Summit
Environmental Consultants, Inc

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MAINE DEP PETROLEUM VAPOR TRIAGE STUDY
PHASE IIA
CUMBERLAND FARMS – FACILITY 1829
5 MOUNT VERNON AVENUE
AUGUSTA , MAINE

Prepared for:

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INTRODUCTION

In June 2010, Summit Environmental Consultants, Inc. and JBR Consulting Hydrogeologist (Summit) along with four other consulting firms were selected by the Maine Department of Environmental Protection (MEDEP) to provide vapor intrusion investigation and data analysis services for petroleum sites throughout Maine. Summit was assigned two sites including the Cumberland Farms Incorporated (CFI) property located at 5 Mount Vernon Avenue in Augusta (the Site) to identify the potential for petroleum vapor intrusion (PVI) into site and area buildings. In July Summit completed a Site Assessment of the property to develop information about possible sources of vapor contamination at and adjacent to the Site. In August Summit developed a Work Plan for the project following MEDEP guidance and incorporating their input including a conceptual model and description of the scope of investigations. This report provides the results of this PVI Triage Study - PHASE IIA and follows the reporting format and content provided by MEDEP.

1.0 OBJECTIVES

The objectives of the study were to:

- Sample residual soil contamination (if indicated by field observations) at potential source areas that were reasonably accessible (i.e. near USTs)
- Sample groundwater beneath and downgradient of source areas if contamination was indicated by field observations
- Characterize the horizontal and vertical attenuation of Chemicals of Potential Concern (CPOCs) in soil vapor from both soil and groundwater contamination areas
- Assess on-site soil vapor pathways to identify potential risks to on-site and off-site receptors

2.0 SITE BACKGROUND AND CONCEPTUAL SITE MODEL

Facility Use/Petroleum Storage

The 0.20 acre site is located on the east side of Mount Vernon Avenue and the north side of Bond Street (see Figures 1, 2). One concrete and mortar building (approximately 2,045 square feet) is located on the property. The Site is located in an area zoned by the City of Augusta as Commercial. The building is currently used as a gasoline station/convenience store and the site has been used for retail gasoline sales since 1983, prior to which time it was in residential use. A metal-roofed canopy with two gasoline pump islands is located west of the Site building. The pump islands are connected to three on-site underground gasoline storage tanks (USTs).

Release

The primary source of petroleum vapors for the site is the area around the former USTs which were in the same location as the currently operating USTs. A Maine Underground Storage Tank Removal Site Assessment dated November 1996 indicated that during the removal of three 8,000-gallon gasoline USTs, petroleum contamination was observed to be present. Soils impacted with gasoline exhibiting photoionization detector (PID) headspace readings above 1,000 parts per million (ppm) were removed from the Site, with a total of 80.6 tons of contaminated soil shipped to the Tilcon facility in Farifield, Maine for asphalt batching. According to the UST removal report, the MEDEP allowed the contractor to only remove soils necessary to accommodate installation of the new USTs. No documentation regarding soils left at the site was found in the report. Following the soil removal, three 8,000-gallon fiberglass

USTs were installed within the same excavation. The Maine UST registration number for the Site is 9078.

Based on the relatively high PID cleanup guideline, it is likely that soil vapors at the Site have been impacted by petroleum constituents (benzene, toluene, ethylbenzene, xylenes and other petroleum VOCs).

In response to a recent site visit by MEDEP (March 2010), Cumberland Farms provided MEDEP with a Statistical Inventory Analysis and updated annual inspection summary in March 2010 which indicated all three of the current USTs passed inspection.

Chemicals of Potential Concern (COPCs)

The primary chemical of potential concern is gasoline and its associated volatile petroleum constituents primarily benzene, napthalene, 1,3-butadiene and selected petroleum fractions. Chlorinated VOCs from offsite sources represent secondary chemicals of concern.

Subsurface Exposure Pathway

The paved areas of the site (elevation 40+ feet above mean sea level) are relatively flat, dropping down to Bond Brook about 75 feet east of the site (the Brook elevation is estimated at less than 10 feet msl). Bond Brook flows southeast to the Kennebec River (about 5 feet msl) about 500 feet southeast of the site. Maine Geologic Survey has mapped Stream Terrace deposits consisting of permeable sand and gravel beneath the Site which is consistent with boring information from the adjacent property to the northeast (Rockingham Electric property, a former coal tar site). Boring MW-2/SB-5 located 50 feet northeast of the Site indicated sand and gravel fill overlying fine to coarse sand and finally sand and gravel down to weathered bedrock at 45 below ground surface. The depth to groundwater was about 34 feet bgs. Based on these conditions and lack of water within a ten foot deep monitoring well at the Site, it is anticipated that 30 feet or more of unsaturated permeable soils could underlie the Site and allow vapor migration.

The former (and current) USTs and pump islands are located directly upgradient topographically from the slab on grade of the convenience store. Groundwater is expected to flow east beneath the UST and pump island source areas, beneath the store and discharge to Bond Brook.

High PID readings used for a cleanup standard during the 1996 UST removal indicates the likelihood of a source of residual contamination at the site.

Subsurface public utilities include water and sewer and enter the northeast side of building. The exact location of these utilities with respect to any residual soil contamination is not known, however the water line runs directly through the pump island area. Smaller on-site electrical conduit that runs from the store to the USTs, dispensers and any signage represent additional potential pathways.

3.0 METHODOLOGY

A one-day Geoprobe investigation was completed which included field screening of soils and soil vapor and groundwater sampling and analyses. A stepped approach was developed by MEDEP to guide the number and location of samples based on whether contamination was present at the UST source area. Because drilling activities are restricted near tanks, piping and dispensers at operating UST facilities and based on site history and hydrogeology it was decided not to shut the facility down but to include a fence of explorations directly downgradient of the

UST/pump island areas. A subslab vapor sample was included from within the building near the bathroom.

Sample locations are shown on Figure 2 and are summarized as follows:

Source Areas

Based on the 1996 UST removal report it was considered likely that there was some residual petroleum in soils below the former USTs at a depth of 12 feet or greater. No information was reported relative to the pump islands, though they were considered potential sources of at least shallow soil contamination.

Migration and Preferential Pathways - 15 feet Downgradient

To assess petroleum migration from the source areas in soil vapor and groundwater, the following explorations were completed:

- five Geoprobe borings (SB-01, SB-02, SB-03, SB-04 and SV-02) at locations 15 to 20 feet downgradient of the USTs and pump islands
- one hand auger boring (SV-01)
- one subslab soil vapor sampling location (SV-03).

Soil

Geoprobe borings were advanced using a four-foot sampler with dedicated disposable acetate sampling sleeves and were completed to depths ranging from 26 feet bgs at SB-04 to 48 feet bgs at SB-03/MW-1. Refusal was encountered only at SB-04 (at 26 feet).

Soil samples were collected continuously, logged for geologic classification and screened with a *MiniRae 3000*® field-portable PID equipped with a 10.6 eV probe, calibrated with 100 ppm isobutylene and recording uncorrected results. Because no significant PID or odor indications of petroleum were encountered, no soil samples were submitted for laboratory analyses. Boring logs are provided in Appendix A.

Groundwater

A monitoring well (MW-1) was installed in SB-03 located directly downgradient of the current and former USTs. The well was constructed of 1 inch PVC installed ten feet into the water table to allow sampling and to provide depth to groundwater data. A groundwater sample was collected using a small diameter bailer and submitted to Maine Environmental Laboratory/Analytics Environmental Laboratory for Massachussets Department of Environmental Protection (MADEP) Volatile Petroleum Hydrocarbon (VPH) analyses. A well construction log is included in Appendix A.

Soil Vapor

Soil vapor sampling probes were installed consistent with methods described in the current MEDEP SOPs for Collecting Soil Gas Samples.

Soil vapor probes were supplied by Geoprobe and consisted of ½ inch x 6 inch double woven stainless steel wire screens with 0.0057 inch slots connected to ¼ inch teflon tubing. They were installed as follows:

- SV-01 – set in a hand auger boring at two feet below ground surface (bgs) adjacent to the water line entrance on the northwest side of the building to assess this preferential pathway in granular backfill
- SV-02 – set in Geoprobe boring SV-02 at 31 feet bgs three feet above the water table and downgradient of the USTs to assess vapor above any contaminated groundwater
- SV-03 – a subslab sample collected in the bathroom by drilling a hole in the concrete floor slab and installing teflon tubing and sealing the tubing with modeling clay around the hole.
- SV-04 – set in Geoprobe boring SB-01 at 31 feet bgs, three feet above the water table to assess deep vapor migration at a location cross gradient from the USTs but downgradient of the pump islands
- SV-05 – set in Geoprobe boring SB-01 at 7 feet bgs above a silt zone that was present across the site from about 7 to 13 feet bgs.

Field screening of soil gas extracted with a peristaltic pump was performed with a CO2/O2/Methane meter to ensure that atmospheric concentrations of CO2 were not present and that the soil gas samples were representative of soil vapor. Soil vapor samples were collected in 30 minute Summa canisters and submitted to Alpha Analytical for analyses by the MADEP Air Petroleum Hydrocarbon (APH) method for petroleum parameters and by TO-15 for Volatile Organic Chemicals (VOCs). Canisters typically started at 27 to 30 inches (of mercury) vacuum and finished at 3 to 5 inches of vacuum. Soil vapor probe construction and sampling information is provided on Field Data Sheets in Appendix B.

A duplicate soil vapor sample was not collected (but was collected at the CFI site in Livermore Falls investigated by Summit).

Receptors

Potential receptors of petroleum vapors at the site include customers and workers at the store and house occupants on adjacent residential properties, primarily to the southeast.

4.0 RESULTS

A Summary of Soil Vapor Detections is provided in Table 1. The Groundwater Vapor Intrusion Report and Soil Gas Vapor Intrusion Report prepared from MEDEPs EGAD data base is attached as Tables 2 and 3 providing a comprehensive tabulation of analytes, results, detection limits and data qualifiers.

4.1 QUALITY ASSURANCE

A comparison of post sample field and laboratory measurements of carbon dioxide, oxygen and methane at all soil vapor probes (except SV-03) indicate the following:

- Field measurements of carbon dioxide were greater than 5% (the upper range of the instrument), while lab results ranged from 1.6 to 2.8% indicating field measurements were at least 2 to 3 times higher than lab results.
- Field measurements of oxygen ranged from 12.7 to 18.7 %, while lab results ranged from 11.7 to 16.6 % (at SV-04 and SV-01 respectively) indicating field measurements were about 1.1 times higher than lab results.
- Methane was not detected with the field meter or in the lab.

A comparison of pre- and post sample carbon dioxide measurements at soil vapor probes (except SV-03) indicate field evidence of a good seal, with all pre- and post sample values greater than 5 %. A good seal was also indicated by the large difference between ambient carbon dioxide (0.49 to 0.76%) and post sample results (all greater than 5%). Based on a low post sample carbon dioxide (field and lab result) and somewhat elevated oxygen results it appears there may have been some leakage at SV-03.

Samples were delivered to MEL on September 2010. All samples were delivered within the applicable holding times and within the specified temperature range. Summit obtained sample results from MEL on September 22, 2010. Included in the sample results package was a copy of QA data. The lab did not indicate interferences or problems had occurred in the analytical stages or handling of the samples.

Summit shipped the soil gas samples to Alpha Analytical on September 10, 2010 and received confirmation of their delivery on September 14, 2010 at 10:00 am (within holding time). Summit obtained analytical results from Alpha on September 21, 2010.

4.2 SOURCE AREA SOIL

Site specific surficial geology consisted of sand with gravel fill beneath the asphalt to about 7 feet bgs which was underlain by silt to 13 feet bgs, which was underlain by fine to medium sand to the bottom of borings (between 26 and 48 feet bgs). The water table was at 34 feet bgs. It is likely that the bottom of the UST installations extended through the lower permeability silt, but that the piping and dispenser components did not.

There were no odor indications of petroleum in soil samples and no significant PID detections were obtained (all results were below 1.2 ppm, uncorrected). PID results are included on Soil Boring Logs in Appendix A. Based on these results there were no petroleum impacts to soils at the boring locations.

4.3 GROUNDWATER

Because there were no field indications of petroleum impacts to soil or groundwater at boring locations only one monitoring well was installed. However, the permeable soils and location of Bond Brook 75 feet directly downgradient indicate the likely groundwater flow direction was to the east. Groundwater impacts if any from releases at the USTs or pump islands would have flowed east beneath the store discharging to Bond Brook.

All MADEP VPH targets and fraction parameters were below detection limits (see Table 2).

4.4 SOIL VAPOR

Soil vapor detections are summarized in Table 1 and as follows (complete results are in Table 3):

Low to moderate levels of MADEP-APH were detected in all soil vapor probes. Based on a comparison of detected concentrations to the Maine Residential Multi-Contaminant Chronic Soil Gas Target (G-1), the following exceedances were identified:

- 1,3-butadiene (SV-01, SV-02, SV-04)
- benzene (SV-01)
- C5-C8 aliphatic hydrocarbons (SV-02)
- napthalene (SV-05)

Exceedence factors (soil vapor concentration divided by target concentration) ranged from 1.4 for benzene at SV-01 to 6.4 for 1,3-butadiene at SV-04. The subslab sample collected at SV-03 detected aliphatic hydrocarbons below target levels. Tetrachloroethylene was detected above target levels at SV-02 and SV-04 but not in the shallow probes suggesting that it is volatizing from groundwater that is flowing onto the site from an upgradient source. It was also detected at low levels in the laboratory duplicate.

SV-02 and SV-04 are both set at 31 feet bgs about three feet above the water table. SV-02 is located about 20 feet downgradient of the nearest UST and SV-04 is located about 50 feet cross gradient from the USTs and about 25 feet from the dispensers. 1,3-butadiene and C5-C8 aliphatic hydrocarbons were highest in the deep probes while benzene was highest in SV-01 (installed in the water line backfill). Results from the two deep probes indicate that impacts at SV-02 may be due to older residual petroleum that penetrated the silt layer at the site (~7 to 13 feet bgs) and impacted soils below the USTs. Impacts at SV-04 have a BTEX fingerprint that was also seen at shallow probes SV-01 and (was highest at) SV-05. These shallow impacts may be due to more recent incidental releases at the dispensers associated with normal vehicle fueling operations.

Based on a recent literature summary published in *Soil and Sediment Contamination* (Evaluation of Vapor Attenuation at Petroleum Hydrocarbon sites: Consideration for Site Screening and Investigations; 19:724-745, 2010) and provided by MEDEP, the potential for vapor intrusion impacts at this site appears to be is low. This assessment is based on the absence of petroleum in groundwater (where investigated) and the large unsaturated thickness of high permeability oxygenated sand soils which are conducive to biodegradation of petroleum in soil vapors.

5.0 CONCLUSIONS

5.1 HYDROGEOLOGIC INFLUENCES ON VAPOR MIGRATION

Soils

The permeable granular sand soils and large depth to groundwater at the site (34 feet) allow for vapor migration from two likely source areas: 1. a deep source of petroleum impacted soils beneath the current and former USTs, and 2. a shallow source in the area of the pump islands. The soils are well oxygenated as confirmed by both field and laboratory data. These conditions should also allow for rapid biodegradation of soil vapors migrating from sources. However, the low to moderate level detections in soil vapor indicate a source of petroleum remains at the site; site history and ongoing operations indicate soils beneath the USTs and pump islands as the most likely source areas.

Groundwater

There were no odor or PID indications of petroleum contamination at any of the four borings that extended into the water table and there were no MADEP VPH targets or fractions detected in groundwater at MW-1 located downgradient and closest to the USTs. It is possible that a narrow zone or stringer of groundwater contamination is flowing east through coarse sand soils directly toward Bond Brook and could serve as a source of soil vapor detections. However based on data collected for this study it is more likely that shallow (beneath pump islands) and deep residual (beneath USTs) soil contamination is the primary contributor to observed soil vapor detections.

5.2 PETROLEUM DISTRIBUTION AND RELATIONSHIPS BETWEEN MEDIA

With detections only in soil vapor, direct conclusions about the petroleum distribution between soil, soil vapor and groundwater are not possible. However, an elevated fingerprint of 1,3-butadiene and aliphatic hydrocarbons was detected at deep probes SV-02 and SV-04 near the water table, while a BTEX and napthalene finger print was detected in shallow probes near the dispensers and in the water line backfill. Benzene was highest in the water line backfill at SV-01.

5.3 PREFERENTIAL PATHWAYS, OFFSITE MIGRATION AND RECEPTORS

While the granular backfill of the water line may provide a preferential pathway for vapor migration, the permeability of the backfill did not appear to be largely different from the sand and gravel fill beneath the pavement. Offsite transport of soil vapor through the permeable soils appears likely providing adequate pressure and concentration gradients exist to drive transport. Soil borings did not identify groundwater contamination; any offsite migration in groundwater would be expected to be narrow and limited in strength.

Receptors at the site are limited to customers and workers at the store. Abutting possible receptors include residences southeast of the site. The Rockingham Electric site history as a coal tar site would make impacts from this Cumberland Farms site difficult to identify. Other structures exist south and south west of the site – no information about receptors at these properties was obtained although they are all greater than 100 feet from the Site.

5.4 CONCEPTUAL SITE MODEL CONFIRMATION AND UPDATE

Data collected for this VI investigation has allowed updating the Conceptual Model to include both shallow and deep sources of soil contamination that likely contribute to the observed soil vapor distribution. The strength (volume and concentration) of the soil sources is not known.

5.5 DATA GAPS AND RECOMMENDATIONS

While soil vapor exceedences of Maine's G-1 soil gas targets were not large (most were less than a factor of 5), confirming the presence and strength of the two suspected sources would provide a better understanding of the relationship between detected soil vapors and the two apparent sources at the site. The following recommendations are offered for consideration:

1. Install one angled boring beneath the USTs and one beneath the pump island to intercept and sample soil and possible groundwater contamination beneath these source areas.
2. Collect a subslab sample from the store during the heating season ensuring a tight seal to measure influences of the building stack effect on soil vapor pressure, migration and possible intrusion.

Tables

Table 1

Summary of Soil Vapor Detections

Augusta Cumberland Farms 1829

14-Apr-11

Point	Sample Date	Depth	FIELD CARBON DIOXIDE %	FIELD OXYGEN %	PID SOIL GAS SCREEN ppm	MADEP-APH 1,3-BUTADIENE UG/M3	MADEP-APH BENZENE UG/M3	MADEP-APH C5-C8 ALIPHATIC HYDROCARBONS UG/M3	MADEP-APH C9-C10 AROMATIC HYDROCARBONS UG/M3	MADEP-APH C9-C12 ALIPHATIC HYDROCARBONS UG/M3	MADEP-APH ETHYLBENZENE UG/M3	MADEP-APH M,P-XYLENE UG/M3	MADEP-APH NAPHTHALENE UG/M3	MADEP-APH O-XYLENE UG/M3	MADEP-APH TOLUENE UG/M3
SV-01	9/9/2010	ambient	0.76	20.9											
SV-01	9/9/2010 10:12 AM	2	5	19	0.5										
SV-01	9/9/2010 10:36 AM	2	5	18.7		**5.4**	**22**	600	41	190	5.4	8.8	3.1	3.3	44
SV-02	9/9/2010	ambient	0.49	20.8											
SV-02	9/9/2010 1:52 PM	31	5	13.5	2										
SV-02	9/9/2010 2:05 PM	31	5	13.4		**22**	7.9	**5100**		65					6.6
SV-03	9/9/2010		1	20.8											
SV-03	9/10/10 10:44 AM	0.5	5	19.6	0.1										
SV-03	9/10/10 11:10 AM	0.5	0.0005	19.6				170		28					
SV-04	9/9/2010	ambient	0.49	20.8											
SV-04	9/9/2010 3:19 PM	31	5	14.4	1.4										
SV-04	9/9/2010 3:38 PM	31	5	12.7		**26**	8	1000	99	270	13	19		7	19
SV-05	9/9/2010	ambient	0.49	20.8											
SV-05	9/9/2010 3:21 PM	7	5	19	0.7										
SV-05	9/9/2010 3:36 PM	7	5	17.3			6.5	900	300	750	40	71	**17**	26	67
MAINE RESIDENTIAL MULTI-CONTAMINANT CHRONIC SOIL GAS TARGET (G-1) =						4.1	15.5	2100	500	2100	48.5		3.6		50000
EXCEEDANCE FACTOR (MAX CONCENTRATION/TARGET CONCENTRATION) =						6.4	1.4	2.4	0.6	0.4	0.8		4.7		0.0

Notes:

1. See Table 3 for complete Soil Gas Vapor Intrusion Report, including analytes that were not detected , detection limits and data qualifiers.
2. No entry = parameter not detected.
3. **Bold** entrees exceed target concentration.

