

7 September 2006
Reference: 0051003

US Environmental Protection Agency
RGP-NOC Processing
Municipal Assistance Unit (CMU)
1 Congress Street, Suite 1100
Boston, MA 02114-2023



Subject: Notice of Intent
Remediation General Permit
Former Raytheon Facility
Wayland, Massachusetts

To Whom It May Concern:

On behalf of Raytheon Company (Raytheon), Environmental Resources Management (ERM) is submitting this Notice of Intent (NOI) for application of a Remedial General Permit (RGP) under the National Pollution Discharge Elimination System requirements. Volatile organic compound (VOC) impacted soil will be removed and disposed of off site under ongoing Massachusetts Contingency Plan (MCP) Phase IV activities at the former Raytheon facility at 430 Boston Post Road in Wayland Massachusetts (Site; Figure 1). The soil removal project will generate groundwater and potentially surface water from precipitation event(s) from an open excavation that will be treated and indirectly discharged to the Sudbury River.

BACKGROUND

Contamination in the northern area of the Site was first identified in 2002 when chlorinated VOCs were detected in groundwater during MCP Phase II characterization activities. The Massachusetts Department of Environmental Protection (DEP) assigned Release Tracking Number 3-22408 to the site.

In accordance with the MCP, remedial activities are being conducted as part of Comprehensive Response Actions under the supervision of a Licensed Site Professional (LSP). A Phase IV Remedy Implementation Plan (Phase IV), documenting site conditions and remedial plans, has

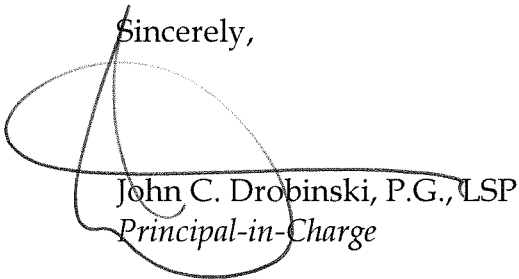
been submitted to the DEP. The Phase IV includes excavation of contaminated source area soils followed by enhanced bioremediation.

Treated groundwater will be discharged to the site storm water drainage system, which ultimately discharges to wetlands adjacent to the Sudbury River. The treatment system will run as needed to minimize disruptions to the project schedule and associated with groundwater seepage and precipitation.

A groundwater sample from the source area was collected by ERM on 11 August 2006 and submitted under proper chain-of-custody protocol to Alpha Analytical Laboratories of Westborough, Massachusetts. The sample was analyzed for the complete suite of compounds detailed in Appendix III of the RGP. The analytical report is attached.

If you have any questions or comments please contact the undersigned at (617) 646-7800.

Sincerely,



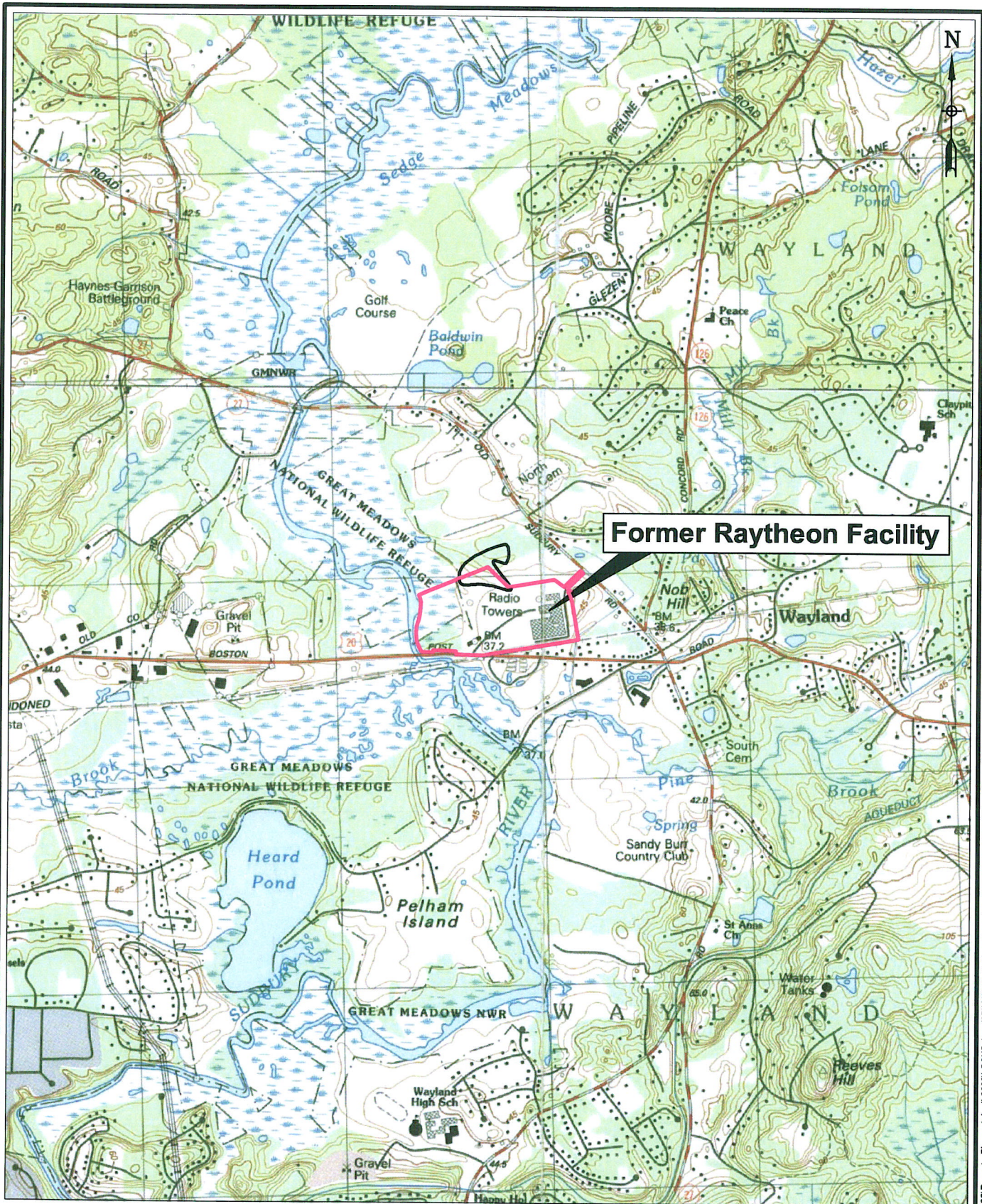
John C. Drobinski, P.G., LSP
Principal-in-Charge



Rachel B. Leary
Project Manager

enclosures: Figure 1 - Site Locus Map
Notice of Intent (with attachments)

cc: Massachusetts Department of Environmental Protection
Division of Watershed Management
627 Main Street, 2nd Floor
Worcester, MA 01608



Former Raytheon Facility

Scale 1:25,000





Legend	
	Subject Property Line
	Disposal Site Boundary

Figure 1 - Site Locus Map
Former Raytheon Facility - Wayland, MA



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 : Former Raytheon Facility		Facility/site address:		
Location of facility/site : longitude: <u>42 21 53.42 N</u> latitude: <u>71 22 11.40 W</u>	Facility SIC code(s): 3812	Street: 430 Boston Post Road		
b) Name of facility/site owner : Raytheon Company, Luis Burkhardt		Town: Wayland		
Email address of owner: louis_j_burkhardt@raytheon.com		State: MA	Zip: 01778	County: Middlesex
Telephone no. of facility/site owner : (978) 436-8238		Owner is (check one): 1. Federal _____ 2. State/Tribal _____ 3. Private <input checked="" type="checkbox"/> 4. other, if so, describe:		
Fax no. of facility/site owner : (978) 436-8581				
Address of owner (if different from site): Street: 800 Technology Park Drive, MS 2-2124-01				
Town: Billerica	State: MA	Zip: 01821	County: Middlesex	
c) Legal name of operator : Environmental Resources Management RCM		Operator telephone no: (617) 646-7800		
		Operator fax no.: (617) 267-6447	Operator email: rachel.leary@erm.com	
Operator contact name and title: Rachel Leary, Project Manager				

Address of operator (if different from owner):		Street: 399 Boylston Street, 6th Floor	
Town: Boston	State: MA	Zip: 02116	County: Suffolk
d) Check "yes" or "no" for the following: 1. Has a prior NPDES permit exclusion been granted for the discharge? Yes___ No <input checked="" type="checkbox"/> , if "yes," number: 2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge? Yes___ No <input checked="" type="checkbox"/> , if "yes," date and tracking #: 3. Is the discharge a "new discharge" as defined by 40 CFR 122.2? Yes <input checked="" type="checkbox"/> No___ 4. For sites in Massachusetts, is the discharge covered under the MA Contingency Plan (MCP) and exempt from state permitting? Yes <input checked="" type="checkbox"/> No___			
e) Is site/facility subject to any State permitting or other action which is causing the generation of discharge? Yes <input checked="" type="checkbox"/> No___ If "yes," please list: 1. site identification # assigned by the state of NH or MA: RTN 3-22408 2. permit or license # assigned: Tier 1B W045278 3. state agency contact information: name, location, and telephone number: BWSC, Northeast Region, (617) 292-5500		f) Is the site/facility covered by any other EPA permit, including: 1. multi-sector storm water general permit? Y___ N <input checked="" type="checkbox"/> , if Y, number: 2. phase I or II construction storm water general permit? Y___ N <input checked="" type="checkbox"/> , if Y, number: 3. individual NPDES permit? Y___ N <input checked="" type="checkbox"/> , if Y, number: 4. any other water quality related permit? Y___ N <input checked="" type="checkbox"/> , 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: See Attachment A		
b) Provide the following information about each discharge:	1) Number of discharge points: 1	2) What is the maximum and average flow rate of discharge (in cubic feet per second, ft ³ /s)? Max. flow <u>50</u> Average flow <u>30</u> Is maximum flow a design value ? Y <input checked="" type="checkbox"/> N___ For average flow, include the units and appropriate notation if this value is a design value or estimate if not available. gallons per minute
3) Latitude and longitude of each discharge within 100 feet: pt.1 42 21 54.01 N 71 22 20.01 W 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 <input checked="" type="checkbox"/> or seasonal _____? Is discharge ongoing Yes _____ No <input checked="" type="checkbox"/> ?
c) Expected dates of discharge (mm/dd/yy): start <u>09/01/06</u> end <u>12/01/07</u>	
d) Please attach a line drawing or flow schematic showing water flow through the facility including: 1. sources of intake water, 2. contributing flow from the operation, 3. treatment units, and 4. discharge points and receiving waters(s).	

