

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

JAN 20 2006

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

a) Name of facility/site : Former Microfab Site - MADEP		Facility/site address:	
Location of facility/site : longitude: <u>70.96</u> latitude: <u>42.84</u>	Facility SIC code(s):	Street: 106 Haverhill Road - Route 110	
b) Name of facility/site owner : See Section 7, Note 1		Town: Amesbury	
Email address of owner: MADEP Email: patrick.hurley@state.ma.us		State: MA	Zip: 01913
Telephone no. of facility/site owner :		County: Essex	
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:	County:
c) Legal name of operator : Clean Harbors Environmental Services, Inc.	Operator telephone no: (781) 849-1800		
	Operator fax no.: (781) 794-1760		Operator email: allenh@cleanharbors.com
Operator contact name and title: Howard Allen, Senior Remediation Engineer			

Address of operator (if different from owner):	Street: 1501 Washington Street		
Town: Braintree	State: MA	Zip: 02184	County: Norfolk
d) Check "yes" or "no" for the following: 1. Has a prior NPDES permit exclusion been granted for the discharge? Yes ☒ No ☐ , if "yes," number: 99-149 2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge? Yes ☐ No ☐ , if "yes," date and tracking #: 3. Is the discharge a "new discharge" as defined by 40 CFR 122.2? Yes ☐ No ☒ 4. For sites in Massachusetts, is the discharge covered under the MA Contingency Plan (MCP) and exempt from state permitting? Yes ☒ No ☐			
e) Is site/facility subject to any State permitting or other action which is causing the generation of discharge? Yes ☐ No ☒ If "yes," please list: 1. site identification # assigned by the state of NH or MA: 2. permit or license # assigned: 3. state agency contact information: name, location, and telephone number:		f) Is the site/facility covered by any other EPA permit, including: 1. multi-sector storm water general permit? Y ☐ N ☒ , if Y, number: 2. phase I or II construction storm water general permit? Y ☐ N ☒ , if Y, number: 3. individual NPDES permit? Y ☐ N ☒ , if Y, number: 4. any other water quality related permit? Y ☐ N ☒ , if Y, number:	

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

a) Describe the discharge activities for which the owner/applicant is seeking coverage: The site consists of a former manufacturing facility. A groundwater recovery and treatment system is operated to address groundwater contamination. The treatment system consists of six recovery wells, submersible pumps, an equalization tank, bag filters, an air stripper, and liquid and vapor phase carbon. Treated water is discharged to an unnamed tributary to the Merrimack River.		
b) Provide the following information about each discharge:	1) Number of discharge points: 1	2) What is the maximum and average flow rate of discharge (in cubic feet per second, ft ³ /s)? Max. flow <u>0.07</u> Average flow <u>2.1</u> Is maximum flow a design value ? Y ☐ N ☒ For average flow, include the units and appropriate notation if this value is a design value or estimate if not available. gallons per minute
3) Latitude and longitude of each discharge within 100 feet: pt.1: long. <u>70.96</u> lat. <u>42.84</u> ; 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 <u>11/26/91</u> 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).	

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		✓	1	grab	160.2	4 ppm	34000			
2. Total Residual Chlorine		✓	1	grab	4500	0.05ppm	90			
3. Total Petroleum Hydrocarbons		✓	1	grab	1664	5 ppm	<5000			
4. Cyanide	✓		1	grab	335.2	0.02ppm	< 20			
5. Benzene	✓		1	grab	8260	5 ppb	<5			
6. Toluene	✓		1	grab	8260	5 ppb	<5			
7. Ethylbenzene	✓		1	grab	8260	5 ppb	<5			
8. (m,p,o) Xylenes	✓		1	grab	8260	5 ppb	<5			
9. Total BTEX ⁴	✓		1	grab	8260	5 ppb	<5			

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)										
11. Methyl-tert-Butyl Ether (MtBE)	✓		1	grab	8260	5 ppb	<5			
12. tert-Butyl Alcohol (TBA)										
13. tert-Amyl Methyl Ether (TAME)										
14. Naphthalene	✓		1	grab	8260	20 ppb	<20			
15. Carbon Tetra-chloride	✓		1	grab	8260	5 ppb	<5			
16. 1,4 Dichlorobenzene	✓		1	grab	8260	5 ppb	<5			
17. 1,2 Dichlorobenzene	✓		1	grab	8260	5 ppb	<5			
18. 1,3 Dichlorobenzene	✓		1	grab	8260	5 ppb	<5			
19. 1,1 Dichloroethane		✓	1	grab	8260	5 ppb	21.8			
20. 1,2 Dichloroethane		✓	1	grab	8260	5 ppb	91.9			
21. 1,1 Dichloroethylene										
22. cis-1,2 Dichloro-ethylene		✓	1	grab	8260	1000ppb	16200			
23. Dichloromethane (Methylene Chloride)	✓		1	grab	8260	10 ppb	<10			
24. Tetrachloroethylene		✓	1	grab	8260	5 ppb	106			

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		✓	1	grab	8260	5 ppb	113			
26. 1,1,2 Trichloroethane	✓		1	grab	8260	5 ppb	<5			
27. Trichloroethylene		✓	1	grab	8260	250 ppb	5610			
28. Vinyl Chloride		✓	1	grab	8260	2 ppb	6.22			
29. Acetone	✓		1	grab	8260	50 ppb	<50			
30. 1,4 Dioxane										
31. Total Phenols	✓									
32. Pentachlorophenol	✓		1	grab	8270	1 ppb	<1			
33. Total Phthalates ⁵ (Phthalate esters)	✓									
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	✓		1	grab	8270	2 ppb	<2			
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	✓									
a. Benzo(a) Anthracene	✓		1	grab	8270	0.5 ppb	<0.5			
b. Benzo(a) Pyrene	✓		1	grab	8270	0.2 ppb	<0.2			
c. Benzo(b) Fluoranthene	✓		1	grab	8270	0.5 ppb	<0.5			
d. Benzo(k) Fluoranthene	✓		1	grab	8270	1 ppb	<1			
e. Chrysene	✓		1	grab	8270	0.5 ppb	<0.5			

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	8270	0.5 ppb	<0.5			
g. Indeno(1,2,3-cd) Pyrene	✓		1	grab	8270	0.5 ppb	<0.5			
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)	✓									
h. Acenaphthene	✓		1	grab	8270	0.5 ppb	<0.5			
i. Acenaphthylene	✓		1	grab	8270	0.25ppb	<0.25			
j. Anthracene	✓		1	grab	8270	0.5 ppb	<0.5			
k. Benzo(ghi) Perylene	✓		1	grab	8270	1 ppb	<1			
l. Fluoranthene	✓		1	grab	8270	0.5 ppb	<0.5			
m. Fluorene	✓		1	grab	8270	0.5 ppb	<0.5			
n. Naphthalene-	✓		1	grab	8270	0.75ppb	<0.75			
o. Phenanthrene	✓		1	grab	8270	0.5 ppb	<0.5			
p. Pyrene	✓		1	grab	8270	1.25ppb	<1.25			
37. Total Polychlorinated Biphenyls (PCBs)	✓		1	grab	608	0.31ppb	<0.31			
38. Antimony	✓		1	grab	200.7	30 ppb	<30			
39. Arsenic	✓		1	grab	200.7	50 ppb	<50			
40. Cadmium	✓		1	grab	200.7	5 ppb	<5			
41. Chromium III	✓		1	grab	200.7	6 ppb	<6			
42. Chromium VI	✓		1	grab	200.7	6 ppb	<6			

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	200.7	8 ppb	48.6			
44. Lead	✓		1	grab	200.7	15 ppb	<15			
45. Mercury	✓		1	grab	245.1	1 ppb	<1			
46. Nickel	✓		1	grab	200.7	10 ppb	<10			
47. Selenium	✓		1	grab	200.7	50 ppb	<50			
48. Silver	✓		1	grab	200.7	7 ppb	<7			
49. Zinc	✓		1	grab	200.7	100 ppb	<100			
50. Iron		✓	1	grab	200.7	300 ppb	23700			
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: The treatment system includes six recovery wells with submersible pumps, an equalization tank, bag filters, a holding tank, an air stripper, two liquid-phase carbon vessels, one vapor-phase carbon vessel, and associated pumps and controls.						
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>2.1</u> Maximum flow rate of treatment system <u>30</u> Design flow rate of treatment system <u>30</u>						
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: Treated water is discharged through a 2-inch pipe into an unnamed tributary of the Merrimack River.						

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

1. For multiple discharges, number the discharges sequentially.

2. For indirect dischargers, indicate the location of the discharge to the indirect conveyance and the discharge to surface water

The map should also include the location and distance to the nearest sanitary sewer as well as the locus of nearby sensitive receptors (based on USGS topographical mapping), such as surface waters, drinking water supplies, and wetland areas.

d) Provide the state water quality classification of the receiving water A,

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

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? No or is consultation underway? No

What were the results of the consultation with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service (check one):

a "no jeopardy" opinion? or written concurrence on a finding that the discharges are not likely to adversely affect any endangered species or critical habitat?

b) Are any historic properties listed or eligible for listing on the National Register of Historic Places located on the facility or site or in proximity to the discharge?

Yes No ✓ Have any state or tribal historic preservation officer been consulted in this determination (Massachusetts only)? Yes No

7. Supplemental information. :

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

Note 1. Site is a state funded cleanup site with oversight from the Massachusetts Department of Environmental Protection. Current site owner has no involvement in the operation of the treatment system.

Note 2. Analytical data from monthly compliance sampling is included for January 2005 through July 2005, and for October 2005.