Table 2
Augusta Cumberland Farms 1829
Groundwater Vapor Intrusion Report
14-Apr-11

Method				MADEP-VPH				MADEP-VPH				MADEP-VPH				MADEP-VPH				MADEP-VPH				MADEP-VPH				MADEP-VPH			
Parameter				BENZENE				BENZENE, 1,4-DIBROMO-2-METHYL, FID				BENZENE, 1,4-DIBROMO-2-METHYL, PID				C5-C8 ALIPHATIC HYDROCARBONS				C9-C10 AROMATIC HYDROCARBONS				C9-C12 ALIPHATIC HYDROCARBONS				ETHYLBENZENE			
Sample Point	Sample Date	Depth		Conc.	Reporting	Qualifier	Units	Conc.	Reporting	Qualifier	Units	Conc.	Reporting	Qualifier	Units	Conc.	Reporting	Qualifier	Units	Conc.	Reporting	Qualifier	Units	Conc.	Reporting	Qualifier	Units	Conc.	Reporting	Qualifier	Units
MW-1	9/9/2010 4:20 PM				2	U	UG/L	78			%	80			%		50	U	UG/L		10	U	UG/L		50	U	UG/L		2	U	UG/L
CURRENT MAXIMUM EXPOSURE GUIDELINE				4			UG/L									300			UG/L	200			UG/L	700			UG/L	30			UG/L
MASSACHUSETTS GROUNDWATER STANDARD (GW-2)				2000			PPB									3000			PPB	7000			PPB	5000			PPB	20000			PPB

Method				MADEP-VPH				MADEP-VPH				MADEP-VPH				MADEP-VPH				MADEP-VPH				MADEP-VPH				MADEP-VPH			
Parameter				M,P-XYLENE				METHYL-TERT-BUTYL ETHER (MTBE)				NAPHTHALENE				O-XYLENE				TOLUENE				UNADJUSTED C5-C8 ALIPHATICS				UNADJUSTED C9-C12 ALIPHATICS			
Sample Point	Sample Date	Depth		Conc.	Reporting Li	Qualifier	Units	Conc.	Reporting	Qualifier	Units	Conc.	Reporting	Qualifier	Units	Conc.	Reporting	Qualifier	Units	Conc.	Reporting	Qualifier	Units	Conc.	Reporting	Qualifier	Units	Conc.	Reporting	Qualifier	Units
MW-1	9/9/2010 4:20 PM				4	U	UG/L		2	U	UG/L		2	U	UG/L		2	U	UG/L		2	U	UG/L		50	U	UG/L		50	U	UG/L
CURRENT MAXIMUM EXPOSURE GUIDELINE								35			UG/L	10			UG/L					600			UG/L								
MASSACHUSETTS GROUNDWATER STANDARD (GW-2)								50000			PPB	1000			PPB					50000			PPB								

Table 3
Augusta Cumberland Farms 1829
Soil Gas Vapor Intrusion Report
14-Apr-11

Method			EPA METHOD 3C				EPA METHOD 3C				EPA METHOD 3C				FIELD				FIELD				FIELD				FIELD				FIELD				MADEP-APH				MADEP-APH			
Parameter			CARBON DIOXIDE				METHANE				OXYGEN GAS				CARBON DIOXIDE				METHANE				OXYGEN GAS				PID SOIL GAS SCREEN				SUBSURFACE PRESSURE				1,3-BUTADIENE				BENZENE			
Sample Point	Sample Date	Depth	Conc.	Reporting Limit	Qualifier	Units	Conc.	Reporting Limit	Qualifier	Units	Conc.	Reporting Limit	Qualifier	Units	Conc.	Reporting Limit	Qualifier	Units	Conc.	Reporting Limit	Qualifier	Units	Conc.	Reporting Limit	Qualifier	Units	Conc.	Reporting Limit	Qualifier	Units	Conc.	Reporting Limit	Qualifier	Units	Conc.	Reporting Limit	Qualifier	Units	Conc.	Reporting Limit	Qualifier	Units
LAB DUPLICATE	9/9/2010		1.82		D	%	0.169		U	%	12.1		D	%																					26	4.4	D	UG/M3	8.2	4.4	D	UG/M3
SV-01	9/9/2010														0.76			%					20.9			%															
SV-01	9/9/2010 10:12 AM	2													5			%	0.000001	U	%		19			%	0.00005			%											
SV-01	9/9/2010 10:36 AM	2	1.59		D	%	0.169		U	%	16.6		D	%	5			%					18.7			%									5.4	2		UG/M3	22	2		UG/M3
SV-01	10/13/2010																														0.005		LT	IN H20							
SV-02	9/9/2010														0.49			%					20.8			%															
SV-02	9/9/2010 1:52 PM	31													5			%	0.000001	U	%		13.5			%	0.0002			%											
SV-02	9/9/2010 2:05 PM	31	1.98		D	%	0.156		U	%	11.4		D	%	5			%					13.4			%									22	5	D	UG/M3	7.9	5	D	UG/M3
SV-02	10/13/2010																														0.005		LT	IN H20							
SV-03	9/9/2010														1			%					20.8			%															
SV-03	9/9/10 10:44 AM	0.5													5			%	0.000001	U	%		19.6			%	0.00001			%											
SV-03	9/9/10 11:10 AM	0.5	0.18		D	%	0.158		U	%	17.9			%	0.0005			%					19.6			%										2	U	UG/M3		2	U	UG/M3
SV-03	10/13/2010																														0.005		LT	IN H20							
SV-04	9/9/2010														0.49			%					20.8			%															
SV-04	9/9/2010 3:19 PM	31													5			%	0.000001	U	%		14.4			%	0.00014			%											
SV-04	9/9/2010 3:38 PM	31	2.85		D	%	0.216		U	%	11.7		D	%	5			%					12.7			%									26	4.4	D	UG/M3	8	4.4	D	UG/M3
SV-04	10/13/2010																														-0.015			IN H20							
SV-05	9/9/2010														0.49			%					20.8			%															
SV-05	9/9/2010 3:21 PM	7													5			%	0.000001	U	%		19			%	0.00007			%											
SV-05	9/9/2010 3:36 PM	7	2.81		D	%	0.245		U	%	15.2		D	%	5			%					17.3			%										4.8	U	UG/M3	6.5	4.8	D	UG/M3
SV-05	10/13/2010																														-0.005			IN H20							
MAINE RESIDENTIAL MULTI-CONTAMINANT CHRONIC SOIL GAS TARGET (G-1)																																	4.05			UG/M3	15.5			UG/M3

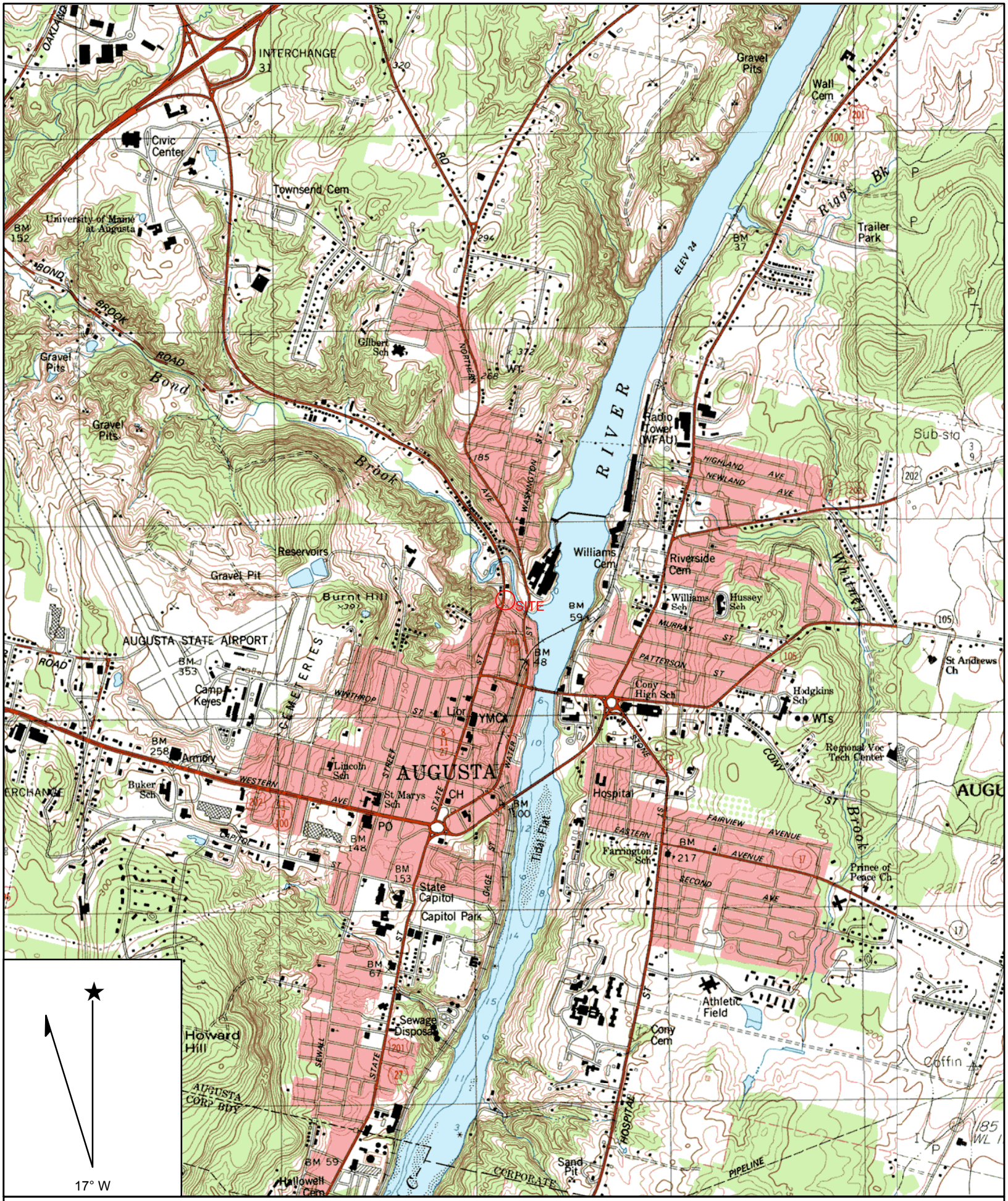
Method			MADEP-APH				MADEP-APH				MADEP-APH				MADEP-APH				MADEP-APH				MADEP-APH				MADEP-APH				MADEP-APH				MADEP-APH				TO15			
Parameter			C5-C8 ALIPHATIC HYDROCARBONS				C9-C10 AROMATIC HYDROCARBONS				C9-C12 ALIPHATIC HYDROCARBONS				ETHYLBENZENE				M,P-XYLENE				METHYL-TERT-BUTYL ETHER (MTBE)				NAPHTHALENE				O-XYLENE				TOLUENE				1,1,1-TRICHLOROETHANE			
Sample Point	Sample Date	Depth	Conc.	Reporting Limit	Qualifier	Units	Conc.	Reporting Limit	Qualifier	Units	Conc.	Reporting Limit	Qualifier	Units	Conc.	Reporting Limit	Qualifier	Units	Conc.	Reporting Limit	Qualifier	Units	Conc.	Reporting Limit	Qualifier	Units	Conc.	Reporting Limit	Qualifier	Units	Conc.	Reporting Limit	Qualifier	Units	Conc.	Reporting Limit	Qualifier	Units	Conc.	Reporting Limit	Qualifier	Units
LAB DUPLICATE	9/9/2010		1000	26	D	UG/M3	98	22	D	UG/M3	260	31	D	UG/M3	13	4.4	D	UG/M3	19	8.8	D	UG/M3		4.4	U	UG/M3		4.4	U	UG/M3	7.3	4.4	D	UG/M3	19	4.4	D	UG/M3		0.433	U	PPBV
SV-01	9/9/2010																																								
SV-01	9/9/2010 10:12 AM	2																																							
SV-01	9/9/2010 10:36 AM	2	600	12		UG/M3	41	10		UG/M3	190	14		UG/M3	5.4	2		UG/M3	8.8	4		UG/M3		2	U	UG/M3	3.1	2		UG/M3	3.3	2		UG/M3	44	2		UG/M3		1.09	U	UG/M3
SV-01	10/13/2010																																								
SV-02	9/9/2010																																								
SV-02	9/9/2010 1:52 PM	31																																							
SV-02	9/9/2010 2:05 PM	31	5100	30	D	UG/M3		25	U	UG/M3	65	35	D	UG/M3		5	U	UG/M3		10	U	UG/M3		5	U	UG/M3		5	U	UG/M3		5	U	UG/M3	6.6	5	D	UG/M3		2.72	U	UG/M3
SV-02	10/13/2010																																								
SV-03	9/9/2010																																								
SV-03	9/9/10 10:44 AM	0.5																																							
SV-03	9/9/10 11:10 AM	0.5	170	12		UG/M3		10	U	UG/M3		28	14	UG/M3		2	U	UG/M3		4	U	UG/M3		2	U	UG/M3		2	U	UG/M3		2	U	UG/M3		2	U	UG/M3		1.09	U	UG/M3
SV-03	10/13/2010																																								
SV-04	9/9/2010																																								
SV-04	9/9/2010 3:19 PM	31																																							
SV-04	9/9/2010 3:38 PM	31	1000	26	D	UG/M3	99	22	D	UG/M3	270	31	D	UG/M3	13	4.4	D	UG/M3	19	8.8	D	UG/M3		4.4	U	UG/M3		4.4	U	UG/M3	7	4.4	D	UG/M3	19	4.4	D	UG/M3		2.36	U	UG/M3
SV-04	10/13/2010																																								
SV-05	9/9/2010																																								
SV-05	9/9/2010 3:21 PM	7																																							
SV-05	9/9/2010 3:36 PM	7	900	29	D	UG/M3	300	24	D	UG/M3	750	34	D	UG/M3	40	4.8	D	UG/M3	71	9.6	D	UG/M3		4.8	U	UG/M3	17	4.8	D	UG/M3	26	4.8	D	UG/M3	67	4.8	D	UG/M3		2.67	U	UG/M3
SV-05	10/13/2010																																								
MAINE RESIDENTIAL MULTI-CONTAMINANT CHRONIC SOIL GAS TARGET (G-1)			2100			UG/M3	500			UG/M3	2100			UG/M3	48.5			UG/M3					470			UG/M3	3.6			UG/M3					50000			UG/M3	50000			UG/M3

Method			TO15				TO15				TO15				TO15				TO15				TO15				TO15				TO15				TO15				WL			
Parameter			1,1-DICHLOROETHANE				1,1-DICHLOROETHYLENE				1,2-DIBROMOETHANE				1,2-DICHLOROETHANE				CIS-1,2-DICHLOROETHENE				TETRACHLOROETHYLENE				TRANS-1,2-DICHLOROETHENE				TRICHLOROETHYLENE				VINYL CHLORIDE				WATER LEVEL DEPTH			
Sample Point	Sample Date	Depth	Conc.	Reporting Limit	Qualifier	Units	Conc.	Reporting Limit	Qualifier	Units	Conc.	Reporting Limit	Qualifier	Units	Conc.	Reporting Limit	Qualifier	Units	Conc.	Reporting Limit	Qualifier	Units	Conc.	Reporting Limit	Qualifier	Units	Conc.	Reporting Limit	Qualifier	Units	Conc.	Reporting Limit	Qualifier	Units	Conc.	Reporting Limit	Qualifier	Units	Conc.	Reporting Limit	Qualifier	Units
LAB DUPLICATE	9/9/2010			0.433	U	PPBV		0.433	U	PPBV		0.433	U	PPBV		0.433	U	PPBV		0.433	U	PPBV	3.84	0.433	D	PPBV		0.433	U	PPBV		0.433	U	PPBV		0.433	U	PPBV				
SV-01	9/9/2010																																						34		LT	FMP
SV-01	9/9/2010 10:12 AM	2																																								
SV-01	9/9/2010 10:36 AM	2		0.809	U	UG/M3		0.792	U	UG/M3		1.54	U	UG/M3		0.809	U	UG/M3		0.792	U	UG/M3		1.36	U	UG/M3		0.792	U	UG/M3		1.07	U	UG/M3		0.511	U	UG/M3				
SV-01	10/13/2010																																								
SV-02	9/9/2010																																						33.4		LT	FMP
SV-02	9/9/2010 1:52 PM	31																																								
SV-02	9/9/2010 2:05 PM	31		2.72	U	UG/M3		1.98	U	UG/M3		3.84	U	UG/M3		2.02	U	UG/M3		1.98	U	UG/M3	48.7	3.39	D	UG/M3		1.98	U	UG/M3		2.68	U	UG/M3		1.28	U	UG/M3				
SV-02	10/13/2010																																								
SV-03	9/9/2010																																								
SV-03	9/9/10 10:44 AM	0.5																																								
SV-03	9/9/10 11:10 AM	0.5		0.809	U	UG/M3		0.792	U	UG/M3		1.54	U	UG/M3		0.809	U	UG/M3		0.792	U	UG/M3		1.36	U	UG/M3		0.792	U	UG/M3		1.07	U	UG/M3		0.511	U	UG/M3				
SV-03	10/13/2010																																								
SV-04	9/9/2010																																						34		LT	FMP
SV-04	9/9/2010 3:19 PM	31																																								
SV-04	9/9/2010 3:38 PM	31		1.75	U	UG/M3		1.72	U	UG/M3		3.32	U	UG/M3		1.75	U	UG/M3		1.72	U	UG/M3	26.2	2.93	D	UG/M3		1.72	U	UG/M3		2.32	U	UG/M3		1.1	U	UG/M3				
SV-04	10/13/2010																																								
SV-05	9/9/2010																																						34		LT	FMP
SV-05	9/9/2010 3:21 PM	7																																								
SV-05	9/9/2010 3:36 PM	7		1.98	U	UG/M3		1.94	U	UG/M3		3.76	U	UG/M3		1.98	U	UG/M3		1.94	U	UG/M3		3.32	U	UG/M3		1.94	U	UG/M3		2.63	U	UG/M3		1.25	U	UG/M3				
SV-05	10/13/2010																																								
MAINE RESIDENTIAL MULTI-CONTAMINANT CHRONIC SOIL GAS TARGET (G-1)			75			UG/M3	2100			UG/M3	0.205			UG/M3	4.7			UG/M3	650			UG/M3	20.5			UG/M3	650			UG/M3	60			UG/M3	27.5			UG/M3				

Figures

Figure 1

Site Location Map



Name: AUGUSTA
Date: 7/16/2010
Scale: 1 inch equals 2000 feet

Location: 044° 19' 15.5" N 069° 46' 31.1" W
Caption: Figure 1: Site Location
Augusta Cumberland Farms
Augusta, Maine