3. Contaminant information. 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 <input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>		1	grab	160.2	5,000	-	-	-	-
2. Total Residual Chlorine	<input checked="" type="checkbox"/>		1	grab	330.1	50	-	-	-	-
3. Total Petroleum Hydrocarbons	<input checked="" type="checkbox"/>		1	grab	1664A	4,000	-	-	-	-
4. Cyanide	<input checked="" type="checkbox"/>		1	grab	335.2	5	-	-	-	-
5. Benzene	<input checked="" type="checkbox"/>		3	grab	624	50	-	-	-	-
6. Toluene	<input checked="" type="checkbox"/>		4	grab	624	50	-	-	-	-
7. Ethylbenzene	<input checked="" type="checkbox"/>		3	grab	624	50	-	-	-	-
8. (m,p,o) Xylenes	<input checked="" type="checkbox"/>		3	grab	624	100	-	-	-	-
9. Total BTEX ⁴	<input checked="" type="checkbox"/>		3	grab	624	-	-	-	-	-

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

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)
10. Ethylene Dibromide (1,2- Dibromo-methane)	✓		14	grab	504	0.020	-	-	-	-
11. Methyl-tert-Butyl Ether (MtBE)	✓		3	grab	624	1,000	-	-	-	-
12. tert-Butyl Alcohol (TBA)	✓		2	grab	624	5,000	-	-	-	-
13. tert-Amyl Methyl Ether (TAME)	✓		3	grab	624	1,000	-	-	-	-
14. Naphthalene	✓		3	grab	8270M	0.20	-	-	-	-
15. Carbon Tetra-chloride	✓		12	grab	624	50	-	-	-	-
16. 1,4 Dichlorobenzene	✓		12	grab	624	250	-	-	-	-
17. 1,2 Dichlorobenzene	✓		12	grab	624	250	-	-	-	-
18. 1,3 Dichlorobenzene	✓		2	grab	624	250	-	-	-	-
19. 1,1 Dichloroethane	✓		12	grab	624	75	-	-	-	-
20. 1,2 Dichloroethane	✓		12	grab	624	75	-	-	-	-
21. 1,1 Dichloroethylene	✓		12	grab	624	50	-	-	-	-
22. cis-1,2 Dichloro-ethylene		✓	2	grab	624	50	270	-	270	-
23. Dichloromethane (Methylene Chloride)	✓		2	grab	624	250	-	-	-	-
24. Tetrachloroethylene		✓	2	grab	624	75	240	-	240	-

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	✓		12	grab	624	100	-	-	-	-
26. 1,1,2 Trichloroethane	✓		12	grab	624	75	-	-	-	-
27. Trichloroethylene		✓	12	grab	624	50	4,300	-	4,300	-
28. Vinyl Chloride	✓		12	grab	624	100	-	-	-	-
29. Acetone	✓		3	grab	624	500	-	-	-	-
30. 1,4 Dioxane	✓		1	grab	624	100,000	-	-	-	-
31. Total Phenols	✓		1	grab	420.1	0.03	-	-	-	-
32. Pentachlorophenol	✓		1	grab	8270C	20	-	-	-	-
33. Total Phthalates ⁵ (Phthalate esters)	✓		1	grab	8270C	vary	-	-	-	-
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	✓		1	grab	8270C	10	-	-	-	-
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	✓		1	grab	8270M	-	-	-	-	-
a. Benzo(a) Anthracene	✓		1	grab	8270M	0.20	-	-	-	-
b. Benzo(a) Pyrene	✓		1	grab	8270M	0.20	-	-	-	-
c. Benzo(b)Fluoranthene	✓		1	grab	8270M	0.20	-	-	-	-
d. Benzo(k) Fluoranthene	✓		1	grab	8270M	0.20	-	-	-	-
e. Chrysene	✓		1	grab	8270M	0.20	-	-	-	-

⁵The sum of individual phthalate compounds.

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		Average daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
f. Dibenzo(a,h) anthracene	✓		1	grab	8270M	0.20	-	-	-	-
g. Indeno(1,2,3-cd) Pyrene	✓		1	grab	8270M	0.20	-	-	-	-
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)	✓		1	grab	8270M	-	-	-	-	-
h. Acenaphthene	✓		1	grab	8270M	0.20	-	-	-	-
i. Acenaphthylene	✓		1	grab	8270M	0.20	-	-	-	-
j. Anthracene	✓		1	grab	8270M	0.20	-	-	-	-
k. Benzo(ghi) Perylene	✓		1	grab	8270M	0.20	-	-	-	-
l. Fluoranthene	✓		1	grab	8270M	0.20	-	-	-	-
m. Fluorene	✓		1	grab	8270M	0.20	-	-	-	-
n. Naphthalene-	✓		1	grab	8270M	0.20	-	-	-	-
o. Phenanthrene	✓		1	grab	8270M	0.20	-	-	-	-
p. Pyrene	✓		1	grab	8270M	0.20	-	-	-	-
37. Total Polychlorinated Biphenyls (PCBs)	✓		1	grab	608	0.255	-	-	-	-
38. Antimony	✓		1	grab	6020	0.5	-	-	-	-
39. Arsenic		✓	1	grab	6020	0.5	2.3	-	2.3	-
40. Cadmium	✓		1	grab	6020	0.5	-	-	-	-
41. Chromium III	✓		1	grab	6020	0.5	-	-	-	-
42. Chromium VI	✓		1	grab	6020	20	-	-	-	-

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	6020	0.5	0.6	-	0.6	-
44. Lead	✓		1	grab	6020	0.5	-	-	-	-
45. Mercury	✓		1	grab	6020	0.2	-	-	-	-
46. Nickel		✓	1	grab	6020	0.5	2.2	-	2.2	-
47. Selenium	✓		1	grab	6020	1	-	-	-	-
48. Silver	✓		1	grab	6020	0.5	-	-	-	-
49. Zinc	✓		1	grab	6020	5.0	-	-	-	-
50. Iron		✓	1	grab	6020	50	140	-	140	-
Other (describe):										

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

<p><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___ ✓</p>	<p>If yes, which metals?</p>
<p><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: _____</p>	<p>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:</p>

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: See Attachment A						
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 <u>30</u> Maximum flow rate of treatment system <u>50</u> Design flow rate of treatment system <u>50</u>						
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: See Attachment A						

<p>c) Attach a detailed map(s) indicating the site location and location of the outfall to the receiving water:</p> <p>1. For multiple discharges, number the discharges sequentially.</p> <p>2. For indirect dischargers, indicate the location of the discharge to the indirect conveyance and the discharge to surface water</p> <p>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.</p>
<p>d) Provide the state water quality classification of the receiving water <u>B</u>,</p>
<p>e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water <u>10.65</u> cfs</p> <p>Please attach any calculation sheets used to support stream flow and dilution calculations.</p>
<p>f) Is the receiving water a listed 303(d) water quality impaired or limited water? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, for which pollutant(s)?</p> <p>Is there a TMDL? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, for which pollutant(s)?</p> <p>Metals</p>

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.


<p>a) Are any listed threatened or endangered species, or designated critical habitat, in proximity to the discharge? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Has any consultation with the federal services been completed? <input checked="" type="checkbox"/> No <input type="checkbox"/> or is consultation underway? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>What were the results of the consultation with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service (check one):</p> <p>a “no jeopardy” opinion? <input checked="" type="checkbox"/> or written concurrence <input type="checkbox"/> on a finding that the discharges are not likely to adversely affect any endangered species or critical habitat?</p>
<p>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?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Have any state or tribal historic preservation officer been consulted in this determination (Massachusetts only)? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>

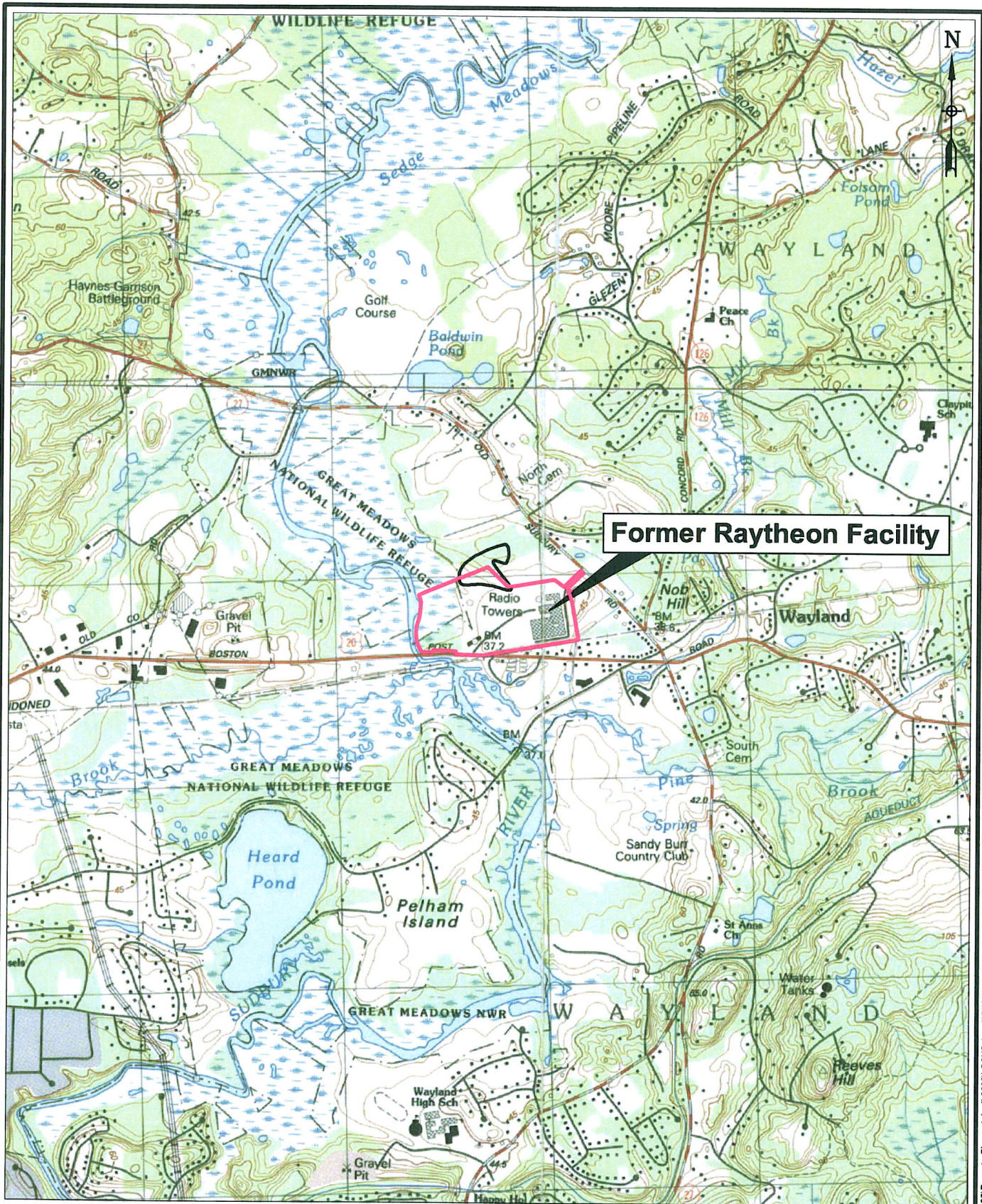
7. Supplemental information. :

