



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 1
5 Post Office Square, Suite 100
BOSTON, MA 02109-3912

AUG 05 2013 CERTIFIED MAIL RETURN RECEIPT REQUESTED

Dean Soultanian
Director of Proposal development
TMC Environmental, Inc
19 National Drive
Franklin, MA 02038

Re: Authorization to discharge under the Remediation General Permit (RGP) –
MAG910000. Former Building 9 Septic Tank Excavation Area site located at 31-33
Third Avenue, MA 01803, Middlesex County; Authorization # MAG910593

Dear Mr. Soultanian:

Based on the review of a Notice of Intent (NOI) submitted by Ms. M. Margret Hanley, from the Isosceles Group on behalf of NWP Building 9 LLC., for the site referenced above, the U.S. Environmental Protection Agency (EPA) hereby authorizes you, as the named Operator, to discharge in accordance with the provisions of the RGP at that site. Your authorization number is listed above.

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

Please note the enclosed checklist includes parameters that exceeded Appendix III limits. The checklist also includes other parameters for which your laboratory reports indicated there was insufficient sensitivity to detect these parameters at the minimum levels established in Appendix VI of the RGP.

Also, please note that the metal included on the checklist is a dilution dependent pollutant and subject to limitations based on a dilution factor range (DFR). With the limited dilution to Vine Brook, EPA determined that the DFR for this parameter is in the one and five (1-5) range. (See the RGP Appendix IV for Massachusetts facilities) Therefore, the limit for iron of 3, 220 ug/L, is required to achieve permit compliance at your site.

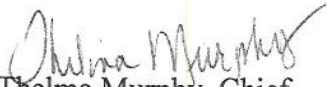
Please note that this metal limitation has increased above the 0-5 dilution factor range. The reason for the increase has to do with the new RGP regulations which allows for a limit increase based on the metal limit times the available dilution of the receiving stream not to exceed 5. The available dilution in this case is 3.22. See footnote eleven at the end of the "Summary of Monitoring Parameters" listed below for further explanation.

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

This general permit and authorization to discharge will expire on September 9, 2015. You have reported that this project will terminate on October 8, 2013. You are required to submit a Notice of Termination (NOT) to the attention of the contact person indicated below within 30 days of project completion.

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

Sincerely,


Thelma Murphy, Chief
Storm Water and Construction
Permits Section

Enclosure

cc: Robert Kubit, MassDEP
John Sanchez, Superintendent, Burlington PWD
M. Margret Hanley, Isosceles Group

**2010 Remediation General Permit
Summary of Monitoring Parameters^[1]**

NPDES Authorization Number:		MAG910593
Authorization Issued:	August, 2013	
Facility/Site Name:	Former Building 9 Septic Tank Excavation Area	
Facility/Site Address:	31-33 Third Avenue, Burlington, MA 01803	
	Email address of owner: slogan@nordblom.com	
Legal Name of Operator:	TMC Environmental, Inc.	
Operator contact name, title, and Address:	19 National Drive, Franklin, MA 02038, Norfolk County	
	Email: dsoultanian@tmcenvironmental.com	
Estimated date of Completion:	October 30, 2013	
Category and Sub-Category:	Non Petroleum Site Remediation. Subcategory A. Volatile Organic Compounds only Sites	
RGP Termination Date:	September 10, 2015	
Receiving Water:	Vine Brook	

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

	<u>Parameter</u>	<u>Effluent Limit/Method#/ML</u> (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
✓	1. Total Suspended Solids (TSS)	30 milligrams/liter (mg/L) **, 50 mg/L for hydrostatic testing ** Me#160.2/ML5ug/L
	2. Total Residual Chlorine (TRC) ¹	Freshwater = 11 ug/L ** Saltwater = 7.5 ug/L **/ Me#330.5/ML 20ug/L
	3. Total Petroleum Hydrocarbons (TPH)	5.0 mg/L/ Me# 1664A/ML 5.0mg/L
	4. Cyanide (CN) ^{2, 3}	Freshwater = 5.2 ug/l ** Saltwater = 1.0 ug/L **/ Me#335.4/ML 10ug/L
	5. Benzene (B)	5ug/L /50.0 ug/L for hydrostatic testing only/ Me#8260C/ML 2 ug/L
	6. Toluene (T)	(limited as ug/L total BTEX)/ Me#8260C/ ML 2ug/L
	7. Ethylbenzene (E)	(limited as ug/L total BTEX) Me#8260C/ ML 2ug/L
	8. (m,p,o) Xylenes (X)	(limited as ug/L total BTEX) Me#8260C/ ML 2ug/L
	9. Total Benzene, Toluene, Ethyl Benzene, and Xylenes (BTEX) ⁴	100 ug/L/ Me#8260C/ ML 2ug/L
	10. Ethylene Dibromide (EDB) (1,2- Dibromoethane)	0.05 ug/l/ Me#8260C/ ML 10ug/L
	11. Methyl-tert-Butyl Ether	70.0 ug/l/Me#8260C/ML 10ug/L

	<u>Parameter</u>	<u>Effluent Limit/Method#/ML</u> (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
	(MtBE)	
	12. tert-Butyl Alcohol (TBA) (Tertiary Butanol)	Monitor Only(ug/L)/Me#8260C/ML 10ug/L
	13. tert-Amyl Methyl Ether (TAME)	Monitor Only(ug/L)/Me#8260C/ML 10ug/L
	14. Naphthalene ⁵	20 ug/L /Me#8260C/ML 2ug/L
✓	15. Carbon Tetrachloride	4.4 ug/L /Me#8260C/ ML 5ug/L
	16. 1,2 Dichlorobenzene (o-DCB)	600 ug/L /Me#8260C/ ML 5ug/L
	17. 1,3 Dichlorobenzene (m-DCB)	320 ug/L /Me#8260C/ ML 5ug/L
	18. 1,4 Dichlorobenzene (p-DCB)	5.0 ug/L /Me#8260C/ ML 5ug/L
	18a. Total dichlorobenzene	763 ug/L - NH only /Me#8260C/ ML 5ug/L
	19. 1,1 Dichloroethane (DCA)	70 ug/L /Me#8260C/ ML 5ug/L
	20. 1,2 Dichloroethane (DCA)	5.0 ug/L /Me#8260C/ ML 5ug/L
✓	21. 1,1 Dichloroethene (DCE)	3.2 ug/L/Me#8260C/ ML 5ug/L
✓	22. cis-1,2 Dichloroethene (DCE)	70 ug/L/Me#8260C/ ML 5ug/L
✓	23. Methylene Chloride	4.6 ug/L/Me#8260C/ ML 5ug/L
	24. Tetrachloroethene (PCE)	5.0 ug/L/Me#8260C/ ML 5ug/L
	25. 1,1,1 Trichloro-ethane (TCA)	200 ug/L/Me#8260C/ ML 5ug/L
	26. 1,1,2 Trichloro-ethane (TCA)	5.0 ug/L /Me#8260C/ ML 5ug/L
✓	27. Trichloroethene (TCE)	5.0 ug/L /Me#8260C/ ML 5ug/L
	28. Vinyl Chloride (Chloroethene)	2.0 ug/L /Me#8260C/ ML 5ug/L
	29. Acetone	Monitor Only(ug/L)/Me#8260C/ML 50ug/L
✓	30. 1,4 Dioxane	Monitor Only /Me#1624C/ML 50ug/L
	31. Total Phenols	300 ug/L Me#420.1&420.2/ML 2 ug/L/ Me# 420.4 /ML 50ug/L
✓	32. Pentachlorophenol (PCP)	1.0 ug/L /Me#8270D/ML 5ug/L, Me#604 &625/ML 10ug/L
	33. Total Phthalates (Phthalate esters) ⁶	3.0 ug/L ** /Me#8270D/ML 5ug/L, Me#606/ML 10ug/L & Me#625/ML 5ug/L
	34. Bis (2-Ethylhexyl) Phthalate [Di- (ethylhexyl) Phthalate]	6.0 ug/L /Me#8270D/ML 5ug/L, Me#606/ML 10ug/L & Me#625/ML 5ug/L
	35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	10.0 ug/L
	a. Benzo(a) Anthracene ⁷	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	b. Benzo(a) Pyrene ⁷	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	c. Benzo(b) Fluoranthene ⁷	0.0038 ug/L /Me#8270D/ ML 5ug/L,

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

	<u>Metal parameter</u>	<u>Total Recoverable MA/Metal Limit</u> <u>H ¹⁰ = 50 mg/l</u> <u>CaCO₃, Units = ug/l ^(11/12)</u>		<u>Minimum level=ML</u>	
		<u>Freshwater Limits</u>			

	Metal parameter	Total Recoverable MA/Metal Limit $H^{10} = 50 \text{ mg/l}$ CaCO₃, Units = ug/l ^(11/12)		Minimum level=ML	
		Freshwater Limits			
	39. Antimony	18.03		ML	10
	40. Arsenic **	10		ML	20
	41. Cadmium **	0.2		ML	10
	42. Chromium III (trivalent) **	48.8		ML	15
	43. Chromium VI (hexavalent) **	11.4		ML	10
	44. Copper **	16.74		ML	15
	45. Lead **	1.3		ML	20
	46. Mercury **	0.9		ML	02
	47. Nickel **	93.38		ML	20
	48. Selenium **	5		ML	20
	49. Silver	1.2		ML	10
	50. Zinc **	214.45		ML	15
✓	51. Iron	3,220		ML	20

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

Footnotes:

¹ Although the maximum values for TRC are 11ug/l and 7.5 ug/l for freshwater, and saltwater respectively, the compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI (i.e., Method 330.5, 20 ug/l).

² Limits for cyanide are based on EPA's water quality criteria expressed as micrograms per liter. There is currently no EPA approved test method for free cyanide. Therefore, total cyanide must be reported.

³ Although the maximum values for cyanide are 5.2 ug/l and 1.0 ug/l for freshwater and saltwater, respectively, the compliance limits are equal to the minimum level (ML) of the Method 335.4 as listed in Appendix VI (i.e., 10 ug/l).

⁴ BTEX = sum of Benzene, Toluene, Ethylbenzene, and total Xylenes.

⁵ Naphthalene can be reported as both a purgeable (VOC) and extractable (SVOC) organic compound. If both VOC and SVOC are analyzed, the highest value must be used unless the QC criteria for one of the analyses is not met. In such cases, the value from the analysis meeting the QC criteria must be used.

⁶ The sum of individual phthalate compounds(not including the #34, Bis (2-Ethylhexyl) Phthalate . The compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI.

Total values calculated for reporting on NOIs and discharge monitoring reports shall be calculated by adding the measured concentration of each constituent. If the measurement of a constituent is less than the ML, the permittee shall use a value of zero for that constituent. For each test, the permittee shall also attach the raw data for each constituent to the discharge monitoring report, including the minimum level and minimum detection level for the analysis.

⁷ Although the maximum value for the individual PAH compounds is 0.0038 ug/l, the compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI.

⁸ In the November 2002 WQC, EPA has revised the definition of Total PCBs for aquatic life as total PCBs is the sum of all homologue, all isomer, all congener, or all "Oroclor analyses."Total values calculated for reporting on NOIs and discharge monitoring reports shall be calculated by adding the measured concentration of each constituent. If the measure of a constituent is less than the ML, the permittee shall use a value of zero for that constituent. For each test, the permittee shall also attach the raw data for each constituent to the discharge monitoring report, including the minimum level and minimum detection level for the analysis.

⁹Although the maximum value for total PCBs is 0.000064 ug/l, the compliance limit is equal to the minimum level (ML) of the test method used as listed in Appendix VI (i.e., 0.5 ug/l for Method 608 or 0.00005 ug/l when Method 1668a is approved).

¹⁰ Hardness. Cadmium, Chromium III, Copper, Lead, Nickel, Silver, and Zinc are Hardness Dependent.

¹¹ For a Dilution Factor (DF) from 1 to 5, metals limits are calculated using DF times the base limit for the metal. See Appendix IV. For example, iron limits are calculated using $DF \times 1,000 \text{ ug/L}$ (the iron base limit). Therefore DF is 1.5, the iron limit will be 1,500 ug/L; DF 2, then iron limit = $1,000 \times 2 = 2,000 \text{ ug/L}$, etc. not to exceed the DF=5.

¹² Minimum Level (ML) is the lowest level at which the analytical system gives a recognizable signal and acceptable calibration point for the analyte. The ML represents the lowest concentration at which an analyte can be measured with a known level of confidence. The ML is calculated by multiplying the laboratory-determined method detection limit by 3.18 (see 40 CFR Part 136, Appendix B).

¹³ pH sampling for compliance with permit limits may be performed using field methods as provided for in EPA test Method 150.1.

¹⁴ Temperature sampling per Method 170.1



The Isosceles Group

50 Congress Street | Boston, MA 02109
Tel: 617.330.2800 | Fax: 617.330.2801

July 24, 2013
ISO 06-015D

EPA New England
Attention: Ms. Shelley Puleo
5 Post Office Square
Suite 100 (OEP06-3)
Boston, MA 02109

Re: Notice of Intent (NOI) to Discharge
Remediation General Permit MAG910000
31-33 Third Avenue
Burlington, MA

Dear Ms. Puleo:

Please find enclosed a Notice of Intent (NOI) submittal to discharge under Remediation General Permit (RGP) MAG910000 at 31-33 Third Avenue, in Burlington, Massachusetts (the Site).

This NOI is submitted to the US Environmental Protection Agency (US EPA) by The Isosceles Group (Isosceles) on behalf of the owner and operator of the Site, NWP Building 9 LLC. The NOI has been signed by the, Mr. Stephen Logan, representing the owner of the Site, and Mr. Dean Soultanian, of TMC Environmental, the proposed operator of the Site.

The discharge covered under the NOI will originate from planned dewatering operations within and adjacent to a disposal site that is listed by the Massachusetts Department of Environmental Protection (MassDEP), referred to as the Former Building 9 Septic Tank Excavation Area, (Release Tracking Nos. 3-32481 and 3-31614).¹ The dewatering operation will be performed as part of an Immediate Response Action (IRA) performed under the Massachusetts Contingency Plan (310 CMR 40.0000 [MCP]) to address an area of soil and groundwater contamination within the Site.

As described in the IRA Plan, the dewatering operation is intended to contain contaminated groundwater during the performance of nearby sub-surface construction activities, and to recover some contaminated groundwater within the identified contaminant release area. Dewatering effluent will be pumped to fractionation tanks and then treated to remove the contaminants of concern (VOCs including 1,4-dioxane), to a level that achieves the

¹ The IRA Plan can be reviewed online at
<http://public.dep.state.ma.us/fileviewer/Default.aspx?formdataid=0&documentid=222663>

applicable RGP Appendix III limits, and the applicable cleanup standards under the Massachusetts Contingency Plan (310 CMR 40.0000).

Because the dewatering activities described above and in the NOI are being performed under an MCP IRA Plan, we respectfully request that EPA expedite the review of this NOI.

If you have any questions regarding the enclosed NOI and attachments, please contact me directly at 617.330.2800.

Sincerely,

The Isosceles Group

A handwritten signature in blue ink, reading "M. Margret Hanley", is displayed on a light yellow rectangular background.

M. Margret Hanley, LSP
Principal

- c. Victor Alvarez, USPEPA
Steve Logan, Agent, NWP Building 9 LLC
Dean Soultanian, TMC Environmental, Inc.
Susan Lumello, Director, Burlington Board of Health
John Sanchez, Superintendent, Burlington Public Works Department
Joanne Fagan, MassDEP

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 : Former Building 9 Septic Tank Excavation Area		Facility/site	
Location of facility/site : longitude: <u>-71.224</u> latitude: <u>42.487</u>	Facility SIC code(s): N/A	Street: 31-33 Third Avenue	
b) Name of facility/site owner : NWP Building 9 LLC		Town: Burlington	
Email address of facility/site owner: slogan@nordblom.com	State: MA	Zip: 01803	County: Middlesex
Telephone no. of facility/site owner : 781-238-4802			
Fax no. of facility/site owner : 781-270-0359	Owner is (check one): 1. Federal ____ 2. State/Tribal ____ 3. Private <u>X</u> 4. Other ____ if so, describe:		
Address of owner (if different from site):			
Street: 71 Third Avenue			
Town: Burlington	State: MA	Zip: 01803-4470	County: Middlesex
c) Legal name of Operator	Operator telephone no: 508-966-6026		
TMC Environmental, Inc.	Operator fax no.: 508-966-6226		Operator email: dsoultanian@tmcenvironmental.com
Operator contact name and title:			
Address of operator (if different from owner):	Street: 19 National Drive		
Town: Franklin	State: MA	Zip: 02038	County: Norfolk

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_<u>⊗</u>_, if Y, number: _____ 2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge? Y___ N_<u>⊗</u>_, if Y, date and tracking #: _____ 3. Is the discharge a "new discharge" as defined by 40 CFR 122.2? Y_<u>⊗</u> N___ 4. For sites in Massachusetts, is the discharge covered under the Massachusetts Contingency Plan (MCP) and exempt from state permitting? Y_<u>⊗</u> N___	
e) Is site/facility subject to any State permitting, license, or other action which is causing the generation of discharge? Y_<u>⊗</u> N___ If Y, please list: 1. site identification # assigned by the state of NH or MA: <u>MassDEP RTNs 3-31481 and 3-31614</u> 2. permit or license # assigned: _____ 3. state agency contact information: name, location, and telephone number: MassDEP Northeastern Regional Office, Wilmington, Massachusetts, 01887. Telephone (978) 694-3200	f) Is the site/facility covered by any other EPA permit, including: 1. Multi-Sector General Permit? Y___ N_<u>⊗</u>_, if Y, number: _____ 2. Final Dewatering General Permit? Y___ N_<u>⊗</u>_, if Y, number: _____ 3. EPA Construction General Permit? Y___ N_<u>⊗</u>_, if Y, number: _____ 4. Individual NPDES permit? Y___ N_<u>⊗</u>_, if Y, number: _____ 5. any other water quality related individual or general permit? Y___ N_<u>⊗</u>_, if Y, number: _____
g) Is the site/facility located within or does it discharge to an Area of Critical Environmental Concern (ACEC)? Y___ N_<u>⊗</u>___	
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 <u>⊗</u>___ 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) ____
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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: Soil and groundwater were contaminated with VOCs associated with a former septic tank that was abandoned in the early 1970s. Dewatering will be conducted during excavation of the contaminated soil and also for contaminant containment and removal purposes. Construction dewatering may be performed at locations within 150 feet of former septic tank, for construction purposes.	
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 <u>0.045 (20 gpm)</u> Is maximum flow a design value ? Y ☒ N ____ Average flow (include units) <u>0.045 (20 gpm)</u> Is average flow a design value or estimate? <u>Design</u>
3) Latitude and longitude of each discharge within 100 feet: pt.1: lat. <u>42.487</u> long. <u>-71.224</u> ; 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): <u>N/A</u>	5) Is the discharge intermittent ☒ or seasonal ____? Is discharge ongoing? Y ____ N ☒
c) Expected dates of discharge (mm/dd/yy): start <u>8/5/2013</u> end <u>10/28/2013</u>	
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).	

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	2530D	5,000	11,000	1.2	11,000	1.2
2. Total Residual Chlorine (TRC)		☒		1	Grab	4500CL F	20	< 50	< 0.005	< 50	< 0.005
3. Total Petroleum Hydrocarbons (TPH)		☒		1	Grab	1664A	5,000	< 4,100	< 0.45	< 4,100	< 0.45
4. Cyanide (CN)	57125	☒		1	Grab	335.4	10	< 10	< 0.001	< 10	< 0.001
5. Benzene (B)	71432	☒		1	Grab	8260B	2	< 2.5	< 0.0003	< 2.5	< 0.0003
6. Toluene (T)	108883	☒		1	Grab	8260B	2	< 5.0	< 0.0006	< 5.0	< 0.0006
7. Ethylbenzene (E)	100414	☒		1	Grab	8260B	2	< 5.0	< 0.0006	< 5.0	< 0.0006
8. (m,p,o) Xylenes (X)	108883; 106423; 95476; 1330207	☒		1	Grab	8260B	10	< 5.0	< 0.0006	< 5.0	< 0.0006
9. Total BTEX ²	n/a	☒		1	Grab	8260B	2	< 5.0	< 0.0006	< 5.0	< 0.0006
10. Ethylene Dibromide (EDB) (1,2-Dibromoethane) ³	106934	☒		1	Grab	8260B	10	< 10	< 0.001	< 10	< 0.001
11. Methyl-tert-Butyl Ether (MtBE)	1634044	☒		1	Grab	8260B	5	< 5.0	< 0.0006	< 5.0	< 0.0006
12. tert-Butyl Alcohol (TBA) (Tertiary-Butanol)	75650	☒		1	Grab	8260B	100	< 100	< 0.01	< 100	< 0.01

* 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	8260B	0.5	< 10	< 0.001	< 10	< 0.001
14. Naphthalene	91203	☒		1	Grab	8260B	10	< 25	< 0.003	< 25	< 0.003
15. Carbon Tetrachloride	56235	☒		1	Grab	8260B	2	< 5.0	< 0.0006	< 5.0	< 0.0006
16. 1,2 Dichlorobenzene (o-DCB)	95501	☒		1	Grab	8260B	2	< 5.0	< 0.0006	< 5.0	< 0.0006
17. 1,3 Dichlorobenzene (m-DCB)	541731	☒		1	Grab	8260B	2	< 5.0	< 0.0006	< 5.0	< 0.0006
18. 1,4 Dichlorobenzene (p-DCB)	106467	☒		1	Grab	8260B	2	< 5.0	< 0.0006	< 5.0	< 0.0006
18a. Total dichlorobenzene		☒		1	Grab	8260B	2	< 5.0	< 0.0006	< 5.0	< 0.0006
19. 1,1 Dichloroethane (DCA)	75343	☒		1	Grab	8260B	1	< 5.0	< 0.0006	< 5.0	< 0.0006
20. 1,2 Dichloroethane (DCA)	107062	☒		1	Grab	8260B	2	< 5.0	< 0.0006	< 5.0	< 0.0006
21. 1,1 Dichloroethene (DCE)	75354	☒		1	Grab	8260B	2	< 5.0	< 0.0006	< 5.0	< 0.0006
22. cis-1,2 Dichloroethene (DCE)	156592		☒	1	Grab	8260B	2	309	0.0337	309	0.0337
23. Methylene Chloride	75092	☒		1	Grab	8260B	2	< 10	< 0.001	< 10	< 0.001
24. Tetrachloroethene (PCE)	127184	☒		1	Grab	8260B	2	< 5.0	< 0.0006	< 5.0	< 0.0006
25. 1,1,1 Trichloro-ethane (TCA)	71556	☒		1	Grab	8260B	2	< 5.0	< 0.0006	< 5.0	< 0.0006
26. 1,1,2 Trichloro-ethane (TCA)	79005	☒		1	Grab	8260B	2	< 5.0	< 0.0006	< 5.0	< 0.0006
27. Trichloroethene (TCE)	79016		☒	1	Grab	8260B	2	8,430	0.919	8,430	0.919

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	8260B	2	< 5.0	< 0.0006	< 5.0	< 0.0006
29. Acetone	67641	☒		1	Grab	8260B	50	< 50	< 0.006	< 50	< 0.006
30. 1,4 Dioxane	123911		☒	1	Grab	8260B	50	< 130	< 0.02	< 130	< 0.02
31. Total Phenols	108952	☒		1	Grab	420.1	1	< 50	< 0.006	< 50	< 0.006
32. Pentachlorophenol (PCP)	87865	☒		1	Grab	8270C	5	< 12	< 0.002	< 12	< 0.002
33. Total Phthalates (Phthalate esters) ⁴		☒		1	Grab	8270C	10	< 5.8	< 0.0006	< 5.8	< 0.0006
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	117817	☒		1	Grab	8270C	5	11.2	0.001	11.2	0.001
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)		☒		1	Grab	8270C by SIM	5	< 0.12	< 0.00002	< 0.12	< 0.00002
a. Benzo(a) Anthracene	56553	☒		1	Grab	8270C by SIM	10	< 0.058	< 0.000006	< 0.058	< 0.000006
b. Benzo(a) Pyrene	50328	☒		1	Grab	8270C by SIM	10	< 0.12	< 0.00002	< 0.12	< 0.00002
c. Benzo(b)Fluoranthene	205992	☒		1	Grab	8270C by SIM	10	< 0.058	< 0.000006	< 0.058	< 0.000006
d. Benzo(k)Fluoranthene	207089	☒		1	Grab	8270C by SIM	10	< 0.12	< 0.00002	< 0.12	< 0.00002
e. Chrysene	21801	☒		1	Grab	8270C by SIM	10	< 0.12	< 0.00002	< 0.12	< 0.00002
f. Dibenzo(a,h)anthracene	53703	☒		1	Grab	8270C by SIM	10	< 0.12	< 0.00002	< 0.12	< 0.00002
g. Indeno(1,2,3-cd) Pyrene	193395	☒		1	Grab	8270C by SIM	10	< 0.12	< 0.00002	< 0.12	< 0.00002
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)		☒		1	Grab	8270C by SIM	10	< 0.12	< 0.00002	< 0.12	< 0.00002