Figure 2

Sample Location Map

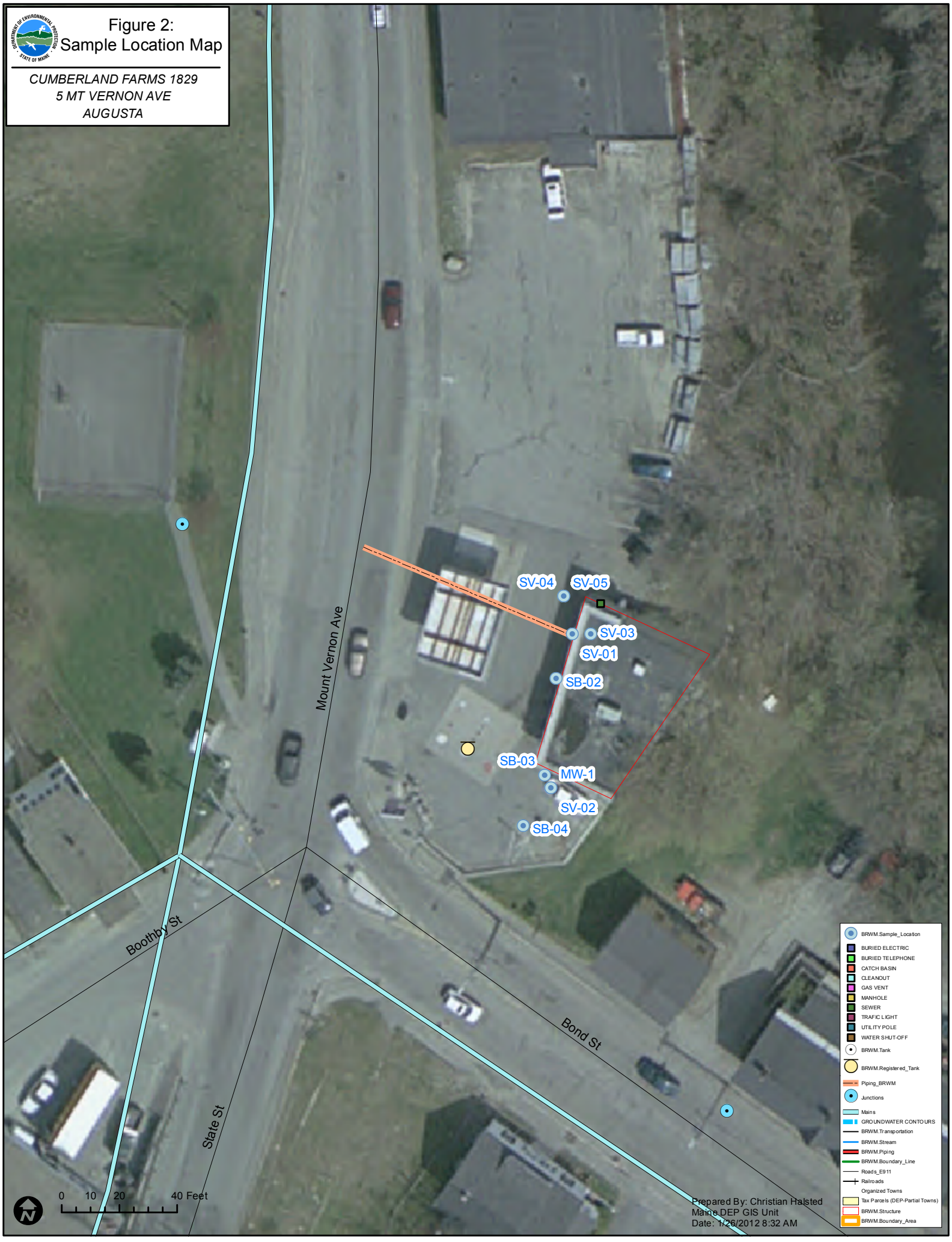


Figure 2:
Sample Location Map
CUMBERLAND FARMS 1829
5 MT VERNON AVE
AUGUSTA
SV-04
SV-05
SV-03
SV-01
SB-02
SB-03
MW-1
SV-02
SB-04
Mount Vernon Ave
Boothby St
Bond St
State St
0 10 20 40 Feet
Prepared By: Christian Halsted
Maine DEP GIS Unit
Date: 1/26/2012 8:32 AM
BRWM.Sample_Location
BURIED ELECTRIC
BURIED TELEPHONE
CATCH BASIN
CLEANOUT
GAS VENT
MANHOLE
SEWER
TRAFIC LIGHT
UTILITY POLE
WATER SHUT-OFF
BRWM.Tank
BRWM.Registered_Tank
Piping_BRWM
Junctions
Mains
GROUNDWATER CONTOURS
BRWM.Transportation
BRWM.Stream
BRWM.Piping
BRWM.Boundary_Line
Roads_E911
Railroads
Organized Towns
Tax Parcels (DEP-Partial Towns)
BRWM.Structure
BRWM.Boundary_Area

Appendices

Appendix A

Boring Logs and Monitoring Well Installation Log

SUMMIT

ENVIRONMENTAL CONSULTANTS, INC.
640 Main Street
Lewiston, Maine 04240

SOIL BORING LOG

Project:	VI Investigation	Boring #:	B1
Location:	Cumberland Farms	Project #:	10-3240
	Augusta, Maine	Sheet:	1 of 2
		Chkd by:	JKC

Drilling Co:	EPI	Boring Location:	
Personnel:	Dave & Todd		
Summit Staff:	JBR	Date started: 9/9/2010	Date Completed: 9/9/2010

DRILLING METHOD		SAMPLER	
Vehicle:	Geoprobe	Type:	Dual Tube
Model:	DT66	Hammer:	NA
Method:	Direct Push	Fall:	NA

ESTIMATED GROUND WATER DEPTH

Date	Depth	Reference	Stabilization

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	Blows/6 in.	SAMPLE DESCRIPTION	Stratum	Field Screening (ppmv)
	S1	48/9	0-4		Brown silt, fine sand and gravel, dry (Fill)		1.1
2							
4							
	S2	48/18	4-8		Olive-brown sand, silt, dry		0.6
6							
					Brick at bottom, dry (Fill)		
8							
	S3	48/36	8-12		Olive silt, moist		1.2
10							
12							
	S4	48/36	12-16		Same as S3, moist		1.0
14							
					Brown silt, fine SAND with gravel		
16							
	S5	48/27			Brown silt, fine SAND, dry		0.9
					Thin 1" silt layers		
18							
20							

Granular Soils		Cohesive Soils	
Blows/ft.	Density	Blows/ft.	Consistency
0-4	V. Loose	<2	V. soft
4-10	Loose	2-4	Soft
10-30	M.Dense	4-8	M. Soft
30-50	Dense	8-15	Stiff
>50	V. Dense	15-30	V. Stiff
		>30	Hard

% Composition	
1-10	trace
10-20	little
20-35	some
>35	and

NOTES:

1. Field screening results in parts per million by volume (ppmv).
2. All samples screened with a MiniRae 3000 field portable PID.

SUMMIT

ENVIRONMENTAL CONSULTANTS, INC.
640 Main Street
Lewiston, Maine 04240

SOIL BORING LOG

Project:	VI Investigation	Boring #:	B1
Location:	Cumberland Farms	Project #:	10-3240
	Augusta, Maine	Sheet:	2 of 2
		Chkd by:	JKC

Drilling Co:	EPI	Boring Location:	
Personnel:	Dave & Todd		
Summit Staff:	JBR	Date started: 9/9/2010	Date Completed: 9/9/2010

DRILLING METHOD		SAMPLER	
Vehicle:	Geoprobe	Type:	Dual Tube
Model:	DT66	Hammer:	NA
Method:	Direct Push	Fall:	NA

ESTIMATED GROUND WATER DEPTH

Date	Depth	Reference	Stabilization

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	Blows/6 in.	SAMPLE DESCRIPTION	Stratum	Field Screening (ppmv)
	S6	48/26	20-24		Brown silt, fine SAND with gravel, dry		0.5
					(Fill-like)		
22							
24							
	S7	48/26	24-28		Same as S6		0.9
26							
28							
	S3	36/20	28-31		Same as S6		0.9
30							
					Bottom of boring @31'		
32							
					Two SV probes installed:		
					SV-04 (7') and SV-05 (31')		
34							
36							
38							
40							

Granular Soils		Cohesive Soils		% Composition	
Blows/ft.	Density	Blows/ft.	Consistency		
0-4	V. Loose	<2	V. soft		
4-10	Loose	2-4	Soft	1-10	trace
10-30	M.Dense	4-8	M. Soft	10-20	little
30-50	Dense	8-15	Stiff	20-35	some
>50	V. Dense	15-30	V. Stiff	>35	and
		>30	Hard		

NOTES:

1. Field screening results in parts per million by volume (ppmv).
2. All samples screened with a MiniRae 3000 field portable PID.

SUMMIT

ENVIRONMENTAL CONSULTANTS, INC.
640 Main Street
Lewiston, Maine 04240

SOIL BORING LOG

Project:	VI Investigation	Boring #:	B2
Location:	Cumberland Farms	Project #:	10-3240
	Augusta, Maine	Sheet:	1 of 2
		Chkd by:	JKC

Drilling Co:	EPI	Boring Location:	
Personnel:	Dave & Todd		
Summit Staff:	JBR	Date started: 9/9/2010	Date Completed: 9/9/2010

DRILLING METHOD		SAMPLER	
Vehicle:	Geoprobe	Type:	Dual Tube
Model:	DT66	Hammer:	NA
Method:	Direct Push	Fall:	NA

ESTIMATED GROUND WATER DEPTH

Date	Depth	Reference	Stabilization

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	Blows/6 in.	SAMPLE DESCRIPTION	Stratum	Field Screening (ppmv)
	S1	48/24	0-4		Brown silt, SAND, little gravel, dry (Fill)		0.4
2							
					with silt and fine SAND @ bottom		
4							
	S2	48/16	4-8		Light olive silt, dry		0.5
6					Silt, SAND, trace gravel, dry with dark brown/black SAND (Fill)		
8							
	S3	48/2	8-12		Olive brown SILT, dry		1.1
10							
12							
	S4	48/1	12-16		Olive silt fine SAND		NS
14							
16							
	S5	48/24			Brown fine-medium SAND, dry		0.7
18							
20							

Granular Soils		Cohesive Soils		% Composition	
Blows/ft.	Density	Blows/ft.	Consistency		
0-4	V. Loose	<2	V. soft		
4-10	Loose	2-4	Soft	1-10	trace
10-30	M.Dense	4-8	M. Soft	10-20	little
30-50	Dense	8-15	Stiff	20-35	some
>50	V. Dense	15-30	V. Stiff	>35	and
		>30	Hard		

NOTES:

1. Field screening results in parts per million by volume (ppmv).
2. All samples screened with a MiniRae 3000 field portable PID.

SUMMIT

ENVIRONMENTAL CONSULTANTS, INC.
640 Main Street
Lewiston, Maine 04240

SOIL BORING LOG

Project:	VI Investigation	Boring #:	B2
Location:	Cumberland Farms	Project #:	10-3240
	Augusta, Maine	Sheet:	2 of 2
		Chkd by:	JKC

Drilling Co:	EPI	Boring Location:	
Personnel:	Dave & Todd		
Summit Staff:	JBR	Date started: 9/9/2010	Date Completed: 9/9/2010

DRILLING METHOD		SAMPLER	
Vehicle:	Geoprobe	Type:	Dual Tube
Model:	DT66	Hammer:	NA
Method:	Direct Push	Fall:	NA

ESTIMATED GROUND WATER DEPTH

Date	Depth	Reference	Stabilization

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	Blows/6 in.	SAMPLE DESCRIPTION	Stratum	Field Screening (ppmv)
	S6	48/24	20-24		Brown fine-medium SAND, trace silt and gravel, moist		0.8
22							
24							
	S7	48/27	24-28		Same as above		0.8
26							
28							
	S8	48/27	28-32		Same as above, dry		0.5
30					iron stains		
32							
					Bottom of boring @ 32'		
					Backfilled, no probe or well		
34							
36							
38							
40							

Granular Soils		Cohesive Soils		% Composition	
Blows/ft.	Density	Blows/ft.	Consistency		
0-4	V. Loose	<2	V. soft		
4-10	Loose	2-4	Soft	1-10	trace
10-30	M.Dense	4-8	M. Soft	10-20	little
30-50	Dense	8-15	Stiff	20-35	some
>50	V. Dense	15-30	V. Stiff	>35	and
		>30	Hard		

NOTES:

1. Field screening results in parts per million by volume (ppmv).
2. All samples screened with a MiniRae 3000 field portable PID.

SUMMIT

ENVIRONMENTAL CONSULTANTS, INC.
640 Main Street
Lewiston, Maine 04240

SOIL BORING LOG

Project:	VI Investigation	Boring #:	B3/MW-1
Location:	Cumberland Farms	Project #:	10-3240
	Augusta, Maine	Sheet:	1 of 3
		Chkd by:	JKC

Drilling Co:	EPI	Boring Location:	
Personnel:	Dave & Todd		
Summit Staff:	JBR	Date started: 9/9/2010	Date Completed: 9/9/2010

DRILLING METHOD		SAMPLER	
Vehicle:	Geoprobe	Type:	Dual Tube
Model:	DT66	Hammer:	NA
Method:	Direct Push	Fall:	NA

ESTIMATED GROUND WATER DEPTH

Date	Depth	Reference	Stabilization

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	Blows/6 in.	SAMPLE DESCRIPTION	Stratum	Field Screening (ppmv)
	S1	48/18	0-4		Gray silty SAND with gravel dry (Fill)		0.3
2							
4							
	S2	48/30	4-8		Brown silty SAND with gravel		0.6
					Black silt @ 5' (Fill)		
6					Red/orange silt Fine SAND @ bottom dry		
					no odor		
8							
	S3	48/30	8-12		Olive silt Fine SAND, moist		0.3
10					Olive SILT dry/moist		
					Light brown Fine SAND		
12							
	S4	48/30	12-16		Light brown silt Fine-Very Fine SAND, dry		0.4
14							
16							
	S5	48/10	16-20		Light brown Fine SAND, dry		0.6
18					Same as S5 with gravel		
20							

Granular Soils		Cohesive Soils	
Blows/ft.	Density	Blows/ft.	Consistency
0-4	V. Loose	<2	V. soft
4-10	Loose	2-4	Soft
10-30	M.Dense	4-8	M. Soft
30-50	Dense	8-15	Stiff
>50	V. Dense	15-30	V. Stiff
		>30	Hard

% Composition	
1-10	trace
10-20	little
20-35	some
>35	and

NOTES:

1. Field screening results in parts per million by volume (ppmv).
2. All samples screened with a MiniRae 3000 field portable PID.

SUMMIT

ENVIRONMENTAL CONSULTANTS, INC.
640 Main Street
Lewiston, Maine 04240

SOIL BORING LOG

Project:	VI Investigation	Boring #:	B3/MW-1
Location:	Cumberland Farms	Project #:	10-3240
	Augusta, Maine	Sheet:	2 of 3
		Chkd by:	JKC

Drilling Co:	EPI	Boring Location:	
Personnel:	Dave & Todd		
Summit Staff:	JBR	Date started: 9/9/2010	Date Completed: 9/9/2010

DRILLING METHOD		SAMPLER	
Vehicle:	Geoprobe	Type:	Dual Tube
Model:	DT66	Hammer:	NA
Method:	Direct Push	Fall:	NA

ESTIMATED GROUND WATER DEPTH

Date	Depth	Reference	Stabilization

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	Blows/6 in.	SAMPLE DESCRIPTION	Stratum	Field Screening (ppmv)
	S6	48/9	20-24		Light brown SAND with gravel, trace silt, dry		0.3
22							
24							
	S7	48/9	24-28		Same as S6 with large gravel @ bottom, dry		0.6
26							
					Dark brown silt @ 27' (~1")		
28							
	S8	48/9	28-32		Same as S7		0.5
					Medium brown iron staining		
30							
32							
	S9	48/9	32-36		Brown silty SAND with gravel, iron stains, dry		0.9
34							
36							
	S10	48/0	36-40		No recovery		No sample
38							
40							

Granular Soils		Cohesive Soils	
Blows/ft.	Density	Blows/ft.	Consistency
0-4	V. Loose	<2	V. soft
4-10	Loose	2-4	Soft
10-30	M.Dense	4-8	M. Soft
30-50	Dense	8-15	Stiff
>50	V. Dense	15-30	V. Stiff
		>30	Hard

% Composition	
1-10	trace
10-20	little
20-35	some
>35	and

NOTES:

1. Field screening results in parts per million by volume (ppmv).
2. All samples screened with a MiniRae 3000 field portable PID.

SUMMIT

ENVIRONMENTAL CONSULTANTS, INC.
640 Main Street
Lewiston, Maine 04240

SOIL BORING LOG

Project:	VI Investigation	Boring #:	B3/MW-1
Location:	Cumberland Farms	Project #:	10-3240
	Augusta, Maine	Sheet:	3 of 3
		Chkd by:	JKC

Drilling Co:	EPI	Boring Location:	
Personnel:	Dave & Todd		
Summit Staff:	JBR	Date started: 9/9/2010	Date Completed: 9/9/2010

DRILLING METHOD		SAMPLER	
Vehicle:	Geoprobe	Type:	Dual Tube
Model:	DT66	Hammer:	NA
Method:	Direct Push	Fall:	NA

ESTIMATED GROUND WATER DEPTH

Date	Depth	Reference	Stabilization

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	Blows/6 in.	SAMPLE DESCRIPTION	Stratum	Field Screening (ppmv)
	S11	48/0	40-44		No recovery		No sample
42							
44							
	S12	48/0	44-48		No recovery		No sample
46							
48							
					Bottom of boring @ 48'		
					Well set @ 44.9', screen 29.9 to 44.9'		
50							
52							
54							
56							
58							
60							

Granular Soils		Cohesive Soils		% Composition	
Blows/ft.	Density	Blows/ft.	Consistency		
0-4	V. Loose	<2	V. soft		
4-10	Loose	2-4	Soft	1-10	trace
10-30	M.Dense	4-8	M. Soft	10-20	little
30-50	Dense	8-15	Stiff	20-35	some
>50	V. Dense	15-30	V. Stiff	>35	and
		>30	Hard		

NOTES:

1. Field screening results in parts per million by volume (ppmv).
2. All samples screened with a MiniRae 3000 field portable PID.

SUMMIT

ENVIRONMENTAL CONSULTANTS, INC.
640 Main Street
Lewiston, Maine 04240

SOIL BORING LOG

Project:	VI Investigation	Boring #:	B4
Location:	Cumberland Farms	Project #:	10-3240
	Augusta, Maine	Sheet:	1 of 2
		Chkd by:	JKC

Drilling Co:	EPI	Boring Location:	
Personnel:	Dave & Todd		
Summit Staff:	JBR	Date started: 9/9/2010	Date Completed: 9/9/2010

DRILLING METHOD		SAMPLER	
Vehicle:	Geoprobe	Type:	Dual Tube
Model:	DT66	Hammer:	NA
Method:	Direct Push	Fall:	NA

ESTIMATED GROUND WATER DEPTH

Date	Depth	Reference	Stabilization

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	Blows/6 in.	SAMPLE DESCRIPTION	Stratum	Field Screening (ppmv)
	S1	48/16	0-4		Brown, gray Fine SAND and gravel, dry (Fill)		1.0
2							
4							
	S2	48/36	4-8		Light brown silty Fine SAND		1.0
					Dark brown silty SAND		
6					Olive brown SAND, silt, moist		
8							
	S3	48/36	8-12		Olive brown Fine sandy SILT, moist (perched)		0.8
10							
					Lense of Fine-medium SAND @ bottom (2")		
12							
	S4	48/36	12-16		Olive SILT, saturated @ top		0.8
14					Light brown Fine-medium SAND, dry		
16							
	S5	48/27			Brown Fine SAND and GRAVEL, dry trace silt		0.8
18							
20							

Granular Soils		Cohesive Soils		% Composition	
Blows/ft.	Density	Blows/ft.	Consistency		
0-4	V. Loose	<2	V. soft		
4-10	Loose	2-4	Soft	1-10	trace
10-30	M.Dense	4-8	M. Soft	10-20	little
30-50	Dense	8-15	Stiff	20-35	some
>50	V. Dense	15-30	V. Stiff	>35	and
		>30	Hard		

NOTES:

1. Field screening results in parts per million by volume (ppmv).
2. All samples screened with a MiniRae 3000 field portable PID.

