



DC  
MAG-9/10/73

**OVERNIGHT DELIVERY**

December 12, 2005

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

DEC 13 2005

RE: NPDES REMEDIATION GENERAL PERMIT – NOI Submittal  
Former Texaco-Branded-Service Station  
1580 Turnpike Street  
Stoughton, Norfolk County, MA

To Whom It May Concern:

NewFields Princeton LLC, on behalf of Motiva Enterprises LLC, is submitting an application package to obtain a NPDES Remediation General Permit ("RGP") for the above referenced facility. Motiva Enterprises LLC operated a Texaco-branded gasoline service station at the above referenced facility and is currently conducting site investigation and remedial activities under the Massachusetts Contingency Plan ("MCP"), 310 CMR 40.0000. As part of the remedial activities, a groundwater remediation system will be constructed and installed. The discharge will be to a stormwater catch basin which discharges to an unnamed pond, then to Bear Swamp and finally to Three Swamp Brook. Pursuant to 314 CMR 4, Bear Swamp and Three Swamp Brook are unclassified.

Since the remediation system has not been constructed, samples from a representative on-site recovery well were collected and analyzed by State of Massachusetts certified laboratories for the parameters required by the NPDES RGP Permit. The final data packages and associated quality control/ quality assurance ("QA/QC") documents are enclosed herein. The results of the recovery well sampling event indicate the presence of metals above the Appendix III 0-5 dilution range limitations. It should be noted that these metals are naturally occurring in the groundwater, are not associated with the former gasoline service station remediation project. A dilution factor could not be calculated for the receiving stream using the USGS Stream Stats Program since it does not contain 7Q10s for water bodies located in the Taunton River Basin.

Samples of total hardness may be collected in the future from the receiving stream, downstream of the discharge point, in order to calculate site-specific metal limitations. If the site-specific metal limitations calculated are higher than the Appendix IV 0-5 dilution range limitations, which were calculated by the EPA using a MA statewide average hardness of 50 mg/l CaCO<sub>3</sub>, the permittee reserves the right to submit an individual NPDES application as specified in the *Response to Comments on the October 2004 Proposed Remediation General Permit* ("Response to Comments") document posted on the EPA website.

The NPDES Remediation General Permit and associated *Response to Comments* document, allow the permittee to request revisions to the permit conditions based upon site-specific conditions. The following is a list of the requested revisions for this facility.

**NEWFIELDS PRINCETON, LLC.**  
22 West Street, Red Bank, NJ 07701  
Tel: (732) 224-7066/ Fax: (732) 224-7633

#### TEMPERATURE

In the *Response to Comments* document, the EPA agreed that "temperature limits should only apply if the water treatment contains a heating process that can alter the temperature of the discharge and therefore impact the receiving water body"....Therefore the EPA will review each NOI and determine whether the discharge has the potential to affect the temperature sufficiently enough to require monitoring". Since the existing groundwater treatment system does not, and will not, alter the temperature of the receiving waterbody, we are requesting that the EPA not impose monitoring and sampling requirements for temperature at the above referenced location.

#### PH

In accordance with the NPDES RGP, the pH limitation for Class B waters in Massachusetts in 6.5 - 8.3 SU. In the *Response to Comments* document, the EPA recognized that "in many cases, the pH will not be altered by the operation of the water treatment system." Thus Part I.C.2. footnote #9 of the RGP allows permittees in Massachusetts to "request the pH range be widened to within 6.0 - 9.0 standard units (SU) or another range due to naturally occurring conditions in the receiving water. Similarly, permittees may request such a change if the naturally occurring source water is unaltered by the permittee's operation".

The permittee's operation will not alter the pH of the naturally occurring source water. In addition, National Fire Protection Association ("NFPA") and standard safety practices require physical separation of two separate pH adjustment chemicals, an acid and a base. Given the small size of the property, the installation of one pH adjustment system is practical, however two is impossible. Thus since pH adjustment is unwarranted and impractical at this location, and the permittee's operation will not alter the pH, we are requesting the pH range be widened to 6.0 - 9.0 SU for this facility.

#### COMPLIANCE PERIOD

Federal regulation 40 CFR Part 122.47 allows a permittee to request a *compliance schedule* be incorporated into the permit if it is the first NPDES permit issued to a new discharger. The *compliance schedule* allows for a reasonable opportunity to attain compliance with requirements which were revised after commencement of construction but less than three years before commencement of the relevant discharge. Construction of this groundwater remediation system will commence in December 2005 with a proposed date of discharge of February 2006. However the design of the groundwater remediation system was completed prior to the effective date of the NPDES RGP, and was therefore based upon the monitoring requirements and limitations issued in the past EPA Permit Exclusions for gasoline service station remediation projects. Thus the EPA should incorporate a compliance period of 30 months, from the effective date of the permit, into the NPDES RGP Permit conditions. During this compliance period, the EPA should waive the limitations on those parameters not previously required under past EPA Permit Exclusions for similar remediation projects.

A compliance period of 30 months is requested for the following reasons:

- The permittee needs to collect additional data from the existing remediation system over a period of 12 months in order to determine if a system redesign and/or modification is warranted; one year is needed to account for the temperature changes and groundwater table fluctuations.
- If the sampling results indicate a system modification is warranted, an additional 18 months is needed in order for the following activities to be performed: redesign of the treatment system by a professional engineer, research of various treatment options, obtain local permits, obtain access agreements, obtain capital dollars for equipment purchase, purchase equipment, install equipment, power drop modifications, existing treatment shed expansions and pilot testing the new treatment equipment.

**APPROVAL OF ALTERNATE METHODOLOGIES**

**HEXAVALENT CHROMIUM**

In the *Response to Comments* document, the EPA agreed that "Method 7196A is a possible substitute" for the hexavalent chromium methods 218.6 and 1636. To use this method, permittees were instructed to request it individually as an alternative test procedure. The permittee was unable to locate any labs able to run hexavalent chromium by method 218.6 or 1636 since they are considered outdated methods. Method 7196A is currently utilized. The required ML of 10 ug/l is achievable by this method. Thus we are requesting the EPA approve method 7196A for hexavalent chromium for this facility.

**TOTAL CYANIDE**

Appendix VI of the NPDES RGP specifies the test method for Total Cyanide is 335.4. This method has not been approved for use to date, therefore method 335.3 was utilized.

**APPROVAL OF ALTERNATE MLs**

**TOTAL ZINC**

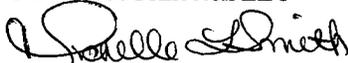
The ML listed for Total Zinc using an ICP test method is 10 ug/l. A survey of laboratories showed that the lowest ML obtainable was 20 ug/l. Thus we are requesting the USEPA accept this alternate ML. The laboratory QA/QC data deliverable package has been enclosed for your convenience.

**TOTAL COPPER**

The ML listed for Total Copper using an ICP test method is 5 ug/l. A survey of laboratories showed that the lowest ML obtainable was in the range of 20-25 ug/l. Thus we are requesting the USEPA accept this alternate ML. The laboratory QA/QC data deliverable package has been enclosed for your convenience.

If you have any questions, or require any additional information, I may be contacted at (732) 224-7066 extension 17.

Respectfully,  
NewFields Princeton LLC



Michelle L. Smith  
Project Scientist

Enclosures: Notice of Intent Form  
Figures  
Dilution Factor Calculations  
Natural Heritage & Endangered Species Program – MA Div of Fisheries & Wildlife – Rare  
Species by Town  
Approved Massachusetts Year 2002 Integrated List of Waters, September 2003 (303(d) list)  
Laboratory Analytical (System Influent)

C: Massachusetts Department of Environmental Protection  
Division of Watershed Management  
627 Main Street, 2<sup>nd</sup> Floor  
Worcester, MA 01608  
(w/ enclosures)

Town of Stoughton Municipal Offices  
10 Pearl Street  
Stoughton, MA 02072  
(w/ enclosures)

David Weeks, Shell OPUS  
(w/ enclosures) via electronic mail

Eric Simpson, Envirotrac Ltd.  
(w/ enclosures) via electronic mail

NewFields File  
(w/ enclosures)

# **NOI FORM**

## **I. Suggested Notice of Intent (NOI) Form**

In order to be covered by the remediation general permit (RGP), applicants must submit a written Notice of Intent (NOI) to EPA Region I and the appropriate state agency. **All parties meeting the definition of “operator” must fill out, sign, and submit separate NOIs.**

The “operator” is defined in Part I.B.1. as the person<sup>1</sup> who has operational control over plans and specifications, or the person who has day-to-day supervision and control of activities occurring at the site. For purposes of this permit, the operator is either:

- i. The owner<sup>2</sup> (e.g., title holder, developer, or easement holder of the property) if that entity is performing all work related to complying with this permit; **or**
- ii. Both the owner<sup>2</sup> (e.g., title holder, developer, or easement holder of the property) **and** contractor(s) if a contractor(s) has been hired to perform work related to complying with this permit.

This means that each party meeting the definition of operator should apply for coverage under the RGP if it has operational control over either the project site plans and specifications, including the ability to make modifications to those plans and specifications (e.g., the property owner), **or** has day-to-day operational control of those activities at a project which are necessary to ensure compliance with permit conditions (e.g., the contractor). Where a party’s activity is part of a larger common plan (e.g., for the development or sale of the property), that party is only responsible for applying for the portions of the project for which it meets the definition of “operator.” In many instances, there may be more than one party at a site performing tasks related to “operational control” and hence, more than one operator must submit an NOI. Depending on the site and the relationship between the parties (e.g., owner, contractor, etc.), there could be either a single party acting as site operator and consequently responsible for obtaining permit coverage, or there could be two or more operators all needing permit coverage.

The following are three general “operator” scenarios (variations on any of these three are possible, especially as the number of owners and contractors increases):

- ▶ *“Owner” as “Operator” - sole permittee.* The property owner designs the structures and control systems for the site, develops and implements the BMPP, and serves as general contractor (or has an on-site representative with full authority to direct day-to-day operations). Under the definition of operator, in this case, the “Owner” would be considered the “operator” and therefore the only party that needs permit coverage. Everyone else working on the site may be considered subcontractors and do not need to apply for permit coverage.

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<sup>1</sup> Defined in 40 CFR 122.2.

<sup>2</sup>For purposes of this permit, the “owner” of a property is the person, as defined by 40 CFR 122.2, holding the title, deed, or legal document to the regulated property, facility, or activity, including a party working under an easement on the property.

- ▶ *“Contractor” as “Operator” - sole permittee.* The property owner hires a company (e.g., a contractor) to design the project and oversee all aspects, including preparation and implementation of the BMPP and compliance with the permit (e.g., a “turnkey” project). Here, the contractor would likely be the only party needing a permit. It is under this scenario that an individual having a personal residence built for his own use (e.g., not those to be sold for profit or used as rental property) would not be considered an operator. Similarly, EPA expects that property owners hiring a contractor or consultant to perform groundwater remediation work (e.g., due to a leaking fuel oil tank) would come under this type of scenario. EPA believes that the contractor, being a professional in the industry, should be the responsible entity rather than the individual. The contractor is better equipped to meet the requirements of both applying for permit coverage and developing and properly implementing the plans needed to comply with the permit. However, property owners would also meet the definition of “operator” and require permit coverage in instances where they perform any of the required tasks on their personal properties.
  
- ▶ *“Owner” and “Contractor” as “Operators” - co-permittees.* The owner retains control over any changes to site plans, BMPPs, or wastewater conveyance or control designs, but the contractor is responsible for conducting and overseeing the actual activities (e.g., excavation, installation and operation of treatment train, etc.) and daily implementation of BMPP and other permit conditions. In this case, **both** parties need to apply for coverage.

Generally, a person would not be considered an “operator,” and subsequently would not need permit coverage, if: 1) that person is a subcontractor hired by, and under the supervision of, the owner or a general contractor (e.g., if the contractor directs the subcontractor’s activities on-site, it is probably not an operator); or 2) the person’s activities would otherwise result in the need for coverage under the RGP but another operator has legally assumed responsibility for the impacts of project activities.

**A. Instructions for the Suggested Notice of Intent (NOI)** - At a minimum, the Notice of Intent must include the following for each individual facility or site. Additional information may be attached as needed.

**1. General facility/site information.**

- a) Provide the **facility/site** name, mailing address, and telephone and fax numbers. Provide the facility SIC code(s). Provide the site location, including longitude and latitude.
- b) Provide the property **owner’s** name, address, email address, telephone and fax numbers, if different from the site information. Indicate whether the owner is a Federal, State, Tribal, private, or other entity.
- c) Provide the site **operator’s** (e.g., contractor’s) name, mailing address, telephone and fax numbers, and email address if different from the owner’s information.
- d) For the site for which the application is being submitted, indicate whether:
  - 1) a prior NPDES permit exclusion has been granted for the discharge (if so, provide the tracking number of the exclusion letter);

- 2) a prior NPDES application (Form 1 & 2C) has ever been filed for the discharge (if so, provide the tracking number and date that the application was submitted to EPA);
  - 3) the discharge is a “new discharge” as defined by 40 CFR 122.2; and
  - 4) for sites in Massachusetts, is the discharge covered under the MA Contingency Plan (MCP) and exempt from state permitting.
- e) Indicate whether there is any ongoing state permitting, licensing, or other action regarding the facility or site which is generating the discharge. If “yes,” provide any site identification number assigned by the state of NH or MA, any permit or license number assigned, and the state agency contact information (e.g. name, location, telephone no.).
- f) Indicate whether or not the facility is covered by other EPA permits including: the multi-sector storm water general permit; the Phase I or II Construction Storm Water General Permit; an individual NPDES permit; or, any other water quality-related individual or general permit. If so, provide permit tracking number(s).

## **2. Discharge information.**

- a) Describe the discharge activities to be covered by the permit. Attach additional sheets as needed.
- b) Provide the following information about each discharge:
- 1) the number of discharge points;
  - 2) the **maximum** and **average flow rate** of the discharge in cubic feet per second. For the average flow magnitude, include the units and appropriate notation if this value is a calculated design value or estimate if technical/design information is not available;
  - 3) the latitude and longitude of each discharge with an accuracy of 100 feet (see EPA’s siting tool at: [http://www.epa.gov/tri/report/siting\\_tool/](http://www.epa.gov/tri/report/siting_tool/));
  - 4) the total volume of potential discharge (gal), only if hydrostatic testing;
  - 5) indication whether the discharge(s) is intermittent or seasonal and if ongoing.
- c) Provide the expected start and end dates of discharge (month/day/year)
- d) 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 section I.3. of the NOI, 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. The applicant may use historical data as a substitute for the new sample if the data was collected no more than 2 years prior to the effective date of the permit and if collected 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, and was analyzed with the test methods required by 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 indicate which of the sub-categories (listed in Table V of Part I.C of the permit) that the potential discharge falls within.
- 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.

Based on the required sampling and analysis, the applicant must fill in the table, or provide a narrative description, with the following additional information for each chemical that is **believed present**:

- 1) the number of samples taken (minimum of one sample);
- 2) the type of sample (e.g. grab, composite, etc.);
- 3) the analytical method used, including the method number;
- 4) the minimum level (ML) of the method used (based on Appendix VI);
- 5) the maximum daily amount (concentration, ug/l, and mass, kg) of each pollutant, based on the sampling data (see Appendix VIII instructions for sample mass calculations); and
- 6) the average daily amount (concentration and mass) of each pollutant, based on the sampling data.

If the results of the required sampling indicate that pollutants exist in addition to those listed in Appendix III of the RGP of the permit, the applicant must also describe those contaminants on the NOI in boxes in section I.3.b) on the line marked "Other," or using additional sheets as needed. Subsequently, EPA will decide if the RGP can apply or if an individual permit is necessary.

c) **Determination of Reasonable Potential and Allowable Dilution for Discharges of Metals:**  
If any *metals* are believed present in the potential discharge to freshwater<sup>3</sup>, the applicant must follow the 2 step calculation procedures described below to determine the reasonable potential for exceedance of water quality standards and dilution factor for each metal.

***Step 1: Initial Evaluation***

- 1) The applicant must evaluate all metals believed present in the discharge subject to this permit, including "naturally occurring" metals such as dissolved and/or total Iron. Applicants must enter the highest detected concentration of the metal at zero dilution in the "Maximum value" column of the NOI.
- 2) Based on the maximum concentration of each metal, the applicant must perform an initial evaluation assuming zero dilution in the receiving water. The applicant must compare the metals concentrations in the untreated (intake) waters to the limits contained in Appendix III.
  - i. If potential discharges (untreated influent) with metals contain concentrations above the concentration limits listed in Appendix III, applicant must proceed to step 2.

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<sup>3</sup>Dilution factors may be available for discharges to saline waters but only with approval of the flow modeling information from the State prior to the submission of the NOI.

ii. If potential discharges (untreated influent) with metals contain concentrations below the concentrations listed in Appendix III, the applicant may skip step 2 and those metals will **not** be subject to permit limitations or monitoring requirements.

***Step 2: Calculation of Dilution Factor***

1) **For applicants in NH:** If a metal concentration in a potential discharge (untreated influent) to **freshwater**<sup>3</sup> exceeds the limits in Appendix III with zero dilution, the applicant shall evaluate the potential concentration considering a dilution factor (DF) using the formula below. **For sites in New Hampshire, the applicant must contact NH DES to determine the 7Q10 and dilution factor.**

$$DF = [(Qd + Qs)/Qd] \times 0.9$$

**Where:**

<b>DF</b>	<b>= Dilution Factor</b>
<b>Qd</b>	<b>= Maximum flow rate of the discharge in cubic feet per second (cfs) (1.0 gpm = .00223 cfs)</b>
<b>Qs</b>	<b>= Receiving water 7Q10 flow, in cfs, where,</b>
<b>7Q10</b>	<b>= The annual minimum flow for 7 consecutive days with a recurrence interval of 10 years</b>
<b>0.9</b>	<b>= Allowance for reserving 10% of the assets in the receiving stream as per Chapter ENV-Ws 1700, Surface Water Quality Regulations</b>

i. Using the DF calculated from the formula above, the applicant must refer to the corresponding DF range column in Appendix IV. The applicant then compares the maximum concentration of the metal entered on the NOI to the corresponding total recoverable metals limits listed in Appendix IV.