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	8270C by SIM	1	< 0.12	< 0.00002	< 0.12	< 0.00002
i. Acenaphthylene	208968	☒		1	Grab	8270C by SIM	10	< 0.12	< 0.00002	< 0.12	< 0.00002
j. Anthracene	120127	☒		1	Grab	8270C by SIM	10	< 0.12	< 0.00002	< 0.12	< 0.00002
k. Benzo(ghi) Perylene	191242	☒		1	Grab	8270C by SIM	5	< 0.12	< 0.00002	< 0.12	< 0.00002
l. Fluoranthene	206440	☒		1	Grab	8270C by SIM	10	< 0.12	< 0.00002	< 0.12	< 0.00002
m. Fluorene	86737	☒		1	Grab	8270C by SIM	10	< 0.12	< 0.00002	< 0.12	< 0.00002
n. Naphthalene	91203	☒		1	Grab	8270C by SIM	5	< 0.12	< 0.00002	< 0.12	< 0.00002
o. Phenanthrene	85018	☒		1	Grab	8270C by SIM	5	< 0.058	< 0.000006	< 0.058	< 0.000006
p. Pyrene	129000	☒		1	Grab	8270C by SIM	10	< 0.12	< 0.00002	< 0.12	< 0.00002
37. Total Polychlorinated Biphenyls (PCBs)	85687; 84742; 117840; 84662; 131113; 117817.	☒		1	Grab	8082	0.5	< 0.26	< 0.00003	< 0.26	< 0.00003
38. Chloride	16887006		☒	1	Grab	4500CL C		46,500	5.1	46,500	5.1
39. Antimony	7440360	☒		1	Grab	6020A	50	< 1.0	< 0.0001	< 1.0	< 0.0001
40. Arsenic	7440382	☒		1	Grab	6020A	5	< 1.0	< 0.0001	< 1.0	< 0.0001
41. Cadmium	7440439	☒		1	Grab	6020A	5	< 1.0	< 0.0001	< 1.0	< 0.0001
42. Chromium (total)	16065831	☒		1	Grab	6020A	10	< 2.0	< 0.0002	< 2.0	< 0.0002
43. Chromium VI (hexavalent)	18540299	☒		1	Grab	7196A	10	< 10	< 0.001	< 10	< 0.001
44. Copper	7440508		☒	1	Grab	6020A	5	3.3	0.0004	3.3	0.0004
45. Lead	7439921	☒		1	Grab	6020A	40	< 1.0	< 0.0001	< 1.0	< 0.0001
46. Mercury	7439976	☒		1	Grab	7470A	0.2	< 0.20	< 0.00002	< 0.20	< 0.00002
47. Nickel	7440020		☒	1	Grab	6020A	10	2.3	0.0003	2.3	0.0003
48. Selenium	7782492	☒		1	Grab	6020A	50	< 1.0	< 0.0001	< 1.0	< 0.0001
49. Silver	7440224	☒		1	Grab	6020A	10	< 1.0	< 0.0001	< 1.0	< 0.0001
50. Zinc	7440666		☒	1	Grab	6020A	10	14.7	0.002	14.7	0.002
51. Iron	7439896		☒	1	Grab	6020A	200.7	235	0.026	235	0.026
Other (describe):											

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

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

<i>Step 1:</i> 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?
<i>Step 2:</i> 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: _____ DF: _____ Metal: _____ DF: _____ 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: Cadmium [D.F.] 3.2 * [App. IV] 0.2 = 0.64 ug/L [D.F. calculation attached]

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: Water will be pumped into a fractionation tank, a bag filter, GAC, and a UV treatment system prior to discharge in a catch basin. A schematic of the proposed treatment system (Figure 3) is attached.						
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): UV treatment and peroxide injection for VOCs (specifically 1,4-dioxane)			

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 <u>20</u> gpm Maximum flow rate of treatment system <u>20</u> gpm Design flow rate of treatment system <u>20</u> gpm
d) A description of chemical additives being used or planned to be used (attach MSDS sheets): Hydrogen peroxide will be used in the treatment system during the UV oxidation stage.

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: Effluent will be discharged to a catch basin that drains to a municipal storm drain system, which discharges to Vine Brook (see attached Figure 1).					
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. Note: See attached Figures. Sanitary Sewer is located less than 200 feet to the north of the Site along Third Avenue.					
d) Provide the state water quality classification of the receiving water <u>B</u> _____					
e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water <u>0.1</u> 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)? <u>Fecal Coliform.</u>					
Is there a final TMDL? Y ☒ N _____ If yes, for which pollutant(s)? <u>pathogens</u>					

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.

(i) Dewatering covered under this RGP will be performed under a Immediate Response Action Plan (IRA) for Massachusetts Department of Environmental Protection Site Former Building 9 Septic Tank Excavation Area, 31-33 Third Avenue, Burlington MA, RTN 3-31614, prepared by The Isosceles Group, July 12, 2012
(<http://public.dep.state.ma.us/fileviewer/Default.aspx?formdataid=0&documentid=222663>).

(ii) Laboratory data reports for representative groundwater samples collected in the dewatering area are attached to this NOI submittal.

(iii) Documentation of consultation with U.S. Fish and Wildlife Service and/or NOAA Fisheries Service is attached to this NOI.

(iv) Basis for identification of Vine Brook as water quality impaired can be found at:

http://www.epa.gov/region1/npdes/stormwater/ma/305b303dMaps/Burlington_MA.pdf

<http://www.mass.gov/dep/water/resources/08list2.pdf>

<http://www.mass.gov/eea/docs/dep/water/resources/07v5/12list2.pdf>

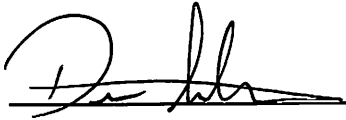
8. Signature Requirements: The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22, including the following certification:

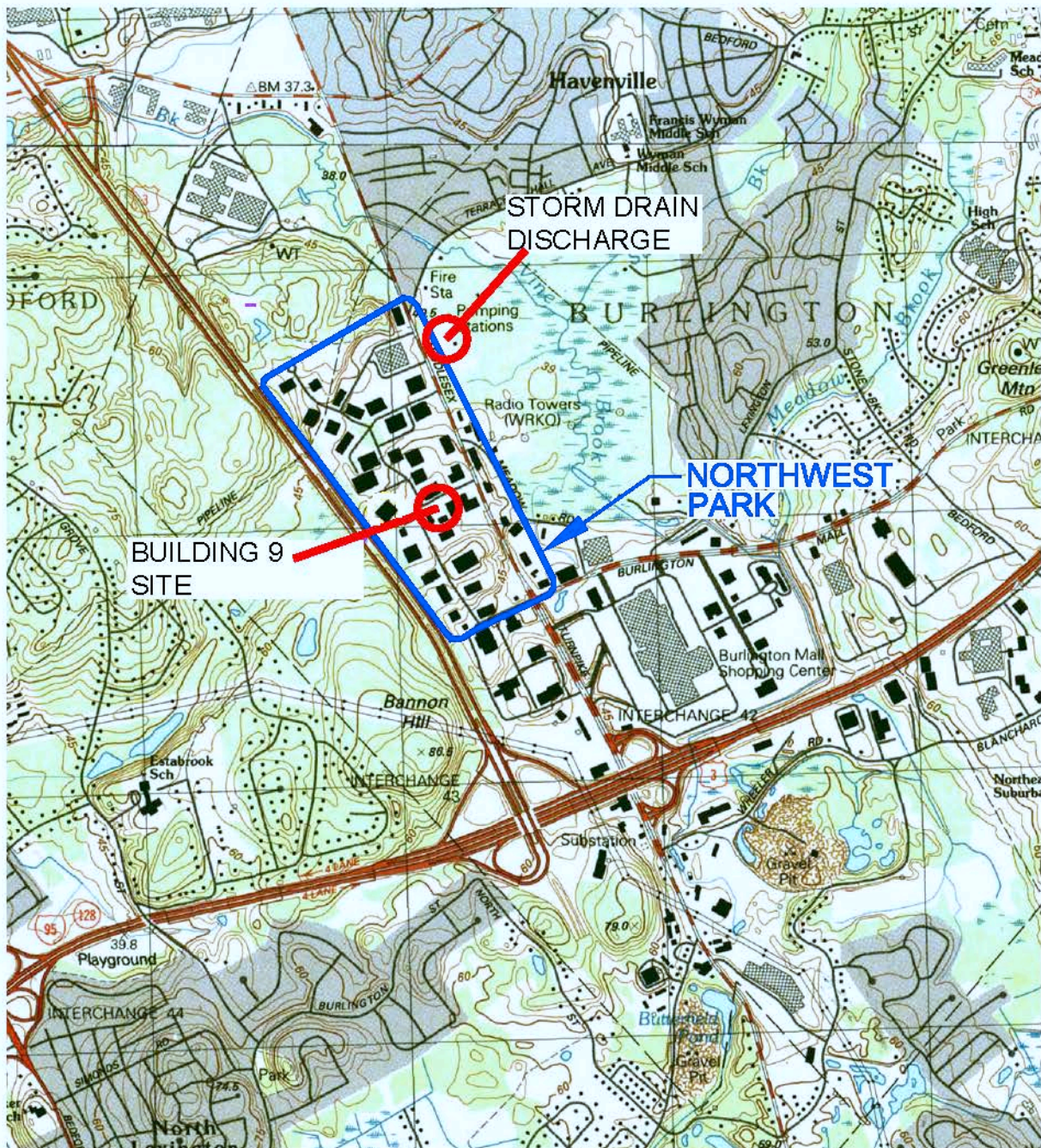
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage 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:	Former Building 9 Septic Tank Excavation Area
Owner signature:	
Printed Name & Title:	Stephen Logan, Agent for NWP Building 9 LLC
Date:	7/23/2013

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:	Former Building 9 Septic Tank Excavation Area
Operator signature:	
Printed Name & Title:	Dean Soultanian, Director of Proposal Development
Date:	7/24/13



0 1000 2000 4000 6000
SCALE, FEET

M:\DATA

This Map Image provided by MassGIS is taken from U.S.G.S. Topographic 7.5 X 15 Minute Series Boston North, MA Quadrangle, 1985. Datum is National Geodetic Vertical Datum of 1929 (NGVD).



Building 9 Site, Third Avenue
Burlington, Massachusetts

NWP Building 9, LLC
Burlington, Massachusetts

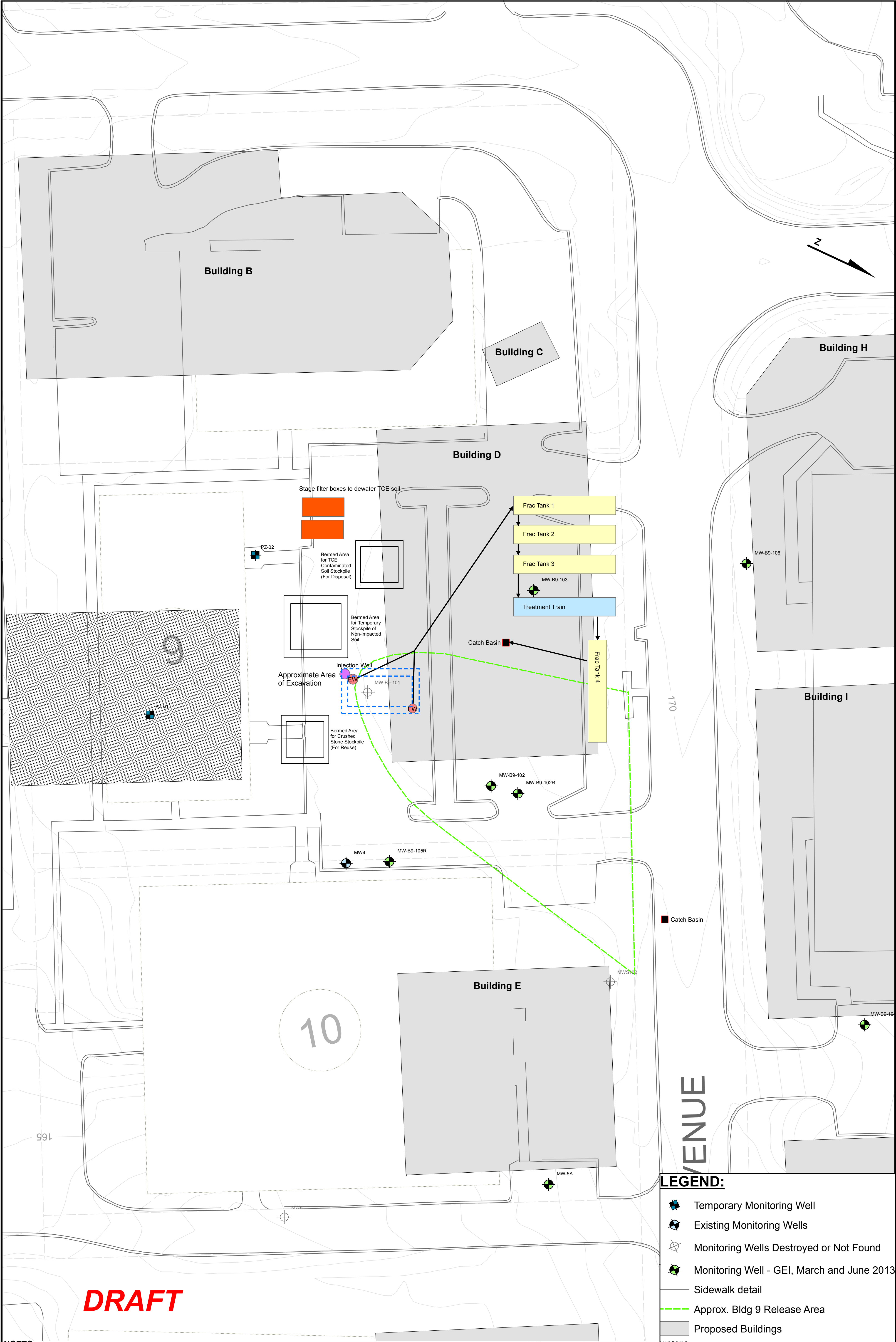


Project 06389-6

PROPERTY LOCATION MAP

July 2013

Fig. 1



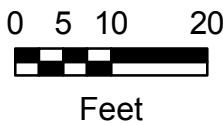
NOTES:

1. Property lines compiled from plans of record and are shown graphically.

2. Elevations are based on National Geodetic Vertical Datum of 1929.

3. The existing conditions plan created by BSC Group dated April 2013.

4. Plan prepared by GEI Consultants, Inc. June 2013.



U.S. EPA RGP NOI
BUILDING 9 SITE, THIRD AVENUE
BURLINGTON, MASSACHUSETTS

NWP BUILDING 9, LLC
BURLINGTON, MASSACHUSETTS

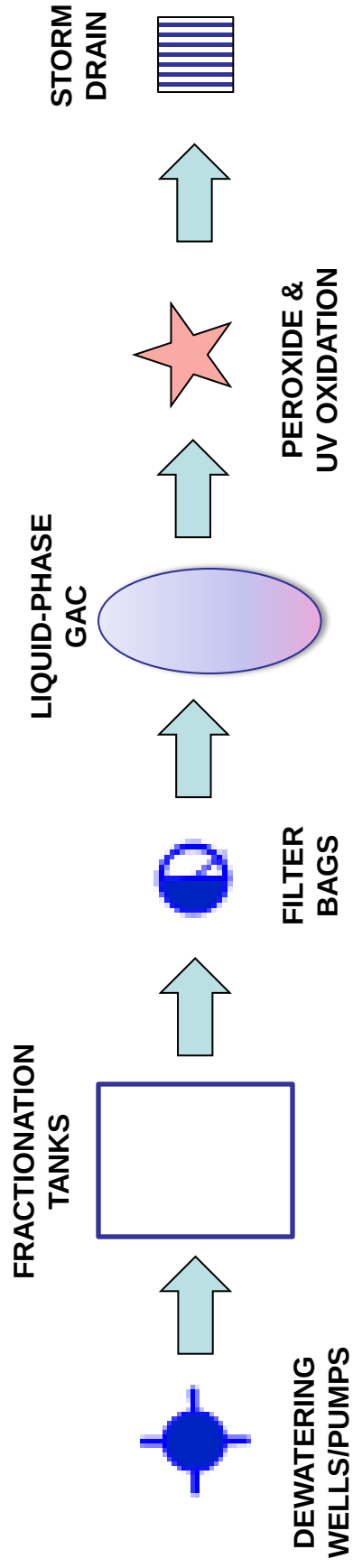


DEWATERING SITE
PLAN

Project 06389-7 July 2013

Fig. 2

M:\GIS\Projects\2006\063897 NWP Third Ave Development\MAP\063897_Building 9 Dewatering.mxd



U.S. EPA RGP NOI BUILDING 9 SITE, THIRD AVENUE BURLINGTON, MASSACHUSETTS		 GEI Consultants	SCHEMATIC TREATMENT SYSTEM PLAN	
NWP BUILDING 9, LLC BURLINGTON, MASSACHUSETTS			Project 06389-7	July 2013
				Fig. 3

Table 1
Laboratory Testing Results - RGP Parameters
Northwest Park - Building 9
Burlington, Massachusetts

Location Name:					MW-B9-101
Sample Name:					063897-MW-B9-101
Sample Date:					6/11/2013
Analyte	Method	Units	RGP Effluent Limit		
Volatile Organic Compounds (VOCs)					
cis-1,2-Dichloroethene	SW846 8260B	ug/L	70	50.2	309
Trichloroethene			5	1.610	8,430
Volatile Organic Compounds (VOCs)					
1,4-Dioxane	SW846 8260B by SIM	ug/L	NS	--	< 0.20
Semi-Volatile Organic Compounds (SVOCs)					
Bis(2-ethylhexyl)phthalate	SW846 8270C	ug/L	6	11.2	--
Total Metals					
Antimony	SW846 6020A	ug/L	5.6	< 1.0	--
Arsenic	SW846 6020A		10	< 1.0	--
Cadmium	SW846 6020A		0.2	< 1.0	--
Chromium, Total	SW846 6020A		48.8	< 2.0	--
Chromium, Hexavalent	SW846 7196A		11.4	< 10	--
Copper	SW846 6020A		5.2	3.3	--
Iron	SW846 6020A		1,000	235	< 100
Lead	SW846 6020A		1.3	< 1.0	--
Mercury	SW846 7470A		0.9	< 0.20	--
Nickel	SW846 6020A		29	2.3	--
Selenium	SW846 6020A		5	< 1.0	--
Silver	SW846 6020A		1.2	< 1.0	--
Zinc	SW846 6020A	ug/L	66.6	14.7	--
Dissolved Metals					
Chromium, Hexavalent	SW846 7196A	ug/L	11.4	< 10	--
Polychlorinated Biphenyls (PCBs)					
Total PCBs	SW846 8082	ug/L	0.00064	< 0.26	--
Other					
Chloride	SM21 4500CL C	mg/L	NS	46.5	--
Total Residual Chlorine	SM21 4500CL F		0.011	< 0.050	--
Cyanide, Total	EPA 335.4		0.0052	< 0.010	--
HEM Petroleum Hydrocarbons	EPA 1664A		5	< 4.1	--
Phenols, Total	EPA 420.1		300,000	< 0.050	--
Alkalinity	SM21 2320B		NS	--	177
Sulfate	ASTM516-90.02		NS	--	38.6
Sulfide	SM21 4500 S F		NS	--	< 2.0
Total Suspended Solids (TSS)	SM21 2530D		30	11.0	--

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the laboratory data sheets.
2. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
3. RGP = Remediation General Permit.
4. RGP Effluent Limit values are cited from the EPA's RGP Appendix III.
5. NS = No standard has been established for this analyte.
6. "--" = Not Tested.
7. mg/L = milligrams per liter.
8. ug/L = micrograms per liter.

Remediation General Permit – Notice of Intent

Dilution Factor Calculation

Dilution Factor:

To calculate the dilution factor the following formula was used:

$DF = (Q_d + Q_s)/Q_d$ where: Q_d = Maximum flow rate of discharge in cubic feet per second (cfs)

Q_s = Receiving water 7Q10 flow in cfs

$DF = (0.045 \text{ cfs} + 0.1 \text{ cfs}) / 0.045 \text{ cfs} = 3.2$

The receiving water flow was obtained from “Gazetteer of Hydrologic Characteristics of Streams in Massachusetts – Coastal River Basins of the North Shore and Massachusetts Bay” (S. William Wandle, Jr; 1984) for Vine Brook at Medfield (gauging station number 01103350).

<http://pubs.usgs.gov/wri/1984/4281/report.pdf>



HYDROGEN PEROXIDE 7%-35%

MSDS Safety Information

MSDS Date: June 24, 2009

MSDS Num: 00922002

Product ID: HYDROGEN PEROXIDE 7% to 35 %

Responsible Party Cage Name: Borden & Remington

Address: 63 Water St

City: Fall River

State: Massachusetts

Info Phone Number 508.675.0096

Emergency Phone Number: SAME

Chemtrec IND/Phone: (800)424-9300

Ingredients

Cas: 7722-84-1

RTECS #: MX0899000

Name: HYDROGEN PEROXIDE.

OTHER REC LIM: NIOSH: 1 PPM TWA; 1.4 MG/M3 TWA; 75 PPM

IDLH. LD50:(ORAL,MOUSE) 2 GM/KG.

Percent by Wt: 7 to 35.

OSHA PEL: 1.4 MG/M3;1 PPM

ACGIH TLV: 1.4 MG/M3;1 PPM

ACGIH STEL: NOT ESTABLISHED

Cas: 7732-18-5

RTECS #: ZC0110000

Name: WATER. LD50:(ORAL,RAT) >90 ML/KG.

Percent by Wt: 90 to 65.

Health Hazards Data

LD50 LC50 Mixture: SEE INGREDIENTS & TOX INFORMATION.

Route Of Entry Inds - Inhalation: YES

Skin: YES

Ingestion: YES

Carcinogenicity Inds - NTP: NO

IARC: NO

OSHA: NO

Effects of Exposure: ACUTE: EYE: PRODUCES IRRITATION, CHARACTERIZED BY A BURNING SENSATION, REDNESS, TEARING, INFLAMMATION AND POSSIBLE CORNEAL INJURY. VAPORS MAY CAUSE IRRITATION. SKIN: MAY CAUSE IRRITATION. INGESTION: MAY CAUSE IRRITATION OF THE DIGESTIVE TRACT. INHALATION: MAY CAUSE RESPIRATORY TRACT IRRITATION. IRRITATION MAY LEAD TO CHEMICAL PNEUMONITIS AND PULMONARY EDEMA. CHRONIC: NO INFORMATION FOUND.

TARGET ORGANS: NONE.

EXPLANATION OF CARCINOGENICITY: HYDROGEN PEROXIDE: ACGIH: A3 - ANIMAL CARCINOGEN. IARC: GROUP 3 CARCINOGEN. WATER: NOT LISTED BY ACGIH, IARC, NIOSH, NTP, OR OSHA.

SIGNS AND SYMPTIONS OF OVEREXPOSURE: SEE HEALTH HAZARDS.

FIRST AID: EYES:IMMED FLUSH W/PLENTY OF WATER FOR AT LST 15 MINS, OCCAS LIFTING UPPER & LOWER LIDS. GET MD IMMED. DO NOT ALLOW VICTIM TO RUB/KEEP EYES CLOSED. SKIN:FLUSH W/PLENTY OF SOAP & WATER FOR AT LST 15 MINS WHILE REMOVING CONTAM CLTHG & SHOES. GET MED AID IF IRRIT DEVELS/PERSISTS. WASH CLTHG BEFORE REUSE. INGEST:DO NOT INDUCE VOMIT. IF VICTIM IS CONSCIOUS & ALERT, GIVE 2-4 CUPFULS OF MILK/WATER. NEVER GIVE ANYTHING BY MOUTH TO UNCONCIOUS PERS. GET MD IMMED. CALL POIS CTL CTR. INHAL:REMOVE FROM EXPOS TO FRESH AIR IMMED. IF NOT BRTHG, GIVE ARTF RESP. IF BRTHG IS DFCLT, GIVE OXYG. GET MED AID. NOTES TO MD: TREAT SYMPTOMATICALLY & SUPPORTIVELY.