Please provide any supplemental information. Attach any analytical data used to support the application. Attach any certification(s) required by the general permit.
See attached Alpha Analytical Laboratories Report L0610884

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

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

Facility/Site Name: Former Raytheon Facility
Operator signature: 
Title: Project Manager
Date: 9/2/06



Former Raytheon Facility

Scale 1:25,000





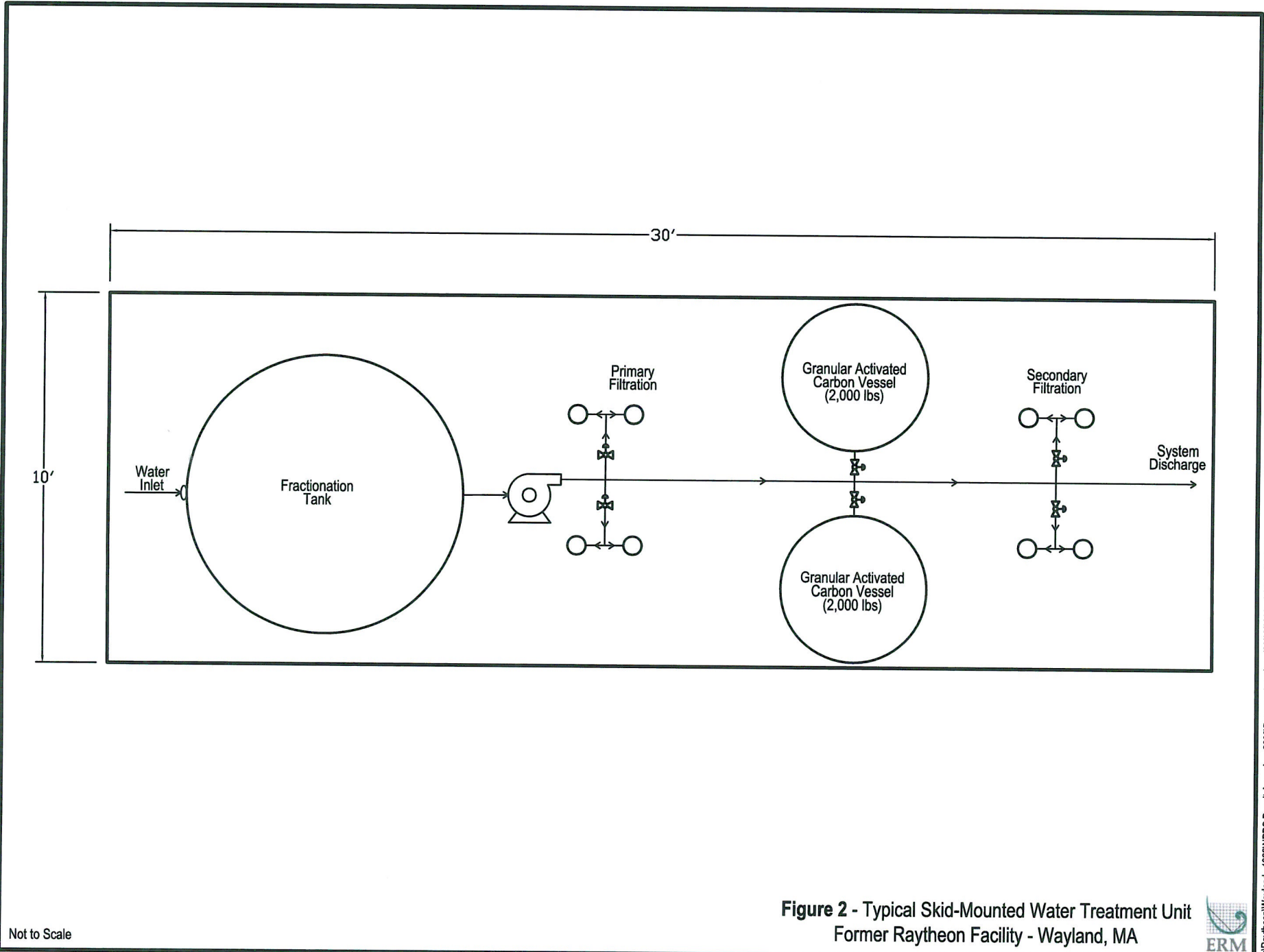
Legend	
	Subject Property Line
	Disposal Site Boundary

Figure 1 - Site Locus Map
Former Raytheon Facility - Wayland, MA





Not to Scale

**Figure 2 - Typical Skid-Mounted Water Treatment Unit
Former Raytheon Facility - Wayland, MA**



R:\Raytheon\Wayland - 1922\NPDS Permit App - Aug 2006\Pump system.dwg (08/02/2006 - 1:35pm Boston)



- Legend**
- Existing Building
 - Property Line
 - Standing Water Based on 2001 Aerial
 - Delineated Wetland Boundary
 - 100' Wetland Buffer Zone
 - Treenline



Figure 3 - Site Features and Treatment System
Former Raytheon Facility - Wayland, MA
1 September 2006



ATTACHMENT

ATTACHMENT A - SUPPLEMENTAL INFORMATION FOR NOTICE OF INTENT

Description of Discharge Activities

A cofferdam system will be installed at the Site to enable excavation of impacted soil below the water table that will require dewatering of the excavation area. This water, comprised of groundwater seepage and precipitation, will be treated for VOCs and suspended solids prior to discharge.

System Description

The treatment system will include the following components:

- Submersible extraction pump in excavation;
- Fractionation tank and transfer pumps;
- Primary and secondary bag filters; and
- Granular activated carbon vessels.

Figure 2 depicts a typical skid-mounted treatment system.

Discharge Pathway

Treated groundwater will be discharged to the Site storm water drainage system, which ultimately discharges to a wetland adjacent to Sudbury River (Figure 3).

INFLUENT ANALYTICAL DATA

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

CERTIFICATE OF ANALYSIS

Client: ERM-New England Laboratory Job Number: L0610884
Address: 399 Boylston Street
6th Floor
Boston, MA 02116 Date Received: 01-AUG-2006
Attn: Ms. Rachel Leary Date Reported: 08-AUG-2006
Project Number: 0042925 Delivery Method: Alpha
Site: WAYLAND RGP

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0610884-01	MW-552-20060801-01	WAYLAND, MA
L0610884-02	TB-001-20060801-01	WAYLAND, MA

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

Authorized by: Douglas Sheeley
Technical Director

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0610884

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

Volatile Organics

L0610884-01 has elevated limits of detection due to the 50x dilutions required by the elevated concentrations of target compounds in the sample.

Semi-Volatile Organics

The WG248531 LCS has a high recovery for Pentachlorophenol.

The WG248531 MS has high recoveries for Pentachlorophenol and p-Chloro-m-cresol.

The WG248531 MSD has a high recovery for Pentachlorophenol.

**ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS**

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0610884-01	Date Collected: 01-AUG-2006 14:10
MW-552-20060801-01	Date Received : 01-AUG-2006
Sample Matrix: WATER	Date Reported : 08-AUG-2006
Condition of Sample: Satisfactory	Field Prep: None
Number & Type of Containers: 7-Amber,4-Plastic,4-Vial	

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
✓ Solids, Total Suspended	ND	mg/l	5.0	4 160.2		0802 13:00	DW
✓ Cyanide, Total	ND	mg/l	0.005	4 335.2	0803 09:00	0803 17:18	DD
✓ Chlorine, Total Residual	ND	mg/l	0.05	4 330.1		0802 23:00	BA
✓ TPH	ND	mg/l	4.00	74 1664A	0802 11:30	0802 19:15	AT
✓ Phenolics, Total	ND	mg/l	0.03	4 420.1		0802 14:00	AT
✓ Chromium, Hexavalent	ND	mg/l	0.02	30 3500CR-D	0801 21:50	0801 21:50	DP
Total Metals	<i>[Faint mirrored text]</i>						
✓ Antimony, Total	ND	mg/l	0.0005	1 6020	0803 19:00	0804 17:54	BM
✓ Arsenic, Total	0.0023	mg/l	0.0005	1 6020	0803 19:00	0804 17:54	BM
✓ Cadmium, Total	ND	mg/l	0.0005	1 6020	0803 19:00	0804 17:54	BM
✓ Chromium, Total	ND	mg/l	0.0005	1 6020	0803 19:00	0804 17:54	BM
✓ Copper, Total	0.0006	mg/l	0.0005	1 6020	0803 19:00	0804 17:54	BM
✓ Iron, Total	0.14	mg/l	0.05	19 200.7	0803 19:00	0804 20:28	MG
Lead, Total	ND	mg/l	0.0005	1 6020	0803 19:00	0804 17:54	BM
Mercury, Total	ND	mg/l	0.0002	4 245.2	0802 16:40	0803 11:07	DM
Nickel, Total	0.0022	mg/l	0.0005	1 6020	0803 19:00	0804 17:54	BM
Selenium, Total	ND	mg/l	0.001	1 6020	0803 19:00	0804 17:54	BM
Silver, Total	ND	mg/l	0.0005	1 6020	0803 19:00	0804 17:54	BM
Zinc, Total	ND	mg/l	0.0050	1 6020	0803 19:00	0804 17:54	BM
Pesticides by GC 504	<i>[Faint mirrored text]</i>						
✓ 1,2-Dibromoethane	ND	ug/l	0.020	14 504.1	0804 11:45	0804 15:09	SS
Volatile Organics by GC/MS 624	<i>[Faint mirrored text]</i>						
✓ Methylene chloride	ND	ug/l	250	5 624		0802 10:29	MM
✓ 1,1-Dichloroethane	ND	ug/l	75.				
Chloroform	ND	ug/l	75.				
✓ Carbon tetrachloride	ND	ug/l	50.				
1,2-Dichloropropane	ND	ug/l	180				
Dibromochloromethane	ND	ug/l	50.				
✓ 1,1,2-Trichloroethane	ND	ug/l	75.				
2-Chloroethylvinyl ether	ND	ug/l	500				

