INITIAL SITE INVESTIGATION
929 SHELBURNE ROAD
SOUTH BURLINGTON, VT

Prepared for:
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P.O. Box 1009
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Project No. 08-*209727*.01
December 2008

Prepared for:
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TABLE OF CONTENTS

EXECUTIVE SUMMARY i
1.0 INTRODUCTION 1
1.1 Site Description and Physical Setting 1
1.2 Site History & Conceptual Site Model 1
1.3 Objectives and Scope of Work 2
2.0 INVESTIGATIVE PROCEDURES AND RESULTS 3
2.1 Soil Boring / Monitoring Well Installation 3
2.2 Soil-Screening Results 3
2.3 Soil Analytical Results 4
2.4 Groundwater Characteristics 4
2.5 Groundwater Sampling and Analysis 4
3.0 SENSITIVE RECEPTOR SURVEY AND RISK ASSESSMENT 5
3.1 Sensitive Receptor Survey 5
3.2 Risk Assessment 5
4.0 CONCLUSIONS 6
5.0 RECOMMENDATIONS 7

FIGURES

Figure 1 Site Location Map
Figure 2 Site Plan
Figure 3 Groundwater Flow Direction Map
Figure 4 Contaminant Concentration Map

TABLES

Table 1 Groundwater Elevation Calculations
Table 2 Summary of Analytical Results

APPENDICES

Appendix A Boring Logs / Monitoring Well Construction Diagrams and Field Notes
Appendix B Photodocumentation
Appendix C Soil Laboratory Analytical Report
Appendix D Low-flow Sampling Field Forms and Field Notes
Appendix E Groundwater Laboratory Analytical Results

EXECUTIVE SUMMARY

Environmental Compliance Services, Inc. (ECS) has conducted an initial site investigation (ISI) in response to petroleum contamination encountered during the excavation of an abandoned underground storage tank (UST) on property owned by the Hannaford Bros. Company within the Kmart Plaza parking lot at 929 Shelburne Road in South Burlington, Vermont. This UST was discovered and removed during the installation of an underground utility line (storm water pipe line) in August 2008.

The ISI included the drilling of six soil borings (SB-A through SB-F) and subsequent installation of four monitoring wells (MW-1 through MW-4), and an evaluation of potential threats to nearby sensitive receptors. ECS's findings related to this work are summarized as follows:

- No volatile organic compounds (VOCs) were detected in any of the sampled wells. Total petroleum hydrocarbons - diesel range organics (TPH-DRO) were detected in source area monitoring well MW-2 at 9.6 mg/L.

- During the ISI, photoionization detector (PID) readings ranging from zero to 4.8 parts per million (ppm) were observed from soil samples collected from the soil borings. The native soils generally consisted of fill material overlying native glaciolacustrine silts and clays. The highest PID reading was recorded in the former UST excavation below the water table at approximately 8 feet below ground surface (bgs) in MW-2. The second highest PID reading was 1.1 ppm in MW-3.

- ECS performed a sensitive receptor survey and did not identify any threat to any potential sensitive receptors.

Based on the findings stated above, it is the opinion of ECS that the site meets the criteria of a Sites Management Activities Completed (SMAC) designation.

ECS recommends properly abandoning monitoring wells MW-1, MW-2, MW-3, and MW-4. Following this activity, ECS would document the well abandonment in a short letter report to the VT DEC and request a SMAC designation.

1.0 INTRODUCTION

This report details the results of an Initial Site Investigation (ISI) performed by Environmental Compliance Services (ECS) in the parking lot of the Kmart Plaza at 929 Shelburne Road in South Burlington, Vermont (Figure 1). The property is owned by Hannaford Bros, and is leased to Merchants Bank.

The ISI was performed following the discovery of petroleum contamination stemming from an abandoned underground storage tank that was encountered while installing underground utilities onsite in August 2008.

This ISI included the drilling of six soil borings and subsequent installation of four monitoring wells (MW-1 through MW-4), and an evaluation of potential threats to nearby sensitive receptors. This work was conducted in general conformance with an ECS work plan dated 29 September 2008.

1.1 SITE DESCRIPTION AND PHYSICAL SETTING

The site is located within the Kmart Plaza parking lot at 929 Shelburne Road in South Burlington, Vermont. There are no structures within the immediate vicinity of the monitoring wells; they are located at the northeast corner of the Kmart Plaza parking lot.

There are no water supply wells or springs onsite. According to the Vermont Agency of Natural Resources Internet Mapping Site of Private Wells, there is one private water supply well located within a ½-mile of the site; however, it is located upgradient. Potash Brook is located approximately ¼ mile south of the site.

1.2 SITE HISTORY & CONCEPTUAL SITE MODEL

The previously unknown abandoned UST was discovered during site work associated with the construction of a new Merchants Bank facility at the subject property, which Merchants Bank leases from Hannaford Bros. A new storm water pipe line was being installed when the UST was discovered. The VT DEC was immediately notified and approval to remove the abandoned UST was granted by Mr. Ted Unkles following 10 VSA Section 1926 procedures.

The UST and it associated piping were found to be in poor condition. Soils consisted of approximately two feet of crushed stone fill underlain by silt and silty-clay to the excavation depth of eight feet. Groundwater was encountered at approximately 8 feet below ground surface. Weathered petroleum odors were observed from soils above and below the water table, with photoionization detector (PID) headspace readings ranging from zero to 10.3 parts per million (ppm).

Impacted soils removed during the UST removal were stockpiled on site. Due to the high silt content of the soil, it was determined it was not suitable backfill material for the storm water pipe, as it would not meet the compaction requirements. Impacted soils (151 tons, approx. 90 cubic yards) were disposed of as daily cover at Interstate Waste Services landfill located in Moretown,Vermont.

Due to the unknown nature and size of the UST, it was necessary to dewater the excavation in order to perform a safe UST removal. Approximately 3,000 gallons of petroleum-impacted groundwater was containerized on site in a portable Frac Tank, treated through carbon and discharged to the South Burlington sanitary sewer system. The onsite pump, treat, and discharge was approved by VT DEC and the City of South Burlington. The appropriate discharge application, public notice period, and discharge

reporting requirements were all met. Laboratory results indicted the groundwater dewatered from the excavation contained 65 ppm Total Petroleum Hydrocarbons – Diesel Range Organics (TPH-DRO) prior to carbon treatment. Post treatment laboratory results indicated all constituents tested for were below laboratory reporting limits (non-detect).

1.3 OBJECTIVES AND SCOPE OF WORK

The objectives of this initial site investigation were to:

- Evaluate the degree and extent of petroleum contamination in soil and groundwater in the vicinity of the UST;
- Qualitatively assess the risks to environmental and public health via relevant sensitive receptors and potential contaminant migration pathways; and,
- Identify appropriate monitoring and/or remedial actions based on the site conditions.

To accomplish these objectives, ECS has:

- Supervised the advancement of six soil borings and subsequent installation of four water-table monitoring wells (MW-1 through MW-4);
- Screened subsurface soils from soil borings for the possible presence of volatile organic compounds (VOCs) using a PID;
- Identified sensitive receptors in the area, and assessed the risk posed by the contamination to these potential receptors; and,
- Prepared this summary report, which details the work performed, qualitatively assesses risks, provides conclusions, and offers recommendations for further action.

2.0 INVESTIGATIVE PROCEDURES AND RESULTS

2.1 SOIL BORING / MONITORING WELL INSTALLATION

On 28 October 2008, ECS supervised the completion of six soil borings (SB-A through SB-F) and subsequent installation of four monitoring wells (MW-1 through MW-4) to initially characterize contaminant and hydrogeologic conditions at the site. Soil boring and monitoring well locations are presented on Figure 2. Borings were installed using Geoprobe, hydraulic direct push methodology by ECS of Agawam, Massachusetts. Soils were collected and screened continuously.

During drilling activities, groundwater was encountered between approximately 4 to 8 feet bgs. The soils were fill material (sand, gravel, bricks, cement) overlying native glaciolacustrine silts and clays. Monitoring well SB-A/MW-1 was located upgradient of the UST. SB-B/MW-2 was located within the former UST excavation. SB-C, SB-D, SB-E/MW-3 and SB-F/MW-4 were located in the presumed downgradient direction of the UST excavation.