1. If a metal concentration in the potential discharge (untreated influent) is less than the corresponding limit in Appendix IV, the metal will **not** be subject to permit limitations or monitoring requirements.
2. If a metal concentration in the potential discharge (untreated influent) is equal to or exceeds the corresponding limit in Appendix IV, the applicant must reduce it in the effluent to a concentration below the applicable total recoverable metals limit in Appendix IV prior to discharge.

ii. In either case, the applicant must submit the results of this calculation as part of the NOI. EPA and NH DES will review the proposed effluent limitations for each metal and approve or disapprove the limits in the notification of coverage letter to the applicant.

2) **For applicants in MA:** If a metal concentration in a in a potential discharge (untreated influent) to **freshwater**<sup>3</sup> exceeds the limits in Appendix III with zero dilution, the applicant must evaluate the potential concentration considering a dilution factor (DF) using the formula below.

$$DF = (Qd + Qs)/Qd$$

**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**

i. The applicant may estimate the 7Q10 for a receiving water by using available information such as nearby USGS stream gauging stations directly or by application of certain “flow factors,” using historic streamflow publication information, calculations based on drainage area, information from state water quality offices, or other means. In many cases the states of MA have calculated 7Q10 information using “flow factors” for a number of streams in the state. The source of the low flow value(s) used by the applicant must be included on NOI application form. Flow data can also be obtained from web applications such as STREAMSTATS located at: <http://ma.water.usgs.gov/streamstats/>.

ii. Using the DF calculated from the formula above, the applicant must refer to the corresponding DF range column in Appendix IV. The applicant then compares the maximum concentration of each metal entered on the NOI to the corresponding total recoverable metals limit listed in Appendix IV.

1. If a metal concentration in the potential discharge (untreated influent) is less than the corresponding limit in Appendix IV, the metal will **not** be subject to permit limitations or monitoring requirements.
2. If a metal concentration in a potential discharge (untreated influent) is equal to or exceeds the corresponding limit in Appendix IV, the applicant must reduce it in the effluent to a concentration below the applicable total recoverable metals limit in Appendix IV prior to discharge.

iii. The applicant must submit the results of this calculation as part of the NOI. EPA (and MA DEP where the discharge not covered by 310 CMR 40.0000) will review the proposed effluent limitations for each metal and approve or disapprove the limits in the notification of coverage letter to the applicant.

#### **4. Treatment system information.**

- a) Describe the treatment train for each discharge and attach a schematic of the proposed or existing treatment system.
- b) Identify each major treatment unit (e.g. frac tanks, filters, air stripper, liquid phase/vapor phase activated carbon, oil/water separators, etc.) by checking all that apply and describing any additional equipment not listed. Provide a written description of how the system train will be set up. Attach additional sheets as needed.

- c) Provide the proposed **average and maximum flow rates** (in gallons per minute, gpm) for the discharge and the **design flow rates** (in gpm) of the treatment system. Clearly identify the component of the treatment with the most limited flow, i.e., the part of the treatment train that establishes the **design flow**.
- d) Describe any chemical additives being used, or planned to be used, and attach MSDS sheets for each. EPA may request further information regarding the chemical composition of the additive, potential toxic effects, or other information to insure that approval of the use of the additive will not cause or contribute to a violation of State water quality standards. Approval of coverage under the RGP will constitute approval of the use of the chemical additive(s). If coverage of the discharge under the RGP has already been granted and the use of a chemical additive becomes necessary, the permittee must submit a Notice of Change (NOC).

**5. Receiving surface water(s) information.**

- a) Identify the discharge pathway by checking whether it is discharged: directly to the receiving water, within the facility (e.g., through a sewer drain), to a storm drain, to a river or brook, to a wetland, or other receiving body.
- b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters into which discharge will occur.
- c) Provide a detailed map(s) indicating the location of the site and outfall to the receiving water:
- 1) For multiple discharges, the discharges should be numbered sequentially.
  - 2) In the case of indirect dischargers (to municipal storm sewer, etc) the map(s) must be sufficient to indicate the location of the discharge to the indirect conveyance and the discharge to the state classified 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 and the basin;
- e) Specify the reported seven day-ten year low flow (7Q10) of the receiving water (see Section I.A.3)c. above). In New Hampshire, the 7Q10 must be provided by to the applicant by the New Hampshire Department of Environmental Services.
- f) Indicate whether the receiving water is a listed 303(d) water quality impaired or limited water and if so, for which pollutants (see Section VII.H. of the Fact Sheet for additional information). Also, indicate if there is a TMDL for any of the listed pollutants. For MA, the list of waters can be found at: <http://www.mass.gov/dep/brp/wm/tmdls.htm> and for NH: <http://www.epa.gov/ne/eco/tmdl/impairedh2o.html>. For more information, contact the states at: New Hampshire Department of Environmental Services, Watershed Management Bureau at 603-271-3503 or the Massachusetts Department of Environmental Protection at 508-767-2796 or 508-767-2873;

**6. Consultation with Federal Services** - As required in Part I.A.4 and Appendix VII the operator of a site/facility must ensure that the potential discharge will not affect adversely endangered species, designated critical habitat, or essential fish habitat, or national historic places that are in proximity to the potential discharge. If the potential discharge is to certain water bodies, the applicant must also submit a formal certification with the NOI that indicates the consultation, with the U.S. Fish and Wildlife Service and National Marine Fisheries Service (the Services), resulted in either a no jeopardy opinion or a written concurrence on a finding that the discharges are not likely to adversely affect any endangered species or critical habitat. Facilities should begin the

consultation as early in the process as possible.

a) Indicate whether any listed threatened or endangered species, designated critical habitat, or essential fish habitat, are in proximity to the discharge to be covered by this permit and whether any consultation with the Services is complete or underway.

b) Indicate whether or not there 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 (see <http://www.cr.nps.gov/nr/research/nris.htm>), and whether any state or tribal historic preservation officer (SHPO or THPO) was consulted in such a determination (for Massachusetts sites only).

**7. Supplemental information.** Applicants should provide any supplemental information needed to meet the requirements of the permit, including, any analytical data used to support the application, and any certification(s) required.

**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.*

**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 <b>facility/site</b> : Former Texaco-Branded Service Station		<b>Facility/site address:</b>		
Location of <b>facility/site</b> : longitude: 71°04'29" latitude: 42° 09' 09"		Facility SIC code (s): 5541	Street: 1580 Turnpike Street	
b) Name of <b>facility/site owner</b> : H&R Realty Trust		Town: Stoughton		
Email address of <b>owner</b> : N/A		State: MA	Zip: 02702	County: Norfolk
Telephone no. of <b>facility/site owner</b> : N/A		<b>Owner is (check one)</b> 1. Federal <input type="checkbox"/> 2. State/Tribal <input type="checkbox"/> 3. Private <input checked="" type="checkbox"/> 4. other, <input type="checkbox"/> if so, describe:		
Fax no. of <b>facility/site owner</b> : N/A				
Address of <b>owner</b> (if different from site):		Street: 1580 Turnpike Street		
Town: Stoughton		State: MA	Zip: 02072	County: Dutchess
c.) Legal name of <b>operator</b> : Motiva Enterprises LLC		<b>Operator telephone no.:</b> 845-462-5225		
		<b>Operator fax no.:</b> 845-462-4999		<b>Operator email:</b> David.Weeks@Shell.com
Operator contact name and title: David Weeks, Senior Environmental Engineer				
Address of <b>operator</b> (if different from owner):		Street: 1830 South Road, Unit 24, PMB 301		
Town: Wappingers Falls		State: NY	Zip: 12590	County: Dutchess
d) Check "yes" or "no" for the following:				
1. Has a prior NPDES permit exclusion been granted for the discharge? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> , if "yes," number:				
2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> , if "yes," date and tracking #:				
3. Is the discharge a "new discharge" as defined by 40 CFR 122.2? Yes <input type="checkbox"/> 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 <input type="checkbox"/>				

<p>e) Is site/facility subject to any State permitting or other action which is causing the generation of discharge? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>.</p> <p>If "yes," please list:</p> <p>1. site identification # assigned by the state of NH or MA:</p> <p>2. permit or license # assigned:</p> <p>3. state agency contact information: name, location, and telephone number:</p>	<p>f) Is the site/facility covered by any other EP A permit, including:</p> <p>1. multi-sector storm water general permit? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>, if Y, number:</p> <p>2. phase I or II construction storm water general permit? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>, if Y, number:</p> <p>3. individual NPDES permit? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>, if Y, number:</p> <p>4. any other water quality related permit? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>, if Y, number:</p>
--	--

**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:</p> <p style="padding-left: 40px;">Groundwater remediation project at former retail gasoline service station</p>		
<p>b) Provide the following information about each discharge:</p>	<p>1) Number of discharge points:</p> <p>One (1)</p>	<p>2) What is the <b>maximum and average flow rate</b> of discharge (in cubic feet per second, W/s)? Max. flow <u>0.0223 ft<sup>3</sup>/sec</u></p> <p>Average flow <u>0.01115 ft<sup>3</sup>/sec</u> Is maximum flow a <b>design value</b>? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>,</p> <p>For average flow, include the units and appropriate notation if this value is a design value or estimate if not available.</p> <p>Average flow 0.01115 ft<sup>3</sup>/sec (engineering estimate)</p>
<p>3) Latitude and longitude of each discharge within 100 feet: pt.1 :long <u>71 °04' 29"</u> lat. <u>42° 09' 19"</u> ; pt.2: long. ___ lat. ___ ; pt.3: long. ___ lat. ___ ;</p> <p>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):</p> <p style="text-align: center;">N/A</p>	<p>5) Is the discharge intermittent <input checked="" type="checkbox"/> Or seasonal <input type="checkbox"/> ?</p> <p>Is discharge ongoing Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>,?</p>
<p>c) Expected dates of discharge (mm/dd/yy): start <u>Feb 2006</u> end <u>unknown</u></p>	
<p>d) Please attach a line drawing or flow schematic showing water flow through the facility including: <u>See attached.</u></p> <p>1. sources of intake water, 2. contributing flow from the operation, 3. treatment units, and 4. discharge points and receiving waters(s).</p>	

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

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

Gasoline Only <input checked="" type="checkbox"/>	VOC Only <input type="checkbox"/>	Primarily Metals <input type="checkbox"/>	Urban Fill Sites <input type="checkbox"/>	Contaminated Sumps <input type="checkbox"/>	Mixed Contaminants <input type="checkbox"/>	Aquifer Testing <input type="checkbox"/>
Fuel Oils (and Other Oils) only <input type="checkbox"/>	VOC with Other Contaminants <input type="checkbox"/>	Petroleum with Other Contaminants <input type="checkbox"/>	Listed Contaminated Sites <input type="checkbox"/>	Contaminated Dredge Condensates <input type="checkbox"/>	Hydrostatic Testing of Pipelines/Tanks <input type="checkbox"/>	Well Development or Rehabilitation <input type="checkbox"/>

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

PARAMETER	Believe Absent	Believe Present	#of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method (ug/l)	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg) (kg/day)	concentration (ug/l)	mass (kg) (kg/day)
1. Total Suspended Solids		√	1	GRAB	160.2	1000	50.000	2.7295		
2. Total Residual Chlorine	√		1	GRAB	330.5	40	<40	<2.18 E-3		
3. Total Petroleum Hydrocarbons	√		1	GRAB	1664A	2000	<2000	<0.1092		
4. Cyanide	√		1	GRAB	335.3	10	<10	<5.46 E-4		
5. Benzene		√	1	GRAB	8260B	25	<25	<1.36 E-3		
6. Toluene		√	1	GRAB	8260B	50	<50	<2.73 E-3		
7. Ethylbenzene		√	1	GRAB	8260B	50	<50	<2.73 E-3		
8. (m,p,o) Xylenes		√	1	GRAB	8260B	50	<50	<2.73 E-3		
9. Total BTEX <sup>4</sup>		√	1	GRAB	8260B	-----	<50	<2.73 E-3		

<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 (ug/l)	Maximum daily value		Avg. daily value	
							concentration ( ug/l)	mass (kg) (kg/day)	concentration (ug/l)	mass (kg) (kg/day)
10. Ethylene Dibromide (1,2- Dibromo-methane)	√		1	GRAB	504.1	0.012	<0.012	<6.56 E-7		
11. Methyl-tert-Butyl Ether (MtBE)		√	1	GRAB	8260B	50	14200	0.7752		
12. tert-Butyl Alcohol (TBA)		√	1	GRAB	8260B	5000	7790	0.4252		
13. tert-Amyl Methyl Ether (TAME)		√	1	GRAB	8260B	200	266	0.0145		
14. Naphthalene		√	1	GRAB	8270C SIM	0.11	0.20	1.09 E-5		
15. Carbon Tetrachloride	√		1	GRAB	8260B	50	<50	<2.73 E-3		
16. 1,4 Dichlorobenzene	√		1	GRAB	8260B	50	<50	<2.73 E-3		
17.1,2 Dichlorobenzene	√		1	GRAB	8260B	50	<50	<2.73 E-3		
18. 1,3 Dichlorobenzene	√		1	GRAB	8260B	50	<50	<2.73 E-3		
19. 1,1 Dichloroethane	√		1	GRAB	8260B	50	<50	<2.73 E-3		
20. 1,2 Dichloroethane	√		1	GRAB	8260B	50	<50	<2.73 E-3		
21. 1,1 Dichloroethylene	√		1	GRAB	8260B	50	<50	<2.73 E-3		
22. cis-1,2 Dichloroethylene	√		1	GRAB	8260B	50	<50	<2.73 E-3		
23. Dichloromethane (Methylene Chloride)	√		1	GRAB	8260B	100	<100	<5.46 E-3		
24. Tetrachloroethylene	√		1	GRAB	8260B	50	<50	<2.73 E-3		

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method (ug/l)	Maximum daily value		Avg. daily Value	
							concentration (ug/l)	mass (kg) (kg/day)	concentration (ug/l)	mass (kg) (kg/day)
25. 1,1,1 Trichloroethane	√		1	GRAB	8260B	50	<50	<2.73 E-3		
26. 1,1,2 Trichloroethane	√		1	GRAB	8260B	50	<50	<2.73 E-3		
27. Trichloroethylene	√		1	GRAB	8260B	50	<50	<2.73 E-3		
28. Vinyl Chloride	√		1	GRAB	8260B	50	<50	<2.73 E-3		
29. Acetone	√		1	GRAB	8260B	250	<250	<0.0136		
30. 1,4 Dioxane	√		1	GRAB	8260B	1300	<1300	<0.0710		
31. Total Phenols	√		1	GRAB	8270C	See lab data	See lab data (Not Detected)	-----		
32. Pentachlorophenol	√		1	GRAB	8270C SIM	1.1	<1.1	<6.00 E-5		
33. Total Phthalates <sup>6</sup> (phthalate esters)	√		1	GRAB	8270C	11	<11	<6.00 E-4		
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	√		1	GRAB	8270C	11	<11	<6.00 E-4		
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	√		1	GRAB	8270C SIM	See lab data	See lab data (Not Detected)	-----		
a. Benzo(a) Anthracene	√		1	GRAB	8270C SIM	0.057	<0.057	<3.11 E-6		
b. Benzo(a) Pyrene	√		1	GRAB	8270C SIM	0.11	<0.11	<6.00 E-6		
c. Benzo(b) Fluoranthene	√		1	GRAB	8270C SIM	0.057	<0.057	<3.11 E-6		
d. Benzo(k) Fluoranthene	√		1	GRAB	8270C SIM	0.11	<0.11	<6.00 E-6		
e. Chrysene	√		1	GRAB	8270C SIM	0.11	<0.11	<6.00 E-6		

<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 (ug/l)	Maximum daily value		Average daily value	
							concentration (ug/l)	mass (kg) (kg/day)	concentration (ug/l)	mass (kg) (kg/day)
f. Dibenzo(a,h) anthracene	√		1	GRAB	8270C SIM	0.11	<0.11	<6.00 E-6		
g. Indeno(1,2,3-cd) Pyrene	√		1	GRAB	8270C SIM	0.11	<0.11	<6.00 E-6		
36. Total Group II Polycyclic Aromatic Hydrocarbons (pAR)	√		1	GRAB	8270C SIM	0.11	0.20	1.09 E-5		
h. Acenaphthene	√		1	GRAB	8270C SIM	0.11	<0.11	<6.00 E-6		
i. Acenaphthylene	√		1	GRAB	8270C SIM	0.11	<0.11	<6.00 E-6		
j. Anthracene	√		1	GRAB	8270C SIM	0.11	<0.11	<6.00 E-6		
k. Benzo(ghi) Perylene	√		1	GRAB	8270C SIM	0.11	<0.11	<6.00 E-6		
l. Fluoranthene	√		1	GRAB	8270C SIM	0.11	<0.11	<6.00 E-6		
m. Fluorene	√		1	GRAB	8270C SIM	0.11	<0.11	<6.00 E-6		
n. Naphthalene-		√	1	GRAB	8270C SIM	0.11	0.20	1.09 E-5		
o. Phenanthrene	√		1	GRAB	8270C SIM	0.11	<0.11	<6.00 E-6		
p. Pyrene	√		1	GRAB	8270C SIM	0.11	<0.11	<6.00 E-6		
37. Total Polychlorinated Biphenyls (PCBs)	√		1	GRAB	608	0.2 – 0.4	<0.2 - <0.4	<1.09 E-5 – <2.18 E-5		
38. Antimony	√		1	GRAB	3113B	5.0	<5.0	<2.73 E-4		
39. Arsenic	√		1	GRAB	3010A-6010B	5.0	<5.0	<2.73 E-4		
40. Cadmium	√		1	GRAB	3113B	0.5	<0.5	<2.73 E-5		
41. Chromium III (1)		√	1	GRAB	Calculated	-----	5.0	2.73 E-4		
42. Chromium VI	√		1	GRAB	7196A	100	<100	<5.46 E-3		

NOTE: (1) Chromium III = Total Chromium – Hexavalent Chromium

NOTE: All samples taken from representative recovery well.

PARAMETER	Believe Absent	Believe Present	#of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method (ug/l)	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg) (kg/day)	concentration (ug/l)	mass (kg) (kg/day)
43. Copper	√		1	GRAB	200.7	20	<20	<1.09 E-3		
44. Lead		√	1	GRAB	3113B	2.0	2.0	1.09 E-4		
45. Mercury	√		1	GRAB	245.1	0.20	<0.20	<1.09 E-5		
46. Nickel		√	1	GRAB	200.7	5.0	28	1.53 E-3		
47. Selenium	√		1	GRAB	3113B	5.0	<5.0	<2.73 E-4		
48. Silver	√		1	GRAB	3113B	0.5	<0.5	<2.73 E-5		
49. Zinc		√	1	GRAB	200.7	20	200	0.0109		
50. Iron (2)		√	1	GRAB	200.7	50	5060	0.2762		
Other (describe):	----	----	----	----	----	----	----	----	----	----

NOTE: (2) Method blank, 80 ppm iron.

