URS

MAG910188

January 18, 2006

U.S. Environmental Protection Agency
RGP-NOI Processing
Municipal Assistance Unit
1 Congress Street, Suite 1100
Boston, Massachusetts 02114-2023

JAN 19 2006

RE: Remediation General Permit – Notice of Intent
ConocoPhillips Company
Former Circle K Store #2702512
1234 Belmont Street
Brockton, Massachusetts
NPDES Exclusion Number: MA 03I-066
RTN 4-0192

To Whom It May Concern:

On behalf of ConocoPhillips Company (COP), URS Corporation (URS) is submitting the attached Remediation General Permit (RGP) – Notice of Intent (NOI) for the above referenced location hereinafter the "Site". The completed RGP – NOI application form is provided in **Appendix A**. This RGP – NOI pertains to a Category I – Petroleum Related Site Remediation, Sub-Category A Gasoline Only Site. The Site is former Circle K Facility #2702512, located at 1234 Belmont Street in Brockton, Massachusetts. COP has retained the environmental responsibility for addressing site impacts related to historical operations by Circle K. The location of the Site is illustrated on **Figure 1, Site Locus**.

URS is currently in the process of installing a Dual Phase Vapor Extraction (DVE) system on the Site to remediate petroleum impacts to soil and groundwater. The location of the system, recovery/extraction wells (the sources of intake water contributing flow to the system), monitoring wells and other pertinent Site features, including the proposed effluent discharge location are illustrated in **Figure 2, Site Layout.**

As part of the piping network, each manifold leg will be equipped with a ball valve to adjust airflow rates or isolate the well from the system if necessary. Each DVE leg will have access for monitoring airflow rates, vacuum, and extracted vapor concentrations.

The system will consist of a 10 to 15-horsepower (hp), skid-mounted, positive displacement vacuum extraction blower. A vapor / liquid separator designed to knockout entrained liquids extracted by the system will be installed in-line before the blower. The separator will be equipped with a high-level float control for emergency system shut down should liquid levels exceed the capacity of the separator.

A low-profile air stripper will be installed for the treatment of groundwater recovered during system operations. Before discharge, treated water will pass through a series of 125-pound liquid granular activated carbon (GAC) units, and then exit the system via a discharge line to an off-site catch basin. The vacuum extraction and air stripper units will have safety shutdowns and interlocks for safe operation.

URS Corporation
5 Industrial Way
Salem, NH 03079-2830
Tel: 603.893.0616
Fax: 603.893.6240

Two 1,000-pound vapor-phase GAC units for the treatment of extracted vapor-phase compounds from the extraction blower and two 500-pound vapor-phase GAC vessels for the treatment of off-gas from the air stripper will be located adjacent to the equipment shed. Sample ports will be installed to monitor influent and effluent vapor concentrations from both sets of vapor-phase carbon vessels. The fenced-in area next to the system shed will be modified to contain the vapor-phase GAC units. A process and instrumentation diagram (P&ID) for the system is provided as **Figure 3.**

Three-phase power will be provided by the existing electrical service lines for the new equipment. A three-phase distribution panel and electrical control panel associated with the system will be mounted on the outside of the equipment shed. Normal start-up and shutdown of the DVE system will be performed at the control panel. In the event of an emergency, which requires the immediate shutdown of the remedial system, the electrical service main disconnect switch may be used.

Treated groundwater is discharged into the municipal stormwater system (via a nearby catch basin), whose outlet at Coweeset Brook is depicted on **Figure 4, Discharge Pathway and Receiving Waters Map.** The Coweeset Brook discharges into the Town River and has a 7Q10 value of 2.7 cubic feet per second.

On November 10, 2005, groundwater samples were collected from the most impacted groundwater monitoring well (GEW-02) and submitted to a Massachusetts-certified laboratory and analyzed in accordance with Appendix IV: Minimum *Levels and Test Methods of the Proposed Remediation General Permit Under the National Pollutant Discharge Elimination System (NPDES) for Discharges in Massachusetts*. The samples were analyzed to address the Massachusetts RGP requirements. The results of the analyses are summarized in the RGP-NOI form provided in **Appendix A.** A copy of the laboratory analytical report is provided in **Appendix B.**

Based on the results of the analysis, the following volatile organic compounds (VOCs) or groups of VOCs were identified in the groundwater sample: acetone, benzene, toluene, ethylbenzene, xylenes (BTEX), methyl tertiary-butyl ether (MTBE), tertiary-butyl alcohol (TBA), tertiary-amyl methyl ether (TAME), naphthalene, total phenols, and total phthalates. The following metals were also detected: cadmium, trivalent chromium (chromium III), copper, lead, nickel, silver, zinc and iron.

Five of the nine metals detected, including cadmium, copper, lead, zinc, and iron were reported at concentrations exceeding the applicable Effluent Limitations published in Appendix III of the *Proposed Remediation General Permit Under the National Pollutant Discharge Elimination System (NPDES) for Discharges in Massachusetts.* Therefore, in accordance with Section 2 of Appendix V, a dilution factor for the detected metals was calculated as follows:

$$\mathbf{DF = (Qd + Qs)/Qd}$$

Where: DF = Dilution Factor

Qd = Maximum flow rate of the discharge in cubic feet per second (cfs) (1.0 gpm = .00223 cfs)

Qs = Receiving water 7Q10 flow (cfs) where,

7Q10 = The minimum flow (cfs) for 7 consecutive days with a recurrence interval of 10 years

Using a maximum design flow rate of approximately 50 gpm or 0.1115 cfs and a 7Q10 value of 2.7 cfs obtained from the MADEP for the Town River, a dilution factor of 25.2 is calculated for the system discharge to the Town River. The metal concentrations detected in the groundwater sample collected on November 10, 2005 are compared to the published discharge limits for the DF range of 10-50, as published in Appendix IV of the *Proposed Remediation General Permit Under the National Pollutant Discharge Elimination System (NPDES) for Discharges in Massachusetts* in **Table 1**. Zinc is below its corresponding discharge limit. However, cadmium, copper, lead, and iron exceed their discharge limits, at concentrations of 3 micrograms per liter (ug/L), 77.6 ug/L, 59 ug/L, and 54,000 ug/L, respectively. With the exception of lead, the detected metals are not related to a release of gasoline or the historical use of the Site as a retail gasoline sales facility. The groundwater monitoring well selected for sampling (GEW02) represents the most impacted monitoring well on-site. However, the remedial system will also extract groundwater from other less impacted monitoring wells, thereby reducing the influent lead concentration. During the DVE system startup, effluent samples will be collected and analyzed to evaluate the actual lead concentrations. If lead concentrations remain above the discharge limit treatment, alternatives will be evaluated and implemented in a timely manner.

If you have any questions or comments regarding this RGP-NOI, please do not hesitate to contact the undersigned at (603) 893-0616.

Sincerely,
URS CORPORATION

Daniel Batchelor
Geologist

Thomas P. Woodard, LSP
Principal

Attachments
cc: Ms. Karen Pollack, ConocoPhillips Company, 1400 Park Avenue, Linden, New Jersey 07036
Mr. Andrew Beland, Catamount Management, 90 Everett Avenue, P.O. Box 9151, Chelsea, MA 02150-2337

Remediation General Permit - Notice of Intent.doc

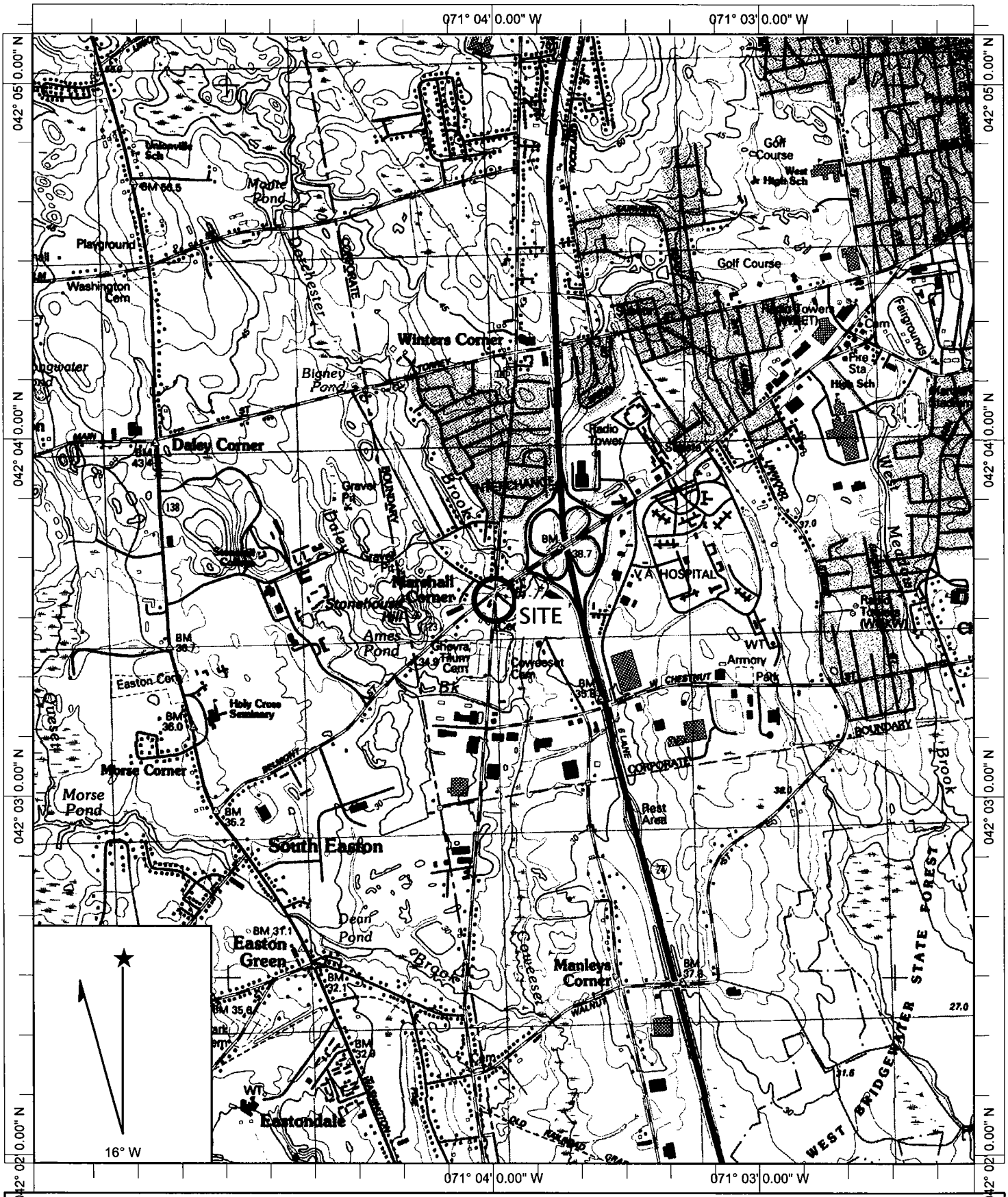
TABLE

Table 1
RGP-NOI Application
Metals Analytical Results Compared to Discharge Concentration Limits For A Dilution Factor Range of 10-50
Former Circle K Store # 2702512
1234 Belmont Street, Brockton, MA

