

Golder Associates Inc.
670 Commercial Street, Suite 103
Manchester, NH 03101-1146
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Fax: (603) 668-1199
www.golder.com



August 6, 2009

Our Ref.: 093-87125

US Environmental Protection Agency
RGP-NOC Processing
Municipal Assistance Unit (CMU)
1 Congress Street, Suite 1100
Boston, MA 02214-2023

Attention: Mr. Victor Alvarez

**RE: REMEDIATION GENERAL PERMIT NOTICE OF INTENT
HAMPTON TOLL PLAZA - EXPANSION PROJECT
INTERSTATE I-95
HAMPTON, NEW HAMPSHIRE
NHDOT PROJECT # 15678**

Dear Mr. Alvarez:

Golder Associates Inc. (Golder) is pleased to submit this Remediation General Permit (RGP) Notice of Intent (NOI) to the United States Environmental Protection Agency (USEPA) for the above referenced project 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 project includes dewatering of excavation areas within the NHDOT Right-of-Way for the purposes of constructing a drainage lines. The purpose of the NOI will be to permit the discharge of treated groundwater produced during excavation dewatering into the Old River (also known as the Browns River).

Please contact Theresa Miller at (603) 668-0880, if you have any questions regarding this submittal.

Sincerely,

GOLDER ASSOCIATES INC.

A handwritten signature in blue ink, reading 'Theresa A. Miller'.

Theresa A. Miller, P.G., LSP
Senior Hydrogeologist

A handwritten signature in blue ink, reading 'Alistair P.T. Macdonald'.

Alistair P.T. Macdonald, P.G., LSP
Principal and Program Manager

LIST OF FIGURES

Figure 1	Site Location Plan
Figure 2	Outfall Location Plan
Figure 3	Proposed Treatment System Schematic

LIST OF APPENDICES

Appendix A	Laboratory Analytical Data
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cc: Dale O'Connell - NHDOT-Bureau of Environment
Andy O'Sullivan - NHDOT-Bureau of Turnpikes
Adam Chestnut - NHDOT-Bureau of Construction
NHDES-Water Division
Town of Hampton
Paul Rydel – Sanborn Head Associates

P:\Projects\2009\093-87125 NHDOT-Hampton Toll\ConstructionRGP\2009 NOI\2009 RGP NOI cvr ltr.doc

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 :		Facility/site address:		
Location of facility/site : longitude: _____ latitude: _____ longitude = -70.8556 latitude = 42.9628 See Attached Figure 1	Facility SIC code(s):	Street:		
b) Name of facility/site owner :		Town:		
Email address of owner:		State:	Zip:	County:
Telephone no.of facility/site owner :				
Fax no. of facility/site owner :		Owner is (check one): 1. Federal____ 2. State/Tribal____ 3. Private____ 4. other, if so, describe:		
Address of owner (if different from site):				
Street:				
Town:	State:	Zip: 03302-0483	County:	
c) Legal name of operator :	Operator telephone no:			
	Operator fax no.:		Operator email:	
Operator contact name and title:				

Address of operator (if different from owner):		Street:	
Town:	State:	Zip:	County:
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___ N/A			
e) Is site/facility subject to any State permitting or other action which is causing the generation of discharge? Yes___ No___ Groundwater Management If "yes," please list: Permit 1. site identification # assigned by the state of NH or MA: 2. permit or license # assigned: 3. state agency contact information: name, location, and telephone number:		f) Is the site/facility covered by any other EPA permit, including: 1. multi-sector 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: RGP #NHG91024	

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:		
b) Provide the following information about each discharge:	1) Number of discharge points:	2) What is the maximum and average flow rate of discharge (in cubic feet per second, ft ³ /s)? Max. flow <u>0.0212 (9.5gpm)</u> Average flow <u>0.00706 (3.2gpm)</u> 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.
Longitude: <u>-70.8562</u> Latitude: <u>42.9605</u>		
3) Latitude and longitude of each discharge within 100 feet: pt.1:long.____ lat.____; 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):	5) Is the discharge intermittent_____ or seasonal_____? Is discharge ongoing Yes _____ No _____?
c) Expected dates of discharge (mm/dd/yy): start_____ end_____	
d) Please attach a line drawing or flow schematic showing water flow through the facility including: 1. sources of intake water, 2. contributing flow from the operation, 3. treatment units, and 4. discharge points and receiving waters(s).	

See Attached Figures 2 & 3

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						5 mg/l	38,000			
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										

⁴BTEX = 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 (1,2- Dibromo-methane)						0.02ug/l				
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										

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						0.25 ug/l				
33. Total Phthalates ⁵ (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										

⁵The 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										
g. Indeno(1,2,3-cd) Pyrene										
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)										
h. Acenaphthene										
i. Acenaphthylene										
j. Anthracene										
k. Benzo(ghi) Perylene										
l. Fluoranthene										
m. Fluorene										
n. Naphthalene-										
o. Phenanthrene										
p. Pyrene										
37. Total Polychlorinated Biphenyls (PCBs)										
38. Antimony										
39. Arsenic										
40. Cadmium										
41. Chromium III										
42. Chromium VI										

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										
44. Lead										
45. Mercury										
46. Nickel										
47. Selenium										
48. Silver										
49. Zinc										
50. Iron										
Other (describe):										

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

<i>Step 1:</i> 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?
<i>Step 2:</i> 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: _____ DF: _____	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:

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):			
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 _____ Maximum flow rate of treatment system _____ Design flow rate of treatment system _____						
d) A description of chemical additives being used or planned to be used (attach MSDS sheets):						

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

a) Identify the discharge pathway:	Direct _____	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:						

c) Attach a detailed map(s) indicating the site location and location of the outfall to the receiving water:

See Figures 1, 2 and 3.

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_____.

e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water_____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)?

Is there a TMDL? Yes____ No____ If yes, for which pollutant(s)? Mercury

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_N/A_____

7. Supplemental information. :

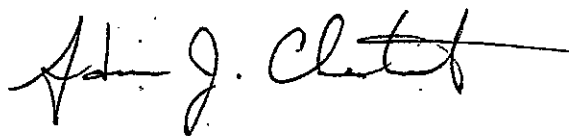
Please provide any supplemental information. Attach any analytical data used to support the application. Attach any certification(s) required by the general permit.

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: Hampton Toll Plaza - NHDOT Project #15678

Operator signature:

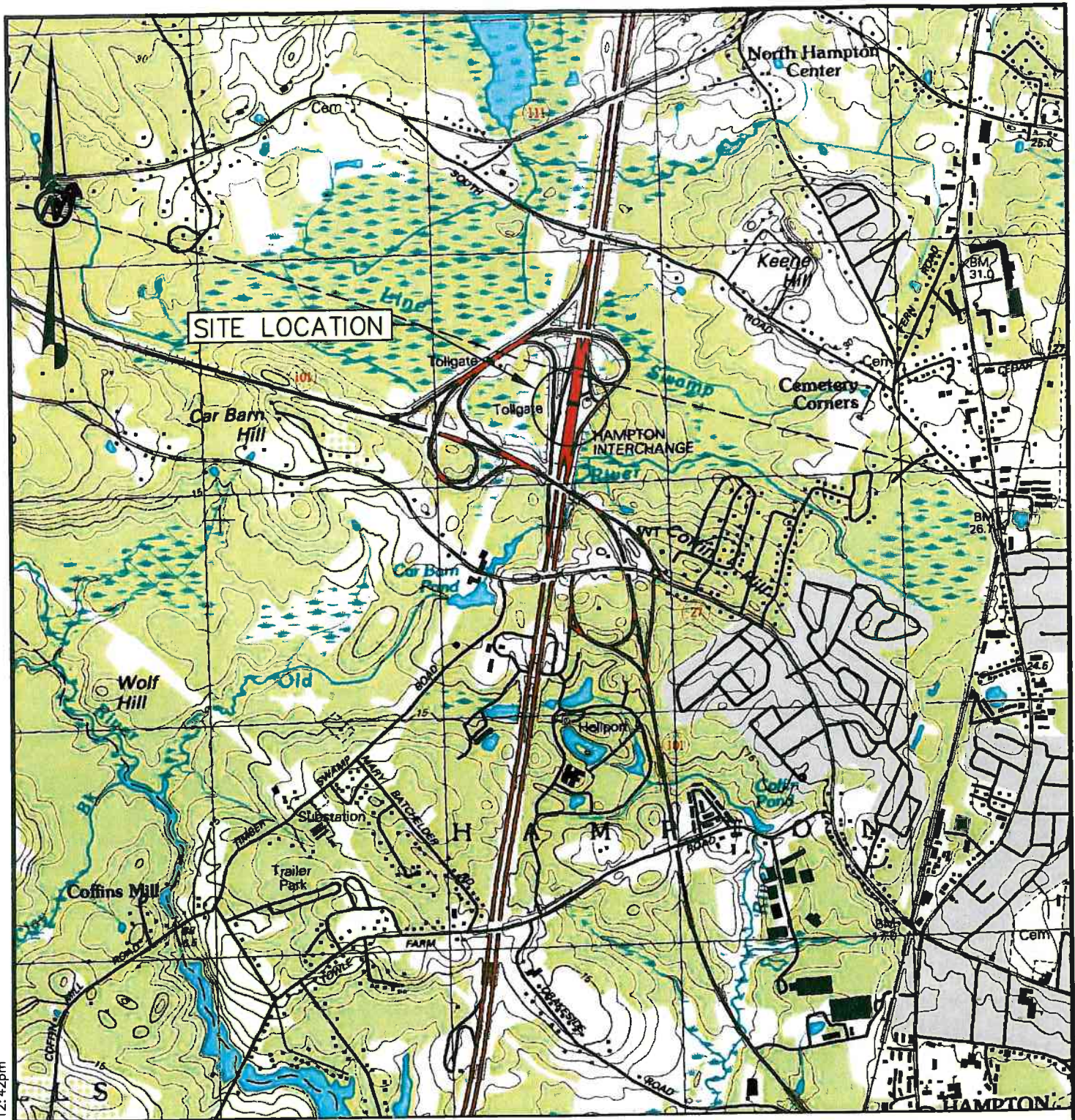


Title: Civil Engineer/Contract Administrator

Date:

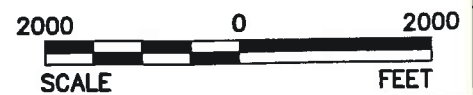
8/5/09

FIGURES



REFERENCE

- 1.) BASE MAP FROM USGS MAP TITLED, "EXETER, NH". DATED 1992.



SCALE	AS SHOWN
DATE	06/22/09
DESIGN	RWB
CADD	MPB

TITLE

SITE LOCATION PLAN

FILE No. 09387125A002

CHECK *B.R.*

PROJECT No. 093-87125 REV. 0

REVIEW *J.C.*

HAMPTON TOLL PLAZA
HAMPTON, NEW HAMPSHIRE

FIGURE 1

Drawing file: 09387125A003.dwg Jul 30, 2009 - 10:19am

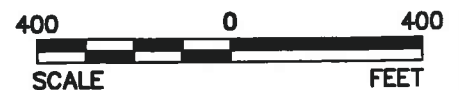


NOTE

- 1.) SITE FEATURES ARE APPROXIMATE.

REFERENCE

- 1.) BASE MAP FROM 2003 NATIONAL AGRICULTURAL IMAGERY PROGRAM (NAIP)
IMAGERY - 15-MINUTE QUAD 15_58 - NEWBURYPORT - ROCKINGHAM COUNTY,
NEW HAMPSHIRE.



SCALE	AS SHOWN
DATE	07/30/09
DESIGN	RWB
CADD	NIL

TITLE

OUTFALL LOCATION

FILE No. 09387125A003

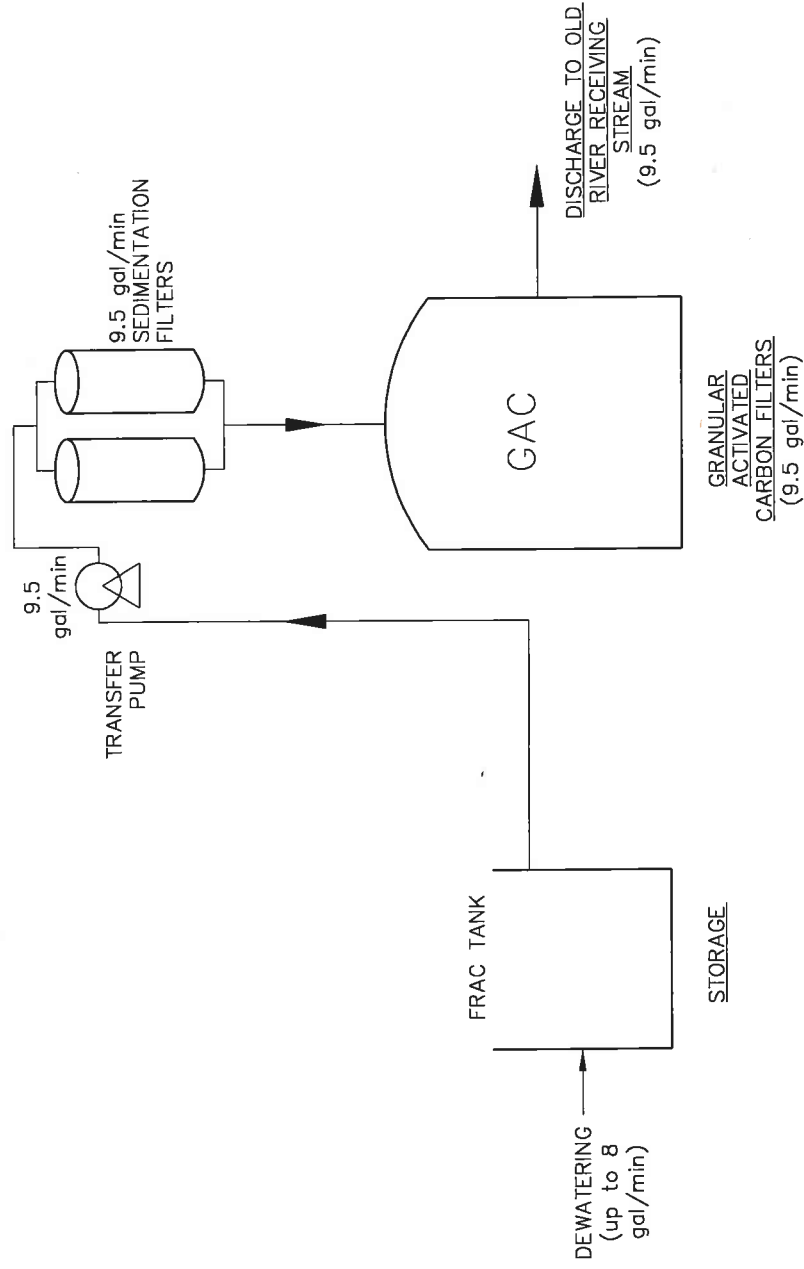
CHECK *RLR*

PROJECT No. 093-87125 REV. A

REVIEW *Law*

HAMPTON TOLL PLAZA
HAMPTON, NEW HAMPSHIRE

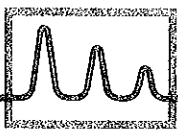
FIGURE 2



 Golder Associates MANCHESTER, NEW HAMPSHIRE		PROPOSED TREATMENT SYSTEM SCHEMATIC	
SCALE	NTS	FILE No. 0938712A004 PROJECT No. 093-87125 REV.	
DATE	08/04/09		
DESIGN BY	RWB		
CAD BY	MPB		
CHECK BY	BLR		
REVIEW BY	JOW	HAMPTON TOLL PLAZA HAMPTON, NEW HAMPSHIRE	
		FIGURE 3	