NOTE: Mass loading limitations were calculated using design flow rate of 10 GPM.

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

<p>Step 1: 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? <u>Pb, Zn, Fe</u></p>
<p>Step 2: 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: <u>Pb, Zn, Fe</u></p> <p>DF: <u>unknown</u></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 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:  
 Groundwater is extracted from multiple recovery wells and treated by one equalization tank, four bag filters, one low profile air stripper and three granular activated carbon units. See attached figure.

b) Identify each applicable treatment unit (check all that apply):	Frac. tank <input type="checkbox"/>	Air stripper <input checked="" type="checkbox"/>	Oil/water separator <input type="checkbox"/>	Equalization tanks <input checked="" type="checkbox"/>	Bag filter <input checked="" type="checkbox"/>	GAC filter <input checked="" type="checkbox"/>
	Chlorination <input type="checkbox"/>	Dechlorination <input type="checkbox"/>	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 5 GPM    Maximum flow rate of treatment system 10 GPM    Design flow rate of treatment system 10 GPM

d) A description of chemical additives being used or planned to be used (attach MSDS sheets): Not Applicable

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

a) Identify the discharge pathway:	Direct <input type="checkbox"/>	Within facility <input type="checkbox"/>	Storm drain <input checked="" type="checkbox"/>	River/brook <input type="checkbox"/>	Wetlands <input type="checkbox"/>	Other (describe):
------------------------------------	---------------------------------	--	---	--------------------------------------	-----------------------------------	-------------------

b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters:  
 Discharge to a stormwater catch basin (Town of Stoughton storm sewer system) to unnamed pond to Bear Swamp to Three Swamp Brook (unclassified). Taunton River Basin.

c) Attach a detailed map(s) indicating the site location and location of the outfall to the receiving water:  
 1. For multiple discharges, number the discharges sequentially.  
 2. For indirect discharges, indicate the location of the discharge to the indirect conveyance and the discharge to surface water  
 The map should also include the location and distance to the nearest sanitary sewer as well as the locus of nearby sensitive receptors (based on USGS topographical mapping), such as surface waters, drinking water supplies, and wetland areas. See attached

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

e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water unknown cfs  
 Please attach any calculation sheets used to support stream flow and dilution calculations. See attached.

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? Yes  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): Not applicable  
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.

See cover letter.

**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: <u>Former Texaco-Branded Service Station, 1580 Turnpike Street, Stoughton, MA</u>
Operator signature: <u></u>
Title: <u>David Weeks, Senior Environmental Engineer</u>
Date: <u>Nov 23, 2005</u>

**B. Submission of NOI to EPA** - All operators applying for coverage under this General Permit must submit a written Notice of Intent (NOI) to EPA. Signed and completed NOI forms and attachments must be submitted to EPA-NE at:

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

or electronically mailed to [NPDES.Generalpermits@epa.gov](mailto:NPDES.Generalpermits@epa.gov),  
or faxed to the EPA Office at 617-918-0505.

If filling out the suggested NOI form electronically on EPA's website, the signature page must be signed and faxed or mailed to EPA at the phone number or address listed in Section I.B. below.

1. Filing with the states - A copy of any NOI form filed with EPA-NE must also be filed with state agencies. The state agency may elect to develop a state specific form or other information requirements.

a) Discharges in Massachusetts - In addition to the NOI, permit applicants must submit copies of the State Application Form BRPWM 12, Request for General Permit coverage for the RGP. The application form and the Transmittal Form for Permit Application and Payment, may be obtained from the Massachusetts Department of Environmental Protection (MA DEP) website at [www.state.ma.us/dep](http://www.state.ma.us/dep). Municipalities are fee-exempt, but should send a copy of the transmittal form to that address for project tracking purposes. All applicants should keep a copy of the transmittal form and a copy of the application package for their records.

1) A copy of the NOI, the transmittal form, a copy of the check, and Form BRPWM 12 should be sent to:

Massachusetts Department of Environmental Protection  
Division of Watershed Management  
627 Main Street, 2<sup>nd</sup> floor  
Worcester, MA 01608

2) A copy of the transmittal form and the appropriate fee should be sent to:

Massachusetts Department of Environmental Protection  
P.O. Box 4062  
Boston, MA 02111

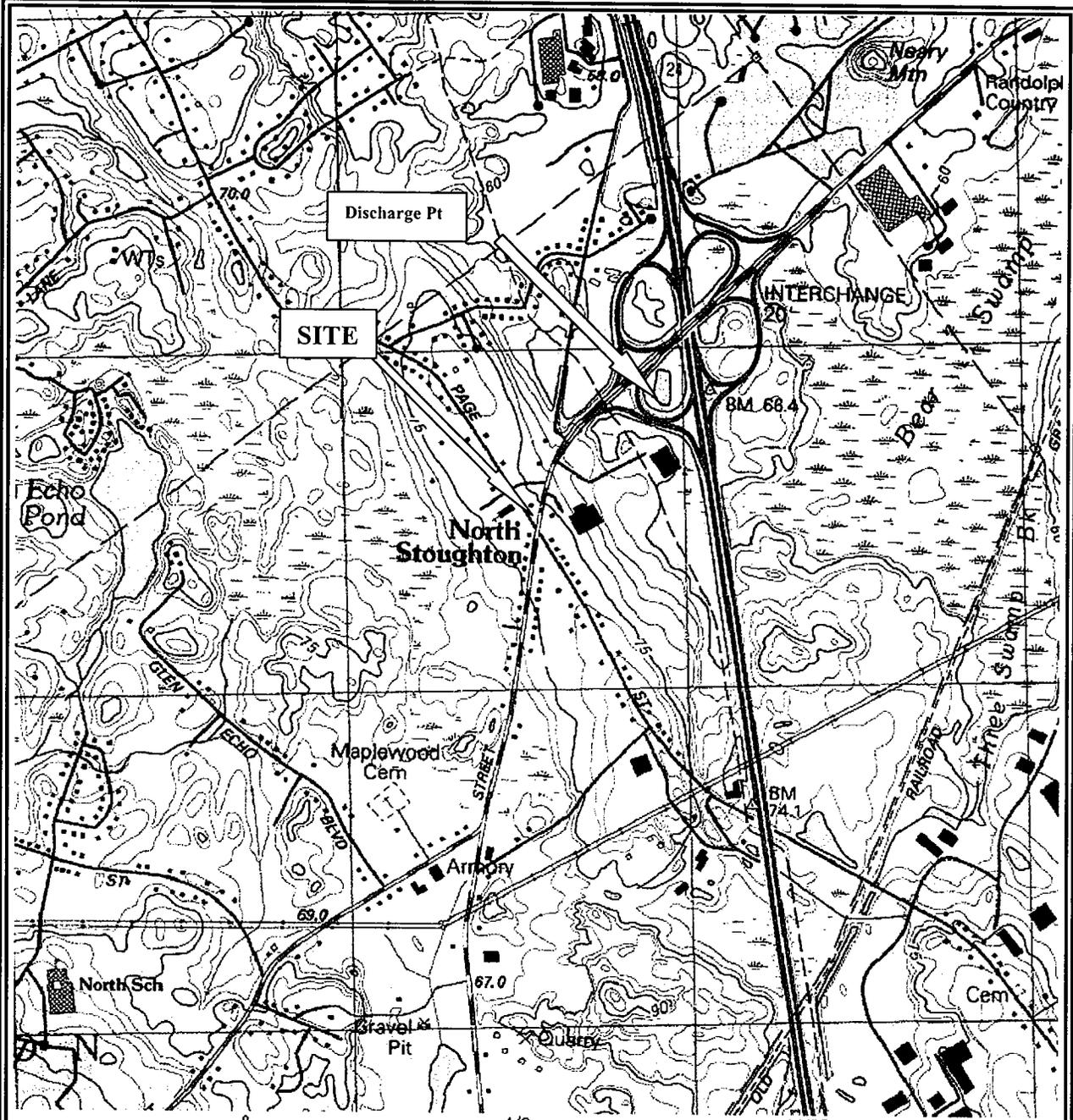
Please note: Applicants for discharges in Massachusetts should note that under 310 CMR 40.000, *as a matter of state law*, the general permit only applies to discharges that are **not** subject to the Massachusetts Contingency Plan (MCP) and 310 CMR 40.000. Therefore, discharges subject to the MCP are **not** required to fill out and submit the State Application Form BRPWM 12 or pay the state fees. However, they must submit a NOI to EPA.

b) Discharges in New Hampshire - applicants must provide a copy of the Notice of Intent to:

New Hampshire Department of Environmental Services  
Water Division  
Wastewater Engineering Bureau  
P.O. Box 95  
Concord, New Hampshire 03302-0095.

2. Filing with Municipalities - A copy of the NOI must be submitted to the municipality in which the proposed discharge would be located.

# FIGURES

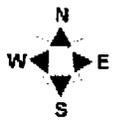


0 1000 FEET 0 500m 1000m MILE  
 Printed from TOPO! ©1999 Wildflower Productions (www.topo.com)

Texaco Service Station  
 1580 Turnpike Street  
 Stoughton, Massachusetts

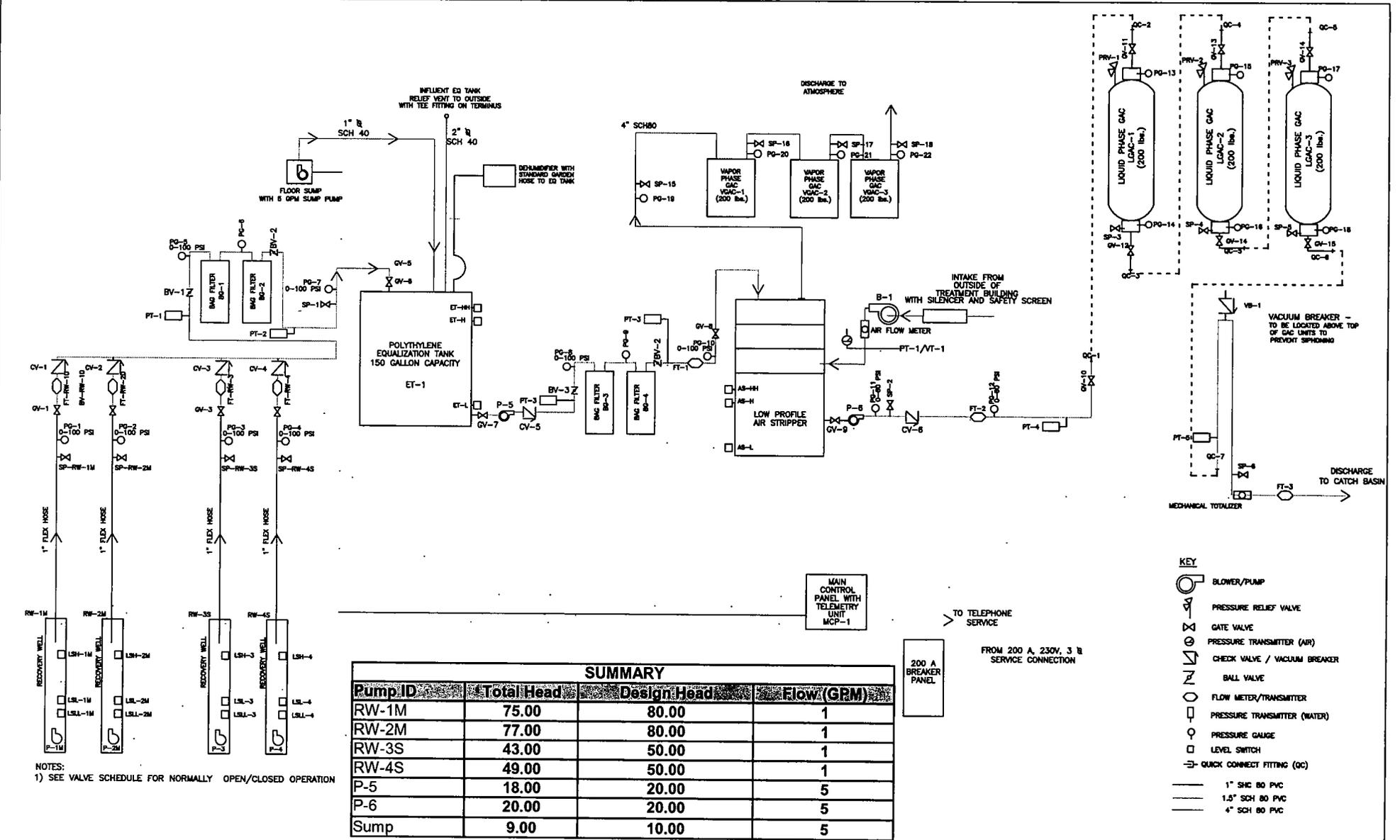
Contour Interval 3 Meters

Long: 71°04'28"  
 Lat: 42°09'07"



**FIGURE 1**  
 SITE LOCUS MAP  
 UNITED STATES GEOLOGICAL SURVEY  
 BROCKTON  
 MASSACHUSETTS  
 7.5 MINUTE SERIES





# **DILUTION FACTOR CALCULATIONS**

**DILUTION FACTOR CALCULATION WORKSHEET  
NPDES REMEDIATION GENERAL PERMIT - NOTICE OF INTENT FORM**

Site: Former Texaco-Branded Service Station  
Address: 1580 Turnpike Street, Stoughton, Norfolk County, MA  
Receiving Stream: Unnamed Pond to Bear Swamp to Three Swamp Brook (unclassified)

Qd = 10 = Maximum flow rate of the discharge (gpm)

Qd = 0.0223 = Maximum flow rate of the discharge in cubic feet per second (cfs), 1.0 gpm = 0.00223 cfs

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

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

DF = (Qd + Qs) / Qd

DF = Dilution Factor =

**NOTE:**

Source: The USGS Streamflow Statistics Report (<http://ststdmamrl.er.usgs.gov/streamstats/expert.htm>) does not contain 7Q10s for water bodies in the Taunton River Basin. Therefore the dilution factor could not be calculated.

**ENDANGERED SPECIES ACT  
TOWN SPECIES LIST**

In accordance with Appendix VII of the NPDES Remediation General Permit, it was determined that the four species of concern (**shortnose sturgeon, dwarf wedge mussel, bog turtle** and the **northern redbelly cooter**) are not present at the facility pursuant to USEPA Endangered Species Act Review Procedures website (<http://cfpub.epa.gov/npdes/stormwater/esa.cfm>). See attached list.

Town		Taxonomic Group	Scientific Name	Common Name	State Rank	Federal Rank	Most Recent Obs
STOUGHTON		Fish	Notropis bifrenatus	Bridle Shiner	SC		1951
STOUGHTON	*	Reptile	Clemmys guttata	Spotted Turtle	SC		1999
STOUGHTON	*	Reptile	Terrapene carolina	Eastern Box Turtle	SC		1984
STOUGHTON		Beetle	Cicindela purpurea	Purple Tiger Beetle	SC		1923
STOUGHTON		Vascular Plant	Carex polymorpha	Variable Sedge	E		1930
STOUGHTON		Vascular Plant	Cyperus houghtonii	Houghton's Flatsedge	E		1928
STOUGHTON		Vascular Plant	Panicum philadelphicum	Philadelphia Panic-Grass	SC		1931
STOUGHTON		Vascular Plant	Rotala ramosior	Toothcup	E		1929

**MASSACHUSETTS YEAR 2002  
INTEGRATED LIST OF WATERS  
(303 (d) LIST)**

In accordance with the Massachusetts Year 2002 Integrated List of Waters, it was determined that Bear Swamp and Three Swamp Brook are not the 303(d) list. See attached list.

