

Omni Environmental Group

Environmental Consulting and Compliance Services

MA 01824
10

December 6, 2005

Project: 3602

U.S. Environmental Protection Agency
RGP-NOC Processing
Municipal Assistance Unit (CMU)
One Congress Street, Suite 1100
Boston, MA 02114-2023

DEC - 9 2005

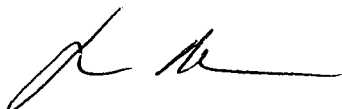
Re: RGP Notice of Intent
Joals Garage
500 Adamsville Road
Westport, Massachusetts

To Whom It May Concern:

Omni Environmental Group, on behalf of Joals Garage, Inc., is submitting the attached Notice of Intent for coverage under the National Pollutant Discharge Elimination System Remediation General Permit. The Notice of Intent is for the discharge of treated ground water from the remediation system located at 500 Adamsville Road in Westport, Massachusetts.

If you should need any additional information, please feel free to contact me at (978) 256-6766.

Sincerely,
Omni Environmental Group



Jonathan S. Moore, L.S.P.
Principal

attachment

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: Joals Garage		Facility/site address:	
Location of facility/site: longitude: <u>71° 07' 16"</u> latitude: <u>41° 33' 39"</u>	Facility SIC code(s): 5541	Street: 500 Adamsville Road	
b) Name of facility/site owner: Joals Garage, Inc.		Town: Westport	
Email address of owner: N.A.		State: MA	County: Bristol
Telephone no. of facility/site owner: (508) 636-6954		Zip: 02790	
Fax no. of facility/site owner: (508) 636-7243		Owner is (check one): 1. Federal _____ 2. State/Tribal _____	
Address of owner (if different from site):		3. Private <input checked="" type="checkbox"/> 4. other, if so, describe:	
Street: P.O. Box 3074			
Town: Westport	State: MA	Zip: 02790	County: Bristol
c) Legal name of operator: Same as owner		Operator telephone no:	
		Operator fax no.:	
Operator contact name and title:			

Address of operator (if different from owner):	Street:		
Town:	State:	Zip:	County:
<p>d) Check "yes" or "no" for the following:</p> <p>1. Has a prior NPDES permit exclusion been granted for the discharge? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> if "yes," number: _____</p> <p>2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge? Yes <input type="checkbox"/> No <input type="checkbox"/> if "yes," date and tracking #: MA031-067 6/5/03</p> <p>3. Is the discharge a "new discharge" as defined by 40 CFR 122.2? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>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 <input type="checkbox"/></p>			
<p>e) Is site/facility subject to any State permitting or other action which is causing the generation of discharge? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>If "yes," please list:</p> <p>1. site identification # assigned by the state of NH or MA: _____</p> <p>2. permit or license # assigned: _____</p> <p>3. state agency contact information: name, location, and telephone number: _____</p>			
<p>f) Is the site/facility covered by any other EPA permit, including:</p> <p>1. multi-sector storm water general permit? Y <input type="checkbox"/> N <input checked="" type="checkbox"/> if Y, number: _____</p> <p>2. phase I or II construction storm water general permit? Y <input type="checkbox"/> N <input checked="" type="checkbox"/> if Y, number: _____</p> <p>3. individual NPDES permit? Y <input type="checkbox"/> N <input checked="" type="checkbox"/> if Y, number: _____</p> <p>4. any other water quality related permit? Y <input type="checkbox"/> N <input checked="" type="checkbox"/> if Y, number: _____</p>			

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:

Ground water remediation of a gasoline release.

b) Provide the following information about each discharge:	1) Number of discharge points: 1	<p>2) What is the maximum and average flow rate of discharge (in cubic feet per second, ft³/s)? Max. flow 0.01 Average flow 0.01 Is maximum flow a design value? Y <input type="checkbox"/> N <input checked="" type="checkbox"/></p> <p>For average flow, include the units and appropriate notation if this value is a design value or estimate if not available. The flow is intermittent. It's either 0.01 ft³/s or there's no discharge.</p>								
3) Latitude and longitude of each discharge within 100 feet:	<table style="width:100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">pt.4: long. _____ lat. _____</td> <td style="width: 25%;">pt.5: long. _____ lat. _____</td> <td style="width: 25%;">pt.2: long. _____ lat. _____</td> <td style="width: 25%;">pt.3: long. _____ lat. _____</td> </tr> <tr> <td>pt.4: long. _____ lat. _____</td> <td>pt.6: long. _____ lat. _____</td> <td>pt.7: long. _____ lat. _____</td> <td>pt.8: long. _____ lat. _____</td> </tr> </table> <p style="margin-left: 40px;">→ 71° 07' 22" 41° 33' 31"</p>		pt.4: long. _____ lat. _____	pt.5: long. _____ lat. _____	pt.2: long. _____ lat. _____	pt.3: long. _____ lat. _____	pt.4: long. _____ lat. _____	pt.6: long. _____ lat. _____	pt.7: long. _____ lat. _____	pt.8: long. _____ lat. _____
pt.4: long. _____ lat. _____	pt.5: long. _____ lat. _____	pt.2: long. _____ lat. _____	pt.3: long. _____ lat. _____							
pt.4: long. _____ lat. _____	pt.6: long. _____ lat. _____	pt.7: long. _____ lat. _____	pt.8: long. _____ lat. _____							

<p>4) If hydrostatic testing, total volume of the discharge (gals): N.A.</p>	<p>5) Is the discharge intermittent <input checked="" type="checkbox"/> or seasonal <input type="checkbox"/>? Is discharge ongoing Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>?</p>
<p>c) Expected dates of discharge (mm/dd/yy): start 12/17/03 end <i>to be determined</i></p>	
<p>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).</p>	

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 <input checked="" type="checkbox"/>	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 (ug/l)	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			<4,000	
4. Cyanide	<input checked="" type="checkbox"/>		1	grab	335.2	5				
5. Benzene		<input checked="" type="checkbox"/>	1	grab	624	5			220	varying
6. Toluene		<input checked="" type="checkbox"/>	1	grab	624	50			2,800	flow
7. Ethylbenzene		<input checked="" type="checkbox"/>	1	grab	624	50			1,200	
8. (m,p,o) Xylenes		<input checked="" type="checkbox"/>	1	grab	624	100			2,300	
9. Total BTEX ⁴		<input checked="" type="checkbox"/>	1	grab	624				6,520	

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)	✓		1	grab	504	0.019				
11. Methyl-tert-Butyl Ether (MtBE)		✓	1	grab	624	1,000			<1000	varying
12. tert-Butyl Alcohol (TBA)	✓		1	grab	624	5,000				flow
13. tert-Amyl Methyl Ether (TAME)	✓		1	grab	624	1,000				
14. Naphthalene		✓	1	grab	8270	5			83	
15. Carbon Tetra-chloride	✓		1	grab	624	50				
16. 1,4 Dichlorobenzene	✓		1	grab	624	250				
17. 1,2 Dichlorobenzene	✓		1	grab	624	250				
18. 1,3 Dichlorobenzene	✓		1	grab	624	250				
19. 1,1 Dichloroethane	✓		1	grab	624	75				
20. 1,2 Dichloroethane	✓		1	grab	624	75				
21. 1,1 Dichloroethylene	✓		1	grab	624	50				
22. cis-1,2 Dichloro-ethylene	✓		1	grab	624	50				
23. Dichloromethane (Methylene Chloride)	✓		1	grab	624	250				
24. Tetrachloroethylene	✓		1	grab	624	75				

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	624	100				
26. 1,1,2 Trichloroethane	✓		1	grab	624	75				
27. Trichloroethylene	✓		1	grab	624	50				
28. Vinyl Chloride	✓		1	grab	624	100				
29. Acetone		✓	1	grab	624	500			780	varying
30. 1,4 Dioxane	✓		1	grab	624	100				flow
31. Total Phenols		✓	1	grab	8270	several			95	
32. Pentachlorophenol	✓		1	grab	8270	20				
33. Total Phthalates ⁵ (Phthalate esters)		✓	1	grab	8270	5			83	
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	✓		1	grab	8270	10				
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	✓		1	grab	8270	0.2				
a. Benzo(a) Anthracene	✓		1	grab	8270	0.2				
b. Benzo(a) Pyrene	✓		1	grab	8270	0.2				
c. Benzo(b)Fluoranthene	✓		1	grab	8270	0.2				
d. Benzo(k) Fluoranthene	✓		1	grab	8270	0.2				
e. Chrysene	✓		1	grab	8270	0.2				

