

# CUSHING, JAMMALLO & WHEELER, INC.

MA 6910187

File: 4041-E

October 19, 2005

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

OCT 21 2005

**RE: Remediation General Permit/ Notice of Intent Attachment**

**Foxborough Fire Station**

**40 School Street**

**Foxborough, Massachusetts**

**RTN 4-18718**

## 1.0 Notice of Intent

Pursuant to the announcement of the Remediation General Permit (RGP) on September 9, 2005, please find the attached Notice of Intent (NOI) for the above-referenced site. The analytical report for the pre-treatment influent sample, supporting figures and diagrams are included as attachments to this NOI. The RGP announcement stated that the NOI was due within 30 days of the *Federal Register* notice (October 10, 2005). However, in a subsequent telephone conversation between Mr. Gregory Morand of Cushing, Jammallo & Wheeler, Inc. (Cushing, Jammallo & Wheeler) and Mr. George Papadopoulos of the United States Environmental Protection Agency, it was noted that the deadline for submittal of the NOI was extended to October 24, 2005.

## 2.0 Site History

On August 9, 2005, Cushing, Jammallo & Wheeler on behalf of the Town of Foxborough, received approval (#MA 05I-086) for temporary exclusion from the permitting requirements of the National Pollutant Discharge Elimination System (NPDES) for the purpose of discharging treated groundwater at 40 School Street, Foxborough, Massachusetts, the "site". The site location is depicted on the attached Figure 1 – Locus Plan. The operation of a dual-phase extraction (DPE) system is required at the site to remove dissolved-phase and free-phase hydrocarbons from groundwater, treat the groundwater with granular activated carbon (GAC), and discharge the treated groundwater to the adjacent stormwater conveyance system.

180 Stone Street  
Clinton, MA 01510  
Tel. 978.368.6320  
Facsimile 978.368.6121

85 Constitution Lane, Suite 3B1  
Danvers, MA 01923  
Tel. 978.774.7224  
Facsimile 978.774.7292

### **3.0 Treatment System Information**

The on-site DPE system is contained within an 8-foot by 20-foot enclosure that is situated approximately 7 feet northeast of the former UST excavation, parallel to Rockhill Street. The remedial system consists of a primary and secondary stage. The primary stage components are a 7.5-horsepower positive displacement blower and a moisture separator. The positive displacement blower draws the liquid and vapor waste stream from the various recovery wells into the moisture separator, which separates the liquid and vapor waste streams. The secondary stage is made up of liquid and vapor phase components. From the moisture separator, the vapor phase waste stream passes through an in-line filter and two vapor phase GAC canisters. Then, the off-gas is vented through a stack located on top of the remedial system enclosure. Refer to Figure 2 for the remedial system piping diagram.

The liquid phase is pumped from the moisture separator to an oil/water separator, where non-aqueous phase liquid (NAPL) is collected and transferred to a 55-gallon drum via a two-inch diameter steel pipe. Once the NAPL has been removed, the remaining liquid is pumped through in-line filters and two liquid phase GAC canisters. Then, the treated water is discharged via 2-inch PVC piping, approximately 4 feet beneath the ground surface, to the stormwater conveyance system located approximately 12 feet northwest of the remedial trailer. The outfall of the catch basin is located approximately 2,000 feet south of the site, at an unnamed pond and stream immediately southeast of the Booth playground.

The remedial system is protected by a series of alarms that monitor liquid levels and pressures within primary and secondary stage components. Sample collection ports for vapor and liquid phase monitoring are located prior to discharge of treated waste streams.

#### **3.1 DPE System Start-Up**

On July 18, 2005, the DPE system enclosure was delivered to the site and installed approximately 7 feet northeast of the former UST excavation, parallel to Rockhill Street. The system trenching and piping activities were completed during the week of July 25, 2005. Specifically, four two-inch diameter PVC extraction lines were extended from monitoring wells RW-1, MW-102, MW-104 and MW-B7, through excavated trenches, to a common manifold point at the planned remedial trailer location. At the completion of extending all PVC lines to the manifold location, the recovery lines were pressure tested. Upon satisfactory completion of the pressure testing activities, the trenches were backfilled and compacted with a graded base. Following final system testing, the DPE system was put into service on August 8, 2005. Figure 3 displays general site features, including site monitoring wells, recovery wells and approximate location of DPE system discharge to the adjacent stormwater conveyance system.

#### 4.0 Receiving Surface Water

It is anticipated that the maximum rate of treated remedial wastewater intermittently discharged to the stormwater conveyance system will not exceed 10 gallons per minute (GPM). Treated groundwater is discharged to a stormwater manhole located approximately 12 feet northwest of the remedial trailer, which in turn discharges to an unnamed pond and intermittent stream located approximately 2,000 feet south of the site, at an unnamed pond and stream immediately southeast of the Booth playground, which eventually discharges to Hersey Pond, located approximately 3,000 feet southeast of the Rockhill Street stormwater discharge. Hersey Pond discharges into Robinson Brook, which is reported to have a seven day-ten year flow (7Q10) of 0.2 cubic feet per second (cfs). Refer to Figure 1 for the approximate DPE system discharge location.

Wastewater samples are currently being collected and analyzed in accordance with 310 CMR 40.0042(1) and NPDES permit exclusion #MA 05I-086.

If you have any questions regarding the information presented herein, please do not hesitate to contact the undersigned at (978) 368-6320.

Very truly yours,

**CUSHING, JAMMALLO & WHEELER, INC.**



*for* Gregory R. Morand  
Project Manager

Attachments

RGP – NOI

Pre-Treatment System Influent Analytical Report

Figure 1 – Locus Plan

Figure 2 – Remedial System Piping Diagram

Figure 3 – Remedial System Layout

cc: Mr. Andrew Gala, Jr., Town Manager, Town of Foxborough, 40 South Street, Foxborough, MA 02035

Mr. Leo Potter, Superintendent of Water and Sewer Department, Town of Foxborough, 40 South Street, Foxborough, MA 02035

Mr. Thomas Donaldson, MIA Property & Casualty, 12 Gill Street, Suite 5500, P.O. Box 4043, Woburn, MA 01888-4043

MA DEP, Division of Watershed Management, 627 Main Street, 2<sup>nd</sup> Floor, Worcester, MA, 01608

**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: <u>Foxborough Fire Department</u>		Facility/site address:	
Location of facility/site: longitude: <u>71° 15' 07"</u> latitude: <u>42° 03' 53"</u>	Facility SIC code(s):	Street: <u>40 School Street</u>	
b) Name of facility/site owner: <u>Town of Foxborough</u>		Town: <u>Foxborough</u>	
Email address of owner:		State: <u>Ma</u>	Zip: <u>02035</u> County: <u>Norfolk</u>
Telephone no. of facility/site owner: <u>508-543-1200</u>		Owner is (check one): 1. Federal ___ 2. State/Tribal ___ 3. Private ___ <u>other</u> if so, describe: <u>Town of Foxborough</u>	
Fax no. of facility/site owner: <u>508-543-6278</u>			
Address of owner (if different from site):			
Street: <u>40 South Street</u>			
Town: <u>Foxborough</u>	State: <u>Ma</u>	Zip: <u>02035</u>	County: <u>Norfolk</u>
c) Legal name of operator: <u>Cushing, Jammallo &amp; Wheeler</u>		Operator telephone no: <u>978-368-6320</u>	
		Operator fax no.: <u>978-368-6121</u>	Operator email: <u>gmorand@csjw-env.com</u>
Operator contact name and title: <u>Greg Morand Project Manager</u>			
Address of operator (if different from owner):		Street: <u>180 Stone Street</u>	
Town: <u>Clinton</u>	State: <u>Ma</u>	Zip: <u>01510</u>	County: <u>Worcester</u>
d) Check "yes" or "no" for the following:			
1. Has a prior NPDES permit exclusion been granted for the discharge? Yes <input checked="" type="checkbox"/> No ___ if "yes" number: <u>#MA 05I-086</u>			
2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge? Yes ___ No <input checked="" type="checkbox"/> if "yes," date and tracking #:			
3. Is the discharge a "new discharge" as defined by 40 CFR 122.2? Yes ___ No <input checked="" type="checkbox"/>			
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 ___			

<p>e) Is site/facility subject to any State permitting or other action which is causing the generation of discharge? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>If "yes," please list:</p> <p>1. site identification # assigned by the state of NH or MA: <u>RTN 4-18718</u></p> <p>2. permit or license # assigned:</p> <p>3. state agency contact information: name, location, and telephone number: <u>MA DEP Southeast Regional Office, 508-946-2700</u></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>
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**2. Discharge information.** Please provide information about the discharge, (attaching additional sheets as needed) including:

<p>a) Describe the discharge activities for which the owner/applicant is seeking coverage: <u>The operation of a Dual-phase Extraction System to recover and treat Petroleum-Impacted groundwater and soil vapor extracted through 4 on-site recovery wells.</u></p>	
<p>b) Provide the following information about each discharge:</p>	<p>1) Number of discharge points: <u>1</u></p> <p>2) What is the maximum and average flow rate of discharge (in cubic feet per second, ft<sup>3</sup>/s)? Max. flow <u>0.22</u> Average flow <u>0.0011</u> Is maximum flow a design value? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N For average flow, include the units and appropriate notation if this value is a design value or estimate if not available. <u>System Discharges +/- every 3 cycles @ +/- 7GPM. The Avg. Discharge works out to 4.51 GPM. Max Flow Allowed by GAC Absorbers is 10 GPM. Above 10 GPM will set off high canister psi alarm &amp; shut down system.</u></p>
<p>3) Latitude and longitude of each discharge within 100 feet: pt.1: long. <u>71°16'01"</u> lat. <u>43°23'29"</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.</p>	
<p>4) If hydrostatic testing, total volume of the discharge (gals): <u>X</u></p>	<p>5) Is the discharge <u>intermittent</u> or seasonal _____? <u>Discharges +/- every 3 cycles Not continuous</u> Is discharge ongoing <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No _____?</p>
<p>c) Expected dates of discharge (mm/dd/yy): start <u>8/9/05</u> end <u>8/9/06</u></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). <u>1,2,3 on Figure 1 4 on Figure 4</u></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	VOC Only	Primarily Metals	Urban Fill Sites	Contaminated Sumps	Mixed Contaminants	Aquifer Testing
<input checked="" type="checkbox"/> 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		X	1	Grab	SM 2540 D	37.52 mg/L			30.6	.0000852
2. Total Residual Chlorine	X									
3. Total Petroleum Hydrocarbons		X	1	Grab	BOS M	63.6 mg/L			330,000	.9204
4. Cyanide	X									
5. Benzene	X									
6. Toluene		X	1	Grab	SW 846 8200	3.18 ug/L			1.5	.000041
7. Ethylbenzene		X	1	Grab	~	3.18 ug/L			3.1	.000183
8. (m,p,o) Xylenes		X	1	Grab	~	9.54 ug/L			22.8	.000632
9. Total BTEX <sup>4</sup>		X	1	Grab	~	See 6 thru 8 Above			27.9	.000776

<sup>4</sup>BTEX = 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 <sup>5</sup> (1,2- Dibromo-methane)	X									
11. Methyl-tert-Butyl Ether (MtBE)	X									
12. tert-Butyl Alcohol (TBA)	X									
13. tert-Amyl Methyl Ether (TAME)	X									
14. Naphthalene		X	1	Grab	SW 846 8260	6.36 ug/L			84.8	.0002361
15. Carbon Tetrachloride	X									
16. 1,4 Dichlorobenzene	X									
17. 1,2 Dichlorobenzene	X									
18. 1,3 Dichlorobenzene	X									
19. 1,1 Dichloroethane	X									
20. 1,2 Dichloroethane	X									
21. 1,1 Dichloroethylene	X									
22. cis-1,2 Dichloroethylene	X									
23. Dichloromethane (Methylene Chloride)	X									
24. Tetrachloroethylene	X									

<sup>5</sup>EDB is a groundwater contaminant at fuel spill and pesticide application sites in New England.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily Value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
25. 1,1,1 Trichloroethane	X									
26. 1,1,2 Trichloroethane	X									
27. Trichloroethylene	X									
28. Vinyl Chloride	X									
29. Acetone	X									
30. 1,4 Dioxane	X									
31. Total Phenols		X	1	Grab	EPA 420.1	.159 ug/L			0.0077	.000001
32. Pentachlorophenol	X									
33. Total Phthalates <sup>6</sup> (Phthalate esthers)	X									
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	X									
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)										
a. Benzo(a) Anthracene	X									
b. Benzo(a) Pyrene	X									
c. Benzo(b)Fluoranthene	X									
d. Benzo(k) Fluoranthene	X									
e. Chrysene	X									