APPENDIX A

LABORATORY ANALYTICAL DATA



eastern analytical
professional laboratory services

Ross Bennett
Golder Associates, Inc.
670 N. Commercial St., Suite 103
Manchester, NH 03101



Subject: Laboratory Report

Eastern Analytical, Inc. ID: 80732
Client Identification: NH DOT Hampton Tolls | 093-87125
Date Received: 7/9/2009

Dear Mr. Bennett:

Enclosed please find the laboratory report for the above identified project. All analyses were performed in accordance with our QA/QC Program. Unless otherwise stated, holding times, preservation techniques, container types, and sample conditions adhered to EPA Protocol. Samples which were collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures. Eastern Analytical, Inc. certifies that the enclosed test results meet all requirements of NELAP and other applicable state certifications. Please refer to our website at www.eailabs.com for a copy of our NELAP certificate and accredited parameters.

The following standard abbreviations and conventions apply to all EAI reports:
Solid samples are reported on a dry weight basis, unless otherwise noted
< : "less than" followed by the reporting limit
> : "greater than" followed by the reporting limit
%R : % Recovery

Eastern Analytical Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269) and Vermont (VT1012).

The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the the written approval of the laboratory.

If you have any questions regarding the results contained within, please feel free to directly contact me or the chemist(s) who performed the testing in question. Unless otherwise requested, we will dispose of the sample(s) 30 days from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,


Lorraine Olashaw, Lab Director

7.17.09
Date

27
of pages (excluding cover letter)



SAMPLE CONDITIONS PAGE

Eastern Analytical, Inc. ID#: 80732

Client: Golder Associates, Inc.

Client Designation: NH DOT Hampton Tolls | 093-87125

Temperature upon receipt (°C): 10

Received on ice or cold packs (Yes/No): Y

Lab ID	Sample ID	Date Received	Date Sampled	Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
80732.01	MW-4	7/9/09	7/9/09	aqueous		Adheres to Sample Acceptance Policy
80732.02	Trip Blank - 8260B	7/9/09	6/22/09	aqueous		Adheres to Sample Acceptance Policy
80732.03	Trip Blank - 1,4 Diox.	7/9/09	6/22/09	aqueous		Adheres to Sample Acceptance Policy

Samples were properly preserved and the pH measured when applicable unless otherwise noted. Analysis of solids for pH, Flashpoint, Ignitibility, Paint Filter, Corrosivity, Conductivity and Specific Gravity are reported on an "as received" basis.

All results contained in this report relate only to the above listed samples.

References include:

- 1) EPA 600/4-79-020, 1983
- 2) Standard Methods for Examination of Water and Wastewater : Inorganics, 19th Edition, 1995; Microbiology, 20th Edition, 1998
- 3) Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
- 4) Hach Water Analysis Handbook, 2nd edition, 1992



LABORATORY REPORT

Eastern Analytical, Inc. ID#: 80732

Client: Golder Associates, Inc.

Client Designation: NH DOT Hampton Tolls | 093-87125

Sample ID: MW-4 Trip Blank -
8260B

Lab Sample ID: 80732.01 80732.02
Matrix: aqueous aqueous
Date Sampled: 7/9/09 6/22/09
Date Received: 7/9/09 7/9/09
Units: ug/l ug/l
Date of Analysis: 7/10/09 7/10/09
Analyst: KJP KJP
Method: 8260B 8260B
Dilution Factor: 1 1

Dichlorodifluoromethane	< 5	< 5
Chloromethane	< 2	< 2
Vinyl chloride	< 2	< 2
Bromomethane	< 2	< 2
Chloroethane	< 5	< 5
Trichlorofluoromethane	< 5	< 5
Diethyl Ether	< 5	< 5
Acetone	< 10	< 10
1,1-Dichloroethene	< 1	< 1
tert-Butyl Alcohol (TBA)	< 30	< 30
Methylene chloride	< 5	< 5
Carbon disulfide	< 5	< 5
Methyl-t-butyl ether(MTBE)	< 5	< 5
Ethyl-t-butyl ether(ETBE)	< 5	< 5
Isopropyl ether(DIPE)	< 5	< 5
tert-amyl methyl ether(TAME)	< 5	< 5
trans-1,2-Dichloroethene	< 2	< 2
1,1-Dichloroethane	< 2	< 2
2,2-Dichloropropane	< 2	< 2
cis-1,2-Dichloroethene	< 2	< 2
2-Butanone(MEK)	< 10	< 10
Bromochloromethane	< 2	< 2
Tetrahydrofuran(THF)	< 10	< 10
Chloroform	< 2	< 2
1,1,1-Trichloroethane	< 2	< 2
Carbon tetrachloride	< 2	< 2
1,1-Dichloropropene	< 2	< 2
Benzene	< 1	< 1
1,2-Dichloroethane	< 2	< 2
Trichloroethene	< 2	< 2
1,2-Dichloropropane	< 2	< 2
Dibromomethane	< 2	< 2
Bromodichloromethane	< 0.5	< 0.5
4-Methyl-2-pentanone(MIBK)	< 10	< 10
cis-1,3-Dichloropropene	< 2	< 2
Toluene	< 1	< 1
trans-1,3-Dichloropropene	< 2	< 2
1,1,2-Trichloroethane	< 2	< 2
2-Hexanone	< 10	< 10
Tetrachloroethene	< 2	< 2
1,3-Dichloropropane	< 2	< 2
Dibromochloromethane	< 2	< 2
1,2-Dibromoethane(EDB)	< 2	< 2
Chlorobenzene	< 2	< 2
1,1,1,2-Tetrachloroethane	< 2	< 2
Ethylbenzene	< 1	< 1



LABORATORY REPORT

Eastern Analytical, Inc. ID#: 80732

Client: Golder Associates, Inc.

Client Designation: NH DOT Hampton Tolls | 093-87125

Sample ID:	MW-4	Trip Blank - 8260B
Lab Sample ID:	80732.01	80732.02
Matrix:	aqueous	aqueous
Date Sampled:	7/9/09	6/22/09
Date Received:	7/9/09	7/9/09
Units:	ug/l	ug/l
Date of Analysis:	7/10/09	7/10/09
Analyst:	KJP	KJP
Method:	8260B	8260B
Dilution Factor:	1	1
mp-Xylene	< 1	< 1
o-Xylene	< 1	< 1
Styrene	< 1	< 1
Bromoform	< 2	< 2
IsoPropylbenzene	< 1	< 1
Bromobenzene	< 2	< 2
1,1,2,2-Tetrachloroethane	< 2	< 2
1,2,3-Trichloropropane	< 2	< 2
n-Propylbenzene	< 1	< 1
2-Chlorotoluene	< 2	< 2
4-Chlorotoluene	< 2	< 2
1,3,5-Trimethylbenzene	< 1	< 1
tert-Butylbenzene	< 1	< 1
1,2,4-Trimethylbenzene	< 1	< 1
sec-Butylbenzene	< 1	< 1
1,3-Dichlorobenzene	< 1	< 1
p-Isopropyltoluene	< 1	< 1
1,4-Dichlorobenzene	< 1	< 1
1,2-Dichlorobenzene	< 1	< 1
n-Butylbenzene	< 1	< 1
1,2-Dibromo-3-chloropropane	< 2	< 2
1,3,5-Trichlorobenzene	< 1	< 1
1,2,4-Trichlorobenzene	< 1	< 1
Hexachlorobutadiene	< 0.5	< 0.5
Naphthalene	< 5	< 5
1,2,3-Trichlorobenzene	< 1	< 1
4-Bromofluorobenzene (surr)	96 %R	95 %R
1,2-Dichlorobenzene-d4 (surr)	104 %R	105 %R
Toluene-d8 (surr)	93 %R	93 %R



QC REPORT

Eastern Analytical, Inc. ID#: 80732

Client: Golder Associates, Inc.

Client Designation: NH DOT Hampton Tolls | 093-87125

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
Dichlorodifluoromethane	< 5			7/10/2009	ug/l			8260B
Chloromethane	< 2			7/10/2009	ug/l			8260B
Vinyl chloride	< 2			7/10/2009	ug/l			8260B
Bromomethane	< 2			7/10/2009	ug/l			8260B
Chloroethane	< 5			7/10/2009	ug/l			8260B
Trichlorofluoromethane	< 5			7/10/2009	ug/l			8260B
Diethyl Ether	< 5			7/10/2009	ug/l			8260B
Acetone	< 10			7/10/2009	ug/l			8260B
1,1-Dichloroethene	< 1	19 (95 %R)	19 (94 %R) (1 RPD)	7/10/2009	ug/l	61 - 145	20	8260B
tert-Butyl Alcohol (TBA)	< 30			7/10/2009	ug/l			8260B
Methylene chloride	< 5			7/10/2009	ug/l			8260B
Carbon disulfide	< 5			7/10/2009	ug/l			8260B
Methyl-t-butyl ether(MTBE)	< 5			7/10/2009	ug/l			8260B
Ethyl-t-butyl ether(ETBE)	< 5			7/10/2009	ug/l			8260B
Isopropyl ether(DIPE)	< 5			7/10/2009	ug/l			8260B
tert-amyl methyl ether(TAME)	< 5			7/10/2009	ug/l			8260B
trans-1,2-Dichloroethene	< 2			7/10/2009	ug/l			8260B
1,1-Dichloroethane	< 2			7/10/2009	ug/l			8260B
2,2-Dichloropropane	< 2			7/10/2009	ug/l			8260B
cis-1,2-Dichloroethene	< 2			7/10/2009	ug/l			8260B
2-Butanone(MEK)	< 10			7/10/2009	ug/l			8260B
Bromochloromethane	< 2			7/10/2009	ug/l			8260B
Tetrahydrofuran(THF)	< 10			7/10/2009	ug/l			8260B
Chloroform	< 2			7/10/2009	ug/l			8260B
1,1,1-Trichloroethane	< 2			7/10/2009	ug/l			8260B
Carbon tetrachloride	< 2			7/10/2009	ug/l			8260B
1,1-Dichloropropene	< 2			7/10/2009	ug/l			8260B
Benzene	< 1	20 (101 %R)	20 (98 %R) (3 RPD)	7/10/2009	ug/l	76 - 127	20	8260B
1,2-Dichloroethane	< 2			7/10/2009	ug/l			8260B
Trichloroethene	< 2	19 (97 %R)	19 (94 %R) (3 RPD)	7/10/2009	ug/l	71 - 120	20	8260B
1,2-Dichloropropane	< 2			7/10/2009	ug/l			8260B
Dibromomethane	< 2			7/10/2009	ug/l			8260B
Bromodichloromethane	< 0.5			7/10/2009	ug/l			8260B
4-Methyl-2-pentanone(MIBK)	< 10			7/10/2009	ug/l			8260B
cis-1,3-Dichloropropene	< 2			7/10/2009	ug/l			8260B
Toluene	< 1	19 (93 %R)	18 (92 %R) (1 RPD)	7/10/2009	ug/l	76 - 125	20	8260B
trans-1,3-Dichloropropene	< 2			7/10/2009	ug/l			8260B
1,1,2-Trichloroethane	< 2			7/10/2009	ug/l			8260B
2-Hexanone	< 10			7/10/2009	ug/l			8260B
Tetrachloroethene	< 2			7/10/2009	ug/l			8260B
1,3-Dichloropropane	< 2			7/10/2009	ug/l			8260B
Dibromochloromethane	< 2			7/10/2009	ug/l			8260B
1,2-Dibromoethane(EDB)	< 2			7/10/2009	ug/l			8260B
Chlorobenzene	< 2	19 (93 %R)	18 (92 %R) (1 RPD)	7/10/2009	ug/l	75 - 130	20	8260B



QC REPORT

Eastern Analytical, Inc. ID#: 80732

Client: Golder Associates, Inc.

