

**PHASE II ENVIRONMENTAL SITE ASSESSMENT AND  
SITE ASSESSMENT FOR CLOSURE OF  
UNDERGROUND OIL STORAGE TANK FACILITIES  
MILL DAM  
67 SWAN LAKE AVENUE  
BELFAST, MAINE**

Prepared for:

City of Belfast, Maine  
131 Church Street  
Belfast, Maine  
(Using U.S.EPA Brownfields Funding  
Under Belfast's Assessment Grant No. BF96151001-0)

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## EXECUTIVE SUMMARY

On behalf of the City of Belfast, the following report presents the findings of a Phase II Environmental Site Assessment (ESA) and Site Assessment for Closure of Underground Oil Storage Facilities performed by Ransom Consulting, Inc. (Ransom) for the Mill Dam property located at 67 Swan Lake Avenue in the City of Belfast, Waldo County, Maine (the "Site"). The Phase II ESA was performed in conjunction with the U.S. Environmental Protection Agency (U.S. EPA) and the Maine Department of Environmental Protection (ME DEP) and was conducted using U.S. EPA Brownfield funding under the City of Belfast's Municipal Brownfields Site Assessment Program (Grant No. BF96151001-0). This report also serves as the Site Assessment required under ME DEP's Chapter 691 regulations for closure of Underground Oil Storage Facilities in Maine.

The Site is identified by the City of Belfast Assessor's Office as Lot 12 on Tax Map 20 and consists of an approximately 2-acre, irregular-shaped parcel of land, located at the northeastern corner of the intersection of Swan Lake Avenue (Route 141) and Mill Lane. The Site is currently improved with three buildings (the "Site Buildings"), which are described as the Office Building, Turbine House, and Storage Building. The Office Building is primarily used for office/storage purposes. The basement of the Office Building is used as a maintenance shop and storage facility for the dam. The Turbine House contains one turbine and generator that were formerly used for hydroelectric power generation, and the Storage Building is currently used for miscellaneous storage purposes.

The Site was originally developed circa 1850 as the G.F. White & Company Paper Mill and was used as the Sherman & Company Leather Board Factory (Middle Mill) from circa 1888 to circa 1976. Mill Dam was constructed circa 1850 and used for hydroelectric power generation for the mill/factory, until a majority of former Site buildings were destroyed by a fire that occurred at the Site in 1976. The Site was then used solely for hydroelectric power generation until 2005 and has served as the office location of Goose River Hydro Inc. to the present date.

A Phase I ESA dated July 10, 2012, was completed by Ransom, which identified *Recognized Environmental Conditions (RECs)* associated with the former industrial uses of the Site, including operation as a leather board factory and hydroelectric power generation facility, which may have adversely impacted soil and/or groundwater conditions at the Site. One 12,000-gallon No. 6 fuel oil underground storage tank (UST) was used by the former leather board factory and was abandoned in place at the Site. Known petroleum releases originating from the northern adjoining Goose River grocery store/gas station have the potential to have also adversely impacted soil and/or groundwater conditions at the Site. Based on the findings from the Phase I ESA, five areas of concern (AOCs) were identified and targeted for additional investigation through the completion of a Phase II ESA.

The objective of the Phase II ESA was to collect sufficient data to confirm or dismiss the *RECs* identified during the Phase I ESA, to identify potential exposure risks, and to evaluate the suitability of the Site for continued hydroelectric power generation use. The Phase II scope of work included the advancement of soil borings, installation of temporary groundwater monitoring wells, installation of pore water sample points, and the collection and chemical analysis of soil, groundwater, and pore water samples throughout the Site. Wipe samples for polychlorinated biphenyl (PCB) analysis were also collected from hydraulic-oil-stained areas inside the Turbine House. Furthermore, a Hazardous Materials Inventory (HMI) of suspect hazardous building materials including asbestos, lead-based paint, universal wastes, and other potentially hazardous building materials at the Site Buildings and water penstock was also conducted concurrently with our Phase II investigation.

In order to facilitate the completion of the Phase II ESA, Ransom oversaw the removal/-decommissioning of the abandoned 12,000-gallon No. 6 fuel oil UST in accordance with applicable State regulations for the proper closure of underground oil storage tank facilities (ME DEP Chapter 691). As part of the Phase II ESA activities and in accordance with the State regulations, a Site Assessment was also completed for the UST area to determine whether discharges of oil have occurred requiring notification of the commissioner and/or whether further corrective actions were warranted.

Overall, the results of our Phase II ESA program indicated no evidence of gross soil contamination associated with former leather board factory industrial use or hydroelectric power generation at the Site. In addition, Ransom did not observe evidence of gross soil contamination or “petroleum-saturated soils” during decommissioning activities of the 12,000-gallon No. 6 fuel oil UST that had been previously abandoned at the Site since the 1970s or during our soil boring program. No evidence of “free petroleum product” contamination was observed in groundwater during UST decommissioning activities, soil boring advancements, gauging of temporary groundwater monitoring wells, or sampling of pore water sample points at the Site.

During the 12,000-gallon No. 6 fuel oil UST removal activities, Ransom did not observe evidence of a release of fuel oil in connection with this UST and the UST appeared to be in good condition with no obvious evidence of holes or damage. However, the base of the UST at its southwestern corner was punctured by the excavator during its removal from the concrete anchor pad, causing groundwater within the excavation to enter the UST. As a precaution, Ransom contacted the ME DEP’s Bureau of Remediation and Waste Management (BRWM) Emergency Spill Response department, due to the potential for a release of fuel oil to the excavation. Although a fuel oil release from the UST was subsequently determined not to have occurred, the ME DEP responded to the notification and issued Spill No. A-48-2013. Subsequent response activities to address the UST damage were performed with Ransom and ME DEP oversight/guidance, which consisted of the removal and proper off-site disposal of groundwater from the UST, using a vacuum (Vactor) truck. Upon completion of water removal activities, the UST was removed from the ground, properly cleaned, and disposed of off site for recycling.

Based on these response actions, the ME DEP approved the completion of the UST removal activities, approved leaving the remaining ancillary piping system in order to prevent damage to an existing nearby stormwater pipe, since residual fuel oil remaining in the oil piping system was properly removed/pumped concurrent with UST removal activities, and verbally issued a No Further Action status for Spill No. A-48-2013. Furthermore, low level concentrations of semi-volatile petroleum fractions and target polycyclic aromatic hydrocarbons (PAHs) detected in confirmatory soil samples collected from the UST excavation did not exceed their respective Petroleum Remediation Guidelines for “Outdoor Commercial Worker” or “Excavation/Construction Worker” exposure scenarios and were inferred to be associated with a *de minimis* fuel oil release to the base of the excavation, during removal of the UST from the ground.

Soils in the vicinity of the former leather board factory were observed to contain urban fill, including bricks, concrete, coal, and ash. The presence of these urban fill materials are likely associated with former industrial uses and/or historic fires at the Site. Laboratory analysis of samples collected from the urban fill-impacted soils indicated slightly elevated concentrations of arsenic and lead and low-level concentrations of semi-volatile petroleum hydrocarbons and target PAHs. The concentrations of lead, semi-volatile petroleum hydrocarbons, and target PAHs detected in Site soils in the vicinity of the former leather board factory did not exceed their applicable 2013 ME DEP RAGs. Conversely, arsenic exceeded its ME DEP RAGs for “Outdoor Worker” and/or “Excavation/Construction Worker” exposure scenarios. However, except for one soil subsurface soil sample, the concentrations of arsenic in the surficial and subsurface soil samples appear to be consistent with naturally occurring area-wide background

concentrations identified during investigations conducted at other sites along the Goose River, concurrent with this investigation. Therefore, the presence of arsenic in Site soils are not likely the result of unknown and/or unreported OHM releases, associated with former/historical Site operations as a leather board factory or hydroelectric power generation, and are not likely to represent an exposure risk, if the property continues to be commercially used for hydroelectric power generation purposes. In addition, cadmium and chromium were also detected in soil samples collected throughout the Site; however, these metals were detected at concentrations that also appear to be representative of naturally occurring conditions. Furthermore, laboratory analysis for leachable lead indicates that Site soils would not require classification as “hazardous waste.”

Slightly elevated concentrations of one target PAH (benzo[a]pyrene) and low-level concentrations of semi-volatile petroleum fractions (below 2013 ME DEP RAGs) were identified in surficial soils at the northern portion of the Site. The concentrations of benzo(a)pyrene, detected in two surficial soil samples at the northern portion of the Site, slightly exceeded their applicable 2013 ME DEP RAGs for Commercial Worker scenario. The presence of these contaminants in Site soils are likely associated with *de minimis* automotive fluid spills or exhaust from roadway traffic along Swan Lake Avenue and are not likely the result of former OHM releases originating from the northern adjoining Goose River gas station/grocery store. This assertion is based on Ransom’s observations and laboratory analytical results of soil and pore water samples collected at the northern portion of the Site, which did not indicate that petroleum releases originating at the adjoining Goose River gas station/grocery store have migrated onto the Site.

During our Phase II investigation, one 2,000-gallon diesel aboveground storage tank (AST) was discovered in a concrete vault between the Office Building and Turbine House at the Site. The AST was decommissioned with Ransom oversight. Decommissioning activities consisted of the removal and proper off-site disposal of residual diesel remaining in the AST, using a vacuum (Vactor) truck, and off-site disposal/recycling of the AST. Due to the discovery of this AST, Ransom advanced five additional soil borings surrounding the AST vault area and installed one temporary groundwater monitoring well and one pore water sample point immediately downgradient from the AST.

Low level concentrations of volatile and semi-volatile petroleum fractions were detected in soil samples surrounding the 2,000-gallon diesel AST vault. These volatile and semi-volatile petroleum fractions are likely associated with urban fill containing anthropogenic coal and/or wood combustion byproducts resulting from the former industrial operations, demolition debris from historical structural fires at the Site, *de minimis* diesel spills from the 2,000-gallon diesel AST, and/or former vehicles and equipment used at the Site by the former leather board factory and current hydroelectric dam.

One volatile petroleum fraction (C<sub>11</sub>–C<sub>22</sub> aromatics) was detected in the groundwater sample collected immediately downgradient from the AST vault at a concentration that exceeded its corresponding Maximum Exposure Guideline (MEG) for drinking water and ME DEP’s State-wide Groundwater and Drinking Water Petroleum Remediation Guideline. However, public water is available to the Site and vicinity and no petroleum constituents were detected in the pore water sample collected downgradient from the AST vault; therefore, it is inferred that petroleum-impacted groundwater in the vicinity of the AST is not likely migrating into the Goose River.

In addition, based on our observations and laboratory analytical results, no adverse impacts to soil or groundwater were identified at the Site associated with the former septic system located at the west-central portion of the Site.

The HMI identified asbestos-containing material (ACM) on building foundation mastic, presumed ACM pipe insulation inside its original packaging in the Office Building, and potential PCB-containing fluorescent light ballasts and mercury-containing fluorescent light tubes inside the Site Buildings that will need to be properly removed and/or addressed during future Site redevelopment. PCBs were not detected above laboratory detection limits or their respective regulatory guidelines in the wipe samples collected from areas of hydraulic-oil-stained building surfaces inside the Turbine House.

Based on the findings and information obtained during this Phase II ESA, Ransom concludes that additional environmental investigation are not warranted at this time and recommends the following with respect to the existing environmental conditions at the Site and the proposed Site redevelopment:

1. The results of this Phase II ESA completed for the Site, including the HMI, should be submitted to the ME DEP Voluntary Response Action Program (VRAP). The ME DEP VRAP is a voluntary program that offers technical review of environmentally-impacted sites and ultimately provides state liability protections for interested parties, including a “No Action Assurance” (NAA) letter and a “Certificate of Completion” letter (i.e., no further action required), provided that proper and appropriate environmental cleanup or remedial actions are completed, as approved by the ME DEP.

As a condition of approval, the NAA letter should require a deed restriction and/or institutional controls in the form of a Declaration of Environmental Covenant (DEC) in order to potentially restrict/prohibit extraction of groundwater at the Site and excavation of impacted soils at the Site without proper ME DEP notification/approvals and implementation of a Soil Management Plan and Health and Safety Plan. The NAA should also require that additional environmental cleanup and abatement of the identified hazardous building materials be conducted prior to or during future Site renovation and/or redevelopment activities. A deed restriction may also be required to limit the future use of the Site to commercial and/or industrial uses.

2. Prior to renovation and/or demolition of the Site Buildings, identified hazardous building materials should be properly removed and/or addressed according to the recommendations provided in our HMI report, which was prepared concurrently with this Phase II ESA.

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## 1.0 INTRODUCTION

On behalf of the City of Belfast, Ransom Consulting, Inc. (Ransom) is pleased to present this report documenting the results of a Phase II Environmental Site Assessment (ESA) and Site Assessment for Closure of Underground Oil Storage Facilities performed at the Mill Dam property located at 67 Swan Lake Avenue in the City of Belfast, Waldo County, Maine (the "Site"). This project was performed in conjunction with the U.S. Environmental Protection Agency (U.S. EPA) and the Maine Department of Environmental Protection (ME DEP) and was completed using U.S. EPA Brownfields funding under the City of Belfast's Brownfields Assessment Program (Grant No. BF96151001-0). This report also serves as the Site Assessment required under ME DEP's Chapter 691 regulations for closure of Underground Oil Storage Facilities in Maine.

Furthermore, the Phase II ESA and petroleum storage tank decommissioning activities were completed in accordance with Ransom's Site-Specific Quality Assurance Project Plan (SSQAPP, Addendum No. 24), dated December 19, 2012. The SSQAPP was reviewed and approved by the ME DEP and the U.S. EPA, prior to implementation of the field activities.

### 1.1 Purpose

A Phase I ESA, dated July 10, 2012, was completed by Ransom, which identified *Recognized Environmental Conditions (RECs)* associated with former industrial uses of the Site, including operation as a leather board factory and hydroelectric power generation facility, which may have adversely impacted soil and/or groundwater conditions at the Site. One 12,000-gallon No. 6 fuel oil underground storage tank (UST) was used by the former leather board factory and was abandoned in-place at the Site. Known petroleum releases originating from the northern adjoining Goose River grocery store/gas station have the potential to have adversely impacted soil and/or groundwater conditions at the Site. Based on the findings from the Phase I ESA, five areas of concern (AOCs) were identified and targeted for additional investigation through the completion of a Phase II ESA. It is Ransom's understanding that the Site is proposed to remain developed for hydroelectric power generation use.

The purpose of the Phase II ESA was to evaluate each of the identified AOCs for the potential presence of contaminants of concern (COCs), and to assess the potential risk of exposure to site workers, site visitors, and future site occupants. Furthermore, the objective of the Phase II ESA was to collect sufficient data to confirm or dismiss the *RECs* identified during the Phase I ESA and to determine whether oil and/or hazardous materials (OHM) associated with these *RECs* have potentially impacted environmental conditions at the Site. The petroleum storage facility decommissioning activities were conducted in accordance with applicable State regulations. The petroleum storage facility decommissioning activities were performed to support the Site investigation and continued use of the Site for hydroelectric power generation purposes.

### 1.2 Special Terms and Conditions

This Phase II ESA was conducted in accordance with our executed Master Services Agreement with the City of Belfast, dated April 27, 2012. Authorization to perform this Phase II ESA was provided by the City of Belfast.

This report was prepared using U.S. EPA Brownfields funding under the City of Belfast's Brownfields Assessment Grant No. BF96151001-0, and therefore is a public document. However, the services, findings, and conclusions noted herein, and associated documents provided to the client by Ransom are solely for the benefit of the City of Belfast, their affiliates and subsidiaries and their

successors, assigns, and grantees. Other than for public informational purposes, reliance or any use of this report by anyone other than City of Belfast, for whom it was prepared, is prohibited. Furthermore, reliance or use by any such third party without explicit authorization in the report does not make said third party a third-party beneficiary to Ransom's contract with City of Belfast. Any such unauthorized reliance on or use of this report, including any of its information or conclusions, will be at the third party's risk. For the same reasons, no warranties or representations, expressed or implied in this report, are made to any such third party.

### 1.3 Limitations and Exceptions of Assessment

The Phase II Investigation was executed in accordance with the scope of work proposed in the SSQAPP. Any additional revisions to the scope of work or methodologies outlined in the SSQAPP were implemented, based on conditions encountered in the field, and are discussed in Section 2.0. Furthermore, the findings provided by Ransom in this report are based solely on the information reported in this document and the results of limited explorations and confirmatory laboratory testing. Our findings and conclusions must be considered as our professional opinion concerning the significance of the limited data gathered during the course of the environmental assessments. Ransom does not and cannot represent that the Site contains no OHM or other adverse environmental conditions beyond that observed by Ransom during the environmental assessments and field investigations. Should additional information become available in the future, this information can be reviewed by Ransom and the findings, presented herein, may be modified as a result of the review.

## 2.0 BACKGROUND

### 2.1 Site Description, History, and Physical Setting

The Site consists of an irregular-shaped parcel of land, encompassing approximately 2 acres, located at the northeastern corner of the intersection of Swan Lake Avenue (Route 141) and Mill Lane. The Site is currently improved with three buildings (the “Site Buildings”), which are described as the Office Building, Turbine House, and Storage Building. The Office Building is primarily used for office/storage purposes. The basement of the Office Building is used as a maintenance shop and storage facility for the dam. The Turbine House contains one turbine and generator that were formerly used for hydroelectric power generation and the Storage Building is currently used for miscellaneous storage purposes.

Based on available information, the Site was originally developed circa 1850 as the G.F. White & Company Paper Mill and was used as the Sherman & Company Leather board Factory (Middle Mill) from circa 1888 to circa 1976. Mill Dam was constructed circa 1850 and used for hydroelectric power generation for the mill/factory until a majority of former Site buildings were destroyed by a fire that occurred at the Site in 1976. The Site was then used solely for hydroelectric power generation until 2005 and has served as the office location of Goose River Hydro Inc. to the present date.

The Office building is currently heated with electric space heaters, as necessary. The former mill buildings appear to have been heated by a fuel-oil- and coal-fired furnace during the Site’s use as a leather board factory. The Site has been connected to municipal water and sewer systems since circa 2005. Prior to that time, these utilities appear to have been provided by a private on-site septic system and water supply well.

One 12,000-gallon No. 6 fuel oil UST is located at the Site approximately 50 feet southwest of the Office Building. This UST was formerly used to store No. 6 fuel oil in order to heat the former Sherman & Company Leather Board factory buildings at the Site and has reportedly not been used since the 1970s and was abandoned in place. No information was provided by persons knowledgeable about the Site or our review of municipal files and state environmental databases regarding the age and condition of the 12,000-gallon UST at the Site, including whether any leaks, spills, or overfills of fuel oil have occurred in connection with the UST.

During our Phase I ESA reconnaissance, Ransom observed numerous miscellaneous-sized containers (i.e., less than 5-gallons) of typical automotive OHM and paints, and seven partially-full, unlabeled, 20-gallon to 55-gallon drums at the Site. No staining and/or leakage indicative of a release of OHM was observed in connection with these containers or drums during our reconnaissance; however, since the basement of the building was used for equipment maintenance activities, which included the use, storage, and possible disposal of hazardous materials such as degreasers, lubricants, motor oils, waste oils, metals, and potentially polychlorinated biphenyl (PCB)-containing hydraulic fluids, it is possible that these fluids may have been discharged to the subsurface from the floor drain in the building and/or were discharged to the on-site septic system during the Site’s paper mill and leather board factory use.

Based on information provided by the ME DEP, petroleum-impacted soils were discovered at the northern adjoining property (Goose River grocery store/gas station) during gasoline UST removal/replacement activities that occurred at that property in 1988 and 1992. Petroleum-impacted soil or groundwater was not removed from the property since it was listed as a ME DEP “Baseline” cleanup property at that time; however, documented petroleum-impacted soil and potential petroleum-impacted groundwater remained at the property. This property is also listed as an Underground Injection Control

(UIC) facility, which indicates that floor drains, sinks, and other wastewater sources discharge directly into the ground at the property. This property has the potential to have adversely impacted environmental conditions at the Site due to its close proximity, inferred upgradient location from the Site, and information provided by the ME DEP indicating that petroleum-impacted soil and potential petroleum-impacted groundwater remains at the property.

## 2.2 Recognized Environmental Conditions

A Phase I ESA was completed by Ransom on July 10, 2012. Both the ME DEP and U.S. EPA have reviewed and approved the Phase I ESA and agree that the *Recognized Environmental Conditions (RECs)* listed in the report were appropriate and inclusive based on the data presented, as stated below:

1. Former industrial uses of the Site, including operation as a paper mill, leather board factory and hydroelectric power generation facility with an on-site septic system, have the potential to have impacted soil and/or groundwater conditions at the Site.
2. Potential soil and/or groundwater contamination resulting from spills, overfills, or releases from the 12,000-gallon UST currently located at the Site. The UST has reportedly been out of service since the 1970s.
3. Potential adverse environmental impacts to the Site from the nearby Goose River Grocery property (77 Swan Lake Avenue), which was identified as a Leaking Underground Storage Tank site and an Underground Injection Control site.

Based on the findings of our Phase I ESA, it was Ransom's opinion that additional investigation was warranted to address the above-stated *RECs*, document current Site conditions in relation to current regulatory cleanup guidelines, and evaluate the suitability of the Site property for redevelopment. In order to adequately evaluate the Site and accomplish the objectives discussed above, the 12,000-gallon No. 6 fuel oil UST abandoned in-place at the Site was removed and properly decommissioned.

Additionally, one 2,000-gallon aboveground storage tank (AST) reportedly containing diesel was discovered in a concrete vault at the Site beneath a wooden platform along the concrete retaining wall between the Office Building and Turbine House during the course of Ransom's Phase II activities (refer to Figure 2). This AST was not divulged to Ransom during our Phase I ESA, but was adequately decommissioned and subsurface conditions downgradient from and in close proximity to the AST were investigated during our Phase II ESA.

## 2.3 Areas of Concern

Based on the findings of the Phase I ESA and the identified RECs, five AOCs were identified at the Site and are summarized below. Deviations from our Phase I ESA findings and SSQAPP included the discovery of the 2,000-gallon diesel AST at the Site, and therefore AOC 6 was added to our Phase II investigation. AOCs are shown on the attached Figure 2.

### AOC 1—Northern Portion of Site (Adjacent to Goose River Grocery Store/Gas Station)

AOC 1 encompasses the northern portion of the Site in close proximity to the Goose River grocery store/gas station, which has documented petroleum releases that may have adversely impacted environmental conditions at the Site due to its close proximity and inferred upgradient location to the Site. The objective of investigating AOC 1 was to assess whether known and/or potential unknown OHM

releases originating from this adjoining property have adversely impacted environmental conditions at the Site.

The sources of COCs associated with this AOC include volatile and semi-volatile petroleum products associated with petroleum storage/dispensing operations and/or discharges to the reported septic system at this adjoining property. Specific COC analytical parameters include VPH with target petroleum VOCs and EPH with target PAHs. If present, these contaminants would likely be detected in groundwater and/or soils near the groundwater interface at the Site.

#### AOC 2—Entire Site (Former Industrial & Hydroelectric Power Generation Use of Site)

AOC 2 encompasses the entire Site. Former industrial uses of the Site, including operation as a paper mill, leather board factory, and hydroelectric power generation facility, may have adversely impacted soil and/or groundwater conditions at the Site. The objective for investigating AOC 2 was to assess current soil and groundwater conditions and evaluate potential exposure risks associated with former industrial and hydroelectric operations at the Site.

The sources of COCs associated with this AOC include volatile and semi-volatile petroleum products, chlorinated solvents, combustion ash, and lubricant oils. Specific COC analytical parameters include VPH, EPH with Target PAHs, VOCs (including petroleum and chlorinated solvents), PCBs, and metals. If present, these contaminants would likely be detected in surficial soils, subsurface soils, and/or groundwater at the Site. Several metals may be associated with historic coal combustion, waste oils, or other waste fluids which may have been disposed of on the neighboring property. Of these, the metals arsenic, cadmium, chromium, and lead have the potential to represent an exposure risk due to their relatively high toxicity characteristics. The remaining metals associated with coal/wood combustion and waste fluids are not anticipated to represent an exposure risk due to their relatively low toxicity characteristics.

#### AOC 3—Western Portion of Site (Adjacent to On-Site Septic System)

AOC 3 encompasses the western portion of the Site adjacent to the on-site septic system. The objective for investigating AOC 3 was to assess whether former industrial uses at the Site may have discharged wastewater containing OHM to the on-site septic system that adversely impacted soil and/or groundwater conditions at the Site.

The sources of COCs associated with this AOC include volatile and semi-volatile petroleum products, chlorinated solvents, metals, and lubricant oils. Specific COC analytical parameters include VPH, EPH, PAHs, VOCs (including petroleum and chlorinated solvents), metals, and PCBs. If present, these contaminants would likely be detected in subsurface soils and/or groundwater at the Site.

#### AOC 4—Southwestern Portion of Site (Adjacent to 12,000-Gallon No. 6 Fuel Oil UST)

AOC 4 encompasses the southwestern portion of the Site adjacent to the 12,000-gallon No. 6 fuel oil UST. The objective of investigating AOC 4 was to assess whether potential unknown and/or unreported releases of No. 6 fuel oil may have occurred in connection with this UST, which may have adversely impacted soil and/or groundwater conditions at the Site. In order to adequately evaluate the Site and accomplish the objectives discussed above, the 12,000-gallon No. 6 fuel oil UST was removed and properly decommissioned concurrent with our Phase II limited subsurface investigation in accordance with ME DEP's Chapter 691 regulations. The source of COCs associated with this AOC is No. 6 fuel oil. Specific COC analytical parameters include EPH and PAHs.

#### AOC 5— Turbine House (Oil-Stained Building Surfaces)

AOC 5 encompasses the Turbine House. The objective for investigating AOC 5 was to assess areas of oil-stained interior building surfaces (e.g., stained floors and walls associated with oil-containing machines in the building). Due to the approximate age of these former machines in relation to Site development (circa 1850), it is possible that PCBs may have been added to the oils that were used by these machines. Specific COC analytical parameters include PCBs, which would likely be detected in building wipe samples collected from interior oil-stained walls and floors.

#### AOC 6—Central Portion of Site (Adjacent to 2,000-Gallon Diesel AST)

AOC 6 encompasses the central portion of the Site adjacent to the 2,000-gallon diesel AST. The objective of investigating AOC 6 was to assess whether potential unknown and/or unreported releases of diesel may have occurred in connection with this AST, which may have adversely impacted soil and/or groundwater conditions at the Site. In order to adequately evaluate the Site and accomplish the objectives discussed above, the 2,000-gallon diesel AST was decommissioned concurrent with our Phase II limited subsurface investigation. Specific COC analytical parameters include VPH with target petroleum VOCs and EPH with target PAHs. If present, these contaminants would likely be detected in groundwater and/or soils near the groundwater interface at the Site.

#### Hazardous Building Materials

Hazardous building materials, such as asbestos, lead paint, and universal wastes also represent potential health risks to future site occupants if the Site buildings and/or the water penstock are to be renovated or demolished. In order to address these concerns, a HMI was conducted in conjunction with the Phase II ESA activities, as further discussed below.

### 3.0 INVESTIGATION METHODOLOGY

The Phase II Investigation was designed to collect sufficient data to characterize the environmental condition of the Site in relation to current risk-based regulatory standards, identify potential exposure risks to current and future Site occupants, and evaluate the suitability of the Site for proposed hydroelectric power generation reuse.

The scope of work for the Phase II ESA was developed, based on the conceptual site model presented in the SSQAPP, and included the advancement of 18 soil borings, installation of three temporary groundwater monitoring wells, installation of two pore water sample points, and the collection and chemical analysis of soil, groundwater, and pore water samples. Wipe samples for PCB analysis were also collected from hydraulic-oil-stained areas inside the Turbine House. Soil boring, monitoring well, pore water, and wipe sample locations are shown on Figure 2 and a groundwater elevation contour plan is included as Figure 3.

Additional activities completed for the Phase II investigation included the proper decommissioning and removal of the 12,000-gallon No. 6 fuel oil UST to facilitate the collection, field screening, and laboratory analysis of confirmatory endpoint composite soil samples from the UST excavation area in accordance with ME DEP's Chapter 691 regulations. The 2,000-gallon diesel AST was also properly decommissioned during our Phase II ESA. Field screening and confirmatory endpoint composite soil sample locations collected from the UST excavation are shown on Figure 4.

#### Soil Boring Advancement

On January 22, 2013, Ransom observed the advancement of ten soil borings, identified as B101 through B110, by Environmental Projects Inc. (EPI) of Auburn, Maine. The soil borings were advanced using direct-push (i.e., Geoprobe) drilling techniques. At each soil boring location, 4-foot macrocore soil samples were collected continuously from surface grade to the termination of each boring. The borings were advanced to depths ranging from 4.5 to 14 feet bgs.

Deviations from the SSQAPP, included the addition of four soil borings (B111 through B114) to further evaluate soil conditions in the vicinity of the 2,000-gallon diesel AST discovered at the Site and the addition of four soil borings (B115 through B118) to further evaluate the extent of PAH-impacted soils identified at boring B101, as discussed in subsequent sections of this report. These soil borings were advanced by Ransom personnel using hand tools (i.e., shovel and pick axe) on May 30, 2013.

Soil samples collected during the advancement of the soil borings were visually classified in the field by Ransom in general accordance with the Burmeister Soil Classification System. Surficial soil samples (approximately 0 to 2 feet bgs) were separated from subsurface soil samples (greater than 2 feet bgs) in order to evaluate exposure risks to site workers, site visitors and future site occupants.

#### Qualitative Field Screening

Soil samples collected during the advancement of the soil borings were screened in the field for the presence of total organic volatile compounds (TVOCs) using a photoionization detector (PID) equipped with a 10.6 eV lamp and calibrated to an isobutylene standard. Select soil samples were also screened for metals using an x-ray fluorescence meter (XRF).

Samples were collected for laboratory analysis from the locations and depths based on observations in the field (visual or olfactory evidence of contamination) and/or proximity to the ground water table. Sample intervals, sample recovery, and organic vapor concentrations (as determined by field screening) are included on the soil boring logs provided as Appendix A. Copies of the laboratory chemical analysis data reports are provided as Appendix B. Field screening results for concentrations of metals in soil are included in Table 1.

### Soil Sampling and Analytical Testing

Soil samples collected from the soil borings were submitted to Analytics Environmental Laboratory, LLC (Analytics) of Portsmouth, New Hampshire, for chemical analysis. Soil samples were collected directly from the sampling equipment and transferred into laboratory-prepared glassware. The samples were preserved in the field in accordance with applicable protocols and delivered on ice under chain-of-custody protocol for laboratory analysis. Soil samples were submitted for chemical analysis for a combination of parameters based on the nature of the suspected contaminant source as outlined in the AOCs described in Section 2.3, which included the following:

1. Volatile organic compounds (VOCs), by U.S. EPA Method 8260B;
2. Volatile petroleum hydrocarbon (VPH) fractions, excluding the target petroleum VOCs, by Massachusetts Department of Environmental Protection (MA DEP) Method 98-1 (VPH Standard) or including the target petroleum VOCs (VPH Full);
3. Extractable petroleum hydrocarbon (EPH) fractions, including target polycyclic aromatic hydrocarbons (PAHs), by MA DEP Method 98-1 (EPH Full);
4. Metals (arsenic, cadmium, chromium, and lead) by U.S. EPA Method Series 6000/7000; and
5. Polychlorinated biphenyls (PCBs) by U.S. EPA Method 8082.

Additionally, a duplicate soil sample (SB10X) was collected from soil boring B102 and submitted for laboratory analysis for quality assurance/quality control (QA/QC) protocols as outlined in the SSQAPP.

Deviations from the SSQAPP included submittal of surficial soil samples collected from borings B111 through B114 for laboratory analysis of VPH fractions, target petroleum VOCs, EPH fractions, and target PAHs. Surficial soil samples collected from borings B115 through B118 were submitted for laboratory analysis of EPH fractions and target PAHs. Additionally, an elevated concentration of lead was detected in the surficial soil sample collected from boring B106; and therefore, this soil sample was also submitted for leachable lead analysis by the Toxicity Characteristic Leaching Procedure (TCLP).

### Temporary Groundwater Monitoring Well Installation

On January 22, 2013, three soil borings (B110, B102, and B103) were completed as temporary groundwater monitoring wells (MW101, MW102, and MW103, respectively). During advancement of these soil borings, groundwater was encountered at approximate depths ranging from 1.5 to 5 feet bgs. The monitoring wells were constructed using 1-inch-diameter Schedule 40 PVC well casing and factory-slotted screen. The temporary monitoring wells were removed from the Site upon the completion of

groundwater sampling activities. Well construction details can be found on the boring logs provided as Appendix A.

### Groundwater Sampling and Analytical Testing

Prior to sample collection, the monitoring wells were developed using a peristaltic pump and dedicated tubing. The wells were developed in an effort to remove silt and fines and to restore the natural permeability of the soils surrounding the well screens. During the course of well development, no evidence of light non-aqueous phase liquid (LNAPL) or dense non-aqueous-phase liquid (DNAPL) were observed. When purging was complete, the monitoring wells were sampled in accordance with the low-flow sampling methods specified in the SSQAPP.

The groundwater samples were collected directly from the sampling equipment and transferred into laboratory-prepared sample containers. The samples were preserved in the field in accordance with applicable protocols and delivered on ice under chain-of-custody protocol to Analytics for laboratory analysis. The groundwater samples were submitted for chemical analysis for the following parameters based on the nature of the suspected contaminant source as outlined in the AOCs described in Section 2.3:

1. VOCs by U.S. EPA Method 8260B;
2. VPH fractions, excluding the target petroleum VOCs, by MA DEP Method 98-1 (VPH Standard) or including the target petroleum VOCs (VPH Full);
3. EPH fractions, including target PAHs, by MA DEP Method 98-1 (EPH Full); and
4. Dissolved metals (arsenic, cadmium, chromium, and lead) by U.S. EPA Method Series 6000/7000.

A duplicate groundwater sample (MW10X) was collected from monitoring well MW102 and submitted for laboratory analysis for QA/QC protocols as outlined in the SSQAPP.

### Pore Water Sample Point Installation & Analytical Testing

Deviations from the SSQAPP included the advancement of two pore water sample points for collection of pore water samples. On May 30, 2013, Ransom installed pore water points (PW101 and PW102) using stainless-steel pore water probes along the western side of the Goose River at AOC 6 and AOC 1, respectively.

The pore water sample points were advanced approximately 1 to 2 feet into unconsolidated substrate materials along the Goose River and pore water samples were collected directly from the sampling equipment and transferred into laboratory-prepared glassware. The samples were preserved in the field in accordance with applicable protocols and delivered on ice under chain-of-custody protocol to Analytics for VPH Full and EPH Full laboratory analysis.

A duplicate pore water sample (PWDUP) was collected from pore water sample point (PW101) and submitted for laboratory analysis for QA/QC protocols.

## Indoor Wipe Sampling and Analytical Testing

During our Site reconnaissance, hydroelectric power generating equipment, including but not limited to turbines, generators, and switchboards were observed in the Turbine House. Due to the approximate age of this equipment in relation to Site development (circa 1850), it is possible that PCBs may have been added to the oils that were used by this equipment. Ransom observed oil staining at various locations in the Turbine House, which are likely associated with oil-containing machines in the building.

Based on this information, Ransom collected two wipe samples (WS101 and WS102) for laboratory analysis of PCBs from hydraulic-oil-stained surface locations inside the Turbine House. A duplicate soil sample (WP10X) was collected from the wipe sample area of WP101 and submitted for laboratory analysis for QA/QC protocols as outlined in the SSQAPP.

### 3.1 Background Samples

In order to compare site-specific soil concentrations of metals and EPH with background soil conditions in the vicinity of the Site, two surficial soil samples (0 to 2 feet bgs) were collected from the eastern side of the Goose River at the Site, which is presumed to be unaffected by the Site operations. The background soil samples (designated as BK-1 and BK-2) were collected with hand tools (i.e., shovels and pick axes) concurrent with the field activities on January 22, 2013. The background soil sample locations are shown on Figure 2.

The background soil samples were collected directly from the sampling equipment and transferred into laboratory-prepared glassware. The samples were preserved in the field in accordance with applicable protocols and delivered on ice under chain-of-custody protocol to Analytics for laboratory analysis. Site-specific background soil sample BK-1 was analyzed for EPH, target PAHs, and metals (arsenic, cadmium, chromium, and lead); site-specific background soil sample BK-2 was analyzed for metals (arsenic, cadmium, chromium, and lead) only.

In conjunction with the Site investigation, Phase II ESAs were also performed at three similar properties along the Goose River. Each of these investigations included the collection and analysis of site-specific background samples. Results of these samples were used to develop an area-wide database of background concentrations. The background samples are anticipated to be indicative of general conditions in the area of the Goose River, and are not expected to be influenced by historical operations associated with the sites investigated. Area-wide background results are summarized in Table 2.

### 3.2 AOC 1—Northern Portion of Site (Adjacent to Goose River Grocery Store/Gas Station)

AOC 1 encompasses the northern portion of the Site in close proximity to the Goose River grocery store/gas station, which has documented petroleum releases that may have adversely impacted environmental conditions at the Site due to its close proximity and inferred upgradient location to the Site. Contaminant sources and exposure pathways associated with AOC 1 are described in Section 2.3.

In order to evaluate AOC 1, one soil boring (B101) was advanced at the northern portion of the Site as close to the Goose River grocery store/gas station property boundary as possible. Based on field screening results and observations, Ransom submitted one surficial soil sample (0–2 feet bgs) collected from boring B101 for laboratory analysis of VPH fractions, target petroleum VOCs, EPH fractions, and target PAHs.

Deviations from the SSQAPP included the elimination of the temporary monitoring well that was planned to be installed in boring B101 and subsequent groundwater sample to be collected from this AOC due to shallow refusal conditions encountered during the advancement of this soil boring above the groundwater table. Additionally, boring B101 was advanced in close proximity to the public water supply line extending along Swan Lake Avenue and the public water line servicing a residence located on the east side of Goose River. Based on these conditions, it was determined that additional soil boring(s) advanced at AOC 1 in order to attempt to intercept the groundwater table may have resulted in damaging the public water supply lines at this AOC.

Ransom returned to the Site in May 2013 to further evaluate soil and groundwater conditions at AOC 1, specifically elevated PAH concentrations detected in the surficial soil sample collected from boring B101, as discussed in subsequent sections of this report. Ransom's additional assessment included the advancement of four surficial soil borings (B115 through B118) surrounding boring B101 using hand tools. Ransom also collected one pore water sample (PW102) adjacent to the Goose River at AOC 1. Based on field screening results and observations, Ransom submitted four surficial soil samples (0–2 feet bgs) collected from borings B115 through B118 for EPH fractions and target PAHs. Ransom also submitted the pore water sample (PW102) for laboratory analysis of VPH fractions, target petroleum VOCs, EPH fractions, and target PAHs.

### 3.3 AOC 2—Entire Site (Former Industrial & Hydroelectric Power Generation Use)

AOC 2 encompasses the entire Site since former industrial uses of the Site, including operation as a paper mill, leather board factory and hydroelectric power generation facility, may have adversely impacted soil and/or groundwater conditions at the Site. Contaminant sources and exposure pathways associated with AOC 2 are described in Section 2.3.

In order to evaluate AOC 2, nine soil borings (B102 through B110) were advanced at the Site and three of these soil borings (B110, B102, and B103) were subsequently converted to temporary groundwater monitoring wells (MW101, MW102, and MW103, respectively). Please note that soil borings/temporary monitoring wells B110/MW101, B102/MW102, and B103/MW103 and soil borings B104 and B105 were also completed to assess other AOCs at the Site, but also addressed contaminant sources and exposure pathways associated with AOC 2.

Based on field screening results and observations, Ransom submitted four surficial soil samples (0–2 feet bgs) collected from borings B104, B105, B106, and B110 and two subsurface soil samples (deeper than 2 feet bgs) collected from borings B102 and B107 for laboratory analysis of one or more of the following: VOCs, VPH and EPH fractions, target PAHs, PCBs, and metals (arsenic, cadmium, chromium, and lead).

The groundwater sample collected from temporary monitoring well MW101 was submitted for laboratory analysis of laboratory analysis of VPH fractions, target petroleum VOCs, EPH fractions, and target PAHs. The groundwater samples collected from temporary monitoring wells MW102 and MW103 were submitted for laboratory analysis of VOCs, VPH and EPH fractions, target PAHs, and dissolved metals (arsenic, cadmium, chromium, and lead).

Deviations from the SSQAPP included submittal of the surficial soil sample collected from boring B106 for TCLP-leachable lead analysis.

### 3.4 AOC 3—Western Portion of Site (Adjacent to On-Site Septic System)

AOC 3 encompasses the western portion of the Site adjacent to the on-site septic system that may have received wastewater containing OHM generated by former industrial uses at the Site, which may have adversely impacted soil and/or groundwater conditions at the Site. Contaminant sources and exposure pathways associated with AOC 3 are described in Section 2.3.

In order to evaluate AOC 3, one soil boring (B102) was advanced in close proximity to and downgradient from the septic system. This soil boring was subsequently converted to temporary groundwater monitoring well (MW102). Please note that this soil boring/temporary monitoring well was also completed to assess potential impacts to soil and groundwater conditions associated with Site-wide former industrial uses of the property (AOC 2).

Based on field screening results and observations, Ransom submitted one subsurface soil sample (4-8 feet bgs) collected from boring B102 for laboratory analysis of VOCs, VPH and EPH fractions, target PAHs, PCBs, and metals (arsenic, cadmium, chromium, and lead) due to the inferred discharge of wastewater at subsurface depths from the on-site septic system at the Site.

The groundwater sample collected from temporary monitoring well MW102 was submitted for laboratory analysis of VOCs, VPH and EPH fractions, target PAHs, and dissolved metals (arsenic, cadmium, chromium, and lead).

### 3.5 AOC 4—Southwestern Portion of Site (Adjacent to 12,000-Gallon Fuel Oil UST)

AOC 4 encompasses the southwestern portion of the Site adjacent to the 12,000-gallon No. 6 fuel oil UST. Potential unknown and/or unreported releases of No. 6 fuel oil may have occurred in connection with this UST, which may have adversely impacted soil and/or groundwater conditions at the Site. Contaminant sources and exposure pathways associated with AOC 4 are described in Section 2.3.

In order to adequately evaluate this AOC, the 12,000-gallon No. 6 fuel oil UST was removed and properly decommissioned concurrent with our Phase II limited subsurface investigation in accordance with ME DEP's Chapter 691 regulations, which is discussed in detail in Section 4 of this report.

In order to evaluate soil and groundwater conditions surrounding the 12,000-gallon No. 6 fuel oil UST, three soil borings (B103, B104, and B105) were advanced in close proximity to and/or downgradient from the UST after its removal from the ground. The downgradient soil boring (B103) was subsequently converted to temporary groundwater monitoring well (MW103). Please note that these soil borings and temporary monitoring well were also completed to assess potential impacts to soil and groundwater conditions associated with Site-wide former industrial uses of the property (AOC 2).

Based on field screening results and observations, Ransom submitted one surficial soil sample (0–2 feet bgs) collected from boring B104 for laboratory analysis of EPH fractions and target PAHs in order to assess surficial conditions surrounding the UST. Additionally, Ransom submitted one surficial soil sample (0–2 feet bgs) collected from boring B105 for laboratory analysis of VOCs, VPH and EPH fractions, target PAHs, PCBs, and metals (arsenic, cadmium, chromium, and lead) in order to address surficial conditions surrounding the UST and Site-wide former industrial uses of the property. Confirmatory soil samples collected from the UST excavation area are discussed in Section 4.

The groundwater sample collected from temporary monitoring well MW103 was submitted for laboratory analysis of VOCs, VPH and EPH fractions, target PAHs, and dissolved metals (arsenic, cadmium, chromium, and lead).

### 3.6 AOC 5—Turbine House (Oil-Stained Building Surfaces)

AOC 5 encompasses the Turbine House. The objective for investigating AOC 5 was to assess whether areas of oil-stained interior building surfaces contain PCBs. Wipe sample (WS101) was collected from an area of hydraulic-oil-stained equipment inside the building beneath a hydraulic oil reservoir tank. WS102 was collected from an area of hydraulic-oil-stained fieldstone foundation wall inside the building.

### 3.7 AOC 6—Central Portion of Site (Adjacent to 2,000-Gallon Diesel AST)

AOC 6 encompasses the central portion of the Site adjacent to the 2,000-gallon diesel AST, which was discovered during our Phase II investigation in a concrete vault between the Office Building and Turbine House. Contaminant sources and exposure pathways associated with AOC 6 are described in Section 2.3.

In order to evaluate AOC 6, one soil boring (B110) was advanced approximately 5 feet south (downgradient) of the AST concrete vault and was subsequently converted to temporary groundwater monitoring well (MW101) during Ransom's January 2013 field activities. Ransom returned to the Site on May 30, 2013 to further evaluate soil and groundwater conditions at AOC 6, which included the advancement of four additional soil borings (B111 through B114) surrounding the former 2,000-gallon AST using hand tools. Ransom also collected one pore water sample (PW101) adjacent to the Goose River downgradient from the AST. Please note that these soil borings, temporary monitoring well, and pore water sample were also completed to assess potential impacts to soil and groundwater conditions associated with Site-wide former industrial uses of the property (AOC 2).

Based on field screening results and observations, Ransom submitted five surficial soil samples (0–2 feet bgs) collected from borings B110 through B114, submitted the groundwater sample collected from temporary monitoring well MW101, and submitted the pore water sample (PW101) for laboratory analysis of VPH fractions, target petroleum VOCs, EPH fractions, and target PAHs.

Additionally, the 2,000-gallon diesel AST was properly decommissioned concurrent with our Phase II investigation. Decommissioning activities were conducted by EPI with Ransom oversight and consisted of the removal of approximately 240 gallons of residual diesel remaining in the AST using a Vactor truck and proper off-site disposal of residual diesel with residual oil/fluids generated during decommissioning activities of the 12,000-gallon No. 6 fuel oil UST, as discussed in Section 4.2 of this report.

### 3.8 Hazardous Building Materials

As previously discussed, it is possible that ACM, LBP, PCB-containing light ballasts, and mercury-containing fluorescent lamps are present in the Site buildings and/or water penstock. Universal wastes, such as mercury-containing switches and fluorescent light bulbs, as well as potential PCB-containing light ballasts were also observed in the Site buildings. Ransom conducted a HMI concurrent with our Phase II ESA investigation. Results of the HMI are summarized in Section 5 and are detailed in the full HMI report provided as Appendix C.

## 4.0 UNDERGROUND STORAGE TANK REMOVAL

On January 22, 2013, Ransom observed the excavation, removal, and disposal of one 12,000-gallon No. 6 fuel oil UST at the Site. This work was conducted by EPI with Ransom oversight, in accordance with our SSQAPP and ME DEP's Chapter 691 regulations. Photographs of the petroleum facility decommissioning activities are included in Appendix D. The following is a description of the UST removal activities performed at the Site.

### 4.1 UST Facility Information

The Site is identified as ME DEP Registered Petroleum Storage Facility #12612. On January 8, 2013, ME DEP approved the decommissioning and removal of the UST and issued a "Notice of Intent to Remove an Underground Oil Storage Tank Facility or Underground Product Piping." A copy of the Notice of Intent is included in Appendix E. The following UST has been registered at the Site:

<b>Tank Size (gallons)</b>	<b>Tank Type</b>	<b>Contents</b>	<b>Date Installed</b>	<b>Date Removed</b>	<b>Status</b>
12,000	Steel- Bare or Asphalt-Coated	No. 6 Fuel Oil	01/01/1960	01/22/2013	Removed

The Site location, layout and history are described in Section 2.1. Additional details regarding Site history and property ownership are documented in the Phase I ESA (Ransom, 2012). No documented spills or releases were identified by the Phase I ESA in connection with the Site.

### 4.2 UST Decommissioning & Removal Activities

Prior to removal of the UST, approximately 8,340 gallons of residual fuel oil and water was pumped and removed from the 12,000-gallon UST using a Vactor truck by EPI and their subcontractor, Clean Harbors Environmental Services (Clean Harbors) of South Portland, Maine, from January 18 to 22, 2013. The residual liquids were transported by EPI and Clean Harbors for off-site disposal. Disposal documentation is included in Appendix F.

During removal of residual oil/fluids from the UST, it was determined that the UST was partitioned into two chambers (8,000-gallon western chamber and 4,000-gallon eastern chamber). The eastern chamber contained ancillary heating equipment and piping systems that were used in order to heat and transport fuel oil for heating use to former Site buildings. Once residual fluids were removed from the UST, ancillary heating equipment and piping systems were removed from the UST's eastern chamber and transported off-site by EPI for disposal.

EPI used a track-mounted excavator to excavate and remove the UST. Overburden soils were removed from the top of the UST to a maximum depth of 2 feet bgs and soils surrounding the sides of the UST were removed laterally from 8 to 10 feet from the sides and ends of the UST to a maximum depth of 10 feet bgs. Groundwater was observed in the excavation at a depth of approximately 4 to 5 feet bgs.

During excavation activities, the bottom of the UST was discovered to be positioned/anchored on top of a concrete pad that was poured prior to the UST installation and remaining ancillary piping was discovered to be connected to the eastern end of the UST. The ancillary piping was contained within an approximate 12-inch-diameter concrete culvert that extended beneath a stormwater pipe for an undetermined distance at the Site. Residual oil/fluids contained within the ancillary piping were

removed/pumped by EPI using a Vactor truck and properly disposed off-site with residual oil/fluids generated during UST cleaning activities; however, the ancillary piping system was not removed, with ME DEP approval, in order to prevent damage to the stormwater pipe, as discussed in Section 4.3.

During UST removal activities, Ransom did not detect odors or observe evidence of petroleum-impacted soils surrounding the UST or free-product fuel oil/petroleum sheens in groundwater within the UST excavation. Ransom did not observe evidence of a release of fuel oil in connection with the UST and the UST appeared to be in good condition with no obvious evidence of holes or damage; however, the base of the UST at its southwestern corner was punctured by the excavator during its removal from the concrete pad/anchor causing groundwater within the excavation to enter the UST, which had the potential to release residual fuel oil/water into the UST excavation.

#### 4.3 ME DEP Spill Response

Due to the UST damage and potential fuel oil release to the excavation, ME DEP's Bureau of Remediation and Waste Management (BRWM) Emergency Spill Response department was immediately notified by Ransom. On January 22, 2013, ME DEP case manager Mr. Jeremy Greenman responded to the notification and issued Spill No. A-48-2013 as a precaution, although a fuel oil release from the UST had not occurred.

Subsequent response activities to address the UST damage were performed by EPI with Ransom and ME DEP oversight/guidance, which consisted of the removal of approximately 470 gallons of groundwater from the UST using a Vactor truck and proper off-site disposal with residual oil/fluids generated during UST cleaning activities. Once groundwater was removed from the UST, the groundwater level in the UST excavation did not rebound to its pre-damage elevation; and therefore, no additional groundwater entered the UST and no evidence of potential fuel-oil-impacted groundwater inside the UST entered the excavation. Upon completion of water removal activities, the UST was removed from the ground, properly cleaned, and recycled off-site by EPI.

Based on these response actions, ME DEP approved of UST removal activities and also approved of leaving the remaining ancillary piping system in order to prevent damage to the stormwater pipe since residual fuel oil remaining in the piping system was properly removed/pumped concurrent with UST removal activities. Since a release of fuel oil-impacted groundwater did not occur during UST removal activities, ME DEP indicated that a water sample did not need to be collected from the UST excavation area. ME DEP did not require additional response activities to address the UST removal and verbally issued a No Further Action status for their Spill notification.

#### 4.4 Field Screening & Confirmatory Soil Sampling

Upon removal of the UST from the ground, soil conditions within the UST excavation area were assessed by Ransom using the Oleophilic Dye Test method for determining petroleum-saturated soils in accordance with ME DEP's *Compendium of Field Testing of Soil Samples for Gasoline or Fuel Oil* (SOP: TS004) and our SSQAPP. Confirmatory soil sample locations are provided on Figure 4.

Ransom collected two soil samples (ESS-1 and ESS-2) for Oleophilic Dye Test field screening from the excavation sidewalls at approximate depths of 9 and 6 feet bgs, respectively. Based on the Oleophilic Dye Test field screening results, fuel oil-impacted soils were not detected at these excavation sidewall sample locations.

In order to confirm the field screening results, Ransom collected the three composite soil samples (CS101, CS102, and CS103) from the UST excavation and submitted them for laboratory analysis of EPH fraction with target PAHs. CS101 was a composite sample collected from surficial soils (0 to 2 feet bgs) on top of the UST prior to its excavation. CS102 was a composite soil sample collected from the UST excavation sidewalls from 4 to 6 feet bgs and CS103 was a composite soil sample collected from the base of the UST excavation from approximately 9 to 10 feet bgs. Additionally, Mr. Greenman of the ME DEP requested that confirmatory composite soil samples should also be analyzed for total petroleum hydrocarbons as diesel-range organics (TPH-DRO) by U.S. EPA Method 8015B, which was a deviation from our SSQAPP. Laboratory analytical results of these confirmatory soil samples collected from the UST excavation are discussed in Section 5.4.

## 5.0 RESULTS

The following subsections document the results of the Phase II ESA activities. Soil sample analytical results are summarized in Table 3. Confirmatory soil sample analytical results of composite soil samples collected during UST decommissioning activities are summarized in Table 4. Groundwater and pore water sample analytical results are summarized in Table 5. Indoor wipe sample analytical results are summarized in Table 6. Copies of the laboratory chemical analysis data reports are provided as Appendix B.

Analytical results were compared to both background analyte concentrations and risk-based guidelines presented in the SSQAPP. The risk-based guidelines include the following:

1. Maine Remedial Action Guidelines (RAGs) for Soil Contaminated with Hazardous Substances;
2. Remediation Guidelines for Petroleum Contaminated Sites in Maine;
3. Maine Center for Disease Control (CDC) Maximum Exposure Guidelines (MEGs) for Drinking Water; and
4. Toxic Substances Control Act (TSCA) Standard for PCBs 40 CFR 761.61.

### Soil

The analytical results of soil samples collected at the Site were compared to the ME DEP Bureau of Remediation and Waste Management's *Remedial Action Guidelines (RAGs) for Soil Contaminated with Hazardous Substances*, dated May 10, 2013; and ME DEP's *Remediation Guidelines for Petroleum Contaminated Sites in Maine*, dated November 20, 2009 (Petroleum Remediation Guidelines).

Since the Site is currently used and proposed to remain to be used for hydroelectric power generation, the ME DEP RAGs and Petroleum Remediation Guidelines for "Outdoor Commercial Worker" exposure scenario appears to be the most applicable guidance standard. In addition, potential exposure risks to Site workers during future construction activities and utility work (i.e., subsurface water and sewer lines) exists at the Site; therefore, "Excavation/Construction Worker" scenarios also apply to areas at the Site in the vicinity of subsurface utilities in order to evaluate potentially unacceptable risks to excavation or construction workers during proposed Site redevelopment and/or future utility work at the Site.

### Groundwater & Pore Water

Although, municipal drinking water is provided to the Site and vicinity, Ransom used ME DEP BRWM's Petroleum Remediation Guidelines, which include the Maine Department of Human Services MEGs, to compare analytical results of groundwater samples collected at the Site in order to assess potential costs for managing contaminated groundwater and potentially unacceptable risks to site construction workers during proposed Site redevelopment and/or future utility work at the Site. The pore water sample results were compared to the groundwater sample results in order to evaluate potential contaminant contributions from the Site to the Goose River.

## Oil-Stained Building Surfaces

The analytical results of indoor wipe samples for PCB analysis were compared to their Toxic Substances Control Act (TSCA) Standard for High Occupancy Areas and Non-Porous Surfaces.

### 5.1 Geology and Hydrogeology

In general, soils encountered during the Phase II Investigation were relatively consistent throughout the Site with the exception of areas adjacent to the Office Building. Shallow soils at the Site contained fill, which consisted of dark brown to brown sand and silt with varying amounts of gravel to depths ranging from 0 to 4 feet bgs. Shallow soils also contained urban fill constituents (i.e., coal, ash, and bricks) and were underlain by native glacial/fluviol soils consisting of brown/tan to gray fine sand and silt with varying amounts of weathered rock to depths ranging from 4 to 14 feet bgs. Soils in vicinity of the Office Building appeared to contain urban fill constituents from 0 to 12 feet bgs and a subsurface void was encountered from approximately 4 to 8 feet bgs in soil boring B108, which was advanced along the southern exterior wall of the Office Building. Probe refusal (presumed bedrock) was encountered at depths ranging from 4 to 14 feet bgs. Groundwater was encountered at approximate depths ranging from 1.8 to 5 feet bgs at the Site.

No evidence of “petroleum-saturated soils” or evidence of “free petroleum product” contamination was observed in groundwater encountered during the soil boring advancements or gauging of the temporary groundwater monitoring wells. Organic vapors were not detected in any of the soil samples collected from the soil borings at concentrations greater than 1 part per million by volume (ppmv), the practical detection limit of the PID.

Concurrent with the Phase II investigation, a relative groundwater elevation survey was conducted in order to evaluate the local groundwater flow direction at the Site. Groundwater was measured at depths ranging from 1.8 to 5.05 feet bgs in the monitoring wells. Coupled with depth to groundwater data, relative groundwater elevations were calculated as shown in the following table. The data indicates a hydraulic gradient and associated interpreted groundwater flow direction to the southeast towards the Goose River. Please refer to Figure 3 for groundwater elevation contours and calculated groundwater flow direction.

#### **RESULTS OF GROUNDWATER ELEVATION SURVEY**

<b>Well</b>	<b>Depth to Groundwater (feet bgs)</b>	<b>Relative Ground Elevation</b>	<b>Relative Groundwater Elevation</b>
MW101	1.80	102.24	100.44
MW102	5.05	108.67	103.62
MW103	4.18	105.22	101.04

#### **NOTES:**

1. Relative groundwater elevation survey and groundwater measurements conducted by Ransom on January 22, 2013.
2. Elevations are relative to arbitrary benchmark (northwest corner of a concrete pad near the Storage Building) with an assigned elevation of 100.00 feet.

## 5.2 Background Data

The following is a summary of laboratory analytical results of the background surficial soil samples (BK-1 and BK-2) collected during this investigation. Soil sample analytical results are summarized in Table 2. A copy of the laboratory chemical analysis data report is provided as Appendix B.

### Extractable Petroleum Hydrocarbons & Target Polycyclic Aromatic Hydrocarbons

As shown in Table 2, two EPH fractions (C<sub>19</sub>–C<sub>36</sub> aliphatics and C<sub>11</sub>–C<sub>22</sub> aromatics) were detected in the surficial (zero to two feet bgs) background soil sample (BK-1) at concentrations of 26.5 and 30.1 milligrams per kilogram (mg/kg), respectively. The following target PAHs; benzo(b)fluoranthene, fluoranthene, and pyrene were detected at concentrations ranging from 0.226 to 0.318 mg/kg. The concentrations of these EPH fractions and target PAHs did not exceed their respective ME DEP RAGs or Petroleum Remediation Guidelines for “Outdoor Commercial Worker” exposure scenarios. For the purposes of this Phase II Investigation, target PAH and EPH concentrations detected in surficial soil samples collected at the Site are considered elevated if they exceed these Site-specific background concentrations.

### Metals

As shown in Table 2, arsenic was detected in the surficial (0 to 2 feet bgs) background soil samples (BK-1 and BK-2) at concentrations ranging from 22 to 44 mg/kg. Although these concentrations of arsenic are greater than their respective State-wide average for “Undeveloped Background” RAG of 16 mg/kg; Ransom infers that they are representative of background soil conditions at this area of Belfast. This assertion is based on the natural soils observed during our collection of the surficial background soil samples collected near the Mill Dam with no visible evidence or identified source of anthropogenic contaminants (i.e., ash, coal, bricks, etc.) in the soil sample. Chromium and lead were detected in the background soil samples (BK-1 and BK-2) at concentrations ranging from 22 to 38 mg/kg. Chromium does not have a published “Undeveloped Background” RAG; however, the lead concentrations detected in Ransom’s background soil samples (32 and 38 mg/kg) were comparable to its “Undeveloped Background” RAG of 32 mg/kg. Therefore, the concentrations of these metals are likely indicative of naturally occurring, background concentrations in this area of Maine (Belfast region). Cadmium was not detected in these background soil samples at a concentration above the laboratory detection limit.

## 5.3 Area-Wide Background Data

Area-wide background data was collected during this investigation from the Site and three additional properties along the Goose River. Findings from the area-wide background samples indicated arsenic concentrations ranging from 5.9 to 44 mg/kg. Lead was observed to range from concentrations of 20 to 72 mg/kg. Concentrations of chromium ranged from 22 to 33 mg/kg. Cadmium was not detected above the laboratory detection limit in any of the area-wide background samples. Analytical results of the area-wide background samples are shown in Table 2.

For the purpose of this Phase II Investigation, arsenic, cadmium, chromium, and lead concentrations in soil samples collected at the Site are considered elevated if they exceed the area-wide background concentrations identified at the Site and similar properties along the Goose River.

## 5.4 Site Data

### Soil Sample Analytical Results

#### *Volatile Organic Compounds*

As shown in Table 3, VOCs were not detected in the surficial soil samples collected from borings B101, B105, B106, B110, B111, B112, B113, and B114 or the subsurface soil samples collected from boring B102 or B107 at concentrations above their respective laboratory detection limits.

#### *Volatile Petroleum Hydrocarbons*

As shown in Table 3, one VPH fraction (C<sub>9</sub>–C<sub>10</sub> aromatics) was detected in the surficial soil samples collected from borings B101, B111, and B112 at concentrations ranging from 0.621 to 1.03 mg/kg, which did not exceed its ME DEP RAG for “Outdoor Commercial Worker” exposure scenario. No other VPH fractions were detected in the surficial soil samples collected from borings B101, B111, or B112 at concentrations above their respective laboratory detection limits.

The presence of this low-level VPH fraction detected in the surficial soil sample collected from B101 at the northern portion of the Site (AOC 1) is likely associated with *de minimis* automotive fluid spills from roadway traffic along Swan Lake Avenue and is not inferred to be associated with former OHM releases originating from the northern adjoining Goose River gas station/grocery store.

The presence of this low-level VPH fraction detected in surficial soils collected from B111 and B112 at the central portion of the Site (AOC 6) is likely associated with *de minimis* diesel spills from the 2,000-gallon diesel AST and/or vehicles and equipment used at the Site by the former leather board factory and current hydroelectric dam.

VPH fractions were not detected in the surficial soil samples collected from borings B105, B106, B110, B113, and B114 or the subsurface soil samples collected from boring B102 or B107 at concentrations above their respective laboratory detection limits.

#### *Extractable Petroleum Hydrocarbons*

As shown in Table 3, one or more of the following EPH fractions (C<sub>9</sub>–C<sub>18</sub> aliphatics, C<sub>19</sub>–C<sub>36</sub> aliphatics, and C<sub>11</sub>–C<sub>22</sub> aromatics) were detected in the surficial soil samples collected from borings B101, B105, B106, B110, B111, B112, B113, B114, B115, B117, and B118 and the subsurface soil sample collected from boring B107 at concentrations ranging from 8.15 to 266 mg/kg, which did not exceed their ME DEP RAGs for “Outdoor Commercial Worker” or “Excavation/Construction Worker” exposure scenarios.

The presence of low-level EPH fractions detected in surficial soil sample collected from borings B101, B115, B117, and B118 at the northern portion of the Site (AOC 1) are likely associated with *de minimis* automotive fluid spills from roadway traffic along Swan Lake Avenue and are not inferred to be associated with former OHM releases originating from the northern adjoining Goose River gas station/grocery store.

The presence of low-level EPH fractions detected in surficial and/or subsurface soil samples collected from borings B104, B105, B106, B110, B111, B112, B113, and B114 are likely associated with urban fill containing anthropogenic coal and/or wood combustion byproducts resulting from the former industrial operations, demolition debris from historic structural fires at the Site, *de minimis* diesel spills from the 2,000-gallon diesel AST, and/or vehicles and equipment used at the Site by the former leather board factory and current hydroelectric dam.

EPH fractions were not detected in the soil samples collected from borings B102 or B116 at concentrations above their respective laboratory detection limits.

#### *Target Polycyclic Aromatic Hydrocarbons*

As shown in Table 3, one or more of the following PAHs [acenaphthene, anthracene, benzo(g,h,i)perylene, benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, naphthalene, phenanthrene, and pyrene] were detected at concentrations ranging from 0.179 to 3.27 mg/kg in the surficial soil samples collected from borings B104, B105, and B106. Only one PAH (fluoranthene) was detected in the subsurface soil sample collected from boring B107 at a concentration of 0.167 mg/kg. These PAH concentrations exceeded their respective background concentrations, but did not exceed their respective ME DEP RAGs for “Outdoor Commercial Worker” or “Excavation/Construction Worker” exposure scenarios. The presence of PAH compounds detected in surficial soil samples are likely associated with urban fill containing anthropogenic coal and/or wood combustion byproducts resulting from the former industrial operations or demolition debris from historic structural fires at the Site.

As shown in Table 3, one or more of the following PAHs [anthracene, acenaphthylene, benzo(g,h,i)perylene, benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, phenanthrene, and pyrene] were detected at concentrations ranging from 0.153 to 28 mg/kg in the surficial soil samples collected from borings B101, B116, B117, and B118 at the northern portion of the Site (AOC 1).

These PAH concentrations exceeded their respective background concentrations, but did not exceed their respective ME DEP RAGs for “Outdoor Commercial Worker” exposure scenarios with the exception of one PAH [benzo(a)pyrene]. Benzo(a)pyrene was detected in borings B101 and B117 at concentrations of 12.9 and 8.9 mg/kg, respectively, which exceeded its ME DEP “Outdoor Commercial Worker” RAG (3.5 mg/kg).

The presence of these PAHs detected in surficial soil samples collected from B101, B116, B117, and B118 at the northern portion of the Site (AOC 1) are likely associated with *de minimis* automotive fluid spills from roadway traffic along Swan Lake Avenue and is not inferred to be associated with former OHM releases originating from the northern adjoining Goose River gas station/grocery store.

Target PAHs were not detected in the surficial soil samples collected from borings B110, B111, B112, B113, B114, and B115 or the subsurface soil sample collected from boring B102 at concentrations above their respective laboratory detection limits.

## *Metals*

As shown in Table 3, arsenic was detected in the surficial soil samples collected from borings B105 and B106 at concentrations of 24 and 22 mg/kg, respectively. These arsenic concentrations exceed their ME DEP RAG (4.2 mg/kg) for “Outdoor Commercial Worker” exposure scenarios, but are consistent with Site-specific and area-wide background concentrations detected during this investigation at other properties along the Goose River; and therefore, are considered to be representative of naturally-occurring arsenic in Maine soils.

Arsenic was detected in the subsurface soil samples collected from borings B102 and B107 at concentrations of 120 and 55 mg/kg, respectively. These arsenic concentrations exceed their relative background concentrations and ME DEP RAG (42 mg/kg) for “Excavation/Construction Worker” exposure scenarios; and therefore, these elevated arsenic concentrations are inferred to be associated with urban fill containing anthropogenic coal and/or wood combustion byproducts resulting from the former industrial operations or demolition debris from historic structural fires at the Site.

Lead was detected in the surficial soil sample collected from boring B105 and the subsurface soil samples collected from borings B102 and B107 at concentrations ranging from 19 to 340 mg/kg, which did not exceed its ME DEP RAGs for “Outdoor Commercial Worker” or “Excavation/Construction Worker” exposure scenarios and are consistent with area-wide background concentrations of this metal.

Lead was detected in the surficial soil sample collected from boring B106 at a concentration of 733 mg/kg, which is slightly elevated in comparison to background concentrations, but did not exceed its ME DEP RAG for “Excavation/Construction Worker” exposure scenario. The presence of elevated lead in this soil sample is likely associated with former industrial operations or demolition debris from historic structural fires at the Site.

Chromium was detected in the surficial soil samples collected from borings B105 and B106 and in the subsurface soil samples collected from borings B102 and B107 at concentrations ranging from 33 to 36 mg/kg. These chromium concentrations did not exceed their ME DEP RAGs for “Outdoor Commercial Worker” or “Excavation/Construction Worker” exposure scenarios and are consistent with area-wide background concentrations of this metal.

Cadmium was detected in the surficial soil sample collected from boring B106 and in the subsurface soil sample collected from boring B107 at concentrations of 0.98 and 0.28 mg/kg, respectively. These low-level cadmium concentrations did not exceed its ME DEP RAGs for “Outdoor Commercial Worker” or “Excavation/Construction Worker” exposure scenarios and is consistent with area-wide background concentrations of this metal. Cadmium was not detected in the subsurface soil sample collected from boring B102 or the surficial soil sample collected from boring B105 at concentrations above its laboratory detection limit.

## *Leachable Lead*

As shown in Table 3, lead was detected in surficial soil sample collected from boring B106 at a concentration of 733 mg/kg, which was slightly elevated in comparison to the lead concentrations detected in other soil samples collected at the Site and similar properties along the Goose River. Based on this information, this soil sample was also submitted for leachable lead analysis by the TCLP in order to determine if surficial soils at boring B106 would require off-site

disposal as “hazardous waste” per ME DEP’s Solid Waste regulations during future Site redevelopment. Based on the laboratory results (Appendix B), TCLP lead was detected at a concentration of 2.8 milligrams per liter (mg/l) in the surficial soil sample collected from boring B106, which is below the ME DEP’s hazardous waste concentration of 5 mg/l. Therefore, surficial soils in the vicinity of boring B106 are considered “non-hazardous” for total lead.

#### *Polychlorinated Biphenyls (PCBs)*

As shown in Table 3, PCBs were not detected in the surficial soil samples collected from borings B105 and B106 or the subsurface soil samples collected from borings B102 or B107 at concentrations above their respective laboratory detection limits.

### UST Removal: Confirmatory Composite Soil Sample Analytical Results

#### *Extractable Petroleum Hydrocarbons & Target Polycyclic Aromatic Hydrocarbons*

As shown in Table 4, EPH fractions or target PAHs were not detected in the confirmatory soil samples collected from the top of the UST excavation (CS101) or the sidewalls of the UST excavation (CS102) at concentrations above their respective laboratory detection limits.

One EPH fraction (C<sub>19</sub>–C<sub>36</sub> aliphatics) and three target PAHs [benzo(b)fluoranthene, fluoranthene, and pyrene] were detected in the composite soil sample collected from the base of the UST excavation (CS103) at concentrations ranging from 0.181 to 18.9 mg/kg, which did not exceed their respective Petroleum Remediation Guidelines for “Outdoor Commercial Worker” or “Excavation/Construction Worker” exposure scenarios. The presence of these low-level target PAHs and EPH fraction detected in the composite soil sample collected from the base of the UST excavation are inferred to be associated with a *de minimis* fuel oil release to the base of the excavation during removal of the UST from the ground.

No other EPH fractions or target PAHs were detected at concentrations above their respective laboratory detection limits in the confirmatory soil sample collected from the base of the UST excavation (CS103).

#### *Total Petroleum Hydrocarbons*

As shown in Table 4, TPH was detected in all confirmatory composite soil samples (CS101, CS102, and CS103) at concentrations ranging from 20 to 39 mg/kg, which are inferred to be associated with a *de minimis* fuel oil release to the UST excavation during removal of the UST from the ground.

Although ME DEP does not have current remedial or exposure guidelines for TPH, these low-level TPH concentrations do not exceed ME DEP’s former “Baseline-2” soil cleanup guideline of 400 mg/kg for TPH, as provided in ME DEP’s “Hydrocarbon Spill Decision Tree”, developed by the BRWM’s “Procedural Guidelines for Establishing Action Levels and Remediation Goals for the Remediation of Oil Contaminated Soil and Ground Water in Maine”, dated March 13, 2000. The “Baseline-2” soil cleanup standards would have been applicable to the Site prior to 2009.

## Groundwater Sample Analytical Results

### *Volatile Organic Compounds*

As shown in Table 5, VOCs were not detected in the groundwater samples collected from MW101, MW102, or MW103 at concentrations above their respective laboratory detection limits.

### *Volatile Petroleum Hydrocarbons*

As shown in Table 5, two VPH fractions (C<sub>9</sub>–C<sub>12</sub> aliphatics and C<sub>9</sub>–C<sub>10</sub> aromatics) were detected in the groundwater sample collected from monitoring well MW101 at concentrations of 44 and 28 micrograms per liter (µg/l), respectively. These VPH concentrations did not exceed their respective MEGs for drinking water or ME DEP's State-wide Groundwater and Drinking Water Petroleum Remediation Guidelines; however, their presence in groundwater is inferred to be associated with unknown and/or unreported releases of diesel from the 2,000-gallon AST at the Site. No other VPH fractions were detected in the groundwater sample collected from MW101 at concentrations above their respective laboratory detection limits.

One VPH fraction (C<sub>9</sub>–C<sub>10</sub> aromatics) was detected in the groundwater sample collected from monitoring well MW103 at a concentration of 12 µg/l, which did not exceed its respective MEG for drinking water or ME DEP's State-wide Groundwater and Drinking Water Petroleum Remediation Guideline. The presence of this VPH fraction in groundwater is likely associated with *de minimis* gasoline spills from automobile parking at the Site; and therefore, not likely associated with the No. 6 oil UST or former industrial uses and current hydroelectric power generation at the Site. No other VPH fractions were detected in the groundwater sample collected from MW103 at concentrations above their respective laboratory detection limits.

No VPH fractions were detected in the groundwater sample collected from monitoring well MW102 at concentrations above their respective laboratory detection limits.

### *Extractable Petroleum Hydrocarbons*

As shown in Table 5, all three EPH fractions (C<sub>9</sub>–C<sub>18</sub> aliphatics, C<sub>19</sub>–C<sub>36</sub> aliphatics, and C<sub>11</sub>–C<sub>22</sub> aromatics) were detected in the groundwater sample collected from MW101 at concentrations ranging from 193 to 1,980 µg/l. The concentration of C<sub>11</sub>–C<sub>22</sub> aromatics exceeded its respective MEG for drinking water and ME DEP's State-wide Groundwater and Drinking Water Petroleum Remediation Guideline of 200 µg/l; however, the concentrations of C<sub>9</sub>–C<sub>18</sub> aliphatics and C<sub>19</sub>–C<sub>36</sub> aliphatics did not exceed their respective MEGs for drinking water or ME DEP's State-wide Groundwater and Drinking Water Petroleum Remediation Guidelines. The presence of these EPH fractions in groundwater is inferred to be associated with unknown and/or unreported releases of diesel from the 2,000-gallon AST at the Site.

No EPH fractions were detected in the groundwater samples collected from MW102 or MW103 at concentrations above their respective laboratory detection limits.

### *Target Polycyclic Aromatic Hydrocarbons*

As shown in Table 5, target PAHs were not detected in the groundwater samples collected from MW101, MW102, or MW103 at concentrations above their respective laboratory detection limits.

### *Dissolved Metals*

As shown in Table 5, dissolved arsenic was detected in the groundwater samples collected from monitoring wells MW102 and MW103 at concentrations of 0.004 and 0.018 µg/l, respectively, which were well below its MEG of 10 µg/l for arsenic. These low-level arsenic concentrations are inferred to be representative of naturally-occurring dissolved arsenic in groundwater in Maine. No other dissolved metals (specifically cadmium, chromium, and lead) were detected in the groundwater samples collected from MW102 or MW103 at concentrations above their respective laboratory detection limits.

### Pore Water Sample Analytical Results

As shown in Table 5, VPH fractions, EPH fractions, target petroleum VOCs, and target PAHs were not detected at concentrations above their laboratory detection limits in the pore water samples collected from PW101 or PW102.

### Wipe Sample Analytical Results

#### *Polychlorinated Biphenyls (PCBs)*

As shown in Table 6, PCBs were not detected in the surficial wipe samples collected inside the Turbine House at concentrations above their respective laboratory detection limits.

## 5.5 Hazardous Building Materials

Ransom conducted a HMI concurrent with our Phase II ESA investigation, which included interior and exterior inspections of the Site Buildings. The HMI identified asbestos-containing material (ACM) within mastic on a concrete slab, potential ACM inside the Office Building, and potential PCB-containing fluorescent light ballasts, and mercury-containing fluorescent light tubes inside the buildings that will need to be properly removed and/or addressed during future Site redevelopment. Results of the HMI are detailed in the full HMI report, provided as Appendix C.

## 6.0 QUALITY ANALYSIS/QUALITY CONTROL

The contracted laboratory, Analytics Environmental Laboratory (Analytics) of Portsmouth, New Hampshire, provided Level II analytical data according to U.S. EPA protocols and laboratory data validation guidance included in Ransom's Generic QAPP for Brownfield sites in Maine. Analytics provided the following information in analytical reports:

1. Data results sheets;
2. Method blank results;
3. Surrogate recoveries and acceptance limits;
4. Duplicate results/acceptance limits;
5. Spike/duplicate results/acceptance limits;
6. Laboratory control sample results;
7. Description of analytical methods and results; and
8. Other pertinent results/limits as deemed appropriate.

As outlined in the Generic QAPP, at the completion of the field tasks and receipt of the analytical results, a data usability analysis was conducted to document the precision, bias, accuracy, representativeness, comparability, and completeness of the results. The following sections present this analysis. A summary of duplicate sample analytical results is included as Table 5.

### 6.1 Precision

Precision measures the reproducibility of measurements. The precision measurement is established using the relative percent difference (RPD) between the duplicate sample results. Relative percent differences were calculated for soil, groundwater, pore water, and wipe samples where both sample and duplicate values were greater than five times the Practical Quantitation Limit (PQL) of the analyte. The RPD is calculated as follows:

$$\text{RPD} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Mean of the Two Results}} \times 100$$

One duplicate soil and groundwater sample were collected for laboratory analysis. The duplicate soil sample (SB10X) was collected from subsurface soil sample SB102 (4 to 8 feet bgs) and was submitted for laboratory analysis of VOCs, VPH, EPH, PAHs, PCBs, and metals (arsenic, cadmium, chromium, and lead). The duplicate groundwater sample (MW10X) was collected from temporary monitoring well MW102 and was submitted for laboratory analysis of VOCs, VPH, EPH, PAHs, and dissolved metals (arsenic, cadmium, chromium, and lead). The duplicate pore water sample (PWDUP) was collected from pore water sample point PW101 and was submitted for laboratory analysis of VPH, target petroleum VOCs, EPH, and target PAHs. Additionally, a duplicate wipe sample (WP10X) was collected at the location of wipe sample (WS101) and submitted for laboratory analysis of PCBs. A summary of duplicate sample analytical results and calculated RPDs is presented in the attached Table 5.

### Subsurface Soil Sample (SB102)

VOCs, Target PAHs, VPH and EPH fractions, and PCBs were not detected in the SB102-S3-012213 soil sample or its duplicate soil sample (SB10X-S3-012213) above their respective laboratory reporting limits; therefore, no RPD was applicable for these COCs.

Arsenic, chromium, and lead (metals) were detected in the SB102-S3-012213 soil sample and its duplicate soil sample (SB10X-S3-012213) at concentrations greater than five times their PQL for the compounds. The RPDs for arsenic was above its 35 percent guideline; however, the RPDs for chromium and lead were below their 35 percent guideline; therefore, the precision of these sample results are acceptable.

### Groundwater Sample (MW102)

VOCs, Target PAHs, VPH and EPH fractions, and dissolved metals (arsenic, cadmium, chromium, and lead) were not detected in the MW102 groundwater sample or its duplicate groundwater sample (MW10X) above their respective laboratory reporting limits; therefore, no RPD was applicable for these COCs.

### Pore Water Sample (PW101)

VPH and EPH fractions, Target petroleum VOCs, and Target PAHs were not detected in the PW101 pore water sample or its duplicate pore water sample (PWDUP) above their respective laboratory reporting limits; therefore, no RPD was applicable for these COCs.

### Wipe Sample (WP101)

PCBs were not detected in the WP101 wipe sample or its duplicate wipe sample (WP10X) above their respective laboratory reporting limits; therefore, no RPD was applicable.

## 6.2 Bias

Bias is the systematic or persistent distortion of a measurement process that causes errors in one direction. Bias assessments are made using personnel, equipment, and spiking materials or reference materials, as independent as possible from those used in the calibration of the measurement system. Bias assessments were based on the analysis of spiked samples so that the effect of the matrix on recovery is incorporated into the assessment. A documented spiking protocol and consistency in following that protocol are important to obtaining meaningful data quality estimates.

Matrix spike and matrix spike duplicate samples (MS/MSD) were used to assess bias as prescribed in the specified methods. Acceptable recovery values were within the recoveries specified by each of the analysis methods. Control samples for assessing bias were analyzed at a rate as specified in the analytical SOPs and specified analytical methods.

The lab provides quality control non-conformance reports that indicate if Laboratory Control Samples/Laboratory Control Sample Duplicates (LCS/LCSD) and/or MS/MSD had low, failing, or high recoveries, and if the sample result was affected. Likewise, the lab reports any compounds that had failing RPDs in the LCS/LCSD pair or the MS/MSD pair. This indicates the percent difference between the lab sample and its duplicate or the spike and its' duplicate. Specific comments from the laboratory included the following:

### Volatile Organic Compounds

There were no bias issues identified by the laboratory in the soil, groundwater, or pore water samples collected and analyzed for VOCs.

### Volatile Petroleum Hydrocarbons

There were no bias issues identified by the laboratory in the soil, groundwater, or pore water samples collected and analyzed for VPH compounds.

### Extractable Petroleum Hydrocarbons & Polycyclic Aromatic Hydrocarbons

There were no bias issues identified by the laboratory in the soil, groundwater, or pore water samples collected and analyzed for EPH and PAH compounds.

### Metals

There were no bias issues identified by the laboratory in the soil or groundwater samples collected and analyzed for Metals.

### PCBs by EPA 8082

There were no bias issues identified by the laboratory in the soil or wipe samples collected and analyzed for PCBs.

## 6.3 Accuracy

Accuracy is a statistical measurement of correctness and includes components of random error (variability due to imprecision) and systemic error. Therefore, it reflects the total error associated with a measurement. A measurement is accurate when the value reported does not differ from the true value or known concentration of the spike or standard. For volatile and semi-volatile organic compounds, surrogate compound recoveries are also used to assess accuracy and method performance for each sample analyzed. Analysis of performance evaluation samples will also be used to provide additional information for assessing the accuracy of the analytical data being produced. Both accuracy and precision are calculated for each analytical batch, and the associated sample results are interpreted by considering these specific measurements.

The lab provides a non-conformance summary that reports if all of the quality control criteria including initial calibration, calibration verification, surrogate recovery, holding time and method accuracy/precision for analysis were within acceptable limits. According to the laboratory, unless noted in the non-conformance summary, all of the quality control criteria for these analyses were within acceptable limits.

## 6.4 Representativeness

Objectives for representativeness are defined for each sampling and analysis task and are a function of the investigative objectives. Representativeness was accomplished during this project through use of standard field, sampling, and analytical procedures. All objectives for sampling and analytical representativeness, as specified in SSQAPP, were met.

## 6.5 Comparability

Comparability is the confidence with which one data set can be compared to another data set. The objective for this QA/QC program is to produce data with the greatest possible degree of comparability. Comparability was achieved by using standard methods for sampling and analysis, reporting data in standard units, normalizing results to standard conditions, and using standard and comprehensive reporting formats. Complete field documentation was used, including standardized data collection forms to support the assessment of comparability. Historical comparability shall be achieved through consistent use of methods and documentation procedures throughout the project.

## 6.6 Completeness

Completeness is calculated by comparing the number of samples successfully analyzed to the number of samples collected. The goal for completeness is 95 percent. The completeness for this project was 100 percent, as there were no samples that could not be analyzed due to holding time violations, samples spilled or broken, or any other reason.

## 7.0 CONCLUSIONS

Based on the results of our Phase II ESA program, no evidence of gross soil contamination was observed at the Site associated with former leather board factory industrial use or hydroelectric power generation at the Site, including the 12,000-gallon No. 6 fuel oil UST that had been abandoned at the Site since the 1970s. Ransom did not observe evidence of “petroleum-saturated soils” during UST decommissioning activities or during our soil boring program. No evidence of “free petroleum product” contamination was observed in groundwater during UST decommissioning activities or encountered during the soil boring advancements and gauging of temporary groundwater monitoring wells or pore water sample points at the Site.

In January 2013, Ransom oversaw proper decommissioning activities of the 12,000-gallon No. 6 fuel oil UST in accordance with ME DEP’s Chapter 691 regulations. Prior to its removal from the ground, approximately 8,340 gallons of residual fuel oil and water was pumped from the UST using a Vactor truck and properly disposed off site. During UST removal activities, Ransom did not observe evidence of a release of fuel oil in connection with the UST and the UST appeared to be in good condition with no obvious evidence of holes or damage; however, the base of the UST at its southwestern corner was punctured by the excavator during its removal from the concrete pad/anchor causing groundwater within the excavation to enter the UST, which had the potential to release residual fuel oil/water into the UST excavation.

Due to the UST damage and potential fuel oil release to the excavation, Ransom contacted the ME DEP’s BRWM Emergency Spill Response department. ME DEP responded to the notification and issued Spill No. A-48-2013 as a precaution, although a fuel oil release from the UST had not occurred. Subsequent response activities to address the UST damage were performed with Ransom and ME DEP oversight/guidance, which consisted of the removal and proper off-site disposal of approximately 470 gallons of groundwater from the UST using a Vactor truck. Upon completion of water removal activities, the UST was removed from the ground, properly cleaned, and disposed off site for recycling.

Based on these response actions, ME DEP approved of UST removal activities and also approved of leaving the remaining ancillary piping system in order to prevent damage to the stormwater pipe since residual fuel oil remaining in the piping system was properly removed/pumped concurrent with UST removal activities. ME DEP did not request additional response activities to address the UST removal and verbally issued a No Further Action status for their Spill notification. Low-level concentrations of EPH fractions and target PAHs detected in confirmatory soil samples collected from the UST excavation did not exceed their respective Petroleum Remediation Guidelines for “Outdoor Commercial Worker” or “Excavation/Construction Worker” exposure scenarios and were inferred to be associated with a *de minimis* fuel oil release to the base of the excavation during removal of the UST from the ground.

Soils in the vicinity of the former leather board factory at the Site were identified to contain urban fill, including bricks, concrete, coal, and ash. The presence of these urban fill materials are likely associated with former industrial uses and historic fires at the Site. Laboratory analysis of samples collected from the urban fill-impacted soils indicated slightly elevated concentrations of arsenic and lead and low-level concentrations of semi-volatile petroleum hydrocarbons and target PAHs. The concentrations of lead, semi-volatile petroleum hydrocarbons, and target PAHs detected in Site soils in the vicinity of the former leather board factory did not exceed their applicable 2013 ME DEP RAGs. Conversely, arsenic exceeded its ME DEP RAGs for “Outdoor Worker” and/or “Excavation/Construction Worker” exposure scenarios. However, except for one soil subsurface soil sample, the concentrations of arsenic in the surficial and subsurface soil samples appear to be consistent with naturally occurring area-wide background concentrations identified during investigations conducted at other sites along the Goose

River, concurrent with this investigation. Therefore, the presence of arsenic in Site soils are not likely the result of unknown and/or unreported OHM releases, associated with former/historic Site operations as a leather board factory or hydroelectric power generation, and are not likely to represent an exposure risk, if the property continues to be commercially used for hydroelectric power generation purposes. Furthermore, laboratory analysis for leachable lead indicates that Site soils would not require classification as “hazardous waste”.

Cadmium and chromium were also detected in soil samples collected throughout the Site; however, these metals were detected at concentrations that appear to be consistent with area-wide background concentrations detected during the current investigation at other properties located along the Goose River.

Slightly elevated concentrations of one target PAH [benzo(a)pyrene] and low level concentrations of semi-volatile petroleum fractions (below 2013 ME DEP RAGs) were identified in surficial soils at the northern portion of the Site. The concentrations of benzo(a)pyrene, detected in two surficial soil samples at the northern portion of the Site, slightly exceeded their applicable 2013 ME DEP RAGs for Commercial Worker scenario. The presence of these contaminants in Site soils are likely associated with *de minimis* automotive fluid spills or exhaust from roadway traffic along Swan Lake Avenue and are not likely the result of former OHM releases, originating from the northern adjoining Goose River gas station/grocery store. This assertion is based on Ransom’s observations and laboratory analytical results of soil and pore water samples collected at the northern portion of the Site, which did not indicate that petroleum releases originating at the adjoining Goose River gas station/grocery store have migrated onto the Site.

During our Phase II investigation, one 2,000-gallon diesel AST was discovered in a concrete vault between the Office Building and Turbine House at the Site. The AST was decommissioned with Ransom oversight. Decommissioning activities consisted of the removal and proper off-site disposal of approximately 240 gallons of residual diesel remaining in the AST using a Vactor truck. Due to the discovery of this AST, Ransom advanced five additional soil borings surrounding the AST vault and installed one temporary groundwater monitoring well and one pore water sample point immediately downgradient from the AST.

Low level concentrations of volatile and semi-volatile petroleum fractions were detected in soil samples surrounding the 2,000-gallon diesel AST vault, which are likely associated with urban fill containing anthropogenic coal and/or wood combustion byproducts resulting from the former industrial operations, demolition debris from historic structural fires at the Site, *de minimis* diesel spills from the 2,000-gallon diesel AST, and/or vehicles and equipment used at the Site by the former leather board factory and current hydroelectric dam.

One volatile petroleum fraction (C<sub>11</sub>–C<sub>22</sub> aromatics) was detected in the groundwater sample collected immediately downgradient from the AST vault at a concentration that exceeded its MEG for drinking water and ME DEP’s State-wide Groundwater and Drinking Water Petroleum Remediation Guideline. However, no petroleum constituents were detected in the pore water sample collected downgradient from the AST vault; and therefore, it is inferred that petroleum-impacted groundwater in the vicinity of the AST is not migrating into the Goose River.

Based on our observations and laboratory analytical results, no adverse impacts to soil or groundwater were identified at the Site associated with the former septic system located at the west-central portion of the Site.

The HMI identified asbestos-containing material (ACM) on building foundation mastic, presumed ACM pipe insulation inside its original packaging in the Office Building, and potential PCB-containing fluorescent light ballasts and mercury-containing fluorescent light tubes inside the Site Buildings that will need to be properly removed and/or addressed during future Site redevelopment. PCBs were not detected above laboratory detection limits or their respective regulatory guidelines in the wipe samples collected from areas of hydraulic-oil-stained building surfaces inside the Turbine House.

## 8.0 RECOMMENDATIONS

Based on the information obtained during this Phase II Investigation, Ransom recommends the following with respect to the proposed Site redevelopment:

1. The results of this Phase II ESA completed for the Site, including the HMI, should be submitted to the ME DEP Voluntary Response Action Program (VRAP). The ME DEP VRAP is a voluntary program that offers technical review of environmentally-impacted sites and ultimately provides state liability protections for interested parties, including a “No Action Assurance” (NAA) letter and a “Certificate of Completion” letter (i.e. no further action required), provided that proper and appropriate environmental cleanup or remedial actions are completed, as approved by the ME DEP. As a condition of approval, the NAA letter should require a deed restriction and/or institutional controls in the form of a Declaration of Environmental Covenant (DEC) in order to potentially restrict/prohibit extraction of groundwater at the Site and excavation of impacted soils at the Site without proper ME DEP notification/approvals and implementation of a Soil Management Plan and Health and Safety Plan. The NAA should also require that additional environmental cleanup and abatement of the identified hazardous building materials be conducted, prior to or during future Site renovation and/or redevelopment activities. A deed restriction may also be required to limit the future use of the Site to commercial and/or industrial uses.
2. Prior to renovation and/or demolition of the Site Buildings, identified hazardous building materials should be properly removed and/or addressed according to the recommendations provided in our HMI report, which was prepared concurrently with this Phase II ESA.

## 9.0 REFERENCES

1. ME DEP; December 1, 2009; Remediation Guidelines for Petroleum Contaminated Sites in Maine.
2. ME DEP; May 10, 2013; Maine RAGs for Sites Contaminated with Hazardous Substances.
3. Maine Center for Disease Control (MCDC); September 30, 2011; Maximum Exposure Guidelines (MEGs) for Drinking Water.
4. Ransom Consulting Inc.; July 10, 2012; Phase I Environmental Site Assessment, Mill Dam, Belfast, Maine.
5. Ransom Consulting Inc.; December 19, 2012; Site-Specific Quality Assurance Project Plan Addendum No. 24, Phase II Environmental Site Assessment, Mill Dam, Belfast, Maine.
6. Ransom Environmental Consultants Inc.; August 27, 2008; State of Maine Brownfields Assessment Projects Generic Quality Assurance Project Plan (QAPP) RFA #08243.

## 10.0 SIGNATURE(S) OF ENVIRONMENTAL PROFESSIONAL(S)

Ransom performed services in a manner consistent with the guidelines set forth in the American Society for Testing and Materials (ASTM) E 1903-97 (Standard Practices for Environmental Site Assessments: Phase II Environmental Site Assessment Process), and in accordance with the scope of work and standard operating procedures outlined in the Generic QAPP and SSQAPP.

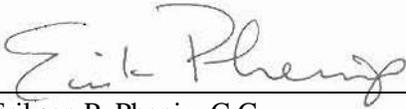
The following Ransom personnel possess the sufficient training and experience necessary to conduct a Phase II Environmental Site Assessment, and from the information generated by such activities, have the ability to develop opinions and conclusions regarding recognized environmental conditions in connection with the Site.

### Environmental Professionals:



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Aaron R. Martin, C.G.  
Associate Project Manager/Primary Author



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Eriksen P. Phenix, C.G.  
Project Geologist



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Peter J. Sherr, P.E.  
Senior Project Manager/Belfast Brownfields Program Manager

**TABLE 1: SOIL SAMPLE FIELD SCREENING RESULTS: METALS**

Phase II Environmental Site Assessment

Mill Dam

Belfast, Maine

Boring ID	Sample Depth (ft.)	Arsenic	Cadmium	Chromium	Lead
		mg/kg			
B101	0-2	26	ND	ND	52
B102	0-2	33	ND	ND	64
	2-4	ND	ND	ND	38
	8-10	61	ND	ND	19
B103	0-2	ND	ND	ND	44
	4-8	215	ND	ND	ND
	8-12	56	ND	ND	33
B104	0-2	ND	ND	ND	115
	2-4	12	ND	ND	ND
	4-8	258	ND	ND	ND
	8-12	55	ND	ND	23
B105	2-4	ND	ND	ND	34
B106	2-4	149	ND	ND	956
	4-8	ND	ND	ND	20
B107	0-2	61	ND	ND	512
	2-4	61	ND	ND	223
B108	0-2	ND	ND	ND	ND
	4-8	126	ND	ND	ND
	12-14	254	ND	ND	30
B109	2-4	57	ND	ND	21
	4-8	26	ND	ND	ND
B110	0-2	131	ND	ND	1523
	2-4	399	ND	ND	ND
	4-8	455	ND	ND	ND

## NOTES:

mg/kg = milligrams per kilogram

Soil samples screened for metals using a Innov-X XRF in accordance with MEDEP's "Protocol for Collecting Data Using a Field Portable X-Ray Fluorescence Spectrometer For Certain Metals In Solid Media," SOP: DR#015, Rev. 1, July 26, 2001.

ND = Not detected above instrument detection limit

**Table 2: Background Soil Sample Analytical Data**  
**Goose River Hydroelectric Properties**  
**Phase II Environmental Site Assessments**  
**Belfast, Maine**

Sample Location	Whitings Axe Factory	Mason Dam	CMP Dam	Mill Dam	Mill Dam	MEDEP Remedial Action Guidelines for Sites Contaminated with Hazardous Substances (May 10, 2013)								MEDEP Remediation Guidelines for Petroleum Contaminated Sites in Maine (Dec. 1, 2009)				
	Sample Identification	BK-1	BK-1	BK-1	BK1	BK2	Residential	Park User	Outdoor Commercial Worker	Excavation/Construction Worker	Undeveloped Background	Rural Developed Background	Urban Developed Background	Urban Fill Background	Tier 2 Residential	Tier 2 Park User	Tier 2 Outdoor Commercial Worker	Tier 2 Excavation/Construction Worker
Sample Depth (ft bgs)	0-2	0-2	0-2	0-2	0-2													
Date Collected	1/22/2013	1/22/2013	1/22/2013	1/22/2013	1/22/2013													
<b>Volatile Organic Compounds (VOCs)</b>																		
All VOCs	NA	NA	NA	NA	NA	Various	Various	Various	Various	NE	NE	NE	NE	Various	Various	Various	Various	
<b>Target Polycyclic Aromatic Hydrocarbons (PAHs)</b>																		
Acenaphthene	ND	ND	ND	ND	NA	7,500	10,000	10,000	9,800	NE	0.10	0.20	3.50	970	1,600	2,000	110	
Acenaphthylene	ND	ND	ND	ND	NA	7,500	10,000	10,000	10,000	NE	0.32	0.39	1.40	1,000	1,700	2,200	130	
Anthracene	ND	ND	ND	ND	NA	10,000	10,000	10,000	3,800	NE	0.29	0.4	6.7	4,300	7,200	7,800	430	
Benzo(g,h,i) perylene	ND	ND	ND	ND	NA	3,700	6,200	10,000	10,000	NE	0.57	0.79	16	NE	NE	NE	NE	
Benzo[a]pyrene	ND	ND	ND	ND	NA	0.26	0.44	3.5	43	NE	1.5	1.7	5.2	0.026	0.044	0.35	4.3	
Benzo[a]anthracene	ND	ND	ND	ND	NA	2.6	4.4	35	430	NE	0.86	1.6	430	0.26	0.44	3.5	43	
Benzo[b]fluoranthene	ND	ND	ND	0.226 J	NA	2.6	4.4	35	430	NE	1.3	2	6.8	0.26	0.44	3.5	43	
Benzo[k]fluoranthene	ND	ND	ND	ND	NA	26	44	350	4300	NE	0.69	0.76	12	2.6	4.4	35	430	
Chrysene	ND	ND	ND	ND	NA	260	440	3,500	10,000	NE	1	2.3	6.4	26	44	350	4,300	
Dibenz[a,h]anthracene	ND	ND	ND	ND	NA	0.26	0.44	3.5	43	NE	0.32	0.23	4.5	0.026	0.044	0.35	4.3	
Fluoranthene	ND	ND	ND	0.318 J	NA	5,000	8,300	10,000	10,000	NE	2	3.2	10	1,000	1,700	7,300	10,000	
Fluorene	ND	ND	ND	ND	NA	5,000	8,300	10,000	10,000	NE	0.22	0.29	4.4	830	1,400	2,700	200	
Indeno[1,2,3-cd]pyrene	ND	ND	ND	ND	NA	2.6	4.4	35	430	NE	0.4	0.74	3.3	0.26	0.44	3.5	43	
2-Methylnaphthalene	ND	ND	ND	ND	NA	500	830	3,600	600	NE	0.16	0.089	0.41	94	160	480	35	
Naphthalene	ND	ND	ND	ND	NA	2,500	4,200	10,000	10,000	NE	0.11	0.22	0.82	NE	NE	NE	NE	
Phenanthrene	ND	ND	ND	ND	NA	3,700	6,200	10,000	8,900	NE	0.83	1.6	6.1	700	1,200	3,600	470	
Pyrene	ND	ND	ND	0.295 J	NA	3,700	6,200	10,000	10,000	NE	2	2.8	9.5	750	1,200	5,500	10,000	
<b>Extractable Petroleum Hydrocarbon (EPH)</b>																		
<b>Fractions</b>																		
C9-C18 Aliphatics	ND	ND	ND	ND	NA	2,700	4,400	10,000	10,000	NE	NE	NE	NE	2,600	4,400	10,000	7,300	
C19-C36 Aliphatics	ND	ND	ND	26.5	NA	10,000	10,000	10,000	10,000	NE	NE	NE	NE	10,000	10,000	10,000	10,000	
C11-C22 Aromatics	ND	ND	ND	30.1	NA	750	1,200	5,500	10,000	NE	NE	NE	NE	730	1,200	4,500	4,700	
<b>Volatile Petroleum Hydrocarbon (VPH)</b>																		
<b>Fractions</b>																		
C5-C8 Aliphatics	NA	NA	NA	NA	NA	1,400	2,300	10,000	10,000	NE	NE	NE	NE	1,400	2,300	10,000	10,000	
C9-C12 Aliphatics	NA	NA	NA	NA	NA	2,700	4,400	10,000	10,000	NE	NE	NE	NE	2,600	4,400	10,000	9,800	
C9-C10 Aromatics	NA	NA	NA	NA	NA	750	1,200	5,500	10,000	NE	NE	NE	NE	740	1,200	5,100	5,500	
<b>Metals</b>																		
Arsenic	<b>8.4</b>	<b>5.9</b>	<b>7.3</b>	<b>22</b>	<b>44</b>	1.4	2.3	4.2	42	16	NE	NE	NE	NE	NE	NE	NE	
Cadmium	ND	ND	ND	ND	ND	11	18	94	19	0.26	NE	NE	NE	NE	NE	NE	NE	
Chromium	31	33	23	22	33	510	850	5,100	2,800	NE	NE	NE	NE	NE	NE	NE	NE	
Lead	72	29	20	38	32	340	530	1,100	950	32	NE	NE	NE	170	280	560	950	
<b>Polychlorinated Biphenyls (PCBs)</b>																		
All PCBs	NA	NA	NA	NA	NA	2.4 <sup>(1)</sup>	4.1 <sup>(1)</sup>	12 <sup>(1)</sup>	6.5 <sup>(1)</sup>	NE	NE	NE	NE	NE	NE	NE	NE	

**Notes:**

MEDEP = Maine Department of Environmental Protection

mg/kg = milligrams per kilogram

ND = Not Detected above laboratory reporting limit

NA = Not Analyzed

NE = indicates that a standard or guideline is 'not established' for the referenced parameter.

B = compound detected in laboratory blank

J = estimated concentration detected below laboratory quantitation limit

Values in **bold** text exceed applicable MEDEP RAGs for current or proposed reuse/exposure scenarios for Outdoor Commercial Worker and/or Excavation/Construction Worker

<sup>(1)</sup> Standard is for total of all isomers (i.e., total PCBs, not individual Aroclors).

**Table 3: Soil Sample Laboratory Analytical Results**  
**Phase II Environmental Site Assessment**  
**Mill Dam**  
**Belfast, Maine**

Sample Location	B101	B102	B104	B105	B106	B107	B110	B111	B112	B113	B114	B115	B116	B117	B118	MEDEP Remedial Action Guidelines for Sites Contaminated with Hazardous Substances (May 10, 2013)								MEDEP Remediation Guidelines for Petroleum Contaminated Sites in Maine (Dec. 1, 2009)						
	Sample Identification	SB101-S1-012213	SB102-S3-012213	SB104-S1-012213	SB105-S1-012213	SB106-S1-012213	SB107-S2-012213	SB110-S1-012213	SB111-S1-053013	SB112-S1-053013	SB113-S1-053013	SB114-S1-053013	SB115-S1-053013	SB116-S1-053013	SB117-S1-053013	SB118-S1-053013	Residential	Park User	Outdoor Commercial Worker	Excavation/Construction Worker	Undeveloped Background	Rural Developed Background	Urban Developed Background	Urban Fill Background	Tier 2 Residential	Tier 2 Park User	Tier 2 Outdoor Commercial Worker	Tier 2 Excavation/Construction Worker		
Sample Depth (ft bgs)	0-2	4-8	0-2	0-2	0-2	2-4	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2															
Date Collected	1/22/2013	1/22/2013	1/22/2013	1/22/2013	1/22/2013	1/22/2013	1/22/2013	5/30/2013	5/30/2013	5/30/2013	5/30/2013	5/30/2013	5/30/2013	5/30/2013	5/30/2013															
<b>Volatil Organic Compounds (VOCs)</b>	miligrams per kilogram (mg/kg)																													
All VOCs	ND	ND	NA	ND	NA	NA	NA	NA	Various	Various	Various	Various	NE	NE	NE	NE	Various	Various	Various	Various										
<b>Target Polycyclic Aromatic Hydrocarbons (PAHs)</b>	miligrams per kilogram (mg/kg)																													
Acenaphthene	ND	ND	ND	0.235 J	ND	7,500	10,000	10,000	9,800	NE	0.10	0.20	3.50	970	1,600	2,000	110													
Acenaphthylene	2.34	ND	1.81	0.284 J	7,500	10,000	10,000	10,000	NE	0.32	0.39	1.40	1,000	1,700	2,200	130														
Anthracene	2.11	ND	ND	0.612	ND	1.17	ND	10,000	10,000	10,000	3,800	NE	0.29	0.4	6.7	4,300	7,200	7,800	430											
Benzo(g,h,i) perylene	8.25	ND	0.272 J	0.739	0.199 J	ND	0.153 J	7	0.991	3,700	6,200	10,000	10,000	NE	0.57	0.79	16	NE	NE	NE	NE									
Benzo(a)pyrene	12.9	ND	0.441	1.26	0.354	ND	0.175 J	8.9	1.37	0.26	0.44	3.5	43	NE	1.5	1.7	5.2	0.026	0.044	0.35	4.3									
Benzo(a)anthracene	14	ND	0.392	1.47	0.351	ND	10.3	1.27	2.6	4.4	35	430	NE	0.86	1.6	27	0.26	0.44	3.5	43										
Benzo(b)fluoranthene	19.1	ND	c	1.66	0.48	ND	0.238 J	15.1	2.24	2.6	4.4	35	430	NE	1.3	2	6.8	0.26	0.44	3.5	43									
Benzo(k)fluoranthene	6.39	ND	0.246 J	0.596	0.179 J	ND	4.41	0.637	26	44	350	4300	NE	0.69	0.76	12	2.6	4.4	35	430										
Chrysene	15.7	ND	0.516	1.47	0.424	ND	0.162 J	11.2	1.17	260	440	3,500	10,000	NE	1	2.3	6.4	26	44	350	4,300									
Dibenz(a,h)anthracene	2.38	ND	ND	0.215 J	ND	1.7	0.287 J	0.26	0.44	3.5	43	NE	0.32	0.23	4.5	0.026	0.044	0.35	4.3											
Fluoranthene	28	ND	0.787	3.27	0.664	0.167 J	ND	0.156 J	21.6	1.56	5,000	8,300	10,000	10,000	NE	2	3.2	10	1,000	1,700	7,300	10,000								
Fluorene	1.31	ND	ND	0.245 J	ND	0.746	ND	5,000	8,300	10,000	10,000	NE	0.22	0.29	4.4	830	1,400	2,700	200											
Indeno[1,2,3-cd]pyrene	10.4	ND	0.347	0.894	0.263 J	ND	0.167 J	7.8	1.15	2.6	4.4	35	430	NE	0.4	0.74	3.3	0.26	0.44	3.5	43									
2-Methylnaphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	500	830	3,600	600	NE	0.16	0.089	0.41	94	160	480	35			
Naphthalene	ND	ND	ND	0.227 J	ND	2,500	4,200	10,000	10,000	NE	0.11	0.22	0.82	NE	NE	NE	NE													
Phenanthrene	18.7	ND	0.348	3.02	0.32 J	ND	12.7	0.382	3,700	6,200	10,000	8,900	NE	0.83	1.6	6.1	700	1,200	3,600	470										
Pyrene	23.7	ND	0.692	2.68	0.582	ND	0.199 J	19.3	1.51	3,700	6,200	10,000	10,000	NE	2	2.8	9.5	750	1,200	5,500	10,000									
<b>Extractable Petroleum Hydrocarbon (EPH) Fractions</b>	miligrams per kilogram (mg/kg)																													
C9-C18 Aliphatics	12.3 J	ND	2,700	4,400	10,000	10,000	NE	NE	NE	NE	2,600	4,400	10,000	7,300																
C19-C36 Aliphatics	36.7	ND	ND	38.7	31.1	10.6 J	37.5	101	70.9	20.4	12.7 J	8.6 J	ND	27.1	18.7	10,000	10,000	10,000	10,000	NE	NE	NE	NE	10,000	10,000	10,000	10,000			
C11-C22 Aromatics	266	ND	10.9 J	40.3	16.5	ND	8.15 J	10.4 J	8.43 J	ND	ND	ND	ND	177	46.7	750	1,200	5,500	10,000	NE	NE	NE	NE	730	1,200	4,500	4,700			
<b>Volatil Petroleum Hydrocarbon (VPH) Fractions</b>	miligrams per kilogram (mg/kg)																													
C5-C8 Aliphatics	ND	ND	NA	ND	NA	NA	NA	NA	1,400	2,300	10,000	10,000	NE	NE	NE	NE	1,400	2,300	10,000	10,000										
C9-C12 Aliphatics	ND	ND	NA	ND	NA	NA	NA	NA	2,700	4,400	10,000	10,000	NE	NE	NE	NE	2,600	4,400	10,000	9,800										
C9-C10 Aromatics	0.621 J	ND	NA	ND	ND	ND	ND	1.03	0.815	ND	ND	NA	NA	NA	NA	750	1,200	5,500	10,000	NE	NE	NE	NE	740	1,200	5,100	5,500			
<b>Metals</b>	miligrams per kilogram (mg/kg)																													
Arsenic	NA	120	NA	24	22	55	NA	1.4	2.3	4.2	42	16	NE	NE	NE	NE	NE	NE	NE	NE										
Cadmium	NA	ND	NA	ND	0.98	0.28 J	NA	11	18	94	19	0.26	NE	NE	NE	NE	NE	NE	NE	NE										
Chromium	NA	33	NA	34	36	33	NA	510	850	5,100	2,800	NE	NE	NE	NE	NE	NE	NE	NE	NE										
Lead	NA	19	NA	183	733	340	NA	340	530	1,100	950	32	NE	NE	NE	170	280	560	950											
<b>Polychlorinated Biphenyls (PCBs)</b>	miligrams per kilogram (mg/kg)																													
All PCBs	NA	ND	NA	ND	ND	NA	2.4 <sup>(1)</sup>	4.1 <sup>(1)</sup>	12 <sup>(1)</sup>	6.5 <sup>(1)</sup>	NE	NE	NE	NE	NE	NE	NE	NE	NE											

**Notes:**

MEDEP = Maine Department of Environmental Protection  
mg/kg = milligrams per kilogram  
ND = Not Detected above laboratory reporting limit  
NA = Not Analyzed  
NE = indicates that a standard or guideline is "not established" for the referenced parameter.  
B = compound detected in laboratory blank  
J = estimated concentration detected below laboratory quantitation limit  
Values in bold text exceed applicable MEDEP RAGs for current or proposed reuse/exposure scenarios for Outdoor Commercial Worker and/or Excavation/Construction Worker  
<sup>(1)</sup> Standard is for total of all isomers (i.e., total PCBs, not individual Aroclors).

**Table 4: Endpoint Soil Sample Laboratory Analytical Results—12,000-Gallon No. 6 Fuel Oil UST Excavation  
Phase II Environmental Site Assessment  
Mill Dam  
Belfast, Maine**

Sample Identification	CS101	CS102	CS103	MEDEP Remediation Guidelines for Petroleum Contaminated Sites in Maine (Dec. 1, 2009)			
Sample Location	Composite Soil Sample from Top of UST Excavation	Composite Soil Sample from Sidewalls of UST Excavation	Composite Soil Sample from Base of UST Excavation	Tier 2 Residential	Tier 2 Park User	Tier 2 Outdoor Commercial Worker	Tier 2 Excavation/Construction Worker
Sample Depth (ft bgs)	0-2	4-6	9-10				
Date Collected	1/22/2013	1/22/2013	1/22/2013				
Target Polycyclic Aromatic Hydrocarbons (PAHs)	milligrams per kilogram (mg/kg)						
Benzo[b]fluoranthene	ND	ND	0.181 J	0.26	0.44	3.5	43
Fluoranthene	ND	ND	0.233 J	1,000	1,700	7,300	10,000
Pyrene	ND	ND	0.211 J	750	1,200	5,500	10,000
All other PAHs	ND	ND	ND	Various	Various	Various	Various
Extractable Petroleum Hydrocarbon (EPH) Fractions	milligrams per kilogram (mg/kg)						
C9-C18 Aliphatics	ND	ND	ND	2,600	4,400	10,000	7,300
C19-C36 Aliphatics	ND	ND	18.9	10,000	10,000	10,000	10,000
C11-C22 Aromatics	ND	ND	ND	730	1,200	4,500	4,700
Total Petroleum Hydrocarbons (TPH)	milligrams per kilogram (mg/kg)						
TPH	39	20	31	NE	NE	NE	NE

**Notes:**

MEDEP = Maine Department of Environmental Protection

mg/kg = milligrams per kilogram

ND = Not Detected above laboratory reporting limit

NA = Not Analyzed

NE = indicates that a standard or guideline is "not established" for the referenced parameter.

B = compound detected in laboratory blank

J = estimated concentration detected below laboratory quantitation limit

Values in **bold** text exceed applicable MEDEP Remediation Guidelines for current or proposed reuse/exposure scenarios for Outdoor Commercial Worker and/or Excavation/Construction Worker

**Table 5: Groundwater & Pore Water Sample Analytical Results**  
**Phase II Environmental Site Assessment**  
**Mill Dam**  
**Belfast, Maine**

Sample Identification	MW101	MW102	MW103	PW101	PW102	MECDC Maximum Exposure Guidelines (MEGs)	USEPA Maximum Contaminant Level (MCLs)	MEDEP Remediation Guidelines for Petroleum Contaminated Sites in Maine (Tier 1 Guidelines)
Media	Groundwater	Groundwater	Groundwater	Pore Water	Pore Water			
Date Collected	1/22/2013	1/22/2013	1/22/2013	5/30/2013	5/30/2013			
<b>Volatile Organic Compounds (VOCs)</b>	micrograms per liter (ug/L)							
All VOCs	ND	ND	ND	ND	ND	Various	Various	Various
<b>Target Polycyclic Aromatic Hydrocarbons (PAHs)</b>	micrograms per liter (ug/L)							
All PAHs	ND	ND	ND	ND	ND	Various	NE	Various
<b>Extractable Petroleum Hydrocarbon (EPH) Fractions</b>	micrograms per liter (ug/L)							
C9-C18 Aliphatics	193 J	ND	ND	ND	ND	700	NE	700
C19-C36 Aliphatics	1,980	ND	ND	ND	ND	10,000	NE	10,000
C11-C22 Aromatics	<b>839</b>	ND	ND	ND	ND	200	NE	200
<b>Volatile Petroleum Hydrocarbon (VPH) Fractions</b>	micrograms per liter (ug/L)							
C5-C8 Aliphatics	ND	ND	ND	ND	ND	300	NE	300
C9-C12 Aliphatics	44 J	ND	ND	ND	ND	700	NE	700
C9-C10 Aromatics	28	ND	12	ND	ND	200	NE	200
<b>Metals</b>	micrograms per liter (ug/L)							
Arsenic	NA	0.004 J	0.018	NA	NA	10	10	NE
Cadmium	NA	ND	ND	NA	NA	1	5	NE
Chromium	NA	ND	ND	NA	NA	20	100	NE
Lead	NA	ND	ND	NA	NA	10	15	10

**Notes:**

USEPA = United States Environmental Protection Agency

MECDC = Maine Center for Disease Control and Prevention

ug/L = micrograms per liter

NE indicates that a standard or guideline is "not established" for the referenced parameter.

ND = Not Detected above the laboratory detection limit

Values in **bold** text exceed drinking water and/or cleanup guidelines

<sup>(1)</sup> Standard is for total of all isomers (i.e., total xylenes).

**TABLE 6: SUMMARY OF BUILDING MATERIAL-WIPE SAMPLE CHEMICAL ANALYSIS FOR POLYCHLORINATED BIPHENYLS**  
Phase II Environmental Site Assessment  
Mill Dam  
67 Swan Lake Avenue  
Belfast, Maine

<b>Sample Location</b>	<b>Turbine Building Concrete Floor Near Turbine</b>	<b>Turbine Building Fieldstone Wall</b>	<b>Toxic Substances Control Act (TSCA) Cleanup Standard for High Occupancy Areas</b>
<b>Sample Identification</b>	<b>WP101</b>	<b>WP102</b>	
<b>Sample Date</b>	<b>01/22/13</b>	<b>01/22/13</b>	<b>Non-Porous Surfaces</b>
<b>Polychlorinated Biphenyls (PCBs)</b>	Concentrations in Grams per 100 Square-Centimeters (g/100 cm <sup>2</sup> )		
All PCBs	ND	ND	10 g/100 cm <sup>2</sup>

**NOTES:**

1. Samples were collected in January 2013 by Ransom Consulting, Inc., and analyzed by Analytics Environmental Laboratory, LLC., of Portsmouth, New Hampshire.
2. ND = Not Detected above laboratory reporting limit
3. Toxic Substances Control Act (TSCA) Standard for PCBs 40 CFR 761.61
4. Values in **boldface** type indicate concentrations which meet or exceed their respective TSCA Cleanup Standard.

**TABLE 7: SUMMARY OF DUPLICATE SAMPLE ANALYTICAL RESULTS**

Phase II Environmental Site Assessment  
 Mill Dam  
 Belfast, Maine

Sample Location	SB102-S3-012213	SB10X-S3-012213	Relative Percent Difference	MW102	MW10X	Relative Percent Difference	PW101	PWDUP	Relative Percent Difference	WS101	WS10X	Relative Percent Difference
Sample Depth (ft bgs)	4-8	4-8		2-10	2-10		1-2	1-2		Surface Wipe	Surface Wipe	
Sample Date	1/22/2013	1/22/2013		1/22/2013	1/22/2013		5/30/2013	5/30/2013		1/22/2013	1/22/2013	
<b>Volatile Organic Compounds (VOCs)</b>	Concentrations in mg/kg		%	Concentrations in µg/l		%	Concentrations in µg/l		%	Concentrations in g/100cm2		%
All VOCs	ND	ND		ND	ND		ND	ND		NA	NA	
<b>Target PAH Compounds</b>	Concentrations in mg/kg		%	Concentrations in µg/l		%	Concentrations in µg/l		%	Concentrations in g/100cm2		%
All Target PAH Compounds	ND	ND		ND	ND		ND	ND		NA	NA	
<b>Volatile Petroleum Hydrocarbon (VPH) Fractions</b>	Concentrations in mg/kg		%	Concentrations in µg/l		%	Concentrations in µg/l		%	Concentrations in g/100cm2		%
C <sub>6</sub> through C <sub>8</sub> Aliphatics	ND	ND		ND	ND		ND	ND		NA	NA	
C <sub>9</sub> through C <sub>12</sub> Aliphatics	ND	ND		ND	ND		ND	ND		NA	NA	
C <sub>9</sub> through C <sub>10</sub> Aromatics	ND	ND		ND	ND		ND	ND		NA	NA	
<b>Extractable Petroleum Hydrocarbon (EPH) Fractions</b>	Concentrations in mg/kg		%	Concentrations in µg/l		%	Concentrations in µg/l		%	Concentrations in g/100cm2		%
C <sub>9</sub> through C <sub>18</sub> Aliphatics	ND	ND		ND	ND		ND	ND		NA	NA	
C <sub>19</sub> through C <sub>36</sub> Aliphatics	ND	ND		ND	ND		ND	ND		NA	NA	
C <sub>11</sub> through C <sub>22</sub> Aromatics	ND	ND		ND	ND		ND	ND		NA	NA	
<b>Metals</b>	Concentrations in mg/kg		%	Concentrations in µg/l		%	Concentrations in µg/l		%	Concentrations in g/100cm2		%
Arsenic	120	28	124	0.004	ND		NA	NA		NA	NA	
Cadmium	ND	ND		ND	ND		NA	NA		NA	NA	
Chromium	33	41	-22	ND	ND		NA	NA		NA	NA	
Lead	19	18	5	ND	ND		NA	NA		NA	NA	
<b>Polychlorinated Biphenyls (PCBs)</b>	Concentrations in mg/kg		%	Concentrations in µg/l		%	Concentrations in µg/l		%	Concentrations in g/100cm2		%
All PCBs	ND	ND		NA	NA		NA	NA		ND	ND	

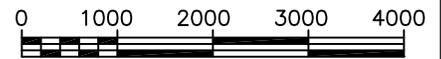
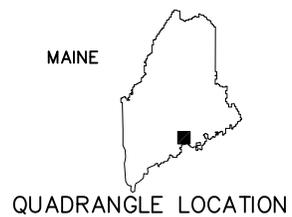


TAKEN FROM U.S.G.S. 7.5x15 MINUTE SERIES TOPOGRAPHIC MAP OF BELFAST, MAINE—1960 (REVISED 1979).

CONTOUR INTERVAL IS 10 FEET

SITE COORDINATES: LATITUDE 44°26'34"  
LONGITUDE 68°59'58"

UTM COORDINATES: 49: 20: 832mN  
4: 99: 984mE



SCALE in FEET  
1: 24,000

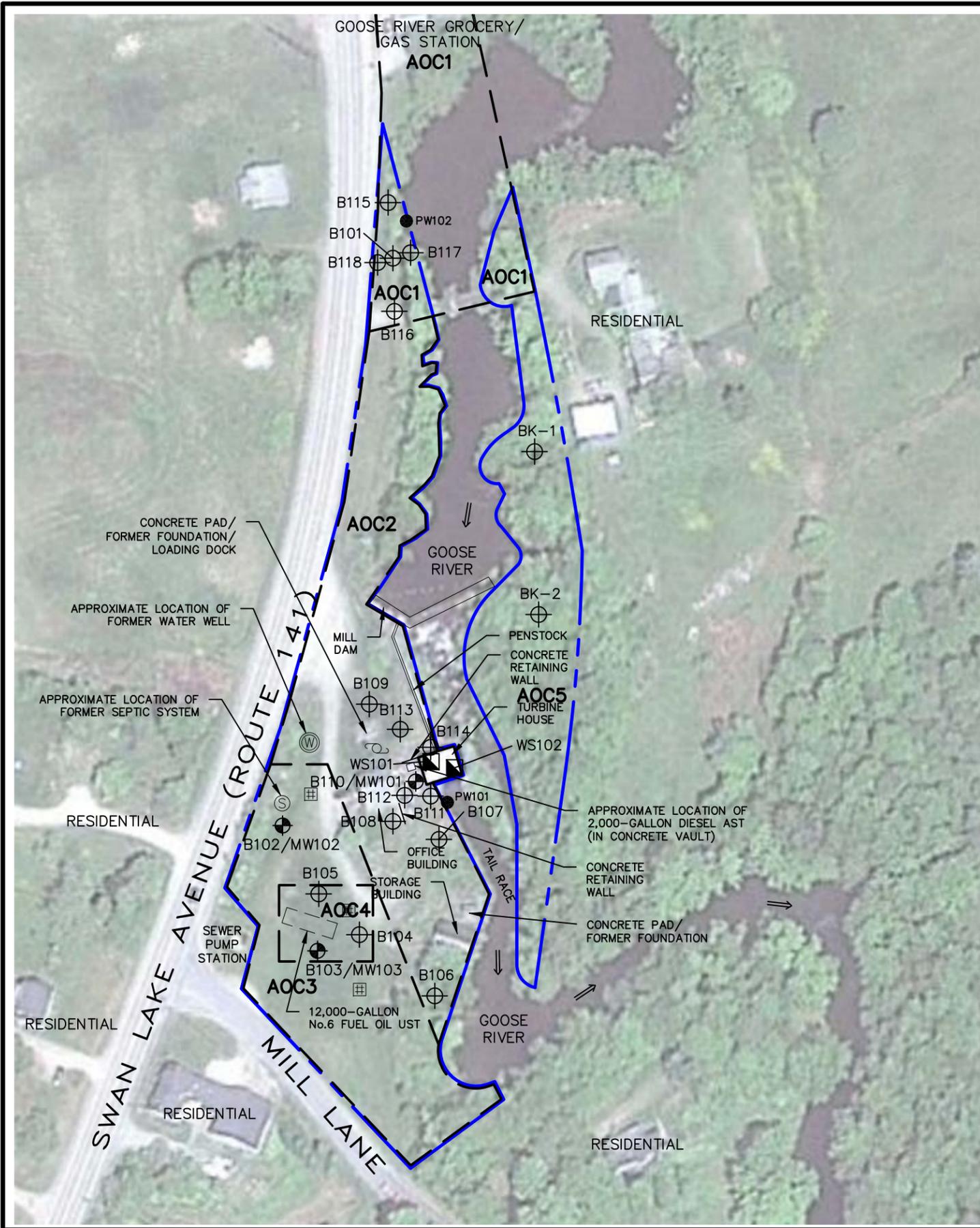
**RANSOM** Consulting, Inc.

**SITE LOCATION MAP**

PREPARED FOR:  
CITY OF BELFAST  
131 CHURCH STREET  
BELFAST, MAINE

SITE:  
MILL DAM  
67 SWAN LAKE AVENUE  
BELFAST, MAINE

DATE: JULY 2013  
PROJECT: 111.06134  
FIGURE: 1

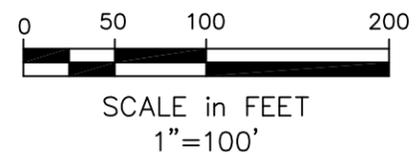


**LEGEND:**

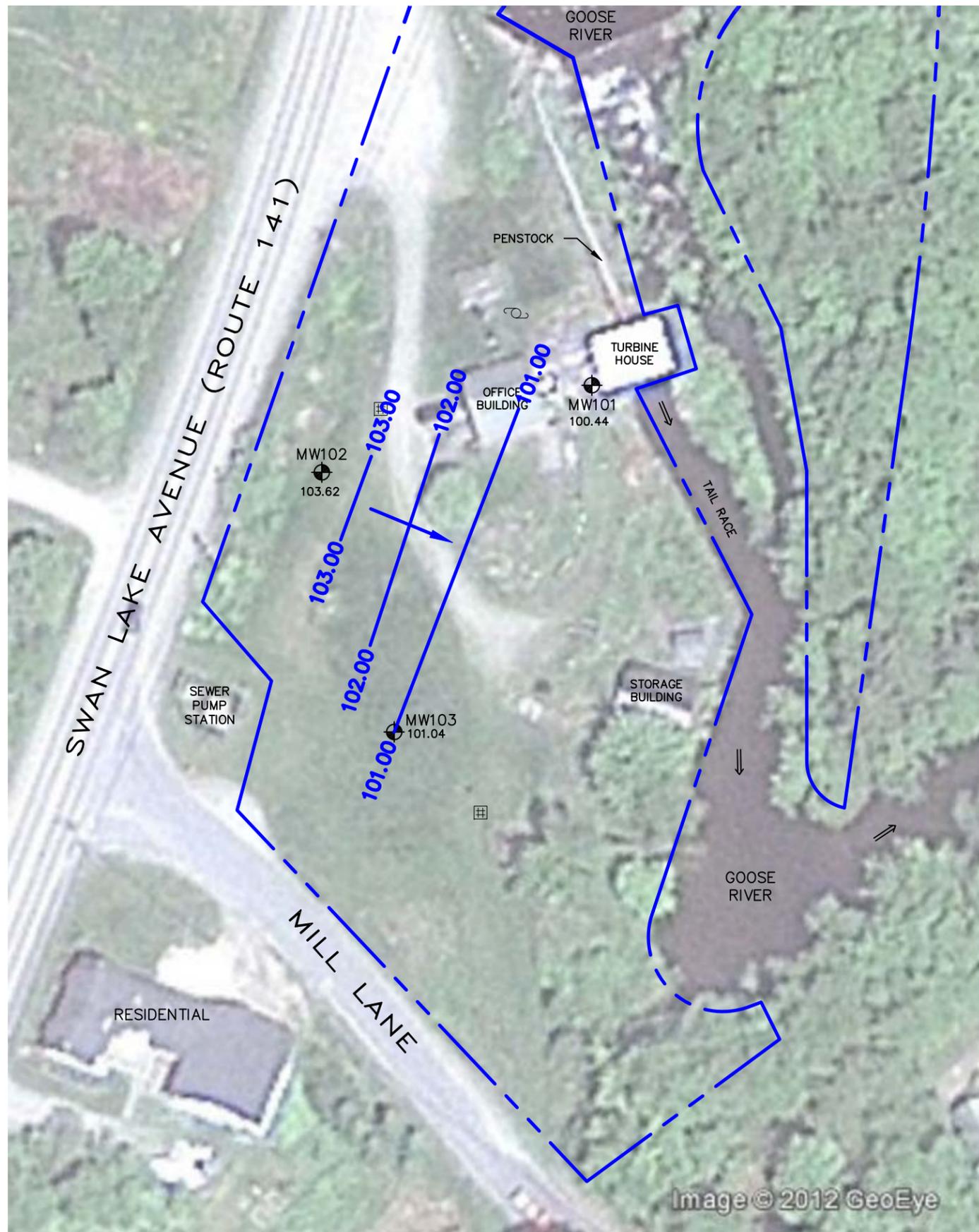
- B110/MW101 SOIL BORING/MONITORING WELL
- B103 SOIL BORING
- BK-1 BACKGROUND SOIL BORING
- WS101 WIPE SAMPLE
- PW101 PORE WATER SAMPLE
- FORMER WATER WELL
- FORMER SEPTIC SYSTEM
- FLOW DIRECTION
- CATCH BASIN
- POLE-MOUNTED TRANSFORMER
- AOC1** APPROXIMATE LIMITS OF AREA OF CONCERN (AOC)
- APPROXIMATE SITE BOUNDARY (BOUNDARY TAKEN FROM CITY OF BELFAST TAX MAP)

**NOTES:**

1. SITE PLAN BASED ON OBSERVATIONS MADE BY RANSOM CONSULTING, INC. FROM MAY 2012 TO MAY 2013. AERIAL IMAGE PROVIDED BY GOOGLE EARTH.
2. SOME FEATURES ARE APPROXIMATE IN LOCATION AND SCALE.
3. REFER TO FIGURE 4 FOR DETAILED UST EXCAVATION PLAN.
4. THIS PLAN HAS BEEN PREPARED FOR THE CITY OF BELFAST. ALL OTHER USES ARE NOT AUTHORIZED, UNLESS WRITTEN PERMISSION IS OBTAINED FROM RANSOM CONSULTING, INC.



<b>RANSOM Consulting, Inc.</b>		<b>SITE PLAN</b>	
PREPARED FOR:	SITE:	DATE:	JULY 2013
CITY OF BELFAST 131 CHURCH STREET BELFAST, MAINE	MILL DAM 67 SWAN LAKE AVENUE BELFAST, MAINE	PROJECT:	111.06134
		FIGURE:	2

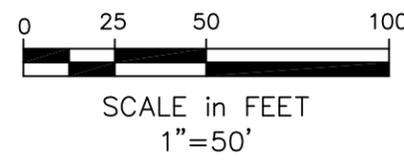


**LEGEND:**

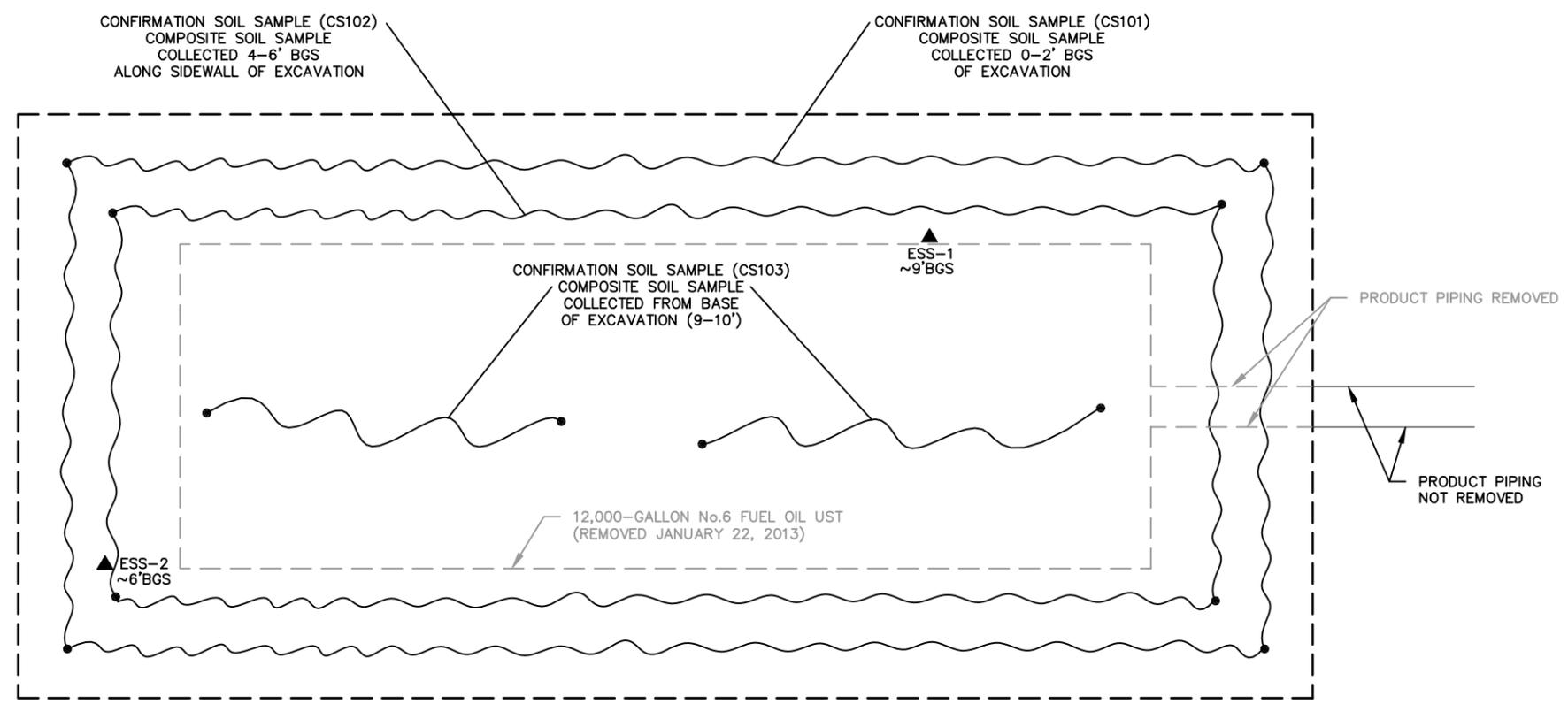
- MW101 100.44 MONITORING WELL WITH GROUNDWATER ELEVATION
- FLOW DIRECTION
- CATCH BASIN
- POLE-MOUNTED TRANSFORMER
- 101.00 GROUNDWATER ELEVATION CONTOUR
- GROUNDWATER FLOW DIRECTION
- APPROXIMATE SITE BOUNDARY (BOUNDARY TAKEN FROM CITY OF BELFAST TAX MAP)

**NOTES:**

1. SITE PLAN BASED ON OBSERVATIONS MADE BY RANSOM CONSULTING, INC. FROM MAY 2012 TO MAY 2013. AERIAL IMAGE PROVIDED BY GOOGLE EARTH.
2. SOME FEATURES ARE APPROXIMATE IN LOCATION AND SCALE.
3. SOME SITE PLAN FEATURES HAVE BEEN REMOVED FOR CLARITY.
4. THIS PLAN HAS BEEN PREPARED FOR THE CITY OF BELFAST. ALL OTHER USES ARE NOT AUTHORIZED, UNLESS WRITTEN PERMISSION IS OBTAINED FROM RANSOM CONSULTING, INC.



<b>RANSOM Consulting, Inc.</b>		<b>GROUNDWATER ELEVATION CONTOUR PLAN</b>	
PREPARED FOR: CITY OF BELFAST 131 CHURCH STREET BELFAST, MAINE		SITE: MILL DAM 67 SWAN LAKE AVENUE BELFAST, MAINE	
		JANUARY 22, 2013	
		DATE:	JULY 2013
		PROJECT:	111.06134
		FIGURE:	3

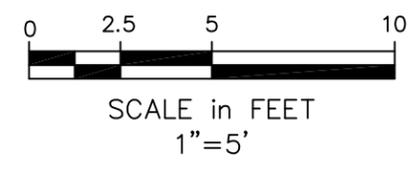


**LEGEND:**

- CS101 ● COMPOSITE SOIL SAMPLE
- ▲ ESS-1 ● OLIOPHELIC DYE TEST
- LIMITS OF EXCAVATION

**NOTES:**

1. SITE PLAN BASED ON OBSERVATIONS MADE BY RANSOM CONSULTING, INC. FROM MAY 2012 TO JANUARY 2013.
2. SOME FEATURES ARE APPROXIMATE IN LOCATION AND SCALE.
3. THIS PLAN HAS BEEN PREPARED FOR THE CITY OF BELFAST. ALL OTHER USES ARE NOT AUTHORIZED, UNLESS WRITTEN PERMISSION IS OBTAINED FROM RANSOM CONSULTING, INC.



<b>RANSOM Consulting, Inc.</b>		<b>UST EXCAVATION PLAN</b>
PREPARED FOR: CITY OF BELFAST 131 CHURCH STREET BELFAST, MAINE	SITE: MILL DAM 67 SWAN LAKE AVENUE BELFAST, MAINE	
		DATE: JULY 2013
		PROJECT: 111.06134
		FIGURE: 4

## **APPENDIX A**

### Boring Logs

Phase II Environmental Site Assessment and  
Site Assessment for Closure of  
Underground Oil Storage Tank Facilities  
Mill Dam  
67 Swan Lake Avenue  
Belfast, Maine

**BORING LOG:**

**B101**

Reviewed By: <i>Erik Rhea</i>	Total Depth: 4 Feet	Logged By: ARM
Date Reviewed: 2/27/13	Boring Diameter: 2 Inches	Date Drilled: 1/22/13 to 1/22/13
GW Observed at: NO Feet	Well Stickup: NA	Driller: EPI

DEPTH	DESCRIPTION (Based on a modified Burmister Soil Classification System)	SAMPLE	SAMPLE NUMBER	BLOW COUNTS (per 6 inches)	PENETRATION/ RECOVERY	OVM (ppmv)	Dexil (ppm)	DEPTH
	S1(0.0'-2.0') - 20" - Dark brown to brown, fine SAND and SILT, some fine to coarse Gravel, moist, (FILL).		S1	-	24/20	<1		
	S2(2.0'-4.0') - No Recovery - Rock in shoe		S2	-	24/0	NA		
5	Refusal @ 4' bgs.							5
10								10
15								15

**NOTES:**

- 1) Boring advanced using GeoProbe direct-push technology.
- 2) Sample designated with solid fill submitted for laboratory analysis.
- 3) Groundwater not encountered.
- 4) NA = Not Applicable; NM = Not Measured; NO = Not Observed.

**CLIENT:**  
City of Belfast

**SITE:**  
Mill Dam  
67 Swan Lake Avenue  
Belfast, ME

**BORING AND MONITORING WELL LOG: B102/MW102**

Reviewed by: <i>Eric Phelan</i>	Total Depth: 10 Feet	Logged By: ARM
Date Reviewed: 2/27/13	Boring Diameter: 2 Inches	Date Drilled: 1/22/13 to 1/22/13
GW Observed at: 5 Feet	Well Stickup: 0.35 Feet	Driller: EPI

DEPTH	DESCRIPTION (Based on a modified Burmister Soil Classification System)	SAMPLE	SAMPLE NUMBER	BLOW COUNTS (per 6 inches)	PENETRATION/ RECOVERY	OVM (ppmv)	DEPTH	WELL CONSTRUCTION
	S1(0.0'-2.0') - 24" - Brown, fine SAND and SILT, some fine to coarse Gravel, dry, (FILL).		S1	-	24/24	<1		
	S2(2.0'-4.0') - 8" - Brown, fine SAND and SILT, moist, (FILL).		S2	-	24/8	<1		
5	S3(4.0'-8.0') - 30" - Brown, fine SAND and SILT with weathered rock, wet, (Glacial/Fluvial).		S3	-	48/30	<1	5	
	S4(8.0'-10.0') - 24" - Tan to gray, fine to medium SAND, some Silt and weathered rock, wet, (Glacial/Fluvial).		S4	-	24/24	<1		
10	Refusal @ 10' bgs.						10	
15							15	

LEGEND:

Filter Sand	Native Fill	Bentonite	Bentonite Grout	Concrete	PVC Screen	Solid PVC Riser

NOTES:

- 1) Boring advanced using GeoProbe direct-push technology.
- 2) Sample designated with solid fill submitted for laboratory analysis.
- 3) Groundwater encountered at 5 ft. bgs.
- 4) NA = Not Applicable; NM = Not Measured; NO = Not Observed.

CLIENT:  
City of Belfast

SITE:  
Mill Dam  
67 Swan Lake Avenue  
Belfast, ME

**BORING AND MONITORING WELL LOG: B103/MW103**

Reviewed by: <i>Erik Phung</i>	Total Depth: 12 Feet	Logged By: ARM
Date Reviewed: <i>2/27/13</i>	Boring Diameter: 2 Inches	Date Drilled: 1/22/13 to 1/22/13
GW Observed at: 4.13 Feet	Well Stickup: 0.33 Feet	Driller: EPI

DEPTH	DESCRIPTION (Based on a modified Burmister Soil Classification System)	SAMPLE SAMPLE NUMBER	BLOW COUNTS (per 6 inches)	PENETRATION/ RECOVERY	OVM (ppmv)	DEPTH	WELL CONSTRUCTION
	S1(0.0'-2.0') - 20" - Brown, fine to coarse SAND, some Silt, moist, (FILL).	S1	-	24/20	<1		
	S2(2.0'-4.0') - No Recovery	S2	-	24/0	<1		
5	S3(4.0'-8.0') - 29" - Tan to gray, fine SAND, some SILT and weathered rock, wet, (Glacial/Fluvial).	S3	-	48/29	<1	5	
10	S4(8.0'-12.0') - 30" - Gray, fine SAND and SILT with weathered rock, wet, (Glacial/Fluvial).	S4	-	48/30	<1	10	
	Refusal @ 12' bgs.						
15						15	

LEGEND:

						
Filter Sand	Native Fill	Bentonite	Bentonite Grout	Concrete	PVC Screen	Solid PVC Riser

NOTES:

- 1) Boring advanced using GeoProbe direct-push technology.
- 2) Groundwater encountered at 4.13 ft. bgs.
- 3) NA = Not Applicable; NM = Not Measured; NO = Not Observed.

CLIENT:  
City of Belfast

SITE:  
Mill Dam  
67 Swan Lake Avenue  
Belfast, ME

**BORING LOG:**

**B104**

Reviewed By: <i>Erik Rheny</i>	Total Depth: 11.2 Feet	Logged By: ARM
Date Reviewed: 2/27/13	Boring Diameter: 2 Inches	Date Drilled: 1/22/13 to 1/22/13
GW Observed at: 6 Feet	Well Stickup: NA	Driller: EPI

DEPTH	DESCRIPTION (Based on a modified Burmister Soil Classification System)	SAMPLE	SAMPLE NUMBER	BLOW COUNTS (per 6 inches)	PENETRATION/ RECOVERY	OVM (ppmv)	Dexil (ppm)	DEPTH
	S1(0.0'-2.0') - 24" - Brown, fine to medium SAND, some Silt and fine to coarse Gravel, dry, (FILL).		S1	-	24/24	<1		
	S2(2.0'-4.0') - 11" - Brown, fine to coarse SAND, some Silt, contains bricks, coal, ash, moist, (FILL).		S2	-	24/11	<1		
5	S3(4.0'-8.0') - 32" - Brown to gray, fine SAND and SILT with weathered rock, wet, (Glacial/Fluvial).		S3	-	48/32	<1		5
10	S4(8.0'-11.2') - 30" - Gray, fine SAND and SILT with weathered rock, wet, (Glacial/Fluvial).		S4	-	38/30	<1		10
	Refusal @ 11.2' bgs.							
15								15

**NOTES:**

- 1) Boring advanced using GeoProbe direct-push technology.
- 2) Sample designated with solid fill submitted for laboratory analysis.
- 3) Groundwater encountered at 6 ft. bgs.
- 4) NA = Not Applicable; NM = Not Measured; NO = Not Observed.

**CLIENT:**  
City of Belfast

**SITE:**  
Mill Dam  
67 Swan Lake Avenue  
Belfast, ME

**BORING LOG:**

**B105**

Reviewed By: <i>Eric P. King</i>	Total Depth: 12 Feet	Logged By: ARM
Date Reviewed: 2/27/13	Boring Diameter: 2 Inches	Date Drilled: 1/22/13 to 1/22/13
GW Observed at: 6 Feet	Well Stickup: NA	Driller: EPI

DEPTH	DESCRIPTION (Based on a modified Burmister Soil Classification System)	SAMPLE	SAMPLE NUMBER	BLOW COUNTS (per 6 inches)	PENETRATION/ RECOVERY	OVM (ppmv)	Dexil (ppm)	DEPTH
	S1(0.0'-2.0') - 24" - Brown, fine to medium SAND, some Silt, trace fine to coarse Gravel, contains bricks, coal and ash, moist, (FILL).		S1	-	24/24	<1		
	S2(2.0'-4.0') - 8" - Brown, fine to medium SAND, some Silt, trace fine to coarse Gravel, contains bricks, coal and ash, moist, (FILL).		S2	-	24/8	<1		
5	S3(4.0'-8.0') - 29" - Brown to tan, fine to medium SAND and SILT, some weathered rock, moist, (Glacial/Fluvial).		S3	-	48/29	<1		5
10	S4(8.0'-12.0') - 20" - Gray, fine SAND and SILT with weathered rock, wet, (Glacial/Fluvial).		S4	-	48/20	<1		10
	Bottom of Boring @ 12' bgs.							
15								15

**NOTES:**

- 1) Boring advanced using GeoProbe direct-push technology.
- 2) Sample designated with solid fill submitted for laboratory analysis.
- 3) Groundwater encountered at 6 ft. bgs.
- 4) NA = Not Applicable; NM = Not Measured; NO = Not Observed.

**CLIENT:**  
City of Belfast

**SITE:**  
Mill Dam  
67 Swan Lake Avenue  
Belfast, ME

**BORING LOG:**

**B106**

Reviewed By: <i>Erik Rhyne</i>	Total Depth: 8 Feet	Logged By: ARM
Date Reviewed: 2/27/13	Boring Diameter: 2 Inches	Date Drilled: 1/22/13 to 1/22/13
GW Observed at: 4 Feet	Well Stickup: NA	Driller: EPI

DEPTH	DESCRIPTION (Based on a modified Burmister Soil Classification System)	SAMPLE	SAMPLE NUMBER	BLOW COUNTS (per 6 inches)	PENETRATION/ RECOVERY	OVM (ppmv)	Dexil (ppm)	DEPTH
	S1(0.0'-2.0') - 24" - Brown to dark brown, fine SAND and SILT, some fine to coarse Gravel, contains coal, bricks and ash, moist, (FILL).		S1	-	24/24	<1		
	S2(2.0'-4.0') - 8" - Brown to dark brown, fine SAND and SILT, some fine to coarse Gravel, contains coal, bricks and ash, moist, (FILL).		S2	-	24/8	<1		
5	S3(4.0'-8.0') - 30" - Brown to gray, SILT, some fine Sand, trace weathered rock, wet, (Glacial/Fluvial).		S3	-	48/30	<1		5
	Refusal @ 8' bgs.							
10								10
15								15

**NOTES:**

- 1) Boring advanced using GeoProbe direct-push technology.
- 2) Sample designated with solid fill submitted for laboratory analysis.
- 3) Groundwater encountered at 4 ft. bgs.
- 4) NA = Not Applicable; NM = Not Measured; NO = Not Observed.

**CLIENT:**  
City of Belfast

**SITE:**  
Mill Dam  
67 Swan Lake Avenue  
Belfast, ME



**BORING LOG:**

**B107**

Reviewed By: <i>Erik Phery</i>	Total Depth: 9 Feet	Logged By: ARM
Date Reviewed: 2/27/13	Boring Diameter: 2 Inches	Date Drilled: 1/22/13 to 1/22/13
GW Observed at: 4 Feet	Well Stickup: NA	Driller: EPI

DEPTH	DESCRIPTION (Based on a modified Burmister Soil Classification System)	SAMPLE	SAMPLE NUMBER	BLOW COUNTS (per 6 inches)	PENETRATION/ RECOVERY	OVM (ppmv)	Dexil (ppm)	DEPTH
	S1(0.0'-2.0') - 24" - Brown, fine SAND and SILT with rock fragments and wood, moist, (FILL).		S1	-	24/24	<1		
	S2(2.0'-4.0') - 18" - Brown to black, fine SAND and SILT with rock fragments, contains coal, ash and concrete, moist, (FILL).		S2	-	24/18	<1		
5	S3(4.0'-8.0') - 30" - Gray, fine SAND and SILT with weathered rock, wet, (Glacial/Fluvial).		S3	-	48/30	<1		5
10	S4(8.0'-9.0') - 12" - Gray, weathered rock, wet. Refusal @ 9' bgs.		S4	-	12/12	<1		10
15								15

**NOTES:**

- 1) Boring advanced using GeoProbe direct-push technology.
- 2) Sample designated with solid fill submitted for laboratory analysis.
- 3) Groundwater encountered at 4 ft. bgs.
- 4) NA = Not Applicable; NM = Not Measured; NO = Not Observed.

**CLIENT:**

City of Belfast

**SITE:**

Mill Dam  
67 Swan Lake Avenue  
Belfast, ME

**BORING LOG:**

**B108**

Reviewed By: <i>Euto Phery</i>	Total Depth: 14 Feet	Logged By: ARM
Date Reviewed: <b>2/27/13</b>	Boring Diameter: 2 Inches	Date Drilled: 1/22/13 to 1/22/13
GW Observed at: 12 Feet	Well Stickup: NA	Driller: EPI

DEPTH	DESCRIPTION (Based on a modified Burmister Soil Classification System)	SAMPLE	SAMPLE NUMBER	BLOW/COUNTS (per 6 inches)	PENETRATION/ RECOVERY	OVM (ppmv)	Dexil (ppm)	DEPTH
	S1(0.0'-2.0') - 12" - Brown, fine to medium SAND, some fine to coarse Gravel and Silt, dry, (FILL).		S1	-	24/12	<1		
	S2(2.0'-4.0') - No Recovery - Rock in shoe.		S2	-	24/0	<1		
5	S3(4.0'-8.0') - No Recovery - GeoProbe rods dropped. Possible subsurface void.		S3	-	48/0	<1		5
10	S4(8.0'-12.0') - 30" - Brown to gray, fine SAND and SILT with rock fragments, contains coal and ash, moist, (FILL).		S4	-	48/30	<1		10
15	S5(12.0'-14.0') - 12" - Brown to gray, fine SAND and SILT with weathered rock, wet, (Glacial/Fluvial).		S5	-	24/12	<1		15
	Refusal @ 14' bgs.							

**NOTES:**

- 1) Boring advanced using GeoProbe direct-push technology.
- 2) Groundwater encountered at 12 ft. bgs.
- 3) NA = Not Applicable; NM = Not Measured; NO = Not Observed.

**CLIENT:**  
City of Belfast

**SITE:**  
Mill Dam  
67 Swan Lake Avenue  
Belfast, ME



**BORING LOG:**

**B109**

Reviewed By: <i>Erik Plummer</i>	Total Depth: 8 Feet	Logged By: ARM
Date Reviewed: <i>2/27/13</i>	Boring Diameter: 2 Inches	Date Drilled: 1/22/13 to 1/22/13
GW Observed at: 5 Feet	Well Stickup: NA	Driller: EPI

DEPTH	DESCRIPTION (Based on a modified Burmister Soil Classification System)	SAMPLE	SAMPLE NUMBER	BLOW COUNTS (per 6 inches)	PENETRATION/ RECOVERY	OVM (ppmv)	Dexil (ppm)	DEPTH
	S1(0.0'-2.0') - 24" - Brown to gray, fine SAND and SILT, some weathered rock, dry, (FILL).		S1	-	24/24	<1		
	S2(2.0'-4.0') - 8" - Gray, fine SAND and SILT, some weathered rock, moist, (Glacial/Fluvial).		S2	-	24/8	<1		
5	S3(4.0'-8.0') - 20" - Gray, fine SAND and SILT, some weathered rock, wet, (Glacial/Fluvial).		S3	-	48/20	<1		5
	Refusal @ 8' bgs.							
10								10
15								15

NOTES:  
 1) Boring advanced using GeoProbe direct-push technology.  
 2) Groundwater encountered at 5 ft. bgs.  
 3) NA = Not Applicable; NM = Not Measured; NO = Not Observed.

CLIENT:  
 City of Belfast

SITE:  
 Mill Dam  
 67 Swan Lake Avenue  
 Belfast, ME

**BORING AND MONITORING WELL LOG: B110/MW101**

Reviewed by: <i>Eric Phung</i>	Total Depth: 4.5 Feet	Logged By: ARM
Date Reviewed: <i>2/27/13</i>	Boring Diameter: 2 Inches	Date Drilled: 1/22/13 to 1/22/13
GW Observed at: 1.58 Feet	Well Stickup: 1.22 Feet	Driller: EPI

DEPTH	DESCRIPTION (Based on a modified Burmister Soil Classification System)	SAMPLE	SAMPLE NUMBER	BLOW COUNTS (per 6 inches)	PENETRATION/ RECOVERY	OMV (ppmv)	DEPTH	WELL CONSTRUCTION
	S1(0.0'-2.0') - 24" - Brown to gray, fine SAND and SILT with rock fragments, contains wood and ash, dry, (FILL).		S1	-	24/24	<1		
	S2(2.0'-4.0') - 11" - Brown to gray, fine SAND and SILT with rock fragments, contains wood and ash, dry, (FILL).		S2	-	24/11	<1		
5	S3(4.0'-4.5') - 6" - Brown, fine SAND and SILT with weathered rock, wet, (Glacial/Fluvial). Refusal @ 4.5' bgs.		S3	-	6/6	<1	5	
10							10	
15							15	

LEGEND:

						
Filter Sand	Native Fill	Bentonite	Bentonite Grout	Concrete	PVC Screen	Solid PVC Riser

NOTES:

- 1) Boring advanced using GeoProbe direct-push technology.
- 2) Sample designated with solid fill submitted for laboratory analysis.
- 3) Groundwater encountered at 1.58 ft. bgs.
- 4) NA = Not Applicable; NM = Not Measured; NO = Not Observed.

CLIENT:  
City of Belfast

SITE:  
Mill Dam  
67 Swan Lake Avenue  
Belfast, ME



**BORING LOG:**

**B111**

Reviewed By: <i>Erik Plaus</i>	Total Depth: 2 Feet	Logged By: ARM
Date Reviewed: 7/11/13	Boring Diameter: 6 Inches	Date Drilled: 5/30/13 to 5/30/13
GW Observed at: 1.5 Feet	Well Stickup: NA	Driller: Ransom

DEPTH	DESCRIPTION (Based on a modified Burmister Soil Classification System)	SAMPLE	SAMPLE NUMBER	BLOW COUNTS (per 6 inches)	PENETRATION/ RECOVERY	OVM (ppmv)	Dexil (ppm)	DEPTH
	S1(0.0'-2.0') - Brown, fine to coarse SAND and fine to coarse GRAVEL, some Silt, contains metal and concrete, moist, FILL. (Groundwater observed at 1.5' bgs.)		S1			<1		
	Bottom of boring @ 2' bgs.							
5								5
10								10
15								15

- NOTES:**
- 1) Boring advanced using hand tools.
  - 2) Sample designated with solid fill submitted for laboratory analysis.
  - 3) Groundwater encountered at 1.5 ft. bgs.
  - 4) NA = Not Applicable; NM = Not Measured; NO = Not Observed.

**CLIENT:**  
City of Belfast

**SITE:**  
Mill Dam  
67 Swan Lake Avenue  
Belfast, ME

**BORING LOG:**

**B112**

Reviewed By: <i>Eric Rheny</i>	Total Depth: 2 Feet	Logged By: ARM
Date Reviewed: 7/11/13	Boring Diameter: 6 Inches	Date Drilled: 5/30/13 to 5/30/13
GW Observed at: 1.0 Feet	Well Stickup: NA	Driller: Ransom

DEPTH	DESCRIPTION (Based on a modified Burmister Soil Classification System)	SAMPLE	SAMPLE NUMBER	BLOW COUNTS (per 6 inches)	PENETRATION/ RECOVERY	OVM (ppmv)	Dexil (ppm)	DEPTH
	S1(0.0'-2.0') - Brown, fine to coarse SAND and fine to coarse GRAVEL, some Silt, contains metal and concrete, moist, FILL. (Groundwater observed at 1.0' bgs.)  Bottom of boring @ 2' bgs.		S1			<1		
5								5
10								10
15								15

**NOTES:**

- 1) Boring advanced using hand tools.
- 2) Sample designated with solid fill submitted for laboratory analysis.
- 3) Groundwater encountered at 1.0 ft. bgs.
- 4) NA = Not Applicable; NM = Not Measured; NO = Not Observed.

**CLIENT:**  
City of Belfast

**SITE:**  
Mill Dam  
67 Swan Lake Avenue  
Belfast, ME

**BORING LOG:**

**B113**

Reviewed By: <i>Erik Rheny</i>	Total Depth: 2 Feet	Logged By: ARM
Date Reviewed: 7/11/13	Boring Diameter: 6 Inches	Date Drilled: 5/30/13 to 5/30/13
GW Observed at: NO Feet	Well Stickup: NA	Driller: Ransom

DEPTH	DESCRIPTION (Based on a modified Burmister Soil Classification System)	SAMPLE	SAMPLE NUMBER	BLOW COUNTS (per 6 inches)	PENETRATION/ RECOVERY	QVM (ppmv)	Dexil (ppm)	DEPTH
	S1(0.0'-2.0') - Brown, fine SAND and SILT, trace fine to coarse Gravel, contains bricks, moist, FILL.		S1			1		
	Bottom of boring @ 2' bgs.							
5								5
10								10
15								15

**NOTES:**

- 1) Boring advanced using hand tools.
- 2) Sample designated with solid fill submitted for laboratory analysis.
- 3) Groundwater not encountered.
- 4) NA = Not Applicable; NM = Not Measured; NO = Not Observed.

**CLIENT:**

City of Belfast

**SITE:**

Mill Dam  
67 Swan Lake Avenue  
Belfast, ME



**BORING LOG:**

**B114**

Reviewed By: <i>Erick Phang</i>	Total Depth: 2 Feet	Logged By: ARM
Date Reviewed: <i>7/11/13</i>	Boring Diameter: 6 Inches	Date Drilled: 5/30/13 to 5/30/13
GW Observed at: NO Feet	Well Stickup: NA	Driller: Ransom

DEPTH	DESCRIPTION (Based on a modified Burmister Soil Classification System)	SAMPLE	SAMPLE NUMBER	BLOW COUNTS (per 6 inches)	PENETRATION/ RECOVERY	OVM (ppmv)	Dexil (ppm)	DEPTH
0 - 2.0	S1(0.0'-2.0') - Brown, fine SAND and SILT, trace fine to coarse Gravel, contains bricks, moist, FILL		S1			Δ		0 - 2.0
Bottom of boring @ 2' bgs.								
5								5
10								10
15								15

**NOTES:**

- 1) Boring advanced using hand tools.
- 2) Sample designated with solid fill submitted for laboratory analysis.
- 3) Groundwater not encountered.
- 4) NA = Not Applicable; NM = Not Measured; NO = Not Observed.

**CLIENT:**  
City of Belfast

**SITE:**  
Mill Dam  
67 Swan Lake Avenue  
Belfast, ME



**BORING LOG:**

**B115**

Reviewed By: <i>E. J. Flaherty</i>	Total Depth: 2 Feet	Logged By: ARM
Date Reviewed: 7/11/13	Boring Diameter: 6 Inches	Date Drilled: 5/30/13 to 5/30/13
GW Observed at: NO Feet	Well Stickup: NA	Driller: Ransom

DEPTH	DESCRIPTION (Based on a modified Burmister Soil Classification System)	SAMPLE	SAMPLE NUMBER	BLOW COUNTS (per 6 inches)	PENETRATION/ RECOVERY	OVM (ppmv)	Dexil (ppm)	DEPTH
	S1(0.0'-2.0') - Dark brown to brown, fine SAND and SILT, some fine to coarse Gravel, moist, FILL.		S1			<1		
	Bottom of boring @ 2' bgs.							
5								5
10								10
15								15

**NOTES:**

- 1) Boring advanced using hand tools.
- 2) Sample designated with solid fill submitted for laboratory analysis.
- 3) Groundwater not encountered.
- 4) NA = Not Applicable; NM = Not Measured; NO = Not Observed.

