3/11 17:00

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

FORM NO: 01-01 (rev. 14-OCT-07)

ALPHA ANALYTICAL

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com
MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LAO00065 NY:11148 NJ:MA935 Army:USACE

CERTIFICATE OF ANALYSIS

Client: McPhail Associates

Address: 2269 Massachusetts Avenue
Cambridge, MA 02140

Attn: Mr. Ambrose Donovan

Project Number: 4762

Laboratory Job Number: L1103044

Date Received: 23-FEB-2011

Date Reported: 10-MAR-2011

Delivery Method: Alpha

Site: BLOOMFIELD GARDENS

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L1103044-01	TANK-1	DORCESTER, MA

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

Authorized by: Michelle M. Morris
Technical Representative

ALPHA ANALYTICAL
NARRATIVE REPORT

Laboratory Job Number: L1103044

The sample was received in accordance with the chain of custody and no significant deviations were encountered during preparation or analysis unless otherwise noted below.

Solids, Total Suspended

The analysis was requested with the method required holding time exceeded and was performed at the client's request.

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LAO00065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L1103044-01
TANK-1
Sample Matrix: WATER

Date Collected: 23-FEB-2011 14:15
Date Received : 23-FEB-2011
Date Reported : 10-MAR-2011

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Plastic

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
General Chemistry - Westborough Lab							
Solids, Total Suspended	ND	mg/l	5.0	30 2540D		0309 11:45	DW

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L1103044

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
General Chemistry - Westborough Lab for sample(s) 01 (L1102955-01, WG457970-2)					
Solids, Total Suspended	350	350	mg/l	0	32

ALPHA ANALYTICAL
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L1103044

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG457970-1)							
General Chemistry - Westborough Lab							
Solids, Total Suspended	ND	mg/l	5.0	30 2540D		0309 11:45	DW

REFERENCES

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

GLOSSARY OF TERMS AND SYMBOLS

REF	Reference number in which test method may be found.
METHOD	Method number by which analysis was performed.
ID	Initials of the analyst.
ND	Not detected in comparison to the reported detection limit.
NI	Not Ignitable.
ug/cart	Micrograms per Cartridge.
H	The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

LIMITATION OF LIABILITIES

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

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

Certificate/Approval Program Summary

Last revised February 23, 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.)

Analytes Not Accredited by NELAP
Certification is not available by NELAP for the following analytes: **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. **EPA 350.1** for Ammonia in a Soil matrix.

CHAIN OF CUSTODY

PAGE ____ OF ____

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

Date Rec'd in Lab: 2/23/11

L1103044 JS 3/9/11

ALPHA Job #: ~~L1102398~~

Client Information

Client: McPhail Assoc
Address: 2269 Mass Ave, Cambridge, MA
Phone: 617 868 1420
Fax: (1423)
Email:

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Bloomfield gardens
Project Location: Dorcaster, MA
Project #: 4762
Project Manager: PJD
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved!) ~~48 hr~~

Date Due: ~~2/25/11~~ 3/10/11
Time: JS 3/9/11

Report Information - Data Deliverables

☐ FAX ☐ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program: NPDES Criteria: RGP

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

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

Other Project Specific Requirements/Comments/Detection Limits:

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

ANALYSIS: NPDES ~~RGP Permit~~ JS 3/9/11; TSS

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

ALPHA Lab ID (Lab Use Only) JS 3/9/11	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Analysis				Sample Specific Comments	TOTAL # BOTTLES
~~2398~~ 3044 .1	Tank - 1	2/23/11	1415	GW	DJK	X	X	X	(X)		12

Container Type	A	P	P	V
Preservative	B	A	C	B

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	2/23/11 1525	[signature]	2/23/11 1610
[signature]	2/23/11 1705	[signature]	2/23/11 1705

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

ALPHA ANALYTICAL

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com
MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LAO00065 NY:11148 NJ:MA935 Army:USACE

CERTIFICATE OF ANALYSIS

Client: McPhail Associates

Address: 2269 Massachusetts Avenue
Cambridge, MA 02140

Attn: Mr. Ambrose Donovan

Project Number: 4762

Laboratory Job Number: L1103263

Date Received: 11-MAR-2011

Date Reported: 16-MAR-2011

Delivery Method: Alpha

Site: BLOOMFIELD GARDENS

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L1103263-01	FRAC TANK-03.11.11	DORCHESTER, MA

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

Authorized by: Michelle M. Morris
Technical Representative

ALPHA ANALYTICAL
NARRATIVE REPORT

Laboratory Job Number: L1103263

The samples were received in accordance with the chain of custody and no significant deviations were encountered during preparation or analysis unless otherwise noted below.