The monitoring wells were constructed with one-inch diameter polyvinyl chloride (PVC) casing and factory-slotted 0.010-inch slot screen. The screen sections were set approximately 5 feet above and below the presumed groundwater level. Sections of solid PVC riser were added to bring the tops of the well casings to approximately 0.5 feet bgs. Clean silica #1 filter sand was placed in the borehole annulus around each well approximately two feet above the slotted interval. A granular bentonite seal, approximately 6 inches thick, was set above the sand pack and the remainder of the annular space was backfilled with sand or native material.

Each well was capped with a watertight plug and a flush-mounted protective casing. The wells were developed using a bailer on 28 October 2008. All purge water was discharged to the ground surface in the vicinity of each well.

On 4 November 2008, the monitoring wells and soil boring locations were surveyed relative to existing site features, with an azimuth accuracy of ± 1.0 feet and an elevation accuracy of ± 0.01 feet. Monitoring-well construction details are included on the soil-boring and well-construction logs in Appendix A. Field notes are also presented in Appendix A. Photodocumentation is presented in Appendix B.

2.2 SOIL-SCREENING RESULTS

During the soil-boring program on 28 October 2008, PID readings ranging from zero to 4.8 ppm were obtained from soil samples collected from the soil borings. The highest PID reading was recorded in the former UST excavation below the water at approximately 8 feet bgs in SB-B/MW-2. The second highest PID reading was 1.1 in SB-E/MW-3

No PID readings exceeding 1 ppm were obtained from the other borings onsite.

An ECS field scientist screened soil samples from discrete intervals in each soil boring for the possible presence of VOCs using an Ion Science Phocheck 1000 portable PID. The PID was calibrated in the field with an isobutylene standard gas to a benzene reference. Soil samples were placed into a polyethylene bag, which was then sealed, agitated, and allowed to equilibrate. The PID probe was inserted into the headspace, and the highest reading was recorded. PID screening results are included on the boring logs in Appendix A.

2.3 SOIL ANALYTICAL RESULTS

A soil sample from MW-2 was submitted for laboratory analysis via EPA method 8260 for the Vermont 8021B list of petroleum-related VOCs, and EPA method 8015 for TPH-DRO. No target analytes were detected above laboratory reporting limits. Soil laboratory results are included as Appendix C.

The soil sample was transported under chain-of-custody in an ice-filled cooler to Spectrum Analytical, Inc. of Agawam, Massachusetts.

2.4 GROUNDWATER CHARACTERISTICS

Based on the hydrogeologic data, the groundwater in the unconfined surficial aquifer at the site appears to flow generally west toward the Potash Brook (Figure 3). The average horizontal hydraulic gradient is 6 percent between MW-1 and MW-3. The vertical groundwater flow components at the site, and the hydraulic relationship between the shallow unconfined aquifer and the bedrock aquifer, are currently unknown.

Fluid levels were measured in the monitoring wells on 4 November 2008 to calculate the groundwater flow direction. Depths to groundwater in the on-site monitoring wells ranged from 5.10 feet in MW-1 to 6.62 feet in MW-3 below top-of-casing.

Static water-table elevations were computed for each monitoring well by subtracting the measured depth-to-water readings from the surveyed top-of-casing elevations, which are relative to an arbitrary site datum of 100.00 feet. Water-level measurements and elevation calculations are presented in Table 1. The groundwater flow direction map was prepared using these data (Figure 3).

2.5 GROUNDWATER SAMPLING AND ANALYSIS

Groundwater samples were collected on 4 November 2008 from the four newly installed monitoring wells and analyzed for the possible presence of VOCs and TPH-DRO (Figure 4).

No VOCs were detected in samples collected from any of the wells at concentrations above laboratory reporting limits.

No TPH-DRO was detected in MW-1, MW-3, and MW-4. TPH-DRO was detected in MW-2 at 9.6 mg/L.

Prior to groundwater sample collection, the monitoring wells were low-flowed in general accordance with EPA standard operating procedures. Low-flow forms are included as Appendix D. Purge water was discharged directly to the ground in the vicinity of each well. A trip blank and a blind duplicate sample from MW-1 were collected to ensure that adequate quality assurance/quality control (QA/QC) standards were maintained.

All samples were transported under chain-of-custody in an ice-filled cooler to Spectrum Analytical, Inc. of Agawam, Massachusetts, where they were analyzed for the possible presence of VOCs by EPA Method 8260 and for TPH-DRO by EPA Method 8015.

Analytical results of the blind duplicate sample, collected from MW-1, were all reported below detection limits. No petroleum-related compounds were detected in the trip blank. Analytical results are included in Table 2 and the laboratory analytical reports are presented in Appendix E.

3.0 SENSITIVE RECEPTOR SURVEY AND RISK ASSESSMENT

3.1 SENSITIVE RECEPTOR SURVEY

ECS conducted a survey to identify sensitive receptors in the vicinity of the former UST that could potentially be impacted by contamination associated with the site. The following sensitive receptors were identified in the vicinity of the property.

- The soil and groundwater beneath the former UST excavation area;
- The Potash Brook;
- The indoor air quality of the apartment building to the south of the excavation,
- Underground utilities.

3.2 RISK ASSESSMENT

ECS qualitatively assessed the risks that the residual soil and dissolved-phase subsurface contamination poses to the receptors identified above. In general, human exposure to petroleum-related contamination is possible through inhalation, ingestion, or direct contact while impacts to environmental receptors are due either to a direct release or contaminant migration through one receptor to another or along a preferential pathway.

- Soil and Groundwater Beneath the Former UST Excavation - Elevated VOCs just above 10 ppm were detected by PID in soil samples collected during the former UST removal and soil boring activities. Access to impacted soils in this area is prevented by pavement and the risk of human exposure is very low. Groundwater analytical results indicate that the limited groundwater contamination is not migrating away from the source area in groundwater

- Potash Brook – The Potash Brook is located approximately ¼ mile west of the former UST excavation. Soil boring and groundwater quality data indicate that the limited contamination is not migrating away from the source area; therefore, it is highly unlikely that the Potash Brook is impacted by petroleum contamination from the site.

- Indoor Air Quality of the Downgradient Apartment Building – Soil boring and groundwater quality data indicate that the limited contamination is not migrating away from the source area. Additionally, the diesel range organics detected at low levels in the groundwater from MW-2 are not highly volatile, and no VOCs were detected. Therefore indoor air quality is not likely impacted.

- Underground Utilities – The underground utilities in the vicinity of the former UST excavation include water lines, sewer lines, but they are located upgradient of the source area, between MW-1 and MW-2. A storm water catch basin located 200 feet to the west of the source area was screened with a PID, and no VOCs were detected. The newly installed storm water pipe line is within close proximity to the former UST location, but laboratory results indicate very low concentration of contaminants in groundwater in this area. Also, approximately 90 ton of impacted soil were removed from the source area, further eliminating potential for exposure or migration of contaminants.

4.0 CONCLUSIONS

Based on the results of the site investigation described above, ECS concludes the following:

- No VOCs were detected in any of the sampled wells. TPH-DRO was detected in source area monitoring well MW-2 at 9.6 mg/L.

- During the soil-boring program, PID readings ranging from zero to 4.8 ppm were obtained from soil samples collected from the soil borings. The native soils generally consisted of fill material overlying native glaciolacustrine silts and clays. The highest PID reading was recorded in the former UST excavation below the water table at approximately 8 feet bgs in MW-2. The second highest PID reading was 1.1 ppm in MW-3.

- ECS performed a sensitive receptor survey and did not identify any threat to any potential sensitive receptors.

5.0 RECOMMENDATIONS

Based on the conclusions stated above, it is the opinion of ECS that the site meets the criteria of a Sites Management Activities Completed (SMAC) designation.