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	0.2				
g. Indeno(1,2,3-cd) Pyrene	✓		1	grab	8270	0.2				
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)		✓	1	grab	8270	0.2			84.33	
h. Acenaphthene		✓	1	grab	8270	0.2			0.32	
i. Acenaphthylene	✓		1	grab	8270	0.2				
j. Anthracene	✓		1	grab	8270	0.2				
k. Benzo(ghi) Perylene	✓		1	grab	8270	0.2				
l. Fluoranthene	✓		1	grab	8270	0.2				
m. Fluorene		✓	1	grab	8270	0.2			0.51	
n. Naphthalene-		✓	1	grab	8270	5			83	
o. Phenanthrene		✓	1	grab	8270	0.2			0.26	
p. Pyrene		✓	1	grab	8270	0.2			0.24	
37. Total Polychlorinated Biphenyls (PCBs)	✓		1	grab	608	0.25				
38. Antimony	✓		1	grab	200.9	5				
39. Arsenic	✓		1	grab	200.7	5				
40. Cadmium	✓		1	grab	213.2	0.2				
41. Chromium III	✓		1	grab	213.2	10				
42. Chromium VI	✓		1	grab	3500	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	200.7	10				
44. Lead		✓	1	grab	200.7	1 to 5		8		varying
45. Mercury	✓		1	grab	245.2	0.2				flow
46. Nickel	✓		1	grab	200.7	25				
47. Selenium	✓		1	grab	200.7	5				
48. Silver	✓		1	grab	272.2	0.4				
49. Zinc	✓		1	grab	200.7	50				
50. Iron		✓	1	grab	200.7	50			720	
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 <input checked="" type="checkbox"/> N <input type="checkbox"/></p>	<p>If yes, which metals? lead</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: lead _____</p> <p>DF: N.A. _____</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 <input checked="" type="checkbox"/> N <input type="checkbox"/> If "Yes," list which metals: lead</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:
Refer to the attached Treatment System Summary.

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 0 or 5 _____ Maximum flow rate of treatment system 5 _____ Design flow rate of treatment system 5 _____

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: Water is discharged to the municipal storm drain system within Adamsville Road. The storm drain discharges within a culvert to an intermittent stream within a forested wetlands area approximately 800 feet west of the site.						

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

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

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

Refer to the attached supporting information:

1. Remediation System Summary
2. Site Plan
3. Process and Instrumentation Diagram
4. Process and Instrumentation Diagram Basic Symbols
5. Area Map
6. United States Geological Survey topographic map
7. Laboratory analytical report

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 or is consultation underway? No Yes
Has any consultation with the federal services been completed? 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? Yes No

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

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

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

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

Facility/Site Name: Joal Garage
Operator signature: [Signature]
Title: Clerk
Date: 12/5/05

Omni Environmental Group

Environmental Consulting and Compliance Services

Remediation System Summary

**Joals Garage, Inc.
500 Adamsville Road
Westport, Massachusetts**

Joals Garage, Inc. is seeking coverage under the National Pollutant Discharge Elimination System Remediation General Permit for the discharge of treated ground water from 500 Adamsville Road in Westport, Massachusetts (the Property).

The ground water is being treated and discharged as part of response actions conducted under the Massachusetts Contingency Plan. The response actions are designed to remove petroleum hydrocarbons from the ground water. The petroleum originated from a release of gasoline from an underground storage tank at the Property. Ground water is extracted through the use of a high vacuum extraction remediation system. The ground water is treated by granular activated carbon and discharged to the municipal storm drain system located within Adamsville Road. The storm drain system discharges to an unnamed, intermittent stream and forested wetlands area located approximately 800 feet west of the Property.

High Vacuum Extraction Remediation System

Ground water, soil vapor and non-aqueous phase liquid (NAPL) are extracted from a series of recovery wells (RW-1 through RW-10 on the attached Site Plan). The ten recovery wells are equipped with solenoid valves which allow flow from a set of two recovery wells at a time (a maximum of two recovery wells are active at any given time). Vacuum is applied to the recovery wells using a high vacuum liquid ring pump capable of an operating vacuum of 29 inches of mercury and an air flow of approximately 70 standard cubic feet per minute. A Process and Instrumentation Diagram of the remediation system is attached.

Waste Water Treatment

The combined ground water, soil vapor and NAPL extracted from the recovery wells enter a moisture separation tank (60 gallon total capacity; 30 gallon storage capacity) where the air is separated from the fluids. The recovered ground water and NAPL are pumped from the moisture separation tank through an oil water separator. The oil water separator is designed for a flow rate of up to 10 gallons per minute. Recovered NAPL is collected in a product collection tank with a 50 gallon capacity. The moisture separation tank, oil water separator and product collection tank have high level alarm switches interlocked with the high vacuum pump to deactivate the remedial system in the event of a high liquid level.

Omni Apex Management Corporation

227 Chelmsford Street, Chelmsford, MA 01824 Telephone: (978) 256-6766 Fax: (978) 256-8766

The recovered ground water is pumped from the oil water separator through two parallel sets of water treatment vessels at a maximum flow rate of 5 gallons per minute and a maximum pressure of 100 pounds per square inch. Each set of treatment vessels consists of two particulate bag filters, followed by two liquid phase granular activated carbon (LGAC) vessels with a combined capacity of 1,000 pounds of LGAC, followed by two LGAC vessels with a combined capacity of 360 pounds of LGAC. Treated ground water from each of the two parallel sets of treatment vessels is combined prior to discharge to the Town of Westport storm drain system.

The treatment system is designed to treat and discharge water in a batch mode only. Once the moisture separation tank is filled, two transfer pumps activate and pump 30 gallons of water through the treatment system at a flow rate of 5 gallons per minute. The treated water is discharged to the storm drain system. Once completed, the pumps deactivate and there is no discharge to the storm drain system until the moisture separator is refilled.

The rate at which ground water is extracted depends on the elevation of the ground water in the recovery wells and the depth at which the drop tubes are set within each recovery well. Operating data indicate that ground water extraction rates range between 0.5 gallons per minute and 2.5 gallons per minute. Based on these rates, the remediation system generally discharges between 30 gallons per hour and 150 gallons per hour. Because the system operates in batch mode, the number of batches per hour varies but the discharge flow rate of 5 gallons per minute is constant.

Discharge Location

The ground water is discharged to the municipal storm drain system located within Adamsville Road which discharges to an unnamed, intermittent stream and forested wetlands area located approximately 800 feet west of the Property. The location of the storm drain outfall is shown on the attached Area Map. The intermittent stream appears to be formed where a culvert runs beneath Adamsville Road within a forested wetlands area at the bottom of the hill on which Joals Garage is located. The wetland area appears to discharge to a perennial stream located to the south of Cornell Road. The perennial stream discharges into the West Branch of the Westport River. The attached section of the United States Geological Survey topographic map shows the discharge location relative to surface water features in the larger area.