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:

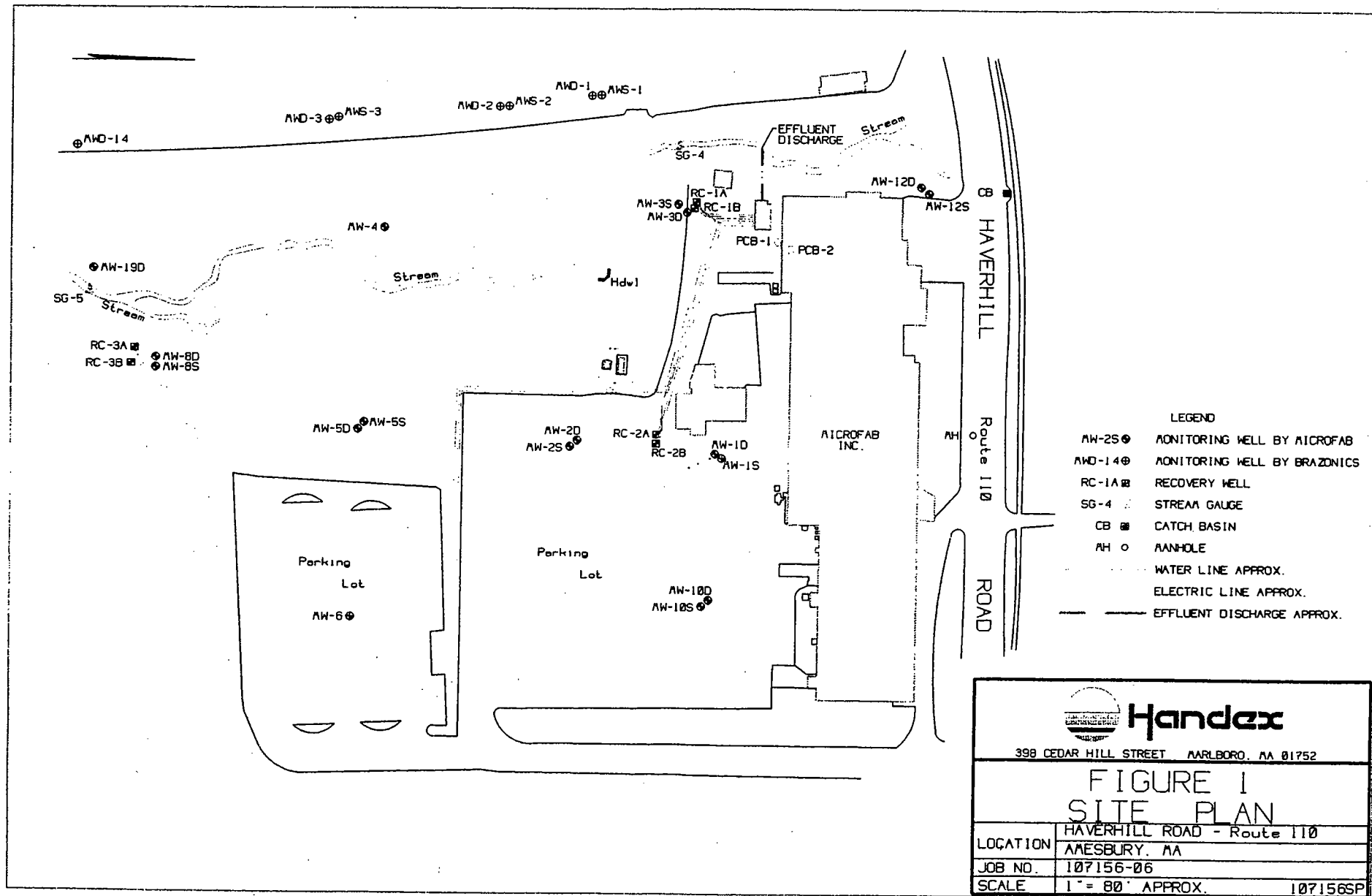
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage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

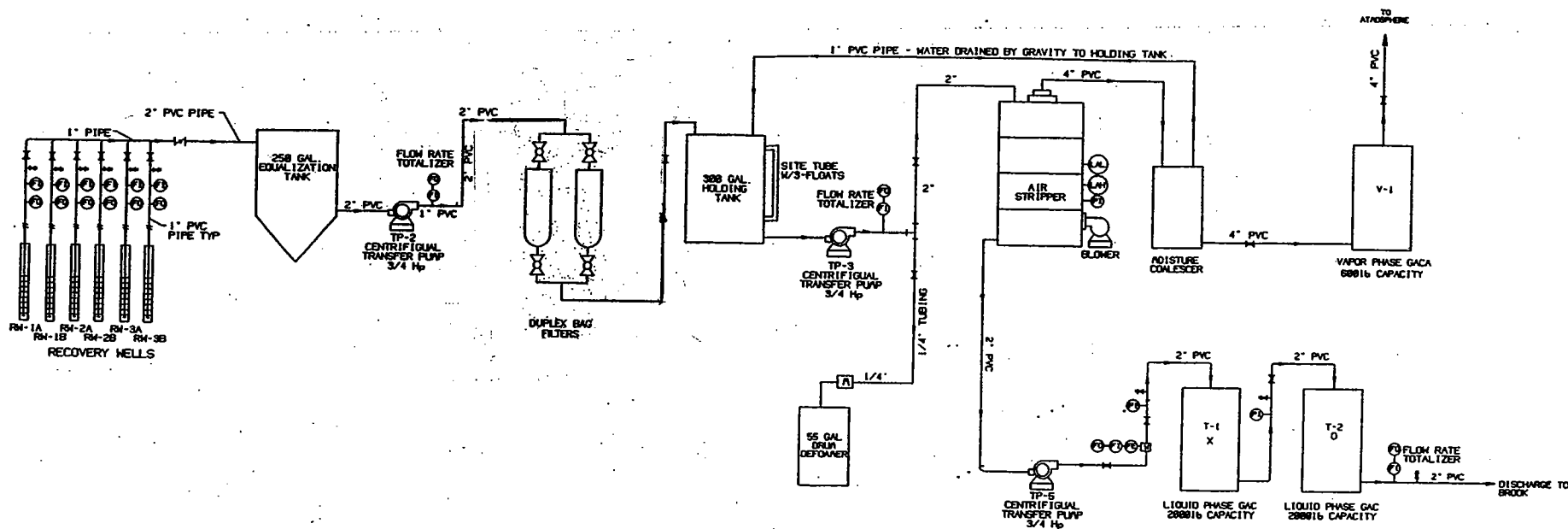
Facility/Site Name: Former Microfab Site - MADEP

Operator signature: 

Title: Senior Remediation Engineer

Date: 01/16/05





LEGEND

- ⊕ SAMPLE PORT
- ⊗ BALL VALVE
- ⌵ BUTTERFLY VALVE
- ⌵ CHECK VALVE
- ⊗ VALVE W/MOTOR
- ⌵ PRESSURE RELIEF VALVE
- ⌵ PITLESS ADAPTER
- ⌵ HOSE QUICK CONNECT
- ⌵ FLEXIBLE HOSE
- ➔ FLOW DIRECTION
- ⌵ FLOW METERING PUMP
- ⌵ TURBINE FLOW METER
- PROCESS DUCT WORK
- ELECTRICAL WIRING

MEASURED VARIABLE	SUCCESSING LETTER
F FLOW RATE	A ALARM
L LEVEL	E PRIMARY ELEMENT
P PRESSURE	H HIGH
T TEMPERATURE	I INDICATOR
V VACUUM	L LOW
	O TOTALIZER
	S SWITCH
	V VALVE

 398 CEDAR HILL STREET MARLBORO, MA 01752	
FIGURE 2 PROCESS & INSTRUMENTATION DIAGRAM	
LOCATION	ROUTE 110 MARLBORO, MA
JOB NO.	107156-05
SCALE	NOT TO SCALE (48) 107156P1

Thursday, January 05, 2006

Howard Allen
Clean Harbors
1501 Washington St.
Braintree, MA 02184

TEL: (781) 849-1800
FAX: (781) 794-1760

Project: EN1055424
Location: Microfab

Order No.: 0512339

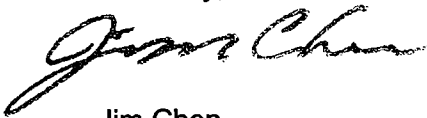
Dear Howard Allen:

GeoLabs, Inc. received 5 sample(s) on 12/23/2005 for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,



Jim Chen
Laboratory Director



GeoLabs, Inc.
45 Johnson Lane
Braintree MA 02184
Tele: 781 848 7844
Fax: 781 848 7811

GeoLabs, Inc.

