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September 12, 2014

U.S. Environmental Protection Agency
5 Post Office Square, Suite 100
Mail Code OEP06-4
Boston, MA 02109-3912
ATTN: Remediation General Permit NOI Processing
Via Email: NPDES.Generalpermits@epa.gov

Subject: Remediation General Permit Notice of Intent
Temporary Dewatering Treatment System
Former Athol MGP Remediation
51 Electric Street
Athol, Massachusetts
MassDEP RTN 1-2014353
Tier I Permit Number W039233

To Whom It May Concern:

On behalf of Massachusetts Electric Company d/b/a/ National Grid (National Grid), Innovative Engineering Solutions, Inc. (IESI) is submitting the attached Notice of Intent (NOI) for approval under the Remediation General Permit (RGP) from the United States Environmental Protection Agency (USEPA) to discharge treated dewatering fluids to Millers River in Athol, Massachusetts. The dewatering fluids will be generated during remediation activities at the former manufactured gas plant (MGP) located at 51 Electric Street in Athol, Massachusetts. The remediation activities are being conducted under the Phase IV provisions of the Massachusetts Contingency Plan (MCP). The former MGP site has been assigned Release Tracking Number (RTN) 1-2014353 by the Massachusetts Department of Environmental Protection (MassDEP) and is classified as a Tier I disposal site (with a Tier I permit number of W039233).

The remediation activities will be conducted as part of Phase IV activities under the Massachusetts Contingency Plan (MCP). The remediation activities include, in part, the following:

- Removal and off-Site disposal of potential source materials from inside a former gas holder;
- In-situ soil stabilization/solidification (ISS) to address impacted shallow soils to depths ranging from 15 feet to 25 feet below grade (and in certain areas with the goal of up to 35 feet below grade);
- Removal and off-Site disposal of other former subsurface structures that may be encountered during ISS treatment, as well as limited soils that are not treated via ISS; and
- Capping of accessible soils on the former MGP property to eliminate potential exposure to soils.

Limited dewatering may be required during the remediation activities and is expected to be only during removal of the contents of the former holder. The dewatering fluids generated during the work be collected and treated as follows:

- Initial discharge from the dewatering pumps to an 18,0000 gallon capacity fractionation tank for flow equalization, solid settlement and separation of any non-aqueous phase liquid (NAPL).
- Further separation and flow equalization using an oil/water separator.

- Bag filters to remove suspended solids from the dewatering fluids.
- Three liquid phase granular activated carbon adsorbers connected in series to remove dissolved MGP-related compounds from the dewatering fluids.
- Ion exchange resin (as a contingency) to remove inorganic compounds.

The maximum discharge flow rate for the treated dewatering fluids will be 100 gallons per minute.

The expected discharge location for the treated dewatering fluids is the Town of Athol publicly-owned treatment works (POTW) via a sewer manhole in Electric Street. However, in the event that flow restrictions are imposed by the POTW during remediation activities, an alternative discharge location of the Millers River (via the Town of Athol storm drain system) for the treating dewatering fluids may be needed. As such, approval for this alternative discharge under the RGP is being requested from the USEPA.

National Grid has selected Land Remediation, Inc. (Land) of Averill Park, New York to perform the remediation project. Land will be responsible for conducting the construction dewatering and treatment and for meeting the requirements of this NOI and the RGP. Based on the construction schedule provided by Land, we anticipate that the dewatering activities will begin on or about October 15, 2014 and finish by December 11, 2014.

Presented below is additional information for the attached Notice of Intent.

The contaminant information included in Section 3 is based on groundwater samples collected in September 2013 from 4 monitoring wells located at the former MGP and from influent samples collected from pre-treated water generated during pumping test activities conducted at the former MGP in October 2013. Groundwater from the pumping test activities was treated on-site using a treatment system similar to the system described above (with the exception that ion exchange was not used) and discharged to the Town of Athol POTW under an approval from the Town of Athol Department of Public Works (DPW). While the information presented in the NOI in Section 3 indicates that the concentrations of four metals (copper, iron, lead and zinc) exceeded the Appendix III Limits in the RGP, note that the concentrations of these metals were higher in the groundwater samples collected from the monitoring wells than the influent samples collected during the pumping test activities. Iron was the only metal detected in the influent during the pumping test activities at concentrations exceeding the Appendix III Limits in the RGP; iron was detected in the influent samples at concentrations ranging from 3,000 ug/L to 4,800 ug/L, which exceed the Appendix III Limit of 1,000 ug/L. Note that the highest concentration of iron detected in the effluent sample during the pumping test activities was 62 ug/L, which is less than the Appendix III Limit. The results of the pumping test activities are expected to be more representative of conditions during the remediation activities; regardless, we have included all the laboratory results collected during the last year in Section 3 for completeness.

In calculating the dilution factor for Section 3, a maximum flow rate of the discharge of 100 gallons per minute (or 0.223 cubic feet per second, cfs) was used. Millers River is the receiving water and the 7Q10 flow for Millers River of 23.98 cfs was taken from the NPDES Permit Number MA0100005 issued to the Town of Athol for the Wastewater Treatment Plant located off of Jones Street in Athol, Massachusetts. Based on these flow rates, the calculated dilution factor is 108. Using this dilution factor and the effluent limits in Appendix IV, iron is the only metal in the influent that has the potential to exceed the effluent limits in Appendix IV. The maximum influent concentration of iron was 18,000 ug/L, which is the maximum concentration in the groundwater samples collected from the monitoring wells. As discussed above, the maximum influent concentration of iron during the pumping test activities was 4,600 ug/L which is less than the ceiling value effluent limit of 5,000 ug/L in Appendix IV. Furthermore, as discussed above, the maximum concentration of iron in the treated effluent was 62 ug/L. As such, we do not anticipate iron to be present in the effluent at concentrations exceeding the ceiling value effluent limit in Appendix IV of 5,000 ug/L.

The results of the influent and effluent pump testing activities indicate that the treatment system used during those pump testing activities effectively removed contaminants of concern. As such, the design of the dewatering fluids

treatment system to be used during the remediation activities was based on the treatment system used during the pump testing activities and is expected to effectively treat dewatering fluids generated during the remediation activities.

In Section 4 (and as mentioned above), ion exchange is included as a contingency treatment unit in the event that cyanide is present in the influent at concentrations exceeding the Appendix III Limits in the RGP. As with the metals discussed above, cyanide was detected at higher concentrations in the groundwater samples as compared to the influent samples collected during the pumping test activities. Cyanide was not detected in the effluent during the pumping test activities. If necessary, ion exchange will be added to the treatment system to remove cyanide.

For Section 6, Appendix II indicates that the only endangered species in Worcester County is the small whorled pogonia; however, the location of this species is listed as being in Leominster, which is located about 30 miles east of the discharge location of the storm drain system receiving the treated dewatering fluids, and are not expected to adversely affect that area.

Both the owner of the property (National Grid) and the operator of the treatment system (Land) are requesting coverage under this NOI and RGP. As such, separate signature pages have been provided with the NOI, one for National Grid and one for Land.

Should you have any questions or require additional information, please contact us by telephone at (508) 623-1223 or by email at J.Higgins@IESIonline.com.

Very truly yours,
INNOVATIVE ENGINEERING SOLUTIONS, INC.

Digitally signed by Joseph E. Higgins
DN: cn=Joseph E. Higgins, o=Innovative Engineering Solutions, Inc., ou, email=j.higgins@iesionline.com, c=US
Date: 2014.09.12 15:21:03 -04'00'

Joseph E. Higgins, P.E., L.S.P.
Principal Engineer

Attachments:
- NOI
- Figure
- Laboratory Reports

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**: Mass Electric Former MGP		**Facility/site** mailing address:		
Location of **facility/site**: longitude: 72° 14' 9" West latitude: 42° 35' 21" North	Facility SIC code(s): 1629	Street: 51 Electric Street		
b) Name of **facility/site owner:** Massachusetts Electric Company d/b/a/ National Grid		Town: Athol		
Email address of facility/site owner: jason.naiden@nationalgrid.com		State: MA	Zip: 01331	County: Worcester
Telephone no. of facility/site **owner**: (781) 907-3650				
Fax no. of facility/site **owner**: (781) 907-5720		**Owner** is (check one): 1. Federal__○__ 2. State/Tribal__○__ 3. Private __⊙__ 4. Other __○__ if so, describe:		
Address of **owner** (if different from site):				
Street: 40 Sylvan Road				
Town: Waltham	State: MA	Zip: 02451	County: Middlesex	
c) Legal name of **operator**: LAND Remediation	**Operator** telephone no: (518) 766-4105			
	Operator fax no.: (518) 233-0141	**Operator** email: kad@land-remediation.com		
Operator contact name and title: Keith Decker, Project Director				
Address of **operator** (if different from owner):	Street: 1644 State Route 43			
Town: Averill Park	State: NY	Zip: 12018	County: Rensselaer	

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

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

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

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

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

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

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

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

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

Construction dewatering associated with site remediation

b) Provide the following information about each discharge:

1) Number of discharge points: 1

2) What is the **maximum** and **average flow rate** of discharge (in cubic feet per second, ft^3/s)?
Max. flow 0.223 cfs Is maximum flow a **design value**? Y ◉ N ○
Average flow (include units) 0.1115 cfs Is average flow a design value or estimate? estimated

3) Latitude and longitude of each discharge within 100 feet:

pt.1: lat 42° 35' 26" North	long 72° 14' 22" West	pt.2: lat.	long. ;
pt.3: lat	long	pt.4: lat.	long. ;
pt.5: lat	long	pt.6: lat.	long. ;
pt.7: lat	long	pt.8: lat.	long. ; etc.

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

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

c) Expected dates of discharge (mm/dd/yy): start Oct 15, 2014 end Dec 11, 2014

d) Please attach a line drawing or flow schematic showing water flow through the facility including:
1. sources of intake water, 2. contributing flow from the operation, 3. treatment units, and 4. discharge points and receiving waters(s). See attached Drawing C-6.

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)		☐	☒	7	Grab	2540D	4,000 ug/l	32,000		10,000	
2. Total Residual Chlorine (TRC)		☐	☒	7	Grab	4500	20 ug/l	130		65	
3. Total Petroleum Hydrocarbons (TPH)		☐	☒	3	Grab	1664 SGT	4,800 ug/l	8,800		5,400	
4. Cyanide (CN)	57125	☐	☒	7	Grab	9012	10 ug/l	130		34	
5. Benzene (B)	71432	☐	☒	7	Grab	624/8260B	1 ug/l	3,200		550	
6. Toluene (T)	108883	☐	☒	7	Grab	624/8260B	1 ug/l	180		40	
7. Ethylbenzene (E)	100414	☐	☒	7	Grab	624/8260B	1 ug/l	820		300	
8. (m,p,o) Xylenes (X)	108883; 106423; 95476; 1330207	☐	☒	7	Grab	624/8260B	2 ug/l	760		380	
9. Total BTEX [2]	n/a	☐	☒	7	Grab	624/8260B	1 ug/l	4,960		1270	
10. Ethylene Dibromide (EDB) (1,2-Dibromoethane) [3]	106934	☒	☐	3	Grab	624	5 ug/l				
11. Methyl-tert-Butyl Ether (MtBE)	1634044	☒	☐	7	Grab	624/8260B	1 ug/l				
12. tert-Butyl Alcohol (TBA) (Tertiary-Butanol)	75650	☒	☐	4	Grab	8260B	10 ug/l				

***** 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	☒	☐	4	Grab	8260B	1 ug/l				
14. Naphthalene	91203	☐	☒	7	Grab	624/625/8270C LL	1 ug/l	17,000		6,500	
15. Carbon Tetrachloride	56235	☒	☐	3	Grab	624	5 ug/l				
16. 1,2 Dichlorobenzene (o-DCB)	95501	☒	☐	7	Grab	624/8260B	1 ug/l				
17. 1,3 Dichlorobenzene (m-DCB)	541731	☒	☐	7	Grab	624/8260BB	1 ug/l				
18. 1,4 Dichlorobenzene (p-DCB)	106467	☒	☐	7	Grab	624/8260B	1 ug/l				
18a. Total dichlorobenzene		☒	☐	7	Grab	624/8260B	1 ug/l				
19. 1,1 Dichloroethane (DCA)	75343	☒	☐	7	Grab	624/8260B	1 ug/l				
20. 1,2 Dichloroethane (DCA)	107062	☒	☐	7	Grab	624/8260B	1 ug/l				
21. 1,1 Dichloroethene (DCE)	75354	☒	☐	7	Grab	624/8260B	1 ug/l				
22. cis-1,2 Dichloroethene (DCE)	156592	☒	☐	7	Grab	624/8260B	1 ug/l				
23. Methylene Chloride	75092	☒	☐	7	Grab	624/8260B	1 ug/l				
24. Tetrachloroethene (PCE)	127184	☒	☐	7	Grab	624/8260B	1 ug/l				
25. 1,1,1 Trichloro-ethane (TCA)	71556	☒	☐	7	Grab	624/8260B	1 ug/l				
26. 1,1,2 Trichloro-ethane (TCA)	79005	☒	☐	7	Grab	624/8260B	1 ug/l				
27. Trichloroethene (TCE)	79016	☒	☐	7	Grab	624/8260B	1 ug/l				

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	☒	☐	7	Grab	624/8260B	1 ug/l				
29. Acetone	67641	☒	☐	7	Grab	624/8260B	10 ug/l				
30. 1,4 Dioxane	123911	☒	☐	7	Grab	624/8260B	40 ug/l				
31. Total Phenols	108952	☒	☐	7	Grab	420.4	50 ug/l				
32. Pentachlorophenol (PCP)	87865	☒	☐	3	Grab	625	5 ug/l				
33. Total Phthalates (Phthalate esters) [4]		☒	☐	7	Grab	625/8270C LL	5 ug/l				
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	117817	☒	☐	7	Grab	625/8270C LL	5 ug/l				
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)		☐	☒	7	Grab	625/8270C LL	0.2 ug/l	520		150	
a. Benzo(a) Anthracene	56553	☐	☒	7	Grab	625/8270C LL	0.3 ug/l	520		150	
b. Benzo(a) Pyrene	50328	☒	☐	7	Grab	625/8270C LL	0.2 ug/l				
c. Benzo(b)Fluoranthene	205992	☒	☐	7	Grab	625/8270C LL	0.3 ug/l				
d. Benzo(k)Fluoranthene	207089	☒	☐	7	Grab	625/8270C LL	0.3 ug/l				
e. Chrysene	21801	☒	☐	7	Grab	625/8270C LL	0.3 ug/l				
f. Dibenzo(a,h)anthracene	53703	☒	☐	7	Grab	625/8270C LL	0.5 ug/l				
g. Indeno(1,2,3-cd) Pyrene	193395	☒	☐	7	Grab	625/8270C LL	0.5 ug/l				
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)		☐	☒	7	Grab	625/8270C LL	0.2 ug/l	32,780		10,870	

[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	☐	☒	7	Grab	625/8270C LL	0.5 ug/l	780		260	
i. Acenaphthylene	208968	☐	☒	7	Grab	625/8270C LL	0.3 ug/l	5,300		1,400	
j. Anthracene	120127	☐	☒	7	Grab	625/8270C LL	0.5 ug/l	1,000		280	
k. Benzo(ghi) Perylene	191242	☒	☐	7	Grab	625/8270C LL	0.5 ug/l				
l. Fluoranthene	206440	☐	☒	7	Grab	625/8270C LL	0.5 ug/l	1,100		320	
m. Fluorene	86737	☐	☒	7	Grab	625/8270C LL	0.5 ug/l	2,000		560	
n. Naphthalene	91203	☐	☒	7	Grab	624/625/8270C LL	1 ug/l	17,000		6,500	
o. Phenanthrene	85018	☐	☒	7	Grab	625/8270C LL	0.2 ug/l	4,000		1,100	
p. Pyrene	129000	☐	☒	7	Grab	625/8270C LL	0.5 ug/l	1,600		450	
37. Total Polychlorinated Biphenyls (PCBs)	85687; 84742; 117840; 84662; 131113; 117817.	☒	☐	4	Grab	608	0.057 ug/l				
38. Chloride	16887006	☐	☒	7	Grab	300	2,500 ug/l	160,000		93,000	
39. Antimony	7440360	☒	☐	4	Grab	200.7	20 ug/l				
40. Arsenic	7440382	☒	☐	4	Grab	200.7	10 ug/l				
41. Cadmium	7440439	☒	☐	4	Grab	200.7	1 ug/l				
42. Chromium III (trivalent)	16065831	☒	☐	7	Grab	7196A	0.5 ug/l				
43. Chromium VI (hexavalent)	18540299	☒	☐	7	Grab	7196A	5 ug/l				
44. Copper	7440508	☐	☒	7	Grab	200.7	10 ug/l	19		6.3	
45. Lead	7439921	☐	☒	4	Grab	200.7	5 ug/l	6.5		3.5	
46. Mercury	7439976	☒	☐	4	Grab	245.1	0.2 ug/l				
47. Nickel	7440020	☒	☐	7	Grab	200.7	10 ug/l				
48. Selenium	7782492	☒	☐	4	Grab	200.7	15 ug/l				
49. Silver	7440224	☒	☐	7	Grab	200.7	3 ug/l				
50. Zinc	7440666	☐	☒	7	Grab	200.7	10 ug/l	160		49	
51. Iron	7439896	☐	☒	7	Grab	200.7	50 ug/l	18,000		5,700	
Other (describe):		☐	☐								

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

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

Step 1: Do any of the metals in the influent exceed the effluent limits in Appendix III (i.e., the limits set at zero dilution)? Y_◉_ N_○_	If yes, which metals? Copper, Lead, Zinc, and Iron
Step 2: For any metals which exceed the **Appendix III** limits, calculate the **dilution factor (DF)** using the formula in Part I.A.3.c (step 2) of the NOI instructions or as determined by the State prior to the submission of this NOI. What is the dilution factor for applicable metals? Metal: Copper DF: 108 Metal: Lead DF: 108 Metal: Zinc DF: 108 Metal: Iron DF: 108 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: Iron (exceeds ceiling value of 5,000 ug/L)

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:

The temporary dewatering treatment system, as shown on Drawing C-6, will include a 100 gpm-rated system consisting of 18,000 gallon tank (frac tank) with settling areas and weir separators; oil/water separator and associated transfer pump; bag filtration units to remove turbidity; and liquid phase granular activated carbon units, three in series, to remove organics; if necessary, ion exchange will also be used to remove inorganics.

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):	Ion exchange will be used if necessary for cyanide		

c) Proposed **average** and **maximum flow rates** (gallons per minute) for the discharge and the **design flow rate**(s) (gallons per minute) of the treatment system:
Average flow rate of discharge 50 gpm Maximum flow rate of treatment system 100 gpm
Design flow rate of treatment system 100 gpm

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

No chemical additives are proposed.

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:

Treated water will be discharged to the storm drain system in Electric Street; this storm drain system ultimately discharges to Millers River (Segment MA35-04)

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

d) Provide the state water quality classification of the receiving water Class B

e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water 23.98 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)? PCBs and mercury

Is there a final TMDL? Y_○__ N_⊙__ If yes, for which pollutant(s)?

6. ESA and NHPA Eligibility.

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

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

A ___ B ___ C ___ D ___ E ___ F ___

b) If you selected Criterion D or F, has consultation with the federal services been completed? Y___ N___ Underway___

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

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

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

1 ___ 2 ___ 3 ___

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

7. Supplemental information.

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

The 7Q10 flow for Millers River was taken from the NPDES Permit Number MA0100005 issued to the Town of Athol Public Works Department for the Town of Athol Wastewater Treatment Plant located off of Jones Street in Athol, Massachusetts. Note that the fact sheet that accompanies that NPDES permit indicates that the aquatic life designated use in Millers River "is impaired in the upper 6.6 miles and "Alert Status" for the lower 11.9 miles due to PCB contamination from contaminated sediment and release from waste sites and dumps. The PCB contamination and mercury are responsible for the "impaired" status for fish consumption in this segment."

Attachments to this NOI include:

1. Site Location Plan
2. Drawing C-6 "Dewatering System and Treatment System Process Flow and Surface Water Discharge Plan"
3. TestAmerica Laboratory Data report for groundwater samples collected in September 2013
4. TestAmerica Laboratory Data report for water samples collected during pump test activities in October 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:

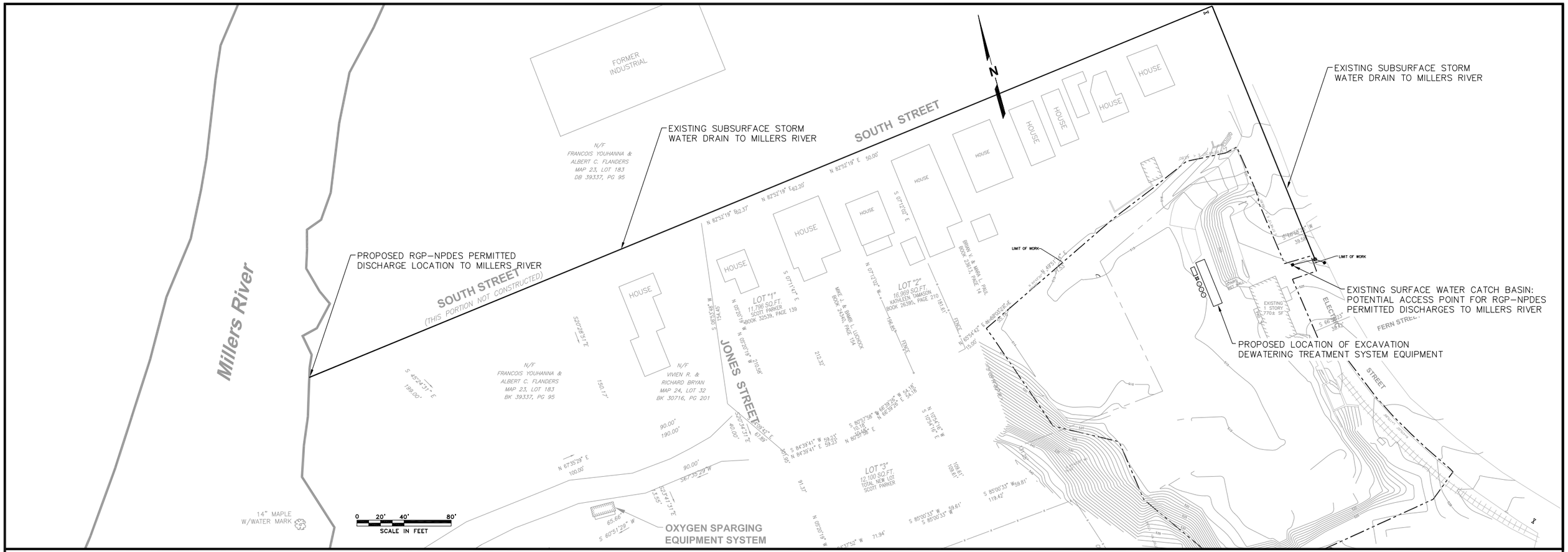
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage 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.

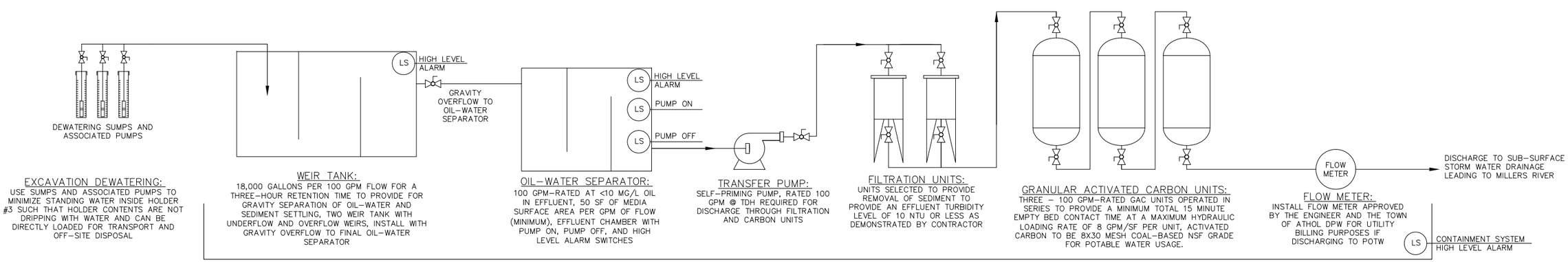
Facility/Site Name:	Mass Electric Former MGP
Operator signature:	
Printed Name &Title:	JASON NAIDEN LEAD ENVIRONMENTAL ENGINEER
Date:	September 12, 2014

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:	Mass Electric Former MGP
Operator signature:	Keith A Decker
Printed Name &Title:	Keith A. Decker, Project Director
Date:	9 / 12 / 14





EXCAVATION DEWATERING:
USE SUMPS AND ASSOCIATED PUMPS TO MINIMIZE STANDING WATER INSIDE HOLDER #3 SUCH THAT HOLDER CONTENTS ARE NOT DRIPPING WITH WATER AND CAN BE DIRECTLY LOADED FOR TRANSPORT AND OFF-SITE DISPOSAL

WEIR TANK:
18,000 GALLONS PER 100 GPM FLOW FOR A THREE-HOUR RETENTION TIME TO PROVIDE FOR GRAVITY SEPARATION OF OIL-WATER AND SEDIMENT SETTLING, TWO WEIR TANK WITH UNDERFLOW AND OVERFLOW WEIRS, INSTALL WITH GRAVITY OVERFLOW TO FINAL OIL-WATER SEPARATOR

OIL-WATER SEPARATOR:
100 GPM-RATED AT <10 MG/L OIL IN EFFLUENT, 50 SF OF MEDIA SURFACE AREA PER GPM OF FLOW (MINIMUM), EFFLUENT CHAMBER WITH PUMP ON, PUMP OFF, AND HIGH LEVEL ALARM SWITCHES

TRANSFER PUMP:
SELF-PRIMING PUMP, RATED 100 GPM @ TDH REQUIRED FOR DISCHARGE THROUGH FILTRATION AND CARBON UNITS

FILTRATION UNITS:
UNITS SELECTED TO PROVIDE REMOVAL OF SEDIMENT TO PROVIDE AN EFFLUENT TURBIDITY LEVEL OF 10 NTU OR LESS AS DEMONSTRATED BY CONTRACTOR

GRANULAR ACTIVATED CARBON UNITS:
THREE - 100 GPM-RATED GAC UNITS OPERATED IN SERIES TO PROVIDE A MINIMUM TOTAL 15 MINUTE EMPTY BED CONTACT TIME AT A MAXIMUM HYDRAULIC LOADING RATE OF 8 GPM/SF PER UNIT, ACTIVATED CARBON TO BE 8X30 MESH COAL-BASED NSF GRADE FOR POTABLE WATER USAGE.

FLOW METER:
INSTALL FLOW METER APPROVED BY THE ENGINEER AND THE TOWN OF ATHOL DPW FOR UTILITY BILLING PURPOSES IF DISCHARGING TO POTW

CONTAINMENT: PROVIDE SPILL CONTAINMENT BELOW WEIR TANK, TRANSFER TANK/PUMP, BAG FILTERS, AND GAC UNITS, PROVIDE HIGH LEVEL ALARM SWITCHES WITH AUTOMATED SHUT DOWN TO PREVENT SURFACE RELEASE OF UNTREATED WATER

PROCESS FLOW DIAGRAM FOR TEMPORARY EXCAVATION DEWATERING AND 100 GPM TREATMENT SYSTEM

iesi
Innovative Engineering Solutions, Inc.
25 SPRING STREET
WALPOLE, MASSACHUSETTS 02081
(508) 668-0033

TITLE: DEWATERING AND TREATMENT SYSTEM PROCESS FLOW AND SURFACE WATER DISCHARGE PLAN

SITE: FORMER MANUFACTURED GAS PLANT ELECTRIC STREET, ATHOL, MASSACHUSETTS

CLIENT: NATIONAL GRID

DRAWN	CHECKED	FILENAME	DATE	DWG. NO.
DMR	JW	NG ATHOL PHASE IV RIP 2014	MAY 2014	C-6

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-47475-1
Client Project/Site: NG ATHOL TASK 7

For:
Innovative Engineering Solutions, Inc
25 Spring Street
Walpole, Massachusetts 02081

Attn: Joseph Higgins

Authorized for release by:
10/13/2013 11:43:06 AM
Becky Mason, Project Manager II
becky.mason@testamericainc.com

Designee for

Janine Johnson, Project Manager I
(413)572-4000
janine.johnson@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
E	Result exceeded calibration range.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 480-47475-1

Laboratory: TestAmerica Buffalo

Narrative

Receipt
The samples were received on 10/8/2013 3:15 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.7º C.

GC/MS VOA
Method 624: The following sample was diluted to bring the concentration of target analytes within the calibration range: PW-2 Influent (480-47475-1). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

GC/MS Semi VOA
Method 625: The continuing calibration verification (CCV) for Benzidine associated with batch 143727 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 625: The following sample was diluted to bring the concentration of target analytes within the calibration range: PW-2 Influent (480-47475-1). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

HPLC
Method 300.0: Due to the high concentration of Chloride, the matrix spike / matrix spike duplicate (MS/MSD) for batch 143761 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

Method 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: PW-2 Influent (480-47475-1). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

Metals
At the request of the client, an abbreviated/modified MCP compound list was reported for this job.

No analytical or quality issues were noted.

General Chemistry
Method 9040C: The following samples was received with greater than 50% of holding time expired: PW-2 Effluent (480-47475-2), PW-2 Influent (480-47475-1). As such, the laboratory had insufficient time remaining to perform the analysis within holding time.

No other analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

MassDEP Analytical Protocol Certification Form

Laboratory Name: **TestAmerica Buffalo** Project #: **480-47475-1**

Project Location: **Athol** RTN:

This form provides certifications for the following data set: list Laboratory Sample ID Number(s):

480-47475-1[1-2]

Matrices: [X] Groundwater/Surface Water [ ] Soil/Sediment [ ] Drinking Water [ ] Air [ ] Other:

CAM Protocols (check all that apply below):

8260 VOC CAM II A [ ]	7470/7471 Hg CAM III B [ ]	Mass DEP VPH CAM IV A [ ]	8081 Pesticides CAM V B [ ]	7196 Hex Cr CAM VI B [X]	Mass DEP APH CAM IX A [ ]
8270 SVOC CAM II B [ ]	6010 Metals CAM III C [X]	Mass DEP 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 CAM III D [ ]	8082 PCB CAM V A [ ]	9014 Total Cyanide/PAC CAM VI A [X]	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 time.	[X] Yes [ ] No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	[X] 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?	[X] 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"?	[X] Yes [ ] No
E	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)?	[X] Yes [ ] No

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	[X] Yes [ ] No[1]

***Data User Note:* Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WCS-07-350**

H	Were **all** QC performance standards specified in the CAM protocol(s) achieved?	[X] Yes [ ] No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s) ?	[ ] Yes [X] No[1]

[1] All negative responses must be addressed in an attached laboratory 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, is accurate and complete.

Signature: Position: Project Manager

Printed Name: Becky Mason Date: 10/13/13 11:41

This form has been electronically signed and approved

Detection Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: NG ATHOL TASK 7

TestAmerica Job ID: 480-47475-1

Client Sample ID: PW-2 Influent — Lab Sample ID: 480-47475-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	46		5.0	0.52	ug/L	1		624	Total/NA
1,3,5-Trimethylbenzene	12		10	0.44	ug/L	1		624	Total/NA
Benzene	11		5.0	0.60	ug/L	1		624	Total/NA
Isopropylbenzene	7.5		5.0	0.51	ug/L	1		624	Total/NA
m-Xylene & p-Xylene	65		10	1.1	ug/L	1		624	Total/NA
N-Propylbenzene	1.9	J	10	0.30	ug/L	1		624	Total/NA
o-Xylene	59		5.0	0.43	ug/L	1		624	Total/NA
Toluene	19		5.0	0.45	ug/L	1		624	Total/NA
4-Isopropyltoluene	1.8	J	5.0	0.54	ug/L	1		624	Total/NA
Xylenes, Total	120		10	1.1	ug/L	1		624	Total/NA
Total BTEX	260		10	1.1	ug/L	1		624	Total/NA
Ethylbenzene - DL	110	J	130	12	ug/L	25		624	Total/NA
Naphthalene - DL	840		130	2.7	ug/L	25		624	Total/NA
Acenaphthene	27		4.9	0.058	ug/L	1		625	Total/NA
Acenaphthylene	11		4.9	0.033	ug/L	1		625	Total/NA
Anthracene	1.4	J	4.9	0.051	ug/L	1		625	Total/NA
Fluoranthene	0.49	J	4.9	0.11	ug/L	1		625	Total/NA
Fluorene	11		4.9	0.042	ug/L	1		625	Total/NA
Phenanthrene	12		4.9	0.069	ug/L	1		625	Total/NA
Pyrene	0.46	J	4.9	0.040	ug/L	1		625	Total/NA
2,4-Dimethylphenol	1.2	J	4.9	0.13	ug/L	1		625	Total/NA
Naphthalene - DL	500		24	0.39	ug/L	5		625	Total/NA
Iron	3800		50	19	ug/L	1		6010	Total/NA
Zinc	7.2	J	50	1.5	ug/L	1		6010	Total/NA
Iron	3500		50	19	ug/L	1		6010	Dissolved
Zinc	7.3	J	50	1.5	ug/L	1		6010	Dissolved
Chloride	110		2.5	1.4	mg/L	5		300.0	Total/NA
Cyanide, Total	0.023		0.010	0.0050	mg/L	1		9012B	Total/NA
Chlorine, Total Residual	0.13		0.020	0.010	mg/L	1		SM 4500 Cl G	Total/NA
Analyte	**Result**	**Qualifier**	**RL**	**RL**	**Unit**	**Dil Fac**	**D**	**Method**	**Prep Type**
pH	7.13	H	0.100	0.100	SU	1		9040C	Total/NA
Total Suspended Solids	5.2		4.0	4.0	mg/L	1		SM 2540D	Total/NA

Client Sample ID: PW-2 Effluent — Lab Sample ID: 480-47475-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	52		50	19	ug/L	1		6010	Total/NA
Zinc	4.6	J	50	1.5	ug/L	1		6010	Total/NA
Iron	62		50	19	ug/L	1		6010	Dissolved
Zinc	5.8	J	50	1.5	ug/L	1		6010	Dissolved
Chloride	99		0.50	0.28	mg/L	1		300.0	Total/NA
Analyte	**Result**	**Qualifier**	**RL**	**RL**	**Unit**	**Dil Fac**	**D**	**Method**	**Prep Type**
pH	7.91	H	0.100	0.100	SU	1		9040C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: NG ATHOL TASK 7

TestAmerica Job ID: 480-47475-1

Client Sample ID: PW-2 Influent

Lab Sample ID: 480-47475-1

Date Collected: 10/08/13 13:15

Matrix: Water

Date Received: 10/08/13 15:15

Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0	0.50	ug/L			10/09/13 09:07	1
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			10/09/13 09:07	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			10/09/13 09:07	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.36	ug/L			10/09/13 09:07	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			10/09/13 09:07	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			10/09/13 09:07	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			10/09/13 09:07	1
1,1-Dichloropropene	ND		5.0	0.79	ug/L			10/09/13 09:07	1
1,2,3-Trichlorobenzene	ND		5.0	0.41	ug/L			10/09/13 09:07	1
1,2,3-Trichloropropane	ND		5.0	0.21	ug/L			10/09/13 09:07	1
1,2,4-Trichlorobenzene	ND		5.0	0.39	ug/L			10/09/13 09:07	1
1,2,4-Trimethylbenzene	**46**		5.0	0.52	ug/L			10/09/13 09:07	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.62	ug/L			10/09/13 09:07	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			10/09/13 09:07	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			10/09/13 09:07	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			10/09/13 09:07	1
1,3,5-Trimethylbenzene	**12**		10	0.44	ug/L			10/09/13 09:07	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			10/09/13 09:07	1
1,3-Dichloropropane	ND		5.0	0.52	ug/L			10/09/13 09:07	1
1,3-Dichloropropene, Total	ND		5.0	2.7	ug/L			10/09/13 09:07	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			10/09/13 09:07	1
1,4-Dioxane	ND		200	15	ug/L			10/09/13 09:07	1
2,2-Dichloropropane	ND		5.0	0.33	ug/L			10/09/13 09:07	1
2-Chloro-1,3-butadiene	ND		5.0	0.75	ug/L			10/09/13 09:07	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			10/09/13 09:07	1
2-Hexanone	ND		25	2.0	ug/L			10/09/13 09:07	1
Allyl chloride	ND		5.0	0.56	ug/L			10/09/13 09:07	1
Acetone	ND		25	2.0	ug/L			10/09/13 09:07	1
Acetonitrile	ND		200	16	ug/L			10/09/13 09:07	1
Acrolein	ND		100	17	ug/L			10/09/13 09:07	1
Acrylonitrile	ND		25	1.9	ug/L			10/09/13 09:07	1
Benzene	**11**		5.0	0.60	ug/L			10/09/13 09:07	1
Bromobenzene	ND		10	0.44	ug/L			10/09/13 09:07	1
Bromoform	ND		5.0	0.47	ug/L			10/09/13 09:07	1
Bromomethane	ND		5.0	1.2	ug/L			10/09/13 09:07	1
Carbon disulfide	ND		5.0	0.29	ug/L			10/09/13 09:07	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			10/09/13 09:07	1
Chlorobenzene	ND		5.0	0.48	ug/L			10/09/13 09:07	1
Bromochloromethane	ND		5.0	0.71	ug/L			10/09/13 09:07	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			10/09/13 09:07	1
Chlorodifluoromethane	ND		5.0	0.42	ug/L			10/09/13 09:07	1
Chloroethane	ND		5.0	0.87	ug/L			10/09/13 09:07	1
Chloroform	ND		5.0	0.54	ug/L			10/09/13 09:07	1
Chloromethane	ND		5.0	0.64	ug/L			10/09/13 09:07	1
cis-1,2-Dichloroethene	ND		5.0	0.57	ug/L			10/09/13 09:07	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			10/09/13 09:07	1
Dibromomethane	ND		5.0	0.53	ug/L			10/09/13 09:07	1
Bromodichloromethane	ND		5.0	0.54	ug/L			10/09/13 09:07	1
Dichlorodifluoromethane	ND		5.0	0.28	ug/L			10/09/13 09:07	1

Client Sample ID: PW-2 Influent

Lab Sample ID: 480-47475-1

Date Collected: 10/08/13 13:15

Matrix: Water

Date Received: 10/08/13 15:15

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl acetate	ND		5.0	0.32	ug/L			10/09/13 09:07	1
Ethyl ether	ND		5.0	0.34	ug/L			10/09/13 09:07	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			10/09/13 09:07	1
1,2-Dibromoethane	ND		5.0	0.50	ug/L			10/09/13 09:07	1
Hexachlorobutadiene	ND		10	0.58	ug/L			10/09/13 09:07	1
Iodomethane	ND		5.0	0.29	ug/L			10/09/13 09:07	1
Isobutyl alcohol	ND		200	11	ug/L			10/09/13 09:07	1
Isopropyl acetate	ND		5.0	0.56	ug/L			10/09/13 09:07	1
Isopropylbenzene	**7.5**		5.0	0.51	ug/L			10/09/13 09:07	1
m-Xylene & p-Xylene	**65**		10	1.1	ug/L			10/09/13 09:07	1
Methacrylonitrile	ND		5.0	0.35	ug/L			10/09/13 09:07	1
2-Butanone (MEK)	ND		25	1.8	ug/L			10/09/13 09:07	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.3	ug/L			10/09/13 09:07	1
Methyl methacrylate	ND		5.0	0.25	ug/L			10/09/13 09:07	1
Methyl tert-butyl ether	ND		5.0	0.35	ug/L			10/09/13 09:07	1
Methylene Chloride	ND		5.0	0.81	ug/L			10/09/13 09:07	1
n-Butyl acetate	ND		5.0	0.49	ug/L			10/09/13 09:07	1
n-Butylbenzene	ND		10	0.32	ug/L			10/09/13 09:07	1
N-Propylbenzene	**1.9**	**J**	10	0.30	ug/L			10/09/13 09:07	1
o-Xylene	**59**		5.0	0.43	ug/L			10/09/13 09:07	1
sec-Butylbenzene	ND		10	0.32	ug/L			10/09/13 09:07	1
Styrene	ND		5.0	0.38	ug/L			10/09/13 09:07	1
tert-Butylbenzene	ND		10	0.54	ug/L			10/09/13 09:07	1
Tetrachloroethene	ND		5.0	0.34	ug/L			10/09/13 09:07	1
Tetrahydrofuran	ND		25	2.2	ug/L			10/09/13 09:07	1
Toluene	**19**		5.0	0.45	ug/L			10/09/13 09:07	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			10/09/13 09:07	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			10/09/13 09:07	1
trans-1,4-Dichloro-2-butene	ND		25	1.3	ug/L			10/09/13 09:07	1
Trichloroethene	ND		5.0	0.60	ug/L			10/09/13 09:07	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			10/09/13 09:07	1
Vinyl acetate	ND		25	1.5	ug/L			10/09/13 09:07	1
Vinyl chloride	ND		5.0	0.75	ug/L			10/09/13 09:07	1
2-Chlorotoluene	ND		5.0	0.33	ug/L			10/09/13 09:07	1
4-Chlorotoluene	ND		5.0	0.27	ug/L			10/09/13 09:07	1
4-Isopropyltoluene	**1.8**	**J**	5.0	0.54	ug/L			10/09/13 09:07	1
Amyl acetate (mixed isomers)	ND		5.0	0.36	ug/L			10/09/13 09:07	1
2-Methyl-2-propanol	ND		100	12	ug/L			10/09/13 09:07	1
Isopropyl alcohol	ND		200	15	ug/L			10/09/13 09:07	1
Isopropyl ether	ND		5.0	0.35	ug/L			10/09/13 09:07	1
2-Nitropropane	ND		5.0	1.5	ug/L			10/09/13 09:07	1
Dichlorofluoromethane	ND		5.0	0.25	ug/L			10/09/13 09:07	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			10/09/13 09:07	1
Xylenes, Total	**120**		10	1.1	ug/L			10/09/13 09:07	1
Trihalomethanes, Total	ND		5.0	0.54	ug/L			10/09/13 09:07	1
Total BTEX	**260**		10	1.1	ug/L			10/09/13 09:07	1
3-Chlorotoluene	ND		5.0	0.31	ug/L			10/09/13 09:07	1
2-Chlorobenzotrifluoride	ND		5.0	0.50	ug/L			10/09/13 09:07	1
3-Chlorobenzotrifluoride	ND		5.0	0.49	ug/L			10/09/13 09:07	1

Client Sample ID: PW-2 Influent

Lab Sample ID: 480-47475-1

Date Collected: 10/08/13 13:15

Matrix: Water

Date Received: 10/08/13 15:15

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorobenzotrifluoride	ND		5.0	0.48	ug/L			10/09/13 09:07	1
Propionitrile	ND		50	3.1	ug/L			10/09/13 09:07	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
bis(2-chloromethyl)ether TIC	*ND*		*ug/L*			*542-88-1*		*10/09/13 09:07*	*1*
bis(chloromethyl)ether TIC	*ND*		*ug/L*			*542-88-1*		*10/09/13 09:07*	*1*
Aziridine TIC	*ND*		*ug/L*			*151-56-4*		*10/09/13 09:07*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*72 - 130*		*10/09/13 09:07*	*1*
4-Bromofluorobenzene (Surr)	*98*		*69 - 121*		*10/09/13 09:07*	*1*
Toluene-d8 (Surr)	*92*		*70 - 123*		*10/09/13 09:07*	*1*

Method: 624 - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**110**	**J**	130	12	ug/L			10/09/13 10:00	25
Naphthalene	**840**		130	2.7	ug/L			10/09/13 10:00	25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*72 - 130*		*10/09/13 10:00*	*25*
4-Bromofluorobenzene (Surr)	*101*		*69 - 121*		*10/09/13 10:00*	*25*
Toluene-d8 (Surr)	*92*		*70 - 123*		*10/09/13 10:00*	*25*

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**27**		4.9	0.058	ug/L		10/09/13 11:00	10/09/13 18:52	1
Acenaphthylene	**11**		4.9	0.033	ug/L		10/09/13 11:00	10/09/13 18:52	1
Anthracene	**1.4**	**J**	4.9	0.051	ug/L		10/09/13 11:00	10/09/13 18:52	1
Benzidine	ND		4.9	2.5	ug/L		10/09/13 11:00	10/09/13 18:52	1
Benzo[a]anthracene	ND		4.9	0.042	ug/L		10/09/13 11:00	10/09/13 18:52	1
Benzo[a]pyrene	ND		4.9	0.056	ug/L		10/09/13 11:00	10/09/13 18:52	1
Benzo[b]fluoranthene	ND		4.9	0.060	ug/L		10/09/13 11:00	10/09/13 18:52	1
Benzo[g,h,i]perylene	ND		4.9	0.098	ug/L		10/09/13 11:00	10/09/13 18:52	1
Benzo[k]fluoranthene	ND		4.9	0.041	ug/L		10/09/13 11:00	10/09/13 18:52	1
Bis(2-chloroethyl)ether	ND		4.9	1.1	ug/L		10/09/13 11:00	10/09/13 18:52	1
Bis(2-chloroethoxy)methane	ND		4.9	0.083	ug/L		10/09/13 11:00	10/09/13 18:52	1
bis (2-chloroisopropyl) ether	ND		4.9	0.084	ug/L		10/09/13 11:00	10/09/13 18:52	1
Bis(2-ethylhexyl) phthalate	ND		4.9	0.84	ug/L		10/09/13 11:00	10/09/13 18:52	1
4-Bromophenyl phenyl ether	ND		4.9	0.11	ug/L		10/09/13 11:00	10/09/13 18:52	1
Butyl benzyl phthalate	ND		4.9	1.3	ug/L		10/09/13 11:00	10/09/13 18:52	1
2-Chloronaphthalene	ND		4.9	0.066	ug/L		10/09/13 11:00	10/09/13 18:52	1
4-Chlorophenyl phenyl ether	ND		4.9	0.20	ug/L		10/09/13 11:00	10/09/13 18:52	1
Chrysene	ND		4.9	0.035	ug/L		10/09/13 11:00	10/09/13 18:52	1
Dibenz(a,h)anthracene	ND		4.9	0.054	ug/L		10/09/13 11:00	10/09/13 18:52	1
Di-n-butyl phthalate	ND		4.9	0.91	ug/L		10/09/13 11:00	10/09/13 18:52	1
1,2-Dichlorobenzene	ND		4.9	0.14	ug/L		10/09/13 11:00	10/09/13 18:52	1
1,3-Dichlorobenzene	ND		4.9	0.067	ug/L		10/09/13 11:00	10/09/13 18:52	1
1,4-Dichlorobenzene	ND		4.9	0.087	ug/L		10/09/13 11:00	10/09/13 18:52	1
3,3'-Dichlorobenzidine	ND		4.9	0.80	ug/L		10/09/13 11:00	10/09/13 18:52	1
Diethyl phthalate	ND		4.9	0.17	ug/L		10/09/13 11:00	10/09/13 18:52	1
Dimethyl phthalate	ND		4.9	0.16	ug/L		10/09/13 11:00	10/09/13 18:52	1

Client Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: NG ATHOL TASK 7

TestAmerica Job ID: 480-47475-1

Client Sample ID: PW-2 Influent

Date Collected: 10/08/13 13:15
Date Received: 10/08/13 15:15

Lab Sample ID: 480-47475-1

Matrix: Water

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	ND		4.9	0.26	ug/L		10/09/13 11:00	10/09/13 18:52	1
2,6-Dinitrotoluene	ND		4.9	0.70	ug/L		10/09/13 11:00	10/09/13 18:52	1
Di-n-octyl phthalate	ND		4.9	4.3	ug/L		10/09/13 11:00	10/09/13 18:52	1
1,2-Diphenylhydrazine	ND		4.9	0.061	ug/L		10/09/13 11:00	10/09/13 18:52	1
Fluoranthene	**0.49**	**J**	4.9	0.11	ug/L		10/09/13 11:00	10/09/13 18:52	1
Fluorene	**11**		4.9	0.042	ug/L		10/09/13 11:00	10/09/13 18:52	1
Hexachlorobenzene	ND		4.9	0.27	ug/L		10/09/13 11:00	10/09/13 18:52	1
Hexachlorobutadiene	ND		4.9	0.60	ug/L		10/09/13 11:00	10/09/13 18:52	1
Hexachlorocyclopentadiene	ND		4.9	0.44	ug/L		10/09/13 11:00	10/09/13 18:52	1
Hexachloroethane	ND		4.9	0.47	ug/L		10/09/13 11:00	10/09/13 18:52	1
Indeno[1,2,3-cd]pyrene	ND		4.9	0.18	ug/L		10/09/13 11:00	10/09/13 18:52	1
Isophorone	ND		4.9	0.15	ug/L		10/09/13 11:00	10/09/13 18:52	1
Nitrobenzene	ND		4.9	0.11	ug/L		10/09/13 11:00	10/09/13 18:52	1
N-Nitrosodi-n-propylamine	ND		4.9	0.22	ug/L		10/09/13 11:00	10/09/13 18:52	1
N-Nitrosodimethylamine	ND		4.9	0.94	ug/L		10/09/13 11:00	10/09/13 18:52	1
N-Nitrosodiphenylamine	ND		4.9	0.39	ug/L		10/09/13 11:00	10/09/13 18:52	1
Phenanthrene	**12**		4.9	0.069	ug/L		10/09/13 11:00	10/09/13 18:52	1
Pyrene	**0.46**	**J**	4.9	0.040	ug/L		10/09/13 11:00	10/09/13 18:52	1
1,2,4-Trichlorobenzene	ND		4.9	0.48	ug/L		10/09/13 11:00	10/09/13 18:52	1
4-Chloro-3-methylphenol	ND		4.9	0.54	ug/L		10/09/13 11:00	10/09/13 18:52	1
2-Chlorophenol	ND		4.9	0.15	ug/L		10/09/13 11:00	10/09/13 18:52	1
2,4-Dichlorophenol	ND		4.9	0.29	ug/L		10/09/13 11:00	10/09/13 18:52	1
2,4-Dimethylphenol	**1.2**	**J**	4.9	0.13	ug/L		10/09/13 11:00	10/09/13 18:52	1
2,4-Dinitrophenol	ND		4.9	0.82	ug/L		10/09/13 11:00	10/09/13 18:52	1
4,6-Dinitro-2-methylphenol	ND		4.9	0.74	ug/L		10/09/13 11:00	10/09/13 18:52	1
2-Nitrophenol	ND		4.9	0.14	ug/L		10/09/13 11:00	10/09/13 18:52	1
4-Nitrophenol	ND		4.9	1.3	ug/L		10/09/13 11:00	10/09/13 18:52	1
Pentachlorophenol	ND		4.9	0.40	ug/L		10/09/13 11:00	10/09/13 18:52	1
Phenol	ND		4.9	0.12	ug/L		10/09/13 11:00	10/09/13 18:52	1
2,4,6-Trichlorophenol	ND		4.9	0.23	ug/L		10/09/13 11:00	10/09/13 18:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*94*		*52 - 151*	*10/09/13 11:00*	*10/09/13 18:52*	*1*
2-Fluorobiphenyl	*87*		*44 - 120*	*10/09/13 11:00*	*10/09/13 18:52*	*1*
2-Fluorophenol	*54*		*17 - 120*	*10/09/13 11:00*	*10/09/13 18:52*	*1*
Nitrobenzene-d5	*84*		*42 - 120*	*10/09/13 11:00*	*10/09/13 18:52*	*1*
Phenol-d5	*37*		*10 - 120*	*10/09/13 11:00*	*10/09/13 18:52*	*1*
p-Terphenyl-d14	*104*		*22 - 125*	*10/09/13 11:00*	*10/09/13 18:52*	*1*

Method: 625 - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**500**		24	0.39	ug/L		10/09/13 11:00	10/10/13 09:33	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*81*		*52 - 151*	*10/09/13 11:00*	*10/10/13 09:33*	*5*
2-Fluorobiphenyl	*91*		*44 - 120*	*10/09/13 11:00*	*10/10/13 09:33*	*5*
2-Fluorophenol	*51*		*17 - 120*	*10/09/13 11:00*	*10/10/13 09:33*	*5*
Nitrobenzene-d5	*85*		*42 - 120*	*10/09/13 11:00*	*10/10/13 09:33*	*5*
Phenol-d5	*32*		*10 - 120*	*10/09/13 11:00*	*10/10/13 09:33*	*5*
p-Terphenyl-d14	*105*		*22 - 125*	*10/09/13 11:00*	*10/10/13 09:33*	*5*

Client Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: NG ATHOL TASK 7

TestAmerica Job ID: 480-47475-1

Client Sample ID: PW-2 Influent

Lab Sample ID: 480-47475-1

Date Collected: 10/08/13 13:15
Matrix: Water
Date Received: 10/08/13 15:15

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		10	1.6	ug/L		10/09/13 16:30	10/10/13 21:43	1
Iron	**3800**		50	19	ug/L		10/09/13 16:30	10/10/13 21:43	1
Silver	ND		5.0	1.7	ug/L		10/09/13 16:30	10/10/13 21:43	1
Zinc	**7.2**	**J**	50	1.5	ug/L		10/09/13 16:30	10/10/13 21:43	1

Method: 6010 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		10	1.6	ug/L		10/09/13 08:50	10/10/13 21:22	1
Iron	**3500**		50	19	ug/L		10/09/13 08:50	10/10/13 21:22	1
Silver	ND		5.0	1.7	ug/L		10/09/13 08:50	10/10/13 21:22	1
Zinc	**7.3**	**J**	50	1.5	ug/L		10/09/13 08:50	10/10/13 21:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil & Grease	ND		4.9	1.4	mg/L		10/10/13 12:00	10/10/13 16:43	1
Chloride	**110**		2.5	1.4	mg/L			10/11/13 14:47	5
Phenolics, Total Recoverable	ND		0.010	0.0050	mg/L		10/09/13 15:20	10/11/13 10:36	1
Cyanide, Total	**0.023**		0.010	0.0050	mg/L		10/09/13 13:44	10/09/13 17:31	1
Chlorine, Total Residual	**0.13**		0.020	0.010	mg/L			10/09/13 13:00	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium (hexavalent)	ND		0.0050	0.0050	mg/L			10/09/13 11:20	1
pH	**7.13**	**H**	0.100	0.100	SU			10/09/13 22:08	1
Total Suspended Solids	**5.2**		4.0	4.0	mg/L			10/09/13 18:04	1

Client Sample ID: PW-2 Effluent

Lab Sample ID: 480-47475-2

Date Collected: 10/08/13 13:20
Matrix: Water
Date Received: 10/08/13 15:15

Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0	0.50	ug/L			10/09/13 08:43	1
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			10/09/13 08:43	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			10/09/13 08:43	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.36	ug/L			10/09/13 08:43	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			10/09/13 08:43	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			10/09/13 08:43	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			10/09/13 08:43	1
1,1-Dichloropropene	ND		5.0	0.79	ug/L			10/09/13 08:43	1
1,2,3-Trichlorobenzene	ND		5.0	0.41	ug/L			10/09/13 08:43	1
1,2,3-Trichloropropane	ND		5.0	0.21	ug/L			10/09/13 08:43	1
1,2,4-Trichlorobenzene	ND		5.0	0.39	ug/L			10/09/13 08:43	1
1,2,4-Trimethylbenzene	ND		5.0	0.52	ug/L			10/09/13 08:43	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.62	ug/L			10/09/13 08:43	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			10/09/13 08:43	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			10/09/13 08:43	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			10/09/13 08:43	1
1,3,5-Trimethylbenzene	ND		10	0.44	ug/L			10/09/13 08:43	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			10/09/13 08:43	1
1,3-Dichloropropane	ND		5.0	0.52	ug/L			10/09/13 08:43	1
1,3-Dichloropropene, Total	ND		5.0	2.7	ug/L			10/09/13 08:43	1

Client: Innovative Engineering Solutions, Inc
Project/Site: NG ATHOL TASK 7

TestAmerica Job ID: 480-47475-1

Client Sample ID: PW-2 Effluent
Date Collected: 10/08/13 13:20
Date Received: 10/08/13 15:15

Lab Sample ID: 480-47475-2
Matrix: Water

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			10/09/13 08:43	1
1,4-Dioxane	ND		200	15	ug/L			10/09/13 08:43	1
2,2-Dichloropropane	ND		5.0	0.33	ug/L			10/09/13 08:43	1
2-Chloro-1,3-butadiene	ND		5.0	0.75	ug/L			10/09/13 08:43	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			10/09/13 08:43	1
2-Hexanone	ND		25	2.0	ug/L			10/09/13 08:43	1
Allyl chloride	ND		5.0	0.56	ug/L			10/09/13 08:43	1
Acetone	ND		25	2.0	ug/L			10/09/13 08:43	1
Acetonitrile	ND		200	16	ug/L			10/09/13 08:43	1
Acrolein	ND		100	17	ug/L			10/09/13 08:43	1
Acrylonitrile	ND		25	1.9	ug/L			10/09/13 08:43	1
Benzene	ND		5.0	0.60	ug/L			10/09/13 08:43	1
Bromobenzene	ND		10	0.44	ug/L			10/09/13 08:43	1
Bromoform	ND		5.0	0.47	ug/L			10/09/13 08:43	1
Bromomethane	ND		5.0	1.2	ug/L			10/09/13 08:43	1
Carbon disulfide	ND		5.0	0.29	ug/L			10/09/13 08:43	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			10/09/13 08:43	1
Chlorobenzene	ND		5.0	0.48	ug/L			10/09/13 08:43	1
Bromochloromethane	ND		5.0	0.71	ug/L			10/09/13 08:43	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			10/09/13 08:43	1
Chlorodifluoromethane	ND		5.0	0.42	ug/L			10/09/13 08:43	1
Chloroethane	ND		5.0	0.87	ug/L			10/09/13 08:43	1
Chloroform	ND		5.0	0.54	ug/L			10/09/13 08:43	1
Chloromethane	ND		5.0	0.64	ug/L			10/09/13 08:43	1
cis-1,2-Dichloroethene	ND		5.0	0.57	ug/L			10/09/13 08:43	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			10/09/13 08:43	1
Dibromomethane	ND		5.0	0.53	ug/L			10/09/13 08:43	1
Bromodichloromethane	ND		5.0	0.54	ug/L			10/09/13 08:43	1
Dichlorodifluoromethane	ND		5.0	0.28	ug/L			10/09/13 08:43	1
Ethyl acetate	ND		5.0	0.32	ug/L			10/09/13 08:43	1
Ethyl ether	ND		5.0	0.34	ug/L			10/09/13 08:43	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			10/09/13 08:43	1
Ethylbenzene	ND		5.0	0.46	ug/L			10/09/13 08:43	1
1,2-Dibromoethane	ND		5.0	0.50	ug/L			10/09/13 08:43	1
Hexachlorobutadiene	ND		10	0.58	ug/L			10/09/13 08:43	1
Iodomethane	ND		5.0	0.29	ug/L			10/09/13 08:43	1
Isobutyl alcohol	ND		200	11	ug/L			10/09/13 08:43	1
Isopropyl acetate	ND		5.0	0.56	ug/L			10/09/13 08:43	1
Isopropylbenzene	ND		5.0	0.51	ug/L			10/09/13 08:43	1
m-Xylene & p-Xylene	ND		10	1.1	ug/L			10/09/13 08:43	1
Methacrylonitrile	ND		5.0	0.35	ug/L			10/09/13 08:43	1
2-Butanone (MEK)	ND		25	1.8	ug/L			10/09/13 08:43	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.3	ug/L			10/09/13 08:43	1
Methyl methacrylate	ND		5.0	0.25	ug/L			10/09/13 08:43	1
Methyl tert-butyl ether	ND		5.0	0.35	ug/L			10/09/13 08:43	1
Methylene Chloride	ND		5.0	0.81	ug/L			10/09/13 08:43	1
n-Butyl acetate	ND		5.0	0.49	ug/L			10/09/13 08:43	1
n-Butylbenzene	ND		10	0.32	ug/L			10/09/13 08:43	1
N-Propylbenzene	ND		10	0.30	ug/L			10/09/13 08:43	1