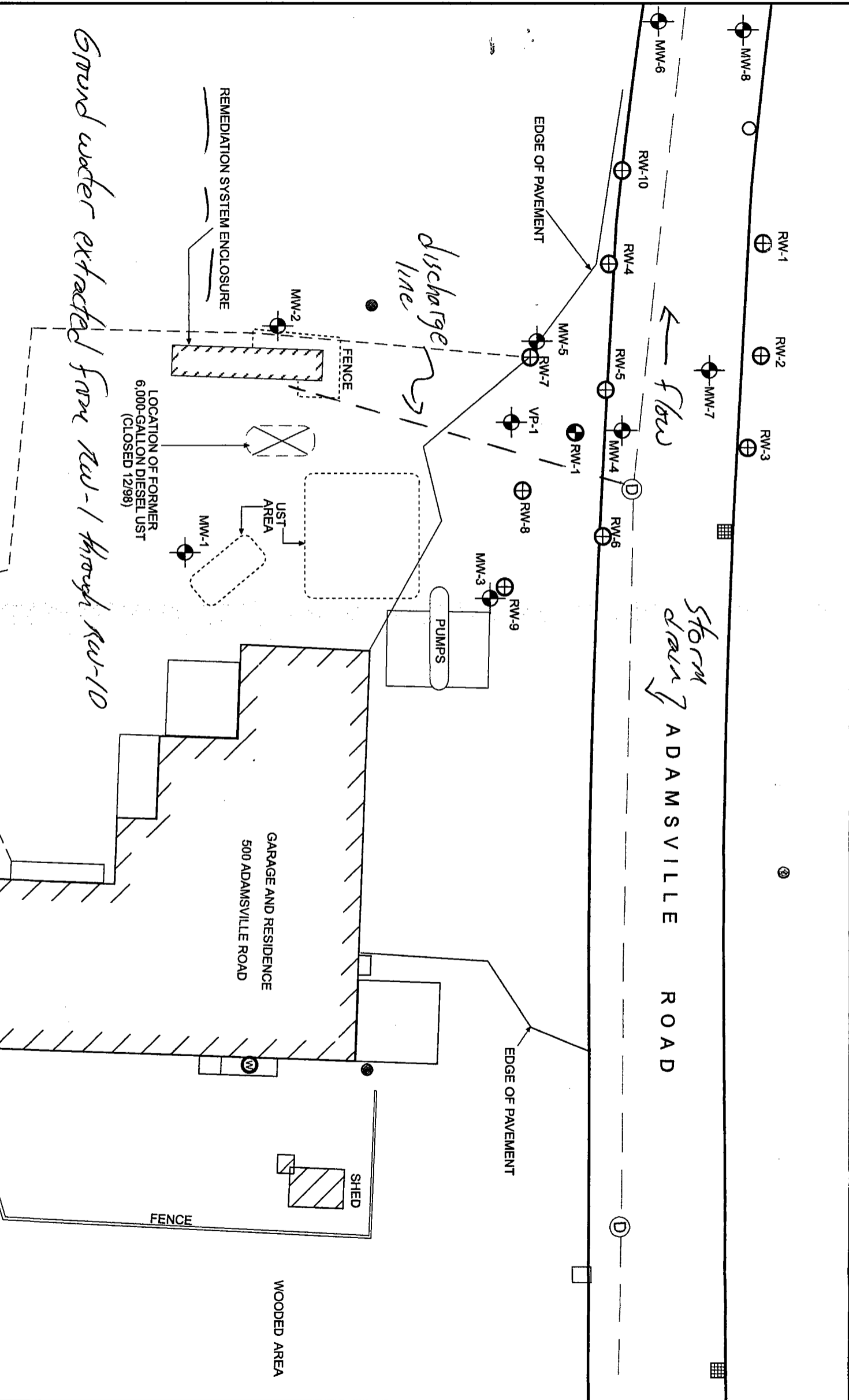
Design Control Features

The design of the high vacuum extraction system includes alarm switches interlocked with the high vacuum pump that deactivate the high vacuum pump under specified conditions. These design features are intended to minimize the potential for a release of recovered NAPL or ground water from the high vacuum extraction system.

The following alarm switches are included in the high vacuum extraction remediation system:

- Moisture separator high level switch – A high level of liquid in the moisture separator shuts off the high vacuum extraction pump.
- Oil water separator high level switch – A high level of liquid in the oil water separator shuts off the high vacuum extraction pump.
- Product collection tank high level switch – a high level of liquid in the product collection tank shuts off the high vacuum extraction pump.
- Water treatment high pressure switch – A high pressure in the water line to the particulate filters and the LGAC vessels shuts off the high vacuum extraction pump.
- Floor sump high level switch – A high level of liquid within the sump in the floor of the system enclosure shuts off the high vacuum extraction pump.

If an alarm is activated, the high vacuum extraction pump is automatically deactivated. The control panel for the high vacuum extraction remediation system includes hand-off-auto switches for the motors, run status lights, alarm condition lights, and fail-safe resets. Each alarm condition has a dedicated status light. The high vacuum extraction remediation system includes a telemetry system which notifies appropriate parties via telephone if there is an alarm condition.



Ground water extracted from well RW-1 through well RW-10

Storm drain
ADAMSVILLE ROAD

discharge line

flow

WOODED AREA

SHED

GARAGE AND RESIDENCE
500 ADAMSVILLE ROAD

PUMPS

LOCATION OF FORMER
6,000-GALLON DIESEL UST
(CLOSED 12/98)

UST AREA

REMEDIATION SYSTEM ENCLOSURE

FENCE

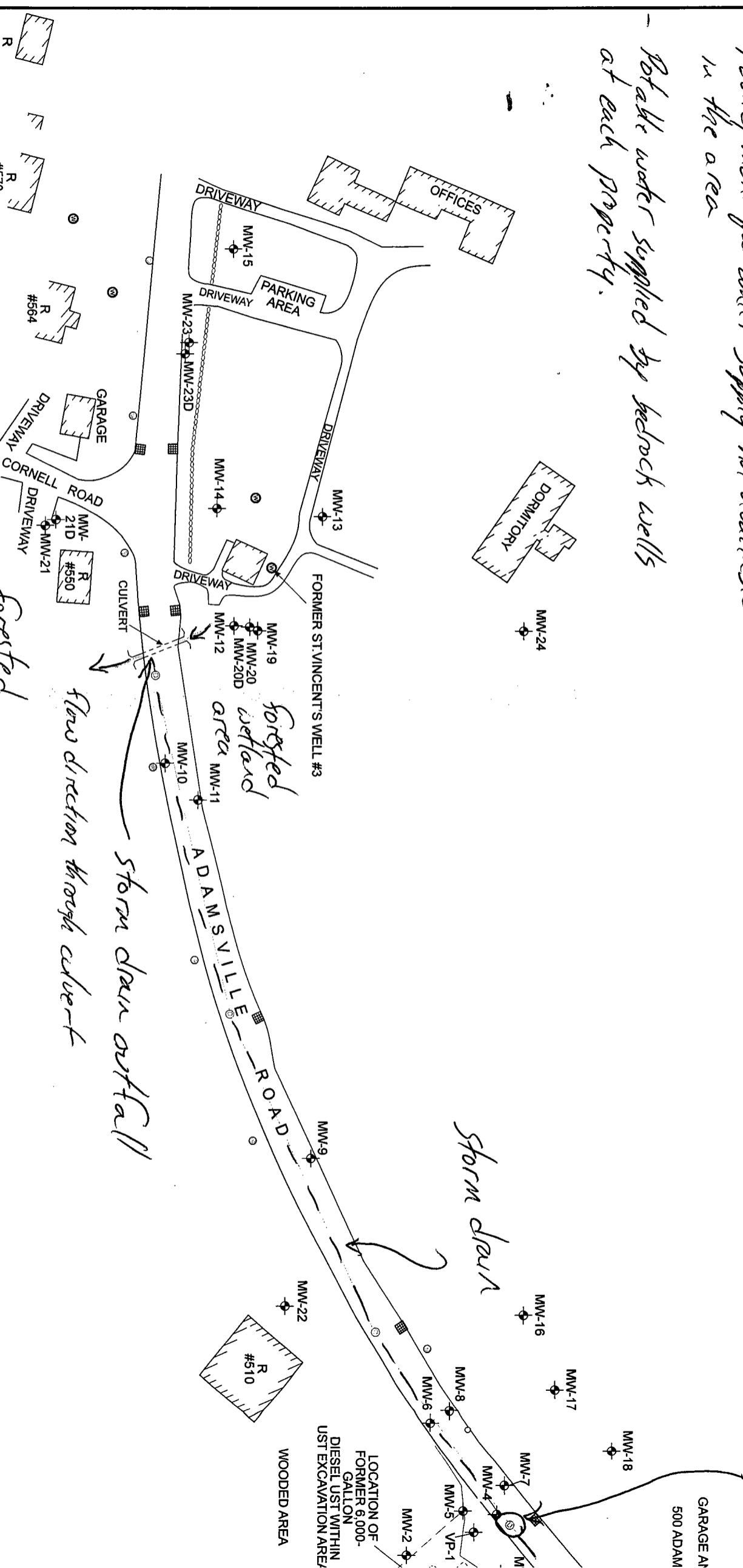
EDGE OF PAVEMENT

EDGE OF PAVEMENT

FENCE

- Sanitary sewer not available in the area
- Public/municipal water supply not available in the area
- Potable water supplied by bedrock wells at each property.