Date: 05-Jan-06

CLIENT: Clean Harbors
Lab Order: 0512339
Project: EN1055424
Lab ID: 0512339-001

Client Sample ID: Influent
Collection Date: 12/22/2005 1:30:00 PM
Date Received: 12/23/2005
Matrix: GROUNDWATER

Analyses	Result	Det. Limit	Qual	Units	DF	Date Analyzed
NON-POLAR						
		E1664				Analyst: AMS
Total Petroleum Hydrocarbons	ND	5.00		mg/L	1	1/3/2006
TOTAL SUSPENDED SOLIDS						
		E160.2				Analyst: BS
Total Suspended Solids	34.0	4.00		mg/L	1	12/27/2005
PCBS						
		E608				Analyst: GP
Aroclor 1016/1242	ND	0.313		µg/L	1	12/27/2005
Aroclor 1221	ND	0.313		µg/L	1	12/27/2005
Aroclor 1232	ND	0.313		µg/L	1	12/27/2005
Aroclor 1248	ND	0.313		µg/L	1	12/27/2005
Aroclor 1254	ND	0.313		µg/L	1	12/27/2005
Aroclor 1260	ND	0.313		µg/L	1	12/27/2005
Surr: Decachlorobiphenyl Signal 1	40.0	30-150		%REC	1	12/27/2005
Surr: Decachlorobiphenyl Signal 2	40.0	30-150		%REC	1	12/27/2005
Surr: Tetrachloro-m-xylene Signal	58.0	30-150		%REC	1	12/27/2005
Surr: Tetrachloro-m-xylene Signal	62.0	30-150		%REC	1	12/27/2005
ICP METALS						
		E200.7				Analyst: RP
Antimony	ND	0.0300		mg/L	1	12/28/2005
Arsenic	ND	0.0500		mg/L	1	12/28/2005
Cadmium	ND	0.00500		mg/L	1	12/28/2005
Chromium	ND	0.0600		mg/L	1	12/28/2005
Copper	0.0486	0.00800		mg/L	1	12/28/2005
Iron	23.7	0.300		mg/L	5	12/28/2005
Lead	ND	0.0150		mg/L	1	12/28/2005
Nickel	ND	0.0100		mg/L	1	12/28/2005
Selenium	ND	0.0500		mg/L	1	12/28/2005
Zinc	ND	0.100		mg/L	1	12/28/2005
SILVER						
		200.7				Analyst: EN
Silver	ND	0.00700		mg/L	1	12/29/2005
TOTAL MERCURY						
		E245.1				Analyst: EN
Mercury	ND	0.0010		mg/L	1	12/27/2005
SEMIVOLATILE ORGANICS						
		SW8270C				Analyst: ZYZ
1,2,4-Trichlorobenzene	ND	0.750		µg/L	1	12/27/2005

Qualifiers: * Value exceeds Maximum Contaminant Level
 E Value above quantitation range
 J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit

GeoLabs, Inc.

Date: 05-Jan-06

CLIENT: Clean Harbors
Lab Order: 0512339
Project: EN1055424
Lab ID: 0512339-001

Client Sample ID: Influent
Collection Date: 12/22/2005 1:30:00 PM
Date Received: 12/23/2005
Matrix: GROUNDWATER

Analyses	Result	Det. Limit	Qual	Units	DF	Date Analyzed
SEMIVOLATILE ORGANICS				SW8270C		Analyst: ZYZ
1,2-Dichlorobenzene	ND	1.00		µg/L	1	12/27/2005
1,2-Dinitrobenzene	ND	5.00		µg/L	1	12/27/2005
1,3-Dichlorobenzene	ND	1.00		µg/L	1	12/27/2005
1,3-Dinitrobenzene	ND	0.750		µg/L	1	12/27/2005
1,4-Dichlorobenzene	ND	1.00		µg/L	1	12/27/2005
1,4-Dinitrobenzene	ND	5.00		µg/L	1	12/27/2005
2,3,4,6-Tetrachlorophenol	ND	1.00		µg/L	1	12/27/2005
2,4,5-Trichlorophenol	ND	0.750		µg/L	1	12/27/2005
2,4,6-Trichlorophenol	ND	0.500		µg/L	1	12/27/2005
2,4-Dichlorophenol	ND	0.500		µg/L	1	12/27/2005
2,4-Dimethylphenol	ND	3.75		µg/L	1	12/27/2005
2,4-Dinitrophenol	ND	0.250		µg/L	1	12/27/2005
2,4-Dinitrotoluene	ND	0.500		µg/L	1	12/27/2005
2,6-Dinitrotoluene	ND	0.250		µg/L	1	12/27/2005
2-Chloronaphthalene	ND	0.500		µg/L	1	12/27/2005
2-Chlorophenol	ND	0.500		µg/L	1	12/27/2005
2-Methylnaphthalene	ND	0.750		µg/L	1	12/27/2005
2-Methylphenol	ND	1.00		µg/L	1	12/27/2005
2-Nitroaniline	ND	0.750		µg/L	1	12/27/2005
2-Nitrophenol	ND	0.500		µg/L	1	12/27/2005
3,3'-Dichlorobenzidine	ND	2.50		µg/L	1	12/27/2005
3-Methylphenol/4-methylphenol	ND	1.50		µg/L	1	12/27/2005
3-Nitroaniline	ND	1.50		µg/L	1	12/27/2005
4,6-Dinitro-2-methylphenol	ND	1.00		µg/L	1	12/27/2005
4-Bromophenyl phenyl ether	ND	0.750		µg/L	1	12/27/2005
4-Chloro-3-methylphenol	ND	0.500		µg/L	1	12/27/2005
4-Chloroaniline	ND	2.50		µg/L	1	12/27/2005
4-Chlorophenyl phenyl ether	ND	0.500		µg/L	1	12/27/2005
4-Nitroaniline	ND	1.00		µg/L	1	12/27/2005
4-Nitrophenol	ND	0.500		µg/L	1	12/27/2005
Acenaphthene	ND	0.500		µg/L	1	12/27/2005
Acenaphthylene	ND	0.250		µg/L	1	12/27/2005
Acetophenone	ND	0.750		µg/L	1	12/27/2005
Aniline	ND	2.25		µg/L	1	12/27/2005
Anthracene	ND	0.500		µg/L	1	12/27/2005
Azobenzene	ND	5.00		µg/L	1	12/27/2005
Benz(a)anthracene	ND	0.500		µg/L	1	12/27/2005
Benzo(a)pyrene	ND	0.200		µg/L	1	12/27/2005
Benzo(b)fluoranthene	ND	0.500		µg/L	1	12/27/2005
Benzo(g,h,i)perylene	ND	1.00		µg/L	1	12/27/2005

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

GeoLabs, Inc.

Date: 05-Jan-06

CLIENT: Clean Harbors
Lab Order: 0512339
Project: EN1055424
Lab ID: 0512339-001

Client Sample ID: Influent
Collection Date: 12/22/2005 1:30:00 PM
Date Received: 12/23/2005
Matrix: GROUNDWATER

Analyses	Result	Det. Limit	Qual	Units	DF	Date Analyzed
SEMIVOLATILE ORGANICS			SW8270C		Analyst: ZYZ	
Benzo(k)fluoranthene	ND	1.00		µg/L	1	12/27/2005
Benzyl alcohol	ND	1.00		µg/L	1	12/27/2005
Bis(2-chloroethoxy)methane	ND	0.500		µg/L	1	12/27/2005
Bis(2-chloroethyl)ether	ND	0.500		µg/L	1	12/27/2005
Bis(2-chloroisopropyl)ether	ND	0.750		µg/L	1	12/27/2005
Bis(2-ethylhexyl)phthalate	ND	2.00		µg/L	1	12/27/2005
Butyl benzyl phthalate	ND	1.25		µg/L	1	12/27/2005
Carbazole	ND	0.750		µg/L	1	12/27/2005
Chrysene	ND	0.500		µg/L	1	12/27/2005
Dibenz(a,h)anthracene	ND	0.500		µg/L	1	12/27/2005
Dibenzofuran	ND	0.500		µg/L	1	12/27/2005
Diethyl phthalate	ND	1.25		µg/L	1	12/27/2005
Dimethyl phthalate	ND	1.75		µg/L	1	12/27/2005
Di-n-butyl phthalate	ND	0.750		µg/L	1	12/27/2005
Di-n-octyl phthalate	ND	2.00		µg/L	1	12/27/2005
Fluoranthene	ND	0.500		µg/L	1	12/27/2005
Fluorene	ND	0.500		µg/L	1	12/27/2005
Hexachlorobenzene	ND	1.00		µg/L	1	12/27/2005
Hexachlorobutadiene	ND	0.500		µg/L	1	12/27/2005
Hexachlorocyclopentadiene	ND	10.0		µg/L	1	12/27/2005
Hexachloroethane	ND	2.00		µg/L	1	12/27/2005
Indeno(1,2,3-cd)pyrene	ND	0.500		µg/L	1	12/27/2005
Isophorone	ND	0.500		µg/L	1	12/27/2005
Naphthalene	ND	0.750		µg/L	1	12/27/2005
Nitrobenzene	ND	0.750		µg/L	1	12/27/2005
N-Nitrosodimethylamine	ND	1.00		µg/L	1	12/27/2005
N-Nitrosodi-n-propylamine	ND	1.00		µg/L	1	12/27/2005
N-Nitrosodiphenylamine	ND	5.00		µg/L	1	12/27/2005
Pentachlorophenol	ND	1.00		µg/L	1	12/27/2005
Phenanthrene	ND	0.500		µg/L	1	12/27/2005
Phenol	ND	0.250		µg/L	1	12/27/2005
Pyrene	ND	1.25		µg/L	1	12/27/2005
Pyridine	ND	1.25		µg/L	1	12/27/2005
Surr: 2,4,6-Tribromophenol	56.8	15-150		%REC	1	12/27/2005
Surr: 2-Fluorobiphenyl	46.7	30-130		%REC	1	12/27/2005
Surr: 2-Fluorophenol	29.9	15-110		%REC	1	12/27/2005
Surr: Nitrobenzene-d5	38.4	30-130		%REC	1	12/27/2005
Surr: Phenol-d6	22.4	15-110		%REC	1	12/27/2005
Surr: Terphenyl-d14	55.9	30-130		%REC	1	12/27/2005

Qualifiers:
 * Value exceeds Maximum Contaminant Level
 E Value above quantitation range
 J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit

CLIENT: Clean Harbors
 Lab Order: 0512339
 Project: EN1055424
 Lab ID: 0512339-001

Client Sample ID: Influent
 Collection Date: 12/22/2005 1:30:00 PM
 Date Received: 12/23/2005
 Matrix: GROUNDWATER