**CLIENT:**  
City of Belfast

**SITE:**  
Mill Dam  
67 Swan Lake Avenue  
Belfast, ME



**BORING LOG:**

**B116**

Reviewed By: <i>Erik Plump</i>	Total Depth: 2 Feet	Logged By: ARM
Date Reviewed: 7/11/13	Boring Diameter: 6 Inches	Date Drilled: 5/30/13 to 5/30/13
GW Observed at: NO Feet	Well Stickup: NA	Driller: Ransom

DEPTH	DESCRIPTION (Based on a modified Burmister Soil Classification System)	SAMPLE	SAMPLE NUMBER	BLOW COUNTS (per 6 inches)	PENETRATION/ RECOVERY	OVM (ppmv)	Dexil (ppm)	DEPTH
	S1(0.0'-2.0') - Dark brown to brown, fine SAND and SILT, some fine to coarse Gravel, moist, FILL.		S1			<1		
	Bottom of boring @ 2' bgs.							
5								5
10								10
15								15

**NOTES:**

- 1) Boring advanced using hand tools.
- 2) Sample designated with solid fill submitted for laboratory analysis.
- 3) Groundwater not encountered.
- 4) NA = Not Applicable; NM = Not Measured; NO = Not Observed.

**CLIENT:**  
City of Belfast

**SITE:**  
Mill Dam  
67 Swan Lake Avenue  
Belfast, ME



**BORING LOG:**

**B117**

Reviewed By: <i>Erik Phares</i>	Total Depth: 2 Feet	Logged By: ARM
Date Reviewed: 7/11/13	Boring Diameter: 6 Inches	Date Drilled: 5/30/13 to 5/30/13
GW Observed at: NO Feet	Well Stickup: NA	Driller: Ransom

DEPTH	DESCRIPTION (Based on a modified Burmister Soil Classification System)	SAMPLE	SAMPLE NUMBER	BLOW COUNTS (per 6 inches)	PENETRATION/ RECOVERY	OVM (ppmv)	Dexil (ppm)	DEPTH
	S1(0.0'-2.0') - Dark brown to brown, fine SAND and SILT, some fine to coarse Gravel, moist, FILL.		S1			<1		
	Bottom of boring @ 2' bgs.							
5								5
10								10
15								15

- NOTES:**
- 1) Boring advanced using hand tools.
  - 2) Sample designated with solid fill submitted for laboratory analysis.
  - 3) Groundwater not encountered.
  - 4) NA = Not Applicable; NM = Not Measured; NO = Not Observed.

**CLIENT:**  
City of Belfast

**SITE:**  
Mill Dam  
67 Swan Lake Avenue  
Belfast, ME



**BORING LOG:**

**B118**

Reviewed By: <i>Eirik Phery</i>	Total Depth: 2 Feet	Logged By: ARM
Date Reviewed: 7/11/13	Boring Diameter: 6 Inches	Date Drilled: 5/30/13 to 5/30/13
GW Observed at: NO Feet	Well Stickup: NA	Driller: Ransom

DEPTH	DESCRIPTION (Based on a modified Burmister Soil Classification System)	SAMPLE	SAMPLE NUMBER	BLOW COUNTS (per 6 inches)	PENETRATION/ RECOVERY	OVM (ppmv)	Dexil (ppm)	DEPTH
	S1(0.0'-2.0') - Dark brown to brown, fine SAND and SILT, some fine to coarse Gravel, moist, FILL.		S1			<1		
	Bottom of boring @ 2' bgs.							
5								5
10								10
15								15

- NOTES:**
- 1) Boring advanced using hand tools.
  - 2) Sample designated with solid fill submitted for laboratory analysis.
  - 3) Groundwater not encountered.
  - 4) NA = Not Applicable; NM = Not Measured; NO = Not Observed.

**CLIENT:**  
City of Belfast

**SITE:**  
Mill Dam  
67 Swan Lake Avenue  
Belfast, ME

**APPENDIX B**

Certified Laboratory Analytical Reports

Phase II Environmental Site Assessment and  
Site Assessment for Closure of  
Underground Oil Storage Tank Facilities  
Mill Dam  
67 Swan Lake Avenue  
Belfast, Maine

February 7, 2013

Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

**RE: Analytical Results Case Narrative  
Mill Dam  
Project No: 111.06134.017  
Analytics #74728**

Dear Mr. Phenix:

Enclosed please find the analytical report for samples collected from the above-mentioned project. The attached Cover Page lists the sample IDs, Lab tracking numbers and collection dates for the samples included in this deliverable.

Samples were analyzed for Volatile Organic Compounds (VOCs) using EPA Method 8260B, Volatile Petroleum Hydrocarbons (VPH) using MADEP VPH Method 2004 Rev 1.1, Extractable Petroleum Hydrocarbons (EPH) using MADEP EPH Method 2004 Rev 1.1, Total Petroleum Hydrocarbons DRO range using EPA Method 8015B, Polychlorinated Biphenyls (PCBs) by EPA Method 8082A and selected Metals using EPA Method 6010C

Unless otherwise noted in the Non-conformance Summary listed below, all of the quality control (QC) criteria including initial calibration, calibration verification, surrogate recovery, holding time and method accuracy/precision for these analyses were within acceptable limits.

This Level II package has been assembled in the following order:

- Case Narrative/Non-Conformance Summary
- Sample Log Sheet - Cover Page
- VOC Form 1 Sample Data Results for Samples
  - Chromatograms
- VOC Blank Summaries & Form 3 MS/MSD and LCS Recoveries
- VPH Form I Data Sheet for Samples
  - Chromatograms
- VPH Blank Summaries & Form 3 MS/MSD (LCS) Recoveries
  - Chromatograms
- EPH Form I Data Sheet for Samples
  - Chromatograms
- EPH Blank Summaries & Form 3 MS/MSD (LCS) Recoveries
- PCB Form I Data Sheet for Samples
  - Chromatograms
- PCB Blank Summaries & Form 3 MS/MSD (LCS) Recoveries
- Metals Form I Data Sheet
- Metals Blank Summaries & Form 3 MS/MSD (LCS) Recoveries
- Chain of Custody (COC) Forms
- Sample Receipt Checklist

## QC NON-CONFORMANCE SUMMARY

### **Sample Receipt:**

No discrepancies.

### **Volatile Organic Compounds (VOCs) by EPA 8260B:**

This narrative is specific to target analytes reported on the Form 1 data pages. Non-target (NT) analyte deviations were not addressed. The following analytes were not 'J' flagged in this report; Chloromethane, Methylene chloride, Acetone and Hexachlorobutadiene.

The following compounds used quadratic fit for quantitation: Bromomethane, 2,2-Dichloropropane, Dibromochloromethane, 1,2-Dibromomethane, o-Xylene and Isopropylbenzene.

The soil continuing calibration standard (file#C85119SC) had %D greater than 20% for but less than 30% for Dibromomethane. The laboratory control samples (LS01253C/LS0123C2) had a few analytes with recoveries outside the laboratory acceptance criteria (see form 3). These analytes were not detected in any samples associated with this QC and results were reported without qualification.

The continuing calibration standard (file#B95319SC) had %D greater than 20% for 1,4-Dioxane. The laboratory control samples (L801253B/L801253B2) also had high recovery for 1,4-Dioxane. Results for samples in this analytical window were reported with a comment to this affect.

### **Volatile Petroleum Hydrocarbons (VPH):**

This narrative is specific to target analytes reported on the Form 1 data pages. Non-target (NT) analyte deviations were not addressed. At the client's request several samples had only the hydrocarbon ranges were reported.

The MS analyzed on sample 74728-12 had low recovery for alkane n-Decane and C9-C12 Aliphatic hydrocarbon range. The MSD had similar results for alkane n-Decane but was in control for the hydrocarbon range. The laboratory control samples were in control for all analytes.

### **Extractable Petroleum Hydrocarbons (EPH):**

Sample 74728-1 required dilution for the aromatic hydrocarbon range. Sample 74728-11 required dilution for aliphatic range (C19-C36).

### **Total Petroleum Hydrocarbons DRO range by EPA 8015B:**

The MS/MSD analyzed on sample 74728-17 had low recoveries. The laboratory control samples (L012513TAS/LD012513TAS) were in control. Results were reported without qualification.

### **PCBs by EPA 8082A:**

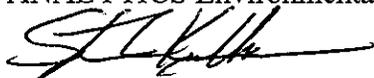
No results were reported below the Quantitation Limit.

**Selected Metals by EPA Method 6010C:**

The MS on sample 74728-5 had low recovery for Arsenic. The duplicate on sample 74728-5 had high RPD for Arsenic. The laboratory control samples (L012813MS/LD012813MS) were in control for recovery and RPD for Arsenic. The samples associated with this QC were reported with a comment to this affect.

If you have any questions or I can be of further assistance please do not hesitate to contact me.

Sincerely,  
ANALYTICS Environmental Laboratory, LLC



Stephen Knollmeyer  
Laboratory Director

Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

**Report Number: 74728**  
**Revision: Rev. 0**

**Re: MILL DAM (Project No: 111.06134.017)**

Enclosed are the results of the analyses on your sample(s). Samples were received on 24 January 2013 and analyzed for the tests listed. Samples were received in acceptable condition, with the exceptions noted below or on the chain of custody. These results pertain to samples as received by the laboratory and for the analytical tests requested on the chain of custody. The results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. Please see individual reports for specific methodologies and references.

**Sample Analysis:** The attached pages detail the Client Sample IDs, Lab Sample IDs, and Analyses requested

**Sample Receipt Exceptions:** None

Analytics Environmental Laboratory is certified by the states of New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, Virginia, Maryland, North Carolina, and is accredited by the Department of Defense (DOD) ELAP program. A list of actual certified parameters is available upon request.

If you have any questions on these results, please do not hesitate to contact us.

Authorized signature

  
Stephen L. Knollmeyer Lab. Director

Date

2/7/2013

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CLIENT: Ransom Consulting, Inc.

REPORT NUMBER: 74728

REV: Rev. 0

PROJECT: MILL DAM (Project No: 111.06134.017)

Lab Number	Sample Date	Station Location	Analysis	Comments
74728-1	01/22/13	SB101-S1-012213	MADEP EPH	
	01/22/13	SB101-S1-012213	Volatile Petroleum Hydrocarbons	
74728-2	01/22/13	SB102-S3-012213	EPA 8082 (PCBs only)	
	01/22/13	SB102-S3-012213	EPA 8260 Volatile Organics	
	01/22/13	SB102-S3-012213	MADEP EPH	
	01/22/13	SB102-S3-012213	Metals	
	01/22/13	SB102-S3-012213	Volatile Petroleum Hydrocarbons	
74728-3	01/22/13	SB10X-S3-012213	EPA 8082 (PCBs only)	
	01/22/13	SB10X-S3-012213	EPA 8260 Volatile Organics	
	01/22/13	SB10X-S3-012213	MADEP EPH	
	01/22/13	SB10X-S3-012213	Metals	
	01/22/13	SB10X-S3-012213	Volatile Petroleum Hydrocarbons	
74728-4	01/22/13	SB106-S1-012213	EPA 8082 (PCBs only)	
	01/22/13	SB106-S1-012213	EPA 8260 Volatile Organics	
	01/22/13	SB106-S1-012213	MADEP EPH	
	01/22/13	SB106-S1-012213	Metals	
	01/22/13	SB106-S1-012213	Volatile Petroleum Hydrocarbons	
74728-5	01/22/13	SB107-S2-012213	EPA 8082 (PCBs only)	
	01/22/13	SB107-S2-012213	EPA 8260 Volatile Organics	
	01/22/13	SB107-S2-012213	MADEP EPH	
	01/22/13	SB107-S2-012213	Metals	
	01/22/13	SB107-S2-012213	Volatile Petroleum Hydrocarbons	
74728-6	01/22/13	SB110-S1-012213	MADEP EPH	
	01/22/13	SB110-S1-012213	Volatile Petroleum Hydrocarbons	
74728-7	01/22/13	SB104-S1-012213	MADEP EPH	
74728-8	01/22/13	SB105-S1-012213	EPA 8082 (PCBs only)	
	01/22/13	SB105-S1-012213	EPA 8260 Volatile Organics	
	01/22/13	SB105-S1-012213	MADEP EPH	
	01/22/13	SB105-S1-012213	Metals	
	01/22/13	SB105-S1-012213	Volatile Petroleum Hydrocarbons	
74728-9	01/22/13	BK1	MADEP EPH	
	01/22/13	BK1	Metals	
74728-10	01/22/13	BK2	Metals	
74728-11	01/22/13	MW101	MADEP EPH	
	01/22/13	MW101	Volatile Petroleum Hydrocarbons	
74728-12	01/22/13	MW102	EPA 8260 Volatile Organics	
	01/22/13	MW102	MADEP EPH	

**CLIENT: Ransom Consulting, Inc.**

**REPORT NUMBER: 74728**

**REV: Rev. 0**

**PROJECT: MILL DAM (Project No: 111.06134.017)**

<u>Lab Number</u>	<u>Sample Date</u>	<u>Station Location</u>	<u>Analysis</u>	<u>Comments</u>
	01/22/13	MW102	Metals	
	01/22/13	MW102	Volatile Petroleum Hydrocarbons	
74728-13	01/22/13	MW103	EPA 8260 Volatile Organics	
	01/22/13	MW103	MADEP EPH	
	01/22/13	MW103	Metals	
	01/22/13	MW103	Volatile Petroleum Hydrocarbons	
74728-14	01/22/13	MW10X	EPA 8260 Volatile Organics	
	01/22/13	MW10X	MADEP EPH	
	01/22/13	MW10X	Metals	
	01/22/13	MW10X	Volatile Petroleum Hydrocarbons	
74728-15	01/22/13	CS101	EPA 8015 - TPH	
	01/22/13	CS101	MADEP EPH	
74728-16	01/22/13	CS102	EPA 8015 - TPH	
	01/22/13	CS102	MADEP EPH	
74728-17	01/22/13	CS103	EPA 8015 - TPH	
	01/22/13	CS103	MADEP EPH	
74728-18	01/22/13	WS101	EPA 8082 (PCBs only)	
74728-19	01/22/13	WS102	EPA 8082 (PCBs only)	
74728-20	01/22/13	WS10X	Electronic Data Deliverable	
	01/22/13	WS10X	EPA 8082 (PCBs only)	

### Surrogate Compound Limits

	Matrix: Units:	Aqueous % Recovery	Solid % Recovery	Method
<b>Volatile Organic Compounds - Drinking Water</b>				
1,4-Difluorobenzene		70-130		EPA 524.2
Bromofluorobenzene		70-130		
1,2-Dichlorobenzene-d4		70-130		
<b>Volatile Organic Compounds</b>				
1,2-Dichloroethane-d4		70-120	70-120	EPA 624/8260B
Toluene-d8		85-120	85-120	
Bromofluorobenzene		75-120	75-120	
<b>Semi-Volatile Organic Compounds</b>				
2-Fluorophenol		20-110	35-105	EPA 625/8270C
d5-Phenol		15-110	40-100	
d5-nitrobenzene		40-110	35-100	
2-Fluorobiphenyl		50-110	45-105	
2,4,6-Tribromophenol		40-110	40-125	
d14-p-terphenyl		50-130	30-125	
<b>PAH's by SIM</b>				
d5-nitrobenzene		21-110	35-110	EPA 8270C
2-Fluorobiphenyl		36-121	45-105	
d14-p-terphenyl		33-141	30-125	
<b>Pesticides and PCBs</b>				
2,4,5,6-Tetrachloro-m-xylene (TCX)		46-122	40-130	EPA 608/8082
Decachlorobiphenyl (DCB)		40-135	40-130	
<b>Herbicides</b>				
Dichloroacetic acid (DCAA)		30-150	30-150	
<b>Gasoline Range Organics/TPH Gasoline</b>				
Trifluorotoluene TFT (FID)		60-140	60-140	MEDEP 4217/EPA 8015
Bromofluorobenzene (BFB) (FID)		60-140	60-140	
Trifluorotoluene TFT (PID)		60-140	60-140	
Bromofluorobenzene (BFB) (PID)		60-140	60-140	
<b>Diesel Range Organics/TPH Diesel</b>				
m-terphenyl		60-140	60-140	MEDEP 4125/EPA 8015/CT ETPH
<b>Volatile Petroleum Hydrocarbons</b>				
2,5-Dibromotoluene (PID)		70-130	70-130	MADEP VPH May 2004 Rev1.1
2,5-Dibromotoluene (FID)		70-130	70-130	
<b>Extracatable Petroleum Hydrocarbons</b>				
1-chloro-octadecane (aliphatic)		40-140	40-140	MADEP EPH May 2004 Rev1.1
o-Terphenyl (aromatic)		40-140	40-140	
2-Fluorobiphenyl (Fractionation)		40-140	40-140	
2-Bromonaphthalene (fractionation)		40-140	40-140	

VOLATILE  
DATA SUMMARIES

Mr. Erik Phenix  
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January 29, 2013

**SAMPLE DATA**

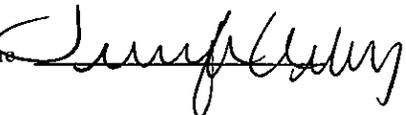
**CLIENT SAMPLE ID**  
**Project Name:** MILL DAM  
**Project Number:** 111.06134.017  
**Field Sample ID:** SB102-S3-012213

**Lab Sample ID:** 74728-2  
**Matrix:** Solid  
**Percent Solid:** 69  
**Dilution Factor:** 185  
**Collection Date:** 01/22/13  
**Lab Receipt Date:** 01/24/13  
**Analysis Date:** 01/25/13

ANALYTICAL RESULTS VOLATILE ORGANICS					
COMPOUND	Quantitation Limit µg/kg	Result µg/kg	COMPOUND	Quantitation Limit µg/kg	Result µg/kg
Benzene	185	U	1,3-Dichloropropane	185	U
Bromobenzene	185	U	cis-1,3-Dichloropropene	185	U
Bromochloromethane	185	U	trans-1,3-Dichloropropene	185	U
Bromodichloromethane	139	U	2,2-Dichloropropane	185	U
Bromoform	139	U	1,1-Dichloropropene	185	U
Bromomethane	185	U	Ethylbenzene	185	U
n-butylbenzene	185	U	Hexachlorobutadiene	185	U
sec-butylbenzene	185	U	Isopropylbenzene	185	U
tert-butylbenzene	185	U	p-isopropyltoluene	185	U
Carbon Tetrachloride	185	U	Methylene Chloride	925	U
Chlorobenzene	185	U	Methyl-tert-butyl ether (MTBE)	139	U
Chloroethane	185	U	Naphthalene	185	U
Chloroform	139	U	n-Propylbenzene	185	U
Chloromethane	185	U	Styrene	185	U
2-Chlorotoluene	185	U	1,1,1,2-Tetrachloroethane	185	U
4-Chlorotoluene	185	U	1,1,2,2-Tetrachloroethane	139	U
Dibromochloromethane	139	U	Tetrachloroethene	185	U
1,2-Dibromo-3-chloropropane	185	U	Toluene	185	U
1,2-Dibromoethane	139	U	1,2,3-Trichlorobenzene	185	U
Dibromomethane	185	U	1,2,4-Trichlorobenzene	185	U
1,2-Dichlorobenzene	185	U	1,1,1-Trichloroethane	185	U
1,3-Dichlorobenzene	185	U	1,1,2-Trichloroethane	139	U
1,4-Dichlorobenzene	185	U	Trichloroethene	185	U
Dichlorodifluoromethane	185	U	Trichlorofluoromethane	185	U
1,1-Dichloroethane	185	U	1,2,3-Trichloropropane	185	U
1,2-Dichloroethane	139	U	1,2,4-Trimethylbenzene	185	U
1,1-Dichloroethene	139	U	1,3,5-Trimethylbenzene	185	U
cis-1,2-Dichloroethene	185	U	Vinyl Chloride	185	U
trans-1,2-Dichloroethene	185	U	o-Xylene	185	U
1,2-Dichloropropane	139	U	m,p-Xylene	185	U
Acetone	1850	U	Diethyl ether	185	U
Carbon Disulfide	185	U	2-Hexanone	1850	U
Tetrahydrofuran	925	U	Methyl isobutyl ketone	1850	U
Methyl ethyl ketone	1850	U	Di-isopropyl ether (DIPE)	185	U
t-Butyl alcohol (TBA)	3700	U	Ethyl t-butyl ether (ETBE)	185	U
t-Amyl methyl ether (TAME)	185	U	1,3,5-Trichlorobenzene	185	U
			1,4-Dioxane	5550	U
<b>Surrogate Standard Recovery</b>					
d4-1,2-Dichloroethane	79 %		d8-Toluene	82 %	
			Bromofluorobenzene	91 %	
U=Undetected    J=Estimated    E=Exceeds Calibration Range    B=Detected in Blank					

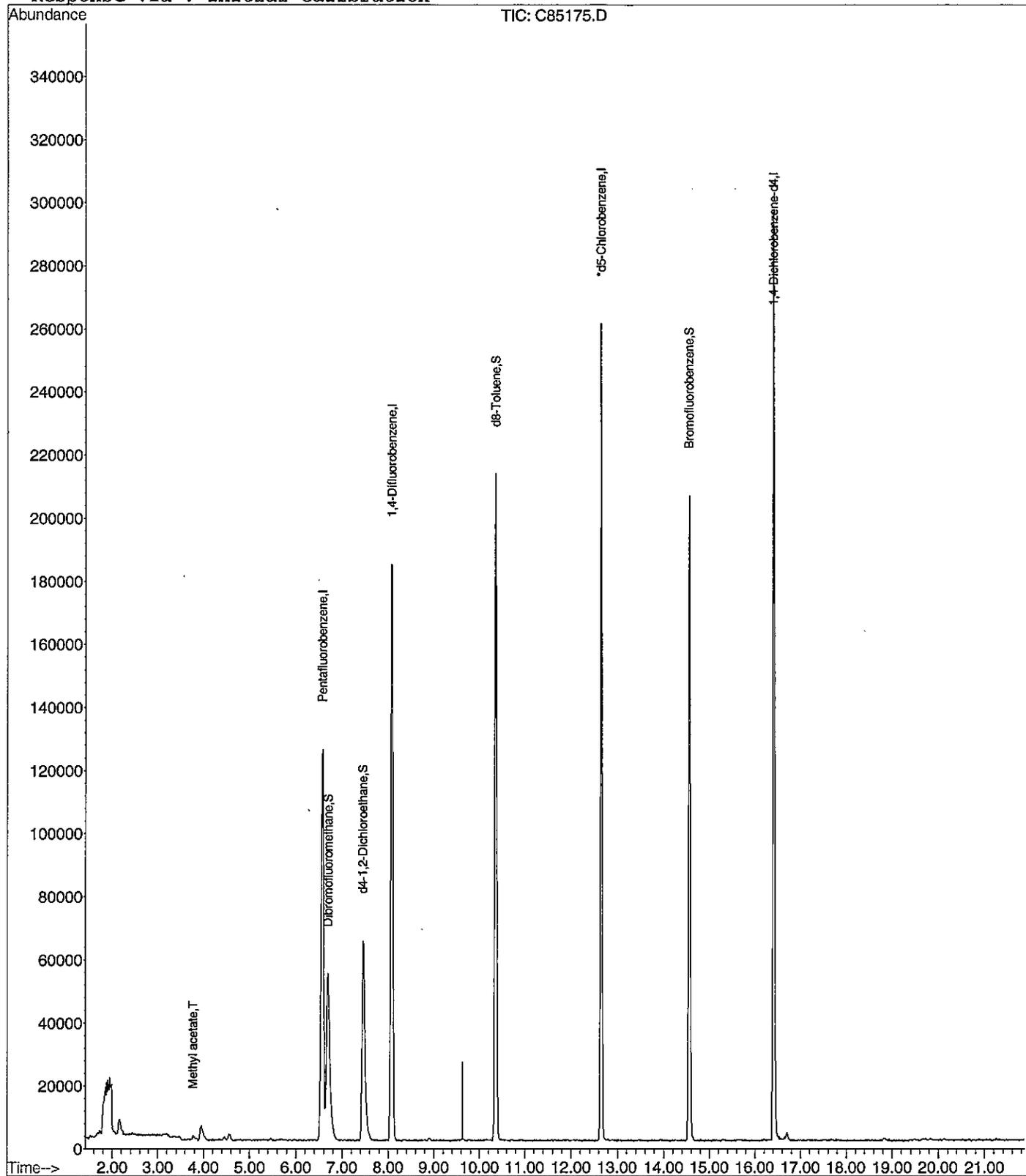
**METHODOLOGY:** Sample collection in accordance with SW-846 method 5035A. Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8260B.

**COMMENTS:** Results are expressed on a dry weight basis.

Authorized signature 

Data File : C:\HPCHEM\1\DATA\DATA\012513-C\85175.D Vial: 16  
Acq On : 25 Jan 2013 5:39 pm Operator: MT  
Sample : 74728-2 Inst: Instr\_C  
Misc : 50,7.79,SOIL Multiplr: 1.00  
MS Integration Params: rteint.p  
Quant Time: Jan 28 11:32 2013 Quant Results File: V801143C.RES

Method : C:\HPCHEM\1\METHODS\METHODS\METHODS\V801143C.M (RTE Integrator)  
Title : 8260 Purgable Organics  
Last Update : Fri Jan 25 10:35:45 2013  
Response via : Initial Calibration



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 400 Commercial Street Suite 404  
 Portland, ME 04101

January 29, 2013

**SAMPLE DATA**

**CLIENT SAMPLE ID**  


---

**Project Name:** MILL DAM  
  
**Project Number:** 111.06134.017  
**Field Sample ID:** SB10X-S3-012213

**Lab Sample ID:** 74728-3  
**Matrix:** Solid  
**Percent Solid:** 65  
**Dilution Factor:** 187  
**Collection Date:** 01/22/13  
**Lab Receipt Date:** 01/24/13  
**Analysis Date:** 01/25/13

ANALYTICAL RESULTS VOLATILE ORGANICS					
COMPOUND	Quantitation Limit µg/kg	Result µg/kg	COMPOUND	Quantitation Limit µg/kg	Result µg/kg
Benzene	187	U	1,3-Dichloropropane	187	U
Bromobenzene	187	U	cis-1,3-Dichloropropene	187	U
Bromochloromethane	187	U	trans-1,3-Dichloropropene	187	U
Bromodichloromethane	140	U	2,2-Dichloropropane	187	U
Bromoform	140	U	1,1-Dichloropropene	187	U
Bromomethane	187	U	Ethylbenzene	187	U
n-butylbenzene	187	U	Hexachlorobutadiene	187	U
sec-butylbenzene	187	U	Isopropylbenzene	187	U
tert-butylbenzene	187	U	p-isopropyltoluene	187	U
Carbon Tetrachloride	187	U	Methylene Chloride	936	U
Chlorobenzene	187	U	Methyl-tert-butyl ether (MTBE)	140	U
Chloroethane	187	U	Naphthalene	187	U
Chloroform	140	U	n-Propylbenzene	187	U
Chloromethane	187	U	Styrene	187	U
2-Chlorotoluene	187	U	1,1,1,2-Tetrachloroethane	187	U
4-Chlorotoluene	187	U	1,1,2,2-Tetrachloroethane	140	U
Dibromochloromethane	140	U	Tetrachloroethene	187	U
1,2-Dibromo-3-chloropropane	187	U	Toluene	187	U
1,2-Dibromoethane	140	U	1,2,3-Trichlorobenzene	187	U
Dibromomethane	187	U	1,2,4-Trichlorobenzene	187	U
1,2-Dichlorobenzene	187	U	1,1,1-Trichloroethane	187	U
1,3-Dichlorobenzene	187	U	1,1,2-Trichloroethane	140	U
1,4-Dichlorobenzene	187	U	Trichloroethene	187	U
Dichlorodifluoromethane	187	U	Trichlorofluoromethane	187	U
1,1-Dichloroethane	187	U	1,2,3-Trichloropropane	187	U
1,2-Dichloroethane	140	U	1,2,4-Trimethylbenzene	187	U
1,1-Dichloroethene	140	U	1,3,5-Trimethylbenzene	187	U
cis-1,2-Dichloroethene	187	U	Vinyl Chloride	187	U
trans-1,2-Dichloroethene	187	U	o-Xylene	187	U
1,2-Dichloropropane	140	U	m,p-Xylene	187	U
Acetone	1870	U	Diethyl ether	187	U
Carbon Disulfide	187	U	2-Hexanone	1870	U
Tetrahydrofuran	936	U	Methyl isobutyl ketone	1870	U
Methyl ethyl ketone	1870	U	Di-isopropyl ether (DIPE)	187	U
t-Butyl alcohol (TBA)	3740	U	Ethyl t-butyl ether (ETBE)	187	U
t-Amyl methyl ether (TAME)	187	U	1,3,5-Trichlorobenzene	187	U
			1,4-Dioxane	5620	U
<b>Surrogate Standard Recovery</b>					
d4-1,2-Dichloroethane	74 %	d8-Toluene	81 %	Bromofluorobenzene	83 %
U=Undetected    J=Estimated    E=Exceeds Calibration Range    B=Detected in Blank					

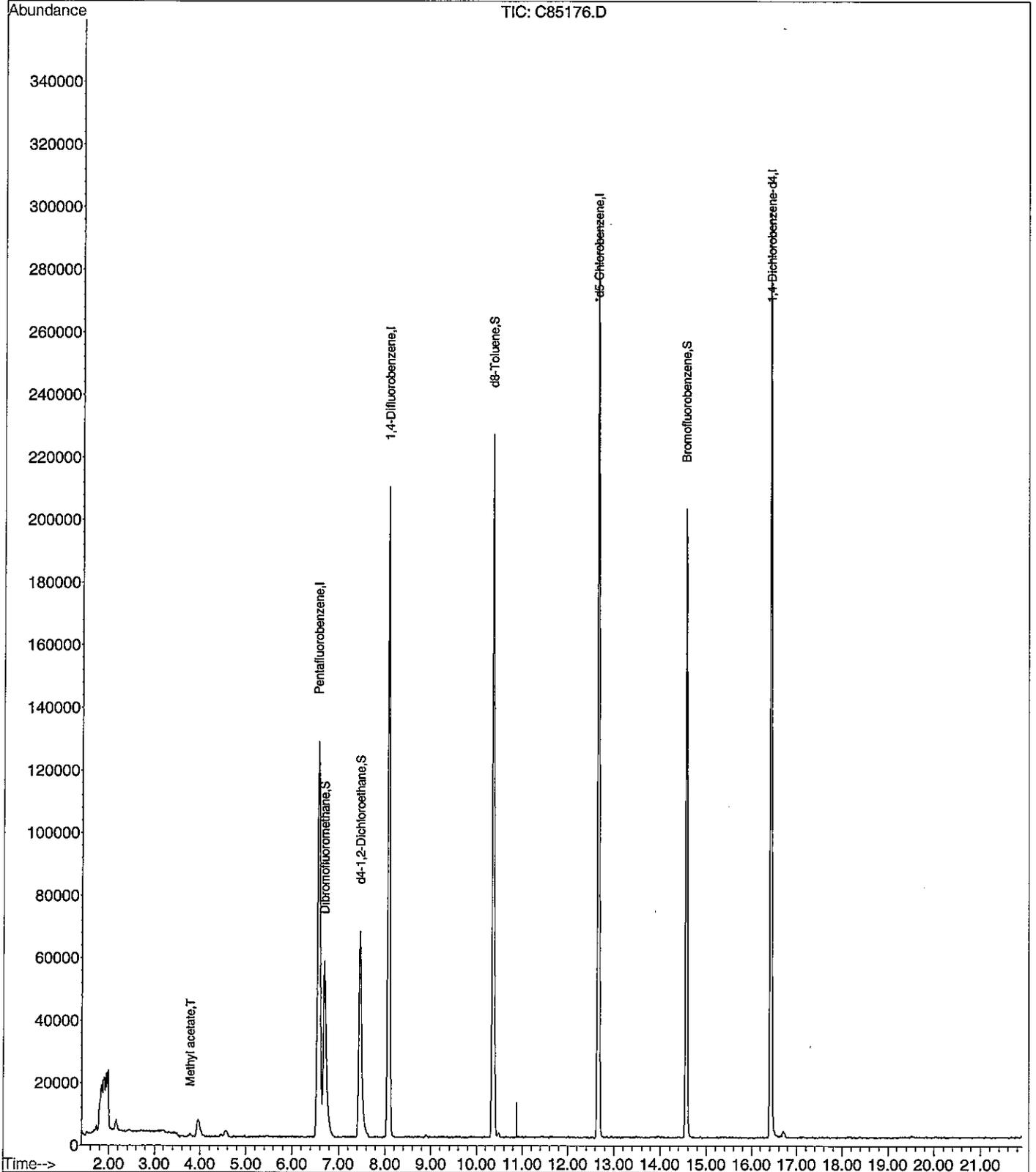
**METHODOLOGY:** Sample collection in accordance with SW-846 method 5035A. Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8260B.

**COMMENTS:** Results are expressed on a dry weight basis.

Authorized signature 

Data File : C:\HPCHEM\1\DATA\DATA\012513-C\C85176.D Vial: 1  
Acq On : 25 Jan 2013 6:12 pm Operator: MT  
Sample : 74728-3 Inst : Instr\_C  
Misc : 50,8.26,SOIL Multiplr: 1.00  
MS Integration Params: rteint.p  
Quant Time: Jan 28 11:32 2013 Quant Results File: V801143C.RES

Method : C:\HPCHEM\1\METHODS\METHODS\METHODS\V801143C.M (RTE Integrator)  
Title : 8260 Purgable Organics  
Last Update : Fri Jan 25 10:35:45 2013  
Response via : Initial Calibration



Mr. Erik Phenix  
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January 29, 2013

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
 Project Name: MILL DAM  
 Project Number: 111.06134.017  
 Field Sample ID: SB106-S1-012213

Lab Sample ID: 74728-4  
 Matrix: Solid  
 Percent Solid: 78  
 Dilution Factor: 124  
 Collection Date: 01/22/13  
 Lab Receipt Date: 01/24/13  
 Analysis Date: 01/25/13

ANALYTICAL RESULTS VOLATILE ORGANICS					
COMPOUND	Quantitation Limit $\mu\text{g}/\text{kg}$	Result $\mu\text{g}/\text{kg}$	COMPOUND	Quantitation Limit $\mu\text{g}/\text{kg}$	Result $\mu\text{g}/\text{kg}$
Benzene	124	U	1,3-Dichloropropane	124	U
Bromobenzene	124	U	cis-1,3-Dichloropropene	124	U
Bromochloromethane	124	U	trans-1,3-Dichloropropene	124	U
Bromodichloromethane	93	U	2,2-Dichloropropane	124	U
Bromoform	93	U	1,1-Dichloropropene	124	U
Bromomethane	124	U	Ethylbenzene	124	U
n-butylbenzene	124	U	Hexachlorobutadiene	124	U
sec-butylbenzene	124	U	Isopropylbenzene	124	U
tert-butylbenzene	124	U	p-isopropyltoluene	124	U
Carbon Tetrachloride	124	U	Methylene Chloride	622	U
Chlorobenzene	124	U	Methyl-tert-butyl ether (MTBE)	93	U
Chloroethane	124	U	Naphthalene	124	U
Chloroform	93	U	n-Propylbenzene	124	U
Chloromethane	124	U	Styrene	124	U
2-Chlorotoluene	124	U	1,1,1,2-Tetrachloroethane	124	U
4-Chlorotoluene	124	U	1,1,2,2-Tetrachloroethane	93	U
Dibromochloromethane	93	U	Tetrachloroethene	124	U
1,2-Dibromo-3-chloropropane	124	U	Toluene	124	U
1,2-Dibromoethane	93	U	1,2,3-Trichlorobenzene	124	U
Dibromomethane	124	U	1,2,4-Trichlorobenzene	124	U
1,2-Dichlorobenzene	124	U	1,1,1-Trichloroethane	124	U
1,3-Dichlorobenzene	124	U	1,1,2-Trichloroethane	93	U
1,4-Dichlorobenzene	124	U	Trichloroethene	124	U
Dichlorodifluoromethane	124	U	Trichlorofluoromethane	124	U
1,1-Dichloroethane	124	U	1,2,3-Trichloropropane	124	U
1,2-Dichloroethane	93	U	1,2,4-Trimethylbenzene	124	U
1,1-Dichloroethene	93	U	1,3,5-Trimethylbenzene	124	U
cis-1,2-Dichloroethene	124	U	Vinyl Chloride	124	U
trans-1,2-Dichloroethene	124	U	o-Xylene	124	U
1,2-Dichloropropane	93	U	m,p-Xylene	124	U
Acetone	1240	U	Diethyl ether	124	U
Carbon Disulfide	124	U	2-Hexanone	1240	U
Tetrahydrofuran	622	U	Methyl isobutyl ketone	1240	U
Methyl ethyl ketone	1240	U	Di-isopropyl ether (DIPE)	124	U
t-Butyl alcohol (TBA)	2490	U	Ethyl t-butyl ether (ETBE)	124	U
t-Amyl methyl ether (TAME)	124	U	1,3,5-Trichlorobenzene	124	U
			1,4-Dioxane	3730	U
<b>Surrogate Standard Recovery</b>					
d4-1,2-Dichloroethane	78 %	d8-Toluene	82 %	Bromofluorobenzene	90 %
U=Undetected    J=Estimated    E=Exceeds Calibration Range    B=Detected in Blank					

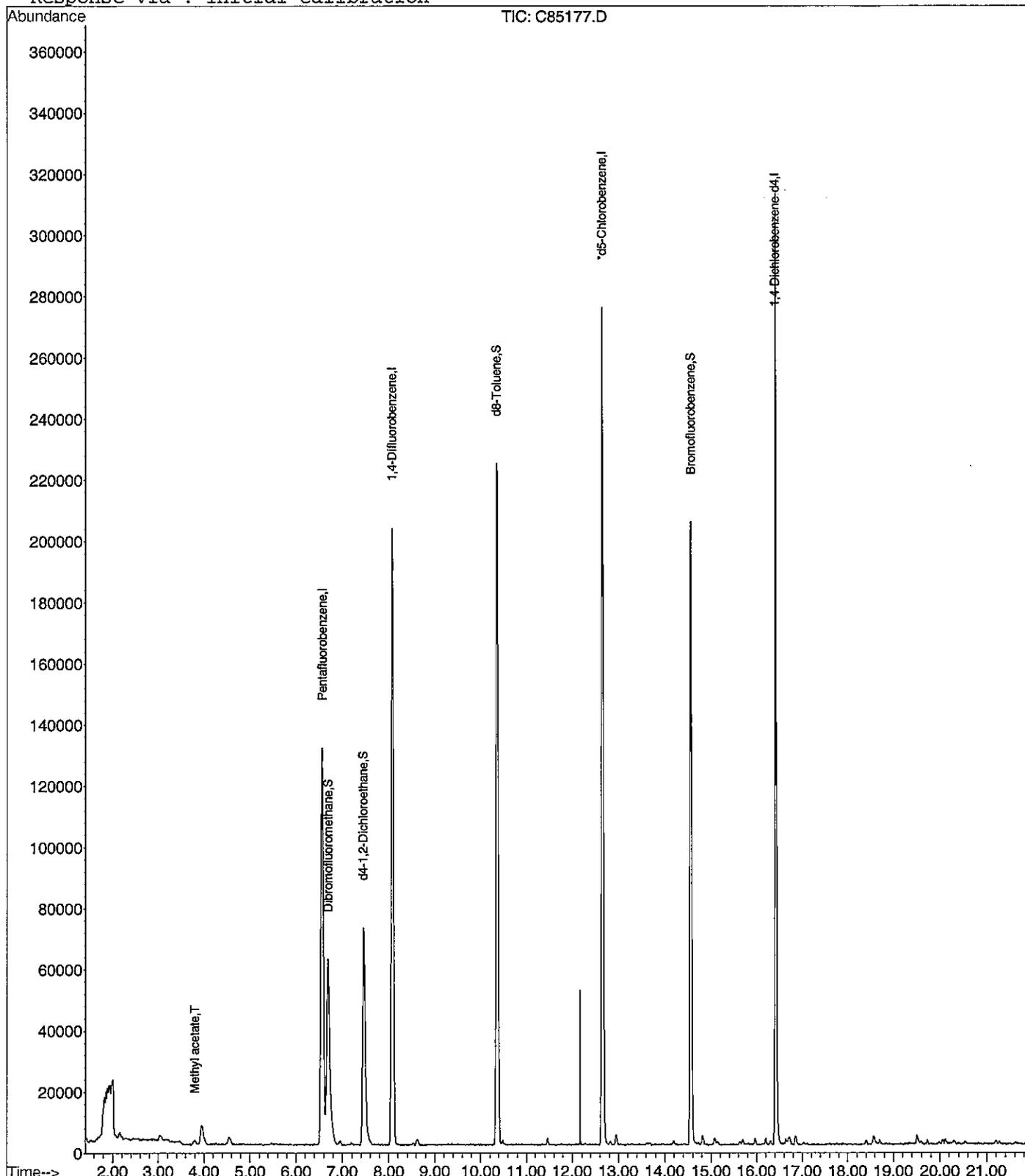
**METHODOLOGY:** Sample collection in accordance with SW-846 method 5035A. Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8260B.

**COMMENTS:** Results are expressed on a dry weight basis.

Authorized signature 

Data File : C:\HPCHEM\1\DATA\DATA\012513=C\C85177.D Vial: 2  
Acq On : 25 Jan 2013 6:54 pm Operator: MT  
Sample : 74728-4 Inst : Instr\_C  
Misc : 50,10.25,SOIL Multiplr: 1.00  
MS Integration Params: rteint.p  
Quant Time: Jan 28 11:32 2013 Quant Results File: V801143C.RES

Method : C:\HPCHEM\1\METHODS\METHODS\METHODS\V801143C.M (RTE Integrator)  
Title : 8260 Purgable Organics  
Last Update : Fri Jan 25 10:35:45 2013  
Response via : Initial Calibration



Mr. Erik Phenix  
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 Portland, ME 04101

January 29, 2013

**SAMPLE DATA**

**CLIENT SAMPLE ID**  


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**Project Name:** MILL DAM  
  
**Project Number:** 111.06134.017  
**Field Sample ID:** SB107-S2-012213

**Lab Sample ID:** 74728-5  
**Matrix:** Solid  
**Percent Solid:** 80  
**Dilution Factor:** 115  
**Collection Date:** 01/22/13  
**Lab Receipt Date:** 01/24/13  
**Analysis Date:** 01/25/13

ANALYTICAL RESULTS VOLATILE ORGANICS					
COMPOUND	Quantitation Limit $\mu\text{g}/\text{kg}$	Result $\mu\text{g}/\text{kg}$	COMPOUND	Quantitation Limit $\mu\text{g}/\text{kg}$	Result $\mu\text{g}/\text{kg}$
Benzene	115	U	1,3-Dichloropropane	115	U
Bromobenzene	115	U	cis-1,3-Dichloropropene	115	U
Bromochloromethane	115	U	trans-1,3-Dichloropropene	115	U
Bromodichloromethane	86	U	2,2-Dichloropropane	115	U
Bromoform	86	U	1,1-Dichloropropene	115	U
Bromomethane	115	U	Ethylbenzene	115	U
n-butylbenzene	115	U	Hexachlorobutadiene	115	U
sec-butylbenzene	115	U	Isopropylbenzene	115	U
tert-butylbenzene	115	U	p-isopropyltoluene	115	U
Carbon Tetrachloride	115	U	Methylene Chloride	576	U
Chlorobenzene	115	U	Methyl-tert-butyl ether (MTBE)	86	U
Chloroethane	115	U	Naphthalene	115	U
Chloroform	86	U	n-Propylbenzene	115	U
Chloromethane	115	U	Styrene	115	U
2-Chlorotoluene	115	U	1,1,1,2-Tetrachloroethane	115	U
4-Chlorotoluene	115	U	1,1,2,2-Tetrachloroethane	86	U
Dibromochloromethane	86	U	Tetrachloroethene	115	U
1,2-Dibromo-3-chloropropane	115	U	Toluene	115	U
1,2-Dibromoethane	86	U	1,2,3-Trichlorobenzene	115	U
Dibromomethane	115	U	1,2,4-Trichlorobenzene	115	U
1,2-Dichlorobenzene	115	U	1,1,1-Trichloroethane	115	U
1,3-Dichlorobenzene	115	U	1,1,2-Trichloroethane	86	U
1,4-Dichlorobenzene	115	U	Trichloroethene	115	U
Dichlorodifluoromethane	115	U	Trichlorofluoromethane	115	U
1,1-Dichloroethane	115	U	1,2,3-Trichloropropane	115	U
1,2-Dichloroethane	86	U	1,2,4-Trimethylbenzene	115	U
1,1-Dichloroethene	86	U	1,3,5-Trimethylbenzene	115	U
cis-1,2-Dichloroethene	115	U	Vinyl Chloride	115	U
trans-1,2-Dichloroethene	115	U	o-Xylene	115	U
1,2-Dichloropropane	86	U	m,p-Xylene	115	U
Acetone	1150	U	Diethyl ether	115	U
Carbon Disulfide	115	U	2-Hexanone	1150	U
Tetrahydrofuran	576	U	Methyl isobutyl ketone	1150	U
Methyl ethyl ketone	1150	U	Di-isopropyl ether (DIPE)	115	U
t-Butyl alcohol (TBA)	2300	U	Ethyl t-butyl ether (ETBE)	115	U
t-Amyl methyl ether (TAME)	115	U	1,3,5-Trichlorobenzene	115	U
			1,4-Dioxane	3460	U
<b>Surrogate Standard Recovery</b>					
d4-1,2-Dichloroethane	73 %	d8-Toluene	76 %	Bromofluorobenzene	80 %
U=Undetected    J=Estimated    E=Exceeds Calibration Range    B=Detected in Blank					

**METHODOLOGY:** Sample collection in accordance with SW-846 method 5035A. Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8260B.

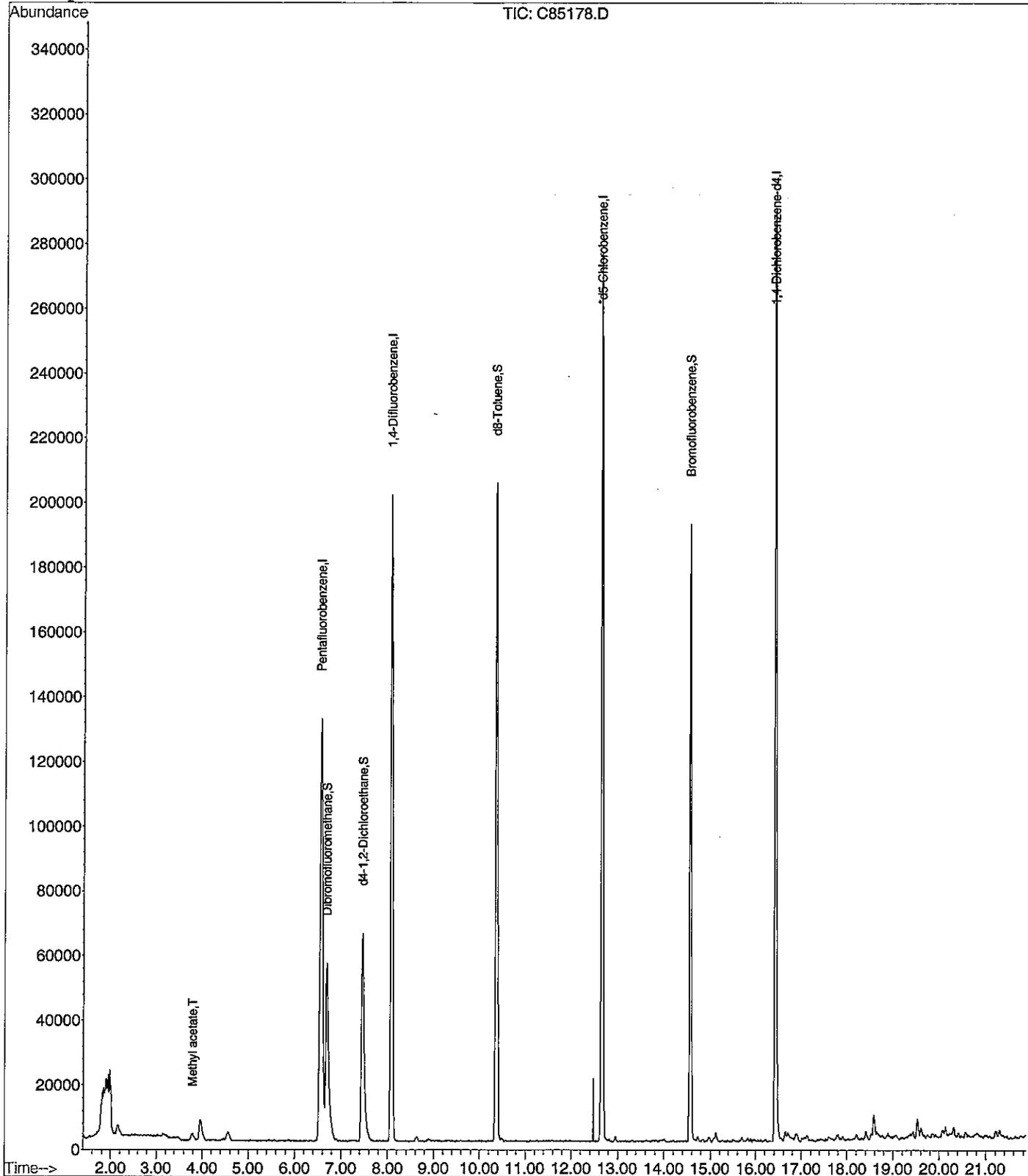
**COMMENTS:** Results are expressed on a dry weight basis.

Authorized signature 

Quantitation Report

Data File : C:\HPCHEM\1\DATA\DATA\012513-C\C85178.D Vial: 3  
Acq On : 25 Jan 2013 7:35 pm Operator: MT  
Sample : 74728-5 Inst : Instr\_C  
Misc : 50,10.79,SOIL Multiplr: 1.00  
MS Integration Params: rteint.p  
Quant Time: Jan 28 11:32 2013 Quant Results File: V801143C.RES

Method : C:\HPCHEM\1\METHODS\METHODS\METHODS\V801143C.M (RTE Integrator)  
Title : 8260 Purgable Organics  
Last Update : Fri Jan 25 10:35:45 2013  
Response via : Initial Calibration



Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

January 29, 2013

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** MILL DAM  
**Project Number:** 111.06134.017  
**Field Sample ID:** SB105-S1-012213

**Lab Sample ID:** 74728-8  
**Matrix:** Solid  
**Percent Solid:** 80  
**Dilution Factor:** 182  
**Collection Date:** 01/22/13  
**Lab Receipt Date:** 01/24/13  
**Analysis Date:** 01/25/13

**ANALYTICAL RESULTS VOLATILE ORGANICS**

COMPOUND	Quantitation Limit µg/kg	Result µg/kg	COMPOUND	Quantitation Limit µg/kg	Result µg/kg
Benzene	182	U	1,3-Dichloropropane	182	U
Bromobenzene	182	U	cis-1,3-Dichloropropene	182	U
Bromochloromethane	182	U	trans-1,3-Dichloropropene	182	U
Bromodichloromethane	136	U	2,2-Dichloropropane	182	U
Bromoform	136	U	1,1-Dichloropropene	182	U
Bromomethane	182	U	Ethylbenzene	182	U
n-butylbenzene	182	U	Hexachlorobutadiene	182	U
sec-butylbenzene	182	U	Isopropylbenzene	182	U
tert-butylbenzene	182	U	p-isopropyltoluene	182	U
Carbon Tetrachloride	182	U	Methylene Chloride	910	U
Chlorobenzene	182	U	Methyl-tert-butyl ether (MTBE)	136	U
Chloroethane	182	U	Naphthalene	182	U
Chloroform	136	U	n-Propylbenzene	182	U
Chloromethane	182	U	Styrene	182	U
2-Chlorotoluene	182	U	1,1,1,2-Tetrachloroethane	182	U
4-Chlorotoluene	182	U	1,1,2,2-Tetrachloroethane	136	U
Dibromochloromethane	136	U	Tetrachloroethene	182	U
1,2-Dibromo-3-chloropropane	182	U	Toluene	182	U
1,2-Dibromoethane	136	U	1,2,3-Trichlorobenzene	182	U
Dibromomethane	182	U	1,2,4-Trichlorobenzene	182	U
1,2-Dichlorobenzene	182	U	1,1,1-Trichloroethane	182	U
1,3-Dichlorobenzene	182	U	1,1,2-Trichloroethane	136	U
1,4-Dichlorobenzene	182	U	Trichloroethene	182	U
Dichlorodifluoromethane	182	U	Trichlorofluoromethane	182	U
1,1-Dichloroethane	182	U	1,2,3-Trichloropropane	182	U
1,2-Dichloroethane	136	U	1,2,4-Trimethylbenzene	182	U
1,1-Dichloroethene	136	U	1,3,5-Trimethylbenzene	182	U
cis-1,2-Dichloroethene	182	U	Vinyl Chloride	182	U
trans-1,2-Dichloroethene	182	U	o-Xylene	182	U
1,2-Dichloropropane	136	U	m,p-Xylene	182	U
Acetone	1820	U	Diethyl ether	182	U
Carbon Disulfide	182	U	2-Hexanone	1820	U
Tetrahydrofuran	910	U	Methyl isobutyl ketone	1820	U
Methyl ethyl ketone	1820	U	Di-isopropyl ether (DIPE)	182	U
t-Butyl alcohol (TBA)	3640	U	Ethyl t-butyl ether (ETBE)	182	U
t-Amyl methyl ether (TAME)	182	U	1,3,5-Trichlorobenzene	182	U
			1,4-Dioxane	5460	U
<b>Surrogate Standard Recovery</b>					
d4-1,2-Dichloroethane	104 %	d8-Toluene	109 %	Bromofluorobenzene	114 %
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank					

**METHODOLOGY:** Sample collection in accordance with SW-846 method 5035A. Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8260B.

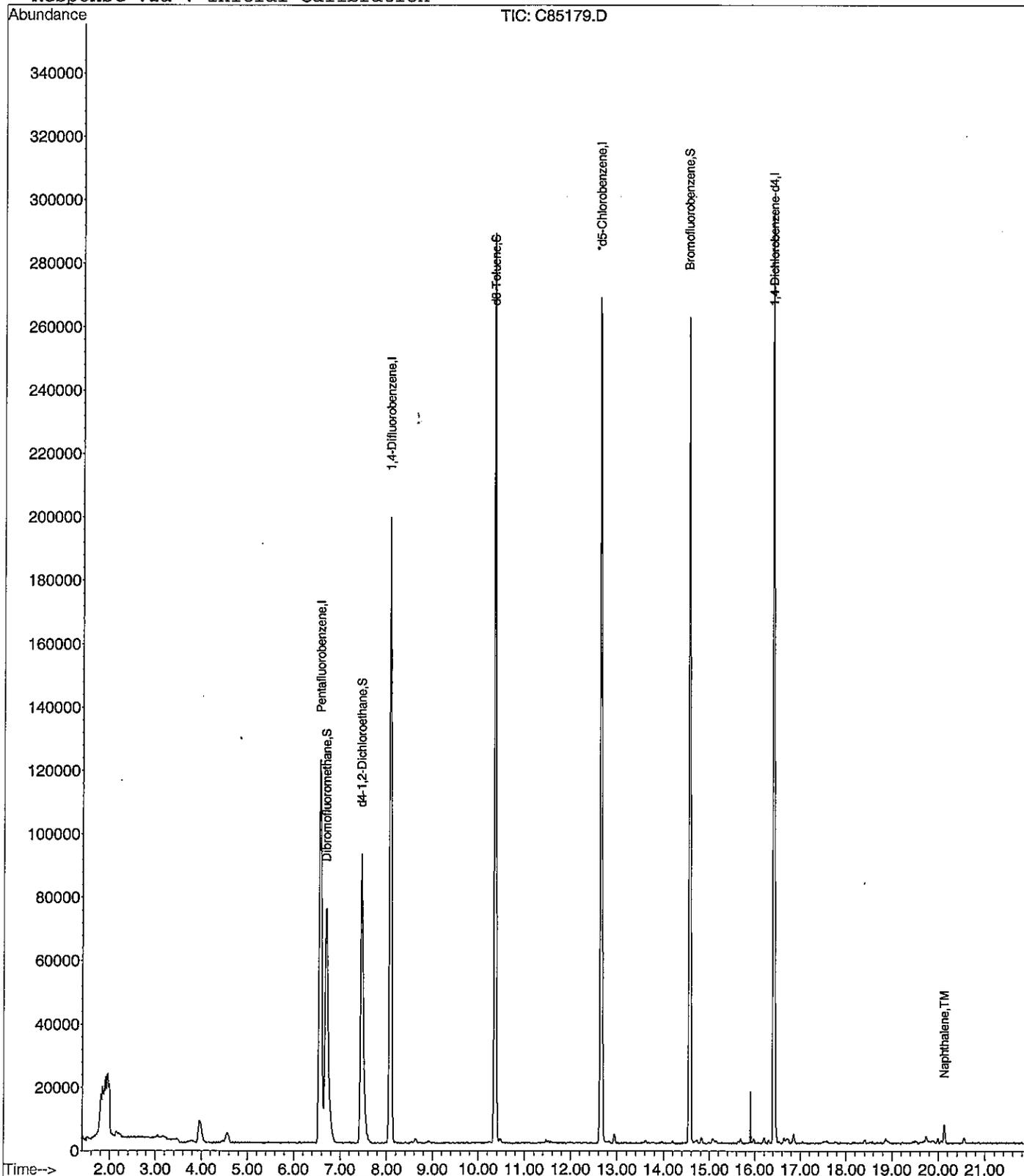
**COMMENTS:** Results are expressed on a dry weight basis.

Authorized signature



Data File : C:\HPCHEM\1\DATA\DATA\012513-C\C85179.D Vial: 4  
Acq On : 25 Jan 2013 7:54 pm Operator: MT  
Sample : 74728-8 Inst : Instr\_C  
Misc : 50,6.85,SOIL Multiplr: 1.00  
MS Integration Params: rteint.p  
Quant Time: Jan 28 11:32 2013 Quant Results File: V801143C.RES

Method : C:\HPCHEM\1\METHODS\METHODS\METHODS\V801143C.M (RTE Integrator)  
Title : 8260 Purgable Organics  
Last Update : Fri Jan 25 10:35:45 2013  
Response via : Initial Calibration



Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

January 28, 2013

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** MILL DAM  
**Project Number:** 111.06134.017  
**Field Sample ID:** MW102

**Lab Sample ID:** 74728-12  
**Matrix:** Aqueous  
**Percent Solid:** N/A  
**Dilution Factor:** 1  
**Collection Date:** 01/22/13  
**Lab Receipt Date:** 01/24/13  
**Analysis Date:** 01/25/13

**ANALYTICAL RESULTS VOLATILE ORGANICS**

COMPOUND	Quantitation Limit µg/L	Result µg/L	COMPOUND	Quantitation Limit µg/L	Result µg/L
Benzene	1	U	1,3-Dichloropropane	1	U
Bromobenzene	1	U	cis-1,3-Dichloropropene	1	U
Bromochloromethane	1	U	trans-1,3-Dichloropropene	1	U
Bromodichloromethane	1	U	2,2-Dichloropropane	1	U
Bromoform	1	U	1,1-Dichloropropene	1	U
Bromomethane	2	U	Ethylbenzene	1	U
n-butylbenzene	1	U	Hexachlorobutadiene	1	U
sec-butylbenzene	1	U	Isopropylbenzene	1	U
tert-butylbenzene	1	U	p-isopropyltoluene	1	U
Carbon Tetrachloride	1	U	Methylene Chloride	5	U
Chlorobenzene	1	U	Methyl-tert-butyl ether (MTBE)	1	U
Chloroethane	1	U	Naphthalene	1	U
Chloroform	1	U	n-Propylbenzene	1	U
Chloromethane	1	U	Styrene	1	U
2-Chlorotoluene	1	U	1,1,1,2-Tetrachloroethane	1	U
4-Chlorotoluene	1	U	1,1,2,2-Tetrachloroethane	1	U
Dibromochloromethane	1	U	Tetrachloroethene	1	U
1,2-Dibromo-3-chloropropane	1	U	Toluene	1	U
1,2-Dibromoethane	1	U	1,2,3-Trichlorobenzene	1	U
Dibromomethane	1	U	1,2,4-Trichlorobenzene	1	U
1,2-Dichlorobenzene	1	U	1,1,1-Trichloroethane	1	U
1,3-Dichlorobenzene	1	U	1,1,2-Trichloroethane	1	U
1,4-Dichlorobenzene	1	U	Trichloroethene	1	U
Dichlorodifluoromethane	1	U	Trichlorofluoromethane	1	U
1,1-Dichloroethane	1	U	1,2,3-Trichloropropane	1	U
1,2-Dichloroethane	1	U	1,2,4-Trimethylbenzene	1	U
1,1-Dichloroethene	1	U	1,3,5-Trimethylbenzene	1	U
cis-1,2-Dichloroethene	1	U	Vinyl Chloride	1	U
trans-1,2-Dichloroethene	1	U	o-Xylene	1	U
1,2-Dichloropropane	1	U	m,p-Xylene	1	U
Acetone	10	U	Diethyl ether	1	U
Carbon Disulfide	1	U	2-Hexanone	10	U
Tetrahydrofuran	2	U	Methyl isobutyl ketone	10	U
Methyl ethyl ketone	10	U	Di-isopropyl ether (DIPE)	1	U
t-Butyl alcohol (TBA)	20	U	Ethyl t-butyl ether (ETBE)	1	U
t-Amyl methyl ether (TAME)	1	U	1,3,5-Trichlorobenzene	1	U
			1,4-Dioxane	30	U*

**Surrogate Standard Recovery**

d4-1,2-Dichloroethane 101 %      d8-Toluene 103 %      Bromofluorobenzene 101 %

U=Undetected    J=Estimated    E=Exceeds Calibration Range    B=Detected in Blank

**METHODOLOGY:** Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8260B.

**COMMENTS:** Analyte was high in laboratory control samples.

Authorized signature 

Quantitation Report

Data File : C:\HPCHEM\1\DATA\012513-B\B95333.D

Vial: 18

Acq On : 25 Jan 2013 5:56 pm

Operator: MF

Sample : 74728-12

Inst : Instrumen

Misc : 5000

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 28 8:40 2013

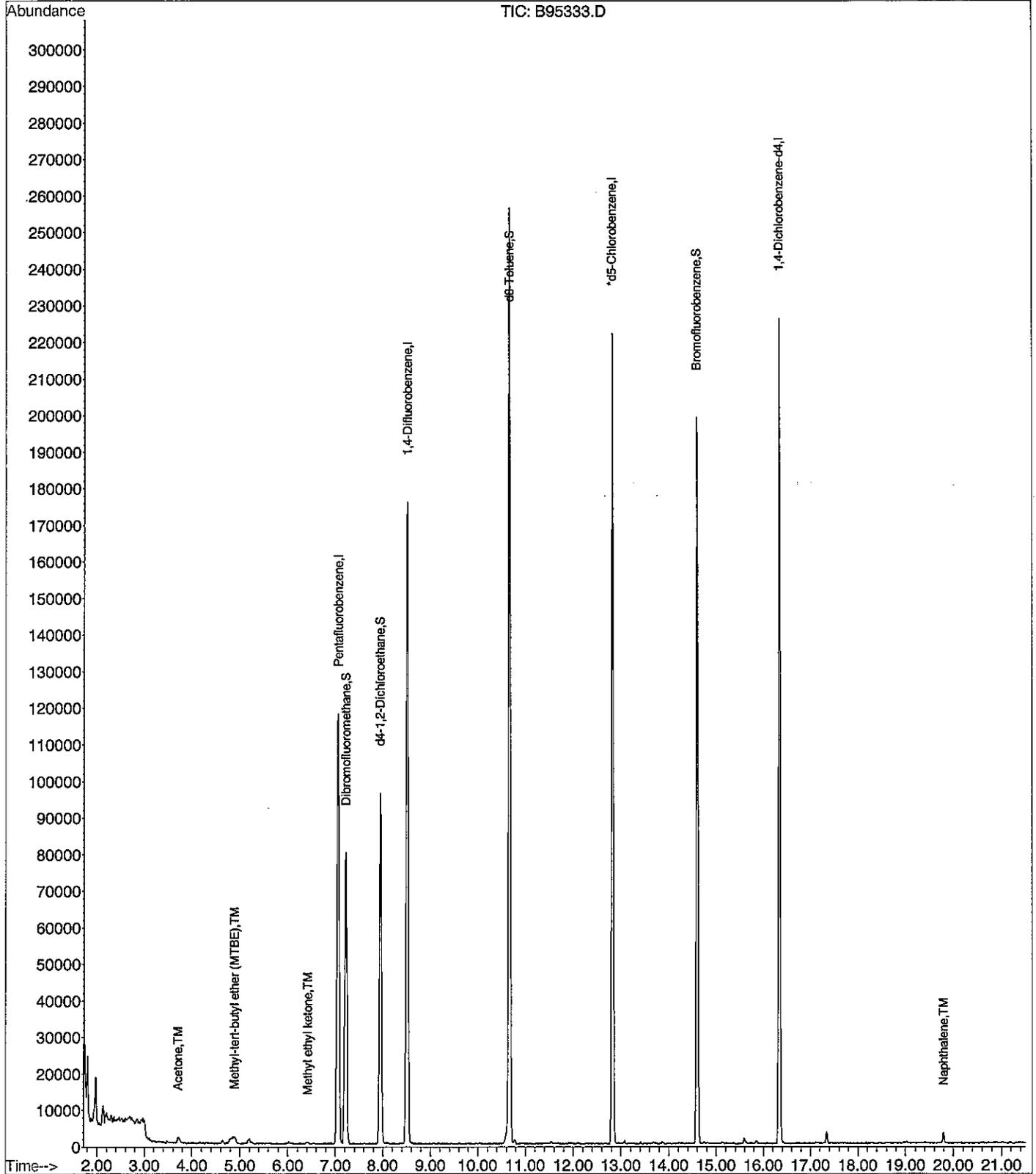
Quant Results File: V801083B.RES

Method : C:\HPCHEM\1\METHODS\V801083B.M (RTE Integrator)

Title : 8260 Purgable Organics

Last Update : Mon Jan 28 09:45:03 2013

Response via : Initial Calibration



Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

January 28, 2013

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** MILL DAM  
**Project Number:** 111.06134.017  
**Field Sample ID:** MW103

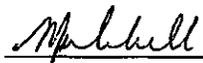
**Lab Sample ID:** 74728-13  
**Matrix:** Aqueous  
**Percent Solid:** N/A  
**Dilution Factor:** 1  
**Collection Date:** 01/22/13  
**Lab Receipt Date:** 01/24/13  
**Analysis Date:** 01/25/13

**ANALYTICAL RESULTS VOLATILE ORGANICS**

COMPOUND	Quantitation Limit µg/L	Result µg/L	COMPOUND	Quantitation Limit µg/L	Result µg/L
Benzene	1	U	1,3-Dichloropropane	1	U
Bromobenzene	1	U	cis-1,3-Dichloropropene	1	U
Bromochloromethane	1	U	trans-1,3-Dichloropropene	1	U
Bromodichloromethane	1	U	2,2-Dichloropropane	1	U
Bromoform	1	U	1,1-Dichloropropene	1	U
Bromomethane	2	U	Ethylbenzene	1	U
n-butylbenzene	1	U	Hexachlorobutadiene	1	U
sec-butylbenzene	1	U	Isopropylbenzene	1	U
tert-butylbenzene	1	U	p-isopropyltoluene	1	U
Carbon Tetrachloride	1	U	Methylene Chloride	5	U
Chlorobenzene	1	U	Methyl-tert-butyl ether (MTBE)	1	U
Chloroethane	1	U	Naphthalene	1	U
Chloroform	1	U	n-Propylbenzene	1	U
Chloromethane	1	U	Styrene	1	U
2-Chlorotoluene	1	U	1,1,1,2-Tetrachloroethane	1	U
4-Chlorotoluene	1	U	1,1,2,2-Tetrachloroethane	1	U
Dibromochloromethane	1	U	Tetrachloroethene	1	U
1,2-Dibromo-3-chloropropane	1	U	Toluene	1	U
1,2-Dibromoethane	1	U	1,2,3-Trichlorobenzene	1	U
Dibromomethane	1	U	1,2,4-Trichlorobenzene	1	U
1,2-Dichlorobenzene	1	U	1,1,1-Trichloroethane	1	U
1,3-Dichlorobenzene	1	U	1,1,2-Trichloroethane	1	U
1,4-Dichlorobenzene	1	U	Trichloroethene	1	U
Dichlorodifluoromethane	1	U	Trichlorofluoromethane	1	U
1,1-Dichloroethane	1	U	1,2,3-Trichloropropane	1	U
1,2-Dichloroethane	1	U	1,2,4-Trimethylbenzene	1	U
1,1-Dichloroethene	1	U	1,3,5-Trimethylbenzene	1	U
cis-1,2-Dichloroethene	1	U	Vinyl Chloride	1	U
trans-1,2-Dichloroethene	1	U	o-Xylene	1	U
1,2-Dichloropropane	1	U	m,p-Xylene	1	U
Acetone	10	U	Diethyl ether	1	U
Carbon Disulfide	1	U	2-Hexanone	10	U
Tetrahydrofuran	2	U	Methyl isobutyl ketone	10	U
Methyl ethyl ketone	10	U	Di-isopropyl ether (DIPE)	1	U
t-Butyl alcohol (TBA)	20	U	Ethyl t-butyl ether (ETBE)	1	U
t-Amyl methyl ether (TAME)	1	U	1,3,5-Trichlorobenzene	1	U
			1,4-Dioxane	30	U*
<b>Surrogate Standard Recovery</b>					
d4-1,2-Dichloroethane	102 %	d8-Toluene	100 %	Bromofluorobenzene	99 %
U=Undetected    J=Estimated    E=Exceeds Calibration Range    B=Detected in Blank					

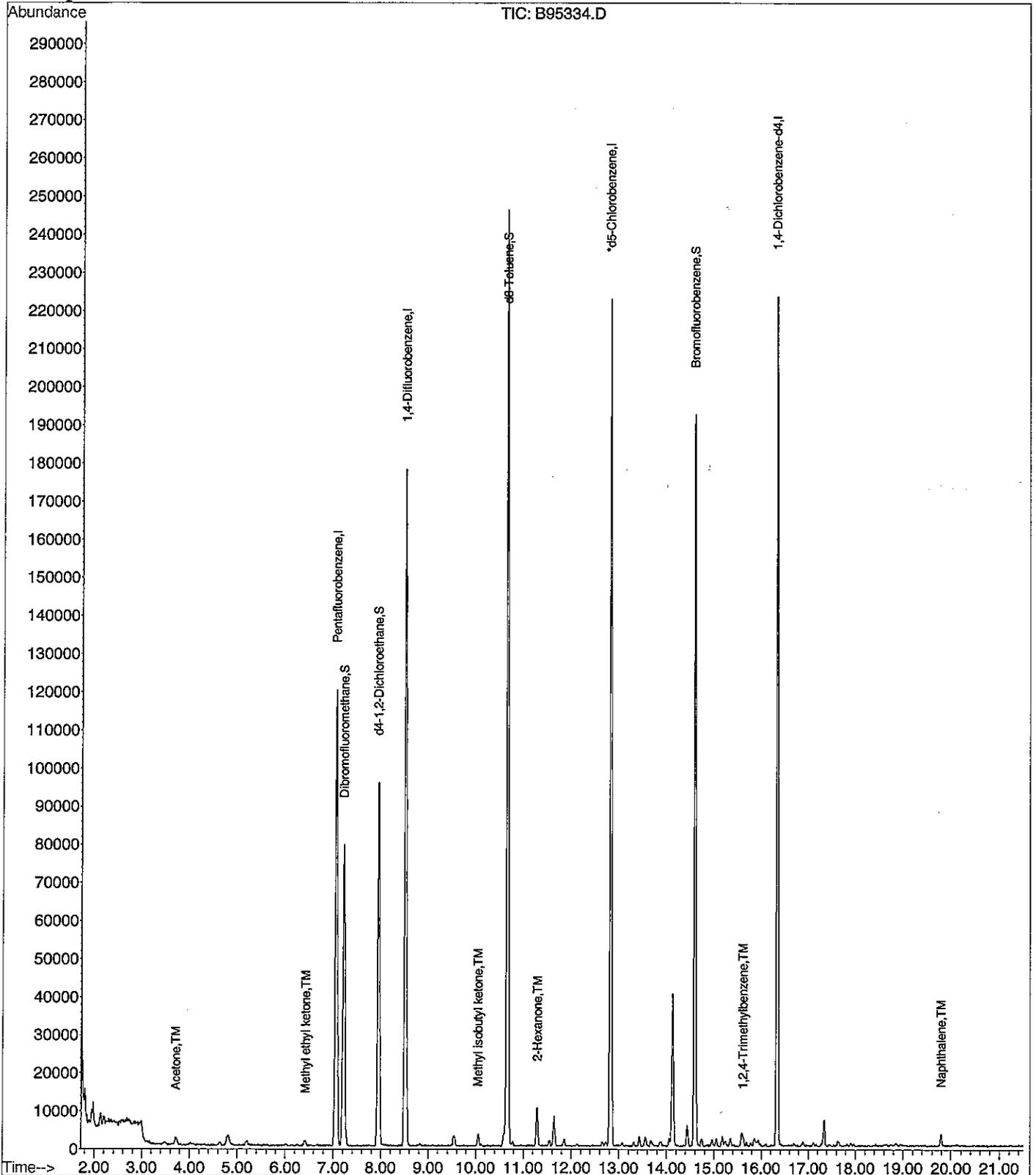
**METHODOLOGY:** Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8260B.

**COMMENTS:** Analyte was high in laboratory control samples.

Authorized signature 

Data File : C:\HPCHEM\1\DATA\012513-B\B95334.D Vial: 19  
Acq On : 25 Jan 2013 6:26 pm Operator: MT  
Sample : 74728-13 Inst : Instrumen  
Misc : 5000 Multiplr: 1.00  
MS Integration Params: rteint.p  
Quant Time: Jan 28 8:40 2013 Quant Results File: V801083B.RES

Method : C:\HPCHEM\1\METHODS\V801083B.M (RTE Integrator)  
Title : 8260 Purgable Organics  
Last Update : Mon Jan 28 09:45:03 2013  
Response via : Initial Calibration



Mr. Erik Phenix  
 Ransom Consulting, Inc.  
 400 Commercial Street Suite 404  
 Portland, ME 04101

January 28, 2013

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** MILL DAM  
**Project Number:** 111.06134.017  
**Field Sample ID:** MW10X

**Lab Sample ID:** 74728-14  
**Matrix:** Aqueous  
**Percent Solid:** N/A  
**Dilution Factor:** 1  
**Collection Date:** 01/22/13  
**Lab Receipt Date:** 01/24/13  
**Analysis Date:** 01/25/13

**ANALYTICAL RESULTS VOLATILE ORGANICS**

COMPOUND	Quantitation Limit µg/L	Result µg/L	COMPOUND	Quantitation Limit µg/L	Result µg/L
Benzene	1	U	1,3-Dichloropropane	1	U
Bromobenzene	1	U	cis-1,3-Dichloropropene	1	U
Bromochloromethane	1	U	trans-1,3-Dichloropropene	1	U
Bromodichloromethane	1	U	2,2-Dichloropropane	1	U
Bromoform	1	U	1,1-Dichloropropene	1	U
Bromomethane	2	U	Ethylbenzene	1	U
n-butylbenzene	1	U	Hexachlorobutadiene	1	U
sec-butylbenzene	1	U	Isopropylbenzene	1	U
tert-butylbenzene	1	U	p-isopropyltoluene	1	U
Carbon Tetrachloride	1	U	Methylene Chloride	5	U
Chlorobenzene	1	U	Methyl-tert-butyl ether (MTBE)	1	U
Chloroethane	1	U	Naphthalene	1	U
Chloroform	1	U	n-Propylbenzene	1	U
Chloromethane	1	U	Styrene	1	U
2-Chlorotoluene	1	U	1,1,1,2-Tetrachloroethane	1	U
4-Chlorotoluene	1	U	1,1,2,2-Tetrachloroethane	1	U
Dibromochloromethane	1	U	Tetrachloroethene	1	U
1,2-Dibromo-3-chloropropane	1	U	Toluene	1	U
1,2-Dibromoethane	1	U	1,2,3-Trichlorobenzene	1	U
Dibromomethane	1	U	1,2,4-Trichlorobenzene	1	U
1,2-Dichlorobenzene	1	U	1,1,1-Trichloroethane	1	U
1,3-Dichlorobenzene	1	U	1,1,2-Trichloroethane	1	U
1,4-Dichlorobenzene	1	U	Trichloroethene	1	U
Dichlorodifluoromethane	1	U	Trichlorofluoromethane	1	U
1,1-Dichloroethane	1	U	1,2,3-Trichloropropane	1	U
1,2-Dichloroethane	1	U	1,2,4-Trimethylbenzene	1	U
1,1-Dichloroethene	1	U	1,3,5-Trimethylbenzene	1	U
cis-1,2-Dichloroethene	1	U	Vinyl Chloride	1	U
trans-1,2-Dichloroethene	1	U	o-Xylene	1	U
1,2-Dichloropropane	1	U	m,p-Xylene	1	U
Acetone	10	U	Diethyl ether	1	U
Carbon Disulfide	1	U	2-Hexanone	10	U
Tetrahydrofuran	2	U	Methyl isobutyl ketone	10	U
Methyl ethyl ketone	10	U	Di-isopropyl ether (DIPE)	1	U
t-Butyl alcohol (TBA)	20	U	Ethyl t-butyl ether (ETBE)	1	U
t-Amyl methyl ether (TAME)	1	U	1,3,5-Trichlorobenzene	1	U
			1,4-Dioxane	30	U*

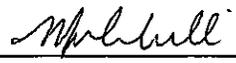
**Surrogate Standard Recovery**

d4-1,2-Dichloroethane 100 %      d8-Toluene 102 %      Bromofluorobenzene 100 %

U=Undetected      J=Estimated      E=Exceeds Calibration Range      B=Detected in Blank

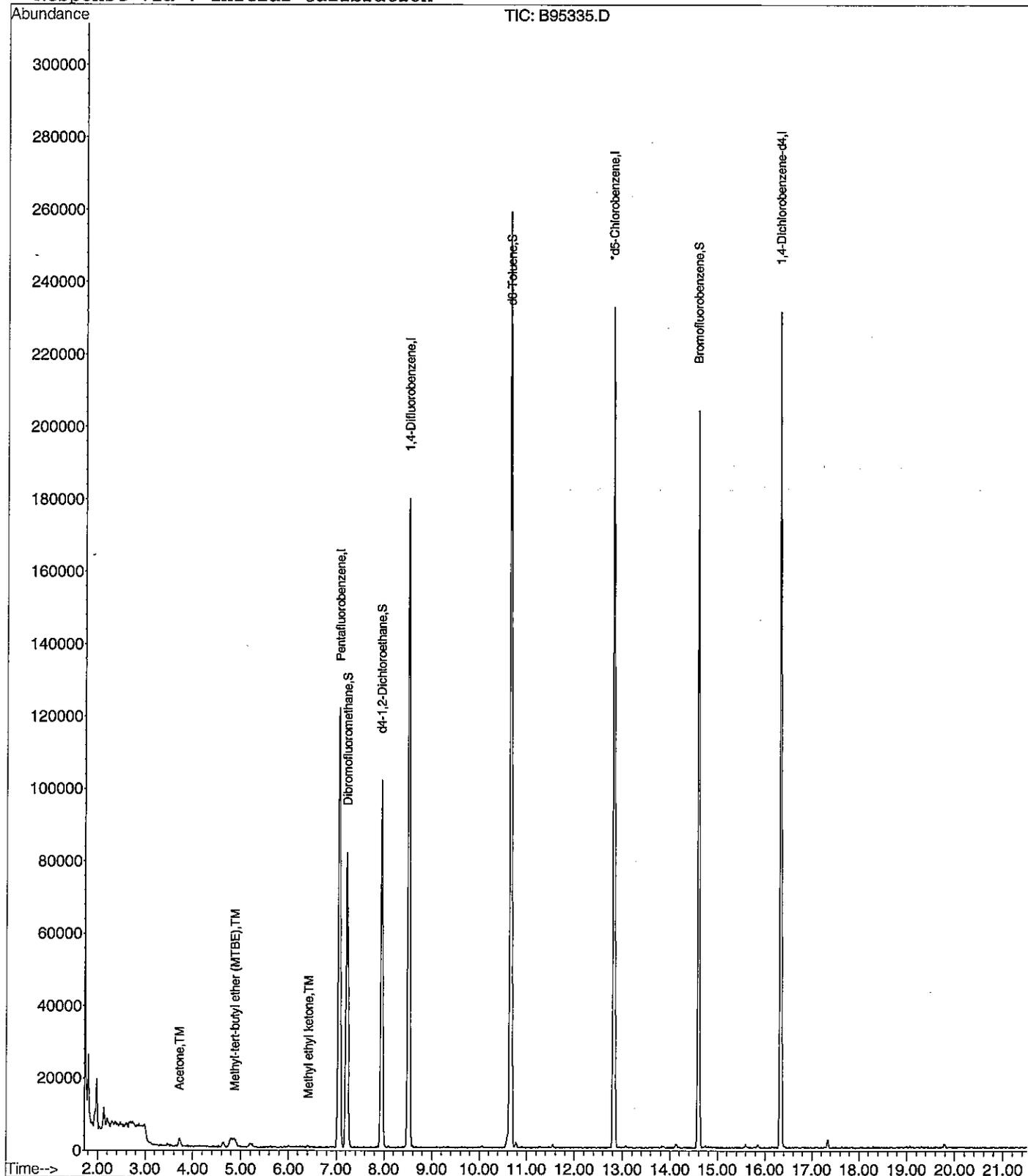
**METHODOLOGY:** Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8260B.

**COMMENTS:** Analyte was high in laboratory control samples.

Authorized signature 

Data File : C:\HPCHEM\1\DATA\012513=B\B95335.D Vial: 20  
Acq On : 25 Jan 2013 6:55 pm Operator: MT  
Sample : 74728-14 Inst : Instrumen  
Misc : 5000 Multiplr: 1.00  
MS Integration Params: rteint.p  
Quant Time: Jan 28 8:40 2013 Quant Results File: V801083B.RES

Method : C:\HPCHEM\1\METHODS\V801083B.M (RTE Integrator)  
Title : 8260 Purgable Organics  
Last Update : Mon Jan 28 09:45:03 2013  
Response via : Initial Calibration



VOLATILE  
QC FORMS

Mr. Erik Phenix  
 Ransom Consulting, Inc.  
 400 Commercial Street Suite 404  
 Portland, ME 04101

January 28, 2013

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** MILL DAM  
**Project Number:** 111.06134.017  
**Field Sample ID:** LAB QC

**Lab Sample ID:** B801253B  
**Matrix:** Aqueous  
**Percent Solid:** N/A  
**Dilution Factor:** 1  
**Collection Date:** N/A  
**Lab Receipt Date:** N/A  
**Analysis Date:** 01/25/13

ANALYTICAL RESULTS VOLATILE ORGANICS					
COMPOUND	Quantitation Limit µg/L	Result µg/L	COMPOUND	Quantitation Limit µg/L	Result µg/L
Benzene	1	U	1,3-Dichloropropane	1	U
Bromobenzene	1	U	cis-1,3-Dichloropropene	1	U
Bromochloromethane	1	U	trans-1,3-Dichloropropene	1	U
Bromodichloromethane	1	U	2,2-Dichloropropane	1	U
Bromoform	1	U	1,1-Dichloropropene	1	U
Bromomethane	2	U	Ethylbenzene	1	U
n-butylbenzene	1	U	Hexachlorobutadiene	1	U
sec-butylbenzene	1	U	Isopropylbenzene	1	U
tert-butylbenzene	1	U	p-isopropyltoluene	1	U
Carbon Tetrachloride	1	U	Methylene Chloride	5	U
Chlorobenzene	1	U	Methyl-tert-butyl ether (MTBE)	1	U
Chloroethane	1	U	Naphthalene	1	U
Chloroform	1	U	n-Propylbenzene	1	U
Chloromethane	1	U	Styrene	1	U
2-Chlorotoluene	1	U	1,1,1,2-Tetrachloroethane	1	U
4-Chlorotoluene	1	U	1,1,2,2-Tetrachloroethane	1	U
Dibromochloromethane	1	U	Tetrachloroethene	1	U
1,2-Dibromo-3-chloropropane	1	U	Toluene	1	U
1,2-Dibromoethane	1	U	1,2,3-Trichlorobenzene	1	U
Dibromomethane	1	U	1,2,4-Trichlorobenzene	1	U
1,2-Dichlorobenzene	1	U	1,1,1-Trichloroethane	1	U
1,3-Dichlorobenzene	1	U	1,1,2-Trichloroethane	1	U
1,4-Dichlorobenzene	1	U	Trichloroethene	1	U
Dichlorodifluoromethane	1	U	Trichlorofluoromethane	1	U
1,1-Dichloroethane	1	U	1,2,3-Trichloropropane	1	U
1,2-Dichloroethane	1	U	1,2,4-Trimethylbenzene	1	U
1,1-Dichloroethene	1	U	1,3,5-Trimethylbenzene	1	U
cis-1,2-Dichloroethene	1	U	Vinyl Chloride	1	U
trans-1,2-Dichloroethene	1	U	o-Xylene	1	U
1,2-Dichloropropane	1	U	m,p-Xylene	1	U
Acetone	10	U	Diethyl ether	1	U
Carbon Disulfide	1	U	2-Hexanone	10	U
Tetrahydrofuran	2	U	Methyl isobutyl ketone	10	U
Methyl ethyl ketone	10	U	Di-isopropyl ether (DIPE)	1	U
t-Butyl alcohol (TBA)	20	U	Ethyl t-butyl ether (ETBE)	1	U
t-Amyl methyl ether (TAME)	1	U	1,3,5-Trichlorobenzene	1	U
			1,4-Dioxane	30	U*
<b>Surrogate Standard Recovery</b>					
d4-1,2-Dichloroethane	104	%	d8-Toluene	102	%
			Bromofluorobenzene	102	%
U=Undetected    J=Estimated    E=Exceeds Calibration Range    B=Detected in Blank					

**METHODOLOGY:** Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8260B.

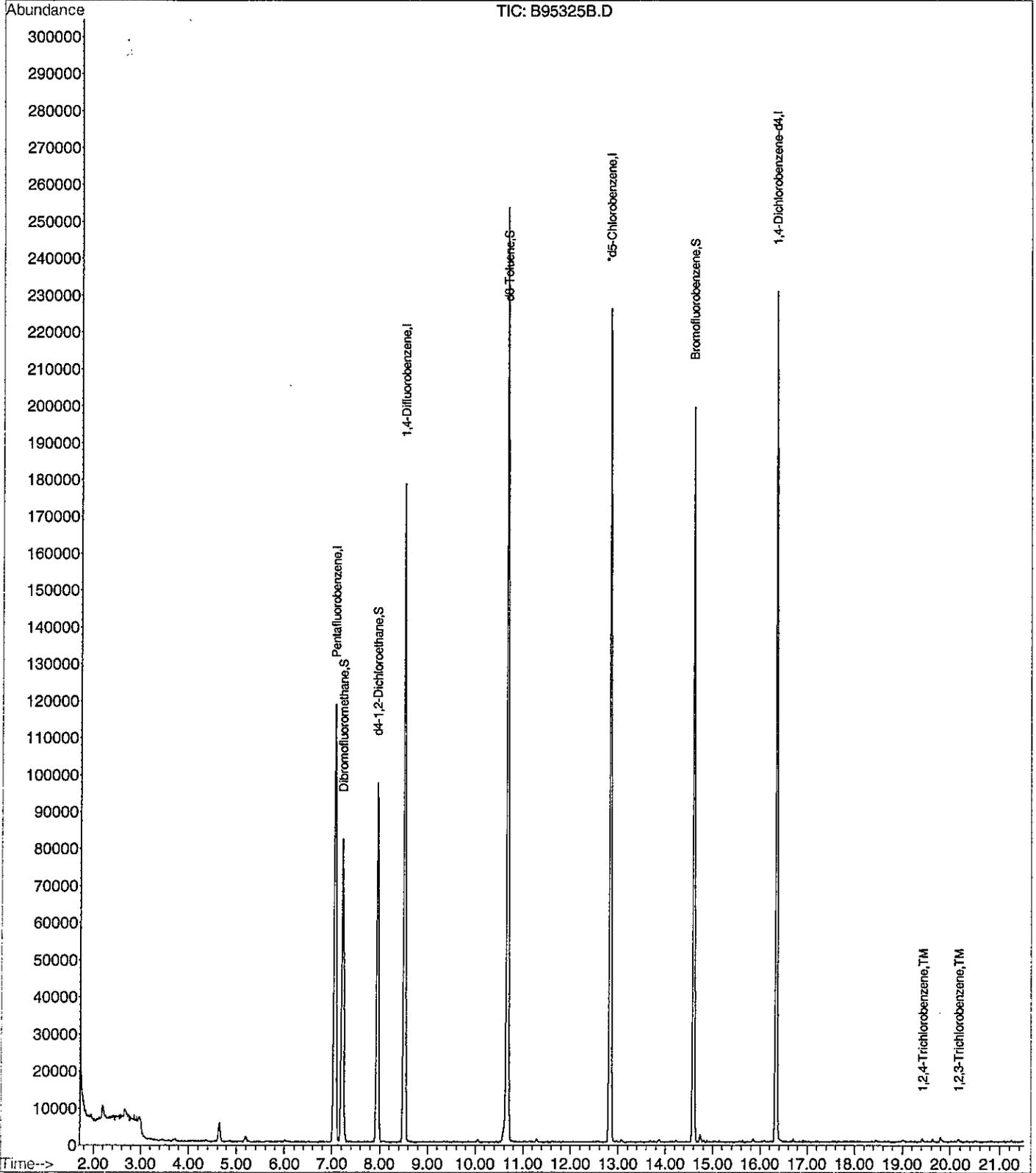
**COMMENTS:** Analyte was high in laboratory control samples.

Authorized signature 

Quantitation report

Data File : C:\HPCHEM\1\DATA\012513-B\B95325B.D Vial: 10  
Acq On : 25 Jan 2013 1:27 pm Operator: MT  
Sample : B801253B Inst : Instrumen  
Misc : 5000 Multiplr: 1.00  
MS Integration Params: rteint.p  
Quant Time: Jan 28 8:40 2013 Quant Results File: V801083B.RES

Method : C:\HPCHEM\1\METHODS\V801083B.M (RTE Integrator)  
Title : 8260 Purgable Organics  
Last Update : Mon Jan 28 09:45:03 2013  
Response via : Initial Calibration



Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

January 29, 2013

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** MILL DAM  
**Project Number:** 111.06134.017  
**Field Sample ID:** LAB QC

**Lab Sample ID:** B801253C  
**Matrix:** Solid  
**Percent Solid:** 100  
**Dilution Factor:** 100  
**Collection Date:** N/A  
**Lab Receipt Date:** N/A  
**Analysis Date:** 01/25/13

ANALYTICAL RESULTS VOLATILE ORGANICS					
COMPOUND	Quantitation Limit µg/kg	Result µg/kg	COMPOUND	Quantitation Limit µg/kg	Result µg/kg
Benzene	100	U	1,3-Dichloropropane	100	U
Bromobenzene	100	U	cis-1,3-Dichloropropene	100	U
Bromochloromethane	100	U	trans-1,3-Dichloropropene	100	U
Bromodichloromethane	75	U	2,2-Dichloropropane	100	U
Bromoform	75	U	1,1-Dichloropropene	100	U
Bromomethane	100	U	Ethylbenzene	100	U
n-butylbenzene	100	U	Hexachlorobutadiene	100	U
sec-butylbenzene	100	U	Isopropylbenzene	100	U
tert-butylbenzene	100	U	p-isopropyltoluene	100	U
Carbon Tetrachloride	100	U	Methylene Chloride	500	U
Chlorobenzene	100	U	Methyl-tert-butyl ether (MTBE)	75	U
Chloroethane	100	U	Naphthalene	100	U
Chloroform	75	U	n-Propylbenzene	100	U
Chloromethane	100	U	Styrene	100	U
2-Chlorotoluene	100	U	1,1,1,2-Tetrachloroethane	100	U
4-Chlorotoluene	100	U	1,1,2,2-Tetrachloroethane	75	U
Dibromochloromethane	75	U	Tetrachloroethene	100	U
1,2-Dibromo-3-chloropropane	100	U	Toluene	100	U
1,2-Dibromoethane	75	U	1,2,3-Trichlorobenzene	100	U
Dibromomethane	100	U	1,2,4-Trichlorobenzene	100	U
1,2-Dichlorobenzene	100	U	1,1,1-Trichloroethane	100	U
1,3-Dichlorobenzene	100	U	1,1,2-Trichloroethane	75	U
1,4-Dichlorobenzene	100	U	Trichloroethene	100	U
Dichlorodifluoromethane	100	U	Trichlorofluoromethane	100	U
1,1-Dichloroethane	100	U	1,2,3-Trichloropropane	100	U
1,2-Dichloroethane	75	U	1,2,4-Trimethylbenzene	100	U
1,1-Dichloroethene	75	U	1,3,5-Trimethylbenzene	100	U
cis-1,2-Dichloroethene	100	U	Vinyl Chloride	100	U
trans-1,2-Dichloroethene	100	U	o-Xylene	100	U
1,2-Dichloropropane	75	U	m,p-Xylene	100	U
Acetone	1000	U	Diethyl ether	100	U
Carbon Disulfide	100	U	2-Hexanone	1000	U
Tetrahydrofuran	500	U	Methyl isobutyl ketone	1000	U
Methyl ethyl ketone	1000	U	Di-isopropyl ether (DIPE)	100	U
t-Butyl alcohol (TBA)	2000	U	Ethyl t-butyl ether (ETBE)	100	U
t-Amyl methyl ether (TAME)	100	U	1,3,5-Trichlorobenzene	100	U
			1,4-Dioxane	3000	U
<b>Surrogate Standard Recovery</b>					
d4-1,2-Dichloroethane	93 %	d8-Toluene	98 %	Bromofluorobenzene	106 %
U=Undetected    J=Estimated    E=Exceeds Calibration Range    B=Detected in Blank					

**METHODOLOGY:** Sample collection in accordance with SW-846 method 5035A. Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8260B.

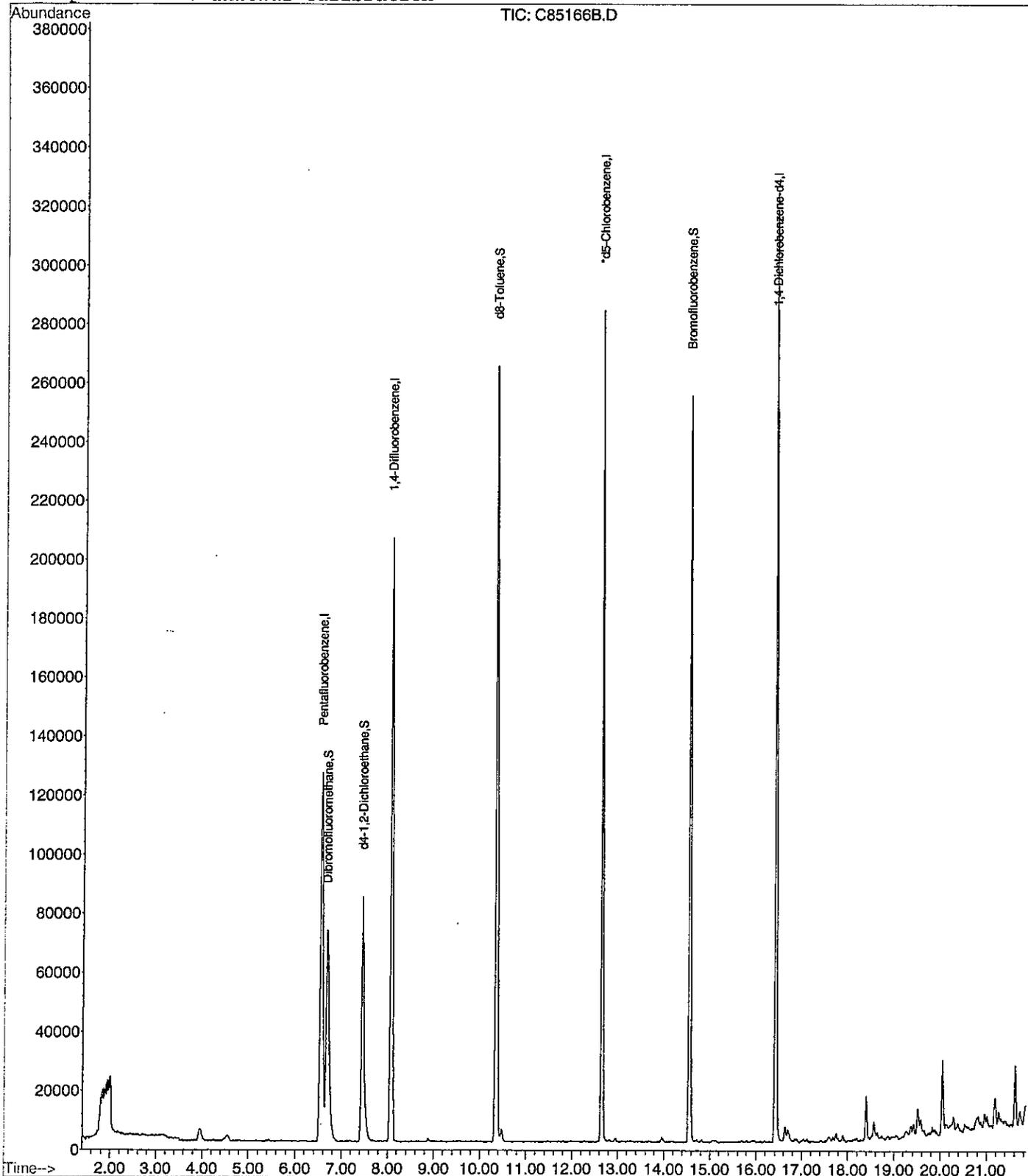
**COMMENTS:** Results are expressed on a dry weight basis.

Authorized signature 

Quantitation Report

Data File : C:\HPCHEM\1\DATA\DATA\012513-C\C85166B.D Vial: 6  
Acq On : 25 Jan 2013 1:13 pm Operator: MT  
Sample : B801253C Inst : Instr\_C  
Misc : 50,10.00,SOIL Multiplr: 1.00  
MS Integration Params: rteint.p  
Quant Time: Jan 28 11:32 2013 Quant Results File: V801143C.RES

Method : C:\HPCHEM\1\METHODS\METHODS\METHODS\V801143C.M (RTE Integrator)  
Title : 8260 Purgable Organics  
Last Update : Fri Jan 25 10:35:45 2013  
Response via : Initial Calibration



VOLATILE ORGANIC AQUEOUS  
LABORATORY CONTROL SAMPLE  
LABORATORY CONTROL SAMPLE DUPLICATE  
PERCENT RECOVERY

Instrument ID: B  
GC Column: RTX-502.2  
Column ID: 0.25 mm  
Heated purge (Y/N): N

SDG: 74728  
Non-spiked sample: B801253B  
Spike: L801253B  
Spike duplicate: L801253B2

COMPOUND	SPIKE ADDED	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/L)	SPIKE RESULT (ug/L)	SPIKE % REC	#	SPIKE DUP RESULT (ug/L)	SPIKE DUP % REC	#	RPD	#
Dichlorodifluoromethane	20	40	155	15	0.0	22	108		21	103		4	
Chloromethane	20	40	125	15	0.0	16	82		16	82		1	
Vinyl Chloride	20	70	130	15	0.0	19	96		19	97		2	
Bromomethane	20	40	145	15	0.0	20	102		19	94		8	
Chloroethane	20	70	130	15	0.0	20	100		20	99		1	
t-Butyl alcohol (TBA)	100	70	130	15	0.0	122	122		114	114		6	
Trichlorofluoromethane	20	70	130	15	0.0	20	102		20	99		4	
Diethyl ether	20	70	130	15	0.0	19	97		19	97		0	
1,1,2-Trichlorotrifluoroethane	20	70	130	15	0.0	20	98		19	97		1	
Acetone	100	40	140	15	0.0	104	104		101	101		3	
1,1-Dichloroethene	20	75	125	15	0.0	20	99		19	97		1	
Methyl iodide	20	70	130	15	0.0	23	117		23	113		4	
Di-isopropyl ether (DIPE)	20	70	130	15	0.0	20	101		21	104		3	
Methylene Chloride	20	70	130	15	0.0	21	104		21	104		0	
Carbon Disulfide	20	70	130	15	0.0	20	100		19	96		3	
Acrylonitrile	20	70	130	15	0.0	22	109		21	104		5	
Methyl-tert-butyl ether (MTBE)	40	70	130	15	0.0	39	97		39	99		2	
trans-1,2-Dichloroethene	20	75	125	15	0.0	20	102		20	101		1	
1,1-Dichloroethane	20	70	130	15	0.0	21	103		20	101		1	
Methyl ethyl ketone	100	40	150	15	0.0	96	96		97	97		1	
Ethyl t-butyl ether (ETBE)	20	70	130	15	0.0	21	103		21	104		1	
2,2-Dichloropropane	20	70	130	15	0.0	24	118		23	113		5	
cis-1,2-Dichloroethene	20	75	125	15	0.0	21	104		21	103		1	
t-Amyl methyl ether (TAME)	20	70	130	15	0.0	20	100		20	101		1	
Chloroform	20	70	130	15	0.0	22	108		21	107		0	
Bromochloromethane	20	70	130	15	0.0	23	116		23	116		0	
Tetrahydrofuran	20	70	130	15	0.0	21	103		20	100		3	
1,1,1-Trichloroethane	20	75	125	15	0.0	21	105		20	101		3	
1,1-Dichloropropene	20	75	130	15	0.0	19	95		19	93		2	
Carbon Tetrachloride	20	75	125	15	0.0	21	105		21	103		2	
1,2-Dichloroethane	20	70	130	15	0.0	21	104		21	104		1	
Benzene	20	80	120	15	0.0	19	96		19	95		1	
Trichloroethene	20	75	125	15	0.0	22	109		21	105		3	
1,2-Dichloropropane	20	75	125	15	0.0	21	106		22	108		1	
Methylmethacrylate	20	70	130	15	0.0	20	100		21	103		3	
Bromodichloromethane	20	75	120	15	0.0	22	109		21	107		1	
Dibromomethane	20	75	125	15	0.0	21	105		21	107		1	
1,4-Dioxane	500	40	160	15	0.0	812	162	*	783	157		4	
2-Hexanone	100	55	130	15	0.0	109	109		111	111		1	
Methyl isobutyl ketone	100	60	135	15	0.0	103	103		105	105		2	
cis-1,3-Dichloropropene	20	70	130	15	0.0	22	108		22	110		2	
Toluene	20	75	120	15	0.0	21	106		21	107		1	
trans-1,3-Dichloropropene	20	70	130	15	0.0	22	109		22	111		2	
1,1,2-Trichloroethane	20	75	125	15	0.0	22	109		22	109		0	
1,3-Dichloropropane	20	75	125	15	0.0	21	106		21	106		0	
Tetrachloroethene	20	75	125	15	0.0	22	110		22	109		0	
Dibromochloromethane	20	70	130	15	0.0	22	109		22	110		2	

VOLATILE ORGANIC AQUEOUS  
LABORATORY CONTROL SAMPLE  
LABORATORY CONTROL SAMPLE DUPLICATE  
PERCENT RECOVERY

Instrument ID: B  
GC Column: RTX-502.2  
Column ID: 0.25 mm  
Heated purge (Y/N): N

SDG: 74728  
Non-spiked sample: B801253B  
Spike: L801253B  
Spike duplicate: L801253B2

COMPOUND	SPIKE	LOWER	UPPER	RPD	NON-SPIKE	SPIKE	SPIKE	SPIKE DUP		SPIKE DUP		RPD #	
	ADDED	LIMIT	LIMIT	LIMIT	RESULT (ug/L)	RESULT (ug/L)	% REC	#	RESULT (ug/L)	% REC	#	RPD	#
1,2-Dibromoethane	20	80	120	15	0.0	22	112		22	112		1	
Chlorobenzene	20	80	120	15	0.0	21	105		21	105		0	
1,1,1,2-Tetrachloroethane	20	80	130	15	0.0	21	104		21	103		2	
Ethylbenzene	20	75	125	15	0.0	20	102		20	100		2	
m,p-Xylene	40	75	125	15	0.0	42	105		42	105		0	
o-Xylene	20	80	120	15	0.0	22	110		22	108		2	
Styrene	20	70	130	15	0.0	21	106		21	104		2	
Bromoform	20	70	130	15	0.0	22	111		22	110		0	
Isopropylbenzene	20	75	125	15	0.0	22	110		21	107		3	
1,1,2,2-Tetrachloroethane	20	70	130	15	0.0	22	109		21	106		3	
1,2,3-Trichloropropane	20	75	125	15	0.0	20	101		20	99		2	
n-Propylbenzene	20	70	130	15	0.0	22	110		21	107		2	
Bromobenzene	20	75	125	15	0.0	21	107		21	106		1	
1,3,5-Trimethylbenzene	20	75	130	15	0.0	22	110		22	111		1	
2-Chlorotoluene	20	75	125	15	0.0	22	111		22	108		2	
4-Chlorotoluene	20	75	130	15	0.0	21	104		21	103		1	
tert-butylbenzene	20	70	130	15	0.0	22	112		22	108		4	
1,2,4-Trimethylbenzene	20	75	130	15	0.0	22	108		21	106		2	
sec-butylbenzene	20	70	125	15	0.0	23	113		22	111		2	
p-isopropyltoluene	20	75	130	15	0.0	23	113		22	110		3	
1,3-Dichlorobenzene	20	75	125	15	0.0	22	111		22	109		2	
1,4-Dichlorobenzene	20	75	125	15	0.0	22	109		22	109		0	
n-butylbenzene	20	70	130	15	0.0	23	114		23	113		1	
1,2-Dichlorobenzene	20	70	120	15	0.0	22	108		22	108		0	
1,2-Dibromo-3-chloropropane	20	70	130	15	0.0	22	112		22	108		4	
1,2,4-Trichlorobenzene	20	70	130	15	0.0	23	113		22	112		1	
Hexachlorobutadiene	20	70	130	15	0.0	24	120		24	122		2	
Naphthalene	20	70	130	15	0.0	22	109		22	111		2	
1,2,3-Trichlorobenzene	20	70	130	15	0.0	22	110		22	111		1	
1,3,5-Trichlorobenzene	20	70	130	15	0.0	23	115		23	115		0	

# Column to be used to flag recovery and RPD values outside of QC limits  
\* Values outside QC limits

Non-spiked result of "0" used in place of "U" to allow calculation of spike recovery

Comments: \_\_\_\_\_  
\_\_\_\_\_

VOLATILE ORGANIC SOIL  
LABORATORY CONTROL/LABORATORY CONTROL DUPLICATE  
PERCENT RECOVERY

Instrument ID: C  
GC Column: RTX-502.2  
Column ID: 0.25 mm  
Heated purge (Y/N): N

SDG: 74728  
Non-spiked sample: B801253C  
Spike: LS01253C  
Spike duplicate: LS01253C2

COMPOUND	LCS SPIKE	LCS D SPIKE	LOWER	UPPER	RPD	NON-SPIKE	SPIKE	SPIKE	SPIKE DUP	SPIKE DUP		
	ADDED (ug/kg)	ADDED (ug/kg)	LIMIT	LIMIT	LIMIT	RESULT (ug/kg)	RESULT (ug/kg)	% REC	#	RESULT (ug/kg)	% REC	#
Dichlorodifluoromethane	2000	2000	49	82	25	0	1455	73		1299	65	11
Chloromethane	2000	2000	75	125	25	0	1776	89		1419	71	* 22
Vinyl Chloride	2000	2000	75	125	25	0	1882	94		1489	74	* 23
Bromomethane	2000	2000	75	125	25	0	2201	110		2151	108	2
Chloroethane	2000	2000	75	125	25	0	1468	73	*	1661	83	12
t-Butyl alcohol (TBA)	10000	10000	60	140	25	0	7479	75		8968	90	18
Trichlorofluoromethane	2000	2000	75	125	25	0	2060	103		1997	100	3
Diethyl ether	2000	2000	75	125	25	0	1296	65	*	1595	80	21
1,1,2-Trichlorotrifluoroethane	2000	2000	75	125	25	0	1687	84		1730	86	3
Acetone	5000	5000	75	125	25	0	6519	130	*	5952	119	9
1,1-Dichloroethene	2000	2000	75	125	25	0	1601	80		1729	86	8
Di-isopropyl ether (DIPE)	2000	2000	75	125	25	0	1739	87		1740	87	0
Methylene Chloride	2000	2000	75	125	25	0	1569	78		1613	81	3
Carbon Disulfide	2000	2000	75	125	25	0	1421	71	*	1447	72	* 2
Acrylonitrile	2000	2000	75	125	25	0	1649	82		1791	90	8
Methyl-tert-butyl ether (MTBE)	2000	2000	75	125	25	0	1863	93		1908	95	2
trans-1,2-Dichloroethene	2000	2000	75	125	25	0	1629	81		1647	82	1
1,1-Dichloroethane	2000	2000	75	125	25	0	1753	88		1750	87	0
Methyl ethyl ketone	5000	5000	60	140	25	0	4435	89		4492	90	1
Ethyl t-butyl ether (ETBE)	2000	2000	75	125	25	0	1865	93		1867	93	0
2,2-Dichloropropane	2000	2000	75	125	25	0	2236	112		2114	106	6
cis-1,2-Dichloroethene	2000	2000	75	125	25	0	1781	89		1811	91	2
t-Amyl methyl ether (TAME)	2000	2000	75	125	25	0	1878	94		1930	96	3
Chloroform	2000	2000	75	125	25	0	1729	86		1827	91	5
Bromochloromethane	2000	2000	75	125	25	0	1840	92		1845	92	0
Tetrahydrofuran	2000	2000	60	140	25	0	1655	83		1770	88	7
1,1,1-Trichloroethane	2000	2000	75	125	25	0	2027	101		2033	102	0
1,1-Dichloropropene	2000	2000	75	125	25	0	1658	83		1690	84	2
Carbon Tetrachloride	2000	2000	75	125	25	0	1724	86		1797	90	4
1,2-Dichloroethane	2000	2000	75	125	25	0	1804	90		1850	93	3
Benzene	2000	2000	75	125	25	0	1653	83		1690	84	2
Trichloroethene	2000	2000	75	125	25	0	1852	93		1848	92	0
1,2-Dichloropropane	2000	2000	75	125	25	0	1616	81		1618	81	0
Methylmethacrylate	2000	2000	75	125	25	0	1647	82		1712	86	4
Bromodichloromethane	2000	2000	75	125	25	0	1867	93		1881	94	1
Dibromomethane	2000	2000	75	125	25	0	1676	84		1691	85	1
1,4-Dioxane	25000	25000	60	140	25	0	18430	74		26324	105	35 *
2-Hexanone	5000	5000	75	125	25	0	4838	97		5038	101	4
Methyl isobutyl ketone	5000	5000	75	125	25	0	4549	91		4793	96	5
cis-1,3-Dichloropropene	2000	2000	75	125	25	0	1873	94		1808	90	4
Toluene	2000	2000	75	125	25	0	1964	98		1934	97	2
trans-1,3-Dichloropropene	2000	2000	75	125	25	0	1873	94		1808	90	4
1,1,2-Trichloroethane	2000	2000	75	125	25	0	1827	91		1857	93	2
1,3-Dichloropropane	2000	2000	75	125	25	0	1848	92		1838	92	1
Tetrachloroethene	2000	2000	75	125	25	0	1820	91		1898	95	4
Dibromochloromethane	2000	2000	75	125	25	0	1654	83		1685	84	2
1,2-Dibromoethane	2000	2000	75	125	25	0	1570	79		1648	82	5
Chlorobenzene	2000	2000	75	125	25	0	2054	103		1986	99	3
1,1,1,2-Tetrachloroethane	2000	2000	75	125	25	0	2068	103		2062	103	0
Ethylbenzene	2000	2000	75	125	25	0	2074	104		2004	100	3

VOLATILE ORGANIC SOIL  
LABORATORY CONTROL/LABORATORY CONTROL DUPLICATE  
PERCENT RECOVERY

Instrument ID: C  
GC Column: RTX-502.2  
Column ID: 0.25 mm  
Heated purge (Y/N): N

SDG: 74728  
Non-spiked sample: B801253C  
Spike: LS01253C  
Spike duplicate: LS01253C2

COMPOUND	LCS SPIKE	LCS D SPIKE	LOWER	UPPER	RPD	NON-SPIKE	SPIKE	SPIKE	SPIKE DUP	SPIKE DUP		
	ADDED (ug/kg)	ADDED (ug/kg)	LIMIT	LIMIT	LIMIT	RESULT (ug/kg)	RESULT (ug/kg)	% REC	#	RESULT (ug/kg)	% REC	#
m,p-Xylene	4000	4000	75	125	25	0	4150	104		4037	101	3
o-Xylene	2000	2000	75	125	25	0	2012	101		1997	100	1
Styrene	2000	2000	75	125	25	0	2171	109		2103	105	3
Bromoform	2000	2000	75	125	25	0	1963	98		2037	102	4
Isopropylbenzene	2000	2000	75	125	25	0	2043	102		2009	100	2
1,1,2,2-Tetrachloroethane	2000	2000	75	125	25	0	1893	95		1832	92	3
1,2,3-Trichloropropane	2000	2000	75	125	25	0	1895	95		1892	95	0
trans-1,4-Dichloro-2-butene	2000	2000	75	125	25	0	2174	109		2103	105	3
n-Propylbenzene	2000	2000	75	125	25	0	2041	102		2032	102	0
Bromobenzene	2000	2000	75	125	25	0	2073	104		2099	105	1
1,3,5-Trimethylbenzene	2000	2000	75	125	25	0	2229	111		2249	112	1
2-Chlorotoluene	2000	2000	75	125	25	0	2411	121		2421	121	0
4-Chlorotoluene	2000	2000	75	125	25	0	2404	120		2344	117	3
tert-butylbenzene	2000	2000	75	125	25	0	2389	119		2224	111	7
1,2,4-Trimethylbenzene	2000	2000	75	125	25	0	2169	108		2037	102	6
sec-butylbenzene	2000	2000	75	125	25	0	2252	113		2217	111	2
p-isopropyltoluene	2000	2000	75	125	25	0	2276	114		2180	109	4
1,3-Dichlorobenzene	2000	2000	75	125	25	0	2093	105		2088	104	0
1,4-Dichlorobenzene	2000	2000	75	125	25	0	1969	98		1917	96	3
n-butylbenzene	2000	2000	75	125	25	0	2008	100		1996	100	1
1,2-Dichlorobenzene	2000	2000	75	125	25	0	1962	98		1926	96	2
1,2-Dibromo-3-chloropropane	2000	2000	75	125	25	0	1866	93		1960	98	5
1,2,4-Trichlorobenzene	2000	2000	75	125	25	0	2116	106		2007	100	5
Hexachlorobutadiene	2000	2000	75	125	25	0	2069	103		2150	108	4
Naphthalene	2000	2000	75	125	25	0	2173	109		2070	103	5
1,2,3-Trichlorobenzene	2000	2000	75	125	25	0	2187	109		2135	107	2

# Column to be used to flag recovery and RPD values outside of QC limits  
\* Values outside QC limits

Non-spiked result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: \_\_\_\_\_

VPH  
DATA SUMMARIES

Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

January 31, 2013

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** MILL DAM

**Project Number:** 111.06134.017

**Client Sample ID:** SB101-S1-012213

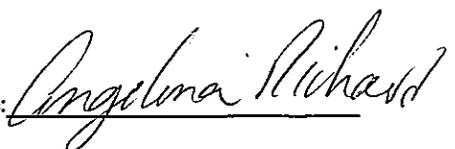
**Lab Sample ID:** 74728-1  
**Matrix:** Solid  
**Percent Solid:** 68  
**Dilution Factor:** 112  
**Collection Date:** 01/22/13  
**Lab Receipt Date:** 01/24/13  
**Analysis Date:** 01/30/13

VPH ANALYTICAL RESULTS				
RANGE/TARGET ANALYTE	Elution Range	RL	Units	Result
Unadjusted C5-C8 Aliphatics <sup>1</sup>	N/A	5610	µg/kg	U
Unadjusted C9-C12 Aliphatics	N/A	5610	µg/kg	U
Benzene	C5-C8	225	µg/kg	U
Ethylbenzene	C9-C12	225	µg/kg	U
Methyl-tert-butyl ether	C5-C8	112	µg/kg	U
Naphthalene	N/A	225	µg/kg	U
Toluene	C5-C8	225	µg/kg	U
m- & p-Xylenes	C9-C12	449	µg/kg	U
o-Xylene	C9-C12	225	µg/kg	U
C5-C8 Aliphatic Hydrocarbons <sup>1,2</sup>	N/A	5610	µg/kg	U
C9-C12 Aliphatic Hydrocarbons <sup>1,3</sup>	N/A	5610	µg/kg	U
C9-C10 Aromatic Hydrocarbons <sup>1</sup>	N/A	1120	µg/kg	<b>621 J</b>
Surrogate % Recovery (Trifluorotoluene) PID				120
Surrogate % Recovery (Trifluorotoluene) FID				127
Surrogate Acceptance Range				70-130%

<sup>1</sup>Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.  
<sup>2</sup>C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range  
<sup>3</sup>C9-C12 Aliphatic Hydrocarbons exclude conc. of Target Analytes eluting in that range and conc. of C9-C10 Aromatic Hydrocarbons.  
 RL = Report Limit  
 U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

METHODOLOGY: MADEP Volatile Petroleum Hydrocarbons (VPH), ORS Division of Environmental Analysis, Revision 1.1 May 2004.

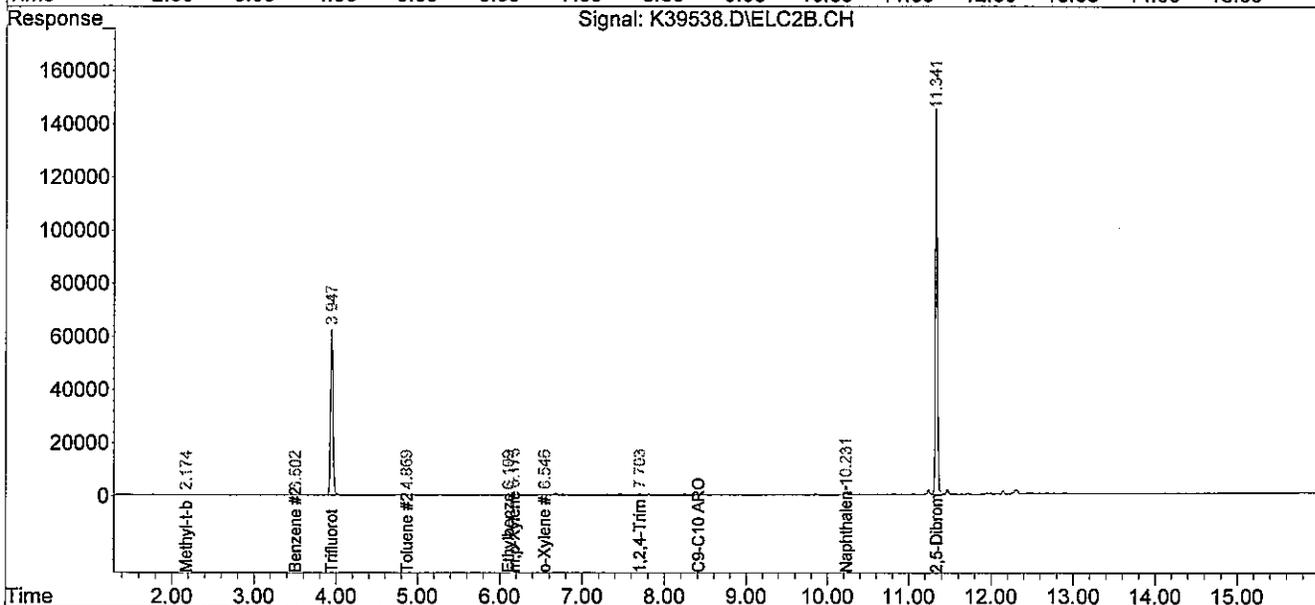
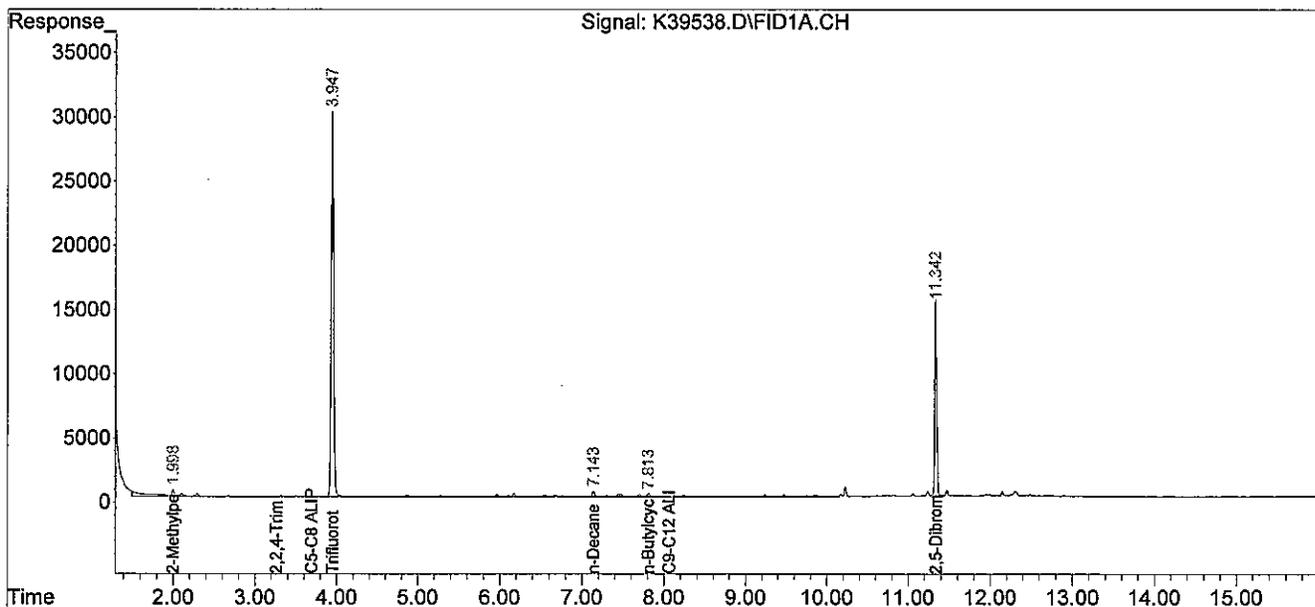
COMMENTS: Samples were received in accordance with method criteria unless noted on the sample receipt checklist. Results are expressed on a moisture corrected and dry weight basis.

Authorized signature: 

Data Path : C:\msdchem\1\DATA\012913-K\  
 Data File : K39538.D  
 Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH  
 Acq On : 30 Jan 2013 8:21 pm  
 Operator : AR/JK  
 Sample : 74728-1  
 Misc : 100,8.39,SOIL  
 ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Jan 30 20:42:24 2013  
 Quant Method : C:\msdchem\1\METHODS\VPHTFT012213.M  
 Quant Title : Volatile Petroleum Hydrocarbons (VPH) MA DEP 2004  
 QLast Update : Wed Jan 23 11:31:20 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :



Mr. Erik Phenix  
 Ransom Consulting, Inc.  
 400 Commercial Street Suite 404  
 Portland, ME 04101

January 31, 2013

**SAMPLE DATA**

**Lab Sample ID:** 74728-2  
**Matrix:** Solid  
**Percent Solid:** 69  
**Dilution Factor:** 111  
**Collection Date:** 01/22/13  
**Lab Receipt Date:** 01/24/13  
**Analysis Date:** 01/30/13

**CLIENT SAMPLE ID**

**Project Name:** MILL DAM  
**Project Number:** 111.06134.017  
**Client Sample ID:** SB102-S3-012213

VPH ANALYTICAL RESULTS				
RANGE/TARGET ANALYTE	Elution Range	RL	Units	Result
Unadjusted C5-C8 Aliphatics <sup>1</sup>	N/A	5570	µg/kg	U
Unadjusted C9-C12 Aliphatics <sup>1</sup>	N/A	5570	µg/kg	U
C5-C8 Aliphatic Hydrocarbons <sup>1,2</sup>	N/A	5570	µg/kg	U
C9-C12 Aliphatic Hydrocarbons <sup>1,3</sup>	N/A	5570	µg/kg	U
C9-C10 Aromatic Hydrocarbons <sup>1</sup>	N/A	1110	µg/kg	U
Surrogate % Recovery (Trifluorotoluene) PID				101
Surrogate % Recovery (Trifluorotoluene) FID				108
Surrogate Acceptance Range				70-130%
<sup>1</sup> Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range <sup>2</sup> C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range <sup>3</sup> C9-C12 Aliphatic Hydrocarbons exclude conc. of Target Analytes eluting in that range AND conc. of C9-C10 Aromatic Hydrocarbons. *Recovery is outside the laboratory acceptance criteria. RL = Report Limit U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank				

METHODOLOGY: MADEP Volatile Petroleum Hydrocarbons (VPH), ORS Division of Environmental Analysis, Revision 1.1 May 2004.

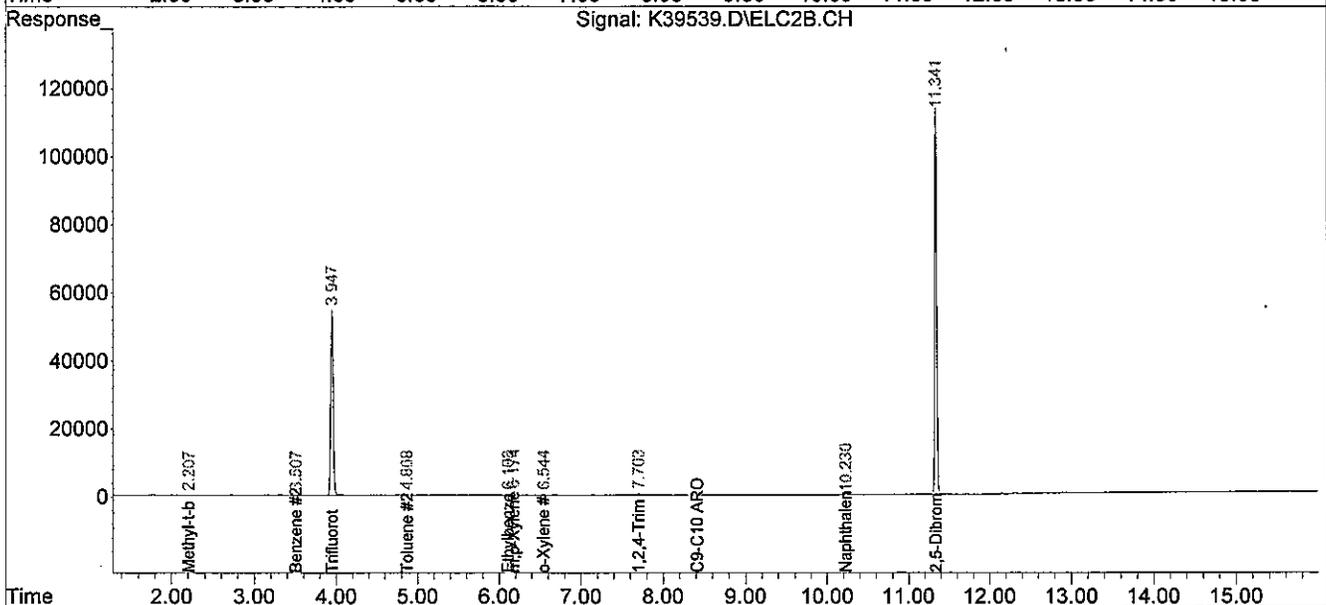
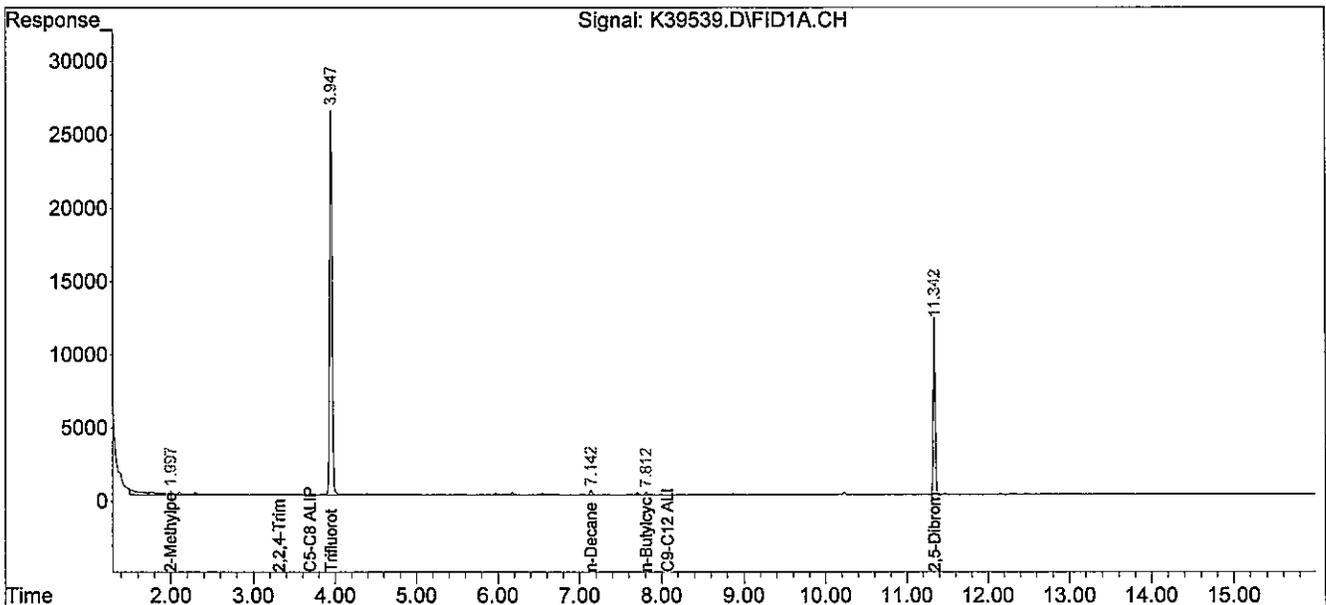
COMMENTS: Samples were received in accordance with method criteria unless noted on the sample receipt checklist. Results are expressed on a moisture corrected and dry weight basis.

Authorized signature: 

Data Path : C:\msdchem\1\DATA\012913-K\  
 Data File : K39539.D  
 Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH  
 Acq On : 30 Jan 2013 8:48 pm  
 Operator : AR/JK  
 Sample : 74728-2  
 Misc : 100,8.06,SOIL  
 ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Jan 30 21:47:58 2013  
 Quant Method : C:\msdchem\1\METHODS\VPHTFT012213.M  
 Quant Title : Volatile Petroleum Hydrocarbons (VPH) MA DEP 2004  
 QLast Update : Wed Jan 23 11:31:20 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :



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 Portland, ME 04101

January 31, 2013

**SAMPLE DATA**

**Lab Sample ID:** 74728-3  
**Matrix:** Solid  
**Percent Solid:** 65  
**Dilution Factor:** 134  
**Collection Date:** 01/22/13  
**Lab Receipt Date:** 01/24/13  
**Analysis Date:** 01/30/13

**CLIENT SAMPLE ID**

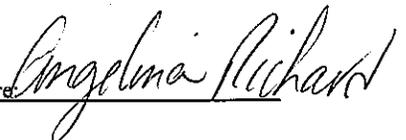
**Project Name:** MILL DAM  
**Project Number:** 111.06134.017  
**Client Sample ID:** SB10X-S3-012213

VPH ANALYTICAL RESULTS				
RANGE/TARGET ANALYTE	Elution Range	RL	Units	Result
Unadjusted C5-C8 Aliphatics <sup>1</sup>	N/A	6710	µg/kg	U
Unadjusted C9-C12 Aliphatics <sup>1</sup>	N/A	6710	µg/kg	U
C5-C8 Aliphatics Hydrocarbons <sup>1,2</sup>	N/A	6710	µg/kg	U
C9-C12 Aliphatic Hydrocarbons <sup>1,3</sup>	N/A	6710	µg/kg	U
C9-C10 Aromatic Hydrocarbons	N/A	1340	µg/kg	U
Surrogate % Recovery (Trifluorotoluene) PID				98
Surrogate % Recovery (Trifluorotoluene) FID				105
Surrogate Acceptance Range				70-130%

<sup>1</sup> Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range  
<sup>2</sup> C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range  
<sup>3</sup> C9-C12 Aliphatic Hydrocarbons exclude conc. of Target Analytes eluting in that range AND conc. of C9-C10 Aromatic Hydrocarbons.  
 \*Recovery is outside the laboratory acceptance criteria. RL = Report Limit  
 U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

METHODOLOGY: MADEP Volatile Petroleum Hydrocarbons (VPH), ORS Division of Environmental Analysis, Revision 1.1 May 2004.

COMMENTS: Samples were received in accordance with method criteria unless noted on the sample receipt checklist. Results are expressed on a moisture corrected and dry weight basis.

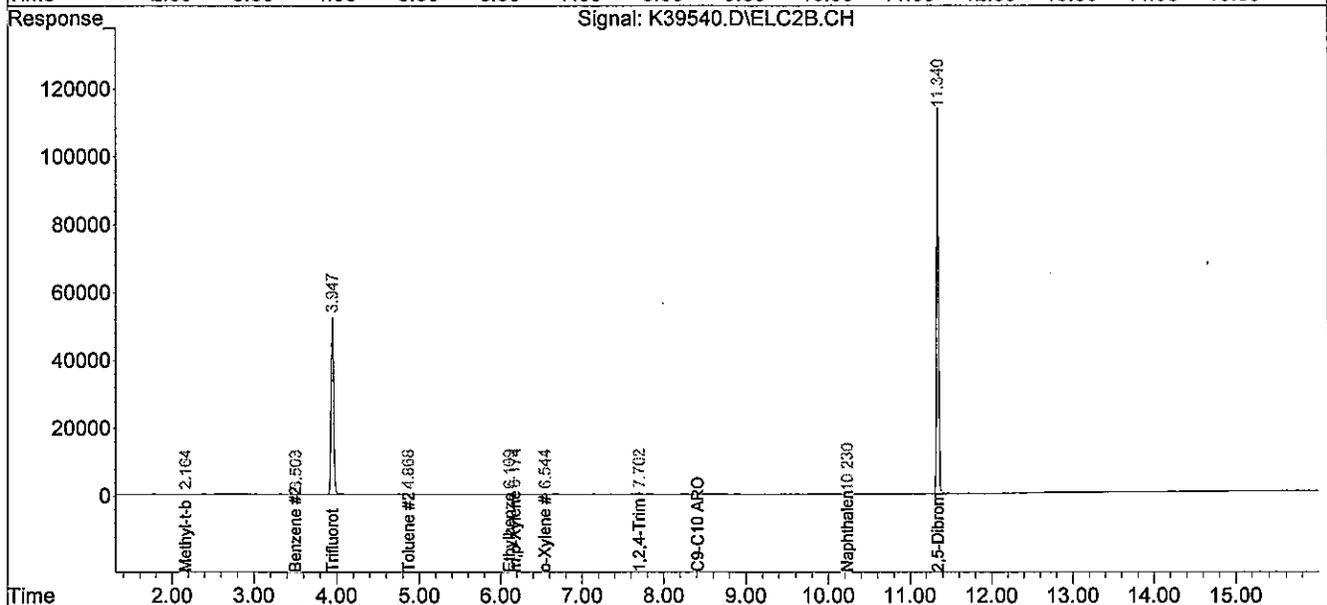
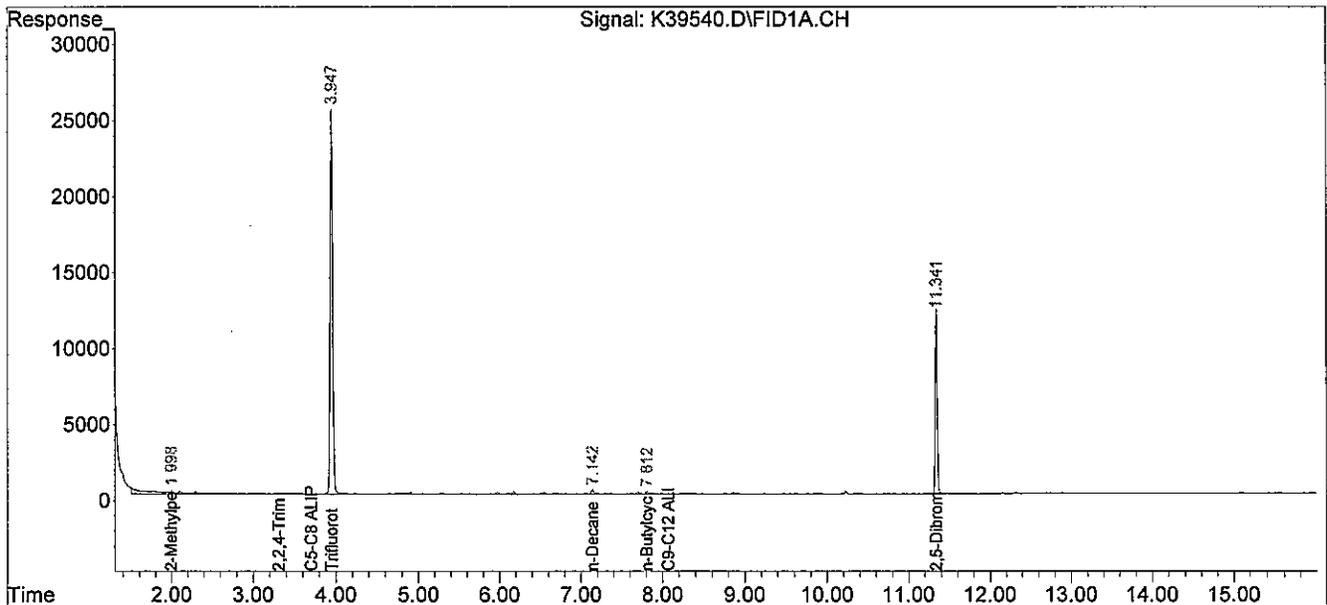
Authorized signature: 

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\012913-K\  
 Data File : K39540.D  
 Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH  
 Acq On : 30 Jan 2013 9:15 pm  
 Operator : AR/JK  
 Sample : 74728-3  
 Misc : 100,7.24,SOIL  
 ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Jan 30 21:48:09 2013  
 Quant Method : C:\msdchem\1\METHODS\VPHTFT012213.M  
 Quant Title : Volatile Petroleum Hydrocarbons (VPH) MA DEP 2004  
 QLast Update : Wed Jan 23 11:31:20 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :



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January 31, 2013

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** MILL DAM

**Project Number:** 111.06134.017

**Client Sample ID:** SB106-S1-012213

**Lab Sample ID:** 74728-4

**Matrix:** Solid

**Percent Solid:** 78

**Dilution Factor:** 75

**Collection Date:** 01/22/13

**Lab Receipt Date:** 01/24/13

**Analysis Date:** 01/30/13

VPH ANALYTICAL RESULTS				
RANGE/TARGET ANALYTE	Elution Range	RL	Units	Result
Unadjusted C5-C8 Aliphatics <sup>1</sup>	N/A	3730	µg/kg	U
Unadjusted C9-C12 Aliphatics <sup>1</sup>	N/A	3730	µg/kg	U
C5-C8 Aliphatics Hydrocarbons <sup>1,2</sup>	N/A	3730	µg/kg	U
C9-C12 Aliphatic Hydrocarbons <sup>1,3</sup>	N/A	3730	µg/kg	U
C9-C10 Aromatic Hydrocarbons <sup>1</sup>	N/A	747	µg/kg	U
Surrogate % Recovery (Trifluorotoluene) PID				114
Surrogate % Recovery (Trifluorotoluene) FID				121
Surrogate Acceptance Range				70-130%
<sup>1</sup> Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range <sup>2</sup> C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range <sup>3</sup> C9-C12 Aliphatic Hydrocarbons exclude conc. of Target Analytes eluting in that range AND conc. Of C9-C10 Aromatic Hydrocarbons. *Recovery is outside the laboratory acceptance criteria. RL = Report Limit U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank				

METHODOLOGY: MADEP Volatile Petroleum Hydrocarbons (VPH), ORS Division of Environmental Analysis, Revision 1.1 May 2004.

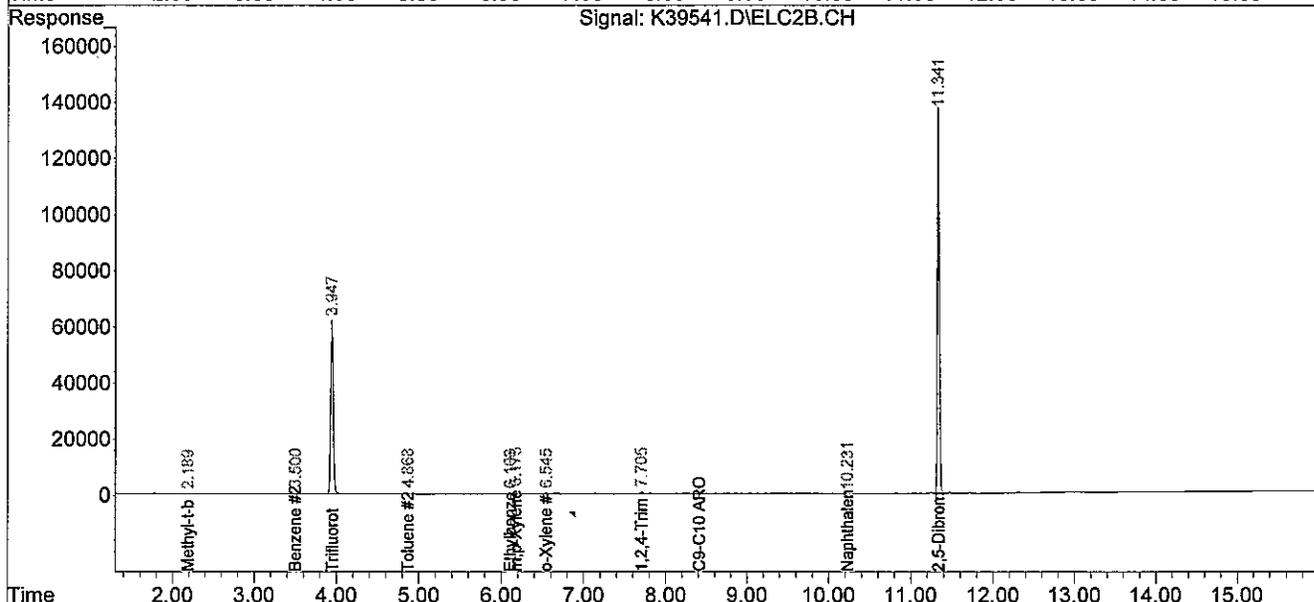
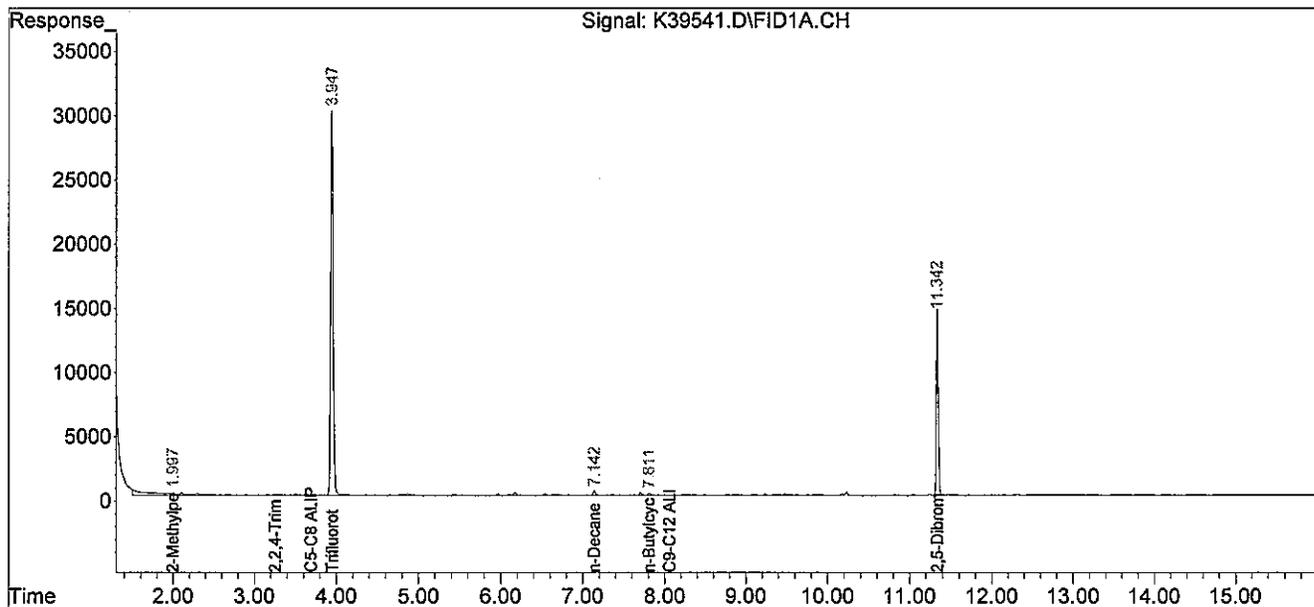
COMMENTS: Samples were received in accordance with method criteria unless noted on the sample receipt checklist. Results are expressed on a moisture corrected and dry weight basis.

Authorized signature: 

Data Path : C:\msdchem\1\DATA\012913-K\  
 Data File : K39541.D  
 Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH  
 Acq On : 30 Jan 2013 9:58 pm  
 Operator : AR/JK  
 Sample : 74728-4  
 Misc : 100,10.47,SOIL  
 ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Jan 30 22:28:21 2013  
 Quant Method : C:\msdchem\1\METHODS\VPHTFT012213.M  
 Quant Title : Volatile Petroleum Hydrocarbons (VPH) MA DEP 2004  
 QLast Update : Wed Jan 23 11:31:20 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :



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**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** MILL DAM  
**Project Number:** 111.06134.017  
**Client Sample ID:** SB107-S2-012213

**Lab Sample ID:** 74728-5  
**Matrix:** Solid  
**Percent Solid:** 80  
**Dilution Factor:** 75  
**Collection Date:** 01/22/13  
**Lab Receipt Date:** 01/24/13  
**Analysis Date:** 01/30/13

VPH ANALYTICAL RESULTS				
RANGE/TARGET ANALYTE	Elution Range	RL	Units	Result
Unadjusted C5-C8 Aliphatics <sup>1</sup>	N/A	3740	µg/kg	U
Unadjusted C9-C12 Aliphatics <sup>1</sup>	N/A	3740	µg/kg	U
C5-C8 Aliphatics Hydrocarbons <sup>1,2</sup>	N/A	3740	µg/kg	U
C9-C12 Aliphatic Hydrocarbons <sup>1,3</sup>	N/A	3740	µg/kg	U
C9-C10 Aromatic Hydrocarbons <sup>1</sup>	N/A	749	µg/kg	U
Surrogate % Recovery (Trifluorotoluene) PID				111
Surrogate % Recovery (Trifluorotoluene) FID				118
Surrogate Acceptance Range				70-130%

<sup>1</sup>Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range  
<sup>2</sup>C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range  
<sup>3</sup>C9-C12 Aliphatic Hydrocarbons exclude conc. of Target Analytes eluting in that range AND conc. Of C9-C10 Aromatic Hydrocarbons.  
 \*Recovery is outside the laboratory acceptance criteria. RL = Report Limit  
 U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

METHODOLOGY: MADEP Volatile Petroleum Hydrocarbons (VPH), ORS Division of Environmental Analysis, Revision 1.1 May 2004.

COMMENTS: Samples were received in accordance with method criteria unless noted on the sample receipt checklist. Results are expressed on a moisture corrected and dry weight basis.

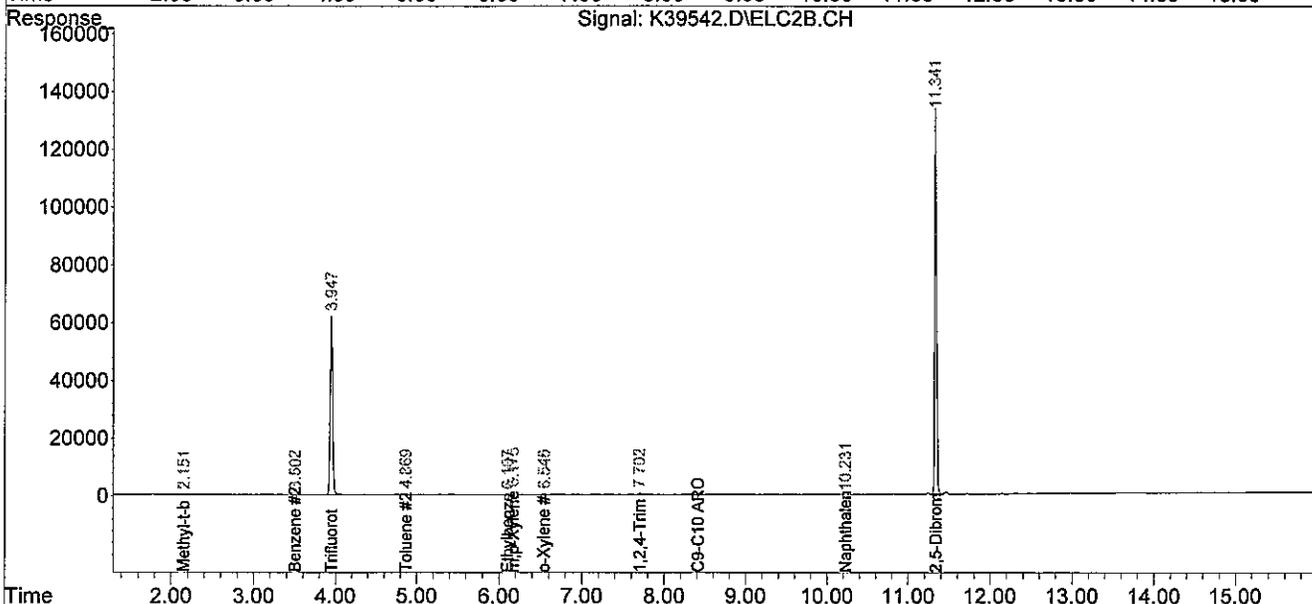
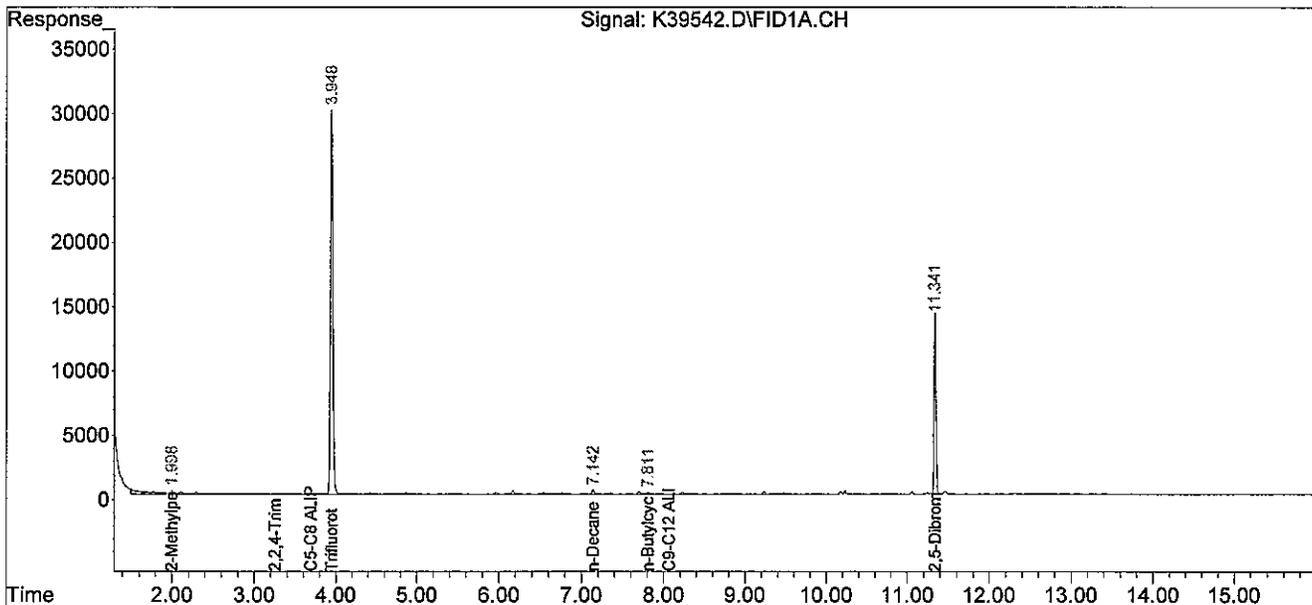
Authorized signature: 

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\012913-K\  
 Data File : K39542.D  
 Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH  
 Acq On : 30 Jan 2013 10:26 pm  
 Operator : AR/JK  
 Sample : 74728-5  
 Misc : 100,9.91,SOIL  
 ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Jan 31 00:25:39 2013  
 Quant Method : C:\msdchem\1\METHODS\VPHTFT012213.M  
 Quant Title : Volatile Petroleum Hydrocarbons (VPH) MA DEP 2004  
 QLast Update : Wed Jan 23 11:31:20 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :



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January 31, 2013

**SAMPLE DATA**

**CLIENT SAMPLE ID**

---

**Project Name:** MILL DAM

**Project Number:** 111.06134.017

**Client Sample ID:** SB110-S1-012213

**Lab Sample ID:** 74728-6

**Matrix:** Solid

**Percent Solid:** 81

**Dilution Factor:** 69

**Collection Date:** 01/22/13

**Lab Receipt Date:** 01/24/13

**Analysis Date:** 01/30/13

VPH ANALYTICAL RESULTS				
RANGE/TARGET ANALYTE	Elution Range	RL	Units	Result
Unadjusted C5-C8 Aliphatics <sup>1</sup>	N/A	3470	µg/kg	U
Unadjusted C9-C12 Aliphatics <sup>1</sup>	N/A	3470	µg/kg	U
Benzene	C5-C8	139	µg/kg	U
Ethylbenzene	C9-C12	139	µg/kg	U
Methyl-tert-butyl ether	C5-C8	69	µg/kg	U
Naphthalene	N/A	139	µg/kg	U
Toluene	C5-C8	139	µg/kg	U
m- & p-Xylenes	C9-C12	277	µg/kg	U
o-Xylene	C9-C12	139	µg/kg	U
C5-C8 Aliphatic Hydrocarbons <sup>1,2</sup>	N/A	3470	µg/kg	U
C9-C12 Aliphatic Hydrocarbons <sup>1,3</sup>	N/A	3470	µg/kg	U
C9-C10 Aromatic Hydrocarbons <sup>1</sup>	N/A	694	µg/kg	U
Surrogate % Recovery (Trifluorotoluene) PID				111
Surrogate % Recovery (Trifluorotoluene) FID				118
Surrogate Acceptance Range				70-130%
<sup>1</sup> Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range. <sup>2</sup> C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range <sup>3</sup> C9-C12 Aliphatic Hydrocarbons exclude conc. of Target Analytes eluting in that range and conc. of C9-C10 Aromatic Hydrocarbons. RL = Report Limit U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank				

METHODOLOGY: MADEP Volatile Petroleum Hydrocarbons (VPH), ORS Division of Environmental Analysis, Revision 1.1 May 2004.

COMMENTS: Samples were received in accordance with method criteria unless noted on the sample receipt checklist. Results are expressed on a moisture corrected and dry weight basis.

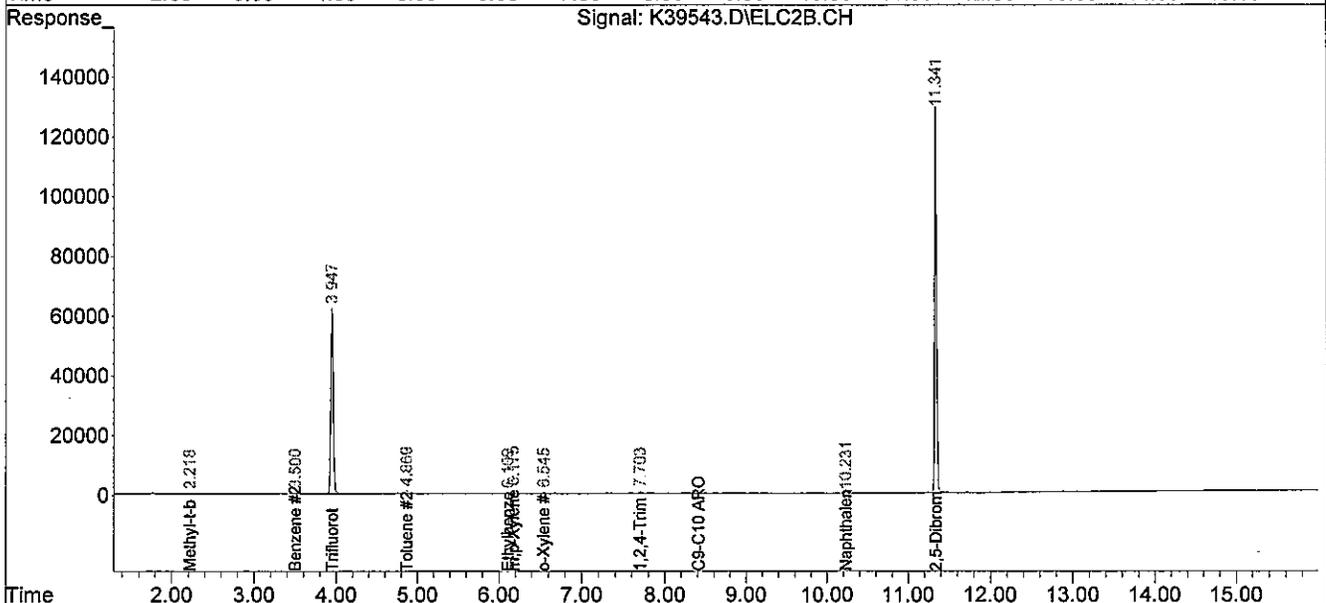
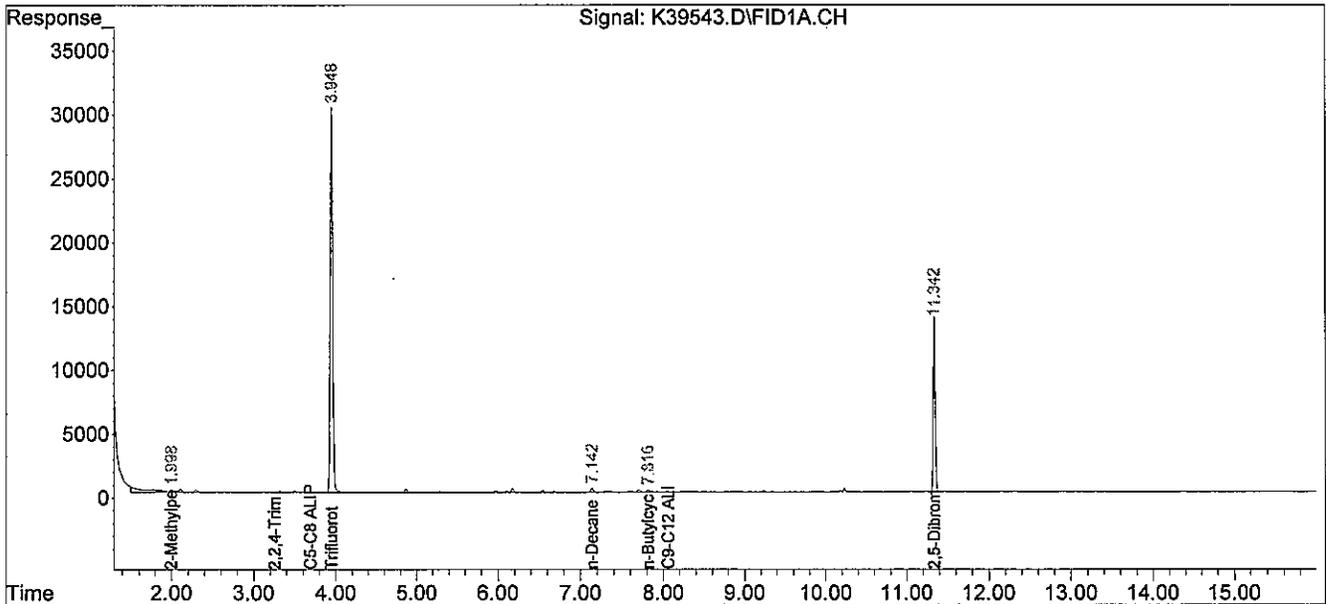
Authorized signature 

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\012913-K\  
Data File : K39543.D  
Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH  
Acq On : 30 Jan 2013 10:53 pm  
Operator : AR/JK  
Sample : 74728-6  
Misc : 100,10.58,SOIL  
ALS Vial : 20 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
Integration File signal 2: autoint2.e  
Quant Time: Jan 31 00:26:24 2013  
Quant Method : C:\msdchem\1\METHODS\VPHTFT012213.M  
Quant Title : Volatile Petroleum Hydrocarbons (VPH) MA DEP 2004  
QLast Update : Wed Jan 23 11:31:20 2013  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



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January 31, 2013

**SAMPLE DATA**

**Lab Sample ID:** 74728-8  
**Matrix:** Solid  
**Percent Solid:** 80  
**Dilution Factor:** 83  
**Collection Date:** 01/22/13  
**Lab Receipt Date:** 01/24/13  
**Analysis Date:** 01/30/13

**CLIENT SAMPLE ID**

**Project Name:** MILL DAM  
**Project Number:** 111.06134.017  
**Client Sample ID:** SB105-S1-012213

**VPH ANALYTICAL RESULTS**

RANGE/TARGET ANALYTE	Elution Range	RL	Units	Result
Unadjusted C5-C8 Aliphatics <sup>1</sup>	N/A	4170	µg/kg	U
Unadjusted C9-C12 Aliphatics <sup>1</sup>	N/A	4170	µg/kg	U
C5-C8 Aliphatic Hydrocarbons <sup>1,2</sup>	N/A	4170	µg/kg	U
C9-C12 Aliphatic Hydrocarbons <sup>1,3</sup>	N/A	4170	µg/kg	U
C9-C10 Aromatic Hydrocarbons	N/A	834	µg/kg	U
Surrogate % Recovery (Trifluorotoluene) PID				101
Surrogate % Recovery (Trifluorotoluene) FID				108
Surrogate Acceptance Range				70-130%

<sup>1</sup> Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range  
<sup>2</sup> C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range  
<sup>3</sup> C9-C12 Aliphatic Hydrocarbons exclude conc. of Target Analytes eluting in that range AND conc. Of C9-C10 Aromatic Hydrocarbons.  
 \*Recovery is outside the laboratory acceptance criteria. RL = Report Limit  
 U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

METHODOLOGY: MADEP Volatile Petroleum Hydrocarbons (VPH), ORS Division of Environmental Analysis, Revision 1.1 May 2004.

