NHG910049

Appendix A- Notice of Intent for Remediation General Permit

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

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

a) Name of **facility/site**: NH DOT Shed 111, Fueling Facility , Twin Mountain		**Facility/site address:** site		
Location of **facility/site**: Carroll, NH longitude: 44.2727 N latitude: 71.5463 W	Facility SIC code(s): N/A	Street: 500 Route 302		
b) Name of **facility/site owner:** NH DOT		Town: Twin Mountain		
Email address of owner: wdusavitch@dot.state.nh.us		State: NH	Zip: 03595	County: COOS
Telephone no of facility/site **owner**: 603-271-2056				
Fax no. of facility/site **owner**: 603-271-6085		**Owner** is (check one): 1. Federal___ 2. State/Tribal ✓ 3. Private___ 4. other, if so, describe:		
Address of **owner** (if different from site): NH DOT				
Street: 7 Hazen DR				
Town: Concord	State: NH	Zip: 03302-0483	County: Merrimack	
c) Legal name of **operator**: TMC Services, INC	**Operator** telephone no: 508-966-6017			
	Operator fax no.: 508-966-6217	**Operator** email: dgreenwood@hazmatt.com		
Operator contact name and title: Don Greenwood / Project Manager				
Address of **operator** (if different from owner):	Street: 1 William Way			
Town: Bellingham	State: MA	Zip: 02019	County: Norfolk	

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

e) Is site/facility subject to any State permitting or other action which is causing the generation of discharge? Yes___ No ✓ If "yes," 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: NHDES, 29 Hazen Dr, Concord, NH 03302 (603)271-3674	f) Is the site/facility covered by any other EPA permit, including: 1. multi-sector storm water general permit? Y___ N ✓, if Y, number: 2. phase I or II construction storm water general permit? Y___ N ✓, if Y, number: 3. individual NPDES permit? Y___ N ✓, if Y, number: 4. any other water quality related permit? Y___ N ✓, if Y, number:

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

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

Construction dewatering during UST removal and replacement

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, ft3/s)? Max. flow 70 gpm Average flow 25 gpm Is maximum flow a **design value**? Y ✓ N___ For average flow, include the units and appropriate notation if this value is a design value or estimate if not available.

3) Latitude and longitude of each discharge within 100 feet: pt.1:long. 0438737N lat. 0712166W; pt.2: long.___ lat.___; pt.3: long.___ lat.___, pt.4:long.___ lat.___; pt.5: long.___ lat.___; pt.6:long.___ lat.___; pt.7: long.___ lat.___; pt.8:long.___ lat.___; etc.

4) If hydrostatic testing, total volume of the discharge (gals): n/a	5) Is the discharge intermittent ✓ or seasonal ___? Is discharge ongoing Yes ___ No ✓ ?___

c) Expected dates of discharge (mm/dd/yy): start 05/01/10 end 07/01/10

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

3. Contaminant information. In order to complete this section, the applicant will need to take a minimum of one sample of the untreated water and have it analyzed for all of the parameters listed in Appendix III. Historical data, (i.e., data taken no more than 2 years prior to the effective date of the permit) may be used if obtained pursuant to: i. Massachusetts' regulations 310 CMR 40.0000, the Massachusetts Contingency Plan ("Chapter 21E"); ii. New Hampshire's Title 50 RSA 485-A: Water Pollution and Waste Disposal or Title 50 RSA 485-C: Groundwater Protection Act; or iii. an EPA permit exclusion letter issued pursuant to 40 CFR 122.3, provided the data was analyzed with test methods that meet the requirements of this permit. Otherwise, a new sample shall be taken and analyzed.

a) Based on the analysis of the sample(s) of the untreated influent, the applicant must check the box of the sub-categories that the potential discharge falls within.

Gasoline Only	VOC Only	Primarily Metals	Urban Fill Sites	Contaminated Sumps	Mixed Contaminants	Aquifer Testing
Fuel Oils (and Other Oils) only	VOC with Other Contaminants	Petroleum with Other Contaminants	Listed Contaminated Sites	Contaminated Dredge Condensates	Hydrostatic Testing of Pipelines/Tanks	Well Development or Rehabilitation

b) Based on the analysis of the untreated influent, the applicant must indicate whether each listed chemical is **believed present or believed absent** in the potential discharge. Attach additional sheets as needed.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
1. Total Suspended Solids	✓									
2. Total Residual Chlorine	✓									
3. Total Petroleum Hydrocarbons	✓									
4. Cyanide	✓									
5. Benzene	✓									
6. Toluene	✓									
7. Ethylbenzene	✓									
8. (m,p,o) Xylenes	✓									
9. Total BTEX[4]	✓									

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

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
10. Ethylene Dibromide [5] (1,2- Dibromo-methane)	✓									
11. Methyl-tert-Butyl Ether (MtBE)	✓									
12. tert-Butyl Alcohol (TBA)	✓									
13. tert-Amyl Methyl Ether (TAME)	✓									
14. Naphthalene	✓									
15. Carbon Tetra-chloride	✓									
16. 1,4 Dichlorobenzene	✓									
17. 1,2 Dichlorobenzene	✓									
18. 1,3 Dichlorobenzene	✓									
19. 1,1 Dichloroethane	✓									
20. 1,2 Dichloroethane	✓									
21. 1,1 Dichloroethylene	✓									
22. cis-1,2 Dichloro-ethylene	✓									
23. Dichloromethane (Methylene Chloride)	✓									
24. Tetrachloroethylene	✓									

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

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg daily Value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
25. 1,1,1 Trichloroethane	✓									
26. 1,1,2 Trichloroethane	✓									
27. Trichloroethylene	✓									
28. Vinyl Chloride	✓									
29. Acetone	✓									
30. 1,4 Dioxane	✓									
31. Total Phenols	✓									
32. Pentachlorophenol	✓									
33. Total Phthalates [b] (Phthalate esthers)	✓									
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	✓									
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	✓									
a. Benzo(a) Anthracene	✓									
b. Benzo(a) Pyrene	✓									
c. Benzo(b)Fluoranthene	✓									
d. Benzo(k) Fluoranthene	✓									
e. Chrysene	✓									

[b] The sum of individual phthalate compounds.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (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)
f. Dibenzo(a,h) anthracene	✓		1				ND			
g. Indeno(1,2,3-cd) Pyrene	✓		1				ND			
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)	✓		1				ND			
h. Acenaphthene	✓		1				ND			
i. Acenaphthylene	✓		1				ND			
j. Anthracene	✓		1				ND			
k. Benzo(ghi) Perylene	✓		1				ND			
l. Fluoranthene	✓		1				ND			
m. Fluorene	✓		1				ND			
n. Naphthalene-	✓		1				ND			
o. Phenanthrene	✓		1				ND			
p. Pyrene	✓		1				ND			
37. Total Polychlorinated Biphenyls (PCBs)	✓		1				ND			
38. Antimony	✓		1				ND			
39. Arsenic		✓	1	Grab	EPA 200.7	0.0040	12			
40. Cadmium	✓		1				ND			
41. Chromium III	✓		1				ND			
42. Chromium VI			1				ND			

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
43. Copper		✓	1	Grab	EPA 200.7	0.0050	28.7			
44. Lead		✓	1	Grab	EPA 200.7	0.0075	15			
45. Mercury	✓		1				ND			
46. Nickel	✓		1				ND			
47. Selenium	✓		1				ND			
48. Silver	✓		1				ND			
49. Zinc		✓	1	Grab	EPA 200.7	0.0050	152			
50. Iron		✓	1	Grab	EPA 200.7	0.0150	28100			
Other (describe):							Unfilt. Sample			

c) For discharges where **metals** are believed present, please fill out the following:

Step 1: Do any of the metals in the influent have a **reasonable potential** to exceed the effluent limits in Appendix III (i.e., the limits set at zero to five dilutions)? Y ✓ N ___	If yes, which metals? Cu, Pb, As, Zn, Fe
Step 2: For any metals which have **reasonable potential** to 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? Metals: Cu, Pb, As, Zn, Fe DF: 1.29	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 "Yes," list which metals: Cu, Pb, As, Zn, Fe

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:						
b) Identify each applicable treatment unit (check all that apply).	Frac. tank ✓	Air stripper	Oil/water separator	Equalization tanks	Bag filter ✓	GAC filter ✓
	Chlorination	Dechlorination	Other (please describe): DE or GS Filters (as necessary): Post Treatment			
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 10 Maximum flow rate of treatment system 70 Design flow rate of treatment system 25						
d) A description of chemical additives being used or planned to be used (attach MSDS sheets): none						

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

a) Identify the discharge pathway:	Direct	Within facility__	Storm drain____	River/brook ✓	Wetlands_____	Other (describe)
b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters: From the tank excavation area, piped north overland for approximately 70 feet to a small brook/ground, feeding the Ammonoosuc River.						
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 B						
e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water 0.07 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? Yes ✓ No____ If yes, for which pollutant(s)? Source Unkn. (Low TMDL Priority) Is there a TMDL? Yes___ No ✓ If yes, for which pollutant(s)?						

6. Results of Consultation with Federal Services: Please provide the following information according to requirements of Part I.B.4 and Appendices II and VII.

a) Are any listed threatened or endangered species, or designated critical habitat, in proximity to the discharge? Yes____ No ✓
Has any consultation with the federal services been completed ? Yes ✓ No___ or is consultation underway? Yes ____ No
What were the results of the consultation with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service (check one):
a "no jeopardy" opinion? _____ or written concurrence ✓ on a finding that the discharges are not likely to adversely affect any endangered species or critical habitat?

b) Are any historic properties listed or eligible for listing on the National Register of Historic Places located on the facility or site or in proximity to the discharge?
Yes _____ No ✓ Have any state or tribal historic preservation officer been consulted in this determination (Massachusetts only)? Yes_____ No_____

7. Supplemental information. :

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

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

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

Facility/Site Name: NH DOT Shed 111, Fueling Facility , Twin Mountain

Operator signature:

Title: Project Manager

Date: 03/31/10

Appendix B-Laboratory Analytical Reports-Twin Mountain (Carroll) Patrol Shed

500 Route 302, Twin Mountain, NH 03595

NPDES Appendix III Effluent Limits

Project: NHDOT Patrol Shed Facilities, Twin Mountain, NH
TMC Project No.: 4009-580
Analysis: NPDES Remediation General Permit List

Sample Location		Carroll GW1	Field Blank
Laboratory ID		SB09710-01	SB09710-02
Sample Date		3/25/2010	3/25/2010
EPA 1664 Rev. A (mg/l)			
TPHSGTHEM	Non-polar material (SGT-HEM)	<1.0	
EPA 200.7 (mg/l)			
7440-36-0	Antimony	<0.0060	
7439-89-6	Iron	28.1	
7439-92-1	Lead	0.0150	
7440-02-0	Nickel	<0.0050	
7782-49-2	Selenium	<0.0150	
7440-66-6	Zinc	0.152	
7440-38-2	Arsenic	0.0120	
7440-43-9	Cadmium	<0.0025	
7440-47-3	Chromium	<0.0050	
7440-50-8	Copper	0.0287	
7440-22-4	Silver	<0.0050	
EPA 245.1/7470A (mg/l)			
7439-97-6	Mercury	<0.00020	
EPA 335.4 / SW846 9012A (mg/l)			
57-12-5	Cyanide (total)	<0.00500	
EPA 504.1 (µg/l)			
106-93-4	1,2-Dibromoethane (EDB)	<0.0100	
EPA 608 (µg/l)			
12674-11-2	Aroclor-1016	<0.0650	
11104-28-2	Aroclor-1221	<0.0650	
11141-16-5	Aroclor-1232	<0.0650	
53469-21-9	Aroclor-1242	<0.0650	
12672-29-6	Aroclor-1248	<0.0650	
11097-69-1	Aroclor-1254	<0.0650	
11096-82-5	Aroclor-1260	<0.0650	
37324-23-5	Aroclor-1262	<0.0650	
11100-14-4	Aroclor-1268	<0.0650	
Hach 8167 (mg/l)			
7782-50-5	Total Residual Chlorine	<0.200	
SM2540D (mg/l)			
TSS	Total Suspended Solids	24.0	
SW846 7196A/SM3500CrD (mg/l)			
18540-29-9	Hexavalent Chromium	<0.025	R01

SW846 8260B (µg/l)			
67-64-1	Acetone	<10.0	<10.0
71-43-2	Benzene	<1.0	<1.0
56-23-5	Carbon tetrachloride	<1.0	<1.0
106-93-4	1,2-Dibromoethane (EDB)	<0.5	<0.5
95-50-1	1,2-Dichlorobenzene	<1.0	<1.0
541-73-1	1,3-Dichlorobenzene	<1.0	<1.0
106-46-7	1,4-Dichlorobenzene	<1.0	<1.0
75-34-3	1,1-Dichloroethane	<1.0	<1.0
107-06-2	1,2-Dichloroethane	<1.0	<1.0
75-35-4	1,1-Dichloroethene	<1.0	<1.0
156-59-2	cis-1,2-Dichloroethene	<1.0	<1.0
100-41-4	Ethylbenzene	<1.0	<1.0
1634-04-4	Methyl tert-butyl ether	<1.0	<1.0
75-09-2	Methylene chloride	<2.0	<2.0
91-20-3	Naphthalene	<1.0	<1.0
127-18-4	Tetrachloroethene	<1.0	<1.0
108-88-3	Toluene	<1.0	<1.0
71-55-6	1,1,1-Trichloroethane	<1.0	<1.0
79-00-5	1,1,2-Trichloroethane	<1.0	<1.0
79-01-6	Trichloroethene	<1.0	<1.0
75-01-4	Vinyl chloride	<1.0	<1.0
179601-23-1	m,p-Xylene	<2.0	<2.0
95-47-6	o-Xylene	<1.0	<1.0
994-05-8	Tert-amyl methyl ether	<1.0	<1.0
75-65-0	Tert-Butanol / butyl alcohol	<10.0	<10.0
123-91-1	1,4-Dioxane	<20.0	<20.0

SW846 8270C (µg/l)		
83-32-9	Acenaphthene	<5.15
208-96-8	Acenaphthylene	<5.15
62-53-3	Aniline	<5.15
120-12-7	Anthracene	<5.15
1912-24-9	Atrazine	<5.15
103-33-3	Azobenzene/Diphenyldiazine	<5.15
92-87-5	Benzidine	<5.15
56-55-3	Benzo (a) anthracene	<5.15
50-32-8	Benzo (a) pyrene	<5.15
205-99-2	Benzo (b) fluoranthene	<5.15
191-24-2	Benzo (g,h,i) perylene	<5.15
207-08-9	Benzo (k) fluoranthene	<5.15
65-85-0	Benzoic acid	<5.15
100-51-6	Benzyl alcohol	<5.15
111-91-1	Bis(2-chloroethoxy)methane	<5.15
111-44-4	Bis(2-chloroethyl)ether	<5.15
108-60-1	Bis(2-chloroisopropyl)ether	<5.15
117-81-7	Bis(2-ethylhexyl)phthalate	<5.15
101-55-3	4-Bromophenyl phenyl ether	<5.15
85-68-7	Butyl benzyl phthalate	<5.15
86-74-8	Carbazole	<5.15
59-50-7	4-Chloro-3-methylphenol	<5.15
106-47-8	4-Chloroaniline	<5.15
91-58-7	2-Chloronaphthalene	<5.15

95-57-8	2-Chlorophenol	<5.15
7005-72-3	4-Chlorophenyl phenyl ether	<5.15
218-01-9	Chrysene	<5.15
53-70-3	Dibenzo (a,h) anthracene	<5.15
132-64-9	Dibenzofuran	<5.15
95-50-1	1,2-Dichlorobenzene	<5.15
541-73-1	1,3-Dichlorobenzene	<5.15
106-46-7	1,4-Dichlorobenzene	<5.15
91-94-1	3,3'-Dichlorobenzidine	<5.15
120-83-2	2,4 Dichlorophenol	<5.15
84-66-2	Diethyl phthalate	<5.15
131-11-3	Dimethyl phthalate	<5.15
105-67-9	2,4-Dimethylphenol	<5.15
84-74-2	Di-n-butyl phthalate	<5.15
534-52-1	4,6-Dinitro-2-methylphenol	<5.15
51-28-5	2,4-Dinitrophenol	<5.15
121-14-2	2,4-Dinitrotoluene	<5.15
606-20-2	2,6-Dinitrotoluene	<5.15
117-84-0	Di-n-octyl phthalate	<5.15
206-44-0	Fluoranthene	<5.15
86-73-7	Fluorene	<5.15
118-74-1	Hexachlorobenzene	<5.15
87-68-3	Hexachlorobutadiene	<5.15
77-47-4	Hexachlorocyclopentadiene	<5.15
67-72-1	Hexachloroethane	<5.15
193-39-5	Indeno (1,2,3-cd) pyrene	<5.15
78-59-1	Isophorone	<5.15
91-57-6	2-Methylnaphthalene	<5.15
95-48-7	2-Methylphenol	<5.15
108-39-4, 106-44-5	3 & 4-Methylphenol	<10.3
91-20-3	Naphthalene	<5.15
88-74-4	2-Nitroaniline	<5.15
99-09-2	3-Nitroaniline	<5.15
100-01-6	4-Nitroaniline	<20.6
98-95-3	Nitrobenzene	<5.15
88-75-5	2-Nitrophenol	<5.15
100-02-7	4-Nitrophenol	<20.6
62-75-9	N-Nitrosodimethylamine	<5.15
621-64-7	N-Nitrosodi-n-propylamine	<5.15
86-30-6	N-Nitrosodiphenylamine	<5.15
87-86-5	Pentachlorophenol	<20.6
85-01-8	Phenanthrene	<5.15
108-95-2	Phenol	<5.15
129-00-0	Pyrene	<5.15
110-86-1	Pyridine	<5.15
120-82-1	1,2,4-Trichlorobenzene	<5.15
90-12-0	1-Methylnaphthalene	<5.15
95-95-4	2,4,5-Trichlorophenol	<5.15
88-06-2	2,4,6-Trichlorophenol	<5.15
82-68-8	Pentachloronitrobenzene	<5.15
95-94-3	1,2,4,5-Tetrachlorobenzene	<5.15