Dilution Range 10-50	Date	Mercury (ug/l)	Iron (ug/l)	Arsenic (ug/l)	Selenium (ug/l)	Antimony (ug/l)	Cadmium (ug/)	Chromium III (ug/l)	Chromium IV (ug/l)	Copper (ug/l)	Lead (ug/l)	Nickel (ug/l)	Silver (ug/l)	Zinc (ug/l)
Discharge Limit		**2.3**	**5000.0**	**100.0**	**50.0**	**60.0**	**2.0**	**489.0**	**114.0**	**52.0**	**13.0**	**290.0**	**12.0**	**666.0**
GEW-02	11/10/05	ND	**54,000**	6	ND	ND	**3**	40	ND	**77.6**	**59.0**	10.0	0.3	300

Notes:
Concentration reported in micrograms per liter (µg/l) or parts per billion
GEW-02 = groundwater monitoring well sample location
ND = Not Detected
Bold = Exceeds Discharge Limit

FIGURES



Name: BROCKTON
Date: 12/19/2003
Scale: 1 inch equals 2000 feet

Location: 042° 03' 33.5" N 071° 03' 57.5" W
Caption: Figure 1: Site Locus
1234 Belmont Street, Brockton, MA
3 meter contours

LEGEND

RING LOCATION
01 – SOIL BORING IDENTIFICATION
POR EXTRACTION WELL
2 – SOIL VAPOR EXTRACTION WELL IDENTIFICATION
ED SOIL VAPOR EXTRACTION WELL
1 – SOIL VAPOR EXTRACTION WELL IDENTIFICATION
RGE WELL LOCATION
01 – AIR SPARGE WELL IDENTIFICATION
ED AIR SPARGE WELL LOCATION
1 – AIR SPARGE WELL IDENTIFICATION
ED MONITORING WELL
08 – MONITORING WELL IDENTIFICATION

01 –WELL IDENTIFICATION
01 –WELL IDENTIFICATION
ION WELL EX. DVE1
TRENCHING
ASIN
NK FENCE

BELMONT STREET (ROUTE 12)

GWW01

(2) 10,00 GALLON US
(3) FORMER US

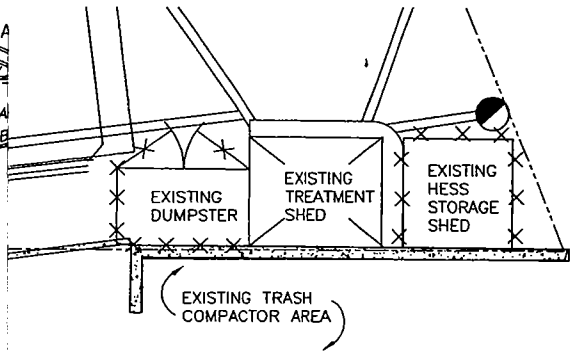
CTB-1

VEW07

CURB
SIGN
LANDSCA
CURB

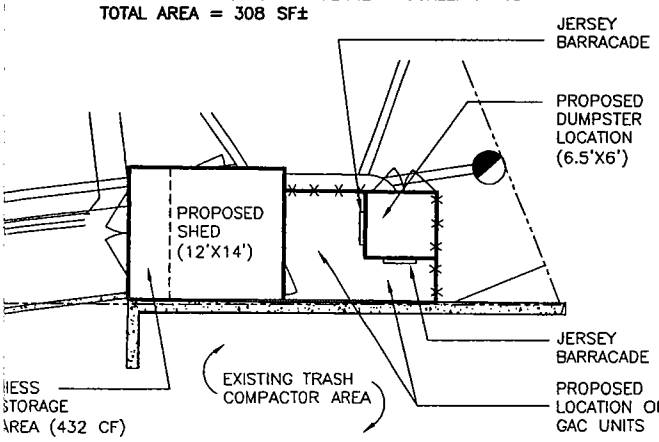
EXISTING CONDITIONS

DUMPSTER & SHED – SCALE: 1"=15'
TOTAL AREA = 396 SF±



NEW TREATMENT SYSTEM

PROPOSED SHED & PAD DETAIL – SCALE: 1"=15'
TOTAL AREA = 308 SF±



SOURCE:
GZA CORPORATE ENVIRONMENTAL ADVISORS, INC. FIGURE TITLED "SITE LAYOUT", DATED 6/18/04. JOB NO. 5291-03-5.

URS Corporation
477 Congress Street, 9th Floor
Portland, ME 04101-3453
Tel: 207.879.7686
Fax: 207.879.7685
www.urscorp.com

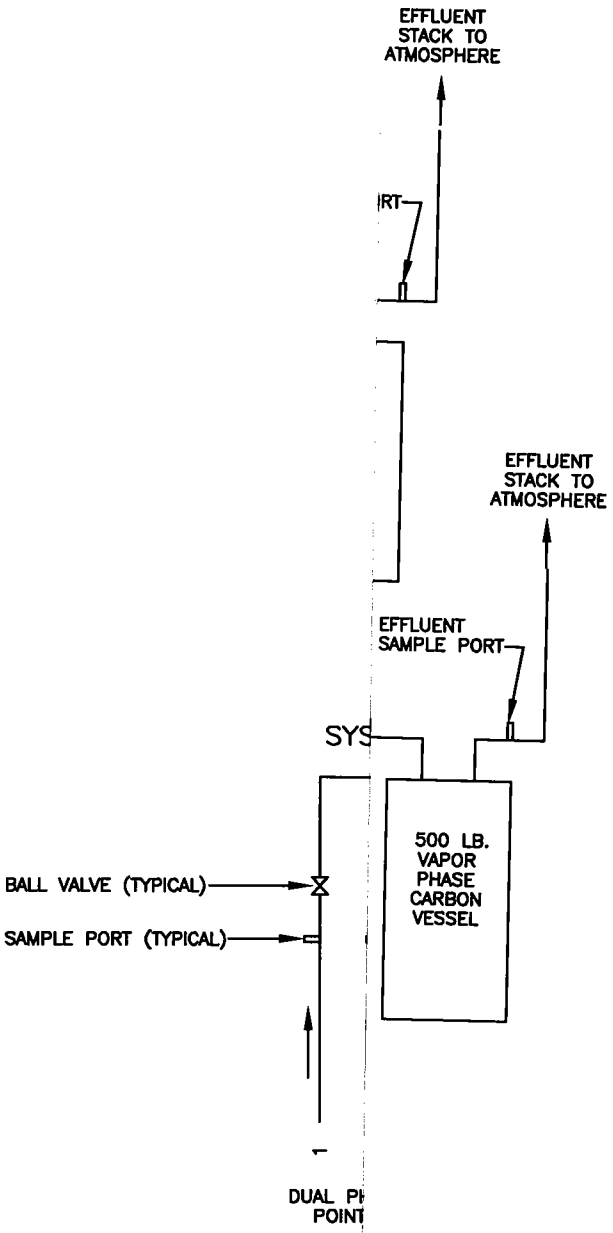
TITLE:

SITE LAYOUT

FIGURE NO:

2

P:\PROJECT\Conoco\Retail\NorthEast\MA Sites\2702512 - Brockton #1\Figures - Maps\5291-B-SIZE.DWG, 8/2/2005 2:08:44 PM



URS

URS Corporation
5 Industrial Way, Salem, NH
Tel: 603-893-0616
Fax: 603-893-6240

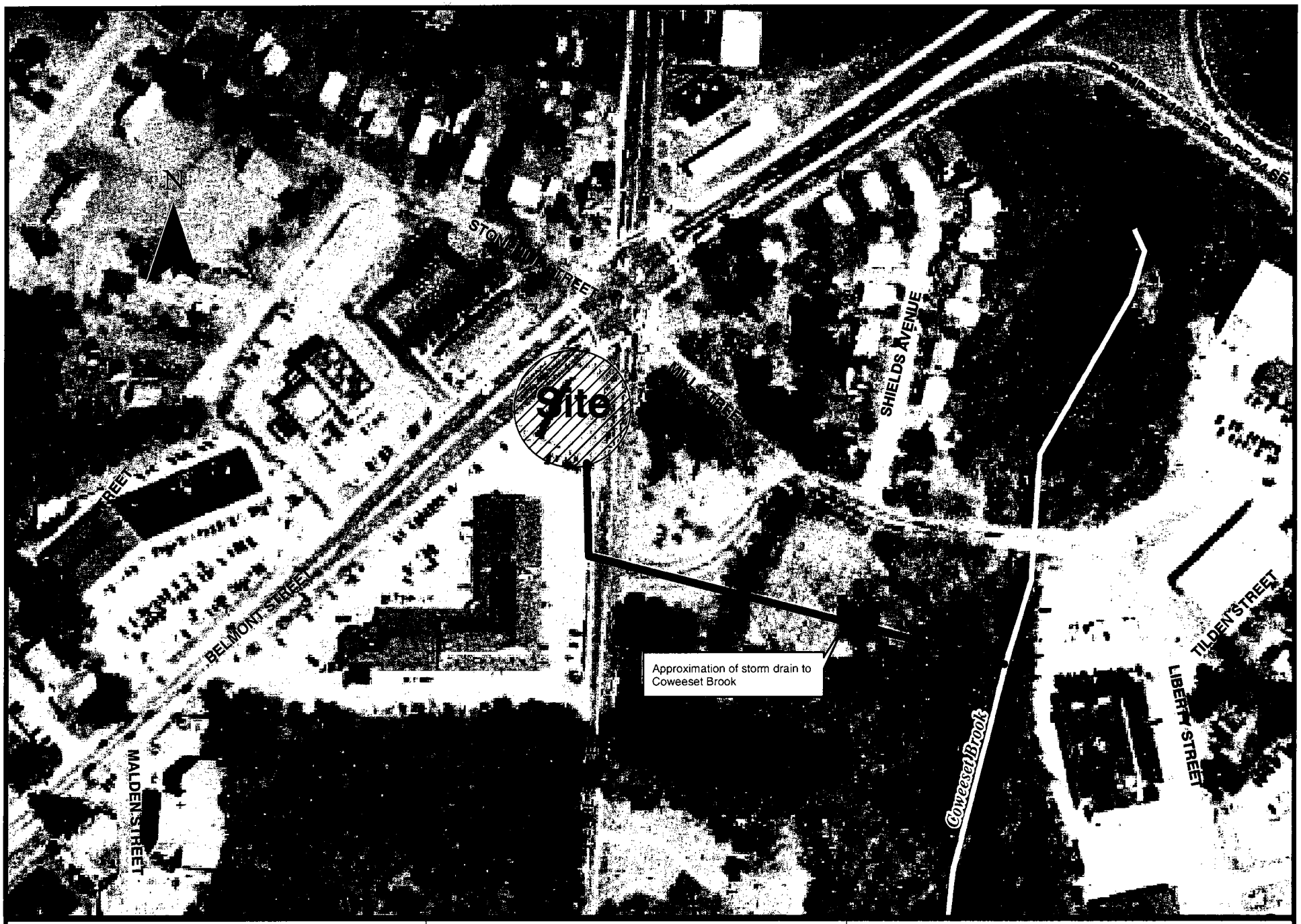
LE: NOT TO SCALE		DR. BY: DB
E: 12/28/05	APP. BY: JU	JOB NO.: 39459710