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0610884-01
MW-552-20060801-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by GC/MS: 624 cont'd				5 624		0802 10:29 MM	
V Tetrachloroethene	240	ug/l	75				
Chlorobenzene	ND	ug/l	180				
Trichlorofluoromethane	ND	ug/l	250				
V 1,2-Dichloroethane	ND	ug/l	75.				
V 1,1,1-Trichloroethane	ND	ug/l	100				
Bromodichloromethane	ND	ug/l	50.				
trans-1,3-Dichloropropene	ND	ug/l	75.				
cis-1,3-Dichloropropene	ND	ug/l	75.				
Bromoform	ND	ug/l	50.				
1,1,2,2-Tetrachloroethane	ND	ug/l	50.				
V Benzene	ND	ug/l	50.				
V Toluene	ND	ug/l	50.				
V Ethylbenzene	ND	ug/l	50.				
Chloromethane	ND	ug/l	500				
Bromomethane	ND	ug/l	250				
V Vinyl chloride	ND	ug/l	100				
Chloroethane	ND	ug/l	100				
V 1,1-Dichloroethene	ND	ug/l	50.				
trans-1,2-Dichloroethene	ND	ug/l	75.				
V cis-1,2-Dichloroethene	270	ug/l	50				
V Trichloroethene	4300	ug/l	50				
V 1,2-Dichlorobenzene	ND	ug/l	250				
V 1,3-Dichlorobenzene	ND	ug/l	250				
V 1,4-Dichlorobenzene	ND	ug/l	250				
p/m-Xylene	ND	ug/l	100				
o-xylene	ND	ug/l	50.				
V Xylene (Total)	ND	ug/l	100				
V Styrene	ND	ug/l	50.				
V Acetone	ND	ug/l	500				
Carbon disulfide	ND	ug/l	250				
2-Butanone	ND	ug/l	500				
Vinyl acetate	ND	ug/l	1000				
4-Methyl-2-pentanone	ND	ug/l	500				
2-Hexanone	ND	ug/l	500				
Acrolein	ND	ug/l	400				
Acrylonitrile	ND	ug/l	500				
V Methyl tert butyl ether	ND	ug/l	1000				
V 1,4-Dioxane	ND	ug/l	100000				
V Tert-Butyl Alcohol	ND	ug/l	5000				
V Tertiary-Amyl Methyl Ether	ND	ug/l	1000				
Surrogate(s)	Recovery		QC Criteria				
Pentafluorobenzene	88.0	%	80-120				
Fluorobenzene	92.0	%	80-120				
4-Bromofluorobenzene	89.0	%	80-120				
SVOC's by GC/MS: 8270				1 8270C		0802 16:15 0804 14:04 RL	
Acenaphthene	ND	ug/l	5.0				
Benzidine	ND	ug/l	50.				

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0610884-01
MW-552-20060801-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
SVOC's by GC/MS 8270 cont'd				1 8270C	0802 16:15	0804 14:04	RL
1,2,4-Trichlorobenzene	ND	ug/l	5.0				
Hexachlorobenzene	ND	ug/l	5.0				
Bis(2-chloroethyl)ether	ND	ug/l	5.0				
1-Chloronaphthalene	ND	ug/l	5.0				
2-Chloronaphthalene	ND	ug/l	6.0				
1,2-Dichlorobenzene	ND	ug/l	5.0				
1,3-Dichlorobenzene	ND	ug/l	5.0				
1,4-Dichlorobenzene	ND	ug/l	5.0				
3,3'-Dichlorobenzidine	ND	ug/l	50.				
2,4-Dinitrotoluene	ND	ug/l	6.0				
2,6-Dinitrotoluene	ND	ug/l	5.0				
Azobenzene	ND	ug/l	5.0				
Fluoranthene	ND	ug/l	5.0				
4-Chlorophenyl phenyl ether	ND	ug/l	5.0				
4-Bromophenyl phenyl ether	ND	ug/l	5.0				
Bis(2-chloroisopropyl)ether	ND	ug/l	5.0				
Bis(2-chloroethoxy)methane	ND	ug/l	5.0				
Hexachlorobutadiene	ND	ug/l	10.				
Hexachlorocyclopentadiene	ND	ug/l	10.				
Hexachloroethane	ND	ug/l	5.0				
Isophorone	ND	ug/l	5.0				
Naphthalene	ND	ug/l	5.0				
Nitrobenzene	ND	ug/l	5.0				
NDPA/DPA	ND	ug/l	15.				
n-Nitrosodi-n-propylamine	ND	ug/l	5.0				
Bis(2-ethylhexyl)phthalate	ND	ug/l	10.				
Butyl benzyl phthalate	ND	ug/l	5.0				
Di-n-butylphthalate	ND	ug/l	5.0				
Di-n-octylphthalate	ND	ug/l	5.0				
Diethyl phthalate	ND	ug/l	5.0				
Dimethyl phthalate	ND	ug/l	5.0				
Benzo(a)anthracene	ND	ug/l	5.0				
Benzo(a)pyrene	ND	ug/l	5.0				
Benzo(b)fluoranthene	ND	ug/l	5.0				
Benzo(k)fluoranthene	ND	ug/l	5.0				
Chrysene	ND	ug/l	5.0				
Acenaphthylene	ND	ug/l	5.0				
Anthracene	ND	ug/l	5.0				
Benzo(ghi)perylene	ND	ug/l	5.0				
Fluorene	ND	ug/l	5.0				
Phenanthrene	ND	ug/l	5.0				
Dibenzo(a,h)anthracene	ND	ug/l	5.0				
Indeno(1,2,3-cd)pyrene	ND	ug/l	7.0				
Pyrene	ND	ug/l	5.0				
Benzo(e)pyrene	ND	ug/l	5.0				
Biphenyl	ND	ug/l	5.0				
Perylene	ND	ug/l	5.0				
Aniline	ND	ug/l	10.				
4-Chloroaniline	ND	ug/l	5.0				

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0610884-01
MW-552-20060801-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
SVOC's by GC/MS 8270 cont'd				1 8270C	0802 16:15	0804 14:04	RL
1-Methylnaphthalene	ND	ug/l	5.0				
2-Nitroaniline	ND	ug/l	5.0				
3-Nitroaniline	ND	ug/l	5.0				
4-Nitroaniline	ND	ug/l	7.0				
Dibenzofuran	ND	ug/l	5.0				
a,a-Dimethylphenethylamine	ND	ug/l	50.				
Hexachloropropene	ND	ug/l	10.				
Nitrosodi-n-butylamine	ND	ug/l	10.				
2-Methylnaphthalene	ND	ug/l	5.0				
1,2,4,5-Tetrachlorobenzene	ND	ug/l	20.				
Pentachlorobenzene	ND	ug/l	20.				
a-Naphthylamine	ND	ug/l	20.				
b-Naphthylamine	ND	ug/l	20.				
Phenacetin	ND	ug/l	10.				
Dimethoate	ND	ug/l	20.				
4-Aminobiphenyl	ND	ug/l	10.				
Pentachloronitrobenzene	ND	ug/l	10.				
Isodrin	ND	ug/l	10.				
p-Dimethylaminoazobenzene	ND	ug/l	10.				
Chlorobenzilate	ND	ug/l	20.				
3-Methylcholanthrene	ND	ug/l	20.				
Ethyl Methanesulfonate	ND	ug/l	15.				
Acetophenone	ND	ug/l	20.				
Nitrosodipiperidine	ND	ug/l	20.				
7,12-Dimethylbenz(a)anthracene	ND	ug/l	10.				
n-Nitrosodimethylamine	ND	ug/l	50.				
2,4,6-Trichlorophenol	ND	ug/l	5.0				
p-Chloro-m-cresol	ND	ug/l	5.0				
2-Chlorophenol	ND	ug/l	6.0				
2,4-Dichlorophenol	ND	ug/l	10.				
2,4-Dimethylphenol	ND	ug/l	10.				
2-Nitrophenol	ND	ug/l	20.				
4-Nitrophenol	ND	ug/l	10.				
2,4-Dinitrophenol	ND	ug/l	20.				
4,6-Dinitro-o-cresol	ND	ug/l	20.				
2,4,6-Trichlorophenol	ND	ug/l	20.				
Phenol	ND	ug/l	7.0				
2-Methylphenol	ND	ug/l	6.0				
3-Methylphenol/4-Methylphenol	ND	ug/l	6.0				
2,4,5-Trichlorophenol	ND	ug/l	5.0				
2,6-Dichlorophenol	ND	ug/l	10.				
Benzoic Acid	ND	ug/l	50.				
Benzyl Alcohol	ND	ug/l	10.				
Carbazole	ND	ug/l	5.0				
Pyridine	ND	ug/l	50.				
2-Picoline	ND	ug/l	20.				
Pronamide	ND	ug/l	20.				
Methyl methanesulfonate	ND	ug/l	20.				

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0610884-01
MW-552-20060801-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
SVOC's by GC/MS 8270 cont'd					1 8270C	0802 16:15	0804 14:04 RL
Surrogate(s)	Recovery			QC Criteria			
2-Fluorophenol	42.0	%		21-120			
Phenol-d6	33.0	%		10-120			
Nitrobenzene-d5	73.0	%		23-120			
2-Fluorobiphenyl	80.0	%		43-120			
2,4,6-Tribromophenol	88.0	%		10-120			
4-Terphenyl-d14	91.0	%		33-120			
PAH by GC/MS SIM 8270M					1 8270C-M	0802 16:15	0803 19:00 RL
✓ Acenaphthene	ND	ug/l		0.20			
2-Chloronaphthalene	ND	ug/l		0.20			
✓ Fluoranthene	ND	ug/l		0.20			
Hexachlorobutadiene	ND	ug/l		0.50			
✓ Naphthalene	ND	ug/l		0.20			
✓ Benzo (a) anthracene	ND	ug/l		0.20			
✓ Benzo (a) pyrene	ND	ug/l		0.20			
✓ Benzo (b) fluoranthene	ND	ug/l		0.20			
✓ Benzo (k) fluoranthene	ND	ug/l		0.20			
✓ Chrysene	ND	ug/l		0.20			
✓ Acenaphthylene	ND	ug/l		0.20			
✓ Anthracene	ND	ug/l		0.20			
✓ Benzo (ghi) perylene	ND	ug/l		0.20			
✓ Fluorene	ND	ug/l		0.20			
✓ Phenanthrene	ND	ug/l		0.20			
✓ Dibenzo (a, h) anthracene	ND	ug/l		0.20			
✓ Indeno (1, 2, 3-cd) Pyrene	ND	ug/l		0.20			
✓ Pyrene	ND	ug/l		0.20			
1-Methylnaphthalene	ND	ug/l		0.20			
2-Methylnaphthalene	ND	ug/l		0.20			
Pentachlorophenol	ND	ug/l		0.80			
Hexachlorobenzene	ND	ug/l		0.80			
Perylene	ND	ug/l		0.20			
Biphenyl	ND	ug/l		0.20			
2,6-Dimethylnaphthalene	ND	ug/l		0.20			
1-Methylphenanthrene	ND	ug/l		0.20			
Benzo (e) Pyrene	ND	ug/l		0.20			
Hexachloroethane	ND	ug/l		0.80			
Surrogate(s)	Recovery			QC Criteria			
2-Fluorophenol	39.0	%		21-120			
Phenol-d6	36.0	%		10-120			
Nitrobenzene-d5	78.0	%		23-120			
2-Fluorobiphenyl	70.0	%		43-120			
2,4,6-Tribromophenol	54.0	%		10-120			
4-Terphenyl-d14	81.0	%		33-120			
Polychlorinated Biphenyls					5 608	0802 11:30	0803 13:46 JB
✓ Aroclor 1016	ND	ug/l		0.255			
✓ Aroclor 1221	ND	ug/l		0.255			