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Carroll GW1 SB09710-01	4009-580	Ground Water	25-Mar-10 09:20	25-Mar-10

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Semivolatile Organic Compounds by GC												
Polychlorinated Biphenyls by EPA 608 Prepared by method SW846 3510C												
10386-84-2	*4,4-DB-Octafluorobiphenyl (Sr) [2C]*	*142*			*30-150 %*		EPA 608	26-Mar-10	26-Mar-10	IMR	1006451	
2051-24-3	*Decachlorobiphenyl (Sr)*	*57*			*30-150 %*		"	"	"	"	"	
2051-24-3	*Decachlorobiphenyl (Sr) [2C]*	*64*			*30-150 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons												
	Non-polar materia (SGT-HEM)	BRL		mg/l	1.0	1	EPA 1664 Rev. A	26-Mar-10	27-Mar-10	JK	1006444	X
Total Metals by EPA 200 Series Methods												
7440-22-4	Silver	BRL		mg/l	0.0050	1	EPA 200.7	26-Mar-10	26-Mar-10	TBG	1006476	X
7440-38-2	Arsenic	0.0120		mg/l	0.0040	1	"	"	29-Mar-10	"	"	X
7440-43-9	Cadmium	BRL		mg/l	0.0025	1	"	"	26-Mar-10	"	"	X
7440-47-3	Chromium	BRL		mg/l	0.0050	1	"	"	"	"	"	X
7440-50-8	Copper	0.0287		mg/l	0.0050	1	"	"	"	"	"	X
7439-89-6	Iron	25.1		mg/l	0.0150	1	"	"	"	"	"	X
7439-97-6	Mercury	BRL		mg/l	0.00020	1	EPA 245.1/7470A	"	26-Mar-10	KNJ	1006477	X
7440-02-0	Nickel	BRL		mg/l	0.0050	1	EPA 200.7	"	26-Mar-10	TBG	1006476	X
7439-92-1	Lead	0.0150		mg/l	0.0075	1	"	"	"	"	"	X
7440-36-0	Antimony	BRL		mg/l	0.0060	1	"	"	"	"	"	X
7782-49-2	Selenium	BRL		mg/l	0.0150	1	"	"	"	"	"	X
7440-66-6	Zinc	0.152		mg/l	0.0050	1	"	"	"	"	"	X
General Chemistry Parameters												
18540-29-9	Hexavalent Chromium	BRL	RD1	mg/l	0.025	5	SW846 7196A/SM3500C rD	25-Mar-10 08:45	25-Mar-10 08:45	JLC	1006585	X
57-12-5	Cyanide (total)	BRL		mg/l	0.00500	1	EPA 335.4 / SW846 9012A	26-Mar-10	26-Mar-10	eemcn	1006453	X
7782-50-5	Total Residual Chlorine	BRL	CHT	mg/l	0.200	1	Hach 8167	25-Mar-10 19:45	25-Mar-10 19:45	CAW	1006468	X
	Total Suspended Solids	24.0		mg/l	10.0	2	SM2540D	26-Mar-10	26-Mar-10	SJL	1006546	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Field Blank	4009-580	Aqueous	25-Mar-10 00:00	25-Mar-10
SB09710-02				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds												
Volatile Organic Compounds												
Prepared by method SW846 5030 Water MS												
67-64-1	Acetone	BRL		µg/l	10.0	1	SW846 8260B	26-Mar-10	26-Mar-10	JRC	1006489	X
71-43-2	Benzene	BRL		µg/l	1.0	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	BRL		µg/l	1.0	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	BRL		µg/l	0.5	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	BRL		µg/l	1.0	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	BRL		µg/l	1.0	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	BRL		µg/	1.0	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	BRL		µg/	1.0	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	BRL		µg/	1.0	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	BRL		µg/	1.0	1	"	"	"	"	"	X
75-09-2	Methylene chloride	BRL		µg/	2.0	1	"	"	"	"	"	X
91-20-3	Naphthalene	BRL		µg/	1.0	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	BRL		µg/	1.0	1	"	"	"	"	"	X
108-88-3	Toluene	BRL		µg/	1.0	1	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	BRL		µg/	1.0	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	BRL		µg/l	1.0	1	"	"	"	"	"	X
79-01-6	Trichloroethene	BRL		µg/l	1.0	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	BRL		µg/l	1.0	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	BRL		µg/l	2.0	1	"	"	"	"	"	X
95-47-6	o-Xylene	BRL		µg/l	1.0	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	BRL		µg/l	1.0	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	BRL		µg/l	10.0	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	BRL		µg/l	20.0	1	"	"	"	"	"	X
Surrogate recoveries:												
460-00-4	*4-Bromofluorobenzene*	*94*			*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*97*			*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*92*			*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*99*			*70-130 %*		"	"	"	"	"	

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1006489 - SW846 5030 Water MS										
Blank (1006489-BLK1)					Prepared & Analyzed: 26-Mar-10					
1,1,2-Trichlorotrifluoroethane (Freon 113)	BRL		µg/l	1.0						
Acetone	BRL		µg/l	10.0						
Acrylonitrile	BRL		µg/l	0.5						
Benzene	BRL		µg/l	1.0						
Bromobenzene	BRL		µg/l	1.0						
Bromochloromethane	BRL		µg/l	1.0						
Bromodichloromethane	BRL		µg/l	0.5						
Bromoform	BRL		µg/l	1.0						
Bromomethane	BRL		µg/l	2.0						
2-Butanone (MEK)	BRL		µg/l	10.0						
n-Butylbenzene	BRL		µg/l	1.0						
sec-Butylbenzene	BRL		µg/l	1.0						
tert-Butylbenzene	BRL		µg/l	1.0						
Carbon disulfide	BRL		µg/l	2.0						
Carbon tetrachloride	BRL		µg/l	1.0						
Chlorobenzene	BRL		µg/l	1.0						
Chloroethane	BRL		µg/l	2.0						
Chloroform	BRL		µg/l	1.0						
Chloromethane	BRL		µg/l	2.0						
2-Chlorotoluene	BRL		µg/l	1.0						
4-Chlorotoluene	BRL		µg/l	1.0						
1,2-Dibromo-3-chloropropane	BRL		µg/l	2.0						
Dibromochloromethane	BRL		µg/l	0.5						
1,2-Dibromoethane (EDB)	BRL		µg/l	0.5						
Dibromomethane	BRL		µg/l	1.0						
1,2-Dichlorobenzene	BRL		µg/l	1.0						
1,3-Dichlorobenzene	BRL		µg/l	1.0						
1,4-Dichlorobenzene	BRL		µg/l	1.0						
Dichlorodifluoromethane (Freon12)	BRL		µg/l	2.0						
1,1-Dichloroethane	BRL		µg/l	1.0						
1,2-Dichloroethane	BRL		µg/l	1.0						
1,1-Dichloroethene	BRL		µg/l	1.0						
cis-1,2-Dichloroethene	BRL		µg/l	1.0						
trans-1,2-Dichloroethene	BRL		µg/l	1.0						
1,2-Dichloropropane	BRL		µg/l	1.0						
1,3-Dichloropropane	BRL		µg/l	1.0						
2,2-Dichloropropane	BRL		µg/l	1.0						
1,1-Dichloropropene	BRL		µg/l	1.0						
cis-1,3-Dichloropropene	BRL		µg/l	0.5						
trans-1,3-Dichloropropene	BRL		µg/l	0.5						
Ethylbenzene	BRL		µg/l	1.0						
Hexachlorobutadiene	BRL		µg/l	0.5						
2-Hexanone (MBK)	BRL		µg/l	10.0						
Isopropylbenzene	BRL		µg/l	1.0						
4-Isopropyltoluene	BRL		µg/l	1.0						
Methyl tert-butyl ether	BRL		µg/l	1.0						
4-Methyl-2-pentanone (MIBK)	BRL		µg/l	10.0						
Methylene chloride	BRL		µg/l	2.0						
Naphthalene	BRL		µg/l	1.0						
n-Propylbenzene	BRL		µg/l	1.0						
Styrene	BRL		µg/l	1.0						
1,1,1,2-Tetrachloroethane	BRL		µg/l	1.0						

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1006489 - SW846 5030 Water MS										
Blank (1006489-BLK1)						Prepared & Analyzed: 26-Mar-10				
1,1,2,2-Tetrachloroethane	BRL		µg/l	0.5						
Tetrachloroethene	BRL		µg/l	1.0						
Toluene	BRL		µg/l	1.0						
1,2,3-Trichlorobenzene	BRL		µg/l	1.0						
1,2,4-Trichlorobenzene	BRL		µg/l	1.0						
1,3,5-Trichlorobenzene	BRL		µg/l	1.0						
1,1,1-Trichloroethane	BRL		µg/l	1.0						
1,1,2-Trichloroethane	BRL		µg/l	1.0						
Trichloroethene	BRL		µg/l	1.0						
Trichlorofluoromethane (Freon 11)	BRL		µg/l	1.0						
1,2,3-Trichloropropane	BRL		µg/l	1.0						
1,2,4-Trimethylbenzene	BRL		µg/l	1.0						
1,3,5-Trimethylbenzene	BRL		µg/l	1.0						
Vinyl chloride	BRL		µg/l	1.0						
m,p-Xylene	BRL		µg/l	2.0						
o-Xylene	BRL		µg/l	1.0						
Tetrahydrofuran	BRL		µg/l	2.0						
Ethyl ether	BRL		µg/l	1.0						
Tert-amyl methyl ether	BRL		µg/l	1.0						
Ethyl tert-butyl ether	BRL		µg/l	1.0						
Di-isopropyl ether	BRL		µg/l	1.0						
Tert-Butanol / butyl alcohol	BRL		µg/l	10.0						
1,4-Dioxane	BRL		µg/l	20.0						
trans-1,4-Dichloro-2-butene	BRL		µg/l	5.0						
Ethanol	BRL		µg/l	400						
Surrogate: 4-Bromofluorobenzene	*46.7*		µg/l		*50.0*		*93*	*70-130*		
Surrogate: Toluene-d8	*49.0*		µg/l		*50.0*		*98*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*46.8*		µg/l		*50.0*		*94*	*70-130*		
Surrogate: Dibromofluoromethane	*48.8*		µg/l		*50.0*		*98*	*70-130*		
LCS (1006489-BS1)						Prepared & Analyzed: 26-Mar-10				
1,1,2-Trichlorotrifluoroethane (Freon 113)	17.2		µg/l		20.0		86	70-130		
Acetone	22.8		µg/l		20.0		114	53.2-137		
Acrylonitrile	19.7		µg/l		20.0		98	70-130		
Benzene	21.8		µg/l		20.0		109	70-130		
Bromobenzene	18.3		µg/l		20.0		91	70-130		
Bromochloromethane	20.3		µg/l		20.0		101	70-130		
Bromodichloromethane	18.8		µg/l		20.0		94	70-130		
Bromoform	15.3		µg/l		20.0		77	70-130		
Bromomethane	18.4		µg/l		20.0		92	48.9-147		
2-Butanone (MEK)	16.1		µg/l		20.0		80	70-139		
n-Butylbenzene	22.3		µg/l		20.0		111	70-130		
sec-Butylbenzene	21.2		µg/l		20.0		106	70-130		
tert-Butylbenzene	19.6		µg/l		20.0		98	70-130		
Carbon disulfide	18.2		µg/l		20.0		91	70-130		
Carbon tetrachloride	16.5		µg/l		20.0		82	70-130		
Chlorobenzene	21.0		µg/l		20.0		105	70-130		
Chloroethane	16.8		µg/l		20.0		84	65.6-130		
Chloroform	19.6		µg/l		20.0		98	70-130		
Chloromethane	20.5		µg/l		20.0		103	70-130		
2-Chlorotoluene	22.0		µg/l		20.0		110	70-130		
4-Chlorotoluene	20.0		µg/l		20.0		100	70-130		

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1006489 - SW846 5030 Water MS										
LCS (1006489-BS1)					Prepared & Analyzed: 26-Mar-10					
1,2-Dibromo-3-chloropropane	17.7		µg/l		20.0		89	70-130		
Dibromochloromethane	17.2		µg/l		20.0		86	52.9-130		
1,2-Dibromoethane (EDB)	21.0		µg/l		20.0		105	70-130		
Dibromomethane	20.5		µg/l		20.0		102	70-130		
1,2-Dichlorobenzene	21.0		µg/l		20.0		105	70-130		
1,3-Dichlorobenzene	19.7		µg/l		20.0		98	70-130		
1,4-Dichlorobenzene	21.7		µg/l		20.0		108	70-130		
Dichlorodifluoromethane (Freon12)	17.8		µg/l		20.0		89	63.1-130		
1,1-Dichloroethane	17.8		µg/l		20.0		89	70-130		
1,2-Dichloroethane	18.3		µg/l		20.0		92	70-130		
1,1-Dichloroethene	17.0		µg/l		20.0		85	70-130		
cis-1,2-Dichloroethene	16.9		µg/l		20.0		85	70-130		
trans-1,2-Dichloroethene	18.1		µg/l		20.0		90	70-130		
1,2-Dichloropropane	20.9		µg/l		20.0		105	70-130		
1,3-Dichloropropane	20.7		µg/l		20.0		104	70-130		
2,2-Dichloropropane	17.2		µg/l		20.0		86	70-130		
1,1-Dichloropropene	20.3		µg/l		20.0		102	70-130		
cis-1,3-Dichloropropene	20.1		µg/l		20.0		100	70-130		
trans-1,3-Dichloropropene	19.7		µg/l		20.0		98	70-130		
Ethylbenzene	20.8		µg/l		20.0		104	70-130		
Hexachlorobutadiene	17.0		µg/l		20.0		85	70-130		
2-Hexanone (MBK)	22.9		µg/l		20.0		114	70-130		
Isopropylbenzene	20.7		µg/l		20.0		104	70-130		
4-Isopropyltoluene	21.8		µg/l		20.0		109	70-130		
Methyl tert-butyl ether	16.7		µg/l		20.0		83	70-130		
4-Methyl-2-pentanone (MIBK)	20.7		µg/l		20.0		103	61-130		
Methylene chloride	17.5		µg/l		20.0		87	70-130		
Naphthalene	20.4		µg/l		20.0		102	70-130		
n-Propylbenzene	21.4		µg/l		20.0		107	70-130		
Styrene	21.4		µg/l		20.0		107	70-130		
1,1,1,2-Tetrachloroethane	18.0		µg/l		20.0		90	70-130		
1,1,2,2-Tetrachloroethane	19.9		µg/l		20.0		100	70-130		
Tetrachloroethene	18.1		µg/l		20.0		91	70-130		
Toluene	20.5		µg/l		20.0		103	70-130		
1,2,3-Trichlorobenzene	20.3		µg/l		20.0		102	70-130		
1,2,4-Trichlorobenzene	20.6		µg/l		20.0		103	70-130		
1,3,5-Trichlorobenzene	20.3		µg/l		20.0		101	70-130		
1,1,1-Trichloroethane	17.3		µg/l		20.0		86	70-130		
1,1,2-Trichloroethane	21.0		µg/l		20.0		105	70-130		
Trichloroethene	21.0		µg/l		20.0		105	70-130		
Trichlorofluoromethane (Freon 11)	18.9		µg/l		20.0		94	60-172		
1,2,3-Trichloropropane	21.0		µg/l		20.0		105	70-130		
1,2,4-Trimethylbenzene	19.6		µg/l		20.0		98	70-130		
1,3,5-Trimethylbenzene	19.8		µg/l		20.0		99	70-130		
Vinyl chloride	15.8		µg/l		20.0		79	70-130		
m,p-Xylene	43.2		µg/l		40.0		108	70-130		
o-Xylene	21.2		µg/l		20.0		106	70-130		
Tetrahydrofuran	20.9		µg/l		20.0		104	70-130		
Ethyl ether	17.6		µg/l		20.0		88	70-130		
Tert-amyl methyl ether	20.0		µg/l		20.0		100	70-130		
Ethyl tert-butyl ether	18.4		µg/l		20.0		92	70-130		
Di-isopropyl ether	22.8		µg/l		20.0		114	70-130		