Client Designation: NH DOT Hampton Tolls | 093-87125

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
1,1,1,2-Tetrachloroethane	< 2			7/10/2009	ug/l			8260B
Ethylbenzene	< 1			7/10/2009	ug/l			8260B
mp-Xylene	< 1			7/10/2009	ug/l			8260B
o-Xylene	< 1			7/10/2009	ug/l			8260B
Styrene	< 1			7/10/2009	ug/l			8260B
Bromoform	< 2			7/10/2009	ug/l			8260B
IsoPropylbenzene	< 1			7/10/2009	ug/l			8260B
Bromobenzene	< 2			7/10/2009	ug/l			8260B
1,1,2,2-Tetrachloroethane	< 2			7/10/2009	ug/l			8260B
1,2,3-Trichloropropane	< 2			7/10/2009	ug/l			8260B
n-Propylbenzene	< 1			7/10/2009	ug/l			8260B
2-Chlorotoluene	< 2			7/10/2009	ug/l			8260B
4-Chlorotoluene	< 2			7/10/2009	ug/l			8260B
1,3,5-Trimethylbenzene	< 1			7/10/2009	ug/l			8260B
tert-Butylbenzene	< 1			7/10/2009	ug/l			8260B
1,2,4-Trimethylbenzene	< 1			7/10/2009	ug/l			8260B
sec-Butylbenzene	< 1			7/10/2009	ug/l			8260B
1,3-Dichlorobenzene	< 1			7/10/2009	ug/l			8260B
p-Isopropyltoluene	< 1			7/10/2009	ug/l			8260B
1,4-Dichlorobenzene	< 1			7/10/2009	ug/l			8260B
1,2-Dichlorobenzene	< 1			7/10/2009	ug/l			8260B
n-Butylbenzene	< 1			7/10/2009	ug/l			8260B
1,2-Dibromo-3-chloropropane	< 2			7/10/2009	ug/l			8260B
1,3,5-Trichlorobenzene	< 1			7/10/2009	ug/l			8260B
1,2,4-Trichlorobenzene	< 1			7/10/2009	ug/l			8260B
Hexachlorobutadiene	< 0.5			7/10/2009	ug/l			8260B
Naphthalene	< 5			7/10/2009	ug/l			8260B
1,2,3-Trichlorobenzene	< 1			7/10/2009	ug/l			8260B
4-Bromofluorobenzene (surr)	98 %R	109 %R	108 %R	7/10/2009	% Rec	86 - 115	50	8260B
1,2-Dichlorobenzene-d4 (surr)	102 %R	96 %R	95 %R	7/10/2009	% Rec	80 - 120	50	8260B
Toluene-d8 (surr)	93 %R	93 %R	94 %R	7/10/2009	% Rec	70 - 130	50	8260B

Samples were extracted and analyzed within holding time limits.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
Sample surrogate recoveries met the above stated criteria.
The associated matrix spikes and/or Laboratory Control Samples met acceptance criteria.
There were no exceptions in the analyses, unless noted.
* Flagged analyte recoveries deviated above the QA/QC limits.



LABORATORY REPORT

Eastern Analytical, Inc. ID#: 80732

Client: Golder Associates, Inc.

Client Designation: NH DOT Hampton Tolls | 093-87125

Sample ID:	MW-4	Trip Blank - 1,4 Diox.
Lab Sample ID:	80732.01	80732.03
Matrix:	aqueous	aqueous
Date Sampled:	7/9/09	6/22/09
Date Received:	7/9/09	7/9/09
Units:	ug/l	ug/l
Date of Analysis:	7/10/09	7/10/09
Analyst:	VG	VG
Method:	8260B SIM	8260B SIM
Dilution Factor:	1	1
1,4-Dioxane	< 1	< 1
4-Bromofluorobenzene (surr)	122 %R	122 %R
Toluene-d8 (surr)	107 %R	106 %R



QC REPORT

Eastern Analytical, Inc. ID#: 80732

Client: Golder Associates, Inc.

Client Designation: NH DOT Hampton Tolls | 093-87125

Parameter Name	Blank	LCS	LCSD	Units	Date of Analysis	Limits	RPD	Method
1,4-Dioxane	< 1	4 (89 %R)	5 (102 %R) (14 RPD)	ug/l	7/10/09	70 - 130	20	8260B SIM
4-Bromofluorobenzene	107 %R	114 %R	119 %R	% Rec	7/10/09	70 - 130	50	8260B SIM
Toluene-d8 (surr)	102 %R	104 %R	106 %R	% Rec	7/10/09	70 - 130	50	8260B SIM

Samples were analyzed within holding times unless noted on the sample results page.

Instrumentation was calibrated in accordance with the method requirements.

The method blanks were free of contamination at the reporting limits.

The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.

Exceptions to the above statements are flagged or noted above or on the QC Narrative page.

* Flagged analyte recoveries deviated above the QA/QC limits.



LABORATORY REPORT

Eastern Analytical, Inc. ID#: 80732

Client: Golder Associates, Inc.

Client Designation: NH DOT Hampton Tolls | 093-87125

Sample ID: MW-4

Lab Sample ID: 80732.01

Matrix: aqueous

Date Sampled: 7/9/09

Date Received: 7/9/09

Units: ug/l

Date of Extraction/Preparation 7/10/09

Date of Analysis: 7/10/09

Analyst: BML

Method: 8270D

Dilution Factor: 1

Phenol	< 1
2-Chlorophenol	< 1
2,4-Dichlorophenol	< 1
2,4,5-Trichlorophenol	< 1
2,4,6-Trichlorophenol	< 1
Pentachlorophenol	< 5
2-Nitrophenol	< 1
4-Nitrophenol	< 5
2,4-Dinitrophenol	< 5
2-Methylphenol	< 1
3/4-Methylphenol	< 1
2,4-Dimethylphenol	< 1
4-Chloro-3-methylphenol	< 1
4,6-Dinitro-2-methylphenol	< 5
Benzoic Acid	< 5
N-Nitrosodimethylamine	< 1
n-Nitroso-di-n-propylamine	< 1
n-Nitrosodiphenylamine	< 1
bis(2-Chloroethyl)ether	< 1
bis(2-chloroisopropyl)ether	< 1
bis(2-Chloroethoxy)methane	< 1
1,3-Dichlorobenzene	< 1
1,4-Dichlorobenzene	< 1
1,2-Dichlorobenzene	< 1
1,2,4-Trichlorobenzene	< 1
2-Chloronaphthalene	< 1
4-Chlorophenyl-phenylether	< 1
4-Bromophenyl-phenylether	< 1
Hexachloroethane	< 1
Hexachlorobutadiene	< 1
Hexachlorocyclopentadiene	< 5
Hexachlorobenzene	< 1
4-Chloroaniline	< 1
2-Nitroaniline	< 5
3-Nitroaniline	< 1
4-Nitroaniline	< 1
Benzyl alcohol	< 1
Nitrobenzene	< 1
Isophorone	< 1
2,4-Dinitrotoluene	< 1
2,6-Dinitrotoluene	< 1
Benzidine	< 5
3,3'-Dichlorobenzidine	< 1
Pyridine	< 5
Azobenzene	< 1



LABORATORY REPORT

Eastern Analytical, Inc. ID#: 80732

Client: Golder Associates, Inc.

Client Designation: NH DOT Hampton Tolls | 093-87125

Sample ID: MW-4

Lab Sample ID: 80732.01

Matrix: aqueous

Date Sampled: 7/9/09

Date Received: 7/9/09

Units: ug/l

Date of Extraction/Preparation 7/10/09

Date of Analysis: 7/10/09

Analyst: BML

Method: 8270D

Dilution Factor: 1

Carbazole < 1

Dimethylphthalate < 1

Diethylphthalate < 1

Di-n-butylphthalate < 5

Butylbenzylphthalate < 1

bis(2-Ethylhexyl)phthalate < 5

Di-n-octylphthalate < 1

Dibenzofuran < 1

Naphthalene < 0.1

2-Methylnaphthalene < 0.1

Acenaphthylene < 0.1

Acenaphthene < 0.1

Fluorene < 0.1

Phenanthrene < 0.1

Anthracene < 0.1

Fluoranthene < 0.1

Pyrene < 0.1

Benzo[a]anthracene < 0.1

Chrysene < 0.1

Benzo[b]fluoranthene < 0.1

Benzo[k]fluoranthene < 0.1

Benzo[a]pyrene < 0.1

Indeno[1,2,3-cd]pyrene < 0.1

Dibenz[a,h]anthracene < 0.1

Benzo[g,h,i]perylene < 0.1

2-Fluorophenol (surr) 51 %R

Phenol-d6 (surr) 34 %R

2,4,6-Tribromophenol (surr) 95 %R

Nitrobenzene-D5 (surr) 87 %R

2-Fluorobiphenyl (surr) 87 %R

p-Terphenyl-D14 (surr) 92 %R



QC REPORT

Eastern Analytical, Inc. ID#: 80732

Batch ID: 733598-53294/A071009ABN1

Client: Golder Associates, Inc.

Client Designation: NH DOT Hampton Tolls | 093-87125

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
Phenol	< 1	10 (41 %R)	10 (41 %R) (0 RPD)	7/10/2009	ug/l	12 - 110	42	8270D
2-Chlorophenol	< 1	20 (81 %R)	21 (82 %R) (1 RPD)	7/10/2009	ug/l	27 - 123	40	8270D
2,4-Dichlorophenol	< 1	20 (%R)	21 (%R) (RPD)	7/10/2009	ug/l			8270D
2,4,5-Trichlorophenol	< 1	21 (%R)	22 (%R) (RPD)	7/10/2009	ug/l			8270D
2,4,6-Trichlorophenol	< 1	21 (%R)	22 (%R) (RPD)	7/10/2009	ug/l			8270D
Pentachlorophenol	< 5	23 (91 %R)	23 (94 %R) (3 RPD)	7/10/2009	ug/l	9 - 103	50	8270D
2-Nitrophenol	< 1	21 (%R)	21 (%R) (RPD)	7/10/2009	ug/l			8270D
4-Nitrophenol	< 5	10 (40 %R)	11 (43 %R) (7 RPD)	7/10/2009	ug/l	10 - 80	50	8270D
2,4-Dinitrophenol	< 5	21 (%R)	23 (%R) (RPD)	7/10/2009	ug/l			8270D
2-Methylphenol	< 1	19 (%R)	19 (%R) (RPD)	7/10/2009	ug/l			8270D
3/4-Methylphenol	< 1	16 (%R)	15 (%R) (RPD)	7/10/2009	ug/l			8270D
2,4-Dimethylphenol	< 1	17 (%R)	18 (%R) (RPD)	7/10/2009	ug/l			8270D
4-Chloro-3-methylphenol	< 1	21 (84 %R)	21 (85 %R) (1 RPD)	7/10/2009	ug/l	23 - 97	42	8270D
4,6-Dinitro-2-methylphenol	< 5	22 (%R)	24 (%R) (RPD)	7/10/2009	ug/l			8270D
Benzoic Acid	< 5			7/10/2009	ug/l			8270D
N-Nitrosodimethylamine	< 1	13 (%R)	14 (%R) (RPD)	7/10/2009	ug/l			8270D
n-Nitroso-di-n-propylamine	< 1	23 (90 %R)	22 (88 %R) (2 RPD)	7/10/2009	ug/l	41 - 116	38	8270D
n-Nitrosodiphenylamine	< 1	26 (%R)	28 (%R) (RPD)	7/10/2009	ug/l			8270D
bis(2-Chloroethyl)ether	< 1	22 (%R)	22 (%R) (RPD)	7/10/2009	ug/l			8270D
bis(2-chloroisopropyl)ether	< 1	22 (%R)	22 (%R) (RPD)	7/10/2009	ug/l			8270D
bis(2-Chloroethoxy)methane	< 1	21 (%R)	22 (%R) (RPD)	7/10/2009	ug/l			8270D
1,3-Dichlorobenzene	< 1	18 (%R)	19 (%R) (RPD)	7/10/2009	ug/l			8270D
1,4-Dichlorobenzene	< 1	19 (78 %R)	20 (79 %R) (1 RPD)	7/10/2009	ug/l	36 - 97	28	8270D
1,2-Dichlorobenzene	< 1	20 (%R)	21 (%R) (RPD)	7/10/2009	ug/l			8270D
1,2,4-Trichlorobenzene	< 1	20 (79 %R)	20 (82 %R) (4 RPD)	7/10/2009	ug/l	39 - 98	28	8270D
2-Chloronaphthalene	< 1	21 (%R)	22 (%R) (RPD)	7/10/2009	ug/l			8270D
4-Chlorophenyl-phenylether	< 1	22 (%R)	23 (%R) (RPD)	7/10/2009	ug/l			8270D
4-Bromophenyl-phenylether	< 1	22 (%R)	22 (%R) (RPD)	7/10/2009	ug/l			8270D
Hexachloroethane	< 1	18 (%R)	19 (%R) (RPD)	7/10/2009	ug/l			8270D
Hexachlorobutadiene	< 1	18 (%R)	18 (%R) (RPD)	7/10/2009	ug/l			8270D
Hexachlorocyclopentadiene	< 5	17 (%R)	18 (%R) (RPD)	7/10/2009	ug/l			8270D
Hexachlorobenzene	< 1	21 (%R)	22 (%R) (RPD)	7/10/2009	ug/l			8270D
4-Chloroaniline	< 1	22 (%R)	23 (%R) (RPD)	7/10/2009	ug/l			8270D
2-Nitroaniline	< 5	22 (%R)	23 (%R) (RPD)	7/10/2009	ug/l			8270D
3-Nitroaniline	< 1	21 (%R)	23 (%R) (RPD)	7/10/2009	ug/l			8270D
4-Nitroaniline	< 1	22 (%R)	26 (%R) (RPD)	7/10/2009	ug/l			8270D
Benzyl alcohol	< 1	21 (%R)	20 (%R) (RPD)	7/10/2009	ug/l			8270D
Nitrobenzene	< 1	21 (%R)	22 (%R) (RPD)	7/10/2009	ug/l			8270D
Isophorone	< 1	25 (%R)	24 (%R) (RPD)	7/10/2009	ug/l			8270D
2,4-Dinitrotoluene	< 1	23 (93 %R)	24 (96 %R) (3 RPD)	7/10/2009	ug/l	24 - 96	38	8270D
2,6-Dinitrotoluene	< 1	23 (%R)	24 (%R) (RPD)	7/10/2009	ug/l			8270D
Benzidine	< 5	27 (%R)	31 (%R) (RPD)	7/10/2009	ug/l			8270D
3,3'-Dichlorobenzidine	< 1	22 (%R)	24 (%R) (RPD)	7/10/2009	ug/l			8270D
Pyridine	< 5	15 (%R)	16 (%R) (RPD)	7/10/2009	ug/l			8270D
Azobenzene	< 1	21 (%R)	23 (%R) (RPD)	7/10/2009	ug/l			8270D



QC REPORT

Eastern Analytical, Inc. ID#: 80732

Batch ID: 733598-53294/A071009ABN1

Client: Golder Associates, Inc.