COMMENTS: Samples were received in accordance with method criteria unless noted on the sample receipt checklist. Results are expressed on a moisture corrected and dry weight basis.

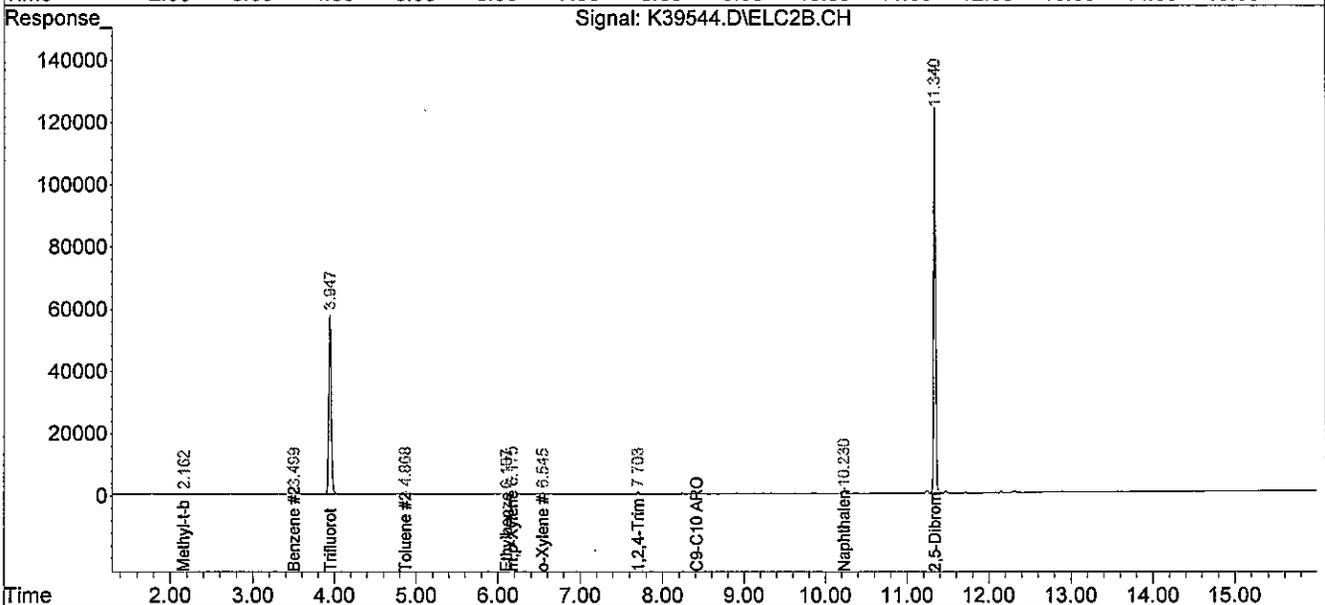
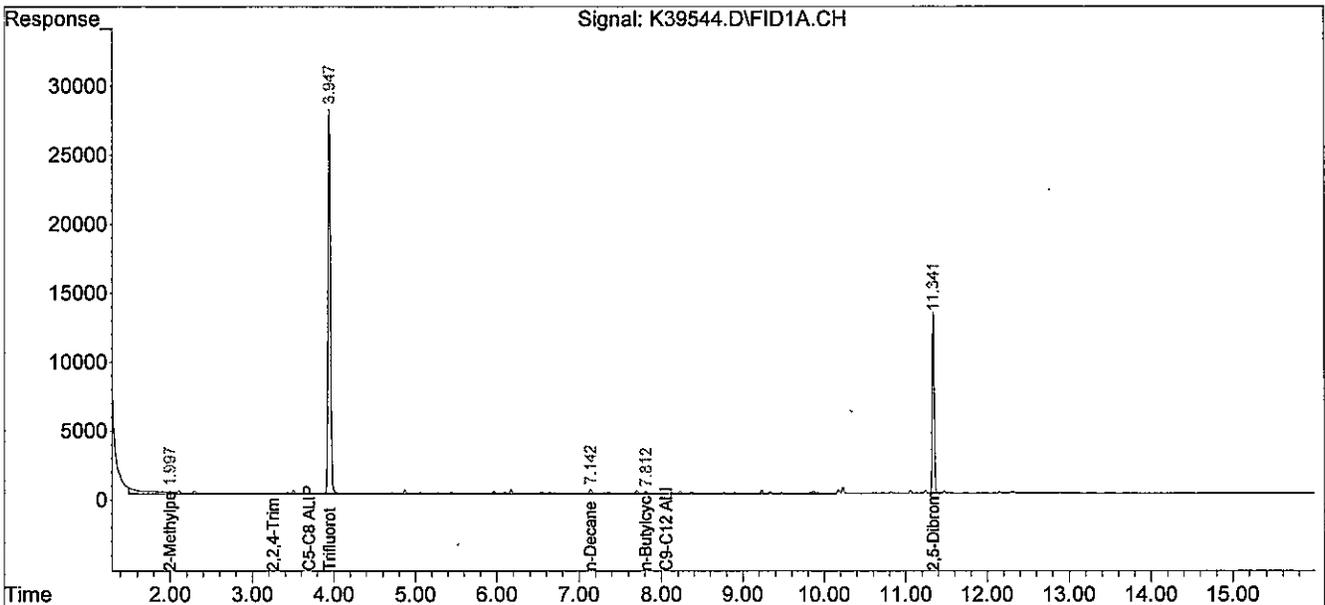
Authorized signature: 

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\012913-K\  
Data File : K39544.D  
Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH  
Acq On : 30 Jan 2013 11:20 pm  
Operator : AR/JK  
Sample : 74728-8  
Misc : 100,8.77,SOIL  
ALS Vial : 21 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
Integration File signal 2: autoint2.e  
Quant Time: Jan 31 00:27:47 2013  
Quant Method : C:\msdchem\1\METHODS\VPHTFT012213.M  
Quant Title : Volatile Petroleum Hydrocarbons (VPH) MA DEP 2004  
QLast Update : Wed Jan 23 11:31:20 2013  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



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January 29, 2013

**CLIENT SAMPLE ID**

**Project Name:** MILL DAM  
**Project Number:** 111.06134.017  
**Client Sample ID:** MW101

**SAMPLE DATA**

**Lab Sample ID:** 74728-11  
**Matrix:** Aqueous  
**Percent Solid:** N/A  
**Dilution Factor:** 1  
**Collection Date:** 01/22/13  
**Lab Receipt Date:** 01/24/13  
**Analysis Date:** 01/29/13

VPH ANALYTICAL RESULTS				
RANGE/TARGET ANALYTE	Elution Range	RL	Units	Result
Unadjusted C5-C8 Aliphatics	N/A	50	µg/L	U
Unadjusted C9-C12 Aliphatics	N/A	50	µg/L	72
Benzene	C5-C8	1	µg/L	U
Ethylbenzene	C9-C12	1	µg/L	U
Methyl-tert-butyl ether	C5-C8	1	µg/L	U
Naphthalene	N/A	1	µg/L	U
Toluene	C5-C8	1	µg/L	U
m- & p-Xylenes	C9-C12	2	µg/L	U
o-Xylene	C9-C12	1	µg/L	U
C5-C8 Aliphatics Hydrocarbons <sup>1,2</sup>	N/A	50	µg/L	U
C9-C12 Aliphatic Hydrocarbons <sup>1,3</sup>	N/A	50	µg/L	44 J
C9-C10 Aromatic Hydrocarbons <sup>1</sup>	N/A	10	µg/L	28
Surrogate % Recovery (Trifluorotoluene) PID				110
Surrogate % Recovery (Trifluorotoluene) FID				114
Surrogate Acceptance Range				70-130%

<sup>1</sup>Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.  
<sup>2</sup>C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range  
<sup>3</sup>C9-C12 Aliphatic Hydrocarbons exclude conc. of Target Analytes eluting in that range and conc. of C9-C10 Aromatic Hydrocarbons.  
 RL = Report Limit  
 U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

METHODOLOGY: MADEP Volatile Petroleum Hydrocarbons (VPH), ORS Division of Environmental Analysis, Revision 1.1 May 2004.

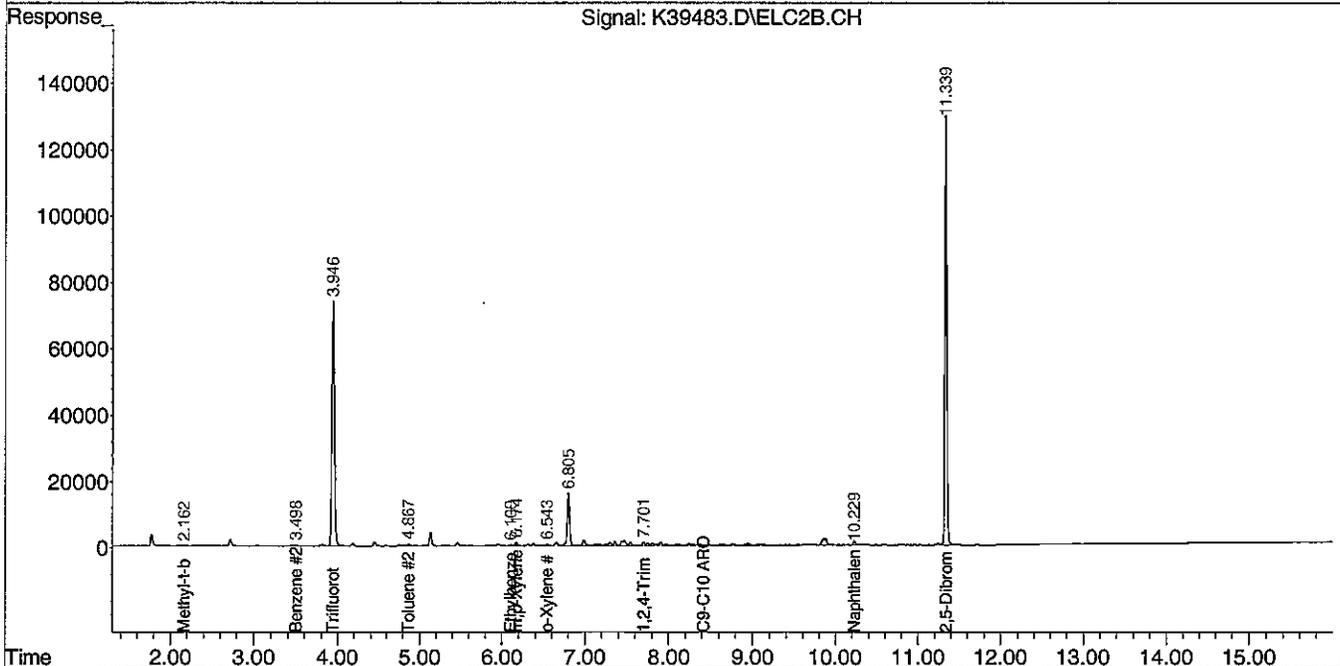
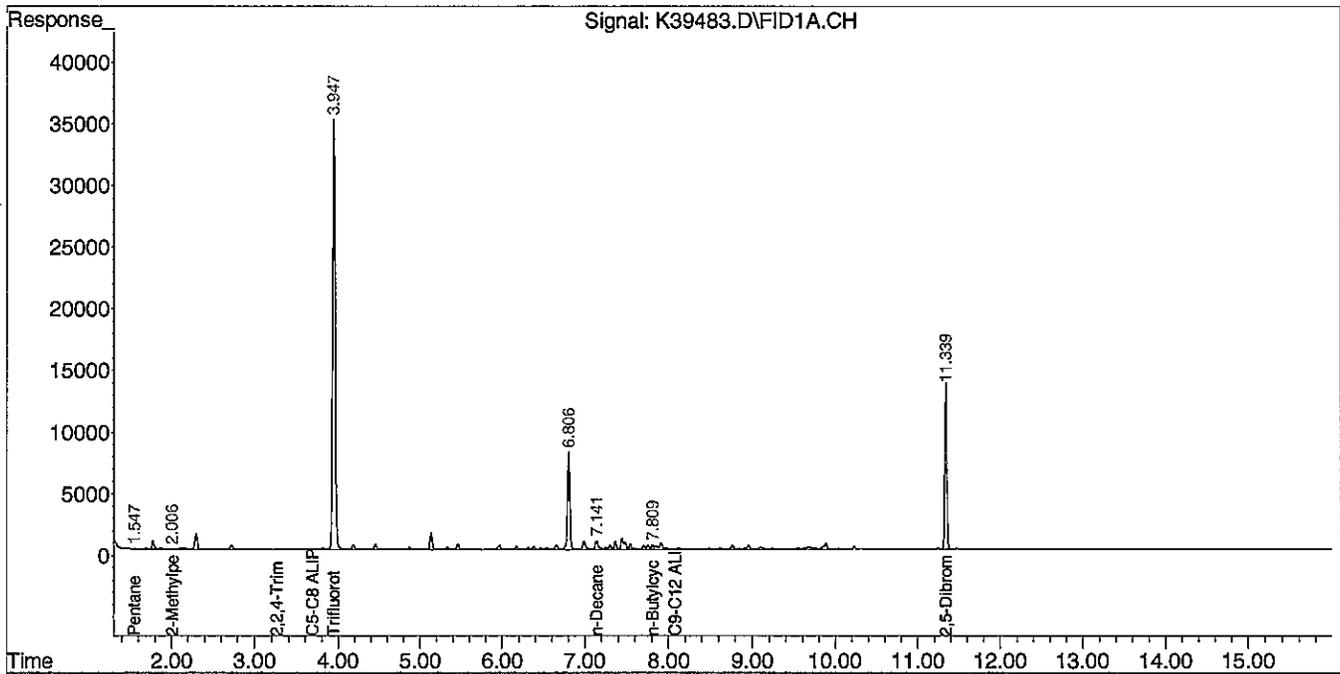
COMMENTS: Samples were received in accordance with method criteria unless noted on the sample receipt checklist.

Authorized signature: 

Data Path : C:\msdchem\1\DATA\012813-K\  
 Data File : K39483.D  
 Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH  
 Acq On : 29 Jan 2013 12:14 am  
 Operator : AR/JK  
 Sample : 74728-11  
 Misc : 5000  
 ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Jan 29 10:01:39 2013  
 Quant Method : C:\msdchem\1\METHODS\VPHTFT012213.M  
 Quant Title : Volatile Petroleum Hydrocarbons (VPH) MA DEP 2004  
 QLast Update : Wed Jan 23 11:31:20 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :



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January 29, 2013

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** MILL DAM

**Project Number:** 111.06134.017

**Client Sample ID:** MW102

**Lab Sample ID:** 74728-12

**Matrix:** Aqueous

**Percent Solid:** N/A

**Dilution Factor:** 1

**Collection Date:** 01/22/13

**Lab Receipt Date:** 01/24/13

**Analysis Date:** 01/29/13

VPH ANALYTICAL RESULTS				
RANGE/TARGET ANALYTE	Elution Range	RL	Units	Result
Unadjusted C5-C8 Aliphatics <sup>1</sup>	N/A	50	µg/L	U
Unadjusted C9-C12 Aliphatics <sup>1</sup>	N/A	50	µg/L	U
C5-C8 Aliphatics Hydrocarbons <sup>1,2</sup>	N/A	50	µg/L	U
C9-C12 Aliphatic Hydrocarbons <sup>1,3</sup>	N/A	50	µg/L	U
C9-C10 Aromatic Hydrocarbons <sup>1</sup>	N/A	10	µg/L	U
Surrogate % Recovery (Trifluorotoluene) PID				115
Surrogate % Recovery (Trifluorotoluene) FID				120
Surrogate Acceptance Range				70-130%
<sup>1</sup> Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range <sup>2</sup> C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range <sup>3</sup> C9-C12 Aliphatic Hydrocarbons exclude conc. of Target Analytes eluting in that range AND conc. Of C9-C10 Aromatic Hydrocarbons. *Recovery is outside the laboratory acceptance criteria. RL = Report Limit U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank				

METHODOLOGY: MADEP Volatile Petroleum Hydrocarbons (VPH), ORS Division of Environmental Analysis, Revision 1.1 May 2004.

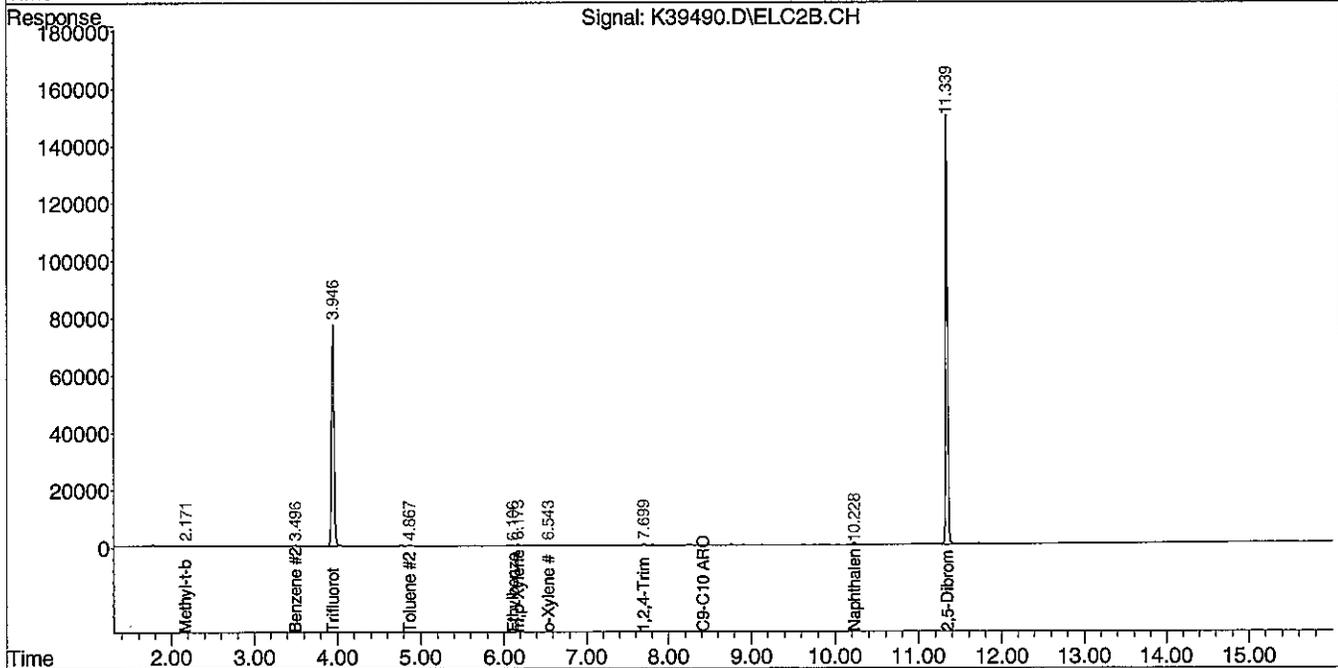
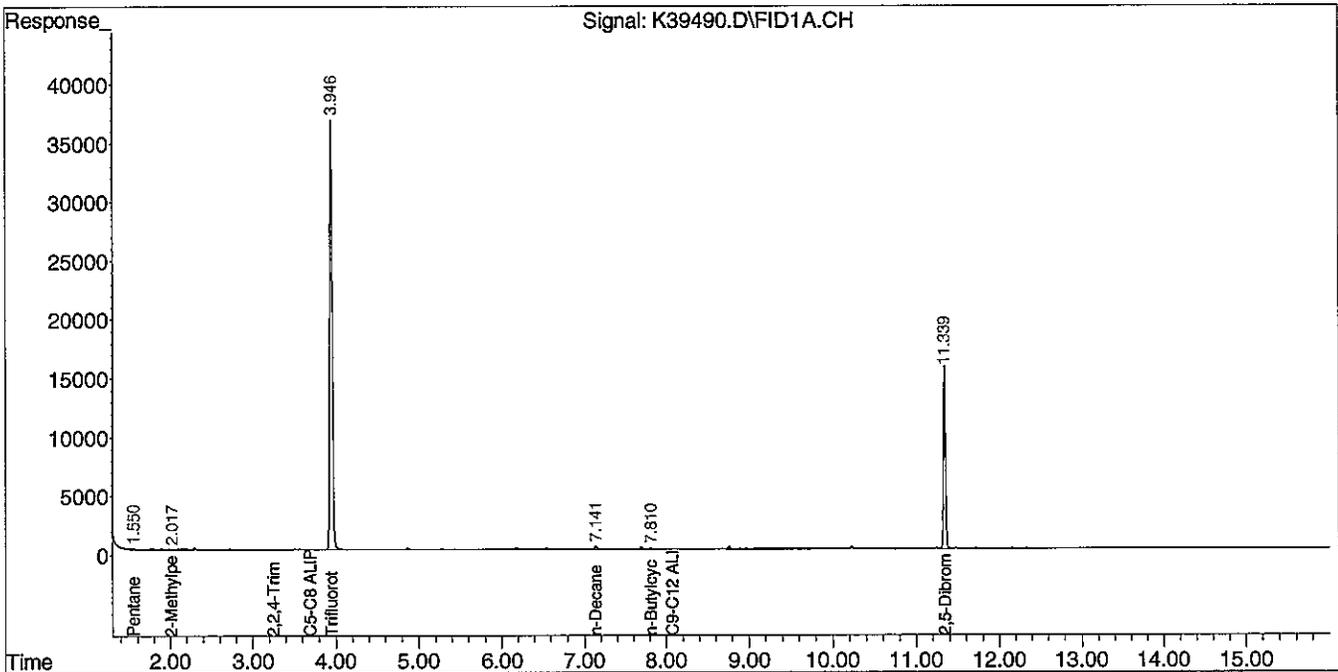
COMMENTS: Samples were received in accordance with method criteria unless noted on the sample receipt checklist.

Authorized signature: 

Data Path : C:\msdchem\1\DATA\012813-K\  
Data File : K39490.D  
Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH  
Acq On : 29 Jan 2013 3:22 am  
Operator : AR/JK  
Sample : 74728-12  
Misc : 5000  
ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
Integration File signal 2: autoint2.e  
Quant Time: Jan 29 10:01:46 2013  
Quant Method : C:\msdchem\1\METHODS\VPHTFT012213.M  
Quant Title : Volatile Petroleum Hydrocarbons (VPH) MA DEP 2004  
QLast Update : Wed Jan 23 11:31:20 2013  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



Mr. Erik Phenix  
 Ransom Consulting, Inc.  
 400 Commercial Street Suite 404  
 Portland, ME 04101

January 30, 2013

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** MILL DAM  
**Project Number:** 111.06134.017  
**Client Sample ID:** MW103

**Lab Sample ID:** 74728-13  
**Matrix:** Aqueous  
**Percent Solid:** N/A  
**Dilution Factor:** 1  
**Collection Date:** 01/22/13  
**Lab Receipt Date:** 01/24/13  
**Analysis Date:** 01/29/13

VPH ANALYTICAL RESULTS				
RANGE/TARGET ANALYTE	Elution Range	RL	Units	Result
Unadjusted C5-C8 Aliphatics <sup>1</sup>	N/A	50	µg/L	U
Unadjusted C9-C12 Aliphatics <sup>1</sup>	N/A	50	µg/L	29 J
C5-C8 Aliphatic Hydrocarbons <sup>1,2</sup>	N/A	50	µg/L	U
C9-C12 Aliphatic Hydrocarbons <sup>1,3</sup>	N/A	50	µg/L	U
C9-C10 Aromatic Hydrocarbons <sup>1</sup>	N/A	10	µg/L	12
Surrogate % Recovery (Trifluorotoluene) PID				111
Surrogate % Recovery (Trifluorotoluene) FID				116
Surrogate Acceptance Range				70-130%

<sup>1</sup>Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range  
<sup>2</sup>C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range  
<sup>3</sup>C9-C12 Aliphatic Hydrocarbons exclude conc. of Target Analytes eluting in that range AND conc. of C9-C10 Aromatic Hydrocarbons.  
 \*Recovery is outside the laboratory acceptance criteria. RL = Report Limit  
 U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

METHODOLOGY: MADEP Volatile Petroleum Hydrocarbons (VPH), ORS Division of Environmental Analysis, Revision 1.1 May 2004.

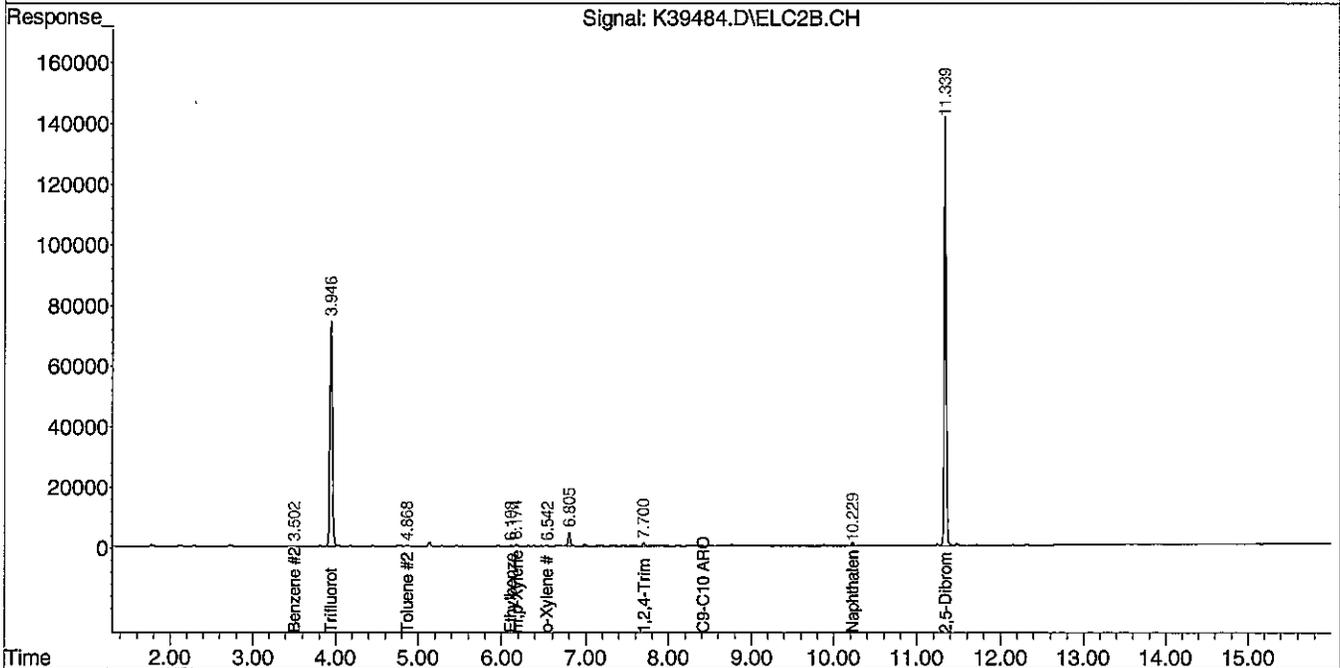
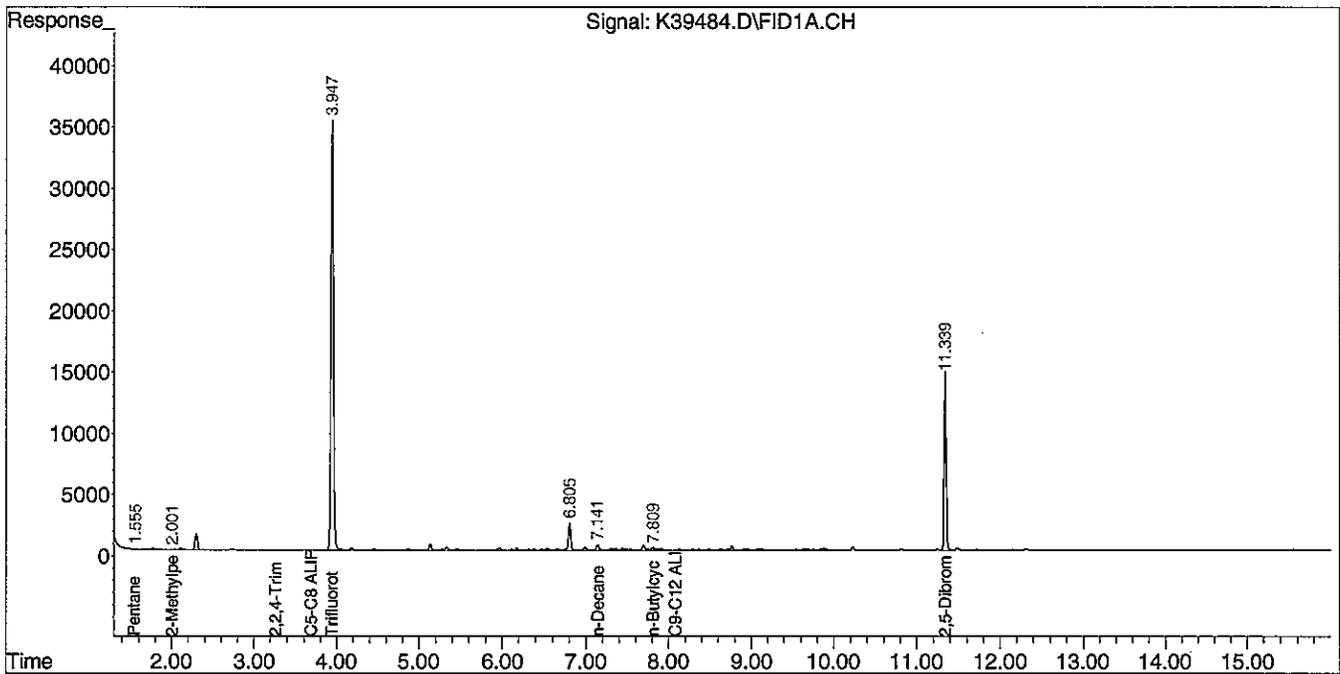
COMMENTS: Samples were received in accordance with method criteria unless noted on the sample receipt checklist.

Authorized signature: *Angelina Richard*

Data Path : C:\msdchem\1\DATA\012813-K\  
 Data File : K39484.D  
 Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH  
 Acq On : 29 Jan 2013 12:41 am  
 Operator : AR/JK  
 Sample : 74728-13  
 Misc : 5000  
 ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Jan 29 10:01:40 2013  
 Quant Method : C:\msdchem\1\METHODS\VPHTFT012213.M  
 Quant Title : Volatile Petroleum Hydrocarbons (VPH) MA DEP 2004  
 QLast Update : Wed Jan 23 11:31:20 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :



Mr. Erik Phenix  
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Portland, ME 04101

January 29, 2013

**SAMPLE DATA**

**CLIENT SAMPLE ID**  

---

**Project Name:** MILL DAM  
**Project Number:** 111.06134.017  
**Client Sample ID:** MW10X

**Lab Sample ID:** 74728-14  
**Matrix:** Aqueous  
**Percent Solid:** N/A  
**Dilution Factor:** 1  
**Collection Date:** 01/22/13  
**Lab Receipt Date:** 01/24/13  
**Analysis Date:** 01/29/13

VPH ANALYTICAL RESULTS				
RANGE/TARGET ANALYTE	Elution Range	RL	Units	Result
Unadjusted C5-C8 Aliphatics	N/A	50	µg/L	U
Unadjusted C9-C12 Aliphatics	N/A	50	µg/L	U
C5-C8 Aliphatics Hydrocarbons <sup>1,2</sup>	N/A	50	µg/L	U
C9-C12 Aliphatic Hydrocarbons <sup>1,3</sup>	N/A	50	µg/L	U
C9-C10 Aromatic Hydrocarbons <sup>1</sup>	N/A	10	µg/L	U
Surrogate % Recovery (Trifluorotoluene) PID				115
Surrogate % Recovery (Trifluorotoluene) FID				119
Surrogate Acceptance Range				70-130%
<sup>1</sup> Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range <sup>2</sup> C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range <sup>3</sup> C9-C12 Aliphatic Hydrocarbons exclude conc. of Target Analytes eluting in that range AND conc. of C9-C10 Aromatic Hydrocarbons. *Recovery is outside the laboratory acceptance criteria. RL = Report Limit U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank				

METHODOLOGY: MADEP Volatile Petroleum Hydrocarbons (VPH), ORS Division of Environmental Analysis, Revision 1.1 May 2004.

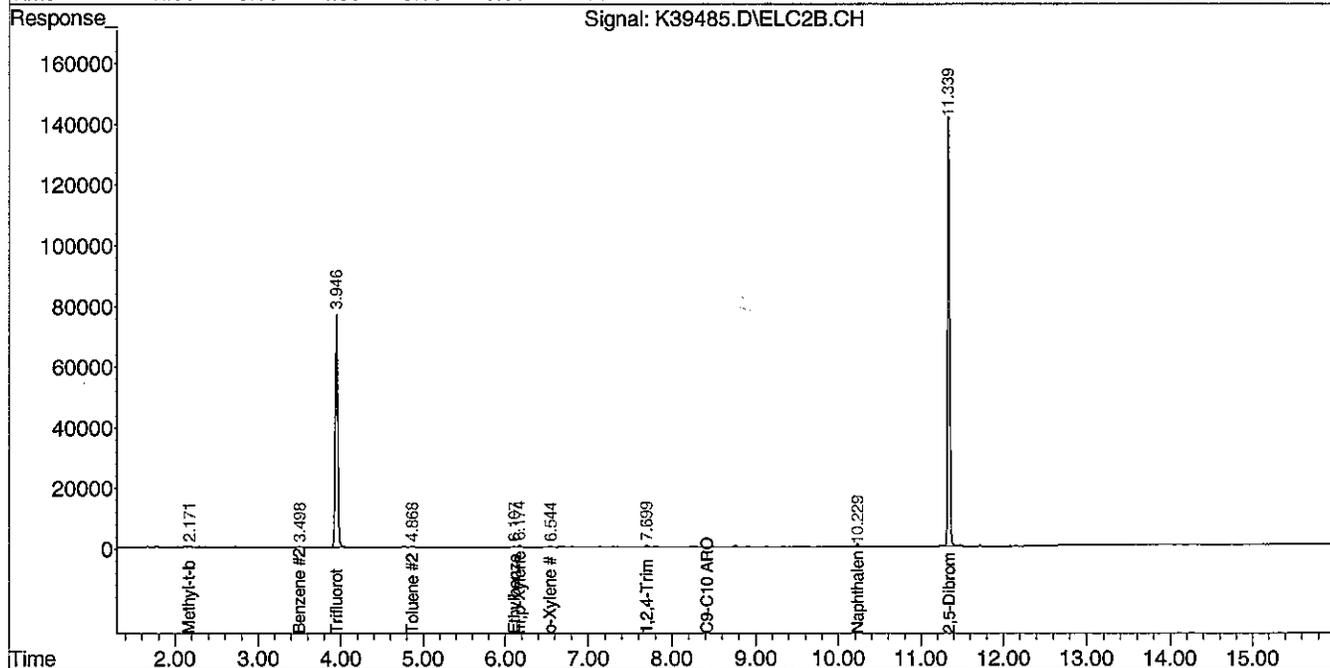
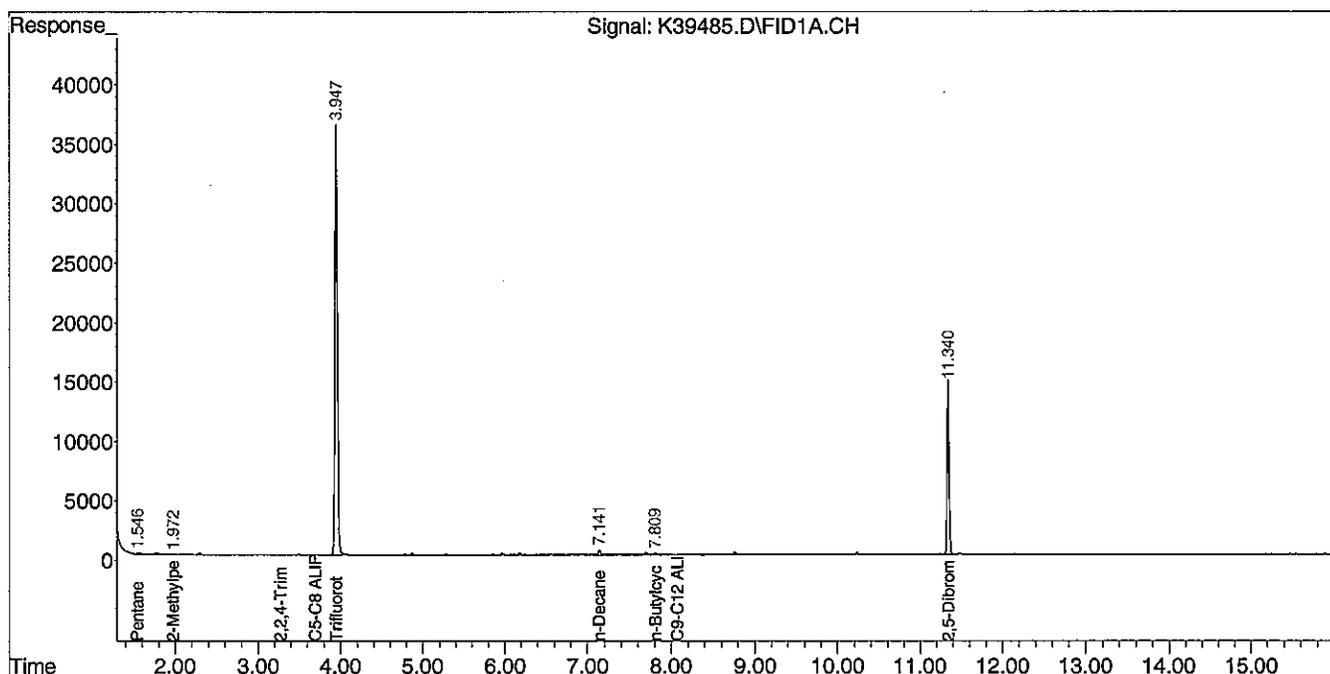
COMMENTS: Samples were received in accordance with method criteria unless noted on the sample receipt checklist.

Authorized signature: 

Data Path : C:\msdchem\1\DATA\012813-K\  
 Data File : K39485.D  
 Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH  
 Acq On : 29 Jan 2013 1:07 am  
 Operator : AR/JK  
 Sample : 74728-14  
 Misc : 5000  
 ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Jan 29 10:01:41 2013  
 Quant Method : C:\msdchem\1\METHODS\VPHTFT012213.M  
 Quant Title : Volatile Petroleum Hydrocarbons (VPH) MA DEP 2004  
 QLast Update : Wed Jan 23 11:31:20 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :



VPH  
QC FORMS

Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

January 29, 2013

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** MILL DAM

**Project Number:** 111.06134.017

**Client Sample ID:** LabQC

**Lab Sample ID:** BV012813K2

**Matrix:** Aqueous

**Percent Solid:** 0

**Dilution Factor:** 1

**Collection Date:**

**Lab Receipt Date:**

**Analysis Date:** 01/28/13

VPH ANALYTICAL RESULTS				
RANGE/TARGET ANALYTE	Elution Range	RL	Units	Result
Unadjusted C5-C8 Aliphatics	N/A	50	µg/L	U
Unadjusted C9-C12 Aliphatics	N/A	50	µg/L	U
Benzene	C5-C8	1	µg/L	U
Ethylbenzene	C9-C12	1	µg/L	U
Methyl-tert-butyl ether	C5-C8	1	µg/L	U
Naphthalene	N/A	1	µg/L	U
Toluene	C5-C8	1	µg/L	U
m- & p-Xylenes	C9-C12	2	µg/L	U
o-Xylene	C9-C12	1	µg/L	U
C5-C8 Aliphatics Hydrocarbons <sup>1,2</sup>	N/A	50	µg/L	U
C9-C12 Aliphatic Hydrocarbons <sup>1,3</sup>	N/A	50	µg/L	U
C9-C10 Aromatic Hydrocarbons <sup>1</sup>	N/A	10	µg/L	U
Surrogate % Recovery (Trifluorotoluene) PID				112
Surrogate % Recovery (Trifluorotoluene) FID				116
Surrogate Acceptance Range				70-130%

<sup>1</sup>Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.  
<sup>2</sup>C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range  
<sup>3</sup>C9-C12 Aliphatic Hydrocarbons exclude conc. of Target Analytes eluting in that range and conc. of C9-C10 Aromatic Hydrocarbons.  
 RL = Report Limit  
 U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

METHODOLOGY: MADEP Volatile Petroleum Hydrocarbons (VPH), ORS Division of Environmental Analysis, Revision 1.1 May 2004.

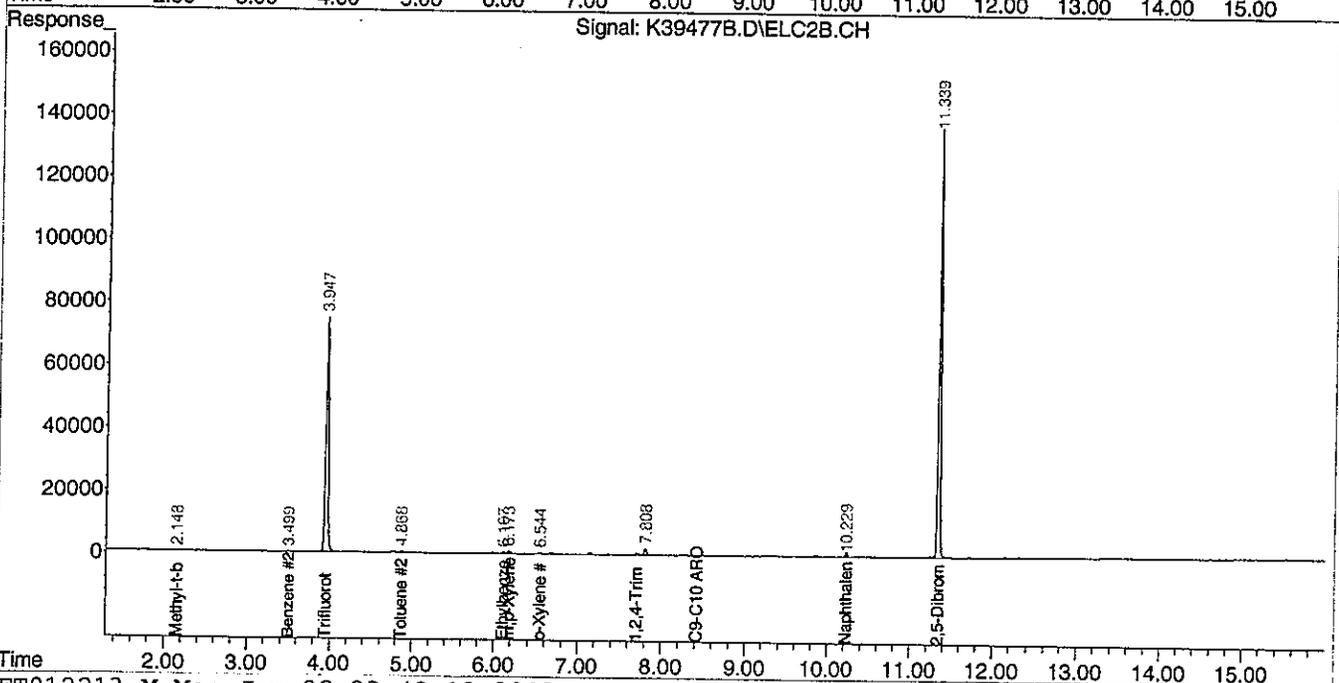
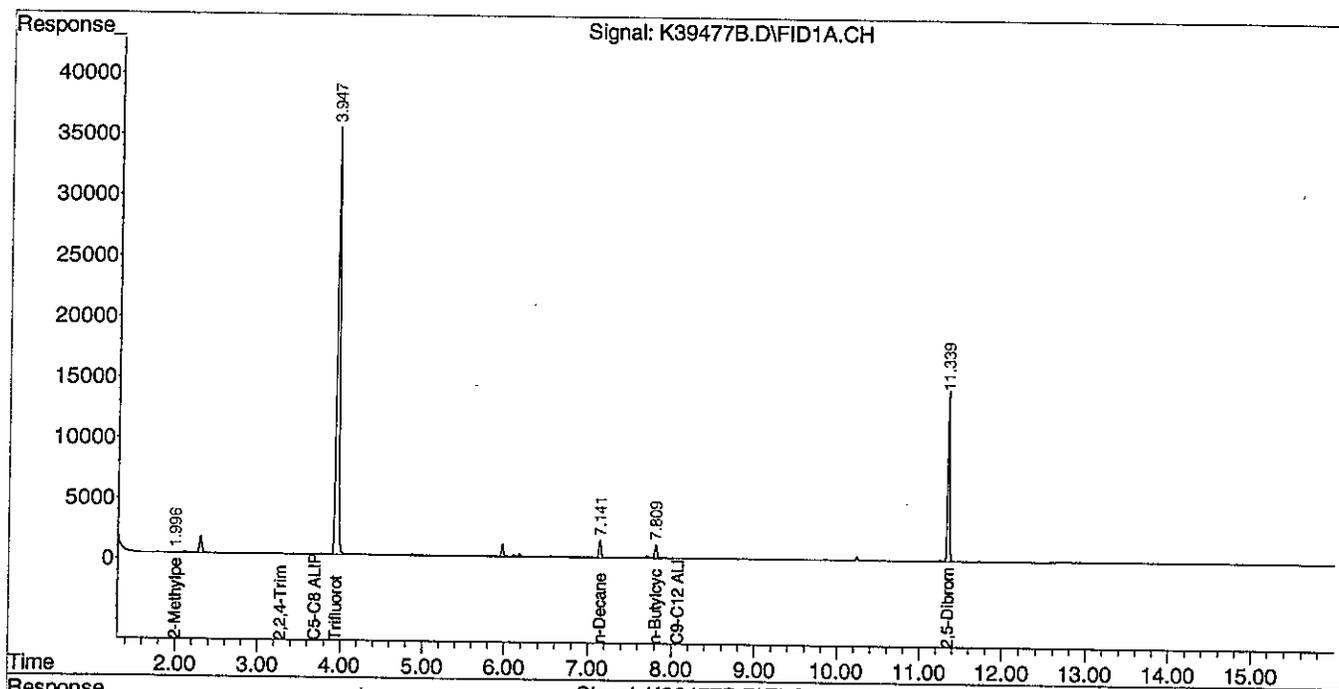
COMMENTS: Samples were received in accordance with method criteria unless noted on the sample receipt checklist.

Authorized signature: 

Data Path : C:\msdchem\1\DATA\012813-K\  
 Data File : K39477B.D  
 Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH  
 Acq On : 28 Jan 2013 9:12 pm  
 Operator : AR/JK  
 Sample : BV012813K2  
 Misc : 5000  
 ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Jan 28 23:42:03 2013  
 Quant Method : C:\msdchem\1\METHODS\VPHTFT012213.M  
 Quant Title : Volatile Petroleum Hydrocarbons (VPH) MA DEP 2004  
 QLast Update : Wed Jan 23 11:31:20 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :



Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

January 31, 2013

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** MILL DAM  
**Project Number:** 111.06134.017  
**Client Sample ID:** LabQC

**Lab Sample ID:** MBV012913K RR2  
**Matrix:** Soil  
**Percent Solid:** N/A  
**Dilution Factor:** 50  
**Collection Date:**  
**Lab Receipt Date:**  
**Analysis Date:** 01/30/13

VPH ANALYTICAL RESULTS				
RANGE/TARGET ANALYTE	Elution Range	RL	Units	Result
Unadjusted C5-C8 Aliphatics <sup>1</sup>	N/A	2500	µg/kg	U
Unadjusted C9-C12 Aliphatics	N/A	2500	µg/kg	U
Benzene	C5-C8	100	µg/kg	U
Ethylbenzene	C9-C12	100	µg/kg	U
Methyl-tert-butyl ether	C5-C8	50	µg/kg	U
Naphthalene	N/A	100	µg/kg	U
Toluene	C5-C8	100	µg/kg	U
m- & p-Xylenes	C9-C12	200	µg/kg	U
o-Xylene	C9-C12	100	µg/kg	U
C5-C8 Aliphatics Hydrocarbons <sup>1,2</sup>	N/A	2500	µg/kg	U
C9-C12 Aliphatic Hydrocarbons <sup>1,3</sup>	N/A	2500	µg/kg	U
C9-C10 Aromatic Hydrocarbons <sup>1</sup>	N/A	500	µg/kg	U
Surrogate % Recovery (Trifluorotoluene) PID				96
Surrogate % Recovery (Trifluorotoluene) FID				101
Surrogate Acceptance Range				70-130%
<sup>1</sup> Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range. <sup>2</sup> C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range <sup>3</sup> C9-C12 Aliphatic Hydrocarbons exclude conc. of Target Analytes eluting in that range and conc. of C9-C10 Aromatic Hydrocarbons. RL = Report Limit U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank				

METHODOLOGY: MADEP Volatile Petroleum Hydrocarbons (VPH), ORS Division of Environmental Analysis, Revision 1.1 May 2004.

COMMENTS: Samples were received in accordance with method criteria unless noted on the sample receipt checklist. Results are expressed on a moisture corrected and dry weight basis.

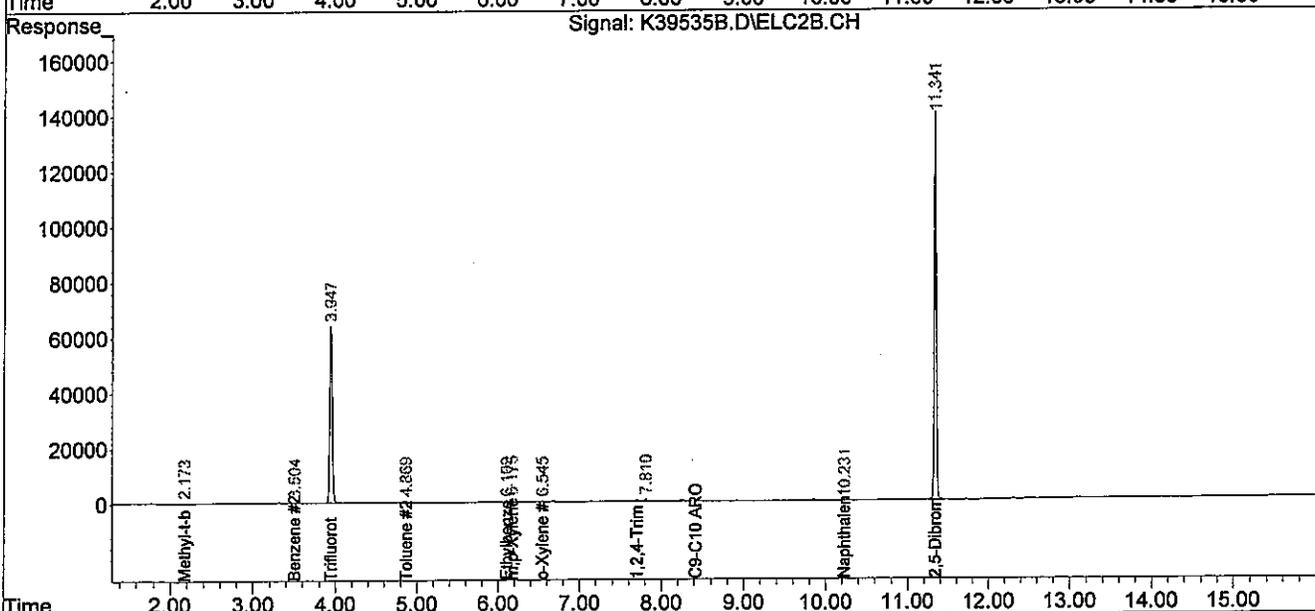
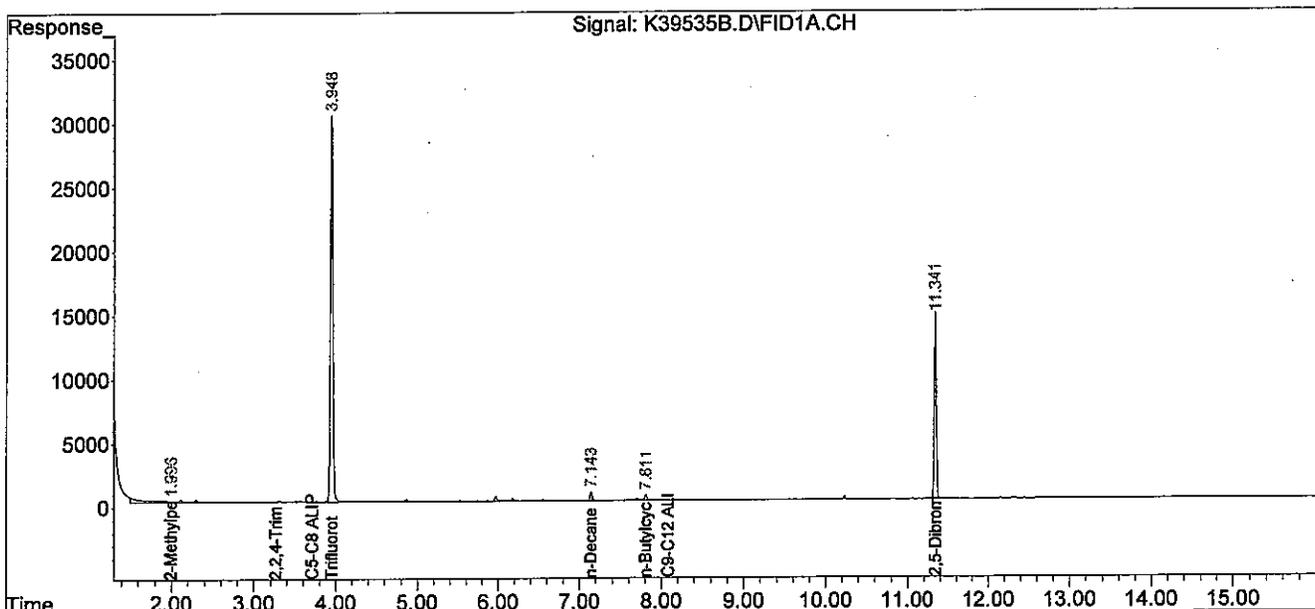
Authorized signature: 

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\012913-K\  
 Data File : K39535B.D  
 Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH  
 Acq On : 30 Jan 2013 6:48 pm  
 Operator : AR/JK  
 Sample : MBV012913K,RR2  
 Misc : 100,10.00,SOIL  
 ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Jan 30 19:25:06 2013  
 Quant Method : C:\msdchem\1\METHODS\VPHTFT012213.M  
 Quant Title : Volatile Petroleum Hydrocarbons (VPH) MA DEP 2004  
 QLast Update : Wed Jan 23 11:31:20 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :



VOLATILE PETROLEUM HYDROCARBONS  
LABORATORY CONTROL SAMPLE  
LABORATORY CONTROL SAMPLE DUPLICATE  
PERCENT RECOVERY

Instrument ID: K  
GC Column: RTX-502.2  
Column ID: 0.25 mm

SDG:  
Non-spiked sample: BV012813K2  
Spike: LV012813K  
Spike duplicate: LV012813K2

COMPOUND	SPIKE ADDED	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/L)	SPIKE RESULT (ug/L)	SPIKE % REC	#	SPIKE DUP RESULT (ug/L)	SPIKE DUP % REC	#	RPD	#
Pentane	100	70	130	25	0.0	119	119		116	116		2	
2-Methylpentane	100	70	130	25	0.0	120	120		120	120		0	
2,2,4-Trimethylpentane	100	70	130	25	0.0	113	113		103	103		9	
n-Decane	100	70	130	25	0.0	106	106		100	100		6	
n-Butylcyclohexane	100	70	130	25	0.0	108	108		103	103		5	
Methyl-t-butylether #2	100	70	130	25	0.0	99	99		99	99		1	
Benzene #2	100	70	130	25	0.0	106	106		105	105		1	
Toluene #2	100	70	130	25	0.0	105	105		104	104		1	
Ethylbenzene #2	100	70	130	25	0.0	107	107		105	105		2	
m,p-Xylene #2	200	70	130	25	0.0	212	106		208	104		2	
o-Xylene #2	100	70	130	25	0.0	106	106		103	103		3	
1,2,4-Trimethylbenzene #2	100	70	130	25	0.0	109	109		104	104		4	
Naphthalene #2	100	70	130	25	0.0	93	93		98	98		5	
C5-C8 Aliphatics	300	70	130	25	0.0	352	117		339	113		4	
C9-C12 Aliphatics	200	70	130	25	0.0	214	107		203	102		5	
C9-C10 Aromatics #2	100	70	130	25	0.0	109	109		104	104		4	

# Column to be used to flag recovery and RPD values outside of QC limits  
\* Values outside QC limits

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery

Comments: \_\_\_\_\_  
\_\_\_\_\_

VOLATILE PETROLEUM HYDROCARBONS AQUEOUS  
MATRIX SPIKE/MATRIX SPIKE DUPLICATE  
PERCENT RECOVERY

Instrument ID: K  
GC Column: RTX-502.2  
Column ID: 0.25 mm

SDG:  
Non-spiked sample: 74728-12  
Spike: 74728-12,MS  
Spike duplicate: 74728-12,MSD

COMPOUND	SPIKE ADDED	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/L)	SPIKE RESULT (ug/L)	SPIKE % REC	#	SPIKE DUP RESULT (ug/L)	SPIKE DUP % REC	#	RPD	#
Pentane	100	70	130	25	0.0	121	121		124	124		3	
2-Methylpentane	100	70	130	25	0.0	123	123		127	127		3	
2,2,4-Trimethylpentane	100	70	130	25	0.0	110	110		112	112		2	
n-Decane	100	70	130	25	0.0	58	58	*	59	59	*	2	
n-Butylcyclohexane	100	70	130	25	0.0	78	78		84	84		7	
Methyl-t-butylether #2	100	70	130	25	0.6	101	101		105	104		3	
Benzene #2	100	70	130	25	0.0	107	107		111	111		4	
Toluene #2	100	70	130	25	0.0	105	105		109	109		4	
Ethylbenzene #2	100	70	130	25	0.0	108	108		112	112		4	
m,p-Xylene #2	200	70	130	25	0.0	213	106		222	111		4	
o-Xylene #2	100	70	130	25	0.0	106	106		110	110		4	
1,2,4-Trimethylbenzene #2	100	70	130	25	0.0	108	108		113	113		4	
Naphthalene #2	100	70	130	25	0.0	91	91		98	98		8	
C5-C8 Aliphatics	300	70	130	25	0.0	354	118		363	121		2	
C9-C12 Aliphatics	200	70	130	25	0.0	136	68	*	143	71		5	
C9-C10 Aromatics #2	100	70	130	25	0.0	108	108		113	113		4	

# Column to be used to flag recovery and RPD values outside of QC limits  
\* Values outside QC limits

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery

Comments: \_\_\_\_\_  
\_\_\_\_\_

VOLATILE PETROLEUM HYDROCARBONS SOIL  
LABORATORY CONTROL/LABORATORY CONTROL DUPLICATE  
PERCENT RECOVERY

Instrument ID: K  
GC Column: RTX-502.2  
Column ID: 0.25 mm

SDG:  
Non-spiked sample: MBV012913K  
Spike: LSV012913K  
Spike duplicate: LSV012913K2

COMPOUND	LCS SPIKE ADDED (ug/kg)	LCS D SPIKE ADDED (ug/kg)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE % REC	SPIKE #	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	SPIKE DUP #	RPD #
Pentane	5000	5000	70	130	25	0	5506	110		5107	102		8
2-Methylpentane	5000	5000	70	130	25	0	5843	117		5428	109		7
2,2,4-Trimethylpentane	5000	5000	70	130	25	0	5354	107		5060	101		6
n-Decane	5000	5000	70	130	25	0	5485	110		5249	105		4
n-Butylcyclohexane	5000	5000	70	130	25	0	5697	114		5276	106		8
Methyl-t-butylether #2	5000	5000	70	130	25	0	4795	96		4782	96		0
Benzene #2	5000	5000	70	130	25	0	5276	106		5012	100		5
Toluene #2	5000	5000	70	130	25	0	5251	105		4981	100		5
Ethylbenzene #2	5000	5000	70	130	25	0	5382	108		5108	102		5
m,p-Xylene #2	10000	10000	70	130	25	0	10728	107		10175	102		5
o-Xylene #2	5000	5000	70	130	25	0	5332	107		5060	101		5
1,2,4-Trimethylbenzene #2	5000	5000	70	130	25	0	5454	109		5137	103		6
Naphthalene #2	5000	5000	70	130	25	0	4792	96		4614	92		4
C5-C8 Aliphatics	15000	15000	70	130	25	0	16702	111		15595	104		7
C9-C12 Aliphatics	10000	10000	70	130	25	0	11182	112		10525	105		6
C9-C10 Aromatics #2	5000	5000	70	130	25	0	5454	109		5137	103		6

# Column to be used to flag recovery and RPD values outside of QC limits  
\* Values outside QC limits

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: \_\_\_\_\_  
\_\_\_\_\_

EPH  
DATA SUMMARIES

February 6, 2013

Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

**SAMPLE DATA**

**Lab Sample ID:** 74728-1  
**Matrix:** Solid  
**Percent Solid:** 68  
**Dilution Factor:** 2.9  
**Collection Date:** 01/22/13  
**Lab Receipt Date:** 01/24/13  
**Extraction Date:** 01/31/13  
**Analysis Date:** 02/06/13

**CLIENT SAMPLE ID**  
**Project Name:** MILL DAM  
**Project Number:** 111.06134.017  
**Client Sample ID:** SB101-S1-012213

EPH ANALYTICAL RESULTS			
RANGE/TARGET ANALYTE	RL	Units	Result
Unadjusted C11-C22 Aromatics <sup>1</sup>	39000	µg/kg	<b>432000</b>
Diesel PAH Analytes	Naphthalene	780 µg/kg	U
	2-Methylnaphthalene	780 µg/kg	U
	Phenanthrene	780 µg/kg	<b>18700</b>
	Acenaphthene	780 µg/kg	U
Other Target PAH Analytes	Acenaphthylene	780 µg/kg	<b>2340</b>
	Fluorene	780 µg/kg	<b>1310</b>
	Anthracene	780 µg/kg	<b>2110</b>
	Fluoranthene	780 µg/kg	<b>28000</b>
	Pvrene	780 µg/kg	<b>23700</b>
	Benzo[a]anthracene	780 µg/kg	<b>14000</b>
	Chrysene	780 µg/kg	<b>15700</b>
	Benzo[b]fluoranthene	780 µg/kg	<b>19100</b>
	Benzo[k]fluoranthene	780 µg/kg	<b>6390</b>
	Benzo[a]pyrene	780 µg/kg	<b>12900</b>
	Indeno[1,2,3-cd]pyrene	780 µg/kg	<b>10400</b>
	Dibenzo[a,h]anthracene	780 µg/kg	<b>2380</b>
Benzo[g,h,i]perylene	780 µg/kg	<b>8250</b>	
C9-C18 Aliphatic Hydrocarbons <sup>1</sup>	19500	µg/kg	<b>12300 J</b>
C19-C36 Aliphatic Hydrocarbons <sup>1</sup>	19500	µg/kg	<b>36700</b>
C11-C22 Aromatic Hydrocarbons <sup>1,2</sup>	39000	µg/kg	<b>266000</b>
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)			72
Aromatic Surrogate % Recovery (O-Terphenyl)			66
Sample Surrogate Acceptance Range	--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)			69
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)			76
Fractionation Surrogate Acceptance Range	--	--	40-140%

<sup>1</sup>Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.  
<sup>2</sup>C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.  
RL = Report Limit  
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

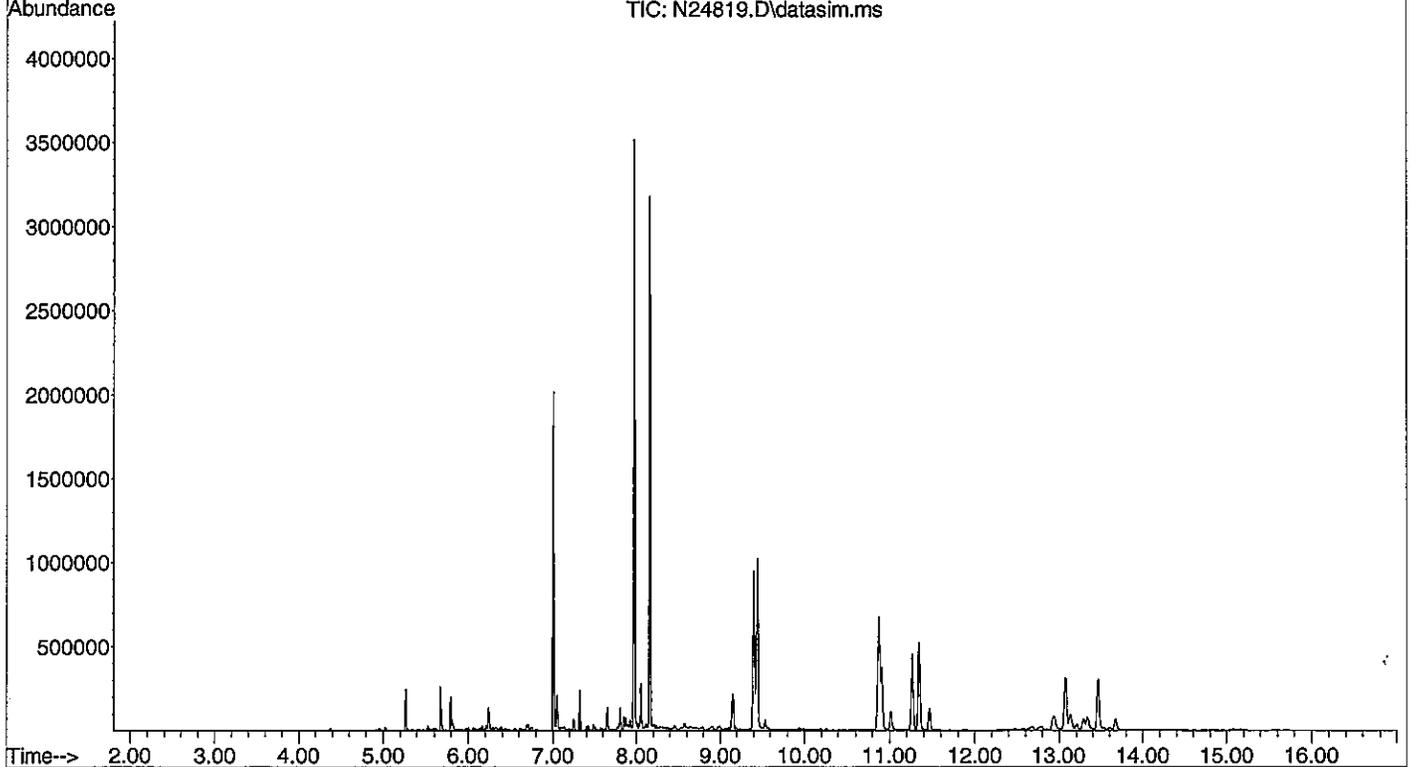
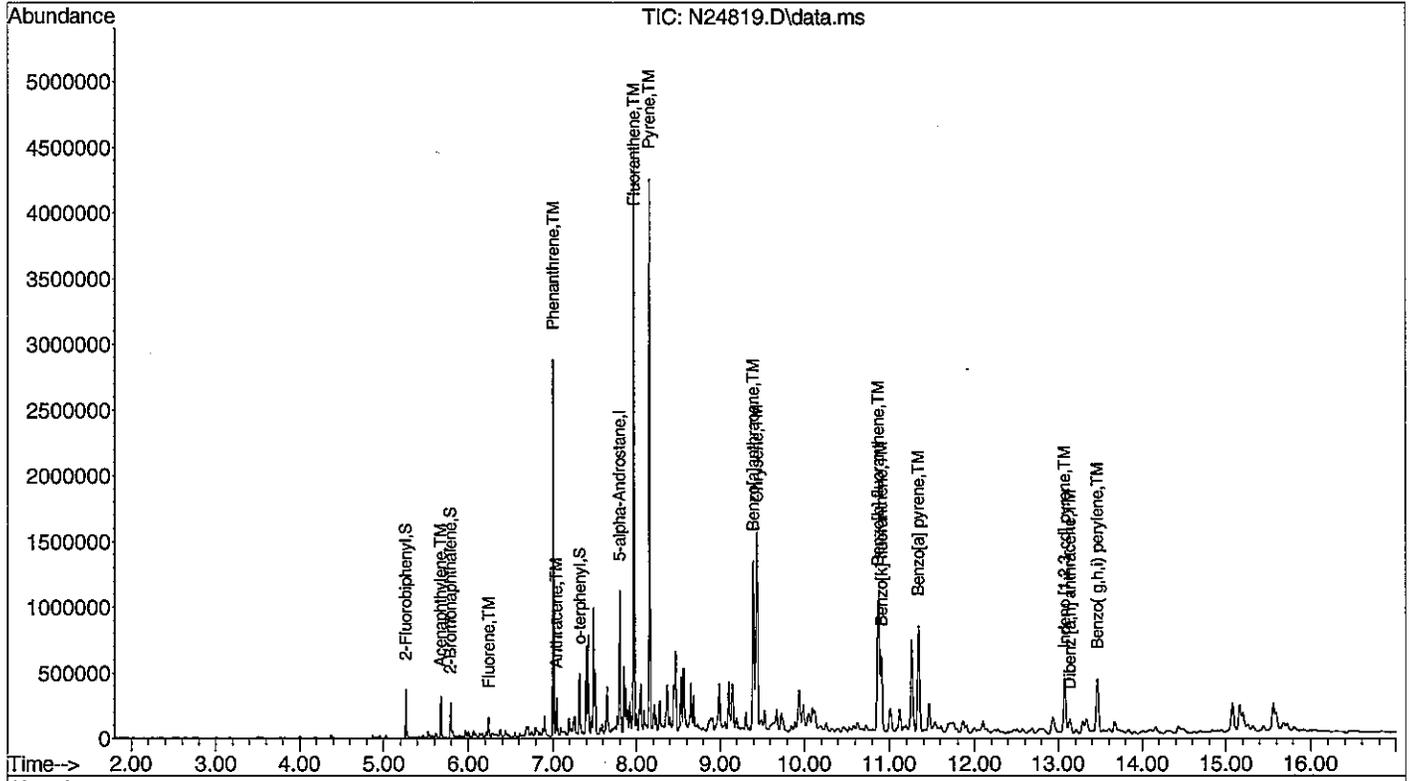
METHODOLOGY:MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004  
Revision I.1. Samples were extracted in accordance with SW-846 Method 3545

COMMENTS:EPH analyses utilized the use of a GC/MS system to detect and quantify ranges and target analytes. Samples were received in accordance with method criteria unless noted on the sample receipt checklist.  
Results are expressed on a dry weight basis.

SIGNATURE: 

Data Path : C:\msdchem\1\DATA\020513-N\  
 Data File : N24819.D  
 Acq On : 6 Feb 2013 2:42 am  
 Operator : AR  
 Sample : 74728-1,,1:2  
 Misc : SOIL,ARO  
 ALS Vial : 24 Sample Multiplier: 1

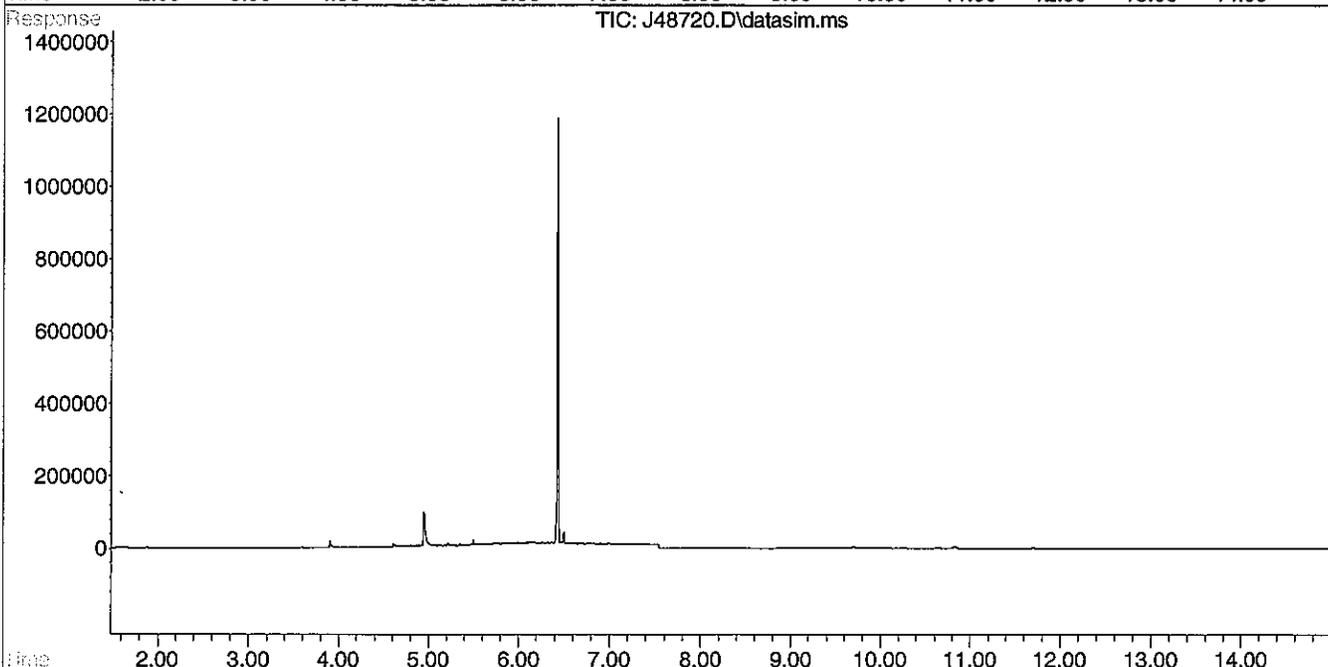
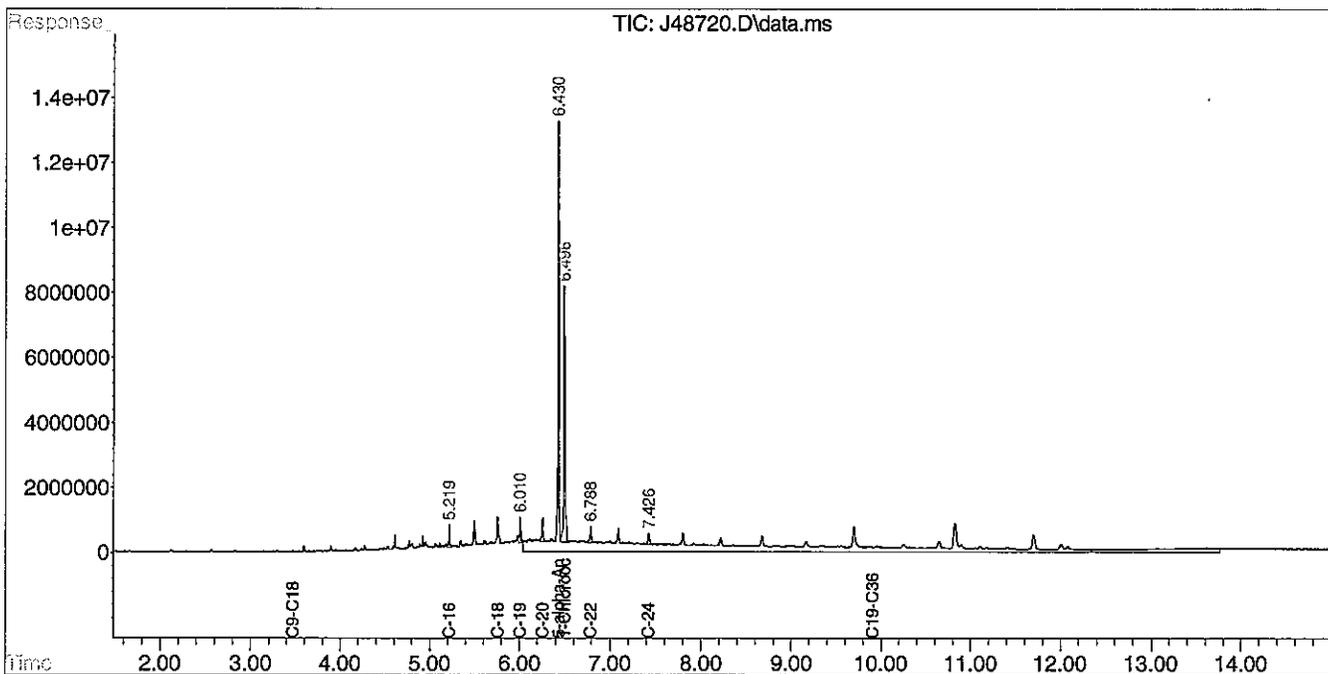
Quant Time: Feb 06 03:02:06 2013  
 Quant Method : C:\msdchem\1\METHODS\ARM020413N.M  
 Quant Title : EPH MS AROMATICS  
 QLast Update : Tue Feb 05 18:13:49 2013  
 Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\020513-J\  
 Data File : J48720.D  
 Signal(s) : Signal #1: data.ms Signal #2: datasim.ms  
 Acq On : 5 Feb 2013 9:32 pm  
 Operator : MG/AR  
 Sample : 74728-1  
 Misc : SOIL,ALI  
 ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Feb 05 23:07:06 2013  
 Quant Method : C:\msdchem\1\METHODS\ALG020413.M  
 Quant Title : EPH GC ALIPHATICS  
 QLast Update : Tue Feb 05 15:32:52 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :



Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

February 6, 2013

**CLIENT SAMPLE ID**  
**Project Name:** MILL DAM  
**Project Number:** 111.06134.017  
**Client Sample ID:** SB102-S3-012213

**SAMPLE DATA**  
**Lab Sample ID:** 74728-2  
**Matrix:** Solid  
**Percent Solid:** 69  
**Dilution Factor:** 1.4  
**Collection Date:** 01/22/13  
**Lab Receipt Date:** 01/24/13  
**Extraction Date:** 01/31/13  
**Analysis Date:** 02/06/13

EPH ANALYTICAL RESULTS			
RANGE/TARGET ANALYTE	RL	Units	Result
Unadjusted C11-C22 Aromatics <sup>1</sup>	18800	µg/kg	U
Diesel PAH Analytes	Naphthalene	376	µg/kg
	2-Methylnaphthalene	376	µg/kg
	Phenanthrene	376	µg/kg
	Acenaphthene	376	µg/kg
Other Target PAH Analytes	Acenaphthylene	376	µg/kg
	Fluorene	376	µg/kg
	Anthracene	376	µg/kg
	Fluoranthene	376	µg/kg
	Pyrene	376	µg/kg
	Benzo[a]anthracene	376	µg/kg
	Chrysene	376	µg/kg
	Benzo[b]fluoranthene	376	µg/kg
	Benzo[k]fluoranthene	376	µg/kg
	Benzo[a]pyrene	376	µg/kg
	Indeno[1,2,3-cd]pyrene	376	µg/kg
	Dibenzof[a,h]anthracene	376	µg/kg
	Benzo[g,h,i]perylene	376	µg/kg
	C9-C18 Aliphatic Hydrocarbons <sup>1</sup>	18800	µg/kg
C19-C36 Aliphatic Hydrocarbons <sup>1</sup>	18800	µg/kg	U
C11-C22 Aromatic Hydrocarbons <sup>1,2</sup>	18800	µg/kg	U
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)			65
Aromatic Surrogate % Recovery (O-Terphenyl)			68
Sample Surrogate Acceptance Range	--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)			83
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)			81
Fractionation Surrogate Acceptance Range	--	--	40-140%
<sup>1</sup> Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.			
<sup>2</sup> C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.			
RL = Report Limit			
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank			

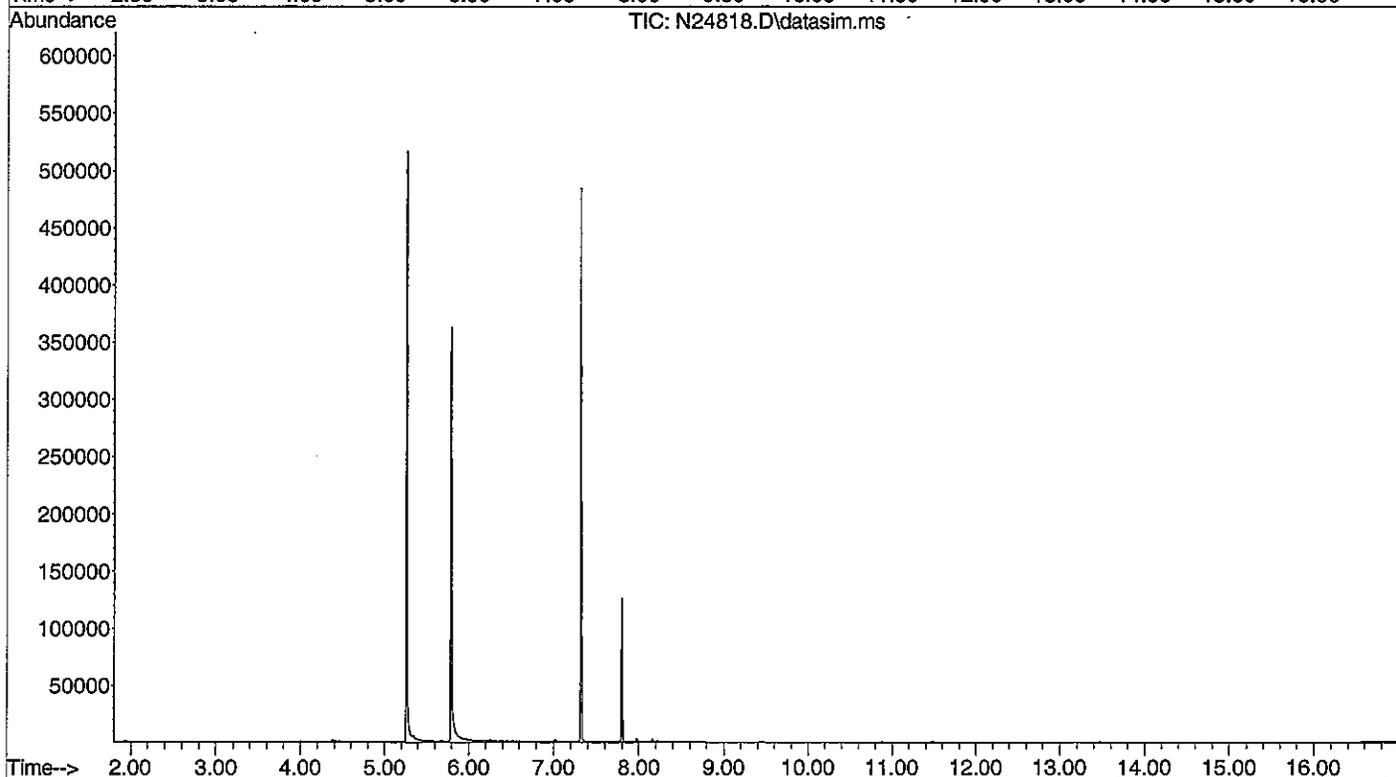
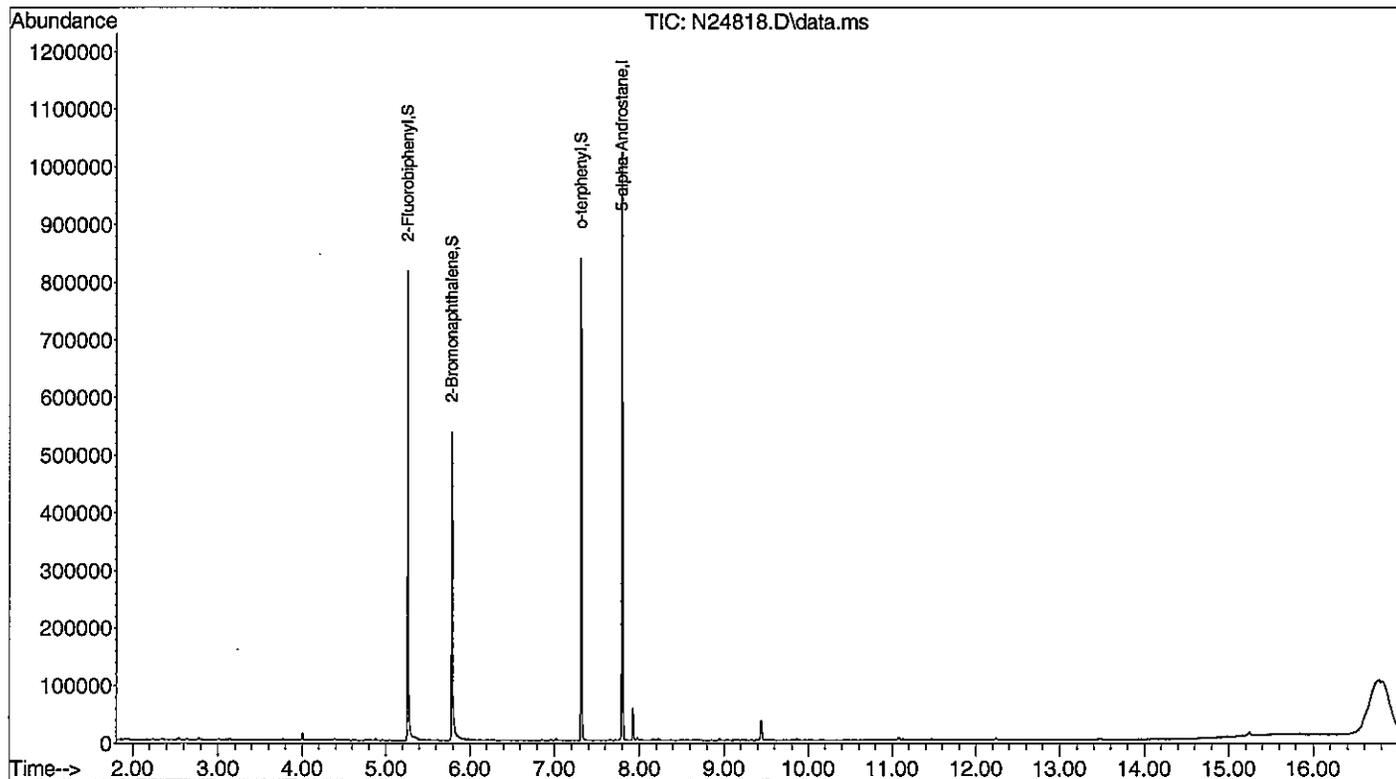
METHODOLOGY MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004  
Revision 1.1. Samples were extracted in accordance with SW-846 Method 3545

COMMENTS: EPH analyses utilized the use of a GC/MS system to detect and quantify ranges and target analytes. Samples were received in accordance with method criteria unless noted on the sample receipt checklist.  
Results are expressed on a dry weight basis.

SIGNATURE: 

Data Path : C:\msdchem\1\DATA\020513-N\  
 Data File : N24818.D  
 Acq On : 6 Feb 2013 2:22 am  
 Operator : AR  
 Sample : 74728-2  
 Misc : SOIL,ARO  
 ALS Vial : 13 Sample Multiplier: 1

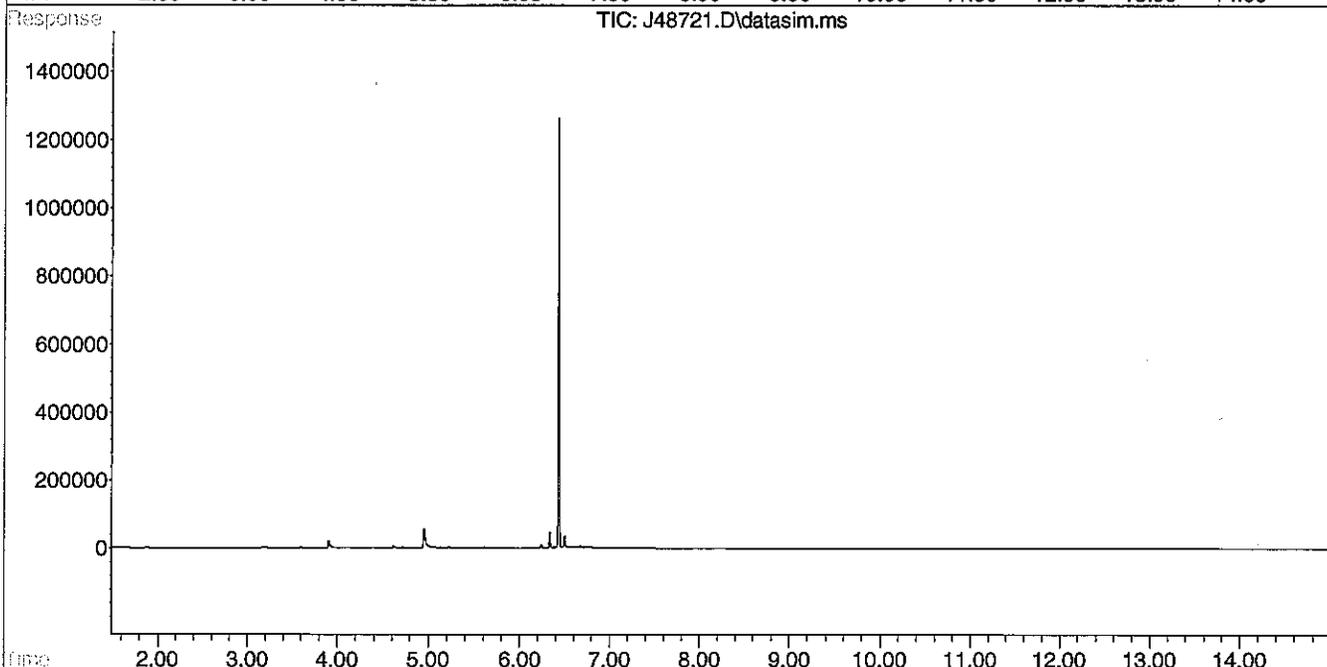
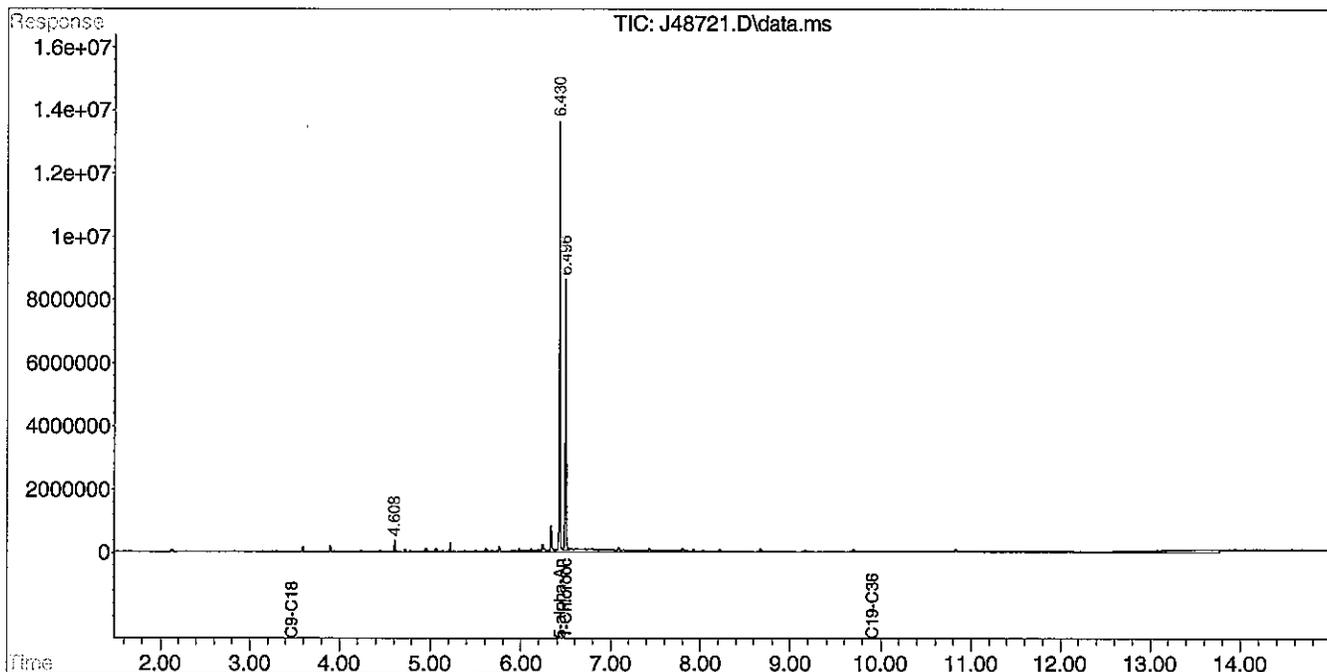
Quant Time: Feb 06 02:38:08 2013  
 Quant Method : C:\msdchem\1\METHODS\ARM020413N.M  
 Quant Title : EPH MS AROMATICS  
 QLast Update : Tue Feb 05 18:13:49 2013  
 Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\020513-J\  
 Data File : J48721.D  
 Signal(s) : Signal #1: data.ms Signal #2: datasim.ms  
 Acq On : 5 Feb 2013 9:53 pm  
 Operator : MG/AR  
 Sample : 74728-2  
 Misc : SOIL,ALI  
 ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Feb 05 23:08:01 2013  
 Quant Method : C:\msdchem\1\METHODS\ALG020413.M  
 Quant Title : EPH GC ALIPHATICS  
 QLast Update : Tue Feb 05 15:32:52 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :



February 6, 2013

Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

**CLIENT SAMPLE ID**

**Project Name:** MILL DAM  
**Project Number:** 111.06134.017  
**Client Sample ID:** SB10X-S3-012213

**SAMPLE DATA**

**Lab Sample ID:** 74728-3  
**Matrix:** Solid  
**Percent Solid:** 65  
**Dilution Factor:** 1.5  
**Collection Date:** 01/22/13  
**Lab Receipt Date:** 01/24/13  
**Extraction Date:** 01/31/13  
**Analysis Date:** 02/05/13

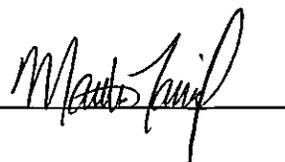
EPH ANALYTICAL RESULTS			
RANGE/TARGET ANALYTE	RL	Units	Result
Unadjusted C11-C22 Aromatics <sup>1</sup>	20500	µg/kg	U
Diesel PAH Analytes	Naphthalene	410	µg/kg
	2-Methylnaphthalene	410	µg/kg
	Phenanthrene	410	µg/kg
	Acenaphthene	410	µg/kg
Other Target PAH Analytes	Acenaphthylene	410	µg/kg
	Fluorene	410	µg/kg
	Anthracene	410	µg/kg
	Fluoranthene	410	µg/kg
	Pyrene	410	µg/kg
	Benzo[a]anthracene	410	µg/kg
	Chrysene	410	µg/kg
	Benzo[b]fluoranthene	410	µg/kg
	Benzo[k]fluoranthene	410	µg/kg
	Benzo[a]pyrene	410	µg/kg
	Indeno[1,2,3-cd]pyrene	410	µg/kg
	Dibenzo[a,h]anthracene	410	µg/kg
	Benzo[g,h,i]perylene	410	µg/kg
	C9-C18 Aliphatic Hydrocarbons <sup>1</sup>	20500	µg/kg
C19-C36 Aliphatic Hydrocarbons <sup>1</sup>	20500	µg/kg	U
C11-C22 Aromatic Hydrocarbons <sup>1,2</sup>	20500	µg/kg	U
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)			64
Aromatic Surrogate % Recovery (O-Terphenyl)			61
Sample Surrogate Acceptance Range	--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)			82
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)			84
Fractionation Surrogate Acceptance Range	--	--	40-140%

<sup>1</sup>Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.  
<sup>2</sup>C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.  
RL = Report Limit  
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

METHODOLOGY:MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004  
Revision 1.1. Samples were extracted in accordance with SW-846 Method 3545

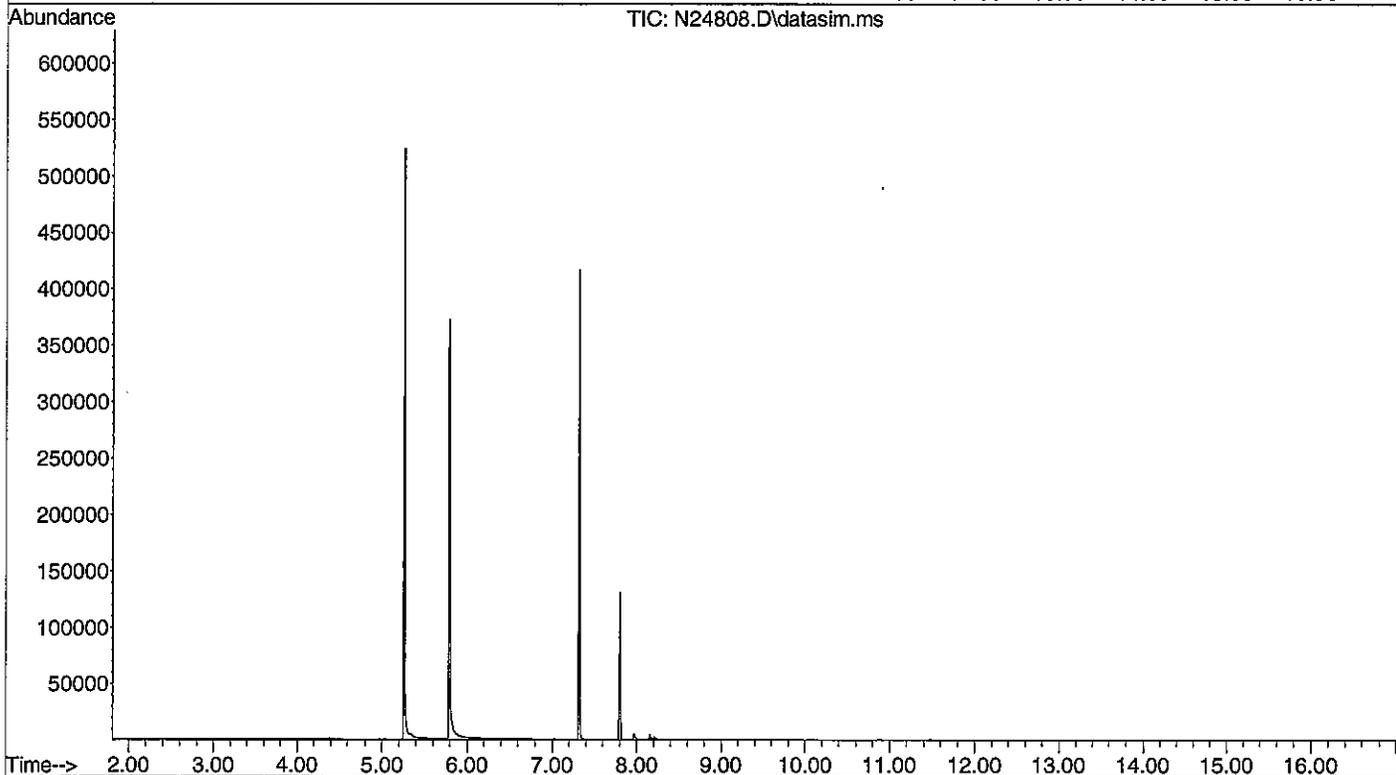
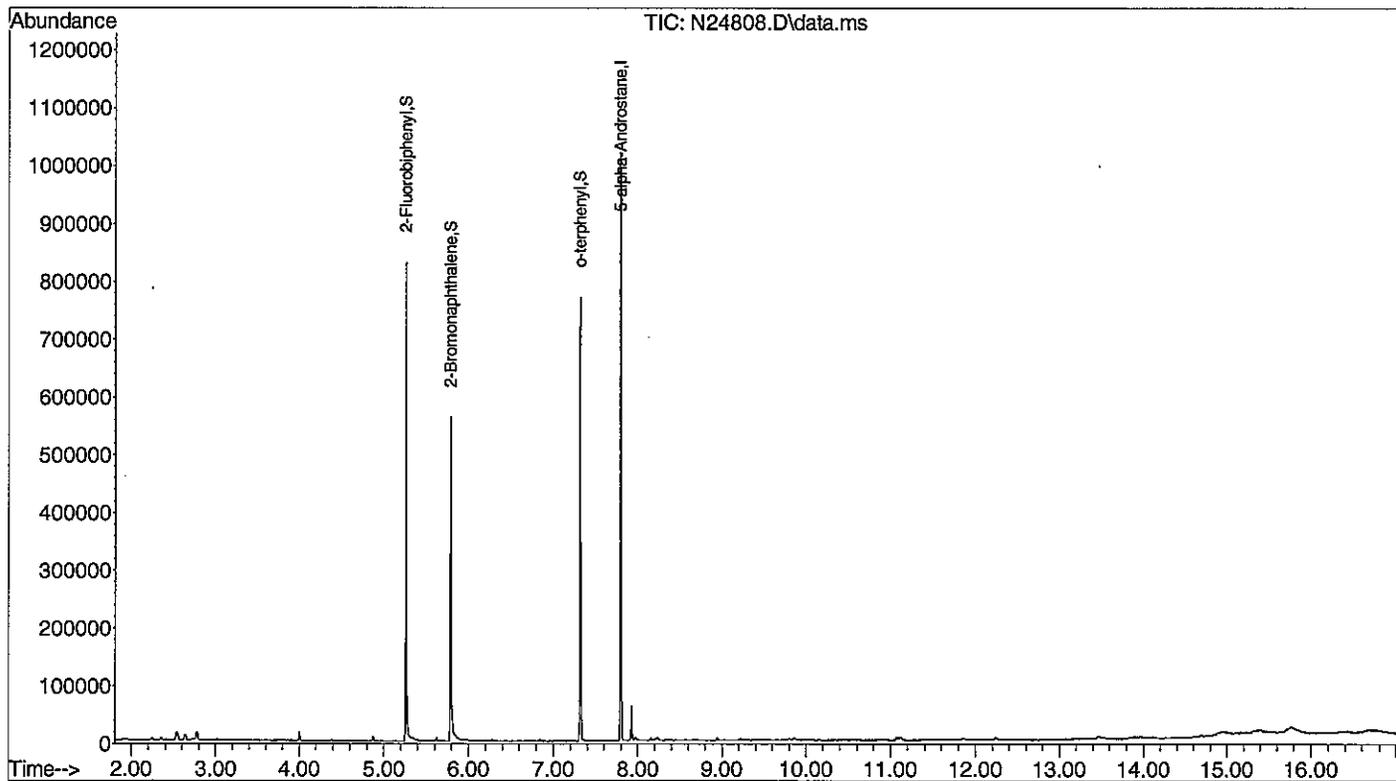
COMMENTS:EPH analyses utilized the use of a GC/MS system to detect and quantify ranges and target analytes. Samples were received in accordance with method criteria unless noted on the sample receipt checklist.  
Results are expressed on a dry weight basis.

SIGNATURE: \_\_\_\_\_



Data Path : C:\msdchem\1\DATA\020513-N\  
 Data File : N24808.D  
 Acq On : 5 Feb 2013 10:57 pm  
 Operator : AR  
 Sample : 74728-3  
 Misc : SOIL, ARO  
 ALS Vial : 14 Sample Multiplier: 1

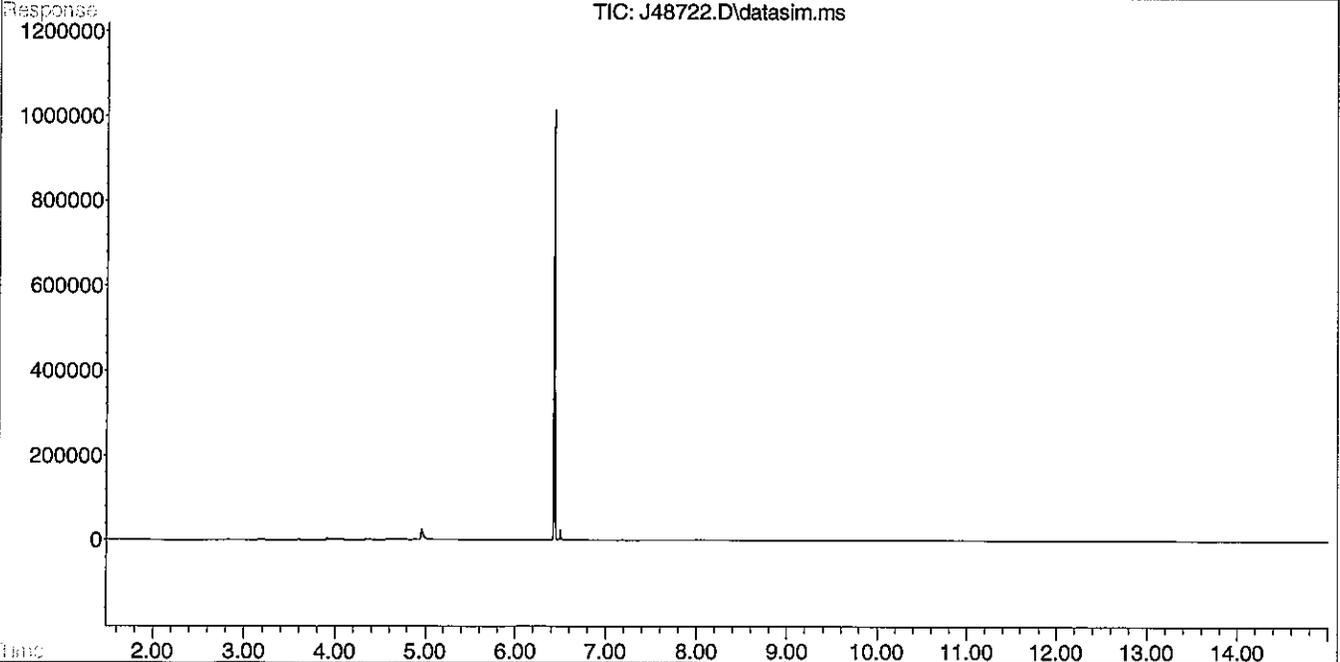
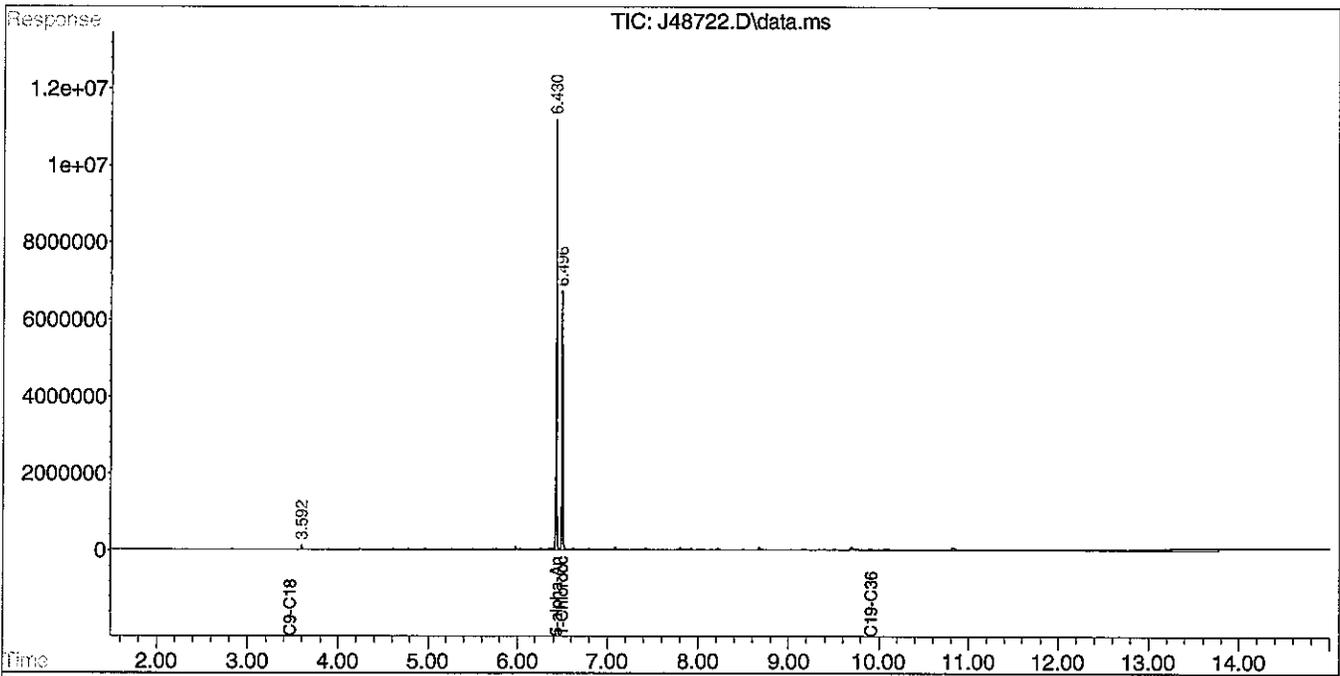
Quant Time: Feb 06 00:13:40 2013  
 Quant Method : C:\msdchem\1\METHODS\ARM020413N.M  
 Quant Title : EPH MS AROMATICS  
 QLast Update : Tue Feb 05 18:13:49 2013  
 Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\020513-J\  
Data File : J48722.D  
Signal(s) : Signal #1: data.ms Signal #2: datasim.ms  
Acq On : 5 Feb 2013 10:14 pm  
Operator : MG/AR  
Sample : 74728-3  
Misc : SOIL,ALI  
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
Integration File signal 2: autoint2.e  
Quant Time: Feb 05 23:08:21 2013  
Quant Method : C:\msdchem\1\METHODS\ALG020413.M  
Quant Title : EPH GC ALIPHATICS  
QLast Update : Tue Feb 05 15:32:52 2013  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



February 7, 2013

Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

**SAMPLE DATA**

**Lab Sample ID:** 74728-4  
**Matrix:** Solid  
**Percent Solid:** 78  
**Dilution Factor:** 1.2  
**Collection Date:** 01/22/13  
**Lab Receipt Date:** 01/24/13  
**Extraction Date:** 01/31/13  
**Analysis Date:** 02/05/13

**CLIENT SAMPLE ID**

**Project Name:** MILL DAM  
**Project Number:** 111.06134.017  
**Client Sample ID:** SB106-S1-012213

**EPH ANALYTICAL RESULTS**

RANGE/TARGET ANALYTE	RL	Units	Result
Unadjusted C11-C22 Aromatics <sup>1</sup>	16400	µg/kg	<b>20300</b>
Diesel PAH Analytes	Naphthalene	328	µg/kg U
	2-Methylnaphthalene	328	µg/kg U
	Phenanthrene	328	µg/kg <b>320 J</b>
	Acenaphthene	328	µg/kg U
Other Target PAH Analytes	Acenaphthylene	328	µg/kg U
	Fluorene	328	µg/kg U
	Anthracene	328	µg/kg U
	Fluoranthene	328	µg/kg <b>664</b>
	Pyrene	328	µg/kg <b>582</b>
	Benzo[a]anthracene	328	µg/kg <b>351</b>
	Chrysene	328	µg/kg <b>424</b>
	Benzo[b]fluoranthene	328	µg/kg <b>480</b>
	Benzo[k]fluoranthene	328	µg/kg <b>179 J</b>
	Benzo[a]pyrene	328	µg/kg <b>354</b>
	Indeno[1,2,3-cd]pyrene	328	µg/kg <b>263 J</b>
	Dibenz[a,h]anthracene	328	µg/kg U
Benzo[g,h,i]perylene	328	µg/kg <b>199 J</b>	
C9-C18 Aliphatic Hydrocarbons <sup>1</sup>	16400	µg/kg	U
C19-C36 Aliphatic Hydrocarbons <sup>1</sup>	16400	µg/kg	<b>31100</b>
C11-C22 Aromatic Hydrocarbons <sup>1,2</sup>	16400	µg/kg	<b>16500</b>
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)			67
Aromatic Surrogate % Recovery (O-Terphenyl)			69
Sample Surrogate Acceptance Range	--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)			77
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)			80
Fractionation Surrogate Acceptance Range	--	--	40-140%

<sup>1</sup>Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.  
<sup>2</sup>C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.  
RL = Report Limit  
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

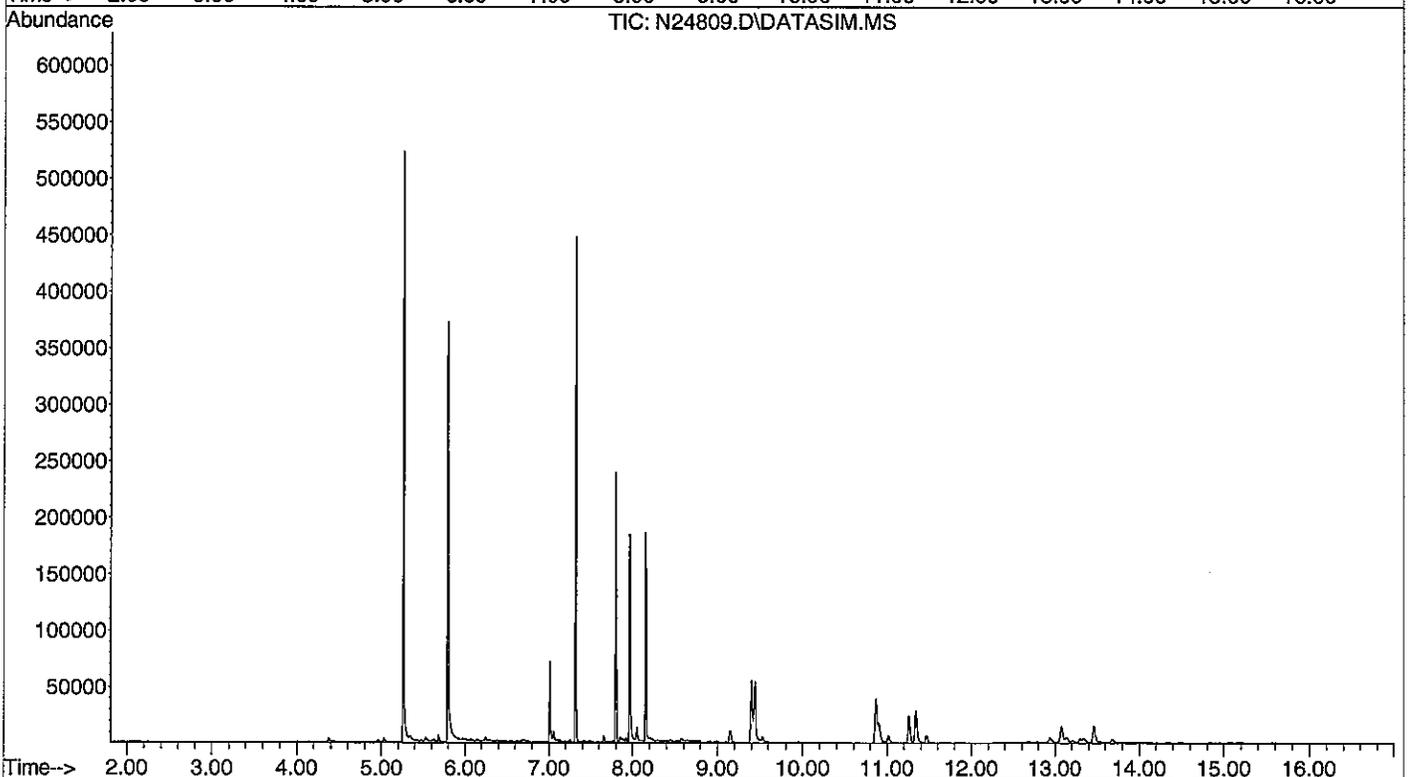
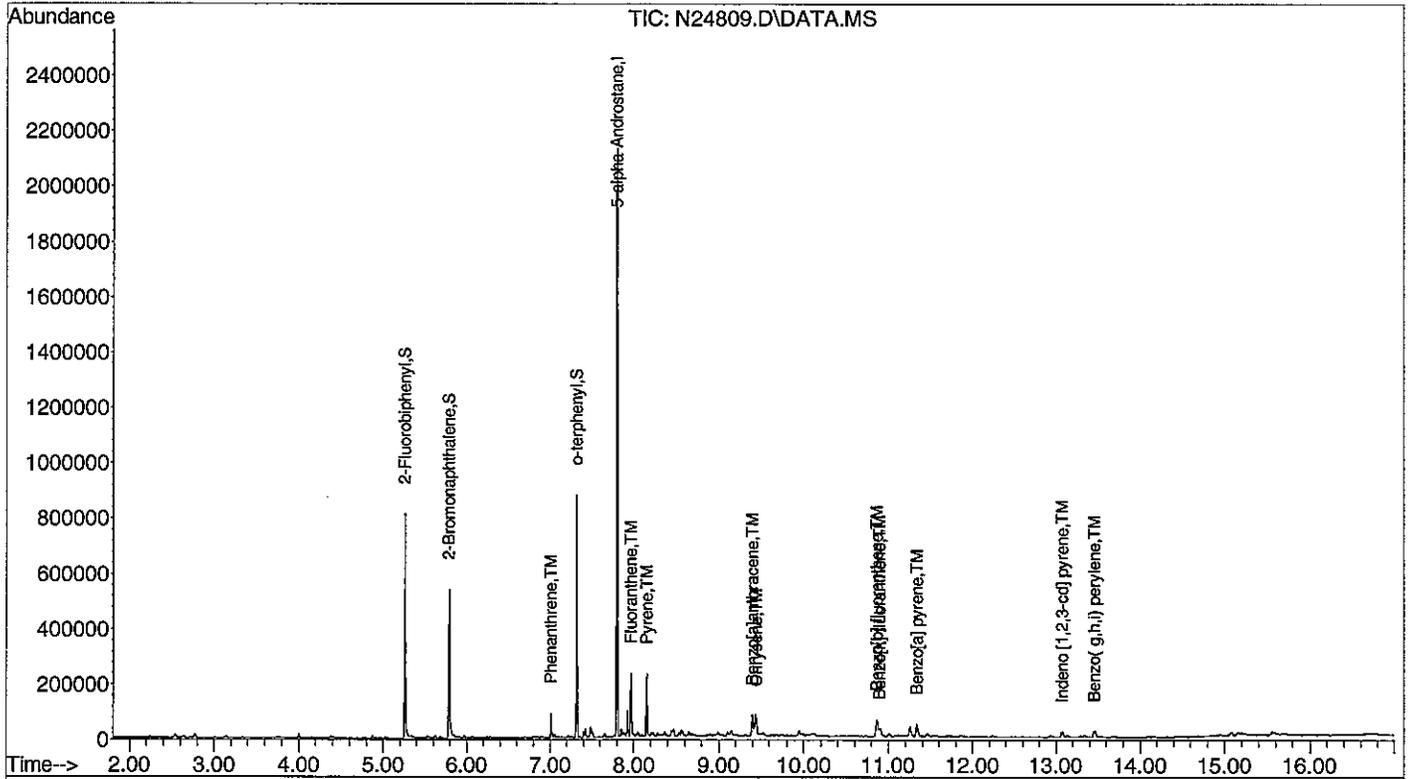
METHODOLOGY MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004  
Revision 1.1. Samples were extracted in accordance with SW-846 Method 3545

COMMENTS: EPH analyses utilized the use of a GC/MS system to detect and quantify ranges and target analytes. Samples were received in accordance with method criteria unless noted on the sample receipt checklist. Results are expressed on a dry weight basis.

SIGNATURE: 

Data Path : C:\msdchem\1\DATA\020513-N\  
 Data File : N24809.D  
 Acq On : 5 Feb 2013 11:18 pm  
 Operator : AR  
 Sample : 74728-4  
 Misc : SOIL, ARO  
 ALS Vial : 15 Sample Multiplier: 1

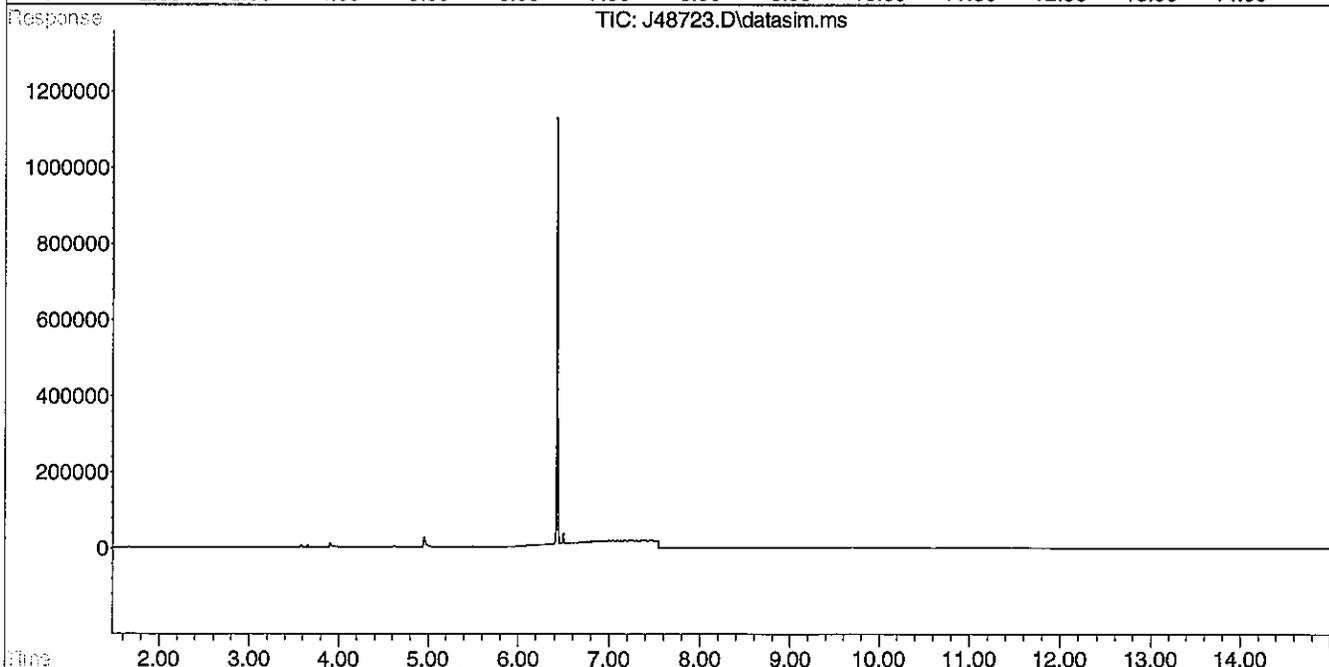
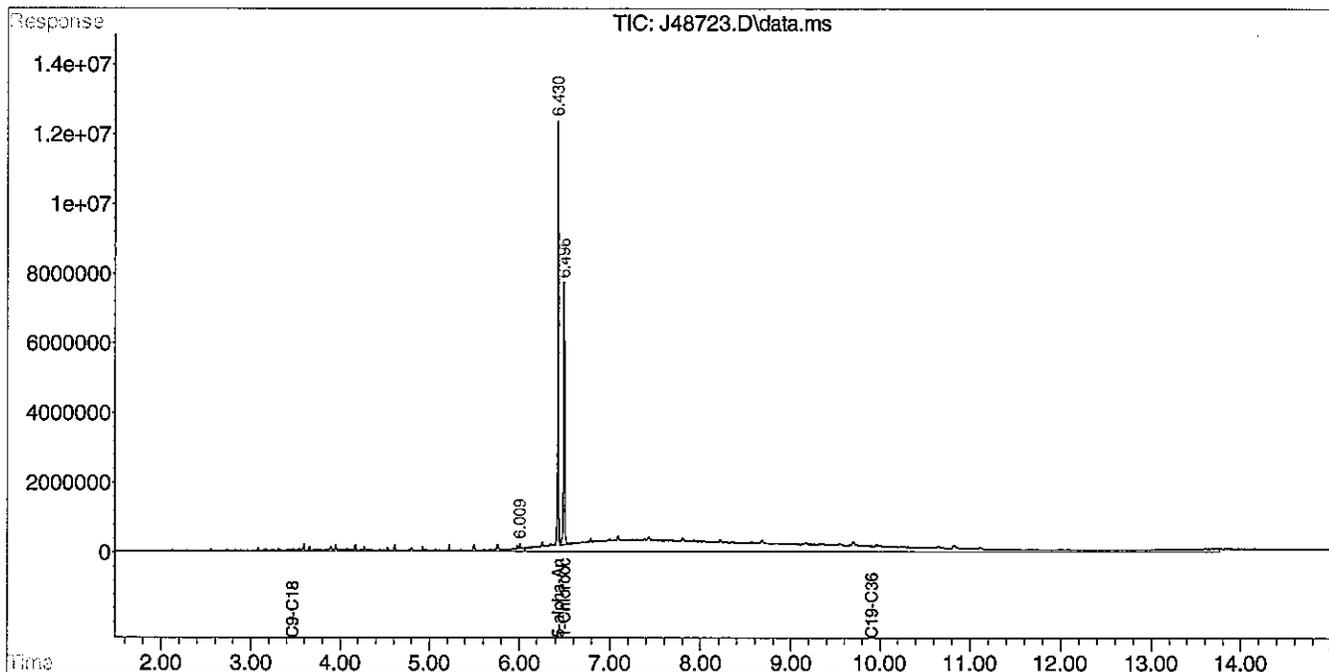
Quant Time: Feb 06 00:22:07 2013  
 Quant Method : C:\msdchem\1\METHODS\ARM020413N.M  
 Quant Title : EPH MS AROMATICS  
 QLast Update : Tue Feb 05 18:13:49 2013  
 Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\020513-J\  
 Data File : J48723.D  
 Signal(s) : Signal #1: data.ms Signal #2: datasim.ms  
 Acq On : 5 Feb 2013 10:34 pm  
 Operator : MG/AR  
 Sample : 74728-4  
 Misc : SOIL,ALI  
 ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Feb 05 23:09:25 2013  
 Quant Method : C:\msdchem\1\METHODS\ALG020413.M  
 Quant Title : EPH GC ALIPHATICS  
 QLast Update : Tue Feb 05 15:32:52 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :



February 6, 2013

Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

**CLIENT SAMPLE ID**

**Project Name:** MILL DAM  
**Project Number:** 111.06134.017  
**Client Sample ID:** SB107-S2-012213

**SAMPLE DATA**

**Lab Sample ID:** 74728-5  
**Matrix:** Solid  
**Percent Solid:** 80  
**Dilution Factor:** 1.2  
**Collection Date:** 01/22/13  
**Lab Receipt Date:** 01/24/13  
**Extraction Date:** 01/31/13  
**Analysis Date:** 02/05/13

**EPH ANALYTICAL RESULTS**

RANGE/TARGET ANALYTE	RL	Units	Result
Unadjusted C11-C22 Aromatics	16300	µg/kg	U
Diesel PAH Analytes	Naphthalene	327	µg/kg
	2-Methylnaphthalene	327	µg/kg
	Phenanthrene	327	µg/kg
	Acenaphthene	327	µg/kg
Other Target PAH Analytes	Acenaphthylene	327	µg/kg
	Fluorene	327	µg/kg
	Anthracene	327	µg/kg
	Fluoranthene	327	µg/kg
	Pyrene	327	µg/kg
	Benzo[a]anthracene	327	µg/kg
	Chrysene	327	µg/kg
	Benzo[b]fluoranthene	327	µg/kg
	Benzo[k]fluoranthene	327	µg/kg
	Benzo[a]pyrene	327	µg/kg
	Indeno[1,2,3-cd]pyrene	327	µg/kg
	Dibenzo[a,h]anthracene	327	µg/kg
	Benzo[g,h,i]perylene	327	µg/kg
C9-C18 Aliphatic Hydrocarbons <sup>1</sup>	16300	µg/kg	U
C19-C36 Aliphatic Hydrocarbons <sup>1</sup>	16300	µg/kg	10600 J
C11-C22 Aromatic Hydrocarbons <sup>1,2</sup>	16300	µg/kg	U
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)			73
Aromatic Surrogate % Recovery (O-Terphenyl)			71
Sample Surrogate Acceptance Range	--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)			82
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)			84
Fractionation Surrogate Acceptance Range	--	--	40-140%

<sup>1</sup>Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.  
<sup>2</sup>C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.  
RL = Report Limit  
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

METHODOLOGY:MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004 Revision 1.1. Samples were extracted in accordance with SW-846 Method 3545

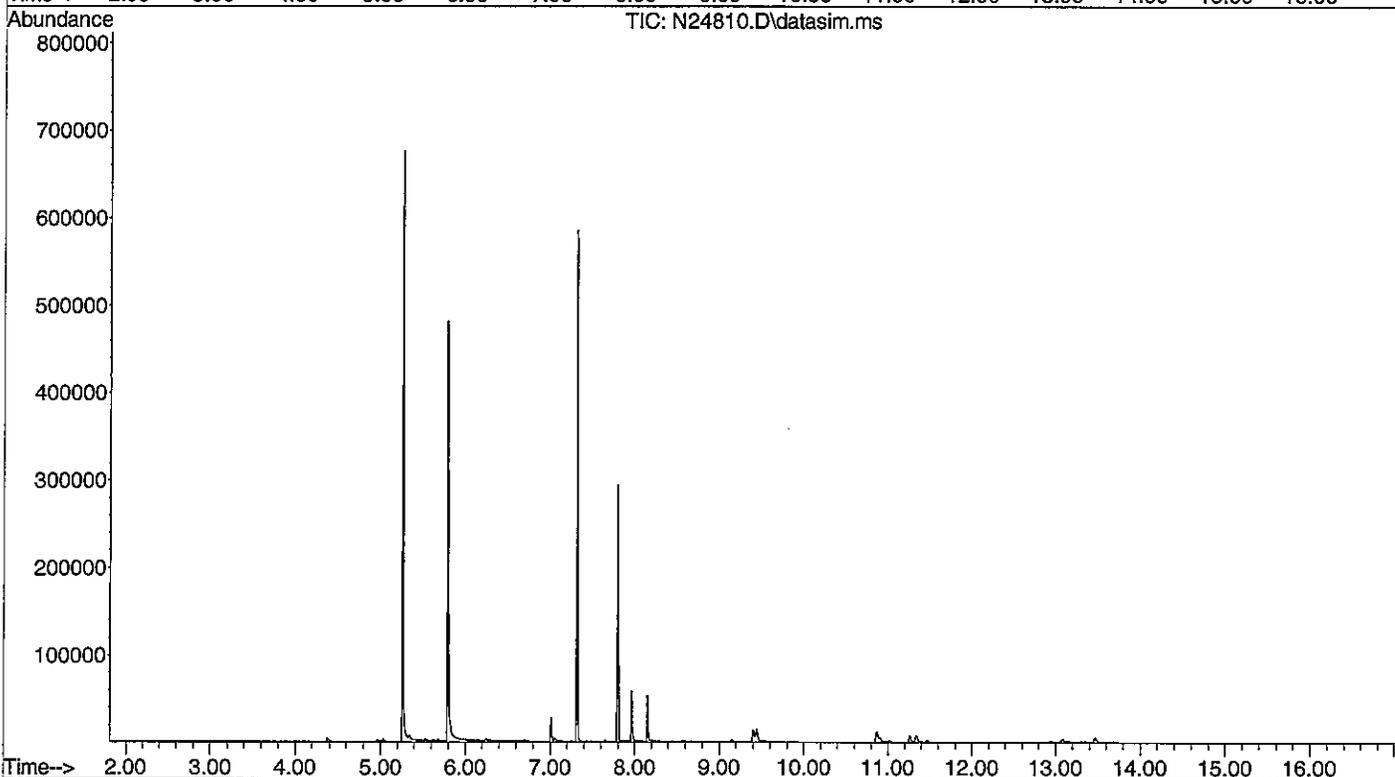
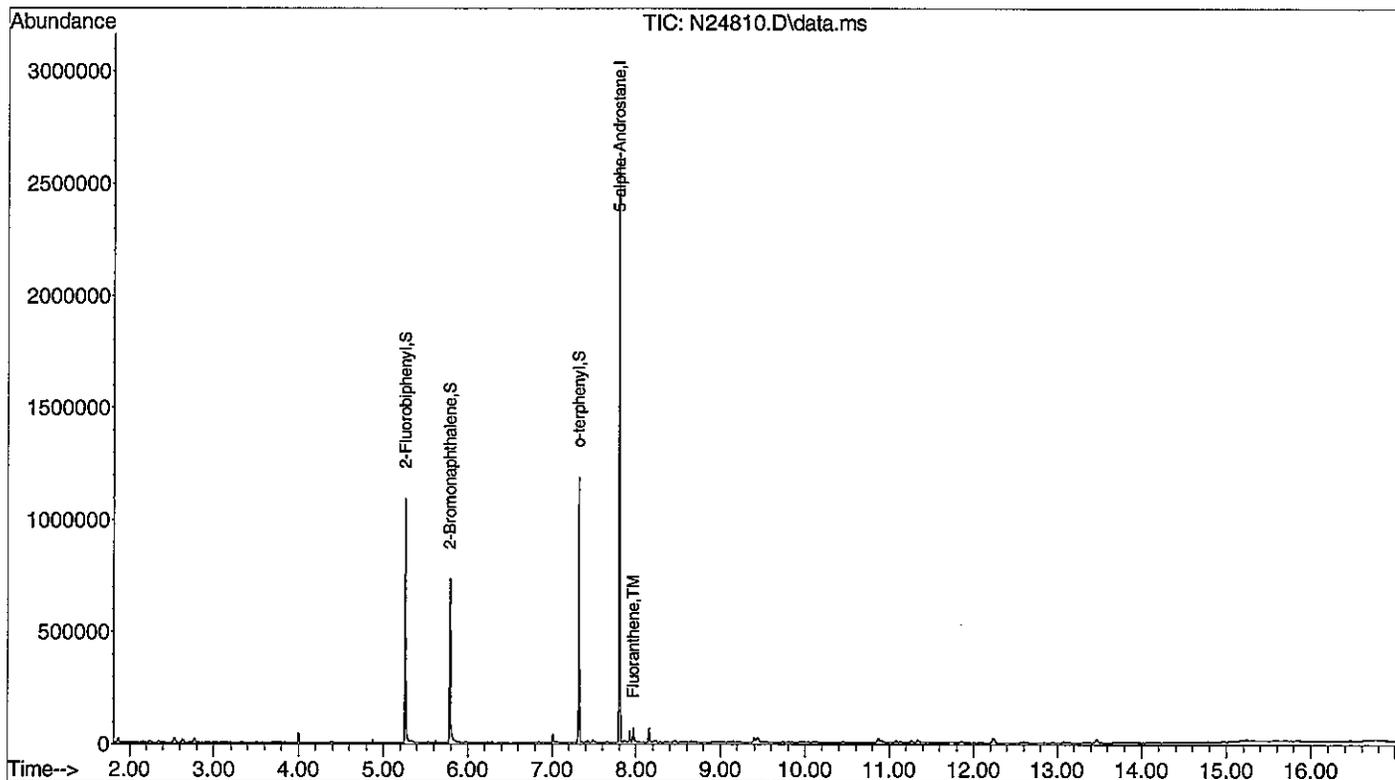
COMMENTS:EPH analyses utilized the use of a GC/MS system to detect and quantify ranges and target analytes. Samples were received in accordance with method criteria unless noted on the sample receipt checklist. Results are expressed on a dry weight basis.

SIGNATURE: \_\_\_\_\_



Data Path : C:\msdchem\1\DATA\020513-N\  
 Data File : N24810.D  
 Acq On : 5 Feb 2013 11:38 pm  
 Operator : AR  
 Sample : 74728-5  
 Misc : SOIL, ARO  
 ALS Vial : 16 Sample Multiplier: 1

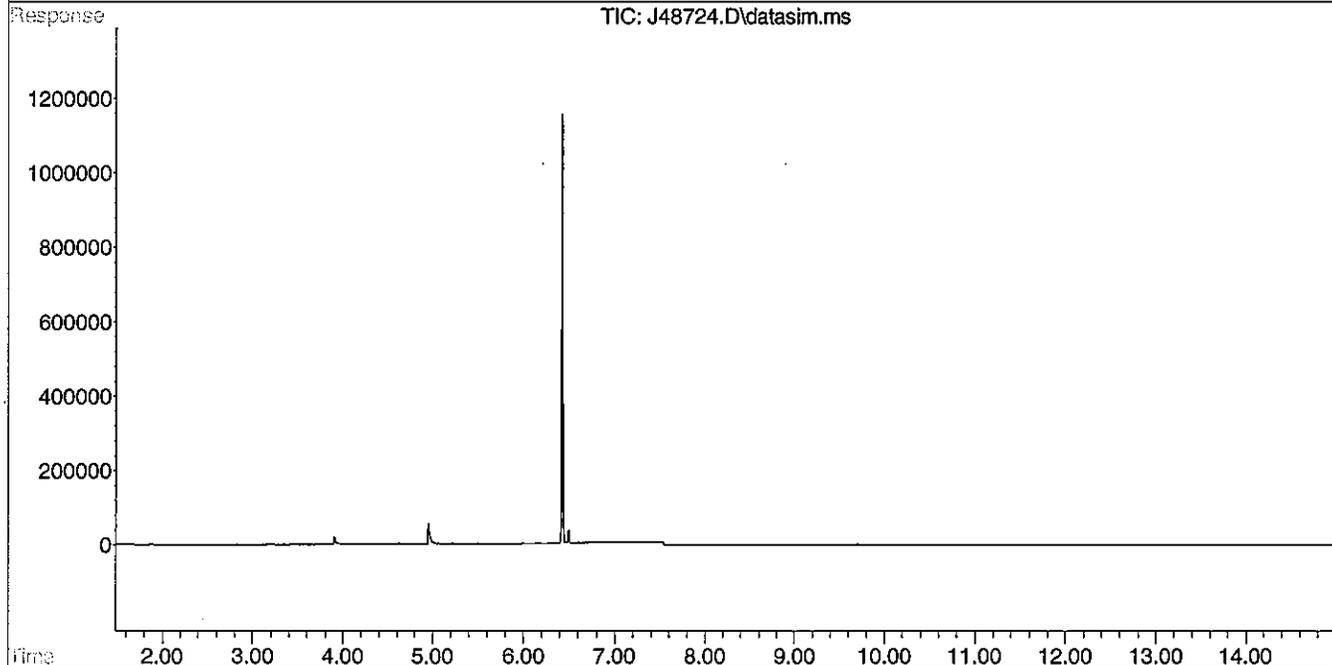
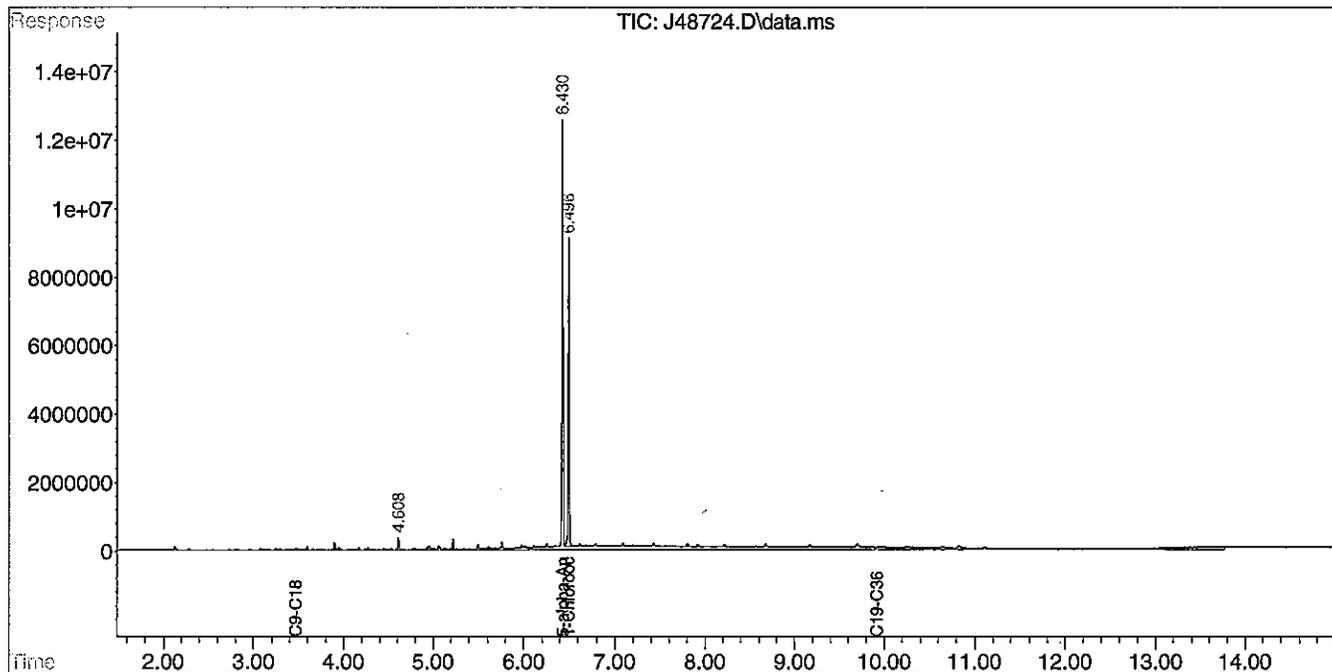
Quant Time: Feb 06 00:22:27 2013  
 Quant Method : C:\msdchem\1\METHODS\ARM020413N.M  
 Quant Title : EPH MS AROMATICS  
 QLast Update : Tue Feb 05 18:13:49 2013  
 Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\020513-J\  
 Data File : J48724.D  
 Signal(s) : Signal #1: data.ms Signal #2: datasim.ms  
 Acq On : 5 Feb 2013 10:55 pm  
 Operator : MG/AR  
 Sample : 74728-5  
 Misc : SOIL,ALI  
 ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Feb 05 23:58:21 2013  
 Quant Method : C:\msdchem\1\METHODS\ALG020413.M  
 Quant Title : EPH GC ALIPHATICS  
 QLast Update : Tue Feb 05 15:32:52 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :



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February 7, 2013

**CLIENT SAMPLE ID**  

---

**Project Name:** MILL DAM  
  
**Project Number:** 111.06134.017  
**Client Sample ID:** SB110-S1-012213

**SAMPLE DATA**  

---

**Lab Sample ID:** 74728-6  
**Matrix:** Solid  
**Percent Solid:** 81  
**Dilution Factor:** 1.2  
**Collection Date:** 01/22/13  
**Lab Receipt Date:** 01/24/13  
**Extraction Date:** 01/31/13  
**Analysis Date:** 02/05/13

EPH ANALYTICAL RESULTS			
RANGE/TARGET ANALYTE	RL	Units	Result
Unadjusted C11-C22 Aromatics	15500	µg/kg	<b>8150 J</b>
Diesel PAH Analytes	Naphthalene	310	µg/kg U
	2-Methylnaphthalene	310	µg/kg U
	Phenanthrene	310	µg/kg U
	Acenaphthene	310	µg/kg U
Other Target PAH Analytes	Acenaphthylene	310	µg/kg U
	Fluorene	310	µg/kg U
	Anthracene	310	µg/kg U
	Fluoranthene	310	µg/kg U
	Pyrene	310	µg/kg U
	Benzo[a]anthracene	310	µg/kg U
	Chrysene	310	µg/kg U
	Benzo[b]fluoranthene	310	µg/kg U
	Benzo[k]fluoranthene	310	µg/kg U
	Benzo[a]pyrene	310	µg/kg U
	Indeno[1,2,3-cd]pyrene	310	µg/kg U
	Dibenzo[a,h]anthracene	310	µg/kg U
Benzo[g,h,i]perylene	310	µg/kg U	
C9-C18 Aliphatic Hydrocarbons	15500	µg/kg	U
C19-C36 Aliphatic Hydrocarbons <sup>1</sup>	15500	µg/kg	<b>37500</b>
C11-C22 Aromatic Hydrocarbons <sup>1,2</sup>	15500	µg/kg	<b>8150 J</b>
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)			56
Aromatic Surrogate % Recovery (O-Terphenyl)			70
Sample Surrogate Acceptance Range	--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)			86
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)			90
Fractionation Surrogate Acceptance Range	--	--	40-140%
<sup>1</sup> Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.			
<sup>2</sup> C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.			
RL = Report Limit			
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank			

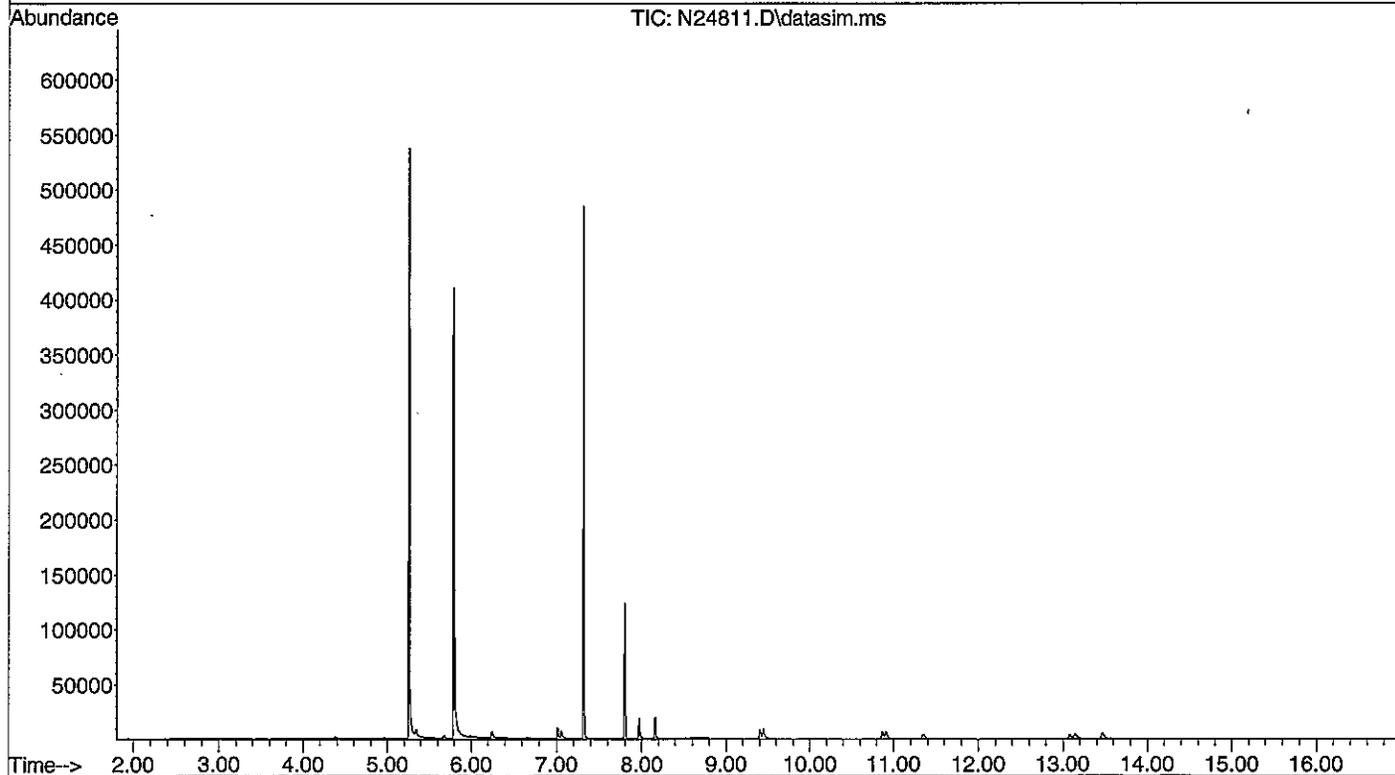
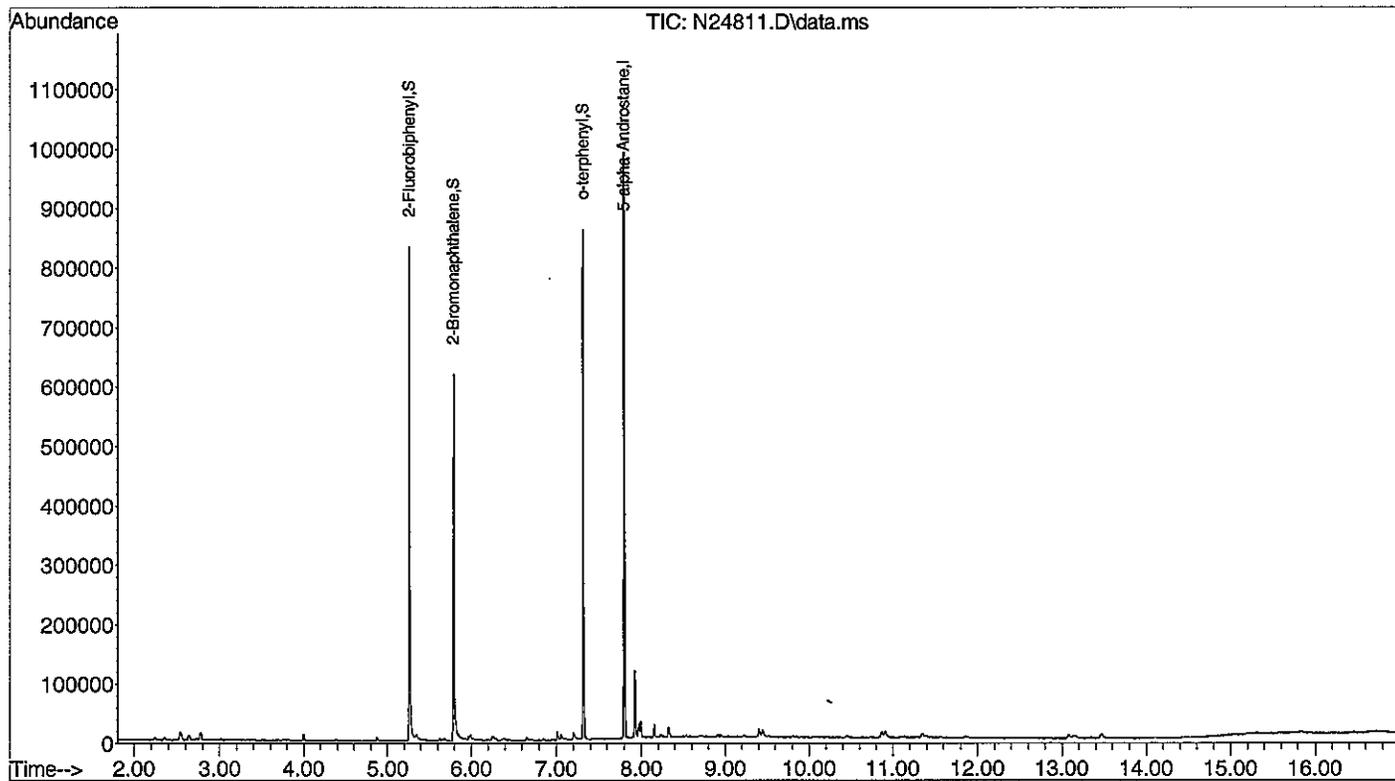
METHODOLOGY:MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004  
Revision 1.1. Samples were extracted in accordance with SW-846 Method 3545

COMMENTS:EPH analyses utilized the use of a GC/MS system to detect and quantify ranges and target analytes. Samples were received in accordance with method criteria unless noted on the sample receipt checklist.  
Results are expressed on a dry weight basis.