PROCESS & INSTRUMENTATION DIAGRAM

NOCOPHILLIPS

4 BELMONT STREET BROCKTON, MA.

FIGURE-3



URS	URS Corportation 5 Industrial Way Salem, NH Tel: (603) 893-0616 Fax: (603) 893-6240	**Former Circle K # 2702512** **1234 Belmont Street** **Brockton, Massachusetts**

Figure 4
Discharge Pathway and Receiving Waters Map
December 2005

APPENDIX A

RGP-NOI Application Form

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:

<table>
<tr><td colspan="2">a) Name of facility/site:
Former Circle K Store # 2702512</td><td colspan="4">Facility/site address:</td></tr>
<tr><td>Location of facility/site:
longitude: W 71 latitude: N 42</td><td>Facility SIC code(s):</td><td colspan="4">Street:
1234 Belmont Street</td></tr>
<tr><td colspan="2">b) Name of facility/site owner: Dawn Coughlin (Amerada Hess)</td><td colspan="4">Town: Brockton</td></tr>
<tr><td colspan="2" rowspan="2">Email address of owner:
dcoughlin@hess.com
Telephone no.of facility/site owner: (732) 750-7068</td><td>State:
MA</td><td>Zip:
02301</td><td colspan="2">County:</td></tr>
<tr><td colspan="2">Fax no. of facility/site owner: (732) 750-6105
Address of owner (if different from site):</td><td colspan="2">Owner is (check one): 1. Federal____ 2. State/Tribal____
3. Private ✔ 4. other, if so, describe:</td></tr>
<tr><td colspan="6">Street: One Hess Plaza</td></tr>
<tr><td colspan="2">Town: Woodbridge</td><td>State: NJ</td><td>Zip: 07095</td><td colspan="2">County:</td></tr>
<tr><td colspan="2" rowspan="2">c) Legal name of operator:
ConocoPhillips Company</td><td colspan="4">Operator telephone no: (908) 523-6072</td></tr>
<tr><td colspan="2">Operator fax no.: (908) 523-6989</td><td colspan="2">Operator email:
louis.s.mosconi@conocophillips.com</td></tr>
<tr><td colspan="6">Operator contact name and title: Louis S. Mosconi, CPG, Area Manager</td></tr>
</table>

Address of **operator** (if different from owner):	Street: Bayway Office Building, 1400 Park Avenue		
Town: Linden	State: NJ	Zip: 07036	County:

d) Check "yes" or "no" for the following:
1. Has a prior NPDES permit exclusion been granted for the discharge? Yes ✔ No___, if "yes," number: MA 03I-066
2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge? Yes___ No ✔, if "yes," date and tracking #:
3. Is the discharge a "new discharge"as defined by 40 CFR 122.2? Yes No ✔
4. For sites in Massachusetts, is the discharge covered under the MA Contingency Plan (MCP) and exempt from state permitting? Yes ✔ No__

e) Is site/facility subject to any State permitting or other action which is causing the generation of discharge? Yes ✔ No___ If "yes," please list: 1. site identification # assigned by the state of NH or MA: RTN 4-0192 2. permit or license # assigned: 3. state agency contact information: name, location, and telephone number:	f) Is the site/facility covered by any other EPA permit, including: 1. multi-sector storm water general permit? Y___ N ✔, if Y, number: 2. phase I or II construction storm water general permit? Y___ N ✔, if Y, number: 3. individual NPDES permit? Y___ N ✔, if Y, number: 4. any other water quality related permit? Y___ N ✔, if Y, number:

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

a) Describe the discharge activities for which the owner/applicant is seeking coverage:

Recovered groundwater from a dual-phase vapor extraction system is treated through a knock-out tank to remove suspeneded solids, through an oil/water seperator to remove any non-aqueous phase liquid fi present, through an air stripper to remove or decrease volitile organic compounds concentrations, and finally through two 125-lb liquid phase granular activated carbon vessels prior to discharge.

b) Provide the following information about each discharge:	1) Number of discharge points: 1	2) What is the **maximum** and **average flow rate** of discharge (in cubic feet per second, ft^3/s)? Max. flow 0.11 Average flow 0.05 Is maximum flow a **design value**? Y ✔ N___ For average flow, include the units and appropriate notation if this value is a design value or estimate if not available.

3) Latitude and longitude of each discharge within 100 feet: pt.1:long. 71 04 lat. 42 03 ; pt.2: long.____ lat.____; pt.3: long.____ lat.____; pt.4:long.____ lat.____; pt.5: long.____ lat.____; pt.6:long.____ lat.____; pt.7: long.____ lat.____; pt.8:long.____ lat.____; etc.

4) If hydrostatic testing, total volume of the discharge (gals): NA	5) Is the discharge intermittent ✔ or seasonal _____? Is discharge ongoing Yes ✔ No _____?
c) Expected dates of discharge (mm/dd/yy): start 02/01/06 end 02/01/10	
d) Please attach a line drawing or flow schematic showing water flow through the facility including: 1. sources of intake water, 2. contributing flow from the operation, 3. treatment units, and 4. discharge points and receiving waters(s).	

3. Contaminant information. In order to complete this section, the applicant will need to take a minimum of one sample of the untreated water and have it analyzed for **all** of the parameters listed in Appendix III. Historical data, (i.e., data taken no more than 2 years prior to the effective date of the permit) may be used if obtained pursuant to: i. Massachusetts' regulations 310 CMR 40.0000, the Massachusetts Contingency Plan ("Chapter 21E"); ii. New Hampshire's Title 50 RSA 485-A: Water Pollution and Waste Disposal or Title 50 RSA 485-C: Groundwater Protection Act; or iii. an EPA permit exclusion letter issued pursuant to 40 CFR 122.3, provided the data was analyzed with test methods that meet the requirements of this permit. Otherwise, a new sample shall be taken and analyzed.

a) Based on the analysis of the sample(s) of the untreated influent, the applicant must check the box of the sub-categories that the potential discharge falls within.

Gasoline Only ✔	VOC Only	Primarily Metals	Urban Fill Sites	Contaminated Sumps	Mixed Contaminants	Aquifer Testing
Fuel Oils (and Other Oils) only	VOC with Other Contaminants	Petroleum with Other Contaminants	Listed Contaminated Sites	Contaminated Dredge Condensates	Hydrostatic Testing of Pipelines/Tanks	Well Development or Rehabilitation

b) Based on the analysis of the untreated influent, the applicant must indicate whether each listed chemical is **believed present** or **believed absent** in the potential discharge. Attach additional sheets as needed.

PARAMETER	**Believe Absent**	**Believe Present**	**# of Samples (1 min-imum)**	**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		✔	1	Grab	160.2	5000	14000			
2. Total Residual Chlorine	✔		1	Grab	330.1	20	ND			
3. Total Petroleum Hydrocarbons		✔	1	Grab	1664A	5000	6940			
4. Cyanide	✔		1	Grab	335.2	10	9			
5. Benzene		✔	1	Grab	624	2	130			
6. Toluene		✔	1	Grab	624	2	1500			
7. Ethylbenzene		✔	1	Grab	624	2	1400			
8. (m,p,o) Xylenes		✔	1	Grab	624	10	6500			
9. Total BTEX[4]		✔	1	Grab	624	2				

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

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method ug/L	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	504.1	0.01	ND			
11. Methyl-tert-Butyl Ether (MtBE)		✔	1	Grab	624	1	ND			
12. tert-Butyl Alcohol (TBA)		✔	1	Grab	624	20	ND			
13. tert-Amyl Methyl Ether (TAME)		✔	1	Grab	624	1	ND			
14. Naphthalene		✔	1	Grab	8270	2.2	ND			
15. Carbon Tetra-chloride	✔		1	Grab	624	2	ND			
16. 1,4 Dichlorobenzene	✔		1	Grab	624	2	ND			
17. 1,2 Dichlorobenzene	✔		1	Grab	624	2	ND			
18. 1,3 Dichlorobenzene	✔		1	Grab	624	2	ND			
19. 1,1 Dichloroethane	✔		1	Grab	624	1	ND			
20. 1,2 Dichloroethane	✔		1	Grab	624	2	ND			
21. 1,1 Dichloroethylene	✔		1	Grab	624	2	ND			
22. cis-1,2 Dichloro-ethylene	✔		1	Grab	624	2	ND			
23. Dichloromethane (Methylene Chloride)	✔		1	Grab	624	2	ND			
24. Tetrachloroethylene	✔		1	Grab	624	2	ND			