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0610884-01
MW-552-20060801-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Polychlorinated Biphenyls cont'd				5 608	0802 11:30	0803 13:46	JB
Aroclor 1232	ND	ug/l	0.255				
Aroclor 1242	ND	ug/l	0.255				
Aroclor 1248	ND	ug/l	0.255				
Aroclor 1254	ND	ug/l	0.255				
Aroclor 1260	ND	ug/l	0.255				
Surrogate(s)	Recovery		QC Criteria				
2,4,5,6-Tetrachloro-m-xylene	70.0	%	30-150				
Decachlorobiphenyl	105	%	30-150				

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0610884-02
TB-001-20060801-01
Sample Matrix: WATER
Condition of Sample: Satisfactory
Number & Type of Containers: 3-Vial
Date Collected: 23-JUL-2006 13:40
Date Received : 01-AUG-2006
Date Reported : 08-AUG-2006
Field Prep: None

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	ID ANAL
Pesticides by GC 504				14 504.1	0804 11:45	0804 15:32 SS
1,2-Dibromoethane	ND	ug/l	0.020			
Volatile Organics by GC/MS 624				5 624	0802 12:55	MM
Methylene chloride	ND	ug/l	5.0			
1,1-Dichloroethane	ND	ug/l	1.5			
Chloroform	ND	ug/l	1.5			
Carbon tetrachloride	ND	ug/l	1.0			
1,2-Dichloropropane	ND	ug/l	3.5			
Dibromochloromethane	ND	ug/l	1.0			
1,1,2-Trichloroethane	ND	ug/l	1.5			
2-Chloroethylvinyl ether	ND	ug/l	10.			
Tetrachloroethene	ND	ug/l	1.5			
Chlorobenzene	ND	ug/l	3.5			
Trichlorofluoromethane	ND	ug/l	5.0			
1,2-Dichloroethane	ND	ug/l	1.5			
1,1,1-Trichloroethane	ND	ug/l	2.0			
Bromodichloromethane	ND	ug/l	1.0			
trans-1,3-Dichloropropene	ND	ug/l	1.5			
cis-1,3-Dichloropropene	ND	ug/l	1.5			
Bromoform	ND	ug/l	1.0			
1,1,1,2-Tetrachloroethane	ND	ug/l	1.0			
Benzene	ND	ug/l	1.0			
Toluene	ND	ug/l	1.0			
Ethylbenzene	ND	ug/l	1.0			
Chloromethane	ND	ug/l	10.			
Bromomethane	ND	ug/l	5.0			
Vinyl chloride	ND	ug/l	2.0			
Chloroethane	ND	ug/l	2.0			
1,1-Dichloroethene	ND	ug/l	1.0			
trans-1,2-Dichloroethene	ND	ug/l	1.5			
cis-1,2-Dichloroethene	ND	ug/l	1.0			
Trichloroethene	ND	ug/l	1.0			
1,2-Dichlorobenzene	ND	ug/l	5.0			
1,3-Dichlorobenzene	ND	ug/l	5.0			
1,4-Dichlorobenzene	ND	ug/l	5.0			
p/m-Xylene	ND	ug/l	2.0			
o-xylene	ND	ug/l	1.0			
Xylene (Total)	ND	ug/l	2.0			

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0610884-02
TB-001-20060801-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by GC/MS 624 cont'd				5 624	0802 12:55 MM		
Styrene	ND	ug/l	1.0				
Acetone	ND	ug/l	10.				
Carbon disulfide	ND	ug/l	5.0				
2-Butanone	ND	ug/l	10.				
Vinyl acetate	ND	ug/l	20.				
4-Methyl-2-pentanone	ND	ug/l	10.				
2-Hexanone	ND	ug/l	10.				
Acrolein	ND	ug/l	8.0				
Acrylonitrile	ND	ug/l	10.				
Methyl tert butyl ether	ND	ug/l	20.				
1,4-Dioxane	ND	ug/l	2000				
Tert-Butyl Alcohol	ND	ug/l	100				
Tertiary-Amyl Methyl Ether	ND	ug/l	20.				
Surrogate(s)	Recovery			QC Criteria			
Pentafluorobenzene	86.0	%		80-120			
Fluorobenzene	90.0	%		80-120			
4-Bromofluorobenzene	88.0	%		80-120			

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0610884

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total Suspended for sample(s) 01 (L0610876-01, WG248458-2)					
Solids, Total Suspended	200	180	mg/l	11	20
Cyanide, Total for sample(s) 01 (L0610633-02, WG248666-4)					
Cyanide, Total	ND	ND	mg/l	NC	30
Chlorine, Total Residual for sample(s) 01 (L0610884-01, WG248582-2)					
Chlorine, Total Residual	ND	ND	mg/l	NC	
TPH for sample(s) 01 (L0610660-01, WG248550-4)					
TPH	7.30	7.65	mg/l	5	34
Phenolics, Total for sample(s) 01 (L0610677-01, WG248646-4)					
Phenolics, Total	0.06	0.07	mg/l	5	
Chromium, Hexavalent for sample(s) 01 (L0610884-01, WG248566-4)					
Chromium, Hexavalent	ND	ND	mg/l	NC	
Total Metals for sample(s) 01 (L0610884-01, WG248723-1)					
Antimony, Total	ND	ND	mg/l	NC	20
Arsenic, Total	0.0023	0.0023	mg/l	1	20
Cadmium, Total	ND	ND	mg/l	NC	20
Chromium, Total	ND	ND	mg/l	NC	20
Copper, Total	0.0006	0.0006	mg/l	3	20
Lead, Total	ND	ND	mg/l	NC	20
Nickel, Total	0.0022	0.0022	mg/l	2	20
Selenium, Total	ND	ND	mg/l	NC	20
Silver, Total	ND	ND	mg/l	NC	20
Zinc, Total	ND	ND	mg/l	NC	20
Total Metals for sample(s) 01 (L0610884-01, WG248722-1)					
Iron, Total	0.14	0.15	mg/l	7	
Total Metals for sample(s) 01 (L0610461-01, WG248538-3)					
Mercury, Total	ND	ND	mg/l	NC	
Volatile Organics by GC/MS 624 for sample(s) 01-02 (L0610677-01, WG248501-2)					
Methylene chloride	ND	ND	ug/l	NC	30
1,1-Dichloroethane	ND	ND	ug/l	NC	30
Chloroform	ND	ND	ug/l	NC	30
Carbon tetrachloride	ND	ND	ug/l	NC	30
1,2-Dichloropropane	ND	ND	ug/l	NC	30
Dibromochloromethane	ND	ND	ug/l	NC	30
1,1,2-Trichloroethane	ND	ND	ug/l	NC	30
2-Chloroethylvinyl ether	ND	ND	ug/l	NC	30
Tetrachloroethene	ND	ND	ug/l	NC	30
Chlorobenzene	ND	ND	ug/l	NC	30
Trichlorofluoromethane	ND	ND	ug/l	NC	30
1,2-Dichloroethane	ND	ND	ug/l	NC	30

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0610884

Continued

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Volatile Organics by GC/MS 624 for sample(s) 01-02 (L0610677-01, WG248501-2)					
1,1,1-Trichloroethane	ND	ND	ug/l	NC	30
Bromodichloromethane	ND	ND	ug/l	NC	30
trans-1,3-Dichloropropene	ND	ND	ug/l	NC	30
cis-1,3-Dichloropropene	ND	ND	ug/l	NC	30
Bromoform	ND	ND	ug/l	NC	30
1,1,2,2-Tetrachloroethane	ND	ND	ug/l	NC	30
Benzene	1.4	1.6	ug/l	13	30
Toluene	ND	ND	ug/l	NC	30
Ethylbenzene	ND	ND	ug/l	NC	30
Chloromethane	ND	ND	ug/l	NC	30
Bromomethane	ND	ND	ug/l	NC	30
Vinyl chloride	ND	ND	ug/l	NC	30
Chloroethane	ND	ND	ug/l	NC	30
1,1-Dichloroethene	ND	ND	ug/l	NC	30
trans-1,2-Dichloroethene	ND	ND	ug/l	NC	30
cis-1,2-Dichloroethene	ND	ND	ug/l	NC	30
Trichloroethene	ND	ND	ug/l	NC	30
1,2-Dichlorobenzene	ND	ND	ug/l	NC	30
1,3-Dichlorobenzene	ND	ND	ug/l	NC	30
1,4-Dichlorobenzene	ND	ND	ug/l	NC	30
p/m-Xylene	ND	ND	ug/l	NC	30
o-Xylene	ND	ND	ug/l	NC	30
XYLENE (TOTAL)	ND	ND	ug/l	NC	30
Styrene	ND	ND	ug/l	NC	30
Acetone	ND	ND	ug/l	NC	30
Carbon disulfide	ND	ND	ug/l	NC	30
2-Butanone	ND	ND	ug/l	NC	30
Vinyl acetate	ND	ND	ug/l	NC	30
4-Methyl-2-pentanone	ND	ND	ug/l	NC	30
2-Hexanone	ND	ND	ug/l	NC	30
Acrolein	ND	ND	ug/l	NC	30
Acrylonitrile	ND	ND	ug/l	NC	30
Methyl tert butyl ether	ND	ND	ug/l	NC	30
1,4-Dioxane	ND	ND	ug/l	NC	30
tert-Butyl Alcohol	ND	ND	ug/l	NC	30
Tertiary-Amyl Methyl Ether	ND	ND	ug/l	NC	30
Surrogate(s)	Recovery			QC Criteria	
Pentafluorobenzene	91.0	92.0	%	80-120	
Fluorobenzene	96.0	97.0	%	80-120	
4-Bromofluorobenzene	99.0	91.0	%	80-120	
Polychlorinated Biphenyls for sample(s) 01 (L0610884-01, WG248541-4)					
Aroclor 1016	ND	ND	ug/l	NC	30
Aroclor 1221	ND	ND	ug/l	NC	30
Aroclor 1232	ND	ND	ug/l	NC	30
Aroclor 1242	ND	ND	ug/l	NC	30
Aroclor 1248	ND	ND	ug/l	NC	30

ALPHA ANALYTICAL LABORATORIES
 QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0610884

Continued

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Polychlorinated Biphenyls for sample(s) 01 (L0610884-01, WG248541-4)					
Aroclor 1254	ND	ND	ug/l	NC	30
Aroclor 1260	ND	ND	ug/l	NC	30
Surrogate(s)	Recovery				QC Criteria
2,4,5,6-Tetrachloro-m-xylene	70.0	60.0	%		30-150
Decachlorobiphenyl	105	99.0	%		30-150

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0610884

Parameter	% Recovery	QC Criteria
Cyanide, Total LCS for sample(s) 01 (WG248666-2)		
Cyanide, Total	102	90-110
Chlorine, Total Residual LCS for sample(s) 01 (WG248582-1)		
Chlorine, Total Residual	101	
TPH LCS for sample(s) 01 (WG248550-2)		
TPH	90	64-132
Phenolics, Total LCS for sample(s) 01 (WG248646-2)		
Phenolics, Total	92	
Chromium, Hexavalent LCS for sample(s) 01 (WG248566-2)		
Chromium, Hexavalent	102	
Total Metals LCS for sample(s) 01 (WG248723-4)		
Antimony, Total	97	80-120
Arsenic, Total	98	80-120
Cadmium, Total	100	80-120
Chromium, Total	104	80-120
Copper, Total	100	80-120
Lead, Total	103	80-120
Nickel, Total	102	80-120
Selenium, Total	102	80-120
Silver, Total	101	80-120
Zinc, Total	102	80-120
Total Metals LCS for sample(s) 01 (WG248722-4)		
Iron, Total	97	
Total Metals LCS for sample(s) 01 (WG248538-1)		
Mercury, Total	101	
Pesticides by GC 504 LCS for sample(s) 01-02 (WG248855-2)		
1,2-Dibromoethane	90	70-130
Volatile Organics by GC/MS 624 LCS for sample(s) 01-02 (WG248501-7)		
Methylene chloride	100	10-221
1,1-Dichloroethane	101	59-155
Chloroform	99	51-138
Carbon tetrachloride	97	70-140
1,2-Dichloropropane	98	10-210
Dibromochloromethane	95	53-149
1,1,2-Trichloroethane	102	52-150
2-Chloroethylvinyl ether	93	10-305
Tetrachloroethene	92	64-148
Chlorobenzene	91	37-160
Trichlorofluoromethane	105	17-181
1,2-Dichloroethane	110	49-155

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0610884

Continued

Parameter	% Recovery	QC Criteria
Volatile Organics by GC/MS 624 LCS for sample(s) 01-02 (WG248501-7)		
1,1,1-Trichloroethane	94	52-162
Bromodichloromethane	96	35-155
trans-1,3-Dichloropropene	87	17-183
cis-1,3-Dichloropropene	93	10-227
Bromoform	93	45-169
1,1,2,2-Tetrachloroethane	104	46-157
Benzene	94	37-151
Toluene	95	47-150
Ethylbenzene	98	37-162
Chloromethane	111	10-273
Bromomethane	85	10-242
Vinyl chloride	124	10-251
Chloroethane	100	14-230
1,1-Dichloroethene	102	10-234
trans-1,2-Dichloroethene	100	54-156
cis-1,2-Dichloroethene	98	60-140
Trichloroethene	95	71-157
1,2-Dichlorobenzene	91	18-190
1,3-Dichlorobenzene	90	59-156
1,4-Dichlorobenzene	93	18-190
p/m-Xylene	101	40-160
o-Xylene	97	40-160
XYLENE (TOTAL)	100	40-160
Styrene	97	40-160
Acetone	123	40-160
Carbon disulfide	98	40-160
2-Butanone	114	40-160
Vinyl acetate	86	40-160
4-Methyl-2-pentanone	114	40-160
2-Hexanone	119	40-160
Acrolein	159	40-160
Acrylonitrile	111	40-160
Surrogate(s)		
Pentafluorobenzene	98	80-120
Fluorobenzene	98	80-120
4-Bromofluorobenzene	92	80-120
SVOC's by GC/MS 8270 LCS for sample(s) 01 (WG248531-2)		
Acenaphthene	63	46-118
1,2,4-Trichlorobenzene	58	39-98
2-Chloronaphthalene	68	40-140
1,2-Dichlorobenzene	46	40-140
1,4-Dichlorobenzene	46	36-97
2,4-Dinitrotoluene	75	24-96
2,6-Dinitrotoluene	79	40-140
Fluoranthene	87	40-140
4-Chlorophenyl phenyl ether	75	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0610884

Continued

Parameter	% Recovery	QC Criteria
SVOC's by GC/MS 8270 LCS for sample(s) 01 (WG248531-2)		
n-Nitrosodi-n-propylamine	57	41-116
Butyl benzyl phthalate	81	40-140
Anthracene	68	40-140
Pyrene	82	26-127
Hexachloropropene	64	40-140
P-Chloro-M-Cresol	71	23-97
2-Chlorophenol	56	27-123
2-Nitrophenol	56	30-130
4-Nitrophenol	37	10-80
2,4-Dinitrophenol	81	30-130
Pentachlorophenol	112	9-103
Phenol	22	12-110
Surrogate(s)		
2-Fluorophenol	36	21-120
Phenol-d6	29	10-120
Nitrobenzene-d5	58	23-120
2-Fluorobiphenyl	69	43-120
2,4,6-Tribromophenol	85	10-120
4-Terphenyl-d14	86	33-120
PAH by GC/MS SIM 8270M LCS for sample(s) 01 (WG248533-2)		
Acenaphthene	61	46-118
2-Chloronaphthalene	64	
Fluoranthene	88	
Anthracene	65	
Pyrene	74	26-127
Pentachlorophenol	52	9-103
Surrogate(s)		
2-Fluorophenol	35	21-120
Phenol-d6	34	10-120
Nitrobenzene-d5	74	23-120
2-Fluorobiphenyl	61	43-120
2,4,6-Tribromophenol	50	10-120
4-Terphenyl-d14	74	33-120
Polychlorinated Biphenyls LCS for sample(s) 01 (WG248541-2)		
Aroclor 1016	88	40-140
Aroclor 1260	120	40-140
Surrogate(s)		
2,4,5,6-Tetrachloro-m-xylene	60	30-150
Decachlorobiphenyl	82	30-150

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0610884

Continued

Parameter	% Recovery	QC Criteria
Cyanide, Total SPIKE for sample(s) 01 (L0610633-02, WG248666-3)		
Cyanide, Total	90	80-120
TPH SPIKE for sample(s) 01 (L0610677-01, WG248550-3)		
TPH	84	64-132
Phenolics, Total SPIKE for sample(s) 01 (L0610884-01, WG248646-3)		
Phenolics, Total	87	
Chromium, Hexavalent SPIKE for sample(s) 01 (L0610884-01, WG248566-3)		
Chromium, Hexavalent	101	
Total Metals SPIKE for sample(s) 01 (L0610884-01, WG248723-2)		
Antimony, Total	95	80-120
Arsenic, Total	100	80-120
Cadmium, Total	98	80-120
Chromium, Total	103	80-120
Copper, Total	99	80-120
Lead, Total	102	80-120
Nickel, Total	100	80-120
Selenium, Total	98	80-120
Silver, Total	98	80-120
Zinc, Total	100	80-120
Total Metals SPIKE for sample(s) 01 (L0610884-01, WG248722-2)		
Iron, Total	96	
Total Metals SPIKE for sample(s) 01 (L0610461-01, WG248538-2)		
Mercury, Total	134	
Pesticides by GC 504 SPIKE for sample(s) 01-02 (L0610745-01, WG248855-3)		
1,2-Dibromoethane	90	
Volatile Organics by GC/MS 624 SPIKE for sample(s) 01-02 (L0610677-01, WG248501-1)		
Methylene chloride	78	10-221
1,1-Dichloroethane	80	59-155
Chloroform	76	51-138
Carbon tetrachloride	73	70-140
1,2-Dichloropropane	77	10-210
Dibromochloromethane	72	53-149
1,1,2-Trichloroethane	81	52-150
2-Chloroethylvinyl ether	86	10-305
Tetrachloroethene	72	64-148
Chlorobenzene	70	37-160
Trichlorofluoromethane	82	17-181
1,2-Dichloroethane	88	49-155
1,1,1-Trichloroethane	72	52-162
Bromodichloromethane	74	35-155
trans-1,3-Dichloropropene	67	17-183

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0610884

Continued

Parameter	% Recovery	QC Criteria
Volatile Organics by GC/MS 624 SPIKE for sample(s) 01-02 (L0610677-01, WG248501-1)		
cis-1,3-Dichloropropene	68	10-227
Bromoform	69	45-169
1,1,2,2-Tetrachloroethane	80	46-157
Benzene	73	35-151
Toluene	74	47-150
Ethylbenzene	76	37-162
Chloromethane	97	10-273
Bromomethane	64	10-242
Vinyl chloride	94	10-251
Chloroethane	76	14-230
1,1-Dichloroethene	81	10-234
trans-1,2-Dichloroethene	75	54-156
cis-1,2-Dichloroethene	76	60-140
Trichloroethene	71	71-157
1,2-Dichlorobenzene	74	18-190
1,3-Dichlorobenzene	73	59-156
1,4-Dichlorobenzene	73	18-190
p/m-Xylene	78	40-160
o-Xylene	76	40-160
XYLENE (TOTAL)	77	40-160
Styrene	73	40-160
Acetone	108	40-160
Carbon disulfide	76	40-160
2-Butanone	101	40-160
Vinyl acetate	88	40-160
4-Methyl-2-pentanone	101	40-160
2-Hexanone	103	40-160
Acrolein	132	40-160
Acrylonitrile	104	40-160
Surrogate(s)		
Pentafluorobenzene	91	80-120
Fluorobenzene	93	80-120
4-Bromofluorobenzene	91	80-120
Polychlorinated Biphenyls SPIKE for sample(s) 01 (L0610884-01, WG248541-3)		
Aroclor 1016	84	40-140
Aroclor 1260	121	40-140
Surrogate(s)		
2,4,5,6-Tetrachloro-m-xylene	66	30-150
2,4,5,6-Tetrachloro-m-xylene	56	30-150
Decachlorobiphenyl	81	30-150
Decachlorobiphenyl	95	30-150