<sup>6</sup>The 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	X									
g. Indeno(1,2,3-cd) Pyrene	X									
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)										
h. Acenaphthene		X	1	Grab	SW 846 8270	795 ug/L			332	.0009257
i. Acenaphthylene	X									
j. Anthracene	X									
k. Benzo(ghi) Perylene	X									
l. Fluoranthene	X									
m. Fluorene		X	1	Grab	~ ~	795 ug/L			577	.0016092
n. Naphthalene-	X									
o. Phenanthrene		X	1	Grab	~ ~	795 ug/L			932	.0025994
p. Pyrene	X									
37. Total Polychlorinated Biphenyls (PCBs)	X									
38. Antimony	X									
39. Arsenic	X									
40. Cadmium		X	1	Grab	BPA 200.7 SW 846 6010	.00159 ug/L			0.0012	.00000003
41. Chromium III		X	1	Grab	~ ~	.01113 ug/L			0.0035	.0000000094
42. Chromium VI	X									

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	X									
44. Lead		X	1	Grab	EPA 800.7 SW 846 6010	.00636 ug/L			.005	.0000000136
45. Mercury	X									
46. Nickel	X									
47. Selenium	X									
48. Silver	X									
49. Zinc	X									
50. Iron		X	1	Grab	EPA 800.7 SW 846 6010	.00636 ug/L			2.10	.0000056
Other (describe): <u>See Attached</u>										

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 <b>reasonable potential</b> 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?</p>
<p><i>Step 2:</i> For any metals which have <b>reasonable potential</b> to exceed the <b>Appendix III</b> limits, calculate the <b>dilution factor (DF)</b> using the formula in Part I.A.3.c) (step 2) of the NOI instructions or as determined by the State prior to the submission of this NOI. What is the dilution factor for applicable metals? Metals: _____ DF: _____</p>	<p>Look up the limit calculated at the corresponding dilution factor in <b>Appendix IV</b>. Do any of the metals in the <b>influent</b> have the potential to exceed the corresponding <b>effluent</b> 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:</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: <i>See Attached</i>				
b) Identify each applicable treatment unit (check all that apply):	Frac. tank	Air stripper	<u>Oil/water separator</u>	Equalization tanks
	Chlorination	Dechlorination	<u>Other (please describe): Moisture/water Separator</u>	<u>Bag filter (2)</u> <u>GAC filter</u>
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>7-9 GPM</u> Maximum flow rate of treatment system <u>10 GPM</u> Design flow rate of treatment system <u>7-9 GPM</u>				
d) A description of chemical additives being used or planned to be used (attach MSDS sheets): <u>N/A</u>				

2 liquid  
2 vapor

**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	<u>Storm drain</u>	River/brook	Wetlands	Other (describe):
b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters: <i>See Attached</i>						
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: <u>B</u>						
e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water: <u>0.2</u> cfs <i>As listed in USGS Stream Stats For Robinson Brook, Fed. by Hersey Pond</i> Please attach any calculation sheets used to support stream flow and dilution calculations.						
f) Is the receiving water a listed <u>303(d)</u> water quality impaired or limited water? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, for which pollutant(s)? Is there a TMDL? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> 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 <input type="checkbox"/> No <input checked="" type="checkbox"/>
Has any consultation with the federal services been completed? <input checked="" type="checkbox"/> or is consultation underway? <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/>
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 <input type="checkbox"/> No <input checked="" type="checkbox"/>
Have any state or tribal historic preservation officer been consulted in this determination (Massachusetts only)? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

**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.
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**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:	Foxborough Fire Department 40 School Street, Foxborough, Ma 02035
Operator signature:	
Title:	Project Manager
Date:	October, 19, 2005



39 Spruce Street ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

REPORT DATE 10/13/2005

CUSHING, JAMMALLO & WHEELER  
180 STONE STREET  
CLINTON, MA 01510  
ATTN: GREG MORAND

CONTRACT NUMBER:  
PURCHASE ORDER NUMBER:

PROJECT NUMBER:

**ANALYTICAL SUMMARY**

LIMS BAT #: LIMS-92319

JOB NUMBER: 4040

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: FOXBORO FIRE DEPARTMENT

FIELD SAMPLE #	LAB ID	MATRIX	SAMPLE DESCRIPTION	TEST
*PRE-TREAT INF.	05B39593	GRND WATER	NOT SPECIFIED	8081+82 water
*PRE-TREAT INF.	05B39593	GRND WATER	NOT SPECIFIED	8260 water
*PRE-TREAT INF.	05B39593	GRND WATER	NOT SPECIFIED	8270 water
*PRE-TREAT INF.	05B39593	GRND WATER	NOT SPECIFIED	ag (mg/l) icp
*PRE-TREAT INF.	05B39593	GRND WATER	NOT SPECIFIED	as (mg/l) icp
*PRE-TREAT INF.	05B39593	GRND WATER	NOT SPECIFIED	cd (mg/l) icp
*PRE-TREAT INF.	05B39593	GRND WATER	NOT SPECIFIED	chlorine tot res
*PRE-TREAT INF.	05B39593	GRND WATER	NOT SPECIFIED	chromium (+6)
*PRE-TREAT INF.	05B39593	GRND WATER	NOT SPECIFIED	cr (mg/l) icp
*PRE-TREAT INF.	05B39593	GRND WATER	NOT SPECIFIED	cu (mg/l) icp
*PRE-TREAT INF.	05B39593	GRND WATER	NOT SPECIFIED	cyanide-total
*PRE-TREAT INF.	05B39593	GRND WATER	NOT SPECIFIED	fe (mg/l) icp
*PRE-TREAT INF.	05B39593	GRND WATER	NOT SPECIFIED	hg (mg/l) wet
*PRE-TREAT INF.	05B39593	GRND WATER	NOT SPECIFIED	ni (mg/l) icp
*PRE-TREAT INF.	05B39593	GRND WATER	NOT SPECIFIED	pb (mg/l) icp
*PRE-TREAT INF.	05B39593	GRND WATER	NOT SPECIFIED	phenols
*PRE-TREAT INF.	05B39593	GRND WATER	NOT SPECIFIED	sb (mg/l) icp
*PRE-TREAT INF.	05B39593	GRND WATER	NOT SPECIFIED	se (mg/l) icp
*PRE-TREAT INF.	05B39593	GRND WATER	NOT SPECIFIED	tph gc water
*PRE-TREAT INF.	05B39593	GRND WATER	NOT SPECIFIED	tss
*PRE-TREAT INF.	05B39593	GRND WATER	NOT SPECIFIED	wet special test
*PRE-TREAT INF.	05B39593	GRND WATER	NOT SPECIFIED	zn (mg/l) icp



39 Spruce Street ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

REPORT DATE 10/13/2005

CUSHING, JAMMALLO & WHEELER  
180 STONE STREET  
CLINTON, MA 01510  
ATTN: GREG MORAND

CONTRACT NUMBER:  
PURCHASE ORDER NUMBER:

PROJECT NUMBER:

**ANALYTICAL SUMMARY**

LIMS BAT #: LIMS-92319

JOB NUMBER: 4040

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

Comments :

LIMS BATCH NO. : LIMS-92319

**REVISED REPORT**

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations :

AIHA 100033	AIHA ELLAP (LEAD) 100033	
MASSACHUSETTS MA0100	NEW HAMPSHIRE NELAP 2516	NEW JERSEY NELAP NJ MA007 (AIR)
CONNECTICUT PH-0567	VERMONT DOH (LEAD) No. LL015036	ARIZONA AZ0648
NEW YORK ELAP/NELAP 10899	RHODE ISLAND (LIC. No. 112)	ARIZONA AZ0654 (AIR)

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

*Sondra S. Kocot 10/13/05*  
SIGNATURE DATE

Tod Kopyscinski  
Director of Operations

Sondra S. Kocot  
Quality Control Coordinator

Edward Denson  
Technical Director

\* See end of data tabulation for notes and comments pertaining to this sample





39 Spruce Street ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

GREG MORAND  
CUSHING, JAMMALLO & WHEELER  
180 STONE STREET  
CLINTON, MA 01510

10/13/2005  
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Purchase Order No.:

Project Location: FOXBORO FIRE DEPARTMENT  
Date Received: 10/6/2005  
Field Sample #: PRE-TREAT INF.

LIMS-BAT #: LIMS-92319  
Job Number: 4040

Analytical Method:  
SW846 8081/8082

SAMPLES ARE EXTRACTED INTO METHYLENE CHLORIDE, SOLVENT EXCHANGED WITH HEXANE, CONCENTRATED BY KUDERNA-DANISH OR TURBOVAP EVAPORATIVE METHODS, AND ANALYZED BY GAS CHROMATOGRAPHY WITH ELECTRON CAPTURE DETECTION.

RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

\* = See end of report for comments and notes applying to this sample

SPEC LIMIT = a client specified recommended or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.



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Purchase Order No.:

10/13/2005  
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Project Location: FOXBORO FIRE DEPARTMENT  
 Date Received: 10/6/2005  
 Field Sample #: PRE-TREAT INF.

LIMS-BAT #: LIMS-92319  
 Job Number: 4040

Sample ID : 05B39593      Sampled : 10/6/2005  
 NOT SPECIFIED

Sample Matrix: GRND WATER

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit		P/ F
						Lo	Hi	
Acetone	ug/l	ND	10/08/05	LBD	50.0			
Acrylonitrile	ug/l	ND	10/08/05	LBD	0.5			
tert-Amylmethyl Ether	ug/l	ND	10/08/05	LBD	0.5			
Benzene	ug/l	ND	10/08/05	LBD	1.0			
Bromobenzene	ug/l	ND	10/08/05	LBD	1.0			
Bromochloromethane	ug/l	ND	10/08/05	LBD	1.0			
Bromodichloromethane	ug/l	ND	10/08/05	LBD	1.0			
Bromoform	ug/l	ND	10/08/05	LBD	1.0			
Bromomethane	ug/l	ND	10/08/05	LBD	2.0			
2-Butanone (MEK)	ug/l	ND	10/08/05	LBD	20.0			
tert-Butyl Alcohol	ug/l	ND	10/08/05	LBD	20.0			
n-Butylbenzene	ug/l	ND	10/08/05	LBD	1.0			
sec-Butylbenzene	ug/l	7.1	10/08/05	LBD	1.0			
tert-Butylbenzene	ug/l	ND	10/08/05	LBD	1.0			
tert-Butylethyl Ether	ug/l	ND	10/08/05	LBD	0.5			
Carbon Disulfide	ug/l	ND	10/08/05	LBD	3.0			
Carbon Tetrachloride	ug/l	ND	10/08/05	LBD	1.0			
Chlorobenzene	ug/l	ND	10/08/05	LBD	1.0			
Chlorodibromomethane	ug/l	ND	10/08/05	LBD	0.5			
Chloroethane	ug/l	ND	10/08/05	LBD	2.0			
Chloroform	ug/l	ND	10/08/05	LBD	2.0			
Chloromethane	ug/l	ND	10/08/05	LBD	2.0			
2-Chlorotoluene	ug/l	ND	10/08/05	LBD	1.0			
4-Chlorotoluene	ug/l	ND	10/08/05	LBD	1.0			
1,2-Dibromo-3-Chloropropane	ug/l	ND	10/08/05	LBD	5.0			
1,2-Dibromoethane	ug/l	ND	10/08/05	LBD	0.50			
Dibromomethane	ug/l	ND	10/08/05	LBD	1.0			
1,2-Dichlorobenzene	ug/l	ND	10/08/05	LBD	1.0			
1,3-Dichlorobenzene	ug/l	ND	10/08/05	LBD	1.0			
1,4-Dichlorobenzene	ug/l	ND	10/08/05	LBD	1.0			

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Purchase Order No.:

Project Location: FOXBORO FIRE DEPARTMENT  
 Date Received: 10/6/2005  
 Field Sample #: PRE-TREAT INF.