Client Sample ID: PW-2 Effluent

Lab Sample ID: 480-47475-2

Date Collected: 10/08/13 13:20

Matrix: Water

Date Received: 10/08/13 15:15

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0	0.11	ug/L			10/09/13 08:43	1
o-Xylene	ND		5.0	0.43	ug/L			10/09/13 08:43	1
sec-Butylbenzene	ND		10	0.32	ug/L			10/09/13 08:43	1
Styrene	ND		5.0	0.38	ug/L			10/09/13 08:43	1
tert-Butylbenzene	ND		10	0.54	ug/L			10/09/13 08:43	1
Tetrachloroethene	ND		5.0	0.34	ug/L			10/09/13 08:43	1
Tetrahydrofuran	ND		25	2.2	ug/L			10/09/13 08:43	1
Toluene	ND		5.0	0.45	ug/L			10/09/13 08:43	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			10/09/13 08:43	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			10/09/13 08:43	1
trans-1,4-Dichloro-2-butene	ND		25	1.3	ug/L			10/09/13 08:43	1
Trichloroethene	ND		5.0	0.60	ug/L			10/09/13 08:43	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			10/09/13 08:43	1
Vinyl acetate	ND		25	1.5	ug/L			10/09/13 08:43	1
Vinyl chloride	ND		5.0	0.75	ug/L			10/09/13 08:43	1
2-Chlorotoluene	ND		5.0	0.33	ug/L			10/09/13 08:43	1
4-Chlorotoluene	ND		5.0	0.27	ug/L			10/09/13 08:43	1
4-Isopropyltoluene	ND		5.0	0.54	ug/L			10/09/13 08:43	1
Amyl acetate (mixed isomers)	ND		5.0	0.36	ug/L			10/09/13 08:43	1
2-Methyl-2-propanol	ND		100	12	ug/L			10/09/13 08:43	1
Isopropyl alcohol	ND		200	15	ug/L			10/09/13 08:43	1
Isopropyl ether	ND		5.0	0.35	ug/L			10/09/13 08:43	1
2-Nitropropane	ND		5.0	1.5	ug/L			10/09/13 08:43	1
Dichlorofluoromethane	ND		5.0	0.25	ug/L			10/09/13 08:43	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			10/09/13 08:43	1
Xylenes, Total	ND		10	1.1	ug/L			10/09/13 08:43	1
Trihalomethanes, Total	ND		5.0	0.54	ug/L			10/09/13 08:43	1
Total BTEX	ND		10	1.1	ug/L			10/09/13 08:43	1
3-Chlorotoluene	ND		5.0	0.31	ug/L			10/09/13 08:43	1
2-Chlorobenzotrifluoride	ND		5.0	0.50	ug/L			10/09/13 08:43	1
3-Chlorobenzotrifluoride	ND		5.0	0.49	ug/L			10/09/13 08:43	1
4-Chlorobenzotrifluoride	ND		5.0	0.48	ug/L			10/09/13 08:43	1
Propionitrile	ND		50	3.1	ug/L			10/09/13 08:43	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
bis(2-chloromethyl)ether TIC	*ND*		*ug/L*			*542-88-1*		*10/09/13 08:43*	*1*
bis(chloromethyl)ether TIC	*ND*		*ug/L*			*542-88-1*		*10/09/13 08:43*	*1*
Aziridine TIC	*ND*		*ug/L*			*151-56-4*		*10/09/13 08:43*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*72 - 130*		*10/09/13 08:43*	*1*
4-Bromofluorobenzene (Surr)	*101*		*69 - 121*		*10/09/13 08:43*	*1*
Toluene-d8 (Surr)	*92*		*70 - 123*		*10/09/13 08:43*	*1*

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		4.8	0.057	ug/L		10/09/13 11:00	10/09/13 19:16	1
Acenaphthylene	ND		4.8	0.032	ug/L		10/09/13 11:00	10/09/13 19:16	1
Anthracene	ND		4.8	0.050	ug/L		10/09/13 11:00	10/09/13 19:16	1
Benzidine	ND		4.8	2.4	ug/L		10/09/13 11:00	10/09/13 19:16	1

Client Sample ID: PW-2 Effluent

Lab Sample ID: 480-47475-2

Date Collected: 10/08/13 13:20

Matrix: Water

Date Received: 10/08/13 15:15

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		4.8	0.041	ug/L		10/09/13 11:00	10/09/13 19:16	1
Benzo[a]pyrene	ND		4.8	0.055	ug/L		10/09/13 11:00	10/09/13 19:16	1
Benzo[b]fluoranthene	ND		4.8	0.059	ug/L		10/09/13 11:00	10/09/13 19:16	1
Benzo[g,h,i]perylene	ND		4.8	0.096	ug/L		10/09/13 11:00	10/09/13 19:16	1
Benzo[k]fluoranthene	ND		4.8	0.040	ug/L		10/09/13 11:00	10/09/13 19:16	1
Bis(2-chloroethyl)ether	ND		4.8	1.0	ug/L		10/09/13 11:00	10/09/13 19:16	1
Bis(2-chloroethoxy)methane	ND		4.8	0.081	ug/L		10/09/13 11:00	10/09/13 19:16	1
bis (2-chloroisopropyl) ether	ND		4.8	0.082	ug/L		10/09/13 11:00	10/09/13 19:16	1
Bis(2-ethylhexyl) phthalate	ND		4.8	0.82	ug/L		10/09/13 11:00	10/09/13 19:16	1
4-Bromophenyl phenyl ether	ND		4.8	0.11	ug/L		10/09/13 11:00	10/09/13 19:16	1
Butyl benzyl phthalate	ND		4.8	1.2	ug/L		10/09/13 11:00	10/09/13 19:16	1
2-Chloronaphthalene	ND		4.8	0.065	ug/L		10/09/13 11:00	10/09/13 19:16	1
4-Chlorophenyl phenyl ether	ND		4.8	0.20	ug/L		10/09/13 11:00	10/09/13 19:16	1
Chrysene	ND		4.8	0.034	ug/L		10/09/13 11:00	10/09/13 19:16	1
Dibenz(a,h)anthracene	ND		4.8	0.053	ug/L		10/09/13 11:00	10/09/13 19:16	1
Di-n-butyl phthalate	ND		4.8	0.89	ug/L		10/09/13 11:00	10/09/13 19:16	1
1,2-Dichlorobenzene	ND		4.8	0.14	ug/L		10/09/13 11:00	10/09/13 19:16	1
1,3-Dichlorobenzene	ND		4.8	0.066	ug/L		10/09/13 11:00	10/09/13 19:16	1
1,4-Dichlorobenzene	ND		4.8	0.086	ug/L		10/09/13 11:00	10/09/13 19:16	1
3,3'-Dichlorobenzidine	ND		4.8	0.79	ug/L		10/09/13 11:00	10/09/13 19:16	1
Diethyl phthalate	ND		4.8	0.17	ug/L		10/09/13 11:00	10/09/13 19:16	1
Dimethyl phthalate	ND		4.8	0.16	ug/L		10/09/13 11:00	10/09/13 19:16	1
2,4-Dinitrotoluene	ND		4.8	0.25	ug/L		10/09/13 11:00	10/09/13 19:16	1
2,6-Dinitrotoluene	ND		4.8	0.69	ug/L		10/09/13 11:00	10/09/13 19:16	1
Di-n-octyl phthalate	ND		4.8	4.3	ug/L		10/09/13 11:00	10/09/13 19:16	1
1,2-Diphenylhydrazine	ND		4.8	0.060	ug/L		10/09/13 11:00	10/09/13 19:16	1
Fluoranthene	ND		4.8	0.10	ug/L		10/09/13 11:00	10/09/13 19:16	1
Fluorene	ND		4.8	0.041	ug/L		10/09/13 11:00	10/09/13 19:16	1
Hexachlorobenzene	ND		4.8	0.26	ug/L		10/09/13 11:00	10/09/13 19:16	1
Hexachlorobutadiene	ND		4.8	0.59	ug/L		10/09/13 11:00	10/09/13 19:16	1
Hexachlorocyclopentadiene	ND		4.8	0.43	ug/L		10/09/13 11:00	10/09/13 19:16	1
Hexachloroethane	ND		4.8	0.46	ug/L		10/09/13 11:00	10/09/13 19:16	1
Indeno[1,2,3-cd]pyrene	ND		4.8	0.18	ug/L		10/09/13 11:00	10/09/13 19:16	1
Isophorone	ND		4.8	0.15	ug/L		10/09/13 11:00	10/09/13 19:16	1
Naphthalene	ND		4.8	0.077	ug/L		10/09/13 11:00	10/09/13 19:16	1
Nitrobenzene	ND		4.8	0.11	ug/L		10/09/13 11:00	10/09/13 19:16	1
N-Nitrosodi-n-propylamine	ND		4.8	0.22	ug/L		10/09/13 11:00	10/09/13 19:16	1
N-Nitrosodimethylamine	ND		4.8	0.92	ug/L		10/09/13 11:00	10/09/13 19:16	1
N-Nitrosodiphenylamine	ND		4.8	0.38	ug/L		10/09/13 11:00	10/09/13 19:16	1
Phenanthrene	ND		4.8	0.068	ug/L		10/09/13 11:00	10/09/13 19:16	1
Pyrene	ND		4.8	0.039	ug/L		10/09/13 11:00	10/09/13 19:16	1
1,2,4-Trichlorobenzene	ND		4.8	0.47	ug/L		10/09/13 11:00	10/09/13 19:16	1
4-Chloro-3-methylphenol	ND		4.8	0.53	ug/L		10/09/13 11:00	10/09/13 19:16	1
2-Chlorophenol	ND		4.8	0.15	ug/L		10/09/13 11:00	10/09/13 19:16	1
2,4-Dichlorophenol	ND		4.8	0.29	ug/L		10/09/13 11:00	10/09/13 19:16	1
2,4-Dimethylphenol	ND		4.8	0.13	ug/L		10/09/13 11:00	10/09/13 19:16	1
2,4-Dinitrophenol	ND		4.8	0.80	ug/L		10/09/13 11:00	10/09/13 19:16	1
4,6-Dinitro-2-methylphenol	ND		4.8	0.73	ug/L		10/09/13 11:00	10/09/13 19:16	1
2-Nitrophenol	ND		4.8	0.14	ug/L		10/09/13 11:00	10/09/13 19:16	1

Client Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: NG ATHOL TASK 7

TestAmerica Job ID: 480-47475-1

Client Sample ID: PW-2 Effluent

Lab Sample ID: 480-47475-2

Date Collected: 10/08/13 13:20
Matrix: Water
Date Received: 10/08/13 15:15

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	ND		4.8	1.3	ug/L		10/09/13 11:00	10/09/13 19:16	1
Pentachlorophenol	ND		4.8	0.39	ug/L		10/09/13 11:00	10/09/13 19:16	1
Phenol	ND		4.8	0.12	ug/L		10/09/13 11:00	10/09/13 19:16	1
2,4,6-Trichlorophenol	ND		4.8	0.22	ug/L		10/09/13 11:00	10/09/13 19:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*90*		*52 - 151*	*10/09/13 11:00*	*10/09/13 19:16*	*1*
2-Fluorobiphenyl	*89*		*44 - 120*	*10/09/13 11:00*	*10/09/13 19:16*	*1*
2-Fluorophenol	*55*		*17 - 120*	*10/09/13 11:00*	*10/09/13 19:16*	*1*
Nitrobenzene-d5	*89*		*42 - 120*	*10/09/13 11:00*	*10/09/13 19:16*	*1*
Phenol-d5	*35*		*10 - 120*	*10/09/13 11:00*	*10/09/13 19:16*	*1*
p-Terphenyl-d14	*109*		*22 - 125*	*10/09/13 11:00*	*10/09/13 19:16*	*1*

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		10	1.6	ug/L		10/09/13 16:30	10/10/13 21:45	1
Iron	**52**		50	19	ug/L		10/09/13 16:30	10/10/13 21:45	1
Silver	ND		5.0	1.7	ug/L		10/09/13 16:30	10/10/13 21:45	1
Zinc	**4.6**	**J**	50	1.5	ug/L		10/09/13 16:30	10/10/13 21:45	1

Method: 6010 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		10	1.6	ug/L		10/09/13 08:50	10/10/13 21:24	1
Iron	**62**		50	19	ug/L		10/09/13 08:50	10/10/13 21:24	1
Silver	ND		5.0	1.7	ug/L		10/09/13 08:50	10/10/13 21:24	1
Zinc	**5.8**	**J**	50	1.5	ug/L		10/09/13 08:50	10/10/13 21:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil & Grease	ND		4.9	1.4	mg/L		10/10/13 12:00	10/10/13 16:43	1
Chloride	**99**		0.50	0.28	mg/L			10/10/13 13:59	1
Phenolics, Total Recoverable	ND		0.010	0.0050	mg/L		10/09/13 15:20	10/11/13 10:36	1
Cyanide, Total	ND		0.010	0.0050	mg/L		10/09/13 13:44	10/09/13 17:32	1
Chlorine, Total Residual	ND		0.020	0.010	mg/L			10/09/13 13:00	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium (hexavalent)	ND		0.0050	0.0050	mg/L			10/09/13 11:20	1
pH	**7.91**	**H**	0.100	0.100	SU			10/09/13 22:12	1
Total Suspended Solids	ND		4.0	4.0	mg/L			10/09/13 18:05	1

Surrogate Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: NG ATHOL TASK 7

TestAmerica Job ID: 480-47475-1

Method: 624 - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		12DCE	BFB	TOL
Lab Sample ID	Client Sample ID	(72-130)	(69-121)	(70-123)
480-47475-1	PW-2 Influent	97	98	92
480-47475-1 - DL	PW-2 Influent	94	101	92
480-47475-2	PW-2 Effluent	97	101	92
LCS 480-143426/4	Lab Control Sample	101	104	93
MB 480-143426/5	Method Blank	98	102	93

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL	TPH
Lab Sample ID	Client Sample ID	(52-151)	(44-120)	(17-120)	(42-120)	(10-120)	(22-125)
480-47475-1	PW-2 Influent	94	87	54	84	37	104
480-47475-1 - DL	PW-2 Influent	81	91	51	85	32	105
480-47475-2	PW-2 Effluent	90	89	55	89	35	109
LCS 480-143723/2-A	Lab Control Sample	84	82	50	81	35	95
MB 480-143723/1-A	Method Blank	78	81	51	80	34	105

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPH = p-Terphenyl-d14

Method: 624 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-143426/5
Matrix: Water
Analysis Batch: 143426

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0	0.50	ug/L			10/08/13 12:11	1
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			10/08/13 12:11	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			10/08/13 12:11	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.36	ug/L			10/08/13 12:11	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			10/08/13 12:11	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			10/08/13 12:11	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			10/08/13 12:11	1
1,1-Dichloropropene	ND		5.0	0.79	ug/L			10/08/13 12:11	1
1,2,3-Trichlorobenzene	ND		5.0	0.41	ug/L			10/08/13 12:11	1
1,2,3-Trichloropropane	ND		5.0	0.21	ug/L			10/08/13 12:11	1
1,2,4-Trichlorobenzene	ND		5.0	0.39	ug/L			10/08/13 12:11	1
1,2,4-Trimethylbenzene	ND		5.0	0.52	ug/L			10/08/13 12:11	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.62	ug/L			10/08/13 12:11	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			10/08/13 12:11	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			10/08/13 12:11	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			10/08/13 12:11	1
1,3,5-Trimethylbenzene	ND		10	0.44	ug/L			10/08/13 12:11	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			10/08/13 12:11	1
1,3-Dichloropropane	ND		5.0	0.52	ug/L			10/08/13 12:11	1
1,3-Dichloropropene, Total	ND		5.0	2.7	ug/L			10/08/13 12:11	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			10/08/13 12:11	1
1,4-Dioxane	ND		200	15	ug/L			10/08/13 12:11	1
2,2-Dichloropropane	ND		5.0	0.33	ug/L			10/08/13 12:11	1
2-Chloro-1,3-butadiene	ND		5.0	0.75	ug/L			10/08/13 12:11	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			10/08/13 12:11	1
2-Hexanone	ND		25	2.0	ug/L			10/08/13 12:11	1
Allyl chloride	ND		5.0	0.56	ug/L			10/08/13 12:11	1
Acetone	ND		25	2.0	ug/L			10/08/13 12:11	1
Acetonitrile	ND		200	16	ug/L			10/08/13 12:11	1
Acrolein	ND		100	17	ug/L			10/08/13 12:11	1
Acrylonitrile	ND		25	1.9	ug/L			10/08/13 12:11	1
Benzene	ND		5.0	0.60	ug/L			10/08/13 12:11	1
Bromobenzene	ND		10	0.44	ug/L			10/08/13 12:11	1
Bromoform	ND		5.0	0.47	ug/L			10/08/13 12:11	1
Bromomethane	ND		5.0	1.2	ug/L			10/08/13 12:11	1
Carbon disulfide	ND		5.0	0.29	ug/L			10/08/13 12:11	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			10/08/13 12:11	1
Chlorobenzene	ND		5.0	0.48	ug/L			10/08/13 12:11	1
Bromochloromethane	ND		5.0	0.71	ug/L			10/08/13 12:11	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			10/08/13 12:11	1
Chlorodifluoromethane	ND		5.0	0.42	ug/L			10/08/13 12:11	1
Chloroethane	ND		5.0	0.87	ug/L			10/08/13 12:11	1
Chloroform	ND		5.0	0.54	ug/L			10/08/13 12:11	1
Chloromethane	ND		5.0	0.64	ug/L			10/08/13 12:11	1
cis-1,2-Dichloroethene	ND		5.0	0.57	ug/L			10/08/13 12:11	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			10/08/13 12:11	1
Dibromomethane	ND		5.0	0.53	ug/L			10/08/13 12:11	1
Bromodichloromethane	ND		5.0	0.54	ug/L			10/08/13 12:11	1

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-143426/5
Matrix: Water
Analysis Batch: 143426

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		5.0	0.28	ug/L			10/08/13 12:11	1
Ethyl acetate	ND		5.0	0.32	ug/L			10/08/13 12:11	1
Ethyl ether	ND		5.0	0.34	ug/L			10/08/13 12:11	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			10/08/13 12:11	1
Ethylbenzene	ND		5.0	0.46	ug/L			10/08/13 12:11	1
1,2-Dibromoethane	ND		5.0	0.50	ug/L			10/08/13 12:11	1
Hexachlorobutadiene	ND		10	0.58	ug/L			10/08/13 12:11	1
Iodomethane	ND		5.0	0.29	ug/L			10/08/13 12:11	1
Isobutyl alcohol	ND		200	11	ug/L			10/08/13 12:11	1
Isopropyl acetate	ND		5.0	0.56	ug/L			10/08/13 12:11	1
Isopropylbenzene	ND		5.0	0.51	ug/L			10/08/13 12:11	1
m-Xylene & p-Xylene	ND		10	1.1	ug/L			10/08/13 12:11	1
Methacrylonitrile	ND		5.0	0.35	ug/L			10/08/13 12:11	1
2-Butanone (MEK)	ND		25	1.8	ug/L			10/08/13 12:11	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.3	ug/L			10/08/13 12:11	1
Methyl methacrylate	ND		5.0	0.25	ug/L			10/08/13 12:11	1
Methyl tert-butyl ether	ND		5.0	0.35	ug/L			10/08/13 12:11	1
Methylene Chloride	ND		5.0	0.81	ug/L			10/08/13 12:11	1
n-Butyl acetate	ND		5.0	0.49	ug/L			10/08/13 12:11	1
n-Butylbenzene	ND		10	0.32	ug/L			10/08/13 12:11	1
N-Propylbenzene	ND		10	0.30	ug/L			10/08/13 12:11	1
Naphthalene	ND		5.0	0.11	ug/L			10/08/13 12:11	1
o-Xylene	ND		5.0	0.43	ug/L			10/08/13 12:11	1
sec-Butylbenzene	ND		10	0.32	ug/L			10/08/13 12:11	1
Styrene	ND		5.0	0.38	ug/L			10/08/13 12:11	1
tert-Butylbenzene	ND		10	0.54	ug/L			10/08/13 12:11	1
Tetrachloroethene	ND		5.0	0.34	ug/L			10/08/13 12:11	1
Tetrahydrofuran	ND		25	2.2	ug/L			10/08/13 12:11	1
Toluene	ND		5.0	0.45	ug/L			10/08/13 12:11	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			10/08/13 12:11	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			10/08/13 12:11	1
trans-1,4-Dichloro-2-butene	ND		25	1.3	ug/L			10/08/13 12:11	1
Trichloroethene	ND		5.0	0.60	ug/L			10/08/13 12:11	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			10/08/13 12:11	1
Vinyl acetate	ND		25	1.5	ug/L			10/08/13 12:11	1
Vinyl chloride	ND		5.0	0.75	ug/L			10/08/13 12:11	1
2-Chlorotoluene	ND		5.0	0.33	ug/L			10/08/13 12:11	1
4-Chlorotoluene	ND		5.0	0.27	ug/L			10/08/13 12:11	1
4-Isopropyltoluene	ND		5.0	0.54	ug/L			10/08/13 12:11	1
Amyl acetate (mixed isomers)	ND		5.0	0.36	ug/L			10/08/13 12:11	1
2-Methyl-2-propanol	ND		100	12	ug/L			10/08/13 12:11	1
Isopropyl alcohol	ND		200	15	ug/L			10/08/13 12:11	1
Isopropyl ether	ND		5.0	0.35	ug/L			10/08/13 12:11	1
2-Nitropropane	ND		5.0	1.5	ug/L			10/08/13 12:11	1
Dichlorofluoromethane	ND		5.0	0.25	ug/L			10/08/13 12:11	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			10/08/13 12:11	1
Xylenes, Total	ND		10	1.1	ug/L			10/08/13 12:11	1
Trihalomethanes, Total	ND		5.0	0.54	ug/L			10/08/13 12:11	1

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-143426/5
Matrix: Water
Analysis Batch: 143426

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	ND		10	1.1	ug/L			10/08/13 12:11	1
3-Chlorotoluene	ND		5.0	0.31	ug/L			10/08/13 12:11	1
2-Chlorobenzotrifluoride	ND		5.0	0.50	ug/L			10/08/13 12:11	1
3-Chlorobenzotrifluoride	ND		5.0	0.49	ug/L			10/08/13 12:11	1
4-Chlorobenzotrifluoride	ND		5.0	0.48	ug/L			10/08/13 12:11	1
Propionitrile	ND		50	3.1	ug/L			10/08/13 12:11	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
bis(2-chloromethyl)ether TIC	*ND*		*ug/L*			*542-88-1*		*10/08/13 12:11*	*1*
bis(chloromethyl)ether TIC	*ND*		*ug/L*			*542-88-1*		*10/08/13 12:11*	*1*
Aziridine TIC	*ND*		*ug/L*			*151-56-4*		*10/08/13 12:11*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*72 - 130*		*10/08/13 12:11*	*1*
4-Bromofluorobenzene (Surr)	*102*		*69 - 121*		*10/08/13 12:11*	*1*
Toluene-d8 (Surr)	*93*		*70 - 123*		*10/08/13 12:11*	*1*

Lab Sample ID: LCS 480-143426/4
Matrix: Water
Analysis Batch: 143426

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	20.0	20.5		ug/L		102	
1,1,1-Trichloroethane	20.0	22.6		ug/L		113	52 - 162
1,1,2,2-Tetrachloroethane	20.0	17.6		ug/L		88	46 - 157
1,1,2-Trichloro-1,2,2-trifluoroetha ne	20.0	19.1		ug/L		95	
1,1,2-Trichloroethane	20.0	19.9		ug/L		100	52 - 150
1,1-Dichloroethane	20.0	19.4		ug/L		97	59 - 155
1,1-Dichloroethene	20.0	17.9		ug/L		90	1 - 234
1,1-Dichloropropene	20.0	21.6		ug/L		108	
1,2,3-Trichlorobenzene	20.0	32.7		ug/L		164	
1,2,3-Trichloropropane	20.0	18.9		ug/L		95	
1,2,4-Trichlorobenzene	20.0	32.7		ug/L		164	
1,2,4-Trimethylbenzene	20.0	21.2		ug/L		106	
1,2-Dibromo-3-Chloropropane	20.0	22.7		ug/L		114	
1,2-Dichlorobenzene	20.0	22.4		ug/L		112	18 - 190
1,2-Dichloroethane	20.0	21.1		ug/L		105	49 - 155
1,2-Dichloropropane	20.0	19.3		ug/L		96	1 - 210
1,3,5-Trimethylbenzene	20.0	19.9		ug/L		99	
1,3-Dichlorobenzene	20.0	20.0		ug/L		100	59 - 156
1,3-Dichloropropane	20.0	19.4		ug/L		97	
1,3-Dichloropropene, Total	40.0	35.8		ug/L		90	
1,4-Dichlorobenzene	20.0	20.6		ug/L		103	18 - 190
2,2-Dichloropropane	20.0	21.4		ug/L		107	
2-Chloroethyl vinyl ether	100	91.9		ug/L		92	1 - 305
2-Hexanone	100	89.5		ug/L		89	
Acetone	100	89.3		ug/L		89	

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-143426/4
Matrix: Water
Analysis Batch: 143426

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetonitrile	800	700		ug/L		88	
Acrolein	400	139		ug/L		35	
Acrylonitrile	100	88.1		ug/L		88	
Benzene	20.0	19.5		ug/L		97	37 - 151
Bromobenzene	20.0	18.3		ug/L		92	
Bromoform	20.0	17.7		ug/L		89	45 - 169
Bromomethane	20.0	17.8		ug/L		89	1 - 242
Carbon disulfide	20.0	16.0		ug/L		80	
Carbon tetrachloride	20.0	19.1		ug/L		96	70 - 140
Chlorobenzene	20.0	20.1		ug/L		101	37 - 160
Bromochloromethane	20.0	21.2		ug/L		106	
Chlorodibromomethane	20.0	17.8		ug/L		89	53 - 149
Chloroethane	20.0	19.9		ug/L		100	14 - 230
Chloroform	20.0	20.7		ug/L		103	51 - 138
Chloromethane	20.0	21.0		ug/L		105	1 - 273
cis-1,2-Dichloroethene	20.0	20.8		ug/L		104	
cis-1,3-Dichloropropene	20.0	18.3		ug/L		91	1 - 227
Dibromomethane	20.0	20.5		ug/L		102	
Bromodichloromethane	20.0	19.1		ug/L		95	35 - 155
Dichlorodifluoromethane	20.0	27.9		ug/L		139	
Ethyl methacrylate	20.0	17.5		ug/L		87	
Ethylbenzene	20.0	19.8		ug/L		99	37 - 162
1,2-Dibromoethane	20.0	20.2		ug/L		101	
Hexachlorobutadiene	20.0	30.5		ug/L		152	
Iodomethane	20.0	23.3		ug/L		116	
Isopropylbenzene	20.0	18.3		ug/L		92	
m-Xylene & p-Xylene	40.0	40.5		ug/L		101	79 - 120
2-Butanone (MEK)	100	95.8		ug/L		96	
4-Methyl-2-pentanone (MIBK)	100	94.6		ug/L		95	
Methyl tert-butyl ether	20.0	18.4		ug/L		92	78 - 118
Methylene Chloride	20.0	19.3		ug/L		97	1 - 221
n-Butylbenzene	20.0	23.0		ug/L		115	
N-Propylbenzene	20.0	19.3		ug/L		96	
Naphthalene	20.0	28.8		ug/L		144	
o-Xylene	20.0	20.4		ug/L		102	79 - 120
sec-Butylbenzene	20.0	20.7		ug/L		103	
Styrene	20.0	20.5		ug/L		102	
tert-Butylbenzene	20.0	20.4		ug/L		102	
Tetrachloroethene	20.0	20.3		ug/L		101	64 - 148
Tetrahydrofuran	100	94.5		ug/L		94	
Toluene	20.0	19.3		ug/L		96	47 - 150
trans-1,2-Dichloroethene	20.0	19.5		ug/L		98	54 - 156
trans-1,3-Dichloropropene	20.0	17.6		ug/L		88	17 - 183
trans-1,4-Dichloro-2-butene	100	95.5		ug/L		96	
Trichloroethene	20.0	21.2		ug/L		106	71 - 157
Trichlorofluoromethane	20.0	22.0		ug/L		110	17 - 181
Vinyl acetate	100	59.2		ug/L		59	
Vinyl chloride	20.0	22.8		ug/L		114	1 - 251

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-143426/4
Matrix: Water
Analysis Batch: 143426

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Chlorotoluene	20.0	18.4		ug/L		92	
4-Chlorotoluene	20.0	18.3		ug/L		91	
4-Isopropyltoluene	20.0	21.9		ug/L		109	

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*72 - 130*
4-Bromofluorobenzene (Surr)	*104*		*69 - 121*
Toluene-d8 (Surr)	*93*		*70 - 123*

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-143723/1-A
Matrix: Water
Analysis Batch: 143727

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 143723

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0	0.060	ug/L		10/09/13 11:00	10/09/13 18:04	1
Acenaphthylene	ND		5.0	0.034	ug/L		10/09/13 11:00	10/09/13 18:04	1
Anthracene	ND		5.0	0.052	ug/L		10/09/13 11:00	10/09/13 18:04	1
Benzidine	ND		5.0	2.5	ug/L		10/09/13 11:00	10/09/13 18:04	1
Benzo[a]anthracene	ND		5.0	0.043	ug/L		10/09/13 11:00	10/09/13 18:04	1
Benzo[a]pyrene	ND		5.0	0.058	ug/L		10/09/13 11:00	10/09/13 18:04	1
Benzo[b]fluoranthene	ND		5.0	0.062	ug/L		10/09/13 11:00	10/09/13 18:04	1
Benzo[g,h,i]perylene	ND		5.0	0.10	ug/L		10/09/13 11:00	10/09/13 18:04	1
Benzo[k]fluoranthene	ND		5.0	0.042	ug/L		10/09/13 11:00	10/09/13 18:04	1
Bis(2-chloroethyl)ether	ND		5.0	1.1	ug/L		10/09/13 11:00	10/09/13 18:04	1
Bis(2-chloroethoxy)methane	ND		5.0	0.085	ug/L		10/09/13 11:00	10/09/13 18:04	1
bis (2-chloroisopropyl) ether	ND		5.0	0.086	ug/L		10/09/13 11:00	10/09/13 18:04	1
Bis(2-ethylhexyl) phthalate	ND		5.0	0.86	ug/L		10/09/13 11:00	10/09/13 18:04	1
4-Bromophenyl phenyl ether	ND		5.0	0.11	ug/L		10/09/13 11:00	10/09/13 18:04	1
Butyl benzyl phthalate	ND		5.0	1.3	ug/L		10/09/13 11:00	10/09/13 18:04	1
2-Chloronaphthalene	ND		5.0	0.068	ug/L		10/09/13 11:00	10/09/13 18:04	1
4-Chlorophenyl phenyl ether	ND		5.0	0.21	ug/L		10/09/13 11:00	10/09/13 18:04	1
Chrysene	ND		5.0	0.036	ug/L		10/09/13 11:00	10/09/13 18:04	1
Dibenz(a,h)anthracene	ND		5.0	0.055	ug/L		10/09/13 11:00	10/09/13 18:04	1
Di-n-butyl phthalate	ND		5.0	0.94	ug/L		10/09/13 11:00	10/09/13 18:04	1
1,2-Dichlorobenzene	ND		5.0	0.15	ug/L		10/09/13 11:00	10/09/13 18:04	1
1,3-Dichlorobenzene	ND		5.0	0.069	ug/L		10/09/13 11:00	10/09/13 18:04	1
1,4-Dichlorobenzene	ND		5.0	0.090	ug/L		10/09/13 11:00	10/09/13 18:04	1
3,3'-Dichlorobenzidine	ND		5.0	0.82	ug/L		10/09/13 11:00	10/09/13 18:04	1
Diethyl phthalate	ND		5.0	0.17	ug/L		10/09/13 11:00	10/09/13 18:04	1
Dimethyl phthalate	ND		5.0	0.17	ug/L		10/09/13 11:00	10/09/13 18:04	1
2,4-Dinitrotoluene	ND		5.0	0.26	ug/L		10/09/13 11:00	10/09/13 18:04	1
2,6-Dinitrotoluene	ND		5.0	0.72	ug/L		10/09/13 11:00	10/09/13 18:04	1
Di-n-octyl phthalate	ND		5.0	4.5	ug/L		10/09/13 11:00	10/09/13 18:04	1
1,2-Diphenylhydrazine	ND		5.0	0.063	ug/L		10/09/13 11:00	10/09/13 18:04	1
Fluoranthene	ND		5.0	0.11	ug/L		10/09/13 11:00	10/09/13 18:04	1
Fluorene	ND		5.0	0.043	ug/L		10/09/13 11:00	10/09/13 18:04	1

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-143723/1-A
Matrix: Water
Analysis Batch: 143727

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 143723

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobenzene	ND		5.0	0.28	ug/L		10/09/13 11:00	10/09/13 18:04	1
Hexachlorobutadiene	ND		5.0	0.62	ug/L		10/09/13 11:00	10/09/13 18:04	1
Hexachlorocyclopentadiene	ND		5.0	0.45	ug/L		10/09/13 11:00	10/09/13 18:04	1
Hexachloroethane	ND		5.0	0.48	ug/L		10/09/13 11:00	10/09/13 18:04	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.19	ug/L		10/09/13 11:00	10/09/13 18:04	1
Isophorone	ND		5.0	0.16	ug/L		10/09/13 11:00	10/09/13 18:04	1
Naphthalene	ND		5.0	0.080	ug/L		10/09/13 11:00	10/09/13 18:04	1
Nitrobenzene	ND		5.0	0.11	ug/L		10/09/13 11:00	10/09/13 18:04	1
N-Nitrosodi-n-propylamine	ND		5.0	0.23	ug/L		10/09/13 11:00	10/09/13 18:04	1
N-Nitrosodimethylamine	ND		5.0	0.96	ug/L		10/09/13 11:00	10/09/13 18:04	1
N-Nitrosodiphenylamine	ND		5.0	0.40	ug/L		10/09/13 11:00	10/09/13 18:04	1
Phenanthrene	ND		5.0	0.071	ug/L		10/09/13 11:00	10/09/13 18:04	1
Pyrene	ND		5.0	0.041	ug/L		10/09/13 11:00	10/09/13 18:04	1
1,2,4-Trichlorobenzene	ND		5.0	0.49	ug/L		10/09/13 11:00	10/09/13 18:04	1
4-Chloro-3-methylphenol	ND		5.0	0.56	ug/L		10/09/13 11:00	10/09/13 18:04	1
2-Chlorophenol	ND		5.0	0.16	ug/L		10/09/13 11:00	10/09/13 18:04	1
2,4-Dichlorophenol	ND		5.0	0.30	ug/L		10/09/13 11:00	10/09/13 18:04	1
2,4-Dimethylphenol	ND		5.0	0.13	ug/L		10/09/13 11:00	10/09/13 18:04	1
2,4-Dinitrophenol	ND		5.0	0.84	ug/L		10/09/13 11:00	10/09/13 18:04	1
4,6-Dinitro-2-methylphenol	ND		5.0	0.76	ug/L		10/09/13 11:00	10/09/13 18:04	1
2-Nitrophenol	ND		5.0	0.14	ug/L		10/09/13 11:00	10/09/13 18:04	1
4-Nitrophenol	ND		5.0	1.3	ug/L		10/09/13 11:00	10/09/13 18:04	1
Pentachlorophenol	ND		5.0	0.41	ug/L		10/09/13 11:00	10/09/13 18:04	1
Phenol	ND		5.0	0.12	ug/L		10/09/13 11:00	10/09/13 18:04	1
2,4,6-Trichlorophenol	ND		5.0	0.23	ug/L		10/09/13 11:00	10/09/13 18:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*78*		*52 - 151*	*10/09/13 11:00*	*10/09/13 18:04*	*1*
2-Fluorobiphenyl	*81*		*44 - 120*	*10/09/13 11:00*	*10/09/13 18:04*	*1*
2-Fluorophenol	*51*		*17 - 120*	*10/09/13 11:00*	*10/09/13 18:04*	*1*
Nitrobenzene-d5	*80*		*42 - 120*	*10/09/13 11:00*	*10/09/13 18:04*	*1*
Phenol-d5	*34*		*10 - 120*	*10/09/13 11:00*	*10/09/13 18:04*	*1*
p-Terphenyl-d14	*105*		*22 - 125*	*10/09/13 11:00*	*10/09/13 18:04*	*1*

Lab Sample ID: LCS 480-143723/2-A
Matrix: Water
Analysis Batch: 143727

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 143723

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	50.0	43.1		ug/L		86	47 - 145
Acenaphthylene	50.0	43.6		ug/L		87	33 - 145
Anthracene	50.0	45.5		ug/L		91	27 - 133
Benzo[a]anthracene	50.0	45.8		ug/L		92	33 - 143
Benzo[a]pyrene	50.0	45.1		ug/L		90	17 - 163
Benzo[b]fluoranthene	50.0	42.3		ug/L		85	24 - 159
Benzo[g,h,i]perylene	50.0	47.4		ug/L		95	1 - 219
Benzo[k]fluoranthene	50.0	47.4		ug/L		95	11 - 162
Bis(2-chloroethyl)ether	50.0	42.1		ug/L		84	12 - 158

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-143723/2-A
Matrix: Water
Analysis Batch: 143727

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 143723

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bis(2-chloroethoxy)methane	50.0	43.6		ug/L		87	33 - 184
bis (2-chloroisopropyl) ether	50.0	42.8		ug/L		86	36 - 166
Bis(2-ethylhexyl) phthalate	50.0	45.9		ug/L		92	8 - 158
4-Bromophenyl phenyl ether	50.0	42.5		ug/L		85	53 - 127
Butyl benzyl phthalate	50.0	45.6		ug/L		91	1 - 152
2-Chloronaphthalene	50.0	40.5		ug/L		81	60 - 118
4-Chlorophenyl phenyl ether	50.0	44.0		ug/L		88	25 - 158
Chrysene	50.0	45.5		ug/L		91	17 - 168
Dibenz(a,h)anthracene	50.0	46.5		ug/L		93	1 - 227
Di-n-butyl phthalate	50.0	44.8		ug/L		90	1 - 118
1,2-Dichlorobenzene	50.0	36.6		ug/L		73	32 - 129
1,3-Dichlorobenzene	50.0	34.9		ug/L		70	1 - 172
1,4-Dichlorobenzene	50.0	34.9		ug/L		70	20 - 124
3,3'-Dichlorobenzidine	50.0	42.3		ug/L		85	1 - 262
Diethyl phthalate	50.0	47.2		ug/L		94	1 - 114
Dimethyl phthalate	50.0	46.1		ug/L		92	1 - 112
2,4-Dinitrotoluene	50.0	48.7		ug/L		97	39 - 139
2,6-Dinitrotoluene	50.0	46.2		ug/L		92	50 - 158
Di-n-octyl phthalate	50.0	46.7		ug/L		93	4 - 146
Fluoranthene	50.0	44.3		ug/L		89	26 - 137
Fluorene	50.0	44.0		ug/L		88	59 - 121
Hexachlorobenzene	50.0	43.0		ug/L		86	1 - 152
Hexachlorocyclopentadiene	50.0	28.1		ug/L		56	5 - 120
Hexachloroethane	50.0	33.9		ug/L		68	40 - 113
Indeno[1,2,3-cd]pyrene	50.0	46.0		ug/L		92	1 - 171
Isophorone	50.0	43.3		ug/L		87	21 - 196
Naphthalene	50.0	39.1		ug/L		78	21 - 133
Nitrobenzene	50.0	41.8		ug/L		84	35 - 180
N-Nitrosodi-n-propylamine	50.0	44.0		ug/L		88	1 - 230
N-Nitrosodiphenylamine	50.0	42.5		ug/L		85	54 - 125
Phenanthrene	50.0	44.7		ug/L		89	54 - 120
Pyrene	50.0	44.8		ug/L		90	52 - 115
1,2,4-Trichlorobenzene	50.0	37.2		ug/L		74	44 - 142
4-Chloro-3-methylphenol	50.0	47.0		ug/L		94	22 - 147
2-Chlorophenol	50.0	42.1		ug/L		84	23 - 134
2,4-Dichlorophenol	50.0	42.7		ug/L		85	39 - 135
2,4-Dimethylphenol	50.0	43.9		ug/L		88	32 - 119
2,4-Dinitrophenol	100	83.6		ug/L		84	1 - 191
4,6-Dinitro-2-methylphenol	100	90.1		ug/L		90	1 - 181
2-Nitrophenol	50.0	44.0		ug/L		88	29 - 182
4-Nitrophenol	100	45.3		ug/L		45	1 - 132
Pentachlorophenol	100	81.3		ug/L		81	14 - 176
Phenol	50.0	19.4		ug/L		39	5 - 112
2,4,6-Trichlorophenol	50.0	43.4		ug/L		87	37 - 144

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*84*		*52 - 151*
2-Fluorobiphenyl	*82*		*44 - 120*

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-143723/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 143727 — **Prep Batch: 143723**

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorophenol	*50*		*17 - 120*
Nitrobenzene-d5	*81*		*42 - 120*
Phenol-d5	*35*		*10 - 120*
p-Terphenyl-d14	*95*		*22 - 125*

Method: 6010 - Metals (ICP)

Lab Sample ID: MB 480-143783/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 144288 — **Prep Batch: 143783**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		10	1.6	ug/L		10/09/13 16:30	10/10/13 21:26	1
Iron	ND		50	19	ug/L		10/09/13 16:30	10/10/13 21:26	1
Silver	ND		5.0	1.7	ug/L		10/09/13 16:30	10/10/13 21:26	1
Zinc	ND		50	1.5	ug/L		10/09/13 16:30	10/10/13 21:26	1

Lab Sample ID: LCS 480-143783/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 144288 — **Prep Batch: 143783**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Copper	200	207		ug/L		103	80 - 120
Iron	10000	10400		ug/L		104	80 - 120
Silver	50.0	51.6		ug/L		103	80 - 120
Zinc	200	205		ug/L		102	80 - 120

Lab Sample ID: LCSD 480-143783/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 144288 — **Prep Batch: 143783**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Copper	200	205		ug/L		103	80 - 120	1	20
Iron	10000	10600		ug/L		106	80 - 120	2	20
Silver	50.0	51.5		ug/L		103	80 - 120	0	20
Zinc	200	202		ug/L		101	80 - 120	1	20

Lab Sample ID: MB 480-143538/3-B — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 144287 — **Prep Batch: 143638**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		10	1.6	ug/L		10/09/13 08:50	10/10/13 20:22	1
Iron	ND		50	19	ug/L		10/09/13 08:50	10/10/13 20:22	1
Silver	ND		5.0	1.7	ug/L		10/09/13 08:50	10/10/13 20:22	1
Zinc	ND		50	1.5	ug/L		10/09/13 08:50	10/10/13 20:22	1

Method: 6010 - Metals (ICP) (Continued)

Lab Sample ID: LCS 480-143538/4-B — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 144287 — **Prep Batch: 143638**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Copper	200	205		ug/L		102	80 - 120
Iron	10000	10300		ug/L		103	80 - 120
Silver	50.0	50.9		ug/L		102	80 - 120
Zinc	200	206		ug/L		103	80 - 120

Lab Sample ID: LCSD 480-143538/31-B — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 144287 — **Prep Batch: 143638**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Copper	200	201		ug/L		101	80 - 120	2	20
Iron	10000	10400		ug/L		104	80 - 120	1	20
Silver	50.0	50.5		ug/L		101	80 - 120	1	20
Zinc	200	205		ug/L		102	80 - 120	1	20

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 480-144110/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 144117 — **Prep Batch: 144110**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil & Grease	ND		5.0	1.4	mg/L		10/10/13 12:00	10/10/13 16:43	1

Lab Sample ID: LCS 480-144110/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 144117 — **Prep Batch: 144110**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Oil & Grease	40.0	34.5		mg/L		86	78 - 114

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 480-143761/100 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 143761

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	0.28	mg/L			10/10/13 12:48	1

Lab Sample ID: LCS 480-143761/99 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 143761

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	21.3		mg/L		106	90 - 110

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 480-47475-2 MS — **Client Sample ID: PW-2 Effluent**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 143761

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	99		25.0	125	E	mg/L		102	90 - 110

Lab Sample ID: MB 480-144373/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 144373

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	0.28	mg/L			10/11/13 13:46	1

Lab Sample ID: LCS 480-144373/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 144373

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	21.2		mg/L		106	90 - 110

Method: 420.4 - Phenolics, Total Recoverable

Lab Sample ID: MB 480-143874/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 144436 — **Prep Batch: 143874**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenolics, Total Recoverable	ND		0.010	0.0050	mg/L		10/09/13 15:20	10/11/13 10:01	1

Lab Sample ID: LCS 480-143874/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 144436 — **Prep Batch: 143874**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenolics, Total Recoverable	0.100	0.102		mg/L		102	90 - 110

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 360-98363/9 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 98363

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium (hexavalent)	ND		0.0050	0.0050	mg/L			10/09/13 11:20	1

Lab Sample ID: LCS 360-98363/10 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 98363

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium (hexavalent)	0.0532	0.0536		mg/L		101	80 - 120

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: LCSD 360-98363/11 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 98363

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium (hexavalent)			0.0532	0.0536		mg/L		101	80 - 120	0	20

Lab Sample ID: 480-47475-2 MS — **Client Sample ID: PW-2 Effluent**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 98363

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chromium (hexavalent)	ND		0.0250	0.0244		mg/L		97	85 - 115		

Lab Sample ID: 480-47475-2 MSD — **Client Sample ID: PW-2 Effluent**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 98363

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium (hexavalent)	ND		0.0250	0.0244		mg/L		97	85 - 115	0	20

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 480-143781/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 143843 — **Prep Batch: 143781**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		10/09/13 13:44	10/09/13 17:28	1

Lab Sample ID: LCS 480-143781/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 143843 — **Prep Batch: 143781**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Total			0.250	0.247		mg/L		99	90 - 110		

Lab Sample ID: LCSD 480-143781/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 143843 — **Prep Batch: 143781**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total			0.250	0.245		mg/L		98	90 - 110	1	15

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 480-143749/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 143749

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0	4.0	mg/L			10/09/13 17:39	1

Method: SM 2540D - Solids, Total Suspended (TSS) (Continued)

Lab Sample ID: LCS 480-143749/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 143749

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Suspended Solids			226	218		mg/L		96	88 - 110		

Method: SM 4500 Cl G - Chlorine, Residual

Lab Sample ID: MB 480-143835/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 143835

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorine, Total Residual	ND		0.020	0.010	mg/L			10/09/13 13:00	1

Lab Sample ID: LCS 480-143835/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 143835

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chlorine, Total Residual			0.920	0.960		mg/L		104	90 - 110		

Lab Sample ID: 480-47475-2 DU — **Client Sample ID: PW-2 Effluent**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 143835

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Chlorine, Total Residual	ND			ND		mg/L				NC	20

QC Association Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: NG ATHOL TASK 7

TestAmerica Job ID: 480-47475-1

GC/MS VOA

Analysis Batch: 143426

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47475-1	PW-2 Influent	Total/NA	Water	624	
480-47475-1 - DL	PW-2 Influent	Total/NA	Water	624	
480-47475-2	PW-2 Effluent	Total/NA	Water	624	
LCS 480-143426/4	Lab Control Sample	Total/NA	Water	624	
MB 480-143426/5	Method Blank	Total/NA	Water	624	

GC/MS Semi VOA

Prep Batch: 143723

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47475-1 - DL	PW-2 Influent	Total/NA	Water	625	
480-47475-1	PW-2 Influent	Total/NA	Water	625	
480-47475-2	PW-2 Effluent	Total/NA	Water	625	
LCS 480-143723/2-A	Lab Control Sample	Total/NA	Water	625	
MB 480-143723/1-A	Method Blank	Total/NA	Water	625	

Analysis Batch: 143727

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47475-1	PW-2 Influent	Total/NA	Water	625	143723
480-47475-1 - DL	PW-2 Influent	Total/NA	Water	625	143723
480-47475-2	PW-2 Effluent	Total/NA	Water	625	143723
LCS 480-143723/2-A	Lab Control Sample	Total/NA	Water	625	143723
MB 480-143723/1-A	Method Blank	Total/NA	Water	625	143723

Metals

Filtration Batch: 143538

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-143538/4-B	Lab Control Sample	Dissolved	Water	FILTRATION	
LCSD 480-143538/31-B	Lab Control Sample Dup	Dissolved	Water	FILTRATION	
MB 480-143538/3-B	Method Blank	Dissolved	Water	FILTRATION	

Prep Batch: 143638

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47475-1	PW-2 Influent	Dissolved	Water	3005A	
480-47475-2	PW-2 Effluent	Dissolved	Water	3005A	
LCS 480-143538/4-B	Lab Control Sample	Dissolved	Water	3005A	143538
LCSD 480-143538/31-B	Lab Control Sample Dup	Dissolved	Water	3005A	143538
MB 480-143538/3-B	Method Blank	Dissolved	Water	3005A	143538

Prep Batch: 143783

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47475-1	PW-2 Influent	Total/NA	Water	3005A	
480-47475-2	PW-2 Effluent	Total/NA	Water	3005A	
LCS 480-143783/2-A	Lab Control Sample	Total/NA	Water	3005A	
LCSD 480-143783/3-A	Lab Control Sample Dup	Total/NA	Water	3005A	
MB 480-143783/1-A	Method Blank	Total/NA	Water	3005A	

Metals (Continued)

Analysis Batch: 144287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47475-1	PW-2 Influent	Dissolved	Water	6010	143638
480-47475-2	PW-2 Effluent	Dissolved	Water	6010	143638
LCS 480-143538/4-B	Lab Control Sample	Dissolved	Water	6010	143638
LCSD 480-143538/31-B	Lab Control Sample Dup	Dissolved	Water	6010	143638
MB 480-143538/3-B	Method Blank	Dissolved	Water	6010	143638

Analysis Batch: 144288

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47475-1	PW-2 Influent	Total/NA	Water	6010	143783
480-47475-2	PW-2 Effluent	Total/NA	Water	6010	143783
LCS 480-143783/2-A	Lab Control Sample	Total/NA	Water	6010	143783
LCSD 480-143783/3-A	Lab Control Sample Dup	Total/NA	Water	6010	143783
MB 480-143783/1-A	Method Blank	Total/NA	Water	6010	143783

General Chemistry

Analysis Batch: 98363

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47475-1	PW-2 Influent	Total/NA	Water	7196A	
480-47475-2	PW-2 Effluent	Total/NA	Water	7196A	
480-47475-2 MS	PW-2 Effluent	Total/NA	Water	7196A	
480-47475-2 MSD	PW-2 Effluent	Total/NA	Water	7196A	
LCS 360-98363/10	Lab Control Sample	Total/NA	Water	7196A	
LCSD 360-98363/11	Lab Control Sample Dup	Total/NA	Water	7196A	
MB 360-98363/9	Method Blank	Total/NA	Water	7196A	

Analysis Batch: 143749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47475-1	PW-2 Influent	Total/NA	Water	SM 2540D	
480-47475-2	PW-2 Effluent	Total/NA	Water	SM 2540D	
LCS 480-143749/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 480-143749/1	Method Blank	Total/NA	Water	SM 2540D	

Analysis Batch: 143761

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47475-2	PW-2 Effluent	Total/NA	Water	300.0	
480-47475-2 MS	PW-2 Effluent	Total/NA	Water	300.0	
LCS 480-143761/99	Lab Control Sample	Total/NA	Water	300.0	
MB 480-143761/100	Method Blank	Total/NA	Water	300.0	

Prep Batch: 143781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47475-1	PW-2 Influent	Total/NA	Water	9012A	
480-47475-2	PW-2 Effluent	Total/NA	Water	9012A	
LCS 480-143781/2-A	Lab Control Sample	Total/NA	Water	9012A	
LCSD 480-143781/3-A	Lab Control Sample Dup	Total/NA	Water	9012A	
MB 480-143781/1-A	Method Blank	Total/NA	Water	9012A	

General Chemistry (Continued)

Analysis Batch: 143835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47475-1	PW-2 Influent	Total/NA	Water	SM 4500 Cl G	
480-47475-2	PW-2 Effluent	Total/NA	Water	SM 4500 Cl G	
480-47475-2 DU	PW-2 Effluent	Total/NA	Water	SM 4500 Cl G	
LCS 480-143835/4	Lab Control Sample	Total/NA	Water	SM 4500 Cl G	
MB 480-143835/3	Method Blank	Total/NA	Water	SM 4500 Cl G	

Analysis Batch: 143843

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47475-1	PW-2 Influent	Total/NA	Water	9012B	143781
480-47475-2	PW-2 Effluent	Total/NA	Water	9012B	143781
LCS 480-143781/2-A	Lab Control Sample	Total/NA	Water	9012B	143781
LCSD 480-143781/3-A	Lab Control Sample Dup	Total/NA	Water	9012B	143781
MB 480-143781/1-A	Method Blank	Total/NA	Water	9012B	143781

Prep Batch: 143874

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47475-1	PW-2 Influent	Total/NA	Water	Distill/Phenol	
480-47475-2	PW-2 Effluent	Total/NA	Water	Distill/Phenol	
LCS 480-143874/2-A	Lab Control Sample	Total/NA	Water	Distill/Phenol	
MB 480-143874/1-A	Method Blank	Total/NA	Water	Distill/Phenol	

Analysis Batch: 143892

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47475-1	PW-2 Influent	Total/NA	Water	9040C	
480-47475-2	PW-2 Effluent	Total/NA	Water	9040C	
LCS 480-143892/1	Lab Control Sample	Total/NA	Water	9040C	

Prep Batch: 144110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47475-1	PW-2 Influent	Total/NA	Water	1664A	
480-47475-2	PW-2 Effluent	Total/NA	Water	1664A	
LCS 480-144110/2-A	Lab Control Sample	Total/NA	Water	1664A	
MB 480-144110/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 144117

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47475-1	PW-2 Influent	Total/NA	Water	1664A	144110
480-47475-2	PW-2 Effluent	Total/NA	Water	1664A	144110
LCS 480-144110/2-A	Lab Control Sample	Total/NA	Water	1664A	144110
MB 480-144110/1-A	Method Blank	Total/NA	Water	1664A	144110

Analysis Batch: 144373

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47475-1	PW-2 Influent	Total/NA	Water	300.0	
LCS 480-144373/3	Lab Control Sample	Total/NA	Water	300.0	
MB 480-144373/4	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 144436

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47475-1	PW-2 Influent	Total/NA	Water	420.4	143874
480-47475-2	PW-2 Effluent	Total/NA	Water	420.4	143874

General Chemistry (Continued)

Analysis Batch: 144436 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-143874/2-A	Lab Control Sample	Total/NA	Water	420.4	143874
MB 480-143874/1-A	Method Blank	Total/NA	Water	420.4	143874

Lab Chronicle

Client: Innovative Engineering Solutions, Inc
Project/Site: NG ATHOL TASK 7

TestAmerica Job ID: 480-47475-1

Client Sample ID: PW-2 Influent

Lab Sample ID: 480-47475-1

Date Collected: 10/08/13 13:15

Matrix: Water

Date Received: 10/08/13 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	143426	10/09/13 09:07	TRB	TAL BUF
Total/NA	Analysis	624	DL	25	143426	10/09/13 10:00	TRB	TAL BUF
Total/NA	Prep	625			143723	10/09/13 11:00	MNF	TAL BUF
Total/NA	Analysis	625		1	143727	10/09/13 18:52	ANM	TAL BUF
Total/NA	Prep	625	DL		143723	10/09/13 11:00	MNF	TAL BUF
Total/NA	Analysis	625	DL	5	143727	10/10/13 09:33	ANM	TAL BUF
Dissolved	Prep	3005A			143638	10/09/13 08:50	SS1	TAL BUF
Dissolved	Analysis	6010		1	144287	10/10/13 21:22	AMH	TAL BUF
Total/NA	Prep	3005A			143783	10/09/13 16:30	SS1	TAL BUF
Total/NA	Analysis	6010		1	144288	10/10/13 21:43	AMH	TAL BUF
Total/NA	Analysis	7196A		1	98363	10/09/13 11:20	RWE	TAL WFD
Total/NA	Analysis	SM 2540D		1	143749	10/09/13 18:04	RP	TAL BUF
Total/NA	Analysis	SM 4500 Cl G		1	143835	10/09/13 13:00	KJ1	TAL BUF
Total/NA	Prep	9012A			143781	10/09/13 13:44	KJ1	TAL BUF
Total/NA	Analysis	9012B		1	143843	10/09/13 17:31	KMF	TAL BUF
Total/NA	Analysis	9040C		1	143892	10/09/13 22:08	KS	TAL BUF
Total/NA	Prep	1664A			144110	10/10/13 12:00	MDL	TAL BUF
Total/NA	Analysis	1664A		1	144117	10/10/13 16:43	MDL	TAL BUF
Total/NA	Analysis	300.0		5	144373	10/11/13 14:47	KRC	TAL BUF
Total/NA	Prep	Distill/Phenol			143874	10/09/13 15:20	JMB	TAL BUF
Total/NA	Analysis	420.4		1	144436	10/11/13 10:36	KSW	TAL BUF

Client Sample ID: PW-2 Effluent

Lab Sample ID: 480-47475-2

Date Collected: 10/08/13 13:20

Matrix: Water

Date Received: 10/08/13 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	143426	10/09/13 08:43	TRB	TAL BUF
Total/NA	Prep	625			143723	10/09/13 11:00	MNF	TAL BUF
Total/NA	Analysis	625		1	143727	10/09/13 19:16	ANM	TAL BUF
Dissolved	Prep	3005A			143638	10/09/13 08:50	SS1	TAL BUF
Dissolved	Analysis	6010		1	144287	10/10/13 21:24	AMH	TAL BUF
Total/NA	Prep	3005A			143783	10/09/13 16:30	SS1	TAL BUF
Total/NA	Analysis	6010		1	144288	10/10/13 21:45	AMH	TAL BUF
Total/NA	Analysis	7196A		1	98363	10/09/13 11:20	RWE	TAL WFD
Total/NA	Analysis	SM 2540D		1	143749	10/09/13 18:05	RP	TAL BUF
Total/NA	Analysis	300.0		1	143761	10/10/13 13:59	KRC	TAL BUF
Total/NA	Analysis	SM 4500 Cl G		1	143835	10/09/13 13:00	KJ1	TAL BUF
Total/NA	Prep	9012A			143781	10/09/13 13:44	KJ1	TAL BUF
Total/NA	Analysis	9012B		1	143843	10/09/13 17:32	KMF	TAL BUF
Total/NA	Analysis	9040C		1	143892	10/09/13 22:12	KS	TAL BUF
Total/NA	Prep	1664A			144110	10/10/13 12:00	MDL	TAL BUF

Lab Chronicle

Client: Innovative Engineering Solutions, Inc
Project/Site: NG ATHOL TASK 7

TestAmerica Job ID: 480-47475-1

Client Sample ID: PW-2 Effluent

Lab Sample ID: 480-47475-2

Date Collected: 10/08/13 13:20

Matrix: Water

Date Received: 10/08/13 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	1664A		1	144117	10/10/13 16:43	MDL	TAL BUF
Total/NA	Prep	Distill/Phenol			143874	10/09/13 15:20	JMB	TAL BUF
Total/NA	Analysis	420.4		1	144436	10/11/13 10:36	KSW	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL WFD = TestAmerica Westfield, Westfield Executive Park, 53 Southampton Road, Westfield, MA 01085, TEL (413)572-4000

Certification Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: NG ATHOL TASK 7

TestAmerica Job ID: 480-47475-1

Laboratory: TestAmerica Buffalo

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-13 *
California	NELAP	9	1169CA	09-30-13 *
Connecticut	State Program	1	PH-0568	09-30-14
Florida	NELAP	4	E87672	06-30-14
Georgia	State Program	4	N/A	03-31-14
Iowa	State Program	7	374	03-15-15
Kansas	NELAP	7	E-10187	01-31-14
Kentucky	State Program	4	90029	12-31-13
Kentucky (UST)	State Program	4	30	04-01-14
Louisiana	NELAP	6	02031	06-30-14
Maine	State Program	1	NY00044	12-04-14
Maryland	State Program	3	294	03-31-14
Massachusetts	State Program	1	M-NY044	06-30-14
Michigan	State Program	5	9937	04-01-14
Minnesota	NELAP	5	036-999-337	12-31-13
New Hampshire	NELAP	1	2973	09-11-14
New Jersey	NELAP	2	NY455	06-30-14
New York	NELAP	2	10026	04-01-14
North Dakota	State Program	8	R-176	03-31-14
Oklahoma	State Program	6	9421	08-31-14
Oregon	NELAP	10	NY200003	06-09-14
Pennsylvania	NELAP	3	68-00281	07-31-14
Rhode Island	State Program	1	LAO00328	12-31-13
Tennessee	State Program	4	TN02970	04-01-14
Texas	NELAP	6	T104704412-11-2	07-31-14
USDA	Federal		P330-11-00386	11-22-14
Virginia	NELAP	3	460185	09-14-14
Washington	State Program	10	C784	02-10-14
West Virginia DEP	State Program	3	252	12-31-13
Wisconsin	State Program	5	998310390	08-31-14

Laboratory: TestAmerica Westfield

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Connecticut	State Program	1	PH-0494	09-30-14
Massachusetts	State Program	1	M-MA014	06-30-14
New Hampshire	NELAP	1	2539	08-08-14

* Expired certification is currently pending renewal and is considered valid.