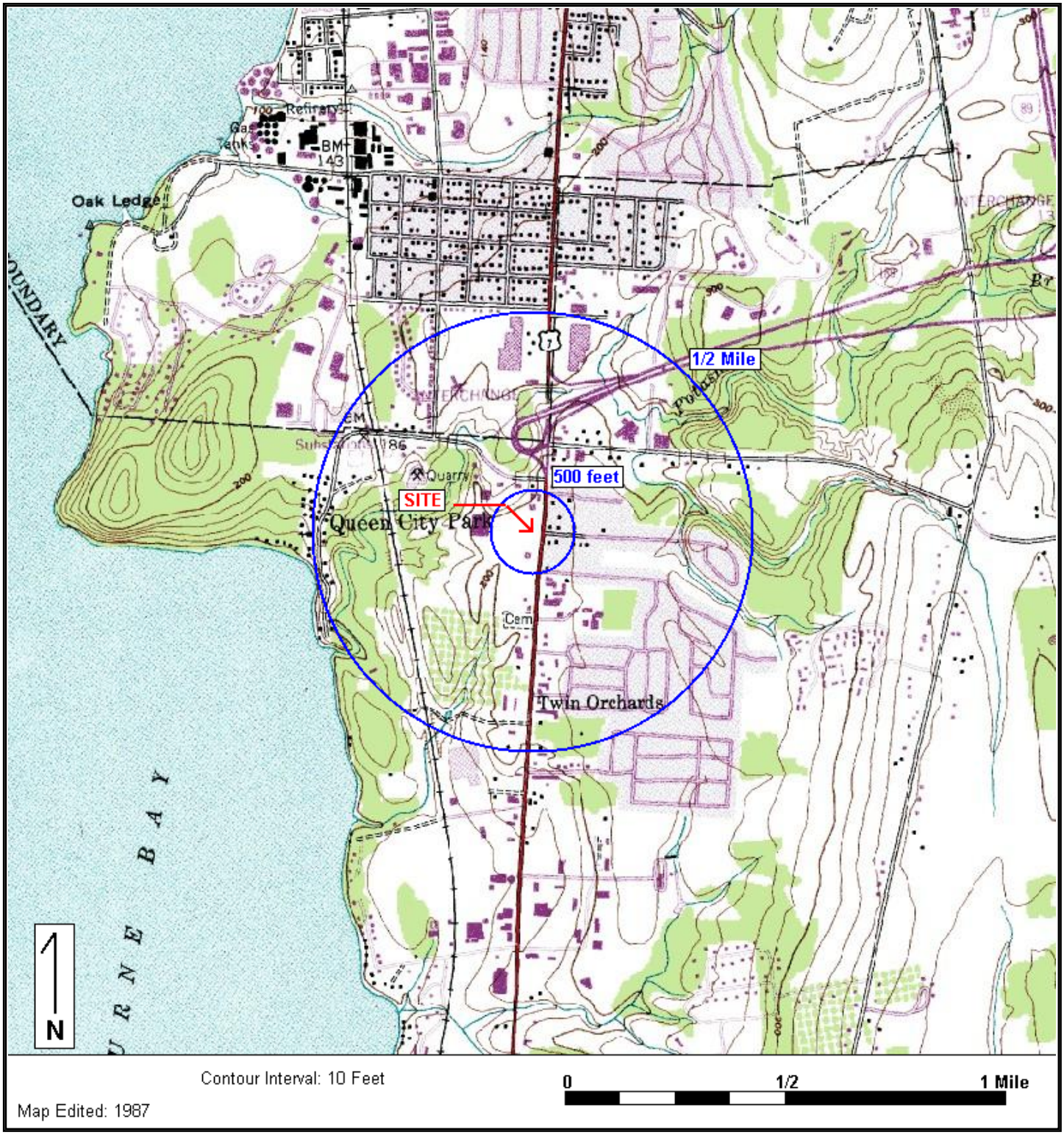
ECS recommends properly abandoning monitoring wells MW-1, MW-2, MW-3, and MW-4. Following this activity, ECS would document the well abandonment in a short letter report to the VT DEC and request a SMAC designation.

FIGURES

Environmental Compliance Services, Inc.
65 Millet Street, Suite 301
Richmond, VT 05477
Phone (802) 434-4500 Fax (802) 434-6076
www.ecsconsult.com

Merchants Bank - Shelburne Rd
PO Box 1009
Burlington, VT 05402

Figure 1: SITE LOCUS



Base Map: U.S. Geological Survey; Quadrangle Location: Burlington, VT
Lat/Lon: 44° 26' 34" NORTH, 73° 12' 36" WEST - UTM Coordinates: 18 642440 EAST / 4922625 NORTH
Generated By: Christine DiMaio

EXXON STATION

APARTMENT BUILDING

TIRE WAREHOUSE

WV-1

MW-1

Man Hole

Former UST Location

MW-2

MW-4

SB-D

MW-3

SB-C

APARTMENT BUILDING

Green Strip

K-MART PARKING LOT

To K-MART

Legend

General Notes:

All locations, dimensions, and property lines depicted on this plan are approximate. This plan should not be used for construction or land conveyance purposes.

Horizontal, and vertical locations of wells, and selected site features determined through measurements made by representatives of ECS.

Water table elevation are based on an assumed benchmark of feet located at the

Water table elevations are based on measurements made on

Water table contours, and flow directions assume homogenous, isotropic aquifer conditions, and horizontal flow.

Fluctuations in the level of the water table may occur due to factors not accounted for at the time of measurement.

Water table contours are interpolated between data points, and inferred in other areas.

ecs
1 ELM STREET, SUITE 3, WATERBURY, VT 05676
Phone: 1-802-241-4131 Fax: 802-244-5694

PROJECT:
HANNAFORD UST
929 Shelburne Rd.
South Burlington, VT

TITLE:
SITE PLAN

CLIENT:
MERCHANTS BANK

GRAPHIC SCALE: 1 1/2 0 1/2 1

COMPUTER CADFILE : 209727.01.R.Nov08

DRAWN BY:	DESIGNED BY:	CHECKED BY:	APPROVED BY:
ABC	ABC	EE	TPM
SCALE:	**DATE:**	**JOB NO.:**	**FIGURE NO.:**
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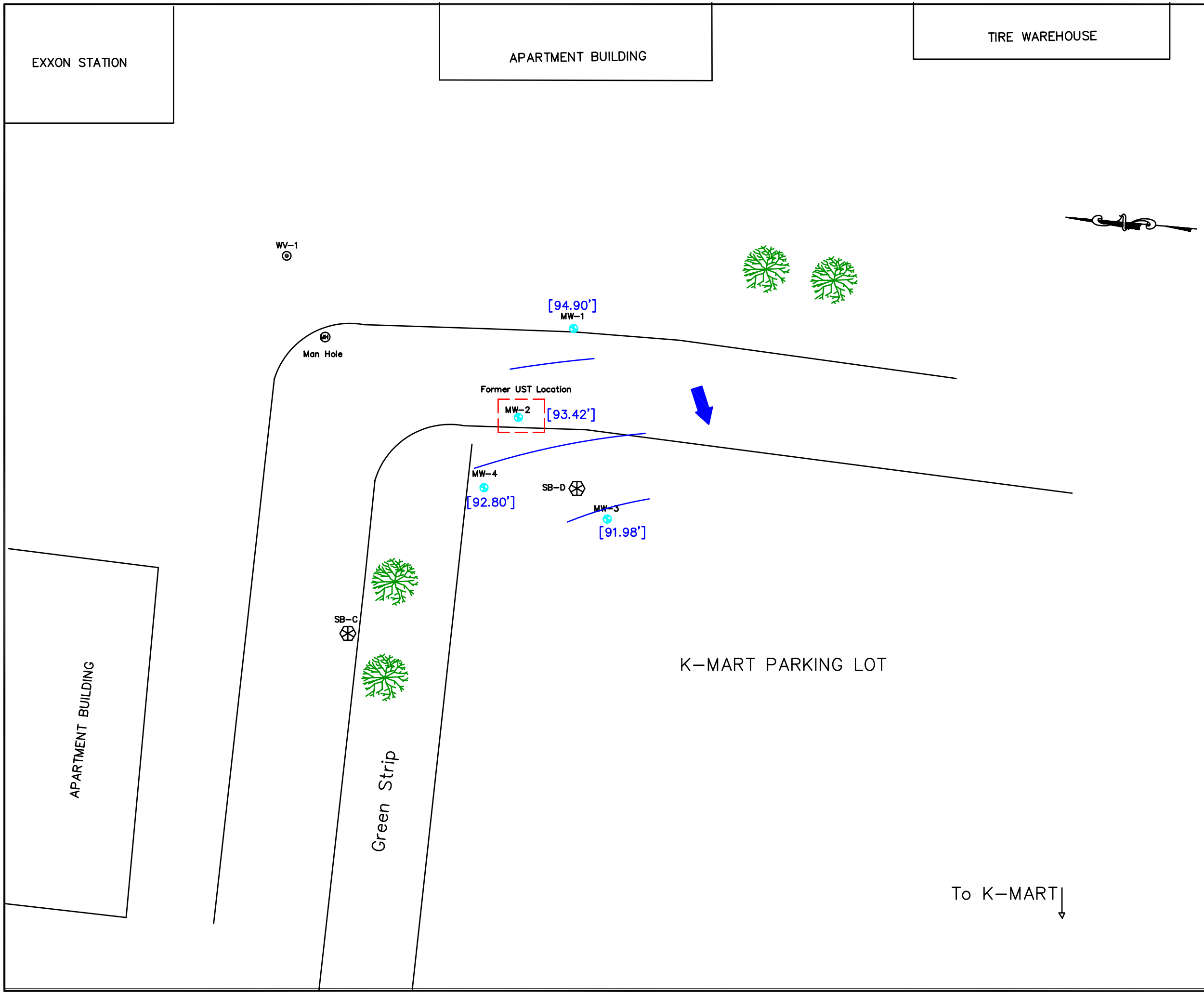