LIMS-BAT #: LIMS-92319  
 Job Number: 4040

Sample ID : 05B39593      Sampled : 10/6/2005  
 NOT SPECIFIED

Sample Matrix: GRND WATER

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit		P/ F
						Lo	Hi	
trans-1,4-Dichloro-2-Butene	ug/l	ND	10/08/05	LBD	2.0			
Dichlorodifluoromethane	ug/l	ND	10/08/05	LBD	5.0			
1,1-Dichloroethane	ug/l	ND	10/08/05	LBD	1.0			
1,2-Dichloroethane	ug/l	ND	10/08/05	LBD	1.0			
1,1-Dichloroethylene	ug/l	ND	10/08/05	LBD	1.0			
cis-1,2-Dichloroethylene	ug/l	ND	10/08/05	LBD	1.0			
trans-1,2-Dichloroethylene	ug/l	ND	10/08/05	LBD	1.0			
1,2-Dichloropropane	ug/l	ND	10/08/05	LBD	1.0			
1,3-Dichloropropane	ug/l	ND	10/08/05	LBD	0.5			
2,2-Dichloropropane	ug/l	ND	10/08/05	LBD	2.0			
1,1-Dichloropropene	ug/l	ND	10/08/05	LBD	2.0			
cis-1,3-Dichloropropene	ug/l	ND	10/08/05	LBD	1.0			
trans-1,3-Dichloropropene	ug/l	ND	10/08/05	LBD	1.0			
Diethyl Ether	ug/l	ND	10/08/05	LBD	2.0			
Diisopropyl Ether	ug/l	ND	10/08/05	LBD	1.0			
1,4-Dioxane	ug/l	ND	10/08/05	LBD	100.			
Ethyl Benzene	ug/l	3.1	10/08/05	LBD	1.0			
Hexachlorobutadiene	ug/l	ND	10/08/05	LBD	1.0			
2-Hexanone	ug/l	ND	10/08/05	LBD	10.0			
Isopropylbenzene	ug/l	3.9	10/08/05	LBD	1.0			
p-Isopropyltoluene	ug/l	7.7	10/08/05	LBD	1.0			
MTBE	ug/l	ND	10/08/05	LBD	1.0			
Methylene Chloride	ug/l	ND	10/08/05	LBD	5.0			
MIBK	ug/l	ND	10/08/05	LBD	10.0			
Naphthalene	ug/l	84.8	10/08/05	LBD	2.0			
n-Propylbenzene	ug/l	4.7	10/08/05	LBD	1.0			
Styrene	ug/l	ND	10/08/05	LBD	1.0			
1,1,1,2-Tetrachloroethane	ug/l	ND	10/08/05	LBD	1.0			
1,1,1,2,2-Tetrachloroethane	ug/l	ND	10/08/05	LBD	0.5			
Tetrachloroethylene	ug/l	ND	10/08/05	LBD	1.0			

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Purchase Order No.:

Project Location: FOXBORO FIRE DEPARTMENT

LIMS-BAT #: LIMS-92319

Date Received: 10/6/2005

Job Number: 4040

Field Sample #: PRE-TREAT INF.

Sample ID : 05B39593

Sampled : 10/6/2005  
 NOT SPECIFIED

Sample Matrix: GRND WATER

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit		P/ F
						Lo	Hi	
Tetrahydrofuran	ug/l	ND	10/08/05	LBD	10.0			
Toluene	ug/l	1.5	10/08/05	LBD	1.0			
1,2,3-Trichlorobenzene	ug/l	ND	10/08/05	LBD	5.0			
1,2,4-Trichlorobenzene	ug/l	ND	10/08/05	LBD	1.0			
1,1,1-Trichloroethane	ug/l	ND	10/08/05	LBD	1.0			
1,1,2-Trichloroethane	ug/l	ND	10/08/05	LBD	1.0			
Trichloroethylene	ug/l	ND	10/08/05	LBD	1.0			
Trichlorofluoromethane	ug/l	ND	10/08/05	LBD	2.0			
1,2,3-Trichloropropane	ug/l	ND	10/08/05	LBD	2.0			
1,2,4-Trimethylbenzene	ug/l	42.8	10/08/05	LBD	1.0			
1,3,5-Trimethylbenzene	ug/l	13.3	10/08/05	LBD	1.0			
Vinyl Chloride	ug/l	ND	10/08/05	LBD	2.0			
m + p Xylene	ug/l	11.7	10/08/05	LBD	2.0			
o-Xylene	ug/l	11.1	10/08/05	LBD	1.0			

Analytical Method:

SW846 8260

SAMPLES ARE CONCENTRATED BY PURGE & TRAP, FOLLOWED BY GC/MS TARGET COMPOUND ANALYSIS.

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SPEC LIMIT = a client specified recommended or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.







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Purchase Order No.:

Project Location: FOXBORO FIRE DEPARTMENT  
Date Received: 10/6/2005  
Field Sample #: PRE-TREAT INF.

LIMS-BAT #: LIMS-92319  
Job Number: 4040

Sample ID : \*05B39593      Sampled : 10/6/2005  
NOT SPECIFIED

Sample Matrix: GRND WATER

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit		P/ F
						Lo	Hi	
N-Nitroso-di-n-propylamine	ug/l	ND	10/08/05	BGL	500.			
Pentachlorophenol	ug/l	ND	10/08/05	BGL	500.			
Phenanthrene	ug/l	932.	10/08/05	BGL	250.			
Phenol	ug/l	ND	10/08/05	BGL	500.			
Pyrene	ug/l	ND	10/08/05	BGL	250.			
Pyridine	ug/l	ND	10/08/05	BGL	40.0			
1,2,4-Trichlorobenzene	ug/l	ND	10/08/05	BGL	250.			
2,4,5-Trichlorophenol	ug/l	ND	10/08/05	BGL	500.			
2,4,6-Trichlorophenol	ug/l	ND	10/08/05	BGL	500.			

Analytical Method:  
SW846 8270

SAMPLES ARE EXTRACTED INTO METHYLENE CHLORIDE, FOLLOWED BY KUDERNA-DANISH OR TURBOVAP EVAPORATIVE CONCENTRATION AND QUANTITATED BY GC/MS TARGET COMPOUND ANALYSIS

RL = Reporting Limit

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Purchase Order No.:

Project Location: FOXBORO FIRE DEPARTMENT  
Date Received: 10/6/2005  
Field Sample # : PRE-TREAT INF.

LIMS-BAT #: LIMS-92319  
Job Number: 4040

Sample ID : 05B39593                      Sampled : 10/6/2005  
NOT SPECIFIED

Sample Matrix: GRND WATER

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit		P/ F
						Lo	Hi	
Silver	mg/l	ND	10/07/05	BAG	0.005			

**Analytical Method:**

EPA 200.7/SW846 6010

SAMPLES ARE ANALYZED BY INDUCTIVELY COUPLED PLASMA EMISSION SPECTROMETRY (ICP).

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Purchase Order No.:

Project Location: FOXBORO FIRE DEPARTMENT  
Date Received: 10/6/2005  
Field Sample #: PRE-TREAT INF.

LIMS-BAT #: LIMS-92319  
Job Number: 4040

Sample ID : 05B39593      Sampled : 10/6/2005  
NOT SPECIFIED

Sample Matrix: GRND WATER

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	P/ F
Arsenic	mg/l	ND	10/07/05	BAG	0.05		

Analytical Method:

EPA 200.7/SW846 6010

SAMPLES ARE ANALYZED BY INDUCTIVELY COUPLED PLASMA EMISSION SPECTROMETRY (ICP).

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Purchase Order No.:

Project Location: FOXBORO FIRE DEPARTMENT  
Date Received: 10/6/2005  
Field Sample # : PRE-TREAT INF.

LIMS-BAT #: LIMS-92319  
Job Number: 4040

Sample ID : 05B39593                      Sampled : 10/6/2005  
NOT SPECIFIED

Sample Matrix: GRND WATER

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo    Hi	P/ F
Cadmium	mg/l	0.0012	10/07/05	BAG	0.0005		

**Analytical Method:**

EPA 200.7/SW846 6010

SAMPLES ARE ANALYZED BY INDUCTIVELY COUPLED PLASMA EMISSION SPECTROMETRY (ICP).

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Purchase Order No.:

Project Location: FOXBORO FIRE DEPARTMENT

LIMS-BAT #: LIMS-92319

Date Received: 10/6/2005

Job Number: 4040

Field Sample #: PRE-TREAT INF.

Sample ID: \*05B39593

Sampled: 10/6/2005  
NOT SPECIFIED

Sample Matrix: GRND WATER

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	P/ F
Total Residual Chlorine	mg/l	ND	10/06/05	VAK	0.04		

Analytical Method:

SM 4500-Cl G

COLORIMETRIC DETERMINATION OF TOTAL CHLORINE WITH N,N-DIETHYL-P-PHENYLENEDIAMINE(DPD)  
IN THE PRESENCE OF ACIDIC IODIDE

RL = Reporting Limit

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Purchase Order No.:

Project Location: FOXBORO FIRE DEPARTMENT  
Date Received: 10/6/2005  
Field Sample # : PRE-TREAT INF.

LIMS-BAT #: LIMS-92319  
Job Number: 4040

Sample ID : 05B39593                      Sampled : 10/6/2005  
NOT SPECIFIED

Sample Matrix: GRND WATER

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit		P/ F
						Lo	Hi	
Chromium	mg/l	ND	10/07/05	BAG	0.004			

Analytical Method:

EPA 200.7/SW846 6010

SAMPLES ARE ANALYZED BY INDUCTIVELY COUPLED PLASMA EMISSION SPECTROMETRY (ICP).

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Purchase Order No.:

Project Location: FOXBORO FIRE DEPARTMENT

LIMS-BAT #: LIMS-92319

Date Received: 10/6/2005

Job Number: 4040

Field Sample #: PRE-TREAT INF.

Sample ID: 05B39593

Sampled: 10/6/2005  
NOT SPECIFIED

Sample Matrix: GRND WATER

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	P/ F
Cyanide	mg/l	ND	10/07/05	VAK	0.010		

Analytical Method:

SM 4500 CN E

DISTILLATION FOLLOWED BY REACTION WITH CHLORAMINE-T/PYRIDINE-BARBITURIC ACID AND PHOSPHATE BUFFER.

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Purchase Order No.:

Project Location: FOXBORO FIRE DEPARTMENT  
Date Received: 10/6/2005  
Field Sample #: PRE-TREAT INF.

LIMS-BAT #: LIMS-92319  
Job Number: 4040

Sample ID : 05B39593                      Sampled : 10/6/2005  
NOT SPECIFIED

Sample Matrix: GRND WATER

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo    Hi	P/ F
Mercury	mg/l	ND	10/07/05	JTB	0.00004		

Analytical Method:  
EPA 245.1/SW846 7470  
COLD VAPOR TECHNIQUE (FLAMELESS ABSORPTION AT 254 NM)

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Purchase Order No.:

Project Location: FOXBORO FIRE DEPARTMENT  
Date Received: 10/6/2005  
Field Sample # : PRE-TREAT INF.

LIMS-BAT #: LIMS-92319  
Job Number: 4040

Sample ID : 05B39593                      Sampled : 10/6/2005  
NOT SPECIFIED

Sample Matrix: GRND WATER

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo      Hi	P/ F
Nickel	mg/l	ND	10/07/05	BAG	0.003		

Analytical Method:

EPA 200.7/SW846 6010

SAMPLES ARE ANALYZED BY INDUCTIVELY COUPLED PLASMA EMISSION SPECTROMETRY (ICP).

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Purchase Order No.:

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Date Received: 10/6/2005  
Field Sample # : PRE-TREAT INF.

LIMS-BAT #: LIMS-92319  
Job Number: 4040

Sample ID : 05B39593                      Sampled : 10/6/2005  
NOT SPECIFIED

Sample Matrix: GRND WATER

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo    Hi	P/ F
Phenolics	mg/l	0.0770	10/10/05	SBP	0.0500		

Analytical Method:

EPA 420.1

SAMPLE DISTILLATION WITH ACID AND COPPER SULFATE. PHENOLICS REACT WITH 4-AAP IN THE PRESENCE OF POTASSIUM FERRICYANIDE UNDER BASIC CONDITIONS TO FORM ANITIPYRINE DYE WHICH IS ANALYZED BY COLORIMETRIC TECHNIQUES.

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Purchase Order No.:

Project Location: FOXBORO FIRE DEPARTMENT

LIMS-BAT #: LIMS-92319

Date Received: 10/6/2005

Job Number: 4040

Field Sample #: PRE-TREAT INF.