SUMMIT

ENVIRONMENTAL CONSULTANTS, INC.
640 Main Street
Lewiston, Maine 04240

SOIL BORING LOG

Project:	VI Investigation	Boring #:	B4
Location:	Cumberland Farms	Project #:	10-3240
	Augusta, Maine	Sheet:	2 of 2
		Chkd by:	JKC

Drilling Co:	EPI	Boring Location:	
Personnel:	Dave & Todd		
Summit Staff:	JBR	Date started: 9/9/2010	Date Completed: 9/9/2010

DRILLING METHOD		SAMPLER	
Vehicle:	Geoprobe	Type:	Dual Tube
Model:	DT66	Hammer:	NA
Method:	Direct Push	Fall:	NA

ESTIMATED GROUND WATER DEPTH

Date	Depth	Reference	Stabilization

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	Blows/6 in.	SAMPLE DESCRIPTION	Stratum	Field Screening (ppmv)
	S6	48/27	20-24		Brown SAND and GRAVEL, trace silt, dry		0.5
22							
24							
	S7	24/10	24-26		Same as S6		0.5
26							
					Refusal @ 26'		
28							
	S3	36/20	28-31		Same as S6		0.9
30							
					Bottom of boring @31'		
32							
					Two SV probes installed:		
					SV-04 (7') and SV-05 (31')		
34							
36							
38							
40							

Granular Soils		Cohesive Soils	
Blows/ft.	Density	Blows/ft.	Consistency
0-4	V. Loose	<2	V. soft
4-10	Loose	2-4	Soft
10-30	M.Dense	4-8	M. Soft
30-50	Dense	8-15	Stiff
>50	V. Dense	15-30	V. Stiff
		>30	Hard

% Composition	
1-10	trace
10-20	little
20-35	some
>35	and

NOTES:

1. Field screening results in parts per million by volume (ppmv).
2. All samples screened with a MiniRae 3000 field portable PID.

SUMMIT

ENVIRONMENTAL CONSULTANTS, INC.
640 Main Street
lewiston, Maine 04240

WELL COMPLETION LOG

Project:	VI Investigation	Well #:	MW-1
Location:	Cumberland Farms	Project #:	10-3240
	Augusta, Maine	Sheet:	1 of 1
		Chkd by:	JKC

Drilling Co: *EPI*
Foreman: Dionne
Summit Staff: JBR

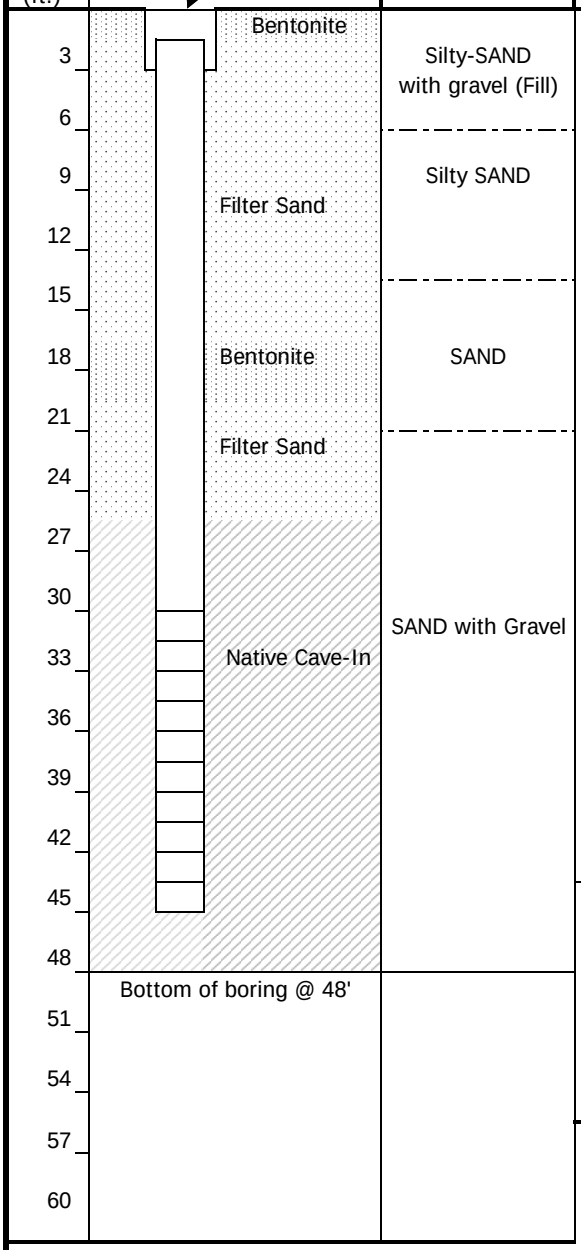
Well Location: East of USTs

Date started: 9/9/2010 Date Completed: 9/9/2010

REFERENCE ELEVATIONS
Surveyor: N/A
Reference (MSL or TBM):
Top of Protective Casing:
Top of inner casing:
Ground Surface:

GW ELEVATIONS

Date	Elevation
9/9/2010	34' BGS



WELL CONSTRUCTION DETAILS

PROTECTIVE CASING

Type (Standpipe or roadbox):	roadbox
Diameter (in.):	6"
Length (in.):	8"
Concrete Seal (gal):	1.5

WELL CASING AND SCREEN

	Riser	Screen
Material:	PVC	PVC
Schedule:	40	40
Diameter (in.):	1"	1"
Length (ft):	29.9	15.0
Interval below ground surface (ft):	0-29.9	29.9-44.9
Slot size (in.):		0.1

FILTER AND SEAL MATERIALS

	Filter	Seal
Type:	sand	bentonite
Size:		
Quantity (lbs.):		
Interval below ground surface (ft):	0-17, 17-25	17-20

GROUT

Type (filter sand, bentonite, etc.):	bentonite
Quantity (gal. or lbs.):	1 lb
Interval below ground surface (ft.):	1-2'

WELL DEVELOPMENT DETAILS

Water level from measuring point (ft):	34
Depth of well from measuring point (ft):	44.9
Total feet of water:	10.90
Volume of water (gal):	1.394
Volume of water evacuated:	1.5 gallons
Method of development:	Waterra

NOTES:

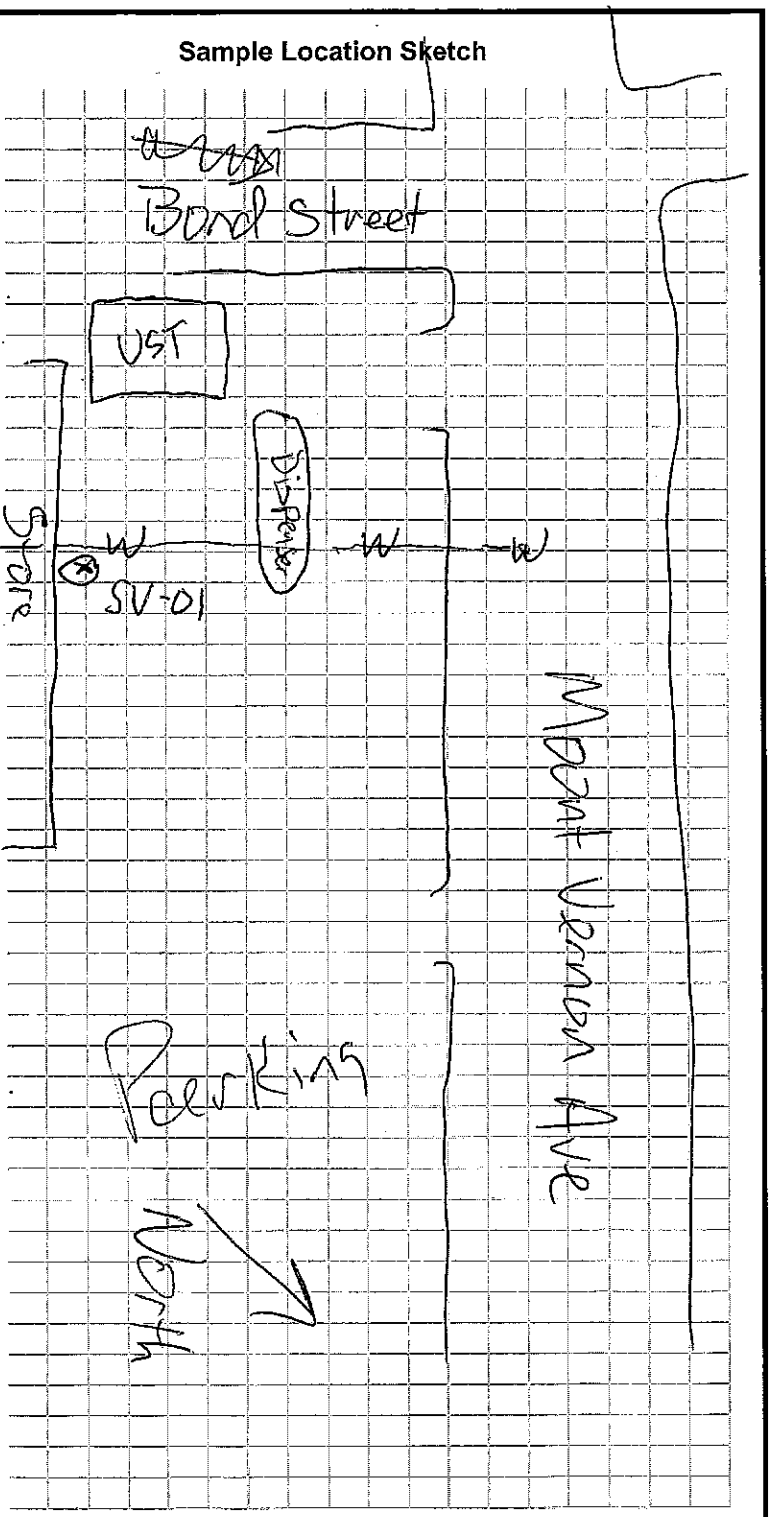
Appendix B

Field Data Sheets

Soil Gas Sampling Field Sheet
Maine DEP

Site Name:	Cumberland Farms
Town:	Augusta
Date:	9/9/10
Sample I.D.:	SV-01
Sampling Purpose	(Source) (Utility) (Migration) (Receptor) (Other)
Sampling Personnel:	TTS/JC
Project Manager	Eremita
Collection Device:	(Summa Can) (Tedlar Bag)
Sample Penetration Location:	(Ashphalt) (Concrete) (Soil)
Soil Type:	(Fill) (Till) (Sand & Gravel) (Glacial Marine)
Sample Depth:	2'
Depth to Water:	34'
Suspected COCs:	(Petroleum) (Solvents)
Cannister I.D.:	402
Flow Control I.D.:	144
Flow control rate:	95
O_2 Ambient	20.9%
CO_2 Ambient	0.76%
subsurface pressure/vacuum	(+/- inches of water column)
Pre-Sample: O_2	19%
Pre-Sample CO_2 :	5%
Pre-Sample PID:	0.5 ppm
Pre-Sample CH_4:	0% (% Volume, %LEL, PPM)
Sample Initiation Time:	10:12
Initial Vacuum:	-29" Hg
Sample End Time:	10:36
Final Vaccum:	-2
Post Sample O_2 :	18.7 ~~19.0~~%
Post Sample CO_2:	5.00 %

Sample Location Sketch

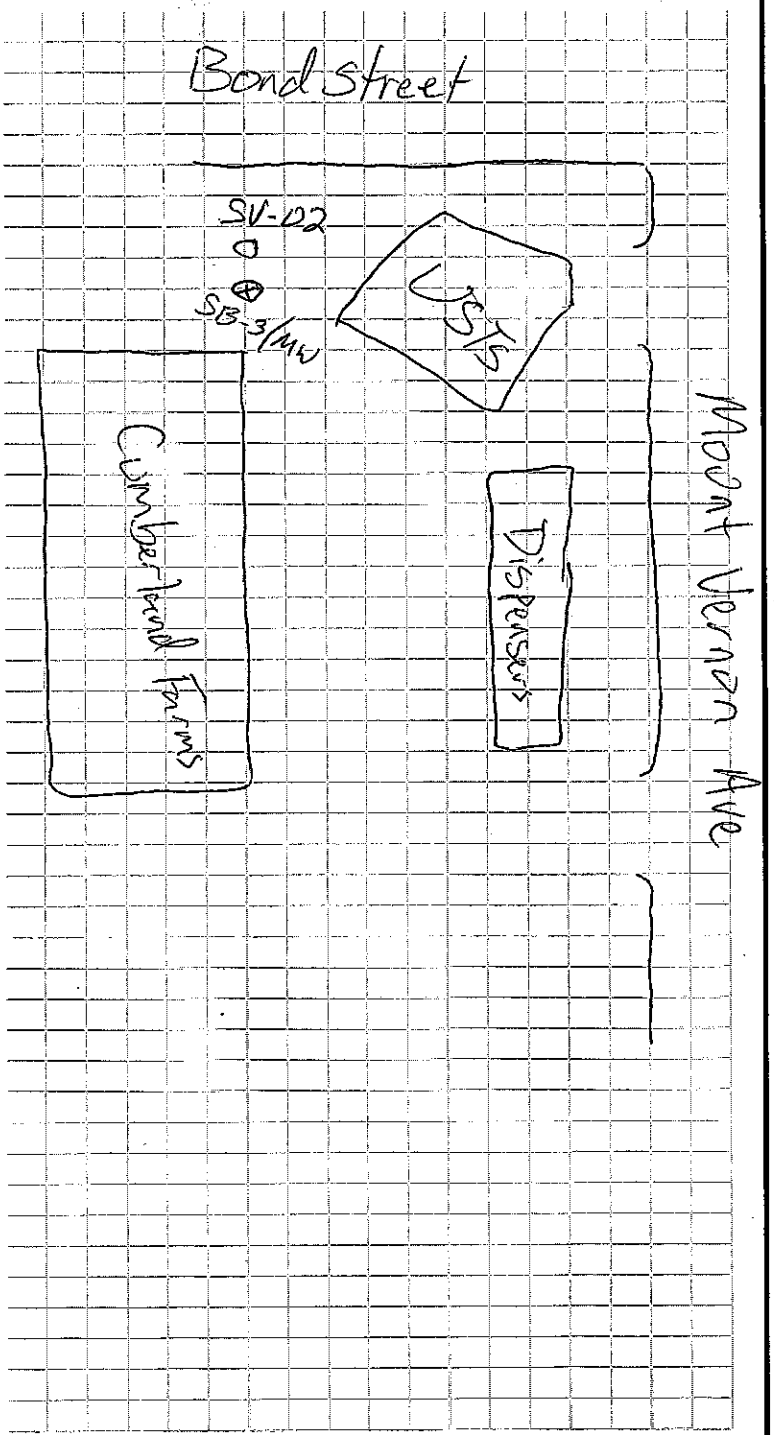


Notes: SV-01 is in Sand + gravel Backfill for Waterline That runs under dispensers

Soil Gas Sampling Field Sheet
Maine DEP

Site Name:	Cumberland Farms
Town:	Augusta
Date:	9/9/10
Sample I.D.:	SV-02
Sampling Purpose	(Source) (Utility) (Migration) (Receptor) (Other)
Sampling Personnel:	TS/JC
Project Manager	Eremita
Collection Device:	(Summa Can) (Tedlar Bag)
Sample Penetration Location:	(Ashphalt) (Concrete) (Soil)
Soil Type:	(Fill) (Till) (Sand & Gravel) (Glacial Marine)
Sample Depth:	31'
Depth to Water:	33.4'
Suspected COCs:	(Petroleum) (Solvents)
Cannister I.D.:	455
Flow Control I.D.:	158
Flow control rate:	~~[illegible]~~ NA
O_2 Ambient	20.8 %
CO_2 Ambient	0.49%
subsurface pressure/vacuum	— (+/- inches of water column)
Pre-Sample: O_2	13.5%
Pre-Sample CO_2 :	5.00
Pre-Sample PID:	2.0 ppm
Pre-Sample CH_4:	0 (% Volume, %LEL, PPM)
Sample Initiation Time:	1:52
Initial Vacuum:	-30+" Hg
Sample End Time:	2:05
Final Vaccum:	-5 " Hg
Post Sample O_2 :	13.4%
Post Sample CO_2:	5.00 %

Sample Location Sketch



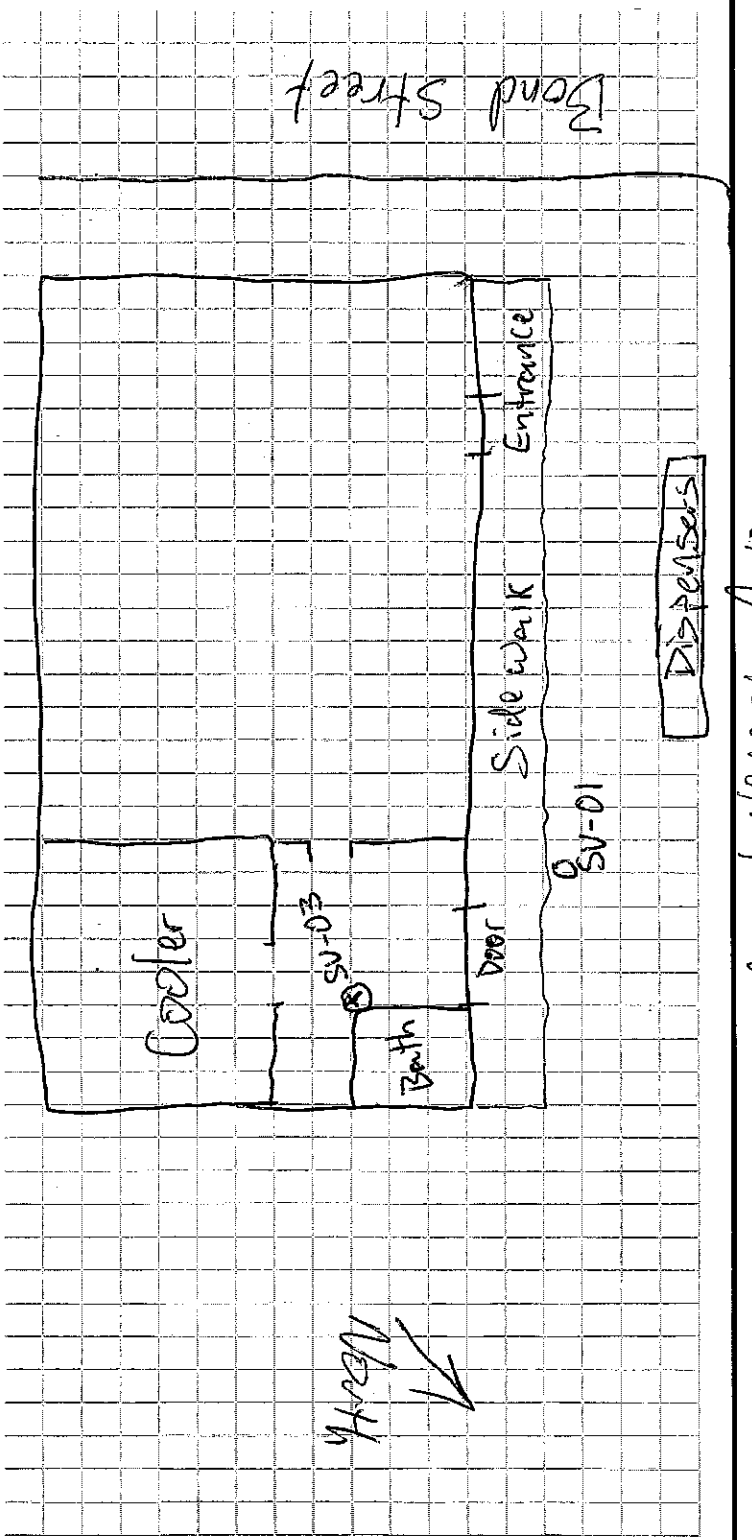
CO = 28 ppm

Notes:

Indoor Air/Subslab Sampling Field Sheet
Maine DEP

Site Name:	Cumberland Farms
Town:	Augusta
Date:	9/9/10
Sample I.D.:	SV-03
Project Manager:	Eremita
Sampling Personnel:	JC/TS
Collection Device:	(Summa Can) (Tedlar Bag)
Sample Type:	(Subslab) (Indoor Air)
Sampling Location:	Utility Room
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.:	235
Flow Control I.D.:	270
Flow control rate:	100
O_2 Ambient	20.8%
CO_2 Ambient	1.00%
Pre-Sample: O_2	19.6 %
Pre-Sample CO_2 :	5.0 %
Pre-Sample PID:	0.1 PPM
Pre-Sample CH_4:	0 %
Sample Initiation Time:	10:44
Initial Vacuum:	-30 " Hg
Sample End Time:	11:10
Final Vaccum:	-2 " Hg
Post Sample O_2 :	19.16 %
Post Sample CO_2:	5.00 %

Sample Location Sketch



Notes/Observations:

10½" Cement Floor thickness

Soil Gas Sampling Field Sheet
Maine DEP

Site Name:	Cumberland Farms
Town:	Augusta
Date:	9/9/10
Sample I.D.:	SV-05
Sampling Purpose	(Source) (Utility) (Migration) (Receptor) (Other)
Sampling Personnel:	MZ/JC
Project Manager	Eremita
Collection Device:	(Summa Can) (Tedlar Bag)
Sample Penetration Location:	(Ashphalt) (Concrete) (Soil)
Soil Type:	(Fill) (Till) (Sand & Gravel) (Glacial Marine)
Sample Depth:	7'
Depth to Water:	34'
Suspected COCs:	(Petroleum) (Solvents)
Cannister I.D.:	887
Flow Control I.D.:	0182
Flow control rate:	100 ml/min
O_2 Ambient	20.8 %
CO_2 Ambient	0.49 %
subsurface pressure/vacuum	— (+/- inches of water column)
Pre-Sample: O_2	19 %
Pre-Sample CO_2 :	5 %
Pre-Sample PID:	0.7 ppm
Pre-Sample CH_4:	0 (% Volume, %LEL, PPM)
Sample Initiation Time:	(MZ) ~~3:19 pm~~ 3:21 pm
Initial Vacuum:	(MZ) ~~30 in Hg~~ -29 in Hg*
Sample End Time:	3:36 pm
Final Vaccum:	-4 in Hg
Post Sample O_2 :	17.3 %
Post Sample CO_2:	5 %

Sample Location Sketch

See SV-04

pre sample CO = 7 ppm

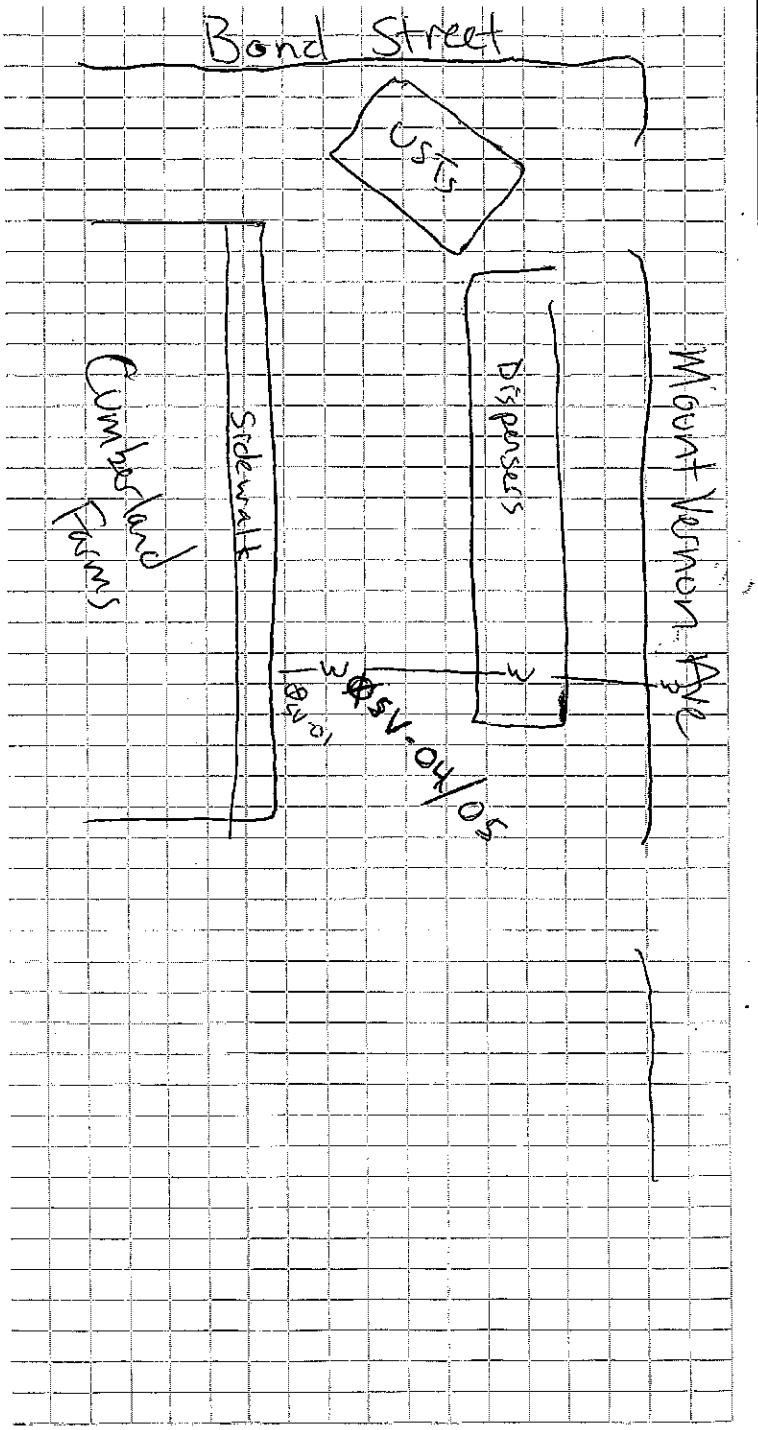
*tubing has wire tie on it long tubing

Notes:
post sample CO = 15 ppm
post sample CH_4 = 0

Soil Gas Sampling Field Sheet
Maine DEP

Site Name:	Cumberland Farms
Town:	Augusta
Date:	9/9/10
Sample I.D.:	SV-04
Sampling Purpose	(Source) (Utility) (Migration) (Receptor) (Other)
Sampling Personnel:	MZ/JC
Project Manager	Eremita
Collection Device:	(Summa Can) (Tedlar Bag)
Sample Penetration Location:	(Ashphalt) (Concrete) (Soil)
Soil Type:	(Fill) (Till) (Sand & Gravel) (Glacial Marine)
Sample Depth:	31'
Depth to Water:	34'
Suspected COCs:	(Petroleum) (Solvents)
Cannister I.D.:	1054
Flow Control I.D.:	0412
Flow control rate:	100 ml/min
O_2 Ambient	20.8%
CO_2 Ambient	0.49%
subsurface pressure/vacuum	— (+/- inches of water column)
Pre-Sample: O_2	14.4
Pre-Sample CO_2 :	5
Pre-Sample PID:	1.4 ppm
Pre-Sample CH_4:	0 (% Volume, %LEL, PPM)
Sample Initiation Time:	3:19pm
Initial Vacuum:	-30 in Hg
Sample End Time:	3:38pm
Final Vaccum:	-4 in Hg
Post Sample O_2 :	12.7%
Post Sample CO_2:	5%

Sample Location Sketch



pre-sample CO - 26ppm

Notes:

short tubing

post sample CO = 25ppm
post sample CH_4 = 0

Appendix C

Laboratory Reports

ANALYTICAL REPORT

Lab Number:	L1014293
Client:	Summit Environmental 434 Cony Road Augusta, ME 04330
ATTN:	John Cressey
Phone:	(207) 621-8334
Project Name:	AUGUSTA CUMBERLAND FARMS
Project Number:	Not Specified
Report Date:	09/21/10

Certifications & Approvals: MA (M-MA030), NY (11627), CT (PH-0141), NH (2206), NJ (MA015), RI (LAO00299), ME (MA0030), PA (Registration #68-02089), LA NELAC (03090), FL NELAC (E87814), US Army Corps of Engineers.

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

Project Name: AUGUSTA CUMBERLAND FARMS
Project Number: Not Specified

Lab Number: L1014293
Report Date: 09/21/10

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1014293-01	SV-04	AUGUSTA, ME	09/09/10 15:38
L1014293-02	SV-05	AUGUSTA, ME	09/09/10 15:36
L1014293-03	SV-02	AUGUSTA, ME	09/09/10 14:05
L1014293-04	SV-03	AUGUSTA, ME	09/09/10 11:10
L1014293-05	SV-01	AUGUSTA, ME	09/09/10 10:36

Project Name: AUGUSTA CUMBERLAND FARMS **Lab Number:** L1014293

Project Number: Not Specified **Report Date:** 09/21/10

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	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

A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	YES
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES

For any questions answered "No", please refer to the case narrative section on the following page(s).

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

Project Name: AUGUSTA CUMBERLAND FARMS **Lab Number:** L1014293
Project Number: Not Specified **Report Date:** 09/21/10

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. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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.

For additional information, please contact Client Services at 800-624-9220.

MCP Related Narratives

Canisters were released from the laboratory on August 23, 25, and 27, 2010.

The canister certification data is provided as an addendum.

The internal standards were within method criteria.

Volatile Organics in Air (Low Level)

L1014293-01, -02 and WG432800-5 Duplicate: Prior to sample analysis, the canisters were pressurized with UHP Nitrogen due to canister size. The pressurization resulted in a dilution of the sample. The reporting limits have been elevated accordingly.

L1014293-03 has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

Project Name: AUGUSTA CUMBERLAND FARMS **Lab Number:** L1014293
Project Number: Not Specified **Report Date:** 09/21/10

Case Narrative (continued)

Petroleum Hydrocarbons in Air

L1014293-01, -02, and WG432801-5 Duplicate: Prior to sample analysis, the canisters were pressurized with UHP Nitrogen due to canister size. The pressurization resulted in a dilution of the sample. The reporting limits have been elevated accordingly.

L1014293-03 has elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the sample.

Fixed Gas

L1014293-01 through -05: Prior to sample analysis, the canisters were pressurized with UHP Nitrogen in order to facilitate the transfer of sample to the Gas Chromatograph. The addition of Nitrogen resulted in a dilution of the sample. The reporting limits have been elevated accordingly.

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: 09/21/10

AIR

Project Name: AUGUSTA CUMBERLAND FARMS ***Lab Number:*** L1014293

Project Number: Not Specified ***Report Date:*** 09/21/10

SAMPLE RESULTS

Lab ID:	L1014293-01	D	Date Collected:	09/09/10 15:38
Client ID:	SV-04		Date Received:	09/14/10
Sample Location:	AUGUSTA, ME		Field Prep:	Not Specified
Matrix:	Soil_Vapor			
Anaytical Method:	48,TO-15			
Analytical Date:	09/16/10 21:47			
Analyst:	RY			

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Vinyl chloride	ND	0.433	--	ND	1.10	--		2.165
1,1-Dichloroethene	ND	0.433	--	ND	1.72	--		2.165
trans-1,2-Dichloroethene	ND	0.433	--	ND	1.72	--		2.165
1,1-Dichloroethane	ND	0.433	--	ND	1.75	--		2.165
cis-1,2-Dichloroethene	ND	0.433	--	ND	1.72	--		2.165
1,2-Dichloroethane	ND	0.433	--	ND	1.75	--		2.165
1,1,1-Trichloroethane	ND	0.433	--	ND	2.36	--		2.165
Trichloroethene	ND	0.433	--	ND	2.32	--		2.165
1,2-Dibromoethane	ND	0.433	--	ND	3.32	--		2.165
Tetrachloroethene	3.87	0.433	--	26.2	2.93	--		2.165

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	99		60-140
Bromochloromethane	99		60-140
chlorobenzene-d5	101		60-140

Project Name: AUGUSTA CUMBERLAND FARMS ***Lab Number:*** L1014293

Project Number: Not Specified ***Report Date:*** 09/21/10

SAMPLE RESULTS

Lab ID: L1014293-02 D
Client ID: SV-05
Sample Location: AUGUSTA, ME
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 09/16/10 22:58
Analyst: RY

Date Collected: 09/09/10 15:36
Date Received: 09/14/10
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Vinyl chloride	ND	0.490	--	ND	1.25	--		2.451
1,1-Dichloroethene	ND	0.490	--	ND	1.94	--		2.451
trans-1,2-Dichloroethene	ND	0.490	--	ND	1.94	--		2.451
1,1-Dichloroethane	ND	0.490	--	ND	1.98	--		2.451
cis-1,2-Dichloroethene	ND	0.490	--	ND	1.94	--		2.451
1,2-Dichloroethane	ND	0.490	--	ND	1.98	--		2.451
1,1,1-Trichloroethane	ND	0.490	--	ND	2.67	--		2.451
Trichloroethene	ND	0.490	--	ND	2.63	--		2.451
1,2-Dibromoethane	ND	0.490	--	ND	3.76	--		2.451
Tetrachloroethene	ND	0.490	--	ND	3.32	--		2.451

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	86		60-140
Bromochloromethane	91		60-140
chlorobenzene-d5	89		60-140

Project Name: AUGUSTA CUMBERLAND FARMS ***Lab Number:*** L1014293

Project Number: Not Specified ***Report Date:*** 09/21/10

SAMPLE RESULTS

Lab ID: L1014293-03 D
Client ID: SV-02
Sample Location: AUGUSTA, ME
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 09/16/10 23:32
Analyst: RY

Date Collected: 09/09/10 14:05
Date Received: 09/14/10
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air (Low Level) - Mansfield Lab								
Vinyl chloride	ND	0.500	--	ND	1.28	--		2.5
1,1-Dichloroethene	ND	0.500	--	ND	1.98	--		2.5
trans-1,2-Dichloroethene	ND	0.500	--	ND	1.98	--		2.5
1,1-Dichloroethane	ND	0.500	--	ND	2.02	--		2.5
cis-1,2-Dichloroethene	ND	0.500	--	ND	1.98	--		2.5
1,2-Dichloroethane	ND	0.500	--	ND	2.02	--		2.5
1,1,1-Trichloroethane	ND	0.500	--	ND	2.72	--		2.5
Trichloroethene	ND	0.500	--	ND	2.68	--		2.5
1,2-Dibromoethane	ND	0.500	--	ND	3.84	--		2.5
Tetrachloroethene	7.19	0.500	--	48.7	3.39	--		2.5

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	92		60-140
Bromochloromethane	95		60-140
chlorobenzene-d5	97		60-140

Project Name: AUGUSTA CUMBERLAND FARMS
Lab Number: L1014293
Project Number: Not Specified
Report Date: 09/21/10

SAMPLE RESULTS

Lab ID: L1014293-04
Client ID: SV-03
Sample Location: AUGUSTA, ME
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 09/17/10 00:08
Analyst: RY

Date Collected: 09/09/10 11:10
Date Received: 09/14/10
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.792	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.792	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.792	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	96		60-140
Bromochloromethane	99		60-140
chlorobenzene-d5	94		60-140

Project Name: AUGUSTA CUMBERLAND FARMS ***Lab Number:*** L1014293

Project Number: Not Specified ***Report Date:*** 09/21/10

SAMPLE RESULTS

Lab ID: L1014293-05
Client ID: SV-01
Sample Location: AUGUSTA, ME
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 09/17/10 00:42
Analyst: RY

Date Collected: 09/09/10 10:36
Date Received: 09/14/10
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.792	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.792	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.792	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	90		60-140
Bromochloromethane	95		60-140
chlorobenzene-d5	110		60-140

Project Name: AUGUSTA CUMBERLAND FARMS
Lab Number: L1014293
Project Number: Not Specified
Report Date: 09/21/10

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 09/16/10 17:06

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air (Low Level) - Mansfield Lab for sample(s): 01-05 Batch: WG432800-4								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.792	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.792	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.792	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1

Lab Control Sample Analysis

Batch Quality Control

Project Name: AUGUSTA CUMBERLAND FARMS
Project Number: Not Specified

Lab Number: L1014293
Report Date: 09/21/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air (Low Level) - Mansfield Lab Associated sample(s): 01-05 Batch: WG432800-3								
Vinyl chloride	97		-		70-130	-		
1,1-Dichloroethene	98		-		70-130	-		
trans-1,2-Dichloroethene	89		-		70-130	-		
1,1-Dichloroethane	90		-		70-130	-		
cis-1,2-Dichloroethene	94		-		70-130	-		
1,2-Dichloroethane	97		-		70-130	-		
1,1,1-Trichloroethane	94		-		70-130	-		
Trichloroethene	96		-		70-130	-		
1,2-Dibromoethane	94		-		70-130	-		
Tetrachloroethene	96		-		70-130	-		

Lab Duplicate Analysis
Batch Quality Control

Project Name: AUGUSTA CUMBERLAND FARMS
Project Number: Not Specified

Lab Number: L1014293
Report Date: 09/21/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air (Low Level) - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG432800-5 QC Sample: L1014293-01 Client ID: SV-04						
Vinyl chloride	ND	ND	ppbV	NC		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1-Dichloroethane	ND	ND	ppbV	NC		25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
1,1,1-Trichloroethane	ND	ND	ppbV	NC		25
Trichloroethene	ND	ND	ppbV	NC		25
1,2-Dibromoethane	ND	ND	ppbV	NC		25
Tetrachloroethene	3.87	3.84	ppbV	1		25

Project Name: AUGUSTA CUMBERLAND FARMS
Lab Number: L1014293
Project Number: Not Specified
Report Date: 09/21/10

SAMPLE RESULTS

Lab ID:	L1014293-01	D	Date Collected:	09/09/10 15:38
Client ID:	SV-04		Date Received:	09/14/10
Sample Location:	AUGUSTA, ME		Field Prep:	Not Specified
Matrix:	Soil_Vapor		Extraction Method:	
Analytical Method:	51,3C			
Analytical Date:	09/17/10 17:15			
Analyst:	RY			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Fixed Gases by GC - Mansfield Lab						
Oxygen	11.7		%	2.16	--	2.165
Methane	ND		%	0.216	--	2.165
Carbon Dioxide	2.85		%	0.216	--	2.165

Project Name: AUGUSTA CUMBERLAND FARMS
Lab Number: L1014293
Project Number: Not Specified
Report Date: 09/21/10

SAMPLE RESULTS

Lab ID:	L1014293-02	D	Date Collected:	09/09/10 15:36
Client ID:	SV-05		Date Received:	09/14/10
Sample Location:	AUGUSTA, ME		Field Prep:	Not Specified
Matrix:	Soil_Vapor		Extraction Method:	
Analytical Method:	51,3C			
Analytical Date:	09/17/10 17:56			
Analyst:	RY			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Fixed Gases by GC - Mansfield Lab						
Oxygen	15.2		%	2.45	--	2.452
Methane	ND		%	0.245	--	2.452
Carbon Dioxide	2.81		%	0.245	--	2.452

Project Name: AUGUSTA CUMBERLAND FARMS
Lab Number: L1014293
Project Number: Not Specified
Report Date: 09/21/10

SAMPLE RESULTS

Lab ID:	L1014293-03	D	Date Collected:	09/09/10 14:05
Client ID:	SV-02		Date Received:	09/14/10
Sample Location:	AUGUSTA, ME		Field Prep:	Not Specified
Matrix:	Soil_Vapor		Extraction Method:	
Analytical Method:	51,3C			
Analytical Date:	09/17/10 18:37			
Analyst:	RY			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Fixed Gases by GC - Mansfield Lab						
Oxygen	11.4		%	1.56	--	1.557
Methane	ND		%	0.156	--	1.557
Carbon Dioxide	1.98		%	0.156	--	1.557

Project Name: AUGUSTA CUMBERLAND FARMS
Lab Number: L1014293
Project Number: Not Specified
Report Date: 09/21/10

SAMPLE RESULTS

Lab ID:	L1014293-04	D	Date Collected:	09/09/10 11:10
Client ID:	SV-03		Date Received:	09/14/10
Sample Location:	AUGUSTA, ME		Field Prep:	Not Specified
Matrix:	Soil_Vapor		Extraction Method:	
Analytical Method:	51,3C			
Analytical Date:	09/17/10 19:18			
Analyst:	RY			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Fixed Gases by GC - Mansfield Lab						
Oxygen	17.9		%	1.58	--	1.581
Methane	ND		%	0.158	--	1.581
Carbon Dioxide	0.180		%	0.158	--	1.581

Project Name: AUGUSTA CUMBERLAND FARMS
Lab Number: L1014293
Project Number: Not Specified
Report Date: 09/21/10

SAMPLE RESULTS

Lab ID:	L1014293-05	D	Date Collected:	09/09/10 10:36
Client ID:	SV-01		Date Received:	09/14/10
Sample Location:	AUGUSTA, ME		Field Prep:	Not Specified
Matrix:	Soil_Vapor		Extraction Method:	
Analytical Method:	51,3C			
Analytical Date:	09/17/10 20:00			
Analyst:	RY			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Fixed Gases by GC - Mansfield Lab						
Oxygen	16.6		%	1.69	--	1.687
Methane	ND		%	0.169	--	1.687
Carbon Dioxide	1.59		%	0.169	--	1.687

Project Name: AUGUSTA CUMBERLAND FARMS
Project Number: Not Specified
Lab Number: L1014293
Report Date: 09/21/10

Method Blank Analysis
Batch Quality Control

Analytical Method: 51,3C
Analytical Date: 09/17/10 16:19
Analyst: RY

Parameter	Result	Qualifier	Units	RL	MDL
Fixed Gases by GC - Mansfield Lab for sample(s): 01-05 Batch: WG432998-2					
Oxygen	ND		%	1.00	--
Methane	ND		%	0.100	--
Carbon Dioxide	ND		%	0.100	--

Lab Control Sample Analysis

Batch Quality Control

Project Name: AUGUSTA CUMBERLAND FARMS

Project Number: Not Specified

Lab Number: L1014293

Report Date: 09/21/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Fixed Gases by GC - Mansfield Lab Associated sample(s): 01-05 Batch: WG432998-1								
Oxygen	93		-		80-120	-		
Methane	95		-		80-120	-		
Carbon Dioxide	106		-		80-120	-		

Lab Duplicate Analysis
Batch Quality Control

Project Name: AUGUSTA CUMBERLAND FARMS
Project Number: Not Specified

Lab Number: L1014293
Report Date: 09/21/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Fixed Gases by GC - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG432998-10 QC Sample: L1014295-03 Client ID: DUP Sample						
Oxygen	8.98	8.85	%	1		5
Methane	ND	ND	%	NC		5
Carbon Dioxide	7.01	7.01	%	0		5
Fixed Gases by GC - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG432998-11 QC Sample: L1014295-04 Client ID: DUP Sample						
Oxygen	15.9	15.5	%	3		5
Methane	ND	ND	%	NC		5
Carbon Dioxide	1.77	1.77	%	0		5
Fixed Gases by GC - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG432998-12 QC Sample: L1014295-05 Client ID: DUP Sample						
Oxygen	11.6	12.1	%	4		5
Methane	ND	ND	%	NC		5
Carbon Dioxide	4.40	4.40	%	0		5
Fixed Gases by GC - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG432998-13 QC Sample: L1014295-06 Client ID: DUP Sample						
Oxygen	16.5	16.7	%	1		5
Methane	ND	ND	%	NC		5
Carbon Dioxide	0.418	0.416	%	0		5

Lab Duplicate Analysis
Batch Quality Control

Project Name: AUGUSTA CUMBERLAND FARMS
Project Number: Not Specified

Lab Number: L1014293
Report Date: 09/21/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Fixed Gases by GC - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG432998-3 QC Sample: L1014293-01 Client ID: SV-04					
Oxygen	11.7	11.6	%	1	5
Methane	ND	ND	%	NC	5
Carbon Dioxide	2.85	2.91	%	2	5
Fixed Gases by GC - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG432998-4 QC Sample: L1014293-02 Client ID: SV-05					
Oxygen	15.2	14.7	%	3	5
Methane	ND	ND	%	NC	5
Carbon Dioxide	2.81	2.82	%	0	5
Fixed Gases by GC - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG432998-5 QC Sample: L1014293-03 Client ID: SV-02					
Oxygen	11.4	11.6	%	2	5
Methane	ND	ND	%	NC	5
Carbon Dioxide	1.98	1.98	%	0	5
Fixed Gases by GC - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG432998-6 QC Sample: L1014293-04 Client ID: SV-03					
Oxygen	17.9	17.4	%	3	5
Methane	ND	ND	%	NC	5
Carbon Dioxide	0.180	0.182	%	1	5

Lab Duplicate Analysis
Batch Quality Control

Project Name: AUGUSTA CUMBERLAND FARMS
Project Number: Not Specified

Lab Number: L1014293
Report Date: 09/21/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Fixed Gases by GC - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG432998-7 QC Sample: L1014293-05 Client ID: SV-01					
Oxygen	16.6	16.8	%	1	5
Methane	ND	ND	%	NC	5
Carbon Dioxide	1.59	1.59	%	0	5
Fixed Gases by GC - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG432998-8 QC Sample: L1014295-01 Client ID: DUP Sample					
Oxygen	15.8	16.2	%	2	5
Methane	ND	ND	%	NC	5
Carbon Dioxide	2.42	2.41	%	0	5
Fixed Gases by GC - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG432998-9 QC Sample: L1014295-02 Client ID: DUP Sample					
Oxygen	15.8	16.0	%	1	5
Methane	ND	ND	%	NC	5
Carbon Dioxide	1.82	1.82	%	0	5

Project Name: AUGUSTA CUMBERLAND FARMS **Lab Number:** L1014293

Project Number: Not Specified **Report Date:** 09/21/10

SAMPLE RESULTS

Lab ID:	L1014293-01	D	Date Collected:	09/09/10 15:38
Client ID:	SV-04		Date Received:	09/14/10
Sample Location:	AUGUSTA, ME		Field Prep:	Not Specified
Matrix:	Soil_Vapor			
Analytical Method:	96,APH			
Analytical Date:	09/16/10 21:47			
Analyst:	RY			

Quality Control Information

Sample Type:	100 ml/min Composite
Sample Container Type:	Canister - 1 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

Petroleum Hydrocarbons in Air - Mansfield Lab

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,3-Butadiene	26		ug/m3	4.4	--	2.2
Methyl tert butyl ether	ND		ug/m3	4.4	--	2.2
Benzene	8.0		ug/m3	4.4	--	2.2
Toluene	19		ug/m3	4.4	--	2.2
C5-C8 Aliphatics, Adjusted	1000		ug/m3	26	--	2.2
Ethylbenzene	13		ug/m3	4.4	--	2.2
p/m-Xylene	19		ug/m3	8.8	--	2.2
o-Xylene	7.0		ug/m3	4.4	--	2.2
Naphthalene	ND		ug/m3	4.4	--	2.2
C9-C12 Aliphatics, Adjusted	270		ug/m3	31	--	2.2
C9-C10 Aromatics Total	99		ug/m3	22	--	2.2

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	92		50-200
Bromochloromethane	95		50-200
Chlorobenzene-d5	96		50-200

Project Name: AUGUSTA CUMBERLAND FARMS **Lab Number:** L1014293

Project Number: Not Specified **Report Date:** 09/21/10

SAMPLE RESULTS

Lab ID:	L1014293-02	D	Date Collected:	09/09/10 15:36
Client ID:	SV-05		Date Received:	09/14/10
Sample Location:	AUGUSTA, ME		Field Prep:	Not Specified
Matrix:	Soil_Vapor			
Analytical Method:	96,APH			
Analytical Date:	09/16/10 22:58			
Analyst:	RY			

Quality Control Information

Sample Type:	100 ml/min Composite
Sample Container Type:	Canister - 1 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

Petroleum Hydrocarbons in Air - Mansfield Lab

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,3-Butadiene	ND		ug/m3	4.8	--	2.4
Methyl tert butyl ether	ND		ug/m3	4.8	--	2.4
Benzene	6.5		ug/m3	4.8	--	2.4
Toluene	67		ug/m3	4.8	--	2.4
C5-C8 Aliphatics, Adjusted	900		ug/m3	29	--	2.4
Ethylbenzene	40		ug/m3	4.8	--	2.4
p/m-Xylene	71		ug/m3	9.6	--	2.4
o-Xylene	26		ug/m3	4.8	--	2.4
Naphthalene	17		ug/m3	4.8	--	2.4
C9-C12 Aliphatics, Adjusted	750		ug/m3	34	--	2.4
C9-C10 Aromatics Total	300		ug/m3	24	--	2.4

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	79		50-200
Bromochloromethane	84		50-200
Chlorobenzene-d5	85		50-200

Project Name: AUGUSTA CUMBERLAND FARMS **Lab Number:** L1014293

Project Number: Not Specified **Report Date:** 09/21/10

SAMPLE RESULTS

Lab ID:	L1014293-03	D	Date Collected:	09/09/10 14:05
Client ID:	SV-02		Date Received:	09/14/10
Sample Location:	AUGUSTA, ME		Field Prep:	Not Specified
Matrix:	Soil_Vapor			
Analytical Method:	96,APH			
Analytical Date:	09/16/10 23:32			
Analyst:	RY			

Quality Control Information

Sample Type:	200 ml/min 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

Petroleum Hydrocarbons in Air - Mansfield Lab

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,3-Butadiene	22		ug/m3	5.0	--	2.5
Methyl tert butyl ether	ND		ug/m3	5.0	--	2.5
Benzene	7.9		ug/m3	5.0	--	2.5
Toluene	6.6		ug/m3	5.0	--	2.5
C5-C8 Aliphatics, Adjusted	5100		ug/m3	30	--	2.5
Ethylbenzene	ND		ug/m3	5.0	--	2.5
p/m-Xylene	ND		ug/m3	10	--	2.5
o-Xylene	ND		ug/m3	5.0	--	2.5
Naphthalene	ND		ug/m3	5.0	--	2.5
C9-C12 Aliphatics, Adjusted	65		ug/m3	35	--	2.5
C9-C10 Aromatics Total	ND		ug/m3	25	--	2.5

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	85		50-200
Bromochloromethane	90		50-200
Chlorobenzene-d5	92		50-200

Project Name: AUGUSTA CUMBERLAND FARMS **Lab Number:** L1014293

Project Number: Not Specified **Report Date:** 09/21/10

SAMPLE RESULTS

Lab ID:	L1014293-04	Date Collected:	09/09/10 11:10
Client ID:	SV-03	Date Received:	09/14/10
Sample Location:	AUGUSTA, ME	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Analytical Method:	96,APH		
Analytical Date:	09/17/10 00:08		
Analyst:	RY		

Quality Control Information

Sample Type:	100 ml/min 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

Petroleum Hydrocarbons in Air - Mansfield Lab

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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
Toluene	ND		ug/m3	2.0	--	1
C5-C8 Aliphatics, Adjusted	170		ug/m3	12	--	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	28		ug/m3	14	--	1
C9-C10 Aromatics Total	ND		ug/m3	10	--	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	88		50-200
Bromochloromethane	96		50-200
Chlorobenzene-d5	89		50-200

Project Name: AUGUSTA CUMBERLAND FARMS **Lab Number:** L1014293

Project Number: Not Specified **Report Date:** 09/21/10

SAMPLE RESULTS

Lab ID:	L1014293-05	Date Collected:	09/09/10 10:36
Client ID:	SV-01	Date Received:	09/14/10
Sample Location:	AUGUSTA, ME	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Analytical Method:	96,APH		
Analytical Date:	09/17/10 00:42		
Analyst:	RY		

Quality Control Information

Sample Type:	100 ml/min 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
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	5.4		ug/m3	2.0	--	1
Methyl tert butyl ether	ND		ug/m3	2.0	--	1
Benzene	22		ug/m3	2.0	--	1
Toluene	44		ug/m3	2.0	--	1
C5-C8 Aliphatics, Adjusted	600		ug/m3	12	--	1
Ethylbenzene	5.4		ug/m3	2.0	--	1
p/m-Xylene	8.8		ug/m3	4.0	--	1
o-Xylene	3.3		ug/m3	2.0	--	1
Naphthalene	3.1		ug/m3	2.0	--	1
C9-C12 Aliphatics, Adjusted	190		ug/m3	14	--	1
C9-C10 Aromatics Total	41		ug/m3	10	--	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	83		50-200
Bromochloromethane	87		50-200
Chlorobenzene-d5	105		50-200

Project Name: AUGUSTA CUMBERLAND FARMS
Project Number: Not Specified
Lab Number: L1014293
Report Date: 09/21/10

Method Blank Analysis
Batch Quality Control

Analytical Method: 96,APH
Analytical Date: 09/16/10 17:06
Analyst: RY

Parameter	Result	Qualifier	Units	RL	MDL
Petroleum Hydrocarbons in Air - Mansfield Lab for sample(s): 01-05 Batch: WG432801-4					
1,3-Butadiene	ND		ug/m3	2.0	--
Methyl tert butyl ether	ND		ug/m3	2.0	--
Benzene	ND		ug/m3	2.0	--
Toluene	ND		ug/m3	2.0	--
C5-C8 Aliphatics, Adjusted	ND		ug/m3	12	--
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: AUGUSTA CUMBERLAND FARMS

Project Number: Not Specified

Lab Number: L1014293

Report Date: 09/21/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Petroleum Hydrocarbons in Air - Mansfield Lab Associated sample(s): 01-05 Batch: WG432801-3								
1,3-Butadiene	86		-		70-130	-		
Methyl tert butyl ether	93		-		70-130	-		
Benzene	90		-		70-130	-		
Toluene	99		-		70-130	-		
C5-C8 Aliphatics, Adjusted	96		-		70-130	-		
Ethylbenzene	102		-		70-130	-		
p/m-Xylene	102		-		70-130	-		
o-Xylene	104		-		70-130	-		
Naphthalene	118		-		50-150	-		
C9-C12 Aliphatics, Adjusted	123		-		70-130	-		
C9-C10 Aromatics Total	92		-		70-130	-		

Lab Duplicate Analysis
Batch Quality Control

Project Name: AUGUSTA CUMBERLAND FARMS
Project Number: Not Specified

Lab Number: L1014293
Report Date: 09/21/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Petroleum Hydrocarbons in Air - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG432801-5 QC Sample: L1014293-01 Client ID: SV-04						
1,3-Butadiene	26	26	ug/m3	0		30
Methyl tert butyl ether	ND	ND	ug/m3	NC		30
Benzene	8.0	8.2	ug/m3	2		30
Toluene	19	19	ug/m3	0		30
C5-C8 Aliphatics, Adjusted	1000	1000	ug/m3	0		30
Ethylbenzene	13	13	ug/m3	0		30
p/m-Xylene	19	19	ug/m3	0		30
o-Xylene	7.0	7.3	ug/m3	4		30
Naphthalene	ND	ND	ug/m3	NC		30
C9-C12 Aliphatics, Adjusted	270	260	ug/m3	4		30
C9-C10 Aromatics Total	99	98	ug/m3	1		30

Project Name: AUGUSTA CUMBERLAND FARMS **Lab Number:** L1014293

Project Number: **Report Date:** 09/21/10

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Cleaning Batch ID	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Out mL/min	Flow In mL/min	% RSD
L1014293-01	SV-04	0412	#90 SV		-	-	100	100	0
L1014293-01	SV-04	1054	1.0L Can	L1013135	-28.3	-0.6	-	-	-
L1014293-02	SV-05	0182	#90 SV		-	-	100	104	4
L1014293-02	SV-05	887	1.0L Can	L1013135	-29.4	-3.9	-	-	-
L1014293-03	SV-02	0158	#90 SV		-	-	200	203	1
L1014293-03	SV-02	455	2.7L Can	L1012544	-29.5	-1.2	-	-	-
L1014293-04	SV-03	0270	#90 SV		-	-	100	103	3
L1014293-04	SV-03	235	2.7L Can	L1012801	-29.4	-0.1	-	-	-
L1014293-05	SV-01	0144	#90 SV		-	-	95	100	5
L1014293-05	SV-01	402	2.7L Can	L1012801	-29.3	-1.4	-	-	-

Air Volatiles Can Certification

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1012544
Report Date: 09/21/10

Air Canister Certification Results

Lab ID: L1012544-01
Client ID: CAN 487 SHELF 1
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 08/19/10 18:20
Analyst: RY

Date Collected: 08/13/10 00:00
Date Received: 08/13/10
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air (Low Level) - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.200	--	ND	0.344	--		1
Propane	ND	0.200	--	ND	0.606	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.988	--		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	0.776	--		1
Chloroethane	ND	0.200	--	ND	0.527	--		1
Ethanol	ND	2.50	--	ND	4.71	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.841	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.14	--		1
Acetone	ND	1.00	--	ND	2.37	--		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	0.792	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1012544

Project Number: CANISTER QC BAT ***Report Date:*** 09/21/10

Air Canister Certification Results

Lab ID: L1012544-01 Date Collected: 08/13/10 00:00

Client ID: CAN 487 SHELF 1 Date Received: 08/13/10

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - 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	0.622	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.792	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.720	--		1
Vinyl acetate	ND	0.200	--	ND	0.704	--		1
2-Butanone	ND	0.200	--	ND	0.589	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.792	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.976	--		1
Tetrahydrofuran	ND	0.200	--	ND	0.589	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.923	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.704	--		1
Diisopropyl ether	ND	0.200	--	ND	0.835	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.835	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.907	--		1
Benzene	ND	0.200	--	ND	0.638	--		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	0.835	--		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	0.720	--		1

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1012544

Project Number: CANISTER QC BAT ***Report Date:*** 09/21/10

Air Canister Certification Results

Lab ID: L1012544-01 Date Collected: 08/13/10 00:00

Client ID: CAN 487 SHELF 1 Date Received: 08/13/10

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.819	--		1
2,4,4-trimethyl-1-pentene	ND	0.500	--	ND	2.29	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.907	--		1
4-Methyl-2-pentanone	ND	0.200	--	ND	0.819	--		1
2,4,4-trimethyl-2-pentene	ND	0.500	--	ND	2.29	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.907	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.753	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.923	--		1
2-Hexanone	ND	0.200	--	ND	0.819	--		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	2.37	--		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	0.920	--		1
Ethylbenzene	ND	0.200	--	ND	0.868	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.06	--		1
Styrene	ND	0.200	--	ND	0.851	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.868	--		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	0.982	--		1