Client Designation: NH DOT Hampton Tolls | 093-87125

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
Carbazole	< 1	23 (%R)	25 (%R) (RPD)	7/10/2009	ug/l			8270D
Dimethylphthalate	< 1	23 (%R)	23 (%R) (RPD)	7/10/2009	ug/l			8270D
Diethylphthalate	< 1	23 (%R)	23 (%R) (RPD)	7/10/2009	ug/l			8270D
Di-n-butylphthalate	< 5	23 (%R)	24 (%R) (RPD)	7/10/2009	ug/l			8270D
Butylbenzylphthalate	< 1	23 (%R)	21 (%R) (RPD)	7/10/2009	ug/l			8270D
bis(2-Ethylhexyl)phthalate	< 5	23 (%R)	22 (%R) (RPD)	7/10/2009	ug/l			8270D
Di-n-octylphthalate	< 1	22 (%R)	22 (%R) (RPD)	7/10/2009	ug/l			8270D
Dibenzofuran	< 1	21 (%R)	22 (%R) (RPD)	7/10/2009	ug/l			8270D
Naphthalene	< 0.1	20 (81 %R)	21 (83 %R) (2 RPD)	7/10/2009	ug/l	30 - 160	50	8270D
2-Methylnaphthalene	< 0.1	19 (76 %R)	19 (76 %R) (0 RPD)	7/10/2009	ug/l	30 - 160	50	8270D
Acenaphthylene	< 0.1	22 (86 %R)	22 (89 %R) (3 RPD)	7/10/2009	ug/l	30 - 160	50	8270D
Acenaphthene	< 0.1	22 (86 %R)	22 (89 %R) (3 RPD)	7/10/2009	ug/l	46 - 118	31	8270D
Fluorene	< 0.1	22 (89 %R)	23 (91 %R) (2 RPD)	7/10/2009	ug/l	30 - 160	50	8270D
Phenanthrene	< 0.1	22 (87 %R)	23 (91 %R) (4 RPD)	7/10/2009	ug/l	30 - 160	50	8270D
Anthracene	< 0.1	21 (84 %R)	23 (91 %R) (8 RPD)	7/10/2009	ug/l	30 - 160	50	8270D
Fluoranthene	< 0.1	22 (88 %R)	24 (97 %R) (10 RPD)	7/10/2009	ug/l	30 - 160	50	8270D
Pyrene	< 0.1	23 (92 %R)	21 (84 %R) (9 RPD)	7/10/2009	ug/l	26 - 127	31	8270D
Benzo[a]anthracene	< 0.1	21 (83 %R)	21 (85 %R) (2 RPD)	7/10/2009	ug/l	30 - 160	50	8270D
Chrysene	< 0.1	22 (87 %R)	23 (91 %R) (4 RPD)	7/10/2009	ug/l	30 - 160	50	8270D
Benzo[b]fluoranthene	< 0.1	23 (91 %R)	24 (94 %R) (3 RPD)	7/10/2009	ug/l	30 - 160	50	8270D
Benzo[k]fluoranthene	< 0.1	23 (91 %R)	24 (97 %R) (6 RPD)	7/10/2009	ug/l	30 - 160	50	8270D
Benzo[a]pyrene	< 0.1	22 (87 %R)	23 (91 %R) (4 RPD)	7/10/2009	ug/l	30 - 160	50	8270D
Indeno[1,2,3-cd]pyrene	< 0.1	24 (95 %R)	23 (91 %R) (4 RPD)	7/10/2009	ug/l	30 - 160	50	8270D
Dibenz[a,h]anthracene	< 0.1	23 (93 %R)	23 (90 %R) (3 RPD)	7/10/2009	ug/l	30 - 160	50	8270D
Benzo[g,h,i]perylene	< 0.1	23 (91 %R)	21 (86 %R) (6 RPD)	7/10/2009	ug/l	30 - 160	50	8270D
2-Fluorophenol (surr)	51 %R	55 %R	57 %R	7/10/2009	% Rec	21 - 110		8270D
Phenol-d6 (surr)	34 %R	38 %R	38 %R	7/10/2009	% Rec	10 - 94		8270D
2,4,6-Tribromophenol (surr)	83 %R	91 %R	96 %R	7/10/2009	% Rec	10 - 123		8270D
Nitrobenzene-D5 (surr)	84 %R	87 %R	89 %R	7/10/2009	% Rec	35 - 114		8270D
2-Fluorobiphenyl (surr)	84 %R	86 %R	89 %R	7/10/2009	% Rec	43 - 116		8270D
p-Terphenyl-D14 (surr)	94 %R	94 %R	88 %R	7/10/2009	% Rec	33 - 141		8270D

Samples were extracted and analyzed within holding time limits.

Instrumentation was calibrated in accordance with the method requirements.

The method blanks were free of contamination at the reporting limits.

Sample surrogate recoveries met the above stated criteria.

The associated matrix spikes and/or Laboratory Control Samples met acceptance criteria.

There were no exceptions in the analyses, unless noted.

* Flagged analyte recoveries deviated above the QA/QC limits.



LABORATORY REPORT

Eastern Analytical, Inc. ID#: 80732

Client: Golder Associates, Inc.

Client Designation: NH DOT Hampton Tolls | 093-87125

Sample ID: MW-4

Lab Sample ID: 80732.01

Matrix: aqueous

Date Sampled: 7/9/09

Date Received: 7/9/09

TPH(SGTHEM) < 5

Units	Analysis				Analyst
	Date	Time	Method		
mg/L	7/13/09	8:15	1664A		JLL



QC REPORT

Eastern Analytical, Inc. ID#: 80732

Batch ID: 733602-25559/A071309TPH161

Client: Golder Associates, Inc.

Client Designation: NH DOT Hampton Tolls | 093-87125

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
TPH(SGTHEM)	< 5	21 (106 %R)	20 (102 %R) (4 RPD)	7/13/2009	mg/L	64 - 132	34	1664A

Samples were extracted and analyzed within holding time limits.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
Sample surrogate recoveries met the above stated criteria.
The associated matrix spikes and/or Laboratory Control Samples met acceptance criteria.
There were no exceptions in the analyses, unless noted.
* Flagged analyte recoveries deviated above the QA/QC limits.



LABORATORY REPORT

Eastern Analytical, Inc. ID#: 80732

Client: Golder Associates, Inc.

Client Designation: NH DOT Hampton Tolls | 093-87125

Sample ID: MW-4

Lab Sample ID: 80732.01

Matrix: aqueous

Date Sampled: 7/9/09

Date Received: 7/9/09

% Solid:

Units: ug/l

Date of Extraction/Prep: 7/10/09

Date of Analysis: 7/10/09

Analyst: JW

Extraction Method: 608/3510C

Analysis Method: 608

Dilution Factor: 1

PCB-1016, < 1

PCB-1221 < 1

PCB-1232 < 1

PCB-1242 < 1

PCB-1248 < 1

PCB-1254 < 1

PCB-1260 < 1

TMX (surr) 87 %R

DCB (surr) 102 %R



QC REPORT

Eastern Analytical, Inc. ID#: 80732

Batch ID: 733597-51789/A070909E608P1

Client: Golder Associates, Inc.

Client Designation: NH DOT Hampton Tolls | 093-87125

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
PCB-1016	< 1	4 (90 %R)	4 (95 %R) (5 RPD)	7/9/2009	ug/l	40 - 140	50	608
PCB-1221	< 1	< 1 (%R N/A)	< 1 (%R N/A) (RPD N/A)	7/9/2009	ug/l			608
PCB-1232	< 1	< 1 (%R N/A)	< 1 (%R N/A) (RPD N/A)	7/9/2009	ug/l			608
PCB-1242	< 1	< 1 (%R N/A)	< 1 (%R N/A) (RPD N/A)	7/9/2009	ug/l			608
PCB-1248	< 1	< 1 (%R N/A)	< 1 (%R N/A) (RPD N/A)	7/9/2009	ug/l			608
PCB-1254	< 1	< 1 (%R N/A)	< 1 (%R N/A) (RPD N/A)	7/9/2009	ug/l			608
PCB-1260	< 1	3 (85 %R)	4 (96 %R) (12 RPD)	7/9/2009	ug/l	40 - 140	50	608
TMX (surr)	89 %R	89 %R	94 %R		% Rec	30 - 150		608
DCB (surr)	96 %R	97 %R	105 %R		% Rec	30 - 150		608

Samples were extracted and analyzed within holding time limits.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
Sample surrogate recoveries met the above stated criteria.
The associated matrix spikes and/or Laboratory Control Samples met acceptance criteria.
There were no exceptions in the analyses, unless noted.
* Flagged analyte recoveries deviated above the QA/QC limits.



LABORATORY REPORT

Eastern Analytical, Inc. ID#: 80732

Client: Golder Associates, Inc.

Client Designation: NH DOT Hampton Tolls | 093-87125

Sample ID: MW-4

Lab Sample ID: 80732.01

Matrix: aqueous

Date Sampled: 7/9/09

Date Received: 7/9/09

Solids Suspended 38

Cyanide Total < 0.01

Total Residual Chlorine < 0.05

Analysis

Units	Date	Time	Method	Analyst
mg/L	7/13/09	10:30	2540D	KJV
mg/L	7/10/09	13:30	4500CNE	JCC
mg/L	7/09/09	17:00	4500CIG	NZ



QC REPORT

Eastern Analytical, Inc. ID#: 80732

Client: Golder Associates, Inc.

Client Designation: NH DOT Hampton Tolls | 093-87125

Parameter Name	Blank	LCS	LCSD	Units	Date of Analysis	Limits	RPD	Method
Solids Suspended	< 5	95 (95%R)	NA	mg/L	7/13/09	90 - 110	20	2540D
Cyanide Total	< 0.01	0.03 (100 %R)	0.02 (96 %R) (4 RPD)	mg/L	7/10/09	85 - 115	20	4500CNE
Total Residual Chlorine	< 0.05	0.21 (100 %R)	NA	mg/L	7/9/09	80 - 120		4500CIG

Parameter Name	Duplicate Parent ID	Duplicate Parent	Duplicate	Units	Date of Analysis	RPD	Method
Solids Suspended	80768.13	10	12 (18 RPD)	mg/L	7/13/09	20	2540D
Cyanide Total		NA	NA	mg/L	7/10/09	20	4500CNE
Total Residual Chlorine		NA	NA	mg/L	7/9/09		4500CIG

Samples were analyzed within holding times unless noted on the sample results page.

Instrumentation was calibrated in accordance with the method requirements.

The method blanks were free of contamination at the reporting limits.

The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.

Exceptions to the above statements are flagged or noted above or on the QC Narrative page.

* Flagged analyte recoveries deviated above the QA/QC limits.



LABORATORY REPORT

Eastern Analytical, Inc. ID#: 80732

Client: Golder Associates, Inc.

Client Designation: NH DOT Hampton Tolls | 093-87125

Sample ID: MW-4

Lab Sample ID: 80732.01

Matrix: aqueous

Date Sampled: 7/9/09

Date Received: 7/9/09

Antimony	< 0.001
Arsenic	0.0093
Cadmium	0.0048
Chromium	< 0.001
Copper	0.040
Iron	1.5
Lead	0.0014
Mercury	< 0.0001
Nickel	0.21
Selenium	< 0.001
Silver	< 0.0001
Zinc	0.33
Chromium (III)	< 0.01
Chromium (VI)	< 0.01

Analytical Matrix	Units	Date of Analysis	Method	Analyst
AqTot	mg/L	7/10/09	200.8	DS
AqTot	mg/L	7/10/09	200.8	DS
AqTot	mg/L	7/10/09	200.8	DS
AqTot	mg/L	7/10/09	200.8	DS
AqTot	mg/L	7/10/09	200.8	DS
AqTot	mg/L	7/10/09	200.8	DS
AqTot	mg/L	7/10/09	200.8	DS
AqTot	mg/L	7/10/09	200.8	DS
AqTot	mg/L	7/10/09	200.8	DS
AqTot	mg/L	7/10/09	200.8	DS
AqTot	mg/L	7/10/09	200.8	DS
AqTot	mg/L	7/10/09	200.8	DS
AqTot	mg/L	7/10/09	200.8	DS
AqTot	mg/L	7/10/09	7196A	DS



QC REPORT

Eastern Analytical, Inc. ID#: 80732

Client: Golder Associates, Inc.

Client Designation: NH DOT Hampton Tolls | 093-87125

Parameter Name	Blank	LCS	LCSD	Units	Date of Analysis	Limits	RPD	Method
Antimony	< 0.001	1.1 (112 %R)		mg/L	7/10/09	85 - 115	20	200.8
Arsenic	< 0.0001	0.95 (95 %R)		mg/L	7/10/09	85 - 115	20	200.8
Cadmium	< 0.0001	0.98 (98 %R)		mg/L	7/10/09	85 - 115	20	200.8
Chromium	< 0.001	1.0 (102 %R)		mg/L	7/10/09	85 - 115	20	200.8
Copper	< 0.001	0.89 (89 %R)		mg/L	7/10/09	85 - 115	20	200.8
Iron	< 0.05	11 (96 %R)		mg/L	7/10/09	85 - 115	20	200.8
Lead	< 0.0001	1.1 (108 %R)		mg/L	7/10/09	85 - 115	20	200.8
Mercury	< 0.0001	0.0011 (107 %R)		mg/L	7/10/09	85 - 115	20	200.8
Nickel	< 0.001	0.96 (96 %R)		mg/L	7/10/09	85 - 115	20	200.8
Selenium	< 0.001	0.93 (93 %R)		mg/L	7/10/09	85 - 115	20	200.8
Silver	< 0.0001	0.090 (90 %R)		mg/L	7/10/09	85 - 115	20	200.8
Zinc	< 0.005	0.88 (88 %R)		mg/L	7/10/09	85 - 115	20	200.8
Chromium (VI)	< 0.01	0.24 (106 %R)		mg/L	7/10/09	95 - 105	20	7196A

Parameter Name	MS/MSD Parent ID	MS/MSD Parent	Matrix Spike	MSD	Units	Date of Analysis	Limits	RPD	Method
Antimony	80582.01	< 0.001	1.3 (129 %R)	1.3 (128 %R) (1 RPD)	mg/L	7/10/09	70-130	20	200.8
Arsenic	80582.01	0.0017	1.0 (102 %R)	1.0 (102 %R) (0 RPD)	mg/L	7/10/09	70-130	20	200.8
Cadmium	80582.01	< 0.0001	1.0 (103 %R)	1.0 (101 %R) (2 RPD)	mg/L	7/10/09	70-130	20	200.8
Chromium	80582.01	0.001	1.1 (113 %R)	1.1 (113 %R) (0 RPD)	mg/L	7/10/09	70-130	20	200.8
Copper	80582.01	0.003	0.98 (98 %R)	0.98 (98 %R) (0 RPD)	mg/L	7/10/09	70-130	20	200.8
Iron	80582.01	1.1	14 (119 %R)	14 (120 %R) (1 RPD)	mg/L	7/10/09	70-130	20	200.8
Lead	80582.01	0.0009	1.2 (119 %R)	1.2 (120 %R) (1 RPD)	mg/L	7/10/09	70-130	20	200.8
Mercury	80582.01	< 0.0001	0.0012 (115 %R)	0.0012 (118 %R) (3 RPD)	mg/L	7/10/09	70-130	20	200.8
Nickel	80582.01	0.002	0.89 (89 %R)	0.90 (89 %R) (0 RPD)	mg/L	7/10/09	70-130	20	200.8
Selenium	80582.01	< 0.0005	0.98 (98 %R)	0.95 (95 %R) (3 RPD)	mg/L	7/10/09	70-130	20	200.8
Silver	80582.01	< 0.0001	1.2 (117 %R)	1.2 (116 %R) (1 RPD)	mg/L	7/10/09	70-130	20	200.8
Zinc	80582.01	0.007	0.82 (81 %R)	0.83 (82 %R) (1 RPD)	mg/L	7/10/09	70-130	20	200.8
Chromium (VI)	80732.01	< 0.01	0.21 (103 %R)	0.21 (102 %R) (1 RPD)	mg/L	7/10/09	90-110	20	7196A

Samples were analyzed within holding times unless noted on the sample results page.
 Instrumentation was calibrated in accordance with the method requirements.
 The method blanks were free of contamination at the reporting limits.
 The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.
 Exceptions to the above statements are flagged or noted above or on the QC Narrative page.
 * Flagged analyte recoveries deviated above the QA/QC limits.