Sample ID: 05B39593

Sampled: 10/6/2005

NOT SPECIFIED

Sample Matrix: GRND WATER

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	P/ F
Antimony	mg/l	ND	10/07/05	BAG	0.03		

Analytical Method:

EPA 200.7/SW846 6010

SAMPLES ARE ANALYZED BY INDUCTIVELY COUPLED PLASMA EMISSION SPECTROMETRY (ICP).

RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

\* = See end of report for comments and notes applying to this sample

SPEC LIMIT = a client specified recommended or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.



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GREG MORAND  
CUSHING, JAMMALLO & WHEELER  
180 STONE STREET  
CLINTON, MA 01510

10/13/2005  
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Purchase Order No.:

Project Location: FOXBORO FIRE DEPARTMENT  
Date Received: 10/6/2005  
Field Sample # : PRE-TREAT INF.

LIMS-BAT #: LIMS-92319  
Job Number: 4040

Sample ID : 05B39593                      Sampled : 10/6/2005  
NOT SPECIFIED

Sample Matrix: GRND WATER

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit		P/ F
						Lo	Hi	
Selenium	mg/l	ND	10/07/05	BAG	0.05			

Analytical Method:

EPA 200.7/SW846 6010

SAMPLES ARE ANALYZED BY INDUCTIVELY COUPLED PLASMA EMISSION SPECTROMETRY (ICP).

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Purchase Order No.:

Project Location: FOXBORO FIRE DEPARTMENT  
Date Received: 10/6/2005  
Field Sample #: PRE-TREAT INF.

LIMS-BAT #: LIMS-92319  
Job Number: 4040

Sample ID : 05B39593                      Sampled : 10/6/2005  
NOT SPECIFIED

Sample Matrix: GRND WATER

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit		P/ F
						Lo	Hi	
Fuels, diesel, no. 2	MG/L	330.	10/10/05	CJM	25.0			
Gasoline	MG/L	ND	10/10/05	CJM	25.0			
Fuel oil no. 6	MG/L	ND	10/10/05	CJM	25.0			
Kerosene/Jet Fuel	MG/L	ND	10/10/05	CJM	25.0			
Unknown Hydrocarbons	MG/L	ND	10/10/05	CJM	20.0			

Analytical Method:

MODIFIED NYSDOH 310.13/MOD 8015

SAMPLES ARE EXTRACTED INTO METHYLENE CHLORIDE BY LIQUID/LIQUID EXTRACTION, CONCENTRATED AND QUANTITATED AGAINST THE DIFFERENT PETROLEUM HYDROCARBON FRACTION STANDARDS. FINGERPRINTS OF SAMPLE AND STANDARD CHROMATOGRAMS ARE COMPARED.

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Purchase Order No.:

Project Location: FOXBORO FIRE DEPARTMENT  
Date Received: 10/6/2005  
Field Sample #: PRE-TREAT INF.

LIMS-BAT #: LIMS-92319  
Job Number: 4040

Sample ID : 05B39593                      Sampled : 10/6/2005  
NOT SPECIFIED

Sample Matrix: GRND WATER

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo    Hi	P/ F
Total suspended solids	mg/l	30.6	10/07/05	LL	11.8		

Analytical Method:

SM 2540 D

GRAVIMETRIC DETERMINATION OF TOTAL SOLIDS RETAINED ON A GLASS FIBER FILTER AFTER DRYING AT 103-105 C.

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Purchase Order No.:

Project Location: FOXBORO FIRE DEPARTMENT  
Date Received: 10/6/2005

LIMS-BAT #: LIMS-92319  
Job Number: 4040

The following notes were attached to the reported analysis :

Sample ID: \* 05B39593  
Analysis: PCB-1221

ELEVATED DETECTION LIMITS DUE TO SAMPLE MATRIX.

Sample ID: \* 05B39593  
Analysis: 8270 water

ELEVATED METHOD DETECTION LIMIT DUE TO MATRIX INTERFERENCES.

Sample ID: \* 05B39593  
Analysis: 3,3-Dichlorobenzidine

REPORTED RESULT IS ESTIMATED. EITHER INITIAL OR CONTINUING CALIBRATION  
DID NOT MEET REQUIRED CRITERIA.

Sample ID: \* 05B39593  
Analysis: Di-n-butylphthalate

REPORTED RESULT IS ESTIMATED. EITHER INITIAL OR CONTINUING CALIBRATION  
DID NOT MEET REQUIRED CRITERIA.

Sample ID: \* 05B39593  
Analysis: Total Residual Chlorine

ANALYZED AT 6:20PM

Sample ID: \* 05B39593  
Analysis: Chromium (+6)

SAMPLE ANALYZED AT 6:35PM

\*\* END OF REPORT \*\*

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determine PASS (P) or FAIL (F) condition of results.



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**QC SUMMARY REPORT**

SAMPLE QC: Sample Results with Duplicates

BATCH QC: Lab fortified Blanks and Duplicates

Sample Matrix Spikes and Matrix Spike Duplicates

Standard Reference Materials and Duplicates

Method Blanks

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QC Batch Number: CYANIDE-1990

Sample Id	Analysis	QC Analysis	Values	Units	Limits
05B39593	Cyanide	Sample Amount	<0.010	mg/l	
		Matrix Spk Amt Added	0.336	mg/l	
		MS Amt Measured	0.419	mg/l	
		Matrix Spike % Rec.	124.702	%	75-125
LFBLANK-45407	Cyanide	Lab Fort Blank Amt.	0.336	mg/l	
		Lab Fort Blk. Found	0.385	mg/l	
		Lab Fort Blk. % Rec.	114.583	%	
STDADD-29938	Cyanide	Standard Measured	0.307	mg/l	
		Standard Amt Added	0.268	mg/l	
		Standard % Recovery	114.552	%	80-120



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QC Batch Number: GC/ECD-7871

Sample Id	Analysis	QC Analysis	Values	Units	Limits
05B39593	Decachlorobiphenyl	Surrogate Recovery	163.0	%	30-150
	Tetrachloro-m-Xylene	Surrogate Recovery	70.0	%	30-150
BLANK-79651	Chlordane	Blank	<0.20	ug/l	
	alpha-BHC	Blank	<0.05	ug/l	
	delta-BHC	Blank	<0.05	ug/l	
	beta-BHC	Blank	<0.05	ug/l	
	gamma-BHC (Lindane)	Blank	<0.05	ug/l	
	Heptachlor	Blank	<0.05	ug/l	
	Aldrin	Blank	<0.05	ug/l	
	Heptachlor Epoxide	Blank	<0.05	ug/l	
	Endosulfan I	Blank	<0.05	ug/l	
	4,4-DDE	Blank	<0.08	ug/l	
	Dieldrin	Blank	<0.080	ug/l	
	Endrin	Blank	<0.08	ug/l	
	4,4-DDD	Blank	<0.08	ug/l	
	Endosulfan II	Blank	<0.08	ug/l	
	4,4-DDT	Blank	<0.08	ug/l	
	Endrin Aldehyde	Blank	<0.08	ug/l	
	Endosulfan Sulfate	Blank	<0.08	ug/l	
Methoxychlor	Blank	<0.50	ug/l		
Toxaphene	Blank	<1.00	ug/l		



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QC Batch Number: GC/FID-14058

Sample Id	Analysis	QC Analysis	Values	Units	Limits
BLANK-79606	Fuel oil no. 6	Blank	<0.25	MG/L	
	Fuels, diesel, no. 2	Blank	<0.25	MG/L	
	Gasoline	Blank	<0.25	MG/L	
	Kerosene/Jet Fuel	Blank	<0.25	MG/L	
	Unknown Hydrocarbons	Blank	<0.20	MG/L	



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Lims Bat #: LIMS-92319

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QC Batch Number: GCMS/SEMI-7413

Sample Id	Analysis	QC Analysis	Values	Units	Limits
05B39593	Phenol-d6	Surrogate Recovery	5.4	%	15-110
	Nitrobenzene-d5	Surrogate Recovery	112.0	%	30-130
	2-Fluorobiphenyl	Surrogate Recovery	115.0	%	30-130
	2,4,6-Tribromophenol	Surrogate Recovery	60.0	%	15-110
	Terphenyl-d14	Surrogate Recovery	112.0	%	30-130
	2-Fluorophenol	Surrogate Recovery	6.0	%	15-110
BLANK-79627	1,4-Dichlorobenzene	Blank	<5.00	ug/l	
	Naphthalene	Blank	<1.00	ug/l	
	1,2-Dichlorobenzene	Blank	<5.00	ug/l	
	1,3-Dichlorobenzene	Blank	<5.00	ug/l	
	Acenaphthene	Blank	<0.30	ug/l	
	Acenaphthylene	Blank	<0.30	ug/l	
	Aniline	Blank	<5.00	ug/l	
	Anthracene	Blank	<1.00	ug/l	
	Benzidine	Blank	<70.0	ug/l	
	Benzo(a)anthracene	Blank	<0.050	ug/l	
	Benzo(a)pyrene	Blank	<0.070	ug/l	
	Benzo(b)fluoranthene	Blank	<0.070	ug/l	
	Benzo(g,h,i)perylene	Blank	<0.060	ug/l	
	Benzoic Acid	Blank	<30.0	ug/l	
	Benzyl Alcohol	Blank	<20.0	ug/l	
	Bis(2-chloroethyl)ether	Blank	<10.0	ug/l	
	Bis(2-chloroethoxy)methane	Blank	<10.0	ug/l	
	Bis(2-chloroisopropyl)ether	Blank	<10.0	ug/l	
	Bis(2-ethylhexyl)phthalate	Blank	<2.00	ug/l	
	4-Bromophenyl phenyl ether	Blank	<10.0	ug/l	
	Butylbenzylphthalate	Blank	<20.0	ug/l	
	4-Chloroaniline	Blank	<20.0	ug/l	
	2-Chloronaphthalene	Blank	<10.0	ug/l	
	4-Chlorophenylphenyl ether	Blank	<10.0	ug/l	
	Chrysene	Blank	<0.22	ug/l	
	Dibenz(a,h)anthracene	Blank	<0.130	ug/l	
	Dibenzofuran	Blank	<10.0	ug/l	
	3,3-Dichlorobenzidine	Blank	<10.0	ug/l	
	Diethylphthalate	Blank	<10.0	ug/l	
	Dimethylphthalate	Blank	<20.0	ug/l	
	Di-n-butylphthalate	Blank	<10.0	ug/l	
	2,4-Dinitrotoluene	Blank	<10.0	ug/l	
	2,6-Dinitrotoluene	Blank	<10.0	ug/l	
	1,2-Diphenylhydrazine (as Azobenzene)	Blank	<10.0	ug/l	
	Di-n-octylphthalate	Blank	<20.0	ug/l	
	Fluoranthene	Blank	<1.00	ug/l	



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Report Date: 10/13/2005

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QC Batch Number: GCMS/SEMI-7413