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method ug/L	Maximum daily value		Avg. daily Value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
25. 1,1,1 Trichloroethane	✔		1	Grab	624	2	ND			
26. 1,1,2 Trichloroethane	✔		1	Grab	624	2	ND			
27. Trichloroethylene	✔		1	Grab	624	2	ND			
28. Vinyl Chloride	✔		1	Grab	624	2	ND			
29. Acetone	✔		1	Grab	624	50	ND			
30. 1,4 Dioxane	✔		1	Grab	624	50	ND			
31. Total Phenols	✔		1	Grab	420.1		150			
32. Pentachlorophenol	✔		1	Grab	8270	7.5	ND			
33. Total Phthalates [5] (Phthalate esthers)		✔	1	Grab	8270	5	ND			
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	✔		1	Grab	8270	2.2	ND			
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)										
a. Benzo(a) Anthracene	✔		1	Grab	8270	2.2	ND			
b. Benzo(a) Pyrene	✔		1	Grab	8270	2.2	ND			
c. Benzo(b)Fluoranthene	✔		1	Grab	8270	2.2	ND			
d. Benzo(k) Fluoranthene	✔		1	Grab	8270	2.2	ND			
e. Chrysene	✔		1	Grab	8270	2.2	ND			

[5] The sum of individual phthalate compounds.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method ug/L	Maximum daily value		Average daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
f. Dibenzo(a,h) anthracene	✔		1	Grab	8270	2.2	ND			
g. Indeno(1,2,3-cd) Pyrene	✔		1	Grab	8270	2.2	ND			
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)			1	Grab	8270	2.2	ND			
h. Acenaphthene	✔		1	Grab	8270	2.2	ND			
i. Acenaphthylene	✔		1	Grab	8270	2.2	ND			
j. Anthracene	✔		1	Grab	8270	2.2	ND			
k. Benzo(ghi) Perylene	✔		1	Grab	8270	2.2	ND			
l. Fluoranthene	✔		1	Grab	8270	2.2	ND			
m. Fluorene	✔		1	Grab	8270	2.2	ND			
n. Naphthalene-		✔	1	Grab	8270	2.2	220			
o. Phenanthrene	✔		1	Grab	8270	2.2	ND			
p. Pyrene	✔		1	Grab	8270	2.2	ND			
37. Total Polychlorinated Biphenyls (PCBs)	✔		1	Grab	608	5	ND			
38. Antimony	✔		1	Grab	200.9	50	ND			
39. Arsenic		✔	1	Grab	200.9	5	6			
40. Cadmium		✔	1	Grab	213.2	5	2.9			
41. Chromium III		✔	1	Grab	200.7	10	40			
42. Chromium VI	✔		1	Grab	3500	10	ND			

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
43. Copper		✔	1	Grab	200.7	5	77.6			
44. Lead		✔	1	Grab	200.9	40	59			
45. Mercury	✔		1	Grab	245.2	2	ND			
46. Nickel		✔	1	Grab	200.7	10	10			
47. Selenium	✔		1	Grab	200.7	50	ND			
48. Silver		✔	1	Grab	272.2	10	0.3			
49. Zinc		✔	1	Grab	200.7	10	300			
50. Iron		✔	1	Grab	200.7		54000			
Other (describe):										

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

Step 1: Do any of the metals in the influent have a **reasonable potential** to exceed the effluent limits in Appendix III (i.e., the limits set at zero to five dilutions)? Y ✔ N____	If yes, which metals? Cadmium, Copper, Lead, Iron, Zinc
Step 2: 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: Cadmium, Copper, Lead, Iron, Zinc DF: 25.2	Look up the limit calculated at the corresponding dilution factor in **Appendix IV.** Do any of the metals in the **influent** have the potential to exceed the corresponding **effluent** limits in Appendix IV (i.e., is the influent concentration above the limit set at the calculated dilution factor)? Y ✔ N____ If "Yes," list which metals: Cadmium, Copper, Lead, Iron

4. Treatment system information. Please describe the treatment system using separate sheets as necessary, including:

a) A description of the treatment system, including a schematic of the proposed or existing treatment system:

The treatment system is discribed in full within the letter accompanying this RGP-NOI. A process and insturmentaitons diagram is attached as Figure 3.

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 25 Maximum flow rate of treatment system 50 Design flow rate of treatment system 20

d) A description of chemical additives being used or planned to be used (attach MSDS sheets):

NA

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

a) Identify the discharge pathway:	Direct____	Within facility__	Storm drain ✔	River/brook____	Wetlands____	Other (describe):

b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters:

Treated groundwater will be discharged to a strom drain located on Pearl Street adjacent to the Site. The storm drain discharges into the Coweeset Brook as indicated on Figure 4.

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 None,

e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water 2.7 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? Yes No✔
What were the results of the consultation with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service (~~check~~ one):
a "no jeopardy" opinion? _____or written concurrence____ on a finding that the discharges are not likely to adversely affect any endangered species or critical habitat?

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

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: Former Circle K Facility # 2702512

Operator signature: Louis S. Thom

Title: Area Manager

Date: 6/18/06

APPENDIX B

Laboratory Analytical Report

ALPHA ANALYTICAL LABORATORIES

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

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

CERTIFICATE OF ANALYSIS

Client: URS Corporation

Address: 5 Industrial Way
Salem, NH 03079

Attn: Mr. Dan Batchelor

Project Number:

Site: COP BROCKTON

Laboratory Job Number: L0513737

Date Received: 10-NOV-2005

Date Reported: 17-NOV-2005

Delivery Method: Alpha

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0513737-01	GEW-02	BROCKTON, MA

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

Authorized by:
Technical Director

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0513737

Volatile Organics

L0513737-01 has elevated limits of detection due to the 50x dilutions required by the elevated concentrations of target compounds in the sample.

Semi-Volatile Organics

L0513737-01 has elevated limits of detection due to the 5x dilutions required by the elevated concentrations of target compounds in the sample.

The WG220893 MS has a low % recovery for 2,4-Dinitrophenol and a high % recovery for 2,4-Dinitrotoluene.

The WG220893 MSD has a low % recovery for 2,4-Dinitrophenol.

PAH-LOW

L0513737-01 has elevated limits of detection due to the 20x dilutions required by the elevated concentrations of target compounds in the sample.

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: L0513737-01
GEW-02
Sample Matrix: WATER

Date Collected: 10-NOV-2005 12:20
Date Received : 10-NOV-2005
Date Reported : 17-NOV-2005

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 10-Amber,4-Plastic,4-Vial

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Solids, Total Suspended	14.	mg/l	5.0	4	160.2		1116 07:00	DT
Cyanide, Total	0.009	mg/l	0.005	4	335.2	1114 10:00	1116 16:44	DD
Chlorine, Total Residual	ND	mg/l	0.05	4	330.1		1110 23:00	DP
TPH	6.94	mg/l	4.00	74	1664A			AT
Phenolics, Total	0.15	mg/l	0.03	4	420.1		1116 12:00	AT
Chromium, Hexavalent	ND	mg/l	0.02	30	3500CR-D	1110 22:00	1110 22:00	JT
Total Metals				19	200.7			
Antimony, Total	ND	mg/l	0.002	3	200.9	1111 17:00	1114 19:34	PY
Arsenic, Total	0.006	mg/l	0.005	19	200.7	1111 17:00	1115 10:23	RW
Cadmium, Total	0.0029	mg/l	0.0005	4	213.2	1111 17:00	1115 19:12	PY
Chromium, Total	0.04	mg/l	0.01	19	200.7	1111 17:00	1115 08:34	MG
Copper, Total	0.0776	mg/l	0.0025	19	200.7	1111 17:00	1115 08:34	MG
Iron, Total	54.	mg/l	0.05	19	200.7	1111 17:00	1115 08:34	MG
Lead, Total	0.059	mg/l	0.005	3	200.9	1111 17:00	1114 15:22	PY
Mercury, Total	ND	mg/l	0.0002	4	245.2	1115 19:45	1116 11:11	HG
Nickel, Total	0.010	mg/l	0.010	19	200.7	1111 17:00	1115 08:34	MG
Selenium, Total	ND	mg/l	0.005	19	200.7	1111 17:00	1115 08:34	MG
Silver, Total	0.0003	mg/l	0.0002	4	272.2	1111 17:00	1115 16:19	PY
Zinc, Total	0.30	mg/l	0.02	19	200.7	1111 17:00	1115 08:34	MG
Pesticides by GC 504				14	504.1	1115 14:00	1115 17:45	JB
1,2-Dibromoethane	ND	ug/l	0.019					
Volatile Organics by GC/MS 624				5	624		1117 08:16	MM
Methylene chloride	ND	ug/l	250					
1,1-Dichloroethane	ND	ug/l	75.					
Chloroform	ND	ug/l	75.					
Carbon tetrachloride	ND	ug/l	50.					
1,2-Dichloropropane	ND	ug/l	180					
Dibromochloromethane	ND	ug/l	50.					
1,1,2-Trichloroethane	ND	ug/l	75.					
2-Chloroethylvinyl ether	ND	ug/l	500					

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0513737-01
GEW-02

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by GC/MS 624 cont'd				5 624		1117 08:16 MM	
Tetrachloroethene	ND	ug/l	75.				
Chlorobenzene	ND	ug/l	180				
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	130	ug/l	50.				
Toluene	1500	ug/l	50.				
Ethylbenzene	1400	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	5000	ug/l	100				
o-xylene	1500	ug/l	50.				
Xylene (Total)	6500	ug/l	100				
Styrene	ND	ug/l	50.				
Acetone	ND	ug/l	500				
Carbon disulfide	ND	ug/l	250				
2-Butanone	ND	ug/l	500				
Vinyl acetate	ND	ug/l	1000				
4-Methyl-2-pentanone	ND	ug/l	500				
2-Hexanone	ND	ug/l	500				
Acrolein	ND	ug/l	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	100.	%	80-120				
Fluorobenzene	100.	%	80-120				
4-Bromofluorobenzene	103.	%	80-120				
SVOC's by GC/MS 8270				1 8270C	1115 17:00	1116 16:00 RL	
Acenaphthene	ND	ug/l	25.				
Benzidine	ND	ug/l	250				