July 16, 2009

Ms. Pam Gagnon
Eastern Analytical, Inc.
25 Chenell drive
Concord, NH 03301

**RE: Analytical Results Case Narrative
Project #80732
Analytics # 64245**

Dear Ms. Gagnon

Enclosed please find the analytical results for samples collected from the above-mentioned project. The attached Cover Page lists the sample IDs, Lab tracking numbers and collection dates for the samples included in this deliverable.

Samples were analyzed for Pentachlorophenol using EPA Method 8151A.

Unless otherwise noted in the Non-conformance Summary listed below, all of the quality control (QC) criteria including initial calibration, calibration verification, surrogate recovery, holding time and method accuracy/precision for these analyses were within acceptable limits.

This Level II package has been assembled in the following order:

- Case Narrative/Non-Conformance Summary
- Sample Log Sheet - Cover Page
- HERB Form 1 Sample Data Results for Samples and Method Blanks
- HERB Form 3 MS/MSD and LCS/LCSD Results
- Chain of Custody (COC) Forms

QC NON CONFORMANCE SUMMARY

Sample Receipt:

No QC deviations.

Chlorinated Herbicides by 8151A:

This narrative is specific to target analytes reported on the Form 1 data pages. Non-target (NT) analyte deviations were not addressed.

The continuing calibration standards (file#H9503SC and H9511SC) had low recovery for Dichloroacetic acid (DCAA) on column #2. Column #1 was in control for all analytes. Results were reported off of column #1 without qualification.

If you have any questions or I can be of further assistance please do not hesitate to contact me.

Sincerely,

ANALYTICS Environmental Laboratory, LLC



Stephen Knollmeyer
Laboratory Director

Ms. Pam Gagnon
Eastern Analytical, Inc.
25 Chenell Drive
Concord, NH 03301

Report Number: 64245

Revision: Rev. 0

Re: 3022

80732

Enclosed are the results of the analyses on your sample(s). Samples were received on 10 July 2009 and analyzed for the tests listed below. Samples were received in acceptable condition, with the exceptions noted below or on the chain of custody. These results pertain to samples as received by the laboratory and for the analytical tests requested on the chain of custody. The results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. Please see individual reports for specific methodologies and references.

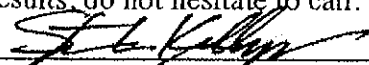
<u>Lab Number</u>	<u>Sample Date</u>	<u>Station Location</u>	<u>Analysis</u>	<u>Comments</u>
64245-1	07/09/09	MW-4	EPA 8151 Chlorinated Herbicides	

Sample Receipt Exceptions: None

Analytics Environmental Laboratory is certified by the states of New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, New York, Virginia, Maryland, and is validated by the U.S. Navy (NFESC). A list of actual certified parameters is available upon request.

If you have any further question on the analytical methods or these results, do not hesitate to call.

Authorized signature


Stephen L. Knollmeyer Lab. Director

Date

7/16/2009

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Surrogate Compound Limits

	Matrix: Units:	Aqueous % Recovery	Solid % Recovery	Method
Volatile Organic Compounds - Drinking Water				
1,4-Difluorobenzene		70-130		EPA 524.2
Bromofluorobenzene		70-130		
1,2-Dichlorobenzene-d4		70-130		
Volatile Organic Compounds				
1,2-Dichloroethane-d4		70-120	70-120	EPA 624/8260B
Toluene-d8		85-120	85-120	
Bromofluorobenzene		75-120	75-120	
Semi-Volatile Organic Compounds				
2-Fluorophenol		20-110	35-105	EPA 625/8270C
d5-Phenol		15-110	40-100	
d5-nitrobenzene		40-110	35-100	
2-Fluorobiphenyl		50-110	45-105	
2,4,6-Tribromophenol		40-110	40-125	
d14-p-terphenyl		50-130	30-125	
PAH's by SIM				
d5-nitrobenzene		21-110	35-110	EPA 8270C
2-Fluorobiphenyl		36-121	45-105	
d14-p-terphenyl		33-141	30-125	
Pesticides and PCBs				
2,4,5,6-Tetrachloro-m-xylene (TCX)		46-122	40-130	EPA 608/8082
Decachlorobiphenyl (DCB)		40-135	40-130	
Herbicides				
Dichloroacetic acid (DCAA0		30-150	30-150	
Gasoline Range Organics/TPH Gasoline				
Trifluorotoluene TFT (FID)		60-140	60-140	MEDEP 4217/EPA 8015
Bromofluorobenzene (BFB) (FID)		60-140	60-140	
Trifluorotoluene TFT (PID)		60-140	60-140	
Bromofluorobenzene (BFB) (PID)		60-140	60-140	
Diesel Range Organics/TPH Diesel				
m-terphenyl		60-140	60-140	MEDEP 4125/EPA 8015/CT ETPH

HERBICIDE DATA SUMMARIES

Ms. Pam Gagnon
Eastern Analytical, Inc.
25 Chenell Drive
Concord, NH 03301

July 16, 2009

SAMPLE DATA

Lab Sample ID: B07139HW
Matrix: Aqueous
Percent Solid: N/A
Dilution Factor: 1
Collection Date:
Lab Receipt Date:
Extraction Date: 07/13/09
Analysis Date: 07/14/09

CLIENT SAMPLE ID

Project Name: 3022
Project Number: 80732
Client Sample ID: LABQC

ANALYTICAL RESULTS CHLORINATED HERBICIDES

COMPOUND	Quantitation Limit µg/L	Results µg/L
----------	----------------------------	-----------------

Pentachlorophenol	0.25	U
-------------------	------	---

Surrogate Standard Recovery

2,4-Dichlorophenylacetic acid 73 %

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Samples were analyzed according to Test Methods for Evaluating Solid Waste, SW-846 Method 8151.

COMMENTS:

Authorized signature

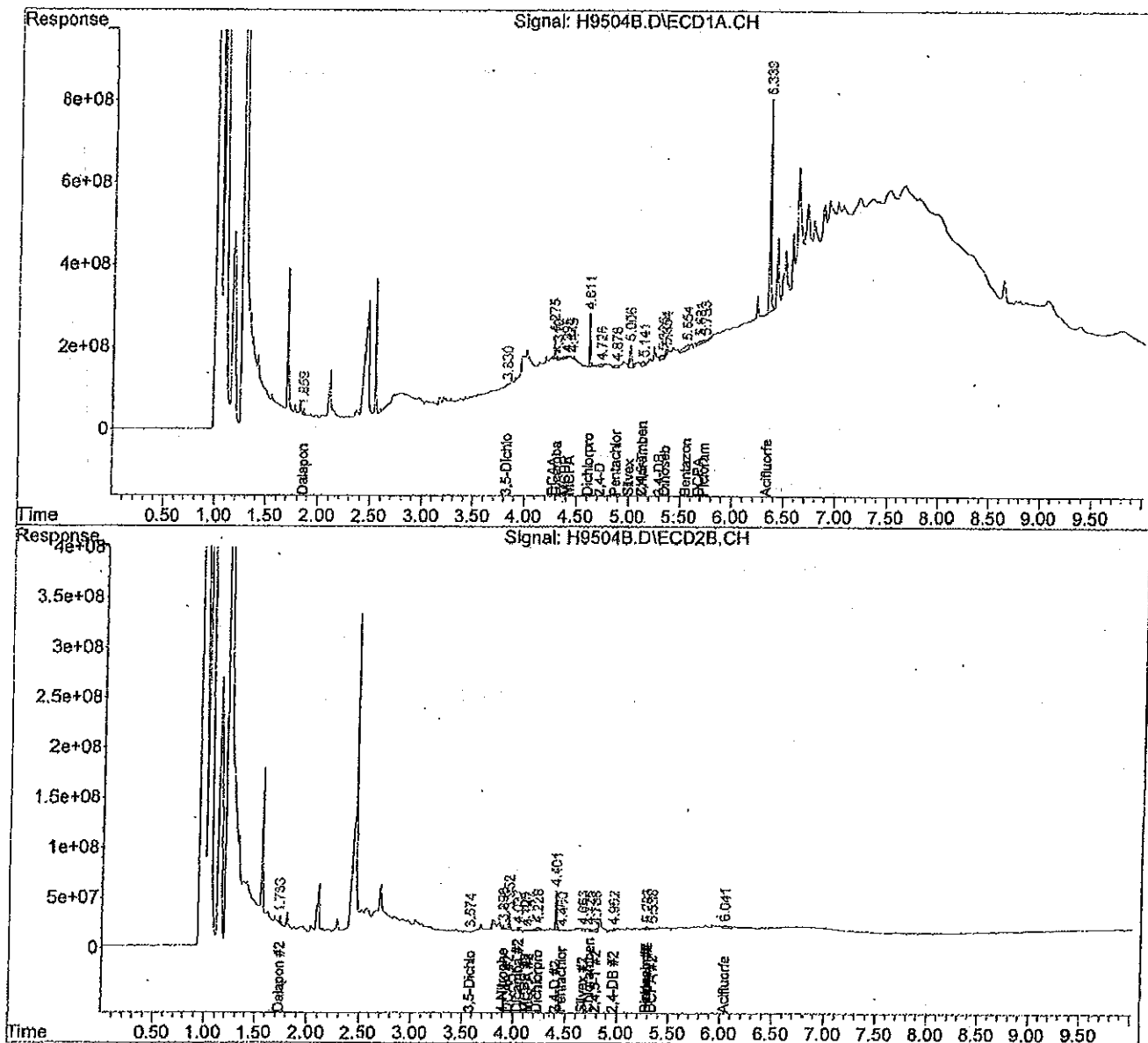


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\071409-H\
 Data File : H9504B.D
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
 Acq On : 14 Jul 2009 9:22 pm
 Operator :
 Sample : B07139HW
 Misc :
 ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e
 Integration File signal 2: events2.e
 Quant Time: Jul 15 16:16:59 2009
 Quant Method : C:\msdchem\1\METHODS\H07109.M
 Quant Title : Herbicide Dual-Widebore
 QLast Update : Wed Jul 15 16:13:57 2009
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :



Ms. Pam Gagnon
Eastern Analytical, Inc.
25 Chenell Drive
Concord, NH 03301

July 16, 2009

SAMPLE DATA

Lab Sample ID: 64245-1
Matrix: Aqueous
Percent Solid: N/A
Dilution Factor: 1
Collection Date: 07/09/09
Lab Receipt Date: 07/10/09
Extraction Date: 07/13/09
Analysis Date: 07/14/09

CLIENT SAMPLE ID

Project Name: 3022
Project Number: 80732
Client Sample ID: MW-4

ANALYTICAL RESULTS CHLORINATED HERBICIDES

COMPOUND	Quantitation Limit µg/L	Results µg/L
----------	----------------------------	-----------------

Pentachlorophenol	0.26	U
-------------------	------	---

Surrogate Standard Recovery

2,4-Dichlorophenylacetic acid 80 %

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Samples were analyzed according to Test Methods for Evaluating Solid Waste, SW-846 Method 8151.