Method Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: NG ATHOL TASK 7

TestAmerica Job ID: 480-47475-1

Method	Method Description	Protocol	Laboratory
624	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
625	Semivolatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
6010	Metals (ICP)	SW846	TAL BUF
1664A	HEM and SGT-HEM	1664A	TAL BUF
300.0	Anions, Ion Chromatography	MCAWW	TAL BUF
420.4	Phenolics, Total Recoverable	MCAWW	TAL BUF
7196A	Chromium, Hexavalent	SW846	TAL WFD
9012B	Cyanide, Total and/or Amenable	SW846	TAL BUF
9040C	pH	SW846	TAL BUF
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL BUF
SM 4500 Cl G	Chlorine, Residual	SM	TAL BUF

Protocol References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL WFD = TestAmerica Westfield, Westfield Executive Park, 53 Southampton Road, Westfield, MA 01085, TEL (413)572-4000

Sample Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: NG ATHOL TASK 7

TestAmerica Job ID: 480-47475-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-47475-1	PW-2 Influent	Water	10/08/13 13:15	10/08/13 15:15
480-47475-2	PW-2 Effluent	Water	10/08/13 13:20	10/08/13 15:15

Login Sample Receipt Checklist

Client: Innovative Engineering Solutions, Inc

Job Number: 480-47475-1

Login Number: 47475

List Source: TestAmerica Buffalo

List Number: 1

Creator: Wienke, Robert K

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	True	Ok

Login Sample Receipt Checklist

Client: Innovative Engineering Solutions, Inc

Job Number: 480-47475-1

Login Number: 47475
List Number: 1
Creator: Emerich, Rich W

List Source: TestAmerica Westfield
List Creation: 10/09/13 10:36 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	N/A	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	N/A	
Cooler Temperature is recorded.	N/A	
COC is present.	N/A	
COC is filled out in ink and legible.	N/A	
COC is filled out with all pertinent information.	N/A	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	N/A	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica Westfield
Westfield Executive Park 53 Southampton Road
Westfield, MA 01085
Phone (413) 572-4000 Fax (413) 572-3707

Boston Service Center
240 Bear Hill Rd Suite 104
Waltham, MA 02451
Phone (781) 466-6900 Fax (781) 466-7001

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: JW/SM	Lab PM: Janine Johnson	Carrier Tracking No(s):
Client Contact: Joe Higgins	Phone: (978) 660-7087	E-Mail: jack.WATTS@lesiconline	COC No: 27154
Company: IESI			Page: 1 of 2
Address: 25 SPRING ST.	Due Date Requested: 10/9/13		Job #: NG-ATHOL TASK 7
City: Walpole,	TAT Requested (days): 24hr		
State, Zip: MA			
Phone: (508) 668-0033	Quote #:		
Email: joe@iesiconline.com	PO #: NG-ATHOL TASK 7		
Project Name/number: NG-ATHOL TASK 7	WO #:		
Site: NG ATHOL	SSOW#:		

Analysis Requested

Preservation Codes:
A - HCl; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; H - Ascorbic Acid; I - Ice; J - DI Water; M - Hexane; N - None; P - Na2O4S; Q - Na2SO3; R - Na2S2SO3; S - H2SO4; Z - other (specify)

Regulatory programs:
MCP [X] GW1/S1 [ ]
RCP [ ] CT RSR [ ]
DEP Form [ ] EDD Required [ ]

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Preservation Code	Sampler's Initials	Field Filtered Sample?	Perform MS/MSD?	EPA 624	EPA 625	FOG (1664A)	Hex Chrome	Total Copper	dissolved copper	pH	Total Cyanide	Total Number of containers	Special Instructions/Note:
PW-2 INFLUENT	10/8/13	115PM	G	W		JW	①		✓	✓	✓	✓	✓	✓	✓	✓		Copper Sample field filt.
PW-2 EFFLUENT	10/8/13	120PM	G	W		JW	①		✓	✓	✓	✓	✓	✓	✓	✓		Copper Samp. field filt.

SS 10/8/13

Possible Hazard Identification
[ ] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown [ ] Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
[ ] Return To Client [X] Disposal By Lab [ ] Archive For ____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	10/8/13 15:15		[signature]	10/8/13 15:15	TAC
[signature]	10/8/13 17:00	THC	[signature]	10.9.13 0202	TAC
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: [ ] Yes [ ] No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks: 2.0°C w/ ice WESTFIELD
2.7#

TAL-8245-360 1111

TestAmerica Westfield
Westfield Executive Park 53 Southampton Road
Westfield, MA 01085
Phone (413) 572-4000 Fax (413) 572-3707

Boston Service Center
240 Bear Hill Rd Suite 104
Waltham, MA 02451
Phone (781) 466-6900 Fax (781) 466 6901

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information			
Client Contact: Joe Higgins	Sampler: JW ISM	Lab PM: Janine Johnson	Carrier Tracking No(s):
Company: IESI	Phone: (978) 660-9089	E-Mail: jack.wetherbee@iesionline.com	COC No: 27153
Address: 75 Spring St.	Due Date Requested: 10/9/13		Page: 2 of 2
City: Wolpole	TAT Requested (days): 24hr		Job #: NG-ATHOL Task 7
State, Zip: MA			
Phone: (508) 668-0033	Quote #:		
Email: joe@iesionline.com	PO #: NG ATHOL TASK 7		
Project Name/number: NG ATHOL TASK 7	WO #:		
Site: NG ATHOL	SSOW#:		

Analysis Requested

Preservation Codes:
A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; H - Ascorbic Acid; I - Ice; J - DI Water; M - Hexane; N - None; P - Na2O4S; Q - Na2SO3; R - Na2S2SO3; S - H2SO4; Z - other (specify)

Regulatory programs:
MCP [X]; RCP [ ]; DEP Form [ ]; GW1/S1 [ ]; CT RSR [ ]; EDD Required [ ]

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Sampler's Initials	Field Filtered Sample?	Perform MS/MSD?	Silver Total	Silver dissolved	Iron total	Iron dissolved	Zinc total	Zinc dissolved	Chloride	Phenolics	Res. Chlorine	TSS	Total Number of containers	Special Instructions/Note:
PW-2 INFluent	10/8/13	125 PM	G	W	JW			✓	✓	✓	✓	✓	✓	✓	✓	✓			
PW-2 EFFluent	10/8/13	120 PM	G	W	JW			✓	✓	✓	✓	✓	✓	✓	✓	✓			

JJS 10/8/13

Possible Hazard Identification
[ ] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown [ ] Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
[ ] Return To Client [ ] Disposal By Lab [ ] Archive For ____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	10/8/13 15:15		[signature]	10/8/13 15:15	TAC
[signature]	10/8/13 1700	TAC	[signature]	10-9-13 0200	TA
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: [ ] Yes [ ] No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks: (2.0°C w/ ice WESTFIELD)

2,7#1

TAL-8245-360 1111

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-47475-2
Client Project/Site: NG ATHOL TASK 7

For:
Innovative Engineering Solutions, Inc
25 Spring Street
Walpole, Massachusetts 02081

Attn: Joseph Higgins

Authorized for release by:
10/29/2013 1:55:43 PM
Rich Emerich, Analyst V
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Designee for

Janine Johnson, Project Manager I
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LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Innovative Engineering Solutions, Inc
Project/Site: NG ATHOL TASK 7

TestAmerica Job ID: 480-47475-2

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Innovative Engineering Solutions, Inc
Project/Site: NG ATHOL TASK 7

TestAmerica Job ID: 480-47475-2

Job ID: 480-47475-2

Laboratory: TestAmerica Buffalo

Narrative

Receipt
The samples were received on 10/8/2013 at 3:15 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.7º C.

Receipt Exceptions
This job is an adjunct to job 480-47475-1; total and dissolved nickel and alkalinity were added to samples 1 and 2 for job 480-47475-2.

Metals
At the request of the client, an abbreviated MCP compound list was reported for this job.

Method 6010: The Method Blank for batch 480-143783 contained total nickel above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples PW-2 Effluent (480-47475-2) and PW-2 Influent (480-47475-1) was not performed.

No other analytical or quality issues were noted.

General Chemistry
Method SM 2320B: The following samples were analyzed outside the method defined holding time because the request for the test was made after the holding time for the sample expired: PW-2 Effluent (480-47475-2) and PW-2 Influent (480-47475-1).

No other analytical or quality issues were noted.

MassDEP Analytical Protocol Certification Form

Laboratory Name:	**TestAmerica Buffalo**	Project #:	**480-47475**
Project Location:	**NG ATHOL TASK 7**	RTN:	

This form provides certifications for the following data set: list Laboratory Sample ID Number(s):

480-47825-2 [1-2]

Matrices: ■ Groundwater/Surface Water ☐ Soil/Sediment ☐ Drinking Water ☐ Air ☐ Other:

CAM Protocols (check all that apply below):

8260 VOC CAM II A ☐	7470/7471 Hg CAM III B ☐	Mass DEP VPH CAM IV A ☐	8081 Pesticides CAM V B ☐	7196 Hex Cr CAM VI B ☐	Mass DEP APH CAM IX A ☐
8270 SVOC CAM II B ☐	7010 Metals CAM III C ☐	Mass DEP 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 CAM III D ☐	8082 PCB 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 time.	■ 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	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 are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	■ Yes ☐ No[1]

***Data User Note:* Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WCS-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 laboratory 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, is accurate and complete.

Signature:		Position:	Technical Director
Printed Name:	Richard Emerich	Date:	10/29/2013 @ 1325

Detection Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: NG ATHOL TASK 7

TestAmerica Job ID: 480-47475-2

Client Sample ID: PW-2 Influent — Lab Sample ID: 480-47475-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Alkalinity	69000	H	5000	790	ug/L	1		SM 2320B	Total/NA

Client Sample ID: PW-2 Effluent — Lab Sample ID: 480-47475-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	6.1	J B	10	1.3	ug/L	1		6010	Total/NA
Dissolved Nickel	6.3	J	10	1.3	ug/L	1		6010	Dissolved
Alkalinity	110000	H	5000	790	ug/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: NG ATHOL TASK 7

TestAmerica Job ID: 480-47475-2

Client Sample ID: PW-2 Influent

Lab Sample ID: 480-47475-1

Date Collected: 10/08/13 13:15
Matrix: Water
Date Received: 10/08/13 15:15

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	ND		10	1.3	ug/L		10/09/13 16:30	10/10/13 21:43	1

Method: 6010 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Nickel	ND		10	1.3	ug/L		10/09/13 08:50	10/10/13 21:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	69000	H	5000	790	ug/L			10/24/13 17:33	1

Client Sample ID: PW-2 Effluent

Lab Sample ID: 480-47475-2

Date Collected: 10/08/13 13:20
Matrix: Water
Date Received: 10/08/13 15:15

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	6.1	J B	10	1.3	ug/L		10/09/13 16:30	10/10/13 21:45	1

Method: 6010 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Nickel	6.3	J	10	1.3	ug/L		10/09/13 08:50	10/10/13 21:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	110000	H	5000	790	ug/L			10/24/13 17:39	1

QC Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: NG ATHOL TASK 7

TestAmerica Job ID: 480-47475-2

Method: 6010 - Metals (ICP)

Lab Sample ID: MB 480-143783/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 144288 — **Prep Batch: 143783**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	1.46	J	10	1.3	ug/L		10/09/13 16:30	10/10/13 21:26	1

Lab Sample ID: LCS 480-143783/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 144288 — **Prep Batch: 143783**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nickel	200	208		ug/L		104	80 - 120

Lab Sample ID: LCSD 480-143783/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 144288 — **Prep Batch: 143783**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nickel	200	209		ug/L		104	80 - 120	0	20

Lab Sample ID: MB 480-143538/3-B — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 144287 — **Prep Batch: 143638**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Nickel	ND		10	1.3	ug/L		10/09/13 08:50	10/10/13 20:22	1

Lab Sample ID: LCS 480-143538/4-B — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 144287 — **Prep Batch: 143638**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dissolved Nickel	200	207		ug/L		104	80 - 120

Lab Sample ID: LCSD 480-143538/31-B — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 144287 — **Prep Batch: 143638**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dissolved Nickel	200	204		ug/L		102	80 - 120	2	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 480-147431/6 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 147431

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	ND		5000	790	ug/L			10/24/13 17:20	1

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCS 480-147431/7
Matrix: Water
Analysis Batch: 147431

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	100000	93500		ug/L		93	90 - 110

QC Association Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: NG ATHOL TASK 7

TestAmerica Job ID: 480-47475-2

Metals

Filtration Batch: 143538

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-143538/4-B	Lab Control Sample	Dissolved	Water	FILTRATION	
LCSD 480-143538/31-B	Lab Control Sample Dup	Dissolved	Water	FILTRATION	
MB 480-143538/3-B	Method Blank	Dissolved	Water	FILTRATION	

Prep Batch: 143638

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47475-1	PW-2 Influent	Dissolved	Water	3005A	
480-47475-2	PW-2 Effluent	Dissolved	Water	3005A	
LCS 480-143538/4-B	Lab Control Sample	Dissolved	Water	3005A	143538
LCSD 480-143538/31-B	Lab Control Sample Dup	Dissolved	Water	3005A	143538
MB 480-143538/3-B	Method Blank	Dissolved	Water	3005A	143538

Prep Batch: 143783

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47475-1	PW-2 Influent	Total/NA	Water	3005A	
480-47475-2	PW-2 Effluent	Total/NA	Water	3005A	
LCS 480-143783/2-A	Lab Control Sample	Total/NA	Water	3005A	
LCSD 480-143783/3-A	Lab Control Sample Dup	Total/NA	Water	3005A	
MB 480-143783/1-A	Method Blank	Total/NA	Water	3005A	

Analysis Batch: 144287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47475-1	PW-2 Influent	Dissolved	Water	6010	143638
480-47475-2	PW-2 Effluent	Dissolved	Water	6010	143638
LCS 480-143538/4-B	Lab Control Sample	Dissolved	Water	6010	143638
LCSD 480-143538/31-B	Lab Control Sample Dup	Dissolved	Water	6010	143638
MB 480-143538/3-B	Method Blank	Dissolved	Water	6010	143638

Analysis Batch: 144288

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47475-1	PW-2 Influent	Total/NA	Water	6010	143783
480-47475-2	PW-2 Effluent	Total/NA	Water	6010	143783
LCS 480-143783/2-A	Lab Control Sample	Total/NA	Water	6010	143783
LCSD 480-143783/3-A	Lab Control Sample Dup	Total/NA	Water	6010	143783
MB 480-143783/1-A	Method Blank	Total/NA	Water	6010	143783

General Chemistry

Analysis Batch: 147431

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47475-1	PW-2 Influent	Total/NA	Water	SM 2320B	
480-47475-2	PW-2 Effluent	Total/NA	Water	SM 2320B	
LCS 480-147431/7	Lab Control Sample	Total/NA	Water	SM 2320B	
MB 480-147431/6	Method Blank	Total/NA	Water	SM 2320B	

Lab Chronicle

Client: Innovative Engineering Solutions, Inc
Project/Site: NG ATHOL TASK 7

TestAmerica Job ID: 480-47475-2

Client Sample ID: PW-2 Influent

Lab Sample ID: 480-47475-1

Date Collected: 10/08/13 13:15

Matrix: Water

Date Received: 10/08/13 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			143638	10/09/13 08:50	SS1	TAL BUF
Dissolved	Analysis	6010		1	144287	10/10/13 21:22	AMH	TAL BUF
Total/NA	Prep	3005A			143783	10/09/13 16:30	SS1	TAL BUF
Total/NA	Analysis	6010		1	144288	10/10/13 21:43	AMH	TAL BUF
Total/NA	Analysis	SM 2320B		1	147431	10/24/13 17:33	KWJ	TAL BUF

Client Sample ID: PW-2 Effluent

Lab Sample ID: 480-47475-2

Date Collected: 10/08/13 13:20

Matrix: Water

Date Received: 10/08/13 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			143638	10/09/13 08:50	SS1	TAL BUF
Dissolved	Analysis	6010		1	144287	10/10/13 21:24	AMH	TAL BUF
Total/NA	Prep	3005A			143783	10/09/13 16:30	SS1	TAL BUF
Total/NA	Analysis	6010		1	144288	10/10/13 21:45	AMH	TAL BUF
Total/NA	Analysis	SM 2320B		1	147431	10/24/13 17:39	KWJ	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Certification Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: NG ATHOL TASK 7

TestAmerica Job ID: 480-47475-2

Laboratory: TestAmerica Buffalo

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-14
California	NELAP	9	1169CA	09-30-14
Connecticut	State Program	1	PH-0568	09-30-14
Florida	NELAP	4	E87672	06-30-14
Georgia	State Program	4	N/A	03-31-14
Illinois	NELAP	5	200003	09-30-14
Iowa	State Program	7	374	03-15-15
Kansas	NELAP	7	E-10187	01-31-14
Kentucky	State Program	4	90029	12-31-13
Kentucky (UST)	State Program	4	30	04-01-14
Louisiana	NELAP	6	02031	06-30-14
Maine	State Program	1	NY00044	12-04-14
Maryland	State Program	3	294	03-31-14
Massachusetts	State Program	1	M-NY044	06-30-14
Michigan	State Program	5	9937	04-01-14
Minnesota	NELAP	5	036-999-337	12-31-13
New Hampshire	NELAP	1	2973	09-11-14
New Jersey	NELAP	2	NY455	06-30-14
New York	NELAP	2	10026	04-01-14
North Dakota	State Program	8	R-176	03-31-14
Oklahoma	State Program	6	9421	08-31-14
Oregon	NELAP	10	NY200003	06-09-14
Pennsylvania	NELAP	3	68-00281	07-31-14
Rhode Island	State Program	1	LAO00328	12-31-13
Tennessee	State Program	4	TN02970	04-01-14
Texas	NELAP	6	T104704412-11-2	07-31-14
USDA	Federal		P330-11-00386	11-22-14
Virginia	NELAP	3	460185	09-14-14
Washington	State Program	10	C784	02-10-14
West Virginia DEP	State Program	3	252	12-31-13
Wisconsin	State Program	5	998310390	08-31-14

Method Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: NG ATHOL TASK 7

TestAmerica Job ID: 480-47475-2

Method	Method Description	Protocol	Laboratory
6010	Metals (ICP)	SW846	TAL BUF
SM 2320B	Alkalinity	SM	TAL BUF

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: NG ATHOL TASK 7

TestAmerica Job ID: 480-47475-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-47475-1	PW-2 Influent	Water	10/08/13 13:15	10/08/13 15:15
480-47475-2	PW-2 Effluent	Water	10/08/13 13:20	10/08/13 15:15

Login Sample Receipt Checklist

Client: Innovative Engineering Solutions, Inc

Job Number: 480-47475-2

Login Number: 47475

List Source: TestAmerica Buffalo

List Number: 1

Creator: Wienke, Robert K

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	True	Ok

TestAmerica Westfield
Westfield Executive Park 53 Southampton Road
Westfield, MA 01085
Phone (413) 572-4000 Fax (413) 572-3707

Boston Service Center
240 Bear Hill Rd Suite 104
Waltham, MA 02451
Phone (781) 466-6900 Fax (781) 466-7001

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information			
Client Contact: Joe Higgins	Sampler: JW/SM	Lab PM: Janine Johnson	Carrier Tracking No(s):
Company: IESI	Phone: (978) 660-7087	E-Mail: jack.WATTS@iesiglobal	COC No: 27154
Address: 25 SPRING ST.	Due Date Requested: 10/9/13		Page: 1 of 2
City: Wakefield,	TAT Requested (days): 24hr		Job #: NG-ATHOL TASK 7
State, Zip: MA			
Phone: (508) 668-0033	Quote #:		
Email: joe@iesiglobal.com	PO #: NG-ATHOL TASK 7		
Project Name/number: NG-ATHOL TASK 7	WO #:		
Site: NG ATHOL	SSOW#:		

Analysis Requested

Preservation Codes:
A - HCl; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; H - Ascorbic Acid; I - Ice; J - DI Water; M - Hexane; N - None; P - Na2O4S; Q - Na2SO3; R - Na2S2SO3; S - H2SO4; Z - other (specify)

Regulatory programs:
MCP [X]; RCP [ ]; DEP Form [ ]; GW1/S1 [ ]; CT RSR [ ]; EDD Required [ ]

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=soil, SL=sludge, A=Air)	Preservation Code	Sampler's Initials	Field Filtered Sample?	Perform MS/MSD?	EPA 624	EPA 625	FOG (1664A)	Hex Chrome	Total Copper	dissolved Copper	pH	Total Cyanide	Total Number of containers	Special Instructions/Note:
PW-2 INFLUENT	10/8/13	115PM	G	W		JW	①		✓	✓	✓	✓	✓	✓	✓	✓		Copper Sample field filt.
PW-2 EFFLUENT	10/8/13	120PM	G	W		JW	①		✓	✓	✓	✓	✓	✓	✓	✓		Copper Samp. field filt.

SS 10/8/13

Possible Hazard Identification
[ ] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown [ ] Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
[ ] Return To Client [X] Disposal By Lab [ ] Archive For ____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	10/8/13 15:15		[signature]	10/8/13 15:15	TAC
[signature]	10/8/13 17:00	THC	[signature]	10.9.13 0202	TAC
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: [ ] Yes [ ] No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks: 2.0°C w/ ice (WESTFIELD)
2.7#1

TAL-8245-360 1111

TestAmerica Westfield
Westfield Executive Park 53 Southampton Road
Westfield, MA 01085
Phone (413) 572-4000 Fax (413) 572-3707

Boston Service Center
240 Bear Hill Rd Suite 104
Waltham, MA 02451
Phone (781) 466-6900 Fax (781) 466 6901

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information			
Client Contact: Joe Higgins	Sampler: JW / SM	Lab PM: Janine Johnson	Carrier Tracking No(s):
Company: IESI	Phone: (978) 660-9089	E-Mail: jack.wetherbee@iesionline.com	COC No: 27153
Address: 75 Spring St.	Due Date Requested: 10/9/13		Page: 2 of 2
City: Wilmington	TAT Requested (days): 24hr		Job #: NG-ATHOL Task 7
State, Zip: MA	Quote #		
Phone: (508) 668-0033	PO #: NG ATHOL TASK 7		
Email: joe@iesionline.com	WO #		
Project Name/number: NG ATHOL TASK 7	SSOW#		
Site: NG ATHOL			

Analysis Requested

Preservation Codes:
A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; H - Ascorbic Acid; I - Ice; J - DI Water; M - Hexane; N - None; P - Na2O4S; Q - Na2SO3; R - Na2S2SO3; S - H2SO4; Z - other (specify)

Regulatory programs:
MCP [X]; RCP [ ]; DEP Form [ ]; GW1/S1 [ ]; CT RSR [ ]; EDD Required [ ]

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Sampler's Initials	Field Filtered Sample?	Perform MS/MSD?	Silver Total	Silver dissolved	Iron total	Iron dissolved	Zinc total	Zinc dissolved	Chloride	Phenolics	Res. Chlorine	TSS	Total Number of containers	Special Instructions/Note:
				Preservation Code:															
PW-2 INFluent	10/8/13	1:25 PM	G	W	JW			✓	✓	✓	✓	✓	✓	✓	✓	✓			
PW-2 EFFluent	10/8/13	1:20 PM	G	W	JW			✓	✓	✓	✓	✓	✓	✓	✓	✓			
																	JSS 10/8/13		

Possible Hazard Identification
[ ] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown [ ] Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
[ ] Return To Client [ ] Disposal By Lab [ ] Archive For ____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	10/8/13 5:15		[signature]	10/8/13 15:15	TAC
[signature]	10/8/13 1700	TAC	[signature]	10-9-13 0200	TAC
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: [ ] Yes [ ] No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks: 2.0°C w/ ice WESTFIELD

2.7#1

TAL-8245-360 1111

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-47909-1
Client Project/Site: NG Athol
Revision: 2

For:
Innovative Engineering Solutions, Inc
25 Spring Street
Walpole, Massachusetts 02081

Attn: Joseph Higgins

Authorized for release by:
11/4/2013 4:27:56 PM

Janine Johnson, Project Manager I
(413)572-4000
janine.johnson@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
F	MS/MSD Recovery and/or RPD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 480-47909-1

Laboratory: TestAmerica Buffalo

Narrative

Revision 2: The resport replaces Revision 1 issued on October 30, 2013. The Influent total metals container was mislabeled by the client in the field as the Effluent dissolved metals container and vice versa. Bottles have been labeled correctly and data has been reassociated.

Revision 1: This report replaces the orginal issued on October 18, 2013. Metals data was recalculated and reported for total and dissolved nickel on both samples.

Receipt
The samples were received on 10/14/2013 3:17 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.0º C.

Receipt Exception
The Chain-of-Custody (COC) was not properly filled out. The project and site name was meant to list, "NG Athol". This was confirmed by the client on 10/15/13 via e-mail.

GC/MS VOA
Method 624: The following sample was diluted to bring the concentration of target analytes within the calibration range: Influent (480-47909-1). Elevated reporting limits (RLs) are provided.

GC/MS Semi VOA
Method 625: The following sample was diluted due to the abundance of target analytes: Influent (480-47909-1). As such, surrogate recoveries were reduced to a level in which they do not provide useful information. Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

HPLC
Method 300.0: The following samples were diluted to bring the concentration of target analytes within the calibration range: Influent (480-47909-1). Elevated reporting limits (RLs) are provided.

Metals
Method 6010: The Method Blank for Batch 480-145245 contained total zinc above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples Effluent (480-47909-2), Influent (480-47909-1) was not performed.

At the request of the client, an abbreviated/modified MCP compound list was reported for this job.

General Chemistry
Method 1664A: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for the following sample associated with batch 145082 were outside control limits: (480-47909-1 MS). The associated laboratory control sample (LCS) recovery met acceptance criteria.

MassDEP Analytical Protocol Certification Form

Laboratory Name:	**TestAmerica Buffalo**	Project #:	**480-47909**
Project Location:	**NG Athol**	RTN:	

This form provides certifications for the following data set: list Laboratory Sample ID Number(s):

480-47909-[1-2]

Matrices: [X] Groundwater/Surface Water [ ] Soil/Sediment [ ] Drinking Water [ ] Air [ ] Other:

CAM Protocols (check all that apply below):

8260 VOC CAM II A [ ]	7470/7471 Hg CAM III B [ ]	Mass DEP VPH CAM IV A [ ]	8081 Pesticides CAM V B [ ]	7196 Hex Cr CAM VI B [X]	Mass DEP APH CAM IX A [ ]
8270 SVOC CAM II B [ ]	7010 Metals CAM III C [ ]	Mass DEP 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 [X]	6020 Metals CAM III D [ ]	8082 PCB CAM V A [ ]	9014 Total Cyanide/PAC CAM VI A [X]	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 time.	[X] Yes [ ] No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	[X] 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?	[X] 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"?	[X] Yes [ ] No
E	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)?	[X] Yes [ ] No

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	[X] Yes [ ] No[1]

Data User Note: ***Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WCS-07-350***

H	Were **all** QC performance standards specified in the CAM protocol(s) achieved?	[X] Yes [ ] No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s) ?	[ ] Yes [X] No[1]

[1] All negative responses must be addressed in an attached laboratory 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, is accurate and complete.

Signature:		Position:	Service Center Manager/Lab Director-TestAmerica Westfield
Printed Name:	Steven C. Hartmann	Date:	10/18/13 17:06

This form has been electronically signed and approved

Detection Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: NG Athol

TestAmerica Job ID: 480-47909-1

Client Sample ID: Influent — Lab Sample ID: 480-47909-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	260		200	21	ug/L	40		624	Total/NA
1,3,5-Trimethylbenzene	110	J	400	18	ug/L	40		624	Total/NA
Benzene	120	J	200	24	ug/L	40		624	Total/NA
Ethylbenzene	370		200	19	ug/L	40		624	Total/NA
Isopropylbenzene	32	J	200	20	ug/L	40		624	Total/NA
m-Xylene & p-Xylene	420		400	43	ug/L	40		624	Total/NA
N-Propylbenzene	25	J	400	12	ug/L	40		624	Total/NA
o-Xylene	170	J	200	17	ug/L	40		624	Total/NA
Styrene	240		200	15	ug/L	40		624	Total/NA
Toluene	67	J	200	18	ug/L	40		624	Total/NA
Xylenes, Total	590		400	43	ug/L	40		624	Total/NA
Total BTEX	1100		400	43	ug/L	40		624	Total/NA
Naphthalene - DL	16000		2000	44	ug/L	400		624	Total/NA
Acenaphthene	780		480	5.7	ug/L	100		625	Total/NA
Acenaphthylene	5300		480	3.2	ug/L	100		625	Total/NA
Anthracene	1000		480	5.0	ug/L	100		625	Total/NA
Benzo[a]anthracene	520		480	4.1	ug/L	100		625	Total/NA
Benzo[a]pyrene	380	J	480	5.5	ug/L	100		625	Total/NA
Benzo[b]fluoranthene	290	J	480	5.9	ug/L	100		625	Total/NA
Benzo[g,h,i]perylene	190	J	480	9.5	ug/L	100		625	Total/NA
Benzo[k]fluoranthene	130	J	480	4.0	ug/L	100		625	Total/NA
Chrysene	470	J	480	3.4	ug/L	100		625	Total/NA
Fluoranthene	1100		480	10	ug/L	100		625	Total/NA
Fluorene	2000		480	4.1	ug/L	100		625	Total/NA
Indeno[1,2,3-cd]pyrene	130	J	480	18	ug/L	100		625	Total/NA
Phenanthrene	4000		480	6.8	ug/L	100		625	Total/NA
Pyrene	1600		480	3.9	ug/L	100		625	Total/NA
Naphthalene - DL	17000		950	15	ug/L	200		625	Total/NA
Iron	4500		50	19	ug/L	1		6010	Total/NA
Zinc	4.6	J	50	1.5	ug/L	1		6010	Total/NA
Dissolved Iron	4200		50	19	ug/L	1		6010	Dissolved
Dissolved Nickel	2.5	J	10	1.3	ug/L	1		6010	Dissolved
Dissolved Zinc	6.5	J	50	1.5	ug/L	1		6010	Dissolved
Oil & Grease	8.8		4.8	1.3	mg/L	1		1664A	Total/NA
Chloride	110		1.0	0.56	mg/L	2		300.0	Total/NA
Phenolics, Total Recoverable	0.016		0.010	0.0050	mg/L	1		420.4	Total/NA
Alkalinity	76000		5000	790	ug/L	1		SM 2320B	Total/NA
Chlorine, Total Residual	0.030	H	0.020	0.010	mg/L	1		SM 4500 Cl G	Total/NA
Analyte	**Result**	**Qualifier**	**RL**	**RL**	**Unit**	**Dil Fac**	**D**	**Method**	**Prep Type**
pH	6.54	H	0.100	0.100	SU	1		9040C	Total/NA
Total Suspended Solids	32		4.0	4.0	mg/L	1		SM 2540D	Total/NA

Client Sample ID: Effluent — Lab Sample ID: 480-47909-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	3.9	J	5.0	0.11	ug/L	1		624	Total/NA
Acenaphthene	2.4	J	4.7	0.057	ug/L	1		625	Total/NA
Acenaphthylene	9.6		4.7	0.032	ug/L	1		625	Total/NA
Anthracene	6.8		4.7	0.050	ug/L	1		625	Total/NA
Benzo[a]anthracene	4.4	J	4.7	0.041	ug/L	1		625	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: Effluent (Continued)

Lab Sample ID: 480-47909-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	3.4	J	4.7	0.055	ug/L	1		625	Total/NA
Benzo[b]fluoranthene	2.7	J	4.7	0.058	ug/L	1		625	Total/NA
Benzo[g,h,i]perylene	1.6	J	4.7	0.095	ug/L	1		625	Total/NA
Benzo[k]fluoranthene	0.89	J	4.7	0.040	ug/L	1		625	Total/NA
Chrysene	4.4	J	4.7	0.034	ug/L	1		625	Total/NA
Fluoranthene	9.7		4.7	0.10	ug/L	1		625	Total/NA
Fluorene	8.4		4.7	0.041	ug/L	1		625	Total/NA
Indeno[1,2,3-cd]pyrene	1.1	J	4.7	0.18	ug/L	1		625	Total/NA
Naphthalene	4.5	J	4.7	0.076	ug/L	1		625	Total/NA
Phenanthrene	28		4.7	0.067	ug/L	1		625	Total/NA
Pyrene	13		4.7	0.039	ug/L	1		625	Total/NA
Copper	5.5	J	10	1.6	ug/L	1		6010	Total/NA
Zinc	7.2	J	50	1.5	ug/L	1		6010	Total/NA
Dissolved Nickel	1.3	J	10	1.3	ug/L	1		6010	Dissolved
Chloride	91		0.50	0.28	mg/L	1		300.0	Total/NA
Phenolics, Total Recoverable	0.0088	J	0.010	0.0050	mg/L	1		420.4	Total/NA
Alkalinity	120000		5000	790	ug/L	1		SM 2320B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	8.81	H	0.100	0.100	SU	1		9040C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: Influent

Lab Sample ID: 480-47909-1

Date Collected: 10/14/13 11:40

Matrix: Water

Date Received: 10/14/13 15:17

Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		200	20	ug/L			10/15/13 08:27	40
1,1,1-Trichloroethane	ND		200	15	ug/L			10/15/13 08:27	40
1,1,2,2-Tetrachloroethane	ND		200	10	ug/L			10/15/13 08:27	40
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		200	15	ug/L			10/15/13 08:27	40
1,1,2-Trichloroethane	ND		200	19	ug/L			10/15/13 08:27	40
1,1-Dichloroethane	ND		200	24	ug/L			10/15/13 08:27	40
1,1-Dichloroethene	ND		200	34	ug/L			10/15/13 08:27	40
1,1-Dichloropropene	ND		200	32	ug/L			10/15/13 08:27	40
1,2,3-Trichlorobenzene	ND		200	17	ug/L			10/15/13 08:27	40
1,2,3-Trichloropropane	ND		200	8.3	ug/L			10/15/13 08:27	40
1,2,4-Trichlorobenzene	ND		200	16	ug/L			10/15/13 08:27	40
1,2,4-Trimethylbenzene	**260**		200	21	ug/L			10/15/13 08:27	40
1,2-Dibromo-3-Chloropropane	ND		200	25	ug/L			10/15/13 08:27	40
1,2-Dichlorobenzene	ND		200	18	ug/L			10/15/13 08:27	40
1,2-Dichloroethane	ND		200	24	ug/L			10/15/13 08:27	40
1,2-Dichloropropane	ND		200	24	ug/L			10/15/13 08:27	40
1,3,5-Trimethylbenzene	**110**	**J**	400	18	ug/L			10/15/13 08:27	40
1,3-Dichlorobenzene	ND		200	22	ug/L			10/15/13 08:27	40
1,3-Dichloropropane	ND		200	21	ug/L			10/15/13 08:27	40
1,3-Dichloropropene, Total	ND		200	110	ug/L			10/15/13 08:27	40
1,4-Dichlorobenzene	ND		200	20	ug/L			10/15/13 08:27	40
1,4-Dioxane	ND		8000	600	ug/L			10/15/13 08:27	40
2,2-Dichloropropane	ND		200	13	ug/L			10/15/13 08:27	40
2-Chloro-1,3-butadiene	ND		200	30	ug/L			10/15/13 08:27	40
2-Chloroethyl vinyl ether	ND		1000	74	ug/L			10/15/13 08:27	40
2-Hexanone	ND		1000	78	ug/L			10/15/13 08:27	40
Allyl chloride	ND		200	23	ug/L			10/15/13 08:27	40
Acetone	ND		1000	79	ug/L			10/15/13 08:27	40
Acetonitrile	ND		8000	630	ug/L			10/15/13 08:27	40
Acrolein	ND		4000	700	ug/L			10/15/13 08:27	40
Acrylonitrile	ND		1000	76	ug/L			10/15/13 08:27	40
Benzene	**120**	**J**	200	24	ug/L			10/15/13 08:27	40
Bromobenzene	ND		400	18	ug/L			10/15/13 08:27	40
Bromoform	ND		200	19	ug/L			10/15/13 08:27	40
Bromomethane	ND		200	48	ug/L			10/15/13 08:27	40
Carbon disulfide	ND		200	11	ug/L			10/15/13 08:27	40
Carbon tetrachloride	ND		200	20	ug/L			10/15/13 08:27	40
Chlorobenzene	ND		200	19	ug/L			10/15/13 08:27	40
Bromochloromethane	ND		200	29	ug/L			10/15/13 08:27	40
Chlorodibromomethane	ND		200	17	ug/L			10/15/13 08:27	40
Chlorodifluoromethane	ND		200	17	ug/L			10/15/13 08:27	40
Chloroethane	ND		200	35	ug/L			10/15/13 08:27	40
Chloroform	ND		200	22	ug/L			10/15/13 08:27	40
Chloromethane	ND		200	25	ug/L			10/15/13 08:27	40
cis-1,2-Dichloroethene	ND		200	23	ug/L			10/15/13 08:27	40
cis-1,3-Dichloropropene	ND		200	13	ug/L			10/15/13 08:27	40
Dibromomethane	ND		200	21	ug/L			10/15/13 08:27	40
Bromodichloromethane	ND		200	21	ug/L			10/15/13 08:27	40
Dichlorodifluoromethane	ND		200	11	ug/L			10/15/13 08:27	40

Client Sample ID: Influent

Lab Sample ID: 480-47909-1

Date Collected: 10/14/13 11:40

Matrix: Water

Date Received: 10/14/13 15:17

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl acetate	ND		200	13	ug/L			10/15/13 08:27	40
Ethyl ether	ND		200	14	ug/L			10/15/13 08:27	40
Ethyl methacrylate	ND		200	24	ug/L			10/15/13 08:27	40
Ethylbenzene	**370**		200	19	ug/L			10/15/13 08:27	40
1,2-Dibromoethane	ND		200	20	ug/L			10/15/13 08:27	40
Hexachlorobutadiene	ND		400	23	ug/L			10/15/13 08:27	40
Iodomethane	ND		200	12	ug/L			10/15/13 08:27	40
Isobutyl alcohol	ND		8000	420	ug/L			10/15/13 08:27	40
Isopropyl acetate	ND		200	22	ug/L			10/15/13 08:27	40
Isopropylbenzene	**32**	**J**	200	20	ug/L			10/15/13 08:27	40
m-Xylene & p-Xylene	**420**		400	43	ug/L			10/15/13 08:27	40
Methacrylonitrile	ND		200	14	ug/L			10/15/13 08:27	40
2-Butanone (MEK)	ND		1000	70	ug/L			10/15/13 08:27	40
4-Methyl-2-pentanone (MIBK)	ND		1000	52	ug/L			10/15/13 08:27	40
Methyl methacrylate	ND		200	9.9	ug/L			10/15/13 08:27	40
Methyl tert-butyl ether	ND		200	14	ug/L			10/15/13 08:27	40
Methylene Chloride	ND		200	33	ug/L			10/15/13 08:27	40
n-Butyl acetate	ND		200	20	ug/L			10/15/13 08:27	40
n-Butylbenzene	ND		400	13	ug/L			10/15/13 08:27	40
N-Propylbenzene	**25**	**J**	400	12	ug/L			10/15/13 08:27	40
o-Xylene	**170**	**J**	200	17	ug/L			10/15/13 08:27	40
sec-Butylbenzene	ND		400	13	ug/L			10/15/13 08:27	40
Styrene	**240**		200	15	ug/L			10/15/13 08:27	40
tert-Butylbenzene	ND		400	22	ug/L			10/15/13 08:27	40
Tetrachloroethene	ND		200	14	ug/L			10/15/13 08:27	40
Tetrahydrofuran	ND		1000	88	ug/L			10/15/13 08:27	40
Toluene	**67**	**J**	200	18	ug/L			10/15/13 08:27	40
trans-1,2-Dichloroethene	ND		200	24	ug/L			10/15/13 08:27	40
trans-1,3-Dichloropropene	ND		200	18	ug/L			10/15/13 08:27	40
trans-1,4-Dichloro-2-butene	ND		1000	52	ug/L			10/15/13 08:27	40
Trichloroethene	ND		200	24	ug/L			10/15/13 08:27	40
Trichlorofluoromethane	ND		200	18	ug/L			10/15/13 08:27	40
Vinyl acetate	ND		1000	60	ug/L			10/15/13 08:27	40
Vinyl chloride	ND		200	30	ug/L			10/15/13 08:27	40
2-Chlorotoluene	ND		200	13	ug/L			10/15/13 08:27	40
4-Chlorotoluene	ND		200	11	ug/L			10/15/13 08:27	40
4-Isopropyltoluene	ND		200	22	ug/L			10/15/13 08:27	40
Amyl acetate (mixed isomers)	ND		200	14	ug/L			10/15/13 08:27	40
2-Methyl-2-propanol	ND		4000	460	ug/L			10/15/13 08:27	40
Isopropyl alcohol	ND		8000	610	ug/L			10/15/13 08:27	40
Isopropyl ether	ND		200	14	ug/L			10/15/13 08:27	40
2-Nitropropane	ND		200	59	ug/L			10/15/13 08:27	40
Dichlorofluoromethane	ND		200	10	ug/L			10/15/13 08:27	40
1,2-Dichloroethene, Total	ND		400	130	ug/L			10/15/13 08:27	40
Xylenes, Total	**590**		400	43	ug/L			10/15/13 08:27	40
Trihalomethanes, Total	ND		200	22	ug/L			10/15/13 08:27	40
Total BTEX	**1100**		400	43	ug/L			10/15/13 08:27	40
3-Chlorotoluene	ND		200	12	ug/L			10/15/13 08:27	40
2-Chlorobenzotrifluoride	ND		200	20	ug/L			10/15/13 08:27	40

Client Sample ID: Influent

Lab Sample ID: 480-47909-1

Date Collected: 10/14/13 11:40

Matrix: Water

Date Received: 10/14/13 15:17

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Chlorobenzotrifluoride	ND		200	19	ug/L			10/15/13 08:27	40
4-Chlorobenzotrifluoride	ND		200	19	ug/L			10/15/13 08:27	40
Propionitrile	ND		2000	120	ug/L			10/15/13 08:27	40

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
bis(2-chloromethyl)ether TIC	*ND*		*ug/L*			*542-88-1*		*10/15/13 08:27*	*40*
bis(chloromethyl)ether TIC	*ND*		*ug/L*			*542-88-1*		*10/15/13 08:27*	*40*
Aziridine TIC	*ND*		*ug/L*			*151-56-4*		*10/15/13 08:27*	*40*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*72 - 130*		*10/15/13 08:27*	*40*
4-Bromofluorobenzene (Surr)	*99*		*69 - 121*		*10/15/13 08:27*	*40*
Toluene-d8 (Surr)	*99*		*70 - 123*		*10/15/13 08:27*	*40*

Method: 624 - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**16000**		2000	44	ug/L			10/15/13 09:23	400

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*72 - 130*		*10/15/13 09:23*	*400*
4-Bromofluorobenzene (Surr)	*99*		*69 - 121*		*10/15/13 09:23*	*400*
Toluene-d8 (Surr)	*99*		*70 - 123*		*10/15/13 09:23*	*400*

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**780**		480	5.7	ug/L		10/16/13 06:38	10/17/13 12:42	100
Acenaphthylene	**5300**		480	3.2	ug/L		10/16/13 06:38	10/17/13 12:42	100
Anthracene	**1000**		480	5.0	ug/L		10/16/13 06:38	10/17/13 12:42	100
Benzidine	ND		480	240	ug/L		10/16/13 06:38	10/17/13 12:42	100
Benzo[a]anthracene	**520**		480	4.1	ug/L		10/16/13 06:38	10/17/13 12:42	100
Benzo[a]pyrene	**380**	**J**	480	5.5	ug/L		10/16/13 06:38	10/17/13 12:42	100
Benzo[b]fluoranthene	**290**	**J**	480	5.9	ug/L		10/16/13 06:38	10/17/13 12:42	100
Benzo[g,h,i]perylene	**190**	**J**	480	9.5	ug/L		10/16/13 06:38	10/17/13 12:42	100
Benzo[k]fluoranthene	**130**	**J**	480	4.0	ug/L		10/16/13 06:38	10/17/13 12:42	100
Bis(2-chloroethyl)ether	ND		480	100	ug/L		10/16/13 06:38	10/17/13 12:42	100
Bis(2-chloroethoxy)methane	ND		480	8.1	ug/L		10/16/13 06:38	10/17/13 12:42	100
bis (2-chloroisopropyl) ether	ND		480	8.2	ug/L		10/16/13 06:38	10/17/13 12:42	100
Bis(2-ethylhexyl) phthalate	ND		480	82	ug/L		10/16/13 06:38	10/17/13 12:42	100
4-Bromophenyl phenyl ether	ND		480	11	ug/L		10/16/13 06:38	10/17/13 12:42	100
Butyl benzyl phthalate	ND		480	120	ug/L		10/16/13 06:38	10/17/13 12:42	100
2-Chloronaphthalene	ND		480	6.4	ug/L		10/16/13 06:38	10/17/13 12:42	100
4-Chlorophenyl phenyl ether	ND		480	20	ug/L		10/16/13 06:38	10/17/13 12:42	100
Chrysene	**470**	**J**	480	3.4	ug/L		10/16/13 06:38	10/17/13 12:42	100
Dibenz(a,h)anthracene	ND		480	5.3	ug/L		10/16/13 06:38	10/17/13 12:42	100
Di-n-butyl phthalate	ND		480	89	ug/L		10/16/13 06:38	10/17/13 12:42	100
1,2-Dichlorobenzene	ND		480	14	ug/L		10/16/13 06:38	10/17/13 12:42	100
1,3-Dichlorobenzene	ND		480	6.5	ug/L		10/16/13 06:38	10/17/13 12:42	100
1,4-Dichlorobenzene	ND		480	8.5	ug/L		10/16/13 06:38	10/17/13 12:42	100
3,3'-Dichlorobenzidine	ND		480	78	ug/L		10/16/13 06:38	10/17/13 12:42	100
Diethyl phthalate	ND		480	16	ug/L		10/16/13 06:38	10/17/13 12:42	100
Dimethyl phthalate	ND		480	16	ug/L		10/16/13 06:38	10/17/13 12:42	100

Client Sample ID: Influent

Lab Sample ID: 480-47909-1

Date Collected: 10/14/13 11:40

Matrix: Water

Date Received: 10/14/13 15:17

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	ND		480	25	ug/L		10/16/13 06:38	10/17/13 12:42	100
2,6-Dinitrotoluene	ND		480	68	ug/L		10/16/13 06:38	10/17/13 12:42	100
Di-n-octyl phthalate	ND		480	420	ug/L		10/16/13 06:38	10/17/13 12:42	100
1,2-Diphenylhydrazine	ND		480	6.0	ug/L		10/16/13 06:38	10/17/13 12:42	100
Fluoranthene	**1100**		480	10	ug/L		10/16/13 06:38	10/17/13 12:42	100
Fluorene	**2000**		480	4.1	ug/L		10/16/13 06:38	10/17/13 12:42	100
Hexachlorobenzene	ND		480	26	ug/L		10/16/13 06:38	10/17/13 12:42	100
Hexachlorobutadiene	ND		480	59	ug/L		10/16/13 06:38	10/17/13 12:42	100
Hexachlorocyclopentadiene	ND		480	43	ug/L		10/16/13 06:38	10/17/13 12:42	100
Hexachloroethane	ND		480	46	ug/L		10/16/13 06:38	10/17/13 12:42	100
Indeno[1,2,3-cd]pyrene	**130**	**J**	480	18	ug/L		10/16/13 06:38	10/17/13 12:42	100
Isophorone	ND		480	15	ug/L		10/16/13 06:38	10/17/13 12:42	100
Nitrobenzene	ND		480	11	ug/L		10/16/13 06:38	10/17/13 12:42	100
N-Nitrosodi-n-propylamine	ND		480	22	ug/L		10/16/13 06:38	10/17/13 12:42	100
N-Nitrosodimethylamine	ND		950	92	ug/L		10/16/13 06:38	10/17/13 12:42	100
N-Nitrosodiphenylamine	ND		480	38	ug/L		10/16/13 06:38	10/17/13 12:42	100
Phenanthrene	**4000**		480	6.8	ug/L		10/16/13 06:38	10/17/13 12:42	100
Pyrene	**1600**		480	3.9	ug/L		10/16/13 06:38	10/17/13 12:42	100
1,2,4-Trichlorobenzene	ND		480	47	ug/L		10/16/13 06:38	10/17/13 12:42	100
4-Chloro-3-methylphenol	ND		480	53	ug/L		10/16/13 06:38	10/17/13 12:42	100
2-Chlorophenol	ND		480	15	ug/L		10/16/13 06:38	10/17/13 12:42	100
2,4-Dichlorophenol	ND		480	29	ug/L		10/16/13 06:38	10/17/13 12:42	100
2,4-Dimethylphenol	ND		480	13	ug/L		10/16/13 06:38	10/17/13 12:42	100
2,4-Dinitrophenol	ND		480	80	ug/L		10/16/13 06:38	10/17/13 12:42	100
4,6-Dinitro-2-methylphenol	ND		480	72	ug/L		10/16/13 06:38	10/17/13 12:42	100
2-Nitrophenol	ND		480	14	ug/L		10/16/13 06:38	10/17/13 12:42	100
4-Nitrophenol	ND		480	130	ug/L		10/16/13 06:38	10/17/13 12:42	100
Pentachlorophenol	ND		480	39	ug/L		10/16/13 06:38	10/17/13 12:42	100
Phenol	ND		480	12	ug/L		10/16/13 06:38	10/17/13 12:42	100
2,4,6-Trichlorophenol	ND		480	22	ug/L		10/16/13 06:38	10/17/13 12:42	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*0*	*X*	*52 - 151*	*10/16/13 06:38*	*10/17/13 12:42*	*100*
2-Fluorobiphenyl	*101*		*44 - 120*	*10/16/13 06:38*	*10/17/13 12:42*	*100*
2-Fluorophenol	*0*	*X*	*17 - 120*	*10/16/13 06:38*	*10/17/13 12:42*	*100*
Nitrobenzene-d5	*0*	*X*	*42 - 120*	*10/16/13 06:38*	*10/17/13 12:42*	*100*
Phenol-d5	*0*	*X*	*10 - 120*	*10/16/13 06:38*	*10/17/13 12:42*	*100*
p-Terphenyl-d14	*0*	*X*	*22 - 125*	*10/16/13 06:38*	*10/17/13 12:42*	*100*

Method: 625 - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**17000**		950	15	ug/L		10/16/13 06:38	10/17/13 15:06	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*0*	*X*	*52 - 151*	*10/16/13 06:38*	*10/17/13 15:06*	*200*
2-Fluorobiphenyl	*0*	*X*	*44 - 120*	*10/16/13 06:38*	*10/17/13 15:06*	*200*
2-Fluorophenol	*0*	*X*	*17 - 120*	*10/16/13 06:38*	*10/17/13 15:06*	*200*
Nitrobenzene-d5	*0*	*X*	*42 - 120*	*10/16/13 06:38*	*10/17/13 15:06*	*200*
Phenol-d5	*0*	*X*	*10 - 120*	*10/16/13 06:38*	*10/17/13 15:06*	*200*
p-Terphenyl-d14	*0*	*X*	*22 - 125*	*10/16/13 06:38*	*10/17/13 15:06*	*200*

Client Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: NG Athol

TestAmerica Job ID: 480-47909-1

Client Sample ID: Influent

Lab Sample ID: 480-47909-1

Date Collected: 10/14/13 11:40
Matrix: Water
Date Received: 10/14/13 15:17

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		10	1.6	ug/L		10/24/13 08:50	10/28/13 18:51	1
Iron	**4500**		50	19	ug/L		10/24/13 08:50	10/28/13 18:51	1
Nickel	ND		10	1.3	ug/L		10/24/13 08:50	10/28/13 18:51	1
Silver	ND		5.0	1.7	ug/L		10/24/13 08:50	10/28/13 18:51	1
Zinc	**4.6**	**J**	50	1.5	ug/L		10/24/13 08:50	10/28/13 18:51	1

Method: 6010 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Copper	ND		10	1.6	ug/L		10/24/13 08:50	10/26/13 18:48	1
Dissolved Iron	**4200**		50	19	ug/L		10/24/13 08:50	10/26/13 18:48	1
Dissolved Nickel	**2.5**	**J**	10	1.3	ug/L		10/24/13 08:50	10/26/13 18:48	1
Dissolved Silver	ND		5.0	1.7	ug/L		10/24/13 08:50	10/26/13 18:48	1
Dissolved Zinc	**6.5**	**J**	50	1.5	ug/L		10/24/13 08:50	10/26/13 18:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil & Grease	**8.8**		4.8	1.3	mg/L		10/15/13 10:00	10/15/13 13:44	1
Chloride	**110**		1.0	0.56	mg/L			10/17/13 13:52	2
Phenolics, Total Recoverable	**0.016**		0.010	0.0050	mg/L		10/15/13 09:40	10/17/13 10:43	1
Cyanide, Total	ND		0.010	0.0050	mg/L		10/16/13 10:00	10/16/13 19:58	1
Alkalinity	**76000**		5000	790	ug/L			10/17/13 15:35	1
Chlorine, Total Residual	**0.030**	**H**	0.020	0.010	mg/L			10/15/13 21:45	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium (hexavalent)	ND		0.0050	0.0050	mg/L			10/15/13 08:21	1
pH	**6.54**	**H**	0.100	0.100	SU			10/15/13 23:49	1
Total Suspended Solids	**32**		4.0	4.0	mg/L			10/15/13 17:12	1

Client Sample ID: Effluent

Lab Sample ID: 480-47909-2

Date Collected: 10/14/13 11:52
Matrix: Water
Date Received: 10/14/13 15:17

Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0	0.50	ug/L			10/15/13 08:03	1
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			10/15/13 08:03	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			10/15/13 08:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.36	ug/L			10/15/13 08:03	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			10/15/13 08:03	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			10/15/13 08:03	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			10/15/13 08:03	1
1,1-Dichloropropene	ND		5.0	0.79	ug/L			10/15/13 08:03	1
1,2,3-Trichlorobenzene	ND		5.0	0.41	ug/L			10/15/13 08:03	1
1,2,3-Trichloropropane	ND		5.0	0.21	ug/L			10/15/13 08:03	1
1,2,4-Trichlorobenzene	ND		5.0	0.39	ug/L			10/15/13 08:03	1
1,2,4-Trimethylbenzene	ND		5.0	0.52	ug/L			10/15/13 08:03	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.62	ug/L			10/15/13 08:03	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			10/15/13 08:03	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			10/15/13 08:03	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			10/15/13 08:03	1
1,3,5-Trimethylbenzene	ND		10	0.44	ug/L			10/15/13 08:03	1

Client: Innovative Engineering Solutions, Inc
Project/Site: NG Athol

TestAmerica Job ID: 480-47909-1

Client Sample ID: Effluent
Date Collected: 10/14/13 11:52
Date Received: 10/14/13 15:17

Lab Sample ID: 480-47909-2
Matrix: Water

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			10/15/13 08:03	1
1,3-Dichloropropane	ND		5.0	0.52	ug/L			10/15/13 08:03	1
1,3-Dichloropropene, Total	ND		5.0	2.7	ug/L			10/15/13 08:03	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			10/15/13 08:03	1
1,4-Dioxane	ND		200	15	ug/L			10/15/13 08:03	1
2,2-Dichloropropane	ND		5.0	0.33	ug/L			10/15/13 08:03	1
2-Chloro-1,3-butadiene	ND		5.0	0.75	ug/L			10/15/13 08:03	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			10/15/13 08:03	1
2-Hexanone	ND		25	2.0	ug/L			10/15/13 08:03	1
Allyl chloride	ND		5.0	0.56	ug/L			10/15/13 08:03	1
Acetone	ND		25	2.0	ug/L			10/15/13 08:03	1
Acetonitrile	ND		200	16	ug/L			10/15/13 08:03	1
Acrolein	ND		100	17	ug/L			10/15/13 08:03	1
Acrylonitrile	ND		25	1.9	ug/L			10/15/13 08:03	1
Benzene	ND		5.0	0.60	ug/L			10/15/13 08:03	1
Bromobenzene	ND		10	0.44	ug/L			10/15/13 08:03	1
Bromoform	ND		5.0	0.47	ug/L			10/15/13 08:03	1
Bromomethane	ND		5.0	1.2	ug/L			10/15/13 08:03	1
Carbon disulfide	ND		5.0	0.29	ug/L			10/15/13 08:03	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			10/15/13 08:03	1
Chlorobenzene	ND		5.0	0.48	ug/L			10/15/13 08:03	1
Bromochloromethane	ND		5.0	0.71	ug/L			10/15/13 08:03	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			10/15/13 08:03	1
Chlorodifluoromethane	ND		5.0	0.42	ug/L			10/15/13 08:03	1
Chloroethane	ND		5.0	0.87	ug/L			10/15/13 08:03	1
Chloroform	ND		5.0	0.54	ug/L			10/15/13 08:03	1
Chloromethane	ND		5.0	0.64	ug/L			10/15/13 08:03	1
cis-1,2-Dichloroethene	ND		5.0	0.57	ug/L			10/15/13 08:03	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			10/15/13 08:03	1
Dibromomethane	ND		5.0	0.53	ug/L			10/15/13 08:03	1
Bromodichloromethane	ND		5.0	0.54	ug/L			10/15/13 08:03	1
Dichlorodifluoromethane	ND		5.0	0.28	ug/L			10/15/13 08:03	1
Ethyl acetate	ND		5.0	0.32	ug/L			10/15/13 08:03	1
Ethyl ether	ND		5.0	0.34	ug/L			10/15/13 08:03	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			10/15/13 08:03	1
Ethylbenzene	ND		5.0	0.46	ug/L			10/15/13 08:03	1
1,2-Dibromoethane	ND		5.0	0.50	ug/L			10/15/13 08:03	1
Hexachlorobutadiene	ND		10	0.58	ug/L			10/15/13 08:03	1
Iodomethane	ND		5.0	0.29	ug/L			10/15/13 08:03	1
Isobutyl alcohol	ND		200	11	ug/L			10/15/13 08:03	1
Isopropyl acetate	ND		5.0	0.56	ug/L			10/15/13 08:03	1
Isopropylbenzene	ND		5.0	0.51	ug/L			10/15/13 08:03	1
m-Xylene & p-Xylene	ND		10	1.1	ug/L			10/15/13 08:03	1
Methacrylonitrile	ND		5.0	0.35	ug/L			10/15/13 08:03	1
2-Butanone (MEK)	ND		25	1.8	ug/L			10/15/13 08:03	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.3	ug/L			10/15/13 08:03	1
Methyl methacrylate	ND		5.0	0.25	ug/L			10/15/13 08:03	1
Methyl tert-butyl ether	ND		5.0	0.35	ug/L			10/15/13 08:03	1
Methylene Chloride	ND		5.0	0.81	ug/L			10/15/13 08:03	1