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1006489 - SW846 5030 Water MS										
LCS (1006489-BS1)						Prepared & Analyzed: 26-Mar-10				
Tert-Butanol / butyl alcohol	176		µg/l		200		88	70-130		
1,4-Dioxane	225		µg/l		200		112	54.2-130		
trans-1,4-Dichloro-2-butene	21.0		µg/l		20.0		105	70-130		
Ethanol	400		µg/l		400		100	70-130		
Surrogate: 4-Bromofluorobenzene	*48.5*		µg/l		*50.0*		*98*	*70-130*		
Surrogate: Toluene-d8	*48.9*		µg/l		*50.0*		*98*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*45.2*		µg/l		*50.0*		*90*	*70-130*		
Surrogate: Dibromofluoromethane	*46.8*		µg/l		*50.0*		*94*	*70-130*		
LCS Dup (1006489-BSD1)						Prepared & Analyzed: 26-Mar-10				
1,1,2-Trichlorotrifluoroethane (Freon 113)	17.0		µg/l		20.0		85	70-130	1	25
Acetone	23.2		µg/l		20.0		116	53.2-137	2	50
Acrylonitrile	20.2		µg/l		20.0		101	70-130	3	25
Benzene	21.1		µg/l		20.0		105	70-130	3	25
Bromobenzene	19.0		µg/l		20.0		95	70-130	4	25
Bromochloromethane	20.2		µg/l		20.0		101	70-130	0.5	25
Bromodichloromethane	19.2		µg/l		20.0		96	70-130	2	25
Bromoform	16.2		µg/l		20.0		81	70-130	6	25
Bromomethane	18.2		µg/l		20.0		91	48.9-147	1	50
2-Butanone (MEK)	17.3		µg/l		20.0		87	70-139	7	50
n-Butylbenzene	23.0		µg/l		20.0		115	70-130	3	25
sec-Butylbenzene	20.5		µg/l		20.0		102	70-130	3	25
tert-Butylbenzene	19.2		µg/l		20.0		96	70-130	2	25
Carbon disulfide	17.6		µg/l		20.0		88	70-130	3	25
Carbon tetrachloride	15.7		µg/l		20.0		78	70-130	5	25
Chlorobenzene	19.8		µg/l		20.0		99	70-130	6	25
Chloroethane	16.5		µg/l		20.0		82	55.6-130	2	50
Chloroform	19.8		µg/l		20.0		99	70-130	1	25
Chloromethane	20.7		µg/l		20.0		103	70-130	0.8	25
2-Chlorotoluene	21.2		µg/l		20.0		106	70-130	4	25
4-Chlorotoluene	20.0		µg/l		20.0		100	70-130	0.1	25
1,2-Dibromo-3-chloropropane	19.6		µg/l		20.0		98	70-130	10	25
Dibromochloromethane	17.2		µg/l		20.0		86	52.9-130	0.1	50
1,2-Dibromoethane (EDB)	20.5		µg/l		20.0		102	70-130	3	25
Dibromomethane	20.0		µg/l		20.0		100	70-130	2	25
1,2-Dichlorobenzene	21.2		µg/l		20.0		106	70-130	1	25
1,3-Dichlorobenzene	19.2		µg/l		20.0		96	70-130	3	25
1,4-Dichlorobenzene	20.9		µg/l		20.0		105	70-130	4	25
Dichlorodifluoromethane (Freon12)	17.5		µg/l		20.0		87	63.1-130	2	50
1,1-Dichloroethane	17.3		µg/l		20.0		86	70-130	3	25
1,2-Dichloroethane	18.4		µg/l		20.0		92	70-130	0.3	25
1,1-Dichloroethene	16.3		µg/l		20.0		82	70-130	4	25
cis-1,2-Dichloroethene	16.5		µg/l		20.0		83	70-130	2	25
trans-1,2-Dichloroethene	17.1		µg/l		20.0		86	70-130	5	25
1,2-Dichloropropane	20.6		µg/l		20.0		103	70-130	2	25
1,3-Dichloropropane	21.2		µg/l		20.0		106	70-130	2	25
2,2-Dichloropropane	17.0		µg/l		20.0		85	70-130	1	25
1,1-Dichloropropene	18.9		µg/l		20.0		95	70-130	7	25
cis-1,3-Dichloropropene	19.4		µg/l		20.0		97	70-130	4	25
trans-1,3-Dichloropropene	19.2		µg/l		20.0		96	70-130	3	25
Ethylbenzene	19.6		µg/l		20.0		98	70-130	6	25
Hexachlorobutadiene	16.4		µg/l		20.0		82	70-130	4	50

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1006489 - SW846 5030 Water MS										
LCS Dup (1006489-BSD1)					Prepared & Analyzed: 26-Mar-10					
2-Hexanone (MBK)	22.9		µg/l		20.0		115	70-130	0.2	25
Isopropylbenzene	20.2		µg/l		20.0		101	70-130	2	25
4-Isopropyltoluene	20.8		µg/l		20.0		104	70-130	4	25
Methyl tert-butyl ether	18.6		µg/l		20.0		93	70-130	0.4	25
4-Methyl-2-pentanone (MIBK)	18.9		µg/l		20.0		94	61-130	9	50
Methylene chloride	16.5		µg/l		20.0		82	70-130	6	25
Naphthalene	20.5		µg/l		20.0		103	70-130	0.8	25
n-Propylbenzene	21.1		µg/l		20.0		105	70-130	2	25
Styrene	20.6		µg/l		20.0		103	70-130	4	25
1,1,1,2-Tetrachloroethane	16.8		µg/l		20.0		84	70-130	7	25
1,1,2,2-Tetrachloroethane	20.3		µg/l		20.0		101	70-130	2	25
Tetrachloroethene	16.7		µg/l		20.0		84	70-130	8	25
Toluene	20.7		µg/l		20.0		103	70-130	0.7	25
1,2,3-Trichlorobenzene	20.6		µg/l		20.0		103	70-130	1	25
1,2,4-Trichlorobenzene	21.3		µg/l		20.0		107	70-130	3	25
1,3,5-Trichlorobenzene	20.1		µg/l		20.0		101	70-130	0.7	25
1,1,1-Trichloroethane	17.0		µg/l		20.0		85	70-130	1	25
1,1,2-Trichloroethane	20.9		µg/l		20.0		105	70-130	0.2	25
Trichloroethene	20.5		µg/l		20.0		102	70-130	2	25
Trichlorofluoromethane (Freon 11)	18.6		µg/l		20.0		93	60-172	1	50
1,2,3-Trichloropropane	20.7		µg/l		20.0		103	70-130	2	25
1,2,4-Trimethylbenzene	19.6		µg/l		20.0		98	70-130	0.1	25
1,3,5-Trimethylbenzene	19.8		µg/l		20.0		99	70-130	0.1	25
Vinyl chloride	16.7		µg/l		20.0		84	70-130	6	25
m,p-Xylene	41.2		µg/l		40.0		103	70-130	5	25
o-Xylene	20.4		µg/l		20.0		102	70-130	4	25
Tetrahydrofuran	21.3		µg/l		20.0		107	70-130	2	25
Ethyl ether	16.9		µg/l		20.0		84	70-130	4	50
Tert-amyl methyl ether	20.2		µg/l		20.0		101	70-130	0.9	25
Ethyl tert-butyl ether	18.2		µg/l		20.0		91	70-130	0.7	25
Di-isopropyl ether	22.7		µg/l		20.0		114	70-130	0.3	25
Tert-Butanol / butyl alcohol	177		µg/l		200		89	70-130	0.9	25
1,4-Dioxane	232		µg/l		200		116	54.2-130	3	25
trans-1,4-Dichloro-2-butene	21.4		µg/l		20.0		107	70-130	2	25
Ethanol	435		µg/l		400		109	70-130	8	30
Surrogate: 4-Bromofluorobenzene	*48.8*		µg/l		*50.0*		*98*	*70-130*		
Surrogate: Toluene-d8	*48.6*		µg/l		*50.0*		*97*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*46.2*		µg/l		*50.0*		*92*	*70-130*		
Surrogate: Dibromofluoromethane	*48.1*		µg/l		*50.0*		*96*	*70-130*		
Matrix Spike (1006489-MS1)			**Source: SB09710-01**		Prepared & Analyzed: 26-Mar-10					
1,1,2-Trichlorotrifluoroethane (Freon 113)	17.2		µg/l		20.0	BRL	86	70-130		
Acetone	25.4		µg/l		20.0	BRL	127	70-130		
Acrylonitrile	13.8	QM7	µg/l		20.0	BRL	69	70-130		
Benzene	15.5		µg/l		20.0	BRL	78	70-130		
Bromobenzene	14.6		µg/l		20.0	BRL	73	70-130		
Bromochloromethane	14.4		µg/l		20.0	BRL	72	70-130		
Bromodichloromethane	13.6	QM7	µg/l		20.0	BRL	68	70-130		
Bromoform	10.6	QM7	µg/l		20.0	BRL	53	70-130		
Bromomethane	9.1	QM7	µg/l		20.0	BRL	45	70-130		
2-Butanone (MEK)	20.1		µg/l		20.0	BRL	100	70-130		
n-Butylbenzene	24.3		µg/l		20.0	BRL	122	70-130		

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1006489 - SW846 5030 Water MS										
Matrix Spike (1006489-MS1)			**Source: SB09710-01**			Prepared & Analyzed: 26-Mar-10				
sec-Butylbenzene	19.2		µg/l		20.0	BRL	96	70-130		
tert-Butylbenzene	17.4		µg/l		20.0	BRL	87	70-130		
Carbon disulfide	9.4	QM7	µg/l		20.0	BRL	47	70-130		
Carbon tetrachloride	12.4	QM7	µg/l		20.0	BRL	62	70-130		
Chlorobenzene	16.3		µg/l		20.0	BRL	82	70-130		
Chloroethane	10.7	QM7	µg/l		20.0	BRL	54	70-130		
Chloroform	13.8	QM7	µg/l		20.0	BRL	69	70-130		
Chloromethane	10.6	QM7	µg/l		20.0	0.4	51	70-130		
2-Chlorotoluene	18.2		µg/l		20.0	BRL	91	70-130		
4-Chlorotoluene	17.2		µg/l		20.0	BRL	86	70-130		
1,2-Dibromo-3-chloropropane	13.6	QM7	µg/l		20.0	BRL	68	70-130		
Dibromochloromethane	11.9	QM7	µg/l		20.0	BRL	59	70-130		
1,2-Dibromoethane (EDB)	15.0		µg/l		20.0	BRL	75	70-130		
Dibromomethane	14.6		µg/l		20.0	BRL	73	70-130		
1,2-Dichlorobenzene	19.0		µg/l		20.0	BRL	95	70-130		
1,3-Dichlorobenzene	17.3		µg/l		20.0	BRL	86	70-130		
1,4-Dichlorobenzene	19.6		µg/l		20.0	BRL	98	70-130		
Dichlorodifluoromethane (Freon12)	9.0	QM7	µg/l		20.0	BRL	45	70-130		
1,1-Dichloroethane	13.2	QM7	µg/l		20.0	BRL	66	70-130		
1,2-Dichloroethane	12.9	QM7	µg/l		20.0	BRL	65	70-130		
1,1-Dichloroethene	11.9	QM7	µg/l		20.0	BRL	60	70-130		
cis-1,2-Dichloroethene	18.2		µg/l		20.0	BRL	91	70-130		
trans-1,2-Dichloroethene	11.4	QM7	µg/l		20.0	BRL	57	70-130		
1,2-Dichloropropane	16.0		µg/l		20.0	BRL	80	70-130		
1,3-Dichloropropane	15.4		µg/l		20.0	BRL	77	70-130		
2,2-Dichloropropane	14.5		µg/l		20.0	BRL	72	70-130		
1,1-Dichloropropene	16.0		µg/l		20.0	BRL	80	70-130		
cis-1,3-Dichloropropene	14.8		µg/l		20.0	BRL	74	70-130		
trans-1,3-Dichloropropene	13.9		µg/l		20.0	BRL	70	70-130		
Ethylbenzene	16.4		µg/l		20.0	BRL	82	70-130		
Hexachlorobutadiene	17.8		µg/l		20.0	BRL	89	70-130		
2-Hexanone (MBK)	17.2		µg/l		20.0	BRL	86	70-130		
Isopropylbenzene	14.9		µg/l		20.0	BRL	74	70-130		
4-Isopropyltoluene	21.0		µg/l		20.0	BRL	105	70-130		
Methyl tert-butyl ether	12.2	QM7	µg/l		20.0	BRL	61	70-130		
4-Methyl-2-pentanone (MIBK)	13.1	QM7	µg/l		20.0	BRL	65	70-130		
Methylene chloride	11.6	QM7	µg/l		20.0	BRL	58	70-130		
Naphthalene	14.5		µg/l		20.0	BRL	73	70-130		
n-Propylbenzene	18.8		µg/l		20.0	BRL	94	70-130		
Styrene	16.4		µg/l		20.0	BRL	82	70-130		
1,1,1,2-Tetrachloroethane	12.6	QM7	µg/l		20.0	BRL	63	70-130		
1,1,2,2-Tetrachloroethane	16.8		µg/l		20.0	BRL	84	70-130		
Tetrachloroethene	15.4		µg/l		20.0	BRL	77	70-130		
Toluene	16.5		µg/l		20.0	BRL	83	70-130		
1,2,3-Trichlorobenzene	19.0		µg/l		20.0	BRL	95	70-130		
1,2,4-Trichlorobenzene	18.3		µg/l		20.0	BRL	92	70-130		
1,3,5-Trichlorobenzene	19.8		µg/l		20.0	BRL	99	70-130		
1,1,1-Trichloroethane	13.1	QM7	µg/l		20.0	BRL	66	70-130		
1,1,2-Trichloroethane	17.3		µg/l		20.0	BRL	86	70-130		
Trichloroethene	15.7		µg/l		20.0	BRL	79	70-130		
Trichlorofluoromethane (Freon 11)	14.9		µg/l		20.0	BRL	74	70-130		
1,2,3-Trichloropropane	17.6		µg/l		20.0	BRL	89	70-130		

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1006489 - SW846 5030 Water MS										
Matrix Spike (1006489-MS1)			Source: SB09710-01		Prepared & Analyzed: 26-Mar-10					
1,2,4-Trimethylbenzene	17.2		µg/l		20.0	BRL	86	70-130		
1,3,5-Trimethylbenzene	17.2		µg/l		20.0	BRL	86	70-130		
Vinyl chloride	5.8	QM7	µg/l		20.0	BRL	29	70-130		
m,p-Xylene	34.7		µg/l		40.0	BRL	87	70-130		
o-Xylene	18.2		µg/l		20.0	BRL	91	70-130		
Tetrahydrofuran	14.6		µg/l		20.0	BRL	73	70-130		
Ethyl ether	12.3	QM7	µg/l		20.0	BRL	61	70-130		
Tert-amyl methyl ether	15.5		µg/l		20.0	BRL	77	70-130		
Ethyl tert-butyl ether	13.0	QM7	µg/l		20.0	BRL	65	70-130		
Di-isopropyl ether	23.8		µg/l		20.0	BRL	119	70-130		
Tert-Butanol / butyl alcohol	114	QM7	µg/l		200	BRL	57	70-130		
1,4-Dioxane	135	QM7	µg/l		200	BRL	68	70-130		
trans-1,4-Dichloro-2-butene	13.0	QM7	µg/l		20.0	BRL	65	70-130		
Ethanol	309		µg/l		400	BRL	77	70-130		
Surrogate: 4-Bromofluorobenzene	*45.7*		µg/l		*50.0*		*91*	*70-130*		
Surrogate: Toluene-d8	*49.1*		µg/l		*50.0*		*98*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*45.4*		µg/l		*50.0*		*91*	*70-130*		
Surrogate: Dibromofluoromethane	*45.6*		µg/l		*50.0*		*91*	*70-130*		
Matrix Spike Dup (1006489-MSD1)			Source: SB09710-01		Prepared & Analyzed: 26-Mar-10					
1,1,2-Trichlorotrifluoroethane (Freon 113)	16.8		µg/l		20.0	BRL	84	70-130	2	30
Acetone	34.0	QM7	µg/l		20.0	BRL	170	70-130	29	30
Acrylonitrile	14.8		µg/l		20.0	BRL	74	70-130	7	30
Benzene	16.9		µg/l		20.0	BRL	85	70-130	9	30
Bromobenzene	16.0		µg/l		20.0	BRL	80	70-130	8	30
Bromochloromethane	16.7		µg/l		20.0	BRL	83	70-130	15	30
Bromodichloromethane	14.3		µg/l		20.0	BRL	71	70-130	5	30
Bromoform	11.3	QM7	µg/l		20.0	BRL	56	70-130	6	30
Bromomethane	12.7	QM7 QR5	µg/l		20.0	BRL	64	70-130	33	30
2-Butanone (MEK)	27.4	QM7, QR5	µg/l		20.0	BRL	137	70-130	31	30
n-Butylbenzene	25.7		µg/l		20.0	BRL	128	70-130	5	30
sec-Butylbenzene	20.8		µg/l		20.0	BRL	104	70-130	8	30
tert-Butylbenzene	18.7		µg/l		20.0	BRL	93	70-130	7	30
Carbon disulfide	14.1	QR5	µg/l		20.0	BRL	70	70-130	40	30
Carbon tetrachloride	13.3	QM7	µg/l		20.0	BRL	66	70-130	7	30
Chlorobenzene	17.6		µg/l		20.0	BRL	88	70-130	8	30
Chloroethane	12.0	QM7	µg/l		20.0	BRL	60	70-130	12	30
Chloroform	14.2		µg/l		20.0	BRL	71	70-130	3	30
Chloromethane	14.9	QR5	µg/l		20.0	0.4	73	70-130	35	30
2-Chlorotoluene	19.9		µg/l		20.0	BRL	99	70-130	9	30
4-Chlorotoluene	18.7		µg/l		20.0	BRL	94	70-130	8	30
1,2-Dibromo-3-chloropropane	14.1		µg/l		20.0	BRL	70	70-130	3	30
Dibromochloromethane	12.3	QM7	µg/l		20.0	BRL	61	70-130	3	30
1,2-Dibromoethane (EDB)	15.2		µg/l		20.0	BRL	76	70-130	1	30
Dibromomethane	14.9		µg/l		20.0	BRL	74	70-130	1	30
1,2-Dichlorobenzene	19.6		µg/l		20.0	BRL	98	70-130	3	30
1,3-Dichlorobenzene	18.1		µg/l		20.0	BRL	91	70-130	5	30
1,4-Dichlorobenzene	19.8		µg/l		20.0	BRL	99	70-130	1	30
Dichlorodifluoromethane (Freon12)	11.6	QM7	µg/l		20.0	BRL	58	70-130	24	30
1,1-Dichloroethane	13.9	QM7	µg/l		20.0	BRL	69	70-130	5	30
1,2-Dichloroethane	13.9	QM7	µg/l		20.0	BRL	69	70-130	7	30