# **Massachusetts Year 2002 Integrated List of Waters**

## ***Part 2 – Final Listing of Individual Categories of Waters***

**CN: 125.2**

**Commonwealth of Massachusetts**  
**Executive Office of Environmental Affairs**  
Ellen Roy Herzfelder, Secretary  
**Massachusetts Department of Environmental Protection**  
Robert W. Golledge Jr., Commissioner  
**Bureau of Resource Protection**  
Cynthia Giles, Assistant Commissioner  
**Division of Watershed Management**  
Glenn Haas, Director

**September, 2003**

## Appendix 2

### Waterbody Segments and Integrated List Categories by Major Watershed

NAME	SEGMENT ID	DESCRIPTION	ASSESS DATE	CATEGORY
Torrey Pond (94157)	MA94157_2002	Norwell	Oct-97	5
Triangle Pond (94160)	MA94160_2002	Plymouth	Oct-97	2
Upper Chandler Pond (94165)	MA94165_2002	Duxbury/Pembroke	Oct-97	4c
Wampatuck Pond (94168)	MA94168_2002	Hanson	Oct-97	5
West Chandler Pond (94170)	MA94170_2002	Pembroke	Oct-97	2
Winslow Cemetary Pond (94172)	MA94172_2002	Marshfield	Oct-97	3
Wright Pond (94174)	MA94174_2002	Duxbury	Oct-97	3
<b>Taunton</b>				
Ames Long Pond (62001)	MA62001_2002	Stoughton/Easton	Aug-97	5
Assawompset Pond (62003)	MA62003_2002	Lakeville/Middleborough	Aug-97	2
Assonet River (6235100)	MA62-19_2002	Confluence of Cedar Swamp River and unnamed tributary just northeast of Lakeville/Berkley/Freetown boundary, Lakeville to Route 24 Bridge, Freetown.	Dec-97	3
Assonet River (6235100)	MA62-20_2002	Route 24 bridge, Freetown to confluence with Taunton River, Freetown.	Dec-97	5
Barrowsville Pond (62007)	MA62007_2002	Norton	Dec-93	3
Beaumont Pond (62009)	MA62009_2002	Foxborough	Aug-97	3
Beaver Brook (6237350)	MA62-09_2002	Groveland Street, Brockton to confluence with Beaver Brook and Salisbury Plain River, East Bridgewater.	Dec-91	3
Beaver Brook (6235800)	MA62-30_2002	Source just west of Bay Road to inlet Old Pond, Easton. Miles 1.4-0.0	Mar-94	3
Big Bearhole Pond (62011)	MA62011_2002	Taunton	Aug-97	5
Blakes Pond (62221)	MA62221_2002	Mansfield	Sep-96	3
Briggs Pond (62021)	MA62021_2002	Sharon	Aug-97	2
Broad Cove (62022)	MA62022_2002	Dighton/Somerset	Aug-97	2
Brockton Reservoir (62023)	MA62023_2002	Avon	Aug-97	4c
Cabot Pond (62029)	MA62029_2002	Mansfield	Sep-02	5
Cain Pond (62030)	MA62030_2002	Taunton	Dec-93	5
Canoe River (6235850)	MA62-27_2002	Headwaters in wetland east of Cow Hill, Sharon to inlet Winnecunnet Pond, Norton. Miles 14.8-0.0	Dec-97	2
Carpenter Pond (62032)	MA62032_2002	Foxborough	Aug-97	3
Carver Pond (62033)	MA62033_2002	Bridgewater	Aug-97	4c
Chaffin Reservoir (62035)	MA62035_2002	Pembroke	Aug-97	3
Chartley Pond (62038)	MA62038_2002	Norton/Attleboro	Aug-97	3
Cleveland Pond (62042)	MA62042_2002	Abington	Aug-97	4c
Cocasset Lake (62043)	MA62043_2002	Foxborough	Aug-97	5
Cooper Pond (62046)	MA62046_2002	Carver	Aug-97	2
Coweset Brook (6237500)	MA62-22_2002	Source southwest of Route24/Belmont Street interchange, Brockton to confluence Hockomock River, West Bridgewater. Miles 3.9-0.0	Dec-91	3
Crocker Pond (62051)	MA62051_2002	Wrentham	Aug-97	4c
Cross Pond (62052)	MA62052_2002	Brockton	Nov-97	3
Cross Street Pond (62053)	MA62053_2002	Bridgewater	Aug-97	3
Cushing Pond (62056)	MA62056_2002	Abington	Aug-97	4c
East Freetown Pond (62063)	MA62063_2002	Freetown	Aug-97	4c
Elm Street Pond (62066)	MA62066_2002	Halifax/Hanson	Aug-97	3
Forge Pond (62072)	MA62072_2002	Freetown	Aug-97	3

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NAME	SEGMENT ID	DESCRIPTION	ASSESS DATE	CATEGORY
Forge River (6235875)	MA62-37_2002	Outlet Kings Pond, Raynham to confluence with Taunton River, Raynham. Miles 2.6-0.0	Dec-97	3
Fulton Pond (62075)	MA62075_2002	Mansfield	Sep-02	5
Furnace Lake (62076)	MA62076_2002	Foxborough	Aug-97	3
Gavins Pond (62077)	MA62077_2002	Sharon/Foxborough	Aug-97	4c
Great Quittacas Pond (62083)	MA62083_2002	Lakeville/Middleborough/Rochester	Aug-97	2
Gushee Pond (62084)	MA62084_2002	Raynham	Aug-97	4c
Hewitt Pond (62088)	MA62088_2002	Raynham	Aug-97	3
Hobart Pond (62090)	MA62090_2002	Whitman	Aug-97	5
Hockomock River (6237475)	MA62-35_2002	Source west of Route 24 and north of Old Railroad Grade to confluence with Town River, West Bridgewater. Miles 5.0-0.0	Dec-91	3
Hodges Pond (62091)	MA62091_2002	(Kingman Pond) Mansfield	Sep-02	5
Island Grove Pond (62094)	MA62094_2002	Abington	Aug-97	5
Johns Pond (62096)	MA62096_2002	Carver	Aug-97	2
Johnson Pond (62097)	MA62097_2002	Raynham	Aug-97	4c
Kings Pond (62101)	MA62101_2002	Raynham	Sep-97	3
Leach Pond (62103)	MA62103_2002	Easton/Sharon	Sep-97	3
Little Cedar Swamp (62106)	MA62106_2002	Easton	Sep-97	3
Little Quittacas Pond (62107)	MA62107_2002	Lakeville/Rochester	Sep-97	2
Long Pond (62108)	MA62108_2002	Lakeville/Freetown	Sep-97	4c
Longwater Pond (62109)	MA62109_2002	Easton	Sep-97	4c
Lower Porter Pond (62111)	MA62111_2002	Brookton	Sep-97	4c
Matfield River (6236925)	MA62-32_2002	Confluence of Beaver Brook and Salisbury Plain River, East Bridgewater to confluence with Town River and Taunton River, Bridgewater. Miles 5.4-0.0	Nov-97	5
Mcavoy Pond (62112)	MA62112_2002	Foxborough	Sep-97	4c
Meadow Brook Pond (62113)	MA62113_2002	Norton	Sep-97	3
Middle Pond (62115)	MA62115_2002	Taunton	Sep-97	4c
Mill River (6235725)	MA62-29_2002	Outlet Lake Sabbatia, Taunton to confluence with Taunton River, Taunton. Miles 4.3-0.0	Dec-91	3
Lake Mirimichi (62118)	MA62118_2002	Plainville/Foxborough	Sep-97	4c
Monponsett Pond (62119)	MA62119_2002	Halifax/Hanson	Sep-97	5
Monponsett Pond (62218)	MA62218_2002	Halifax	Sep-02	5
Mountain Street Pond (62123)	MA62123_2002	Sharon	Sep-97	3
Muddy Cove Brook (6235275)	MA62-23_2002	Source south of Hart Street, Dighton to confluence with Taunton River, North Dighton. Miles 2.6-0.0	Dec-97	3
Muddy Cove Brook Pond (62124)	MA62124_2002	Dighton	Sep-97	5
Muddy Pond (62125)	MA62125_2002	Carver	Sep-97	4c
Muddy Pond (62126)	MA62126_2002	Halifax	Sep-97	2
Mulberry Meadow Brook (6235775)	MA62-31_2002	Outlet New Pond, Easton to inlet of Winnecunnet Pond, Norton. Miles 4.7-0.0	Mar-94	3
Mullein Hill Chapel Pond (62127)	MA62127_2002	Lakeville	Sep-97	3
Nemasket River (6236225)	MA62-25_2002	Outlet Assawompset Pond, Lakeville/Middleborough to Middleborough WWTP, Middleborough. Miles 11.3-5.2	Nov-97	2
Nemasket River (6236225)	MA62-26_2002	Middleborough WWTP to confluence with Taunton River, Middleborough.	Nov-97	3
New Pond (62130)	MA62130_2002	Easton	Sep-97	4c
Lake Nippenicket (62131)	MA62131_2002	Bridgewater	Sep-97	4c

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### Waterbody Segments and Integrated List Categories by Major Watershed

NAME	SEGMENT ID	DESCRIPTION	ASSESS DATE	CATEGORY
North Center Street Pond (62132)	MA62132_2002	Carver	Sep-97	3
Norton Reservoir (62134)	MA62134_2002	Norton/Mansfield	Sep-02	5
Oakland Pond (62136)	MA62136_2002	Taunton	Sep-96	3
Plymouth Street Pond (62141)	MA62141_2002	Halifax/E. Bridgewater	Sep-97	3
Pocksha Pond (62145)	MA62145_2002	Lakeville/Middleborough	Sep-97	2
Poor Meadow Brook (6237000)	MA62-34_2002	Source in wetland near County Street (eastern crossing of Route 14), Hanson to confluence with Satucket River, East Bridgewater. Miles 7.2-0.0	Dec-91	3
Poquoy Pond (62147)	MA62147_2002	Lakeville	Sep-97	3
Prospect Hill Pond (62149)	MA62149_2002	Taunton/Raynham	Sep-97	3
Puds Pond (62151)	MA62151_2002	Sharon/Easton	Sep-97	2
Queset Brook (6237525)	MA62-21_2002	Outlet Ames Long Pond, North Easton/Stoughton to confluence with Coweaset Brook, West Bridgewater.	Dec-91	3
Reservoir (62157)	MA62157_2002	Hanson	Sep-97	3
Reservoir (62158)	MA62158_2002	Easton	Sep-97	3
The Reservoir (62189)	MA62189_2002	Lakeville	Sep-97	2
Richmond Pond (62159)	MA62159_2002	Taunton	Sep-97	4c
Lake Rico (62148)	MA62148_2002	Taunton	Sep-97	4c
Robbins Pond (62162)	MA62162_2002	East Bridgewater	Sep-97	2
Robinson Brook (6235625)	MA62-14_2002	Outlet Hersey Pond, Foxborough to confluence with Rumford River, Foxborough.	Dec-97	3
Robinson Pond (62163)	MA62163_2002	Mansfield	Nov-97	3
Route One Pond, West (62165)	MA62165_2002	Wrentham	Sep-97	3
Rumford River (6235600)	MA62-15_2002	Outlet Gavins Pond, to confluence with Wading and Threemile Rivers, Norton. Miles 14.1-0.0	Sep-02	5
Lake Sabbatia (62166)	MA62166_2002	Taunton	Sep-97	4c
Salisbury Brook (6237275)	MA62-08_2002	Outlet Cross Pond to confluence with Trout Brook, Brockton. Miles 1.7-0.0	Dec-97	5
Salisbury Plain River (6237100)	MA62-05_2002	Confluence of Trout Brook and Salisbury Brook, Brockton to Brockton WWTP.	Nov-97	5
Salisbury Plain River (6237100)	MA62-06_2002	Brockton WWTP, Brockton to confluence with Beaver Brook and Matfield River, East Bridgewater. Miles 2.2-0.0	Nov-97	5
Satucket River (6236950)	MA62-10_2002	Outlet Robbins Pond, East Bridgewater to confluence with Matfield River, East Bridgewater. Miles 5.7-0.0	Dec-91	3
Savery Pond (62167)	MA62167_2002	Middleborough	Sep-97	4c
Sawmill Brook (6236175)	MA62-36_2002	Outlet of Ice Pond, Bridgewater to confluence with Taunton River, Bridgewater. Miles 1.9-0.0	Dec-97	3
Segreganset River (6235300)	MA62-18_2002	Source in wetland just north of Glebe Street, Taunton to confluence with Taunton River, Freetown. Miles 9.3-0.0	Dec-91	3
Segreganset River Ponds (62169)	MA62169_2002	Taunton	Sep-97	5
Shovelshop Pond (62172)	MA62172_2002	Easton	Sep-97	4c
Shumatuscacant River (6237025)	MA62-33_2002	Headwaters, wetland just west of Vineyard Road, Abington to confluence with Poor Meadow Brook, Hanson. Miles 4.4-0.0	Dec-91	3
Snake River (6235750)	MA62-28_2002	Outlet Winnecunnet Pond, Norton to inlet Lake Sabbatia, Taunton. Miles 3.4-0.0	Dec-91	3
Somerset Reservoir (62174)	MA62174_2002	Somerset	Sep-97	5
Stetson Pond (62182)	MA62182_2002	Pembroke	Aug-97	5
Sunset Lake (62184)	MA62184_2002	Foxborough	Sep-97	2
Sweets Pond (62185)	MA62185_2002	Mansfield	Sep-97	4c
Taunton River (6235000)	MA62-01_2002	Confluence of Town and Matfield Rivers to Route 24 Bridge, Taunton. Miles 40.8-21.2	Dec-97	3
Taunton River (6235000)	MA62-02_2002	Route 24 Bridge, Taunton to Berkley Bridge, Dighton/Berkley. Miles 21.2-13.0	Dec-97	5

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### Waterbody Segments and Integrated List Categories by Major Watershed

NAME	SEGMENT ID	DESCRIPTION	ASSESS DATE	CATEGORY
Taunton River (6235000)	MA62-03_2002	Berkley Bridge, Dighton to Fall River/Freetown/Somerset boundary. Miles 13.0-7.5	Dec-97	5
Taunton River (6235000)	MA62-04_2002	Fall River/Freetown/Somerset boundary to mouth at Braga Bridge, Somerset/Fall River. Miles 7.5-0.0	Dec-97	5
Thirtyacre Pond (62190)	MA62190_2002	Brockton	Sep-97	4c
Three Mile River Impoundment (62231)	MA62231_2002	Taunton/Dighton	Sep-97	4c
Threemile River (6235350)	MA62-16_2002	Confluence of Wading and Rumford Rivers, Norton to confluence with Taunton River, Dighton. Miles 12.9-0.0	Dec-97	5
Thurston Street Pond (62192)	MA62192_2002	Wrentham	Sep-97	3
Town River (6237375)	MA62-11_2002	Outlet of Lake Nippenicket, Bridgewater to Route 28 Bridge, West Bridgewater.	Dec-91	3
Town River (6237375)	MA62-12_2002	Route 28 bridge, West Bridgewater to Bridgewater WWTP, Bridgewater.	Dec-91	3
Town River (6237375)	MA62-13_2002	Bridgewater WWTP to confluence with Matfield River and Taunton River, Bridgewater. Miles 1.7-0.0	Dec-91	3
Trout Brook (6237175)	MA62-07_2002	Source at confluence of two unnamed tributaries just west of Conrail line (near old drive in theater), Avon to confluence with Salisbury Plain River, Brockton. Miles 3.5-0.0	Dec-97	5
Turnpike Lake (62198)	MA62198_2002	Plainville	Sep-97	4c
Upper Porter Pond (62200)	MA62200_2002	Brockton	Sep-97	4c
Wading River (6235450)	MA62-17_2002	Source in wetland, north of West Street, Foxborough to confluence with Rumford River, Norton. (Viewing Arcview 1987 Wrentham quad it appears segment includes part of Cocasset River, Foxborough.) Miles 14.2-0.0	Dec-97	5
Waldo Lake (62201)	MA62201_2002	Avon/Brockton	Sep-97	4c
Ward Pond (62203)	MA62203_2002	Easton	Sep-97	3
Watson Pond (62205)	MA62205_2002	Taunton	Sep-97	5
West Meadow Pond (62208)	MA62208_2002	West Bridgewater	Sep-97	4c
Whiteville Pond (62211)	MA62211_2002	Mansfield	Sep-97	3
Whittenton Impoundment (62228)	MA62228_2002	Taunton	Sep-97	4c
Winnecunnet Pond (62213)	MA62213_2002	Norton	Sep-97	4c
Winnetuxet River (6236575)	MA62-24_2002	Outlet unnamed pond near Cole Mill, Carver to confluence with Taunton River, Halifax. Miles 11.7-0.0	Dec-91	3
Wolomolopoag Pond (62216)	MA62216_2002	Sharon	Dec-99	2
Woods Pond (62220)	MA62220_2002	Middleborough	Sep-97	5
<b>Ten Mile</b>				
Bungay River (5233750)	MA52-06_2002	Headwaters, outlet Greenwood Lake, North Attleboro to confluence with Ten Mile River, Attleboro.	Jan-99	3
Cargill Pond (52004)	MA52004_2002	Plainville	Sep-98	5
Central Pond (52006)	MA52006_2002	Seekonk/Pawtucket, R.I./Providence, R.I.	Oct-98	5
Coles Brook (5233650)	MA52-11_2002	Headwaters, Grassie Swamp west of Allens Lane, Rehoboth to inlet Central Pond, Seekonk, Miles 4.3-0.0	Jan-99	5
Lake Como (52010)	MA52010_2002	Attleboro/N. Attleboro	Oct-98	5
Dodgeville Pond (52011)	MA52011_2002	Attleboro	Oct-98	5
Falls Pond (52013)	MA52013_2002	North Attleboro	Oct-98	5
Falls Pond (52014)	MA52014_2002	North Attleboro	Oct-98	4c
Farmers Pond (52015)	MA52015_2002	Attleboro	Oct-98	5
Fourmile Brook (5233700)	MA52-10_2002	Outlet Manchester Pond Reservoir to inlet Orrs Pond, Attleboro. Miles 0.9-0.0	Jan-99	2
Fuller Pond (52016)	MA52016_2002	Plainville	Oct-98	5
Greenwood Lake (52017)	MA52017_2002	Mansfield/N. Attleboro	Oct-98	2

**LABORATORY ANALYTICAL**  
**(SYSTEM INFLUENT)**



10/20/05

**Technical Report for**

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**Shell Oil**

**ENVTRAC:97241358 (REIMBMA) 1580 Turnpike St., Stoughton, MA**

**ECI**

**Accutest Job Number: M51360**

**Sampling Date: 10/03/05**

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**Report to:**

**msmith@newfields.com**

**Total number of pages in report: 50**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

*Reza Fand*  
**Reza Fand**  
**Lab Director**

Certifications: MA (M-MA136) CT (PH-0109) NH (250204) RI (00071) ME (MA136) FL (E87579)  
NY (23346) NJ (MA926) NAVY USACE

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### Sample Summary

Shell Oil

Job No: M51360

ENVTRAC:97241358 (REIMBMA) 1580 Turnpike St., Stoughton, MA  
Project No: ECI

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
M51360-1	10/03/05	11:00 MP	10/04/05	AQ	Ground Water	RW-1
M51360-1A	10/03/05	11:00 MP	10/04/05	AQ	Ground Water	RW-1
M51360-1B	10/03/05	11:00 MP	10/04/05	AQ	Ground Water	RW-1

## Report of Analysis

Client Sample ID: RW-1		Date Sampled: 10/03/05
Lab Sample ID: M51360-1		Date Received: 10/04/05
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8260B		
Project: ENVTRAC:97241358 (REIMBMA) 1580 Turnpike St., Stoughton, MA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G53790.D	50	10/17/05	AA	n/a	n/a	MSG2144
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	250	ug/l	
71-43-2	Benzene	ND	25	ug/l	
56-23-5	Carbon tetrachloride	ND	50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	50	ug/l	
75-34-3	1,1-Dichloroethane	ND	50	ug/l	
107-06-2	1,2-Dichloroethane	ND	50	ug/l	
75-35-4	1,1-Dichloroethene	ND	50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	50	ug/l	
123-91-1	1,4-Dioxane	ND	1300	ug/l	
100-41-4	Ethylbenzene	ND	50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	14200	50	ug/l	
75-09-2	Methylene chloride	ND	100	ug/l	
127-18-4	Tetrachloroethene	ND	50	ug/l	
108-88-3	Toluene	ND	50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	50	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	50	ug/l	
79-01-6	Trichloroethene	ND	50	ug/l	
75-01-4	Vinyl chloride	ND	50	ug/l	
1330-20-7	Xylene (total)	ND	50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		82-127%
2037-26-5	Toluene-D8	97%		88-112%
460-00-4	4-Bromofluorobenzene	96%		80-118%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RW-1	
Lab Sample ID:	M51360-1	Date Sampled: 10/03/05
Matrix:	AQ - Ground Water	Date Received: 10/04/05
Method:	SW846 8270C SW846 3510C	Percent Solids: n/a
Project:	ENVTRAC:97241358 (REIMBMA) 1580 Turnpike St., Stoughton, MA	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F16255.D	1	10/11/05	PN	10/05/05	OP9768	MSF886
Run #2							