Client Sample ID: Effluent

Lab Sample ID: 480-47909-2

Date Collected: 10/14/13 11:52

Matrix: Water

Date Received: 10/14/13 15:17

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butyl acetate	ND		5.0	0.49	ug/L			10/15/13 08:03	1
n-Butylbenzene	ND		10	0.32	ug/L			10/15/13 08:03	1
N-Propylbenzene	ND		10	0.30	ug/L			10/15/13 08:03	1
Naphthalene	**3.9**	**J**	5.0	0.11	ug/L			10/15/13 08:03	1
o-Xylene	ND		5.0	0.43	ug/L			10/15/13 08:03	1
sec-Butylbenzene	ND		10	0.32	ug/L			10/15/13 08:03	1
Styrene	ND		5.0	0.38	ug/L			10/15/13 08:03	1
tert-Butylbenzene	ND		10	0.54	ug/L			10/15/13 08:03	1
Tetrachloroethene	ND		5.0	0.34	ug/L			10/15/13 08:03	1
Tetrahydrofuran	ND		25	2.2	ug/L			10/15/13 08:03	1
Toluene	ND		5.0	0.45	ug/L			10/15/13 08:03	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			10/15/13 08:03	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			10/15/13 08:03	1
trans-1,4-Dichloro-2-butene	ND		25	1.3	ug/L			10/15/13 08:03	1
Trichloroethene	ND		5.0	0.60	ug/L			10/15/13 08:03	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			10/15/13 08:03	1
Vinyl acetate	ND		25	1.5	ug/L			10/15/13 08:03	1
Vinyl chloride	ND		5.0	0.75	ug/L			10/15/13 08:03	1
2-Chlorotoluene	ND		5.0	0.33	ug/L			10/15/13 08:03	1
4-Chlorotoluene	ND		5.0	0.27	ug/L			10/15/13 08:03	1
4-Isopropyltoluene	ND		5.0	0.54	ug/L			10/15/13 08:03	1
Amyl acetate (mixed isomers)	ND		5.0	0.36	ug/L			10/15/13 08:03	1
2-Methyl-2-propanol	ND		100	12	ug/L			10/15/13 08:03	1
Isopropyl alcohol	ND		200	15	ug/L			10/15/13 08:03	1
Isopropyl ether	ND		5.0	0.35	ug/L			10/15/13 08:03	1
2-Nitropropane	ND		5.0	1.5	ug/L			10/15/13 08:03	1
Dichlorofluoromethane	ND		5.0	0.25	ug/L			10/15/13 08:03	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			10/15/13 08:03	1
Xylenes, Total	ND		10	1.1	ug/L			10/15/13 08:03	1
Trihalomethanes, Total	ND		5.0	0.54	ug/L			10/15/13 08:03	1
Total BTEX	ND		10	1.1	ug/L			10/15/13 08:03	1
3-Chlorotoluene	ND		5.0	0.31	ug/L			10/15/13 08:03	1
2-Chlorobenzotrifluoride	ND		5.0	0.50	ug/L			10/15/13 08:03	1
3-Chlorobenzotrifluoride	ND		5.0	0.49	ug/L			10/15/13 08:03	1
4-Chlorobenzotrifluoride	ND		5.0	0.48	ug/L			10/15/13 08:03	1
Propionitrile	ND		50	3.1	ug/L			10/15/13 08:03	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
bis(2-chloromethyl)ether TIC	*ND*		*ug/L*			*542-88-1*		*10/15/13 08:03*	*1*
bis(chloromethyl)ether TIC	*ND*		*ug/L*			*542-88-1*		*10/15/13 08:03*	*1*
Aziridine TIC	*ND*		*ug/L*			*151-56-4*		*10/15/13 08:03*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*72 - 130*		*10/15/13 08:03*	*1*
4-Bromofluorobenzene (Surr)	*101*		*69 - 121*		*10/15/13 08:03*	*1*
Toluene-d8 (Surr)	*99*		*70 - 123*		*10/15/13 08:03*	*1*

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**2.4**	**J**	4.7	0.057	ug/L		10/16/13 06:38	10/17/13 15:30	1

Client: Innovative Engineering Solutions, Inc
Project/Site: NG Athol

TestAmerica Job ID: 480-47909-1

Client Sample ID: Effluent

Lab Sample ID: 480-47909-2

Date Collected: 10/14/13 11:52
Matrix: Water
Date Received: 10/14/13 15:17

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthylene	**9.6**		4.7	0.032	ug/L		10/16/13 06:38	10/17/13 15:30	1
Anthracene	**6.8**		4.7	0.050	ug/L		10/16/13 06:38	10/17/13 15:30	1
Benzidine	ND		4.7	2.4	ug/L		10/16/13 06:38	10/17/13 15:30	1
Benzo[a]anthracene	**4.4**	**J**	4.7	0.041	ug/L		10/16/13 06:38	10/17/13 15:30	1
Benzo[a]pyrene	**3.4**	**J**	4.7	0.055	ug/L		10/16/13 06:38	10/17/13 15:30	1
Benzo[b]fluoranthene	**2.7**	**J**	4.7	0.058	ug/L		10/16/13 06:38	10/17/13 15:30	1
Benzo[g,h,i]perylene	**1.6**	**J**	4.7	0.095	ug/L		10/16/13 06:38	10/17/13 15:30	1
Benzo[k]fluoranthene	**0.89**	**J**	4.7	0.040	ug/L		10/16/13 06:38	10/17/13 15:30	1
Bis(2-chloroethyl)ether	ND		4.7	1.0	ug/L		10/16/13 06:38	10/17/13 15:30	1
Bis(2-chloroethoxy)methane	ND		4.7	0.080	ug/L		10/16/13 06:38	10/17/13 15:30	1
bis (2-chloroisopropyl) ether	ND		4.7	0.081	ug/L		10/16/13 06:38	10/17/13 15:30	1
Bis(2-ethylhexyl) phthalate	ND		4.7	0.82	ug/L		10/16/13 06:38	10/17/13 15:30	1
4-Bromophenyl phenyl ether	ND		4.7	0.11	ug/L		10/16/13 06:38	10/17/13 15:30	1
Butyl benzyl phthalate	ND		4.7	1.2	ug/L		10/16/13 06:38	10/17/13 15:30	1
2-Chloronaphthalene	ND		4.7	0.064	ug/L		10/16/13 06:38	10/17/13 15:30	1
4-Chlorophenyl phenyl ether	ND		4.7	0.20	ug/L		10/16/13 06:38	10/17/13 15:30	1
Chrysene	**4.4**	**J**	4.7	0.034	ug/L		10/16/13 06:38	10/17/13 15:30	1
Dibenz(a,h)anthracene	ND		4.7	0.052	ug/L		10/16/13 06:38	10/17/13 15:30	1
Di-n-butyl phthalate	ND		4.7	0.89	ug/L		10/16/13 06:38	10/17/13 15:30	1
1,2-Dichlorobenzene	ND		4.7	0.14	ug/L		10/16/13 06:38	10/17/13 15:30	1
1,3-Dichlorobenzene	ND		4.7	0.065	ug/L		10/16/13 06:38	10/17/13 15:30	1
1,4-Dichlorobenzene	ND		4.7	0.085	ug/L		10/16/13 06:38	10/17/13 15:30	1
3,3'-Dichlorobenzidine	ND		4.7	0.78	ug/L		10/16/13 06:38	10/17/13 15:30	1
Diethyl phthalate	ND		4.7	0.16	ug/L		10/16/13 06:38	10/17/13 15:30	1
Dimethyl phthalate	ND		4.7	0.16	ug/L		10/16/13 06:38	10/17/13 15:30	1
2,4-Dinitrotoluene	ND		4.7	0.25	ug/L		10/16/13 06:38	10/17/13 15:30	1
2,6-Dinitrotoluene	ND		4.7	0.68	ug/L		10/16/13 06:38	10/17/13 15:30	1
Di-n-octyl phthalate	ND		4.7	4.2	ug/L		10/16/13 06:38	10/17/13 15:30	1
1,2-Diphenylhydrazine	ND		4.7	0.060	ug/L		10/16/13 06:38	10/17/13 15:30	1
Fluoranthene	**9.7**		4.7	0.10	ug/L		10/16/13 06:38	10/17/13 15:30	1
Fluorene	**8.4**		4.7	0.041	ug/L		10/16/13 06:38	10/17/13 15:30	1
Hexachlorobenzene	ND		4.7	0.26	ug/L		10/16/13 06:38	10/17/13 15:30	1
Hexachlorobutadiene	ND		4.7	0.58	ug/L		10/16/13 06:38	10/17/13 15:30	1
Hexachlorocyclopentadiene	ND		4.7	0.43	ug/L		10/16/13 06:38	10/17/13 15:30	1
Hexachloroethane	ND		4.7	0.46	ug/L		10/16/13 06:38	10/17/13 15:30	1
Indeno[1,2,3-cd]pyrene	**1.1**	**J**	4.7	0.18	ug/L		10/16/13 06:38	10/17/13 15:30	1
Isophorone	ND		4.7	0.15	ug/L		10/16/13 06:38	10/17/13 15:30	1
Naphthalene	**4.5**	**J**	4.7	0.076	ug/L		10/16/13 06:38	10/17/13 15:30	1
Nitrobenzene	ND		4.7	0.10	ug/L		10/16/13 06:38	10/17/13 15:30	1
N-Nitrosodi-n-propylamine	ND		4.7	0.22	ug/L		10/16/13 06:38	10/17/13 15:30	1
N-Nitrosodimethylamine	ND		9.5	0.91	ug/L		10/16/13 06:38	10/17/13 15:30	1
N-Nitrosodiphenylamine	ND		4.7	0.38	ug/L		10/16/13 06:38	10/17/13 15:30	1
Phenanthrene	**28**		4.7	0.067	ug/L		10/16/13 06:38	10/17/13 15:30	1
Pyrene	**13**		4.7	0.039	ug/L		10/16/13 06:38	10/17/13 15:30	1
1,2,4-Trichlorobenzene	ND		4.7	0.47	ug/L		10/16/13 06:38	10/17/13 15:30	1
4-Chloro-3-methylphenol	ND		4.7	0.53	ug/L		10/16/13 06:38	10/17/13 15:30	1
2-Chlorophenol	ND		4.7	0.15	ug/L		10/16/13 06:38	10/17/13 15:30	1
2,4-Dichlorophenol	ND		4.7	0.28	ug/L		10/16/13 06:38	10/17/13 15:30	1
2,4-Dimethylphenol	ND		4.7	0.13	ug/L		10/16/13 06:38	10/17/13 15:30	1

Client Sample ID: Effluent

Lab Sample ID: 480-47909-2

Date Collected: 10/14/13 11:52

Matrix: Water

Date Received: 10/14/13 15:17

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	ND		4.7	0.80	ug/L		10/16/13 06:38	10/17/13 15:30	1
4,6-Dinitro-2-methylphenol	ND		4.7	0.72	ug/L		10/16/13 06:38	10/17/13 15:30	1
2-Nitrophenol	ND		4.7	0.14	ug/L		10/16/13 06:38	10/17/13 15:30	1
4-Nitrophenol	ND		4.7	1.3	ug/L		10/16/13 06:38	10/17/13 15:30	1
Pentachlorophenol	ND		4.7	0.39	ug/L		10/16/13 06:38	10/17/13 15:30	1
Phenol	ND		4.7	0.11	ug/L		10/16/13 06:38	10/17/13 15:30	1
2,4,6-Trichlorophenol	ND		4.7	0.22	ug/L		10/16/13 06:38	10/17/13 15:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*93*		*52 - 151*	*10/16/13 06:38*	*10/17/13 15:30*	*1*
2-Fluorobiphenyl	*87*		*44 - 120*	*10/16/13 06:38*	*10/17/13 15:30*	*1*
2-Fluorophenol	*49*		*17 - 120*	*10/16/13 06:38*	*10/17/13 15:30*	*1*
Nitrobenzene-d5	*86*		*42 - 120*	*10/16/13 06:38*	*10/17/13 15:30*	*1*
Phenol-d5	*32*		*10 - 120*	*10/16/13 06:38*	*10/17/13 15:30*	*1*
p-Terphenyl-d14	*103*		*22 - 125*	*10/16/13 06:38*	*10/17/13 15:30*	*1*

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	**5.5**	**J**	10	1.6	ug/L		10/24/13 08:50	10/28/13 18:53	1
Iron	ND		50	19	ug/L		10/24/13 08:50	10/28/13 18:53	1
Nickel	ND		10	1.3	ug/L		10/24/13 08:50	10/28/13 18:53	1
Silver	ND		5.0	1.7	ug/L		10/24/13 08:50	10/28/13 18:53	1
Zinc	**7.2**	**J**	50	1.5	ug/L		10/24/13 08:50	10/28/13 18:53	1

Method: 6010 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Copper	ND		10	1.6	ug/L		10/24/13 08:50	10/26/13 18:50	1
Dissolved Iron	ND		50	19	ug/L		10/24/13 08:50	10/26/13 18:50	1
Dissolved Nickel	**1.3**	**J**	10	1.3	ug/L		10/24/13 08:50	10/26/13 18:50	1
Dissolved Silver	ND		5.0	1.7	ug/L		10/24/13 08:50	10/26/13 18:50	1
Dissolved Zinc	ND		50	1.5	ug/L		10/24/13 08:50	10/26/13 18:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil & Grease	ND		4.8	1.3	mg/L		10/15/13 10:00	10/15/13 13:44	1
Chloride	**91**		0.50	0.28	mg/L			10/17/13 07:14	1
Phenolics, Total Recoverable	**0.0088**	**J**	0.010	0.0050	mg/L		10/15/13 09:40	10/17/13 11:52	1
Cyanide, Total	ND		0.010	0.0050	mg/L		10/16/13 10:00	10/16/13 20:00	1
Alkalinity	**120000**		5000	790	ug/L			10/17/13 15:46	1
Chlorine, Total Residual	ND	H	0.020	0.010	mg/L			10/15/13 21:45	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium (hexavalent)	ND		0.0050	0.0050	mg/L			10/15/13 08:21	1
pH	**8.81**	**H**	0.100	0.100	SU			10/15/13 23:53	1
Total Suspended Solids	ND		4.0	4.0	mg/L			10/15/13 17:13	1

Surrogate Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: NG Athol

TestAmerica Job ID: 480-47909-1

Method: 624 - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		12DCE	BFB	TOL
Lab Sample ID	Client Sample ID	(72-130)	(69-121)	(70-123)
480-47909-1	Influent	111	99	99
480-47909-1 - DL	Influent	108	99	99
480-47909-2	Effluent	109	101	99
LCS 480-144726/6	Lab Control Sample	107	99	99
MB 480-144726/7	Method Blank	111	97	98

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL	TPH
Lab Sample ID	Client Sample ID	(52-151)	(44-120)	(17-120)	(42-120)	(10-120)	(22-125)
480-47909-1 - DL	Influent	0 X	0 X	0 X	0 X	0 X	0 X
480-47909-1	Influent	0 X	101	0 X	0 X	0 X	0 X
480-47909-2	Effluent	93	87	49	86	32	103
LCS 480-145209/2-A	Lab Control Sample	89	81	46	81	31	100
MB 480-145209/1-A	Method Blank	85	83	49	83	33	113

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPH = p-Terphenyl-d14

Method: 624 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-144726/7
Matrix: Water
Analysis Batch: 144726

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0	0.50	ug/L			10/14/13 14:32	1
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			10/14/13 14:32	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			10/14/13 14:32	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.36	ug/L			10/14/13 14:32	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			10/14/13 14:32	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			10/14/13 14:32	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			10/14/13 14:32	1
1,1-Dichloropropene	ND		5.0	0.79	ug/L			10/14/13 14:32	1
1,2,3-Trichlorobenzene	ND		5.0	0.41	ug/L			10/14/13 14:32	1
1,2,3-Trichloropropane	ND		5.0	0.21	ug/L			10/14/13 14:32	1
1,2,4-Trichlorobenzene	ND		5.0	0.39	ug/L			10/14/13 14:32	1
1,2,4-Trimethylbenzene	ND		5.0	0.52	ug/L			10/14/13 14:32	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.62	ug/L			10/14/13 14:32	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			10/14/13 14:32	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			10/14/13 14:32	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			10/14/13 14:32	1
1,3,5-Trimethylbenzene	ND		10	0.44	ug/L			10/14/13 14:32	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			10/14/13 14:32	1
1,3-Dichloropropane	ND		5.0	0.52	ug/L			10/14/13 14:32	1
1,3-Dichloropropene, Total	ND		5.0	2.7	ug/L			10/14/13 14:32	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			10/14/13 14:32	1
1,4-Dioxane	ND		200	15	ug/L			10/14/13 14:32	1
2,2-Dichloropropane	ND		5.0	0.33	ug/L			10/14/13 14:32	1
2-Chloro-1,3-butadiene	ND		5.0	0.75	ug/L			10/14/13 14:32	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			10/14/13 14:32	1
2-Hexanone	ND		25	2.0	ug/L			10/14/13 14:32	1
Allyl chloride	ND		5.0	0.56	ug/L			10/14/13 14:32	1
Acetone	ND		25	2.0	ug/L			10/14/13 14:32	1
Acetonitrile	ND		200	16	ug/L			10/14/13 14:32	1
Acrolein	ND		100	17	ug/L			10/14/13 14:32	1
Acrylonitrile	ND		25	1.9	ug/L			10/14/13 14:32	1
Benzene	ND		5.0	0.60	ug/L			10/14/13 14:32	1
Bromobenzene	ND		10	0.44	ug/L			10/14/13 14:32	1
Bromoform	ND		5.0	0.47	ug/L			10/14/13 14:32	1
Bromomethane	ND		5.0	1.2	ug/L			10/14/13 14:32	1
Carbon disulfide	ND		5.0	0.29	ug/L			10/14/13 14:32	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			10/14/13 14:32	1
Chlorobenzene	ND		5.0	0.48	ug/L			10/14/13 14:32	1
Bromochloromethane	ND		5.0	0.71	ug/L			10/14/13 14:32	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			10/14/13 14:32	1
Chlorodifluoromethane	ND		5.0	0.42	ug/L			10/14/13 14:32	1
Chloroethane	ND		5.0	0.87	ug/L			10/14/13 14:32	1
Chloroform	ND		5.0	0.54	ug/L			10/14/13 14:32	1
Chloromethane	ND		5.0	0.64	ug/L			10/14/13 14:32	1
cis-1,2-Dichloroethene	ND		5.0	0.57	ug/L			10/14/13 14:32	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			10/14/13 14:32	1
Dibromomethane	ND		5.0	0.53	ug/L			10/14/13 14:32	1
Bromodichloromethane	ND		5.0	0.54	ug/L			10/14/13 14:32	1

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-144726/7
Matrix: Water
Analysis Batch: 144726

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		5.0	0.28	ug/L			10/14/13 14:32	1
Ethyl acetate	ND		5.0	0.32	ug/L			10/14/13 14:32	1
Ethyl ether	ND		5.0	0.34	ug/L			10/14/13 14:32	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			10/14/13 14:32	1
Ethylbenzene	ND		5.0	0.46	ug/L			10/14/13 14:32	1
1,2-Dibromoethane	ND		5.0	0.50	ug/L			10/14/13 14:32	1
Hexachlorobutadiene	ND		10	0.58	ug/L			10/14/13 14:32	1
Iodomethane	ND		5.0	0.29	ug/L			10/14/13 14:32	1
Isobutyl alcohol	ND		200	11	ug/L			10/14/13 14:32	1
Isopropyl acetate	ND		5.0	0.56	ug/L			10/14/13 14:32	1
Isopropylbenzene	ND		5.0	0.51	ug/L			10/14/13 14:32	1
m-Xylene & p-Xylene	ND		10	1.1	ug/L			10/14/13 14:32	1
Methacrylonitrile	ND		5.0	0.35	ug/L			10/14/13 14:32	1
2-Butanone (MEK)	ND		25	1.8	ug/L			10/14/13 14:32	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.3	ug/L			10/14/13 14:32	1
Methyl methacrylate	ND		5.0	0.25	ug/L			10/14/13 14:32	1
Methyl tert-butyl ether	ND		5.0	0.35	ug/L			10/14/13 14:32	1
Methylene Chloride	ND		5.0	0.81	ug/L			10/14/13 14:32	1
n-Butyl acetate	ND		5.0	0.49	ug/L			10/14/13 14:32	1
n-Butylbenzene	ND		10	0.32	ug/L			10/14/13 14:32	1
N-Propylbenzene	ND		10	0.30	ug/L			10/14/13 14:32	1
Naphthalene	ND		5.0	0.11	ug/L			10/14/13 14:32	1
o-Xylene	ND		5.0	0.43	ug/L			10/14/13 14:32	1
sec-Butylbenzene	ND		10	0.32	ug/L			10/14/13 14:32	1
Styrene	ND		5.0	0.38	ug/L			10/14/13 14:32	1
tert-Butylbenzene	ND		10	0.54	ug/L			10/14/13 14:32	1
Tetrachloroethene	ND		5.0	0.34	ug/L			10/14/13 14:32	1
Tetrahydrofuran	ND		25	2.2	ug/L			10/14/13 14:32	1
Toluene	ND		5.0	0.45	ug/L			10/14/13 14:32	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			10/14/13 14:32	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			10/14/13 14:32	1
trans-1,4-Dichloro-2-butene	ND		25	1.3	ug/L			10/14/13 14:32	1
Trichloroethene	ND		5.0	0.60	ug/L			10/14/13 14:32	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			10/14/13 14:32	1
Vinyl acetate	ND		25	1.5	ug/L			10/14/13 14:32	1
Vinyl chloride	ND		5.0	0.75	ug/L			10/14/13 14:32	1
2-Chlorotoluene	ND		5.0	0.33	ug/L			10/14/13 14:32	1
4-Chlorotoluene	ND		5.0	0.27	ug/L			10/14/13 14:32	1
4-Isopropyltoluene	ND		5.0	0.54	ug/L			10/14/13 14:32	1
Amyl acetate (mixed isomers)	ND		5.0	0.36	ug/L			10/14/13 14:32	1
2-Methyl-2-propanol	ND		100	12	ug/L			10/14/13 14:32	1
Isopropyl alcohol	ND		200	15	ug/L			10/14/13 14:32	1
Isopropyl ether	ND		5.0	0.35	ug/L			10/14/13 14:32	1
2-Nitropropane	ND		5.0	1.5	ug/L			10/14/13 14:32	1
Dichlorofluoromethane	ND		5.0	0.25	ug/L			10/14/13 14:32	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			10/14/13 14:32	1
Xylenes, Total	ND		10	1.1	ug/L			10/14/13 14:32	1
Trihalomethanes, Total	ND		5.0	0.54	ug/L			10/14/13 14:32	1

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-144726/7
Matrix: Water
Analysis Batch: 144726

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	ND		10	1.1	ug/L			10/14/13 14:32	1
3-Chlorotoluene	ND		5.0	0.31	ug/L			10/14/13 14:32	1
2-Chlorobenzotrifluoride	ND		5.0	0.50	ug/L			10/14/13 14:32	1
3-Chlorobenzotrifluoride	ND		5.0	0.49	ug/L			10/14/13 14:32	1
4-Chlorobenzotrifluoride	ND		5.0	0.48	ug/L			10/14/13 14:32	1
Propionitrile	ND		50	3.1	ug/L			10/14/13 14:32	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
bis(2-chloromethyl)ether TIC	*ND*		*ug/L*			*542-88-1*		*10/14/13 14:32*	*1*
bis(chloromethyl)ether TIC	*ND*		*ug/L*			*542-88-1*		*10/14/13 14:32*	*1*
Aziridine TIC	*ND*		*ug/L*			*151-56-4*		*10/14/13 14:32*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*72 - 130*		*10/14/13 14:32*	*1*
4-Bromofluorobenzene (Surr)	*97*		*69 - 121*		*10/14/13 14:32*	*1*
Toluene-d8 (Surr)	*98*		*70 - 123*		*10/14/13 14:32*	*1*

Lab Sample ID: LCS 480-144726/6
Matrix: Water
Analysis Batch: 144726

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	20.0	20.2		ug/L		101	
1,1,1-Trichloroethane	20.0	18.6		ug/L		93	52 - 162
1,1,2,2-Tetrachloroethane	20.0	16.6		ug/L		83	46 - 157
1,1,2-Trichloro-1,2,2-trifluoroetha ne	20.0	15.4		ug/L		77	
1,1,2-Trichloroethane	20.0	18.3		ug/L		91	52 - 150
1,1-Dichloroethane	20.0	16.6		ug/L		83	59 - 155
1,1-Dichloroethene	20.0	13.3		ug/L		66	1 - 234
1,1-Dichloropropene	20.0	17.0		ug/L		85	
1,2,3-Trichlorobenzene	20.0	23.3		ug/L		117	
1,2,3-Trichloropropane	20.0	18.8		ug/L		94	
1,2,4-Trichlorobenzene	20.0	25.6		ug/L		128	
1,2,4-Trimethylbenzene	20.0	19.9		ug/L		99	
1,2-Dibromo-3-Chloropropane	20.0	21.8		ug/L		109	
1,2-Dichlorobenzene	20.0	20.8		ug/L		104	18 - 190
1,2-Dichloroethane	20.0	19.0		ug/L		95	49 - 155
1,2-Dichloropropane	20.0	16.1		ug/L		80	1 - 210
1,3,5-Trimethylbenzene	20.0	18.5		ug/L		93	
1,3-Dichlorobenzene	20.0	18.7		ug/L		94	59 - 156
1,3-Dichloropropane	20.0	18.0		ug/L		90	
1,3-Dichloropropene, Total	40.0	33.0		ug/L		82	
1,4-Dichlorobenzene	20.0	19.0		ug/L		95	18 - 190
2,2-Dichloropropane	20.0	18.5		ug/L		93	
2-Chloroethyl vinyl ether	100	78.1		ug/L		78	1 - 305
2-Hexanone	100	85.2		ug/L		85	
Acetone	100	77.0		ug/L		77	

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-144726/6
Matrix: Water
Analysis Batch: 144726

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetonitrile	800	624		ug/L		78	
Acrolein	400	113		ug/L		28	
Acrylonitrile	100	69.6		ug/L		70	
Benzene	20.0	15.8		ug/L		79	37 - 151
Bromobenzene	20.0	18.3		ug/L		91	
Bromoform	20.0	19.6		ug/L		98	45 - 169
Bromomethane	20.0	17.8		ug/L		89	1 - 242
Carbon disulfide	20.0	13.0		ug/L		65	
Carbon tetrachloride	20.0	16.0		ug/L		80	70 - 140
Chlorobenzene	20.0	18.2		ug/L		91	37 - 160
Bromochloromethane	20.0	17.7		ug/L		88	
Chlorodibromomethane	20.0	18.9		ug/L		95	53 - 149
Chloroethane	20.0	18.3		ug/L		91	14 - 230
Chloroform	20.0	17.9		ug/L		89	51 - 138
Chloromethane	20.0	17.5		ug/L		88	1 - 273
cis-1,2-Dichloroethene	20.0	17.2		ug/L		86	
cis-1,3-Dichloropropene	20.0	15.8		ug/L		79	1 - 227
Dibromomethane	20.0	17.1		ug/L		86	
Bromodichloromethane	20.0	17.6		ug/L		88	35 - 155
Dichlorodifluoromethane	20.0	21.2		ug/L		106	
Ethyl methacrylate	20.0	16.6		ug/L		83	
Ethylbenzene	20.0	17.8		ug/L		89	37 - 162
1,2-Dibromoethane	20.0	18.6		ug/L		93	
Hexachlorobutadiene	20.0	23.6		ug/L		118	
Iodomethane	20.0	19.4		ug/L		97	
Isopropylbenzene	20.0	17.0		ug/L		85	
m-Xylene & p-Xylene	40.0	35.9		ug/L		90	79 - 120
2-Butanone (MEK)	100	76.7		ug/L		77	
4-Methyl-2-pentanone (MIBK)	100	87.9		ug/L		88	
Methyl tert-butyl ether	20.0	17.0		ug/L		85	78 - 118
Methylene Chloride	20.0	16.0		ug/L		80	1 - 221
n-Butylbenzene	20.0	19.6		ug/L		98	
N-Propylbenzene	20.0	17.6		ug/L		88	
Naphthalene	20.0	22.5		ug/L		112	
o-Xylene	20.0	18.5		ug/L		92	79 - 120
sec-Butylbenzene	20.0	18.5		ug/L		92	
Styrene	20.0	18.5		ug/L		93	
tert-Butylbenzene	20.0	18.0		ug/L		90	
Tetrachloroethene	20.0	18.0		ug/L		90	64 - 148
Tetrahydrofuran	100	78.9		ug/L		79	
Toluene	20.0	17.1		ug/L		86	47 - 150
trans-1,2-Dichloroethene	20.0	15.7		ug/L		79	54 - 156
trans-1,3-Dichloropropene	20.0	17.2		ug/L		86	17 - 183
trans-1,4-Dichloro-2-butene	100	103		ug/L		103	
Trichloroethene	20.0	17.2		ug/L		86	71 - 157
Trichlorofluoromethane	20.0	19.8		ug/L		99	17 - 181
Vinyl acetate	100	49.6		ug/L		50	
Vinyl chloride	20.0	17.3		ug/L		87	1 - 251

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-144726/6
Matrix: Water
Analysis Batch: 144726

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Chlorotoluene	20.0	17.9		ug/L		89	
4-Chlorotoluene	20.0	17.3		ug/L		87	
4-Isopropyltoluene	20.0	19.2		ug/L		96	

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*107*		*72 - 130*
4-Bromofluorobenzene (Surr)	*99*		*69 - 121*
Toluene-d8 (Surr)	*99*		*70 - 123*

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-145209/1-A
Matrix: Water
Analysis Batch: 145605

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 145209

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0	0.060	ug/L		10/16/13 06:38	10/17/13 11:06	1
Acenaphthylene	ND		5.0	0.034	ug/L		10/16/13 06:38	10/17/13 11:06	1
Anthracene	ND		5.0	0.052	ug/L		10/16/13 06:38	10/17/13 11:06	1
Benzidine	ND		5.0	2.5	ug/L		10/16/13 06:38	10/17/13 11:06	1
Benzo[a]anthracene	ND		5.0	0.043	ug/L		10/16/13 06:38	10/17/13 11:06	1
Benzo[a]pyrene	ND		5.0	0.058	ug/L		10/16/13 06:38	10/17/13 11:06	1
Benzo[b]fluoranthene	ND		5.0	0.062	ug/L		10/16/13 06:38	10/17/13 11:06	1
Benzo[g,h,i]perylene	ND		5.0	0.10	ug/L		10/16/13 06:38	10/17/13 11:06	1
Benzo[k]fluoranthene	ND		5.0	0.042	ug/L		10/16/13 06:38	10/17/13 11:06	1
Bis(2-chloroethyl)ether	ND		5.0	1.1	ug/L		10/16/13 06:38	10/17/13 11:06	1
Bis(2-chloroethoxy)methane	ND		5.0	0.085	ug/L		10/16/13 06:38	10/17/13 11:06	1
bis (2-chloroisopropyl) ether	ND		5.0	0.086	ug/L		10/16/13 06:38	10/17/13 11:06	1
Bis(2-ethylhexyl) phthalate	ND		5.0	0.86	ug/L		10/16/13 06:38	10/17/13 11:06	1
4-Bromophenyl phenyl ether	ND		5.0	0.11	ug/L		10/16/13 06:38	10/17/13 11:06	1
Butyl benzyl phthalate	ND		5.0	1.3	ug/L		10/16/13 06:38	10/17/13 11:06	1
2-Chloronaphthalene	ND		5.0	0.068	ug/L		10/16/13 06:38	10/17/13 11:06	1
4-Chlorophenyl phenyl ether	ND		5.0	0.21	ug/L		10/16/13 06:38	10/17/13 11:06	1
Chrysene	ND		5.0	0.036	ug/L		10/16/13 06:38	10/17/13 11:06	1
Dibenz(a,h)anthracene	ND		5.0	0.055	ug/L		10/16/13 06:38	10/17/13 11:06	1
Di-n-butyl phthalate	ND		5.0	0.94	ug/L		10/16/13 06:38	10/17/13 11:06	1
1,2-Dichlorobenzene	ND		5.0	0.15	ug/L		10/16/13 06:38	10/17/13 11:06	1
1,3-Dichlorobenzene	ND		5.0	0.069	ug/L		10/16/13 06:38	10/17/13 11:06	1
1,4-Dichlorobenzene	ND		5.0	0.090	ug/L		10/16/13 06:38	10/17/13 11:06	1
3,3'-Dichlorobenzidine	ND		5.0	0.82	ug/L		10/16/13 06:38	10/17/13 11:06	1
Diethyl phthalate	ND		5.0	0.17	ug/L		10/16/13 06:38	10/17/13 11:06	1
Dimethyl phthalate	ND		5.0	0.17	ug/L		10/16/13 06:38	10/17/13 11:06	1
2,4-Dinitrotoluene	ND		5.0	0.26	ug/L		10/16/13 06:38	10/17/13 11:06	1
2,6-Dinitrotoluene	ND		5.0	0.72	ug/L		10/16/13 06:38	10/17/13 11:06	1
Di-n-octyl phthalate	ND		5.0	4.5	ug/L		10/16/13 06:38	10/17/13 11:06	1
1,2-Diphenylhydrazine	ND		5.0	0.063	ug/L		10/16/13 06:38	10/17/13 11:06	1
Fluoranthene	ND		5.0	0.11	ug/L		10/16/13 06:38	10/17/13 11:06	1
Fluorene	ND		5.0	0.043	ug/L		10/16/13 06:38	10/17/13 11:06	1

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-145209/1-A
Matrix: Water
Analysis Batch: 145605

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 145209

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobenzene	ND		5.0	0.28	ug/L		10/16/13 06:38	10/17/13 11:06	1
Hexachlorobutadiene	ND		5.0	0.62	ug/L		10/16/13 06:38	10/17/13 11:06	1
Hexachlorocyclopentadiene	ND		5.0	0.45	ug/L		10/16/13 06:38	10/17/13 11:06	1
Hexachloroethane	ND		5.0	0.48	ug/L		10/16/13 06:38	10/17/13 11:06	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.19	ug/L		10/16/13 06:38	10/17/13 11:06	1
Isophorone	ND		5.0	0.16	ug/L		10/16/13 06:38	10/17/13 11:06	1
Naphthalene	ND		5.0	0.080	ug/L		10/16/13 06:38	10/17/13 11:06	1
Nitrobenzene	ND		5.0	0.11	ug/L		10/16/13 06:38	10/17/13 11:06	1
N-Nitrosodi-n-propylamine	ND		5.0	0.23	ug/L		10/16/13 06:38	10/17/13 11:06	1
N-Nitrosodimethylamine	ND		10	0.96	ug/L		10/16/13 06:38	10/17/13 11:06	1
N-Nitrosodiphenylamine	ND		5.0	0.40	ug/L		10/16/13 06:38	10/17/13 11:06	1
Phenanthrene	ND		5.0	0.071	ug/L		10/16/13 06:38	10/17/13 11:06	1
Pyrene	ND		5.0	0.041	ug/L		10/16/13 06:38	10/17/13 11:06	1
1,2,4-Trichlorobenzene	ND		5.0	0.49	ug/L		10/16/13 06:38	10/17/13 11:06	1
4-Chloro-3-methylphenol	ND		5.0	0.56	ug/L		10/16/13 06:38	10/17/13 11:06	1
2-Chlorophenol	ND		5.0	0.16	ug/L		10/16/13 06:38	10/17/13 11:06	1
2,4-Dichlorophenol	ND		5.0	0.30	ug/L		10/16/13 06:38	10/17/13 11:06	1
2,4-Dimethylphenol	ND		5.0	0.13	ug/L		10/16/13 06:38	10/17/13 11:06	1
2,4-Dinitrophenol	ND		5.0	0.84	ug/L		10/16/13 06:38	10/17/13 11:06	1
4,6-Dinitro-2-methylphenol	ND		5.0	0.76	ug/L		10/16/13 06:38	10/17/13 11:06	1
2-Nitrophenol	ND		5.0	0.14	ug/L		10/16/13 06:38	10/17/13 11:06	1
4-Nitrophenol	ND		5.0	1.3	ug/L		10/16/13 06:38	10/17/13 11:06	1
Pentachlorophenol	ND		5.0	0.41	ug/L		10/16/13 06:38	10/17/13 11:06	1
Phenol	ND		5.0	0.12	ug/L		10/16/13 06:38	10/17/13 11:06	1
2,4,6-Trichlorophenol	ND		5.0	0.23	ug/L		10/16/13 06:38	10/17/13 11:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*85*		*52 - 151*	*10/16/13 06:38*	*10/17/13 11:06*	*1*
2-Fluorobiphenyl	*83*		*44 - 120*	*10/16/13 06:38*	*10/17/13 11:06*	*1*
2-Fluorophenol	*49*		*17 - 120*	*10/16/13 06:38*	*10/17/13 11:06*	*1*
Nitrobenzene-d5	*83*		*42 - 120*	*10/16/13 06:38*	*10/17/13 11:06*	*1*
Phenol-d5	*33*		*10 - 120*	*10/16/13 06:38*	*10/17/13 11:06*	*1*
p-Terphenyl-d14	*113*		*22 - 125*	*10/16/13 06:38*	*10/17/13 11:06*	*1*

Lab Sample ID: LCS 480-145209/2-A
Matrix: Water
Analysis Batch: 145605

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 145209

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	50.0	43.5		ug/L		87	47 - 145
Acenaphthylene	50.0	43.7		ug/L		87	33 - 145
Anthracene	50.0	46.8		ug/L		94	27 - 133
Benzo[a]anthracene	50.0	47.0		ug/L		94	33 - 143
Benzo[a]pyrene	50.0	45.5		ug/L		91	17 - 163
Benzo[b]fluoranthene	50.0	42.7		ug/L		85	24 - 159
Benzo[g,h,i]perylene	50.0	50.2		ug/L		100	1 - 219
Benzo[k]fluoranthene	50.0	48.6		ug/L		97	11 - 162
Bis(2-chloroethyl)ether	50.0	39.2		ug/L		78	12 - 158

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-145209/2-A
Matrix: Water
Analysis Batch: 145605

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 145209

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bis(2-chloroethoxy)methane	50.0	42.4		ug/L		85	33 - 184
bis (2-chloroisopropyl) ether	50.0	41.4		ug/L		83	36 - 166
Bis(2-ethylhexyl) phthalate	50.0	48.0		ug/L		96	8 - 158
4-Bromophenyl phenyl ether	50.0	44.8		ug/L		90	53 - 127
Butyl benzyl phthalate	50.0	47.7		ug/L		95	1 - 152
2-Chloronaphthalene	50.0	39.6		ug/L		79	60 - 118
4-Chlorophenyl phenyl ether	50.0	44.1		ug/L		88	25 - 158
Chrysene	50.0	46.0		ug/L		92	17 - 168
Dibenz(a,h)anthracene	50.0	48.6		ug/L		97	1 - 227
Di-n-butyl phthalate	50.0	47.0		ug/L		94	1 - 118
1,2-Dichlorobenzene	50.0	34.4		ug/L		69	32 - 129
1,3-Dichlorobenzene	50.0	33.4		ug/L		67	1 - 172
1,4-Dichlorobenzene	50.0	34.3		ug/L		69	20 - 124
3,3'-Dichlorobenzidine	50.0	48.3		ug/L		97	1 - 262
Diethyl phthalate	50.0	49.2		ug/L		98	1 - 114
Dimethyl phthalate	50.0	46.9		ug/L		94	1 - 112
2,4-Dinitrotoluene	50.0	50.3		ug/L		101	39 - 139
2,6-Dinitrotoluene	50.0	47.5		ug/L		95	50 - 158
Di-n-octyl phthalate	50.0	49.5		ug/L		99	4 - 146
Fluoranthene	50.0	46.2		ug/L		92	26 - 137
Fluorene	50.0	44.9		ug/L		90	59 - 121
Hexachlorobenzene	50.0	44.6		ug/L		89	1 - 152
Hexachlorocyclopentadiene	50.0	25.0		ug/L		50	5 - 120
Hexachloroethane	50.0	33.1		ug/L		66	40 - 113
Indeno[1,2,3-cd]pyrene	50.0	48.1		ug/L		96	1 - 171
Isophorone	50.0	42.7		ug/L		85	21 - 196
Naphthalene	50.0	39.1		ug/L		78	21 - 133
Nitrobenzene	50.0	41.7		ug/L		83	35 - 180
N-Nitrosodi-n-propylamine	50.0	42.7		ug/L		85	1 - 230
N-Nitrosodiphenylamine	50.0	43.3		ug/L		87	54 - 125
Phenanthrene	50.0	46.3		ug/L		93	54 - 120
Pyrene	50.0	46.7		ug/L		93	52 - 115
1,2,4-Trichlorobenzene	50.0	36.0		ug/L		72	44 - 142
4-Chloro-3-methylphenol	50.0	47.7		ug/L		95	22 - 147
2-Chlorophenol	50.0	39.0		ug/L		78	23 - 134
2,4-Dichlorophenol	50.0	44.3		ug/L		89	39 - 135
2,4-Dimethylphenol	50.0	45.0		ug/L		90	32 - 119
2,4-Dinitrophenol	100	86.4		ug/L		86	1 - 191
4,6-Dinitro-2-methylphenol	100	91.3		ug/L		91	1 - 181
2-Nitrophenol	50.0	43.1		ug/L		86	29 - 182
4-Nitrophenol	100	38.5		ug/L		39	1 - 132
Pentachlorophenol	100	87.1		ug/L		87	14 - 176
Phenol	50.0	18.8		ug/L		38	5 - 112
2,4,6-Trichlorophenol	50.0	45.5		ug/L		91	37 - 144

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*89*		*52 - 151*
2-Fluorobiphenyl	*81*		*44 - 120*

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-145209/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145605 — **Prep Batch: 145209**

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorophenol	*46*		*17 - 120*
Nitrobenzene-d5	*81*		*42 - 120*
Phenol-d5	*31*		*10 - 120*
p-Terphenyl-d14	*100*		*22 - 125*

Method: 6010 - Metals (ICP)

Lab Sample ID: MB 480-147137/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 148298 — **Prep Batch: 147137**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		10	1.6	ug/L		10/24/13 08:50	10/28/13 17:41	1
Iron	ND		50	19	ug/L		10/24/13 08:50	10/28/13 17:41	1
Nickel	ND		10	1.3	ug/L		10/24/13 08:50	10/28/13 17:41	1
Silver	ND		5.0	1.7	ug/L		10/24/13 08:50	10/28/13 17:41	1
Zinc	ND		50	1.5	ug/L		10/24/13 08:50	10/28/13 17:41	1

Lab Sample ID: LCS 480-147137/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 148298 — **Prep Batch: 147137**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Copper	200	227		ug/L		113	80 - 120
Iron	10000	11100		ug/L		111	80 - 120
Nickel	200	224		ug/L		112	80 - 120
Silver	50.0	55.3		ug/L		111	80 - 120
Zinc	200	227		ug/L		114	80 - 120

Lab Sample ID: LCSD 480-147137/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 148298 — **Prep Batch: 147137**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Copper	200	202		ug/L		101	80 - 120	12	20
Iron	10000	10000		ug/L		100	80 - 120	10	20
Nickel	200	201		ug/L		101	80 - 120	11	20
Silver	50.0	50.3		ug/L		101	80 - 120	9	20
Zinc	200	207		ug/L		103	80 - 120	9	20

Lab Sample ID: MB 480-146291/27-B — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 148125 — **Prep Batch: 147134**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Zinc	ND		50	1.5	ug/L		10/24/13 08:50	10/28/13 14:06	1

Method: 6010 - Metals (ICP) (Continued)

Lab Sample ID: LCS 480-146291/28-B — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 148125 — **Prep Batch: 147134**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dissolved Zinc	200	193		ug/L		97	80 - 120

Lab Sample ID: LCSD 480-146291/31-B — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 148125 — **Prep Batch: 147134**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dissolved Zinc	200	196		ug/L		98	80 - 120	1	20

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 480-145081/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145082 — **Prep Batch: 145081**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil & Grease	ND		5.0	1.4	mg/L		10/15/13 10:00	10/15/13 13:44	1

Lab Sample ID: LCS 480-145081/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145082 — **Prep Batch: 145081**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Oil & Grease	40.0	39.6		mg/L		99	78 - 114

Lab Sample ID: 480-47909-1 MS — **Client Sample ID: Influent**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145082 — **Prep Batch: 145081**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Oil & Grease	8.8		19.2	11.3	F	mg/L		13	78 - 114

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 480-145386/76 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145386

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	0.28	mg/L			10/17/13 05:23	1

Lab Sample ID: LCS 480-145386/75 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145386

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	20.4		mg/L		102	90 - 110

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 480-145620/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145620

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	0.28	mg/L			10/17/13 13:32	1

Lab Sample ID: LCS 480-145620/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145620

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	20.7		mg/L		104	90 - 110

Method: 420.4 - Phenolics, Total Recoverable

Lab Sample ID: MB 480-145090/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145640 — **Prep Batch: 145090**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenolics, Total Recoverable	ND		0.010	0.0050	mg/L		10/15/13 09:40	10/17/13 08:09	1

Lab Sample ID: LCS 480-145090/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145640 — **Prep Batch: 145090**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenolics, Total Recoverable	0.100	0.0971		mg/L		97	90 - 110

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 360-98388/9 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 98388

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium (hexavalent)	ND		0.0050	0.0050	mg/L			10/15/13 08:21	1

Lab Sample ID: LCS 360-98388/10 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 98388

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium (hexavalent)	0.0532	0.0539		mg/L		101	80 - 120

Lab Sample ID: LCSD 360-98388/11 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 98388

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium (hexavalent)	0.0532	0.0539		mg/L		101	80 - 120	0	20

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: 480-47909-2 MS — **Client Sample ID: Effluent**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 98388

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium (hexavalent)	ND		0.0250	0.0253		mg/L		101	85 - 115

Lab Sample ID: 480-47909-2 MSD — **Client Sample ID: Effluent**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 98388

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium (hexavalent)	ND		0.0250	0.0266		mg/L		106	85 - 115	5	20

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 480-145344/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145448 — **Prep Batch: 145344**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		10/16/13 10:00	10/16/13 19:55	1

Lab Sample ID: LCS 480-145344/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145448 — **Prep Batch: 145344**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.250	0.234		mg/L		94	90 - 110

Lab Sample ID: LCSD 480-145344/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145448 — **Prep Batch: 145344**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.250	0.238		mg/L		95	90 - 110	2	15

Lab Sample ID: 480-47909-2 MS — **Client Sample ID: Effluent**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145448 — **Prep Batch: 145344**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	ND		0.100	0.0937		mg/L		94	90 - 110

Lab Sample ID: 480-47909-1 DU — **Client Sample ID: Influent**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145448 — **Prep Batch: 145344**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cyanide, Total	ND		ND		mg/L		NC	15

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 480-145783/6 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145783

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	ND		5000	790	ug/L			10/17/13 15:22	1

Lab Sample ID: LCS 480-145783/7 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145783

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	100000	91700		ug/L		92	90 - 110

Lab Sample ID: 480-47909-2 MS — **Client Sample ID: Effluent**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145783

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	120000		100000	194000		ug/L		76	42 - 116

Lab Sample ID: 480-47909-1 DU — **Client Sample ID: Influent**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145783

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity	76000		74800		ug/L		2	20

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 480-145119/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145119

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0	4.0	mg/L			10/15/13 17:06	1

Lab Sample ID: LCS 480-145119/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145119

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	224	209		mg/L		93	88 - 110

Method: SM 4500 Cl G - Chlorine, Residual

Lab Sample ID: MB 480-145177/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145177

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorine, Total Residual	ND		0.020	0.010	mg/L			10/15/13 21:45	1

Method: SM 4500 Cl G - Chlorine, Residual (Continued)

Lab Sample ID: LCS 480-145177/4
Matrix: Water
Analysis Batch: 145177

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chlorine, Total Residual			0.920	0.950		mg/L		103	90 - 110		

Lab Sample ID: 480-47909-2 DU
Matrix: Water
Analysis Batch: 145177

Client Sample ID: Effluent
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Chlorine, Total Residual	ND	H		ND		mg/L				NC	20

QC Association Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: NG Athol

TestAmerica Job ID: 480-47909-1

GC/MS VOA

Analysis Batch: 144726

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47909-1	Influent	Total/NA	Water	624	
480-47909-1 - DL	Influent	Total/NA	Water	624	
480-47909-2	Effluent	Total/NA	Water	624	
LCS 480-144726/6	Lab Control Sample	Total/NA	Water	624	
MB 480-144726/7	Method Blank	Total/NA	Water	624	

GC/MS Semi VOA

Prep Batch: 145209

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47909-1 - DL	Influent	Total/NA	Water	625	
480-47909-1	Influent	Total/NA	Water	625	
480-47909-2	Effluent	Total/NA	Water	625	
LCS 480-145209/2-A	Lab Control Sample	Total/NA	Water	625	
MB 480-145209/1-A	Method Blank	Total/NA	Water	625	

Analysis Batch: 145605

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47909-1	Influent	Total/NA	Water	625	145209
480-47909-1 - DL	Influent	Total/NA	Water	625	145209
480-47909-2	Effluent	Total/NA	Water	625	145209
LCS 480-145209/2-A	Lab Control Sample	Total/NA	Water	625	145209
MB 480-145209/1-A	Method Blank	Total/NA	Water	625	145209

Metals

Filtration Batch: 146291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-146291/28-B	Lab Control Sample	Dissolved	Water	FILTRATION	
LCSD 480-146291/31-B	Lab Control Sample Dup	Dissolved	Water	FILTRATION	
MB 480-146291/27-B	Method Blank	Dissolved	Water	FILTRATION	

Prep Batch: 147134

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47909-1	Influent	Dissolved	Water	3005A	
480-47909-2	Effluent	Dissolved	Water	3005A	
LCS 480-146291/28-B	Lab Control Sample	Dissolved	Water	3005A	146291
LCSD 480-146291/31-B	Lab Control Sample Dup	Dissolved	Water	3005A	146291
MB 480-146291/27-B	Method Blank	Dissolved	Water	3005A	146291

Prep Batch: 147137

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47909-1	Influent	Total/NA	Water	3005A	
480-47909-2	Effluent	Total/NA	Water	3005A	
LCS 480-147137/2-A	Lab Control Sample	Total/NA	Water	3005A	
LCSD 480-147137/3-A	Lab Control Sample Dup	Total/NA	Water	3005A	
MB 480-147137/1-A	Method Blank	Total/NA	Water	3005A	

Metals (Continued)

Analysis Batch: 148089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47909-1	Influent	Dissolved	Water	6010	147134
480-47909-2	Effluent	Dissolved	Water	6010	147134

Analysis Batch: 148125

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-146291/28-B	Lab Control Sample	Dissolved	Water	6010	147134
LCSD 480-146291/31-B	Lab Control Sample Dup	Dissolved	Water	6010	147134
MB 480-146291/27-B	Method Blank	Dissolved	Water	6010	147134

Analysis Batch: 148298

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47909-1	Influent	Total/NA	Water	6010	147137
480-47909-2	Effluent	Total/NA	Water	6010	147137
LCS 480-147137/2-A	Lab Control Sample	Total/NA	Water	6010	147137
LCSD 480-147137/3-A	Lab Control Sample Dup	Total/NA	Water	6010	147137
MB 480-147137/1-A	Method Blank	Total/NA	Water	6010	147137

General Chemistry

Analysis Batch: 98388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47909-1	Influent	Total/NA	Water	7196A	
480-47909-2	Effluent	Total/NA	Water	7196A	
480-47909-2 MS	Effluent	Total/NA	Water	7196A	
480-47909-2 MSD	Effluent	Total/NA	Water	7196A	
LCS 360-98388/10	Lab Control Sample	Total/NA	Water	7196A	
LCSD 360-98388/11	Lab Control Sample Dup	Total/NA	Water	7196A	
MB 360-98388/9	Method Blank	Total/NA	Water	7196A	

Prep Batch: 145081

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47909-1	Influent	Total/NA	Water	1664A	
480-47909-1 MS	Influent	Total/NA	Water	1664A	
480-47909-2	Effluent	Total/NA	Water	1664A	
LCS 480-145081/2-A	Lab Control Sample	Total/NA	Water	1664A	
MB 480-145081/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 145082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47909-1	Influent	Total/NA	Water	1664A	145081
480-47909-1 MS	Influent	Total/NA	Water	1664A	145081
480-47909-2	Effluent	Total/NA	Water	1664A	145081
LCS 480-145081/2-A	Lab Control Sample	Total/NA	Water	1664A	145081
MB 480-145081/1-A	Method Blank	Total/NA	Water	1664A	145081

Prep Batch: 145090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47909-1	Influent	Total/NA	Water	Distill/Phenol	
480-47909-2	Effluent	Total/NA	Water	Distill/Phenol	
LCS 480-145090/2-A	Lab Control Sample	Total/NA	Water	Distill/Phenol	

General Chemistry (Continued)

Prep Batch: 145090 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-145090/1-A	Method Blank	Total/NA	Water	Distill/Phenol	

Analysis Batch: 145119

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47909-1	Influent	Total/NA	Water	SM 2540D	
480-47909-2	Effluent	Total/NA	Water	SM 2540D	
LCS 480-145119/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 480-145119/1	Method Blank	Total/NA	Water	SM 2540D	

Analysis Batch: 145177

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47909-1	Influent	Total/NA	Water	SM 4500 Cl G	
480-47909-2	Effluent	Total/NA	Water	SM 4500 Cl G	
480-47909-2 DU	Effluent	Total/NA	Water	SM 4500 Cl G	
LCS 480-145177/4	Lab Control Sample	Total/NA	Water	SM 4500 Cl G	
MB 480-145177/3	Method Blank	Total/NA	Water	SM 4500 Cl G	

Analysis Batch: 145198

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47909-1	Influent	Total/NA	Water	9040C	
480-47909-2	Effluent	Total/NA	Water	9040C	
LCS 480-145198/1	Lab Control Sample	Total/NA	Water	9040C	

Prep Batch: 145344

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47909-1	Influent	Total/NA	Water	9012A	
480-47909-1 DU	Influent	Total/NA	Water	9012A	
480-47909-2	Effluent	Total/NA	Water	9012A	
480-47909-2 MS	Effluent	Total/NA	Water	9012A	
LCS 480-145344/2-A	Lab Control Sample	Total/NA	Water	9012A	
LCSD 480-145344/3-A	Lab Control Sample Dup	Total/NA	Water	9012A	
MB 480-145344/1-A	Method Blank	Total/NA	Water	9012A	

Analysis Batch: 145386

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47909-2	Effluent	Total/NA	Water	300.0	
LCS 480-145386/75	Lab Control Sample	Total/NA	Water	300.0	
MB 480-145386/76	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 145448

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47909-1	Influent	Total/NA	Water	9012B	145344
480-47909-1 DU	Influent	Total/NA	Water	9012B	145344
480-47909-2	Effluent	Total/NA	Water	9012B	145344
480-47909-2 MS	Effluent	Total/NA	Water	9012B	145344
LCS 480-145344/2-A	Lab Control Sample	Total/NA	Water	9012B	145344
LCSD 480-145344/3-A	Lab Control Sample Dup	Total/NA	Water	9012B	145344
MB 480-145344/1-A	Method Blank	Total/NA	Water	9012B	145344

General Chemistry (Continued)

Analysis Batch: 145620

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47909-1	Influent	Total/NA	Water	300.0	
LCS 480-145620/3	Lab Control Sample	Total/NA	Water	300.0	
MB 480-145620/4	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 145640

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47909-1	Influent	Total/NA	Water	420.4	145090
480-47909-2	Effluent	Total/NA	Water	420.4	145090
LCS 480-145090/2-A	Lab Control Sample	Total/NA	Water	420.4	145090
MB 480-145090/1-A	Method Blank	Total/NA	Water	420.4	145090

Analysis Batch: 145783

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47909-1	Influent	Total/NA	Water	SM 2320B	
480-47909-1 DU	Influent	Total/NA	Water	SM 2320B	
480-47909-2	Effluent	Total/NA	Water	SM 2320B	
480-47909-2 MS	Effluent	Total/NA	Water	SM 2320B	
LCS 480-145783/7	Lab Control Sample	Total/NA	Water	SM 2320B	
MB 480-145783/6	Method Blank	Total/NA	Water	SM 2320B	

Lab Chronicle

Client: Innovative Engineering Solutions, Inc
Project/Site: NG Athol

TestAmerica Job ID: 480-47909-1

Client Sample ID: Influent

Lab Sample ID: 480-47909-1

Date Collected: 10/14/13 11:40

Matrix: Water

Date Received: 10/14/13 15:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		40	144726	10/15/13 08:27	TRB	TAL BUF
Total/NA	Analysis	624	DL	400	144726	10/15/13 09:23	TRB	TAL BUF
Total/NA	Prep	625	DL		145209	10/16/13 06:38	KEB	TAL BUF
Total/NA	Analysis	625	DL	200	145605	10/17/13 15:06	ANM	TAL BUF
Total/NA	Prep	625			145209	10/16/13 06:38	KEB	TAL BUF
Total/NA	Analysis	625		100	145605	10/17/13 12:42	ANM	TAL BUF
Dissolved	Prep	3005A			147134	10/24/13 08:50	NMD2	TAL BUF
Dissolved	Analysis	6010		1	148089	10/26/13 18:48	LMH	TAL BUF
Total/NA	Prep	3005A			147137	10/24/13 08:50	NMD2	TAL BUF
Total/NA	Analysis	6010		1	148298	10/28/13 18:51	LMH	TAL BUF
Total/NA	Analysis	7196A		1	98388	10/15/13 08:21	GRB	TAL WFD
Total/NA	Prep	1664A			145081	10/15/13 10:00	MDL	TAL BUF
Total/NA	Analysis	1664A		1	145082	10/15/13 13:44	MDL	TAL BUF
Total/NA	Analysis	SM 2540D		1	145119	10/15/13 17:12	KS	TAL BUF
Total/NA	Analysis	SM 4500 Cl G		1	145177	10/15/13 21:45	JMB	TAL BUF
Total/NA	Analysis	9040C		1	145198	10/15/13 23:49	KS	TAL BUF
Total/NA	Prep	9012A			145344	10/16/13 10:00	KSW	TAL BUF
Total/NA	Analysis	9012B		1	145448	10/16/13 19:58	NCH	TAL BUF
Total/NA	Analysis	300.0		2	145620	10/17/13 13:52	KAC	TAL BUF
Total/NA	Prep	Distill/Phenol			145090	10/15/13 09:40	RP	TAL BUF
Total/NA	Analysis	420.4		1	145640	10/17/13 10:43	RMB	TAL BUF
Total/NA	Analysis	SM 2320B		1	145783	10/17/13 15:35	KWJ	TAL BUF

Client Sample ID: Effluent

Lab Sample ID: 480-47909-2

Date Collected: 10/14/13 11:52

Matrix: Water

Date Received: 10/14/13 15:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	144726	10/15/13 08:03	TRB	TAL BUF
Total/NA	Prep	625			145209	10/16/13 06:38	KEB	TAL BUF
Total/NA	Analysis	625		1	145605	10/17/13 15:30	ANM	TAL BUF
Dissolved	Prep	3005A			147134	10/24/13 08:50	NMD2	TAL BUF
Dissolved	Analysis	6010		1	148089	10/26/13 18:50	LMH	TAL BUF
Total/NA	Prep	3005A			147137	10/24/13 08:50	NMD2	TAL BUF
Total/NA	Analysis	6010		1	148298	10/28/13 18:53	LMH	TAL BUF
Total/NA	Analysis	7196A		1	98388	10/15/13 08:21	GRB	TAL WFD
Total/NA	Prep	1664A			145081	10/15/13 10:00	MDL	TAL BUF
Total/NA	Analysis	1664A		1	145082	10/15/13 13:44	MDL	TAL BUF
Total/NA	Analysis	SM 2540D		1	145119	10/15/13 17:13	KS	TAL BUF
Total/NA	Analysis	SM 4500 Cl G		1	145177	10/15/13 21:45	JMB	TAL BUF
Total/NA	Analysis	9040C		1	145198	10/15/13 23:53	KS	TAL BUF
Total/NA	Analysis	300.0		1	145386	10/17/13 07:14	KAC	TAL BUF

Lab Chronicle

Client: Innovative Engineering Solutions, Inc
Project/Site: NG Athol

TestAmerica Job ID: 480-47909-1

Client Sample ID: Effluent

Lab Sample ID: 480-47909-2

Date Collected: 10/14/13 11:52

Matrix: Water

Date Received: 10/14/13 15:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012A			145344	10/16/13 10:00	KSW	TAL BUF
Total/NA	Analysis	9012B		1	145448	10/16/13 20:00	NCH	TAL BUF
Total/NA	Prep	Distill/Phenol			145090	10/15/13 09:40	RP	TAL BUF
Total/NA	Analysis	420.4		1	145640	10/17/13 11:52	RMB	TAL BUF
Total/NA	Analysis	SM 2320B		1	145783	10/17/13 15:46	KWJ	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL WFD = TestAmerica Westfield, Westfield Executive Park, 53 Southampton Road, Westfield, MA 01085, TEL (413)572-4000

Certification Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: NG Athol

TestAmerica Job ID: 480-47909-1

Laboratory: TestAmerica Buffalo

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-14
California	NELAP	9	1169CA	09-30-14
Connecticut	State Program	1	PH-0568	09-30-14
Florida	NELAP	4	E87672	06-30-14
Georgia	State Program	4	N/A	03-31-14
Illinois	NELAP	5	200003	09-30-14
Iowa	State Program	7	374	03-15-15
Kansas	NELAP	7	E-10187	01-31-14
Kentucky	State Program	4	90029	12-31-13
Kentucky (UST)	State Program	4	30	04-01-14
Louisiana	NELAP	6	02031	06-30-14
Maine	State Program	1	NY00044	12-04-14
Maryland	State Program	3	294	03-31-14
Massachusetts	State Program	1	M-NY044	06-30-14
Michigan	State Program	5	9937	04-01-14
Minnesota	NELAP	5	036-999-337	12-31-13
New Hampshire	NELAP	1	2973	09-11-14
New Jersey	NELAP	2	NY455	06-30-14
New York	NELAP	2	10026	04-01-14
North Dakota	State Program	8	R-176	03-31-14
Oklahoma	State Program	6	9421	08-31-14
Oregon	NELAP	10	NY200003	06-09-14
Pennsylvania	NELAP	3	68-00281	07-31-14
Rhode Island	State Program	1	LAO00328	12-31-13
Tennessee	State Program	4	TN02970	04-01-14
Texas	NELAP	6	T104704412-11-2	07-31-14
USDA	Federal		P330-11-00386	11-22-14
Virginia	NELAP	3	460185	09-14-14
Washington	State Program	10	C784	02-10-14
West Virginia DEP	State Program	3	252	12-31-13
Wisconsin	State Program	5	998310390	08-31-14

Laboratory: TestAmerica Westfield

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Connecticut	State Program	1	PH-0494	09-30-14
Massachusetts	State Program	1	M-MA014	06-30-14
New Hampshire	NELAP	1	2539	08-08-14

Method Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: NG Athol

TestAmerica Job ID: 480-47909-1

Method	Method Description	Protocol	Laboratory
624	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
625	Semivolatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
6010	Metals (ICP)	SW846	TAL BUF
1664A	HEM and SGT-HEM	1664A	TAL BUF
300.0	Anions, Ion Chromatography	MCAWW	TAL BUF
420.4	Phenolics, Total Recoverable	MCAWW	TAL BUF
7196A	Chromium, Hexavalent	SW846	TAL WFD
9012B	Cyanide, Total and/or Amenable	SW846	TAL BUF
9040C	pH	SW846	TAL BUF
SM 2320B	Alkalinity	SM	TAL BUF
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL BUF
SM 4500 Cl G	Chlorine, Residual	SM	TAL BUF

Protocol References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL WFD = TestAmerica Westfield, Westfield Executive Park, 53 Southampton Road, Westfield, MA 01085, TEL (413)572-4000

Sample Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: NG Athol

TestAmerica Job ID: 480-47909-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-47909-1	Influent	Water	10/14/13 11:40	10/14/13 15:17
480-47909-2	Effluent	Water	10/14/13 11:52	10/14/13 15:17

Detection Limit Exceptions Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: NG Athol

TestAmerica Job ID: 480-47909-1

The requested project specific reporting limits listed below were less than laboratory standard quantitation limits (PQL) but greater than or equal to the laboratory method detection limits (MDL). It must be noted that results reported below lab standard quantitation limits may result in false positive/false negative values and less accurate quantitation. Routine laboratory procedures do not indicate corrective action for detections below the laboratory's PQL.