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1006489 - SW846 5030 Water MS										
Matrix Spike Dup (1006489-MSD1)			Source: SB09710-01		Prepared & Analyzed: 26-Mar-10					
1,1-Dichloroethene	13.0	QM7	µg/l		20.0	BRL	65	70-130	9	30
cis-1,2-Dichloroethene	18.4		µg/l		20.0	BRL	92	70-130	0.8	30
trans-1,2-Dichloroethene	13.7	QM7	µg/l		20.0	BRL	68	70-130	18	30
1,2-Dichloropropane	16.5		µg/l		20.0	BRL	82	70-130	3	30
1,3-Dichloropropane	16.2		µg/l		20.0	BRL	81	70-130	4	30
2,2-Dichloropropane	14.9		µg/l		20.0	BRL	74	70-130	3	30
1,1-Dichloropropene	16.5		µg/l		20.0	BRL	83	70-130	3	30
cis-1,3-Dichloropropene	15.3		µg/l		20.0	BRL	76	70-130	3	30
trans-1,3-Dichloropropene	14.5		µg/l		20.0	BRL	73	70-130	5	30
Ethylbenzene	17.9		µg/l		20.0	BRL	90	70-130	9	30
Hexachlorobutadiene	19.4		µg/l		20.0	BRL	97	70-130	6	30
2-Hexanone (MBK)	23.1		µg/l		20.0	BRL	116	70-130	30	30
Isopropylbenzene	17.1		µg/l		20.0	BRL	86	70-130	14	30
4-Isopropyltoluene	21.7		µg/l		20.0	BRL	109	70-130	3	30
Methyl tert-butyl ether	12.7	QM7	µg/l		20.0	BRL	63	70-130	4	30
4-Methyl-2-pentanone (MIBK)	15.3		µg/l		20.0	BRL	76	70-130	16	30
Methylene chloride	12.7	QM7	µg/l		20.0	BRL	63	70-130	9	30
Naphthalene	16.0		µg/l		20.0	BRL	80	70-130	10	30
n-Propylbenzene	20.4		µg/l		20.0	BRL	102	70-130	8	30
Styrene	17.7		µg/l		20.0	BRL	88	70-130	8	30
1,1,1,2-Tetrachloroethane	14.2		µg/l		20.0	BRL	71	70-130	12	30
1,1,2,2-Tetrachloroethane	18.8		µg/l		20.0	BRL	94	70-130	11	30
Tetrachloroethene	15.7		µg/l		20.0	BRL	79	70-130	2	30
Toluene	16.9		µg/l		20.0	BRL	84	70-130	2	30
1,2,3-Trichlorobenzene	20.0		µg/l		20.0	BRL	100	70-130	5	30
1,2,4-Trichlorobenzene	19.4		µg/l		20.0	BRL	97	70-130	6	30
1,3,5-Trichlorobenzene	20.8		µg/l		20.0	BRL	104	70-130	5	30
1,1,1-Trichloroethane	13.4	QM7	µg/l		20.0	BRL	67	70-130	2	30
1,1,2-Trichloroethane	17.1		µg/l		20.0	BRL	86	70-130	1	30
Trichloroethene	16.4		µg/l		20.0	BRL	82	70-130	4	30
Trichlorofluoromethane (Freon 11)	15.7		µg/l		20.0	BRL	78	70-130	5	30
1,2,3-Trichloropropane	17.5		µg/l		20.0	BRL	88	70-130	1	30
1,2,4-Trimethylbenzene	18.4		µg/l		20.0	BRL	92	70-130	7	30
1,3,5-Trimethylbenzene	18.3		µg/l		20.0	BRL	92	70-130	7	30
Vinyl chloride	7.3	QM7	µg/l		20.0	BRL	36	70-130	23	30
m,p-Xylene	37.0		µg/l		40.0	BRL	92	70-130	6	30
o-Xylene	18.6		µg/l		20.0	BRL	93	70-130	2	30
Tetrahydrofuran	14.8		µg/l		20.0	BRL	74	70-130	1	30
Ethyl ether	13.1	QM7	µg/l		20.0	BRL	65	70-130	6	30
Tert-amyl methyl ether	15.5		µg/l		20.0	BRL	78	70-130	0.3	30
Ethyl tert-butyl ether	13.4	QM7	µg/l		20.0	BRL	67	70-130	3	30
Di-isopropyl ether	24.8		µg/l		20.0	BRL	124	70-130	4	30
Tert-Butanol / butyl alcohol	113	QM7	µg/l		200	BRL	56	70-130	1	30
1,4-Dioxane	141		µg/l		200	BRL	70	70-130	4	30
trans-1,4-Dichloro-2-butene	14.8		µg/l		20.0	BRL	74	70-130	13	30
Ethanol	264	QM7	µg/l		400	BRL	66	70-130	18	30
Surrogate: 4-Bromofluorobenzene	*48.4*		µg/l		*50.0*		97	*70-130*		
Surrogate: Toluene-d8	*48.5*		µg/l		*50.0*		97	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*44.0*		µg/l		*50.0*		*88*	*70-130*		
Surrogate: Dibromofluoromethane	*45.9*		µg/l		*50.0*		92	*70-130*		

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* Reportable Detection Limit BRL = Below Reporting Limit

Microextractable Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1006460 - General Preparation SVOC										
Blank (1006460-BLK1)					Prepared & Analyzed: 26-Mar-10					
1,2-Dibromoethane (EDB)	BRL		µg/l	0.0100						
LCS (1006460-BS1)					Prepared & Analyzed: 26-Mar-10					
1,2-Dibromoethane (EDB)	0.185		µg/l	0.0100	0.200		92	50-150		
LCS Dup (1006460-BSD1)					Prepared & Analyzed: 26-Mar-10					
1,2-Dibromoethane (EDB)	0.215		µg/l	0.0100	0.200		108	50-150	15	50
Duplicate (1006460-DUP1)			**Source: SB09710-01**		Prepared & Analyzed: 26-Mar-10					
1,2-Dibromoethane (EDB)	BRL		µg/l	0.0100		BRL				30

Semivolatile Organic Compounds by GCMS - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1006449 - SW846 3510C										
Blank (1006449-BLK1)					Prepared & Analyzed: 26-Mar-10					
Acenaphthene	BRL		µg/l	5.00						
Acenaphthylene	BRL		µg/l	5.00						
Aniline	BRL		µg/l	5.00						
Anthracene	BRL		µg/l	5.00						
Atrazine	BRL		µg/l	5.00						
Azobenzene/Diphenyldiazine	BRL		µg/l	5.00						
Benzidine	BRL		µg/l	5.00						
Benzo (a) anthracene	BRL		µg/l	5.00						
Benzo (a) pyrene	BRL		µg/l	5.00						
Benzo (b) fluoranthene	BRL		µg/l	5.00						
Benzo (g,h,i) perylene	BRL		µg/l	5.00						
Benzo (k) fluoranthene	BRL		µg/l	5.00						
Benzoic acid	BRL		µg/l	5.00						
Benzyl alcohol	BRL		µg/l	5.00						
Bis(2-chloroethoxy)methane	BRL		µg/l	5.00						
Bis(2-chloroethyl)ether	BRL		µg/l	5.00						
Bis(2-chloroisopropyl)ether	BRL		µg/l	5.00						
Bis(2-ethylhexyl)phthalate	BRL		µg/l	5.00						
4-Bromophenyl phenyl ether	BRL		µg/l	5.00						
Butyl benzyl phthalate	BRL		µg/l	5.00						
Carbazole	BRL		µg/l	5.00						
4-Chloro-3-methylphenol	BRL		µg/l	5.00						
4-Chloroaniline	BRL		µg/l	5.00						
2-Chloronaphthalene	BRL		µg/l	5.00						
2-Chlorophenol	BRL		µg/l	5.00						
4-Chlorophenyl phenyl ether	BRL		µg/l	5.00						
Chrysene	BRL		µg/l	5.00						
Dibenzo (a,h) anthracene	BRL		µg/l	5.00						
Dibenzofuran	BRL		µg/l	5.00						
1,2-Dichlorobenzene	BRL		µg/l	5.00						
1,3-Dichlorobenzene	BRL		µg/l	5.00						
1,4-Dichlorobenzene	BRL		µg/l	5.00						
3,3'-Dichlorobenzidine	BRL		µg/l	5.00						
2,4-Dichlorophenol	BRL		µg/l	5.00						
Diethyl phthalate	BRL		µg/l	5.00						
Dimethyl phthalate	BRL		µg/l	5.00						
2,4-Dimethylphenol	BRL		µg/l	5.00						
Di-n-butyl phthalate	BRL		µg/l	5.00						
4,6-Dinitro-2-methylphenol	BRL		µg/l	5.00						
2,4-Dinitrophenol	BRL		µg/l	5.00						
2,4-Dinitrotoluene	BRL		µg/l	5.00						
2,6-Dinitrotoluene	BRL		µg/l	5.00						
Di-n-octyl phthalate	BRL		µg/l	5.00						
Fluoranthene	BRL		µg/l	5.00						
Fluorene	BRL		µg/l	5.00						
Hexachlorobenzene	BRL		µg/l	5.00						
Hexachlorobutadiene	BRL		µg/l	5.00						
Hexachlorocyclopentadiene	BRL		µg/l	5.00						
Hexachloroethane	BRL		µg/l	5.00						
Indeno (1,2,3-cd) pyrene	BRL		µg/l	5.00						
Isophorone	BRL		µg/l	5.00						
2-Methylnaphthalene	BRL		µg/l	5.00						

Semivolatile Organic Compounds by GCMS - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1006449 - SW846 3510C										
Blank (1006449-BLK1)					Prepared & Analyzed: 26-Mar-10					
2-Methylphenol	BRL		µg/l	5.00						
3 & 4-Methylphenol	BRL		µg/l	10.0						
Naphthalene	BRL		µg/l	5.00						
2-Nitroaniline	BRL		µg/l	5.00						
3-Nitroaniline	BRL		µg/l	5.00						
4-Nitroaniline	BRL		µg/l	20.0						
Nitrobenzene	BRL		µg/l	5.00						
2-Nitrophenol	BRL		µg/l	5.00						
4-Nitrophenol	BRL		µg/l	20.0						
N-Nitrosodimethylamine	BRL		µg/l	5.00						
N-Nitrosodi-n-propylamine	BRL		µg/l	5.00						
N-Nitrosodiphenylamine	BRL		µg/l	5.00						
Pentachlorophenol	BRL		µg/l	20.0						
Phenanthrene	BRL		µg/l	5.00						
Phenol	BRL		µg/l	5.00						
Pyrene	BRL		µg/l	5.00						
Pyridine	BRL		µg/l	5.00						
1,2,4-Trichlorobenzene	BRL		µg/l	5.00						
1-Methylnaphthalene	BRL		µg/l	5.00						
2,4,5-Trichlorophenol	BRL		µg/l	5.00						
2,4,6-Trichlorophenol	BRL		µg/l	5.00						
Pentachloronitrobenzene	BRL		µg/l	5.00						
1,2,4,5-Tetrachlorobenzene	BRL		µg/l	5.00						
Surrogate: 2-Fluorobiphenyl	*37.3*		µg/l		*50.0*		*75*	*30-130*		
Surrogate: 2-Fluorophenol	*27.5*		µg/l		*50.0*		*55*	*15-110*		
Surrogate: Nitrobenzene-d5	*40.8*		µg/l		*50.0*		*82*	*30-130*		
Surrogate: Phenol-d5	*12.3*		µg/l		*50.0*		*25*	*15-110*		
Surrogate: Terphenyl-d14	*35.0*		µg/l		*50.0*		*70*	*30-130*		
Surrogate: 2,4,6-Tribromophenol	*42.8*		µg/l		*50.0*		*86*	*15-110*		
LCS (1006449-BS1)					Prepared & Analyzed: 26-Mar-10					
Acenaphthene	37.5		µg/l	5.00	50.0		75	40-130		
Acenaphthylene	38.3		µg/l	5.00	50.0		77	40-130		
Aniline	41.8		µg/l	5.00	50.0		84	40-130		
Anthracene	41.6		µg/l	5.00	50.0		83	40-130		
Atrazine	60.2		µg/l	5.00	50.0		120	40-130		
Azobenzene/Diphenyldiazine	42.3		µg/l	5.00	50.0		85	40-130		
Benzidine	11.4		µg/l	5.00	50.0		23	0-140		
Benzo (a) anthracene	38.8		µg/l	5.00	50.0		78	40-130		
Benzo (a) pyrene	41.3		µg/l	5.00	50.0		83	40-130		
Benzo (b) fluoranthene	43.4		µg/l	5.00	50.0		87	40-130		
Benzo (g,h,i) perylene	39.8		µg/l	5.00	50.0		80	40-130		
Benzo (k) fluoranthene	35.5		µg/l	5.00	50.0		71	40-130		
Benzoic acid	25.5		µg/l	5.00	50.0		51	17.2-130		
Benzyl alcohol	37.0		µg/l	5.00	50.0		74	40-130		
Bis(2-chloroethoxy)methane	36.2		µg/l	5.00	50.0		72	40-130		
Bis(2-chloroethyl)ether	38.7		µg/l	5.00	50.0		77	40-130		
Bis(2-chloroisopropyl)ether	47.4		µg/l	5.00	50.0		95	40-130		
Bis(2-ethylhexyl)phthalate	40.3		µg/l	5.00	50.0		81	40-130		
4-Bromophenyl phenyl ether	45.6		µg/l	5.00	50.0		91	40-130		
Butyl benzyl phthalate	39.1		µg/l	5.00	50.0		78	40-130		
Carbazole	48.1		µg/l	5.00	50.0		96	40-130		

Semivolatile Organic Compounds by GCMS - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1006449 - SW846 3510C										
LCS (1006449-BS1)					Prepared & Analyzed: 26-Mar-10					
4-Chloro-3-methylphenol	39.9		µg/l	5.00	50.0		80	40-130		
4-Chloroaniline	34.3		µg/l	5.00	50.0		69	40-130		
2-Chloronaphthalene	36.7		µg/l	5.00	50.0		73	40-130		
2-Chlorophenol	35.4		µg/l	5.00	50.0		71	40-130		
4-Chlorophenyl phenyl ether	35.5		µg/l	5.00	50.0		71	40-130		
Chrysene	36.9		µg/l	5.00	50.0		74	40-130		
Dibenzo (a,h) anthracene	43.0		µg/l	5.00	50.0		86	40-130		
Dibenzofuran	39.2		µg/l	5.00	50.0		78	40-130		
1,2-Dichlorobenzene	34.4		µg/l	5.00	50.0		69	40-130		
1,3-Dichlorobenzene	33.8		µg/l	5.00	50.0		68	40-130		
1,4-Dichlorobenzene	34.5		µg/l	5.00	50.0		69	40-130		
3,3'-Dichlorobenzidine	37.7		µg/l	5.00	50.0		75	40-130		
2,4-Dichlorophenol	37.2		µg/l	5.00	50.0		74	40-130		
Diethyl phthalate	39.2		µg/l	5.00	50.0		78	40-130		
Dimethyl phthalate	37.0		µg/l	5.00	50.0		74	40-130		
2,4-Dimethylphenol	34.3		µg/l	5.00	50.0		69	40-130		
Di-n-butyl phthalate	44.3		µg/l	5.00	50.0		89	40-130		
4,6-Dinitro-2-methylphenol	47.8		µg/l	5.00	50.0		96	40-130		
2,4-Dinitrophenol	47.5		µg/l	5.00	50.0		95	40-130		
2,4-Dinitrotoluene	42.0		µg/l	5.00	50.0		84	40-130		
2,6-Dinitrotoluene	41.2		µg/l	5.00	50.0		82	40-130		
Di-n-octyl phthalate	45.4		µg/l	5.00	50.0		91	40-130		
Fluoranthene	42.4		µg/l	5.00	50.0		85	40-130		
Fluorene	45.8		µg/l	5.00	50.0		92	40-130		
Hexachlorobenzene	39.2		µg/l	5.00	50.0		78	40-130		
Hexachlorobutadiene	32.7		µg/l	5.00	50.0		65	40-130		
Hexachlorocyclopentadiene	43.5		µg/l	5.00	50.0		87	40-130		
Hexachloroethane	36.8		µg/l	5.00	50.0		74	40-130		
Indeno (1,2,3-cd) pyrene	41.5		µg/l	5.00	50.0		83	40-130		
Isophorone	36.0		µg/l	5.00	50.0		72	40-130		
2-Methylnaphthalene	38.1		µg/l	5.00	50.0		76	40-130		
2-Methylphenol	33.0		µg/l	5.00	50.0		66	40-130		
3 & 4-Methylphenol	33.7		µg/l	10.0	50.0		67	40-130		
Naphthalene	36.8		µg/l	5.00	50.0		74	40-130		
2-Nitroaniline	39.5		µg/l	5.00	50.0		79	40-130		
3-Nitroaniline	32.7		µg/l	5.00	50.0		65	40-130		
4-Nitroaniline	43.0		µg/l	20.0	50.0		86	40-130		
Nitrobenzene	40.3		µg/l	5.00	50.0		81	40-130		
2-Nitrophenol	40.5		µg/l	5.00	50.0		81	40-130		
4-Nitrophenol	20.4		µg/l	20.0	50.0		41	40-130		
N-Nitrosodimethylamine	30.6		µg/l	5.00	50.0		61	40-130		
N-Nitrosodi-n-propylamine	39.6		µg/l	5.00	50.0		79	40-130		
N-Nitrosodiphenylamine	46.4		µg/l	5.00	50.0		93	40-130		
Pentachlorophenol	41.5		µg/l	20.0	50.0		83	40-130		
Phenanthrene	37.4		µg/l	5.00	50.0		75	40-130		
Phenol	20.0		µg/l	5.00	50.0		40	40-130		
Pyrene	38.4		µg/l	5.00	50.0		77	40-130		
Pyridine	23.2		µg/l	5.00	50.0		46	10-140		
1-Methylnaphthalene	38.2		µg/l	5.00	50.0		76	40-140		
1,2,4-Trichlorobenzene	35.4		µg/l	5.00	50.0		71	40-130		
2,4,5-Trichlorophenol	36.8		µg/l	5.00	50.0		74	40-130		
2,4,6-Trichlorophenol	34.7		µg/l	5.00	50.0		69	40-130		