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LAO00065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L1103263-01
FRAC TANK-03.11.11
Sample Matrix: WATER

Date Collected: 11-MAR-2011 12:00
Date Received : 11-MAR-2011
Date Reported : 16-MAR-2011

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 2-Plastic

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
General Chemistry - Westborough Lab								
Solids, Total Suspended	12	mg/l	5.0		30 2540D		0316 09:10	DW
Dissolved Metals - Westborough Lab								
Lead, Dissolved	0.0005	mg/l	0.0005	1	6020	0314 10:10	0316 17:08	BM

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L1103263

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
General Chemistry - Westborough Lab for sample(s) 01 (L1103172-01, WG458802-2)					
Solids, Total Suspended	1000	1100	mg/l	10	32
Dissolved Metals - Westborough Lab for sample(s) 01 (L1103263-01, WG458666-3)					
Lead, Dissolved	0.0005	ND	mg/l	NC	20

ALPHA ANALYTICAL
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L1103263

Parameter	% Recovery	QC Criteria
Dissolved Metals - Westborough Lab LCS for sample(s) 01 (WG458666-2)		
Lead, Dissolved	102	80-120
Dissolved Metals - Westborough Lab SPIKE for sample(s) 01 (L1103263-01, WG458666-4)		
Lead, Dissolved	109	80-120

ALPHA ANALYTICAL
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L1103263

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG458802-1)								
General Chemistry - Westborough Lab								
Solids, Total Suspended	ND	mg/l	5.0		30 2540D		0316 09:10	DW
Blank Analysis for sample(s) 01 (WG458666-1)								
Dissolved Metals - Westborough Lab								
Lead, Dissolved	ND	mg/l	0.0005		1 6020	0314 10:10	0316 16:56	BM

REFERENCES

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

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

GLOSSARY OF TERMS AND SYMBOLS

REF	Reference number in which test method may be found.
METHOD	Method number by which analysis was performed.
ID	Initials of the analyst.
ND	Not detected in comparison to the reported detection limit.
NI	Not Ignitable.
ug/cart	Micrograms per Cartridge.
H	The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

LIMITATION OF LIABILITIES

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

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

Certificate/Approval Program Summary

Last revised February 23, 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.)

Analytes Not Accredited by NELAP
Certification is not available by NELAP for the following analytes: **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. **EPA 350.1** for Ammonia in a Soil matrix.

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 3/11/11

ALPHA Job #: L1103263

ALPHA ANALYTICAL

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

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

Client Information

Client: McPhail Assoc

Address:

Cambridge, MA

Phone: 617-868-1420

Fax:

Email:

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Bloomfield Gardens

Project Location: Dorchester, MA

Project #: 4762

Project Manager: Peter DeChaves

ALPHA Quote #:

Turn-Around Time

☐ Standard ☐ RUSH *(only confirmed if pre-approved!)*

Date Due: 3/17/11 **Time:**

Other Project Specific Requirements/Comments/Detection Limits:

Report Information - Data Deliverables

☐ FAX ☒ EMAIL

☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program: EPA *Criteria:* RGP EFFLUENT

MA MCP PRESUMPTIVE CERTAINTY - CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☐ No Are MCP Analytical Methods Required?

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

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	ANALYSIS: TSS	ANALYSIS: Dissolved Lead	Sample Specific Comments	TOTAL # BOTTLES
03263. 1	FRAC TANK-03.11.11	3/11/11	12:00pm	GW	CC	✓	✓		2

Container Type	P	P
Preservative	A	A

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
	3/11/11		3/11/11 1630
	3/11/11 1745		3/11/11 1745

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

FORM NO: 01-01 (rev. 14-OCT-07)

McPHAIL ASSOCIATES, INC

Geotechnical Engineers

ATTACHMENT D

AREAS OF CRITICAL CONCERN,
ENDANGERED AND THREATENED SPECIES

Based on a review of the DEP Priority Resources Map, the site is not located within a Zone II of a public water supply, an Interim Wellhead Protection Area, or a Zone A of a Class A surface water supply reservoir. The site is not located within a Non-Potential Drinking Water Source Area of medium yield. There are no surface water bodies located within the site boundaries. The site is located within 1-mile of an Area of Critical Environmental Concern (ACEC). In addition, the point of discharge into the Neponset River is considered an ACEC.

A review of the most recent federal listing of threatened and endangered species published by the U.S. Fish and Wildlife Service did not identify the presence of 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 did not report the presence of 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 IV of the RGP.