COMMENTS:

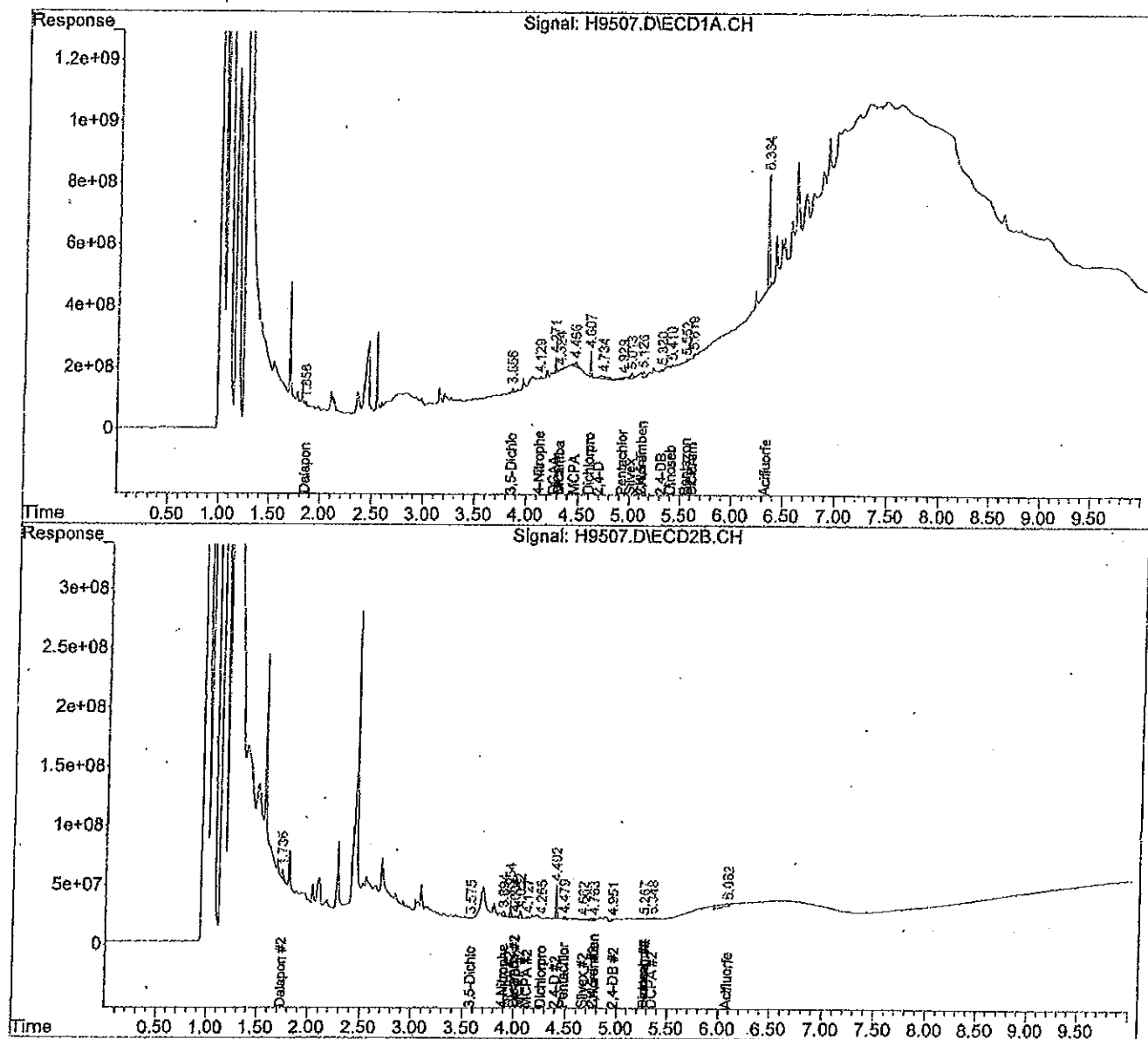
Authorized signature

[Signature]

```
Data Path : C:\msdchem\1\DATA\071409-H\  
Data File : H9507.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 14 Jul 2009 10:04 pm  
Operator :  
Sample : 64245-1  
Misc :  
ALS Vial : 12 Sample Multiplier: 1
```

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jul 15 16:25:22 2009
Quant Method : C:\msdchem\1\METHODS\H07109.M
Quant Title : Herbicide Dual-Widebore
QLast Update : Wed Jul 15 16:13:57 2009
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

```
Volume Inj.      :
Signal #1 Phase  :          Signal #2 Phase:
Signal #1 Info   :          Signal #2 Info  :
```



HERBICIDE
QC FORMS

HERBICIDE WATER
LABORATORY CONTROL SAMPLE/DUPLICATE
PERCENT RECOVERY

Instrument ID: H

GC Column #1: RTX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: RTX-CLPesticides II

Column ID: 0.25 mm

SDG: 64245

Non-spiked sample: B07139HW

Spike: L07139HW

Spike duplicate: LD07139HW

COMPOUND	LCS SPIKE ADDED (ug/L)	LCSD SPIKE ADDED (ug/L)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/L)	SPIKE RESULT (ug/L)	SPIKE % REC #	SPIKE DUP RESULT (ug/L)	SPIKE DUP % REC #	RPD #
----------	---------------------------	----------------------------	----------------	----------------	--------------	----------------------------	------------------------	------------------	----------------------------	----------------------	-------

Pentachlorophenol	2.00	2.00	40	140	25	0.05	1.34	65	1.37	66	2
-------------------	------	------	----	-----	----	------	------	----	------	----	---

Pentachlorophenol #2	2.00	2.00	40	140	25	0.00	1.20	60	1.17	58	2
----------------------	------	------	----	-----	----	------	------	----	------	----	---

Column to be used to flag recovery and RPD values outside of QC limits

* Values outside QC limits

LCS/LCSD spike added values have been volume adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: _____

CHAIN OF CUSTODIES

CHAIN-OF-CUSTODY RECORD

eastern analytical
professional laboratory services

Sample ID

Date Sampled Matrix

Parameters

MMW-4

7/9/2009 13:30

aqueous

Pentachlorophenol Water Subcontract

Sample Notes

64245-1

Analytics Report 64245 page 0013 of 14

EAI SRB# 80732

Project State: NH

Project ID: 3022

Company Analytics Environmental Labs

Address 195 Commerce Way

Address Portsmouth, NH 03801

Account #

Phone # 436-5111

Fax Number 430-2151

Eastern Analytical, Inc. 25 Chenell Dr. Concord, NH 03301

Phone: (603)228-0525

1-800-287-0525

Fax: (603)228-4591

Results Needed by: Preferred date

QC Deliverables

☐ A ☐ A+ ☒ B ☐ B+ ☐ C ☐ DE

Notes about project

7/10/09 Received @ 5.0°C

Sampled in 10 liter Residual Chlorine test /
with KI paper

STA

Labels by 7/10/09

Eastern Analytical Inc. PO Number 24225

Report To: Front Office / Ship hard copy overnight

E-Mail PDF: customerservice@ealabs.com

Invoice To: Front Office with hard copy report

Samples Collected by:

Relinquished by

Date/Time

Received by

Relinquished by

Date/Time

Received by

ANALYTICS SAMPLE RECEIPT CHECKLIST

AEL LAB#: 64245
 CLIENT: EAI
 PROJECT: 20732

COOLER NUMBER: —
 NUMBER OF COOLERS: 1
 DATE RECEIVED: 7-10-09

A: PRELIMINARY EXAMINATION:

DATE COOLER OPENED: 7-10-09
 Date Received: 7-10-09

1. Cooler received by (Initials)

2. Circle one:

Hand delivered
(if so, skip 3)

Shipped

3. Did cooler come with a shipping slip?

Y

NA

3a. Enter carrier name and airbill number here:

4. Were custody seals on the outside of cooler?

How many & where:

Seal Date:

Seal Name:

Y

NA

5. Did the custody seals arrive unbroken and intact upon arrival?

Y

NA

6. COC#:

7. Were Custody papers filled out properly (lnk, signed, etc)?

Y

N

8. Were custody papers sealed in a plastic bag?

Y

N

9. Did you sign the COC in the appropriate place?

Y

N

10. Was the project identifiable from the COC papers?

Y

N

11. Was enough ice used to chill the cooler?

Y N

Temp. of cooler:

8.0°C

B. Log-In: Date samples were logged in:

7-10-09

By: my

12. Type of packing in cooler (bubble wrap popcorn)

Y

N

13. Were all bottles sealed in separate plastic bags?

Y

N

14. Did all bottles arrive unbroken and were labels in good condition?

Y

N

15. Were all bottle labels complete (ID, Date, time, etc.)

Y

N

16. Did all bottle labels agree with custody papers?

Y

N

17. Were the correct containers used for the tests indicated?

Y

N

18. Were samples received at the correct pH?

Y

NA

19. Was sufficient amount of sample sent for the tests indicated?

Y

N

20. Were bubbles absent in VOA samples?

Y

NA

If NO, List sample #'s:

21. Laboratory labeling verified by (initials):

ju Date: 7-10-09



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

July 17, 2009

FOR: Attn: Front Office
Eastern Analytical
25 Chennell Drive
Concord, NH 03301

Sample Information

Matrix: WATER
Location Code: EASTANAL
Rush Request:
P.O.#: 24224

Custody Information

Collected by:
Received by: LB
Analyzed by: see "By" below

Date	Time
07/09/09	13:30
07/10/09	12:00

Laboratory Data

SDG I.D.: GAR92912
Phoenix I.D.: AR92912

Client ID: 80732 MW-4

Parameter	Result	RL	Units	Date	Time	By	Reference
Ethylene Dibromide	< 0.02	0.02	ug/L	07/15/09		JRB	504.1

Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

ND=Not detected BDL=Below Detection Level RL=Reporting Level

Phyllis Shiller, Laboratory Director
July 17, 2009



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Tel. (860) 645-1102 Fax (860) 645-0823



QA/QC Report

July 17, 2009

QA/QC Data

SDG I.D.: GAR92912

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS Rec %	MS Dup Rec %	RPD
-----------	-------	----------	-----------	------------	-------------	-----------------	-----

QA/QC Batch 131697, QC Sample No: AR92912 (AR92912)

EDB and DBCP Analysis

1,2-Dibromo-3-Chloropropane (DBCP)	ND	95	100	5.1			
1,2-Dibromoethane (EDB)	ND	96	105	9.0			

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

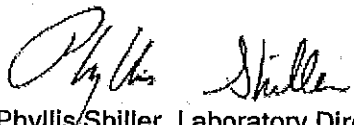
LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria


Phyllis Shiller, Laboratory Director
July 17, 2009

CHAIN-OF-CUSTODY RECORD

eastern analytical
professional laboratory services

10°

Sample ID	Date Sampled	Matrix	eParameters	Sample Notes
MW-4	7/12/2009	Aqueous	ED3 S04 Subcontract	92912
	13:30			

EAL SRE# 80732

Project State: NH

Project ID: 3022

Results Needed by: Preferred date

QC Deliverables

☐ A ☐ A+ ☒ B ☐ B+ ☐ C ☐ DE

Notes about project

5 DAY TAT

Account #

Phone # (860) 645-1102

Fax Number 860 645-0823

Eastern Analytical, Inc. 25 Chandler Dr. Concord, NH 03301

Phone: (603) 228-0525

1-800-287-0525

Fax: (603) 228-4591

Eastern Analytical Inc. PO Number 24224

Report To: Front Office / Ship hard copy overnight

E-Mail PDF: customerservice@ealabs.com

Invoice To: Front Office with hard copy report

Samples Collected by:

Relinquished by

Date/Time

Received by

Relinquished by

Date/Time

Received by

7

SITE HISTORY: _____
SUSPECTED CONTAMINATION: _____ PM
FIELD READINGS: _____ 7/17/09

OTHER METALS: S8, AS, CD, CR, CU, FE, Pb
Zn, Ag, Se, Hg, Ni

DISPOSED METALS FIELD FILTERED? YES NO

NOTES: (IE: SPECIAL DETECTION LIMITS, BILLING INFO, IF DIFFERENT)

+ RGP APPEAR X 3 COMPANIES
 only

* S2, Cu & Zn in Blaine blz bz 10:30
 1:4 Dioxane Zn in Blaine blz bz 9:30

SITE HISTORY: _____
SUSPECTED CONTAMINATION: _____
FIELD READINGS: _____
7/17/09



eastern analytical

professional laboratory services

Ross Bennett
Golder Associates, Inc.
670 N. Commercial St., Suite 103
Manchester, NH 03101



Subject: Laboratory Report

Eastern Analytical, Inc. ID: 80462
Client Identification: NHDOT Hampton | 093-87125
Date Received: 7/1/2009

Dear Mr. Bennett:

Enclosed please find the laboratory report for the above identified project. All analyses were performed in accordance with our QA/QC Program. Unless otherwise stated, holding times, preservation techniques, container types, and sample conditions adhered to EPA Protocol. Samples which were collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures. Eastern Analytical, Inc. certifies that the enclosed test results meet all requirements of NELAP and other applicable state certifications. Please refer to our website at www.eailabs.com for a copy of our NELAP certificate and accredited parameters.

The following standard abbreviations and conventions apply to all EAI reports:

- Solid samples are reported on a dry weight basis, unless otherwise noted
- < : "less than" followed by the reporting limit
- > : "greater than" followed by the reporting limit
- %R : % Recovery

Eastern Analytical Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269) and Vermont (VT1012).

The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the the written approval of the laboratory.

If you have any questions regarding the results contained within, please feel free to directly contact me or the chemist(s) who performed the testing in question. Unless otherwise requested, we will dispose of the sample(s) 30 days from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,


Lorraine Olashaw, Lab Director

7.13.09
Date

10
of pages (excluding cover letter)



SAMPLE CONDITIONS PAGE

Eastern Analytical, Inc. ID#: 80462

Client: Golder Associates, Inc.

Client Designation: NHDOT Hampton | 093-87125

Temperature upon receipt (°C): 9

Received on ice or cold packs (Yes/No): Y

Lab ID	Sample ID	Date Received	Date Sampled	Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
80462.01	Effluent	7/1/09	6/30/09	aqueous		Adheres to Sample Acceptance Policy
80462.02	Midfluent	7/1/09	6/30/09	aqueous		Adheres to Sample Acceptance Policy
80462.03	Influent	7/1/09	6/30/09	aqueous		Adheres to Sample Acceptance Policy

Samples were properly preserved and the pH measured when applicable unless otherwise noted. Analysis of solids for pH, Flashpoint, Ignitability, Paint Filter, Corrosivity, Conductivity and Specific Gravity are reported on an "as received" basis.

All results contained in this report relate only to the above listed samples.

References include:

- 1) EPA 600/4-79-020, 1983
- 2) Standard Methods for Examination of Water and Wastewater : Inorganics, 19th Edition, 1995; Microbiology, 20th Edition, 1998
- 3) Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
- 4) Hach Water Analysis Handbook, 2nd edition, 1992

eastern analytical, inc.

www.eailabs.com

Phone: (603) 228-0525



LABORATORY REPORT

Eastern Analytical, Inc. ID#: 80462

Client: Golder Associates, Inc.

Client Designation: NHDOT Hampton | 093-87125

Sample ID:	Effluent	Midfluent	Influent
Lab Sample ID:	80462.01	80462.02	80462.03
Matrix:	aqueous	aqueous	aqueous
Date Sampled:	6/30/09	6/30/09	6/30/09
Date Received:	7/1/09	7/1/09	7/1/09
Units:	ug/l	ug/l	ug/l
Date of Extraction/Prep:	7/2/09	7/2/09	7/2/09
Date of Analysis:	7/6/09	7/6/09	7/6/09
Analyst:	BML	BML	BML
Method:	8270D	8270D	8270D
Dilution Factor:	1	1	1
Naphthalene	< 0.1	< 0.1	0.2
2-Methylnaphthalene	< 0.1	< 0.1	< 0.1
Acenaphthylene	< 0.1	< 0.1	0.3
Acenaphthene	< 0.1	< 0.1	2.2
Fluorene	< 0.1	< 0.1	3.1
Phenanthrene	< 0.1	< 0.1	0.3
Anthracene	< 0.1	< 0.1	0.2
Fluoranthene	< 0.1	< 0.1	0.2
Pyrene	< 0.1	< 0.1	0.3
Benzo[a]anthracene	< 0.1	< 0.1	< 0.1
Chrysene	< 0.1	< 0.1	< 0.1
Benzo[b]fluoranthene	< 0.1	< 0.1	< 0.1
Benzo[k]fluoranthene	< 0.1	< 0.1	< 0.1
Benzo[a]pyrene	< 0.1	< 0.1	< 0.1
Indeno[1,2,3-cd]pyrene	< 0.1	< 0.1	< 0.1
Dibenz[a,h]anthracene	< 0.1	< 0.1	< 0.1
Benzo[g,h,i]perylene	< 0.1	< 0.1	< 0.1
p-Terphenyl-D14 (surr)	104 %R	105 %R	111 %R



QC REPORT

Eastern Analytical, Inc. ID#: 80462

Batch ID:

Client: Golder Associates, Inc.