Method	Matrix	Analyte	Units	Client RL	Lab PQL
625	Water	1,2,4-Trichlorobenzene	ug/L	5.0	10
625	Water	1,2-Dichlorobenzene	ug/L	5.0	10
625	Water	1,2-Diphenylhydrazine	ug/L	5.0	10
625	Water	1,3-Dichlorobenzene	ug/L	5.0	10
625	Water	1,4-Dichlorobenzene	ug/L	5.0	10
625	Water	2,4-Dinitrophenol	ug/L	5.0	10
625	Water	4,6-Dinitro-2-methylphenol	ug/L	5.0	10
625	Water	4-Nitrophenol	ug/L	5.0	10
625	Water	Benzidine	ug/L	5.0	80
625	Water	Bis(2-ethylhexyl) phthalate	ug/L	5.0	10
625	Water	Pentachlorophenol	ug/L	5.0	10

Login Sample Receipt Checklist

Client: Innovative Engineering Solutions, Inc

Job Number: 480-47909-1

Login Number: 47909

List Source: TestAmerica Buffalo

List Number: 1

Creator: Janish, Carl M

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	True	

Login Sample Receipt Checklist

Client: Innovative Engineering Solutions, Inc

Job Number: 480-47909-1

Login Number: 47909
List Number: 1
Creator: Emerich, Rich W

List Source: TestAmerica Westfield
List Creation: 10/17/13 03:20 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	N/A	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	N/A	
Cooler Temperature is recorded.	N/A	
COC is present.	N/A	
COC is filled out in ink and legible.	N/A	
COC is filled out with all pertinent information.	N/A	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	N/A	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica Westfield
Westfield Executive Park 53 Southampton Road
Westfield, MA 01085
Phone (413) 572-4000 Fax (413) 572-3707

Boston Service Center
240 Bear Hill Rd. Suite 104
Waltham, MA 02451
Phone (781) 466-6900 Fax (781) 466-6901

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Scott Mosman	Lab PM:	Carrier Tracking No(s):	COC No: 27000
Client Contact: Joseph Higgins	Phone: 508 254-0011	E-Mail: S.Mosman@IESIonline.com		Page: 1 of 1
Company: IESI				Job #:
Address: 25 Spring ST	Due Date Requested: 24 hr			
City: Walpole	TAT Requested (days):			
State, Zip: MA 02081				
Phone: 508-623-1223	Quote #:			
Email: J.Higgins@IESIonline.com	PO #:			
Project Name/number: NG Atole	WO #:			
Site: NG Atole	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue A=Air)	Sampler's Initials	Field Filtered Sample?	Perform MS/MSD?	196A chromium (hexavalent)	300.0 28D chlorine	Alk pH	6010MCP Custom total	6010MCP Custom dissolved	1664A Calc-oil grease	420.4 Phenolics total Recover	625-SYOA 625	2540D Total Suspended solids	9012MCP Cyanide total	624 5ml UPSelly VOC			Total Number of containers	Special Instructions/Note:
			Preservation Code:																			
influent	10/14/13	11:40 am	G	W				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓					Note: 6010 MCP custom total and dissolved for copper, silver, Fe Zink and chloride
Effluent	10/14/13	11:52 am	G	W				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓					

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological coal tar

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Scott Mosman	10/14/13 3:17 pm			10/14/13 1517	TAL
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
	10/14/13	TAL		10/15/13 0700	TAL
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks: 2.2 [illegible] 2.0 #1

TAL-8245-360 1111

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11/4/2013

16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-47989-1
Client Project/Site: NG Athol (Pump Test)

For:
Innovative Engineering Solutions, Inc
25 Spring Street
Walpole, Massachusetts 02081

Attn: Joseph Higgins

Authorized for release by:
10/18/2013 4:46:03 PM

Janine Johnson, Project Manager I
(413)572-4000
janine.johnson@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
H	Sample was prepped or analyzed beyond the specified holding time

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Innovative Engineering Solutions, Inc
Project/Site: NG Athol (Pump Test)

TestAmerica Job ID: 480-47989-1

Job ID: 480-47989-1

Laboratory: TestAmerica Buffalo

Narrative

Receipt
The samples were received on 10/15/2013 12:38 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.9º C.

GC/MS VOA
Method 624: The following sample was diluted to bring the concentration of target analytes within the calibration range: Influent (480-47989-1). Elevated reporting limits (RLs) are provided.

GC/MS Semi VOA
Method 625: The following samples were diluted due to the abundance of target analytes: Effluent (480-47989-2), Influent (480-47989-1). As such, surrogate recoveries were reduced to a level in which they do not provide useful information. Elevated reporting limits (RLs) are provided.

HPLC
Method 300.0: The following samples were diluted to bring the concentration of target analytes within the calibration range: Effluent (480-47989-2), Influent (480-47989-1). Elevated reporting limits (RLs) are provided.

Metals
Method 6010: The method blank for Batch 480-145245 contained total zinc above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples Effluent (480-47989-2), Influent (480-47989-1) was not performed.

Method 6010: At the request of the client, an abbreviated MCP analyte list was reported.

General Chemistry
Method SM 2540D: The results reported for the following sample do not concur with results previously reported for this site: Influent (480-47989-1). Reanalysis was performed, and the result confirmed.

Method 9012B: Per question G on the MassDEP Analytical Protocol Certification Form, TestAmerica's routine reporting limits do not achieve the CAM reporting limits specified in this CAM protocol; however they do achieve method 1 GW1/GW2/GW3 standards.

MassDEP Analytical Protocol Certification Form

Laboratory Name: **TestAmerica Buffalo** Project #: **480-47989-1**

Project Location: **NG Athol** RTN:

This form provides certifications for the following data set: list Laboratory Sample ID Number(s):

480-47989 [1-2]

Matrices: [X] Groundwater/Surface Water [ ] Soil/Sediment [ ] Drinking Water [ ] Air [ ] Other:

CAM Protocols (check all that apply below):

8260 VOC CAM II A [ ]	7470/7471 Hg CAM III B [ ]	Mass DEP VPH CAM IV A [ ]	8081 Pesticides CAM V B [ ]	7196 Hex Cr CAM VI B [X]	Mass DEP APH CAM IX A [ ]
8270 SVOC CAM II B [ ]	7010 Metals CAM III C [ ]	Mass DEP 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 [X]	6020 Metals CAM III D [ ]	8082 PCB CAM V A [ ]	9014 Total Cyanide/PAC CAM VI A [X]	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 time.	[X] Yes [ ] No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	[X] 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?	[X] 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"?	[X] Yes [ ] No
E	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)?	[X] Yes [ ] No

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	[ ] Yes [X] No[1]

Data User Note: ***Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WCS-07-350***

H	Were **all** QC performance standards specified in the CAM protocol(s) achieved?	[X] Yes [ ] No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s) ?	[ ] Yes [X] No[1]

[1] All negative responses must be addressed in an attached laboratory 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, is accurate and complete.

Signature: Janine Johnson Position: Project Manager

Printed Name: Janine Johnson Date: 10/18/13 16:31

This form has been electronically signed and approved

Detection Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: NG Athol (Pump Test)

TestAmerica Job ID: 480-47989-1

Client Sample ID: Influent — Lab Sample ID: 480-47989-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	150	J	1000	100	ug/L	200		624	Total/NA
Ethylbenzene	200	J	1000	93	ug/L	200		624	Total/NA
m-Xylene & p-Xylene	260	J	2000	220	ug/L	200		624	Total/NA
Naphthalene	12000		1000	22	ug/L	200		624	Total/NA
o-Xylene	100	J	1000	86	ug/L	200		624	Total/NA
Styrene	160	J	1000	76	ug/L	200		624	Total/NA
Xylenes, Total	360	J	2000	220	ug/L	200		624	Total/NA
Total BTEX	560	J	2000	220	ug/L	200		624	Total/NA
Acenaphthene	620		480	5.7	ug/L	100		625	Total/NA
Acenaphthylene	4500		480	3.2	ug/L	100		625	Total/NA
Anthracene	920		480	5.0	ug/L	100		625	Total/NA
Benzo[a]anthracene	490		480	4.1	ug/L	100		625	Total/NA
Benzo[a]pyrene	370	J	480	5.5	ug/L	100		625	Total/NA
Benzo[b]fluoranthene	270	J	480	5.9	ug/L	100		625	Total/NA
Benzo[g,h,i]perylene	190	J	480	9.5	ug/L	100		625	Total/NA
Benzo[k]fluoranthene	120	J	480	4.0	ug/L	100		625	Total/NA
Chrysene	460	J	480	3.4	ug/L	100		625	Total/NA
Fluoranthene	1100		480	10	ug/L	100		625	Total/NA
Fluorene	1800		480	4.1	ug/L	100		625	Total/NA
Indeno[1,2,3-cd]pyrene	120	J	480	18	ug/L	100		625	Total/NA
Naphthalene	13000		480	7.6	ug/L	100		625	Total/NA
Phenanthrene	3700		480	6.8	ug/L	100		625	Total/NA
Pyrene	1500		480	3.9	ug/L	100		625	Total/NA
Copper	2.3	J	10	1.6	ug/L	1		6010	Total/NA
Iron	4600		50	19	ug/L	1		6010	Total/NA
Zinc	4.1	J B	50	1.5	ug/L	1		6010	Total/NA
Iron	3000		50	19	ug/L	1		6010	Dissolved
Zinc	3.4	J	50	1.5	ug/L	1		6010	Dissolved
Oil & Grease	2.4	J	4.8	1.3	mg/L	1		1664A	Total/NA
Chloride	110		1.0	0.56	mg/L	2		300.0	Total/NA
Alkalinity	63000		5000	790	ug/L	1		SM 2320B	Total/NA
Chlorine, Total Residual	0.11		0.020	0.010	mg/L	1		SM 4500 Cl G	Total/NA
Analyte	**Result**	**Qualifier**	**RL**	**RL**	**Unit**	**Dil Fac**	**D**	**Method**	**Prep Type**
pH	6.21	H	0.100	0.100	SU	1		9040C	Total/NA
Total Suspended Solids	11		4.0	4.0	mg/L	1		SM 2540D	Total/NA

Client Sample ID: Effluent — Lab Sample ID: 480-47989-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	0.73	J	5.0	0.52	ug/L	1		624	Total/NA
Acetone	7.2	J	25	2.0	ug/L	1		624	Total/NA
Naphthalene	53		5.0	0.11	ug/L	1		624	Total/NA
Acenaphthene	12	J	95	1.1	ug/L	20		625	Total/NA
Acenaphthylene	73	J	95	0.65	ug/L	20		625	Total/NA
Anthracene	41	J	95	1.0	ug/L	20		625	Total/NA
Benzo[a]anthracene	30	J	95	0.82	ug/L	20		625	Total/NA
Benzo[a]pyrene	23	J	95	1.1	ug/L	20		625	Total/NA
Benzo[b]fluoranthene	15	J	95	1.2	ug/L	20		625	Total/NA
Benzo[g,h,i]perylene	11	J	95	1.9	ug/L	20		625	Total/NA
Chrysene	28	J	95	0.68	ug/L	20		625	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: NG Athol (Pump Test)

TestAmerica Job ID: 480-47989-1

Client Sample ID: Effluent (Continued)

Lab Sample ID: 480-47989-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	57	J	95	2.1	ug/L	20		625	Total/NA
Fluorene	47	J	95	0.81	ug/L	20		625	Total/NA
Naphthalene	36	J	95	1.5	ug/L	20		625	Total/NA
Phenanthrene	160		95	1.3	ug/L	20		625	Total/NA
Pyrene	79	J	95	0.78	ug/L	20		625	Total/NA
Copper	1.8	J	10	1.6	ug/L	1		6010	Total/NA
Zinc	2.9	J B	50	1.5	ug/L	1		6010	Total/NA
Copper	1.8	J	10	1.6	ug/L	1		6010	Dissolved
Iron	29	J	50	19	ug/L	1		6010	Dissolved
Zinc	15	J	50	1.5	ug/L	1		6010	Dissolved
Chloride	100		1.0	0.56	mg/L	2		300.0	Total/NA
Alkalinity	89000		5000	790	ug/L	1		SM 2320B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.01	H	0.100	0.100	SU	1		9040C	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Innovative Engineering Solutions, Inc
Project/Site: NG Athol (Pump Test)

TestAmerica Job ID: 480-47989-1

Client Sample ID: Influent

Lab Sample ID: 480-47989-1

Date Collected: 10/15/13 08:40
Matrix: Water
Date Received: 10/15/13 12:38

Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1000	99	ug/L			10/16/13 08:36	200
1,1,1-Trichloroethane	ND		1000	77	ug/L			10/16/13 08:36	200
1,1,2,2-Tetrachloroethane	ND		1000	52	ug/L			10/16/13 08:36	200
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1000	73	ug/L			10/16/13 08:36	200
1,1,2-Trichloroethane	ND		1000	96	ug/L			10/16/13 08:36	200
1,1-Dichloroethane	ND		1000	120	ug/L			10/16/13 08:36	200
1,1-Dichloroethene	ND		1000	170	ug/L			10/16/13 08:36	200
1,1-Dichloropropene	ND		1000	160	ug/L			10/16/13 08:36	200
1,2,3-Trichlorobenzene	ND		1000	83	ug/L			10/16/13 08:36	200
1,2,3-Trichloropropane	ND		1000	41	ug/L			10/16/13 08:36	200
1,2,4-Trichlorobenzene	ND		1000	78	ug/L			10/16/13 08:36	200
1,2,4-Trimethylbenzene	**150**	**J**	1000	100	ug/L			10/16/13 08:36	200
1,2-Dibromo-3-Chloropropane	ND		1000	120	ug/L			10/16/13 08:36	200
1,2-Dichlorobenzene	ND		1000	89	ug/L			10/16/13 08:36	200
1,2-Dichloroethane	ND		1000	120	ug/L			10/16/13 08:36	200
1,2-Dichloropropane	ND		1000	120	ug/L			10/16/13 08:36	200
1,3,5-Trimethylbenzene	ND		2000	89	ug/L			10/16/13 08:36	200
1,3-Dichlorobenzene	ND		1000	110	ug/L			10/16/13 08:36	200
1,3-Dichloropropane	ND		1000	100	ug/L			10/16/13 08:36	200
1,3-Dichloropropene, Total	ND		1000	530	ug/L			10/16/13 08:36	200
1,4-Dichlorobenzene	ND		1000	100	ug/L			10/16/13 08:36	200
1,4-Dioxane	ND		40000	3000	ug/L			10/16/13 08:36	200
2,2-Dichloropropane	ND		1000	66	ug/L			10/16/13 08:36	200
2-Chloro-1,3-butadiene	ND		1000	150	ug/L			10/16/13 08:36	200
2-Chloroethyl vinyl ether	ND		5000	370	ug/L			10/16/13 08:36	200
2-Hexanone	ND		5000	390	ug/L			10/16/13 08:36	200
Allyl chloride	ND		1000	110	ug/L			10/16/13 08:36	200
Acetone	ND		5000	400	ug/L			10/16/13 08:36	200
Acetonitrile	ND		40000	3100	ug/L			10/16/13 08:36	200
Acrolein	ND		20000	3500	ug/L			10/16/13 08:36	200
Acrylonitrile	ND		5000	380	ug/L			10/16/13 08:36	200
Benzene	ND		1000	120	ug/L			10/16/13 08:36	200
Bromobenzene	ND		2000	88	ug/L			10/16/13 08:36	200
Bromoform	ND		1000	94	ug/L			10/16/13 08:36	200
Bromomethane	ND		1000	240	ug/L			10/16/13 08:36	200
Carbon disulfide	ND		1000	57	ug/L			10/16/13 08:36	200
Carbon tetrachloride	ND		1000	100	ug/L			10/16/13 08:36	200
Chlorobenzene	ND		1000	95	ug/L			10/16/13 08:36	200
Bromochloromethane	ND		1000	140	ug/L			10/16/13 08:36	200
Chlorodibromomethane	ND		1000	83	ug/L			10/16/13 08:36	200
Chlorodifluoromethane	ND		1000	84	ug/L			10/16/13 08:36	200
Chloroethane	ND		1000	170	ug/L			10/16/13 08:36	200
Chloroform	ND		1000	110	ug/L			10/16/13 08:36	200
Chloromethane	ND		1000	130	ug/L			10/16/13 08:36	200
cis-1,2-Dichloroethene	ND		1000	110	ug/L			10/16/13 08:36	200
cis-1,3-Dichloropropene	ND		1000	66	ug/L			10/16/13 08:36	200
Dibromomethane	ND		1000	110	ug/L			10/16/13 08:36	200
Bromodichloromethane	ND		1000	110	ug/L			10/16/13 08:36	200
Dichlorodifluoromethane	ND		1000	55	ug/L			10/16/13 08:36	200

Client Sample ID: Influent

Lab Sample ID: 480-47989-1

Date Collected: 10/15/13 08:40

Matrix: Water

Date Received: 10/15/13 12:38

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl acetate	ND		1000	63	ug/L			10/16/13 08:36	200
Ethyl ether	ND		1000	68	ug/L			10/16/13 08:36	200
Ethyl methacrylate	ND		1000	120	ug/L			10/16/13 08:36	200
Ethylbenzene	**200**	**J**	1000	93	ug/L			10/16/13 08:36	200
1,2-Dibromoethane	ND		1000	100	ug/L			10/16/13 08:36	200
Hexachlorobutadiene	ND		2000	120	ug/L			10/16/13 08:36	200
Iodomethane	ND		1000	59	ug/L			10/16/13 08:36	200
Isobutyl alcohol	ND		40000	2100	ug/L			10/16/13 08:36	200
Isopropyl acetate	ND		1000	110	ug/L			10/16/13 08:36	200
Isopropylbenzene	ND		1000	100	ug/L			10/16/13 08:36	200
m-Xylene & p-Xylene	**260**	**J**	2000	220	ug/L			10/16/13 08:36	200
Methacrylonitrile	ND		1000	70	ug/L			10/16/13 08:36	200
2-Butanone (MEK)	ND		5000	350	ug/L			10/16/13 08:36	200
4-Methyl-2-pentanone (MIBK)	ND		5000	260	ug/L			10/16/13 08:36	200
Methyl methacrylate	ND		1000	50	ug/L			10/16/13 08:36	200
Methyl tert-butyl ether	ND		1000	71	ug/L			10/16/13 08:36	200
Methylene Chloride	ND		1000	160	ug/L			10/16/13 08:36	200
n-Butyl acetate	ND		1000	98	ug/L			10/16/13 08:36	200
n-Butylbenzene	ND		2000	64	ug/L			10/16/13 08:36	200
N-Propylbenzene	ND		2000	59	ug/L			10/16/13 08:36	200
Naphthalene	**12000**		1000	22	ug/L			10/16/13 08:36	200
o-Xylene	**100**	**J**	1000	86	ug/L			10/16/13 08:36	200
sec-Butylbenzene	ND		2000	64	ug/L			10/16/13 08:36	200
Styrene	**160**	**J**	1000	76	ug/L			10/16/13 08:36	200
tert-Butylbenzene	ND		2000	110	ug/L			10/16/13 08:36	200
Tetrachloroethene	ND		1000	68	ug/L			10/16/13 08:36	200
Tetrahydrofuran	ND		5000	440	ug/L			10/16/13 08:36	200
Toluene	ND		1000	91	ug/L			10/16/13 08:36	200
trans-1,2-Dichloroethene	ND		1000	120	ug/L			10/16/13 08:36	200
trans-1,3-Dichloropropene	ND		1000	88	ug/L			10/16/13 08:36	200
trans-1,4-Dichloro-2-butene	ND		5000	260	ug/L			10/16/13 08:36	200
Trichloroethene	ND		1000	120	ug/L			10/16/13 08:36	200
Trichlorofluoromethane	ND		1000	90	ug/L			10/16/13 08:36	200
Vinyl acetate	ND		5000	300	ug/L			10/16/13 08:36	200
Vinyl chloride	ND		1000	150	ug/L			10/16/13 08:36	200
2-Chlorotoluene	ND		1000	66	ug/L			10/16/13 08:36	200
4-Chlorotoluene	ND		1000	55	ug/L			10/16/13 08:36	200
4-Isopropyltoluene	ND		1000	110	ug/L			10/16/13 08:36	200
Amyl acetate (mixed isomers)	ND		1000	72	ug/L			10/16/13 08:36	200
2-Methyl-2-propanol	ND		20000	2300	ug/L			10/16/13 08:36	200
Isopropyl alcohol	ND		40000	3100	ug/L			10/16/13 08:36	200
Isopropyl ether	ND		1000	70	ug/L			10/16/13 08:36	200
2-Nitropropane	ND		1000	300	ug/L			10/16/13 08:36	200
Dichlorofluoromethane	ND		1000	50	ug/L			10/16/13 08:36	200
1,2-Dichloroethene, Total	ND		2000	640	ug/L			10/16/13 08:36	200
Xylenes, Total	**360**	**J**	2000	220	ug/L			10/16/13 08:36	200
Trihalomethanes, Total	ND		1000	110	ug/L			10/16/13 08:36	200
Total BTEX	**560**	**J**	2000	220	ug/L			10/16/13 08:36	200
3-Chlorotoluene	ND		1000	62	ug/L			10/16/13 08:36	200

Client Sample ID: Influent

Lab Sample ID: 480-47989-1

Date Collected: 10/15/13 08:40

Matrix: Water

Date Received: 10/15/13 12:38

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chlorobenzotrifluoride	ND		1000	100	ug/L			10/16/13 08:36	200
3-Chlorobenzotrifluoride	ND		1000	97	ug/L			10/16/13 08:36	200
4-Chlorobenzotrifluoride	ND		1000	96	ug/L			10/16/13 08:36	200
Propionitrile	ND		10000	610	ug/L			10/16/13 08:36	200

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
bis(2-chloromethyl)ether TIC	*ND*		*ug/L*			*542-88-1*		*10/16/13 08:36*	*200*
bis(chloromethyl)ether TIC	*ND*		*ug/L*			*542-88-1*		*10/16/13 08:36*	*200*
Aziridine TIC	*ND*		*ug/L*			*151-56-4*		*10/16/13 08:36*	*200*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*115*		*72 - 130*		*10/16/13 08:36*	*200*
4-Bromofluorobenzene (Surr)	*101*		*69 - 121*		*10/16/13 08:36*	*200*
Toluene-d8 (Surr)	*101*		*70 - 123*		*10/16/13 08:36*	*200*

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**620**		480	5.7	ug/L		10/16/13 09:17	10/17/13 11:54	100
Acenaphthylene	**4500**		480	3.2	ug/L		10/16/13 09:17	10/17/13 11:54	100
Anthracene	**920**		480	5.0	ug/L		10/16/13 09:17	10/17/13 11:54	100
Benzidine	ND		480	240	ug/L		10/16/13 09:17	10/17/13 11:54	100
Benzo[a]anthracene	**490**		480	4.1	ug/L		10/16/13 09:17	10/17/13 11:54	100
Benzo[a]pyrene	**370**	**J**	480	5.5	ug/L		10/16/13 09:17	10/17/13 11:54	100
Benzo[b]fluoranthene	**270**	**J**	480	5.9	ug/L		10/16/13 09:17	10/17/13 11:54	100
Benzo[g,h,i]perylene	**190**	**J**	480	9.5	ug/L		10/16/13 09:17	10/17/13 11:54	100
Benzo[k]fluoranthene	**120**	**J**	480	4.0	ug/L		10/16/13 09:17	10/17/13 11:54	100
Bis(2-chloroethyl)ether	ND		480	100	ug/L		10/16/13 09:17	10/17/13 11:54	100
Bis(2-chloroethoxy)methane	ND		480	8.1	ug/L		10/16/13 09:17	10/17/13 11:54	100
bis (2-chloroisopropyl) ether	ND		480	8.2	ug/L		10/16/13 09:17	10/17/13 11:54	100
Bis(2-ethylhexyl) phthalate	ND		480	82	ug/L		10/16/13 09:17	10/17/13 11:54	100
4-Bromophenyl phenyl ether	ND		480	11	ug/L		10/16/13 09:17	10/17/13 11:54	100
Butyl benzyl phthalate	ND		480	120	ug/L		10/16/13 09:17	10/17/13 11:54	100
2-Chloronaphthalene	ND		480	6.4	ug/L		10/16/13 09:17	10/17/13 11:54	100
4-Chlorophenyl phenyl ether	ND		480	20	ug/L		10/16/13 09:17	10/17/13 11:54	100
Chrysene	**460**	**J**	480	3.4	ug/L		10/16/13 09:17	10/17/13 11:54	100
Dibenz(a,h)anthracene	ND		480	5.3	ug/L		10/16/13 09:17	10/17/13 11:54	100
Di-n-butyl phthalate	ND		480	89	ug/L		10/16/13 09:17	10/17/13 11:54	100
1,2-Dichlorobenzene	ND		480	14	ug/L		10/16/13 09:17	10/17/13 11:54	100
1,3-Dichlorobenzene	ND		480	6.6	ug/L		10/16/13 09:17	10/17/13 11:54	100
1,4-Dichlorobenzene	ND		480	8.5	ug/L		10/16/13 09:17	10/17/13 11:54	100
3,3'-Dichlorobenzidine	ND		480	78	ug/L		10/16/13 09:17	10/17/13 11:54	100
Diethyl phthalate	ND		480	16	ug/L		10/16/13 09:17	10/17/13 11:54	100
Dimethyl phthalate	ND		480	16	ug/L		10/16/13 09:17	10/17/13 11:54	100
2,4-Dinitrotoluene	ND		480	25	ug/L		10/16/13 09:17	10/17/13 11:54	100
2,6-Dinitrotoluene	ND		480	68	ug/L		10/16/13 09:17	10/17/13 11:54	100
Di-n-octyl phthalate	ND		480	420	ug/L		10/16/13 09:17	10/17/13 11:54	100
1,2-Diphenylhydrazine	ND		480	6.0	ug/L		10/16/13 09:17	10/17/13 11:54	100
Fluoranthene	**1100**		480	10	ug/L		10/16/13 09:17	10/17/13 11:54	100
Fluorene	**1800**		480	4.1	ug/L		10/16/13 09:17	10/17/13 11:54	100
Hexachlorobenzene	ND		480	26	ug/L		10/16/13 09:17	10/17/13 11:54	100

Client Sample ID: Influent

Date Collected: 10/15/13 08:40
Date Received: 10/15/13 12:38

Lab Sample ID: 480-47989-1

Matrix: Water

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	ND		480	59	ug/L		10/16/13 09:17	10/17/13 11:54	100
Hexachlorocyclopentadiene	ND		480	43	ug/L		10/16/13 09:17	10/17/13 11:54	100
Hexachloroethane	ND		480	46	ug/L		10/16/13 09:17	10/17/13 11:54	100
Indeno[1,2,3-cd]pyrene	**120**	**J**	480	18	ug/L		10/16/13 09:17	10/17/13 11:54	100
Isophorone	ND		480	15	ug/L		10/16/13 09:17	10/17/13 11:54	100
Naphthalene	**13000**		480	7.6	ug/L		10/16/13 09:17	10/17/13 11:54	100
Nitrobenzene	ND		480	11	ug/L		10/16/13 09:17	10/17/13 11:54	100
N-Nitrosodi-n-propylamine	ND		480	22	ug/L		10/16/13 09:17	10/17/13 11:54	100
N-Nitrosodimethylamine	ND		950	92	ug/L		10/16/13 09:17	10/17/13 11:54	100
N-Nitrosodiphenylamine	ND		480	38	ug/L		10/16/13 09:17	10/17/13 11:54	100
Phenanthrene	**3700**		480	6.8	ug/L		10/16/13 09:17	10/17/13 11:54	100
Pyrene	**1500**		480	3.9	ug/L		10/16/13 09:17	10/17/13 11:54	100
1,2,4-Trichlorobenzene	ND		480	47	ug/L		10/16/13 09:17	10/17/13 11:54	100
4-Chloro-3-methylphenol	ND		480	53	ug/L		10/16/13 09:17	10/17/13 11:54	100
2-Chlorophenol	ND		480	15	ug/L		10/16/13 09:17	10/17/13 11:54	100
2,4-Dichlorophenol	ND		480	29	ug/L		10/16/13 09:17	10/17/13 11:54	100
2,4-Dimethylphenol	ND		480	13	ug/L		10/16/13 09:17	10/17/13 11:54	100
2,4-Dinitrophenol	ND		480	80	ug/L		10/16/13 09:17	10/17/13 11:54	100
4,6-Dinitro-2-methylphenol	ND		480	72	ug/L		10/16/13 09:17	10/17/13 11:54	100
2-Nitrophenol	ND		480	14	ug/L		10/16/13 09:17	10/17/13 11:54	100
4-Nitrophenol	ND		480	130	ug/L		10/16/13 09:17	10/17/13 11:54	100
Pentachlorophenol	ND		480	39	ug/L		10/16/13 09:17	10/17/13 11:54	100
Phenol	ND		480	12	ug/L		10/16/13 09:17	10/17/13 11:54	100
2,4,6-Trichlorophenol	ND		480	22	ug/L		10/16/13 09:17	10/17/13 11:54	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*0*	*X*	*52 - 151*	*10/16/13 09:17*	*10/17/13 11:54*	*100*
2-Fluorobiphenyl	*85*		*44 - 120*	*10/16/13 09:17*	*10/17/13 11:54*	*100*
2-Fluorophenol	*0*	*X*	*17 - 120*	*10/16/13 09:17*	*10/17/13 11:54*	*100*
Nitrobenzene-d5	*0*	*X*	*42 - 120*	*10/16/13 09:17*	*10/17/13 11:54*	*100*
Phenol-d5	*0*	*X*	*10 - 120*	*10/16/13 09:17*	*10/17/13 11:54*	*100*
p-Terphenyl-d14	*0*	*X*	*22 - 125*	*10/16/13 09:17*	*10/17/13 11:54*	*100*

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	**2.3**	**J**	10	1.6	ug/L		10/16/13 08:45	10/16/13 22:44	1
Iron	**4600**		50	19	ug/L		10/16/13 08:45	10/17/13 16:29	1
Silver	ND		5.0	1.7	ug/L		10/16/13 08:45	10/16/13 22:44	1
Zinc	**4.1**	**J B**	50	1.5	ug/L		10/16/13 08:45	10/16/13 22:44	1

Method: 6010 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		10	1.6	ug/L		10/16/13 08:45	10/16/13 23:18	1
Iron	**3000**		50	19	ug/L		10/16/13 08:45	10/17/13 17:02	1
Silver	ND		5.0	1.7	ug/L		10/16/13 08:45	10/16/13 23:18	1
Zinc	**3.4**	**J**	50	1.5	ug/L		10/16/13 08:45	10/16/13 23:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil & Grease	**2.4**	**J**	4.8	1.3	mg/L		10/16/13 09:00	10/16/13 16:54	1

Client Sample ID: Influent

Lab Sample ID: 480-47989-1

Date Collected: 10/15/13 08:40

Matrix: Water

Date Received: 10/15/13 12:38

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**110**		1.0	0.56	mg/L			10/18/13 13:11	2
Phenolics, Total Recoverable	ND		0.010	0.0050	mg/L		10/16/13 09:05	10/17/13 17:31	1
Cyanide, Total	ND		0.010	0.0050	mg/L		10/16/13 10:00	10/16/13 20:02	1
Alkalinity	**63000**		5000	790	ug/L			10/18/13 14:54	1
Chlorine, Total Residual	**0.11**		0.020	0.010	mg/L			10/16/13 07:00	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium (hexavalent)	ND		0.0050	0.0050	mg/L			10/15/13 14:31	1
pH	**6.21**	**H**	0.100	0.100	SU			10/16/13 10:35	1
Total Suspended Solids	**11**		4.0	4.0	mg/L			10/16/13 10:11	1

Client Sample ID: Effluent

Lab Sample ID: 480-47989-2

Date Collected: 10/15/13 08:51

Matrix: Water

Date Received: 10/15/13 12:38

Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0	0.50	ug/L			10/16/13 08:13	1
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			10/16/13 08:13	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			10/16/13 08:13	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.36	ug/L			10/16/13 08:13	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			10/16/13 08:13	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			10/16/13 08:13	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			10/16/13 08:13	1
1,1-Dichloropropene	ND		5.0	0.79	ug/L			10/16/13 08:13	1
1,2,3-Trichlorobenzene	ND		5.0	0.41	ug/L			10/16/13 08:13	1
1,2,3-Trichloropropane	ND		5.0	0.21	ug/L			10/16/13 08:13	1
1,2,4-Trichlorobenzene	ND		5.0	0.39	ug/L			10/16/13 08:13	1
1,2,4-Trimethylbenzene	**0.73**	**J**	5.0	0.52	ug/L			10/16/13 08:13	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.62	ug/L			10/16/13 08:13	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			10/16/13 08:13	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			10/16/13 08:13	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			10/16/13 08:13	1
1,3,5-Trimethylbenzene	ND		10	0.44	ug/L			10/16/13 08:13	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			10/16/13 08:13	1
1,3-Dichloropropane	ND		5.0	0.52	ug/L			10/16/13 08:13	1
1,3-Dichloropropene, Total	ND		5.0	2.7	ug/L			10/16/13 08:13	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			10/16/13 08:13	1
1,4-Dioxane	ND		200	15	ug/L			10/16/13 08:13	1
2,2-Dichloropropane	ND		5.0	0.33	ug/L			10/16/13 08:13	1
2-Chloro-1,3-butadiene	ND		5.0	0.75	ug/L			10/16/13 08:13	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			10/16/13 08:13	1
2-Hexanone	ND		25	2.0	ug/L			10/16/13 08:13	1
Allyl chloride	ND		5.0	0.56	ug/L			10/16/13 08:13	1
Acetone	**7.2**	**J**	25	2.0	ug/L			10/16/13 08:13	1
Acetonitrile	ND		200	16	ug/L			10/16/13 08:13	1
Acrolein	ND		100	17	ug/L			10/16/13 08:13	1
Acrylonitrile	ND		25	1.9	ug/L			10/16/13 08:13	1
Benzene	ND		5.0	0.60	ug/L			10/16/13 08:13	1
Bromobenzene	ND		10	0.44	ug/L			10/16/13 08:13	1

Client Sample ID: Effluent

Lab Sample ID: 480-47989-2

Date Collected: 10/15/13 08:51

Matrix: Water

Date Received: 10/15/13 12:38

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	ND		5.0	0.47	ug/L			10/16/13 08:13	1
Bromomethane	ND		5.0	1.2	ug/L			10/16/13 08:13	1
Carbon disulfide	ND		5.0	0.29	ug/L			10/16/13 08:13	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			10/16/13 08:13	1
Chlorobenzene	ND		5.0	0.48	ug/L			10/16/13 08:13	1
Bromochloromethane	ND		5.0	0.71	ug/L			10/16/13 08:13	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			10/16/13 08:13	1
Chlorodifluoromethane	ND		5.0	0.42	ug/L			10/16/13 08:13	1
Chloroethane	ND		5.0	0.87	ug/L			10/16/13 08:13	1
Chloroform	ND		5.0	0.54	ug/L			10/16/13 08:13	1
Chloromethane	ND		5.0	0.64	ug/L			10/16/13 08:13	1
cis-1,2-Dichloroethene	ND		5.0	0.57	ug/L			10/16/13 08:13	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			10/16/13 08:13	1
Dibromomethane	ND		5.0	0.53	ug/L			10/16/13 08:13	1
Bromodichloromethane	ND		5.0	0.54	ug/L			10/16/13 08:13	1
Dichlorodifluoromethane	ND		5.0	0.28	ug/L			10/16/13 08:13	1
Ethyl acetate	ND		5.0	0.32	ug/L			10/16/13 08:13	1
Ethyl ether	ND		5.0	0.34	ug/L			10/16/13 08:13	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			10/16/13 08:13	1
Ethylbenzene	ND		5.0	0.46	ug/L			10/16/13 08:13	1
1,2-Dibromoethane	ND		5.0	0.50	ug/L			10/16/13 08:13	1
Hexachlorobutadiene	ND		10	0.58	ug/L			10/16/13 08:13	1
Iodomethane	ND		5.0	0.29	ug/L			10/16/13 08:13	1
Isobutyl alcohol	ND		200	11	ug/L			10/16/13 08:13	1
Isopropyl acetate	ND		5.0	0.56	ug/L			10/16/13 08:13	1
Isopropylbenzene	ND		5.0	0.51	ug/L			10/16/13 08:13	1
m-Xylene & p-Xylene	ND		10	1.1	ug/L			10/16/13 08:13	1
Methacrylonitrile	ND		5.0	0.35	ug/L			10/16/13 08:13	1
2-Butanone (MEK)	ND		25	1.8	ug/L			10/16/13 08:13	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.3	ug/L			10/16/13 08:13	1
Methyl methacrylate	ND		5.0	0.25	ug/L			10/16/13 08:13	1
Methyl tert-butyl ether	ND		5.0	0.35	ug/L			10/16/13 08:13	1
Methylene Chloride	ND		5.0	0.81	ug/L			10/16/13 08:13	1
n-Butyl acetate	ND		5.0	0.49	ug/L			10/16/13 08:13	1
n-Butylbenzene	ND		10	0.32	ug/L			10/16/13 08:13	1
N-Propylbenzene	ND		10	0.30	ug/L			10/16/13 08:13	1
Naphthalene	**53**		5.0	0.11	ug/L			10/16/13 08:13	1
o-Xylene	ND		5.0	0.43	ug/L			10/16/13 08:13	1
sec-Butylbenzene	ND		10	0.32	ug/L			10/16/13 08:13	1
Styrene	ND		5.0	0.38	ug/L			10/16/13 08:13	1
tert-Butylbenzene	ND		10	0.54	ug/L			10/16/13 08:13	1
Tetrachloroethene	ND		5.0	0.34	ug/L			10/16/13 08:13	1
Tetrahydrofuran	ND		25	2.2	ug/L			10/16/13 08:13	1
Toluene	ND		5.0	0.45	ug/L			10/16/13 08:13	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			10/16/13 08:13	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			10/16/13 08:13	1
trans-1,4-Dichloro-2-butene	ND		25	1.3	ug/L			10/16/13 08:13	1
Trichloroethene	ND		5.0	0.60	ug/L			10/16/13 08:13	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			10/16/13 08:13	1

Client Sample ID: Effluent

Lab Sample ID: 480-47989-2

Date Collected: 10/15/13 08:51

Matrix: Water

Date Received: 10/15/13 12:38

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl acetate	ND		25	1.5	ug/L			10/16/13 08:13	1
Vinyl chloride	ND		5.0	0.75	ug/L			10/16/13 08:13	1
2-Chlorotoluene	ND		5.0	0.33	ug/L			10/16/13 08:13	1
4-Chlorotoluene	ND		5.0	0.27	ug/L			10/16/13 08:13	1
4-Isopropyltoluene	ND		5.0	0.54	ug/L			10/16/13 08:13	1
Amyl acetate (mixed isomers)	ND		5.0	0.36	ug/L			10/16/13 08:13	1
2-Methyl-2-propanol	ND		100	12	ug/L			10/16/13 08:13	1
Isopropyl alcohol	ND		200	15	ug/L			10/16/13 08:13	1
Isopropyl ether	ND		5.0	0.35	ug/L			10/16/13 08:13	1
2-Nitropropane	ND		5.0	1.5	ug/L			10/16/13 08:13	1
Dichlorofluoromethane	ND		5.0	0.25	ug/L			10/16/13 08:13	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			10/16/13 08:13	1
Xylenes, Total	ND		10	1.1	ug/L			10/16/13 08:13	1
Trihalomethanes, Total	ND		5.0	0.54	ug/L			10/16/13 08:13	1
Total BTEX	ND		10	1.1	ug/L			10/16/13 08:13	1
3-Chlorotoluene	ND		5.0	0.31	ug/L			10/16/13 08:13	1
2-Chlorobenzotrifluoride	ND		5.0	0.50	ug/L			10/16/13 08:13	1
3-Chlorobenzotrifluoride	ND		5.0	0.49	ug/L			10/16/13 08:13	1
4-Chlorobenzotrifluoride	ND		5.0	0.48	ug/L			10/16/13 08:13	1
Propionitrile	ND		50	3.1	ug/L			10/16/13 08:13	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
bis(2-chloromethyl)ether TIC	*ND*		*ug/L*			*542-88-1*		*10/16/13 08:13*	*1*
bis(chloromethyl)ether TIC	*ND*		*ug/L*			*542-88-1*		*10/16/13 08:13*	*1*
Aziridine TIC	*ND*		*ug/L*			*151-56-4*		*10/16/13 08:13*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*114*		*72 - 130*		*10/16/13 08:13*	*1*
4-Bromofluorobenzene (Surr)	*102*		*69 - 121*		*10/16/13 08:13*	*1*
Toluene-d8 (Surr)	*100*		*70 - 123*		*10/16/13 08:13*	*1*

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**12**	**J**	95	1.1	ug/L		10/16/13 09:17	10/17/13 12:18	20
Acenaphthylene	**73**	**J**	95	0.65	ug/L		10/16/13 09:17	10/17/13 12:18	20
Anthracene	**41**	**J**	95	1.0	ug/L		10/16/13 09:17	10/17/13 12:18	20
Benzidine	ND		95	48	ug/L		10/16/13 09:17	10/17/13 12:18	20
Benzo[a]anthracene	**30**	**J**	95	0.82	ug/L		10/16/13 09:17	10/17/13 12:18	20
Benzo[a]pyrene	**23**	**J**	95	1.1	ug/L		10/16/13 09:17	10/17/13 12:18	20
Benzo[b]fluoranthene	**15**	**J**	95	1.2	ug/L		10/16/13 09:17	10/17/13 12:18	20
Benzo[g,h,i]perylene	**11**	**J**	95	1.9	ug/L		10/16/13 09:17	10/17/13 12:18	20
Benzo[k]fluoranthene	ND		95	0.79	ug/L		10/16/13 09:17	10/17/13 12:18	20
Bis(2-chloroethyl)ether	ND		95	21	ug/L		10/16/13 09:17	10/17/13 12:18	20
Bis(2-chloroethoxy)methane	ND		95	1.6	ug/L		10/16/13 09:17	10/17/13 12:18	20
bis (2-chloroisopropyl) ether	ND		95	1.6	ug/L		10/16/13 09:17	10/17/13 12:18	20
Bis(2-ethylhexyl) phthalate	ND		95	16	ug/L		10/16/13 09:17	10/17/13 12:18	20
4-Bromophenyl phenyl ether	ND		95	2.2	ug/L		10/16/13 09:17	10/17/13 12:18	20
Butyl benzyl phthalate	ND		95	25	ug/L		10/16/13 09:17	10/17/13 12:18	20
2-Chloronaphthalene	ND		95	1.3	ug/L		10/16/13 09:17	10/17/13 12:18	20
4-Chlorophenyl phenyl ether	ND		95	4.0	ug/L		10/16/13 09:17	10/17/13 12:18	20

Client: Innovative Engineering Solutions, Inc
Project/Site: NG Athol (Pump Test)

TestAmerica Job ID: 480-47989-1

Client Sample ID: Effluent

Lab Sample ID: 480-47989-2

Date Collected: 10/15/13 08:51
Matrix: Water
Date Received: 10/15/13 12:38

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	**28**	**J**	95	0.68	ug/L		10/16/13 09:17	10/17/13 12:18	20
Dibenz(a,h)anthracene	ND		95	1.1	ug/L		10/16/13 09:17	10/17/13 12:18	20
Di-n-butyl phthalate	ND		95	18	ug/L		10/16/13 09:17	10/17/13 12:18	20
1,2-Dichlorobenzene	ND		95	2.8	ug/L		10/16/13 09:17	10/17/13 12:18	20
1,3-Dichlorobenzene	ND		95	1.3	ug/L		10/16/13 09:17	10/17/13 12:18	20
1,4-Dichlorobenzene	ND		95	1.7	ug/L		10/16/13 09:17	10/17/13 12:18	20
3,3'-Dichlorobenzidine	ND		95	16	ug/L		10/16/13 09:17	10/17/13 12:18	20
Diethyl phthalate	ND		95	3.3	ug/L		10/16/13 09:17	10/17/13 12:18	20
Dimethyl phthalate	ND		95	3.2	ug/L		10/16/13 09:17	10/17/13 12:18	20
2,4-Dinitrotoluene	ND		95	5.0	ug/L		10/16/13 09:17	10/17/13 12:18	20
2,6-Dinitrotoluene	ND		95	14	ug/L		10/16/13 09:17	10/17/13 12:18	20
Di-n-octyl phthalate	ND		95	85	ug/L		10/16/13 09:17	10/17/13 12:18	20
1,2-Diphenylhydrazine	ND		95	1.2	ug/L		10/16/13 09:17	10/17/13 12:18	20
Fluoranthene	**57**	**J**	95	2.1	ug/L		10/16/13 09:17	10/17/13 12:18	20
Fluorene	**47**	**J**	95	0.81	ug/L		10/16/13 09:17	10/17/13 12:18	20
Hexachlorobenzene	ND		95	5.2	ug/L		10/16/13 09:17	10/17/13 12:18	20
Hexachlorobutadiene	ND		95	12	ug/L		10/16/13 09:17	10/17/13 12:18	20
Hexachlorocyclopentadiene	ND		95	8.6	ug/L		10/16/13 09:17	10/17/13 12:18	20
Hexachloroethane	ND		95	9.2	ug/L		10/16/13 09:17	10/17/13 12:18	20
Indeno[1,2,3-cd]pyrene	ND		95	3.5	ug/L		10/16/13 09:17	10/17/13 12:18	20
Isophorone	ND		95	3.0	ug/L		10/16/13 09:17	10/17/13 12:18	20
Naphthalene	**36**	**J**	95	1.5	ug/L		10/16/13 09:17	10/17/13 12:18	20
Nitrobenzene	ND		95	2.1	ug/L		10/16/13 09:17	10/17/13 12:18	20
N-Nitrosodi-n-propylamine	ND		95	4.4	ug/L		10/16/13 09:17	10/17/13 12:18	20
N-Nitrosodimethylamine	ND		190	18	ug/L		10/16/13 09:17	10/17/13 12:18	20
N-Nitrosodiphenylamine	ND		95	7.5	ug/L		10/16/13 09:17	10/17/13 12:18	20
Phenanthrene	**160**		95	1.3	ug/L		10/16/13 09:17	10/17/13 12:18	20
Pyrene	**79**	**J**	95	0.78	ug/L		10/16/13 09:17	10/17/13 12:18	20
1,2,4-Trichlorobenzene	ND		95	9.3	ug/L		10/16/13 09:17	10/17/13 12:18	20
4-Chloro-3-methylphenol	ND		95	11	ug/L		10/16/13 09:17	10/17/13 12:18	20
2-Chlorophenol	ND		95	3.0	ug/L		10/16/13 09:17	10/17/13 12:18	20
2,4-Dichlorophenol	ND		95	5.7	ug/L		10/16/13 09:17	10/17/13 12:18	20
2,4-Dimethylphenol	ND		95	2.6	ug/L		10/16/13 09:17	10/17/13 12:18	20
2,4-Dinitrophenol	ND		95	16	ug/L		10/16/13 09:17	10/17/13 12:18	20
4,6-Dinitro-2-methylphenol	ND		95	14	ug/L		10/16/13 09:17	10/17/13 12:18	20
2-Nitrophenol	ND		95	2.7	ug/L		10/16/13 09:17	10/17/13 12:18	20
4-Nitrophenol	ND		95	26	ug/L		10/16/13 09:17	10/17/13 12:18	20
Pentachlorophenol	ND		95	7.9	ug/L		10/16/13 09:17	10/17/13 12:18	20
Phenol	ND		95	2.3	ug/L		10/16/13 09:17	10/17/13 12:18	20
2,4,6-Trichlorophenol	ND		95	4.4	ug/L		10/16/13 09:17	10/17/13 12:18	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*0*	*X*	*52 - 151*	*10/16/13 09:17*	*10/17/13 12:18*	*20*
2-Fluorobiphenyl	*85*		*44 - 120*	*10/16/13 09:17*	*10/17/13 12:18*	*20*
2-Fluorophenol	*0*	*X*	*17 - 120*	*10/16/13 09:17*	*10/17/13 12:18*	*20*
Nitrobenzene-d5	*71*		*42 - 120*	*10/16/13 09:17*	*10/17/13 12:18*	*20*
Phenol-d5	*0*	*X*	*10 - 120*	*10/16/13 09:17*	*10/17/13 12:18*	*20*
p-Terphenyl-d14	*109*		*22 - 125*	*10/16/13 09:17*	*10/17/13 12:18*	*20*

Client Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: NG Athol (Pump Test)

TestAmerica Job ID: 480-47989-1

Client Sample ID: Effluent

Lab Sample ID: 480-47989-2

Date Collected: 10/15/13 08:51
Matrix: Water
Date Received: 10/15/13 12:38

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	**1.8**	**J**	10	1.6	ug/L		10/16/13 08:45	10/16/13 22:47	1
Iron	ND		50	19	ug/L		10/16/13 08:45	10/17/13 16:32	1
Silver	ND		5.0	1.7	ug/L		10/16/13 08:45	10/16/13 22:47	1
Zinc	**2.9**	**J B**	50	1.5	ug/L		10/16/13 08:45	10/16/13 22:47	1

Method: 6010 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	**1.8**	**J**	10	1.6	ug/L		10/16/13 08:45	10/16/13 23:20	1
Iron	**29**	**J**	50	19	ug/L		10/16/13 08:45	10/17/13 17:05	1
Silver	ND		5.0	1.7	ug/L		10/16/13 08:45	10/16/13 23:20	1
Zinc	**15**	**J**	50	1.5	ug/L		10/16/13 08:45	10/16/13 23:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil & Grease	ND		4.8	1.3	mg/L		10/16/13 09:00	10/16/13 16:54	1
Chloride	**100**		1.0	0.56	mg/L			10/18/13 13:21	2
Phenolics, Total Recoverable	ND		0.010	0.0050	mg/L		10/16/13 09:05	10/17/13 17:31	1
Cyanide, Total	ND		0.010	0.0050	mg/L		10/16/13 10:00	10/16/13 20:02	1
Alkalinity	**89000**		5000	790	ug/L			10/18/13 15:00	1
Chlorine, Total Residual	ND		0.020	0.010	mg/L			10/16/13 07:00	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium (hexavalent)	ND		0.0050	0.0050	mg/L			10/15/13 14:31	1
pH	**7.01**	**H**	0.100	0.100	SU			10/16/13 10:43	1
Total Suspended Solids	ND		4.0	4.0	mg/L			10/16/13 10:11	1

Surrogate Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: NG Athol (Pump Test)

TestAmerica Job ID: 480-47989-1

Method: 624 - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		12DCE	BFB	TOL
Lab Sample ID	Client Sample ID	(72-130)	(69-121)	(70-123)
480-47989-1	Influent	115	101	101
480-47989-2	Effluent	114	102	100
LCS 480-145033/5	Lab Control Sample	108	98	100
MB 480-145033/6	Method Blank	105	98	99

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL	TPH
Lab Sample ID	Client Sample ID	(52-151)	(44-120)	(17-120)	(42-120)	(10-120)	(22-125)
480-47989-1	Influent	0 X	85	0 X	0 X	0 X	0 X
480-47989-2	Effluent	0 X	85	0 X	71	0 X	109
LCS 480-145209/2-A	Lab Control Sample	89	81	46	81	31	100
MB 480-145209/1-A	Method Blank	85	83	49	83	33	113

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPH = p-Terphenyl-d14

Method: 624 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-145033/6
Matrix: Water
Analysis Batch: 145033

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0	0.50	ug/L			10/15/13 13:16	1
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			10/15/13 13:16	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			10/15/13 13:16	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.36	ug/L			10/15/13 13:16	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			10/15/13 13:16	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			10/15/13 13:16	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			10/15/13 13:16	1
1,1-Dichloropropene	ND		5.0	0.79	ug/L			10/15/13 13:16	1
1,2,3-Trichlorobenzene	ND		5.0	0.41	ug/L			10/15/13 13:16	1
1,2,3-Trichloropropane	ND		5.0	0.21	ug/L			10/15/13 13:16	1
1,2,4-Trichlorobenzene	ND		5.0	0.39	ug/L			10/15/13 13:16	1
1,2,4-Trimethylbenzene	ND		5.0	0.52	ug/L			10/15/13 13:16	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.62	ug/L			10/15/13 13:16	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			10/15/13 13:16	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			10/15/13 13:16	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			10/15/13 13:16	1
1,3,5-Trimethylbenzene	ND		10	0.44	ug/L			10/15/13 13:16	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			10/15/13 13:16	1
1,3-Dichloropropane	ND		5.0	0.52	ug/L			10/15/13 13:16	1
1,3-Dichloropropene, Total	ND		5.0	2.7	ug/L			10/15/13 13:16	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			10/15/13 13:16	1
1,4-Dioxane	ND		200	15	ug/L			10/15/13 13:16	1
2,2-Dichloropropane	ND		5.0	0.33	ug/L			10/15/13 13:16	1
2-Chloro-1,3-butadiene	ND		5.0	0.75	ug/L			10/15/13 13:16	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			10/15/13 13:16	1
2-Hexanone	ND		25	2.0	ug/L			10/15/13 13:16	1
Allyl chloride	ND		5.0	0.56	ug/L			10/15/13 13:16	1
Acetone	ND		25	2.0	ug/L			10/15/13 13:16	1
Acetonitrile	ND		200	16	ug/L			10/15/13 13:16	1
Acrolein	ND		100	17	ug/L			10/15/13 13:16	1
Acrylonitrile	ND		25	1.9	ug/L			10/15/13 13:16	1
Benzene	ND		5.0	0.60	ug/L			10/15/13 13:16	1
Bromobenzene	ND		10	0.44	ug/L			10/15/13 13:16	1
Bromoform	ND		5.0	0.47	ug/L			10/15/13 13:16	1
Bromomethane	ND		5.0	1.2	ug/L			10/15/13 13:16	1
Carbon disulfide	ND		5.0	0.29	ug/L			10/15/13 13:16	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			10/15/13 13:16	1
Chlorobenzene	ND		5.0	0.48	ug/L			10/15/13 13:16	1
Bromochloromethane	ND		5.0	0.71	ug/L			10/15/13 13:16	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			10/15/13 13:16	1
Chlorodifluoromethane	ND		5.0	0.42	ug/L			10/15/13 13:16	1
Chloroethane	ND		5.0	0.87	ug/L			10/15/13 13:16	1
Chloroform	ND		5.0	0.54	ug/L			10/15/13 13:16	1
Chloromethane	ND		5.0	0.64	ug/L			10/15/13 13:16	1
cis-1,2-Dichloroethene	ND		5.0	0.57	ug/L			10/15/13 13:16	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			10/15/13 13:16	1
Dibromomethane	ND		5.0	0.53	ug/L			10/15/13 13:16	1
Bromodichloromethane	ND		5.0	0.54	ug/L			10/15/13 13:16	1

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-145033/6
Matrix: Water
Analysis Batch: 145033