MassDEP - Bureau of Waste Site Cleanup

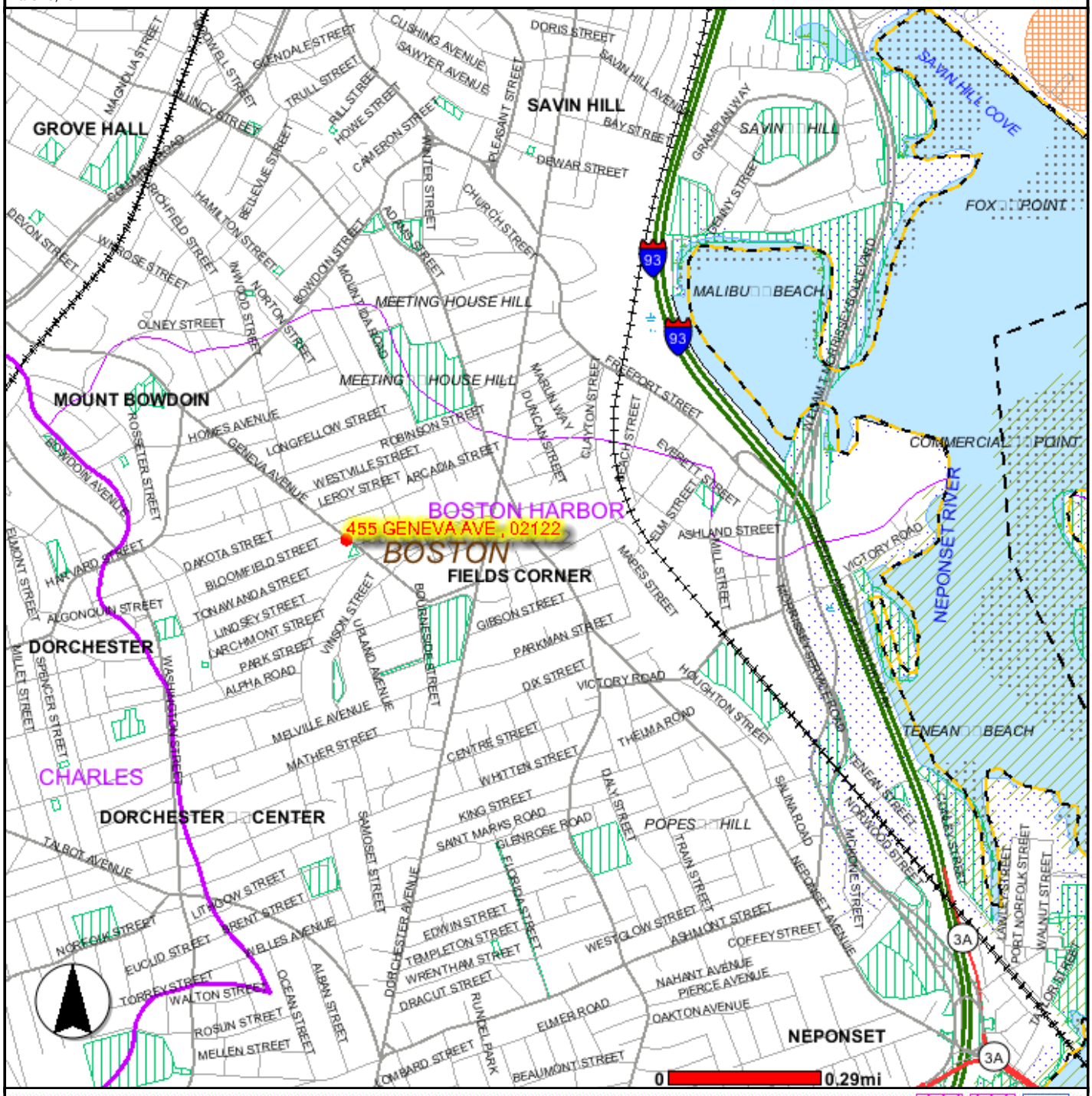
MCP Numerical Ranking System Map: 500 feet & 0.5 Mile Radii

Site Name:
Broomfield Gardens
455-475 Geneva Avenue
Boston-Dorchester, MA
RTN:
NAD83 MA Coordinates:
235831mE, 894470mN

March 9, 2011

The information shown on this map is the best available at the date of printing. For more information please refer to www.mass.gov/mgis/massgis.htm