Sample Id	Analysis	QC Analysis	Values	Units	Limits
BLANK-79627	Fluorene	Blank	<1.00	ug/l	
	Hexachlorobenzene	Blank	<0.07	ug/l	
	Hexachlorobutadiene	Blank	<0.45	ug/l	
	Hexachlorocyclopentadiene	Blank	<20.0	ug/l	
	Hexachloroethane	Blank	<1.00	ug/l	
	Indeno(1,2,3-cd)pyrene	Blank	<0.060	ug/l	
	Isophorone	Blank	<10.0	ug/l	
	2-Methylnaphthalene	Blank	<1.00	ug/l	
	2-Nitroaniline	Blank	<10.0	ug/l	
	3-Nitroaniline	Blank	<10.0	ug/l	
	Nitrobenzene	Blank	<10.0	ug/l	
	N-Nitrosodimethylamine	Blank	<10.0	ug/l	
	N-Nitroso-di-n-propylamine	Blank	<10.0	ug/l	
	N-Nitrosodiphenylamine	Blank	<10.0	ug/l	
	Phenanthrene	Blank	<0.07	ug/l	
	Pyrene	Blank	<1.00	ug/l	
	1,2,4-Trichlorobenzene	Blank	<5.00	ug/l	
	4-Chloro-3-methylphenol	Blank	<20.0	ug/l	
	2-Chlorophenol	Blank	<10.0	ug/l	
	2,4-Dichlorophenol	Blank	<10.0	ug/l	
	2,4-Dimethylphenol	Blank	<40.0	ug/l	
	4,6-Dinitro-2-methylphenol	Blank	<10.0	ug/l	
	2,4-Dinitrophenol	Blank	<20.0	ug/l	
	o-cresol	Blank	<10.0	ug/l	
	m & p-Cresol(s)	Blank	<20.0	ug/l	
	2-Nitrophenol	Blank	<10.0	ug/l	
	4-Nitrophenol	Blank	<20.0	ug/l	
	Phenol	Blank	<10.0	ug/l	
	2,4,5-Trichlorophenol	Blank	<10.0	ug/l	
	2,4,6-Trichlorophenol	Blank	<10.0	ug/l	
	Pentachlorophenol	Blank	<1.00	ug/l	
	Pyridine	Blank	<0.8	ug/l	
	Benzo(k)fluoranthene	Blank	<0.220	ug/l	
	4-Nitroaniline	Blank	<10.0	ug/l	
	Acetophenone	Blank	<10.0	ug/l	
	1,2-Dinitrobenzene	Blank	<10.0	ug/l	
	1,3-Dinitrobenzene	Blank	<10.0	ug/l	
	1,4-Dinitrobenzene	Blank	<10.0	ug/l	
LFBLANK-45435	1,4-Dichlorobenzene	Lab Fort Blank Amt.	100.00	ug/l	
		Lab Fort Blk. Found	61.47	ug/l	
		Lab Fort Blk. % Rec.	61.47	%	30-130
	Naphthalene	Lab Fort Blank Amt.	100.00	ug/l	



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**QC SUMMARY REPORT**

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QC Batch Number: GCMS/SEMI-7413

Sample Id	Analysis	QC Analysis	Values	Units	Limits
LFBLANK-45435	Naphthalene	Lab Fort Blk. Found	66.10	ug/l	
		Lab Fort Blk. % Rec.	66.10	%	30-130
1,2-Dichlorobenzene		Lab Fort Blank Amt.	100.00	ug/l	
		Lab Fort Blk. Found	74.10	ug/l	
		Lab Fort Blk. % Rec.	74.10	%	30-130
		Lab Fort Blank Amt.	100.00	ug/l	
1,3-Dichlorobenzene		Lab Fort Blk. Found	63.70	ug/l	
		Lab Fort Blk. % Rec.	63.70	%	30-130
		Lab Fort Blank Amt.	100.00	ug/l	
		Lab Fort Blk. Found	81.03	ug/l	
Acenaphthene		Lab Fort Blk. % Rec.	81.03	%	30-130
		Lab Fort Blank Amt.	100.00	ug/l	
		Lab Fort Blk. Found	81.03	ug/l	
Acenaphthylene		Lab Fort Blk. % Rec.	81.03	%	40-140
		Lab Fort Blank Amt.	100.00	ug/l	
		Lab Fort Blk. Found	82.76	ug/l	
Aniline		Lab Fort Blk. % Rec.	82.76	%	40-140
		Lab Fort Blank Amt.	100.00	ug/l	
		Lab Fort Blk. Found	55.62	ug/l	
Anthracene		Lab Fort Blk. % Rec.	55.62	%	
		Lab Fort Blank Amt.	100.00	ug/l	
		Lab Fort Blk. Found	75.48	ug/l	
Benzidine		Lab Fort Blk. % Rec.	75.48	%	40-140
		Lab Fort Blank Amt.	100.00	ug/l	
		Lab Fort Blk. Found	78.80	ug/l	
Benzo(a)anthracene		Lab Fort Blk. % Rec.	78.80	%	
		Lab Fort Blank Amt.	100.000	ug/l	
		Lab Fort Blk. Found	85.470	ug/l	
Benzo(a)pyrene		Lab Fort Blk. % Rec.	85.470	%	40-140
		Lab Fort Blank Amt.	100.000	ug/l	
		Lab Fort Blk. Found	93.380	ug/l	
Benzo(b)fluoranthene		Lab Fort Blk. % Rec.	93.380	%	40-140
		Lab Fort Blank Amt.	100.000	ug/l	
		Lab Fort Blk. Found	103.210	ug/l	
Benzo(g,h,i)perylene		Lab Fort Blk. % Rec.	103.210	%	40-140
		Lab Fort Blank Amt.	100.000	ug/l	
		Lab Fort Blk. Found	90.560	ug/l	
Benzoic Acid		Lab Fort Blk. % Rec.	90.560	%	30-130
		Lab Fort Blank Amt.	100.00	ug/l	
		Lab Fort Blk. Found	35.96	ug/l	
Benzyl Alcohol		Lab Fort Blk. % Rec.	35.96	%	
		Lab Fort Blank Amt.	100.00	ug/l	
		Lab Fort Blk. Found	63.25	ug/l	
Bis(2-chloroethyl)ether		Lab Fort Blk. % Rec.	63.25	%	
		Lab Fort Blank Amt.	100.00	ug/l	
		Lab Fort Blk. Found	67.21	ug/l	



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QC Batch Number: GCMS/SEMI-7413

Sample Id	Analysis	QC Analysis	Values	Units	Limits
LFBLANK-45435	Bis(2-chloroethyl)ether	Lab Fort Blk. % Rec.	67.21	%	30-130
	Bis(2-chloroethoxy)methane	Lab Fort Blank Amt.	100.00	ug/l	
		Lab Fort Blk. Found	74.70	ug/l	
		Lab Fort Blk. % Rec.	74.70	%	
	Bis(2-chloroisopropyl)ether	Lab Fort Blank Amt.	100.00	ug/l	
		Lab Fort Blk. Found	58.16	ug/l	
		Lab Fort Blk. % Rec.	58.16	%	30-130
	Bis(2-ethylhexyl)phthalate	Lab Fort Blank Amt.	100.00	ug/l	
		Lab Fort Blk. Found	74.85	ug/l	
		Lab Fort Blk. % Rec.	74.85	%	30-130
	4-Bromophenyl phenyl ether	Lab Fort Blank Amt.	100.00	ug/l	
		Lab Fort Blk. Found	76.77	ug/l	
		Lab Fort Blk. % Rec.	76.77	%	
	Butylbenzylphthalate	Lab Fort Blank Amt.	100.00	ug/l	
		Lab Fort Blk. Found	97.13	ug/l	
		Lab Fort Blk. % Rec.	97.13	%	
	4-Chloroaniline	Lab Fort Blank Amt.	100.00	ug/l	
		Lab Fort Blk. Found	76.84	ug/l	
		Lab Fort Blk. % Rec.	76.84	%	40-140
	2-Chloronaphthalene	Lab Fort Blank Amt.	100.00	ug/l	
		Lab Fort Blk. Found	86.93	ug/l	
		Lab Fort Blk. % Rec.	86.93	%	
	4-Chlorophenylphenyl ether	Lab Fort Blank Amt.	100.00	ug/l	
		Lab Fort Blk. Found	83.43	ug/l	
		Lab Fort Blk. % Rec.	83.43	%	
	Chrysene	Lab Fort Blank Amt.	100.00	ug/l	
		Lab Fort Blk. Found	88.69	ug/l	
		Lab Fort Blk. % Rec.	88.69	%	40-140
	Dibenz(a,h)anthracene	Lab Fort Blank Amt.	100.000	ug/l	
		Lab Fort Blk. Found	83.290	ug/l	
		Lab Fort Blk. % Rec.	83.290	%	30-130
	Dibenzofuran	Lab Fort Blank Amt.	100.00	ug/l	
		Lab Fort Blk. Found	94.75	ug/l	
		Lab Fort Blk. % Rec.	94.75	%	40-140
	3,3-Dichlorobenzidine	Lab Fort Blank Amt.	100.00	ug/l	
		Lab Fort Blk. Found	79.07	ug/l	
		Lab Fort Blk. % Rec.	79.07	%	40-140
	Diethylphthalate	Lab Fort Blank Amt.	100.00	ug/l	
		Lab Fort Blk. Found	86.45	ug/l	
		Lab Fort Blk. % Rec.	86.45	%	30-130
	Dimethylphthalate	Lab Fort Blank Amt.	100.00	ug/l	
		Lab Fort Blk. Found	77.71	ug/l	
		Lab Fort Blk. % Rec.	77.71	%	10-130



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**QC SUMMARY REPORT**

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Sample Matrix Spikes and Matrix Spike Duplicates

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Report Date: 10/13/2005

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QC Batch Number: GCMS/SEMI-7413

Sample Id	Analysis	QC Analysis	Values	Units	Limits
LFBLANK-45435	Di-n-butylphthalate	Lab Fort Blank Amt.	100.00	ug/l	
		Lab Fort Blk. Found	84.12	ug/l	
		Lab Fort Blk. % Rec.	84.12	%	40-140
	2,4-Dinitrotoluene	Lab Fort Blank Amt.	100.00	ug/l	
		Lab Fort Blk. Found	115.41	ug/l	
		Lab Fort Blk. % Rec.	115.41	%	40-140
	2,6-Dinitrotoluene	Lab Fort Blank Amt.	100.00	ug/l	
		Lab Fort Blk. Found	105.18	ug/l	
		Lab Fort Blk. % Rec.	105.18	%	40-140
	1,2-Diphenylhydrazine (as Azobenzene)	Lab Fort Blank Amt.	100.00	ug/l	
		Lab Fort Blk. Found	88.62	ug/l	
		Lab Fort Blk. % Rec.	88.62	%	
	Di-n-octylphthalate	Lab Fort Blank Amt.	100.00	ug/l	
		Lab Fort Blk. Found	93.69	ug/l	
		Lab Fort Blk. % Rec.	93.69	%	
	Fluoranthene	Lab Fort Blank Amt.	100.00	ug/l	
		Lab Fort Blk. Found	84.29	ug/l	
		Lab Fort Blk. % Rec.	84.29	%	40-140
	Fluorene	Lab Fort Blank Amt.	100.00	ug/l	
		Lab Fort Blk. Found	94.80	ug/l	
		Lab Fort Blk. % Rec.	94.80	%	40-140
	Hexachlorobenzene	Lab Fort Blank Amt.	100.00	ug/l	
		Lab Fort Blk. Found	89.56	ug/l	
		Lab Fort Blk. % Rec.	89.56	%	40-140
	Hexachlorobutadiene	Lab Fort Blank Amt.	100.00	ug/l	
		Lab Fort Blk. Found	71.38	ug/l	
		Lab Fort Blk. % Rec.	71.38	%	20-130
	Hexachlorocyclopentadiene	Lab Fort Blank Amt.	100.00	ug/l	
		Lab Fort Blk. Found	102.46	ug/l	
		Lab Fort Blk. % Rec.	102.46	%	
	Hexachloroethane	Lab Fort Blank Amt.	100.00	ug/l	
		Lab Fort Blk. Found	62.64	ug/l	
		Lab Fort Blk. % Rec.	62.64	%	20-130
	Indeno(1,2,3-cd)pyrene	Lab Fort Blank Amt.	100.000	ug/l	
		Lab Fort Blk. Found	95.990	ug/l	
		Lab Fort Blk. % Rec.	95.990	%	40-140
	Isophorone	Lab Fort Blank Amt.	100.00	ug/l	
		Lab Fort Blk. Found	53.31	ug/l	
		Lab Fort Blk. % Rec.	53.31	%	40-140
	2-Methylnaphthalene	Lab Fort Blank Amt.	100.00	ug/l	
		Lab Fort Blk. Found	67.73	ug/l	
		Lab Fort Blk. % Rec.	67.73	%	30-130
	2-Nitroaniline	Lab Fort Blank Amt.	100.00	ug/l	



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QC Batch Number: GCMS/SEMI-7413