Handling and Disposal

SPILL RELEASE PROCEDURES: USE PROPER PERSONAL PROTECTIVE EQUIPMENT AS INDICATED IN EXPOSURE CONTROLS, PERSONAL PROTECTION SECTION.

AVOID RUNOFF INTO STORM SEWERS & DITCHES WHICH LEAD TO WATERWAYS. CLEAN UP SPILLS IMMEDIATELY, OBSERVING PRECAUTIONS IN PROT EQUIP SECTION. USE WATER SPRAY TO DISPERSE GAS OR VAPOR. ABSORB SPILL USING ABSORBENT, NON-COMBUSTIBLE MATERIAL SUCH AS EARTH, SAND OR VERMICULITE. PROVIDE VENTILATION.

WASTE DISPOSAL METHODS: DISPOSE OF IN A MANNER CONSISTENT WITH FEDERAL, STATE AND LOCAL REGULATIONS. RCRA P-SERIES: NONE LISTED. RCRA U-SERIES: NONE LISTED.

HANDLING AND STORAGE PRECAUTIONS: USE WITH ADEQUATE VENTILATION. DO NOT GET ON SKIN OR IN EYES. DO NOT INGEST OR INHALE. KEEP AWAY FROM HEAT AND FLAME. DO NOT STORE IN DIRECT SUNLIGHT. STORE IN A COOL, DRY, WELL-VENTILATED AREA AWAY FROM INCOMPATIBLE SUBSTANCES.

OTHER PRECAUTIONS: -MATLS TO AVOID: CHROMIUM, COPPER, CUPRIC SULFIDE, DIMETHYL- BENZYL CARBINOL + SULFURIC ACID, ETHYL ALCOHOL, FERROUS SULFIDE, FORMIC ACID + ORG MATTER, GOLD, HYDRAZINE, HYDROGEN SELENIDE, IRON, K ETONES + NITRIC ACID, LEAD, LEAD DIOXIDE, LEAD MONOXIDE, LEAD SULFIDE, LIME WATER, MAGNESIUM, MANGANESE, (SUPP DATA)

Fire and Explosion Hazard Information

Flash Point Text: NONCOMBUSTIBLE

Extinguishing Media: USE WATER ONLY! DO NOT USE CARBON DIOXIDE. DO NOT USE DRY CHEMICAL. COOL CONTAINERS WITH FLOODING QUANTITIES OF WATER UNTIL WELL AFTER FIRE IS OUT.

Fire Fighting Procedures: USE NIOSH APPROVED SCBA AND FULL PROTECTIVE EQUIPMENT (FP N). USE WATER SPRAY TO KEEP FIRE-EXPOSED CONTAINERS COOL. SUBSTANCE IS NON-COMBUSTIBLE.

Unusual Fire/Explosion Hazard: CONTAINERS CAN BUILD UP PRESSURE IF EXPOSED TO HEAT AND/OR FIRE. DURING A FIRE, IRRITATING AND HIGHLY TOXIC GASES MAY BE GENERATED BY THERMAL DECOMPOSITION OR COMBUSTION. NFPA RATING: NOT PUBLISHED.

Control Measures

Respiratory Protection: FOLLOW OSHA RESPIRATOR REGULATIONS FOUND IN 29 CFR 1910.134 OR EUROPEAN STANDARD EN 149. ALWAYS USE A NIOSH OR EUROPEAN STANDARD EN APPROVED RESPIRATOR WHEN NECESSARY.

Ventilation: USE ADEQ GENERAL OR LOCAL EXHAUST VENT TO KEEP AIRBORNE CONCS BELOW PELS. EXERCISE CARE IN CLEANING ALL EQUIP BEFORE USE W/SUBSTANCE TO PREVENT CONTAMINATION.

Protective Gloves: IMPERVIOUS GLOVES (FP N).

Eye Protection: ANSI APPROVED CHEMICAL WORKERS GOGGLES & FULL LENGTH
FACESHIELD(FP N). Other Protective Equipment: ANSI APPROVED EYE WASH & DELUGE
SHOWER (FP N).

WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT SKIN EXPOSURE.

Work Hygienic Practices: WASH THOROUGHLY AFTER HANDLING. REMOVE
CONTAMINATED CLOTHING AND WASH BEFORE REUSE.

Supplemental Safety and Health:

PRECAUTION:MANGANESE DIOXIDE, MERCURIC/MERCUROUS OXIDE,
MOLYBDENUM DISULFIDE, NITRIC ACID, ORG MATTER, 1-PHENYL-2-
METHYLPROPYL ALCOHOL + SULFURIC ACID, PLATINUM, POTASSIUM/POTASSIUM
PERMANGANATE, SILVER, SODIUM/SODIUM IODATE, THIODIGLYCOL,
UNSYMMETRICAL DIMETHYL HYDRAZINE.

Physical/Chemical Properties

Boiling Point: =100.C, 212.F

Melt/Freeze Pt: =0.C, 32.F

Decomp Text: NOT AVAILABLE

Vapor Pres: 23 MM HG @ 30C

Vapor Density: NOT AVAIL

Spec Gravity: 1.0 (3%)

PH: 5-6

molecular wt:34.0128.

viscosity: 1.25 CP

Evaporation Rate & Reference: >1.0 (BUTYL ACETATE=1)

Solubility in Water: COMPLETELY SOLUBLE

Appearance and Odor: CLEAR, COLORLESS LIQUID; ODORLESS.

Reactivity Data

Stability Indicator: YES SULFONIC ACID, (OTHER PREC)

Stability Condition To Avoid: STABLE AT ROOM TEMPERATURE IN CLOSED
CONTAINERS UNDER NORMAL STORAGE & HANDLING CONDITIONS. DECOMPOSES
SLOWLY TO RELEASE OXYGEN. AVOID INCOMPATIBLE MATERIALS, LIGHT, EXCESS
HEAT.

Materials To Avoid: ACETIC ACID, ACETIC ANHYDRIDE, ACETONE, ALCOHOLS +
SULFURIC ACID, AMMONIA & ITS CARBONATES, ANTIMONY TRISULFIDE, ARSENIC
TRISULFIDE, BRASS, BRONZE, T-BUTYL ALCOHOL, CELLULOSE, CHARCOAL,
CHLORINE + POTASSIUM HYDROXIDE, CHLOR

Hazardous Decomposition Products: IRRITATING AND TOXIC FUMES AND GASES,
OXYGEN, HYDROGEN GAS.

Hazardous Polymerization Indicator: NO

Toxicological Information

Toxicological Information: CAS # 7722-84-1 - LC50:(INHAL,RAT) 2 GM/M3/4H;
LD50:(SKIN,RAT) 4060 MG/KG. EPIDEMIOLOGY; TERATOGENICITY; REPRODUCTIVE
EFFECTS; NEUROTOXICITY; MUTAGENICITY: NO INFORMATION AVAILABLE.
OTHER STUDIES: NONE.

Ecological Information

Ecological: ECOTOXICITY: FINGERLING TROUT, >40 PPM/48H IS TOXIC. FATHEAD
MINNOW LC50=22-35 GM/L/96H. ENVIRONMENTAL FATE: NO INFORMATION
REPORTED.

PHYSICAL/CHEMICAL: NO INFORMATION AVAILABLE. OTHER: NONE. CLEAN AIR
ACT: THIS MATERIAL DOES NOT CONTAIN ANY HAZARDOUS AIR POLLUTANTS,
CLASS 1 OZONE DEPLETORS, OR CLASS 2 OZONE DEPLETORS.
CLEAN WATER ACT: NONE OF THE CHEMICALS IN THIS PRODUCT ARE LISTED AS
HAZARDOUS SUBSTANCES, PRIORITY POLLUTANTS, OR TOXIC POLLUTANTS
UNDER THE CWA.

Regulatory Information

Sara Title III Information: SECTION 302 (RQ): NONE OF THE CHEMICALS IN THIS
MATERIAL HAVE AN RQ. SECTION 302 (TPQ): CAS #7722-84-1: CONCENTRATION
>52%; TPQ = 1000 POUNDS; RQ = 1000 LBS. SARA CODES: CAS # 7722-84-1;
ACUTE, FLAMMABLE. SECTION 313: NO CHEMICALS ARE REPORTABLE UNDER
SECTION 313.

Federal Regulatory Information: TSCA: CAS #S 7722-84-1 & 7732-18-5 ARE
LISTED ON TSCA INVENTORY HLTH & SFTY REPORTING LIST. NONE OF CHEMS ARE
ON HLTH & SFTY REPORTING LIST. CHEM TEST RULES: NONE OF CHEMS IN THIS
PROD ARE UNDER CHEM TEST RULE. SECTION 12B: NONE OF CHEMS ARE LISTED
UNDER TSCA SECTION 12B. TSCA SIGNIFICANT NEW USE RULE: NONE OF CHEMS IN
THIS MATL HAVE SNUR UNDER TSCA.

OSHA: CAS #7722-84-1 IS CONSIDERED HIGHLY HAZ BY OSHA.
EUROPEAN/INTERNATL

REGS: EUROPEAN LABELING I/A/W EC DIRECTIVES: HAZ SYMBOLS: XI. RISK PHRA
SES: R 36/38 - IRRIT TO EYES & SKIN. SFTY PHRASES: S28 - AFTER CONT W/SKIN,
State Regulatory Information: HYDROGEN PEROXIDE CAN BE FOUND ON FOLLOWING
STATE RIGHT TO KNOW LISTS: CALIFORNIA, NEW JERSEY, FLORIDA,
PENNSYLVANIA, MINNESOTA, MASSACHUSETTS. WATER IS NOT PRESENT ON
STATE LISTS FROM CA, PA, MN, MA, FL OR NJ. CALIFORNIA NO SIGNIFICANT RISK
LEVEL: NONE OF CHEMS IN THIS PROD ARE LISTED. -- FED REGULATORY: SPECIFIED
BY MFR); S 36.39 - WEAR SUITABLE PROT CLTHG & EYE/FACE PROT. WGK (WATER
DANGER/PROT): CAS #7722-84-1.0; CAS #7732-18-5: NO INFO AVAIL. CANADA: CAS #S
7722-84-1 & 7732-18-5 ARE LISTED ON CANADA'S DSL/NDL LIST. THIS PROD HAS W
CLASSIFICATION OF D2B. CAS #S 7722-84-1 & 7732-18-5 ARE NOT LISTED ON
CANADA'S ING(OTHER INFO)

Other Information

Other Information: MFR'S INTERNATL EMER # 703-527-3887. ING INFO: EINECS# FOR HYDROGEN PEROXIDE IS 231-765-0 & FOR WATER IS 231-791-2. -- STATE REGULATORY INFO: DISCLOSURE LIST. EXPOS LIMS: CAS # 7722-84-1: OEL-AUSTRALIA, FRANCE: TWA 1 PPM (1.5 MG/M3). OEL-BELGIUM, DENMARK, GERMANY, THE NETHERLANDS, THE PHILIPPINES, TURKEY: TWA 1 PPM (1.4 MG/M3); OEL-FINLAND: TWA 1 PPM (1.4 MG/M3); STEL 3 PPM (4.2 MG/M3); OEL-SWITZERLAND: TWA 1 PPM (1.4 MG/M3); STEL 2 PPM (2.8 MG/M3); OEL-UNITED KINGDOM: TWA 1 PPM (1.5 MG/M3); STEL 2 PPM (3 MG/M3).

HAZCOM Label

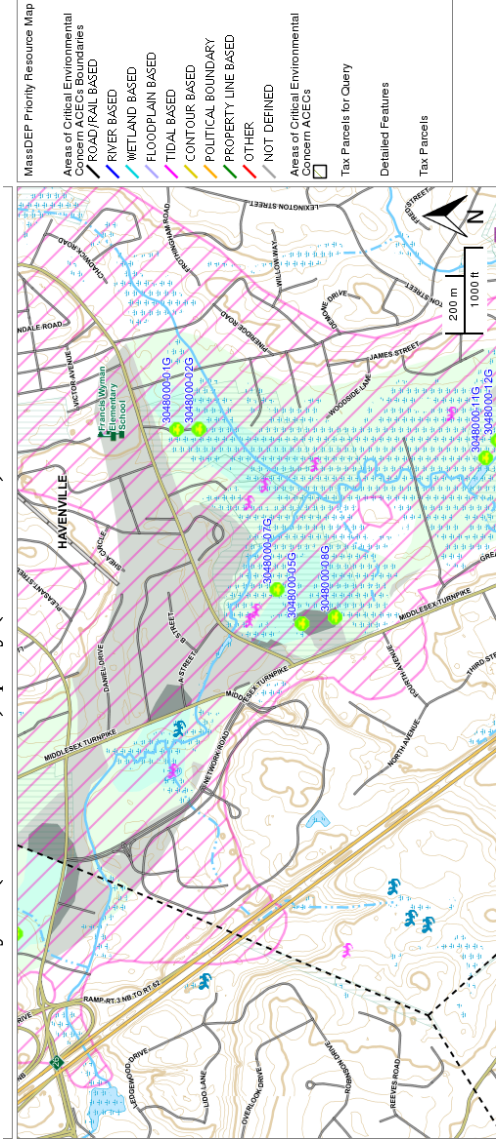
Product ID: HYDROGEN PEROXIDE 10 TO 35%
Company Name: Borden & Remington
Street: 106 Ferry St.
City: Fall River, MA
Zipcode: 02722
Health Emergency Phone: 508.675.0096
Label Required IND: Y
Eye Protection IND: YES
Skin Protection IND: YES
Signal Word: WARNING
Respiratory Protection IND: YES
Health Hazard: Slight
Contact Hazard: Moderate
Fire Hazard: None
Reactivity Hazard: Minor
Hazard And Precautions: ACUTE: EYE: PRODUCES IRRITATION, CHARACTERIZED BY A BURNING SENSATION, REDNESS, TEARING, INFLAMMATION AND POSSIBLE CORNEAL INJURY. VAPORS MAY CAUSE IRRITATION. SKIN: MAY CAUSE IRRITATION. INGESTION: MAY CAUSE IRRITATION OF THE DIGESTIVE TRACT. INHALATION: MAY CAUSE RESPIRATORY TRACT IRRITATION. IRRITATION MAY LEAD TO CHEMICAL PNEUMONITIS AND PULMONARY EDEMA. CHRONIC: NO INFORMATION FOUND. TARGET O RGANS: NONE.

USEPA RGP NOI
Building 9 Site, Third Avenue
Burlington, MA

Natural Heritage and Endangered Species Program website query (07/19/2013):
 Showing 1 to 4 of 4 entries

Town	Scientific Name	Common Name	MESA Status	Most Recent Obs
BURLINGTON	Carex polymorpha	Variable Sedge	E	2011
BURLINGTON	Nabalus serpentarius	Lion's Foot	E	1906
BURLINGTON	Notropis bifrenatus	Bridle Shiner	SC	1994
BURLINGTON	Terrapene carolina	Eastern Box Turtle	SC	1998

<http://www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/species-information-and-conservation/town-species-viewer.html>
 MassGIS Datalayers (ACEC & 21E) query (07/19/2013):



http://maps.massgis.state.ma.us/temp/OL_MORIS_print/1374246419.2054038277.html

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Flowering Plants	Small whorled pogonia (Isotria)		Threatened	New England Ecological	Small Whorled Pogonia	Final Revision 1
Flowering Plants	Sandplain gerardia (Agalinis)		Endangered	Long Island Ecological Services	Sandplain Gerardia	Final



07/21/13

Technical Report for

GEI Consultants, Inc.

Northwest Park Lower Third Avenue Development, Burlington, MA

063897

Accutest Job Number: MC22382

Sampling Date: 07/01/13

Report to:

GEI Consultants, Inc.

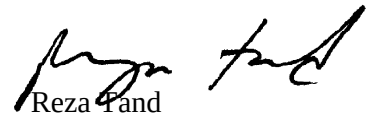
jenglehart@geiconsultants.com

ATTN: Jessica Englehart

Total number of pages in report: **24**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.


Reza Fand
Lab Director

Client Service contact: Frank DAgostino 508-481-6200

Certifications: MA (M-MA136, SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) ISO 17025:2005 (L2235)

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Test results relate only to samples analyzed.

Table of Contents

-1-

Section 1: Sample Summary	3
Section 2: Case Narrative/Conformance Summary	4
Section 3: Summary of Hits	7
Section 4: Sample Results	8
4.1: MC22382-1: 063897-MW-B9-102	9
4.2: MC22382-1A: 063897-MW-B9-102	17
4.3: MC22382-1F: 063897-MW-B9-102	18
Section 5: Misc. Forms	19
5.1: Parameter Certifications (MA)	20
5.2: Chain of Custody	21
5.3: MCP Form	24



Sample Summary

GEI Consultants, Inc.

Job No: MC22382

Northwest Park Lower Third Avenue Development, Burlington, MA
Project No: 063897

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
MC22382-1	07/01/13	14:13	CMM	07/01/13	AQ Ground Water	063897-MW-B9-102
MC22382-1A	07/01/13	14:13	CMM	07/01/13	AQ Ground Water	063897-MW-B9-102
MC22382-1F	07/01/13	14:13	CMM	07/01/13	AQ Groundwater Filtered	063897-MW-B9-102

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: GEI Consultants, Inc.

Job No MC22382

Site: Northwest Park Lower Third Avenue Development, Burlington, MA

Report Date 7/18/2013 3:04:16 PM

1 Sample(s) were collected on 07/01/2013 and were received at Accutest on 07/01/2013 properly preserved, at 3.6 Deg. C and intact. These Samples received an Accutest job number of MC22382. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix AQ

Batch ID: MSV796

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- MSV796-BS Recovery(s) for 1,4-Dioxane, 2,2-Dichloropropane, Acetone, tert-Butylbenzene, Tetrahydrofuran are outside control limits. Blank Spike meets program technical requirements.
- MSV796-BSD Recovery(s) for 1,4-Dioxane, 2,2-Dichloropropane, Acetone, tert-Butylbenzene are outside control limits. Blank Spike meets program technical requirements.
- MSV796-BS/BSD for Hexachlorobutadiene: Outside control limits. Associated samples are non-detect for this compound.
- The response factor (RF) for the 2-Butanone low point (0.051) and average point (0.061) in the initial calibration MSV776-ICC776 are less than the required RF of 0.1 as noted in Table 4 of SW846 8260C.
- Continuing calibration check standard MSV796-CC776 for acetone, 2-butanone, 2,2-dichloropropane, Tetrahydrofuran exceed 20% Difference. This check standard met MCP criteria.
- Continuing calibration check standard MSV796-CC776 for trichlorofluoromethane, carbon disulfide, 2,2-dichloropropane, carbon tetrachloride, 1,1,1,2-tetrachloroethane, isopropylbenzene, npropylbenzene, 4-chlorotoluene, tert-butylbenzene, sec-butylbenzene, p-isopropyltoluene, hexachlorobutadiene exceed 20% Difference (response biased high). Associated samples are non-detect for these compounds.

Extractables by GCMS By Method SW846 8270C

Matrix AQ

Batch ID: OP33861

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Initial calibration verification MSF3031-ICV3031 for Hexachlorocyclopentadiene exceed 35% Difference.
- RPD of BSD for Benzoic Acid, 2,4Dinitrophenol, 2-Methylphenol are outside control limits. Blank Spike meets program technical requirements.
- BS for Benzoic acid, Hexachlorocyclopentadiene, and BSD for Benzoic acid: Outside limit. BS meets program technical requirement.

Extractables by GCMS By Method SW846 8270C BY SIM

Matrix AQ

Batch ID: OP33862

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Only PAHs requested.

Extractables by GC By Method SW846 8082

Matrix AQ	Batch ID: OP33855
------------------	--------------------------

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Metals By Method SW846 6020A

Matrix AQ	Batch ID: MP21302
------------------	--------------------------

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC22382-1SDL were used as the QC samples for metals.
- Only selected metals requested.
- RPD(s) for Serial Dilution for Antimony, Arsenic, Cadmium, Lead, Selenium, Silver are outside control limits for sample MP21302-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- MP21302-SD1 for Iron, Nickel, Zinc: Serial dilution indicates possible matrix interference.
- MP21302-SD1 for Chromium, Copper: Serial Dilution RPD acceptable due to low duplicate and sample concentrations.

Metals By Method SW846 7470A

Matrix AQ	Batch ID: MP21318
------------------	--------------------------

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Wet Chemistry By Method EPA 1664A

Matrix AQ	Batch ID: GP16285
------------------	--------------------------

- All samples were distilled within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Wet Chemistry By Method EPA 335.4

Matrix AQ	Batch ID: GP16289
------------------	--------------------------

- All samples were distilled within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Wet Chemistry By Method EPA 420.1

Matrix AQ	Batch ID: GP16300
------------------	--------------------------

- All samples were distilled within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Wet Chemistry By Method SM21 2540D**Matrix** AQ**Batch ID:** GN43477

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Wet Chemistry By Method SM21 4500CL C**Matrix** AQ**Batch ID:** GN43499

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Wet Chemistry By Method SM21 4500CL F**Matrix** AQ**Batch ID:** GN43470

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- MC22382-1 for Total Residual Chlorine: Analysis performed past the required 15 minutes of collection time/holding time.

Wet Chemistry By Method SW846 7196A**Matrix** AQ**Batch ID:** GN43460

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Accutest may not have met all requested limits due to methodology limitations, sample matrix, dilutions, or percents solids.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety. The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report (MC22382).

Summary of Hits

Page 1 of 1

Job Number: MC22382

Account: GEI Consultants, Inc.

Project: Northwest Park Lower Third Avenue Development, Burlington, MA

Collected: 07/01/13



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
---------------	------------------	-----------------	----	-----	-------	--------

MC22382-1 063897-MW-B9-102

cis-1,2-Dichloroethene	50.2	5.0	ug/l	SW846 8260B
Trichloroethene	1610	5.0	ug/l	SW846 8260B
bis(2-Ethylhexyl)phthalate	11.2	2.3	ug/l	SW846 8270C
Copper	3.3	2.0	ug/l	SW846 6020A
Iron	235	50	ug/l	SW846 6020A
Nickel	2.3	2.0	ug/l	SW846 6020A
Zinc	14.7	4.0	ug/l	SW846 6020A
Chloride	46.5	1.0	mg/l	SM21 4500CL C
Solids, Total Suspended	11.0	4.0	mg/l	SM21 2540D
Total Residual Chlorine ^a	< 0.050	0.050	mg/l	SM21 4500CL F

MC22382-1A 063897-MW-B9-102

No hits reported in this sample.

MC22382-1F 063897-MW-B9-102

No hits reported in this sample.

(a) Analysis performed past the required 15 minutes of collection time/holding time.