SIGNATURE: 

Data Path : C:\msdchem\1\DATA\020513-N\  
 Data File : N24811.D  
 Acq On : 5 Feb 2013 11:59 pm  
 Operator : AR  
 Sample : 74728-6  
 Misc : SOIL,ARO  
 ALS Vial : 17 Sample Multiplier: 1

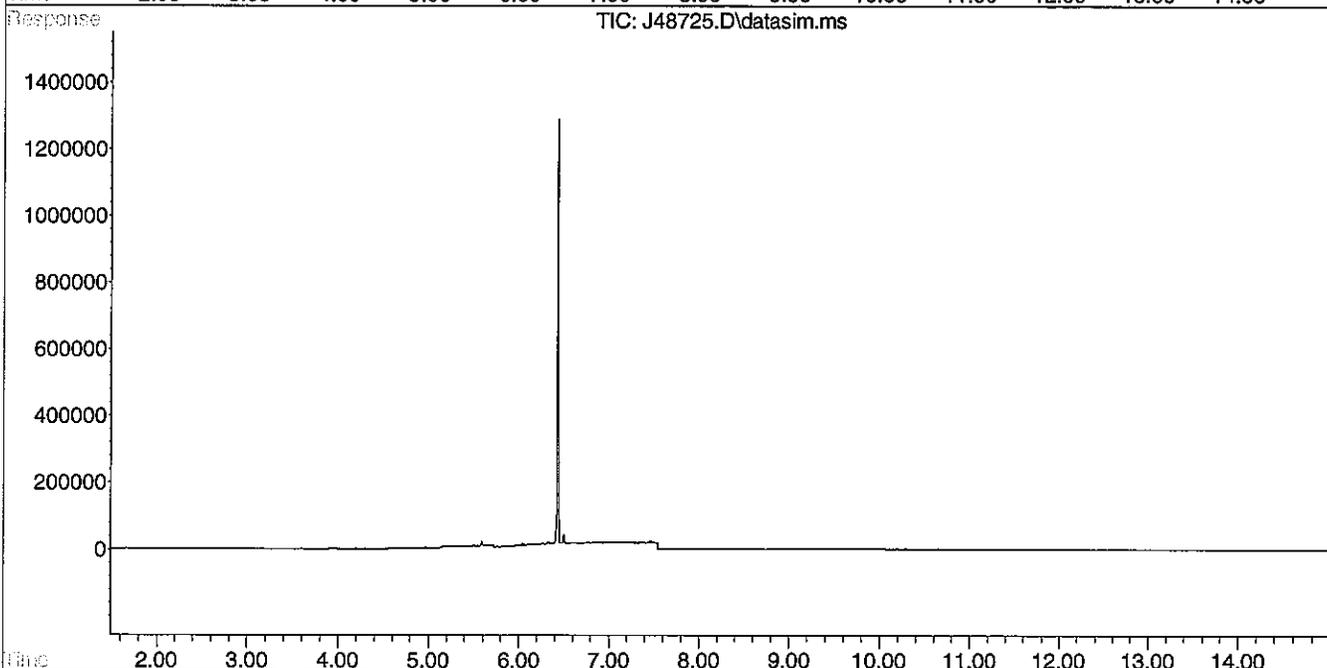
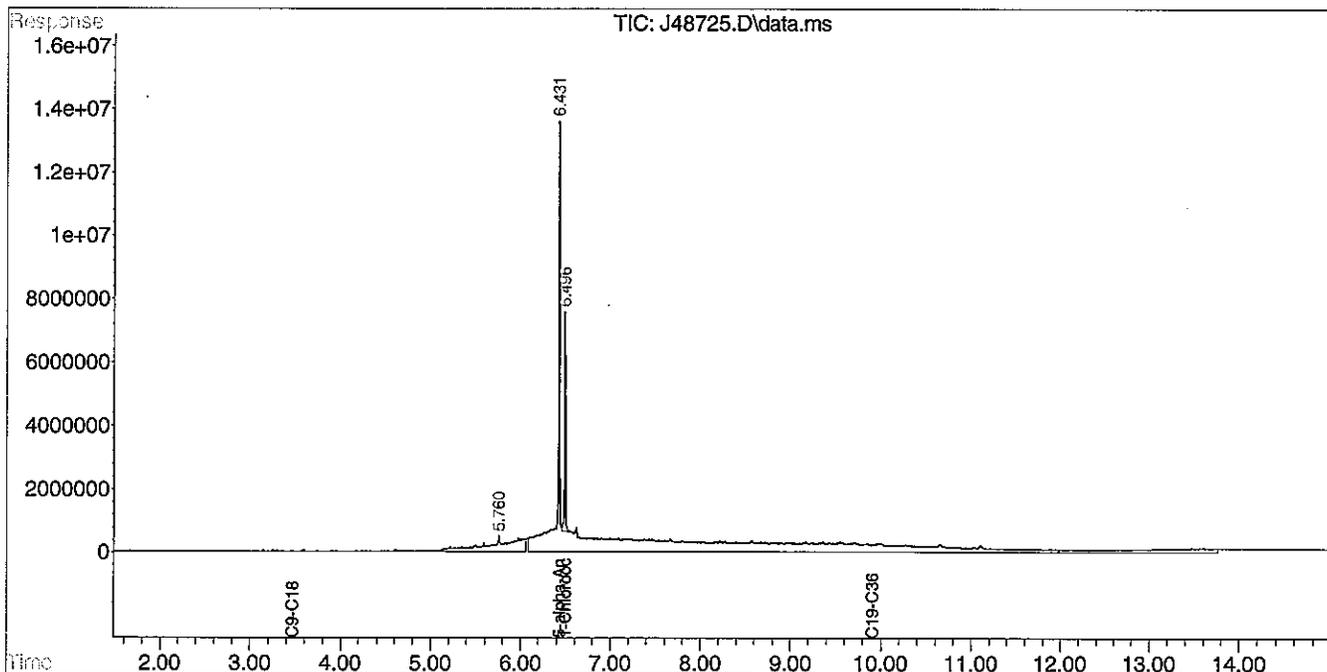
Quant Time: Feb 06 00:29:37 2013  
 Quant Method : C:\msdchem\1\METHODS\ARM020413N.M  
 Quant Title : EPH MS AROMATICS  
 QLast Update : Tue Feb 05 18:13:49 2013  
 Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\020513-J\  
 Data File : J48725.D  
 Signal(s) : Signal #1: data.ms Signal #2: datasim.ms  
 Acq On : 5 Feb 2013 11:16 pm  
 Operator : MG/AR  
 Sample : 74728-6  
 Misc : SOIL,ALI  
 ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Feb 05 23:59:53 2013  
 Quant Method : C:\msdchem\1\METHODS\ALG020413.M  
 Quant Title : EPH GC ALIPHATICS  
 QLast Update : Tue Feb 05 15:32:52 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :



February 6, 2013

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**SAMPLE DATA**

**Lab Sample ID:** 74728-7  
**Matrix:** Solid  
**Percent Solid:** 84  
**Dilution Factor:** 1.2  
**Collection Date:** 01/22/13  
**Lab Receipt Date:** 01/24/13  
**Extraction Date:** 01/31/13  
**Analysis Date:** 02/06/13

**CLIENT SAMPLE ID**

**Project Name:** MILL DAM  
**Project Number:** 111.06134.017  
**Client Sample ID:** SB104-S1-012213

**EPH ANALYTICAL RESULTS**

RANGE/TARGET ANALYTE		RL	Units	Result
Unadjusted C11-C22 Aromatics		15300	µg/kg	<b>15600</b>
Diesel PAH Analytes	Naphthalene	307	µg/kg	U
	2-Methylnaphthalene	307	µg/kg	U
	Phenanthrene	307	µg/kg	<b>348</b>
	Acenaphthene	307	µg/kg	U
Other Target PAH Analytes	Acenaphthylene	307	µg/kg	U
	Fluorene	307	µg/kg	U
	Anthracene	307	µg/kg	U
	Fluoranthene	307	µg/kg	<b>787</b>
	Pyrene	307	µg/kg	<b>692</b>
	Benzo[a]anthracene	307	µg/kg	<b>392</b>
	Chrysene	307	µg/kg	<b>516</b>
	Benzo[b]fluoranthene	307	µg/kg	<b>660</b>
	Benzo[k]fluoranthene	307	µg/kg	<b>246 J</b>
	Benzo[a]pyrene	307	µg/kg	<b>441</b>
	Indeno[1,2,3-cd]pyrene	307	µg/kg	<b>347</b>
	Dibenzo[a,h]anthracene	307	µg/kg	U
	Benzo[g,h,i]perylene	307	µg/kg	<b>272 J</b>
C9-C18 Aliphatic Hydrocarbons <sup>1</sup>		15300	µg/kg	U
C19-C36 Aliphatic Hydrocarbons <sup>1</sup>		15300	µg/kg	U
C11-C22 Aromatic Hydrocarbons <sup>1,2</sup>		15300	µg/kg	<b>10900 J</b>
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)				61
Aromatic Surrogate % Recovery (O-Terphenyl)				62
Sample Surrogate Acceptance Range		--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)				87
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)				90
Fractionation Surrogate Acceptance Range		--	--	40-140%

<sup>1</sup> Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.  
<sup>2</sup> C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.  
RL = Report Limit  
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

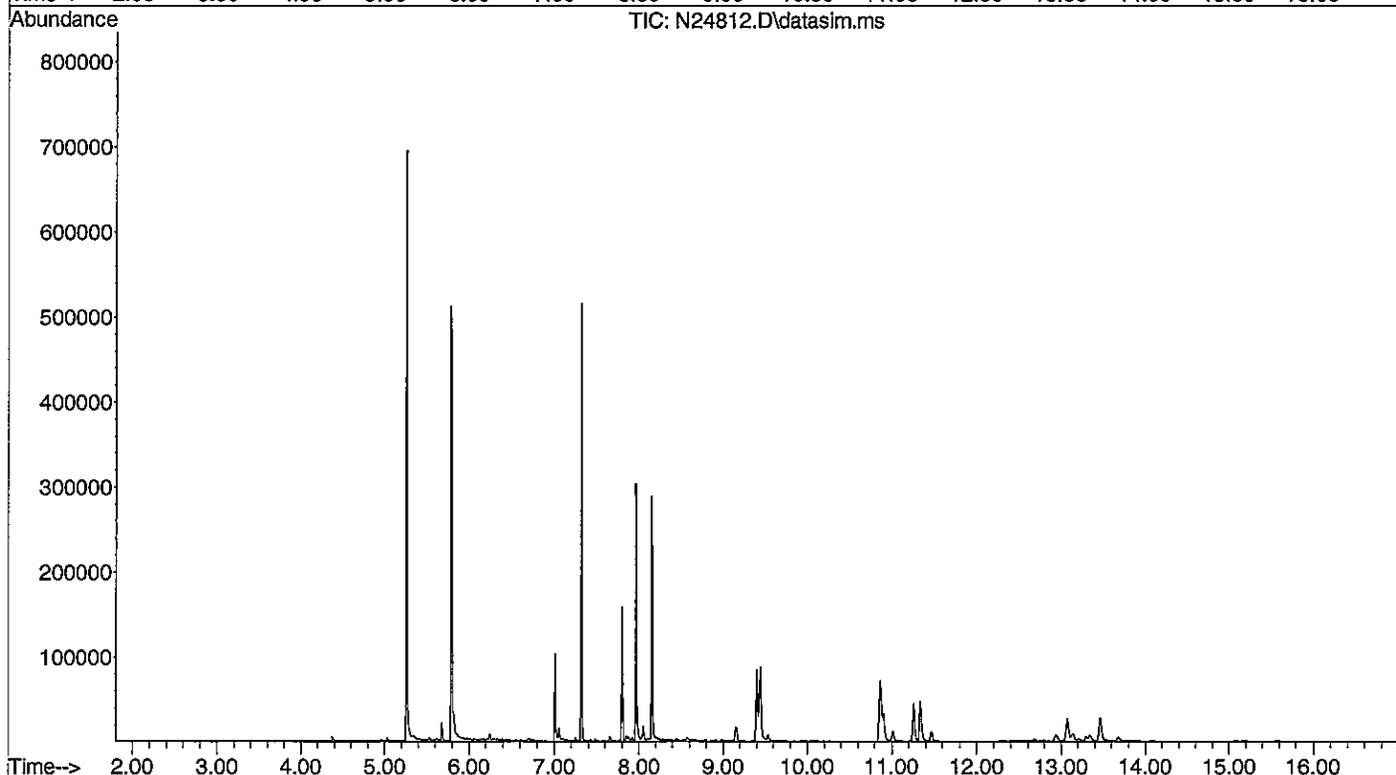
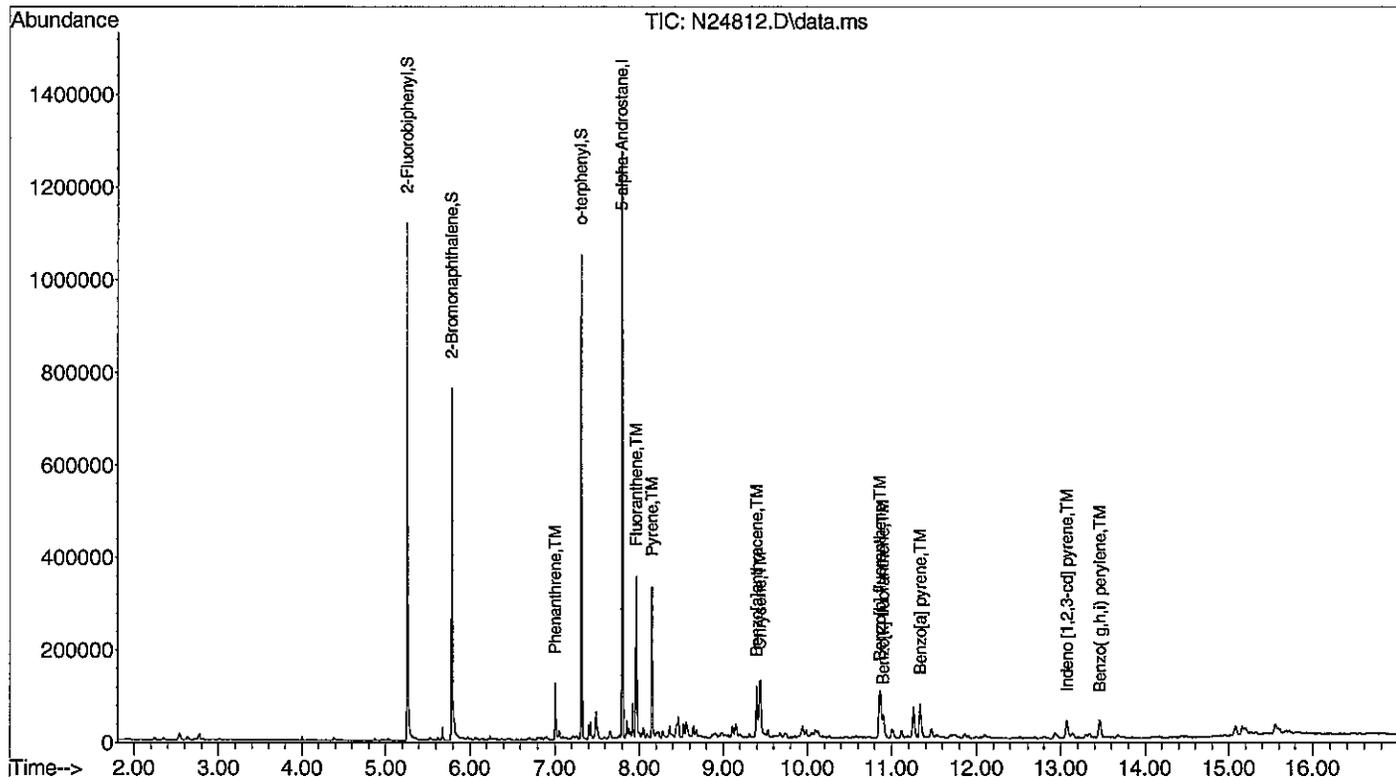
METHODOLOGY MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004 Revision 1.1. Samples were extracted in accordance with SW-846 Method 3545

COMMENTS: EPH analyses utilized the use of a GC/MS system to detect and quantify ranges and target analytes. Samples were received in accordance with method criteria unless noted on the sample receipt checklist. Results are expressed on a dry weight basis.

SIGNATURE: 

Data Path : C:\msdchem\1\DATA\020513-N\  
 Data File : N24812.D  
 Acq On : 6 Feb 2013 12:19 am  
 Operator : AR  
 Sample : 74728-7  
 Misc : SOIL, ARO  
 ALS Vial : 18 Sample Multiplier: 1

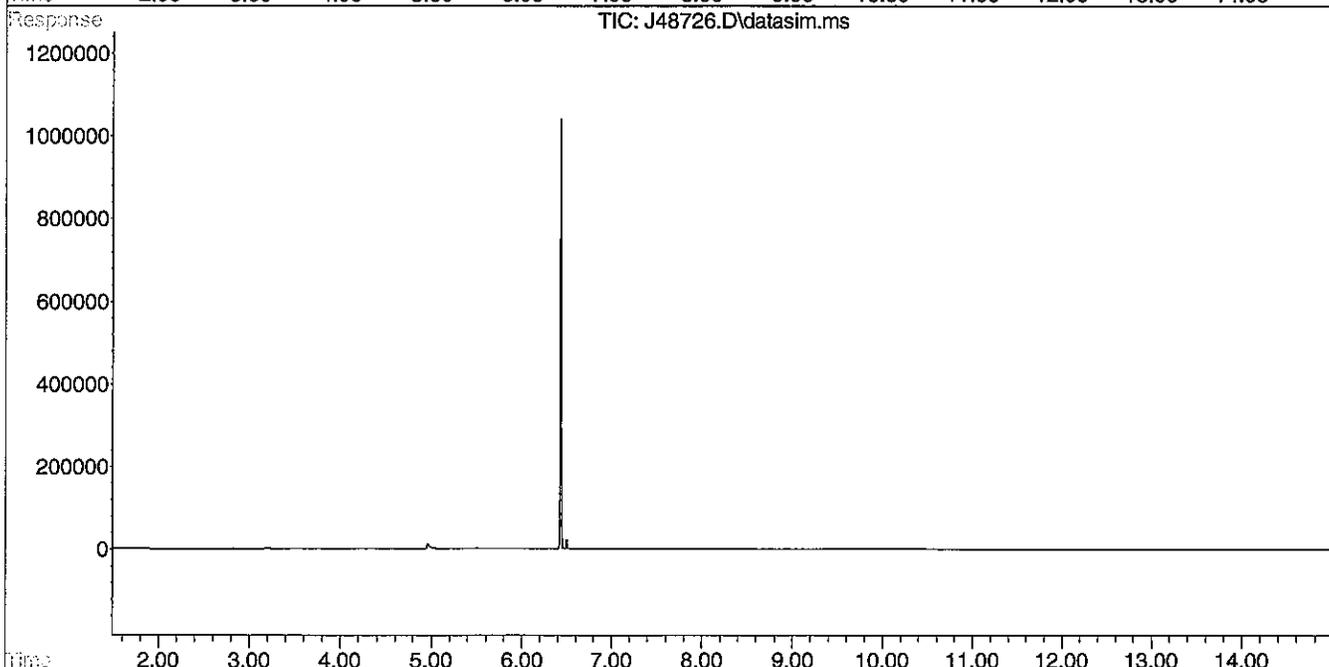
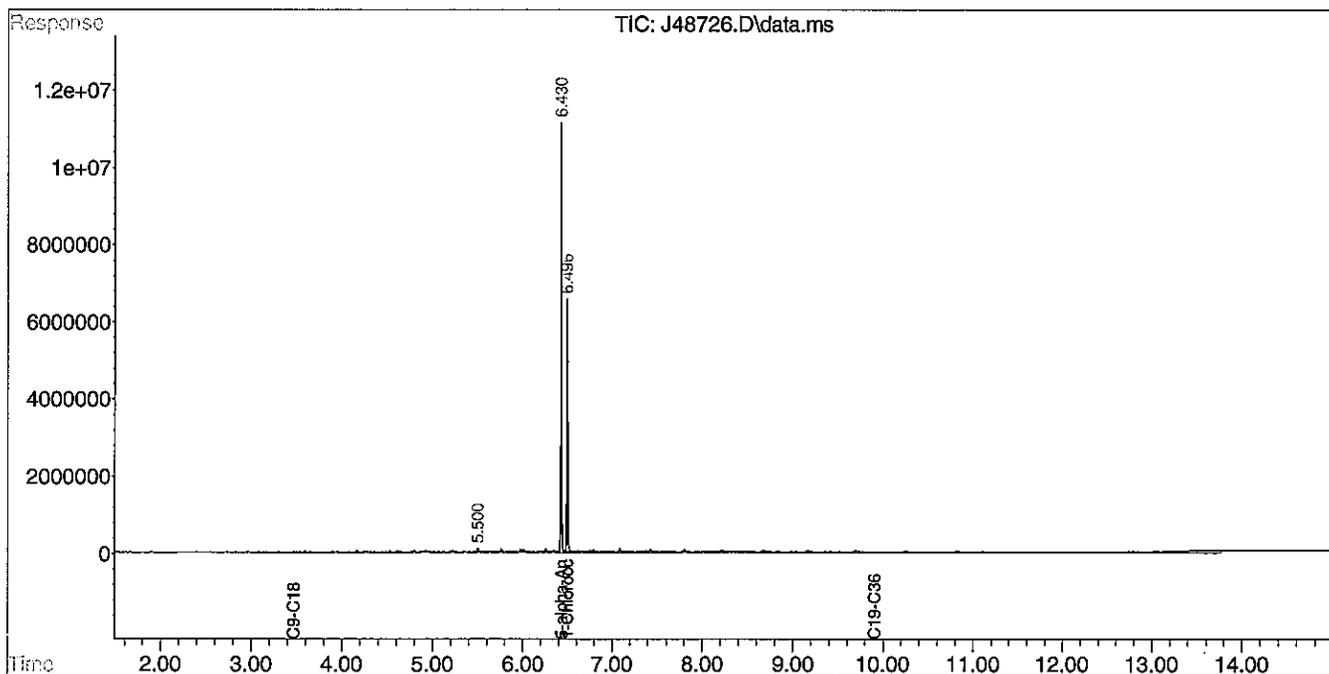
Quant Time: Feb 06 00:57:51 2013  
 Quant Method : C:\msdchem\1\METHODS\ARM020413N.M  
 Quant Title : EPH MS AROMATICS  
 QLast Update : Tue Feb 05 18:13:49 2013  
 Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\020513-J\  
 Data File : J48726.D  
 Signal(s) : Signal #1: data.ms Signal #2: datasim.ms  
 Acq On : 5 Feb 2013 11:37 pm  
 Operator : MG/AR  
 Sample : 74728-7  
 Misc : SOIL,ALI  
 ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Feb 06 00:00:19 2013  
 Quant Method : C:\msdchem\1\METHODS\ALG020413.M  
 Quant Title : EPH GC ALIPHATICS  
 QLast Update : Tue Feb 05 15:32:52 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :



February 6, 2013

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 Portland, ME 04101

**SAMPLE DATA**

**Lab Sample ID:** 74728-8  
**Matrix:** Solid  
**Percent Solid:** 80  
**Dilution Factor:** 1.2  
**Collection Date:** 01/22/13  
**Lab Receipt Date:** 01/24/13  
**Extraction Date:** 01/31/13  
**Analysis Date:** 02/06/13

**CLIENT SAMPLE ID**

**Project Name:** MILL DAM  
**Project Number:** 111.06134.017  
**Client Sample ID:** SB105-S1-012213

**EPH ANALYTICAL RESULTS**

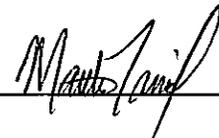
RANGE/TARGET ANALYTE	RL	Units	Result
Unadjusted C11-C22 Aromatics <sup>1</sup>	16000	µg/kg	58900
Diesel PAH Analytes	Naphthalene	321 µg/kg	227 J
	2-Methylnaphthalene	321 µg/kg	U
	Phenanthrene	321 µg/kg	3020
	Acenaphthene	321 µg/kg	235 J
Other Target PAH Analytes	Acenaphthylene	321 µg/kg	U
	Fluorene	321 µg/kg	245 J
	Anthracene	321 µg/kg	612
	Fluoranthene	321 µg/kg	3270
	Pyrene	321 µg/kg	2680
	Benzo[a]anthracene	321 µg/kg	1470
	Chrysene	321 µg/kg	1470
	Benzo[b]fluoranthene	321 µg/kg	1660
	Benzo[k]fluoranthene	321 µg/kg	596
	Benzo[a]pyrene	321 µg/kg	1260
	Indeno[1,2,3-cd]pyrene	321 µg/kg	894
	Dibenzo[a,h]anthracene	321 µg/kg	215 J
	Benzo[g,h,i]perylene	321 µg/kg	739
C9-C18 Aliphatic Hydrocarbons <sup>1</sup>	16000	µg/kg	U
C19-C36 Aliphatic Hydrocarbons <sup>1</sup>	16000	µg/kg	38700
C11-C22 Aromatic Hydrocarbons <sup>1,2</sup>	16000	µg/kg	40300
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)			65
Aromatic Surrogate % Recovery (O-Terphenyl)			68
Sample Surrogate Acceptance Range	--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)			83
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)			83
Fractionation Surrogate Acceptance Range	--	--	40-140%

<sup>1</sup>Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.  
<sup>2</sup>C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.  
 RL = Report Limit  
 U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

METHODOLOGY:MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004  
 Revision 1.1. Samples were extracted in accordance with SW-846 Method 3545

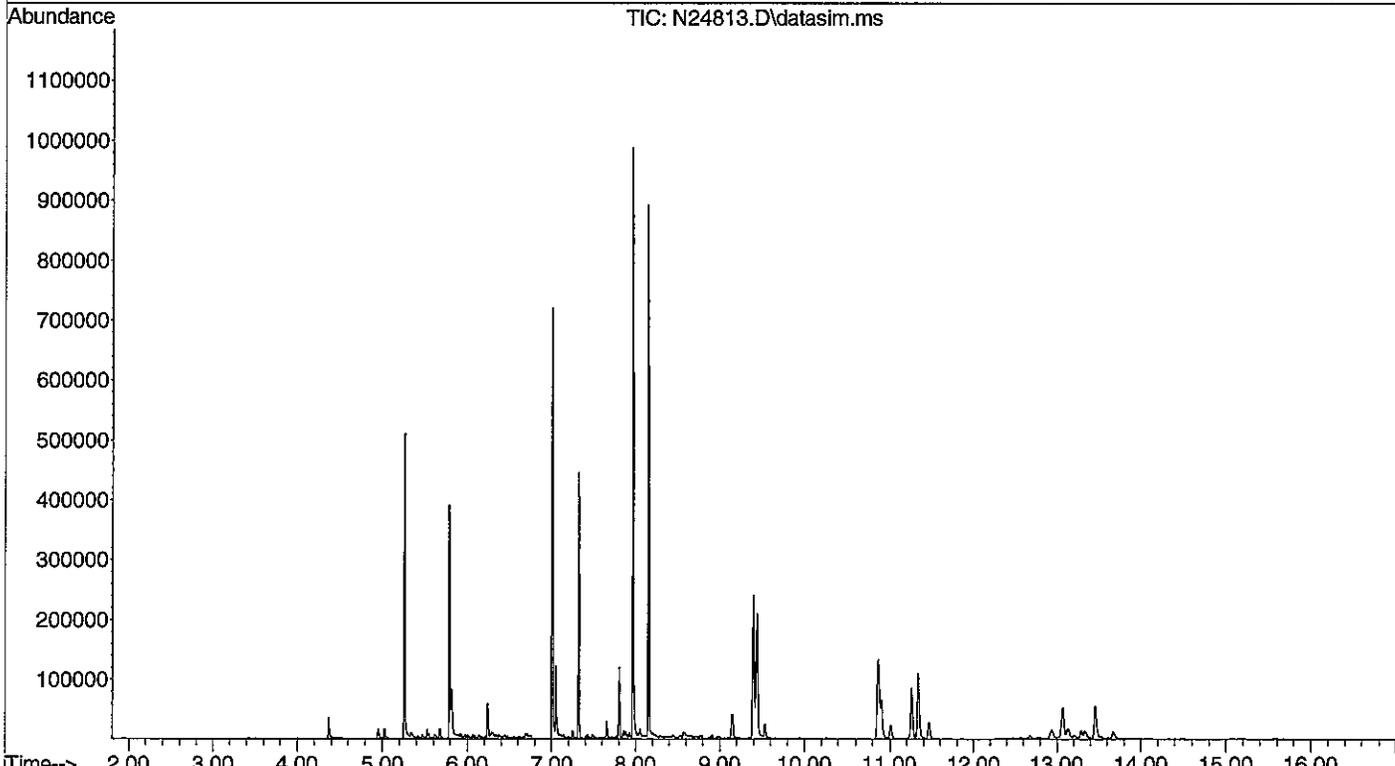
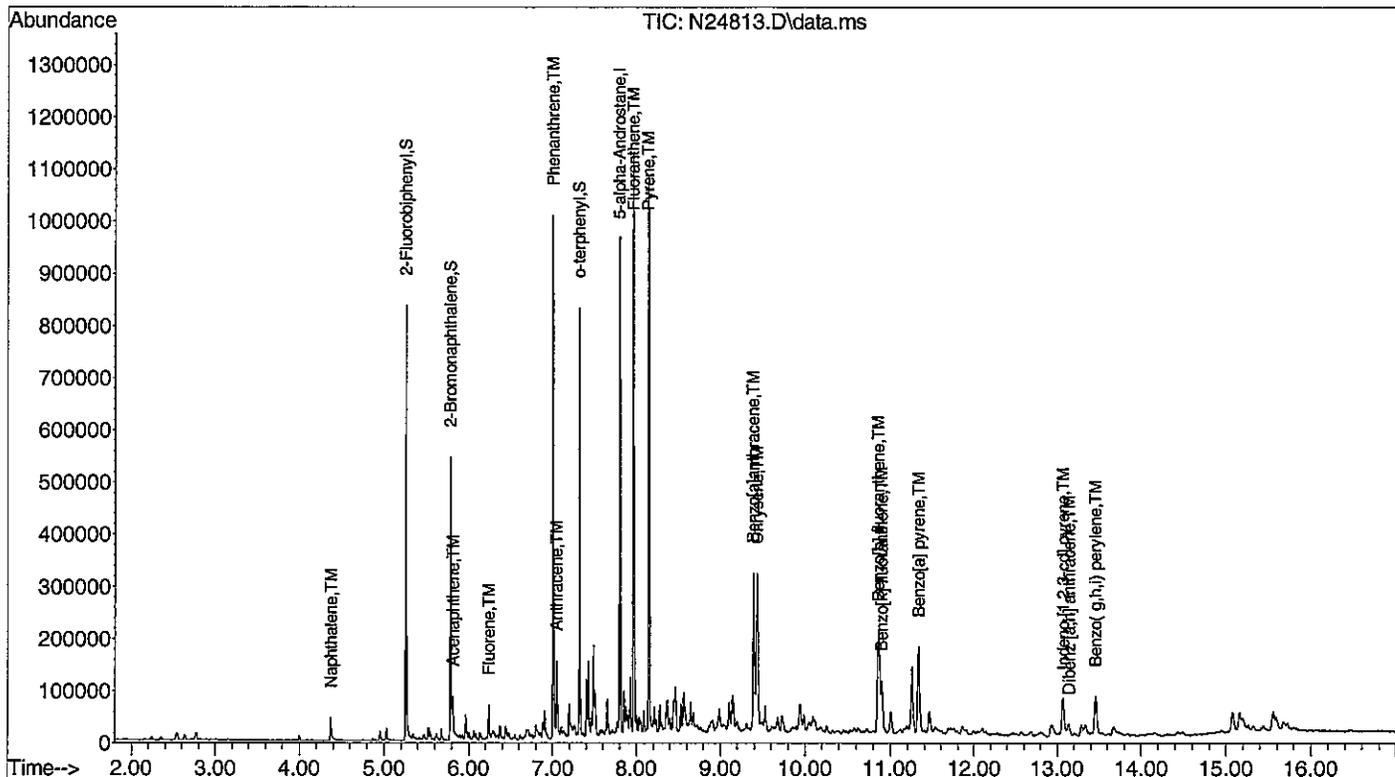
COMMENTS:EPH analyses utilized the use of a GC/MS system to detect and quantify ranges and target analytes. Samples were received in accordance with method criteria unless noted on the sample receipt checklist. Results are expressed on a dry weight basis.

SIGNATURE: \_\_\_\_\_



Data Path : C:\msdchem\1\DATA\020513-N\  
 Data File : N24813.D  
 Acq On : 6 Feb 2013 12:40 am  
 Operator : AR  
 Sample : 74728-8  
 Misc : SOIL, ARO  
 ALS Vial : 19 Sample Multiplier: 1

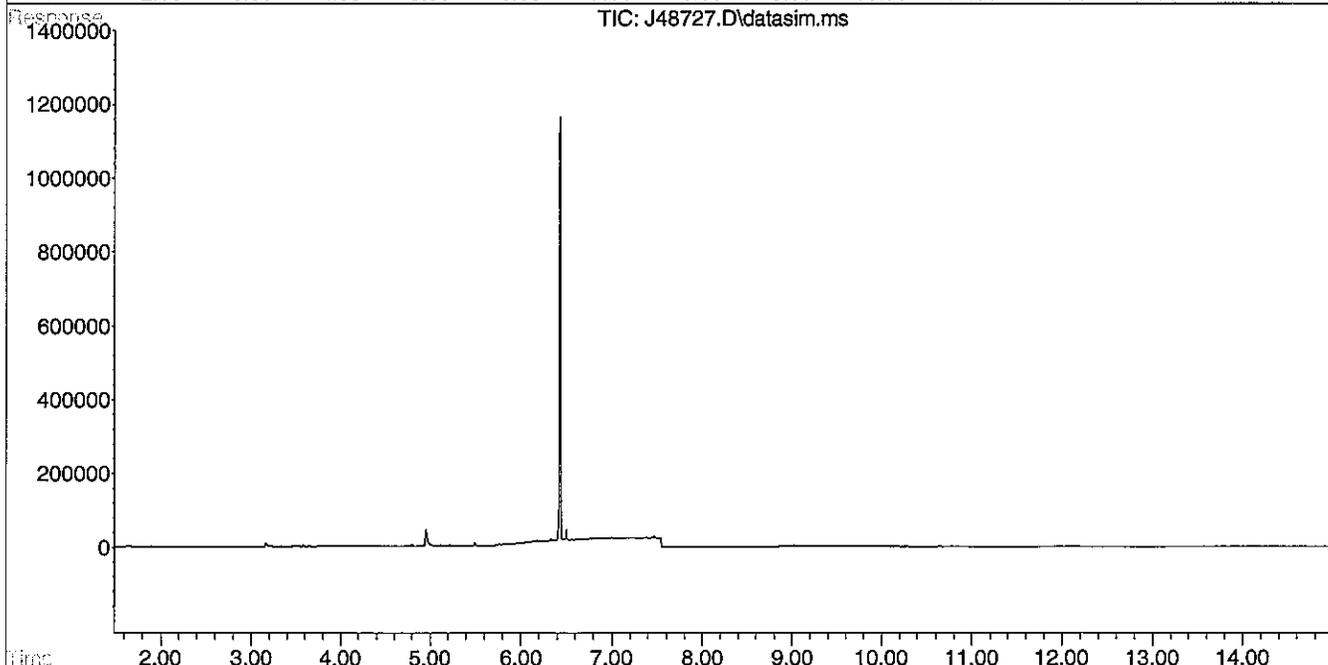
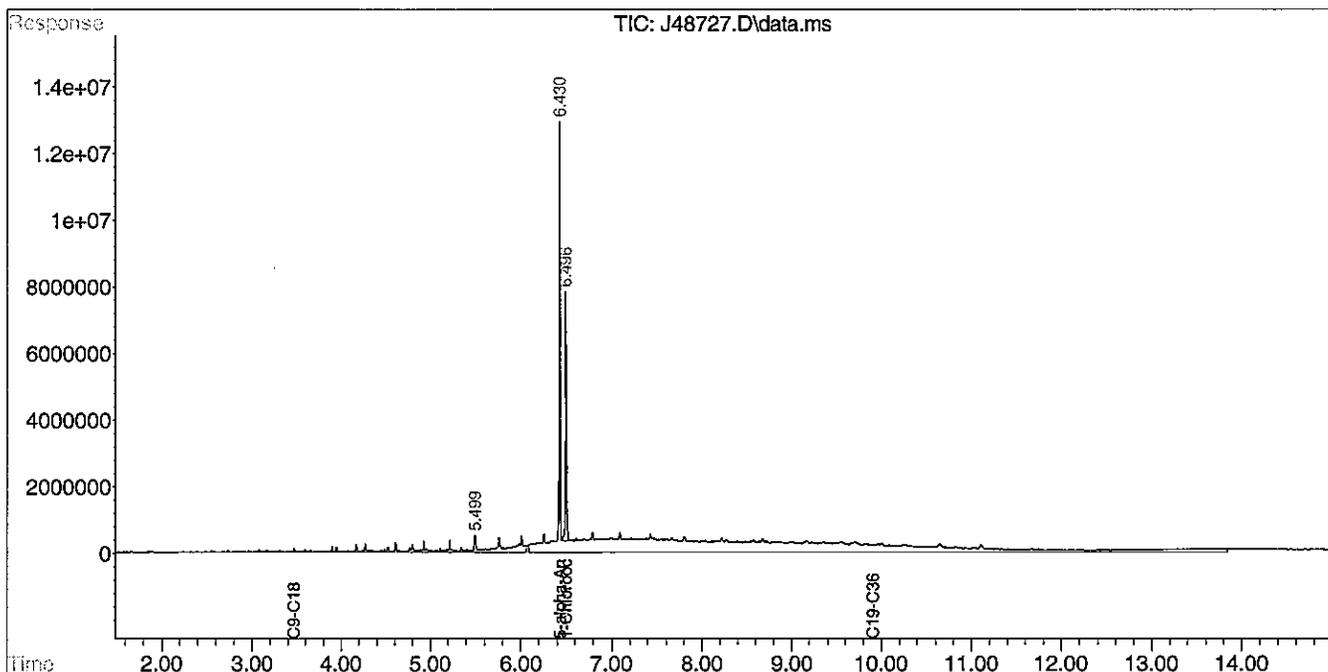
Quant Time: Feb 06 01:01:25 2013  
 Quant Method : C:\msdchem\1\METHODS\ARM020413N.M  
 Quant Title : EPH MS AROMATICS  
 QLast Update : Tue Feb 05 18:13:49 2013  
 Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\020513-J\  
 Data File : J48727.D  
 Signal(s) : Signal #1: data.ms Signal #2: datasim.ms  
 Acq On : 5 Feb 2013 11:58 pm  
 Operator : MG/AR  
 Sample : 74728-8  
 Misc : SOIL,ALI  
 ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Feb 06 00:54:41 2013  
 Quant Method : C:\msdchem\1\METHODS\ALG020413.M  
 Quant Title : EPH GC ALIPHATICS  
 QLast Update : Tue Feb 05 15:32:52 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :



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Portland, ME 04101

February 6, 2013

**CLIENT SAMPLE ID**  
**Project Name:** MILL DAM  
**Project Number:** 111.06134.017  
**Client Sample ID:** BK1

**SAMPLE DATA**  
**Lab Sample ID:** 74728-9  
**Matrix:** Solid  
**Percent Solid:** 59  
**Dilution Factor:** 1.6  
**Collection Date:** 01/22/13  
**Lab Receipt Date:** 01/24/13  
**Extraction Date:** 01/31/13  
**Analysis Date:** 02/06/13

EPH ANALYTICAL RESULTS			
RANGE/TARGET ANALYTE	RL	Units	Result
Unadjusted C11-C22 Aromatics <sup>1</sup>	21600	µg/kg	30900
Diesel PAH Analytes	Naphthalene	433 µg/kg	U
	2-Methylnaphthalene	433 µg/kg	U
	Phenanthrene	433 µg/kg	U
	Acenaphthene	433 µg/kg	U
Other Target PAH Analytes	Acenaphthylene	433 µg/kg	U
	Fluorene	433 µg/kg	U
	Anthracene	433 µg/kg	U
	Fluoranthene	433 µg/kg	318 J
	Pyrene	433 µg/kg	295 J
	Benzo[a]anthracene	433 µg/kg	U
	Chrysene	433 µg/kg	U
	Benzo[b]fluoranthene	433 µg/kg	226 J
	Benzo[k]fluoranthene	433 µg/kg	U
	Benzo[a]pyrene	433 µg/kg	U
	Indeno[1,2,3-cd]pyrene	433 µg/kg	U
	Dibenzo[a,h]anthracene	433 µg/kg	U
	Benzo[g,h,i]perylene	433 µg/kg	U
	C9-C18 Aliphatic Hydrocarbons <sup>1</sup>	21600	µg/kg
C19-C36 Aliphatic Hydrocarbons <sup>1</sup>	21600	µg/kg	26500
C11-C22 Aromatic Hydrocarbons <sup>1,2</sup>	21600	µg/kg	30100
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)			62
Aromatic Surrogate % Recovery (O-Terphenyl)			59
Sample Surrogate Acceptance Range	--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)			87
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)			88
Fractionation Surrogate Acceptance Range	--	--	40-140%
<sup>1</sup> Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.			
<sup>2</sup> C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.			
RL = Report Limit			
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank			

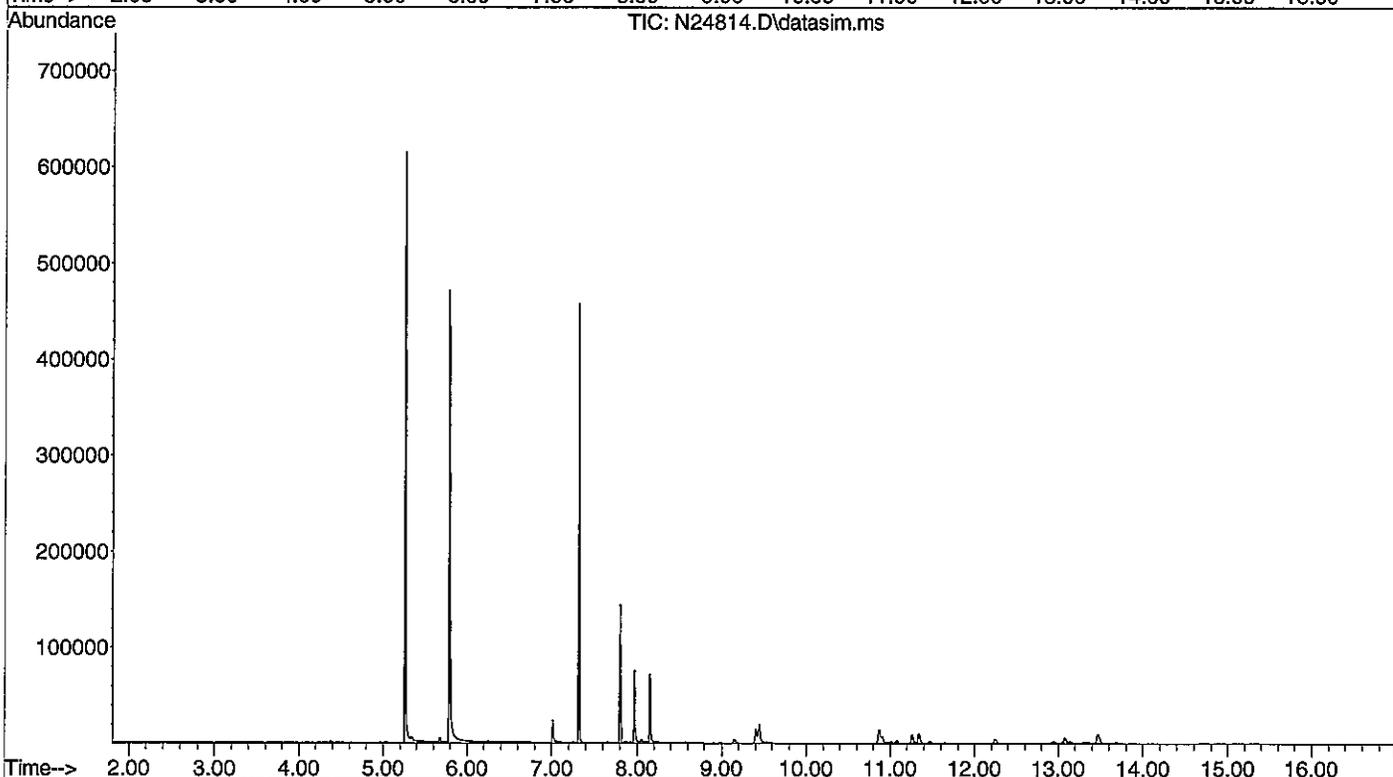
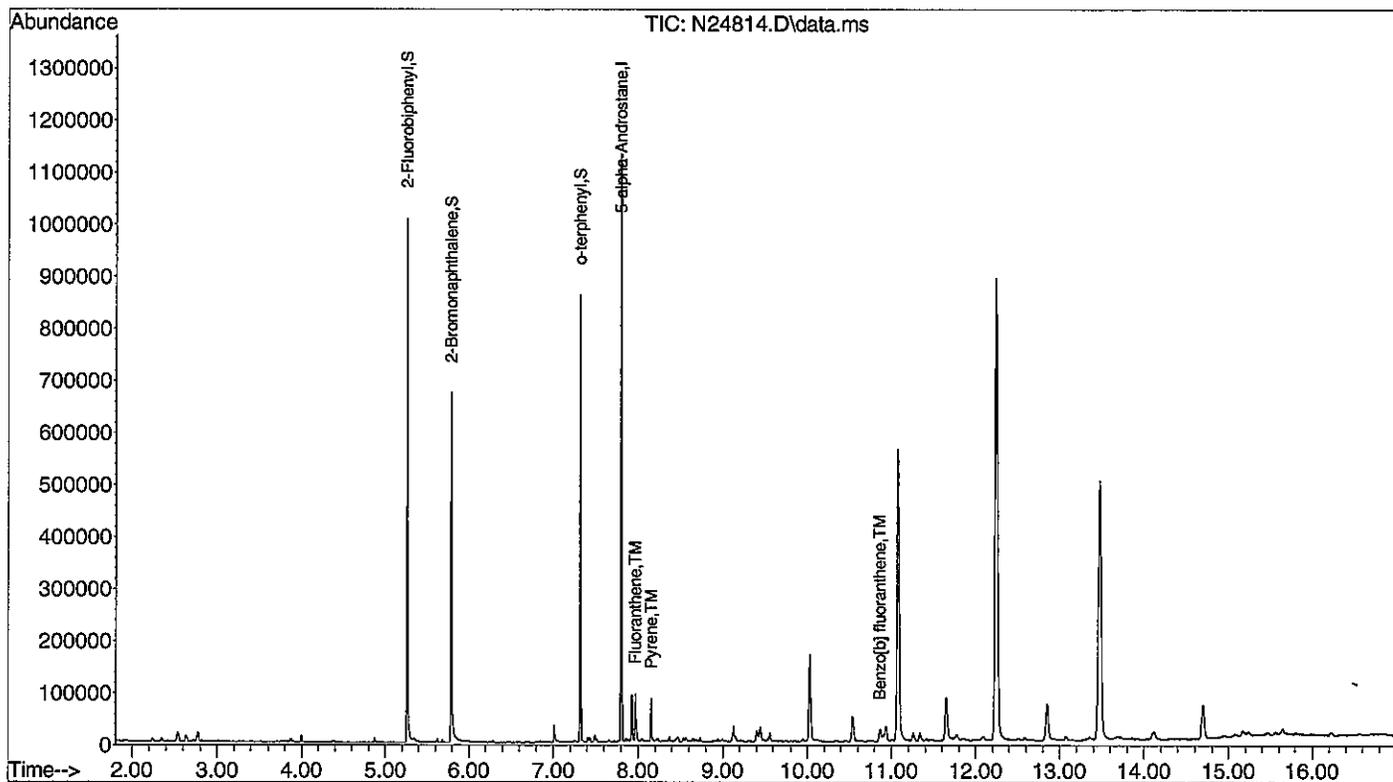
METHODOLOGY: MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004 Revision 1.1. Samples were extracted in accordance with SW-846 Method 3545

COMMENTS: EPH analyses utilized the use of a GC/MS system to detect and quantify ranges and target analytes. Samples were received in accordance with method criteria unless noted on the sample receipt checklist. Results are expressed on a dry weight basis.

SIGNATURE: 

Data Path : C:\msdchem\1\DATA\020513-N\  
 Data File : N24814.D  
 Acq On : 6 Feb 2013 1:00 am  
 Operator : AR  
 Sample : 74728-9  
 Misc : SOIL, ARO  
 ALS Vial : 20 Sample Multiplier: 1

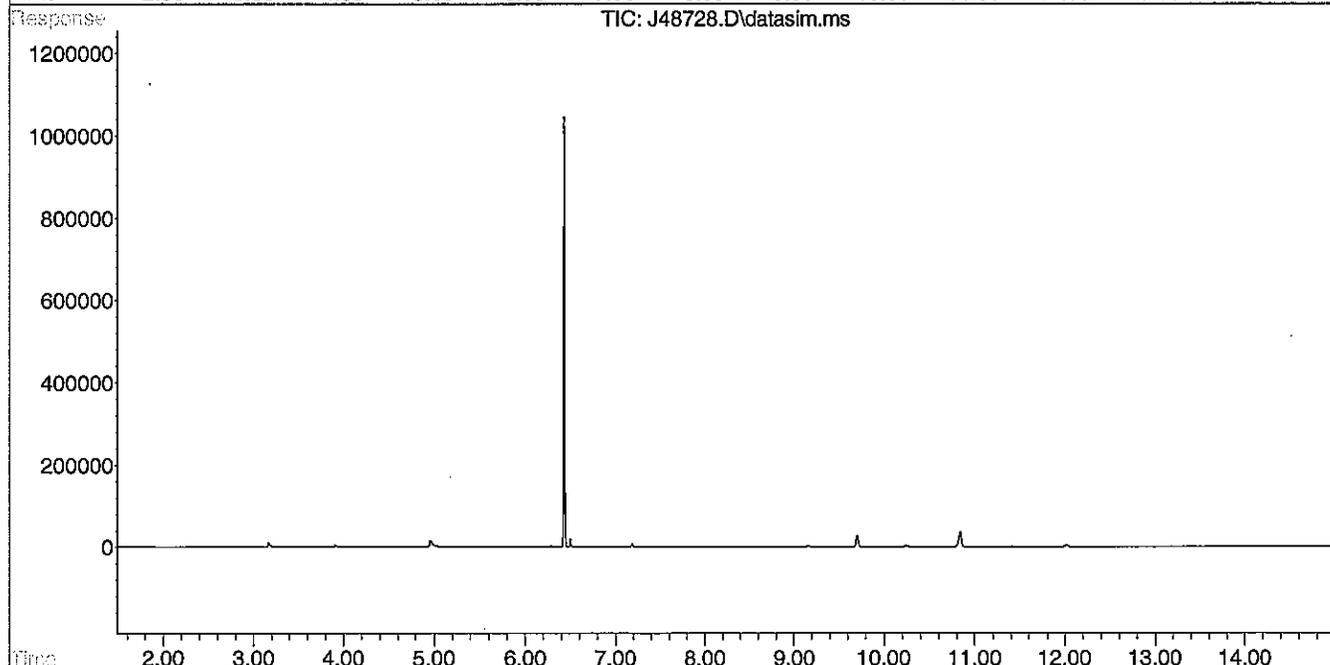
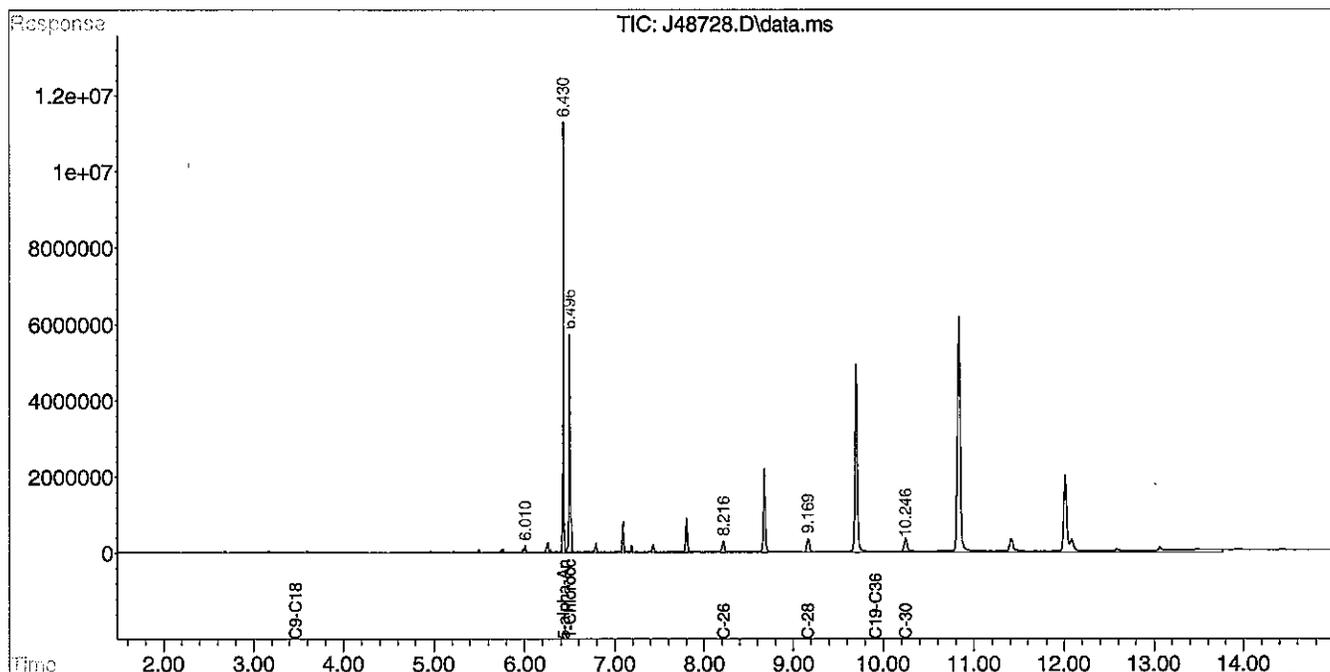
Quant Time: Feb 06 01:49:52 2013  
 Quant Method : C:\msdchem\1\METHODS\ARM020413N.M  
 Quant Title : EPH MS AROMATICS  
 QLast Update : Tue Feb 05 18:13:49 2013  
 Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\020513-J\  
 Data File : J48728.D  
 Signal(s) : Signal #1: data.ms Signal #2: datasim.ms  
 Acq On : 6 Feb 2013 12:19 am  
 Operator : MG/AR  
 Sample : 74728-9  
 Misc : SOIL,ALI  
 ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Feb 06 00:55:08 2013  
 Quant Method : C:\msdchem\1\METHODS\ALG020413.M  
 Quant Title : EPH GC ALIPHATICS  
 QLast Update : Tue Feb 05 15:32:52 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :



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February 7, 2013

**CLIENT SAMPLE ID**  

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**Project Name:** MILL DAM  
**Project Number:** 111.06134.017  
**Client Sample ID:** MW101

**SAMPLE DATA**  

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**Lab Sample ID:** 74728-11  
**Matrix:** Aqueous  
**Percent Solid:** N/A  
**Dilution Factor:** 1.0  
**Collection Date:** 01/22/13  
**Lab Receipt Date:** 01/24/13  
**Extraction Date:** 02/04/13  
**Analysis Date:** 02/06/13

EPH ANALYTICAL RESULTS			
RANGE/TARGET ANALYTE	RL	Units	Result
Unadjusted C11-C22 Aromatics <sup>1</sup>	100	µg/L	<b>839</b>
Diesel PAH Analytes	Naphthalene	4 µg/L	U
	2-Methylnaphthalene	4 µg/L	U
	Phenanthrene	4 µg/L	U
	Acenaphthene	4 µg/L	U
Other Target PAH Analytes	Acenaphthylene	4 µg/L	U
	Fluorene	4 µg/L	U
	Anthracene	4 µg/L	U
	Fluoranthene	4 µg/L	U
	Pyrene	4 µg/L	U
	Benzo[a]anthracene	4 µg/L	U
	Chrysene	4 µg/L	U
	Benzo[b]fluoranthene	4 µg/L	U
	Benzo[k]fluoranthene	4 µg/L	U
	Benzo[a]pyrene	4 µg/L	U
	Indeno[1,2,3-cd]pyrene	4 µg/L	U
	Dibenzo[a,h]anthracene	4 µg/L	U
	Benzo[g,h,i]perylene	4 µg/L	U
	C9-C18 Aliphatic Hydrocarbons <sup>1</sup>	200	µg/L
C19-C36 Aliphatic Hydrocarbons <sup>1</sup>	200	µg/L	<b>1980</b>
C11-C22 Aromatic Hydrocarbons <sup>1,2</sup>	100	µg/L	<b>839</b>
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)			54
Aromatic Surrogate % Recovery (O-Terphenyl)			89
Sample Surrogate Acceptance Range	--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)			81
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)			85
Fractionation Surrogate Acceptance Range	--	--	40-140%
<sup>1</sup> Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.			
<sup>2</sup> C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.			
RL = Report Limit			
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank			

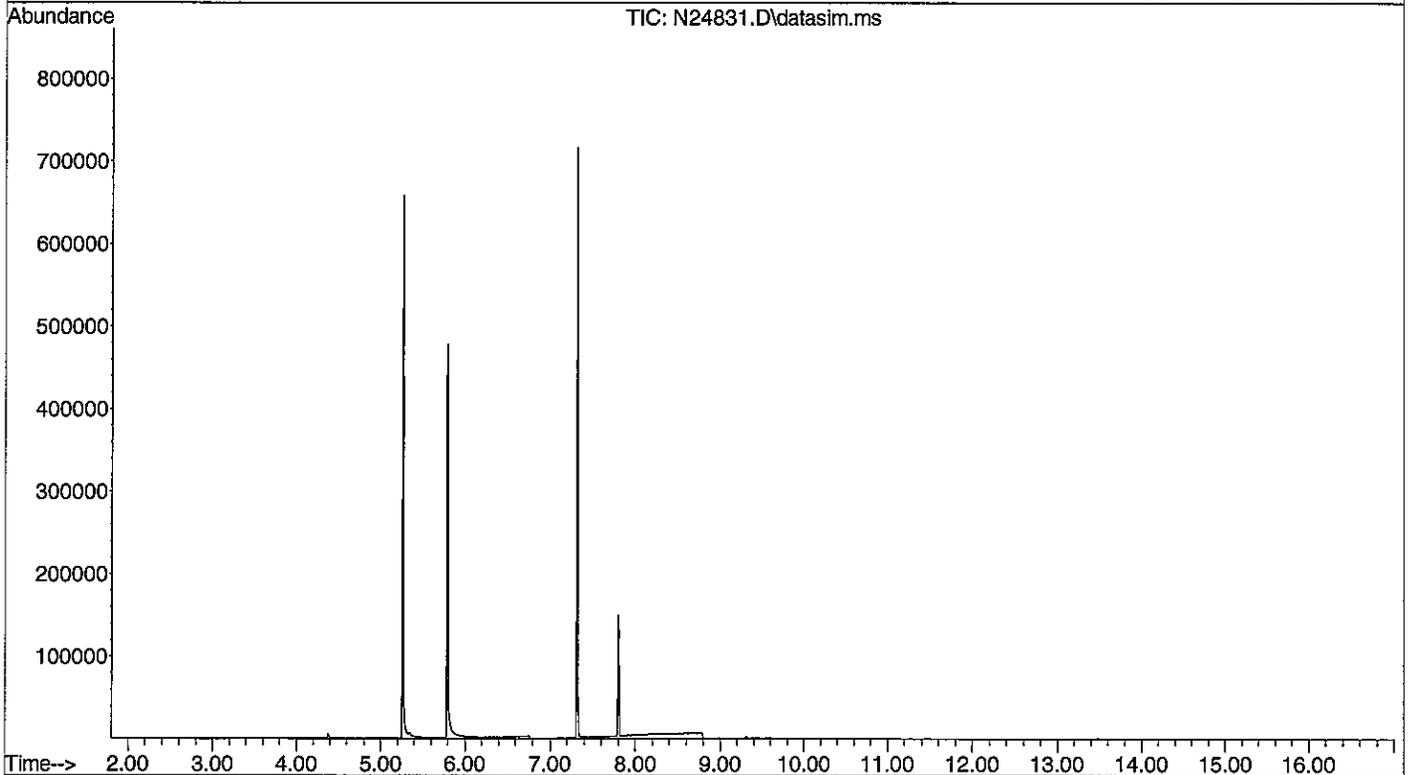
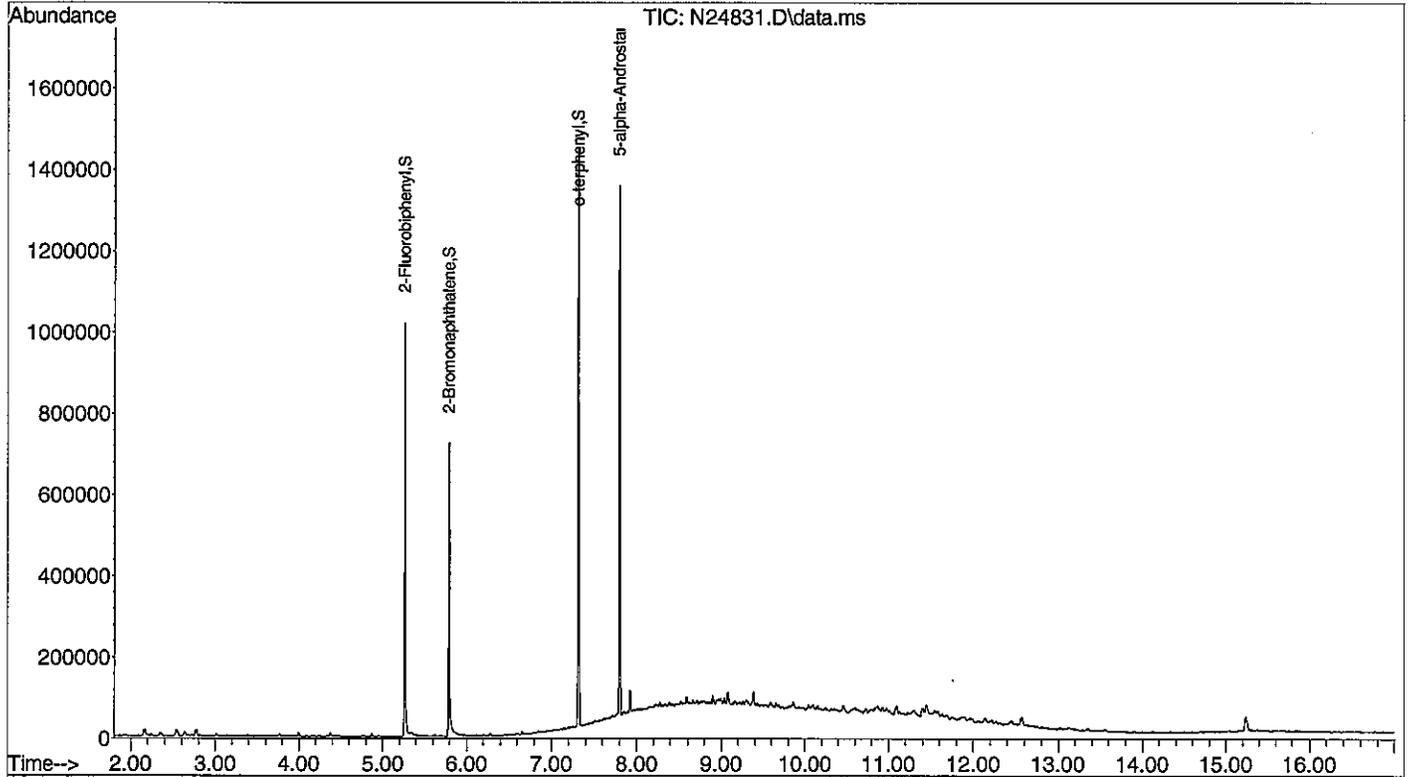
METHODOLOGY:MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004  
Revision 1.1. Samples were extracted in accordance with SW-846 Method 3510C.

COMMENTS:EPH analyses utilized the use of a GC/MS system to detect and quantify ranges and target analytes. Samples were received in accordance with method criteria unless noted on the sample receipt checklist.

SIGNATURE: 

Data Path : C:\msdchem\1\DATA\020513-N\  
 Data File : N24831.D  
 Acq On : 6 Feb 2013 6:51 am  
 Operator : AR  
 Sample : 74728-11  
 Misc : ARO  
 ALS Vial : 32 Sample Multiplier: 1

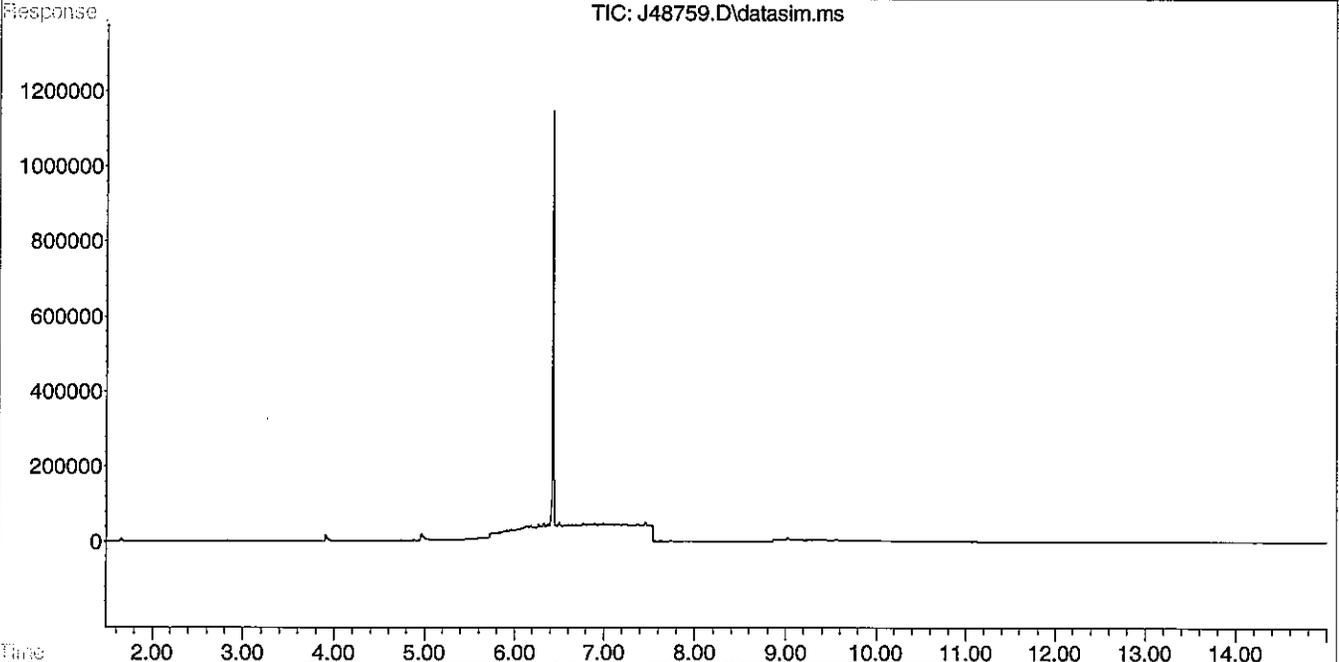
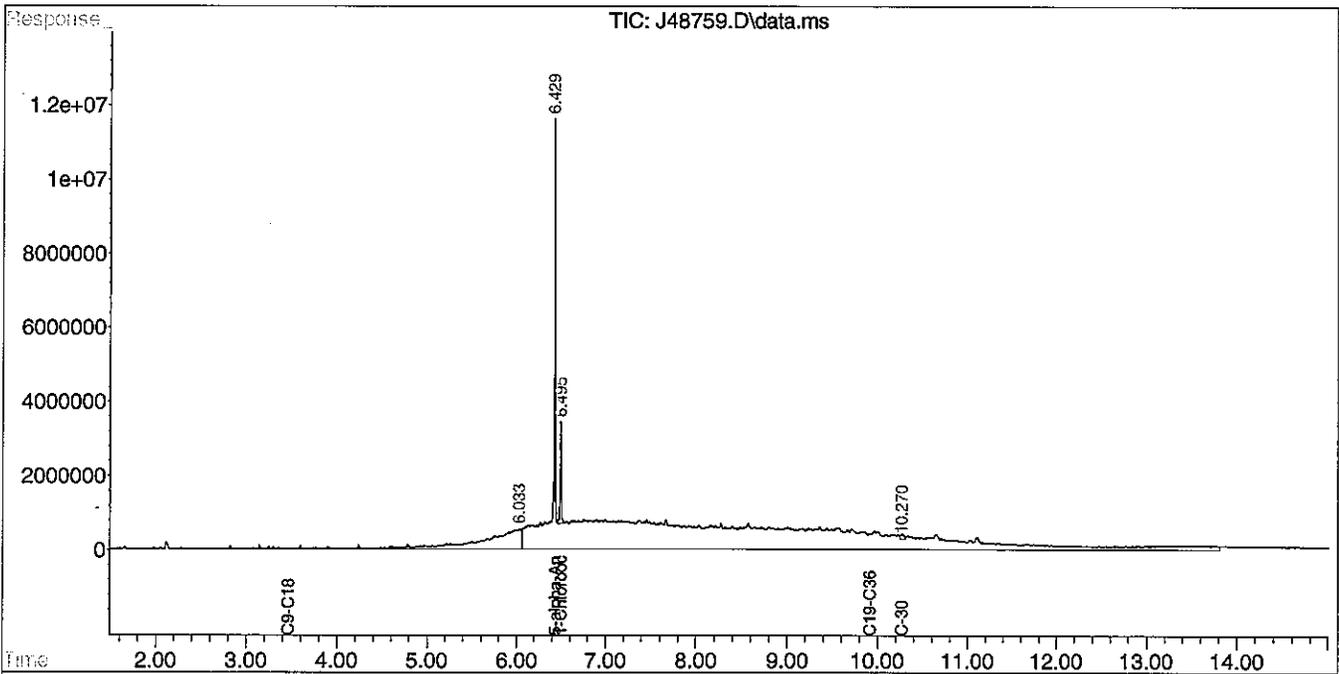
Quant Time: Feb 06 08:28:47 2013  
 Quant Method : C:\msdchem\1\METHODS\ARM020413N.M  
 Quant Title : EPH MS AROMATICS  
 QLast Update : Tue Feb 05 18:13:49 2013  
 Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\020513-J\  
Data File : J48759.D  
Signal(s) : Signal #1: data.ms Signal #2: datasim.ms  
Acq On : 6 Feb 2013 11:25 am  
Operator : MG/AR  
Sample : 74728-11,,2X  
Misc : ALI  
ALS Vial : 44 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
Integration File signal 2: autoint2.e  
Quant Time: Feb 06 12:10:25 2013  
Quant Method : C:\msdchem\1\METHODS\ALG020413.M  
Quant Title : EPH GC ALIPHATICS  
QLast Update : Tue Feb 05 15:32:52 2013  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



February 7, 2013

Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

**SAMPLE DATA**

Lab Sample ID: 74728-12  
Matrix: Aqueous  
Percent Solid: N/A  
Dilution Factor: 1.0  
Collection Date: 01/22/13  
Lab Receipt Date: 01/24/13  
Extraction Date: 02/04/13  
Analysis Date: 02/06/13

**CLIENT SAMPLE ID**  
Project Name: MILL DAM  
Project Number: 111.06134.017  
Client Sample ID: MW102

EPH ANALYTICAL RESULTS			
RANGE/TARGET ANALYTE	RL	Units	Result
Unadjusted C11-C22 Aromatics <sup>1</sup>	100	µg/L	U
Diesel PAH Analytes	Naphthalene	4	µg/L
	2-Methylnaphthalene	4	µg/L
	Phenanthrene	4	µg/L
	Acenaphthene	4	µg/L
Other Target PAH Analytes	Acenaphthylene	4	µg/L
	Fluorene	4	µg/L
	Anthracene	4	µg/L
	Fluoranthene	4	µg/L
	Pvrene	4	µg/L
	Benzo[a]anthracene	4	µg/L
	Chrysene	4	µg/L
	Benzo[b]fluoranthene	4	µg/L
	Benzo[k]fluoranthene	4	µg/L
	Benzo[a]pyrene	4	µg/L
	Indeno[1,2,3-cd]pyrene	4	µg/L
	Dibenzo[a,h]anthracene	4	µg/L
	Benzo[g,h,i]perylene	4	µg/L
C9-C18 Aliphatic Hydrocarbons <sup>1</sup>	100	µg/L	U
C19-C36 Aliphatic Hydrocarbons <sup>1</sup>	100	µg/L	U
C11-C22 Aromatic Hydrocarbons <sup>1,2</sup>	100	µg/L	U
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)			54
Aromatic Surrogate % Recovery (O-Terphenyl)			91
Sample Surrogate Acceptance Range	--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)			86
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)			89
Fractionation Surrogate Acceptance Range	--	--	40-140%

<sup>1</sup>Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.  
<sup>2</sup>C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.  
 RL = Report Limit  
 U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

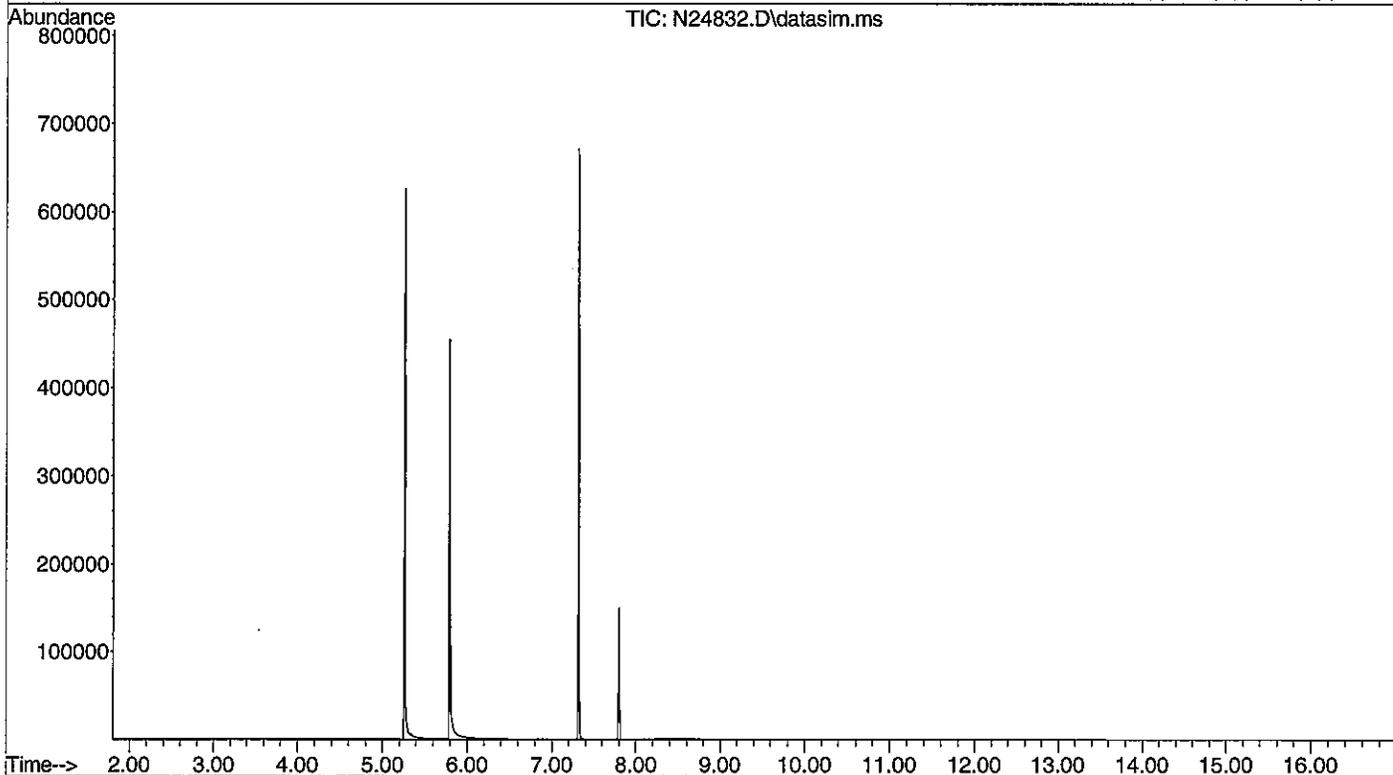
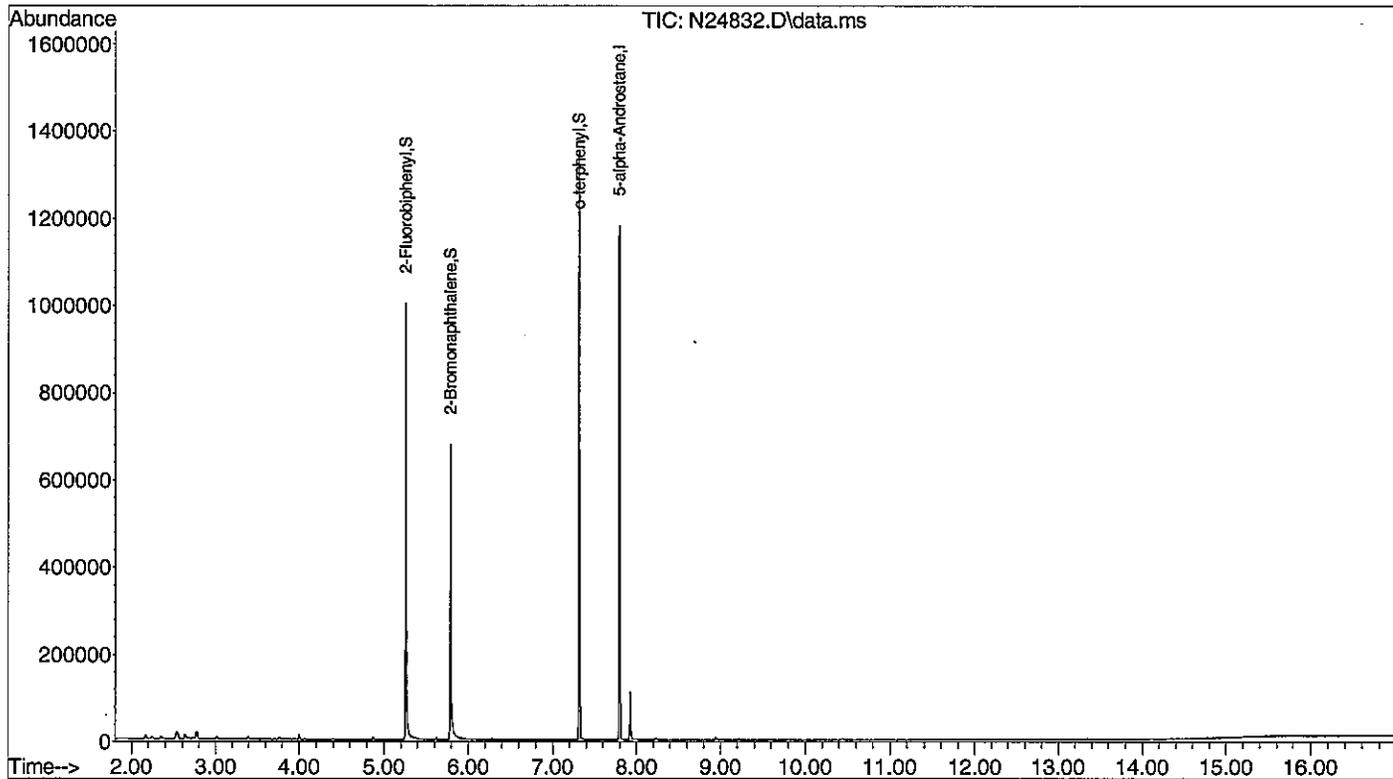
METHODOLOGY MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004  
Revision 1.1. Samples were extracted in accordance with SW-846 Method 3510C.

COMMENTS: EPH analyses utilized the use of a GC/MS system to detect and quantify ranges and target analytes. Samples were received in accordance with method criteria unless noted on the sample receipt checklist.

SIGNATURE: *M. J. Sullivan*

Data Path : C:\msdchem\1\DATA\020513-N\  
Data File : N24832.D  
Acq On : 6 Feb 2013 7:11 am  
Operator : AR  
Sample : 74728-12  
Misc : ARO  
ALS Vial : 33 Sample Multiplier: 1

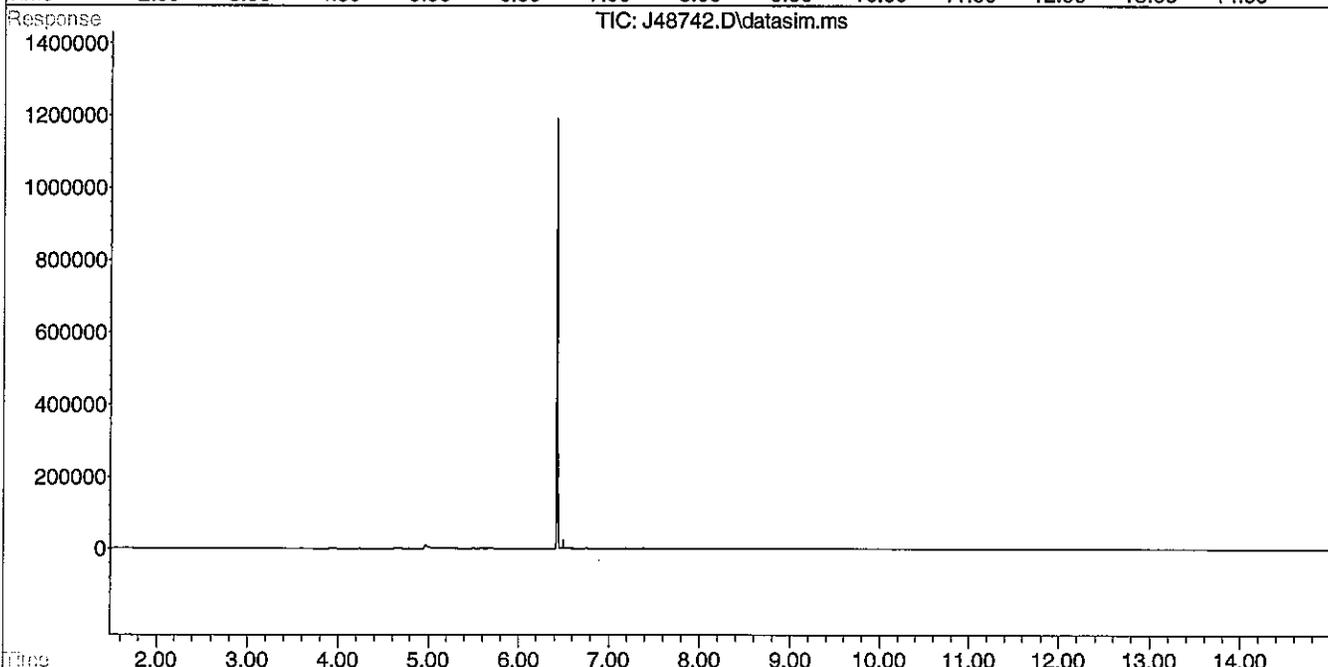
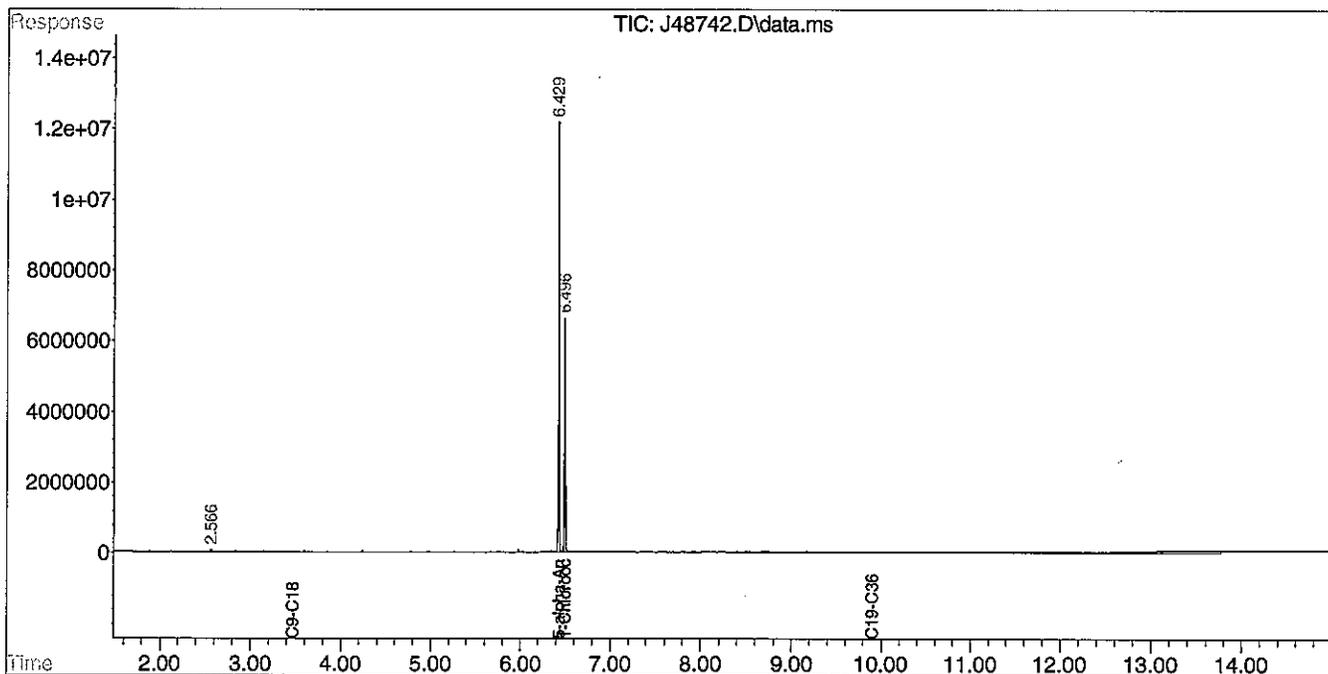
Quant Time: Feb 06 08:28:49 2013  
Quant Method : C:\msdchem\1\METHODS\ARM020413N.M  
Quant Title : EPH MS AROMATICS  
QLast Update : Tue Feb 05 18:13:49 2013  
Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\020513-J\  
 Data File : J48742.D  
 Signal(s) : Signal #1: data.ms Signal #2: datasim.ms  
 Acq On : 6 Feb 2013 5:31 am  
 Operator : MG/AR  
 Sample : 74728-12  
 Misc : ALI  
 ALS Vial : 29 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Feb 06 08:46:03 2013  
 Quant Method : C:\msdchem\1\METHODS\ALG020413.M  
 Quant Title : EPH GC ALIPHATICS  
 QLast Update : Tue Feb 05 15:32:52 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :





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laboratory LLC

195 Commerce Way  
Portsmouth, New Hampshire 03801  
603-436-5111 Fax 603-430-2151  
800-929-9906

February 7, 2013

Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

**SAMPLE DATA**

**Lab Sample ID:** 74728-13  
**Matrix:** Aqueous  
**Percent Solid:** N/A  
**Dilution Factor:** 1.0  
**Collection Date:** 01/22/13  
**Lab Receipt Date:** 01/24/13  
**Extraction Date:** 02/04/13  
**Analysis Date:** 02/06/13

**CLIENT SAMPLE ID**  
**Project Name:** MILL DAM  
**Project Number:** 111.06134.017  
**Client Sample ID:** MW103

EPH ANALYTICAL RESULTS			
RANGE/TARGET ANALYTE	RL	Units	Result
Unadjusted C11-C22 Aromatics <sup>1</sup>	100	µg/L	U
Diesel PAH Analytes	Naphthalene	4	µg/L
	2-Methylnaphthalene	4	µg/L
	Phenanthrene	4	µg/L
	Acenaphthene	4	µg/L
Other Target PAH Analytes	Acenaphthylene	4	µg/L
	Fluorene	4	µg/L
	Anthracene	4	µg/L
	Fluoranthene	4	µg/L
	Pyrene	4	µg/L
	Benzo[a]anthracene	4	µg/L
	Chrysene	4	µg/L
	Benzo[b]fluoranthene	4	µg/L
	Benzo[k]fluoranthene	4	µg/L
	Benzo[a]pyrene	4	µg/L
	Indeno[1,2,3-cd]pyrene	4	µg/L
	Dibenzo[a,h]anthracene	4	µg/L
	Benzo[g,h,i]perylene	4	µg/L
	C9-C18 Aliphatic Hydrocarbons <sup>1</sup>	100	µg/L
C19-C36 Aliphatic Hydrocarbons <sup>1</sup>	100	µg/L	U
C11-C22 Aromatic Hydrocarbons <sup>1,2</sup>	100	µg/L	U
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)			50
Aromatic Surrogate % Recovery (O-Terphenyl)			96
Sample Surrogate Acceptance Range	--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)			89
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)			91
Fractionation Surrogate Acceptance Range	--	--	40-140%

<sup>1</sup> Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.  
<sup>2</sup> C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.  
RL = Report Limit  
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

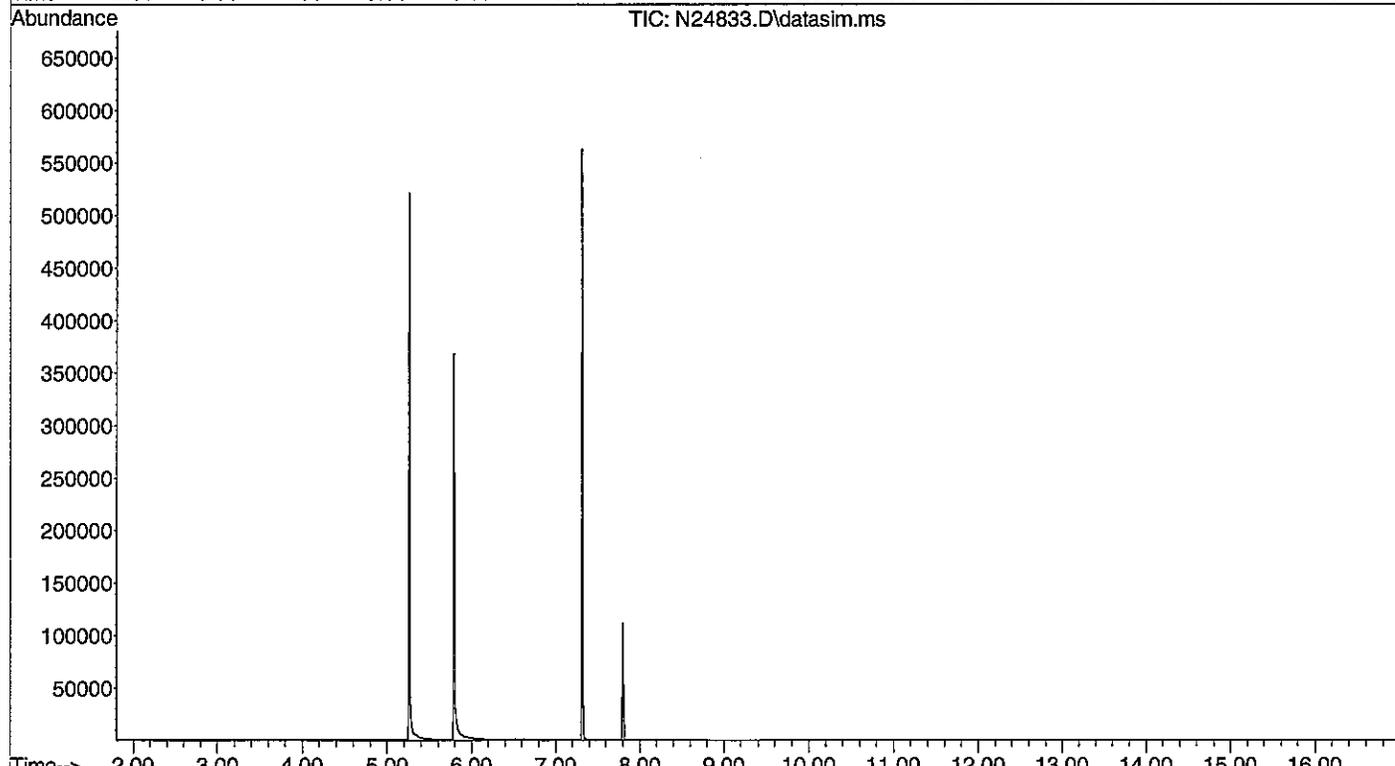
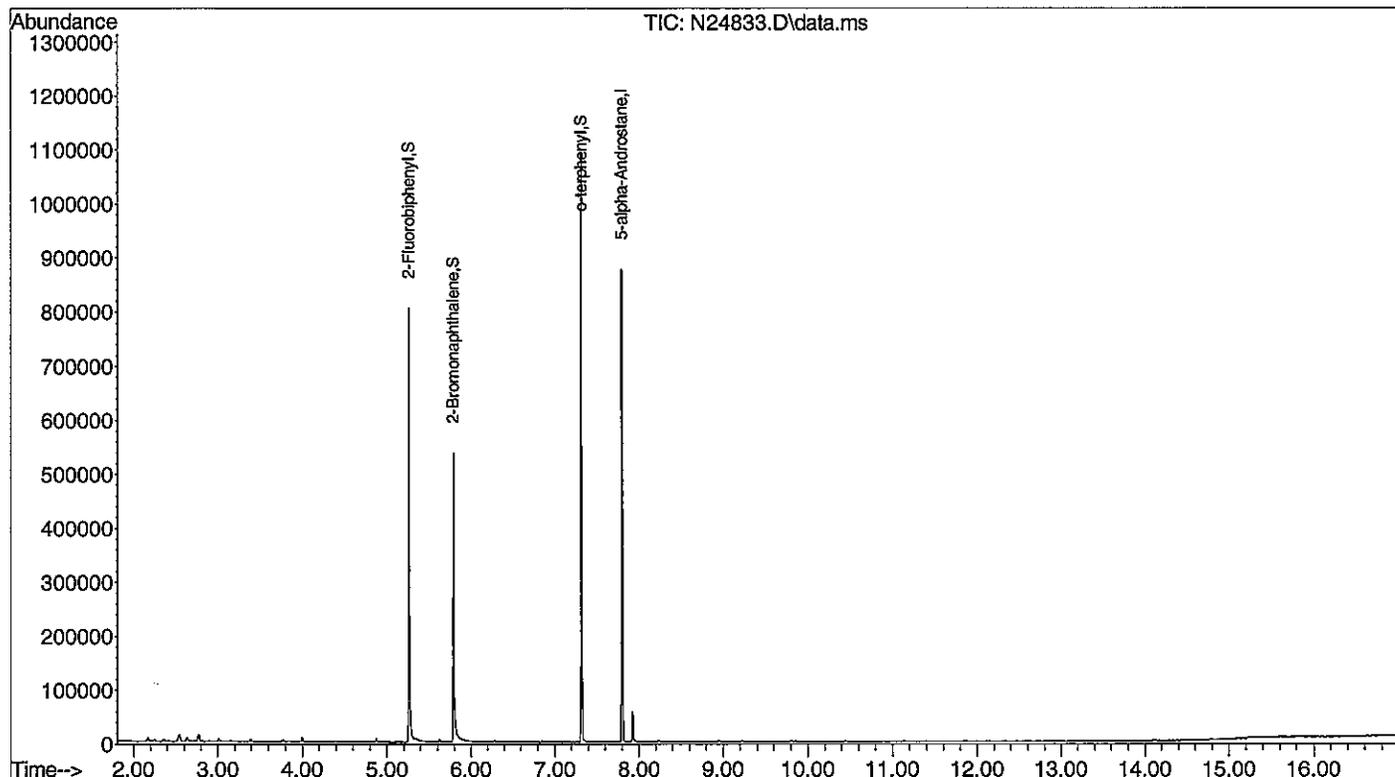
METHODOLOGY MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004  
Revision 1.1. Samples were extracted in accordance with SW-846 Method 3510C.

COMMENTS: EPH analyses utilized the use of a GC/MS system to detect and quantify ranges and target analytes. Samples were received in accordance with method criteria unless noted on the sample receipt checklist.

SIGNATURE:

Data Path : C:\msdchem\1\DATA\020513-N\  
 Data File : N24833.D  
 Acq On : 6 Feb 2013 7:32 am  
 Operator : AR  
 Sample : 74728-13  
 Misc : ARO  
 ALS Vial : 34 Sample Multiplier: 1

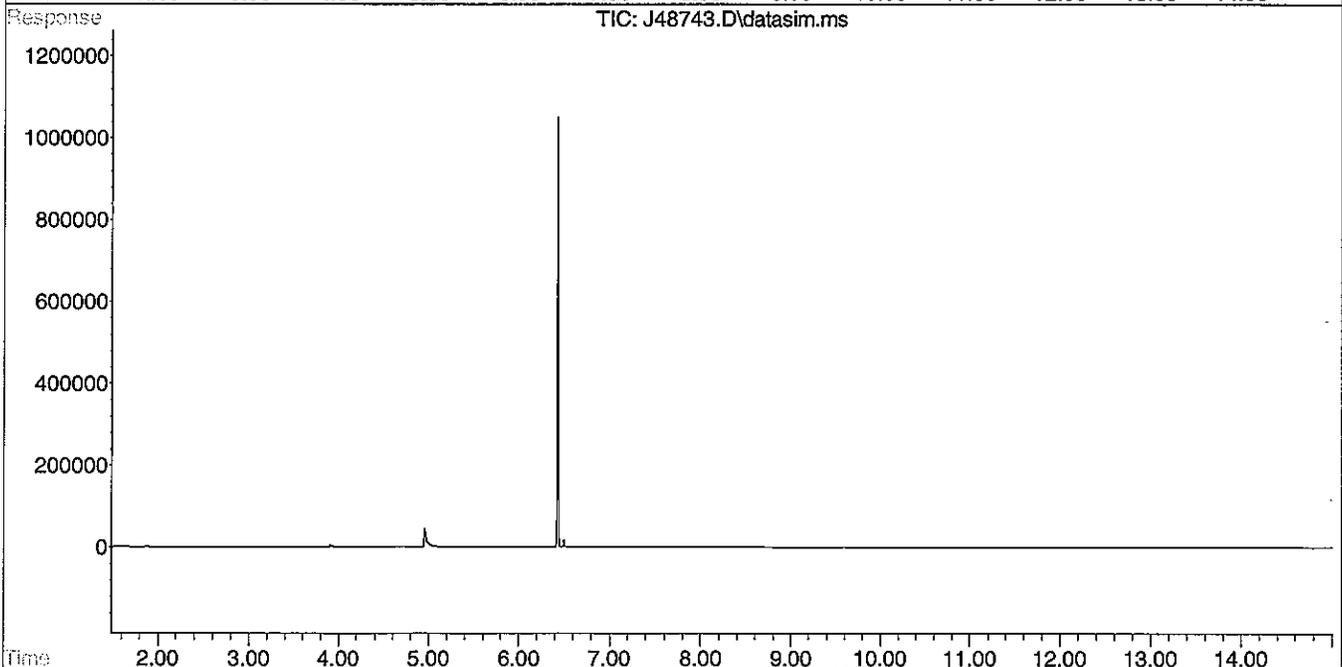
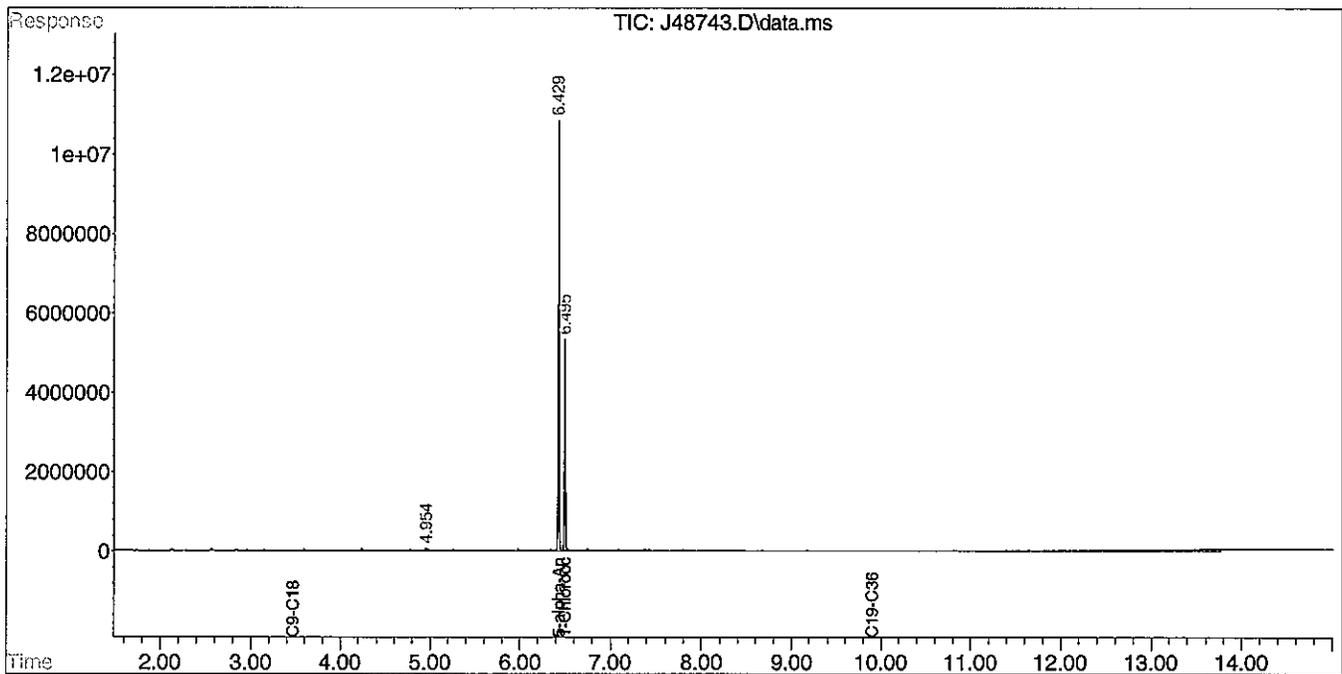
Quant Time: Feb 06 08:28:51 2013  
 Quant Method : C:\msdchem\1\METHODS\ARM020413N.M  
 Quant Title : EPH MS AROMATICS  
 QLast Update : Tue Feb 05 18:13:49 2013  
 Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\020513-J\  
 Data File : J48743.D  
 Signal(s) : Signal #1: data.ms Signal #2: datasim.ms  
 Acq On : 6 Feb 2013 5:52 am  
 Operator : MG/AR  
 Sample : 74728-13  
 Misc : ALI  
 ALS Vial : 30 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Feb 06 08:46:10 2013  
 Quant Method : C:\msdchem\1\METHODS\ALG020413.M  
 Quant Title : EPH GC ALIPHATICS  
 QLast Update : Tue Feb 05 15:32:52 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :



February 7, 2013

Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

**SAMPLE DATA**

**Lab Sample ID:** 74728-14  
**Matrix:** Aqueous  
**Percent Solid:** N/A  
**Dilution Factor:** 1.0  
**Collection Date:** 01/22/13  
**Lab Receipt Date:** 01/24/13  
**Extraction Date:** 02/04/13  
**Analysis Date:** 02/06/13

**CLIENT SAMPLE ID**  
**Project Name:** MILL DAM  
**Project Number:** 111.06134.017  
**Client Sample ID:** MW10X

EPH ANALYTICAL RESULTS			
RANGE/TARGET ANALYTE	RL	Units	Result
Unadjusted C11-C22 Aromatics <sup>1</sup>	100	µg/L	U
Diesel PAH Analytes	Naphthalene	4	µg/L
	2-Methylnaphthalene	4	µg/L
	Phenanthrene	4	µg/L
	Acenaphthene	4	µg/L
Other Target PAH Analytes	Acenaphthylene	4	µg/L
	Fluorene	4	µg/L
	Anthracene	4	µg/L
	Fluoranthene	4	µg/L
	Pyrene	4	µg/L
	Benzo[a]anthracene	4	µg/L
	Chrysene	4	µg/L
	Benzo[b]fluoranthene	4	µg/L
	Benzo[k]fluoranthene	4	µg/L
	Benzo[a]pyrene	4	µg/L
	Indeno[1,2,3-cd]pyrene	4	µg/L
	Dibenzo[a,h]anthracene	4	µg/L
	Benzo[g,h,i]perylene	4	µg/L
C9-C18 Aliphatic Hydrocarbons <sup>1</sup>	100	µg/L	U
C19-C36 Aliphatic Hydrocarbons <sup>1</sup>	100	µg/L	U
C11-C22 Aromatic Hydrocarbons <sup>1,2</sup>	100	µg/L	U
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)			51
Aromatic Surrogate % Recovery (O-Terphenyl)			92
Sample Surrogate Acceptance Range	--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)			91
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)			92
Fractionation Surrogate Acceptance Range	--	--	40-140%
<sup>1</sup> Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.			
<sup>2</sup> C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.			
RL = Report Limit			
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank			

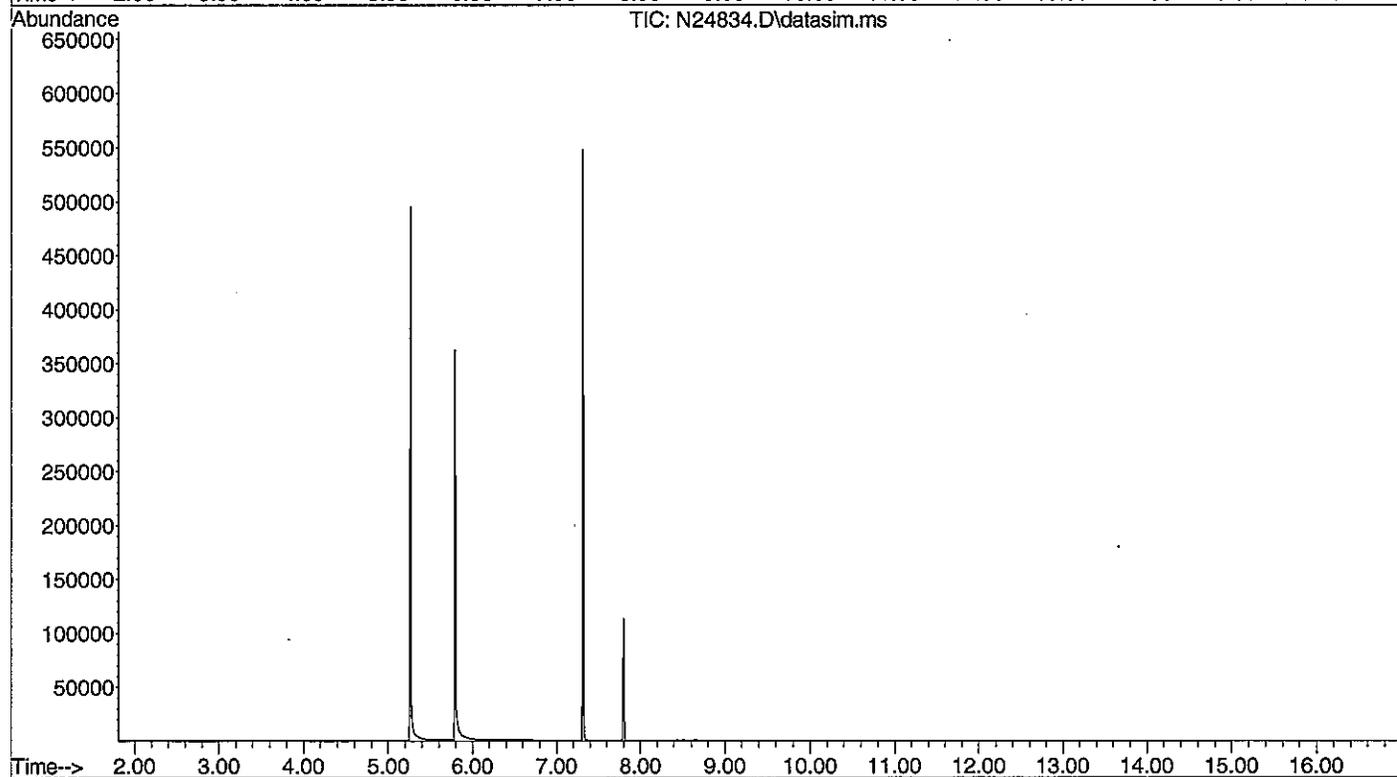
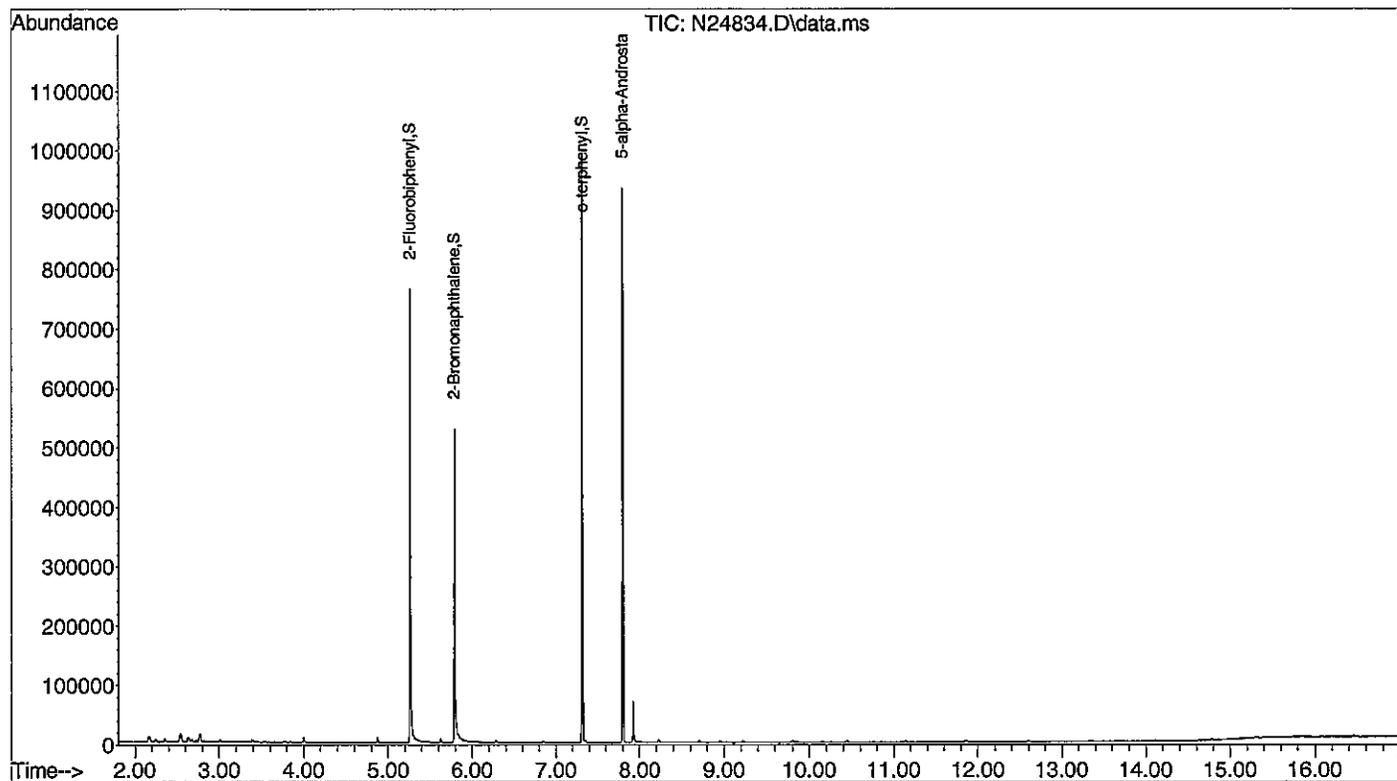
METHODOLOGY: MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004 Revision 1.1. Samples were extracted in accordance with SW-846 Method 3510C.

COMMENTS: EPH analyses utilized the use of a GC/MS system to detect and quantify ranges and target analytes. Samples were received in accordance with method criteria unless noted on the sample receipt checklist.

SIGNATURE: 

Data Path : C:\msdchem\1\DATA\020513-N\  
Data File : N24834.D  
Acq On : 6 Feb 2013 7:52 am  
Operator : AR  
Sample : 74728-14  
Misc : ARO  
ALS Vial : 35 Sample Multiplier: 1

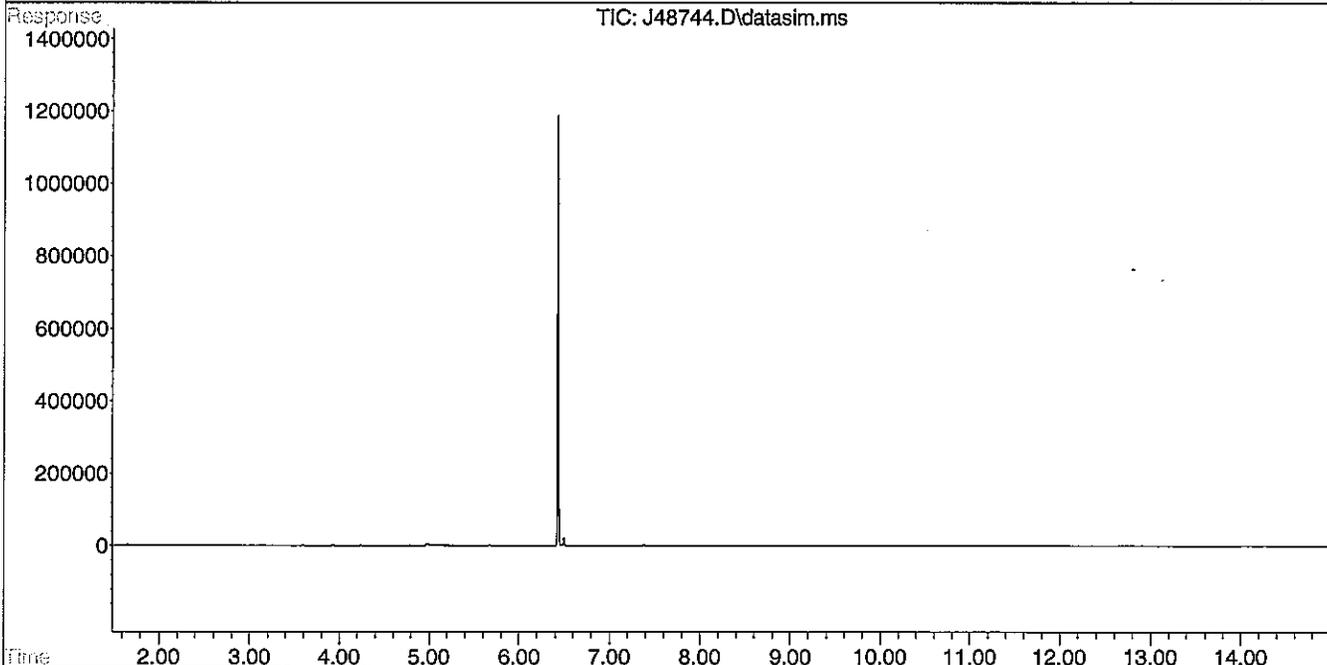
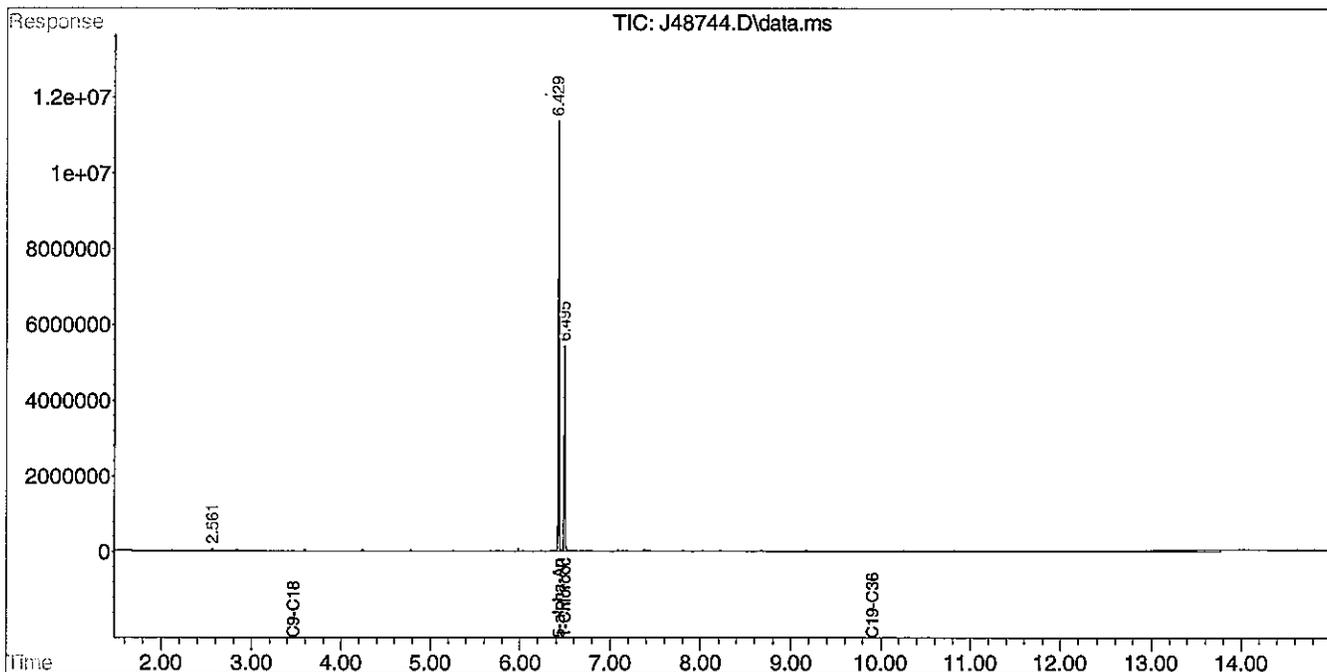
Quant Time: Feb 06 08:28:53 2013  
Quant Method : C:\msdchem\1\METHODS\ARM020413N.M  
Quant Title : EPH MS AROMATICS  
QLast Update : Tue Feb 05 18:13:49 2013  
Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\020513-J\  
 Data File : J48744.D  
 Signal(s) : Signal #1: data.ms Signal #2: datasim.ms  
 Acq On : 6 Feb 2013 6:12 am  
 Operator : MG/AR  
 Sample : 74728-14  
 Misc : ALI  
 ALS Vial : 31 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Feb 06 08:46:18 2013  
 Quant Method : C:\msdchem\1\METHODS\ALG020413.M  
 Quant Title : EPH GC ALIPHATICS  
 QLast Update : Tue Feb 05 15:32:52 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :



Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

February 6, 2013

**CLIENT SAMPLE ID**  
**Project Name:** MILL DAM  
**Project Number:** 111.06134.017  
**Client Sample ID:** CS101

**SAMPLE DATA**  
**Lab Sample ID:** 74728-15  
**Matrix:** Solid  
**Percent Solid:** 83  
**Dilution Factor:** 1.2  
**Collection Date:** 01/22/13  
**Lab Receipt Date:** 01/24/13  
**Extraction Date:** 01/31/13  
**Analysis Date:** 02/06/13

EPH ANALYTICAL RESULTS			
RANGE/TARGET ANALYTE	RL	Units	Result
Unadjusted C11-C22 Aromatics <sup>1</sup>	15600	µg/kg	U
Diesel PAH Analytes	Naphthalene	312	µg/kg
	2-Methylnaphthalene	312	µg/kg
	Phenanthrene	312	µg/kg
	Acenaphthene	312	µg/kg
Other Target PAH Analytes	Acenaphthylene	312	µg/kg
	Fluorene	312	µg/kg
	Anthracene	312	µg/kg
	Fluoranthene	312	µg/kg
	Pyrene	312	µg/kg
	Benzo[a]anthracene	312	µg/kg
	Chrysene	312	µg/kg
	Benzo[b]fluoranthene	312	µg/kg
	Benzo[k]fluoranthene	312	µg/kg
	Benzo[a]pyrene	312	µg/kg
	Indeno[1,2,3-cd]pyrene	312	µg/kg
	Dibenzo[a,h]anthracene	312	µg/kg
	Benzo[g,h,i]perylene	312	µg/kg
	C9-C18 Aliphatic Hydrocarbons <sup>1</sup>	15600	µg/kg
C19-C36 Aliphatic Hydrocarbons <sup>1</sup>	15600	µg/kg	U
C11-C22 Aromatic Hydrocarbons <sup>1,2</sup>	15600	µg/kg	U
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)			61
Aromatic Surrogate % Recovery (O-Terphenyl)			71
Sample Surrogate Acceptance Range	--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)			89
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)			90
Fractionation Surrogate Acceptance Range	--	--	40-140%
<sup>1</sup> Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.			
<sup>2</sup> C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.			
RL = Report Limit			
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank			

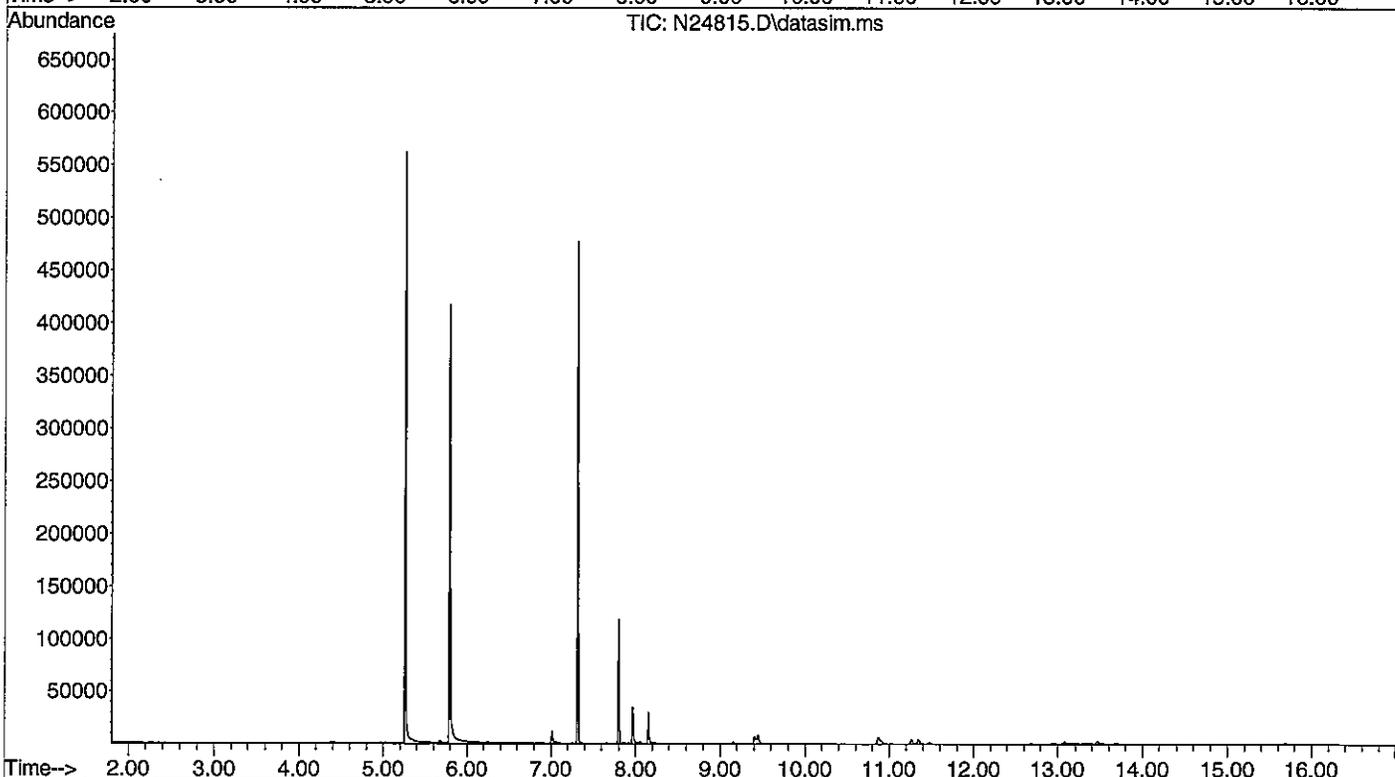
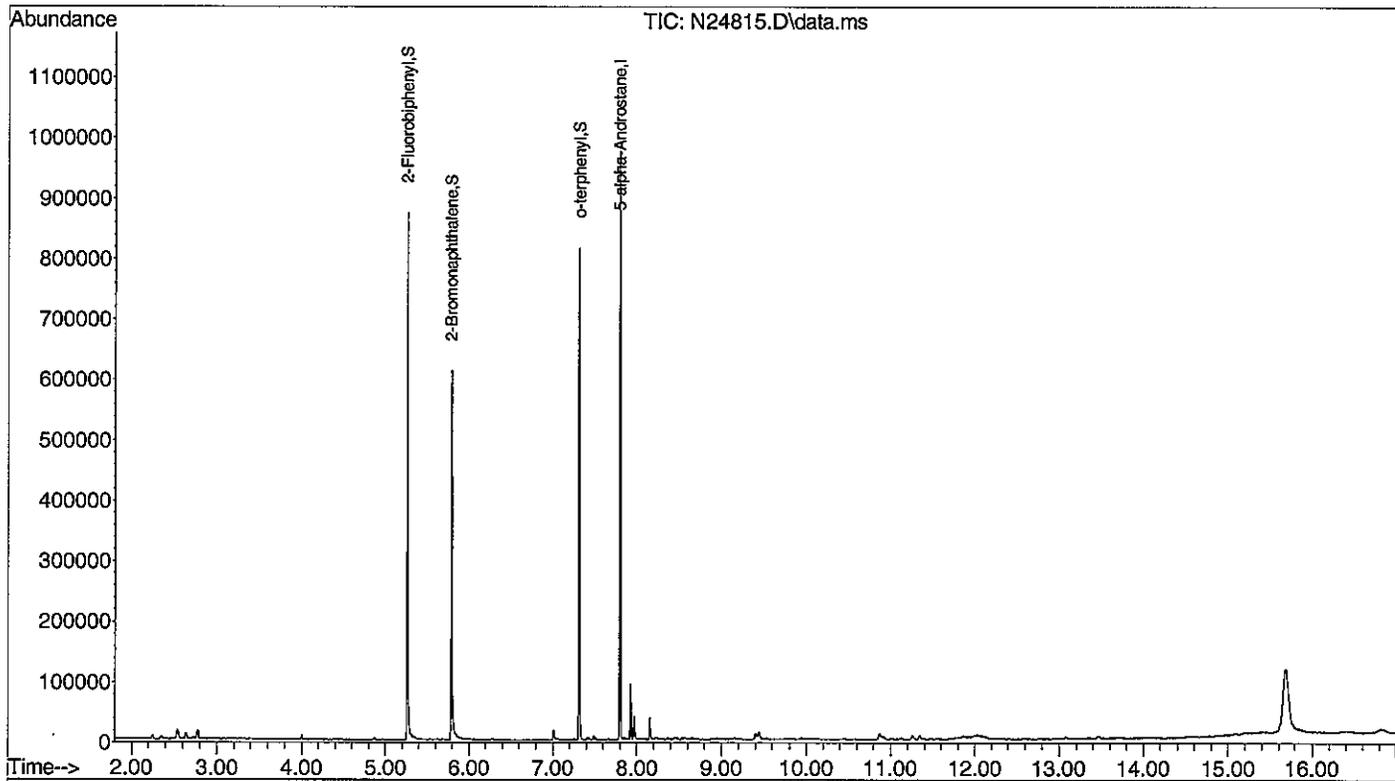
METHODOLOGY MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004  
Revision 1.1. Samples were extracted in accordance with SW-846 Method 3545

COMMENTS: EPH analyses utilized the use of a GC/MS system to detect and quantify ranges and target analytes. Samples were received in accordance with method criteria unless noted on the sample receipt checklist.  
Results are expressed on a dry weight basis.

SIGNATURE: 

Data Path : C:\msdchem\1\DATA\020513-N\  
 Data File : N24815.D  
 Acq On : 6 Feb 2013 1:21 am  
 Operator : AR  
 Sample : 74728-15  
 Misc : SOIL, ARO  
 ALS Vial : 21 Sample Multiplier: 1

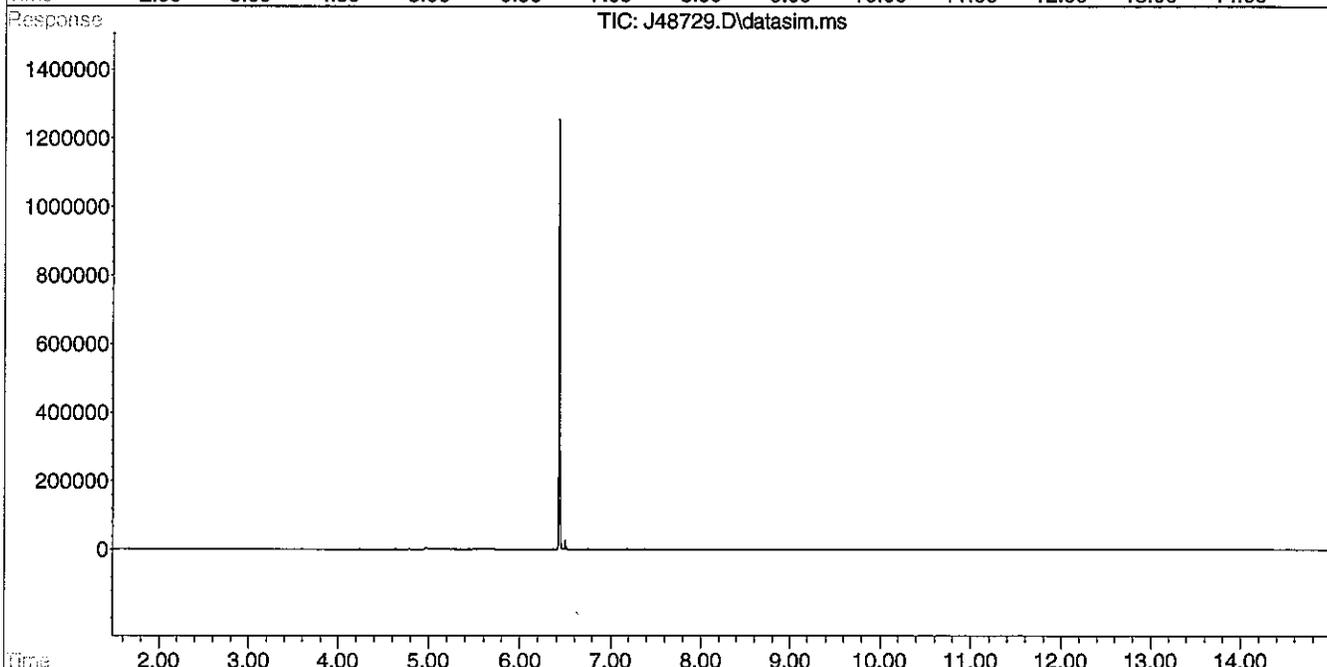
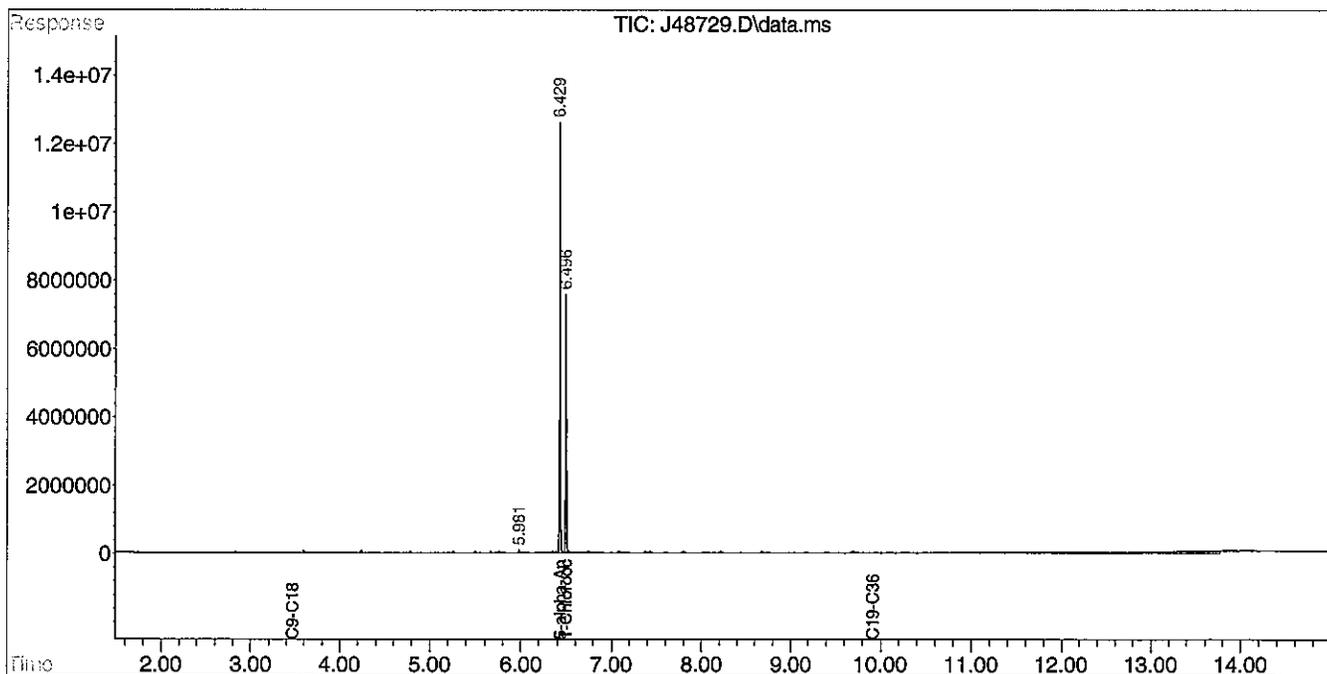
Quant Time: Feb 06 01:50:20 2013  
 Quant Method : C:\msdchem\1\METHODS\ARM020413N.M  
 Quant Title : EPH MS AROMATICS  
 QLast Update : Tue Feb 05 18:13:49 2013  
 Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\020513-J\  
 Data File : J48729.D  
 Signal(s) : Signal #1: data.ms Signal #2: datasim.ms  
 Acq On : 6 Feb 2013 12:40 am  
 Operator : MG/AR  
 Sample : 74728-15  
 Misc : SOIL,ALI  
 ALS Vial : 20 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Feb 06 01:39:02 2013  
 Quant Method : C:\msdchem\1\METHODS\ALG020413.M  
 Quant Title : EPH GC ALIPHATICS  
 QLast Update : Tue Feb 05 15:32:52 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :



Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

February 6, 2013

**CLIENT SAMPLE ID**  
**Project Name:** MILL DAM  
**Project Number:** 111.06134.017  
**Client Sample ID:** CS102

**SAMPLE DATA**  
**Lab Sample ID:** 74728-16  
**Matrix:** Solid  
**Percent Solid:** 80  
**Dilution Factor:** 1.2  
**Collection Date:** 01/22/13  
**Lab Receipt Date:** 01/24/13  
**Extraction Date:** 01/31/13  
**Analysis Date:** 02/06/13

EPH ANALYTICAL RESULTS			
RANGE/TARGET ANALYTE	RL	Units	Result
Unadjusted C11-C22 Aromatics <sup>1</sup>	16200	µg/kg	U
Diesel PAH Analytes	Naphthalene	325	µg/kg
	2-Methylnaphthalene	325	µg/kg
	Phenanthrene	325	µg/kg
	Acenaphthene	325	µg/kg
Other Target PAH Analytes	Acenaphthylene	325	µg/kg
	Fluorene	325	µg/kg
	Anthracene	325	µg/kg
	Fluoranthene	325	µg/kg
	Pvrene	325	µg/kg
	Benzo[a]anthracene	325	µg/kg
	Chrysene	325	µg/kg
	Benzo[b]fluoranthene	325	µg/kg
	Benzo[k]fluoranthene	325	µg/kg
	Benzo[a]pyrene	325	µg/kg
	Indeno[1,2,3-cd]pyrene	325	µg/kg
	Dibenzof[a,h]anthracene	325	µg/kg
	Benzo[g,h,i]perylene	325	µg/kg
C9-C18 Aliphatic Hydrocarbons	16200	µg/kg	U
C19-C36 Aliphatic Hydrocarbons <sup>1</sup>	16200	µg/kg	U
C11-C22 Aromatic Hydrocarbons <sup>1,2</sup>	16200	µg/kg	U
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)			48
Aromatic Surrogate % Recovery (O-Terphenyl)			54
Sample Surrogate Acceptance Range	--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)			86
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)			90
Fractionation Surrogate Acceptance Range	--	--	40-140%
<sup>1</sup> Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.			
<sup>2</sup> C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.			
RL = Report Limit			
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank			

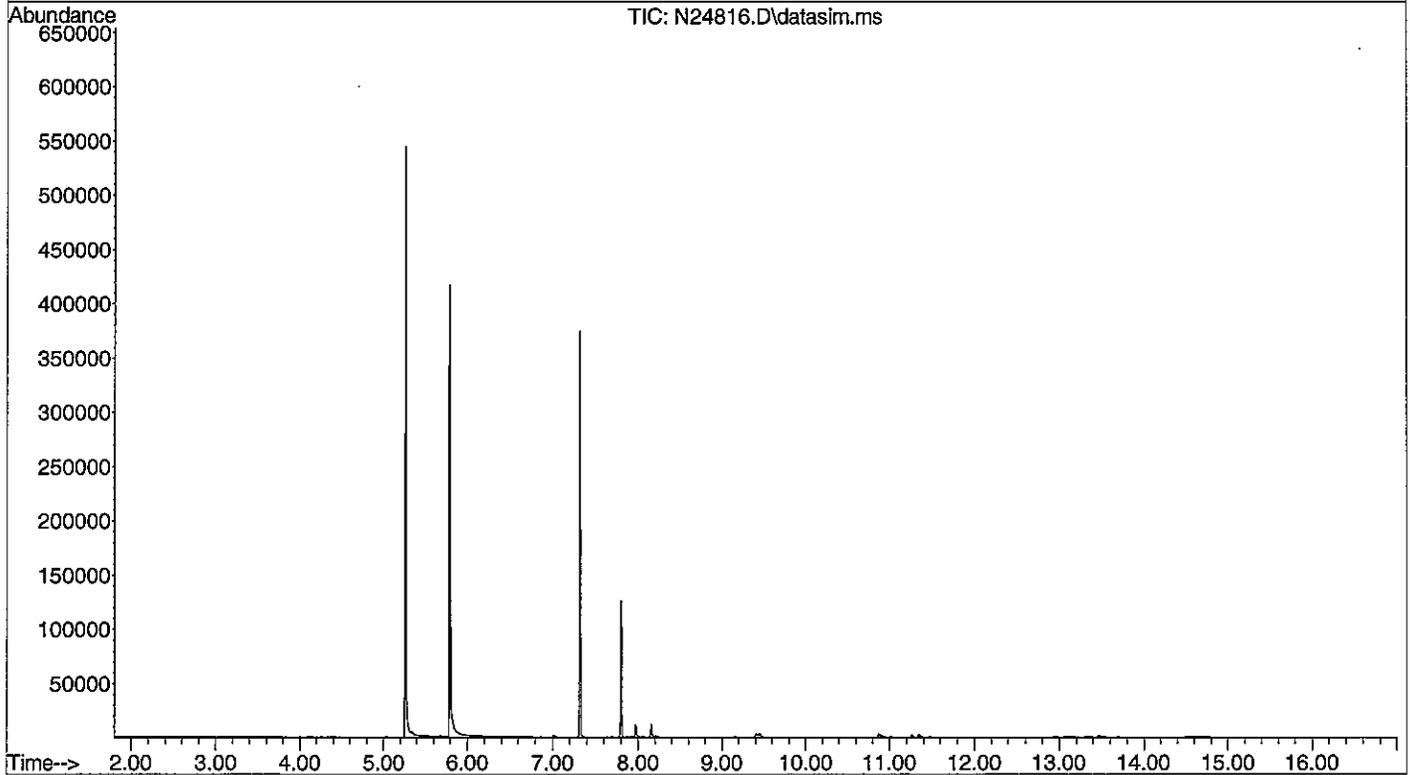
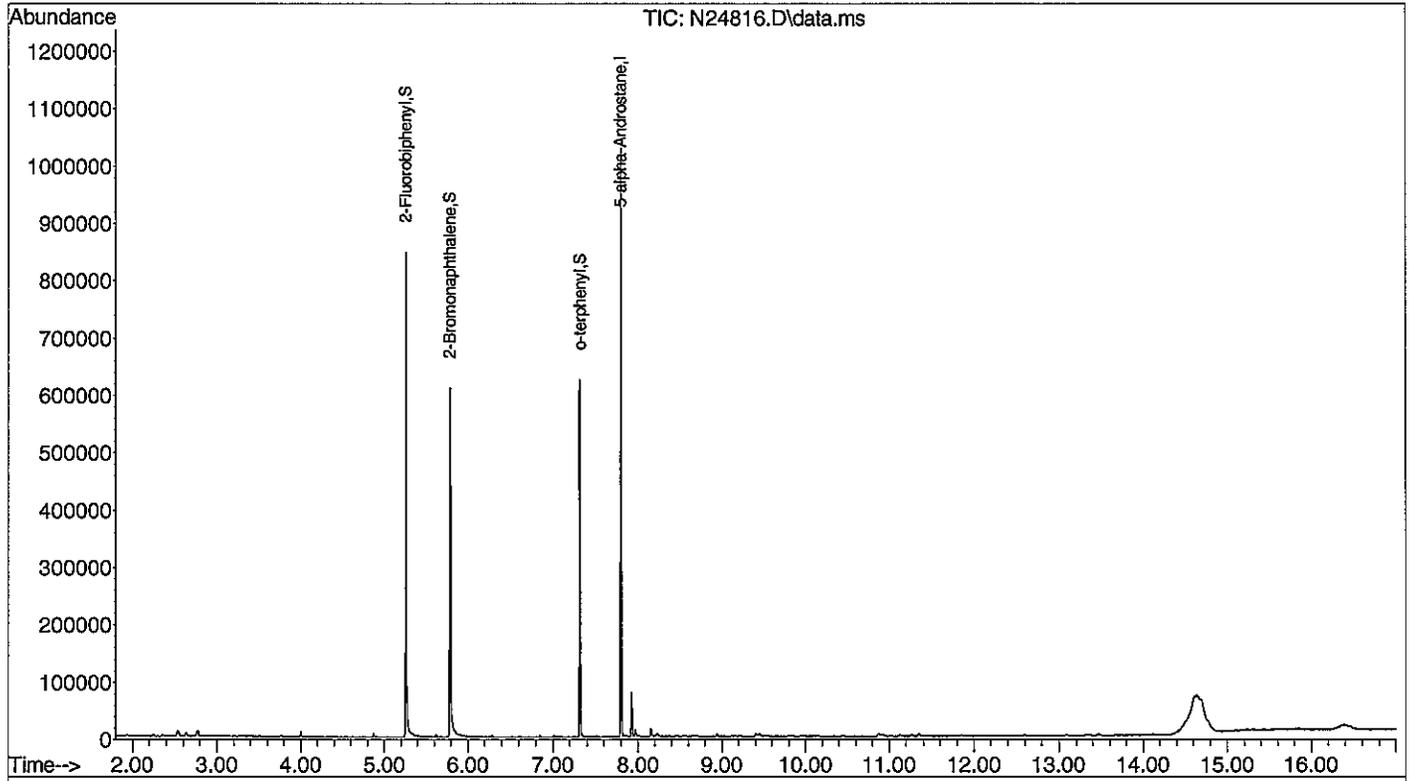
METHODOLOGY:MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004  
Revision 1.1. Samples were extracted in accordance with SW-846 Method 3545

COMMENTS:EPH analyses utilized the use of a GC/MS system to detect and quantify ranges and target analytes. Samples were received in accordance with method criteria unless noted on the sample receipt checklist.  
Results are expressed on a dry weight basis.

SIGNATURE: 

Data Path : C:\msdchem\1\DATA\020513-N\  
 Data File : N24816.D  
 Acq On : 6 Feb 2013 1:41 am  
 Operator : AR  
 Sample : 74728-16  
 Misc : SOIL, ARO  
 ALS Vial : 22 Sample Multiplier: 1

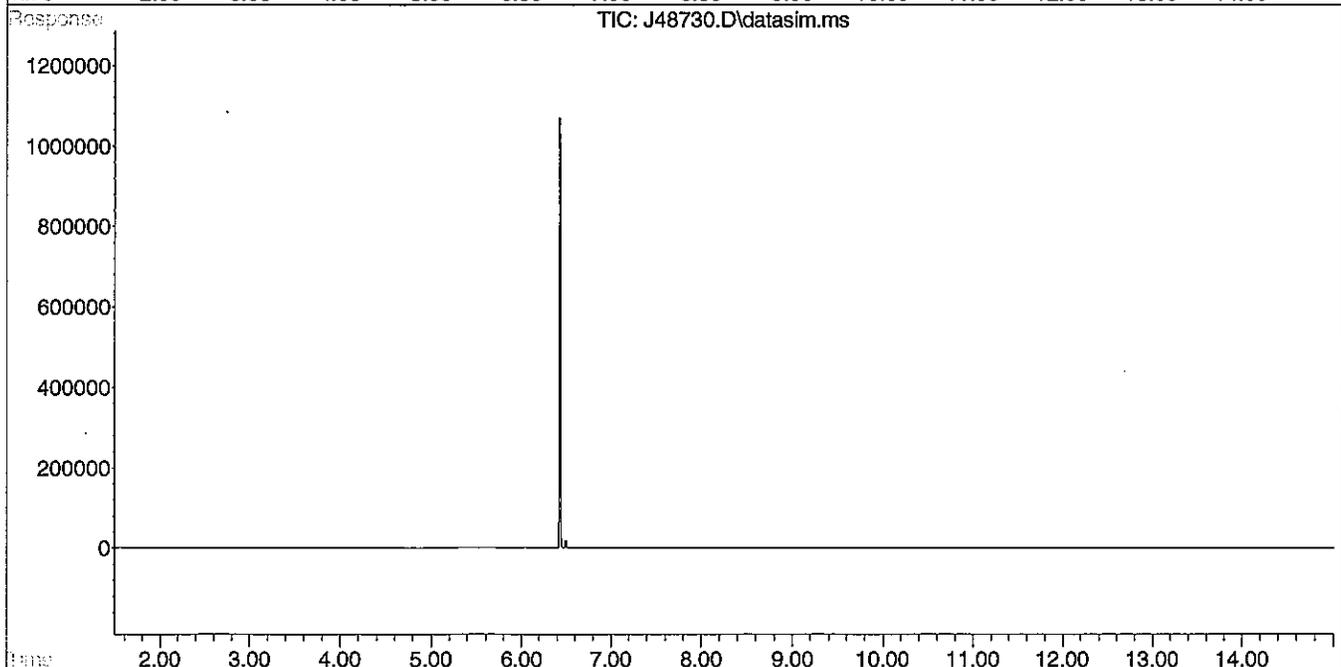
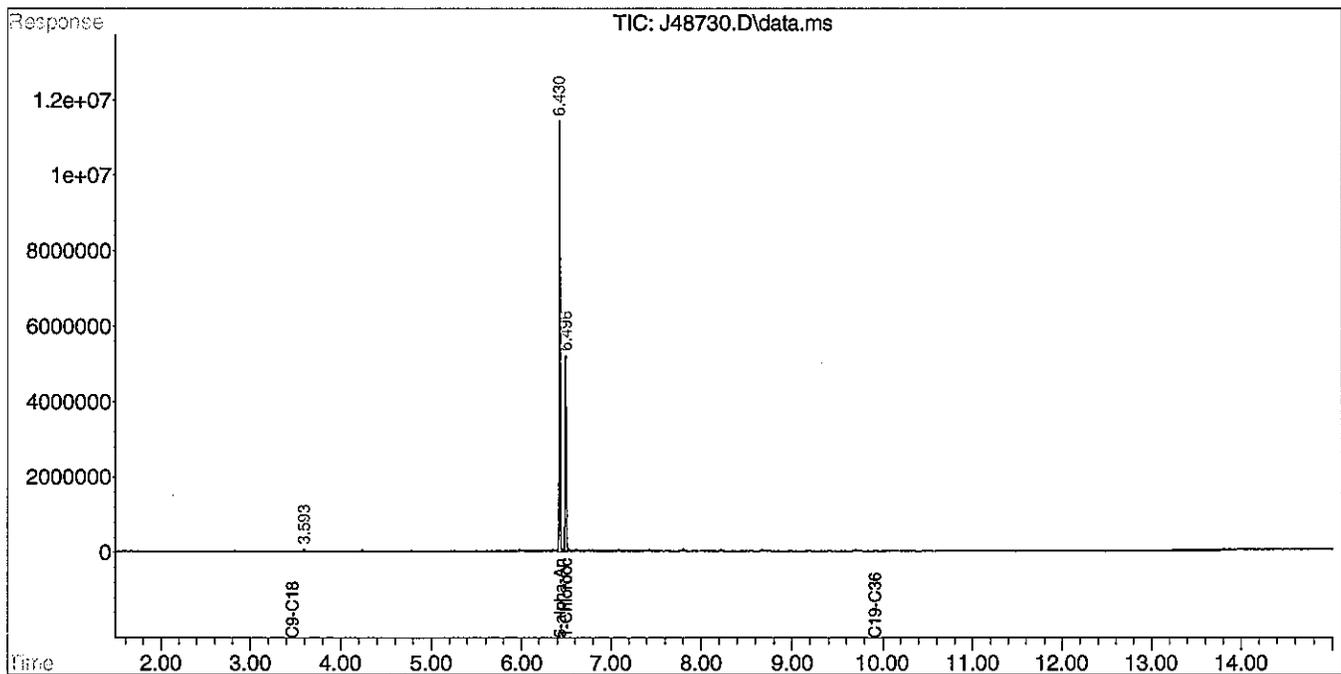
Quant Time: Feb 06 03:41:41 2013  
 Quant Method : C:\msdchem\1\METHODS\ARM020413N.M  
 Quant Title : EPH MS AROMATICS  
 QLast Update : Tue Feb 05 18:13:49 2013  
 Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\020513-J\  
Data File : J48730.D  
Signal(s) : Signal #1: data.ms Signal #2: datasim.ms  
Acq On : 6 Feb 2013 1:01 am  
Operator : MG/AR  
Sample : 74728-16  
Misc : SOIL,ALI  
ALS Vial : 21 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
Integration File signal 2: autoint2.e  
Quant Time: Feb 06 01:39:05 2013  
Quant Method : C:\msdchem\1\METHODS\ALG020413.M  
Quant Title : EPH GC ALIPHATICS  
QLast Update : Tue Feb 05 15:32:52 2013  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



February 6, 2013

Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

**CLIENT SAMPLE ID**

**Project Name:** MILL DAM  
**Project Number:** 111.06134.017  
**Client Sample ID:** CS103

**SAMPLE DATA**

**Lab Sample ID:** 74728-17  
**Matrix:** Solid  
**Percent Solid:** 80  
**Dilution Factor:** 1.2  
**Collection Date:** 01/22/13  
**Lab Receipt Date:** 01/24/13  
**Extraction Date:** 01/31/13  
**Analysis Date:** 02/06/13

EPH ANALYTICAL RESULTS			
RANGE/TARGET ANALYTE	RL	Units	Result
Unadjusted C11-C22 Aromatics <sup>1</sup>	16400	µg/kg	U
Diesel PAH Analytes	Naphthalene	329	µg/kg U
	2-Methylnaphthalene	329	µg/kg U
	Phenanthrene	329	µg/kg U
	Acenaphthene	329	µg/kg U
Other Target PAH Analytes	Acenaphthylene	329	µg/kg U
	Fluorene	329	µg/kg U
	Anthracene	329	µg/kg U
	Fluoranthene	329	µg/kg 233 J
	Pyrene	329	µg/kg 211 J
	Benzo[a]anthracene	329	µg/kg U
	Chrysene	329	µg/kg U
	Benzo[b]fluoranthene	329	µg/kg 181 J
	Benzo[k]fluoranthene	329	µg/kg U
	Benzo[a]pyrene	329	µg/kg U
	Indeno[1,2,3-cd]pyrene	329	µg/kg U
	Dibenzo[a,h]anthracene	329	µg/kg U
	Benzo[g,h,i]perylene	329	µg/kg U
	C9-C18 Aliphatic Hydrocarbons <sup>1</sup>	16400	µg/kg
C19-C36 Aliphatic Hydrocarbons <sup>1</sup>	16400	µg/kg	18900
C11-C22 Aromatic Hydrocarbons <sup>1,2</sup>	16400	µg/kg	U
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)			44
Aromatic Surrogate % Recovery (O-Terphenyl)			62
Sample Surrogate Acceptance Range	--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)			82
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)			86
Fractionation Surrogate Acceptance Range	--	--	40-140%

<sup>1</sup>Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.  
<sup>2</sup>C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.  
RL = Report Limit  
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

METHODOLOGY: MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004 Revision 1.1. Samples were extracted in accordance with SW-846 Method 3545

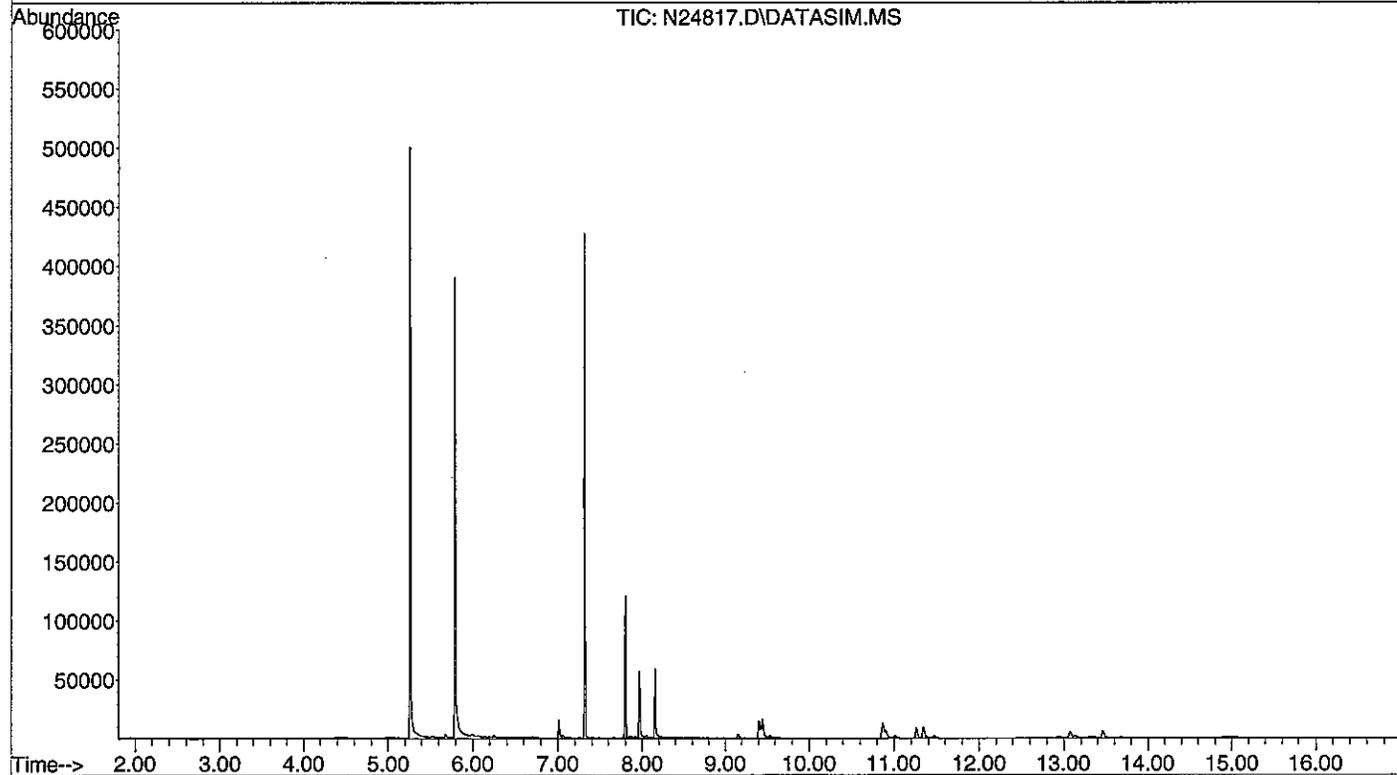
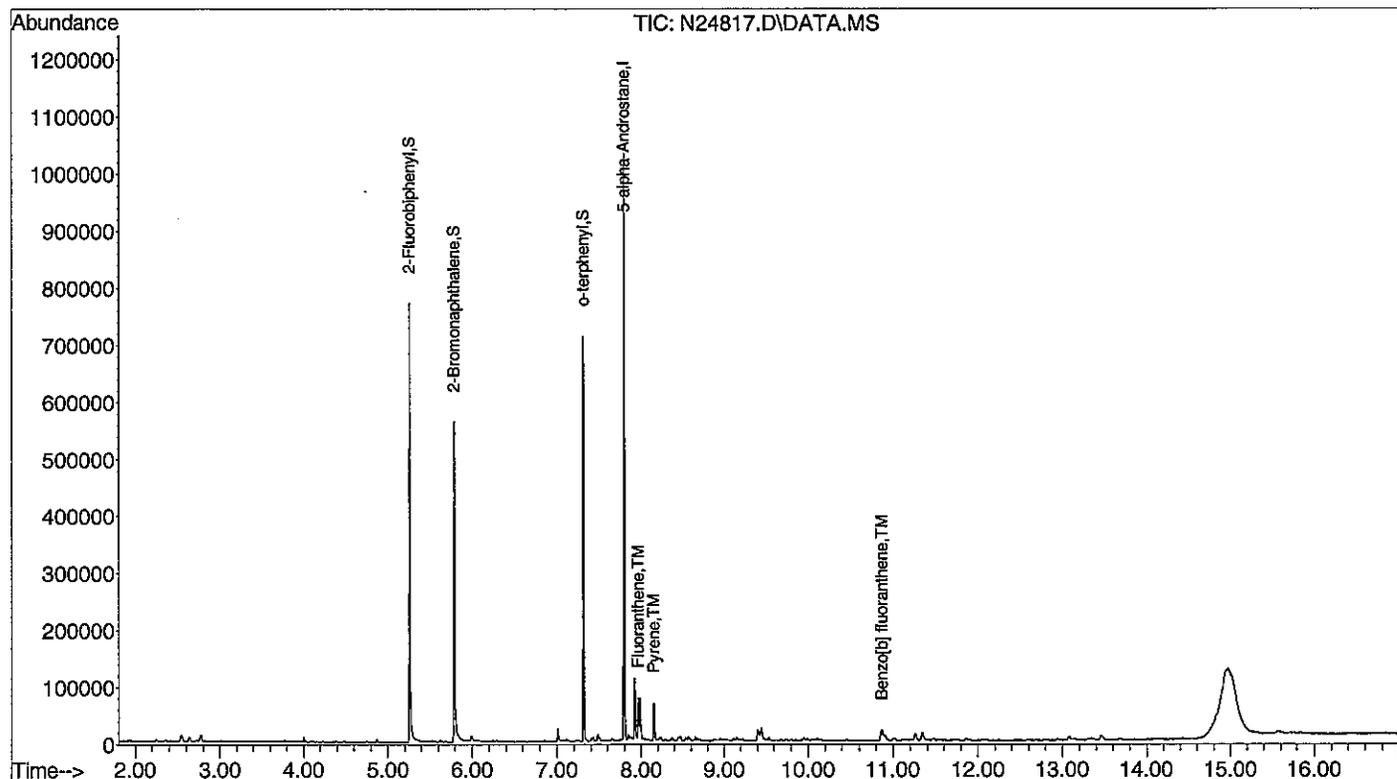
COMMENTS: EPH analyses utilized the use of a GC/MS system to detect and quantify ranges and target analytes. Samples were received in accordance with method criteria unless noted on the sample receipt checklist. Results are expressed on a dry weight basis.