Sample Id	Analysis	QC Analysis	Values	Units	Limits
LFBLANK-45435	2-Nitroaniline	Lab Fort Blk. Found	94.05	ug/l	
		Lab Fort Blk. % Rec.	94.05	%	
	3-Nitroaniline	Lab Fort Blank Amt.	100.00	ug/l	
		Lab Fort Blk. Found	90.70	ug/l	
	Nitrobenzene	Lab Fort Blk. % Rec.	90.70	%	
		Lab Fort Blank Amt.	100.00	ug/l	
	N-Nitrosodimethylamine	Lab Fort Blk. Found	68.37	ug/l	
		Lab Fort Blk. % Rec.	68.37	%	30-130
		Lab Fort Blank Amt.	100.00	ug/l	
	N-Nitroso-di-n-propylamine	Lab Fort Blk. Found	34.58	ug/l	
		Lab Fort Blk. % Rec.	34.58	%	
		Lab Fort Blank Amt.	100.00	ug/l	
	N-Nitrosodiphenylamine	Lab Fort Blk. Found	79.60	ug/l	
		Lab Fort Blk. % Rec.	79.60	%	30-108
		Lab Fort Blank Amt.	100.00	ug/l	
	Phenanthrene	Lab Fort Blk. Found	88.25	ug/l	
		Lab Fort Blk. % Rec.	88.25	%	
		Lab Fort Blank Amt.	100.00	ug/l	
	Pyrene	Lab Fort Blk. Found	73.29	ug/l	
		Lab Fort Blk. % Rec.	73.29	%	40-140
		Lab Fort Blank Amt.	100.00	ug/l	
	1,2,4-Trichlorobenzene	Lab Fort Blk. Found	91.69	ug/l	
		Lab Fort Blk. % Rec.	91.69	%	40-140
		Lab Fort Blank Amt.	100.00	ug/l	
	4-Chloro-3-methylphenol	Lab Fort Blk. Found	68.20	ug/l	
		Lab Fort Blk. % Rec.	68.20	%	30-130
		Lab Fort Blank Amt.	100.00	ug/l	
	2-Chlorophenol	Lab Fort Blk. Found	84.79	ug/l	
		Lab Fort Blk. % Rec.	84.79	%	32-120
		Lab Fort Blank Amt.	100.00	ug/l	
	2,4-Dichlorophenol	Lab Fort Blk. Found	69.57	ug/l	
		Lab Fort Blk. % Rec.	69.57	%	30-130
		Lab Fort Blank Amt.	100.00	ug/l	
	2,4-Dimethylphenol	Lab Fort Blk. Found	78.70	ug/l	
		Lab Fort Blk. % Rec.	78.70	%	30-130
		Lab Fort Blank Amt.	100.00	ug/l	
	4,6-Dinitro-2-methylphenol	Lab Fort Blk. Found	79.83	ug/l	
		Lab Fort Blk. % Rec.	79.83	%	30-130
		Lab Fort Blank Amt.	100.00	ug/l	
	2,4-Dinitrophenol	Lab Fort Blk. Found	108.63	ug/l	
		Lab Fort Blk. % Rec.	108.63	%	
		Lab Fort Blank Amt.	100.00	ug/l	
		Lab Fort Blk. Found	110.86	ug/l	



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LFBLANK-45435	2,4-Dinitrophenol	Lab Fort Blk. % Rec.	110.86	%	10-130
		Lab Fort Blank Amt.	100.00	ug/l	
	o-cresol	Lab Fort Blk. Found	59.33	ug/l	30-130
		Lab Fort Blk. % Rec.	59.33	%	
	m & p-Cresol(s)	Lab Fort Blank Amt.	100.00	ug/l	30-130
		Lab Fort Blk. Found	58.85	ug/l	
	2-Nitrophenol	Lab Fort Blk. % Rec.	58.85	%	30-130
		Lab Fort Blank Amt.	100.00	ug/l	
		Lab Fort Blk. Found	96.59	ug/l	30-130
		Lab Fort Blk. % Rec.	96.59	%	
	4-Nitrophenol	Lab Fort Blank Amt.	100.00	ug/l	14-100
		Lab Fort Blk. Found	47.89	ug/l	
	Phenol	Lab Fort Blk. % Rec.	47.89	%	20-130
		Lab Fort Blank Amt.	100.00	ug/l	
		Lab Fort Blk. Found	32.09	ug/l	30-130
		Lab Fort Blk. % Rec.	32.09	%	
	2,4,5-Trichlorophenol	Lab Fort Blank Amt.	100.00	ug/l	30-130
		Lab Fort Blk. Found	90.83	ug/l	
		Lab Fort Blk. % Rec.	90.83	%	30-130
		Lab Fort Blank Amt.	100.00	ug/l	
2,4,6-Trichlorophenol	Lab Fort Blk. Found	89.96	ug/l	30-130	
	Lab Fort Blk. % Rec.	89.96	%		
Pentachlorophenol	Lab Fort Blank Amt.	100.00	ug/l	30-130	
	Lab Fort Blk. Found	115.45	ug/l		
	Lab Fort Blk. % Rec.	115.45	%	30-130	
	Lab Fort Blank Amt.	100.0	ug/l		
Pyridine	Lab Fort Blk. Found	32.8	ug/l	40-140	
	Lab Fort Blk. % Rec.	32.8	%		
Benzo(k)fluoranthene	Lab Fort Blank Amt.	100.000	ug/l	40-140	
	Lab Fort Blk. Found	68.880	ug/l		
	Lab Fort Blk. % Rec.	68.880	%	40-140	
	Lab Fort Blank Amt.	100.00	ug/l		
4-Nitroaniline	Lab Fort Blk. Found	96.42	ug/l	40-140	
	Lab Fort Blk. % Rec.	96.42	%		
Acetophenone	Lab Fort Blank Amt.	100.00	ug/l	40-140	
	Lab Fort Blk. Found	63.19	ug/l		
	Lab Fort Blk. % Rec.	63.19	%	40-140	
	Lab Fort Blank Amt.	100.00	ug/l		
1,2-Dinitrobenzene	Lab Fort Blk. Found	120.13	ug/l	40-140	
	Lab Fort Blk. % Rec.	120.13	%		
1,3-Dinitrobenzene	Lab Fort Blank Amt.	100.00	ug/l	40-140	
	Lab Fort Blk. Found	103.77	ug/l		
	Lab Fort Blk. % Rec.	103.77	%		



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QC Batch Number: GCMS/SEMI-7413

Sample Id	Analysis	QC Analysis	Values	Units	Limits
LFBLANK-45435	1,4-Dinitrobenzene	Lab Fort Blank Amt.	100.00	ug/l	
		Lab Fort Blk. Found	53.56	ug/l	
		Lab Fort Blk. % Rec.	53.56	%	



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QC Batch Number: GCMS/VOL-13221

Sample Id	Analysis	QC Analysis	Values	Units	Limits
05B39593	1,2-Dichloroethane-d4	Surrogate Recovery	97.7	%	70-130
	Toluene-d8	Surrogate Recovery	104.1	%	70-130
	Bromofluorobenzene	Surrogate Recovery	113.8	%	70-130
BLANK-79600	Acetone	Blank	<50.0	ug/l	
	Benzene	Blank	<1.0	ug/l	
	Carbon Tetrachloride	Blank	<1.0	ug/l	
	Chloroform	Blank	<2.0	ug/l	
	1,2-Dichloroethane	Blank	<1.0	ug/l	
	1,4-Dichlorobenzene	Blank	<1.0	ug/l	
	Ethyl Benzene	Blank	<1.0	ug/l	
	2-Butanone (MEK)	Blank	<20.0	ug/l	
	MIBK	Blank	<10.0	ug/l	
	Naphthalene	Blank	<2.0	ug/l	
	Styrene	Blank	<1.0	ug/l	
	Tetrachloroethylene	Blank	<1.0	ug/l	
	Toluene	Blank	<1.0	ug/l	
	1,1,1-Trichloroethane	Blank	<1.0	ug/l	
	Trichloroethylene	Blank	<1.0	ug/l	
	Trichlorofluoromethane	Blank	<2.0	ug/l	
	o-Xylene	Blank	<1.0	ug/l	
	m + p Xylene	Blank	<2.0	ug/l	
	1,2-Dichlorobenzene	Blank	<1.0	ug/l	
	1,3-Dichlorobenzene	Blank	<1.0	ug/l	
	1,1-Dichloroethane	Blank	<1.0	ug/l	
	1,1-Dichloroethylene	Blank	<1.0	ug/l	
	1,4-Dioxane	Blank	<100.	ug/l	
	MTBE	Blank	<1.0	ug/l	
	trans-1,2-Dichloroethylene	Blank	<1.0	ug/l	
	Vinyl Chloride	Blank	<2.0	ug/l	
	Methylene Chloride	Blank	<5.0	ug/l	
	Chlorobenzene	Blank	<1.0	ug/l	
	Chloromethane	Blank	<2.0	ug/l	
	Bromomethane	Blank	<2.0	ug/l	
	Chloroethane	Blank	<2.0	ug/l	
	cis-1,3-Dichloropropene	Blank	<1.0	ug/l	
	trans-1,3-Dichloropropene	Blank	<1.0	ug/l	
	Chlorodibromomethane	Blank	<0.5	ug/l	
	1,1,2-Trichloroethane	Blank	<1.0	ug/l	
	Bromoform	Blank	<1.0	ug/l	
	1,1,2,2-Tetrachloroethane	Blank	<0.5	ug/l	
	2-Chlorotoluene	Blank	<1.0	ug/l	
	Hexachlorobutadiene	Blank	<1.0	ug/l	



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QC Batch Number: GCMS/VOL-13221

Sample Id	Analysis	QC Analysis	Values	Units	Limits
BLANK-79600	Isopropylbenzene	Blank	<1.0	ug/l	
	p-Isopropyltoluene	Blank	<1.0	ug/l	
	n-Propylbenzene	Blank	<1.0	ug/l	
	sec-Butylbenzene	Blank	<1.0	ug/l	
	tert-Butylbenzene	Blank	<1.0	ug/l	
	1,2,3-Trichlorobenzene	Blank	<5.0	ug/l	
	1,2,4-Trichlorobenzene	Blank	<1.0	ug/l	
	1,2,4-Trimethylbenzene	Blank	<1.0	ug/l	
	1,3,5-Trimethylbenzene	Blank	<1.0	ug/l	
	Dibromomethane	Blank	<1.0	ug/l	
	cis-1,2-Dichloroethylene	Blank	<1.0	ug/l	
	4-Chlorotoluene	Blank	<1.0	ug/l	
	1,1-Dichloropropene	Blank	<2.0	ug/l	
	1,2-Dichloropropane	Blank	<1.0	ug/l	
	1,3-Dichloropropane	Blank	<0.5	ug/l	
	2,2-Dichloropropane	Blank	<2.0	ug/l	
	1,1,1,2-Tetrachloroethane	Blank	<1.0	ug/l	
	1,2,3-Trichloropropane	Blank	<2.0	ug/l	
	n-Butylbenzene	Blank	<1.0	ug/l	
	Dichlorodifluoromethane	Blank	<5.0	ug/l	
	Bromochloromethane	Blank	<1.0	ug/l	
	Bromobenzene	Blank	<1.0	ug/l	
	Acrylonitrile	Blank	<0.5	ug/l	
	Carbon Disulfide	Blank	<3.0	ug/l	
	2-Hexanone	Blank	<10.0	ug/l	
	trans-1,4-Dichloro-2-Butene	Blank	<2.0	ug/l	
	Diethyl Ether	Blank	<2.0	ug/l	
	Bromodichloromethane	Blank	<1.0	ug/l	
	1,2-Dibromo-3-Chloropropane	Blank	<5.0	ug/l	
	1,2-Dibromoethane	Blank	<0.50	ug/l	
	Tetrahydrofuran	Blank	<10.0	ug/l	
	tert-Butyl Alcohol	Blank	<20.0	ug/l	
	Diisopropyl Ether	Blank	<1.0	ug/l	
	tert-Butylethyl Ether	Blank	<0.5	ug/l	
	tert-Amylmethyl Ether	Blank	<0.5	ug/l	



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QC Batch Number: HG-5830

Sample Id	Analysis	QC Analysis	Values	Units	Limits
05B39593	Mercury	Sample Amount	<0.00004	mg/l	
		Matrix Spk Amt Added	0.00200	mg/l	
		MS Amt Measured	0.00218	mg/l	
		Matrix Spike % Rec.	109.00000	%	75-125
BLANK-79530	Mercury	Blank	<0.00004	mg/l	
LFBLANK-45376	Mercury	Lab Fort Blank Amt.	0.00200	mg/l	
		Lab Fort Blk. Found	0.00222	mg/l	
		Lab Fort Blk. % Rec.	111.00000	%	85-115