Legend

- Soil Boring
- Manhole
- Water Valve
- MW-1 — Monitoring Well
- 92' — Groundwater Elevation Contour (ft.)
- [91.98'] — Groundwater Elevation (ft.)
- Flow Direction Indicator

General Notes:

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PROJECT:
HANNAFORD.UST
929.SHELBURNE.RD.
SOUTH.BURLINGTON,VT

TITLE:
GROUNDWATER.ELEVATION.MAP

CLIENT:
MERCHANTS.BANK

GRAPHIC SCALE: 0

COMPUTER CADFILE : 08-209727.01.R.NOV08

DRAWN BY:	DESIGNED BY:	CHECKED BY:	APPROVED BY:
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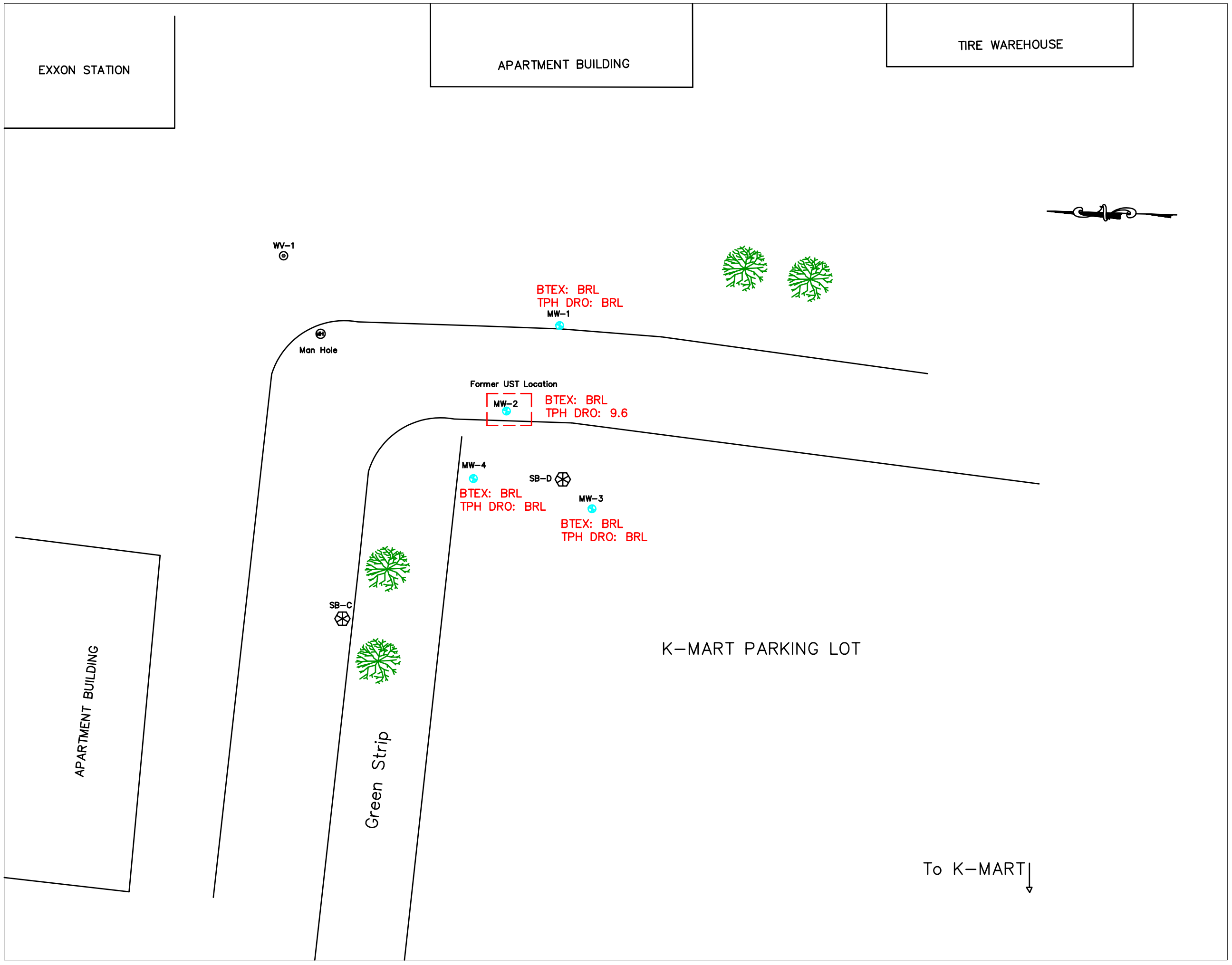

Legend

- MH — Man Hole
- Water Valve
- MW-1 — Monitoring Well
- Soil Boring

BTEX: Sum of benzene, toluene, ethylbenzene, xylenes

TPH DRO: Total petroleum hydro-carbons, diesel range organics (mg/L)

BRL: Below reporting limit

General Notes:

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Fluctuations in the level of the water table may occur due to factors not accounted for at the time of measurement.

Water table contours are interpolated between data points, and inferred in other areas.

ecs
1 Elm Street, Suite 3, Waterbury, VT
Phone: 1-802-241-4131 Fax: 802-244-6894

PROJECT:
HANNAFORD.UST
929.SHELBURNE.RD.
SOUTH.BURLINGTON,VT

TITLE:
CONTAMINATION.DISTRIBUTION.MAP

CLIENT:
MERCHANTS.BANK

GRAPHIC SCALE: 0

COMPUTER CADFILE : 08-209727.01.R.NOV08

DRAWN BY:	DESIGNED BY:	CHECKED BY:	APPROVED BY:
ABC	ABC	EE	EE
SCALE:	**DATE:**	**JOB NO.:**	**FIGURE NO.:**
NTS	11/04/08	08-209727.01	4

TABLES

TABLE 1
GROUNDWATER ELEVATION CALCULATIONS

929 Shelburne Road
South Burlington, VT

Monitoring Date: 4 November 2008

Well I.D.	Top of Casing Elevation	Depth to Water	Water Table Elevation
MW-1	100.00	5.10	94.90
MW-2	98.67	5.25	93.42
MW-3	98.60	6.62	91.98
MW-4	98.10	5.30	92.80

All values reported in feet relative to arbitrary site datum of 100.00 feet.

Table 2
Summary of Analytical Results

929 Shelburne Road
South Burlington, Vermont

Monitoring Date: 4 November 2008

Well I.D.	Benzene	Toluene	Ethyl benzene	Xylenes	Total BTEX	MTBE	Total TMB	Naphthalene	TPH (mg/L)
MW-1	BRL<1.0	BRL<1.0	BRL<1.0	BRL<3.0	BRL	BRL<1.0	BRL<2.0	BRL<1.0	BRL<0.2
MW-2	BRL<1.0	BRL<1.0	BRL<1.0	BRL<3.0	BRL	BRL<1.0	BRL<2.0	BRL<1.0	**9.6**
MW-3	BRL<1.0	BRL<1.0	BRL<1.0	BRL<3.0	BRL	BRL<1.0	BRL<2.0	BRL<1.0	BRL<0.2
MW-4	BRL<1.0	BRL<1.0	BRL<1.0	BRL<3.0	BRL	BRL<1.0	BRL<2.0	BRL<1.0	BRL<0.2
Duplicate (MW-2)	BRL<1.0	BRL<1.0	BRL<1.0	BRL<3.0	BRL	BRL<1.0	BRL<2.0	BRL<1.0	NA
Trip Blank	BRL<1.0	BRL<1.0	BRL<1.0	BRL<3.0	BRL	BRL<1.0	BRL<2.0	BRL<1.0	NA
VGES	***5***	***1,000***	***700***	***10,000***	***--***	***40***	***350***	***20***	***--***