MassDEP
Commonwealth of Massachusetts
Department of Environmental Protection



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

FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES IN MASSACHUSETTS

COUNTY	SPECIES	FEDERAL STATUS	GENERAL LOCATION/HABITAT	TOWNS
Barnstable	Piping Plover	Threatened	Coastal Beaches	All Towns
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	All Towns
	Northeastern beach tiger beetle	Threatened	Coastal Beaches	Chatham
	Sandplain gerardia	Endangered	Open areas with sandy soils.	Sandwich and Falmouth.
	Northern Red-bellied cooter	Endangered	Inland Ponds and Rivers	Bourne (north of the Cape Cod Canal)
Berkshire	Bog Turtle	Threatened	Wetlands	Egremont and Sheffield
Bristol	Piping Plover	Threatened	Coastal Beaches	Fairhaven, Dartmouth, Westport
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	Fairhaven, New Bedford, Dartmouth, Westport
	Northern Red-bellied cooter	Endangered	Inland Ponds and Rivers	Raynham and Taunton
Dukes	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	All Towns
	Piping Plover	Threatened	Coastal Beaches	All Towns
	Northeastern beach tiger beetle	Threatened	Coastal Beaches	Aquinnah and Chilmark
	Sandplain gerardia	Endangered	Open areas with sandy soils.	West Tisbury
Essex	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Gloucester, Essex and Manchester
	Piping Plover	Threatened	Coastal Beaches	Glocester, Essex, Ipswich, Rowley, Revere, Newbury, Newburyport and Salisbury
Franklin	Northeastern bulrush	Endangered	Wetlands	Montague
	Dwarf wedgemussel	Endangered	Mill River	Whately
Hampshire	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Hadley
	Puritan tiger beetle	Threatened	Sandy beaches along the Connecticut River	Northampton and Hadley
	Dwarf wedgemussel	Endangered	Rivers and Streams.	Hadley, Hatfield, Amherst and Northampton
Hampden	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Southwick
Middlesex	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Groton
Nantucket	Piping Plover	Threatened	Coastal Beaches	Nantucket
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	Nantucket
	American burying beetle	Endangered	Upland grassy meadows	Nantucket
Plymouth	Piping Plover	Threatened	Coastal Beaches	Scituate, Marshfield, Duxbury, Plymouth, Wareham and Mattapoisett
	Northern Red-bellied cooter	Endangered	Inland Ponds and Rivers	Kingston, Middleborough, Carver, Plymouth, Bourne, and Wareham
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	Plymouth, Marion, Wareham, and Mattapoisett.
Suffolk	Piping Plover	Threatened	Coastal Beaches	Winthrop
Worcester	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Leominster

-Eastern cougar and gray wolf are considered extirpated in Massachusetts.
-Endangered gray wolves are not known to be present in Massachusetts, but dispersing individuals from source populations in Canada may occur statewide.
-Critical habitat for the Northern Red-bellied cooter is present in Plymouth County.

7/31/2008

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ATTACHMENT 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 Dorchester, 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 Fields Corner Municipal Building which is located approximately 0.25 miles to the northeast of the subject site. It is not anticipated that dewatering activities at the subject site will affect the Fields Corner Municipal Building National Historic Place.

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

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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) in anticipation of temporary construction dewatering planned to occur at 455-475 Geneva Avenue in the Dorchester section of 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 temporary construction dewatering is occurring at the site.

Water Treatment and Management

Construction dewatering effluent is anticipated to be pumped from localized sumps and trenches within the excavation and directly into a sedimentation tank. The effluent will then flow through any necessary treatment systems and discharge through hoses to a catch basin on Bloomfield Street located adjacent to the north of the subject site. The effluent will eventually discharge into the Neponset River located approximately 1 mile to the east of the subject site. Dewatering effluent treatment may consist of bag filters, granular activated carbon (GAC), ion exchange, or precipitation, as required.

Discharge Monitoring and Compliance

Regular sampling and testing will be conducted at the influent to the system and the treated effluent as required by the RGP. This includes chemical testing required within days 1and 3 of initial discharge and the monthly testing to be conducted through the end of the scheduled discharge.

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

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

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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 sedimentation tanks, filters, hoses, pumps, and flow meters. Equipment will be monitored daily 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 Operator.

Miscellaneous Items

It is anticipated that the erosion control measures and the nature of the site will minimize potential runoff to or from the site. The project specifications also include requirements for erosion control. Site security for the treatment system will be covered within the overall site security plan.

No adverse affects on designated uses of surrounding surface water bodies is anticipated. The nearest surface water body is the Neponset River which is located approximately 1-mile to the east of the subject site. Dewatering effluent will be pumped to a sedimentation tank and bag filter, at a minimum, prior to discharge to the storm drains.

Management of Treatment System Materials

Dewatering effluent will be pumped directly to the treatment system from the excavation with use of hoses and sumps to minimize handling. The Contractor will establish staging areas for equipment or materials storage that may be possible sources of pollution away from any dewatering activities, to the extent practicable.

Sediment from the tanks 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. If used, granular activated carbon and/or ion exchange resin may be recycled and/or removed from the site to an appropriate receiving facility. Bag filters, if used, will be disposed of as necessary.