Semivolatile Organic Compounds by GCMS - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1006449 - SW846 3510C										
LCS (1006449-BS1)					Prepared & Analyzed: 26-Mar-10					
Pentachloronitrobenzene	40.1		µg/l	5.00	50.0		80	40-140		
1,2,4,5-Tetrachlorobenzene	36.2		µg/l	5.00	50.0		72	40-140		
Surrogate: 2-Fluorobiphenyl	*39.2*		µg/l		*50.0*		*78*	*30-130*		
Surrogate: 2-Fluorophenol	*26.6*		µg/l		*50.0*		*53*	*15-110*		
Surrogate: Nitrobenzene-d5	*43.6*		µg/l		*50.0*		*87*	*30-130*		
Surrogate: Phenol-d5	*12.1*		µg/l		*50.0*		*24*	*15-110*		
Surrogate: Terphenyl-d14	*36.9*		µg/l		*50.0*		*74*	*30-130*		
Surrogate: 2,4,6-Tribromophenol	*45.8*		µg/l		*50.0*		*92*	*15-110*		
LCS Dup (1006449-BSD1)					Prepared & Analyzed: 26-Mar-10					
Acenaphthene	38.1		µg/l	5.00	50.0		76	40-130	2	20
Acenaphthylene	39.6		µg/l	5.00	50.0		79	40-130	3	20
Aniline	43.4		µg/l	5.00	50.0		87	40-130	4	20
Anthracene	42.1		µg/l	5.00	50.0		84	40-130	1	20
Atrazine	62.2		µg/l	5.00	50.0		124	40-130	3	20
Azobenzene/Diphenyldiazine	43.0		µg/l	5.00	50.0		86	40-130	2	20
Benzidine	13.3		µg/l	5.00	50.0		27	0-140	15	20
Benzo (a) anthracene	38.8		µg/l	5.00	50.0		78	40-130	0.3	20
Benzo (a) pyrene	40.8		µg/l	5.00	50.0		82	40-130	1	20
Benzo (b) fluoranthene	43.6		µg/l	5.00	50.0		87	40-130	0.4	20
Benzo (g,h,i) perylene	39.1		µg/l	5.00	50.0		78	40-130	2	20
Benzo (k) fluoranthene	34.6		µg/l	5.00	50.0		69	40-130	2	20
Benzoic acid	26.3		µg/l	5.00	50.0		53	17.2-130	3	20
Benzyl alcohol	37.3		µg/l	5.00	50.0		75	40-130	0.9	20
Bis(2-chloroethoxy)methane	37.1		µg/l	5.00	50.0		74	40-130	2	20
Bis(2-chloroethyl)ether	38.2		µg/l	5.00	50.0		76	40-130	1	20
Bis(2-chloroisopropyl)ether	47.8		µg/l	5.00	50.0		96	40-130	0.8	20
Bis(2-ethylhexyl)phthalate	40.7		µg/l	5.00	50.0		81	40-130	0.8	20
4-Bromophenyl phenyl ether	46.0		µg/l	5.00	50.0		92	40-130	0.9	20
Butyl benzyl phthalate	38.8		µg/l	5.00	50.0		78	40-130	0.8	20
Carbazole	47.8		µg/l	5.00	50.0		96	40-130	0.7	20
4-Chloro-3-methylphenol	40.8		µg/l	5.00	50.0		82	40-130	2	20
4-Chloroaniline	35.7		µg/l	5.00	50.0		71	40-130	4	20
2-Chloronaphthalene	37.7		µg/l	5.00	50.0		75	40-130	3	20
2-Chlorophenol	35.6		µg/l	5.00	50.0		71	40-130	0.6	20
4-Chlorophenyl phenyl ether	36.1		µg/l	5.00	50.0		72	40-130	2	20
Chrysene	36.6		µg/l	5.00	50.0		73	40-130	0.8	20
Dibenzo (a,h) anthracene	42.8		µg/l	5.00	50.0		86	40-130	0.6	20
Dibenzofuran	39.7		µg/l	5.00	50.0		79	40-130	1	20
1,2-Dichlorobenzene	34.9		µg/l	5.00	50.0		70	40-130	1	20
1,3-Dichlorobenzene	34.1		µg/l	5.00	50.0		68	40-130	0.8	20
1,4-Dichlorobenzene	34.5		µg/l	5.00	50.0		69	40-130	0.03	20
3,3'-Dichlorobenzidine	37.2		µg/l	5.00	50.0		74	40-130	2	20
2,4-Dichlorophenol	38.1		µg/l	5.00	50.0		76	40-130	2	20
Diethyl phthalate	39.2		µg/l	5.00	50.0		79	40-130	0.1	20
Dimethyl phthalate	39.2		µg/l	5.00	50.0		78	40-130	6	20
2,4-Dimethylphenol	35.5		µg/l	5.00	50.0		71	40-130	3	20
Di-n-butyl phthalate	44.4		µg/l	5.00	50.0		89	40-130	0.4	20
4,6-Dinitro-2-methylphenol	49.2		µg/l	5.00	50.0		98	40-130	3	20
2,4-Dinitrophenol	47.7		µg/l	5.00	50.0		95	40-130	0.4	20
2,4-Dinitrotoluene	42.9		µg/l	5.00	50.0		86	40-130	2	20
2,6-Dinitrotoluene	42.0		µg/l	5.00	50.0		84	40-130	2	20

Semivolatile Organic Compounds by GCMS - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1006449 - SW846 3510C										
LCS Dup (1006449-BSD1)					Prepared & Analyzed: 26-Mar-10					
Di-n-octyl phthalate	45.6		µg/l	5.00	50.0		91	40-130	0.5	20
Fluoranthene	42.5		µg/l	5.00	50.0		85	40-130	0.2	20
Fluorene	46.6		µg/l	5.00	50.0		93	40-130	2	20
Hexachlorobenzene	39.3		µg/l	5.00	50.0		79	40-130	0.4	20
Hexachlorobutadiene	32.6		µg/l	5.00	50.0		65	40-130	0.1	20
Hexachlorocyclopentadiene	43.6		µg/l	5.00	50.0		87	40-130	0.3	20
Hexachloroethane	36.7		µg/l	5.00	50.0		73	40-130	0.2	20
Indeno (1,2,3-cd) pyrene	41.3		µg/l	5.00	50.0		83	40-130	0.4	20
Isophorone	37.8		µg/l	5.00	50.0		76	40-130	5	20
2-Methylnaphthalene	40.5		µg/l	5.00	50.0		81	40-130	5	20
2-Methylphenol	33.7		µg/l	5.00	50.0		67	40-130	2	20
3 & 4-Methylphenol	34.5		µg/l	10.0	50.0		69	40-130	2	20
Naphthalene	37.8		µg/l	5.00	50.0		76	40-130	2	20
2-Nitroaniline	40.0		µg/l	5.00	50.0		80	40-130	1	20
3-Nitroaniline	33.8		µg/l	5.00	50.0		68	40-130	3	20
4-Nitroaniline	45.4		µg/l	20.0	50.0		91	40-130	5	20
Nitrobenzene	41.4		µg/l	5.00	50.0		83	40-130	3	20
2-Nitrophenol	41.5		µg/l	5.00	50.0		83	40-130	2	20
4-Nitrophenol	21.0		µg/l	20.0	50.0		42	40-130	3	20
N-Nitrosodimethylamine	31.0		µg/l	5.00	50.0		62	40-130	1	20
N-Nitrosodi-n-propylamine	40.0		µg/l	5.00	50.0		80	40-130	0.9	20
N-Nitrosodiphenylamine	46.4		µg/l	5.00	50.0		93	40-130	0.09	20
Pentachlorophenol	41.3		µg/l	20.0	50.0		83	40-130	0.5	20
Phenanthrene	37.6		µg/l	5.00	50.0		75	40-130	0.6	20
Phenol	21.0		µg/l	5.00	50.0		42	40-130	5	20
Pyrene	38.0		µg/l	5.00	50.0		76	40-130	1	20
Pyridine	25.8		µg/l	5.00	50.0		52	10-140	11	20
1-Methylnaphthalene	40.0		µg/l	5.00	50.0		80	40-140	5	20
1,2,4-Trichlorobenzene	36.2		µg/l	5.00	50.0		72	40-130	2	20
2,4,5-Trichlorophenol	37.0		µg/l	5.00	50.0		74	40-130	0.7	20
2,4,6-Trichlorophenol	35.9		µg/l	5.00	50.0		72	40-130	4	20
Pentachloronitrobenzene	41.3		µg/l	5.00	50.0		83	40-140	3	20
1,2,4,5-Tetrachlorobenzene	37.0		µg/l	5.00	50.0		74	40-140	2	20
Surrogate: 2-Fluorobiphenyl	*39.6*		µg/l		*50.0*		*79*	*30-130*		
Surrogate: 2-Fluorophenol	*27.4*		µg/l		*50.0*		*55*	*15-110*		
Surrogate: Nitrobenzene-d5	*44.6*		µg/l		*50.0*		*89*	*30-130*		
Surrogate: Phenol-d5	*12.6*		µg/l		*50.0*		*25*	*15-110*		
Surrogate: Terphenyl-d14	*36.7*		µg/l		*50.0*		*73*	*30-130*		
Surrogate: 2,4,6-Tribromophenol	*46.0*		µg/l		*50.0*		*92*	*15-110*		

Semivolatile Organic Compounds by GC - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1006451 - SW846 3510C										
Blank (1006451-BLK1)					Prepared & Analyzed: 26-Mar-10					
Aroclor-1016	BRL		µg/l	0.200						
Aroclor-1016 [2C]	BRL		µg/l	0.200						
Aroclor-1221	BRL		µg/l	0.200						
Aroclor-1221 [2C]	BRL		µg/l	0.200						
Aroclor-1232	BRL		µg/l	0.200						
Aroclor-1232 [2C]	BRL		µg/l	0.200						
Aroclor-1242	BRL		µg/l	0.200						
Aroclor-1242 [2C]	BRL		µg/l	0.200						
Aroclor-1248	BRL		µg/l	0.200						
Aroclor-1248 [2C]	BRL		µg/l	0.200						
Aroclor-1254	BRL		µg/l	0.200						
Aroclor-1254 [2C]	BRL		µg/l	0.200						
Aroclor-1260	BRL		µg/l	0.200						
Aroclor-1260 [2C]	BRL		µg/l	0.200						
Aroclor-1262	BRL		µg/l	0.200						
Aroclor-1262 [2C]	BRL		µg/l	0.200						
Aroclor-1268	BRL		µg/l	0.200						
Aroclor-1268 [2C]	BRL		µg/l	0.200						
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*0.188*		µg/l		*0.200*		*94*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	*0.197*		µg/l		*0.200*		*98*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr)	*0.157*		µg/l		*0.200*		*78*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr) [2C]	*0.199*		µg/l		*0.200*		*100*	*30-150*		
LCS (1006451-BS1)					Prepared & Analyzed: 26-Mar-10					
Aroclor-1016	2.34		µg/l	0.200	2.50		94	50-114		
Aroclor-1016 [2C]	2.30		µg/l	0.200	2.50		92	50-114		
Aroclor-1260	2.06		µg/l	0.200	2.50		82	40-127		
Aroclor-1260 [2C]	2.23		µg/l	0.200	2.50		89	40-127		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*0.194*		µg/l		*0.200*		*97*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	*0.191*		µg/l		*0.200*		*96*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr)	*0.160*		µg/l		*0.200*		*80*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr) [2C]	*0.199*		µg/l		*0.200*		*100*	*30-150*		
LCS Dup (1006451-BSD1)					Prepared & Analyzed: 26-Mar-10					
Aroclor-1016	2.29		µg/l	0.200	2.50		92	50-114	2	20
Aroclor-1016 [2C]	2.20		µg/l	0.200	2.50		88	50-114	4	20
Aroclor-1260	2.02		µg/l	0.200	2.50		81	40-127	2	20
Aroclor-1260 [2C]	2.20		µg/l	0.200	2.50		88	40-127	1	20
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*0.190*		µg/l		*0.200*		*95*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	*0.185*		µg/l		*0.200*		*92*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr)	*0.167*		µg/l		*0.200*		*84*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr) [2C]	*0.199*		µg/l		*0.200*		*100*	*30-150*		

Extractable Petroleum Hydrocarbons - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1006444 - SW846 3510C										
Blank (1006444-BLK1)					Prepared: 26-Mar-10 Analyzed: 27-Mar-10					
Non-polar material (SGT-HEM)	BRL		mg/l	1.0						
LCS (1006444-BS1)					Prepared: 26-Mar-10 Analyzed: 27-Mar-10					
Non-polar material (SGT-HEM)	17.6		mg/l		20.7		85	83-101		
Matrix Spike (1006444-MS1)			Source: SB09710-01		Prepared: 26-Mar-10 Analyzed: 27-Mar-10					
Non-polar material (SGT-HEM)	16.8		mg/l		20.7	BRL	81	64-132		

Total Metals by EPA 200 Series Methods - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1006476 - EPA 200 Series										
Blank (1006476-BLK1)						Prepared & Analyzed: 26-Mar-10				
Nickel	BRL		mg/l	0.0050						
Selenium	BRL		mg/l	0.0150						
Iron	BRL		mg/l	0.0150						
Lead	BRL		mg/l	0.0075						
Antimony	BRL		mg/l	0.0060						
Zinc	BRL		mg/l	0.0050						
Chromium	BRL		mg/l	0.0050						
Arsenic	BRL		mg/l	0.0040						
Silver	BRL		mg/l	0.0050						
Cadmium	BRL		mg/l	0.0025						
Copper	BRL		mg/l	0.0050						
LCS (1006476-BS1)						Prepared & Analyzed: 26-Mar-10				
Zinc	1.36		mg/l	0.0050	1.25		108	85-115		
Antimony	1.28		mg/l	0.0060	1.25		102	85-115		
Iron	1.33		mg/l	0.0150	1.25		107	85-115		
Selenium	1.32		mg/l	0.0150	1.25		105	85-115		
Lead	1.33		mg/l	0.0075	1.25		106	85-115		
Nickel	1.29		mg/l	0.0050	1.25		103	85-115		
Silver	1.24		mg/l	0.0050	1.25		100	85-115		
Chromium	1.41		mg/l	0.0050	1.25		112	85-115		
Arsenic	1.19		mg/l	0.0040	1.25		95	85-115		
Cadmium	1.31		mg/l	0.0025	1.25		105	85-115		
Copper	1.42		mg/l	0.0050	1.25		113	85-115		
Batch 1006477 - EPA200/SW7000 Series										
Blank (1006477-BLK1)						Prepared & Analyzed: 26-Mar-10				
Mercury	BRL		mg/l	0.00020						
LCS (1006477-BS1)						Prepared & Analyzed: 26-Mar-10				
Mercury	0.00478		mg/l	0.00020	0.00500		96	85-115		
Matrix Spike (1006477-MS1)			Source: SB09710-01			Prepared & Analyzed: 26-Mar-10				
Mercury	0.00475		mg/l	0.00020	0.00500	BRL	95	75-125		
Post Spike (1006477-PS1)			Source: SB09710-01			Prepared & Analyzed: 26-Mar-10				
Mercury	0.00463		mg/l	0.00020	0.00500	BRL	93	85-115		