Analyses	Result	Det. Limit	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS		SW8260B		Analyst: MR		
1,1,1,2-Tetrachloroethane	ND	2.00		µg/L	1	12/28/2005 3:27:00 PM
1,1,1-Trichloroethane	113	5.00		µg/L	1	12/28/2005 3:27:00 PM
1,1,2,2-Tetrachloroethane	ND	0.610		µg/L	1	12/28/2005 3:27:00 PM
1,1,2-Trichloroethane	ND	5.00		µg/L	1	12/28/2005 3:27:00 PM
1,1-Dichloroethane	21.8	5.00		µg/L	1	12/28/2005 3:27:00 PM
1,1-Dichloroethene	91.9	0.960		µg/L	1	12/28/2005 3:27:00 PM
1,1-Dichloropropene	ND	0.400		µg/L	1	12/28/2005 3:27:00 PM
1,2,3-Trichlorobenzene	ND	5.00		µg/L	1	12/28/2005 3:27:00 PM
1,2,3-Trichloropropane	ND	5.00		µg/L	1	12/28/2005 3:27:00 PM
1,2,4-Trichlorobenzene	ND	5.00		µg/L	1	12/28/2005 3:27:00 PM
1,2,4-Trimethylbenzene	ND	5.00		µg/L	1	12/28/2005 3:27:00 PM
1,2-Dibromo-3-chloropropane	ND	5.00		µg/L	1	12/28/2005 3:27:00 PM
1,2-Dibromoethane	ND	1.00		µg/L	1	12/28/2005 3:27:00 PM
1,2-Dichlorobenzene	ND	5.00		µg/L	1	12/28/2005 3:27:00 PM
1,2-Dichloroethane	ND	5.00		µg/L	1	12/28/2005 3:27:00 PM
1,2-Dichloropropane	ND	5.00		µg/L	1	12/28/2005 3:27:00 PM
1,3,5-Trimethylbenzene	ND	5.00		µg/L	1	12/28/2005 3:27:00 PM
1,3-Dichlorobenzene	ND	5.00		µg/L	1	12/28/2005 3:27:00 PM
1,3-Dichloropropane	ND	5.00		µg/L	1	12/28/2005 3:27:00 PM
1,4-Dichlorobenzene	ND	5.00		µg/L	1	12/28/2005 3:27:00 PM
2,2-Dichloropropane	ND	5.00		µg/L	1	12/28/2005 3:27:00 PM
2-Butanone	ND	10.0		µg/L	1	12/28/2005 3:27:00 PM
2-Chloroethyl vinyl ether	ND	5.00		µg/L	1	12/28/2005 3:27:00 PM
2-Chlorotoluene	ND	5.00		µg/L	1	12/28/2005 3:27:00 PM
2-Hexanone	ND	10.0		µg/L	1	12/28/2005 3:27:00 PM
4-Chlorotoluene	ND	5.00		µg/L	1	12/28/2005 3:27:00 PM
4-Methyl-2-pentanone	ND	5.00		µg/L	1	12/28/2005 3:27:00 PM
Acetone	ND	50.0		µg/L	1	12/28/2005 3:27:00 PM
Acrylonitrile	ND	50.0		µg/L	1	12/28/2005 3:27:00 PM
Benzene	ND	5.00		µg/L	1	12/28/2005 3:27:00 PM
Bromobenzene	ND	5.00		µg/L	1	12/28/2005 3:27:00 PM
Bromochloromethane	ND	2.00		µg/L	1	12/28/2005 3:27:00 PM
Bromodichloromethane	ND	5.00		µg/L	1	12/28/2005 3:27:00 PM
Bromoform	ND	5.00		µg/L	1	12/28/2005 3:27:00 PM
Bromomethane	ND	2.00		µg/L	1	12/28/2005 3:27:00 PM
Carbon tetrachloride	ND	5.00		µg/L	1	12/28/2005 3:27:00 PM
Chlorobenzene	ND	5.00		µg/L	1	12/28/2005 3:27:00 PM
Chloroethane	ND	5.00		µg/L	1	12/28/2005 3:27:00 PM
Chloroform	ND	5.00		µg/L	1	12/28/2005 3:27:00 PM
Chloromethane	ND	5.00		µg/L	1	12/28/2005 3:27:00 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

GeoLabs, Inc.

Date: 05-Jan-06

CLIENT: Clean Harbors
Lab Order: 0512339
Project: EN1055424
Lab ID: 0512339-001

Client Sample ID: Influent
Collection Date: 12/22/2005 1:30:00 PM
Date Received: 12/23/2005
Matrix: GROUNDWATER

Analyses	Result	Det. Limit	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260B		Analyst: MR
cis-1,2-Dichloroethene	16200	1000		µg/L	200	12/29/2005 2:49:00 PM
cis-1,3-Dichloropropene	ND	0.650		µg/L	1	12/28/2005 3:27:00 PM
Dibromochloromethane	ND	5.00		µg/L	1	12/28/2005 3:27:00 PM
Dibromomethane	ND	5.00		µg/L	1	12/28/2005 3:27:00 PM
Dichlorodifluoromethane	ND	5.00		µg/L	1	12/28/2005 3:27:00 PM
Ethylbenzene	ND	5.00		µg/L	1	12/28/2005 3:27:00 PM
Hexachlorobutadiene	ND	0.500		µg/L	1	12/28/2005 3:27:00 PM
Isopropylbenzene	ND	5.00		µg/L	1	12/28/2005 3:27:00 PM
Methyl tert-butyl ether	ND	5.00		µg/L	1	12/28/2005 3:27:00 PM
Methylene chloride	ND	10.0		µg/L	1	12/28/2005 3:27:00 PM
Naphthalene	ND	20.0		µg/L	1	12/28/2005 3:27:00 PM
n-Butylbenzene	ND	5.00		µg/L	1	12/28/2005 3:27:00 PM
n-Propylbenzene	ND	5.00		µg/L	1	12/28/2005 3:27:00 PM
p-Isopropyltoluene	ND	5.00		µg/L	1	12/28/2005 3:27:00 PM
sec-Butylbenzene	ND	5.00		µg/L	1	12/28/2005 3:27:00 PM
Styrene	ND	5.00		µg/L	1	12/28/2005 3:27:00 PM
tert-Butylbenzene	ND	5.00		µg/L	1	12/28/2005 3:27:00 PM
Tetrachloroethene	106	5.00		µg/L	1	12/28/2005 3:27:00 PM
Toluene	ND	5.00		µg/L	1	12/28/2005 3:27:00 PM
trans-1,2-Dichloroethene	22.6	5.00		µg/L	1	12/28/2005 3:27:00 PM
trans-1,3-Dichloropropene	ND	0.950		µg/L	1	12/28/2005 3:27:00 PM
Trichloroethene	5610	250		µg/L	50	12/29/2005 12:33:00 PM
Trichlorofluoromethane	ND	5.00		µg/L	1	12/28/2005 3:27:00 PM
Vinyl chloride	6.22	2.00		µg/L	1	12/28/2005 3:27:00 PM
Xylenes, Total	ND	5.00		µg/L	1	12/28/2005 3:27:00 PM
Surr: 1,2-Dichloroethane-d4	86.2	70-130		%REC	1	12/28/2005 3:27:00 PM
Surr: 4-Bromofluorobenzene	94.3	70-130		%REC	1	12/28/2005 3:27:00 PM
Surr: Dibromofluoromethane	80.5	70-130		%REC	1	12/28/2005 3:27:00 PM
Surr: Toluene-d8	96.5	70-130		%REC	1	12/28/2005 3:27:00 PM
CYANIDE, TOTAL				E335.2		Analyst: RP
Cyanide, Total	ND	0.020		mg/L	1	12/30/2005
TOTAL RESIDUAL CHLORINE				SM 4500-Cl-G		Analyst: RP
Total Residual Chlorine	0.0900	0.0500	H	mg/L	1	12/28/2005

Qualifiers: * Value exceeds Maximum Contaminant Level
 E Value above quantitation range
 J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit

GeoLabs, Inc.

Date: 05-Jan-06

CLIENT: Clean Harbors
Lab Order: 0512339
Project: EN1055424
Lab ID: 0512339-002

Client Sample ID: GAC-EFF
Collection Date: 12/22/2005 1:30:00 PM
Date Received: 12/23/2005
Matrix: GROUNDWATER