Notes:
Results given in micrograms per liter (µg/L), except TPH given in milligrams per liter (mg/L)
BTEX - a sum of benzene, toluene, ethylbenzene, and total xylenes
MTBE - methyl tertiary butyl ether
TMB - trimethyl benzene
BRL - Below Reporting Limit
VGES - Vermont Groundwater Enforcement Standards
All samples collected by ECS and analyzed by Spectrum Analytical, Inc.
TPH - Total Petroleum Hydrocarbons; results given in milligrams per liter (mg/L)
NA - not analyzed

APPENDIX A

BORING LOGS/MONITORING WELL CONSTRUCTION DIAGRAMS AND FIELD NOTES

1 Elm St, Suite 3 (802) 241-4131
Waterbury, Vermont 05477 (802) 244-6894 - fax

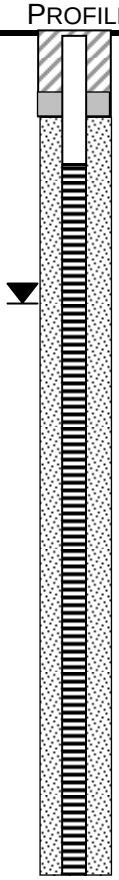
BORING / WELL IDENTIFICATION: **SB-A/MW-1**

Site Name:	**Hannaford UST**
Site Location:	**Shelburne Rd, South Burlinton**
Installation Date:	**10/28/08**
Job Number:	**08-209727.01**

Well Depth:	**12'**	*Boring Depth:*	**16'**	*ECS Representative:*	**Beth Erickson**
Depth to Water (during drilling):	**2 – 4'**			*Drilling Company:*	**ECS**
Screen Diameter:	**1"**	*Depth:*	**2 – 12'**		
Screen Type/Size:	**10 slot PVC**			*Sampling Method:*	**Geoprobe**
Riser Diameter:	**1"**	*Depth:*	**0 – 2'**	*Reference Point (RP):*	**Ground surface**
Riser Type/Size:	**PVC**			*Elevation of RP:*	
Remarks:	Upgradient well				

Depth (in feet)	Sample Depth	Recovery (ft)	Sample Description and Notes	PID (ppm)
0	0 – 4'	2'	0 – 2' gravel fill	0.0
1			2 – 4' sand fill, moist, no odor	
2				
3				
4	4- 8'	3.5'	4 – 6' sand fill, wet (slight naphthalene odor at 5' bgs, but could be old asphalt fill material)	0.2
5			6 – 7' dense brown clayey silt fill	0.0
6			7 – 8' brick fill material, crushed brick	0.0
7				
8	8 - 12	3.0	8 – 12' wet sandy fill material	0.0
9				
10				
11				
12	12 – 16'		Clay at 12' bgs, fill material above this	0.0
13			Dense clay	
14				
15				
16	16'		End of boring	
17			End of Sampling = 16feet Well set @ 12feet	

Well Profile



Legend

- Concrete
- Native Material
- Bentonite
- Filter Sand
- Riser
- Screen
- Water Level

Proportions Used		Blow Count (Cohesive Soils)		Blow Count (Granular Soils)		Notes:
and	33-50%	<2	very soft	0-4	very loose	
some	20-33%	2-4	soft	4-10	loose	PID used: Ion Science Phocheck 1000+
little	10-20%	4-8	medium stiff	10-30	medium dense	
trace	0-10%	8-15	stiff	30-50	dense	
		15-30	very stiff	>50	very dense	
		>30	hard			

1 Elm St, Suite 3 (802) 241-4131
Waterbury, Vermont 05477 (802) 244-6894 - fax

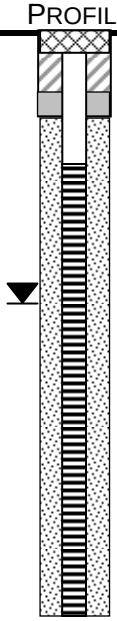
BORING / WELL IDENTIFICATION: **SB-B/MW-2**

Site Name:	**Hannaford UST**
Site Location:	**Shelburne Rd, South Burlinton**
Installation Date:	**10/28/08**
Job Number:	**08-209727.01**

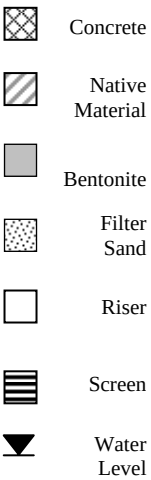
Well Depth:	**8'**	*Boring Depth:*	**8.5'**	*ECS Representative:*	**Beth Erickson**
Depth to Water (during drilling):	**3'**			*Drilling Company:*	**ECS**
Screen Diameter:	**1"**	*Depth:*	**2 – 8'**		
Screen Type/Size:	**10 slot PVC**			*Sampling Method:*	**Geoprobe**
Riser Diameter:	**1"**	*Depth:*	**0 – 2'**	*Reference Point (RP):*	**Ground surface**
Riser Type/Size:	**PVC**			*Elevation of RP:*	
Remarks:	Within former tank grave/Source area well				

Depth (in feet)	Sample Depth	Recovery (ft)	Sample Description and Notes	PID (ppm)
0	0 – 4'	3'	0 – 4' sand fill below asphalt, moist at 2' bgs	0.0
1			Homogenous sandy fill material	
2				
3				
4	4- 8'	2'	4 – 8' sand fill, wet (water pooling into hole)	
5			Sand fill, slight weathered odor	0.9
6				
7			Tip at 8' bgs	4.8
8	8 – 9'		Weird organics/wood – hitting refusal on it	0.6
9				
10				
11				
12				
13				
14				
15				
16				
17			End of Sampling = 8.5feet Well set @ 8feet	

Well Profile



Legend



Proportions Used		Blow Count (Cohesive Soils)		Blow Count (Granular Soils)	
AND	33-50%	<2	VERY SOFT	0-4	VERY LOOSE
SOME	20-33%	2-4	SOFT	4-10	LOOSE
LITTLE	10-20%	4-8	MEDIUM STIFF	10-30	MEDIUM DENSE
TRACE	0-10%	8-15	STIFF	30-50	DENSE
		15-30	VERY STIFF	>50	VERY DENSE
		>30	HARD		

Notes:

PID used: Ion Science Phocheck 1000+

1 Elm St, Suite 3 (802) 241-4131
Waterbury, Vermont 05477 (802) 244-6894 - fax

BORING / WELL IDENTIFICATION: **SB-C**

Site Name:	**Hannaford UST**
Site Location:	**Shelburne Rd, South Burlington**
Installation Date:	**10/28/08**
Job Number:	**08-209727.01**

Well Depth:	**N/A**	*Boring Depth:*	**N/A**	*ECS Representative:*	**Beth Erickson**
Depth to Water (during drilling):	**8'**			*Drilling Company:*	**ECS**
Screen Diameter:	**N/A**	*Depth:*	**N/A**		
Screen Type/Size:	**N/A**			*Sampling Method:*	**Geoprobe**
Riser Diameter:	**N/A**	*Depth:*	**N/A**	*Reference Point (RP):*	**Ground surface**
Riser Type/Size:	**N/A**			*Elevation of RP:*	
Remarks:	Downgradient, NW of source area				

Depth (in feet)	Sample Depth	Recovery (ft)	Sample Description and Notes	PID (ppm)
0	0 – 4'	3.75'	Sand fill under asphalt	0.0
1			No odor, no staining, homogeneous	
2				
3			Moist at 3' bgs	0.0
4	4- 8'	4'	4 – 6' same sand fill, moist (as above)	
5			6 - 8' increasing silt content, no odor, no staining	0.0
6				
7				
8	8 – 12'		8 -10' sand fill, very wet, no odor	0.0
9			10 -12' Old fill material, brick, cement chunks on top of wood layer	0.0
10				
11			12' – same organics/wood as seen in SB-B/MW-2. End of boring.	
12				
13				
14				
15				
16				
17			End of Sampling = 12 feet Well set @ feet	

Well Profile

Legend


Concrete


Native Material


Bentonite


Filter Sand


Riser


Screen


Water Level

Proportions Used	
AND	33-50%
SOME	20-33%
LITTLE	10-20%
TRACE	0-10%

Blow Count (Cohesive Soils)	
<2	VERY SOFT
2-4	SOFT
4-8	MEDIUM STIFF
8-15	STIFF
15-30	VERY STIFF
>30	HARD

Blow Count (Granular Soils)	
0-4	VERY LOOSE
4-10	LOOSE
10-30	MEDIUM DENSE
30-50	DENSE
>50	VERY DENSE

Notes:

PID used: Ion Science Phocheck 1000+

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Waterbury, Vermont 05477 (802) 244-6894 - fax