SIGNATURE: \_\_\_\_\_



Data Path : C:\msdchem\1\DATA\020513-N\  
Data File : N24817.D  
Acq On : 6 Feb 2013 2:01 am  
Operator : AR  
Sample : 74728-17  
Misc : SOIL,ARO  
ALS Vial : 23 Sample Multiplier: 1

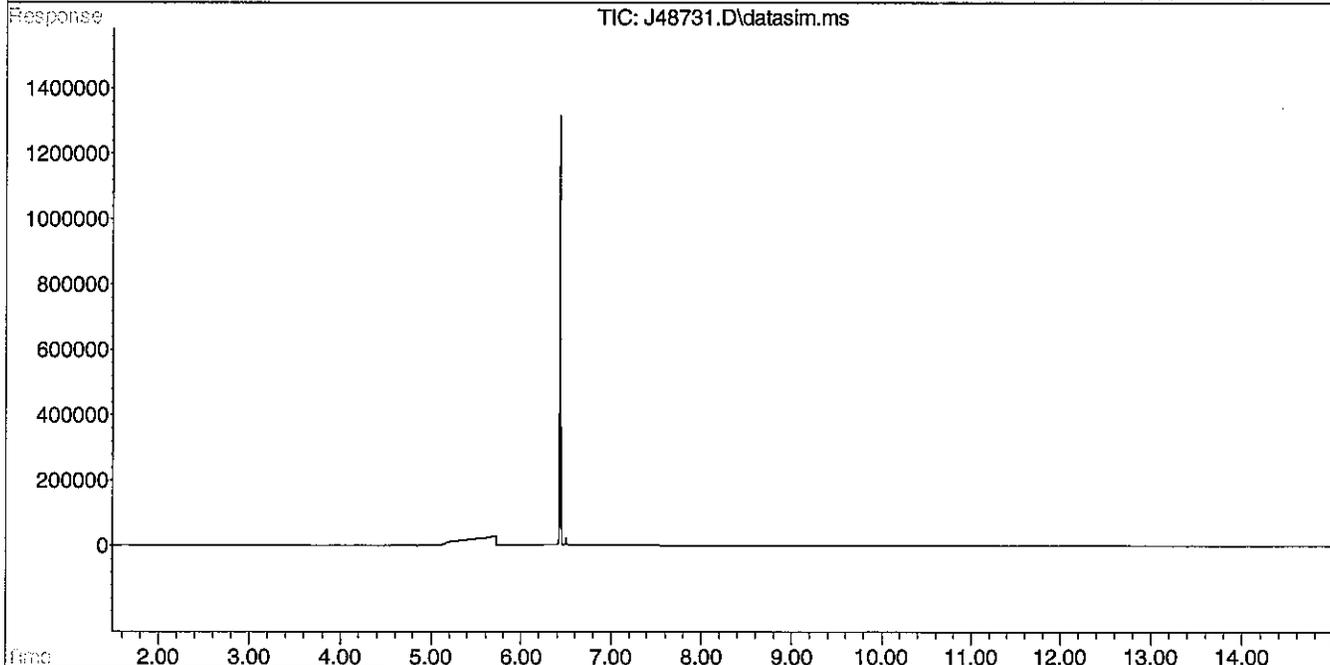
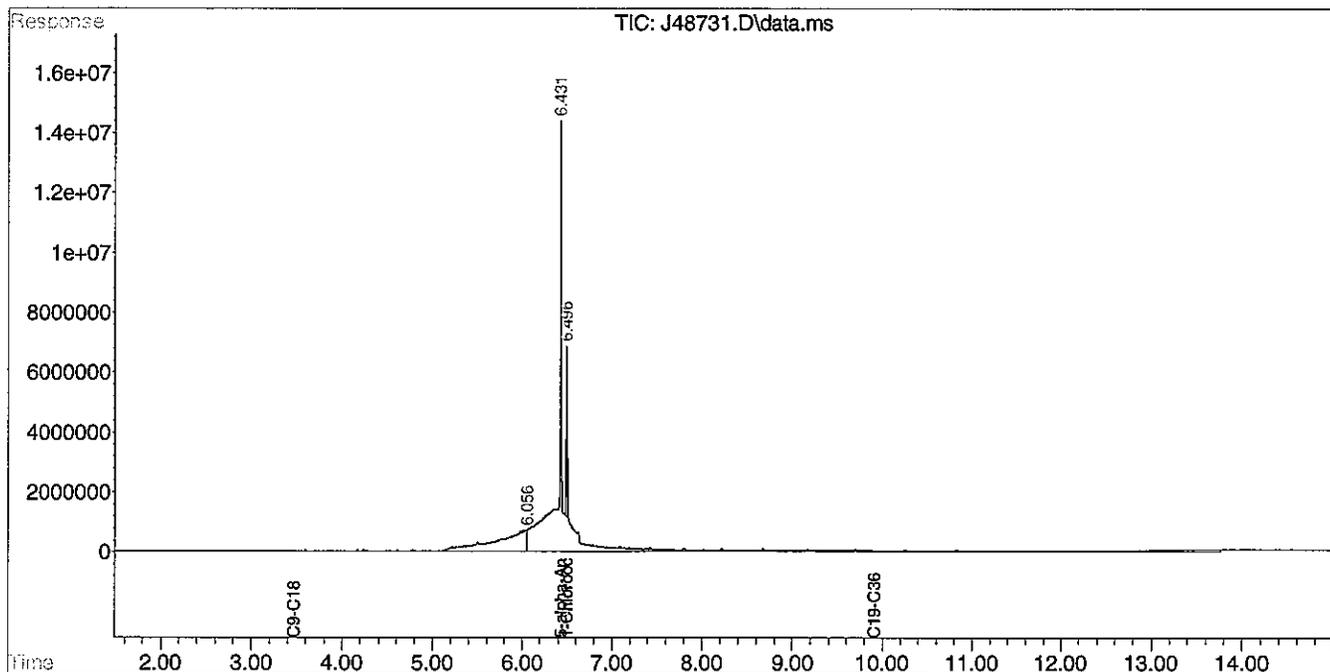
Quant Time: Feb 06 03:59:49 2013  
Quant Method : C:\msdchem\1\METHODS\ARM020413N.M  
Quant Title : EPH MS AROMATICS  
QLast Update : Tue Feb 05 18:13:49 2013  
Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\020513-J\  
 Data File : J48731.D  
 Signal(s) : Signal #1: data.ms Signal #2: datasim.ms  
 Acq On : 6 Feb 2013 1:22 am  
 Operator : MG/AR  
 Sample : 74728-17  
 Misc : SOIL,ALI  
 ALS Vial : 22 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Feb 06 01:41:26 2013  
 Quant Method : C:\msdchem\1\METHODS\ALG020413.M  
 Quant Title : EPH GC ALIPHATICS  
 QLast Update : Tue Feb 05 15:32:52 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :



EPH  
QC FORMS

Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

February 6, 2013

**CLIENT SAMPLE ID**  
**Project Name:** MILL DAM  
**Project Number:** 111.06134.017  
**Client Sample ID:** LabQC

**SAMPLE DATA**  
**Lab Sample ID:** B013113EASE  
**Matrix:** Solid  
**Percent Solid:** 100  
**Dilution Factor:** 1.0  
**Collection Date:**  
**Lab Receipt Date:**  
**Extraction Date:** 01/31/13  
**Analysis Date:** 02/05/13

EPH ANALYTICAL RESULTS			
RANGE/TARGET ANALYTE	RL	Units	Result
Unadjusted C11-C22 Aromatics <sup>1</sup>	13300	µg/kg	U
Diesel PAH Analytes	Naphthalene	267	µg/kg
	2-Methylnaphthalene	267	µg/kg
	Phenanthrene	267	µg/kg
	Acenaphthene	267	µg/kg
Other Target PAH Analytes	Acenaphthylene	267	µg/kg
	Fluorene	267	µg/kg
	Anthracene	267	µg/kg
	Fluoranthene	267	µg/kg
	Pyrene	267	µg/kg
	Benzo[a]anthracene	267	µg/kg
	Chrysene	267	µg/kg
	Benzo[b]fluoranthene	267	µg/kg
	Benzo[k]fluoranthene	267	µg/kg
	Benzo[a]pyrene	267	µg/kg
	Indeno[1,2,3-cd]pyrene	267	µg/kg
	Dibenzofluoranthene	267	µg/kg
	Benzo[ghi]perylene	267	µg/kg
C9-C18 Aliphatic Hydrocarbons <sup>1</sup>	13300	µg/kg	U
C19-C36 Aliphatic Hydrocarbons <sup>1</sup>	13300	µg/kg	U
C11-C22 Aromatic Hydrocarbons <sup>1,2</sup>	13300	µg/kg	U
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)			60
Aromatic Surrogate % Recovery (O-Terphenyl)			85
Sample Surrogate Acceptance Range	--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)			81
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)			83
Fractionation Surrogate Acceptance Range	--	--	40-140%
<sup>1</sup> Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.			
<sup>2</sup> C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.			
RL = Report Limit			
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank			

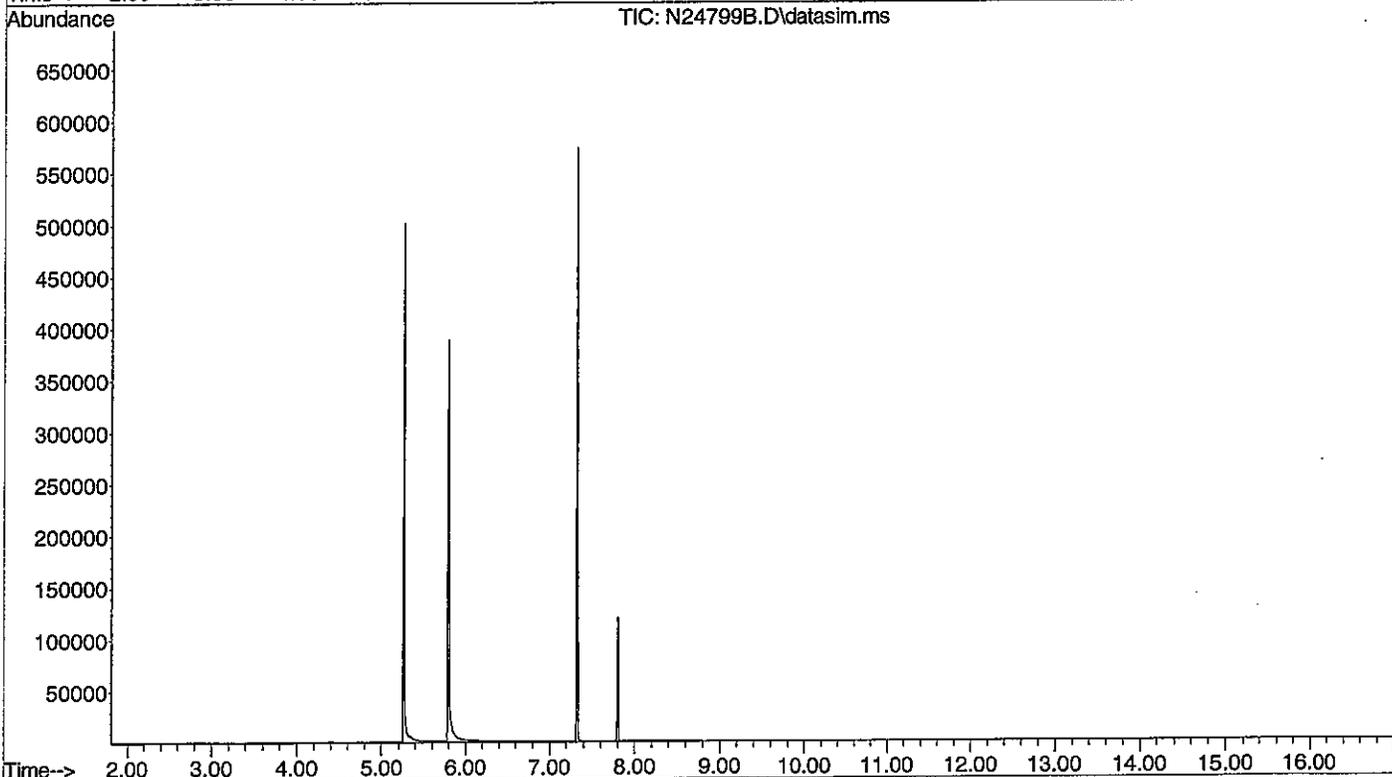
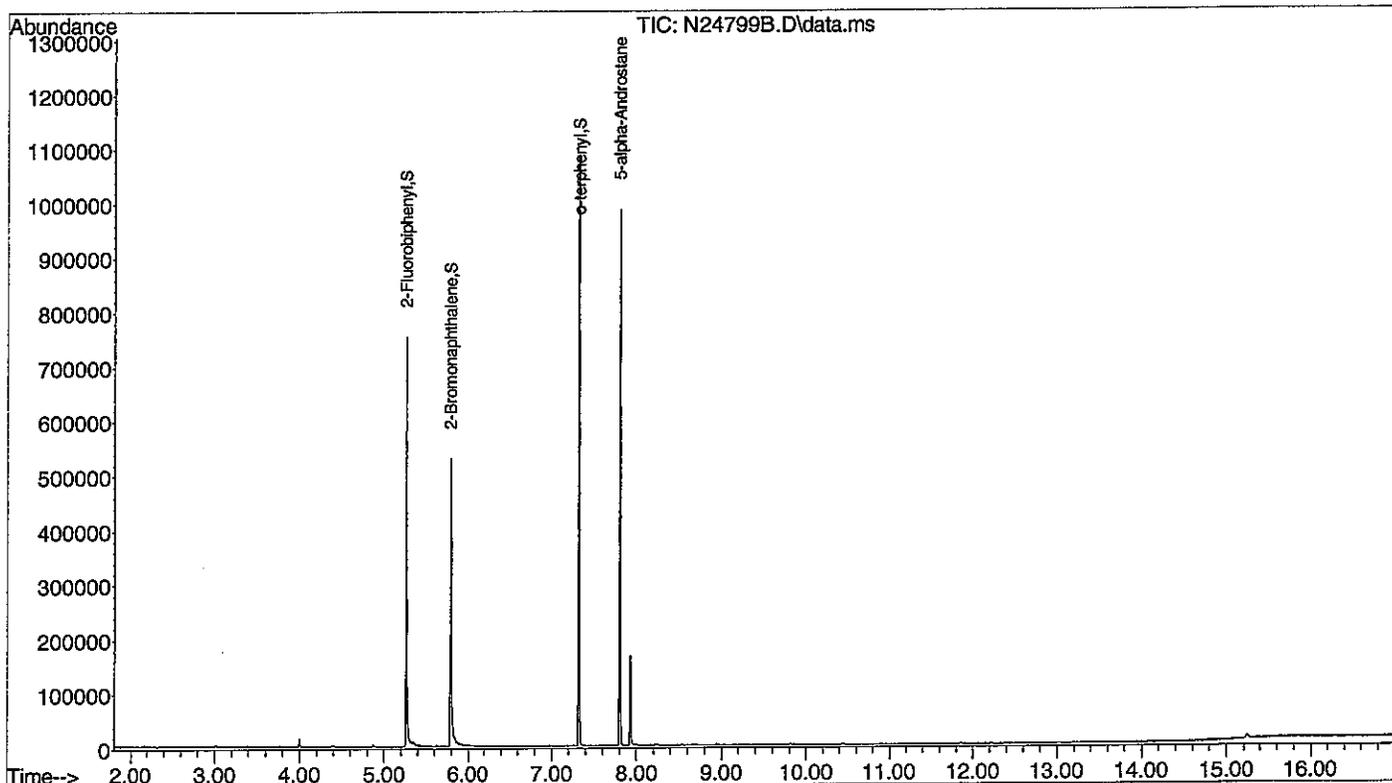
METHODOLOGY MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004  
Revision 1.1. Samples were extracted in accordance with SW-846 Method 3545

COMMENTS: EPH analyses utilized the use of a GC/MS system to detect and quantify ranges and target analytes. Samples were received in accordance with method criteria unless noted on the sample receipt checklist. Results are expressed on a dry weight basis.

SIGNATURE: 

Data Path : C:\msdchem\1\DATA\020513-N\  
 Data File : N24799B.D  
 Acq On : 5 Feb 2013 7:53 pm  
 Operator : AR  
 Sample : B013113EASE,,RF  
 Misc : SOIL,ARO  
 ALS Vial : 5 Sample Multiplier: 1

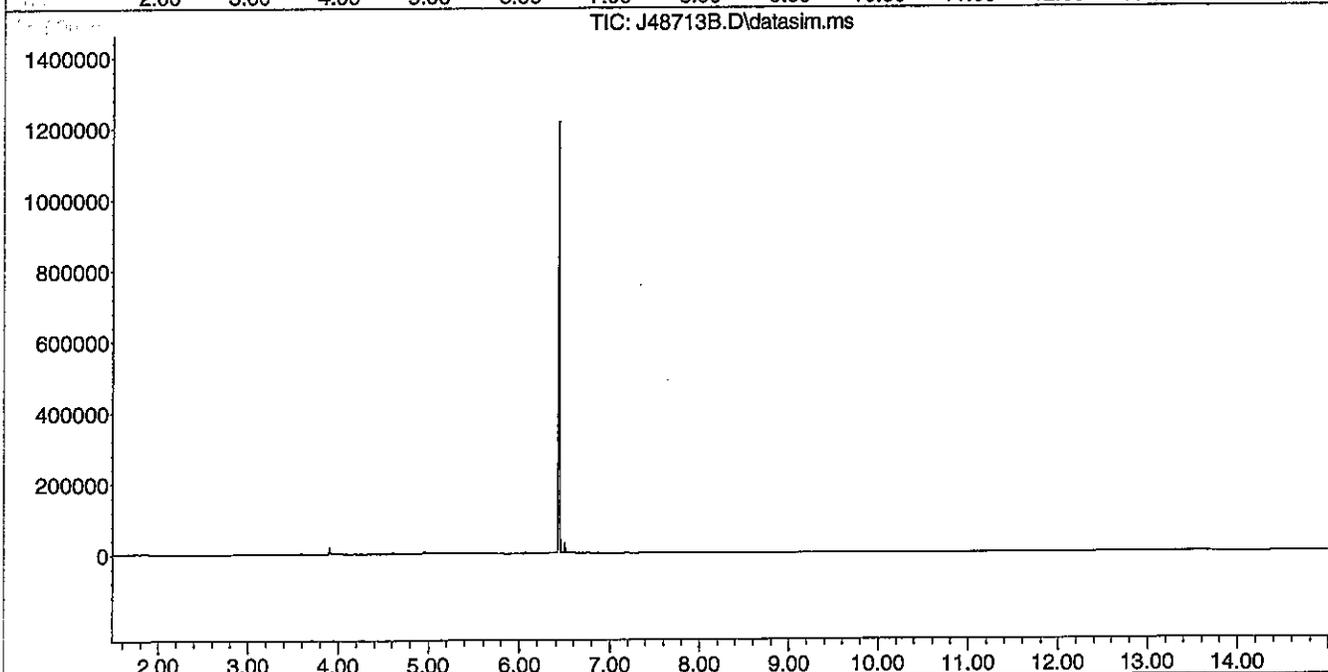
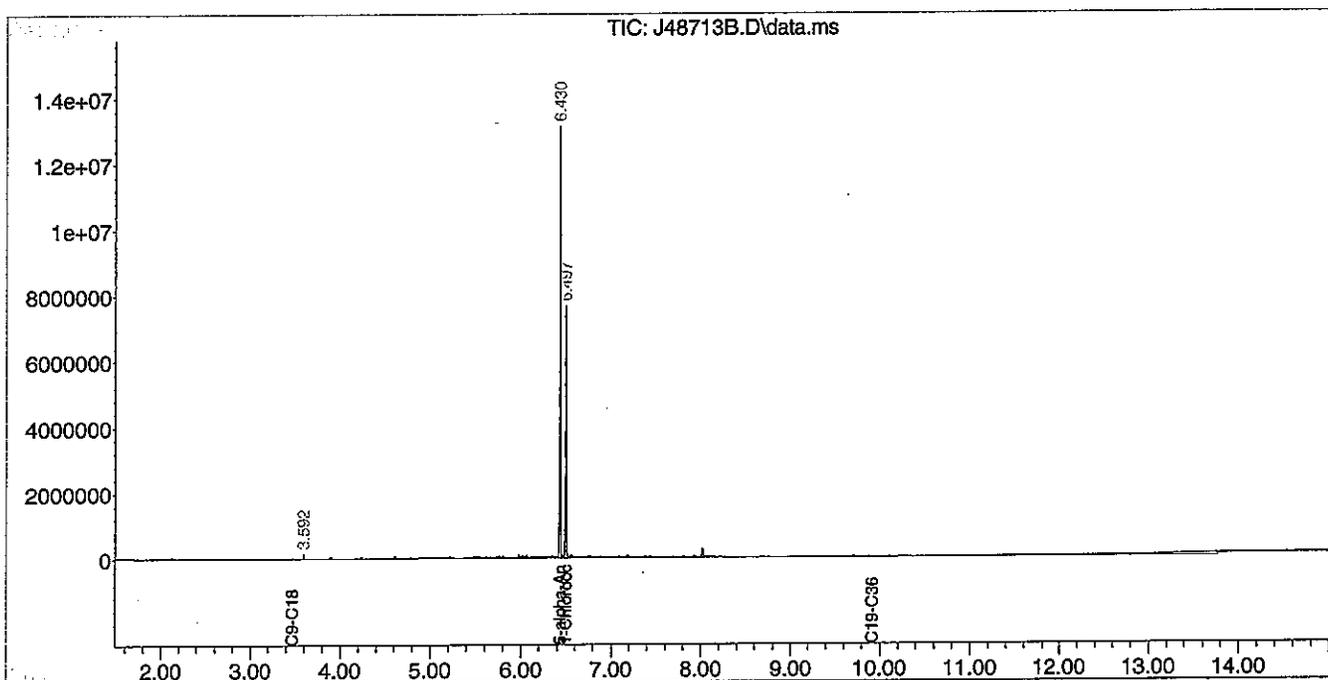
Quant Time: Feb 05 22:48:31 2013  
 Quant Method : C:\msdchem\1\METHODS\ARM020413N.M  
 Quant Title : EPH MS AROMATICS  
 QLast Update : Tue Feb 05 18:13:49 2013  
 Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\020513-J\  
 Data File : J48713B.D  
 Signal(s) : Signal #1: data.ms Signal #2: datasim.ms  
 Acq On : 5 Feb 2013 7:06 pm  
 Operator : MG/AR  
 Sample : B013113EASE,,RF  
 Misc : SOIL,ALI  
 ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Feb 05 23:02:35 2013  
 Quant Method : C:\msdchem\1\METHODS\ALG020413.M  
 Quant Title : EPH GC ALIPHATICS  
 QLast Update : Tue Feb 05 15:32:52 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :



February 7, 2013

Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

**SAMPLE DATA**

**Lab Sample ID:** B020413EW  
**Matrix:** Aqueous  
**Percent Solid:** N/A  
**Dilution Factor:** 1.0  
**Collection Date:**  
**Lab Receipt Date:**  
**Extraction Date:** 02/04/13  
**Analysis Date:** 02/06/13

**CLIENT SAMPLE ID**

**Project Name:** MILL DAM  
**Project Number:** 111.06134.017  
**Client Sample ID:** LabQC

EPH ANALYTICAL RESULTS			
RANGE/TARGET ANALYTE	RL	Units	Result
Unadjusted C11-C22 Aromatics <sup>1</sup>	100	µg/L	U
Diesel PAH Analytes	Naphthalene	4	µg/L
	2-Methylnaphthalene	4	µg/L
	Phenanthrene	4	µg/L
	Acenaphthene	4	µg/L
Other Target PAH Analytes	Acenaphthylene	4	µg/L
	Fluorene	4	µg/L
	Anthracene	4	µg/L
	Fluoranthene	4	µg/L
	Pyrene	4	µg/L
	Benzo[a]anthracene	4	µg/L
	Chrysene	4	µg/L
	Benzo[b]fluoranthene	4	µg/L
	Benzo[k]fluoranthene	4	µg/L
	Benzo[a]pyrene	4	µg/L
	Indeno[1,2,3-cd]pyrene	4	µg/L
	Dibenzo[a,h]anthracene	4	µg/L
Benzo[g,h,i]perylene	4	µg/L	
C9-C18 Aliphatic Hydrocarbons <sup>1</sup>	100	µg/L	U
C19-C36 Aliphatic Hydrocarbons <sup>1</sup>	100	µg/L	U
C11-C22 Aromatic Hydrocarbons <sup>1,2</sup>	100	µg/L	U
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)			61
Aromatic Surrogate % Recovery (O-Terphenyl)			94
Sample Surrogate Acceptance Range	--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)			94
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)			95
Fractionation Surrogate Acceptance Range	--	--	40-140%
<sup>1</sup> Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.			
<sup>2</sup> C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.			
RL = Report Limit			
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank			

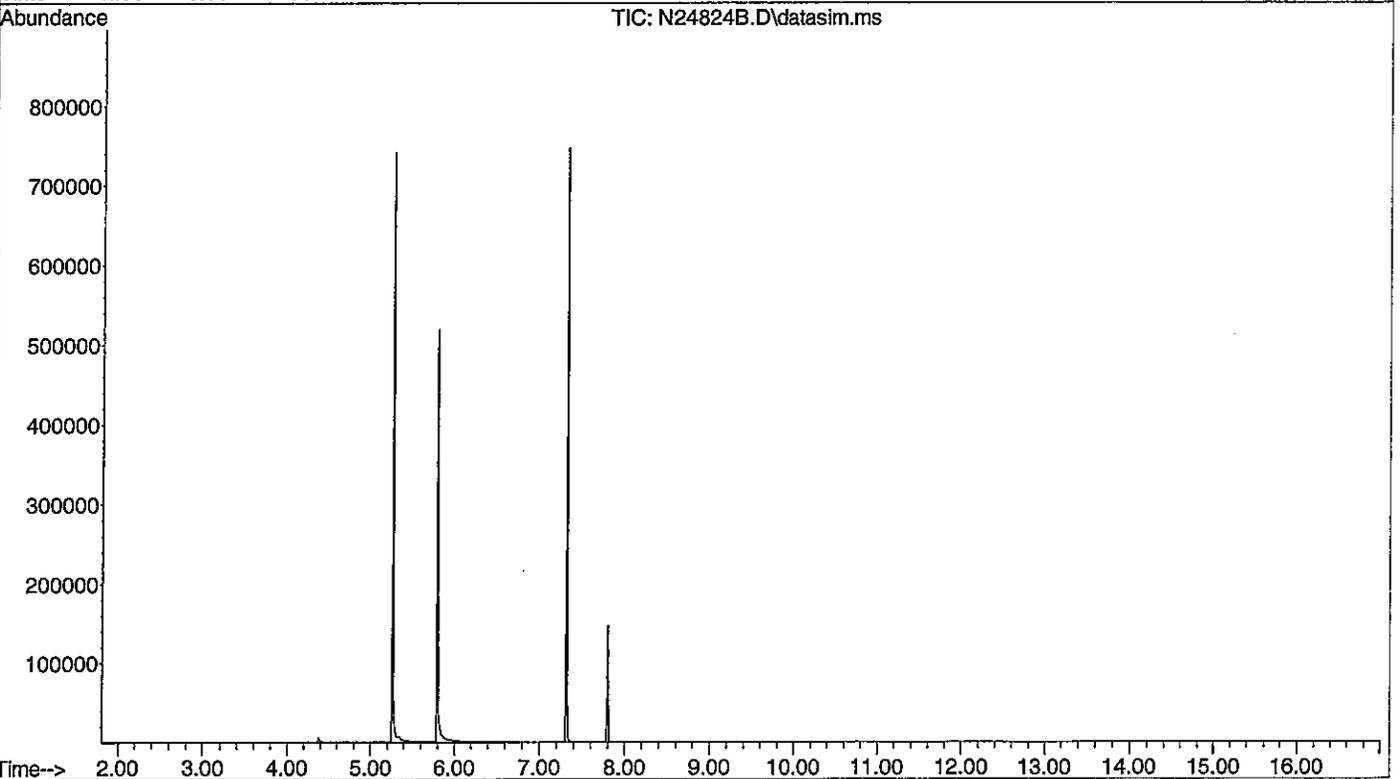
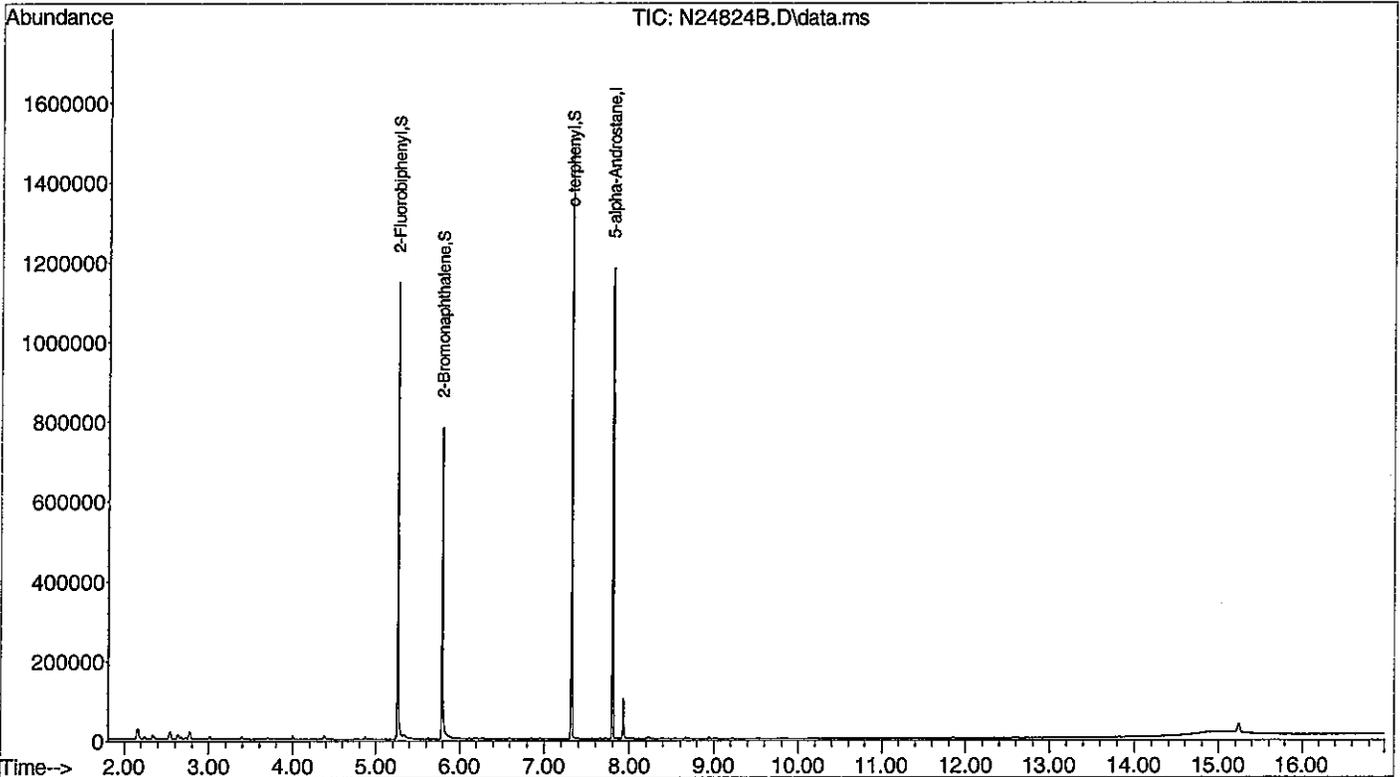
METHODOLOGY MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004  
Revision 1.1. Samples were extracted in accordance with SW-846 Method 3510C.

COMMENTS: EPH analyses utilized the use of a GC/MS system to detect and quantify ranges and target analytes. Samples were received in accordance with method criteria unless noted on the sample receipt checklist.

SIGNATURE: 

Data Path : C:\msdchem\1\DATA\020513-N\  
 Data File : N24824B.D  
 Acq On : 6 Feb 2013 4:27 am  
 Operator : AR  
 Sample : B020413EW  
 Misc : ARO  
 ALS Vial : 25 Sample Multiplier: 1

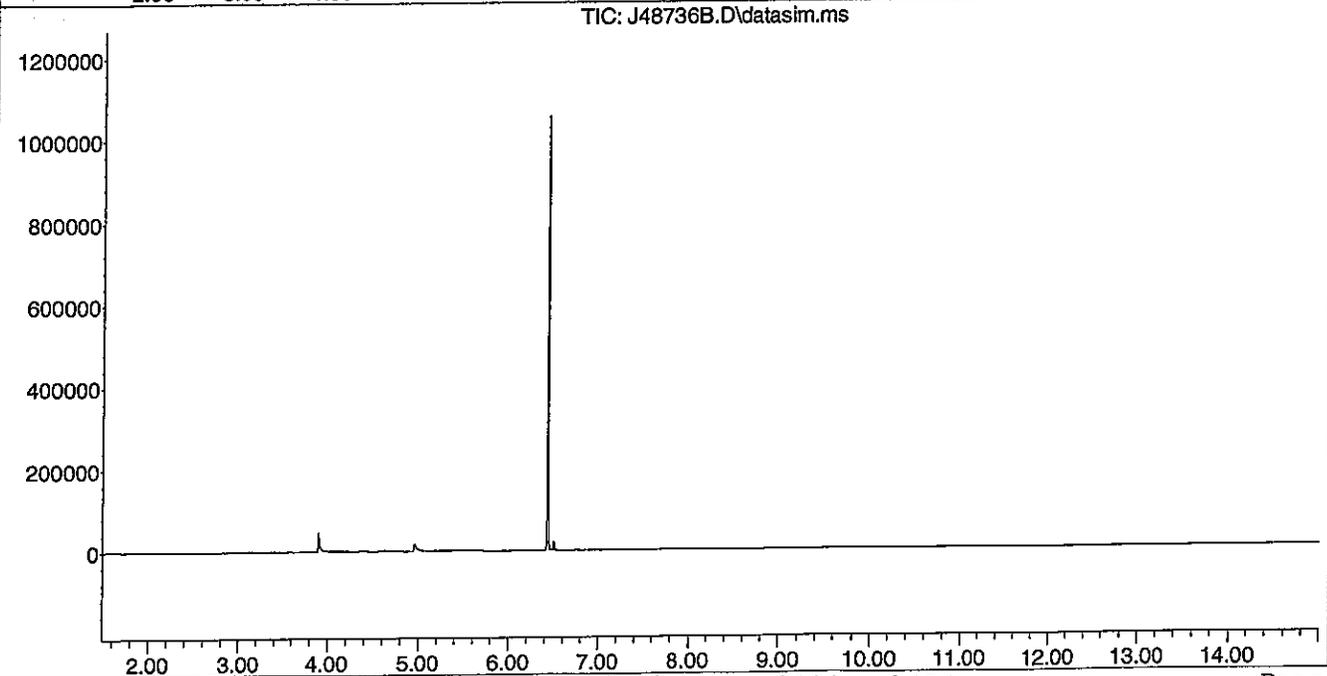
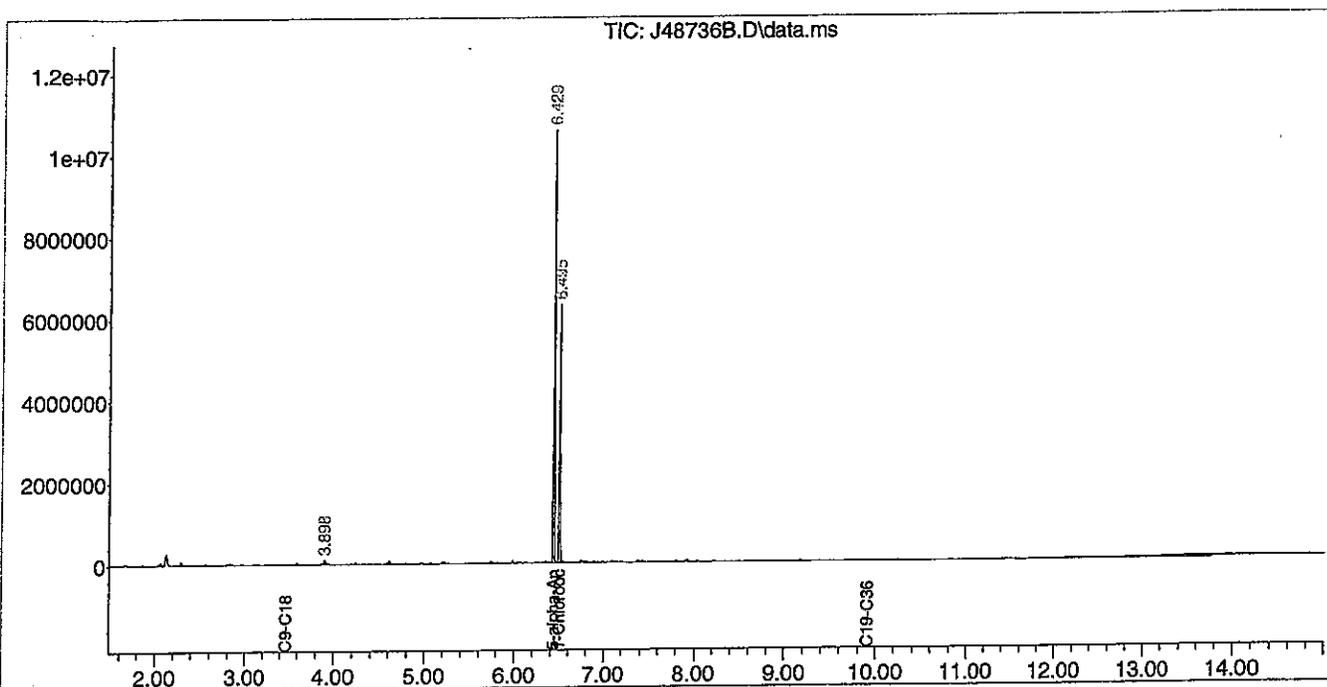
Quant Time: Feb 06 08:28:33 2013  
 Quant Method : C:\msdchem\1\METHODS\ARM020413N.M  
 Quant Title : EPH MS AROMATICS  
 QLast Update : Tue Feb 05 18:13:49 2013  
 Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\020513-J\  
 Data File : J48736B.D  
 Signal(s) : Signal #1: data.ms Signal #2: datasim.ms  
 Acq On : 6 Feb 2013 3:26 am  
 Operator : MG/AR  
 Sample : B020413EW  
 Misc : ALI  
 ALS Vial : 23 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Feb 06 08:42:40 2013  
 Quant Method : C:\msdchem\1\METHODS\ALG020413.M  
 Quant Title : EPH GC ALIPHATICS  
 QLast Update : Tue Feb 05 15:32:52 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :



EPH ALIPHATICS  
 SOIL LABORATORY CONTROL SAMPLE  
 LABORATORY CONTROL SAMPLE DUPLICATE  
 PERCENT RECOVERY

Instrument ID: N  
 GC Column: ZB-5ms  
 Column ID: 0.25 mm

SDG:  
 Non-spiked sample: B013113EASE  
 Spike: L013113EASE  
 Spike duplicate: LD013113EASE

COMPOUND	LCS SPIKE	LCD SPIKE	LOWER	UPPER	RPD	NON-SPIKE	SPIKE	SPIKE	SPIKE DUP	SPIKE DUP	RPD	
	ADDED (ug/kg)	ADDED (ug/kg)	LIMIT	LIMIT	LIMIT	RESULT (ug/kg)	RESULT (ug/kg)	% REC #	RESULT (ug/kg)	% REC #	#	#
C-9	3333	3333	30	140	25	0	1735	52	1840	55		6
C-10	3333	3333	40	140	25	0	2044	61	2139	64		5
C-12	3333	3333	40	140	25	0	2312	69	2437	73		5
C-14	3333	3333	40	140	25	0	2456	74	2608	78		6
C-16	3333	3333	40	140	25	0	2545	76	2711	81		6
C-18	3333	3333	40	140	25	0	2603	78	2828	85		8
C-19	3333	3333	40	140	25	0	2449	73	2576	77		5
C-20	3333	3333	40	140	25	0	2739	82	2919	88		6
C-22	3333	3333	40	140	25	0	2689	81	2881	86		7
C-24	3333	3333	40	140	25	0	2721	82	2924	88		7
C-26	3333	3333	40	140	25	0	2703	81	2901	87		7
C-28	3333	3333	40	140	25	0	2712	81	2835	85		4
C-30	3333	3333	40	140	25	0	2700	81	2819	85		4
C-36	3333	3333	40	140	25	0	2651	80	2748	82		4
C9-C18 Aliphatics	20000	20000	40	140	25	0	13695	68	14563	73		6
C19-C36 Aliphatics	26667	26667	40	140	25	0	21364	80	22603	85		6

# Column to be used to flag recovery and RPD values outside of QC limits  
 \* Values outside QC limits

Non-spiked result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: \_\_\_\_\_  
 \_\_\_\_\_

EPH AROMATICS  
 SOIL LABORATORY CONTROL SAMPLE  
 LABORATORY CONTROL SAMPLE DUPLICATE  
 PERCENT RECOVERY

Instrument ID: N  
 GC Column: ZB-5ms  
 Column ID: 0.25 mm

SDG:  
 Non-spiked sample: B013113EASE  
 Spike: L013113EASE  
 Spike duplicate: LD013113EASE

COMPOUND	LCS SPIKE	LCS D SPIKE	LOWER	UPPER	RPD	NON-SPIKE	SPIKE	SPIKE	SPIKE DUP	SPIKE DUP				
	ADDED (ug/kg)	ADDED (ug/kg)	LIMIT	LIMIT	LIMIT	RESULT (ug/kg)	RESULT (ug/kg)	% REC	#	RESULT (ug/kg)	% REC	#	RPD	#
Naphthalene	3333	3333	40	140	30	0	2733	82		2780	83		2	
2-Methylnaphthalene	3333	3333	40	140	30	0	2921	88		2954	89		1	
Acenaphthylene	3333	3333	40	140	30	0	3011	90		3089	93		3	
Acenaphthene	3333	3333	40	140	30	0	2890	87		2947	88		2	
Fluorene	3333	3333	40	140	30	0	3052	92		3166	95		4	
Phenanthrene	3333	3333	40	140	30	0	3326	100		3440	103		3	
Anthracene	3333	3333	40	140	30	0	3090	93		3253	98		5	
Fluoranthene	3333	3333	40	140	30	0	3268	98		3417	103		4	
Pyrene	3333	3333	40	140	30	0	3182	95		3336	100		5	
Benzo[a]anthracene	3333	3333	40	140	30	0	3487	105		3634	109		4	
Chrysene	3333	3333	40	140	30	0	3061	92		3256	98		6	
Benzo[b]fluoranthene	3333	3333	40	140	30	0	3391	102		3617	108		6	
Benzo[k]fluoranthene	3333	3333	40	140	30	0	3109	93		3340	100		7	
Benzo[a]pyrene	3333	3333	40	140	30	0	3334	100		3550	106		6	
Indeno [1,2,3-cd] pyrene	3333	3333	40	140	30	0	3480	104		3742	112		7	
Dibenz [a,h] anthracene	3333	3333	40	140	30	0	3205	96		3457	104		8	
Benzo[ g,h,i] perylene	3333	3333	40	140	30	0	3200	96		3425	103		7	

# Column to be used to flag recovery and RPD values outside of QC limits  
 \* Values outside QC limits

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: \_\_\_\_\_

EPH AROMATIC BREAKTHROUGH REPORT  
OF ALIPHATIC LABORATORY CONTROL SAMPLE

Instrument ID: N

SDG:

GC Column: ZB-5ms

Aliphatic LCS: L013113EASE

Column ID: 0.25 mm

Aromatic LCS: L013113EASE

COMPOUND	LOWER LIMIT	UPPER LIMIT	ALIPHATIC RESULT (ug/mL)	AROMATIC RESULT (ug/mL)	% BREAKTHROUGH	#
Naphthalene	0	5	0.00	20.5	0.0	
2-Methylnaphthalene	0	5	0.00	21.9	0.0	

# Column to be used to flag breakthrough values outside of QC limits

\* Values outside QC limits

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery

Comments: \_\_\_\_\_  
\_\_\_\_\_

EPH AROMATIC BREAKTHOUGH REPORT  
OF ALIPHATIC LABORATORY CONTROL SAMPLE

Instrument ID: N

SDG:

GC Column: ZB-5ms

Aliphatic LCS: LD013113EASE

Column ID: 0.25 mm

Aromatic LCS: LD013113EASE

COMPOUND	LOWER LIMIT	UPPER LIMIT	ALIPHATIC RESULT (ug/mL)	AROMATIC RESULT (ug/mL)	% BREAKTHROUGH	#
Naphthalene	0	5	0.00	20.8	0.0	
2-Methylnaphthalene	0	5	0.00	22.2	0.0	

# Column to be used to flag breakthrough values outside of QC limits

\* Values outside QC limits

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery

Comments: \_\_\_\_\_  
\_\_\_\_\_

EPH ALIPHATICS  
 AQUEOUS LABORATORY CONTROL SAMPLE  
 LABORATORY CONTROL SAMPLE DUPLICATE  
 PERCENT RECOVERY

Instrument ID: J  
 GC Column: ZB-5ms  
 Column ID: 0.25 mm

SDG:  
 Non-spiked sample: B020413EW  
 Spike: L020413EW  
 Spike duplicate: LD020413EW

COMPOUND	SPIKE ADDED	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/L)	SPIKE RESULT (ug/L)	% REC	#	SPIKE DUP RESULT (ug/L)	SPIKE DUP % REC	#	RPD	#
C-9	25	30	140	25	0.0	20	79		17	68		16	
C-10	25	40	140	25	0.0	21	85		18	74		15	
C-12	25	40	140	25	0.0	24	95		21	84		12	
C-14	25	40	140	25	0.0	24	97		22	87		10	
C-16	25	40	140	25	0.0	25	100		23	92		9	
C-18	25	40	140	25	0.0	25	101		24	94		7	
C-19	25	40	140	25	0.0	25	101		23	94		7	
C-20	25	40	140	25	0.0	25	98		23	92		6	
C-22	25	40	140	25	0.0	25	102		24	95		7	
C-24	25	40	140	25	0.0	25	99		23	93		6	
C-26	25	40	140	25	0.0	24	96		23	93		3	
C-28	25	40	140	25	0.0	24	94		23	92		2	
C-30	25	40	140	25	0.0	23	93		23	92		1	
C-36	25	40	140	25	0.0	21	83		21	84		1	
C9-C18 Aliphatics	150	40	140	25	0	139	93		125	83		11	
C19-C36 Aliphatics	200	40	140	25	0	191	96		184	92		4	

# Column to be used to flag recovery and RPD values outside of QC limits  
 \* Values outside QC limits

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery

Comments: \_\_\_\_\_  
 \_\_\_\_\_

EPH AROMATICS  
 AQUEOUS LABORATORY CONTROL SAMPLE  
 LABORATORY CONTROL SAMPLE DUPLICATE  
 PERCENT RECOVERY

Instrument ID: N  
 GC Column: ZB-5ms  
 Column ID: 0.25 mm

SDG:  
 Non-spiked sample: B020413EW  
 Spike: L020413EW  
 Spike duplicate: LD020413EW

COMPOUND	SPIKE	LOWER	UPPER	RPD	NON-SPIKE	SPIKE	SPIKE	SPIKE DUP		SPIKE DUP		RPD	
	ADDED	LIMIT	LIMIT	LIMIT	RESULT (ug/L)	RESULT (ug/L)	% REC	#	RESULT (ug/L)	% REC	#	RPD	#
Naphthalene	25	40	140	20	0.0	19	76		19	76		1	
2-Methylnaphthalene	25	40	140	20	0.0	20	79		20	81		3	
Acenaphthylene	25	40	140	20	0.0	21	82		21	84		2	
Acenaphthene	25	40	140	20	0.0	20	82		21	83		1	
Fluorene	25	40	140	20	0.0	21	85		22	90		5	
Phenanthrene	25	40	140	20	0.0	23	92		24	97		6	
Anthracene	25	40	140	20	0.0	22	89		23	93		5	
Fluoranthene	25	40	140	20	0.0	23	91		24	97		5	
Pyrene	25	40	140	20	0.0	23	91		24	96		5	
Benzo[a]anthracene	25	40	140	20	0.0	24	98		25	101		3	
Chrysene	25	40	140	20	0.0	23	90		24	95		5	
Benzo[b]fluoranthene	25	40	140	20	0.0	24	97		25	100		3	
Benzo[k]fluoranthene	25	40	140	20	0.0	23	91		23	93		3	
Benzo[a]pyrene	25	40	140	20	0.0	24	96		25	98		3	
Indeno [1,2,3-cd] pyrene	25	40	140	20	0.0	25	99		26	103		4	
Dibenz [a,h] anthracene	25	40	140	20	0.0	23	94		24	98		5	
Benzo( g,h,i) perylene	25	40	140	20	0.0	23	93		24	98		5	

# Column to be used to flag recovery and RPD values outside of QC limits  
 \* Values outside QC limits

Non-spiked result of "0" used in place of "U" to allow calculation of spike recovery

Comments: \_\_\_\_\_  
 \_\_\_\_\_

EPH AROMATIC BREAKTHROUGH REPORT  
OF ALIPHATIC LABORATORY CONTROL SAMPLE

Instrument ID: J

SDG:

GC Column: ZB-5ms

Aliphatic LCS: L020413EW

Column ID: 0.25 mm

Aromatic LCS: L020413EW

COMPOUND	LOWER LIMIT	UPPER LIMIT	ALIPHATIC RESULT (ug/mL)	AROMATIC RESULT (ug/mL)	% BREAKTHROUGH	#
Naphthalene	0	5	0.00	19.1	0.0	
2-Methylnaphthalene	0	5	0.00	19.7	0.0	

# Column to be used to flag breakthrough values outside of QC limits

\* Values outside QC limits

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery

Comments: \_\_\_\_\_  
\_\_\_\_\_

EPH AROMATIC BREAKTHROUGH REPORT  
OF ALIPHATIC LABORATORY CONTROL SAMPLE

Instrument ID: N  
GC Column: ZB-5ms  
Column ID: 0.25 mm

SDG:  
Aliphatic LCS: LD020413EW  
Aromatic LCS: LD020413EW

COMPOUND	LOWER LIMIT	UPPER LIMIT	ALIPHATIC RESULT (ug/mL)	AROMATIC RESULT (ug/mL)	% BREAKTHROUGH	#
Naphthalene	0	5	0.00	18.9	0.0	
2-Methylnaphthalene	0	5	0.00	20.3	0.0	

# Column to be used to flag breakthrough values outside of QC limits  
\* Values outside QC limits

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery

Comments: \_\_\_\_\_  
\_\_\_\_\_

TPH  
DATA SUMMARIES

Mr. Erik Phenix  
 Ransom Consulting, Inc.  
 400 Commercial Street Suite 404  
 Portland, ME 04101

January 29, 2013  
**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** MILL DAM  
**Project Number:** 111.06134.017  
**Field Sample ID:** CS101

**Lab Sample ID:** 74728-15  
**Matrix:** Solid  
**Percent Solid:** 83  
**Dilution Factor:** 1.2  
**Collection Date:** 01/22/13  
**Lab Receipt Date:** 01/24/13  
**Extraction Date:** 01/25/13  
**Analysis Date:** 01/28/13

ANALYTICAL RESULTS		
DIESEL RANGE ORGANICS (C10-C28)		
Result	Units	Quantitation Limit
39	mg/kg	6
Surrogate Standard Recovery		
m-Terphenyl	75	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank		

**METHODOLOGY:** Aqueous samples prepared by Separatory Funnel Liquid/Liquid Extraction, "Test Methods for Evaluating Solid Waste," Method 3510C; other matrices prepared by Pressurized Fluid extraction Extraction, "Test Methods for Evaluating Solid Waste," Method 3545.

All matrices analyzed according to "Test Methods for Evaluating Solid Waste, SW-846 Method 8015B"

**COMMENTS:** Results are expressed on a dry weight basis. Quantitation performed based on a No. 2 Fuel/Diesel Oil standard.

TPH layout

Authorized signature 

Data File : D:\TPH\012813-G\G84964.D

Vial: 8

Acq On : 28 Jan 2013 7:31 pm

Operator: MG/JK

Sample : 74728-15

Inst : INST G

Misc : SOIL

Multiplr: 1.00

IntFile : AUTOINT1.E

Quant Time: Jan 29 13:29 2013 Quant Results File: T111912A.RES

Quant Method : C:\HPCHEM\1\METHODS\T111912A.M (Chemstation Integrator)

Title : DRO

Last Update : Sat Jan 12 00:24:56 2013

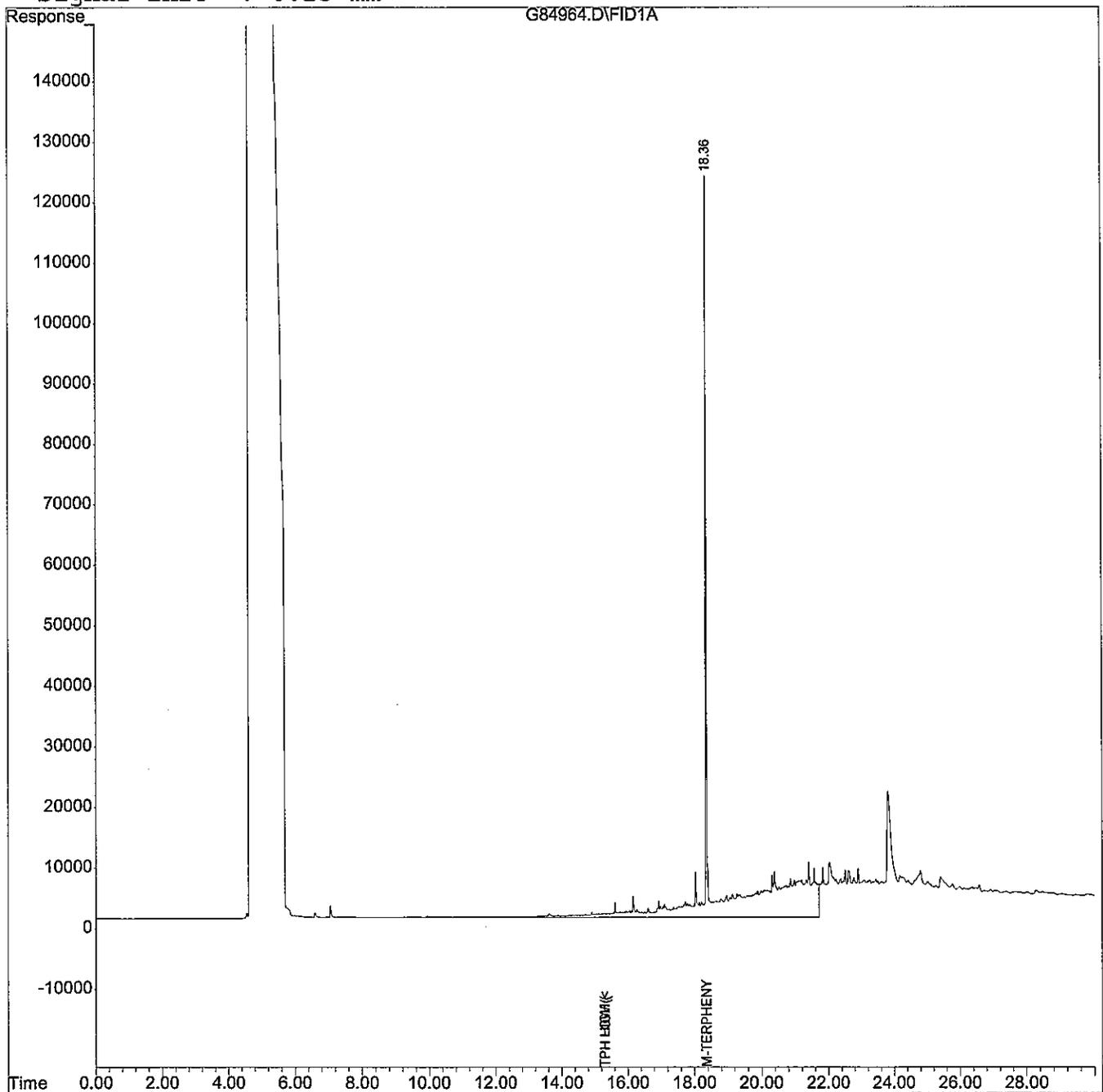
Response via : Multiple Level Calibration

DataAcq Meth : TPHDUAL3.M

Volume Inj. : 1ul

Signal Phase : Rtx-5MS

Signal Info : 0.25 mm



Mr. Erik Phenix  
 Ransom Consulting, Inc.  
 400 Commercial Street Suite 404  
 Portland, ME 04101

January 29, 2013  
**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** MILL DAM  
**Project Number:** 111.06134.017  
**Field Sample ID:** CS102

**Lab Sample ID:** 74728-16  
**Matrix:** Solid  
**Percent Solid:** 80  
**Dilution Factor:** 1.3  
**Collection Date:** 01/22/13  
**Lab Receipt Date:** 01/24/13  
**Extraction Date:** 01/25/13  
**Analysis Date:** 01/28/13

<b>ANALYTICAL RESULTS</b>		
<b>DIESEL RANGE ORGANICS (C10-C28)</b>		
Result	Units	Quantitation Limit
20	mg/kg	6.5
<b>Surrogate Standard Recovery</b>		
	m-Terphenyl	76 %
U=Undetected    J=Estimated    E=Exceeds Calibration Range    B=Detected in Blank		

**METHODOLOGY:** Aqueous samples prepared by Separatory Funnel Liquid/Liquid Extraction, "Test Methods for Evaluating Solid Waste," Method 3510C; other matrices prepared by Pressurized Fluid extraction Extraction, "Test Methods for Evaluating Solid Waste," Method 3545.

All matrices analyzed according to "Test Methods for Evaluating Solid Waste, SW-846 Method 8015B"

**COMMENTS:** Results are expressed on a dry weight basis. Quantitation performed based on a No. 2 Fuel/Diesel Oil standard.

TPH layout

Authorized signature 

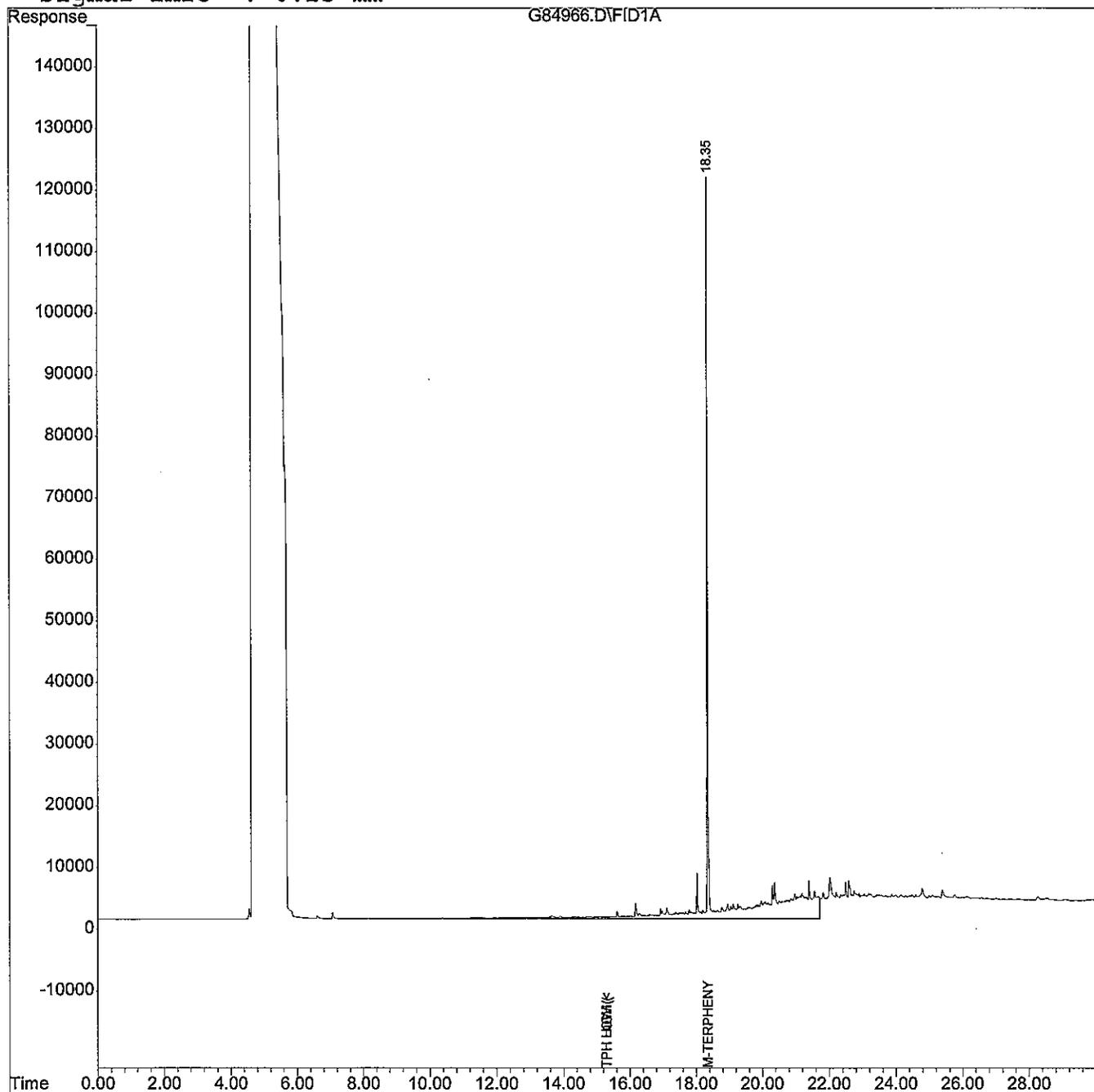
Data File : D:\TPH\012813-G\G84966.D  
Acq On : 28 Jan 2013 8:00 pm  
Sample : 74728-16  
Misc : SOIL  
IntFile : AUTOINT1.E  
Quant Time: Jan 29 13:30 2013

Vial: 9  
Operator: MG/JK  
Inst : INST G  
Multiplr: 1.00

Quant Results File: T111912A.RES

Quant Method : C:\HPCHEM\1\METHODS\T111912A.M (Chemstation Integrator)  
Title : DRO  
Last Update : Sat Jan 12 00:24:56 2013  
Response via : Multiple Level Calibration  
DataAcq Meth : TPHDUAL3.M

Volume Inj. : 1ul  
Signal Phase : Rtx-5MS  
Signal Info : 0.25 mm



Mr. Erik Phenix  
 Ransom Consulting, Inc.  
 400 Commercial Street Suite 404  
 Portland, ME 04101

January 29, 2013  
**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** MILL DAM  
**Project Number:** 111.06134.017  
**Field Sample ID:** CS103

**Lab Sample ID:** 74728-17  
**Matrix:** Solid  
**Percent Solid:** 80  
**Dilution Factor:** 1.2  
**Collection Date:** 01/22/13  
**Lab Receipt Date:** 01/24/13  
**Extraction Date:** 01/25/13  
**Analysis Date:** 01/28/13

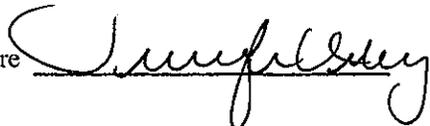
ANALYTICAL RESULTS		
DIESEL RANGE ORGANICS (C10-C28)		
Result	Units	Quantitation Limit
31	mg/kg	6
<b>Surrogate Standard Recovery</b>		
	m-Terphenyl	66 %
U=Undetected    J=Estimated    E=Exceeds Calibration Range    B=Detected in Blank		

**METHODOLOGY:** Aqueous samples prepared by Separatory Funnel Liquid/Liquid Extraction, "Test Methods for Evaluating Solid Waste," Method 3510C; other matrices prepared by Pressurized Fluid extraction Extraction, "Test Methods for Evaluating Solid Waste," Method 3545.

All matrices analyzed according to "Test Methods for Evaluating Solid Waste, SW-846 Method 8015B"

**COMMENTS:** Results are expressed on a dry weight basis. Quantitation performed based on a No. 2 Fuel/Diesel Oil standard.

TPH layout

Authorized signature 

Data File : D:\TPH\012813-G\G84968.D

Vial: 10

Acq On : 28 Jan 2013 8:44 pm

Operator: MG/JK

Sample : 74728-17

Inst : INST G

Misc : SOIL

Multiplr: 1.00

IntFile : AUTOINT1.E

Quant Time: Jan 29 13:30 2013 Quant Results File: T111912A.RES

Quant Method : C:\HPCHEM\1\METHODS\T111912A.M (Chemstation Integrator)

Title : DRO

Last Update : Sat Jan 12 00:24:56 2013

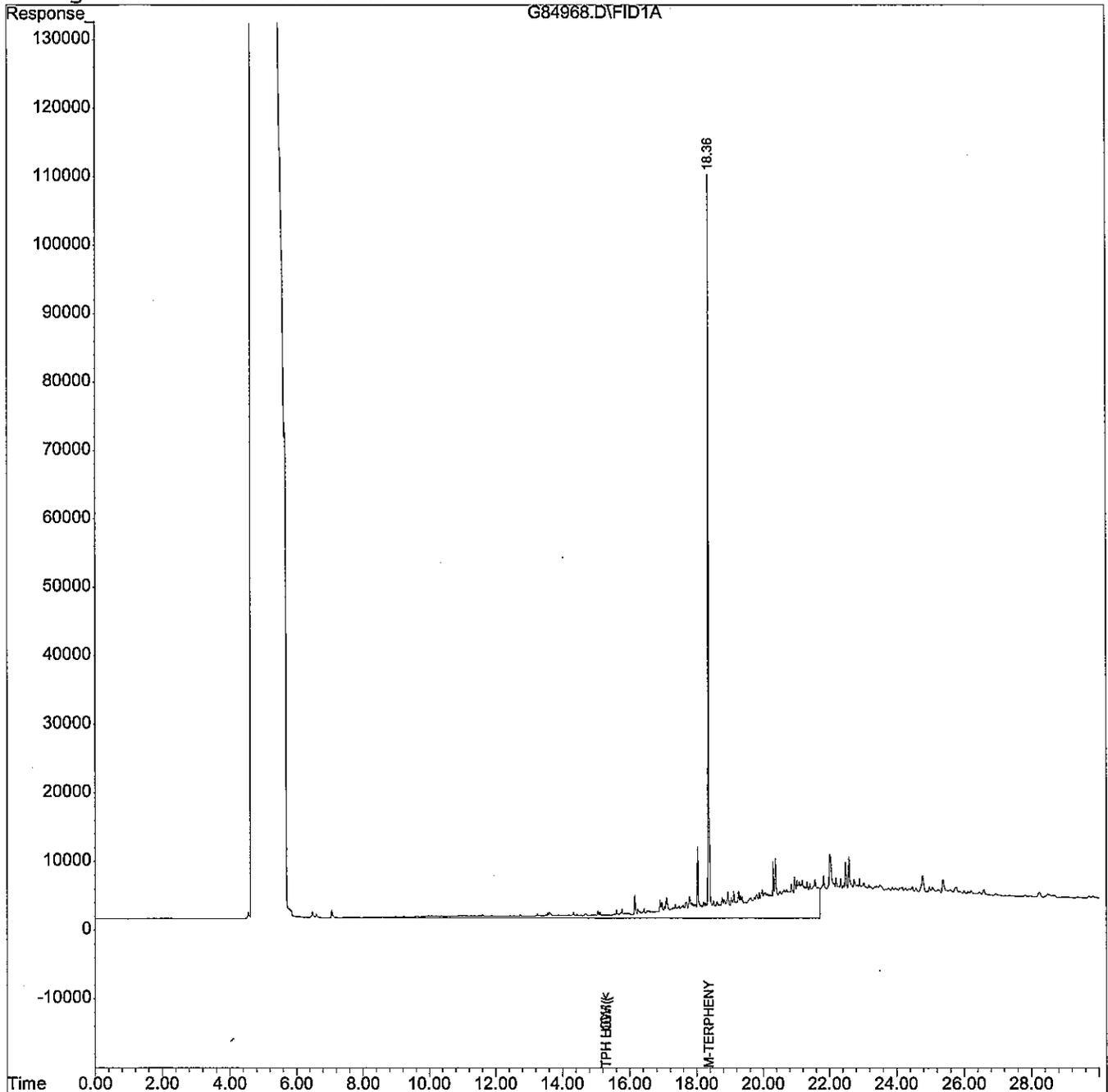
Response via : Multiple Level Calibration

DataAcq Meth : TPHDUAL3.M

Volume Inj. : 1ul

Signal Phase : Rtx-5MS

Signal Info : 0.25 mm



TPH  
QC FORMS

AEL\_Documents:\_TopLevelOldServer:AEL Documents LLC:Pkg Dividers:TPH QC.doc

Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

January 29, 2013  
**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** MILL DAM  
**Project Number:** 111.06134.017  
**Field Sample ID:** LABQC

**Lab Sample ID:** B0125123TAS  
**Matrix:** Solid  
**Percent Solid:** 100  
**Dilution Factor:** 1  
**Collection Date:** N/A  
**Lab Receipt Date:** N/A  
**Extraction Date:** 01/25/13  
**Analysis Date:** 01/28/13

ANALYTICAL RESULTS		
DIESEL RANGE ORGANICS (C10-C28)		
Result	Units	Quantitation Limit
U	mg/kg	5
<b>Surrogate Standard Recovery</b>		
	m-Terphenyl	79 %
U=Undetected    J=Estimated    E=Exceeds Calibration Range    B=Detected in Blank		

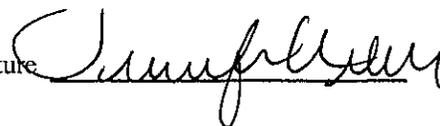
**METHODOLOGY:** Aqueous samples prepared by Separatory Funnel Liquid/Liquid Extraction, "Test Methods for Evaluating Solid Waste," Method 3510C; other matrices prepared by Pressurized Fluid extraction Extraction, "Test Methods for Evaluating Solid Waste," Method 3545.

All matrices analyzed according to "Test Methods for Evaluating Solid Waste, SW-846 Method 8015B"

**COMMENTS:** Results are expressed on a dry weight basis.

TPH layout

Authorized signature



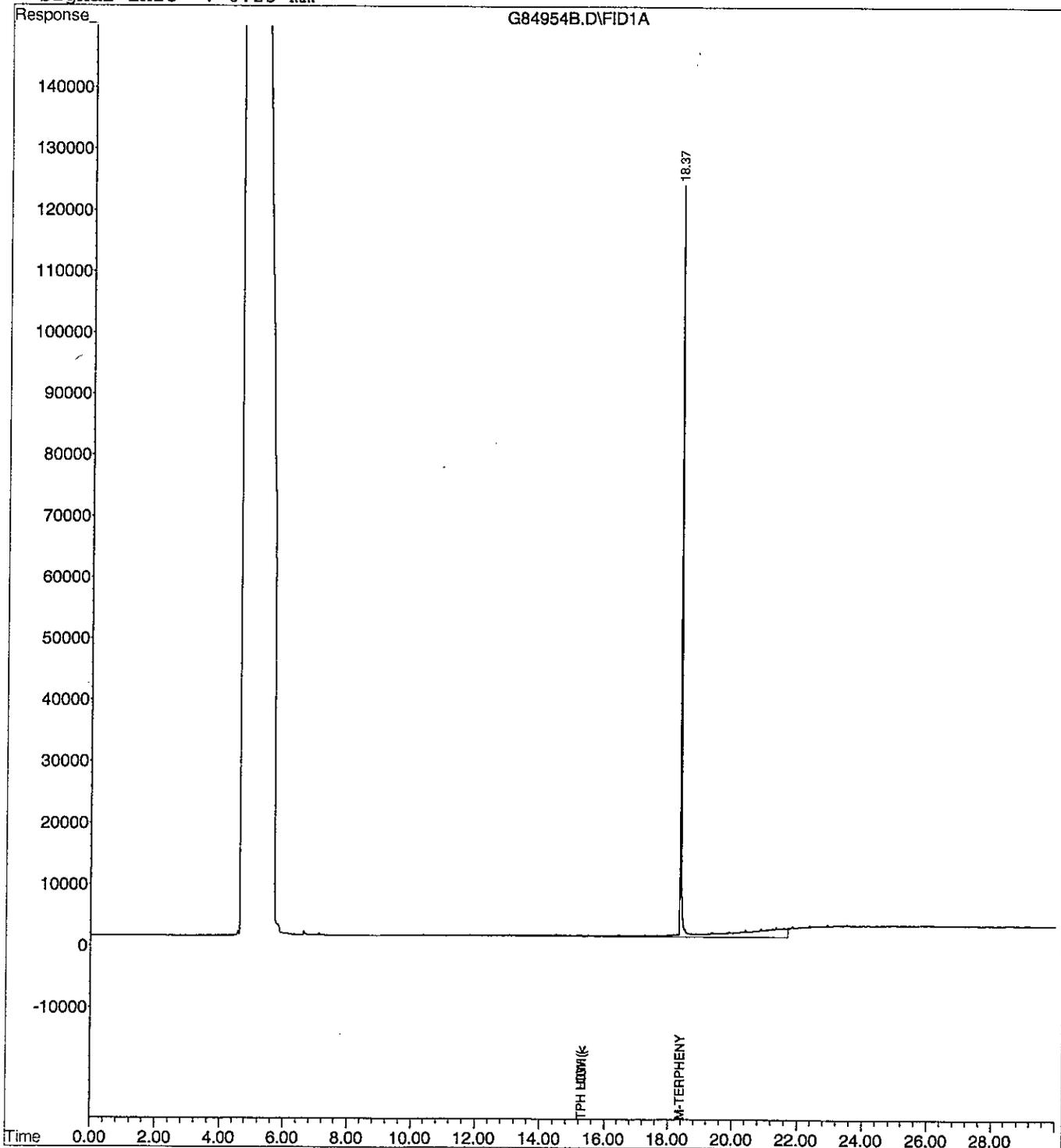
Data File : D:\TPH\012813-G\G84954B.D  
Acq On : 28 Jan 2013 4:21 pm  
Sample : B012513TAS  
Misc : SOIL  
IntFile : AUTOINT1.E  
Quant Time: Jan 28 16:48 2013

Vial: 3  
Operator: MG/JK  
Inst : INST G  
Multiplr: 1.00

Quant Results File: T111912A.RES

Quant Method : C:\HPCHEM\1\METHODS\T111912A.M (Chemstation Integrator)  
Title : DRO  
Last Update : Sat Jan 12 00:24:56 2013  
Response via : Multiple Level Calibration  
DataAcq Meth : TPHDUAL3.M

Volume Inj. : 1ul  
Signal Phase : Rtx-5MS  
Signal Info : 0.25 mm



TOTAL PETROLEUM HYDROCARBONS SOIL  
LABORATORY CONTROL/DUPLICATE  
PERCENT RECOVERY

Instrument ID: G  
GC Column: RTX-5ms  
Column ID: 0.25 mm

SDG:  
Non-spiked sample: B012513TAS  
Spike: L012513TAS  
Spike duplicate: LD012513TAS

COMPOUND	LCS SPIKE	LCSD SPIKE	LOWER	UPPER	RPD	NON-SPIKE	SPIKE	SPIKE	SPIKE DUP	SPIKE DUP				
	ADDED (mg/kg)	ADDED (mg/kg)	LIMIT	LIMIT	LIMIT	RESULT (mg/kg)	RESULT (mg/kg)	% REC	#	RESULT (mg/kg)	% REC	#	RPD	#
TPH LOW (<1.0)	67	67	45	115	20	0	46	69		44	66		4	
TPH HIGH (>1.0)	67	67	45	115	20	0	46	69		45	68		2	

# Column to be used to flag recovery and RPD values outside of QC limits  
\* Values outside QC limits  
Spike added values have been weight adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: \_\_\_\_\_  
\_\_\_\_\_

TOTAL PETROLEUM HYDROCARBONS SOIL  
MATRIX SPIKE/MATRIX SPIKE DUPLICATE  
PERCENT RECOVERY

Instrument ID: G  
GC Column: RTX-5ms  
Column ID: 0.25 mm

SDG:  
Non-spiked sample: 74728-17  
Spike: 74728-17,MS  
Spike duplicate: 74728-17,MSD

COMPOUND	MS SPIKE	MSD SPIKE	LOWER	UPPER	RPD	NON-SPIKE	SPIKE	SPIKE		SPIKE DUP		SPIKE DUP		RPD		
	ADDED (mg/kg)	ADDED (mg/kg)	LIMIT	LIMIT	LIMIT	RESULT (mg/kg)	RESULT (mg/kg)	% REC	#	RESULT (mg/kg)	% REC	#	RESULT (mg/kg)	% REC	#	
TPH LOW (<1.0)	83	79	45	115	20	31	66	42	*	72	52				9	
TPH HIGH (>1.0)	83	79	45	115	20	41	67	31	*	74	41	*			9	

# Column to be used to flag recovery and RPD values outside of QC limits

\* Values outside QC limits

Spike added values have been weight adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: \_\_\_\_\_  
\_\_\_\_\_

PCB  
DATA SUMMARIES

Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

February 5, 2013

**SAMPLE DATA**

**CLIENT SAMPLE ID**

---

**Project Name:** MILL DAM  
**Project Number:** 111.06134.017  
**Field Sample ID:** SB102-S3-012213

**Lab Sample ID:** 74728-2  
**Matrix:** Solid  
**Percent Solid:** 69  
**Dilution Factor:** 1.4  
**Collection Date:** 01/22/13  
**Lab Receipt Date:** 01/24/13  
**Extraction Date:** 01/28/13  
**Analysis Date:** 01/30/13

PCB ANALYTICAL RESULTS		
COMPOUND	Quantitation Limit $\mu\text{g}/\text{kg}$	Results $\mu\text{g}/\text{kg}$
PCB-1016	46	U
PCB-1221	46	U
PCB-1232	46	U
PCB-1242	46	U
PCB-1248	46	U
PCB-1254	46	U
PCB-1260	46	U
<b><u>Surrogate Standard Recovery</u></b>		
2,4,5,6-Tetrachloro-m-xylene	70	%
Decachlorobiphenyl	55	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank		

**METHODOLOGY:** Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082A.  
Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.  
Sample cleanup was conducted according to SW-846 Method 3665A.

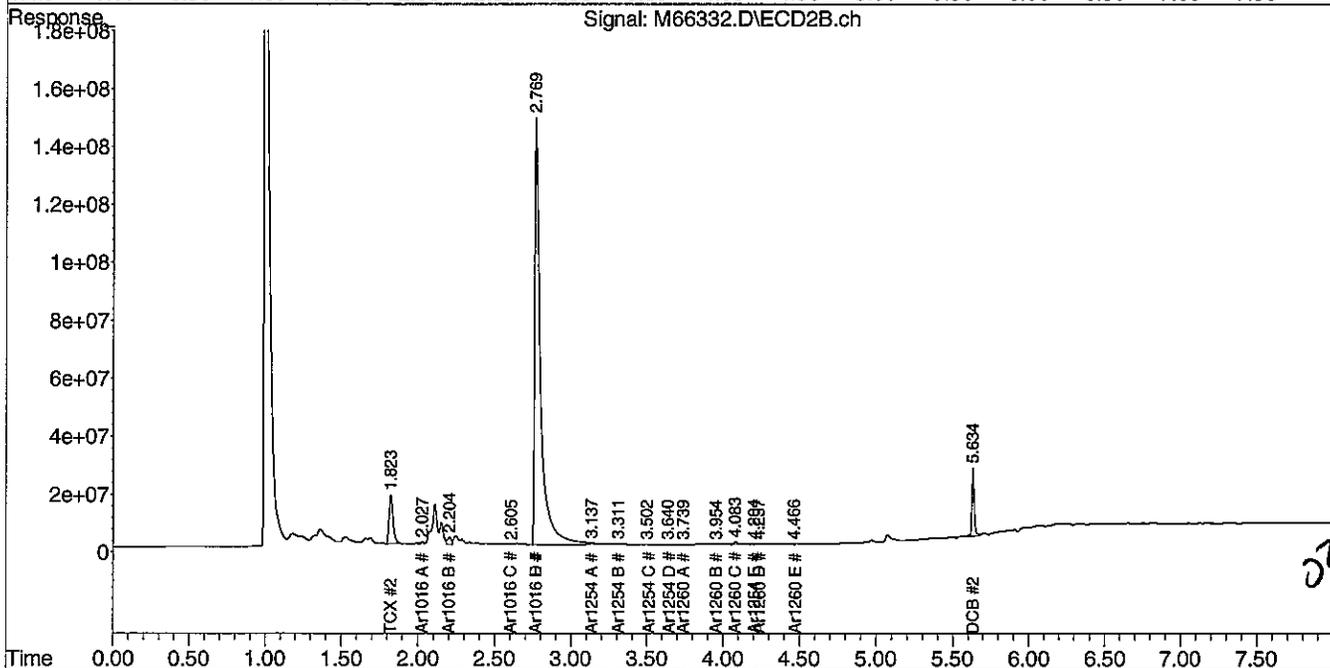
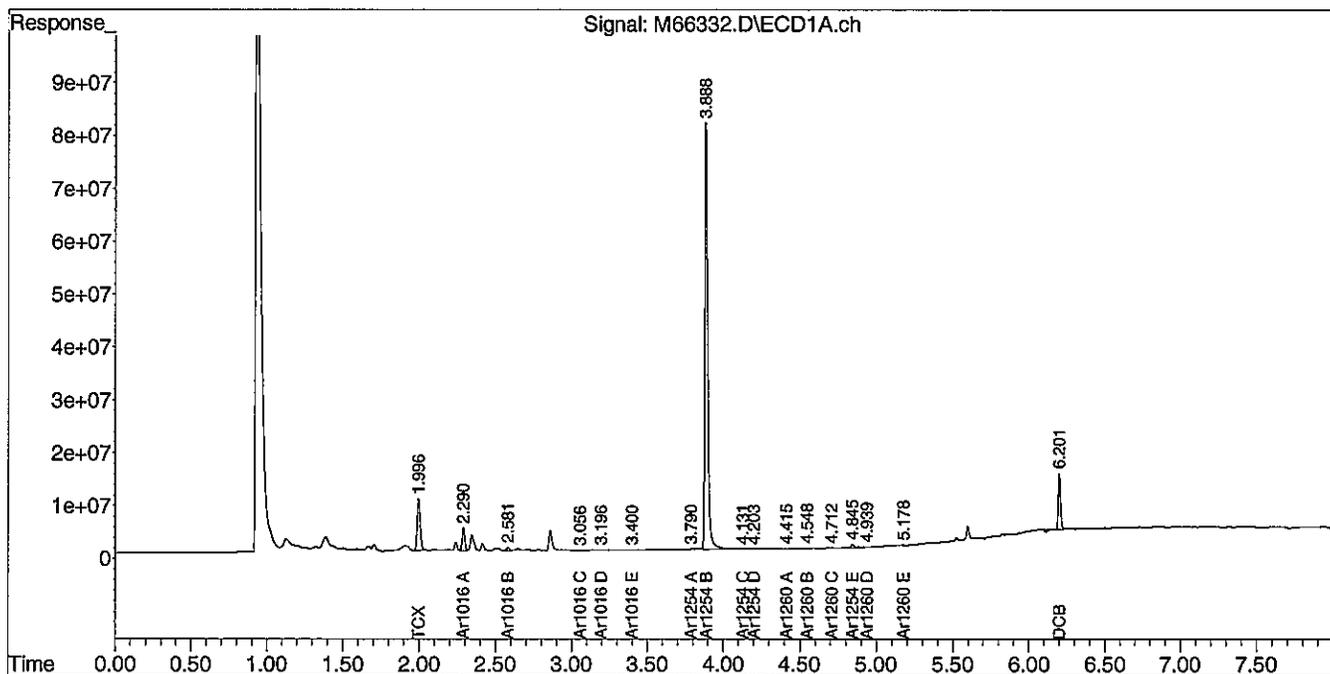
**COMMENTS:** Results are expressed on a dry weight basis.

Authorized signature 

Data Path : C:\msdchem\1\DATA\013013-M\  
 Data File : M66332.D  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 30 Jan 2013 11:39 am  
 Operator : JK  
 Sample : 74728-2,,A/C  
 Misc : SOIL  
 ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Feb 05 12:14:59 2013  
 Quant Method : C:\msdchem\1\METHODS\PCB122612.M  
 Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
 QLast Update : Tue Feb 05 12:14:30 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 2 uL  
 Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
 Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



02573

Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

February 5, 2013

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** MILL DAM  
**Project Number:** 111.06134.017  
**Field Sample ID:** SB10X-S3-012213

**Lab Sample ID:** 74728-3  
**Matrix:** Solid  
**Percent Solid:** 65  
**Dilution Factor:** 1.5  
**Collection Date:** 01/22/13  
**Lab Receipt Date:** 01/24/13  
**Extraction Date:** 01/28/13  
**Analysis Date:** 01/30/13

**PCB ANALYTICAL RESULTS**

COMPOUND	Quantitation Limit $\mu\text{g}/\text{kg}$	Results $\mu\text{g}/\text{kg}$
PCB-1016	50	U
PCB-1221	50	U
PCB-1232	50	U
PCB-1242	50	U
PCB-1248	50	U
PCB-1254	50	U
PCB-1260	50	U

**Surrogate Standard Recovery**

2,4,5,6-Tetrachloro-m-xylene 90 %  
Decachlorobiphenyl 71 %

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

**METHODOLOGY:** Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082A.  
Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.  
Sample cleanup was conducted according to SW-846 Method 3665A.

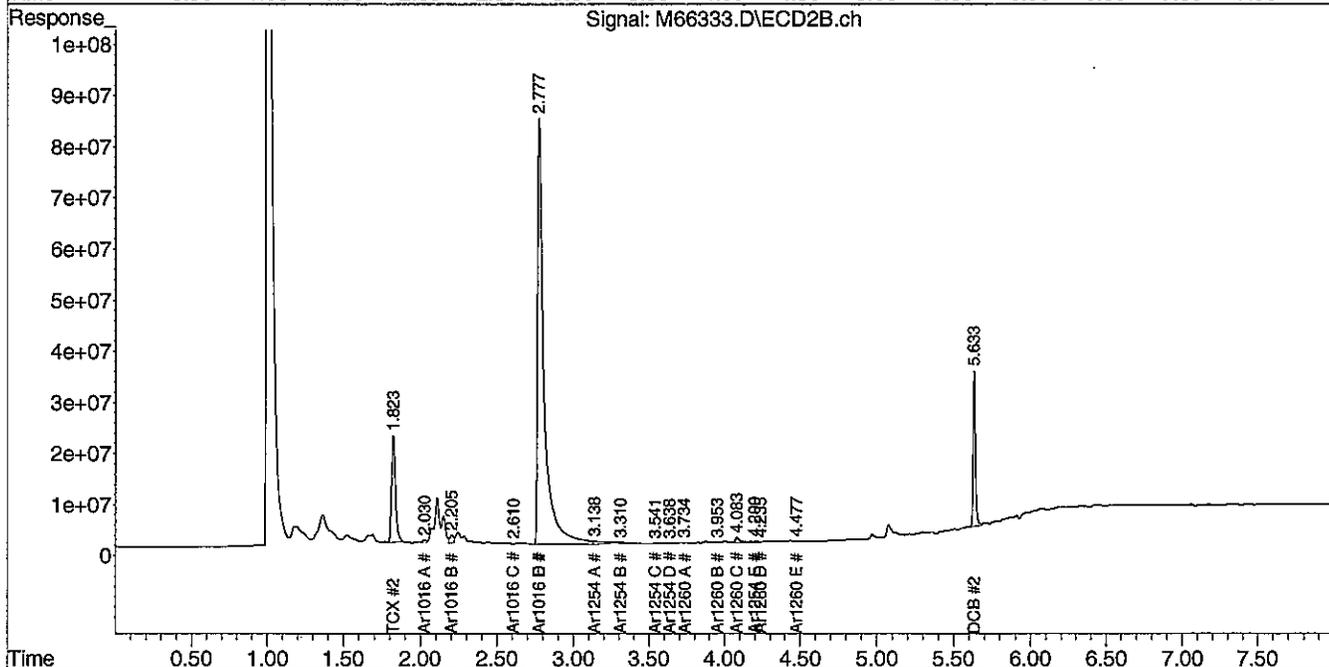
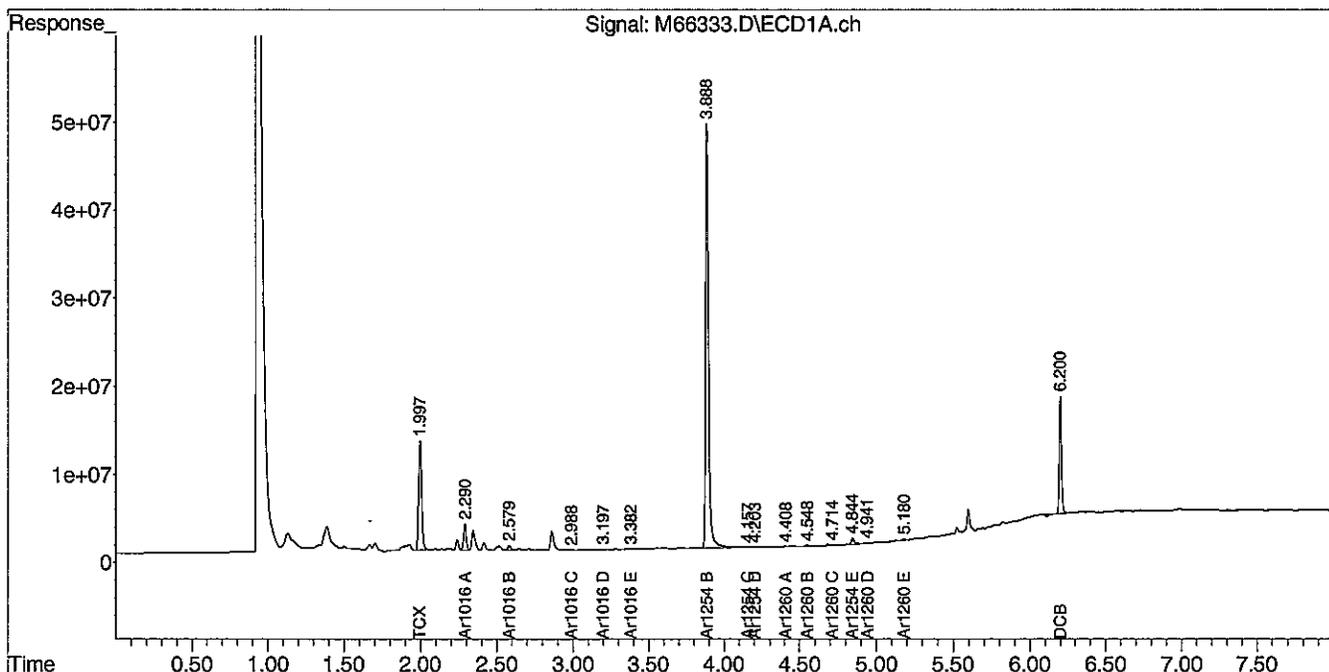
**COMMENTS:** Results are expressed on a dry weight basis.



Data Path : C:\msdchem\1\DATA\013013-M\  
 Data File : M66333.D  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 30 Jan 2013 11:49 am  
 Operator : JK  
 Sample : 74728-3,,A/C  
 Misc : SOIL  
 ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Feb 05 12:15:01 2013  
 Quant Method : C:\msdchem\1\METHODS\PCB122612.M  
 Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
 QLast Update : Tue Feb 05 12:14:30 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 2 uL  
 Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
 Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



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February 5, 2013

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** MILL DAM

**Project Number:** 111.06134.017

**Field Sample ID:** SB106-S1-012213

**Lab Sample ID:** 74728-4

**Matrix:** Solid

**Percent Solid:** 78

**Dilution Factor:** 1.3

**Collection Date:** 01/22/13

**Lab Receipt Date:** 01/24/13

**Extraction Date:** 01/28/13

**Analysis Date:** 01/30/13

PCB ANALYTICAL RESULTS		
COMPOUND	Quantitation Limit $\mu\text{g}/\text{kg}$	Results $\mu\text{g}/\text{kg}$
PCB-1016	43	U
PCB-1221	43	U
PCB-1232	43	U
PCB-1242	43	U
PCB-1248	43	U
PCB-1254	43	U
PCB-1260	43	U
Surrogate Standard Recovery		
2,4,5,6-Tetrachloro-m-xylene	82	%
Decachlorobiphenyl	79	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank		

**METHODOLOGY:** Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082A.  
Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.  
Sample cleanup was conducted according to SW-846 Method 3665A.

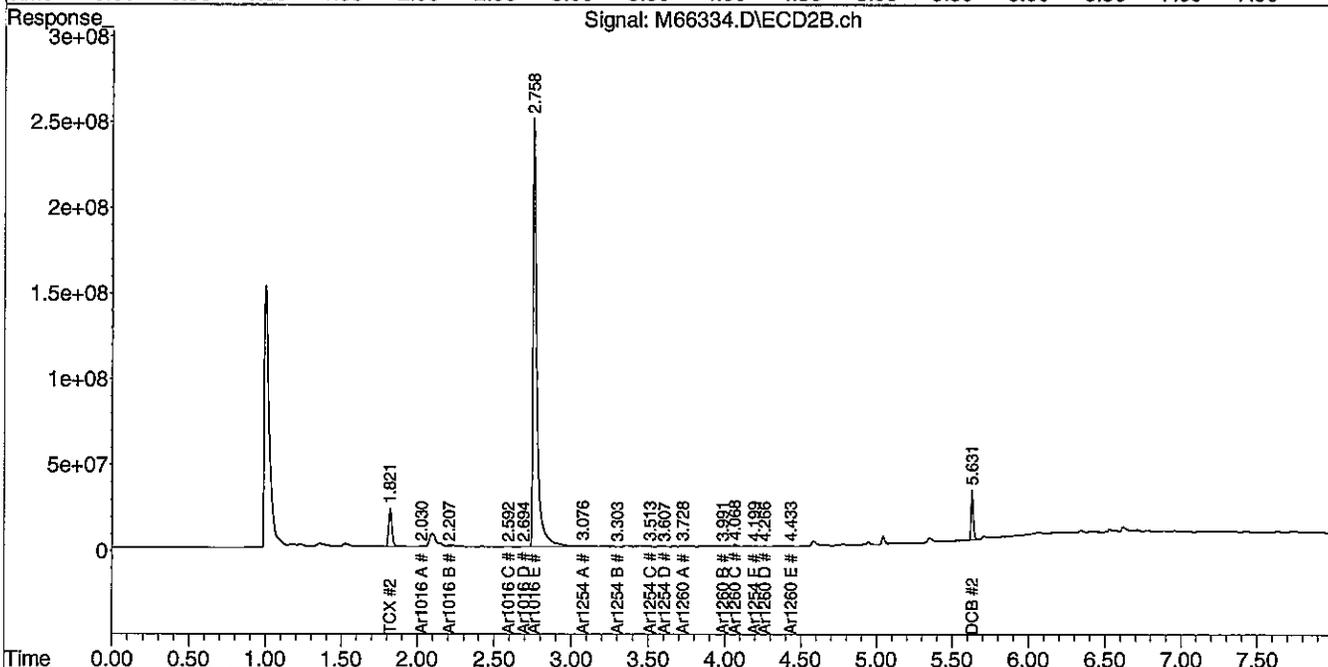
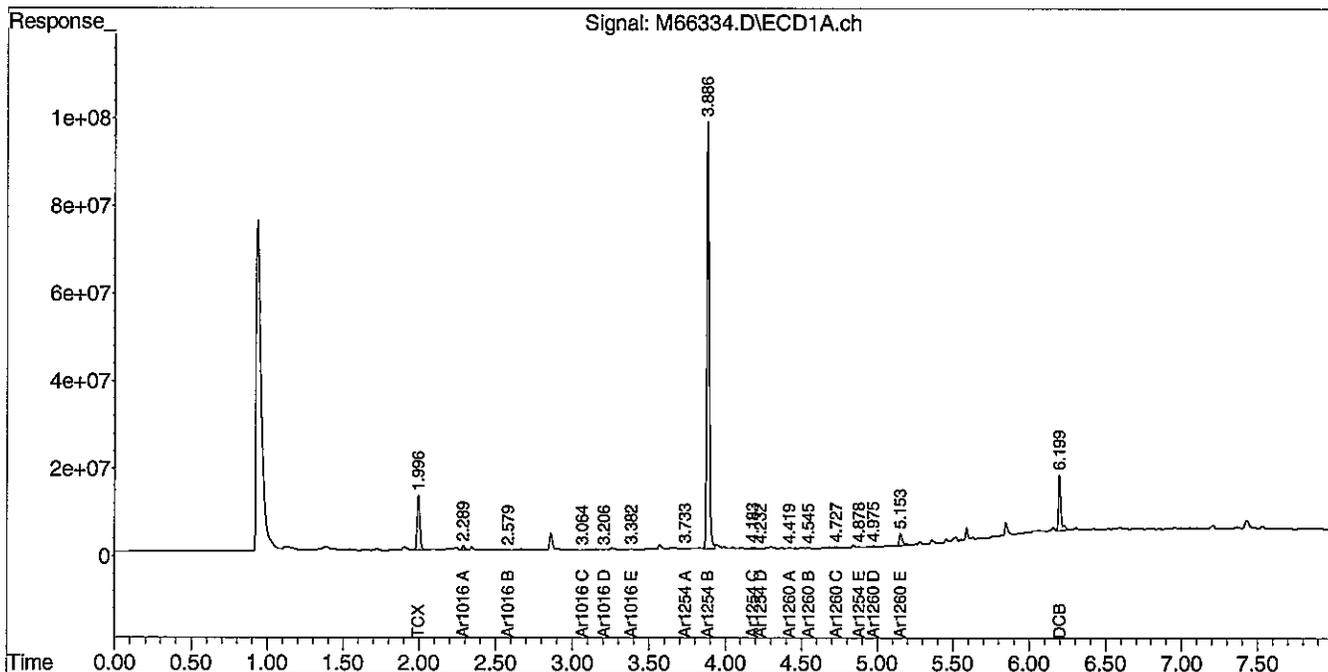
**COMMENTS:** Results are expressed on a dry weight basis.

Authorized signature 

Data Path : C:\msdchem\1\DATA\013013-M\  
 Data File : M66334.D  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 30 Jan 2013 11:59 am  
 Operator : JK  
 Sample : 74728-4,,A/C  
 Misc : SOIL  
 ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Feb 05 12:15:03 2013  
 Quant Method : C:\msdchem\1\METHODS\PCB122612.M  
 Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
 QLast Update : Tue Feb 05 12:14:30 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 2 uL  
 Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
 Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



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**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** MILL DAM

**Project Number:** 111.06134.017

**Field Sample ID:** SB107-S2-012213

**Lab Sample ID:** 74728-5

**Matrix:** Solid

**Percent Solid:** 80

**Dilution Factor:** 1.2

**Collection Date:** 01/22/13

**Lab Receipt Date:** 01/24/13

**Extraction Date:** 01/28/13

**Analysis Date:** 01/30/13

PCB ANALYTICAL RESULTS		
COMPOUND	Quantitation Limit $\mu\text{g}/\text{kg}$	Results $\mu\text{g}/\text{kg}$
PCB-1016	40	U
PCB-1221	40	U
PCB-1232	40	U
PCB-1242	40	U
PCB-1248	40	U
PCB-1254	40	U
PCB-1260	40	U
Surrogate Standard Recovery		
2,4,5,6-Tetrachloro-m-xylene	84	%
Decachlorobiphenyl	77	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank		

**METHODOLOGY:** Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082A.  
 Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.  
 Sample cleanup was conducted according to SW-846 Method 3665A.

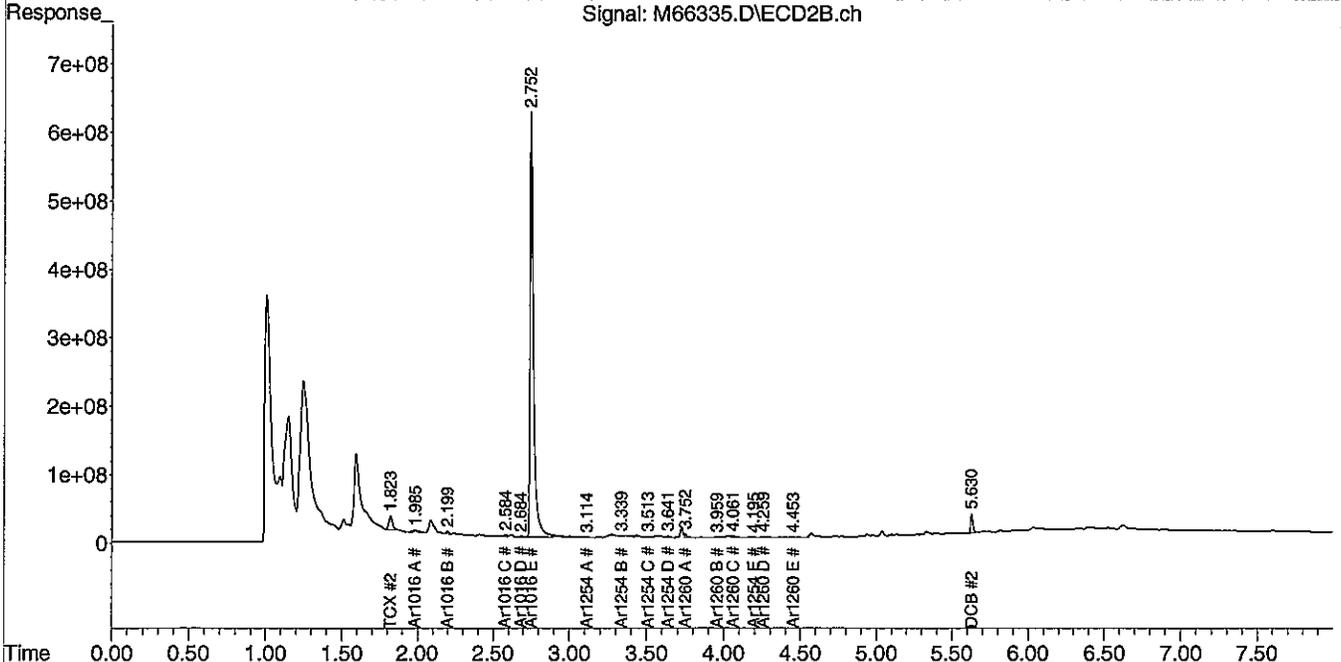
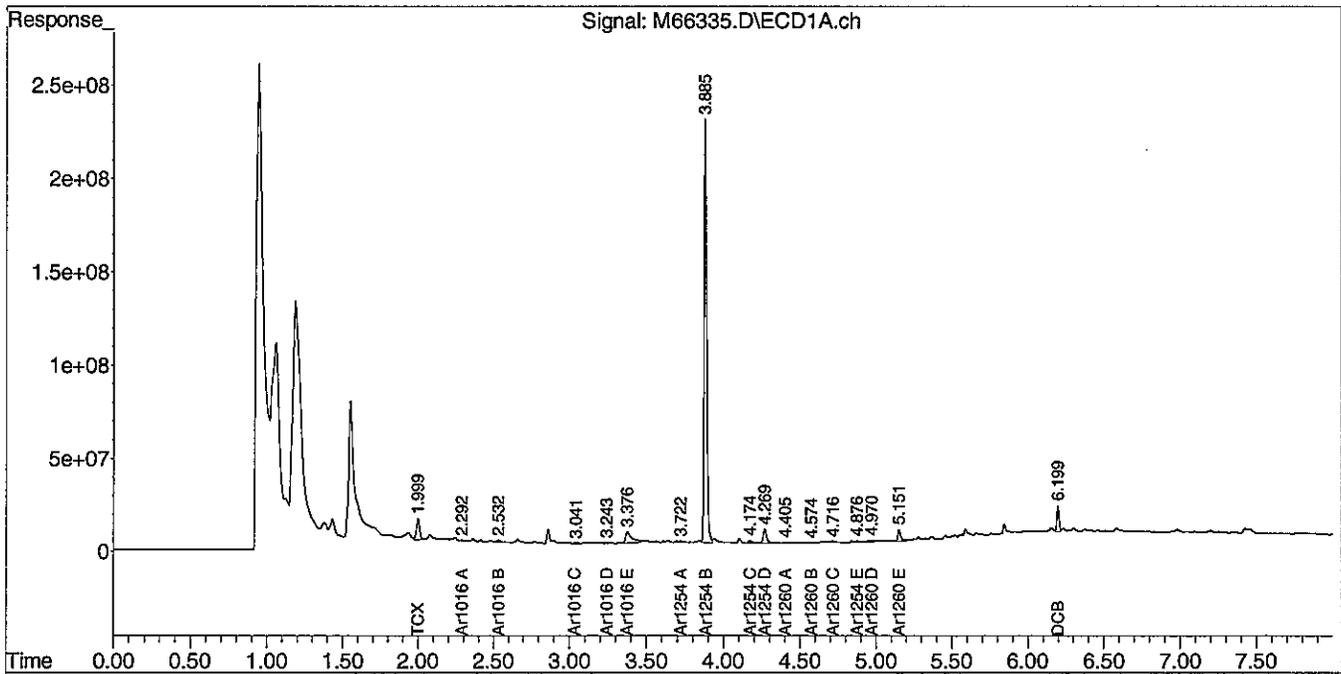
**COMMENTS:** Results are expressed on a dry weight basis.

Authorized signature 

Data Path : C:\msdchem\1\DATA\013013-M\  
 Data File : M66335.D  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 30 Jan 2013 12:09 pm  
 Operator : JK  
 Sample : 74728-5,,A/C  
 Misc : SOIL  
 ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Feb 05 12:15:05 2013  
 Quant Method : C:\msdchem\1\METHODS\PCB122612.M  
 Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
 QLast Update : Tue Feb 05 12:14:30 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 2 uL  
 Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
 Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



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February 5, 2013

**SAMPLE DATA**

**CLIENT SAMPLE ID**

---

**Project Name:** MILL DAM  
**Project Number:** 111.06134.017  
**Field Sample ID:** SB105-S1-012213

**Lab Sample ID:** 74728-8  
**Matrix:** Solid  
**Percent Solid:** 80  
**Dilution Factor:** 1.2  
**Collection Date:** 01/22/13  
**Lab Receipt Date:** 01/24/13  
**Extraction Date:** 01/28/13  
**Analysis Date:** 01/30/13

PCB ANALYTICAL RESULTS		
COMPOUND	Quantitation Limit $\mu\text{g}/\text{kg}$	Results $\mu\text{g}/\text{kg}$
PCB-1016	40	U
PCB-1221	40	U
PCB-1232	40	U
PCB-1242	40	U
PCB-1248	40	U
PCB-1254	40	U
PCB-1260	40	U
<b>Surrogate Standard Recovery</b>		
2,4,5,6-Tetrachloro-m-xylene	97	%
Decachlorobiphenyl	81	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank		

**METHODOLOGY:** Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082A.  
Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.  
Sample cleanup was conducted according to SW-846 Method 3665A.

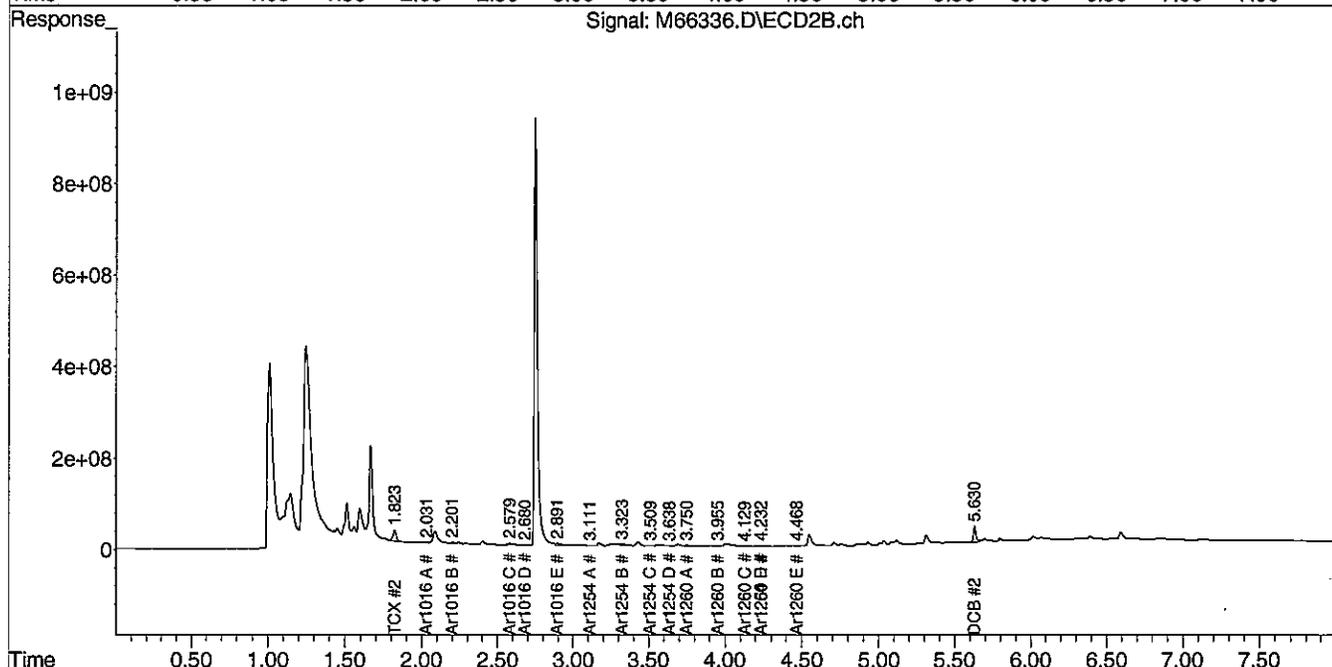
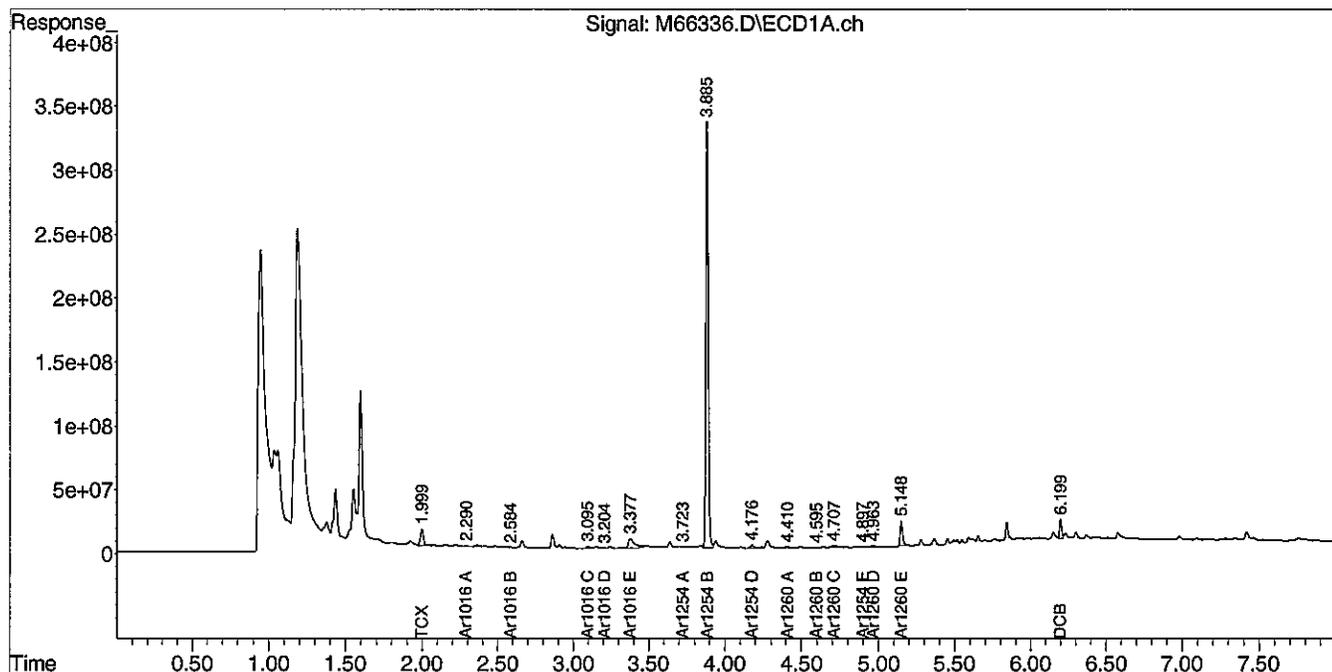
**COMMENTS:** Results are expressed on a dry weight basis.

Authorized signature 

Data Path : C:\msdchem\1\DATA\013013-M\  
 Data File : M66336.D  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 30 Jan 2013 12:19 pm  
 Operator : JK  
 Sample : 74728-8,,A/C  
 Misc : SOIL  
 ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Feb 05 12:15:07 2013  
 Quant Method : C:\msdchem\1\METHODS\PCB122612.M  
 Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
 QLast Update : Tue Feb 05 12:14:30 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 2 uL  
 Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
 Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



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January 29, 2013

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** MILL DAM  
**Project Number:** 111.06134.017  
**Field Sample ID:** WS101

**Lab Sample ID:** 74728-18  
**Matrix:** Wipe  
**Percent Solid:** N/A  
**Dilution Factor:** 1.0  
**Collection Date:** 01/22/13  
**Lab Receipt Date:** 01/24/13  
**Extraction Date:** 01/24/13  
**Analysis Date:** 01/28/13

PCB ANALYTICAL RESULTS			
COMPOUND	Quantitation Limit µg/wipe		Results µg/wipe
PCB-1016	0.5		U
PCB-1221	0.5		U
PCB-1232	0.5		U
PCB-1242	0.5		U
PCB-1248	0.5		U
PCB-1254	0.5		U
PCB-1260	0.5		U
Surrogate Standard Recovery			
	2,4,5,6-Tetrachloro-m-xylene	103	%
	Decachlorobiphenyl	115	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank			

**METHODOLOGY:** Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082A.  
Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.  
Sample cleanup was conducted according to SW-846 Method 3665A.

**COMMENTS:**

PCB Report

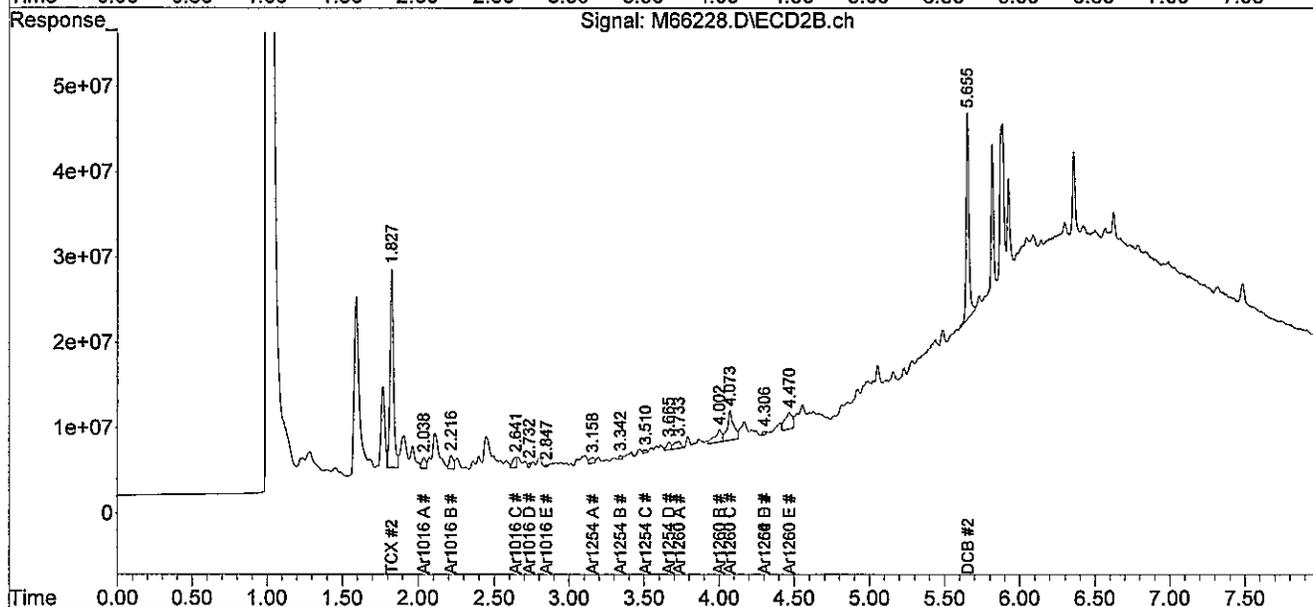
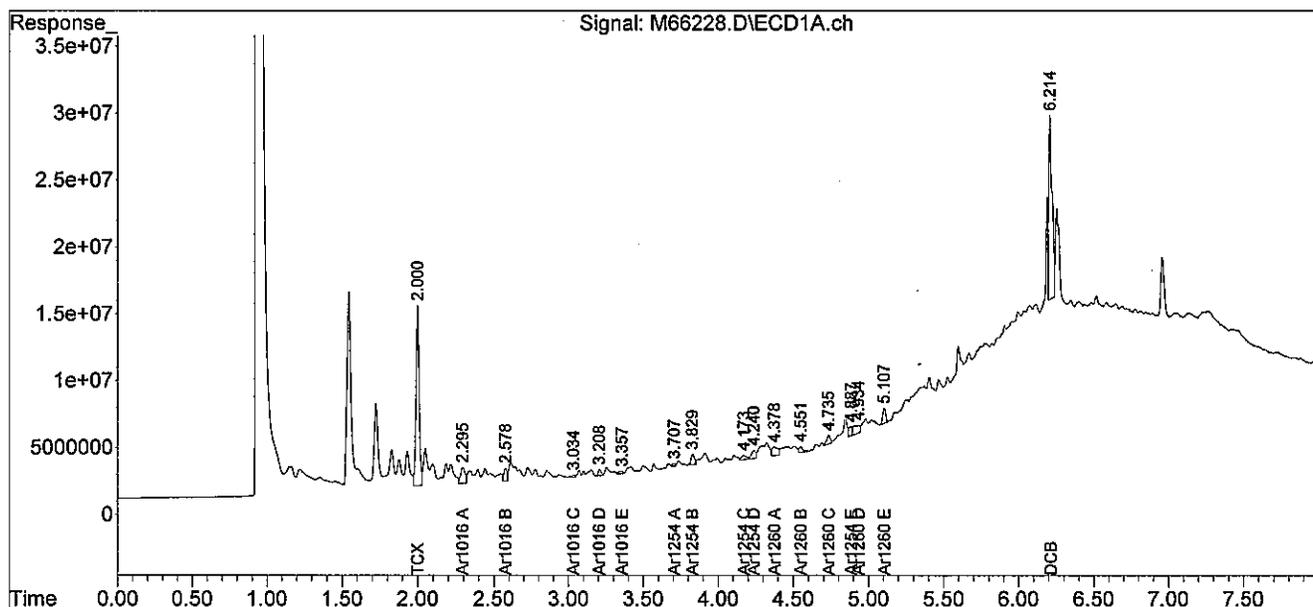
Authorized signature *Mphibull*

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\012813-M\  
 Data File : M66228.D  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 28 Jan 2013 6:33 pm  
 Operator : JK  
 Sample : 74728-18,,A/C  
 Misc : SOIL  
 ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Jan 29 12:43:59 2013  
 Quant Method : C:\msdchem\1\METHODS\PCB122612.M  
 Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
 QLast Update : Mon Jan 28 16:30:38 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 2 uL  
 Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
 Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



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January 29, 2013

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** MILL DAM

**Project Number:** 111.06134.017

**Field Sample ID:** WS102

**Lab Sample ID:** 74728-19

**Matrix:** Wipe

**Percent Solid:** N/A

**Dilution Factor:** 1.0

**Collection Date:** 01/22/13

**Lab Receipt Date:** 01/24/13

**Extraction Date:** 01/24/13

**Analysis Date:** 01/28/13

PCB ANALYTICAL RESULTS			
COMPOUND	Quantitation Limit $\mu\text{g/wipe}$	Results $\mu\text{g/wipe}$	
PCB-1016	0.5	U	
PCB-1221	0.5	U	
PCB-1232	0.5	U	
PCB-1242	0.5	U	
PCB-1248	0.5	U	
PCB-1254	0.5	U	
PCB-1260	0.5	U	
<u>Surrogate Standard Recovery</u>			
	2,4,5,6-Tetrachloro-m-xylene	87	%
	Decachlorobiphenyl	78	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank			

**METHODOLOGY:** Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082A.  
Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.  
Sample cleanup was conducted according to SW-846 Method 3665A.

**COMMENTS:**

PCB Report

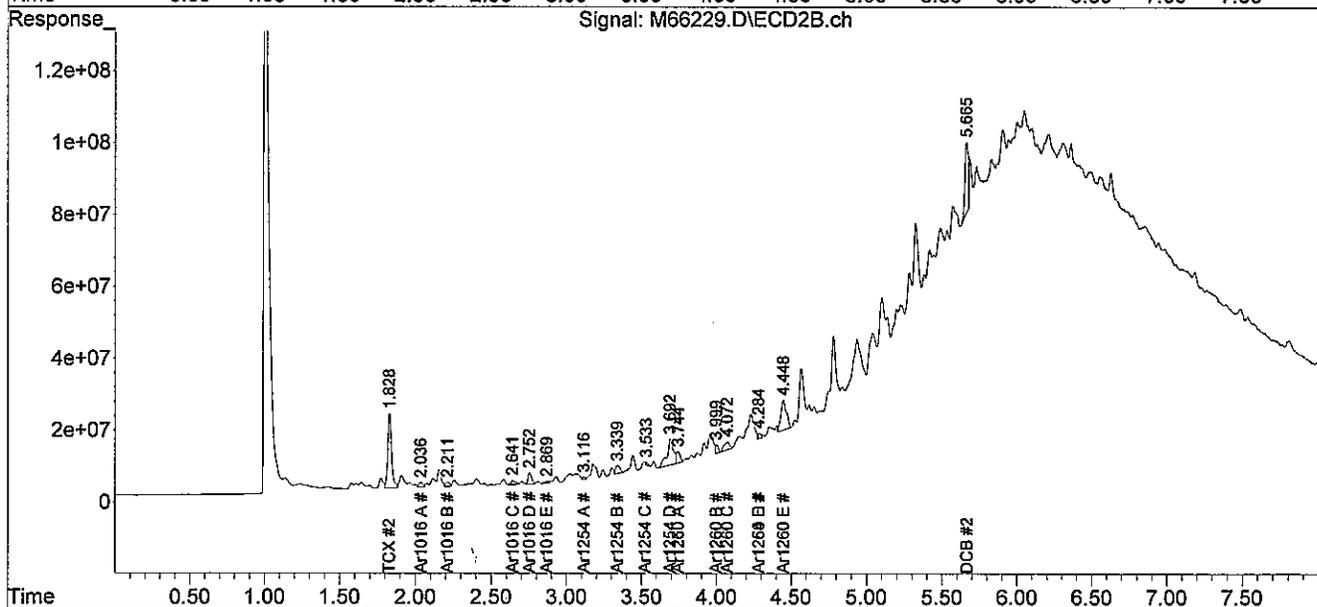
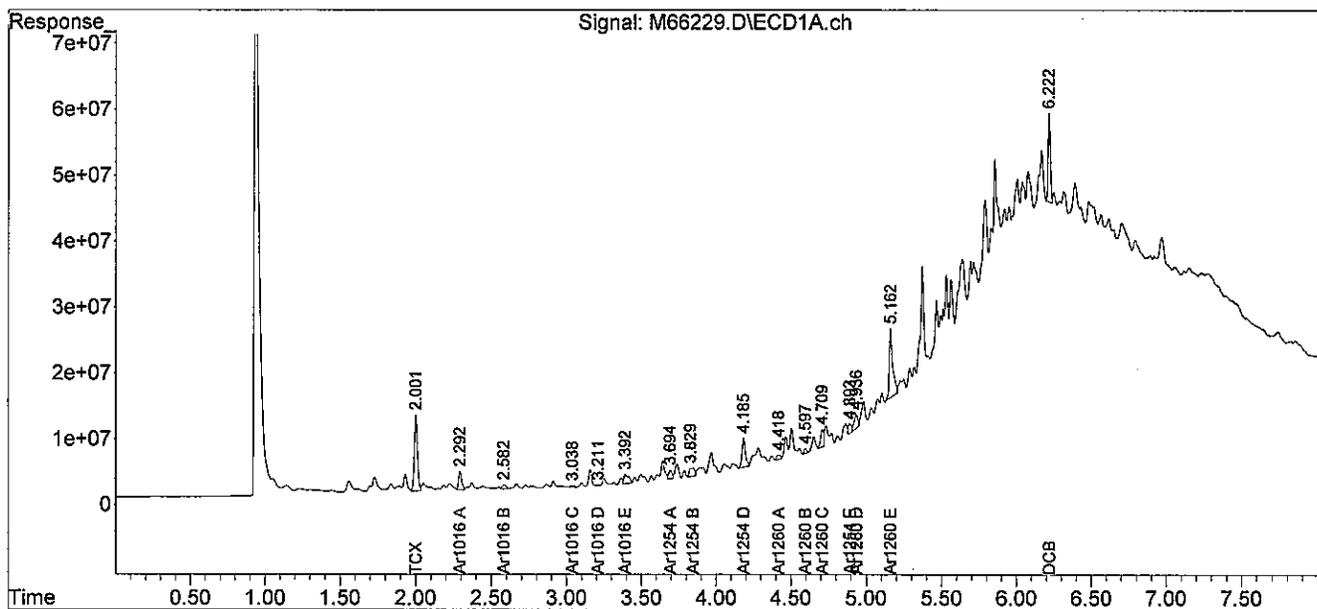
Authorized signature 

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\012813-M\  
 Data File : M66229.D  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 28 Jan 2013 6:43 pm  
 Operator : JK  
 Sample : 74728-19,,A/C  
 Misc : SOIL  
 ALS Vial : 20 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Jan 29 12:46:19 2013  
 Quant Method : C:\msdchem\1\METHODS\PCB122612.M  
 Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
 QLast Update : Mon Jan 28 16:30:38 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 2 uL  
 Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
 Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



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January 29, 2013

**SAMPLE DATA**

**CLIENT SAMPLE ID**

---

**Project Name:** MILL DAM  
**Project Number:** 111.06134.017  
**Field Sample ID:** WS10X

**Lab Sample ID:** 74728-20  
**Matrix:** Wipe  
**Percent Solid:** N/A  
**Dilution Factor:** 1.0  
**Collection Date:** 01/22/13  
**Lab Receipt Date:** 01/24/13  
**Extraction Date:** 01/24/13  
**Analysis Date:** 01/28/13

PCB ANALYTICAL RESULTS		
COMPOUND	Quantitation Limit µg/wipe	Results µg/wipe
PCB-1016	0.5	U
PCB-1221	0.5	U
PCB-1232	0.5	U
PCB-1242	0.5	U
PCB-1248	0.5	U
PCB-1254	0.5	U
PCB-1260	0.5	U
<b>Surrogate Standard Recovery</b>		
2,4,5,6-Tetrachloro-m-xylene	85	%
Decachlorobiphenyl	105	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank		

**METHODOLOGY:** Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082A.  
Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.  
Sample cleanup was conducted according to SW-846 Method 3665A.

**COMMENTS:**

PCB Report

Authorized signature

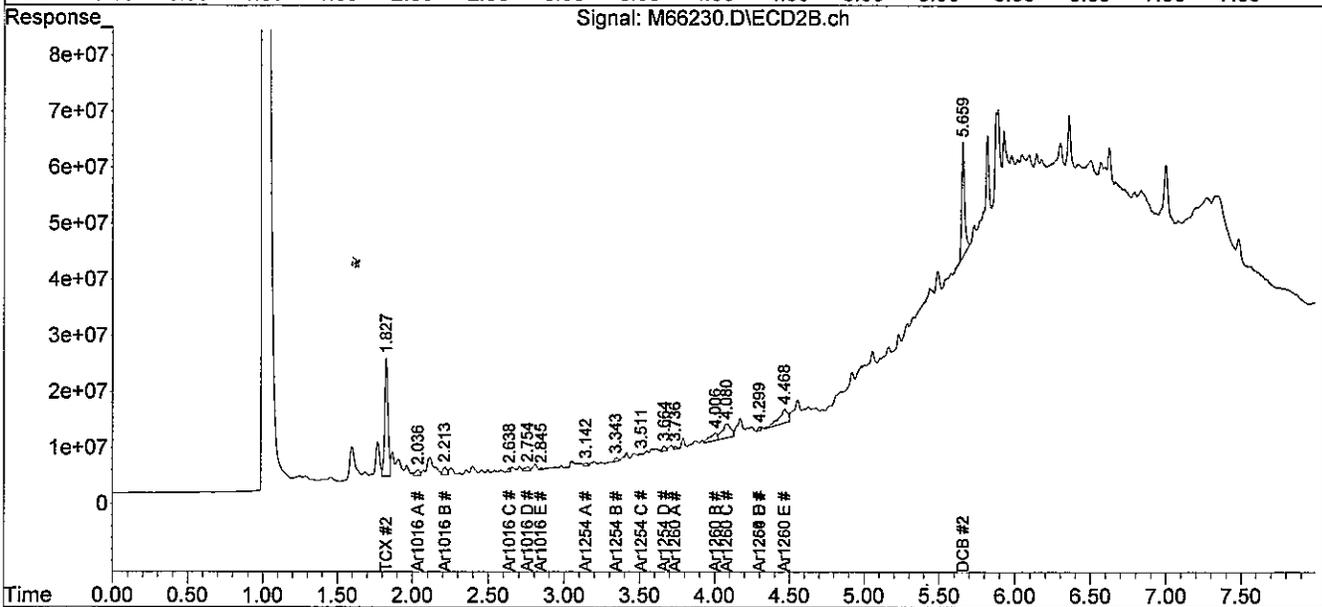
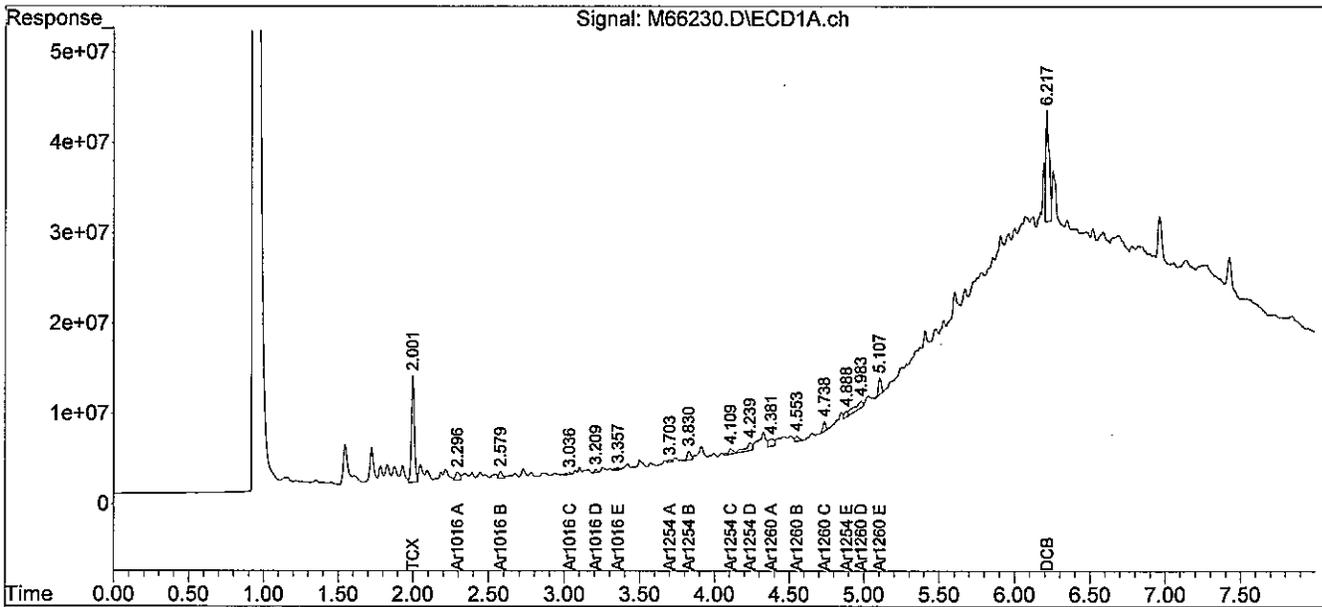


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\012813-M\  
 Data File : M66230.D  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 28 Jan 2013 6:53 pm  
 Operator : JK  
 Sample : 74728-20,,A/C  
 Misc : SOIL  
 ALS Vial : 21 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Jan 29 12:46:39 2013  
 Quant Method : C:\msdchem\1\METHODS\PCB122612.M  
 Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
 QLast Update : Mon Jan 28 16:30:38 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 2 uL  
 Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
 Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



PCB  
QC FORMS

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January 29, 2013

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** MILL DAM

**Project Number:** 111.06134.017

**Field Sample ID:** Lab QC

**Lab Sample ID:** B012413PSOX2

**Matrix:** Wipe

**Percent Solid:** N/A

**Dilution Factor:** 1.0

**Collection Date:**

**Lab Receipt Date:**

**Extraction Date:** 01/24/13

**Analysis Date:** 01/28/13

PCB ANALYTICAL RESULTS		
COMPOUND	Quantitation Limit $\mu\text{g/wipe}$	Results $\mu\text{g/wipe}$
PCB-1016	0.5	U
PCB-1221	0.5	U
PCB-1232	0.5	U
PCB-1242	0.5	U
PCB-1248	0.5	U
PCB-1254	0.5	U
PCB-1260	0.5	U
<b>Surrogate Standard Recovery</b>		
2,4,5,6-Tetrachloro-m-xylene	94	%
Decachlorobiphenyl	73	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank		

**METHODOLOGY:** Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082A.  
 Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.  
 Sample cleanup was conducted according to SW-846 Method 3665A.

**COMMENTS:**

PCB Report

Authorized signature

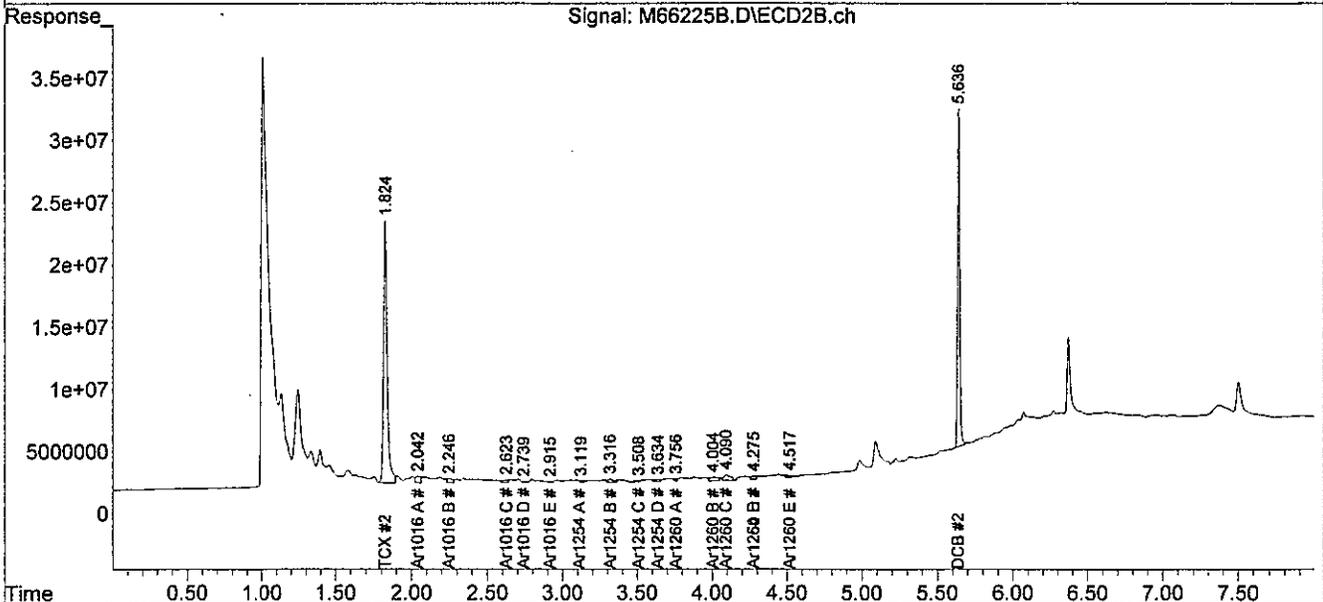
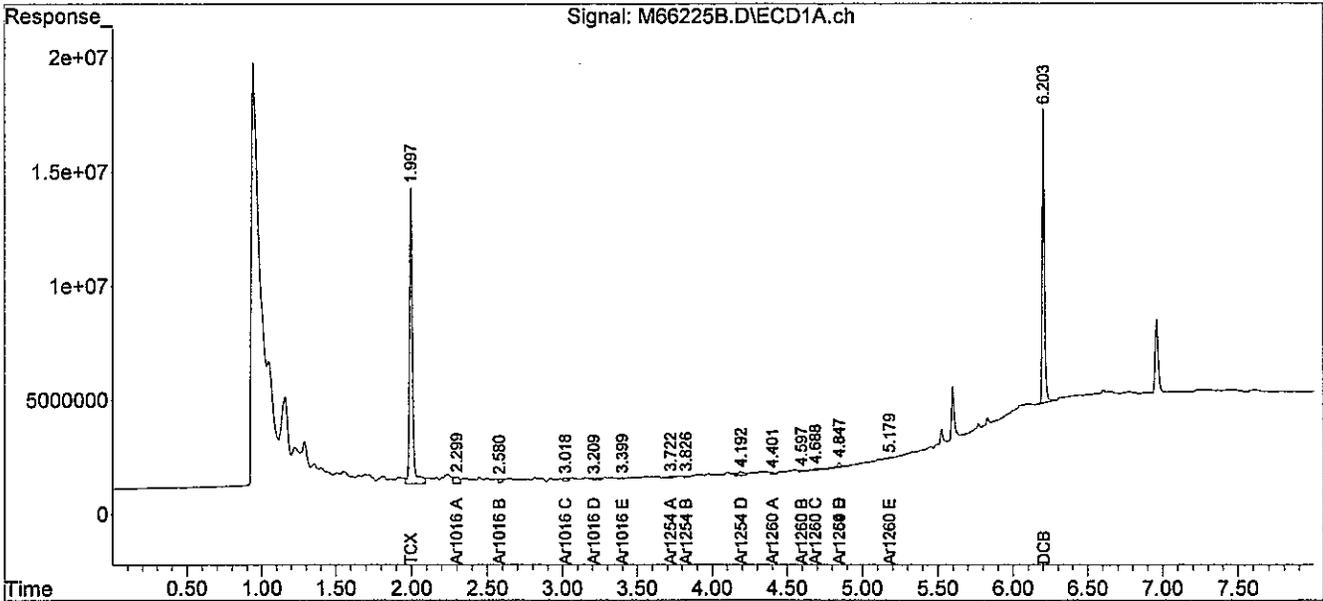


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\012813-M\  
Data File : M66225B.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 28 Jan 2013 6:03 pm  
Operator : JK  
Sample : B012413PSOX2,,A/C  
Misc : SOIL  
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: Jan 29 12:25:17 2013  
Quant Method : C:\msdchem\1\METHODS\PCB122612.M  
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
QLast Update : Mon Jan 28 16:30:38 2013  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 2 uL  
Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



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February 5, 2013

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** MILL DAM

**Project Number:** 111.06134.017

**Field Sample ID:** Lab QC

**Lab Sample ID:** B012813PSOX RR

**Matrix:** Soil

**Percent Solid:** 100

**Dilution Factor:** 1.0

**Collection Date:**

**Lab Receipt Date:**

**Extraction Date:** 01/28/13

**Analysis Date:** 01/30/13

PCB ANALYTICAL RESULTS		
COMPOUND	Quantitation Limit $\mu\text{g}/\text{kg}$	Results $\mu\text{g}/\text{kg}$
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U
<b>Surrogate Standard Recovery</b>		
2,4,5,6-Tetrachloro-m-xylene	82	%
Decachlorobiphenyl	74	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank		

**METHODOLOGY:** Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082A.  
Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.  
Sample cleanup was conducted according to SW-846 Method 3665A.

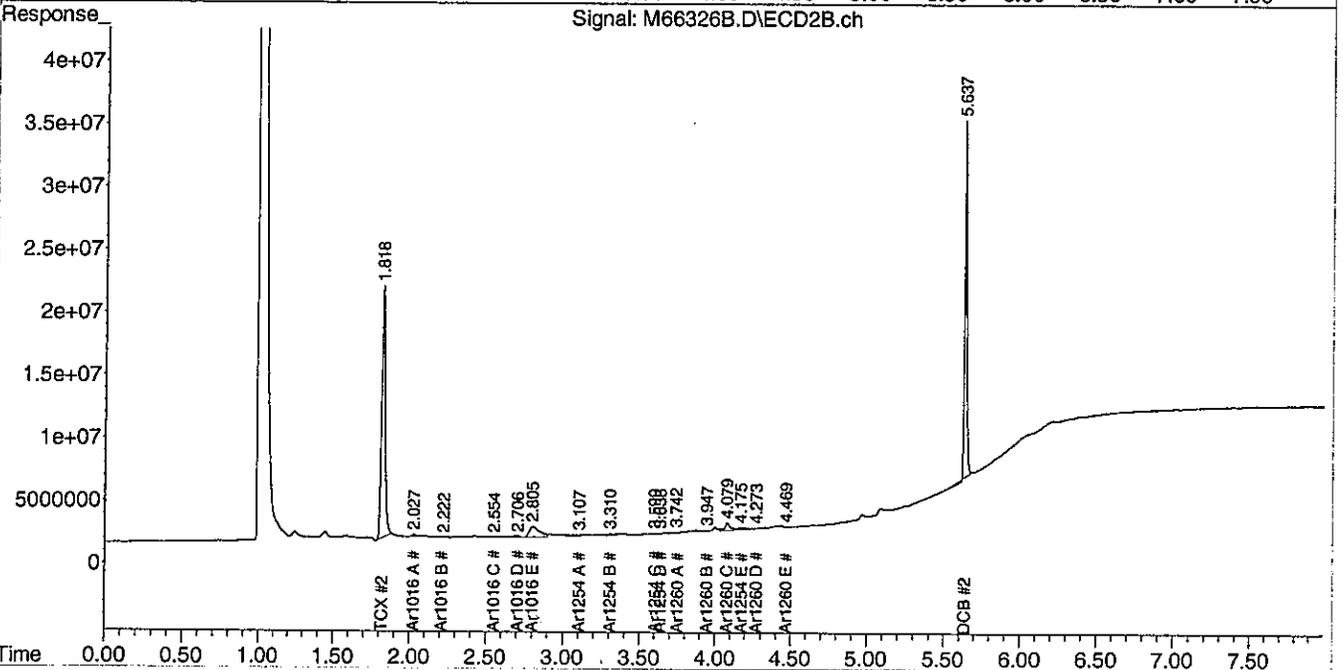
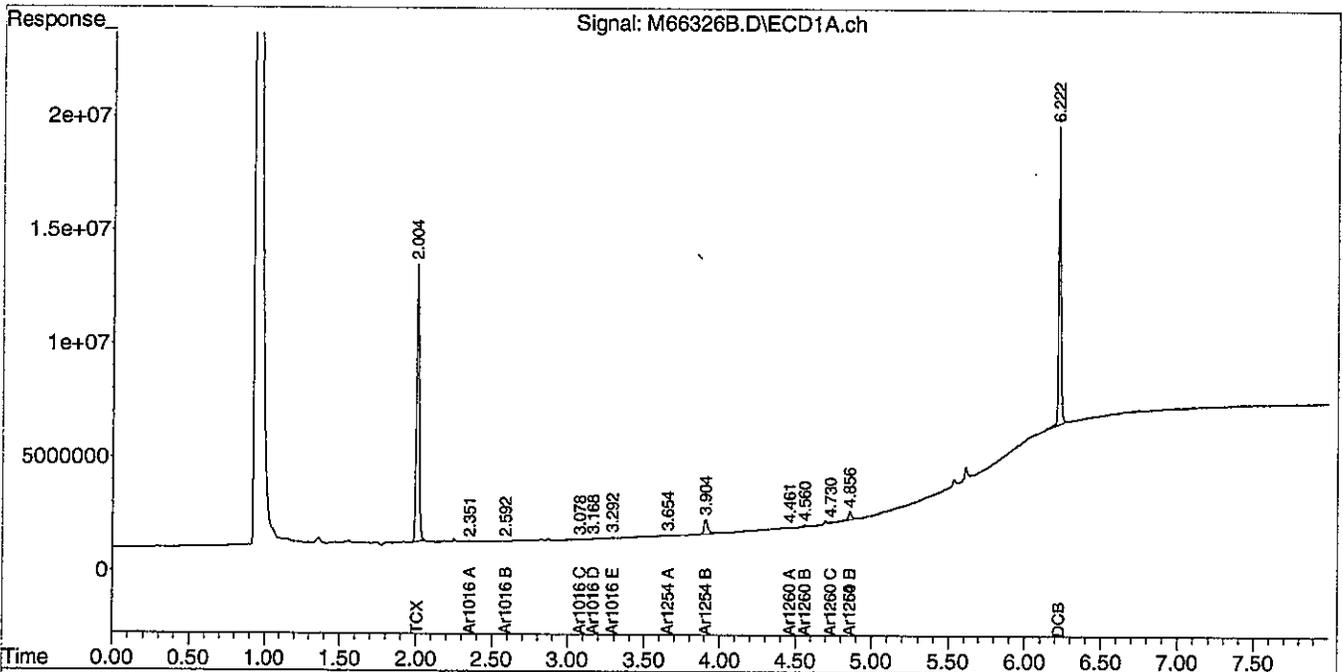
**COMMENTS:** Results are expressed on a dry weight basis.



Data Path : C:\msdchem\1\DATA\013013-M\  
 Data File : M66326B.D  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 30 Jan 2013 10:38 am  
 Operator : JK  
 Sample : B012813PSOX,RR,,A/C  
 Misc : SOIL  
 ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Feb 05 12:14:47 2013  
 Quant Method : C:\msdchem\1\METHODS\PCB122612.M  
 Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
 QLast Update : Tue Feb 05 12:14:29 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 2 uL  
 Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
 Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um







PCB WIPE  
 LABORATORY CONTROL/LABORATORY CONTROL DUPLICATE  
 PERCENT RECOVERY

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG:

Non-spiked sample: B012413PSOX2,,A/C

Spike: L012413PSOX2,,A/C

Spike duplicate: LD012413PSOX2,,A/C

COMPOUND	LCS SPIKE	LCS D SPIKE	LOWER	UPPER	RPD	NON-SPIKE	SPIKE	SPIKE	SPIKE DUP	SPIKE DUP		
	ADDED (ug/wipe)	ADDED (ug/wipe)	LIMIT	LIMIT	LIMIT	RESULT (ug/wipe)	RESULT (ug/wipe)	% REC	#	RESULT (ug/wipe)	% REC	#
PCB 1016	2.0	2.0	65	140	30	0.0	2.0	100		1.9	93	7.6
PCB 1260	2.0	2.0	60	130	30	0.0	2.1	106		1.6	81	27.4
PCB 1016 #2	2.0	2.0	65	140	30	0.0	2.3	117		2.0	98	17.4
PCB 1260 #2	2.0	2.0	60	130	30	0.0	2.4	119		2.1	105	11.7

# Column to be used to flag recovery and RPD values outside of QC limits

\* Values outside QC limits

LCS/LCSD spike added values have been weight adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: \_\_\_\_\_  
 \_\_\_\_\_

PCB SOIL  
LABORATORY CONTROL SAMPLE/DUPLICATE  
PERCENT RECOVERY

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG:

Non-spiked sample: B012813PSOX,RR,,A/C

Spike: L012813PSOX,RR,,A/C

Spike duplicate: LD012813PSOX,RR,,A/C

COMPOUND	LCS SPIKE	LCSD SPIKE	LOWER	UPPER	RPD	NON-SPIKE	SPIKE	SPIKE		SPIKE DUP		SPIKE DUP		RPD	
	ADDED (ug/kg)	ADDED (ug/kg)	LIMIT	LIMIT	LIMIT	RESULT (ug/kg)	RESULT (ug/kg)	% REC	#	RESULT (ug/kg)	% REC	#	RPD	#	
PCB 1016	200	200	65	140	30	0	169	85		173	87		2.4		
PCB 1260	200	200	60	130	30	0	168	84		171	86		2.3		
PCB 1016 #2	200	200	65	140	30	0	166	83		177	88		6.4		
PCB 1260 #2	200	200	60	130	30	0	203	102		207	103		1.8		

# Column to be used to flag recovery and RPD values outside of QC limits

\* Values outside QC limits

LCS/LCSD spike added values have been weight adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: \_\_\_\_\_  
\_\_\_\_\_

METALS  
DATA SUMMARIES



Client: Ransom Consulting, Inc.  
Project name: MILL DAM  
Project NO: 111.06134.017

Sample ID: SB102-S3-012213

Report Date: 01/29/2013

SDG ID: 74728  
Lab ID: 74728-2  
Date Sampled: 01/22/13  
Date Received: 01/24/13  
Matrix: Solid  
% Solid: 69  
Method: 6010C  
Preparation: 3050B

### Metals Results

Analyte	Result	Qual	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Arsenic (Total)	120		mg/Kg	0.59	1.2	01/28/13	01/29/13	TD	1.00
Cadmium (Total)	U		mg/Kg	0.29	0.59	01/28/13	01/29/13	TD	1.00
Chromium (Total)	33		mg/Kg	0.44	0.88	01/28/13	01/29/13	TD	1.00
Lead (Total)	19		mg/Kg	0.15	0.29	01/28/13	01/29/13	TD	1.00

Qualifier Description: U = Undetected B = Detected in Blank J = Estimated Value E = Exceeds Calibration Range

Comments:

Method Description: EPA Method 6010C Inductively Coupled Plasma - Atomic Emissions Spectrometry, Revision 3 February 2007.  
Preparation: SW-846 3050B



Client: Ransom Consulting, Inc.  
Project name: MILL DAM  
Project NO: 111.06134.017

Sample ID: SB10X-S3-012213

**Report Date: 01/29/2013**

SDG ID: 74728  
Lab ID: 74728-3  
Date Sampled: 01/22/13  
Date Received: 01/24/13  
Matrix: Solid  
% Solid: 65  
Method: 6010C  
Preparation: 3050B

### Metals Results

Analyte	Result	Qual	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Arsenic (Total)	28		mg/Kg	0.74	1.5	01/28/13	01/29/13	TD	1.00
Cadmium (Total)	U		mg/Kg	0.37	0.74	01/28/13	01/29/13	TD	1.00
Chromium (Total)	41		mg/Kg	0.55	1.1	01/28/13	01/29/13	TD	1.00
Lead (Total)	18		mg/Kg	0.18	0.37	01/28/13	01/29/13	TD	1.00

Qualifier Description: U = Undetected B = Detected in Blank J = Estimated Value E = Exceeds Calibration Range

Comments:

Method Description: EPA Method 6010C Inductively Coupled Plasma - Atomic Emissions Spectrometry, Revision 3 February 2007.  
Preparation: SW-846 3050B

Client: Ransom Consulting, Inc.  
Project name: MILL DAM  
Project NO: 111.06134.017

Sample ID: SB106-S1-012213

**Report Date: 01/29/2013**

SDG ID: 74728  
Lab ID: 74728-4  
Date Sampled: 01/22/13  
Date Received: 01/24/13  
Matrix: Solid  
% Solid: 78  
Method: 6010C  
Preparation: 3050B

### Metals Results

Analyte	Result	Qual	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Arsenic (Total)	22		mg/Kg	0.58	1.2	01/28/13	01/29/13	TD	1.00
Cadmium (Total)	0.98		mg/Kg	0.29	0.58	01/28/13	01/29/13	TD	1.00
Chromium (Total)	36		mg/Kg	0.43	0.87	01/28/13	01/29/13	TD	1.00
Lead (Total)	733		mg/Kg	0.14	0.29	01/28/13	01/29/13	TD	1.00

Qualifier Description: U = Undetected B = Detected in Blank J = Estimated Value E = Exceeds Calibration Range

Comments:

Method Description: EPA Method 6010C Inductively Coupled Plasma - Atomic Emissions Spectrometry, Revision 3 February 2007.  
Preparation: SW-846 3050B

Client: Ransom Consulting, Inc.  
Project name: MILL DAM  
Project NO: 111.06134.017

Sample ID: SB107-S2-012213

**Report Date: 01/29/2013**

SDG ID: 74728  
Lab ID: 74728-5  
Date Sampled: 01/22/13  
Date Received: 01/24/13  
Matrix: Solid  
% Solid: 80  
Method: 6010C  
Preparation: 3050B

### Metals Results

Analyte	Result	Qual	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Arsenic (Total)	55*		mg/Kg	0.56	1.1	01/28/13	01/29/13	TD	1.00
Cadmium (Total)	0.28	J	mg/Kg	0.28	0.56	01/28/13	01/29/13	TD	1.00
Chromium (Total)	33		mg/Kg	0.42	0.84	01/28/13	01/29/13	TD	1.00
Lead (Total)	340		mg/Kg	0.14	0.28	01/28/13	01/29/13	TD	1.00

Qualifier Description: U = Undetected B = Detected in Blank J = Estimated Value E = Exceeds Calibration Range

Comments: \*Arsenic had a low recovery in the Matrix Spike and a high RPD in the Matrix Duplicate. Both the RPD and the recovery were in control in the Laboratory Control Spike and Duplicate.

Method Description: EPA Method 6010C Inductively Coupled Plasma - Atomic Emissions Spectrometry, Revision 3 February 2007.  
Preparation: SW-846 3050B

Client: Ransom Consulting, Inc.  
Project name: MILL DAM  
Project NO: 111.06134.017

Sample ID: SB105-S1-012213

**Report Date: 01/30/2013**

SDG ID: 74728  
Lab ID: 74728-8  
Date Sampled: 01/22/13  
Date Received: 01/24/13  
Matrix: Solid  
% Solid: 80  
Method: 6010C  
Preparation: 3050B

### Metals Results

Analyte	Result	Qual	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Arsenic (Total)	24		mg/Kg	0.63	1.3	01/29/13	01/30/13	TD	1.00
Cadmium (Total)	U		mg/Kg	0.31	0.63	01/29/13	01/30/13	TD	1.00
Chromium (Total)	34		mg/Kg	0.47	0.94	01/29/13	01/30/13	TD	1.00
Lead (Total)	183		mg/Kg	0.16	0.31	01/29/13	01/30/13	TD	1.00

Qualifier Description: U = Undetected B = Detected in Blank J = Estimated Value E = Exceeds Calibration Range

Comments:

Method Description: EPA Method 6010C Inductively Coupled Plasma - Atomic Emissions Spectrometry, Revision 3 February 2007.  
Preparation: SW-846 3050B

Client: Ransom Consulting, Inc.  
 Project name: MILL DAM  
 Project NO: 111.06134.017

Sample ID: BK1

**Report Date: 01/30/2013**

SDG ID: 74728  
 Lab ID: 74728-9  
 Date Sampled: 01/22/13  
 Date Received: 01/24/13  
 Matrix: Solid  
 % Solid: 59  
 Method: 6010C  
 Preparation: 3050B

**Metals Results**

Analyte	Result	Qual	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Arsenic (Total)	22		mg/Kg	0.71	1.4	01/29/13	01/30/13	TD	1.00
Cadmium (Total)	U		mg/Kg	0.35	0.71	01/29/13	01/30/13	TD	1.00
Chromium (Total)	22		mg/Kg	0.53	1.1	01/29/13	01/30/13	TD	1.00
Lead (Total)	38		mg/Kg	0.18	0.35	01/29/13	01/30/13	TD	1.00

Qualifier Description: U = Undetected B = Detected in Blank J = Estimated Value E = Exceeds Calibration Range

Comments:

Method Description: EPA Method 6010C Inductively Coupled Plasma - Atomic Emissions Spectrometry, Revision 3 February 2007.  
 Preparation: SW-846 3050B



Client: Ransom Consulting, Inc.  
Project name: MILL DAM  
Project NO: 111.06134.017

Sample ID: BK2

**Report Date: 01/30/2013**

SDG ID: 74728  
Lab ID: 74728-10  
Date Sampled: 01/22/13  
Date Received: 01/24/13  
Matrix: Solid  
% Solid: 61  
Method: 6010C  
Preparation: 3050B

### Metals Results

Analyte	Result	Qual	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Arsenic (Total)	44		mg/Kg	0.8	1.6	01/29/13	01/30/13	TD	1.00
Cadmium (Total)	U		mg/Kg	0.4	0.8	01/29/13	01/30/13	TD	1.00
Chromium (Total)	33		mg/Kg	0.6	1.2	01/29/13	01/30/13	TD	1.00
Lead (Total)	32		mg/Kg	0.2	0.4	01/29/13	01/30/13	TD	1.00

Qualifier Description: U = Undetected B = Detected in Blank J = Estimated Value E = Exceeds Calibration Range

Comments:

Method Description: EPA Method 6010C Inductively Coupled Plasma - Atomic Emissions Spectrometry, Revision 3 February 2007.  
Preparation: SW-846 3050B



Client: Ransom Consulting, Inc.  
Project name: MILL DAM  
Project NO: 111.06134.017

Sample ID: MW102

Report Date: 01/28/2013

SDG ID: 74728  
Lab ID: 74728-12  
Date Sampled: 01/22/13  
Date Received: 01/24/13  
Matrix: Aqueous  
% Solid: NA  
Method: 6010C  
Preparation: 3005A

### Metals Results

Analyte	Result	Qual	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Arsenic (Total)	0.004	J	mg/L	0.004	0.008	01/25/13	01/28/13	TD	1.00
Cadmium (Total)	U		mg/L	0.002	0.003	01/25/13	01/28/13	TD	1.00
Chromium (Total)	U		mg/L	0.008	0.015	01/25/13	01/28/13	TD	1.00
Lead (Total)	U		mg/L	0.003	0.005	01/25/13	01/28/13	TD	1.00

Qualifier Description: U = Undetected B = Detected in Blank J = Estimated Value E = Exceeds Calibration Range

Comments:

Method Description: EPA Method 6010C Inductively Coupled Plasma - Atomic Emissions Spectrometry, Revision 3 February 2007.  
Preparation: SW-846 Method 3005A

Client: Ransom Consulting, Inc.  
 Project name: MILL DAM  
 Project NO: 111.06134.017

Sample ID: MW103

**Report Date: 01/28/2013**

SDG ID: 74728  
 Lab ID: 74728-13  
 Date Sampled: 01/22/13  
 Date Received: 01/24/13  
 Matrix: Aqueous  
 % Solid: NA  
 Method: 6010C  
 Preparation: 3005A

### Metals Results

Analyte	Result	Qual	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Arsenic (Total)	0.018		mg/L	0.004	0.008	01/25/13	01/28/13	TD	1.00
Cadmium (Total)	U		mg/L	0.002	0.003	01/25/13	01/28/13	TD	1.00
Chromium (Total)	U		mg/L	0.008	0.015	01/25/13	01/28/13	TD	1.00
Lead (Total)	U		mg/L	0.003	0.005	01/25/13	01/28/13	TD	1.00

Qualifier Description: U = Undetected B = Detected in Blank J = Estimated Value E = Exceeds Calibration Range

Comments:

Method Description: EPA Method 6010C Inductively Coupled Plasma - Atomic Emissions Spectrometry, Revision 3 February 2007.  
 Preparation: SW-846 Method 3005A

Client: Ransom Consulting, Inc.  
Project name: MILL DAM  
Project NO: 111.06134.017

Sample ID: MW10X

**Report Date: 01/28/2013**

SDG ID: 74728  
Lab ID: 74728-14  
Date Sampled: 01/22/13  
Date Received: 01/24/13  
Matrix: Aqueous  
% Solid: NA  
Method: 6010C  
Preparation: 3005A

### Metals Results

Analyte	Result	Qual	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Arsenic (Total)	U		mg/L	0.004	0.008	01/25/13	01/28/13	TD	1.00
Cadmium (Total)	U		mg/L	0.002	0.003	01/25/13	01/28/13	TD	1.00
Chromium (Total)	U		mg/L	0.008	0.015	01/25/13	01/28/13	TD	1.00
Lead (Total)	U		mg/L	0.003	0.005	01/25/13	01/28/13	TD	1.00

Qualifier Description: U = Undetected B = Detected in Blank J = Estimated Value E = Exceeds Calibration Range

Comments:

Method Description: EPA Method 6010C Inductively Coupled Plasma - Atomic Emissions Spectrometry, Revision 3 February 2007.  
Preparation: SW-846 Method 3005A

METALS  
QC FORMS

Client: Ransom Consulting, Inc.  
Project name: MILL DAM  
Project NO: 111.06134.017

Sample ID: Lab QC

**Report Date: 01/28/2013**

SDG ID: 74728  
Lab ID: B012513MW  
Date Sampled: NA  
Date Received: NA  
Matrix: Aqueous  
% Solid: NA  
Method: 6010C  
Preparation: 3005A

### Metals Results

Analyte	Result	Qual	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Arsenic (Total)	U		mg/L	0.004	0.008	01/25/13	01/28/13	TD	1.00
Cadmium (Total)	U		mg/L	0.002	0.003	01/25/13	01/28/13	TD	1.00
Chromium (Total)	U		mg/L	0.008	0.015	01/25/13	01/28/13	TD	1.00
Lead (Total)	U		mg/L	0.003	0.005	01/25/13	01/28/13	TD	1.00

Qualifier Description: U = Undetected B = Detected in Blank J = Estimated Value E = Exceeds Calibration Range

Comments:

Method Description: EPA Method 6010C Inductively Coupled Plasma - Atomic Emissions Spectrometry, Revision 3 February 2007.  
Preparation: SW-846 Method 3005A

Client: Ransom Consulting, Inc.  
Project name: Whittings Axe Factory  
Project NO: 111.06134.019

Sample ID: Lab QC

**Report Date: 01/29/2013**

SDG ID: 74727  
Lab ID: B012813MS  
Date Sampled: NA  
Date Received: NA  
Matrix: Solid  
% Solid: 100  
Method: 6010C  
Preparation: 3050B

### Metals Results

Analyte	Result	Qual	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Arsenic (Total)	U		mg/Kg	0.5	1	01/28/13	01/29/13	TD	1.00
Cadmium (Total)	U		mg/Kg	0.25	0.5	01/28/13	01/29/13	TD	1.00
Chromium (Total)	U		mg/Kg	0.38	0.75	01/28/13	01/29/13	TD	1.00
Lead (Total)	U		mg/Kg	0.13	0.25	01/28/13	01/29/13	TD	1.00

Qualifier Description: U = Undetected B = Detected in Blank J = Estimated Value E = Exceeds Calibration Range

Comments:

Method Description: EPA Method 6010C Inductively Coupled Plasma - Atomic Emissions Spectrometry, Revision 3 February 2007.  
Preparation: SW-846 3050B

Client: Ransom Consulting, Inc.  
Project name: MILL DAM  
Project NO: 111.06134.017

Sample ID: Lab QC

**Report Date: 01/30/2013**

SDG ID: 74728  
Lab ID: B012913MS  
Date Sampled: NA  
Date Received: NA  
Matrix: Solid  
% Solid: 100  
Method: 6010C  
Preparation: 3050B

### Metals Results

Analyte	Result	Qual	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Arsenic (Total)	U		mg/Kg	0.5	1	01/29/13	01/30/13	TD	1.00
Cadmium (Total)	U		mg/Kg	0.25	0.5	01/29/13	01/30/13	TD	1.00
Chromium (Total)	U		mg/Kg	0.38	0.75	01/29/13	01/30/13	TD	1.00
Lead (Total)	U		mg/Kg	0.13	0.25	01/29/13	01/30/13	TD	1.00

Qualifier Description: U = Undetected B = Detected in Blank J = Estimated Value E = Exceeds Calibration Range

Comments:

Method Description: EPA Method 6010C Inductively Coupled Plasma - Atomic Emissions Spectrometry, Revision 3 February 2007.  
Preparation: SW-846 3050B

7-IN  
Metals  
Laboratory Control Sample  
Laboratory Control Sample Duplicate  
Percent Recovery

Method: 6010C  
Matrix: Aqueous  
Date Analyzed: 1/28/2013

SDG: 74728  
Non-spiked Sample B012513MW  
Spike: L012513MW  
Spike Duplicate: LD012513MW

Analyte	Spike added	LCS Result	Unit	% Rec	% Rec Limits
Arsenic	0.5	0.5132	mg/L	103%	80-120
Cadmium	0.5	0.4925	mg/L	99%	80-120
Chromium	0.5	0.5001	mg/L	100%	80-120
Lead	0.5	0.4946	mg/L	99%	80-120

Analyte	Spike added	LCSD Result	Unit	% Rec	% Rec Limits	RPD	RPD Limit
Arsenic	0.5	0.5203	mg/L	104%	80-120	1%	20
Cadmium	0.5	0.4947	mg/L	99%	80-120	0%	20
Chromium	0.5	0.5016	mg/L	100%	80-120	0%	20
Lead	0.5	0.5034	mg/L	101%	80-120	2%	20

7-IN  
Metals  
Laboratory Control Sample  
Laboratory Control Sample Duplicate  
Percent Recovery

Method: 6010C  
Matrix: Solid  
Date Analyzed: 1/29/2013

SDG: 74728  
Non-spiked Sample B012813MS  
Spike: L012813MS  
Spike Duplicate: LD012813MS

Analyte	Spike added	LCS Result	Unit	% Rec	Low Limit	High Limit
Arsenic	71.7	64.1	mg/kg	89%	12	131
Cadmium	44.4	37.6	mg/kg	85%	32.4	64.2
Chromium	39	36.4	mg/kg	93%	25.6	55.4
Lead	46.9	39.4	mg/kg	84%	29.4	64.4

Analyte	Spike added	LCSD Result	Unit	% Rec	Low Limit	High Limit	RPD	RPD Limit
Arsenic	71.7	67.5	mg/kg	94%	12	131	5%	20
Cadmium	44.4	40.8	mg/kg	92%	32.4	64.2	8%	20
Chromium	39	39.6	mg/kg	101%	25.6	55.4	8%	20
Lead	46.9	42.1	mg/kg	90%	29.4	64.4	7%	20

5A-IN  
Metals  
Matrix Spike  
Percent Recovery

Method: 6010C  
Matrix: Solid  
Date Analyzed: 1/28/2013

SDG: 74728  
Non-spiked Sample 74728-5  
Spike: 74728-5 MS

Analyte	Sample Result	Spike added	MS Result	MS Qualifier	Unit	% Rec	% Rec Limits
Arsenic	55.26	25	62.97	*	mg/kg	31%	75-125
Cadmium	0.28	25	28.09		mg/kg	111%	75-125
Chromium	32.52	25	60.66		mg/kg	113%	75-125
Lead	339.57	25	365.13		mg/kg	102%	75-125

6-IN  
Metals  
Sample/ Duplicate  
RPD

Method: 6010C  
Matrix: Solid  
Date Analyzed: 1/28/2013

SDG: 74728  
Sample 74728-5  
Duplicate 74728-5 DUP

Analyte	Sample mg/kg	Sample Duplicate mg/kg	% RPD	RPD Limit 20%
Arsenic	55.27	34.01	48%	*
Cadmium	0.28	0.34	0%	
Chromium	32.52	31.53	3%	
Lead	339.58	321.14	6%	

7-IN  
Metals  
Laboratory Control Sample  
Laboratory Control Sample Duplicate  
Percent Recovery

Method: 6010C  
Matrix: Solid  
Date Analyzed: 1/30/2013

SDG: 74728  
Non-spiked Sample B012913MS  
Spike: L012913MS  
Spike Duplicate: LD012913MS

Analyte	Spike added	LCS Result	Unit	% Rec	Low Limit	High Limit
Arsenic	71.7	63.6	mg/kg	89%	12	131
Cadmium	44.4	39.8	mg/kg	90%	32.4	64.2
Chromium	39	37.4	mg/kg	96%	25.6	55.4
Lead	46.9	40.2	mg/kg	86%	29.4	64.4

Analyte	Spike added	LCS Result	Unit	% Rec	Low Limit	High Limit	RPD	RPD Limit
Arsenic	71.7	66.9	mg/kg	93%	12	131	5%	20
Cadmium	44.4	42.0	mg/kg	95%	32.4	64.2	5%	20
Chromium	39	39.9	mg/kg	102%	25.6	55.4	6%	20
Lead	46.9	42.4	mg/kg	90%	29.4	64.4	5%	20

## CHAIN OF CUSTODIES



# Chain Of Custody Form

For Analytics Use Only

Samples were: 1-2

1) Shipped or hand-delivered

2) Temperature (°C): 1-2

3) Received in good condition: Y or N

4) pH checked by: SB 1/24/13

5) Labels checked by: CEJ 1/24/13

195 Commerce Way, Suite E  
 Portsmouth, NH 03801  
 (603) 436-5111  
 (603) 430-2151 Fax  
 (800) 929-9906

environmental laboratory LLC

Project Name: MILL DAM

Project#: 11.06134.017

Company: Ransom Consulting

Report to: Erik Phenix / Peter Sheer

Address: 400 Commercial St., Suite 401

Portland, ME 04101

Phone: 207-772-2891

Quote #:

PO# (if required): 4974

Sample Identification	Sample Date	Sample Time	Field Filtered? Y or N	Circle and/or Write Required Analysis Followed by Preservation Code										Matrix	No. of Containers checked	pH checked	Analytics Sample #		
				VOC: 8260	SVC: 8270	Pesticides: 8081	PCB: 8082	TPH: 8015	TPH: 8015	EPA: Full or Ranges only	VPH: Full or Ranges only	Metals: RCRA8 Pp3 TAL23 Other**	TPH: 8015 (Diesel Range)					TPH: 8015 (Gas Range)	TPH: 8015 (Soxhlet? Y or N)
MW101	1/22/13	1350	Y	X										X			GW	1.5	74728-11
MW102	1/22/13	1500	Y	X										X			GW	1.5/1.5	-12
MW103	1/22/13	1600	Y	X										X			GW	1.5/1.5	-13
MW10X	1/22/13	1500	Y	X										X			GW	1.5/1.5	-14
CS101	1/22/13	1015						X									S	2	-15
CS102	1/22/13	1050						X									S	2	-16
CS103	1/22/13	1100						X									S	2	-17

Matrix Key:  
 C = Concrete  
 WP = Wipe  
 WW = Wastewater  
 SW = Surface Water  
 E = Extract  
 GW = Groundwater  
 DW = Drinking Water  
 S = Soil / Sludge  
 O = Oil  
 X = Other

Report Type:  
 MCP\*  
 Level II\*  
 CTRCP\*  
 Level III\*  
 DOD\*  
 Level IV\*  
 Standard

State:  
 NH  
 MA  
 ME  
 CT  
 RI  
 Other:

State Standard:  
MEDEP MDES  
 (eg. S-1 or GW-1)  
 EDD Required: Y N  
 Type: MEDEP

Project Requirements:  
 \*Fee may apply

Comments, Additional Analyses, or Special Instructions:  
MEDEP/USEPA Brownfields Project  
Metals: Please analyze for Arsenic (As), Cadmium (Cd), Chromium (Cr) - Lead (Pb) only.  
 \*\* List requested metals here

Email Results to:  
ephenix@ransomconsulting.com  
peter.sheer@ransomconsulting.com

Turnaround Time (TAT)  
 1 Day\*  
 3 Days\*  
 5 Days  
 Standard (6-10 business days)  
 \*Fee may apply; lab approval required

Sampler Name (Print): Ransom Martin

Relinquished By Sampler: [Signature]

Relinquished By: [Signature]

Relinquished By: [Signature]

Date: 1/24/13 Time: 9:50 Received By: [Signature]

Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_

Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_



ANALYTICS SAMPLE RECEIPT CHECKLIST

AEL LAB#: 74728  
 CLIENT: Ransom  
 PROJECT: Mill Dam

COOLER NUMBER: 98E306E25  
 NUMBER OF COOLERS: 3

**A: PRELIMINARY EXAMINATION:**

1. Cooler received by (initials): KS DATE COOLER RECEIVED/OPENED: 1/24/13
2. Circle one: Hand delivered (If so, skip 3) Shipped
3. Did cooler come with a shipping slip? Y NA
- 3a. Enter carrier name and airbill number here: \_\_\_\_\_
4. Were custody seals on the outside of cooler? Y N  
 How many & where: \_\_\_\_\_ Seal Date: \_\_\_\_\_ Seal Name: \_\_\_\_\_
5. Did the custody seals arrive unbroken and intact upon arrival? Y NA
6. COC#: \_\_\_\_\_
7. Were Custody papers filled out properly (ink, signed, legible, project information etc)? Y N
8. Were custody papers sealed in a plastic bag? Y N
9. Did you sign the COC in the appropriate place? Y N
10. Was enough ice used to chill the cooler? Y N Temp. of cooler: 1-2°C

**B. Log-In:** Date samples were logged in: 1/24/13 By: KB

11. Were all bottles sealed in separate plastic bags? Y N
12. Did all bottles arrive unbroken and were labels in good condition? Y N
13. Were all bottle labels complete (ID, Date, time, etc.)? Y N
14. Did all bottle labels agree with custody papers? Y N
15. Were the correct containers used for the tests indicated? Y N
16. Were samples received at the correct pH? Y N
17. Was sufficient amount of sample sent for the tests indicated? Y N
18. Were all samples submitted within holding time? Y N
19. Were all containers used within AEL's expiration date? Y N
20. Were VOA samples absent of greater than pea-sized bubbles? Y N\*

(Note: Pea-sized bubbles or smaller are acceptable and are not considered to adversely affect volatiles data.)

\*If NO, List Sample ID's, Lab #s: 1 vial for MW101 had larger than pea sized bubble

When bubbles are present in VOA samples they are labelled from smallest (or no bubbles) to largest. Lab to analyze VOA samples with no bubbles or smallest bubbles first

20. Laboratory labeling verified by (initials): KB Date: 01/24/13

\*\*The expiration date is recommended by Analytics Environmental Laboratory and not the method. Therefore this does not mean that the results are non-compliant.

February 15, 2013

Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

**RE: Analytical Results Case Narrative  
Mason Dam/Mill Dam  
Project No: 111.06134.018/.017  
Analytics #74824**

Dear Mr. Phenix:

Enclosed please find the analytical report for samples collected from the above-mentioned project. The attached Cover Page lists the sample IDs, Lab tracking numbers and collection dates for the samples included in this deliverable.

Samples were analyzed TCLP Lead using EPA Methods 1311/6010C

Unless otherwise noted in the Non-conformance Summary listed below, all of the quality control (QC) criteria including initial calibration, calibration verification, surrogate recovery, holding time and method accuracy/precision for these analyses were within acceptable limits.

This Level II package has been assembled in the following order:

- Case Narrative/Non-Conformance Summary
- Sample Log Sheet - Cover Page
- Metals Form I Data Sheet
- Metals Blank Summaries & Form 3 MS/MSD (LCS) Recoveries
- Chain of Custody (COC) Forms
- Sample Receipt Checklist

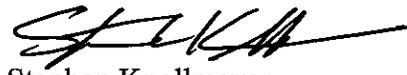
**QC NON-CONFORMANCE SUMMARY**

**Sample Receipt:**  
No discrepancies.

**TCLP Lead by EPA Method 6010C:**  
No QC deviations.

If you have any questions or I can be of further assistance please do not hesitate to contact me.

Sincerely,  
ANALYTICS Environmental Laboratory, LLC



Stephen Knollmeyer  
Laboratory Director

Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

**Report Number: 74824**

**Revision: Rev. 0**

**Re: Mason Dam/Mill Dam (Project No: 111.06134.018/.017)**

Enclosed are the results of the analyses on your sample(s). Samples were received on 24 January 2013 and analyzed for the tests listed. Samples were received in acceptable condition, with the exceptions noted below or on the chain of custody. These results pertain to samples as received by the laboratory and for the analytical tests requested on the chain of custody. The results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. Please see individual reports for specific methodologies and references.

<u>Lab Number</u>	<u>Sample Date</u>	<u>Station Location</u>	<u>Analysis</u>	<u>Comments</u>
74824-1	01/21/13	SB103-S1-012113	TCLP Extraction	
	01/21/13	SB103-S1-012113	TCLP RCRA Metals	
74824-2	01/22/13	SB106-S1-012213	Electronic Data Deliverable	
	01/22/13	SB106-S1-012213	TCLP Extraction	
	01/22/13	SB106-S1-012213	TCLP RCRA Metals	

**Sample Receipt Exceptions:** None

Analytics Environmental Laboratory is certified by the states of New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, Virginia, Maryland, and North Carolina, and is accredited by the Department of Defense (DOD) ELAP program. A list of actual certified parameters is available upon request.

If you have any questions on these results, please do not hesitate to contact us.

Authorized signature   
Stephen L. Knollmeyer Lab. Director

Date 2/15/2013

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METALS  
DATA SUMMARIES

Client: Ransom Consulting, Inc.  
 Project name: Mason Dam/Mill Dam  
 Project NO: 111.06134.018/.017

Sample ID: SB106-S1-012213

**Report Date: 02/15/2013**

SDG ID: 74824  
 Lab ID: 74824-2  
 Date Sampled: 01/22/13  
 Date Received: 01/24/13  
 Matrix: Aqueous  
 % Solid: NA  
 Method: 6010C  
 Preparation: 3005A

**TCLP Metals Results**

Analyte	Result	Qual	Regulatory Limits	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Lead (TCLP)	2.8		5	mg/L	0.025	0.05	02/13/13	02/14/13	TD	1.00

Qualifier Description: U = Undetected B = Detected in Blank J = Estimated Value E = Exceeds Calibration Range

Comments: TCLP extraction date: 02/12/13

Method Description: EPA Method 6010C Inductively Coupled Plasma - Atomic Emissions Spectrometry, Revision 3 February 2007.  
 Preparation: SW-846 Method 3005A  
 TCLP sample extraction was performed according to "Test Methods for Evaluating Solid Waste, SW-846 Method 1311."

METALS  
QC FORMS

Client: Ransom Consulting, Inc.  
Project name: Mason Dam/Mill Dam  
Project NO: 111.06134.018/.017

Sample ID: Lab QC

**Report Date: 02/15/2013**

SDG ID: 74824  
Lab ID: B021313MW  
Date Sampled: NA  
Date Received: NA  
Matrix: Aqueous  
% Solid: NA  
Method: 6010C  
Preparation: 3005A

### Metals Results

Analyte	Result	Qual	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Lead (Total)	U		mg/L	0.025	0.05	02/13/13	02/14/13	TD	1.00

Qualifier Description: U = Undetected B = Detected in Blank J = Estimated Value E = Exceeds Calibration Range

Comments:

Method Description: EPA Method 6010C Inductively Coupled Plasma - Atomic Emissions Spectrometry, Revision 3 February 2007.  
Preparation: SW-846 Method 3005A

7-IN  
Metals  
Laboratory Control Sample  
Laboratory Control Sample Duplicate  
Percent Recovery

Method: 6010C  
Matrix: Aqueous  
Date Analyzed: 2/14/2013

SDG: 74824  
Non-spiked Sample B021313MS  
Spike: L021313MS  
Spike Duplicate: LD021313MS

Analyte	Spike added	LCS Result	Unit	% Rec	% Rec Limits
Lead	0.5	0.5223	mg/L	104%	80-120

Analyte	Spike added	LCSD Result	Unit	% Rec	% Rec Limits	RPD	RPD Limit
Lead	0.5	0.5187	mg/L	104%	80-120	1%	20

5A-IN  
Metals  
Matrix Spike/Duplicate  
Percent Recovery

Method: 6010C  
Matrix: Aqueous  
Date Analyzed: 2/14/2013

SDG: 74824-1  
Non-spiked Sample 74824-1  
Spike: 74824-1 MS  
Spike Duplicate: 74824-1 MSD

Analyte	Sample Result	Spike added	MS Result	MS Qualifier	Unit	% Rec	% Rec Limits
Lead	0.0229	0.5	0.5301		mg/L	101%	80-120

Analyte	Sample Result	Spike added	MSD Result	MSD Qualifier	Unit	% Rec	% Rec Limits	RPD	RPD Limit
Lead	0.0229	0.5	0.5293		mg/L	101%	80-120	0%	20

## CHAIN OF CUSTODIES

# Chain Of Custody Form



environmental laboratory LLC

195 Commerce Way, Suite E  
 Portsmouth, NH 03801  
 (603) 436-5111  
 (603) 430-2151 Fax  
 (800) 929-9906

Project Name: MILL DAM

Project#: 11-06134-017

Company: Rainco Consulting

Report to: Enke Phoenix/Pete Steer

Address: 400 Commerce St, Suite 404

Portsmouth, ME 04101

Phone: 207-772-2891

Quote #: \_\_\_\_\_

PO# (if required): 4974

Circle and/or Write Required Analysis Followed by Preservation Code  
 Please fill in preservation code here

Preservation Key:  
 A= HCL  
 B= 4 C  
 C= Unpres  
 D= MeOH  
 E= HNO3  
 F= H2SO4  
 G= Hexane  
 H= Other

Field Filtered? Y or N

VOC: 8250 5242 624

SVOC: 8270 625 PAH only SIM

Pesticides: 8081 608

PCB: 8082 608 Soxhlet? Y or N

TPH: 8015 (Gas Range) ME4217

TPH: 8015 (Diesel Range) 8100M ME4125

EPA: Full or Ranges only TETPH

(VPH): Full or Ranges only

Metals: RCRA8 P13 TAL23 Other\*\*

VPH Fall

TEL P9\*

Sample Identification	Sample Date	Sample Time	Field Filtered? Y or N	VOC: 8250 5242 624	SVOC: 8270 625 PAH only SIM	Pesticides: 8081 608	PCB: 8082 608 Soxhlet? Y or N	TPH: 8015 (Gas Range) ME4217	TPH: 8015 (Diesel Range) 8100M ME4125	EPA: Full or Ranges only TETPH	(VPH): Full or Ranges only	Metals: RCRA8 P13 TAL23 Other**	Preservation Code	Matrix	No. of Containers	pH checked	Analytix Sample #
<del>SB101-S1-012213</del>	<del>1/22/13</del>	<del>900</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>S</del>	<del>4</del>	<del></del>	<del>74700</del>	
<del>SB102-S1-012213</del>	<del>1/22/13</del>	<del>1020</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>S</del>	<del>7</del>	<del></del>	<del></del>	
<del>SB103-S1-012213</del>	<del>1/22/13</del>	<del>7000</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>S</del>	<del>7</del>	<del>74824-2</del>	<del></del>	
<del>SB106-S1-012213</del>	<del>1/22/13</del>	<del>1200</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>S</del>	<del>7</del>	<del></del>	<del></del>	
<del>SB107-S1-012213</del>	<del>1/22/13</del>	<del>1130</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>S</del>	<del>7</del>	<del></del>	<del></del>	
<del>SB110-S1-012213</del>	<del>1/22/13</del>	<del>1100</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>S</del>	<del>7</del>	<del></del>	<del></del>	
<del>SB104-S1-012213</del>	<del>1/22/13</del>	<del>1300</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>S</del>	<del>1</del>	<del></del>	<del></del>	
<del>SB105-S1-012213</del>	<del>1/22/13</del>	<del>1330</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>S</del>	<del>5</del>	<del></del>	<del></del>	
<del>BK1</del>	<del>1/22/13</del>	<del>1250</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>S</del>	<del>1</del>	<del></del>	<del></del>	
<del>BK2</del>	<del>1/22/13</del>	<del>1255</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>S</del>	<del>1</del>	<del></del>	<del></del>	

Comments, Additional Analyses, or Special Instructions: MEDEP/US EPA Brownfields Appendix

and reported please write the trip blank on the COC. Trip Blank analyses will be charged unless other arrangements have been made.

MEDEP/US EPA Brownfields Appendix

metals: Please analyze for Arsenic (As), (admin)(Cd)

Chromium (Cr) & Lead (Pb) only

Please note: For volatile analyses, a trip blank has been provided in the cooler. If you want the trip blank run and reported please write the trip blank on the COC. Trip Blank analyses will be charged unless other arrangements have been made.

State Standard: MEDEP R1E5

(eg. S-1 or GW-1)

EDD Required: Y N

Type: MEDEP

Report Type:  MCP\*  Level II\*  Level III\*  Level IV\*  Standard

State:  NH  MA  ME  CT  RI Other: \_\_\_\_\_

Project Requirements: \*Fee may apply

Turnaround Time (TAT)  1 Day\*  2 Days\*  3 Days\*  4 Days\*  5 Days\*  Standard (5-10 business days)

\*Fee may apply; lab approval required

Sampler Name (Print): Aaron Martin

Relinquished By Sampler: Aaron Martin

Relinquished By: Aaron Martin

Relinquished By: \_\_\_\_\_



# Chain Of Custody Form



environmental laboratory LLC

195 Commerce Way, Suite E  
 Portsmouth, NH 03801  
 (800) 929-9906  
 (603) 436-5111  
 (603) 430-2151 Fax

Project Name: MILL DAM  
 Project#: 111,06134-017  
 Company: Ransom Consulting  
 Report to: Erik Phoenix / Peter Sherr  
 Address: 400 Commercial St, Suite 404  
Portland, ME 04101  
 Phone: 207-772-2821  
 Quote #: \_\_\_\_\_  
 PO# (if required): 4974

Preservation Code: \_\_\_\_\_  
 Preservation Key:  
 A = HCL  
 B = 4 C  
 C = Unpres  
 D = MeOH  
 E = HNO3  
 F = H2SO4  
 G = Hexane  
 H = Other

Circle and/or Write Required Analysis Followed by Preservation Code  
 Please fill in preservation code here

For Analytics Use Only  
 Samples were:  
 1) Shipped or hand-delivered: \_\_\_\_\_  
 2) Temperature (°C): 1-20  
 3) Received in good condition: 0 or N  
 4) pH checked by: ALIA  
 5) Labels checked by: kg ok/24/03

Matrix Key:  
 C = Concrete  
 WP = Wipe  
 WW = Wastewater  
 SW = Surface Water  
 E = Extract  
 GW = Groundwater  
 DW = Drinking Water  
 S = Soil / Sludge  
 O = Oil  
 X = Other

Sample Identification	Sample Date	Sample Time	Field Filtered? Y or N	VOC: 8260 524.2 624	SVOC: 8270 625 PAH only SIM	Pesticides: 8081 608	CB: 8082 608 Soxhlet Y or N	TPH: 8015 (Gas Range) ME4217	TPH: 8015 (Diesel Range) 8100M ME4125	EPA: Full or Ranges only TETPH	VPH: Full or Ranges only	Metals: RCRA8 P13 TAL23 Other**
<del>WS101</del>	<del>1/24/13</del>	<del>1430</del>	<del></del>	<del></del>	<del></del>	<del></del>	<del></del>	<del></del>	<del></del>	<del></del>	<del></del>	<del></del>
<del>WS102</del>	<del>1/24/13</del>	<del>1430</del>	<del></del>	<del></del>	<del></del>	<del></del>	<del></del>	<del></del>	<del></del>	<del></del>	<del></del>	<del></del>
<del>WS10X</del>	<del>1/24/13</del>	<del>1500</del>	<del></del>	<del></del>	<del></del>	<del></del>	<del></del>	<del></del>	<del></del>	<del></del>	<del></del>	<del></del>

Comments, Additional Analyses, or Special Instructions:  
MEDEP / USEPA Brownsfields  
 \*\* List requested metals here

Report Type:  
 MCP\*  
 CTCP\*  
 DOD\*  
 Level II\*  
 Level III\*  
 Level IV\*  
 Standard

State:  
 NH  
 MA  
 ME  
 CT  
 RI  
 Other: \_\_\_\_\_

State Standard: MEDEP  
 (eg. S-1 or GW-1)  
 EDD Required: 0 N  
 Type: MEDEP

Turnaround Time (TAT)  
 1 Day\*  
 3 Days\*  
 5 Days\*  
 Standard (6-10 business days)  
 \*Fee may apply, lab approval required

Sampler Name (Print): Aaron Martin  
 Relinquished By Sampler: \_\_\_\_\_  
 Relinquished By: \_\_\_\_\_  
 Relinquished By: \_\_\_\_\_

Date: 1/24/13 Time: 950  
 Received By: \_\_\_\_\_  
 Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Received By: \_\_\_\_\_



environmental laboratory LLC

ANALYTICS SAMPLE RECEIPT CHECKLIST

AEL LAB#: 74824  
74728  
CLIENT: Ransom  
PROJECT: Mill Dam

COOLER NUMBER: 98E306E25  
NUMBER OF COOLERS: 3

A: PRELIMINARY EXAMINATION:

- 1. Cooler received by (initials): KS DATE COOLER RECEIVED/OPENED: 1/24/13
- 2. Circle one:  Hand delivered (If so, skip 3)  Shipped
- 3. Did cooler come with a shipping slip? Y  NA
- 3a. Enter carrier name and airbill number here: \_\_\_\_\_
- 4. Were custody seals on the outside of cooler? Y  N  
How many & where: \_\_\_\_\_ Seal Date: \_\_\_\_\_ Seal Name: \_\_\_\_\_
- 5. Did the custody seals arrive unbroken and intact upon arrival? Y  NA
- 6. COC#: \_\_\_\_\_
- 7. Were Custody papers filled out properly (ink, signed, legible, project information etc)?  Y N
- 8. Were custody papers sealed in a plastic bag?  Y N
- 9. Did you sign the COC in the appropriate place?  Y N
- 10. Was enough ice used to chill the cooler?  Y N Temp. of cooler: 1-2°C

B. Log-In: Date samples were logged in: 1/24/13 By: KB

- 11. Were all bottles sealed in separate plastic bags?  Y N
- 12. Did all bottles arrive unbroken and were labels in good condition?  Y N
- 13. Were all bottle labels complete (ID, Date, time, etc.)  Y N
- 14. Did all bottle labels agree with custody papers?  Y N
- 15. Were the correct containers used for the tests indicated:  Y N
- 16. Were samples received at the correct pH? Y N
- 17. Was sufficient amount of sample sent for the tests indicated?  Y N
- 18. Were all samples submitted within holding time?  Y N
- 19. Were all containers used within AEL's expiration date?  Y N
- 20. Were VOA samples absent of greater than pea-sized bubbles? Y  N\*

(Note: Pea-sized bubbles or smaller are acceptable and are not considered to adversely affect volatiles data.)

\*If NO. List Sample ID's, Lab #s: 1 vial for MW101 had larger than pea sized bubble

When bubbles are present in VOA samples they are labelled from smallest (or no bubbles) to largest. Lab to analyze VOA samples with no bubbles or smallest bubbles first

20. Laboratory labeling verified by (initials): KB Date: 01/24/13

\*\*The expiration date is recommended by Analytics Environmental Laboratory and not the method. Therefore this does not mean that the results are non-compliant.

July 9 2013

Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

**RE: Analytical Results Case Narrative  
Mill Dam  
Project No: 111.06134  
Analytics #75661**

Dear Mr. Phenix:

Enclosed please find the analytical report for samples collected from the above-mentioned project. The attached Cover Page lists the sample IDs, Lab tracking numbers and collection dates for the samples included in this deliverable.

Samples were analyzed for Volatile Petroleum Hydrocarbons (VPH) using MADEP VPH Method 2004 Rev 1.1 and Extractable Petroleum Hydrocarbons (EPH) using MADEP EPH Method 2004 Rev 1.1.

Unless otherwise noted in the Non-conformance Summary listed below, all of the quality control (QC) criteria including initial calibration, calibration verification, surrogate recovery, holding time and method accuracy/precision for these analyses were within acceptable limits.

This Level II package has been assembled in the following order:

- Case Narrative/Non-Conformance Summary
- Sample Log Sheet - Cover Page
- VPH Form I Data Sheet for Samples
  - Chromatograms
- VPH Blank Summaries & Form 3 MS/MSD (LCS) Recoveries
  - Chromatograms
- EPH Form I Data Sheet for Samples
  - Chromatograms
- EPH Blank Summaries & Form 3 MS/MSD (LCS) Recoveries
- Chain of Custody (COC) Forms
- Sample Receipt Checklist

## QC NON-CONFORMANCE SUMMARY

**Sample Receipt:**

No discrepancies.

**Volatile Petroleum Hydrocarbons (VPH):**

No QC deviations.

**Extractable Petroleum Hydrocarbons (EPH):**

Sample 75661-7 was analyzed at a dilution due to concentrations of hydrocarbons in the sample that exceeded the calibration range of the instrument.

Sample 75661-5 had low recovery of the extraction surrogates. Due to laboratory error the sample was not re-extracted within hold time. The laboratory subcontracted this sample to Alpha Analytical in Westboro, MA and had it extracted over holding time. The report contains results for both analysis of this sample.

If you have any questions or I can be of further assistance please do not hesitate to contact me.

Sincerely,  
ANALYTICS Environmental Laboratory, LLC



Stephen Knollmeyer  
Laboratory Director

Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

**Report Number: 75661**

**Revision: Rev. 0**

**Re: Mill Dam (Project No: 111.06134)**

Enclosed are the results of the analyses on your sample(s). Samples were received on 31 May 2013 and analyzed for the tests listed. Samples were received in acceptable condition, with the exceptions noted below or on the chain of custody. These results pertain to samples as received by the laboratory and for the analytical tests requested on the chain of custody. The results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. Please see individual reports for specific methodologies and references.

**Sample Analysis:** The attached pages detail the Client Sample IDs, Lab Sample IDs, and Analyses requested

**Sample Receipt Exceptions:** None

Analytics Environmental Laboratory is certified by the states of New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, Virginia, Maryland, North Carolina, and is accredited by the Department of Defense (DOD) ELAP program. A list of actual certified parameters is available upon request.

If you have any questions on these results, please do not hesitate to contact us.

Authorized signature   
Stephen L. Knollmeyer Lab. Director  
Date 07/01/2013

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CLIENT: Ransom Consulting, Inc.

REPORT NUMBER: 75661

REV: Rev. 0

PROJECT: Mill Dam (Project No: 111.06134)

<u>Lab Number</u>	<u>Sample Date</u>	<u>Station Location</u>	<u>Analysis</u>	<u>Comments</u>
75661-1	05/30/13	SB111-S1-053013	MADEP EPH	
	05/30/13	SB111-S1-053013	Volatile Petroleum Hydrocarbons	
75661-2	05/30/13	SB112-S1-053013	MADEP EPH	
	05/30/13	SB112-S1-053013	Volatile Petroleum Hydrocarbons	
75661-3	05/30/13	SB113-S1-053013	MADEP EPH	
	05/30/13	SB113-S1-053013	Volatile Petroleum Hydrocarbons	
75661-4	05/30/13	SB114-S1-053013	MADEP EPH	
	05/30/13	SB114-S1-053013	Volatile Petroleum Hydrocarbons	
75661-5	05/30/13	SB115-S1-053013	MADEP EPH	
75661-6	05/30/13	SB116-S1-053013	MADEP EPH	
75661-7	05/30/13	SB117-S1-053013	MADEP EPH	
75661-8	05/30/13	SB118-S1-053013	MADEP EPH	
75661-9	05/30/13	PW101-W1-053013	MADEP EPH	
	05/30/13	PW101-W1-053013	Volatile Petroleum Hydrocarbons	
75661-10	05/30/13	PW102-W1-053013	MADEP EPH	
	05/30/13	PW102-W1-053013	Volatile Petroleum Hydrocarbons	
75661-11	05/30/13	PWDUP	Electronic Data Deliverable	
	05/30/13	PWDUP	MADEP EPH	
	05/30/13	PWDUP	Volatile Petroleum Hydrocarbons	

### Surrogate Compound Limits

	Matrix: Units:	Aqueous % Recovery	Solid % Recovery	Method
<b>Volatile Organic Compounds - Drinking Water</b>				
1,4-Difluorobenzene		70-130		EPA 524.2
Bromofluorobenzene		70-130		
1,2-Dichlorobenzene-d4		70-130		
<b>Volatile Organic Compounds</b>				
1,2-Dichloroethane-d4		70-120	70-120	EPA 624/8260B
Toluene-d8		85-120	85-120	
Bromofluorobenzene		75-120	75-120	
<b>Semi-Volatile Organic Compounds</b>				
2-Fluorophenol		20-110	35-105	EPA 625/8270C
d5-Phenol		15-110	40-100	
d5-nitrobenzene		40-110	35-100	
2-Fluorobiphenyl		50-110	45-105	
2,4,6-Tribromophenol		40-110	40-125	
d14-p-terphenyl		50-130	30-125	
<b>PAH's by SIM</b>				
d5-nitrobenzene		21-110	35-110	EPA 8270C
2-Fluorobiphenyl		36-121	45-105	
d14-p-terphenyl		33-141	30-125	
<b>Pesticides and PCBs</b>				
2,4,5,6-Tetrachloro-m-xylene (TCX)		46-122	40-130	EPA 608/8082
Decachlorobiphenyl (DCB)		40-135	40-130	
<b>Herbicides</b>				
Dichloroacetic acid (DCAA)		30-150	30-150	
<b>Gasoline Range Organics/TPH Gasoline</b>				
Trifluorotoluene TFT (FID)		60-140	60-140	MEDEP 4217/EPA 8015
Bromofluorobenzene (BFB) (FID)		60-140	60-140	
Trifluorotoluene TFT (PID)		60-140	60-140	
Bromofluorobenzene (BFB) (PID)		60-140	60-140	
<b>Diesel Range Organics/TPH Diesel</b>				
m-terphenyl		60-140	60-140	MEDEP 4125/EPA 8015/CT ETPH
<b>Volatile Petroleum Hydrocarbons</b>				
2,5-Dibromotoluene (PID)		70-130	70-130	MADEP VPH May 2004 Rev1.1
2,5-Dibromotoluene (FID)		70-130	70-130	
<b>Extractable Petroleum Hydrocarbons</b>				
1-chloro-octadecane (aliphatic)		40-140	40-140	MADEP EPH May 2004 Rev1.1
o-Terphenyl (aromatic)		40-140	40-140	
2-Fluorobiphenyl (Fractionation)		40-140	40-140	
2-Bromonaphthalene (fractionation)		40-140	40-140	

VPH  
DATA SUMMARIES

Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

June 13, 2013

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** Mill Dam

**Project Number:** 111.06134

**Client Sample ID:** SB111-S1-053013

**Lab Sample ID:** 75661-1

**Matrix:** Solid

**Percent Solid:** 90

**Dilution Factor:** 81

**Collection Date:** 05/30/13

**Lab Receipt Date:** 05/31/13

**Analysis Date:** 06/13/13

VPH ANALYTICAL RESULTS				
RANGE/TARGET ANALYTE	Elution Range	RL	Units	Result
Unadjusted C5-C8 Aliphatics	N/A	4030	µg/kg	U
Unadjusted C9-C12 Aliphatics	N/A	4030	µg/kg	U
Benzene	C5-C8	161	µg/kg	U
Ethylbenzene	C9-C12	161	µg/kg	U
Methyl-tert-butyl ether	C5-C8	81	µg/kg	U
Naphthalene	N/A	161	µg/kg	U
Toluene	C5-C8	161	µg/kg	U
m- & p-Xylenes	C9-C12	322	µg/kg	U
o-Xylene	C9-C12	161	µg/kg	U
C5-C8 Aliphatics Hydrocarbons <sup>1,2</sup>	N/A	4030	µg/kg	U
C9-C12 Aliphatic Hydrocarbons <sup>1,3</sup>	N/A	4030	µg/kg	U
C9-C10 Aromatic Hydrocarbons <sup>1</sup>	N/A	805	µg/kg	<b>1030</b>
Surrogate % Recovery (Trifluorotoluene) PID				93
Surrogate % Recovery (Trifluorotoluene) FID				84
Surrogate Acceptance Range				70-130%
<sup>1</sup> Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range. <sup>2</sup> C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range <sup>3</sup> C9-C12 Aliphatic Hydrocarbons exclude conc. of Target Analytes eluting in that range and conc. of C9-C10 Aromatic Hydrocarbons. RL = Report Limit U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank				

METHODOLOGY: MADEP Volatile Petroleum Hydrocarbons (VPH), ORS Division of Environmental Analysis, Revision 1.1 May 2004.

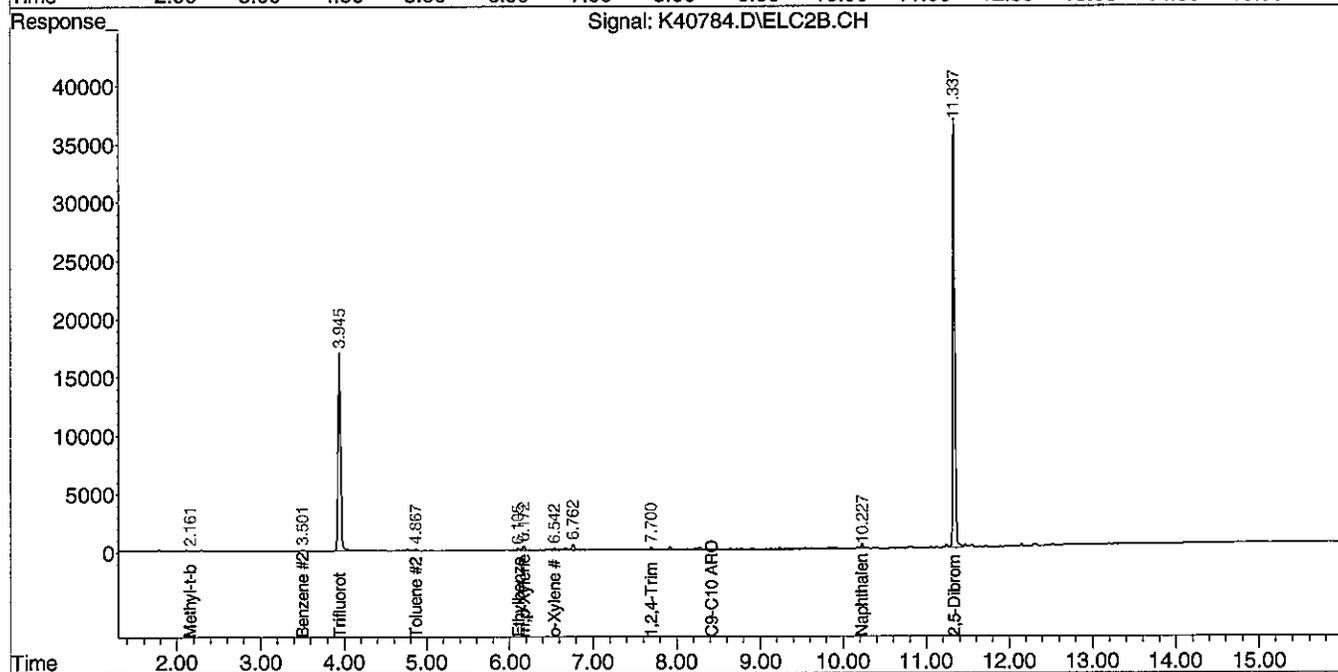
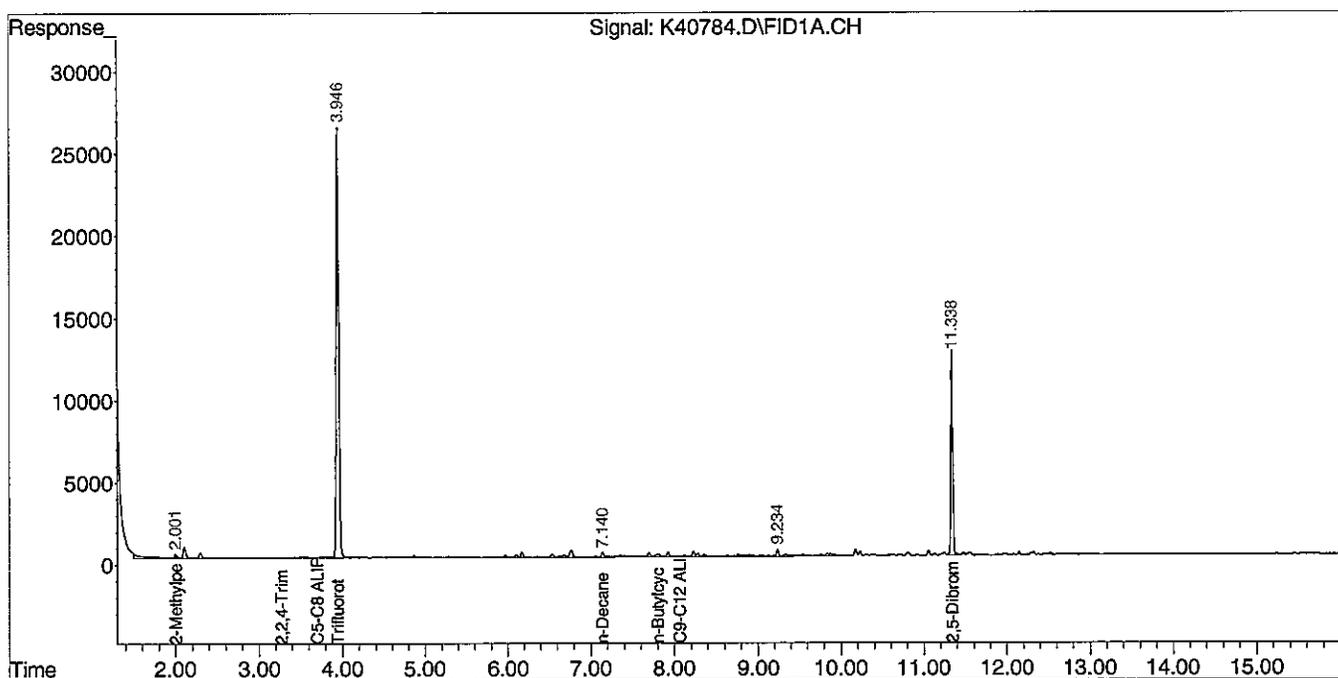
COMMENTS: Samples were received in accordance with method criteria unless noted on the sample receipt checklist. Results are expressed on a moisture corrected and dry weight basis.

Authorized signature: 

Data Path : C:\msdchem\1\DATA\061113-K\  
Data File : K40784.D  
Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH  
Acq On : 13 Jun 2013 2:34 am  
Operator : JK/AR  
Sample : 75661-1  
Misc : 100,7.38,SOIL  
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
Integration File signal 2: autoint2.e  
Quant Time: Jun 13 09:09:32 2013  
Quant Method : C:\msdchem\1\METHODS\VPHTFT052313.M  
Quant Title : Volatile Petroleum Hydrocarbons (VPH) MA DEP 2004  
QLast Update : Thu May 23 21:57:36 2013  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

June 13, 2013

**CLIENT SAMPLE ID**

**Project Name:** Mill Dam  
**Project Number:** 111.06134  
**Client Sample ID:** SB112-S1-053013

**SAMPLE DATA**

**Lab Sample ID:** 75661-2  
**Matrix:** Solid  
**Percent Solid:** 91  
**Dilution Factor:** 70  
**Collection Date:** 05/30/13  
**Lab Receipt Date:** 05/31/13  
**Analysis Date:** 06/13/13

VPH ANALYTICAL RESULTS				
RANGE/TARGET ANALYTE	Elution Range	RL	Units	Result
Unadjusted C5-C8 Aliphatics	N/A	3480	µg/kg	U
Unadjusted C9-C12 Aliphatics	N/A	3480	µg/kg	U
Benzene	C5-C8	139	µg/kg	U
Ethylbenzene	C9-C12	139	µg/kg	U
Methyl-tert-butyl ether	C5-C8	70	µg/kg	U
Naphthalene	N/A	139	µg/kg	U
Toluene	C5-C8	139	µg/kg	U
m- & p-Xylenes	C9-C12	279	µg/kg	U
o-Xylene	C9-C12	139	µg/kg	U
C5-C8 Aliphatics Hydrocarbons <sup>1,2</sup>	N/A	3480	µg/kg	U
C9-C12 Aliphatic Hydrocarbons <sup>1,3</sup>	N/A	3480	µg/kg	U
C9-C10 Aromatic Hydrocarbons <sup>1</sup>	N/A	697	µg/kg	815
Surrogate % Recovery (Trifluorotoluene) PID				92
Surrogate % Recovery (Trifluorotoluene) FID				83
Surrogate Acceptance Range				70-130%
<sup>1</sup> Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range. <sup>2</sup> C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range <sup>3</sup> C9-C12 Aliphatic Hydrocarbons exclude conc. of Target Analytes eluting in that range and conc. of C9-C10 Aromatic Hydrocarbons. RL = Report Limit U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank				

METHODOLOGY: MADEP Volatile Petroleum Hydrocarbons (VPH), ORS Division of Environmental Analysis, Revision 1.1 May 2004.

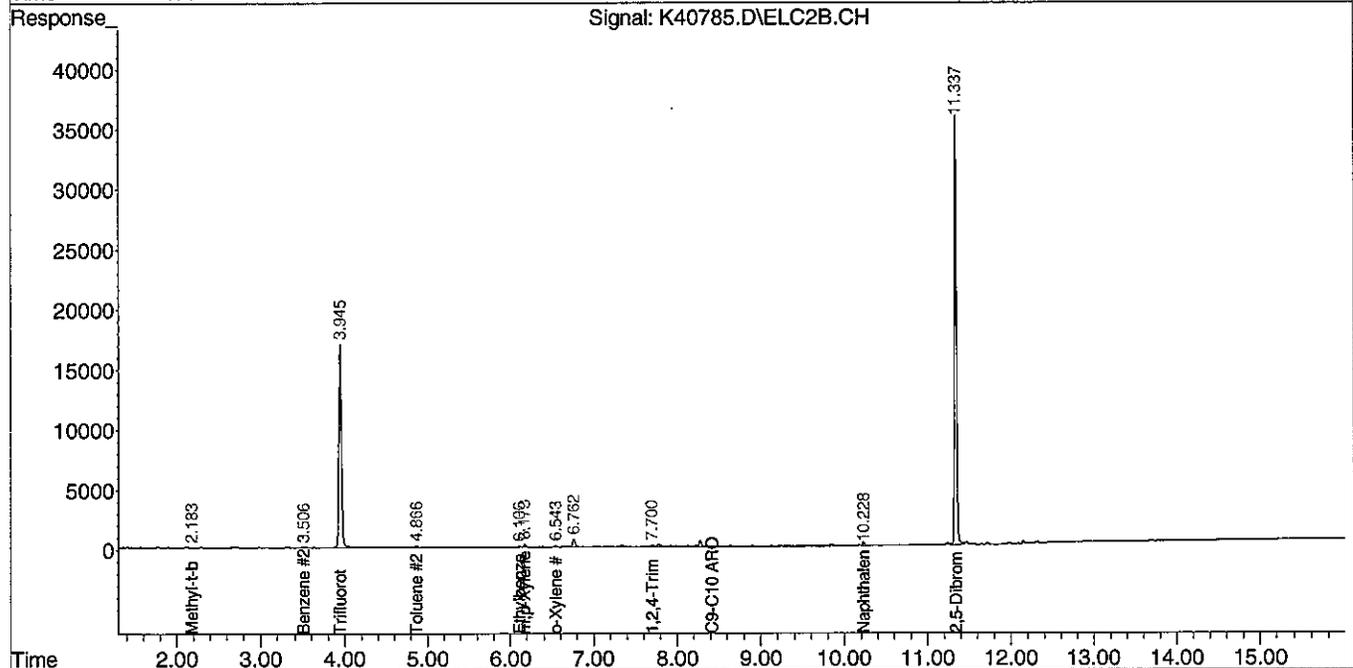
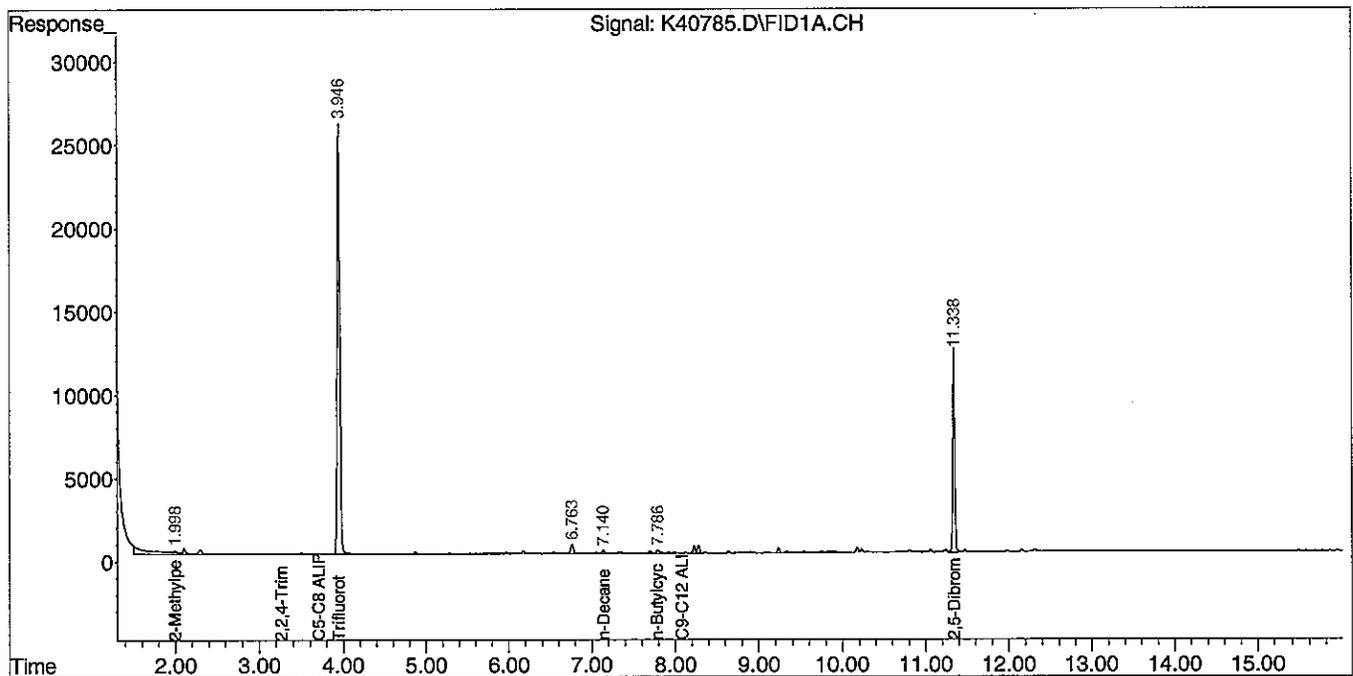
COMMENTS: Samples were received in accordance with method criteria unless noted on the sample receipt checklist. Results are expressed on a moisture corrected and dry weight basis.

Authorized signature: 

Data Path : C:\msdchem\1\DATA\061113-K\  
 Data File : K40785.D  
 Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH  
 Acq On : 13 Jun 2013 3:10 am  
 Operator : JK/AR  
 Sample : 75661-2  
 Misc : 100,8.50,SOIL  
 ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Jun 13 09:09:34 2013  
 Quant Method : C:\msdchem\1\METHODS\VPHTFT052313.M  
 Quant Title : Volatile Petroleum Hydrocarbons (VPH) MA DEP 2004  
 QLast Update : Thu May 23 21:57:36 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :



Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

June 13, 2013

**CLIENT SAMPLE ID**

**Project Name:** Mill Dam  
**Project Number:** 111.06134  
**Client Sample ID:** SB113-S1-053013

**SAMPLE DATA**

**Lab Sample ID:** 75661-3  
**Matrix:** Solid  
**Percent Solid:** 80  
**Dilution Factor:** 85  
**Collection Date:** 05/30/13  
**Lab Receipt Date:** 05/31/13  
**Analysis Date:** 06/13/13

VPH ANALYTICAL RESULTS				
RANGE/TARGET ANALYTE	Elution Range	RL	Units	Result
Unadjusted C5-C8 Aliphatics	N/A	4240	µg/kg	U
Unadjusted C9-C12 Aliphatics	N/A	4240	µg/kg	U
Benzene	C5-C8	170	µg/kg	U
Ethylbenzene	C9-C12	170	µg/kg	U
Methyl-tert-butyl ether	C5-C8	85	µg/kg	U
Naphthalene	N/A	170	µg/kg	U
Toluene	C5-C8	170	µg/kg	U
m- & p-Xylenes	C9-C12	339	µg/kg	U
o-Xylene	C9-C12	170	µg/kg	U
C5-C8 Aliphatic Hydrocarbons <sup>1,2</sup>	N/A	4240	µg/kg	U
C9-C12 Aliphatic Hydrocarbons <sup>1,3</sup>	N/A	4240	µg/kg	U
C9-C10 Aromatic Hydrocarbons <sup>1</sup>	N/A	848	µg/kg	U
Surrogate % Recovery (Trifluorotoluene) PID				97
Surrogate % Recovery (Trifluorotoluene) FID				88
Surrogate Acceptance Range				70-130%

<sup>1</sup> Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.  
<sup>2</sup> C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range  
<sup>3</sup> C9-C12 Aliphatic Hydrocarbons exclude conc. of Target Analytes eluting in that range and conc. of C9-C10 Aromatic Hydrocarbons.  
 RL = Report Limit  
 U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

METHODOLOGY: MADEP Volatile Petroleum Hydrocarbons (VPH), ORS Division of Environmental Analysis, Revision 1.1 May 2004.

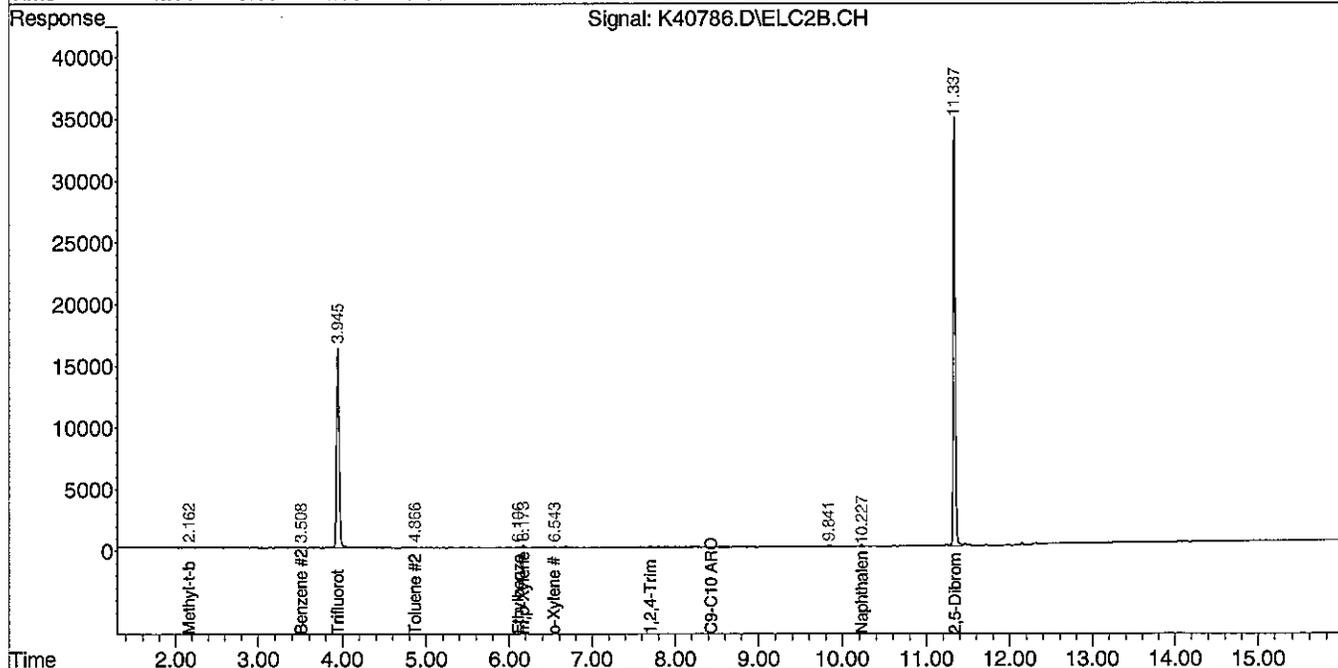
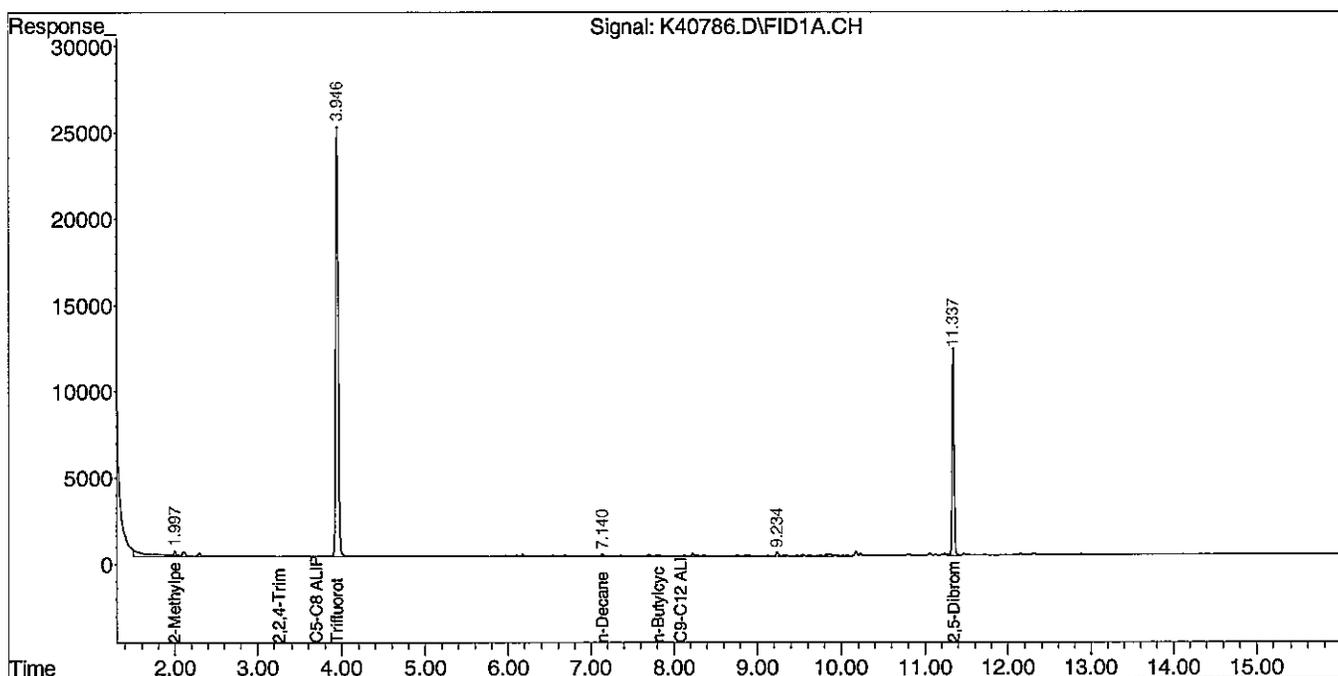
COMMENTS: Samples were received in accordance with method criteria unless noted on the sample receipt checklist. Results are expressed on a moisture corrected and dry weight basis.

Authorized signature: *M. Phelix*

Data Path : C:\msdchem\1\DATA\061113-K\  
 Data File : K40786.D  
 Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH  
 Acq On : 13 Jun 2013 3:37 am  
 Operator : JK/AR  
 Sample : 75661-3  
 Misc : 100,8.73,SOIL  
 ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Jun 13 09:09:35 2013  
 Quant Method : C:\msdchem\1\METHODS\VPHTFT052313.M  
 Quant Title : Volatile Petroleum Hydrocarbons (VPH) MA DEP 2004  
 QLast Update : Thu May 23 21:57:36 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :



Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

June 13, 2013

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** Mill Dam

**Project Number:** 111.06134

**Client Sample ID:** SB114-S1-053013

**Lab Sample ID:** 75661-4

**Matrix:** Solid

**Percent Solid:** 81

**Dilution Factor:** 91

**Collection Date:** 05/30/13

**Lab Receipt Date:** 05/31/13

**Analysis Date:** 06/13/13

VPH ANALYTICAL RESULTS				
RANGE/TARGET ANALYTE	Elution Range	RL	Units	Result
Unadjusted C5-C8 Aliphatics	N/A	4530	µg/kg	U
Unadjusted C9-C12 Aliphatics	N/A	4530	µg/kg	U
Benzene	C5-C8	181	µg/kg	U
Ethylbenzene	C9-C12	181	µg/kg	U
Methyl-tert-butyl ether	C5-C8	91	µg/kg	U
Naphthalene	N/A	181	µg/kg	U
Toluene	C5-C8	181	µg/kg	U
m- & p-Xylenes	C9-C12	362	µg/kg	U
o-Xylene	C9-C12	181	µg/kg	U
C5-C8 Aliphatics Hydrocarbons <sup>1,2</sup>	N/A	4530	µg/kg	U
C9-C12 Aliphatic Hydrocarbons <sup>1,3</sup>	N/A	4530	µg/kg	U
C9-C10 Aromatic Hydrocarbons	N/A	906	µg/kg	U
Surrogate % Recovery (Trifluorotoluene) PID				99
Surrogate % Recovery (Trifluorotoluene) FID				90
Surrogate Acceptance Range				70-130%

<sup>1</sup> Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.  
<sup>2</sup> C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range  
<sup>3</sup> C9-C12 Aliphatic Hydrocarbons exclude conc. of Target Analytes eluting in that range and conc. of C9-C10 Aromatic Hydrocarbons.  
 RL = Report Limit  
 U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

METHODOLOGY: MADEP Volatile Petroleum Hydrocarbons (VPH), ORS Division of Environmental Analysis, Revision 1.1 May 2004.

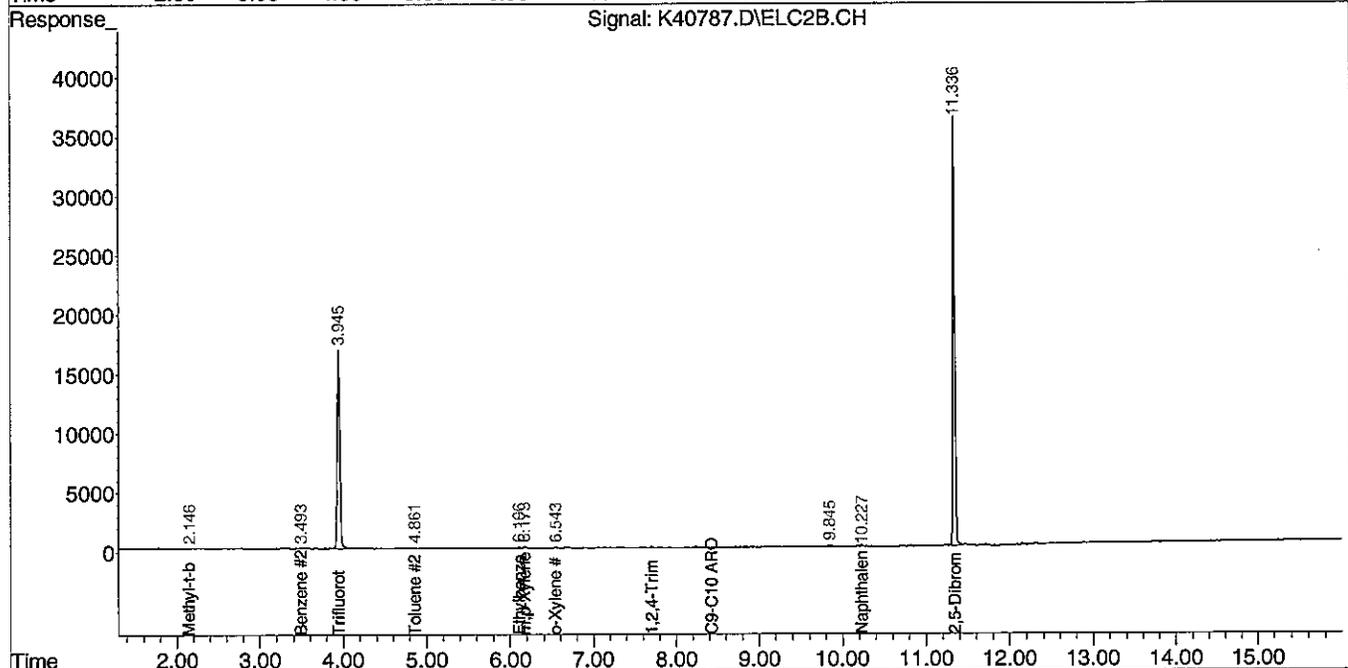
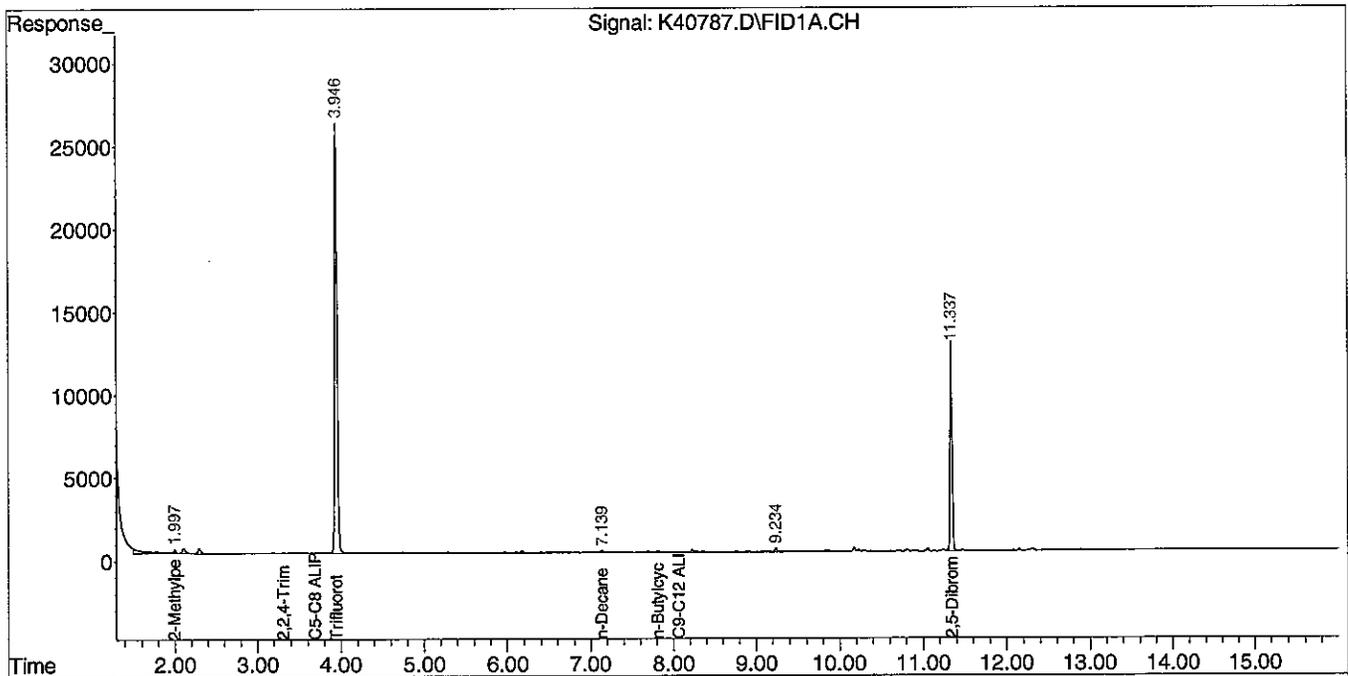
COMMENTS: Samples were received in accordance with method criteria unless noted on the sample receipt checklist. Results are expressed on a moisture corrected and dry weight basis.

Authorized signature: *M. Phelix*

Data Path : C:\msdchem\1\DATA\061113-K\  
 Data File : K40787.D  
 Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH  
 Acq On : 13 Jun 2013 4:04 am  
 Operator : JK/AR  
 Sample : 75661-4  
 Misc : 100,7.90,SOIL  
 ALS Vial : 20 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Jun 13 09:09:36 2013  
 Quant Method : C:\msdchem\1\METHODS\VPHTFT052313.M  
 Quant Title : Volatile Petroleum Hydrocarbons (VPH) MA DEP 2004  
 QLast Update : Thu May 23 21:57:36 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :



Mr. Erik Phenix  
 Ransom Consulting, Inc.  
 400 Commercial Street Suite 404  
 Portland, ME 04101

June 11, 2013

**SAMPLE DATA**

Lab Sample ID: 75661-9  
 Matrix: Aqueous  
 Percent Solid: N/A  
 Dilution Factor: 1  
 Collection Date: 05/30/13  
 Lab Receipt Date: 05/31/13  
 Analysis Date: 06/07/13

**CLIENT SAMPLE ID**

Project Name: Mill Dam  
 Project Number: 111.06134  
 Client Sample ID: PW101-W1-053013

**VPH ANALYTICAL RESULTS**

RANGE/TARGET ANALYTE	Elution Range	RL	Units	Result
Unadjusted C5-C8 Aliphatics <sup>1</sup>	N/A	50	µg/L	U
Unadjusted C9-C12 Aliphatics <sup>1</sup>	N/A	50	µg/L	U
Benzene	C5-C8	1	µg/L	U
Ethylbenzene	C9-C12	1	µg/L	U
Methyl-tert-butyl ether	C5-C8	1	µg/L	U
Naphthalene	N/A	2	µg/L	U
Toluene	C5-C8	1	µg/L	U
m- & p-Xylenes	C9-C12	2	µg/L	U
o-Xylene	C9-C12	1	µg/L	U
C5-C8 Aliphatics Hydrocarbons <sup>1,2</sup>	N/A	50	µg/L	U
C9-C12 Aliphatic Hydrocarbons <sup>1,3</sup>	N/A	50	µg/L	U
C9-C10 Aromatic Hydrocarbons <sup>1</sup>	N/A	10	µg/L	U
Surrogate % Recovery (Trifluorotoluene) PID				96
Surrogate % Recovery (Trifluorotoluene) FID				96
Surrogate Acceptance Range				70-130%

<sup>1</sup>Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.  
<sup>2</sup>C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range  
<sup>3</sup>C9-C12 Aliphatic Hydrocarbons exclude conc. of Target Analytes eluting in that range and conc. of C9-C10 Aromatic Hydrocarbons.  
 RL = Report Limit  
 U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

METHODOLOGY: MADEP Volatile Petroleum Hydrocarbons (VPH), ORS Division of Environmental Analysis, Revision 1.1 May 2004.

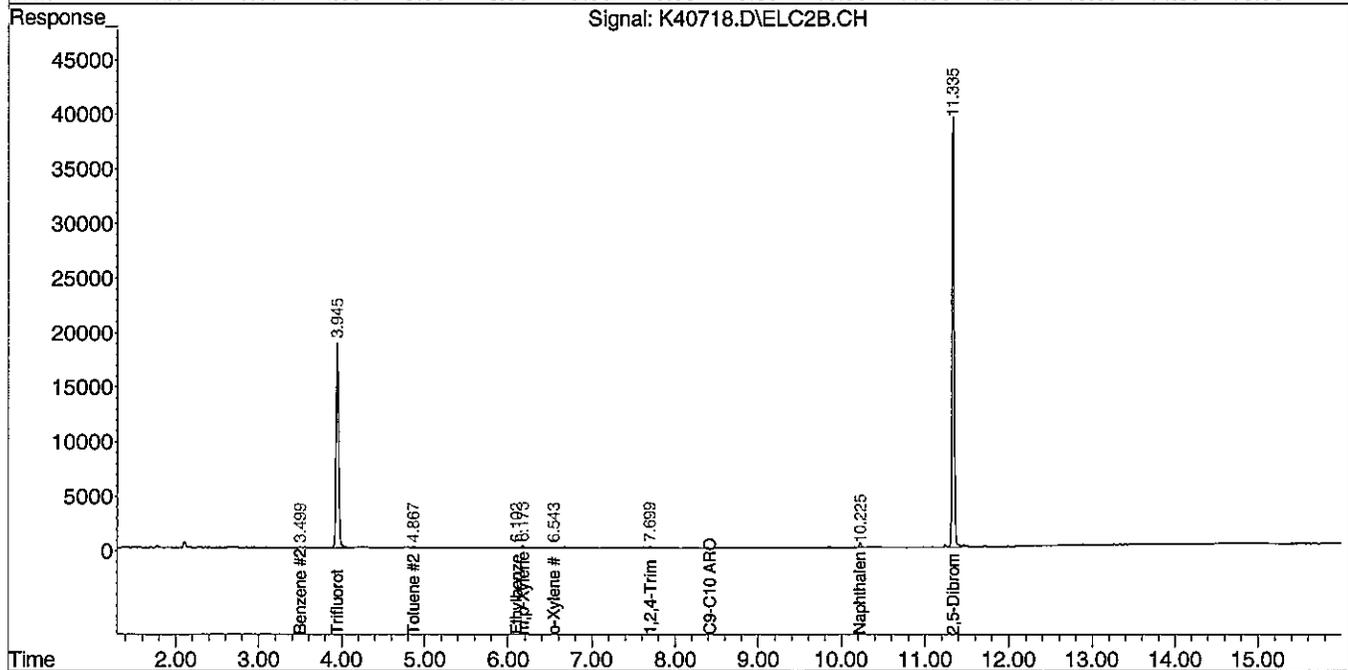
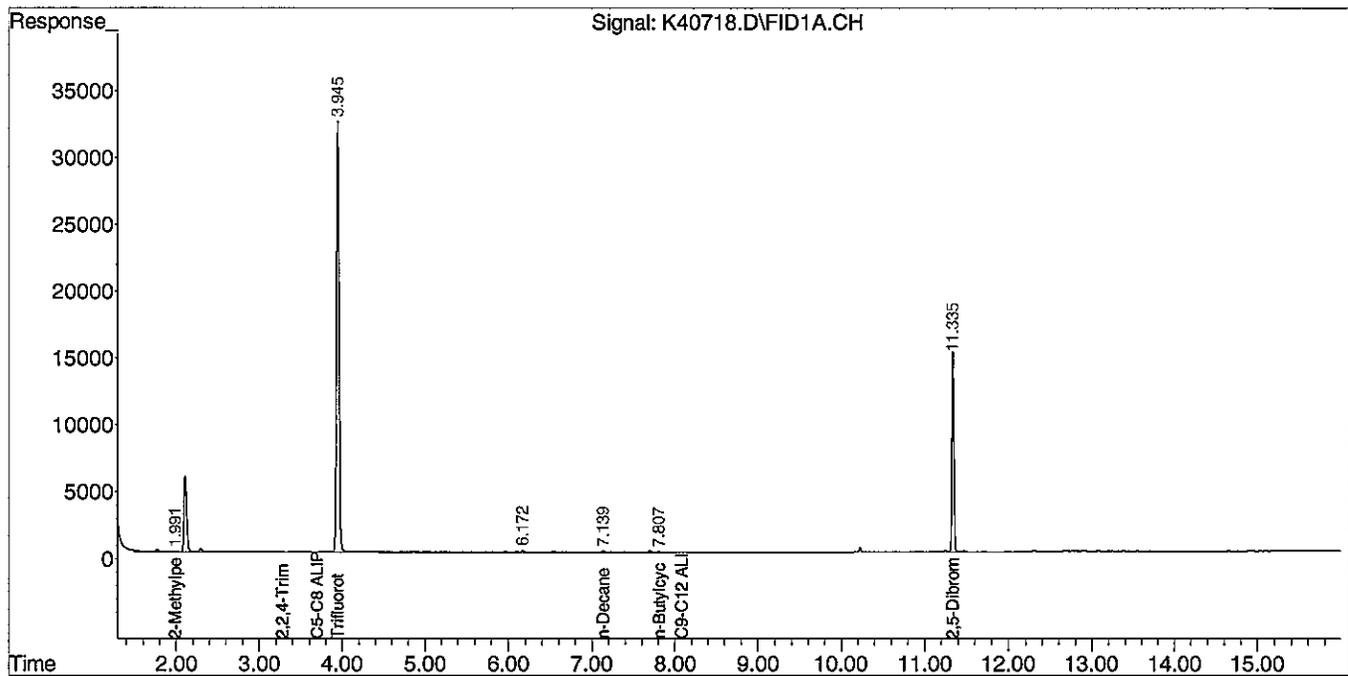
COMMENTS: Samples were received in accordance with method criteria unless noted on the sample receipt checklist.

Authorized signature: 

Data Path : C:\msdchem\1\DATA\060613-K\  
 Data File : K40718.D  
 Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH  
 Acq On : 07 Jun 2013 6:20 am  
 Operator : JK/AR  
 Sample : 75661-9  
 Misc : 5000  
 ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Jun 07 09:26:00 2013  
 Quant Method : C:\msdchem\1\METHODS\VPHTFT052313.M  
 Quant Title : Volatile Petroleum Hydrocarbons (VPH) MA DEP 2004  
 QLast Update : Thu May 23 21:57:36 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :



Mr. Erik Phenix  
 Ransom Consulting, Inc.  
 400 Commercial Street Suite 404  
 Portland, ME 04101

June 11, 2013

**SAMPLE DATA**

Lab Sample ID: 75661-10  
 Matrix: Aqueous  
 Percent Solid: N/A  
 Dilution Factor: 1  
 Collection Date: 05/30/13  
 Lab Receipt Date: 05/31/13  
 Analysis Date: 06/07/13

**CLIENT SAMPLE ID**

Project Name: Mill Dam  
 Project Number: 111.06134  
 Client Sample ID: PW102-W1-053013

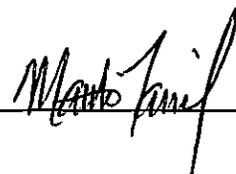
**VPH ANALYTICAL RESULTS**

RANGE/TARGET ANALYTE	Elution Range	RL	Units	Result
Unadjusted C5-C8 Aliphatics <sup>1</sup>	N/A	50	µg/L	U
Unadjusted C9-C12 Aliphatics <sup>1</sup>	N/A	50	µg/L	U
Benzene	C5-C8	1	µg/L	U
Ethylbenzene	C9-C12	1	µg/L	U
Methyl-tert-butyl ether	C5-C8	1	µg/L	U
Naphthalene	N/A	2	µg/L	U
Toluene	C5-C8	1	µg/L	U
m- & p-Xylenes	C9-C12	2	µg/L	U
o-Xylene	C9-C12	1	µg/L	U
C5-C8 Aliphatics Hydrocarbons <sup>1,2</sup>	N/A	50	µg/L	U
C9-C12 Aliphatic Hydrocarbons <sup>1,3</sup>	N/A	50	µg/L	U
C9-C10 Aromatic Hydrocarbons <sup>1</sup>	N/A	10	µg/L	U
Surrogate % Recovery (Trifluorotoluene) PID				94
Surrogate % Recovery (Trifluorotoluene) FID				95
Surrogate Acceptance Range				70-130%

<sup>1</sup>Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.  
<sup>2</sup>C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range  
<sup>3</sup>C9-C12 Aliphatic Hydrocarbons exclude conc. of Target Analytes eluting in that range and conc. of C9-C10 Aromatic Hydrocarbons.  
 RL = Report Limit  
 U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

METHODOLOGY: MADEP Volatile Petroleum Hydrocarbons (VPH), ORS Division of Environmental Analysis, Revision 1.1 May 2004.

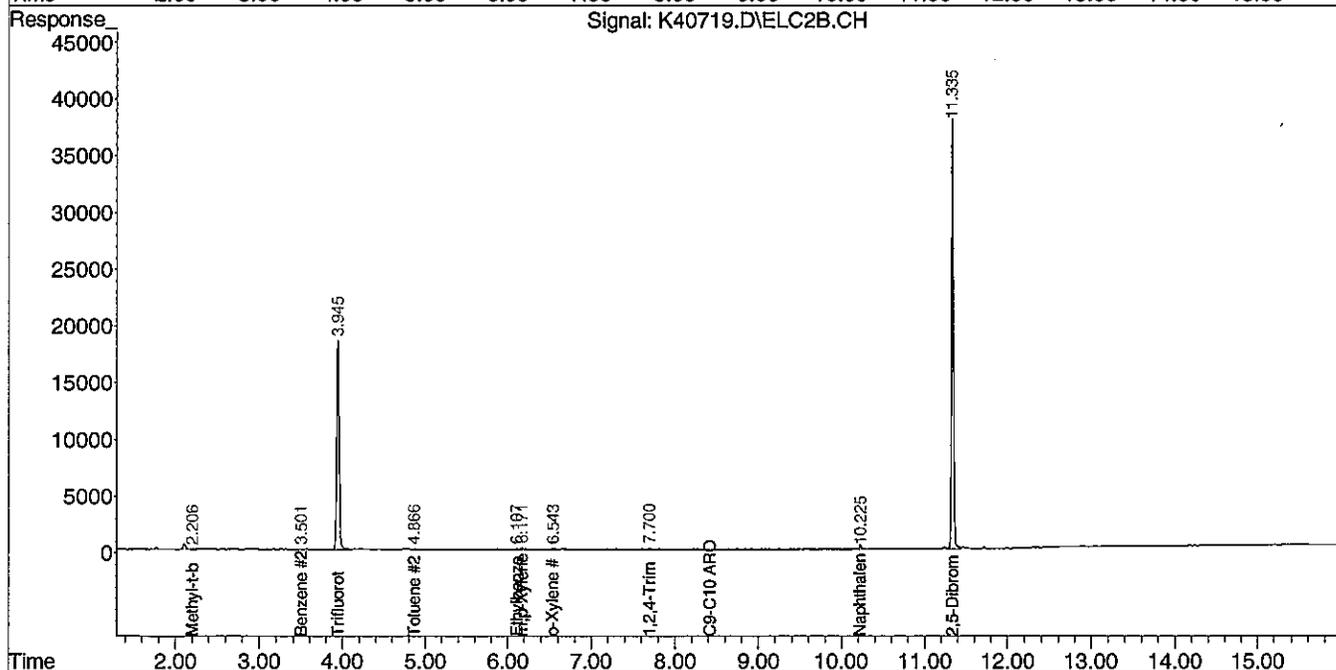
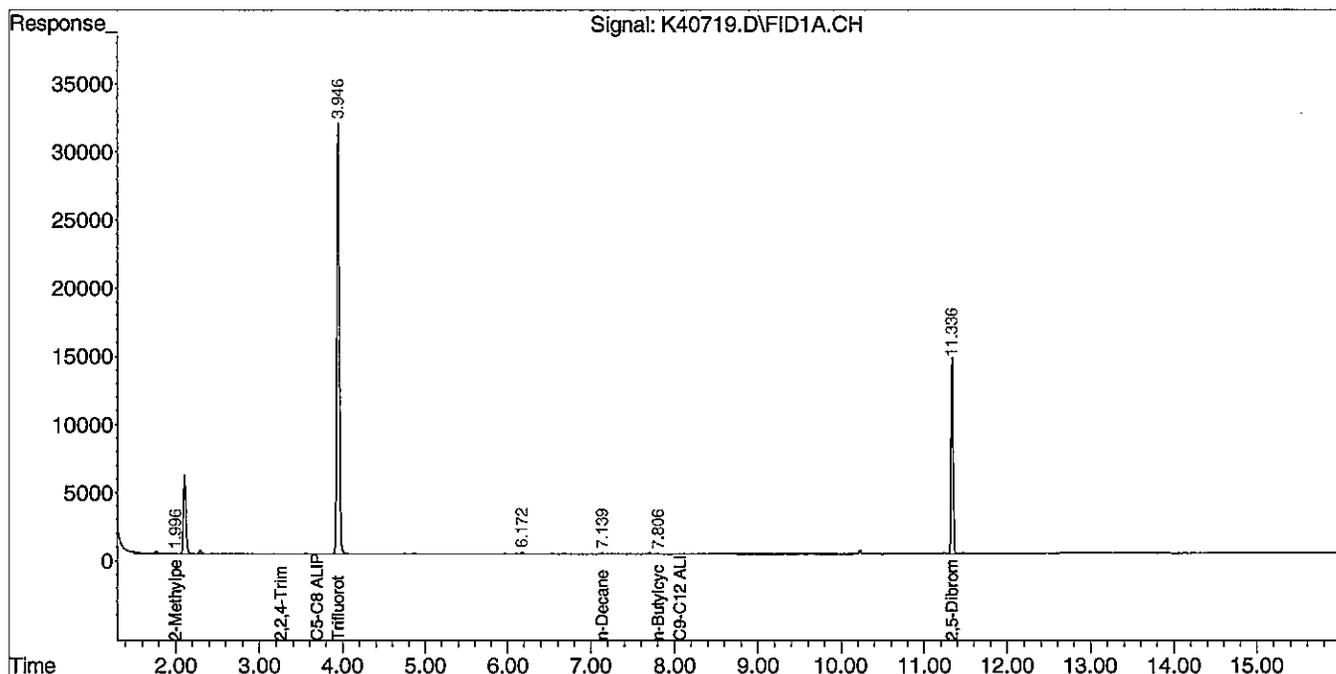
COMMENTS: Samples were received in accordance with method criteria unless noted on the sample receipt checklist.

Authorized signature: 

Data Path : C:\msdchem\1\DATA\060613-K\  
 Data File : K40719.D  
 Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH  
 Acq On : 07 Jun 2013 6:47 am  
 Operator : JK/AR  
 Sample : 75661-10  
 Misc : 5000  
 ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Jun 07 09:26:01 2013  
 Quant Method : C:\msdchem\1\METHODS\VPHTFT052313.M  
 Quant Title : Volatile Petroleum Hydrocarbons (VPH) MA DEP 2004  
 QLast Update : Thu May 23 21:57:36 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :



Mr. Erik Phenix  
 Ransom Consulting, Inc.  
 400 Commercial Street Suite 404  
 Portland, ME 04101

June 11, 2013

**SAMPLE DATA**

**CLIENT SAMPLE ID**  


---

**Project Name:** Mill Dam  
**Project Number:** 111.06134  
**Client Sample ID:** PWDUP

**Lab Sample ID:** 75661-11  
**Matrix:** Aqueous  
**Percent Solid:** N/A  
**Dilution Factor:** 1  
**Collection Date:** 05/30/13  
**Lab Receipt Date:** 05/31/13  
**Analysis Date:** 06/07/13

VPH ANALYTICAL RESULTS				
RANGE/TARGET ANALYTE	Elution Range	RL	Units	Result
Unadjusted C5-C8 Aliphatics <sup>1</sup>	N/A	50	µg/L	U
Unadjusted C9-C12 Aliphatics <sup>1</sup>	N/A	50	µg/L	U
Benzene	C5-C8	1	µg/L	U
Ethylbenzene	C9-C12	1	µg/L	U
Methyl-tert-butyl ether	C5-C8	1	µg/L	U
Naphthalene	N/A	2	µg/L	U
Toluene	C5-C8	1	µg/L	U
m- & p-Xylenes	C9-C12	2	µg/L	U
o-Xylene	C9-C12	1	µg/L	U
C5-C8 Aliphatics Hydrocarbons <sup>1,2</sup>	N/A	50	µg/L	U
C9-C12 Aliphatic Hydrocarbons <sup>1,3</sup>	N/A	50	µg/L	U
C9-C10 Aromatic Hydrocarbons <sup>1</sup>	N/A	10	µg/L	U
Surrogate % Recovery (Trifluorotoluene) PID				93
Surrogate % Recovery (Trifluorotoluene) FID				93
Surrogate Acceptance Range				70-130%

<sup>1</sup> Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.  
<sup>2</sup> C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range  
<sup>3</sup> C9-C12 Aliphatic Hydrocarbons exclude conc. of Target Analytes eluting in that range and conc. of C9-C10 Aromatic Hydrocarbons.  
 RL = Report Limit  
 U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

METHODOLOGY: MADEP Volatile Petroleum Hydrocarbons (VPH), ORS Division of Environmental Analysis, Revision 1.1 May 2004.

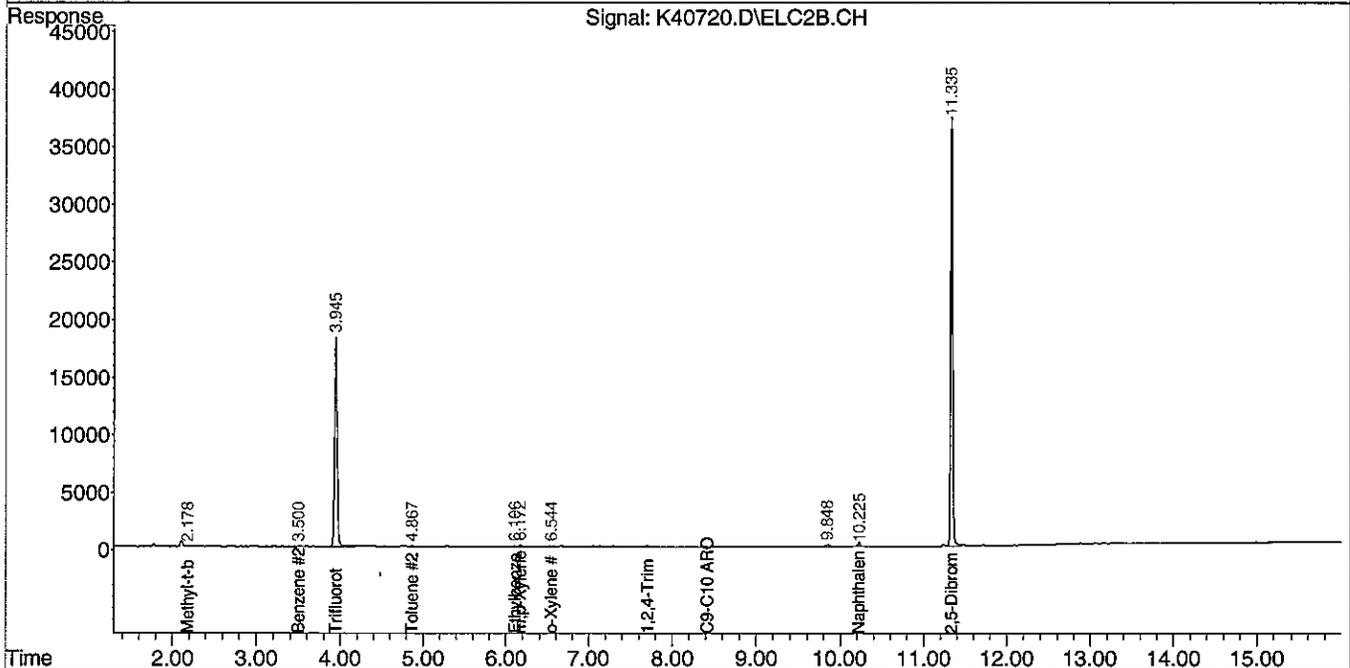
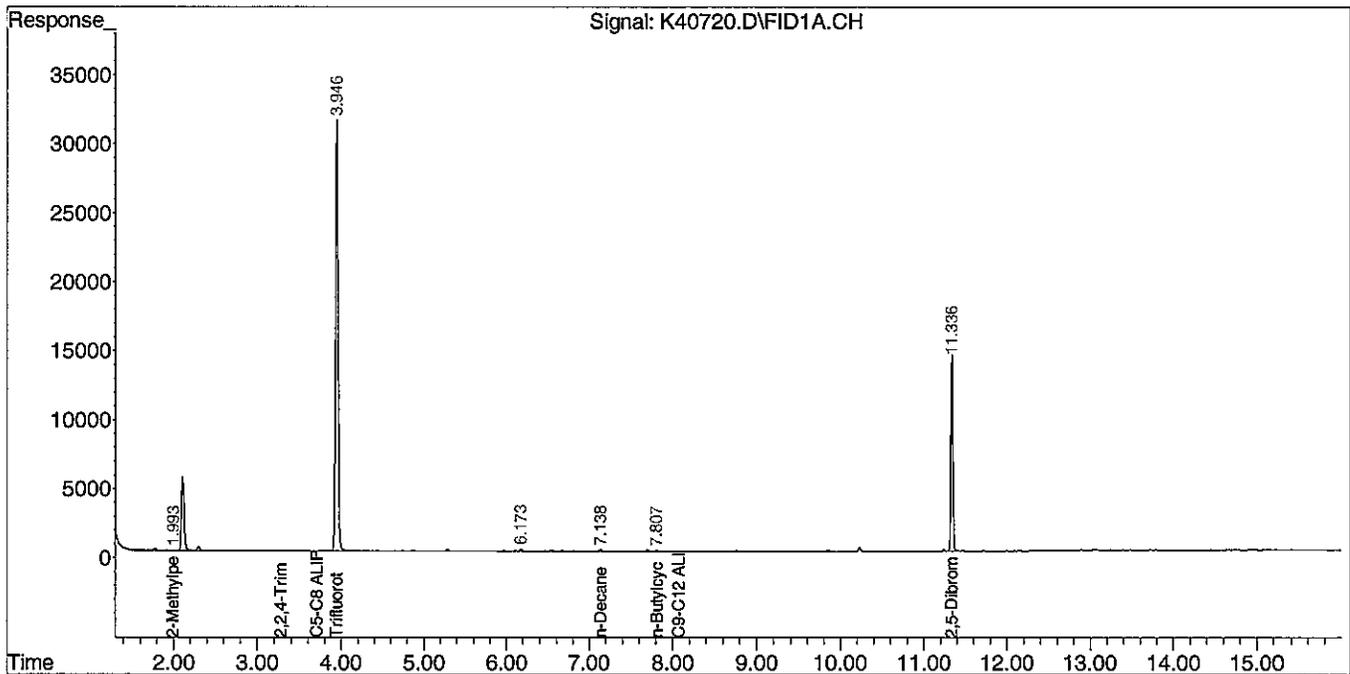
COMMENTS: Samples were received in accordance with method criteria unless noted on the sample receipt checklist.

Authorized signature: 

Data Path : C:\msdchem\1\DATA\060613-K\  
 Data File : K40720.D  
 Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH  
 Acq On : 07 Jun 2013 7:15 am  
 Operator : JK/AR  
 Sample : 75661-11  
 Misc : 5000  
 ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Jun 07 09:26:02 2013  
 Quant Method : C:\msdchem\1\METHODS\VPHTFT052313.M  
 Quant Title : Volatile Petroleum Hydrocarbons (VPH) MA DEP 2004  
 QLast Update : Thu May 23 21:57:36 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :



VPH  
QC FORMS

Mr. Erik Phenix  
 Ransom Consulting, Inc.  
 400 Commercial Street Suite 404  
 Portland, ME 04101

June 11, 2013

**SAMPLE DATA**

Lab Sample ID: BV060613K2  
 Matrix: Aqueous  
 Percent Solid: N/A  
 Dilution Factor: 1  
 Collection Date:  
 Lab Receipt Date:  
 Analysis Date: 06/07/13

**CLIENT SAMPLE ID**

Project Name: Mill Dam  
 Project Number: 111.06134  
 Client Sample ID: LabQC

**VPH ANALYTICAL RESULTS**

RANGE/TARGET ANALYTE	Elution Range	RL	Units	Result
Unadjusted C5-C8 Aliphatics <sup>1</sup>	N/A	50	µg/L	U
Unadjusted C9-C12 Aliphatics <sup>1</sup>	N/A	50	µg/L	U
Benzene	C5-C8	1	µg/L	U
Ethylbenzene	C9-C12	1	µg/L	U
Methyl-tert-butyl ether	C5-C8	1	µg/L	U
Naphthalene	N/A	2	µg/L	U
Toluene	C5-C8	1	µg/L	U
m- & p-Xylenes	C9-C12	2	µg/L	U
o-Xylene	C9-C12	1	µg/L	U
C5-C8 Aliphatics Hydrocarbons <sup>1,2</sup>	N/A	50	µg/L	U
C9-C12 Aliphatic Hydrocarbons <sup>1,3</sup>	N/A	50	µg/L	U
C9-C10 Aromatic Hydrocarbons <sup>1</sup>	N/A	10	µg/L	U
Surrogate % Recovery (Trifluorotoluene) PID				97
Surrogate % Recovery (Trifluorotoluene) FID				97
Surrogate Acceptance Range				70-130%

<sup>1</sup>Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.  
<sup>2</sup>C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range  
<sup>3</sup>C9-C12 Aliphatic Hydrocarbons exclude conc. of Target Analytes eluting in that range and conc. of C9-C10 Aromatic Hydrocarbons.  
 RL = Report Limit  
 U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

METHODOLOGY: MADEP Volatile Petroleum Hydrocarbons (VPH), ORS Division of Environmental Analysis, Revision 1.1 May 2004.

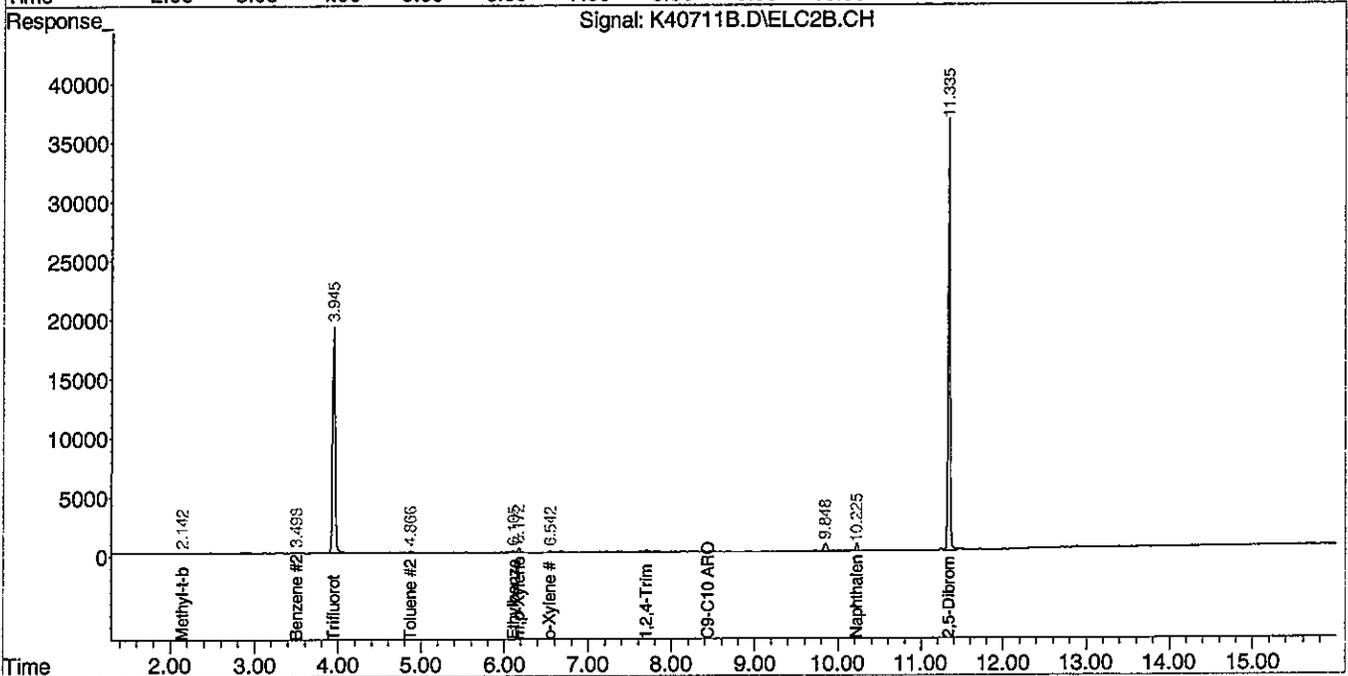
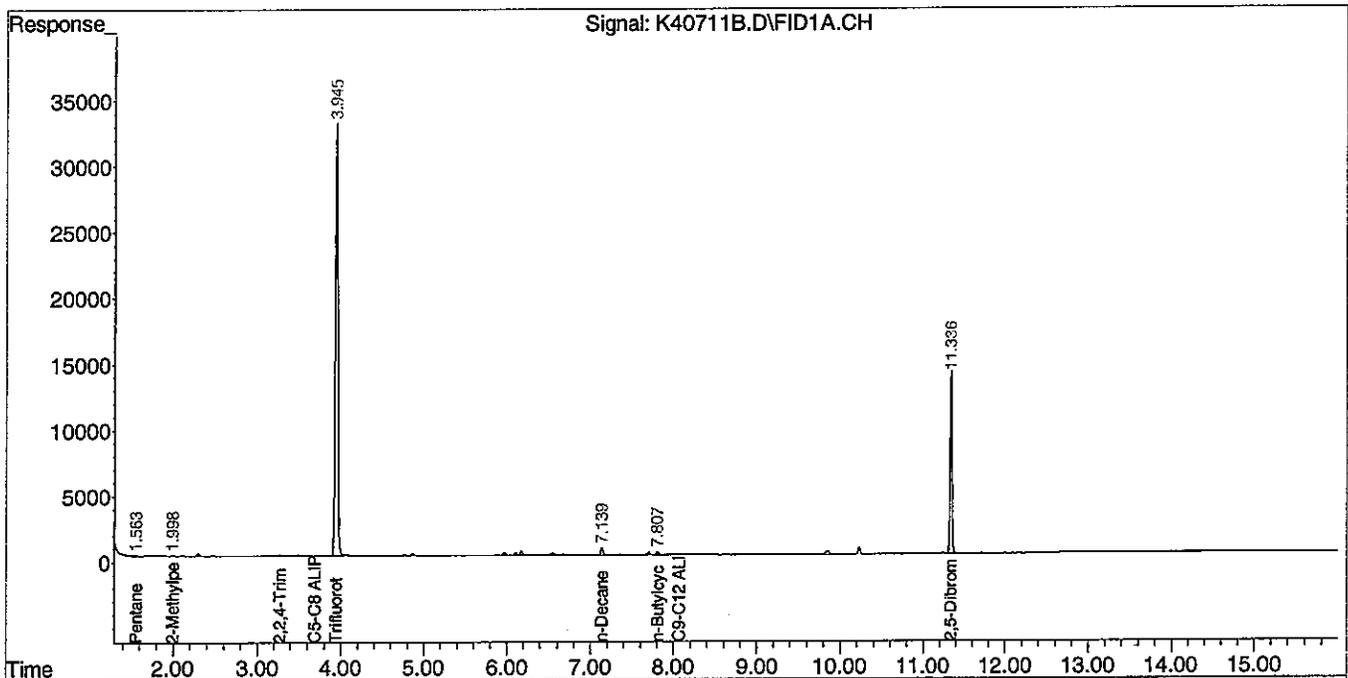
COMMENTS: Samples were received in accordance with method criteria unless noted on the sample receipt checklist.

Authorized signature: 

Data Path : C:\msdchem\1\DATA\060613-K\  
 Data File : K40711B.D  
 Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH  
 Acq On : 07 Jun 2013 1:20 am  
 Operator : JK/AR  
 Sample : BV060613K2  
 Misc : 5000  
 ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Jun 07 03:20:08 2013  
 Quant Method : C:\msdchem\1\METHODS\VPHTFT052313.M  
 Quant Title : Volatile Petroleum Hydrocarbons (VPH) MA DEP 2004  
 QLast Update : Thu May 23 21:57:36 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :



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Portland, ME 04101

June 13, 2013

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** Mill Dam

**Project Number:** 111.06134

**Client Sample ID:** LabQC

**Lab Sample ID:** MBV061213K RR

**Matrix:** Soil

**Percent Solid:** 0

**Dilution Factor:** 50

**Collection Date:**

**Lab Receipt Date:**

**Analysis Date:** 06/13/13

VPH ANALYTICAL RESULTS				
RANGE/TARGET ANALYTE	Elution Range	RL	Units	Result
Unadjusted C5-C8 Aliphatics	N/A	2500	µg/kg	U
Unadjusted C9-C12 Aliphatics	N/A	2500	µg/kg	U
Benzene	C5-C8	100	µg/kg	U
Ethylbenzene	C9-C12	100	µg/kg	U
Methyl-tert-butyl ether	C5-C8	50	µg/kg	U
Naphthalene	N/A	100	µg/kg	U
Toluene	C5-C8	100	µg/kg	U
m- & p-Xylenes	C9-C12	200	µg/kg	U
o-Xylene	C9-C12	100	µg/kg	U
C5-C8 Aliphatics Hydrocarbons <sup>1,2</sup>	N/A	2500	µg/kg	U
C9-C12 Aliphatic Hydrocarbons <sup>1,3</sup>	N/A	2500	µg/kg	U
C9-C10 Aromatic Hydrocarbons <sup>1</sup>	N/A	500	µg/kg	U
Surrogate % Recovery (Trifluorotoluene) PID				96
Surrogate % Recovery (Trifluorotoluene) FID				87
Surrogate Acceptance Range				70-130%

<sup>1</sup> Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.  
<sup>2</sup> C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range  
<sup>3</sup> C9-C12 Aliphatic Hydrocarbons exclude conc. of Target Analytes eluting in that range and conc. of C9-C10 Aromatic Hydrocarbons.  
 RL = Report Limit  
 U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

METHODOLOGY: MADEP Volatile Petroleum Hydrocarbons (VPH), ORS Division of Environmental Analysis, Revision 1.1 May 2004.

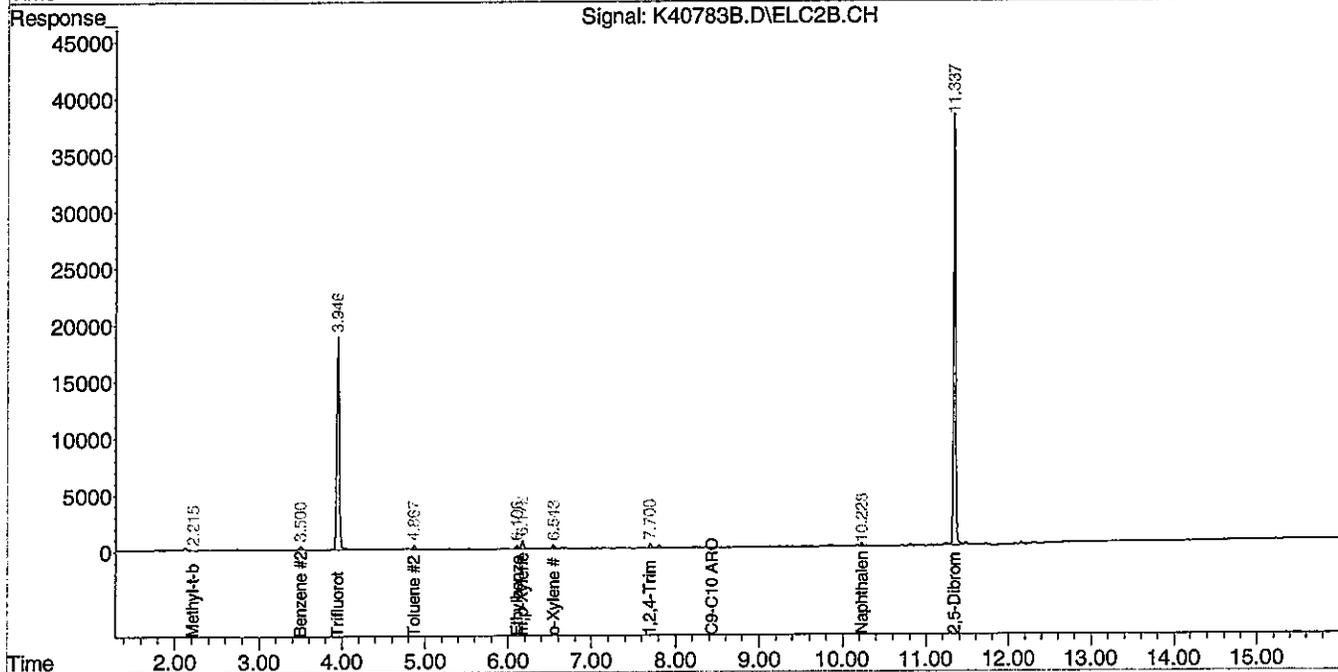
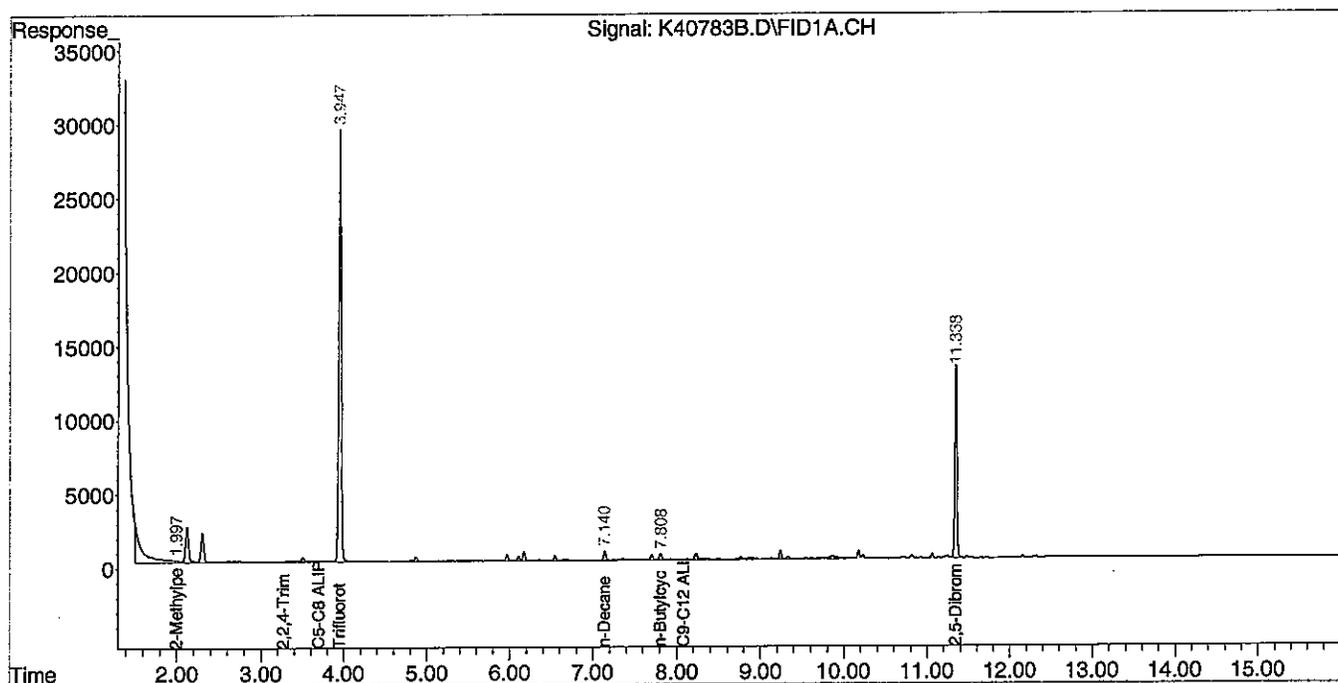
COMMENTS: Samples were received in accordance with method criteria unless noted on the sample receipt checklist. Results are expressed on a moisture corrected and dry weight basis.

Authorized signature: *mpull*

Data Path : C:\msdchem\1\DATA\061113-K\  
 Data File : K40783B.D  
 Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH  
 Acq On : 13 Jun 2013 1:00 am  
 Operator : JK/AR  
 Sample : MBV061213K,RR  
 Misc : 100,10.00,SOIL  
 ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Jun 13 02:08:45 2013  
 Quant Method : C:\msdchem\1\METHODS\VPHTFT052313.M  
 Quant Title : Volatile Petroleum Hydrocarbons (VPH) MA DEP 2004  
 QLast Update : Thu May 23 21:57:36 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :  
 Signal #1 Phase: Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :



VOLATILE PETROLEUM HYDROCARBONS  
LABORATORY CONTROL SAMPLE  
LABORATORY CONTROL SAMPLE DUPLICATE  
PERCENT RECOVERY

Instrument ID: K  
GC Column: RTX-502.2  
Column ID: 0.25 mm

SDG:  
Non-spiked sample: BV060613K2  
Spike: LV060613K3  
Spike duplicate: LV060613K4

COMPOUND	SPIKE ADDED	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/L)	SPIKE RESULT (ug/L)	SPIKE % REC	#	SPIKE DUP RESULT (ug/L)	SPIKE DUP % REC	#	RPD	#
Pentane	100	70	130	25	0.0	94	94		93	93		1	
2-Methylpentane	100	70	130	25	0.0	92	92		91	91		1	
2,2,4-Trimethylpentane	100	70	130	25	0.0	94	94		94	94		0	
n-Decane	100	70	130	25	0.0	98	98		86	86		13	
n-Butylcyclohexane	100	70	130	25	0.0	94	94		85	85		10	
Methyl-t-butylether #2	100	70	130	25	0.0	99	99		97	97		1	
Benzene #2	100	70	130	25	0.0	98	98		97	97		1	
Toluene #2	100	70	130	25	0.0	98	98		97	97		1	
Ethylbenzene #2	100	70	130	25	0.0	96	96		96	96		1	
m,p-Xylene #2	200	70	130	25	0.0	188	94		186	93		1	
o-Xylene #2	100	70	130	25	0.0	96	96		95	95		1	
1,2,4-Trimethylbenzene #2	100	70	130	25	0.0	98	98		96	96		1	
Naphthalene #2	100	70	130	25	0.0	94	94		92	92		2	
C5-C8 Aliphatics	300	70	130	25	0.0	281	94		278	93		1	
C9-C12 Aliphatics	200	70	130	25	0.0	192	96		171	85		12	
C9-C10 Aromatics #2	100	70	130	25	0.0	98	98		96	96		1	

# Column to be used to flag recovery and RPD values outside of QC limits  
\* Values outside QC limits

Non-spiked result of "0" used in place of "U" to allow calculation of spike recovery

Comments: \_\_\_\_\_  
\_\_\_\_\_

VOLATILE PETROLEUM HYDROCARBONS SOIL  
LABORATORY CONTROL/LABORATORY CONTROL DUPLICATE  
PERCENT RECOVERY

Instrument ID: K  
GC Column: RTX-502.2  
Column ID: 0.25 mm

SDG:  
Non-spiked sample: MBV061213K,RR  
Spike: LSV061213K  
Spike duplicate: LSV061213K2

COMPOUND	LCS SPIKE	LCSD SPIKE	LOWER	UPPER	RPD	NON-SPIKE	SPIKE	SPIKE	SPIKE DUP	SPIKE DUP	RPD	
	ADDED (ug/kg)	ADDED (ug/kg)	LIMIT	LIMIT	LIMIT	RESULT (ug/kg)	RESULT (ug/kg)	% REC	#	RESULT (ug/kg)	% REC	#
Pentane	5000	5000	70	130	25	0	4893	98	4785	96		2
2-Methylpentane	5000	5000	70	130	25	0	4921	98	4792	96		3
2,2,4-Trimethylpentane	5000	5000	70	130	25	0	4806	96	4714	94		2
n-Decane	5000	5000	70	130	25	0	5583	112	5145	103		8
n-Butylcyclohexane	5000	5000	70	130	25	0	5147	103	4746	95		8
Methyl-t-butylether #2	5000	5000	70	130	25	0	5126	103	5232	105		2
Benzene #2	5000	5000	70	130	25	0	5551	111	5477	110		1
Toluene #2	5000	5000	70	130	25	0	5652	113	5528	111		2
Ethylbenzene #2	5000	5000	70	130	25	0	5498	110	5390	108		2
m,p-Xylene #2	10000	10000	70	130	25	0	10799	108	10585	106		2
o-Xylene #2	5000	5000	70	130	25	0	5452	109	5347	107		2
1,2,4-Trimethylbenzene #2	5000	5000	70	130	25	0	5532	111	5372	107		3
Naphthalene #2	5000	5000	70	130	25	0	5113	102	4959	99		3
C5-C8 Aliphatics	15000	15000	70	130	25	0	14620	97	14290	95		2
C9-C12 Aliphatics	10000	10000	70	130	25	0	10731	107	9891	99		8
C9-C10 Aromatics #2	5000	5000	70	130	25	0	5532	111	5372	107		3

# Column to be used to flag recovery and RPD values outside of QC limits  
\* Values outside QC limits

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: \_\_\_\_\_

EPH  
DATA SUMMARIES

June 14, 2013

Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

**SAMPLE DATA**

**Lab Sample ID:** 75661-1  
**Matrix:** Solid  
**Percent Solid:** 90  
**Dilution Factor:** 1.1  
**Collection Date:** 05/30/13  
**Lab Receipt Date:** 05/31/13  
**Extraction Date:** 06/03/13  
**Analysis Date:** 06/06/13

**CLIENT SAMPLE ID**

**Project Name:** Mill Dam  
**Project Number:** 111.06134  
**Client Sample ID:** SB111-S1-053013

**EPH ANALYTICAL RESULTS**

RANGE/TARGET ANALYTE		RL	Units	Result
Unadjusted C11-C22 Aromatics <sup>1</sup>		14200	µg/kg	<b>10400 J</b>
Diesel PAH Analytes	Naphthalene	285	µg/kg	U
	2-Methylnaphthalene	285	µg/kg	U
	Phenanthrene	285	µg/kg	U
	Acenaphthene	285	µg/kg	U
Other Target PAH Analytes	Acenaphthylene	285	µg/kg	U
	Fluorene	285	µg/kg	U
	Anthracene	285	µg/kg	U
	Fluoranthene	285	µg/kg	U
	Pyrene	285	µg/kg	U
	Benzo[a]anthracene	285	µg/kg	U
	Chrysene	285	µg/kg	U
	Benzo[b]fluoranthene	285	µg/kg	U
	Benzo[k]fluoranthene	285	µg/kg	U
	Benzo[a]pyrene	285	µg/kg	U
	Indeno[1,2,3-cd]pyrene	285	µg/kg	U
	Dibenzo[a,h]anthracene	285	µg/kg	U
	Benzo[g,h,i]perylene	285	µg/kg	U
	C9-C18 Aliphatic Hydrocarbons <sup>1</sup>		14200	µg/kg
C19-C36 Aliphatic Hydrocarbons <sup>1</sup>		14200	µg/kg	<b>101000</b>
C11-C22 Aromatic Hydrocarbons <sup>1,2</sup>		14200	µg/kg	<b>10400 J</b>
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)				54
Aromatic Surrogate % Recovery (O-Terphenyl)				62
Sample Surrogate Acceptance Range		--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)				80
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)				79
Fractionation Surrogate Acceptance Range		--	--	40-140%

<sup>1</sup>Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.  
<sup>2</sup>C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.  
RL = Report Limit  
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

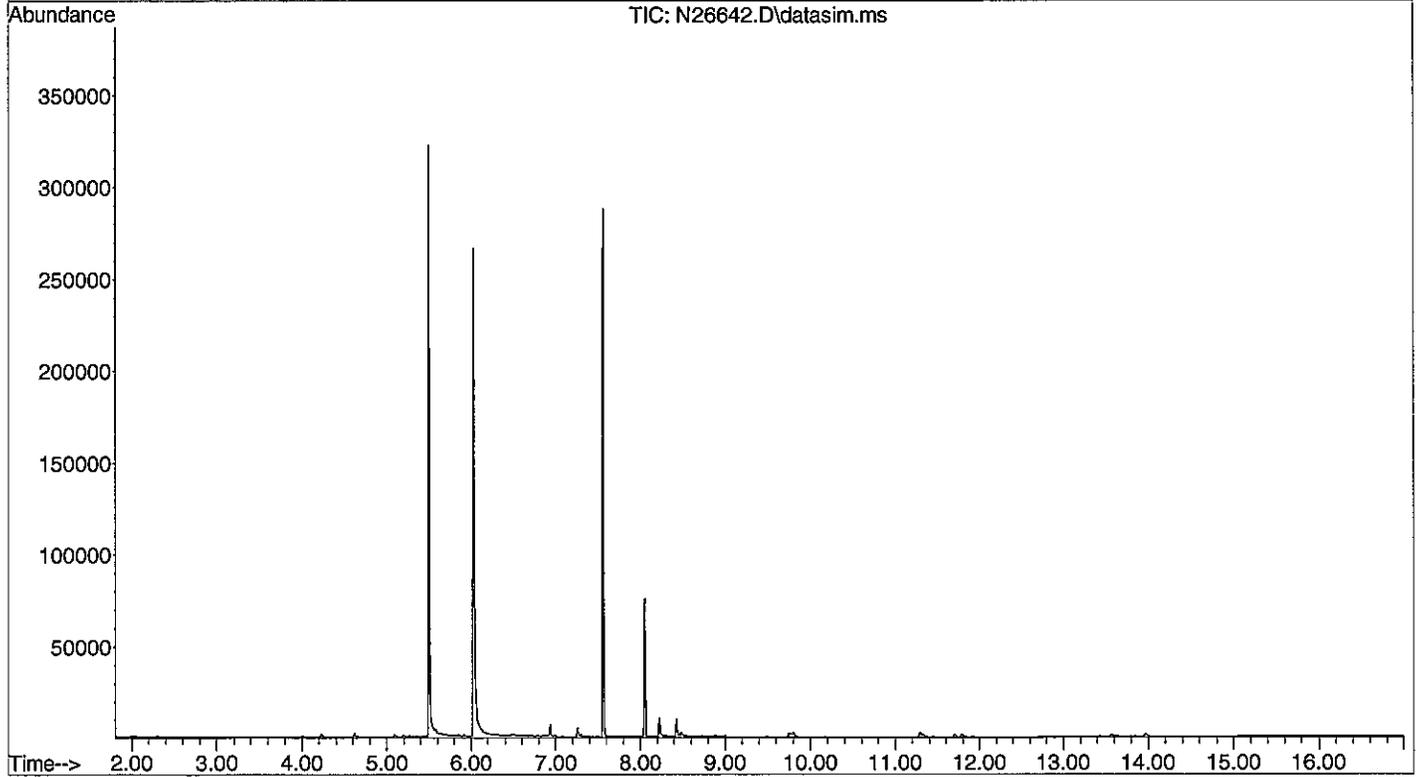
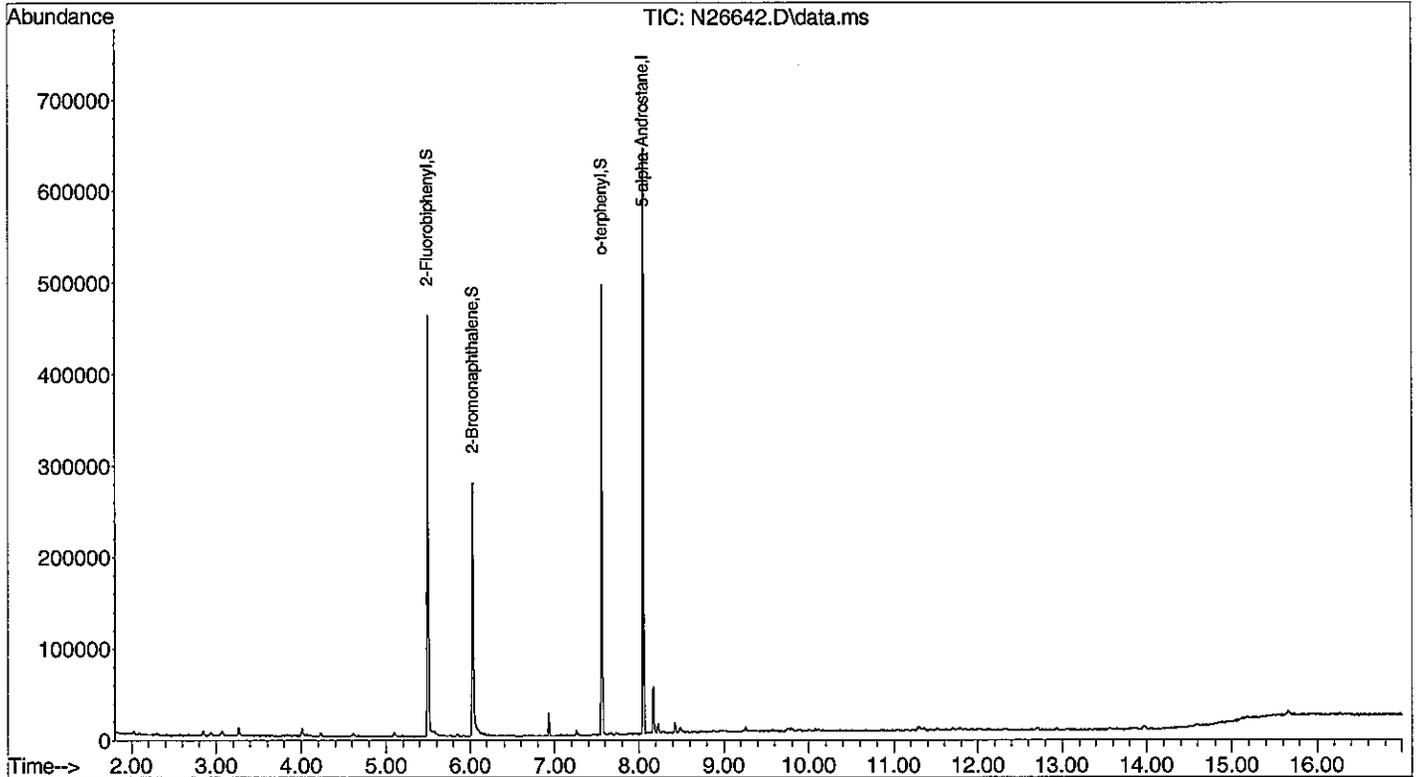
METHODOLOGY MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004  
Revision 1.1. Samples were extracted in accordance with SW-846 Method 3545

COMMENTS: EPH analyses utilized the use of a GC/MS system to detect and quantify ranges and target analytes. Samples were received in accordance with method criteria unless noted on the sample receipt checklist. Results are expressed on a dry weight basis.

SIGNATURE: 

Data Path : C:\msdchem\1\DATA\060513-N\  
Data File : N26642.D  
Acq On : 6 Jun 2013 5:23 am  
Operator : AR  
Sample : 75661-1  
Misc : SOIL, ARO  
ALS Vial : 24 Sample Multiplier: 1

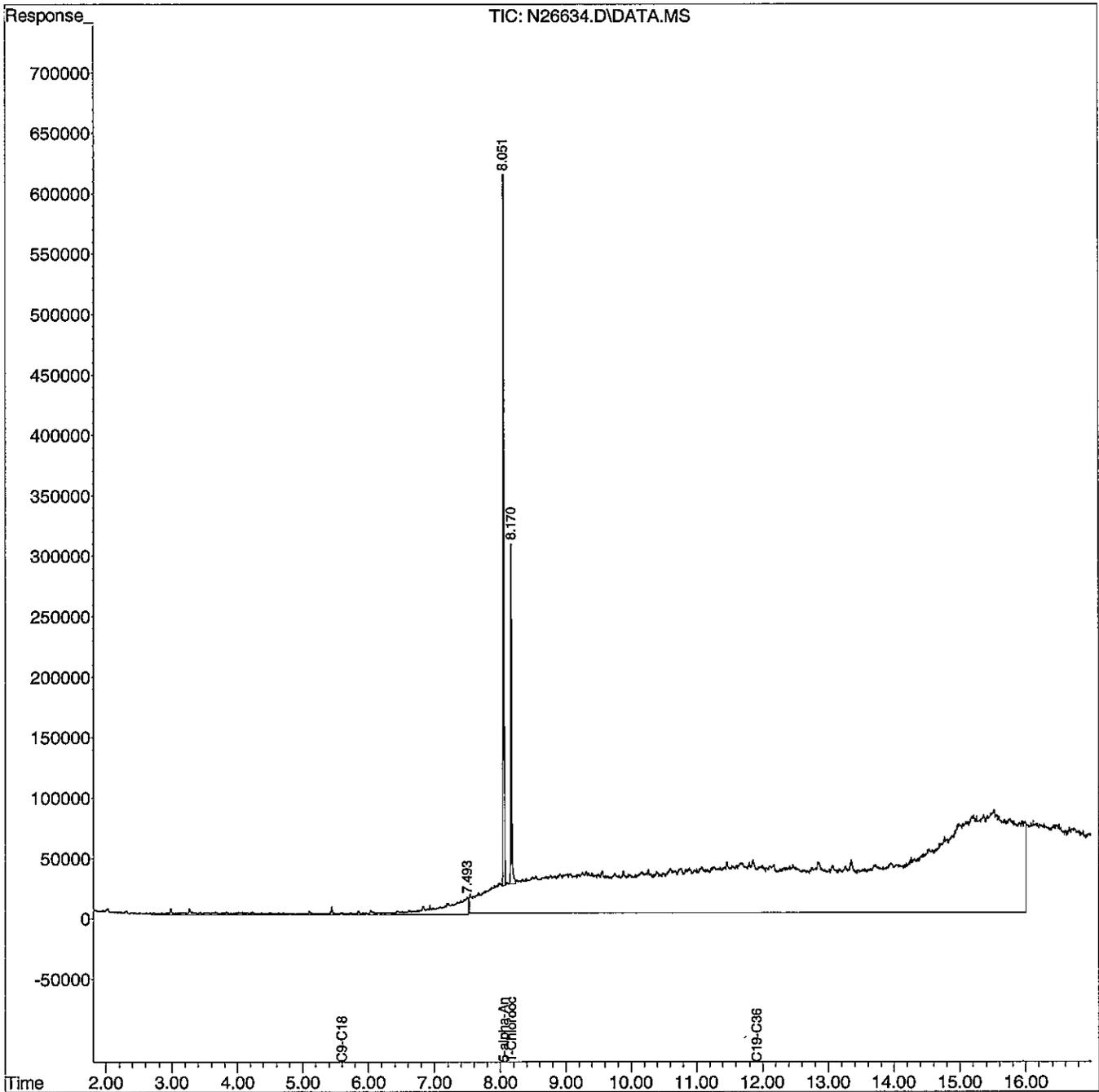
Quant Time: Jun 06 07:33:47 2013  
Quant Method : C:\msdchem\1\METHODS\ARM042913N.M  
Quant Title : EPH MS AROMATICS  
QLast Update : Tue Apr 30 09:43:05 2013  
Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\060513-N\  
Data File : N26634.D  
Signal(s) : DATA.MS  
Acq On : 6 Jun 2013 2:37 am  
Operator : AR  
Sample : 75661-1  
Misc : SOIL,ALI  
ALS Vial : 16 Sample Multiplier: 1

Integration File: rteint.p  
Quant Time: Jun 07 04:19:10 2013  
Quant Method : C:\msdchem\1\METHODS\ALG050113N.M  
Quant Title : EPH GC ALIPHATICS  
QLast Update : Thu May 02 20:33:49 2013  
Response via : Initial Calibration  
Integrator: RTE

Volume Inj. :  
Signal Phase :  
Signal Info :



June 20, 2013

Mr. Erik Phenix  
 Ransom Consulting, Inc.  
 400 Commercial Street Suite 404  
 Portland, ME 04101

**SAMPLE DATA**

Lab Sample ID: 75661-2  
 Matrix: Solid  
 Percent Solid: 91  
 Dilution Factor: 1.1  
 Collection Date: 05/30/13  
 Lab Receipt Date: 05/31/13  
 Extraction Date: 06/03/13  
 Analysis Date: 06/06/13

**CLIENT SAMPLE ID**

Project Name: Mill Dam  
 Project Number: 111.06134  
 Client Sample ID: SB112-S1-053013

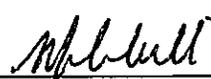
**EPH ANALYTICAL RESULTS**

RANGE/TARGET ANALYTE	RL	Units	Result
Unadjusted C11-C22 Aromatics <sup>1</sup>	14400	µg/kg	<b>8430 J</b>
Diesel PAH Analytes	Naphthalene	288	µg/kg U
	2-Methylnaphthalene	288	µg/kg U
	Phenanthrene	288	µg/kg U
	Acenaphthene	288	µg/kg U
Other Target PAH Analytes	Acenaphthylene	288	µg/kg U
	Fluorene	288	µg/kg U
	Anthracene	288	µg/kg U
	Fluoranthene	288	µg/kg U
	Pyrene	288	µg/kg U
	Benzo[a]anthracene	288	µg/kg U
	Chrysene	288	µg/kg U
	Benzo[b]fluoranthene	288	µg/kg U
	Benzo[k]fluoranthene	288	µg/kg U
	Benzo[a]pyrene	288	µg/kg U
	Indeno[1,2,3-cd]pyrene	288	µg/kg U
	Dibenzo[a,h]anthracene	288	µg/kg U
Benzo[g,h,i]perylene	288	µg/kg U	
C9-C18 Aliphatic Hydrocarbons <sup>1</sup>	14400	µg/kg	U
C19-C36 Aliphatic Hydrocarbons <sup>1</sup>	14400	µg/kg	<b>70900</b>
C11-C22 Aromatic Hydrocarbons <sup>1,2</sup>	14400	µg/kg	<b>8430 J</b>
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)			62
Aromatic Surrogate % Recovery (O-Terphenyl)			64
Sample Surrogate Acceptance Range	--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)			77
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)			73
Fractionation Surrogate Acceptance Range	--	--	40-140%

<sup>1</sup>Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.  
<sup>2</sup>C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.  
 RL = Report Limit  
 U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

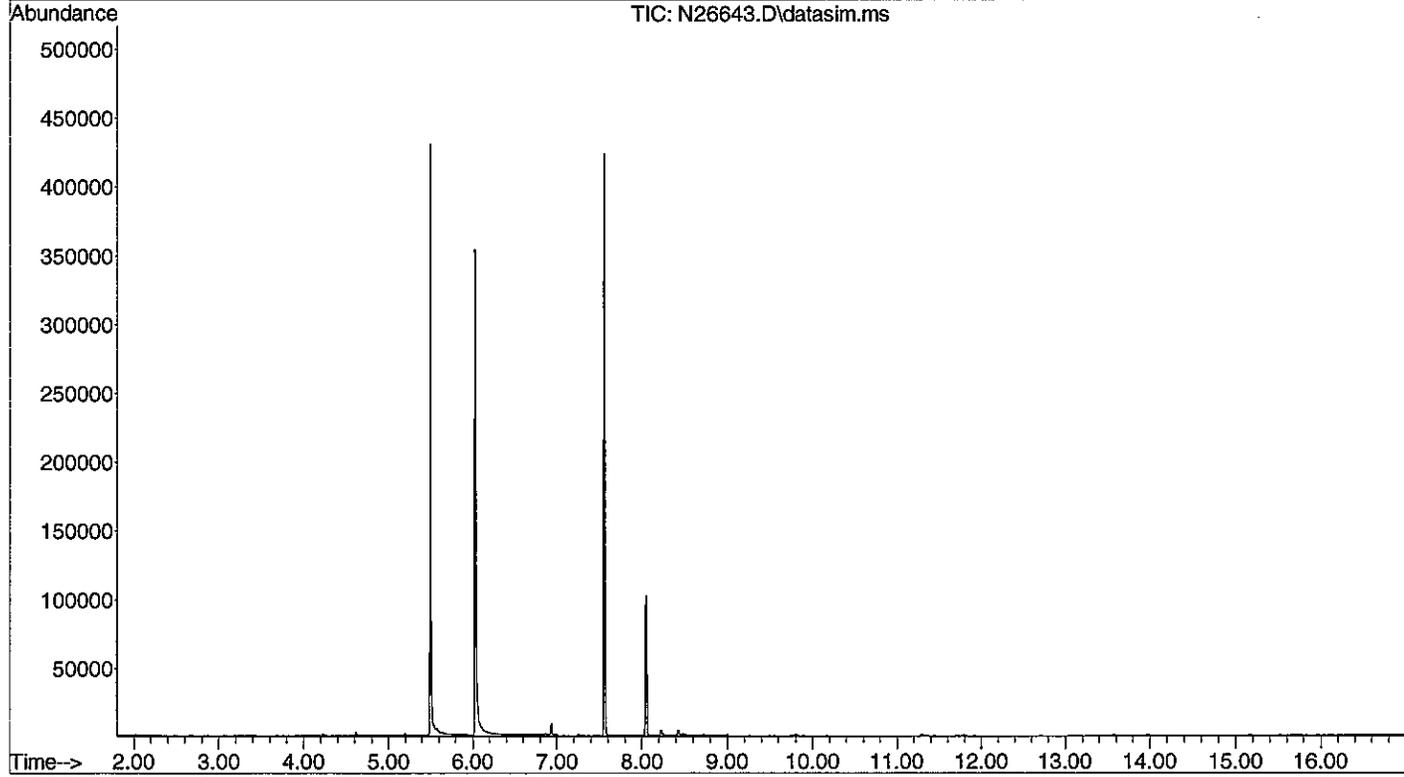
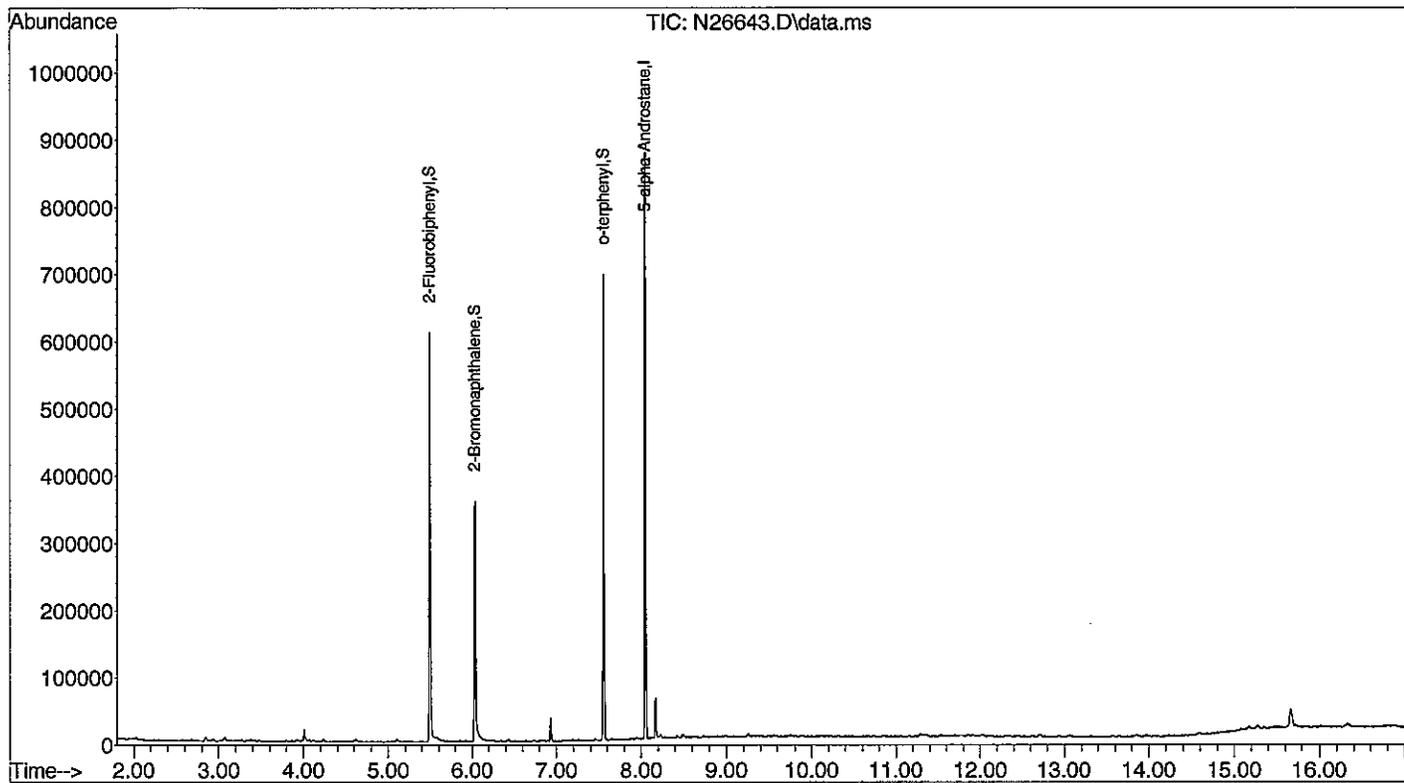
METHODOLOGY:MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004  
 Revision 1.1. Samples were extracted in accordance with SW-846 Method 3545

COMMENTS:EPH analyses utilized the use of a GC/MS system to detect and quantify ranges and target analytes. Samples were received in accordance with method criteria unless noted on the sample receipt checklist. Results are expressed on a dry weight basis.

SIGNATURE: 

Data Path : C:\msdchem\1\DATA\060513-N\  
Data File : N26643.D  
Acq On : 6 Jun 2013 5:44 am  
Operator : AR  
Sample : 75661-2  
Misc : SOIL, ARO  
ALS Vial : 25 Sample Multiplier: 1

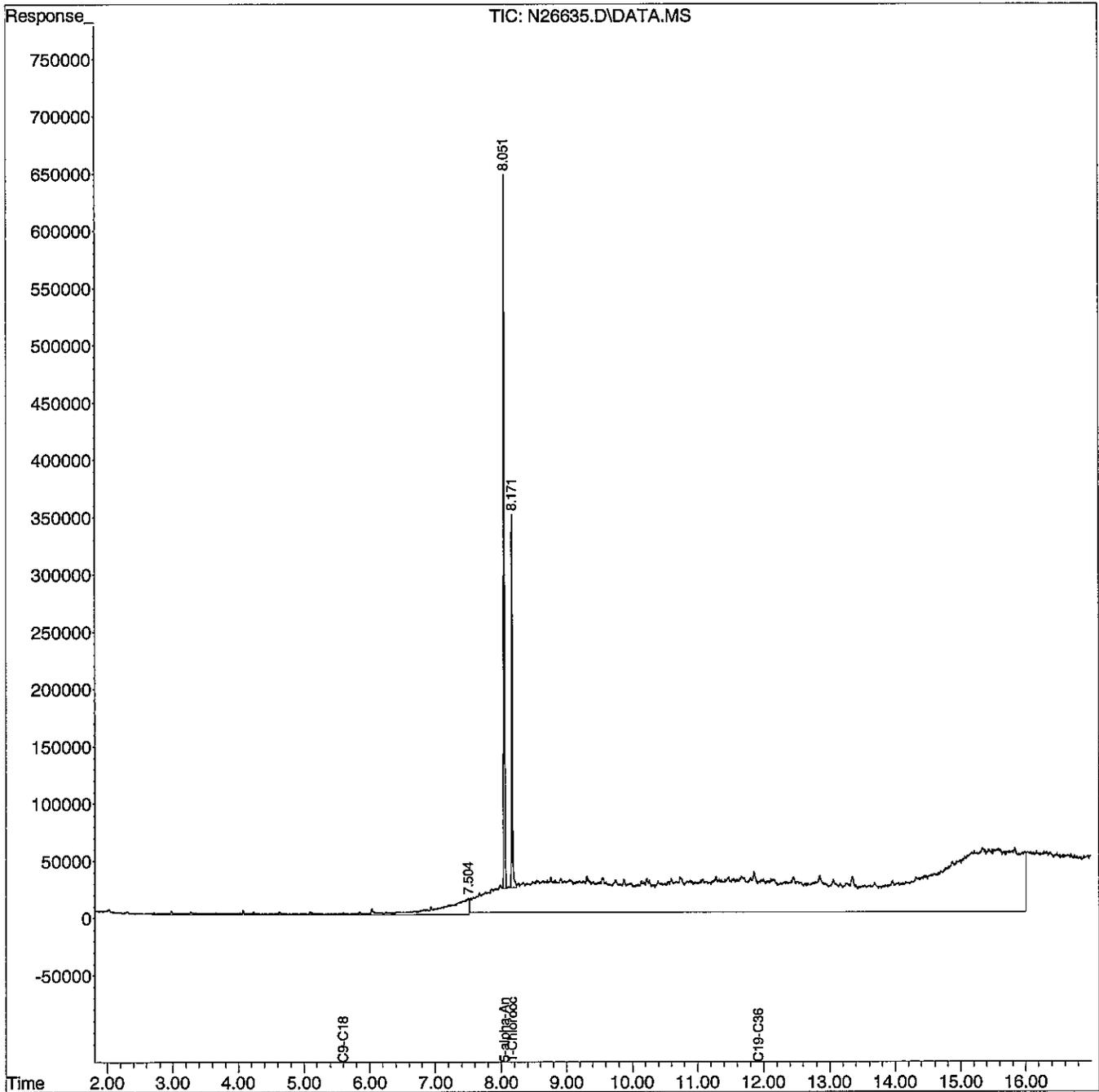
Quant Time: Jun 06 07:33:49 2013  
Quant Method : C:\msdchem\1\METHODS\ARM042913N.M  
Quant Title : EPH MS AROMATICS  
QLast Update : Tue Apr 30 09:43:05 2013  
Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\060513-N\  
Data File : N26635.D  
Signal(s) : DATA.MS  
Acq On : 6 Jun 2013 2:58 am  
Operator : AR  
Sample : 75661-2  
Misc : SOIL,ALI  
ALS Vial : 17 Sample Multiplier: 1

Integration File: rteint.p  
Quant Time: Jun 07 04:20:32 2013  
Quant Method : C:\msdchem\1\METHODS\ALG050113N.M  
Quant Title : EPH GC ALIPHATICS  
QLast Update : Thu May 02 20:33:49 2013  
Response via : Initial Calibration  
Integrator: RTE

Volume Inj. :  
Signal Phase :  
Signal Info :



June 14, 2013

Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

**SAMPLE DATA**

**Lab Sample ID:** 75661-3  
**Matrix:** Solid  
**Percent Solid:** 80  
**Dilution Factor:** 1.2  
**Collection Date:** 05/30/13  
**Lab Receipt Date:** 05/31/13  
**Extraction Date:** 06/03/13  
**Analysis Date:** 06/06/13

**CLIENT SAMPLE ID**

**Project Name:** Mill Dam  
**Project Number:** 111.06134  
**Client Sample ID:** SB113-S1-053013

EPH ANALYTICAL RESULTS			
RANGE/TARGET ANALYTE	RL	Units	Result
Unadjusted C11-C22 Aromatics <sup>1</sup>	16300	µg/kg	U
Diesel PAH Analytes	Naphthalene	327	µg/kg
	2-Methylnaphthalene	327	µg/kg
	Phenanthrene	327	µg/kg
	Acenaphthene	327	µg/kg
Other Target PAH Analytes	Acenaphthylene	327	µg/kg
	Fluorene	327	µg/kg
	Anthracene	327	µg/kg
	Fluoranthene	327	µg/kg
	Pyrene	327	µg/kg
	Benzo[a]anthracene	327	µg/kg
	Chrysene	327	µg/kg
	Benzo[b]fluoranthene	327	µg/kg
	Benzo[k]fluoranthene	327	µg/kg
	Benzo[a]pyrene	327	µg/kg
	Indeno[1,2,3-cd]pyrene	327	µg/kg
	Dibenzo[a,h]anthracene	327	µg/kg
	Benzo[g,h,i]perylene	327	µg/kg
C9-C18 Aliphatic Hydrocarbons <sup>1</sup>	16300	µg/kg	U
C19-C36 Aliphatic Hydrocarbons <sup>1</sup>	16300	µg/kg	20400
C11-C22 Aromatic Hydrocarbons <sup>1,2</sup>	16300	µg/kg	U
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)			49
Aromatic Surrogate % Recovery (O-Terphenyl)			55
Sample Surrogate Acceptance Range	--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)			81
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)			74
Fractionation Surrogate Acceptance Range	--	--	40-140%

<sup>1</sup>Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.  
<sup>2</sup>C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.  
RL = Report Limit  
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

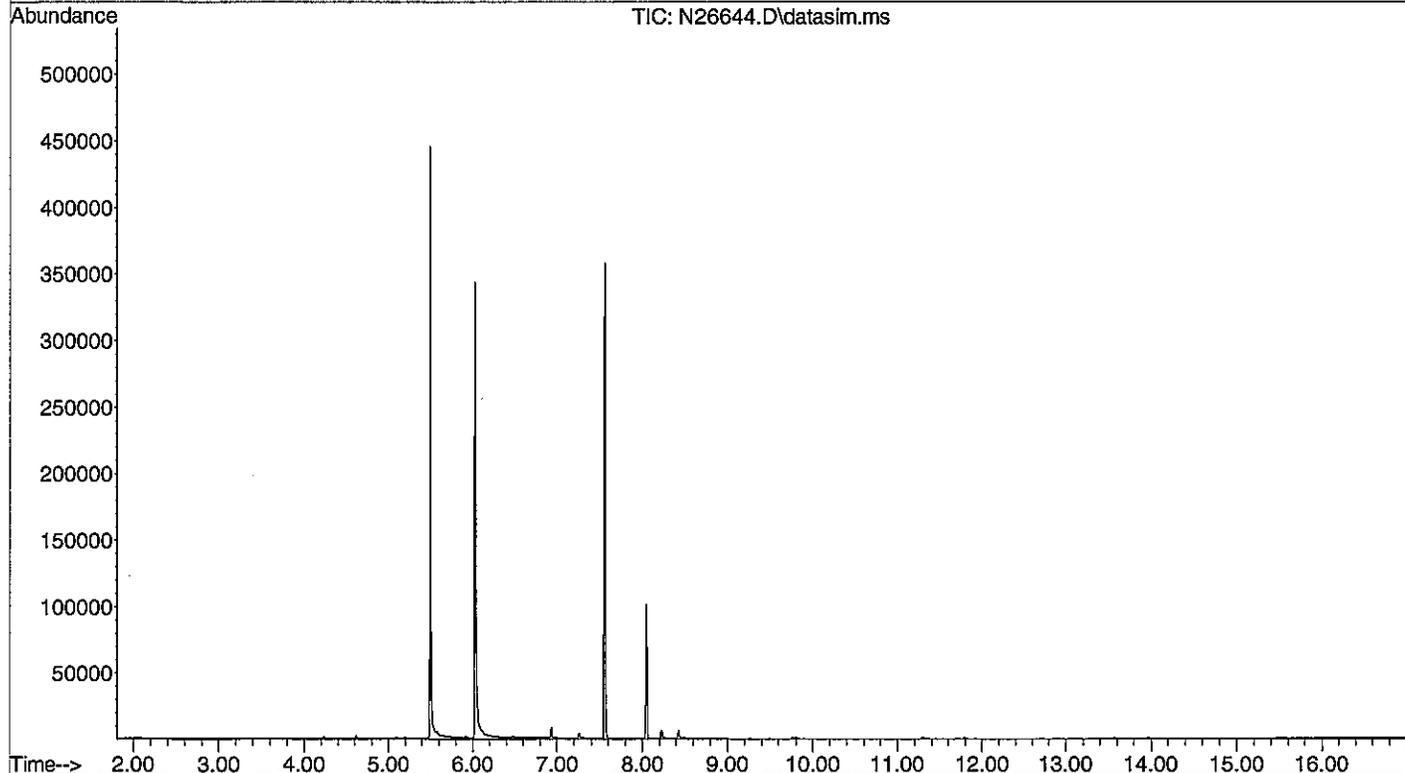
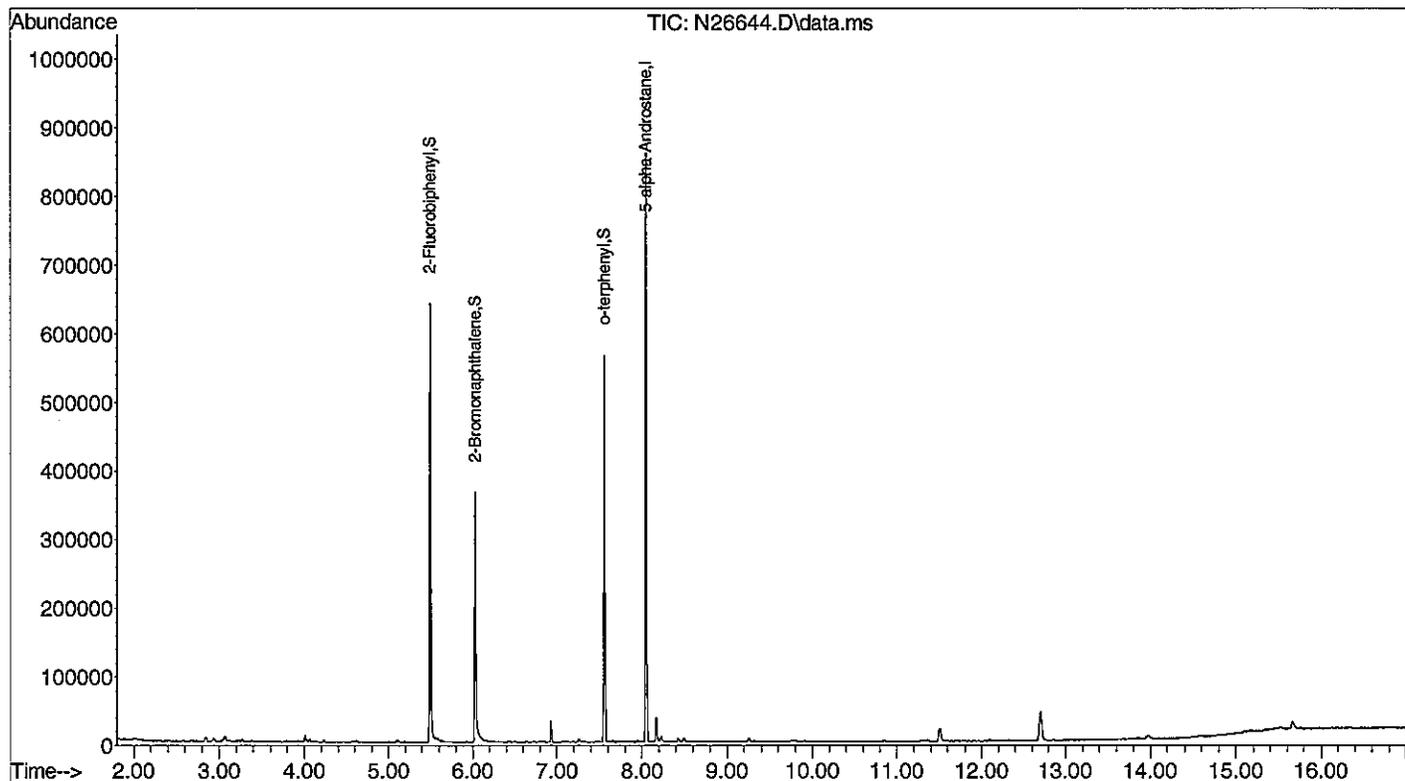
METHODOLOGY MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004  
Revision 1.1. Samples were extracted in accordance with SW-846 Method 3545

COMMENTS: EPH analyses utilized the use of a GC/MS system to detect and quantify ranges and target analytes. Samples were received in accordance with method criteria unless noted on the sample receipt checklist. Results are expressed on a dry weight basis.

SIGNATURE: *M. Phelan*

Data Path : C:\msdchem\1\DATA\060513-N\  
Data File : N26644.D  
Acq On : 6 Jun 2013 6:05 am  
Operator : AR  
Sample : 75661-3  
Misc : SOIL, ARO  
ALS Vial : 26 Sample Multiplier: 1

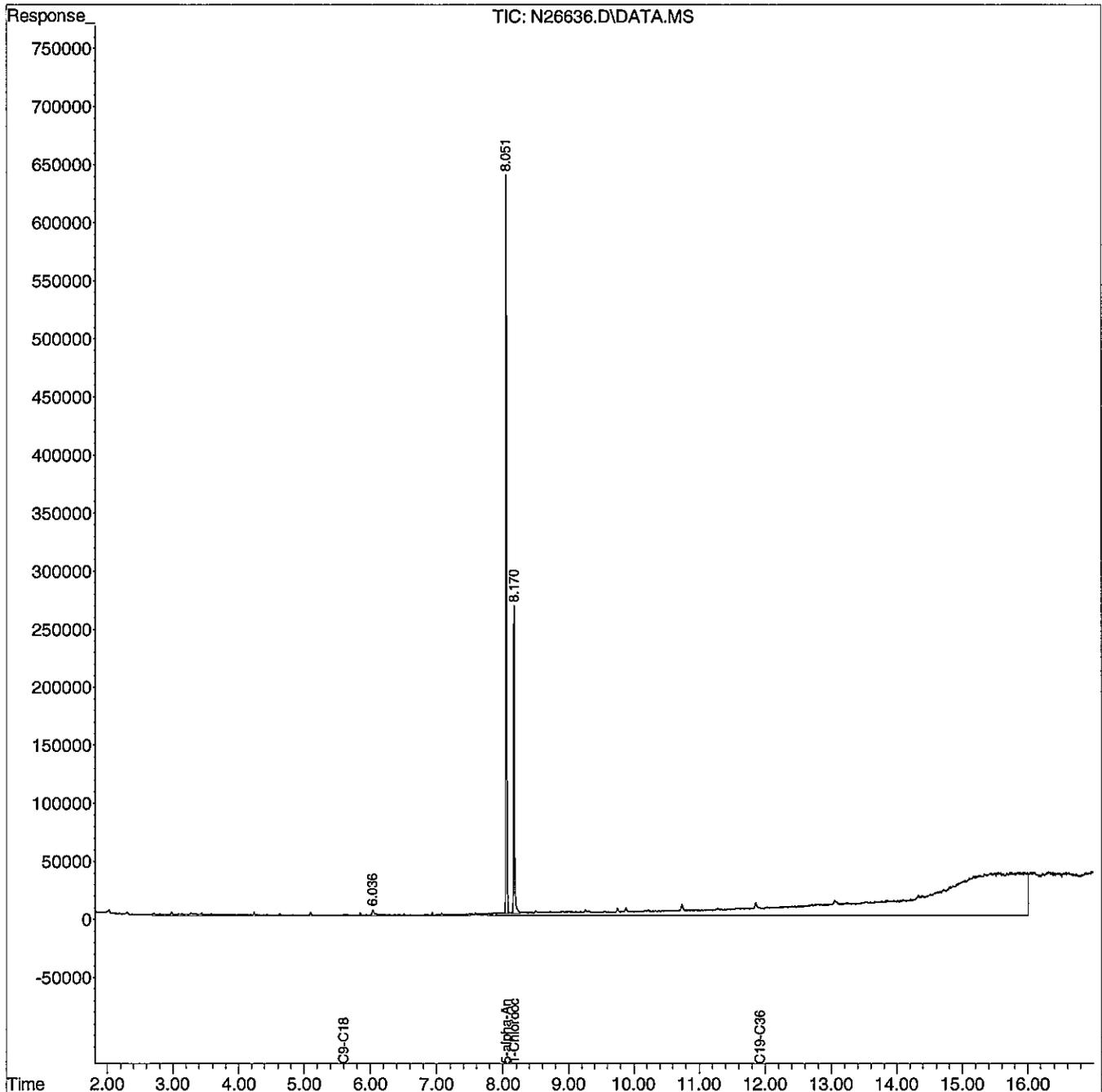
Quant Time: Jun 06 07:33:51 2013  
Quant Method : C:\msdchem\1\METHODS\ARM042913N.M  
Quant Title : EPH MS AROMATICS  
QLast Update : Tue Apr 30 09:43:05 2013  
Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\060513-N\  
Data File : N26636.D  
Signal(s) : DATA.MS  
Acq On : 6 Jun 2013 3:19 am  
Operator : AR  
Sample : 75661-3  
Misc : SOIL,ALI  
ALS Vial : 18 Sample Multiplier: 1

Integration File: rteint.p  
Quant Time: Jun 07 04:20:50 2013  
Quant Method : C:\msdchem\1\METHODS\ALG050113N.M  
Quant Title : EPH GC ALIPHATICS  
QLast Update : Thu May 02 20:33:49 2013  
Response via : Initial Calibration  
Integrator: RTE

Volume Inj. :  
Signal Phase :  
Signal Info :



June 14, 2013

Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

**SAMPLE DATA**

**Lab Sample ID:** 75661-4  
**Matrix:** Solid  
**Percent Solid:** 81  
**Dilution Factor:** 1.2  
**Collection Date:** 05/30/13  
**Lab Receipt Date:** 05/31/13  
**Extraction Date:** 06/03/13  
**Analysis Date:** 06/06/13

**CLIENT SAMPLE ID**

**Project Name:** Mill Dam  
**Project Number:** 111.06134  
**Client Sample ID:** SB114-S1-053013

EPH ANALYTICAL RESULTS			
RANGE/TARGET ANALYTE	RL	Units	Result
Unadjusted C11-C22 Aromatics <sup>1</sup>	15800	µg/kg	U
Diesel PAH Analytes	Naphthalene	316	µg/kg
	2-Methylnaphthalene	316	µg/kg
	Phenanthrene	316	µg/kg
	Acenaphthene	316	µg/kg
Other Target PAH Analytes	Acenaphthylene	316	µg/kg
	Fluorene	316	µg/kg
	Anthracene	316	µg/kg
	Fluoranthene	316	µg/kg
	Pyrene	316	µg/kg
	Benzo[a]anthracene	316	µg/kg
	Chrysene	316	µg/kg
	Benzo[b]fluoranthene	316	µg/kg
	Benzo[k]fluoranthene	316	µg/kg
	Benzo[a]pyrene	316	µg/kg
	Indeno[1,2,3-cd]pyrene	316	µg/kg
	Dibenz[a,h]anthracene	316	µg/kg
	Benzo[g,h,i]perylene	316	µg/kg
	C9-C18 Aliphatic Hydrocarbons <sup>1</sup>	15800	µg/kg
C19-C36 Aliphatic Hydrocarbons <sup>1</sup>	15800	µg/kg	12700 J
C11-C22 Aromatic Hydrocarbons <sup>1,2</sup>	15800	µg/kg	U
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)			50
Aromatic Surrogate % Recovery (O-Terphenyl)			51
Sample Surrogate Acceptance Range	--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)			74
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)			73
Fractionation Surrogate Acceptance Range	--	--	40-140%

<sup>1</sup>Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.  
<sup>2</sup>C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.  
RL = Report Limit  
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

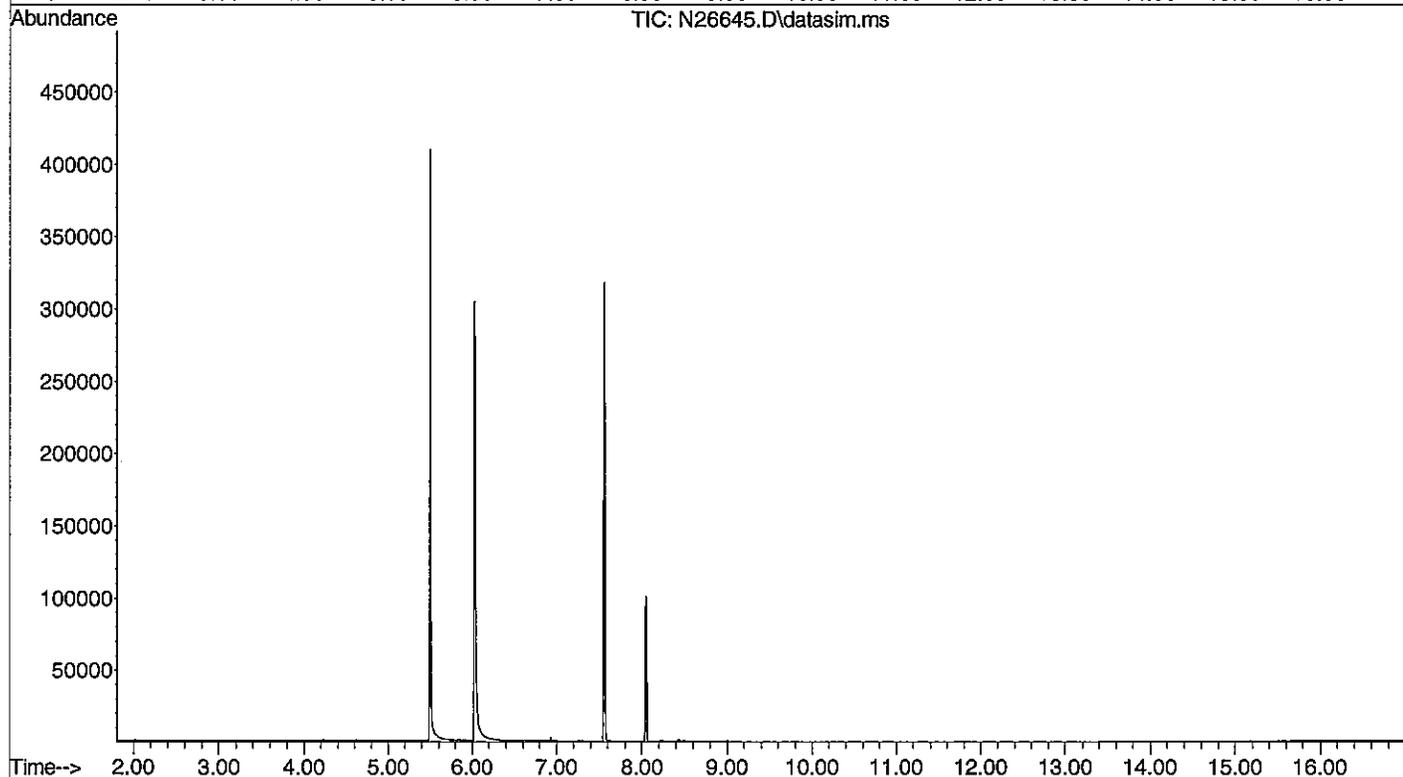
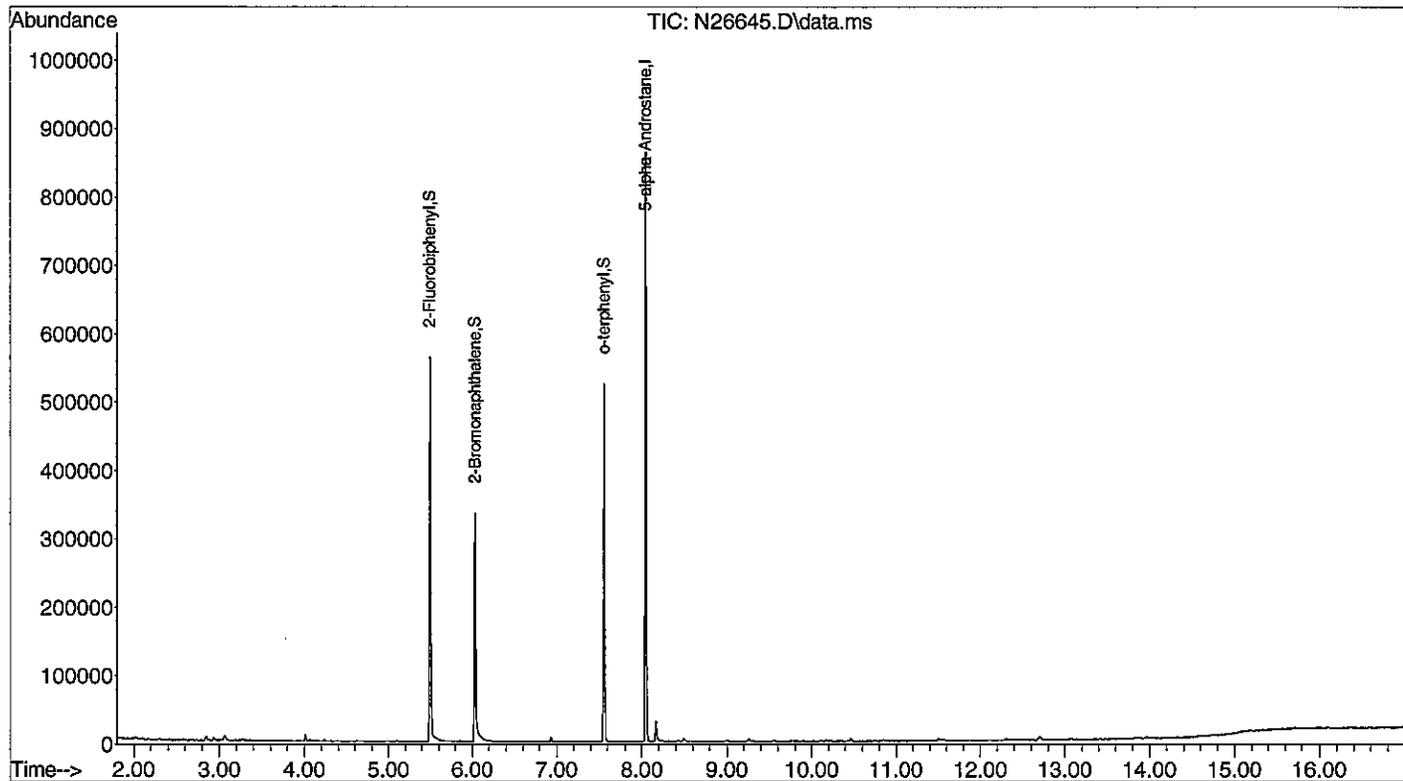
METHODOLOGY:MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004 Revision 1.1. Samples were extracted in accordance with SW-846 Method 3545

COMMENTS:EPH analyses utilized the use of a GC/MS system to detect and quantify ranges and target analytes. Samples were received in accordance with method criteria unless noted on the sample receipt checklist. Results are expressed on a dry weight basis.

SIGNATURE: *Mphull*

Data Path : C:\msdchem\1\DATA\060513-N\  
 Data File : N26645.D  
 Acq On : 6 Jun 2013 6:25 am  
 Operator : AR  
 Sample : 75661-4  
 Misc : SOIL, ARO  
 ALS Vial : 27 Sample Multiplier: 1

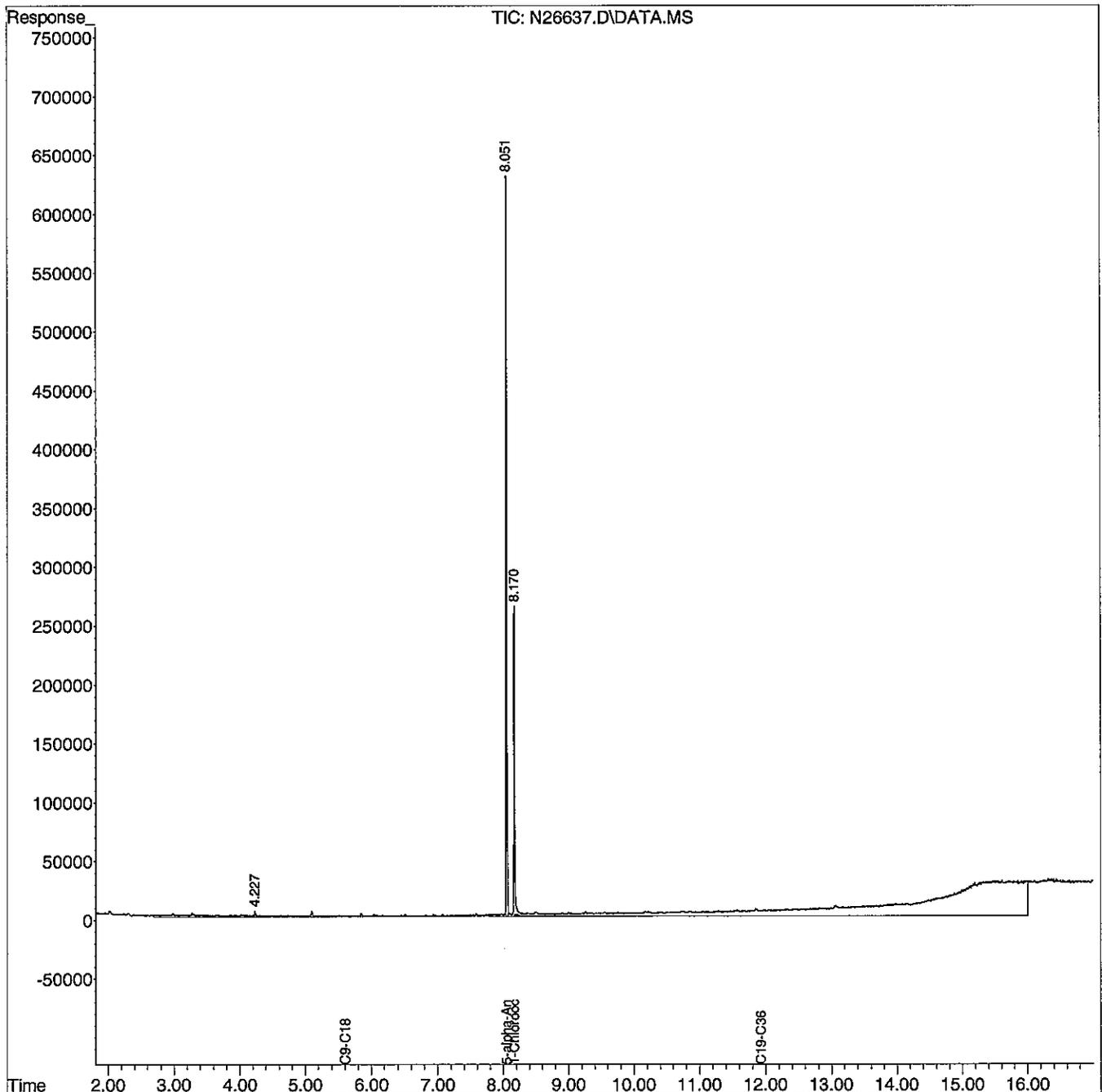
Quant Time: Jun 06 07:33:53 2013  
 Quant Method : C:\msdchem\1\METHODS\ARM042913N.M  
 Quant Title : EPH MS AROMATICS  
 QLast Update : Tue Apr 30 09:43:05 2013  
 Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\060513-N\  
Data File : N26637.D  
Signal(s) : DATA.MS  
Acq On : 6 Jun 2013 3:40 am  
Operator : AR  
Sample : 75661-4  
Misc : SOIL,ALI  
ALS Vial : 19 Sample Multiplier: 1

Integration File: rteint.p  
Quant Time: Jun 07 04:21:18 2013  
Quant Method : C:\msdchem\1\METHODS\ALG050113N.M  
Quant Title : EPH GC ALIPHATICS  
QLast Update : Thu May 02 20:33:49 2013  
Response via : Initial Calibration  
Integrator: RTE

Volume Inj. :  
Signal Phase :  
Signal Info :



June 29, 2013

Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

**SAMPLE DATA**

Lab Sample ID: 75661-5  
Matrix: Solid  
Percent Solid: 82  
Dilution Factor: 1.2  
Collection Date: 05/30/13  
Lab Receipt Date: 05/31/13  
Extraction Date: 06/03/13  
Analysis Date: 06/06/13

**CLIENT SAMPLE ID**

Project Name: Mill Dam  
Project Number: 111.06134  
Client Sample ID: SB115-S1-053013

**EPH ANALYTICAL RESULTS**

RANGE/TARGET ANALYTE	RL	Units	Result
Unadjusted C11-C22 Aromatics <sup>1</sup>	15500	µg/kg	U
Diesel PAH Analytes	Naphthalene	311	µg/kg
	2-Methylnaphthalene	311	µg/kg
	Phenanthrene	311	µg/kg
	Acenaphthene	311	µg/kg
Other Target PAH Analytes	Acenaphthylene	311	µg/kg
	Fluorene	311	µg/kg
	Anthracene	311	µg/kg
	Fluoranthene	311	µg/kg
	Pyrene	311	µg/kg
	Benzo[a]anthracene	311	µg/kg
	Chrysene	311	µg/kg
	Benzo[b]fluoranthene	311	µg/kg
	Benzo[k]fluoranthene	311	µg/kg
	Benzo[a]pyrene	311	µg/kg
	Indeno[1,2,3-cd]pyrene	311	µg/kg
	Dibenz[a,h]anthracene	311	µg/kg
Benzo[g,h,i]perylene	311	µg/kg	
C9-C18 Aliphatic Hydrocarbons <sup>1</sup>	15500	µg/kg	U
C19-C36 Aliphatic Hydrocarbons <sup>1</sup>	15500	µg/kg	8600 J
C11-C22 Aromatic Hydrocarbons <sup>1,2</sup>	15500	µg/kg	U
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)			8 *
Aromatic Surrogate % Recovery (O-Terphenyl)			7 *
Sample Surrogate Acceptance Range	--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)			78
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)			69
Fractionation Surrogate Acceptance Range	--	--	40-140%

<sup>1</sup>Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.  
<sup>2</sup>C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.  
 RL = Report Limit  
 U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

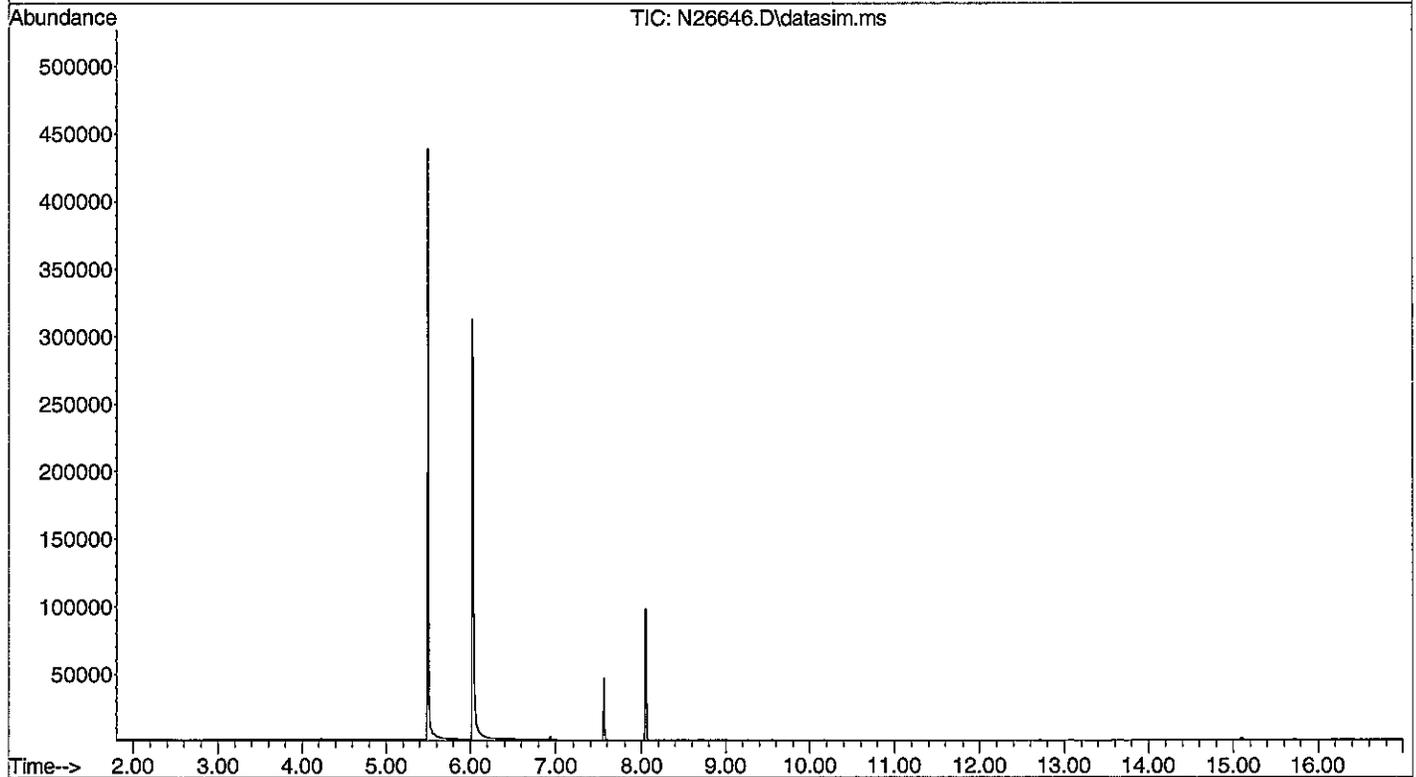
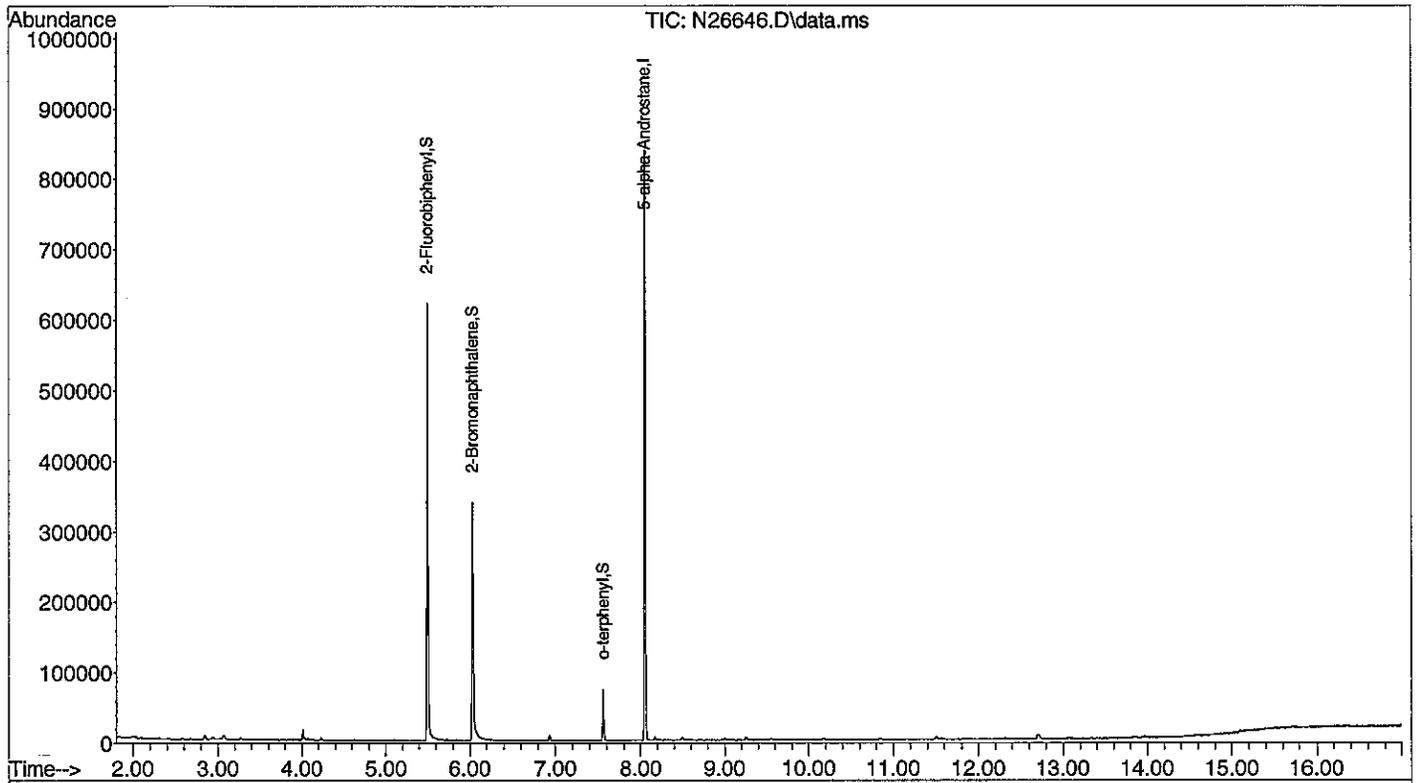
METHODOLOGY:MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004  
Revision 1.1. Samples were extracted in accordance with SW-846 Method 3545

COMMENTS:EPH analyses utilized the use of a GC/MS system to detect and quantify ranges and target analytes. Samples were received in accordance with method criteria unless noted on the sample receipt checklist.  
Results are expressed on a dry weight basis.  
\* Surrogate recovery outside laboratory acceptance criteria due to matrix affect. Due to laboratory error the sample was not re-extracted to confirm results.

SIGNATURE: 

Data Path : C:\msdchem\1\DATA\060513-N\  
 Data File : N26646.D  
 Acq On : 6 Jun 2013 6:46 am  
 Operator : AR  
 Sample : 75661-5  
 Misc : SOIL, ARO  
 ALS Vial : 28 Sample Multiplier: 1

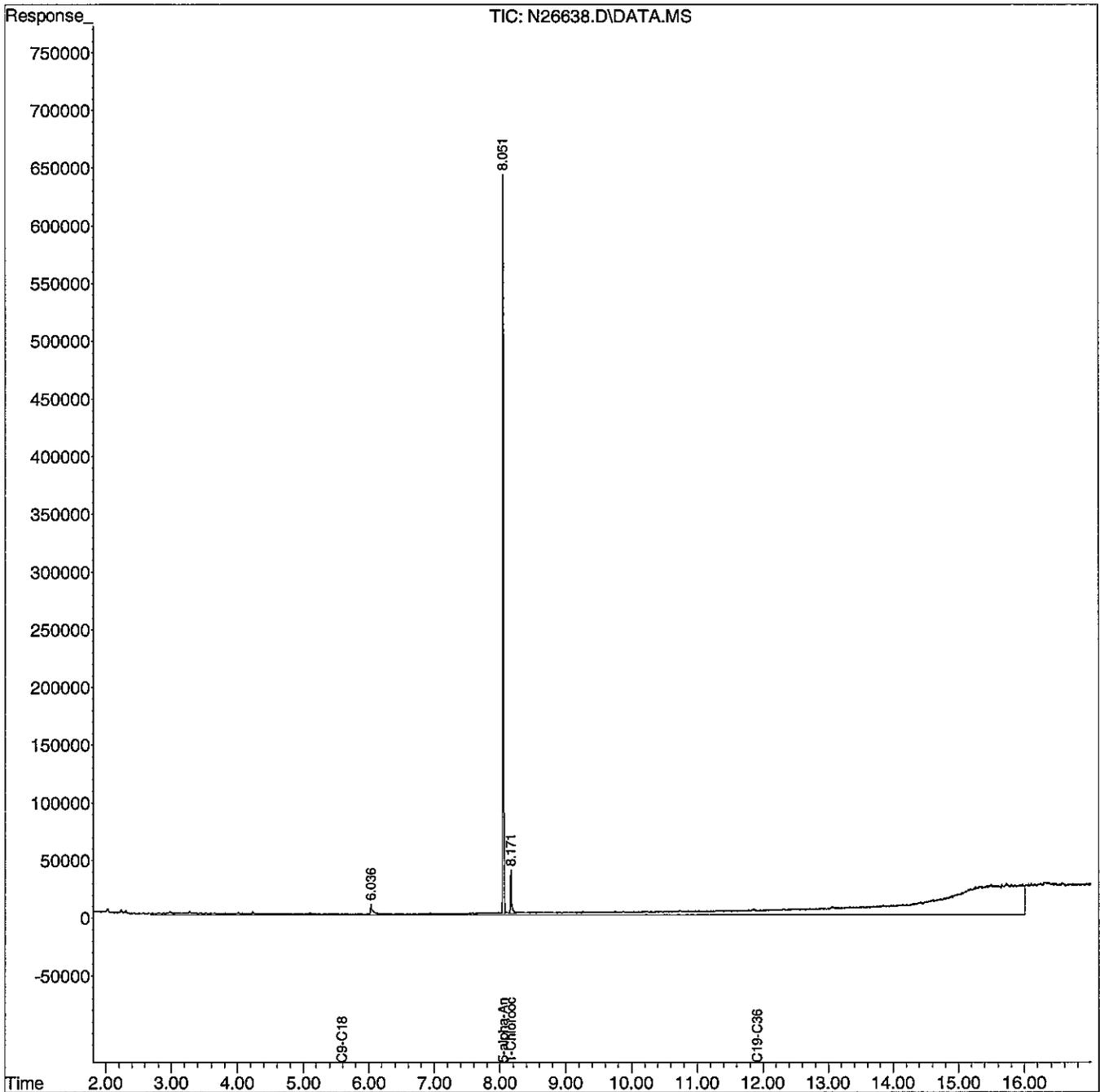
Quant Time: Jun 06 07:33:55 2013  
 Quant Method : C:\msdchem\1\METHODS\ARM042913N.M  
 Quant Title : EPH MS AROMATICS  
 QLast Update : Tue Apr 30 09:43:05 2013  
 Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\060513-N\  
Data File : N26638.D  
Signal(s) : DATA.MS  
Acq On : 6 Jun 2013 4:00 am  
Operator : AR  
Sample : 75661-5  
Misc : SOIL,ALI  
ALS Vial : 20 Sample Multiplier: 1

Integration File: rteint.p  
Quant Time: Jun 07 04:21:37 2013  
Quant Method : C:\msdchem\1\METHODS\ALG050113N.M  
Quant Title : EPH GC ALIPHATICS  
QLast Update : Thu May 02 20:33:49 2013  
Response via : Initial Calibration  
Integrator: RTE

Volume Inj. :  
Signal Phase :  
Signal Info :



June 14, 2013

Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

**SAMPLE DATA**

**Lab Sample ID:** 75661-6  
**Matrix:** Solid  
**Percent Solid:** 89  
**Dilution Factor:** 1.1  
**Collection Date:** 05/30/13  
**Lab Receipt Date:** 05/31/13  
**Extraction Date:** 06/03/13  
**Analysis Date:** 06/06/13

**CLIENT SAMPLE ID**

**Project Name:** Mill Dam  
**Project Number:** 111.06134  
**Client Sample ID:** SB116-S1-053013

EPH ANALYTICAL RESULTS			
RANGE/TARGET ANALYTE	RL	Units	Result
Unadjusted C11-C22 Aromatics <sup>1</sup>	14800	µg/kg	<b>8010 J</b>
Diesel PAH Analytes	Naphthalene	297	µg/kg U
	2-Methylnaphthalene	297	µg/kg U
	Phenanthrene	297	µg/kg U
	Acenaphthene	297	µg/kg U
Other Target PAH Analytes	Acenaphthylene	297	µg/kg U
	Fluorene	297	µg/kg U
	Anthracene	297	µg/kg U
	Fluoranthene	297	µg/kg <b>156 J</b>
	Pyrene	297	µg/kg <b>199 J</b>
	Benzo[a]anthracene	297	µg/kg U
	Chrysene	297	µg/kg <b>162 J</b>
	Benzo[b]fluoranthene	297	µg/kg <b>238 J</b>
	Benzo[k]fluoranthene	297	µg/kg U
	Benzo[a]pyrene	297	µg/kg <b>175 J</b>
	Indeno[1,2,3-cd]pyrene	297	µg/kg <b>167 J</b>
	Dibenzo[a,h]anthracene	297	µg/kg U
	Benzo[g,h,i]perylene	297	µg/kg <b>153 J</b>
C9-C18 Aliphatic Hydrocarbons <sup>1</sup>	14800	µg/kg U	
C19-C36 Aliphatic Hydrocarbons <sup>1</sup>	14800	µg/kg U	
C11-C22 Aromatic Hydrocarbons <sup>1,2</sup>	14800	µg/kg U	
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)			59
Aromatic Surrogate % Recovery (O-Terphenyl)			67
Sample Surrogate Acceptance Range	--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)			75
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)			68
Fractionation Surrogate Acceptance Range	--	--	40-140%

<sup>1</sup>Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.  
<sup>2</sup>C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.  
RL = Report Limit  
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

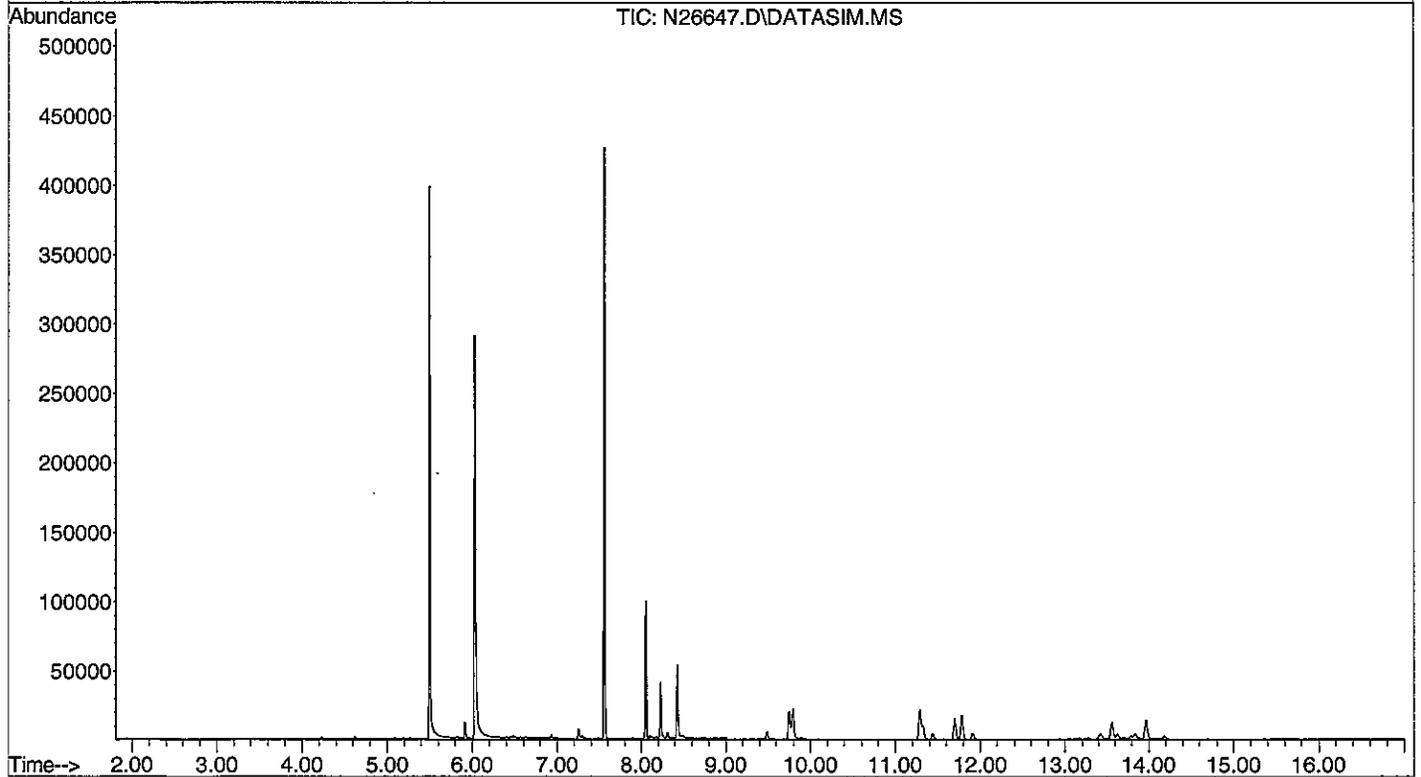
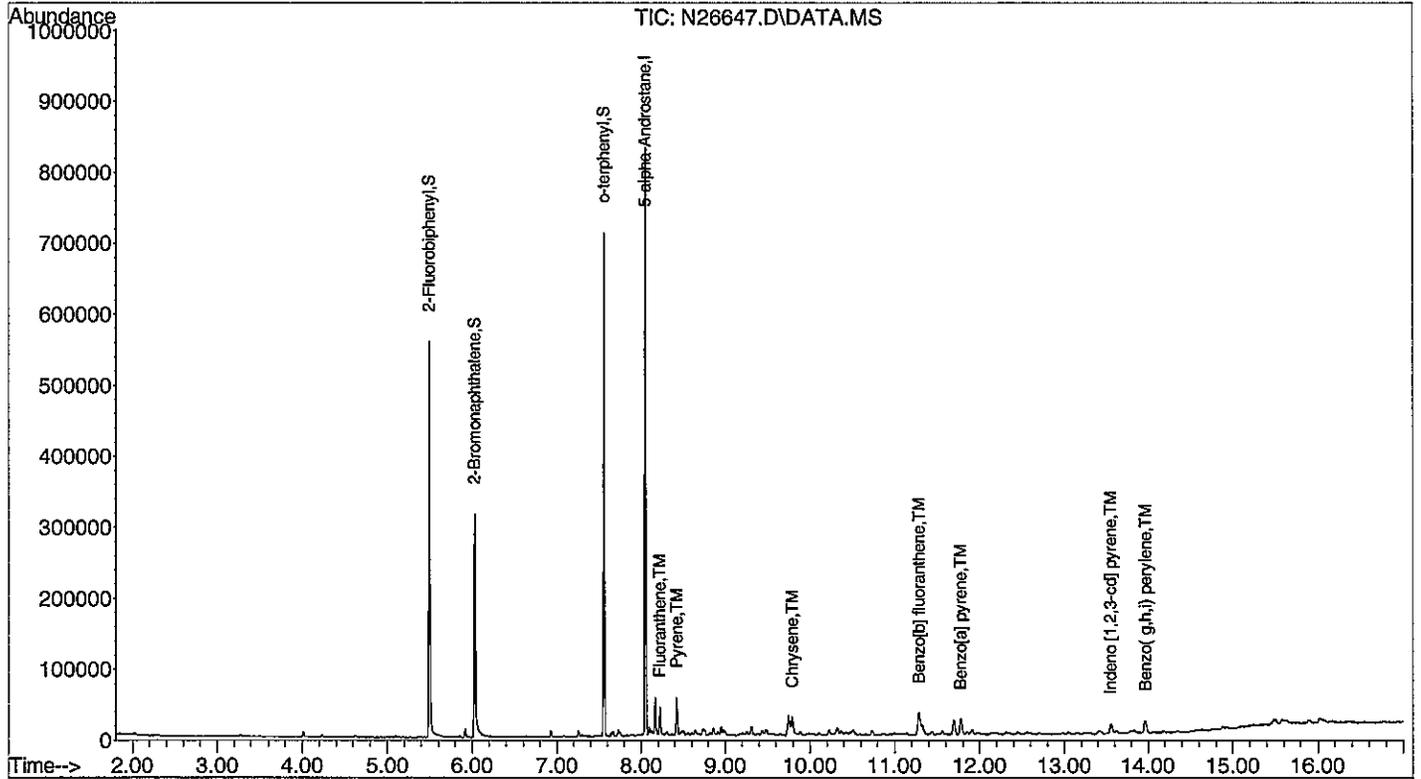
METHODOLOGY:MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004  
Revision 1.1. Samples were extracted in accordance with SW-846 Method 3545

COMMENTS:EPH analyses utilized the use of a GC/MS system to detect and quantify ranges and target analytes. Samples were received in accordance with method criteria unless noted on the sample receipt checklist.  
Results are expressed on a dry weight basis.

SIGNATURE: 

Data Path : C:\msdchem\1\DATA\060513-N\  
 Data File : N26647.D  
 Acq On : 6 Jun 2013 7:07 am  
 Operator : AR  
 Sample : 75661-6  
 Misc : SOIL, ARO  
 ALS Vial : 29 Sample Multiplier: 1

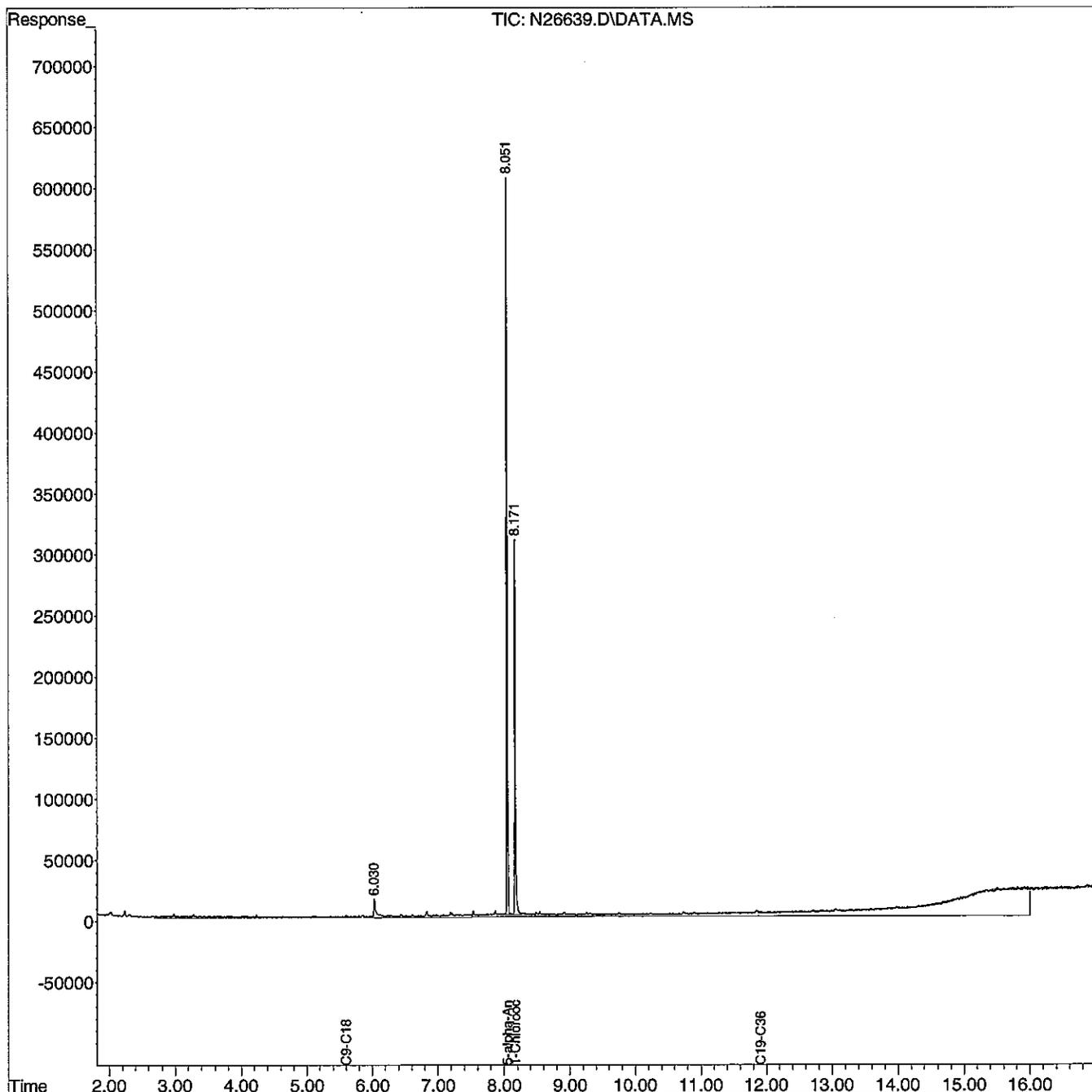
Quant Time: Jun 10 21:34:14 2013  
 Quant Method : C:\msdchem\1\METHODS\ARM042913N.M  
 Quant Title : EPH MS AROMATICS  
 QLast Update : Tue Apr 30 09:43:05 2013  
 Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\060513-N\  
Data File : N26639.D  
Signal(s) : DATA.MS  
Acq On : 6 Jun 2013 4:21 am  
Operator : AR  
Sample : 75661-6  
Misc : SOIL,ALI  
ALS Vial : 21 Sample Multiplier: 1

Integration File: rteint.p  
Quant Time: Jun 07 04:22:28 2013  
Quant Method : C:\msdchem\1\METHODS\ALG050113N.M  
Quant Title : EPH GC ALIPHATICS  
QLast Update : Thu May 02 20:33:49 2013  
Response via : Initial Calibration  
Integrator: RTE

Volume Inj. :  
Signal Phase :  
Signal Info :



Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

June 14, 2013

**CLIENT SAMPLE ID**  

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**Project Name:** Mill Dam  
**Project Number:** 111.06134  
**Client Sample ID:** SB117-S1-053013

**SAMPLE DATA**  

---

**Lab Sample ID:** 75661-7  
**Matrix:** Solid  
**Percent Solid:** 78  
**Dilution Factor:** 2.5  
**Collection Date:** 05/30/13  
**Lab Receipt Date:** 05/31/13  
**Extraction Date:** 06/03/13  
**Analysis Date:** 06/07/13

EPH ANALYTICAL RESULTS				
RANGE/TARGET ANALYTE	RL	Units	Result	
Unadjusted C11-C22 Aromatics	33900	µg/kg	301000	
Diesel PAH Analytes	Naphthalene	678	µg/kg	U
	2-Methylnaphthalene	678	µg/kg	U
	Phenanthrene	678	µg/kg	12700
	Acenaphthene	678	µg/kg	U
Other Target PAH Analytes	Acenaphthylene	678	µg/kg	1810
	Fluorene	678	µg/kg	746
	Anthracene	678	µg/kg	1170
	Fluoranthene	678	µg/kg	21600
	Pyrene	678	µg/kg	19300
	Benzo[a]anthracene	678	µg/kg	10300
	Chrysene	678	µg/kg	11200
	Benzo[b]fluoranthene	678	µg/kg	15100
	Benzo[k]fluoranthene	678	µg/kg	4410
	Benzo[a]pyrene	678	µg/kg	8900
	Indeno[1,2,3-cd]pyrene	678	µg/kg	7800
	Dibenzo[a,h]anthracene	678	µg/kg	1700
	Benzo[g,h,i]perylene	678	µg/kg	7000
C9-C18 Aliphatic Hydrocarbons <sup>1</sup>	16900	µg/kg	U	
C19-C36 Aliphatic Hydrocarbons <sup>1</sup>	16900	µg/kg	27100	
C11-C22 Aromatic Hydrocarbons <sup>1,2</sup>	33900	µg/kg	177000	
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)			77	
Aromatic Surrogate % Recovery (O-Terphenyl)			54	
Sample Surrogate Acceptance Range	--	--	40-140%	
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)			67	
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)			57	
Fractionation Surrogate Acceptance Range	--	--	40-140%	

<sup>1</sup>Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.  
<sup>2</sup>C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.  
RL = Report Limit  
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

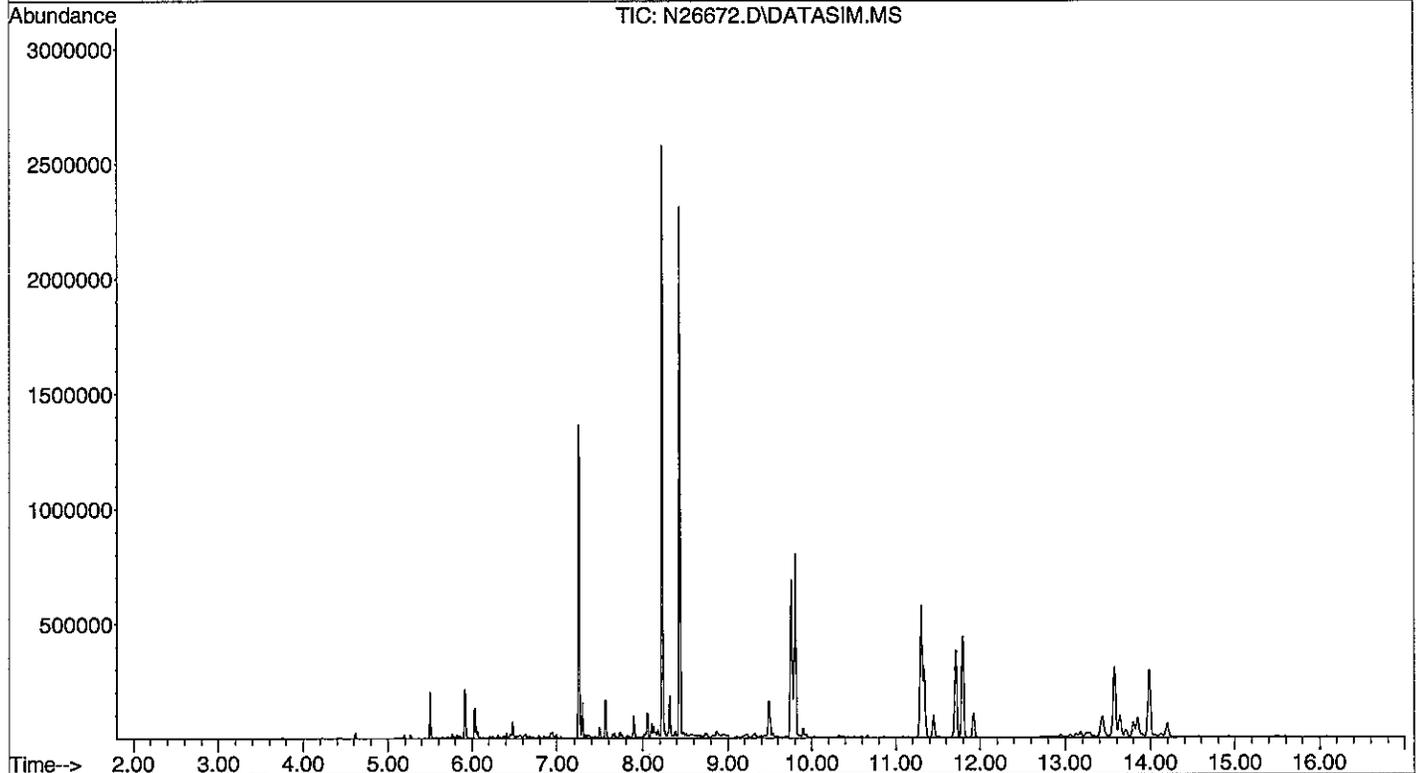
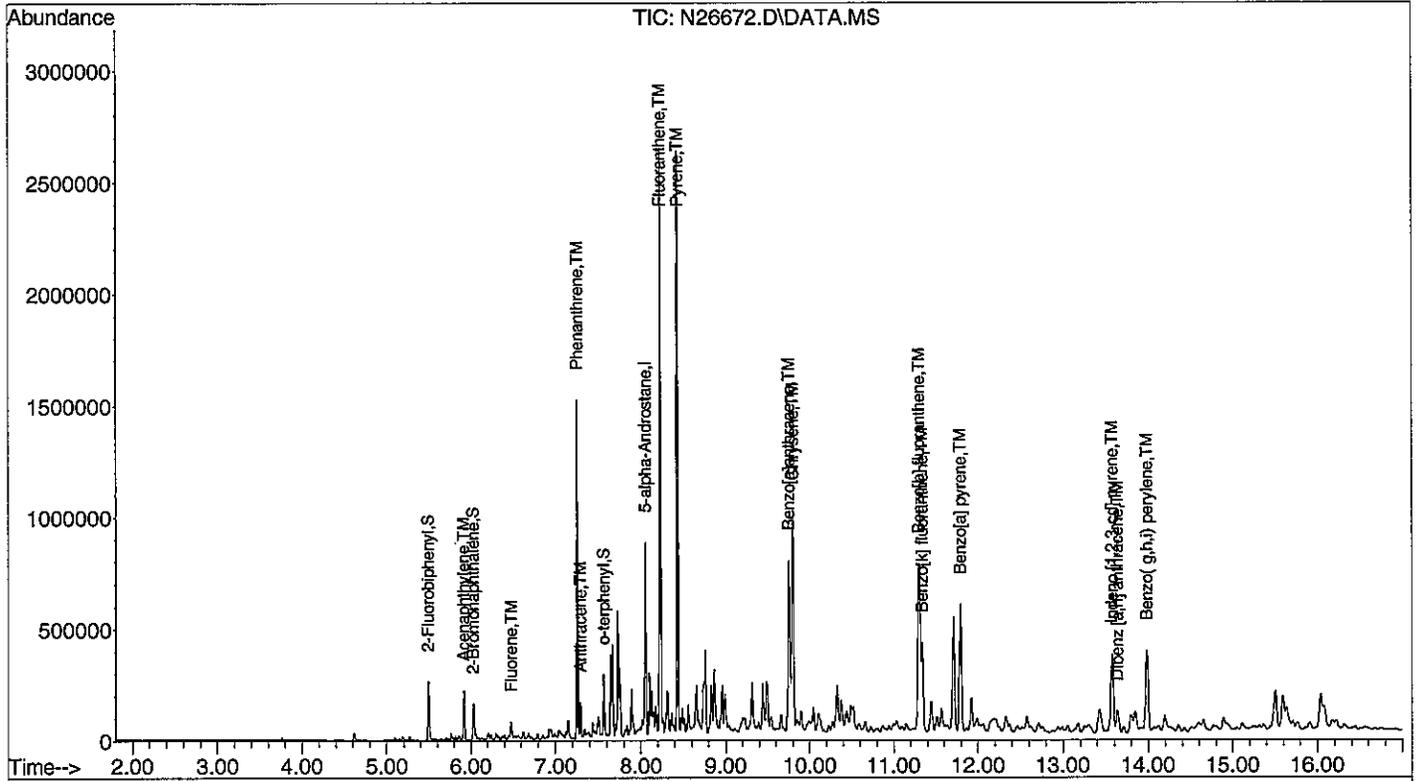
METHODOLOGY MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004 Revision 1.1. Samples were extracted in accordance with SW-846 Method 3545

COMMENTS: EPH analyses utilized the use of a GC/MS system to detect and quantify ranges and target analytes. Samples were received in accordance with method criteria unless noted on the sample receipt checklist. Results are expressed on a dry weight basis.

SIGNATURE: *Mphill*

Data Path : C:\msdchem\1\DATA\060613-N\  
 Data File : N26672.D  
 Acq On : 7 Jun 2013 2:18 am  
 Operator : AR  
 Sample : 75661-7,1:2  
 Misc : SOIL,ARO  
 ALS Vial : 36 Sample Multiplier: 1

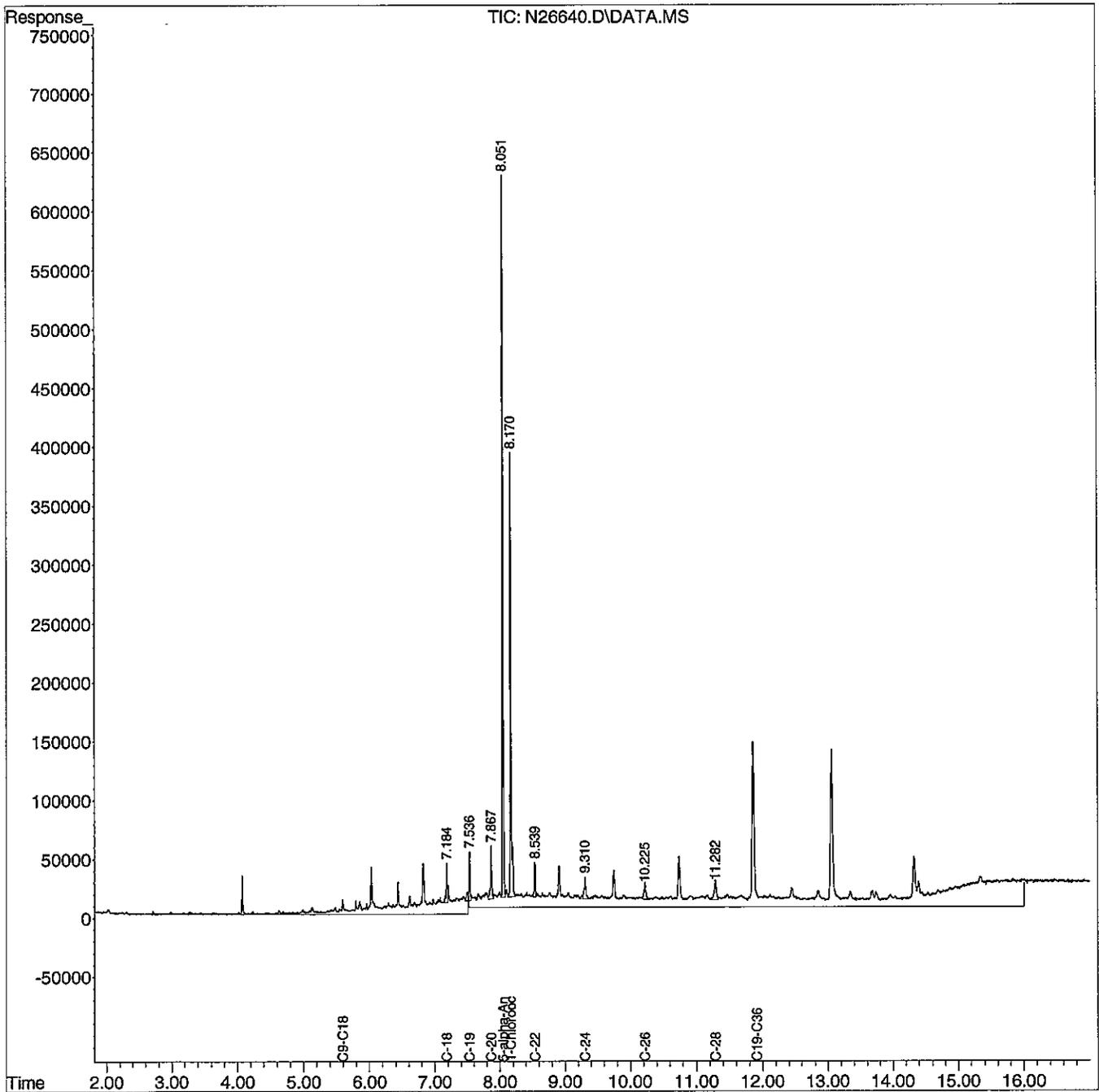
Quant Time: Jun 07 05:14:57 2013  
 Quant Method : C:\msdchem\1\METHODS\ARM042913N.M  
 Quant Title : EPH MS AROMATICS  
 QLast Update : Tue Apr 30 09:43:06 2013  
 Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\060513-N\  
Data File : N26640.D  
Signal(s) : DATA.MS  
Acq On : 6 Jun 2013 4:42 am  
Operator : AR  
Sample : 75661-7  
Misc : SOIL,ALI  
ALS Vial : 22 Sample Multiplier: 1

Integration File: rteint.p  
Quant Time: Jun 07 04:22:46 2013  
Quant Method : C:\msdchem\1\METHODS\ALG050113N.M  
Quant Title : EPH GC ALIPHATICS  
QLast Update : Thu May 02 20:33:49 2013  
Response via : Initial Calibration  
Integrator: RTE

Volume Inj. :  
Signal Phase :  
Signal Info :



June 14, 2013

Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

**SAMPLE DATA**

**Lab Sample ID:** 75661-8  
**Matrix:** Solid  
**Percent Solid:** 84  
**Dilution Factor:** 1.1  
**Collection Date:** 05/30/13  
**Lab Receipt Date:** 05/31/13  
**Extraction Date:** 06/03/13  
**Analysis Date:** 06/06/13

**CLIENT SAMPLE ID**

**Project Name:** Mill Dam  
**Project Number:** 111.06134  
**Client Sample ID:** SB118-S1-053013

EPH ANALYTICAL RESULTS			
RANGE/TARGET ANALYTE	RL	Units	Result
Unadjusted C11-C22 Aromatics <sup>1</sup>	15100	µg/kg	<b>59600</b>
Diesel PAH Analytes	Naphthalene	303	µg/kg U
	2-Methylnaphthalene	303	µg/kg U
	Phenanthrene	303	µg/kg <b>382</b>
	Acenaphthene	303	µg/kg U
Other Target PAH Analytes	Acenaphthylene	303	µg/kg <b>284 J</b>
	Fluorene	303	µg/kg U
	Anthracene	303	µg/kg U
	Fluoranthene	303	µg/kg <b>1560</b>
	Pyrene	303	µg/kg <b>1510</b>
	Benzo[a]anthracene	303	µg/kg <b>1270</b>
	Chrysene	303	µg/kg <b>1170</b>
	Benzo[b]fluoranthene	303	µg/kg <b>2240</b>
	Benzo[k]fluoranthene	303	µg/kg <b>637</b>
	Benzo[a]pyrene	303	µg/kg <b>1370</b>
	Indeno[1,2,3-cd]pyrene	303	µg/kg <b>1150</b>
	Dibenzo[a,h]anthracene	303	µg/kg <b>287 J</b>
	Benzo[g,h,i]perylene	303	µg/kg <b>991</b>
C9-C18 Aliphatic Hydrocarbons	15100	µg/kg	U
C19-C36 Aliphatic Hydrocarbons <sup>1</sup>	15100	µg/kg	<b>18700</b>
C11-C22 Aromatic Hydrocarbons <sup>1,2</sup>	15100	µg/kg	<b>46700</b>
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)			70
Aromatic Surrogate % Recovery (O-Terphenyl)			68
Sample Surrogate Acceptance Range	--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)			78
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)			72
Fractionation Surrogate Acceptance Range	--	--	40-140%

<sup>1</sup>Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.  
<sup>2</sup>C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.  
RL = Report Limit  
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

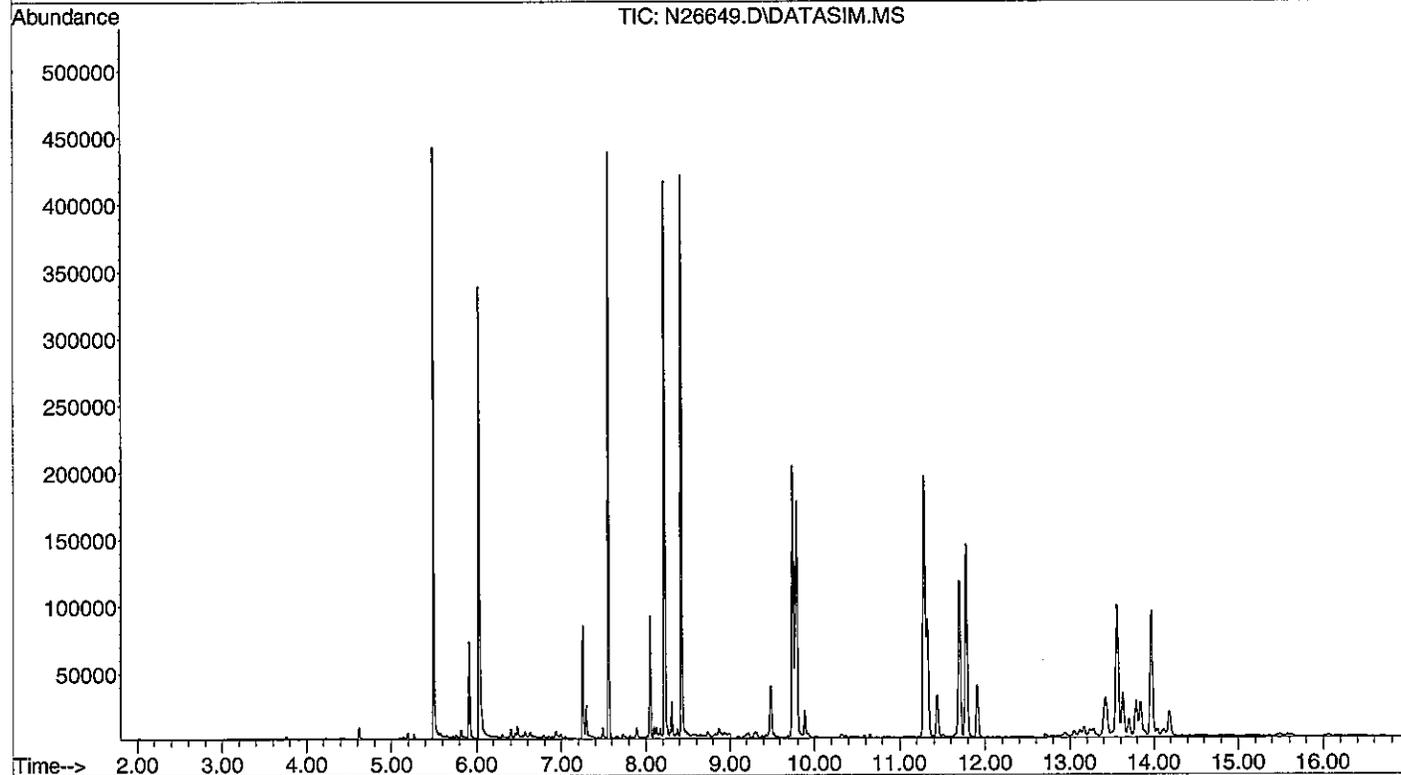
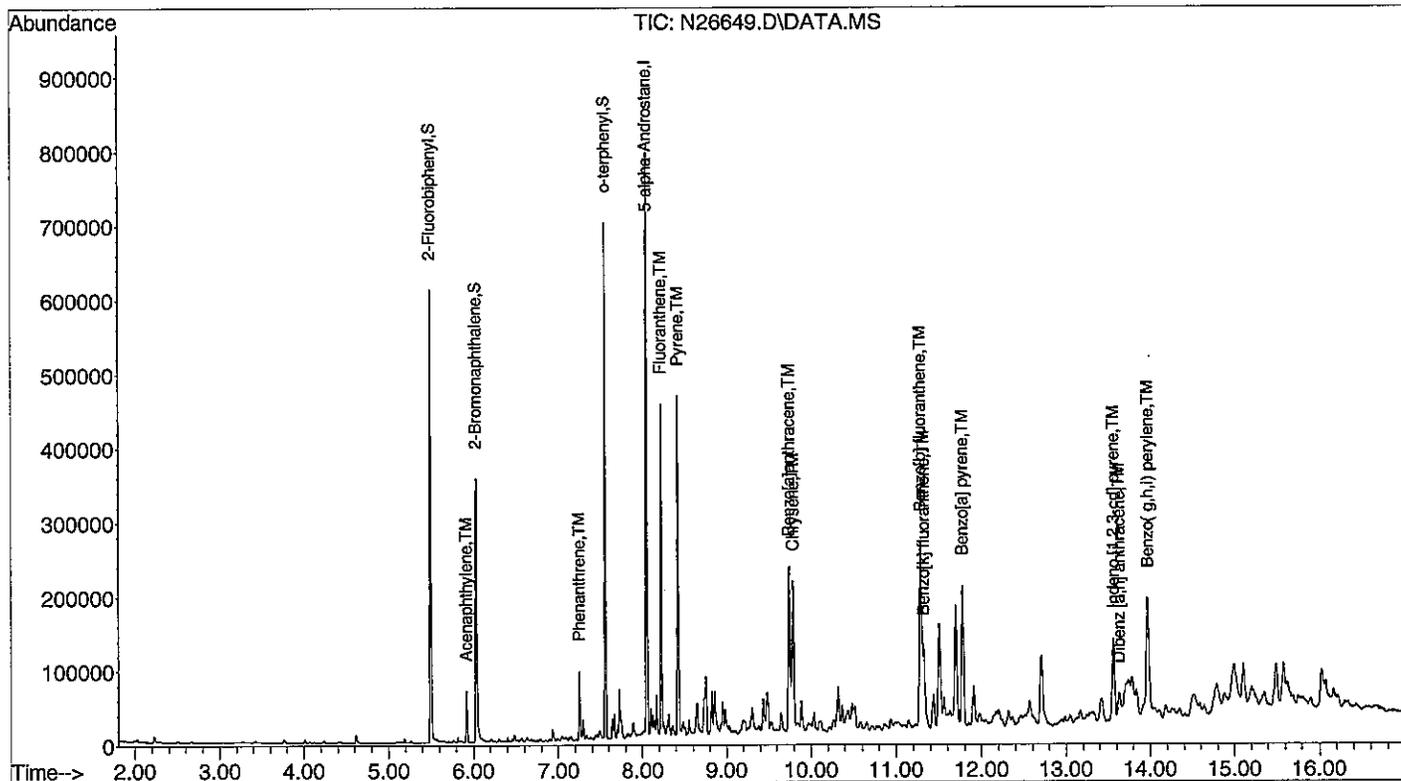
METHODOLOGY MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004  
Revision 1.1. Samples were extracted in accordance with SW-846 Method 3545

COMMENTS: EPH analyses utilized the use of a GC/MS system to detect and quantify ranges and target analytes. Samples were received in accordance with method criteria unless noted on the sample receipt checklist. Results are expressed on a dry weight basis.

SIGNATURE: Mphull

Data Path : C:\msdchem\1\DATA\060513-N\  
 Data File : N26649.D  
 Acq On : 6 Jun 2013 7:48 am  
 Operator : AR  
 Sample : 75661-8  
 Misc : SOIL, ARO  
 ALS Vial : 31 Sample Multiplier: 1

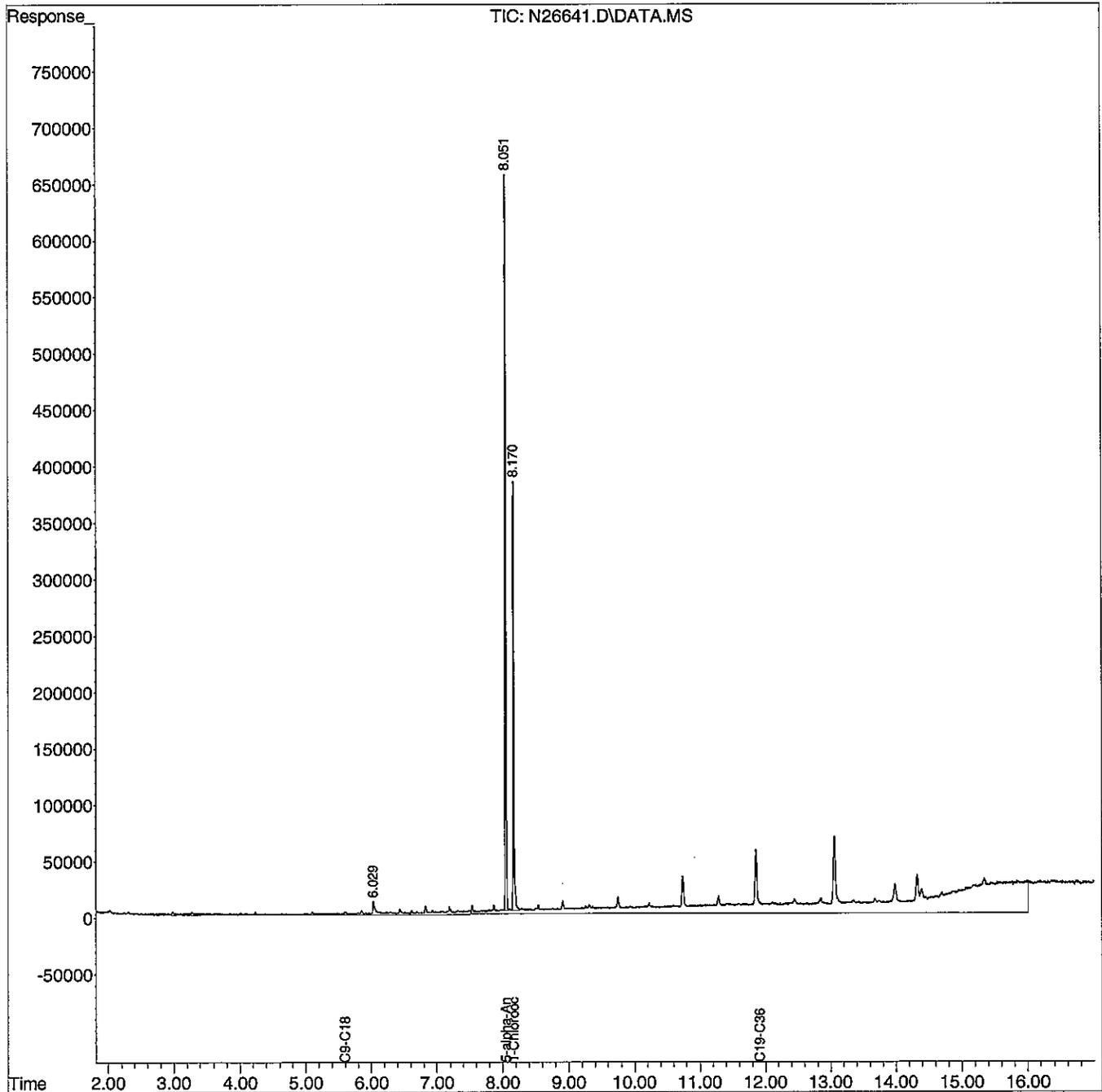
Quant Time: Jun 13 02:03:36 2013  
 Quant Method : C:\msdchem\1\METHODS\ARM042913N.M  
 Quant Title : EPH MS AROMATICS  
 QLast Update : Tue Apr 30 09:43:06 2013  
 Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\060513-N\  
Data File : N26641.D  
Signal(s) : DATA.MS  
Acq On : 6 Jun 2013 5:02 am  
Operator : AR  
Sample : 75661-8  
Misc : SOIL,ALI  
ALS Vial : 23 Sample Multiplier: 1

Integration File: rteint.p  
Quant Time: Jun 07 04:44:58 2013  
Quant Method : C:\msdchem\1\METHODS\ALG050113N.M  
Quant Title : EPH GC ALIPHATICS  
QLast Update : Thu May 02 20:33:49 2013  
Response via : Initial Calibration  
Integrator: RTE

Volume Inj. :  
Signal Phase :  
Signal Info :



June 14, 2013

Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

**SAMPLE DATA**

**Lab Sample ID:** 75661-9  
**Matrix:** Aqueous  
**Percent Solid:** N/A  
**Dilution Factor:** 1.0  
**Collection Date:** 05/30/13  
**Lab Receipt Date:** 05/31/13  
**Extraction Date:** 06/06/13  
**Analysis Date:** 06/11/13

**CLIENT SAMPLE ID**

**Project Name:** Mill Dam  
**Project Number:** 111.06134  
**Client Sample ID:** PW101-W1-053013

EPH ANALYTICAL RESULTS			
RANGE/TARGET ANALYTE	RL	Units	Result
Unadjusted C11-C22 Aromatics <sup>1</sup>	100	µg/L	U
Diesel PAH Analytes	Naphthalene	4	µg/L
	2-Methylnaphthalene	4	µg/L
	Phenanthrene	4	µg/L
	Acenaphthene	4	µg/L
Other Target PAH Analytes	Acenaphthylene	4	µg/L
	Fluorene	4	µg/L
	Anthracene	4	µg/L
	Fluoranthene	4	µg/L
	Pyrene	4	µg/L
	Benzo[a]anthracene	4	µg/L
	Chrysene	4	µg/L
	Benzo[b]fluoranthene	4	µg/L
	Benzo[k]fluoranthene	4	µg/L
	Benzo[a]pyrene	4	µg/L
	Indeno[1,2,3-cd]pyrene	4	µg/L
	Dibenzo[a,h]anthracene	4	µg/L
	Benzo[g,h,i]perylene	4	µg/L
	C9-C18 Aliphatic Hydrocarbons <sup>1</sup>	100	µg/L
C19-C36 Aliphatic Hydrocarbons <sup>1</sup>	100	µg/L	U
C11-C22 Aromatic Hydrocarbons <sup>1,2</sup>	100	µg/L	U
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)			43
Aromatic Surrogate % Recovery (O-Terphenyl)			60
Sample Surrogate Acceptance Range	--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)			67
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)			62
Fractionation Surrogate Acceptance Range	--	--	40-140%

<sup>1</sup>Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.  
<sup>2</sup>C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.  
RL = Report Limit  
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

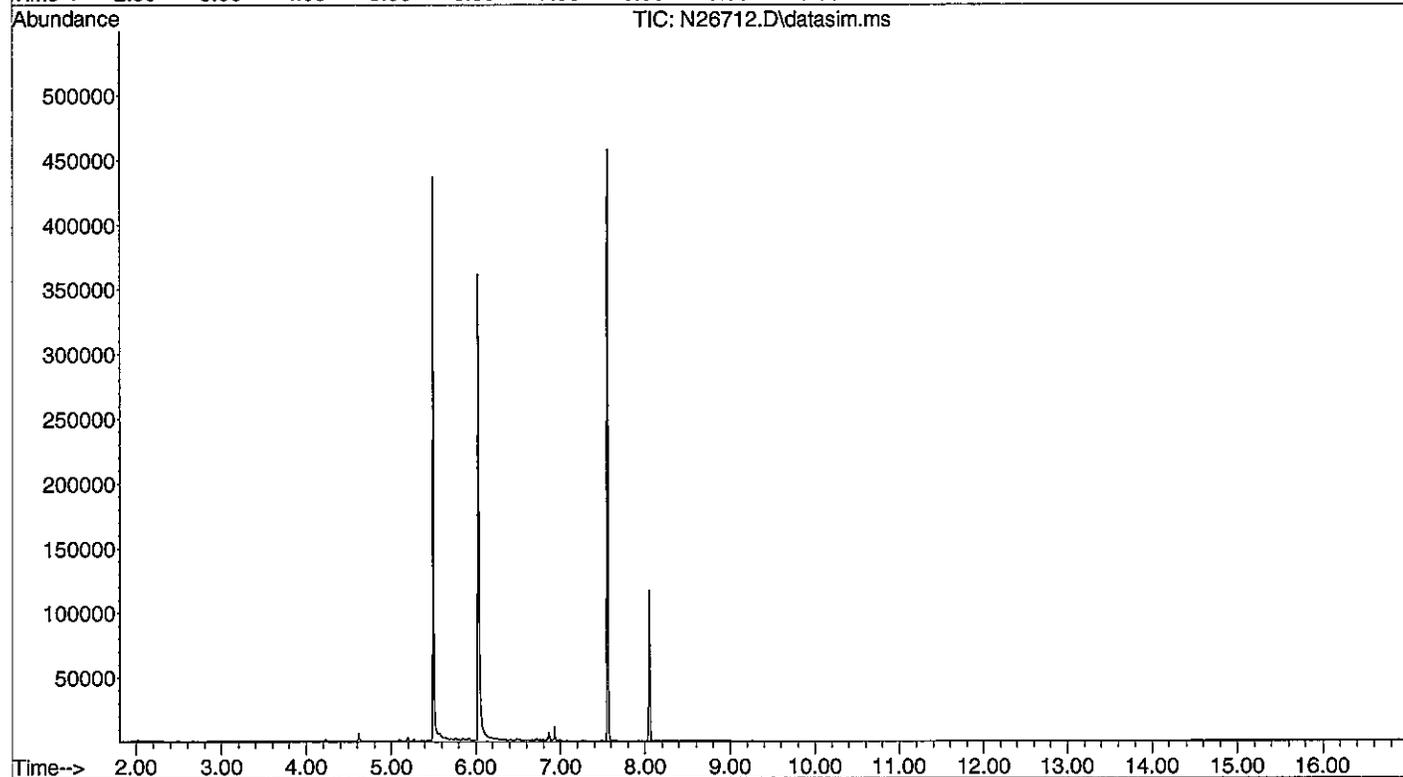
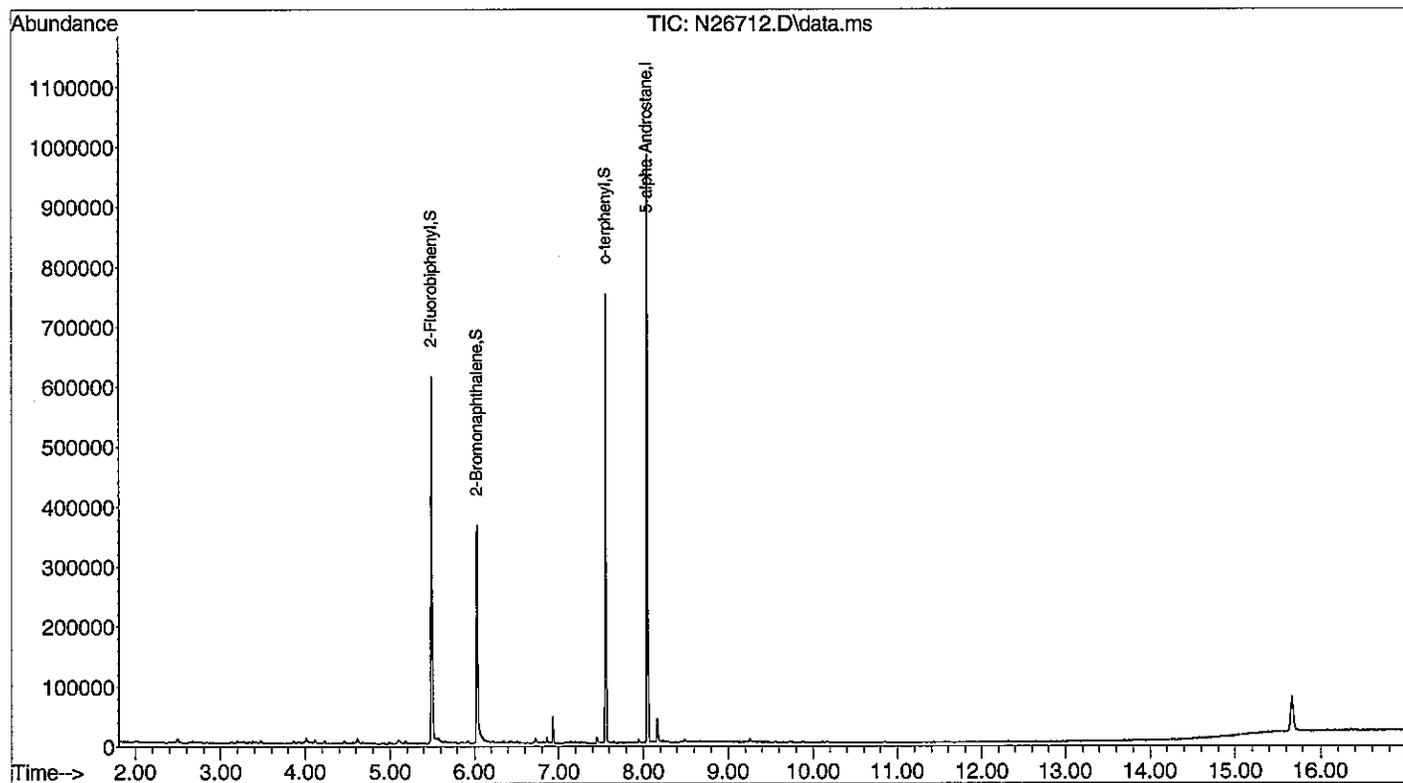
METHODOLOGY:MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004 Revision 1.1. Samples were extracted in accordance with SW-846 Method 3510C.

COMMENTS:EPH analyses utilized the use of a GC/MS system to detect and quantify ranges and target analytes. Samples were received in accordance with method criteria unless noted on the sample receipt checklist.

SIGNATURE: 

Data Path : C:\msdchem\1\DATA\061013-N\  
Data File : N26712.D  
Acq On : 11 Jun 2013 12:08 am  
Operator : AR  
Sample : 75661-9  
Misc : ARO  
ALS Vial : 29 Sample Multiplier: 1

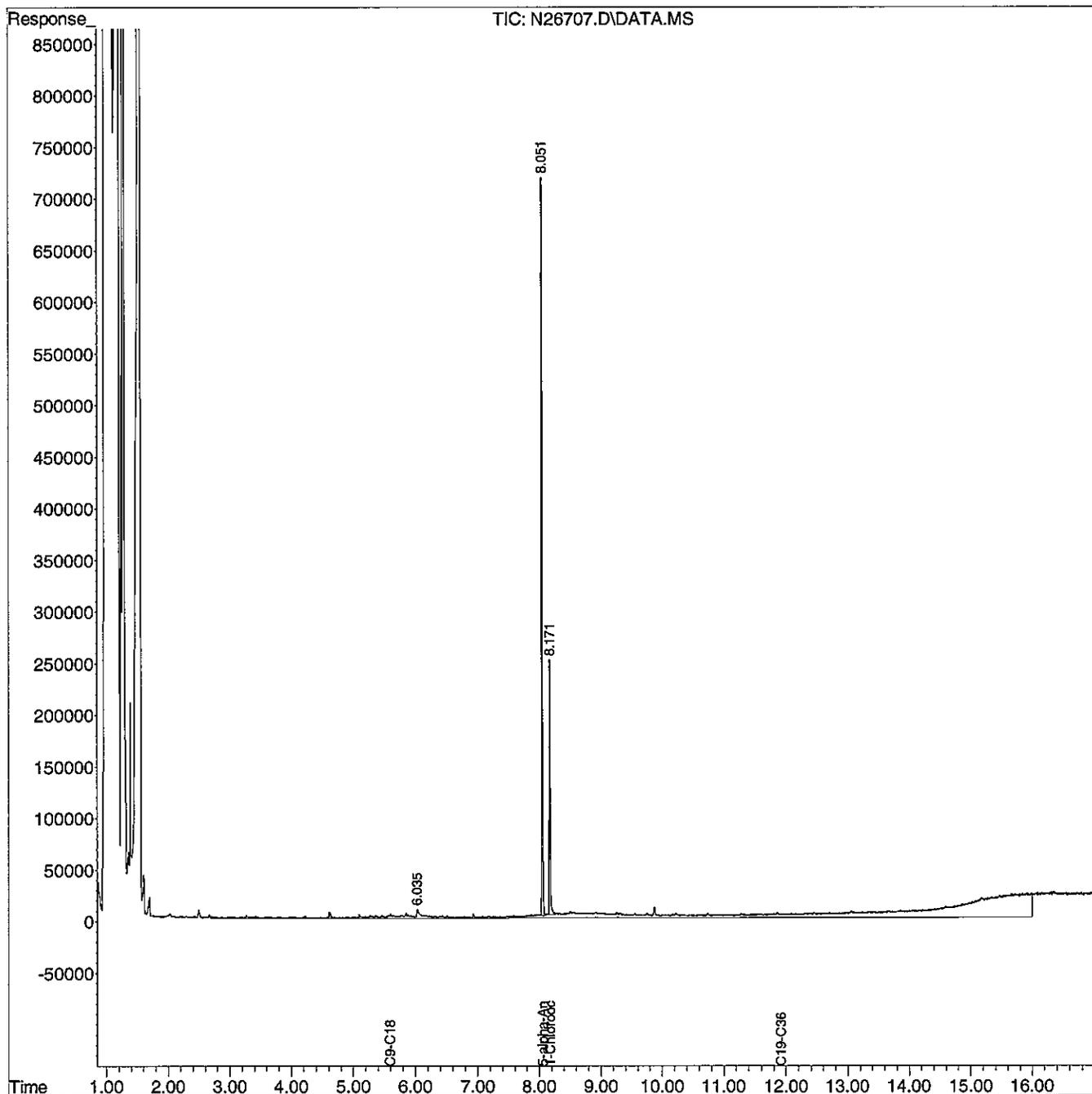
Quant Time: Jun 12 01:41:27 2013  
Quant Method : C:\msdchem\1\METHODS\ARM042913N.M  
Quant Title : EPH MS AROMATICS  
QLast Update : Tue Apr 30 09:43:06 2013  
Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\061013-N\  
Data File : N26707.D  
Signal(s) : DATA.MS  
Acq On : 10 Jun 2013 10:23 pm  
Operator : AR  
Sample : 75661-9  
Misc : ALI  
ALS Vial : 24 Sample Multiplier: 1

Integration File: rteint.p  
Quant Time: Jun 12 01:37:41 2013  
Quant Method : C:\msdchem\1\METHODS\ALG050113N.M  
Quant Title : EPH GC ALIPHATICS  
QLast Update : Thu May 02 20:33:49 2013  
Response via : Initial Calibration  
Integrator: RTE

Volume Inj. :  
Signal Phase :  
Signal Info :



Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

June 14, 2013

**CLIENT SAMPLE ID**

**Project Name:** Mill Dam

**Project Number:** 111.06134

**Client Sample ID:** PW102-W1-053013

**SAMPLE DATA**

**Lab Sample ID:** 75661-10

**Matrix:** Aqueous

**Percent Solid:** N/A

**Dilution Factor:** 1.0

**Collection Date:** 05/30/13

**Lab Receipt Date:** 05/31/13

**Extraction Date:** 06/06/13

**Analysis Date:** 06/11/13

EPH ANALYTICAL RESULTS			
RANGE/TARGET ANALYTE	RL	Units	Result
Unadjusted C11-C22 Aromatics <sup>1</sup>	100	µg/L	U
Diesel PAH Analytes	Naphthalene	4	µg/L
	2-Methylnaphthalene	4	µg/L
	Phenanthrene	4	µg/L
	Acenaphthene	4	µg/L
Other Target PAH Analytes	Acenaphthylene	4	µg/L
	Fluorene	4	µg/L
	Anthracene	4	µg/L
	Fluoranthene	4	µg/L
	Pyrene	4	µg/L
	Benzo[a]anthracene	4	µg/L
	Chrysene	4	µg/L
	Benzo[b]fluoranthene	4	µg/L
	Benzo[k]fluoranthene	4	µg/L
	Benzo[a]pyrene	4	µg/L
	Indeno[1,2,3-cd]pyrene	4	µg/L
	Dibenzof[a,h]anthracene	4	µg/L
	Benzo[g,h,i]perylene	4	µg/L
	C9-C18 Aliphatic Hydrocarbons <sup>1</sup>	100	µg/L
C19-C36 Aliphatic Hydrocarbons <sup>1</sup>	100	µg/L	U
C11-C22 Aromatic Hydrocarbons <sup>1,2</sup>	100	µg/L	U
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)			48
Aromatic Surrogate % Recovery (O-Terphenyl)			56
Sample Surrogate Acceptance Range	--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)			66
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)			62
Fractionation Surrogate Acceptance Range	--	--	40-140%
<sup>1</sup> Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.			
<sup>2</sup> C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.			
RL = Report Limit			
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank			

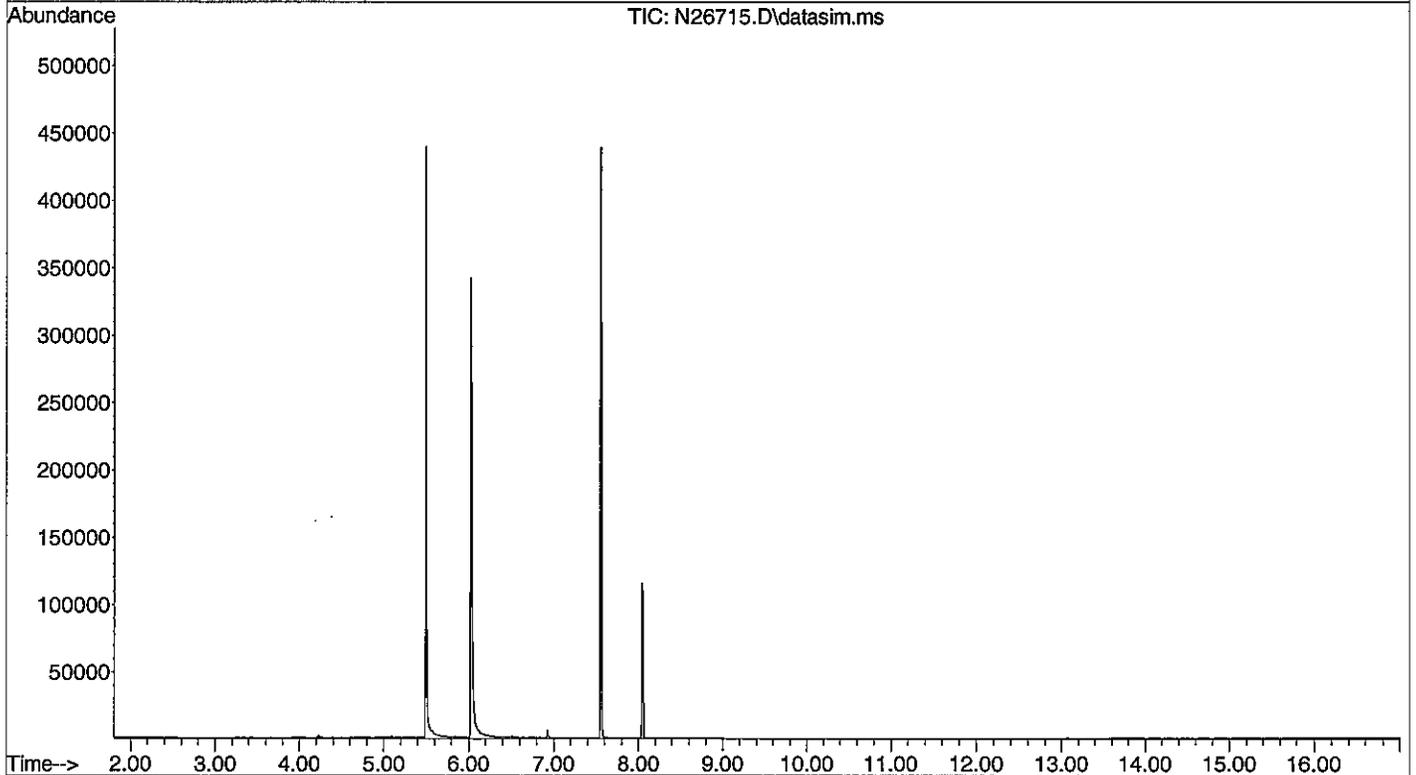
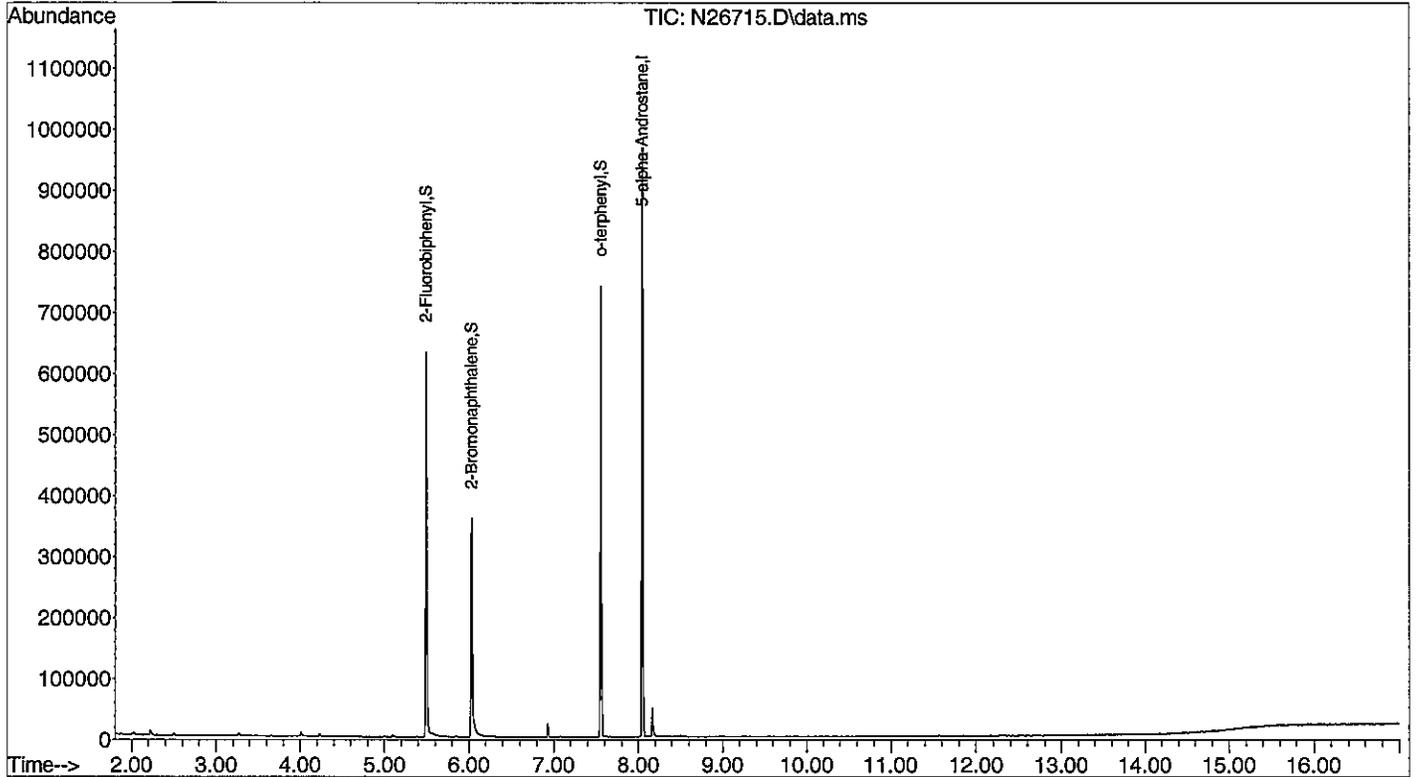
METHODOLOGY MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004  
Revision 1.1. Samples were extracted in accordance with SW-846 Method 3510C.

COMMENTS: EPH analyses utilized the use of a GC/MS system to detect and quantify ranges and target analytes. Samples were received in accordance with method criteria unless noted on the sample receipt checklist.

SIGNATURE: 

Data Path : C:\msdchem\1\DATA\061013-N\  
 Data File : N26715.D  
 Acq On : 11 Jun 2013 1:10 am  
 Operator : AR  
 Sample : 75661-10  
 Misc : ARO  
 ALS Vial : 32 Sample Multiplier: 1

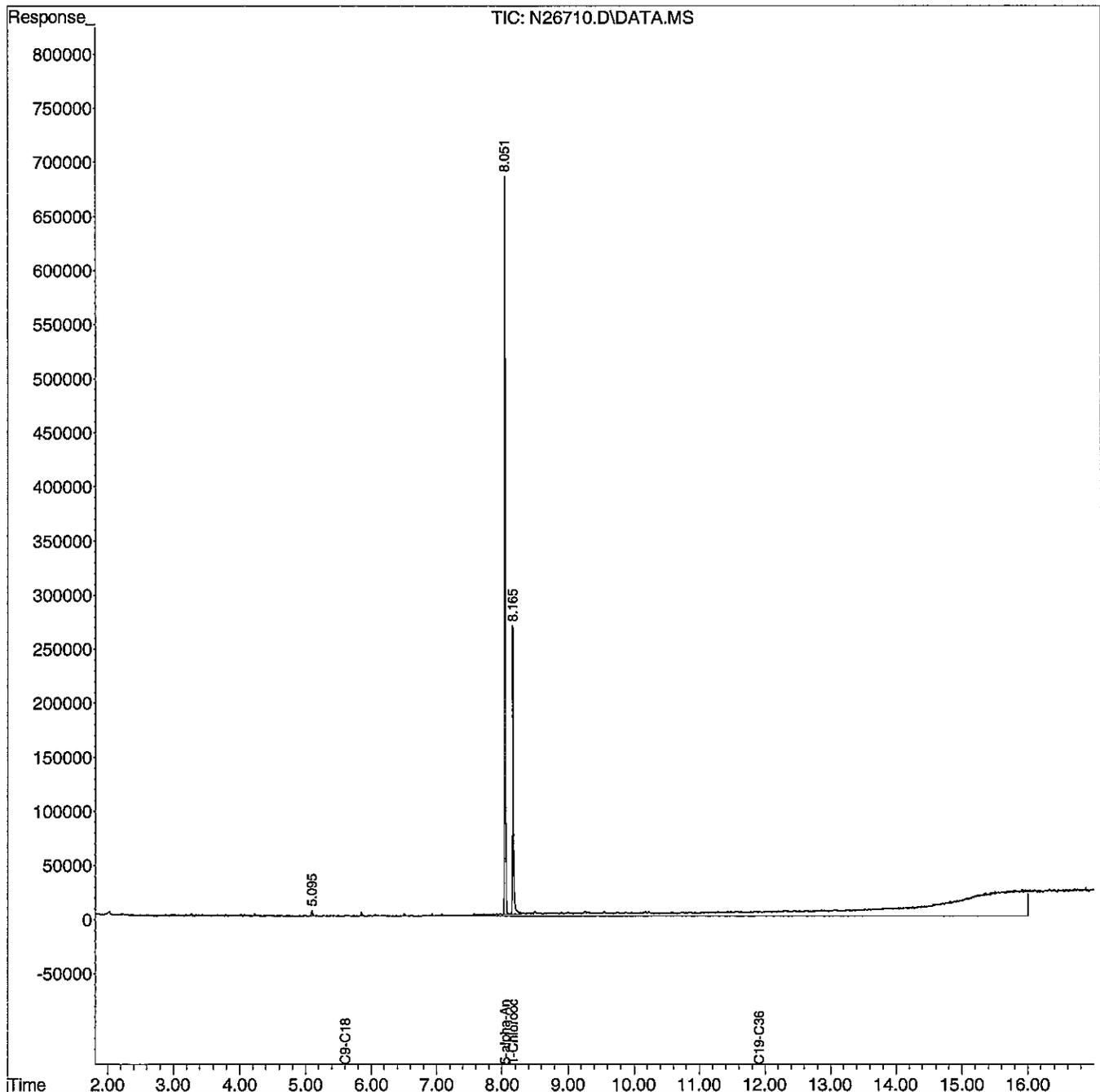
Quant Time: Jun 12 01:58:46 2013  
 Quant Method : C:\msdchem\1\METHODS\ARM042913N.M  
 Quant Title : EPH MS AROMATICS  
 QLast Update : Tue Apr 30 09:43:06 2013  
 Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\061013-N\  
 Data File : N26710.D  
 Signal(s) : DATA.MS  
 Acq On : 10 Jun 2013 11:26 pm  
 Operator : AR  
 Sample : 75661-10  
 Misc : ALI  
 ALS Vial : 27 Sample Multiplier: 1

Integration File: rteint.p  
 Quant Time: Jun 12 01:40:53 2013  
 Quant Method : C:\msdchem\1\METHODS\ALG050113N.M  
 Quant Title : EPH GC ALIPHATICS  
 QLast Update : Thu May 02 20:33:49 2013  
 Response via : Initial Calibration  
 Integrator: RTE

Volume Inj. :  
 Signal Phase :  
 Signal Info :



June 14, 2013

Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

**CLIENT SAMPLE ID**

**Project Name:** Mill Dam  
**Project Number:** 111.06134  
**Client Sample ID:** PWDUP

**SAMPLE DATA**

**Lab Sample ID:** 75661-11  
**Matrix:** Aqueous  
**Percent Solid:** N/A  
**Dilution Factor:** 1.0  
**Collection Date:** 05/30/13  
**Lab Receipt Date:** 05/31/13  
**Extraction Date:** 06/06/13  
**Analysis Date:** 06/11/13

**EPH ANALYTICAL RESULTS**

RANGE/TARGET ANALYTE	RL	Units	Result
Unadjusted C11-C22 Aromatics <sup>1</sup>	100	µg/L	U
Diesel PAH Analytes	Naphthalene	4 µg/L	U
	2-Methylnaphthalene	4 µg/L	U
	Phenanthrene	4 µg/L	U
	Acenaphthene	4 µg/L	U
Other Target PAH Analytes	Acenaphthylene	4 µg/L	U
	Fluorene	4 µg/L	U
	Anthracene	4 µg/L	U
	Fluoranthene	4 µg/L	U
	Pyrene	4 µg/L	U
	Benzo[a]anthracene	4 µg/L	U
	Chrysene	4 µg/L	U
	Benzo[b]fluoranthene	4 µg/L	U
	Benzo[k]fluoranthene	4 µg/L	U
	Benzo[a]pyrene	4 µg/L	U
	Indeno[1,2,3-cd]pyrene	4 µg/L	U
	Dibenzofluoranthene	4 µg/L	U
	Benzo[ghi]perylene	4 µg/L	U
C9-C18 Aliphatic Hydrocarbons <sup>1</sup>	100	µg/L	U
C19-C36 Aliphatic Hydrocarbons <sup>1</sup>	100	µg/L	U
C11-C22 Aromatic Hydrocarbons <sup>1,2</sup>	100	µg/L	U
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)			47
Aromatic Surrogate % Recovery (O-Terphenyl)			56
Sample Surrogate Acceptance Range	--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)			70
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)			65
Fractionation Surrogate Acceptance Range	--	--	40-140%

<sup>1</sup>Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.  
<sup>2</sup>C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.  
 RL = Report Limit  
 U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

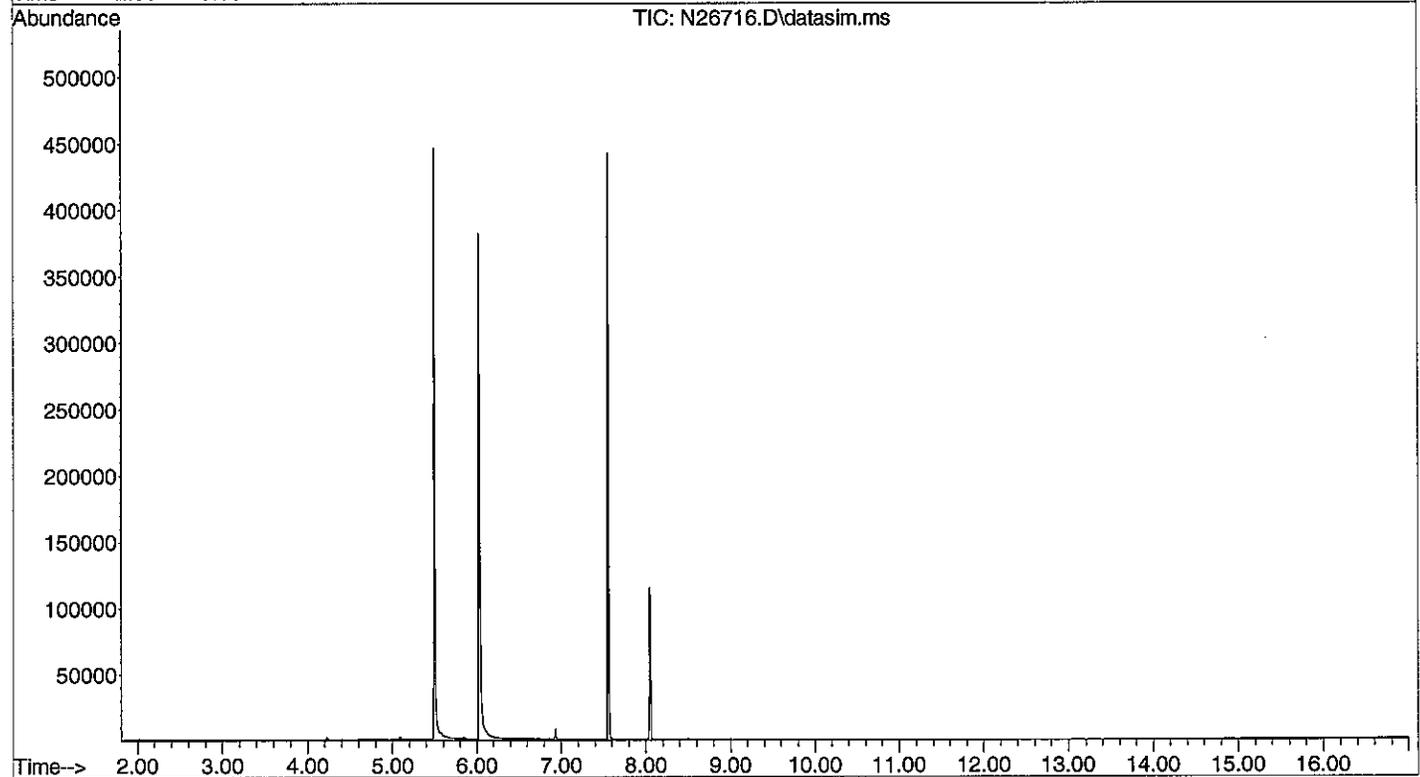
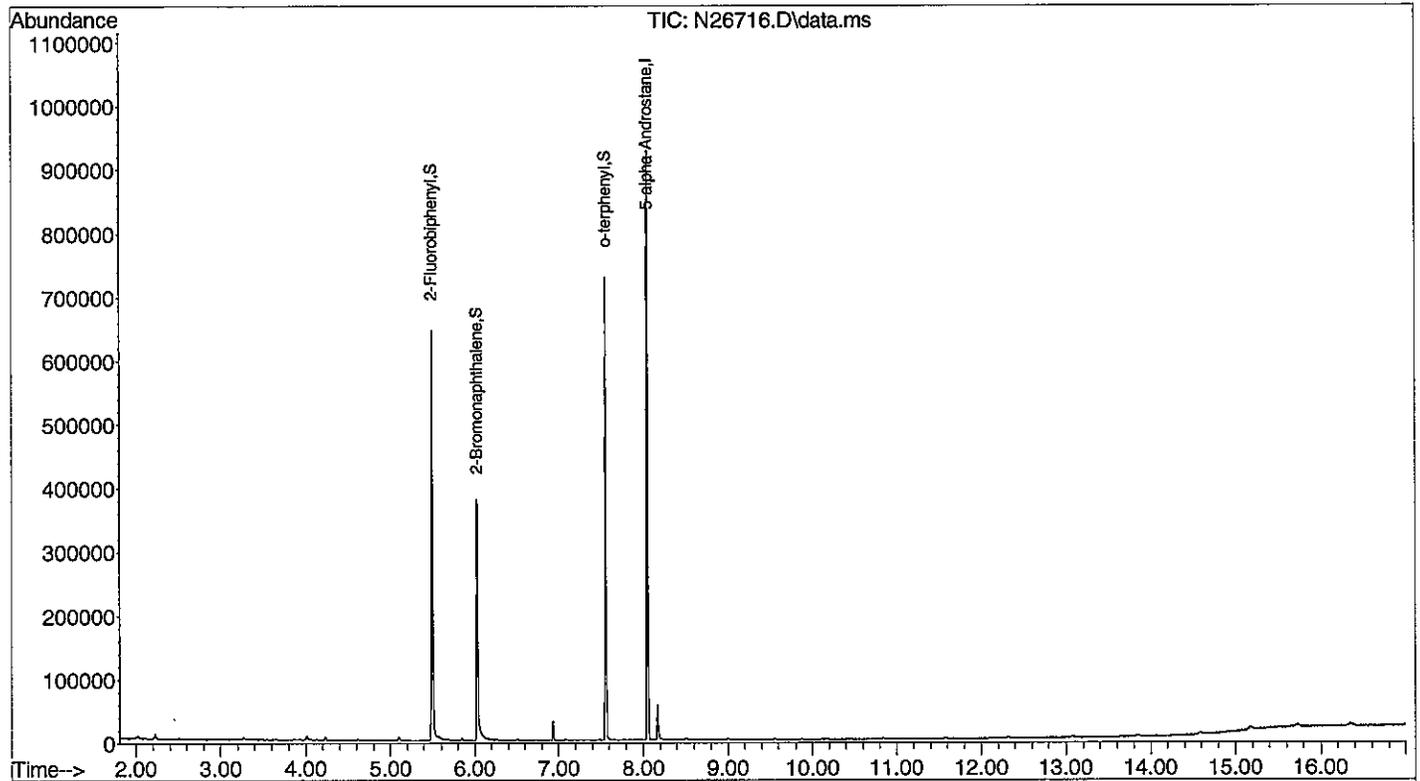
METHODOLOGY:MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004  
Revision 1.1. Samples were extracted in accordance with SW-846 Method 3510C.

COMMENTS:EPH analyses utilized the use of a GC/MS system to detect and quantify ranges and target analytes. Samples were received in accordance with method criteria unless noted on the sample receipt checklist.

SIGNATURE: 

Data Path : C:\msdchem\1\DATA\061013-N\  
Data File : N26716.D  
Acq On : 11 Jun 2013 1:31 am  
Operator : AR  
Sample : 75661-11  
Misc : ARO  
ALS Vial : 33 Sample Multiplier: 1

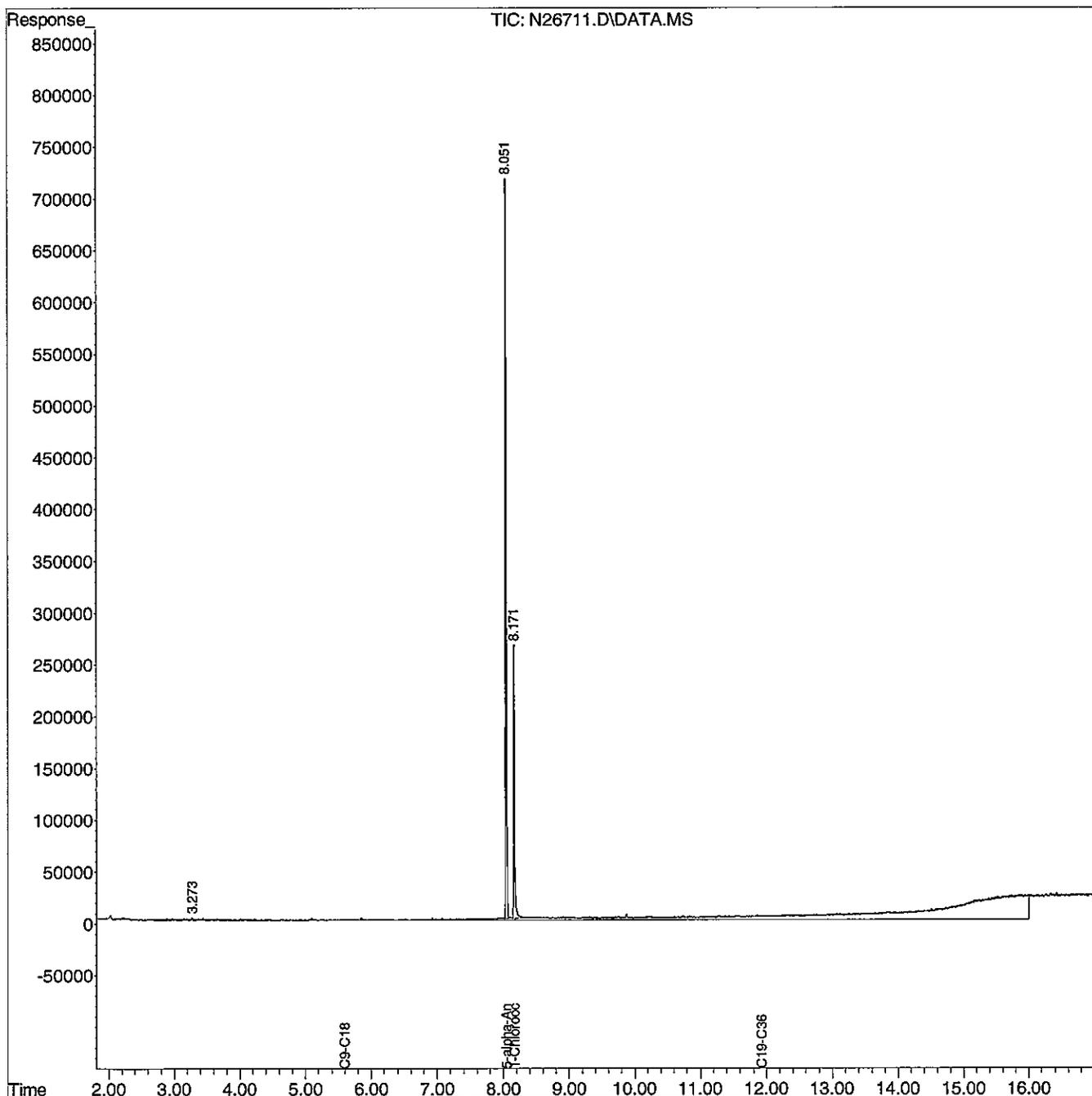
Quant Time: Jun 12 01:43:27 2013  
Quant Method : C:\msdchem\1\METHODS\ARM042913N.M  
Quant Title : EPH MS AROMATICS  
QLast Update : Tue Apr 30 09:43:06 2013  
Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\061013-N\  
Data File : N26711.D  
Signal(s) : DATA.MS  
Acq On : 10 Jun 2013 11:47 pm  
Operator : AR  
Sample : 75661-11  
Misc : ALI  
ALS Vial : 28 Sample Multiplier: 1

Integration File: rteint.p  
Quant Time: Jun 12 01:41:14 2013  
Quant Method : C:\msdchem\1\METHODS\ALG050113N.M  
Quant Title : EPH GC ALIPHATICS  
QLast Update : Thu May 02 20:33:49 2013  
Response via : Initial Calibration  
Integrator: RTE

Volume Inj. :  
Signal Phase :  
Signal Info :



EPH  
QC FORMS

AnalyticsLLC:AEL Documents LLC:Pkg Dividers:EPHQC.doc

June 14, 2013

Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

**SAMPLE DATA**

**Lab Sample ID:** B060313EASE  
**Matrix:** Solid  
**Percent Solid:** 100  
**Dilution Factor:** 1.0  
**Collection Date:**  
**Lab Receipt Date:**  
**Extraction Date:** 06/03/13  
**Analysis Date:** 06/06/13

**CLIENT SAMPLE ID**

**Project Name:** Mill Dam  
**Project Number:** 111.06134  
**Client Sample ID:** LabQC

**EPH ANALYTICAL RESULTS**

RANGE/TARGET ANALYTE	RL	Units	Result	
Unadjusted C11-C22 Aromatics <sup>1</sup>	13300	µg/kg	U	
Diesel PAH Analytes	Naphthalene	267	µg/kg	U
	2-Methylnaphthalene	267	µg/kg	U
	Phenanthrene	267	µg/kg	U
	Acenaphthene	267	µg/kg	U
Other Target PAH Analytes	Acenaphthylene	267	µg/kg	U
	Fluorene	267	µg/kg	U
	Anthracene	267	µg/kg	U
	Fluoranthene	267	µg/kg	U
	Pyrene	267	µg/kg	U
	Benzo[a]anthracene	267	µg/kg	U
	Chrysene	267	µg/kg	U
	Benzo[b]fluoranthene	267	µg/kg	U
	Benzo[k]fluoranthene	267	µg/kg	U
	Benzo[a]pyrene	267	µg/kg	U
	Indeno[1,2,3-cd]pyrene	267	µg/kg	U
	Dibenzo[a,h]anthracene	267	µg/kg	U
	Benzo[g,h,i]perylene	267	µg/kg	U
C9-C18 Aliphatic Hydrocarbons <sup>1</sup>	13300	µg/kg	U	
C19-C36 Aliphatic Hydrocarbons <sup>1</sup>	13300	µg/kg	U	
C11-C22 Aromatic Hydrocarbons <sup>1,2</sup>	13300	µg/kg	U	
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)			69	
Aromatic Surrogate % Recovery (O-Terphenyl)			76	
Sample Surrogate Acceptance Range	--	--	40-140%	
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)			79	
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)			73	
Fractionation Surrogate Acceptance Range	--	--	40-140%	

<sup>1</sup>Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.  
<sup>2</sup>C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.  
RL = Report Limit  
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

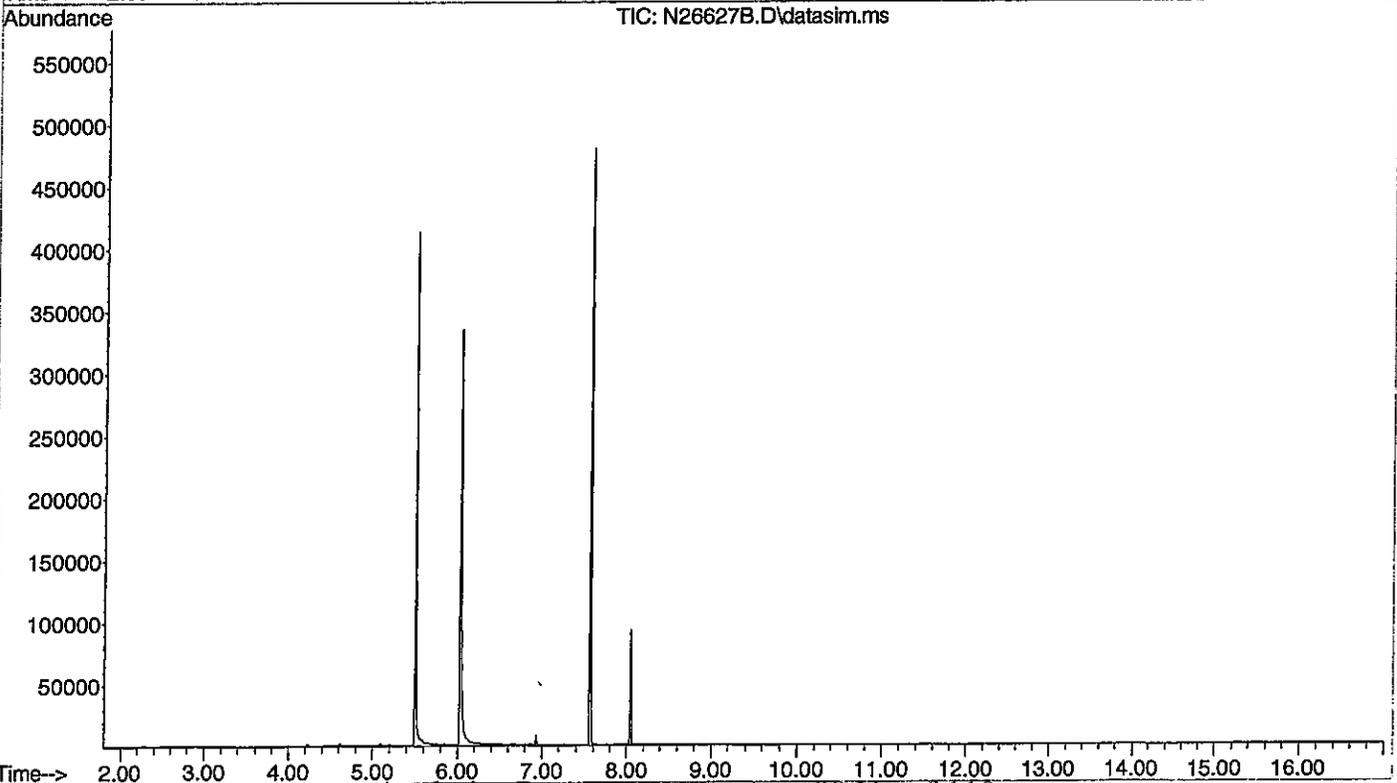
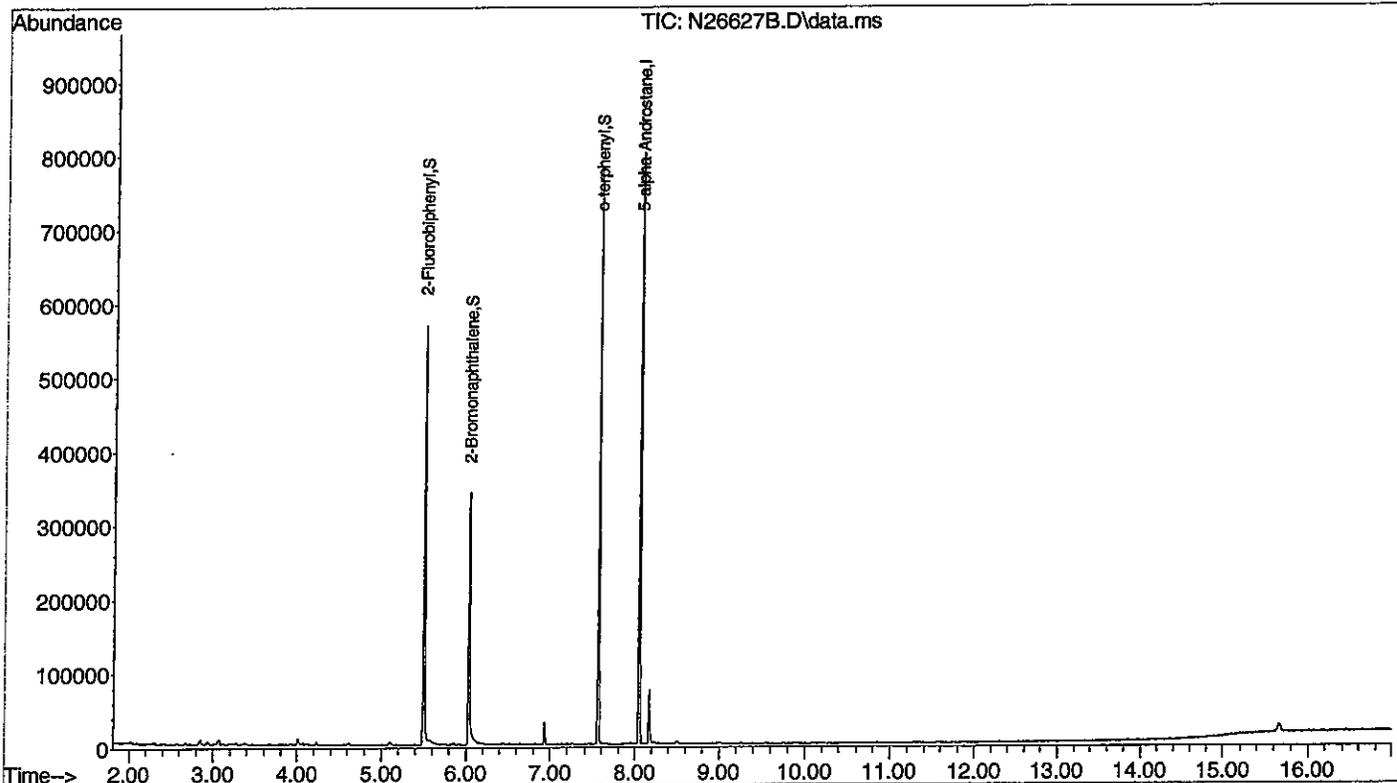
METHODOLOGY MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004  
Revision 1.1. Samples were extracted in accordance with SW-846 Method 3545

COMMENTS: EPH analyses utilized the use of a GC/MS system to detect and quantify ranges and target analytes. Samples were received in accordance with method criteria unless noted on the sample receipt checklist. Results are expressed on a dry weight basis.

SIGNATURE: 

Data Path : C:\msdchem\1\DATA\060513-N\  
 Data File : N26627B.D  
 Acq On : 6 Jun 2013 12:12 am  
 Operator : AR  
 Sample : B060313EASE  
 Misc : SOIL,ARO  
 ALS Vial : 9 Sample Multiplier: 1

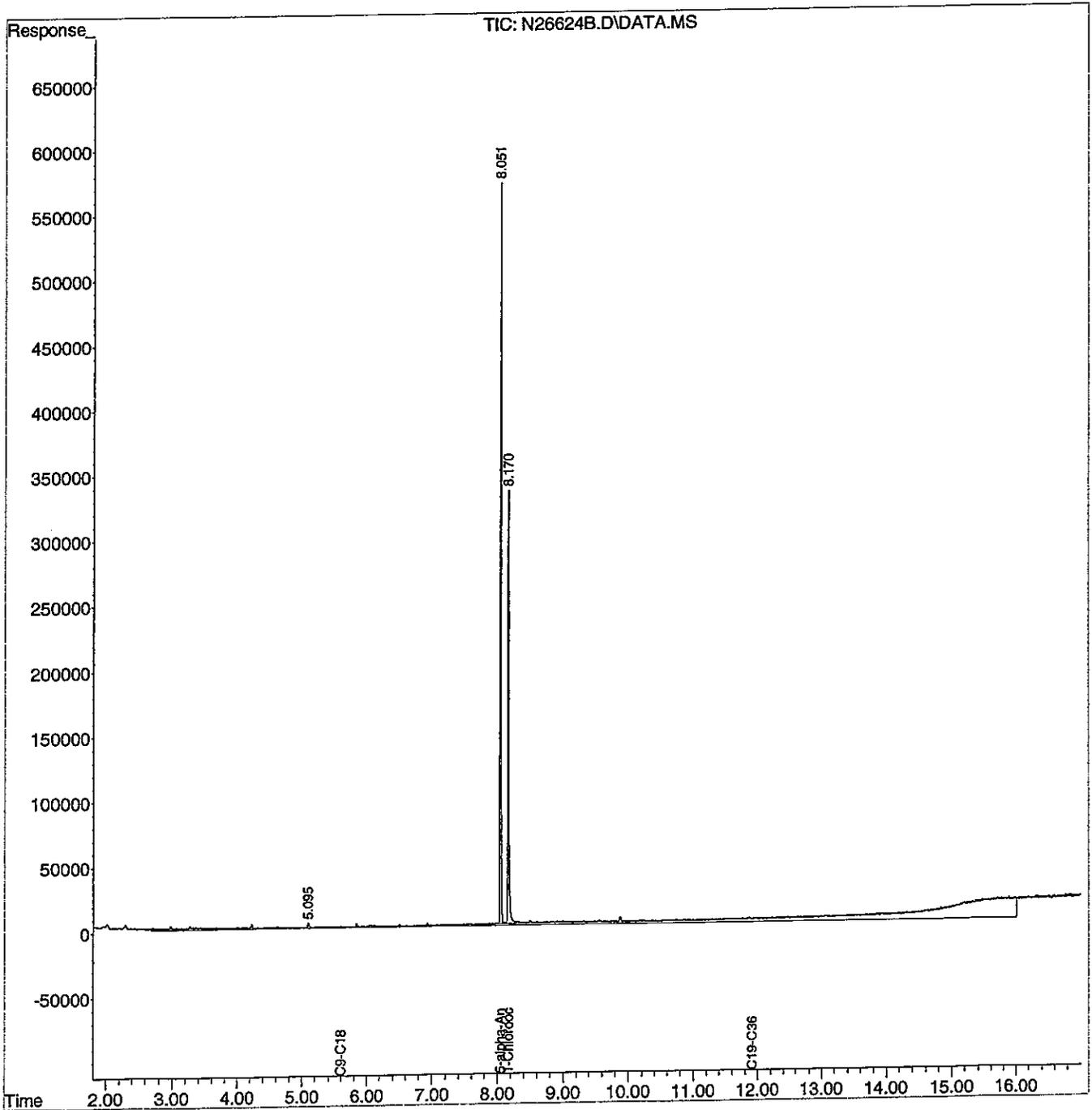
Quant Time: Jun 06 07:33:37 2013  
 Quant Method : C:\msdchem\1\METHODS\ARM042913N.M  
 Quant Title : EPH MS AROMATICS  
 QLast Update : Tue Apr 30 09:43:05 2013  
 Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\060513-N\  
Data File : N26624B.D  
Signal(s) : DATA.MS  
Acq On : 5 Jun 2013 11:10 pm  
Operator : AR  
Sample : B060313EASE  
Misc : SOIL,ALI  
ALS Vial : 6 Sample Multiplier: 1

Integration File: rteint.p  
Quant Time: Jun 07 03:56:58 2013  
Quant Method : C:\msdchem\1\METHODS\ALG050113N.M  
Quant Title : EPH GC ALIPHATICS  
QLast Update : Thu May 02 20:33:49 2013  
Response via : Initial Calibration  
Integrator: RTE

Volume Inj. :  
Signal Phase :  
Signal Info :



June 14, 2013

Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

**CLIENT SAMPLE ID**

**Project Name:** Mill Dam

**Project Number:** 111.06134

**Client Sample ID:** LabQC

**SAMPLE DATA**

**Lab Sample ID:** B060313EASE RR  
**Matrix:** Solid  
**Percent Solid:** 100  
**Dilution Factor:** 1.0  
**Collection Date:**  
**Lab Receipt Date:**  
**Extraction Date:** 06/03/13  
**Analysis Date:** 06/06/13

EPH ANALYTICAL RESULTS			
RANGE/TARGET ANALYTE	RL	Units	Result
Unadjusted C11-C22 Aromatics <sup>1</sup>	13300	µg/kg	U
Diesel PAH Analytes	Naphthalene	267	µg/kg
	2-Methylnaphthalene	267	µg/kg
	Phenanthrene	267	µg/kg
	Acenaphthene	267	µg/kg
Other Target PAH Analytes	Acenaphthylene	267	µg/kg
	Fluorene	267	µg/kg
	Anthracene	267	µg/kg
	Fluoranthene	267	µg/kg
	Pyrene	267	µg/kg
	Benzo[a]anthracene	267	µg/kg
	Chrysene	267	µg/kg
	Benzo[b]fluoranthene	267	µg/kg
	Benzo[k]fluoranthene	267	µg/kg
	Benzo[a]pyrene	267	µg/kg
	Indeno[1,2,3-cd]pyrene	267	µg/kg
	Dibenzof[a,h]anthracene	267	µg/kg
	Benzo[g,h,i]perylene	267	µg/kg
C9-C18 Aliphatic Hydrocarbons <sup>1</sup>	13300	µg/kg	U
C19-C36 Aliphatic Hydrocarbons <sup>1</sup>	13300	µg/kg	U
C11-C22 Aromatic Hydrocarbons <sup>1,2</sup>	13300	µg/kg	U
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)			70
Aromatic Surrogate % Recovery (O-Terphenyl)			78
Sample Surrogate Acceptance Range	--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)			79
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)			76
Fractionation Surrogate Acceptance Range	--	--	40-140%

<sup>1</sup>Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.  
<sup>2</sup>C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.  
RL = Report Limit  
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

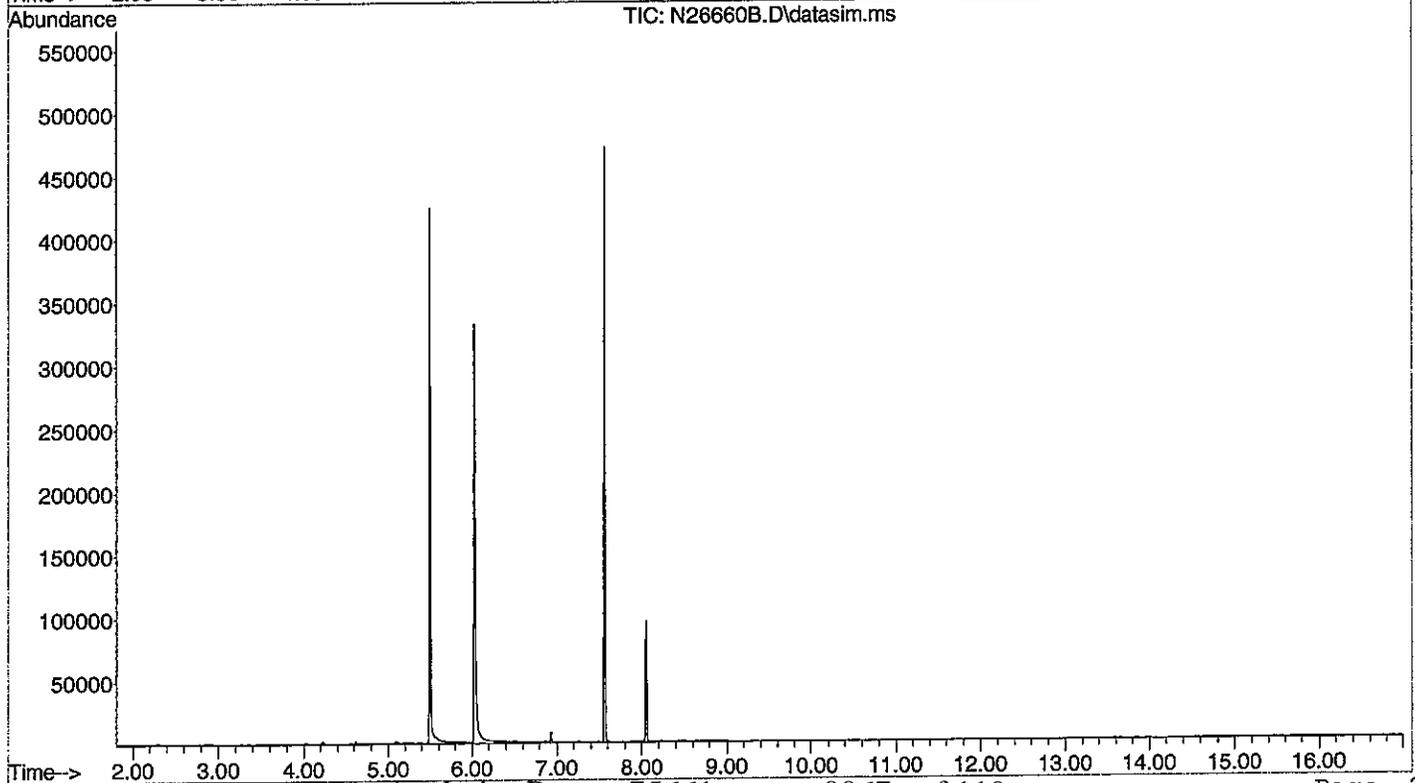
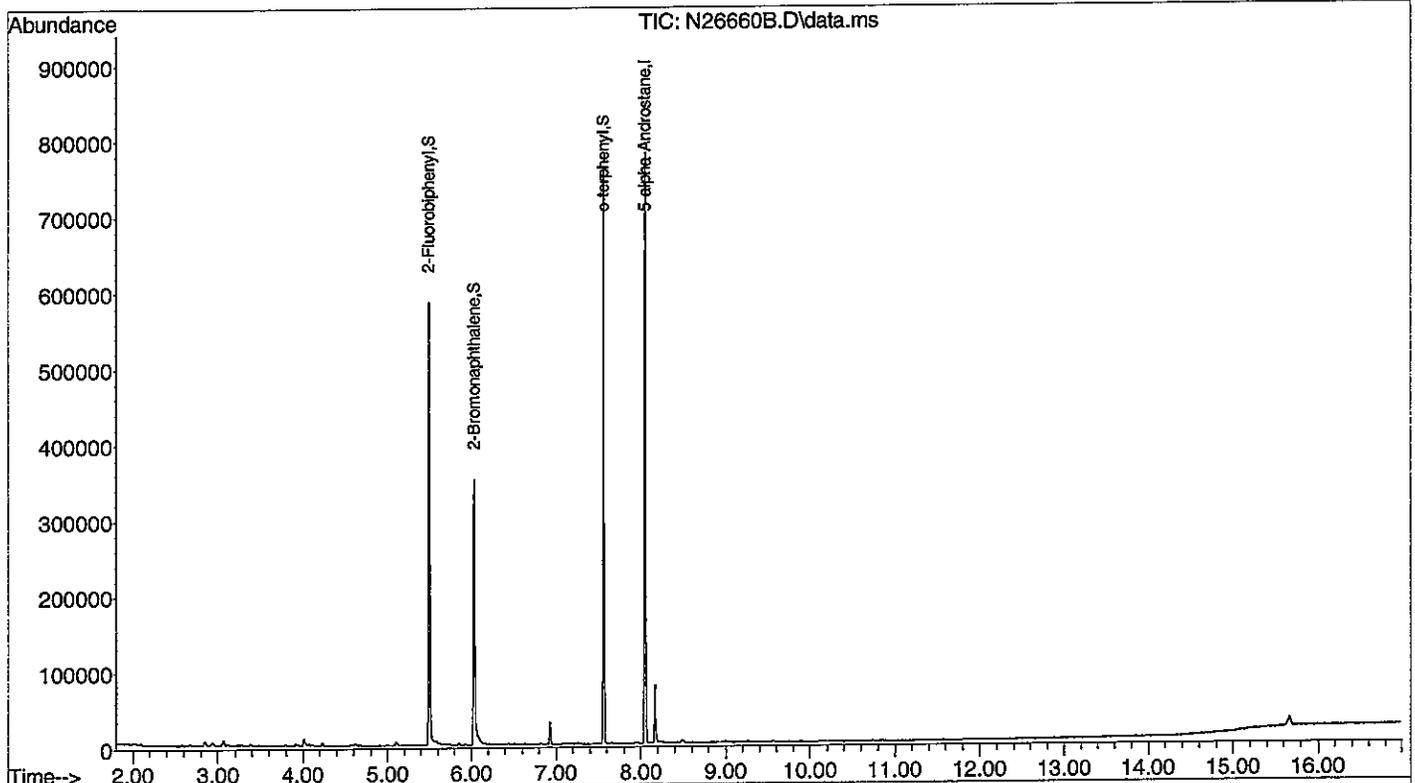
METHODOLOGY MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004  
Revision 1.1. Samples were extracted in accordance with SW-846 Method 3545

COMMENTS: EPH analyses utilized the use of a GC/MS system to detect and quantify ranges and target analytes. Samples were received in accordance with method criteria unless noted on the sample receipt checklist. Results are expressed on a dry weight basis.

SIGNATURE: *Aphull*

Data Path : C:\msdchem\1\DATA\060613-N\  
 Data File : N26660B.D  
 Acq On : 6 Jun 2013 9:12 pm  
 Operator : AR  
 Sample : B060313EASE,RR  
 Misc : SOIL,ARO  
 ALS Vial : 9 Sample Multiplier: 1

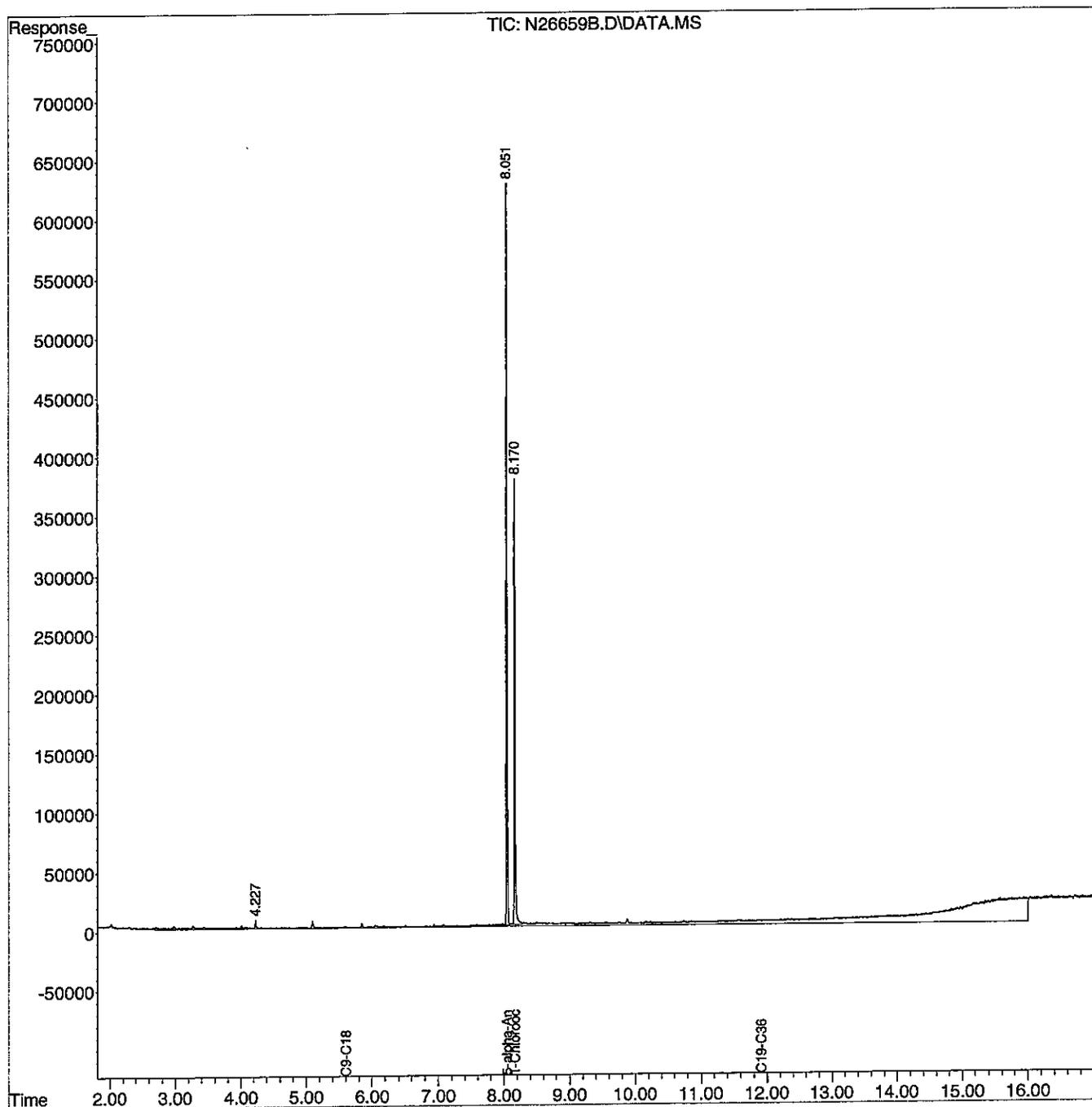
Quant Time: Jun 07 05:09:36 2013  
 Quant Method : C:\msdchem\1\METHODS\ARM042913N.M  
 Quant Title : EPH MS AROMATICS  
 QLast Update : Tue Apr 30 09:43:06 2013  
 Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\060613-N\  
Data File : N26659B.D  
Signal(s) : DATA.MS  
Acq On : 6 Jun 2013 8:51 pm  
Operator : AR  
Sample : B060313EASE,RR  
Misc : SOIL,ALI  
ALS Vial : 6 Sample Multiplier: 1

Integration File: rteint.p  
Quant Time: Jun 07 05:10:33 2013  
Quant Method : C:\msdchem\1\METHODS\ALG050113N.M  
Quant Title : EPH GC ALIPHATICS  
QLast Update : Thu May 02 20:33:49 2013  
Response via : Initial Calibration  
Integrator: RTE

Volume Inj. :  
Signal Phase :  
Signal Info :



June 14, 2013

Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

**CLIENT SAMPLE ID**

**Project Name:** Mill Dam

**Project Number:** 111.06134

**Client Sample ID:** LabQC

**SAMPLE DATA**

**Lab Sample ID:** B060613EW

**Matrix:** Aqueous

**Percent Solid:** N/A

**Dilution Factor:** 1.0

**Collection Date:**

**Lab Receipt Date:**

**Extraction Date:** 06/06/13

**Analysis Date:** 06/10/13

EPH ANALYTICAL RESULTS			
RANGE/TARGET ANALYTE	RL	Units	Result
Unadjusted C11-C22 Aromatics <sup>1</sup>	100	µg/L	U
Diesel PAH Analytes	Naphthalene	4	µg/L
	2-Methylnaphthalene	4	µg/L
	Phenanthrene	4	µg/L
	Acenaphthene	4	µg/L
Other Target PAH Analytes	Acenaphthylene	4	µg/L
	Fluorene	4	µg/L
	Anthracene	4	µg/L
	Fluoranthene	4	µg/L
	Pyrene	4	µg/L
	Benzo[a]anthracene	4	µg/L
	Chrysene	4	µg/L
	Benzo[b]fluoranthene	4	µg/L
	Benzo[k]fluoranthene	4	µg/L
	Benzo[a]pyrene	4	µg/L
	Indeno[1,2,3-cd]pyrene	4	µg/L
	Dibenzo[a,h]anthracene	4	µg/L
	Benzo[g,h,i]perylene	4	µg/L
	C9-C18 Aliphatic Hydrocarbons <sup>1</sup>	100	µg/L
C19-C36 Aliphatic Hydrocarbons <sup>1</sup>	100	µg/L	U
C11-C22 Aromatic Hydrocarbons <sup>1,2</sup>	100	µg/L	U
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)			70
Aromatic Surrogate % Recovery (O-Terphenyl)			79
Sample Surrogate Acceptance Range	--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)			77
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)			72
Fractionation Surrogate Acceptance Range	--	--	40-140%

<sup>1</sup>Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.  
<sup>2</sup>C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.  
 RL = Report Limit  
 U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

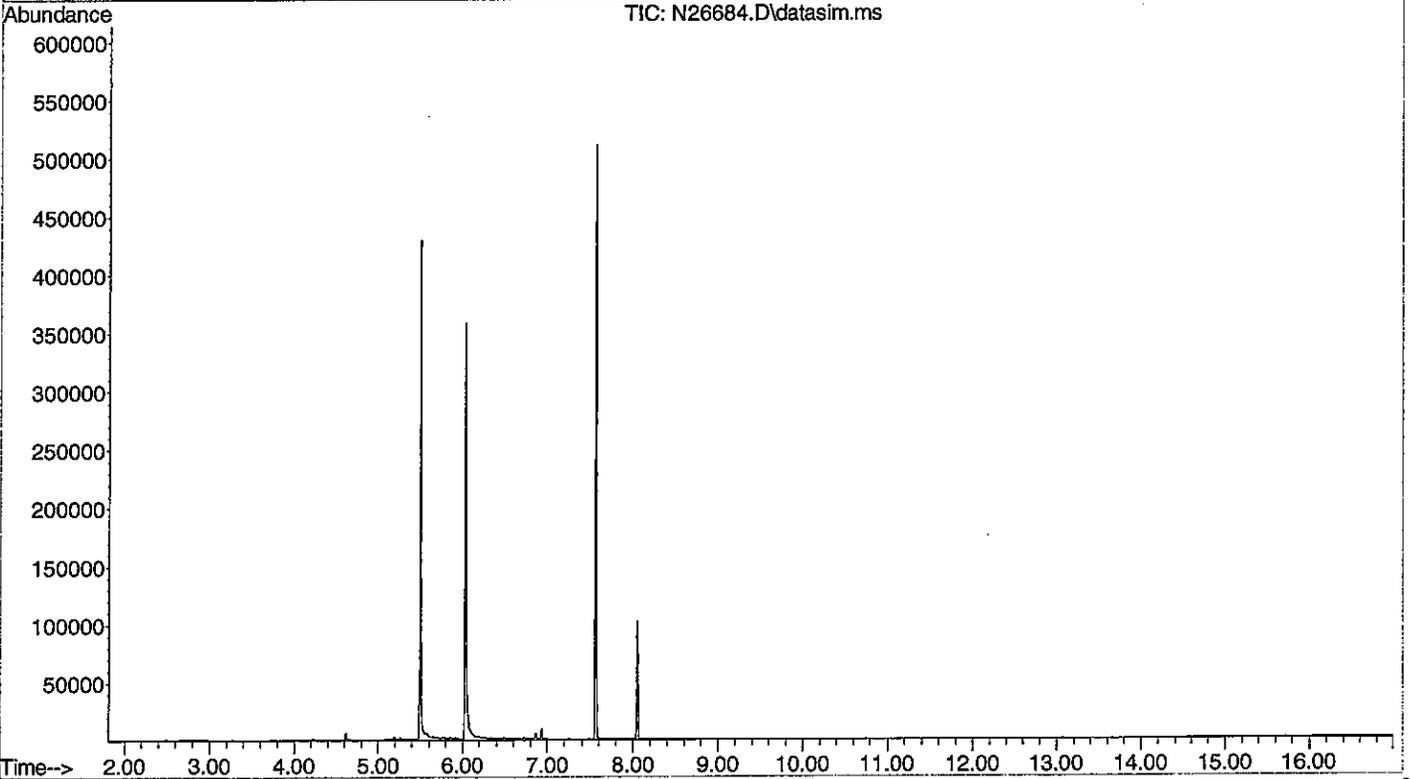
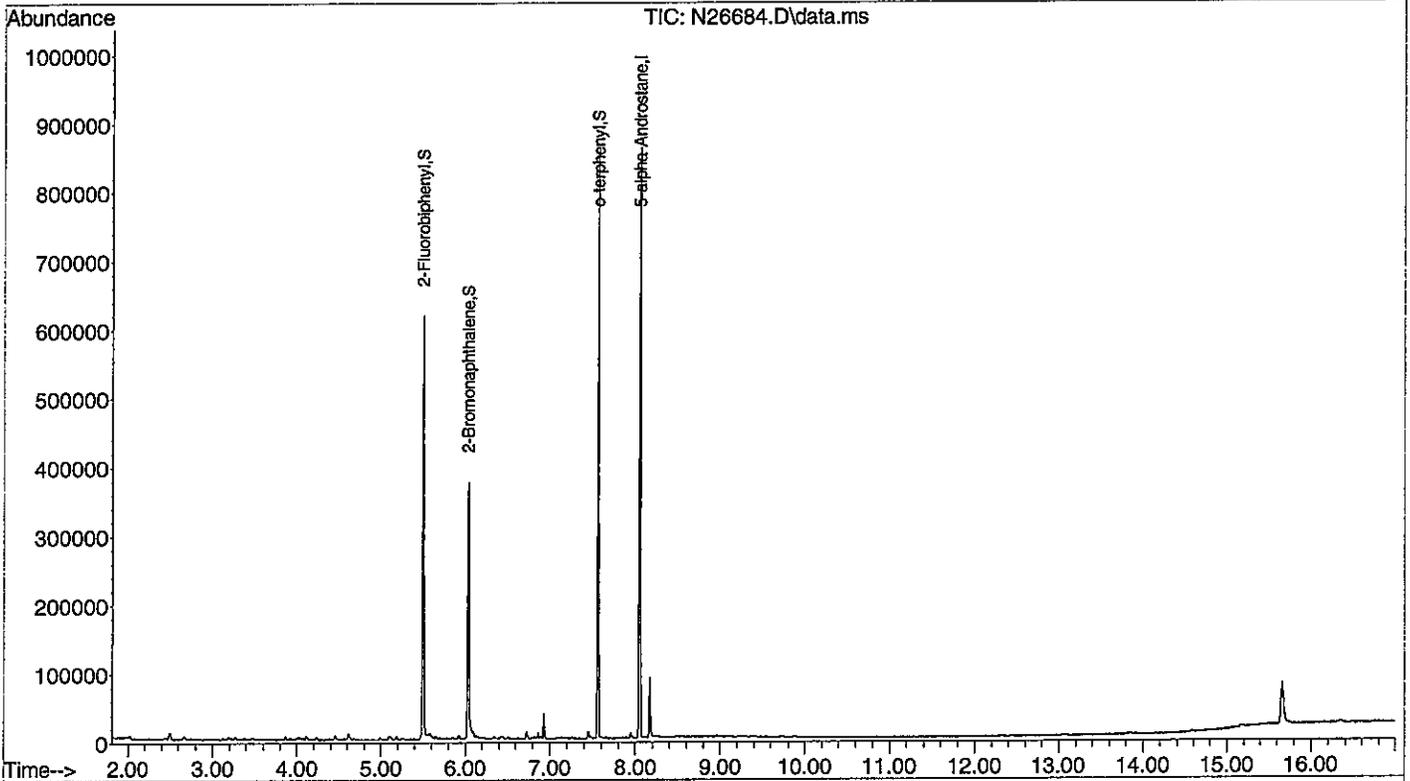
METHODOLOGY:MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004  
Revision 1.1. Samples were extracted in accordance with SW-846 Method 3510C.

COMMENTS:EPH analyses utilized the use of a GC/MS system to detect and quantify ranges and target analytes. Samples were received in accordance with method criteria unless noted on the sample receipt checklist.

SIGNATURE: M. Phelix

Data Path : C:\msdchem\1\DATA\061013-N\  
 Data File : N26684.D  
 Acq On : 10 Jun 2013 1:12 pm  
 Operator : AR  
 Sample : B060613EW  
 Misc : ARO  
 ALS Vial : 9 Sample Multiplier: 1

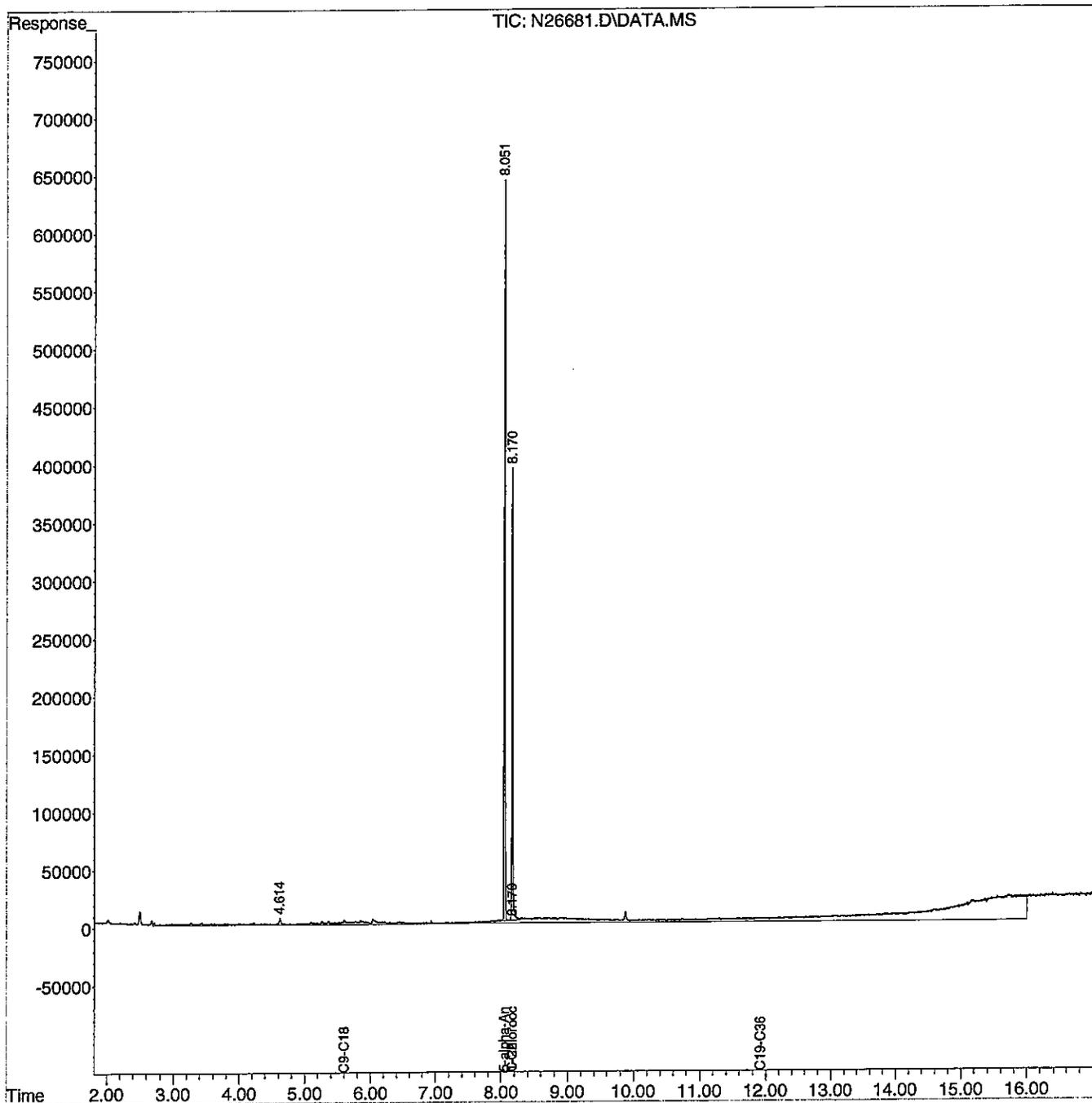
Quant Time: Jun 12 00:53:07 2013  
 Quant Method : C:\msdchem\1\METHODS\ARM042913N.M  
 Quant Title : EPH MS AROMATICS  
 QLast Update : Tue Apr 30 09:43:06 2013  
 Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\061013-N\  
Data File : N26681.D  
Signal(s) : DATA.MS  
Acq On : 10 Jun 2013 12:10 pm  
Operator : AR  
Sample : B060613EW  
Misc : ALI  
ALS Vial : 6 Sample Multiplier: 1

Integration File: rteint.p  
Quant Time: Jun 12 00:50:33 2013  
Quant Method : C:\msdchem\1\METHODS\ALG050113N.M  
Quant Title : EPH GC ALIPHATICS  
QLast Update : Thu May 02 20:33:49 2013  
Response via : Initial Calibration  
Integrator: RTE

Volume Inj. :  
Signal Phase :  
Signal Info :



June 20, 2013

Mr. Erik Phenix  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

**SAMPLE DATA**

**Lab Sample ID:** B060613EW RR  
**Matrix:** Aqueous  
**Percent Solid:** N/A  
**Dilution Factor:** 1.0  
**Collection Date:**  
**Lab Receipt Date:**  
**Extraction Date:** 06/06/13  
**Analysis Date:** 06/10/13

**CLIENT SAMPLE ID**

**Project Name:** Mill Dam  
**Project Number:** 111.06134  
**Client Sample ID:** LabQC

**EPH ANALYTICAL RESULTS**

RANGE/TARGET ANALYTE	RL	Units	Result
Unadjusted C11-C22 Aromatics <sup>1</sup>	100	µg/L	U
Diesel PAH Analytes	Naphthalene	4 µg/L	U
	2-Methylnaphthalene	4 µg/L	U
	Phenanthrene	4 µg/L	U
	Acenaphthene	4 µg/L	U
Other Target PAH Analytes	Acenaphthylene	4 µg/L	U
	Fluorene	4 µg/L	U
	Anthracene	4 µg/L	U
	Fluoranthene	4 µg/L	U
	Pvrene	4 µg/L	U
	Benzo[a]anthracene	4 µg/L	U
	Chrysene	4 µg/L	U
	Benzo[b]fluoranthene	4 µg/L	U
	Benzo[k]fluoranthene	4 µg/L	U
	Benzo[a]pyrene	4 µg/L	U
	Indeno[1,2,3-cd]pyrene	4 µg/L	U
	Dibenzof[a,h]anthracene	4 µg/L	U
Benzo[ghi]perylene	4 µg/L	U	
C9-C18 Aliphatic Hydrocarbons <sup>1</sup>	100	µg/L	U
C19-C36 Aliphatic Hydrocarbons <sup>1</sup>	100	µg/L	U
C11-C22 Aromatic Hydrocarbons <sup>1,2</sup>	100	µg/L	U
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)			70
Aromatic Surrogate % Recovery (O-Terphenyl)			80
Sample Surrogate Acceptance Range	--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)			76
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)			72
Fractionation Surrogate Acceptance Range	--	--	40-140%

<sup>1</sup>Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.  
<sup>2</sup>C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.  
RL = Report Limit  
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

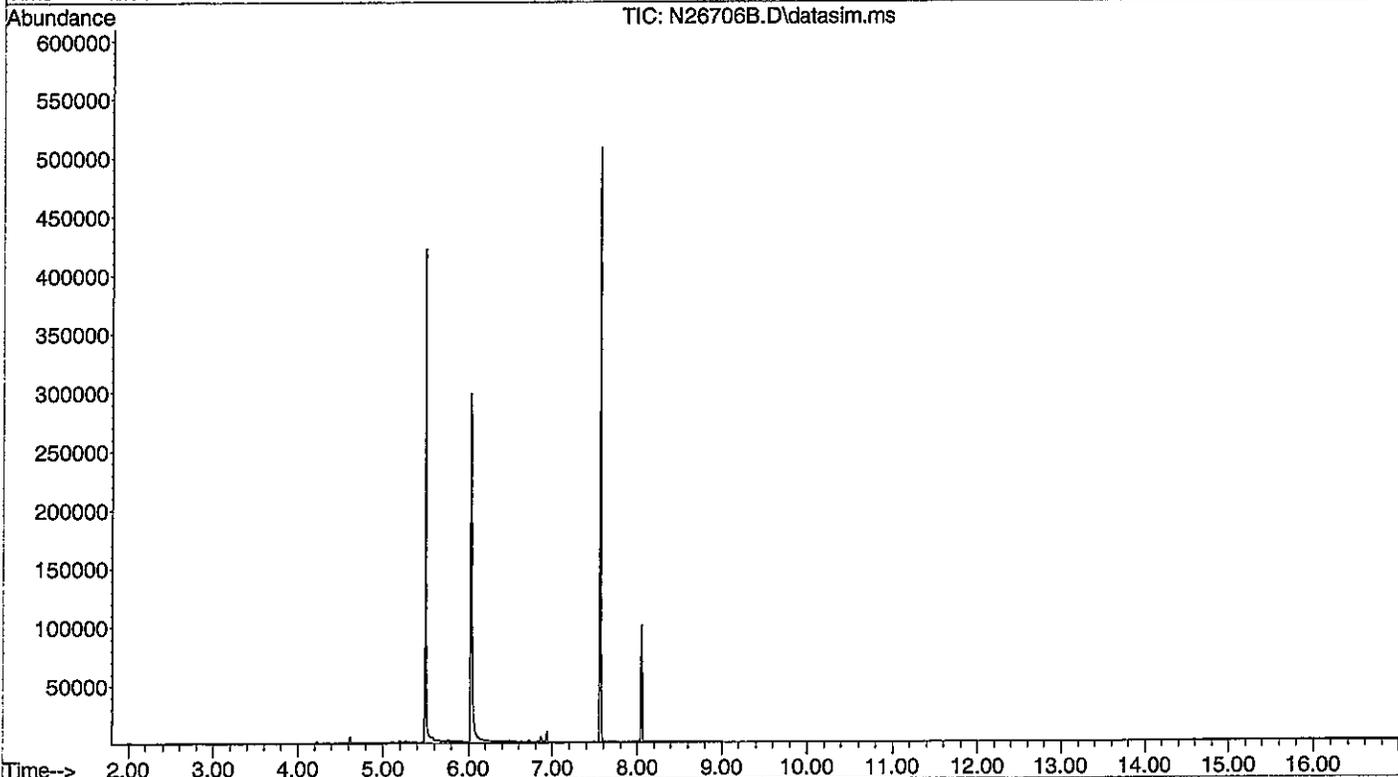
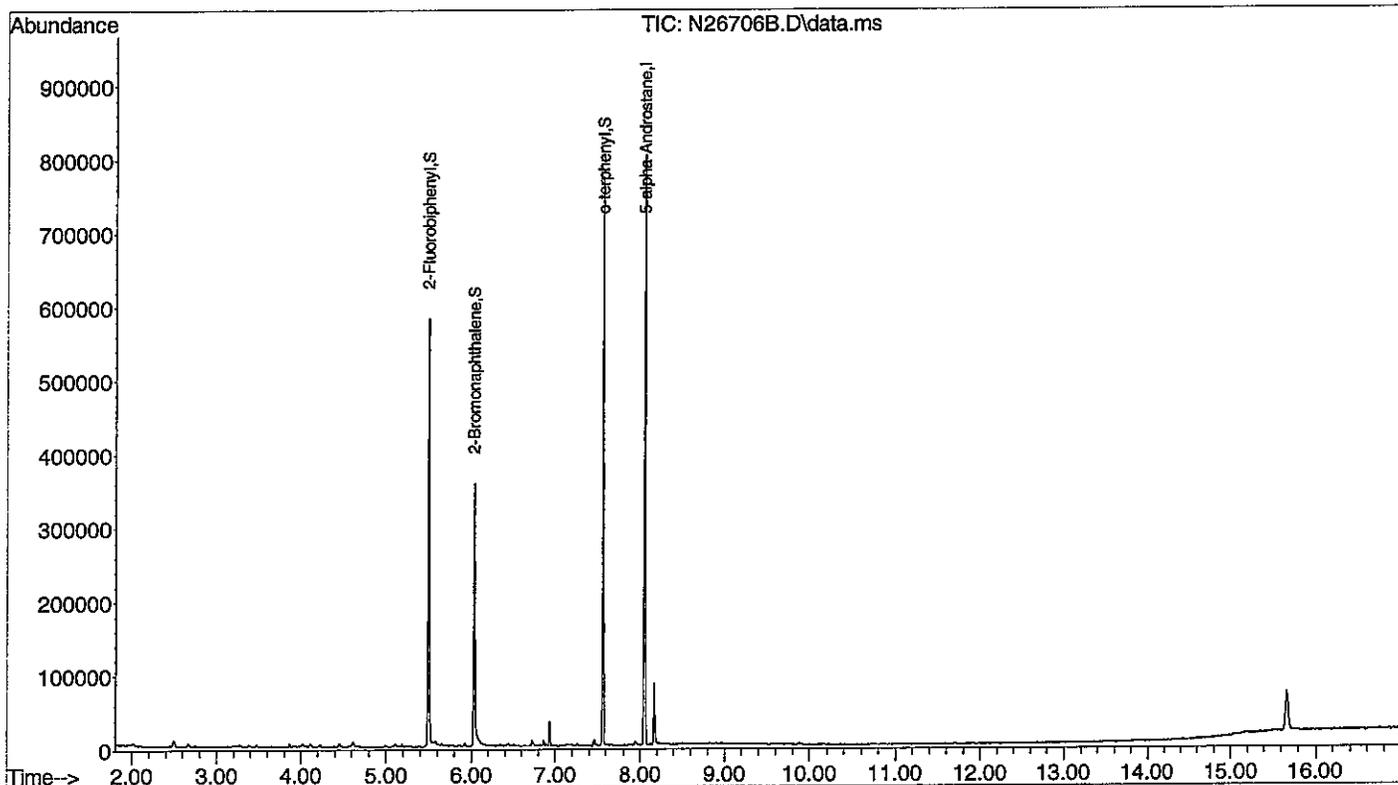
METHODOLOGY:MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004  
Revision 1.1. Samples were extracted in accordance with SW-846 Method 3510C.

COMMENTS:EPH analyses utilized the use of a GC/MS system to detect and quantify ranges and target analytes. Samples were received in accordance with method criteria unless noted on the sample receipt checklist.

SIGNATURE: 

Data Path : C:\msdchem\1\DATA\061013-N\  
 Data File : N26706B.D  
 Acq On : 10 Jun 2013 10:03 pm  
 Operator : AR  
 Sample : B060613EW,RR  
 Misc : ARO  
 ALS Vial : 9 Sample Multiplier: 1

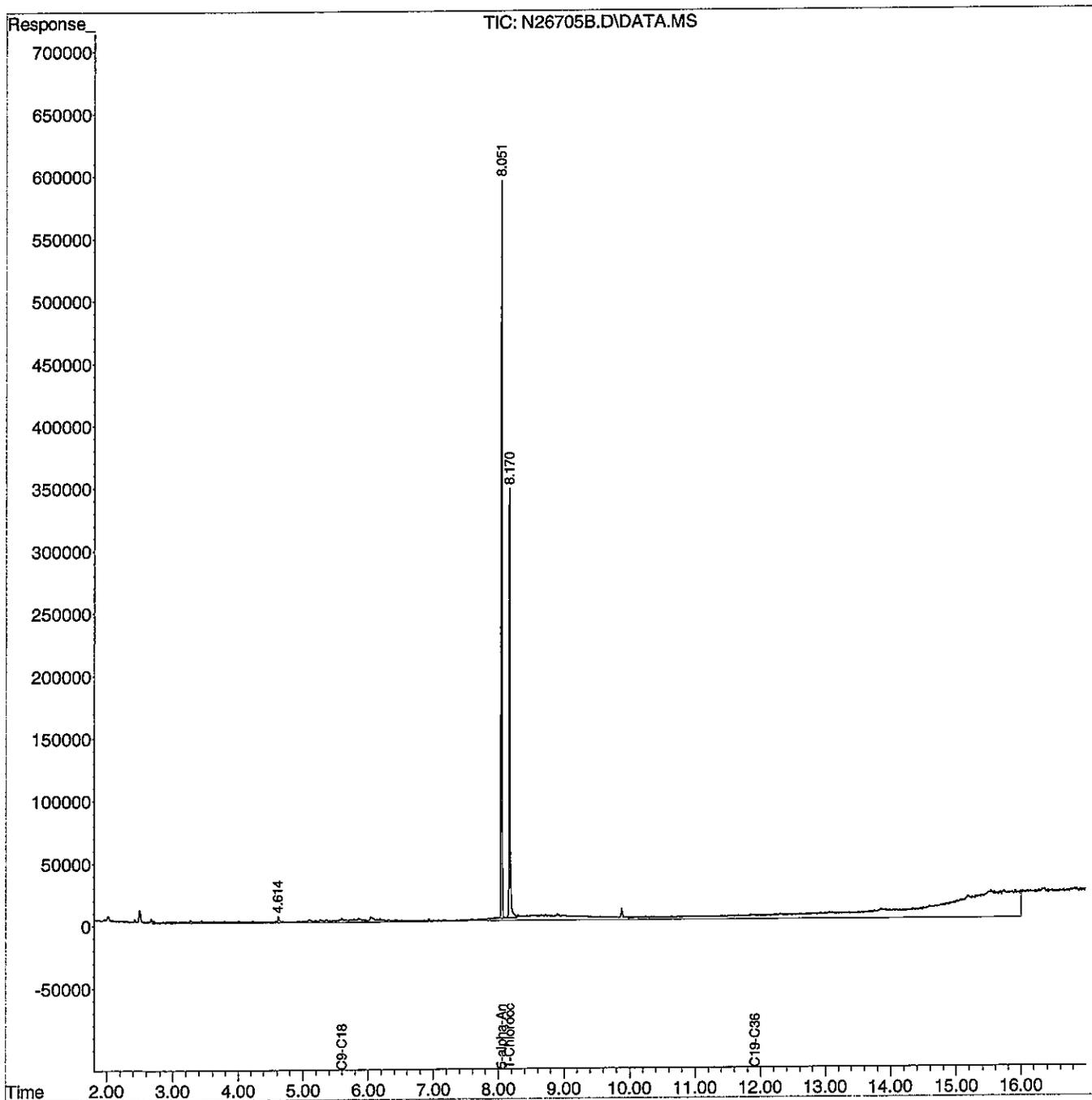
Quant Time: Jun 12 01:36:38 2013  
 Quant Method : C:\msdchem\1\METHODS\ARM042913N.M  
 Quant Title : EPH MS AROMATICS  
 QLast Update : Tue Apr 30 09:43:06 2013  
 Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\061013-N\  
Data File : N26705B.D  
Signal(s) : DATA.MS  
Acq On : 10 Jun 2013 9:37 pm  
Operator : AR  
Sample : B060613EW,RR  
Misc : ALI  
ALS Vial : 6 Sample Multiplier: 1

Integration File: rteint.p  
Quant Time: Jun 12 01:37:19 2013  
Quant Method : C:\msdchem\1\METHODS\ALG050113N.M  
Quant Title : EPH GC ALIPHATICS  
QLast Update : Thu May 02 20:33:49 2013  
Response via : Initial Calibration  
Integrator: RTE

Volume Inj. :  
Signal Phase :  
Signal Info :



June 25, 2013

Mr. Tony Santa Fe  
ENPRO Services Inc.  
12 Mulliken Way  
Newburyport MA 01950

**SAMPLE DATA**

**Lab Sample ID:** B061913EASE  
**Matrix:** Solid  
**Percent Solid:** 100  
**Dilution Factor:** 1.0  
**Collection Date:**  
**Lab Receipt Date:**  
**Extraction Date:** 06/19/13  
**Analysis Date:** 06/24/13

**CLIENT SAMPLE ID**

**Project Name:** Comet Residence  
**Project Number:** 4046-13  
**Client Sample ID:** LabQC

EPH ANALYTICAL RESULTS			
RANGE/TARGET ANALYTE	RL	Units	Result
Unadjusted C11-C22 Aromatics <sup>1</sup>	13300	µg/kg	U
Diesel PAH Analytes	Naphthalene	267	µg/kg
	2-Methylnaphthalene	267	µg/kg
	Phenanthrene	267	µg/kg
	Acenaphthene	267	µg/kg
Other Target PAH Analytes	Acenaphthylene	267	µg/kg
	Fluorene	267	µg/kg
	Anthracene	267	µg/kg
	Fluoranthene	267	µg/kg
	Pyrene	267	µg/kg
	Benzo[a]anthracene	267	µg/kg
	Chrysene	267	µg/kg
	Benzo[b]fluoranthene	267	µg/kg
	Benzo[k]fluoranthene	267	µg/kg
	Benzo[a]pyrene	267	µg/kg
	Indeno[1,2,3-cd]pyrene	267	µg/kg
	Dibenzo[a,h]anthracene	267	µg/kg
	Benzo[g,h,i]perylene	267	µg/kg
C9-C18 Aliphatic Hydrocarbons <sup>1</sup>	13300	µg/kg	U
C19-C36 Aliphatic Hydrocarbons <sup>1</sup>	13300	µg/kg	U
C11-C22 Aromatic Hydrocarbons <sup>1,2</sup>	13300	µg/kg	U
Aliphatic Surrogate % Recovery (1-Chloro-octadecane)			63
Aromatic Surrogate % Recovery (O-Terphenyl)			76
Sample Surrogate Acceptance Range	--	--	40-140%
#1 Fractionation Surrogate % Recovery (2-Fluorobiphenyl)			79
#2 Fractionation Surrogate % Recovery (2-Bromonaphthalene)			79
Fractionation Surrogate Acceptance Range	--	--	40-140%
<sup>1</sup> Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.			
<sup>2</sup> C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.			
RL = Report Limit			
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank			

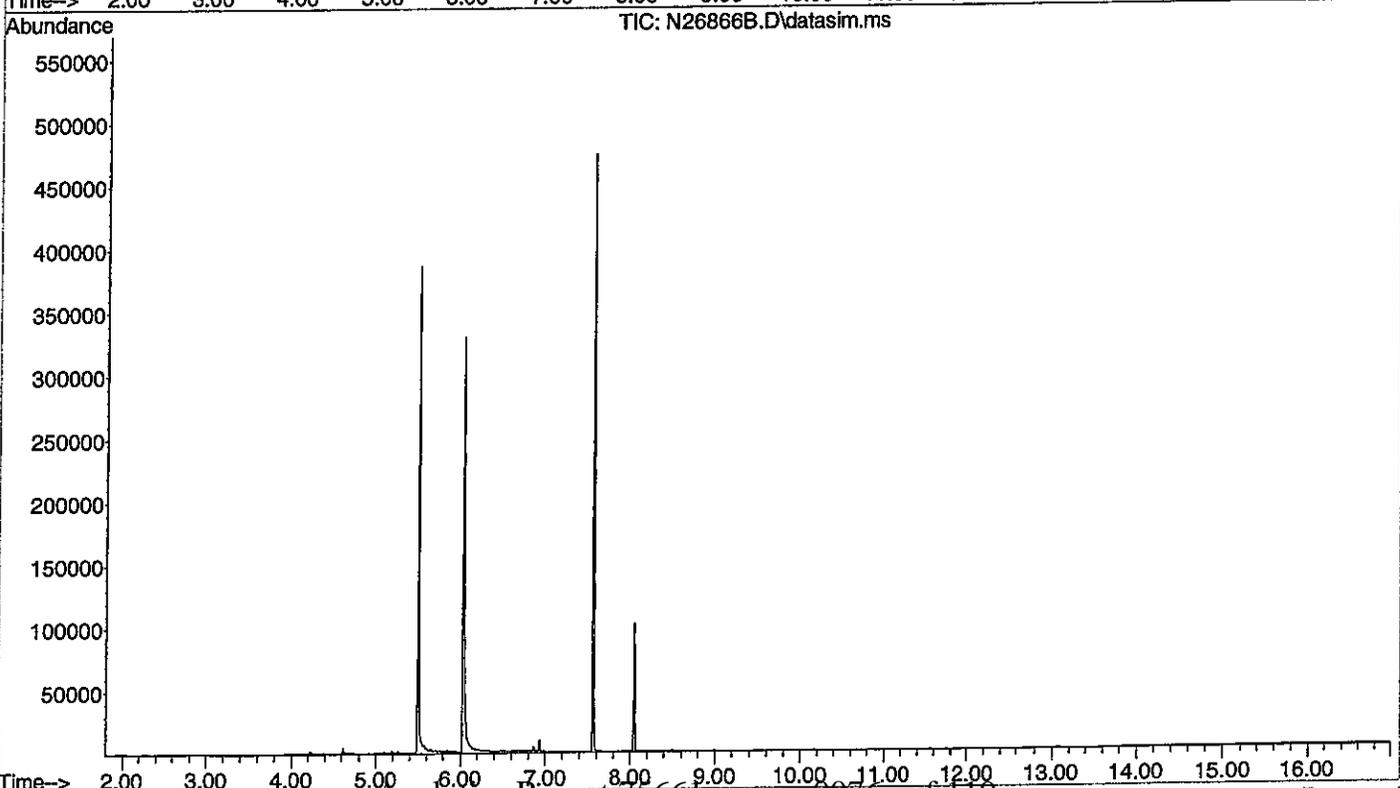
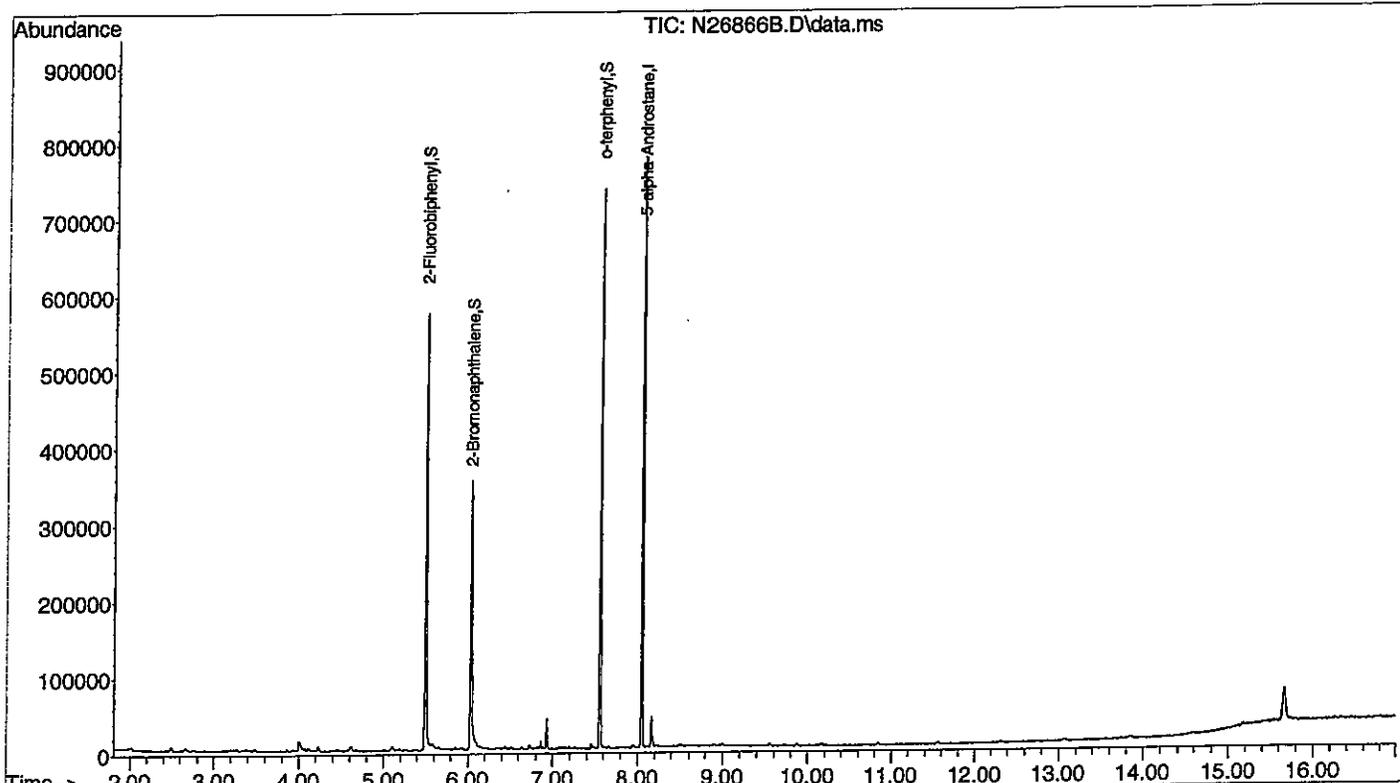
METHODOLOGY MADEP Extractable Petroleum Hydrocarbons (EPH), ORS Division of Environmental Analysis, May 2004  
Revision 1.1. Samples were extracted in accordance with SW-846 Method 3545

COMMENTS: EPH analyses utilized the use of a GC/MS system to detect and quantify ranges and target analytes. Samples were received in accordance with method criteria unless noted on the sample receipt checklist. Results are expressed on a dry weight basis.

SIGNATURE: 

Data Path : C:\msdchem\1\DATA\062413-N\  
 Data File : N26866B.D  
 Acq On : 24 Jun 2013 12:03 pm  
 Operator : MT  
 Sample : B061913EASE  
 Misc : SOIL,,ARO  
 ALS Vial : 9 Sample Multiplier: 1

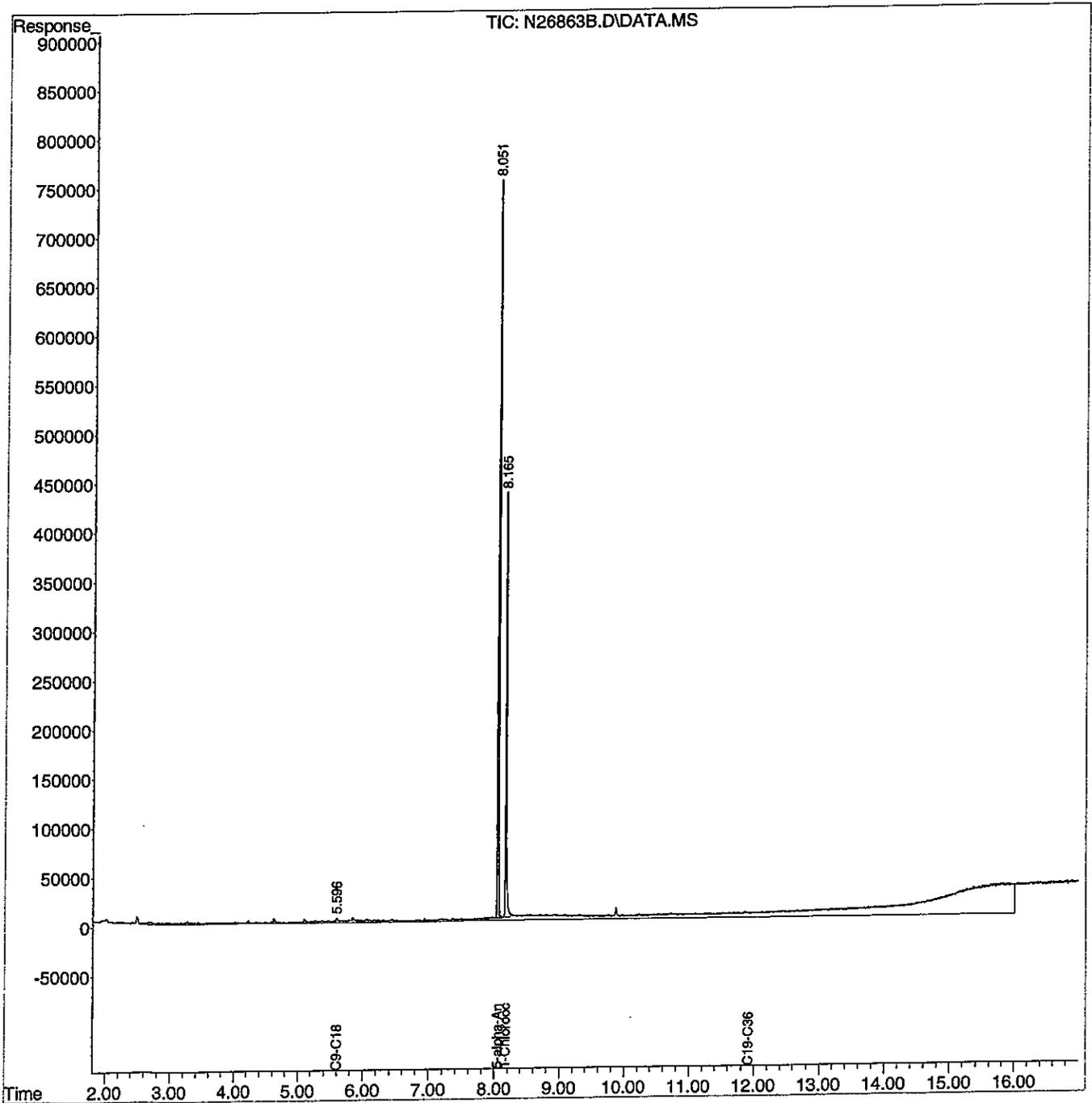
Quant Time: Jun 24 22:09:24 2013  
 Quant Method : C:\msdchem\1\METHODS\ARM062013N.M  
 Quant Title : EPH MS AROMATICS  
 QLast Update : Mon Jun 24 22:07:54 2013  
 Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\062413-N\  
 Data File : N26863B.D  
 Signal(s) : DATA.MS  
 Acq On : 24 Jun 2013 11:01 am  
 Operator : MT  
 Sample : B061913EASE  
 Misc : SOIL,,ALI  
 ALS Vial : 6 Sample Multiplier: 1

Integration File: rteint.p  
 Quant Time: Jun 24 22:15:38 2013  
 Quant Method : C:\msdchem\1\METHODS\ALG050113N.M  
 Quant Title : EPH GC ALIPHATICS  
 QLast Update : Thu May 02 20:33:49 2013  
 Response via : Initial Calibration  
 Integrator: RTE

Volume Inj. :  
 Signal Phase :  
 Signal Info :



EPH ALIPHATICS  
 SOIL LABORATORY CONTROL SAMPLE  
 LABORATORY CONTROL SAMPLE DUPLICATE  
 PERCENT RECOVERY

Instrument ID: N  
 GC Column: ZB-5ms  
 Column ID: 0.25 mm

SDG:  
 Non-spiked sample: B060313EASE  
 Spike: L060313EASE  
 Spike duplicate: LD060313EASE

COMPOUND	LCS SPIKE	LCD SPIKE	LOWER	UPPER	RPD	NON-SPIKE	SPIKE	SPIKE	SPIKE DUP	SPIKE DUP	RPD	
	ADDED (ug/kg)	ADDED (ug/kg)	LIMIT	LIMIT	LIMIT	RESULT (ug/kg)	RESULT (ug/kg)	% REC	#	RESULT (ug/kg)	% REC	#
C-9	3333	3333	30	140	25	0	1952	59		1983	59	2
C-10	3333	3333	40	140	25	0	2252	68		2337	70	4
C-12	3333	3333	40	140	25	0	2477	74		2609	78	5
C-14	3333	3333	40	140	25	0	2652	80		2745	82	3
C-16	3333	3333	40	140	25	0	2699	81		2800	84	4
C-18	3333	3333	40	140	25	0	2760	83		2844	85	3
C-19	3333	3333	40	140	25	0	2688	81		2781	83	3
C-20	3333	3333	40	140	25	0	2828	85		2953	89	4
C-22	3333	3333	40	140	25	0	2795	84		2916	87	4
C-24	3333	3333	40	140	25	0	2772	83		2887	87	4
C-26	3333	3333	40	140	25	0	2717	82		2879	86	6
C-28	3333	3333	40	140	25	0	2639	79		2873	86	9
C-30	3333	3333	40	140	25	0	2547	76		2904	87	13
C-36	3333	3333	40	140	25	0	2571	77		2857	86	11
C9-C18 Aliphatics	20000	20000	40	140	25	0	14792	74		15319	77	3
C19-C36 Aliphatics	26667	26667	40	140	25	0	21556	81		23051	86	7

# Column to be used to flag recovery and RPD values outside of QC limits  
 \* Values outside QC limits

Non-spiked result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: \_\_\_\_\_

EPH AROMATICS  
 SOIL LABORATORY CONTROL SAMPLE  
 LABORATORY CONTROL SAMPLE DUPLICATE  
 PERCENT RECOVERY

Instrument ID: N  
 GC Column: ZB-5ms  
 Column ID: 0.25 mm

SDG:  
 Non-spiked sample: B060313EASE  
 Spike: LD60313EASE  
 Spike duplicate: LD060313EASE

COMPOUND	LCS SPIKE	LCSD SPIKE	LOWER	UPPER	RPD	NON-SPIKE	SPIKE	SPIKE	SPIKE DUP	SPIKE DUP		
	ADDED (ug/kg)	ADDED (ug/kg)	LIMIT	LIMIT	LIMIT	RESULT (ug/kg)	RESULT (ug/kg)	% REC #	RESULT (ug/kg)	% REC #	RPD	#
Naphthalene	3333	3333	40	140	30	0	2234	67	2353	71	5	
2-Methylnaphthalene	3333	3333	40	140	30	0	2290	69	2423	73	6	
Acenaphthylene	3333	3333	40	140	30	0	2434	73	2523	76	4	
Acenaphthene	3333	3333	40	140	30	0	2354	71	2412	72	2	
Fluorene	3333	3333	40	140	30	0	2476	74	2560	77	3	
Phenanthrene	3333	3333	40	140	30	0	2781	83	2848	85	2	
Anthracene	3333	3333	40	140	30	0	2371	71	2452	74	3	
Fluoranthene	3333	3333	40	140	30	0	2574	77	2676	80	4	
Pyrene	3333	3333	40	140	30	0	2610	78	2668	80	2	
Benzo[a]anthracene	3333	3333	40	140	30	0	2811	84	2894	87	3	
Chrysene	3333	3333	40	140	30	0	2510	75	2571	77	2	
Benzo[b]fluoranthene	3333	3333	40	140	30	0	2913	87	2979	89	2	
Benzo[k]fluoranthene	3333	3333	40	140	30	0	2574	77	2635	79	2	
Benzo[a]pyrene	3333	3333	40	140	30	0	2597	78	2708	81	4	
Indeno [1,2,3-cd] pyrene	3333	3333	40	140	30	0	2931	88	2992	90	2	
Dibenz [a,h] anthracene	3333	3333	40	140	30	0	2724	82	2826	85	4	
Benzo [g,h,i] perylene	3333	3333	40	140	30	0	2869	86	2946	88	3	

# Column to be used to flag recovery and RPD values outside of QC limits  
 \* Values outside QC limits

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: \_\_\_\_\_

**EPH AROMATIC BREAKTHROUGH REPORT  
OF ALIPHATIC LABORATORY CONTROL SAMPLE**

Instrument ID: N

GC Column: ZB-5ms

Column ID: 0.25 mm

SDG:

Aliphatic LCS: L060313EASE

Aromatic LCS: L060313EASE

COMPOUND	LOWER	UPPER	ALIPHATIC	AROMATIC	% BREAKTHROUGH	
	LIMIT	LIMIT	RESULT (ug/mL)	RESULT (ug/mL)		#
Naphthalene	0	5	0.00	16.8	0.0	
2-Methylnaphthalene	0	5	0.00	17.2	0.0	

# Column to be used to flag breakthrough values outside of QC limits

\* Values outside QC limits

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery

Comments: \_\_\_\_\_  
\_\_\_\_\_

EPH AROMATIC BREAKTHROUGH REPORT  
OF ALIPHATIC LABORATORY CONTROL SAMPLE

Instrument ID: N

GC Column: ZB-5ms

Column ID: 0.25 mm

SDG:

Aliphatic LCS: LD060313EASE

Aromatic LCS: LD060313EASE

COMPOUND	LOWER	UPPER	ALIPHATIC	AROMATIC	% BREAKTHROUGH	
	LIMIT	LIMIT	RESULT (ug/mL)	RESULT (ug/mL)		#
Naphthalene	0	5	0.00	17.7	0.0	
2-Methylnaphthalene	0	5	0.00	18.2	0.0	

# Column to be used to flag breakthrough values outside of QC limits  
\* Values outside QC limits

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery

Comments: \_\_\_\_\_  
\_\_\_\_\_

EPH ALIPHATICS  
 AQUEOUS LABORATORY CONTROL SAMPLE  
 LABORATORY CONTROL SAMPLE DUPLICATE  
 PERCENT RECOVERY

Instrument ID: N  
 GC Column: ZB-5ms  
 Column ID: 0.25 mm

SDG:  
 Non-spiked sample: B060613EW  
 Spike: L060613EW  
 Spike duplicate: LD060613EW

COMPOUND	SPIKE ADDED	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/L)	SPIKE		SPIKE DUP		SPIKE DUP		RPD #
						RESULT (ug/L)	% REC	RESULT (ug/L)	% REC	RESULT (ug/L)	% REC	
C-9	25	30	140	25	0.0	14	55	14	55		0	
C-10	25	40	140	25	0.0	16	65	16	66		2	
C-12	25	40	140	25	0.0	18	73	19	76		4	
C-14	25	40	140	25	0.0	19	76	21	82		8	
C-16	25	40	140	25	0.0	19	77	20	81		6	
C-18	25	40	140	25	0.0	20	79	20	81		3	
C-19	25	40	140	25	0.0	19	78	20	80		3	
C-20	25	40	140	25	0.0	21	82	21	85		3	
C-22	25	40	140	25	0.0	21	82	21	84		2	
C-24	25	40	140	25	0.0	20	82	21	83		1	
C-26	25	40	140	25	0.0	20	80	21	83		3	
C-28	25	40	140	25	0.0	20	78	21	82		5	
C-30	25	40	140	25	0.0	19	77	21	82		6	
C-36	25	40	140	25	0.0	19	77	21	82		6	
C9-C18 Aliphatics	150	40	140	25	0	106	71	111	74		4	
C19-C36 Aliphatics	200	40	140	25	0	159	80	165	83		4	

# Column to be used to flag recovery and RPD values outside of QC limits  
 \* Values outside QC limits

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery

Comments: \_\_\_\_\_  
 \_\_\_\_\_

EPH AROMATICS  
 AQUEOUS LABORATORY CONTROL SAMPLE  
 LABORATORY CONTROL SAMPLE DUPLICATE  
 PERCENT RECOVERY

Instrument ID: N  
 GC Column: ZB-5ms  
 Column ID: 0.25 mm

SDG:  
 Non-spiked sample: B060613EW  
 Spike: L060613EW  
 Spike duplicate: LD060613EW

COMPOUND	SPIKE	LOWER	UPPER	RPD	NON-SPIKE	SPIKE	SPIKE	SPIKE DUP		SPIKE DUP		RPD	
	ADDED	LIMIT	LIMIT	LIMIT	RESULT (ug/L)	RESULT (ug/L)	% REC	#	RESULT (ug/L)	% REC	#	RPD	#
Naphthalene	25	40	140	20	0.0	17	68		17	69		3	
2-Methylnaphthalene	25	40	140	20	0.0	17	68		17	69		3	
Acenaphthylene	25	40	140	20	0.0	18	71		18	73		3	
Acenaphthene	25	40	140	20	0.0	17	69		17	70		1	
Fluorene	25	40	140	20	0.0	18	73		19	76		4	
Phenanthrene	25	40	140	20	0.0	20	82		21	85		4	
Anthracene	25	40	140	20	0.0	17	70		18	71		2	
Fluoranthene	25	40	140	20	0.0	19	76		20	80		5	
Pyrene	25	40	140	20	0.0	19	76		20	79		4	
Benzo[a]anthracene	25	40	140	20	0.0	21	84		22	89		6	
Chrysene	25	40	140	20	0.0	19	74		19	76		2	
Benzo[b]fluoranthene	25	40	140	20	0.0	22	88		22	89		2	
Benzo[k]fluoranthene	25	40	140	20	0.0	19	76		20	79		3	
Benzo[a]pyrene	25	40	140	20	0.0	20	80		20	81		1	
Indeno [1,2,3-cd] pyrene	25	40	140	20	0.0	23	93		23	93		0	
Dibenz [a,h] anthracene	25	40	140	20	0.0	21	86		22	86		1	
Benzo[ g,h,i] perylene	25	40	140	20	0.0	22	89		22	89		1	

# Column to be used to flag recovery and RPD values outside of QC limits  
 \* Values outside QC limits

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery

Comments: \_\_\_\_\_  
 \_\_\_\_\_

EPH AROMATIC BREAKTHROUGH REPORT  
OF ALIPHATIC LABORATORY CONTROL SAMPLE

Instrument ID: N  
GC Column: ZB-5ms  
Column ID: 0.25 mm

SDG:  
Aliphatic LCS: L060613EW  
Aromatic LCS: L060613EW

COMPOUND	LOWER	UPPER	ALIPHATIC	AROMATIC	% BREAKTHROUGH	
	LIMIT	LIMIT	RESULT (ug/mL)	RESULT (ug/mL)		#
Naphthalene	0	5	0.00	16.9	0.0	
2-Methylnaphthalene	0	5	0.00	16.9	0.0	

# Column to be used to flag breakthrough values outside of QC limits  
\* Values outside QC limits

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery

Comments: \_\_\_\_\_  
\_\_\_\_\_

EPH AROMATIC BREAKTHROUGH REPORT  
OF ALIPHATIC LABORATORY CONTROL SAMPLE

Instrument ID: N

SDG:

GC Column: ZB-5ms

Aliphatic LCS: LD060613EW

Column ID: 0.25 mm

Aromatic LCS: LD060613EW

COMPOUND	LOWER	UPPER	ALIPHATIC	AROMATIC	% BREAKTHROUGH	
	LIMIT	LIMIT	RESULT (ug/mL)	RESULT (ug/mL)		#
Naphthalene	0	5	0.00	17.4	0.0	
2-Methylnaphthalene	0	5	0.00	17.3	0.0	

# Column to be used to flag breakthrough values outside of QC limits

\* Values outside QC limits

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery

Comments: \_\_\_\_\_  
\_\_\_\_\_

EPH ALIPHATICS  
 AQUEOUS MATRIX SPIKE  
 MATRIX SPIKE DUPLICATE  
 PERCENT RECOVERY

Instrument ID: N  
 GC Column: ZB-5ms  
 Column ID: 0.25 mm

SDG:  
 Non-spiked sample: 75661-9  
 Spike: 75661-9,MS  
 Spike duplicate: 75661-9,MSD

COMPOUND	SPIKE ADDED	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/L)	SPIKE RESULT (ug/L)	SPIKE		SPIKE DUP		SPIKE DUP		RPD	#
							% REC	#	RESULT (ug/L)	% REC	#			
C-9	25	30	140	25	0.0	12	49		13	51		3		
C-10	25	40	140	25	0.0	15	59		15	58		0		
C-12	25	40	140	25	0.0	16	64		16	65		1		
C-14	25	40	140	25	0.0	17	67		17	68		2		
C-16	25	40	140	25	0.0	17	69		17	69		0		
C-18	25	40	140	25	0.0	16	63		18	71		12		
C-19	25	40	140	25	0.0	15	62		17	70		12		
C-20	25	40	140	25	0.0	16	65		18	73		12		
C-22	25	40	140	25	0.0	16	66		17	67		2		
C-24	25	40	140	25	0.0	16	66		16	65		1		
C-26	25	40	140	25	0.0	19	75		16	65		14		
C-28	25	40	140	25	0.0	18	74		16	65		12		
C-30	25	40	140	25	0.0	17	67		18	71		6		
C-36	25	40	140	25	0.0	19	74		16	65		13		
C9-C18 Aliphatics	150	40	140	25	0.0	92	62		95	64		3		
C19-C36 Aliphatics	200	40	140	25	0.0	137	69		135	68		1		

# Column to be used to flag recovery and RPD values outside of QC limits  
 \* Values outside QC limits

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery

Comments: \_\_\_\_\_  
 \_\_\_\_\_

EPH AROMATICS  
AQUEOUS MATRIX SPIKE  
MATRIX SPIKE DUPLICATE  
PERCENT RECOVERY

Instrument ID: N  
GC Column: RTX-5ms  
Column ID: 0.25 mm

SDG:  
Non-spiked sample: 75661-9  
Spike: 75661-9,MS  
Spike duplicate: 75661-9,MSD

COMPOUND	SPIKE	LOWER	UPPER	RPD	NON-SPIKE	SPIKE	SPIKE	SPIKE DUP		SPIKE DUP		RPD	
	ADDED	LIMIT	LIMIT	LIMIT	RESULT (ug/L)	RESULT (ug/L)	% REC	#	RESULT (ug/L)	% REC	#	RPD	#
Naphthalene	25	40	140	50	0.0	12	47		13	52		11	
2-Methylnaphthalene	25	40	140	50	0.0	12	48		13	53		12	
Acenaphthylene	25	40	140	50	0.0	13	52		14	55		6	
Acenaphthene	25	40	140	50	0.0	12	50		13	53		7	
Fluorene	25	40	140	50	0.0	14	54		14	56		4	
Phenanthrene	25	40	140	50	0.0	15	62		16	62		1	
Anthracene	25	40	140	50	0.0	13	53		13	54		1	
Fluoranthene	25	40	140	50	0.0	15	58		14	57		1	
Pyrene	25	40	140	50	0.0	15	58		15	58		1	
Benzo[a]anthracene	25	40	140	50	0.0	15	62		15	61		1	
Chrysene	25	40	140	50	0.0	13	54		14	55		2	
Benzo[b] fluoranthene	25	40	140	50	0.0	16	64		16	64		0	
Benzo[k] fluoranthene	25	40	140	50	0.0	14	56		14	56		0	
Benzo[a] pyrene	25	40	140	50	0.0	14	57		14	58		1	
Indeno [1,2,3-cd] pyrene	25	40	140	50	0.0	17	66		17	67		2	
Dibenz [a,h] anthracene	25	40	140	50	0.0	15	61		15	62		1	
Benzo( g,h,i) perylene	25	40	140	50	0.0	16	64		16	65		2	

# Column to be used to flag recovery and RPD values outside of QC limits  
\* Values outside QC limits

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery

Comments: \_\_\_\_\_  
\_\_\_\_\_

EPH ALIPHATICS  
 SOIL LABORATORY CONTROL SAMPLE  
 LABORATORY CONTROL SAMPLE DUPLICATE  
 PERCENT RECOVERY

Instrument ID: N  
 GC Column: ZB-5ms  
 Column ID: 0.25 mm

SDG:  
 Non-spiked sample: B061913EASE  
 Spike: L061913EASE  
 Spike duplicate: LD061913EASE

COMPOUND	LCS SPIKE	LCD SPIKE	LOWER	UPPER	RPD	NON-SPIKE	SPIKE	SPIKE	SPIKE DUP	SPIKE DUP	RPD	
	ADDED (ug/kg)	ADDED (ug/kg)	LIMIT	LIMIT	LIMIT	RESULT (ug/kg)	RESULT (ug/kg)	% REC #	RESULT (ug/kg)	% REC #	#	#
C-9	3333	3333	30	140	25	0	1791	54	1785	54		0
C-10	3333	3333	40	140	25	0	2071	62	2024	61		2
C-12	3333	3333	40	140	25	0	2312	69	2213	66		4
C-14	3333	3333	40	140	25	0	2464	74	2311	69		6
C-16	3333	3333	40	140	25	0	2443	73	2331	70		5
C-18	3333	3333	40	140	25	0	2455	74	2329	70		5
C-19	3333	3333	40	140	25	0	2369	71	2253	68		5
C-20	3333	3333	40	140	25	0	2479	74	2363	71		5
C-22	3333	3333	40	140	25	0	2519	76	2337	70		7
C-24	3333	3333	40	140	25	0	2524	76	2397	72		5
C-26	3333	3333	40	140	25	0	2588	78	2556	77		1
C-28	3333	3333	40	140	25	0	2721	82	2761	83		1
C-30	3333	3333	40	140	25	0	2784	84	2848	85		2
C-36	3333	3333	40	140	25	0	2777	83	2791	84		0
C9-C18 Aliphatics	20000	20000	40	140	25	0	13535	68	12993	65		4
C19-C36 Aliphatics	26667	26667	40	140	25	0	20761	78	20307	76		2

# Column to be used to flag recovery and RPD values outside of QC limits  
 \* Values outside QC limits

Non-spiked result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: \_\_\_\_\_

EPH AROMATICS  
 SOIL LABORATORY CONTROL SAMPLE  
 LABORATORY CONTROL SAMPLE DUPLICATE  
 PERCENT RECOVERY

Instrument ID: N  
 GC Column: ZB-5ms  
 Column ID: 0.25 mm

SDG:  
 Non-spiked sample: B061913EASE  
 Spike: L061913EASE  
 Spike duplicate: LD061913EASE

COMPOUND	LCS SPIKE	LCSD SPIKE	LOWER	UPPER	RPD	NON-SPIKE	SPIKE	SPIKE	SPIKE DUP		SPIKE DUP		RPD	
	ADDED (ug/kg)	ADDED (ug/kg)	LIMIT	LIMIT	LIMIT	RESULT (ug/kg)	RESULT (ug/kg)	% REC	#	RESULT (ug/kg)	% REC	#	RPD	#
Naphthalene	3333	3333	40	140	30	0	2021	61		2006	60		1	
2-Methylnaphthalene	3333	3333	40	140	30	0	2041	61		1995	60		2	
Acenaphthylene	3333	3333	40	140	30	0	2190	66		2101	63		4	
Acenaphthene	3333	3333	40	140	30	0	2148	64		2067	62		4	
Fluorene	3333	3333	40	140	30	0	2206	66		2207	66		0	
Phenanthrene	3333	3333	40	140	30	0	2392	72		2338	70		2	
Anthracene	3333	3333	40	140	30	0	2317	69		2242	67		3	
Fluoranthene	3333	3333	40	140	30	0	2350	70		2288	69		3	
Pyrene	3333	3333	40	140	30	0	2386	72		2290	69		4	
Benzo[a]anthracene	3333	3333	40	140	30	0	2530	76		2419	73		5	
Chrysene	3333	3333	40	140	30	0	2381	71		2233	67		6	
Benzo[b]fluoranthene	3333	3333	40	140	30	0	2501	75		2326	70		7	
Benzo[k]fluoranthene	3333	3333	40	140	30	0	2450	73		2260	68		8	
Benzo[a]pyrene	3333	3333	40	140	30	0	2415	72		2214	66		9	
Indeno [1,2,3-cd] pyrene	3333	3333	40	140	30	0	2534	76		2249	67		12	
Dibenz [a,h] anthracene	3333	3333	40	140	30	0	2535	76		2264	68		11	
Benzo[ g,h,i] perylene	3333	3333	40	140	30	0	2527	76		2245	67		12	

# Column to be used to flag recovery and RPD values outside of QC limits  
 \* Values outside QC limits

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: \_\_\_\_\_  
 \_\_\_\_\_

EPH AROMATIC BREAKTHROUGH REPORT  
OF ALIPHATIC LABORATORY CONTROL SAMPLE

Instrument ID: N

SDG:

GC Column: ZB-5ms

Aliphatic LCS: L061913EASE

Column ID: 0.25 mm

Aromatic LCS: L061913EASE

COMPOUND	LOWER	UPPER	ALIPHATIC	AROMATIC	%	
	LIMIT	LIMIT	RESULT (ug/mL)	RESULT (ug/mL)	BREAKTHROUGH	#
Naphthalene	0	5	0.00	15.2	0.0	
2-Methylnaphthalene	0	5	0.00	15.3	0.0	

# Column to be used to flag breakthrough values outside of QC limits

\* Values outside QC limits

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery

Comments: \_\_\_\_\_  
\_\_\_\_\_

EPH AROMATIC BREAKTHROUGH REPORT  
OF ALIPHATIC LABORATORY CONTROL SAMPLE

Instrument ID: N  
GC Column: ZB-5ms  
Column ID: 0.25 mm

SDG:  
Aliphatic LCS: LD061913EASE  
Aromatic LCS: LD061913EASE

COMPOUND	LOWER	UPPER	ALIPHATIC	AROMATIC	%	
	LIMIT	LIMIT	RESULT (ug/mL)	RESULT (ug/mL)	BREAKTHROUGH	#
Naphthalene	0	5	0.00	15.0	0.0	
2-Methylnaphthalene	0	5	0.00	15.0	0.0	

# Column to be used to flag breakthrough values outside of QC limits  
\* Values outside QC limits

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery

Comments: \_\_\_\_\_  
\_\_\_\_\_



## ANALYTICAL REPORT

Lab Number:	L1312208
Client:	Analytics Environmental Laboratory 195 Commerce Way Portsmouth, NH 03801
ATTN:	Melissa Gulli
Phone:	(603) 436-5111
Project Name:	MILL DAM
Project Number:	111.06134
Report Date:	07/09/13

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Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

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**Project Name:** MILL DAM  
**Project Number:** 111.06134

**Lab Number:** L1312208  
**Report Date:** 07/09/13

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L1312208-01	SB115-S1-053013	MAINE	05/30/13 13:00



Project Name: MILL DAM  
Project Number: 111.06134

Lab Number: L1312208  
Report Date: 07/09/13

### MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	NO
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	YES
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	N/A
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES

A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	YES
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.



**Project Name:** MILL DAM  
**Project Number:** 111.06134

**Lab Number:** L1312208  
**Report Date:** 07/09/13

### Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

#### HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: MILL DAM  
Project Number: 111.06134

Lab Number: L1312208  
Report Date: 07/09/13

Case Narrative (continued)

Report Submission

This report replaces the report issued on July 2, 2013. Question A has been changed to NO, and the narrative has been amended.

MCP Related Narratives

Sample Receipt

In reference to question A:

The analysis of EPH was received with the method required holding time exceeded and was performed at the client's request.

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

Authorized Signature:

 Cynthia McQueen

Title: Technical Director/Representative

Date: 07/09/13

# ORGANICS

# PETROLEUM HYDROCARBONS

Project Name: MILL DAM  
Project Number: 111.06134

Lab Number: L1312208  
Report Date: 07/09/13

### SAMPLE RESULTS

Lab ID: L1312208-01  
Client ID: SB115-S1-053013  
Sample Location: MAINE  
Matrix: Soil  
Analytical Method: 98,EPH-04-1.1  
Analytical Date: 07/02/13 13:47  
Analyst: MW  
Percent Solids: 82%

Date Collected: 05/30/13 13:00  
Date Received: 07/01/13  
Field Prep: Not Specified  
Extraction Method: EPA 3546  
Extraction Date: 07/02/13 01:35  
Cleanup Method1: EPH-04-1  
Cleanup Date1: 07/02/13

### Quality Control Information

Condition of sample received:  
Sample Temperature upon receipt:  
Sample Extraction method:

Satisfactory  
Received on Ice  
Extracted Per the Method

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Extractable Petroleum Hydrocarbons - Westborough Lab</b>						
C9-C18 Aliphatics	ND		mg/kg	8.04	--	1
C19-C36 Aliphatics	ND		mg/kg	8.04	--	1
C11-C22 Aromatics	11.6		mg/kg	8.04	--	1
C11-C22 Aromatics, Adjusted	11.6		mg/kg	8.04	--	1
Naphthalene	ND		mg/kg	0.402	--	1
2-Methylnaphthalene	ND		mg/kg	0.402	--	1
Acenaphthylene	ND		mg/kg	0.402	--	1
Acenaphthene	ND		mg/kg	0.402	--	1
Fluorene	ND		mg/kg	0.402	--	1
Phenanthrene	ND		mg/kg	0.402	--	1
Anthracene	ND		mg/kg	0.402	--	1
Fluoranthene	ND		mg/kg	0.402	--	1
Pyrene	ND		mg/kg	0.402	--	1
Benzo(a)anthracene	ND		mg/kg	0.402	--	1
Chrysene	ND		mg/kg	0.402	--	1
Benzo(b)fluoranthene	ND		mg/kg	0.402	--	1
Benzo(k)fluoranthene	ND		mg/kg	0.402	--	1
Benzo(a)pyrene	ND		mg/kg	0.402	--	1
Indeno(1,2,3-cd)Pyrene	ND		mg/kg	0.402	--	1
Dibenzo(a,h)anthracene	ND		mg/kg	0.402	--	1
Benzo(ghi)perylene	ND		mg/kg	0.402	--	1



Project Name: MILL DAM  
Project Number: 111.06134

Lab Number: L1312208  
Report Date: 07/09/13

### SAMPLE RESULTS

Lab ID: L1312208-01  
Client ID: SB115-S1-053013  
Sample Location: MAINE

Date Collected: 05/30/13 13:00  
Date Received: 07/01/13  
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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#### Extractable Petroleum Hydrocarbons - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	56		40-140
o-Terphenyl	54		40-140
2-Fluorobiphenyl	60		40-140
2-Bromonaphthalene	65		40-140



Project Name: MILL DAM  
Project Number: 111.06134

Lab Number: L1312208  
Report Date: 07/09/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 98,EPH-04-1.1  
Analytical Date: 07/02/13 13:15  
Analyst: MW

Extraction Method: EPA 3546  
Extraction Date: 07/02/13 01:35  
Cleanup Method1: EPH-04-1  
Cleanup Date1: 07/02/13

Parameter	Result	Qualifier	Units	RL	MDL
Extractable Petroleum Hydrocarbons - Westborough Lab for sample(s): 01 Batch: WG618986-1					
C9-C18 Aliphatics	ND		mg/kg	6.58	--
C19-C36 Aliphatics	ND		mg/kg	6.58	--
C11-C22 Aromatics	ND		mg/kg	6.58	--
C11-C22 Aromatics, Adjusted	ND		mg/kg	6.58	--
Naphthalene	ND		mg/kg	0.329	--
2-Methylnaphthalene	ND		mg/kg	0.329	--
Acenaphthylene	ND		mg/kg	0.329	--
Acenaphthene	ND		mg/kg	0.329	--
Fluorene	ND		mg/kg	0.329	--
Phenanthrene	ND		mg/kg	0.329	--
Anthracene	ND		mg/kg	0.329	--
Fluoranthene	ND		mg/kg	0.329	--
Pyrene	ND		mg/kg	0.329	--
Benzo(a)anthracene	ND		mg/kg	0.329	--
Chrysene	ND		mg/kg	0.329	--
Benzo(b)fluoranthene	ND		mg/kg	0.329	--
Benzo(k)fluoranthene	ND		mg/kg	0.329	--
Benzo(a)pyrene	ND		mg/kg	0.329	--
Indeno(1,2,3-cd)Pyrene	ND		mg/kg	0.329	--
Dibenzo(a,h)anthracene	ND		mg/kg	0.329	--
Benzo(ghi)perylene	ND		mg/kg	0.329	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	77		40-140
o-Terphenyl	70		40-140
2-Fluorobiphenyl	80		40-140
2-Bromonaphthalene	81		40-140



### Lab Control Sample Analysis

Batch Quality Control

Project Name: MILL DAM  
 Project Number: 111.06134

Lab Number: L1312208  
 Report Date: 07/09/13

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual	Limits	Qual			
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01 Batch: WG618986-2 WG618986-3									
C9-C18 Aliphatics	56		70		40-140		22		25
C19-C36 Aliphatics	72		89		40-140		21		25
C11-C22 Aromatics	75		96		40-140		25		25
Naphthalene	59		81		40-140		31	Q	25
2-Methylnaphthalene	66		87		40-140		27	Q	25
Acenaphthylene	64		83		40-140		26	Q	25
Acenaphthene	69		86		40-140		22		25
Fluorene	70		89		40-140		24		25
Phenanthrene	73		94		40-140		25		25
Anthracene	72		93		40-140		25		25
Fluoranthene	73		96		40-140		27	Q	25
Pyrene	75		97		40-140		26	Q	25
Benzo(a)anthracene	69		93		40-140		30	Q	25
Chrysene	69		92		40-140		29	Q	25
Benzo(b)fluoranthene	71		100		40-140		34	Q	25
Benzo(k)fluoranthene	71		90		40-140		24		25
Benzo(a)pyrene	70		96		40-140		31	Q	25
Indeno(1,2,3-co)Pyrene	73		98		40-140		29	Q	25
Dibenzo(a,h)anthracene	69		95		40-140		32	Q	25
Benzo(ghi)perylene	72		97		40-140		30	Q	25
Nonane (C9)	45		57		30-140		24		25



### Lab Control Sample Analysis

Batch Quality Control

**Project Name:** MILL DAM  
**Project Number:** 111.06134

**Lab Number:** L1312208  
**Report Date:** 07/09/13

Parameter	LCS		LCS D		%Recovery Limits		RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Qual			
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01 Batch: WG618986-2 WG618986-3									
Decane (C10)	52		68		40-140		27	Q	25
Dodecane (C12)	56		74		40-140		28	Q	25
Tetradecane (C14)	64		77		40-140		18		25
Hexadecane (C16)	70		84		40-140		18		25
Octadecane (C18)	73		90		40-140		21		25
Nonadecane (C19)	73		90		40-140		21		25
Eicosane (C20)	74		91		40-140		21		25
Docosane (C22)	74		90		40-140		20		25
Tetracosane (C24)	74		91		40-140		21		25
Hexacosane (C26)	73		89		40-140		20		25
Octacosane (C28)	70		86		40-140		21		25
Triacotane (C30)	71		87		40-140		20		25
Hexatriacontane (C36)	70		87		40-140		22		25

Surrogate	LCS		LCS D		Acceptance Criteria	
	%Recovery	Qual	%Recovery	Qual	Criteria	
Chloro-Octadecane	59		83		40-140	
o-Terphenyl	73		99		40-140	
2-Fluorobiphenyl	74		97		40-140	
2-Bromonaphthalene	74		94		40-140	
% Naphthalene Breakthrough	0		0			
% 2-Methylnaphthalene Breakthrough	0		0			



# INORGANICS & MISCELLANEOUS



**Project Name:** MILL DAM  
**Project Number:** 111.06134

**Lab Number:** L1312208  
**Report Date:** 07/09/13

**SAMPLE RESULTS**

**Lab ID:** L1312208-01  
**Client ID:** SB115-S1-053013  
**Sample Location:** MAINE  
**Matrix:** Soil

**Date Collected:** 05/30/13 13:00  
**Date Received:** 07/01/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	81.7		%	0.100	NA	1	-	07/01/13 21:54	30,2540G	RT



### Lab Duplicate Analysis Batch Quality Control

Project Name: MILL DAM  
Project Number: 111.06134

Lab Number: L1312208  
Report Date: 07/09/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01	QC Batch ID: WG618963-1	QC Sample: L1311617-04	Client ID: DUP Sample			
Solids, Total	54.6	55.7	%	2		20



Project Name: MILL DAM

Lab Number: L1312208

Project Number: 111.06134

Report Date: 07/09/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1312208-01A	Amber 250ml unpreserved	A	N/A	3.4	Y	Absent	TS(7),EPH-DELUX-10(14)

\*Values in parentheses indicate holding time in days



**Project Name:** MILL DAM  
**Project Number:** 111.06134

**Lab Number:** L1312208  
**Report Date:** 07/09/13

## GLOSSARY

### Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

### Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

### Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

### Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported

Report Format: Data Usability Report



**Project Name:** MILL DAM  
**Project Number:** 111.06134

**Lab Number:** L1312208  
**Report Date:** 07/09/13

**Data Qualifiers**

due to obvious interference.

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

*Report Format:* Data Usability Report

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**Project Name:** MILL DAM  
**Project Number:** 111.06134

**Lab Number:** L1312208  
**Report Date:** 07/09/13

### REFERENCES

- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.
- 98 Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), MassDEP, May 2004, Revision 1.1 with QC Requirements & Performance Standards for the Analysis of EPH under the Massachusetts Contingency Plan, WSC-CAM-IVB, July 2010.

### LIMITATION OF LIABILITIES

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

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



**Certificate/Approval Program Summary**

Last revised July 2, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.  
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

**Connecticut Department of Public Health Certificate/Lab ID: PH-0574. NELAP Accredited Solid Waste/Soil.**

*Drinking Water (Inorganic Parameters:* Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. *Organic Parameters:* Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). *Microbiology Parameters:* Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

*Wastewater/Non-Potable Water (Inorganic Parameters:* Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. *Organic Parameters:* PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. *Microbiology Parameters:* Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

*Solid Waste/Soil (Inorganic Parameters:* pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. *Organic Parameters:* PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270). )

**State of Illinois Certificate/Lab ID: 003155. NELAP Accredited.**

*Drinking Water (Inorganic Parameters:* SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. *Organic Parameters:* EPA 504.1, 524.2.)

*Wastewater/Non-Potable Water (Inorganic Parameters:* SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. *Organic Parameters:* EPA 608, 624, 625.)

*Hazardous and Solid Waste (Inorganic Parameters:* EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. *Organic Parameters:* 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

**Maine Department of Human Services Certificate/Lab ID: 2009024.**

*Drinking Water (Inorganic Parameters:* SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. *Organic Parameters:* 504.1, 524.2.)

*Wastewater/Non-Potable Water (Inorganic Parameters:* EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. *Organic Parameters:* 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

*Solid Waste/Soil (Inorganic Parameters:* 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

**Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.**

*Drinking Water (Inorganic Parameters:* (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (Inorganic Parameters:* (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

*Organic Parameters:* (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

**New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.**

*Drinking Water (Inorganic Parameters:* SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

*Non-Potable Water (Inorganic Parameters:* SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

*Solid & Chemical Materials (Inorganic Parameters:* SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

**New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.**

*Drinking Water (Organic Parameters:* EPA 524.2: Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

*Non-Potable Water (Organic Parameters:* EPA 8260C: 1,3,5-Trichlorobenzene. EPA 8015C(M): TPH.)

*Solid & Chemical Materials (Organic Parameters:* EPA 8260C: 1,3,5-Trichlorobenzene.)

**New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.**

*Drinking Water (Inorganic Parameters:* SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

*Non-Potable Water (Inorganic Parameters:* SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Page 21 of 24 *Solid & Chemical Materials (Inorganic Parameters:* SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

**New York Department of Health Certificate/Lab ID: 11148. NELAP Accredited.**

*Drinking Water* (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

*Non-Potable Water* (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

**North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters:** SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

*Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters:* Chloride EPA 300.0. Organic Parameters: 524.2)

**Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. NELAP Accredited.**

*Drinking Water* (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

*Non-Potable Water* (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

**Rhode Island Department of Health Certificate/Lab ID: LAO00065. NELAP Accredited via NJ-DEP.**

Refer to MA-DEP Certificate for Potable and Non-Potable Water.  
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

**Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. NELAP Accredited.**

*Non-Potable Water* (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 S<sup>2-</sup>D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

**Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. NELAP Accredited.**

*Drinking Water* (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

*Non-Potable Water* (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm

9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330, )

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

**Department of Defense, L-A-B Certificate/Lab ID: L2217.**

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6010C, 6020, 6020A, 245.1, 245.2, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 4500CL-D, 5220D, 5310C, 2130B, 2320B, 2540C, 3005A, 3015, 9010B, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A, 8082, 8082A, 8081A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 6010C, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 9012A, 9040B, 9045C, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A/B-prep, 8082, 8082A, 8081A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

**The following analytes are not included in our current NELAP/TNI Scope of Accreditation:**

**EPA 524.2**: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B**: 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix**: Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix**: Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A**: PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C**: Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625**: 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO<sub>2</sub> in a soil matrix, NO<sub>3</sub> in a soil matrix. **EPA 9071**: Total Petroleum Hydrocarbons, Oil & Grease.

# CHAIN OF CUSTODY

PAGE \_\_\_\_\_ OF \_\_\_\_\_



8 Walkup Drive  
Westford, MA 01581  
Tel: 508-895-9220

320 Forbes Blvd  
Mansfield, MA 02048  
Tel: 508-822-3500

### Client Information

Client: **Analytix Environmental**

Address: **195 Commerce Way**

**Bedford, NH 03801**

Phone: **603-436-5111**

Email: **mgvllc@analytixks.com**

Additional Project Information:

**+ please run over hold time**

### Project Information

Project Name: **MU DAM**

Project Location: **Maine**

Project #: **111.06134**

Project Manager:

ALPHA Quote #:

### Turn-Around Time

Standard  RUSH (only confirmed if pre-approved)

Date Due: **7-5-13**

### Report Information - Data Deliverables

ADEX  EMAIL  Same as Client info  PO #:

### Regulatory Requirements & Project Information Requirements

- Yes  No MA MCP Analytical Methods
- Yes  No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
- Yes  No GW1 Standards (Info Required for Metals & EPH with Targets)
- Yes  No NPDES RGP
- Other State / Fed Program \_\_\_\_\_

Criteria

ANALYSIS		TOTAL # BOTTLES	
VOC: <input type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> 524.2	<input type="checkbox"/> PAH		
SVOC: <input type="checkbox"/> ARN <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15	<input type="checkbox"/> RCRAS <input type="checkbox"/> RCR8 <input type="checkbox"/> P13		
METALS: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	<input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only		
EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	<input type="checkbox"/> PCB <input type="checkbox"/> PEST		
TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint			
SAMPLE INFO			
Filtration <input type="checkbox"/>			
Field <input type="checkbox"/>			
Lab to do <input type="checkbox"/>			
Preservation <input type="checkbox"/>			
Lab to do <input type="checkbox"/>			
Sample Comments			

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Time	Sample Matrix	Sampler Initials
12208 201	58115-S1-053013	5/20/13	1300	S	

- Container Type**
- P= Plastic
  - A= Amber glass
  - V= Vial
  - G= Glass
  - B= Bacteria cup
  - C= Cube
  - O= Other
  - E= Encore
  - D= BOD Bottle
- Preservative**
- A= None
  - B= HCl
  - C= HNO<sub>3</sub>
  - D= H<sub>2</sub>SO<sub>4</sub>
  - E= NaOH
  - F= MeOH
  - G= NaHSO<sub>4</sub>
  - H= Na<sub>2</sub>S<sub>2</sub>O<sub>4</sub>
  - I= Ascorbic Acid
  - J= NH<sub>4</sub>Cl
  - K= Zn Acetate
  - O= Other

Container Type	G
Preservative	A

Relinquished By:

Received By:

Date/Time

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side. FORM NO: 01-01 (rev. 12-Mar-2012)

## CHAIN OF CUSTODIES

# Chain Of Custody Form

**analytix** environmental laboratory LLC  
 195 Commerce Way, Suite E  
 Portsmouth, NH 03801  
 (603) 436-5111 Fax (603) 430-2151 Fax  
 (800) 929-9906

Project Name: Mill Dam  
 Project#: 11.06134  
 Company: Ransom Consulting  
 Report to: Peter Sheer / Erik Phenix  
 Address: 400 Commercial St. Suite 404  
Portland, ME 04101  
 Phone: 207-772-2891  
 Quote #: 5401  
 PO# (if required): 5401

Sample Identification	Sample Date	Sample Time	Field Filtered? Y or N	VOC: 8260 524.2 624	SVOC: 8270 625 PAH only SIM	Pesticides: 8081 608	PCB: 8082 608 Soxhlet? Y or N	TPH: 8015 (Gas Range) ME4217	TPH: 8015 (Diesel Range) 8100M ME4125	EPA: Full or Ranges only TETPH	VPH: Full or Ranges only	Metals: RCRA8 P13 TAL23 Other**	Preservation Code:
SB111 - 51 - 053013	5/30/13	1110								X	X		
SB112 - 51 - 053013	5/30/13	1115								X	X		
SB113 - 51 - 053013	5/30/13	1120								X	X		
SB114 - 51 - 053013	5/30/13	1125								X	X		
SB115 - 51 - 053013	5/30/13	1300								X	X		
SB116 - 51 - 053013	5/30/13	1305								X	X		
SB117 - 51 - 053013	5/30/13	1310								X	X		
SB118 - 51 - 053013	5/30/13	1315								X	X		

Matrix Key: C = Concrete, WP = Wipe, WW = Wastewater, SW = Surface Water, E = Extract, GW = Groundwater, DW = Drinking Water, S = Soil / Sludge, O = Oil, X = Other

Matrix: S, No. of Containers checked: 3, pH checked: 75661-1

Report Type:  MCP\*,  Level II\*,  CTRCP\*,  Level III\*,  DOD\*,  Level IV\*,  Standard

State:  NH,  MA,  ME,  CT,  RI, Other: \_\_\_\_\_

State Standard: MEDEP (eg. S-1 or GW-1)

EDD Required:  Y  N

Type: MEDEP

Project Requirements: \*Fee may apply

Comments, Additional Analyses, or Special Instructions: MEDEP/EPA Bennefields

Email Results to: epheix@ransomenv.com, peter.sheer@ransomenv.com

Turnaround Time (TAT):  1 Day\*,  2 Days\*,  3 Days\*,  4 Days\*,  5 Days,  Standard (6-10 business days)

\*Fee may apply; lab approval required

Please note: For volatile analyses, a trip blank has been provided in the cooler. If you want the trip blank run and reported please write the trip blank on the COC. Trip Blank analyses will be charged unless other arrangements have been made.

Sampler Name (Print): Angen Martin

Relinquished By Sampler: [Signature]

Relinquished By: Jane Haggona

Relinquished By: \_\_\_\_\_

Date: 5/31/13 Time: 10:00 Received By: Secure Storage

Date: 5/31/13 Time: 10:05 Received By: Chelsea Steensen

Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_



ANALYTICS SAMPLE RECEIPT CHECKLIST



AEL LAB#: 75661  
CLIENT: Ransom  
PROJECT: MILLDAM

COOLER NUMBER: 159  
NUMBER OF COOLERS: 1

A: PRELIMINARY EXAMINATION:

- 1. Cooler received by (initials): J DATE COOLER RECEIVED/OPENED: 5/31/13
- 2. Circle one:  Hand delivered (If so, slip #)  Shipped
- 3. Did cooler come with a shipping slip? Y  NA
- 3a. Enter carrier name and airbill number here: \_\_\_\_\_
- 4. Were custody seals on the outside of cooler? Y  NA  
How many & where: \_\_\_\_\_ Seal Date: \_\_\_\_\_ Seal Name: \_\_\_\_\_
- 5. Did the custody seals arrive unbroken and intact upon arrival? Y  NA
- 6. COC#: \_\_\_\_\_
- 7. Were Custody papers filled out properly (ink, signed, legible, project information etc)?  Y N
- 8. Were custody papers sealed in a plastic bag?  Y N
- 9. Did you sign the COC in the appropriate place?  Y N
- 10. Was enough ice used to chill the cooler?  Y N Temp. of cooler: 4-5°C

B. Log-In: Date samples were logged in: J By: 5/31/13

- 11. Were all bottles sealed in separate plastic bags?  Y N
- 12. Did all bottles arrive unbroken and were labels in good condition?  Y N
- 13. Were all bottle labels complete (ID, Date, time, etc.)  Y N
- 14. Did all bottle labels agree with custody papers?  Y N
- 15. Were the correct containers used for the tests indicated:  Y N
- 16. Were samples received at the correct pH?  Y N
- 17. Was sufficient amount of sample sent for the tests indicated?  Y N
- 18. Were all samples submitted within holding time?  Y N
- 19. Were all containers used within AEL's expiration date?  Y N
- 20. Were VOA samples absent of greater than pea-sized bubbles?  Y N\*

(Note: Pea-sized bubbles or smaller are acceptable and are not considered to adversely affect volatile data.)

\*If NO, List Sample ID's, Lab #s: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

When bubbles are present in VOA samples they are labelled from smallest (or no bubbles) to largest. Lab to analyze VOA samples with no bubbles or smallest bubbles first

20. Laboratory labeling verified by (initials): MT Date: 5/31/13

\*\*The expiration date is recommended by Analytics Environmental Laboratory and not the method. Therefore this does not mean that the results are non-compliant.

**APPENDIX C**

Hazardous Materials Inventory

Phase II Environmental Site Assessment and  
Site Assessment for Closure of  
Underground Oil Storage Tank Facilities  
Mill Dam  
67 Swan Lake Avenue  
Belfast, Maine



Consulting  
Engineers  
and Scientists

October 8, 2013

Project 111.06134.017

Mr. Thomas Kittredge  
Economic Development Director  
City of Belfast  
131 Church Street  
Belfast, Maine 04915

RE: Hazardous Building Materials Inventory  
Mill Dam  
67 Swan Lake Avenue  
Belfast, Maine

Dear Thomas:

Ransom Consulting, Inc. (Ransom) has prepared this report presenting the results of the Hazardous Building Materials Inventory (HMI) performed at the Mill Dam property located at 67 Swan Lake Avenue in the City of Belfast, Waldo County, Maine (the "Site") and structures thereon (the Site Buildings). The work performed by Ransom was authorized by the City of Belfast using the United States Environmental Protection Agency (U.S. EPA) Brownfields funding, under the City of Belfast's Brownfields Assessment Grant No. BF-96151001-0. The layout of the Site Buildings with locations of samples testing positive for asbestos are provided on Figure 1. A Photograph Log, documenting our key findings, is included as Attachment A.

## **EXECUTIVE SUMMARY**

During the completion of a Phase I Environmental Site Assessment (ESA) in July 2012 and given the age and construction of the Site Buildings, Ransom identified the potential for asbestos containing materials (ACM), lead-based paint (LBP), and polychlorinated biphenyls (PCBs) to be present in the Site Buildings. To address these concerns, Ransom completed our HMI on January 21, 2013 to assess for the presence of ACM, LBP, and PCBs, as well as other hazardous and potentially hazardous building components/fixtures.

Based on the results of this survey, Ransom identified that asbestos is present in the mastic on poured concrete foundation. In addition to the confirmed ACM, Ransom also identified new-in-box Asbestocel® corrugated pipe insulation (2 boxes) as presumed ACM (PACM) at the Site Buildings. For the purposes of this report, this material is included in all discussions of ACM, and Ransom recommends handling and disposal of this material accordingly.

Ransom understands that the ultimate fate or reuse of the Site Buildings has not yet been determined, but that renovation and demolition are options under consideration. ACM that would be impacted by demolition or renovation must be removed by trained asbestos abatement professionals, and properly handled and disposed as special wastes, in accordance with local, state, and federal regulations. If the

**400 Commercial Street, Suite 404, Portland, Maine 04101, Tel (207) 772-2891, Fax (207) 772-3248**  
12 Kent Way, Suite 100, Byfield, Massachusetts, Tel (978) 465-1822, Fax (978) 465-2986  
112 Corporate Drive, Pease International Tradeport, Portsmouth, New Hampshire 03801, Tel (603) 436-1490  
2127 Hamilton Avenue, Hamilton, New Jersey 08619, Tel (609) 584-0090  
60 Valley Street, Building F, Suite 106, Providence, Rhode Island 02909, Tel (401) 433-2160

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Mr. Thomas Kittredge  
City of Belfast

building is to be renovated or maintained, identified ACM in good condition, which would not be impacted by renovation or day-to-day operations, may remain intact under an operations and maintenance (O&M) plan. In addition, certain exemptions in MEDEP asbestos handling and disposal rules may apply, based on the materials and work practices involved, as detailed below.

Painted surfaces in interior and exterior sample locations tested using an X-Ray Fluorescence (XRF) analyzer contained lead at concentrations ranging from below the instrument's lower detection limit of 0.01 milligrams per square centimeter ( $\text{mg}/\text{cm}^2$ ) up to  $0.94 \text{ mg}/\text{cm}^2$ . The U.S. Housing and Urban Development (HUD) Lead-Based Paint Guidelines (provided for comparison purposes only) define lead at concentrations greater than 1.0 milligrams per square centimeter ( $\text{mg}/\text{cm}^2$ ) as "Lead-Based Paint". Any renovation or demolition activities that disturb surfaces containing any amount of lead must be conducted in accordance with Occupational Safety and Health Administration (OSHA) Regulation 29 CFR 1926.62 "Lead Exposure in Construction: Interim Final Rule."

No caulking materials were identified during our survey; therefore, no suspect caulk samples were submitted for laboratory analysis for the presence of PCBs.

Other hazardous and potentially hazardous components were also identified at the Site Buildings, including potentially PCB-containing electrical ballasts and transformer, mercury-containing fluorescent lights, and presumed lead-acid batteries. These components will require special handling and disposal as universal wastes.

## **BACKGROUND**

The Site is currently improved with three buildings (the "Site Buildings"), referred to herein, as the Office Building, Turbine House, and Storage Building. The Office Building is a one-story wood-framed structure on a poured concrete foundation, covering an approximate footprint of 1,050 square feet, with walkout basement on one side. The building is currently vacant, and was formerly used as the operations office for the hydroelectric facility. The Turbine House is a one-story concrete-framed structure, covering an approximate footprint of 600 square feet. This building is currently vacant, but was most recently utilized for hydroelectric power generation. The Storage Building is a dilapidated one-story wood-framed building, covering an approximate footprint of 200 square feet. Each of the Site Buildings was reportedly constructed circa 1850, and the facility has stood idle, since hydroelectric generation operations ceased in the mid-1990s.

## **ASBESTOS-CONTAINING MATERIALS**

Ransom completed an asbestos survey at the Site Buildings on January 21, 2013. The asbestos survey was performed by Ransom's U.S. EPA and State of Maine-certified asbestos inspector, Mr. Lucas Hathaway. Copies of Mr. Hathaway's State of Maine Asbestos Inspector certification and most recent U.S. EPA training certificate are provided as Attachment B.

Mr. Thomas Kittredge  
City of Belfast

OSHA defines ACM as “any material containing more than one percent asbestos,” while the MEDEP defines ACM as “greater than or equal to one percent asbestos.” The U.S. EPA and MEDEP are responsible for developing and enforcing regulations necessary to protect the general public from airborne contaminants that are known to be hazardous to human health.

The scope of the ACM inspection included the identification and quantification of accessible suspect building materials on the Site Building interiors and exteriors. Samples were analyzed by Optimum Analytical and Consulting, LLC (Optimum) of Salem, New Hampshire. Optimum is certified to perform bulk sample analysis by the State of Maine and the National Voluntary Laboratory Accreditation Program (NVLAP). Optimum’s certificates are also provided as Attachment B.

All suspect ACM sampled were identified as non-friable organically bound (NOB) materials, including asphalt-based roofing materials, various mastics/sealants, and window glazing compound. Each sample was analyzed using PLM NOB–U.S. EPA 600/R-93/116 with gravimetric preparation method.

Ransom collected 18 bulk samples from 6 distinct suspect ACMs at the Site Buildings, as shown in Table 1. The following is a listing and brief description of each material identified as ACM:

**Foundation Mastic:** This asphalt-based waterproofing sealant was observed applied up to a few inches above grade on the exterior of the poured concrete foundation of the Office Building. It is presumed to be applied to the entire exterior foundation wall, and is quantified accordingly.

In addition to the confirmed ACM listed above, Ransom also identifies the following presumed PACM at the Site Buildings:

**New-in-box Asbestocel® corrugated pipe insulation (2 boxes):** Ransom observed approximately 92 linear feet of unused presumed asbestos-containing pipe insulation in the attic of the Office Building, still in its original box.

The MEDEP requires consultants to advise the building owner or owner’s agent, whenever the asbestos analytical laboratory has reported suspect asbestos-containing materials between one and ten percent asbestos, which the owner or owner’s agent may either elect to treat as positive for asbestos, or have the samples re-analyzed, using an alternate method as listed below:

1. PLM U.S. EPA/600/R-93/116 - Point Count (friable ACM);
2. Transmission Electron Microscopy (TEM);
3. U.S. EPA NOB U.S. EPA/600/R-93/116b section 2.5; or
4. TEM Chatfield Method.

Re-analysis of samples testing negative for asbestos is not required. Materials within the reported range of one and ten percent via PLM/gravimetric reduction method included the Foundation Mastic at 8.3 % Chrysotile.

The MEDEP does not regulate the removal of certain exempt materials, including exterior caulks and glazing and ***asphalt-based roofing materials and mastics***, provided that these materials are in intact (non-friable) condition, and provided removal work practices will not create an airborne asbestos hazard (i.e.

Mr. Thomas Kittredge  
City of Belfast

grinding, abrasive blasting, cutting with power tools). However, OSHA worker protection requirements are applicable, as well as MEDEP transport and disposal requirements. If the building is to be renovated or maintained, identified ACM in good condition, which would not be impacted by renovation or day-to-day operations, may remain intact under an O&M plan.

Copies of the bulk asbestos analysis laboratory reports are provided in Attachment C. Figure 1 provides sample locations for materials testing positive for asbestos.

## **LEAD-BASED PAINT**

Concurrent with the ACM survey, Ransom performed an LBP survey using a direct-reading XRF analyzer. The inspection included XRF readings from a variety of interior and exterior painted surfaces, including interior walls, window components, doors, and exterior siding and trim. As shown in Table 2, XRF readings collected from painted surfaces ranged from below the instrument's lower detection limit of 0.01 mg/cm<sup>2</sup> (BDL) up to 0.94 mg/cm<sup>2</sup>. No painted surfaces exceeded the HUD threshold concentration for "lead-based paint" of 1.00 mg/cm<sup>2</sup>. The HUD standard is provided for reference and comparison purposes only, and is not a regulatory consideration in this scenario.

OSHA has no regulatory criteria for a minimum threshold level of lead in paint. The OSHA Lead Standard for Construction (29 CFR 1926.62) is applicable if lead has been identified and there is the potential for achieving an exposure above the "action level" of 30 micrograms of airborne lead per cubic meter of air. Workers performing demolition, renovation, cleaning, or otherwise disturbing painted surfaces containing lead should be informed of its presence, location, and proper work practices in these areas.

If concentrations of leachable lead in demolition debris are less than 5 mg/l, materials may be disposed of as general construction debris; otherwise, the material must be managed as a hazardous waste. Based on the concentrations of lead in paint detected on interior and exterior surfaces, it appears that Toxicity Characteristic Leaching Procedure (TCLP) testing for lead is not warranted in this case.

## **OTHER POTENTIALLY HAZARDOUS MATERIALS AND COMPONENTS**

### Polychlorinated Biphenyl (PCB) Oils

PCB-containing oil is sometimes found in the dielectric fluid of older electrical transformers, as well as the capacitors associated with older fluorescent light fixture ballasts. Although electrical equipment containing PCBs is now required to be properly labeled indicating the presence of PCBs, this is not always the case, particularly in older fixtures. Ransom inspected light fixture ballasts throughout the Site Buildings for the presence of PCB labeling. Our inventory identified 14 light ballasts, as well as one electrical transformer unit inside the Turbine Building. Ransom inspected the transformer, and did not observe "No PCB" labeling. Fluorescent lighting fixtures were not disassembled to access electric ballasts/capacitors.

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City of Belfast

Since not all of the fixtures at the Site were inspected, Ransom recommends that each ballast that will be impacted by demolition/remodeling activities be individually inspected for the “No PCBs” label, and if not present, the ballast should be disposed/recycled in accordance with U.S. EPA and State of Maine universal waste regulations. Since the cost of disposal is typically significantly less than the cost of laboratory testing Ransom recommends that those ballasts that are not labeled be treated and disposed of as PCB-containing.

### PCBs in Caulk

In recent years it has been determined that PCBs may also be present in caulking materials in buildings constructed between 1950 and 1978, and particularly in schools and other institutional buildings. Buildings constructed prior to 1950 may also include PCB-containing caulk, as a result of renovation projects that may have occurred between 1950 and 1978. PCB-containing caulk is considered *PCB bulk product waste* by U.S. EPA if the concentration of PCBs in the caulk is greater than or equal to 50 parts per million (ppm) [50 milligrams per kilogram (mg/kg)]. Caulk with PCB concentrations  $\geq 50$  ppm is not authorized for use and must be disposed of as PCB bulk product waste according to U.S. EPA regulations. Additionally, the definition of PCB bulk product waste includes building materials that have been coated or serviced with PCBs. For example, masonry, wood, metals, and other building materials that are purposely coated with PCB-containing caulk are regulated as PCB bulk product waste if the caulk coating the building materials contains PCBs at concentrations  $\geq 50$  ppm and subsequently the building materials have concentrations  $\geq 50$  as a result of leaching into the substrate material from the contaminated caulk.

No caulking materials were identified during our survey; therefore no caulk samples were submitted for laboratory analysis for the presence of PCBs.

### Mercury-Containing Components

Mercury-containing components such as fluorescent light tubes (FLT)s, cathode ray tubes (CRTs), high-intensity discharge (HID) lamps, and thermostat switches are classified as universal waste and are regulated by the U.S. EPA under 40 CFR Parts 260–273. Classifying an item as a universal waste provides flexibility for its proper management and can prevent the item from entering municipal or general construction & demolition (C&D) waste streams. Ransom identified 24 FLT)s inside the Office and Turbine Buildings. Components known or assumed to contain mercury that will be impacted by the proposed demolition should be removed and recycled in accordance with universal waste regulations.

### Heavy Metals

Ransom identified 2 automotive/marine batteries inside the Office Building basement, which typically contain heavy metals. Heavy metals-containing batteries should be removed from the Site Building, prior to renovation or demolition activities, and recycled in accordance with universal waste regulations.

Please see the attached Table 3 for a summary of other hazardous building materials identified during Ransom’s HMI (i.e. PCBs, mercury, heavy metals.).

## CONCLUSIONS AND RECOMMENDATIONS

Based on the results of this HMI, Ransom makes the following conclusions and recommendations:

1. Ransom identified Foundation Mastic as an asbestos-containing building material at the Site building. Ransom also identified Asbestocel® corrugated pipe insulation (new-in-box) as PACM, which should be handled and disposed of as confirmed ACM.
2. Surfaces tested for lead-based paint via XRF contained concentrations of lead ranging from below the instrument's lower reporting limit up to 0.94 mg/cm<sup>2</sup>. Based on our findings, it is not anticipated that LBP abatement would be required, prior to renovation or demolition of the Site buildings. However, renovation or demolition activities that disturb surfaces that contain any concentration of lead must be conducted in accordance with OSHA regulation 29 CFR 1926.62 "Lead Exposure in Construction: Interim Final Rule."
3. Various other potentially hazardous building components were identified during our survey, including potentially PCB-containing electrical transformer and fluorescent light ballasts, presumed mercury-containing fluorescent light tubes, and presumed lead/acid batteries. Disposal of each of these items is subject to hazardous and/or universal waste disposal requirements.
4. No caulking materials were identified during our survey; therefore, no caulk samples were submitted for laboratory analysis for the presence of PCBs. It is not anticipated that remediation of PCB caulking would be required as part of renovation or demolition of the Site buildings.

## COST ESTIMATES

Ransom has prepared the following summary of abatement cost estimates, based upon industry standards observed over the past two years. Line-item cost estimates for asbestos and other hazardous building material removal are provided in Table 4.

The cost estimates presented are for informational purposes only and are not intended to be an estimate for these services. Ransom recommends that competitive contractor bids be solicited for proper abatement and/or disposal of the identified hazardous materials.

Summary of Hazardous Materials Removal and Disposal Cost Estimates

Asbestos Removal/Disposal Estimate <sup>1</sup>	\$6,925
Other Hazardous Materials Removal/Disposal Estimate	\$312
<b>Total:</b>	<b>\$7,237</b>

Notes:

1. Asbestos estimates include consultant's fees and contingencies, which are detailed in Table 4.

Mr. Thomas Kittredge  
City of Belfast

## LIMITATIONS

This survey is subject to certain limitations which must be considered in interpreting the results. No survey can identify all potentially hazardous materials throughout a facility. The conclusions presented in this report represent the professional judgment of Ransom, based on the data obtained from the work, the site conditions encountered at the time the work was performed, and our experience with similar types of buildings and hazardous building materials present.

The information and conclusions presented in this report are based upon work undertaken by trained professional and technical staff in accordance with generally accepted engineering and scientific practices, current at the time the work was performed and general industry standard of care. Conclusions presented in this report should not be construed as legal advice. This survey was not a building code inspection or an assessment of proposed renovation or demolition activities. Code-related issues must be addressed prior to work in the buildings.

If you have any questions regarding the information in this report please do not hesitate to contact us.

Sincerely,

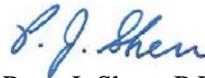
RANSOM CONSULTING, INC.



Lucas D. Hathaway  
Project Scientist/Hazardous Materials Specialist



Eriksen P. Phenix, C.G.  
Project Geologist



Peter J. Sherr, P.E  
Sr. Project Manager/  
Belfast Brownfields Program Manager

EPP/ LDH/PJS:sh  
Attachments

**TABLE 1: SUMMARY OF ASBESTOS TESTING RESULTS**  
Hazardous Materials Inventory  
Mill Dam  
Belfast, Maine

Material	Location	Sample Number	Asbestos Quantity and Type <sup>1</sup>	Estimated Quantity <sup>2</sup>
Asphalt Shingle	Office Building	MILL-01A through MILL-01C	NAD	--
Exterior Window Glaze	Office Building	MILL-02A through MILL-02C	NAD	--
Foundation Mastic	Office Building	MILL-03A	8.3% Chrysotile	700 SF <sup>3</sup>
		MILL-03B and MILL-03C	NA/PS	
Penstock Coating	Penstock piping exterior	MILL-04A	0.17% <sup>4</sup>	--
		MILL-04B	0.25% <sup>4</sup>	
		MILL-04C	0.08% <sup>4</sup>	
Asphalt Roofing Composite	Turbine Building	MILL-05A through MILL-05C	NAD	--
Asphalt Roofing Composite	Garage	MILL-06A through MILL-06C	NAD	--
Corrugated Pipe Insulation – new in box	Office Building Attic	PACM <sup>5</sup>	PACM	92 LF (2 Boxes)

**NOTES:**

1. NA/PS = not analyzed/positive stop. Sample sets are analyzed until asbestos is identified in an amount greater than 1 percent. For example, since asbestos was identified in sample MILL-03A at 8.3 percent, samples MILL-03B and MILL-03C were not analyzed. NAD = no asbestos detected.
2. SF = Square Feet; LF = Linear Feet; PACM = Presumed ACM
3. Quantity presented is based on calculation of total foundation square footage. It is presumed that material observed at grade is applied on entire poured concrete foundation wall.
4. Materials with detected concentrations of asbestos less than 1% are not considered ACM.
5. This material was not sampled for laboratory analysis, and is conservatively presumed to be ACM.

**TABLE 2: SUMMARY OF LEAD PAINT TESTING RESULTS**  
Hazardous Materials Inventory  
Mill Dam  
Belfast, Maine

Reading Number	Color/Substrate/Component	Lead Concentration (milligrams per square centimeter [mg/cm <sup>2</sup> ])
<b>Office Building Interior</b>		
1	Brown Wood Wall	0.12
2	Brown Wood Wall	0.16
3	Brown Wood Door	0.07
4	Yellow Wood Window Sash	0.78
5	Yellow Wood Window Sash	0.64
6	Beige Wood Wall Paneling	0.13
7	Beige Wood Wall Paneling	0.27
8	White Wood Window Casing	0.14
9	White Wood Window Sill	0.11
<b>Office Building Exterior</b>		
10	Black Wood Door	0.10
11	Black Wood Door	0.11
12	Red Wood Siding	0.58
13	Red Wood Siding	0.11
<b>Hydro Building</b>		
14	Red Wood Siding	0.01
15	Red Wood Door	0.01
<b>Garage</b>		
16	Red Wood Siding	0.07
17	Red Wood Door	0.94
18	Red Wood Door Casing	0.38

**NOTES:**

1. Lead concentrations determined using an Innov-X Alpha Series X-Ray Fluorescence Analyzer.
2. BDL = Below instrument detection limit. Not detected above a concentration of 0.01 mg/cm<sup>2</sup>.
3. Readings in boldface type above HUD guidelines for “lead-based paint”, provided for reference only.

**TABLE 3: OTHER HAZARDOUS/POTENTIALLY HAZARDOUS MATERIALS**  
 Hazardous Materials Inventory  
 Mill Dam  
 Belfast, Maine

<b>Component</b>	<b>Estimated Quantity</b>	<b>Potential Hazard</b>
Fluorescent Light Tubes (includes CFLs)	24	Mercury
Fluorescent Light Fixture Ballasts	14	PCB-containing mineral oil dielectric fluid
Electrical Transformers	1	PCB-containing mineral oil dielectric fluid
Marine/Automotive Batteries	2	Lead, Acid

**TABLE 4: HAZARDOUS MATERIALS REMOVAL COST ESTIMATES**  
 Hazardous Materials Inventory  
 Mill Dam  
 Belfast, Maine

**Table 4-1: Asbestos Removal Cost Estimates<sup>1</sup>**

<b>Material</b>	<b>Estimated Quantity<sup>1</sup></b>	<b>Unit Cost</b>	<b>Total</b>
Foundation Mastic	700 SF/45 tons	\$95/ton	\$4,275
Corrugated Pipe Insulation – new in box	92 LF/2 boxes	\$500/box <sup>2</sup>	\$1,000
Sub–Total of Asbestos Removal Estimates:			\$5,275
Estimated Consultant Fees <sup>3</sup> :			\$1,100
Contingency <sup>4</sup>			\$550
<b>TOTAL ESTIMATED ASBESTOS ABATEMENT COST:</b>			<b>\$6,925</b>

**NOTES:**

1. LF = Linear Feet SF = Square Feet.
2. Removal/disposal to be conducted by licensed asbestos abatement workers. Price includes mobilization fee of asbestos crew.
3. A 20% consulting fee is added to cover design services by an asbestos designer and asbestos abatement monitoring. This cost includes final clearance air testing.
4. A 10% contingency is added to cover the cost of hidden conditions encountered during the abatement.

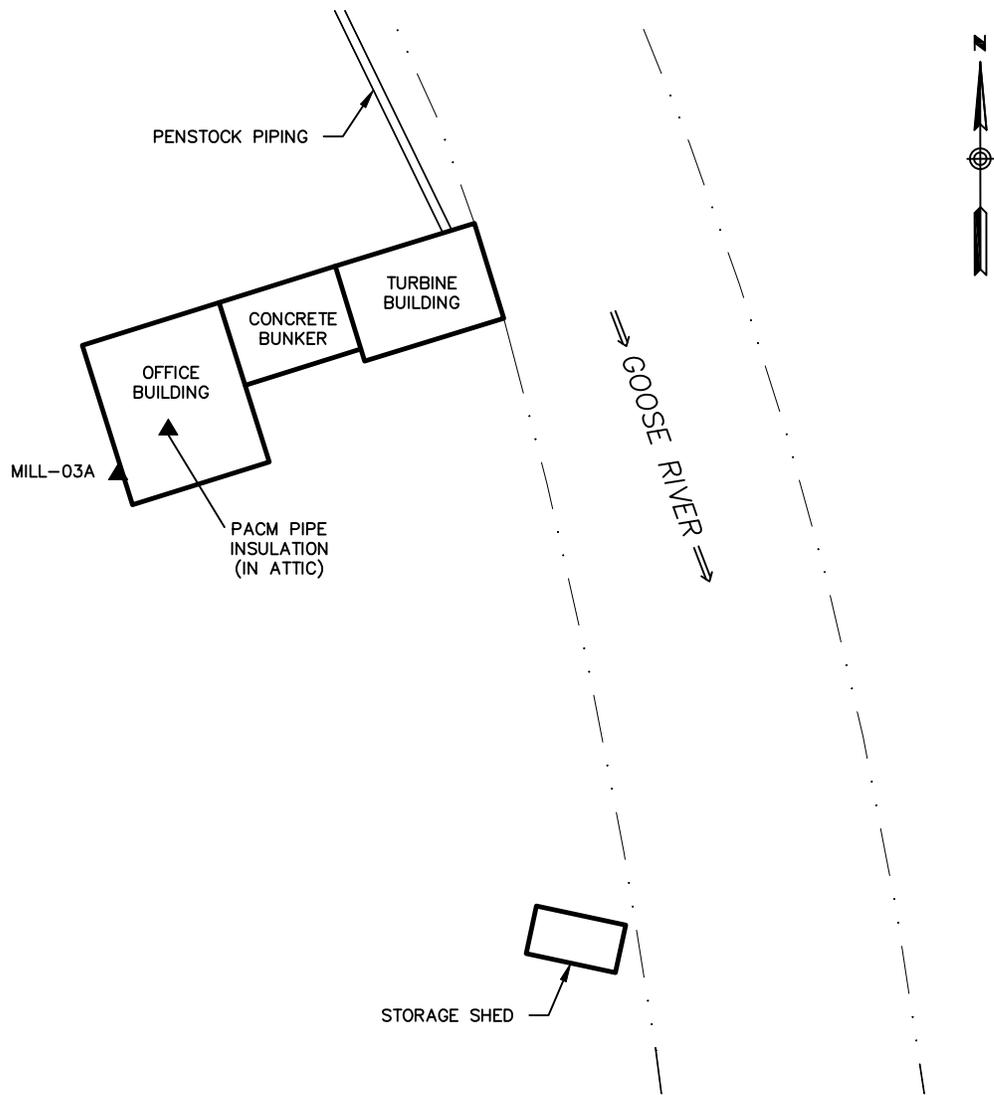
**TABLE 4: HAZARDOUS MATERIALS REMOVAL COST ESTIMATES**  
 Hazardous Materials Inventory  
 Mill Dam  
 Belfast, Maine

**Table 4-2: Other Hazardous Materials Removal Cost Estimates**

<b>Component</b>	<b>Estimated Quantity</b>	<b>Unit Cost</b>	<b>Total</b>
Fluorescent Light Fixture Ballasts	14	\$20 Each	--1
Fluorescent Light Tubes	24	\$3 Each	\$72
Electrical Transformers	1	\$200 Each	\$200
Marine/Automotive Batteries	2	\$20 Each	\$40
<b>TOTAL ESTIMATED OTHER HAZARDOUS MATERIALS REMOVAL COST:</b>			<b>\$312</b>

**NOTES:**

1. Ballasts were not inspected during our survey for “No PCBs” labeling; therefore no cost estimate is carried for disposal. Additional costs may be incurred if presumed PCB-containing ballasts are identified during demolition phase.
2. Electrical transformers inspected during our survey did not have “No PCBs” labeling; therefore, Ransom presumes the units contain potentially PCB-containing oil.



**LEGEND:**

MILL-03A ▲ SAMPLE TESTING POSITIVE FOR ASBESTOS



SCALE in FEET  
1"=40'

**NOTES:**

1. SITE PLAN BASED ON MEASUREMENTS AND OBSERVATIONS MADE BY RANSOM CONSULTING, INC. ON JANUARY 21, 2013.
2. SOME FEATURES ARE APPROXIMATE IN LOCATION AND SCALE.
3. THIS PLAN HAS BEEN PREPARED FOR THE CITY OF BELFAST. ALL OTHER USES ARE NOT AUTHORIZED, UNLESS WRITTEN PERMISSION IS OBTAINED FROM RANSOM CONSULTING, INC.

**RANSOM** Consulting, Inc.

**MILL DAM**

PREPARED FOR:  
CITY OF BELFAST  
131 CHURCH STREET  
BELFAST, MAINE

SITE:  
MILL DAM  
67 SWAN LAKE AVENUE  
BELFAST, MAINE

DATE: FEBRUARY 2013  
PROJECT: 111.06134  
FIGURE: 1

**ATTACHMENT A**

Photograph Log

Hazardous Building Materials Inventory  
Mill Dam  
67 Swan Lake Avenue  
Belfast, Maine

Photograph Log



View of Site Buildings (L-R): Office Building, concrete bunker, Turbine House. View is to the north.



Black mastic/sealant applied to poured concrete foundation (Sample MILL-03A)



New-in-box asbestos pipe insulation observed in attic. (PACM)



Closer view of boxes of asbestos insulation observed in attic.



Automotive/marine battery observed inside office building

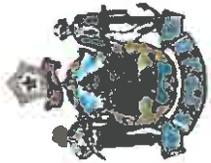


Storage building, located to the south of Office Building. No hazardous building materials identified.

**ATTACHMENT B**

Asbestos Certifications

Hazardous Building Materials Inventory  
Mill Dam  
67 Swan Lake Avenue  
Belfast, Maine



State of Maine  
Department of Environmental Protection

LICENSE

Ransom Consulting, Inc.

Asbestos Consultant  
(Inspection only)

License Number: SI-0093

Expiration Date: 10/31/2012



STATE OF MAINE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PAUL R. LEPAGE  
GOVERNOR

PATRICIA W. AHO  
COMMISSIONER

November 30, 2011

Attn.: Nicholas Sabatine, Vice President  
**Ransom Consulting, Inc.**  
400 Commercial Street, Suite 404  
Portland, Maine 04101

Dear Mr. Sabatine:

This letter is in reference to your renewal application for licensure as an **Asbestos Consultant (Inspection only)**.

This office has received and completed the review of your application and finds it to be in accordance with the requirements of Maine Asbestos Management Regulations Chapter 425, effective April 3, 2011.

Your application has been approved and your firm is licensed to provide asbestos consulting service(s) as described on the enclosed certificate.

Your renewal license number remains at **SI-0093** which is in effect for one year and will expire on October 31, 2012. A renewal application should be filed not less than thirty (30) days prior to expiration of this licensure. Thank you for your continued service to the people of the State of Maine.

If you have any questions please call me at (207) 287-7751.

Sincerely,

Sandra J. Moody, Environmental Technician  
Division of Solid Waste Management  
Bureau of Remediation and Waste Management

Enclosure



*This is to certify that*

**Lucas Hathaway**

*has completed the requisite training, and has passed an examination for  
reaccreditation as:*

**Asbestos Inspector Refresher**

pursuant to Title II of the Toxic Substance Control Act, 15 U.S.C. 2646

**Course Location**

Institute for Environmental Education, Inc.  
16 Upton Drive Wilmington, MA 01887

**June 20, 2012**

Course Dates

**12-7004-106-234345**

Certificate Number

**June 20, 2012**

Examination Date

**June 20, 2013**

Expiration Date

Training Director

16 Upton Drive, Wilmington, MA 01887

Telephone 978.658.5272

www.ieetrains.com

**INSTITUTE FOR ENVIRONMENTAL EDUCATION**

# State of Maine

Asbestos Abatement Program

**Lucas DB Hathaway**

*Inspector*

**Cert No. AI-0558**

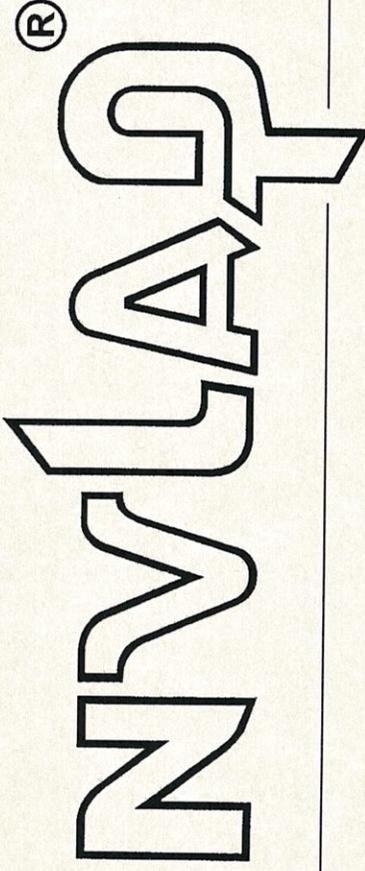
**Trn.Exp.Date 06/20/2013**

**Expiration Date 06/30/2013**

This is not a legal form of official identification



United States Department of Commerce  
National Institute of Standards and Technology



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## Certificate of Accreditation to ISO/IEC 17025:2005

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NVLAP LAB CODE: 101433-0

**Optimum Analytical & Consulting LLC**  
Salem, NH

is accredited by the National Voluntary Laboratory Accreditation Program for specific services,  
listed on the Scope of Accreditation, for:

### **BULK ASBESTOS FIBER ANALYSIS**

*This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005.  
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality  
management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).*

2012-04-01 through 2013-03-31

Effective dates



*David F. Alderman*

For the National Institute of Standards and Technology



**National Voluntary  
Laboratory Accreditation Program**



**SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005**

**Optimum Analytical & Consulting LLC**

85 Stiles Road

Salem, NH 03079

Ms. Jamie L. Noel

Phone: 603-706-0263 Fax:

E-Mail: [jamie.noel@optimumanalytical.com](mailto:jamie.noel@optimumanalytical.com)

URL: <http://www.optimumanalytical.com>

**BULK ASBESTOS FIBER ANALYSIS (PLM)**

**NVLAP LAB CODE 101433-0**

*NVLAP Code      Designation / Description*

18/A01      EPA-600/M4-82-020: Interim Method for the Determination of Asbestos in Bulk Insulation Samples

2012-04-01 through 2013-03-31

*Effective dates*

*David F. Alderman*

*For the National Institute of Standards and Technology*



State of Maine  
Department of Environmental Protection

*LICENSE*

Optimum Analytical & Consulting, LLC

Asbestos Analytical Laboratory  
(Bulk)

License Number: LB-0067

Expiration Date: 03/31/2013

**ATTACHMENT C**

Copies of Laboratory Data

Hazardous Building Materials Inventory  
Mill Dam  
67 Swan Lake Avenue  
Belfast, Maine



# OPTIMUM

Analytical and Consulting, LLC

85 Stiles Road, Suite 201, Salem, NH 03079 Phone: (603)-458-5247

Lucas Hathaway  
Ransom Environmental Consultants, Inc  
400 Commercial St  
Portland ME 04101

Project #: 111.06134  
Laboratory Batch #: 1305580  
Date Samples Received: 02/04/2013  
Date Samples Analyzed: 02/05/2013  
Date of Final Report: 03/04/2013

**SAMPLE IDENTIFICATION:**

Thirty Six (36) Bulk samples from Goose River Hydro Stations - Belfast, ME; submitted by: Lucas Hathaway

These bulk samples were delivered to Optimum Analytical Consulting, LLC for asbestos content determination.

**ANALYTICAL METHOD:**

Analytical procedures were performed in accordance with the U.S. Environmental Protection Agency (EPA) Recommended Method for the Determination of Asbestos in Bulk Samples by Polarized Light Microscopy and Dispersion Staining (PLM/DS)(EPA-600/M4-82-020, EPA-600/ R-93-116) and the New York Department of Health Environmental Laboratory Approval Program (NYDOH-ELAP 198.1) with the exception of resinously bound materials (please refer to the comments at the end of this report). This report relates only to those samples actually analyzed, and may not be indicative of other similar appearing materials existing at this, or other sites.

Quantification of asbestos content was determined by Calibrated Visual Estimation.

The EPA requires that friable samples with analytical results of 10% or less asbestos, by visual estimation, be treated as asbestos-containing material unless these quantities are verified using the point counting method. The point counting method is a systematic technique for estimating concentration, also using PLM. The point counting method, however, does not increase the analyst's ability to detect fibers. If you would like any of your friable samples with an asbestos content of less than 10% to be point counted, please contact our office. Point counting is not required for those samples in which no asbestos is detected during analysis by PLM.

In any given material, fibers with a small diameter (<0.25mm) may not be detected by the PLM method. Floor tile and other resinously bound material may yield a false negative if the asbestos fibers are too small to be resolved using PLM. Additional analytical methods may be required. Optimum recommends using Transmission Electron Microscopy (TEM) for a more definitive analysis.

New York state regulations require that all friable samples in which asbestos is detected be point counted (using the NYDOH-ELAP stratified point counting method). New York state regulations also require TEM confirmation of NOB (Non Organically Bound) samples found to have No Asbestos Detected by PLM. These regulations apply only to samples taken within the State of New York.

Optimum Analytical and Consulting, LLC will retain all samples for a minimum of three months. Further analysis or return of samples must be requested within this three month period to guarantee their availability.

This report may not be reproduced except in full, without the written approval of Optimum Analytical and Consulting, LLC.

Use of the NVLAP and AIHA Logo in no way constitutes or implies product certification, approval, or endorsement by the National Institute of Standards and Technology or the American Industrial Hygiene Association.

This report is considered preliminary until signed by the Laboratory Director and Supervisor.

If you have any questions regarding this report, please do not hesitate to contact us.

Jamie L. Noel  
Laboratory Director

Kristina Scaviola  
Laboratory Supervisor

NVLAP Lab ID#: 101433-0



85 Stiles Road, Suite 201, Salem, NH 03079 Phone: (603)-458-5247

**CLIENT:** Ransom Environmental Consultants, Inc  
**ADDRESS:** 400 Commercial St  
**CITY / STATE / ZIP:** Portland ME 04101  
**CONTACT:** Lucas Hathaway  
**DESCRIPTION:** PLM Analysis  
**LOCATION:** Goose River Hydro Stations - Belfast, ME

**ORDER #:** 1305580  
**PROJECT #:** 111.06134  
**DATE COLLECTED:** 01/21/2013  
**COLLECTED BY:** Lucas Hathaway  
**DATE RECEIVED:** 02/04/2013  
**ANALYSIS DATE:** 02/05/2013  
**REPORT DATE:** 03/04/2013  
**ANALYST:** Jamie Noel

### REPORT OF ANALYSIS

Laboratory ID Sample No.	Sample Location Description	Layer No. Layer %	Asbestos Type (%)	Non-Asbestos Components (%)
1305580-001 MILL-01A	Mill Dam/Office Building Asphalt Shingle, Black	LAYER 1 100%	None Detected	Cellulose Fiber 65% Binder/Filler 35%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1305580-002 MILL-01B	Mill Dam/Office Building Asphalt Shingle, Black	LAYER 1 100%	None Detected	Cellulose Fiber 65% Binder/Filler 35%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1305580-003 MILL-01C	Mill Dam/Office Building Asphalt Shingle, Black	LAYER 1 100%	None Detected	Cellulose Fiber 65% Binder/Filler 35%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1305580-004 MILL-02A	Mill Dam/Office Building Exterior Window Glaze, Gray	LAYER 1 100%	None Detected	Cellulose Fiber 1% Wollastonite 5% Binder/Filler 94%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1305580-005 MILL-02B	Mill Dam/Office Building Exterior Window Glaze, Gray	LAYER 1 100%	None Detected	Cellulose Fiber 1% Wollastonite 5% Binder/Filler 94%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1305580-006 MILL-02C	Mill Dam/Office Building Exterior Window Glaze, Gray	LAYER 1 100%	None Detected	Cellulose Fiber 1% Wollastonite 5% Binder/Filler 94%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1305580-007 MILL-03A	Mill Dam/Office Building Foundation Mastic, Black	LAYER 1 100%	Chrysotile 8.25%	Cellulose Fiber 5% Binder/Filler 86.75%
<b>Total % Asbestos:</b>			8.3%	<b>Total % Non-Asbestos:</b> 91.8%
1305580-008 MILL-03B	Mill Dam/Office Building Foundation Mastic, Black Note: Positive Stop	LAYER 1 100%		



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**CITY / STATE / ZIP:** Portland ME 04101  
**CONTACT:** Lucas Hathaway  
**DESCRIPTION:** PLM Analysis  
**LOCATION:** Goose River Hydro Stations - Belfast, ME

**ORDER #:** 1305580  
**PROJECT #:** 111.06134  
**DATE COLLECTED:** 01/21/2013  
**COLLECTED BY:** Lucas Hathaway  
**DATE RECEIVED:** 02/04/2013  
**ANALYSIS DATE:** 02/05/2013  
**REPORT DATE:** 03/04/2013  
**ANALYST:** Jamie Noel

### REPORT OF ANALYSIS

Laboratory ID Sample No.	Sample Location Description	Layer No. Layer %	Asbestos Type	(%)	Non-Asbestos Components	(%)
1305580-009 MILL-03C	Mill Dam/Office Building Foundation Mastic, Black Note: Positive Stop	LAYER 1 100%				
1305580-010 MILL-04A	Mill Dam Penstock Coating, Black	LAYER 1 100%	Chrysotile	.17%	Cellulose Fiber Binder/Filler	2% 97.83%
<b>Total % Asbestos:</b>				<1%	<b>Total % Non-Asbestos:</b> 99.8%	
1305580-011 MILL-04B	Mill Dam Penstock Coating, Black	LAYER 1 100%	Chrysotile	.25%	Cellulose Fiber Binder/Filler	1% 98.75%
<b>Total % Asbestos:</b>				<1%	<b>Total % Non-Asbestos:</b> 99.8%	
1305580-012 MILL-04C	Mill Dam Penstock Coating, Black	LAYER 1 100%	Chrysotile	.08%	Cellulose Fiber Binder/Filler	1% 98.92%
<b>Total % Asbestos:</b>				<1%	<b>Total % Non-Asbestos:</b> 99.9%	
1305580-013 MILL-05A	Mill Dam/Turbine Building Asphalt Roofing Composite, Black	LAYER 1 100%	None Detected		Cellulose Fiber Binder/Filler	35% 65%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%		
1305580-014 MILL-05B	Mill Dam/Turbine Building Asphalt Roofing Composite, Black	LAYER 1 100%	None Detected		Cellulose Fiber Binder/Filler	35% 65%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%		
1305580-015 MILL-05C	Mill Dam/Turbine Building Asphalt Roofing Composite, Black	LAYER 1 100%	None Detected		Cellulose Fiber Binder/Filler	35% 65%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%		
1305580-016 MILL-06A	Mill Dam/Garage Asphalt Roofing Composite, Black	LAYER 1 100%	None Detected		Cellulose Fiber Binder/Filler	10% 90%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%		



85 Stiles Road, Suite 201, Salem, NH 03079 Phone: (603)-458-5247

**CLIENT:** Ransom Environmental Consultants, Inc  
**ADDRESS:** 400 Commercial St  
**CITY / STATE / ZIP:** Portland ME 04101  
**CONTACT:** Lucas Hathaway  
**DESCRIPTION:** PLM Analysis  
**LOCATION:** Goose River Hydro Stations - Belfast, ME

**ORDER #:** 1305580  
**PROJECT #:** 111.06134  
**DATE COLLECTED:** 01/21/2013  
**COLLECTED BY:** Lucas Hathaway  
**DATE RECEIVED:** 02/04/2013  
**ANALYSIS DATE:** 02/05/2013  
**REPORT DATE:** 03/04/2013  
**ANALYST:** Jamie Noel

### REPORT OF ANALYSIS

Laboratory ID Sample No.	Sample Location Description	Layer No. Layer %	Asbestos Type	(%)	Non-Asbestos Components	(%)
1305580-017 MILL-06B	Mill Dam/Garage Asphalt Roofing Composite, Black	LAYER 1 100%	None Detected		Cellulose Fiber Binder/Filler	10% 90%
<b>Total % Asbestos:</b>			No Asbestos Detected		<b>Total % Non-Asbestos:</b> 100.0%	
1305580-018 MILL-06C	Mill Dam/Garage Asphalt Roofing Composite, Black	LAYER 1 100%	None Detected		Cellulose Fiber Binder/Filler	10% 90%
<b>Total % Asbestos:</b>			No Asbestos Detected		<b>Total % Non-Asbestos:</b> 100.0%	
1305580-019 MAS-01A	Mason Dam/Turbine Building Foam Insulation Adhesive, Tan	LAYER 1 100%	None Detected		Cellulose Fiber Binder/Filler	1% 99%
<b>Total % Asbestos:</b>			No Asbestos Detected		<b>Total % Non-Asbestos:</b> 100.0%	
1305580-020 MAS-01B	Mason Dam/Turbine Building Foam Insulation Adhesive, Tan	LAYER 1 100%	None Detected		Cellulose Fiber Binder/Filler	1% 99%
<b>Total % Asbestos:</b>			No Asbestos Detected		<b>Total % Non-Asbestos:</b> 100.0%	
1305580-021 MAS-01C	Mason Dam/Turbine Building Foam Insulation Adhesive, Tan	LAYER 1 100%	None Detected		Cellulose Fiber Binder/Filler	1% 99%
<b>Total % Asbestos:</b>			No Asbestos Detected		<b>Total % Non-Asbestos:</b> 100.0%	
1305580-022 MAS-02A	Mason Dam Penstock Coating, Black	LAYER 1 100%	Chrysotile	3.6%	Cellulose Fiber Binder/Filler	5% 91.4%
<b>Total % Asbestos:</b>				3.6%	<b>Total % Non-Asbestos:</b> 96.4%	
1305580-023 MAS-02B	Mason Dam Penstock Coating, Black	LAYER 1 100%	Chrysotile	5.61%	Cellulose Fiber Non-Fibrous Material	1% 93.39%
<b>Total % Asbestos:</b>				5.6%	<b>Total % Non-Asbestos:</b> 94.4%	
1305580-024 MAS-02C	Mason Dam Penstock Coating, Black	LAYER 1 100%	Chrysotile	10.21%	Cellulose Fiber Non-Fibrous Material	1% 88.79%
<b>Total % Asbestos:</b>				10.2%	<b>Total % Non-Asbestos:</b> 89.8%	



85 Stiles Road, Suite 201, Salem, NH 03079 Phone: (603)-458-5247

**CLIENT:** Ransom Environmental Consultants, Inc  
**ADDRESS:** 400 Commercial St  
**CITY / STATE / ZIP:** Portland ME 04101  
**CONTACT:** Lucas Hathaway  
**DESCRIPTION:** PLM Analysis  
**LOCATION:** Goose River Hydro Stations - Belfast, ME

**ORDER #:** 1305580  
**PROJECT #:** 111.06134  
**DATE COLLECTED:** 01/21/2013  
**COLLECTED BY:** Lucas Hathaway  
**DATE RECEIVED:** 02/04/2013  
**ANALYSIS DATE:** 02/05/2013  
**REPORT DATE:** 03/04/2013  
**ANALYST:** Jamie Noel

### REPORT OF ANALYSIS

Laboratory ID Sample No.	Sample Location Description	Layer No. Layer %	Asbestos Type	(%)	Non-Asbestos Components	(%)
1305580-025 CMP-01A	CMP Dam/Turbine Building Roof Mastic, Black	LAYER 1 100%	Chrysotile	5.11%	Cellulose Fiber Binder/Filler	1% 93.89%
<b>Total % Asbestos:</b>				5.1%	<b>Total % Non-Asbestos:</b> 94.9%	
1305580-026 CMP-01B	CMP Dam/Turbine Building Roof Mastic, Black Note: Positive Stop	LAYER 1 100%				
1305580-027 CMP-01C	CMP Dam/Turbine Building Roof Mastic, Black Note: Positive Stop	LAYER 1 100%				
1305580-028 CMP-02A	CMP Dam/Turbine Building Asphalt Rolled Roof, Black	LAYER 1 100%	None Detected		Cellulose Fiber Binder/Filler	15% 85%
<b>Total % Asbestos:</b>				No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%	
1305580-029 CMP-02B	CMP Dam/Turbine Building Asphalt Rolled Roof, Black	LAYER 1 100%	None Detected		Cellulose Fiber Binder/Filler	15% 85%
<b>Total % Asbestos:</b>				No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%	
1305580-030 CMP-02C	CMP Dam/Turbine Building Asphalt Rolled Roof, Black	LAYER 1 100%	None Detected		Cellulose Fiber Binder/Filler	15% 85%
<b>Total % Asbestos:</b>				No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%	
1305580-031 CMP-03A	CMP Dam Penstock Coating, Black	LAYER 1 100%	None Detected		Cellulose Fiber Binder/Filler	10% 90%
<b>Total % Asbestos:</b>				No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%	
1305580-032 CMP-03B	CMP Dam Penstock Coating, Black	LAYER 1 100%	None Detected		Cellulose Fiber Binder/Filler	10% 90%
<b>Total % Asbestos:</b>				No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%	



# OPTIMUM

Analytical and Consulting, LLC

85 Stiles Road, Suite 201, Salem, NH 03079 Phone: (603)-458-5247

## BULK SAMPLE ANALYSIS REPORT POLARIZED LIGHT MICROSCOPY

PLM (EPA-600/M4-82-020, EPA-600/ R-93-116) NVLAP Lab Code: 101433-0

**CLIENT:** Ransom Environmental Consultants, Inc  
**ADDRESS:** 400 Commercial St  
**CITY / STATE / ZIP:** Portland ME 04101  
**CONTACT:** Lucas Hathaway  
**DESCRIPTION:** PLM Analysis  
**LOCATION:** Goose River Hydro Stations - Belfast, ME

**ORDER #:** 1305580  
**PROJECT #:** 111.06134  
**DATE COLLECTED:** 01/21/2013  
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**DATE RECEIVED:** 02/04/2013  
**ANALYSIS DATE:** 02/05/2013  
**REPORT DATE:** 03/04/2013  
**ANALYST:** Jamie Noel

### REPORT OF ANALYSIS

Laboratory ID Sample No.	Sample Location Description	Layer No. Layer %	Asbestos Type (%)	Non-Asbestos Components (%)
1305580-033 CMP-03C	CMP Dam Penstock Coating, Black	LAYER 1 100%	None Detected	Cellulose Fiber 10% Binder/Filler 90%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1305580-034 CMP-04A	CMP Dam/Shed Roofing Composite, Black	LAYER 1 100%	None Detected	Cellulose Fiber 10% Binder/Filler 90%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1305580-035 CMP-04B	CMP Dam/Shed Roofing Composite, Black	LAYER 1 100%	None Detected	Cellulose Fiber 10% Binder/Filler 90%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1305580-036 CMP-04C	CMP Dam/Shed Roofing Composite, Black	LAYER 1 100%	None Detected	Cellulose Fiber 10% Binder/Filler 90%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%

Approved Signatory: \_\_\_\_\_

Approved Signatory: \_\_\_\_\_





# OPTIMUM

Analytical and Consulting, LLC

85 Stiles Road, Suite 201, Salem, NH 03079 Phone: (603)-458-5247

## BULK SAMPLE ANALYSIS REPORT POLARIZED LIGHT MICROSCOPY

PLM (EPA-600/M4-82-020, EPA-600/ R-93-116) NVLAP Lab Code: 101433-0

**CLIENT:** Ransom Environmental Consultants, Inc  
**ADDRESS:** 400 Commercial St  
**CITY / STATE / ZIP:** Portland ME 04101  
**CONTACT:** Lucas Hathaway  
**DESCRIPTION:** PLM Analysis  
**LOCATION:** Goose River Hydro Stations - Belfast, ME

**ORDER #:** 1305580  
**PROJECT #:** 111.06134  
**DATE COLLECTED:** 01/21/2013  
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**DATE RECEIVED:** 02/04/2013  
**ANALYSIS DATE:** 02/05/2013  
**REPORT DATE:** 03/04/2013  
**ANALYST:** Jamie Noel

5580

Client Ransom Consulting, Inc. 400 Commercial St Portland ME 04101  
 Contact Lucas Hathaway  
 Phone 207-772-2891  
 Project Goose River Hydro Stations  
 Location Belfast Maine  
 Ransom Client MEDEP Brownfields  
 Ransom Project # 111.06134  
 Sample Date 1/21/2013  
 Analysis Bulk PLM/Gravimetric Reduction for asbestos  
 TAT Results requested by Wednesday morning 2/6.  
 Report Results to: [lucas.hathaway@ransomenv.com](mailto:lucas.hathaway@ransomenv.com);  
 PO 5008  
 Notes/Requests Please analyze NOB samples via Gravimetric Reduction, per MEDEP regulat  
 Stop analysis on positive detection for all.  
 Please analyze specified samples in composite; please do not analyze addit

Sample ID	Location	Material
MILL-01A	Mill Dam/Office Building	Asphalt Shingle
MILL-01B	Mill Dam/Office Building	Asphalt Shingle
MILL-01C	Mill Dam/Office Building	Asphalt Shingle
MILL-02A	Mill Dam/Office Building	Exterior Window Glaze
MILL-02B	Mill Dam/Office Building	Exterior Window Glaze
MILL-02C	Mill Dam/Office Building	Exterior Window Glaze
MILL-03A	Mill Dam/Office Building	Foundation Mastic
MILL-03B	Mill Dam/Office Building	Foundation Mastic
MILL-03C	Mill Dam/Office Building	Foundation Mastic
MILL-04A	Mill Dam	Penstock Coating
MILL-04B	Mill Dam	Penstock Coating
MILL-04C	Mill Dam	Penstock Coating
MILL-05A	Mill Dam/Turbine Building	Asphalt Roofing Composite
MILL-05B	Mill Dam/Turbine Building	Asphalt Roofing Composite
MILL-05C	Mill Dam/Turbine Building	Asphalt Roofing Composite
MILL-06A	Mill Dam/Garage	Asphalt Roofing Composite
MILL-06B	Mill Dam/Garage	Asphalt Roofing Composite
MILL-06C	Mill Dam/Garage	Asphalt Roofing Composite
MAS-01A	Mason Dam/Turbine Building	Foam Insulation Adhesive
MAS-01B	Mason Dam/Turbine Building	Foam Insulation Adhesive
MAS-01C	Mason Dam/Turbine Building	Foam Insulation Adhesive
MAS-02A	Mason Dam	Penstock Coating
MAS-02B	Mason Dam	Penstock Coating
MAS-02C	Mason Dam	Penstock Coating
CMP-01A	CMP Dam/Turbine Building	Roofing Mastic
CMP-01B	CMP Dam/Turbine Building	Roofing Mastic
CMP-01C	CMP Dam/Turbine Building	Roofing Mastic
CMP-02A	CMP Dam/Turbine Building	Asphalt Rolled Roofing
CMP-02B	CMP Dam/Turbine Building	Asphalt Rolled Roofing
CMP-02C	CMP Dam/Turbine Building	Asphalt Rolled Roofing

2/4/13



# OPTIMUM

Analytical and Consulting, LLC

85 Stiles Road, Suite 201, Salem, NH 03079 Phone: (603)-458-5247

**CLIENT:** Ransom Environmental Consultants, Inc  
**ADDRESS:** 400 Commercial St  
**CITY / STATE / ZIP:** Portland ME 04101  
**CONTACT:** Lucas Hathaway  
**DESCRIPTION:** PLM Analysis  
**LOCATION:** Goose River Hydro Stations - Belfast, ME

## BULK SAMPLE ANALYSIS REPORT POLARIZED LIGHT MICROSCOPY

PLM (EPA-600/M4-82-020, EPA-600/ R-93-116) NVLAP Lab Code: 101433-0

**ORDER #:** 1305580  
**PROJECT #:** 111.06134  
**DATE COLLECTED:** 01/21/2013  
**COLLECTED BY:** Lucas Hathaway  
**DATE RECEIVED:** 02/04/2013  
**ANALYSIS DATE:** 02/05/2013  
**REPORT DATE:** 03/04/2013  
**ANALYST:** Jamie Noel

- |         |              |                   |
|---------|--------------|-------------------|
| CMP-03A | CMP Dam      | Penstock Coating  |
| CMP-03B | CMP Dam      | Penstock Coating  |
| CMP-03C | CMP Dam      | Penstock Coating  |
| CMP-04A | CMP Dam/Shed | Roofing Composite |
| CMP-04B | CMP Dam/Shed | Roofing Composite |
| CMP-04C | CMP Dam/Shed | Roofing Composite |

5580

2/4/13



# OPTIMUM

Analytical and Consulting, LLC

85 Stiles Road, Suite 201, Salem, NH 03079 Phone: (603)-458-5247

## BULK SAMPLE ANALYSIS REPORT POLARIZED LIGHT MICROSCOPY

PLM (EPA-600/M4-82-020, EPA-600/ R-93-116) NVLAP Lab Code: 101433-0

**CLIENT:** Ransom Environmental Consultants, Inc  
**ADDRESS:** 400 Commercial St  
**CITY / STATE / ZIP:** Portland ME 04101  
**CONTACT:** Lucas Hathaway  
**DESCRIPTION:** PLM Analysis  
**LOCATION:** Goose River Hydro Stations - Belfast, ME

**ORDER #:** 1305580  
**PROJECT #:** 111.06134  
**DATE COLLECTED:** 01/21/2013  
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**REPORT DATE:** 03/04/2013  
**ANALYST:** Jamie Noel

Batch Number: 1305580		Prep Date: 2/4/13		Prep Analyst: JLN		Non-Friable Organically Bound Gravimetric Reduction Worksheet												
Sample ID	Crunche ID	Crunche Weight	Sample Weight	Ashed + Sample Weight	Ashed Sample Weight	% Reduction	Filter Weight	Sub-Sample Weight	Filtered Sample Weight	Inorganic IG	% Reduction	CVE %	% Asbestos =	Asbestos Type	Prep 1	Prep 2	Prep 3	Prep 4
Mill-01A	W	28.073	0.087	26.125	0.052	48.31%	0.015	0.052	0.026	0.011	21.15%	0.00%	0.00%	NAD	0	0	0	0
Mill-01B	Q	28.355	0.089	26.398	0.043	59.31%	0.016	0.043	0.027	0.011	25.68%	0.00%	0.00%	NAD	0	0	0	0
Mill-01C	E	25.671	0.142	25.708	0.037	26.06%	0.014	0.037	0.033	0.019	51.95%	0.00%	0.00%	NAD	0	0	0	0
Mill-02A	M	28.251	0.283	28.489	0.238	84.10%	0.021	0.238	0.051	0.03	12.81%	0.00%	0.00%	NAD	0	0	0	0
Mill-02B	X	28.217	0.197	28.362	0.145	73.60%	0.018	0.145	0.041	0.023	15.86%	0.00%	0.00%	NAD	0	0	0	0
Mill-02C	I	28.06	0.206	28.216	0.156	75.73%	0.014	0.156	0.046	0.032	20.51%	0.00%	0.00%	NAD	0	0	0	0
Mill-03A	J	28.808	0.185	28.818	0.003	5.41%	0.015	0.01	0.045	0.03	300.00%	2.75%	0.00%	Chry	2	2	3	4
Mill-04A	R	28.86	0.126	28.863	0.006	4.20%	0.015	0.003	0.017	0.002	66.87%	0.25%	0.17%	Chry	0	0	0	1
Mill-04B	C	24.547	0.143	24.553	0.006	4.44%	0.016	0.006	0.017	0.002	33.33%	0.75%	0.00%	Chry	0	1	2	0
Mill-04C	F	28.288	0.135	28.294	0.006	4.44%	0.016	0.006	0.017	0.001	16.87%	0.50%	0.00%	Chry	1	1	0	0
Mill-05A	A	24.279	0.162	24.286	0.007	4.32%	0.016	0.007	0.032	0.016	228.87%	0.00%	0.00%	NAD	0	0	0	0
Mill-05B	H	28.714	0.107	28.729	0.015	14.02%	0.017	0.015	0.026	0.009	60.00%	0.00%	0.00%	NAD	0	0	0	0
Mill-05C	N	28.881	0.187	28.891	0.01	5.35%	0.015	0.01	0.041	0.015	75.00%	0.00%	0.00%	NAD	0	0	0	0
Mill-06A	V	28.247	0.188	28.267	0.02	10.64%	0.015	0.02	0.03	0.015	29.31%	0.00%	0.00%	NAD	0	0	0	0
Mill-06B	27	24.07	0.131	24.128	0.058	44.27%	0.015	0.058	0.032	0.017	26.13%	0.00%	0.00%	NAD	0	0	0	0
Mill-06C	20	24.019	0.21	24.13	0.111	52.88%	0.015	0.111	0.044	0.029	29.13%	0.00%	0.00%	NAD	0	0	0	0
Mill-06C	B	28.962	0.168	29.063	0.101	60.12%	0.015	0.101	0.064	0.049	48.51%	0.00%	0.00%	NAD	0	0	0	0
mas-01b	42	24.722	0.249	24.9	0.178	71.49%	0.016	0.178	0.088	0.072	40.45%	0.00%	0.00%	NAD	0	0	0	0
mas-01c	P	28.956	0.164	29.077	0.121	73.78%	0.015	0.121	0.065	0.05	41.32%	0.00%	0.00%	NAD	0	0	0	0
MAS-02A	D	26.712	0.106	26.729	0.017	16.04%	0.016	0.017	0.023	0.007	41.18%	0.00%	0.00%	NAD	0	0	0	0
CMP-01a	L	29.021	0.114	29.08	0.059	51.75%	0.014	0.059	0.031	0.017	28.81%	17.75%	3.60%	Chry	10	6	12	7
CMP-02A	G	29.642	0.127	29.649	0.007	5.51%	0.017	0.007	0.034	0.017	242.86%	0.00%	0.00%	NAD	21	15	18	17
CMP-02B	17	24.923	0.179	24.978	0.055	30.73%	0.016	0.055	0.054	0.038	69.09%	0.00%	0.00%	NAD	0	0	0	0
CMP-02C	44	22.859	0.171	22.905	0.046	26.90%	0.015	0.046	0.031	0.016	34.78%	0.00%	0.00%	NAD	0	0	0	0
CMP-03A	51	24.248	0.447	24.376	0.128	78.64%	0.015	0.128	0.252	0.237	185.16%	0.00%	0.00%	NAD	0	0	0	0
CMP-03B	40	23.827	0.471	24.192	0.365	77.49%	0.015	0.365	0.247	0.232	63.96%	0.00%	0.00%	NAD	0	0	0	0
CMP-03C	70	23.998	0.392	24.329	0.331	84.44%	0.015	0.331	0.173	0.158	47.73%	0.00%	0.00%	NAD	0	0	0	0
CMP-04A	30	24.753	0.108	24.767	0.004	12.98%	0.017	0.014	0.018	0.001	7.14%	0.00%	0.00%	NAD	0	0	0	0
CMP-04B	59	24.681	0.155	24.684	0.003	1.94%	0.015	0.003	0.016	0.001	33.33%	0.00%	0.00%	NAD	0	0	0	0
CMP-04C	58	23.581	0.144	23.586	0.005	3.47%	0.016	0.005	0.016	0	0.00%	0.00%	0.00%	NAD	0	0	0	0

**APPENDIX D**

UST Removal Photographs

Phase II Environmental Site Assessment and  
Site Assessment for Closure of  
Underground Oil Storage Tank Facilities  
Mill Dam  
67 Swan Lake Avenue  
Belfast, Maine

**Photograph Log**



**View of the 12,000-gallon No. 6 fuel oil UST excavation.  
View is to the southeast.**



**View of the 12,000-gallon No. 6 fuel oil UST excavation.  
View is to the west.**



**View of the ancillary piping extending from the eastern end  
of the 12,000-gallon No. 6 fuel oil UST.**



**View of the 12,000-gallon No. 6 fuel oil UST being removed  
from the ground. Note the puncture at the top of the UST  
and the concrete pad/anchor at the base of the excavation.**



**View of cleaning of the 12,000-gallon No. 6 fuel oil UST  
prior to its off-site disposal.**



**View of the 2,000-gallon diesel AST contained within a  
concrete vault at the Site.**

**APPENDIX E**

UST Removal Documentation

Phase II Environmental Site Assessment and  
Site Assessment for Closure of  
Underground Oil Storage Tank Facilities  
Mill Dam  
67 Swan Lake Avenue  
Belfast, Maine



STATE OF MAINE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Date of Certificate:  
January 8, 2013

FACILITY REGISTRATION CERTIFICATE FOR  
Aboveground and Underground Storage Tank

Please display this certificate in a visible location at the registered facility.

*Facility:*

GLEESON, L  
24 CHURCH ST  
BELFAST

*Facility Registration Number:*

12612

*Date of Registration:*

September 29, 1989

*Facility Phone:*

207-338-2507

*Operator:*

GLEESON, L  
BOX 402  
BELFAST, ME 04915-  
207-338-2507

*Sensitive Area Status:*

*Facility Use:*

SINGLE RESIDENCE

*Owner:*

GLEESON, L  
BOX 402  
BELFAST, ME 04915-  
207-338-2507

Aboveground and Underground Storage Tanks

*Number of Active Aboveground Tanks: 0*

*Number of Active Underground Tanks: 0*

---

**If the information on this form is accurate and complete, please retain for you records.**

The Maine Department of Environmental Protection must be notified of any errors or changes in the information on this form. To accomplish this, please draw a line through the incorrect or outdated information, insert the correct information, and return this form to:

**Department of Environmental Protection Bureau of Remediation and Waste Management  
State House Station #17 Augusta, ME 04333**

**Attn: Underground Tanks Program**

If you have any questions concerning this process, please call (207)287-2651 and ask for the administrator of the Underground Storage Tanks Program

---

INDIVIDUAL TANK DATA FOR SITE NUMBER: 12612

Tank	Tank Under/ Above ground	Tank Type	Tank Size	Tank Monitoring	Date Tank Installed	Tank Status	Tank Substatus	Tank Status Date
1	Below Ground	Steel - Bare Or Asphalt Coated.	12000	Unknown	01/01/1960	Abandoned In Place		10/01/1989

---

Chamber	Chamber Size	Product Stored	Pipe Under/ Above ground	Date Piping Installed	Pipe Monitoring	Piping Type	Overfill Protection
1	12000	#6 Fuel Oil	Below Ground		Unknown	Other	Unknown

---

---

L. Alessio  
PO Box 402  
Berwick, ME 04915  
— 10 MAY 1988 —  
(207) 338-2507

Ms Dianne Albert  
Oil & Hazardous Materials  
DEP  
Augusta, Me

Referencing our discussion in January regarding the out of service 12,000 (±) gal tank under my properties' sewage system: Since snow cover is now gone the situation could be reviewed by field inspection pursuant to my attached "Request for a Determination for Abandonment in place for an underground Petroleum Storage Tank". I appreciate your offer to waive fines/penalties which might be due otherwise. Reviewing the situation:

1. I understood the tank was installed in mid 1960's and the sewage system subsequent to the tank installation (but prior to my inspection of the property in 1977). In my opinion, this ground buried system would be inadequate under current DEP standards.
2. The tank was removed from active service as a consequence of the fire (Dec 1976) which destroyed the Sherman & Co mill which had been operated on the property.
3. The tank and contents and a second 500 gal skid mounted tank and contents had been sold to a third party prior to summer 1977. Both tanks were drained and the above ground tank removed, also prior to summer 1977. The large underground tank previously containing #6 residual oil was not removed by its <sup>new</sup> owner.
4. I installed two 2000 gal tanks in a vault elsewhere on the property (which are currently in service) subsequent to my purchase of the property in 1982 and in the presence of the Belfast Plumbing inspector, examined & replaced the <sup>septic</sup> tank cover in the sewage system at which time we attempted to stake out the system's leach field as best we could.
5. The out of service tank is of sufficient size and construction type that its removal would clearly be disruptive to the operation of the sewage system sharing its location which, in turn, would require <sup>DEP</sup> ~~DEP~~ <sup>action</sup> to modify.

Subsequent to our discussion at the end of April, I attempted to remove the 24" cover/heat exchanger assembly to look into the tank. The bolts were frozen in place and I had to hire a contractor to cut the bolts after <sup>I returned from</sup> an out of state trip. In my presence, the bolts were cut and the cover/heat exchanger lifted out for inspection.

Inspection results -

- (1) when the cover seal was broken, following the torch cutting of the cover bolts, approximately one pint of water ( $\pm$ ) was observed to flow from the seam. This apparently was the amount of water in the vertical pipe stubs extending from the cover plates. Since water had been observed flush with the tops of the pipe stubs and the tank had contained only #6, we had determined that torch cutting would  
Except for the surface film resulting from torch heat to cover, tank is completely filled with clean water to lip of access hatch.
- (2) END OF TANK TO COVER, AS LONG AS BEDS IN CONCRETE.
- (3) Cover/Water Exchange replaced, but not bolted down.

I request permission to pump clean water out of tank onto field next to the tank and to then fill the tank with gravel or (alternatively) to fill the access hatch pit w/ concrete thereby sealing the tank.

Thanks for your assistance





INDIVIDUAL TANK DATA  
FOR  
SITE NUMBER:

12612

TANK NUMBER	TANK TYPE	PIPING TYPE	TANK SIZE	ADDITIONAL MONITORING	PRODUCT STORED	DATE INSTALLED	TANK STATUS
1	STEEL/BARE ASPHALT	OTHER	12,000	NONE	FUEL OIL #6	NK/60	OUT OF SERVICE



STATE OF MAINE  
Department of Environmental Protection



**Notice of Intent to Remove an Underground Oil Storage Tank Facility OR Underground Product Piping**

THIS FORM MUST BE FILED WITH THE DEPARTMENT AND YOUR LOCAL FIRE DEPARTMENT AT LEAST 10 DAYS PRIOR TO THE SCHEDULED REMOVAL.

NOTE: WHEN TANK AND/OR PIPING HAS BEEN REMOVED, PLEASE FILL OUT AND SEND IN THE REMOVAL CONFIRMATION.

**Facility Ownership Information**

Facility Owner: Ms. Catherine Gleeson Owner Phone #: 540-535-8137

Owner Mailing Address: P.O. Box 402 Belfast ME 04915  
Address Town State Zip Code

**Facility Information**

Facility Name: Gleeson L Registration #: 12612

Facility Location: 67 Swan Lake Avenue Belfast  
Street Town

Directions to this Facility: From Rout 3, proceed north on Swan Lake Ave. to intersection with Mill Lane  
(Be Specific)

Please Identify which tank(s) and/or piping at this location are going to be removed

Tank #	1	Tank Size:	12,000	Tank Age:	1960
		Product:	#6 Fuel Oil	Piping Age:	N/A
Tank #		Tank Size:		Tank Age:	
		Product:		Piping Age:	
Tank #		Tank Size:		Tank Age:	
		Product:		Piping Age:	

**Additional Removal Information**

YES  
 NO Is or was the tank(s) or piping used to store Class I liquids (e.g., gasoline, jet fuel)?

IF YES, REMOVAL OF THE TANK(S) OR PRODUCT PIPING MUST BE DONE UNDER THE DIRECTION OF A MAINE CERTIFIED TANK INSTALLER.

Maine Certified Tank Installer Name and Number

installer Signature

Date

**Note:** Site assessments must be conducted in accordance with Chapter 691(11)(A)(1)(d) and Appendix P.

Name and Address Site Assessor (if applicable): Ransom Consulting Inc. 400 Commercial St. Ste 404 Portland ME 04101

Name of Site Assessor

Phone Number

Name of Contractor who will do tank removal:

Environmental Projects Inc.

207-786-7390

Name of Contractor

Phone Number

Expected Date of Removal:

February 22, 2013

Month/Date/Year

I hereby provide Notice that I intend to properly remove the underground oil storage tank facility as described above

CATHERINE GLEESON, GOOSE RIVER HYDRO PRES  
Print Owner or Operator Name and Title Signature Date  
Catherine Gleeson 8 Jan., 2013

EXPIRES AFTER SIX (6) MONTHS IF DEPARTMENT DOES NOT RECEIVE REMOVAL CONFIRMATION

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OIL & HAZARDOUS MATERIALS REPORT

**Spill Number: A-48-2013**

**Report Status:** Final Report

**MCD Town:** BELFAST  
**Local Name:** BELFAST  
**Primary Responder:** JEREMY R GREENMAN  
**Primary Product:** #6 Fuel Oil {06} - 0  
**Subject/Owner:** -CATHERINE GLEESON- OWNER

**I. EVENT**

**Spill Info**

Type Oil Incident {O}  
Source Storage Unit - Underground Storage Tank {TU}  
Cause Other - No Cause {00}

**Spill Date/Time**

Date and Time Unknown

**Reporter Type/Detection Method**

Type Contractor/Consultant {6}  
Method Tank and/or Piping Removal {J}

**Reported Date/Time**

01/22/2013 10:00

**Subject/Spiller (Potential Responsible Party)**

Contact CATHERINE GLEESON-OWNER-  
P.O. BOX 402  
BELFAST ME 04915 USA  
540-535-8137

Comment

**Reporter**

Contact ERIC PHENIX-CONSULTANT-RANSOM CONSULTING INC  
400 COMMERCIAL ST  
PORTLAND ME 04101 USA  
207-272-8673

Comment

**Other Contact**

Contact NICK CLARK-OPERATIONS MANAGER-EPI  
664 WASHINGTON ST NORTH  
AUBURN ME 04210 USA  
207-786-7390

Comment

**Primary Responder and Other Employees**

JEREMY R GREENMAN (Primary Responder)

**II. SITE**

**Location**

Location Type Business - Commercial {CM}  
Name GLEESON  
Street Address 67 SWAN LAKE AVENUE  
MCD Town BELFAST  
Local Name BELFAST  
State/Province ME

**Spill Point**

UTM North  
UTM East

**Wells and Media Affected**

Wells Affected 0 Wells Impacted / 0 Wells At Risk  
Media Affected Land{L}  
Groundwater{G}

**Tanks Involved**

Underground Tank(s) Involved-12612

**III. CLEANUP****Product Reported**

#6 Fuel Oil {06}

**Cleanup DTREE****Products Found/Amount Spilled**

#6 Fuel Oil {06}/ - 0 (Primary Product)

**Material Recovered**

Unspilled Product {VP} - 1,500 gals. ACTUAL

**Recovery/Treatment Method:**

Vacuum Trucks {A}

**Disposal Information**Environmental Projects  
pumped and disposed of  
liquids from the tank**IV. NARRATIVE**

On behalf of the property owner Ransom Consulting was hired to do a site assessment. A 12,000 gallon Underground Storage Tank (ust) #6 oil tank was found. Ransom hired Environmental Projects Inc. (EPI) to pump, remove, and clean the tank. I was onsite while the tank removal was in progress. No impacted soils were visible in the tank grave. Ransom took confirmatory samples in accordance to the Department of Environmental Protection standards for heavy oils.

No further action is needed by Response.

**V. ATTACHMENTS****Attachment Type**

Paper Attach

**Description**

intent to remove ust

**File Name**

A-48-13

STATE OF MAINE  
Department of Environmental Protection



Notice of Intent to Remove an Underground Oil Storage  
Tank Facility OR Underground Product Piping

THIS FORM MUST BE FILED WITH THE DEPARTMENT AND YOUR LOCAL FIRE DEPARTMENT  
AT LEAST 10 DAYS PRIOR TO THE SCHEDULED REMOVAL.

NOTE: WHEN TANK AND/OR PIPING HAS BEEN REMOVED, PLEASE FILL OUT AND SEND IN THE REMOVAL  
CONFIRMATION.

Facility Ownership Information

Facility Owner: Ms. Catherine Gleeson Owner Phone #: 540-535-8137

Owner Mailing Address: P.O. Box 402 Belfast ME 04915  
Address Town State Zip Code

Facility Information

Facility Name: Gleeson L Registration #: 12612

Facility Location: 67 Swan Lake Avenue Belfast  
Street Town

Directions to this Facility: From Rout 3, proceed north on Swan Lake Ave. to intersection with Mill Lane  
(Be Specific)

Please Identify which tank(s) and/or piping at this location are going to be removed

Tank #	1	Tank Size:	12,000	Tank Age:	1960
		Product:	#6 Fuel Oil	Piping Age:	N/A
Tank #		Tank Size:		Tank Age:	
		Product:		Piping Age:	
Tank #		Tank Size:		Tank Age:	
		Product:		Piping Age:	

Additional Removal Information

YES  
 NO Is or was the tank(s) or piping used to store Class I liquids (e.g., gasoline, jet fuel)?

IF YES, REMOVAL OF THE TANK(S) OR PRODUCT PIPING MUST BE DONE UNDER THE DIRECTION OF A MAINE  
CERTIFIED TANK INSTALLER.

Maine Certified Tank Installer Name and Number

Installer Signature

Date

Note: Site assessments must be conducted in accordance with Chapter 691(11)(A)(1)(d) and Appendix P..

Name and Address Site Assessor (if applicable): Ransom Consulting Inc. 400 Commercial St. Ste 404 Portland ME 04101

Name of Site Assessor

Phone Number

Name of Contractor who will do tank removal:

Environmental Projects Inc.

207-786-7390

Name of Contractor

Phone Number

Expected Date of Removal:

February 22, 2013

Month/Date/Year

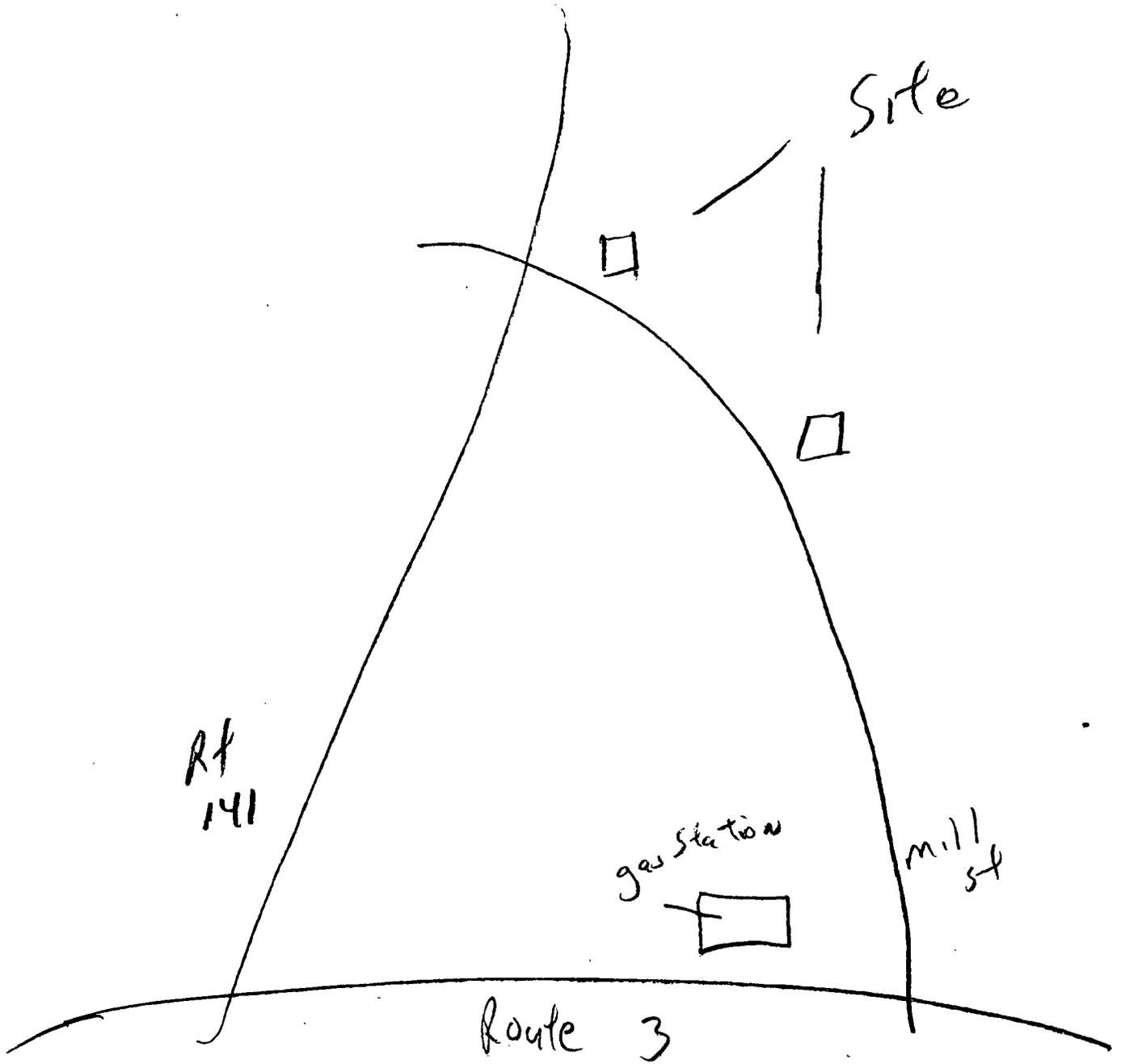
I hereby provide Notice that I intend to properly remove the underground oil storage tank facility as described above

CATHERINE GLEESON, GOOSE RIVER HYDRO PWS  
Print Owner or Operator Name and Title

Catherine Gleeson  
Signature

8 Jan., 2013  
Date

EXPIRES AFTER SIX (6) MONTHS IF DEPARTMENT DOES NOT RECEIVE REMOVAL CONFIRMATION



RT  
141

Route 3

gas station

mill  
st

Site

**APPENDIX F**

Disposal Documentation

Phase II Environmental Site Assessment and  
Site Assessment for Closure of  
Underground Oil Storage Tank Facilities  
Mill Dam  
67 Swan Lake Avenue  
Belfast, Maine

**THIS MEMORANDUM**

is an acknowledgment that a bill of lading has been issued and is not the Original Bill of Lading, not a copy or duplicate, covering the property named herein, and is intended solely for filing or record.

Shipper's No. 011813

Carrier Environmental Projects Inc.

SCAC                      Carrier's No.                      Date 01/18/13

TO: Clean Harbours  
 Consignee 37 Rumery Road  
 Street                       
 Destination South Portland ME Zip 04106

FROM: Clean Harbours Town of Belfast  
 Shipper Swan Lake Road  
 Street                       
 Origin                      Zip                     

Route                      Vehicle Number V4 U.S. DOT Hazmat Reg. No.                     

Number and Type of Packages	HM	I.D. Number	Description of Articles	Hazard Class	Pkg Grp	Total Quantity (mass, volume or activity)	Weight (subject to correction)	Class or Rate
01 TT			Virgin #6 Oil			1137	6	

Remit COD to:  
 Address:                       
 City:                      State:                      Zip:                     

Subject to Section 7 of conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:  
 The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.  
                      
 (Signature of Consignor)

COD AMT: \$                       
 COD FEE: Prepaid  Collect  \$                       
 TOTAL CHARGES: \$                       
 FREIGHT CHARGES:  Prepaid  Collect

NOTE: Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property. The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding \$                      Per                     

RECEIVED, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications and rules that have been established by the carrier and are available to the shipper, on request; and all applicable state and federal regulations; the Property described above, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated above, which said company (the word company being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to delivery at said destination, if on its route, or otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said Property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said Property that every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained, including the conditions on the back hereof, which are hereby agreed to by the shipper and accepted for himself and his assigns.

NOTE: Liability Limitation for loss or damage in this shipment may be applicable. See 49 U.S.C. 14706(c)(1)(A) and (B).  
 This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. Per                     

PLACARDS REQUIRED  PLACARDS SUPPLIED  BY SHIPPER  BY CARRIER  
 DRIVER'S SIGNATURE:                     

SHIPPER: Brian Ward us Agent for  
 PER:                      DATE: 01/18/13

CARRIER: Brian Ward  
 PER:                      DATE: 01/18/13

EMERGENCY RESPONSE TELEPHONE NUMBER:                     

OFFEROR'S NAME OR ERI CONTRACT NUMBER:                     

*Ransom Copy*

*9051 gallons  
 at .55¢  
 \$4978.05*

# THIS MEMORANDUM

is an acknowledgement that a bill of lading has been issued and is not the Original Bill of Lading, not a copy or duplicate, covering the property named herein, and is intended solely for filing or record.

Shipper's No. \_\_\_\_\_

Carrier Environmental Projects Inc.

SCAC

Carrier's No. \_\_\_\_\_

Date 1/18/13

**TO:**  
 Consignee Clean Harbors  
 Street 37 Rumney Road  
 Destination S Portland ME Zip \_\_\_\_\_

**FROM:**  
 Shipper Town of Belfast  
 Street \_\_\_\_\_  
 Origin \_\_\_\_\_ Zip \_\_\_\_\_

Route \_\_\_\_\_ Vehicle Number \_\_\_\_\_ U.S. DOT Hazmat Reg. No. \_\_\_\_\_

Number and Type of Packages	HM	LD Number	Description of Articles	Hazard Class	Pkg. Grp.	Total Quantity (mass, volume, or activity)	Weight (subject to correction)	Class or Rate
1 x TT			Non Regulated materials (water with trace oil)			2588	G	

Remit COD to:  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Subject to Section 7 of conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:  
 The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

**COD AMT:** \$ \_\_\_\_\_  
**COD FEE:** Prepaid  Collect  \$ \_\_\_\_\_  
**TOTAL CHARGES:** \$ \_\_\_\_\_  
**FREIGHT CHARGES:**  Prepaid  Collect

NOTE: Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property. The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding \$ \_\_\_\_\_ Per \_\_\_\_\_

*Stephen P Smith*  
 (Signature of Consignor)

RECEIVED, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications and rules that have been established by the carrier and are available to the shipper, on request, and all applicable state and federal regulations; the Property described above, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated above, which said company (the word company being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to delivery at said destination, if on its route, or otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said Property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said Property that every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained, including the conditions on the back hereof, which are hereby agreed to by the shipper and accepted for himself and his assigns.

NOTE: Liability Limitation for loss or damage in this shipment may be applicable. See 49 U.S.C. 14706(c)(1)(A) and (B).

This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. Per \_\_\_\_\_

**PLACARDS REQUIRED** No **PLACARDS SUPPLIED**  BY SHIPPER  BY CARRIER  
**DRIVER'S SIGNATURE:** \_\_\_\_\_

SHIPPER: Stephen P Smith on behalf of Belfast  
 PER: SPS DATE: 1/18/13

CARRIER: Stephen P Smith  
 PER: SPS DATE: 1/18/13

**EMERGENCY RESPONSE TELEPHONE NUMBER:** \_\_\_\_\_ **OFFEROR'S NAME OR ERI CONTRACT NUMBER:** \_\_\_\_\_

# THIS MEMORANDUM

Is an acknowledgment that a bill of lading has been issued and is not the Original Bill of Lading, not a copy or duplicate, covering the property named herein, and is intended solely for filing or record.

Shipper's No. \_\_\_\_\_

Carrier Environmental Projects Inc. SCAC \_\_\_\_\_ Carrier's No. \_\_\_\_\_ Date 1/18/13

**TO:** Consignee Clean Harbors  
 Street 37 Rumney Road  
 Destination Southern Portland ME Zip \_\_\_\_\_

**FROM:** Shipper Town of Belfast  
 Street Union Lake Drive  
 Origin Belfast ME Zip \_\_\_\_\_

Route \_\_\_\_\_ Vehicle Number \_\_\_\_\_ U.S. DOT Hazmat Reg. No. \_\_\_\_\_

Number and Type of Packages	HM	I.D. Number	Description of Articles	Hazard Class	Pkg. Grp.	Total Quantity (mass, volume, or activity)	Weight (subject to correction)	Class or Rate
<u>1 x II</u>			<u>Virgin # 6 (oil)</u>			<u>1176</u>	<u>6</u>	

Remit COD to: Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

NOTE: Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property. The agreed or declared value of the property is: \_\_\_\_\_ Per \_\_\_\_\_

Subject to Section 7 of conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement: The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

[Signature]  
 (Signature of Consignor)

**COD AMT:** \$ \_\_\_\_\_  
**TOTAL CHARGES:** \$ \_\_\_\_\_

**COD FEE:** Prepaid  Collect  \$ \_\_\_\_\_  
**FREIGHT CHARGES:** Prepaid  Collect

RECEIVED, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications and rules that have been established by the carrier and are available to the shipper, on request; and all applicable state and federal regulations; the Property described above, in apparent good order, except as noted (contents and condition of contents of package unknown), marked, consigned, and destined as indicated above, which said company (the word company being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to delivery at said destination, if on its route, or otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said Property over all or any portion of said route to including the conditions on the back hereof, which are hereby agreed to by the shipper and accepted for himself and his agents.

NOTE: Liability Limitation for loss or damage in this shipment may be applicable. See 49 U.S.C. 14706(c)(1)(A) and (B).

This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. Per \_\_\_\_\_

**PLACARDS REQUIRED:** No

**PLACARDS SUPPLIED:**  BY SHIPPER  BY CARRIER

**DRIVER'S SIGNATURE:** \_\_\_\_\_

SHIPPER: Brian Ward Agent for \_\_\_\_\_  
 PER: [Signature] DATE: 1/18/13

CARRIER: Brian Ward  
 PER: [Signature] DATE: 1/18/13

**EMERGENCY RESPONSE TELEPHONE NUMBER:** \_\_\_\_\_

**OFFEROR'S NAME OR ERI CONTRACT NUMBER:** \_\_\_\_\_

**THIS MEMORANDUM**

Is an acknowledgment that a bill of lading has been issued and is not the Original Bill of Lading, not a copy or duplicate, covering the property named herein, and is intended solely for filing or record.

Shipper's No. \_\_\_\_\_

Carrier Environmental Projects Inc SCAC \_\_\_\_\_ Carrier's No. \_\_\_\_\_ Date 1/18/13

**TO:**  
 Consignee Clean Harbors  
 Street 37 Rumsey Rd  
 Destination S. Portland ME Zip \_\_\_\_\_

**FROM:**  
 Shipper Town of Belfast  
 Street Swan Lake Ave  
 Origin Belfast ME Zip \_\_\_\_\_

Route \_\_\_\_\_ Vehicle Number V-28 U.S. DOT Hazmat Reg. No. \_\_\_\_\_

Number and Type of Packages	HM	I.D. Number	Description of Articles	Hazard Class	Pkg Grp	Total Quantity (mass, volume, or activity)	Weight (subject to correction)	Class or Rate
<u>1 x TT</u>			<u>Virgin #6 oil</u>			<u>2538</u>	<u>G</u>	

Remit COD to:  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Subject to Section 7 of conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:  
 The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

**COD AMT:** \$ \_\_\_\_\_  
**TOTAL CHARGES:** \$ \_\_\_\_\_

**COD FEE:** Prepaid  Collect   
**FREIGHT CHARGES:** Prepaid  Collect

(Signature of Consignor)

NOTE: Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property. The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding \$ \_\_\_\_\_ Per \_\_\_\_\_

RECEIVED, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications and rules that have been established by the carrier and are available to the shipper, on request; and all applicable state and federal regulations; the Property described above, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated above, which said company (the word company being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to delivery at said destination, if on its route, or otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said Property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said Property that every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained, including the conditions on the back hereof, which are hereby agreed to by the shipper and accepted for himself and his assigns.

NOTE: Liability Limitation for loss or damage in this shipment may be applicable. See 49 U.S.C. 14706(c)(1)(A) and (B).

This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. Per \_\_\_\_\_

PLACARDS REQUIRED No PLACARDS SUPPLIED  BY SHIPPER  BY CARRIER  
 DRIVER'S SIGNATURE: \_\_\_\_\_

SHIPPER: Stephen P Smith as agent for  
 PER: [Signature] DATE: 1/17/13

CARRIER: Stephen P Smith  
 PER: [Signature] DATE: 1/18/13

EMERGENCY RESPONSE TELEPHONE NUMBER: \_\_\_\_\_ OFFEROR'S NAME OR ERI CONTRACT NUMBER: \_\_\_\_\_

**STRAIGHT BILL OF LADING - ORIGINAL - NOT NEGOTIABLE**

Shipper's No. \_\_\_\_\_

Carrier Environmental Projects Inc

SCAC

Carrier's No. \_\_\_\_\_

Date 1/22/13

**TO:**  
 Consignee Environmental Projects Inc  
 Street 664 Washington Ave N  
 Destination Auburn ME Zip \_\_\_\_\_

**FROM:**  
 Shipper Town of Belfast  
 Street \_\_\_\_\_  
 Origin Belfast ME Zip \_\_\_\_\_

Route \_\_\_\_\_ Vehicle Number V-25 U.S. DOT Hazmat Reg. No. \_\_\_\_\_

Number and Type of Packages	HM	I.D. Number	Description of Articles	Hazard Class	Pkg. Grp.	Total Quantity (mass, volume, or activity)	Weight (subject to correction)	Class or Rate
<u>1 x TT</u>			<u>Non Regulated Material (Water with Trace oil)</u>			<u>1612</u>	<u>6</u>	

Remit COD to:  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Subject to Section 7 of conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:  
 The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

**COD AMT:** \$ \_\_\_\_\_  
**COD FEE:** Prepaid  Collect  \$ \_\_\_\_\_  
**TOTAL CHARGES:** \$ \_\_\_\_\_  
**FREIGHT CHARGES:**  Prepaid  Collect

NOTE: Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property. The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding \$ \_\_\_\_\_ Per \_\_\_\_\_

(Signature of Consignor)

RECEIVED, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications and rules that have been established by the carrier and are available to the shipper, on request; and all applicable state and federal regulations; the Property described above, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated above, which said company (the word company being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to delivery at said destination, if on its route, or otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said Property over all or any portion of said route to including the conditions on the back hereof, which are hereby agreed to by the shipper and accepted for himself and his agents.

NOTE: Liability Limitation for loss or damage in this shipment may be applicable. See 49 U.S.C. 14708(c)(1)(A) and (B).

This is to certify that the above-named materials are property classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. Per \_\_\_\_\_

PLACARDS REQUIRED

PLACARDS SUPPLIED

BY SHIPPER  BY CARRIER

DRIVER'S SIGNATURE:

SHIPPER: Stephen P Smith as agent for Belfast  
 PER: [Signature] DATE: 1/22/13

CARRIER: Stephen P Smith  
 PER: [Signature] DATE: 1/22/13

EMERGENCY RESPONSE TELEPHONE NUMBER: \_\_\_\_\_

OFFEROR'S NAME OR ERI CONTRACT NUMBER: \_\_\_\_\_