Run #	Initial Volume	Final Volume
Run #1	880 ml	1.0 ml
Run #2		

ABN PPL List

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	5.7	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	ug/l	
51-28-5	2,4-Dinitrophenol	ND	23	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	ug/l	
88-75-5	2-Nitrophenol	ND	11	ug/l	
100-02-7	4-Nitrophenol	ND	23	ug/l	
108-95-2	Phenol	ND	5.7	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	ug/l	
85-68-7	Butyl benzyl phthalate	ND	11	ug/l	
84-74-2	Di-n-butyl phthalate	ND	11	ug/l	
117-84-0	Di-n-octyl phthalate	ND	11	ug/l	
84-66-2	Diethyl phthalate	ND	11	ug/l	
131-11-3	Dimethyl phthalate	ND	11	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	11	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	31%		10-120%
4165-62-2	Phenol-d5	23%		10-120%
118-79-6	2,4,6-Tribromophenol	66%		31-123%
4165-60-0	Nitrobenzene-d5	47%		32-120%
321-60-8	2-Fluorobiphenyl	51%		32-120%
1718-51-0	Terphenyl-d14	55%		33-123%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

2.1  
**2**

Client Sample ID:	RW-1	Date Sampled:	10/03/05
Lab Sample ID:	M51360-1	Date Received:	10/04/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 504 EPA 504		
Project:	ENVTRAC:97241358 (REIMBMA) 1580 Turnpike St., Stoughton, MA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ28983.D	1	10/11/05	CZ	10/10/05	OP9803	GYZ1204
Run #2							

Run #	Initial Volume	Final Volume
Run #1	42.3 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.012	ug/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
460-00-4	Bromofluorobenzene (S)	133%		26-158%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RW-1	Date Sampled:	10/03/05
Lab Sample ID:	M51360-1	Date Received:	10/04/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	ENVTRAC:97241358 (REIMBMA) 1580 Turnpike St., Stoughton, MA		

### Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 5.0	5.0	ug/l	1	10/10/05	10/11/05 AC	SW846 6010B <sup>1</sup>	SW846 3010A <sup>2</sup>

(1) Instrument QC Batch: MA6337

(2) Prep QC Batch: MP7737

---

RL = Reporting Limit

# Report of Analysis

Client Sample ID:	RW-1	Date Sampled:	10/03/05
Lab Sample ID:	M51360-1	Date Received:	10/04/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	ENVTRAC:97241358 (REIMBMA) 1580 Turnpike St., Stoughton, MA		

## General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	< 0.010	0.010	mg/l	1	10/06/05 16:23	MA	EPA 335.3

RL = Reporting Limit

## Report of Analysis

2.2  
**2**

Client Sample ID: RW-1		Date Sampled: 10/03/05
Lab Sample ID: M51360-1A		Date Received: 10/04/05
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8260B		
Project: ENVTRAC:97241358 (REIMBMA) 1580 Turnpike St., Stoughton, MA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	P2143.D	100	10/10/05	AMY	n/a	n/a	MSP73
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

**Oxygenates**

CAS No.	Compound	Result	RL	Units	Q
994-05-8	tert-Amyl Methyl Ether	266	200	ug/l	
75-65-0	Tert Butyl Alcohol	7790	5000	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	114%		82-127%
2037-26-5	Toluene-D8	96%		88-112%
460-00-4	4-Bromofluorobenzene	98%		80-118%

(a) Elevated RL due to dilution required for matrix interference.

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RW-1	
Lab Sample ID:	M51360-1B	Date Sampled: 10/03/05
Matrix:	AQ - Ground Water	Date Received: 10/04/05
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids: n/a
Project:	ENVTRAC:97241358 (REIMBMA) 1580 Turnpike St., Stoughton, MA	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F16302.D	1	10/12/05	PN	10/07/05	OP9772	MSF887
Run #2							

Run #	Initial Volume	Final Volume
Run #1	880 ml	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	Units	Q
87-86-5	Pentachlorophenol	ND	1.1	ug/l	
83-32-9	Acenaphthene	ND	0.11	ug/l	
208-96-8	Acenaphthylene	ND	0.11	ug/l	
120-12-7	Anthracene	ND	0.11	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.057	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.057	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.11	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.11	ug/l	
218-01-9	Chrysene	ND	0.11	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	ug/l	
206-44-0	Fluoranthene	ND	0.11	ug/l	
86-73-7	Fluorene	ND	0.11	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.23	ug/l	
91-20-3	Naphthalene	0.20	0.11	ug/l	
85-01-8	Phenanthrene	ND	0.11	ug/l	
129-00-0	Pyrene	ND	0.11	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	28%		10-120%
4165-62-2	Phenol-d5	21%		10-120%
118-79-6	2,4,6-Tribromophenol	53%		23-135%
4165-60-0	Nitrobenzene-d5	38%		30-120%
321-60-8	2-Fluorobiphenyl	44%		25-120%
1718-51-0	Terphenyl-d14	46%		24-132%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



**Misc. Forms**

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**Custody Documents and Other Forms**

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**Includes the following where applicable:**

- Chain of Custody

# CHAIN OF CUSTODY

495 TECHNOLOGY CENTER WEST • BUILDING ONE  
MARLBOROUGH, MA 01752  
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #: **M51360**  
ACCUTEST QUOTE #:

*144Y 171 on 14 ME + TBA*

CLIENT INFORMATION		FACILITY INFORMATION		ANALYTICAL INFORMATION										MATRIX CODES			
<b>Enviro Trac</b> NAME 1400 Providence Highway ADDRESS Norwood MA 02062 CITY, STATE ZIP SEND REPORT TO: PHONE # <i>Will</i>		PROJECT NAME <b>1508 Turnpike Street</b> LOCATION <b>Stoughton, MA</b> PROJECT NO. FAX #		DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE OI - OIL LIQ - OTHER LIQUID SOL - OTHER SOLID										LAB USE ONLY			
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION			PRESERVATION												
		DATE	TIME	SAMPLED BY:	MATRIX	NO. OF BOTTLES	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	
-1	<del>FW-1</del> RW-1	10-3-05	11:04	MD	GA	10	XXX	X	X	X	X	X	X	X	X	X	
<b>DATA TURNAROUND INFORMATION</b> <input checked="" type="checkbox"/> 14 DAYS STANDARD APPROVED BY: _____ <input checked="" type="checkbox"/> 7 DAYS RUSH <i>TBA + TAME</i> <input type="checkbox"/> 48 HOUR EMERGENCY <input type="checkbox"/> OTHER _____ 14 DAY TURNAROUND HARDCOPY, EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED		<b>DATA DELIVERABLE INFORMATION</b> <input type="checkbox"/> STANDARD <input type="checkbox"/> COMMERCIAL "B" <i>13B, 1C, 6A</i> <input type="checkbox"/> DISK DELIVERABLE <input type="checkbox"/> STATE FORMS <input type="checkbox"/> OTHER (SPECIFY) <i>4H6</i>		<b>COMMENTS/REMARKS</b> <i>Lab must report MLs RL = ML, ARQC Data Package required, Bill to EET, Attn: Will</i>													
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY																	
RELINQUISHED BY SAMPLER:		DATE TIME:		RECEIVED BY:		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:	
1. <i>MVA</i>		10-3-05 12:00 PM		1. <i>Frida</i>		2. <i>Frida</i>		10-4-05 10:23 PM		2. <i>New T.</i>		3. <i>AW</i>					
3.		10-4-05 11:15 AM		3.		4.				4.							
5.				5.		SEAL #		PRESERVE WHERE APPLICABLE		ON ICE		TEMPERATURE				2-0 C	

3.1  
**3**

**Reza Tand**

**From:** Sean Kennedy [seank@envirotrac.com]  
**Sent:** Tuesday, October 04, 2005 12:31 PM  
**To:** Reza Tand  
**Cc:** Eric Simpson  
**Subject:** Request for Quicker TATs - RGP NPDES Samples ETMA...  
**Importance:** High

Reza,

Instead of 14 day TAT for the RGP NPDES samples, we will require a minimum of 7 day TATs. Due to reimbursement issues that arose with this new sampling procedure, we will need to adjust our COCs to identify what will be considered reimbursable vs. what parameters will not. The adjusted COCs will be submitted later today.

Here is a list of sites so far which require quicker TATs:

Stoughton 130 – sampled 9/26/05, picked up 9/28/05.  
Needham 875 – sampled 9/28/05, picked up 9/29/05.

Thank you,

Sean P. Kennedy, P.G.  
Project Manager  
EnviroTrac Ltd.  
1400 Providence Highway, Suite 2100  
Norwood, MA 02062  
P: 781.769.5005 F: 781-769-9345  
Email: seank@envirotrac.com

10/4/2005

MS1360: Chain of Custody  
Page 2 of 8

**CHAIN OF CUSTODY ATTACHMENT - EPA NPDES RGP REQUIREMENTS  
PART 2 of 2 (ACCUTEST)**

PARAMETER	Minimum Levels and Test Methods		Discharge Effluent Limit
	METHOD	ML <sup>1</sup>	
<b>MISCELLANEOUS COMPOUNDS</b>			
Cyanide (total)	335.4	10 ug/l	MA & NH = SW = 1.0 ug/l, MA & NH = FW = 5.2 ug/l (compliance limit = ML = 10 ug/l)
<b>VOLATILE ORGANIC COMPOUNDS</b>			
Benzene	602	0.5 ug/l	5.0 ug/l
	624	2 ug/l	
	8260C <sup>2</sup>	see footnote	
Toluene	602	0.5 ug/l	Limited as Total BTEX
	624	2 ug/l	
	8260C <sup>2</sup>	see footnote	
Ethylbenzene	602	0.5 ug/l	Limited as Total BTEX
	624	2 ug/l	
	8260C <sup>2</sup>	see footnote	
Xylenes (total)	602	0.5 ug/l	Limited as Total BTEX
	1624	10 ug/l	
	8260C <sup>2</sup>	see footnote	
Total BTEX	602	0.5 ug/l	100 ug/l
	624	2 ug/l	
	8260C <sup>2</sup>	see footnote	
Ethylene Dibromide (EDB), 1,2-Dibromomethane	818	1.0 ug/l	0.05 ug/l (must use method 504.1 for sites certifying this compound is 'not present')
	504.1	0.01 ug/l	
	824.2	0.1 ug/l	
	8260C <sup>2</sup>	see footnote	
Methyl tert-butyl ether (MTBE)	602 <sup>4</sup>	0.5 ug/l	70 ug/l
	624.2	5.0 ug/l	
	8260C <sup>2</sup>	see footnote	
tert-Butyl Alcohol (TBA)	602 <sup>4</sup>	0.5 ug/l	Monitor Only
	1666	100 ug/l	
	8260C <sup>2</sup>	see footnote	
tert-Amyl Methyl Ether (TAME)	602 <sup>4</sup>	0.5 ug/l	Monitor Only
	8260C <sup>2</sup>	see footnote	
Naphthalene	610 (GC/FID)	10 ug/l	20 ug/l
	625	2 ug/l	
	624.2	5 ug/l	
	610 HPLC	0.2 ug/l	
	8270D <sup>3</sup>	see footnote	
Carbon Tetrachloride	601	0.5 ug/l	4.4 ug/l
	624	2 ug/l	
	1624	2 ug/l	
	8260C <sup>2</sup>	see footnote	
	601	0.5 ug/l	

MS1360: Chain of Custody  
Page 3 of 8

**CHAIN OF CUSTODY ATTACHMENT - EPA NPDES RGP REQUIREMENTS  
PART 2 of 2 (ACCUTEST)**

PARAMETER	Minimum Levels and Test Methods		Discharge Effluent Limit
	METHOD	ML <sup>1</sup>	
1,4-Dichlorobenzene (p-DCB)	602	0.5 ug/l	5.0 ug/l
	624	2 ug/l	
	625	2 ug/l	
	8260C <sup>2</sup>	see footnote	
1,2-Dichlorobenzene (o-DCB)	601	0.5 ug/l	600 ug/l
	602	0.5 ug/l	
	624	2 ug/l	
	625	2 ug/l	
	8260C <sup>2</sup>	see footnote	
1,3-Dichlorobenzene (m-DCB)	601	0.5 ug/l	320 ug/l
	602	0.5 ug/l	
	624	2 ug/l	
	625	2 ug/l	
	8250C <sup>2</sup>	see footnote	
1,1 Dichloroethane (DCA)	601	0.5 ug/l	70 ug/l
	624	1 ug/l	
	8260C <sup>2</sup>	see footnote	
1,2 Dichloroethane (DCA)	601	0.5 ug/l	5.0 ug/l
	624	2 ug/l	
	8280C <sup>2</sup>	see footnote	
1,1 Dichloroethylene (DCE)	601	0.5 ug/l	3.2 ug/l
	624	2 ug/l	
	8260C <sup>2</sup>	see footnote	
cis-1,2 Dichloro-ethylene (DCE)	601	0.5 ug/l	70 ug/l
	624	2 ug/l	
	8250C <sup>2</sup>	see footnote	
Dichloromethane (Methylene Chloride)	601	0.5 ug/l	4.8 ug/l
	624	2 ug/l	
	8260C <sup>2</sup>	see footnote	
Tetrachloroethylene (PCE)	601	0.5 ug/l	5.0 ug/l
	624	2 ug/l	
	8260C <sup>2</sup>	see footnote	
1,1,1 Trichloro-ethane (TCA)	601	0.5 ug/l	200 ug/l
	624	2 ug/l	
	8260C <sup>2</sup>	see footnote	
1,1,2 Trichloro-ethane (TCA)	601	0.5 ug/l	5.0 ug/l
	624	2 ug/l	
	8260C <sup>2</sup>	see footnote	

MS1360: Chain of Custody  
Page 4 of 8

**CHAIN OF CUSTODY ATTACHMENT - EPA NPDES RGP REQUIREMENTS  
PART 2 of 2 (ACCUTEST)**

PARAMETER	Minimum Levels and Test Methods METHOD	ML	Discharge Effluent Limit
Trichloroethylene (TCE)	601	0.5 ug/l	5.0 ug/l
	624	2 ug/l	
	8280C <sup>2</sup>	see footnote	
Vinyl Chloride (chloroethene)	601	0.5 ug/l	2.0 ug/l
	624	2 ug/l	
	8280C <sup>2</sup>	see footnote	
Acetone	624-3	1.0 ug/l	Monitor Only
	4824	50 ug/l	
	8280C <sup>2</sup>	see footnote	
1,4 Dioxane	4824	50 ug/l	Monitor Only
	8280C <sup>2</sup>	see footnote	
Total Phenols	624	1.0 ug/l	300 ug/l
	8280 <sup>3</sup>	see footnote	
	625	1.0 ug/l	
	4825	1.0 ug/l	
	8280C <sup>3</sup>	see footnote	
	8270D <sup>3</sup>	see footnote	
Pentachlorophenol (PCP)	604 (GC/FID)	1.0 ug/l	1.0 ug/l
	625	5 ug/l	
	4825	5 ug/l	
	8270D <sup>3</sup> (SIM, ML=1.0)	see footnote	
Total Phthalates* (Phthalate esters)	625	5 ug/l	3.0 ug/l
	8270D <sup>3</sup> (SIM, ML=3.0)	see footnote	
Bis (2-Ethylhexyl) Phthalate	608	10 ug/l	6.0 ug/l
	625	5 ug/l	
	8270D <sup>3</sup>	see footnote	

M51360: Chain of Custody  
Page 5 of 8

Prepared by NewFields

9/21/2005

Part 2 of 2 - Page 5 of 6

**CHAIN OF CUSTODY ATTACHMENT - EPA NPDES RGP REQUIREMENTS  
PART 2 of 2 (ACCUTEST)**

PARAMETER	Minimum Levels and Test Methods		Discharge Effluent Limit
	METHOD	ML <sup>1</sup>	
<b>POLYNUCLEAR AROMATIC HYDROCARBON COMPOUNDS</b>			
Total Group I Polynuclear Aromatic Hydrocarbons (PAH)	8270D <sup>3</sup>	see footnote	10.0 ug/l
Benzo (a) Anthracene	840-GC	10 ug/l	0.0038 ug/l (compliance limit = ML of test method used)
	826	6 ug/l	
	840-HPLC	0.05 ug/l	
	8270D <sup>3</sup>	see footnote	
Benzo(a)pyrene	826	10 ug/l	0.0038 ug/l (compliance limit = ML of test method used)
	840-HPLC	2 ug/l	
	8270D <sup>3</sup>	see footnote	
Benzo(b)fluoranthene	826	10 ug/l	0.0038 ug/l (compliance limit = ML of test method used)
	840-HPLC	0.1 ug/l	
	8270D <sup>3</sup>	see footnote	
Benzo(k)fluoranthene	826	10 ug/l	0.0038 ug/l (compliance limit = ML of test method used)
	840-HPLC	2 ug/l	
	8270D <sup>3</sup>	see footnote	
Chrysene	826	10 ug/l	0.0038 ug/l (compliance limit = ML of test method used)
	840-HPLC	6 ug/l	
	8270D <sup>3</sup>	see footnote	
Dibenzo(a,h)anthracene	826	10 ug/l	0.0038 ug/l (compliance limit = ML of test method used)
	840-HPLC	0.1 ug/l	
	8270D <sup>3</sup>	see footnote	
Indeno(1,2,3-cd)pyrene	826	10 ug/l	0.0038 ug/l (compliance limit = ML of test method used)
	840-HPLC	0.15 ug/l	
	8270D <sup>3</sup>	see footnote	