Sample Results

Report of Analysis

Report of Analysis

Page 1 of 3

Client Sample ID:	063897-MW-B9-102	Date Sampled:	07/01/13
Lab Sample ID:	MC22382-1	Date Received:	07/01/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V20472.D	5	07/05/13	AMY	n/a	n/a	MSV796
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	2.5	ug/l	
108-86-1	Bromobenzene	ND	25	ug/l	
74-97-5	Bromochloromethane	ND	25	ug/l	
75-27-4	Bromodichloromethane	ND	5.0	ug/l	
75-25-2	Bromoform	ND	5.0	ug/l	
74-83-9	Bromomethane	ND	10	ug/l	
78-93-3	2-Butanone (MEK)	ND	25	ug/l	
104-51-8	n-Butylbenzene	ND	25	ug/l	
135-98-8	sec-Butylbenzene	ND	25	ug/l	
98-06-6	tert-Butylbenzene	ND	25	ug/l	
75-15-0	Carbon disulfide	ND	25	ug/l	
56-23-5	Carbon tetrachloride	ND	5.0	ug/l	
108-90-7	Chlorobenzene	ND	5.0	ug/l	
75-00-3	Chloroethane	ND	10	ug/l	
67-66-3	Chloroform	ND	5.0	ug/l	
74-87-3	Chloromethane	ND	10	ug/l	
95-49-8	o-Chlorotoluene	ND	25	ug/l	
106-43-4	p-Chlorotoluene	ND	25	ug/l	
108-20-3	Di-Isopropyl ether	ND	10	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	25	ug/l	
124-48-1	Dibromochloromethane	ND	5.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	10	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	5.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	10	ug/l	
75-34-3	1,1-Dichloroethane	ND	5.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	5.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	5.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	50.2	5.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	5.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 2 of 3

Client Sample ID:	063897-MW-B9-102	Date Sampled:	07/01/13
Lab Sample ID:	MC22382-1	Date Received:	07/01/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
78-87-5	1,2-Dichloropropane	ND	10	ug/l	
142-28-9	1,3-Dichloropropane	ND	25	ug/l	
594-20-7	2,2-Dichloropropane	ND	25	ug/l	
563-58-6	1,1-Dichloropropene	ND	25	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.5	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.5	ug/l	
123-91-1	1,4-Dioxane	ND	130	ug/l	
60-29-7	Ethyl Ether	ND	25	ug/l	
100-41-4	Ethylbenzene	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	25	ug/l	
591-78-6	2-Hexanone	ND	25	ug/l	
98-82-8	Isopropylbenzene	ND	25	ug/l	
99-87-6	p-Isopropyltoluene	ND	25	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	5.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	25	ug/l	
74-95-3	Methylene bromide	ND	25	ug/l	
75-09-2	Methylene chloride	ND	10	ug/l	
91-20-3	Naphthalene	ND	25	ug/l	
103-65-1	n-Propylbenzene	ND	25	ug/l	
100-42-5	Styrene	ND	25	ug/l	
994-05-8	tert-Amyl Methyl Ether	ND	10	ug/l	
75-65-0	Tert Butyl Alcohol	ND	100	ug/l	
637-92-3	tert-Butyl Ethyl Ether	ND	10	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.5	ug/l	
127-18-4	Tetrachloroethene	ND	5.0	ug/l	
109-99-9	Tetrahydrofuran	ND	50	ug/l	
108-88-3	Toluene	ND	5.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	25	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	5.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	5.0	ug/l	
79-01-6	Trichloroethene	1610	5.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	25	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	25	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	25	ug/l	
75-01-4	Vinyl chloride	ND	5.0	ug/l	
	m,p-Xylene	ND	5.0	ug/l	
95-47-6	o-Xylene	ND	5.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 3 of 3

Client Sample ID: 063897-MW-B9-102**Lab Sample ID:** MC22382-1**Matrix:** AQ - Ground Water**Method:** SW846 8260B**Project:** Northwest Park Lower Third Avenue Development, Burlington, MA**Date Sampled:** 07/01/13**Date Received:** 07/01/13**Percent Solids:** n/a

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
1330-20-7	Xylene (total)	ND	5.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		70-130%
2037-26-5	Toluene-D8	101%		70-130%
460-00-4	4-Bromofluorobenzene	100%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 2

Client Sample ID:	063897-MW-B9-102	Date Sampled:	07/01/13
Lab Sample ID:	MC22382-1	Date Received:	07/01/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F65467.D	1	07/08/13	KR	07/02/13	OP33861	MSF3036
Run #2							

Run #	Initial Volume	Final Volume
Run #1	860 ml	1.0 ml
Run #2		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic Acid	ND	12	ug/l	
95-57-8	2-Chlorophenol	ND	5.8	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	12	ug/l	
120-83-2	2,4-Dichlorophenol	ND	12	ug/l	
105-67-9	2,4-Dimethylphenol	ND	12	ug/l	
51-28-5	2,4-Dinitrophenol	ND	23	ug/l	
95-48-7	2-Methylphenol	ND	12	ug/l	
	3&4-Methylphenol	ND	12	ug/l	
88-75-5	2-Nitrophenol	ND	12	ug/l	
100-02-7	4-Nitrophenol	ND	23	ug/l	
87-86-5	Pentachlorophenol	ND	12	ug/l	
108-95-2	Phenol	ND	5.8	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	12	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	12	ug/l	
83-32-9	Acenaphthene	ND	2.3	ug/l	
208-96-8	Acenaphthylene	ND	2.3	ug/l	
98-86-2	Acetophenone	ND	12	ug/l	
62-53-3	Aniline	ND	12	ug/l	
120-12-7	Anthracene	ND	2.3	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.3	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.3	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.3	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.3	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.3	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.8	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.8	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.8	ug/l	
106-47-8	4-Chloroaniline	ND	12	ug/l	
218-01-9	Chrysene	ND	2.3	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.8	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.8	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.8	ug/l	

ND = Not detected

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Report of Analysis

Page 2 of 2

Client Sample ID: 063897-MW-B9-102**Lab Sample ID:** MC22382-1**Date Sampled:** 07/01/13**Matrix:** AQ - Ground Water**Date Received:** 07/01/13**Method:** SW846 8270C SW846 3510C**Percent Solids:** n/a**Project:** Northwest Park Lower Third Avenue Development, Burlington, MA

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	5.8	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.8	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.8	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.8	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	12	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	12	ug/l	
91-94-1	3,3' -Dichlorobenzidine	ND	5.8	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.3	ug/l	
132-64-9	Dibenzofuran	ND	2.3	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.8	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.8	ug/l	
84-66-2	Diethyl phthalate	ND	5.8	ug/l	
131-11-3	Dimethyl phthalate	ND	5.8	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	11.2	2.3	ug/l	
206-44-0	Fluoranthene	ND	2.3	ug/l	
86-73-7	Fluorene	ND	2.3	ug/l	
118-74-1	Hexachlorobenzene	ND	5.8	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.8	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	12	ug/l	
67-72-1	Hexachloroethane	ND	5.8	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.3	ug/l	
78-59-1	Isophorone	ND	5.8	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.3	ug/l	
91-20-3	Naphthalene	ND	2.3	ug/l	
98-95-3	Nitrobenzene	ND	5.8	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.8	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.8	ug/l	
85-01-8	Phenanthrene	ND	2.3	ug/l	
129-00-0	Pyrene	ND	2.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.8	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	23%		15-110%
4165-62-2	Phenol-d5	17%		15-110%
118-79-6	2,4,6-Tribromophenol	61%		15-110%
4165-60-0	Nitrobenzene-d5	50%		30-130%
321-60-8	2-Fluorobiphenyl	47%		30-130%
1718-51-0	Terphenyl-d14	89%		30-130%

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N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID:	063897-MW-B9-102	Date Sampled:	07/01/13
Lab Sample ID:	MC22382-1	Date Received:	07/01/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8082 SW846 3510C		
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ81942.D	1	07/05/13	CZ	07/02/13	OP33855	GYZ7210
Run #2							

	Initial Volume	Final Volume
Run #1	960 ml	5.0 ml
Run #2		

MA Polychlorinated Biphenyls MCP List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.26	ug/l	
11104-28-2	Aroclor 1221	ND	0.26	ug/l	
11141-16-5	Aroclor 1232	ND	0.26	ug/l	
53469-21-9	Aroclor 1242	ND	0.26	ug/l	
12672-29-6	Aroclor 1248	ND	0.26	ug/l	
11097-69-1	Aroclor 1254	ND	0.26	ug/l	
11096-82-5	Aroclor 1260	ND	0.26	ug/l	
37324-23-5	Aroclor 1262	ND	0.26	ug/l	
11100-14-4	Aroclor 1268	ND	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	60%		30-150%
877-09-8	Tetrachloro-m-xylene	64%		30-150%
2051-24-3	Decachlorobiphenyl	64%		30-150%
2051-24-3	Decachlorobiphenyl	64%		30-150%

ND = Not detected
 RL = Reporting Limit
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J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID:	063897-MW-B9-102	Date Sampled:	07/01/13
Lab Sample ID:	MC22382-1	Date Received:	07/01/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	< 1.0	1.0	ug/l	2	07/03/13	07/05/13 SA	SW846 6020A ²	SW846 3010A ³
Arsenic	< 1.0	1.0	ug/l	2	07/03/13	07/05/13 SA	SW846 6020A ²	SW846 3010A ³
Cadmium	< 1.0	1.0	ug/l	2	07/03/13	07/05/13 SA	SW846 6020A ²	SW846 3010A ³
Chromium	< 2.0	2.0	ug/l	2	07/03/13	07/05/13 SA	SW846 6020A ²	SW846 3010A ³
Copper	3.3	2.0	ug/l	2	07/03/13	07/05/13 SA	SW846 6020A ²	SW846 3010A ³
Iron	235	50	ug/l	2	07/03/13	07/05/13 SA	SW846 6020A ²	SW846 3010A ³
Lead	< 1.0	1.0	ug/l	2	07/03/13	07/05/13 SA	SW846 6020A ²	SW846 3010A ³
Mercury	< 0.20	0.20	ug/l	1	07/05/13	07/08/13 EAL	SW846 7470A ¹	SW846 7470A ⁴
Nickel	2.3	2.0	ug/l	2	07/03/13	07/05/13 SA	SW846 6020A ²	SW846 3010A ³
Selenium	< 1.0	1.0	ug/l	2	07/03/13	07/05/13 SA	SW846 6020A ²	SW846 3010A ³
Silver	< 1.0	1.0	ug/l	2	07/03/13	07/05/13 SA	SW846 6020A ²	SW846 3010A ³
Zinc	14.7	4.0	ug/l	2	07/03/13	07/05/13 SA	SW846 6020A ²	SW846 3010A ³

(1) Instrument QC Batch: MA15847

(2) Instrument QC Batch: MA15850

(3) Prep QC Batch: MP21302

(4) Prep QC Batch: MP21318

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	063897-MW-B9-102	Date Sampled:	07/01/13
Lab Sample ID:	MC22382-1	Date Received:	07/01/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	46.5	1.0	mg/l	1	07/05/13	CF	SM21 4500CL C
Chromium, Hexavalent	< 0.010	0.010	mg/l	1	07/01/13 18:30	MA	SW846 7196A
Cyanide	< 0.010	0.010	mg/l	1	07/03/13 12:50	MA	EPA 335.4
HEM Petroleum Hydrocarbons	< 4.1	4.1	mg/l	1	07/02/13	BF	EPA 1664A
Phenols	< 0.050	0.050	mg/l	1	07/05/13 13:30	BF	EPA 420.1
Solids, Total Suspended	11.0	4.0	mg/l	1	07/03/13	BF	SM21 2540D
Total Residual Chlorine ^a	< 0.050	0.050	mg/l	1	07/02/13 08:36	MA	SM21 4500CL F

(a) Analysis performed past the required 15 minutes of collection time/holding time.

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	063897-MW-B9-102	Date Sampled:	07/01/13
Lab Sample ID:	MC22382-1A	Date Received:	07/01/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C BY SIM SW846 3510C		
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I84742.D	1	07/05/13	WK	07/02/13	OP33862	MSI3147
Run #2							

	Initial Volume	Final Volume
Run #1	860 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	0.12	ug/l	
208-96-8	Acenaphthylene	ND	0.12	ug/l	
120-12-7	Anthracene	ND	0.12	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.058	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.12	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.058	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.12	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.12	ug/l	
218-01-9	Chrysene	ND	0.12	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.12	ug/l	
206-44-0	Fluoranthene	ND	0.12	ug/l	
86-73-7	Fluorene	ND	0.12	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.12	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.23	ug/l	
91-20-3	Naphthalene	ND	0.12	ug/l	
85-01-8	Phenanthrene	ND	0.058	ug/l	
129-00-0	Pyrene	ND	0.12	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	53%		30-130%
321-60-8	2-Fluorobiphenyl	51%		30-130%
1718-51-0	Terphenyl-d14	92%		30-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	063897-MW-B9-102	Date Sampled:	07/01/13
Lab Sample ID:	MC22382-1F	Date Received:	07/01/13
Matrix:	AQ - Groundwater Filtered	Percent Solids:	n/a
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent	< 0.010	0.010	mg/l	1	07/01/13 18:30	MA	SW846 7196A

RL = Reporting Limit

Misc. Forms

5

Custody Documents and Other Forms

Includes the following where applicable:

- Parameter Certifications (MA)
- Chain of Custody
- MCP Form

Parameter Certifications

Job Number: MC22382
Account: GEI GEI Consultants, Inc.
Project: Northwest Park Lower Third Avenue Development, Burlington, MA

The following parameters included in this report are certified by the state of MA.

Parameter	CAS#	Method	Mat	Certification Status
Chloride	16887-00-6	SM21 4500CL C	AQ	Accutest is certified for this parameter.
Cyanide	57-12-5	EPA 335.4	AQ	Accutest is certified for this parameter.
Phenols		EPA 420.1	AQ	Accutest is certified for this parameter.
Solids, Total Suspended		SM21 2540D	AQ	Accutest is certified for this parameter.
Total Residual Chlorine		SM21 4500CL F	AQ	Accutest is certified for this parameter.

5.1
5

Chain-of-Custody Record				Laboratory: ACCUTEST		Laboratory Job # MC22382	
GEI Consultants 400 Unicorn Park Drive Woburn, MA 01801 PH: 781.721.4000 FX: 781.721.4073				Project Information Project Name: Northwest Park - Third Ave Project Location: Burlington, MA Project Number: 063897 Project Manager: M. Ensign Send Report to: Sarah Manley Send EDD to: labdata@geiconsultants.com			
MCP PRESUMPTIVE CERTAINTY REQUIRED - YES NO If Yes, Are MCP Analytical Methods Required? YES NO NA If Yes, Are Drinking Water Samples Submitted? YES NO NA If Yes, Have You Met Minimum Field QC Requirements? YES NO NA				Preservative HCl None None HCl None None None HNO3 HNO3 H2SO4 Analysis VOCs w/ HPLC, TAME and TBA SVOCs w/ PAH by SIM PCBs TPH (1664) TSS, TRC, chloride Hex. Cr. Dissolved Hex. Cr. (2) Total Cyanide (2) Total Metals (1) Dissolved Total Metals (1) Total Phenols			
Lab Sample Number	GEI Sample ID	Collection Date	Time	Matrix	No. of Bottles	Sampler(s) Initials	Sample Specific Remarks
1	063897-MW-B9-102	7/1/2013	14:13	GW	2	CMM	HOLD dissolved metals, except diss. Hex Cr.
							Loc: 3D,
							6B, 17C,
							4E3, 4B
MCP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible.							Turnaround Time (Business days): Normal _____ Other _____ 10-Day _____ 7-Day _____ 5-Day <u>X</u> 3-Day _____
Relinquished by: (signature)		Date:	Time:	Received by: (signature)		Before submitting rush turnaround samples, you must notify the laboratory to confirm that the TAT can be achieved.	
1. C. Malagonda		7/1/13	1627	1. [Signature]			
2. [Signature]		Date:	Time:	Received by: (signature)			
3. [Signature]		Date:	Time:	Received by: (signature)			
4. [Signature]		Date:	Time:	Received by: (signature)			
Additional Requirements/Comments/Remarks: (1) Metals: antimony, arsenic, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, zinc and iron. (2) Dissolved metals and dissolved Hex. Cr. field filtered. (3) Please use EPA Remediation General Permit (RGP) methods and detection limits specified in attached Appendix of the RGP Permit.							

REVISED
7/1/13 -TF

3.6°

MC22382: Chain of Custody

Page 1 of 3

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC22382 **Client:** GEI **Immediate Client Services Action Required:** No
Date / Time Received: 7/1/2013 **Delivery Method:** **Client Service Action Required at Login:** No
Project: **No. Coolers:** 1 **Airbill #'s:**

Cooler Security **Y or N** **Y or N**
1. Custody Seals Present: ☒ ☐ 3. COC Present: ☒ ☐
2. Custody Seals Intact: ☒ ☐ 4. Smpl Dates/Time OK ☒ ☐

Cooler Temperature **Y or N**
1. Temp criteria achieved: ☒ ☐
2. Cooler temp verification: Infrared gun
3. Cooler media: Ice (bag)

Quality Control Preservation **Y** **or** **N** **N/A**
1. Trip Blank present / cooler: ☐ ☐ ☒
2. Trip Blank listed on COC: ☐ ☐ ☒
3. Samples preserved properly: ☒ ☐
4. VOCs headspace free: ☐ ☐ ☒

Sample Integrity - Documentation **Y or N**
1. Sample labels present on bottles: ☒ ☐
2. Container labeling complete: ☒ ☐
3. Sample container label / COC agree: ☒ ☐

Sample Integrity - Condition **Y or N**
1. Sample recvd within HT: ☒ ☐
2. All containers accounted for: ☒ ☐
3. Condition of sample: Intact

Sample Integrity - Instructions **Y** **or** **N** **N/A**
1. Analysis requested is clear: ☒ ☐
2. Bottles received for unspecified tests: ☐ ☒
3. Sufficient volume recvd for analysis: ☒ ☐
4. Compositing instructions clear: ☐ ☐ ☒
5. Filtering instructions clear: ☐ ☐ ☒

Comments



Massachusetts Department
of Environmental Protection
Bureau of Waste Site Cleanup

WSC-CAM

Exhibit VII A

July 1, 2010

Revision No. 1

Final

Page 13 of 38

Exhibit VII A-2: MassDEP Analytical Protocol Certification Form

MassDEP Analytical Protocol Certification Form

Laboratory Name: Accutest Laboratories of New England

Project #: MC22382

Project Location: Northwest Park Lower Third Avenue Development,
Burlington, MA

MADEP RTN None

This form provides certifications for the following data set: list Laboratory Sample ID Numbers(s)
MC22382-1, MC22382-1A, MC22382-1F

Test method: Refer to case narrative.

Matrices: Groundwater/Surface Water (X) Soil/Sediment () Drinking Water () Air () Other ()

CAM Protocol (check all that apply below):

8260 VOC (X) CAM IIA	7470/7471 Hg (X) CAM III B	MassDEP VPH () CAM IV A	8081 Pesticides () CAM V B	7196 Hex Cr (X) CAM VI B	Mass DEP APH () CAM IX A
8270 SVOC (X) CAM II B	7010 Metals () CAM III C	MassDEP EPH () CAM IV B	8151 Herbicides () CAM V C	8330 Explosives () CAM VIII A	TO-15 VOC () CAM IX B
6010 Metals () CAM III A	6020 Metals (X) CAM III D	8082 PCB (X) CAM V A	9014 Total () Cyanide/PAC CAM VI A	6860 Perchlorate () CAM VIII B	

Affirmative Responses to Questions A Through F are required for "Presumptive Certainty status

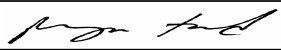
A	Were all samples received in a condition consistent with those described on the Chain-of Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	☒	Yes	☐ No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	☐	Yes	☒ No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	☒	Yes	☐ No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	☒	Yes	☐ No
E	VPH, EPH, APH, and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	☒ ☒	Yes Yes	☐ ☐ No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	☒	Yes	☐ No

Responses to questions G, H, and I below is required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocols	☐	Yes	☒ No ¹
Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data useability and representativeness requirements described in 310 CMR 40.1056(2)(k) and WSC-07-350.				
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	☐	Yes	☒ No ¹
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	☐	Yes	☒ No ¹

¹ All Negative responses must be addressed in an attached Environmental Laboratory case narrative.

I the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: 

Position: Laboratory Director

Printed Name: Reza Tand

Date: 07/18/2013



06/21/13

Technical Report for

GEI Consultants, Inc.

Northwest Park Lower Third Avenue Development, Burlington, MA

063897

Accutest Job Number: MC21718

Sampling Date: 06/11/13

Report to:

GEI Consultants, Inc.

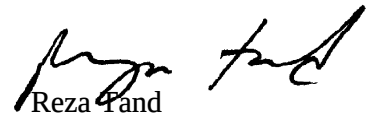
smanley@geiconsultants.com

ATTN: Sarah Manley

Total number of pages in report: **103**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.


Reza Fand
Lab Director

Client Service contact: Frank DAgostino 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) ISO 17025:2005 (L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.

Table of Contents

-1-

Section 1: Sample Summary	4
Section 2: Case Narrative/Conformance Summary	6
Section 3: Summary of Hits	8
Section 4: Sample Results	11
4.1: MC21718-1: 063897-MW-B9-101	12
4.2: MC21718-1A: 063897-MW-B9-101	16
4.3: MC21718-1F: 063897-MW-B9-101	17
4.4: MC21718-2: 063897-MW-B9-102	18
4.5: MC21718-2A: 063897-MW-B9-102	22
4.6: MC21718-2F: 063897-MW-B9-102	23
4.7: MC21718-3: 063897-MW-B9-103	24
4.8: MC21718-3A: 063897-MW-B9-103	28
4.9: MC21718-3F: 063897-MW-B9-103	29
4.10: MC21718-4: 063897-MW-B9-104	30
4.11: MC21718-4A: 063897-MW-B9-104	34
4.12: MC21718-4F: 063897-MW-B9-104	35
4.13: MC21718-5F: 063897-MW-B9-105	36
4.14: MC21718-6: 063897-MW-B9-105	37
4.15: MC21718-6A: 063897-MW-B9-105	41
4.16: MC21718-6F: 063897-MW-B9-105	42
4.17: MC21718-7: 063897-MW4	43
4.18: MC21718-7A: 063897-MW4	47
4.19: MC21718-7F: 063897-MW4	48
4.20: MC21718-8: 063897-MW901	49
4.21: MC21718-8A: 063897-MW901	52
4.22: MC21718-9: 063897-PZ-02	53
4.23: MC21718-9A: 063897-PZ-02	57
4.24: MC21718-9F: 063897-PZ-02	58
Section 5: Misc. Forms	59
5.1: Parameter Certifications (MA)	60
5.2: Chain of Custody	61
5.3: MCP Form	64
5.4: Sample Tracking Chronicle	65
Section 6: GC/MS Volatiles - QC Data Summaries	69
6.1: Method Blank Summary	70
6.2: Blank Spike Summary	79
6.3: Blank Spike/Blank Spike Duplicate Summary	80
6.4: Internal Standard Area Summaries	88
6.5: Surrogate Recovery Summaries	93
Section 7: Metals Analysis - QC Data Summaries	95
7.1: Prep QC MP21173: Fe	96
Section 8: General Chemistry - QC Data Summaries	102

Table of Contents

Sections:

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8

-2-

8.1: Method Blank and Spike Results Summary 103

Sample Summary

GEI Consultants, Inc.

Job No: MC21718

Northwest Park Lower Third Avenue Development, Burlington, MA

Project No: 063897

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
MC21718-1	06/11/13	10:09	WRM	06/12/13	AQ Ground Water	063897-MW-B9-101
MC21718-1A	06/11/13	10:09	WRM	06/12/13	AQ Ground Water	063897-MW-B9-101
MC21718-1F	06/11/13	10:09	WRM	06/12/13	AQ Groundwater Filtered	063897-MW-B9-101
MC21718-2	06/11/13	11:27	WRM	06/12/13	AQ Ground Water	063897-MW-B9-102
MC21718-2A	06/11/13	11:27	WRM	06/12/13	AQ Ground Water	063897-MW-B9-102
MC21718-2F	06/11/13	11:27	WRM	06/12/13	AQ Groundwater Filtered	063897-MW-B9-102
MC21718-3	06/11/13	08:35	WRM	06/12/13	AQ Ground Water	063897-MW-B9-103
MC21718-3A	06/11/13	08:35	WRM	06/12/13	AQ Ground Water	063897-MW-B9-103
MC21718-3F	06/11/13	08:35	WRM	06/12/13	AQ Groundwater Filtered	063897-MW-B9-103
MC21718-4	06/11/13	13:11	JLE	06/12/13	AQ Ground Water	063897-MW-B9-104
MC21718-4A	06/11/13	13:11	JLE	06/12/13	AQ Ground Water	063897-MW-B9-104
MC21718-4F	06/11/13	13:11	JLE	06/12/13	AQ Groundwater Filtered	063897-MW-B9-104
MC21718-5F	06/11/13	08:55	JLE	06/12/13	AQ Groundwater Filtered	063897-MW-B9-105

Sample Summary

(continued)

GEI Consultants, Inc.