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		5.0	0.28	ug/L			10/15/13 13:16	1
Ethyl acetate	ND		5.0	0.32	ug/L			10/15/13 13:16	1
Ethyl ether	ND		5.0	0.34	ug/L			10/15/13 13:16	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			10/15/13 13:16	1
Ethylbenzene	ND		5.0	0.46	ug/L			10/15/13 13:16	1
1,2-Dibromoethane	ND		5.0	0.50	ug/L			10/15/13 13:16	1
Hexachlorobutadiene	ND		10	0.58	ug/L			10/15/13 13:16	1
Iodomethane	ND		5.0	0.29	ug/L			10/15/13 13:16	1
Isobutyl alcohol	ND		200	11	ug/L			10/15/13 13:16	1
Isopropyl acetate	ND		5.0	0.56	ug/L			10/15/13 13:16	1
Isopropylbenzene	ND		5.0	0.51	ug/L			10/15/13 13:16	1
m-Xylene & p-Xylene	ND		10	1.1	ug/L			10/15/13 13:16	1
Methacrylonitrile	ND		5.0	0.35	ug/L			10/15/13 13:16	1
2-Butanone (MEK)	ND		25	1.8	ug/L			10/15/13 13:16	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.3	ug/L			10/15/13 13:16	1
Methyl methacrylate	ND		5.0	0.25	ug/L			10/15/13 13:16	1
Methyl tert-butyl ether	ND		5.0	0.35	ug/L			10/15/13 13:16	1
Methylene Chloride	ND		5.0	0.81	ug/L			10/15/13 13:16	1
n-Butyl acetate	ND		5.0	0.49	ug/L			10/15/13 13:16	1
n-Butylbenzene	ND		10	0.32	ug/L			10/15/13 13:16	1
N-Propylbenzene	ND		10	0.30	ug/L			10/15/13 13:16	1
Naphthalene	ND		5.0	0.11	ug/L			10/15/13 13:16	1
o-Xylene	ND		5.0	0.43	ug/L			10/15/13 13:16	1
sec-Butylbenzene	ND		10	0.32	ug/L			10/15/13 13:16	1
Styrene	ND		5.0	0.38	ug/L			10/15/13 13:16	1
tert-Butylbenzene	ND		10	0.54	ug/L			10/15/13 13:16	1
Tetrachloroethene	ND		5.0	0.34	ug/L			10/15/13 13:16	1
Tetrahydrofuran	ND		25	2.2	ug/L			10/15/13 13:16	1
Toluene	ND		5.0	0.45	ug/L			10/15/13 13:16	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			10/15/13 13:16	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			10/15/13 13:16	1
trans-1,4-Dichloro-2-butene	ND		25	1.3	ug/L			10/15/13 13:16	1
Trichloroethene	ND		5.0	0.60	ug/L			10/15/13 13:16	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			10/15/13 13:16	1
Vinyl acetate	ND		25	1.5	ug/L			10/15/13 13:16	1
Vinyl chloride	ND		5.0	0.75	ug/L			10/15/13 13:16	1
2-Chlorotoluene	ND		5.0	0.33	ug/L			10/15/13 13:16	1
4-Chlorotoluene	ND		5.0	0.27	ug/L			10/15/13 13:16	1
4-Isopropyltoluene	ND		5.0	0.54	ug/L			10/15/13 13:16	1
Amyl acetate (mixed isomers)	ND		5.0	0.36	ug/L			10/15/13 13:16	1
2-Methyl-2-propanol	ND		100	12	ug/L			10/15/13 13:16	1
Isopropyl alcohol	ND		200	15	ug/L			10/15/13 13:16	1
Isopropyl ether	ND		5.0	0.35	ug/L			10/15/13 13:16	1
2-Nitropropane	ND		5.0	1.5	ug/L			10/15/13 13:16	1
Dichlorofluoromethane	ND		5.0	0.25	ug/L			10/15/13 13:16	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			10/15/13 13:16	1
Xylenes, Total	ND		10	1.1	ug/L			10/15/13 13:16	1
Trihalomethanes, Total	ND		5.0	0.54	ug/L			10/15/13 13:16	1

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-145033/6
Matrix: Water
Analysis Batch: 145033

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	ND		10	1.1	ug/L			10/15/13 13:16	1
3-Chlorotoluene	ND		5.0	0.31	ug/L			10/15/13 13:16	1
2-Chlorobenzotrifluoride	ND		5.0	0.50	ug/L			10/15/13 13:16	1
3-Chlorobenzotrifluoride	ND		5.0	0.49	ug/L			10/15/13 13:16	1
4-Chlorobenzotrifluoride	ND		5.0	0.48	ug/L			10/15/13 13:16	1
Propionitrile	ND		50	3.1	ug/L			10/15/13 13:16	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
bis(2-chloromethyl)ether TIC	*ND*		*ug/L*			*542-88-1*		*10/15/13 13:16*	*1*
bis(chloromethyl)ether TIC	*ND*		*ug/L*			*542-88-1*		*10/15/13 13:16*	*1*
Aziridine TIC	*ND*		*ug/L*			*151-56-4*		*10/15/13 13:16*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*72 - 130*		*10/15/13 13:16*	*1*
4-Bromofluorobenzene (Surr)	*98*		*69 - 121*		*10/15/13 13:16*	*1*
Toluene-d8 (Surr)	*99*		*70 - 123*		*10/15/13 13:16*	*1*

Lab Sample ID: LCS 480-145033/5
Matrix: Water
Analysis Batch: 145033

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	20.0	20.0		ug/L		100	
1,1,1-Trichloroethane	20.0	19.0		ug/L		95	52 - 162
1,1,2,2-Tetrachloroethane	20.0	17.0		ug/L		85	46 - 157
1,1,2-Trichloro-1,2,2-trifluoroetha ne	20.0	15.0		ug/L		75	
1,1,2-Trichloroethane	20.0	18.6		ug/L		93	52 - 150
1,1-Dichloroethane	20.0	16.6		ug/L		83	59 - 155
1,1-Dichloroethene	20.0	13.1		ug/L		66	1 - 234
1,1-Dichloropropene	20.0	17.5		ug/L		88	
1,2,3-Trichlorobenzene	20.0	26.0		ug/L		130	
1,2,3-Trichloropropane	20.0	19.1		ug/L		95	
1,2,4-Trichlorobenzene	20.0	27.2		ug/L		136	
1,2,4-Trimethylbenzene	20.0	20.4		ug/L		102	
1,2-Dibromo-3-Chloropropane	20.0	21.7		ug/L		108	
1,2-Dichlorobenzene	20.0	21.6		ug/L		108	18 - 190
1,2-Dichloroethane	20.0	18.4		ug/L		92	49 - 155
1,2-Dichloropropane	20.0	16.1		ug/L		81	1 - 210
1,3,5-Trimethylbenzene	20.0	19.1		ug/L		96	
1,3-Dichlorobenzene	20.0	19.0		ug/L		95	59 - 156
1,3-Dichloropropane	20.0	17.9		ug/L		89	
1,3-Dichloropropene, Total	40.0	32.6		ug/L		82	
1,4-Dichlorobenzene	20.0	19.8		ug/L		99	18 - 190
2,2-Dichloropropane	20.0	20.1		ug/L		101	
2-Chloroethyl vinyl ether	100	77.2		ug/L		77	1 - 305
2-Hexanone	100	84.0		ug/L		84	
Acetone	100	75.0		ug/L		75	

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-145033/5
Matrix: Water
Analysis Batch: 145033

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetonitrile	800	610		ug/L		76	
Acrolein	400	109		ug/L		27	
Acrylonitrile	100	76.2		ug/L		76	
Benzene	20.0	16.2		ug/L		81	37 - 151
Bromobenzene	20.0	18.0		ug/L		90	
Bromoform	20.0	18.8		ug/L		94	45 - 169
Bromomethane	20.0	18.2		ug/L		91	1 - 242
Carbon disulfide	20.0	12.4		ug/L		62	
Carbon tetrachloride	20.0	15.9		ug/L		80	70 - 140
Chlorobenzene	20.0	18.6		ug/L		93	37 - 160
Bromochloromethane	20.0	18.0		ug/L		90	
Chlorodibromomethane	20.0	18.0		ug/L		90	53 - 149
Chloroethane	20.0	19.0		ug/L		95	14 - 230
Chloroform	20.0	18.0		ug/L		90	51 - 138
Chloromethane	20.0	17.9		ug/L		90	1 - 273
cis-1,2-Dichloroethene	20.0	17.7		ug/L		88	
cis-1,3-Dichloropropene	20.0	15.7		ug/L		79	1 - 227
Dibromomethane	20.0	17.0		ug/L		85	
Bromodichloromethane	20.0	17.4		ug/L		87	35 - 155
Dichlorodifluoromethane	20.0	21.5		ug/L		108	
Ethyl methacrylate	20.0	17.1		ug/L		85	
Ethylbenzene	20.0	17.9		ug/L		90	37 - 162
1,2-Dibromoethane	20.0	18.7		ug/L		93	
Hexachlorobutadiene	20.0	24.9		ug/L		124	
Iodomethane	20.0	19.4		ug/L		97	
Isopropylbenzene	20.0	17.5		ug/L		88	
m-Xylene & p-Xylene	40.0	36.6		ug/L		91	79 - 120
2-Butanone (MEK)	100	75.4		ug/L		75	
4-Methyl-2-pentanone (MIBK)	100	91.4		ug/L		91	
Methyl tert-butyl ether	20.0	17.2		ug/L		86	78 - 118
Methylene Chloride	20.0	16.3		ug/L		82	1 - 221
n-Butylbenzene	20.0	20.7		ug/L		104	
N-Propylbenzene	20.0	18.1		ug/L		90	
Naphthalene	20.0	24.7		ug/L		124	
o-Xylene	20.0	19.4		ug/L		97	79 - 120
sec-Butylbenzene	20.0	19.1		ug/L		96	
Styrene	20.0	18.6		ug/L		93	
tert-Butylbenzene	20.0	19.5		ug/L		97	
Tetrachloroethene	20.0	18.2		ug/L		91	64 - 148
Tetrahydrofuran	100	78.3		ug/L		78	
Toluene	20.0	17.6		ug/L		88	47 - 150
trans-1,2-Dichloroethene	20.0	16.2		ug/L		81	54 - 156
trans-1,3-Dichloropropene	20.0	16.9		ug/L		84	17 - 183
trans-1,4-Dichloro-2-butene	100	101		ug/L		101	
Trichloroethene	20.0	17.6		ug/L		88	71 - 157
Trichlorofluoromethane	20.0	18.8		ug/L		94	17 - 181
Vinyl acetate	100	50.3		ug/L		50	
Vinyl chloride	20.0	17.8		ug/L		89	1 - 251

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-145033/5
Matrix: Water
Analysis Batch: 145033

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Chlorotoluene	20.0	18.0		ug/L		90	
4-Chlorotoluene	20.0	17.6		ug/L		88	
4-Isopropyltoluene	20.0	20.3		ug/L		102	

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*108*		*72 - 130*
4-Bromofluorobenzene (Surr)	*98*		*69 - 121*
Toluene-d8 (Surr)	*100*		*70 - 123*

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-145209/1-A
Matrix: Water
Analysis Batch: 145605

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 145209

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0	0.060	ug/L		10/16/13 06:38	10/17/13 11:06	1
Acenaphthylene	ND		5.0	0.034	ug/L		10/16/13 06:38	10/17/13 11:06	1
Anthracene	ND		5.0	0.052	ug/L		10/16/13 06:38	10/17/13 11:06	1
Benzidine	ND		5.0	2.5	ug/L		10/16/13 06:38	10/17/13 11:06	1
Benzo[a]anthracene	ND		5.0	0.043	ug/L		10/16/13 06:38	10/17/13 11:06	1
Benzo[a]pyrene	ND		5.0	0.058	ug/L		10/16/13 06:38	10/17/13 11:06	1
Benzo[b]fluoranthene	ND		5.0	0.062	ug/L		10/16/13 06:38	10/17/13 11:06	1
Benzo[g,h,i]perylene	ND		5.0	0.10	ug/L		10/16/13 06:38	10/17/13 11:06	1
Benzo[k]fluoranthene	ND		5.0	0.042	ug/L		10/16/13 06:38	10/17/13 11:06	1
Bis(2-chloroethyl)ether	ND		5.0	1.1	ug/L		10/16/13 06:38	10/17/13 11:06	1
Bis(2-chloroethoxy)methane	ND		5.0	0.085	ug/L		10/16/13 06:38	10/17/13 11:06	1
bis (2-chloroisopropyl) ether	ND		5.0	0.086	ug/L		10/16/13 06:38	10/17/13 11:06	1
Bis(2-ethylhexyl) phthalate	ND		5.0	0.86	ug/L		10/16/13 06:38	10/17/13 11:06	1
4-Bromophenyl phenyl ether	ND		5.0	0.11	ug/L		10/16/13 06:38	10/17/13 11:06	1
Butyl benzyl phthalate	ND		5.0	1.3	ug/L		10/16/13 06:38	10/17/13 11:06	1
2-Chloronaphthalene	ND		5.0	0.068	ug/L		10/16/13 06:38	10/17/13 11:06	1
4-Chlorophenyl phenyl ether	ND		5.0	0.21	ug/L		10/16/13 06:38	10/17/13 11:06	1
Chrysene	ND		5.0	0.036	ug/L		10/16/13 06:38	10/17/13 11:06	1
Dibenz(a,h)anthracene	ND		5.0	0.055	ug/L		10/16/13 06:38	10/17/13 11:06	1
Di-n-butyl phthalate	ND		5.0	0.94	ug/L		10/16/13 06:38	10/17/13 11:06	1
1,2-Dichlorobenzene	ND		5.0	0.15	ug/L		10/16/13 06:38	10/17/13 11:06	1
1,3-Dichlorobenzene	ND		5.0	0.069	ug/L		10/16/13 06:38	10/17/13 11:06	1
1,4-Dichlorobenzene	ND		5.0	0.090	ug/L		10/16/13 06:38	10/17/13 11:06	1
3,3'-Dichlorobenzidine	ND		5.0	0.82	ug/L		10/16/13 06:38	10/17/13 11:06	1
Diethyl phthalate	ND		5.0	0.17	ug/L		10/16/13 06:38	10/17/13 11:06	1
Dimethyl phthalate	ND		5.0	0.17	ug/L		10/16/13 06:38	10/17/13 11:06	1
2,4-Dinitrotoluene	ND		5.0	0.26	ug/L		10/16/13 06:38	10/17/13 11:06	1
2,6-Dinitrotoluene	ND		5.0	0.72	ug/L		10/16/13 06:38	10/17/13 11:06	1
Di-n-octyl phthalate	ND		5.0	4.5	ug/L		10/16/13 06:38	10/17/13 11:06	1
1,2-Diphenylhydrazine	ND		5.0	0.063	ug/L		10/16/13 06:38	10/17/13 11:06	1
Fluoranthene	ND		5.0	0.11	ug/L		10/16/13 06:38	10/17/13 11:06	1
Fluorene	ND		5.0	0.043	ug/L		10/16/13 06:38	10/17/13 11:06	1

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-145209/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145605 — **Prep Batch: 145209**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobenzene	ND		5.0	0.28	ug/L		10/16/13 06:38	10/17/13 11:06	1
Hexachlorobutadiene	ND		5.0	0.62	ug/L		10/16/13 06:38	10/17/13 11:06	1
Hexachlorocyclopentadiene	ND		5.0	0.45	ug/L		10/16/13 06:38	10/17/13 11:06	1
Hexachloroethane	ND		5.0	0.48	ug/L		10/16/13 06:38	10/17/13 11:06	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.19	ug/L		10/16/13 06:38	10/17/13 11:06	1
Isophorone	ND		5.0	0.16	ug/L		10/16/13 06:38	10/17/13 11:06	1
Naphthalene	ND		5.0	0.080	ug/L		10/16/13 06:38	10/17/13 11:06	1
Nitrobenzene	ND		5.0	0.11	ug/L		10/16/13 06:38	10/17/13 11:06	1
N-Nitrosodi-n-propylamine	ND		5.0	0.23	ug/L		10/16/13 06:38	10/17/13 11:06	1
N-Nitrosodimethylamine	ND		10	0.96	ug/L		10/16/13 06:38	10/17/13 11:06	1
N-Nitrosodiphenylamine	ND		5.0	0.40	ug/L		10/16/13 06:38	10/17/13 11:06	1
Phenanthrene	ND		5.0	0.071	ug/L		10/16/13 06:38	10/17/13 11:06	1
Pyrene	ND		5.0	0.041	ug/L		10/16/13 06:38	10/17/13 11:06	1
1,2,4-Trichlorobenzene	ND		5.0	0.49	ug/L		10/16/13 06:38	10/17/13 11:06	1
4-Chloro-3-methylphenol	ND		5.0	0.56	ug/L		10/16/13 06:38	10/17/13 11:06	1
2-Chlorophenol	ND		5.0	0.16	ug/L		10/16/13 06:38	10/17/13 11:06	1
2,4-Dichlorophenol	ND		5.0	0.30	ug/L		10/16/13 06:38	10/17/13 11:06	1
2,4-Dimethylphenol	ND		5.0	0.13	ug/L		10/16/13 06:38	10/17/13 11:06	1
2,4-Dinitrophenol	ND		5.0	0.84	ug/L		10/16/13 06:38	10/17/13 11:06	1
4,6-Dinitro-2-methylphenol	ND		5.0	0.76	ug/L		10/16/13 06:38	10/17/13 11:06	1
2-Nitrophenol	ND		5.0	0.14	ug/L		10/16/13 06:38	10/17/13 11:06	1
4-Nitrophenol	ND		5.0	1.3	ug/L		10/16/13 06:38	10/17/13 11:06	1
Pentachlorophenol	ND		5.0	0.41	ug/L		10/16/13 06:38	10/17/13 11:06	1
Phenol	ND		5.0	0.12	ug/L		10/16/13 06:38	10/17/13 11:06	1
2,4,6-Trichlorophenol	ND		5.0	0.23	ug/L		10/16/13 06:38	10/17/13 11:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*85*		*52 - 151*	*10/16/13 06:38*	*10/17/13 11:06*	*1*
2-Fluorobiphenyl	*83*		*44 - 120*	*10/16/13 06:38*	*10/17/13 11:06*	*1*
2-Fluorophenol	*49*		*17 - 120*	*10/16/13 06:38*	*10/17/13 11:06*	*1*
Nitrobenzene-d5	*83*		*42 - 120*	*10/16/13 06:38*	*10/17/13 11:06*	*1*
Phenol-d5	*33*		*10 - 120*	*10/16/13 06:38*	*10/17/13 11:06*	*1*
p-Terphenyl-d14	*113*		*22 - 125*	*10/16/13 06:38*	*10/17/13 11:06*	*1*

Lab Sample ID: LCS 480-145209/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145605 — **Prep Batch: 145209**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	50.0	43.5		ug/L		87	47 - 145
Acenaphthylene	50.0	43.7		ug/L		87	33 - 145
Anthracene	50.0	46.8		ug/L		94	27 - 133
Benzo[a]anthracene	50.0	47.0		ug/L		94	33 - 143
Benzo[a]pyrene	50.0	45.5		ug/L		91	17 - 163
Benzo[b]fluoranthene	50.0	42.7		ug/L		85	24 - 159
Benzo[g,h,i]perylene	50.0	50.2		ug/L		100	1 - 219
Benzo[k]fluoranthene	50.0	48.6		ug/L		97	11 - 162
Bis(2-chloroethyl)ether	50.0	39.2		ug/L		78	12 - 158

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-145209/2-A
Matrix: Water
Analysis Batch: 145605

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 145209

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bis(2-chloroethoxy)methane	50.0	42.4		ug/L		85	33 - 184
bis (2-chloroisopropyl) ether	50.0	41.4		ug/L		83	36 - 166
Bis(2-ethylhexyl) phthalate	50.0	48.0		ug/L		96	8 - 158
4-Bromophenyl phenyl ether	50.0	44.8		ug/L		90	53 - 127
Butyl benzyl phthalate	50.0	47.7		ug/L		95	1 - 152
2-Chloronaphthalene	50.0	39.6		ug/L		79	60 - 118
4-Chlorophenyl phenyl ether	50.0	44.1		ug/L		88	25 - 158
Chrysene	50.0	46.0		ug/L		92	17 - 168
Dibenz(a,h)anthracene	50.0	48.6		ug/L		97	1 - 227
Di-n-butyl phthalate	50.0	47.0		ug/L		94	1 - 118
1,2-Dichlorobenzene	50.0	34.4		ug/L		69	32 - 129
1,3-Dichlorobenzene	50.0	33.4		ug/L		67	1 - 172
1,4-Dichlorobenzene	50.0	34.3		ug/L		69	20 - 124
3,3'-Dichlorobenzidine	50.0	48.3		ug/L		97	1 - 262
Diethyl phthalate	50.0	49.2		ug/L		98	1 - 114
Dimethyl phthalate	50.0	46.9		ug/L		94	1 - 112
2,4-Dinitrotoluene	50.0	50.3		ug/L		101	39 - 139
2,6-Dinitrotoluene	50.0	47.5		ug/L		95	50 - 158
Di-n-octyl phthalate	50.0	49.5		ug/L		99	4 - 146
Fluoranthene	50.0	46.2		ug/L		92	26 - 137
Fluorene	50.0	44.9		ug/L		90	59 - 121
Hexachlorobenzene	50.0	44.6		ug/L		89	1 - 152
Hexachlorocyclopentadiene	50.0	25.0		ug/L		50	5 - 120
Hexachloroethane	50.0	33.1		ug/L		66	40 - 113
Indeno[1,2,3-cd]pyrene	50.0	48.1		ug/L		96	1 - 171
Isophorone	50.0	42.7		ug/L		85	21 - 196
Naphthalene	50.0	39.1		ug/L		78	21 - 133
Nitrobenzene	50.0	41.7		ug/L		83	35 - 180
N-Nitrosodi-n-propylamine	50.0	42.7		ug/L		85	1 - 230
N-Nitrosodiphenylamine	50.0	43.3		ug/L		87	54 - 125
Phenanthrene	50.0	46.3		ug/L		93	54 - 120
Pyrene	50.0	46.7		ug/L		93	52 - 115
1,2,4-Trichlorobenzene	50.0	36.0		ug/L		72	44 - 142
4-Chloro-3-methylphenol	50.0	47.7		ug/L		95	22 - 147
2-Chlorophenol	50.0	39.0		ug/L		78	23 - 134
2,4-Dichlorophenol	50.0	44.3		ug/L		89	39 - 135
2,4-Dimethylphenol	50.0	45.0		ug/L		90	32 - 119
2,4-Dinitrophenol	100	86.4		ug/L		86	1 - 191
4,6-Dinitro-2-methylphenol	100	91.3		ug/L		91	1 - 181
2-Nitrophenol	50.0	43.1		ug/L		86	29 - 182
4-Nitrophenol	100	38.5		ug/L		39	1 - 132
Pentachlorophenol	100	87.1		ug/L		87	14 - 176
Phenol	50.0	18.8		ug/L		38	5 - 112
2,4,6-Trichlorophenol	50.0	45.5		ug/L		91	37 - 144

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*89*		*52 - 151*
2-Fluorobiphenyl	*81*		*44 - 120*

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-145209/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145605 — **Prep Batch: 145209**

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorophenol	*46*		*17 - 120*
Nitrobenzene-d5	*81*		*42 - 120*
Phenol-d5	*31*		*10 - 120*
p-Terphenyl-d14	*100*		*22 - 125*

Method: 6010 - Metals (ICP)

Lab Sample ID: MB 480-145245/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145628 — **Prep Batch: 145245**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		10	1.6	ug/L		10/16/13 08:45	10/16/13 22:16	1
Silver	ND		5.0	1.7	ug/L		10/16/13 08:45	10/16/13 22:16	1
Zinc	1.68	J	50	1.5	ug/L		10/16/13 08:45	10/16/13 22:16	1

Lab Sample ID: MB 480-145245/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145849 — **Prep Batch: 145245**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		50	19	ug/L		10/16/13 08:45	10/17/13 16:01	1

Lab Sample ID: LCS 480-145245/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145628 — **Prep Batch: 145245**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Copper	200	211		ug/L		105	80 - 120
Silver	50.0	51.5		ug/L		103	80 - 120
Zinc	200	206		ug/L		103	80 - 120

Lab Sample ID: LCS 480-145245/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145849 — **Prep Batch: 145245**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	10000	9990		ug/L		100	80 - 120

Lab Sample ID: LCSD 480-145245/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145628 — **Prep Batch: 145245**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Copper	200	214		ug/L		107	80 - 120	2	20
Silver	50.0	51.7		ug/L		103	80 - 120	1	20
Zinc	200	209		ug/L		104	80 - 120	1	20

Method: 6010 - Metals (ICP) (Continued)

Lab Sample ID: LCSD 480-145245/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145849 — **Prep Batch: 145245**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Iron	10000	10100		ug/L		101	80 - 120	1	20

Lab Sample ID: MB 480-144665/29-B — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 145629 — **Prep Batch: 145246**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		10	1.6	ug/L		10/16/13 08:45	10/16/13 22:49	1
Silver	ND		5.0	1.7	ug/L		10/16/13 08:45	10/16/13 22:49	1
Zinc	ND		50	1.5	ug/L		10/16/13 08:45	10/16/13 22:49	1

Lab Sample ID: MB 480-144665/29-B — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 145850 — **Prep Batch: 145246**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		50	19	ug/L		10/16/13 08:45	10/17/13 16:34	1

Lab Sample ID: LCS 480-144665/30-B — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 145629 — **Prep Batch: 145246**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Copper	200	212		ug/L		106	80 - 120
Silver	50.0	50.6		ug/L		101	80 - 120
Zinc	200	203		ug/L		101	80 - 120

Lab Sample ID: LCS 480-144665/30-B — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 145850 — **Prep Batch: 145246**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	10000	10100		ug/L		101	80 - 120

Lab Sample ID: LCSD 480-144665/31-B — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 145629 — **Prep Batch: 145246**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Copper	200	208		ug/L		104	80 - 120	2	20
Silver	50.0	51.0		ug/L		102	80 - 120	1	20
Zinc	200	201		ug/L		101	80 - 120	1	20

Lab Sample ID: LCSD 480-144665/31-B — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 145850 — **Prep Batch: 145246**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Iron	10000	9940		ug/L		99	80 - 120	1	20

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 480-145415/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145417 — **Prep Batch: 145415**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil & Grease	ND		5.0	1.4	mg/L		10/16/13 09:00	10/16/13 16:54	1

Lab Sample ID: LCS 480-145415/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145417 — **Prep Batch: 145415**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Oil & Grease	40.0	35.5		mg/L		89	78 - 114

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 480-145620/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145620

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	0.28	mg/L			10/17/13 13:32	1

Lab Sample ID: LCS 480-145620/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145620

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	20.7		mg/L		104	90 - 110

Lab Sample ID: MB 480-145938/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145938

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	0.28	mg/L			10/18/13 13:01	1

Lab Sample ID: LCS 480-145938/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145938

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	20.1		mg/L		101	90 - 110

Method: 420.4 - Phenolics, Total Recoverable

Lab Sample ID: MB 480-145365/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145747 — **Prep Batch: 145365**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenolics, Total Recoverable	ND		0.010	0.0050	mg/L		10/16/13 09:05	10/17/13 14:19	1

Method: 420.4 - Phenolics, Total Recoverable (Continued)

Lab Sample ID: LCS 480-145365/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145747 — **Prep Batch: 145365**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Phenolics, Total Recoverable			0.100	0.0975		mg/L		97	90 - 110		

Lab Sample ID: 480-47989-2 MS — **Client Sample ID: Effluent**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145747 — **Prep Batch: 145365**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Phenolics, Total Recoverable	ND		0.100	0.109		mg/L		109	90 - 110		

Lab Sample ID: 480-47989-1 DU — **Client Sample ID: Influent**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145747 — **Prep Batch: 145365**

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Phenolics, Total Recoverable	ND			ND		mg/L				NC	20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 360-98389/9 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 98389

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium (hexavalent)	ND		0.0050	0.0050	mg/L			10/15/13 14:31	1

Lab Sample ID: LCS 360-98389/10 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 98389

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chromium (hexavalent)			0.0532	0.0537		mg/L		101	80 - 120		

Lab Sample ID: LCSD 360-98389/11 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 98389

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium (hexavalent)			0.0532	0.0537		mg/L		101	80 - 120	0	20

Lab Sample ID: 480-47989-2 MS — **Client Sample ID: Effluent**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 98389

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chromium (hexavalent)	ND		0.0250	0.0280		mg/L		112	85 - 115		

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: 480-47989-2 MSD — **Client Sample ID: Effluent**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 98389

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium (hexavalent)	ND		0.0250	0.0280		mg/L		112	85 - 115	0	20

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 480-145344/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145448 — **Prep Batch: 145344**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		10/16/13 10:00	10/16/13 19:55	1

Lab Sample ID: LCS 480-145344/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145448 — **Prep Batch: 145344**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.250	0.234		mg/L		94	90 - 110

Lab Sample ID: LCSD 480-145344/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145448 — **Prep Batch: 145344**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.250	0.238		mg/L		95	90 - 110	2	15

Method: 9040C - pH

Lab Sample ID: 480-47989-1 DU — **Client Sample ID: Influent**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145423

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	6.21	H	6.200		SU		0.2	5

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 480-146026/6 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 146026

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	ND		5000	790	ug/L			10/18/13 14:27	1

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCS 480-146026/7 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 146026

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	100000	91600		ug/L		92	90 - 110

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 480-145319/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145319

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0	4.0	mg/L			10/16/13 10:11	1

Lab Sample ID: LCS 480-145319/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145319

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	224	210		mg/L		94	88 - 110

Lab Sample ID: 480-47989-1 DU — **Client Sample ID: Influent**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145319

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	11		9.60		mg/L		12	15

Method: SM 4500 Cl G - Chlorine, Residual

Lab Sample ID: MB 480-145280/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145280

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorine, Total Residual	ND		0.020	0.010	mg/L			10/16/13 07:00	1

Lab Sample ID: LCS 480-145280/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145280

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chlorine, Total Residual	0.920	0.930		mg/L		101	90 - 110

Lab Sample ID: 480-47989-2 DU — **Client Sample ID: Effluent**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145280

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chlorine, Total Residual	ND		ND		mg/L		NC	20

QC Association Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: NG Athol (Pump Test)

TestAmerica Job ID: 480-47989-1

GC/MS VOA

Analysis Batch: 145033

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47989-1	Influent	Total/NA	Water	624	
480-47989-2	Effluent	Total/NA	Water	624	
LCS 480-145033/5	Lab Control Sample	Total/NA	Water	624	
MB 480-145033/6	Method Blank	Total/NA	Water	624	

GC/MS Semi VOA

Prep Batch: 145209

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47989-1	Influent	Total/NA	Water	625	
480-47989-2	Effluent	Total/NA	Water	625	
LCS 480-145209/2-A	Lab Control Sample	Total/NA	Water	625	
MB 480-145209/1-A	Method Blank	Total/NA	Water	625	

Analysis Batch: 145605

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47989-1	Influent	Total/NA	Water	625	145209
480-47989-2	Effluent	Total/NA	Water	625	145209
LCS 480-145209/2-A	Lab Control Sample	Total/NA	Water	625	145209
MB 480-145209/1-A	Method Blank	Total/NA	Water	625	145209

Metals

Filtration Batch: 144665

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-144665/30-B	Lab Control Sample	Dissolved	Water	FILTRATION	
LCSD 480-144665/31-B	Lab Control Sample Dup	Dissolved	Water	FILTRATION	
MB 480-144665/29-B	Method Blank	Dissolved	Water	FILTRATION	

Prep Batch: 145245

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47989-1	Influent	Total/NA	Water	3005A	
480-47989-2	Effluent	Total/NA	Water	3005A	
LCS 480-145245/2-A	Lab Control Sample	Total/NA	Water	3005A	
LCSD 480-145245/3-A	Lab Control Sample Dup	Total/NA	Water	3005A	
MB 480-145245/1-A	Method Blank	Total/NA	Water	3005A	

Prep Batch: 145246

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47989-1	Influent	Dissolved	Water	3005A	
480-47989-2	Effluent	Dissolved	Water	3005A	
LCS 480-144665/30-B	Lab Control Sample	Dissolved	Water	3005A	144665
LCSD 480-144665/31-B	Lab Control Sample Dup	Dissolved	Water	3005A	144665
MB 480-144665/29-B	Method Blank	Dissolved	Water	3005A	144665

Analysis Batch: 145628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47989-1	Influent	Total/NA	Water	6010	145245
480-47989-2	Effluent	Total/NA	Water	6010	145245
LCS 480-145245/2-A	Lab Control Sample	Total/NA	Water	6010	145245

Metals (Continued)

Analysis Batch: 145628 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 480-145245/3-A	Lab Control Sample Dup	Total/NA	Water	6010	145245
MB 480-145245/1-A	Method Blank	Total/NA	Water	6010	145245

Analysis Batch: 145629

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47989-1	Influent	Dissolved	Water	6010	145246
480-47989-2	Effluent	Dissolved	Water	6010	145246
LCS 480-144665/30-B	Lab Control Sample	Dissolved	Water	6010	145246
LCSD 480-144665/31-B	Lab Control Sample Dup	Dissolved	Water	6010	145246
MB 480-144665/29-B	Method Blank	Dissolved	Water	6010	145246

Analysis Batch: 145849

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47989-1	Influent	Total/NA	Water	6010	145245
480-47989-2	Effluent	Total/NA	Water	6010	145245
LCS 480-145245/2-A	Lab Control Sample	Total/NA	Water	6010	145245
LCSD 480-145245/3-A	Lab Control Sample Dup	Total/NA	Water	6010	145245
MB 480-145245/1-A	Method Blank	Total/NA	Water	6010	145245

Analysis Batch: 145850

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47989-1	Influent	Dissolved	Water	6010	145246
480-47989-2	Effluent	Dissolved	Water	6010	145246
LCS 480-144665/30-B	Lab Control Sample	Dissolved	Water	6010	145246
LCSD 480-144665/31-B	Lab Control Sample Dup	Dissolved	Water	6010	145246
MB 480-144665/29-B	Method Blank	Dissolved	Water	6010	145246

General Chemistry

Analysis Batch: 98389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47989-1	Influent	Total/NA	Water	7196A	
480-47989-2	Effluent	Total/NA	Water	7196A	
480-47989-2 MS	Effluent	Total/NA	Water	7196A	
480-47989-2 MSD	Effluent	Total/NA	Water	7196A	
LCS 360-98389/10	Lab Control Sample	Total/NA	Water	7196A	
LCSD 360-98389/11	Lab Control Sample Dup	Total/NA	Water	7196A	
MB 360-98389/9	Method Blank	Total/NA	Water	7196A	

Analysis Batch: 145280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47989-1	Influent	Total/NA	Water	SM 4500 Cl G	
480-47989-2	Effluent	Total/NA	Water	SM 4500 Cl G	
480-47989-2 DU	Effluent	Total/NA	Water	SM 4500 Cl G	
LCS 480-145280/4	Lab Control Sample	Total/NA	Water	SM 4500 Cl G	
MB 480-145280/3	Method Blank	Total/NA	Water	SM 4500 Cl G	

Analysis Batch: 145319

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47989-1	Influent	Total/NA	Water	SM 2540D	

General Chemistry (Continued)

Analysis Batch: 145319 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47989-1 DU	Influent	Total/NA	Water	SM 2540D	
480-47989-2	Effluent	Total/NA	Water	SM 2540D	
LCS 480-145319/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 480-145319/1	Method Blank	Total/NA	Water	SM 2540D	

Prep Batch: 145344

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47989-1	Influent	Total/NA	Water	9012A	
480-47989-2	Effluent	Total/NA	Water	9012A	
LCS 480-145344/2-A	Lab Control Sample	Total/NA	Water	9012A	
LCSD 480-145344/3-A	Lab Control Sample Dup	Total/NA	Water	9012A	
MB 480-145344/1-A	Method Blank	Total/NA	Water	9012A	

Prep Batch: 145365

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47989-1	Influent	Total/NA	Water	Distill/Phenol	
480-47989-1 DU	Influent	Total/NA	Water	Distill/Phenol	
480-47989-2	Effluent	Total/NA	Water	Distill/Phenol	
480-47989-2 MS	Effluent	Total/NA	Water	Distill/Phenol	
LCS 480-145365/2-A	Lab Control Sample	Total/NA	Water	Distill/Phenol	
MB 480-145365/1-A	Method Blank	Total/NA	Water	Distill/Phenol	

Prep Batch: 145415

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47989-1	Influent	Total/NA	Water	1664A	
480-47989-2	Effluent	Total/NA	Water	1664A	
LCS 480-145415/2-A	Lab Control Sample	Total/NA	Water	1664A	
MB 480-145415/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 145417

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47989-1	Influent	Total/NA	Water	1664A	145415
480-47989-2	Effluent	Total/NA	Water	1664A	145415
LCS 480-145415/2-A	Lab Control Sample	Total/NA	Water	1664A	145415
MB 480-145415/1-A	Method Blank	Total/NA	Water	1664A	145415

Analysis Batch: 145423

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47989-1	Influent	Total/NA	Water	9040C	
480-47989-1 DU	Influent	Total/NA	Water	9040C	
480-47989-2	Effluent	Total/NA	Water	9040C	
LCS 480-145423/1	Lab Control Sample	Total/NA	Water	9040C	

Analysis Batch: 145448

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47989-1	Influent	Total/NA	Water	9012B	145344
480-47989-2	Effluent	Total/NA	Water	9012B	145344
LCS 480-145344/2-A	Lab Control Sample	Total/NA	Water	9012B	145344
LCSD 480-145344/3-A	Lab Control Sample Dup	Total/NA	Water	9012B	145344
MB 480-145344/1-A	Method Blank	Total/NA	Water	9012B	145344

General Chemistry (Continued)

Analysis Batch: 145620

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-145620/3	Lab Control Sample	Total/NA	Water	300.0	
MB 480-145620/4	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 145747

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47989-1	Influent	Total/NA	Water	420.4	145365
480-47989-1 DU	Influent	Total/NA	Water	420.4	145365
480-47989-2	Effluent	Total/NA	Water	420.4	145365
480-47989-2 MS	Effluent	Total/NA	Water	420.4	145365
LCS 480-145365/2-A	Lab Control Sample	Total/NA	Water	420.4	145365
MB 480-145365/1-A	Method Blank	Total/NA	Water	420.4	145365

Analysis Batch: 145938

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47989-1	Influent	Total/NA	Water	300.0	
480-47989-2	Effluent	Total/NA	Water	300.0	
LCS 480-145938/3	Lab Control Sample	Total/NA	Water	300.0	
MB 480-145938/4	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 146026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47989-1	Influent	Total/NA	Water	SM 2320B	
480-47989-2	Effluent	Total/NA	Water	SM 2320B	
LCS 480-146026/7	Lab Control Sample	Total/NA	Water	SM 2320B	
MB 480-146026/6	Method Blank	Total/NA	Water	SM 2320B	

Lab Chronicle

Client: Innovative Engineering Solutions, Inc
Project/Site: NG Athol (Pump Test)

TestAmerica Job ID: 480-47989-1

Client Sample ID: Influent

Lab Sample ID: 480-47989-1

Date Collected: 10/15/13 08:40

Matrix: Water

Date Received: 10/15/13 12:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		200	145033	10/16/13 08:36	TRB	TAL BUF
Total/NA	Prep	625			145209	10/16/13 09:17	KEB	TAL BUF
Total/NA	Analysis	625		100	145605	10/17/13 11:54	ANM	TAL BUF
Total/NA	Analysis	6010		1	145628	10/16/13 22:44	LMH	TAL BUF
Dissolved	Analysis	6010		1	145629	10/16/13 23:18	LMH	TAL BUF
Total/NA	Prep	3005A			145245	10/16/13 08:45	NMD2	TAL BUF
Total/NA	Analysis	6010		1	145849	10/17/13 16:29	LMH	TAL BUF
Dissolved	Prep	3005A			145246	10/16/13 08:45	NMD2	TAL BUF
Dissolved	Analysis	6010		1	145850	10/17/13 17:02	LMH	TAL BUF
Total/NA	Analysis	7196A		1	98389	10/15/13 14:31	GRB	TAL WFD
Total/NA	Analysis	SM 4500 Cl G		1	145280	10/16/13 07:00	RMB	TAL BUF
Total/NA	Analysis	SM 2540D		1	145319	10/16/13 10:11	EGN	TAL BUF
Total/NA	Prep	1664A			145415	10/16/13 09:00	MDL	TAL BUF
Total/NA	Analysis	1664A		1	145417	10/16/13 16:54	MDL	TAL BUF
Total/NA	Analysis	9040C		1	145423	10/16/13 10:35	MDL	TAL BUF
Total/NA	Prep	9012A			145344	10/16/13 10:00	KSW	TAL BUF
Total/NA	Analysis	9012B		1	145448	10/16/13 20:02	NCH	TAL BUF
Total/NA	Prep	Distill/Phenol			145365	10/16/13 09:05	RP	TAL BUF
Total/NA	Analysis	420.4		1	145747	10/17/13 17:31	NCH	TAL BUF
Total/NA	Analysis	300.0		2	145938	10/18/13 13:11	KAC	TAL BUF
Total/NA	Analysis	SM 2320B		1	146026	10/18/13 14:54	EGN	TAL BUF

Client Sample ID: Effluent

Lab Sample ID: 480-47989-2

Date Collected: 10/15/13 08:51

Matrix: Water

Date Received: 10/15/13 12:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	145033	10/16/13 08:13	TRB	TAL BUF
Total/NA	Prep	625			145209	10/16/13 09:17	KEB	TAL BUF
Total/NA	Analysis	625		20	145605	10/17/13 12:18	ANM	TAL BUF
Total/NA	Analysis	6010		1	145628	10/16/13 22:47	LMH	TAL BUF
Dissolved	Prep	3005A			145246	10/16/13 08:45	NMD2	TAL BUF
Dissolved	Analysis	6010		1	145629	10/16/13 23:20	LMH	TAL BUF
Total/NA	Prep	3005A			145245	10/16/13 08:45	NMD2	TAL BUF
Total/NA	Analysis	6010		1	145849	10/17/13 16:32	LMH	TAL BUF
Dissolved	Analysis	6010		1	145850	10/17/13 17:05	LMH	TAL BUF
Total/NA	Analysis	7196A		1	98389	10/15/13 14:31	GRB	TAL WFD
Total/NA	Analysis	SM 4500 Cl G		1	145280	10/16/13 07:00	RMB	TAL BUF
Total/NA	Analysis	SM 2540D		1	145319	10/16/13 10:11	EGN	TAL BUF
Total/NA	Prep	1664A			145415	10/16/13 09:00	MDL	TAL BUF
Total/NA	Analysis	1664A		1	145417	10/16/13 16:54	MDL	TAL BUF
Total/NA	Analysis	9040C		1	145423	10/16/13 10:43	MDL	TAL BUF

Lab Chronicle

Client: Innovative Engineering Solutions, Inc
Project/Site: NG Athol (Pump Test)

TestAmerica Job ID: 480-47989-1

Client Sample ID: Effluent

Lab Sample ID: 480-47989-2

Date Collected: 10/15/13 08:51

Matrix: Water

Date Received: 10/15/13 12:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012A			145344	10/16/13 10:00	KSW	TAL BUF
Total/NA	Analysis	9012B		1	145448	10/16/13 20:02	NCH	TAL BUF
Total/NA	Prep	Distill/Phenol			145365	10/16/13 09:05	RP	TAL BUF
Total/NA	Analysis	420.4		1	145747	10/17/13 17:31	NCH	TAL BUF
Total/NA	Analysis	300.0		2	145938	10/18/13 13:21	KAC	TAL BUF
Total/NA	Analysis	SM 2320B		1	146026	10/18/13 15:00	EGN	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL WFD = TestAmerica Westfield, Westfield Executive Park, 53 Southampton Road, Westfield, MA 01085, TEL (413)572-4000

Certification Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: NG Athol (Pump Test)

TestAmerica Job ID: 480-47989-1

Laboratory: TestAmerica Buffalo

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-13 *
California	NELAP	9	1169CA	09-30-14
Connecticut	State Program	1	PH-0568	09-30-14
Florida	NELAP	4	E87672	06-30-14
Georgia	State Program	4	N/A	03-31-14
Iowa	State Program	7	374	03-15-15
Kansas	NELAP	7	E-10187	01-31-14
Kentucky	State Program	4	90029	12-31-13
Kentucky (UST)	State Program	4	30	04-01-14
Louisiana	NELAP	6	02031	06-30-14
Maine	State Program	1	NY00044	12-04-14
Maryland	State Program	3	294	03-31-14
Massachusetts	State Program	1	M-NY044	06-30-14
Michigan	State Program	5	9937	04-01-14
Minnesota	NELAP	5	036-999-337	12-31-13
New Hampshire	NELAP	1	2973	09-11-14
New Jersey	NELAP	2	NY455	06-30-14
New York	NELAP	2	10026	04-01-14
North Dakota	State Program	8	R-176	03-31-14
Oklahoma	State Program	6	9421	08-31-14
Oregon	NELAP	10	NY200003	06-09-14
Pennsylvania	NELAP	3	68-00281	07-31-14
Rhode Island	State Program	1	LAO00328	12-31-13
Tennessee	State Program	4	TN02970	04-01-14
Texas	NELAP	6	T104704412-11-2	07-31-14
USDA	Federal		P330-11-00386	11-22-14
Virginia	NELAP	3	460185	09-14-14
Washington	State Program	10	C784	02-10-14
West Virginia DEP	State Program	3	252	12-31-13
Wisconsin	State Program	5	998310390	08-31-14

Laboratory: TestAmerica Westfield

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Connecticut	State Program	1	PH-0494	09-30-14
Massachusetts	State Program	1	M-MA014	06-30-14
New Hampshire	NELAP	1	2539	08-08-14

* Expired certification is currently pending renewal and is considered valid.

Method Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: NG Athol (Pump Test)

TestAmerica Job ID: 480-47989-1

Method	Method Description	Protocol	Laboratory
624	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
625	Semivolatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
6010	Metals (ICP)	SW846	TAL BUF
1664A	HEM and SGT-HEM	1664A	TAL BUF
300.0	Anions, Ion Chromatography	MCAWW	TAL BUF
420.4	Phenolics, Total Recoverable	MCAWW	TAL BUF
7196A	Chromium, Hexavalent	SW846	TAL WFD
9012B	Cyanide, Total and/or Amenable	SW846	TAL BUF
9040C	pH	SW846	TAL BUF
SM 2320B	Alkalinity	SM	TAL BUF
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL BUF
SM 4500 Cl G	Chlorine, Residual	SM	TAL BUF

Protocol References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL WFD = TestAmerica Westfield, Westfield Executive Park, 53 Southampton Road, Westfield, MA 01085, TEL (413)572-4000

Sample Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: NG Athol (Pump Test)

TestAmerica Job ID: 480-47989-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-47989-1	Influent	Water	10/15/13 08:40	10/15/13 12:38
480-47989-2	Effluent	Water	10/15/13 08:51	10/15/13 12:38

Detection Limit Exceptions Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: NG Athol (Pump Test)

TestAmerica Job ID: 480-47989-1

The requested project specific reporting limits listed below were less than laboratory standard quantitation limits (PQL) but greater than or equal to the laboratory method detection limits (MDL). It must be noted that results reported below lab standard quantitation limits may result in false positive/false negative values and less accurate quantitation. Routine laboratory procedures do not indicate corrective action for detections below the laboratory's PQL.

Method	Matrix	Analyte	Units	Client RL	Lab PQL
625	Water	1,2,4-Trichlorobenzene	ug/L	5.0	10
625	Water	1,2-Dichlorobenzene	ug/L	5.0	10
625	Water	1,2-Diphenylhydrazine	ug/L	5.0	10
625	Water	1,3-Dichlorobenzene	ug/L	5.0	10
625	Water	1,4-Dichlorobenzene	ug/L	5.0	10
625	Water	2,4-Dinitrophenol	ug/L	5.0	10
625	Water	4,6-Dinitro-2-methylphenol	ug/L	5.0	10
625	Water	4-Nitrophenol	ug/L	5.0	10
625	Water	Benzidine	ug/L	5.0	80
625	Water	Bis(2-ethylhexyl) phthalate	ug/L	5.0	10
625	Water	Pentachlorophenol	ug/L	5.0	10

Login Sample Receipt Checklist

Client: Innovative Engineering Solutions, Inc

Job Number: 480-47989-1

Login Number: 47989

List Source: TestAmerica Buffalo

List Number: 1

Creator: Wienke, Robert K

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	True	Ok

Login Sample Receipt Checklist

Client: Innovative Engineering Solutions, Inc

Job Number: 480-47989-1

Login Number: 47989
List Number: 1
Creator: Emerich, Rich W

List Source: TestAmerica Westfield
List Creation: 10/17/13 03:20 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	N/A	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	N/A	
Cooler Temperature is recorded.	N/A	
COC is present.	N/A	
COC is filled out in ink and legible.	N/A	
COC is filled out with all pertinent information.	N/A	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	N/A	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica Westfield
Westfield Executive Park 53 Southampton Road
Westfield, MA 01085
Phone (413) 572-4000 Fax (413) 572-3707

Boston Service Center
240 Bear Hill Rd Suite 104
Waltham, MA 02451
Phone (781) 466-6900 Fax (781) 466-6901

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information			
Client Contact: Joseph Higgins	Sampler: Scott Mosman	Lab PM:	Carrier Tracking No(s):
	Phone: 508-254-0011	E-Mail: S.Mosman@IESIonLine.com	COC No: 26004
Company: IESI			Page: 1 of 1
Address: 25 Spring St	Due Date Requested: 24 hr		Job #:
City: Walpole	TAT Requested (days):		
State, Zip: MA 02081			
Phone: 508-623-1223	Quote #:		
Email: S.Mosman@IESIonLine.com	PO #:		
Project Name/number: Ng Cathole (Pumptest)	WO #:		
Site:	SSOW#:		

Analysis Requested

Preservation Codes:
A - HCl; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; H - Ascorbic Acid; I - Ice; J - DI Water; M - Hexane; N - None; P - Na2O4S; Q - Na2SO3; R - Na2S2SO3; S - H2SO4; Z - other (specify)

Regulatory programs:
MCP ☐ GW1/S1 ☐
RCP ☐ CT RSR ☐
DEP Form ☐ EDD Required ☐

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (w=water, s=solid, o=waste/oil, BT=Tissue, A=Air)	Sampler's Initials	Field Filtered Sample?	Perform MS/MSD?	196-A Chromium (Hex)	300.0 28D Chloride, Residual Chlorine, pH	6010 MCP Custom Total	6010 MCP Custom Dissolved	1664A Calc - Oil and Grease	420.4 Phenolics, Total recoverable	625-SVOA-625	2540D-Total Suspended Solids	9012 MCP - Cyanide total	624.5ml UP-Vac	Total Number of containers	Special Instructions/Note:
				Preservation Code:															
influent	10/15/13	8:40am	G	W				X	X	X	X	X	X	X	X	X	X		Note: 6010 MCP custom total and dissolved for copper, silver, FE, ZINK and Cloride
effluent	10/15/13	8:51am	G	W				X	X	X	X	X	X	X	X	X	X		

JJ 10/15/13

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Scott Mosman	10/15/13 10:18am			10/15/13 10:18	TAL
	10/15/13 1235	TAL		10/15/13 12:38	TAL
	10/15/13 1700	TAL		10-16-13 0130	TAL

Custody Seals Intact: ☐ Yes ☐ No
Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 4.9#1 (8°C on ice WESTFIELD)

TAL-8245-360 1111

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-47989-2
Client Project/Site: NG Athol (Pump Test)

For:
Innovative Engineering Solutions, Inc
25 Spring Street
Walpole, Massachusetts 02081

Attn: Joseph Higgins

Authorized for release by:
10/29/2013 3:19:59 PM
Rich Emerich, Analyst V
rich.emerich@testamericainc.com

Designee for

Janine Johnson, Project Manager I
(413)572-4000
janine.johnson@testamericainc.com

LINKS

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Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

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Definitions/Glossary

Client: Innovative Engineering Solutions, Inc
Project/Site: NG Athol (Pump Test)

TestAmerica Job ID: 480-47989-2

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Innovative Engineering Solutions, Inc
Project/Site: NG Athol (Pump Test)

TestAmerica Job ID: 480-47989-2

Job ID: 480-47989-2

Laboratory: TestAmerica Buffalo

Narrative

Receipt
The samples were received on 10/15/2013 at 12:38 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.9º C.

Receipt Exceptions
This job is an adjunct to job 480-47989-1; total and dissolved nickel and alkalinity were added to samples 1 and 2 for job 480-47989-2.

Metals
At the request of the client, an abbreviated MCP compound list was reported for this job.

No other analytical or quality issues were noted.

MassDEP Analytical Protocol Certification Form

Laboratory Name:	**TestAmerica Buffalo**	Project #:	**480-47989**
Project Location:	**NG Athol (Pump Test)**	RTN:	

This form provides certifications for the following data set: list Laboratory Sample ID Number(s):

480-47989-2 [1-2]

Matrices: ■ Groundwater/Surface Water ☐ Soil/Sediment ☐ Drinking Water ☐ Air ☐ Other:

CAM Protocols (check all that apply below):

8260 VOC CAM II A ☐	7470/7471 Hg CAM III B ☐	Mass DEP VPH CAM IV A ☐	8081 Pesticides CAM V B ☐	7196 Hex Cr CAM VI B ☐	Mass DEP APH CAM IX A ☐
8270 SVOC CAM II B ☐	7010 Metals CAM III C ☐	Mass DEP 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 CAM III D ☐	8082 PCB 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 time.	■ 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	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 are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	■ Yes ☐ No[1]

Data User Note: ***Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WCS-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 laboratory 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, is accurate and complete.

Signature:		Position:	Technical Director
Printed Name:	Richard Emerich	Date:	10/29/2013 @ 1515

Detection Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: NG Athol (Pump Test)

TestAmerica Job ID: 480-47989-2

Client Sample ID: Influent — Lab Sample ID: 480-47989-1

No Detections.

Client Sample ID: Effluent — Lab Sample ID: 480-47989-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dissolved Nickel	6.4	J	10	1.3	ug/L	1		6010	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: NG Athol (Pump Test)

TestAmerica Job ID: 480-47989-2

Client Sample ID: Influent

Lab Sample ID: 480-47989-1

Date Collected: 10/15/13 08:40
Date Received: 10/15/13 12:38

Matrix: Water

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	ND		10	1.3	ug/L		10/16/13 08:45	10/16/13 22:44	1

Method: 6010 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Nickel	ND		10	1.3	ug/L		10/16/13 08:45	10/16/13 23:18	1

Client Sample ID: Effluent

Lab Sample ID: 480-47989-2

Date Collected: 10/15/13 08:51
Date Received: 10/15/13 12:38

Matrix: Water

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	ND		10	1.3	ug/L		10/16/13 08:45	10/16/13 22:47	1

Method: 6010 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Nickel	**6.4**	**J**	10	1.3	ug/L		10/16/13 08:45	10/16/13 23:20	1

QC Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: NG Athol (Pump Test)

TestAmerica Job ID: 480-47989-2

Method: 6010 - Metals (ICP)

Lab Sample ID: MB 480-145245/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145628 — **Prep Batch: 145245**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	ND		10	1.3	ug/L		10/16/13 08:45	10/16/13 22:16	1

Lab Sample ID: LCS 480-145245/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145628 — **Prep Batch: 145245**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nickel	200	198		ug/L		99	80 - 120

Lab Sample ID: LCSD 480-145245/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 145628 — **Prep Batch: 145245**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nickel	200	199		ug/L		99	80 - 120	0	20

Lab Sample ID: MB 480-144665/29-B — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 145629 — **Prep Batch: 145246**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Nickel	ND		10	1.3	ug/L		10/16/13 08:45	10/16/13 22:49	1

Lab Sample ID: LCS 480-144665/30-B — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 145629 — **Prep Batch: 145246**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dissolved Nickel	200	198		ug/L		99	80 - 120

Lab Sample ID: LCSD 480-144665/31-B — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 145629 — **Prep Batch: 145246**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dissolved Nickel	200	195		ug/L		98	80 - 120	7	20

QC Association Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: NG Athol (Pump Test)

TestAmerica Job ID: 480-47989-2

Metals

Filtration Batch: 144665

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-144665/30-B	Lab Control Sample	Dissolved	Water	FILTRATION	
LCSD 480-144665/31-B	Lab Control Sample Dup	Dissolved	Water	FILTRATION	
MB 480-144665/29-B	Method Blank	Dissolved	Water	FILTRATION	

Prep Batch: 145245

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47989-1	Influent	Total/NA	Water	3005A	
480-47989-2	Effluent	Total/NA	Water	3005A	
LCS 480-145245/2-A	Lab Control Sample	Total/NA	Water	3005A	
LCSD 480-145245/3-A	Lab Control Sample Dup	Total/NA	Water	3005A	
MB 480-145245/1-A	Method Blank	Total/NA	Water	3005A	

Prep Batch: 145246

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47989-1	Influent	Dissolved	Water	3005A	
480-47989-2	Effluent	Dissolved	Water	3005A	
LCS 480-144665/30-B	Lab Control Sample	Dissolved	Water	3005A	144665
LCSD 480-144665/31-B	Lab Control Sample Dup	Dissolved	Water	3005A	144665
MB 480-144665/29-B	Method Blank	Dissolved	Water	3005A	144665

Analysis Batch: 145628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47989-1	Influent	Total/NA	Water	6010	145245
480-47989-2	Effluent	Total/NA	Water	6010	145245
LCS 480-145245/2-A	Lab Control Sample	Total/NA	Water	6010	145245
LCSD 480-145245/3-A	Lab Control Sample Dup	Total/NA	Water	6010	145245
MB 480-145245/1-A	Method Blank	Total/NA	Water	6010	145245

Analysis Batch: 145629

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47989-1	Influent	Dissolved	Water	6010	145246
480-47989-2	Effluent	Dissolved	Water	6010	145246
LCS 480-144665/30-B	Lab Control Sample	Dissolved	Water	6010	145246
LCSD 480-144665/31-B	Lab Control Sample Dup	Dissolved	Water	6010	145246
MB 480-144665/29-B	Method Blank	Dissolved	Water	6010	145246

Lab Chronicle

Client: Innovative Engineering Solutions, Inc
Project/Site: NG Athol (Pump Test)

TestAmerica Job ID: 480-47989-2

Client Sample ID: Influent

Lab Sample ID: 480-47989-1

Date Collected: 10/15/13 08:40

Matrix: Water

Date Received: 10/15/13 12:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			145245	10/16/13 08:45	NMD2	TAL BUF
Total/NA	Analysis	6010		1	145628	10/16/13 22:44	LMH	TAL BUF
Dissolved	Prep	3005A			145246	10/16/13 08:45	NMD2	TAL BUF
Dissolved	Analysis	6010		1	145629	10/16/13 23:18	LMH	TAL BUF

Client Sample ID: Effluent

Lab Sample ID: 480-47989-2

Date Collected: 10/15/13 08:51

Matrix: Water

Date Received: 10/15/13 12:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			145245	10/16/13 08:45	NMD2	TAL BUF
Total/NA	Analysis	6010		1	145628	10/16/13 22:47	LMH	TAL BUF
Dissolved	Prep	3005A			145246	10/16/13 08:45	NMD2	TAL BUF
Dissolved	Analysis	6010		1	145629	10/16/13 23:20	LMH	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Certification Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: NG Athol (Pump Test)

TestAmerica Job ID: 480-47989-2

Laboratory: TestAmerica Buffalo

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-14
California	NELAP	9	1169CA	09-30-14
Connecticut	State Program	1	PH-0568	09-30-14
Florida	NELAP	4	E87672	06-30-14
Georgia	State Program	4	N/A	03-31-14
Illinois	NELAP	5	200003	09-30-14
Iowa	State Program	7	374	03-15-15
Kansas	NELAP	7	E-10187	01-31-14
Kentucky	State Program	4	90029	12-31-13
Kentucky (UST)	State Program	4	30	04-01-14
Louisiana	NELAP	6	02031	06-30-14
Maine	State Program	1	NY00044	12-04-14
Maryland	State Program	3	294	03-31-14
Massachusetts	State Program	1	M-NY044	06-30-14
Michigan	State Program	5	9937	04-01-14
Minnesota	NELAP	5	036-999-337	12-31-13
New Hampshire	NELAP	1	2973	09-11-14
New Jersey	NELAP	2	NY455	06-30-14
New York	NELAP	2	10026	04-01-14
North Dakota	State Program	8	R-176	03-31-14
Oklahoma	State Program	6	9421	08-31-14
Oregon	NELAP	10	NY200003	06-09-14
Pennsylvania	NELAP	3	68-00281	07-31-14
Rhode Island	State Program	1	LAO00328	12-31-13
Tennessee	State Program	4	TN02970	04-01-14
Texas	NELAP	6	T104704412-11-2	07-31-14
USDA	Federal		P330-11-00386	11-22-14
Virginia	NELAP	3	460185	09-14-14
Washington	State Program	10	C784	02-10-14
West Virginia DEP	State Program	3	252	12-31-13
Wisconsin	State Program	5	998310390	08-31-14

Method Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: NG Athol (Pump Test)

TestAmerica Job ID: 480-47989-2

Method	Method Description	Protocol	Laboratory
6010	Metals (ICP)	SW846	TAL BUF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: NG Athol (Pump Test)

TestAmerica Job ID: 480-47989-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-47989-1	Influent	Water	10/15/13 08:40	10/15/13 12:38
480-47989-2	Effluent	Water	10/15/13 08:51	10/15/13 12:38

Login Sample Receipt Checklist

Client: Innovative Engineering Solutions, Inc

Job Number: 480-47989-2

Login Number: 47989

List Source: TestAmerica Buffalo

List Number: 1

Creator: Wienke, Robert K

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	True	Ok

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-45394-1
Client Project/Site: NG ATHOL

For:
Innovative Engineering Solutions, Inc
25 Spring Street
Walpole, Massachusetts 02081

Attn: Vicki Pariyar

Authorized for release by:
9/26/2013 12:55:02 PM
Rich Emerich, Analyst V
rich.emerich@testamericainc.com

Designee for

Janine Johnson, Project Manager I
janine.johnson@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F	MS/MSD Recovery and/or RPD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD exceeds the control limits
B	Compound was found in the blank and sample.
X	Surrogate is outside control limits

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
H	Sample was prepped or analyzed beyond the specified holding time

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 480-45394-1

Laboratory: TestAmerica Buffalo

Narrative

Receipt
The samples were received on 9/10/2013 at 1:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 2.4º C, 2.7º C and 3.7º C.