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0513737-01
GEW-02

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
SVOC's by GC/MS 8270 cont'd				1 8270C	1115 17:00	1116 16:00	RL
1,2,4-Trichlorobenzene	ND	ug/l	25.				
Hexachlorobenzene	ND	ug/l	25.				
Bis(2-chloroethyl)ether	ND	ug/l	25.				
1-Chloronaphthalene	ND	ug/l	25.				
2-Chloronaphthalene	ND	ug/l	30.				
1,2-Dichlorobenzene	ND	ug/l	25.				
1,3-Dichlorobenzene	ND	ug/l	25.				
1,4-Dichlorobenzene	ND	ug/l	25.				
3,3'-Dichlorobenzidine	ND	ug/l	250				
2,4-Dinitrotoluene	ND	ug/l	30.				
2,6-Dinitrotoluene	ND	ug/l	25.				
Azobenzene	ND	ug/l	25.				
Fluoranthene	ND	ug/l	25.				
4-Chlorophenyl phenyl ether	ND	ug/l	25.				
4-Bromophenyl phenyl ether	ND	ug/l	25.				
Bis(2-chloroisopropyl)ether	ND	ug/l	25.				
Bis(2-chloroethoxy)methane	ND	ug/l	25.				
Hexachlorobutadiene	ND	ug/l	50.				
Hexachlorocyclopentadiene	ND	ug/l	50.				
Hexachloroethane	ND	ug/l	25.				
Isophorone	ND	ug/l	25.				
Naphthalene	220	ug/l	25.				
Nitrobenzene	ND	ug/l	25.				
NDPA/DPA	ND	ug/l	75.				
n-Nitrosodi-n-propylamine	ND	ug/l	25.				
Bis(2-ethylhexyl)phthalate	ND	ug/l	50.				
Butyl benzyl phthalate	ND	ug/l	25.				
Di-n-butylphthalate	ND	ug/l	25.				
Di-n-octylphthalate	ND	ug/l	25.				
Diethyl phthalate	ND	ug/l	25.				
Dimethyl phthalate	ND	ug/l	25.				
Benzo(a)anthracene	ND	ug/l	25.				
Benzo(a)pyrene	ND	ug/l	25.				
Benzo(b)fluoranthene	ND	ug/l	25.				
Benzo(k)fluoranthene	ND	ug/l	25.				
Chrysene	ND	ug/l	25.				
Acenaphthylene	ND	ug/l	25.				
Anthracene	ND	ug/l	25.				
Benzo(ghi)perylene	ND	ug/l	25.				
Fluorene	ND	ug/l	25.				
Phenanthrene	ND	ug/l	25.				
Dibenzo(a,h)anthracene	ND	ug/l	25.				
Indeno(1,2,3-cd)pyrene	ND	ug/l	35.				
Pyrene	ND	ug/l	25.				
Benzo(e)pyrene	ND	ug/l	25.				
Biphenyl	ND	ug/l	25.				
Perylene	ND	ug/l	25.				
Aniline	ND	ug/l	50.				
4-Chloroaniline	ND	ug/l	25.				

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0513737-01
GEW-02

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
SVOC's by GC/MS 8270 cont'd				1 8270C	1115 17:00	1116 16:00	RL
1-Methylnaphthalene	44.	ug/l	25.				
2-Nitroaniline	ND	ug/l	25.				
3-Nitroaniline	ND	ug/l	25.				
4-Nitroaniline	ND	ug/l	35.				
Dibenzofuran	ND	ug/l	25.				
a,a-Dimethylphenethylamine	ND	ug/l	250				
Hexachloropropene	ND	ug/l	50.				
Nitrosodi-n-butylamine	ND	ug/l	50.				
2-Methylnaphthalene	58.	ug/l	25.				
1,2,4,5-Tetrachlorobenzene	ND	ug/l	100				
Pentachlorobenzene	ND	ug/l	100				
a-Naphthylamine	ND	ug/l	100				
b-Naphthylamine	ND	ug/l	100				
Phenacetin	ND	ug/l	50.				
Dimethoate	ND	ug/l	100				
4-Aminobiphenyl	ND	ug/l	50.				
Pentachloronitrobenzene	ND	ug/l	50.				
Isodrin	ND	ug/l	50.				
p-Dimethylaminoazobenzene	ND	ug/l	50.				
Chlorobenzilate	ND	ug/l	100				
3-Methylcholanthrene	ND	ug/l	100				
Ethyl Methanesulfonate	ND	ug/l	75.				
Acetophenone	ND	ug/l	100				
Nitrosodipiperidine	ND	ug/l	100				
7,12-Dimethylbenz(a)anthracene	ND	ug/l	50.				
n-Nitrosodimethylamine	ND	ug/l	250				
2,4,6-Trichlorophenol	ND	ug/l	25.				
p-Chloro-m-cresol	ND	ug/l	25.				
2-Chlorophenol	ND	ug/l	30.				
2,4-Dichlorophenol	ND	ug/l	50.				
2,4-Dimethylphenol	ND	ug/l	50.				
2-Nitrophenol	ND	ug/l	100				
4-Nitrophenol	ND	ug/l	50.				
2,4-Dinitrophenol	ND	ug/l	100				
4,6-Dinitro-o-cresol	ND	ug/l	100				
Pentachlorophenol	ND	ug/l	100				
Phenol	ND	ug/l	35.				
2-Methylphenol	ND	ug/l	30.				
3-Methylphenol/4-Methylphenol	ND	ug/l	30.				
2,4,5-Trichlorophenol	ND	ug/l	25.				
2,6-Dichlorophenol	ND	ug/l	50.				
Benzoic Acid	ND	ug/l	250				
Benzyl Alcohol	ND	ug/l	50.				
Carbazole	ND	ug/l	25.				
Pyridine	ND	ug/l	250				
2-Picoline	ND	ug/l	100				
Pronamide	ND	ug/l	100				
Methyl methanesulfonate	ND	ug/l	100				

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0513737-01
GEW-02

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
SVOC's by GC/MS 8270 cont'd				1 8270C	1115 17:00	1116 16:00	RL
Surrogate(s)	Recovery		QC Criteria				
2-Fluorophenol	41.0	%	21-120				
Phenol-d6	34.0	%	10-120				
Nitrobenzene-d5	71.0	%	23-120				
2-Fluorobiphenyl	63.0	%	43-120				
2,4,6-Tribromophenol	69.0	%	10-120				
4-Terphenyl-d14	77.0	%	33-120				
PAH by GC/MS SIM 8270M				1 8270C-M	1115 17:00	1116 16:56	RL
Acenaphthene	ND	ug/l	4.0				
2-Chloronaphthalene	ND	ug/l	4.0				
Fluoranthene	ND	ug/l	4.0				
Hexachlorobutadiene	ND	ug/l	10.				
Naphthalene	220	ug/l	4.0				
Benzo(a)anthracene	ND	ug/l	4.0				
Benzo(a)pyrene	ND	ug/l	4.0				
Benzo(b)fluoranthene	ND	ug/l	4.0				
Benzo(k)fluoranthene	ND	ug/l	4.0				
Chrysene	ND	ug/l	4.0				
Acenaphthylene	ND	ug/l	4.0				
Anthracene	ND	ug/l	4.0				
Benzo(ghi)perylene	ND	ug/l	4.0				
Fluorene	ND	ug/l	4.0				
Phenanthrene	ND	ug/l	4.0				
Dibenzo(a,h)anthracene	ND	ug/l	4.0				
Indeno(1,2,3-cd)Pyrene	ND	ug/l	4.0				
Pyrene	ND	ug/l	4.0				
1-Methylnaphthalene	46.	ug/l	4.0				
2-Methylnaphthalene	71.	ug/l	4.0				
Pentachlorophenol	ND	ug/l	16.				
Hexachlorobenzene	ND	ug/l	16.				
Perylene	ND	ug/l	4.0				
Biphenyl	ND	ug/l	4.0				
2,6-Dimethylnaphthalene	ND	ug/l	4.0				
1-Methylphenanthrene	ND	ug/l	4.0				
Benzo(e)Pyrene	ND	ug/l	4.0				
Hexachloroethane	ND	ug/l	16.				
Surrogate(s)	Recovery		QC Criteria				
2-Fluorophenol	52.0	%	21-120				
Phenol-d6	38.0	%	10-120				
Nitrobenzene-d5	76.0	%	23-120				
2-Fluorobiphenyl	79.0	%	43-120				
2,4,6-Tribromophenol	88.0	%	10-120				
4-Terphenyl-d14	90.0	%	33-120				
Polychlorinated Biphenyls				5 608	1114 17:30	1116 22:24	JB
Aroclor 1221	ND	ug/l	0.260				
Aroclor 1232	ND	ug/l	0.260				

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0513737-01
GEW-02

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Polychlorinated Biphenyls cont'd				5 608	1114 17:30	1116 22:24	JB
Aroclor 1242/1016	ND	ug/l	0.260				
Aroclor 1248	ND	ug/l	0.260				
Aroclor 1254	ND	ug/l	0.260				
Aroclor 1260	ND	ug/l	0.260				
Surrogate(s)	Recovery		QC Criteria				
2,4,5,6-Tetrachloro-m-xylene	69.0	%	30-150				
Decachlorobiphenyl	53.0	%	30-150				