BORING / WELL IDENTIFICATION: **SB-D**

Site Name:	**Hannaford UST**
Site Location:	**Shelburne Rd, South Burlington**
Installation Date:	**10/28/08**
Job Number:	**08-209727.01**

Well Depth:	**N/A**	*Boring Depth:*	**N/A**	*ECS Representative:*	**Beth Erickson**
Depth to Water (during drilling):	**N/A**			*Drilling Company:*	**ECS**
Screen Diameter:	**N/A**	*Depth:*	**N/A**		
Screen Type/Size:	**N/A**			*Sampling Method:*	**Geoprobe**
Riser Diameter:	**N/A**	*Depth:*	**N/A**	*Reference Point (RP):*	**Ground surface**
Riser Type/Size:	**N/A**			*Elevation of RP:*	
Remarks:	Downgradient of source area, SW				

Depth (in feet)	Sample Depth	Recovery (ft)	Sample Description and Notes	PID (ppm)	Well Profile	Legend
0	0 – 4’	2.5	Fill material			Concrete
1						Native Material
2						Bentonite
3			Concrete at 4’ bgs, just above this is grey sand, moist with slight odor	0.9		Filter Sand
4			Refusal on concrete, moved further SW			Riser
5						Screen
6						Water Level
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17			End of Sampling = 4 feet Well set @ feet			

Proportions Used		Blow Count (Cohesive Soils)		Blow Count (Granular Soils)		Notes:
AND	33-50%	<2	VERY SOFT	0-4	VERY LOOSE	
SOME	20-33%	2-4	SOFT	4-10	LOOSE	PID used: Ion Science Phocheck 1000+
LITTLE	10-20%	4-8	MEDIUM STIFF	10-30	MEDIUM DENSE	
TRACE	0-10%	8-15	STIFF	30-50	DENSE	
		15-30	VERY STIFF	>50	VERY DENSE	
		>30	HARD			

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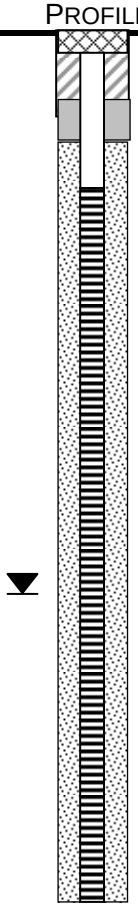
BORING / WELL IDENTIFICATION: **SB-E/MW-3**

Site Name:	**Hannaford UST**
Site Location:	**Shelburne Rd, South Burlington**
Installation Date:	**10/28/08**
Job Number:	**08-209727.01**

Well Depth:	**12'**	*Boring Depth:*	**12'**	*ECS Representative:*	**Beth Erickson**
Depth to Water (during drilling):	**7'**			*Drilling Company:*	**ECS**
Screen Diameter:	**1"**	*Depth:*	**2 – 12'**		
Screen Type/Size:	**10 slot PVC**			*Sampling Method:*	**Geoprobe**
Riser Diameter:	**1"**	*Depth:*	**0 – 2'**	*Reference Point (RP):*	**Ground surface**
Riser Type/Size:	**PVC**			*Elevation of RP:*	
Remarks:	Downgradient of source area to SW				

Depth (in feet)	Sample Depth	Recovery (ft)	Sample Description and Notes	PID (ppm)
0	0 - 4	3.5'	Sand fill 0 – 3', some cement, brick	0.0
1				
2			Thin, darker layer 3 – 3.5', black stained sand, Slight odor	1.1
3			Silty clay 3.5 – 4'	0.0
4	4- 8'	3'	Alternating layers of sand and other fill – cement, sorted sand.	0.0
5			Moist at 7' bgs	
6			Wet rounded gravel 7 – 8' bgs	0.0
7				
8	8 – 12'	3'	8 – 10' very wet fill material, bricks, gravel	0.0
9			10 – 12' grey clayey silt, massive	0.0
10			12' end of boring, into massive lacustrine clay formation	
11				
12				
13				
14				
15				
16				
17			End of Sampling = 12 feet Well set @ 12 feet	

Well Profile



Legend


Concrete


Native Material


Bentonite


Filter Sand


Riser


Screen


Water Level

Proportions Used		Blow Count (Cohesive Soils)		Blow Count (Granular Soils)	
AND	33-50%	<2	VERY SOFT	0-4	VERY LOOSE
SOME	20-33%	2-4	SOFT	4-10	LOOSE
LITTLE	10-20%	4-8	MEDIUM STIFF	10-30	MEDIUM DENSE
TRACE	0-10%	8-15	STIFF	30-50	DENSE
		15-30	VERY STIFF	>50	VERY DENSE
		>30	HARD		

Notes:

PID used: Ion Science Phocheck 1000+

1 Elm St, Suite 3 (802) 241-4131
Waterbury, Vermont 05477 (802) 244-6894 - fax

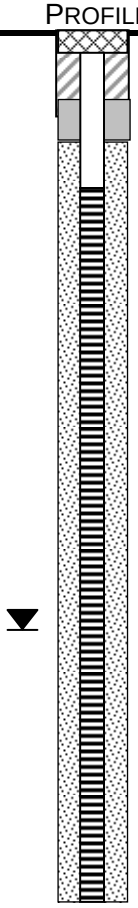
BORING / WELL IDENTIFICATION: **SB-F/MW-4**

Site Name:	**Hannaford UST**
Site Location:	**Shelburne Rd, South Burlington**
Installation Date:	**10/28/08**
Job Number:	**08-209727.01**

Well Depth:	**12'**	*Boring Depth:*	**12'**	*ECS Representative:*	**Beth Erickson**
Depth to Water (during drilling):	**8'**			*Drilling Company:*	**ECS**
Screen Diameter:	**1"**	*Depth:*	**2 – 12'**		
Screen Type/Size:	**10 slot PVC**			*Sampling Method:*	**Geoprobe**
Riser Diameter:	**1"**	*Depth:*	**0 – 2'**	*Reference Point (RP):*	**Ground surface**
Riser Type/Size:	**PVC**			*Elevation of RP:*	
Remarks:	Downgradient of source area to NW				

Depth (in feet)	Sample Depth	Recovery (ft)	Sample Description and Notes	PID (ppm)
0	0 - 4	3'	Fill material, asphalt, concrete chunks, sand	0.0
1			Moist, no odor, no staining	0.0
2				
3				
4	4- 8'	3'	4 – 6' fill material, dry cement chunks	0.0
5			6 – 7.75' moist grey clayey silt	0.0
6			7.75 – 8' organics, wood	0.0
7				
8	8 – 12'	3.75'	8 – 10' fill material, wet	0.0
9			10 – 11' black gravel, water is dark grey but no odor, no sheen	0.0
10			11 – 12' massive grey brown clayey silt, no odor	0.0
11				
12			12' end of boring	
13				
14				
15				
16				
17			End of Sampling = 12 feet Well set @ 12 feet	

Well Profile



Legend


Concrete


Native Material


Bentonite


Filter Sand


Riser


Screen


Water Level

Proportions Used		Blow Count (Cohesive Soils)		Blow Count (Granular Soils)	
AND	33-50%	<2	VERY SOFT	0-4	VERY LOOSE
SOME	20-33%	2-4	SOFT	4-10	LOOSE
LITTLE	10-20%	4-8	MEDIUM STIFF	10-30	MEDIUM DENSE
TRACE	0-10%	8-15	STIFF	30-50	DENSE
		15-30	VERY STIFF	>50	VERY DENSE
		>30	HARD		

Notes:

PID used: Ion Science Phocheck 1000+

08-20972101 10/28/08

- Beth Ericksen
Merchants Bank/Hannaford
UST ISI
- Heavy snow/rain predicted, 30's °F
- Initial Site Investigation
- Onsite 8^15 am
- rental Ion Science Phocheck 1000 PID, calibrated to isobutylene + referenced to benzene response factor 8^15 am
- Met w/ Ron from SD Ireland walked over the locations.
- For upgradient well, they just made a brand new curb. Asked me to put well just over the edge, not drive over curb. Well to stick up 6-8" plan to add soil to level of well

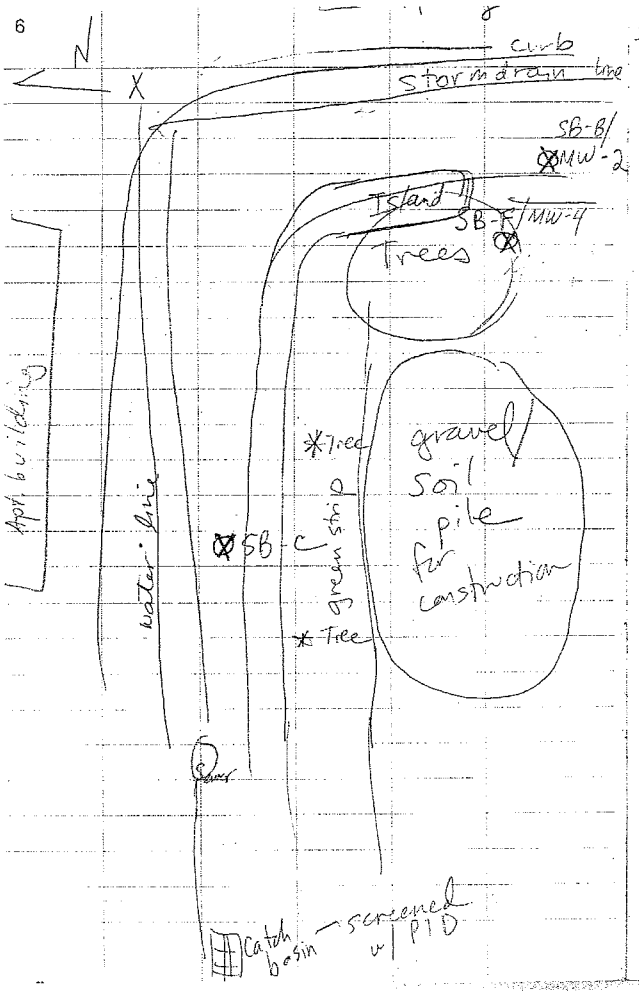
- ADA traffic flaggers onsite 9 am SD Ireland said OK for them to close off private road. Offsite 11^15 - Bill Neal 3 hr minimum rate
- Neal from ECS onsite 9^15 w/ geoprobe offsite ~1 pm
- See boring logs for info on wells, bentonite + well construction

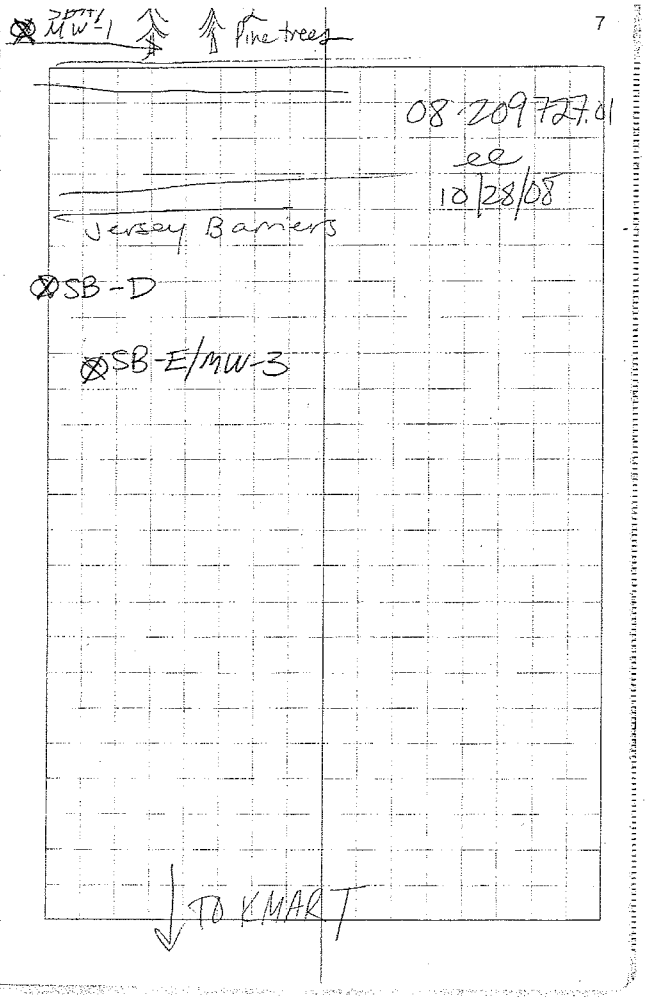
08.209727.01 ee

- SB-A/MW-1
  upgradient well, just beyond curb upgrad from UST excavation
  SJ Ireland to bring ground to grade
- SB-B/MW-2
  source area/tank grave
  well
  Flush mounted
- SB-C is downgradient toward catchbasin
  Did in this order due to availability of traffic control.
  (We have them for 3 hrs scheduled)
  clean

10/28/08

- SB-D Downgrad. to SW of MW-3 refusal on large concrete @ 4 ft (Moved 3 ft further out)
- SB-E/MW-3
  Downgrad to SW of MW-2
- SB F/MW-4
  Downgrad to MW 6 MW-2


N
X
curb
storm drain line
SB-B/MW-2
Island
SB-F/MW-4
Trees
Apt. building
water line
SB-C
*Tree
drainage strip
*Tree
gravel/soil pile for construction
Sewer
Catch basin
screened w/ PID


MW-1
Pine trees
08-209727.01
ee
10/28/08
Jersey Barriers
SB-D
SB-E/MW-3
TO KMART

08-209727.01

- Developed wells w/ bailers
  No odors, no sheens

- re: Sensitive Receptors - basement of Apt building to North not an issue
  2 clean borings between source area + basement

- Also likely no need to sample catchbasin by Foamy-O's. Due to distance + no heat source plume

- Screened catchbasin w/ PID - 0.0 ppm VOCs

10/28/08

- Showed Ron from SD Ireland the new well. Has sworn to maintain MW Lahey to bring ground up to grade. I wrote on pavement next to it "MW-1 Do Not Destroy ECS" Very large w/ spraypaint.

- Marked locations of SB-C w/ spraypaint (could not mark SB-D because it's pouring rain, but plan to survey w/ Liz one week from today. Will also do sidewalks w/ her for inside locating of wells

10/28/08 08-209727.01

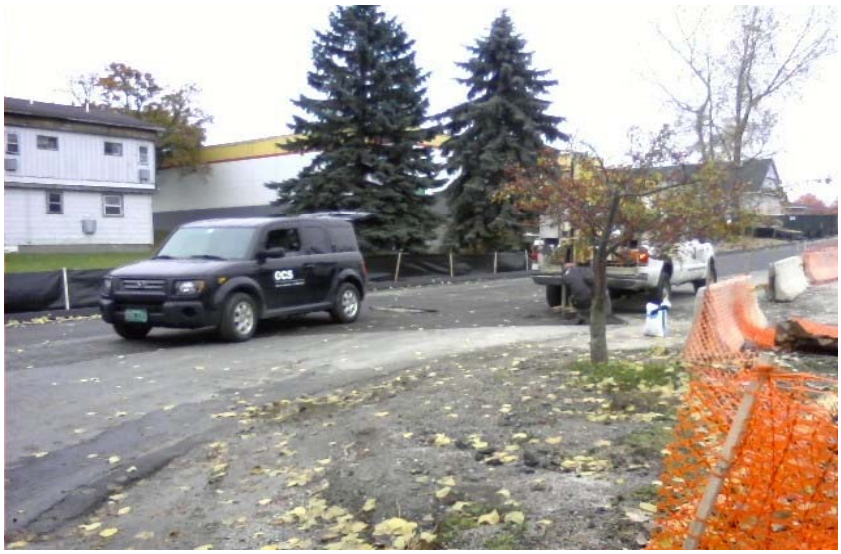
- Soil sample collected from MW-2 hottest zone (4.8 ppm) as per work plan
- Sample MW-2 @ 11 am 10/28/08 for 8021 B + TPH DRO (one soil jar one methanol Voa for lab analysis)
- Plan to low flow Sample 4 wells next week for 8260 + TPH PRO
- also, perform site survey of new wells, site features, + receptors
- Offsite 2:30, return PID to Geotech, demob, etc.