location of discharge system to storm drain



flow direction through culvert

storm drain outfall

storm drain

forested wetland area

LOCATION OF FORMER 6,000-GALLON DIESEL UST WITHIN UST EXCAVATION AREA

GARAGE AT 500 ADAM

ST. VINCENT'S WELL #1 & 2

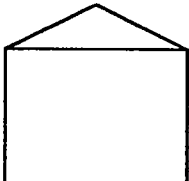


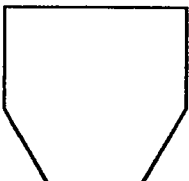

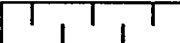

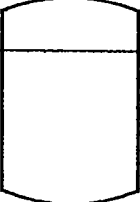
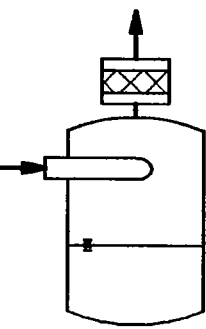
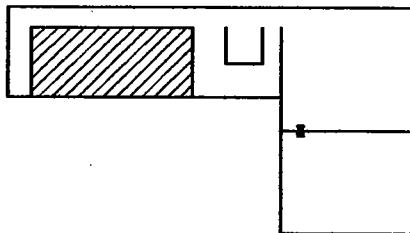
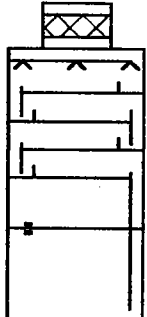
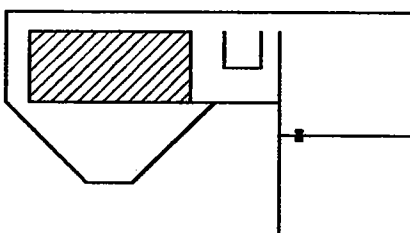
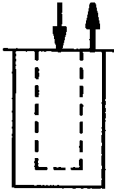
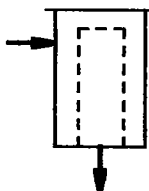

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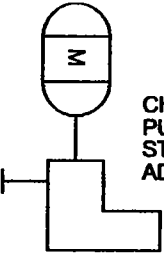
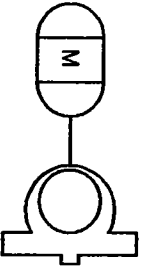
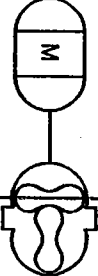
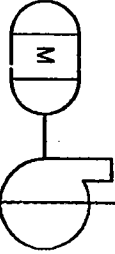
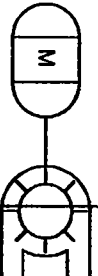
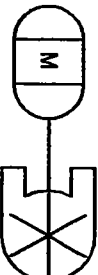
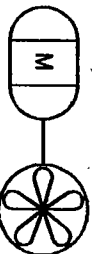
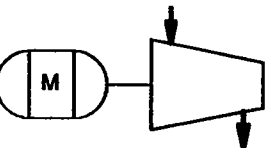
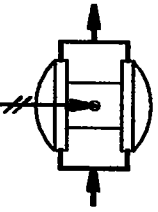
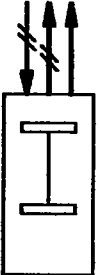
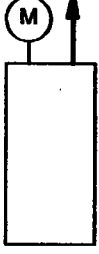
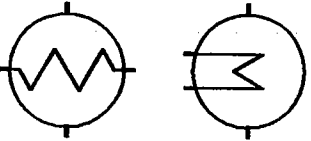
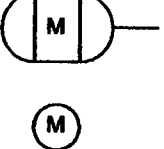
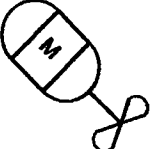
GENERAL INSTRUMENTATION	PRIMARY LOCATION NOT OPERATOR ACCESSIBLE	PRIMARY LOCATION OPERATOR ACCESSIBLE	FIELD MOUNTED	AUXILIARY LOCATION OPERATOR ACCESSIBLE
INSTRUMENT OR OPERATOR				
PROCESS CONTROLLER OR OPERATOR INTERFACE				
CONTROL LOGIC RELAY OR PLC				
INDICATOR				
INSTRUMENTS SHARING A COMMON HOUSING				

INSTRUMENTATION LINE SYMBOLS

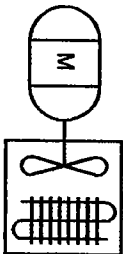
	PROCESS WATER
	PROCESS AIR OR FUMES
	PNEUMATIC SIGNAL
	ELECTRIC, SIGNAL OR POWER
	FLEXIBLE PROCESS LINE, VIBRATION ISOLATOR, OR FLEXIBLE COUPLING

FUNCTIONS		PROCESS CONTINUATION	
	SQUARE ROOT OR SQUARE ROOT EXTRACTOR		PROCESS CONTINUATION
	INTERLOCK - UNSPECIFIED	NORTH EAST ENVIRONMENTAL PRODUCTS, INC. 17 TECHNOLOGY DRIVE WEST LEBANON, NEW HAMPSHIRE 03784	
	INTERLOCK - ALTERNATING		
SCOPE OF WORK OR EQUIPMENT SUPPLIED BY NEEP # REFERENCES CONNECTION SCHEDULE		PROCESS & INSTRUMENTATION DIAGRAM BASIC SYMBOLS	
SIZE A	DWG NO. 900-900-00195	SHEET 1 OF 4	REV F
SCALE NONE	DO NOT SCALE DRAWING	DRAWN RC	DATE 5/14/02

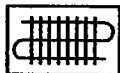
 <p>ATMOSPHERIC FLAT BOTTOM CLOSED TOP STORAGE TANK</p>	 <p>CALIBRATION COLUMN</p>	 <p>MIST ELIMINATOR OR COALESCING FILTER</p>											
 <p>ATMOSPHERIC CONE BOTTOM CLOSED TOP STORAGE TANK</p>	 <p>SPRAY NOZZLE ASSEMBLY</p>												
	 <p>STATIC MIXER</p>	 <p>SILENCER OR MUFFLER</p>											
 <p>VESSEL FOR USE IN PRESSURE OR VACUUM SYSTEM</p>													
 <p>MOISTURE SEPARATOR WITH INTEGRAL MIST ELIMINATOR</p>	 <p>OIL WATER SEPARATOR GRAVITY TYPE WITH INTEGRAL SKIMMER, COALESCER, AND SUMP</p>												
 <p>LOW PROFILE, TRAY TYPE, AIR STRIPPER WITH INTEGRAL MIST ELIMINATOR, SPRAY NOZZLE, AND SUMP TANK.</p>	 <p>OIL WATER SEPARATOR GRAVITY TYPE WITH INTEGRAL SKIMMER, COALESCER, SLUDGE CHAMBER, AND SUMP</p>												
<p>WATER FILTER</p> 	<p>AIR FILTER FILTER/SILENCER</p> 	 <p>NORTH EAST ENVIRONMENTAL PRODUCTS, INC. 17 TECHNOLOGY DRIVE WEST LEBANON, NEW HAMPSHIRE 03784</p> <p>TITLE PROCESS & INSTRUMENTATION DIAGRAM BASIC SYMBOLS</p> <table border="1"> <tr> <td>SIZE A</td> <td>DWG NO. 900-900-00195</td> <td>SHEET 2</td> <td>OF 4</td> <td>REV F</td> </tr> <tr> <td>SCALE NONE</td> <td>DO NOT SCALE DRAWING</td> <td>DRAWN RC</td> <td colspan="2">DATE 5/14/02</td> </tr> </table> <p>© Copyright of North East Environmental Products, Inc., 2000.</p>		SIZE A	DWG NO. 900-900-00195	SHEET 2	OF 4	REV F	SCALE NONE	DO NOT SCALE DRAWING	DRAWN RC	DATE 5/14/02	
SIZE A	DWG NO. 900-900-00195	SHEET 2	OF 4	REV F									
SCALE NONE	DO NOT SCALE DRAWING	DRAWN RC	DATE 5/14/02										

 <p>CENTRIFUGAL PUMP</p>	 <p>CHEMICAL FEED PUMP WITH MANUAL STROKE ADJUSTMENT</p>	 <p>LIQUID RING PUMP</p>
 <p>ROTARY LOBE BLOWER</p>	 <p>CENTRIFUGAL BLOWER</p>	 <p>REGENERATIVE BLOWER</p>
 <p>ROTARY VANE BLOWER</p>	 <p>AXIAL FAN OR BLOWER</p>	 <p>COMPRESSOR SCREW OR RECIPROCATING</p>
 <p>DOUBLE DIAPHRAGM PUMP PNEUMATIC ACTUATOR</p>	 <p>PNEUMATIC SUBMERSIBLE PUMP</p>	 <p>ELECTRIC SUBMERSIBLE PUMP</p>
<p>HEAT EXCHANGER</p> 	 <p>ELECTRIC MOTOR</p>	 <p>DYNAMIC MIXER</p>