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0513737

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total Suspended for sample(s) 01 (L0513587-01, WG221050-2)					
Solids, Total Suspended	590	640	mg/l	8	20
Cyanide, Total for sample(s) 01 (L0513340-03, WG220790-4)					
Cyanide, Total	0.017	0.013	mg/l	27	30
Chlorine, Total Residual for sample(s) 01 (L0513737-01, WG220456-3)					
Chlorine, Total Residual	ND	ND	mg/l	NC	
TPH for sample(s) 01 (L0513737-01, WG220778-3)					
TPH	6.94	7.35	mg/l	6	34
Phenolics, Total for sample(s) 01 (L0513737-01, WG221135-4)					
Phenolics, Total	0.15	0.13	mg/l	14	
Chromium, Hexavalent for sample(s) 01 (L0513737-01, WG220446-4)					
Chromium, Hexavalent	ND	ND	mg/l	NC	
Total Metals for sample(s) 01 (L0513737-01, WG220568-1)					
Antimony, Total	ND	ND	mg/l	NC	
Arsenic, Total	0.006	0.006	mg/l	1	
Cadmium, Total	0.0029	0.0029	mg/l	0	
Chromium, Total	0.04	0.04	mg/l	0	
Copper, Total	0.0776	0.0750	mg/l	3	
Iron, Total	54.	54.	mg/l	0	
Lead, Total	0.059	0.062	mg/l	5	
Nickel, Total	0.010	ND	mg/l	NC	
Selenium, Total	ND	ND	mg/l	NC	
Silver, Total	0.0003	0.0003	mg/l	2	
Zinc, Total	0.30	0.30	mg/l	0	
Total Metals for sample(s) 01 (L0513737-01, WG220884-3)					
Mercury, Total	ND	ND	mg/l	NC	
Volatile Organics by GC/MS 624 for sample(s) 01 (L0513418-01, WG220993-2)					
Methylene chloride	ND	ND	ug/l	NC	30
1,1-Dichloroethane	ND	ND	ug/l	NC	30
Chloroform	ND	ND	ug/l	NC	30
Carbon tetrachloride	ND	ND	ug/l	NC	30
1,2-Dichloropropane	ND	ND	ug/l	NC	30
Dibromochloromethane	ND	ND	ug/l	NC	30
1,1,2-Trichloroethane	ND	ND	ug/l	NC	30
Tetrachloroethene	ND	ND	ug/l	NC	30
Chlorobenzene	ND	ND	ug/l	NC	30
Trichlorofluoromethane	ND	ND	ug/l	NC	30
1,2-Dichloroethane	ND	ND	ug/l	NC	30
1,1,1-Trichloroethane	ND	ND	ug/l	NC	30
Bromodichloromethane	ND	ND	ug/l	NC	30
trans-1,3-Dichloropropene	ND	ND	ug/l	NC	30

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0513737

Continued

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Volatile Organics by GC/MS 624 for sample(s) 01 (L0513418-01, WG220993-2)					
cis-1,3-Dichloropropene	ND	ND	ug/l	NC	30
Bromoform	ND	ND	ug/l	NC	30
1,1,2,2-Tetrachloroethane	ND	ND	ug/l	NC	30
Benzene	ND	ND	ug/l	NC	30
Toluene	ND	ND	ug/l	NC	30
Ethylbenzene	ND	ND	ug/l	NC	30
Chloromethane	ND	ND	ug/l	NC	30
Bromomethane	ND	ND	ug/l	NC	30
Vinyl chloride	ND	ND	ug/l	NC	30
Chloroethane	ND	ND	ug/l	NC	30
1,1-Dichloroethene	ND	ND	ug/l	NC	30
trans-1,2-Dichloroethene	ND	ND	ug/l	NC	30
cis-1,2-Dichloroethene	ND	ND	ug/l	NC	30
Trichloroethene	ND	ND	ug/l	NC	30
1,2-Dichlorobenzene	ND	ND	ug/l	NC	30
1,3-Dichlorobenzene	ND	ND	ug/l	NC	30
1,4-Dichlorobenzene	ND	ND	ug/l	NC	30
p/m-Xylene	ND	ND	ug/l	NC	30
o-Xylene	ND	ND	ug/l	NC	30
XYLENE (TOTAL)	ND	ND	ug/l	NC	30
Styrene	ND	ND	ug/l	NC	30
Acetone	ND	ND	ug/l	NC	30
Carbon disulfide	ND	ND	ug/l	NC	30
2-Butanone	ND	ND	ug/l	NC	30
Vinyl acetate	ND	ND	ug/l	NC	30
4-Methyl-2-pentanone	ND	ND	ug/l	NC	30
2-Hexanone	ND	ND	ug/l	NC	30
Acrolein	ND	ND	ug/l	NC	30
Acrylonitrile	ND	ND	ug/l	NC	30
Surrogate(s)	Recovery				QC Criteria
Pentafluorobenzene	92.0	98.0	%	6	80-120
Fluorobenzene	94.0	98.0	%	4	80-120
4-Bromofluorobenzene	97.0	103.	%	6	80-120
Polychlorinated Biphenyls for sample(s) 01 (L0513737-01, WG220725-4)					
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	69.0	68.0	%	1	30-150
Decachlorobiphenyl	53.0	59.0	%	11	30-150

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0513737

Parameter	% Recovery	QC Criteria
Cyanide, Total LCS for sample(s) 01 (WG220790-2)		
Cyanide, Total	109	90-110
Chlorine, Total Residual LCS for sample(s) 01 (WG220456-2)		
Chlorine, Total Residual	100	
TPH LCS for sample(s) 01 (WG220778-2)		
TPH	83	64-132
Phenolics, Total LCS for sample(s) 01 (WG221135-2)		
Phenolics, Total	95	
Chromium, Hexavalent LCS for sample(s) 01 (WG220446-2)		
Chromium, Hexavalent	102	
Total Metals LCS for sample(s) 01 (WG220568-4)		
Antimony, Total	101	
Arsenic, Total	107	
Cadmium, Total	109	
Chromium, Total	100	
Copper, Total	104	
Iron, Total	96	
Lead, Total	112	
Nickel, Total	105	
Selenium, Total	117	
Silver, Total	113	
Zinc, Total	108	
Total Metals LCS for sample(s) 01 (WG220884-1)		
Mercury, Total	104	
Pesticides by GC 504 LCS for sample(s) 01 (WG220938-2)		
1,2-Dibromoethane	90	
Volatile Organics by GC/MS 624 LCS for sample(s) 01 (WG220993-9)		
Methylene chloride	100	10-221
1,1-Dichloroethane	100	59-155
Chloroform	90	51-138
Carbon tetrachloride	107	70-140
1,2-Dichloropropane	95	10-210
Dibromochloromethane	96	53-149
1,1,2-Trichloroethane	100	52-150
2-Chloroethylvinyl ether	95	10-305
Tetrachloroethene	106	64-148
Chlorobenzene	112	37-160
Trichlorofluoromethane	100	17-181
1,2-Dichloroethane	101	49-155
1,1,1-Trichloroethane	102	52-162
Bromodichloromethane	101	35-155

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0513737

Continued

Parameter	% Recovery	QC Criteria
Volatile Organics by GC/MS 624 LCS for sample(s) 01 (WG220993-9)		
trans-1,3-Dichloropropene	87	17-183
cis-1,3-Dichloropropene	95	10-227
Bromoform	97	45-169
1,1,2,2-Tetrachloroethane	103	46-157
Benzene	99	37-151
Toluene	108	47-150
Ethylbenzene	118	37-162
Chloromethane	85	10-273
Bromomethane	99	10-242
Vinyl chloride	111	10-251
Chloroethane	96	14-230
1,1-Dichloroethene	92	10-234
trans-1,2-Dichloroethene	100	54-156
cis-1,2-Dichloroethene	99	60-140
Trichloroethene	99	71-157
1,2-Dichlorobenzene	115	18-190
1,3-Dichlorobenzene	115	59-156
1,4-Dichlorobenzene	115	18-190
p/m-Xylene	120	40-160
o-Xylene	115	40-160
XYLENE (TOTAL)	119	40-160
Styrene	109	40-160
Acetone	89	40-160
Carbon disulfide	90	40-160
2-Butanone	85	40-160
Vinyl acetate	62	40-160
4-Methyl-2-pentanone	94	40-160
2-Hexanone	89	40-160
Acrolein	88	40-160
Acrylonitrile	94	40-160
Surrogate(s)		
Pentafluorobenzene	104	80-120
Fluorobenzene	97	80-120
4-Bromofluorobenzene	115	80-120
SVOC's by GC/MS 8270 LCS for sample(s) 01 (WG220893-2)		
Acenaphthene	52	46-118
1,2,4-Trichlorobenzene	46	39-98
2-Chloronaphthalene	55	40-140
1,2-Dichlorobenzene	44	40-140
1,4-Dichlorobenzene	42	36-97
2,4-Dinitrotoluene	82	24-96
2,6-Dinitrotoluene	79	40-140
Fluoranthene	84	40-140
4-Chlorophenyl phenyl ether	58	40-140
n-Nitrosodi-n-propylamine	46	41-116
Butyl benzyl phthalate	91	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0513737

Continued

Parameter	% Recovery	QC Criteria
SVOC's by GC/MS 8270 LCS for sample(s) 01 (WG220893-2)		
Anthracene	66	40-140
Pyrene	80	26-127
Hexachloropropene	46	40-140
P-Chloro-M-Cresol	59	23-97
2-Chlorophenol	49	27-123
2-Nitrophenol	58	30-130
4-Nitrophenol	35	10-80
2,4-Dinitrophenol	44	30-130
Pentachlorophenol	69	9-103
Phenol	20	12-110
Surrogate(s)		
2-Fluorophenol	30	21-120
Phenol-d6	26	10-120
Nitrobenzene-d5	53	23-120
2-Fluorobiphenyl	53	43-120
2,4,6-Tribromophenol	69	10-120
4-Terphenyl-d14	91	33-120
PAH by GC/MS SIM 8270M LCS for sample(s) 01 (WG220894-2)		
Acenaphthene	48	46-118
2-Chloronaphthalene	53	
Fluoranthene	93	
Anthracene	63	
Pyrene	89	26-127
Pentachlorophenol	67	9-103
Surrogate(s)		
2-Fluorophenol	40	21-120
Phenol-d6	38	10-120
Nitrobenzene-d5	57	23-120
2-Fluorobiphenyl	46	43-120
2,4,6-Tribromophenol	48	10-120
4-Terphenyl-d14	81	33-120
Polychlorinated Biphenyls LCS for sample(s) 01 (WG220725-2)		
Aroclor 1242/1016	65	30-150
Aroclor 1260	66	30-150
Surrogate(s)		
2,4,5,6-Tetrachloro-m-xylene	55	30-150
Decachlorobiphenyl	52	30-150
Cyanide, Total SPIKE for sample(s) 01 (L0513309-07, WG220790-3)		
Cyanide, Total	88	80-120