Job No: MC21718

Northwest Park Lower Third Avenue Development, Burlington, MA

Project No: 063897

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
MC21718-6	06/11/13	13:24	WRM	06/12/13	AQ Ground Water	063897-MW-B9-105
MC21718-6A	06/11/13	13:24	WRM	06/12/13	AQ Ground Water	063897-MW-B9-105
MC21718-6F	06/11/13	13:24	WRM	06/12/13	AQ Groundwater Filtered	063897-MW-B9-105
MC21718-7	06/11/13	10:12	JLE	06/12/13	AQ Ground Water	063897-MW4
MC21718-7A	06/11/13	10:12	JLE	06/12/13	AQ Ground Water	063897-MW4
MC21718-7F	06/11/13	10:12	JLE	06/12/13	AQ Groundwater Filtered	063897-MW4
MC21718-8	06/11/13	14:57	WRM	06/12/13	AQ Ground Water	063897-MW901
MC21718-8A	06/11/13	14:57	WRM	06/12/13	AQ Ground Water	063897-MW901
MC21718-9	06/11/13	11:34	JLE	06/12/13	AQ Ground Water	063897-PZ-02
MC21718-9A	06/11/13	11:34	JLE	06/12/13	AQ Ground Water	063897-PZ-02
MC21718-9F	06/11/13	11:34	JLE	06/12/13	AQ Groundwater Filtered	063897-PZ-02

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: GEI Consultants, Inc.

Job No MC21718

Site: Northwest Park Lower Third Avenue Development, Burlington, MA

Report Date 6/20/2013 2:17:24 PM

9 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were collected on 06/11/2013 and were received at Accutest on 06/12/2013 properly preserved, at 1.1 Deg. C and intact. These Samples received an Accutest job number of MC21718. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix: AQ

Batch ID: MSP2268

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- MSP2268-BS for 1,1,1-Trichloroethane, 1,2-Dibromo-3-chloropropane, Carbon tetrachloride, o-Chlorotoluene, tert-Butylbenzene are outside control limits. Blank Spike meets program technical requirements.
- MC21718-1: Confirmation run.
- RPD(s) for MSP2268-BSD for Chloromethane: Outside control limits. Blank Spike meets program technical requirements.
- MSP2268-BS/BSD for Dichlorodifluoromethane: Outside control limits. Associated samples are non-detect for this compound.
- MSP2268-BSD for p-Isopropyltoluene are outside control limits. Associated samples are non-detect for this compound.
- MSP2268-BSD for 1,1,1-Trichloroethane, 1,2-Dibromo-3-chloropropane, Carbon tetrachloride, o-Chlorotoluene, tert-Butylbenzene, sec-Butylbenzene, Chloromethane, p-Chlorotoluene, Di-Isopropyl ether, are outside control limits. Blank Spike meets program technical requirements.

Matrix: AQ

Batch ID: MSP2270

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- MSP2270-BS for 1,1,1-Trichloroethane are outside control limits. Blank Spike meets program technical requirements.

Matrix: AQ

Batch ID: MSP2272

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- MSP2272-BS for 1,1,1-Trichloroethane, 1,2-Dibromo-3-chloropropane, Carbon tetrachloride, o-Chlorotoluene, p-Chlorotoluene, p-Isopropyltoluene, tert-Butylbenzene are outside control limits. Associated samples are non-detect for this compound.
- MSP2272-BS for 1,2,3-Trichloropropane: Outside control limits. Blank Spike meets program technical requirements.
- MSP2272-BSD for 1,1,1-Trichloroethane, 1,2-Dibromo-3-chloropropane, Carbon tetrachloride, o-Chlorotoluene, p-Chlorotoluene, p-Isopropyltoluene, tert-Butylbenzene, Isopropylbenzenesec-Butylbenzene are outside control limits. Associated samples are non-detect for this compound.
- MSP2272-BS/BSD for Dichlorodifluoromethane: Outside control limits. Blank Spike meets program technical requirements.
- MSP2272-BS for Chloromethane: Outside control limits. Blank Spike meets program technical requirements.

Volatiles by GCMS By Method SW846 8260B BY SIM

Matrix: AQ

Batch ID: MSH2030

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- MC21718-1A, -2A for 1,4-Dioxane-d8: Outside control limits due to possible matrix interference. Confirmed by reanalysis.
- MC21718-2A for 1,4-Dioxane-d8: Outside control limits due to possible matrix interference. Confirmed by reanalysis.

Matrix: AQ

Batch ID: MSH2031

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC21718-1A, MC21718-2A, MC21718-1A have surrogates outside control limits. Confirmation run for surrogate recoveries.

Metals By Method SW846 6010C

Matrix: AQ

Batch ID: MP21173

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC21718-1FSDL were used as the QC samples for metals.
- Only Iron requested.

Wet Chemistry By Method ASTM516-90,02

Matrix: AQ

Batch ID: GN43271

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Wet Chemistry By Method SM21 2320B

Matrix: AQ

Batch ID: GN43277

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Wet Chemistry By Method SM21 4500 S F

Matrix: AQ

Batch ID: GN43295

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Accutest may not have met all requested limits due to methodology limitations, sample matrix, dilutions, or percents solids.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety. The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC21718).

Summary of Hits

Job Number: MC21718

Account: GEI Consultants, Inc.

Project: Northwest Park Lower Third Avenue Development, Burlington, MA

Collected: 06/11/13



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
---------------	------------------	-----------------	----	-----	-------	--------

MC21718-1 063897-MW-B9-101

cis-1,2-Dichloroethene	309	50	ug/l	SW846 8260B
Trichloroethene	8430	50	ug/l	SW846 8260B
Alkalinity, Total as CaCO ₃	177	5.0	mg/l	SM21 2320B
Sulfate	38.6	5.0	mg/l	ASTM516-90,02

MC21718-1A 063897-MW-B9-101

No hits reported in this sample.

MC21718-1F 063897-MW-B9-101

No hits reported in this sample.

MC21718-2 063897-MW-B9-102

1,4-Dichlorobenzene	1.3	1.0	ug/l	SW846 8260B
1,1-Dichloroethane	2.0	1.0	ug/l	SW846 8260B
cis-1,2-Dichloroethene	55.1	1.0	ug/l	SW846 8260B
trans-1,2-Dichloroethene	1.5	1.0	ug/l	SW846 8260B
1,2-Dichloropropane	9.7	2.0	ug/l	SW846 8260B
1,1,1-Trichloroethane	1.2	1.0	ug/l	SW846 8260B
Trichloroethene	1620	10	ug/l	SW846 8260B
Vinyl chloride	4.6	1.0	ug/l	SW846 8260B
Alkalinity, Total as CaCO ₃	29.8	5.0	mg/l	SM21 2320B
Sulfate	20.8	5.0	mg/l	ASTM516-90,02

MC21718-2A 063897-MW-B9-102

No hits reported in this sample.

MC21718-2F 063897-MW-B9-102

No hits reported in this sample.

MC21718-3 063897-MW-B9-103

1,1-Dichloroethane	1.6	1.0	ug/l	SW846 8260B
1,1-Dichloroethene	1.4	1.0	ug/l	SW846 8260B
trans-1,2-Dichloroethene	1.8	1.0	ug/l	SW846 8260B
Naphthalene	10.2	5.0	ug/l	SW846 8260B
Trichloroethene	3.3	1.0	ug/l	SW846 8260B
Alkalinity, Total as CaCO ₃	33.2	5.0	mg/l	SM21 2320B
Sulfate	32.3	5.0	mg/l	ASTM516-90,02

Summary of Hits

Job Number: MC21718

Account: GEI Consultants, Inc.

Project: Northwest Park Lower Third Avenue Development, Burlington, MA

Collected: 06/11/13



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Analyte						

MC21718-3A 063897-MW-B9-103

1,4-Dioxane	2.0	0.20		ug/l	SW846 8260B BY SIM
-------------	-----	------	--	------	--------------------

MC21718-3F 063897-MW-B9-103

No hits reported in this sample.

MC21718-4 063897-MW-B9-104

Bromodichloromethane	4.1	1.0		ug/l	SW846 8260B
Chloroform	7.2	1.0		ug/l	SW846 8260B
Dibromochloromethane	2.3	1.0		ug/l	SW846 8260B
Alkalinity, Total as CaCO ₃	58.6	5.0		mg/l	SM21 2320B
Sulfate	18.3	5.0		mg/l	ASTM516-90,02

MC21718-4A 063897-MW-B9-104

No hits reported in this sample.

MC21718-4F 063897-MW-B9-104

Iron	248	100		ug/l	SW846 6010C
------	-----	-----	--	------	-------------

MC21718-5F 063897-MW-B9-105

No hits reported in this sample.

MC21718-6 063897-MW-B9-105

Bromodichloromethane	1.3	1.0		ug/l	SW846 8260B
Chloroform	2.6	1.0		ug/l	SW846 8260B
Alkalinity, Total as CaCO ₃	38.7	5.0		mg/l	SM21 2320B
Sulfate	21.5	5.0		mg/l	ASTM516-90,02

MC21718-6A 063897-MW-B9-105

No hits reported in this sample.

MC21718-6F 063897-MW-B9-105

No hits reported in this sample.

Summary of Hits

Job Number: MC21718
Account: GEI Consultants, Inc.
Project: Northwest Park Lower Third Avenue Development, Burlington, MA
Collected: 06/11/13



Lab Sample ID	Client Sample ID	Result/ Analyte	RL	MDL	Units	Method
---------------	------------------	--------------------	----	-----	-------	--------

MC21718-7 063897-MW4

Alkalinity, Total as CaCO ₃	27.6	5.0		mg/l	SM21 2320B
Sulfate	9.3	5.0		mg/l	ASTM516-90,02

MC21718-7A 063897-MW4

No hits reported in this sample.

MC21718-7F 063897-MW4

No hits reported in this sample.

MC21718-8 063897-MW901

1,1-Dichloroethane	12.7	1.0		ug/l	SW846 8260B
1,1-Dichloroethene	69.7	1.0		ug/l	SW846 8260B
cis-1,2-Dichloroethene	87.2	1.0		ug/l	SW846 8260B
trans-1,2-Dichloroethene	2.7	1.0		ug/l	SW846 8260B
Tetrachloroethene	4.7	1.0		ug/l	SW846 8260B
1,1,1-Trichloroethane	981	5.0		ug/l	SW846 8260B
Trichloroethene	29.9	1.0		ug/l	SW846 8260B

MC21718-8A 063897-MW901

No hits reported in this sample.

MC21718-9 063897-PZ-02

Trichlorofluoromethane	2.1	1.0		ug/l	SW846 8260B
Alkalinity, Total as CaCO ₃	60.8	5.0		mg/l	SM21 2320B
Sulfate	49.2	20		mg/l	ASTM516-90,02

MC21718-9A 063897-PZ-02

No hits reported in this sample.

MC21718-9F 063897-PZ-02

No hits reported in this sample.

Sample Results

Report of Analysis

Report of Analysis

Page 1 of 3

Client Sample ID:	063897-MW-B9-101	Date Sampled:	06/11/13
Lab Sample ID:	MC21718-1	Date Received:	06/12/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P69289.D	50	06/17/13	KD	n/a	n/a	MSP2272
Run #2 ^a	P69188.D	200	06/13/13	KD	n/a	n/a	MSP2268

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	500	ug/l	
71-43-2	Benzene	ND	25	ug/l	
108-86-1	Bromobenzene	ND	250	ug/l	
74-97-5	Bromochloromethane	ND	250	ug/l	
75-27-4	Bromodichloromethane	ND	50	ug/l	
75-25-2	Bromoform	ND	50	ug/l	
74-83-9	Bromomethane	ND	100	ug/l	
78-93-3	2-Butanone (MEK)	ND	250	ug/l	
104-51-8	n-Butylbenzene	ND	250	ug/l	
135-98-8	sec-Butylbenzene	ND	250	ug/l	
98-06-6	tert-Butylbenzene	ND	250	ug/l	
75-15-0	Carbon disulfide	ND	250	ug/l	
56-23-5	Carbon tetrachloride	ND	50	ug/l	
108-90-7	Chlorobenzene	ND	50	ug/l	
75-00-3	Chloroethane	ND	100	ug/l	
67-66-3	Chloroform	ND	50	ug/l	
74-87-3	Chloromethane	ND	100	ug/l	
95-49-8	o-Chlorotoluene	ND	250	ug/l	
106-43-4	p-Chlorotoluene	ND	250	ug/l	
108-20-3	Di-Isopropyl ether	ND	100	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	250	ug/l	
124-48-1	Dibromochloromethane	ND	50	ug/l	
106-93-4	1,2-Dibromoethane	ND	100	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	100	ug/l	
75-34-3	1,1-Dichloroethane	ND	50	ug/l	
107-06-2	1,2-Dichloroethane	ND	50	ug/l	
75-35-4	1,1-Dichloroethene	ND	50	ug/l	
156-59-2	cis-1,2-Dichloroethene	309	50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	50	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 2 of 3

Client Sample ID: 063897-MW-B9-101**Lab Sample ID:** MC21718-1**Date Sampled:** 06/11/13**Matrix:** AQ - Ground Water**Date Received:** 06/12/13**Method:** SW846 8260B**Percent Solids:** n/a**Project:** Northwest Park Lower Third Avenue Development, Burlington, MA

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
78-87-5	1,2-Dichloropropane	ND	100	ug/l	
142-28-9	1,3-Dichloropropane	ND	250	ug/l	
594-20-7	2,2-Dichloropropane	ND	250	ug/l	
563-58-6	1,1-Dichloropropene	ND	250	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	25	ug/l	
123-91-1	1,4-Dioxane	ND	1300	ug/l	
60-29-7	Ethyl Ether	ND	250	ug/l	
100-41-4	Ethylbenzene	ND	50	ug/l	
87-68-3	Hexachlorobutadiene	ND	250	ug/l	
591-78-6	2-Hexanone	ND	250	ug/l	
98-82-8	Isopropylbenzene	ND	250	ug/l	
99-87-6	p-Isopropyltoluene	ND	250	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	50	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	250	ug/l	
74-95-3	Methylene bromide	ND	250	ug/l	
75-09-2	Methylene chloride	ND	100	ug/l	
91-20-3	Naphthalene	ND	250	ug/l	
103-65-1	n-Propylbenzene	ND	250	ug/l	
100-42-5	Styrene	ND	250	ug/l	
994-05-8	tert-Amyl Methyl Ether	ND	100	ug/l	
637-92-3	tert-Butyl Ethyl Ether	ND	100	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	25	ug/l	
127-18-4	Tetrachloroethene	ND	50	ug/l	
109-99-9	Tetrahydrofuran	ND	500	ug/l	
108-88-3	Toluene	ND	50	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	250	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	250	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	50	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	50	ug/l	
79-01-6	Trichloroethene	8430	50	ug/l	
75-69-4	Trichlorofluoromethane	ND	50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	250	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	250	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	250	ug/l	
75-01-4	Vinyl chloride	ND	50	ug/l	
	m,p-Xylene	ND	50	ug/l	
95-47-6	o-Xylene	ND	50	ug/l	
1330-20-7	Xylene (total)	ND	50	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 3 of 3

Client Sample ID:	063897-MW-B9-101	Date Sampled:	06/11/13
Lab Sample ID:	MC21718-1	Date Received:	06/12/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

VOA MCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	120%	121%	70-130%
2037-26-5	Toluene-D8	104%	105%	70-130%
460-00-4	4-Bromofluorobenzene	103%	106%	70-130%

(a) Confirmation run.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	063897-MW-B9-101	Date Sampled:	06/11/13
Lab Sample ID:	MC21718-1	Date Received:	06/12/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	177	5.0	mg/l	1	06/14/13	BF	SM21 2320B
Sulfate	38.6	5.0	mg/l	1	06/14/13	MC	ASTM516-90,02
Sulfide	< 2.0	2.0	mg/l	1	06/17/13	BF	SM21 4500 S F

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	063897-MW-B9-101	Date Sampled:	06/11/13
Lab Sample ID:	MC21718-1A	Date Received:	06/12/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B BY SIM		
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H61535.D	1	06/14/13	JB	n/a	n/a	MSH2030
Run #2 ^a	H61547.D	10	06/14/13	JB	n/a	n/a	MSH2030

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

CAS No.	Compound	Result	RL	Units	Q
123-91-1	1,4-Dioxane	ND	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17647-74-4	1,4-Dioxane-d8	69956% ^b	8077% ^b	60-140%

(a) Confirmation run for surrogate recoveries.

(b) Outside control limits due to possible matrix interference. Confirmed by reanalysis.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	063897-MW-B9-101	Date Sampled:	06/11/13
Lab Sample ID:	MC21718-1F	Date Received:	06/12/13
Matrix:	AQ - Groundwater Filtered	Percent Solids:	n/a
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Iron	< 100	100	ug/l	1	06/14/13	06/18/13 EAL	SW846 6010C ¹	SW846 3010A ²

(1) Instrument QC Batch: MA15763
(2) Prep QC Batch: MP21173

RL = Reporting Limit

Report of Analysis

Page 1 of 3

Client Sample ID:	063897-MW-B9-102	Date Sampled:	06/11/13
Lab Sample ID:	MC21718-2	Date Received:	06/12/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P69185.D	1	06/13/13	KD	n/a	n/a	MSP2268
Run #2	P69229.D	10	06/14/13	KD	n/a	n/a	MSP2270

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	10	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
74-97-5	Bromochloromethane	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	2.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	1.3	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	2.0	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	55.1	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	1.5	1.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 2 of 3

Client Sample ID: 063897-MW-B9-102

Lab Sample ID: MC21718-2

Date Sampled: 06/11/13

Matrix: AQ - Ground Water

Date Received: 06/12/13

Method: SW846 8260B

Percent Solids: n/a

Project: Northwest Park Lower Third Avenue Development, Burlington, MA

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
78-87-5	1,2-Dichloropropane	9.7	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
123-91-1	1,4-Dioxane	ND	25	ug/l	
60-29-7	Ethyl Ether	ND	5.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
994-05-8	tert-Amyl Methyl Ether	ND	2.0	ug/l	
637-92-3	tert-Butyl Ethyl Ether	ND	2.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	1.2	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	1620 ^a	10	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	4.6	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 3 of 3

Client Sample ID:	063897-MW-B9-102	Date Sampled:	06/11/13
Lab Sample ID:	MC21718-2	Date Received:	06/12/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

VOA MCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	115%	122%	70-130%
2037-26-5	Toluene-D8	106%	106%	70-130%
460-00-4	4-Bromofluorobenzene	106%	103%	70-130%

(a) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	063897-MW-B9-102	Date Sampled:	06/11/13
Lab Sample ID:	MC21718-2	Date Received:	06/12/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	29.8	5.0	mg/l	1	06/14/13	BF	SM21 2320B
Sulfate	20.8	5.0	mg/l	1	06/14/13	MC	ASTM516-90,02
Sulfide	< 2.0	2.0	mg/l	1	06/17/13	BF	SM21 4500 S F

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	063897-MW-B9-102	Date Sampled:	06/11/13
Lab Sample ID:	MC21718-2A	Date Received:	06/12/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B BY SIM		
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H61536.D	1	06/14/13	JB	n/a	n/a	MSH2030
Run #2 ^a	H61548.D	10	06/14/13	JB	n/a	n/a	MSH2030

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

CAS No.	Compound	Result	RL	Units	Q
123-91-1	1,4-Dioxane	ND	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17647-74-4	1,4-Dioxane-d8	14572% ^b	1360% ^b	60-140%

(a) Confirmation run for surrogate recoveries.

(b) Outside control limits due to possible matrix interference. Confirmed by reanalysis.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	063897-MW-B9-102	Date Sampled:	06/11/13
Lab Sample ID:	MC21718-2F	Date Received:	06/12/13
Matrix:	AQ - Groundwater Filtered	Percent Solids:	n/a
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Iron	< 100	100	ug/l	1	06/14/13	06/18/13 EAL	SW846 6010C ¹	SW846 3010A ²

(1) Instrument QC Batch: MA15763
(2) Prep QC Batch: MP21173

RL = Reporting Limit

Report of Analysis

Page 1 of 3

Client Sample ID:	063897-MW-B9-103	Date Sampled:	06/11/13
Lab Sample ID:	MC21718-3	Date Received:	06/12/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P69189.D	1	06/13/13	KD	n/a	n/a	MSP2268
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	10	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
74-97-5	Bromochloromethane	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	2.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	1.6	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	1.4	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	1.8	1.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 2 of 3

Client Sample ID: 063897-MW-B9-103**Lab Sample ID:** MC21718-3**Date Sampled:** 06/11/13**Matrix:** AQ - Ground Water**Date Received:** 06/12/13**Method:** SW846 8260B**Percent Solids:** n/a**Project:** Northwest Park Lower Third Avenue Development, Burlington, MA

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
123-91-1	1,4-Dioxane	ND	25	ug/l	
60-29-7	Ethyl Ether	ND	5.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	10.2	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
994-05-8	tert-Amyl Methyl Ether	ND	2.0	ug/l	
637-92-3	tert-Butyl Ethyl Ether	ND	2.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	3.3	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 3 of 3

Client Sample ID:	063897-MW-B9-103	Date Sampled:	06/11/13
Lab Sample ID:	MC21718-3	Date Received:	06/12/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

VOA MCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	122%		70-130%
2037-26-5	Toluene-D8	104%		70-130%
460-00-4	4-Bromofluorobenzene	106%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	063897-MW-B9-103	Date Sampled:	06/11/13
Lab Sample ID:	MC21718-3	Date Received:	06/12/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	33.2	5.0	mg/l	1	06/14/13	BF	SM21 2320B
Sulfate	32.3	5.0	mg/l	1	06/14/13	MC	ASTM516-90,02
Sulfide	< 2.0	2.0	mg/l	1	06/17/13	BF	SM21 4500 S F

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	063897-MW-B9-103	Date Sampled:	06/11/13
Lab Sample ID:	MC21718-3A	Date Received:	06/12/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B BY SIM		
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H61537.D	1	06/14/13	JB	n/a	n/a	MSH2030
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	Units	Q
123-91-1	1,4-Dioxane	2.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17647-74-4	1,4-Dioxane-d8	102%		60-140%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	063897-MW-B9-103	Date Sampled:	06/11/13
Lab Sample ID:	MC21718-3F	Date Received:	06/12/13
Matrix:	AQ - Groundwater Filtered	Percent Solids:	n/a
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Iron	< 100	100	ug/l	1	06/14/13	06/19/13 EAL	SW846 6010C ¹	SW846 3010A ²

(1) Instrument QC Batch: MA15764
(2) Prep QC Batch: MP21173

RL = Reporting Limit

Report of Analysis

Page 1 of 3

Client Sample ID:	063897-MW-B9-104	Date Sampled:	06/11/13
Lab Sample ID:	MC21718-4	Date Received:	06/12/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P69190.D	1	06/13/13	KD	n/a	n/a	MSP2268
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	10	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
74-97-5	Bromochloromethane	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	4.1	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	7.2	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	2.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	2.3	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 2 of 3

Client Sample ID: 063897-MW-B9-104**Lab Sample ID:** MC21718-4**Date Sampled:** 06/11/13**Matrix:** AQ - Ground Water**Date Received:** 06/12/13**Method:** SW846 8260B**Percent Solids:** n/a**Project:** Northwest Park Lower Third Avenue Development, Burlington, MA

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
123-91-1	1,4-Dioxane	ND	25	ug/l	
60-29-7	Ethyl Ether	ND	5.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
994-05-8	tert-Amyl Methyl Ether	ND	2.0	ug/l	
637-92-3	tert-Butyl Ethyl Ether	ND	2.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 3 of 3

Client Sample ID:	063897-MW-B9-104	Date Sampled:	06/11/13
Lab Sample ID:	MC21718-4	Date Received:	06/12/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

VOA MCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	120%		70-130%
2037-26-5	Toluene-D8	107%		70-130%
460-00-4	4-Bromofluorobenzene	106%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	063897-MW-B9-104	Date Sampled:	06/11/13
Lab Sample ID:	MC21718-4	Date Received:	06/12/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	58.6	5.0	mg/l	1	06/14/13	BF	SM21 2320B
Sulfate	18.3	5.0	mg/l	1	06/14/13	MC	ASTM516-90,02
Sulfide	< 2.0	2.0	mg/l	1	06/17/13	BF	SM21 4500 S F

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	063897-MW-B9-104	Date Sampled:	06/11/13
Lab Sample ID:	MC21718-4A	Date Received:	06/12/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B BY SIM		
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H61538.D	1	06/14/13	JB	n/a	n/a	MSH2030
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	Units	Q
123-91-1	1,4-Dioxane	ND	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17647-74-4	1,4-Dioxane-d8	97%		60-140%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	063897-MW-B9-104	Date Sampled:	06/11/13
Lab Sample ID:	MC21718-4F	Date Received:	06/12/13
Matrix:	AQ - Groundwater Filtered	Percent Solids:	n/a
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Iron	248	100	ug/l	1	06/14/13	06/18/13 EAL	SW846 6010C ¹	SW846 3010A ²