Analyses	Result	Det. Limit	Qual	Units	DF	Date Analyzed
VOLATILE ORGANICS				E624		Analyst: MR
1,1,1-Trichloroethane	ND	5.00		µg/L	1	12/28/2005 4:06:00 PM
1,1,2,2-Tetrachloroethane	ND	0.610		µg/L	1	12/28/2005 4:06:00 PM
1,1,2-Trichloroethane	ND	5.00		µg/L	1	12/28/2005 4:06:00 PM
1,1-Dichloroethane	ND	5.00		µg/L	1	12/28/2005 4:06:00 PM
1,1-Dichloroethene	ND	0.960		µg/L	1	12/28/2005 4:06:00 PM
1,2-Dichloroethane	ND	5.00		µg/L	1	12/28/2005 4:06:00 PM
1,2-Dichloropropane	ND	5.00		µg/L	1	12/28/2005 4:06:00 PM
1,3-Dichloropropane	ND	5.00		µg/L	1	12/28/2005 4:06:00 PM
2-Butanone	ND	10.0		µg/L	1	12/28/2005 4:06:00 PM
2-Chloroethyl vinyl ether	ND	5.00		µg/L	1	12/28/2005 4:06:00 PM
2-Hexanone	ND	10.0		µg/L	1	12/28/2005 4:06:00 PM
4-Methyl-2-pentanone	ND	5.00		µg/L	1	12/28/2005 4:06:00 PM
Acetone	ND	50.0		µg/L	1	12/28/2005 4:06:00 PM
Acrolein	ND	15.0		µg/L	1	12/28/2005 4:06:00 PM
Acrylonitrile	ND	50.0		µg/L	1	12/28/2005 4:06:00 PM
Benzene	ND	5.00		µg/L	1	12/28/2005 4:06:00 PM
Bromodichloromethane	ND	5.00		µg/L	1	12/28/2005 4:06:00 PM
Bromoform	ND	5.00		µg/L	1	12/28/2005 4:06:00 PM
Bromomethane	ND	2.00		µg/L	1	12/28/2005 4:06:00 PM
Carbon tetrachloride	ND	5.00		µg/L	1	12/28/2005 4:06:00 PM
Chlorobenzene	ND	5.00		µg/L	1	12/28/2005 4:06:00 PM
Chloroethane	ND	5.00		µg/L	1	12/28/2005 4:06:00 PM
Chloroform	ND	5.00		µg/L	1	12/28/2005 4:06:00 PM
Chloromethane	ND	5.00		µg/L	1	12/28/2005 4:06:00 PM
cis-1,3-Dichloropropene	ND	0.650		µg/L	1	12/28/2005 4:06:00 PM
Dibromochloromethane	ND	5.00		µg/L	1	12/28/2005 4:06:00 PM
Dichlorodifluoromethane	ND	5.00		µg/L	1	12/28/2005 4:06:00 PM
Ethylbenzene	ND	5.00		µg/L	1	12/28/2005 4:06:00 PM
Methylene chloride	ND	10.0		µg/L	1	12/28/2005 4:06:00 PM
Tetrachloroethene	ND	5.00		µg/L	1	12/28/2005 4:06:00 PM
Toluene	ND	5.00		µg/L	1	12/28/2005 4:06:00 PM
trans-1,2-Dichloroethene	ND	5.00		µg/L	1	12/28/2005 4:06:00 PM
trans-1,3-Dichloropropene	ND	0.950		µg/L	1	12/28/2005 4:06:00 PM
Trichloroethene	5.50	5.00		µg/L	1	12/28/2005 4:06:00 PM
Trichlorofluoromethane	ND	5.00		µg/L	1	12/28/2005 4:06:00 PM
Vinyl chloride	ND	2.00		µg/L	1	12/28/2005 4:06:00 PM
Xylenes, Total	ND	5.00		µg/L	1	12/28/2005 4:06:00 PM
Surr: 1,2-Dichloroethane-d4	98.5	70-130		%REC	1	12/28/2005 4:06:00 PM
Surr: 4-Bromofluorobenzene	94.7	70-130		%REC	1	12/28/2005 4:06:00 PM
Surr: Dibromofluoromethane	97.5	70-130		%REC	1	12/28/2005 4:06:00 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
 E Value above quantitation range
 J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit

GeoLabs, Inc.

Date: 05-Jan-06

CLIENT: Clean Harbors
Lab Order: 0512339
Project: EN1055424
Lab ID: 0512339-005

Client Sample ID: Air Strip INF
Collection Date: 12/22/2005 1:30:00 PM
Date Received: 12/23/2005
Matrix: GROUNDWATER

Analyses	Result	Det. Limit	Qual	Units	DF	Date Analyzed
VOLATILE ORGANICS			E624			Analyst: MR
Surr: Toluene-d8	96.1	70-130	%REC	1		12/28/2005 5:45:00 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

CHAIN OF CUSTODY

GeoLabs CHAIN NUMBER: 0512339

GeoLabs, Inc.

Environmental Laboratories

45 Johnson Lane

Braintree, MA 02184

Office: 781-848-7844

Fax: 781-848-7811

Page 1 of 2

SPECIAL INSTRUCTIONS

resample C-6: sample received from DR 2123

Note: JOBS WITH INCOMPLETELY FILLED OUT CHAINS WILL NOT BE RUN. CHAIN WILL BE RETURNED TO CLIENT FOR COMPLETION

TYPE OF CLIENT: BUS ☒ LAB ☐ HOMEOWNER ☐

NOTE: HOMEOWNERS, LAW FIRMS MUST PAY WHEN DROPPING OFF SAMPLES

Client: X CLEAN HARBORS

Project Number: X EN 1055424

CHANGES REQUESTED? Y N

Address: X 1501 Washington NO P.O. BOXES

Project Location: X NICE OF AB

BY DATE

Braintree MA

Phone: X 781-849-1800

Purchase Order #: EN 1055424

Fax: 781-794-1760

Collected By: X Doug Murphy

Received on ice? ☐

Contact: X HOWARD ALLEN

E-mail: ALLENH@CLEANHARBORS.COM

ANALYSES REQUESTED

SAMPLE ID	COLLECTION			SAMPLE LOCATION	CONTAINER			COMP	GRAB	PRES	GEOLABS SAMPLE NUMBER	TSS 160.2	TRC 330.5	TPH 1664	TOTAL CH 335.4	VOL 8260C	SVOL 8270D	PCB 608	METALS 6010B	TEMPERATURE	LAB PH
	DATE	TIME	SAMPLED BY		TYPE	QUANT	MATRIX														
INFLUENT	12-22	1330	DM	SYST. INF	P	1	GW		X	7		X									
					P	1				7			X								
					A	2				3/7				X							
					P	1				5/7					X						
					V	2				1/7						X					
					A	2				4/7							X				
					A	2				4/7								X			
					P	1				2/7									X		

Verbal results given to

by (date/initial)

MATRIX CODES:

GW = Ground Water

WW = Wastewater

DW = Drinking Water

SL = Sludge

S = Soil A = Air

O = Oil OT = Other

CONTAINER CODES:

A = Amber B = Bag

G = Glass P = Plastic

S = Summa Canister

O = Other V = VOA

PRESERVATIVE CODES:

1 = HCl 5 = NaOH

2 = HNO₃ 6 = MeOH3 = H₂SO₄ 7 = ICE4 = Na₂S₂O₃

Terms: Payment due within 30 days unless other arrangements are made.

Past due balances subject to interest and collection costs.

Relinquished By: Date/Time

PRINT: Doug Murphy 12-25-05

Relinquished By:

Received By:

Received By:

Received By:

Received By:

Received By:

Received By: Date/Time:

Received By: Date/Time:

Received By: Date/Time:

Received By: Date/Time:

Received By: Date/Time:

Received By: Date/Time:

Received By: Date/Time:

Received By: Date/Time:

GeoLabs CHAIN NUMBER:

Fax: 781-848-7811

Page 2 of 2

SPECIAL INSTRUCTIONS

NOTE: HOMEOWNERS, LAW FIRMS MUST PAY WHEN DROPPING OFF SAMPLES

CHANGES REQUESTED?	Y	N
--------------------	---	---

BY _____ DATE _____

Received on ice?

ANALYSES REQUESTED

SAMPLE ID	COLLECTION			SAMPLE LOCATION	CONTAINER		MATRIX	COMP	GRAB	PRES	GEOLABS SAMPLE NUMBER	CR	GC							TEMPERATURE	LAB PH
	DATE	TIME	SAMPLED BY		TYPE	QUANT															
INFLUENT	12-22	1330	DM		P	1	GW		X	7	12339-001	X									
GAL-EFF					V	2				1/7	12339-002		X								
GAL-MID					V	2				1/7	12339-003		X								
GAL-INF					V	2				1/7	12339-004		X								
AIR STRIP INF					V	2				1/7	12339-005		X								

by (date/initial)

Received By:		Date/Time:	
---------------------	--	-------------------	--

Accession No.	Accession Date	Accession Number
1	1998	1
2	1998	2
3	1998	3
4	1998	4
5	1998	5
6	1998	6
7	1998	7
8	1998	8
9	1998	9
10	1998	10
11	1998	11
12	1998	12
13	1998	13
14	1998	14
15	1998	15
16	1998	16
17	1998	17
18	1998	18
19	1998	19
20	1998	20
21	1998	21
22	1998	22
23	1998	23
24	1998	24
25	1998	25
26	1998	26
27	1998	27
28	1998	28
29	1998	29
30	1998	30
31	1998	31
32	1998	32
33	1998	33
34	1998	34
35	1998	35
36	1998	36
37	1998	37
38	1998	38
39	1998	39
40	1998	40
41	1998	41
42	1998	42
43	1998	43
44	1998	44
45	1998	45
46	1998	46
47	1998	47
48	1998	48
49	1998	49
50	1998	50
51	1998	51
52	1998	52
53	1998	53
54	1998	54
55	1998	55
56	1998	56
57	1998	57
58	1998	58
59	1998	59
60	1998	60
61	1998	61
62	1998	62
63	1998	63
64	1998	64
65	1998	65
66	1998	66
67	1998	67
68	1998	68
69	1998	69
70	1998	70
71	1998	71
72	1998	72
73	1998	73
74	1998	74
75	1998	75
76	1998	76
77	1998	77
78	1998	78
79	1998	79
80	1998	80
81	1998	81
82	1998	82
83	1998	83
84	1998	84
85	1998	85
86	1998	86
87	1998	87
88	1998	88
89	1998	89
90	1998	90
91	1998	91
92	1998	92
93	1998	93
94	1998	94
95	1998	95
96	1998	96
97	1998	97
98	1998	98
99	1998	99
100	1998	100

1. *Journal of the American Medical Association*, 2000; 284: 1039-1044.

Received By: _____

1

Received By GeoLabs: 12/23/05

10:35

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: ATC Associates, Inc.