GC/MS VOA
Method 8260B: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW5 (480-45394-1), (480-45394-3 MS), (480-45394-3 MSD), MW11 (480-45394-3) and MW14 (480-45394-4). Elevated reporting limits (RLs) are provided.

Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 139350 were outside control limits for 1,2-Dichloroethane in the MS and Benzene in the MS and MSD. The associated laboratory control sample (LCS) recovery met acceptance criteria. (480-45394-3 MS), (480-45394-3 MSD)

No other analytical or quality issues were noted.

GC/MS Semi VOA
Method 8270C LL: The laboratory control sample (LCS) for batch 138337 recovered outside control limits for the following analyte: Bis(2-ethylhexyl) phthalate. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method 8270C LL: The method blank for batch 138337 contained Phenanthrene above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270C LL: The following samples were diluted due to abundance of target analytes: MW11 (480-45394-3), MW14 (480-45394-4) an MW5 (480-45394-1). As such surrogate recoveries were reduced to a level in which they do not provide useful information. Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

HPLC
Method 300.0: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW11 (480-45394-3) and MW5 (480-45394-1). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

GC Semi VOA
No analytical or quality issues were noted.

Metals
Method 200.7 Rev 4.4: The Method Blank for batch 480-138127 contained total iron above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples MW11 (480-45394-3), MW14 (480-45394-4), MW5 (480-45394-1) and MW6 (480-45394-2) was not performed.

No other analytical or quality issues were noted.

General Chemistry
Method 1664A: Analysis for Hexane Extractable Material (HEM) was performed for the following sample: MW5 (480-45394-1). Since the HEM result was below the reporting limit (RL), the result for Silica Gel Treated - Hexane Extractable Material (SGT-HEM) would be reported as a non-detect. All HEM quality control criteria were met.

Method SM 4500 Cl G: The following samples were received outside of holding time: MW11 (480-45394-3), MW14 (480-45394-4), MW5 (480-45394-1) and MW6 (480-45394-2).

Method SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The

Job ID: 480-45394-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

following samples have been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute time frame: MW11 (480-45394-3), MW14 (480-45394-4), MW5 (480-45394-1) and MW6 (480-45394-2)

No other analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

Detection Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: NG ATHOL

TestAmerica Job ID: 480-45394-1

Client Sample ID: MW5 — Lab Sample ID: 480-45394-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
m,p-Xylene	45		2.0	0.66	ug/L	1		8260B	Total/NA
o-Xylene	93		1.0	0.76	ug/L	1		8260B	Total/NA
Toluene	7.8		1.0	0.51	ug/L	1		8260B	Total/NA
Benzene - DL	460		10	4.1	ug/L	10		8260B	Total/NA
Ethylbenzene - DL	410		10	7.4	ug/L	10		8260B	Total/NA
Benzo(a)pyrene	0.36		0.17	0.12	ug/L	1		8270C LL	Total/NA
2,4-Dimethylphenol	0.48	J	0.95	0.29	ug/L	1		8270C LL	Total/NA
Acenaphthylene	4.8		0.29	0.053	ug/L	1		8270C LL	Total/NA
Anthracene	1.4		0.48	0.032	ug/L	1		8270C LL	Total/NA
Benzo(b)fluoranthene	0.32		0.29	0.060	ug/L	1		8270C LL	Total/NA
Benzo(g,h,i) perylene	0.091	J	0.48	0.055	ug/L	1		8270C LL	Total/NA
Benzo(k)fluoranthene	0.13	J	0.29	0.067	ug/L	1		8270C LL	Total/NA
Fluoranthene	0.20	J	0.48	0.076	ug/L	1		8270C LL	Total/NA
Fluorene	10		0.48	0.055	ug/L	1		8270C LL	Total/NA
Phenanthrene	4.4	B	0.19	0.059	ug/L	1		8270C LL	Total/NA
Phenol	0.85	J	0.95	0.095	ug/L	1		8270C LL	Total/NA
Pyrene	0.24	J	0.48	0.073	ug/L	1		8270C LL	Total/NA
Acenaphthene - DL	61		48	3.4	ug/L	100		8270C LL	Total/NA
Naphthalene - DL	670		95	6.1	ug/L	100		8270C LL	Total/NA
Iron	18	B	0.050	0.019	mg/L	1		200.7 Rev 4.4	Total/NA
Nickel	0.0019	J	0.010	0.0013	mg/L	1		200.7 Rev 4.4	Total/NA
Zinc	0.019		0.010	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
n-Hexane Extractable Material (HEM)	1.7	J	4.9	1.4	mg/L	1		1664A	Total/NA
Chloride	160		2.5	1.4	mg/L	5		300.0	Total/NA
Phenolics, Total Recoverable	0.033		0.010	0.0050	mg/L	1		420.4	Total/NA
Cyanide, Total	0.13		0.010	0.0050	mg/L	1		9012A	Total/NA
Chlorine, Total Residual	0.040	H	0.020	0.010	mg/L	1		SM 4500 Cl G	Total/NA
Analyte	**Result**	**Qualifier**	**RL**	**RL**	**Unit**	**Dil Fac**	**D**	**Method**	**Prep Type**
pH	6.83	HF	0.100	0.100	SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW6 — Lab Sample ID: 480-45394-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2,4-Dichlorophenol	0.10	J	0.48	0.053	ug/L	1		8270C LL	Total/NA
Acenaphthene	0.50		0.48	0.034	ug/L	1		8270C LL	Total/NA
Acenaphthylene	0.52		0.29	0.053	ug/L	1		8270C LL	Total/NA
Anthracene	0.30	J	0.48	0.032	ug/L	1		8270C LL	Total/NA
Benzo(b)fluoranthene	0.074	J	0.29	0.060	ug/L	1		8270C LL	Total/NA
Benzo(g,h,i) perylene	0.092	J	0.48	0.055	ug/L	1		8270C LL	Total/NA
Diethyl phthalate	0.064	J	0.48	0.061	ug/L	1		8270C LL	Total/NA
Dimethyl phthalate	0.088	J	0.48	0.054	ug/L	1		8270C LL	Total/NA
Naphthalene	3.1		0.95	0.061	ug/L	1		8270C LL	Total/NA
Phenanthrene	0.085	J B	0.19	0.059	ug/L	1		8270C LL	Total/NA
Copper	0.019		0.010	0.0016	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.20	B	0.050	0.019	mg/L	1		200.7 Rev 4.4	Total/NA
Nickel	0.0068	J	0.010	0.0013	mg/L	1		200.7 Rev 4.4	Total/NA
Zinc	0.16		0.010	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Chloride	26		0.50	0.28	mg/L	1		300.0	Total/NA
Cyanide, Total	0.0066	J	0.010	0.0050	mg/L	1		9012A	Total/NA
Chlorine, Total Residual	0.010	J H	0.020	0.010	mg/L	1		SM 4500 Cl G	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW6 (Continued) — Lab Sample ID: 480-45394-2

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	6.99	HF	0.100	0.100	SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW11 — Lab Sample ID: 480-45394-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	26		1.0	0.51	ug/L	1		8260B	Total/NA
Benzene - DL	3200		40	16	ug/L	40		8260B	Total/NA
Ethylbenzene - DL	820		40	30	ug/L	40		8260B	Total/NA
m,p-Xylene - DL	430		80	26	ug/L	40		8260B	Total/NA
o-Xylene - DL	250		40	30	ug/L	40		8260B	Total/NA
3 & 4 Methylphenol	6.2	J	48	4.4	ug/L	50		8270C LL	Total/NA
Acenaphthene	330		24	1.7	ug/L	50		8270C LL	Total/NA
Acenaphthylene	9.0	J	14	2.7	ug/L	50		8270C LL	Total/NA
Anthracene	27		24	1.6	ug/L	50		8270C LL	Total/NA
Benzo(a)anthracene	4.8	J	14	1.6	ug/L	50		8270C LL	Total/NA
Fluoranthene	22	J	24	3.8	ug/L	50		8270C LL	Total/NA
Fluorene	99		24	2.8	ug/L	50		8270C LL	Total/NA
Phenanthrene	140	B	9.5	2.9	ug/L	50		8270C LL	Total/NA
Pyrene	27		24	3.6	ug/L	50		8270C LL	Total/NA
Naphthalene - DL	4900		480	30	ug/L	500		8270C LL	Total/NA
Chromium	0.0016	J	0.0040	0.0010	mg/L	1		200.7 Rev 4.4	Total/NA
Copper	0.0028	J	0.010	0.0016	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	8.4	B	0.050	0.019	mg/L	1		200.7 Rev 4.4	Total/NA
Zinc	0.013		0.010	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Chloride	130		2.5	1.4	mg/L	5		300.0	Total/NA
Phenolics, Total Recoverable	0.097		0.010	0.0050	mg/L	1		420.4	Total/NA
Cyanide, Total	0.047		0.010	0.0050	mg/L	1		9012A	Total/NA
Chlorine, Total Residual	0.12	H	0.020	0.010	mg/L	1		SM 4500 Cl G	Total/NA
Analyte	**Result**	**Qualifier**	**RL**	**RL**	**Unit**	**Dil Fac**	**D**	**Method**	**Prep Type**
Total Suspended Solids	15		4.0	4.0	mg/L	1		SM 2540D	Total/NA
pH	6.96	HF	0.100	0.100	SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW14 — Lab Sample ID: 480-45394-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	27		8.0	3.3	ug/L	8		8260B	Total/NA
Ethylbenzene	190		8.0	5.9	ug/L	8		8260B	Total/NA
m,p-Xylene	380		16	5.3	ug/L	8		8260B	Total/NA
o-Xylene	380		8.0	6.1	ug/L	8		8260B	Total/NA
Toluene	180		8.0	4.1	ug/L	8		8260B	Total/NA
2,4-Dimethylphenol	1.3		0.95	0.29	ug/L	1		8270C LL	Total/NA
2-Methylphenol	1.3		0.95	0.13	ug/L	1		8270C LL	Total/NA
3 & 4 Methylphenol	2.9		0.95	0.088	ug/L	1		8270C LL	Total/NA
Acenaphthene	0.11	J	0.48	0.034	ug/L	1		8270C LL	Total/NA
Acenaphthylene	0.55		0.29	0.053	ug/L	1		8270C LL	Total/NA
Anthracene	0.045	J	0.48	0.032	ug/L	1		8270C LL	Total/NA
Benzo(a)anthracene	0.041	J	0.29	0.032	ug/L	1		8270C LL	Total/NA
Di-n-butyl phthalate	0.37	J	1.9	0.33	ug/L	1		8270C LL	Total/NA
Phenanthrene	0.094	J B	0.19	0.059	ug/L	1		8270C LL	Total/NA
Naphthalene - DL	200		19	1.2	ug/L	20		8270C LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW14 (Continued) — Lab Sample ID: 480-45394-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	0.0052	J	0.010	0.0016	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.90	B	0.050	0.019	mg/L	1		200.7 Rev 4.4	Total/NA
Lead	0.0065		0.0050	0.0030	mg/L	1		200.7 Rev 4.4	Total/NA
Zinc	0.0050	J	0.010	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Chloride	8.4		0.50	0.28	mg/L	1		300.0	Total/NA
Phenolics, Total Recoverable	0.0088	J	0.010	0.0050	mg/L	1		420.4	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	6.91	HF	0.100	0.100	SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: TB — Lab Sample ID: 480-45394-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	10		10	3.0	ug/L	1		8260B	Total/NA
Benzene	0.54	J	1.0	0.41	ug/L	1		8260B	Total/NA
m,p-Xylene	0.71	J	2.0	0.66	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: NG ATHOL

TestAmerica Job ID: 480-45394-1

Client Sample ID: MW5

Date Collected: 09/09/13 10:30
Date Received: 09/10/13 01:45

Lab Sample ID: 480-45394-1

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			09/15/13 19:36	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			09/15/13 19:36	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			09/15/13 19:36	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			09/15/13 19:36	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			09/15/13 19:36	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			09/15/13 19:36	1
Acetone	ND		10	3.0	ug/L			09/15/13 19:36	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			09/15/13 19:36	1
Bromodichloromethane	ND		1.0	0.39	ug/L			09/15/13 19:36	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			09/15/13 19:36	1
1,4-Dioxane	ND		40	9.3	ug/L			09/15/13 19:36	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			09/15/13 19:36	1
Methylene Chloride	ND		1.0	0.44	ug/L			09/15/13 19:36	1
m,p-Xylene	**45**		2.0	0.66	ug/L			09/15/13 19:36	1
o-Xylene	**93**		1.0	0.76	ug/L			09/15/13 19:36	1
Tetrachloroethene	ND		1.0	0.36	ug/L			09/15/13 19:36	1
Toluene	**7.8**		1.0	0.51	ug/L			09/15/13 19:36	1
Trichloroethene	ND		1.0	0.46	ug/L			09/15/13 19:36	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			09/15/13 19:36	1
Vinyl chloride	ND		1.0	0.90	ug/L			09/15/13 19:36	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			09/15/13 19:36	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			09/15/13 19:36	1
t-Butyl alcohol	ND		20	14	ug/L			09/15/13 19:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*66 - 137*		*09/15/13 19:36*	*1*
Toluene-d8 (Surr)	*94*		*71 - 126*		*09/15/13 19:36*	*1*
4-Bromofluorobenzene (Surr)	*94*		*73 - 120*		*09/15/13 19:36*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**460**		10	4.1	ug/L			09/16/13 13:12	10
Ethylbenzene	**410**		10	7.4	ug/L			09/16/13 13:12	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*66 - 137*		*09/16/13 13:12*	*10*
Toluene-d8 (Surr)	*94*		*71 - 126*		*09/16/13 13:12*	*10*
4-Bromofluorobenzene (Surr)	*93*		*73 - 120*		*09/16/13 13:12*	*10*

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo(a)pyrene	**0.36**		0.17	0.12	ug/L		09/11/13 07:40	09/12/13 18:49	1
Bis(2-ethylhexyl) phthalate	ND	*	4.8	0.40	ug/L		09/11/13 07:40	09/12/13 18:49	1
2,4-Dichlorophenol	ND		0.48	0.053	ug/L		09/11/13 07:40	09/12/13 18:49	1
2,4-Dimethylphenol	**0.48**	**J**	0.95	0.29	ug/L		09/11/13 07:40	09/12/13 18:49	1
Pentachlorophenol	ND		0.95	0.33	ug/L		09/11/13 07:40	09/12/13 18:49	1
2-Methylphenol	ND		0.95	0.13	ug/L		09/11/13 07:40	09/12/13 18:49	1
3 & 4 Methylphenol	ND		0.95	0.088	ug/L		09/11/13 07:40	09/12/13 18:49	1
Acenaphthylene	**4.8**		0.29	0.053	ug/L		09/11/13 07:40	09/12/13 18:49	1
Anthracene	**1.4**		0.48	0.032	ug/L		09/11/13 07:40	09/12/13 18:49	1

Client Sample ID: MW5

Date Collected: 09/09/13 10:30
Date Received: 09/10/13 01:45

Lab Sample ID: 480-45394-1

Matrix: Water

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo(a)anthracene	ND		0.29	0.032	ug/L		09/11/13 07:40	09/12/13 18:49	1
Benzo(b)fluoranthene	**0.32**		0.29	0.060	ug/L		09/11/13 07:40	09/12/13 18:49	1
Benzo(g,h,i) perylene	**0.091**	**J**	0.48	0.055	ug/L		09/11/13 07:40	09/12/13 18:49	1
Benzo(k)fluoranthene	**0.13**	**J**	0.29	0.067	ug/L		09/11/13 07:40	09/12/13 18:49	1
Butyl benzyl phthalate	ND		2.9	0.15	ug/L		09/11/13 07:40	09/12/13 18:49	1
Chrysene	ND		0.48	0.071	ug/L		09/11/13 07:40	09/12/13 18:49	1
Dibenz(a,h)anthracene	ND		0.48	0.067	ug/L		09/11/13 07:40	09/12/13 18:49	1
Diethyl phthalate	ND		0.48	0.061	ug/L		09/11/13 07:40	09/12/13 18:49	1
Dimethyl phthalate	ND		0.48	0.054	ug/L		09/11/13 07:40	09/12/13 18:49	1
Di-n-butyl phthalate	ND		1.9	0.33	ug/L		09/11/13 07:40	09/12/13 18:49	1
Di-n-octyl phthalate	ND		4.8	0.19	ug/L		09/11/13 07:40	09/12/13 18:49	1
Fluoranthene	**0.20**	**J**	0.48	0.076	ug/L		09/11/13 07:40	09/12/13 18:49	1
Fluorene	**10**		0.48	0.055	ug/L		09/11/13 07:40	09/12/13 18:49	1
Indeno(1,2,3-cd)pyrene	ND		0.48	0.10	ug/L		09/11/13 07:40	09/12/13 18:49	1
Phenanthrene	**4.4**	**B**	0.19	0.059	ug/L		09/11/13 07:40	09/12/13 18:49	1
Phenol	**0.85**	**J**	0.95	0.095	ug/L		09/11/13 07:40	09/12/13 18:49	1
Pyrene	**0.24**	**J**	0.48	0.073	ug/L		09/11/13 07:40	09/12/13 18:49	1
2,4,5-Trichlorophenol	ND		4.8	0.062	ug/L		09/11/13 07:40	09/12/13 18:49	1
2,4,6-Trichlorophenol	ND		4.8	0.069	ug/L		09/11/13 07:40	09/12/13 18:49	1
2,4-Dinitrophenol	ND		4.8	0.57	ug/L		09/11/13 07:40	09/12/13 18:49	1
2-Chlorophenol	ND		4.8	0.063	ug/L		09/11/13 07:40	09/12/13 18:49	1
2-Nitrophenol	ND		4.8	0.059	ug/L		09/11/13 07:40	09/12/13 18:49	1
4-Nitrophenol	ND		4.8	0.37	ug/L		09/11/13 07:40	09/12/13 18:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*123*		*39 - 146*	*09/11/13 07:40*	*09/12/13 18:49*	*1*
2-Fluorophenol (Surr)	*56*		*18 - 120*	*09/11/13 07:40*	*09/12/13 18:49*	*1*
Nitrobenzene-d5 (Surr)	*105*		*34 - 132*	*09/11/13 07:40*	*09/12/13 18:49*	*1*
Phenol-d5 (Surr)	*38*		*11 - 120*	*09/11/13 07:40*	*09/12/13 18:49*	*1*
p-Terphenyl-d14	*115*		*58 - 147*	*09/11/13 07:40*	*09/12/13 18:49*	*1*

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**61**		48	3.4	ug/L		09/11/13 07:40	09/13/13 15:04	100
Naphthalene	**670**		95	6.1	ug/L		09/11/13 07:40	09/13/13 15:04	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*67*		*39 - 146*	*09/11/13 07:40*	*09/13/13 15:04*	*100*
2-Fluorophenol (Surr)	*58*		*18 - 120*	*09/11/13 07:40*	*09/13/13 15:04*	*100*
Nitrobenzene-d5 (Surr)	*100*		*34 - 132*	*09/11/13 07:40*	*09/13/13 15:04*	*100*
Phenol-d5 (Surr)	*42*		*11 - 120*	*09/11/13 07:40*	*09/13/13 15:04*	*100*
p-Terphenyl-d14	*106*		*58 - 147*	*09/11/13 07:40*	*09/13/13 15:04*	*100*

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.057	0.036	ug/L		09/12/13 14:12	09/13/13 08:42	1
PCB-1221	ND		0.057	0.036	ug/L		09/12/13 14:12	09/13/13 08:42	1
PCB-1232	ND		0.057	0.036	ug/L		09/12/13 14:12	09/13/13 08:42	1
PCB-1242	ND		0.057	0.036	ug/L		09/12/13 14:12	09/13/13 08:42	1
PCB-1248	ND		0.057	0.036	ug/L		09/12/13 14:12	09/13/13 08:42	1

Client Sample ID: MW5

Lab Sample ID: 480-45394-1

Date Collected: 09/09/13 10:30

Matrix: Water

Date Received: 09/10/13 01:45

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1254	ND		0.057	0.030	ug/L		09/12/13 14:12	09/13/13 08:42	1
PCB-1260	ND		0.057	0.030	ug/L		09/12/13 14:12	09/13/13 08:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*43*		*10 - 158*	*09/12/13 14:12*	*09/13/13 08:42*	*1*
Tetrachloro-m-xylene	*70*		*18 - 146*	*09/12/13 14:12*	*09/13/13 08:42*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.011	0.0079	ug/L		09/10/13 10:32	09/10/13 14:51	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.020	0.0068	mg/L		09/10/13 09:00	09/11/13 23:07	1
Arsenic	ND		0.010	0.0056	mg/L		09/10/13 09:00	09/11/13 23:07	1
Cadmium	ND		0.0010	0.00050	mg/L		09/10/13 09:00	09/11/13 23:07	1
Chromium	ND		0.0040	0.0010	mg/L		09/10/13 09:00	09/11/13 23:07	1
Copper	ND		0.010	0.0016	mg/L		09/10/13 09:00	09/11/13 23:07	1
Iron	**18**	**B**	0.050	0.019	mg/L		09/10/13 09:00	09/11/13 23:07	1
Lead	ND		0.0050	0.0030	mg/L		09/10/13 09:00	09/11/13 23:07	1
Nickel	**0.0019**	**J**	0.010	0.0013	mg/L		09/10/13 09:00	09/11/13 23:07	1
Selenium	ND		0.015	0.0087	mg/L		09/10/13 09:00	09/11/13 23:07	1
Silver	ND		0.0030	0.0017	mg/L		09/10/13 09:00	09/11/13 23:07	1
Zinc	**0.019**		0.010	0.0015	mg/L		09/10/13 09:00	09/11/13 23:07	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		09/10/13 09:15	09/10/13 13:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Hexane Extractable Material (HEM)	**1.7**	**J**	4.9	1.4	mg/L		09/11/13 01:36	09/11/13 01:36	1
Chloride	**160**		2.5	1.4	mg/L			09/12/13 13:46	5
Phenolics, Total Recoverable	**0.033**		0.010	0.0050	mg/L		09/10/13 11:30	09/12/13 19:36	1
Cyanide, Total	**0.13**		0.010	0.0050	mg/L		09/11/13 17:30	09/13/13 13:49	1
Chlorine, Total Residual	**0.040**	**H**	0.020	0.010	mg/L			09/11/13 23:00	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium (hexavalent)	ND		0.0050	0.0050	mg/L			09/10/13 09:30	1
Chromium, trivalent	ND		0.0050	0.0050	mg/L			09/24/13 09:55	1
Total Suspended Solids	ND		4.0	4.0	mg/L			09/10/13 16:06	1
pH	**6.83**	**HF**	0.100	0.100	SU			09/10/13 21:34	1

Client Sample ID: MW6

Lab Sample ID: 480-45394-2

Date Collected: 09/09/13 12:30

Matrix: Water

Date Received: 09/10/13 01:45

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			09/16/13 13:37	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			09/16/13 13:37	1

Client Sample ID: MW6

Date Collected: 09/09/13 12:30
Date Received: 09/10/13 01:45

Lab Sample ID: 480-45394-2

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		1.0	0.38	ug/L			09/16/13 13:37	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			09/16/13 13:37	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			09/16/13 13:37	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			09/16/13 13:37	1
Acetone	ND		10	3.0	ug/L			09/16/13 13:37	1
Benzene	ND		1.0	0.41	ug/L			09/16/13 13:37	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			09/16/13 13:37	1
Bromodichloromethane	ND		1.0	0.39	ug/L			09/16/13 13:37	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			09/16/13 13:37	1
1,4-Dioxane	ND		40	9.3	ug/L			09/16/13 13:37	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			09/16/13 13:37	1
Ethylbenzene	ND		1.0	0.74	ug/L			09/16/13 13:37	1
Methylene Chloride	ND		1.0	0.44	ug/L			09/16/13 13:37	1
m,p-Xylene	ND		2.0	0.66	ug/L			09/16/13 13:37	1
o-Xylene	ND		1.0	0.76	ug/L			09/16/13 13:37	1
Tetrachloroethene	ND		1.0	0.36	ug/L			09/16/13 13:37	1
Toluene	ND		1.0	0.51	ug/L			09/16/13 13:37	1
Trichloroethene	ND		1.0	0.46	ug/L			09/16/13 13:37	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			09/16/13 13:37	1
Vinyl chloride	ND		1.0	0.90	ug/L			09/16/13 13:37	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			09/16/13 13:37	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			09/16/13 13:37	1
t-Butyl alcohol	ND		20	14	ug/L			09/16/13 13:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*66 - 137*		*09/16/13 13:37*	*1*
Toluene-d8 (Surr)	*94*		*71 - 126*		*09/16/13 13:37*	*1*
4-Bromofluorobenzene (Surr)	*90*		*73 - 120*		*09/16/13 13:37*	*1*

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo(a)pyrene	ND		0.17	0.12	ug/L		09/11/13 07:40	09/12/13 19:17	1
Bis(2-ethylhexyl) phthalate	ND	*	4.8	0.40	ug/L		09/11/13 07:40	09/12/13 19:17	1
2,4-Dichlorophenol	**0.10**	**J**	0.48	0.053	ug/L		09/11/13 07:40	09/12/13 19:17	1
2,4-Dimethylphenol	ND		0.95	0.29	ug/L		09/11/13 07:40	09/12/13 19:17	1
Pentachlorophenol	ND		0.95	0.33	ug/L		09/11/13 07:40	09/12/13 19:17	1
2-Methylphenol	ND		0.95	0.13	ug/L		09/11/13 07:40	09/12/13 19:17	1
3 & 4 Methylphenol	ND		0.95	0.088	ug/L		09/11/13 07:40	09/12/13 19:17	1
Acenaphthene	**0.50**		0.48	0.034	ug/L		09/11/13 07:40	09/12/13 19:17	1
Acenaphthylene	**0.52**		0.29	0.053	ug/L		09/11/13 07:40	09/12/13 19:17	1
Anthracene	**0.30**	**J**	0.48	0.032	ug/L		09/11/13 07:40	09/12/13 19:17	1
Benzo(a)anthracene	ND		0.29	0.032	ug/L		09/11/13 07:40	09/12/13 19:17	1
Benzo(b)fluoranthene	**0.074**	**J**	0.29	0.060	ug/L		09/11/13 07:40	09/12/13 19:17	1
Benzo(g,h,i) perylene	**0.092**	**J**	0.48	0.055	ug/L		09/11/13 07:40	09/12/13 19:17	1
Benzo(k)fluoranthene	ND		0.29	0.067	ug/L		09/11/13 07:40	09/12/13 19:17	1
Butyl benzyl phthalate	ND		2.9	0.15	ug/L		09/11/13 07:40	09/12/13 19:17	1
Chrysene	ND		0.48	0.071	ug/L		09/11/13 07:40	09/12/13 19:17	1
Dibenz(a,h)anthracene	ND		0.48	0.067	ug/L		09/11/13 07:40	09/12/13 19:17	1
Diethyl phthalate	**0.064**	**J**	0.48	0.061	ug/L		09/11/13 07:40	09/12/13 19:17	1
Dimethyl phthalate	**0.088**	**J**	0.48	0.054	ug/L		09/11/13 07:40	09/12/13 19:17	1

Client Sample ID: MW6

Date Collected: 09/09/13 12:30
Date Received: 09/10/13 01:45

Lab Sample ID: 480-45394-2
Matrix: Water

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	ND		1.9	0.33	ug/L		09/11/13 07:40	09/12/13 19:17	1
Di-n-octyl phthalate	ND		4.8	0.19	ug/L		09/11/13 07:40	09/12/13 19:17	1
Fluoranthene	ND		0.48	0.076	ug/L		09/11/13 07:40	09/12/13 19:17	1
Fluorene	ND		0.48	0.055	ug/L		09/11/13 07:40	09/12/13 19:17	1
Indeno(1,2,3-cd)pyrene	ND		0.48	0.11	ug/L		09/11/13 07:40	09/12/13 19:17	1
Naphthalene	**3.1**		0.95	0.061	ug/L		09/11/13 07:40	09/12/13 19:17	1
Phenanthrene	**0.085**	**J B**	0.19	0.059	ug/L		09/11/13 07:40	09/12/13 19:17	1
Phenol	ND		0.95	0.095	ug/L		09/11/13 07:40	09/12/13 19:17	1
Pyrene	ND		0.48	0.073	ug/L		09/11/13 07:40	09/12/13 19:17	1
2,4,5-Trichlorophenol	ND		4.8	0.062	ug/L		09/11/13 07:40	09/12/13 19:17	1
2,4,6-Trichlorophenol	ND		4.8	0.069	ug/L		09/11/13 07:40	09/12/13 19:17	1
2,4-Dinitrophenol	ND		4.8	0.57	ug/L		09/11/13 07:40	09/12/13 19:17	1
2-Chlorophenol	ND		4.8	0.063	ug/L		09/11/13 07:40	09/12/13 19:17	1
2-Nitrophenol	ND		4.8	0.059	ug/L		09/11/13 07:40	09/12/13 19:17	1
4-Nitrophenol	ND		4.8	0.37	ug/L		09/11/13 07:40	09/12/13 19:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*117*		*39 - 146*	*09/11/13 07:40*	*09/12/13 19:17*	*1*
2-Fluorophenol (Surr)	*54*		*18 - 120*	*09/11/13 07:40*	*09/12/13 19:17*	*1*
Nitrobenzene-d5 (Surr)	*97*		*34 - 132*	*09/11/13 07:40*	*09/12/13 19:17*	*1*
Phenol-d5 (Surr)	*40*		*11 - 120*	*09/11/13 07:40*	*09/12/13 19:17*	*1*
p-Terphenyl-d14	*103*		*58 - 147*	*09/11/13 07:40*	*09/12/13 19:17*	*1*

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.057	0.036	ug/L		09/12/13 14:12	09/13/13 08:58	1
PCB-1221	ND		0.057	0.036	ug/L		09/12/13 14:12	09/13/13 08:58	1
PCB-1232	ND		0.057	0.036	ug/L		09/12/13 14:12	09/13/13 08:58	1
PCB-1242	ND		0.057	0.036	ug/L		09/12/13 14:12	09/13/13 08:58	1
PCB-1248	ND		0.057	0.036	ug/L		09/12/13 14:12	09/13/13 08:58	1
PCB-1254	ND		0.057	0.030	ug/L		09/12/13 14:12	09/13/13 08:58	1
PCB-1260	ND		0.057	0.030	ug/L		09/12/13 14:12	09/13/13 08:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*47*		*10 - 158*	*09/12/13 14:12*	*09/13/13 08:58*	*1*
Tetrachloro-m-xylene	*78*		*18 - 146*	*09/12/13 14:12*	*09/13/13 08:58*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.011	0.0079	ug/L		09/10/13 10:32	09/10/13 15:09	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.020	0.0068	mg/L		09/10/13 09:00	09/11/13 23:10	1
Arsenic	ND		0.010	0.0056	mg/L		09/10/13 09:00	09/11/13 23:10	1
Cadmium	ND		0.0010	0.00050	mg/L		09/10/13 09:00	09/11/13 23:10	1
Chromium	ND		0.0040	0.0010	mg/L		09/10/13 09:00	09/11/13 23:10	1
Copper	**0.019**		0.010	0.0016	mg/L		09/10/13 09:00	09/11/13 23:10	1
Iron	**0.20**	**B**	0.050	0.019	mg/L		09/10/13 09:00	09/11/13 23:10	1
Lead	ND		0.0050	0.0030	mg/L		09/10/13 09:00	09/14/13 00:47	1
Nickel	**0.0068**	**J**	0.010	0.0013	mg/L		09/10/13 09:00	09/11/13 23:10	1

Client Sample ID: MW6

Lab Sample ID: 480-45394-2

Date Collected: 09/09/13 12:30

Matrix: Water

Date Received: 09/10/13 01:45

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	ND		0.015	0.0087	mg/L		09/10/13 09:00	09/11/13 23:10	1
Silver	ND		0.0030	0.0017	mg/L		09/10/13 09:00	09/11/13 23:10	1
Zinc	**0.16**		0.010	0.0015	mg/L		09/10/13 09:00	09/11/13 23:10	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		09/10/13 09:15	09/10/13 13:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM	ND		4.8	1.9	mg/L		09/24/13 12:00	09/24/13 16:35	1
Chloride	**26**		0.50	0.28	mg/L			09/11/13 18:51	1
Phenolics, Total Recoverable	ND		0.010	0.0050	mg/L		09/10/13 11:30	09/12/13 19:36	1
Cyanide, Total	**0.0066**	**J**	0.010	0.0050	mg/L		09/16/13 21:30	09/17/13 07:37	1
Chlorine, Total Residual	**0.010**	**J H**	0.020	0.010	mg/L			09/11/13 23:00	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium (hexavalent)	ND		0.0050	0.0050	mg/L			09/10/13 09:30	1
Chromium, trivalent	ND		0.0050	0.0050	mg/L			09/24/13 09:55	1
Total Suspended Solids	ND		4.0	4.0	mg/L			09/10/13 16:08	1
pH	**6.99**	**HF**	0.100	0.100	SU			09/10/13 21:37	1

Client Sample ID: MW11

Lab Sample ID: 480-45394-3

Date Collected: 09/09/13 11:00

Matrix: Water

Date Received: 09/10/13 01:45

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			09/15/13 20:32	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			09/15/13 20:32	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			09/15/13 20:32	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			09/15/13 20:32	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			09/15/13 20:32	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			09/15/13 20:32	1
Acetone	ND		10	3.0	ug/L			09/15/13 20:32	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			09/15/13 20:32	1
Bromodichloromethane	ND		1.0	0.39	ug/L			09/15/13 20:32	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			09/15/13 20:32	1
1,4-Dioxane	ND		40	9.3	ug/L			09/15/13 20:32	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			09/15/13 20:32	1
Methylene Chloride	ND		1.0	0.44	ug/L			09/15/13 20:32	1
Tetrachloroethene	ND		1.0	0.36	ug/L			09/15/13 20:32	1
Toluene	**26**		1.0	0.51	ug/L			09/15/13 20:32	1
Trichloroethene	ND		1.0	0.46	ug/L			09/15/13 20:32	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			09/15/13 20:32	1
Vinyl chloride	ND		1.0	0.90	ug/L			09/15/13 20:32	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			09/15/13 20:32	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			09/15/13 20:32	1
t-Butyl alcohol	ND		20	14	ug/L			09/15/13 20:32	1

Client Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: NG ATHOL

TestAmerica Job ID: 480-45394-1

Client Sample ID: MW11

Date Collected: 09/09/13 11:00
Date Received: 09/10/13 01:45

Lab Sample ID: 480-45394-3

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*73*		*66 - 137*		*09/15/13 20:32*	*1*
Toluene-d8 (Surr)	*95*		*71 - 126*		*09/15/13 20:32*	*1*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*09/15/13 20:32*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**3200**		40	16	ug/L			09/16/13 23:45	40
Ethylbenzene	**820**		40	30	ug/L			09/16/13 23:45	40
m,p-Xylene	**430**		80	26	ug/L			09/16/13 23:45	40
o-Xylene	**250**		40	30	ug/L			09/16/13 23:45	40

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*66 - 137*		*09/16/13 23:45*	*40*
Toluene-d8 (Surr)	*96*		*71 - 126*		*09/16/13 23:45*	*40*
4-Bromofluorobenzene (Surr)	*92*		*73 - 120*		*09/16/13 23:45*	*40*

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo(a)pyrene	ND		8.6	6.2	ug/L		09/11/13 07:40	09/13/13 14:09	50
Bis(2-ethylhexyl) phthalate	ND	*	240	20	ug/L		09/11/13 07:40	09/13/13 14:09	50
2,4-Dichlorophenol	ND		24	2.7	ug/L		09/11/13 07:40	09/13/13 14:09	50
2,4-Dimethylphenol	ND		48	14	ug/L		09/11/13 07:40	09/13/13 14:09	50
Pentachlorophenol	ND		48	16	ug/L		09/11/13 07:40	09/13/13 14:09	50
2-Methylphenol	ND		48	6.7	ug/L		09/11/13 07:40	09/13/13 14:09	50
3 & 4 Methylphenol	**6.2**	**J**	48	4.4	ug/L		09/11/13 07:40	09/13/13 14:09	50
Acenaphthene	**330**		24	1.7	ug/L		09/11/13 07:40	09/13/13 14:09	50
Acenaphthylene	**9.0**	**J**	14	2.7	ug/L		09/11/13 07:40	09/13/13 14:09	50
Anthracene	**27**		24	1.6	ug/L		09/11/13 07:40	09/13/13 14:09	50
Benzo(a)anthracene	**4.8**	**J**	14	1.6	ug/L		09/11/13 07:40	09/13/13 14:09	50
Benzo(b)fluoranthene	ND		14	3.0	ug/L		09/11/13 07:40	09/13/13 14:09	50
Benzo(g,h,i) perylene	ND		24	2.8	ug/L		09/11/13 07:40	09/13/13 14:09	50
Benzo(k)fluoranthene	ND		14	3.3	ug/L		09/11/13 07:40	09/13/13 14:09	50
Butyl benzyl phthalate	ND		140	7.6	ug/L		09/11/13 07:40	09/13/13 14:09	50
Chrysene	ND		24	3.5	ug/L		09/11/13 07:40	09/13/13 14:09	50
Dibenz(a,h)anthracene	ND		24	3.3	ug/L		09/11/13 07:40	09/13/13 14:09	50
Diethyl phthalate	ND		24	3.0	ug/L		09/11/13 07:40	09/13/13 14:09	50
Dimethyl phthalate	ND		24	2.7	ug/L		09/11/13 07:40	09/13/13 14:09	50
Di-n-butyl phthalate	ND		95	17	ug/L		09/11/13 07:40	09/13/13 14:09	50
Di-n-octyl phthalate	ND		240	9.5	ug/L		09/11/13 07:40	09/13/13 14:09	50
Fluoranthene	**22**	**J**	24	3.8	ug/L		09/11/13 07:40	09/13/13 14:09	50
Fluorene	**99**		24	2.8	ug/L		09/11/13 07:40	09/13/13 14:09	50
Indeno(1,2,3-cd)pyrene	ND		24	5.2	ug/L		09/11/13 07:40	09/13/13 14:09	50
Phenanthrene	**140**	**B**	9.5	2.9	ug/L		09/11/13 07:40	09/13/13 14:09	50
Phenol	ND		48	4.8	ug/L		09/11/13 07:40	09/13/13 14:09	50
Pyrene	**27**		24	3.6	ug/L		09/11/13 07:40	09/13/13 14:09	50
2,4,5-Trichlorophenol	ND		240	3.1	ug/L		09/11/13 07:40	09/13/13 14:09	50
2,4,6-Trichlorophenol	ND		240	3.4	ug/L		09/11/13 07:40	09/13/13 14:09	50
2,4-Dinitrophenol	ND		240	29	ug/L		09/11/13 07:40	09/13/13 14:09	50
2-Chlorophenol	ND		240	3.1	ug/L		09/11/13 07:40	09/13/13 14:09	50
2-Nitrophenol	ND		240	2.9	ug/L		09/11/13 07:40	09/13/13 14:09	50
4-Nitrophenol	ND		240	19	ug/L		09/11/13 07:40	09/13/13 14:09	50

Client Sample ID: MW11

Lab Sample ID: 480-45394-3

Date Collected: 09/09/13 11:00

Matrix: Water

Date Received: 09/10/13 01:45

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	104		39 - 146	09/11/13 07:40	09/13/13 14:09	50
2-Fluorophenol (Surr)	47		18 - 120	09/11/13 07:40	09/13/13 14:09	50
Nitrobenzene-d5 (Surr)	81		34 - 132	09/11/13 07:40	09/13/13 14:09	50
Phenol-d5 (Surr)	31		11 - 120	09/11/13 07:40	09/13/13 14:09	50
p-Terphenyl-d14	85		58 - 147	09/11/13 07:40	09/13/13 14:09	50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**4900**		480	30	ug/L		09/11/13 07:40	09/13/13 15:31	500

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	0	X	39 - 146	09/11/13 07:40	09/13/13 15:31	500
2-Fluorophenol (Surr)	46		18 - 120	09/11/13 07:40	09/13/13 15:31	500
Nitrobenzene-d5 (Surr)	84		34 - 132	09/11/13 07:40	09/13/13 15:31	500
Phenol-d5 (Surr)	0	X	11 - 120	09/11/13 07:40	09/13/13 15:31	500
p-Terphenyl-d14	87		58 - 147	09/11/13 07:40	09/13/13 15:31	500

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.057	0.036	ug/L		09/12/13 14:12	09/13/13 09:14	1
PCB-1221	ND		0.057	0.036	ug/L		09/12/13 14:12	09/13/13 09:14	1
PCB-1232	ND		0.057	0.036	ug/L		09/12/13 14:12	09/13/13 09:14	1
PCB-1242	ND		0.057	0.036	ug/L		09/12/13 14:12	09/13/13 09:14	1
PCB-1248	ND		0.057	0.036	ug/L		09/12/13 14:12	09/13/13 09:14	1
PCB-1254	ND		0.057	0.030	ug/L		09/12/13 14:12	09/13/13 09:14	1
PCB-1260	ND		0.057	0.030	ug/L		09/12/13 14:12	09/13/13 09:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	33		10 - 158	09/12/13 14:12	09/13/13 09:14	1
Tetrachloro-m-xylene	60		18 - 146	09/12/13 14:12	09/13/13 09:14	1

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.011	0.0079	ug/L		09/10/13 10:32	09/10/13 15:26	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.020	0.0068	mg/L		09/10/13 09:00	09/11/13 23:13	1
Arsenic	ND		0.010	0.0056	mg/L		09/10/13 09:00	09/11/13 23:13	1
Cadmium	ND		0.0010	0.00050	mg/L		09/10/13 09:00	09/11/13 23:13	1
Chromium	**0.0016**	**J**	0.0040	0.0010	mg/L		09/10/13 09:00	09/11/13 23:13	1
Copper	**0.0028**	**J**	0.010	0.0016	mg/L		09/10/13 09:00	09/11/13 23:13	1
Iron	**8.4**	**B**	0.050	0.019	mg/L		09/10/13 09:00	09/11/13 23:13	1
Lead	ND		0.0050	0.0030	mg/L		09/10/13 09:00	09/11/13 23:13	1
Nickel	ND		0.010	0.0013	mg/L		09/10/13 09:00	09/11/13 23:13	1
Selenium	ND		0.015	0.0087	mg/L		09/10/13 09:00	09/11/13 23:13	1
Silver	ND		0.0030	0.0017	mg/L		09/10/13 09:00	09/11/13 23:13	1
Zinc	**0.013**		0.010	0.0015	mg/L		09/10/13 09:00	09/11/13 23:13	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		09/10/13 09:15	09/10/13 13:10	1

Client Sample ID: MW11

Lab Sample ID: 480-45394-3

Date Collected: 09/09/13 11:00

Matrix: Water

Date Received: 09/10/13 01:45

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM	ND		4.8	1.9	mg/L		09/24/13 12:00	09/24/13 16:35	1
Chloride	**130**		2.5	1.4	mg/L			09/12/13 13:57	5
Phenolics, Total Recoverable	**0.097**		0.010	0.0050	mg/L		09/10/13 11:30	09/12/13 19:36	1
Cyanide, Total	**0.047**		0.010	0.0050	mg/L		09/11/13 17:30	09/13/13 13:50	1
Chlorine, Total Residual	**0.12**	**H**	0.020	0.010	mg/L			09/11/13 23:00	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium (hexavalent)	ND		0.0050	0.0050	mg/L			09/10/13 09:30	1
Chromium, trivalent	ND		0.0050	0.0050	mg/L			09/24/13 09:55	1
Total Suspended Solids	**15**		4.0	4.0	mg/L			09/10/13 16:09	1
pH	**6.96**	**HF**	0.100	0.100	SU			09/10/13 21:41	1

Client Sample ID: MW14

Lab Sample ID: 480-45394-4

Date Collected: 09/09/13 11:50

Matrix: Water

Date Received: 09/10/13 01:45

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		8.0	6.6	ug/L			09/17/13 00:09	8
1,1,2-Trichloroethane	ND		8.0	1.8	ug/L			09/17/13 00:09	8
1,1-Dichloroethane	ND		8.0	3.0	ug/L			09/17/13 00:09	8
1,1-Dichloroethene	ND		8.0	2.3	ug/L			09/17/13 00:09	8
1,2-Dichloroethane	ND		8.0	1.7	ug/L			09/17/13 00:09	8
1,2-Dichlorobenzene	ND		8.0	6.3	ug/L			09/17/13 00:09	8
Acetone	ND		80	24	ug/L			09/17/13 00:09	8
Benzene	**27**		8.0	3.3	ug/L			09/17/13 00:09	8
1,3-Dichlorobenzene	ND		8.0	6.2	ug/L			09/17/13 00:09	8
Bromodichloromethane	ND		8.0	3.1	ug/L			09/17/13 00:09	8
1,4-Dichlorobenzene	ND		8.0	6.7	ug/L			09/17/13 00:09	8
1,4-Dioxane	ND		320	75	ug/L			09/17/13 00:09	8
Carbon tetrachloride	ND		8.0	2.2	ug/L			09/17/13 00:09	8
Ethylbenzene	**190**		8.0	5.9	ug/L			09/17/13 00:09	8
Methylene Chloride	ND		8.0	3.5	ug/L			09/17/13 00:09	8
m,p-Xylene	**380**		16	5.3	ug/L			09/17/13 00:09	8
o-Xylene	**380**		8.0	6.1	ug/L			09/17/13 00:09	8
Tetrachloroethene	ND		8.0	2.9	ug/L			09/17/13 00:09	8
Toluene	**180**		8.0	4.1	ug/L			09/17/13 00:09	8
Trichloroethene	ND		8.0	3.7	ug/L			09/17/13 00:09	8
cis-1,2-Dichloroethene	ND		8.0	6.5	ug/L			09/17/13 00:09	8
Vinyl chloride	ND		8.0	7.2	ug/L			09/17/13 00:09	8
Methyl tert-butyl ether	ND		8.0	1.3	ug/L			09/17/13 00:09	8
Tert-amyl methyl ether	ND		8.0	2.2	ug/L			09/17/13 00:09	8
t-Butyl alcohol	ND		160	110	ug/L			09/17/13 00:09	8

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*66 - 137*		*09/17/13 00:09*	*8*
Toluene-d8 (Surr)	*95*		*71 - 126*		*09/17/13 00:09*	*8*
4-Bromofluorobenzene (Surr)	*93*		*73 - 120*		*09/17/13 00:09*	*8*

Client Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: NG ATHOL

TestAmerica Job ID: 480-45394-1

Client Sample ID: MW14

Date Collected: 09/09/13 11:50
Date Received: 09/10/13 01:45

Lab Sample ID: 480-45394-4

Matrix: Water

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo(a)pyrene	ND		0.17	0.12	ug/L		09/11/13 07:40	09/12/13 20:12	1
Bis(2-ethylhexyl) phthalate	ND	*	4.8	0.40	ug/L		09/11/13 07:40	09/12/13 20:12	1
2,4-Dichlorophenol	ND		0.48	0.053	ug/L		09/11/13 07:40	09/12/13 20:12	1
2,4-Dimethylphenol	**1.3**		0.95	0.29	ug/L		09/11/13 07:40	09/12/13 20:12	1
Pentachlorophenol	ND		0.95	0.33	ug/L		09/11/13 07:40	09/12/13 20:12	1
2-Methylphenol	**1.3**		0.95	0.13	ug/L		09/11/13 07:40	09/12/13 20:12	1
3 & 4 Methylphenol	**2.9**		0.95	0.088	ug/L		09/11/13 07:40	09/12/13 20:12	1
Acenaphthene	**0.11**	**J**	0.48	0.034	ug/L		09/11/13 07:40	09/12/13 20:12	1
Acenaphthylene	**0.55**		0.29	0.053	ug/L		09/11/13 07:40	09/12/13 20:12	1
Anthracene	**0.045**	**J**	0.48	0.032	ug/L		09/11/13 07:40	09/12/13 20:12	1
Benzo(a)anthracene	**0.041**	**J**	0.29	0.032	ug/L		09/11/13 07:40	09/12/13 20:12	1
Benzo(b)fluoranthene	ND		0.29	0.060	ug/L		09/11/13 07:40	09/12/13 20:12	1
Benzo(g,h,i) perylene	ND		0.48	0.055	ug/L		09/11/13 07:40	09/12/13 20:12	1
Benzo(k)fluoranthene	ND		0.29	0.067	ug/L		09/11/13 07:40	09/12/13 20:12	1
Butyl benzyl phthalate	ND		2.9	0.15	ug/L		09/11/13 07:40	09/12/13 20:12	1
Chrysene	ND		0.48	0.071	ug/L		09/11/13 07:40	09/12/13 20:12	1
Dibenz(a,h)anthracene	ND		0.48	0.067	ug/L		09/11/13 07:40	09/12/13 20:12	1
Diethyl phthalate	ND		0.48	0.061	ug/L		09/11/13 07:40	09/12/13 20:12	1
Dimethyl phthalate	ND		0.48	0.054	ug/L		09/11/13 07:40	09/12/13 20:12	1
Di-n-butyl phthalate	**0.37**	**J**	1.9	0.33	ug/L		09/11/13 07:40	09/12/13 20:12	1
Di-n-octyl phthalate	ND		4.8	0.19	ug/L		09/11/13 07:40	09/12/13 20:12	1
Fluoranthene	ND		0.48	0.076	ug/L		09/11/13 07:40	09/12/13 20:12	1
Fluorene	ND		0.48	0.055	ug/L		09/11/13 07:40	09/12/13 20:12	1
Indeno(1,2,3-cd)pyrene	ND		0.48	0.10	ug/L		09/11/13 07:40	09/12/13 20:12	1
Phenanthrene	**0.094**	**J B**	0.19	0.059	ug/L		09/11/13 07:40	09/12/13 20:12	1
Phenol	ND		0.95	0.095	ug/L		09/11/13 07:40	09/12/13 20:12	1
Pyrene	ND		0.48	0.073	ug/L		09/11/13 07:40	09/12/13 20:12	1
2,4,5-Trichlorophenol	ND		4.8	0.062	ug/L		09/11/13 07:40	09/12/13 20:12	1
2,4,6-Trichlorophenol	ND		4.8	0.069	ug/L		09/11/13 07:40	09/12/13 20:12	1
2,4-Dinitrophenol	ND		4.8	0.57	ug/L		09/11/13 07:40	09/12/13 20:12	1
2-Chlorophenol	ND		4.8	0.063	ug/L		09/11/13 07:40	09/12/13 20:12	1
2-Nitrophenol	ND		4.8	0.059	ug/L		09/11/13 07:40	09/12/13 20:12	1
4-Nitrophenol	ND		4.8	0.37	ug/L		09/11/13 07:40	09/12/13 20:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*130*		*39 - 146*	*09/11/13 07:40*	*09/12/13 20:12*	*1*
2-Fluorophenol (Surr)	*50*		*18 - 120*	*09/11/13 07:40*	*09/12/13 20:12*	*1*
Nitrobenzene-d5 (Surr)	*100*		*34 - 132*	*09/11/13 07:40*	*09/12/13 20:12*	*1*
Phenol-d5 (Surr)	*40*		*11 - 120*	*09/11/13 07:40*	*09/12/13 20:12*	*1*
p-Terphenyl-d14	*113*		*58 - 147*	*09/11/13 07:40*	*09/12/13 20:12*	*1*

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**200**		19	1.2	ug/L		09/11/13 07:40	09/13/13 14:36	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*96*		*39 - 146*	*09/11/13 07:40*	*09/13/13 14:36*	*20*
2-Fluorophenol (Surr)	*58*		*18 - 120*	*09/11/13 07:40*	*09/13/13 14:36*	*20*
Nitrobenzene-d5 (Surr)	*97*		*34 - 132*	*09/11/13 07:40*	*09/13/13 14:36*	*20*
Phenol-d5 (Surr)	*39*		*11 - 120*	*09/11/13 07:40*	*09/13/13 14:36*	*20*

Client Sample ID: MW14

Lab Sample ID: 480-45394-4

Date Collected: 09/09/13 11:50

Matrix: Water

Date Received: 09/10/13 01:45

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14	*117*		*58 - 147*	*09/11/13 07:40*	*09/13/13 14:36*	*20*

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.057	0.036	ug/L		09/12/13 14:12	09/13/13 09:30	1
PCB-1221	ND		0.057	0.036	ug/L		09/12/13 14:12	09/13/13 09:30	1
PCB-1232	ND		0.057	0.036	ug/L		09/12/13 14:12	09/13/13 09:30	1
PCB-1242	ND		0.057	0.036	ug/L		09/12/13 14:12	09/13/13 09:30	1
PCB-1248	ND		0.057	0.036	ug/L		09/12/13 14:12	09/13/13 09:30	1
PCB-1254	ND		0.057	0.030	ug/L		09/12/13 14:12	09/13/13 09:30	1
PCB-1260	ND		0.057	0.030	ug/L		09/12/13 14:12	09/13/13 09:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*75*		*10 - 158*	*09/12/13 14:12*	*09/13/13 09:30*	*1*
Tetrachloro-m-xylene	*81*		*18 - 146*	*09/12/13 14:12*	*09/13/13 09:30*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.011	0.0079	ug/L		09/10/13 10:32	09/10/13 15:44	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.020	0.0068	mg/L		09/10/13 09:00	09/11/13 23:15	1
Arsenic	ND		0.010	0.0056	mg/L		09/10/13 09:00	09/11/13 23:15	1
Cadmium	ND		0.0010	0.00050	mg/L		09/10/13 09:00	09/11/13 23:15	1
Chromium	ND		0.0040	0.0010	mg/L		09/10/13 09:00	09/11/13 23:15	1
Copper	**0.0052**	**J**	0.010	0.0016	mg/L		09/10/13 09:00	09/11/13 23:15	1
Iron	**0.90**	**B**	0.050	0.019	mg/L		09/10/13 09:00	09/11/13 23:15	1
Lead	**0.0065**		0.0050	0.0030	mg/L		09/10/13 09:00	09/11/13 23:15	1
Nickel	ND		0.010	0.0013	mg/L		09/10/13 09:00	09/11/13 23:15	1
Selenium	ND		0.015	0.0087	mg/L		09/10/13 09:00	09/11/13 23:15	1
Silver	ND		0.0030	0.0017	mg/L		09/10/13 09:00	09/11/13 23:15	1
Zinc	**0.0050**	**J**	0.010	0.0015	mg/L		09/10/13 09:00	09/11/13 23:15	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		09/10/13 09:15	09/10/13 13:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM	ND		4.8	1.9	mg/L		09/24/13 12:00	09/24/13 16:35	1
Chloride	**8.4**		0.50	0.28	mg/L			09/11/13 20:12	1
Phenolics, Total Recoverable	**0.0088**	**J**	0.010	0.0050	mg/L		09/10/13 11:30	09/12/13 19:36	1
Cyanide, Total	ND		0.010	0.0050	mg/L		09/11/13 17:30	09/13/13 13:48	1
Chlorine, Total Residual	ND	H	0.020	0.010	mg/L			09/11/13 23:00	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium (hexavalent)	ND		0.0050	0.0050	mg/L			09/10/13 09:30	1
Chromium, trivalent	ND		0.0050	0.0050	mg/L			09/24/13 09:55	1
Total Suspended Solids	ND		4.0	4.0	mg/L			09/10/13 16:10	1
pH	**6.91**	**HF**	0.100	0.100	SU			09/10/13 21:45	1

Client Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: NG ATHOL

TestAmerica Job ID: 480-45394-1

Client Sample ID: TB

Lab Sample ID: 480-45394-5

Date Collected: 09/09/13 10:30

Matrix: Water

Date Received: 09/10/13 01:45

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			09/15/13 21:22	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			09/15/13 21:22	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			09/15/13 21:22	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			09/15/13 21:22	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			09/15/13 21:22	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			09/15/13 21:22	1
Acetone	**10**		10	3.0	ug/L			09/15/13 21:22	1
Benzene	**0.54**	**J**	1.0	0.41	ug/L			09/15/13 21:22	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			09/15/13 21:22	1
Bromodichloromethane	ND		1.0	0.39	ug/L			09/15/13 21:22	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			09/15/13 21:22	1
1,4-Dioxane	ND		40	9.3	ug/L			09/15/13 21:22	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			09/15/13 21:22	1
Ethylbenzene	ND		1.0	0.74	ug/L			09/15/13 21:22	1
Methylene Chloride	ND		1.0	0.44	ug/L			09/15/13 21:22	1
m,p-Xylene	**0.71**	**J**	2.0	0.66	ug/L			09/15/13 21:22	1
o-Xylene	ND		1.0	0.76	ug/L			09/15/13 21:22	1
Tetrachloroethene	ND		1.0	0.36	ug/L			09/15/13 21:22	1
Toluene	ND		1.0	0.51	ug/L			09/15/13 21:22	1
Trichloroethene	ND		1.0	0.46	ug/L			09/15/13 21:22	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			09/15/13 21:22	1
Vinyl chloride	ND		1.0	0.90	ug/L			09/15/13 21:22	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			09/15/13 21:22	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			09/15/13 21:22	1
t-Butyl alcohol	ND		20	14	ug/L			09/15/13 21:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*66 - 137*		*09/15/13 21:22*	*1*
Toluene-d8 (Surr)	*96*		*71 - 126*		*09/15/13 21:22*	*1*
4-Bromofluorobenzene (Surr)	*92*		*73 - 120*		*09/15/13 21:22*	*1*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.011	0.0079	ug/L		09/10/13 10:32	09/10/13 16:01	1

Surrogate Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: NG ATHOL

TestAmerica Job ID: 480-45394-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		12DCE	TOL	BFB
Lab Sample ID	Client Sample ID	(66-137)	(71-126)	(73-120)
480-45394-1	MW5	92	94	94
480-45394-1 - DL	MW5	99	94	93
480-45394-2	MW6	97	94	90
480-45394-3	MW11	73	95	97
480-45394-3 - DL	MW11	96	96	92
480-45394-3 MS	MW11	112	90	89
480-45394-3 MSD	MW11	109	91	90
480-45394-4	MW14	95	95	93
480-45394-5	TB	91	96	92
LCS 480-139148/4	Lab Control Sample	107	93	91
LCS 480-139201/5	Lab Control Sample	98	95	95
LCS 480-139350/4	Lab Control Sample	93	96	94
MB 480-139148/5	Method Blank	107	92	84
MB 480-139201/6	Method Blank	99	96	92
MB 480-139350/5	Method Blank	95	96	91

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)				
		TBP	2FP	NBZ	PHL	TPH
Lab Sample ID	Client Sample ID	(39-146)	(18-120)	(34-132)	(11-120)	(58-147)
480-45394-1	MW5	123	56	105	38	115
480-45394-1 - DL	MW5	67	58	100	42	106
480-45394-2	MW6	117	54	97	40	103
480-45394-3 - DL	MW11	0 X	46	84	0 X	87
480-45394-3	MW11	104	47	81	31	85
480-45394-4	MW14	130	50	100	40	113
480-45394-4 - DL	MW14	96	58	97	39	117
LCS 480-138337/2-A	Lab Control Sample	114	65	110	50	110
MB 480-138337/1-A	Method Blank	82	54	97	41	115

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPH = p-Terphenyl-d14

Surrogate Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: NG ATHOL

TestAmerica Job ID: 480-45394-1

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	DCB1 (10-158)	TCX1 (18-146)						
480-45394-1	MW5	43	70						
480-45394-2	MW6	47	78						
480-45394-3	MW11	33	60						
480-45394-4	MW14	75	81						
LCS 480-138708/2-A	Lab Control Sample	58	83						
MB 480-138708/1-A	Method Blank	70	76						