(1) Instrument QC Batch: MA15763
(2) Prep QC Batch: MP21173

RL = Reporting Limit

4.12
4

Report of Analysis

Client Sample ID:	063897-MW-B9-105	Date Sampled:	06/11/13
Lab Sample ID:	MC21718-5F	Date Received:	06/12/13
Matrix:	AQ - Groundwater Filtered	Percent Solids:	n/a
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Iron	< 100	100	ug/l	1	06/14/13	06/18/13 EAL	SW846 6010C ¹	SW846 3010A ²

(1) Instrument QC Batch: MA15763
(2) Prep QC Batch: MP21173

RL = Reporting Limit

4.13
4

Report of Analysis

Page 1 of 3

Client Sample ID:	063897-MW-B9-105	Date Sampled:	06/11/13
Lab Sample ID:	MC21718-6	Date Received:	06/12/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P69191.D	1	06/13/13	KD	n/a	n/a	MSP2268
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	10	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
74-97-5	Bromochloromethane	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	1.3	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	2.6	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	2.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 2 of 3

Client Sample ID: 063897-MW-B9-105**Lab Sample ID:** MC21718-6**Date Sampled:** 06/11/13**Matrix:** AQ - Ground Water**Date Received:** 06/12/13**Method:** SW846 8260B**Percent Solids:** n/a**Project:** Northwest Park Lower Third Avenue Development, Burlington, MA

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
123-91-1	1,4-Dioxane	ND	25	ug/l	
60-29-7	Ethyl Ether	ND	5.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
994-05-8	tert-Amyl Methyl Ether	ND	2.0	ug/l	
637-92-3	tert-Butyl Ethyl Ether	ND	2.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 3 of 3

Client Sample ID:	063897-MW-B9-105	Date Sampled:	06/11/13
Lab Sample ID:	MC21718-6	Date Received:	06/12/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

VOA MCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	122%		70-130%
2037-26-5	Toluene-D8	104%		70-130%
460-00-4	4-Bromofluorobenzene	107%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	063897-MW-B9-105	Date Sampled:	06/11/13
Lab Sample ID:	MC21718-6	Date Received:	06/12/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	38.7	5.0	mg/l	1	06/14/13	BF	SM21 2320B
Sulfate	21.5	5.0	mg/l	1	06/14/13	MC	ASTM516-90,02
Sulfide	< 2.0	2.0	mg/l	1	06/17/13	BF	SM21 4500 S F

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	063897-MW-B9-105	Date Sampled:	06/11/13
Lab Sample ID:	MC21718-6A	Date Received:	06/12/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B BY SIM		
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H61562.D	1	06/17/13	JB	n/a	n/a	MSH2031
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	Units	Q
123-91-1	1,4-Dioxane	ND	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17647-74-4	1,4-Dioxane-d8	90%		60-140%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	063897-MW-B9-105	Date Sampled:	06/11/13
Lab Sample ID:	MC21718-6F	Date Received:	06/12/13
Matrix:	AQ - Groundwater Filtered	Percent Solids:	n/a
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Iron	< 100	100	ug/l	1	06/14/13	06/18/13 EAL	SW846 6010C ¹	SW846 3010A ²

(1) Instrument QC Batch: MA15763
(2) Prep QC Batch: MP21173

RL = Reporting Limit

4.16
4

Report of Analysis

Page 1 of 3

Client Sample ID:	063897-MW4	Date Sampled:	06/11/13
Lab Sample ID:	MC21718-7	Date Received:	06/12/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P69192.D	1	06/13/13	KD	n/a	n/a	MSP2268
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	10	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
74-97-5	Bromochloromethane	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	2.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 2 of 3

Client Sample ID: 063897-MW4	Date Sampled: 06/11/13
Lab Sample ID: MC21718-7	Date Received: 06/12/13
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Northwest Park Lower Third Avenue Development, Burlington, MA	

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
123-91-1	1,4-Dioxane	ND	25	ug/l	
60-29-7	Ethyl Ether	ND	5.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
994-05-8	tert-Amyl Methyl Ether	ND	2.0	ug/l	
637-92-3	tert-Butyl Ethyl Ether	ND	2.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 3 of 3

Client Sample ID:	063897-MW4	Date Sampled:	06/11/13
Lab Sample ID:	MC21718-7	Date Received:	06/12/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

VOA MCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	121%		70-130%
2037-26-5	Toluene-D8	103%		70-130%
460-00-4	4-Bromofluorobenzene	106%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	063897-MW4	Date Sampled:	06/11/13
Lab Sample ID:	MC21718-7	Date Received:	06/12/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	27.6	5.0	mg/l	1	06/14/13	BF	SM21 2320B
Sulfate	9.3	5.0	mg/l	1	06/14/13	MC	ASTM516-90,02
Sulfide	< 2.0	2.0	mg/l	1	06/17/13	BF	SM21 4500 S F

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	063897-MW4	Date Sampled:	06/11/13
Lab Sample ID:	MC21718-7A	Date Received:	06/12/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B BY SIM		
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H61541.D	1	06/14/13	JB	n/a	n/a	MSH2030
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	Units	Q
123-91-1	1,4-Dioxane	ND	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17647-74-4	1,4-Dioxane-d8	105%		60-140%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	063897-MW4	Date Sampled:	06/11/13
Lab Sample ID:	MC21718-7F	Date Received:	06/12/13
Matrix:	AQ - Groundwater Filtered	Percent Solids:	n/a
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Iron	< 100	100	ug/l	1	06/14/13	06/18/13 EAL	SW846 6010C ¹	SW846 3010A ²

- (1) Instrument QC Batch: MA15763
(2) Prep QC Batch: MP21173

RL = Reporting Limit

Report of Analysis

Page 1 of 3

Client Sample ID:	063897-MW901	Date Sampled:	06/11/13
Lab Sample ID:	MC21718-8	Date Received:	06/12/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P69187.D	1	06/13/13	KD	n/a	n/a	MSP2268
Run #2	P69228.D	5	06/14/13	KD	n/a	n/a	MSP2270

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	10	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
74-97-5	Bromochloromethane	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	2.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	12.7	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	69.7	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	87.2	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	2.7	1.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 2 of 3

Client Sample ID: 063897-MW901	Date Sampled: 06/11/13
Lab Sample ID: MC21718-8	Date Received: 06/12/13
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Northwest Park Lower Third Avenue Development, Burlington, MA	

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
123-91-1	1,4-Dioxane	ND	25	ug/l	
60-29-7	Ethyl Ether	ND	5.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
994-05-8	tert-Amyl Methyl Ether	ND	2.0	ug/l	
637-92-3	tert-Butyl Ethyl Ether	ND	2.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	
127-18-4	Tetrachloroethene	4.7	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	981 ^a	5.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	29.9	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 3 of 3

Client Sample ID:	063897-MW901	Date Sampled:	06/11/13
Lab Sample ID:	MC21718-8	Date Received:	06/12/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

VOA MCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	114%	122%	70-130%
2037-26-5	Toluene-D8	99%	102%	70-130%
460-00-4	4-Bromofluorobenzene	107%	104%	70-130%

(a) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID:	063897-MW901	Date Sampled:	06/11/13
Lab Sample ID:	MC21718-8A	Date Received:	06/12/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B BY SIM		
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H61542.D	1	06/14/13	JB	n/a	n/a	MSH2030
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	Units	Q
123-91-1	1,4-Dioxane	ND	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17647-74-4	1,4-Dioxane-d8	139%		60-140%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 3

Client Sample ID:	063897-PZ-02	Date Sampled:	06/11/13
Lab Sample ID:	MC21718-9	Date Received:	06/12/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P69279.D	1	06/17/13	KD	n/a	n/a	MSP2272
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	10	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
74-97-5	Bromochloromethane	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	2.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 2 of 3

Client Sample ID: 063897-PZ-02	Date Sampled: 06/11/13
Lab Sample ID: MC21718-9	Date Received: 06/12/13
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Northwest Park Lower Third Avenue Development, Burlington, MA	

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
123-91-1	1,4-Dioxane	ND	25	ug/l	
60-29-7	Ethyl Ether	ND	5.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
994-05-8	tert-Amyl Methyl Ether	ND	2.0	ug/l	
637-92-3	tert-Butyl Ethyl Ether	ND	2.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	2.1	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 3 of 3

Client Sample ID:	063897-PZ-02	Date Sampled:	06/11/13
Lab Sample ID:	MC21718-9	Date Received:	06/12/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

VOA MCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	110%		70-130%
2037-26-5	Toluene-D8	98%		70-130%
460-00-4	4-Bromofluorobenzene	108%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID:	063897-PZ-02	Date Sampled:	06/11/13
Lab Sample ID:	MC21718-9	Date Received:	06/12/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO ₃	60.8	5.0	mg/l	1	06/14/13	BF	SM21 2320B
Sulfate	49.2	20	mg/l	4	06/14/13	MC	ASTM516-90,02
Sulfide	< 2.0	2.0	mg/l	1	06/17/13	BF	SM21 4500 S F

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	063897-PZ-02	Date Sampled:	06/11/13
Lab Sample ID:	MC21718-9A	Date Received:	06/12/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B BY SIM		
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H61543.D	1	06/14/13	JB	n/a	n/a	MSH2030
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	Units	Q
123-91-1	1,4-Dioxane	ND	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17647-74-4	1,4-Dioxane-d8	99%		60-140%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	063897-PZ-02	Date Sampled:	06/11/13
Lab Sample ID:	MC21718-9F	Date Received:	06/12/13
Matrix:	AQ - Groundwater Filtered	Percent Solids:	n/a
Project:	Northwest Park Lower Third Avenue Development, Burlington, MA		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Iron	< 100	100	ug/l	1	06/14/13	06/18/13 EAL	SW846 6010C ¹	SW846 3010A ²

(1) Instrument QC Batch: MA15763
(2) Prep QC Batch: MP21173

RL = Reporting Limit

4.24
4

Misc. Forms

5

Custody Documents and Other Forms

Includes the following where applicable:

- Parameter Certifications (MA)
- Chain of Custody
- MCP Form
- Sample Tracking Chronicle

Parameter Certifications

Job Number: MC21718
Account: GEI GEI Consultants, Inc.
Project: Northwest Park Lower Third Avenue Development, Burlington, MA

The following parameters included in this report are certified by the state of MA.

Parameter	CAS#	Method	Mat	Certification Status
Alkalinity, Total as CaCO3		SM21 2320B	AQ	Accutest is certified for this parameter.
Sulfate	14808-79-8	ASTM516-90,02	AQ	Accutest is certified for this parameter.

5.1
5

5.2

MC21718: Chain of Custody
Page 1 of 3

Chain-of-Custody Record				Laboratory: Accutest				Laboratory Job # <u>MC21718</u> (Lab use only)																									
Project Information																																	
 GEI Consultants 400 Unicorn Park Drive Woburn, MA 01801 PH: 781.721.4000 FX: 781.721.4073		Project Name: Northwest Park Third Ave				Project Location: Burlington, MA				Page <u>1</u> of <u>1</u>																							
		Project Number: 06389-7				Project Manager: Mark Ensign																											
		Send Report to: Sarah Manley				Preservative				Sample Handling																							
		Send EDD to: labdata@geiconsultants.com				HCl None None None NOOH + Zn Ac2 HNO3																											
MCP PRESUMPTIVE CERTAINTY REQUIRED:		(YES) NO		Analysis																													
If Yes, Are MCP Analytical Methods Required?		(YES) NO NA		<table border="1" style="width:100%; border-collapse: collapse; text-align: center;"> <tr> <td>VOCs B260</td> <td>1,4-dioxane B260 SIM</td> <td>Alkalinity</td> <td>Sulfate</td> <td>Sulfide</td> <td>Dissolved Iron</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>								VOCs B260	1,4-dioxane B260 SIM	Alkalinity	Sulfate	Sulfide	Dissolved Iron																
VOCs B260	1,4-dioxane B260 SIM	Alkalinity	Sulfate									Sulfide	Dissolved Iron																				
If Yes, Are Drinking Water Samples Submitted?		YES (NO) NA																															
If Yes, Have You Met Minimum Field QC Requirements?		(YES) NO NA																															
Lab Sample Number	GEI Sample ID	Collection Date	Time	Matrix	No. of Bottles	Sampler(s) Initials						Sample Specific Remarks																					
-1F	063897-MW-B9-101	6/11/13	1029	GW	7	WRM	X	X	X	X	X																						
-2F	063897-MW-B9-102	6/11/13	1127	GW	7	WRM	X	X	X	X	X																						
-3F	063897-MW-B9-103	6/11/13	0835	GW	7	WRM	X	X	X	X	X																						
-4F	063897-MW-B9-104	6/11/13	1311	GW	7	JLE	X	X	X	X	X																						
-5F	063897-MW-B9-105	6/11/13	0855	GW	7	JLE	X	X	X	X	X																						
-6F	063897-MW-B9-106	6/11/13	1324	GW	7	WRM	X	X	X	X	X																						
-7F	063897-MW4	6/11/13	1012	GW	7	JLE	X	X	X	X	X																						
-8	063897-MW901	6/11/13	1457	GW	4	WRM	X	X																									
-9F	063897-P2-02	6/11/13	1134	GW	7	JLE	X	X	X	X	X																						
												2A4, 12B, 6F,																					
MCP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible.							Turnaround Time (Business days):			Before submitting rush turnaround samples, you must notify the laboratory to confirm that the TAT can be achieved.																							
Relinquished by: (signature)		Date:	Time:	Received by: (signature)			Normal <u>X</u> Other _____																										
1. <i>[Signature]</i>		6/11/13	1615	1. GEI Sample Fridge			10-Day _____ 7-Day _____																										
Relinquished by: (signature)		Date:	Time:	Received by: (signature)			5-Day <u>X</u> 3-Day _____																										
2. <i>[Signature]</i>		6/12/13	10:42	2. <i>[Signature]</i>			Additional Requirements/Comments/Remarks:																										
Relinquished by: (signature)		Date:	Time:	Received by: (signature)			Samples field filtered for dissolved iron L12																										
3. <i>[Signature]</i>		6/12/13	10:42	3. <i>[Signature]</i>																													
Relinquished by: (signature)		Date:	Time:	Received by: (signature)																													
4. <i>[Signature]</i>		6/12/13	1500	4. <i>[Signature]</i>																													

6/10/2013

MC21718: Chain of Custody
Page 2 of 3

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC21718 Client: GEI Immediate Client Services Action Required: No
 Date / Time Received: 6/12/2013 Delivery Method: Client Service Action Required at Login: No
 Project: NW PARK THIRD AVE No. Coolers: 1 Airbill #'s:

Cooler Security Y or N Y or N
 1. Custody Seals Present: ☒ ☐ 3. COC Present: ☒ ☐
 2. Custody Seals Intact: ☒ ☐ 4. Smpl Dates/Time OK: ☒ ☐

Cooler Temperature Y or N
 1. Temp criteria achieved: ☒ ☐
 2. Cooler temp verification: Infrared gun
 3. Cooler media: Ice (bag)

Quality Control Preservation Y or N N/A
 1. Trip Blank present / cooler: ☐ ☐ ☒
 2. Trip Blank listed on COC: ☐ ☐ ☒
 3. Samples preserved properly: ☒ ☐
 4. VOCs headspace free: ☒ ☐ ☐

Sample Integrity - Documentation Y or N
 1. Sample labels present on bottles: ☒ ☐
 2. Container labeling complete: ☒ ☐
 3. Sample container label / COC agree: ☒ ☐

Sample Integrity - Condition Y or N
 1. Sample recvd within HT: ☒ ☐
 2. All containers accounted for: ☒ ☐
 3. Condition of sample: Intact

Sample Integrity - Instructions Y or N N/A
 1. Analysis requested is clear: ☒ ☐
 2. Bottles received for unspecified tests: ☐ ☒
 3. Sufficient volume recvd for analysis: ☒ ☐
 4. Compositing instructions clear: ☐ ☐ ☒
 5. Filtering instructions clear: ☐ ☐ ☒

Comments



Massachusetts Department
of Environmental Protection
Bureau of Waste Site Cleanup

WSC-CAM

Exhibit VII A

July 1, 2010

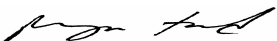
Revision No. 1

Final

Page 13 of 38

Exhibit VII A-2: MassDEP Analytical Protocol Certification Form

MassDEP Analytical Protocol Certification Form

Laboratory Name:	Accutest Laboratories of New England	Project #:	MC21718
Project Location:	Northwest Park Lower Third Avenue Development, Burlington, MA	MADEP RTN	None
This form provides certifications for the following data set: list Laboratory Sample ID Numbers(s) MC21718-1,MC21718-1A,MC21718-1F,MC21718-2,MC21718-2A,MC21718-2F,MC21718-3 MC21718-3A,MC21718-3F,MC21718-4,MC21718-4A,MC21718-4F,MC21718-5F,MC21718-6 MC21718-6A,MC21718-7,MC21718-7A,MC21718-7F,MC21718-8,MC21718-8A,MC21718-8F,MC21718-9,MC21718-9A,MC21718-9F			
Matrices:	Groundwater/Surface Water (X)	Soil/Sediment ()	Drinking Water ()
		Air ()	Other ()
CAM Protocol (check all that apply below):			
8260 VOC (X) CAM IIA	7470/7471 Hg () CAM III B	MassDEP VPH () CAM IV A	8081 Pesticides () CAM V B
8270 SVOC () CAM II B	7010 Metals () CAM III C	MassDEP EPH () CAM IV B	8151 Herbicides () CAM V C
6010 Metals (X) CAM III A	6020 Metals () CAM III D	8082 PCB () CAM V A	9014 Total Cyanide/PAC () CAM VI A
			7196 Hex Cr () CAM VI B
			Mass DEP APH () CAM IX A
			8330 Explosives () CAM VIII A
			TO-15 VOC () CAM IX B
			6860 Perchlorate () CAM VIII B
Affirmative Responses to Questions A Through F are required for "Presumptive Certainty status			
A	Were all samples received in a condition consistent with those described on the Chain-of Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?		☒ Yes ☐ No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?		☒ Yes ☐ No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?		☒ Yes ☐ No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?		☒ Yes ☐ No
E	VPH, EPH, APH, and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?		☒ Yes ☐ No ☒ Yes ☐ No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?		☒ Yes ☐ No
Responses to questions G, H, and I below is required for "Presumptive Certainty" status			
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocols		☐ Yes ☒ No ¹
Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data useability and representativeness requirements described in 310 CMR 40.1056(2)(k) and WSC-07-350.			
H	Were all QC performance standards specified in the CAM protocol(s) achieved?		☐ Yes ☒ No ¹
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?		☐ Yes ☒ No ¹
¹ All Negative responses must be addressed in an attached Environmental Laboratory case narrative.			
I the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.			
Signature:			
Position:	Laboratory Director		
Printed Name:	Reza Tand		
Date:	06/20/2013		

Internal Sample Tracking Chronicle

GEI Consultants, Inc.

Job No: MC21718

Northwest Park Lower Third Avenue Development, Burlington, MA
Project No: 063897

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC21718-1 Collected: 11-JUN-13 10:09 By: WRM Received: 12-JUN-13 By: 063897-MW-B9-101						
MC21718-1	SW846 8260B	13-JUN-13 19:34	KD			V8260MCP
MC21718-1	SM21 2320B	14-JUN-13	BF			ALK
MC21718-1	ASTM516-90,02	14-JUN-13	MC			SO4
MC21718-1	SM21 4500 S F	17-JUN-13	BF			S
MC21718-1	SW846 8260B	17-JUN-13 16:38	KD			V8260MCP
MC21718-2 Collected: 11-JUN-13 11:27 By: WRM Received: 12-JUN-13 By: 063897-MW-B9-102						
MC21718-2	SW846 8260B	13-JUN-13 18:10	KD			V8260MCP
MC21718-2	SM21 2320B	14-JUN-13	BF			ALK
MC21718-2	ASTM516-90,02	14-JUN-13	MC			SO4
MC21718-2	SW846 8260B	14-JUN-13 15:03	KD			V8260MCP
MC21718-2	SM21 4500 S F	17-JUN-13	BF			S
MC21718-3 Collected: 11-JUN-13 08:35 By: WRM Received: 12-JUN-13 By: 063897-MW-B9-103						
MC21718-3	SW846 8260B	13-JUN-13 20:02	KD			V8260MCP
MC21718-3	SM21 2320B	14-JUN-13	BF			ALK
MC21718-3	ASTM516-90,02	14-JUN-13	MC			SO4
MC21718-3	SM21 4500 S F	17-JUN-13	BF			S
MC21718-4 Collected: 11-JUN-13 13:11 By: JLE Received: 12-JUN-13 By: 063897-MW-B9-104						
MC21718-4	SW846 8260B	13-JUN-13 20:30	KD			V8260MCP
MC21718-4	SM21 2320B	14-JUN-13	BF			ALK
MC21718-4	ASTM516-90,02	14-JUN-13	MC			SO4
MC21718-4	SM21 4500 S F	17-JUN-13	BF			S
MC21718-6 Collected: 11-JUN-13 13:24 By: WRM Received: 12-JUN-13 By: 063897-MW-B9-105						
MC21718-6	SW846 8260B	13-JUN-13 20:58	KD			V8260MCP
MC21718-6	SM21 2320B	14-JUN-13	BF			ALK
MC21718-6	ASTM516-90,02	14-JUN-13	MC			SO4

Internal Sample Tracking Chronicle

GEI Consultants, Inc.

Job No: MC21718

Northwest Park Lower Third Avenue Development, Burlington, MA
Project No: 063897

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC21718-6	SM21 4500 S F	17-JUN-13	BF			S
MC21718-7 Collected: 11-JUN-13 10:12 By: JLE Received: 12-JUN-13 By: 063897-MW4						
MC21718-7	SW846 8260B	13-JUN-13 21:26	KD			V8260MCP
MC21718-7	SM21 2320B	14-JUN-13	BF			ALK
MC21718-7	ASTM516-90,02	14-JUN-13	MC			SO4
MC21718-7	SM21 4500 S F	17-JUN-13	BF			S
MC21718-8 Collected: 11-JUN-13 14:57 By: WRM Received: 12-JUN-13 By: 063897-MW901						
MC21718-8	SW846 8260B	13-JUN-13 19:06	KD			V8260MCP
MC21718-8	SW846 8260B	14-JUN-13 14:33	KD			V8260MCP
MC21718-9 Collected: 11-JUN-13 11:34 By: JLE Received: 12-JUN-13 By: 063897-PZ-02						
MC21718-9	SM21 2320B	14-JUN-13	BF			ALK
MC21718-9	ASTM516-90,02	14-JUN-13	MC			SO4
MC21718-9	SM21 4500 S F	17-JUN-13	BF			S
MC21718-9	SW846 8260B	17-JUN-13 11:57	KD			V8260MCP
MC21718-1A Collected: 11-JUN-13 10:09 By: WRM Received: 12-JUN-13 By: 063897-MW-B9-101						
MC21718-1A	SW846 8260B BY SIM	14-JUN-13 14:06	JB			V8260SIMDIOX
MC21718-1A	SW846 8260B BY SIM	14-JUN-13 19:27	JB			
MC21718-1F Collected: 11-JUN-13 10:09 By: WRM Received: 12-JUN-13 By: 063897-MW-B9-101						
MC21718-1F	SW846 6010C	18-JUN-13 12:09	EAL	14-JUN-13	DA	FE
MC21718-2A Collected: 11-JUN-13 11:27 By: WRM Received: 12-JUN-13 By: 063897-MW-B9-102						
MC21718-2A	SW846 8260B BY SIM	14-JUN-13 14:34	JB			V8260SIMDIOX
MC21718-2A	SW846 8260B BY SIM	14-JUN-13 19:54	JB			

Internal Sample Tracking Chronicle

GEI Consultants, Inc.

Job No: MC21718

Northwest Park Lower Third Avenue Development, Burlington, MA
Project No: 063897

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC21718-2C Collected: 11-JUN-13 11:27 By: WRM Received: 12-JUN-13 By: 063897-MW-B9-102						
MC21718-2F	SW846 6010C	18-JUN-13 12:59	EAL	14-JUN-13	DA	FE
MC21718-3C Collected: 11-JUN-13 08:35 By: WRM Received: 12-JUN-13 By: 063897-MW-B9-103						
MC21718-3F	SW846 8260B BY SIM	14-JUN-13 15:01	JB			V8260SIMDIOX
MC21718-3F Collected: 11-JUN-13 08:35 By: WRM Received: 12-JUN-13 By: 063897-MW-B9-103						
MC21718-3F	SW846 6010C	19-JUN-13 04:52	EAL	14-JUN-13	DA	FE
MC21718-4C Collected: 11-JUN-13 13:11 By: JLE Received: 12-JUN-13 By: 063897-MW-B9-104						
MC21718-4F	SW846 8260B BY SIM	14-JUN-13 15:27	JB			V8260SIMDIOX
MC21718-4F Collected: 11-JUN-13 13:11 By: JLE Received: 12-JUN-13 By: 063897-MW-B9-104						
MC21718-4F	SW846 6010C	18-JUN-13 13:08	EAL	14-JUN-13	DA	FE
MC21718-5C Collected: 11-JUN-13 08:55 By: JLE Received: 12-JUN-13 By: 063897-MW-B9-105						
MC21718-5F	SW846 6010C	18-JUN-13 13:13	EAL	14-JUN-13	DA	FE
MC21718-6C Collected: 11-JUN-13 13:24 By: WRM Received: 12-JUN-13 By: 063897-MW-B9-105						
MC21718-6F	SW846 8260B BY SIM	17-JUN-13 16:23	JB			V8260SIMDIOX
MC21718-6F Collected: 11-JUN-13 13:24 By: WRM Received: 12-JUN-13 By: 063897-MW-B9-105						
MC21718-6F	SW846 6010C	18-JUN-13 13:28	EAL	14-JUN-13	DA	FE

Internal Sample Tracking Chronicle

GEI Consultants, Inc.

Job No: MC21718

Northwest Park Lower Third Avenue Development, Burlington, MA
Project No: 063897

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC21718-7A 063897-MW4	Collected: 11-JUN-13 10:12 By: JLE	Received: 12-JUN-13 By:				
MC21718-7B	SW846 8260B BY SIM 14-JUN-13 16:46	JB				V8260SIMDIOX
MC21718-7C 063897-MW4	Collected: 11-JUN-13 10:12 By: JLE	Received: 12-JUN-13 By:				
MC21718-7D	SW846 6010C	18-JUN-13 13:33	EAL	14-JUN-13	DA	FE
MC21718-8A 063897-MW901	Collected: 11-JUN-13 14:57 By: WRM	Received: 12-JUN-13 By:				
MC21718-8B	SW846 8260B BY SIM 14-JUN-13 17:13	JB				V8260SIMDIOX
MC21718-9A 063897-PZ-02	Collected: 11-JUN-13 11:34 By: JLE	Received: 12-JUN-13 By:				
MC21718-9B	SW846 8260B BY SIM 14-JUN-13 17:40	JB				V8260SIMDIOX
MC21718-9C 063897-PZ-02	Collected: 11-JUN-13 11:34 By: JLE	Received: 12-JUN-13 By:				
MC21718-9D	SW846 6010C	18-JUN-13 13:38	EAL	14-JUN-13	DA	FE

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC21718
Account: GEI GEI Consultants, Inc.
Project: Northwest Park Lower Third Avenue Development, Burlington, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2030-MB	H61531.D	1	06/14/13	JB	n/a	n/a	MSH2030

The QC reported here applies to the following samples: Method: SW846 8260B BY SIM

MC21718-1A, MC21718-2A, MC21718-3A, MC21718-4A, MC21718-7A, MC21718-8A, MC21718-9A

CAS No.	Compound	Result	RL	Units	Q
123-91-1	1,4-Dioxane	ND	0.20	ug/l	

CAS No.	Surrogate Recoveries	Limits
17647-74-4	1,4-Dioxane-d8	101% 60-140%

Method Blank Summary

Job Number: MC21718
Account: GEI GEI Consultants, Inc.
Project: Northwest Park Lower Third Avenue Development, Burlington, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2031-MB	H61561.D	1	06/17/13	JB	n/a	n/a	MSH2031

The QC reported here applies to the following samples: Method: SW846 8260B BY SIM
MC21718-6A

CAS No.	Compound	Result	RL	Units	Q
123-91-1	1,4-Dioxane	ND	0.20	ug/l	

CAS No.	Surrogate Recoveries	Limits
17647-74-4	1,4-Dioxane-d8	90% 60-140%

Method Blank Summary

Page 1 of 3

Job Number: MC21718**Account:** GEI GEI Consultants, Inc.**Project:** Northwest Park Lower Third Avenue Development, Burlington, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP2268-MB	P69175.D	1	06/13/13	KD	n/a	n/a	MSP2268

The QC reported here applies to the following samples:**Method:** SW846 8260B

MC21718-2, MC21718-3, MC21718-4, MC21718-6, MC21718-7, MC21718-8

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	10	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
74-97-5	Bromochloromethane	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	2.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	

Method Blank Summary

Page 2 of 3

Job Number: MC21718**Account:** GEI GEI Consultants, Inc.**Project:** Northwest Park Lower Third Avenue Development, Burlington, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP2268-MB	P69175.D	1	06/13/13	KD	n/a	n/a	MSP2268

The QC reported here applies to the following samples:**Method:** SW846 8260B

MC21718-2, MC21718-3, MC21718-4, MC21718-6, MC21718-7, MC21718-8

CAS No.	Compound	Result	RL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
123-91-1	1,4-Dioxane	ND	25	ug/l	
60-29-7	Ethyl Ether	ND	5.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
994-05-8	tert-Amyl Methyl Ether	ND	2.0	ug/l	
637-92-3	tert-Butyl Ethyl Ether	ND	2.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

Method Blank Summary

Page 3 of 3

Job Number: MC21718

Account: GEI GEI Consultants, Inc.

Project: Northwest Park Lower Third Avenue Development, Burlington, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP2268-MB	P69175.D	1	06/13/13	KD	n/a	n/a	MSP2268

The QC reported here applies to the following samples:

Method: SW846 8260B

MC21718-2, MC21718-3, MC21718-4, MC21718-6, MC21718-7, MC21718-8

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	110% 70-130%
2037-26-5	Toluene-D8	100% 70-130%
460-00-4	4-Bromofluorobenzene	108% 70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Page 1 of 1

Job Number: MC21718

Account: GEI GEI Consultants, Inc.

Project: Northwest Park Lower Third Avenue Development, Burlington, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP2270-MB	P69223.D	1	06/14/13	KD	n/a	n/a	MSP2270

The QC reported here applies to the following samples:

Method: SW846 8260B

MC21718-2, MC21718-8

CAS No.	Compound	Result	RL	Units	Q
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	115% 70-130%
2037-26-5	Toluene-D8	100% 70-130%
460-00-4	4-Bromofluorobenzene	110% 70-130%

Method Blank Summary

Page 1 of 3

Job Number: MC21718

Account: GEI GEI Consultants, Inc.

Project: Northwest Park Lower Third Avenue Development, Burlington, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP2272-MB	P69278.D	1	06/17/13	KD	n/a	n/a	MSP2272

The QC reported here applies to the following samples:

Method: SW846 8260B

MC21718-1, MC21718-9

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	10	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
74-97-5	Bromochloromethane	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	2.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	

Method Blank Summary

Page 2 of 3

Job Number: MC21718**Account:** GEI GEI Consultants, Inc.**Project:** Northwest Park Lower Third Avenue Development, Burlington, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP2272-MB	P69278.D	1	06/17/13	KD	n/a	n/a	MSP2272

The QC reported here applies to the following samples:**Method:** SW846 8260B

MC21718-1, MC21718-9

CAS No.	Compound	Result	RL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
123-91-1	1,4-Dioxane	ND	25	ug/l	
60-29-7	Ethyl Ether	ND	5.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
994-05-8	tert-Amyl Methyl Ether	ND	2.0	ug/l	
637-92-3	tert-Butyl Ethyl Ether	ND	2.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

Method Blank Summary

Job Number: MC21718
Account: GEI GEI Consultants, Inc.
Project: Northwest Park Lower Third Avenue Development, Burlington, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP2272-MB	P69278.D	1	06/17/13	KD	n/a	n/a	MSP2272

The QC reported here applies to the following samples: Method: SW846 8260B
MC21718-1, MC21718-9

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	110% 70-130%
2037-26-5	Toluene-D8	98% 70-130%
460-00-4	4-Bromofluorobenzene	109% 70-130%

Blank Spike Summary

Page 1 of 1

Job Number: MC21718

Account: GEI GEI Consultants, Inc.

Project: Northwest Park Lower Third Avenue Development, Burlington, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2030-BS	H61529.D	1	06/14/13	JB	n/a	n/a	MSH2030

The QC reported here applies to the following samples:

Method: SW846 8260B BY SIM

MC21718-1A, MC21718-2A, MC21718-3A, MC21718-4A, MC21718-7A, MC21718-8A, MC21718-9A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
123-91-1	1,4-Dioxane	10	7.8	78	60-140

CAS No.	Surrogate Recoveries	BSP	Limits
17647-74-4	1,4-Dioxane-d8	92%	60-140%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: MC21718

Account: GEI GEI Consultants, Inc.

Project: Northwest Park Lower Third Avenue Development, Burlington, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2031-BS	H61558.D	1	06/17/13	JB	n/a	n/a	MSH2031
MSH2031-BSD	H61559.D	1	06/17/13	JB	n/a	n/a	MSH2031

The QC reported here applies to the following samples:

Method: SW846 8260B BY SIM

MC21718-6A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
123-91-1	1,4-Dioxane	10	7.6	76	7.4	74	3	60-140/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
17647-74-4	1,4-Dioxane-d8	98%	95%	60-140%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Page 1 of 3

Job Number: MC21718

Account: GEI GEI Consultants, Inc.

Project: Northwest Park Lower Third Avenue Development, Burlington, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP2268-BS	P69172.D	1	06/13/13	KD	n/a	n/a	MSP2268
MSP2268-BSD	P69173.D	1	06/13/13	KD	n/a	n/a	MSP2268

The QC reported here applies to the following samples:

Method: SW846 8260B

MC21718-2, MC21718-3, MC21718-4, MC21718-6, MC21718-7, MC21718-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	44.1	88	46.9	94	6	70-130/25
71-43-2	Benzene	50	54.6	109	54.5	109	0	70-130/25
108-86-1	Bromobenzene	50	55.0	110	55.8	112	1	70-130/25
74-97-5	Bromochloromethane	50	51.8	104	52.4	105	1	70-130/25
75-27-4	Bromodichloromethane	50	62.6	125	63.7	127	2	70-130/25
75-25-2	Bromoform	50	41.8	84	42.8	86	2	70-130/25
74-83-9	Bromomethane	50	44.1	88	47.2	94	7	70-130/25
78-93-3	2-Butanone (MEK)	50	60.6	121	62.0	124	2	70-130/25
104-51-8	n-Butylbenzene	50	57.5	115	59.0	118	3	70-130/25
135-98-8	sec-Butylbenzene	50	63.0	126	65.3	131* a	4	70-130/25
98-06-6	tert-Butylbenzene	50	67.0	134* a	68.9	138* a	3	70-130/25
75-15-0	Carbon disulfide	50	48.2	96	49.2	98	2	70-130/25
56-23-5	Carbon tetrachloride	50	75.6	151* a	75.0	150* a	1	70-130/25
108-90-7	Chlorobenzene	50	47.7	95	47.6	95	0	70-130/25
75-00-3	Chloroethane	50	51.2	102	50.0	100	2	70-130/25
67-66-3	Chloroform	50	62.1	124	61.7	123	1	70-130/25
74-87-3	Chloromethane	50	52.3	105	70.9	142* a	30* a	70-130/25
95-49-8	o-Chlorotoluene	50	67.9	136* a	69.9	140* a	3	70-130/25
106-43-4	p-Chlorotoluene	50	64.5	129	66.1	132* a	2	70-130/25
108-20-3	Di-Isopropyl ether	50	65.1	130	65.6	131* a	1	70-130/25
96-12-8	1,2-Dibromo-3-chloropropane	50	65.8	132* a	70.1	140* a	6	70-130/25
124-48-1	Dibromochloromethane	50	52.6	105	52.3	105	1	70-130/25
106-93-4	1,2-Dibromoethane	50	47.6	95	48.7	97	2	70-130/25
95-50-1	1,2-Dichlorobenzene	50	56.8	114	58.1	116	2	70-130/25
541-73-1	1,3-Dichlorobenzene	50	59.5	119	60.7	121	2	70-130/25
106-46-7	1,4-Dichlorobenzene	50	51.3	103	52.6	105	3	70-130/25
75-71-8	Dichlorodifluoromethane	50	83.0	166* b	85.0	170* b	2	70-130/25
75-34-3	1,1-Dichloroethane	50	60.7	121	60.3	121	1	70-130/25
107-06-2	1,2-Dichloroethane	50	64.0	128	64.3	129	0	70-130/25
75-35-4	1,1-Dichloroethene	50	52.1	104	52.7	105	1	70-130/25
156-59-2	cis-1,2-Dichloroethene	50	55.7	111	55.0	110	1	70-130/25
156-60-5	trans-1,2-Dichloroethene	50	53.5	107	52.8	106	1	70-130/25
78-87-5	1,2-Dichloropropane	50	56.4	113	58.0	116	3	70-130/25
142-28-9	1,3-Dichloropropane	50	52.4	105	52.2	104	0	70-130/25
594-20-7	2,2-Dichloropropane	50	64.5	129	62.2	124	4	70-130/25
563-58-6	1,1-Dichloropropene	50	62.6	125	63.6	127	2	70-130/25

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Page 2 of 3

Job Number: MC21718

Account: GEI GEI Consultants, Inc.

Project: Northwest Park Lower Third Avenue Development, Burlington, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP2268-BS	P69172.D	1	06/13/13	KD	n/a	n/a	MSP2268
MSP2268-BSD	P69173.D	1	06/13/13	KD	n/a	n/a	MSP2268

The QC reported here applies to the following samples:

Method: SW846 8260B

MC21718-2, MC21718-3, MC21718-4, MC21718-6, MC21718-7, MC21718-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	50	51.4	103	51.9	104	1	70-130/25
10061-02-6	trans-1,3-Dichloropropene	50	54.0	108	54.4	109	1	70-130/25
123-91-1	1,4-Dioxane	250	262	105	271	108	3	70-130/25
60-29-7	Ethyl Ether	50	50.4	101	49.5	99	2	70-130/25
100-41-4	Ethylbenzene	50	57.2	114	57.4	115	0	70-130/25
87-68-3	Hexachlorobutadiene	50	52.2	104	54.5	109	4	70-130/25
591-78-6	2-Hexanone	50	53.1	106	55.4	111	4	70-130/25
98-82-8	Isopropylbenzene	50	63.4	127	64.6	129	2	70-130/25
99-87-6	p-Isopropyltoluene	50	63.7	127	65.6	131* b	3	70-130/25
1634-04-4	Methyl Tert Butyl Ether	50	64.9	130	64.9	130	0	70-130/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	58.6	117	59.4	119	1	70-130/25
74-95-3	Methylene bromide	50	59.5	119	59.5	119	0	70-130/25
75-09-2	Methylene chloride	50	52.5	105	52.1	104	1	70-130/25
91-20-3	Naphthalene	50	49.0	98	53.6	107	9	70-130/25
103-65-1	n-Propylbenzene	50	58.7	117	59.5	119	1	70-130/25
100-42-5	Styrene	50	43.2	86	44.4	89	3	70-130/25
994-05-8	tert-Amyl Methyl Ether	50	51.2	102	51.5	103	1	70-130/25
637-92-3	tert-Butyl Ethyl Ether	50	53.5	107	53.1	106	1	70-130/25
630-20-6	1,1,1,2-Tetrachloroethane	50	50.2	100	49.6	99	1	70-130/25
79-34-5	1,1,2,2-Tetrachloroethane	50	55.2	110	55.8	112	1	70-130/25
127-18-4	Tetrachloroethene	50	48.6	97	48.1	96	1	70-130/25
109-99-9	Tetrahydrofuran	50	55.6	111	57.8	116	4	70-130/25
108-88-3	Toluene	50	54.2	108	54.5	109	1	70-130/25
87-61-6	1,2,3-Trichlorobenzene	50	49.5	99	51.3	103	4	70-130/25
120-82-1	1,2,4-Trichlorobenzene	50	48.0	96	49.9	100	4	70-130/25
71-55-6	1,1,1-Trichloroethane	50	70.8	142* a	70.3	141* a	1	70-130/25
79-00-5	1,1,2-Trichloroethane	50	56.1	112	56.7	113	1	70-130/25
79-01-6	Trichloroethene	50	59.0	118	58.6	117	1	70-130/25
75-69-4	Trichlorofluoromethane	50	57.6	115	55.9	112	3	70-130/25
96-18-4	1,2,3-Trichloropropane	50	61.5	123	63.8	128	4	70-130/25
95-63-6	1,2,4-Trimethylbenzene	50	58.1	116	59.2	118	2	70-130/25
108-67-8	1,3,5-Trimethylbenzene	50	58.4	117	59.4	119	2	70-130/25
75-01-4	Vinyl chloride	50	58.1	116	58.0	116	0	70-130/25
	m,p-Xylene	100	105	105	105	105	0	70-130/25
95-47-6	o-Xylene	50	53.9	108	54.5	109	1	70-130/25
1330-20-7	Xylene (total)	150	159	106	159	106	0	70-130/25

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Page 3 of 3

Job Number: MC21718

Account: GEI GEI Consultants, Inc.

Project: Northwest Park Lower Third Avenue Development, Burlington, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP2268-BS	P69172.D	1	06/13/13	KD	n/a	n/a	MSP2268
MSP2268-BSD	P69173.D	1	06/13/13	KD	n/a	n/a	MSP2268

The QC reported here applies to the following samples:

Method: SW846 8260B

MC21718-2, MC21718-3, MC21718-4, MC21718-6, MC21718-7, MC21718-8

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	103%	102%	70-130%
2037-26-5	Toluene-D8	101%	100%	70-130%
460-00-4	4-Bromofluorobenzene	107%	109%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

(b) Outside control limits. Associated samples are non-detect for this compound.

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: MC21718

Account: GEI GEI Consultants, Inc.

Project: Northwest Park Lower Third Avenue Development, Burlington, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP2270-BS	P69220.D	1	06/14/13	KD	n/a	n/a	MSP2270
MSP2270-BSD	P69221.D	1	06/14/13	KD	n/a	n/a	MSP2270

The QC reported here applies to the following samples:

Method: SW846 8260B

MC21718-2, MC21718-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-55-6	1,1,1-Trichloroethane	50	72.0	144* a	73.5	147* a	2	70-130/25
79-01-6	Trichloroethene	50	58.3	117	59.8	120	3	70-130/25

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	103%	103%	70-130%
2037-26-5	Toluene-D8	102%	101%	70-130%
460-00-4	4-Bromofluorobenzene	111%	109%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Page 1 of 3

Job Number: MC21718

Account: GEI GEI Consultants, Inc.

Project: Northwest Park Lower Third Avenue Development, Burlington, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP2272-BS	P69275.D	1	06/17/13	KD	n/a	n/a	MSP2272
MSP2272-BSD	P69276.D	1	06/17/13	KD	n/a	n/a	MSP2272

The QC reported here applies to the following samples:

Method: SW846 8260B

MC21718-1, MC21718-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	52.2	104	49.8	100	5	70-130/25
71-43-2	Benzene	50	52.7	105	51.8	104	2	70-130/25
108-86-1	Bromobenzene	50	56.8	114	56.8	114	0	70-130/25
74-97-5	Bromochloromethane	50	52.1	104	49.5	99	5	70-130/25
75-27-4	Bromodichloromethane	50	60.0	120	58.3	117	3	70-130/25
75-25-2	Bromoform	50	42.0	84	42.1	84	0	70-130/25
74-83-9	Bromomethane	50	45.4	91	40.5	81	11	70-130/25
78-93-3	2-Butanone (MEK)	50	61.0	122	55.4	111	10	70-130/25
104-51-8	n-Butylbenzene	50	58.9	118	59.8	120	2	70-130/25
135-98-8	sec-Butylbenzene	50	65.1	130	66.0	132* a	1	70-130/25
98-06-6	tert-Butylbenzene	50	69.3	139* a	69.9	140* a	1	70-130/25
75-15-0	Carbon disulfide	50	49.8	100	46.0	92	8	70-130/25
56-23-5	Carbon tetrachloride	50	71.6	143* a	70.6	141* a	1	70-130/25
108-90-7	Chlorobenzene	50	47.2	94	46.6	93	1	70-130/25
75-00-3	Chloroethane	50	50.4	101	45.1	90	11	70-130/25
67-66-3	Chloroform	50	60.5	121	58.3	117	4	70-130/25
74-87-3	Chloromethane	50	68.5	137* b	64.7	129	6	70-130/25
95-49-8	o-Chlorotoluene	50	71.5	143* a	70.9	142* a	1	70-130/25
106-43-4	p-Chlorotoluene	50	66.4	133* a	66.4	133* a	0	70-130/25
108-20-3	Di-Isopropyl ether	50	64.5	129	63.9	128	1	70-130/25
96-12-8	1,2-Dibromo-3-chloropropane	50	67.1	134* a	70.5	141* a	5	70-130/25
124-48-1	Dibromochloromethane	50	51.9	104	51.5	103	1	70-130/25
106-93-4	1,2-Dibromoethane	50	48.1	96	48.4	97	1	70-130/25
95-50-1	1,2-Dichlorobenzene	50	58.1	116	58.7	117	1	70-130/25
541-73-1	1,3-Dichlorobenzene	50	60.3	121	60.9	122	1	70-130/25
106-46-7	1,4-Dichlorobenzene	50	51.6	103	52.2	104	1	70-130/25
75-71-8	Dichlorodifluoromethane	50	77.5	155* b	74.2	148* b	4	70-130/25
75-34-3	1,1-Dichloroethane	50	59.6	119	57.3	115	4	70-130/25
107-06-2	1,2-Dichloroethane	50	60.9	122	60.6	121	0	70-130/25
75-35-4	1,1-Dichloroethene	50	51.2	102	48.7	97	5	70-130/25
156-59-2	cis-1,2-Dichloroethene	50	54.1	108	52.7	105	3	70-130/25
156-60-5	trans-1,2-Dichloroethene	50	53.2	106	51.7	103	3	70-130/25
78-87-5	1,2-Dichloropropane	50	55.8	112	54.6	109	2	70-130/25
142-28-9	1,3-Dichloropropane	50	51.7	103	51.3	103	1	70-130/25
594-20-7	2,2-Dichloropropane	50	65.1	130	60.5	121	7	70-130/25
563-58-6	1,1-Dichloropropene	50	61.1	122	60.3	121	1	70-130/25

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Page 2 of 3

Job Number: MC21718

Account: GEI GEI Consultants, Inc.