Laboratory Job Number: L0512559

Address: 600 West Cummings Park
Suite 5500
Woburn, MA 01801

Date Received: 20-OCT-2005

Attn: Ms. Elizabeth Anderson-Cobb

Date Reported: 27-OCT-2005

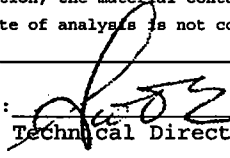
Project Number:

Delivery Method: Client

Site: MADEP MICROFAB

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0512559-01	AIR STRIPPER INFLUENT	RT 110, AMESBURY, MA
L0512559-02	PRIMARY INFLUENT	RT 110, AMESBURY, MA
L0512559-03	PRIMARY EFFLUENT	RT 110, AMESBURY, MA
L0512559-04	SECONDARY EFFLUENT	RT 110, AMESBURY, 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: 
Technical Director

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0512559

Volatile Organics

Re-analysis on dilution was required in order to quantitate the sample within the range of the calibration. The result is reported as a greater than value for the compound that exceeded the calibration on the initial analysis. The re-analysis was performed only for the compound which exceeded the range of the calibration. The dilution is as follows:

L0512559-01, -02 (20X,100X)

**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: L0512559-01	Date Collected: 19-OCT-2005 12:00
Sample Matrix: AIR STRIPPER INFLUENT	Date Received : 20-OCT-2005
Condition of Sample: Satisfactory	Date Reported : 27-OCT-2005
Field Prep: None	
Number & Type of Containers: 2-Vial	

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatiles Organics by GC/MS 624							
Methylene chloride	ND	ug/l	100				
1,1-Dichloroethane	ND	ug/l	30.				
Chloroform	ND	ug/l	30.				
Carbon tetrachloride	ND	ug/l	20.				
1,2-Dichloropropane	ND	ug/l	70.				
Dibromochloromethane	ND	ug/l	20.				
1,1,2-Trichloroethane	ND	ug/l	30.				
2-Chloroethylvinyl ether	ND	ug/l	200				
Tetrachloroethene	130	ug/l	30.				
Chlorobenzene	ND	ug/l	70.				
Trichlorofluoromethane	ND	ug/l	100				
1,2-Dichloroethane	ND	ug/l	30.				
1,1,1-Trichloroethane	93.	ug/l	40.				
Bromodichloromethane	ND	ug/l	20.				
trans-1,3-Dichloropropene	ND	ug/l	30.				
cis-1,3-Dichloropropene	ND	ug/l	30.				
Bromoform	ND	ug/l	20.				
1,1,2,2-Tetrachloroethane	ND	ug/l	20.				
Benzene	ND	ug/l	20.				
Toluene	ND	ug/l	20.				
Ethylbenzene	ND	ug/l	20.				
Chloromethane	ND	ug/l	200				
Bromomethane	ND	ug/l	100				
Vinyl chloride	ND	ug/l	40.				
Chloroethane	ND	ug/l	40.				
1,1-Dichloroethene	67.	ug/l	20.				
trans-1,2-Dichloroethene	ND	ug/l	30.				
cis-1,2-Dichloroethene	>4000	ug/l	20				
Trichloroethene	>4000	ug/l	20				
1,2-Dichlorobenzene	ND	ug/l	100				
1,3-Dichlorobenzene	ND	ug/l	100				
1,4-Dichlorobenzene	ND	ug/l	100				
p/m-Xylene	ND	ug/l	40.				
o-xylene	ND	ug/l	20.				
Xylene (Total)	ND	ug/l	40.				
Styrene	ND	ug/l	20.				
Acetone	ND	ug/l	200				
Carbon disulfide	ND	ug/l	100				

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0512559-01
 AIR STRIPPER INFLUENT

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatiles Organics by GC/MS 624 cont'd							
2-Butanone	ND	ug/l	200				
Vinyl acetate	ND	ug/l	400				
4-Methyl-2-pentanone	ND	ug/l	200				
2-Hexanone	ND	ug/l	200				
Acrolein	ND	ug/l	400				
Acrylonitrile	ND	ug/l	200				
Surrogate(s)	Recovery			QC Criteria			
Pentafluorobenzene	105.	%					
Fluorobenzene	100.	%					
4-Bromofluorobenzene	112.	%					
Volatiles Organics by GC/MS 624							
cis-1,2-Dichloroethene	10000	ug/l	100				
Trichloroethene	8200	ug/l	100				
Surrogate(s)	Recovery			QC Criteria			
Pentafluorobenzene	104.	%					
Fluorobenzene	103.	%					
4-Bromofluorobenzene	111.	%					

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: L0512559-02
PRIMARY INFLUENT
Sample Matrix: WATER

Date Collected: 19-OCT-2005 11:55
Date Received : 20-OCT-2005
Date Reported : 27-OCT-2005

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 2-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatiles Organics by GC/MS 624							
Methylene chloride	ND	ug/l	100				
1,1-Dichloroethane	ND	ug/l	30.				
Chloroform	ND	ug/l	30.				
Carbon tetrachloride	ND	ug/l	20.				
1,2-Dichloropropane	ND	ug/l	70.				
Dibromochloromethane	ND	ug/l	20.				
1,1,2-Trichloroethane	ND	ug/l	30.				
2-Chloroethylvinyl ether	ND	ug/l	200				
Tetrachloroethene	130	ug/l	30.				
Chlorobenzene	ND	ug/l	70.				
Trichlorofluoromethane	ND	ug/l	100				
1,2-Dichloroethane	ND	ug/l	30.				
1,1,1-Trichloroethane	88.	ug/l	40.				
Bromodichloromethane	ND	ug/l	20.				
trans-1,3-Dichloropropene	ND	ug/l	30.				
cis-1,3-Dichloropropene	ND	ug/l	30.				
Bromoform	ND	ug/l	20.				
1,1,2,2-Tetrachloroethane	ND	ug/l	20.				
Benzene	ND	ug/l	20.				
Toluene	ND	ug/l	20.				
Ethylbenzene	ND	ug/l	20.				
Chloromethane	ND	ug/l	200				
Bromomethane	ND	ug/l	100				
Vinyl chloride	ND	ug/l	40.				
Chloroethane	ND	ug/l	40.				
1,1-Dichloroethene	57.	ug/l	20.				
trans-1,2-Dichloroethene	ND	ug/l	30.				
cis-1,2-Dichloroethene	>4000	ug/l	20				
Trichloroethene	>4000	ug/l	20				
1,2-Dichlorobenzene	ND	ug/l	100				
1,3-Dichlorobenzene	ND	ug/l	100				
1,4-Dichlorobenzene	ND	ug/l	100				
p/m-Xylene	ND	ug/l	40.				
o-xylene	ND	ug/l	20.				
Xylene (Total)	ND	ug/l	40.				
Styrene	ND	ug/l	20.				
Acetone	ND	ug/l	200				
Carbon disulfide	ND	ug/l	100				

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

**ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0512559-02
PRIMARY INFLUENT

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by GC/MS 624 cont'd							
2-Butanone	ND	ug/l	200				
Vinyl acetate	ND	ug/l	400				
4-Methyl-2-pentanone	ND	ug/l	200				
2-Hexanone	ND	ug/l	200				
Acrolein	ND	ug/l	400				
Acrylonitrile	ND	ug/l	200				
Surrogate(s)	Recovery			QC Criteria			
Pentafluorobenzene	99.0	%					
Fluorobenzene	98.0	%					
4-Bromofluorobenzene	100.	%					
Volatile Organics by GC/MS 624							
cis-1,2-Dichloroethene	11000	ug/l	100				
Trichloroethene	9800	ug/l	100				
Surrogate(s)	Recovery			QC Criteria			
Pentafluorobenzene	102.	%					
Fluorobenzene	102.	%					
4-Bromofluorobenzene	107.	%					

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: L0512559-03
Sample Matrix: PRIMARY EFFLUENT
WATER

Date Collected: 19-OCT-2005 11:50
Date Received : 20-OCT-2005
Date Reported : 27-OCT-2005

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 2-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatiles Organics by GC/MS 624							
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	14.	ug/l	1.0				
Trichloroethene	4.3	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				

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0512559-03
PRIMARY EFFLUENT

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatiles Organics by GC/MS-624 cont'd							
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	20.				
Acrylonitrile	ND	ug/l	10.				
Surrogate(s)	Recovery			QC Criteria			
Pentafluorobenzene	102.	%					
Fluorobenzene	104.	%					
4-Bromofluorobenzene	111.	%					

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: L0512559-04	Date Collected: 19-OCT-2005 11:45
Sample Matrix: SECONDARY EFFLUENT	Date Received : 20-OCT-2005
Condition of Sample: Satisfactory	Date Reported : 27-OCT-2005
Field Prep: None	
Number & Type of Containers: 2-Vial	

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatiles Organics by GC/MS 624							
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				

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0512559-04
SECONDARY EFFLUENT

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by GC/MS: 624 cont'd							
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	20.				
Acrylonitrile	ND	ug/l	10.				
Surrogate(s)	Recovery			QC Criteria			
Pentafluorobenzene	95.0	%					
Fluorobenzene	100.	%					
4-Bromofluorobenzene	110.	%					

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0512559

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Volatile Organics by GC/MS #624 for sample(s) 01-04 (L0512559-01, WG218078-2)					
Benzene	ND	ND	ug/l	NC	
Toluene	ND	ND	ug/l	NC	
Ethylbenzene	ND	ND	ug/l	NC	
p/m-Xylene	ND	ND	ug/l	NC	
o-Xylene	ND	ND	ug/l	NC	
XYLENE (TOTAL)	ND	ND	ug/l	NC	
Surrogate(s)	Recovery				QC Criteria
Pentafluorobenzene	89.0	115.	%	25	
Fluorobenzene	94.0	118.	%	23	
4-Bromofluorobenzene	105.	124.	%	17	