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1012544

Project Number: CANISTER QC BAT ***Report Date:*** 09/21/10

Air Canister Certification Results

Lab ID: L1012544-01 Date Collected: 08/13/10 00:00

Client ID: CAN 487 SHELF 1 Date Received: 08/13/10

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Bromobenzene	ND	0.200	--	ND	1.28	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.03	--		1
n-Propylbenzene	ND	0.200	--	ND	0.982	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.03	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.982	--		1
1,3,5-Trimethybenzene	ND	0.200	--	ND	0.982	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.982	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.03	--		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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1012544
Report Date: 09/21/10

Air Canister Certification Results

Lab ID: L1012544-01
Client ID: CAN 487 SHELF 1
Sample Location:
Date Collected: 08/13/10 00:00
Date Received: 08/13/10
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	93		60-140
Bromochloromethane	104		60-140
chlorobenzene-d5	101		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1012544
Report Date: 09/21/10

Air Canister Certification Results

Lab ID: L1012544-01
Client ID: CAN 487 SHELF 1
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 08/19/10 18:20
Analyst: RY

Date Collected: 08/13/10 00:00
Date Received: 08/13/10
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
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	0.403	--		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 ***Lab Number:*** L1012544

Project Number: CANISTER QC BAT ***Report Date:*** 09/21/10

Air Canister Certification Results

Lab ID: L1012544-01 Date Collected: 08/13/10 00:00

Client ID: CAN 487 SHELF 1 Date Received: 08/13/10

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
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	0.020	--	ND	0.075	--		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	0.206	--		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-Trimethybenzene	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: L1012544
Report Date: 09/21/10

Air Canister Certification Results

Lab ID: L1012544-01
Client ID: CAN 487 SHELF 1
Sample Location:
Date Collected: 08/13/10 00:00
Date Received: 08/13/10
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1012544
Report Date: 09/21/10

Air Canister Certification Results

Lab ID: L1012544-01
Client ID: CAN 487 SHELF 1
Sample Location:
Date Collected: 08/13/10 00:00
Date Received: 08/13/10
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	90		60-140
bromochloromethane	101		60-140
chlorobenzene-d5	99		60-140

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1012801

Project Number: CANISTER QC BAT ***Report Date:*** 09/21/10

Air Canister Certification Results

Lab ID: L1012801-01
Client ID: CAN 178 SHELF 3
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 08/19/10 20:51
Analyst: RY

Date Collected: 08/18/10 00:00
Date Received: 08/18/10
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air (Low Level) - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.200	--	ND	0.344	--		1
Propane	ND	0.200	--	ND	0.606	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.988	--		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	0.776	--		1
Chloroethane	ND	0.200	--	ND	0.527	--		1
Ethanol	ND	2.50	--	ND	4.71	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.841	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.14	--		1
Acetone	ND	1.00	--	ND	2.37	--		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	0.792	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1012801

Project Number: CANISTER QC BAT ***Report Date:*** 09/21/10

Air Canister Certification Results

Lab ID: L1012801-01 Date Collected: 08/18/10 00:00

Client ID: CAN 178 SHELF 3 Date Received: 08/18/10

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - 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	0.622	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.792	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.720	--		1
Vinyl acetate	ND	0.200	--	ND	0.704	--		1
2-Butanone	ND	0.200	--	ND	0.589	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.792	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.976	--		1
Tetrahydrofuran	ND	0.200	--	ND	0.589	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.923	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.704	--		1
Diisopropyl ether	ND	0.200	--	ND	0.835	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.835	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.907	--		1
Benzene	ND	0.200	--	ND	0.638	--		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	0.835	--		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	0.720	--		1

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1012801

Project Number: CANISTER QC BAT ***Report Date:*** 09/21/10

Air Canister Certification Results

Lab ID: L1012801-01 Date Collected: 08/18/10 00:00

Client ID: CAN 178 SHELF 3 Date Received: 08/18/10

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.819	--		1
2,4,4-trimethyl-1-pentene	ND	0.500	--	ND	2.29	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.907	--		1
4-Methyl-2-pentanone	ND	0.200	--	ND	0.819	--		1
2,4,4-trimethyl-2-pentene	ND	0.500	--	ND	2.29	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.907	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.753	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.923	--		1
2-Hexanone	ND	0.200	--	ND	0.819	--		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	2.37	--		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	0.920	--		1
Ethylbenzene	ND	0.200	--	ND	0.868	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.06	--		1
Styrene	ND	0.200	--	ND	0.851	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.868	--		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	0.982	--		1

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1012801

Project Number: CANISTER QC BAT ***Report Date:*** 09/21/10

Air Canister Certification Results

Lab ID: L1012801-01 Date Collected: 08/18/10 00:00

Client ID: CAN 178 SHELF 3 Date Received: 08/18/10

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Bromobenzene	ND	0.200	--	ND	1.28	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.03	--		1
n-Propylbenzene	ND	0.200	--	ND	0.982	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.03	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.982	--		1
1,3,5-Trimethybenzene	ND	0.200	--	ND	0.982	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.982	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.03	--		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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1012801
Report Date: 09/21/10

Air Canister Certification Results

Lab ID: L1012801-01
Client ID: CAN 178 SHELF 3
Sample Location:
Date Collected: 08/18/10 00:00
Date Received: 08/18/10
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	104		60-140
Bromochloromethane	113		60-140
chlorobenzene-d5	106		60-140

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1012801

Project Number: CANISTER QC BAT ***Report Date:*** 09/21/10

Air Canister Certification Results

Lab ID: L1012801-01
Client ID: CAN 178 SHELF 3
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 08/19/10 20:51
Analyst: RY

Date Collected: 08/18/10 00:00
Date Received: 08/18/10
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
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	0.403	--		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 ***Lab Number:*** L1012801

Project Number: CANISTER QC BAT ***Report Date:*** 09/21/10

Air Canister Certification Results

Lab ID: L1012801-01 Date Collected: 08/18/10 00:00

Client ID: CAN 178 SHELF 3 Date Received: 08/18/10

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
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	0.020	--	ND	0.075	--		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	0.206	--		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-Trimethybenzene	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 ***Lab Number:*** L1012801

Project Number: CANISTER QC BAT ***Report Date:*** 09/21/10

Air Canister Certification Results

Lab ID: L1012801-01 Date Collected: 08/18/10 00:00

Client ID: CAN 178 SHELF 3 Date Received: 08/18/10

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1012801
Report Date: 09/21/10

Air Canister Certification Results

Lab ID: L1012801-01
Client ID: CAN 178 SHELF 3
Sample Location:
Date Collected: 08/18/10 00:00
Date Received: 08/18/10
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	101		60-140
bromochloromethane	110		60-140
chlorobenzene-d5	104		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1013135
Report Date: 09/21/10

Air Canister Certification Results

Lab ID: L1013135-01
Client ID: CAN 713 SHELF 13
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 08/26/10 12:06
Analyst: AJ

Date Collected: 08/25/10 00:00
Date Received: 08/25/10
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air (Low Level) - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.200	--	ND	0.344	--		1
Propane	ND	0.200	--	ND	0.606	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.988	--		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	0.776	--		1
Chloroethane	ND	0.200	--	ND	0.527	--		1
Ethanol	ND	2.50	--	ND	4.71	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.841	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.14	--		1
Acetone	ND	1.00	--	ND	2.37	--		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	0.792	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1013135

Project Number: CANISTER QC BAT ***Report Date:*** 09/21/10

Air Canister Certification Results

Lab ID: L1013135-01 Date Collected: 08/25/10 00:00

Client ID: CAN 713 SHELF 13 Date Received: 08/25/10

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - 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	0.622	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.792	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.720	--		1
Vinyl acetate	ND	0.200	--	ND	0.704	--		1
2-Butanone	ND	0.200	--	ND	0.589	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.792	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.976	--		1
Tetrahydrofuran	ND	0.200	--	ND	0.589	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.923	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.704	--		1
Diisopropyl ether	ND	0.200	--	ND	0.835	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.835	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.907	--		1
Benzene	ND	0.200	--	ND	0.638	--		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	0.835	--		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	0.720	--		1

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1013135

Project Number: CANISTER QC BAT ***Report Date:*** 09/21/10

Air Canister Certification Results

Lab ID: L1013135-01 Date Collected: 08/25/10 00:00

Client ID: CAN 713 SHELF 13 Date Received: 08/25/10

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.819	--		1
2,4,4-trimethyl-1-pentene	ND	0.500	--	ND	2.29	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.907	--		1
4-Methyl-2-pentanone	ND	0.200	--	ND	0.819	--		1
2,4,4-trimethyl-2-pentene	ND	0.500	--	ND	2.29	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.907	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.753	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.923	--		1
2-Hexanone	ND	0.200	--	ND	0.819	--		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	2.37	--		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	0.920	--		1
Ethylbenzene	ND	0.200	--	ND	0.868	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.06	--		1
Styrene	ND	0.200	--	ND	0.851	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.868	--		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	0.982	--		1

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1013135

Project Number: CANISTER QC BAT ***Report Date:*** 09/21/10

Air Canister Certification Results

Lab ID: L1013135-01 Date Collected: 08/25/10 00:00

Client ID: CAN 713 SHELF 13 Date Received: 08/25/10

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Bromobenzene	ND	0.200	--	ND	1.28	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.03	--		1
n-Propylbenzene	ND	0.200	--	ND	0.982	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.03	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.982	--		1
1,3,5-Trimethybenzene	ND	0.200	--	ND	0.982	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.982	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.03	--		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

Project Name: BATCH CANISTER CERTIFICATION ***Lab Number:*** L1013135

Project Number: CANISTER QC BAT ***Report Date:*** 09/21/10

Air Canister Certification Results

Lab ID: L1013135-01
Client ID: CAN 713 SHELF 13
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 08/26/10 12:06
Analyst: AJ

Date Collected: 08/25/10 00:00
Date Received: 08/25/10
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
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	0.403	--		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 ***Lab Number:*** L1013135

Project Number: CANISTER QC BAT ***Report Date:*** 09/21/10

Air Canister Certification Results

Lab ID: L1013135-01 Date Collected: 08/25/10 00:00

Client ID: CAN 713 SHELF 13 Date Received: 08/25/10

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
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	0.020	--	ND	0.075	--		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	0.206	--		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-Trimethybenzene	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: L1013135
Report Date: 09/21/10

Air Canister Certification Results

Lab ID: L1013135-01
Client ID: CAN 713 SHELF 13
Sample Location:
Date Collected: 08/25/10 00:00
Date Received: 08/25/10
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
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

AIR Petro Can Certification

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1012544

Project Number: CANISTER QC BAT **Report Date:** 09/21/10

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1012544-01	Date Collected:	08/13/10 00:00
Client ID:	CAN 487 SHELF 1	Date Received:	08/13/10
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	08/19/10 18:20		
Analyst:	RY		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
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
Toluene	ND		ug/m3	2.0	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/m3	12	--	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:** L1012801

Project Number: CANISTER QC BAT **Report Date:** 09/21/10

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1012801-01	Date Collected:	08/18/10 00:00
Client ID:	CAN 178 SHELF 3	Date Received:	08/18/10
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	08/19/10 20:51		
Analyst:	RY		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
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
Toluene	ND		ug/m3	2.0	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/m3	12	--	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:** L1013135

Project Number: CANISTER QC BAT **Report Date:** 09/21/10

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1013135-01	Date Collected:	08/25/10 00:00
Client ID:	CAN 713 SHELF 13	Date Received:	08/25/10
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	08/27/10 17:22		
Analyst:	AR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
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
Toluene	ND		ug/m3	2.0	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/m3	12	--	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: AUGUSTA CUMBERLAND FARMS
Project Number: Not Specified

Lab Number: L1014293
Report Date: 09/21/10

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(*)
L1014293-01A	Canister - 1 Liter	N/A	N/A		NA	Present/Intact	APH-10(30),FIXGAS(30),TO15-LL(30)
L1014293-02A	Canister - 1 Liter	N/A	N/A		NA	Present/Intact	APH-10(30),FIXGAS(30),TO15-LL(30)
L1014293-03A	Canister - 2.7 Liter	N/A	N/A		NA	Present/Intact	APH-10(30),FIXGAS(30),TO15-LL(30)
L1014293-04A	Canister - 2.7 Liter	N/A	N/A		NA	Present/Intact	APH-10(30),FIXGAS(30),TO15-LL(30)
L1014293-05A	Canister - 2.7 Liter	N/A	N/A		NA	Present/Intact	APH-10(30),FIXGAS(30),TO15-LL(30)

*Values in parentheses indicate holding time in days

Project Name:	AUGUSTA CUMBERLAND FARMS	**Lab Number:**	L1014293
Project Number:	Not Specified	**Report Date:**	09/21/10

GLOSSARY

Acronyms

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.

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.

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.

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.

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 due to obvious interference.

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. 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.

Report Format: Data Usability Report

Project Name:	AUGUSTA CUMBERLAND FARMS	**Lab Number:**	L1014293
Project Number:	Not Specified	**Report Date:**	09/21/10

Data Qualifiers

RE - Analytical results are from sample re-extraction.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

REFERENCES

48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

51 Determination of Carbon Dioxide, Methane, Nitrogen and Oxygen from Stationary Sources. Method 3C. Appendix A, Part 60, 40 CFR (Code of Federal Regulations). June 20, 1996.

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 July 19, 2010 – 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, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable), Total Cyanide. 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, Vanadium, Zinc, Total Organic Carbon, Total Cyanide, Corrosivity, TCLP 1311. 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, EPA 120.1, SM2510B, EPA 245.1, EPA 150.1, EPA 160.2, SM2540D, EPA 335.2, SM2540G, EPA 180.1. Organic Parameters: EPA 625, 608.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045, 9014. 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 120.1, 150.1, 160.2, 180.1, 200.8, 245.1, 310.1, 335.2, 608, 625, 1631, 3010, 3015, 3020, 6020, 9010, 9014, 9040, SM2320B, 2510B, 2540D, 2540G, 4500CN-E, 4500H-B, Organic Parameters: EPA 3510, 3580, 3630, 3640, 3660, 3665, 5030, 8015 (mod), 3570, 8081, 8082, 8260, 8270,)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7196, 7470, 7471, 7474, 9010, 9014, 9040, 9045, 9060. Organic Parameters: EPA 8015 (mod), EPA 3570, 1311, 3050, 3051, 3060, 3580, 3630, 3640, 3660, 3665, 5035, 8081, 8082, 8260, 8270.)

Biological Tissue (Inorganic Parameters: EPA 6020. Organic Parameters: EPA 3570, 3510, 3610, 3630, 3640, 8270.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA030.

Non-Potable Water (Inorganic Parameters: SM4500H+B. Organic Parameters: EPA 624.)

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

Non-Potable Water (Inorganic Parameters: EPA 200.8, 245.1, 1631E, 120.1, 150.1, 180.1, 310.1, 335.2, 160.2, SM2540D, 2540G, 4500CN-E, 4500H+B, 2320B, 2510B. Organic Parameters: EPA 625, 608.)

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

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3010, 3020A, 3015, 6020, SM2320B, EPA 200.8, SM2540C, 2540D, 2540G, EPA 120.1, SM2510B, EPA 180.1, 245.1, 1631E, SW-846 9040B, 6020, 9010B, 9014 Organic Parameters: EPA 608, 625, SW-846 3510C, 3580A, 5030B, 3035L, 5035H, 3630C, 3640A, 3660B, 3665A, 8081A, 8082 8260B, 8270C)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6020, 9010B, 9014, 1311, 1312, 3050B, 3051, 3060A, 7196A, 7470A, 7471A, 9045C, 9060. Organic Parameters: SW-846 3580A, 5030B, 3035L, 5035H, 3630C, 3640A, 3660B, 3665A, 8081A, 8082, 8260B, 8270C, 3570, 8015B.)

Atmospheric Organic Parameters (EPA TO-15)

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

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

Non-Potable Water (Inorganic Parameters: EPA 310.1, SM2320B, EPA 365.2, 160.1, EPA 160.2, SM2540D, EPA 200.8, 6020, 1631E, 245.1, 335.2, 9014, 150.1, 9040B, 120.1, SM2510B, EPA 376.2, 180.1, 9010B. Organic Parameters: EPA 624, 8260B, 8270C, 608, 8081A, 625, 8082, 3510C, 3511, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 9040B, 9045C, SW-846 Ch7 Sec 7.3, EPA 6020, 7196A, 7471A, 7474, 9014, 9040B, 9045C, 9010B. Organic Parameters: EPA 8260B, 8270C, 8081A, DRO 8015B, 8082, 1311, 3050B, 3580, 3050B, 3035, 3570, 3051, 5035, 5030B.)

Air & Emissions (EPA TO-15.)

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

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

Refer to LA-DEQ 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, 7196, 9014, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8260, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

U.S. Army Corps of Engineers

Department of Defense Certificate/Lab ID: L2217.01.

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312,3051, 6020, 747A, 7474, 9045C,9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580, 3570, 3540C, 5035, 8260B, 8270C, 8270 Alk-PAH, 8082, 8081A, 8015 (SHC), 8015 (DRO).

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP
Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl.

Serial_No:09211014:08

AIR ANALYSIS

PAGE 1 OF 1

CHAIN OF CUSTODY

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

Date Rec'd in Lab: 9/14/10

ALPHA Job #: L1014293

Client Information

Client: MAINE DEP
Address: 312 CANCO ROAD
PORTLAND, MAINE 04103
Phone: (207) 822-6300
Fax: (207) 822-
Email: troy.t.smith@maine.gov

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: AUGUSTA CUMBERLAND FARMS
Project Location: AUGUSTA, ME
Project #: VI STUDY
Project Manager: PETER EREMITA
ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☑ ADEx
Criteria Checker: MEDEP EDD
(Default based on Regulatory Criteria Indicated)
Other Formats:
☐ EMAIL (standard pdf report)
☐ Additional Deliverables:

Report to: (if different than Project Manager)
diana.m.mckenzie@maine.gov
jcressey@summitenv.com

Billing Information

☑ Same as Client info PO #:

ATTN: PETER EREMITA

Regulatory Requirements/Report Limits

State/Fed	Program	Criteria
MAINE	EDD	

Other Project Specific Requirements/Comments:

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-14A by TO-15	TO-15 EDB ONLY	TO-15 SIM	APH	FIXED GASES	TO-13A	TO-4 / TO-10	Sample Comments (i.e. PID)
14293.1	SV-04	9/9/10	3:19	3:38	-30	-4	SV	JKC	1L	1054	0412		X		X				ADD $CO_2+O_2+CH_4$
2	SV-05	9/9/10	3:21	3:36	-29	-4	SV	JKC	1L	887	0182		X		X				
3	SV-02	9/9/10	1:52	2:05	-30	-5	SV	TTS	1L	455	0158		X		X				
4	SV-03	9/9/10	10:44	11:10	-30	-2	SV	JKC	1L	235	0270		X		X				
5	SV-01	9/9/10	10:12	10:36	-29	-2	SV	JKC	1L	402	0144		X		X				

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

Container Type

Relinquished By:	Date/Time	Received By:	Date/Time:
	9-13-10	FEDEX	9-13-10 / 9:00
			9/14/10 1342

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.

Form No: 101-02 (19-Jun-09)

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906
www.analyticslab.com

Mr. Herb Kodis
Maine Environmental Laboratory, Inc.
PO Box 1107
Yarmouth, ME 04096-1107

Report Number: 67790

Revision: Rev. 0

Re: DEP 2497-10

Enclosed are the results of the analyses on your sample(s). Samples were received on 15 September 2010 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.

Lab Number	Sample Date	Station Location	Analysis	Comments
67790-1	09/09/10	MW-1	Volatile Petroleum Hydrocarbons	
67790-2	09/09/10	Trip Blank	Electronic Data Deliverable	
	09/09/10	Trip Blank	Volatile Petroleum Hydrocarbons	

Sample Receipt Exceptions: None

Analytics Environmental Laboratory is certified by the states of New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, Virginia, Maryland, and is accredited by the Deparment 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 9/22/2010

analytics environmental laboratory LLC

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

Mr. Herb Kodis
Maine Environmental Laboratory, Inc.
PO Box 1107
Yarmouth, ME 04096-1107

September 21, 2010

CLIENT SAMPLE ID

Project Name: DEP 2497-10

Project Number:

Client Sample ID: MW-1

SAMPLE DATA

Lab Sample ID: 67790-1
Matrix: Aqueous
Percent Solid: N/A
Dilution Factor: 1
Collection Date: 09/09/10
Lab Receipt Date: 09/15/10
Analysis Date: 09/16/10

VPH ANALYTICAL RESULTS

RANGE/TARGET ANALYTE	Elution Range	RL	Units	Result
Unadjusted C5-C8 Aliphatics[1]	N/A	50	µg/L	U
Unadjusted C9-C12 Aliphatics[1]	N/A	50	µg/L	U
Benzene	C5-C8	2	µg/L	U
Ethylbenzene	C9-C12	2	µg/L	U
Methyl-tert-butyl ether	C5-C8	2	µg/L	U
Naphthalene	N/A	2	µg/L	U
Toluene	C5-C8	2	µg/L	U
m- & p-Xylenes	C9-C12	4	µg/L	U
o-Xylene	C9-C12	2	µg/L	U
C5-C8 Aliphatics Hydrocarbons[1,2]	N/A	50	µg/L	U
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	µg/L	U
C9-C10 Aromatic Hydrocarbons[1]	N/A	10	µg/L	U
Surrogate % Recovery (2,5-Dibromotoluene) PID				80
Surrogate % Recovery (2,5-Dibromotoluene) FID				78
Surrogate Acceptance Range				70-130%

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.
[2]C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range
[3]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:

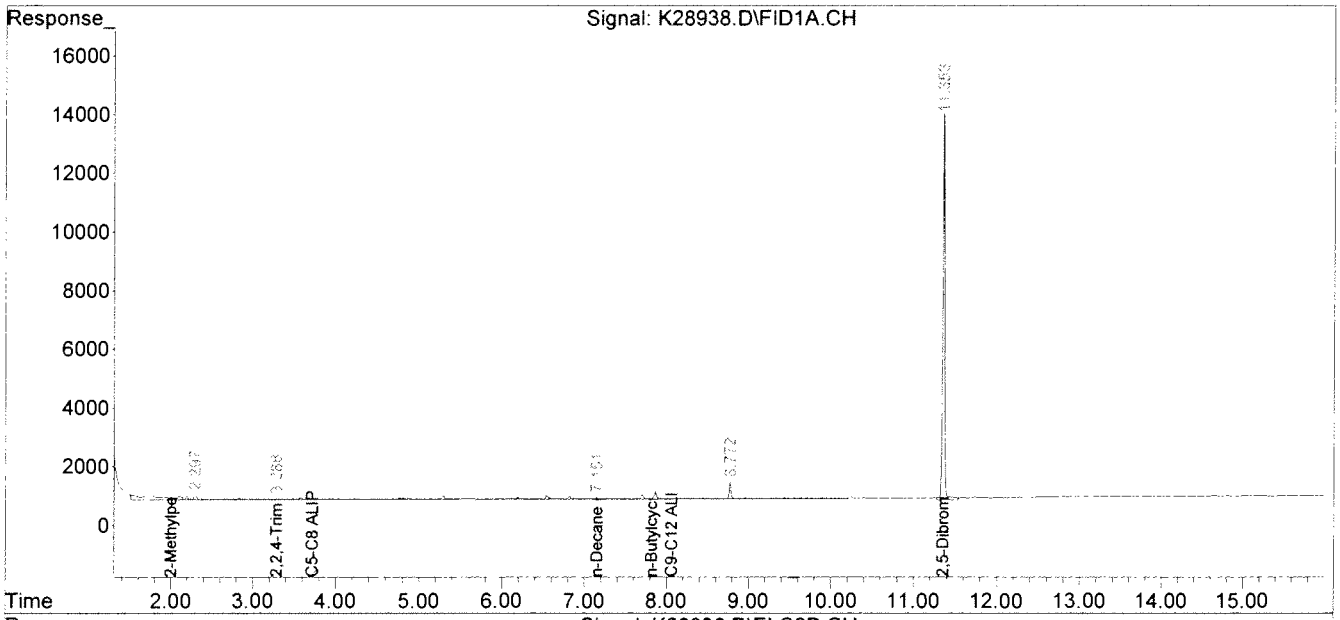
Quantitation Report (Not Reviewed)

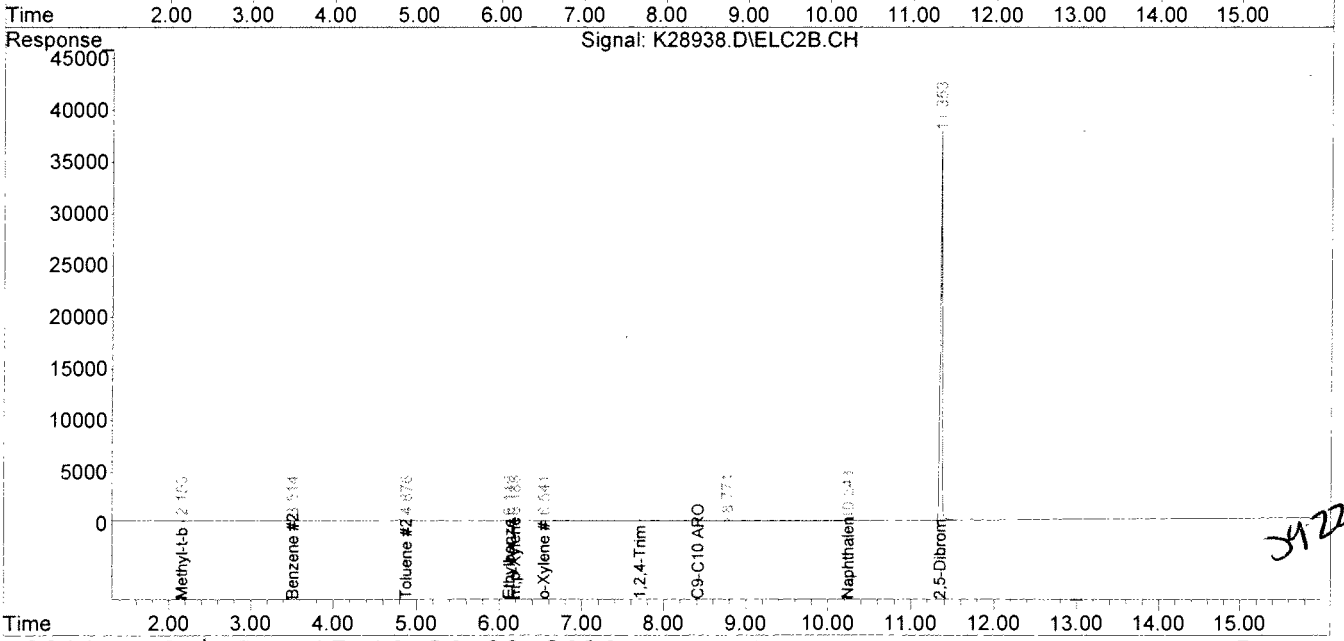
Data Path : C:\msdchem\1\DATA\091610-K\
Data File : K28938.D
Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH
Acq On : 16 Sep 2010 5:07 pm
Operator : JJL
Sample : 67790-1
Misc : 5000
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 17 10:30:14 2010
Quant Method : C:\msdchem\1\METHODS\VPH072210.M
Quant Title : Volatile Petroleum Hydrocarbons (VPH) MA DEP 2004
QLast Update : Fri Jul 23 15:04:23 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

JJL 9/17/10

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





VPH072210

analytics environmental laboratory LLC

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

Mr. Herb Kodis
Maine Environmental Laboratory, Inc.
PO Box 1107
Yarmouth, ME 04096-1107

September 21, 2010

CLIENT SAMPLE ID

Project Name: DEP 2497-10

Project Number:

Client Sample ID: Trip Blank

SAMPLE DATA

Lab Sample ID: 67790-2
Matrix: Aqueous
Percent Solid: N/A
Dilution Factor: 1
Collection Date: 09/09/10
Lab Receipt Date: 09/15/10
Analysis Date: 09/17/10

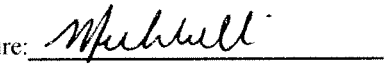
VPH ANALYTICAL RESULTS

RANGE/TARGET ANALYTE	Elution Range	RL	Units	Result
Unadjusted C5-C8 Aliphatics[1]	N/A	50	µg/L	U
Unadjusted C9-C12 Aliphatics[1]	N/A	50	µg/L	U
Benzene	C5-C8	2	µg/L	U
Ethylbenzene	C9-C12	2	µg/L	U
Methyl-tert-butyl ether	C5-C8	2	µg/L	U
Naphthalene	N/A	2	µg/L	U
Toluene	C5-C8	2	µg/L	U
m- & p-Xylenes	C9-C12	4	µg/L	U
o-Xylene	C9-C12	2	µg/L	U
C5-C8 Aliphatics Hydrocarbons[1,2]	N/A	50	µg/L	U
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	50	µg/L	U
C9-C10 Aromatic Hydrocarbons[1]	N/A	10	µg/L	U
Surrogate % Recovery (2,5-Dibromotoluene) PID				87
Surrogate % Recovery (2,5-Dibromotoluene) FID				79
Surrogate Acceptance Range				70-130%

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.
[2]C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range
[3]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: 

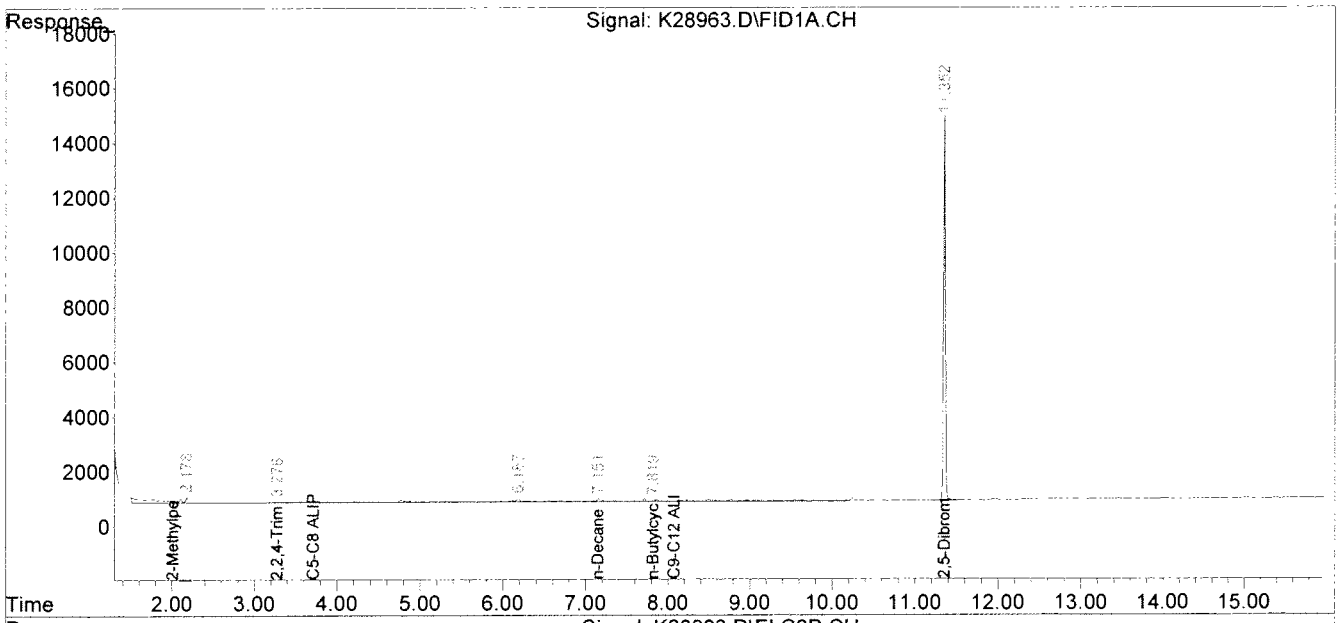
Quantitation Report (QT Reviewed)

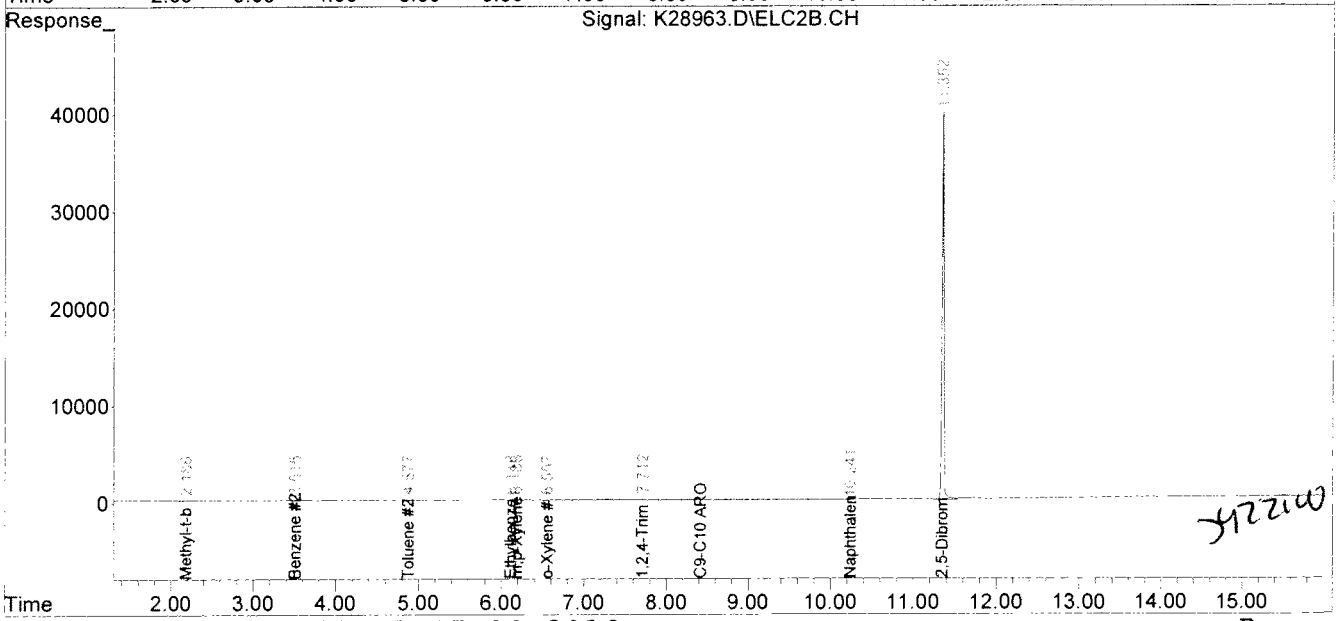
Data Path : C:\msdchem\1\DATA\091710-K\
Data File : K28963.D
Signal(s) : Signal #1: FID1A.CH Signal #2: ELC2B.CH
Acq On : 17 Sep 2010 4:15 pm
Operator : JJL
Sample : 67790-2
Misc : 5000
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 20 10:46:58 2010
Quant Method : C:\msdchem\1\METHODS\VPH072210.M
Quant Title : Volatile Petroleum Hydrocarbons (VPH) MA DEP 2004
QLast Update : Fri Jul 23 15:04:23 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

9/20/10

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





VPH072210

AEL

MAINE ENVIRONMENTAL LABORATORY- Chain of Custody

One Main Street Yarmouth, Maine 04096-6716 (207) 846-6569 fax: (207) 846-9066
e-mail: melab@maine.rr.com

PROJECT MANAGER: H. Kodis | TELEPHONE | FAX # / E-MAIL

COMPANY | PURCHASE ORDER # / BILL TO

ADDRESS

PROJECT NAME: DEP2497-10 | SAMPLER NAME: J. Rand

LABORATORY REPORT #

Delivered by

TURNAROUND REQUEST
☒ Standard 9/23 **
☒ Priority (~~SURCHARGE~~)
ME23120101-35
Quote #

SAMPLE IDENTIFICATION	# CONTAINERS	TYPE OF CONTAINERS	FIELD FILTRATION YES	FIELD FILTRATION NO	SAMPLE MATRIX	GRAB	COMP.	METHOD PRESERVED	SAMPLING DATE	SAMPLING TIME	ANALYSES: VPH	LABORATORY IDENTIFICATION/ SUBCONTRACTOR
MW-1	3	VOA		X	H_2O	X		HCL/≤6°C	9/9/10	4:20	X	67790-1
Trip Blank	1	VOA		X	↓	X		↓	—	—	X	-2

CP 9/16/10

Received within hold time ☒ yes ☐ no ☐ N/A
Received in good condition ☒ yes ☐ no ☐ N/A
Temp. Blank °C 3°C /Frozen ice packs ☐ N/A
Samples received preserved ☒ yes ☐ no ☐ N/A
Custody seal present ☐ yes ☐ no

Labels √d by CP 9/16/10

COMMENTS: ME DEP EDD (Augusta Cumberland Farms)

	DATE	TIME
RELINQUISHED BY SAMPLER:		
RELINQUISHED BY:	09/15/10	14:10
RELINQUISHED BY:		

RECEIVED BY:
RECEIVED BY:
RECEIVED BY LABORATORY:

COC-04 Calz

Analytics Report 67790 page 6 of 7

ANALYTICS SAMPLE RECEIPT CHECKLIST

analytics environmental laboratory LLC

AEL LAB#: 67790 | COOLER NUMBER: 69

CLIENT: MEL | NUMBER OF COOLERS: 1

PROJECT: DEP 2497.10 | DATE RECEIVED: 9/15/10

A: PRELIMINARY EXAMINATION: | DATE COOLER OPENED: 9/15/10

1. Cooler received by(initials): LT | Date Received: 9/15/10

2. Circle one: (Hand delivered (If so, skip 3)) Shipped

3. Did cooler come with a shipping slip? Y (N/A)

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#: N/A

7. Were Custody papers filled out properly (ink,signed, 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 the project identifiable from the COC papers?	(Y)	N
11. Was enough ice used to chill the cooler? (Y) N	Temp. of cooler:	3°

B. Log-In: Date samples were logged in: 09/16/10 By: [illegible]

12. Type of packing in cooler(bubble wrap, popcorn)	(Y)	N
13. Were all bottles sealed in separate plastic bags?	(Y)	N
14. Did all bottles arrive unbroken and were labels in good condition?	(Y)	N
15. Were all bottle labels complete(ID,Date,time,etc.)	(Y)	N
16. Did all bottle labels agree with custody papers?	(Y)	N
17. Were the correct containers used for the tests indicated:	(Y)	N
18. Were samples received at the correct pH?	Y	(N/A)
19. Was sufficient amount of sample sent for the tests indicated?	(Y)	N
20. Were bubbles absent in VOA samples?	Y	(N)

If NO, List Sample ID's and Lab #s: 67790.1.C CONTAINED BUBBLE SMALLER THAN PEA SIZE
67790.2.A CONTAINED BUBBLE THE SIZE OF A PEA

21. Laboratory labeling verified by (initials): CP Date: 9/16/10