FORCED AIR ELECTRIC FINNED HEATER



ELECTRIC FINNED HEATER



NORTH EAST ENVIRONMENTAL PRODUCTS, INC.
 17 TECHNOLOGY DRIVE
 WEST LEBANON, NEW HAMPSHIRE 03784

TITLE
**PROCESS & INSTRUMENTATION DIAGRAM
 BASIC SYMBOLS**

SIZE A	DWG NO. 900-900-00195	SHEET 3 OF 4	REV F
SCALE NONE	DO NOT SCALE DRAWING	DRAWN RC	DATE 5/14/02

	DIAPHRAGM SEAL		TURBINE FLOW ELEMENT	
	PULSATION DAMPENER		SINGLE POINT PITOT TUBE	
	REDUCER		AVERAGING PITOT TUBE	
	FLANGE		SIGHT TUBE OR SITE GLASS	
	UNION		PADDLEWHEEL FLOW ELEMENT	
	QUICK CONNECT		NUTTING DISK FLOW ELEMENT	
	Y-STRAINER		VENTURY FLOW ELEMENT	
	VACUUM BREAKER OR VACUUM RELIEF VALVE		FLOAT & ROD FLOW ELEMENT	
	PRESSURE RELIEF VALVE		ORIFICE FLOW ELEMENT	
	GATE VALVE		MAGNETIC FLOW ELEMENT	
	BALL VALVE		VENTURI JET OR EDUCTOR	
	GLOBE VALVE		3 WAY VALVE	
	BUTTERFLY VALVE			
	CHECK VALVE			
	MANUAL ACTUATOR			
	ELECTRIC SOLENOID ACTUATOR			
	ELECTRIC MOTOR ACTUATED (OPEN/CLOSE)			
	ELECTRIC MOTOR ACTUATED (MODULATING)			
	PNEUMATIC ACTUATOR			
	REGULATOR			

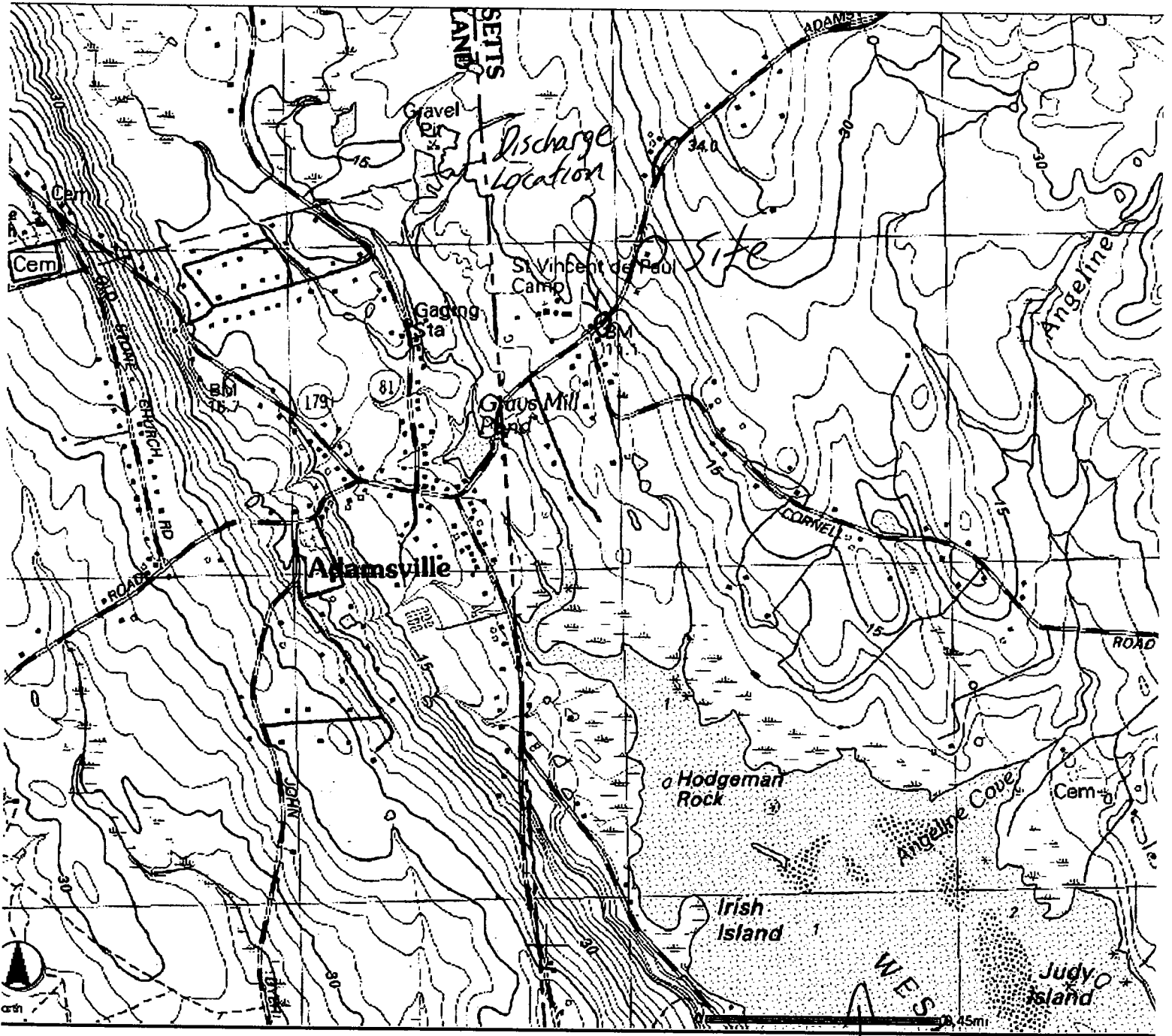
	SAMPLE PORT		DRAIN PORT
		FILTER REGULATOR	

NORTH EAST ENVIRONMENTAL PRODUCTS, INC.
 17 TECHNOLOGY DRIVE
 WEST LEBANON, NEW HAMPSHIRE 03784

TITLE
PROCESS & INSTRUMENTATION DIAGRAM
BASIC SYMBOLS

SIZE A	DWG NO. 900-900-00195	SHEET 4	OF 4	REV F
SCALE NONE	DO NOT SCALE DRAWING	DRAWN RC	DATE 5/14/02	

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West Branch of
the Westport River

ALPHA ANALYTICAL LABORATORIES

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(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: Omni Environmental Group Laboratory Job Number: L0512184
Address: 227 Chelmsford Street
Chelmsford, MA 01824 Date Received: 12-OCT-2005
Attn: Mr. Jonathan Moore Date Reported: 24-OCT-2005
Project Number: 3602 Delivery Method: Alpha
Site: JOALS

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0512184-01	INFLUENT	WESTPORT
L0512184-02	TRIP BLANK	WESTPORT

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: L0512184

Volatile Organics

Tert butyl alcohol and TAME were analyzed via a one point calibration.

L0512184-01 has elevated limits of detection due to the 50x dilutions required by the elevated concentrations of target compounds in the sample.

Semi-Volatile Organics

L0512184-01 sample was re-extracted out of hold with acceptable batch QC. Results of both analyses have been reported.

The WG217687 LCS has low % recoveries for 1,4-Dichlorobenzene, 1,2-Dichlorobenzene, n-nitrosodi-n-propylamine, 1,2,4-Trichloro-benzene, and Acenaphthene.

The WG217687 MS has high % recoveries for 4-Nitrophenol, 2,4-Dinitrotoluene, and Pentachlorophenol.

PAH-LOW

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:

L0512184-01 (5X)

PCB

L0512185-01 has an elevated limit of detection due to limited sample volume submitted for analysis.

**ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0512184-01
INFLUENT

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by GC/MS 624 cont'd				5 624		1014 14:09 MM	
Trichlorofluoromethane	ND	ug/l	250				
1,2-Dichloroethane	ND	ug/l	75.				
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.				
Benzene	220	ug/l	50.				
Toluene	2800	ug/l	50.				
Ethylbenzene	1200	ug/l	50.				
Chloromethane	ND	ug/l	500				
Bromomethane	ND	ug/l	250				
Vinyl chloride	ND	ug/l	100				
Chloroethane	ND	ug/l	100				
1,1-Dichloroethene	ND	ug/l	50.				
trans-1,2-Dichloroethene	ND	ug/l	75.				
cis-1,2-Dichloroethene	ND	ug/l	50.				
Trichloroethene	ND	ug/l	50.				
1,2-Dichlorobenzene	ND	ug/l	250				
1,3-Dichlorobenzene	ND	ug/l	250				
1,4-Dichlorobenzene	ND	ug/l	250				
p/m-Xylene	1500	ug/l	100				
o-xylene	840	ug/l	50.				
Xylene (Total)	2300	ug/l	100				
Styrene	ND	ug/l	50.				
Acetone	780	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	1000				
Acrylonitrile	ND	ug/l	500				
Methyl tert butyl ether	ND	ug/l	1000				
1,4-Dioxane	ND	ug/l	100000				
Tert-Butyl Alcohol	ND	ug/l	5000				
Tertiary-Amyl Methyl Ether	ND	ug/l	1000				
Surrogate(s)	Recovery		QC Criteria				
Pentafluorobenzene	102.	%					
Fluorobenzene	104.	%					
4-Bromofluorobenzene	100.	%					
SVOC's by GC/MS 8270				1 8270C		1020 17:30 1021 15:39 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				

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

**ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0512184-01
INFLUENT

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
SVOC's by GC/MS 8270 cont'd				1 8270C	1020 17:30	1021 15:39	RL
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	78.	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	83.	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				
1-Methylnaphthalene	27.	ug/l	5.0				
2-Nitroaniline	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: L0512184-01
INFLUENT

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
SVOC's by GC/MS 8270 cont'd				1 8270C	1020 17:30	1021 15:39	RL
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	19.	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	18.	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.				
Pentachlorophenol	ND	ug/l	20.				
Phenol	ND	ug/l	7.0				
2-Methylphenol	63.	ug/l	6.0				
3-Methylphenol/4-Methylphenol	14.	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: L0512184-01
INFLUENT

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
SVOC's by GC/MS 8270 cont'd				1 8270C	1020 17:30	1021 15:39	RL
Surrogate(s)	Recovery			QC Criteria			
2-Fluorophenol	48.0	%					
Phenol-d6	42.0	%					
Nitrobenzene-d5	84.0	%					
2-Fluorobiphenyl	82.0	%					
2,4,6-Tribromophenol	94.0	%					
4-Terphenyl-d14	98.0	%					
SVOC's by GC/MS 8270				1 8270C	1018 13:50	1021 17:15	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	83.	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	88.	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				

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

**ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0512184-01
INFLUENT

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
SVOC's by GC/MS 8270 cont'd				1 8270C	1018 13:50	1021 17:15	RL
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	29.	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	20.	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	18.	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.				
Pentachlorophenol	ND	ug/l	20.				
Phenol	ND	ug/l	7.0				
2-Methylphenol	56.	ug/l	6.0				

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

**ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0512184-01
INFLUENT

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
SVOC's by GC/MS 8270 cont'd					1 8270C	1018 13:50	1021 17:15 RL
3-Methylphenol/4-Methylphenol	14.	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	45.0	%					
Phenol-d6	37.0	%					
Nitrobenzene-d5	96.0	%					
2-Fluorobiphenyl	90.0	%					
2,4,6-Tribromophenol	116.	%					
4-Terphenyl-d14	104.	%					
PAH by GC/MS SIM 8270M					1 8270C-M	1018 13:50	1019 14:02 RL
Acenaphthene	0.32	ug/l	0.20				
2-Chloronaphthalene	ND	ug/l	0.20				
Fluoranthene	ND	ug/l	0.20				
Hexachlorobutadiene	ND	ug/l	0.50				
Naphthalene	>40	ug/l	.2				
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	0.51	ug/l	0.20				
Phenanthrene	0.26	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	0.24	ug/l	0.20				
1-Methylnaphthalene	20.	ug/l	0.20				
2-Methylnaphthalene	20.	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	3.8	ug/l	0.20				
1-Methylphenanthrene	0.24	ug/l	0.20				
Benzo(e)Pyrene	ND	ug/l	0.20				
Hexachloroethane	ND	ug/l	0.80				

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

**ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0512184-01
INFLUENT

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
PAH by GC/MS SIM 8270M cont'd				1 8270C-M	1018 13:50	1019 14:02	RL
Surrogate(s)	Recovery			QC Criteria			
2-Fluorophenol	52.0	%		21-120			
Phenol-d6	39.0	%		10-120			
Nitrobenzene-d5	83.0	%		23-120			
2-Fluorobiphenyl	68.0	%		43-120			
2,4,6-Tribromophenol	62.0	%		10-120			
4-Terphenyl-d14	71.0	%		33-120			
PAH by GC/MS SIM 8270M				1 8270C-M	1018 13:50	1020 09:56	RL
Naphthalene	79.	ug/l	1.0				
Polychlorinated Biphenyls				5 608	1013 10:30	1014 11:37	JB
Aroclor 1221	ND	ug/l	0.250				
Aroclor 1232	ND	ug/l	0.250				
Aroclor 1242/1016	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	94.0	%		30-150			
Decachlorobiphenyl	66.0	%		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: L0512184-02

TRIP BLANK

Sample Matrix:

WATER

Date Collected: 07-OCT-2005 16:20

Date Received : 12-OCT-2005

Date Reported : 24-OCT-2005

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	

***** THIS SAMPLE IS ON HOLD *****

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0512184

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total Suspended for sample(s) 01 (L0512133-01, WG217225-2)					
Solids, Total Suspended	450	490	mg/l	9	20
Cyanide, Total for sample(s) 01 (L0511915-02, WG217464-4)					
Cyanide, Total	ND	ND	mg/l	NC	30
Chlorine, Total Residual for sample(s) 01 (L0512080-01, WG217144-3)					
Chlorine, Total Residual	1.6	1.6	mg/l	0	
TPH for sample(s) 01 (L0512140-01, WG217526-4)					
TPH	ND	ND	mg/l	NC	34
Chromium, Hexavalent for sample(s) 01 (L0512184-01, WG217151-4)					
Chromium, Hexavalent	ND	ND	mg/l	NC	
Total Metals for sample(s) 01 (L0512184-01, WG217584-1)					
Antimony, Total	ND	ND	mg/l	NC	
Arsenic, Total	ND	ND	mg/l	NC	
Cadmium, Total	ND	ND	mg/l	NC	
Chromium, Total	ND	ND	mg/l	NC	
Copper, Total	ND	ND	mg/l	NC	
Iron, Total	0.72	0.72	mg/l	0	
Lead, Total	0.001	0.002	mg/l	17	
Nickel, Total	ND	ND	mg/l	NC	
Selenium, Total	ND	ND	mg/l	NC	
Silver, Total	ND	ND	mg/l	NC	
Zinc, Total	ND	ND	mg/l	NC	
Total Metals for sample(s) 01 (L0512140-01, WG218157-3)					
Mercury, Total	ND	ND	mg/l	NC	
Volatile Organics by GC/MS 624 for sample(s) 01 (L0512159-01, WG217384-2)					
Methylene chloride	ND	ND	ug/l	NC	
1,1-Dichloroethane	ND	ND	ug/l	NC	
Chloroform	ND	ND	ug/l	NC	
Carbon tetrachloride	ND	ND	ug/l	NC	
1,2-Dichloropropane	ND	ND	ug/l	NC	
Dibromochloromethane	ND	ND	ug/l	NC	
1,1,2-Trichloroethane	ND	ND	ug/l	NC	
2-Chloroethylvinyl ether	ND	ND	ug/l	NC	
Tetrachloroethene	ND	ND	ug/l	NC	
Chlorobenzene	ND	ND	ug/l	NC	
Trichlorofluoromethane	ND	ND	ug/l	NC	
1,2-Dichloroethane	ND	ND	ug/l	NC	
1,1,1-Trichloroethane	ND	ND	ug/l	NC	
Bromodichloromethane	ND	ND	ug/l	NC	
trans-1,3-Dichloropropene	ND	ND	ug/l	NC	
cis-1,3-Dichloropropene	ND	ND	ug/l	NC	
Bromoform	ND	ND	ug/l	NC	

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0512184

Continued

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Volatile Organics by GC/MS 624 for sample(s) 01 (L0512159-01, WG217384-2)					
1,1,2,2-Tetrachloroethane	ND	ND	ug/l	NC	
Benzene	ND	ND	ug/l	NC	
Toluene	ND	ND	ug/l	NC	
Ethylbenzene	ND	ND	ug/l	NC	
Chloromethane	ND	ND	ug/l	NC	
Bromomethane	ND	ND	ug/l	NC	
Vinyl chloride	ND	ND	ug/l	NC	
Chloroethane	ND	ND	ug/l	NC	
1,1-Dichloroethene	ND	ND	ug/l	NC	
trans-1,2-Dichloroethene	ND	ND	ug/l	NC	
cis-1,2-Dichloroethene	ND	ND	ug/l	NC	
Trichloroethene	ND	ND	ug/l	NC	
1,2-Dichlorobenzene	ND	ND	ug/l	NC	
1,3-Dichlorobenzene	ND	ND	ug/l	NC	
1,4-Dichlorobenzene	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	
Styrene	ND	ND	ug/l	NC	
Acetone	56.	47.	ug/l	17	
Carbon disulfide	ND	ND	ug/l	NC	
2-Butanone	ND	ND	ug/l	NC	
Vinyl acetate	ND	ND	ug/l	NC	
4-Methyl-2-pentanone	ND	ND	ug/l	NC	
2-Hexanone	ND	ND	ug/l	NC	
Acrolein	ND	ND	ug/l	NC	
Acrylonitrile	ND	ND	ug/l	NC	
Surrogate(s)	Recovery				QC Criteria
Pentafluorobenzene	93.0	98.0	%	5	
Fluorobenzene	100.	100.	%	0	
4-Bromofluorobenzene	99.0	100.	%	1	
Polychlorinated Biphenyls for sample(s) 01 (L0512185-01, WG217208-4)					
Aroclor 1221	ND	ND	ug/l	NC	30
Aroclor 1232	ND	ND	ug/l	NC	30
Aroclor 1242/1016	ND	ND	ug/l	NC	30
Aroclor 1248	ND	ND	ug/l	NC	30
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	96.0	96.0	%	0	30-150
Decachlorobiphenyl	59.0	57.0	%	3	30-150

**ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES**

Laboratory Job Number: L0512184

Parameter	% Recovery	QC Criteria
Cyanide, Total LCS for sample(s) 01 (WG217464-2)		
Cyanide, Total	107	90-110
Chlorine, Total Residual LCS for sample(s) 01 (WG217144-2)		
Chlorine, Total Residual	100	
TPH LCS for sample(s) 01 (WG217526-2)		
TPH	85	64-132
Chromium, Hexavalent LCS for sample(s) 01 (WG217151-2)		
Chromium, Hexavalent	100	
Total Metals LCS for sample(s) 01 (WG217584-4)		
Antimony, Total	93	
Arsenic, Total	111	
Cadmium, Total	110	
Chromium, Total	100	
Copper, Total	96	
Iron, Total	97	
Lead, Total	104	
Nickel, Total	100	
Selenium, Total	114	
Silver, Total	86	
Zinc, Total	96	
Total Metals LCS for sample(s) 01 (WG218157-1)		
Mercury, Total	100	
Pesticides by GC 504 LCS for sample(s) 01 (WG218166-2)		
1,2-Dibromoethane	101	
Volatile Organics by GC/MS 624 LCS for sample(s) 01 (WG217384-5)		
Methylene chloride	94	
1,1-Dichloroethane	100	
Chloroform	93	
Carbon tetrachloride	105	
1,2-Dichloropropane	93	
Dibromochloromethane	93	
1,1,2-Trichloroethane	95	
2-Chloroethylvinyl ether	101	
Tetrachloroethene	100	
Chlorobenzene	105	
Trichlorofluoromethane	102	
1,2-Dichloroethane	95	
1,1,1-Trichloroethane	99	
Bromodichloromethane	96	
trans-1,3-Dichloropropene	105	
cis-1,3-Dichloropropene	100	
Bromoform	94	

ALPHA ANALYTICAL LABORATORIES
 QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0512184

Continued

Parameter	% Recovery	QC Criteria
Volatile Organics by GC/MS 624 LCS for sample(s) 01 (WG217384-5)		
1,1,2,2-Tetrachloroethane	100	
Benzene	94	
Toluene	106	
Ethylbenzene	110	
Chloromethane	93	
Bromomethane	72	
Vinyl chloride	98	
Chloroethane	75	
1,1-Dichloroethene	98	
trans-1,2-Dichloroethene	94	
cis-1,2-Dichloroethene	97	
Trichloroethene	91	
1,2-Dichlorobenzene	108	
1,3-Dichlorobenzene	108	
1,4-Dichlorobenzene	108	
p/m-Xylene	112	
o-Xylene	110	
XYLENE (TOTAL)	112	
Styrene	105	
Acetone	101	
Carbon disulfide	91	
2-Butanone	100	
Vinyl acetate	108	
4-Methyl-2-pentanone	117	
2-Hexanone	114	
Acrolein	99	
Acrylonitrile	95	
Surrogate(s)		
Pentafluorobenzene	95	
Fluorobenzene	87	
4-Bromofluorobenzene	97	
SVOC's by GC/MS 8270 LCS for sample(s) 01 (WG217687-2)		
Acenaphthene	41	
1,2,4-Trichlorobenzene	38	
2-Chloronaphthalene	42	
1,2-Dichlorobenzene	35	
1,4-Dichlorobenzene	35	
2,4-Dinitrotoluene	54	
2,6-Dinitrotoluene	54	
Fluoranthene	51	
4-Chlorophenyl phenyl ether	41	
n-Nitrosodi-n-propylamine	38	
Butyl benzyl phthalate	50	
Anthracene	41	
Pyrene	48	
Hexachloropropene	41	

**ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES**

Laboratory Job Number: L0512184

Continued

Parameter	% Recovery	QC Criteria
SVOC's by GC/MS 8270 LCS for sample(s) 01 (WG217687-2)		
P-Chloro-M-Cresol	44	
2-Chlorophenol	36	
2-Nitrophenol	46	
4-Nitrophenol	21	
2,4-Dinitrophenol	57	
Pentachlorophenol	51	
Phenol	16	
Surrogate(s)		
2-Fluorophenol	23	
Phenol-d6	20	
Nitrobenzene-d5	47	
2-Fluorobiphenyl	47	
2,4,6-Tribromophenol	57	
4-Terphenyl-d14	54	
PAH by GC/MS SIM 8270M LCS for sample(s) 01 (WG217688-2)		
Acenaphthene	48	46-118
2-Chloronaphthalene	51	
Fluoranthene	82	
Anthracene	56	
Pyrene	89	26-127
Pentachlorophenol	64	9-103
Surrogate(s)		
2-Fluorophenol	36	21-120
Phenol-d6	32	10-120
Nitrobenzene-d5	50	23-120
2-Fluorobiphenyl	47	43-120
2,4,6-Tribromophenol	54	10-120
4-Terphenyl-d14	64	33-120
Polychlorinated Biphenyls LCS for sample(s) 01 (WG217208-2)		
Aroclor 1242/1016	90	30-150
Aroclor 1260	89	30-150
Surrogate(s)		
2,4,5,6-Tetrachloro-m-xylene	86	30-150
Decachlorobiphenyl	60	30-150
Cyanide, Total SPIKE for sample(s) 01 (L0511914-02, WG217464-3)		
Cyanide, Total	101	80-120
TPH SPIKE for sample(s) 01 (L0512267-01, WG217526-3)		
TPH	82	64-132

ALPHA ANALYTICAL LABORATORIES
 QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0512184

Continued

Parameter	% Recovery QC Criteria
Chromium, Hexavalent SPIKE for sample(s) 01 (L0512140-01, WG217151-3)	
Chromium, Hexavalent	111
Total Metals SPIKE for sample(s) 01 (L0512184-01, WG217584-2)	
Antimony, Total	87
Arsenic, Total	107
Cadmium, Total	110
Chromium, Total	95
Copper, Total	92
Iron, Total	98
Lead, Total	100
Nickel, Total	95
Selenium, Total	110
Silver, Total	84
Zinc, Total	100
Total Metals SPIKE for sample(s) 01 (L0512140-01, WG218157-2)	
Mercury, Total	119
Pesticides by GC 504 SPIKE for sample(s) 01 (L0512284-01, WG218166-3)	
1,2-Dibromoethane	103
Volatile Organics by GC/MS 624 SPIKE for sample(s) 01 (L0512159-01, WG217384-1)	
Methylene chloride	105
1,1-Dichloroethane	108
Chloroform	112
Carbon tetrachloride	96
1,2-Dichloropropane	111
Dibromochloromethane	102
1,1,2-Trichloroethane	109
2-Chloroethylvinyl ether	88
Tetrachloroethene	104
Chlorobenzene	108
Trichlorofluoromethane	104
1,2-Dichloroethane	112
1,1,1-Trichloroethane	104
Bromodichloromethane	101
trans-1,3-Dichloropropene	94
cis-1,3-Dichloropropene	91
Bromoform	106
1,1,2,2-Tetrachloroethane	115
Benzene	110
Toluene	109
Ethylbenzene	109
Chloromethane	97
Bromomethane	74
Vinyl chloride	104
Chloroethane	105
1,1-Dichloroethene	103

ALPHA ANALYTICAL LABORATORIES
 QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0512184