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0512559

Parameter	% Recovery	QC Criteria
2.5 Volatile Organics by GC/MS 624 LGS for Sample (B) 01-02 (WQ218678-5)		
Methylene chloride	101	
1,1-Dichloroethane	107	
Chloroform	103	
Carbon tetrachloride	121	
1,2-Dichloropropane	101	
Dibromochloromethane	90	
1,1,2-Trichloroethane	92	
2-Chloroethylvinyl ether	91	
Tetrachloroethene	104	
Chlorobenzene	119	
Trichlorofluoromethane	113	
1,2-Dichloroethane	102	
1,1,1-Trichloroethane	112	
Bromodichloromethane	99	
trans-1,3-Dichloropropene	97	
cis-1,3-Dichloropropene	96	
Bromoform	101	
1,1,2,2-Tetrachloroethane	100	
Benzene	104	
Toluene	104	
Ethylbenzene	122	
Chloromethane	103	
Bromomethane	60	
Vinyl chloride	108	
Chloroethane	75	
1,1-Dichloroethene	108	
trans-1,2-Dichloroethene	104	
cis-1,2-Dichloroethene	106	
Trichloroethene	102	
1,2-Dichlorobenzene	120	
1,3-Dichlorobenzene	122	
1,4-Dichlorobenzene	123	
p/m-Xylene	125	
o-Xylene	121	
XYLENE (TOTAL)	124	
Styrene	113	
Acetone	92	
Carbon disulfide	98	
2-Butanone	77	
Vinyl acetate	90	
4-Methyl-2-pentanone	81	
2-Hexanone	76	
Acrolein	87	
Acrylonitrile	87	
Surrogate(s)		
Pentafluorobenzene	104	
Fluorobenzene	103	

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0512559

Continued

Parameter	% Recovery QC Criteria
-----------	------------------------

Volatile Organics by GC/MS 624 LCS for Sample (g) 01-02 (WG218078-5)

4-Bromofluorobenzene	111
----------------------	-----

Volatile Organics by GC/MS 624 LCS for Sample (g) 01-04 (WG218078-7)

Methylene chloride	120
1,1-Dichloroethane	118
Chloroform	112
Carbon tetrachloride	127
1,2-Dichloropropane	110
Dibromochloromethane	115
1,1,2-Trichloroethane	120
2-Chloroethylvinyl ether	136
Tetrachloroethene	122
Chlorobenzene	126
Trichlorofluoromethane	123
1,2-Dichloroethane	122
1,1,1-Trichloroethane	120
Bromodichloromethane	115
trans-1,3-Dichloropropene	130
cis-1,3-Dichloropropene	118
Bromoform	120
1,1,2,2-Tetrachloroethane	132
Benzene	112
Toluene	124
Ethylbenzene	134
Chloromethane	107
Bromomethane	82
Vinyl chloride	107
Chloroethane	87
1,1-Dichloroethene	89
trans-1,2-Dichloroethene	112
cis-1,2-Dichloroethene	116
Trichloroethene	108
1,2-Dichlorobenzene	129
1,3-Dichlorobenzene	126
1,4-Dichlorobenzene	129
p/m-Xylene	136
o-Xylene	134
XYLENE (TOTAL)	135
Styrene	129
Acetone	114
Carbon disulfide	108
2-Butanone	123
Vinyl acetate	132
4-Methyl-2-pentanone	134
2-Hexanone	139
Acrolein	90
Acrylonitrile	112

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0512559

Continued

Parameter	% Recovery QC Criteria
-----------	------------------------

~~Volatile Organics by GC/MS 624 LGS for sample(s) 01-04 (WC218078-7)~~

Surrogate(s)	
Pentafluorobenzene	106
Fluorobenzene	95
4-Bromofluorobenzene	106

~~Volatile Organics by GC/MS 624 SPIKE for sample(s) 01-04 (L0512541-01, WC218078-1)~~

Methylene chloride	103
1,1-Dichloroethane	103
Chloroform	100
Carbon tetrachloride	97
1,2-Dichloropropane	102
Dibromochloromethane	100
1,1,2-Trichloroethane	108
2-Chloroethylvinyl ether	93
Tetrachloroethene	102
Chlorobenzene	105
Trichlorofluoromethane	98
1,2-Dichloroethane	107
1,1,1-Trichloroethane	104
Bromodichloromethane	101
trans-1,3-Dichloropropene	88
cis-1,3-Dichloropropene	81
Bromoform	101
1,1,2,2-Tetrachloroethane	111
Benzene	103
Toluene	106
Ethylbenzene	110
Chloromethane	72
Bromomethane	66
Vinyl chloride	99
Chloroethane	100
1,1-Dichloroethene	102
trans-1,2-Dichloroethene	101
cis-1,2-Dichloroethene	103
Trichloroethene	100
1,2-Dichlorobenzene	107
1,3-Dichlorobenzene	107
1,4-Dichlorobenzene	107
p/m-Xylene	113
o-Xylene	109
XYLENE (TOTAL)	112
Styrene	103
Acetone	113
Carbon disulfide	87
2-Butanone	101
Vinyl acetate	90
4-Methyl-2-pentanone	118

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0512559

Continued

Parameter	% Recovery	QC Criteria
Volatile Organics by GC/MS 624 SPIKE for sample(s) 01-04 (L0512559-01 - WC218078-1)		
2-Hexanone	117	
Acrolein	16	
Acrylonitrile	111	
Surrogate(s)		
Pentafluorobenzene	100	
Fluorobenzene	99	
4-Bromofluorobenzene	101	

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0512559

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for Sample(s) 01-02 (WG214078-G)							
Volatile Organics by GC/MS-624							
Methylene chloride	ND	ug/l	5.0				1021-08-38 MM
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	20.				
Acrylonitrile	ND	ug/l	10.				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0512559

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01-02 (WG218078-6)							
Volatile Organics by GC/MS 624 cont'd							
Surrogate(s)	Recovery			QC Criteria			
Pentafluorobenzene	99.0	%					
Fluorobenzene	102.	%					
4-Bromofluorobenzene	115.	%					
Blank Analysis for sample(s) 01-04 (WG218078-8)							
Volatile Organics by GC/MS 624							
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.				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0512559

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01-04 (WG218078-B)							
Volatile Organics by GC/MS 624 cont'd							
Vinyl acetate	ND	ug/l	20.				
4-Methyl-2-pentanone	ND	ug/l	10.				
2-Hexanone	ND	ug/l	10.				
Acrolein	ND	ug/l	20.				
Acrylonitrile	ND	ug/l	10.				
Surrogate(s)	Recovery			QC Criteria			
Pentafluorobenzene	102.	%					
Fluorobenzene	105.	%					
4-Bromofluorobenzene	105.	%					

**ALPHA ANALYTICAL LABORATORIES
ADDENDUM I**

REFERENCES

5. Methods for the Organic Chemical Analysis of Municipal and Industrial Wastewater. Appendix A, Part 136, 40 CFR (Code of Federal Regulations).

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.

TOXIKON CORPORATION
15 WIGGINS AVENUE
BEDFORD, MA 01730
TEL: (781) 275-3330

August 09, 2005

Howard Allen
Clean Harbors
1501 Washington Street
BRAINTREE, MA 02185
TEL: (781) 849-1800
FAX (781) 794-1760

RE: Microfab

Order No.: 0508027

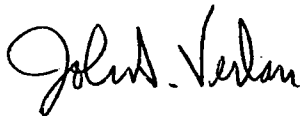
Dear Howard Allen:

Toxikon Corporation received 4 samples on 8/2/2005 for the analyses presented in the following report.

Unless noted in the report, there were no problems with the analyses and all data for associated QC met EPA or laboratory specifications.

If you have any questions regarding these test results, please feel free to call.

Sincerely,



John D. Verban

Certifications: MA: MA 064, , CT: PH 0563, MD: 185, RI: LAO00055
NELAC - NY: 10778, NJ: MA 538, NH: 2040, PA 68-461

Toxikon Corporation

Date: 09-Aug-05

CLIENT: Clean Harbors
Project: Microfab
Lab Order: 0508027

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
0508027-01A	GAC Effluent		7/28/2005 4:30:00 PM	8/2/2005
0508027-02A	GAC Midpoint		7/28/2005 4:30:00 PM	8/2/2005
0508027-03A	GAC Influent		7/28/2005 4:30:00 PM	8/2/2005
0508027-04A	Air Strip Inf.		7/28/2005 4:30:00 PM	8/2/2005