ALPHA ANALYTICAL LABORATORIES
 QUALITY ASSURANCE BATCH MS/MSD ANALYSIS

Laboratory Job Number: L0610884

Parameter	MS %	MSD %	RPD	RPD Limit	MS/MSD Limits
SVOC's by GC/MS 8270 for sample(s) 01 (L0610884-01, WG248531-4)					
Acenaphthene	75	66	13	30	46-118
1,2,4-Trichlorobenzene	71	61	15	30	39-98
2-Chloronaphthalene	89	75	17	30	40-140
1,2-Dichlorobenzene	61	52	16	30	40-140
1,4-Dichlorobenzene	61	52	16	30	36-97
2,4-Dinitrotoluene	89	75	17	30	24-96
2,6-Dinitrotoluene	100	80	22	30	40-140
Fluoranthene	110	85	26	30	40-140
4-Chlorophenyl phenyl ether	85	80	6	30	40-140
n-Nitrosodi-n-propylamine	71	56	24	30	41-116
Butyl benzyl phthalate	99	85	15	30	40-140
Anthracene	80	66	19	30	40-140
Pyrene	100	85	16	30	26-127
Hexachloropropene	80	80	0	30	40-140
P-Chloro-M-Cresol	100	78	25	30	23-97
2-Chlorophenol	75	59	24	30	27-123
2-Nitrophenol	80	59	30	30	30-130
4-Nitrophenol	59	54	9	30	10-80
2,4-Dinitrophenol	94	85	10	30	30-130
Pentachlorophenol	140	110	24	30	9-103
Phenol	45	35	25	30	12-110
Surrogate(s)					
2-Fluorophenol	55	49	12		21-120
Phenol-d6	65	50	26		10-120
Nitrobenzene-d5	78	63	21		23-120
2-Fluorobiphenyl	88	74	17		43-120
2,4,6-Tribromophenol	102	88	15		10-120
4-Terphenyl-d14	110	92	18		33-120
PAH by GC/MS SIM 8270M for sample(s) 01 (L0610884-01, WG248533-4)					
Acenaphthene	71	89	23	40	46-118
2-Chloronaphthalene	75	89	17	40	
Fluoranthene	99	120	19	40	
Anthracene	75	94	22	40	
Pyrene	75	89	17	40	26-127
Pentachlorophenol	71	85	18	40	9-103
Surrogate(s)					
2-Fluorophenol	52	60	14		21-120
Phenol-d6	59	69	16		10-120
Nitrobenzene-d5	82	98	18		23-120
2-Fluorobiphenyl	76	90	17		43-120
2,4,6-Tribromophenol	62	73	16		10-120
4-Terphenyl-d14	90	105	15		33-120

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0610884

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01 (WG248458-1)							
Solids, Total Suspended	ND	mg/l	5.0	4 160.2		0802 13:00	DW
Blank Analysis for sample(s) 01 (WG248666-1)							
Cyanide, Total	ND	mg/l	0.005	4 335.2	0803 09:00	0803 17:08	DD
Blank Analysis for sample(s) 01 (WG248550-1)							
TPH	ND	mg/l	4.00	74 1664A	0802 11:30	0802 19:15	AT
Blank Analysis for sample(s) 01 (WG248646-1)							
Phenolics, Total	ND	mg/l	0.03	4 420.1		0802 14:00	AT
Blank Analysis for sample(s) 01 (WG248566-1)							
Chromium, Hexavalent	ND	mg/l	0.02	30 3500CR-D	0801 21:50	0801 21:50	DP
Blank Analysis for sample(s) 01 (WG248723-3)							
Total Metals							
Antimony, Total	ND	mg/l	0.0005	1 6020	0803 19:00	0804 17:43	BM
Arsenic, Total	ND	mg/l	0.0005	1 6020	0803 19:00	0804 17:43	BM
Cadmium, Total	ND	mg/l	0.0005	1 6020	0803 19:00	0804 17:43	BM
Chromium, Total	ND	mg/l	0.0005	1 6020	0803 19:00	0804 17:43	BM
Copper, Total	ND	mg/l	0.0005	1 6020	0803 19:00	0804 17:43	BM
Lead, Total	ND	mg/l	0.0005	1 6020	0803 19:00	0804 17:43	BM
Nickel, Total	ND	mg/l	0.0005	1 6020	0803 19:00	0804 17:43	BM
Selenium, Total	ND	mg/l	0.001	1 6020	0803 19:00	0804 17:43	BM
Silver, Total	ND	mg/l	0.0005	1 6020	0803 19:00	0804 17:43	BM
Zinc, Total	ND	mg/l	0.0050	1 6020	0803 19:00	0804 17:43	BM
Blank Analysis for sample(s) 01 (WG248722-3)							
Total Metals				19 200.7			
Iron, Total	ND	mg/l	0.05	19 200.7	0803 19:00	0804 20:21	MG
Blank Analysis for sample(s) 01 (WG248538-4)							
Total Metals							
Mercury, Total	ND	mg/l	0.0002	4 245.2	0802 16:40	0803 10:10	DM
Blank Analysis for sample(s) 01-02 (WG248855-1)							
Pesticides by GC 504				14 504.1	0804 11:45	0804 12:52	SS
1,2-Dibromoethane	ND	ug/l	0.020				

ALPHA ANALYTICAL LABORATORIES
 QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0610884

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01-02 (WG248501-8)							
Volatile Organics by GC/MS 624							
				5 624		0802 08:32 MM	
Methylene chloride	ND	ug/l	5.0				
1,1-Dichloroethane	ND	ug/l	1.5				
Chloroform	ND	ug/l	1.5				
Carbon tetrachloride	ND	ug/l	1.0				
1,2-Dichloropropane	ND	ug/l	3.5				
Dibromochloromethane	ND	ug/l	1.0				
1,1,2-Trichloroethane	ND	ug/l	1.5				
2-Chloroethylvinyl ether	ND	ug/l	10.				
Tetrachloroethene	ND	ug/l	1.5				
Chlorobenzene	ND	ug/l	3.5				
Trichlorofluoromethane	ND	ug/l	5.0				
1,2-Dichloroethane	ND	ug/l	1.5				
1,1,1-Trichloroethane	ND	ug/l	2.0				
Bromodichloromethane	ND	ug/l	1.0				
trans-1,3-Dichloropropene	ND	ug/l	1.5				
cis-1,3-Dichloropropene	ND	ug/l	1.5				
Bromoform	ND	ug/l	1.0				
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0				
Benzene	ND	ug/l	1.0				
Toluene	ND	ug/l	1.0				
Ethylbenzene	ND	ug/l	1.0				
Chloromethane	ND	ug/l	10.				
Bromomethane	ND	ug/l	5.0				
Vinyl chloride	ND	ug/l	2.0				
Chloroethane	ND	ug/l	2.0				
1,1-Dichloroethene	ND	ug/l	1.0				
trans-1,2-Dichloroethene	ND	ug/l	1.5				
cis-1,2-Dichloroethene	ND	ug/l	1.0				
Trichloroethene	ND	ug/l	1.0				
1,2-Dichlorobenzene	ND	ug/l	5.0				
1,3-Dichlorobenzene	ND	ug/l	5.0				
1,4-Dichlorobenzene	ND	ug/l	5.0				
p/m-Xylene	ND	ug/l	2.0				
o-xylene	ND	ug/l	1.0				
Xylene (Total)	ND	ug/l	2.0				
Styrene	ND	ug/l	1.0				
Acetone	ND	ug/l	10.				
Carbon disulfide	ND	ug/l	5.0				
2-Butanone	ND	ug/l	10.				
Vinyl acetate	ND	ug/l	20.				
4-Methyl-2-pentanone	ND	ug/l	10.				
2-Hexanone	ND	ug/l	10.				
Acrolein	ND	ug/l	8.0				
Acrylonitrile	ND	ug/l	10.				
Methyl tert butyl ether	ND	ug/l	20.				
1,4-Dioxane	ND	ug/l	2000				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0610884

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01-02 (WG248501-8)							
Volatile Organics by GC/MS 624 cont'd							
				5 624			0802 08:32 MM
Tert-Butyl Alcohol	ND	ug/l	100				
Tertiary-Amyl Methyl Ether	ND	ug/l	20.				
Surrogate(s)	Recovery		QC Criteria				
Pentafluorobenzene	92.0	%	80-120				
Fluorobenzene	96.0	%	80-120				
4-Bromofluorobenzene	93.0	%	80-120				
Blank Analysis for sample(s) 01 (WG248531-1)							
SVOC's by GC/MS 8270							
				1 8270C			0802 16:15 0803 14:34 RL
Acenaphthene	ND	ug/l	5.0				
Benzidine	ND	ug/l	50.				
1,2,4-Trichlorobenzene	ND	ug/l	5.0				
Hexachlorobenzene	ND	ug/l	5.0				
Bis(2-chloroethyl)ether	ND	ug/l	5.0				
1-Chloronaphthalene	ND	ug/l	5.0				
2-Chloronaphthalene	ND	ug/l	6.0				
1,2-Dichlorobenzene	ND	ug/l	5.0				
1,3-Dichlorobenzene	ND	ug/l	5.0				
1,4-Dichlorobenzene	ND	ug/l	5.0				
3,3'-Dichlorobenzidine	ND	ug/l	50.				
2,4-Dinitrotoluene	ND	ug/l	6.0				
2,6-Dinitrotoluene	ND	ug/l	5.0				
Azobenzene	ND	ug/l	5.0				
Fluoranthene	ND	ug/l	5.0				
4-Chlorophenyl phenyl ether	ND	ug/l	5.0				
4-Bromophenyl phenyl ether	ND	ug/l	5.0				
Bis(2-chloroisopropyl)ether	ND	ug/l	5.0				
Bis(2-chloroethoxy)methane	ND	ug/l	5.0				
Hexachlorobutadiene	ND	ug/l	10.				
Hexachlorocyclopentadiene	ND	ug/l	10.				
Hexachloroethane	ND	ug/l	5.0				
Isophorone	ND	ug/l	5.0				
Naphthalene	ND	ug/l	5.0				
Nitrobenzene	ND	ug/l	5.0				
NDPA/DPA	ND	ug/l	15.				
n-Nitrosodi-n-propylamine	ND	ug/l	5.0				
Bis(2-ethylhexyl)phthalate	ND	ug/l	10				
Butyl benzyl phthalate	ND	ug/l	5.0				
Di-n-butylphthalate	ND	ug/l	5.0				
Di-n-octylphthalate	ND	ug/l	5.0				
Diethyl phthalate	ND	ug/l	5.0				
Dimethyl phthalate	ND	ug/l	5.0				
Benzo(a)anthracene	ND	ug/l	5.0				
Benzo(a)pyrene	ND	ug/l	5.0				
Benzo(b)fluoranthene	ND	ug/l	5.0				

ALPHA ANALYTICAL LABORATORIES
 QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0610884