General Chemistry Parameters - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1006453 - General Preparation										
Blank (1006453-BLK1)						Prepared & Analyzed: 26-Mar-10				
Cyanide (total)	BRL		mg/l	0.00500						
LCS (1006453-BS1)						Prepared & Analyzed: 26-Mar-10				
Cyanide (total)	0.319		mg/l	0.00500	0.300		106	90-110		
Duplicate (1006453-DUP1)			Source: SB09710-01			Prepared & Analyzed: 26-Mar-10				
Cyanide (total)	0.00874		mg/l	0.00500		BRL				20
Matrix Spike (1006453-MS1)			Source: SB09710-01			Prepared & Analyzed: 26-Mar-10				
Cyanide (total)	0.305		mg/l	0.00500	0.300	BRL	102	90-110		
Matrix Spike Dup (1006453-MSD1)			Source: SB09710-01			Prepared & Analyzed: 26-Mar-10				
Cyanide (total)	0.313		mg/l	0.00500	0.300	BRL	104	90-110	2	20
Reference (1006453-SRM1)						Prepared & Analyzed: 26-Mar-10				
Cyanide (total)	0.361		mg/l	0.00500	0.360		106	82.58-137.4		
Batch 1006468 - General Preparation										
Blank (1006468-BLK1)						Prepared & Analyzed: 25-Mar-10				
Total Residual Chlorine	BRL		mg/l	0.020						
LCS (1006468-BS1)						Prepared & Analyzed: 25-Mar-10				
Total Residual Chlorine	0.048		mg/l	0.020	0.0500		96	90-110		
Duplicate (1006468-DUP1)			Source: SB09710-01			Prepared & Analyzed: 25-Mar-10				
Total Residual Chlorine	BRL		mg/l	0.200		BRL				20
Matrix Spike (1006468-MS1)			Source: SB09710-01			Prepared & Analyzed: 25-Mar-10				
Total Residual Chlorine	BRL	QM5	mg/l	0.200	0.500	BRL		80-120		
Matrix Spike Dup (1006468-MSD1)			Source: SB09710-01			Prepared & Analyzed: 25-Mar-10				
Total Residual Chlorine	BRL	QM5	mg/l	0.200	0.500	BRL		80-120		20
Reference (1006468-SRM1)						Prepared & Analyzed: 25-Mar-10				
Total Residual Chlorine	0.113		mg/l	0.020	0.119		95	85-115		
Batch 1006546 - General Preparation										
Blank (1006546-BLK1)						Prepared & Analyzed: 26-Mar-10				
Total Suspended Solids	BRL		mg/l	5.00						
Blank (1006546-BLK2)						Prepared & Analyzed: 26-Mar-10				
Total Suspended Solids	BRL		mg/l	5.00						
LCS (1006546-BS1)						Prepared & Analyzed: 26-Mar-10				
Total Suspended Solids	49.0		mg/l	5.00	45.6		107	90-110		
LCS (1006546-BS2)						Prepared & Analyzed: 26-Mar-10				
Total Suspended Solids	46.0		mg/l	5.00	45.6		101	90-110		
Duplicate (1006546-DUP1)			Source: SB09710-01			Prepared & Analyzed: 26-Mar-10				
Total Suspended Solids	28.0		mg/l	10.0		24.0			15	20
Batch 1006585 - General Preparation										
Blank (1006585-BLK1)						Prepared & Analyzed: 26-Mar-10				
Hexavalent Chromium	BRL		mg/l	0.005						
LCS (1006585-BS1)						Prepared & Analyzed: 26-Mar-10				
Hexavalent Chromium	0.100		mg/l	0.005	0.100		100	90-110		
Reference (1006585-SRM1)						Prepared & Analyzed: 26-Mar-10				
Hexavalent Chromium	0.024		mg/l	0.005	0.0248		97	85-115		

Notes and Definitions

PH	Insufficient preservative to reduce the sample pH to less than 2.
QM5	The spike recovery was outside acceptance limits for the MS, MSD and/or PS due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
QM7	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QR5	RPD out of acceptance range.
R01	The Reporting Limit has been raised to account for matrix interference.
BRL	Below Reporting Limit - Analyte NOT DETECTED at or above the reporting limit
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference
ClHT	The method for residual chlorine indicates that samples should be analyzed immediately. 40 CFR 136 specifies a holding time of 15 minutes from sampling to analysis. Therefore all aqueous residual chlorine samples not analyzed in the field are considered out of hold time at the time of sample receipt.

A plus sign (+) in the Method Reference column indicates the method is not accredited by NELAC.

Interpretation of Total Petroleum Hydrocarbon Report

Petroleum identification is determined by comparing the GC fingerprint obtained from the sample with a library of GC fingerprints obtained from analyses of various petroleum products. Possible match categories are as follows:

Gasoline - includes regular, unleaded, premium, etc.
Fuel Oil #2 - includes home heating oil, #2 fuel oil, and diesel
Fuel Oil #4 - includes #4 fuel oil
Fuel Oil #6 - includes #6 fuel oil and bunker 'C" oil
Motor Oil - includes virgin and waste automobile oil
Ligroin - includes mineral spirits, petroleum naphtha, vm&p naphtha
Aviation Fuel - includes kerosene, Jet A and JP-4
Other Oil - includes lubricating and cutting oil, and silicon oil

At times, the unidentified petroleum product is quantified using a calibration that most closely approximates the distribution of compounds in the sample. When this occurs, the result is qualified as *TPH (Calculated as).

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

Matrix Spike: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

Method Blank: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

Surrogate: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

Continuing Calibration Verification: The calibration relationship established during the initial calibration must be verified at periodic

Validated by:
Hanibal C. Tayeh, Ph.D.

SB09710 / BY

SPECTRUM ANALYTICAL, INC. Featuring HANIBAL TECHNOLOGY

CHAIN OF CUSTODY RECORD

Page 1 of 1

Special Handling:
- ☐ Standard TAT - 7 to 10 business days
- ☒ Rush TAT - Date Needed: ASAP
- All TATs subject to laboratory approval. Min 24 hour notification needed for rushes.
- Samples disposed of after 60 days unless otherwise instructed.

Report To: BRANDON FAGAN
TMC SERVICES, INC
1 WILLIAM WAY, BELLINGHAM

Invoice To: TMC SERVICES
SAME

Project Mgr.: BRANDON FAGAN

P.O. No.: 4009-580 RQN:

Project No.: 4009-580
Site Name: 500 ROUTE 302
Location: TWIN MOUNTAIN State: NH
Sampler(s):

1=$Na_2S_2O_3$ 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid 7=CH_3OH 8=$NaHSO_4$ 9= 10=

DW=Drinking Water GW=Groundwater WW=Wastewater O=Oil SW=Surface Water SO=Soil SL=Sludge A=Air X1= X2= X3=

G=Grab C=Composite

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix	Preservative	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	TSS	Tot Residual	TP # 1664	EPA Method 8260	EPA Method 8270	PCB's	PP metals + Cyanide	Total Phenols
09710 01	CARROLL GW2	3/15/10	9:20 AM	G	GW		4	7		4	X	X	X	X	X	X	X	X
02 Field Blank														X				
~~Trip Blank~~														~~X~~				

QA Reporting Notes: (check if needed)
- ☐ Provide MA DEP MCP CAM Report
- ☐ Provide CT DEP RCP Report

QA/QC Reporting Level
- ☒ Standard ☐ No QC
- ☒ Other NH Surf Sec NPDES Reporting Minimums

State specific reporting standards: EPA RCP Minimums 3

Not Received.

☐ Fax results when available to ( )
☒ E-mail to DGREENWOOD@HTZMATT.COM, BFAGAN@HTZMATT.COM
EDD Format: EXCEL

Condition upon receipt: ☐ Iced ☐ Ambient ☒ °C 0.2 CLR

Relinquished by:	Received by:	Date:	Time:
[signature]	[signature]	3/25/10	9:20am 1518
[signature]	[signature]	3/25/10	1944

1. FW = fresh water.

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

3. SW = salt water.

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

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

6. BTEX = Sum of Benzene, Toluene, Ethylbenzene, total Xylenes.

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

8. The sum of individual phthalate compounds.

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

10. In the November 2002 WQC, EPA has revised the definition of Total PCBs for aquatic life as *"total PCBs is the sum of all homologue, all isomer, all congener, or all Aroclor analyses."*

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

12. Assumes FW Hardness Value (H) = 50 mg/l as $CaCO_3$ in MA: Cadmium, Chromium III, Copper, Lead, Nickel, Silver, and Zinc which are Hardness Dependent.

13. Assumes FW Hardness Value (H) = 25 mg/L in NH for: Cadmium, Chromium III, Copper, Lead, Nickel, Silver, and Zinc which are Hardness Dependent.

Appendix C- National Heritage Bureau-NH- NO RECORDS IN DATABASE

New Hampshire Natural Heritage Bureau

To: don greenwood
tmc services inc
1 william way
bellingham, MA 02019

Date: 3/29/2010

From: NH Natural Heritage Bureau

Re: Review by NH Natural Heritage Bureau of request dated 3/29/2010

NHB File ID: NHB10-0758

Applicant: don greenwood

Address: 500 route 302
Carroll

Project Categories:
Roads, Driveways, Bridges: Driveway only
Roads, Driveways, Bridges: Road construction

The NH Natural Heritage database has been checked for records of rare species and exemplary natural communities near the area mapped below. The species considered include those listed as Threatened or Endangered by either the state of New Hampshire or the federal government. We currently have no recorded occurrences for sensitive species near this project area.

A negative result (no record in our database) does not mean that a sensitive species is not present. Our data can only tell you of known occurrences, based on information gathered by qualified biologists and reported to our office. However, many areas have never been surveyed, or have only been surveyed for certain species. An on-site survey would provide better information on what species and communities are indeed present

This review is valid through 3/29/2011.

Department of Resources and Economic Development
Division of Forests and Lands
(603) 271-2214 fax: 271-6488

DRED/NHB
PO Box 1856
Concord NH 03302-1856

NHB DataCheck Tool
Project Summary

Generated: 3/29/2010 @ 2:45 PM

NHB ID#: NHB10-0758

Submitted: 3/29/2010

NHB Status:
No NHB Records

Project Name:
Twin Mountain Patrol Shed 111 Fueling facility

Project Applicant: don greenwood

Landowner: nh dot

Project Location:
Town(s): Carroll
Street Address: 500 route 302

Project Narrative:
removal and replacement of 2 ust's, canopy, fueling facility, concrete pad and asphalt

Project Categories:
Roads, Driveways, Bridges: Driveway only
Roads, Driveways, Bridges: Road construction

Maximum Project Footprint?
Expanding an existing footprint (additional area disturbed adjacent to a previously disturbed location).

Submitted as a Notification or Minimum Expedited application to the NHDES Wetlands Bureau?
No

Manner in which project boundaries were submitted to NHB?
Drawn using the Web Tool.

Project Boundary Area:
Mapped = 0.34 Acres
Reported = <1 Acres

Agencies/Organizations to which a permit was applied for?
US EPA
Town or City

Planning to offset impacts at this site with mitigation elsewhere? No

Delivery of Offical Report? Electronic

Method of Payment? N/A (No fee)

New Hampshire Natural Heritage Bureau

MAP OF PROJECT BOUNDARIES FOR: NHB ID# NHB10-0758

Department of Resources and Economic Development
Division of Forests and Lands
(603) 271-2214 fax: 271-6488

DRED/NHB
PO Box 1856
Concord NH 03302-1856

Appendix D- 2010 Threatened or Impaired Waters that Require a TMDL Category 5 Impairments-Section 303d List- Ammonosuc River

DRAFT - 2010 LIST OF THREATENED OR IMPAIRED WATERS THAT REQUIRE A TMDL

(i.e., Category 5 Impairments - this represents the Section 303(d) List)

Notes:
1. See the Consolidated Assessment and Listing Methodology (CALM) for definitions and details regarding how this list was developed.
2. This list is sorted by Waterbody Type and then Assessment Unit ID.
3. TMDL stands for Total Maximum Daily Load study. TMDL schedules are subject to change as funding and resources become available.
4. Waters presented on this list may also be threatened or impaired by other pollutants or nonpollutants that do not require a TMDL.

Assessment Unit ID	Water Name	Primary Town	Water Size	Size Unit	Use Desc	Impairment Name	DES Category	Threat	TMDL Priority	TMDL Schedule	Source Name
NHRIV801010901-02	Connecticut River	LANCASTER	5.720	MILES	Primary Contact Recreation	Escherichia coli	5-M	N	HIGH	2017	Source Unknown
NHRIV801030101-01	UNNAMED BROOK - TO FOREST LAKE	DALTON	0.650	MILES	Aquatic Life	pH	5-M	N	LOW	2019	Source Unknown
NHRIV801030101-02	UNNAMED BROOK - FROM FOREST LAKE TO BURNS POND	WHITEFIELD	1.980	MILES	Aquatic Life	PH	5-M	N	LOW	2023	Source Unknown
NHRIV801030102-08	Johns River	DALTON	6.050	MILES	Aquatic Life	PH	5-M	N	LOW	2023	Source Unknown
NHRIV801030102-13	Johns River	DALTON	3.870	MILES	Aquatic Life	pH	5-M	N	LOW	2016	Source Unknown
NHRIV801030301-01	Cushman Brook	DALTON	4.440	MILES	Aquatic Life	Fishes Bioassessments (Streams)	5-M		LOW	2021	Source Unknown
NHRIV801030201-02	Connecticut River	DALTON	0.680	MILES	Aquatic Life	Aluminum	5-M	N	LOW	2017	Source Unknown
						pH	5-M	N	LOW	2016	Source Unknown
NHRIV801030203-01	Connecticut River	LITTLETON	1.060	MILES	Aquatic Life	pH	5-M	N	LOW	2019	Source Unknown
NHRIV801030205-02	Connecticut River	MONROE	0.920	MILES	Aquatic Life	pH	5-M	N	LOW	2019	Source Unknown
NHRIV801030302-01	BEAVER - LAFAYETTE - SKOOKUMCHUCK - JORDAN BKS - AND TRIBS	FRANCONIA	4.660	MILES	Aquatic Life	PH	5-M	N	LOW	2023	Source Unknown
NHRIV801030401-01	AMMONOOSUC R - JEFFERSON - CLAY - FRANKLIN - MONROE BKS	THOMPSON AN	10.060	MILES	Aquatic Life	PH	5-P	N	LOW	2023	Source Unknown
NHRIV801030401-04	Ammonoosuc River	CRANFORDS I	5.480	MILES	Aquatic Life	PH	5-M	N	LOW	2023	Source Unknown
NHRIV801030401-05	HALFWAY BROOK - DARTMOUTH BROOK - UNNAMED BROOK	CRANFORDS I	15.861	MILES	Aquatic Life	PH	5-P	N	LOW	2023	Source Unknown
NHRIV801030401-09	UNNAMED BROOK	CARROLL	5.630	MILES	Aquatic Life	PH	5-P	N	LOW	2023	Source Unknown
NHRIV801030402-04	Ammonoosuc River	CARROLL	10.860	MILES	Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5-M			2021	Source Unknown
						pH	5-P	N	LOW	2019	Source Unknown
NHRIV801030402-07-01	Ammonoosuc River	CARROLL	16.880	MILES	Aquatic Life	pH	5-M	N	LOW	2021	Source Unknown
NHRIV801030402-07-02	TWIN MT. REC. AREA TUTTLE BROOK	CARROLL	0.020	MILES	Aquatic Life	pH	5-M	N	LOW	2021	Source Unknown
					Primary Contact Recreation	Escherichia coli	5-P	N	HIGH	2019	Source Unknown
NHRIV801030403-01	Ammonoosuc River	BETHLEHEM	4.460	MILES	Aquatic Life	pH	5-P	N	LOW	2021	Source Unknown
NHRIV801030403-03	Ammonoosuc River	BETHLEHEM	1.980	MILES	Aquatic Life	pH	5-M	N	LOW	2021	Source Unknown
NHRIV801030403-07	Ammonoosuc River	BETHLEHEM	4.170	MILES	Aquatic Life	pH	5-P	N	LOW	2021	Source Unknown
NHRIV801030403-09	Baker Brook	BETHLEHEM	2.630	MILES	Aquatic Life	Fishes Bioassessments (Streams)	5-P			2021	Source Unknown
NHRIV801030403-11	Ammonoosuc River	LITTLETON	3.320	MILES	Aquatic Life	ALUMINUM	5-M	N	LOW	2023	Source Unknown

Appendix E- NH Watershed Report Card (1008)-Middle Ammonosuc River

TWIN MOUNTAIN (CARROLL)
NHDOT SITE

Welcome to New Hampshire's Watershed Report Cards built from the 2008, 305(b)/303(d)

Each Watershed Report Card covers a single 12 digit Hydrologic Unit Code (HUC12), on average a 34 square mile area. Each Watershed Report Card has three components;

1. REPORT CARD - A one page card that summarizes the overall use support for Aquatic Life, Primary Contact (i.e. Swimming), and Secondary Contact (i.e. Boating) Designated Uses on every Assessment Unit ID (AUID) within the HUC12.
2. HUC 12 MAP - A map of the watershed with abbreviated labels for each AUID within the HUC12.
3. ASSESSMENT DETAILS - Anywhere from one to forty pages with the detailed assessment information for each and every AUID in the Report Card and Map.

How are the Surface Water Quality Assessment determinations made?

All readily available data with reliable Quality Assurance/Quality Control is used in the biennial surface water quality assessments. For a full understanding of how the Surface Water Quality Standards (Env-Wq 1700) are translated into surface water quality assessments we urge the reader to review the 2008 Consolidated Assessment and Listing Methodology (CALM) at http://des.nh.gov/organization/divisions/water/wmb/swqa/2008/index.htm (appendices 4 & 5)

Where can I find more advanced resources?