Toxikon Corporation

Date: 09-Aug-05

CLIENT: Clean Harbors
Lab Order: 0508027
Project: Microfab
Lab ID: 0508027-01A

Client Sample ID: GAC Effluent
Tag Number:
Collection Date: 7/28/2005 4:30:00 PM
Matrix: AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PURGEABLES		E624		Analyst: JPM		
1,1,1-Trichloroethane	ND	5.00		µg/L	1	8/4/2005 1:49:00 AM
1,1,2,2-Tetrachloroethane	ND	5.00		µg/L	1	8/4/2005 1:49:00 AM
1,1,2-Trichloroethane	ND	5.00		µg/L	1	8/4/2005 1:49:00 AM
1,1-Dichloroethane	ND	5.00		µg/L	1	8/4/2005 1:49:00 AM
1,1-Dichloroethene	ND	5.00		µg/L	1	8/4/2005 1:49:00 AM
1,2-Dichlorobenzene	ND	5.00		µg/L	1	8/4/2005 1:49:00 AM
1,2-Dichloroethane	ND	5.00		µg/L	1	8/4/2005 1:49:00 AM
1,2-Dichloropropane	ND	5.00		µg/L	1	8/4/2005 1:49:00 AM
1,3-Dichlorobenzene	ND	5.00		µg/L	1	8/4/2005 1:49:00 AM
1,4-Dichlorobenzene	ND	5.00		µg/L	1	8/4/2005 1:49:00 AM
2-Butanone	ND	10.0		µg/L	1	8/4/2005 1:49:00 AM
2-Chloroethyl vinyl ether	ND	5.00		µg/L	1	8/4/2005 1:49:00 AM
2-Hexanone	ND	5.00		µg/L	1	8/4/2005 1:49:00 AM
4-Methyl-2-Pentanone	ND	5.00		µg/L	1	8/4/2005 1:49:00 AM
Acetone	ND	10.0		µg/L	1	8/4/2005 1:49:00 AM
Acrolein	ND	50.0		µg/L	1	8/4/2005 1:49:00 AM
Acrylonitrile	ND	10.0		µg/L	1	8/4/2005 1:49:00 AM
Benzene	ND	5.00		µg/L	1	8/4/2005 1:49:00 AM
Bromodichloromethane	ND	5.00		µg/L	1	8/4/2005 1:49:00 AM
Bromoform	ND	5.00		µg/L	1	8/4/2005 1:49:00 AM
Bromomethane	ND	5.00		µg/L	1	8/4/2005 1:49:00 AM
Carbon Disulfide	ND	5.00		µg/L	1	8/4/2005 1:49:00 AM
Carbon tetrachloride	ND	5.00		µg/L	1	8/4/2005 1:49:00 AM
Chlorobenzene	ND	5.00		µg/L	1	8/4/2005 1:49:00 AM
Chloroethane	ND	5.00		µg/L	1	8/4/2005 1:49:00 AM
Chloroform	ND	5.00		µg/L	1	8/4/2005 1:49:00 AM
Chloromethane	ND	5.00		µg/L	1	8/4/2005 1:49:00 AM
cis-1,3-Dichloropropene	ND	5.00		µg/L	1	8/4/2005 1:49:00 AM
Dibromochloromethane	ND	5.00		µg/L	1	8/4/2005 1:49:00 AM
Dichlorodifluoromethane	ND	5.00		µg/L	1	8/4/2005 1:49:00 AM
Ethylbenzene	ND	5.00		µg/L	1	8/4/2005 1:49:00 AM
Methylene chloride	ND	10.0		µg/L	1	8/4/2005 1:49:00 AM
Styrene	ND	5.00		µg/L	1	8/4/2005 1:49:00 AM
Tetrachloroethene	ND	5.00		µg/L	1	8/4/2005 1:49:00 AM
Toluene	ND	5.00		µg/L	1	8/4/2005 1:49:00 AM
trans-1,3-Dichloropropene	ND	5.00		µg/L	1	8/4/2005 1:49:00 AM
Trichloroethene	ND	5.00		µg/L	1	8/4/2005 1:49:00 AM
Trichlorofluoromethane	ND	5.00		µg/L	1	8/4/2005 1:49:00 AM
Vinyl Acetate	ND	5.00		µg/L	1	8/4/2005 1:49:00 AM

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Toxikon Corporation

Date: 09-Aug-05

CLIENT: Clean Harbors
Lab Order: 0508027
Project: Microfab
Lab ID: 0508027-01A

Client Sample ID: GAC Effluent
Tag Number:
Collection Date: 7/28/2005 4:30:00 PM
Matrix: AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PURGEABLES		E624				Analyst: JPM
Vinyl chloride	ND	5.00		µg/L	1	8/4/2005 1:49:00 AM
Total 1,2-dichloroethene	ND	5.00		µg/L	1	8/4/2005 1:49:00 AM
Total Xylenes	ND	5.00		µg/L	1	8/4/2005 1:49:00 AM
Surr: 1,2-Dichloroethane-d4	101	76-114		%REC	1	8/4/2005 1:49:00 AM
Surr: 4-Bromofluorobenzene	101	86-115		%REC	1	8/4/2005 1:49:00 AM
Surr: Toluene-d8	99.5	88-110		%REC	1	8/4/2005 1:49:00 AM

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Toxikon Corporation

Date: 09-Aug-05

CLIENT: Clean Harbors
Lab Order: 0508027
Project: Microfab
Lab ID: 0508027-02A

Client Sample ID: GAC Midpoint
Tag Number:
Collection Date: 7/28/2005 4:30:00 PM
Matrix: AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PURGEABLES		E624				Analyst: JPM
1,1,1-Trichloroethane	ND	5.00		µg/L	1	8/4/2005 2:20:00 AM
1,1,2,2-Tetrachloroethane	ND	5.00		µg/L	1	8/4/2005 2:20:00 AM
1,1,2-Trichloroethane	ND	5.00		µg/L	1	8/4/2005 2:20:00 AM
1,1-Dichloroethane	ND	5.00		µg/L	1	8/4/2005 2:20:00 AM
1,1-Dichloroethene	ND	5.00		µg/L	1	8/4/2005 2:20:00 AM
1,2-Dichlorobenzene	ND	5.00		µg/L	1	8/4/2005 2:20:00 AM
1,2-Dichloroethane	ND	5.00		µg/L	1	8/4/2005 2:20:00 AM
1,2-Dichloropropane	ND	5.00		µg/L	1	8/4/2005 2:20:00 AM
1,3-Dichlorobenzene	ND	5.00		µg/L	1	8/4/2005 2:20:00 AM
1,4-Dichlorobenzene	ND	5.00		µg/L	1	8/4/2005 2:20:00 AM
2-Butanone	ND	10.0		µg/L	1	8/4/2005 2:20:00 AM
2-Chloroethyl vinyl ether	ND	5.00		µg/L	1	8/4/2005 2:20:00 AM
2-Hexanone	ND	5.00		µg/L	1	8/4/2005 2:20:00 AM
4-Methyl-2-Pentanone	ND	5.00		µg/L	1	8/4/2005 2:20:00 AM
Acetone	ND	10.0		µg/L	1	8/4/2005 2:20:00 AM
Acrolein	ND	50.0		µg/L	1	8/4/2005 2:20:00 AM
Acrylonitrile	ND	10.0		µg/L	1	8/4/2005 2:20:00 AM
Benzene	ND	5.00		µg/L	1	8/4/2005 2:20:00 AM
Bromodichloromethane	ND	5.00		µg/L	1	8/4/2005 2:20:00 AM
Bromoform	ND	5.00		µg/L	1	8/4/2005 2:20:00 AM
Bromomethane	ND	5.00		µg/L	1	8/4/2005 2:20:00 AM
Carbon Disulfide	ND	5.00		µg/L	1	8/4/2005 2:20:00 AM
Carbon tetrachloride	ND	5.00		µg/L	1	8/4/2005 2:20:00 AM
Chlorobenzene	ND	5.00		µg/L	1	8/4/2005 2:20:00 AM
Chloroethane	ND	5.00		µg/L	1	8/4/2005 2:20:00 AM
Chloroform	ND	5.00		µg/L	1	8/4/2005 2:20:00 AM
Chloromethane	ND	5.00		µg/L	1	8/4/2005 2:20:00 AM
cis-1,3-Dichloropropene	ND	5.00		µg/L	1	8/4/2005 2:20:00 AM
Dibromochloromethane	ND	5.00		µg/L	1	8/4/2005 2:20:00 AM
Dichlorodifluoromethane	ND	5.00		µg/L	1	8/4/2005 2:20:00 AM
Ethylbenzene	ND	5.00		µg/L	1	8/4/2005 2:20:00 AM
Methylene chloride	ND	10.0		µg/L	1	8/4/2005 2:20:00 AM
Styrene	ND	5.00		µg/L	1	8/4/2005 2:20:00 AM
Tetrachloroethene	ND	5.00		µg/L	1	8/4/2005 2:20:00 AM
Toluene	ND	5.00		µg/L	1	8/4/2005 2:20:00 AM
trans-1,3-Dichloropropene	ND	5.00		µg/L	1	8/4/2005 2:20:00 AM
Trichloroethene	13.7	5.00		µg/L	1	8/4/2005 2:20:00 AM
Trichlorofluoromethane	ND	5.00		µg/L	1	8/4/2005 2:20:00 AM
Vinyl Acetate	ND	5.00		µg/L	1	8/4/2005 2:20:00 AM

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Toxikon Corporation

Date: 09-Aug-05

CLIENT: Clean Harbors
Lab Order: 0508027
Project: Microfab
Lab ID: 0508027-02A

Client Sample ID: GAC Midpoint
Tag Number:
Collection Date: 7/28/2005 4:30:00 PM
Matrix: AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PURGEABLES		E624				Analyst: JPM
Vinyl chloride	ND	5.00		µg/L	1	8/4/2005 2:20:00 AM
Total 1,2-dichloroethene	33.0	5.00		µg/L	1	8/4/2005 2:20:00 AM
Total Xylenes	ND	5.00		µg/L	1	8/4/2005 2:20:00 AM
Surr: 1,2-Dichloroethane-d4	101	76-114		%REC	1	8/4/2005 2:20:00 AM
Surr: 4-Bromofluorobenzene	102	86-115		%REC	1	8/4/2005 2:20:00 AM
Surr: Toluene-d8	100	88-110		%REC	1	8/4/2005 2:20:00 AM

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Toxikon Corporation

Date: 06-Jul-05

CLIENT: Clean Harbors
Lab Order: 0506219
Project: Microfab
Lab ID: 0506219-01A

Client Sample ID: Gac - Effluent
Tag Number:
Collection Date: 6/21/2005 9:00:00 AM
Matrix: AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PURGEABLES		E624				Analyst: SP
Vinyl chloride	ND	5.00		µg/L	1	7/1/2005 5:50:00 PM
Total 1,2-dichloroethene	ND	5.00		µg/L	1	7/1/2005 5:50:00 PM
Total Xylenes	ND	5.00		µg/L	1	7/1/2005 5:50:00 PM
Surr: 1,2-Dichloroethane-d4	95.4	76-114		%REC	1	7/1/2005 5:50:00 PM
Surr: 4-Bromofluorobenzene	97.5	86-115		%REC	1	7/1/2005 5:50:00 PM
Surr: Toluene-d8	97.1	88-110		%REC	1	7/1/2005 5:50:00 PM

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit