

**PHASE II ENVIRONMENTAL SITE ASSESSMENT  
OLD WALDO COUNTY JAIL  
45 CONGRESS STREET  
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)

Prepared by:

**Ransom Consulting, Inc.**  
400 Commercial Street, Suite 404  
Portland, Maine 04101  
(207) 772-2891

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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) performed by Ransom Consulting, Inc. (Ransom) for the Old Waldo County Jail property located at 45 Congress Street 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 Brownfields Site Assessment Program (Grant No. BF96151001-0).

The Site consists of the northeastern, approximate 0.35-acre portion, of the Waldo County Public Safety Complex, which is improved with the Old Waldo County Jail, former Sheriff's Office, former Sheriff's Office Barn, associated driveways/parking areas, and limited landscaping, collectively known as the "Old Waldo County Jail." The buildings have been vacant and/or have seen limited use since the new Waldo County Emergency Operations Center was constructed adjacent to the Old Waldo County Jail in 2011. The new portion of the Waldo County Public Safety Complex is not considered as part of the subject property for our environmental assessment/investigation.

Ransom completed a Phase I ESA dated November 19, 2012, and identified the following Recognized Environmental Condition (REC) in connection with the Site: known residual petroleum-impacted soil and soil vapor in the vicinity of the Sheriff's Office Barn and westerly property line, and potential petroleum-impacted groundwater at the Site, associated with a leaking 500-gallon gasoline underground storage tank (UST) that was removed from the Site in 2000.

Based on the Site use/conditions at the time of previous investigations, the residual petroleum-impacted soil in the area of the former gasoline UST adjacent to the Sheriff's Office Barn was determined not to represent an exposure risk, and the ME DEP subsequently issued a Voluntary Response Action Program (VRAP) Certificate of Completion. However, a review of the previous environmental data suggests that concentrations of gasoline constituents may potentially represent a vapor intrusion risk to the Sheriff's Office Barn or other downgradient structures, if these structures are to be redeveloped and/or occupied in the future. Furthermore, the residual petroleum contamination located beneath Sheriff's Office Barn may also represent a direct-contact exposure risk to excavation/construction workers, if this structure is to be redeveloped in the future including the installation of new subsurface utilities. Based on the findings of our Phase I ESA, it was Ransom's opinion that additional investigation was warranted to address the above-stated REC and document current Site conditions in relation to current regulatory guidelines and the proposed mixed-use commercial/residential redevelopment scenario.

The objective of the Phase II ESA was to characterize the current environmental condition of the Site in relation to current risk-based regulatory standards, identify potential exposure risks to current and future Site occupants or workers, and evaluate the suitability of the Site for the proposed redevelopment. Specifically, data was collected to further assess known residual petroleum-impacted soil reported to remain beneath the Sheriff's Office Barn and westerly property line, associated with the former 500-gallon leaded gasoline UST, removed from the Site in 2000. The Phase II investigation included the advancement of four soil borings, installation of two temporary groundwater monitoring wells, installation of three temporary soil-vapor sampling points, and the collection and chemical analysis of soil, groundwater, and soil vapor samples. A Hazardous Materials Inventory (HMI) of suspect hazardous building materials including asbestos, lead-based paint, universal wastes, and other potentially hazardous building materials was conducted concurrently with our Phase II subsurface investigation.

Findings from the Phase II investigation did not identify residual petroleum-impacted soils beneath the Sheriff's Office Barn or along the western Site boundary associated with the reported petroleum release from the former, removed 500-gallon gasoline UST that would require supplemental remediation or mitigation measures for proposed residential and/or commercial redevelopment of the Site.

Ransom did not identify a risk of exposure to residual petroleum-impacted soils reportedly remaining at the Site to current and future Site occupants or workers, since leaded gasoline constituents were not detected in soil samples collected at the Site at concentrations above their respective laboratory detection limits or ME DEP Remedial Action Guidelines (RAGs) or Petroleum Remediation Guidelines for "Residential," "Outdoor Commercial Worker," or "Excavation/Construction Worker" exposure scenarios. Additionally, low concentrations of lead detected in soils at the Site are representative of background conditions and do not present an unacceptable risk to current and/or future exposure scenarios.

Trace concentrations of volatile petroleum constituents were detected in groundwater along the western Site boundary, which are inferred to be associated with the reported petroleum release from the 500-gallon leaded gasoline UST. The concentrations did not exceed drinking water standards and are not anticipated to represent a vapor intrusion risk to the Site or surrounding properties. The low concentration of dissolved lead that was detected in groundwater at the Site is also likely representative of background conditions and does not present an unacceptable exposure risk to current and future Site occupants or workers.

Soil vapor beneath the Sheriff's Office Barn and Sheriff's Office building was determined to contain trace concentrations of volatile petroleum constituents, which are inferred to be associated with the reported petroleum release from the 500-gallon leaded gasoline UST. These concentrations did not exceed the Residential or Commercial Soil Gas Targets established by the ME DEP; therefore, the presence of these low-level volatile petroleum constituents detected in soil vapor at the Site do not present an unacceptable vapor intrusion risk to current and future Site occupants or surrounding properties.

The HMI identified asbestos-containing materials (ACM), lead-based paint (LBP), 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.

Based on the findings and information obtained during this Phase II ESA, Ransom 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.
2. Based on the results of these investigations, we recommend that the ME DEP VRAP issue a No Action Assurance letter indicating that additional environmental investigation and/or remedial activities are not warranted for the previously reported petroleum release

from the 500-gallon leaded gasoline UST relative the proposed residential and/or commercial redevelopment of the Site. However, as a condition of approval, the NAA letter should 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; and

3. Prior to renovation 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. An Assessment of Brownfields Cleanup Alternatives (ABCA) and Conceptual Remedial Action Plan (RAP) should also be developed for the Site to address alternatives for mitigating exposure risks to the hazardous building materials identified at the Site during the completion of the HMI.

## TABLE OF CONTENTS

<b>1.0</b>	<b>INTRODUCTION.....</b>	<b>1</b>
1.1	Purpose.....	1
1.2	Special Terms and Conditions .....	1
1.3	Limitations and Exceptions of Assessment .....	2
<b>2.0</b>	<b>BACKGROUND .....</b>	<b>3</b>
2.1	Site Description, History, and Physical Setting .....	3
2.2	Recognized Environmental Conditions .....	4
2.3	Areas of Concern .....	4
<b>3.0</b>	<b>INVESTIGATION METHODOLOGY .....</b>	<b>6</b>
3.1	Soil Boring Advancement.....	6
3.2	Qualitative Field Screening.....	6
3.3	Soil Sampling and Analytical Testing .....	7
3.4	Temporary Groundwater Monitoring Well Installation.....	7
3.5	Groundwater Sampling and Analytical Testing.....	7
3.6	Sub-Slab Soil Vapor Sampling .....	8
3.7	Background Samples .....	9
3.8	Hazardous Building Materials .....	9
<b>4.0</b>	<b>RESULTS .....</b>	<b>10</b>
4.1	Geology and Hydrogeology .....	11
4.2	Background Data .....	11
4.3	Source Areas—Residual Petroleum-Contaminated Soils at Site .....	12
4.3.1	Soil Sample Analytical Results.....	12
4.3.2	Groundwater Sample Analytical Results .....	13
4.3.3	Soil Vapor Sample Analytical Results.....	13
4.4	Hazardous Building Materials .....	14
<b>5.0</b>	<b>QUALITY ANALYSIS/QUALITY CONTROL.....</b>	<b>15</b>
5.1	Precision.....	15
5.2	Bias .....	16
5.3	Accuracy .....	17
5.4	Representativeness.....	17
5.5	Comparability .....	17
5.6	Completeness .....	18
<b>6.0</b>	<b>CONCLUSIONS .....</b>	<b>19</b>
<b>7.0</b>	<b>RECOMMENDATIONS.....</b>	<b>20</b>
<b>8.0</b>	<b>REFERENCES.....</b>	<b>21</b>
<b>9.0</b>	<b>SIGNATURE(S) OF ENVIRONMENTAL PROFESSIONAL(S) .....</b>	<b>22</b>

## **LIST OF TABLES**

Table 1:	Soil Sample Analytical Results
Table 2:	Groundwater Sample Analytical Results
Table 3:	Soil Vapor Sample Analytical Results
Table 4:	Duplicate Sample Analytical Results

## **LIST OF FIGURES**

Figure 1:	Site Location Map
Figure 2:	Site Plan
Figure 3:	Site Area Plan

## **LIST OF APPENDICES**

Appendix A:	Boring Logs
Appendix B:	Field Data Sheets
Appendix C:	Certified Laboratory Analytical Results
Appendix D:	Hazardous Building Materials Inventory

## 1.0 INTRODUCTION

On behalf of the City of Belfast, Ransom Consulting, Inc. (Ransom) is pleased to present this report documenting a Phase II Environmental Site Assessment (ESA) performed at the Old Waldo County Jail property located at 45 Congress Street in the City of Belfast, Waldo County, Maine (the "Site"). This 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 completed using U.S. EPA Brownfields funding under the City of Belfast's Brownfields Assessment Program (Grant No. BF96151001-0). Furthermore, this investigation was completed in accordance with Ransom's Site-Specific Quality Assurance Project Plan (SSQAPP, Addendum No. 25), dated November 1, 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 was completed by Ransom in November 2012 which identified a Recognized Environmental Condition (REC) associated with residual contamination from a leaking 500-gallon gasoline underground storage tank (UST) that was removed from the Site in 2000. Based on information provided by the City of Belfast and Waldo County government officials, the Site is anticipated to be redeveloped for residential or professional office use.

The purpose of the Phase II ESA was to characterize the current environmental condition of the Site in relation to current risk-based regulatory standards, identify potential exposure risks to current and future Site occupants or workers, and evaluate the suitability of the Site for the proposed redevelopment. Specifically, data was collected to further assess known residual petroleum-impacted soil reported to remain beneath the Sheriff's Office Barn and westerly property line, associated with the former 500-gallon leaded gasoline UST removed from the Site in 2000.

### 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 and the Waldo County Commissioner's Office.

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 and the Waldo County Commissioner's Office, 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 and the Waldo County Commissioner's Office, 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 oil or hazardous materials (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 is known as the Old Waldo County Jail and is located at 45 Congress Street in the City of Belfast, Waldo County, Maine. The Site consists of the northeastern portion of the Waldo County Public Safety Complex, which is identified by the City of Belfast Assessor's Office as a portion of Lot 36 on Tax Map 10. The Site includes three connected structures, identified herein as the Old Waldo County Jail, former Sheriff's Office, and former Sheriff's Office Barn. Refer to the appended Figures 1 and 2, Site Location Map and Site Plan, respectively, for the layout of the Site and adjoining properties.

Based on available information, the Site was developed with the original Waldo County Jail and Jailer's House in 1828. The original Waldo County Jail building was demolished and the existing Old Waldo County Jail was constructed in its place circa 1851. The original Jailer's House building was demolished circa 1887, and the currently existing Sheriff's Office and Sheriff's Office Barn were constructed adjacent to the Old Waldo County Jail building at that time.

The Old Waldo County Jail served as a jailhouse until the existing Waldo County Jail was constructed immediately to the south of the Old Waldo County Jail building in 1976. Since 1976, the Old Waldo County Jail has been used for storage of evidence and miscellaneous items by Waldo County. The Sheriff's Office was used as both the Sheriff's residence and office until the 1970s/1980s. From the 1980s until 2011, the building was used solely as office space for the Sheriff and support staff. In 2011, the sheriff's office was relocated to the new Waldo County Emergency Operations Center. The barn has reportedly been used for miscellaneous storage purposes since its construction. The new portion of the Waldo County Public Safety Complex is not considered as part of the subject property for this investigation.

In 2000, a 500-gallon UST, which had formerly contained leaded gasoline, was removed from the Site. The UST was located along the northwestern corner of the Sheriff's Office Barn and was used to fuel county fleet vehicles from circa 1964 to circa 1980. Petroleum-impacted soils were discovered during the UST removal activities which required ME DEP notification and oversight. Approximately 712 cubic yards of petroleum-impacted soil were removed and properly disposed off site. However, petroleum-impacted soils reportedly remained beneath the Sheriff's Office Barn and along the westerly property line. These soils could not be excavated due to structural concerns. The excavation was subsequently backfilled with clean fill material.

In 2010, an additional investigation was performed by S.W. Cole in response to odors emanating from a sump structure within the current Waldo County Jail Building and a stormwater drainage trench along Congress Street. The investigation included the collection of several soil vapor samples from the Site and neighboring Jail/Emergency Operations Center property, as well as collection of indoor air samples and a water sample from within the sump structure. The 2010 investigation identified the source of the odors as a leaking underground propane line associated with the current Waldo County Jail Building. The leaking propane line was subsequently repaired and the odor issue in the sump structure and drainage ditch has ceased.

The 2010 investigation also identified residual petroleum contaminants in soil vapor at the Site and neighboring Jail/Emergency Operations Center property which were thought to be related to the former 500-gallon leaded gasoline tank. Based on the contaminant concentrations observed, S.W. Cole recommended that a sub-slab vapor mitigation system be incorporated into the construction of the Emergency Operations Center building, which was constructed in 2011.

Based on the Site use/conditions at the time of previous investigations, the residual petroleum-impacted soil in the area of the former gasoline UST adjacent to the Sheriff's Office Barn was determined not to represent an exposure risk, and the ME DEP subsequently issued a VRAP Certificate of Completion. However, a review of the previous environmental data suggested that concentrations of gasoline constituents could potentially represent a vapor intrusion risk to the Sheriff's Office Barn or other downgradient structures if these structures were to be redeveloped and/or occupied in the future. Furthermore, the residual petroleum contamination reported to remain beneath the Sheriff's Office Barn represented a direct-contact exposure risk to excavation/construction workers if this structure was to be redeveloped with subsurface utilities.

## 2.2 Recognized Environmental Conditions

A Phase I ESA was completed by Ransom on November 19, 2012. Both the ME DEP and U.S. EPA have reviewed and approved the Phase I ESA and agreed that the recognized environmental conditions listed in the report were appropriate and inclusive based on the data presented. Based on the information obtained during the Phase I ESA, Ransom identified the following REC associated with the Site: known residual petroleum-impacted soil and soil vapor in the vicinity of the Sheriff's Office Barn and westerly property line, and potential petroleum-impacted groundwater at the Site associated with a leaking 500-gallon gasoline UST that was removed from the Site in 2000.

Considering the proposed redevelopment of the Site, Ransom recommended that a Phase II environmental investigation be performed to address the identified REC. In addition to those items and findings discussed above, certain potentially hazardous building materials were identified in connection with the Site buildings that will require abatement or disposal as a special waste if they are disturbed during building renovations. These materials include suspect asbestos-containing materials, lead-based paint, polychlorinated biphenyls (PCBs), and/or mercury-containing fluorescent lamps. Ransom recommended that a Hazardous Materials Inventory (HMI) also be conducted in conjunction with the Phase II ESA.

## 2.3 Areas of Concern

Based on the findings of the Phase I ESA and the identified REC, the source areas and contaminants of concern are limited to residual petroleum-impacted soil that was reported to remain beneath the Sheriff's Office Barn and westerly property line associated with the former, removed 500-gallon leaded gasoline UST. From these two source areas, petroleum contaminants may have migrated in groundwater or soil vapor to other areas of the Site. In addition to gasoline-range petroleum compounds, lead and the following lead-scavenger compounds (chlorobenzene, 1,2-dichloroethane, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 1,2-dichlorobenzene, and 1,2-dibromoethane [EDB]) were also considered contaminants of concern (COCs) associated with the leaded gasoline release from the former 500-gallon UST that was removed from the Site.

Based on the location of the former UST and subsequent excavation activities, the highest concentration of COCs was expected to be present in soils located beneath the Sheriff's Office Barn. Volatile contaminants associated with gasoline have the potential to represent an inhalation exposure risk through vapor intrusion into the current or future Site structures. In the event that this building is redeveloped for residential or commercial use, as proposed, contaminated soils may be encountered during installation of subsurface utilities such as sewer and water lines.

Hazardous building materials, such as asbestos, lead paint, and Universal Wastes also represent potential health risks to future site occupants if the buildings are to be redeveloped for residential purposes. In order to address these concerns, an 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 characterize the current environmental condition of the Site in relation to current risk-based regulatory standards, identify potential exposure risks to current and future Site occupants or workers, and evaluate the suitability of the Site for the proposed redevelopment. Specifically, sufficient data was collected to further assess known residual petroleum-impacted soil reported to remain beneath the Sheriff's Office Barn and westerly property line associated with the former 500-gallon leaded gasoline UST removed from the Site in 2000. Field activities were conducted by Ransom in conjunction with the ME DEP on November 5 and 8, 2012, and are summarized in the following sections.

The Phase II ESA investigation included the advancement of four soil borings, installation of two temporary groundwater monitoring wells, installation of three temporary soil-vapor sampling points; the collection and chemical analysis of soil, groundwater, and soil vapor samples; and the performance of a hazardous building materials survey. On-site sample locations are shown on Figure 2. Background soil sample locations are shown on Figure 3.

#### 3.1 Soil Boring Advancement

On November 8, 2012, Ransom observed the advancement of three soil borings, identified as MW101, B102/MW102, and B103, at exterior portions of the Site. Soil borings were advanced by Environmental Projects Inc. (EPI) of Auburn, using direct-push (i.e., Geoprobe) drilling techniques. At each soil boring location, 4-foot macrocore soil samples were collected continuously from surface grade until refusal conditions were encountered. Refusal conditions were encountered at depths ranging from 10.5 to 12 feet bgs (refer to boring logs in Appendix A).

One soil boring (B101) was advanced by EPI beneath the concrete slab floor inside the Sheriff's Office Barn using manual Geoprobe methods, which consisted of advancing a 4-foot Geoprobe macrocore soil sampling tube with a weighted slam-bar. Prior to advancement of boring B101, the building's concrete slab was cored. The concrete slab was observed to be approximately 3 inches thick. The first attempt to advance boring B101 resulted in apparent cobble refusal at an approximate depth of 8 inches bgs; therefore, the boring location was moved approximately 2 feet west for the second attempt and the concrete floor was cored again. Presumed cobble refusal was encountered approximately 4 feet bgs during the second advancement of B101.

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.

#### 3.2 Qualitative Field Screening

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

Samples were collected for laboratory analysis based on observations in the field (field screening results) and/or anticipated exposure scenarios. Sample intervals, sample recovery, and organic vapor concentrations (as determined by field screening) are included on the soil boring logs provided as Appendix A.

### 3.3 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. The soil samples were analyzed for the following leaded gasoline constituents based on the conceptual site model described in the SSQAPP:

1. Volatile petroleum hydrocarbons (VPH STANDARD), including the target petroleum VOCs, by Massachusetts Department of Environmental Protection (MA DEP) Method 98-1;
2. Lead-scavenger VOCs (chlorobenzene, 1,2-dichloroethane, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 1,2-dichlorobenzene, and EDB) by U.S. EPA Method 8260B; and
3. Lead by U.S. EPA Method Series 6000/7000.

Additionally, a duplicate soil sample (B DUP) was collected from soil boring B101 and submitted for laboratory analysis for quality assurance/quality control (QA/QC) protocols as outlined in the SSQAPP.

### 3.4 Temporary Groundwater Monitoring Well Installation

On November 8, 2012, a temporary groundwater monitoring well (MW101) was installed adjacent to the Sheriff's Office Barn. Soil boring B102 was also converted into temporary monitoring well MW102. Soil boring B103 was not converted into a monitoring well due to lack of groundwater observed in this location. Monitoring wells MW101 and MW102 were constructed using 1-inch-diameter Schedule 40 PVC well casing and factory-slotted screen. Both monitoring wells were screened from 7 to 12 feet bgs at the bottom of each boring on presumed bedrock. 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.

### 3.5 Groundwater Sampling and Analytical Testing

Groundwater was not observed to accumulate in temporary monitoring well MW101; therefore, a groundwater sample was not collected from this monitoring well.

Due to the lack of moisture observed in the soil samples collected from boring B102, groundwater was not anticipated to accumulate in its monitoring well (MW102); however, a minimal amount of water (approximately 1.5 feet) was observed to accumulate in the bottom of MW102 after its installation. Due to adverse weather conditions, including heavy snow and rainfall during the Phase II field investigation, snow melt and/or surface water run-off may have seeped around the bentonite seal placed around the boring/monitoring well's annulus at the ground surface and into the monitoring well screen. Based on the potential for sampling surface water runoff instead of groundwater from monitoring well MW102, Ransom consulted with ME DEP in order to determine whether a sample should be collected from this monitoring well.

Based on our discussions, ME DEP requested that a sample be collected from monitoring well MW102. Prior to sample collection, the monitoring well was purged dry two times in an attempt to yield

representative groundwater from the well. During the course of well development, no evidence of light non-aqueous-phase liquid (LNAPL) was observed. When purging was complete, the monitoring well was sampled using a peristaltic pump in accordance with ME DEP-established low-flow sampling methods for site investigation.

The groundwater sample was collected directly from the sampling equipment and transferred into laboratory-prepared glassware or plastic containers. The groundwater sample was submitted to Analytics and analyzed for the following leaded gasoline constituents based on the conceptual site model described in the SSQAPP:

1. VPH, including the target petroleum VOCs, by MA DEP Method 98-1;
2. Lead-scavenger VOCs (chlorobenzene, 1,2-dichloroethane, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 1,2-dichlorobenzene, and EDB) by U.S. EPA Method 8260B; and
3. Lead by U.S. EPA Method Series 6000/7000.

Additionally, a duplicate groundwater sample (MW DUP) was collected from monitoring well MW102 and submitted for laboratory analysis for quality assurance/quality control (QA/QC) protocols as outlined in the SSQAPP.

### 3.6 Sub-Slab Soil Vapor Sampling

On November 5, 2012, in conjunction with the ME DEP, Ransom collected three soil vapor samples (SV101, SV102, and SV103) from beneath the concrete slab foundations of the Sheriff's Office Barn, the Sheriff's Office, and the Old Jail, respectively. The soil vapor samples were advanced by drilling a hole through the concrete slab floors and inserting disposable Teflon tubing into the soil to an approximate depth of 6 inches beneath the floor of the buildings. A bentonite seal was placed around the sampling tubing at the floor surface in order to prevent the influx of ambient air during sample collection. It should be noted that a void space, or cavity, was observed in two locations beneath the concrete floor of the Old Jail building. Soil vapor sample SV103 was collected from the void space.

Prior to sampling, the disposable Teflon tubing was purged for several minutes using a PID and multi-gas meter. Total VOCs, oxygen, and carbon dioxide concentrations were recorded prior to sample collection. After purging, a soil vapor sample was collected in accordance with ME DEP standard operating procedures, using laboratory-prepared Summa passivated stainless steel canisters and flow control valves. Soil-gas sampling field data sheets, providing additional information regarding the soil vapor samples, are included in Appendix B. The samples were submitted to Alpha Analytical Inc. (Alpha) of Mansfield, Massachusetts, and analyzed for the following leaded gasoline constituents based on the conceptual site model described in the SSQAPP:

1. Air petroleum hydrocarbons (APH) by the MA DEP Method; and
2. Lead-scavenger VOCs (chlorobenzene, 1,2-dichloroethane, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 1,2-dichlorobenzene, and EDB) by U.S. EPA Method TO-15 (SIM).

Additionally, a duplicate soil vapor sample (SV DUP) was collected from soil vapor sample SV101 and submitted for laboratory analysis for quality assurance/quality control (QA/QC) protocols as outlined in the SSQAPP.

### 3.7 Background Samples

In order to compare site-specific results for lead with background environmental conditions in the vicinity of the Site, two surficial soil samples (0 to 2 feet bgs) were collected along the crushed gravel driveway to the north of the current Waldo County Jail Building, which was presumed to be unaffected by the leaded gasoline release from the former 500-gallon leaded gasoline UST at the Site. These background soil samples (designated as BK-1 and BK-2) were collected with hand tools (i.e., hand augers, trowels, shovels, and/or pick axes) concurrent with the site-specific investigation on November 8, 2012. The background soil sample locations are shown on Figure 3 (Site Area Plan).

The background soil samples were visually classified in the field by Ransom in general accordance with the Burmeister Soil Classification System. 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 of lead (metal).

### 3.8 Hazardous Building Materials

As previously discussed, it is possible that ACBM, LBP, PCB-containing light ballasts, and mercury-containing fluorescent lamps are present in the Site buildings. Universal Waste, such as mercury-containing switches and fluorescent light bulbs, as well as potential PCB-containing light ballasts, were also observed in the buildings. In an effort to evaluate the potential for these hazardous building materials with respect to the identified COCs, Ransom conducted an HMI concurrent with our Phase II ESA investigation. Results of the HMI are summarized in Section 4.0 and are detailed in the full HMI report provided in Appendix D.

## 4.0 RESULTS

The following subsections document the results of the Phase II ESA activities. Soil sample analytical results are summarized in Table 1. Groundwater sample analytical results are summarized in Table 2. Soil vapor sample analytical results are summarized in Table 3. Copies of the laboratory chemical analysis data reports are provided as Appendix C.

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*;
4. *ME DEP Bureau of Remediation Vapor Intrusion Evaluation Guidance*; and
5. *U.S. EPA Region 9 Regional Screening Levels (RSLs) for Soil*.

### Soil

The analytical results of soil samples collected at the Site were compared to the ME DEP Bureau of Remediation and Waste Management (BRWM) *Remedial Action Guidelines (RAGs) for Soil Contaminated with Hazardous Substances*, dated January 6, 2010; and ME DEP's *Remediation Guidelines for Petroleum Contaminated Sites in Maine*, dated November 20, 2009. For comparison purposes, the *DRAFT RAGs for Sites Contaminated with Hazardous Substances*, dated January 11, 2012, have also been included in Table 2. Since the Site is proposed to be redeveloped for residential and/or commercial reuse, the Residential and Outdoor Commercial Worker exposure scenarios appear to be the most applicable guidance standards. In addition, potential exposure risks to Site workers during building renovation and/or future utility work (i.e., subsurface water and sewer lines) exist 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/construction workers during building demolition and/or future utility work at the Site.

In cases where ME DEP RAGs have not been promulgated, Ransom compared contaminant concentrations to their respective U.S. EPA Region 9 RSLs, dated May 2012. However, the U.S. EPA Region 9 RSLs do not necessarily represent values requiring remedial action within the State of Maine.

### Groundwater

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 building renovation and/or future utility work at the Site.

## Soil Vapor

The soil vapor samples collected at the Site were compared to guidelines contained in the ME DEP document titled *Vapor Intrusion Evaluation Guidance*, dated January 14, 2010 (“Vapor Intrusion Guidance”), and *DRAFT RAGs for Sites Contaminated with Hazardous Substances*, dated January 11, 2012 (the “Draft RAGs”). ME DEP provides concentrations of various soil gas target volatile contaminants which, if exceeded in soil vapor samples, suggest that indoor air impacts are possible and describes additional procedures to evaluate potential vapor intrusion and risks to current and/or future building occupants at the Site and vicinity.

Since the Site is proposed to be redeveloped for residential and/or commercial reuse, Ransom calculated applicable Soil Gas Target concentrations for residential and commercial use by multiplying (10x to 50x) the applicable Indoor Air Targets by their respective attenuation factors outlined in the Draft RAGs and the Vapor Intrusion Guidance. The calculated soil gas targets are shown on Table 3.

### 4.1 Geology and Hydrogeology

In general, soils encountered during the Phase II Investigation were relatively consistent throughout the Site with the exception of soils located within the reported petroleum-impacted soil excavation boundaries associated with the former, removed 500-gallon leaded gasoline UST. Shallow soils at the Site contained fill, which consisted of brown, fine sandy loam with cobbles to depths ranging from 0 to 4 feet bgs. Shallow fill soils at the Site appear to be underlain by naturally deposited glacial till consisting of brown to gray, silt and sand with varying amounts of gravel and clay. Subsurface soils at the location of the reported petroleum-impacted soil excavation consisted of sand and gravelly fill, with varying amounts of silt and bricks, to depths ranging from 0 to 5 feet bgs. Probe refusal (presumed bedrock) was encountered at depths ranging from 10.5 to 12 feet bgs, with the exception of the sub-slab boring advanced beneath the Sheriff’s Office Barn (B101), which encountered refusal (presumed cobbles) at depths of 0.8 to 4 feet bgs. Groundwater was encountered at an approximate depth of 11.2 feet bgs at the Site.

Organic vapors were not detected in any of the soil samples collected from surficial soil sample locations or soil borings at concentrations greater than 1 part per million by volume (ppmv), the practical detection limit of the PID. Additionally, 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 temporary groundwater monitoring wells.

### 4.2 Background Data

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

## Lead

As shown in Table 1, laboratory chemical analysis of the surficial (0 to 2 feet bgs) background soil samples (BK-1 and BK-2) indicate that background concentrations of lead in soils at the Site does not exceed its corresponding ME DEP RAGs for Residential, Outdoor Commercial Worker, or Excavation/Construction Worker exposure scenarios. Lead was detected at concentrations of 112 and 67 milligrams per kilogram (mg/kg) in the background soil samples collected from BK-1 and BK-2,

respectively. For the purposes of this Phase II Investigation, lead concentrations in soil samples collected at the Site are considered elevated if they exceed a site-specific background concentration of approximately 112 mg/kg, which did not occur during this Phase II investigation.

#### 4.3 Source Areas—Residual Petroleum-Contaminated Soils at Site

##### 4.3.1 Soil Sample Analytical Results

###### Petroleum-Related Volatile Organic Compounds

As shown in Table 1, petroleum-related VOCs were not detected in the surficial soil sample collected from B102 or the subsurface soil samples collected from B101 or B103 at concentrations above the respective laboratory detection limits, ME DEP's RAGs, and Remediation Guidelines for Residential, Outdoor Commercial Worker, or Excavation/Construction Worker exposure scenarios.

###### Lead-Scavenger Volatile Organic Compounds

As shown in Table 1, lead-scavenger VOCs were not detected in the surficial soil sample collected from B102 or the subsurface soil samples collected from B101 or B103 at concentrations above the respective laboratory detection limits, ME DEP's RAGs, and Remediation Guidelines for Residential, Outdoor Commercial Worker, or Excavation/Construction Worker exposure scenarios.

###### Volatile Petroleum Hydrocarbons

As shown in Table 1, volatile petroleum hydrocarbon (VPH) fractions were not detected in the surficial soil sample collected from B102 or the subsurface soil samples collected from B101 or B103 at concentrations above the respective laboratory detection limits, ME DEP's RAGs, and Remediation Guidelines for Residential, Outdoor Commercial Worker, or Excavation/Construction Worker exposure scenarios.

###### Lead

As shown in Table 1, lead was detected in the surficial soil sample collected from B102 and the subsurface soil samples collected from B101 or B103 at concentrations ranging from 5.7 to 104 mg/kg, which did not exceed its highest background concentration (112 mg/kg) or its respective ME DEP's RAGs, and Remediation Guidelines for Residential, Outdoor Commercial Worker, or Excavation/Construction Worker exposure scenarios.

###### Discussion of Soil Analytical Results

Based on these results, COCs associated with residual petroleum-impacted soil reported to remain at the Site associated with the former, removed 500-gallon leaded gasoline UST were not detected in soil samples collected and analyzed during this investigation. Lead concentrations detected in the soil samples were within site-specific background concentrations and do not present an unacceptable risk to current and/or future exposure scenarios.

#### 4.3.2 Groundwater Sample Analytical Results

##### Petroleum-Related Volatile Organic Compounds

As shown in Table 2, petroleum-related VOCs were not detected in the groundwater sample collected from MW102 at concentrations above the respective laboratory detection limits, ME DEP's Remediation Guidelines, MEGs, or MCLs for drinking water exposure risks.

##### Lead-Scavenger Volatile Organic Compounds

As shown in Table 2, lead-scavenger VOCs were not detected in the groundwater sample collected from MW102 at concentrations above the respective laboratory detection limits, ME DEP's Remediation Guidelines, MEGs, or MCLs for drinking water exposure risks.

##### Volatile Petroleum Hydrocarbons

As shown in Table 2, 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 MW102 at concentrations of 25 and 18 micrograms per liter (µg/l), respectively, while C<sub>5</sub>-C<sub>8</sub> aliphatics were not detected in the groundwater sample collected from MW102 at a concentration above its respective laboratory detection limits. The concentrations of C<sub>9</sub>-C<sub>12</sub> aliphatics and C<sub>9</sub>-C<sub>10</sub> aromatics detected are well below the ME DEP *Remediation Guidelines for Petroleum Contaminated Sites in Maine* (Tier 1 Guidelines) and MECDC MEGs. Guideline concentrations for these VPH compounds are 700 and 200 µg/l, respectively.

##### Lead

As shown in Table 2, lead was detected in the groundwater sample collected from MW102 at a concentration of 8 µg/l, which did not exceed its ME DEP's Remediation Guideline, MEG, or MCL for drinking water exposure risks.

##### Discussion of Groundwater Analytical Results

Based on these results, COCs associated with residual petroleum-impacted soil reported to remain at the Site associated with the former, removed 500-gallon leaded gasoline UST were not detected in the groundwater sample collected and analyzed during this investigation at concentrations that would present an unacceptable risk to current and/or future exposure scenarios.

#### 4.3.3 Soil Vapor Sample Analytical Results

##### Petroleum-Related Volatile Organic Compounds

As shown in Table 3, petroleum-related VOCs were not detected in the soil vapor samples collected from SV102 (beneath Sheriff's Office) or SV103 (beneath Old County Jail) at concentrations above their respective laboratory detection limits; however, two petroleum-related VOCs (naphthalene and toluene) were detected in the soil vapor sample collected from SV101 (beneath the former Sheriff's Office Barn) at concentrations of 2.4 and 4.2 micrograms per cubic meter (µg/m<sup>3</sup>), respectively. The concentrations of these petroleum-related VOCs did not exceed their respective Residential or Commercial Soil Gas Targets. No other petroleum-related VOCs

were detected in the soil vapor sample collected from SV101 at concentrations above their respective laboratory detection limits.

#### Lead-Scavenger Volatile Organic Compounds

As shown in Table 3, lead-scavenger VOCs were not detected in the soil vapor samples collected from SV101 (beneath the former Sheriff's Office Barn), SV102 (beneath Sheriff's Office), or SV103 (beneath Old County Jail) at concentrations above their respective laboratory detection limits.

#### Volatile Petroleum Hydrocarbons

As shown in Table 3, VPH fractions were not detected in the soil vapor sample collected from SV103 (beneath Old County Jail) at concentrations above their respective laboratory detection limits. All three VPH fractions (C<sub>5</sub>-C<sub>8</sub> aliphatics, C<sub>9</sub>-C<sub>12</sub> aliphatics, and C<sub>9</sub>-C<sub>10</sub> aromatics) were detected in the soil vapor sample collected from SV101 (beneath the former Sheriff's Office Barn) at concentrations ranging from 43 to 240 µg/m<sup>3</sup>, which did not exceed their respective Residential or Commercial Soil Gas Targets.

#### Discussion of Soil Vapor Analytical Results

Based on these results, the concentrations of volatile petroleum constituents detected in the soil vapor samples do not exceed their applicable soil-gas target guidelines for residential or commercial use; therefore, the presence of these low-level volatile petroleum constituents detected in soil vapor at the Site do not present an unacceptable risk to current and/or future exposure scenarios.

#### 4.4 Hazardous Building Materials

Ransom conducted an HMI concurrent with our Phase II ESA investigation which included interior and exterior inspections of the Site buildings. The HMI identified asbestos-containing materials (ACM), lead-based paint (LBP), 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. Results of the HMI are detailed in the full HMI report, provided as Appendix D.

## 5.0 QUALITY ANALYSIS/QUALITY CONTROL

The contracted laboratory, Analytics, provided Level II analytical data, according to U.S. EPA protocols and U.S. EPA 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 4.

### 5.1 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, and soil vapor 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:

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

One duplicate soil, groundwater, and soil vapor sample were collected for laboratory analysis. The duplicate soil sample (S DUP) was collected from subsurface soil sample B101 (3.5 to 4 feet) and was submitted for laboratory analysis of VPH including target petroleum-related VOCs, lead (metal), and lead-scavenger VOCs. The duplicate groundwater sample (MW DUP) was collected from temporary monitoring well MW102 and was submitted for laboratory analysis of VPH including target petroleum-related VOCs, lead (metal), and lead-scavenger VOCs. The duplicate soil vapor sample (SV DUP) was collected from temporary soil vapor point SV101 and was submitted for laboratory analysis of APH compounds and lead-scavenger VOCs. A summary of duplicate sample analytical results and calculated RPDs is presented in the attached Table 4.

### Soil Sample (B101)

Petroleum-related VOCs, VPH fractions, and lead-scavenger VOCs were not detected in the B101 soil sample or its duplicate soil sample (B DUP) above their respective laboratory reporting limits; therefore, no RPD was applicable.

Lead was detected in the B101 soil sample and its duplicate soil sample (B DUP) at concentrations greater than five times the PQL for the compounds. The RPD for lead was above the 35 percent guideline; therefore, the precision of this sample result falls outside the guidance range.

### Groundwater Sample (MW102)

Petroleum-related VOCs, two VPH fractions (C<sub>5</sub>–C<sub>8</sub> aliphatics and C<sub>9</sub>–C<sub>12</sub> aliphatics), and lead-scavenger VOCs were not detected in the MW102 groundwater sample and/or its duplicate groundwater sample (MW DUP) above their respective laboratory reporting limits; therefore, no RPD was applicable.

Only one VPH fraction (C<sub>9</sub>–C<sub>10</sub> aromatics) was detected in the MW102 groundwater sample and its duplicate groundwater sample (MW DUP) at a concentration greater than five times the PQL. The RPD for this VPH fraction was above the 35 percent guideline; therefore, the precision of this sample result falls outside the guidance range.

### Soil Vapor Sample (SV101)

Petroleum-related VOCs and lead-scavenger VOCs were not detected in the SV101 soil vapor sample and/or its duplicate soil vapor sample (SV DUP) above the respective laboratory reporting limits; therefore, no RPD was applicable.

All three VPH fractions (C<sub>5</sub>–C<sub>8</sub> aliphatics, C<sub>9</sub>–C<sub>12</sub> aliphatics, and C<sub>9</sub> to C<sub>10</sub> aromatics) were detected in the SV101 soil vapor sample and its duplicate soil vapor sample (SV DUP) at a concentration greater than five times its PQL. The RPDs for these VPH fractions were below the 35 percent guideline; therefore, the precision of these sample results are acceptable.

## 5.2 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 indicating whether Laboratory Control Samples/Laboratory Control Sample Duplicates (LCS/LCSD) and/or MS/MSD had low, failing, or high recoveries and whether 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 soil vapor samples collected and analyzed for VOCs.

#### Volatile Petroleum Hydrocarbons

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

#### Lead

There were no bias issues identified by the laboratory in the soil or groundwater samples collected and analyzed for lead (metal).

### 5.3 Accuracy

Accuracy is a statistical measurement of correctness and includes components of random error (variability due to imprecision) and systemic error. It therefore 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 VOCs, 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 whether 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.

### 5.4 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.

### 5.5 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.

## 5.6 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.

## 6.0 CONCLUSIONS

Findings from the Phase II investigation did not identify residual petroleum-impacted soils beneath the Sheriff's Office Barn or along the western Site boundary associated with releases from the former 500-gallon gasoline UST that would require supplemental remediation or mitigation measures for proposed residential and/or commercial redevelopment of the Site.

Ransom did not identify a risk of exposure to residual petroleum-impacted soils reportedly remaining at the Site to current and future Site occupants or workers since leaded gasoline constituents were not detected in soil samples collected at the Site at concentrations above their respective laboratory detection limits or ME DEP RAGs and Remediation Guidelines for Residential, Outdoor Commercial Worker, or Excavation/Construction Worker exposure scenarios. Additionally, low concentrations of lead detected in soils at the Site are representative of background conditions and do not present an unacceptable risk to current and/or future exposure scenarios.

Trace concentrations of volatile petroleum constituents were detected in groundwater along the western Site boundary, which are inferred to be associated with the reported petroleum release from the 500-gallon leaded gasoline UST. The concentrations did not exceed drinking water standards and are not anticipated to represent a vapor intrusion risk to the Site or surrounding properties. The low concentration of dissolved lead that was detected in groundwater at the Site is also likely representative of background conditions and does not present an unacceptable exposure risk to current and future Site occupants or workers.

Soil vapor beneath the Sheriff's Office Barn and Sheriff's Office building was determined to contain trace concentrations of volatile petroleum constituents, which are inferred to be associated with the reported petroleum release from the 500-gallon leaded gasoline UST. These concentrations did not exceed their residential or commercial Soil Gas Targets established by the ME DEP; therefore, the presence of these low-level volatile petroleum constituents detected in soil vapor at the Site do not present an unacceptable vapor intrusion risk to current and future Site occupants or surrounding properties.

Ransom also conducted an HMI concurrent with our Phase II ESA investigation which identified asbestos-containing materials (ACM), lead-based paint (LBP), 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. Results and findings of the HMI are detailed in the full HMI report, provided as Appendix D.

## 7.0 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.
2. Based on the results of these investigations, we recommend that the ME DEP VRAP issue a No Action Assurance letter, indicating that additional environmental investigation and/or remedial activities are not warranted for the previously reported petroleum release from the 500-gallon leaded gasoline UST relative the proposed residential and/or commercial redevelopment of the Site. However, as a condition of approval, the NAA letter should 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; and
3. Prior to renovation of the Site Buildings, identified hazardous building materials should be properly removed and/or addressed according to the recommendations provided in our HMI report (Appendix D) which was prepared concurrently with this Phase II ESA. An Assessment of Brownfields Cleanup Alternatives (ABCA) and Conceptual Remedial Action Plan (RAP) should also be developed for the Site to address alternatives for mitigating exposure risks to the hazardous building materials identified at the Site during the completion of the HMI.

## 8.0 REFERENCES

1. ME DEP, Bureau of Remediation; January 13, 2010, *Vapor Intrusion Evaluation Guidance*.
2. ME DEP, December 1, 2009, *Remediation Guidelines for Petroleum Contaminated Sites in Maine*.
3. ME DEP, January 6, 2010, *Maine Remedial Action Guidelines (RAGs) for Soil Contaminated with Hazardous Substances*.
4. ME DEP, January 11, 2012, *Draft Maine RAGs for Soil Contaminated with Hazardous Substances*.
5. Maine Center for Disease Control (MCDC), September 30, 2011, *Maximum Exposure Guidelines (MEGs) for Drinking Water*.
6. U.S. EPA Region 9, May 2012, *Regional Screening Levels (RSLs)*.
7. Ransom Consulting Inc., November 19, 2012, "Phase I Environmental Site Assessment, Old Waldo County Jail, 45 Congress Street, Belfast, Maine."
8. Ransom Consulting Inc., November 1, 2012, "Site-Specific Quality Assurance Project Plan Addendum No. 25, Phase II Investigation, Old Waldo County Jail, 45 Congress Street, Belfast, Maine."
9. Ransom Environmental Consultants Inc., August 27, 2008, "State of Maine Brownfields Assessment Projects Generic Quality Assurance Project Plan (QAPP) RFA #08243."

**9.0 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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Eriksen P. Phenix, C.G.  
Project Geologist

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

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Nicholas O. Sabatine, P.G.  
Vice President/Senior Geologist/Belfast Brownfields QA Officer

**Table 1: Soil Sample Laboratory Analytical Results**  
**Phase II Environmental Site Assessment**  
**Old Waldo County Jail**  
**45 Congress Street**  
**Belfast, Maine**

Sample Location	B101	B102	B103	BK-1	BK-2	MEDEP Remedial Action Guidelines (RAGs) for Soil Contaminated with Hazardous Substances (Jan. 6, 2010)				Draft MEDEP Remedial Action Guidelines for Sites Contaminated with Hazardous Substances (Jan 11, 2012)						MEDEP Remediation Guidelines for Petroleum Contaminated Sites in Maine (Dec. 1, 2009)			
	Sample Identification	B101-S2	B102-S1	B103-S6	BK-1	BK-2	Residential	Park User	Outdoor Commercial Worker	Excavation/Construction Worker	Residential	Park User	Outdoor Commercial Worker	Excavation/Construction Worker	Background Rural	Background Urban	Tier 2 Residential	Tier 2 Park User	Tier 2 Outdoor Commercial Worker
Sample Depth (ft bgs)	3.5-4.0	0-2.0	10-12	0-2.0	0-2.0														
Date Collected	11/8/2012	11/8/2012	11/8/2012	11/8/2012	11/8/2012														
<b>Volatile Organic Compounds</b>	<b>miligrams per kilogram (mg/kg)</b>																		
Benzene	BRL(0.155)	BRL(0.152)	BRL(0.111)	NA	NA	17	28	86	30	85	140	850	150	NE	NE	17	28	86	30
Chlorobenzene	BRL(0.150)	BRL(0.130)	BRL(0.108)	NA	NA	680	1,100	6,800	10,000	3,400	5,700	10,000	10,000	NE	NE	NE	NE	NE	NE
1,2-Dibromoethane (EDB)	BRL(0.112)	BRL(0.097)	BRL(0.081)	NA	NA	0.69	1.2	2.2	11	7.1	12	24	160	NE	NE	NE	NE	NE	NE
1,2-Dichlorobenzene	BRL(0.150)	BRL(0.130)	BRL(0.108)	NA	NA	1,000	1,700	9,700	10,000	5,100	8,500	10,000	10,000	NE	NE	NE	NE	NE	NE
1,3-Dichlorobenzene	BRL(0.150)	BRL(0.130)	BRL(0.108)	NA	NA	68	110	680	1,200	34	57	340	6,200	NE	NE	NE	NE	NE	NE
1,4-Dichlorobenzene	BRL(0.150)	BRL(0.130)	BRL(0.108)	NA	NA	220	360	530	950	2600	4300	8500	10000	NE	NE	NE	NE	NE	NE
1,2-Dichloroethane	BRL(0.112)	BRL(0.097)	BRL(0.081)	NA	NA	15	25	47	200	160	260	520	3700	NE	NE	NE	NE	NE	NE
Ethylbenzene	BRL(0.155)	BRL(0.152)	BRL(0.111)	NA	NA	130	210	420	2,700	1,300	2,200	4,300	10,000	NE	NE	130	210	420	2,700
Methyl-tert-butyl ether (MTBE)	BRL(0.077)	BRL(0.076)	BRL(0.56)	NA	NA	780	1,300	2,600	10,000	5,100	8,500	10,000	10,000	NE	NE	780	1,300	2,600	10,000
Naphthalene	BRL(0.155)	BRL(0.152)	BRL(0.111)	NA	NA	200	330	200	32	2500	4200	10,000	10,000	NE	NE	200	330	200	32
Toluene	BRL(0.155)	BRL(0.152)	BRL(0.111)	NA	NA	2,700	4,500	10,000	10,000	10,000	10,000	10,000	10,000	NE	NE	2,700	4,500	10,000	10,000
o-Xylene	BRL(0.155)	BRL(0.152)	BRL(0.111)	NA	NA	6,600 <sup>(5)</sup>	10,000 <sup>(5)</sup>	10,000 <sup>(5)</sup>	7,000 <sup>(5)</sup>	10,000	10,000	10,000	10,000	NE	NE	6,600 <sup>(5)</sup>	10,000 <sup>(5)</sup>	10,000 <sup>(5)</sup>	7,000 <sup>(5)</sup>
m,p-Xylene	BRL(0.309)	BRL(0.303)	BRL(0.223)	NA	NA	6,600 <sup>(5)</sup>	10,000 <sup>(5)</sup>	10,000 <sup>(5)</sup>	7,000 <sup>(5)</sup>	10,000	10,000	10,000	10,000	NE	NE	6,600 <sup>(5)</sup>	10,000 <sup>(5)</sup>	10,000 <sup>(5)</sup>	7,000 <sup>(5)</sup>
<b>Volatile Petroleum Hydrocarbon (VPH) Fractions</b>	<b>miligrams per kilogram (mg/kg)</b>																		
C5-C8 Aliphatics	BRL(3.860)	BRL(3.790)	BRL(2.780)	NA	NA	NE	NE	NE	NE	1400	2300	10000	10000	NE	NE	1,400	2,300	10,000	10,000
C9-C12 Aliphatics	BRL(3.860)	BRL(3.790)	BRL(2.780)	NA	NA	NE	NE	NE	NE	2600	4400	10000	9800	NE	NE	2,600	4,400	10,000	9,800
C9-C10 Aromatics	BRL(0.773)	BRL(0.758)	BRL(0.557)	NA	NA	NE	NE	NE	NE	740	1200	5100	5500	NE	NE	740	1,200	5,100	5,500
<b>Metals</b>	<b>miligrams per kilogram (mg/kg)</b>																		
Lead	104	44	5.7	112	67	170	280	560	950	340	530	1100	950	NE	NE	170	280	560	950

**Notes:**

MEDEP = Maine Department of Environmental Protection

mg/kg = milligrams per kilogram

BRL = Below laboratory reporting limit shown in parenthesis

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 the proposed reuse/exposure scenarios of Outdoor Commercial Worker and/or Excavation/Construction Worker

**Table 2: Groundwater Sample Analytical Results  
Phase II Environmental Site Assessment  
Old Waldo County Jail  
45 Congress Street**

**Belfast, Maine**

Sample I.D.	MW102	MECDC Maximum Exposure Guidelines (MEGs)	USEPA Maximum Contaminant Level (MCLs)	MEDEP Remediation Guidelines for Petroleum Contaminated Sites in Maine (Tier 1 Guidelines)
Date Collected	11/8/2012			
<b>Volatile Organic Compounds</b>	<b>ug/l</b>			
Benzene	BRL(1)	4	5	4
Chlorobenzene	BRL(1)	100	100	NE
1,2-Dibromoethane (EDB)	BRL(1)	0.2	0.05	NE
1,2-Dichlorobenzene	BRL(1)	200	600	NE
1,3-Dichlorobenzene	BRL(1)	1	NE	NE
1,4-Dichlorobenzene	BRL(1)	70	75	NE
1,2-Dichloroethane	BRL(1)	4	5	NE
Ethylbenzene	BRL(1)	30	700	30
Methyl-tert-butyl ether (MTBE)	BRL(1)	35	NE	35
Naphthalene	BRL(1)	10	NE	10
Toluene	BRL(1)	600	1,000	600
o-Xylene	BRL(1)	1,000 <sup>(2)</sup>	1,000 <sup>(2)</sup>	1,000 <sup>(2)</sup>
m,p-Xylene	BRL(2)	1,000 <sup>(2)</sup>	1,000 <sup>(2)</sup>	1,000 <sup>(2)</sup>
<b>Volatile Petroleum Hydrocarbon (VPH) Fractions</b>	<b>ug/l</b>			
C5-C8 Aliphatics	BRL(50)	300	NE	300
C9-C12 Aliphatics	25 J	700	NE	700
C9-C10 Aromatics	18	200	NE	200
<b>Metals</b>	<b>ug/l</b>			
Lead	8	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
- J = estimated concentration detected below the laboratory reporting limit.
- Values in **bold** text exceed drinking water and/or cleanup guidelines
- <sup>(1)</sup> National Secondary Drinking Water Regulations (secondary standards)
- <sup>(2)</sup> Standard is for total of all isomers (i.e., total xylenes).

**Table 3: Soil Vapor Results**  
**Phase II Environmental Site Assessment**  
**Old Waldo County Jail**  
**45 Congress Street**  
**Belfast, ME**

Sample Identification	SV101	SV102	SV103	Draft MEDEP Remedial Action Guidelines for Sites Contaminated with Hazardous Substances (Jan 11, 2012)		MEDEP Vapor Intrusion Evaluation Guidance (chronic exposure scenario)	
Sample Location	Beneath Sheriff's Office Barn	Beneath Sheriff's Office	Beneath Old County Jail				
Sample Date	11/5/2012	11/5/2012	11/5/2012	Soil Gas Targets Residential	Soil Gas Targets Commercial	Soil Gas Target Residential	Soil Gas Target Commercial
Volatile Organic Compounds	Air (ug/m3)						
Benzene	ND	ND	ND	31	160	15.5	80.0
Chlorobenzene	ND	ND	ND	10,000	44,000	10500	44000
1,2-Dibromoethane (EDB)	ND	ND	ND	0.41	2	0.205	1
1,2-Dichlorobenzene	ND	ND	ND	NE	NE	NE	NE
1,3-Dichlorobenzene	ND	ND	ND	NE	NE	NE	NE
1,4-Dichlorobenzene	ND	ND	ND	22	110	11	55
1,2-Dichloroethane	ND	ND	ND	9.4	47	4.7	23.5
Ethylbenzene	ND	ND	ND	97	490	48.5	245
Methyl-tert-butyl ether (MTBE)	ND	ND	ND	940	4,700	470	2,350
Toluene	4.2	ND	ND	52,000	220,000	50,000	220,000
o-Xylene	ND	ND	ND	1,000	4,400	1,050	4,400
m,p-Xylene	ND	ND	ND	1,000	4,400	1,050	4,400
Naphthalene	2.4	ND	ND	7.2	36	3.6	18
1,3-Butadiene	ND	ND	ND	8.1	41	4.05	20.5
Air-Phase Petroleum Hydrocarbons	Air (ug/m3)						
C5-C8 Aliphatics	43	43	ND	6300	26,000	6,500	26,500
C9-C12 Aliphatics	240	48	ND	2100	8,800	2,100	9,000
C9-C10 Aromatics	64	ND	ND	520	2,200	500	2,200

**Notes:**

MEDEP = Maine Department of Environmental Protection

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

ND = Not Detected above the laboratory detection limit

Soil Gas Targets = 10 times the Indoor Air Target, as discussed in the January 11, 2012 Draft MEDEP Remedial Action Guidelines; OR 50 times the Indoor Air Target for multi-contaminant sites, as discussed in the January 14, 2010 Vapor Intrusion Evaluation Guidance.

**TABLE 4: SUMMARY OF DUPLICATE SAMPLE ANALYTICAL RESULTS**

Phase II Environmental Site Assessment  
 Old Waldo County Jail  
 45 Congress Street, Belfast, Maine

Sample Location	B101-S2	B-DUP	Relative Percent Difference	MW102	MW-DUP	Relative Percent Difference	SV101	SV DUP	Relative Percent Difference
Sample Depth (ft bgs)	3.5-4 feet	3.5-4 feet		7-12	7-12		0.5-1 feet	0.5-1 feet	
Sample Date	11/8/2012	11/8/2012		11/8/2012	11/8/2012		11/5/2012	11/5/2012	
Volatile Organic Compounds (VOCs)	Concentrations in mg/kg		%	Concentrations in µg/l		%	Concentrations in µg/m3		%
Napthalene	BRL	BRL		BRL	BRL		2.4	BRL	
Toluene	BRL	BRL		BRL	BRL		4.2	BRL	
All other VOCs	BRL	BRL		BRL	BRL		BRL	BRL	
Volatile Petroleum Hydrocarbon (VPH) Fractions	Concentrations in mg/kg		%	Concentrations in µg/l		%	Concentrations in µg/m3		%
C <sub>5</sub> through C <sub>8</sub> Aliphatics	BRL	BRL		BRL	BRL		43	37	15.0
C <sub>9</sub> through C <sub>12</sub> Aliphatics	BRL	BRL		25	BRL		240	270	-11.8
C <sub>9</sub> through C <sub>10</sub> Aromatics	BRL	BRL		18	27	-40.0	64	69	-7.5
Metals	Concentrations in mg/kg		%	Concentrations in µg/l		%	Concentrations in mg/kg		%
Lead	104.0	50.0	70.1	8.0	BRL		NA	NA	

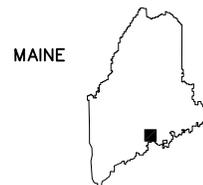


TAKEN FROM U.S.G.S. 7.5x15 MINUTE SERIES TOPOGRAPHIC MAP OF BELFAST, MAINE-1960 (REVISED 1979).

CONTOUR INTERVAL IS 10 FEET

SITE COORDINATES: LATITUDE 44°25'21"  
LONGITUDE 69°00'33"

UTM COORDINATES: 49:18:602mN  
4:99:272mE



QUADRANGLE LOCATION



SCALE in FEET  
1:24,000

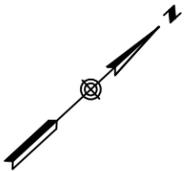
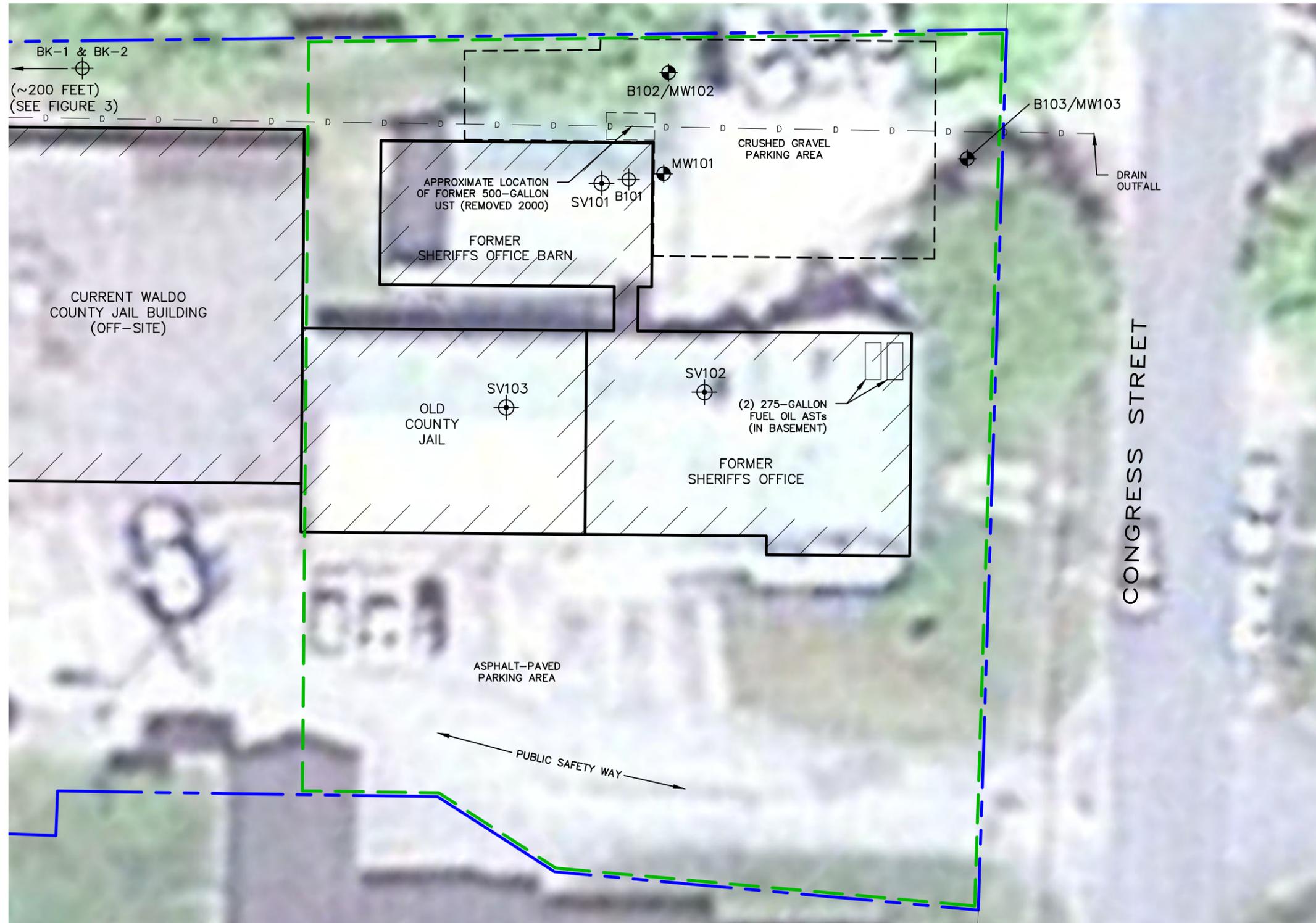
**RANSOM** Consulting, Inc.

**SITE LOCATION MAP**

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

SITE:  
OLD WALDO COUNTY JAIL  
45 CONGRESS STREET  
BELFAST, MAINE

DATE: NOVEMBER 2012  
PROJECT: 111.06134  
FIGURE: 1

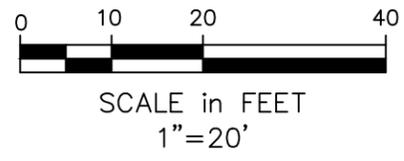


**LEGEND:**

- B102/MW102 SOIL BORING/ MONITORING WELL
- SV101 SOIL VAPOR POINT
- BK-1 BACKGROUND SOIL SAMPLE
- APPROXIMATE LIMIT OF UST EXCAVATION
- STORM DRAIN UTILITY LINE
- SITE BOUNDARY
- PARCEL BOUNDARY
- PROPERTY BOUNDARY

**NOTES:**

1. SITE PLAN BASED ON "SITE GRADING PLAN" PREPARED BY WBRC ARCHITECTS & ENGINEERS DATED MARCH 18, 2010 AND OBSERVATIONS MADE BY RANSOM CONSULTING, INC. ON JULY 25, 2012 AND NOVEMBER 5 & 8, 2012. AERIAL IMAGE PROVIDED BY GOOGLE EARTH.
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.



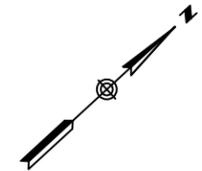
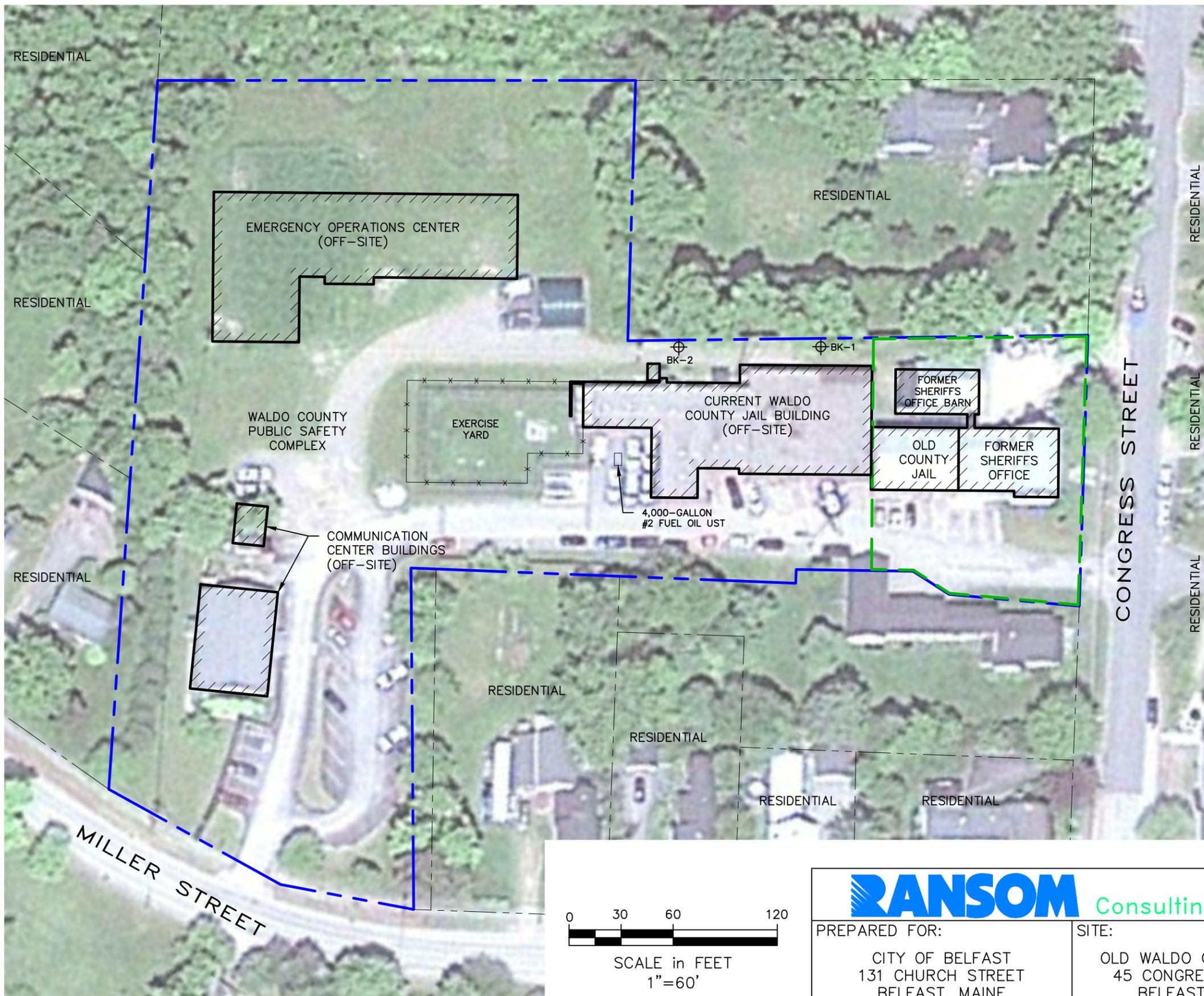
**RANSOM** Consulting, Inc.

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

SITE:  
OLD WALDO COUNTY JAIL  
45 CONGRESS STREET  
BELFAST, MAINE

**SITE PLAN**

DATE: DECEMBER 2012  
PROJECT: 111.06134  
FIGURE: 2

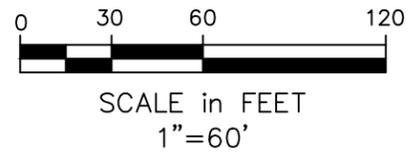


**LEGEND:**

- BK-1 BACKGROUND SOIL SAMPLE
- FENCE
- SITE BOUNDARY
- PARCEL BOUNDARY
- PROPERTY BOUNDARY

**NOTES:**

1. SITE PLAN BASED ON "SITE GRADING PLAN" PREPARED BY WBRC ARCHITECTS & ENGINEERS DATED MARCH 18, 2010 AND OBSERVATIONS MADE BY RANSOM CONSULTING, INC. ON JULY 25, 2012 AND NOVEMBER 5 & 8, 2012. AERIAL IMAGE PROVIDED BY GOOGLE EARTH.
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</b> Consulting, Inc.		<b>SITE AREA PLAN</b>	
PREPARED FOR: CITY OF BELFAST 131 CHURCH STREET BELFAST, MAINE	SITE: OLD WALDO COUNTY JAIL 45 CONGRESS STREET BELFAST, MAINE	DATE: DECEMBER 2012	PROJECT: 111.06134
		FIGURE: 3	

**APPENDIX A**

Boring Logs

Phase II Environmental Site Assessment  
Old Waldo County Jail  
45 Congress Street  
Belfast, Maine



**BORING LOG:**

**B101**

Reviewed By: <i>[Signature]</i>	Total Depth: 4 Feet	Logged By: EPP
Date Reviewed: 1/7/13	Boring Diameter: 2 Inches	Date Drilled: 11/8/12 to 11/8/12
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') - 24" - Brown sand and gravel, moist, FILL.		S1	-	24/24	<1		
	S2(2.0'-4.0') - 5" - Brown, sand and gravel, moist, FILL.		S2	-	24/5	<1		
5	Refusal at 4' bgs.							5
10								10
15								15

**NOTES:**  
 1) Boring advanced using manual GeoProbe methods. 2) Sample designated with solid fill submitted for laboratory analysis. 3) Ground water not encountered. 5) NA = Not Applicable; NM = Not Measured; NO = Not Observed.

**CLIENT:**  
 City of Belfast

**SITE:**  
 Old Waldo Co. Jail  
 45 Congress St.  
 Belfast, ME

**BORING AND MONITORING WELL LOG: MW101**

Reviewed by: <i>[Signature]</i>	Total Depth: 10.5 Feet	Logged By: EPP
Date Reviewed: 1/7/13	Boring Diameter: 2 Inches	Date Drilled: 11/8/12 to 11/8/12
GW Observed at: NO Feet	Well Stickup: NM	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') - Top 4" - Asphalt/concrete. Bottom 4" - Brown, SAND and GRAVEL, some fines and brick.		S1	NM	24/8	0		
	S2(2.0'-4.0') - No Recovery		S2	NM	24/0	-		
5	S3(4.0'-6.0') - Top 2" - Brick fragments. Bottom 19" - Gray, SILT, some fine to coarse SAND, moist.		S3	NM	24/21	0	5	
	S4(6.0'-8.0') - No Recovery		S4	NM	24/0	-		
	S5(8.0'-10.0') - Gray, SILT, some fine to coarse Sand, (till) moist.		S5	NM	30/3	0	10	
10	Refusal at 10.5'							
15							15	

LEGEND:

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

NOTES:

1) Boring advanced using track-mounted GeoProbe 66DY. 2) Sample designated with solid fill submitted for laboratory analysis. 3) Ground water not encountered. 4) NA = Not Applicable: NM = Not Measured: NO = Not Observed.

CLIENT:

City of Belfast

SITE:

Old Waldo Co. Jail  
45 Congress St.  
Belfast, ME

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

Reviewed by: <i>[Signature]</i>	Total Depth: 12 Feet	Logged By: EPP
Date Reviewed: 1/7/13	Boring Diameter: 2 Inches	Date Drilled: 11/8/12 to 11/8/12
GW Observed at: 11.2 Feet	Well Stickup: NM	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') - Top 6" - Well graded SAND (fill). Middle 6" - Dark brown SILT, little sand, tree roots. Bottom 12" - Light brown, SILT, some fine to coarse Sand (till).		S1	NM	24/24	0		
	S2(2.0'-4.0') - 8" - Light brown SILT, some fine to coarse Sand, little gravel (till), moist.		S2	NM	24/8	0		
5	S3(4.0'-6.0') - 24" - Light brown SILT, some fine to coarse Sand, little gravel (till), moist.		S3	NM	24/24	0	5	
	S4(6.0'-8.0') - 24" - Light brown SILT, some fine to coarse Sand, little gravel (till), moist.		S4	NM	24/24	0		
	S5(8.0'-10.0') - 24" - Gray/brown SAND and SILT, little gravel, (till) moist.		S5	NM	24/24	0		
10	S6(10.0'-12.0') - 24" - Gray/brown SAND and SILT, little gravel (till), increasing gravels with depth, dry to moist.		S6	NM	24/24	0	10	
	Refusal at 12' bgs.							
15							15	

**LEGEND:**

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

**NOTES:**  
 1) Boring advanced using track-mounted GeoProbe 66DY. 2) Sample designated with solid fill submitted for laboratory analysis. 3) Ground water not initially observed. 4) NA = Not Applicable: NM = Not Measured: NO = Not Observed.

**CLIENT:**  
City of Belfast

**SITE:**  
Old Waldo Co. Jail  
45 Congress St.  
Belfast, ME



**BORING LOG:**

**B103**

Reviewed By: <i>[Signature]</i>	Total Depth: 12 Feet	Logged By: EPP
Date Reviewed: 1/7/13	Boring Diameter: 2 Inches	Date Drilled: 11/8/12 to 11/8/12
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)	Dexii (ppm)	DEPTH
	S1(0.0'-2.0') - Top 2" - Asphalt. Middle 6" - Brown sandy LOAM. Bottom 16" - Light brown, SILT, some fine to coarse Sand, moist (till).	[Cross-hatched]	S1	NM	24/24	0		
	S2(2.0'-4.0') - 3" - Light brown SILT, some fine to coarse Sand, moist (till).	[Cross-hatched]	S2	NM	24/3	0		
5	S3(4.0'-6.0') - 24" - Brown, SILT, some Sand, little clay and gravel, (till), moist.	[Cross-hatched]	S3	NM	24/24	0		5
	S4(6.0'-8.0') - 24" - Brown, SILT, some Sand, little clay and gravel, (till), moist.	[Cross-hatched]	S4	NM	24/24	0		
	S5(8.0'-10.0') - 24" - Glacial till, moist.	[Cross-hatched]	S5	NM	24/24	0		
10	S6(10.0'-12.0') - Top 20" - Glacial till, moist. Bottom 4" - fractured rock, dry.	[Solid black]	S6	NM	24/24	0		10
	Refusal at 12' bgs.	[White]						
15								15

**NOTES:**

1) Boring advanced using track-mounted GeoProbe 66DY. 2) Sample designated with solid fill submitted for laboratory analysis. 3) Ground water not encountered. 4) NA = Not Applicable: NM = Not Measured: = NO = Not Observed.

**CLIENT:**  
City of Belfast

**SITE:**  
Old Waldo Co. Jail  
45 Congress St.  
Belfast, ME

Project No.: 111.06134

Page: 1

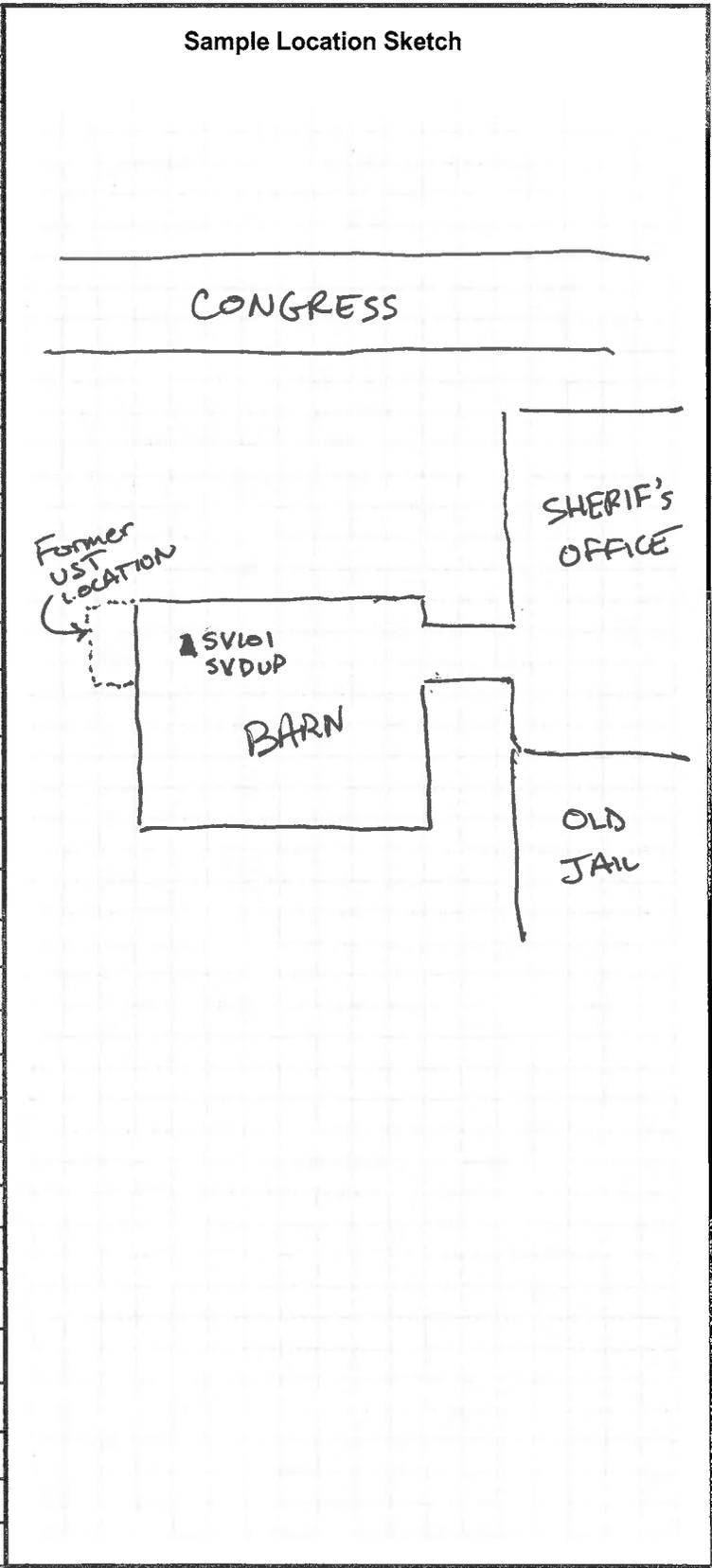
**APPENDIX B**

Field Data Sheets

Phase II Environmental Site Assessment  
Old Waldo County Jail  
45 Congress Street  
Belfast, Maine

**Indoor Air/Subslab Sampling Field Sheet  
Maine DEP**

Site Name:	Old Waldo Co. Jail
Town:	Belfast
Date:	11/5/12
Sample I.D.:	SV101
Project Manager:	Tracy Kelly
Sampling Personnel:	E. Phenix / M. King
Collection Device:	(Summa Can) (Tedlar Bag)
Sample Type:	(Subslab) (Indoor Air)
Sampling Location:	Barn
Foundation Floor Type:	(Dirt) (Concrete)
Foundation Wall Type:	(Concrete) (Block) (Stone) (Brick) (Slab on Grade)
Sump Hole:	(Yes) (No)
Penetrations in Floor:	(Sewer) (Water) (Gas) (Cracks) (Drains)
Penetrations in Wall:	(Sewer) (Water) (Gas) (Electric) (Cracks)
Suspected COCs:	(Petroleum) (Solvents)
Cannister I.D.:	357
Flow Control I.D.:	60
Flow control rate:	109 mls/min
O <sub>2</sub> Ambient	20.7
CO <sub>2</sub> Ambient	480
Pre-Sample O <sub>2</sub>	19.9
Pre-Sample CO <sub>2</sub>	4420
Pre-Sample PID:	0.0
Pre-Sample CH <sub>4</sub> :	NM
Sample Initiation Time:	0919
Initial Vacuum:	-27.15
Sample End Time:	0935
Final Vacuum:	-4.84 in Hg
Post Sample O <sub>2</sub>	20.1%
Post Sample CO <sub>2</sub> :	4820 ppm

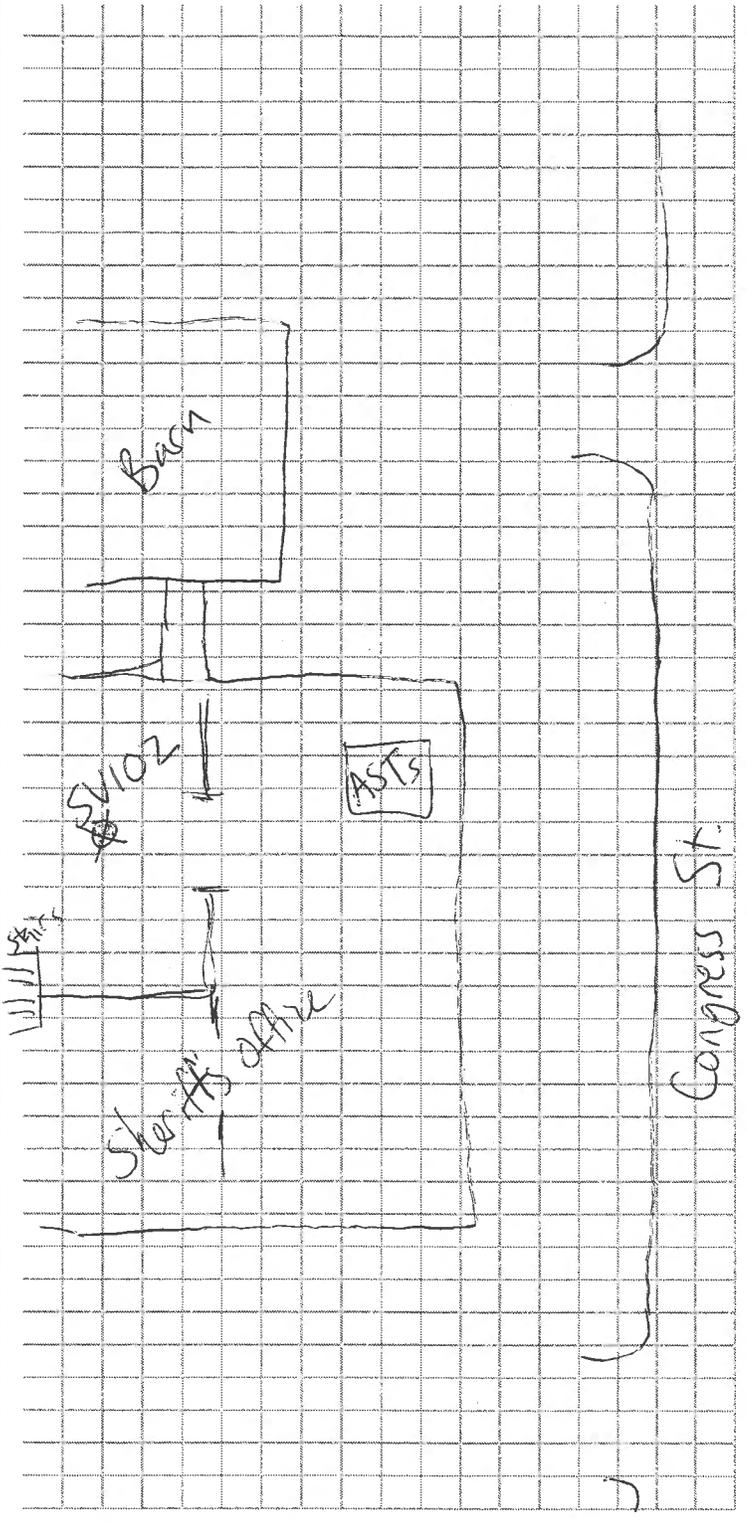


Notes/Observations:

**Soil Gas Sampling Field Sheet  
Maine DEP**

Site Name:	Old Waldo County Jail
Location:	Belfast / 45 Congress St.
Date:	11/5/12
Sample I.D.:	SVID2
Sampling Personnel:	MK / EP
Project Manager:	TWK / EP
Collection Device:	(Suma Cannister) (Tedlar Bag) (Niosh Tube)
PID:	1.3 ppm
O <sub>2</sub> :	Ambient = 20.3 % Sample = 20.0
CO <sub>2</sub> :	Ambient = 700 ppm Sample = 2960 ppm
Flow rate:	109 mL/min
Cannister I.D.:	348
Controller I.D.:	471
Sample Penetration Location:	(Ashphalt) (Concrete) (Soil)
Soil Type:	(Fill) (Till) (Sand & Gravel) (Glacial Marine) silt
Sample Depth:	under slab, ~0.5ft
Depth to Water:	unk
Suspected COCs:	(Petroleum) (Solvents)
Sampling Start Time:	08:47
Initial Vacuum:	-29.21 in Hg
Sampling End Time:	09:05
Final Vacuum:	-4.95 in Hg

**Sample Location Sketch**

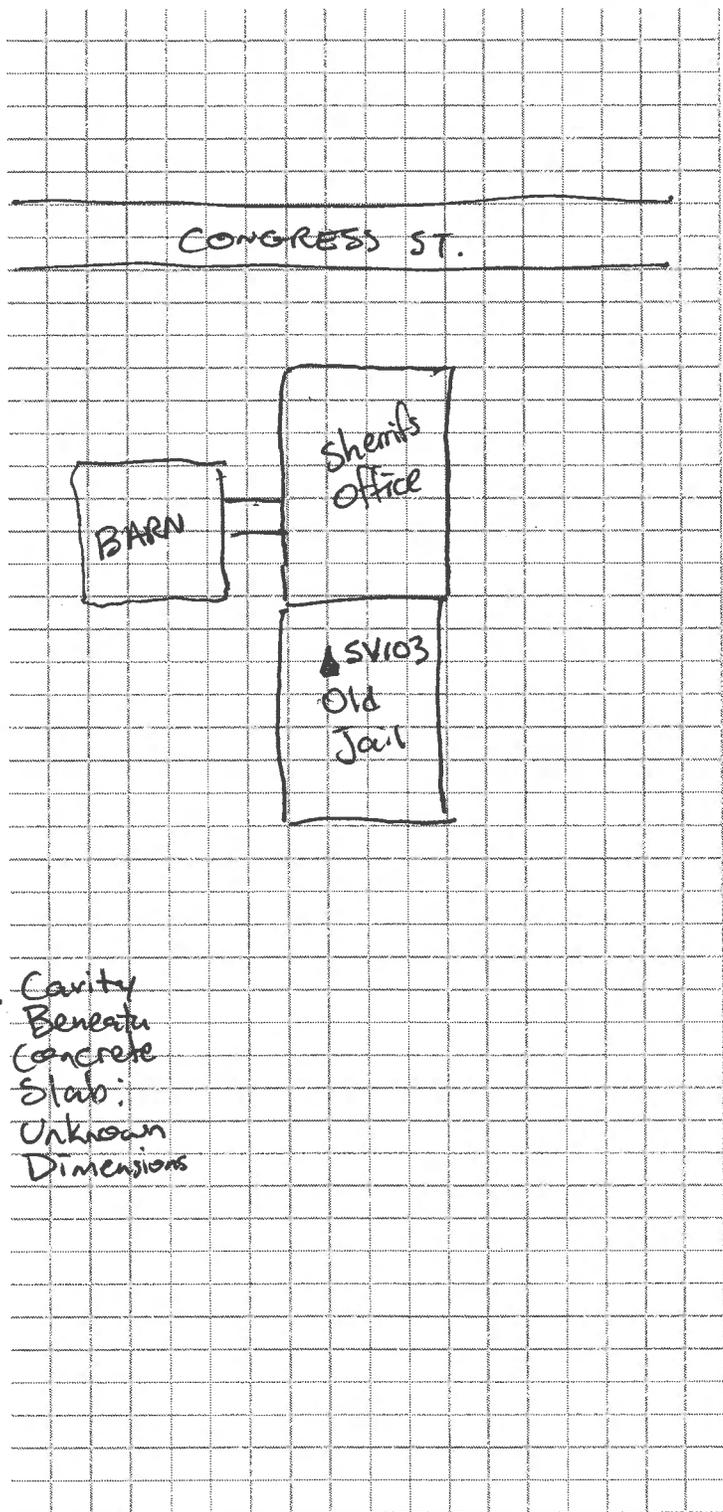


Notes:  
post sample O<sub>2</sub>: 20.3 %  
CO<sub>2</sub>: >3000 ppm

**Soil Gas Sampling Field Sheet  
Maine DEP**

Site Name:	Old Waldo Co. Jail
Location:	Belfast ME
Date:	11/5/12
Sample I.D.:	SV103
Sampling Personnel:	E. Phenix / M. King
Project Manager:	Tracy Kelly
Collection Device:	(Summa Cannister) (Tedlar Bag) (Niosh Tube)
PID:	0.0 ppm
O <sub>2</sub> :	Ambient 20.9 Sample = 20.9
CO <sub>2</sub> :	Ambient 510 Sample = 710
Flow rate:	109 mls/min
Cannister I.D.:	211
Controller I.D.:	166
Sample Penetration Location:	(Ashphalt) (Concrete) (Soil)
Soil Type:	(Fill) (Till) (Sand & Gravel) (Glacial Marine)
Sample Depth:	
Depth to Water:	Unknown
Suspected COCs:	(Petroleum) (Solvents)
Sampling Start Time:	0957
Initial Vacuum:	-29.21
Sampling End Time:	1015
Final Vacuum:	-4.78

**Sample Location Sketch**



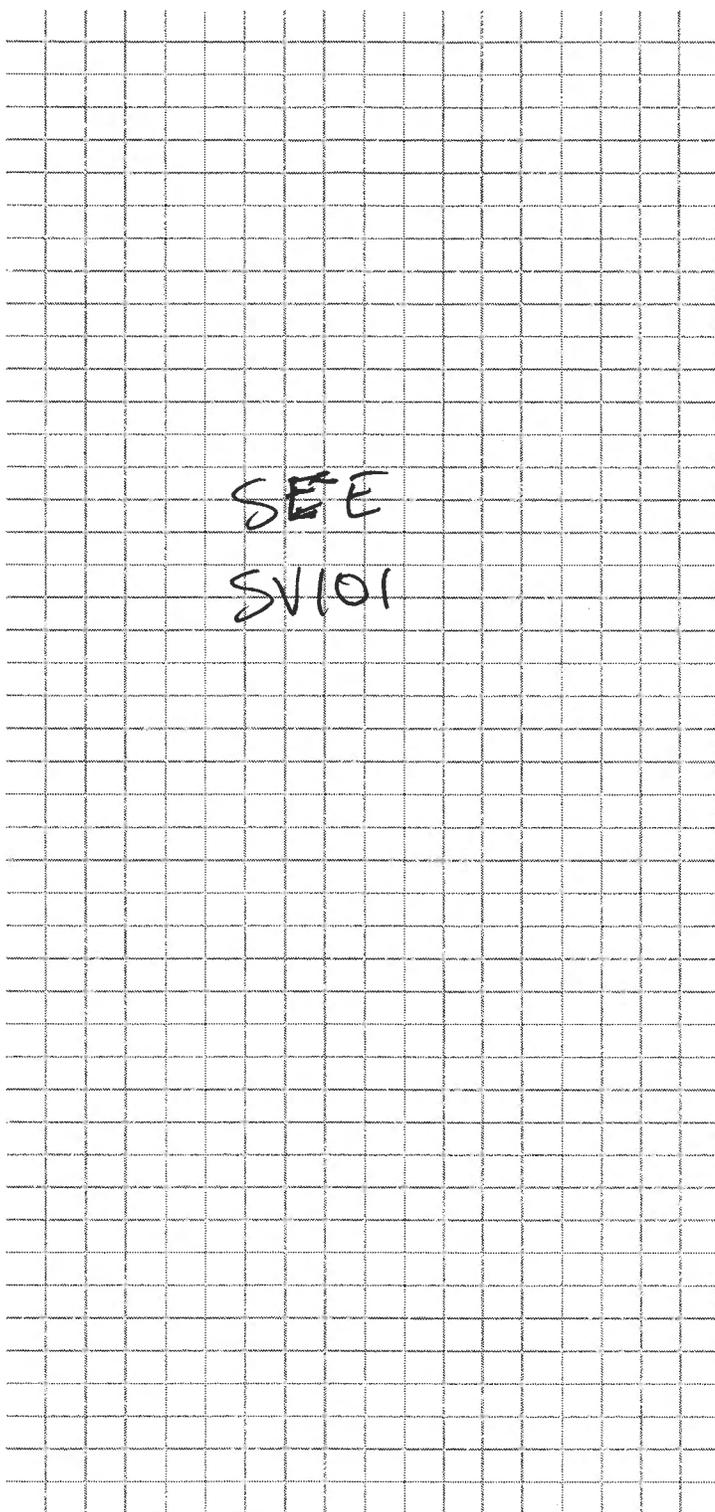
**Notes:**

O<sub>2</sub> After Sampling: 20.9  
CO<sub>2</sub> After Sampling: 700

Soil Gas Sampling Field Sheet  
Maine DEP

Site Name:	Old Waldo Co. Jail
Location:	Belfast ME
Date:	11/5/12
Sample I.D.:	SV DUP <small>(Duplicate of SV101)</small>
Sampling Personnel:	E. Phenix / M. King
Project Manager:	Tracy Kelly
Collection Device:	<del>(Suma Canister)</del> (Tedlar Bag) (Niosh Tube)
PID:	0.0
O <sub>2</sub> :	Same as SV101
CO <sub>2</sub> :	Same as SV101
Flow rate:	109 mLs/min
Cannister I.D.:	422
Controller I.D.:	35
Sample Penetration Location:	(Ashphalt) <u>(Concrete)</u> (Soil)
Soil Type:	<u>(Fill)</u> (Till) (Sand & Gravel) (Glacial Marine)
Sample Depth:	0-6"
Depth to Water:	Unknown
Suspected COCs:	<u>(Petroleum)</u> (Solvents)
Sampling Start Time:	0919
Initial Vacuum:	-26.26
Sampling End Time:	0935
Final Vacuum:	-6.71 m Hg

Sample Location Sketch



Notes:

Post sample: O<sub>2</sub> & CO<sub>2</sub> same as SV101

**APPENDIX C**

Laboratory Reports

Phase II Environmental Site Assessment  
Old Waldo County Jail  
45 Congress Street  
Belfast, Maine



## ANALYTICAL REPORT

Lab Number:	L1220086
Client:	Ransom Environmental 400 Commercial Street Suite 404 Portland, ME 04101-4660
ATTN:	Erik Phenix
Phone:	(207) 772-2891
Project Name:	OLD WALDO CO. JAIL
Project Number:	R111.06134.022
Report Date:	11/12/12

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320 Forbes Boulevard, Mansfield, MA 02048-1806  
508-822-9300 (Fax) 508-822-3288 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)



**Project Name:** OLD WALDO CO. JAIL  
**Project Number:** R111.06134.022

**Lab Number:** L1220086  
**Report Date:** 11/12/12

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L1220086-01	SV101	BELFAST, ME	11/05/12 09:35
L1220086-02	SV102	BELFAST, ME	11/05/12 09:05
L1220086-03	SV103	BELFAST, ME	11/05/12 10:15
L1220086-04	SV DUP	BELFAST, ME	11/05/12 09:35

Project Name: OLD WALDO CO. JAIL

Lab Number: L1220086

Project Number: R111.06134.022

Report Date: 11/12/12

**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.**

<b>An affirmative response to questions A through F is required for "Presumptive Certainty" status</b>		
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?	YES
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?	YES
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
<b>A response to questions G, H and I is required for "Presumptive Certainty" status</b>		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO
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
<b>For any questions answered "No", please refer to the case narrative section on the following page(s).</b>		

**Please note that sample matrix information is located in the Sample Results section of this report.**



**Project Name:** OLD WALDO CO. JAIL  
**Project Number:** R111.06134.022

**Lab Number:** L1220086  
**Report Date:** 11/12/12

### 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.

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**Project Name:** OLD WALDO CO. JAIL  
**Project Number:** R111.06134.022

**Lab Number:** L1220086  
**Report Date:** 11/12/12

### Case Narrative (continued)

Canisters were released from the laboratory on November 1, 2012. The canister certification results are provided as an addendum.

#### MCP Related Narratives

##### Petroleum Hydrocarbons in Air

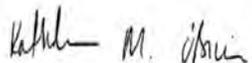
In reference to question G:

One or more of the target analytes did not achieve the requested CAM reporting limits.

L1220086 All significant concentrations of non-petroleum VOCs detected in the TO-15 analysis were subtracted from the corresponding hydrocarbon ranges.

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:

 Kathleen O'Brien

Title: Technical Director/Representative

Date: 11/12/12

**AIR**

**Project Name:** OLD WALDO CO. JAIL  
**Project Number:** R111.06134.022

**Lab Number:** L1220086  
**Report Date:** 11/12/12

### SAMPLE RESULTS

Lab ID: L1220086-01  
 Client ID: SV101  
 Sample Location: BELFAST, ME  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 11/07/12 19:08  
 Analyst: MB

Date Collected: 11/05/12 09:35  
 Date Received: 11/06/12  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	110		60-140
bromochloromethane	78		60-140
chlorobenzene-d5	98		60-140



**Project Name:** OLD WALDO CO. JAIL  
**Project Number:** R111.06134.022

**Lab Number:** L1220086  
**Report Date:** 11/12/12

### SAMPLE RESULTS

Lab ID: L1220086-02  
 Client ID: SV102  
 Sample Location: BELFAST, ME  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 11/07/12 20:11  
 Analyst: MB

Date Collected: 11/05/12 09:05  
 Date Received: 11/06/12  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	100		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	94		60-140



**Project Name:** OLD WALDO CO. JAIL  
**Project Number:** R111.06134.022

**Lab Number:** L1220086  
**Report Date:** 11/12/12

### SAMPLE RESULTS

Lab ID: L1220086-03  
 Client ID: SV103  
 Sample Location: BELFAST, ME  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 11/07/12 20:42  
 Analyst: MB

Date Collected: 11/05/12 10:15  
 Date Received: 11/06/12  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	107		60-140
bromochloromethane	78		60-140
chlorobenzene-d5	98		60-140



**Project Name:** OLD WALDO CO. JAIL  
**Project Number:** R111.06134.022

**Lab Number:** L1220086  
**Report Date:** 11/12/12

### SAMPLE RESULTS

Lab ID: L1220086-04  
 Client ID: SV DUP  
 Sample Location: BELFAST, ME  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 11/07/12 21:13  
 Analyst: MB

Date Collected: 11/05/12 09:35  
 Date Received: 11/06/12  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	108		60-140
bromochloromethane	78		60-140
chlorobenzene-d5	97		60-140



Project Name: OLD WALDO CO. JAIL

Lab Number: L1220086

Project Number: R111.06134.022

Report Date: 11/12/12

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15-SIM

Analytical Date: 11/07/12 15:31

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-04 Batch: WG572462-4								
Dichlorodifluoromethane	ND	0.050	--	ND	0.247	--		1
Chloromethane	ND	0.500	--	ND	1.03	--		1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	1.00	--	ND	3.47	--		1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.020	--	ND	0.072	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1



Project Name: OLD WALDO CO. JAIL

Lab Number: L1220086

Project Number: R111.06134.022

Report Date: 11/12/12

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15-SIM

Analytical Date: 11/07/12 15:31

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-04 Batch: WG572462-4								
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: OLD WALDO CO. JAIL

Lab Number: L1220086

Project Number: R111.06134.022

Report Date: 11/12/12

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-04 Batch: WG572462-3								
Dichlorodifluoromethane	111		-		70-130	-		25
Chloromethane	86		-		70-130	-		25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	117		-		70-130	-		25
Vinyl chloride	94		-		70-130	-		25
1,3-Butadiene	95		-		70-130	-		25
Bromomethane	100		-		70-130	-		25
Chloroethane	94		-		70-130	-		25
Trichlorofluoromethane	100		-		70-130	-		25
1,1-Dichloroethene	96		-		70-130	-		25
Methylene chloride	92		-		70-130	-		25
1,1,2-Trichloro-1,2,2-Trifluoroethane	103		-		70-130	-		25
trans-1,2-Dichloroethene	84		-		70-130	-		25
1,1-Dichloroethane	98		-		70-130	-		25
Methyl tert butyl ether	90		-		70-130	-		25
cis-1,2-Dichloroethene	112		-		70-130	-		25
Chloroform	112		-		70-130	-		25
1,2-Dichloroethane	79		-		70-130	-		25
1,1,1-Trichloroethane	102		-		70-130	-		25
Benzene	94		-		70-130	-		25
Carbon tetrachloride	98		-		70-130	-		25
1,2-Dichloropropane	96		-		70-130	-		25

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: OLD WALDO CO. JAIL

Lab Number: L1220086

Project Number: R111.06134.022

Report Date: 11/12/12

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-04 Batch: WG572462-3								
Bromodichloromethane	97		-		70-130	-		25
Trichloroethene	99		-		70-130	-		25
cis-1,3-Dichloropropene	103		-		70-130	-		25
trans-1,3-Dichloropropene	90		-		70-130	-		25
1,1,2-Trichloroethane	109		-		70-130	-		25
Toluene	104		-		70-130	-		25
Dibromochloromethane	100		-		70-130	-		25
1,2-Dibromoethane	113		-		70-130	-		25
Tetrachloroethene	110		-		70-130	-		25
1,1,1,2-Tetrachloroethane	90		-		70-130	-		25
Chlorobenzene	112		-		70-130	-		25
Ethylbenzene	107		-		70-130	-		25
p/m-Xylene	108		-		70-130	-		25
Bromoform	111		-		70-130	-		25
Styrene	108		-		70-130	-		25
1,1,2,2-Tetrachloroethane	120		-		70-130	-		25
o-Xylene	112		-		70-130	-		25
1,3,5-Trimethylbenzene	116		-		70-130	-		25
1,2,4-Trimethylbenzene	119		-		70-130	-		25
1,3-Dichlorobenzene	118		-		70-130	-		25
1,4-Dichlorobenzene	118		-		70-130	-		25

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** OLD WALDO CO. JAIL

**Lab Number:** L1220086

**Project Number:** R111.06134.022

**Report Date:** 11/12/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-04 Batch: WG572462-3								
1,2-Dichlorobenzene	119		-		70-130	-		25
1,2,4-Trichlorobenzene	138	Q	-		70-130	-		25
Hexachlorobutadiene	130		-		70-130	-		25

## Lab Duplicate Analysis

Batch Quality Control

Project Name: OLD WALDO CO. JAIL

Project Number: R111.06134.022

Lab Number: L1220086

Report Date: 11/12/12

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG572462-5 QC Sample: L1220086-01 Client ID: SV101						
1,2-Dichloroethane	ND	ND	ppbV	NC		25
1,2-Dibromoethane	ND	ND	ppbV	NC		25
Chlorobenzene	ND	ND	ppbV	NC		25
1,3-Dichlorobenzene	ND	ND	ppbV	NC		25
1,4-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2-Dichlorobenzene	ND	ND	ppbV	NC		25

**Project Name:** OLD WALDO CO. JAIL  
**Project Number:** R111.06134.022

**Lab Number:** L1220086  
**Report Date:** 11/12/12

**SAMPLE RESULTS**

Lab ID: L1220086-01  
 Client ID: SV101  
 Sample Location: BELFAST, ME  
 Matrix: Soil\_Vapor  
 Analytical Method: 96,APH  
 Analytical Date: 11/07/12 19:08  
 Analyst: MB

Date Collected: 11/05/12 09:35  
 Date Received: 11/06/12  
 Field Prep: Not Specified

**Quality Control Information**

Sample Type: 100 mL/minute Composite  
 Sample Container Type: Canister - 2.7 Liter  
 Sampling Flow Controller: Mechanical  
 Sampling Zone: Unknown  
 Sampling Flow Meter RPD of pre & post-sampling calibration check: <=20%  
 Were all QA/QC procedures REQUIRED by the method followed? Yes  
 Were all performance/acceptance standards for the required procedures achieved? Yes  
 Were significant modifications made to the method as specified in Sect 11.1.2? No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Petroleum Hydrocarbons in Air - Mansfield Lab</b>						
1,3-Butadiene	ND		ug/m3	2.0	--	1
Methyl tert butyl ether	ND		ug/m3	2.0	--	1
Benzene	ND		ug/m3	2.0	--	1
C5-C8 Aliphatics, Adjusted	43		ug/m3	12	--	1
Toluene	4.2		ug/m3	2.0	--	1
Ethylbenzene	ND		ug/m3	2.0	--	1
p/m-Xylene	ND		ug/m3	4.0	--	1
o-Xylene	ND		ug/m3	2.0	--	1
Naphthalene	2.4		ug/m3	2.0	--	1
C9-C12 Aliphatics, Adjusted	240		ug/m3	14	--	1
C9-C10 Aromatics Total	64		ug/m3	10	--	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	102		50-200
Bromochloromethane	102		50-200
Chlorobenzene-d5	100		50-200

Project Name: OLD WALDO CO. JAIL

Lab Number: L1220086

Project Number: R111.06134.022

Report Date: 11/12/12

**SAMPLE RESULTS**

Lab ID: L1220086-02  
 Client ID: SV102  
 Sample Location: BELFAST, ME  
 Matrix: Soil\_Vapor  
 Analytical Method: 96,APH  
 Analytical Date: 11/07/12 20:11  
 Analyst: MB

Date Collected: 11/05/12 09:05  
 Date Received: 11/06/12  
 Field Prep: Not Specified

**Quality Control Information**

Sample Type: 100 mL/minute Composite  
 Sample Container Type: Canister - 2.7 Liter  
 Sampling Flow Controller: Mechanical  
 Sampling Zone: Unknown  
 Sampling Flow Meter RPD of pre & post-sampling calibration check: <=20%  
 Were all QA/QC procedures REQUIRED by the method followed? Yes  
 Were all performance/acceptance standards for the required procedures achieved? Yes  
 Were significant modifications made to the method as specified in Sect 11.1.2? No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Petroleum Hydrocarbons in Air - Mansfield Lab</b>						
1,3-Butadiene	ND		ug/m3	2.0	--	1
Methyl tert butyl ether	ND		ug/m3	2.0	--	1
Benzene	ND		ug/m3	2.0	--	1
C5-C8 Aliphatics, Adjusted	43		ug/m3	12	--	1
Toluene	ND		ug/m3	2.0	--	1
Ethylbenzene	ND		ug/m3	2.0	--	1
p/m-Xylene	ND		ug/m3	4.0	--	1
o-Xylene	ND		ug/m3	2.0	--	1
Naphthalene	ND		ug/m3	2.0	--	1
C9-C12 Aliphatics, Adjusted	48		ug/m3	14	--	1
C9-C10 Aromatics Total	ND		ug/m3	10	--	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	93		50-200
Bromochloromethane	111		50-200
Chlorobenzene-d5	94		50-200

**Project Name:** OLD WALDO CO. JAIL**Lab Number:** L1220086**Project Number:** R111.06134.022**Report Date:** 11/12/12**SAMPLE RESULTS**

Lab ID: L1220086-03  
 Client ID: SV103  
 Sample Location: BELFAST, ME  
 Matrix: Soil\_Vapor  
 Analytical Method: 96,APH  
 Analytical Date: 11/07/12 20:42  
 Analyst: MB

Date Collected: 11/05/12 10:15  
 Date Received: 11/06/12  
 Field Prep: Not Specified

**Quality Control Information**

Sample Type: 100 mL/minute Composite  
 Sample Container Type: Canister - 2.7 Liter  
 Sampling Flow Controller: Mechanical  
 Sampling Zone: Unknown  
 Sampling Flow Meter RPD of pre & post-sampling calibration check: <=20%  
 Were all QA/QC procedures REQUIRED by the method followed? Yes  
 Were all performance/acceptance standards for the required procedures achieved? Yes  
 Were significant modifications made to the method as specified in Sect 11.1.2? No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Petroleum Hydrocarbons in Air - Mansfield Lab</b>						
1,3-Butadiene	ND		ug/m3	2.0	--	1
Methyl tert butyl ether	ND		ug/m3	2.0	--	1
Benzene	ND		ug/m3	2.0	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/m3	12	--	1
Toluene	ND		ug/m3	2.0	--	1
Ethylbenzene	ND		ug/m3	2.0	--	1
p/m-Xylene	ND		ug/m3	4.0	--	1
o-Xylene	ND		ug/m3	2.0	--	1
Naphthalene	ND		ug/m3	2.0	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	--	1
C9-C10 Aromatics Total	ND		ug/m3	10	--	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	99		50-200
Bromochloromethane	98		50-200
Chlorobenzene-d5	96		50-200

Project Name: OLD WALDO CO. JAIL

Lab Number: L1220086

Project Number: R111.06134.022

Report Date: 11/12/12

**SAMPLE RESULTS**

Lab ID: L1220086-04  
 Client ID: SV DUP  
 Sample Location: BELFAST, ME  
 Matrix: Soil\_Vapor  
 Analytical Method: 96,APH  
 Analytical Date: 11/07/12 21:13  
 Analyst: MB

Date Collected: 11/05/12 09:35  
 Date Received: 11/06/12  
 Field Prep: Not Specified

**Quality Control Information**

Sample Type: 100 mL/minute Composite  
 Sample Container Type: Canister - 2.7 Liter  
 Sampling Flow Controller: Mechanical  
 Sampling Zone: Unknown  
 Sampling Flow Meter RPD of pre & post-sampling calibration check: <=20%  
 Were all QA/QC procedures REQUIRED by the method followed? Yes  
 Were all performance/acceptance standards for the required procedures achieved? Yes  
 Were significant modifications made to the method as specified in Sect 11.1.2? No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Petroleum Hydrocarbons in Air - Mansfield Lab</b>						
1,3-Butadiene	ND		ug/m3	2.0	--	1
Methyl tert butyl ether	ND		ug/m3	2.0	--	1
Benzene	ND		ug/m3	2.0	--	1
C5-C8 Aliphatics, Adjusted	37		ug/m3	12	--	1
Toluene	ND		ug/m3	2.0	--	1
Ethylbenzene	ND		ug/m3	2.0	--	1
p/m-Xylene	ND		ug/m3	4.0	--	1
o-Xylene	ND		ug/m3	2.0	--	1
Naphthalene	ND		ug/m3	2.0	--	1
C9-C12 Aliphatics, Adjusted	270		ug/m3	14	--	1
C9-C10 Aromatics Total	69		ug/m3	10	--	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	99		50-200
Bromochloromethane	98		50-200
Chlorobenzene-d5	99		50-200

Project Name: OLD WALDO CO. JAIL

Lab Number: L1220086

Project Number: R111.06134.022

Report Date: 11/12/12

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 96,APH  
 Analytical Date: 11/07/12 15:31  
 Analyst: MB

Parameter	Result	Qualifier	Units	RL	MDL
Petroleum Hydrocarbons in Air - Mansfield Lab for sample(s): 01-04 Batch: WG572463-4					
1,3-Butadiene	ND		ug/m3	2.0	--
Methyl tert butyl ether	ND		ug/m3	2.0	--
Benzene	ND		ug/m3	2.0	--
C5-C8 Aliphatics, Adjusted	ND		ug/m3	12	--
Toluene	ND		ug/m3	2.0	--
Ethylbenzene	ND		ug/m3	2.0	--
p/m-Xylene	ND		ug/m3	4.0	--
o-Xylene	ND		ug/m3	2.0	--
Naphthalene	ND		ug/m3	2.0	--
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	--
C9-C10 Aromatics Total	ND		ug/m3	10	--

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: OLD WALDO CO. JAIL

Project Number: R111.06134.022

Lab Number: L1220086

Report Date: 11/12/12

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Petroleum Hydrocarbons in Air - Mansfield Lab Associated sample(s): 01-04 Batch: WG572463-3								
1,3-Butadiene	83		-		70-130	-		
Methyl tert butyl ether	84		-		70-130	-		
Benzene	91		-		70-130	-		
C5-C8 Aliphatics, Adjusted	89		-		70-130	-		
Toluene	94		-		70-130	-		
Ethylbenzene	92		-		70-130	-		
p/m-Xylene	95		-		70-130	-		
o-Xylene	101		-		70-130	-		
Naphthalene	127		-		50-150	-		
C9-C12 Aliphatics, Adjusted	90		-		70-130	-		
C9-C10 Aromatics Total	86		-		70-130	-		

## Lab Duplicate Analysis

Batch Quality Control

Project Name: OLD WALDO CO. JAIL

Project Number: R111.06134.022

Lab Number: L1220086

Report Date: 11/12/12

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Petroleum Hydrocarbons in Air - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG572463-5 QC Sample: L1220086-01 Client ID: SV101						
1,3-Butadiene	ND	ND	ug/m3	NC		30
Methyl tert butyl ether	ND	ND	ug/m3	NC		30
Benzene	ND	ND	ug/m3	NC		30
C5-C8 Aliphatics, Adjusted	43	44	ug/m3	2		30
Toluene	4.2	4.1	ug/m3	2		30
Ethylbenzene	ND	ND	ug/m3	NC		30
p/m-Xylene	ND	ND	ug/m3	NC		30
o-Xylene	ND	ND	ug/m3	NC		30
Naphthalene	2.4	ND	ug/m3	NC		30
C9-C12 Aliphatics, Adjusted	240	230	ug/m3	4		30
C9-C10 Aromatics Total	64	61	ug/m3	5		30

Project Name: OLD WALDO CO. JAIL

Serial\_No:11121216:14  
Lab Number: L1220086

Project Number: R111.06134.022

Report Date: 11/12/12

### Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controller Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1220086-01	SV101	0060	#90 SV	11/01/12	82801		-	-	-	Pass	109	109	0
L1220086-01	SV101	357	2.7L Can	11/01/12	82801	L1218852-01	Pass	-29.3	-3.0	-	-	-	-
L1220086-02	SV102	0471	#90 SV	11/01/12	82801		-	-	-	Pass	109	114	4
L1220086-02	SV102	348	2.7L Can	11/01/12	82801	L1218291-01	Pass	-28.7	-4.5	-	-	-	-
L1220086-03	SV103	0166	#90 SV	11/01/12	82801		-	-	-	Pass	105	105	0
L1220086-03	SV103	211	2.7L Can	11/01/12	82801	L1218291-01	Pass	-29.4	-3.7	-	-	-	-
L1220086-04	SV DUP	0035	#90 SV	11/01/12	82801		-	-	-	Pass	106	106	0
L1220086-04	SV DUP	422	2.7L Can	11/01/12	82801	L1218291-01	Pass	-28.6	-6.0	-	-	-	-

**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L1218291  
**Report Date:** 11/12/12

### Air Canister Certification Results

Lab ID: L1218291-01  
 Client ID: CAN 1743 SHELF 10  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 10/13/12 15:33  
 Analyst: RY

Date Collected: 10/11/12 15:33  
 Date Received: 10/12/12  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.860	--		1
Propane	ND	0.200	--	ND	0.361	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	2.50	--	ND	4.71	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.200	--	ND	0.434	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L1218291  
**Report Date:** 11/12/12

### Air Canister Certification Results

Lab ID: L1218291-01  
 Client ID: CAN 1743 SHELF 10  
 Sample Location:

Date Collected: 10/11/12 15:33  
 Date Received: 10/12/12  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Methylene chloride	ND	1.00	--	ND	3.47	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	0.200	--	ND	0.704	--		1
2-Butanone	ND	0.200	--	ND	0.590	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.200	--	ND	0.590	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L1218291  
**Report Date:** 11/12/12

### Air Canister Certification Results

Lab ID: L1218291-01  
 Client ID: CAN 1743 SHELF 10  
 Sample Location:

Date Collected: 10/11/12 15:33  
 Date Received: 10/12/12  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.20	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L1218291  
**Report Date:** 11/12/12

### Air Canister Certification Results

Lab ID: L1218291-01  
 Client ID: CAN 1743 SHELF 10  
 Sample Location:

Date Collected: 10/11/12 15:33  
 Date Received: 10/12/12  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds				

No Tentatively Identified Compounds



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1218291**Project Number:** CANISTER QC BAT**Report Date:** 11/12/12**Air Canister Certification Results**

Lab ID: L1218291-01

Date Collected: 10/11/12 15:33

Client ID: CAN 1743 SHELF 10

Date Received: 10/12/12

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	99		60-140
Bromochloromethane	99		60-140
chlorobenzene-d5	93		60-140



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L1218291  
**Report Date:** 11/12/12

### Air Canister Certification Results

Lab ID: L1218291-01  
 Client ID: CAN 1743 SHELF 10  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 10/12/12 18:29  
 Analyst: RY

Date Collected: 10/11/12 15:33  
 Date Received: 10/12/12  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.050	--	ND	0.247	--		1
Chloromethane	ND	0.500	--	ND	1.03	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	2.00	--	ND	4.75	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.08	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	1.00	--	ND	3.47	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.020	--	ND	0.072	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L1218291  
**Report Date:** 11/12/12

### Air Canister Certification Results

Lab ID: L1218291-01  
 Client ID: CAN 1743 SHELF 10  
 Sample Location:

Date Collected: 10/11/12 15:33  
 Date Received: 10/12/12  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	2.46	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	2.74	--		1
p-Isopropyltoluene	ND	0.500	--	ND	2.74	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	2.74	--		1



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L1218291  
**Report Date:** 11/12/12

### Air Canister Certification Results

Lab ID: L1218291-01 Date Collected: 10/11/12 15:33  
 Client ID: CAN 1743 SHELF 10 Date Received: 10/12/12  
 Sample Location: Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	100		60-140
bromochloromethane	102		60-140
chlorobenzene-d5	85		60-140



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L1218852  
**Report Date:** 11/12/12

### Air Canister Certification Results

Lab ID: L1218852-01  
 Client ID: CAN 203 SHELF 9  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 10/19/12 17:40  
 Analyst: RY

Date Collected: 10/18/12 15:50  
 Date Received: 10/19/12  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.860	--		1
Propane	ND	0.200	--	ND	0.361	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	2.50	--	ND	4.71	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.200	--	ND	0.434	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L1218852  
**Report Date:** 11/12/12

### Air Canister Certification Results

Lab ID: L1218852-01  
 Client ID: CAN 203 SHELF 9  
 Sample Location:

Date Collected: 10/18/12 15:50  
 Date Received: 10/19/12  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Methylene chloride	ND	1.00	--	ND	3.47	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	0.200	--	ND	0.704	--		1
2-Butanone	ND	0.200	--	ND	0.590	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.200	--	ND	0.590	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L1218852  
**Report Date:** 11/12/12

### Air Canister Certification Results

Lab ID: L1218852-01 Date Collected: 10/18/12 15:50  
 Client ID: CAN 203 SHELF 9 Date Received: 10/19/12  
 Sample Location: Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.20	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L1218852  
**Report Date:** 11/12/12

### Air Canister Certification Results

Lab ID: L1218852-01  
 Client ID: CAN 203 SHELF 9  
 Sample Location:

Date Collected: 10/18/12 15:50  
 Date Received: 10/19/12  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds				

No Tentatively Identified Compounds



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1218852**Project Number:** CANISTER QC BAT**Report Date:** 11/12/12**Air Canister Certification Results**

Lab ID: L1218852-01

Date Collected: 10/18/12 15:50

Client ID: CAN 203 SHELF 9

Date Received: 10/19/12

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	106		60-140
Bromochloromethane	111		60-140
chlorobenzene-d5	106		60-140



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L1218852  
**Report Date:** 11/12/12

### Air Canister Certification Results

Lab ID: L1218852-01  
 Client ID: CAN 203 SHELF 9  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 10/19/12 17:40  
 Analyst: RY

Date Collected: 10/18/12 15:50  
 Date Received: 10/19/12  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.050	--	ND	0.247	--		1
Chloromethane	ND	0.500	--	ND	1.03	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	2.00	--	ND	4.75	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.08	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	1.00	--	ND	3.47	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.020	--	ND	0.072	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L1218852  
**Report Date:** 11/12/12

### Air Canister Certification Results

Lab ID: L1218852-01  
 Client ID: CAN 203 SHELF 9  
 Sample Location:

Date Collected: 10/18/12 15:50  
 Date Received: 10/19/12  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	2.46	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	2.74	--		1
p-Isopropyltoluene	ND	0.500	--	ND	2.74	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	2.74	--		1



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L1218852  
**Report Date:** 11/12/12

### Air Canister Certification Results

Lab ID: L1218852-01 Date Collected: 10/18/12 15:50  
 Client ID: CAN 203 SHELF 9 Date Received: 10/19/12  
 Sample Location: Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	104		60-140
bromochloromethane	106		60-140
chlorobenzene-d5	109		60-140



# **AIR Petro Can Certification**

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1218291**Project Number:** CANISTER QC BAT**Report Date:** 11/12/12**AIR CAN CERTIFICATION RESULTS**

**Lab ID:** L1218291-01  
**Client ID:** CAN 1743 SHELF 10  
**Sample Location:** Not Specified  
**Matrix:** Air  
**Analytical Method:** 96,APH  
**Analytical Date:** 10/17/12 17:14  
**Analyst:** MB

**Date Collected:** 10/11/12 15:33  
**Date Received:** 10/12/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Petroleum Hydrocarbons in Air - Mansfield Lab</b>						
1,3-Butadiene	ND		ug/m3	2.0	--	1
Methyl tert butyl ether	ND		ug/m3	2.0	--	1
Benzene	ND		ug/m3	2.0	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/m3	12	--	1
Toluene	ND		ug/m3	2.0	--	1
Ethylbenzene	ND		ug/m3	2.0	--	1
p/m-Xylene	ND		ug/m3	4.0	--	1
o-Xylene	ND		ug/m3	2.0	--	1
Naphthalene	ND		ug/m3	2.0	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	--	1
C9-C10 Aromatics Total	ND		ug/m3	10	--	1

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1218852**Project Number:** CANISTER QC BAT**Report Date:** 11/12/12**AIR CAN CERTIFICATION RESULTS**

**Lab ID:** L1218852-01  
**Client ID:** CAN 203 SHELF 9  
**Sample Location:** Not Specified  
**Matrix:** Air  
**Analytical Method:** 96,APH  
**Analytical Date:** 10/20/12 15:48  
**Analyst:** RY

**Date Collected:** 10/18/12 15:50  
**Date Received:** 10/19/12  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Petroleum Hydrocarbons in Air - Mansfield Lab</b>						
1,3-Butadiene	ND		ug/m3	2.0	--	1
Methyl tert butyl ether	ND		ug/m3	2.0	--	1
Benzene	ND		ug/m3	2.0	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/m3	12	--	1
Toluene	ND		ug/m3	2.0	--	1
Ethylbenzene	ND		ug/m3	2.0	--	1
p/m-Xylene	ND		ug/m3	4.0	--	1
o-Xylene	ND		ug/m3	2.0	--	1
Naphthalene	ND		ug/m3	2.0	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	--	1
C9-C10 Aromatics Total	ND		ug/m3	10	--	1

Project Name: OLD WALDO CO. JAIL

Lab Number: L1220086

Project Number: R111.06134.022

Report Date: 11/12/12

**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

**Cooler Information Custody Seal****Cooler**

N/A Present/Intact

**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1220086-01A	Canister - 2.7 Liter	N/A	N/A		Y	Present/Intact	APH-10(30),TO15-SIM(30)
L1220086-02A	Canister - 2.7 Liter	N/A	N/A		Y	Present/Intact	APH-10(30),TO15-SIM(30)
L1220086-03A	Canister - 2.7 Liter	N/A	N/A		Y	Present/Intact	APH-10(30),TO15-SIM(30)
L1220086-04A	Canister - 2.7 Liter	N/A	N/A		Y	Present/Intact	APH-10(30),TO15-SIM(30)

\*Values in parentheses indicate holding time in days

**Project Name:** OLD WALDO CO. JAIL  
**Project Number:** R111.06134.022

**Lab Number:** L1220086  
**Report Date:** 11/12/12

## 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:** OLD WALDO CO. JAIL  
**Project Number:** R111.06134.022

**Lab Number:** L1220086  
**Report Date:** 11/12/12

**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.

**Project Name:** OLD WALDO CO. JAIL  
**Project Number:** R111.06134.022

**Lab Number:** L1220086  
**Report Date:** 11/12/12

## REFERENCES

- 48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.
- 96 Method for the Determination of Air-Phase Petroleum Hydrocarbons (APH), MassDEP, December 2009, Revision 1 with QC Requirements & Performance Standards for the Analysis of APH by GC/MS under the Massachusetts Contingency Plan, WSC-CAM-IXA, 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 August 3, 2012 – Mansfield 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-0141.**

*Wastewater/Non-Potable Water* (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

*Solid Waste/Soil* (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

### **Florida Department of Health Certificate/Lab ID: E87814. *NELAP Accredited.***

*Non-Potable Water* (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

*Solid & Chemical Materials* (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

*Air & Emissions* (EPA TO-15.)

### **Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. *NELAP Accredited.***

*Non-Potable Water* (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

*Solid & Chemical Materials* (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

*Biological Tissue* (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

*Air & Emissions* (EPA TO-15.)

### **New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. *NELAP Accredited.***

*Non-Potable Water* (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

*Solid & Chemical Materials* (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

### **New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. *NELAP Accredited.***

*Non-Potable Water* (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

*Solid & Chemical Materials* (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

*Atmospheric Organic Parameters* (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

*Biological Tissue* (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

**New York Department of Health** Certificate/Lab ID: 11627. **NELAP Accredited.**

*Non-Potable Water* (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

*Air & Emissions* (EPA TO-15, TO-10A.)

**Pennsylvania** Certificate/Lab ID: 68-02089 **NELAP Accredited**

*Non-Potable Water* (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

**Rhode Island Department of Health** Certificate/Lab ID: LAO00299. **NELAP Accredited via NJ-DEP.**

Refer to NJ-DEP Certificate for Non-Potable Water.

**Texas Commission of Environmental Quality** Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

*Solid & Chemical Materials* (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

*Air* (Organic Parameters: EPA TO-15)

**Virginia Division of Consolidated Laboratory Services** Certificate/Lab ID:460194. **NELAP Accredited.**

*Non-Potable Water* (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

*Solid & Chemical Materials* (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

**Washington State Department of Ecology** Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

*Solid & Chemical Materials* (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

**U.S. Army Corps of Engineers**

**Department of Defense, L-A-B** Certificate/Lab ID: L2217.01.

*Non-Potable Water* (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.)

*Air & Emissions* (EPA TO-15.)

**Analytes Not Accredited by NELAP**

Certification is not available by NELAP for the following analytes: **8270C**: Biphenyl. **TO-15**: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.



# AIR ANALYSIS

PAGE 1 OF 1

## CHAIN OF CUSTODY

320 Forbes Blvd, Mansfield, MA 02048  
 TEL: 508-822-9300 FAX: 508-822-3288

### Client Information

Client: Ransom Consulting Inc.  
 Address: 400 Commercial St. Ste. 400  
Portland ME  
 Phone: (207) 772-2891  
 Fax: (207) 772-3248  
 Email: ephenix@ransomenv.com

### Project Information

Project Name: Old Waldo Co. Jail  
 Project Location: Belfast ME  
 Project #: R111.06134.022  
 Project Manager: Peter Sherr  
 ALPHA Quote #:

### Turn-Around Time

Standard  RUSH (only confirmed if pre-approved)  
 Date Due: 11/12/2012 Time: 1500

### Date Rec'd in Lab:

### Report Information - Data Deliverables

FAX  
 ADEX  
 Criteria Checker: \_\_\_\_\_  
 (Default based on Regulatory Criteria Indicated)  
 Other Formats: \_\_\_\_\_  
 EMAIL (standard pdf report)  
 Additional Deliverables:  
ME DEP EDD report  
 Report to: (if different than Project Manager)  
ephenix@ransomenv.com

ALPHA Job #: L1220086

### Billing Information

Same as Client info PO #: 4723

### Regulatory Requirements/Report Limits

State/Fed	Program	Criteria
ME DEP	Brownfields	
US EPA	Brownfields	

Other Project Specific Requirements/Comments: TO-15 by SIM for the following compounds only:  
Chlorobenzene, 1,2-Dichloroethane, 1,3-dichlorobenzene, 1,4-Dichlorobenzene, 1,2-Dichlorobenzene  
and 1,2-Dibromoethane

### All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection					Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	ANALYSIS						Sample Comments (i.e. PID)						
		Date	Start Time	End Time	Initial Vacuum	Final Vacuum						TO-14A by TO-15	TO-15	TO-15 SIM	APH	FIXED GASES	TO-13A		TO-4 / TO-10					
L1220086-01	SV101	11/5/12	0919	0935	-27.15	-4.84	SV	EPP	2.7L	357	60													
-02	SV102	11/5/12	0847	0905	-29.21	-4.95	SV	EPP	2.7L	348	471													
-03	SV103	11/5/12	0957	1015	-29.21	-4.78	SV	EPP	2.7L	211	166													
-04	SV DUP	11/5/12	0919	0935	-26.26	-6.71	SV	EPP	2.7L	422	35													

### \*SAMPLE MATRIX CODES

AA = Ambient Air (Indoor/Outdoor)  
 SV = Soil Vapor/Landfill Gas/SVE  
 Other = Please Specify

Container Type

CS

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

Relinquished By:

[Signature]  
[Signature]  
[Signature]

Date/Time

11/6/12 10:30  
11/6/12 11:30  
11/6/12 16:30

Received By:

[Signature]  
[Signature]  
[Signature]

Date/Time:

11/6/12 10:30  
11/6/12 12:15  
11/6/12 16:30

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

**RE: Analytical Results Case Narrative  
Old Waldo Co. Jail  
Analytics #74235**

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, and Lead using EPA Method 6010B.

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 and Method Blanks  
Chromatograms
- VOC Form 3 MS/MSD and LCS Recoveries
- VPH Form I Data Sheet for Samples and Blanks  
Chromatograms
- VPH Form 3 MS/MSD (LCS) Recoveries  
Chromatograms
- Metals Form I Data Sheet for Samples and Blanks
- Metals Form 3 MS/MSD (LCS) Recoveries
- Chain of Custody (COC) Forms
- Sample Receipt Checklist

## QC NON-CONFORMANCE SUMMARY

**Sample Receipt:**

No QC deviations.

**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.

**Volatile Petroleum Hydrocarbons (VPH):**

No results were reported below the quantitation limit for the target analytes and C9-C10 Aromatic Hydrocarbon range.

Sample 74235-1, 74235-2 and 74235-6 had high surrogate recovery. The samples had no analytes detected. Results were reported with a comment to this affect.

**Lead by EPA 6010B:**

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: 74235**

**Revision: Rev. 0**

**Re: Old Waldo Co. Jail (Project No: 111.06134.022)**

Enclosed are the results of the analyses on your sample(s). Samples were received on 08 November 2012 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

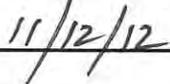
Analytics Environmental Laboratory is certified by the states of New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, Virginia, Maryland, North Carolina, and is accredited by the Department of Defense (DOD) ELAP program. A list of actual certified parameters is available upon request.

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

Authorized signature

  
Stephen L. Knollmeyer Lab. Director

Date

  
11/12/12

**This report shall not be reproduced, except in full, without the written consent of Analytics Environmental Laboratory, LLC.**

**CLIENT: Ransom Consulting, Inc.**

**REPORT NUMBER: 74235**

**REV: Rev. 0**

**PROJECT: Old Waldo Co. Jail (Project No: 111.06134.022)**

<u>Lab Number</u>	<u>Sample Date</u>	<u>Station Location</u>	<u>Analysis</u>	<u>Comments</u>
74235-1	11/08/12	B101-S2	EPA 8260 Volatile Organics	
	11/08/12	B101-S2	Metals	
	11/08/12	B101-S2	Volatile Petroleum Hydrocarbons	
74235-2	11/08/12	B102-S1	EPA 8260 Volatile Organics	
	11/08/12	B102-S1	Metals	
	11/08/12	B102-S1	Volatile Petroleum Hydrocarbons	
74235-3	11/08/12	B103-S6	EPA 8260 Volatile Organics	
	11/08/12	B103-S6	Metals	
	11/08/12	B103-S6	Volatile Petroleum Hydrocarbons	
74235-4	11/08/12	MW102	EPA 8260 Volatile Organics	
	11/08/12	MW102	Metals	
	11/08/12	MW102	Volatile Petroleum Hydrocarbons	
74235-5	11/08/12	MW DUP	EPA 8260 Volatile Organics	
	11/08/12	MW DUP	Metals	
	11/08/12	MW DUP	Volatile Petroleum Hydrocarbons	
74235-6	11/08/12	B DUP	EPA 8260 Volatile Organics	
	11/08/12	B DUP	Metals	
	11/08/12	B DUP	Volatile Petroleum Hydrocarbons	
74235-7	11/08/12	BK-1	Metals	
74235-8	11/08/12	BK-2	Metals	
74235-9	11/08/12	Trip Blank Soil	Electronic Data Deliverable	
	11/08/12	Trip Blank Soil	EPA 8260 Volatile Organics	
	11/08/12	Trip Blank Soil	Volatile Petroleum Hydrocarbons	
74235-10	11/08/12	Trip Blank Water	EPA 8260 Volatile Organics	

### Surrogate Compound Limits

Matrix:	Aqueous	Solid	
Units:	% Recovery	% 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  
Ransom Consulting, Inc.  
400 Commercial Street Suite 404  
Portland, ME 04101

November 12, 2012

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** Old Waldo Co. Jail  
**Project Number:** 111.06134.022  
**Field Sample ID:** B101-S2

**Lab Sample ID:** 74235-1  
**Matrix:** Solid  
**Percent Solid:** 78  
**Dilution Factor:** 150  
**Collection Date:** 11/08/12  
**Lab Receipt Date:** 11/08/12  
**Analysis Date:** 11/09/12

ANALYTICAL RESULTS VOLATILE ORGANICS					
COMPOUND		Quantitation Limit $\mu\text{g}/\text{kg}$	Result $\mu\text{g}/\text{kg}$		
Chlorobenzene		150	U		
1,3-Dichlorobenzene		150	U		
1,4-Dichlorobenzene		150	U		
1,2-Dichlorobenzene		150	U		
1,2-Dibromoethane		112	U		
1,2-Dichloroethane		112	U		
Surrogate Standard Recovery					
d4-1,2-Dichloroethane	94 %	d8-Toluene	82 %	Bromofluorobenzen	93 %
U=Undetected		J=Estimated		E=Exceeds Calibration Range	
				B=Detected in	

**METHODOLOGY:** Sample collection in accordance with SW-846 method 5035A. Sample analysis was conducted according to: Test

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

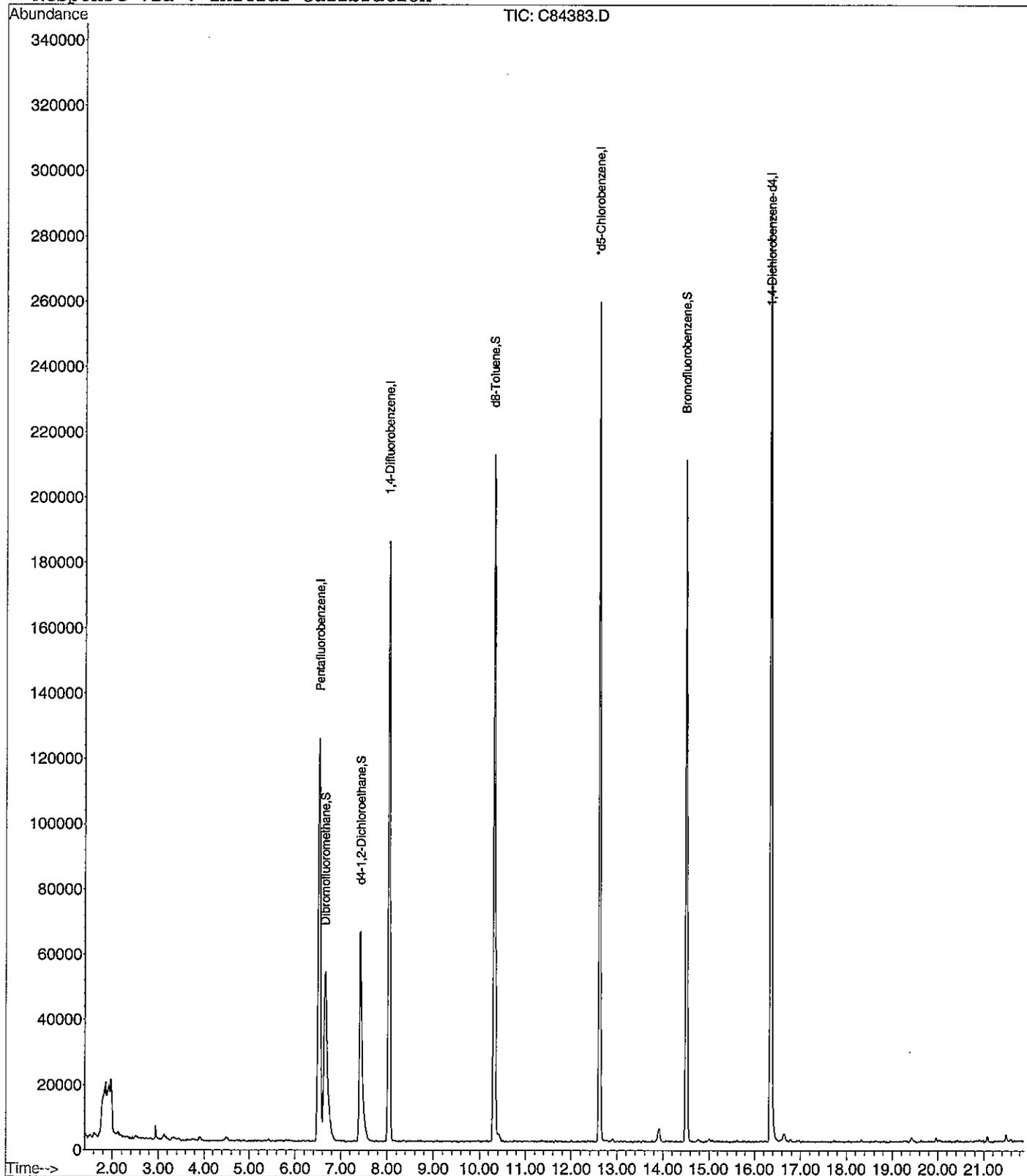
Authorized signature



Quantitation Report

Data File : C:\HPCHEM\1\DATA\DATA\110912-C\C84383.D Vial: 10  
Acq On : 9 Nov 2012 4:02 pm Operator: MT  
Sample : 74235-1 Inst : Instr\_C  
Misc : 50,8.56,SOIL Multiplr: 1.00  
MS Integration Params: rteint.p  
Quant Time: Nov 12 8:12 2012 Quant Results File: V809252C.RES

Method : C:\HPCHEM\1\METHODS\METHODS\METHODS\V809252C.M (RTE Integrator)  
Title : 8260 Purgable Organics  
Last Update : Mon Nov 12 07:54:44 2012  
Response via : Initial Calibration



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

November 12, 2012

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** Old Waldo Co. Jail  
**Project Number:** 111.06134.022  
**Field Sample ID:** B102-S1

**Lab Sample ID:** 74235-2  
**Matrix:** Solid  
**Percent Solid:** 78  
**Dilution Factor:** 130  
**Collection Date:** 11/08/12  
**Lab Receipt Date:** 11/08/12  
**Analysis Date:** 11/09/12

ANALYTICAL RESULTS VOLATILE ORGANICS					
COMPOUND		Quantitation Limit $\mu\text{g}/\text{kg}$	Result $\mu\text{g}/\text{kg}$		
Chlorobenzene		130	U		
1,3-Dichlorobenzene		130	U		
1,4-Dichlorobenzene		130	U		
1,2-Dichlorobenzene		130	U		
1,2-Dibromoethane		97	U		
1,2-Dichloroethane		97	U		
Surrogate Standard Recovery					
d4-1,2-Dichloroethane	96 %	d8-Toluene	83 %	Bromofluorobenzen	96 %
U=Undetected		J=Estimated		E=Exceeds Calibration Range	
				B=Detected in	

**METHODOLOGY:** Sample collection in accordance with SW-846 method 5035A. Sample analysis was conducted according to: Test

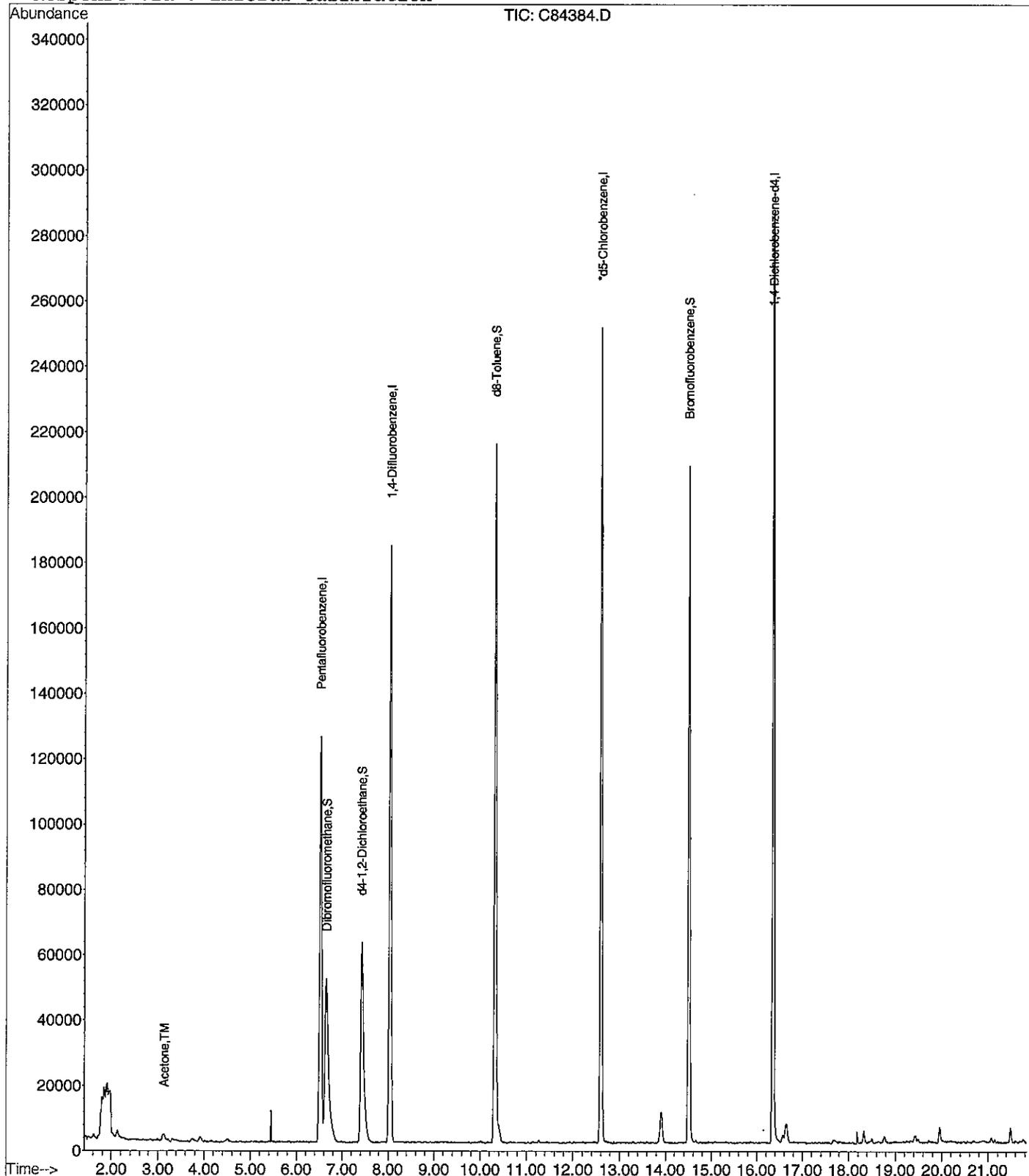
**COMMENTS:** Results are expressed on a dry weight basis.

Authorized signature 

Quantitation Report

Data File : C:\HPCHEM\1\DATA\DATA\110912-C\C84384.D Vial: 11  
Acq On : 9 Nov 2012 4:19 pm Operator: MT  
Sample : 74235-2 Inst : Instr\_C  
Misc : 50,9.87,SOIL Multiplr: 1.00  
MS Integration Params: rteint.p  
Quant Time: Nov 12 8:12 2012 Quant Results File: V809252C.RES

Method : C:\HPCHEM\1\METHODS\METHODS\METHODS\V809252C.M (RTE Integrator)  
Title : 8260 Purgable Organics  
Last Update : Mon Nov 12 07:54:44 2012  
Response via : Initial Calibration



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

November 12, 2012

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** Old Waldo Co. Jail  
**Project Number:** 111.06134.022  
**Field Sample ID:** B103-S6

**Lab Sample ID:** 74235-3  
**Matrix:** Solid  
**Percent Solid:** 91  
**Dilution Factor:** 108  
**Collection Date:** 11/08/12  
**Lab Receipt Date:** 11/08/12  
**Analysis Date:** 11/09/12

ANALYTICAL RESULTS VOLATILE ORGANICS			
COMPOUND	Quantitation Limit $\mu\text{g}/\text{kg}$	Result $\mu\text{g}/\text{kg}$	
Chlorobenzene	108	U	
1,3-Dichlorobenzene	108	U	
1,4-Dichlorobenzene	108	U	
1,2-Dichlorobenzene	108	U	
1,2-Dibromoethane	81	U	
1,2-Dichloroethane	81	U	
Surrogate Standard Recovery			
d4-1,2-Dichloroethane	107 %	d8-Toluene	90 %
		Bromofluorobenzen	105 %
U=Undetected	J=Estimated	E=Exceeds Calibration Range	B=Detected in

**METHODOLOGY:** Sample collection in accordance with SW-846 method 5035A. Sample analysis was conducted according to: Test

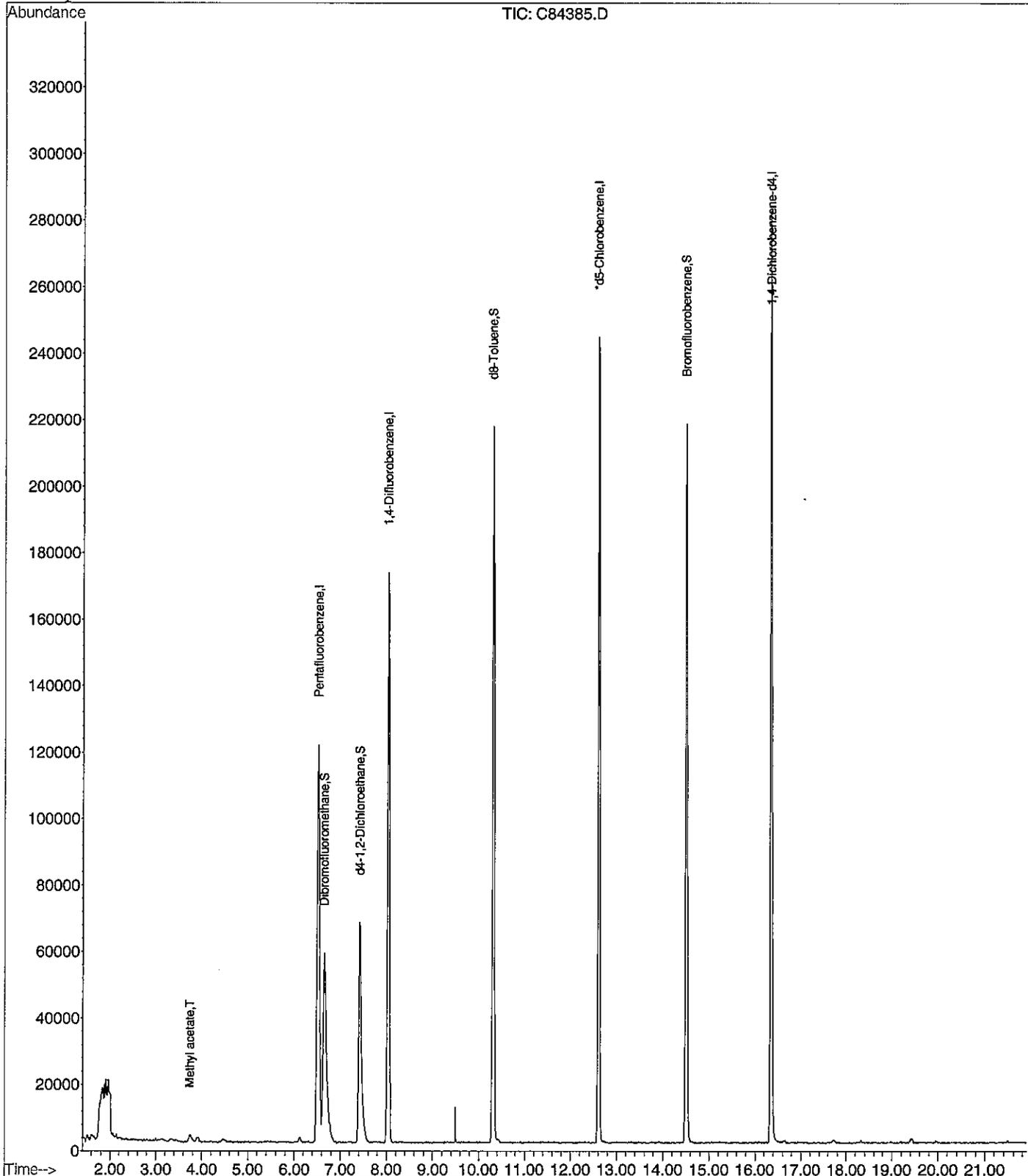
**COMMENTS:** Results are expressed on a dry weight basis.

Authorized signature 

Quantitation Report

Data File : C:\HPCHEM\1\DATA\DATA\110912-C\C84385.D Vial: 12  
Acq On : 9 Nov 2012 4:45 pm Operator: MT  
Sample : 74235-3 Inst : Instr\_C  
Misc : 50,12.20,SOIL,,12ML F.V. Multiplr: 1.00  
MS Integration Params: rteint.p  
Quant Time: Nov 12 8:12 2012 Quant Results File: V809252C.RES

Method : C:\HPCHEM\1\METHODS\METHODS\METHODS\V809252C.M (RTE Integrator)  
Title : 8260 Purgable Organics  
Last Update : Mon Nov 12 07:54:44 2012  
Response via : Initial Calibration



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

November 10, 2012

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** Old Waldo Co. Jail

**Project Number:** 111.06134.022

**Field Sample ID:** MW102

**Lab Sample ID:** 74235-4

**Matrix:** Aqueous

**Percent Solid:** N/A

**Dilution Factor:** 1

**Collection Date:** 11/08/12

**Lab Receipt Date:** 11/08/12

**Analysis Date:** 11/09/12

ANALYTICAL RESULTS VOLATILE ORGANICS			
COMPOUND	Quantitation Limit $\mu\text{g/L}$	Result $\mu\text{g/L}$	
Chlorobenzene	1	U	
1,3-Dichlorobenzene	1	U	
1,4-Dichlorobenzene	1	U	
1,2-Dichlorobenzene	1	U	
1,2-Dibromoethane	1	U	
1,2-Dichloroethane	1	U	
Surrogate Standard Recovery			
d4-1,2-Dichloroethane	99 %	d8-Toluene	99 %
		Bromofluorobenzen	97 %
U=Undetected	J=Estimated	E=Exceeds Calibration Range	B=Detected in

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

**COMMENTS:**

Authorized signature 

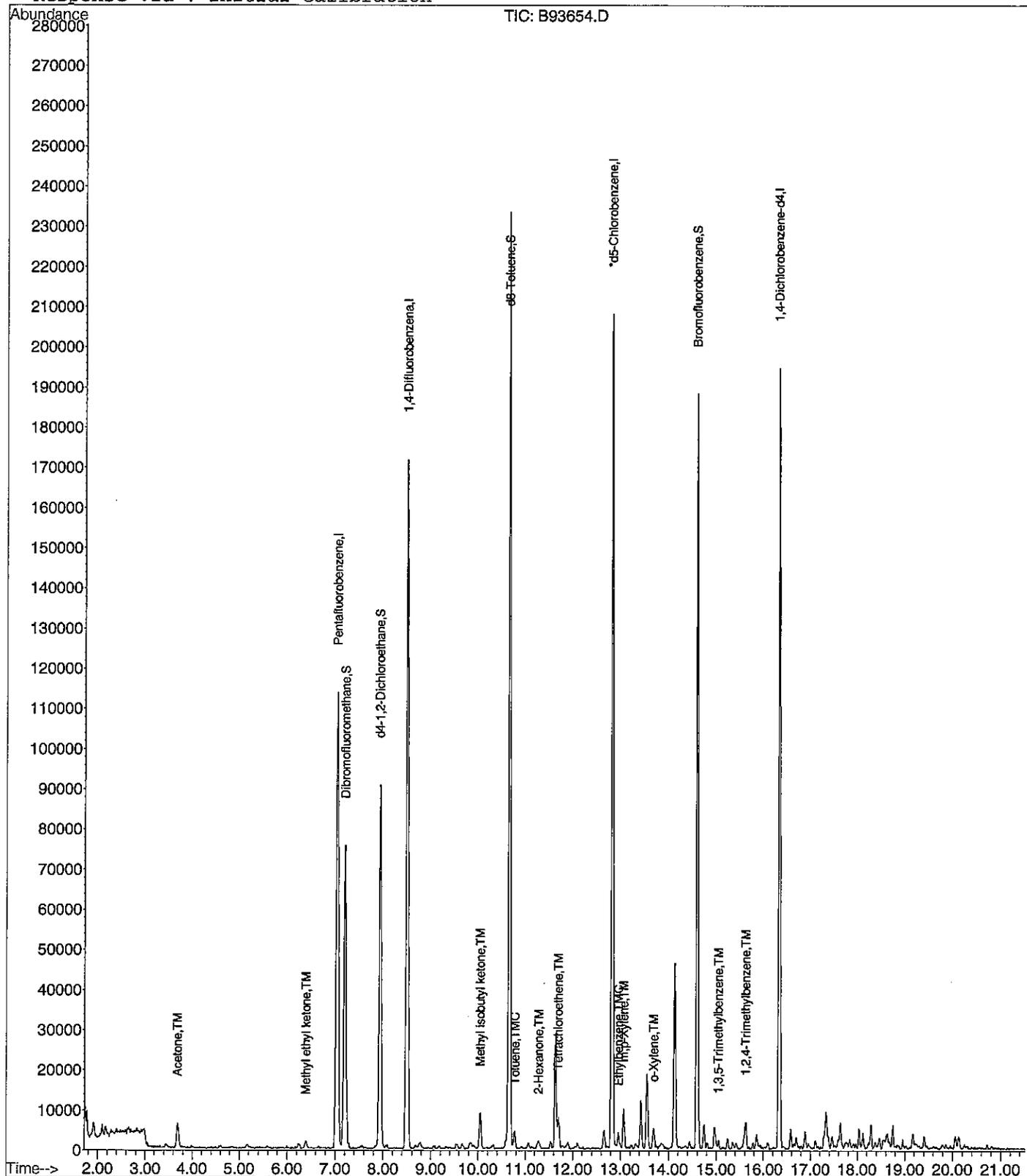
Quantitation report

Data File : C:\HPCHEM\1\DATA\110912-B\B93654.D  
Acq On : 9 Nov 2012 4:00 pm  
Sample : 74235-4  
Misc : 5000  
MS Integration Params: rteint.p  
Quant Time: Nov 10 12:38 2012

Vial: 9  
Operator: MT  
Inst : Instrumen  
Multiplr: 1.00

Quant Results File: V811072B.RES

Method : C:\HPCHEM\1\METHODS\V811072B.M (RTE Integrator)  
Title : 8260 Purgable Organics  
Last Update : Wed Nov 07 16:58:24 2012  
Response via : Initial Calibration



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

November 10, 2012

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** Old Waldo Co. Jail  
**Project Number:** 111.06134.022  
**Field Sample ID:** MW DUP

**Lab Sample ID:** 74235-5  
**Matrix:** Aqueous  
**Percent Solid:** N/A  
**Dilution Factor:** 1  
**Collection Date:** 11/08/12  
**Lab Receipt Date:** 11/08/12  
**Analysis Date:** 11/09/12

ANALYTICAL RESULTS VOLATILE ORGANICS			
COMPOUND	Quantitation Limit $\mu\text{g/L}$	Result $\mu\text{g/L}$	
Chlorobenzene	1	U	
1,3-Dichlorobenzene	1	U	
1,4-Dichlorobenzene	1	U	
1,2-Dichlorobenzene	1	U	
1,2-Dibromoethane	1	U	
1,2-Dichloroethane	1	U	
Surrogate Standard Recovery			
d4-1,2-Dichloroethane	101 %	d8-Toluene	98 %
		Bromofluorobenzen	98 %
U=Undetected		J=Estimated	
E=Exceeds Calibration Range		B=Detected in	

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

**COMMENTS:**

Authorized signature 

Quantitation report

Data File : C:\HPCHEM\1\DATA\110912-B\B93655.D

Vial: 10

Acq On : 9 Nov 2012 4:27 pm

Operator: MT

Sample : 74235-5

Inst : Instrumen

Misc : 5000

Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Nov 10 12:38 2012

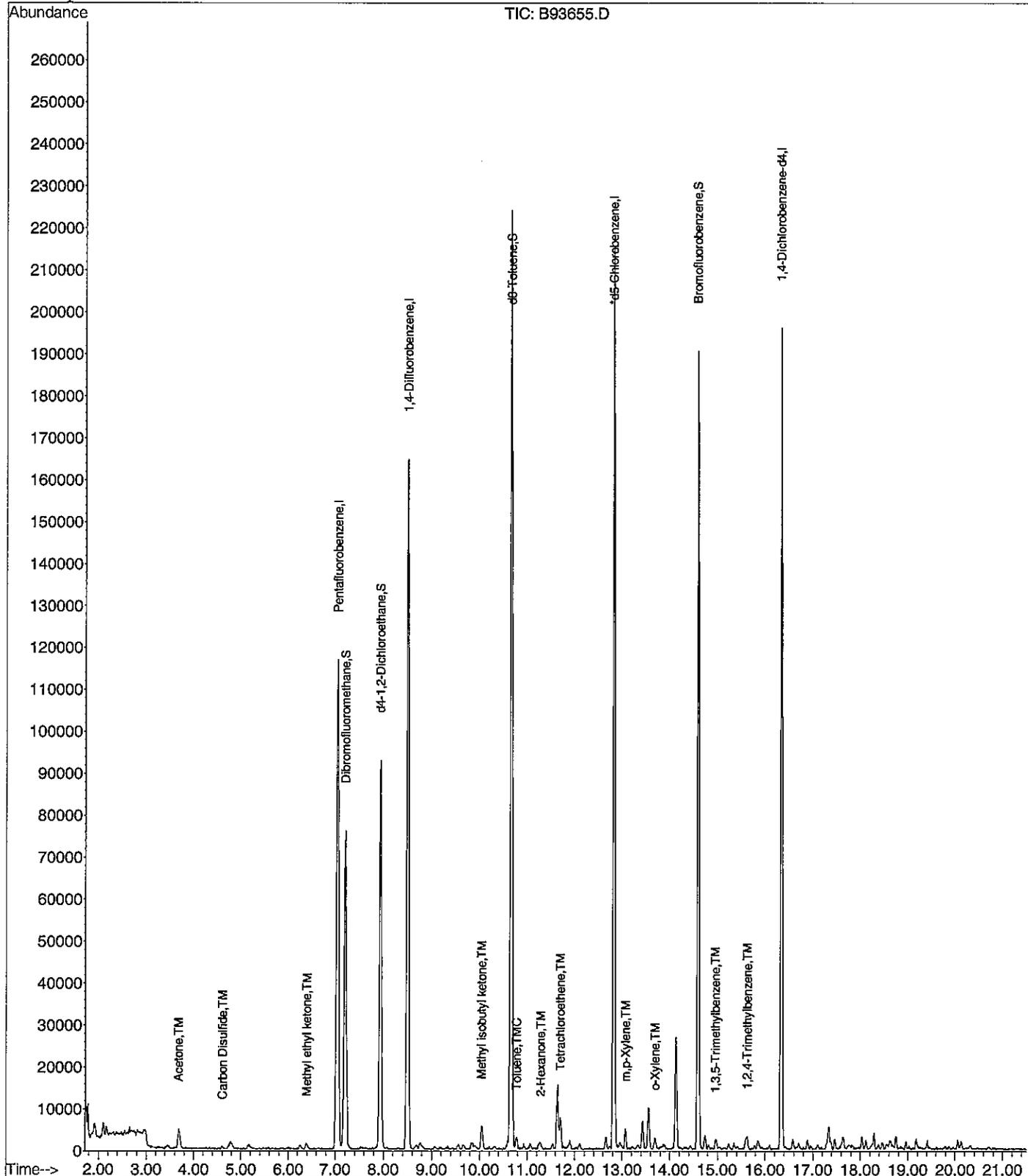
Quant Results File: V811072B.RES

Method : C:\HPCHEM\1\METHODS\V811072B.M (RTE Integrator)

Title : 8260 Purgable Organics

Last Update : Wed Nov 07 16:58:24 2012

Response via : Initial Calibration



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

November 12, 2012

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** Old Waldo Co. Jail

**Project Number:** 111.06134.022

**Field Sample ID:** B DUP

**Lab Sample ID:** 74235-6

**Matrix:** Solid

**Percent Solid:** 74

**Dilution Factor:** 165

**Collection Date:** 11/08/12

**Lab Receipt Date:** 11/08/12

**Analysis Date:** 11/09/12

ANALYTICAL RESULTS VOLATILE ORGANICS					
COMPOUND		Quantitation Limit $\mu\text{g}/\text{kg}$	Result $\mu\text{g}/\text{kg}$		
Chlorobenzene		165	U		
1,3-Dichlorobenzene		165	U		
1,4-Dichlorobenzene		165	U		
1,2-Dichlorobenzene		165	U		
1,2-Dibromoethane		124	U		
1,2-Dichloroethane		124	U		
Surrogate Standard Recovery					
d4-1,2-Dichloroethane	97 %	d8-Toluene	86 %	Bromofluorobenzen	94 %
U=Undetected		J=Estimated		E=Exceeds Calibration Range	
B=Detected in					

**METHODOLOGY:** Sample collection in accordance with SW-846 method 5035A. Sample analysis was conducted according to: Test

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

Authorized signature 

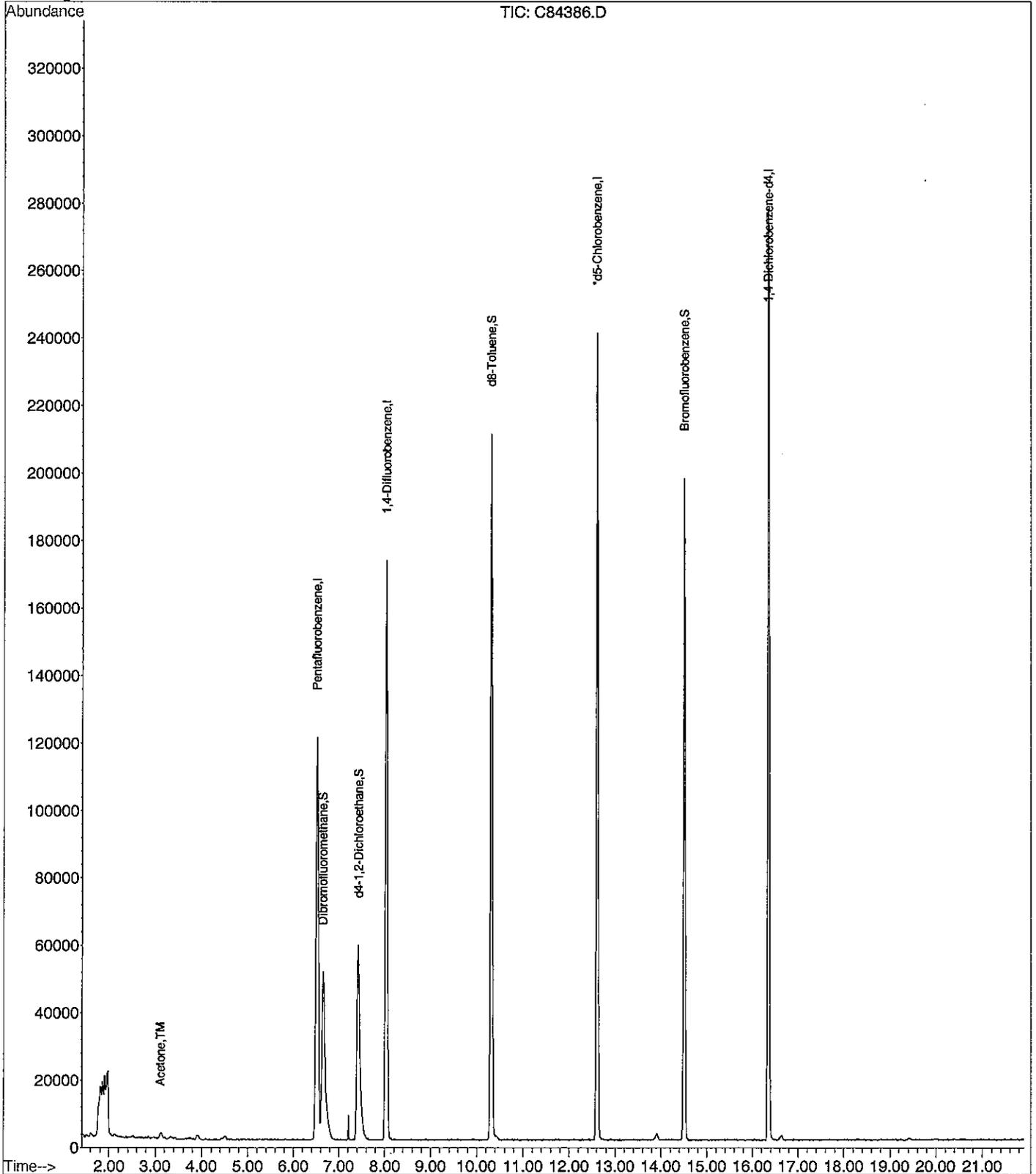
Quantitation Report

Data File : C:\HPCHEM\1\DATA\DATA\110912-C\C84386.D  
Acq On : 9 Nov 2012 5:44 pm  
Sample : 74235-6  
Misc : 50,8.19,SOIL  
MS Integration Params: rteint.p  
Quant Time: Nov 12 8:12 2012

Vial: 13  
Operator: MT  
Inst : Instr\_C  
Multiplr: 1.00

Quant Results File: V809252C.RES

Method : C:\HPCHEM\1\METHODS\METHODS\METHODS\V809252C.M (RTE Integrator)  
Title : 8260 Purgable Organics  
Last Update : Mon Nov 12 07:54:44 2012  
Response via : Initial Calibration



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

November 12, 2012

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** Old Waldo Co. Jail  
**Project Number:** 111.06134.022  
**Field Sample ID:** Trip Blank Soil

**Lab Sample ID:** 74235-9  
**Matrix:** Solid  
**Percent Solid:** 100  
**Dilution Factor:** 100  
**Collection Date:** 11/08/12  
**Lab Receipt Date:** 11/08/12  
**Analysis Date:** 11/09/12

**ANALYTICAL RESULTS VOLATILE ORGANICS**

COMPOUND	Quantitation Limit $\mu\text{g}/\text{kg}$	Result $\mu\text{g}/\text{kg}$
Chlorobenzene	100	U
1,3-Dichlorobenzene	100	U
1,4-Dichlorobenzene	100	U
1,2-Dichlorobenzene	100	U
1,2-Dibromoethane	75	U
1,2-Dichloroethane	75	U

Surrogate Standard Recovery			
d4-1,2-Dichloroethane	118 %	d8-Toluene	106 %
		Bromofluorobenzen	119 %

U=Undetected	J=Estimated	E=Exceeds Calibration Range	B=Detected in
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**METHODOLOGY:** Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8260B.

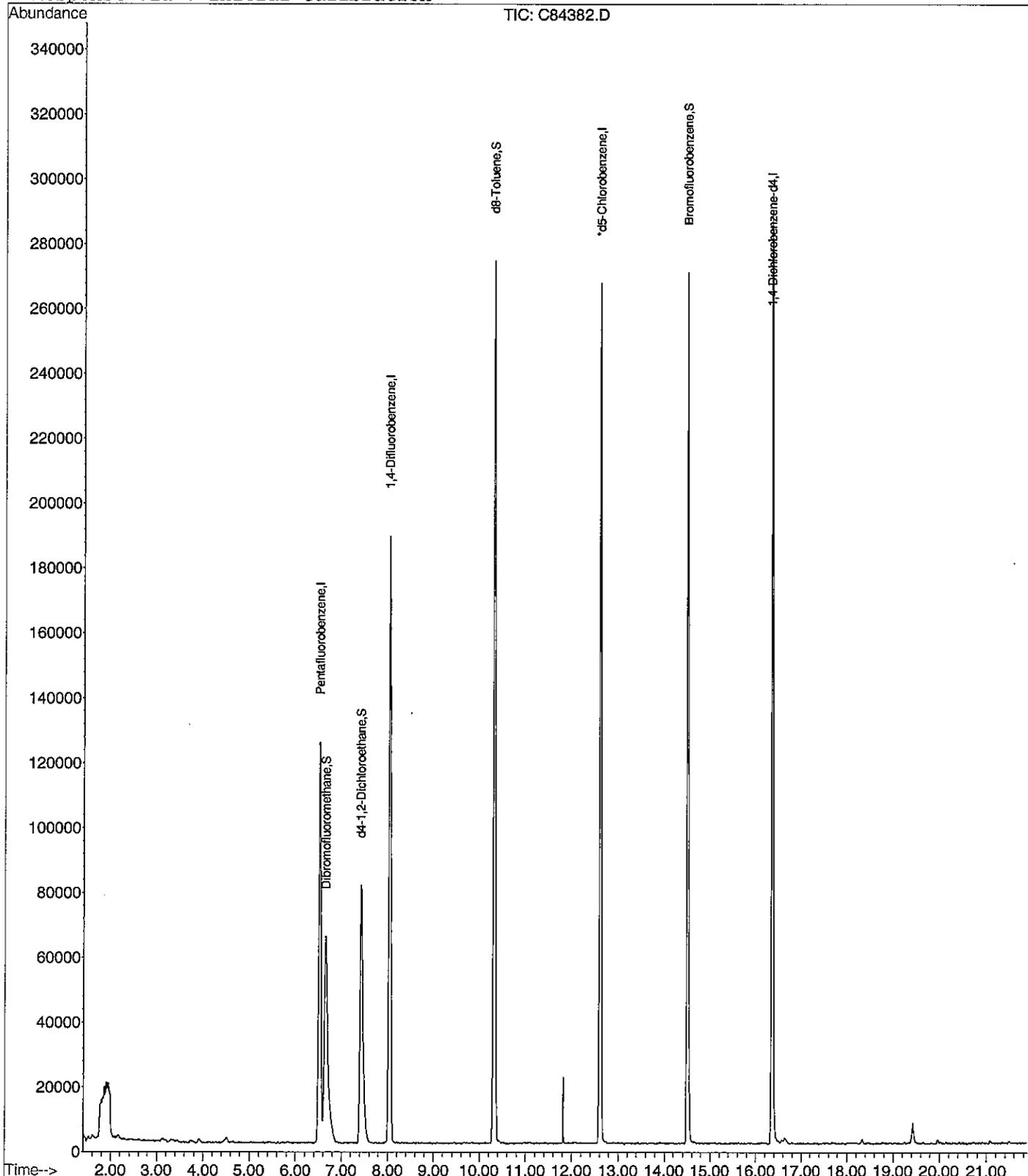
**COMMENTS:** Results are expressed on a dry weight basis.

Authorized signature 

Quantitation Report

Data File : C:\HPCHEM\1\DATA\DATA\110912-C\C84382.D Vial: 8  
Acq On : 9 Nov 2012 3:26 pm Operator: MT  
Sample : 74235-9 Inst : Instr\_C  
Misc : 50,10.00,SOIL Multiplr: 1.00  
MS Integration Params: rteint.p  
Quant Time: Nov 12 8:12 2012 Quant Results File: V809252C.RES

Method : C:\HPCHEM\1\METHODS\METHODS\METHODS\V809252C.M (RTE Integrator)  
Title : 8260 Purgable Organics  
Last Update : Mon Nov 12 07:54:44 2012  
Response via : Initial Calibration



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

November 10, 2012

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** Old Waldo Co. Jail  
**Project Number:** 111.06134.022  
**Field Sample ID:** Trip Blank Water

**Lab Sample ID:** 74235-10  
**Matrix:** Aqueous  
**Percent Solid:** N/A  
**Dilution Factor:** 1  
**Collection Date:** 11/08/12  
**Lab Receipt Date:** 11/08/12  
**Analysis Date:** 11/09/12

ANALYTICAL RESULTS VOLATILE ORGANICS			
COMPOUND	Quantitation Limit µg/L	Result µg/L	
Chlorobenzene	1	U	
1,3-Dichlorobenzene	1	U	
1,4-Dichlorobenzene	1	U	
1,2-Dichlorobenzene	1	U	
1,2-Dibromoethane	1	U	
1,2-Dichloroethane	1	U	
Surrogate Standard Recovery			
d4-1,2-Dichloroethane	101 %	d8-Toluene	98 %
		Bromofluorobenzen	101 %
U=Undetected	J=Estimated	E=Exceeds Calibration Range	B=Detected in

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

**COMMENTS:**

Authorized signature 

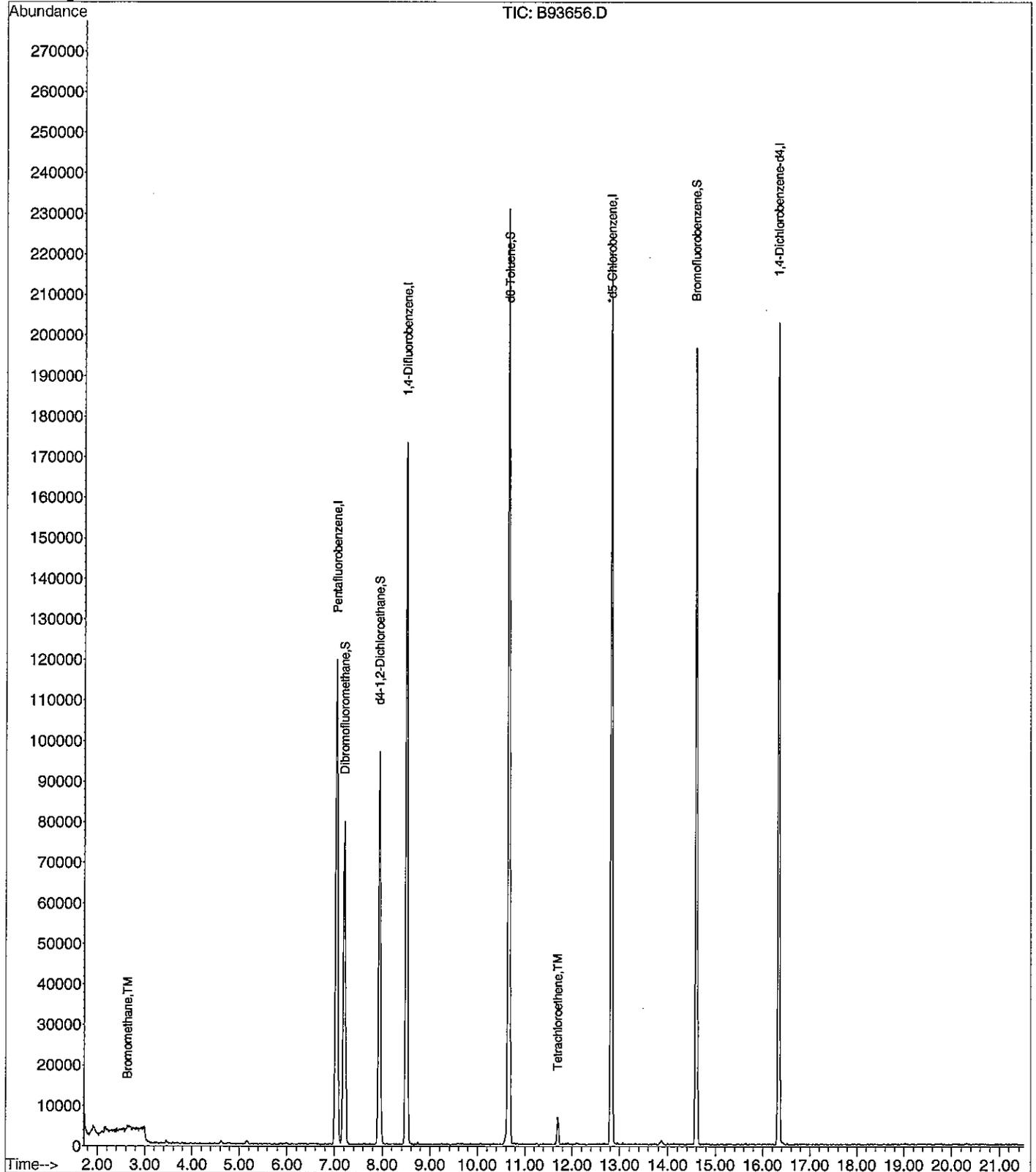
Quantitation Report

Data File : C:\HPCHEM\1\DATA\110912-B\B93656.D  
Acq On : 9 Nov 2012 4:59 pm  
Sample : 74235-10  
Misc : 5000  
MS Integration Params: rteint.p  
Quant Time: Nov 10 12:38 2012

Vial: 11  
Operator: MT  
Inst : Instrumen  
Multiplr: 1.00

Quant Results File: V811072B.RES

Method : C:\HPCHEM\1\METHODS\V811072B.M (RTE Integrator)  
Title : 8260 Purgable Organics  
Last Update : Wed Nov 07 16:58:24 2012  
Response via : Initial Calibration



VOLATILE  
QC FORMS

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

November 10, 2012

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** Old Waldo Co. Jail  
**Project Number:** 111.06134.022  
**Field Sample ID:** LAB QC

**Lab Sample ID:** B811092B  
**Matrix:** Aqueous  
**Percent Solid:** N/A  
**Dilution Factor:** 1  
**Collection Date:**  
**Lab Receipt Date:**  
**Analysis Date:** 11/09/12

ANALYTICAL RESULTS VOLATILE ORGANICS			
COMPOUND	Quantitation Limit $\mu\text{g/L}$	Result $\mu\text{g/L}$	
Chlorobenzene	1	U	
1,3-Dichlorobenzene	1	U	
1,4-Dichlorobenzene	1	U	
1,2-Dichlorobenzene	1	U	
1,2-Dibromoethane	1	U	
1,2-Dichloroethane	1	U	
Surrogate Standard Recovery			
d4-1,2-Dichloroethane	99 %	d8-Toluene	98 %
		Bromofluorobenzen	100 %
U=Undetected	J=Estimated	E=Exceeds Calibration Range	B=Detected in

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

**COMMENTS:**

Authorized signature 

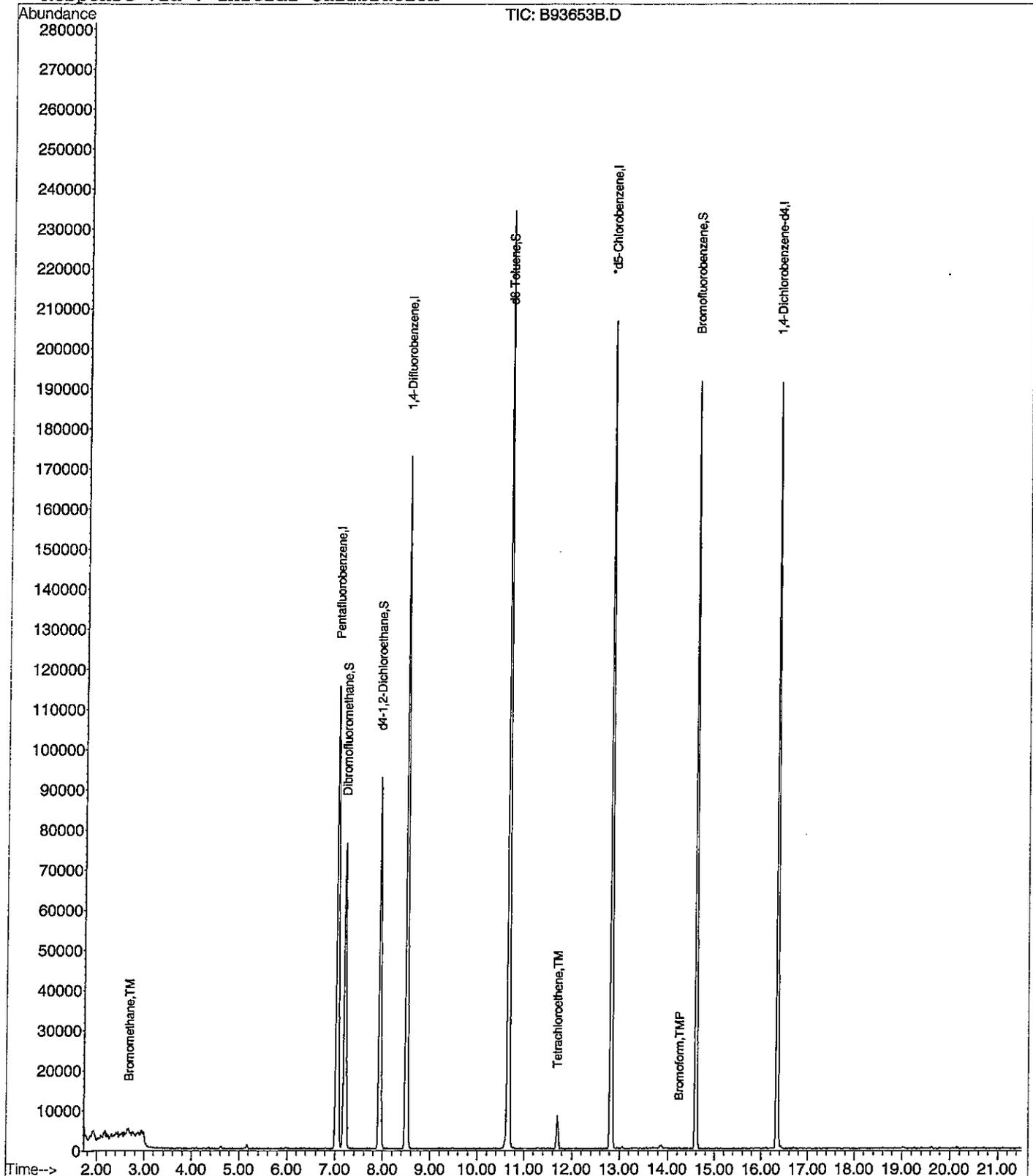
Quantitation Report

Data File : C:\HPCHEM\1\DATA\110912-B\B93653B.D  
Acq On : 9 Nov 2012 3:25 pm  
Sample : B811092B  
Misc : 5000  
MS Integration Params: rteint.p  
Quant Time: Nov 10 12:38 2012

Vial: 8  
Operator: MT  
Inst : Instrumen  
Multiplr: 1.00

Quant Results File: V811072B.RES

Method : C:\HPCHEM\1\METHODS\V811072B.M (RTE Integrator)  
Title : 8260 Purgable Organics  
Last Update : Wed Nov 07 16:58:24 2012  
Response via : Initial Calibration



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

November 12, 2012

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** Old Waldo Co. Jail  
**Project Number:** 111.06134.022  
**Field Sample ID:** LAB QC

**Lab Sample ID:** MB11092C  
**Matrix:** Solid  
**Percent Solid:** 100  
**Dilution Factor:** 100  
**Collection Date:**  
**Lab Receipt Date:**  
**Analysis Date:** 11/09/12

ANALYTICAL RESULTS VOLATILE ORGANICS			
COMPOUND	Quantitation Limit $\mu\text{g}/\text{kg}$	Result $\mu\text{g}/\text{kg}$	
Chlorobenzene	100	U	
1,3-Dichlorobenzene	100	U	
1,4-Dichlorobenzene	100	U	
1,2-Dichlorobenzene	100	U	
1,2-Dibromoethane	75	U	
1,2-Dichloroethane	75	U	
Surrogate Standard Recovery			
d4-1,2-Dichloroethane	114 %	d8-Toluene	95 %
		Bromofluorobenzen	107 %
U=Undetected	J=Estimated	E=Exceeds Calibration Range	B=Detected in

**METHODOLOGY:** Sample collection in accordance with SW-846 method 5035A. Sample analysis was conducted according to: Test

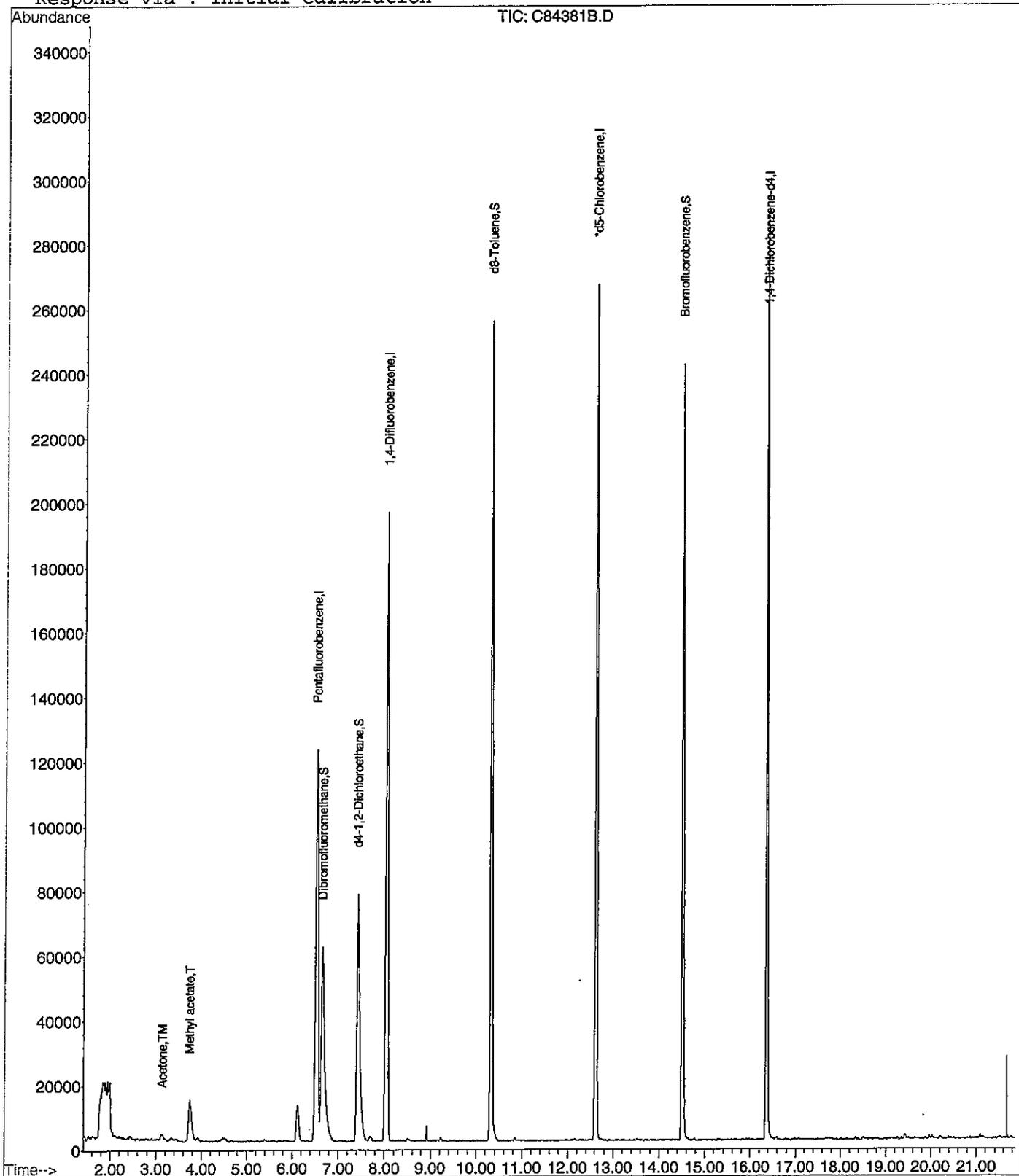
**COMMENTS:** Results are expressed on a dry weight basis.

Authorized signature *Mphell*

Quantitation Report

Data File : C:\HPCHEM\1\DATA\DATA\110912-C\C84381B.D Vial: 7  
Acq On : 9 Nov 2012 2:58 pm Operator: MT  
Sample : MB11092C Inst : Instr\_C  
Misc : 50,10.00,SOIL Multiplr: 1.00  
MS Integration Params: rteint.p  
Quant Time: Nov 12 8:12 2012 Quant Results File: V809252C.RES

Method : C:\HPCHEM\1\METHODS\METHODS\METHODS\V809252C.M (RTE Integrator)  
Title : 8260 Purgable Organics  
Last Update : Mon Nov 12 07:54:44 2012  
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: 74235  
Non-spiked sample: B811092B  
Spike: L811092B  
Spike duplicate: L811092B2

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	111		21	106		4	
Chloromethane	20	40	125	15	0.0	20	101		18	91		10	
Vinyl Chloride	20	70	130	15	0.0	21	106		20	99		7	
Bromomethane	20	40	145	15	0.0	20	100		24	122		19	*
Chloroethane	20	70	130	15	0.0	20	99		19	96		3	
t-Butyl alcohol (TBA)	100	70	130	15	0.0	87	87		86	86		0	
Trichlorofluoromethane	20	70	130	15	0.0	21	104		20	98		6	
Diethyl ether	20	70	130	15	0.0	20	99		19	95		3	
1,1,2-Trichlorotrifluoroethane	20	70	130	15	0.0	21	103		20	101		3	
Acetone	100	40	140	15	0.0	99	99		95	95		4	
1,1-Dichloroethene	20	75	125	15	0.0	20	101		20	98		4	
Methyl iodide	20	70	130	15	0.0	24	118		22	111		6	
Di-isopropyl ether (DIPE)	20	70	130	15	0.0	20	99		20	98		2	
Methylene Chloride	20	70	130	15	0.0	20	101		20	99		1	
Carbon Disulfide	20	70	130	15	0.0	19	95		18	91		4	
Acrylonitrile	20	70	130	15	0.0	21	106		21	105		1	
Methyl-tert-butyl ether (MTBE)	40	70	130	15	0.0	38	95		38	94		1	
trans-1,2-Dichloroethene	20	75	125	15	0.0	20	101		19	94		8	
1,1-Dichloroethane	20	70	130	15	0.0	21	105		20	99		5	
Vinyl acetate	20	70	130	15	0.0	21	104		20	99		4	
Methyl ethyl ketone	100	40	150	15	0.0	100	100		97	97		3	
Ethyl t-butyl ether (ETBE)	20	70	130	15	0.0	20	101		20	98		3	
2,2-Dichloropropane	20	70	130	15	0.0	21	106		20	101		5	
cis-1,2-Dichloroethene	20	75	125	15	0.0	21	106		21	103		3	
t-Amyl methyl ether (TAME)	20	70	130	15	0.0	19	97		19	96		1	
Chloroform	20	70	130	15	0.0	21	105		20	100		4	
Bromochloromethane	20	70	130	15	0.0	21	104		21	103		1	
Tetrahydrofuran	20	70	130	15	0.0	21	104		19	95		8	
1,1,1-Trichloroethane	20	75	125	15	0.0	21	106		20	98		8	
1,1-Dichloropropene	20	75	130	15	0.0	20	100		19	96		4	
Carbon Tetrachloride	20	75	125	15	0.0	21	106		21	103		4	
1,2-Dichloroethane	20	70	130	15	0.0	20	99		19	95		4	
Benzene	20	80	120	15	0.0	19	97		18	92		5	
Trichloroethene	20	75	125	15	0.0	20	98		19	95		3	
1,2-Dichloropropane	20	75	125	15	0.0	20	99		20	100		1	
Methylmethacrylate	20	70	130	15	0.0	19	96		19	95		1	
Bromodichloromethane	20	75	120	15	0.0	21	106		21	104		1	
Dibromomethane	20	75	125	15	0.0	19	97		20	98		1	
1,4-Dioxane	500	40	160	15	0.0	441	88		415	83		6	
2-Hexanone	100	55	130	15	0.0	103	103		101	101		3	
Methyl isobutyl ketone	100	60	135	15	0.0	99	99		99	99		0	
cis-1,3-Dichloropropene	20	70	130	15	0.0	21	104		21	104		0	
Toluene	20	75	120	15	0.0	20	100		19	95		5	
trans-1,3-Dichloropropene	20	70	130	15	0.0	21	103		20	102		1	
1,1,2-Trichloroethane	20	75	125	15	0.0	20	100		20	100		0	
1,3-Dichloropropane	20	75	125	15	0.0	20	100		20	99		1	
Tetrachloroethene	20	75	125	15	0.0	22	112		21	104		7	
Dibromochloromethane	20	70	130	15	0.0	21	107		21	103		4	
1,2-Dibromoethane	20	80	120	15	0.0	21	104		20	101		3	
Chlorobenzene	20	80	120	15	0.0	20	98		19	95		4	
1,1,1,2-Tetrachloroethane	20	80	130	15	0.0	20	99		19	96		3	

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: 74235  
Non-spiked sample: B811092B  
Spike: L811092B  
Spike duplicate: L811092B2

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 #
Ethylbenzene	20	75	125	15	0.0	18	92		18	88		5
m,p-Xylene	40	75	125	15	0.0	38	96		37	92		4
o-Xylene	20	80	120	15	0.0	20	100		20	98		2
Styrene	20	70	130	15	0.0	20	100		19	95		6
Bromoform	20	70	130	15	0.0	21	107		21	103		3
Isopropylbenzene	20	75	125	15	0.0	20	100		19	94		7
1,1,2,2-Tetrachloroethane	20	70	130	15	0.0	19	96		19	95		2
1,2,3-Trichloropropane	20	75	125	15	0.0	19	93		19	96		3
n-Propylbenzene	20	70	130	15	0.0	20	98		19	93		5
Bromobenzene	20	75	125	15	0.0	19	95		19	93		2
1,3,5-Trimethylbenzene	20	75	130	15	0.0	19	94		18	90		5
2-Chlorotoluene	20	75	125	15	0.0	19	96		19	93		4
4-Chlorotoluene	20	75	130	15	0.0	20	98		18	91		6
tert-butylbenzene	20	70	130	15	0.0	19	95		18	89		6
1,2,4-Trimethylbenzene	20	75	130	15	0.0	18	91		18	89		2
sec-butylbenzene	20	70	125	15	0.0	19	97		19	94		4
p-isopropyltoluene	20	75	130	15	0.0	20	98		19	95		3
1,3-Dichlorobenzene	20	75	125	15	0.0	20	98		19	94		4
1,4-Dichlorobenzene	20	75	125	15	0.0	19	95		19	93		2
n-butylbenzene	20	70	130	15	0.0	19	94		18	92		2
1,2-Dichlorobenzene	20	70	120	15	0.0	20	98		19	97		0
1,2-Dibromo-3-chloropropane	20	70	130	15	0.0	20	102		20	98		4
1,2,4-Trichlorobenzene	20	70	130	15	0.0	18	89		18	91		1
Hexachlorobutadiene	20	70	130	15	0.0	19	97		20	101		4
Naphthalene	20	70	130	15	0.0	18	90		19	93		3
1,2,3-Trichlorobenzene	20	70	130	15	0.0	18	92		19	94		2
1,3,5-Trichlorobenzene	20	70	130	15	0.0	18	89		18	90		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: \_\_\_\_\_  
\_\_\_\_\_

VOLATILE ORGANIC AQUEOUS  
MATRIX SPIKE/DUPLICATE  
PERCENT RECOVERY

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

SDG: 74235  
Non-spiked sample: 74235-5  
Spike: 74235-5,MS  
Spike duplicate: 74235-5,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	#
Dichlorodifluoromethane	20	40	155	15	0.0	23	116		23	114		1	
Chloromethane	20	40	125	15	0.0	20	101		21	103		2	
Vinyl Chloride	20	70	130	15	0.0	22	108		22	108		0	
Bromomethane	20	40	145	15	0.0	17	86		25	126		38	*
Chloroethane	20	70	130	15	0.0	20	101		21	104		3	
t-Butyl alcohol (TBA)	100	70	130	25	0.0	94	94		98	98		4	
Trichlorofluoromethane	20	70	130	15	0.0	22	108		22	108		0	
Diethyl ether	20	70	130	15	0.0	20	99		20	98		2	
1,1,2-Trichlorotrifluoroethane	20	70	130	15	0.0	22	109		23	113		3	
Acetone	100	40	140	25	11.1	104	93		106	95		1	
1,1-Dichloroethene	20	75	125	15	0.0	21	105		22	108		2	
Methyl iodide	20	70	130	25	0.0	22	108		25	126		15	
Di-isopropyl ether (DIPE)	20	70	130	15	0.0	20	102		20	102		1	
Methylene Chloride	20	70	130	15	0.0	21	104		21	105		1	
Carbon Disulfide	20	70	130	25	0.0	20	100		20	100		1	
Acrylonitrile	20	70	130	25	0.0	21	105		21	103		2	
Methyl-tert-butyl ether (MTBE)	40	70	130	15	0.0	39	97		39	97		0	
trans-1,2-Dichloroethene	20	75	125	15	0.0	21	104		21	104		0	
1,1-Dichloroethane	20	70	130	15	0.0	21	106		22	110		3	
Vinyl acetate	20	70	130	25	0.0	22	108		22	108		0	
Methyl ethyl ketone	100	40	150	25	0.0	101	101		102	102		1	
Ethyl t-butyl ether (ETBE)	20	70	130	15	0.0	20	102		20	102		0	
2,2-Dichloropropane	20	70	130	15	0.0	22	112		23	116		3	
cis-1,2-Dichloroethene	20	75	125	15	0.0	22	108		22	110		2	
t-Amyl methyl ether (TAME)	20	70	130	15	0.0	20	99		19	97		1	
Chloroform	20	70	130	15	0.0	22	108		22	108		0	
Bromochloromethane	20	70	130	15	0.0	22	109		21	107		1	
Tetrahydrofuran	20	70	130	25	0.0	21	106		22	110		4	
1,1,1-Trichloroethane	20	75	125	15	0.0	22	111		22	112		0	
1,1-Dichloropropene	20	75	130	15	0.0	21	107		21	105		1	
Carbon Tetrachloride	20	75	125	15	0.0	23	114		23	114		0	
1,2-Dichloroethane	20	70	130	15	0.0	20	99		20	99		0	
Benzene	20	80	120	15	0.0	20	101		20	100		0	
Trichloroethene	20	75	125	15	0.0	21	104		21	105		1	
1,2-Dichloropropane	20	75	125	15	0.0	20	101		21	104		2	
Methylmethacrylate	20	70	130	25	0.0	19	96		20	102		6	
Bromodichloromethane	20	75	120	15	0.0	22	109		22	109		1	
Dibromomethane	20	75	125	15	0.0	19	97		20	100		3	
1,4-Dioxane	500	40	160	30	0.0	418	84		419	84		0	
2-Hexanone	100	55	130	25	0.0	102	102		105	105		2	
Methyl isobutyl ketone	100	60	135	25	0.0	104	104		107	107		2	
cis-1,3-Dichloropropene	20	70	130	15	0.0	21	106		22	108		2	
Toluene	20	75	120	15	0.0	21	105		21	106		1	
trans-1,3-Dichloropropene	20	70	130	15	0.0	21	103		22	108		4	
1,1,2-Trichloroethane	20	75	125	15	0.0	20	102		21	103		1	
1,3-Dichloropropane	20	75	125	15	0.0	20	101		21	104		3	
Tetrachloroethene	20	75	125	15	1.2	21	100		22	103		3	
Dibromochloromethane	20	70	130	15	0.0	22	108		22	111		2	
1,2-Dibromoethane	20	80	120	15	0.0	21	105		21	104		0	
Chlorobenzene	20	80	120	15	0.0	20	101		20	101		1	

VOLATILE ORGANIC AQUEOUS  
MATRIX SPIKE/DUPLICATE  
PERCENT RECOVERY

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

SDG: 74235  
Non-spiked sample: 74235-5  
Spike: 74235-5,MS  
Spike duplicate: 74235-5,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	#
1,1,1,2-Tetrachloroethane	20	80	130	15	0.0	20	101		21	105		3	
Ethylbenzene	20	75	125	15	0.0	19	96		20	98		1	
m,p-Xylene	40	75	125	15	0.5	41	100		41	101		1	
o-Xylene	20	80	120	15	0.0	21	107		22	109		2	
Styrene	20	70	130	15	0.0	21	103		20	101		1	
Bromoform	20	70	130	15	0.0	22	108		21	107		1	
Isopropylbenzene	20	75	125	15	0.0	21	105		21	106		1	
1,1,2,2-Tetrachloroethane	20	70	130	15	0.0	19	95		19	97		3	
1,2,3-Trichloropropane	20	75	125	15	0.0	19	97		19	97		0	
n-Propylbenzene	20	70	130	15	0.0	20	102		21	103		1	
Bromobenzene	20	75	125	15	0.0	19	95		20	99		3	
1,3,5-Trimethylbenzene	20	75	130	15	0.0	20	98		20	98		0	
2-Chlorotoluene	20	75	125	15	0.0	20	100		20	101		1	
4-Chlorotoluene	20	75	130	15	0.0	20	98		20	99		1	
tert-butylbenzene	20	70	130	15	0.0	20	100		20	102		2	
1,2,4-Trimethylbenzene	20	75	130	15	0.0	20	98		20	100		2	
sec-butylbenzene	20	70	125	15	0.0	21	103		21	103		0	
p-isopropyltoluene	20	75	130	15	0.0	20	102		21	104		2	
1,3-Dichlorobenzene	20	75	125	15	0.0	20	99		21	103		3	
1,4-Dichlorobenzene	20	75	125	15	0.0	19	96		20	99		2	
n-butylbenzene	20	70	130	15	0.0	19	97		21	103		5	
1,2-Dichlorobenzene	20	70	120	15	0.0	20	101		20	102		1	
1,2-Dibromo-3-chloropropane	20	70	130	15	0.0	20	100		20	100		0	
1,2,4-Trichlorobenzene	20	70	130	15	0.0	18	89		19	94		6	
Hexachlorobutadiene	20	70	130	15	0.0	20	100		21	107		7	
Naphthalene	20	70	130	15	0.0	18	90		19	96		7	
1,2,3-Trichlorobenzene	20	70	130	15	0.0	19	94		20	99		5	
1,3,5-Trichlorobenzene	20	70	130	15	0.0	17	87		19	93		8	

# 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 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: 74235  
Non-spiked sample: MBI1092C  
Spike: LS11092C,RR  
Spike duplicate: LS11092C2

COMPOUND	LCS SPIKE ADDED (ug/kg)	LCSD SPIKE ADDED (ug/kg)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE % REC	#	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	#	RPD	#
Dichlorodifluoromethane	2000	2000	49	82	25	0	1673	84	*	1630	81		3	
Chloromethane	2000	2000	75	125	25	0	1958	98		1835	92		7	
Vinyl Chloride	2000	2000	75	125	25	0	2065	103		2052	103		1	
Bromomethane	2000	2000	75	125	25	0	1760	88		1717	86		2	
Chloroethane	2000	2000	75	125	25	0	1613	81		1548	77		4	
t-Butyl alcohol (TBA)	10000	10000	60	140	25	0	10179	102		9952	100		2	
Trichlorofluoromethane	2000	2000	75	125	25	0	2154	108		2133	107		1	
Diethyl ether	2000	2000	75	125	25	0	1919	96		1914	96		0	
1,1,2-Trichlorotrifluoroethane	2000	2000	75	125	25	0	2450	122		2273	114		7	
Acetone	5000	5000	75	125	25	0	7137	143	*	6671	133	*	7	
1,1-Dichloroethene	2000	2000	75	125	25	0	1978	99		1950	97		1	
Methyl iodide	2000	2000	75	125	25	0	1813	91		1925	96		6	
Di-isopropyl ether (DIPE)	2000	2000	75	125	25	0	1809	90		1741	87		4	
Methylene Chloride	2000	2000	75	125	25	0	1805	90		1751	88		3	
Carbon Disulfide	2000	2000	75	125	25	0	1718	86		1650	82		4	
Acrylonitrile	2000	2000	75	125	25	0	1540	77		1522	76		1	
Methyl-tert-butyl ether (MTBE)	2000	2000	75	125	25	0	2370	118		2333	117		2	
trans-1,2-Dichloroethene	2000	2000	75	125	25	0	2088	104		2006	100		4	
1,1-Dichloroethane	2000	2000	75	125	25	0	1916	96		1888	94		1	
Methyl ethyl ketone	5000	5000	60	140	25	0	4816	96		4636	93		4	
Ethyl t-butyl ether (ETBE)	2000	2000	75	125	25	0	1999	100		1967	98		2	
2,2-Dichloropropane	2000	2000	75	125	25	0	2701	135	*	2650	133	*	2	
cis-1,2-Dichloroethene	2000	2000	75	125	25	0	2045	102		1977	99		3	
t-Amyl methyl ether (TAME)	2000	2000	75	125	25	0	1987	99		2061	103		4	
Chloroform	2000	2000	75	125	25	0	2167	108		2130	107		2	
Bromochloromethane	2000	2000	75	125	25	0	1797	90		1836	92		2	
Tetrahydrofuran	2000	2000	60	140	25	0	1840	92		1813	91		1	
1,1,1-Trichloroethane	2000	2000	75	125	25	0	2405	120		2382	119		1	
1,1-Dichloropropene	2000	2000	75	125	25	0	1985	99		2002	100		1	
Carbon Tetrachloride	2000	2000	75	125	25	0	2347	117		2321	116		1	
1,2-Dichloroethane	2000	2000	75	125	25	0	2250	113		2290	114		2	
Benzene	2000	2000	75	125	25	0	1827	91		1819	91		0	
Trichloroethene	2000	2000	75	125	25	0	1891	95		1956	98		3	
1,2-Dichloropropane	2000	2000	75	125	25	0	1741	87		1771	89		2	
Methylmethacrylate	2000	2000	75	125	25	0	1731	87		1800	90		4	
Bromodichloromethane	2000	2000	75	125	25	0	2235	112		2325	116		4	
Dibromomethane	2000	2000	75	125	25	0	2085	104		2142	107		3	
1,4-Dioxane	25000	25000	60	140	25	0	28093	112		27760	111		1	
2-Hexanone	5000	5000	75	125	25	0	4541	91		4645	93		2	
Methyl isobutyl ketone	5000	5000	75	125	25	0	4143	83		4158	83		0	
cis-1,3-Dichloropropene	2000	2000	75	125	25	0	2153	108		2271	114		5	
Toluene	2000	2000	75	125	25	0	2071	104		2047	102		1	
trans-1,3-Dichloropropene	2000	2000	75	125	25	0	2106	105		2221	111		5	
1,1,2-Trichloroethane	2000	2000	75	125	25	0	1941	97		2036	102		5	
1,3-Dichloropropane	2000	2000	75	125	25	0	1959	98		1949	97		0	
Tetrachloroethene	2000	2000	75	125	25	0	1902	95		1915	96		1	
Dibromochloromethane	2000	2000	75	125	25	0	2214	111		2239	112		1	
1,2-Dibromoethane	2000	2000	75	125	25	0	2094	105		2126	106		2	
Chlorobenzene	2000	2000	75	125	25	0	2056	103		1998	100		3	
1,1,1,2-Tetrachloroethane	2000	2000	75	125	25	0	2211	111		2173	109		2	
Ethylbenzene	2000	2000	75	125	25	0	2196	110		2147	107		2	
m,p-Xylene	4000	4000	75	125	25	0	4365	109		4214	105		4	
o-Xylene	2000	2000	75	125	25	0	2167	108		2154	108		1	

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: 74235  
Non-spiked sample: MB11092C  
Spike: LS11092C,,RR  
Spike duplicate: LS11092C2

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	#
Styrene	2000	2000	75	125	25	0	2151	108	2153	108	0	
Bromoform	2000	2000	75	125	25	0	2152	108	2117	106	2	
Isopropylbenzene	2000	2000	75	125	25	0	2305	115	2297	115	0	
1,1,2,2-Tetrachloroethane	2000	2000	75	125	25	0	1892	95	1883	94	0	
1,2,3-Trichloropropane	2000	2000	75	125	25	0	1870	94	1858	93	1	
trans-1,4-Dichloro-2-butene	2000	2000	75	125	25	0	2078	104	2233	112	7	
n-Propylbenzene	2000	2000	75	125	25	0	2143	107	2191	110	2	
Bromobenzene	2000	2000	75	125	25	0	2075	104	2086	104	1	
1,3,5-Trimethylbenzene	2000	2000	75	125	25	0	2482	124	2431	122	2	
2-Chlorotoluene	2000	2000	75	125	25	0	2426	121	2390	120	1	
4-Chlorotoluene	2000	2000	75	125	25	0	2357	118	2242	112	5	
tert-butylbenzene	2000	2000	75	125	25	0	2441	122	2253	113	8	
1,2,4-Trimethylbenzene	2000	2000	75	125	25	0	2308	115	2283	114	1	
sec-butylbenzene	2000	2000	75	125	25	0	2383	119	2331	117	2	
p-isopropyltoluene	2000	2000	75	125	25	0	2380	119	2350	118	1	
1,3-Dichlorobenzene	2000	2000	75	125	25	0	2189	109	2138	107	2	
1,4-Dichlorobenzene	2000	2000	75	125	25	0	2058	103	2058	103	0	
n-butylbenzene	2000	2000	75	125	25	0	2333	117	2315	116	1	
1,2-Dichlorobenzene	2000	2000	75	125	25	0	2092	105	2050	102	2	
1,2-Dibromo-3-chloropropane	2000	2000	75	125	25	0	2231	112	2287	114	2	
1,2,4-Trichlorobenzene	2000	2000	75	125	25	0	2182	109	2177	109	0	
Hexachlorobutadiene	2000	2000	75	125	25	0	2183	109	2133	107	2	
Naphthalene	2000	2000	75	125	25	0	2000	100	2048	102	2	
1,2,3-Trichlorobenzene	2000	2000	75	125	25	0	2247	112	2263	113	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: \_\_\_\_\_

VOLATILE ORGANIC SOIL  
MATRIX SPIKE/DUPLICATE  
PERCENT RECOVERY

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

SDG: 74235  
Non-spiked sample: 74235-1  
Spike: 74235-1,MS  
Spike duplicate: 74235-1,MSD

COMPOUND	MS SPIKE ADDED (ug/kg)	MSD SPIKE ADDED (ug/kg)	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE % REC	#	SPIKE DUP RESULT (ug/kg)	SPIKE DUP % REC	#	RPD	#
Dichlorodifluoromethane	3608	2978	49	82	25	0	2155	60		1721	58		3	
Chloromethane	3608	2978	75	125	25	0	2780	77		2382	80		4	
Vinyl Chloride	3608	2978	75	125	25	0	3301	91		2740	92		1	
Bromomethane	3608	2978	75	125	25	0	2638	73	*	2302	77		6	
Chloroethane	3608	2978	75	125	25	0	2271	63	*	1977	66	*	5	
t-Butyl alcohol (TBA)	18039	14892	60	140	25	0	14716	82		11853	80		2	
Trichlorofluoromethane	3608	2978	75	125	25	0	3361	93		2770	93		0	
Diethyl ether	3608	2978	75	125	25	0	2949	82		2453	82		1	
Acetone	9019	7446	75	125	25	0	7334	81		6228	84		3	
1,1-Dichloroethene	3608	2978	75	125	25	0	2927	81		2551	86		5	
Methyl iodide	3608	2978	75	125	25	0	3075	85		2572	86		1	
Di-isopropyl ether (DIPE)	3608	2978	75	125	25	0	2822	78		2356	79		1	
Methylene Chloride	3608	2978	75	125	25	0	2783	77		2438	82		6	
Carbon Disulfide	3608	2978	75	125	25	0	2457	68	*	2100	71	*	3	
Acrylonitrile	3608	2978	75	125	25	0	2380	66	*	1904	64	*	3	
Methyl-tert-butyl ether (MTBE)	3608	2978	75	125	25	0	3762	104		3167	106		2	
trans-1,2-Dichloroethene	3608	2978	75	125	25	0	3085	86		2635	88		3	
1,1-Dichloroethane	3608	2978	75	125	25	0	2984	83		2562	86		4	
Methyl ethyl ketone	9019	7446	60	140	25	0	6162	68		5169	69		2	
Ethyl t-butyl ether (ETBE)	3608	2978	75	125	25	0	3166	88		2652	89		1	
2,2-Dichloropropane	3608	2978	75	125	25	0	4078	113		3444	116		2	
cis-1,2-Dichloroethene	3608	2978	75	125	25	0	3188	88		2632	88		0	
t-Amyl methyl ether (TAME)	3608	2978	75	125	25	0	3192	88		2670	90		1	
Chloroform	3608	2978	75	125	25	0	3527	98		2929	98		1	
Bromochloromethane	3608	2978	75	125	25	0	3014	84		2419	81		3	
Tetrahydrofuran	3608	2978	60	140	25	0	2656	74		2046	69		7	
1,1,1-Trichloroethane	3608	2978	75	125	25	0	3884	108		3268	110		2	
1,1-Dichloropropene	3608	2978	75	125	25	0	3174	88		2658	89		1	
Carbon Tetrachloride	3608	2978	75	125	25	0	3815	106		3205	108		2	
1,2-Dichloroethane	3608	2978	75	125	25	0	3864	107		3143	106		1	
Benzene	3608	2978	75	125	25	0	2974	82		2439	82		1	
Trichloroethene	3608	2978	75	125	25	0	3222	89		2630	88		1	
1,2-Dichloropropane	3608	2978	75	125	25	0	2914	81		2344	79		3	
Methylmethacrylate	3608	2978	75	125	25	0	3719	103		2266	76		30	*
Bromodichloromethane	3608	2978	75	125	25	0	3745	104		3081	103		0	
Dibromomethane	3608	2978	75	125	25	0	3559	99		2813	94		4	
1,4-Dioxane	45546	37230	60	140	25	0	39348	86		29220	78		10	
2-Hexanone	9019	7446	75	125	25	0	6051	67	*	5134	69	*	3	
Methyl isobutyl ketone	9019	7446	75	125	25	0	6493	72	*	5047	68	*	6	
cis-1,3-Dichloropropene	3608	2978	75	125	25	0	3571	99		2934	98		0	
Toluene	3608	2978	75	125	25	0	3361	93		2732	92		2	
trans-1,3-Dichloropropene	3608	2978	75	125	25	0	3526	98		2788	94		4	
1,1,2-Trichloroethane	3608	2978	75	125	25	0	3279	91		2652	89		2	
1,3-Dichloropropane	3608	2978	75	125	25	0	3303	92		2580	87		6	
Tetrachloroethene	3608	2978	75	125	25	0	3174	88		2505	84		4	
Dibromochloromethane	3608	2978	75	125	25	0	3686	102		2956	99		3	
1,2-Dibromoethane	3608	2978	75	125	25	0	3518	98		2737	92		6	
Chlorobenzene	3608	2978	75	125	25	0	3496	97		2744	92		5	
1,1,1,2-Tetrachloroethane	3608	2978	75	125	25	0	3883	108		3012	101		6	
Ethylbenzene	3608	2978	75	125	25	0	3777	105		3019	101		3	
m,p-Xylene	7215	5957	75	125	25	0	7276	101		5927	99		1	
o-Xylene	3608	2978	75	125	25	0	3847	107		2963	99		7	
Styrene	3608	2978	75	125	25	0	3637	101		2927	98		3	
Bromoform	3608	2978	75	125	25	0	3543	98		2887	97		1	

VOLATILE ORGANIC SOIL  
MATRIX SPIKE/DUPLICATE  
PERCENT RECOVERY

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

SDG: 74235  
Non-spiked sample: 74235-1  
Spike: 74235-1,MS  
Spike duplicate: 74235-1,MSD

COMPOUND	MS SPIKE	MSD 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)		
Isopropylbenzene	3608	2978	75	125	25	0	4001	111	3277	110	1	
1,1,2,2-Tetrachloroethane	3608	2978	75	125	25	0	3232	90	2505	84	6	
1,2,3-Trichloropropane	3608	2978	75	125	25	0	3243	90	2507	84	7	
trans-1,4-Dichloro-2-butene	3608	2978	75	125	25	0	3480	96	2667	90	7	
n-Propylbenzene	3608	2978	75	125	25	0	3835	106	3039	102	4	
Bromobenzene	3608	2978	75	125	25	0	3674	102	2888	97	5	
1,3,5-Trimethylbenzene	3608	2978	75	125	25	0	4343	120	3403	114	5	
2-Chlorotoluene	3608	2978	75	125	25	0	4288	119	3360	113	5	
4-Chlorotoluene	3608	2978	75	125	25	0	4119	114	3239	109	5	
tert-butylbenzene	3608	2978	75	125	25	0	4057	112	3221	108	4	
1,2,4-Trimethylbenzene	3608	2978	75	125	25	0	4104	114	3123	105	8	
sec-butylbenzene	3608	2978	75	125	25	0	4135	115	3360	113	2	
p-isopropyltoluene	3608	2978	75	125	25	0	4279	119	3292	111	7	
1,3-Dichlorobenzene	3608	2978	75	125	25	0	3854	107	2943	99	8	
1,4-Dichlorobenzene	3608	2978	75	125	25	0	3368	93	2822	95	1	
n-butylbenzene	3608	2978	75	125	25	0	3827	106	3252	109	3	
1,2-Dichlorobenzene	3608	2978	75	125	25	0	3432	95	2832	95	0	
1,2-Dibromo-3-chloropropane	3608	2978	75	125	25	0	3429	95	2825	95	0	
1,2,4-Trichlorobenzene	3608	2978	75	125	25	0	3383	94	2862	96	2	
Hexachlorobutadiene	3608	2978	75	125	25	0	3673	102	3040	102	0	
Naphthalene	3608	2978	75	125	25	0	2998	83	2514	84	2	
1,2,3-Trichlorobenzene	3608	2978	75	125	25	0	3632	101	2945	99	2	

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

MS/MSD spike added values have been weight adjusted.  
Non-spike 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

November 12, 2012

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** Old Waldo Co. Jail  
**Project Number:** 111.06134.022  
**Client Sample ID:** B101-S2

**Lab Sample ID:** 74235-1  
**Matrix:** Solid  
**Percent Solid:** 78  
**Dilution Factor:** 77  
**Collection Date:** 11/08/12  
**Lab Receipt Date:** 11/08/12  
**Analysis Date:** 11/09/12

VPH ANALYTICAL RESULTS				
RANGE/TARGET ANALYTE	Elution Range	RL	Units	Result
Unadjusted C5-C8 Aliphatics	N/A	3860	µg/kg	U
Unadjusted C9-C12 Aliphatics	N/A	3860	µg/kg	U
Benzene	C5-C8	155	µg/kg	U
Ethylbenzene	C9-C12	155	µg/kg	U
Methyl-tert-butyl ether	C5-C8	77	µg/kg	U
Naphthalene	N/A	155	µg/kg	U
Toluene	C5-C8	155	µg/kg	U
m- & p-Xylenes	C9-C12	309	µg/kg	U
o-Xylene	C9-C12	155	µg/kg	U
C5-C8 Aliphatics Hydrocarbons <sup>1,2</sup>	N/A	3860	µg/kg	U
C9-C12 Aliphatic Hydrocarbons <sup>1,3</sup>	N/A	3860	µg/kg	U
C9-C10 Aromatic Hydrocarbons <sup>1</sup>	N/A	773	µg/kg	U
Surrogate % Recovery (Trifluorotoluene) PID				151*
Surrogate % Recovery (Trifluorotoluene) FID				141*
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.

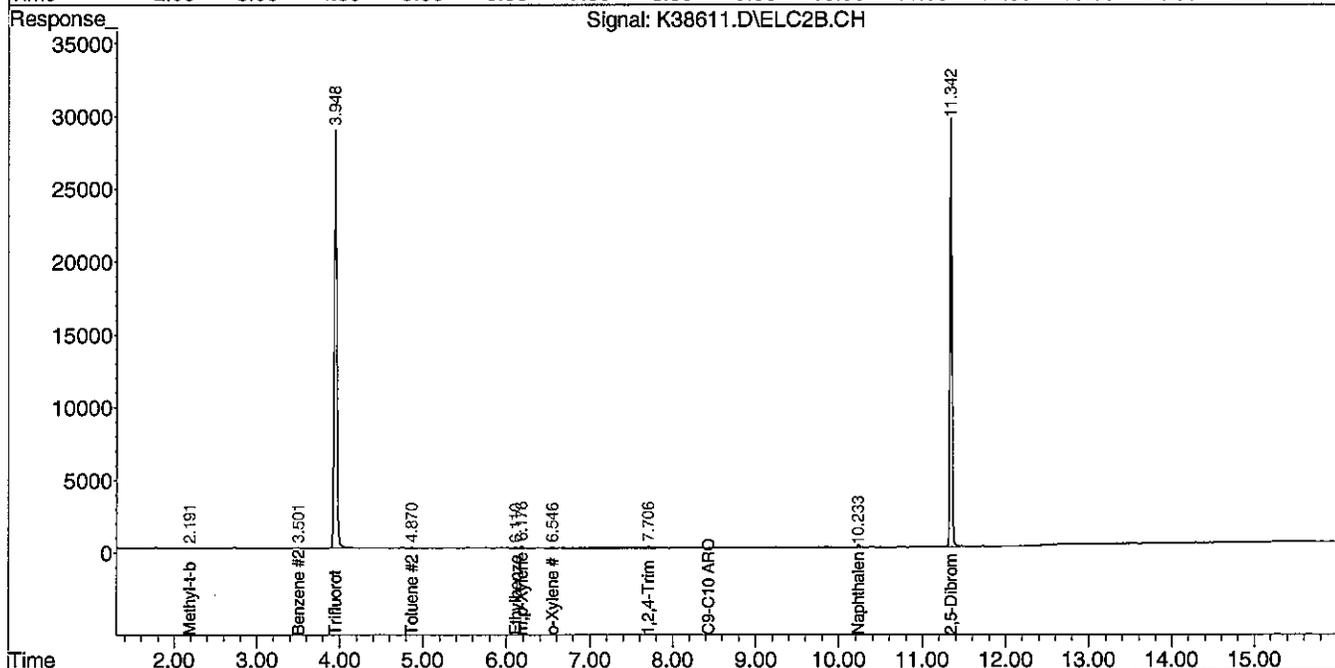
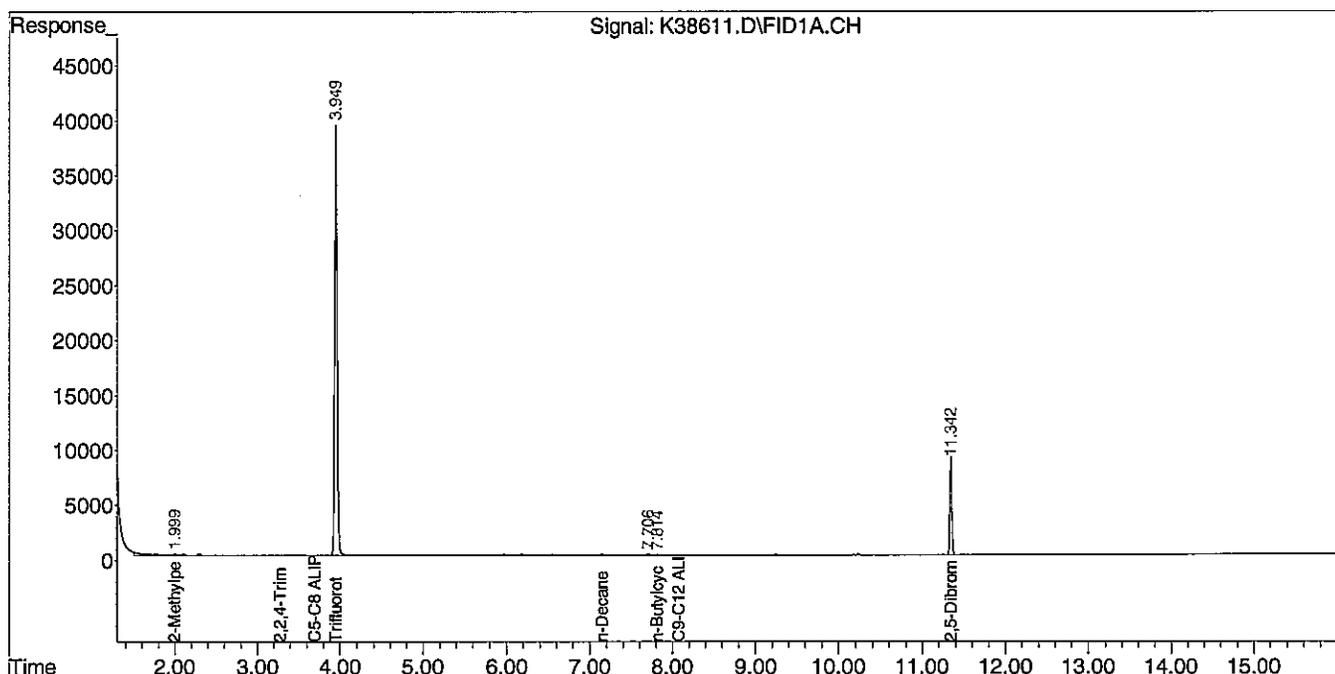
COMMENTS: Samples were received in accordance with method criteria unless noted on the sample receipt checklist. Results are expressed on a moisture corrected and dry weight basis.  
 \* Surrogate recovery outside of laboratory acceptance criteria.

Authorized signature: *Mphibell*

Data Path : C:\msdchem\1\DATA\110812-K\  
 Data File : K38611.D  
 Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH  
 Acq On : 09 Nov 2012 4:59 am  
 Operator : AR  
 Sample : 74235-1  
 Misc : 100,10.13,SOIL  
 ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Nov 09 21:15:59 2012  
 Quant Method : C:\msdchem\1\METHODS\VPHTFT102612.M  
 Quant Title : Volatile Petroleum Hydrocarbons (VPH) MA DEP 2004  
 QLast Update : Thu Nov 08 21:06:59 2012  
 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

November 12, 2012

**CLIENT SAMPLE ID**

**Project Name:** Old Waldo Co. Jail  
**Project Number:** 111.06134.022  
**Client Sample ID:** B102-S1

**SAMPLE DATA**

**Lab Sample ID:** 74235-2  
**Matrix:** Solid  
**Percent Solid:** 78  
**Dilution Factor:** 76  
**Collection Date:** 11/08/12  
**Lab Receipt Date:** 11/08/12  
**Analysis Date:** 11/09/12

**VPH ANALYTICAL RESULTS**

RANGE/TARGET ANALYTE	Elution Range	RL	Units	Result
Unadjusted C5-C8 Aliphatics <sup>1</sup>	N/A	3790	µg/kg	U
Unadjusted C9-C12 Aliphatics <sup>1</sup>	N/A	3790	µg/kg	U
Benzene	C5-C8	152	µg/kg	U
Ethylbenzene	C9-C12	152	µg/kg	U
Methyl-tert-butyl ether	C5-C8	76	µg/kg	U
Naphthalene	N/A	152	µg/kg	U
Toluene	C5-C8	152	µg/kg	U
m- & p-Xylenes	C9-C12	303	µg/kg	U
o-Xylene	C9-C12	152	µg/kg	U
C5-C8 Aliphatic Hydrocarbons <sup>1,2</sup>	N/A	3790	µg/kg	U
C9-C12 Aliphatic Hydrocarbons <sup>1,3</sup>	N/A	3790	µg/kg	U
C9-C10 Aromatic Hydrocarbons <sup>1</sup>	N/A	758	µg/kg	U
Surrogate % Recovery (Trifluorotoluene) PID				138*
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.

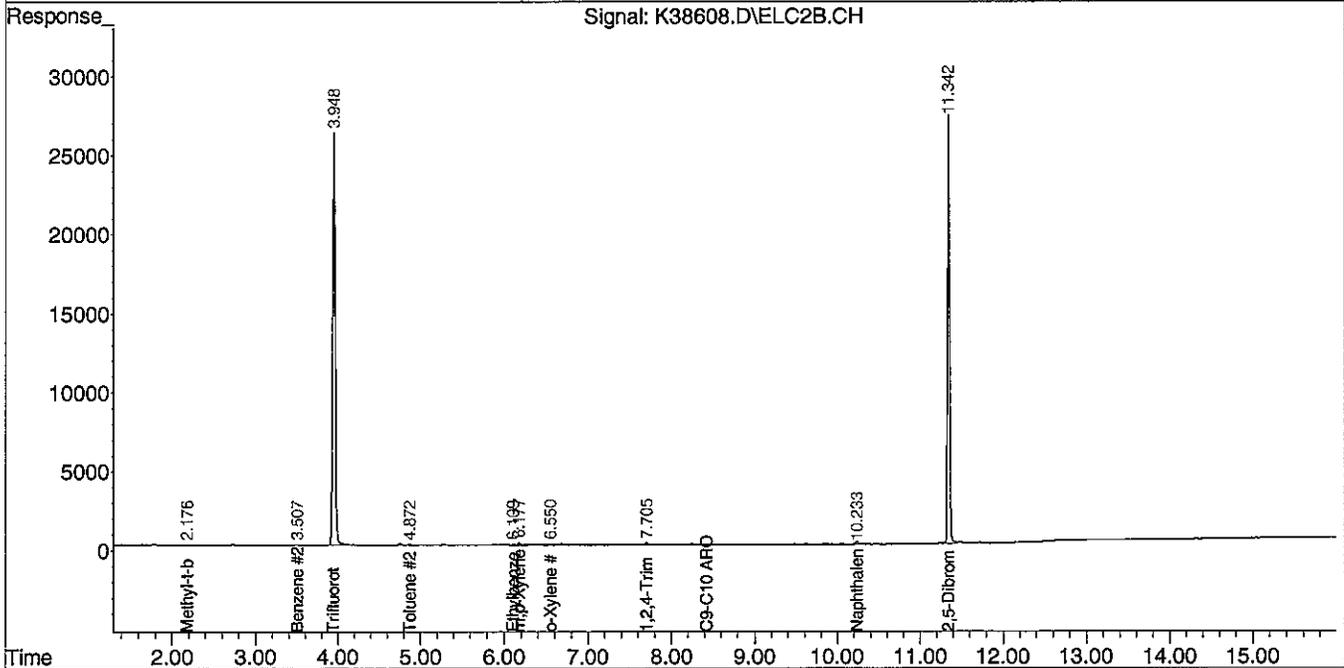
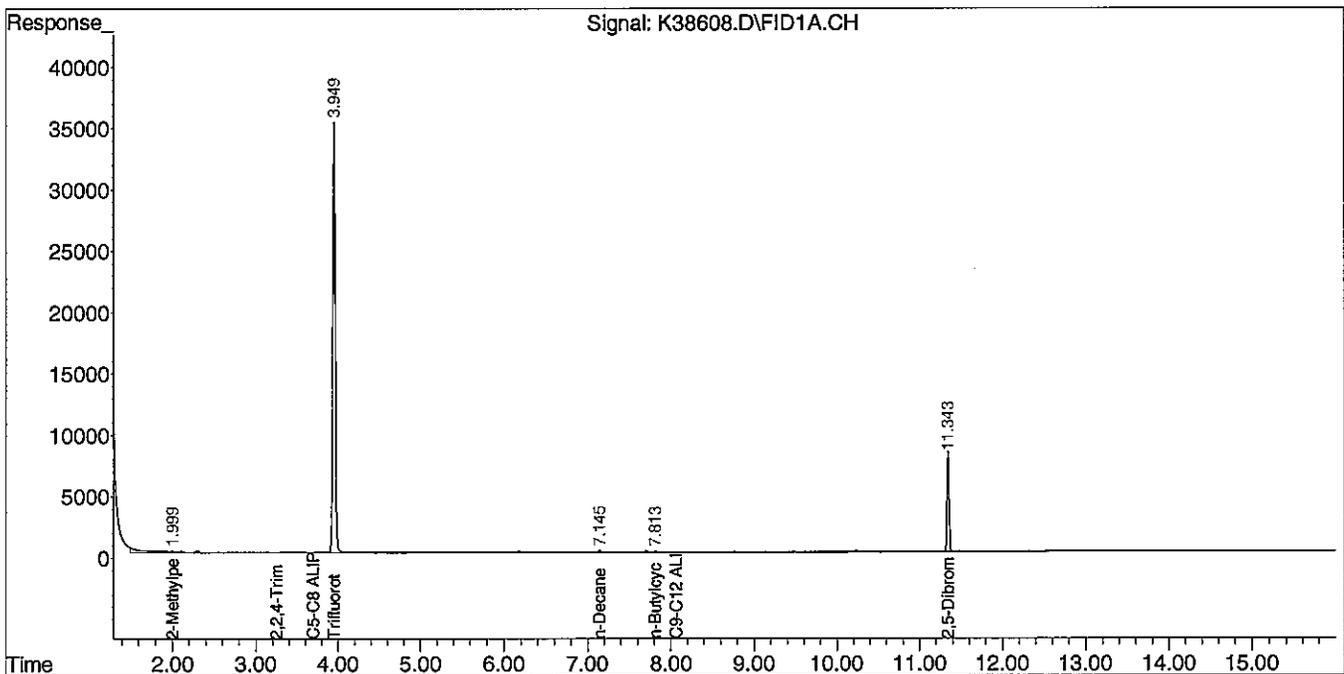
COMMENTS: Samples were received in accordance with method criteria unless noted on the sample receipt checklist. Results are expressed on a moisture corrected and dry weight basis.  
 \* Surrogate recovery outside of laboratory acceptance criteria.

Authorized signature: *Mphelli*

Data Path : C:\msdchem\1\DATA\110812-K\  
 Data File : K38608.D  
 Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH  
 Acq On : 09 Nov 2012 3:38 am  
 Operator : AR  
 Sample : 74235-2  
 Misc : 100,10.40,SOIL  
 ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Nov 09 21:15:07 2012  
 Quant Method : C:\msdchem\1\METHODS\VPHTFT102612.M  
 Quant Title : Volatile Petroleum Hydrocarbons (VPH) MA DEP 2004  
 QLast Update : Thu Nov 08 21:06:59 2012  
 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

November 12, 2012

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** Old Waldo Co. Jail  
**Project Number:** 111.06134.022  
**Client Sample ID:** B103-S6

**Lab Sample ID:** 74235-3  
**Matrix:** Solid  
**Percent Solid:** 91  
**Dilution Factor:** 56  
**Collection Date:** 11/08/12  
**Lab Receipt Date:** 11/08/12  
**Analysis Date:** 11/09/12

**VPH ANALYTICAL RESULTS**

RANGE/TARGET ANALYTE	Elution Range	RL	Units	Result
Unadjusted C5-C8 Aliphatics <sup>1</sup>	N/A	2780	µg/kg	U
Unadjusted C9-C12 Aliphatics <sup>1</sup>	N/A	2780	µg/kg	U
Benzene	C5-C8	111	µg/kg	U
Ethylbenzene	C9-C12	111	µg/kg	U
Methyl-tert-butyl ether	C5-C8	56	µg/kg	U
Naphthalene	N/A	111	µg/kg	U
Toluene	C5-C8	111	µg/kg	U
m- & p-Xylenes	C9-C12	223	µg/kg	U
o-Xylene	C9-C12	111	µg/kg	U
C5-C8 Aliphatics Hydrocarbons <sup>1,2</sup>	N/A	2780	µg/kg	U
C9-C12 Aliphatic Hydrocarbons <sup>1,3</sup>	N/A	2780	µg/kg	U
C9-C10 Aromatic Hydrocarbons <sup>1</sup>	N/A	557	µg/kg	U
Surrogate % Recovery (Trifluorotoluene) PID				119
Surrogate % Recovery (Trifluorotoluene) FID				110
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.

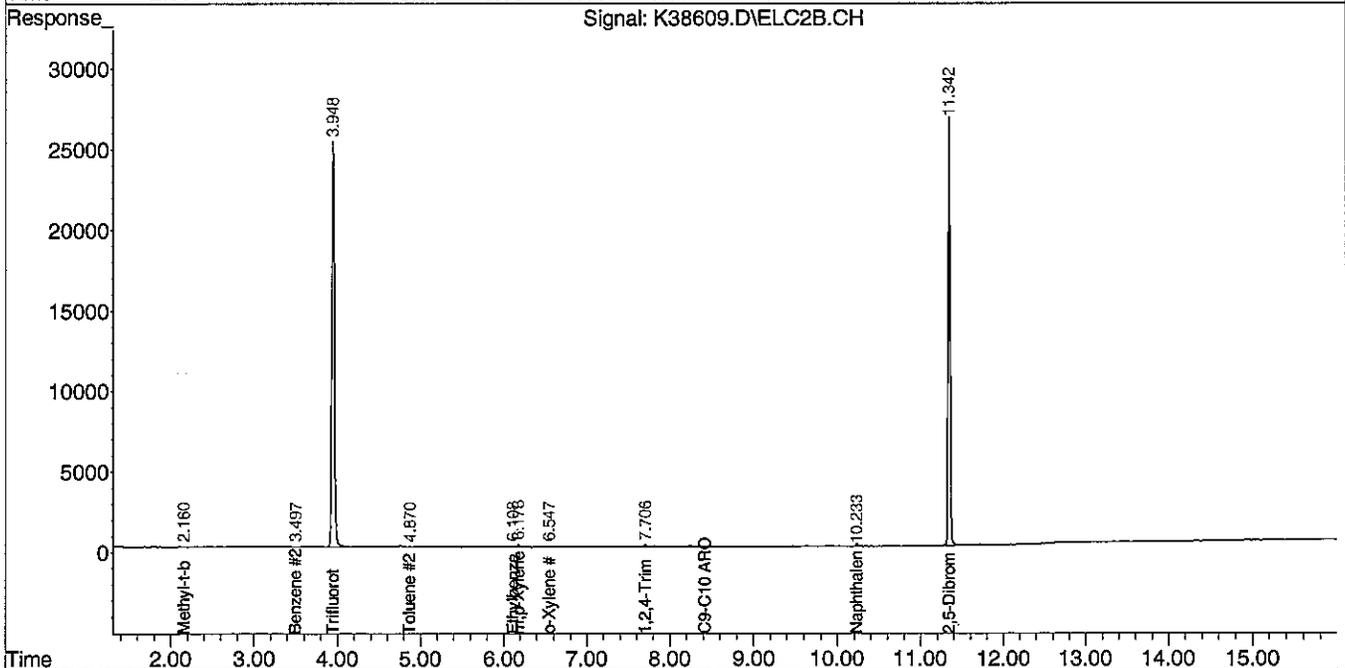
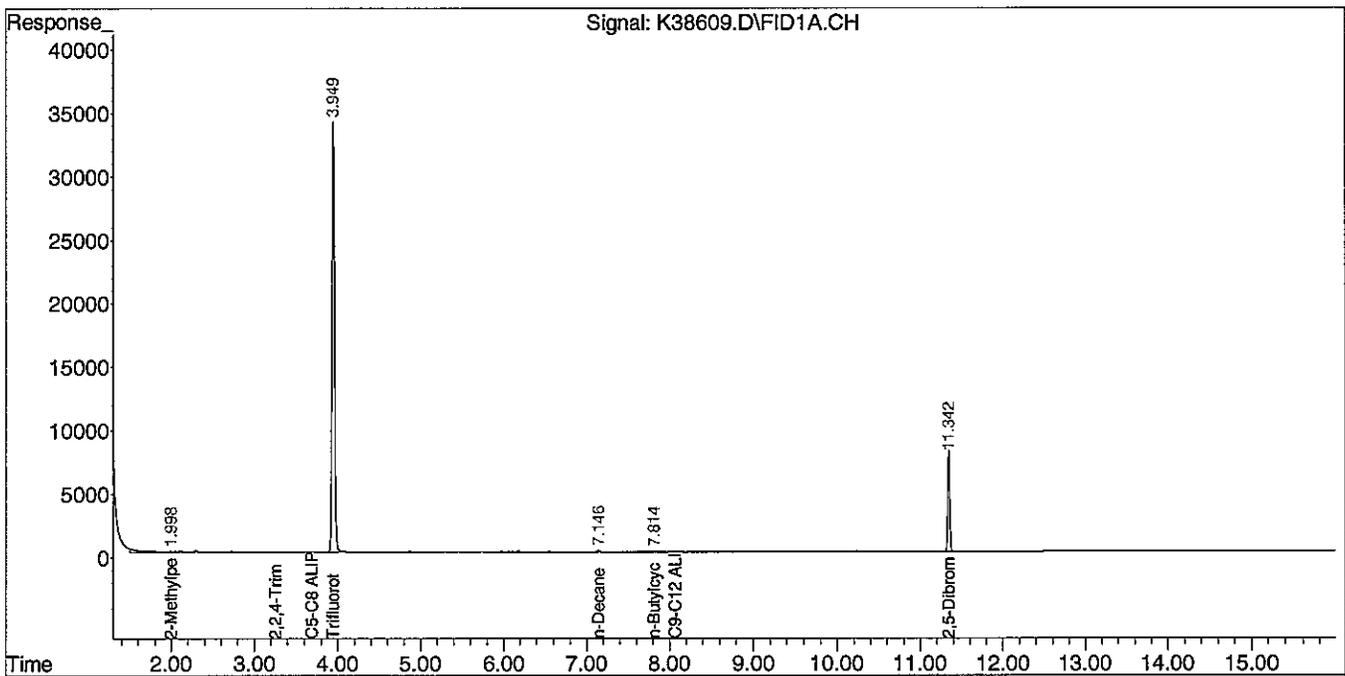
COMMENTS: Samples were received in accordance with method criteria unless noted on the sample receipt checklist. Results are expressed on a moisture corrected and dry weight basis.

Authorized signature: 

Data Path : C:\msdchem\1\DATA\110812-K\  
 Data File : K38609.D  
 Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH  
 Acq On : 09 Nov 2012 4:05 am  
 Operator : AR  
 Sample : 74235-3  
 Misc : 100,10.84,SOIL  
 ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Nov 09 21:15:08 2012  
 Quant Method : C:\msdchem\1\METHODS\VPHTFT102612.M  
 Quant Title : Volatile Petroleum Hydrocarbons (VPH) MA DEP 2004  
 QLast Update : Thu Nov 08 21:06:59 2012  
 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

November 12, 2012

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** Old Waldo Co. Jail  
**Project Number:** 111.06134.022  
**Client Sample ID:** MW102

**Lab Sample ID:** 74235-4  
**Matrix:** Aqueous  
**Percent Solid:** N/A  
**Dilution Factor:** 1  
**Collection Date:** 11/08/12  
**Lab Receipt Date:** 11/08/12  
**Analysis Date:** 11/09/12

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	45 J
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	25 J
C9-C10 Aromatic Hydrocarbons <sup>1</sup>	N/A	10	µg/L	18
Surrogate % Recovery (Trifluorotoluene) PID				110
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.

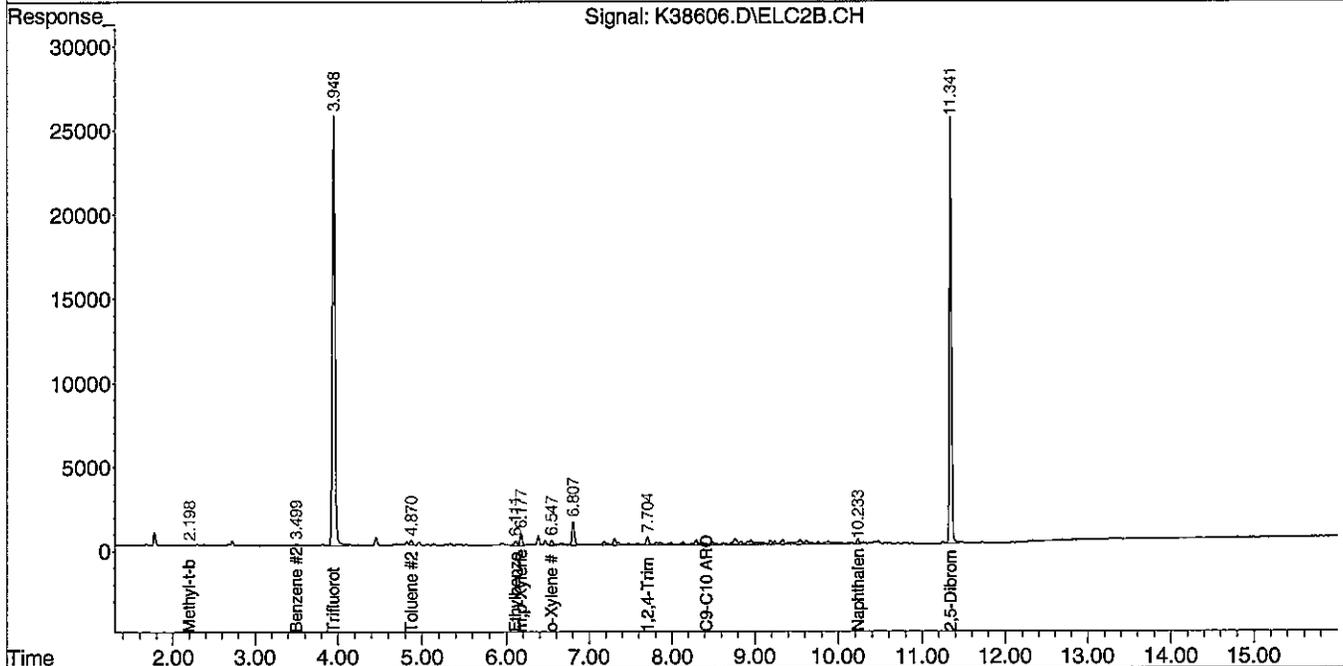
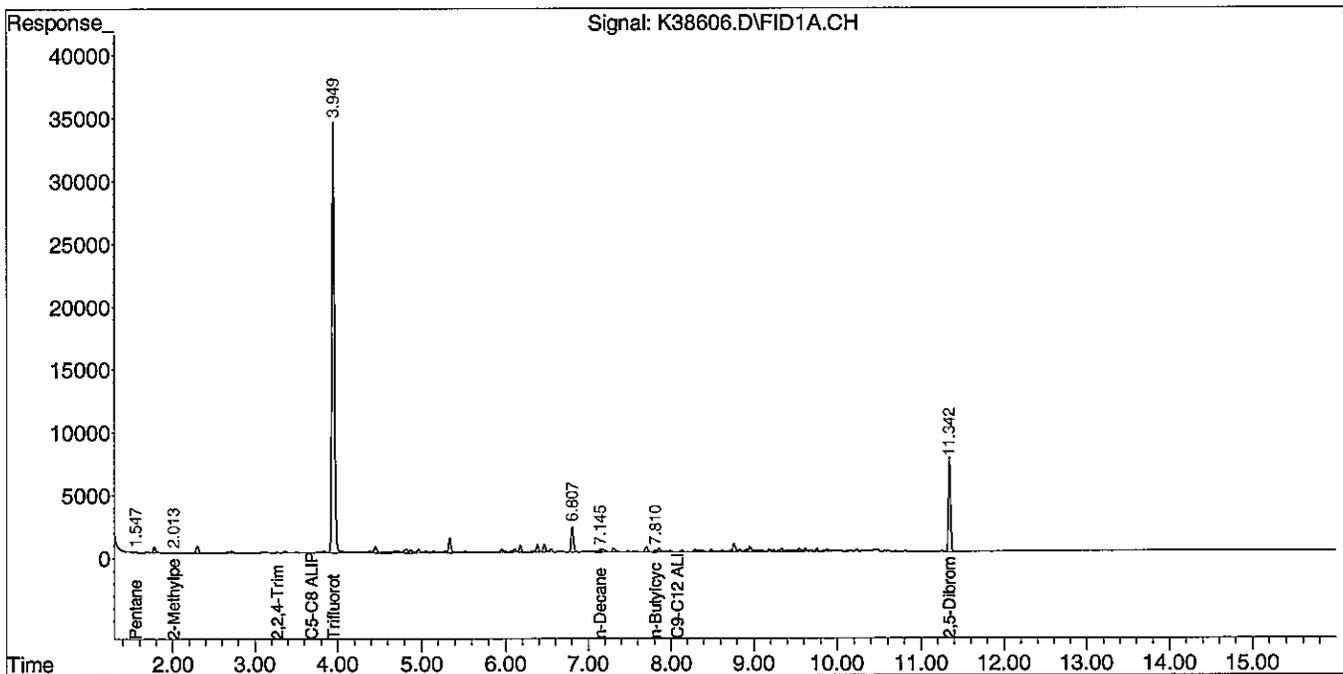
COMMENTS: Samples were received in accordance with method criteria unless noted on the sample receipt checklist.

Authorized signature: 

Data Path : C:\msdchem\1\DATA\110812-K\  
 Data File : K38606.D  
 Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH  
 Acq On : 09 Nov 2012 2:44 am  
 Operator : AR  
 Sample : 74235-4  
 Misc : 5000  
 ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Nov 09 21:15:04 2012  
 Quant Method : C:\msdchem\1\METHODS\VPHTFT102612.M  
 Quant Title : Volatile Petroleum Hydrocarbons (VPH) MA DEP 2004  
 QLast Update : Thu Nov 08 21:06:59 2012  
 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

November 12, 2012

**SAMPLE DATA**

Lab Sample ID: 74235-5  
Matrix: Aqueous  
Percent Solid: N/A  
Dilution Factor: 1  
Collection Date: 11/08/12  
Lab Receipt Date: 11/08/12  
Analysis Date: 11/09/12

**CLIENT SAMPLE ID**

Project Name: Old Waldo Co. Jail  
Project Number: 111.06134.022  
Client Sample ID: MW DUP

**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	52
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	27
Surrogate % Recovery (Trifluorotoluene) PID				111
Surrogate % Recovery (Trifluorotoluene) FID				102
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.

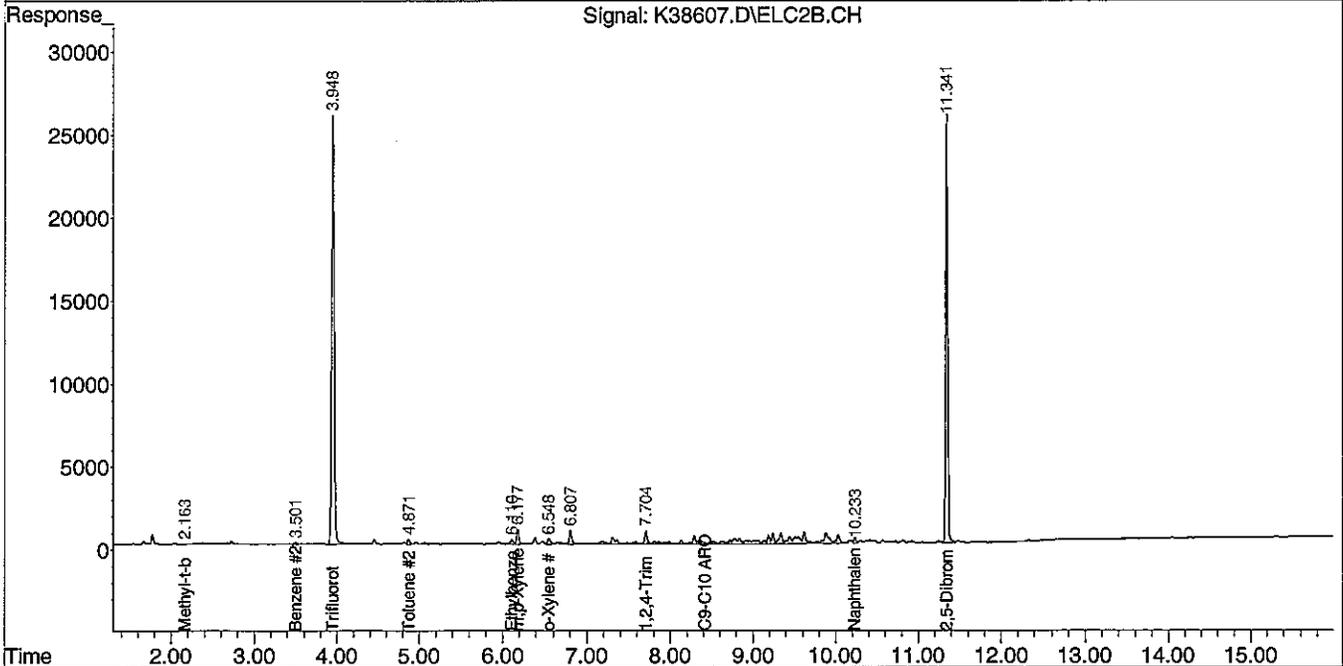
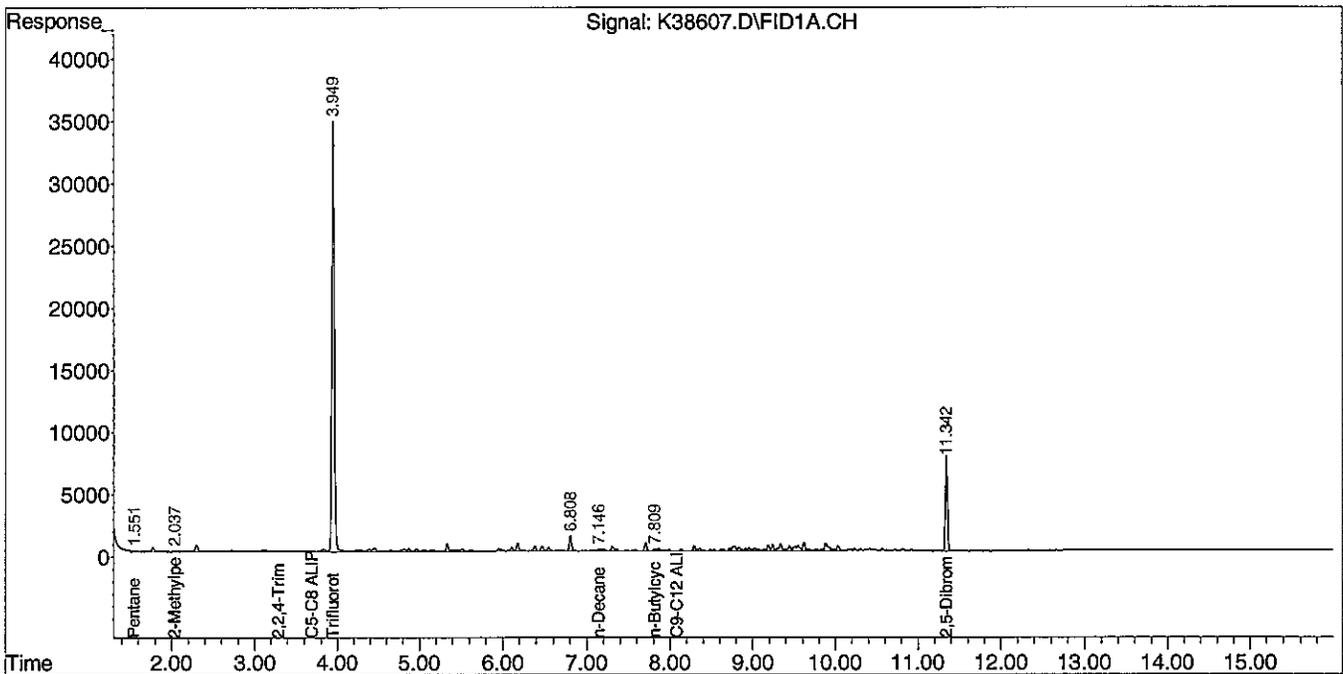
COMMENTS: Samples were received in accordance with method criteria unless noted on the sample receipt checklist.

Authorized signature: 

Data Path : C:\msdchem\1\DATA\110812-K\  
 Data File : K38607.D  
 Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH  
 Acq On : 09 Nov 2012 3:11 am  
 Operator : AR  
 Sample : 74235-5  
 Misc : 5000  
 ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Nov 09 21:15:06 2012  
 Quant Method : C:\msdchem\1\METHODS\VPHTFT102612.M  
 Quant Title : Volatile Petroleum Hydrocarbons (VPH) MA DEP 2004  
 QLast Update : Thu Nov 08 21:06:59 2012  
 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

November 12, 2012

**SAMPLE DATA**

Lab Sample ID: 74235-6  
Matrix: Solid  
Percent Solid: 74  
Dilution Factor: 94  
Collection Date: 11/08/12  
Lab Receipt Date: 11/08/12  
Analysis Date: 11/09/12

**CLIENT SAMPLE ID**

Project Name: Old Waldo Co. Jail  
Project Number: 111.06134.022  
Client Sample ID: B DUP

**VPH ANALYTICAL RESULTS**

RANGE/TARGET ANALYTE	Elution Range	RL	Units	Result
Unadjusted C5-C8 Aliphatics <sup>1</sup>	N/A	4710	µg/kg	U
Unadjusted C9-C12 Aliphatics <sup>1</sup>	N/A	4710	µg/kg	U
Benzene	C5-C8	188	µg/kg	U
Ethylbenzene	C9-C12	188	µg/kg	U
Methyl-tert-butyl ether	C5-C8	94	µg/kg	U
Naphthalene	N/A	188	µg/kg	U
Toluene	C5-C8	188	µg/kg	U
m- & p-Xylenes	C9-C12	376	µg/kg	U
o-Xylene	C9-C12	188	µg/kg	U
C5-C8 Aliphatic Hydrocarbons <sup>1,2</sup>	N/A	4710	µg/kg	U
C9-C12 Aliphatic Hydrocarbons <sup>1,3</sup>	N/A	4710	µg/kg	U
C9-C10 Aromatic Hydrocarbons <sup>1</sup>	N/A	941	µg/kg	U
Surrogate % Recovery (Trifluorotoluene) PID				148*
Surrogate % Recovery (Trifluorotoluene) FID				137*
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.

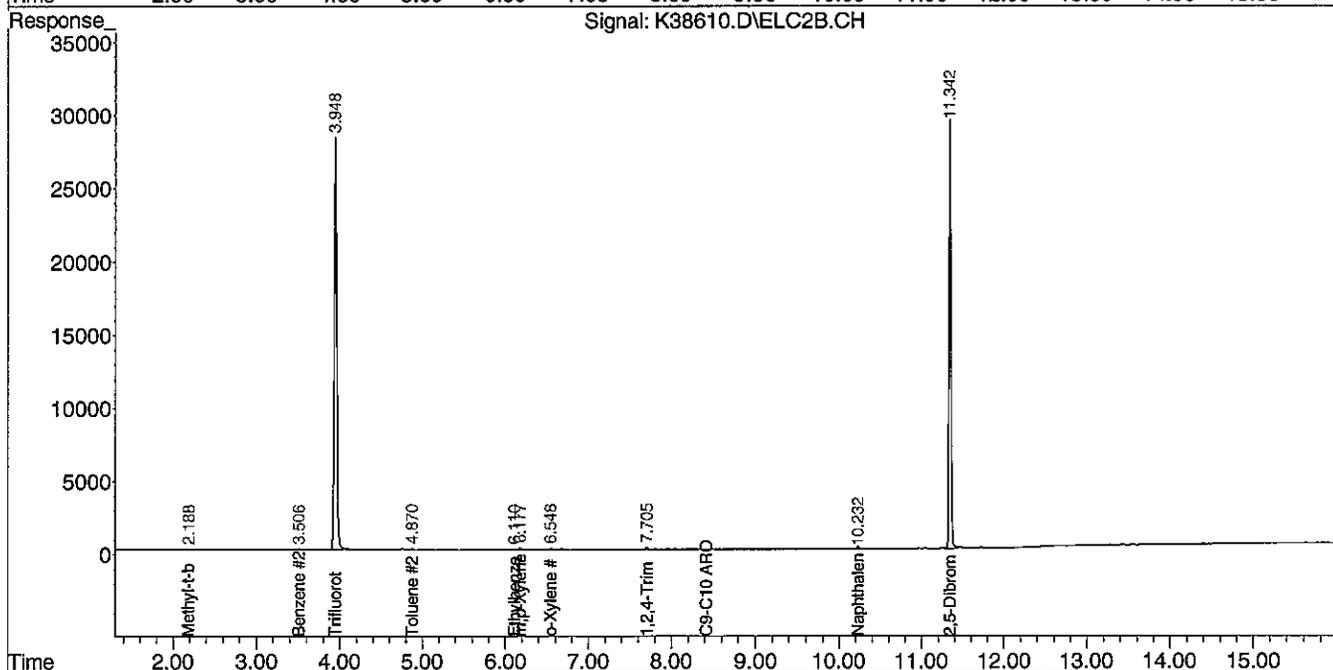
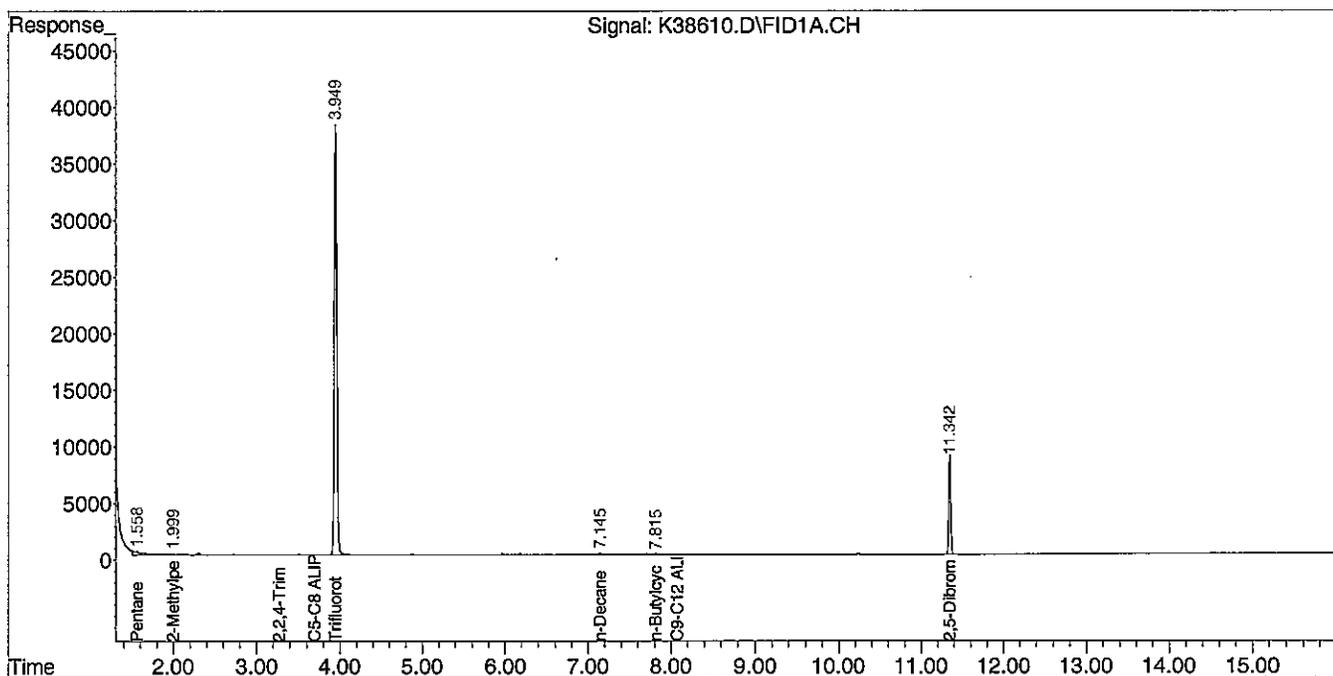
COMMENTS: Samples were received in accordance with method criteria unless noted on the sample receipt checklist. Results are expressed on a moisture corrected and dry weight basis.  
 \* Surrogate recovery outside of laboratory acceptance criteria.

Authorized signature: 

Data Path : C:\msdchem\1\DATA\110812-K\  
 Data File : K38610.D  
 Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH  
 Acq On : 09 Nov 2012 4:32 am  
 Operator : AR  
 Sample : 74235-6  
 Misc : 100,8.82,SOIL  
 ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Nov 09 21:15:09 2012  
 Quant Method : C:\msdchem\1\METHODS\VPHTFT102612.M  
 Quant Title : Volatile Petroleum Hydrocarbons (VPH) MA DEP 2004  
 QLast Update : Thu Nov 08 21:06:59 2012  
 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

November 12, 2012

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** Old Waldo Co. Jail  
**Project Number:** 111.06134.022  
**Client Sample ID:** Trip Blank Soil

**Lab Sample ID:** 74235-9  
**Matrix:** Solid  
**Percent Solid:** 100  
**Dilution Factor:** 50  
**Collection Date:** 11/08/12  
**Lab Receipt Date:** 11/08/12  
**Analysis Date:** 11/09/12

**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 <sup>1</sup>	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 Aliphatic 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				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.

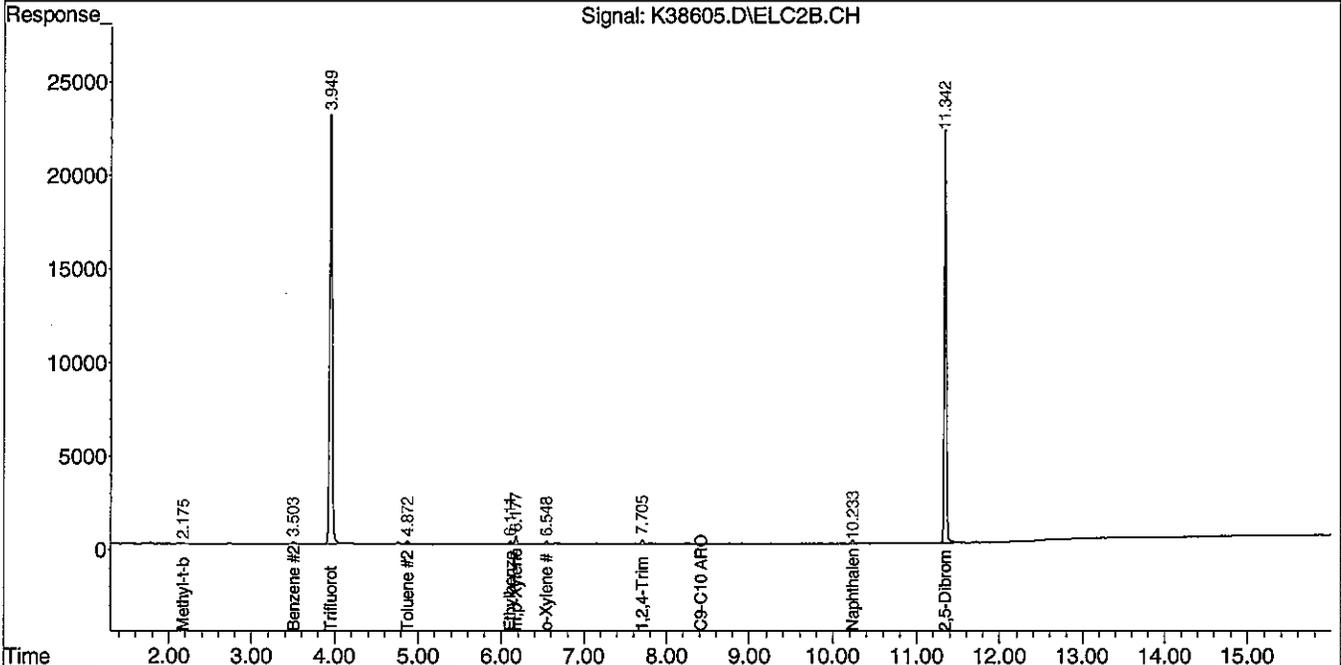
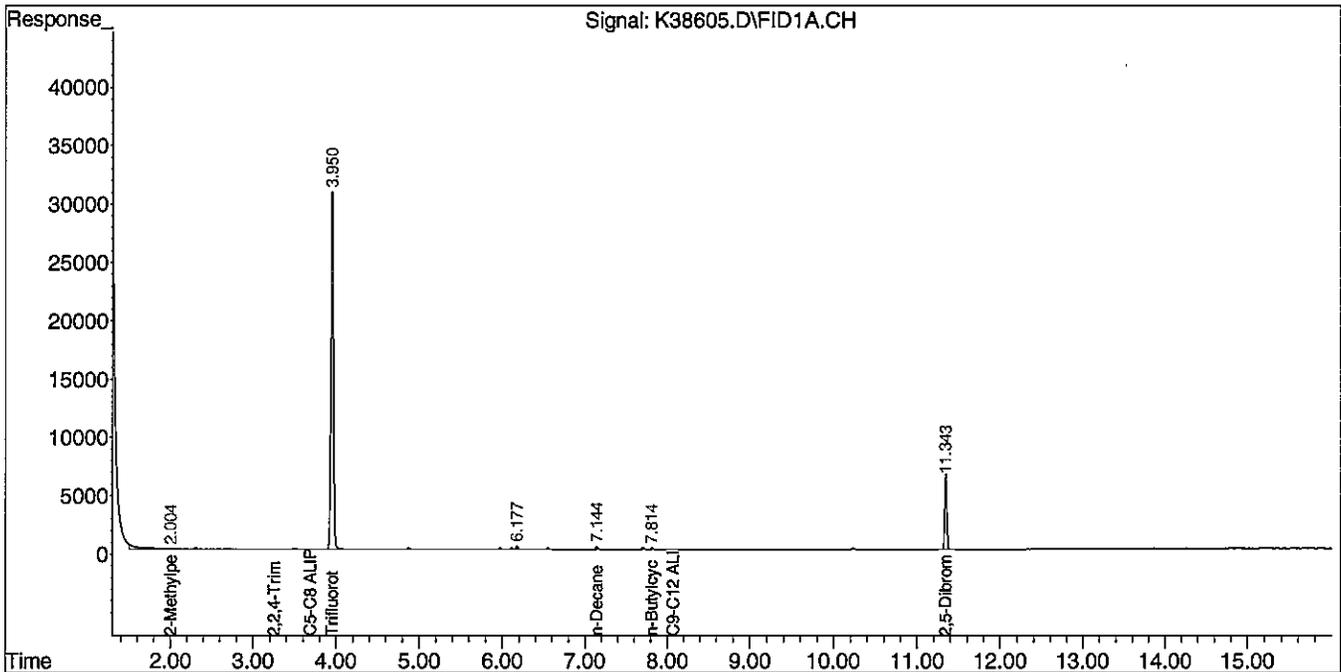
COMMENTS: Samples were received in accordance with method criteria unless noted on the sample receipt checklist. Results are expressed on a moisture corrected and dry weight basis.

Authorized signature: *Mphull*

Data Path : C:\msdchem\1\DATA\110812-K\  
 Data File : K38605.D  
 Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH  
 Acq On : 09 Nov 2012 2:17 am  
 Operator : AR  
 Sample : 74235-9  
 Misc : 100,10.00,SOIL  
 ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Nov 09 02:42:23 2012  
 Quant Method : C:\msdchem\1\METHODS\VPHTFT102612.M  
 Quant Title : Volatile Petroleum Hydrocarbons (VPH) MA DEP 2004  
 QLast Update : Thu Nov 08 21:06:59 2012  
 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

November 12, 2012

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** Old Waldo Co. Jail  
**Project Number:** 111.06134.022  
**Client Sample ID:** LabQC

**Lab Sample ID:** MBV110512K  
**Matrix:** Soil  
**Percent Solid:** 100  
**Dilution Factor:** 50  
**Collection Date:**  
**Lab Receipt Date:**  
**Analysis Date:** 11/09/12

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 <sup>1</sup>	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				95
Surrogate % Recovery (Trifluorotoluene) FID				86
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.

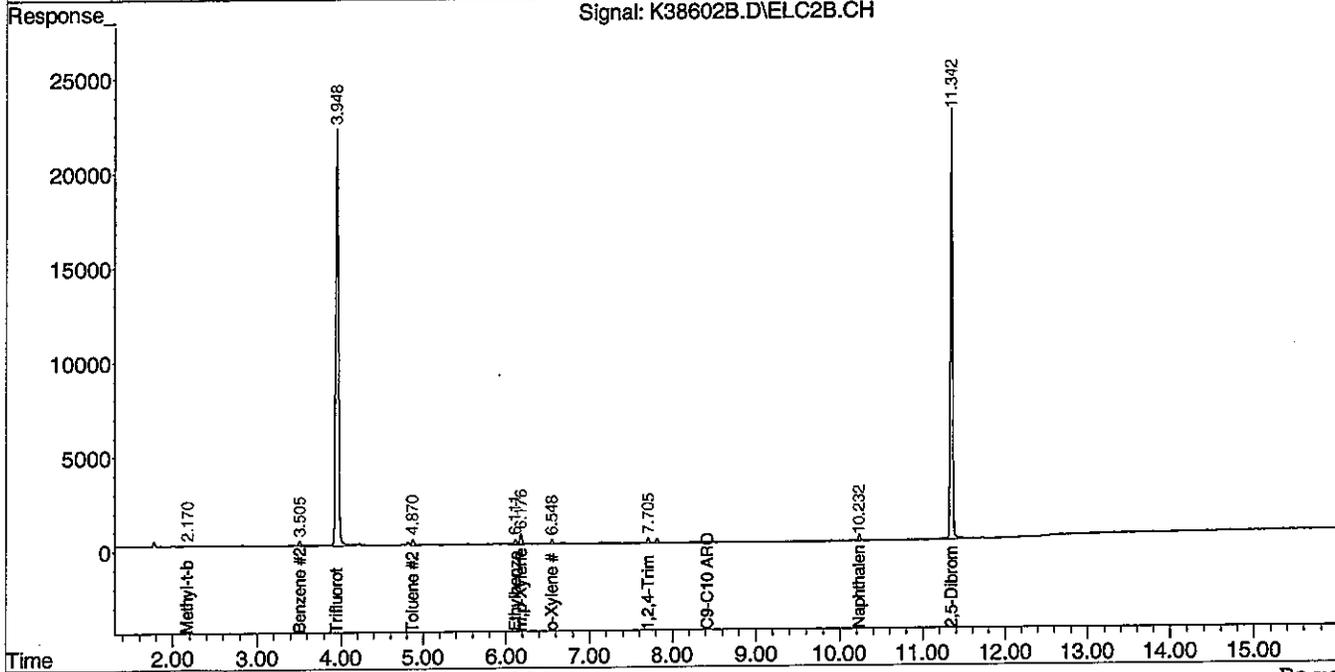
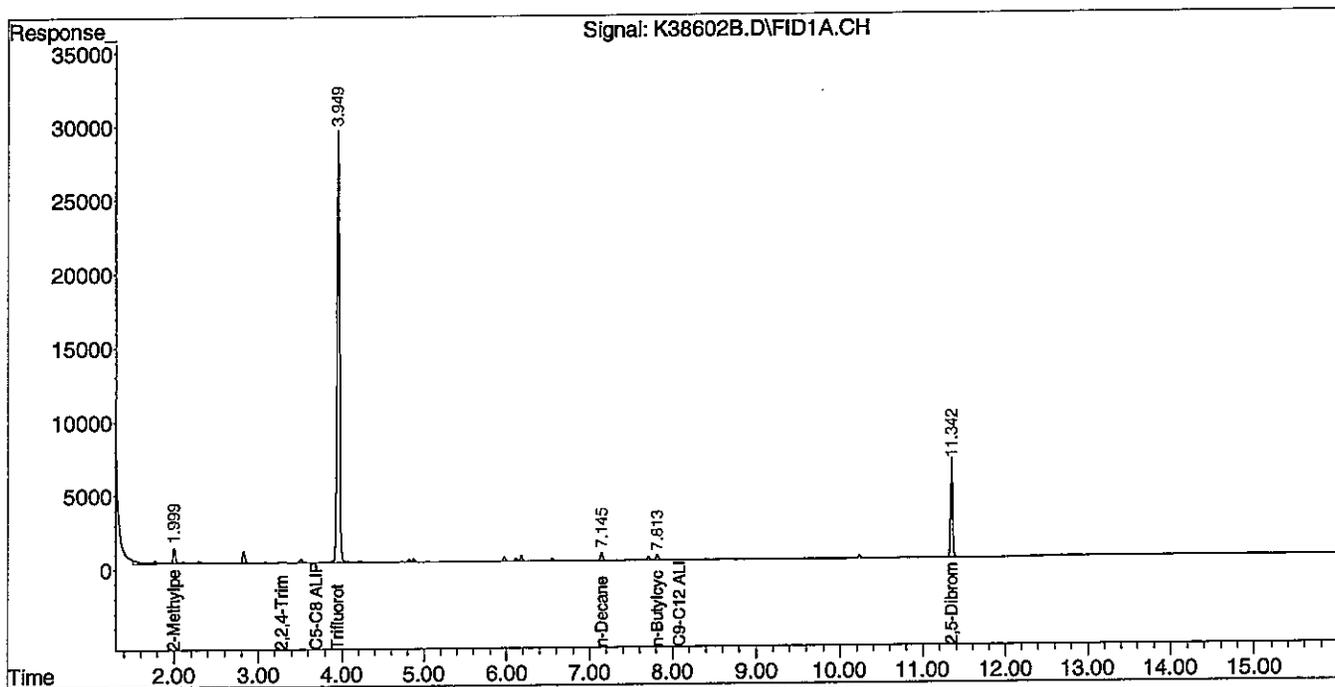
COMMENTS: Samples were received in accordance with method criteria unless noted on the sample receipt checklist. Results are expressed on a moisture corrected and dry weight basis.

Authorized signature: *M. Phelix*

Data Path : C:\msdchem\1\DATA\110812-K\  
 Data File : K38602B.D  
 Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH  
 Acq On : 09 Nov 2012 12:14 am  
 Operator : AR  
 Sample : ~~BV110812K~~ MB110812K  
 Misc : 100,10,SOIL  
 ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Nov 09 01:32:13 2012  
 Quant Method : C:\msdchem\1\METHODS\VPHTFT102612.M  
 Quant Title : Volatile Petroleum Hydrocarbons (VPH) MA DEP 2004  
 QLast Update : Thu Nov 08 21:06:59 2012  
 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

November 12, 2012

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** Old Waldo Co. Jail  
**Project Number:** 111.06134.022  
**Client Sample ID:** LabQC

**Lab Sample ID:** BV110812K  
**Matrix:** Soil  
**Percent Solid:** NA  
**Dilution Factor:** 50  
**Collection Date:**  
**Lab Receipt Date:**  
**Analysis Date:** 11/09/12

**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 <sup>1</sup>	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 Aliphatic 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				109
Surrogate % Recovery (Trifluorotoluene) FID				100
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.

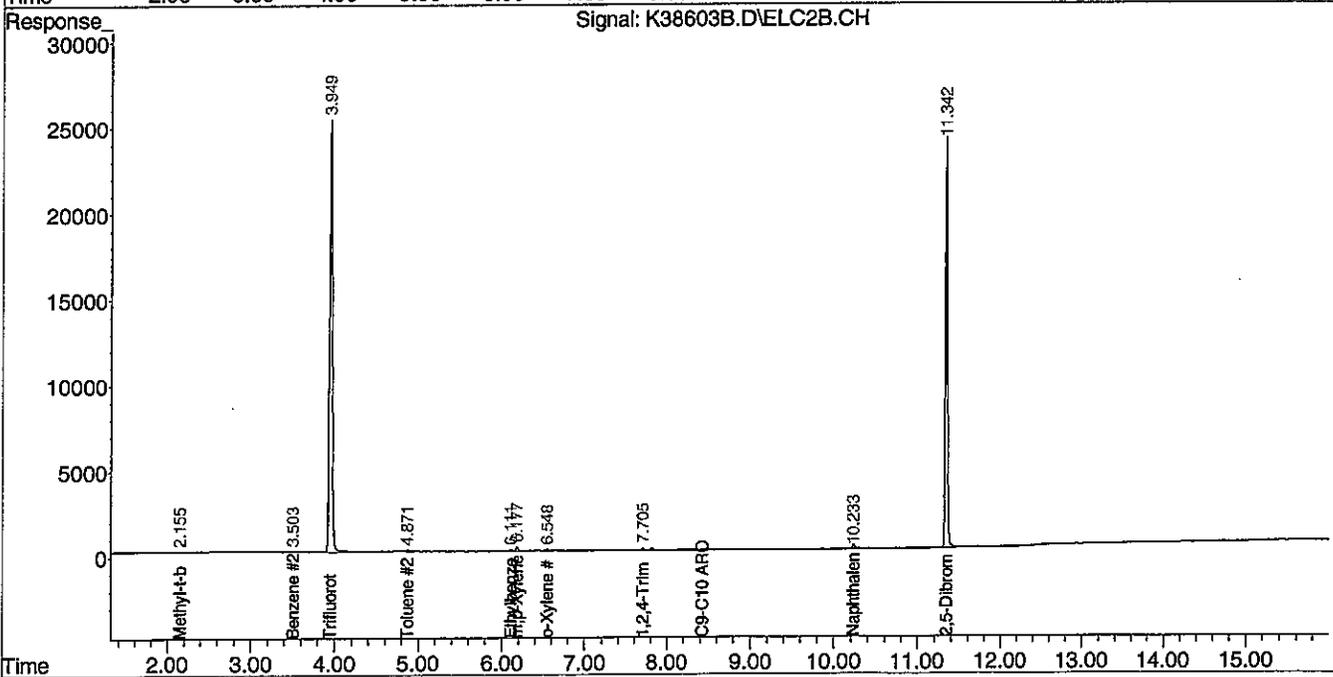
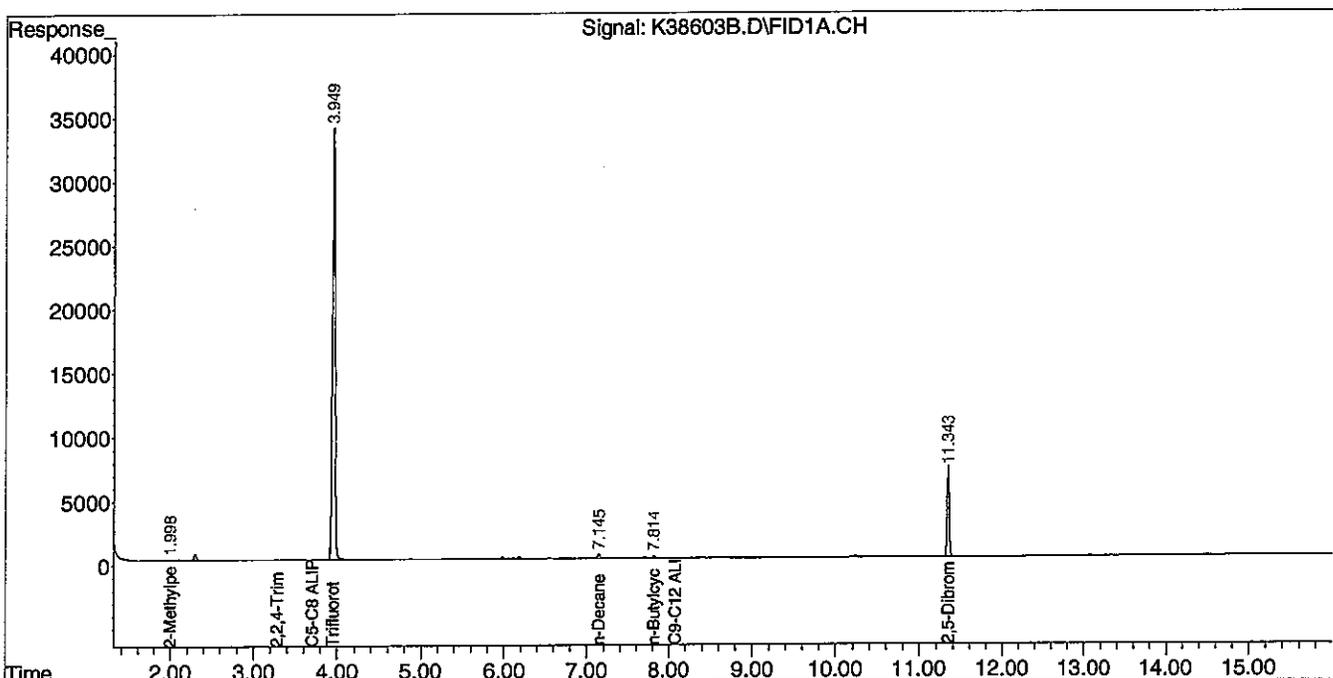
COMMENTS: Samples were received in accordance with method criteria unless noted on the sample receipt checklist. Results are expressed on a moisture corrected and dry weight basis.

Authorized signature: 

Data Path : C:\msdchem\1\DATA\110812-K\  
 Data File : K38603B.D  
 Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH  
 Acq On : 09 Nov 2012 12:41 am  
 Operator : AR/12/11/12  
 Sample : MBV110812K BU110812K  
 Misc : 5000  
 ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Nov 09 01:38:32 2012  
 Quant Method : C:\msdchem\1\METHODS\VPHTFT102612.M  
 Quant Title : Volatile Petroleum Hydrocarbons (VPH) MA DEP 2004  
 QLast Update : Thu Nov 08 21:06:59 2012  
 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: BV110812K  
Spike: LV110812K  
Spike duplicate: LV110812K2

COMPOUND	SPIKE ADDED	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/L)	SPIKE RESULT (ug/L)	SPIKE % REC	SPIKE #	SPIKE DUP RESULT (ug/L)	SPIKE DUP % REC	SPIKE DUP #	RPD #
Pentane	100	70	130	25	0.0	90	90		88	88		2
2-Methylpentane	100	70	130	25	0.0	91	91		89	89		2
2,2,4-Trimethylpentane	100	70	130	25	0.0	92	92		94	94		3
n-Decane	100	70	130	25	0.0	86	86		86	86		0
n-Butylcyclohexane	100	70	130	25	0.0	85	85		85	85		0
Methyl-t-butylether #2	100	70	130	25	0.0	82	82		83	83		1
Benzene #2	100	70	130	25	0.0	98	98		96	96		3
Toluene #2	100	70	130	25	0.0	98	98		95	95		3
Ethylbenzene #2	100	70	130	25	0.0	101	101		98	98		3
m,p-Xylene #2	200	70	130	25	0.0	204	102		198	99		3
o-Xylene #2	100	70	130	25	0.0	100	100		98	98		2
1,2,4-Trimethylbenzene #2	100	70	130	25	0.0	105	105		102	102		3
Naphthalene #2	100	70	130	25	0.0	99	99		95	95		4
C5-C8 Aliphatics	300	70	130	25	0.0	273	91		272	91		0
C9-C12 Aliphatics	200	70	130	25	0.0	171	85		171	85		0
C9-C10 Aromatics #2	100	70	130	25	0.0	105	105		102	102		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: \_\_\_\_\_  
\_\_\_\_\_

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: MBV110812K  
Spike: LSV110812K  
Spike duplicate: LSV110812K2

COMPOUND	LCS SPIKE	LCS D 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	3951	79		3908	78		1
2-Methylpentane	5000	5000	70	130	25	0	4168	83		4207	84		1
2,2,4-Trimethylpentane	5000	5000	70	130	25	0	4444	89		4369	87		2
n-Decane	5000	5000	70	130	25	0	3884	78		4114	82		6
n-Butylcyclohexane	5000	5000	70	130	25	0	4011	80		4035	81		1
Methyl-t-butylether #2	5000	5000	70	130	25	0	3874	77		4352	87		12
Benzene #2	5000	5000	70	130	25	0	4388	88		4496	90		2
Toluene #2	5000	5000	70	130	25	0	4431	89		4522	90		2
Ethylbenzene #2	5000	5000	70	130	25	0	4607	92		4633	93		1
m,p-Xylene #2	10000	10000	70	130	25	0	9324	93		9340	93		0
o-Xylene #2	5000	5000	70	130	25	0	4579	92		4565	91		0
1,2,4-Trimethylbenzene #2	5000	5000	70	130	25	0	4760	95		4736	95		1
Naphthalene #2	5000	5000	70	130	25	0	4260	85		4362	87		2
C5-C8 Aliphatics	15000	15000	70	130	25	0	12563	84		12485	83		1
C9-C12 Aliphatics	10000	10000	70	130	25	0	7895	79		8149	81		3
C9-C10 Aromatics #2	5000	5000	70	130	25	0	4760	95		4736	95		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: \_\_\_\_\_  
\_\_\_\_\_

VOLATILE PETROLEUM HYDROCARBONS SOIL  
MATRIX SPIKE/DUPLICATE  
PERCENT RECOVERY

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

SDG:  
Non-spiked sample: 74235-1  
Spike: 74235-1,MS  
Spike duplicate: 74235-1,MSD

COMPOUND	MS SPIKE	MSD SPIKE	LOWER LIMIT	UPPER LIMIT	RPD LIMIT	NON-SPIKE RESULT (ug/kg)	SPIKE RESULT (ug/kg)	SPIKE		SPIKE DUP		SPIKE DUP		RPD	#
	ADDED (ug/kg)	ADDED (ug/kg)						% REC	#	RESULT (ug/kg)	% REC	#	RESULT (ug/kg)		
Pentane	6449	6849	70	130	25	0	5251	81		5177	76			1	
2-Methylpentane	6449	6849	70	130	25	0	5612	87		5606	82			0	
2,2,4-Trimethylpentane	6449	6849	70	130	25	0	5997	93		6147	90			2	
n-Decane	6449	6849	70	130	25	0	6287	97		6323	92			1	
n-Butylcyclohexane	6449	6849	70	130	25	0	6149	95		6221	91			1	
Methyl-t-butylether #2	6449	6849	70	130	25	0	5689	88		5967	87			5	
Benzene #2	6449	6849	70	130	25	0	6268	97		6536	95			4	
Toluene #2	6449	6849	70	130	25	0	6325	98		6624	97			5	
Ethylbenzene #2	6449	6849	70	130	25	0	6626	103		6900	101			4	
m,p-Xylene #2	12898	13698	70	130	25	0	13319	103		13839	101			4	
o-Xylene #2	6449	6849	70	130	25	0	6586	102		6842	100			4	
1,2,4-Trimethylbenzene #2	6449	6849	70	130	25	0	6809	106		7122	104			4	
Naphthalene #2	6449	6849	70	130	25	0	6238	97		6537	95			5	
C5-C8 Aliphatics	19346	20547	70	130	25	0	16859	87		16930	82			0	
C9-C12 Aliphatics	12898	13698	70	130	25	0	12436	96		12544	92			1	
C9-C10 Aromatics #2	6449	6849	70	130	25	0	6809	106		7122	104			4	

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

MS/MSD 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: Old Waldo Co. Jail  
 Project NO: 111.06134.022

Sample ID: B101-S2

**Report Date: 11/12/2012**

SDG ID: 74235  
 Lab ID: 74235-1  
 Date Sampled: 11/08/12  
 Date Received: 11/08/12  
 Matrix: Solid  
 % Solid: 78  
 Method: 6010B  
 Preparation: 3050B

**Metals Results**

Analyte	Result	Qual	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Lead (Total)	104		mg/Kg	0.15	0.3	11/12/12	11/12/12	TD	1.00

Qualifier Description: U = Undetected B = Detected in Blank J = Estimated Value E = Exceeds Calibration Range

Comments:

Method Description: EPA Method 6010B Inductively Coupled Plasma - Atomic Emissions Spectrometry, Revision 2 December 1996.  
 Preparation: SW-846 3050B

Client: Ransom Consulting, Inc.  
Project name: Old Waldo Co. Jail  
Project NO: 111.06134.022

Sample ID: B102-S1

**Report Date: 11/12/2012**

SDG ID: 74235  
Lab ID: 74235-2  
Date Sampled: 11/08/12  
Date Received: 11/08/12  
Matrix: Solid  
% Solid: 78  
Method: 6010B  
Preparation: 3050B

### Metals Results

Analyte	Result	Qual	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Lead (Total)	44		mg/Kg	0.17	0.33	11/12/12	11/12/12	TD	1.00

Qualifier Description: U = Undetected B = Detected in Blank J = Estimated Value E = Exceeds Calibration Range

Comments:

Method Description: EPA Method 6010B Inductively Coupled Plasma - Atomic Emissions Spectrometry, Revision 2 December 1996.  
Preparation: SW-846 3050B



Client: Ransom Consulting, Inc.  
Project name: Old Waldo Co. Jail  
Project NO: 111.06134.022

Sample ID: B103-S6

**Report Date: 11/12/2012**

SDG ID: 74235  
Lab ID: 74235-3  
Date Sampled: 11/08/12  
Date Received: 11/08/12  
Matrix: Solid  
% Solid: 91  
Method: 6010B  
Preparation: 3050B

### Metals Results

Analyte	Result	Qual	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Lead (Total)	5.7		mg/Kg	0.12	0.25	11/12/12	11/12/12	TD	1.00

Qualifier Description: U = Undetected B = Detected in Blank J = Estimated Value E = Exceeds Calibration Range

Comments:

Method Description: EPA Method 6010B Inductively Coupled Plasma - Atomic Emissions Spectrometry, Revision 2 December 1996.  
Preparation: SW-846 3050B

Client: Ransom Consulting, Inc.  
Project name: Old Waldo Co. Jail  
Project NO: 111.06134.022

Sample ID: MW102

**Report Date: 11/12/2012**

SDG ID: 74235  
Lab ID: 74235-4  
Date Sampled: 11/08/12  
Date Received: 11/08/12  
Matrix: Aqueous  
% Solid: NA  
Method: 6010B  
Preparation: 3005A

### Metals Results

Analyte	Result	Qual	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Lead (Total)	0.008		mg/L	0.003	0.005	11/12/12	11/12/12	TD	1.00

Qualifier Description: U = Undetected B = Detected in Blank J = Estimated Value E = Exceeds Calibration Range

Comments:

Method Description: EPA Method 6010B Inductively Coupled Plasma - Atomic Emissions Spectrometry, Revision 2 December 1996.  
Preparation: SW-846 Method 3005A



Client: Ransom Consulting, Inc.  
Project name: Old Waldo Co. Jail  
Project NO: 111.06134.022

Sample ID: MW DUP

**Report Date: 11/12/2012**

SDG ID: 74235  
Lab ID: 74235-5  
Date Sampled: 11/08/12  
Date Received: 11/08/12  
Matrix: Aqueous  
% Solid: NA  
Method: 6010B  
Preparation: 3005A

### Metals Results

Analyte	Result	Qual	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Lead (Total)	U		mg/L	0.003	0.005	11/12/12	11/12/12	TD	1.00

Qualifier Description: U = Undetected B = Detected in Blank J = Estimated Value E = Exceeds Calibration Range

Comments:

Method Description: EPA Method 6010B Inductively Coupled Plasma - Atomic Emissions Spectrometry, Revision 2 December 1996.  
Preparation: SW-846 Method 3005A



Client: Ransom Consulting, Inc.  
Project name: Old Waldo Co. Jail  
Project NO: 111.06134.022

Sample ID: B DUP

**Report Date: 11/12/2012**

SDG ID: 74235  
Lab ID: 74235-6  
Date Sampled: 11/08/12  
Date Received: 11/08/12  
Matrix: Solid  
% Solid: 74  
Method: 6010B  
Preparation: 3050B

### Metals Results

Analyte	Result	Qual	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Lead (Total)	50		mg/Kg	0.14	0.28	11/12/12	11/12/12	TD	1.00

Qualifier Description: U = Undetected B = Detected in Blank J = Estimated Value E = Exceeds Calibration Range

Comments:

Method Description: EPA Method 6010B Inductively Coupled Plasma - Atomic Emissions Spectrometry, Revision 2 December 1996.  
Preparation: SW-846 3050B

Client: Ransom Consulting, Inc.  
Project name: Old Waldo Co. Jail  
Project NO: 111.06134.022

Sample ID: BK-1

**Report Date: 11/12/2012**

SDG ID: 74235  
Lab ID: 74235-7  
Date Sampled: 11/08/12  
Date Received: 11/08/12  
Matrix: Solid  
% Solid: 75  
Method: 6010B  
Preparation: 3050B

### Metals Results

Analyte	Result	Qual	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Lead (Total)	112		mg/Kg	0.16	0.31	11/12/12	11/12/12	TD	1.00

Qualifier Description: U = Undetected B = Detected in Blank J = Estimated Value E = Exceeds Calibration Range

Comments:

Method Description: EPA Method 6010B Inductively Coupled Plasma - Atomic Emissions Spectrometry, Revision 2 December 1996.  
Preparation: SW-846 3050B



Client: Ransom Consulting, Inc.  
Project name: Old Waldo Co. Jail  
Project NO: 111.06134.022

Sample ID: BK-2

**Report Date: 11/12/2012**

SDG ID: 74235  
Lab ID: 74235-8  
Date Sampled: 11/08/12  
Date Received: 11/08/12  
Matrix: Solid  
% Solid: 80  
Method: 6010B  
Preparation: 3050B

### Metals Results

Analyte	Result	Qual	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Lead (Total)	67		mg/Kg	0.14	0.27	11/12/12	11/12/12	TD	1.00

Qualifier Description: U = Undetected B = Detected in Blank J = Estimated Value E = Exceeds Calibration Range

Comments:

Method Description: EPA Method 6010B Inductively Coupled Plasma - Atomic Emissions Spectrometry, Revision 2 December 1996.  
Preparation: SW-846 3050B

METALS  
QC FORMS

Client: Ransom Consulting, Inc.  
Project name: Old Waldo Co. Jail  
Project NO: 111.06134.022

Sample ID: Lab QC

**Report Date: 11/12/2012**

SDG ID: 74235  
Lab ID: B111212MS  
Date Sampled: NA  
Date Received: NA  
Matrix: Solid  
% Solid: 100  
Method: 6010B  
Preparation: 3050B

### Metals Results

Analyte	Result	Qual	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Lead (Total)	U		mg/Kg	0.13	0.25	11/12/12	11/12/12	TD	1.00

Qualifier Description: U = Undetected B = Detected in Blank J = Estimated Value E = Exceeds Calibration Range

Comments:

Method Description: EPA Method 6010B Inductively Coupled Plasma - Atomic Emissions Spectrometry, Revision 2 December 1996.  
Preparation: SW-846 3050B



Client: Ransom Consulting, Inc.  
Project name: Old Waldo Co. Jail  
Project NO: 111.06134.022

Sample ID: Lab QC

**Report Date: 11/12/2012**

SDG ID: 74235  
Lab ID: B111212MW  
Date Sampled: NA  
Date Received: NA  
Matrix: Aqueous  
% Solid: NA  
Method: 6010B  
Preparation: 3005A

### Metals Results

Analyte	Result	Qual	Units	LOD	LOQ	Prepared	Analyzed	Analyst	Dilution
Lead (Total)	U		mg/L	0.003	0.005	11/12/12	11/12/12	TD	1.00

Qualifier Description: U = Undetected B = Detected in Blank J = Estimated Value E = Exceeds Calibration Range

Comments:

Method Description: EPA Method 6010B Inductively Coupled Plasma - Atomic Emissions Spectrometry, Revision 2 December 1996.  
Preparation: SW-846 Method 3005A

Metals  
 Laboratory Control Sample  
 Laboratory Control Sample Duplicate  
 Percent Recovery

Method: 6010B  
 Matrix: Solid  
 Date Analyzed: 11/12/2012

SDG: 74235  
 Non-spiked Sample B111212MS  
 Spike: L111212MS  
 Spike Duplicate: LD111212MS

Analyte	Spike added	LCS Result	Unit	% Rec	Low Limit	High Limit
Lead	65.9	59.1	mg/kg	90%	44.2	87.6

Analyte	Spike added	LCSD Result	Unit	% Rec	Low Limit	High Limit	RPD	RPD Limit
Lead	65.9	60.2	mg/kg	91%	44.2	87.6	2%	20

**NEELAC** Part# 55102 Lot# 070212 RCRA Metals in Soil #1 NELAC Additional Analytes Invoice# 127501 Units mg/Kg  
 # Component Method Code Method Description </> Reported Value Assigned Value Low High Performance Evaluation

Part#	Component	Method Code	Method Description	</>	Reported Value	Assigned Value	Low	High	Performance Evaluation
1005	Antimony				46.0	8.33	131		
1010	Arsenic				60.7	40.8	80.6		
1015	Barium				133	96.2	170		
1020	Beryllium				50.8	37	69.3		
1025	Boron				81.2	56.5	110		
1030	Cadmium				64.0	46.8	84		
1040	Chromium				39.0	25.6	52.4		
1050	Cobalt				46.8	34.8	59.2		
1055	Copper				67.3	49.2	85.4		
1075	Lead				65.9	44.2	87.6		
1090	Manganese				272	201	343		
1095	Mercury				5.43	2.78	8.08		
1100	Molybdenum				53.1	35.5	70.7		
1105	Nickel				71.0	50.4	93.9		
1140	Selenium				60.7	36.8	84.6		
1150	Silver				51.1	34	68.2		
1175	Tin				112	64.7	174		
1160	Strontium				52.0	36.1	69.4		
1165	Thallium				58.4	37.3	79.5		
1180	Titanium				373	128	619		
1185	Vanadium				75.4	45.6	105		
1190	Zinc				115	75.6	154		

**ABSOLUTE STANDARDS, INC., ISO 9001 Registered, (NSF) • PO BOX 5585, HAMDEN, CT 06518, PHONE (203) 281-2917, FAX (203) 281-2922 (203) 281-2922**  
 [This Form: Performance Evaluation Report Form, Rev:4, Date Issued:02202002] [This Report: 2041 WP 101812.pdf, Page 1 of 2 Printed: 10/18/2012, 9:42:23 AM]  
 Samples were prepared according to the principles outlined in the "2003 NELAC STANDARD" and the current NELAC Fields of Proficiency Testing Tables, FoPTs.  
 All Part #'s are formulated and verified under Absolutes' NELAC scope, (AZLA #2429.01).

Metals  
 Laboratory Control Sample  
 Laboratory Control Sample Duplicate  
 Percent Recovery

Method: 6010B  
 Matrix: Aqueous  
 Date Analyzed: 11/12/2012

SDG: 74235  
 Non-spiked Sample B111212MW  
 Spike: L111212MW  
 Spike Duplicate: LD111212MW

Analyte	Spike added	LCS Result	Unit	% Rec	% Rec Limits
Lead	0.5	0.5015	mg/L	100%	80-120

Analyte	Spike added	LCSD Result	Unit	% Rec	% Rec Limits	RPD	RPD Limit
Lead	0.5	0.5033	mg/L	101%	85-115	0%	20

## CHAIN OF CUSTODIES



ANALYTICS SAMPLE RECEIPT CHECKLIST



AEL LAB#: 74235  
 CLIENT: Ransom  
 PROJECT: Old Waldo Co. Jail

COOLER NUMBER: 166  
 NUMBER OF COOLERS: 1

A: PRELIMINARY EXAMINATION:

1. Cooler received by (initials): SLK DATE COOLER RECEIVED/OPENED: 11/8/12
2. Circle one: Hand delivered  
(If so, skip 3) Shipped
3. Did cooler come with a shipping slip? Y N
- 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? NA Y N
6. COC#: N/A
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: 3°C

B. Log-In: Date samples were logged in: 11/8/12 By: SLK

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? Metals < 1 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: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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): J Date: 11/8/12

\*\*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 D**

Hazardous Materials Inventory Report

Phase II Environmental Site Assessment

Old Waldo County Jail

45 Congress Street

Belfast, Maine

March 20, 2013

Project 111.06134.022

Mr. Thomas Kittredge  
Economic Development Director  
City of Belfast  
131 Church Street  
Belfast, Maine 04915

RE: Hazardous Building Materials Inventory  
Old Waldo County Jail  
45 Congress Street  
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 Old Waldo County Jail complex, located at 45 Congress Street in Belfast, Maine. The Site is occupied by three individual buildings, referred to herein as the Sheriff's Office, the Old Jail, and the Barn (the Site Buildings). The work performed by Ransom was authorized by the City of Belfast using the U.S. 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 Figures 1 through 4. 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 November 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 November 5 and 8, 2012 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 makes the following conclusions:

Asbestos is present in the following materials:

1. Gold linoleum sheet flooring;
2. Wood paneling glue daubs;
3. Green linoleum sheet flooring;

Mr. Thomas Kittredge  
City of Belfast

4. Sink undercoating;
5. Bathroom wallboard glue daubs;
6. Vermiculite insulation; and
7. Steam/water pipe insulation and associated fittings

Ransom understands that the Site Buildings are proposed to be renovated for use as residential and/or commercial/office space. ACM that would be impacted by renovation must be removed by trained asbestos-abatement professionals, and properly handled and disposed of as special wastes in accordance with local, state, and federal regulations. 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 operations and maintenance (O&M) plan. In addition, certain exemptions in Massachusetts Department of Environmental Protection (ME DEP) asbestos-handling and disposal rules may apply, based on the materials and work practices involved, as detailed below.

1. Painted surfaces in several interior and exterior sample locations contained lead at concentrations ranging from 0.12 to 18 percent by weight. The U.S. Housing and Urban Development (HUD) Lead-Based Paint Guidelines define lead at concentrations greater than 0.5 percent by weight as “Lead-Based Paint.” LBP abatement may be required if Site Building(s) are to be redeveloped for residential use and/or seek HUD funding. Regardless of end-use/HUD considerations, any renovation or demolition activities that will 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.”
2. Five distinct caulking materials were collected from interior and exterior portions of the Site Buildings and submitted for laboratory analysis for the presence of PCBs. PCBs were not detected at concentrations constituting an “Unauthorized Use” as defined by 40 CFR Section 761.
3. Other hazardous and potentially hazardous components were also identified at the Site Building, including potentially PCB-containing electrical ballasts, and mercury-containing fluorescent lights and thermostats. These components will require handling and disposal as Universal Wastes.

## **BACKGROUND**

Three structures are included in the scope of this report, known as the Sheriff’s Office, the Old Jail, and the Barn (referred to herein as the “Site Buildings”). The Sheriff’s Office was reportedly constructed circa 1887, and served as the Waldo County Sheriff’s residence until the 1980s, when it was utilized as office space for the Sheriff and support staff. The Sheriff’s Office is a 2-story, wood-framed, building, occupying an approximate footprint of 1,640 square feet.

Mr. Thomas Kittredge  
City of Belfast

The Old Jail is a rectangular 2-story, brick and granite-block building occupying an approximate footprint of 1,725 square feet. The building was reportedly constructed circa 1851 on a concrete slab floor with no basement. The Old Jail shares a common wall with the Sheriff's Office.

The Barn is a rectangular 2-story, wood-framed and wood-sided building occupying an approximate footprint of 1,000 square feet. The building was reportedly constructed circa 1887 with no basement, and its concrete slab floor was constructed at a later unknown date. The building was historically used as a barn for the Sheriff's residence/office and is currently utilized for county vehicle and miscellaneous storage purposes.

The Site Buildings have been vacant or used for storage since 2011 when the current Waldo County Emergency Operations Center was constructed.

### **ASBESTOS-CONTAINING MATERIALS**

Ransom completed an asbestos survey at the Site Building on November 5 and 8, 2012. The asbestos survey was performed by Ransom's U.S. EPA and State of Maine-certified asbestos inspector, Mr. Erik Phenix. Copies of Mr. Phenix's State of Maine Asbestos Inspector certification and most recent U.S. EPA training certificate are provided as Attachment B.

OSHA defines ACM as "any material containing more than one percent asbestos," while the ME DEP defines ACM as "greater than or equal to one percent asbestos." The U.S. EPA and ME DEP 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 interior and exterior. 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.

Bulk samples of friable miscellaneous materials such as plaster, fiber ceiling tile, etc. were analyzed using the polarized light microscopy (PLM), U.S. EPA 600/R-93/116 visual estimation method (1993). Non-friable organically bound (NOB) materials such as floor tiles, mastics, caulks, and asphalt-based roof materials were analyzed using PLM NOB, U.S. EPA 600/R-93/116 with gravimetric preparation method.

Ransom collected 119 bulk samples from 39 different suspect ACMs at the Site Buildings.

As shown in Table 1, the following materials were identified as ACM:

1. Gold linoleum sheet flooring;
2. Wood paneling glue daubs;
3. Green linoleum sheet flooring;

Mr. Thomas Kittredge  
City of Belfast

4. Sink undercoating;
5. Bathroom wallboard glue daubs;
6. Vermiculite insulation; and
7. Steam/water pipe insulation and associated fittings;

The ME DEP 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 include:

1. Wood paneling glue daubs (3% Chrysotile);
2. Sink undercoating (2% Chrysotile);
3. Bathroom wallboard glue daubs (4% Chrysotile); and
4. Vermiculite insulation (Tremolite present)

If any identified ACM is to be removed or disturbed as part of renovation or demolition activities, these materials will require removal by trained asbestos abatement workers, as well as proper handling and disposal as special waste at a facility licensed to receive asbestos-containing materials. The ME DEP does not require notification of removal of certain exempt materials, including exterior caulks and glazing and asphalt-based roofing materials, provided that these materials are in intact (non-friable) condition. However, OSHA worker protection requirements are applicable, as well as ME DEP 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. Figures 1 through 4 provide sample locations for materials testing positive for asbestos.

Mr. Thomas Kittredge  
City of Belfast

## **LEAD-BASED PAINT**

In order to identify potential lead-based paint, Ransom collected paint chips from various interior and exterior surfaces at the Site Building for lead analysis. Samples were collected from surfaces likely to contain lead, such as exterior siding, windows, and the interior of the Old Jail. Samples were analyzed for lead by AmeriSci Environmental Laboratory, an American Industrial Hygiene Association (AIHA)-accredited environmental lead laboratory, using the U.S. EPA Method 3050B/7000B.

Paint chips were collected from the following surfaces for laboratory analysis for lead content:

1. Window sill, peach (interior Sheriff's Office);
2. Tin ceiling, white (interior Sheriff's Office);
3. Drywall, beige (interior Sheriff's Office);
4. Window sill, white (INTERIOR Sheriff's Office);
5. Brick wall, gray (Interior Sheriff's Office/Old Jail Connector);
6. Brick wall, white/beige (interior Sheriff's Office/Old Jail Connector);
7. Brick wall, white/beige/gray (interior Old Jail); and
8. Wood siding, white (exterior Barn).

A copy of the paint chip analysis laboratory report is provided in Attachment C. According to the U.S. Housing and Urban Development (HUD) Lead-Based Paint Guidelines, concentrations of lead greater than 0.5 percent by weight are referred to as "lead-based" (Section 1017 of the Residential Lead-Based Paint Hazard Reduction Act of 1992 [also referred to as Title X]). Lead concentrations detected among the eight samples submitted for analysis ranged from 0.12 to 18 percent by weight. Depending on the proposed reuse and redevelopment scenarios, lead paint abatement may not be required as part of the proposed renovation at this time; HUD guidelines are provided for comparison purposes only. However, if any Site Building(s) are to be redeveloped for residential or other "child-occupied" use, as defined by U.S. EPA, so-called "lead hazards" must be eliminated via stabilization and/or encapsulation of LBP. LBP abatement would also likely be required if HUD funding will be sought as part of Site redevelopment. A summary of the lead paint testing results can be found on the attached Table 2.

Renovation or demolition activities that disturb surfaces that contain lead at any concentration must be conducted in accordance with OSHA regulation 29 CFR 1926.62, "Lead Exposure in Construction: Interim Final Rule." OSHA has no minimum threshold for lead-based paint. This regulation requires that a site-specific health and safety plan be prepared before conducting specific activities that create airborne lead emissions that may exceed the action level of 30 micrograms per cubic centimeter of air, such as cutting, grinding, or sanding surfaces coated with lead-containing paint. Such a plan should include the identification of lead components, an exposure assessment and, if applicable, the required work procedures and personal protective equipment (PPE) to be used.

Mr. Thomas Kittredge  
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If leachable lead concentrations 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 may be warranted prior to disposal.

## **OTHER POTENTIALLY HAZARDOUS MATERIALS AND COMPONENTS**

### Polychlorinated Biphenyls in Oils

PCB-containing oil is sometimes found in the dielectric fluid of older electrical transformers, including 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 Building for the presence of PCB labeling. Our inventory identified approximately 29 light ballasts throughout the Site Buildings and we inspected 2 representative fixtures. Both of the ballasts inspected had “No PCBs” labeling.

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; if no label is 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.

Additional sampling was conducted to characterize the potential for PCBs in caulking materials, as further discussed below.

### 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 and demolition (C&D) waste streams. Ransom identified approximately 58 FLT)s and at least three mercury-containing thermostats throughout the Site 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.

Please see the attached Table 3 for a summary of other hazardous building components identified during Ransom’s HMI (i.e., PCBs, mercury, heavy metals.).

### Polychlorinated Biphenyls 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.

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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  $\geq 50$  ppm as a result of leaching into the substrate material from the contaminated caulk.

Five distinct caulking materials were identified on the interior and exterior of the Site Buildings. These caulking materials were sampled and submitted for laboratory analysis for PCB content. The PCB species Aroclor 1254 was detected at a concentration of 4.55 ppm in a sample of window glazing collected from the exterior of the Sheriff's Office. This concentration does not exceed 50 ppm, and therefore does not constitute a PCB bulk product waste. The remaining building materials samples collected from the Site Buildings did not exhibit PCB concentrations above laboratory reporting limits.

Laboratory results from PCB testing are provided in Attachment C.

## CONCLUSIONS AND RECOMMENDATIONS

Based on the results of this HMI, Ransom makes the following conclusions and recommendations:

1. Ransom identified the following asbestos-containing building materials at the Site building:
  - a. Gold linoleum sheet flooring;
  - b. Wood paneling glue daubs;
  - c. Green linoleum sheet flooring;
  - d. Sink undercoating;
  - e. Bathroom wallboard glue daubs;
  - f. Vermiculite insulation; and
  - g. Steam/water pipe insulation and associated fittings.
2. Surfaces tested for lead-based paint contained varying concentrations of lead, ranging from 0.12 to 18 percent by weight. LBP abatement may be required if Site Building(s) are to be redeveloped for residential use and/or seek HUD funding. However, renovation

Mr. Thomas Kittredge  
City of Belfast

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 fluorescent light ballasts, presumed mercury-containing fluorescent light tubes, and mercury switches. Disposal of each of these items is subject to hazardous and/or Universal Waste disposal requirements.
4. PCBs were not detected at concentrations representing an unauthorized use in the caulking materials collected from the Site Buildings.

### **COST ESTIMATES**

Ransom has prepared the following summary of abatement cost estimates based upon industry standards observed over the past 2 years. Line-item cost estimates for asbestos, lead paint, 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**

<b>Sheriff’s Office, Old Jail, and Barn</b>	
Asbestos Removal/Disposal Estimate <sup>1</sup>	\$44,170
Lead Paint Abatement Estimate <sup>1</sup>	\$138,000
Other Hazardous Materials Removal/Disposal Estimate	\$775
<b>Total:</b>	<b>\$182,945</b>

**NOTE:** Asbestos and lead paint removal estimates include consultant’s fees and contingencies, which are detailed in Table 4.

### **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

Mr. Thomas Kittredge  
City of Belfast

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.

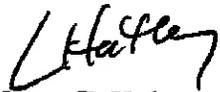
If you have any questions regarding the information in this report please do not hesitate to contact us.

Sincerely,

RANSOM CONSULTING, INC.



Eriksen P. Phenix, C.G.  
Project Geologist



Lucas D. Hathaway  
Project Scientist/Hazardous Materials Specialist



Peter J. Sherr  
2013.03.20 16:14:28  
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Peter J. Sherr, P.E.  
Senior Project Manager/Belfast Brownfields Program Manager

EPP/ LDH/PJS:sh  
Attachments

**TABLE 1: SUMMARY OF ASBESTOS TESTING RESULTS**  
 Hazardous Building Materials Inventory  
 Old Waldo County Jail  
 45 Congress Street  
 Belfast, Maine

Material	Location	Sample Number	Asbestos Quantity and Type <sup>1</sup>	Estimated Quantity <sup>2</sup>
<b>SHERIFF'S OFFICE</b>				
<b>Gold linoleum sheet flooring</b>	<b>First Floor kitchen</b>	<b>ASB-1A</b>	<b>35% Chrysotile</b>	<b>150 SF</b>
		<b>ASB-1B and ASB-1C</b>	<b>NA/PS</b>	
Linoleum sheet flooring mastic	First Floor kitchen	ASB-2A	NAD	--
		ASB-2B	NAD	--
		ASB-2C	NAD	--
<b>Blue wood panel glue daubs</b>	<b>First Floor</b>	<b>ASB-3A</b>	<b>3% Chrysotile</b>	<b>200 SF</b>
		<b>ASB-3B and ASB-3C</b>	<b>NA/PS</b>	
White ceiling tile	First Floor	ASB-4A through ASB-4C	NAD	--
Plaster	First Floor	ASB-5A through ASB-5C	NAD	--
Plaster	Second Floor	ASB-5D and ASB-5E	NAD	--
<b>Green linoleum sheet flooring</b>	<b>First Floor</b>	<b>ASB-6A</b>	<b>35% Chrysotile</b>	<b>150 SF</b>
		<b>ASB-6B and ASB-6C</b>	<b>NA/PS</b>	
Green linoleum sheet flooring mastic	First Floor	ASB-7A through ASB-7C	NAD	--
Black cove base	First Floor	ASB-8A through ASB-8C	NAD	--
Cove base mastic	First Floor	ASB-9A through ASB-9C	NAD	--
Gray 12-inch floor tile	First Floor	ASB-10A through ASB-10C	NAD	--
Gray 12-inch floor tile mastic	First Floor	ASB-11A through ASB-11C	NAD	--
Gray carpet mastic	First Floor	ASB-12A through ASB-12C	NAD	--
Red linoleum sheet flooring	First Floor	ASB-13A through ASB-13C	NAD	--

**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 1A at 35 percent, samples 1B and 1C were not analyzed. NAD = no asbestos detected.
2. SF = square feet; LF = linear feet.

**TABLE 1: SUMMARY OF ASBESTOS TESTING RESULTS**  
 Hazardous Building Materials Inventory  
 Old Waldo County Jail  
 45 Congress Street  
 Belfast, Maine

Material	Location	Sample Number	Asbestos Quantity and Type <sup>1</sup>	Estimated Quantity <sup>2</sup>
Red linoleum sheet flooring mastic	First Floor	ASB-14A through ASB-14C	NAD	--
Brown carpet mastic	First Floor	ASB-15A through ASB-15C	NAD	--
<b>Sink undercoat</b>	<b>First Floor</b>	<b>ASB-16A</b>	<b>2% Chrysotile</b>	<b>2 Each</b>
		<b>ASB-16B and ASB-16C</b>	<b>NA/PS</b>	
<b>White wallboard glue daubs</b>	<b>First Floor</b>	<b>ASB-17A</b>	<b>5% Chrysotile</b>	<b>100 SF</b>
		<b>ASB-17B and ASB-17C</b>	<b>NA/PS</b>	
Drywall	First Floor	ASB-18A through ASB-18C	NAD	--
Joint compound	First Floor	ASB-19A through ASB-19C	NAD	--
White/black fleck 12-inch floor tile	First Floor	ASB-20A through ASB-20C	NAD	--
White/black fleck 12-inch floor tile mastic	First Floor	ASB-21A through ASB-21C	NAD	--
Brown stair tread	Second Floor	ASB-22A through ASB-22C	NAD	--
Green speckled linoleum sheet flooring	Second Floor	ASB-23A through ASB-23C	NAD	--
Gray carpet mastic	Second Floor	ASB-24A through ASB-24C	NAD	--
Red yarn linoleum sheet flooring	Second Floor	ASB-25A through ASB-25C	NAD	--
Red yarn linoleum sheet flooring mastic	Second Floor	ASB-26A through ASB-26C	NAD	--
Beige carpet mastic	Second Floor	ASB-27A through ASB-27C	NAD	--
Brown carpet mastic	Second Floor	ASB-28A through ASB-28C	NAD	--

**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 1A at 35 percent, samples 1B and 1C were not analyzed. NAD = no asbestos detected.
2. SF = square feet; LF = linear feet.

**TABLE 1: SUMMARY OF ASBESTOS TESTING RESULTS**

Hazardous Building Materials Inventory  
 Old Waldo County Jail  
 45 Congress Street  
 Belfast, Maine

Material	Location	Sample Number	Asbestos Quantity and Type <sup>1</sup>	Estimated Quantity <sup>2</sup>
White linoleum sheet flooring	Second Floor	ASB-29A through ASB-29C	NAD	--
White linoleum sheet flooring mastic	Second Floor	ASB-30A through ASB-30C	NAD	--
Tile pattern linoleum wall panel	Second Floor	ASB-31A through ASB-31C	NAD	--
12-inch white ceiling tile	Second Floor	ASB-32A through ASB-32C	NAD	--
Blanket Wool insulation	Second Floor	ASB-33A through ASB-33C	NAD	--
<b>Vermiculite Insulation</b>	<b>Attic</b>	<b>ASB-34A</b>	<b>Tremolite present</b>	<b>2,400 SF</b>
		<b>ASB-34B and ASB 34C</b>	<b>NA/PS</b>	
<b>Pipe insulation</b>	Basement	ASB-37A	80% Chrysotile	<b>5 SF</b>
		ASB-37B and ASB-37C	NA/PS	
<b>OLD JAIL BUILDING</b>				
<b>Pipe insulation</b>		<b>ASB-35A</b>	<b>85% Chrysotile</b>	<b>95 SF</b>
		<b>ASB-35B and ASB-35C</b>	<b>NA/PS</b>	
<b>Pipe elbow mud</b>		<b>ASB-36A</b>	<b>35% Chrysotile</b>	
		<b>ASB-36B and ASB-36C</b>	<b>NA/PS</b>	
<b>ROOFING</b>				
Asphalt shingle	Sheriff's office & barn roof	ASB-38A through ASB-38C	NAD	--
Asphalt shingle	Connector from office to barn	ASB-39A through ASB-39C	NAD	--

**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 1A at 35 percent, samples 1B and 1C were not analyzed. NAD = no asbestos detected.
2. SF = square feet; LF = linear feet.

**TABLE 2: SUMMARY OF LEAD PAINT TESTING RESULTS**

Hazardous Materials Inventory  
Old Waldo County Jail  
45 Congress Street  
Belfast, Maine

Sample Number	Color/Substrate/Component	Location	Lead Concentration (percent by weight)
<b>LBP-1</b>	<b>Peach wood window sill</b>	<b>Sheriff's Office 1<sup>st</sup> Floor</b>	<b>18</b>
LBP-2	White tin ceiling	Sheriff's Office 1 <sup>st</sup> Floor	0.029
LBP-3	Beige drywall	Sheriff's Office 1 <sup>st</sup> Floor	0.022
<b>LBP-4</b>	<b>White wood window sill</b>	<b>Sheriff's Office 1<sup>st</sup> Floor</b>	<b>6.5</b>
LBP-5	Gray brick wall	Sheriff's Office 1 <sup>st</sup> Floor	0.012
LBP-6	White/Tan brick wall	Sheriff's Office 1 <sup>st</sup> Floor	0.046
<b>LBP-7</b>	<b>White/Gray brick wall</b>	<b>Old Jail Interior</b>	<b>9.6</b>
<b>LBP-8</b>	<b>White wood siding</b>	<b>Barn Exterior</b>	<b>5.0</b>

**NOTES:**

1. Samples analyzed by AmeriSci Environmental Laboratory of Boston, Massachusetts, via EPA Method 3050B/7000B
2. The HUD threshold concentration for LBP is 0.5% lead by weight. Concentrations exceeding the HUD threshold concentration are shown in **bold**. **HUD guidelines are not a regulatory consideration in the current scenario; no abatement is required based on current uses.**

**TABLE 3: OTHER HAZARDOUS/POTENTIALLY HAZARDOUS MATERIALS**  
 Hazardous Materials Inventory  
 Old Waldo County Jail  
 45 Congress street  
 Belfast, Maine

<b>Component</b>	<b>Estimated Quantity</b>	<b>Potential Hazard</b>
Fluorescent light tubes	58	Mercury
Fluorescent fixture ballast	29	PCB-containing mineral oil dielectric fluid <sup>[1]</sup>
Mercury-containing thermostats	3	Mercury

**NOTES:**

1. Each ballast inspected during our survey had “No PCBs” labeling.

**TABLE 4: HAZARDOUS MATERIALS REMOVAL COST ESTIMATES**  
 Hazardous Materials Inventory  
 Old Waldo County Jail  
 45 Congress Street  
 Belfast, Maine

**Table 4-1: Asbestos Removal Cost Estimates<sup>1</sup>**

Material	Estimated Quantity <sup>1</sup>	Unit Cost	Total
Gold linoleum sheet flooring	150 SF	\$5/SF	\$750
Green linoleum sheet flooring	150 SF		
Blue wallboard glue daubs	200 SF	\$4.00/SF	800
SINK undercoat	2 Each	\$10.00/Each	20
White wallboard glue daubs	100 SF	\$4.00/SF	400
Pipe insulation and associated fittings	100 LF	\$20/LF	2,000
Vermiculite insulation	2,400 SF	\$12/SF	30,000
<i>Sub-Total of Asbestos Removal Estimates:</i>			\$33,970
Estimated Consultant Fees <sup>2</sup> :			6,800
Contingency <sup>3</sup>			3,400
<b>TOTAL ESTIMATED ASBESTOS ABATEMENT COST:</b>			<b>\$44,170</b>

**NOTES:**

1. LF = Linear Feet SF = Square Feet.
2. 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.
3. A 10% contingency is added to cover the cost of hidden conditions encountered during the abatement.

**Table 4-2: Lead Paint Abatement Cost Estimates<sup>[1]</sup>**

Component	Quantity	Abatement Cost
Windows frames and trim, Sheriff's Office	20 Each	\$25,000
Old Jail interior	4,000 SF	40,000
Barn exterior	2,000 SF	50,000
<i>Sub-Total of Lead Paint Abatement Estimates:</i>		\$115,000
Estimated Consultant Fees <sup>2</sup> :		11,500
Contingency <sup>3</sup>		11,500
<b>TOTAL ESTIMATED LEAD PAINT ABATEMENT COST:</b>		<b>\$138,000</b>

**NOTES:**

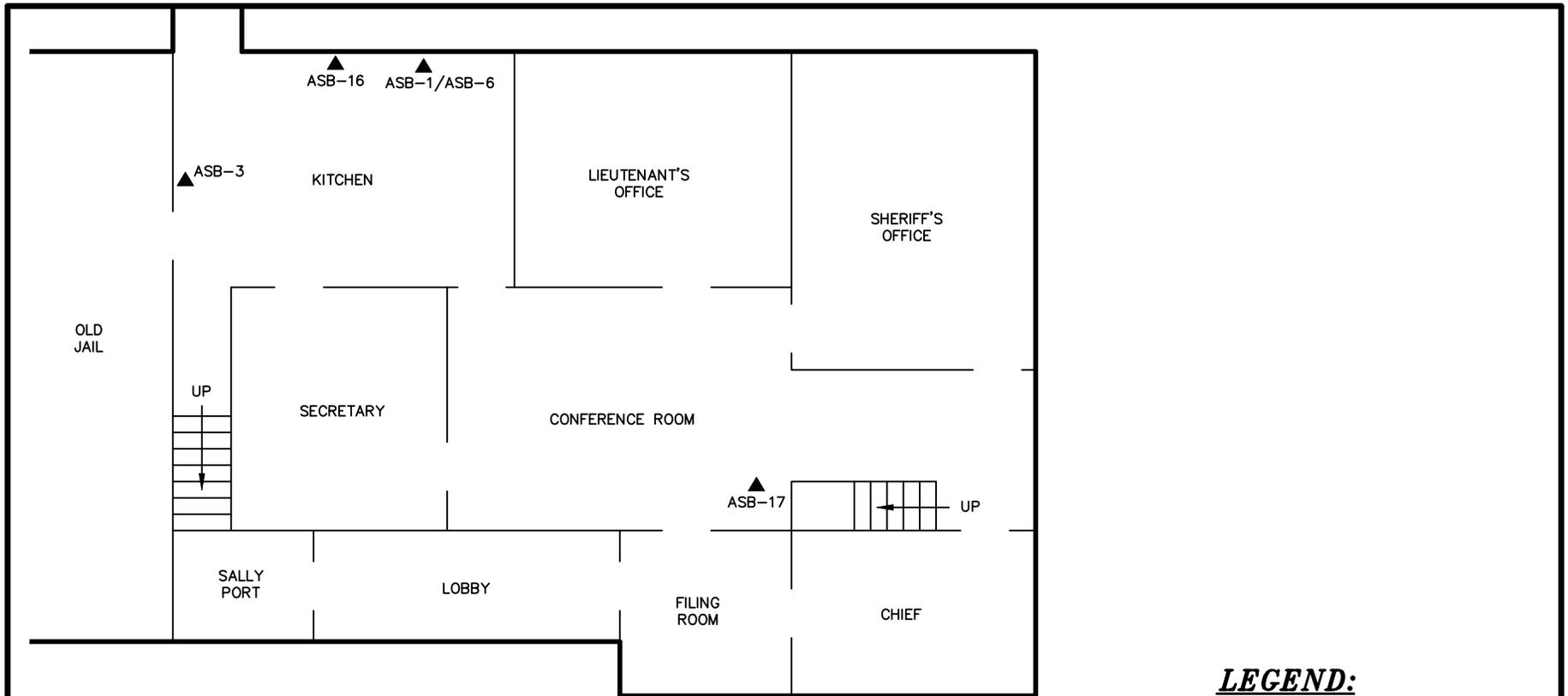
1. Lead paint abatement assumes that all paint exceeding the HUD threshold of 0.5% by weight will be removed from the Site Buildings. This includes removal and replacement of the windows and frames of the Sherriff's Office, mechanical or chemical removal of paint on the interior of the Old Jail, and removal of clap board siding and replacement with vinyl siding on the Barn exterior.
2. A 10% consultant fee is added to cover project oversight and clearance testing.
3. 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  
 Old Waldo County Jail  
 45 Congress Street  
 Belfast, Maine

**Table 4-3: Other Hazardous Materials Removal Cost Estimates**

<b>Component</b>	<b>Estimated Quantity</b>	<b>Unit Cost</b>	<b>Total</b>
Fluorescent fixture ballast	29	\$20 Each	--
Fluorescent lamps	58	\$3 Each	\$175
Mercury thermostats	3	\$20 Each	600
<b>TOTAL ESTIMATED OTHER HAZARDOUS MATERIALS REMOVAL COST:</b>			<b>\$775</b>

**NOTE:** Each ballast inspected during our survey had “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.



**LEGEND:**

▲ SAMPLE TESTING  
 ASB-1 POSITIVE FOR ASBESTOS

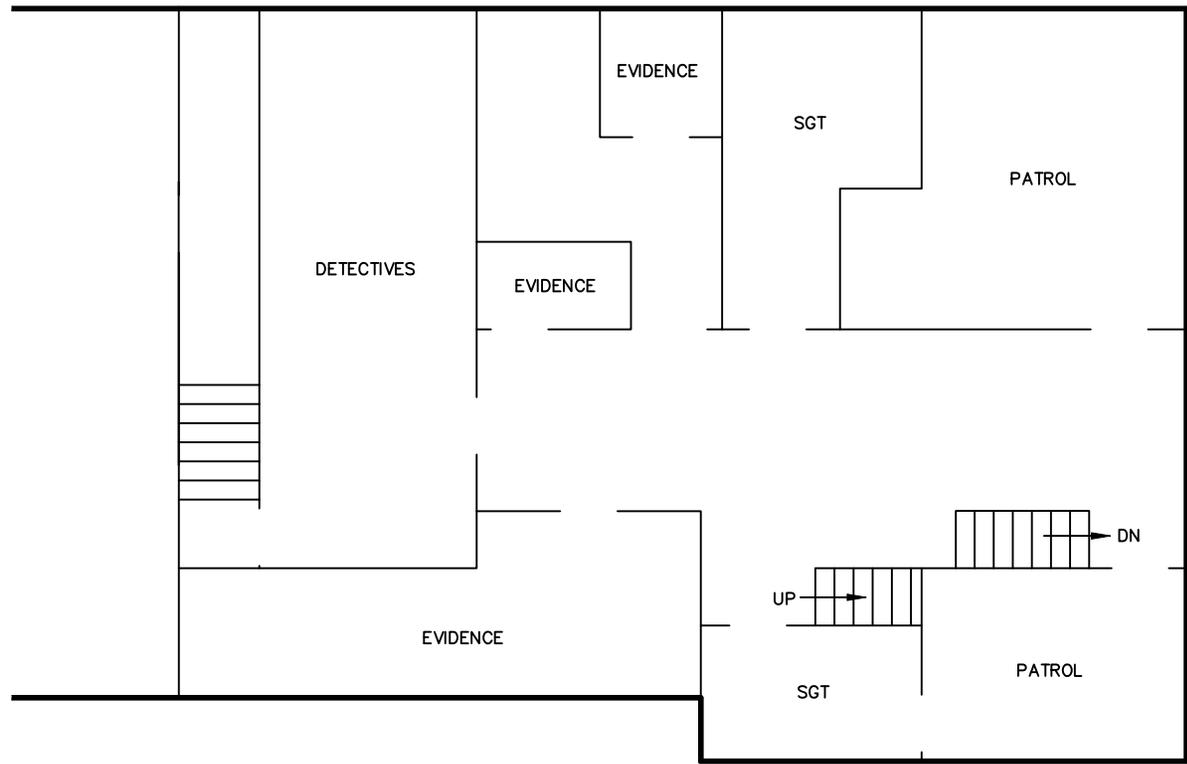
**NOTES:**

1. SITE PLAN BASED ON MEASUREMENTS AND OBSERVATIONS MADE BY RANSOM CONSULTING, INC. ON NOVEMBER 5, 2012.
2. SOME FEATURES ARE APPROXIMATE IN LOCATION AND SCALE.
3. THIS PLAN HAS BEEN PREPARED FOR CITY OF BELFAST. ALL OTHER USES ARE NOT AUTHORIZED, UNLESS WRITTEN PERMISSION IS OBTAINED FROM RANSOM CONSULTING, INC.



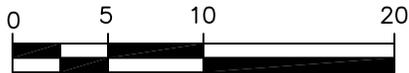
SCALE in FEET  
 1"=10'

		<b>SHERIFF'S OFFICE          FIRST FLOOR</b>	
PREPARED FOR: CITY OF BELFAST 131 CHURCH STREET BELFAST, MAINE		SITE: OLD WALDO COUNTY JAIL 45 CONGRESS STREET BELFAST, MAINE	
		DATE: DECEMBER 2012 PROJECT: 111.06134 FIGURE: 1	



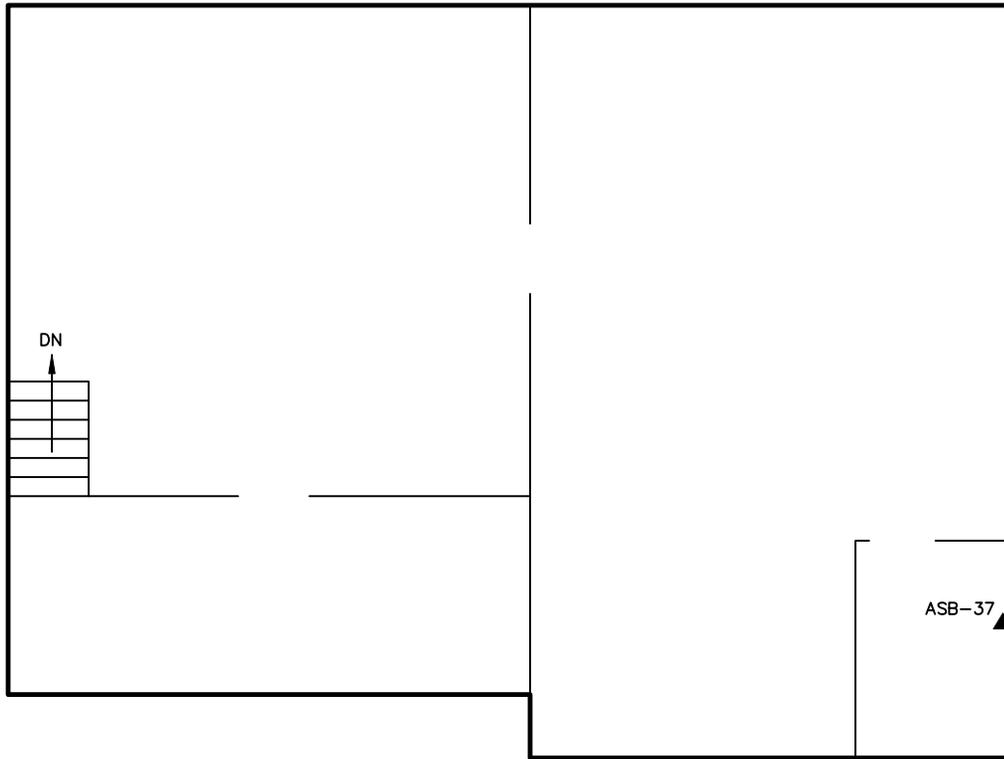
**NOTES:**

- 1. SITE PLAN BASED ON MEASUREMENTS AND OBSERVATIONS MADE BY RANSOM CONSULTING, INC. ON NOVEMBER 5, 2012.
- 2. SOME FEATURES ARE APPROXIMATE IN LOCATION AND SCALE.
- 3. THIS PLAN HAS BEEN PREPARED FOR CITY OF BELFAST. ALL OTHER USES ARE NOT AUTHORIZED, UNLESS WRITTEN PERMISSION IS OBTAINED FROM RANSOM CONSULTING, INC.



SCALE in FEET  
1"=10'

		<b>SHERIFF'S OFFICE SECOND FLOOR</b>	
PREPARED FOR: CITY OF BELFAST 131 CHURCH STREET BELFAST, MAINE		SITE: OLD WALDO COUNTY JAIL 45 CONGRESS STREET BELFAST, MAINE	
		DATE: DECEMBER 2012 PROJECT: 111.06134 FIGURE: 2	



**LEGEND:**

▲ SAMPLE TESTING  
ASB-37 POSITIVE FOR ASBESTOS

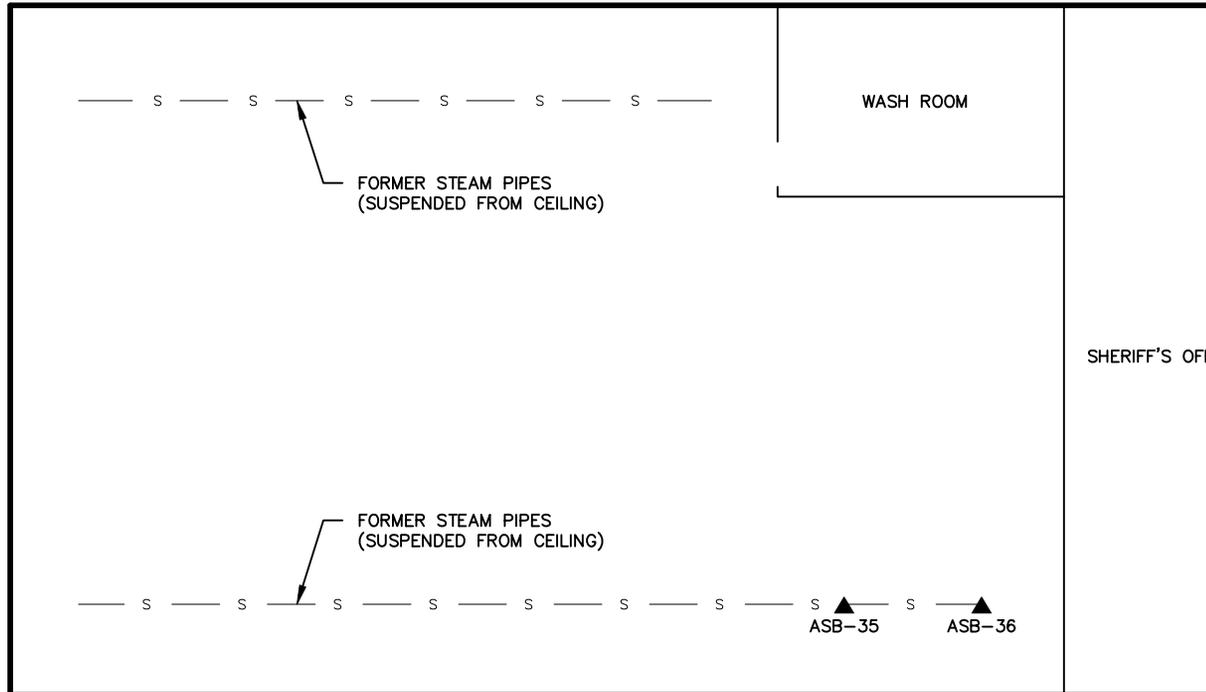
**NOTES:**

1. SITE PLAN BASED ON MEASUREMENTS AND OBSERVATIONS MADE BY RANSOM CONSULTING, INC. ON NOVEMBER 5, 2012.
2. SOME FEATURES ARE APPROXIMATE IN LOCATION AND SCALE.
3. THIS PLAN HAS BEEN PREPARED FOR CITY OF BELFAST. ALL OTHER USES ARE NOT AUTHORIZED, UNLESS WRITTEN PERMISSION IS OBTAINED FROM RANSOM CONSULTING, INC.



SCALE in FEET  
1"=10'

		<b>SHERIFF'S OFFICE BASEMENT</b>
PREPARED FOR:  CITY OF BELFAST 131 CHURCH STREET BELFAST, MAINE	SITE:  OLD WALDO COUNTY JAIL 45 CONGRESS STREET BELFAST, MAINE	DATE: DECEMBER 2012 PROJECT: 111.06134 FIGURE: 3



**LEGEND:**

▲ SAMPLE TESTING  
ASB-35 POSITIVE FOR ASBESTOS

**NOTES:**

1. SITE PLAN BASED ON MEASUREMENTS AND OBSERVATIONS MADE BY RANSOM CONSULTING, INC. ON NOVEMBER 5, 2012.
2. SOME FEATURES ARE APPROXIMATE IN LOCATION AND SCALE.
3. THIS PLAN HAS BEEN PREPARED FOR CITY OF BELFAST. ALL OTHER USES ARE NOT AUTHORIZED, UNLESS WRITTEN PERMISSION IS OBTAINED FROM RANSOM CONSULTING, INC.



SCALE in FEET  
1"=10'

		<b>OLD JAIL FLOOR PLAN</b>	
		PREPARED FOR: CITY OF BELFAST 131 CHURCH STREET BELFAST, MAINE	SITE: OLD WALDO COUNTY JAIL 45 CONGRESS STREET BELFAST, MAINE

**ATTACHMENT A**

Photograph Log

Hazardous Building Materials Inventory  
Old Waldo County Jail  
45 Congress Street  
Belfast, Maine

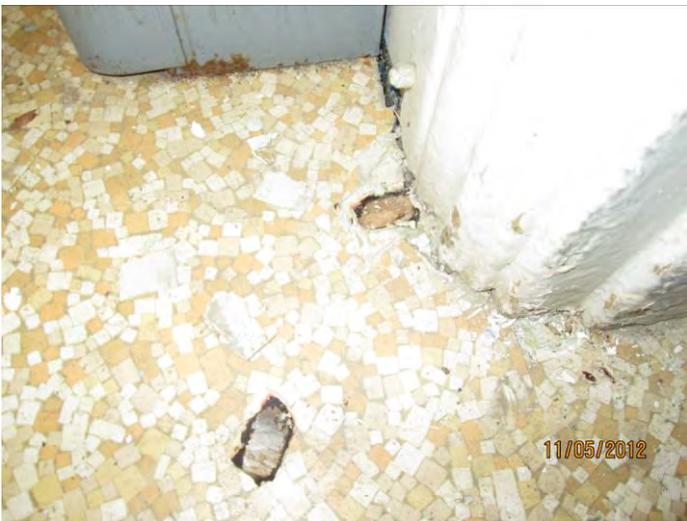
**Photograph Log**



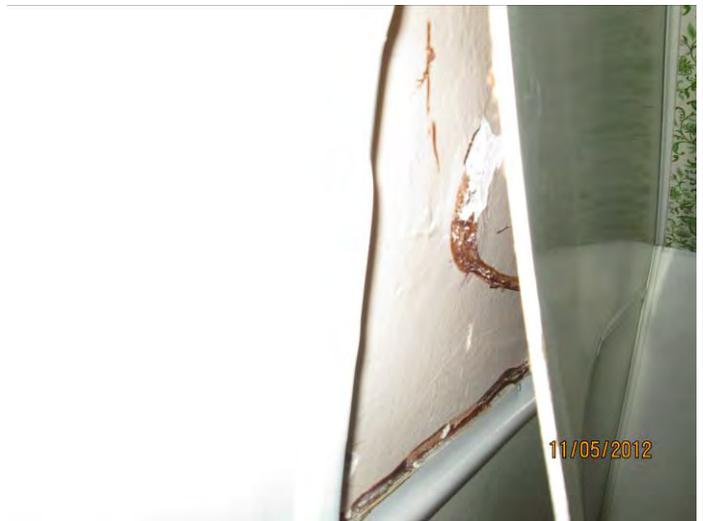
**Sheriff's Office and Old Jail, looking northwest**



**Sheriff's Office and Barn, looking southwest**



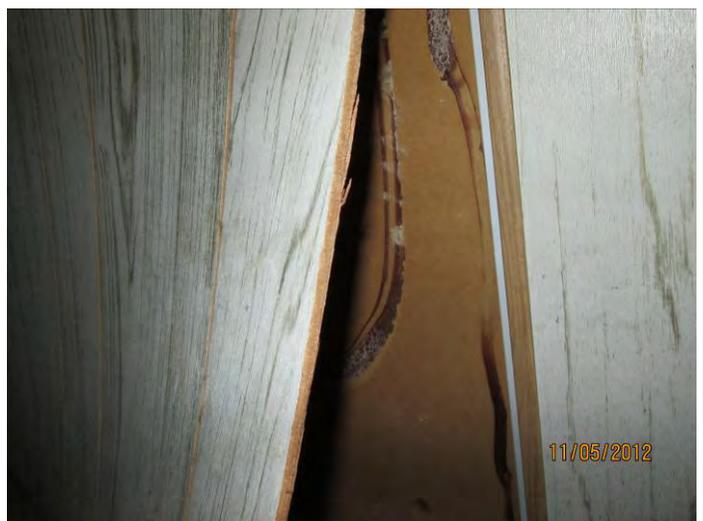
**Golden linoleum sheet flooring (Sample ASB-1) covering  
Green linoleum sheet flooring (Sample ASB-6)**



**Glue daubs behind blue wood paneling (Sample ASB-3)**



**Sink undercoat (Sample ASB-16)**



**Glue daubs on white bathroom wallboard (Sample ASB-17)**

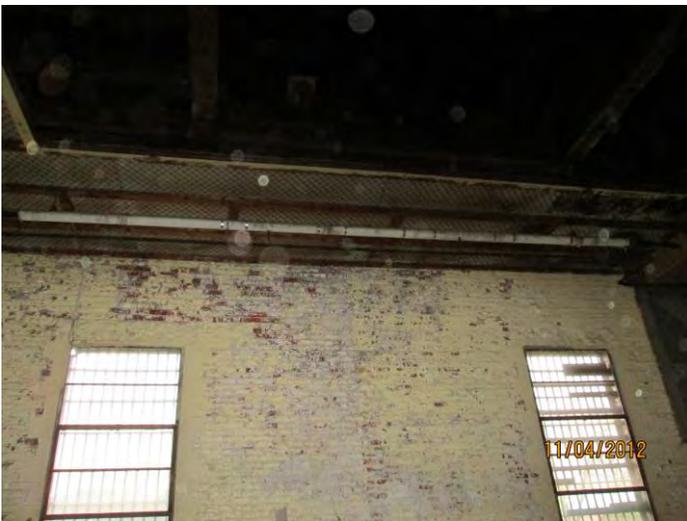
**Photograph Log**



**Vermiculite insulation (Sample ASB-34)**



**Steam pipe insulation and associated fittings in Old Jail  
(Samples ASB-35 and ASB-36)**



**Interior of Old Jail, showing painted brick surfaces**

**ATTACHMENT B**

Asbestos Certifications

Hazardous Building Materials Inventory  
Old Waldo County Jail  
45 Congress Street  
Belfast, Maine

**State of Maine**  
Asbestos Abatement Program

**Erik P. Phenix**



*Inspector*

**Cert No. AI-0560**

**Trn.Exp.Date 08/13/2013**

**Expiration Date 08/31/2013**

This is not a legal form of official identification





*This is to certify that*

**Erik Phenix**

*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

August 13, 2012

Course Dates

12-7568-106-238212

Certificate Number

August 13, 2012

Examination Date

August 13, 2013

Expiration Date

Training Director

16 Upton Drive, Wilmington, MA 01887

Telephone 978.658.5272

www.ieetrains.com

**INSTITUTE FOR ENVIRONMENTAL EDUCATION**

**ATTACHMENT C**

Copies of Laboratory Data

Hazardous Building Materials Inventory  
Old Waldo County Jail  
45 Congress Street  
Belfast, Maine

November 9, 2012

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

**RE: Analytical Results Case Narrative  
Analytics # 74205  
Old Waldo Co. Jail  
Project No: R111.06134.022**

Dear Mr. Phenix;

Enclosed please find the analytical results for samples submitted for 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 Polychlorinated Biphenyls (PCBs) by EPA Method 8082.

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 data package has been assembled in the following order:

- Case Narrative/Non-Conformance Summary
- Sample Log Sheet - Cover Page
- PCB Form 1 Data Sheet for Samples
- PCB Form 10 Confirmation Results and Blanks
- Chromatograms
- PCB Form 3 MS/MSD (LCS) Recoveries
- Chain of Custody (COC) Forms

## QC NON CONFORMANCE SUMMARY

**Sample Receipt:**

No exceptions.

**PCBs by EPA Method 8082:**

No results were reported below then quantitation limit.

All samples were reported at elevated quantitation limits due to sample matrix (caulking and glaze). Sample 74205-2 used the entire sample that was provided. Results were reported on an as received basis with a comment to this affect.

Sample 74205-5 had interference on column#1 that prevented the determination of Tetrachloro -m-xylene surrogate recovery. Surrogate results for this sample were reported off of column#2 without qualification.

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: 74205**

**Revision: Rev. 0**

**Re: Old Waldo Co. Jail (Project No: R111.06134.022)**

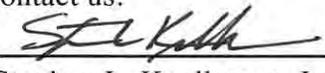
Enclosed are the results of the analyses on your sample(s). Samples were received on 06 November 2012 and analyzed for the tests listed. Samples were received in acceptable condition, with the exceptions noted below or on the chain of custody. These results pertain to samples as received by the laboratory 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>
74205-1	11/05/12	Window Caulk A	EPA 8082 (PCBs only)	
74205-2	11/05/12	Window Caulk B	EPA 8082 (PCBs only)	
74205-3	11/05/12	Window Glaze A	EPA 8082 (PCBs only)	
74205-4	11/05/12	Window Glazing B	EPA 8082 (PCBs only)	
74205-5	11/05/12	Seam Caulk	Electronic Data Deliverable	
	11/05/12	Seam Caulk	EPA 8082 (PCBs only)	

**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 11/9/2012

**This report shall not be reproduced, except in full, without the written consent of Analytics Environmental Laboratory, LLC.**

### Surrogate Compound Limits

Matrix:	Aqueous	Solid	
Units:	% Recovery	% 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	

PCB  
DATA SUMMARIES

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

November 9, 2012

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** Old Waldo Co. Jail  
**Project Number:** R111.06134.022  
**Field Sample ID:** Window Caulk A

**Lab Sample ID:** 74205-1  
**Matrix:** Solid  
**Percent Solid:** 99  
**Dilution Factor:** 7  
**Collection Date:** 11/05/12  
**Lab Receipt Date:** 11/06/12  
**Extraction Date:** 11/07/12  
**Analysis Date:** 11/08/12

PCB ANALYTICAL RESULTS		
COMPOUND	Quantitation Limit $\mu\text{g}/\text{kg}$	Results $\mu\text{g}/\text{kg}$
PCB-1016	231	U
PCB-1221	231	U
PCB-1232	231	U
PCB-1242	231	U
PCB-1248	231	U
PCB-1254	231	U
PCB-1260	231	U
<b>Surrogate Standard Recovery</b>		
2,4,5,6-Tetrachloro-m-xylene	115	%
Decachlorobiphenyl	56	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank		

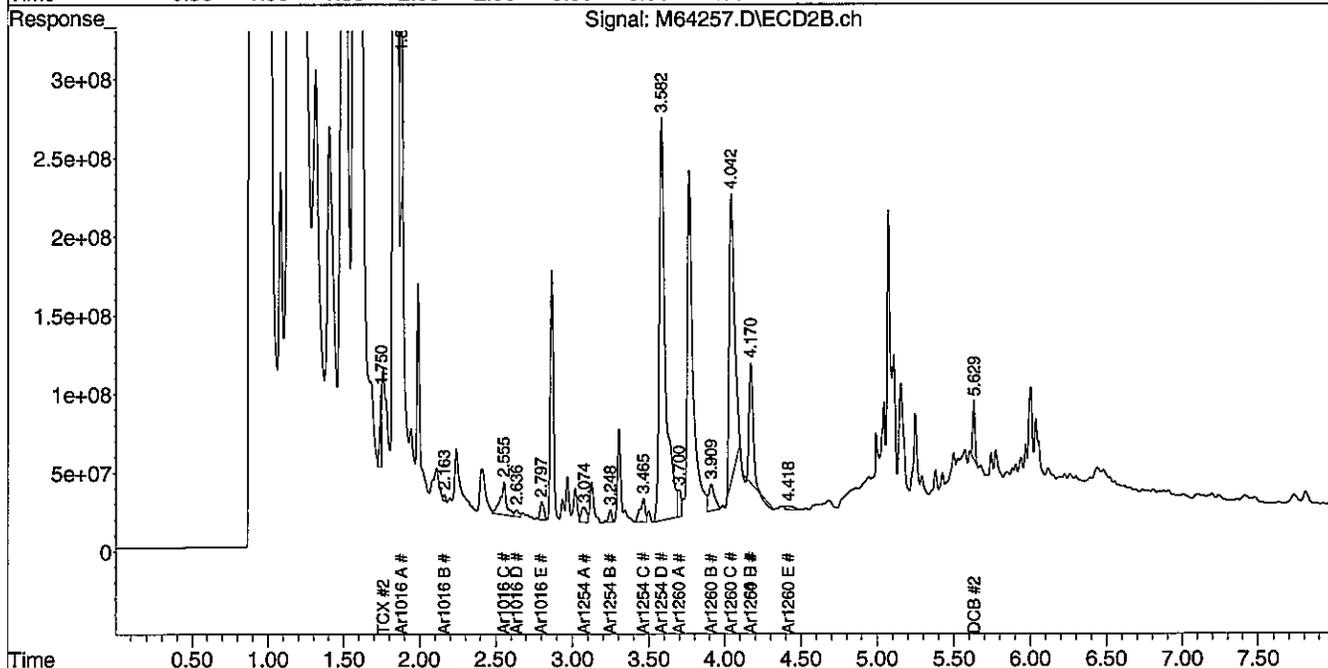
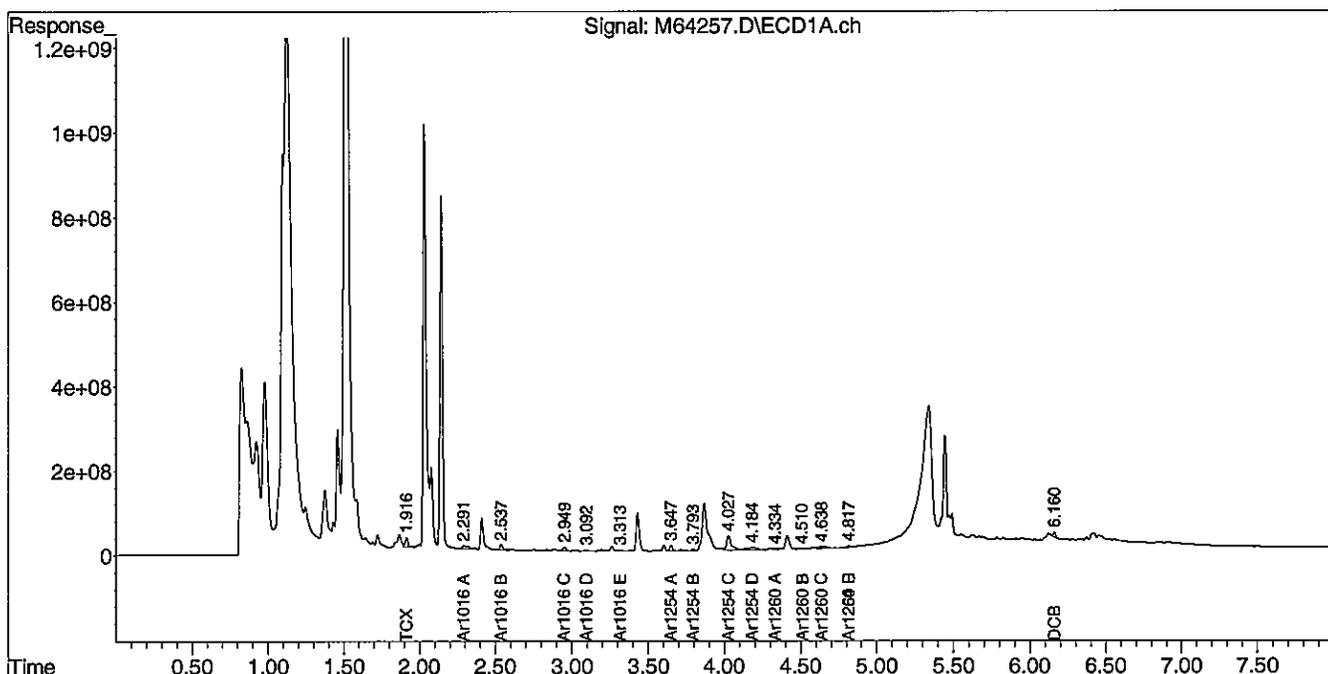
**METHODOLOGY:** Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.  
Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.  
Sample cleanup was conducted according to SW-846 Method 3665A.

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

Data Path : C:\msdchem\1\DATA\110812-M\  
 Data File : M64257.D  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 8 Nov 2012 7:34 pm  
 Operator : JK  
 Sample : 74205-1,,A/C  
 Misc : SOIL  
 ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Nov 09 08:44:25 2012  
 Quant Method : C:\msdchem\1\METHODS\PCB101812.M  
 Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
 QLast Update : Wed Nov 07 00:07:37 2012  
 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



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

November 9, 2012

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** Old Waldo Co. Jail

**Project Number:** R111.06134.022

**Field Sample ID:** Window Caulk B

**Lab Sample ID:** 74205-2

**Matrix:** Solid

**Percent Solid:** 100

**Dilution Factor:** 42

**Collection Date:** 11/05/12

**Lab Receipt Date:** 11/06/12

**Extraction Date:** 11/07/12

**Analysis Date:** 11/08/12

PCB ANALYTICAL RESULTS		
COMPOUND	Quantitation Limit $\mu\text{g}/\text{kg}$	Results $\mu\text{g}/\text{kg}$
PCB-1016	1390	U
PCB-1221	1390	U
PCB-1232	1390	U
PCB-1242	1390	U
PCB-1248	1390	U
PCB-1254	1390	U
PCB-1260	1390	U
<b>Surrogate Standard Recovery</b>		
2,4,5,6-Tetrachloro-m-xylene	59	%
Decachlorobiphenyl	84	%
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 8082.  
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.

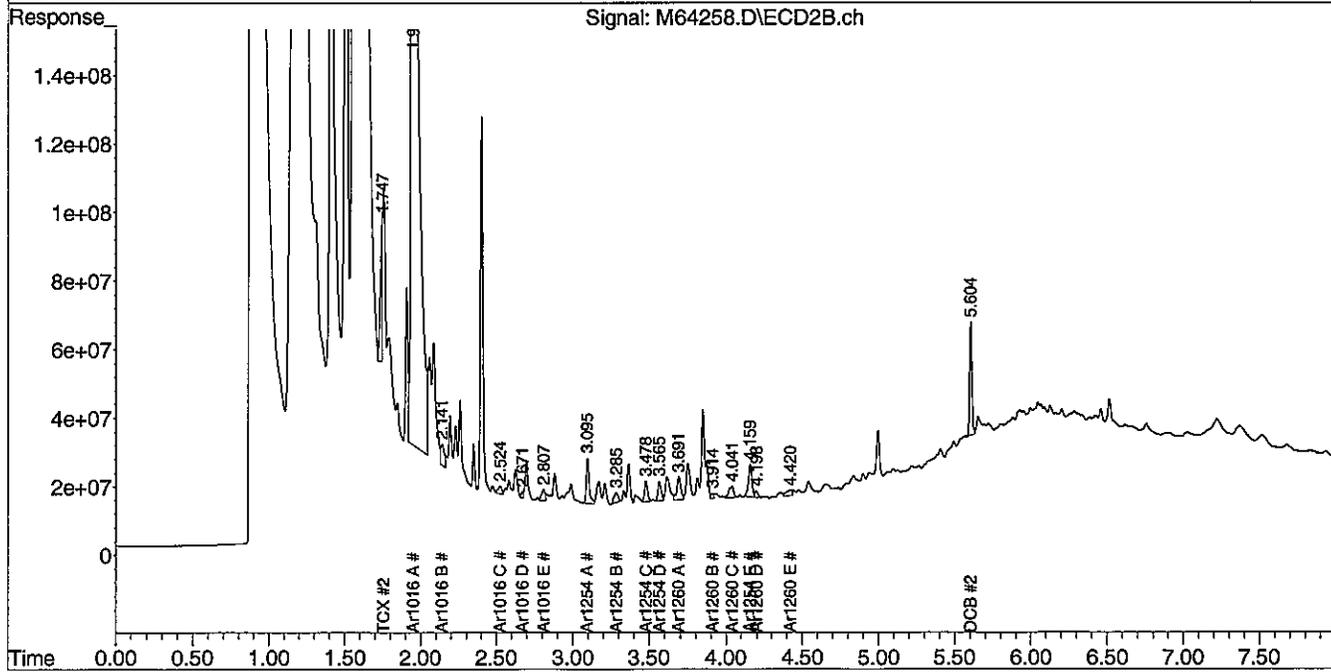
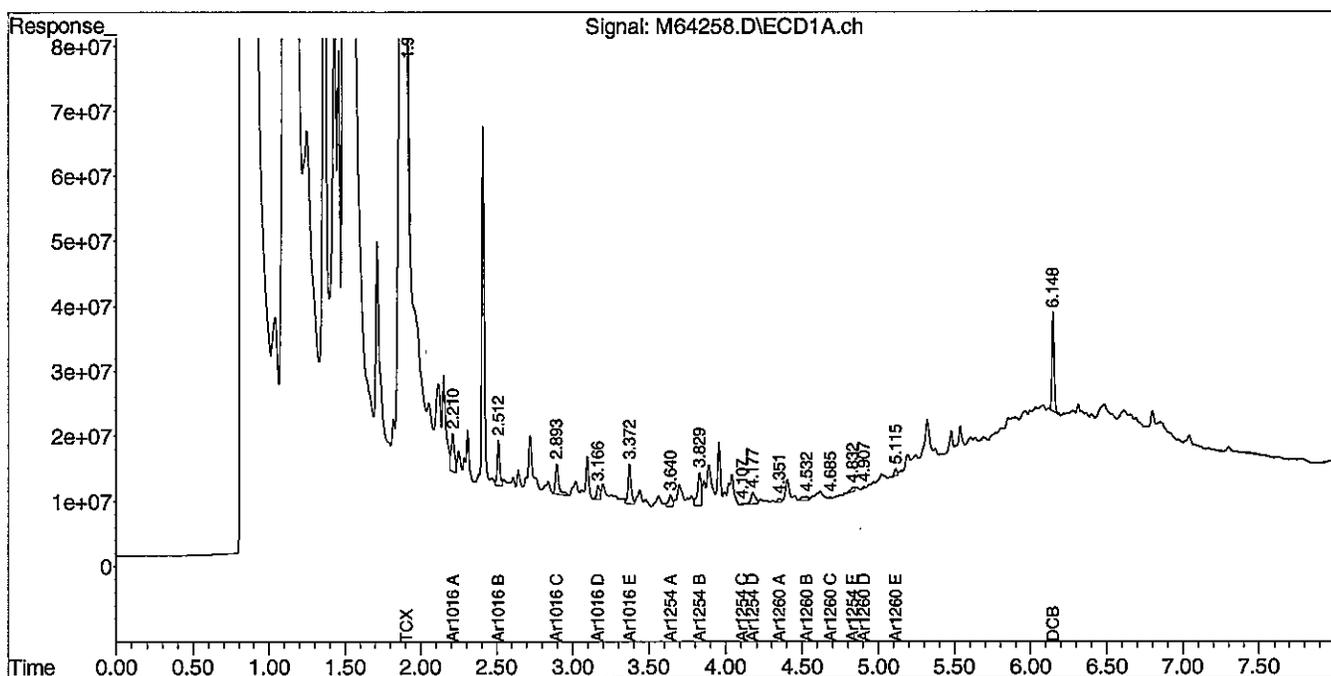
**COMMENTS:** Results are expressed on an as received basis. Quantitation limits are increased due to limited sample volume.

Authorized signature 

Data Path : C:\msdchem\1\DATA\110812-M\  
 Data File : M64258.D  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 8 Nov 2012 7:44 pm  
 Operator : JK  
 Sample : 74205-2,,A/C  
 Misc : SOIL  
 ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Nov 09 08:46:02 2012  
 Quant Method : C:\msdchem\1\METHODS\PCB101812.M  
 Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
 QLast Update : Wed Nov 07 00:07:37 2012  
 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



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

November 9, 2012

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** Old Waldo Co. Jail  
**Project Number:** R111.06134.022  
**Field Sample ID:** Window Glaze A

**Lab Sample ID:** 74205-3  
**Matrix:** Solid  
**Percent Solid:** 99  
**Dilution Factor:** 8  
**Collection Date:** 11/05/12  
**Lab Receipt Date:** 11/06/12  
**Extraction Date:** 11/07/12  
**Analysis Date:** 11/08/12

PCB ANALYTICAL RESULTS		
COMPOUND	Quantitation Limit $\mu\text{g}/\text{kg}$	Results $\mu\text{g}/\text{kg}$
PCB-1016	264	U
PCB-1221	264	U
PCB-1232	264	U
PCB-1242	264	U
PCB-1248	264	U
PCB-1254	264	U
PCB-1260	264	U
Surrogate Standard Recovery		
2,4,5,6-Tetrachloro-m-xylene	87	%
Decachlorobiphenyl	67	%
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 8082.  
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.

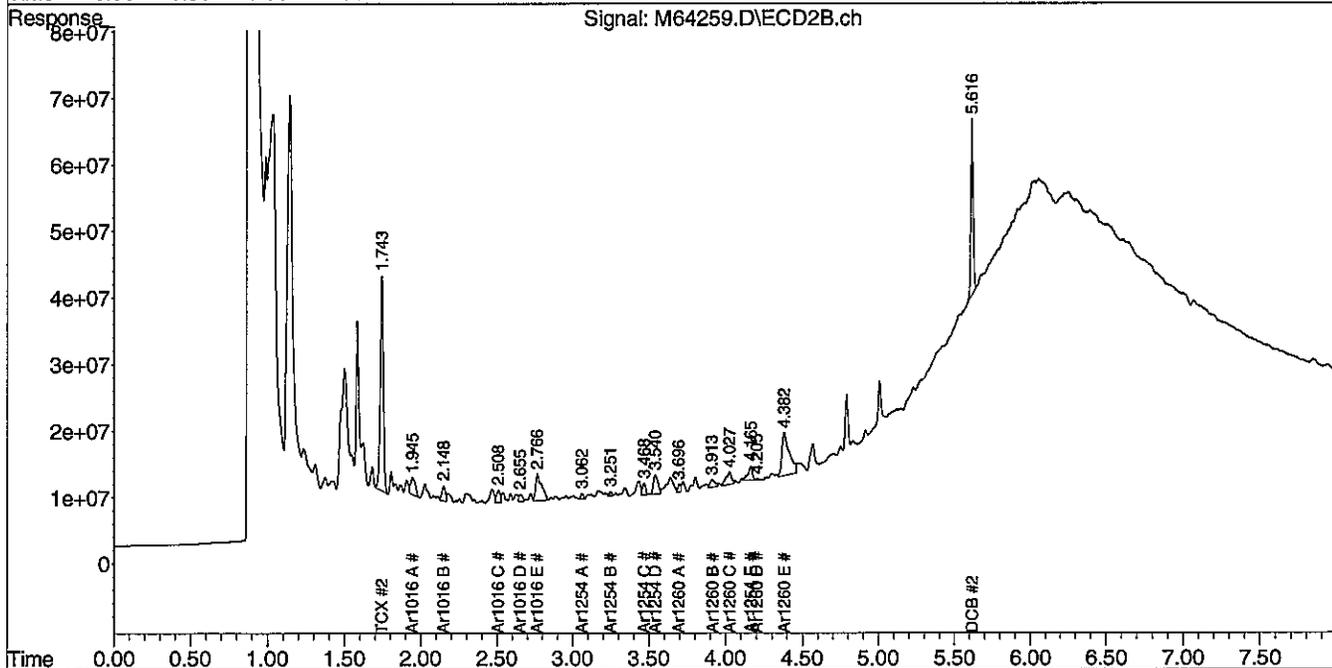
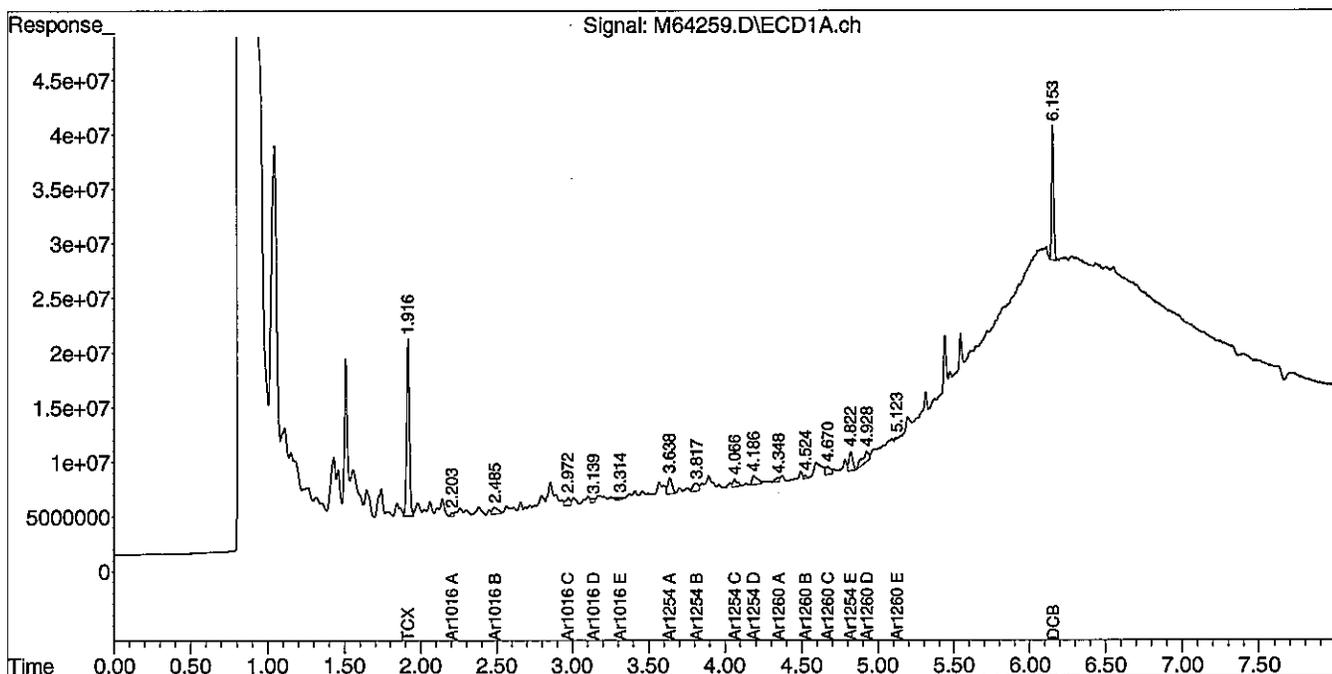
**COMMENTS:** Results are expressed on a dry weight basis.

Authorized signature 

Data Path : C:\msdchem\1\DATA\110812-M  
 Data File : M64259.D  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 8 Nov 2012 7:54 pm  
 Operator : JK  
 Sample : 74205-3,,A/C  
 Misc : SOIL  
 ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Nov 09 08:46:54 2012  
 Quant Method : C:\msdchem\1\METHODS\PCB101812.M  
 Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
 QLast Update : Wed Nov 07 00:07:37 2012  
 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



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

November 9, 2012

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** Old Waldo Co. Jail

**Project Number:** R111.06134.022

**Field Sample ID:** Window Glazing B

**Lab Sample ID:** 74205-4

**Matrix:** Solid

**Percent Solid:** 92

**Dilution Factor:** 13

**Collection Date:** 11/05/12

**Lab Receipt Date:** 11/06/12

**Extraction Date:** 11/07/12

**Analysis Date:** 11/08/12

PCB ANALYTICAL RESULTS		
COMPOUND	Quantitation Limit $\mu\text{g}/\text{kg}$	Results $\mu\text{g}/\text{kg}$
PCB-1016	429	U
PCB-1221	429	U
PCB-1232	429	U
PCB-1242	429	U
PCB-1248	429	U
PCB-1254	429	4550
PCB-1260	429	U
<b>Surrogate Standard Recovery</b>		
2,4,5,6-Tetrachloro-m-xylene	79	%
Decachlorobiphenyl	62	%
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 8082.  
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.

PCB Report

Authorized signature 

PCB  
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M	SDG: 74205
GC Column #1: STX-CLPesticides I	Sample: 74205-4,,A/C
Column ID: 0.25 mm	Data File: M64260.D
GC Column #2: STX-CLPesticides II	Dilution Factor: 12.5
Column ID: 0.25 mm	

COMPOUND	Column #1	Column #2	RPD	#
	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)		
PCB 1254	4214	4547	7.6	

# Column to be used to flag RPD values greater than QC limit of 40%

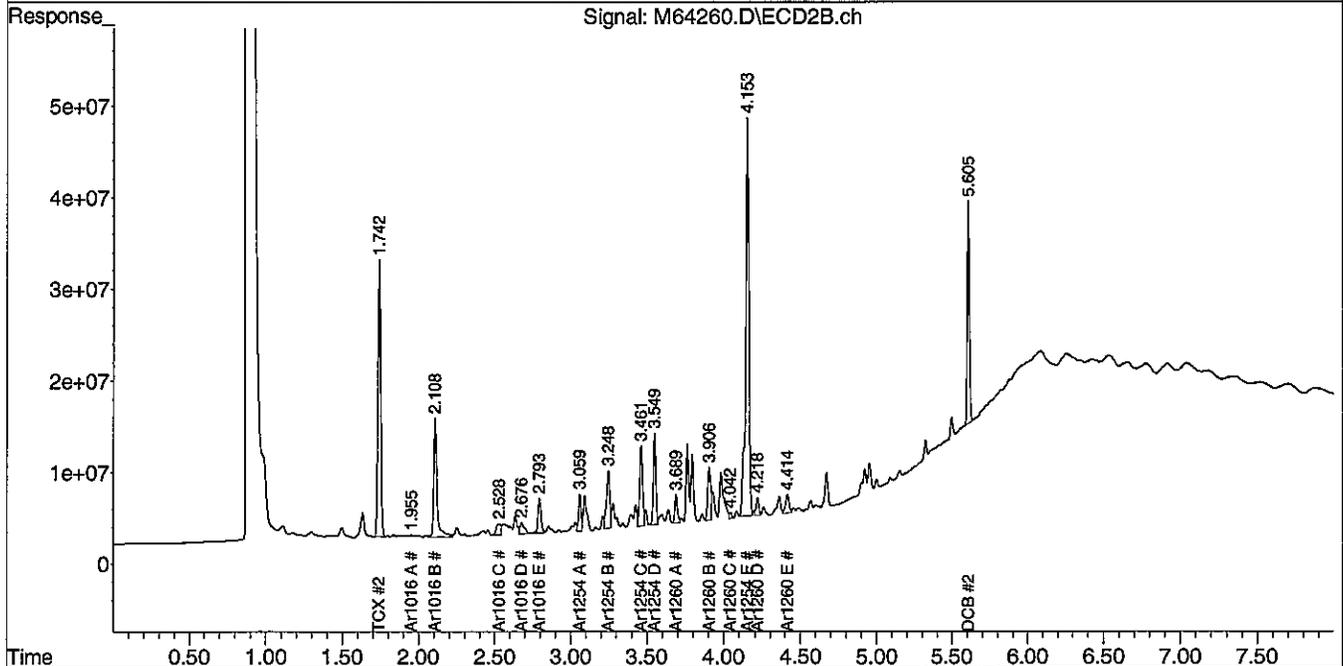
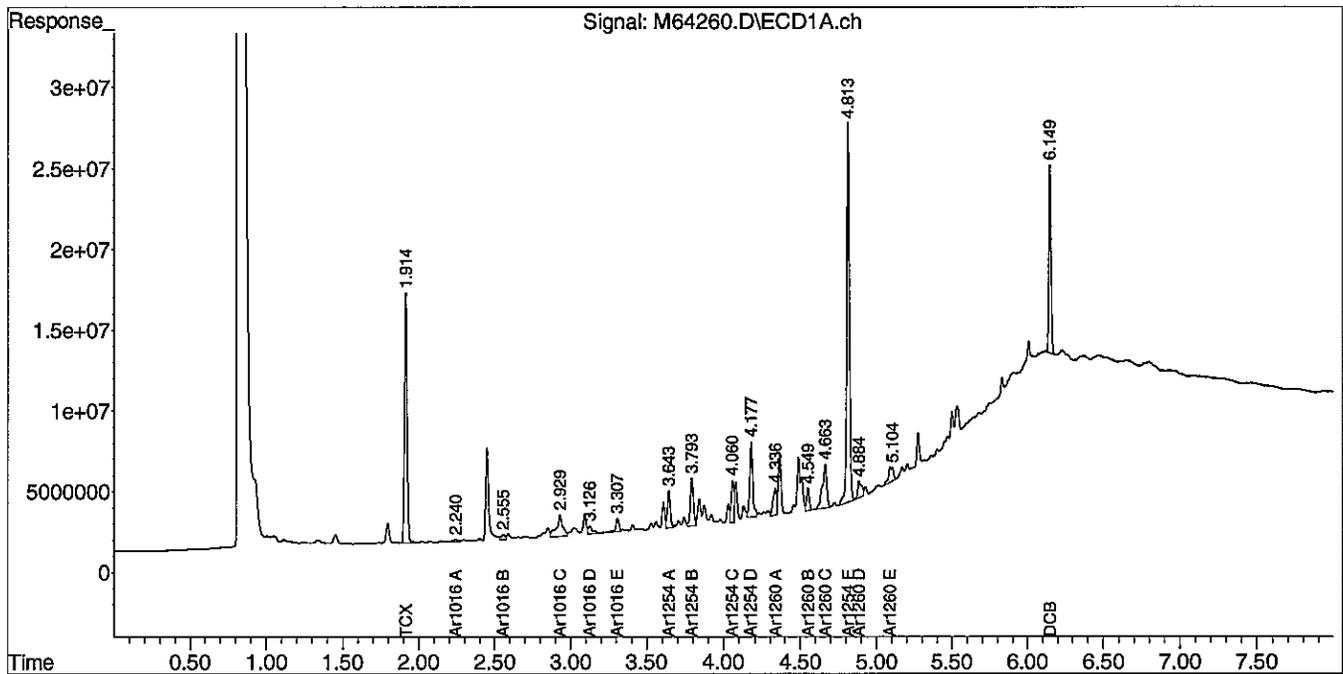
\* Values outside QC limits

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

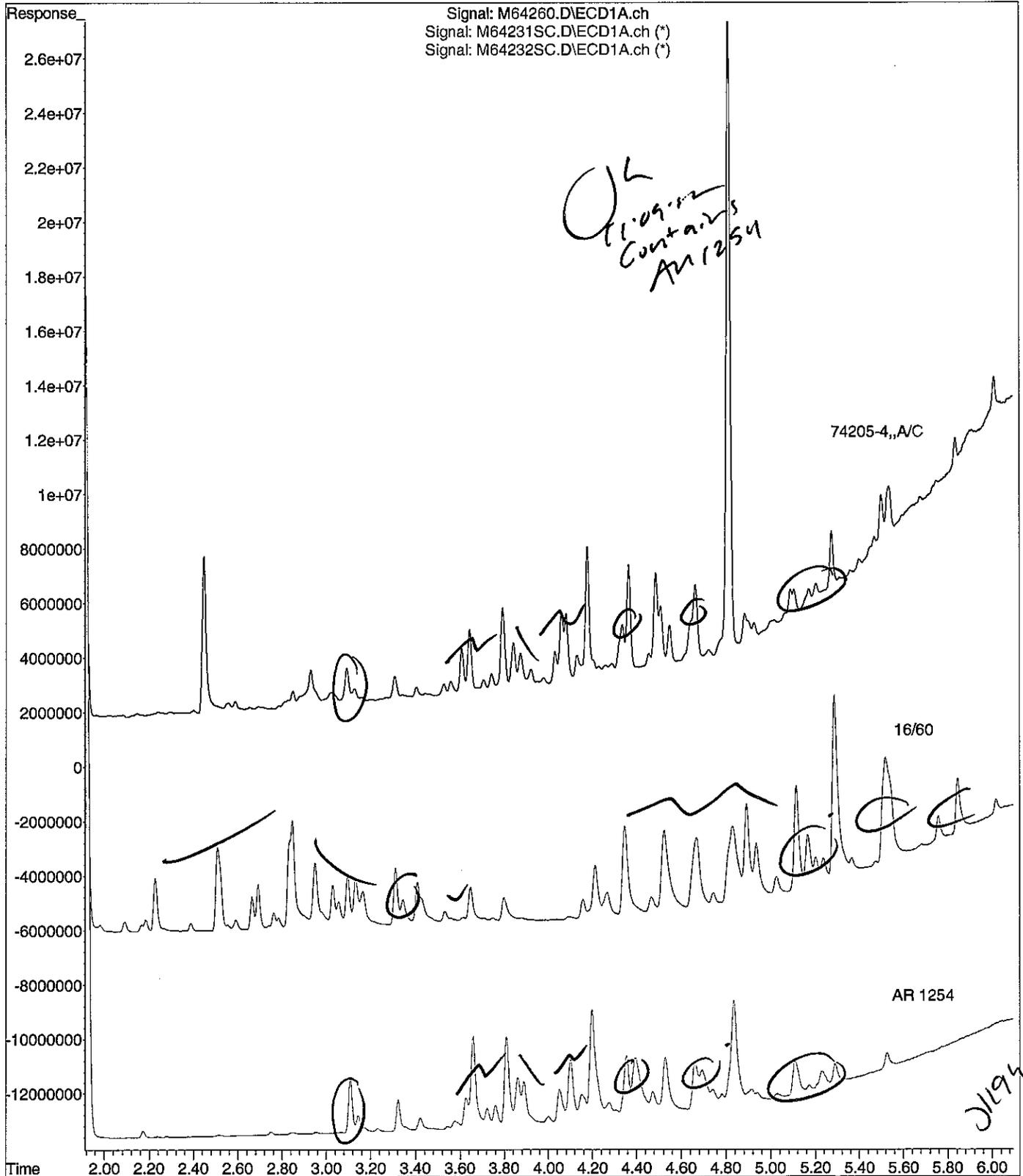
Data Path : C:\msdchem\1\DATA\110812-M\  
 Data File : M64260.D  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 8 Nov 2012 8:04 pm  
 Operator : JK  
 Sample : 74205-4,,A/C  
 Misc : SOIL  
 ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Nov 09 08:47:42 2012  
 Quant Method : C:\msdchem\1\METHODS\PCB101812.M  
 Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
 QLast Update : Wed Nov 07 00:07:37 2012  
 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



File : C:\msdchem\1\DATA\110812-M\M64260.D  
Operator : JK  
Acquired : 8 Nov 2012 8:04 pm using AcqMethod PCB.M  
Instrument : Instrument M  
Sample Name: 74205-4,,A/C  
Misc Info : SOIL  
Vial Number: 13



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

November 9, 2012

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** Old Waldo Co. Jail

**Project Number:** R111.06134.022

**Field Sample ID:** Seam Caulk

**Lab Sample ID:** 74205-5

**Matrix:** Solid

**Percent Solid:** 99

**Dilution Factor:** 7

**Collection Date:** 11/05/12

**Lab Receipt Date:** 11/06/12

**Extraction Date:** 11/07/12

**Analysis Date:** 11/08/12

PCB ANALYTICAL RESULTS		
COMPOUND	Quantitation Limit $\mu\text{g}/\text{kg}$	Results $\mu\text{g}/\text{kg}$
PCB-1016	231	U
PCB-1221	231	U
PCB-1232	231	U
PCB-1242	231	U
PCB-1248	231	U
PCB-1254	231	U
PCB-1260	231	U
<b>Surrogate Standard Recovery</b>		
2,4,5,6-Tetrachloro-m-xylene	105	%
Decachlorobiphenyl	83	%
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 8082.  
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.

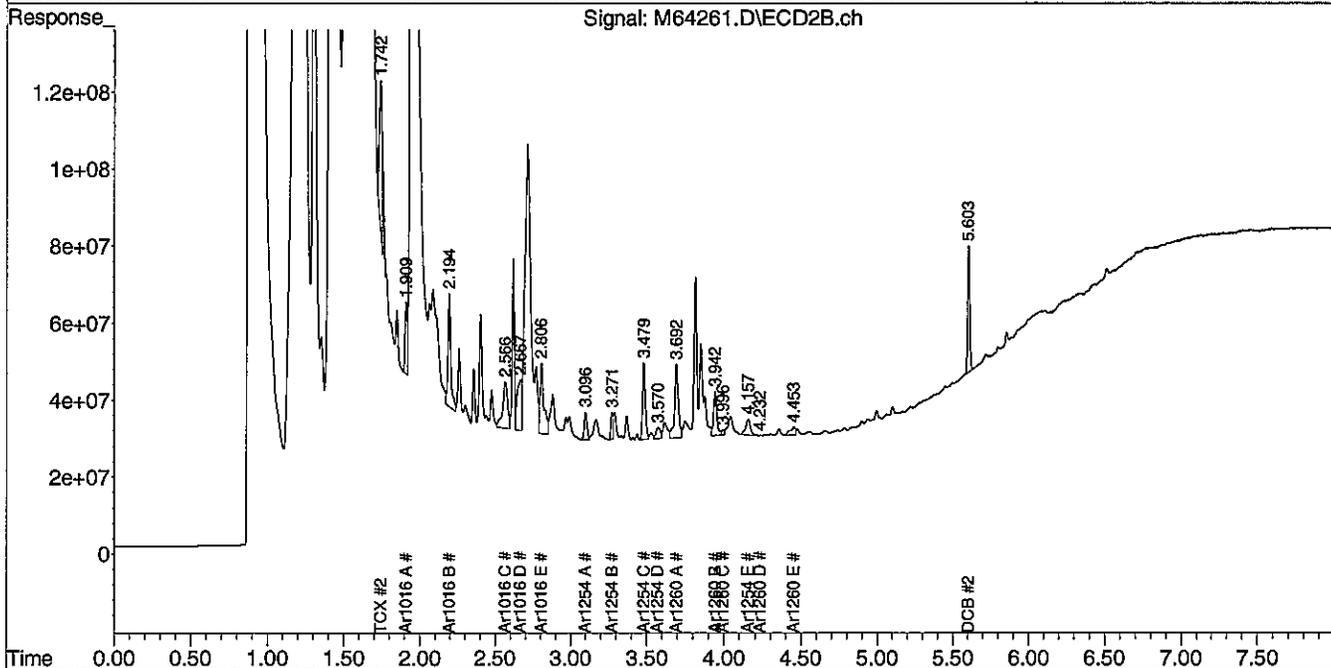
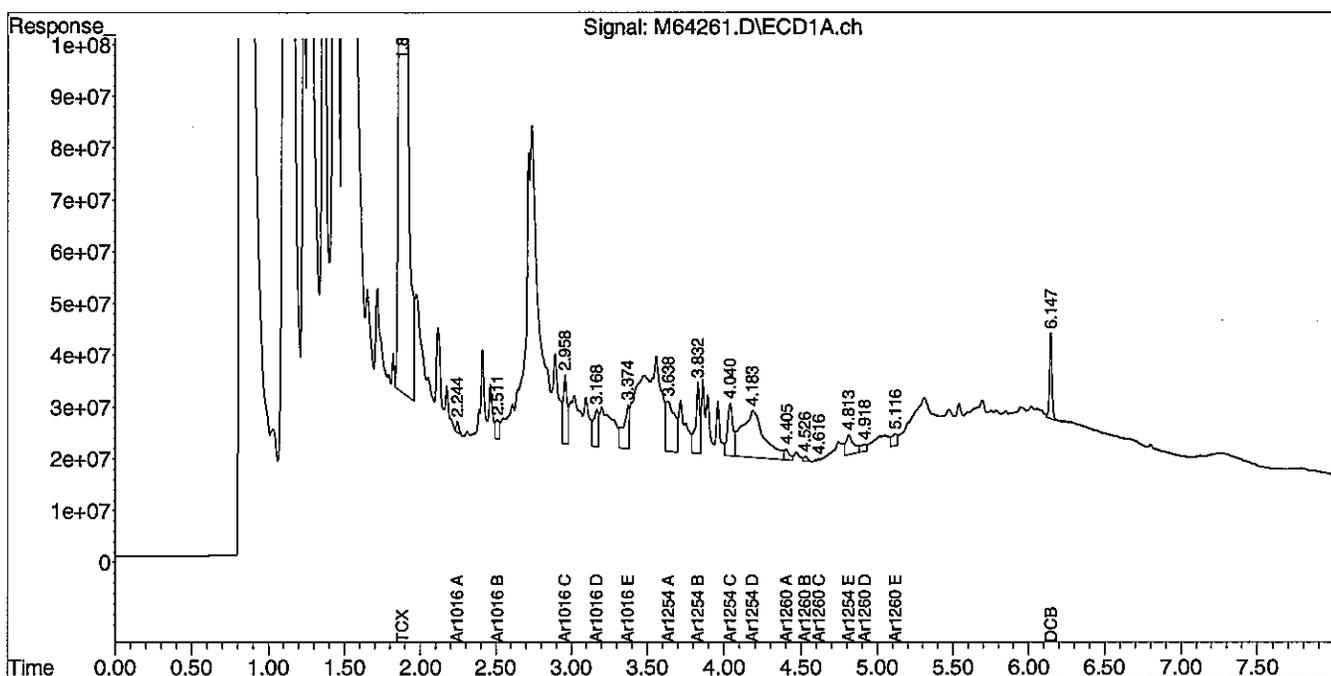
**COMMENTS:** Results are expressed on a dry weight basis.



Data Path : C:\msdchem\1\DATA\110812-M\  
 Data File : M64261.D  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 8 Nov 2012 8:14 pm  
 Operator : JK  
 Sample : 74205-5,,A/C  
 Misc : SOIL  
 ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Nov 09 08:48:58 2012  
 Quant Method : C:\msdchem\1\METHODS\PCB101812.M  
 Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
 QLast Update : Wed Nov 07 00:07:37 2012  
 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

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

November 9, 2012

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** Old Waldo Co. Jail

**Project Number:** R111.06134.022

**Field Sample ID:** Lab QC

**Lab Sample ID:** B110712PSOX RR

**Matrix:** Soil

**Percent Solid:** 100

**Dilution Factor:** 1.0

**Collection Date:**

**Lab Receipt Date:**

**Extraction Date:** 11/07/12

**Analysis Date:** 11/08/12

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	101	%
Decachlorobiphenyl	76	%
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 8082.  
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.

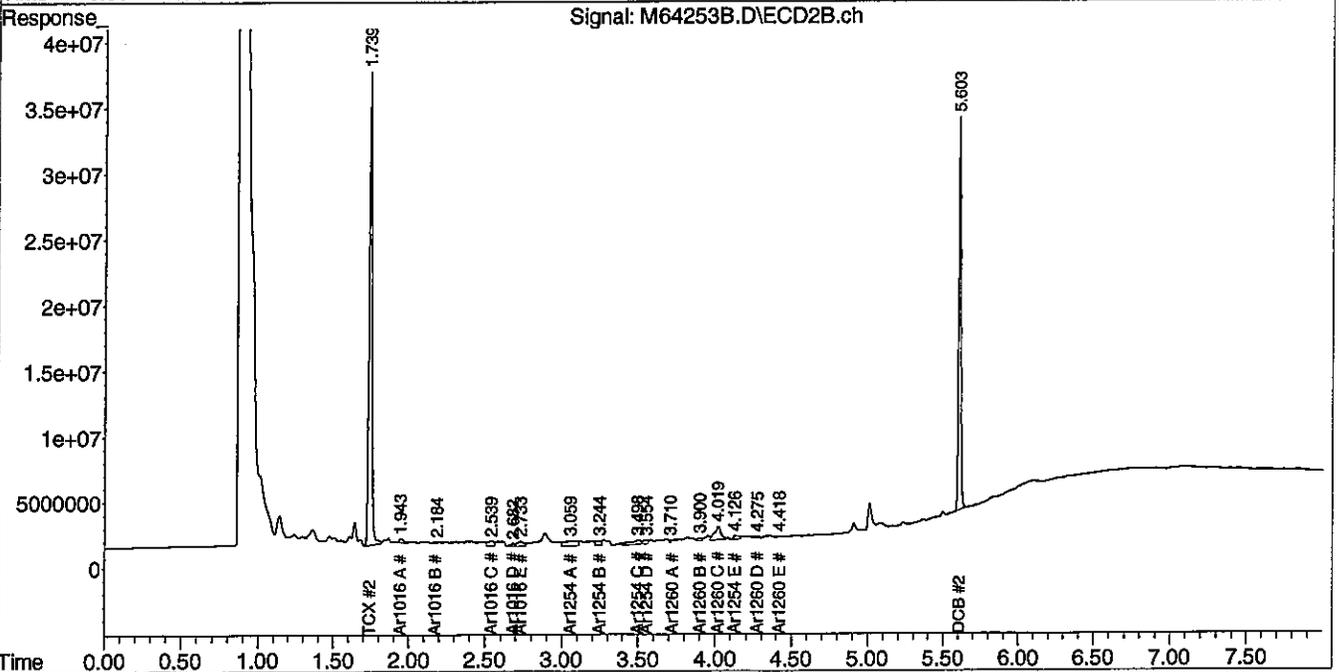
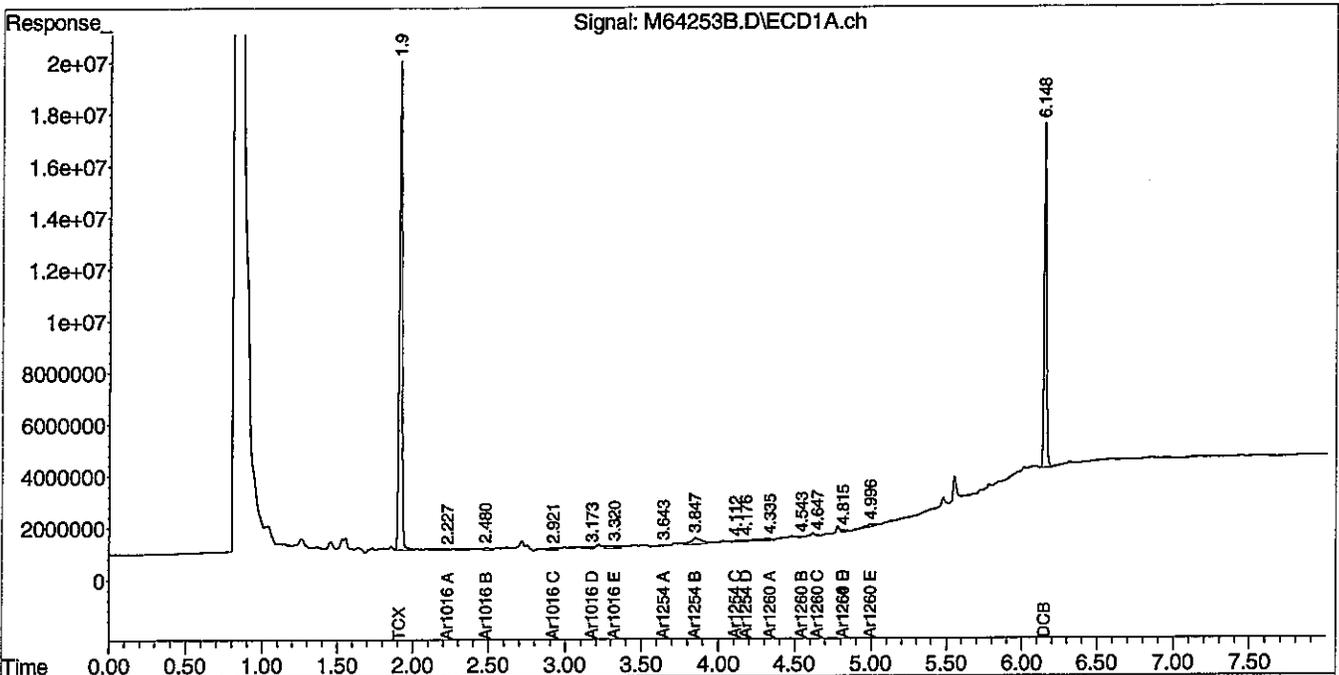
**COMMENTS:** Results are expressed on a dry weight basis.



Data Path : C:\msdchem\1\DATA\110812-M\  
 Data File : M64253B.D  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 8 Nov 2012 6:54 pm  
 Operator : JK  
 Sample : B110712PSOX,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: Nov 09 08:35:18 2012  
 Quant Method : C:\msdchem\1\METHODS\PCB101812.M  
 Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
 QLast Update : Wed Nov 07 00:07:36 2012  
 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 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: B110712PSOX,RR,,A/C

Spike: L110712PSOX,,A/C

Spike duplicate: LD110712PSOX,,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	189	94		189	94		0.1		
PCB 1260	200	200	60	130	30	0	173	86		170	85		1.8		
PCB 1016 #2	200	200	65	140	30	0	169	84		165	82		2.2		
PCB 1260 #2	200	200	60	130	30	0	197	99		184	92		7.0		

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

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

## CHAIN OF CUSTODIES

# 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

**For Analytics Use Only**

Samples were:  
 1) Shipped or hand-delivered  
 2) Temperature (°C): 1.5°C  
 3) Received in good condition: Y or N  
 4) pH checked by: N/A  
 5) Labels checked by: CP 11/6/12

Project Name: Old Waldo Co. Jail

Project#: R111.06134.022

Company: Ransom Consulting Inc.

Report to: Erik Phenix

Address: 400 Commercial St. Ste 404  
Portland ME 04101

Phone: (207) 772-2991

Quote #: \_\_\_\_\_

PO# (if required): 4721

Circle and/or Write Required Analysis Followed by Preservation Code

Please fill in preservation code here

Field Filtered? Y or N	VOC: 8260 5242 624	SVOC: 8270 625 PAH only SIM	Pesticides: 8081 608	PCB: 8082 608 Soxhlet? <u>Y</u> 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**
				<u>X</u>					
				<u>X</u>					
				<u>X</u>					
				<u>X</u>					
				<u>X</u>					

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	No. of Containers	pH checked	Analytics Sample #
<u>X</u>	<u>1</u>		<u>74205-1</u>
<u>X</u>	<u>1</u>		<u>2</u>
<u>X</u>	<u>1</u>		<u>3</u>
<u>X</u>	<u>1</u>		<u>4</u>
<u>X</u>	<u>1</u>		<u>5</u>

Sample Identification

<u>Window Caulk A</u>	<u>11/5/12</u>	<u>1235</u>
<u>Window Caulk B</u>	<u>11/5/12</u>	<u>1630</u>
<u>Window Glaze A</u>	<u>11/5/12</u>	<u>1600</u>
<u>Window Glazing B</u>	<u>11/5/12</u>	<u>1635</u>
<u>Seam Caulk</u>	<u>11/5/12</u>	<u>1640</u>

Comments, Additional Analyses, or Special Instructions:

Need results on Nov. 12, 2012

\* U.S. EPA Brownfields Project

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.

Email Results to: ephenix@ramsamenr.com

Turnaround Time (TAT)

24 Hours\*  48 Hours\*

72 Hours\*  5 Days\*

10 Days

\*Fee may apply; lab approval required

Project Requirements:

\*Fee may apply

Report Type:

MCP\*  Level II\*  Level III\*  Level IV\*  Standard

State:  NH  MA  ME  CT  RI

State Standard: \_\_\_\_\_ (eg. S-1 or GW-1)

EDD Required:  N

Type: ME DEP

Sampler Name (Print): Erik Phenix

Relinquished By Sampler: Erik Phenix

Relinquished By: Amber MacDonald

Relinquished By: \_\_\_\_\_

Received By: Amber MacDonald

Received By: Amber MacDonald

Received By: \_\_\_\_\_

Date: 11/6/12 Time: 10:07

Date: 11/6/12 Time: 3:55

Date: \_\_\_\_\_ Time: \_\_\_\_\_

Date: \_\_\_\_\_ Time: \_\_\_\_\_

Date: \_\_\_\_\_ Time: \_\_\_\_\_

Date: \_\_\_\_\_ Time: \_\_\_\_\_

**ANALYTICS SAMPLE RECEIPT CHECKLIST**



AEL LAB#: 74205  
 CLIENT: Ransom  
 PROJECT: old waldo Co. Jail

COOLER NUMBER: -  
 NUMBER OF COOLERS: 1

**A: PRELIMINARY EXAMINATION:**

1. Cooler received by (initials): JW DATE COOLER RECEIVED/OPENED: 11.6.12
2. Circle one: Hand delivered (If so, skip 3) Shipped
3. Did cooler come with a shipping slip? Y N
- 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 N/A
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: 1.5°C

**B. Log-In:** Date samples were logged in: 11.6.12 By: JW

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/A
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/A
20. Were VOA samples absent of greater than pea-sized bubbles? Y N/A

(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: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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): CP Date: 11/6/12

\*\*The expiration date is recommended by Analytics Environmental Laboratory and not the method. Therefore this does not mean that the results are non-compliant.



Please Reply To:

**AmeriSci Los Angeles**

24416 S. Main Street, Ste 308  
Carson, California 90745  
TEL: (310) 834-4868 • FAX: (310) 834-4772

**FACSIMILE TELECOPY TRANSMISSION**

**To:** Jamie Noel  
Optimum Analytical & Consulting  
**Fax #:**  
**Email:** jamie.noel@optimumanalytical.com

**From:**  
**AmeriSci Job #:** 412111186  
**Subject:** Lead (paint) 5 day Results  
**Client Project:** 4894

**Date:** Monday, November 12, 2012

**Time:** 12:31:16

**Comments:**

**Number of Pages:** 63  
(including cover sheet)

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Carson, California 90745  
TEL: (310) 834-4868 • FAX: (310) 834-4772

AmeriSci Job #: 412111186

Date Received: 11/08/12

Date Analyzed: 11/12/12

**Lead Analysis Results**

Paint

EPA Method 3050B/7000B

**Optimum Analytical & Consulting**

Salem, NH

Job Site: 4894

AmeriSci #	Client Number	Sample Location	% Lead (w/w)	Lead Content (mg/kg = ppm)
412111186				
01	LBP-1	Sherrifs Office / First Floor / Peach Wood Window Sill	18	180,000
02	LBP-2	Sherrifs Office / First Floor / White Tin Ceiling	0.029	290
03	LBP-3	Sherrifs Office / First Floor / Beige Drywall Wall	0.022	220
04	LBP-4	Sherrifs Office / First Floor / White Wood Window Sill	6.5	65,000
05	LBP-5	Sherrifs Office / First Floor / Gray Brick Wall	0.012	120
06	LBP-6	Sherrifs Office / First Floor / White / Tan Brick Wall	0.046	460
07	LBP-7	Old Jail / Interior / Beige / White / Gray Brick Wall	9.6	96,000

AmeriSci Reporting Limit is 0.01%, or 100mg/kg prior to any dilutions due to high analyte concentrations or matrix interferences. AmeriSci does not correct sample results by the blank value. All analytical batch data met quality control criteria unless otherwise noted. CA ELAP No. 2322. AIHA Lab No. 100530.

Reviewed by: \_\_\_\_\_

Analyzed by:  \_\_\_\_\_

Minh Phung, Chemist

**CHAIN OF CUSTODY RECORD**

**AMERISCI**

AMERISCI LOS ANGELES  
24416 South Main Street, Suite 308  
Carson, CA 90745

310.834.4868 Phone-310.834.4772 Fax

www.amerisci.com

COMPANY: *Optimum Analytical & Consulting, LLC*

ADDRESS: *85 Shiles Rd, Salem, NH 03079*

FAX1:

FAX2:

PHONE: *603-458-5247*

CLIENT: *Kristina Scavilla / Jamie Noel*

CONTACT: *Jamie Noel*

EMAIL: *Jamie.Noel@optimumanalytical.com*

*Kristina.Scavilla@optimumanalytical.com*

PROJECT NAME: *4894*

PROJECT NUMBER:

OIL-OIL C/H-CHIPS

MATRIX: *A-WATER*

S-SOIL/SOLIDS

SL-SLUDGE

CONTAINER: *P-PLASTIC*

WH/IN/TBES

C-CASSETTES

W-WASTE

G-GLASS V-VOA

CONTAINER

SAMPLING INFORMATION

AMERISCI JOB NO: *412111860*

DUE DATE:  1 DAY  2 DAY  3 DAY  5 DAY  7 DAY  10 DAY

DATA PACKAGE:

PAGE \_\_\_\_ OF \_\_\_\_

TEMP UPON RECEIPT:

P.O.#

Sample ID	Building	Location	Color/Substrate/Component
LBP-1	Sherrifs Office	First Floor	Peach Wood Window Sill
LBP-2	Sherrifs Office	First Floor	White Tin Ceiling
LBP-3	Sherrifs Office	First Floor	Beige Drywall Wall
LBP-4	Sherrifs Office	First Floor	White Wood Window Sill
LBP-5	Sherrifs Office	First Floor	Gray Brick Wall
LBP-6	Sherrifs Office	First Floor	White/Tan Brick Wall
LBP-7	Old Jail	Interior	Beige/White/Gray Brick Wall

*Results by 11/11/12 P.S.E.*

*R. Erik Rehberg 11/6/12*



*11/6/12*

RECEIVED  
NOV 08 2012 0925  
B. ARELLANO



Please Reply To:

**AmeriSci Los Angeles**

24416 S. Main Street, Ste 308  
Carson, California 90745  
TEL: (310) 834-4868 • FAX: (310) 834-4772

**FACSIMILE TELECOPY TRANSMISSION**

**To:** Jamie Noel  
Optimum Analytical & Consulting  
**Fax #:**  
**Email:** jamie.noel@optimumanalytical.com

**From:**  
**AmeriSci Job #:** 412111209  
**Subject:** Lead (paint) rush Results  
**Client Project:** R111.06134.022; Old Waldo Co. Jail

**Date:** Monday, November 12, 2012  
**Time:** 13:02:46

**Number of Pages:** 03  
(including cover sheet)

**Comments:**

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Carson, California 90745  
TEL: (310) 834-4868 • FAX: (310) 834-4772

AmeriSci Job #: 412111209

**Lead Analysis Results**

**Date Received:** 11/12/12

**Date Analyzed:** 11/12/12

Paint

EPA Method 3050B/7000B

**Optimum Analytical & Consulting**

Salem, NH

Job Site: R111.06134.022; Old Waldo Co. Jail

AmeriSci #	Client Number	Sample Location	% Lead (w/w)	Lead Content (mg/kg = ppm)
412111209				
01	LBP-8	Barn Exterior - White Wood Sliding	5.0	50,000

AmeriSci Reporting Limit is 0.01%, or 100mg/kg prior to any dilutions due to high analyte concentrations or matrix interferences. AmeriSci does not correct sample results by the blank value. All analytical batch data met quality control criteria unless otherwise noted. CA ELAP No. 2322. AIHA Lab No. 100530.

Reviewed by: \_\_\_\_\_

Analyzed by:  \_\_\_\_\_

Minh Phung, Chemist





# OPTIMUM

Analytical and Consulting, LLC

85 Stiles Road, Suite 201, Salem, NH 03079 Phone: (603)-458-5247

Erik Phenix  
Ransom Environmental Consultants, Inc.  
400 Commercial Street  
Portland ME 04101

Project #: R111.06134.022  
Laboratory Batch #: 1204895  
Date Samples Received: 11/07/2012  
Date Samples Analyzed: 11/08/2012  
Date of Final Report: 11/27/2012

**SAMPLE IDENTIFICATION:**

(113) Bulk samples from Old Waldo Co. Jail - City of Belfast, Maine; submitted by: Erik Phenix

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.

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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



# 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 Street  
**CITY / STATE / ZIP:** Portland ME 04101  
**CONTACT:** Erik Phenix  
**DESCRIPTION:** PLM Analysis  
**LOCATION:** Old Waldo Co. Jail - City of Belfast, Maine

**ORDER #:** 1204895  
**PROJECT #:** R111.06134.022  
**DATE COLLECTED:** 11/05/2012  
**COLLECTED BY:** Erik Phenix  
**DATE RECEIVED:** 11/07/2012  
**ANALYSIS DATE:** 11/08/2012  
**REPORT DATE:** 11/27/2012  
**ANALYST:** Jamie Noel

### REPORT OF ANALYSIS

Laboratory ID Sample No.	Sample Location Description	Layer No. Layer %	Asbestos Type	(%)	Non-Asbestos Components	(%)
1204895-001 ASB-1A	Sherrifs Office, 1st floor Linoleum Sheet Flooring, Gray	LAYER 1 100%	Chrysotile	35%	Cellulose Fiber Non-Fibrous Material	5% 60%
<b>Total % Asbestos:</b>				35.0%	<b>Total % Non-Asbestos:</b> 65.0%	
1204895-002 ASB-1B	Sherrifs Office, 1st floor Linoleum Sheet Flooring, Gray Note: Positive Stop	LAYER 1 100%				
1204895-003 ASB-1C	Sherrifs Office, 1st floor Linoleum Sheet Flooring, Gray Note: Positive Stop	LAYER 1 100%				
1204895-004 ASB-2A	Sherrifs Office, 1st floor Linoleum Sheet Flooring Mastic, Tan Note: Insufficient Material For Gravimetric Reduction	LAYER 1 100%	None Detected		Cellulose Fiber Non-Fibrous Material	1% 99%
<b>Total % Asbestos:</b>				No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%	
1204895-005 ASB-2B	Sherrifs Office, 1st floor Linoleum Sheet Flooring Mastic, Tan Note: Insufficient Material For Gravimetric Reduction	LAYER 1 100%	None Detected		Cellulose Fiber Non-Fibrous Material	1% 99%
<b>Total % Asbestos:</b>				No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%	
1204895-006 ASB-2C	Sherrifs Office, 1st floor Linoleum Sheet Flooring Mastic, Tan Note: Insufficient Material For Gravimetric Reduction	LAYER 1 100%	None Detected		Cellulose Fiber Non-Fibrous Material	1% 99%
<b>Total % Asbestos:</b>				No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%	
1204895-007 ASB-3A	Sherrifs Office, 1st floor Wood Panel Glue Dob, Brown Note: Insufficient Material for Gravimetric Reduction	LAYER 1 100%	Chrysotile	3%	Cellulose Fiber Non-Fibrous Material	2% 95%
<b>Total % Asbestos:</b>				3.0%	<b>Total % Non-Asbestos:</b> 97.0%	



85 Stiles Road, Suite 201, Salem, NH 03079 Phone: (603)-458-5247

**CLIENT:** Ransom Environmental Consultants, Inc.  
**ADDRESS:** 400 Commercial Street  
**CITY / STATE / ZIP:** Portland ME 04101  
**CONTACT:** Erik Phenix  
**DESCRIPTION:** PLM Analysis  
**LOCATION:** Old Waldo Co. Jail - City of Belfast, Maine

**ORDER #:** 1204895  
**PROJECT #:** R111.06134.022  
**DATE COLLECTED:** 11/05/2012  
**COLLECTED BY:** Erik Phenix  
**DATE RECEIVED:** 11/07/2012  
**ANALYSIS DATE:** 11/08/2012  
**REPORT DATE:** 11/27/2012  
**ANALYST:** Jamie Noel

### REPORT OF ANALYSIS

Laboratory ID Sample No.	Sample Location Description	Layer No. Layer %	Asbestos Type (%)	Non-Asbestos Components (%)
1204895-008 ASB-3B	Sherrifs Office, 1st floor Wood Panel Glue Dob, Brown Note: Insufficient Material for Gravimetric Reduction/Positive Stop	LAYER 1 100%		
1204895-009 ASB-3C	Sherrifs Office, 1st floor Wood Panel Glue Dob, Brown Note: Insufficient Material for Gravimetric Reduction/Positive Stop	LAYER 1 100%		
1204895-010 ASB-4A	Sherrifs Office, 1st floor Ceiling Tile, Beige	LAYER 1 100%	None Detected	Cellulose Fiber 60% Fibrous Glass 15% Synthetic Fiber 5% Non-Fibrous Material 20%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-011 ASB-4B	Sherrifs Office, 1st floor Ceiling Tile, Beige	LAYER 1 100%	None Detected	Cellulose Fiber 60% Fibrous Glass 15% Synthetic Fiber 5% Non-Fibrous Material 20%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-012 ASB-4C	Sherrifs Office, 1st floor Ceiling Tile, Beige	LAYER 1 100%	None Detected	Cellulose Fiber 60% Fibrous Glass 15% Synthetic Fiber 5% Non-Fibrous Material 20%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-013 ASB-5A	Sherrifs Office, 1st floor Plaster, White	LAYER 1 100%	None Detected	Cellulose Fiber 10% Hair 1% Non-Fibrous Material 89%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-014 ASB-5B	Sherrifs Office, 1st floor Plaster, White	LAYER 1 100%	None Detected	Cellulose Fiber 10% Hair 1% Non-Fibrous Material 89%
<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 Street  
**CITY / STATE / ZIP:** Portland ME 04101  
**CONTACT:** Erik Phenix  
**DESCRIPTION:** PLM Analysis  
**LOCATION:** Old Waldo Co. Jail - City of Belfast, Maine

**ORDER #:** 1204895  
**PROJECT #:** R111.06134.022  
**DATE COLLECTED:** 11/05/2012  
**COLLECTED BY:** Erik Phenix  
**DATE RECEIVED:** 11/07/2012  
**ANALYSIS DATE:** 11/08/2012  
**REPORT DATE:** 11/27/2012  
**ANALYST:** Jamie Noel

### REPORT OF ANALYSIS

Laboratory ID Sample No.	Sample Location Description	Layer No. Layer %	Asbestos Type (%)	Non-Asbestos Components (%)
1204895-015 ASB-5C	Sherrifs Office, 1st floor Plaster, White	LAYER 1 100%	None Detected	Cellulose Fiber 10% Hair 1% Non-Fibrous Material 89%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-016 ASB-5D	Sherrifs Office, 2nd Floor Plaster, White	LAYER 1 100%	None Detected	Cellulose Fiber 10% Hair 1% Non-Fibrous Material 89%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-017 ASB-5E	Sherrifs Office, 2nd Floor Plaster, White	LAYER 1 100%	None Detected	Cellulose Fiber 10% Hair 1% Non-Fibrous Material 89%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-018 ASB-6A	Sherrifs Office, 1st floor Linoleum Sheet Flooring, White	LAYER 1 100%	Chrysotile 35%	Cellulose Fiber 15% Non-Fibrous Material 50%
<b>Total % Asbestos:</b>			35.0%	<b>Total % Non-Asbestos:</b> 65.0%
1204895-019 ASB-6B	Sherrifs Office, 1st floor Linoleum Sheet Flooring, White Note: Positive Stop	LAYER 1 100%		
1204895-020 ASB-6C	Sherrifs Office, 1st floor Linoleum Sheet Flooring, White Note: Positive Stop	LAYER 1 100%		
1204895-021 ASB-7A	Sherrifs Office, 1st floor Sheet Flooring Mastic, Tan Note: Insufficient Material for Gravimetric Reduction	LAYER 1 100%	None Detected	Cellulose Fiber 1% Non-Fibrous Material 99%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%



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## 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 Street  
**CITY / STATE / ZIP:** Portland ME 04101  
**CONTACT:** Erik Phenix  
**DESCRIPTION:** PLM Analysis  
**LOCATION:** Old Waldo Co. Jail - City of Belfast, Maine

**ORDER #:** 1204895  
**PROJECT #:** R111.06134.022  
**DATE COLLECTED:** 11/05/2012  
**COLLECTED BY:** Erik Phenix  
**DATE RECEIVED:** 11/07/2012  
**ANALYSIS DATE:** 11/08/2012  
**REPORT DATE:** 11/27/2012  
**ANALYST:** Jamie Noel

### REPORT OF ANALYSIS

Laboratory ID Sample No.	Sample Location Description	Layer No. Layer %	Asbestos Type (%)	Non-Asbestos Components (%)
1204895-022 ASB-7B	Sherrifs Office, 1st floor Sheet Flooring Mastic, Tan Note: Insufficient Material for Gravimetric Reduction	LAYER 1 100%	None Detected	Cellulose Fiber 1% Non-Fibrous Material 99%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-023 ASB-7C	Sherrifs Office, 1st floor Sheet Flooring Mastic, Tan Note: Insufficient Material for Gravimetric Reduction	LAYER 1 100%	None Detected	Cellulose Fiber 1% Non-Fibrous Material 99%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-024 ASB-8A	Sherrifs Office, 1st floor Cove Base, Black	LAYER 1 100%	None Detected	Cellulose Fiber 1% Non-Fibrous Material 99%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-025 ASB-8B	Sherrifs Office, 1st floor Cove Base, Black	LAYER 1 100%	None Detected	Cellulose Fiber 1% Non-Fibrous Material 99%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-026 ASB-8C	Sherrifs Office, 1st floor Cove Base, Black	LAYER 1 100%	None Detected	Cellulose Fiber 1% Non-Fibrous Material 99%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-027 ASB-9A	Sherrifs Office, 1st floor Cove Base Mastic, Brown Note: Insufficient Material for Gravimetric Reduction	LAYER 1 100%	None Detected	Cellulose Fiber 3% Non-Fibrous Material 97%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-028 ASB-9B	Sherrifs Office, 1st floor Cove Base Mastic, Brown Note: Insufficient Material for Gravimetric Reduction	LAYER 1 100%	None Detected	Cellulose Fiber 3% Non-Fibrous Material 97%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%



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## BULK SAMPLE ANALYSIS REPORT POLARIZED LIGHT MICROSCOPY

PLM (EPA-600/M4-82-020, EPA-600/ R-93-116) NVLAP Lab Code: 101433-0

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**REPORT DATE:** 11/27/2012  
**ANALYST:** Jamie Noel

### REPORT OF ANALYSIS

Laboratory ID Sample No.	Sample Location Description	Layer No. Layer %	Asbestos Type (%)	Non-Asbestos Components (%)
1204895-029 ASB-9C	Sherrifs Office, 1st floor Cove Base Mastic, Brown Note: Insufficient Material for Gravimetric Reduction	LAYER 1 100%	None Detected	Cellulose Fiber 3% Non-Fibrous Material 97%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-030 ASB-10A	Sherrifs Office, 1st floor 12" Floor Tile, Gray	LAYER 1 100%	None Detected	Cellulose Fiber 2% Non-Fibrous Material 98%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-031 ASB-10B	Sherrifs Office, 1st floor 12" Floor Tile, Gray	LAYER 1 100%	None Detected	Cellulose Fiber 2% Non-Fibrous Material 98%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-032 ASB-10C	Sherrifs Office, 1st floor 12" Floor Tile, Gray	LAYER 1 100%	None Detected	Cellulose Fiber 2% Non-Fibrous Material 98%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-033 ASB-11A	Sherrifs Office, 1st floor Floor Tile Mastic, Tan Note: Insufficient Material for Gravimetric Reduction	LAYER 1 100%	None Detected	Cellulose Fiber 5% Non-Fibrous Material 95%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-034 ASB-11B	Sherrifs Office, 1st floor Floor Tile Mastic, Tan	LAYER 1 100%	None Detected	Cellulose Fiber 5% Non-Fibrous Material 95%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-035 ASB-11C	Sherrifs Office, 1st floor Floor Tile Mastic, Tan Note: Insufficient Material for Gravimetric Reduction	LAYER 1 100%	None Detected	Cellulose Fiber 5% Non-Fibrous Material 95%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%



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**LOCATION:** Old Waldo Co. Jail - City of Belfast, Maine

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### REPORT OF ANALYSIS

Laboratory ID Sample No.	Sample Location Description	Layer No. Layer %	Asbestos Type (%)	Non-Asbestos Components (%)
1204895-036 ASB-12A	Sherrifs Office, 1st floor Carpet Mastic, Tan	LAYER 1 100%	None Detected	Cellulose Fiber 5% Synthetic Fiber 5% Non-Fibrous Material 90%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-037 ASB-12B	Sherrifs Office, 1st floor Carpet Mastic, Tan	LAYER 1 100%	None Detected	Cellulose Fiber 5% Synthetic Fiber 5% Non-Fibrous Material 90%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-038 ASB-12C	Sherrifs Office, 1st floor Carpet Mastic, Tan Note: Insufficient Material for Gravimetric Reduction	LAYER 1 100%	None Detected	Cellulose Fiber 5% Synthetic Fiber 5% Non-Fibrous Material 90%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-039 ASB-13A	Sherrifs Office, 1st floor Linoleum Sheet Flooring, Red	LAYER 1 100%	None Detected	Cellulose Fiber 15% Synthetic Fiber 5% Non-Fibrous Material 80%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-040 ASB-13B	Sherrifs Office, 1st floor Linoleum Sheet Flooring, Red	LAYER 1 100%	None Detected	Cellulose Fiber 15% Synthetic Fiber 5% Non-Fibrous Material 80%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-041 ASB-13C	Sherrifs Office, 1st floor Linoleum Sheet Flooring, Red	LAYER 1 100%	None Detected	Cellulose Fiber 15% Synthetic Fiber 5% Non-Fibrous Material 80%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-042 ASB-14A	Sherrifs Office, 1st floor Linoleum Sheet Flooring Mastic, Brown Note: Insufficient Material for Gravimetric Reduction	LAYER 1 100%	None Detected	Cellulose Fiber 5% Non-Fibrous Material 95%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%



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### REPORT OF ANALYSIS

Laboratory ID Sample No.	Sample Location Description	Layer No. Layer %	Asbestos Type (%)	Non-Asbestos Components (%)
1204895-043 ASB-14B	Sherrifs Office, 1st floor Linoleum Sheet Flooring Mastic, Brown Note: Insufficient Material for Gravimetric Reduction	LAYER 1 100%	None Detected	Cellulose Fiber 5% Non-Fibrous Material 95%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-044 ASB-14C	Sherrifs Office, 1st floor Linoleum Sheet Flooring Mastic, Brown Note: Insufficient Material for Gravimetric Reduction	LAYER 1 100%	None Detected	Cellulose Fiber 5% Non-Fibrous Material 95%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-045 ASB-15A	Sherrifs Office, 1st floor Carpet Mastic, Tan Note: Insufficient Material for Gravimetric Reduction	LAYER 1 100%	None Detected	Cellulose Fiber 5% Non-Fibrous Material 95%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-046 ASB-15B	Sherrifs Office, 1st floor Carpet Mastic, Tan Note: Insufficient Material for Gravimetric Reduction	LAYER 1 100%	None Detected	Cellulose Fiber 5% Non-Fibrous Material 95%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-047 ASB-15C	Sherrifs Office, 1st floor Carpet Mastic, Tan Note: Insufficient Material for Gravimetric Reduction	LAYER 1 100%	None Detected	Cellulose Fiber 5% Non-Fibrous Material 95%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-048 ASB-16A	Sherrifs Office, 1st floor Sink Undercoating, Black	LAYER 1 100%	Chrysotile 2%	Cellulose Fiber 1% Non-Fibrous Material 97%
<b>Total % Asbestos:</b>			2.0%	<b>Total % Non-Asbestos:</b> 98.0%
1204895-049 ASB-16B	Sherrifs Office, 1st floor Sink Undercoating, Black Note: Positive Stop	LAYER 1 100%		



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### REPORT OF ANALYSIS

Laboratory ID Sample No.	Sample Location Description	Layer No. Layer %	Asbestos Type	(%)	Non-Asbestos Components	(%)
1204895-050 ASB-16C	Sherrifs Office, 1st floor Sink Undercoating, Black Note: Positive Stop	LAYER 1 100%				
1204895-051 ASB-17A	Sherrifs Office, 1st floor Bathroom Wallboard Glue Dobs, Tan Note: Insufficient Material for Gravimetric Reduction	LAYER 1 100%	Chrysotile	4%	Cellulose Fiber Non-Fibrous Material	2% 94%
<b>Total % Asbestos:</b>				4.0%	<b>Total % Non-Asbestos:</b> 96.0%	
1204895-052 ASB-17B	Sherrifs Office, 1st floor Bathroom Wallboard Glue Dobs, Tan Note: Insufficient Material for Gravimetric Reduction/Positive Stop	LAYER 1 100%				
1204895-053 ASB-17C	Sherrifs Office, 1st floor Bathroom Wallboard Glue Dobs, Tan Note: Insufficient Material for Gravimetric Reduction/Positive Stop	LAYER 1 100%				
1204895-054 ASB-18A	Sherrifs Office, 1st floor Drywall, Beige	LAYER 1 100%	None Detected		Cellulose Fiber Fibrous Glass Non-Fibrous Material	10% 1% 89%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%		
1204895-055 ASB-18B	Sherrifs Office, 1st floor Drywall, Beige	LAYER 1 100%	None Detected		Cellulose Fiber Fibrous Glass Non-Fibrous Material	10% 1% 89%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%		
1204895-056 ASB-18C	Sherrifs Office, 1st floor Drywall, Beige	LAYER 1 100%	None Detected		Cellulose Fiber Fibrous Glass Non-Fibrous Material	10% 1% 89%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%		



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Laboratory ID Sample No.	Sample Location Description	Layer No. Layer %	Asbestos Type (%)	Non-Asbestos Components (%)
1204895-057 ASB-19A	Sherrifs Office, 1st floor Joint Compound, White	LAYER 1 100%	None Detected	Cellulose Fiber 3% Non-Fibrous Material 97%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-058 ASB-19B	Sherrifs Office, 1st floor Joint Compound, White	LAYER 1 100%	None Detected	Cellulose Fiber 3% Non-Fibrous Material 97%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-059 ASB-19C	Sherrifs Office, 1st floor Joint Compound, White	LAYER 1 100%	None Detected	Cellulose Fiber 3% Non-Fibrous Material 97%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-060 ASB-20A	Sherrifs Office, 1st floor 12" Floor Tile, Gray	LAYER 1 100%	None Detected	Cellulose Fiber 2% Non-Fibrous Material 98%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-061 ASB-20B	Sherrifs Office, 1st floor 12" Floor Tile, Gray	LAYER 1 100%	None Detected	Cellulose Fiber 2% Non-Fibrous Material 98%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-062 ASB-20C	Sherrifs Office, 1st floor 12" Floor Tile, Gray	LAYER 1 100%	None Detected	Cellulose Fiber 2% Non-Fibrous Material 98%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-063 ASB-21A	Sherrifs Office, 1st floor Mastic, Tan Note: Insufficient Material for Gravimetric Reduction	LAYER 1 100%	None Detected	Cellulose Fiber 2% Non-Fibrous Material 98%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%



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Laboratory ID Sample No.	Sample Location Description	Layer No. Layer %	Asbestos Type (%)	Non-Asbestos Components (%)
1204895-064 ASB-21B	Sherrifs Office, 1st floor Mastic, Tan Note: Insufficient Material for Gravimetric Reduction	LAYER 1 100%	None Detected	Cellulose Fiber 2% Non-Fibrous Material 98%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-065 ASB-21C	Sherrifs Office, 1st floor Mastic, Tan Note: Insufficient Material for Gravimetric Reduction	LAYER 1 100%	None Detected	Cellulose Fiber 2% Non-Fibrous Material 98%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-066 ASB-22A	Sherrifs Office, 2nd Floor Stair Tread, Brown	LAYER 1 100%	None Detected	Cellulose Fiber 1% Non-Fibrous Material 99%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-067 ASB-22B	Sherrifs Office, 2nd Floor Stair Tread, Brown	LAYER 1 100%	None Detected	Cellulose Fiber 1% Non-Fibrous Material 99%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-068 ASB-22C	Sherrifs Office, 2nd Floor Stair Tread, Brown	LAYER 1 100%	None Detected	Cellulose Fiber 1% Non-Fibrous Material 99%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-069 ASB-23A	Sherrifs Office, 2nd Floor Linoleum Sheet Flooring, Green/Black	LAYER 1 100%	None Detected	Cellulose Fiber 70% Non-Fibrous Material 30%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-070 ASB-23B	Sherrifs Office, 2nd Floor Linoleum Sheet Flooring, Green/Black	LAYER 1 100%	None Detected	Cellulose Fiber 70% Non-Fibrous Material 30%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%



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PLM (EPA-600/M4-82-020, EPA-600/ R-93-116) NVLAP Lab Code: 101433-0

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### REPORT OF ANALYSIS

Laboratory ID Sample No.	Sample Location Description	Layer No. Layer %	Asbestos Type (%)	Non-Asbestos Components (%)
1204895-071 ASB-23C	Sherrifs Office, 2nd Floor Linoleum Sheet Flooring, Green/Black	LAYER 1 100%	None Detected	Cellulose Fiber 70% Non-Fibrous Material 30%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-072 ASB-24A	Sherrifs Office, 2nd Floor Linoleum Sheet Flooring Mastic, Tan Note: Insufficient Material for Gravimetric Reduction	LAYER 1 100%	None Detected	Cellulose Fiber 5% Non-Fibrous Material 95%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-073 ASB-24B	Sherrifs Office, 2nd Floor Linoleum Sheet Flooring Mastic, Tan Note: Insufficient Material for Gravimetric Reduction	LAYER 1 100%	None Detected	Cellulose Fiber 5% Non-Fibrous Material 95%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-074 ASB-24C	Sherrifs Office, 2nd Floor Linoleum Sheet Flooring Mastic, Tan Note: Insufficient Material for Gravimetric Reduction	LAYER 1 100%	None Detected	Cellulose Fiber 5% Non-Fibrous Material 95%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-075 ASB-25A	Sherrifs Office, 2nd Floor Linoleum Sheet Flooring, Black	LAYER 1 100%	None Detected	Cellulose Fiber 80% Non-Fibrous Material 20%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-076 ASB-25B	Sherrifs Office, 2nd Floor Linoleum Sheet Flooring, Black	LAYER 1 100%	None Detected	Cellulose Fiber 80% Non-Fibrous Material 20%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-077 ASB-25C	Sherrifs Office, 2nd Floor Linoleum Sheet Flooring, Black	LAYER 1 100%	None Detected	Cellulose Fiber 80% Non-Fibrous Material 20%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%



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### REPORT OF ANALYSIS

Laboratory ID Sample No.	Sample Location Description	Layer No. Layer %	Asbestos Type (%)	Non-Asbestos Components (%)
1204895-078 ASB-26A	Sherrifs Office, 2nd Floor Carpet Mastic, Brown Note: Insufficient Material for Gravimetric Reduction	LAYER 1 100%	None Detected	Cellulose Fiber 5% Non-Fibrous Material 95%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-079 ASB-26B	Sherrifs Office, 2nd Floor Carpet Mastic, Brown Note: Insufficient Material for Gravimetric Reduction	LAYER 1 100%	None Detected	Cellulose Fiber 5% Non-Fibrous Material 95%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-080 ASB-26C	Sherrifs Office, 2nd Floor Carpet Mastic, Brown Note: Insufficient Material for Gravimetric Reduction	LAYER 1 100%	None Detected	Cellulose Fiber 5% Non-Fibrous Material 95%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-081 ASB-27A	Sherrifs Office, 2nd Floor Carpet Mastic, Tan Note: Insufficient Material for Gravimetric Reduction	LAYER 1 100%	None Detected	Cellulose Fiber 7% Binder/Filler 93%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-082 ASB-27B	Sherrifs Office, 2nd Floor Carpet Mastic, Tan Note: Insufficient Material for Gravimetric Reduction	LAYER 1 100%	None Detected	Cellulose Fiber 7% Binder/Filler 93%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-083 ASB-27C	Sherrifs Office, 2nd Floor Carpet Mastic, Tan Note: Insufficient Material for Gravimetric Reduction	LAYER 1 100%	None Detected	Cellulose Fiber 7% Binder/Filler 93%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-084 ASB-28A	Sherrifs Office, 2nd Floor Carpet Mastic, Tan	LAYER 1 100%	None Detected	Cellulose Fiber 3% Synthetic Fiber 5% Binder/Filler 92%
<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

## 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 Street  
**CITY / STATE / ZIP:** Portland ME 04101  
**CONTACT:** Erik Phenix  
**DESCRIPTION:** PLM Analysis  
**LOCATION:** Old Waldo Co. Jail - City of Belfast, Maine

**ORDER #:** 1204895  
**PROJECT #:** R111.06134.022  
**DATE COLLECTED:** 11/05/2012  
**COLLECTED BY:** Erik Phenix  
**DATE RECEIVED:** 11/07/2012  
**ANALYSIS DATE:** 11/08/2012  
**REPORT DATE:** 11/27/2012  
**ANALYST:** Jamie Noel

### REPORT OF ANALYSIS

Laboratory ID Sample No.	Sample Location Description	Layer No. Layer %	Asbestos Type (%)	Non-Asbestos Components (%)
1204895-085 ASB-28B	Sherrifs Office, 2nd Floor Carpet Mastic, Tan	LAYER 1 100%	None Detected	Cellulose Fiber 3% Synthetic Fiber 5% Binder/Filler 92%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-086 ASB-28C	Sherrifs Office, 2nd Floor Carpet Mastic, Tan	LAYER 1 100%	None Detected	Cellulose Fiber 3% Synthetic Fiber 5% Binder/Filler 92%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-087 ASB-29A	Sherrifs Office, 2nd Floor Linoleum, Beige/Brown	LAYER 1 100%	None Detected	Cellulose Fiber 70% Binder/Filler 30%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-088 ASB-29B	Sherrifs Office, 2nd Floor Linoleum, Beige/Brown	LAYER 1 100%	None Detected	Cellulose Fiber 70% Binder/Filler 30%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-089 ASB-29C	Sherrifs Office, 2nd Floor Linoleum, Beige/Brown	LAYER 1 100%	None Detected	Cellulose Fiber 70% Binder/Filler 30%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-090 ASB-30A	Sherrifs Office, 2nd Floor Linoleum Mastic, Tan Note: Insufficient Material for Gravimetric Reduction.	LAYER 1 100%	None Detected	Cellulose Fiber 3% Synthetic Fiber 2% Binder/Filler 95%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-091 ASB-30B	Sherrifs Office, 2nd Floor Linoleum Mastic, Tan Note: Insufficient Material for Gravimetric Reduction.	LAYER 1 100%	None Detected	Cellulose Fiber 3% Synthetic Fiber 2% Binder/Filler 95%
<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 Street  
**CITY / STATE / ZIP:** Portland ME 04101  
**CONTACT:** Erik Phenix  
**DESCRIPTION:** PLM Analysis  
**LOCATION:** Old Waldo Co. Jail - City of Belfast, Maine

**ORDER #:** 1204895  
**PROJECT #:** R111.06134.022  
**DATE COLLECTED:** 11/05/2012  
**COLLECTED BY:** Erik Phenix  
**DATE RECEIVED:** 11/07/2012  
**ANALYSIS DATE:** 11/08/2012  
**REPORT DATE:** 11/27/2012  
**ANALYST:** Jamie Noel

### REPORT OF ANALYSIS

Laboratory ID Sample No.	Sample Location Description	Layer No. Layer %	Asbestos Type (%)	Non-Asbestos Components (%)
1204895-092 ASB-30C	Sherrifs Office, 2nd Floor Linoleum Mastic, Tan Note: Insufficient Material for Gravimetric Reduction.	LAYER 1 100%	None Detected	Cellulose Fiber 3% Synthetic Fiber 2% Binder/Filler 95%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-093 ASB-31A	Sherrifs Office, 2nd Floor Linoleum Wall Pannel, Gray/Black	LAYER 1 100%	None Detected	Cellulose Fiber 80% Binder/Filler 20%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-094 ASB-31B	Sherrifs Office, 2nd Floor Linoleum Wall Pannel, Gray/Black	LAYER 1 100%	None Detected	Cellulose Fiber 80% Binder/Filler 20%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-095 ASB-31C	Sherrifs Office, 2nd Floor Linoleum Wall Pannel, Gray/Black	LAYER 1 100%	None Detected	Cellulose Fiber 80% Binder/Filler 20%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-096 ASB-32A	Sherrifs Office, 2nd Floor Ceiling Tile, White/Brown	LAYER 1 100%	None Detected	Cellulose Fiber 85% Binder/Filler 15%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-097 ASB-32B	Sherrifs Office, 2nd Floor Ceiling Tile, White/Brown	LAYER 1 100%	None Detected	Cellulose Fiber 85% Binder/Filler 15%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-098 ASB-32C	Sherrifs Office, 2nd Floor Ceiling Tile, White/Brown	LAYER 1 100%	None Detected	Cellulose Fiber 85% Binder/Filler 15%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204895-099 ASB-33A	Sherrifs Office, 2nd Floor Blanket Wool Insulation, Brown	LAYER 1 100%	None Detected	Cellulose Fiber 95% Binder/Filler 5%
<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 Street  
**CITY / STATE / ZIP:** Portland ME 04101  
**CONTACT:** Erik Phenix  
**DESCRIPTION:** PLM Analysis  
**LOCATION:** Old Waldo Co. Jail - City of Belfast, Maine

**ORDER #:** 1204895  
**PROJECT #:** R111.06134.022  
**DATE COLLECTED:** 11/05/2012  
**COLLECTED BY:** Erik Phenix  
**DATE RECEIVED:** 11/07/2012  
**ANALYSIS DATE:** 11/08/2012  
**REPORT DATE:** 11/27/2012  
**ANALYST:** Jamie Noel

### REPORT OF ANALYSIS

Laboratory ID Sample No.	Sample Location Description	Layer No. Layer %	Asbestos Type	(%)	Non-Asbestos Components	(%)
1204895-100 ASB-33B	Sherrifs Office, 2nd Floor Blanket Wool Insulation, Brown	LAYER 1 100%	None Detected		Cellulose Fiber Binder/Filler	95% 5%
<b>Total % Asbestos:</b>			No Asbestos Detected		<b>Total % Non-Asbestos:</b> 100.0%	
1204895-101 ASB-33C	Sherrifs Office, 2nd Floor Blanket Wool Insulation, Brown	LAYER 1 100%	None Detected		Cellulose Fiber Binder/Filler	95% 5%
<b>Total % Asbestos:</b>			No Asbestos Detected		<b>Total % Non-Asbestos:</b> 100.0%	
1204895-102 ASB-34A	Sherrifs Office, Attic Vermiculite, Gray	LAYER 1 100%	Tremolite	Present	Cellulose Fiber Fibrous Glass Binder/Filler	Present Present Present
<b>Total % Asbestos:</b>			Present		<b>Total % Non-Asbestos:</b> 100.0%	
1204895-103 ASB-34B	Sherrifs Office, Attic Vermiculite, Gray Note: Positive Stop	LAYER 1 100%				
1204895-104 ASB-34C	Sherrifs Office, Attic Vermiculite, Gray Note: Positive Stop	LAYER 1 100%				
1204895-105 ASB-35A	Old Jail building Pipe Insulation, Gray	LAYER 1 100%	Chrysotile	85%	Cellulose Fiber Binder/Filler	13% 2%
<b>Total % Asbestos:</b>			85.0%		<b>Total % Non-Asbestos:</b> 15.0%	
1204895-106 ASB-35B	Old Jail building Pipe Insulation, Gray Note: Positive Stop	LAYER 1 100%				
1204895-107 ASB-35C	Old Jail building Pipe Insulation, Gray Note: Positive Stop	LAYER 1 100%				



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## 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 Street  
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**CONTACT:** Erik Phenix  
**DESCRIPTION:** PLM Analysis  
**LOCATION:** Old Waldo Co. Jail - City of Belfast, Maine

**ORDER #:** 1204895  
**PROJECT #:** R111.06134.022  
**DATE COLLECTED:** 11/05/2012  
**COLLECTED BY:** Erik Phenix  
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**ANALYSIS DATE:** 11/08/2012  
**REPORT DATE:** 11/27/2012  
**ANALYST:** Jamie Noel

### REPORT OF ANALYSIS

Laboratory ID Sample No.	Sample Location Description	Layer No. Layer %	Asbestos Type	(%)	Non-Asbestos Components	(%)
1204895-108 ASB-36A	Old Jail building Pipe Elbow, Gray	LAYER 1 100%	Chrysotile	35%	Cellulose Fiber Binder/Filler	15% 50%
<b>Total % Asbestos:</b>				35.0%	<b>Total % Non-Asbestos: 65.0%</b>	
1204895-109 ASB-36B	Old Jail building Pipe Elbow, Gray Note: Positive Stop	LAYER 1 100%				
1204895-110 ASB-36C	Old Jail building Pipe Elbow, Gray Note: Positive Stop	LAYER 1 100%				
1204895-111 ASB-37A	Sherrifs Office Basement Pipe Insulation, Gray	LAYER 1 100%	Chrysotile	80%	Cellulose Fiber Binder/Filler	15% 5%
<b>Total % Asbestos:</b>				80.0%	<b>Total % Non-Asbestos: 20.0%</b>	
1204895-112 ASB-37B	Sherrifs Office Basement Pipe Insulation, Gray Note: Positive Stop	LAYER 1 100%				
1204895-113 ASB-37C	Sherrifs Office Basement Pipe Insulation, Gray Note: Positive Stop	LAYER 1 100%				

Approved Signatory: \_\_\_\_\_

Approved Signatory: \_\_\_\_\_





# OPTIMUM

Analytical and Consulting, LLC

## BULK SAMPLE ANALYSIS REPORT POLARIZED LIGHT MICROSCOPY

PLM (EPA-600/M4-82-020, EPA-600/ R-93-116) NVLAP Lab Code: 101433-0

85 Stiles Road, Suite 201, Salem, NH 03079 Phone: (603)-458-5247

**CLIENT:** Ransom Environmental Consultants, Inc.  
**ADDRESS:** 400 Commercial Street  
**CITY / STATE / ZIP:** Portland ME 04101  
**CONTACT:** Erik Phenix  
**DESCRIPTION:** PLM Analysis  
**LOCATION:** Old Waldo Co. Jail - City of Belfast, Maine

**ORDER #:** 1204895  
**PROJECT #:** R111.06134.022  
**DATE COLLECTED:** 11/05/2012  
**COLLECTED BY:** Erik Phenix  
**DATE RECEIVED:** 11/07/2012  
**ANALYSIS DATE:** 11/08/2012  
**REPORT DATE:** 11/27/2012  
**ANALYST:** Jamie Noel

4895

Sample ID	Location	Material
ASB-1A	Sherriff's Office, 1st floor	Golden linoleum sheet flooring
ASB-1B	Sherriff's Office, 1st floor	Golden linoleum sheet flooring
ASB-1C	Sherriff's Office, 1st floor	Golden linoleum sheet flooring
ASB-2A	Sherriff's Office, 1st floor	Golden linoleum sheet flooring mastic
ASB-2B	Sherriff's Office, 1st floor	Golden linoleum sheet flooring mastic
ASB-2C	Sherriff's Office, 1st floor	Golden linoleum sheet flooring mastic
ASB-3A	Sherriff's Office, 1st floor	Gray Wood Panel Glue Dobs
ASB-3B	Sherriff's Office, 1st floor	Gray Wood Panel Glue Dobs
ASB-3C	Sherriff's Office, 1st floor	White Ceiling Tile
ASB-4A	Sherriff's Office, 1st floor	White Ceiling Tile
ASB-4B	Sherriff's Office, 1st floor	White Ceiling Tile
ASB-4C	Sherriff's Office, 1st floor	Plaster
ASB-5A	Sherriff's Office, 1st floor	Plaster
ASB-5B	Sherriff's Office, 1st floor	Plaster
ASB-5C	Sherriff's Office, 1st floor	Plaster
ASB-5D	Sherriff's Office, 2nd Floor	Plaster
ASB-5E	Sherriff's Office, 1st floor	Green linoleum sheet flooring
ASB-6A	Sherriff's Office, 1st floor	Green linoleum sheet flooring
ASB-6B	Sherriff's Office, 1st floor	Green linoleum sheet flooring
ASB-6C	Sherriff's Office, 1st floor	Green linoleum sheet flooring mastic
ASB-7A	Sherriff's Office, 1st floor	Green linoleum sheet flooring mastic
ASB-7B	Sherriff's Office, 1st floor	Green linoleum sheet flooring mastic
ASB-7C	Sherriff's Office, 1st floor	Black Cove Base
ASB-8A	Sherriff's Office, 1st floor	Black Cove Base
ASB-8B	Sherriff's Office, 1st floor	Black Cove Base
ASB-8C	Sherriff's Office, 1st floor	Cove Base Mastic
ASB-9A	Sherriff's Office, 1st floor	Cove Base Mastic
ASB-9B	Sherriff's Office, 1st floor	Cove Base Mastic
ASB-9C	Sherriff's Office, 1st floor	Cove Base Mastic
ASB-10A	Sherriff's Office, 1st floor	Gray 12-inch floor tile
ASB-10B	Sherriff's Office, 1st floor	Gray 12-inch floor tile
ASB-10C	Sherriff's Office, 1st floor	Gray 12-inch floor tile
ASB-11A	Sherriff's Office, 1st floor	Gray 12-inch floor tile mastic
ASB-11B	Sherriff's Office, 1st floor	Gray 12-inch floor tile mastic
ASB-11C	Sherriff's Office, 1st floor	Gray 12-inch floor tile mastic
ASB-12A	Sherriff's Office, 1st floor	Gray carpet mastic
ASB-12B	Sherriff's Office, 1st floor	Gray carpet mastic
ASB-12C	Sherriff's Office, 1st floor	Gray carpet mastic
ASB-13A	Sherriff's Office, 1st floor	Red linoleum sheet flooring
ASB-13B	Sherriff's Office, 1st floor	Red linoleum sheet flooring
ASB-13C	Sherriff's Office, 1st floor	Red linoleum sheet flooring
ASB-14A	Sherriff's Office, 1st floor	Red linoleum sheet flooring mastic
ASB-14B	Sherriff's Office, 1st floor	Red linoleum sheet flooring mastic
ASB-14C	Sherriff's Office, 1st floor	Red linoleum sheet flooring mastic
ASB-15A	Sherriff's Office, 1st floor	Brown Carpet Mastic
ASB-15B	Sherriff's Office, 1st floor	Brown Carpet Mastic
ASB-15C	Sherriff's Office, 1st floor	Brown Carpet Mastic
ASB-16A	Sherriff's Office, 1st floor	Sink Undercoat

insuff. material

insufficient material

insuff. material

insufficient material

Re: 11/27/12



# OPTIMUM

Analytical and Consulting, LLC

## BULK SAMPLE ANALYSIS REPORT POLARIZED LIGHT MICROSCOPY

PLM (EPA-600/M4-82-020, EPA-600/ R-93-116) NVLAP Lab Code: 101433-0

85 Stiles Road, Suite 201, Salem, NH 03079 Phone: (603)-458-5247

**CLIENT:** Ransom Environmental Consultants, Inc.  
**ADDRESS:** 400 Commercial Street  
**CITY / STATE / ZIP:** Portland ME 04101  
**CONTACT:** Erik Phenix  
**DESCRIPTION:** PLM Analysis  
**LOCATION:** Old Waldo Co. Jail - City of Belfast, Maine

**ORDER #:** 1204895  
**PROJECT #:** R111.06134.022  
**DATE COLLECTED:** 11/05/2012  
**COLLECTED BY:** Erik Phenix  
**DATE RECEIVED:** 11/07/2012  
**ANALYSIS DATE:** 11/08/2012  
**REPORT DATE:** 11/27/2012  
**ANALYST:** Jamie Noel

485

Client	Ransom Consulting, Inc. 400 Commercial St Portland ME 04101
Contact	Erik Phenix
Phone	207-772-2891
Project	Old Waldo Co. Jail
Location	Belfast, Maine
Ransom Client	City of Belfast
Ransom Project #	R111.06134.022
Sample Date	11/5/2012
Analysis	Bulk PLM/Gravimetric Reduction for asbestos)
TAT	*Need Results on Nov. 12, 2012
Report Results to:	edphenix@ransomenv.com
PO	4755
Notes/Requests	Please analyze NOB samples via Gravimetric Reduction, per MEDEP regulations. Stop analysis on positive detection for all. Please analyze specified samples in composite; please do not analyze additional layers except where specified.

Sample ID	Location	Material
ASB-16B	Sherriff's Office, 1st floor	Sink Undercoat
ASB-16C	Sherriff's Office, 1st floor	Sink Undercoat
ASB-17A	Sherriff's Office, 1st floor	Bathroom Wallboard glue dots
ASB-17B	Sherriff's Office, 1st floor	Bathroom Wallboard glue dots
ASB-17C	Sherriff's Office, 1st floor	Bathroom Wallboard glue dots
ASB-18A	Sherriff's Office, 1st floor	Dry Wall
ASB-18B	Sherriff's Office, 1st floor	Dry Wall
ASB-18C	Sherriff's Office, 1st floor	Dry Wall
ASB-19A	Sherriff's Office, 1st floor	Joint Compound
ASB-19B	Sherriff's Office, 1st floor	Joint Compound
ASB-19C	Sherriff's Office, 1st floor	Joint Compound
ASB-20A	Sherriff's Office, 1st floor	White/Black fleck 12-inch floor tile
ASB-20B	Sherriff's Office, 1st floor	White/Black fleck 12-inch floor tile
ASB-20C	Sherriff's Office, 1st floor	White/Black fleck 12-inch floor tile mastic
ASB-21A	Sherriff's Office, 1st floor	White/Black fleck 12-inch floor tile mastic
ASB-21B	Sherriff's Office, 1st floor	White/Black fleck 12-inch floor tile mastic
ASB-21C	Sherriff's Office, 1st floor	White/Black fleck 12-inch floor tile mastic
ASB-22A	Sherriff's Office, 2nd Floor	Brown stair tread
ASB-22B	Sherriff's Office, 2nd Floor	Brown stair tread
ASB-22C	Sherriff's Office, 2nd Floor	Brown stair tread
ASB-23A	Sherriff's Office, 2nd Floor	Green speckled linoleum sheet flooring
ASB-23B	Sherriff's Office, 2nd Floor	Green speckled linoleum sheet flooring
ASB-23C	Sherriff's Office, 2nd Floor	Green speckled linoleum sheet flooring
ASB-24A	Sherriff's Office, 2nd Floor	Gray carpet mastic
ASB-24B	Sherriff's Office, 2nd Floor	Gray carpet mastic
ASB-24C	Sherriff's Office, 2nd Floor	Gray carpet mastic
ASB-25A	Sherriff's Office, 2nd Floor	Red Yarn linoleum sheet flooring
ASB-25B	Sherriff's Office, 2nd Floor	Red Yarn linoleum sheet flooring
ASB-25C	Sherriff's Office, 2nd Floor	Red Yarn linoleum sheet flooring
ASB-26A	Sherriff's Office, 2nd Floor	Red Yarn linoleum sheet flooring mastic
ASB-26B	Sherriff's Office, 2nd Floor	Red Yarn linoleum sheet flooring mastic
ASB-26C	Sherriff's Office, 2nd Floor	Red Yarn linoleum sheet flooring mastic
ASB-27A	Sherriff's Office, 2nd Floor	Beige Carpet Mastic
ASB-27B	Sherriff's Office, 2nd Floor	Beige Carpet Mastic
ASB-27C	Sherriff's Office, 2nd Floor	Beige Carpet Mastic
ASB-28A	Sherriff's Office, 2nd Floor	Brown Carpet Mastic
ASB-28B	Sherriff's Office, 2nd Floor	Brown Carpet Mastic
ASB-28C	Sherriff's Office, 2nd Floor	Brown Carpet Mastic
ASB-29A	Sherriff's Office, 2nd Floor	White linoleum sheet flooring
ASB-29B	Sherriff's Office, 2nd Floor	White linoleum sheet flooring
ASB-29C	Sherriff's Office, 2nd Floor	White linoleum sheet flooring
ASB-30A	Sherriff's Office, 2nd Floor	White linoleum sheet flooring mastic
ASB-30B	Sherriff's Office, 2nd Floor	White linoleum sheet flooring mastic
ASB-30C	Sherriff's Office, 2nd Floor	White linoleum sheet flooring mastic
ASB-31A	Sherriff's Office, 2nd Floor	Tile pattern linoleum wall panel
ASB-31B	Sherriff's Office, 2nd Floor	Tile pattern linoleum wall panel
ASB-31C	Sherriff's Office, 2nd Floor	Tile pattern linoleum wall panel
ASB-32A	Sherriff's Office, 2nd Floor	12 inch white ceiling tile

insuff material

insuff extra material

*[Signature]* 11/7/12

Page 2 of 3



# 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 Street  
**CITY / STATE / ZIP:** Portland ME 04101  
**CONTACT:** Erik Phenix  
**DESCRIPTION:** PLM Analysis  
**LOCATION:** Old Waldo Co. Jail - City of Belfast, Maine

**ORDER #:** 1204895  
**PROJECT #:** R111.06134.022  
**DATE COLLECTED:** 11/05/2012  
**COLLECTED BY:** Erik Phenix  
**DATE RECEIVED:** 11/07/2012  
**ANALYSIS DATE:** 11/08/2012  
**REPORT DATE:** 11/27/2012  
**ANALYST:** Jamie Noel

4895

Client	Ransom Consulting, Inc. 400 Commercial St Portland ME 04101
Contact	Erik Phenix
Phone	207-772-2891
Project	Old Waldo Co. Jail
Location	Belfast, Maine
Ransom Client	City of Belfast
Ransom Project #	R111.06134.022
Sample Date	11/5/2012
Analysis	Bulk PLM/Gravimetric Reduction for asbestos
TAT	*Need Results on Nov. 12, 2012
Report Results to:	ephenix@ransomenv.com
PO	4755
Notes/Requests	Please analyze NDB samples via Gravimetric Reduction per MEDEP regulations. Stop analysis on positive detection for all. Please analyze specified samples in composite; please do not analyze additional layers except where specified.

Sample ID	Location	Material
ASB-32B	Sherriff's Office, 2nd Floor	12-inch white ceiling tile
ASB-32C	Sherriff's Office, 2nd Floor	12-inch white ceiling tile
ASB-33A	Sherriff's Office, 2nd Floor	Blanket Wool insulation
ASB-33B	Sherriff's Office, 2nd Floor	Blanket Wool insulation
ASB-33C	Sherriff's Office, 2nd Floor	Blanket Wool insulation
ASB-34A	Sherriff's Office, Attic	Vermiculite insulation
ASB-34B	Sherriff's Office, Attic	Vermiculite insulation
ASB-34C	Sherriff's Office, Attic	Vermiculite insulation
ASB-35A	Old Jail building	Pipe Insulation
ASB-35B	Old Jail building	Pipe Insulation
ASB-35C	Old Jail building	Pipe Insulation
ASB-36A	Old Jail building	Pipe Elbow Mud
ASB-36B	Old Jail building	Pipe Elbow Mud
ASB-36C	Old Jail building	Pipe Elbow Mud
ASB-37A	Sherriff's Office Basement	Pipe Insulation
ASB-37B	Sherriff's Office Basement	Pipe Insulation
ASB-37C	Sherriff's Office Basement	Pipe Insulation

Erik Phenix 11/6/12

11/7/12

Page 3 of 3





# OPTIMUM

Analytical and Consulting, LLC

85 Stiles Road, Suite 201, Salem, NH 03079 Phone: (603)-458-5247

Erik Phenix  
Ransom Environmental Consultants, Inc.  
400 Commercial Street  
Portland ME 04101

Project #: R111.06134.022  
Laboratory Batch #: 1204900  
Date Samples Received: 11/09/2012  
Date Samples Analyzed: 11/09/2012  
Date of Final Report: 11/12/2012

**SAMPLE IDENTIFICATION:**

Six (6) Bulk samples from Old Waldo Jail Co. - City of Belfast, ME; submitted by: Erik Phenix

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.

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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



# OPTIMUM

Analytical and Consulting, LLC

85 Stiles Road, Suite 201, Salem, NH 03079 Phone: (603)-458-5247

## BULK SAMPLE ANALYSIS REPORT POLARIZED LIGHT MICROSCOPY

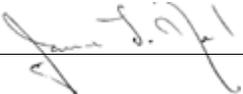
PLM (EPA-600/M4-82-020, EPA-600/ R-93-116) NVLAP Lab Code: 101433-0

**CLIENT:** Ransom Environmental Consultants, Inc.  
**ADDRESS:** 400 Commercial Street  
**CITY / STATE / ZIP:** Portland ME 04101  
**CONTACT:** Erik Phenix  
**DESCRIPTION:** PLM Analysis  
**LOCATION:** Old Waldo Jail Co. - City of Belfast, ME

**ORDER #:** 1204900  
**PROJECT #:** R111.06134.022  
**DATE COLLECTED:** 11/08/2012  
**COLLECTED BY:** Erik Phenix  
**DATE RECEIVED:** 11/09/2012  
**ANALYSIS DATE:** 11/09/2012  
**REPORT DATE:** 11/12/2012  
**ANALYST:** Kristina Scaviola

### REPORT OF ANALYSIS

Laboratory ID Sample No.	Sample Location Description	Layer No. Layer %	Asbestos Type (%)	Non-Asbestos Components (%)
1204900-001 ASB-38A	Sherrifs Office & Barn Roof Asphalt Shingle, Black	LAYER 1 100%	None Detected	Cellulose Fiber 2% Fibrous Glass 50% Binder/Filler 48%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204900-002 ASB-38B	Sherrifs Office & Barn Roof Asphalt Shingle, Black	LAYER 1 100%	None Detected	Cellulose Fiber 2% Fibrous Glass 50% Binder/Filler 48%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204900-003 ASB-38C	Sherrifs Office & Barn Roof Asphalt Shingle, Black	LAYER 1 100%	None Detected	Cellulose Fiber 2% Fibrous Glass 50% Binder/Filler 48%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204900-004 ASB-39A	Connector from Office to Barn Asphalt Shingle, Black	LAYER 1 100%	None Detected	Cellulose Fiber 75% Binder/Filler 25%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204900-005 ASB-39B	Connector from Office to Barn Asphalt Shingle, Black	LAYER 1 100%	None Detected	Cellulose Fiber 75% Binder/Filler 25%
<b>Total % Asbestos:</b>			No Asbestos Detected	<b>Total % Non-Asbestos:</b> 100.0%
1204900-006 ASB-39C	Connector from Office to Barn Asphalt Shingle, Black	LAYER 1 100%	None Detected	Cellulose Fiber 75% Binder/Filler 25%
<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 Street  
**CITY / STATE / ZIP:** Portland ME 04101  
**CONTACT:** Erik Phenix  
**DESCRIPTION:** PLM Analysis  
**LOCATION:** Old Waldo Jail Co. - City of Belfast, ME

**ORDER #:** 1204900  
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**DATE COLLECTED:** 11/08/2012  
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**ANALYSIS DATE:** 11/09/2012  
**REPORT DATE:** 11/12/2012  
**ANALYST:** Kristina Scaviola

4900

Client	Ransom Consulting, Inc. 400 Commercial St Portland ME 04101
Contact	Erik Phenix
Phone	207-772-2891
Project	Old Waldo Co. Jail
Location	Belfast, Maine
Ransom Client	City of Belfast
Ransom Project #	R111.06134.022
Sample Date	11/8/2012
Analysis	Bulk PLM/Gravimetric Reduction for asbestos
TAT	*Need Results on Nov. 12, 2012
Report Results to:	<a href="mailto:ephenix@ransomenv.com">ephenix@ransomenv.com</a>
PO	4755
Notes/Requests	Please analyze NOB samples via Gravimetric Reduction, per MEDEP regulations. Stop analysis on positive detection for all. Please analyze specified samples in composite; please do not analyze additional layers except where specified.

Sample ID	Location	Material
ASB-38A	Sherrifs Office & Barn Roof	Asphalt Shingle
ASB-38B	Sherrifs Office & Barn Roof	Asphalt Shingle
ASB-38C	Sherrifs Office & Barn Roof	Asphalt Shingle
ASB-39A	Connector from Office to Barn	Asphalt Shingle
ASB-39B	Connector from Office to Barn	Asphalt Shingle
ASB-39C	Connector from Office to Barn	Asphalt Shingle

Erik Phenix 11/8/12

B 11/9/12