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QC Batch Number: ICP-12755

Sample Id	Analysis	QC Analysis	Values	Units	Limits
<b>BLANK-79540</b>					
	Silver	Blank	<0.005	mg/l	
	Arsenic	Blank	<0.05	mg/l	
	Cadmium	Blank	<0.0005	mg/l	
	Chromium	Blank	<0.004	mg/l	
	Copper	Blank	0.0176	mg/l	
	Iron	Blank	<0.03	mg/l	
	Nickel	Blank	<0.003	mg/l	
	Lead	Blank	<0.003	mg/l	
	Selenium	Blank	<0.05	mg/l	
	Zinc	Blank	0.035	mg/l	
<b>LFBLANK-45381</b>					
	Silver	Lab Fort Blank Amt.	2.000	mg/l	
		Lab Fort Blk. Found	2.023	mg/l	
		Lab Fort Blk. % Rec.	101.165	%	
	Arsenic	Lab Fort Blank Amt.	2.00	mg/l	
		Lab Fort Blk. Found	2.33	mg/l	
		Lab Fort Blk. % Rec.	116.36	%	85-115
	Cadmium	Lab Fort Blank Amt.	2.0000	mg/l	
		Lab Fort Blk. Found	2.1155	mg/l	
		Lab Fort Blk. % Rec.	105.7750	%	85-115
	Chromium	Lab Fort Blank Amt.	2.000	mg/l	
		Lab Fort Blk. Found	2.052	mg/l	
		Lab Fort Blk. % Rec.	102.610	%	85-115
	Copper	Lab Fort Blank Amt.	2.0000	mg/l	
		Lab Fort Blk. Found	2.1029	mg/l	
		Lab Fort Blk. % Rec.	105.1450	%	85-115
	Iron	Lab Fort Blank Amt.	2.00	mg/l	
		Lab Fort Blk. Found	2.17	mg/l	
		Lab Fort Blk. % Rec.	108.54	%	85-115
	Nickel	Lab Fort Blank Amt.	2.000	mg/l	
		Lab Fort Blk. Found	2.111	mg/l	
		Lab Fort Blk. % Rec.	105.530	%	85-115
	Lead	Lab Fort Blank Amt.	2.000	mg/l	
		Lab Fort Blk. Found	2.227	mg/l	
		Lab Fort Blk. % Rec.	111.350	%	85-115
	Selenium	Lab Fort Blank Amt.	2.00	mg/l	
		Lab Fort Blk. Found	2.27	mg/l	
		Lab Fort Blk. % Rec.	113.58	%	85-115
	Zinc	Lab Fort Blank Amt.	2.000	mg/l	
		Lab Fort Blk. Found	2.256	mg/l	
		Lab Fort Blk. % Rec.	112.815	%	85-115



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QC Batch Number: SOLIDS-4930

Sample Id	Analysis	QC Analysis	Values	Units	Limits
STDADD-29934	Total suspended solids	Standard Measured	195.2	mg/l	
		Standard Amt Added	200.0	mg/l	
		Standard % Recovery	97.6	%	88.5-106



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QC Batch Number: WETCHEM-10372

Sample Id	Analysis	QC Analysis	Values	Units	Limits
05B39593	Phenolics	Sample Amount	0.0770	mg/l	
		Duplicate Value	0.0770	mg/l	
		Duplicate RPD	0.0000	%	
		Sample Amount	0.0770	mg/l	
		Matrix Spk Amt Added	0.5000	mg/l	
		MS Amt Measured	0.4300	mg/l	
		Matrix Spike % Rec.	70.6000	%	70.3-113
LFBLANK-45395	Phenolics	Lab Fort Blank Amt.	0.5000	mg/l	
		Lab Fort Blk. Found	0.5300	mg/l	
		Lab Fort Blk. % Rec.	106.0000	%	
STDADD-29935	Phenolics	Standard Measured	0.4660	mg/l	
		Standard Amt Added	0.5000	mg/l	
		Standard % Recovery	93.2000	%	80.8-110



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QC Batch Number: WETCHEM-10375

Sample Id	Analysis	QC Analysis	Values	Units	Limits
05B39593	Chromium (+6)	Sample Amount	<0.004	mg/l	
		Matrix Spk Amt Added	0.100	mg/l	
		MS Amt Measured	0.102	mg/l	
		Matrix Spike % Rec.	102.000	%	75-125
LFBLANK-45417	Chromium (+6)	Lab Fort Blank Amt.	0.100	mg/l	
		Lab Fort Blk. Found	0.119	mg/l	
		Lab Fort Blk. % Rec.	119.000	%	
STDADD-29941	Chromium (+6)	Standard Measured	0.111	mg/l	
		Standard Amt Added	0.100	mg/l	
		Standard % Recovery	111.000	%	80-120



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**NOTES:**

QC Batch No. : GCMS/SEMI-7413

Sample ID : 05B39593

Analysis : 2-Fluorophenol

MORE THAN ONE SURROGATE STANDARD RECOVERY FOR THE ASSOCIATED FRACTION WAS OUTSIDE OF CONTROL LIMITS. ALL REPORTED DATA FOR ACID FRACTION COMPOUNDS IS ESTIMATED FOR THIS SAMPLE.

QC Batch No. : WETCHEM-10375

Sample ID : 05B39593

Analysis : Chromium (+6)

SAMPLE ANALYZED AT 6:35PM

QC Batch No. : GC/ECD-7871

Sample ID : 05B39593

Analysis : Decachlorobiphenyl

SURROGATE RECOVERY IS OUTSIDE OF CONTROL LIMITS. DATA VALIDATION IS NOT AFFECTED SINCE ALL RESULTS ARE NOT DETECTED AND BIAS IS ON THE HIGH SIDE.

QC Batch No. : GCMS/SEMI-7413

Sample ID : 05B39593

Analysis : Phenol-d6

MORE THAN ONE SURROGATE STANDARD RECOVERY FOR THE ASSOCIATED FRACTION WAS OUTSIDE OF CONTROL LIMITS. ALL REPORTED DATA FOR ACID FRACTION COMPOUNDS IS ESTIMATED FOR THIS SAMPLE.

QC Batch No. : ICP-12755

Sample ID : LFBLANK-45381

Analysis : Arsenic

LABORATORY FORTIFIED BLANK RECOVERY OUTSIDE OF CONTROL LIMITS. DATA VALIDATION IS NOT AFFECTED SINCE ALL RESULTS ARE "NOT DETECTED" FOR ALL SAMPLES IN THIS BATCH FOR THIS COMPOUND AND BIAS IS ON THE HIGH SIDE.



39 Spruce Street ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates

BATCH QC: Lab fortified Blanks and Duplicates

Sample Matrix Spikes and Matrix Spike Duplicates

Standard Reference Materials and Duplicates

Method Blanks

Report Date: 10/13/2005

Lims Bat #: LIMS-92319

Page 20 of 20

QUALITY CONTROL DEFINITIONS AND ABBREVIATIONS

QC BATCH NUMBER	This is the number assigned to all samples analyzed together that would be subject to comparison with a particular set of Quality Control Data.
LIMITS	Upper and Lower Control Limits for the QC ANALYSIS Reported. All values normally would fall within these statistically determined limits, unless there is an unusual circumstance that would be documented in a NOTE appearing on the last page of the QC SUMMARY REPORT. Not all QC results will have Limits defined.
Sample Amount	Amount of analyte found in a sample.
Blank	Method Blank that has been taken though all the steps of the analysis.
LFBLANK	Laboratory Fortified Blank (a control sample)
STDADD	Standard Added (a laboratory control sample)
Matrix Spk Amt Added	Amount of analyte spiked into a sample
MS Amt Measured	Amount of analyte found including amount that was spiked
Matrix Spike % Rec.	% Recovery of spiked amount in sample.
Duplicate Value	The result from the Duplicate analysis of the sample.
Duplicate RPD	The Relative Percent Difference between two Duplicate Analyses.
Surrogate Recovery	The % Recovery for non-environmental compounds (surrogates) spiked into samples to determine the performance of the analytical methods.
Sur. Recovery (ELCD)	Surrogate Recovery on the Electrolytic Conductivity Detector.
Sur. Recovery (PID)	Surrogate Recovery on the Photoionization Detector.
Standard Measured	Amount measured for a laboratory control sample
Standard Amt Added	Known value for a laboratory control sample
Standard % Recovery	% recovered for a laboratory control sample with a known value.
Lab Fort Blank Amt	Laboratory Fortified Blank Amount Added
Lab Fort Blk. Found	Laboratory Fortified Blank Amount Found
Lab Fort Blk % Rec	Laboratory Fortified Blank % Recovered
Dup Lab Fort Bl Amt	Duplicate Laboratory Fortified Blank Amount Added
Dup Lab Fort Bl Fnd	Duplicate Laboratory Fortified Blank Amount Found
Dup Lab Fort Bl % Rec	Duplicate Laboratory Fortified Blank % Recovery
Lab Fort Blank Range	Laboratory Fortified Blank Range (Absolute value of difference between recoveries for Lab Fortified Blank and Lab Fortified Blank Duplicate).
Lab Fort Bl. Av. Rec.	Laboratory Fortified Blank Average Recovery
Duplicate Sample Amt	Sample Value for Duplicate used with Matrix Spike Duplicate
MSD Amount Added	Matrix Spike Duplicate Amount Added (Spiked)
MSD Amt Measured	Matrix Spike Duplicate Amount Measured
MSD % Recovery	Matrix Spike Duplicate % Recovery
MSD Range	Absolute difference between Matrix Spike and Matrix Spike Duplicate Recoveries



**SAMPLE RECEIPT CHECKLIST**

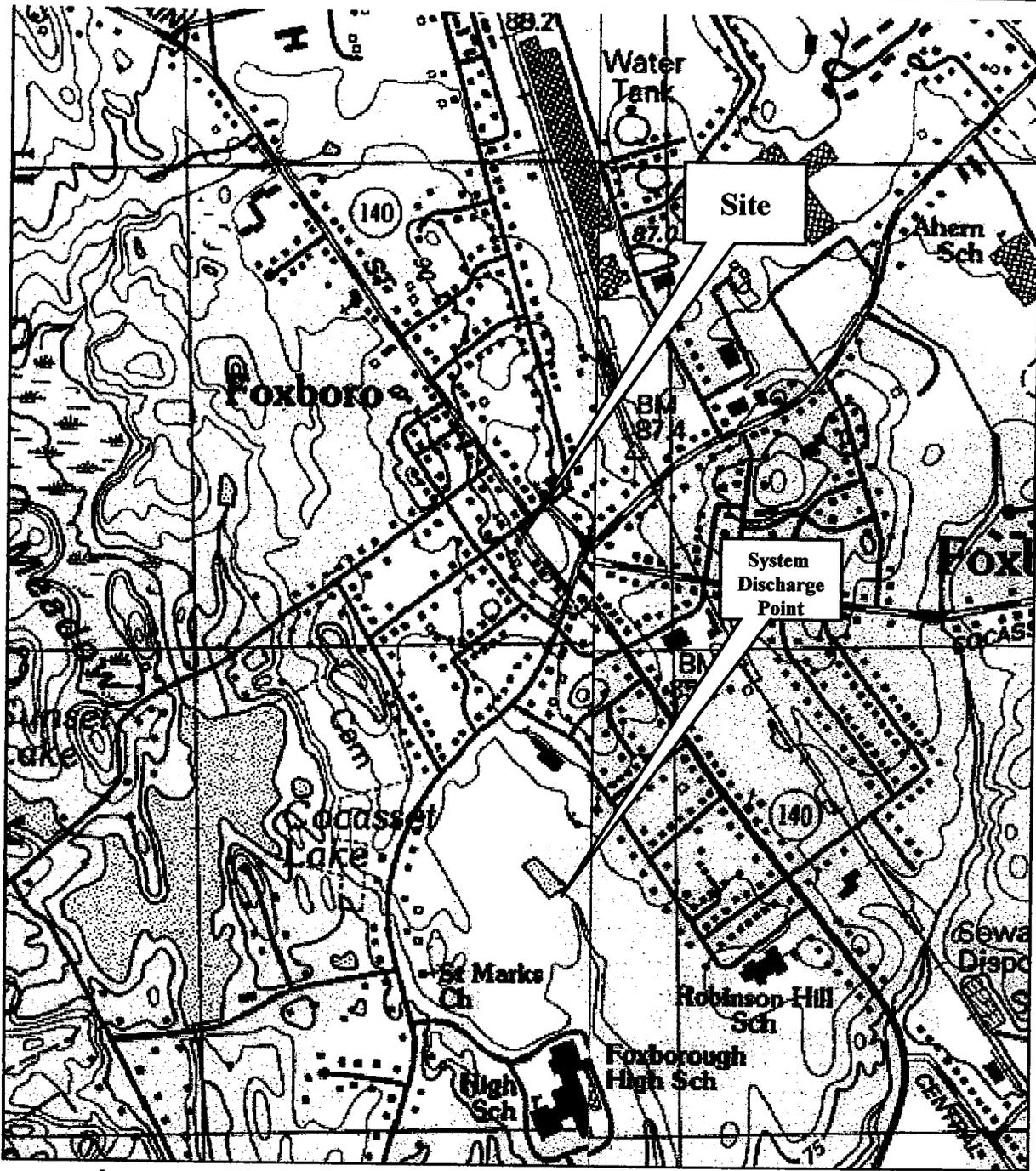
CLIENT NAME CJW

RECIEVED BY KA  
DATE 10/18

				
Was chain of custody relinquished and signed?		<input checked="" type="radio"/> yes	<input type="radio"/> no	
Does Chain agree with samples?		<input checked="" type="radio"/> yes	<input type="radio"/> no	Explain:
All samples in good condition?		<input checked="" type="radio"/> yes	<input type="radio"/> no	Explain:
Were samples received in compliance with tempaure 0-6 degrees C?		<input checked="" type="radio"/> yes	<input type="radio"/> no	6 °C degrees C
Are there any on-hold samples?		<input checked="" type="radio"/> yes	<input type="radio"/> no	
Laboratory analysts notified?	n/a	<input checked="" type="radio"/> yes	<input type="radio"/> no	Who: <u>MAB.</u> Time: <u>17:45</u> Initials: <u>KA</u>
Location where samples are stored:				