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0513737

Continued

Parameter	% Recovery	QC Criteria
Phenolics, Total SPIKE for sample(s) 01 (L0513596-02, WG221135-3)		
Phenolics, Total	91	
Chromium, Hexavalent SPIKE for sample(s) 01 (L0513737-01, WG220446-3)		
Chromium, Hexavalent	104	
Total Metals SPIKE for sample(s) 01 (L0513737-01, WG220568-2)		
Antimony, Total	82	
Arsenic, Total	104	
Cadmium, Total	116	
Chromium, Total	92	
Copper, Total	104	
Iron, Total	100	
Lead, Total	113	
Nickel, Total	96	
Selenium, Total	110	
Silver, Total	113	
Zinc, Total	102	
Total Metals SPIKE for sample(s) 01 (L0513737-01, WG220884-2)		
Mercury, Total	97	
Pesticides by GC 504 SPIKE for sample(s) 01 (L0513666-01, WG220938-3)		
1,2-Dibromoethane	96	
Volatile Organics by GC/MS 624 SPIKE for sample(s) 01 (L0513418-01, WG220993-1)		
Methylene chloride	141	10-221
1,1-Dichloroethane	141	59-155
Chloroform	128	51-138
Carbon tetrachloride	139	70-140
1,2-Dichloropropane	142	10-210
Dibromochloromethane	149	53-149
1,1,2-Trichloroethane	158	52-150
Tetrachloroethene	145	64-148
Chlorobenzene	139	37-160
Trichlorofluoromethane	144	17-181
1,2-Dichloroethane	152	49-155
1,1,1-Trichloroethane	140	52-162
Bromodichloromethane	143	35-155
trans-1,3-Dichloropropene	132	17-183
cis-1,3-Dichloropropene	141	10-227
Bromoform	148	45-169
1,1,2,2-Tetrachloroethane	155	46-157
Benzene	142	35-151
Toluene	146	47-150
Ethylbenzene	145	37-162
Chloromethane	143	10-273
Bromomethane	149	10-242
Vinyl chloride	145	10-251

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0513737

Continued

Parameter	% Recovery	QC Criteria
Volatile Organics by GC/MS 624 SPIKE for sample(s) 01 (L0513418-01, WG220993-1)		
Chloroethane	130	14-230
1,1-Dichloroethene	138	10-234
trans-1,2-Dichloroethene	144	54-156
cis-1,2-Dichloroethene	139	60-140
Trichloroethene	139	71-157
1,2-Dichlorobenzene	148	18-190
1,3-Dichlorobenzene	144	59-156
1,4-Dichlorobenzene	145	18-190
p/m-Xylene	146	40-160
o-Xylene	146	40-160
XYLENE (TOTAL)	146	40-160
Styrene	135	40-160
Acetone	114	40-160
Carbon disulfide	125	40-160
2-Butanone	118	40-160
Vinyl acetate	76	40-160
4-Methyl-2-pentanone	125	40-160
2-Hexanone	128	40-160
Acrolein	120	40-160
Acrylonitrile	128	40-160
Surrogate(s)		
Pentafluorobenzene	98	80-120
Fluorobenzene	98	80-120
4-Bromofluorobenzene	96	80-120
Polychlorinated Biphenyls SPIKE for sample(s) 01 (L0513737-01, WG220725-3)		
Aroclor 1242/1016	85	30-150
Aroclor 1260	68	30-150
Surrogate(s)		
2,4,5,6-Tetrachloro-m-xylene	67	30-150
Decachlorobiphenyl	63	30-150

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH MS/MSD ANALYSIS

Laboratory Job Number: L0513737

Parameter	MS %	MSD %	RPD	RPD Limit	MS/MSD Limits
SVOC's by GC/MS 8270 for sample(s) 01 (L0513737-01, WG220893-4)					
Acenaphthene	77	77	0	30	46-118
1,2,4-Trichlorobenzene	72	67	7	30	39-98
2-Chloronaphthalene	82	77	6	30	40-140
1,2-Dichlorobenzene	72	67	7	30	40-140
1,4-Dichlorobenzene	67	67	0	30	36-97
2,4-Dinitrotoluene	102	96	4	30	24-96
2,6-Dinitrotoluene	110	96	14	30	40-140
Fluoranthene	100	96	4	30	40-140
4-Chlorophenyl phenyl ether	82	77	6	30	40-140
n-Nitrosodi-n-propylamine	77	72	7	30	41-116
Butyl benzyl phthalate	110	110	0	30	40-140
Anthracene	82	77	6	30	40-140
Pyrene	96	91	5	30	26-127
Hexachloropropene	77	67	14	30	40-140
P-Chloro-M-Cresol	91	84	8	30	23-97
2-Chlorophenol	79	74	7	30	27-123
2-Nitrophenol	84	79	6	30	30-130
4-Nitrophenol	46	48	4	30	10-80
2,4-Dinitrophenol	0	0	NC	30	30-130
Pentachlorophenol	84	79	6	30	9-103
Phenol	46	48	4	30	12-110
Surrogate(s)					
2-Fluorophenol	61	59	3		21-120
Phenol-d6	66	64	3		10-120
Nitrobenzene-d5	91	87	4		23-120
2-Fluorobiphenyl	86	82	5		43-120
2,4,6-Tribromophenol	98	92	6		10-120
4-Terphenyl-d14	101	97	4		33-120
PAH by GC/MS SIM 8270M for sample(s) 01 (L0513737-01, WG220894-4)					
Acenaphthene	77	77	0	40	46-118
2-Chloronaphthalene	86	86	0	40	
Fluoranthene	110	110	0	40	
Anthracene	82	86	5	40	
Pyrene	110	120	9	40	26-127
Pentachlorophenol	91	96	5	40	9-103
Surrogate(s)					
2-Fluorophenol	72	73	1		21-120
Phenol-d6	72	70	3		10-120
Nitrobenzene-d5	86	87	1		23-120
2-Fluorobiphenyl	89	89	0		43-120
2,4,6-Tribromophenol	91	99	8		10-120
4-Terphenyl-d14	95	105	10		33-120

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0513737

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG221050-1)								
Solids, Total Suspended	ND	mg/l	5.0	4	160.2		1116 07:00	DT
Blank Analysis for sample(s) 01 (WG220790-1)								
Cyanide, Total	ND	mg/l	0.005	4	335.2	1114 10:00	1116 16:23	DD
Blank Analysis for sample(s) 01 (WG220456-1)								
Chlorine, Total Residual	ND	mg/l	0.05	4	330.1		1110 23:00	DP
Blank Analysis for sample(s) 01 (WG220778-1)								
TPH	ND	mg/l	4.00	74	1664A			AT
Blank Analysis for sample(s) 01 (WG221135-1)								
Phenolics, Total	ND	mg/l	0.03	4	420.1		1116 12:00	AT
Blank Analysis for sample(s) 01 (WG220446-1)								
Chromium, Hexavalent	ND	mg/l	0.02	30	3500CR-D	1110 22:00	1110 22:00	JT
Blank Analysis for sample(s) 01 (WG220568-3)								
Total Metals				19	200.7			
Antimony, Total	ND	mg/l	0.002	3	200.9	1111 17:00	1114 19:20	PY
Arsenic, Total	ND	mg/l	0.005	19	200.7	1111 17:00	1115 08:26	MG
Cadmium, Total	ND	mg/l	0.0005	4	213.2	1111 17:00	1115 19:02	PY
Chromium, Total	ND	mg/l	0.01	19	200.7	1111 17:00	1115 08:26	MG
Copper, Total	ND	mg/l	0.0025	19	200.7	1111 17:00	1115 08:26	MG
Iron, Total	ND	mg/l	0.05	19	200.7	1111 17:00	1115 08:26	MG
Lead, Total	ND	mg/l	0.001	3	200.9	1111 17:00	1114 14:33	PY
Nickel, Total	ND	mg/l	0.010	19	200.7	1111 17:00	1115 08:26	MG
Selenium, Total	ND	mg/l	0.005	19	200.7	1111 17:00	1115 08:26	MG
Silver, Total	ND	mg/l	0.0002	4	272.2	1111 17:00	1115 15:44	PY
Zinc, Total	ND	mg/l	0.02	19	200.7	1111 17:00	1115 08:26	MG
Blank Analysis for sample(s) 01 (WG220884-4)								
Total Metals								
Mercury, Total	ND	mg/l	0.0002	4	245.2	1115 19:45	1116 11:07	HG
Blank Analysis for sample(s) 01 (WG220938-1)								
Pesticides by GC 504				14	504.1	1115 14:00	1115 15:33	JB
1,2-Dibromoethane	ND	ug/l	0.020					

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0513737

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG220993-10)							
Volatile Organics by GC/MS 624				5 624		1117 06:29 MM	
Methylene chloride	ND	ug/l	5.0				
1,1-Dichloroethane	ND	ug/l	1.5				
Chloroform	ND	ug/l	1.5				
Carbon tetrachloride	ND	ug/l	1.0				
1,2-Dichloropropane	ND	ug/l	3.5				
Dibromochloromethane	ND	ug/l	1.0				
1,1,2-Trichloroethane	ND	ug/l	1.5				
2-Chloroethylvinyl ether	ND	ug/l	10.				
Tetrachloroethene	ND	ug/l	1.5				
Chlorobenzene	ND	ug/l	3.5				
Trichlorofluoromethane	ND	ug/l	5.0				
1,2-Dichloroethane	ND	ug/l	1.5				
1,1,1-Trichloroethane	ND	ug/l	2.0				
Bromodichloromethane	ND	ug/l	1.0				
trans-1,3-Dichloropropene	ND	ug/l	1.5				
cis-1,3-Dichloropropene	ND	ug/l	1.5				
Bromoform	ND	ug/l	1.0				
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0				
Benzene	ND	ug/l	1.0				
Toluene	ND	ug/l	1.0				
Ethylbenzene	ND	ug/l	1.0				
Chloromethane	ND	ug/l	10.				
Bromomethane	ND	ug/l	5.0				
Vinyl chloride	ND	ug/l	2.0				
Chloroethane	ND	ug/l	2.0				
1,1-Dichloroethene	ND	ug/l	1.0				
trans-1,2-Dichloroethene	ND	ug/l	1.5				
cis-1,2-Dichloroethene	ND	ug/l	1.0				
Trichloroethene	ND	ug/l	1.0				
1,2-Dichlorobenzene	ND	ug/l	5.0				
1,3-Dichlorobenzene	ND	ug/l	5.0				
1,4-Dichlorobenzene	ND	ug/l	5.0				
p/m-Xylene	ND	ug/l	2.0				
o-xylene	ND	ug/l	1.0				
Xylene (Total)	ND	ug/l	2.0				
Styrene	ND	ug/l	1.0				
Acetone	ND	ug/l	10.				
Carbon disulfide	ND	ug/l	5.0				
2-Butanone	ND	ug/l	10.				
Vinyl acetate	ND	ug/l	20.				
4-Methyl-2-pentanone	ND	ug/l	10.				
2-Hexanone	ND	ug/l	10.				
Acrolein	ND	ug/l	20.				
Acrylonitrile	ND	ug/l	10.				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0513737