Client Designation: NHDOT Hampton | 093-87125

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
Naphthalene	< 0.1	17 (87 %R)	17 (87 %R) (0 RPD)	7/1/2009	ug/l	30 - 160	50	8270D
2-Methylnaphthalene	< 0.1	20 (100 %R)	19 (97 %R) (3 RPD)	7/1/2009	ug/l	30 - 160	50	8270D
Acenaphthylene	< 0.1	19 (95 %R)	19 (95 %R) (0 RPD)	7/1/2009	ug/l	30 - 160	50	8270D
Acenaphthene	< 0.1	18 (92 %R)	18 (92 %R) (0 RPD)	7/1/2009	ug/l	46 - 118	31	8270D
Fluorene	< 0.1	19 (95 %R)	19 (94 %R) (1 RPD)	7/1/2009	ug/l	30 - 160	50	8270D
Phenanthrene	< 0.1	18 (92 %R)	18 (92 %R) (0 RPD)	7/1/2009	ug/l	30 - 160	50	8270D
Anthracene	< 0.1	18 (90 %R)	18 (91 %R) (1 RPD)	7/1/2009	ug/l	30 - 160	50	8270D
Fluoranthene	< 0.1	19 (95 %R)	19 (95 %R) (0 RPD)	7/1/2009	ug/l	30 - 160	50	8270D
Pyrene	< 0.1	20 (99 %R)	19 (95 %R) (4 RPD)	7/1/2009	ug/l	26 - 127	31	8270D
Benzo[a]anthracene	< 0.1	17 (85 %R)	17 (83 %R) (2 RPD)	7/1/2009	ug/l	30 - 160	50	8270D
Chrysene	< 0.1	19 (95 %R)	19 (95 %R) (0 RPD)	7/1/2009	ug/l	30 - 160	50	8270D
Benzo[b]fluoranthene	< 0.1	19 (96 %R)	19 (97 %R) (1 RPD)	7/1/2009	ug/l	30 - 160	50	8270D
Benzo[k]fluoranthene	< 0.1	19 (95 %R)	19 (97 %R) (2 RPD)	7/1/2009	ug/l	30 - 160	50	8270D
Benzo[a]pyrene	< 0.1	20 (101 %R)	21 (103 %R) (2 RPD)	7/1/2009	ug/l	30 - 160	50	8270D
Indeno[1,2,3-cd]pyrene	< 0.1	20 (100 %R)	20 (99 %R) (1 RPD)	7/1/2009	ug/l	30 - 160	50	8270D
Dibenz[a,h]anthracene	< 0.1	20 (99 %R)	20 (102 %R) (3 RPD)	7/1/2009	ug/l	30 - 160	50	8270D
Benzo[g,h,i]perylene	< 0.1	19 (97 %R)	20 (99 %R) (2 RPD)	7/1/2009	ug/l	30 - 160	50	8270D
p-Terphenyl-D14 (surr)	104 %R	111 %R	106 %R	7/1/2009	% Rec	33 - 141		8270D

Samples were extracted and analyzed within holding time limits.

Instrumentation was calibrated in accordance with the method requirements.

The method blanks were free of contamination at the reporting limits.

Sample surrogate recoveries met the above stated criteria.

The associated matrix spikes and/or Laboratory Control Samples met acceptance criteria.

There were no exceptions in the analyses, unless noted.

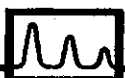
* Flagged analyte recoveries deviated above the QA/QC limits.



Client Designation: NHDOT Hampton | 093-87125

TPH(SGTHEM)	< 5	< 5	< 5
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	Analysis			
Units	Date	Time	Method	Analyst
mg/L	7/06/09	9:25	1664A	JLL



QC REPORT

Eastern Analytical, Inc. ID#: 80462

Batch ID: 733594-47143/A070609TPH161

Client: Golder Associates, Inc.

Client Designation: NHDOT Hampton | 093-87125

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
TPH(SGTHEM)	< 5	19 (96 %R)	19 (97 %R) (1 RPD)	7/6/2009	mg/L	64 - 132	34	1664A

Samples were extracted and analyzed within holding time limits.
Instrumentation was calibrated in accordance with the method requirements.
The method blanks were free of contamination at the reporting limits.
Sample surrogate recoveries met the above stated criteria.
The associated matrix spikes and/or Laboratory Control Samples met acceptance criteria.
There were no exceptions in the analyses, unless noted.
* Flagged analyte recoveries deviated above the QA/QC limits.



LABORATORY REPORT

Eastern Analytical, Inc. ID#: 80462

Client: Golder Associates, Inc.

Client Designation: NHDOT Hampton | 093-87125

Sample ID: Effluent Midfluent Influent

Lab Sample ID: 80462.01 80462.02 80462.03

Matrix: aqueous aqueous aqueous

Date Sampled: 6/30/09 6/30/09 6/30/09

Date Received: 7/1/09 7/1/09 7/1/09

Solids Suspended < 5 < 5 27

Cyanide Total 0.01 < 0.01 0.01

Units	Analysis			
	Date	Time	Method	Analyst
mg/L	7/02/09	9:30	2540D	KJV
mg/L	7/06/09	10:00	4500CNE	JCC



QC REPORT

Eastern Analytical, Inc. ID#: 80462

Client: Golder Associates, Inc.

Client Designation: NHDOT Hampton | 093-87125

Parameter Name	Blank	LCS	LCSD	Units	Date of Analysis	Limits	RPD	Method
Solids Suspended	< 2	93 (93 %R)	NA	mg/L	7/2/09	90 - 110	20	2540D
Cyanide Total	< 0.01	0.22 (86 %R)	0.22 (90 %R) (5 RPD)	mg/L	7/6/09	85 - 115	20	4500CNE

Parameter Name	MS/MSD Parent ID	MS/MSD Parent	Matrix Spike	MSD	Units	Date of Analysis	Limits	RPD	Method
Solids Suspended		NA	NA	NA	mg/L	7/2/09		20	2540D
Cyanide Total	80472.01	< 0.01	0.20 (97 %R)	0.20 (99 %R) (2 RPD)	mg/L	7/6/09	80-120	20	4500CNE

Samples were analyzed within holding times unless noted on the sample results page.

Instrumentation was calibrated in accordance with the method requirements.

The method blanks were free of contamination at the reporting limits.

The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.

Exceptions to the above statements are flagged or noted above or on the QC Narrative page.

* Flagged analyte recoveries deviated above the QA/QC limits.



LABORATORY REPORT

Eastern Analytical, Inc. ID#: 80462

Client: Golder Associates, Inc.

Client Designation: NHDOT Hampton | 093-87125

Sample ID:	Effluent	Midfluent	Influent						
Lab Sample ID:	80462.01	80462.02	80462.03						
Matrix:	aqueous	aqueous	aqueous						
Date Sampled:	6/30/09	6/30/09	6/30/09						
Date Received:	7/1/09	7/1/09	7/1/09						
				Analytical		Date of			
				Matrix	Units	Analysis	Method	Analyst	
Copper	0.003	0.004	0.29	AqTot	mg/L	7/7/09	200.8	DS	
Iron	< 0.05	< 0.05	8.2	AqTot	mg/L	7/7/09	200.8	DS	
Lead	0.0009	< 0.0005	0.040	AqTot	mg/L	7/7/09	200.8	DS	
Zinc	0.043	0.026	0.054	AqTot	mg/L	7/7/09	200.8	DS	



QC REPORT

Eastern Analytical, Inc. ID#: 80462

Client: Golder Associates, Inc.

Client Designation: NHDOT Hampton | 093-87125

Parameter Name	Blank	LCS	LCSD	Units	Date of Analysis	Limits	RPD	Method
Copper	< 0.001	1.0 (101 %R)		mg/L	7/7/09	85 - 115	20	200.8
Iron	< 0.05	11 (102 %R)		mg/L	7/7/09	85 - 115	20	200.8
Lead	< 0.001	1.0 (103 %R)		mg/L	7/7/09	85 - 115	20	200.8
Zinc	< 0.005	0.85 (85 %R)		mg/L	7/7/09	85 - 115	20	200.8

Parameter Name	MS/MSD Parent ID	MS/MSD Parent	Matrix Spike	MSD	Units	Date of Analysis	Limits	RPD	Method
Copper	80377.05	0.002	1.0 (103 %R)	1.0 (104 %R) (1 RPD)	mg/L	7/7/09	70-130	20	200.8
Iron	80377.05	< 0.05	11 (99 %R)	11 (99 %R) (0 RPD)	mg/L	7/7/09	70-130	20	200.8
Lead	80377.05	< 0.001	1.1 (112 %R)	1.1 (113 %R) (1 RPD)	mg/L	7/7/09	70-130	20	200.8
Zinc	80377.05	< 0.005	0.78 (78 %R)	0.78 (78 %R) (0 RPD)	mg/L	7/7/09	70-130	20	200.8

Samples were analyzed within holding times unless noted on the sample results page.

Instrumentation was calibrated in accordance with the method requirements.

The method blanks were free of contamination at the reporting limits.

The associated matrix spikes and/or Laboratory Control Samples met the above stated criteria.

Exceptions to the above statements are flagged or noted above or on the QC Narrative page.

* Flagged analyte recoveries deviated above the QA/QC limits.

CHAIN-OF-CUSTODY RECORD
BOLD FIELDS REQUIRED. PLEASE CIRCLE REQUESTED ANALYSIS.

[illegible]

MATRIX: A-AIR; S-SOIL; GW-GROUND WATER; SW-SURFACE WATER; DW-DRINKING WATER;
WW-WASTE WATER

PRESERVATIVE: H-HCl; N-HNO₃; S-H₂SO₄; Na-NaOH; M-MEONH

PROJECT MANAGER: Ross Bennett
 COMPANY: Gordon
 ADDRESS: 670 N. Commercial St
 CITY: MANCHESTER STATE: NH ZIP: 03101
 PHONE: 608-0880 EXT.:
 FAX: 608-1141
 E-MAIL: RBENNETT@GORDON.COM
 SITE NAME: NH DOT / HAMPTON
 PROJECT #: 093-87123
 DATE: 11/10/09 MA ME VT OTHER:
 REGULATORY PROGRAM: NPDES GGP POTW STORMWATER OR
 GWP, OIL FUND, BROWNFIELD OR OTHER:
 QUOTE #: PO #:

 **eastern analytical, inc.** 25 CHENELL DRIVE | CONCORD, NH 03301 | TEL: 603.228.0525 | FAX: 603.228.4591 | E-MAIL: CUSTOMER_SERVICE@EAILABS.COM | WWW.EAILABS.COM
professional laboratory services

(WHITE: ORIGINAL GREEN: PROJECT MANAGER)



eastern analytical

professional laboratory services

Ross Bennett
Golder Associates, Inc.
670 N. Commercial St., Suite 103
Manchester, NH 03101



Subject: Laboratory Report

Eastern Analytical, Inc. ID: 79491

Client Identification: NHDOT - Hampton Tolls | 093-87125

Date Received: 5/29/2009

Dear Mr. Bennett:

Enclosed please find the laboratory report for the above identified project. All analyses were performed in accordance with our QA/QC Program. Unless otherwise stated, holding times, preservation techniques, container types, and sample conditions adhered to EPA Protocol. Samples which were collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures. Eastern Analytical, Inc. certifies that the enclosed test results meet all requirements of NELAP and other applicable state certifications. Please refer to our website at www.eailabs.com for a copy of our NELAP certificate and accredited parameters.

The following standard abbreviations and conventions apply to all EAI reports:

Solid samples are reported on a dry weight basis, unless otherwise noted

< : "less than" followed by the reporting limit

> : "greater than" followed by the reporting limit

%R : % Recovery

Eastern Analytical Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269) and Vermont (VT1012).

The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the the written approval of the laboratory.

If you have any questions regarding the results contained within, please feel free to directly contact me or the chemist(s) who performed the testing in question. Unless otherwise requested, we will dispose of the sample(s) 30 days from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

Lorraine Olashaw, Lab Director

6.5.09

Date

7

of pages (excluding cover letter)



SAMPLE CONDITIONS PAGE

Eastern Analytical, Inc. ID#: 79491

Client: Golder Associates, Inc.

Client Designation: NHDOT - Hampton Tolls | 093-87125

Temperature upon receipt (°C): 2

Received on ice or cold packs (Yes/No): Y

Lab ID	Sample ID	Date Received	Date Sampled	Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
79491.01	MW-1	5/29/09	5/28/09	aqueous		Adheres to Sample Acceptance Policy
79491.02	JW-2	5/29/09	5/28/09	aqueous		Adheres to Sample Acceptance Policy
79491.03	JW-1	5/29/09	5/28/09	aqueous		Adheres to Sample Acceptance Policy
79491.04	Trip Blank	5/29/09	5/18/09	aqueous		Adheres to Sample Acceptance Policy Bubble in both vials

Samples were properly preserved and the pH measured when applicable unless otherwise noted. Analysis of solids for pH, Flashpoint, Ignitibility, Paint Filter, Corrosivity, Conductivity and Specific Gravity are reported on an "as received" basis.

All results contained in this report relate only to the above listed samples.

References include:

- 1) EPA 600/4-79-020, 1983
- 2) Standard Methods for Examination of Water and Wastewater : Inorganics, 19th Edition, 1995; Microbiology, 20th Edition, 1998
- 3) Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
- 4) Hach Water Analysis Handbook, 2nd edition, 1992

eastern analytical, inc.

www.eailabs.com

Phone: (603) 228-0525



LABORATORY REPORT

Eastern Analytical, Inc. ID#: 79491

Client: Golder Associates, Inc.