Project: Northwest Park Lower Third Avenue Development, Burlington, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP2272-BS	P69275.D	1	06/17/13	KD	n/a	n/a	MSP2272
MSP2272-BSD	P69276.D	1	06/17/13	KD	n/a	n/a	MSP2272

The QC reported here applies to the following samples:

Method: SW846 8260B

MC21718-1, MC21718-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	50	50.5	101	49.8	100	1	70-130/25
10061-02-6	trans-1,3-Dichloropropene	50	52.3	105	52.1	104	0	70-130/25
123-91-1	1,4-Dioxane	250	237	95	267	107	12	70-130/25
60-29-7	Ethyl Ether	50	49.1	98	48.3	97	2	70-130/25
100-41-4	Ethylbenzene	50	57.6	115	56.7	113	2	70-130/25
87-68-3	Hexachlorobutadiene	50	53.2	106	53.9	108	1	70-130/25
591-78-6	2-Hexanone	50	54.8	110	58.6	117	7	70-130/25
98-82-8	Isopropylbenzene	50	63.9	128	66.5	133* a	4	70-130/25
99-87-6	p-Isopropyltoluene	50	66.1	132* a	66.0	132* a	0	70-130/25
1634-04-4	Methyl Tert Butyl Ether	50	64.9	130	61.9	124	5	70-130/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	58.1	116	59.4	119	2	70-130/25
74-95-3	Methylene bromide	50	56.7	113	57.4	115	1	70-130/25
75-09-2	Methylene chloride	50	51.5	103	44.6	89	14	70-130/25
91-20-3	Naphthalene	50	50.8	102	54.1	108	6	70-130/25
103-65-1	n-Propylbenzene	50	60.7	121	61.4	123	1	70-130/25
100-42-5	Styrene	50	43.7	87	49.0	98	11	70-130/25
994-05-8	tert-Amyl Methyl Ether	50	46.8	94	44.0	88	6	70-130/25
637-92-3	tert-Butyl Ethyl Ether	50	51.1	102	47.8	96	7	70-130/25
630-20-6	1,1,1,2-Tetrachloroethane	50	50.0	100	48.7	97	3	70-130/25
79-34-5	1,1,2,2-Tetrachloroethane	50	56.4	113	58.7	117	4	70-130/25
127-18-4	Tetrachloroethene	50	47.3	95	47.0	94	1	70-130/25
109-99-9	Tetrahydrofuran	50	60.9	122	60.6	121	0	70-130/25
108-88-3	Toluene	50	52.9	106	51.6	103	2	70-130/25
87-61-6	1,2,3-Trichlorobenzene	50	49.3	99	51.0	102	3	70-130/25
120-82-1	1,2,4-Trichlorobenzene	50	48.3	97	49.9	100	3	70-130/25
71-55-6	1,1,1-Trichloroethane	50	68.8	138* a	66.4	133* a	4	70-130/25
79-00-5	1,1,2-Trichloroethane	50	54.9	110	54.5	109	1	70-130/25
79-01-6	Trichloroethene	50	55.4	111	54.6	109	1	70-130/25
75-69-4	Trichlorofluoromethane	50	57.0	114	54.7	109	4	70-130/25
96-18-4	1,2,3-Trichloropropane	50	63.7	127	65.8	132* b	3	70-130/25
95-63-6	1,2,4-Trimethylbenzene	50	60.2	120	60.9	122	1	70-130/25
108-67-8	1,3,5-Trimethylbenzene	50	60.2	120	60.7	121	1	70-130/25
75-01-4	Vinyl chloride	50	58.1	116	54.3	109	7	70-130/25
	m,p-Xylene	100	103	103	103	103	0	70-130/25
95-47-6	o-Xylene	50	53.6	107	52.6	105	2	70-130/25
1330-20-7	Xylene (total)	150	157	105	155	103	1	70-130/25

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Page 3 of 3

Job Number: MC21718

Account: GEI GEI Consultants, Inc.

Project: Northwest Park Lower Third Avenue Development, Burlington, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP2272-BS	P69275.D	1	06/17/13	KD	n/a	n/a	MSP2272
MSP2272-BSD	P69276.D	1	06/17/13	KD	n/a	n/a	MSP2272

The QC reported here applies to the following samples:

Method: SW846 8260B

MC21718-1, MC21718-9

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	102%	100%	70-130%
2037-26-5	Toluene-D8	99%	99%	70-130%
460-00-4	4-Bromofluorobenzene	109%	112%	70-130%

(a) Outside control limits. Associated samples are non-detect for this compound.

(b) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Volatile Internal Standard Area Summary

Page 1 of 1

Job Number: MC21718

Account: GEI GEI Consultants, Inc.

Project: Northwest Park Lower Third Avenue Development, Burlington, MA

Check Std: MSH2030-CC2007

Injection Date: 06/14/13

Lab File ID: H61528.D

Injection Time: 10:58

Instrument ID: GCMSH

Method: SW846 8260B BY SIM

IS 1
AREA RT

Check Std	2023	13.99
Upper Limit ^a	4046	14.49
Lower Limit ^b	1012	13.49

Lab Sample ID	IS 1 AREA	RT
MSH2030-BS	2005	14.00
MSH2030-MB	1817	14.00
ZZZZZZ	1775	14.00
ZZZZZZ	1720	14.00
MC21626-12A	1677	14.00
MC21718-1A	1851	14.00
MC21718-2A	1726	14.00
MC21718-3A	1565	14.00
MC21718-4A	1614	13.99
MC21718-7A	1559	14.00
MC21718-8A	1500	14.00
MC21718-9A	1447	14.00
MC21626-12AMS	1374	14.00
MC21626-12AMSD	1385	14.00
MC21718-1A ^c	1413	14.00
MC21718-2A ^c	1358	14.00

IS 1 = 4-Bromofluorobenzene

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

(c) Confirmation run for surrogate recoveries.

Volatile Internal Standard Area Summary

Page 1 of 1

Job Number: MC21718

Account: GEI GEI Consultants, Inc.

Project: Northwest Park Lower Third Avenue Development, Burlington, MA

Check Std: MSH2031-CC2007

Injection Date: 06/17/13

Lab File ID: H61557.D

Injection Time: 14:08

Instrument ID: GCMSH

Method: SW846 8260B BY SIM

IS 1
AREA RT

Check Std	1230	14.00
Upper Limit ^a	2460	14.50
Lower Limit ^b	615	13.50

Lab Sample ID	IS 1 AREA	RT
MSH2031-BS	1170	14.01
MSH2031-BSD	1173	14.01
MSH2031-MB	1167	14.01
MC21718-6A	1218	14.01
ZZZZZZ	1125	14.01

IS 1 = 4-Bromofluorobenzene

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

6.4.2

6

Volatile Internal Standard Area Summary

Page 1 of 1

Job Number: MC21718

Account: GEI GEI Consultants, Inc.

Project: Northwest Park Lower Third Avenue Development, Burlington, MA

Check Std: MSP2268-CC2257

Injection Date: 06/13/13

Lab File ID: P69168.D

Injection Time: 10:09

Instrument ID: GCMSP

Method: SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	1024537	8.46	1593918	9.31	818654	12.55	787144	15.11	397241	6.07
Upper Limit ^a	2049074	8.96	3187836	9.81	1637308	13.05	1574288	15.61	794482	6.57
Lower Limit ^b	512269	7.96	796959	8.81	409327	12.05	393572	14.61	198621	5.57

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSP2268-BS	1033806	8.46	1589624	9.31	860921	12.55	806694	15.11	386501	6.06
MSP2268-BSD	1020851	8.46	1573745	9.31	855674	12.55	801319	15.11	394667	6.06
MSP2268-MB	854845	8.46	1264420	9.32	580942	12.55	488671	15.12	341739	6.08
ZZZZZZ	809906	8.46	1218078	9.32	556124	12.55	473240	15.12	309782	6.08
ZZZZZZ	791674	8.46	1170520	9.32	537300	12.55	466488	15.12	270823	6.08
ZZZZZZ	778385	8.46	1137452	9.32	527190	12.55	447350	15.12	311107	6.08
ZZZZZZ	753500	8.46	1137492	9.32	526217	12.55	448855	15.12	287947	6.08
ZZZZZZ	741523	8.46	1099828	9.32	508966	12.55	431852	15.12	306548	6.08
ZZZZZZ	789948	8.46	1126298	9.32	574348	12.55	460333	15.12	271432	6.09
ZZZZZZ	787499	8.46	1129625	9.32	575250	12.55	449121	15.12	282558	6.08
MC21718-2	738748	8.46	1080298	9.32	504946	12.55	433409	15.12	257483	6.08
MC21718-8	738680	8.46	1081053	9.32	489778	12.55	417025	15.12	251396	6.09
MC21718-1 ^c	683762	8.46	1010772	9.32	474527	12.55	395480	15.12	271542	6.09
MC21718-3	673581	8.46	1004560	9.32	468313	12.55	408960	15.12	242643	6.08
MC21718-4	680156	8.46	994922	9.32	473401	12.55	417662	15.12	216700	6.08
MC21718-6	678614	8.46	1012082	9.32	467812	12.56	408527	15.12	227637	6.08
MC21718-7	664633	8.46	995386	9.32	470989	12.55	398756	15.12	233567	6.08

IS 1 = Pentafluorobenzene

IS 2 = 1,4-Difluorobenzene

IS 3 = Chlorobenzene-D5

IS 4 = 1,4-Dichlorobenzene-d4

IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

(c) Confirmation run.

Volatile Internal Standard Area Summary

Page 1 of 1

Job Number: MC21718

Account: GEI GEI Consultants, Inc.

Project: Northwest Park Lower Third Avenue Development, Burlington, MA

Check Std: MSP2270-CC2257

Injection Date: 06/14/13

Lab File ID: P69219.D

Injection Time: 10:18

Instrument ID: GCMSP

Method: SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	866314	8.46	1343565	9.31	747019	12.55	654680	15.11	288324	6.06
Upper Limit ^a	1732628	8.96	2687130	9.81	1494038	13.05	1309360	15.61	576648	6.56
Lower Limit ^b	433157	7.96	671783	8.81	373510	12.05	327340	14.61	144162	5.56

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSP2270-BS	898549	8.46	1376927	9.31	752597	12.55	696561	15.11	305299	6.07
MSP2270-BSD	899007	8.46	1389537	9.31	762326	12.55	700800	15.11	321168	6.06
MSP2270-MB	723869	8.46	1096208	9.32	510117	12.55	430116	15.12	314497	6.08
ZZZZZZ	718181	8.46	1101614	9.32	500482	12.55	444561	15.12	318521	6.07
ZZZZZZ	680311	8.46	1025888	9.32	485861	12.55	418162	15.12	317576	6.08
MC21588-4	665468	8.46	984440	9.32	467668	12.55	399236	15.12	331125	6.08
ZZZZZZ	656737	8.46	952746	9.32	446284	12.55	389344	15.12	334526	6.08
MC21718-8	622198	8.46	936295	9.32	436250	12.55	385444	15.12	396018	6.08
MC21718-2	617245	8.46	916008	9.32	433401	12.55	377334	15.12	356325	6.08
ZZZZZZ	603047	8.46	892256	9.32	434745	12.55	364747	15.12	293977	6.08
ZZZZZZ	612492	8.46	916913	9.32	448166	12.55	356492	15.12	314123	6.08
MC21588-4MS	755629	8.46	1178420	9.31	663313	12.55	636419	15.11	319068	6.06
MC21588-4MSD	793888	8.46	1254510	9.31	701292	12.55	660646	15.11	335727	6.06
ZZZZZZ	710791	8.46	1054517	9.32	511815	12.55	450943	15.12	340309	6.08
ZZZZZZ	706715	8.46	1040882	9.32	487033	12.55	501493	15.12	230507	6.08
ZZZZZZ	654030	8.46	1003894	9.32	499350	12.55	540454	15.11	365924	6.07
ZZZZZZ	682396	8.46	1068585	9.32	485127	12.55	492413	15.12	333899	6.08
ZZZZZZ	669239	8.46	990985	9.32	459038	12.55	414555	15.12	264491	6.08
ZZZZZZ	642005	8.46	963885	9.32	446863	12.55	391134	15.12	352844	6.08
ZZZZZZ	623324	8.46	931598	9.32	418726	12.55	374320	15.12	306674	6.08
ZZZZZZ	590225	8.46	887582	9.32	425323	12.55	366396	15.12	311709	6.08
ZZZZZZ	589321	8.46	879024	9.32	408070	12.55	353116	15.12	286287	6.08

IS 1 = Pentafluorobenzene

IS 2 = 1,4-Difluorobenzene

IS 3 = Chlorobenzene-D5

IS 4 = 1,4-Dichlorobenzene-d4

IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Internal Standard Area Summary

Page 1 of 1

Job Number: MC21718

Account: GEI GEI Consultants, Inc.

Project: Northwest Park Lower Third Avenue Development, Burlington, MA

Check Std: MSP2272-CC2257

Injection Date: 06/17/13

Lab File ID: P69274.D

Injection Time: 09:36

Instrument ID: GCMSP

Method: SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	1094980	8.46	1706914	9.31	915135	12.55	805477	15.11	437893	6.07
Upper Limit ^a	2189960	8.96	3413828	9.81	1830270	13.05	1610954	15.61	875786	6.57
Lower Limit ^b	547490	7.96	853457	8.81	457568	12.05	402739	14.61	218947	5.57

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSP2272-BS	1097376	8.46	1734619	9.31	908776	12.55	820737	15.11	399345	6.06
MSP2272-BSD	1135913	8.46	1762354	9.31	920746	12.55	816292	15.11	415282	6.07
MSP2272-MB	879817	8.46	1343209	9.32	598766	12.55	499040	15.12	363196	6.08
MC21718-9	846244	8.46	1233742	9.32	556925	12.55	474301	15.12	365023	6.08
ZZZZZZ	796838	8.46	1187516	9.32	544648	12.55	455010	15.12	372773	6.08
ZZZZZZ	763504	8.46	1107118	9.32	519214	12.55	435142	15.12	308072	6.08
ZZZZZZ	730040	8.46	1078722	9.32	501712	12.55	427009	15.12	260902	6.07
ZZZZZZ	723821	8.46	1073251	9.32	484163	12.55	418472	15.11	384543	6.08
MC21718-1	630251	8.46	928507	9.32	435845 ^c	12.55	377390 ^c	15.12	305317	6.06
ZZZZZZ	612340	8.46	880617	9.32	400540 ^d	12.55	350489 ^d	15.12	296458	6.08
ZZZZZZ	587793	8.46	861868	9.32	408894 ^d	12.55	338098 ^d	15.12	301031	6.08
ZZZZZZ	577524	8.46	847562 ^d	9.32	396296 ^d	12.55	327463 ^d	15.12	300484	6.08
ZZZZZZ	553459	8.46	850074 ^d	9.32	392574 ^d	12.55	330932 ^d	15.12	310404	6.08
ZZZZZZ	558776	8.46	815597 ^d	9.32	386240 ^d	12.55	327398 ^d	15.12	335979	6.07
MC21718-9MS	703927	8.46	1101298	9.31	609796	12.55	568027	15.11	328472	6.06
MC21718-9MSD	746051	8.46	1156113	9.31	643747	12.55	590713	15.11	343692	6.06

IS 1 = Pentafluorobenzene

IS 2 = 1,4-Difluorobenzene

IS 3 = Chlorobenzene-D5

IS 4 = 1,4-Dichlorobenzene-d4

IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

(c) Outside control limits due to possible matrix interference. Confirmed by reanalysis.

(d) Outside control limits. Target analytes not associated with this internal standard.

Volatile Surrogate Recovery Summary

Page 1 of 1

Job Number: MC21718

Account: GEI GEI Consultants, Inc.

Project: Northwest Park Lower Third Avenue Development, Burlington, MA

Method: SW846 8260B BY SIM

Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1
MC21718-1A	H61547.D	8077.0* a
MC21718-1A	H61535.D	69956.0* a
MC21718-2A	H61548.D	1360.0* a
MC21718-2A	H61536.D	14572.0* a
MC21718-3A	H61537.D	102.0
MC21718-4A	H61538.D	97.0
MC21718-6A	H61562.D	90.0
MC21718-7A	H61541.D	105.0
MC21718-8A	H61542.D	139.0
MC21718-9A	H61543.D	99.0
MSH2030-BS	H61529.D	92.0
MSH2030-MB	H61531.D	101.0
MSH2031-BS	H61558.D	98.0
MSH2031-BSD	H61559.D	95.0
MSH2031-MB	H61561.D	90.0

Surrogate Compounds	Recovery Limits
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S1 = 1,4-Dioxane-d8	60-140%
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(a) Outside control limits due to possible matrix interference. Confirmed by reanalysis.

Volatile Surrogate Recovery Summary

Page 1 of 1

Job Number: MC21718

Account: GEI GEI Consultants, Inc.

Project: Northwest Park Lower Third Avenue Development, Burlington, MA

Method: SW846 8260B

Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC21718-1	P69188.D	121.0	105.0	106.0
MC21718-1	P69289.D	120.0	104.0	103.0
MC21718-2	P69229.D	122.0	106.0	103.0
MC21718-2	P69185.D	115.0	106.0	106.0
MC21718-3	P69189.D	122.0	104.0	106.0
MC21718-4	P69190.D	120.0	107.0	106.0
MC21718-6	P69191.D	122.0	104.0	107.0
MC21718-7	P69192.D	121.0	103.0	106.0
MC21718-8	P69228.D	122.0	102.0	104.0
MC21718-8	P69187.D	114.0	99.0	107.0
MC21718-9	P69279.D	110.0	98.0	108.0
MSP2268-BS	P69172.D	103.0	101.0	107.0
MSP2268-BSD	P69173.D	102.0	100.0	109.0
MSP2268-MB	P69175.D	110.0	100.0	108.0
MSP2270-BS	P69220.D	103.0	102.0	111.0
MSP2270-BSD	P69221.D	103.0	101.0	109.0
MSP2270-MB	P69223.D	115.0	100.0	110.0
MSP2272-BS	P69275.D	102.0	99.0	109.0
MSP2272-BSD	P69276.D	100.0	99.0	112.0
MSP2272-MB	P69278.D	110.0	98.0	109.0

Surrogate Compounds

Recovery Limits

S1 = Dibromofluoromethane

70-130%

S2 = Toluene-D8

70-130%

S3 = 4-Bromofluorobenzene

70-130%

6.5.2

6

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC21718
Account: GEI - GEI Consultants, Inc.
Project: Northwest Park Lower Third Avenue Development, Burlington, MA

QC Batch ID: MP21173
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 06/14/13

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	17	40		
Antimony	6.0	1.2	1.9		
Arsenic	4.0	1.1	2.9		
Barium	50	.43	.81		
Beryllium	4.0	.17	.25		
Boron	100	.47	1.4		
Cadmium	4.0	.14	.5		
Calcium	5000	15	38		
Chromium	10	.5	1.4		
Cobalt	50	.15	.4		
Copper	25	.79	7		
Gold	50	2.3	5		
Iron	100	4	20	1.3	<100
Lead	5.0	.76	1.7		
Magnesium	5000	53	59		
Manganese	15	.16	.81		
Molybdenum	100	.25	.77		
Nickel	40	.15	.57		
Palladium	50	2.3	7.6		
Platinum	50	5.2	14		
Potassium	5000	64	160		
Selenium	10	1.7	4.8		
Silicon	100	1.7	45		
Silver	5.0	.62	1		
Sodium	5000	23	60		
Strontium	10	.2	.26		
Thallium	5.0	.67	1.9		
Tin	100	.23	1.4		
Titanium	50	1.9	1.8		
Tungsten	100	7.3	16		
Vanadium	10	.95	2.8		
Zinc	20	.13	.5		
Zirconium	50	2.3	2.2		

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC21718
Account: GEI - GEI Consultants, Inc.
Project: Northwest Park Lower Third Avenue Development, Burlington, MA

QC Batch ID: MP21173
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

Associated samples MP21173: MC21718-1F, MC21718-2F, MC21718-3F, MC21718-4F, MC21718-5F, MC21718-6F, MC21718-7F, MC21718-9F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC21718
 Account: GEI - GEI Consultants, Inc.
 Project: Northwest Park Lower Third Avenue Development, Burlington, MA

QC Batch ID: MP21173
 Matrix Type: AQUEOUS

Methods: SW846 6010C
 Units: ug/l

Prep Date: 06/14/13 06/14/13

Metal	BSP Result	Spike lot MPICP3	% Rec	QC Limits	BSD Result	Spike lot MPICP3	% Rec	BSD RPD	QC Limit
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Boron									
Cadmium									
Calcium									
Chromium	anr								
Cobalt									
Copper									
Gold									
Iron	2020	2000	101.0	80-120	1990	2000	99.5	1.5	20
Lead	anr								
Magnesium									
Manganese	anr								
Molybdenum									
Nickel									
Palladium									
Platinum									
Potassium									
Selenium									
Silicon									
Silver									
Sodium	anr								
Strontium									
Thallium									
Tin									
Titanium									
Tungsten									
Vanadium									
Zinc									
Zirconium	anr								

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC21718

Account: GEI - GEI Consultants, Inc.

Project: Northwest Park Lower Third Avenue Development, Burlington, MA

QC Batch ID: MP21173

Methods: SW846 6010C

Matrix Type: AQUEOUS

Units: ug/l

Prep Date:

Metal

Associated samples MP21173: MC21718-1F, MC21718-2F, MC21718-3F, MC21718-4F, MC21718-5F, MC21718-6F, MC21718-7F, MC21718-9F

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC21718
 Account: GEI - GEI Consultants, Inc.
 Project: Northwest Park Lower Third Avenue Development, Burlington, MA

QC Batch ID: MP21173
 Matrix Type: AQUEOUS

Methods: SW846 6010C
 Units: ug/l

Prep Date: 06/14/13

Metal	MC21718-1F Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Boron				
Cadmium				
Calcium				
Chromium	anr			
Cobalt				
Copper				
Gold				
Iron	0.00	0.00	NC	0-10
Lead	anr			
Magnesium				
Manganese	anr			
Molybdenum				
Nickel				
Palladium				
Platinum				
Potassium				
Selenium				
Silicon				
Silver				
Sodium	anr			
Strontium				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc				
Zirconium	anr			

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC21718
Account: GEI - GEI Consultants, Inc.
Project: Northwest Park Lower Third Avenue Development, Burlington, MA

QC Batch ID: MP21173
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

Associated samples MP21173: MC21718-1F, MC21718-2F, MC21718-3F, MC21718-4F, MC21718-5F, MC21718-6F, MC21718-7F, MC21718-9F

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

7.1.3

7

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: MC21718
Account: GEI - GEI Consultants, Inc.
Project: Northwest Park Lower Third Avenue Development, Burlington, MA

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Alkalinity, Total as CaCO3	GN43277	5.0	1.1	mg/l	250	259	103.6	80-120%
Sulfate	GN43271	5.0	0.0	mg/l	20	21.5	107.5	80-120%
Sulfide	GN43295	2.0	0.0	mg/l	13.4	12.0	89.6	80-120%

Associated Samples:

Batch GN43271: MC21718-1, MC21718-2, MC21718-3, MC21718-4, MC21718-6, MC21718-7, MC21718-9

Batch GN43277: MC21718-1, MC21718-2, MC21718-3, MC21718-4, MC21718-6, MC21718-7, MC21718-9

Batch GN43295: MC21718-1, MC21718-2, MC21718-3, MC21718-4, MC21718-6, MC21718-7, MC21718-9

(*) Outside of QC limits

8.1

8

Margret Hanley

From: Margret Hanley
Sent: Monday, July 22, 2013 4:29 PM
To: 'Christine.Vaccaro@noaa.gov'
Subject: Review of RGP Discharge, Burlington, MA

Ms. Vaccaro:

I am preparing a Notice of Intent (NOI) for a USEPA Remediation General Permit (RGP) for discharge to Vine Brook in Burlington, Massachusetts.

I am seeking guidance from the Protected Resources Division of NOAA's Marine Fisheries Service (NMFS PRD) as to the information that is required in order for NMFS to provide comments on the discharge.

Could you please respond with an e-mail, or call me directly regarding this matter?

Regards,

Margret Hanley LSP

Principal

The Isosceles Group, A *Sleeman Hanley & DiNitto, Inc. Company*
50 Congress Street
Boston, MA 02109
Tel. 617.330.2800
Fax. 617.330.2801
Cell: 617.529.6770
www.theisogroup.com

Margret Hanley

From: Christine Vaccaro - NOAA Federal [christine.vaccaro@noaa.gov]
Sent: Tuesday, July 23, 2013 9:13 AM
To: Margret Hanley
Subject: Vine Brook in Burlington

Hi there,

I got your message from yesterday. Because Vine Brook is not connected to any major tidal rivers or in coastal or marine habitat, we do not expect any species listed by the National Marine Fisheries Service to be present at or near the site were effects to them may occur. You do not need to coordinate with us on your NOI.

Cheers,
Chris

Chris Vaccaro
Fisheries Biologist
Protected Resources Division
NOAA Fisheries/NERO
Gloucester, MA
Phone: 978-281-9167
Email: christine.vaccaro@noaa.gov



United States Department of the Interior



FISH AND WILDLIFE SERVICE

New England Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5087
<http://www.fws.gov/newengland>

January 7, 2013

To Whom It May Concern:

This project was reviewed for the presence of federally listed or proposed, threatened or endangered species or critical habitat per instructions provided on the U.S. Fish and Wildlife Service's New England Field Office website:

(<http://www.fws.gov/newengland/EndangeredSpec-Consultation.htm>)

Based on information currently available to us, no federally listed or proposed, threatened or endangered species or critical habitat under the jurisdiction of the U.S. Fish and Wildlife Service are known to occur in the project area(s). Preparation of a Biological Assessment or further consultation with us under section 7 of the Endangered Species Act is not required. No further Endangered Species Act coordination is necessary for a period of one year from the date of this letter, unless additional information on listed or proposed species becomes available.

Thank you for your cooperation. Please contact Mr. Brett Hillman of this office at 603-223-2541 if we can be of further assistance.

Sincerely yours,

Thomas R. Chapman
Supervisor
New England Field Office