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG220993-10)							
Volatile Organics by GC/MS 624 cont'd				5 624		1117 06:29 MM	
Surrogate(s)	Recovery		QC Criteria				
Pentafluorobenzene	101.	%	80-120				
Fluorobenzene	101.	%	80-120				
4-Bromofluorobenzene	112.	%	80-120				
Blank Analysis for sample(s) 01 (WG220893-1)							
SVOC's by GC/MS 8270				1 8270C	1115 17:00	1116 18:26	RL
Acenaphthene	ND	ug/l	5.0				
Benzidine	ND	ug/l	50.				
1,2,4-Trichlorobenzene	ND	ug/l	5.0				
Hexachlorobenzene	ND	ug/l	5.0				
Bis(2-chloroethyl)ether	ND	ug/l	5.0				
1-Chloronaphthalene	ND	ug/l	5.0				
2-Chloronaphthalene	ND	ug/l	6.0				
1,2-Dichlorobenzene	ND	ug/l	5.0				
1,3-Dichlorobenzene	ND	ug/l	5.0				
1,4-Dichlorobenzene	ND	ug/l	5.0				
3,3'-Dichlorobenzidine	ND	ug/l	50.				
2,4-Dinitrotoluene	ND	ug/l	6.0				
2,6-Dinitrotoluene	ND	ug/l	5.0				
Azobenzene	ND	ug/l	5.0				
Fluoranthene	ND	ug/l	5.0				
4-Chlorophenyl phenyl ether	ND	ug/l	5.0				
4-Bromophenyl phenyl ether	ND	ug/l	5.0				
Bis(2-chloroisopropyl)ether	ND	ug/l	5.0				
Bis(2-chloroethoxy)methane	ND	ug/l	5.0				
Hexachlorobutadiene	ND	ug/l	10.				
Hexachlorocyclopentadiene	ND	ug/l	10.				
Hexachloroethane	ND	ug/l	5.0				
Isophorone	ND	ug/l	5.0				
Naphthalene	ND	ug/l	5.0				
Nitrobenzene	ND	ug/l	5.0				
NDPA/DPA	ND	ug/l	15.				
n-Nitrosodi-n-propylamine	ND	ug/l	5.0				
Bis(2-ethylhexyl)phthalate	ND	ug/l	10.				
Butyl benzyl phthalate	ND	ug/l	5.0				
Di-n-butylphthalate	ND	ug/l	5.0				
Di-n-octylphthalate	ND	ug/l	5.0				
Diethyl phthalate	ND	ug/l	5.0				
Dimethyl phthalate	ND	ug/l	5.0				
Benzo(a)anthracene	ND	ug/l	5.0				
Benzo(a)pyrene	ND	ug/l	5.0				
Benzo(b)fluoranthene	ND	ug/l	5.0				
Benzo(k)fluoranthene	ND	ug/l	5.0				
Chrysene	ND	ug/l	5.0				
Acenaphthylene	ND	ug/l	5.0				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0513737

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG220893-1)							
SVOC's by GC/MS 8270 cont'd				1 8270C	1115 17:00	1116 18:26	RL
Anthracene	ND	ug/l	5.0				
Benzo(ghi)perylene	ND	ug/l	5.0				
Fluorene	ND	ug/l	5.0				
Phenanthrene	ND	ug/l	5.0				
Dibenzo(a,h)anthracene	ND	ug/l	5.0				
Indeno(1,2,3-cd)pyrene	ND	ug/l	7.0				
Pyrene	ND	ug/l	5.0				
Benzo(e)pyrene	ND	ug/l	5.0				
Biphenyl	ND	ug/l	5.0				
Perylene	ND	ug/l	5.0				
Aniline	ND	ug/l	10.				
4-Chloroaniline	ND	ug/l	5.0				
1-Methylnaphthalene	ND	ug/l	5.0				
2-Nitroaniline	ND	ug/l	5.0				
3-Nitroaniline	ND	ug/l	5.0				
4-Nitroaniline	ND	ug/l	7.0				
Dibenzofuran	ND	ug/l	5.0				
a,a-Dimethylphenethylamine	ND	ug/l	50.				
Hexachloropropene	ND	ug/l	10.				
Nitrosodi-n-butylamine	ND	ug/l	10.				
2-Methylnaphthalene	ND	ug/l	5.0				
1,2,4,5-Tetrachlorobenzene	ND	ug/l	20.				
Pentachlorobenzene	ND	ug/l	20.				
a-Naphthylamine	ND	ug/l	20.				
b-Naphthylamine	ND	ug/l	20.				
Phenacetin	ND	ug/l	10.				
Dimethoate	ND	ug/l	20.				
4-Aminobiphenyl	ND	ug/l	10.				
Pentachloronitrobenzene	ND	ug/l	10.				
Isodrin	ND	ug/l	10.				
p-Dimethylaminoazobenzene	ND	ug/l	10.				
Chlorobenzilate	ND	ug/l	20.				
3-Methylcholanthrene	ND	ug/l	20.				
Ethyl Methanesulfonate	ND	ug/l	15.				
Acetophenone	ND	ug/l	20.				
Nitrosodipiperidine	ND	ug/l	20.				
7,12-Dimethylbenz(a)anthracene	ND	ug/l	10.				
n-Nitrosodimethylamine	ND	ug/l	50.				
2,4,6-Trichlorophenol	ND	ug/l	5.0				
p-Chloro-m-cresol	ND	ug/l	5.0				
2-Chlorophenol	ND	ug/l	6.0				
2,4-Dichlorophenol	ND	ug/l	10.				
2,4-Dimethylphenol	ND	ug/l	10.				
2-Nitrophenol	ND	ug/l	20.				
4-Nitrophenol	ND	ug/l	10.				
2,4-Dinitrophenol	ND	ug/l	20.				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0513737

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG220893-1)							
SVOC's by GC/MS 8270 cont'd				1 8270C	1115 17:00	1116 18:26	RL
4,6-Dinitro-o-cresol	ND	ug/l	20.				
Pentachlorophenol	ND	ug/l	20.				
Phenol	ND	ug/l	7.0				
2-Methylphenol	ND	ug/l	6.0				
3-Methylphenol/4-Methylphenol	ND	ug/l	6.0				
2,4,5-Trichlorophenol	ND	ug/l	5.0				
2,6-Dichlorophenol	ND	ug/l	10.				
Benzoic Acid	ND	ug/l	50.				
Benzyl Alcohol	ND	ug/l	10.				
Carbazole	ND	ug/l	5.0				
Pyridine	ND	ug/l	50.				
2-Picoline	ND	ug/l	20.				
Pronamide	ND	ug/l	20.				
Methyl methanesulfonate	ND	ug/l	20.				
Surrogate(s)	Recovery		QC Criteria				
2-Fluorophenol	30.0	%	21-120				
Phenol-d6	24.0	%	10-120				
Nitrobenzene-d5	56.0	%	23-120				
2-Fluorobiphenyl	48.0	%	43-120				
2,4,6-Tribromophenol	63.0	%	10-120				
4-Terphenyl-d14	78.0	%	33-120				
Blank Analysis for sample(s) 01 (WG220894-1)							
PAH by GC/MS SIM 8270M				1 8270C-M	1115 17:00	1116 16:15	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				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0513737

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG220894-1)							
PAH by GC/MS SIM 8270M cont'd				1 8270C-M	1115 17:00	1116 16:15	RL
Hexachlorobenzene	ND	ug/l	0.80				
Perylene	ND	ug/l	0.20				
Biphenyl	ND	ug/l	0.20				
2,6-Dimethylnaphthalene	ND	ug/l	0.20				
1-Methylphenanthrene	ND	ug/l	0.20				
Benzo(e)Pyrene	ND	ug/l	0.20				
Hexachloroethane	ND	ug/l	0.80				
Surrogate(s)	Recovery		QC Criteria				
2-Fluorophenol	39.0	%	21-120				
Phenol-d6	31.0	%	10-120				
Nitrobenzene-d5	60.0	%	23-120				
2-Fluorobiphenyl	55.0	%	43-120				
2,4,6-Tribromophenol	59.0	%	10-120				
4-Terphenyl-d14	61.0	%	33-120				
Blank Analysis for sample(s) 01 (WG220725-1)							
Polychlorinated Biphenyls				5 608	1114 17:30	1116 20:30	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	64.0	%	30-150				
Decachlorobiphenyl	60.0	%	30-150				

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

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

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

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 11/10

ALPHA Job #: L0513732

Eight Walkup Drive Westborough, MA 01581
TEL: 508-898-9220 FAX: 508-898-9193

Client Information

Client: WRS Corporation
Address: 5 Industrial Way
Salem, NH
Phone: (603) 893-0610
Fax:
Email: dan-batchelor@wrscorp.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: C.P Brockton
Project Location: Brockton, MA
Project #: ~~Dan Batchelor~~ (DM)
Project Manager: Dan Batchelor
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: 11/17 Time:

Report Information - Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program: MCP
Criteria:

MCP PRESUMPTIVE CERTAINTY - THESE QUESTIONS MUST BE ANSWERED

☒ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☒ No Are Drinking Water Samples Submitted?
☒ Yes ☐ No Have you met minimum field QC requirements?

Other Project Specific Requirements/Comments/Detection Limits:
(1) Total Sb, As, Cd, Cr, Cr, Pb, Hg, Ni, Se, Ag, Zn + Fe

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TSS	TKN	TPH-1664	TCN	6034/5034	T Phenol	PCB	HexCr	8270 (1) / PAH Low			Sample Specific Comments	TOTAL # BOTTLES
25737-1	GEW-02	11/10/05	1220	GW	KM/AM	✓	✓	✓	✓	✓	✓	✓	✓	✓				18

SAMPLE HANDLING

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

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

QUESTIONS ABOVE MUST BE ANSWERED FOR PRESUMPTIVE CERTAINTY

IS YOUR PROJECT MCP ?

Relinquished By:	Date/Time	Received By:	Date/Time
	11/10/05 1355		11/10/05 1355
	11/10/05 1520		11/10/05 15:31
	11/11/05 1622		11/10 1631

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

FORM NO: 01-01 (rev. 14-May-04)