Continued

Parameter	% Recovery	QC Criteria
Volatile Organics by GC/MS 624 SPIKE for sample(s) 01 (L0512159-01, WG217384-1)		
trans-1,2-Dichloroethene	106	
cis-1,2-Dichloroethene	109	
Trichloroethene	104	
1,2-Dichlorobenzene	110	
1,3-Dichlorobenzene	109	
1,4-Dichlorobenzene	113	
p/m-Xylene	112	
o-Xylene	110	
XYLENE (TOTAL)	111	
Styrene	105	
Acetone	102	
Carbon disulfide	92	
2-Butanone	113	
Vinyl acetate	93	
4-Methyl-2-pentanone	117	
2-Hexanone	117	
Acrolein	17	
Acrylonitrile	110	
Surrogate(s)		
Pentafluorobenzene	102	
Fluorobenzene	103	
4-Bromofluorobenzene	100	
Polychlorinated Biphenyls SPIKE for sample(s) 01 (L0512185-01, WG217208-3)		
Aroclor 1242/1016	86	30-150
Aroclor 1260	85	30-150
Surrogate(s)		
2,4,5,6-Tetrachloro-m-xylene	91	30-150
Decachlorobiphenyl	55	30-150

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH MS/MSD ANALYSIS

Laboratory Job Number: L0512184

Parameter	MS %	MSD %	RPD	RPD Limit	MS/MSD Limits
SVOC's by GC/MS 8270 for sample(s) 01 (L0512184-01, WG217687-4)					
Acenaphthene	75	75	0		
1,2,4-Trichlorobenzene	75	70	7		
2-Chloronaphthalene	80	75	6		
1,2-Dichlorobenzene	60	60	0		
1,4-Dichlorobenzene	60	60	0		
2,4-Dinitrotoluene	102	90	11		
2,6-Dinitrotoluene	100	95	5		
Fluoranthene	110	90	20		
4-Chlorophenyl phenyl ether	75	75	0		
n-Nitrosodi-n-propylamine	60	60	0		
Butyl benzyl phthalate	110	86	24		
Anthracene	80	70	13		
Pyrene	100	85	16		
Hexachloropropene	80	80	0		
P-Chloro-M-Cresol	83	83	0		
2-Chlorophenol	65	63	3		
2-Nitrophenol	75	75	0		
4-Nitrophenol	80	68	16		
2,4-Dinitrophenol	120	110	9		
Pentachlorophenol	113	98	12		
Phenol	45	43	5		
Surrogate(s)					
2-Fluorophenol	53	49	8		
Phenol-d6	53	50	6		
Nitrobenzene-d5	74	72	3		
2-Fluorobiphenyl	83	83	0		
2,4,6-Tribromophenol	116	106	9		
4-Terphenyl-d14	106	89	17		
PAH by GC/MS SIM 8270M for sample(s) 01 (L0512184-01, WG217688-4)					
Acenaphthene	55	60	9	40	46-118
2-Chloronaphthalene	60	70	15	40	
Fluoranthene	90	85	6	40	
Anthracene	65	60	8	40	
Pyrene	85	90	6	40	26-127
Pentachlorophenol	85	90	6	40	9-103
Surrogate(s)					
2-Fluorophenol	72	74	3		21-120
Phenol-d6	69	72	4		10-120
Nitrobenzene-d5	79	88	11		23-120
2-Fluorobiphenyl	70	81	15		43-120
2,4,6-Tribromophenol	71	77	8		10-120
4-Terphenyl-d14	70	76	8		33-120

**ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS**

Laboratory Job Number: L0512184

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01 (WG217225-1)							
Solids, Total Suspended	ND	mg/l	5.0	4 160.2		1013 16:10	DT
Blank Analysis for sample(s) 01 (WG217464-1)							
Cyanide, Total	ND	mg/l	0.005	4 335.2		1015 11:00	1017 15:37 DD
Blank Analysis for sample(s) 01 (WG217144-1)							
Chlorine, Total Residual	ND	mg/l	0.05	4 330.1		1012 21:55	DP
Blank Analysis for sample(s) 01 (WG217526-1)							
TPH	ND	mg/l	4.00	74 1664A		1014 14:00	1017 12:30 AT
Blank Analysis for sample(s) 01 (WG217151-1)							
Chromium, Hexavalent	ND	mg/l	0.02	30 3500CR-D		1012 22:00	1012 22:00 JT
Blank Analysis for sample(s) 01 (WG217584-3)							
Total Metals				19 200.7			
Antimony, Total	ND	mg/l	0.005	3 200.9		1017 20:30	1018 16:50 PY
Arsenic, Total	ND	mg/l	0.005	19 200.7		1017 20:30	1018 13:59 RW
Cadmium, Total	ND	mg/l	0.0002	4 213.2		1017 20:30	1018 20:01 PY
Chromium, Total	ND	mg/l	0.01	19 200.7		1017 20:30	1018 13:59 RW
Copper, Total	ND	mg/l	0.01	19 200.7		1017 20:30	1018 13:59 RW
Iron, Total	ND	mg/l	0.05	19 200.7		1017 20:30	1018 13:59 RW
Lead, Total	ND	mg/l	0.001	3 200.9		1017 20:30	1019 00:08 PY
Nickel, Total	ND	mg/l	0.025	19 200.7		1017 20:30	1018 13:59 RW
Selenium, Total	ND	mg/l	0.005	19 200.7		1017 20:30	1018 13:59 RW
Silver, Total	ND	mg/l	0.0004	4 272.2		1017 20:30	1019 11:49 PY
Zinc, Total	ND	mg/l	0.05	19 200.7		1017 20:30	1018 13:59 RW
Blank Analysis for sample(s) 01 (WG218157-4)							
Total Metals							
Mercury, Total	ND	mg/l	0.0002	4 245.2		1021 14:00	1021 16:40 HG
Blank Analysis for sample(s) 01 (WG218166-1)							
Pesticides by GC 504				14 504.1		1021 11:30	1021 12:40 JB
1,2-Dibromoethane	ND	ug/l	0.020				
Blank Analysis for sample(s) 01 (WG217384-6)							
Volatile Organics by GC/MS 624				5 624		1014 10:20	MM
Methylene chloride	ND	ug/l	5.0				
1,1-Dichloroethane	ND	ug/l	1.5				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0512184

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01 (WG217384-6)							
Volatile Organics by GC/MS 624 cont'd							
				5 624			1014 10:20 MM
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.				
Surrogate(s)	Recovery			QC Criteria			
Pentafluorobenzene	100.	%					
Fluorobenzene	101.	%					

**ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS**

Laboratory Job Number: L0512184

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01 (WG217384-6)							
Volatile Organics by GC/MS 624 cont'd							
4-Bromofluorobenzene	102.	%		5 624		1014 10:20	MM
Blank Analysis for sample(s) 01 (WG217687-1)							
SVOC's by GC/MS 8270							
Acenaphthene	ND	ug/l	5.0	1 8270C		1018 13:50	1020 13:56 RL
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				
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				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0512184

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01 (WG217687-1)							
SVOC's by GC/MS 8270 cont'd				1 8270C	1018 13:50	1020 13:56	RL
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.				
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				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0512184

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01 (WG217687-1)							
SVOC's by GC/MS 8270 cont'd				1 8270C	1018 13:50	1020 13:56	RL
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	33.0	%					
Phenol-d6	26.0	%					
Nitrobenzene-d5	63.0	%					
2-Fluorobiphenyl	59.0	%					
2,4,6-Tribromophenol	78.0	%					
4-Terphenyl-d14	89.0	%					
Blank Analysis for sample(s) 01 (WG217688-1)							
PAH by GC/MS SIM 8270M				1 8270C-M	1018 13:50	1019 13:14	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				

ALPHA ANALYTICAL LABORATORIES
 QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0512184

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01 (WG217688-1)							
PAH by GC/MS SIM 8270M cont'd				1 8270C-M	1018 13:50	1019 13:14	RL
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	43.0	%	21-120				
Phenol-d6	35.0	%	10-120				
Nitrobenzene-d5	64.0	%	23-120				
2-Fluorobiphenyl	57.0	%	43-120				
2,4,6-Tribromophenol	56.0	%	10-120				
4-Terphenyl-d14	78.0	%	33-120				
Blank Analysis for sample(s) 01 (WG217208-1)							
Polychlorinated Biphenyls				5 608	1013 10:30	1014 09:15	JB
Aroclor 1221	ND	ug/l	0.250				
Aroclor 1232	ND	ug/l	0.250				
Aroclor 1242/1016	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	83.0	%	30-150				
Decachlorobiphenyl	54.0	%	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.
3. Methods for the Determination of Metals in Environmental Samples, Supplement I. EPA/600/R-94/111. May 1994.
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.

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

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