Surrogate Legend

DCB = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-139148/5
Matrix: Water
Analysis Batch: 139148

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			09/15/13 15:14	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			09/15/13 15:14	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			09/15/13 15:14	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			09/15/13 15:14	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			09/15/13 15:14	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			09/15/13 15:14	1
Acetone	ND		10	3.0	ug/L			09/15/13 15:14	1
Benzene	ND		1.0	0.41	ug/L			09/15/13 15:14	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			09/15/13 15:14	1
Bromodichloromethane	ND		1.0	0.39	ug/L			09/15/13 15:14	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			09/15/13 15:14	1
1,4-Dioxane	ND		40	9.3	ug/L			09/15/13 15:14	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			09/15/13 15:14	1
Ethylbenzene	ND		1.0	0.74	ug/L			09/15/13 15:14	1
Methylene Chloride	ND		1.0	0.44	ug/L			09/15/13 15:14	1
m,p-Xylene	ND		2.0	0.66	ug/L			09/15/13 15:14	1
o-Xylene	ND		1.0	0.76	ug/L			09/15/13 15:14	1
Tetrachloroethene	ND		1.0	0.36	ug/L			09/15/13 15:14	1
Toluene	ND		1.0	0.51	ug/L			09/15/13 15:14	1
Trichloroethene	ND		1.0	0.46	ug/L			09/15/13 15:14	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			09/15/13 15:14	1
Vinyl chloride	ND		1.0	0.90	ug/L			09/15/13 15:14	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			09/15/13 15:14	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			09/15/13 15:14	1
t-Butyl alcohol	ND		20	14	ug/L			09/15/13 15:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*66 - 137*		*09/15/13 15:14*	*1*
Toluene-d8 (Surr)	*92*		*71 - 126*		*09/15/13 15:14*	*1*
4-Bromofluorobenzene (Surr)	*84*		*73 - 120*		*09/15/13 15:14*	*1*

Lab Sample ID: LCS 480-139148/4
Matrix: Water
Analysis Batch: 139148

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	25.0	26.0		ug/L		104	71 - 129
1,1-Dichloroethene	25.0	20.8		ug/L		83	58 - 121
1,2-Dichloroethane	25.0	28.8		ug/L		115	75 - 127
1,2-Dichlorobenzene	25.0	25.0		ug/L		100	80 - 124
Benzene	25.0	26.0		ug/L		104	71 - 124
Ethylbenzene	25.0	25.5		ug/L		102	77 - 123
m,p-Xylene	50.0	50.8		ug/L		102	76 - 122
o-Xylene	25.0	25.4		ug/L		101	76 - 122
Tetrachloroethene	25.0	24.4		ug/L		97	74 - 122
Toluene	25.0	25.2		ug/L		101	80 - 122
Trichloroethene	25.0	25.4		ug/L		102	74 - 123
cis-1,2-Dichloroethene	25.0	25.3		ug/L		101	74 - 124

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-139148/4
Matrix: Water
Analysis Batch: 139148

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	25.0	24.5		ug/L		98	64 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*107*		*66 - 137*
Toluene-d8 (Surr)	*93*		*71 - 126*
4-Bromofluorobenzene (Surr)	*91*		*73 - 120*

Lab Sample ID: MB 480-139201/6
Matrix: Water
Analysis Batch: 139201

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			09/16/13 11:20	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			09/16/13 11:20	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			09/16/13 11:20	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			09/16/13 11:20	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			09/16/13 11:20	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			09/16/13 11:20	1
Acetone	ND		10	3.0	ug/L			09/16/13 11:20	1
Benzene	ND		1.0	0.41	ug/L			09/16/13 11:20	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			09/16/13 11:20	1
Bromodichloromethane	ND		1.0	0.39	ug/L			09/16/13 11:20	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			09/16/13 11:20	1
1,4-Dioxane	ND		40	9.3	ug/L			09/16/13 11:20	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			09/16/13 11:20	1
Ethylbenzene	ND		1.0	0.74	ug/L			09/16/13 11:20	1
Methylene Chloride	ND		1.0	0.44	ug/L			09/16/13 11:20	1
m,p-Xylene	ND		2.0	0.66	ug/L			09/16/13 11:20	1
o-Xylene	ND		1.0	0.76	ug/L			09/16/13 11:20	1
Tetrachloroethene	ND		1.0	0.36	ug/L			09/16/13 11:20	1
Toluene	ND		1.0	0.51	ug/L			09/16/13 11:20	1
Trichloroethene	ND		1.0	0.46	ug/L			09/16/13 11:20	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			09/16/13 11:20	1
Vinyl chloride	ND		1.0	0.90	ug/L			09/16/13 11:20	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			09/16/13 11:20	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			09/16/13 11:20	1
t-Butyl alcohol	ND		20	14	ug/L			09/16/13 11:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*66 - 137*		*09/16/13 11:20*	*1*
Toluene-d8 (Surr)	*96*		*71 - 126*		*09/16/13 11:20*	*1*
4-Bromofluorobenzene (Surr)	*92*		*73 - 120*		*09/16/13 11:20*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-139201/5
Matrix: Water
Analysis Batch: 139201

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	25.0	25.1		ug/L		100	71 - 129
1,1-Dichloroethene	25.0	20.7		ug/L		83	58 - 121
1,2-Dichloroethane	25.0	25.3		ug/L		101	75 - 127
1,2-Dichlorobenzene	25.0	24.9		ug/L		100	80 - 124
Benzene	25.0	25.9		ug/L		103	71 - 124
Ethylbenzene	25.0	25.6		ug/L		102	77 - 123
m,p-Xylene	50.0	51.7		ug/L		103	76 - 122
o-Xylene	25.0	25.7		ug/L		103	76 - 122
Tetrachloroethene	25.0	24.8		ug/L		99	74 - 122
Toluene	25.0	25.7		ug/L		103	80 - 122
Trichloroethene	25.0	24.8		ug/L		99	74 - 123
cis-1,2-Dichloroethene	25.0	25.9		ug/L		103	74 - 124
Methyl tert-butyl ether	25.0	23.8		ug/L		95	64 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*66 - 137*
Toluene-d8 (Surr)	*95*		*71 - 126*
4-Bromofluorobenzene (Surr)	*95*		*73 - 120*

Lab Sample ID: MB 480-139350/5
Matrix: Water
Analysis Batch: 139350

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			09/16/13 22:58	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			09/16/13 22:58	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			09/16/13 22:58	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			09/16/13 22:58	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			09/16/13 22:58	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			09/16/13 22:58	1
Acetone	ND		10	3.0	ug/L			09/16/13 22:58	1
Benzene	ND		1.0	0.41	ug/L			09/16/13 22:58	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			09/16/13 22:58	1
Bromodichloromethane	ND		1.0	0.39	ug/L			09/16/13 22:58	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			09/16/13 22:58	1
1,4-Dioxane	ND		40	9.3	ug/L			09/16/13 22:58	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			09/16/13 22:58	1
Ethylbenzene	ND		1.0	0.74	ug/L			09/16/13 22:58	1
Methylene Chloride	ND		1.0	0.44	ug/L			09/16/13 22:58	1
m,p-Xylene	ND		2.0	0.66	ug/L			09/16/13 22:58	1
o-Xylene	ND		1.0	0.76	ug/L			09/16/13 22:58	1
Tetrachloroethene	ND		1.0	0.36	ug/L			09/16/13 22:58	1
Toluene	ND		1.0	0.51	ug/L			09/16/13 22:58	1
Trichloroethene	ND		1.0	0.46	ug/L			09/16/13 22:58	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			09/16/13 22:58	1
Vinyl chloride	ND		1.0	0.90	ug/L			09/16/13 22:58	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			09/16/13 22:58	1
Tert-amyl methyl ether	ND		1.0	0.27	ug/L			09/16/13 22:58	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-139350/5
Matrix: Water
Analysis Batch: 139350

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
t-Butyl alcohol	ND		20	14	ug/L			09/16/13 22:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*66 - 137*		*09/16/13 22:58*	*1*
Toluene-d8 (Surr)	*96*		*71 - 126*		*09/16/13 22:58*	*1*
4-Bromofluorobenzene (Surr)	*91*		*73 - 120*		*09/16/13 22:58*	*1*

Lab Sample ID: LCS 480-139350/4
Matrix: Water
Analysis Batch: 139350

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	25.0	25.2		ug/L		101	71 - 129
1,1-Dichloroethene	25.0	21.1		ug/L		84	58 - 121
1,2-Dichloroethane	25.0	24.5		ug/L		98	75 - 127
1,2-Dichlorobenzene	25.0	25.4		ug/L		102	80 - 124
Benzene	25.0	26.5		ug/L		106	71 - 124
Ethylbenzene	25.0	26.5		ug/L		106	77 - 123
m,p-Xylene	50.0	53.8		ug/L		108	76 - 122
o-Xylene	25.0	26.9		ug/L		108	76 - 122
Tetrachloroethene	25.0	26.5		ug/L		106	74 - 122
Toluene	25.0	26.9		ug/L		107	80 - 122
Trichloroethene	25.0	25.7		ug/L		103	74 - 123
cis-1,2-Dichloroethene	25.0	25.8		ug/L		103	74 - 124
Methyl tert-butyl ether	25.0	23.1		ug/L		92	64 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*93*		*66 - 137*
Toluene-d8 (Surr)	*96*		*71 - 126*
4-Bromofluorobenzene (Surr)	*94*		*73 - 120*

Lab Sample ID: 480-45394-3 MS
Matrix: Water
Analysis Batch: 139350

Client Sample ID: MW11
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	ND		1000	1080		ug/L		108	71 - 129
1,1-Dichloroethene	ND		1000	839		ug/L		84	58 - 121
1,2-Dichloroethane	ND		1000	1300	F	ug/L		130	75 - 127
1,2-Dichlorobenzene	ND		1000	1030		ug/L		103	80 - 124
Benzene	3200		1000	3810	F	ug/L		59	71 - 124
Ethylbenzene	820		1000	1740		ug/L		92	77 - 123
m,p-Xylene	430		2000	2480		ug/L		102	76 - 122
o-Xylene	250		1000	1270		ug/L		102	76 - 122
Tetrachloroethene	ND		1000	965		ug/L		96	74 - 122
Toluene	27		1000	1050		ug/L		102	80 - 122
Trichloroethene	ND		1000	1090		ug/L		109	74 - 123
cis-1,2-Dichloroethene	ND		1000	1030		ug/L		103	74 - 124

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-45394-3 MS — **Client Sample ID: MW11**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 139350

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	ND		1000	979		ug/L		98	64 - 127

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*112*		*66 - 137*
Toluene-d8 (Surr)	*90*		*71 - 126*
4-Bromofluorobenzene (Surr)	*89*		*73 - 120*

Lab Sample ID: 480-45394-3 MSD — **Client Sample ID: MW11**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 139350

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethane	ND		1000	1100		ug/L		110	71 - 129	2	20
1,1-Dichloroethene	ND		1000	900		ug/L		90	58 - 121	7	16
1,2-Dichloroethane	ND		1000	1260		ug/L		126	75 - 127	4	20
1,2-Dichlorobenzene	ND		1000	1050		ug/L		105	80 - 124	2	20
Benzene	3200		1000	3830	F	ug/L		61	71 - 124	0	13
Ethylbenzene	820		1000	1760		ug/L		95	77 - 123	1	15
m,p-Xylene	430		2000	2520		ug/L		104	76 - 122	2	16
o-Xylene	250		1000	1280		ug/L		103	76 - 122	1	16
Tetrachloroethene	ND		1000	1000		ug/L		100	74 - 122	4	20
Toluene	27		1000	1070		ug/L		104	80 - 122	2	15
Trichloroethene	ND		1000	1090		ug/L		109	74 - 123	1	16
cis-1,2-Dichloroethene	ND		1000	1060		ug/L		106	74 - 124	3	15
Methyl tert-butyl ether	ND		1000	995		ug/L		99	64 - 127	2	37

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*109*		*66 - 137*
Toluene-d8 (Surr)	*91*		*71 - 126*
4-Bromofluorobenzene (Surr)	*90*		*73 - 120*

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Lab Sample ID: MB 480-138337/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 138640 — **Prep Batch: 138337**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo(a)pyrene	ND		0.18	0.13	ug/L		09/11/13 07:40	09/12/13 16:04	1
Bis(2-ethylhexyl) phthalate	ND		5.0	0.42	ug/L		09/11/13 07:40	09/12/13 16:04	1
2,4-Dichlorophenol	ND		0.50	0.056	ug/L		09/11/13 07:40	09/12/13 16:04	1
2,4-Dimethylphenol	ND		1.0	0.30	ug/L		09/11/13 07:40	09/12/13 16:04	1
Pentachlorophenol	ND		1.0	0.34	ug/L		09/11/13 07:40	09/12/13 16:04	1
2-Methylphenol	ND		1.0	0.14	ug/L		09/11/13 07:40	09/12/13 16:04	1
3 & 4 Methylphenol	ND		1.0	0.092	ug/L		09/11/13 07:40	09/12/13 16:04	1
Acenaphthene	ND		0.50	0.036	ug/L		09/11/13 07:40	09/12/13 16:04	1
Acenaphthylene	ND		0.30	0.056	ug/L		09/11/13 07:40	09/12/13 16:04	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 480-138337/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 138640 — **Prep Batch: 138337**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.50	0.034	ug/L		09/11/13 07:40	09/12/13 16:04	1
Benzo(a)anthracene	ND		0.30	0.034	ug/L		09/11/13 07:40	09/12/13 16:04	1
Benzo(b)fluoranthene	ND		0.30	0.063	ug/L		09/11/13 07:40	09/12/13 16:04	1
Benzo(g,h,i) perylene	ND		0.50	0.058	ug/L		09/11/13 07:40	09/12/13 16:04	1
Benzo(k)fluoranthene	ND		0.30	0.070	ug/L		09/11/13 07:40	09/12/13 16:04	1
Butyl benzyl phthalate	ND		3.0	0.16	ug/L		09/11/13 07:40	09/12/13 16:04	1
Chrysene	ND		0.50	0.074	ug/L		09/11/13 07:40	09/12/13 16:04	1
Dibenz(a,h)anthracene	ND		0.50	0.070	ug/L		09/11/13 07:40	09/12/13 16:04	1
Diethyl phthalate	ND		0.50	0.064	ug/L		09/11/13 07:40	09/12/13 16:04	1
Dimethyl phthalate	ND		0.50	0.057	ug/L		09/11/13 07:40	09/12/13 16:04	1
Di-n-butyl phthalate	ND		2.0	0.35	ug/L		09/11/13 07:40	09/12/13 16:04	1
Di-n-octyl phthalate	ND		5.0	0.20	ug/L		09/11/13 07:40	09/12/13 16:04	1
Fluoranthene	ND		0.50	0.080	ug/L		09/11/13 07:40	09/12/13 16:04	1
Fluorene	ND		0.50	0.058	ug/L		09/11/13 07:40	09/12/13 16:04	1
Indeno(1,2,3-cd)pyrene	ND		0.50	0.11	ug/L		09/11/13 07:40	09/12/13 16:04	1
Naphthalene	ND		1.0	0.064	ug/L		09/11/13 07:40	09/12/13 16:04	1
Phenanthrene	0.128	J	0.20	0.062	ug/L		09/11/13 07:40	09/12/13 16:04	1
Phenol	ND		1.0	0.10	ug/L		09/11/13 07:40	09/12/13 16:04	1
Pyrene	ND		0.50	0.076	ug/L		09/11/13 07:40	09/12/13 16:04	1
2,4,5-Trichlorophenol	ND		5.0	0.065	ug/L		09/11/13 07:40	09/12/13 16:04	1
2,4,6-Trichlorophenol	ND		5.0	0.072	ug/L		09/11/13 07:40	09/12/13 16:04	1
2,4-Dinitrophenol	ND		5.0	0.60	ug/L		09/11/13 07:40	09/12/13 16:04	1
2-Chlorophenol	ND		5.0	0.066	ug/L		09/11/13 07:40	09/12/13 16:04	1
2-Nitrophenol	ND		5.0	0.062	ug/L		09/11/13 07:40	09/12/13 16:04	1
4-Nitrophenol	ND		5.0	0.39	ug/L		09/11/13 07:40	09/12/13 16:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*82*		*39 - 146*	*09/11/13 07:40*	*09/12/13 16:04*	*1*
2-Fluorophenol (Surr)	*54*		*18 - 120*	*09/11/13 07:40*	*09/12/13 16:04*	*1*
Nitrobenzene-d5 (Surr)	*97*		*34 - 132*	*09/11/13 07:40*	*09/12/13 16:04*	*1*
Phenol-d5 (Surr)	*41*		*11 - 120*	*09/11/13 07:40*	*09/12/13 16:04*	*1*
p-Terphenyl-d14	*115*		*58 - 147*	*09/11/13 07:40*	*09/12/13 16:04*	*1*

Lab Sample ID: LCS 480-138337/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 138640 — **Prep Batch: 138337**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo(a)pyrene	8.00	9.32		ug/L		116	51 - 142
Bis(2-ethylhexyl) phthalate	8.00	11.3	*	ug/L		141	69 - 136
2,4-Dichlorophenol	8.00	7.40		ug/L		92	38 - 132
2,4-Dimethylphenol	8.00	8.78		ug/L		110	20 - 124
Pentachlorophenol	16.0	10.8		ug/L		67	10 - 131
2-Methylphenol	8.00	7.92		ug/L		99	39 - 120
3 & 4 Methylphenol	8.00	7.43		ug/L		93	19 - 110
Acenaphthene	8.00	8.63		ug/L		108	35 - 143
Acenaphthylene	8.00	8.50		ug/L		106	43 - 141
Anthracene	8.00	9.58		ug/L		120	57 - 136

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 480-138337/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 138640 — **Prep Batch: 138337**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo(a)anthracene	8.00	9.28		ug/L		116	58 - 144
Benzo(b)fluoranthene	8.00	8.86		ug/L		111	49 - 156
Benzo(g,h,i) perylene	8.00	7.34		ug/L		92	30 - 158
Benzo(k)fluoranthene	8.00	9.21		ug/L		115	55 - 142
Butyl benzyl phthalate	8.00	12.1		ug/L		151	58 - 164
Chrysene	8.00	9.52		ug/L		119	56 - 146
Dibenz(a,h)anthracene	8.00	7.60		ug/L		95	32 - 157
Diethyl phthalate	8.00	10.3		ug/L		129	57 - 145
Dimethyl phthalate	8.00	9.09		ug/L		114	55 - 136
Di-n-butyl phthalate	8.00	11.8		ug/L		148	59 - 172
Di-n-octyl phthalate	8.00	11.1		ug/L		139	76 - 141
Fluoranthene	8.00	9.84		ug/L		123	56 - 142
Fluorene	8.00	9.12		ug/L		114	54 - 137
Indeno(1,2,3-cd)pyrene	8.00	7.75		ug/L		97	31 - 160
Naphthalene	8.00	7.57		ug/L		95	25 - 125
Phenanthrene	8.00	9.67		ug/L		121	57 - 138
Phenol	8.00	4.21		ug/L		53	17 - 61
Pyrene	8.00	9.61		ug/L		120	58 - 143

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*114*		*39 - 146*
2-Fluorophenol (Surr)	*65*		*18 - 120*
Nitrobenzene-d5 (Surr)	*110*		*34 - 132*
Phenol-d5 (Surr)	*50*		*11 - 120*
p-Terphenyl-d14	*110*		*58 - 147*

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 480-138708/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 138791 — **Prep Batch: 138708**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.060	0.038	ug/L		09/12/13 14:12	09/13/13 04:44	1
PCB-1221	ND		0.060	0.038	ug/L		09/12/13 14:12	09/13/13 04:44	1
PCB-1232	ND		0.060	0.038	ug/L		09/12/13 14:12	09/13/13 04:44	1
PCB-1242	ND		0.060	0.038	ug/L		09/12/13 14:12	09/13/13 04:44	1
PCB-1248	ND		0.060	0.038	ug/L		09/12/13 14:12	09/13/13 04:44	1
PCB-1254	ND		0.060	0.031	ug/L		09/12/13 14:12	09/13/13 04:44	1
PCB-1260	ND		0.060	0.031	ug/L		09/12/13 14:12	09/13/13 04:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*70*		*10 - 158*	*09/12/13 14:12*	*09/13/13 04:44*	*1*
Tetrachloro-m-xylene	*76*		*18 - 146*	*09/12/13 14:12*	*09/13/13 04:44*	*1*

Method: 608 - Polychlorinated Biphenyls (PCBs) (GC) (Continued)

Lab Sample ID: LCS 480-138708/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 138791 — **Prep Batch: 138708**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	1.00	1.03		ug/L		103	44 - 154
PCB-1260	1.00	0.936		ug/L		94	34 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*58*		*10 - 158*
Tetrachloro-m-xylene	*83*		*18 - 146*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 480-138176/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 138141 — **Prep Batch: 138176**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.011	0.0079	ug/L		09/10/13 10:32	09/10/13 10:24	1

Lab Sample ID: LCS 480-138176/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 138141 — **Prep Batch: 138176**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromoethane	0.229	0.252		ug/L		110	46 - 146

Lab Sample ID: LCSD 480-138176/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 138141 — **Prep Batch: 138176**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dibromoethane	0.229	0.265		ug/L		116	46 - 146	5	40

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 480-138127/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 138599 — **Prep Batch: 138127**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.020	0.0068	mg/L		09/10/13 09:00	09/11/13 22:18	1
Arsenic	ND		0.010	0.0056	mg/L		09/10/13 09:00	09/11/13 22:18	1
Cadmium	ND		0.0010	0.00050	mg/L		09/10/13 09:00	09/11/13 22:18	1
Chromium	ND		0.0040	0.0010	mg/L		09/10/13 09:00	09/11/13 22:18	1
Copper	ND		0.010	0.0016	mg/L		09/10/13 09:00	09/11/13 22:18	1
Iron	0.0396	J	0.050	0.019	mg/L		09/10/13 09:00	09/11/13 22:18	1
Lead	ND		0.0050	0.0030	mg/L		09/10/13 09:00	09/11/13 22:18	1
Nickel	ND		0.010	0.0013	mg/L		09/10/13 09:00	09/11/13 22:18	1
Selenium	ND		0.015	0.0087	mg/L		09/10/13 09:00	09/11/13 22:18	1
Silver	ND		0.0030	0.0017	mg/L		09/10/13 09:00	09/11/13 22:18	1
Zinc	ND		0.010	0.0015	mg/L		09/10/13 09:00	09/11/13 22:18	1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCS 480-138127/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 138599 — **Prep Batch: 138127**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.200	0.205		mg/L		103	85 - 115
Arsenic	0.200	0.206		mg/L		103	85 - 115
Cadmium	0.200	0.204		mg/L		102	85 - 115
Chromium	0.200	0.209		mg/L		104	85 - 115
Copper	0.200	0.205		mg/L		103	85 - 115
Iron	10.0	10.2		mg/L		102	85 - 115
Lead	0.200	0.202		mg/L		101	85 - 115
Nickel	0.200	0.203		mg/L		101	85 - 115
Selenium	0.200	0.204		mg/L		102	85 - 115
Silver	0.0500	0.0519		mg/L		104	85 - 115
Zinc	0.200	0.200		mg/L		100	85 - 115

Lab Sample ID: LCSD 480-138127/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 138599 — **Prep Batch: 138127**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.200	0.205		mg/L		102	85 - 115	0	20
Arsenic	0.200	0.205		mg/L		102	85 - 115	1	20
Cadmium	0.200	0.203		mg/L		102	85 - 115	0	20
Chromium	0.200	0.207		mg/L		104	85 - 115	1	20
Copper	0.200	0.205		mg/L		103	85 - 115	0	20
Iron	10.0	10.2		mg/L		102	85 - 115	1	20
Lead	0.200	0.202		mg/L		101	85 - 115	0	20
Nickel	0.200	0.202		mg/L		101	85 - 115	0	20
Selenium	0.200	0.203		mg/L		102	85 - 115	0	20
Silver	0.0500	0.0523		mg/L		105	85 - 115	1	20
Zinc	0.200	0.201		mg/L		101	85 - 115	1	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 480-138150/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 138227 — **Prep Batch: 138150**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		09/10/13 09:15	09/10/13 12:35	1

Lab Sample ID: LCS 480-138150/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 138227 — **Prep Batch: 138150**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00667	0.00652		mg/L		98	85 - 115

Method: 245.1 - Mercury (CVAA) (Continued)

Lab Sample ID: LCSD 480-138150/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 138227 — **Prep Batch: 138150**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.00667	0.00610		mg/L		91	85 - 115	7	20

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 480-138317/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 138318 — **Prep Batch: 138317**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Hexane Extractable Material (HEM)	ND		5.0	1.4	mg/L		09/11/13 01:36	09/11/13 01:36	1

Lab Sample ID: LCS 480-138317/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 138318 — **Prep Batch: 138317**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
n-Hexane Extractable Material (HEM)	40.0	35.7		mg/L		89	78 - 114

Lab Sample ID: 480-45394-1 MS — **Client Sample ID: MW5**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 138318 — **Prep Batch: 138317**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
n-Hexane Extractable Material (HEM)	1.7	J	19.4	21.8		mg/L		104	78 - 114

Lab Sample ID: MB 480-140936/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 140938 — **Prep Batch: 140936**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	ND		5.0	1.4	mg/L		09/24/13 12:00	09/24/13 16:35	1
SGT-HEM	ND		5.0	1.9	mg/L		09/24/13 12:00	09/24/13 16:35	1

Lab Sample ID: LCS 480-140936/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 140938 — **Prep Batch: 140936**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM	40.0	37.6		mg/L		94	78 - 114
SGT-HEM	20.0	16.7		mg/L		84	64 - 132

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 480-138396/28 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 138396

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	0.28	mg/L			09/11/13 15:58	1

Lab Sample ID: LCS 480-138396/27 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 138396

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	19.8		mg/L		99	90 - 110

Lab Sample ID: MB 480-138397/52 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 138397

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	0.28	mg/L			09/11/13 20:01	1

Lab Sample ID: LCS 480-138397/51 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 138397

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	19.9		mg/L		100	90 - 110

Lab Sample ID: MB 480-138647/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 138647

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	0.28	mg/L			09/12/13 13:26	1

Lab Sample ID: LCS 480-138647/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 138647

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	20.1		mg/L		100	90 - 110

Method: 420.4 - Phenolics, Total Recoverable

Lab Sample ID: MB 480-138253/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 138766 — **Prep Batch: 138253**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenolics, Total Recoverable	ND		0.010	0.0050	mg/L		09/10/13 11:30	09/12/13 20:13	1

Method: 420.4 - Phenolics, Total Recoverable (Continued)

Lab Sample ID: LCS 480-138253/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 138766 — **Prep Batch: 138253**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenolics, Total Recoverable	0.100	0.101		mg/L		101	90 - 110

Lab Sample ID: 480-45394-1 MS — **Client Sample ID: MW5**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 138766 — **Prep Batch: 138253**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenolics, Total Recoverable	0.033		0.100	0.110		mg/L		77	60 - 143

Lab Sample ID: 480-45394-2 DU — **Client Sample ID: MW6**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 138766 — **Prep Batch: 138253**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Phenolics, Total Recoverable	ND		ND		mg/L		NC	20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 360-98247/9 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 98247

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium (hexavalent)	ND		0.0050	0.0050	mg/L			09/10/13 09:30	1

Lab Sample ID: LCS 360-98247/10 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 98247

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium (hexavalent)	0.0502	0.0489		mg/L		97	80 - 120

Lab Sample ID: LCSD 360-98247/11 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 98247

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium (hexavalent)	0.0502	0.0489		mg/L		97	80 - 120	0	20

Lab Sample ID: 480-45394-4 MS — **Client Sample ID: MW14**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 98247

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium (hexavalent)	ND		0.0250	0.0261		mg/L		104	85 - 115

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: 480-45394-4 MSD — **Client Sample ID: MW14**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 98247

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium (hexavalent)	ND		0.0250	0.0261		mg/L		104	85 - 115	0	20

Method: 9012A - Cyanide, Total and/or Amenable

Lab Sample ID: MB 480-138546/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 138986 — **Prep Batch: 138546**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		09/11/13 17:30	09/13/13 13:37	1

Lab Sample ID: LCS 480-138546/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 138986 — **Prep Batch: 138546**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.400	0.371		mg/L		93	90 - 110

Lab Sample ID: MB 480-139360/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 139430 — **Prep Batch: 139360**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		09/16/13 21:30	09/17/13 07:34	1

Lab Sample ID: LCS 480-139360/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 139430 — **Prep Batch: 139360**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.400	0.392		mg/L		98	90 - 110

Lab Sample ID: 480-45394-2 DU — **Client Sample ID: MW6**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 139430 — **Prep Batch: 139360**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cyanide, Total	0.0066	J	0.00641	J	mg/L		3	15

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 480-138247/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 138247

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0	4.0	mg/L			09/10/13 15:59	1

Method: SM 2540D - Solids, Total Suspended (TSS) (Continued)

Lab Sample ID: LCS 480-138247/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 138247

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	220	215		mg/L		97	88 - 110

Method: SM 4500 Cl G - Chlorine, Residual

Lab Sample ID: MB 480-138544/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 138544

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorine, Total Residual	ND		0.020	0.010	mg/L			09/11/13 23:00	1

Lab Sample ID: LCS 480-138544/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 138544

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chlorine, Total Residual	0.920	0.970		mg/L		105	90 - 110

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 480-138308/1 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 138308

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.00	6.970		SU		100	99 - 101

QC Association Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: NG ATHOL

TestAmerica Job ID: 480-45394-1

GC/MS VOA

Analysis Batch: 139148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45394-1	MW5	Total/NA	Water	8260B	
480-45394-3	MW11	Total/NA	Water	8260B	
480-45394-5	TB	Total/NA	Water	8260B	
LCS 480-139148/4	Lab Control Sample	Total/NA	Water	8260B	
MB 480-139148/5	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 139201

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45394-1 - DL	MW5	Total/NA	Water	8260B	
480-45394-2	MW6	Total/NA	Water	8260B	
LCS 480-139201/5	Lab Control Sample	Total/NA	Water	8260B	
MB 480-139201/6	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 139350

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45394-3 - DL	MW11	Total/NA	Water	8260B	
480-45394-3 MS	MW11	Total/NA	Water	8260B	
480-45394-3 MSD	MW11	Total/NA	Water	8260B	
480-45394-4	MW14	Total/NA	Water	8260B	
LCS 480-139350/4	Lab Control Sample	Total/NA	Water	8260B	
MB 480-139350/5	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 138337

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45394-1	MW5	Total/NA	Water	3510C	
480-45394-1 - DL	MW5	Total/NA	Water	3510C	
480-45394-2	MW6	Total/NA	Water	3510C	
480-45394-3	MW11	Total/NA	Water	3510C	
480-45394-3 - DL	MW11	Total/NA	Water	3510C	
480-45394-4	MW14	Total/NA	Water	3510C	
480-45394-4 - DL	MW14	Total/NA	Water	3510C	
LCS 480-138337/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 480-138337/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 138640

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45394-1	MW5	Total/NA	Water	8270C LL	138337
480-45394-2	MW6	Total/NA	Water	8270C LL	138337
480-45394-4	MW14	Total/NA	Water	8270C LL	138337
LCS 480-138337/2-A	Lab Control Sample	Total/NA	Water	8270C LL	138337
MB 480-138337/1-A	Method Blank	Total/NA	Water	8270C LL	138337

Analysis Batch: 138888

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45394-1 - DL	MW5	Total/NA	Water	8270C LL	138337
480-45394-3	MW11	Total/NA	Water	8270C LL	138337
480-45394-3 - DL	MW11	Total/NA	Water	8270C LL	138337
480-45394-4 - DL	MW14	Total/NA	Water	8270C LL	138337

QC Association Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: NG ATHOL

TestAmerica Job ID: 480-45394-1

GC Semi VOA

Analysis Batch: 138141

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45394-1	MW5	Total/NA	Water	8011	138176
480-45394-2	MW6	Total/NA	Water	8011	138176
480-45394-3	MW11	Total/NA	Water	8011	138176
480-45394-4	MW14	Total/NA	Water	8011	138176
480-45394-5	TB	Total/NA	Water	8011	138176
LCS 480-138176/2-A	Lab Control Sample	Total/NA	Water	8011	138176
LCSD 480-138176/3-A	Lab Control Sample Dup	Total/NA	Water	8011	138176
MB 480-138176/1-A	Method Blank	Total/NA	Water	8011	138176

Prep Batch: 138176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45394-1	MW5	Total/NA	Water	8011	
480-45394-2	MW6	Total/NA	Water	8011	
480-45394-3	MW11	Total/NA	Water	8011	
480-45394-4	MW14	Total/NA	Water	8011	
480-45394-5	TB	Total/NA	Water	8011	
LCS 480-138176/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 480-138176/3-A	Lab Control Sample Dup	Total/NA	Water	8011	
MB 480-138176/1-A	Method Blank	Total/NA	Water	8011	

Prep Batch: 138708

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45394-1	MW5	Total/NA	Water	3510C	
480-45394-2	MW6	Total/NA	Water	3510C	
480-45394-3	MW11	Total/NA	Water	3510C	
480-45394-4	MW14	Total/NA	Water	3510C	
LCS 480-138708/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 480-138708/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 138791

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45394-1	MW5	Total/NA	Water	608	138708
480-45394-2	MW6	Total/NA	Water	608	138708
480-45394-3	MW11	Total/NA	Water	608	138708
480-45394-4	MW14	Total/NA	Water	608	138708
LCS 480-138708/2-A	Lab Control Sample	Total/NA	Water	608	138708
MB 480-138708/1-A	Method Blank	Total/NA	Water	608	138708

Metals

Prep Batch: 138127

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45394-1	MW5	Total/NA	Water	200.7	
480-45394-2	MW6	Total/NA	Water	200.7	
480-45394-3	MW11	Total/NA	Water	200.7	
480-45394-4	MW14	Total/NA	Water	200.7	
LCS 480-138127/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 480-138127/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
MB 480-138127/1-A	Method Blank	Total/NA	Water	200.7	

Metals (Continued)

Prep Batch: 138150

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45394-1	MW5	Total/NA	Water	245.1	
480-45394-2	MW6	Total/NA	Water	245.1	
480-45394-3	MW11	Total/NA	Water	245.1	
480-45394-4	MW14	Total/NA	Water	245.1	
LCS 480-138150/2-A	Lab Control Sample	Total/NA	Water	245.1	
LCSD 480-138150/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	
MB 480-138150/1-A	Method Blank	Total/NA	Water	245.1	

Analysis Batch: 138227

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45394-1	MW5	Total/NA	Water	245.1	138150
480-45394-2	MW6	Total/NA	Water	245.1	138150
480-45394-3	MW11	Total/NA	Water	245.1	138150
480-45394-4	MW14	Total/NA	Water	245.1	138150
LCS 480-138150/2-A	Lab Control Sample	Total/NA	Water	245.1	138150
LCSD 480-138150/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	138150
MB 480-138150/1-A	Method Blank	Total/NA	Water	245.1	138150

Analysis Batch: 138599

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45394-1	MW5	Total/NA	Water	200.7 Rev 4.4	138127
480-45394-2	MW6	Total/NA	Water	200.7 Rev 4.4	138127
480-45394-3	MW11	Total/NA	Water	200.7 Rev 4.4	138127
480-45394-4	MW14	Total/NA	Water	200.7 Rev 4.4	138127
LCS 480-138127/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	138127
LCSD 480-138127/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	138127
MB 480-138127/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	138127

Analysis Batch: 139076

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45394-2	MW6	Total/NA	Water	200.7 Rev 4.4	138127

General Chemistry

Analysis Batch: 98247

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45394-1	MW5	Total/NA	Water	7196A	
480-45394-2	MW6	Total/NA	Water	7196A	
480-45394-3	MW11	Total/NA	Water	7196A	
480-45394-4	MW14	Total/NA	Water	7196A	
480-45394-4 MS	MW14	Total/NA	Water	7196A	
480-45394-4 MSD	MW14	Total/NA	Water	7196A	
LCS 360-98247/10	Lab Control Sample	Total/NA	Water	7196A	
LCSD 360-98247/11	Lab Control Sample Dup	Total/NA	Water	7196A	
MB 360-98247/9	Method Blank	Total/NA	Water	7196A	

Analysis Batch: 98307

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45394-1	MW5	Total/NA	Water	7196A	
480-45394-2	MW6	Total/NA	Water	7196A	

General Chemistry (Continued)

Analysis Batch: 98307 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45394-3	MW11	Total/NA	Water	7196A	
480-45394-4	MW14	Total/NA	Water	7196A	

Analysis Batch: 138247

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45394-1	MW5	Total/NA	Water	SM 2540D	
480-45394-2	MW6	Total/NA	Water	SM 2540D	
480-45394-3	MW11	Total/NA	Water	SM 2540D	
480-45394-4	MW14	Total/NA	Water	SM 2540D	
LCS 480-138247/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 480-138247/1	Method Blank	Total/NA	Water	SM 2540D	

Prep Batch: 138253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45394-1	MW5	Total/NA	Water	Distill/Phenol	
480-45394-1 MS	MW5	Total/NA	Water	Distill/Phenol	
480-45394-2	MW6	Total/NA	Water	Distill/Phenol	
480-45394-2 DU	MW6	Total/NA	Water	Distill/Phenol	
480-45394-3	MW11	Total/NA	Water	Distill/Phenol	
480-45394-4	MW14	Total/NA	Water	Distill/Phenol	
LCS 480-138253/2-A	Lab Control Sample	Total/NA	Water	Distill/Phenol	
MB 480-138253/1-A	Method Blank	Total/NA	Water	Distill/Phenol	

Analysis Batch: 138308

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45394-1	MW5	Total/NA	Water	SM 4500 H+ B	
480-45394-2	MW6	Total/NA	Water	SM 4500 H+ B	
480-45394-3	MW11	Total/NA	Water	SM 4500 H+ B	
480-45394-4	MW14	Total/NA	Water	SM 4500 H+ B	
LCS 480-138308/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

Prep Batch: 138317

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45394-1	MW5	Total/NA	Water	1664A	
480-45394-1 MS	MW5	Total/NA	Water	1664A	
LCS 480-138317/2-A	Lab Control Sample	Total/NA	Water	1664A	
MB 480-138317/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 138318

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45394-1	MW5	Total/NA	Water	1664A	138317
480-45394-1 MS	MW5	Total/NA	Water	1664A	138317
LCS 480-138317/2-A	Lab Control Sample	Total/NA	Water	1664A	138317
MB 480-138317/1-A	Method Blank	Total/NA	Water	1664A	138317

Analysis Batch: 138396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45394-2	MW6	Total/NA	Water	300.0	
LCS 480-138396/27	Lab Control Sample	Total/NA	Water	300.0	
MB 480-138396/28	Method Blank	Total/NA	Water	300.0	

General Chemistry (Continued)

Analysis Batch: 138397

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45394-4	MW14	Total/NA	Water	300.0	
LCS 480-138397/51	Lab Control Sample	Total/NA	Water	300.0	
MB 480-138397/52	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 138544

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45394-1	MW5	Total/NA	Water	SM 4500 Cl G	
480-45394-2	MW6	Total/NA	Water	SM 4500 Cl G	
480-45394-3	MW11	Total/NA	Water	SM 4500 Cl G	
480-45394-4	MW14	Total/NA	Water	SM 4500 Cl G	
LCS 480-138544/4	Lab Control Sample	Total/NA	Water	SM 4500 Cl G	
MB 480-138544/3	Method Blank	Total/NA	Water	SM 4500 Cl G	

Prep Batch: 138546

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45394-1	MW5	Total/NA	Water	9012A	
480-45394-3	MW11	Total/NA	Water	9012A	
480-45394-4	MW14	Total/NA	Water	9012A	
LCS 480-138546/2-A	Lab Control Sample	Total/NA	Water	9012A	
MB 480-138546/1-A	Method Blank	Total/NA	Water	9012A	

Analysis Batch: 138647

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45394-1	MW5	Total/NA	Water	300.0	
480-45394-3	MW11	Total/NA	Water	300.0	
LCS 480-138647/3	Lab Control Sample	Total/NA	Water	300.0	
MB 480-138647/4	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 138766

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45394-1	MW5	Total/NA	Water	420.4	138253
480-45394-1 MS	MW5	Total/NA	Water	420.4	138253
480-45394-2	MW6	Total/NA	Water	420.4	138253
480-45394-2 DU	MW6	Total/NA	Water	420.4	138253
480-45394-3	MW11	Total/NA	Water	420.4	138253
480-45394-4	MW14	Total/NA	Water	420.4	138253
LCS 480-138253/2-A	Lab Control Sample	Total/NA	Water	420.4	138253
MB 480-138253/1-A	Method Blank	Total/NA	Water	420.4	138253

Analysis Batch: 138986

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45394-1	MW5	Total/NA	Water	9012A	138546
480-45394-3	MW11	Total/NA	Water	9012A	138546
480-45394-4	MW14	Total/NA	Water	9012A	138546
LCS 480-138546/2-A	Lab Control Sample	Total/NA	Water	9012A	138546
MB 480-138546/1-A	Method Blank	Total/NA	Water	9012A	138546

Prep Batch: 139360

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45394-2	MW6	Total/NA	Water	9012A	
480-45394-2 DU	MW6	Total/NA	Water	9012A	

General Chemistry (Continued)

Prep Batch: 139360 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-139360/2-A	Lab Control Sample	Total/NA	Water	9012A	
MB 480-139360/1-A	Method Blank	Total/NA	Water	9012A	

Analysis Batch: 139430

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45394-2	MW6	Total/NA	Water	9012A	139360
480-45394-2 DU	MW6	Total/NA	Water	9012A	139360
LCS 480-139360/2-A	Lab Control Sample	Total/NA	Water	9012A	139360
MB 480-139360/1-A	Method Blank	Total/NA	Water	9012A	139360

Prep Batch: 140936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45394-2	MW6	Total/NA	Water	1664A	
480-45394-3	MW11	Total/NA	Water	1664A	
480-45394-4	MW14	Total/NA	Water	1664A	
LCS 480-140936/2-A	Lab Control Sample	Total/NA	Water	1664A	
MB 480-140936/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 140938

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-45394-2	MW6	Total/NA	Water	1664A	140936
480-45394-3	MW11	Total/NA	Water	1664A	140936
480-45394-4	MW14	Total/NA	Water	1664A	140936
LCS 480-140936/2-A	Lab Control Sample	Total/NA	Water	1664A	140936
MB 480-140936/1-A	Method Blank	Total/NA	Water	1664A	140936

Lab Chronicle

Client: Innovative Engineering Solutions, Inc
Project/Site: NG ATHOL

TestAmerica Job ID: 480-45394-1

Client Sample ID: MW5

Lab Sample ID: 480-45394-1

Date Collected: 09/09/13 10:30

Matrix: Water

Date Received: 09/10/13 01:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	139148	09/15/13 19:36	PJQ	TAL BUF
Total/NA	Analysis	8260B	DL	10	139201	09/16/13 13:12	CDC	TAL BUF
Total/NA	Prep	3510C			138337	09/11/13 07:40	DLE	TAL BUF
Total/NA	Analysis	8270C LL		1	138640	09/12/13 18:49	RMM	TAL BUF
Total/NA	Prep	3510C	DL		138337	09/11/13 07:40	DLE	TAL BUF
Total/NA	Analysis	8270C LL	DL	100	138888	09/13/13 15:04	RMM	TAL BUF
Total/NA	Prep	8011			138176	09/10/13 10:32	CMD	TAL BUF
Total/NA	Analysis	8011		1	138141	09/10/13 14:51	CMD	TAL BUF
Total/NA	Prep	3510C			138708	09/12/13 14:12	JRL	TAL BUF
Total/NA	Analysis	608		1	138791	09/13/13 08:42	JMM	TAL BUF
Total/NA	Prep	245.1			138150	09/10/13 09:15	JRK	TAL BUF
Total/NA	Analysis	245.1		1	138227	09/10/13 13:07	JRK	TAL BUF
Total/NA	Prep	200.7			138127	09/10/13 09:00	SS1	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	138599	09/11/13 23:07	LMH	TAL BUF
Total/NA	Analysis	7196A		1	98247	09/10/13 09:30	RWE	TAL WFD
Total/NA	Analysis	7196A		1	98307	09/24/13 09:55	RWE	TAL WFD
Total/NA	Analysis	SM 2540D		1	138247	09/10/13 16:06	KS	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	138308	09/10/13 21:34	KS	TAL BUF
Total/NA	Prep	1664A			138317	09/11/13 01:36	RMB	TAL BUF
Total/NA	Analysis	1664A		1	138318	09/11/13 01:36	RMB	TAL BUF
Total/NA	Analysis	SM 4500 Cl G		1	138544	09/11/13 23:00	JMB	TAL BUF
Total/NA	Analysis	300.0		5	138647	09/12/13 13:46	KAC	TAL BUF
Total/NA	Prep	Distill/Phenol			138253	09/10/13 11:30	CLT	TAL BUF
Total/NA	Analysis	420.4		1	138766	09/12/13 19:36	NCH	TAL BUF
Total/NA	Prep	9012A			138546	09/11/13 17:30	JMB	TAL BUF
Total/NA	Analysis	9012A		1	138986	09/13/13 13:49	KMF	TAL BUF

Client Sample ID: MW6

Lab Sample ID: 480-45394-2

Date Collected: 09/09/13 12:30

Matrix: Water

Date Received: 09/10/13 01:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	139201	09/16/13 13:37	CDC	TAL BUF
Total/NA	Prep	3510C			138337	09/11/13 07:40	DLE	TAL BUF
Total/NA	Analysis	8270C LL		1	138640	09/12/13 19:17	RMM	TAL BUF
Total/NA	Prep	8011			138176	09/10/13 10:32	CMD	TAL BUF
Total/NA	Analysis	8011		1	138141	09/10/13 15:09	CMD	TAL BUF
Total/NA	Prep	3510C			138708	09/12/13 14:12	JRL	TAL BUF
Total/NA	Analysis	608		1	138791	09/13/13 08:58	JMM	TAL BUF
Total/NA	Prep	245.1			138150	09/10/13 09:15	JRK	TAL BUF
Total/NA	Analysis	245.1		1	138227	09/10/13 13:08	JRK	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	138599	09/11/13 23:10	LMH	TAL BUF

Lab Chronicle

Client: Innovative Engineering Solutions, Inc
Project/Site: NG ATHOL

TestAmerica Job ID: 480-45394-1

Client Sample ID: MW6

Lab Sample ID: 480-45394-2

Date Collected: 09/09/13 12:30
Matrix: Water
Date Received: 09/10/13 01:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			138127	09/10/13 09:00	SS1	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	139076	09/14/13 00:47	LMH	TAL BUF
Total/NA	Analysis	7196A		1	98247	09/10/13 09:30	RWE	TAL WFD
Total/NA	Analysis	7196A		1	98307	09/24/13 09:55	RWE	TAL WFD
Total/NA	Analysis	SM 2540D		1	138247	09/10/13 16:08	KS	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	138308	09/10/13 21:37	KS	TAL BUF
Total/NA	Analysis	300.0		1	138396	09/11/13 18:51	KRC	TAL BUF
Total/NA	Analysis	SM 4500 Cl G		1	138544	09/11/13 23:00	JMB	TAL BUF
Total/NA	Prep	Distill/Phenol			138253	09/10/13 11:30	CLT	TAL BUF
Total/NA	Analysis	420.4		1	138766	09/12/13 19:36	NCH	TAL BUF
Total/NA	Prep	9012A			139360	09/16/13 21:30	JMB	TAL BUF
Total/NA	Analysis	9012A		1	139430	09/17/13 07:37	KWJ	TAL BUF
Total/NA	Prep	1664A			140936	09/24/13 12:00	MDL	TAL BUF
Total/NA	Analysis	1664A		1	140938	09/24/13 16:35	MDL	TAL BUF

Client Sample ID: MW11

Lab Sample ID: 480-45394-3

Date Collected: 09/09/13 11:00
Matrix: Water
Date Received: 09/10/13 01:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	139148	09/15/13 20:32	PJQ	TAL BUF
Total/NA	Analysis	8260B	DL	40	139350	09/16/13 23:45	PJQ	TAL BUF
Total/NA	Prep	3510C	DL		138337	09/11/13 07:40	DLE	TAL BUF
Total/NA	Analysis	8270C LL	DL	500	138888	09/13/13 15:31	RMM	TAL BUF
Total/NA	Prep	3510C			138337	09/11/13 07:40	DLE	TAL BUF
Total/NA	Analysis	8270C LL		50	138888	09/13/13 14:09	RMM	TAL BUF
Total/NA	Prep	8011			138176	09/10/13 10:32	CMD	TAL BUF
Total/NA	Analysis	8011		1	138141	09/10/13 15:26	CMD	TAL BUF
Total/NA	Prep	3510C			138708	09/12/13 14:12	JRL	TAL BUF
Total/NA	Analysis	608		1	138791	09/13/13 09:14	JMM	TAL BUF
Total/NA	Prep	245.1			138150	09/10/13 09:15	JRK	TAL BUF
Total/NA	Analysis	245.1		1	138227	09/10/13 13:10	JRK	TAL BUF
Total/NA	Prep	200.7			138127	09/10/13 09:00	SS1	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	138599	09/11/13 23:13	LMH	TAL BUF
Total/NA	Analysis	7196A		1	98247	09/10/13 09:30	RWE	TAL WFD
Total/NA	Analysis	7196A		1	98307	09/24/13 09:55	RWE	TAL WFD
Total/NA	Analysis	SM 2540D		1	138247	09/10/13 16:09	KS	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	138308	09/10/13 21:41	KS	TAL BUF
Total/NA	Analysis	SM 4500 Cl G		1	138544	09/11/13 23:00	JMB	TAL BUF
Total/NA	Analysis	300.0		5	138647	09/12/13 13:57	KAC	TAL BUF
Total/NA	Prep	Distill/Phenol			138253	09/10/13 11:30	CLT	TAL BUF
Total/NA	Analysis	420.4		1	138766	09/12/13 19:36	NCH	TAL BUF

Lab Chronicle

Client: Innovative Engineering Solutions, Inc
Project/Site: NG ATHOL

TestAmerica Job ID: 480-45394-1

Client Sample ID: MW11

Lab Sample ID: 480-45394-3

Date Collected: 09/09/13 11:00
Matrix: Water
Date Received: 09/10/13 01:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012A			138546	09/11/13 17:30	JMB	TAL BUF
Total/NA	Analysis	9012A		1	138986	09/13/13 13:50	KMF	TAL BUF
Total/NA	Prep	1664A			140936	09/24/13 12:00	MDL	TAL BUF
Total/NA	Analysis	1664A		1	140938	09/24/13 16:35	MDL	TAL BUF

Client Sample ID: MW14

Lab Sample ID: 480-45394-4

Date Collected: 09/09/13 11:50
Matrix: Water
Date Received: 09/10/13 01:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		8	139350	09/17/13 00:09	PJQ	TAL BUF
Total/NA	Prep	3510C			138337	09/11/13 07:40	DLE	TAL BUF
Total/NA	Analysis	8270C LL		1	138640	09/12/13 20:12	RMM	TAL BUF
Total/NA	Prep	3510C	DL		138337	09/11/13 07:40	DLE	TAL BUF
Total/NA	Analysis	8270C LL	DL	20	138888	09/13/13 14:36	RMM	TAL BUF
Total/NA	Prep	8011			138176	09/10/13 10:32	CMD	TAL BUF
Total/NA	Analysis	8011		1	138141	09/10/13 15:44	CMD	TAL BUF
Total/NA	Prep	3510C			138708	09/12/13 14:12	JRL	TAL BUF
Total/NA	Analysis	608		1	138791	09/13/13 09:30	JMM	TAL BUF
Total/NA	Prep	245.1			138150	09/10/13 09:15	JRK	TAL BUF
Total/NA	Analysis	245.1		1	138227	09/10/13 13:12	JRK	TAL BUF
Total/NA	Prep	200.7			138127	09/10/13 09:00	SS1	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	138599	09/11/13 23:15	LMH	TAL BUF
Total/NA	Analysis	7196A		1	98247	09/10/13 09:30	RWE	TAL WFD
Total/NA	Analysis	7196A		1	98307	09/24/13 09:55	RWE	TAL WFD
Total/NA	Analysis	SM 2540D		1	138247	09/10/13 16:10	KS	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	138308	09/10/13 21:45	KS	TAL BUF
Total/NA	Analysis	300.0		1	138397	09/11/13 20:12	KRC	TAL BUF
Total/NA	Analysis	SM 4500 Cl G		1	138544	09/11/13 23:00	JMB	TAL BUF
Total/NA	Prep	Distill/Phenol			138253	09/10/13 11:30	CLT	TAL BUF
Total/NA	Analysis	420.4		1	138766	09/12/13 19:36	NCH	TAL BUF
Total/NA	Prep	9012A			138546	09/11/13 17:30	JMB	TAL BUF
Total/NA	Analysis	9012A		1	138986	09/13/13 13:48	KMF	TAL BUF
Total/NA	Prep	1664A			140936	09/24/13 12:00	MDL	TAL BUF
Total/NA	Analysis	1664A		1	140938	09/24/13 16:35	MDL	TAL BUF

Client Sample ID: TB

Lab Sample ID: 480-45394-5

Date Collected: 09/09/13 10:30
Matrix: Water
Date Received: 09/10/13 01:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	139148	09/15/13 21:22	PJQ	TAL BUF

Lab Chronicle

Client: Innovative Engineering Solutions, Inc
Project/Site: NG ATHOL

TestAmerica Job ID: 480-45394-1

Client Sample ID: TB

Lab Sample ID: 480-45394-5

Date Collected: 09/09/13 10:30

Matrix: Water

Date Received: 09/10/13 01:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			138176	09/10/13 10:32	CMD	TAL BUF
Total/NA	Analysis	8011		1	138141	09/10/13 16:01	CMD	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL WFD = TestAmerica Westfield, Westfield Executive Park, 53 Southampton Road, Westfield, MA 01085, TEL (413)572-4000

Certification Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: NG ATHOL

TestAmerica Job ID: 480-45394-1

Laboratory: TestAmerica Buffalo

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0686	10-06-13
California	NELAP	9	1169CA	09-30-13
Connecticut	State Program	1	PH-0568	09-30-14
Florida	NELAP	4	E87672	06-30-14
Georgia	State Program	4	N/A	03-31-14
Illinois	NELAP	5	200003	09-30-13
Iowa	State Program	7	374	03-15-15
Kansas	NELAP	7	E-10187	01-31-14
Kentucky	State Program	4	90029	12-31-13
Kentucky (UST)	State Program	4	30	04-01-14
Louisiana	NELAP	6	02031	06-30-14
Maine	State Program	1	NY00044	12-04-14
Maryland	State Program	3	294	03-31-14
Massachusetts	State Program	1	M-NY044	06-30-14
Michigan	State Program	5	9937	04-01-14
Minnesota	NELAP	5	036-999-337	12-31-13
New Hampshire	NELAP	1	2973	09-11-14
New Jersey	NELAP	2	NY455	06-30-14
New York	NELAP	2	10026	04-01-14
North Dakota	State Program	8	R-176	03-31-14
Oklahoma	State Program	6	9421	08-31-14
Oregon	NELAP	10	NY200003	06-09-14
Pennsylvania	NELAP	3	68-00281	07-31-14
Rhode Island	State Program	1	LAO00328	12-31-13
Tennessee	State Program	4	TN02970	04-01-14
Texas	NELAP	6	T104704412-11-2	07-31-14
USDA	Federal		P330-11-00386	11-22-14
Virginia	NELAP	3	460185	09-14-14
Washington	State Program	10	C784	02-10-14
West Virginia DEP	State Program	3	252	09-30-13
Wisconsin	State Program	5	998310390	08-31-14

Laboratory: TestAmerica Westfield

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Connecticut	State Program	1	PH-0494	09-30-14
Massachusetts	State Program	1	M-MA014	06-30-14
New Hampshire	NELAP	1	2539	08-08-14

Method Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: NG ATHOL

TestAmerica Job ID: 480-45394-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL BUF
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL BUF
608	Polychlorinated Biphenyls (PCBs) (GC)	40CFR136A	TAL BUF
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
245.1	Mercury (CVAA)	EPA	TAL BUF
1664A	HEM and SGT-HEM	1664A	TAL BUF
300.0	Anions, Ion Chromatography	MCAWW	TAL BUF
420.4	Phenolics, Total Recoverable	MCAWW	TAL BUF
7196A	Chromium, Hexavalent	SW846	TAL WFD
7196A	Chromium, Trivalent (Colorimetric)	SW846	TAL WFD
9012A	Cyanide, Total and/or Amenable	SW846	TAL BUF
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL BUF
SM 4500 Cl G	Chlorine, Residual	SM	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF

Protocol References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL WFD = TestAmerica Westfield, Westfield Executive Park, 53 Southampton Road, Westfield, MA 01085, TEL (413)572-4000

Sample Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: NG ATHOL

TestAmerica Job ID: 480-45394-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-45394-1	MW5	Water	09/09/13 10:30	09/10/13 01:45
480-45394-2	MW6	Water	09/09/13 12:30	09/10/13 01:45
480-45394-3	MW11	Water	09/09/13 11:00	09/10/13 01:45
480-45394-4	MW14	Water	09/09/13 11:50	09/10/13 01:45
480-45394-5	TB	Water	09/09/13 10:30	09/10/13 01:45

Login Sample Receipt Checklist

Client: Innovative Engineering Solutions, Inc

Job Number: 480-45394-1

Login Number: 45394

List Source: TestAmerica Buffalo

List Number: 1

Creator: Wienke, Robert K

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: Innovative Engineering Solutions, Inc

Job Number: 480-45394-1

Login Number: 45394
List Number: 1
Creator: Emerich, Rich W

List Source: TestAmerica Westfield
List Creation: 09/10/13 09:00 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica Boston
240 Bear Hill Rd., Suite 104
Waltham, MA 02451
Phone (781) 466-6900 Fax (781) 466-6901

Chain of Custody Record

TestAmerica

Client Information	Sampler: GARTH HUISCH	Lab PM: Johnson, Janine E	Carrier Tracking No(s):	COC No: 480-39329-10376.1
Client Contact: Vicki Pariyar	Phone: 339-222-2117	E-Mail: janine.johnson@testamericainc.com		Page: Page 1 of 1
Company: Innovative Engineering Solutions, Inc				Job #:
Address: 25 Spring Street	Due Date Requested:			
City: Walpole	TAT Requested (days): 10			
State, Zip: MA, 02081				
Phone: 781-255-0796(Tel) 781-255-7421(Fax)	PO #: Purchase Order Requested NGATHOIT7			
Email: v.pariyar@iesionline.com	WO #:			
Project Name: Laboratory Analysis (WALPOLE)	Project #: 48006598			
Site: NG ATHOL	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	4500_Cl_F - Res. Chlorine, Chloride	7196A - Chromium (hexavalent)	200.7, 245.1	1664A_Calc - Oil & Grease	420.4 - Phenolics, Total Recoverable	8260B - (MOD) Appendix Nine Volatiles	8011 - 1,2-Dibromoethane	8270C_LL - (MOD) Short List of Semivolatiles	608_PCB - Priority Pollutant PCBs	2540D - pH, TSS	9012A - Cyanide, Total	8011 - EDB		Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	D	S	S	A	A	N	N	N	B	A			
MW5	9/9/13	1030	G	Water	N	N	X	X	X	X	X	X	X	X	X	X	X	X			
MW6	9/9/13	1230	G	Water	N	N	X	X	X	X	X	X	X	X	X	X	X	X			
MW11	9/9/13	1100	G	Water	N	N	X	X	X	X	X	X	X	X	X	X	X	X			
MW14	9/9/13	1150	G	Water	N	N	X	X	X	X	X	X	X	X	X	X	X	X			
TB				~~Water~~	N	N						X						X			
TB																		X			

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment

Relinquished by:	Date/Time: 9/9/13 1520	Company: IES	Received by:	Date/Time: 9/9/13 1520	Company: TAL
Relinquished by:	Date/Time: 9/9/13 17:00	Company: TAL	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time: 9/10/13 0145	Company: TAL

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: H12427 37 | Cooler Temperature(s) °C and Other Remarks: (6.6°C w/ ice WESTFIELD)