Client Designation: NHDOT - Hampton Tolls | 093-87125

Sample ID:	MW-1	JW-2	JW-1	Trip Blank
Lab Sample ID:	79491.01	79491.02	79491.03	79491.04
Matrix:	aqueous	aqueous	aqueous	aqueous
Date Sampled:	5/28/09	5/28/09	5/28/09	5/18/09
Date Received:	5/29/09	5/29/09	5/29/09	5/29/09
Units:	ug/l	ug/l	ug/l	ug/l
Date of Analysis:	6/3/09	6/3/09	6/3/09	6/3/09
Analyst:	BAM	BAM	BAM	BAM
Method:	8260B	8260B	8260B	8260B
Dilution Factor:	1	1	1	1
Dichlorodifluoromethane	< 5	< 5	< 5	< 5
Chloromethane	< 2	< 2	< 2	< 2
Vinyl chloride	< 2	< 2	< 2	< 2
Bromomethane	< 2	< 2	< 2	< 2
Chloroethane	< 5	< 5	< 5	< 5
Trichlorofluoromethane	< 5	< 5	< 5	< 5
Diethyl Ether	< 5	< 5	< 5	< 5
Acetone	< 10	< 10	< 10	< 10
1,1-Dichloroethene	< 1	< 1	< 1	< 1
tert-Butyl Alcohol (TBA)	< 30	< 30	< 30	< 30
Methylene chloride	< 5	< 5	< 5	< 5
Carbon disulfide	< 5	< 5	< 5	< 5
Methyl-t-butyl ether(MTBE)	< 5	< 5	< 5	< 5
Ethyl-t-butyl ether(ETBE)	< 5	< 5	< 5	< 5
Isopropyl ether(DIPE)	< 5	< 5	< 5	< 5
tert-amyl methyl ether(TAME)	< 5	< 5	< 5	< 5
trans-1,2-Dichloroethene	< 2	< 2	< 2	< 2
1,1-Dichloroethane	< 2	< 2	< 2	< 2
2,2-Dichloropropane	< 2	< 2	< 2	< 2
cis-1,2-Dichloroethene	< 2	< 2	< 2	< 2
2-Butanone(MEK)	< 10	< 10	< 10	< 10
Bromochloromethane	< 2	< 2	< 2	< 2
Tetrahydrofuran(THF)	< 10	< 10	< 10	< 10
Chloroform	< 2	< 2	< 2	< 2
1,1,1-Trichloroethane	< 2	< 2	< 2	< 2
Carbon tetrachloride	< 2	< 2	< 2	< 2
1,1-Dichloropropene	< 2	< 2	< 2	< 2
Benzene	< 1	< 1	< 1	< 1
1,2-Dichloroethane	< 2	< 2	< 2	< 2
Trichloroethene	8	< 2	< 2	< 2
1,2-Dichloropropane	< 2	< 2	< 2	< 2
Dibromomethane	< 2	< 2	< 2	< 2
Bromodichloromethane	< 0.5	< 0.5	< 0.5	< 0.5
4-Methyl-2-pentanone(MIBK)	< 10	< 10	< 10	< 10
cis-1,3-Dichloropropene	< 2	< 2	< 2	< 2
Toluene	< 1	< 1	< 1	< 1
trans-1,3-Dichloropropene	< 2	< 2	< 2	< 2
1,1,2-Trichloroethane	< 2	< 2	< 2	< 2
2-Hexanone	< 10	< 10	< 10	< 10
Tetrachloroethene	< 2	< 2	< 2	< 2
1,3-Dichloropropane	< 2	< 2	< 2	< 2
Dibromochloromethane	< 2	< 2	< 2	< 2
1,2-Dibromoethane(EDB)	< 2	< 2	< 2	< 2
Chlorobenzene	< 2	< 2	< 2	< 2
1,1,1,2-Tetrachloroethane	< 2	< 2	< 2	< 2
Ethylbenzene	< 1	< 1	< 1	< 1



LABORATORY REPORT

Eastern Analytical, Inc. ID#: 79491

Client: Golder Associates, Inc.

Client Designation: NHDOT - Hampton Tolls | 093-87125

Sample ID:	MW-1	JW-2	JW-1	Trip Blank
Lab Sample ID:	79491.01	79491.02	79491.03	79491.04
Matrix:	aqueous	aqueous	aqueous	aqueous
Date Sampled:	5/28/09	5/28/09	5/28/09	5/18/09
Date Received:	5/29/09	5/29/09	5/29/09	5/29/09
Units:	ug/l	ug/l	ug/l	ug/l
Date of Analysis:	6/3/09	6/3/09	6/3/09	6/3/09
Analyst:	BAM	BAM	BAM	BAM
Method:	8260B	8260B	8260B	8260B
Dilution Factor:	1	1	1	1
mp-Xylene	<1	<1	<1	<1
o-Xylene	<1	<1	<1	<1
Styrene	<1	<1	<1	<1
Bromoform	<2	<2	<2	<2
IsoPropylbenzene	<1	<1	<1	<1
Bromobenzene	<2	<2	<2	<2
1,1,2,2-Tetrachloroethane	<2	<2	<2	<2
1,2,3-Trichloropropane	<2	<2	<2	<2
n-Propylbenzene	<1	<1	<1	<1
2-Chlorotoluene	<2	<2	<2	<2
4-Chlorotoluene	<2	<2	<2	<2
1,3,5-Trimethylbenzene	<1	<1	<1	<1
tert-Butylbenzene	<1	<1	<1	<1
1,2,4-Trimethylbenzene	<1	<1	<1	<1
sec-Butylbenzene	<1	<1	<1	<1
1,3-Dichlorobenzene	<1	<1	<1	<1
p-Isopropyltoluene	<1	<1	<1	<1
1,4-Dichlorobenzene	<1	<1	<1	<1
1,2-Dichlorobenzene	<1	<1	<1	<1
n-Butylbenzene	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	<2	<2	<2	<2
1,3,5-Trichlorobenzene	<1	<1	<1	<1
1,2,4-Trichlorobenzene	<1	<1	<1	<1
Hexachlorobutadiene	<0.5	<0.5	<0.5	<0.5
Naphthalene	<5	<5	<5	<5
1,2,3-Trichlorobenzene	<1	<1	<1	<1
4-Bromofluorobenzene (surr)	95 %R	95 %R	94 %R	95 %R
1,2-Dichlorobenzene-d4 (surr)	104 %R	105 %R	106 %R	106 %R
Toluene-d8 (surr)	96 %R	93 %R	94 %R	94 %R



LABORATORY REPORT

Eastern Analytical, Inc. ID#:79491

Batch ID:

Client: Golder Associates, Inc.

Client Designation: NHDOT - Hampton Tolls | 093-87125

QC Report

Date of Analysis

Parameter Name	Blank	LCS	LCS Dup	Units	Method
Dichlorodifluoromethane	< 5			ug/l	6/3/09 8260B
Chloromethane	< 2			ug/l	6/3/09 8260B
Vinyl chloride	< 2			ug/l	6/3/09 8260B
Bromomethane	< 2			ug/l	6/3/09 8260B
Chloroethane	< 5			ug/l	6/3/09 8260B
Trichlorofluoromethane	< 5			ug/l	6/3/09 8260B
Diethyl Ether	< 5			ug/l	6/3/09 8260B
Acetone	< 10			ug/l	6/3/09 8260B
1,1-Dichloroethene	< 1	25 (123 %R)	25 (126 %R) (2 RPD)	ug/l	6/3/09 8260B
tert-Butyl Alcohol (TBA)	< 30			ug/l	6/3/09 8260B
Methylene chloride	< 5			ug/l	6/3/09 8260B
Carbon disulfide	< 5			ug/l	6/3/09 8260B
Methyl-t-butyl ether(MTBE)	< 5			ug/l	6/3/09 8260B
Ethyl-t-butyl ether(ETBE)	< 5			ug/l	6/3/09 8260B
Isopropyl ether(DIPE)	< 5			ug/l	6/3/09 8260B
tert-amyl methyl ether(TAME)	< 5			ug/l	6/3/09 8260B
trans-1,2-Dichloroethene	< 2			ug/l	6/3/09 8260B
1,1-Dichloroethane	< 2			ug/l	6/3/09 8260B
2,2-Dichloropropane	< 2			ug/l	6/3/09 8260B
cis-1,2-Dichloroethene	< 2			ug/l	6/3/09 8260B
2-Butanone(MEK)	< 10			ug/l	6/3/09 8260B
Bromochloromethane	< 2			ug/l	6/3/09 8260B
Tetrahydrofuran(THF)	< 10			ug/l	6/3/09 8260B
Chloroform	< 2			ug/l	6/3/09 8260B
1,1,1-Trichloroethane	< 2			ug/l	6/3/09 8260B
Carbon tetrachloride	< 2			ug/l	6/3/09 8260B
1,1-Dichloropropene	< 2			ug/l	6/3/09 8260B
Benzene	< 1	22 (111 %R)	23 (114 %R) (3 RPD)	ug/l	6/3/09 8260B
1,2-Dichloroethane	< 2			ug/l	6/3/09 8260B
Trichloroethene	< 2	22 (111 %R)	23 (113 %R) (2 RPD)	ug/l	6/3/09 8260B
1,2-Dichloropropane	< 2			ug/l	6/3/09 8260B
Dibromomethane	< 2			ug/l	6/3/09 8260B
Bromodichloromethane	< 0.5			ug/l	6/3/09 8260B
4-Methyl-2-pentanone(MIBK)	< 10			ug/l	6/3/09 8260B
cis-1,3-Dichloropropene	< 2			ug/l	6/3/09 8260B
Toluene	< 1	20 (100 %R)	20 (102 %R) (2 RPD)	ug/l	6/3/09 8260B
trans-1,3-Dichloropropene	< 2			ug/l	6/3/09 8260B
1,1,2-Trichloroethane	< 2			ug/l	6/3/09 8260B
2-Hexanone	< 10			ug/l	6/3/09 8260B
Tetrachloroethene	< 2			ug/l	6/3/09 8260B
1,3-Dichloropropane	< 2			ug/l	6/3/09 8260B
Dibromochloromethane	< 2			ug/l	6/3/09 8260B
1,2-Dibromoethane(EDB)	< 2			ug/l	6/3/09 8260B
Chlorobenzene	< 2	21 (103 %R)	21 (104 %R) (1 RPD)	ug/l	6/3/09 8260B



LABORATORY REPORT

Eastern Analytical, Inc. ID#:79491

Batch ID:

Client: Golder Associates, Inc.

Client Designation: NHDOT - Hampton Tolls | 093-87125

QC Report

Parameter Name	Blank	LCS	LCS Dup	Units	Date of Analysis	
						Method
1,1,1,2-Tetrachloroethane	< 2			ug/l	6/3/09	8260B
Ethylbenzene	< 1			ug/l	6/3/09	8260B
mp-Xylene	< 1			ug/l	6/3/09	8260B
o-Xylene	< 1			ug/l	6/3/09	8260B
Styrene	< 1			ug/l	6/3/09	8260B
Bromoform	< 2			ug/l	6/3/09	8260B
IsoPropylbenzene	< 1			ug/l	6/3/09	8260B
Bromobenzene	< 2			ug/l	6/3/09	8260B
1,1,2,2-Tetrachloroethane	< 2			ug/l	6/3/09	8260B
1,2,3-Trichloropropane	< 2			ug/l	6/3/09	8260B
n-Propylbenzene	< 1			ug/l	6/3/09	8260B
2-Chlorotoluene	< 2			ug/l	6/3/09	8260B
4-Chlorotoluene	< 2			ug/l	6/3/09	8260B
1,3,5-Trimethylbenzene	< 1			ug/l	6/3/09	8260B
tert-Butylbenzene	< 1			ug/l	6/3/09	8260B
1,2,4-Trimethylbenzene	< 1			ug/l	6/3/09	8260B
sec-Butylbenzene	< 1			ug/l	6/3/09	8260B
1,3-Dichlorobenzene	< 1			ug/l	6/3/09	8260B
p-Isopropyltoluene	< 1			ug/l	6/3/09	8260B
1,4-Dichlorobenzene	< 1			ug/l	6/3/09	8260B
1,2-Dichlorobenzene	< 1			ug/l	6/3/09	8260B
n-Butylbenzene	< 1			ug/l	6/3/09	8260B
1,2-Dibromo-3-chloropropane	< 2			ug/l	6/3/09	8260B
1,3,5-Trichlorobenzene	< 1			ug/l	6/3/09	8260B
1,2,4-Trichlorobenzene	< 1			ug/l	6/3/09	8260B
Hexachlorobutadiene	< 0.5			ug/l	6/3/09	8260B
Naphthalene	< 5			ug/l	6/3/09	8260B
1,2,3-Trichlorobenzene	< 1			ug/l	6/3/09	8260B
4-Bromofluorobenzene (surr)	95 %R	99 %R	101 %R	% Rec	6/3/09	8260B
1,2-Dichlorobenzene-d4 (surr)	104 %R	98 %R	97 %R	% Rec	6/3/09	8260B
Toluene-d8 (surr)	95 %R	95 %R	96 %R	% Rec	6/3/09	8260B



LABORATORY REPORT

Eastern Analytical, Inc. ID#:79491

Batch ID:

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Volatile Organic Compounds QC limits and Narrative Summary

Matrix: Units: EPA Method	Solid % 8260B	RPD %	Aqueous % 8260B	RPD %
Surrogate Recovery				
4-Bromofluorobenzene	74-121		86-115	
1,2-Dichlorobenzene-D4	80-120		80-120	
Toluene-d8	70-130		70-130	
Matrix Spike Recovery				
1,1-Dichloroethene	59-172	30	61-145	20
Trichloroethene	62-137	30	71-120	20
Benzene	66-142	30	76-127	20
Toluene	59-139	30	76-125	20
Chlorobenzene	60-133	30	75-130	20

Samples were extracted and analyzed within holding time limits.

Instrumentation was calibrated in accordance with the method requirements.

The method blanks were free of contamination at the reporting limits.

Sample surrogate recoveries met the above stated criteria.

The associated matrix spikes and/or Laboratory Control Samples met acceptance criteria.

There were no exceptions in the analyses, unless noted.

BOLD FIELDS REQUIRED. PLEASE CIRCLE REQUESTED ANALYSIS

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