Additional resources including GIS shapefiles (appendix 12) of all AUIDs in a sortable EXCEL file (appendix 22) of the detailed assessments are available at http://des.nh.gov/organization/divisions/water/wmb/swqa/2008/index.htm.

How are assessments coded in the report card?

Assessment outcomes are displayed on a color scale as well as an alpha numeric scale that provides additional distinctions for the designated use and Parameter level assessments as outlined in the table below.

		Severe Not Supporting, Severe	Poor Not Supporting, Marginal	Likely Bad Insufficient Information – Potentially Not Supporting	No Data No Data	Likely Good Insufficient Information – Potentially Full Supporting	Marginal Full Support, Marginal	Good Full Support, Good
CATEGORY	Description							
*Category 2	Meets standards						2-M or 2-OBS	2-G
Category 3	Insufficient Information			3-PNS	3-ND	3-PAS		
Category 4	Does not Meet Standards;							
4A	TMDL^ Completed	4A-P	4A-M or 4A-T					
4B	Other enforceable measure will correct the issue.	4B-P	4B-M or 4B-T					
4C	Non-pollutant (i.e. exotic weeds)	4C-P	4C-M					
Category 5	TMDL^ Needed	5-P	5-M or 5-T					

* "Category 1" only exists at the Assessment Unit Level.

^ TMDL stands for Total Maximum Daily Lead studies (http://des.nh.gov/organization/divisions/water/wmb/tmdl/index.htm)

WATERSHED 305(b) ASSESSMENT SUMMARY REPORT:

HUC 12 010801030402

HUC 12 NAME MIDDLE AMMONOOSUC RIVER

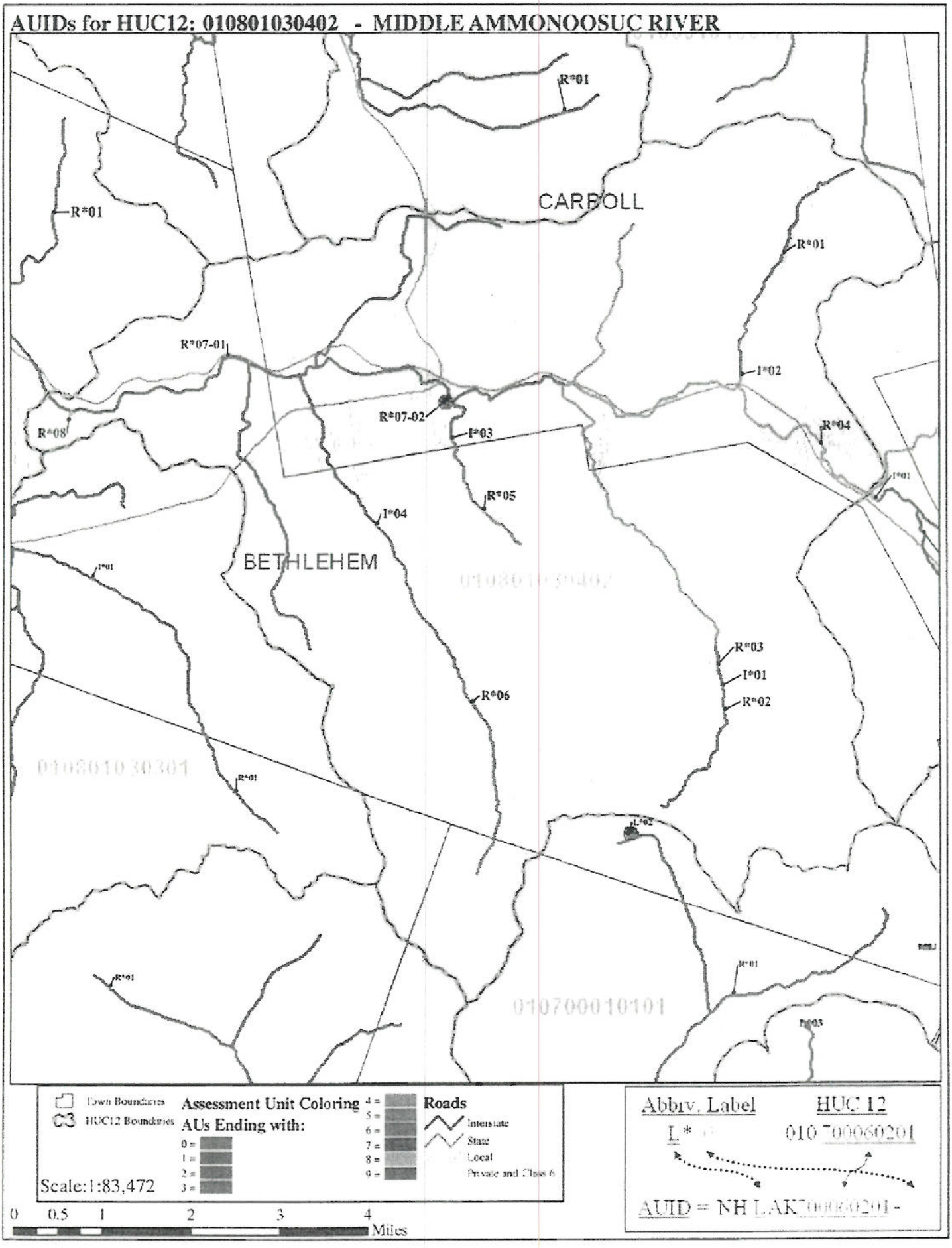
(Locator map on next page only applies to this HUC12)

Assessment Cycle 2008

Good	Full Support Good
Marginal	Full Support Marginal
Likely Good	Insufficient Information – Potentially Full Support
No Data	No Data
Likely Bad	Insufficient Information – Potentially Not Support
Poor	Not Support Marginal
[illegible]	[illegible]

ASSESSMENT UNIT ID	MAP LABEL	ASSESSMENT UNIT NAME	AQUATIC LIFE	SWIMMING	BOATING	FISH CONSUMP.
NHIMP801030402-01	I*01	ZEALAND RIVER				
NHIMP801030402-02	I*02	UNKNOWN RIVER - CHERRY MOUNTAIN BROOK JAM				
NHIMP801030402-03	I*03	TUTTLE BROOK				
NHIMP801030402-04	I*04	LITTLE RIVER				
NHRIV801030402-01	R*01	DECEPTION BROOK				
NHRIV801030402-02	R*02	ZEALAND RIVER				
NHRIV801030402-03	R*03	ZEALAND RIVER				
NHRIV801030402-04	R*04	AMMONOOSUC RIVER - BLACK BROOK - ZEALAND RIVER				
NHRIV801030402-05	R*05	TUTTLE BROOK				
NHRIV801030402-06	R*06	LITTLE RIVER				
NHRIV801030402-07-01	R*07-01	AMMONOOSUC RIVER - LITTLE RIVER - TUTTLE BROOK				
NHRIV801030402-07-02	R*07-02	TUTTLE BROOK - TWIN MTN REC AREA BEACH				
NHRIV801030402-08	R*08	UNNAMED TRIBUTARY - TO AMMONOOSUC RIVER (FROM BETHLEHEM LF)				

Date: 2/10/09


AUIDs for HUC12: 010801030402 - MIDDLE AMMONOOSUC RIVER
CARROLL
BETHLEHEM
R*01
R*07-01
R*08
R*07-02
I*03
I*04
R*05
I*02
R*04
I*01
R*03
R*02
R*06
0108010 30301
010700010101
Town Boundaries
HUC12 Boundaries
Assessment Unit Coloring
AUs Ending with:
0 =
1 =
2 =
3 =
4 =
5 =
6 =
7 =
8 =
9 =
Roads
Interstate
State
Local
Private and Class 6
Scale:1:83,472
0 0.5 1 2 3 4
Miles
Abbrv. Label
HUC 12
010700060201
AUID = NH LAK0700060201 -

Assessment Unit ID: NHRIV801030402-04 | Size: 10.6600 MILES

Assessment Unit Name: AMMONOOSUC RIVER - BLACK BROOK - ZEALAND | Beach: N

Primary Town: CARROLL | Assessment Unit Category (Cat): 5-M

2008, 305(b)/303(d) - All Reviewed Parameters by Assessment Unit

Designated Use Description	*Desig. Use Category	Desig. Use Threat	Parameter Name	Parameter Threatened (Y/N)	Parameter Category*	TMDL Schedule	Expected To Attain Date	Source Name (Impairments only)
Aquatic Life	5-M		Benthic-Macroinvertebrate Bioassessments (Streams)	N	5-M	2021		Source Unknown
			CHLORIDE	N	3-PAS			
			DISSOLVED OXYGEN SATURATION	N	3-PAS			
			Fishes Bioassessments (Streams)	N	3-ND			
			OXYGEN, DISSOLVED	N	3-ND			
			pH	N	5-M	2019		Source Unknown
Drinking Water After Adequate Treatment	2-G							
Fish Consumption	4A-M		Mercury	N	4A-M	2017		Atmospheric Deposition - Toxics
Primary Contact Recreation	3-ND		Escherichia coli	N	3-ND			
Secondary Contact Recreation	3-ND		Escherichia coli	N	3-ND			
Wildlife	3-ND							

Severe	Poor	Likely Bad	No Data	Likely Good	Marginal	Good	
Not Supporting, Severe	Not Supporting, Marginal	Insufficient Information – Potentially Not Supporting	No Data	Insufficient Information – Potentially Full Supporting	Full Support, Marginal	Full Support, Good	

*DES Categories: 2-G - Supports Parameter well above criteria, 2-M = Supports Parameter marginally above criteria, 3-OBS = Exceeds WQ criteria but natural therefore not a WQ exceedence, 3-ND = Insufficient Information/No data, 3-PAS= Insufficient Information/Potentially Attaining Standard, 3-PNS= Insufficient Information/Potentially Not Attaining Standard, (4A=Impaired/TMDL Completed, 4B=Impaired/Other Measure with rectify Impairment, 4C-Impaired/Non-Pollutant, 5=Impaired/TMDL needed) M=Marginally Impairment, P=Severe Impairment, T=Threatened (http://des.nh.gov/organization/divisions/water/wmb/swqa/index.htm)

Date: 2/10/09

Assessment Unit ID: NHRIV501030402-07-01
Assessment Unit Name: AMMONOOSUC RIVER - LITTLE RIVER - TUTTLE
Primary Town: CARROLL
Size: 16.8800 MILES
Beach: N
Assessment Unit Category*: 5-M

2008, 305(b)/303(d) - All Reviewed Parameters by Assessment Unit

Designated Use Description	*Desig. Use Category	Desig. Use Threat	Parameter Name	Parameter Threatened (Y/N)	Parameter Category*	TMDL Schedule	Expected To Attain Date	Source Name (Impairments only)
Aquatic Life	5-M		Benthic-Macroinvertebrate Bioassessments (Streams)	N	3-ND			
			CHLORIDE	N	3-PAS			
			DISSOLVED OXYGEN SATURATION	N	3-PAS			
			Fishes Bioassessments (Streams)	N	3-ND			
			OXYGEN, DISSOLVED	N	3-ND			
			PH	N	5-M	2021		Source Unknown
Drinking Water After Adequate Treatment	2-G							
Fish Consumption	4A-M		Mercury	N	4A-M	2017		Atmospheric Deposition - Toxics
Primary Contact Recreation	3-ND		Escherichia coli	N	3-ND			
Secondary Contact Recreation	3-ND		Escherichia coli	N	3-ND			
Wildlife	3-ND							

Severe	Poor	Likely Bad	No Data	Likely Good	Marginal	Good
Not Supporting, Severe	Not Supporting, Marginal	Insufficient Information – Potentially Not Supporting	No Data	Insufficient Information – Potentially Full Supporting	Full Support, Marginal	Full Support, Good

*DES Categories; 2-G = Supports Parameter well above criteria, 2-M = Supports Parameter marginally above criteria, 2-ONS = Exceeds WQ criteria but natural therefore not a WQ exceedence, 3-ND = Insufficient Information/No data, 3-PAS= Insufficient Information/Potentially Attaining Standard, 3-PNS= Insufficient Information/Potentially Not Attaining Standard, (4A=Impaired/TMDL Completed, 4B=Impaired/Other Measure with rectify mpairment, 4C=Impaired/Non-Pollutant, 5=Impaired/TMDL needed) M Marginally Impairment, P=Severe Impairment, T=Threatened (http://des.nh.gov/organization/divisions/water/wmb/swqa/index.htm)

Date: 2/10/09

Assessment Unit ID: NHRIV001030402-07-02 | Size: 0.0200 MILES

Assessment Unit Name: TUTTLE BROOK TWIN MTN REC AREA BEACH | Beach: Y

Primary Town: CARROLL | Assessment Unit Category: 5-M

2008, 305(b)/303(d) - All Reviewed Parameters by Assessment Unit

Designated Use Description	*Desig. Use Category	Desig. Use Threat	Parameter Name	Parameter Threatened (Y/N)	Parameter Category*	TMDL Schedule	Expected To Attain Date	Source Name (Impairments only)
Aquatic Life	5-M		Benthic-Macroinvertebrate Bioassessments (Streams)	N	3-ND			
			CHLORIDE	N	3-PAS			
			DISSOLVED OXYGEN SATURATION	N	3-PAS			
			Fishes Bioassessments (Streams)	N	3-ND			
			OXYGEN, DISSOLVED	N	3-ND			
			PH	N	5-M	2021		Source Unknown
Drinking Water After Adequate Treatment	2-G							
Fish Consumption	4A-M		Mercury	N	4A-M	2017		Atmospheric Deposition - Toxics
Primary Contact Recreation	5-M		Escherichia Coli	N	5-M	2019		Source Unknown
Secondary Contact Recreation	2-G		ESCHERICHIA COLI	N	2-G			
Wildlife	3-ND							

Severe	Poor	Likely Bad	No Data	Likely Good	Marginal	Good	
Not Supporting, Severe	Not Supporting, Marginal	Insufficient Information – Potentially Not Supporting	No Data	Insufficient Information – Potentially Full Supporting	Full Support, Marginal	Full Support, Good	

*DES Categories; 2-G = Supports Parameter well above criteria, 2-M = Supports Parameter marginally above criteria, 2-ORS = Exceeds WQ criteria but natural therefore not a WQ exceedence, 3-ND = Insufficient Information/No data, 3-PAS= Insufficient Information/Potentially Attaining Standard, 3-PNS= Insufficient Information/Potentially Not Attaining Standard, (4A=Impaired/TMDL Completed, 4B=Impaired/Other Measure with rectify Impairment, 4C=Impaired/Non-Pollutant, 5=Impaired/TMDL needed) M=Marginally Impairment, P=Severe Impairment, T=Threatened (http://des.nh.gov/organization/divisions/water/wmb/swqa/index.htm)

Appendix F- Calculation of Dilution Factor (DF) for small brook north of property-Twin Mountain

TMC Services, Inc.
One William Way
Bellingham, MA 02019
TEL: 508-966-3737
FAX: 508-966-4861

JOB 4009-680 NO 1
CALCULATED BY ZF DATE 3/27/10
CHECKED BY _____ DATE _____
DESCRIPTION DF CALC. SHEET NO. 1/1
TWIN MTN (CARROLL NHDOT SITE)

APPENDIX F

CALCULATION OF DILUTION FACTOR (DF)

SITE: TWIN MOUNTAIN, NH

DISCHARGE: SMALL BROOK NORTH OF PROPERTY (BOUNDARY)
NHDES 7Q10: 0.07 CFS (DAN DUDLEY, MARCH 24, 2010)

$$DF = [(Q_d + Q_s)/Q_d] \times 0.9$$

$$DF = [(0.161 + 0.07)/0.161] \times 0.9$$

$$DF = 1.29$$

THEREFORE, W/ A DILUTION FACTOR OF 1.29, UTILIZE COLUMN W/ DILUTION RANGE CONCENTRATION OF 0-5 IN APPENDIX IV IN THE NPDES RGP.

DF - DILUTION FACTOR
Q_d - MAX FLOW RATE DISCH. IN (cfs)
Q_s - RCVG WATER 7Q10
7Q10 - THE MIN. FLOW (CFS) FOR 7 CONSEC. DAYS W/ A RECURRENCE INTERVAL OF 10 YRS.

Brandon Fagan

From: Dudley, Dan [Daniel.Dudley@des.nh.gov]
Sent: Friday, March 26, 2010 4:32 PM
To: Brandon Fagan
Cc: Andrews, Jeff
Subject: RE: Site Location Maps for Tamworth and Twin Mountain UST Excavation & Replacement
Attachments: 2010 303(d) list excerpts.pdf

Brandon,

It appears that the discharge from Tamworth site would be to the brook that flows from White Lake to the Bearcamp River. The 7Q10 for this stream at the proposed discharge site is 0.081 cfs.
It appears that the discharge from the Twin Mountain site would be to the small brook behind the site. The 7Q10 there s 0.07 cfs
If the Twin Mountain discharge is to the Ammonoosuc River (on the south side of highway), the 7Q10 for that location is 18.6 cfs.

Both the Tamworth and Twin Mountain sites would discharge to Class B surface waters.

Surface water assessment units are as follows:

Stream from White Lake to Bearcamp River: NHRIV600020605-14 (not assessed)
Bearcamp River at confluence with above stream NHRIV600020605-11 (pH impairments)
Select Tamworth at this link to 2008 303(d) report cards: http://www2.des.nh.gov/SWQA/SWQAList.aspx

Small Stream behind Twin Mountain Site: NHRIV801030402-28 (part of NHRIV801030402-07-01 below)
Ammonoosuc R at Twin Mountain Site: NHRIV801030402-07-01 (pH impairment)
Select Carroll at this link to 2008 303(d) report cards: http://www2.des.nh.gov/SWQA/SWQAList.aspx

Also see attached excerpts from 2010 draft 303(d) list

I will be out of the office on Monday. Feel free to call me on Tuesday.