MS1360: Chain of Custody  
Page 6 of 8

**CHAIN OF CUSTODY ATTACHMENT - EPA NPDES RGP REQUIREMENTS  
PART 2 of 2 (ACCUTEST)**

PARAMETER	Minimum Levels and Test Methods		Discharge Effluent Limit
	METHOD	ML <sup>1</sup>	
Total Group II Polynuclear Aromatic Hydrocarbons	8270D <sup>2</sup>	see footnote	100 ug/l
Acenaphthene	610-GC/FID	1-ug/l	Limited as Total Group II PAHs
	626	1-ug/l	
	610-HPLC	0.5-ug/l	
	8270D <sup>2</sup>	see footnote	
Acenaphthylene	626	10-ug/l	Limited as Total Group II PAHs
	610-HPLC	0.2-ug/l	
	8270D <sup>2</sup>	see footnote	
Anthracene	626	10-ug/l	Limited as Total Group II PAHs
	610-HPLC	2-ug/l	
	8270D <sup>2</sup>	see footnote	
Benzo(g,h,i)perylene	626	5-ug/l	Limited as Total Group II PAHs
	610-HPLC	0.1-ug/l	
	8270D <sup>2</sup>	see footnote	
Fluoranthene	610-GC/FID	10-ug/l	Limited as Total Group II PAHs
	626	1-ug/l	
	610-HPLC	0.5-ug/l	
	8270D <sup>2</sup>	see footnote	
Fluorene	626	10-ug/l	Limited as Total Group II PAHs
	610-HPLC	0.1-ug/l	
	8270D <sup>2</sup>	see footnote	
Phenanthrene	626	5-ug/l	Limited as Total Group II PAHs
	610-HPLC	0.05-ug/l	
	8270D <sup>2</sup>	see footnote	
Pyrene	626	10-ug/l	Limited as Total Group II PAHs
	610-HPLC	0.05-ug/l	
	8270D <sup>2</sup>	see footnote	
<b>INORGANIC PARAMETERS</b>			
Total Arsenic (As)	ICP	5 ug/l	MA & NH = FW = 10 ug/l, MA & NH = SW = 36 ug/l
	Furnace-AA	2-ug/l	

MS1360: Chain of Custody  
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**CHAIN OF CUSTODY ATTACHMENT - EPA NPDES RGP REQUIREMENTS  
PART 2 of 2 (ACCUTEST)**

PARAMETER	Minimum Levels and Test Methods		Discharge Effluent Limit
	METHOD	ML <sup>1</sup>	

**LEGEND:**

RGP = Remediation General Permit  
 Flame AA = Flame Atomic Absorption  
 ICP = Inductively Coupled Plasma  
 Furnace AA = Furnace Atomic Absorption  
 FW = Freshwater  
 SW = Saltwater  
 MA = State of Massachusetts  
 NH = State of New Hampshire

**FOOTNOTES:**

- Minimum Level (ML) is the lowest level at which the analytical system gives a recognizable signal and acceptable calibration point for the analyte. The ML represents the lowest concentration at which an analyte can be measured with a known level of confidence. The ML is calculated by multiplying the laboratory-determined method detection limit by 3.18 (see 40 CFR Part 136, Appendix B) Where a minimum level (ML) is listed but a test method is not specified, permittee may use any of the available methods approved for use under 40 CFR 136, including alternatives approved by this permit, that meets ML. See EPA's "Methods and Guidance for the Analysis of Water" at [www.epa.gov/water/owwccatalog.nsf](http://www.epa.gov/water/owwccatalog.nsf). Where a test method is specified but ML is not listed for that Method, the lowest ML for listed methods must be used before concentration can be considered as "non-detect".
- For measuring volatile organic compounds, Method 8260C (or the latest version) may be used as a substitute for CWA Methods 524.2, 602, 624, or 1824. Method 8260C must be preceded by Method 5030 as the preparation method. However, any method changes must be accompanied by documented quality assurance quality control (QA/QC) test to prove that the analytical process can achieve the lower detection limits of Method 8260C. For TBA and TAME the EPA advises no acid as a preservative.
- For measuring semi-volatile organic compounds, Method 8270D may be used as a substitute for Methods 610, 625, or 1825. Method 8270D must be preceded by Method 3520C as the sample preparation method. In either case, the quality control requirements of Method 3500B must be taken into account. The sample preparation method must be specified with data analysis records. Method 8270D may be modified to provide lower detection and quantitation limits using Selected Ion Monitoring (SIM). Any method changes must be accompanied by documented quality assurance quality control (QA/QC) test results to prove that the analytical process can achieve the lower detection limits of Method 8270D.
- GC - gas chromatography.
- GCMS -gas chromatography/ mass spectrometry
- LC-high pressure liquid chromatography.
- Flame Atomic Absorption.
- For measuring fuel oxygenates, Method 602 must be modified to include a heated purge.
- The sum of individual phthalate compounds.
- In the November 2002 WQC, EPA has revised the definition of total PCBs for aquatic life as "total PCBs is the sum of all homologue, all isomer, all congener, or all Aroclor analyses.
- Method 1668a (HRGC/HRMS) has been proposed by EPA and is currently being validated. When approval of the method is finalized, it will be approved for use with this general permit
- Methods 6010b and 200.7 for metals may only be used when sample prepared with SW-846 digestion method, Method 3010.
- Any value below the ML shall be reported as zero.
- Analysis of the influent samples shall use the test methods with the MLs at or below limits where practicable.

**M51360: Chain of Custody  
Page 8 of 8**

## GC/MS Volatiles

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## QC Data Summaries

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**Includes the following where applicable:**

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries

# Method Blank Summary

Job Number: M51360

Account: SHELLWIC Shell Oil

Project: ENVTRAC:97241358 (REIMBMA) 1580 Turnpike St., Stoughton, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP73-MB	P2136.D	1	10/10/05	AMY	n/a	n/a	MSP73

4.1  
4

The QC reported here applies to the following samples:

Method: SW846 8260B

M51360-1A

CAS No.	Compound	Result	RL	Units	Q
994-05-8	tert-Amyl Methyl Ether	ND	2.0	ug/l	
75-65-0	Tert Butyl Alcohol	ND	100	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	116% 82-127%
2037-26-5	Toluene-D8	95% 88-112%
460-00-4	4-Bromofluorobenzene	102% 80-118%

# Method Blank Summary

Job Number: M51360

Account: SHELLWIC Shell Oil

Project: ENVTRAC:97241358 (REIMBMA) 1580 Turnpike St., Stoughton, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG2144-MB	G53781.D	1	10/17/05	AA	n/a	n/a	MSG2144

4.1  
4

The QC reported here applies to the following samples:

Method: SW846 8260B

M51360-1

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
123-91-1	1,4-Dioxane	ND	25	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Limits	
1868-53-7	Dibromofluoromethane	100%	82-127%
2037-26-5	Toluene-D8	97%	88-112%
460-00-4	4-Bromofluorobenzene	95%	80-118%

# Blank Spike/Blank Spike Duplicate Summary

Job Number: M51360  
 Account: SHELLWIC Shell Oil  
 Project: ENVTRAC:97241358 (REIMBMA) 1580 Turnpike St., Stoughton, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP73-BS	P2133.D	1	10/10/05	AMY	n/a	n/a	MSP73
MSP73-BSD	P2134.D	1	10/10/05	AMY	n/a	n/a	MSP73

4.2  
4

The QC reported here applies to the following samples:

Method: SW846 8260B

M51360-1A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
994-05-8	tert-Amyl Methyl Ether	50	44.1	88	41.9	84	5	61-139/25
75-65-0	Tert Butyl Alcohol	500	525	105	495	99	6	42-161/25

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	108%	103%	82-127%
2037-26-5	Toluene-D8	101%	99%	88-112%
460-00-4	4-Bromofluorobenzene	102%	105%	80-118%

# Blank Spike Summary

Job Number: M51360  
 Account: SHELLWIC Shell Oil  
 Project: ENVTRAC:97241358 (REIMBMA) 1580 Turnpike St., Stoughton, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG2144-BS	G53778.D	1	10/17/05	AA	n/a	n/a	MSG2144

4.3  
4

The QC reported here applies to the following samples:

Method: SW846 8260B

M51360-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	44.2	88	31-150
71-43-2	Benzene	50	46.0	92	73-127
56-23-5	Carbon tetrachloride	50	48.4	97	70-141
95-50-1	1,2-Dichlorobenzene	50	48.7	97	75-125
541-73-1	1,3-Dichlorobenzene	50	48.3	97	76-124
106-46-7	1,4-Dichlorobenzene	50	46.2	92	76-127
75-34-3	1,1-Dichloroethane	50	47.8	96	70-136
107-06-2	1,2-Dichloroethane	50	45.4	91	68-137
75-35-4	1,1-Dichloroethene	50	50.7	101	65-142
156-59-2	cis-1,2-Dichloroethene	50	47.3	95	72-130
123-91-1	1,4-Dioxane	250	255	102	50-140
100-41-4	Ethylbenzene	50	47.8	96	77-126
1634-04-4	Methyl Tert Butyl Ether	50	45.7	91	65-135
75-09-2	Methylene chloride	50	46.3	93	67-136
127-18-4	Tetrachloroethene	50	50.8	102	66-142
108-88-3	Toluene	50	45.4	91	76-124
71-55-6	1,1,1-Trichloroethane	50	46.7	93	71-137
79-00-5	1,1,2-Trichloroethane	50	47.7	95	68-134
79-01-6	Trichloroethene	50	46.9	94	71-130
75-01-4	Vinyl chloride	50	57.0	114	46-151
1330-20-7	Xylene (total)	150	142	95	78-129

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	96%	82-127%
2037-26-5	Toluene-D8	98%	88-112%
460-00-4	4-Bromofluorobenzene	101%	80-118%

# Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M51360  
 Account: SHELLWIC Shell Oil  
 Project: ENVTRAC:97241358 (REIMBMA) 1580 Turnpike St., Stoughton, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M51184-2AMS	P2155.D	500	10/10/05	AMY	n/a	n/a	MSP73
M51184-2AMSDP	P2156.D	500	10/10/05	AMY	n/a	n/a	MSP73
M51184-2A <sup>a</sup>	P2145.D	250	10/10/05	AMY	n/a	n/a	MSP73
M51184-2A <sup>a</sup>	P2154.D	500	10/10/05	AMY	n/a	n/a	MSP73

4.4  
4

The QC reported here applies to the following samples:

Method: SW846 8260B

M51360-1A

CAS No.	Compound	M51184-2A ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
994-05-8	tert-Amyl Methyl Ether	4520	25000	24300	79	24400	80	0	54-144/20
75-65-0	Tert Butyl Alcohol	63200	250000	325000	105	327000	106	1	31-170/29

CAS No.	Surrogate Recoveries	MS	MSD	M51184-2A	M51184-2A	Limits
1868-53-7	Dibromofluoromethane	99%	103%	108%	98%	82-127%
2037-26-5	Toluene-D8	98%	98%	98%	91%	88-112%
460-00-4	4-Bromofluorobenzene	101%	104%	109%	100%	80-118%

(a) The pH of the sample aliquot for VOA analysis was > 2 at time of analysis.

# Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M51360  
 Account: SHELLWIC Shell Oil  
 Project: ENVTRAC:97241358 (REIMBMA) 1580 Turnpike St., Stoughton, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M51374-21MS	G53799.D	5	10/17/05	AA	n/a	n/a	MSG2144
M51374-21MSDG53800.D		5	10/17/05	AA	n/a	n/a	MSG2144
M51374-21	G53787.D	1	10/17/05	AA	n/a	n/a	MSG2144

The QC reported here applies to the following samples:

Method: SW846 8260B

M51360-1

CAS No.	Compound	M51374-21 ug/l	Spike Q	ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND	250	233	93	211	84	10	30-150/35	
71-43-2	Benzene	ND	250	234	94	242	97	3	67-132/20	
56-23-5	Carbon tetrachloride	ND	250	256	102	261	104	2	63-144/20	
95-50-1	1,2-Dichlorobenzene	ND	250	248	99	250	100	1	75-123/20	
541-73-1	1,3-Dichlorobenzene	ND	250	245	98	250	100	2	75-122/20	
106-46-7	1,4-Dichlorobenzene	ND	250	242	97	245	98	1	77-125/20	
75-34-3	1,1-Dichloroethane	ND	250	264	106	269	108	2	66-141/20	
107-06-2	1,2-Dichloroethane	ND	250	250	100	251	100	0	61-144/20	
75-35-4	1,1-Dichloroethene	ND	250	270	108	278	111	3	57-150/20	
156-59-2	cis-1,2-Dichloroethene	ND	250	254	102	262	105	3	69-133/20	
123-91-1	1,4-Dioxane	ND	1250	1130	90	1230	98	8	43-141/32	
100-41-4	Ethylbenzene	ND	250	247	99	253	101	2	72-129/20	
1634-04-4	Methyl Tert Butyl Ether	ND	250	241	96	243	97	1	61-137/20	
75-09-2	Methylene chloride	ND	250	259	104	265	106	2	64-143/20	
127-18-4	Tetrachloroethene	ND	250	256	102	265	106	3	57-145/20	
108-88-3	Toluene	ND	250	234	94	242	97	3	69-129/20	
71-55-6	1,1,1-Trichloroethane	ND	250	256	102	263	105	3	65-144/20	
79-00-5	1,1,2-Trichloroethane	ND	250	245	98	247	99	1	63-138/20	
79-01-6	Trichloroethene	ND	250	237	95	249	100	5	67-132/20	
75-01-4	Vinyl chloride	ND	250	353	141	362	145	3	39-150/23	
1330-20-7	Xylene (total)	ND	750	727	97	739	99	2	72-133/20	

CAS No.	Surrogate Recoveries	MS	MSD	M51374-21	Limits
1868-53-7	Dibromofluoromethane	108%	106%	104%	82-127%
2037-26-5	Toluene-D8	98%	99%	94%	88-112%
460-00-4	4-Bromofluorobenzene	99%	97%	96%	80-118%

4.4

4

# Volatile Surrogate Recovery Summary

Job Number: M51360

Account: SHELLWIC Shell Oil

Project: ENVTRAC:97241358 (REIMBMA) 1580 Turnpike St., Stoughton, MA

Method: SW846 8260B

Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
M51360-1	G53790.D	105.0	97.0	96.0
M51360-1A	P2143.D	114.0	96.0	98.0
M51184-2AMS	P2155.D	99.0	98.0	101.0
M51184-2AMSD	P2156.D	103.0	98.0	104.0
M51374-21MS	G53799.D	108.0	98.0	99.0
M51374-21MSD	G53800.D	106.0	99.0	97.0
MSG2144-BS	G53778.D	96.0	98.0	101.0
MSG2144-MB	G53781.D	100.0	97.0	95.0
MSP73-BS	P2133.D	108.0	101.0	102.0
MSP73-BSD	P2134.D	103.0	99.0	105.0
MSP73-MB	P2136.D	116.0	95.0	102.0

Surrogate Compounds                      Recovery Limits

S1 = Dibromofluoromethane              82-127%  
S2 = Toluene-D8                              88-112%  
S3 = 4-Bromofluorobenzene              80-118%

4.5

4

## GC/MS Semi-volatiles

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5

## QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries

# Method Blank Summary

Job Number: M51360  
 Account: SHELLWIC Shell Oil  
 Project: ENVTRAC:97241358 (REIMBMA) 1580 Turnpike St., Stoughton, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP9768-MB	E24657.D	1	10/11/05	PN	10/05/05	OP9768	MSE1290

The QC reported here applies to the following samples:

Method: SW846 8270C

M51360-1

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	ug/l	
88-75-5	2-Nitrophenol	ND	10	ug/l	
100-02-7	4-Nitrophenol	ND	20	ug/l	
108-95-2	Phenol	ND	5.0	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	ug/l	
85-68-7	Butyl benzyl phthalate	ND	10	ug/l	
84-74-2	Di-n-butyl phthalate	ND	10	ug/l	
117-84-0	Di-n-octyl phthalate	ND	10	ug/l	
84-66-2	Diethyl phthalate	ND	10	ug/l	
131-11-3	Dimethyl phthalate	ND	10	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	10	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	54%	10-120%
4165-62-2	Phenol-d5	34%	10-120%
118-79-6	2,4,6-Tribromophenol	87%	31-123%
4165-60-0	Nitrobenzene-d5	78%	32-120%
321-60-8	2-Fluorobiphenyl	76%	32-120%
1718-51-0	Terphenyl-d14	83%	33-123%

5.1  
5

# Method Blank Summary

Job Number: M51360  
 Account: SHELLWIC Shell Oil  
 Project: ENVTRAC:97241358 (REIMBMA) 1580 Turnpike St., Stoughton, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP9772-MB	F16281.D	1	10/12/05	PN	10/07/05	OP9772	MSF887

The QC reported here applies to the following samples:

Method: SW846 8270C BY SIM

M51360-1B

CAS No.	Compound	Result	RL	Units	Q
87-86-5	Pentachlorophenol	ND	1.0	ug/l	
83-32-9	Acenaphthene	ND	0.10	ug/l	
208-96-8	Acenaphthylene	ND	0.10	ug/l	
120-12-7	Anthracene	ND	0.10	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	ug/l	
218-01-9	Chrysene	ND	0.10	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	ug/l	
206-44-0	Fluoranthene	ND	0.10	ug/l	
86-73-7	Fluorene	ND	0.10	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.20	ug/l	
91-20-3	Naphthalene	ND	0.10	ug/l	
85-01-8	Phenanthrene	ND	0.10	ug/l	
129-00-0	Pyrene	ND	0.10	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	42%	10-120%
4165-62-2	Phenol-d5	28%	10-120%
118-79-6	2,4,6-Tribromophenol	79%	23-135%
4165-60-0	Nitrobenzene-d5	52%	30-120%
321-60-8	2-Fluorobiphenyl	61%	25-120%
1718-51-0	Terphenyl-d14	71%	24-132%

5.1  
5

# Blank Spike Summary

Job Number: M51360  
 Account: SHELLWIC Shell Oil  
 Project: ENVTRAC:97241358 (REIMBMA) 1580 Turnpike St., Stoughton, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP9768-BS	E24658.D	1	10/11/05	PN	10/05/05	OP9768	MSE1290

The QC reported here applies to the following samples:

Method: SW846 8270C

M51360-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
95-57-8	2-Chlorophenol	100	75.6	76	50-120
59-50-7	4-Chloro-3-methyl phenol	100	73.0	73	56-120
120-83-2	2,4-Dichlorophenol	100	76.0	76	56-120
105-67-9	2,4-Dimethylphenol	100	62.9	63	37-120
51-28-5	2,4-Dinitrophenol	100	83.9	84	27-120
534-52-1	4,6-Dinitro-o-cresol	100	87.0	87	36-125
88-75-5	2-Nitrophenol	100	85.8	86	54-120
100-02-7	4-Nitrophenol	100	50.3	50	7-120
108-95-2	Phenol	100	42.9	43	17-120
88-06-2	2,4,6-Trichlorophenol	100	81.3	81	53-120
85-68-7	Butyl benzyl phthalate	50	25.0	50	27-120
84-74-2	Di-n-butyl phthalate	50	31.6	63	47-120
117-84-0	Di-n-octyl phthalate	50	37.4	75	60-123
84-66-2	Diethyl phthalate	50	21.2	42	8-120
131-11-3	Dimethyl phthalate	50	8.1	16	1-120
117-81-7	bis(2-Ethylhexyl)phthalate	50	36.7	73	61-120

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	59%	10-120%
4165-62-2	Phenol-d5	39%	10-120%
118-79-6	2,4,6-Tribromophenol	93%	31-123%
4165-60-0	Nitrobenzene-d5	80%	32-120%
321-60-8	2-Fluorobiphenyl	81%	32-120%
1718-51-0	Terphenyl-d14	80%	33-123%

5.2  
5

# Blank Spike/Blank Spike Duplicate Summary

Job Number: M51360  
 Account: SHELLWIC Shell Oil  
 Project: ENVTRAC:97241358 (REIMBMA) 1580 Turnpike St., Stoughton, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP9772-BS	F16282.D	1	10/12/05	PN	10/07/05	OP9772	MSF887
OP9772-BSD	F16283.D	1	10/12/05	PN	10/07/05	OP9772	MSF887

The QC reported here applies to the following samples:

Method: SW846 8270C BY SIM

M51360-1B

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
87-86-5	Pentachlorophenol	100	71.5	72	70.7	71	1	53-111/30
83-32-9	Acenaphthene	50	26.6	53	28.1	56	5	47-120/30
208-96-8	Acenaphthylene	50	22.2	44* a	23.3	47* a	5	49-120/30
120-12-7	Anthracene	50	30.8	62	32.3	65	5	55-120/30
56-55-3	Benzo(a)anthracene	50	32.9	66	34.2	68	4	50-129/30
50-32-8	Benzo(a)pyrene	50	28.4	57	30.1	60	6	57-120/30
205-99-2	Benzo(b)fluoranthene	50	29.4	59* a	30.2	60* a	3	62-120/30
191-24-2	Benzo(g,h,i)perylene	50	30.9	62	32.4	65	5	57-127/30
207-08-9	Benzo(k)fluoranthene	50	29.6	59	31.4	63	6	51-120/30
218-01-9	Chrysene	50	35.9	72	37.1	74	3	54-120/30
53-70-3	Dibenzo(a,h)anthracene	50	34.5	69	35.9	72	4	45-144/30
206-44-0	Fluoranthene	50	31.4	63	32.9	66	5	51-121/30
86-73-7	Fluorene	50	26.6	53* a	27.9	56	5	56-120/30
193-39-5	Indeno(1,2,3-cd)pyrene	50	30.6	61	32.2	64	5	54-121/30
91-57-6	2-Methylnaphthalene	50	24.0	48	25.2	50	5	40-120/30
91-20-3	Naphthalene	50	24.5	49	25.8	52	5	37-120/30
85-01-8	Phenanthrene	50	29.8	60	31.2	62	5	51-120/30
129-00-0	Pyrene	50	30.9	62	32.2	64	4	45-120/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
367-12-4	2-Fluorophenol	50%	51%	10-120%
4165-62-2	Phenol-d5	34%	35%	10-120%
118-79-6	2,4,6-Tribromophenol	88%	83%	23-135%
4165-60-0	Nitrobenzene-d5	58%	59%	30-120%
321-60-8	2-Fluorobiphenyl	65%	66%	25-120%
1718-51-0	Terphenyl-d14	70%	69%	24-132%

(a) Outside control limits. Refer to OP9768(full scan 8270) for acceptable spike recoveries.

5.3  
5

# Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M51360  
 Account: SHELLWIC Shell Oil  
 Project: ENVTRAC:97241358 (REIMBMA) 1580 Turnpike St., Stoughton, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP9768-MS	E24660.D	1	10/11/05	PN	10/05/05	OP9768	MSE1290
OP9768-MSD	E24661.D	1	10/11/05	PN	10/05/05	OP9768	MSE1290
M51226-1	E24676.D	1	10/11/05	PN	10/05/05	OP9768	MSE1290

The QC reported here applies to the following samples:

Method: SW846 8270C

M51360-1

CAS No.	Compound	M51226-1 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
95-57-8	2-Chlorophenol	ND	105	83.3	79	83.6	75	0	43-120/24
59-50-7	4-Chloro-3-methyl phenol	ND	105	89.3	85	90.4	81	1	52-120/20
120-83-2	2,4-Dichlorophenol	ND	105	88.7	84	87.8	79	1	49-120/23
105-67-9	2,4-Dimethylphenol	ND	105	83.5	79	92.1	83	10	1-120/33
51-28-5	2,4-Dinitrophenol	ND	105	66.1	63	94.3	85	35	29-124/50
534-52-1	4,6-Dinitro-o-cresol	ND	105	75.3	72	94.5	85	23	41-126/37
88-75-5	2-Nitrophenol	ND	105	88.2	84	86.9	78	1	48-120/31
100-02-7	4-Nitrophenol	ND	105	54.2	51	55.4	50	2	7-120/22
108-95-2	Phenol	ND	105	44.4	42	46.6	42	5	13-120/25
88-06-2	2,4,6-Trichlorophenol	ND	105	94.1	89	94.7	85	1	44-120/26
85-68-7	Butyl benzyl phthalate	ND	52.6	27.0	51	35.9	65	28	28-120/29
84-74-2	Di-n-butyl phthalate	ND	52.6	31.9	61	41.0	74	25	46-120/25
117-84-0	Di-n-octyl phthalate	ND	52.6	34.6	66	42.9	77	21	57-124/26
84-66-2	Diethyl phthalate	ND	52.6	25.9	49	36.4	66	34	12-120/39
131-11-3	Dimethyl phthalate	ND	52.6	15.1	29	25.5	46	51* a	1-120/50
117-81-7	bis(2-Ethylhexyl)phthalate	ND	52.6	33.4	63	41.1	74	21	53-125/25

CAS No.	Surrogate Recoveries	MS	MSD	M51226-1	Limits
367-12-4	2-Fluorophenol	60%	59%	51%	10-120%
4165-62-2	Phenol-d5	45%	43%	33%	10-120%
118-79-6	2,4,6-Tribromophenol	96%	92%	84%	31-123%
4165-60-0	Nitrobenzene-d5	33%	74%	11%* b	32-120%
321-60-8	2-Fluorobiphenyl	71%	69%	64%	32-120%
1718-51-0	Terphenyl-d14	60%	60%	48%	33-123%

(a) High RPD due to possible matrix interference and/or sample non-homogeneity.

(b) Outside control limits due to possible matrix interference. Confirmed by MS/MSD.

5.4  
5

# Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M51360  
 Account: SHELLWIC Shell Oil  
 Project: ENVTRAC:97241358 (REIMBMA) 1580 Turnpike St., Stoughton, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP9772-MS	F16286.D	1	10/12/05	PN	10/07/05	OP9772	MSF887
OP9772-MSD	F16287.D	1	10/12/05	PN	10/07/05	OP9772	MSF887
M51226-1	F16288.D	1	10/12/05	PN	10/05/05	OP9772	MSF887

The QC reported here applies to the following samples:

Method: SW846 8270C BY SIM

M51360-1B

CAS No.	Compound	M51226-1 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
87-86-5	Pentachlorophenol	ND	105	69.7	66	84.0	80	19	5-137/52
83-32-9	Acenaphthene	ND	52.6	22.2	42* a	32.1	61	36* b	49-120/20
208-96-8	Acenaphthylene	ND	52.6	17.0	32* a	24.8	47* a	37* b	50-120/22
120-12-7	Anthracene	ND	52.6	22.4	43* a	33.1	63	39* b	58-120/20
56-55-3	Benzo(a)anthracene	ND	52.6	24.4	46* a	36.0	68	38* b	50-132/20
50-32-8	Benzo(a)pyrene	ND	52.6	20.5	39* a	30.2	57	38* b	51-120/22
205-99-2	Benzo(b)fluoranthene	ND	52.6	20.3	39* a	29.2	55* a	36* b	67-120/20
191-24-2	Benzo(g,h,i)perylene	ND	52.6	24.9	47* a	36.4	69	38* b	63-121/20
207-08-9	Benzo(k)fluoranthene	ND	52.6	18.7	36* a	28.1	53* a	40* b	54-120/25
218-01-9	Chrysene	ND	52.6	24.9	47* a	37.5	71	40* b	59-120/20
53-70-3	Dibenzo(a,h)anthracene	ND	52.6	29.4	56	42.9	82	37* b	46-146/20
206-44-0	Fluoranthene	ND	52.6	22.1	42* a	31.8	60	36* b	58-120/20
86-73-7	Fluorene	ND	52.6	21.7	41* a	31.1	59* a	36* b	62-120/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND	52.6	25.5	48* a	37.0	70	37* b	52-124/20
91-57-6	2-Methylnaphthalene	ND	52.6	55.1	105	74.6	142* a	30* b	44-120/20
91-20-3	Naphthalene	ND	52.6	57.6	109	72.5	138* a	23* b	41-120/20
85-01-8	Phenanthrene	ND	52.6	23.1	44* a	33.0	63	35* b	51-120/21
129-00-0	Pyrene	ND	52.6	21.7	41* a	31.7	60	37* b	48-121/20

CAS No.	Surrogate Recoveries	MS	MSD	M51226-1	Limits
367-12-4	2-Fluorophenol	47%	56%	45%	10-120%
4165-62-2	Phenol-d5	34%	41%	31%	10-120%
118-79-6	2,4,6-Tribromophenol	73%	88%	76%	23-135%
4165-60-0	Nitrobenzene-d5	22%* d	56%	9%* c	30-120%
321-60-8	2-Fluorobiphenyl	45%	56%	43%	25-120%
1718-51-0	Terphenyl-d14	39%	50%	40%	24-132%

- (a) Outside control limits. Refer to OP9768(full scan 8270) for acceptable spike recoveries.
- (b) High RPD due to possible matrix interference and/or sample non-homogeneity.
- (c) Outside control limits due to matrix interference. Confirmed by reanalysis.
- (d) Outside control limits due to possible matrix interference. Confirmed by reanalysis.

5.4  
5

# Semivolatile Surrogate Recovery Summary

Job Number: M51360

Account: SHELLWIC Shell Oil

Project: ENVTRAC:97241358 (REIMBMA) 1580 Turnpike St., Stoughton, MA

Method: SW846 8270C

Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
M51360-1	F16255.D	31.0	23.0	66.0	47.0	51.0	55.0
OP9768-BS	E24658.D	59.0	39.0	93.0	80.0	81.0	80.0
OP9768-MB	E24657.D	54.0	34.0	87.0	78.0	76.0	83.0
OP9768-MS	E24660.D	60.0	45.0	96.0	33.0	71.0	60.0
OP9768-MSD	E24661.D	59.0	43.0	92.0	74.0	69.0	60.0

Surrogate Compounds	Recovery Limits
---------------------	-----------------

S1 = 2-Fluorophenol	10-120%
S2 = Phenol-d5	10-120%
S3 = 2,4,6-Tribromophenol	31-123%
S4 = Nitrobenzene-d5	32-120%
S5 = 2-Fluorobiphenyl	32-120%
S6 = Terphenyl-d14	33-123%

5.5

5

# Semivolatile Surrogate Recovery Summary

Job Number: M51360  
 Account: SHELLWIC Shell Oil  
 Project: ENVTRAC:97241358 (REIMBMA) 1580 Turnpike St., Stoughton, MA

Method: SW846 8270C BY SIM Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
M51360-1B	F16302.D	28.0	21.0	53.0	38.0	44.0	46.0
OP9772-BS	F16282.D	50.0	34.0	88.0	58.0	65.0	70.0
OP9772-BSD	F16283.D	51.0	35.0	83.0	59.0	66.0	69.0
OP9772-MB	F16281.D	42.0	28.0	79.0	52.0	61.0	71.0
OP9772-MS	F16286.D	47.0	34.0	73.0	22.0* <sup>a</sup>	45.0	39.0
OP9772-MSD	F16287.D	56.0	41.0	88.0	56.0	56.0	50.0

Surrogate Compounds	Recovery Limits
---------------------	-----------------

S1 = 2-Fluorophenol	10-120%
S2 = Phenol-d5	10-120%
S3 = 2,4,6-Tribromophenol	23-135%
S4 = Nitrobenzene-d5	30-120%
S5 = 2-Fluorobiphenyl	25-120%
S6 = Terphenyl-d14	24-132%

(a) Outside control limits due to possible matrix interference. Confirmed by reanalysis.

5.5  
5

## GC Volatiles

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## QC Data Summaries

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**Includes the following where applicable:**

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries

# Method Blank Summary

Job Number: M51360

Account: SHELLWIC Shell Oil

Project: ENVTRAC:97241358 (REIMBMA) 1580 Turnpike St., Stoughton, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP9803-MB	YZ28973.D	1	10/10/05	CZ	10/10/05	OP9803	GYZ1204

The QC reported here applies to the following samples:

Method: EPA 504

M51360-1

CAS No.	Compound	Result	RL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.015	ug/l	

CAS No.	Surrogate Recoveries	Limits
460-00-4	Bromofluorobenzene (S)	138% 26-158%

6.1

6

# Blank Spike Summary

Job Number: M51360

Account: SHELLWIC Shell Oil

Project: ENVTRAC:97241358 (REIMBMA) 1580 Turnpike St., Stoughton, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP9803-BS	YZ28974.D	1	10/11/05	CZ	10/10/05	OP9803	GYZ1204

The QC reported here applies to the following samples:

Method: EPA 504

M51360-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
106-93-4	1,2-Dibromoethane	0.071	0.079	111	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	Bromofluorobenzene (S)	94%	26-158%

62  
6

# Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M51360  
 Account: SHELLWIC Shell Oil  
 Project: ENVTRAC:97241358 (REIMBMA) 1580 Turnpike St., Stoughton, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP9803-MS	YZ28975.D	1	10/11/05	CZ	10/10/05	OP9803	GYZ1204
OP9803-MSD	YZ28976.D	1	10/11/05	CZ	10/10/05	OP9803	GYZ1204
M51549-1	YZ28977.D	1	10/11/05	CZ	10/10/05	OP9803	GYZ1204

The QC reported here applies to the following samples:

Method: EPA 504

M51360-1

CAS No.	Compound	M51549-1 ug/l	Spike Q	ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
106-93-4	1,2-Dibromoethane	ND	0.071	0.094	132	0.10	141* <sup>a</sup>	6		65-135/30

CAS No.	Surrogate Recoveries	MS	MSD	M51549-1	Limits
460-00-4	Bromofluorobenzene (S)	137%	145%	149%	26-158%

(a) Outside control limits due to possible matrix interference.

63  
6

# Volatile Surrogate Recovery Summary

Job Number: M51360

Account: SHELLWIC Shell Oil

Project: ENVTRAC:97241358 (REIMBMA) 1580 Turnpike St., Stoughton, MA

Method: EPA 504

Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 <sup>a</sup>
M51360-1	YZ28983.D	133.0
OP9803-BS	YZ28974.D	94.0
OP9803-MB	YZ28973.D	138.0
OP9803-MS	YZ28975.D	137.0
OP9803-MSD	YZ28976.D	145.0

Surrogate  
Compounds

Recovery  
Limits

S1 = Bromofluorobenzene (S) 26-158%

(a) Recovery from GC signal #1

6.4

6

## Metals Analysis

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## QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

7

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: M51360  
Account: SHELLWIC - Shell Oil  
Project: ENVTRAC:97241358 (REIMBMA) 1580 Turnpike St., Stoughton, MA

QC Batch ID: MP7737  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date: 10/10/05 10/10/05

Metal	RL	IDL	MB raw	final	MB raw	final
Aluminum	200	22				
Antimony	6.0	2.4				
Arsenic	5.0	3.3	0.87	<5.0	0.38	<5.0
Barium	200	.64	anr			
Beryllium	4.0	.18				
Boron	100	1.8				
Cadmium	4.0	.22	anr			
Calcium	5000	5.9				
Chromium	10	.72	anr			
Cobalt	50	.69				
Copper	25	1.2	anr			
Iron	100	20	anr			
Lead	5.0	1.2	anr			
Magnesium	5000	7.7				
Manganese	15	.36	anr			
Molybdenum	100	.48				
Nickel	40	.49				
Potassium	5000	19				
Selenium	10	1.7	anr			
Silicon	100	11				
Silver	5.0	.12	anr			
Sodium	5000	94				
Strontium	10	.12				
Thallium	10	3.1				
Tin	100	1.7				
Titanium	50	1.6				
Tungsten	100					
Vanadium	50	1.3				
Zinc	20	3.8	anr			

Associated samples MP7737: M51360-1

Results < IDL are shown as zero for calculation purposes  
(\* ) Outside of QC limits  
(anr) Analyte not requested

7.1.1  
7

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: M51360  
 Account: SHELLWIC - Shell Oil  
 Project: ENVTRAC:97241358 (REIMBMA) 1580 Turnpike St., Stoughton, MA

QC Batch ID: MP7737  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 10/10/05 10/10/05

Metal	M51252-1A Original MS	Spikelot MPIRWS2	% Rec	QC Limits	M51252-1A Original DUP	RPD	QC Limits		
Aluminum									
Antimony									
Arsenic	0.0	520	500	104.0	75-125	0.0	0.0	NC	0-20
Barium	anr								
Beryllium									
Boron									
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt									
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium									
Manganese	anr								
Molybdenum									
Nickel									
Potassium									
Selenium	anr								
Silicon									
Silver	anr								
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Tungsten									
Vanadium									
Zinc	anr								

Associated samples MP7737: M51360-1

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (N) Matrix Spike Rec. outside of QC limits  
 (anr) Analyte not requested

7.1.2  
**7**

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: M51360  
 Account: SHELLWIC - Shell Oil  
 Project: ENVTRAC:97241358 (REIMBMA) 1580 Turnpike St., Stoughton, MA

QC Batch ID: MP7737  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 10/10/05

Metal	BSP Result	Spikelot MPIRWS2	% Rec	QC Limits
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Aluminum				
Antimony				
Arsenic	517	500	103.4	80-120
Barium	anr			
Beryllium				
Boron				
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt				
Copper	anr			
Iron	anr			
Lead	anr			
Magnesium				
Manganese	anr			
Molybdenum				
Nickel				
Potassium				
Selenium	anr			
Silicon				
Silver	anr			
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc	anr			

Associated samples MP7737: M51360-1

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (anr) Analyte not requested

7.1.3  
**7**

SERIAL DILUTION RESULTS SUMMARY

Login Number: M51360  
 Account: SHELLWIC - Shell Oil  
 Project: ENVTRAC:97241358 (REIMBMA) 1580 Turnpike St., Stoughton, MA

QC Batch ID: MP7737  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 10/10/05

Metal	M51252-1A Original SDL 1:5	RPD	QC Limits
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Aluminum			
Antimony			
Arsenic	0.00	0.00	NC 0-10
Barium	anr		
Beryllium			
Boron			
Cadmium	anr		
Calcium			
Chromium	anr		
Cobalt			
Copper	anr		
Iron	anr		
Lead	anr		
Magnesium			
Manganese	anr		
Molybdenum			
Nickel			
Potassium			
Selenium	anr		
Silicon			
Silver	anr		
Sodium			
Strontium			
Thallium			
Tin			
Titanium			
Tungsten			
Vanadium			
Zinc	anr		

Associated samples MP7737: M51360-1

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (anr) Analyte not requested

7.1.4

7

## General Chemistry

### QC Data Summaries



**Includes the following where applicable:**

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: M51360  
Account: SHELLWIC - Shell Oil  
Project: ENVTRAC:97241358 (REIMBMA) 1580 Turnpike St., Stoughton, MA

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Cyanide	GP6030/GN18031	0.010	<0.010	mg/l	0.1	0.103	103.0	90-110%
Cyanide	GP6030/GN18031			mg/l	0.2	0.206	103.0	90-110%

Associated Samples:  
Batch GP6030: M51360-1

8.1

8

DUPLICATE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: M51360  
Account: SHELLWIC - Shell Oil  
Project: ENVTRAC:97241358 (REIMBMA) 1580 Turnpike St., Stoughton, MA

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Cyanide	GP6030/GN18031	M51225-1	mg/l	<0.010	<0.010	0.0	0-20%

Associated Samples:  
Batch GP6030: M51360-1

8.2

8

MATRIX SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: M51360  
Account: SHELLWIC - Shell Oil  
Project: ENVTRAC:97241358 (REIMBMA) 1580 Turnpike St., Stoughton, MA

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Cyanide	GP6030/GN18031	M51225-1	mg/l	<0.010	0.1	0.099	99.0	75-125%

Associated Samples:  
Batch GP6030: M51360-1

8.3

8



**REPORT OF ANALYTICAL RESULTS**

**NETLAB Case Number Q1003-12**

Prepared for:

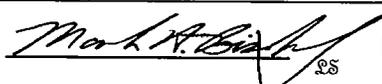
Attn: Wil Harrison  
Envirotrac Ltd.  
1400 Providence Hwy, Suite 2100  
Norwood, MA 02062

Report Date: October 13, 2005

Lab # RI010

Electronic Copy

NEW ENGLAND TESTING LABORATORY, INC.  
1254 Douglas Avenue, North Providence, RI 02904  
(401) 353-3420

ANALYTICAL METHOD REPORT CERTIFICATION FORM					
Laboratory Name: New England Testing Laboratory, Inc.			Project #:		
Project Location: 1508 Turnpike St., Stoughton, MA			RTN <sup>1</sup> :		
This form provides certifications for the following data set: Q1003-12					
Sample Matrices: Groundwater (X) Soil/Sediment ( ) Drinking Water ( ) Other:					
<b>SW-846 Methods Used</b>	8260B ( )	8151A ( )	8330 ( )	6010B ( )	7470A/1A ( )
	8270C ( )	8081A ( )	VPH ( )	6020 ( )	9014M <sup>2</sup> ( )
	8082 ( )	8021B ( )	EPH ( )	7000 S <sup>3</sup> ( )	Other: (X)
	<sup>1</sup> List Release Tracking Number (RTN), if known <sup>2</sup> M – SW-846 Method 9014 or MADEP Physiologically Available Cyanide (PAC) Method <sup>3</sup> S – SW-846 Methods 7000 Series List individual method and analyte				
<b>An affirmative response to questions A, B, and C is required for "Presumptive Certainty" status</b>					
A	Were all samples received by the laboratory in a condition consistent with that described on the Chain-of Custody documentation for the data set?				Yes (X) No <sup>1</sup> ( )
B	Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?				Yes (X) No <sup>1</sup> ( )
C	Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in Section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?				Yes (X) No <sup>1</sup> ( ) Not Applicable ( )
D	<b>VPH and EPH Methods only:</b> Was the VPH and EPH Method conducted without significant modifications (see Section 11.3 of respective Methods)				Yes ( ) No <sup>1</sup> ( )
<b>A response to questions E and F below is required for "Presumptive Certainty" status</b>					
E	Were all QC performance standards and recommendations for the specified methods achieved?				Yes (X) No <sup>1</sup> ( )
F	Were results for all analyte-list compounds/elements for the specified method(s) reported?				Yes (X) No <sup>1</sup> ( )
<sup>1</sup> All NO answers must be addressed in an attached Environmental Laboratory case narrative.					
<b>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 analytical report is, to the best of my knowledge and belief, accurate and complete.</b>					
Signature: 		Position: <u>Laboratory Director</u>			
Printed Name: <u>Mark H. Bishop</u>		Date: <u>10/14/2005</u>			

**ANALYTICAL METHOD REPORT CERTIFICATION FORM**

Laboratory Name: New England Testing Laboratory, Inc. Project #:  
 Project Location: 1508 Turnpike St., Stoughton, MA RTN<sup>1</sup>:  
 This form provides certifications for the following data set: Q1003-12

Sample Matrices: Groundwater (X) Soil/Sediment ( ) Drinking Water ( ) Other:					
<b>SW-846 Methods Used</b>	8260B ( )	8151A ( )	8330 ( )	6010B ( )	7470A/1A ( )
	8270C ( )	8081A ( )	VPH ( )	6020 ( )	9014M <sup>2</sup> ( )
	8082 ( )	8021B ( )	EPH ( )	7000 S <sup>3</sup> ( )	Other: (X)
	<sup>1</sup> List Release Tracking Number (RTN), if known <sup>2</sup> M – SW-846 Method 9014 or MADEP Physiologically Available Cyanide (PAC) Method <sup>3</sup> S – SW-846 Methods 7000 Series List individual method and analyte				

**An affirmative response to questions A, B, and C is required for "Presumptive Certainty" status**

<b>A</b>	Were all samples received by the laboratory in a condition consistent with that described on the Chain-of Custody documentation for the data set?	Yes (X) No <sup>1</sup> ( )
<b>B</b>	Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?	Yes (X) No <sup>1</sup> ( )
<b>C</b>	Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in Section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	Yes (X) No <sup>1</sup> ( ) Not Applicable ( )
<b>D</b>	<b><i>VPH and EPH Methods only:</i></b> Was the VPH and EPH Method conducted without significant modifications (see Section 11.3 of respective Methods)	Yes ( ) No <sup>1</sup> ( )

**A response to questions E and F below is required for "Presumptive Certainty" status**

<b>E</b>	Were all QC performance standards and recommendations for the specified methods achieved?	Yes (X) No <sup>1</sup> ( )
<b>F</b>	Were results for all analyte-list compounds/elements for the specified method(s) reported?	Yes (X) No <sup>1</sup> ( )

<sup>1</sup>All NO answers must be addressed in an attached Environmental Laboratory case narrative.

***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 analytical report is, to the best of my knowledge and belief, accurate and complete.***

Signature:  Position: Director, Inorganics  
 Printed Name: Jodi Lyons Date: 10/12/2005

**STATEMENTS/CERTIFICATIONS REQUIRED BY THE NATIONAL ENVIRONMENTAL LABORATORY APPROVAL CONFERENCE (NELAC)**

New England Testing Laboratory is certified under the National Environmental Laboratory Approval Program (NELAP). This certification requires the following statements and certifications be included in our report.

This report shall not be reproduced, except in full, without written approval of the laboratory.

New England Testing certifies that the test results contained within this report meet all NELAC requirements except as detailed in the Case Narrative section of this report.

**SAMPLES SUBMITTED and REQUEST FOR ANALYSIS:**

The samples listed in Table I were submitted to New England Testing Laboratory on October 3, 2005. The group of samples appearing in this report was assigned an internal identification number (case number) for laboratory information management purposes. The client's designations for the individual samples, along with our case numbers, are used to identify the samples in this report. The case number for this sample submission is Q1003-12.

Custody records are included in this report.

**Site: 1508 Turnpike Street, Stoughton, MA**

**TABLE I, Samples Submitted**

Sample ID	Date Sampled	Matrix	Analysis Requested
RW-1	10/3/05	Water	Table II

**TABLE II, Analysis and Methods**

ANALYSIS	DETERMINATIVE METHOD
Total Petroleum Hydrocarbons	1664A
PCBs	608
Total Suspended Solids	160.2
Total Residual Chlorine	330.5
Hexavalent Chromium	7196A
Total Metals	
Antimony	3113B
Cadmium	3113B
Chromium	200.7
Copper	200.7
Iron	200.7
Lead	3113B
Mercury	245.1
Nickel	200.7
Selenium	3113B
Silver	3113B
Zinc	200.7

These methods are documented in:

40 CFR 136, *Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act*, Office of Federal Register National Archives and Records Administration.

## **CASE NARRATIVE:**

### **Sample Receipt:**

No sample for ms/msd/duplicate analysis was supplied. No field blank was supplied. (This does not qualify the analytical results but does prevent conducting these SW-846 {Chapter 1, Section 3.4} QA Audits.)

The samples were all appropriately cooled and preserved upon receipt.

The samples were received in the appropriate containers.

The chain of custody was adequately completed and corresponded to the samples submitted.

### **Metals:**

All analyses were performed according to NETLAB's documented Standard Operating Procedures, within all required holding times, and with appropriate quality control measures.

A marginal concentration of Iron was detected in the water method blank. The concentration of Iron was at the reporting limit. This has no significance on the usefulness of the sample result, which was found to be considerably greater than the blank contamination.

### **PCBs:**

All samples were extracted and analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria.

### **General Chemistry:**

Hexavalent Chromium: No anomalies or excursions from QC limits. As stated in Method 7196A, section 7.3, verification is required to ensure that there are no conditions interfering with the colorimetric process. This was not met with the sample, therefore a dilution was required.

Total Residual Chloride: No anomalies or excursions from QC limits

Total Suspended Solids: No anomalies or excursions from QC limits

Total Petroleum Hydrocarbons: No anomalies or excursions from QC limits

## Sample Results

**RW-1**

Parameter	Result, mg/l	Reporting Limit	Date Analyzed
Total Suspended Solids	50	1	10/5/05
Residual Chlorine	N.D.	0.04	10/3/05
Hexavalent Chromium	N.D.	0.1	10/3/05 @ 16:09
Total Petroleum Hydrocarbons	N.D.	2	10/7/05

N.D. = Not Detected

## METALS RESULTS

The presence of the NETLAB LOGO in the top right corner of each page in this section indicates:

The Technical Manager of the Metals Analysis Department certifies that the results included in this section have been reviewed and approved. Any exceptions or qualifications of substance have been reported in the case narrative.

METALS RESULTS



Case Number: Q1003-12  
 Sample ID: RW-1  
 Date collected: 10/03/05  
 Matrix: WATER  
 Sample Type: TOTAL

Analyst CC/RM

Parameter	CAS Number	Preparative Method	Analytical Method	Result	Reporting Limit	Detection Limit	Units	Date of Preparation	Date Analyzed
Antimony	7440-36-0	NA	3113B	ND	0.005	0.005	mg/l	10/5/05	10/10/05
Cadmium	7440-43-9	NA	3113B	ND	0.0005	0.0005	mg/l	10/5/05	10/10/05
Chromium	7440-47-3	NA	200.7	0.005	0.005	0.005	mg/l	10/4/05	10/10/05
Copper	7440-50-8	NA	200.7	ND	0.02	0.02	mg/l	10/4/05	10/10/05
Iron	7439-89-6	NA	200.7	5.06	0.05	0.05	mg/l	10/4/05	10/10/05
Lead	7439-92-1	NA	3113B	0.002	0.002	0.002	mg/l	10/5/05	10/7/05
Mercury	7439-97-6	NA	245.1	ND	0.0002	0.0002	mg/l	10/5/05	10/6/05
Nickel	7440-02-0	NA	200.7	0.028	0.005	0.005	mg/l	10/4/05	10/10/05
Selenium	7782-49-2	NA	3113B	ND	0.005	0.005	mg/l	10/5/05	10/11/05
Silver	7440-22-4	NA	3113B	ND	0.0005	0.0005	mg/l	10/5/05	10/5/05
Zinc	7440-66-6	NA	200.7	0.20	0.02	0.02	mg/l	10/4/05	10/10/05

ND indicates not Detected

METALS RESULTS



Sample ID: METHOD BLANK

Matrix WATER  
 Sample Type: Preparation Blank

Analyst CC/RM

Parameter	CAS Number	Preparative Method	Analytical Method	Result	Reporting Limit	Detection Limit	Units	Date of Preparation	Date Analyzed
Antimony	7440-36-0	NA	3113B	ND	0.005	0.005	mg/l	10/5/05	10/10/05
Cadmium	7440-43-9	NA	3113B	ND	0.0005	0.0005	mg/l	10/5/05	10/10/05
Chromium	7440-47-3	NA	200.7	ND	0.005	0.005	mg/l	10/4/05	10/10/05
Copper	7440-50-8	NA	200.7	ND	0.02	0.02	mg/l	10/4/05	10/10/05
Iron	7439-89-6	NA	200.7	0.08	0.05	0.05	mg/l	10/4/05	10/10/05
Lead	7439-92-1	NA	3113B	ND	0.002	0.002	mg/l	10/5/05	10/7/05
Mercury	7439-97-6	NA	245.1	ND	0.0002	0.0002	mg/l	10/5/05	10/6/05
Nickel	7440-02-0	NA	200.7	ND	0.005	0.005	mg/l	10/4/05	10/10/05
Selenium	7782-49-2	NA	3113B	ND	0.005	0.005	mg/l	10/5/05	10/11/05
Silver	7440-22-4	NA	3113B	ND	0.0005	0.0005	mg/l	10/5/05	10/5/05
Zinc	7440-66-6	NA	200.7	ND	0.02	0.02	mg/l	10/4/05	10/10/05

ND indicates not Detected

## LABORATORY CONTROL SAMPLE RECOVERY

Parameter	True Value	Result	Units	Recovery, %	LCL, %	UCL, %	Date Analyzed
Antimony	0.0200	0.0214	mg/l	107	81	123	10/10/05
Cadmium	0.00500	0.00522	mg/l	104	80	122	10/10/05
Chromium	1.00	1.00	mg/l	100	89	110	10/10/05
Copper	1.00	1.04	mg/l	104	87	113	10/10/05
Iron	1.00	1.03	mg/l	103	74	122	10/10/05
Lead	0.0200	0.0189	mg/l	94.5	86	119	10/7/05
Mercury	0.00100	0.00094	mg/l	94.0	89	114	10/6/05
Nickel	1.00	1.03	mg/l	103	89	109	10/10/05
Selenium	0.0200	0.0202	mg/l	101	88	113	10/11/05
Silver	0.00500	0.00364	mg/l	72.8	71	118	10/5/05
Zinc	1.00	1.03	mg/l	103	91	110	10/10/05

## **RESULTS: PCBs**

The presence of the NETLAB LOGO in the top right corner of each page in this section indicates:

The Technical Manager of the Organics Analysis Department certifies that the samples included in this section have been prepared and analyzed using the procedures cited and that the results have been reviewed and approved. Any exceptions or qualifications of substance have been reported in the case narrative.

<b>Sample: RW-1</b>		Analyst's Initials: DC
<b>Case No. Q1003-12</b>		
<b>Date Collected: 10/3/05</b>		
<b>Sample Matrix: Water</b>		
<b>Subject: PCBs</b>	Date Extracted	Date Analyzed
<b>Analytical Method: EPA 608</b>	10/5/05	10/7/05
Compound	Concentration ug/l (ppb)	Reporting Limit
PCB-1016	N.D.	0.2
PCB-1221	N.D.	0.4
PCB-1232	N.D.	0.2
PCB-1242	N.D.	0.2
PCB-1248	N.D.	0.2
PCB-1254	N.D.	0.2
PCB-1260	N.D.	0.2
Surrogates:		
Compound	% Recovery	Limits
TCMX	90	25-141
DCBP	80	41-156

<b>Sample: Method Blank</b>		Analyst's Initials: DC
<b>Case No. Q1003-12</b>		
<b>Date Collected: NA</b>		
<b>Sample Matrix: Water</b>		
<b>Subject: PCBs</b>	Date Extracted	Date Analyzed
<b>Analytical Method: EPA 608</b>	10/5/05	10/7/05
<b>Compound</b>	<b>Concentration ug/l (ppb)</b>	<b>Reporting Limit</b>
PCB-1016	N.D.	0.2
PCB-1221	N.D.	0.4
PCB-1232	N.D.	0.2
PCB-1242	N.D.	0.2
PCB-1248	N.D.	0.2
PCB-1254	N.D.	0.2
PCB-1260	N.D.	0.2
<b>Surrogates:</b>		
<b>Compound</b>	<b>% Recovery</b>	<b>Limits</b>
TCMX	75	25-141
DCBP	67	41-156

### PCB Laboratory Control Spike

<b>Date Collected: NA</b>			Analyst:	DC
<b>Sample Matrix: Water</b>				
<b>Subject: PCB</b>	Date Extracted			Date Analyzed
<b>Prep Method: EPA 3510C</b>	10/5/05			10/7/05
<b>Analytical Method: EPA 8082</b>				
Compound	Amount Spiked ug/l	Result ug/l	Recovery %	Recovery Limits
1254-1	0.50	0.27	53	40-140
Surrogates:	% Recovery	Limits		
TCMX	45	19-139		
DCBP	62	29-155		

## Custody Records