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01 (WG248531-1)							
SVOC's by GC/MS 8270 cont'd				1 8270C	0802 16:15	0803 14:34	RL
Benzo(k) fluoranthene	ND	ug/l	5.0				
Chrysene	ND	ug/l	5.0				
Acenaphthylene	ND	ug/l	5.0				
Anthracene	ND	ug/l	5.0				
Benzo(ghi)perylene	ND	ug/l	5.0				
Fluorene	ND	ug/l	5.0				
Phenanthrene	ND	ug/l	5.0				
Dibenzo(a,h)anthracene	ND	ug/l	5.0				
Indeno(1,2,3-cd)pyrene	ND	ug/l	7.0				
Pyrene	ND	ug/l	5.0				
Benzo(e)pyrene	ND	ug/l	5.0				
Biphenyl	ND	ug/l	5.0				
Perylene	ND	ug/l	5.0				
Aniline	ND	ug/l	10.				
4-Chloroaniline	ND	ug/l	5.0				
1-Methylnaphthalene	ND	ug/l	5.0				
2-Nitroaniline	ND	ug/l	5.0				
3-Nitroaniline	ND	ug/l	5.0				
4-Nitroaniline	ND	ug/l	7.0				
Dibenzofuran	ND	ug/l	5.0				
a,a-Dimethylphenethylamine	ND	ug/l	50.				
Hexachloropropene	ND	ug/l	10.				
Nitrosodi-n-butylamine	ND	ug/l	10.				
2-Methylnaphthalene	ND	ug/l	5.0				
1,2,4,5-Tetrachlorobenzene	ND	ug/l	20.				
Pentachlorobenzene	ND	ug/l	20.				
a-Naphthylamine	ND	ug/l	20.				
b-Naphthylamine	ND	ug/l	20.				
Phenacetin	ND	ug/l	10.				
Dimethoate	ND	ug/l	20.				
4-Aminobiphenyl	ND	ug/l	10.				
Pentachloronitrobenzene	ND	ug/l	10.				
Isodrin	ND	ug/l	10.				
p-Dimethylaminoazobenzene	ND	ug/l	10.				
Chlorobenzilate	ND	ug/l	20.				
3-Methylcholanthrene	ND	ug/l	20.				
Ethyl Methanesulfonate	ND	ug/l	15.				
Acetophenone	ND	ug/l	20.				
Nitrosodipiperidine	ND	ug/l	20.				
7,12-Dimethylbenz(a)anthracene	ND	ug/l	10.				
n-Nitrosodimethylamine	ND	ug/l	50.				
2,4,6-Trichlorophenol	ND	ug/l	5.0				
p-Chloro-m-cresol	ND	ug/l	5.0				
2-Chlorophenol	ND	ug/l	6.0				
2,4-Dichlorophenol	ND	ug/l	10.				
2,4-Dimethylphenol	ND	ug/l	10.				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0610884

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01 (WG248531-1)							
SVOC's by GC/MS 8270 cont'd				1 8270C		0802 16:15	0803 14:34 RL
2-Nitrophenol	ND	ug/l	20.				
4-Nitrophenol	ND	ug/l	10.				
2,4-Dinitrophenol	ND	ug/l	20.				
4,6-Dinitro-o-cresol	ND	ug/l	20.				
Pentachlorophenol	ND	ug/l	20.				
Phenol	ND	ug/l	7.0				
2-Methylphenol	ND	ug/l	6.0				
3-Methylphenol/4-Methylphenol	ND	ug/l	6.0				
2,4,5-Trichlorophenol	ND	ug/l	5.0				
2,6-Dichlorophenol	ND	ug/l	10.				
Benzoic Acid	ND	ug/l	50.				
Benzyl Alcohol	ND	ug/l	10.				
Carbazole	ND	ug/l	5.0				
Pyridine	ND	ug/l	50.				
2-Picoline	ND	ug/l	20.				
Pronamide	ND	ug/l	20.				
Methyl methanesulfonate	ND	ug/l	20.				
Surrogate(s)	Recovery		QC Criteria				
2-Fluorophenol	39.0	%	21-120				
Phenol-d6	32.0	%	10-120				
Nitrobenzene-d5	68.0	%	23-120				
2-Fluorobiphenyl	70.0	%	43-120				
2,4,6-Tribromophenol	84.0	%	10-120				
4-Terphenyl-d14	94.0	%	33-120				
Blank Analysis for sample(s) 01 (WG248533-1)							
PAH by GC/MS SIM 8270M				1 8270C-M		0802 16:15	0803 17:32 RL
Acenaphthene	ND	ug/l	0.20				
2-Chloronaphthalene	ND	ug/l	0.20				
Fluoranthene	ND	ug/l	0.20				
Hexachlorobutadiene	ND	ug/l	0.50				
Naphthalene	ND	ug/l	0.20				
Benzo(a)anthracene	ND	ug/l	0.20				
Benzo(a)pyrene	ND	ug/l	0.20				
Benzo(b)fluoranthene	ND	ug/l	0.20				
Benzo(k)fluoranthene	ND	ug/l	0.20				
Chrysene	ND	ug/l	0.20				
Acenaphthylene	ND	ug/l	0.20				
Anthracene	ND	ug/l	0.20				
Benzo(ghi)perylene	ND	ug/l	0.20				
Fluorene	ND	ug/l	0.20				
Phenanthrene	ND	ug/l	0.20				
Dibenzo(a,h)anthracene	ND	ug/l	0.20				
Indeno(1,2,3-cd)Pyrene	ND	ug/l	0.20				
Pyrene	ND	ug/l	0.20				

ALPHA ANALYTICAL LABORATORIES
 QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0610884

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01 (WG248533-1)							
PAH by GC/MS SIM 8270M cont'd				1	8270C-M	0802 16:15	0803 17:32 RL
1-Methylnaphthalene	ND	ug/l	0.20				
2-Methylnaphthalene	ND	ug/l	0.20				
Pentachlorophenol	ND	ug/l	0.80				
Hexachlorobenzene	ND	ug/l	0.80				
Perylene	ND	ug/l	0.20				
Biphenyl	ND	ug/l	0.20				
2,6-Dimethylnaphthalene	ND	ug/l	0.20				
1-Methylphenanthrene	ND	ug/l	0.20				
Benzo(e) Pyrene	ND	ug/l	0.20				
Hexachloroethane	ND	ug/l	0.80				
Surrogate(s)	Recovery		QC Criteria				
2-Fluorophenol	33.0	%	21-120				
Phenol-d6	32.0	%	10-120				
Nitrobenzene-d5	69.0	%	23-120				
2-Fluorobiphenyl	59.0	%	43-120				
2,4,6-Tribromophenol	52.0	%	10-120				
4-Terphenyl-d14	81.0	%	33-120				
Blank Analysis for sample(s) 01 (WG248541-1)							
Polychlorinated Biphenyls				5	608	0802 11:30	0803 11:52 JB
Aroclor 1016	ND	ug/l	0.250				
Aroclor 1221	ND	ug/l	0.250				
Aroclor 1232	ND	ug/l	0.250				
Aroclor 1242	ND	ug/l	0.250				
Aroclor 1248	ND	ug/l	0.250				
Aroclor 1254	ND	ug/l	0.250				
Aroclor 1260	ND	ug/l	0.250				
Surrogate(s)	Recovery		QC Criteria				
2,4,5,6-Tetrachloro-m-xylene	58.0	%	30-150				
Decachlorobiphenyl	30.0	%	30-150				

ALPHA ANALYTICAL LABORATORIES
ADDENDUM I

REFERENCES

1. Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.
4. Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020. Revised March 1983.
5. Methods for the Organic Chemical Analysis of Municipal and Industrial Wastewater. Appendix A, Part 136, 40 CFR (Code of Federal Regulations).
14. Methods for the Determination of Organic Compounds in Finished Drinking Water and Raw Source Water. EPA/600/4-88/039, Revised July 1991.
19. Inductively Coupled Plasma Atomic Emission Spectrometric Method for Trace Element Analysis of Water and Wastes. Appendix C, Part 136, 40 CFR (Code of Federal Regulations). July 1, 1999 edition.
30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.
74. Method 1664, Revision A: N-Hexane Extractable Material (HEM; Oil & Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry, EPA-821-R-98-002, February 1999.

**ALPHA ANALYTICAL LABORATORIES
ADDENDUM I**

REFERENCES

GLOSSARY OF TERMS AND SYMBOLS

REF Reference number in which test method may be found.
METHOD Method number by which analysis was performed.
ID Initials of the analyst.
ND Not detected in comparison to the reported detection limit.
NI Not Ignitable.
ug/cart Micrograms per Cartridge.

LIMITATION OF LIABILITIES

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

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



CHAIN OF CUSTODY

PAGE 1 OF 1

WESTBORO, MA RAYNHAM, MA
 TEL: 508-898-9220 TEL: 508-822-9300
 FAX: 508-898-9193 FAX: 508-822-3288

Date Rec'd in Lab: 8/1/06

ALPHA Job #: L0610884

Client Information

Client: ERM - BOSTON
 Address: 399 BOYLSTON ST 6TH FLOOR
 BOSTON MA 02116
 Phone: (617) 646-7800
 Fax: (617) 267-
 Email: jason.flattey@erm.com

Project Information

Project Name: WAYLAND RGP
 Project Location: W. WAYLAND
 Project #: 0042925
 Project Manager: RACHEL LEARY
 ALPHA Quote #:

Report Information - Data Deliverables

FAX EMAIL
 ADEX Add'l Deliverables

Billing Information

Same as Client info PO #:

Regulatory Requirements/Report Limits

State / Fed Program Criteria

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTOCOLS

Yes No Are MCP Analytical Methods Required?
 Yes No Are CT RCP (Reasonable Confidence Protocols) Required?

Turn-Around Time

Standard RUSH (only confirmed if pre-approved!)

Date Due: 8/18/06 Time:

Other Project Specific Requirements/Comments/Detection Limits:
 CALL JASON @ 617 512 4733 W/ ANY
 QUESTIONS

ANALYSIS
 Hex C, TRC
 TSS
 VOC
 EDB
 PAH 504
 TPH 8230 LOW
 PCB
 TOTAL PHENOL
 TOTAL METALS
 TCN

SAMPLE HANDLING

Filtration
 Done
 Not needed
 Lab to do
 Preservation
 Lab to do
 (Please specify below)

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	ANALYSIS											Sample Specific Comments	TOTAL # BOTTLES
		Date	Time			Hex C, TRC	TSS	VOC	EDB	PAH 504	TPH 8230 LOW	PCB	TOTAL PHENOL	TOTAL METALS	TCN			
L0610884-a	MW-552-20060801-01	8/1/06	14:10	GW	JDF	1	1	2	2	2	2	2	1	1	1		15	
	02 TB-001-20060801-01	8/1/06	13:40	GW	SLP			1	2								3	
		8/1/06																

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Container Type	V	V	A	A	A	A	P	P		
Preservative	A	A	H	H	A	B	H	D	C	E

Relinquished By: [Signature] Date/Time: 8/1/06 1940
 Received By: [Signature] Date/Time: 8/1/06 1940

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