Dan

Daniel Dudley, P.E.
N.H. Department of Environmental Services
Wastewater Engineering Bureau
P.O. Box 95 - 29 Hazen Drive
Concord, NH 03302-0095

Phone: 603-271-0671
Fax: 603-271-4128
e-mail: Daniel.Dudley@des.nh.gov

-----Original Message-----
From: Brandon Fagan [mailto:bfagan@hazmatt.com]
Sent: Friday, March 26, 2010 1:43 PM
To: Dudley, Dan
Subject: FW: Site Location Maps for Tamworth and Twin Mountain UST Excavation & Replacement

Brandon Fagan PG, LSP
Director of Technical Services
bfagan@hazmatt.com
www.hazmatt.com

TMC Services, Inc.

TMC SERVICES, INC.
1 William Way
Bellingham, MA
02019

Corporate
Phone No.:
508-966-3737

Emergency
Response Phone No.:
1 (800) 223-8865

Fax No.:
508-966-4861

Locations

- Portsmouth, NH
- Bellingham, MA
- Monroe, CT
- Burlington, VT
- Brattleboro, VT
- Bangor, ME
- Auburn, ME

Website

www.hazmatt.com

NOTICE OF INTENT
REMEDIATION GENERAL PERMIT

TWIN MOUNTAIN (CARROLL) SITE
TWIN MOUNTAIN STATE PATROL SHED
CARROLL, NH

STATE OF NEW HAMPSHIRE
DEPT. OF TRANSPORTATION CONTRACT
TAMWORTH – CARROLL 14567N

PREPARED FOR:

NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION
CONCORD, NH

Prepared By:

Don Greenwood
Project Manager

Brandon J. Fagan PG,LSP
Director of Technical Services

TMC SERVICES, INC
1 WILLIAM WAY
BELLINGHAM, MA 02019

MARCH 2010

PROJECT NO.: 4009-580

TMC Services, Inc.
One William Way
Bellingham, MA 02019

TEL: (508) 966-3737 FAX: (508) 966-4861
www.hazmatt.com

Environmental	Construction	Abatement
Remediation Services	Pump & Tank	Asbestos
Waste T&D	Sewer Systems	Lead
Lab Pack Services	Drainage Improvements	Microbial
Industrial Cleaning	Septic Systems	Demolition
Emergency Response	Water Systems	Emergency Response

March 30, 2010

US Environmental Protection Agency
Industrial NPDES Permits (CIP)
1 Congress St,
Boston, MA 0214-2023

Attention: Shelly Puleo

Subject: Notice of Intent (NOI)
NH DOT, Concord, NH
Construction Dewatering
New Vehicle Fueling Facility
Twin Mountain (Carroll) Patrol Shed
500 Route 302, Twin Mountain, NH, 03595

Dear Ms. Puleo:

Introduction

In accordance with the National Pollutant Discharge Elimination System (NPDES) Remediation General Permit (RGP) in New Hampshire (NHG910000), TMC Services, Inc. (TMC) is pleased to submit this RGP Notice of Intent (NOI) , Appendix A, to the USEPA-NE for the above referenced site on behalf of the New Hampshire Department of Transportation (NHDOT). The purpose of this letter is to summarize NHDOT's NOI for the USEPA RGP and provide supplemental information required to complete the NOI application.

The scope of work for this includes dewatering of excavation location/area within the New Hampshire Police facility for the purpose of removing the existing underground storage tank, replacing it and reconstructing the fueling facility. Discharge from the NHDOT Facility, located at 500 Route 302, Twin Mountain, NH will be to a small surface area to a stream north of the site to the Ammonoosuc River. Laboratory data collected from groundwater samples collected at the site are reported in Appendix B with NPDES Appendix III – Effluent Limits. Natural metals in groundwater reported concentrations that exceed standards. Based on a 7Q10 provided by NHDES, the Appendix IV NPDES RGP dilution range concentration column for COC's is 0-5. Calculations are reported in Appendix F.

Construction Activities

Dewatering will be conducted from local sumps in the excavation to dewater the area for replacement of the Underground Storage Tank. Long term construction dewatering is not expected. The estimated dewatering time is less than 1 month. The treatment sequence for groundwater at the site is settling with a fractionation tank, bag filtration, granular activated carbon (GAC), and as necessary a diatomaceous earth or green sand filter as a polish to final discharge (Figure 3). The GAC has a slight buffering capacity and will filter natural metals. Water samples collected for NPDES analysis were untreated. Water will not be discharged until the filtration capacity of the system for natural metals in groundwater is confirmed. No chemical additives are proposed for use in the treatment process at this time. TMC Services will monitor dewatering activities in accordance with the requirements for this NOI submission. Appendix C, D, E include the National Heritage Bureau, Endangered Species and Watershed documentation.

Please Contact Don Greenwood at 508-966-6017 if you have any questions regarding this submittal.

By signature below, under requirements of 40 CFR Section 122.22,

"I certify under penalty of law that this document and all attachments were prepared under my own 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."

Sincerely,

TMC Services, Inc.

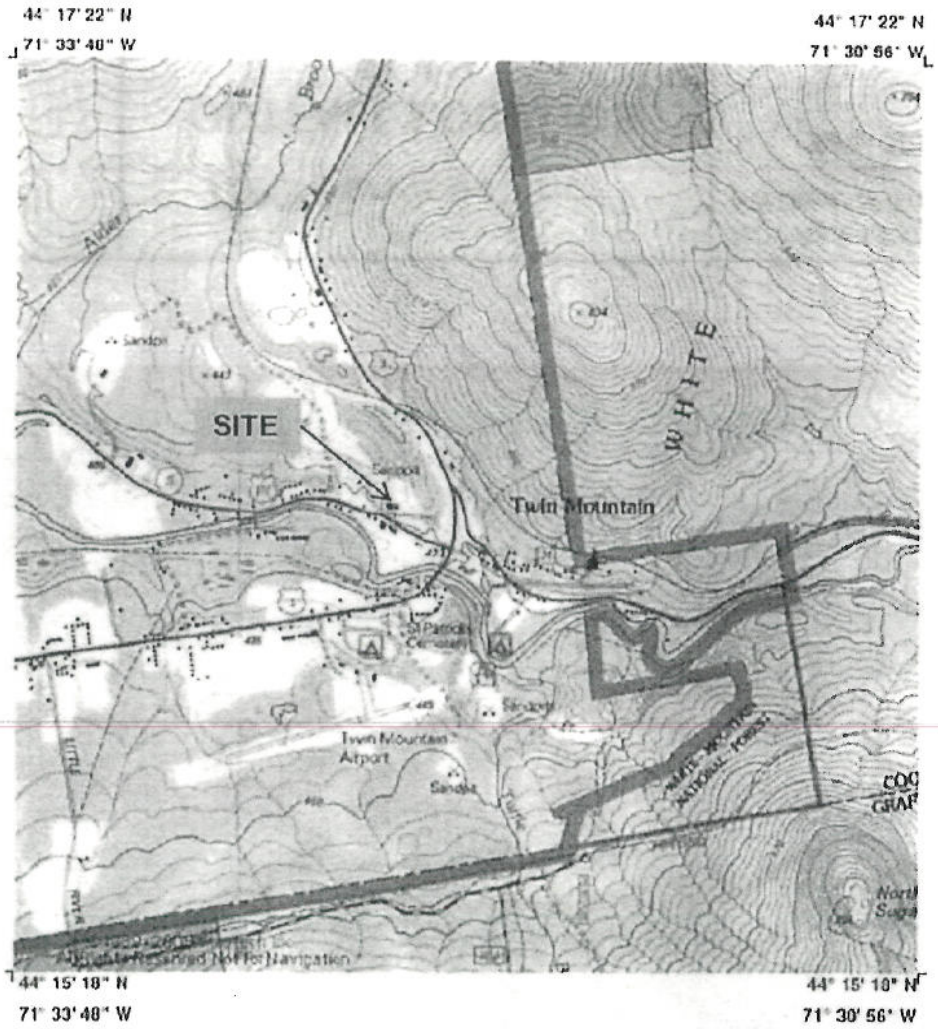
Don Greenwood
Project Manager

Brandon J. Fagan PG, LSP
Director of Technical Services

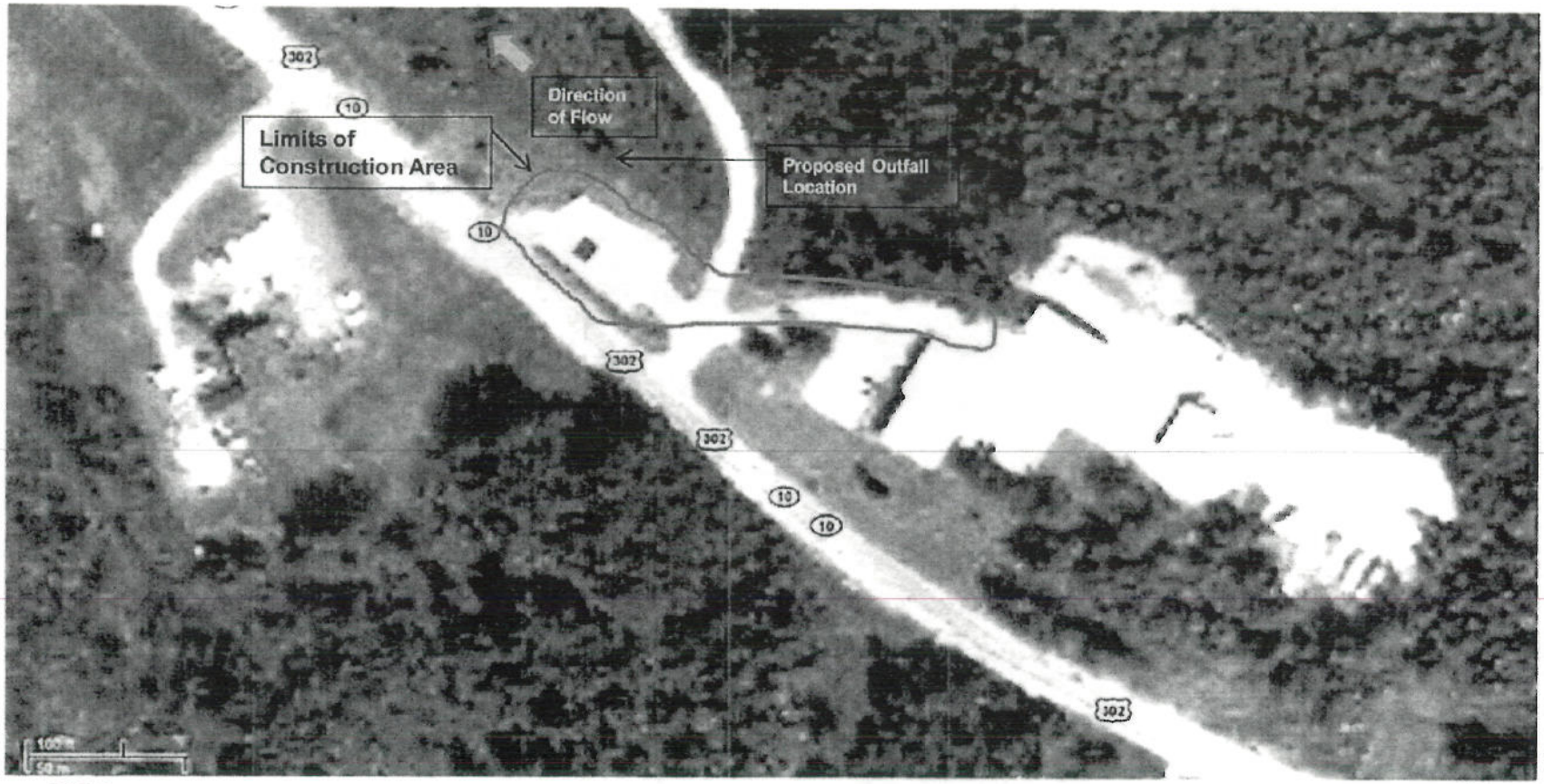
CC: Jeff Andrews, NHDES, Water Division
CC: Town of Tamworth, Chief Municipal Officer

List of Figures

List of Appendix



Site: Carroll, NH Date: 03/29/10 Location: Scale: 1:24000 *044°27'27"N* *071°54'63"W*	*TMC Services, Inc.* **PROJECT LOCATION PLAN**	*NOI Remediation General Permit* *NH Dept. of Transportation, Concord, NH* **Twin Mountain (Carroll) Site** **Carroll , NH** **March, 2010** **Figure 1**



SCALE

Site: Carroll, NH Date: 03/29/10

Location:

044°27'27"N

071°54'63"W

TMC Services, Inc.

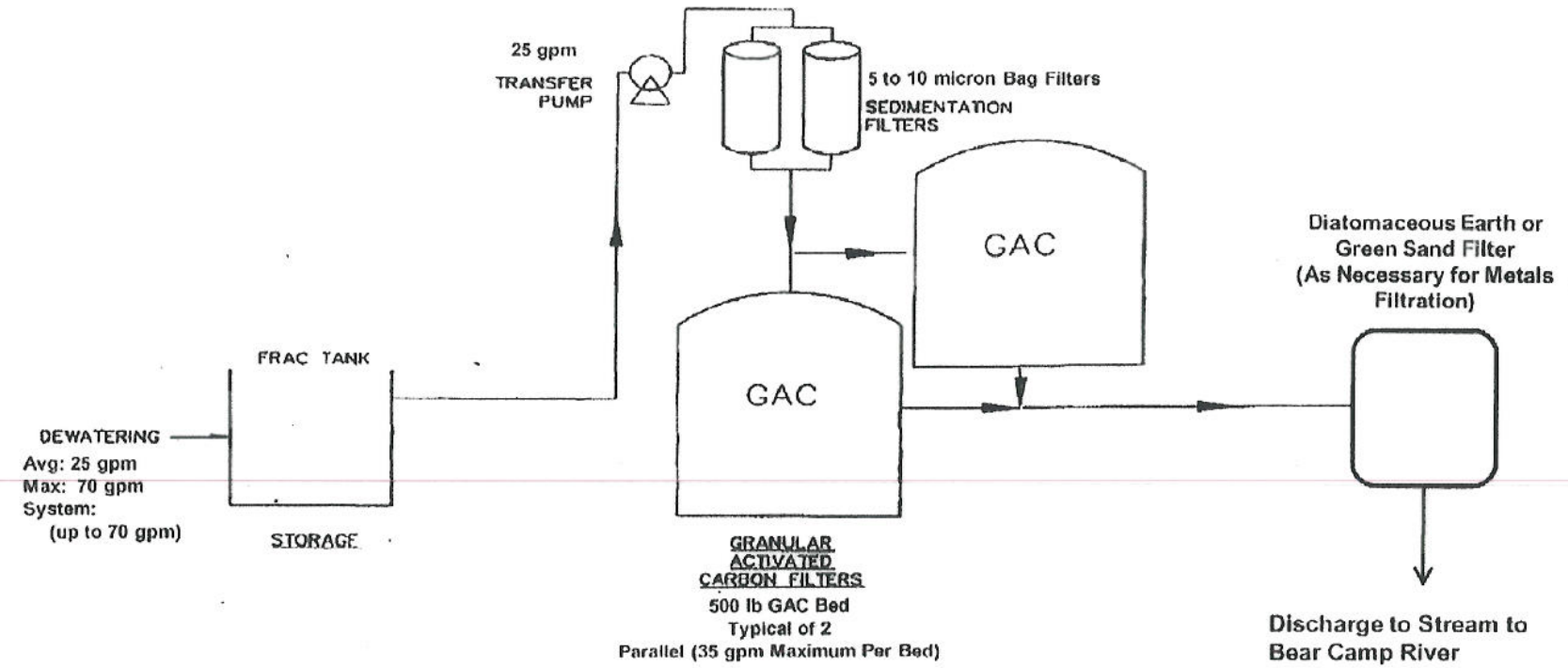
OUTFALL LOCATION PLAN

NOI Remediation General Permit
NH Dept. of Transportation, Concord, NH

Twin Mountain (Carroll) Site

Carroll , NH

March, 2010 Figure 2



Site: Twin Mountain, NH
Date: 03/29/10
Location:
044°27'27"N
071°54'63"W

TMC Services, Inc.

Proposed Treatment System Process Diagram

NOI Remediation General Permit
NH Dept. of Transportation, Concord, NH

NHDOT Twin Mountain (Carroll) Site

Twin Mountain, NH

March, 2010 Figure 3

Quality Assurance Project Plan
Phase III Environmental Site Assessment
10 Forest Road & 275 Orange Avenue
West Haven, Connecticut

February 2010
Revised March 29, 2010
[USEPA Tracking No. : RFA 10104]

Project Number 8573.01

Prepared By: _____
Paul J. Connelly, L.E.P.
CCA, LLC
Environmental Field Supervisor & Project Manager

Reviewed By: _____
Ralph A. Klass P.E., L.E.P.
CCA, LLC
Director of Environmental Engineering

Reviewed By: _____

Approval Signature/Authority

Approval Date: _____
Nora J. Conlon 4/1/2010
Nora J. Conlon
QA Chemist