CONTAINERS RECEIVED AT CON-TEST	# of containers			COMMENTS
1 liter amber	8			
500 ml amber	2			
250 ml amber (8oz amber)				
1 liter plastic	2			
500 ml plastic	2			
250 ml plastic	2			
40 ml vial	2			
colisure bottle				
flashpoint bottle				
dissolved oxygen bottle				
1 liter clear jar				
8 oz clear jar				
4 oz clear jar				
2 oz clear jar				
plastic bag				
air cassette				
encore sample				
brass sleeves				
tubes				
summa cans				
other				

Laboratory Comments:



0 1/2 1 MILE  
 0 1000 FEET 0 500m 1000m

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**CUSHING, JAMMALO  
 & WHEELER, INC.**

**LOCUS MAP**  
 Foxborough Fire Station  
 40 School Street  
 Foxborough, Massachusetts



**FIGURE 1**

PD-1  
REGENERATIVE BLOWER  
80 SCFM AT 13 in Hg

P-1  
DISCHARGE PUMP  
7.5 GPM  
Inlet 15 in Hg vacuum  
Discharge 25 psi

P-2  
TRANSFER PUMP  
7.5 GPM 70' TDH

OIL/WATER SEPARATOR  
COALESCING PLATE TYPE  
15 GPM

LS-1  
LEVEL SWITCH

PS-1  
PRESSURE SWITCH

FT-1  
FLOWMETER/  
TOTALIZER

F  
In-Line  
Duplex Filter

SP-2  
SAMPLING PORTS

T-1  
HOLDING TANK  
STEEL PRESSURE VESSEL  
100 PSI WP

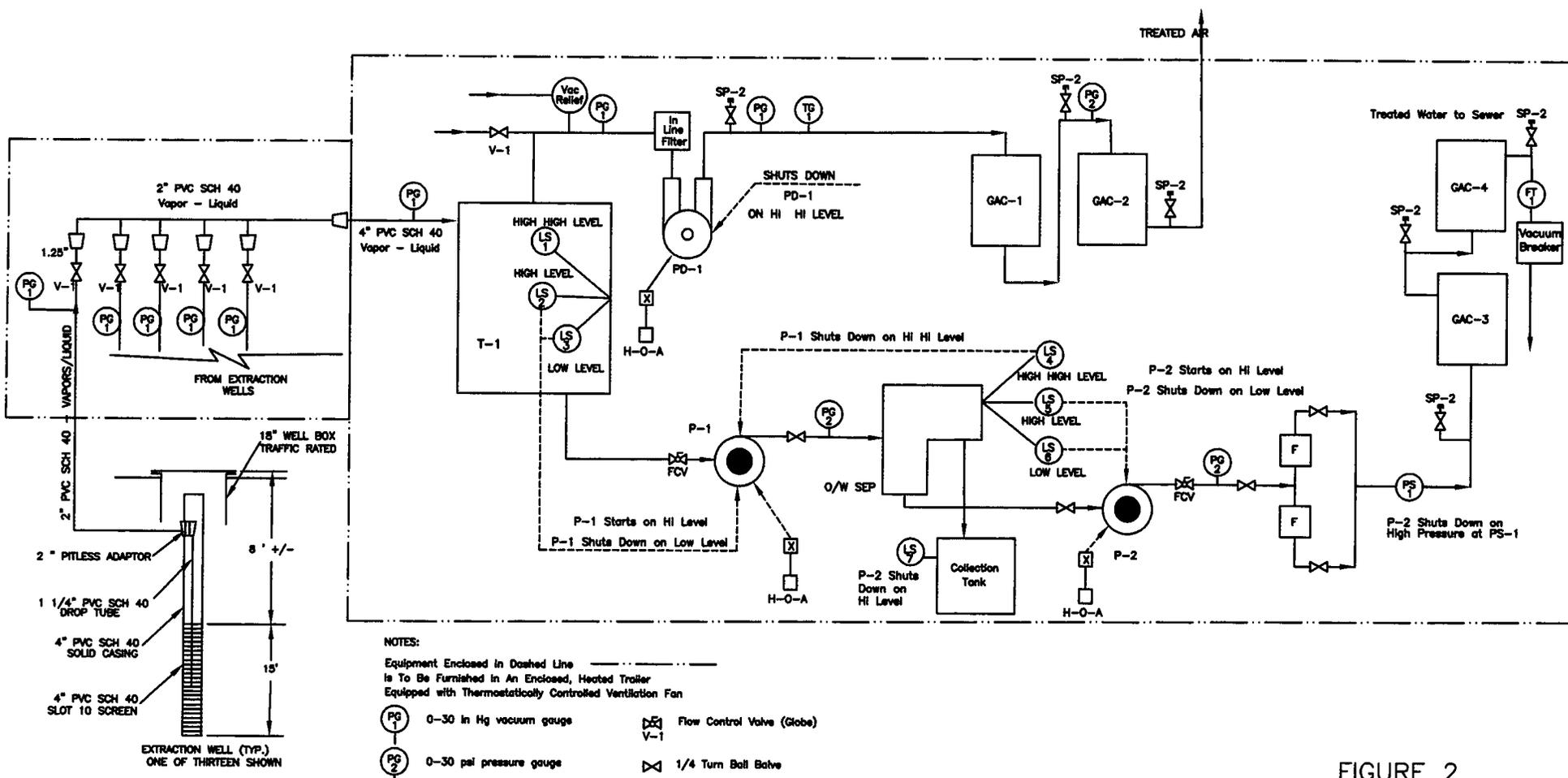
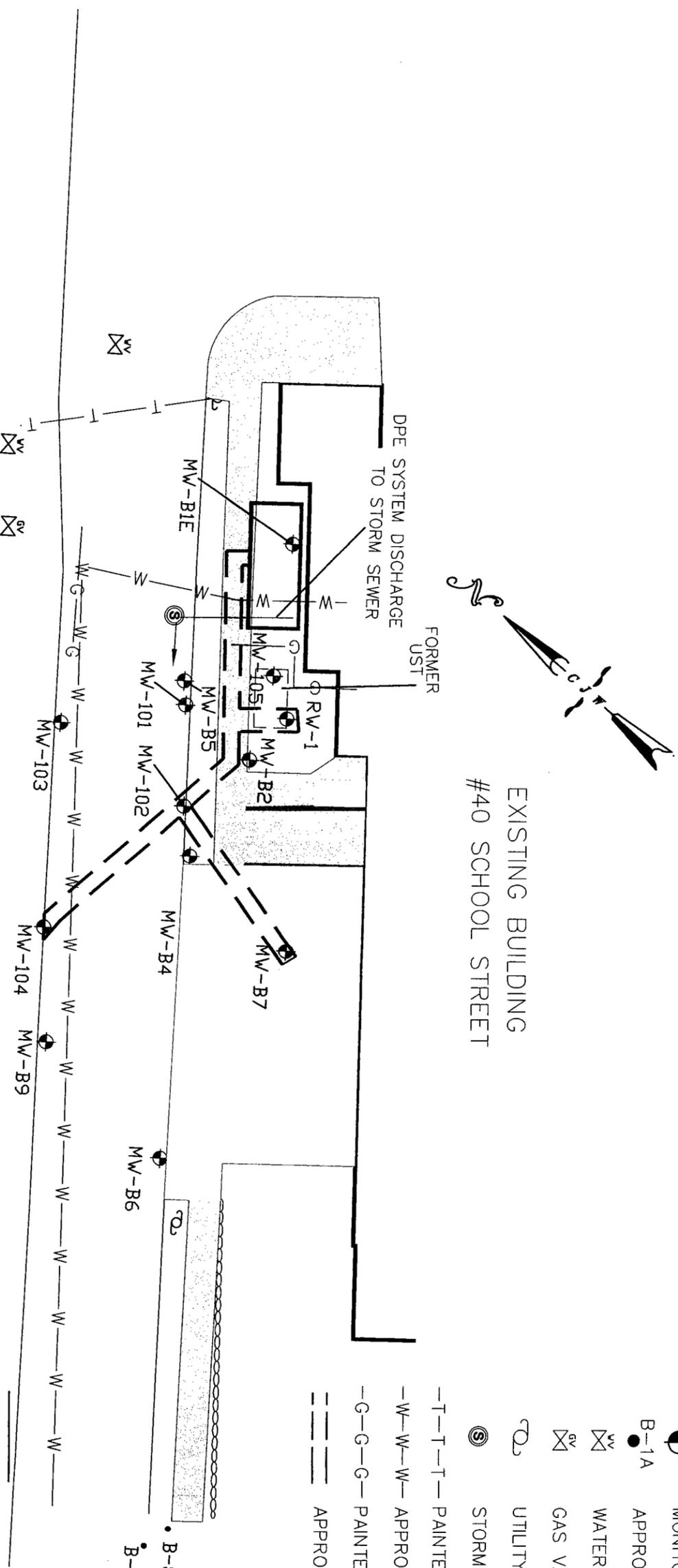


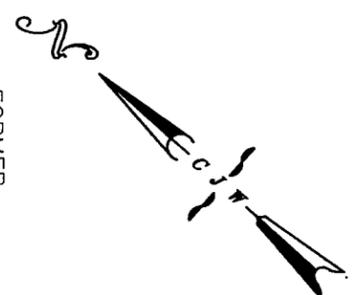
FIGURE 2  
 PIPING AND INSTRUMENTATION  
 DIAGRAM  
 FOXBOROUGH FIRE DEPARTMENT  
 FOXBOROUGH, MASS.  
 SCALE: NONE July 2005  
 CUSHING, JAMMALO & WHEELER, INC.  
 180 Stone Street, Clinton, Mass, 01510  
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**LEGEND**

- MW-1  MONITORING WELL
- B-1A  APPROX BORING
-  WATER VALVE
-  GAS VALVE
-  UTILITY POLE
-  STORM SEWER MANHOLE
- T-T-T- PAINTED UNDERGROUND TELEPHONE LINE
- W-W-W- APPROX UNDERGROUND WATER LINE
- G-G-G- PAINTED UNDERGROUND GAS LINE
- ==== APPROX LAYOUT OF UTILITY TRENCHES



EXISTING BUILDING  
#40 SCHOOL STREET



MONITORING WELL #	TOP OF PVC EL.
MW-101	198.45
MW-102	197.88
MW-103	197.98
MW-104	196.54
MW-105	199.38
RW-1	199.61
MW-B1E	200.73
MW-B2	198.97
MW-B4	197.65
MW-B5	198.62
MW-B6	195.17
MW-B7	197.48
MW-B9	195.86

ELEVATIONS ARE BASED UPON AN ASSUMED DATUM.

**CUSHING,  
JAMMALO &  
WHEELER INC.**

**Remedial System Layout**

40 School Street  
Foxborough, Massachusetts

FIGURE 3

SIZE

October 2005

SCALE As Shown

SHEET