APPENDIX B

PHOTODOCUMENTATION

Photodocumentation
929 Shelburne Road
ISI
28 October 2008

MW-1 installation



MW-2 installation

MW-3 installation

APPENDIX C

SOIL LABORATORY ANALYTICAL REPORT

Report Date:
11-Nov-08 17:36

☑ Final Report
☐ Re-Issued Report
☐ Revised Report

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

Laboratory Report

Environmental Compliance Services
1 Elm St. Suite 3
Waterbury, VT 05676
Attn: Beth Erickson

Project: Merchant's Bank-South Burlington, VT
Project 08-209727.01

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
SA86718-01	MW-2	Soil	28-Oct-08 11:00	30-Oct-08 10:10

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the sample(s) as received.
All applicable NELAC requirements have been met.
Spectrum Analytical holds certification in the State of New York for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes.
Please note that this report contains 6 pages of analytical data plus Chain of Custody document(s).
This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

Massachusetts # M-MA138/MA1110
Connecticut # PH-0777
Florida # E87600/E87936
Maine # MA138
New Hampshire # 2538
New Jersey # MA011/MA012
New York # 11393/11840
Pennsylvania # 68-04426/68-02924
Rhode Island # 98
USDA # S-51435
Vermont # VT-11393

Authorized by:

Hanibal C. Tayeh, Ph.D.
President/Laboratory Director

Technical Reviewer's Initial:

Spectrum Analytical, Inc. is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Spectrum is currently accredited for the specific method or analyte indicated. Please refer to our "Quality" web page at www.spectrum-analytical.com for a full listing of our current certifications and fields of accreditation. States in which Spectrum Analytical, Inc. holds NELAC certification are New York, New Hampshire, New Jersey and Florida. All analytical work for Volatile Organic and Air analysis are transferred to and conducted at our 830 Silver Street location (NY-11840, FL-E87936 and NJ-MA012).

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-2 SA86718-01	08-209727.01	Soil	28-Oct-08 11:00	30-Oct-08

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	Dilution	Method Ref.	Prepared	Analyzed	Batch	Cert.
Volatile Organic Compounds											
	VOC Extraction	Field extracted		N/A		1	VOC Soil Extraction	30-Oct-08	30-Oct-08	8102293	
Volatile Organic Compounds by 8260B			VC10			Initial weight: 19.83 g					
Prepared by method SW846 5030 Soil (high level)											
71-43-2	Benzene	BRL		µg/kg dry	52.3	50	SW846 8260B	31-Oct-08	31-Oct-08	8102340	
106-93-4	1,2-Dibromoethane (EDB)	BRL		µg/kg dry	52.3	50	"	"	"	"	
107-06-2	1,2-Dichloroethane	BRL		µg/kg dry	52.3	50	"	"	"	"	
100-41-4	Ethylbenzene	BRL		µg/kg dry	52.3	50	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	BRL		µg/kg dry	52.3	50	"	"	"	"	
91-20-3	Naphthalene	BRL		µg/kg dry	52.3	50	"	"	"	"	
108-88-3	Toluene	BRL		µg/kg dry	52.3	50	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	BRL		µg/kg dry	52.3	50	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	BRL		µg/kg dry	52.3	50	"	"	"	"	
179601-23-1	m,p-Xylene	BRL		µg/kg dry	105	50	"	"	"	"	
95-47-6	o-Xylene	BRL		µg/kg dry	52.3	50	"	"	"	"	
Surrogate recoveries:											
460-00-4	*4-Bromofluorobenzene*	*110*		*70-130 %*			"	"	"	"	
2037-26-5	*Toluene-d8*	*102*		*70-130 %*			"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*107*		*70-130 %*			"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*98*		*70-130 %*			"	"	"	"	
Extractable Petroleum Hydrocarbons											
Diesel Range Organics											
Prepared by method SW846 3550B											
68476-30-2	Fuel Oil #2	BRL		mg/kg dry	29.3	1	8015BM/ME4.1.25	31-Oct-08	03-Nov-08	8102300	
68476-31-3	Fuel Oil #4	BRL		mg/kg dry	29.3	1	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL		mg/kg dry	29.3	1	"	"	"	"	
M09800000	Motor Oil	BRL		mg/kg dry	29.3	1	"	"	"	"	
J00100000	Aviation Fuel	BRL		mg/kg dry	29.3	1	"	"	"	"	
	Unidentified	BRL		mg/kg dry	29.3	1	"	"	"	"	
	Other Oil	BRL		mg/kg dry	29.3	1	"	"	"	"	
	Diesel Range Organics (DRO)	BRL		mg/kg dry	29.3	1	"	"	"	"	X
Surrogate recoveries:											
3386-33-2	*1-Chlorooctadecane*	*95*		*40-140 %*			"	"	"	"	
General Chemistry Parameters											
	% Solids	85.8		%		1	SM2540 G Mod.	06-Nov-08	06-Nov-08	8110429	

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 8102340 - SW846 5030 Soil (high level)										
Blank (8102340-BLK1)										
Prepared & Analyzed: 31-Oct-08										
Benzene	BRL		µg/kg wet	1.0						
Chlorobenzene	BRL		µg/kg wet	1.0						
1,2-Dibromoethane (EDB)	BRL		µg/kg wet	1.0						
1,2-Dichloroethane	BRL		µg/kg wet	1.0						
1,1-Dichloroethene	BRL		µg/kg wet	1.0						
Ethylbenzene	BRL		µg/kg wet	1.0						
Methyl tert-butyl ether	BRL		µg/kg wet	1.0						
Naphthalene	BRL		µg/kg wet	1.0						
Toluene	BRL		µg/kg wet	1.0						
Trichloroethene	BRL		µg/kg wet	1.0						
1,2,4-Trimethylbenzene	BRL		µg/kg wet	1.0						
1,3,5-Trimethylbenzene	BRL		µg/kg wet	1.0						
m,p-Xylene	BRL		µg/kg wet	2.0						
o-Xylene	BRL		µg/kg wet	1.0						
Surrogate: 4-Bromofluorobenzene	*30.0*		µg/kg wet		*30.0*		*100*	*70-130*		
Surrogate: Toluene-d8	*30.5*		µg/kg wet		*30.0*		*102*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*33.6*		µg/kg wet		*30.0*		*112*	*70-130*		
Surrogate: Dibromofluoromethane	*31.4*		µg/kg wet		*30.0*		*105*	*70-130*		
LCS (8102340-BS1)										
Prepared & Analyzed: 31-Oct-08										
Benzene	19.4		µg/kg wet		20.0		97	70-130		
1,2-Dibromoethane (EDB)	21.4		µg/kg wet		20.0		107	70-130		
1,2-Dichloroethane	22.2		µg/kg wet		20.0		111	70-130		
Ethylbenzene	21.4		µg/kg wet		20.0		107	70-130		
Methyl tert-butyl ether	21.7		µg/kg wet		20.0		108	70-130		
Naphthalene	17.2		µg/kg wet		20.0		86	70-130		
Toluene	20.5		µg/kg wet		20.0		103	70-130		
1,2,4-Trimethylbenzene	22.6		µg/kg wet		20.0		113	70-130		
1,3,5-Trimethylbenzene	23.0		µg/kg wet		20.0		115	70-130		
m,p-Xylene	45.7		µg/kg wet		40.0		114	70-130		
o-Xylene	22.8		µg/kg wet		20.0		114	70-130		
Surrogate: 4-Bromofluorobenzene	*31.2*		µg/kg wet		*30.0*		*104*	*70-130*		
Surrogate: Toluene-d8	*31.2*		µg/kg wet		*30.0*		*104*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*32.5*		µg/kg wet		*30.0*		*108*	*70-130*		
Surrogate: Dibromofluoromethane	*31.3*		µg/kg wet		*30.0*		*104*	*70-130*		
LCS Dup (8102340-BSD1)										
Prepared & Analyzed: 31-Oct-08										
Benzene	19.2		µg/kg wet		20.0		96	70-130	1	30
1,2-Dibromoethane (EDB)	20.4		µg/kg wet		20.0		102	70-130	4	25
1,2-Dichloroethane	22.3		µg/kg wet		20.0		111	70-130	0.3	25
Ethylbenzene	21.1		µg/kg wet		20.0		106	70-130	2	30
Methyl tert-butyl ether	20.3		µg/kg wet		20.0		101	70-130	7	30
Naphthalene	18.2		µg/kg wet		20.0		91	70-130	5	30
Toluene	19.4		µg/kg wet		20.0		97	70-130	6	30
1,2,4-Trimethylbenzene	21.5		µg/kg wet		20.0		108	70-130	5	30
1,3,5-Trimethylbenzene	22.0		µg/kg wet		20.0		110	70-130	5	30
m,p-Xylene	43.6		µg/kg wet		40.0		109	70-130	5	30
o-Xylene	21.2		µg/kg wet		20.0		106	70-130	7	30
Surrogate: 4-Bromofluorobenzene	*31.1*		µg/kg wet		*30.0*		*104*	*70-130*		
Surrogate: Toluene-d8	*30.3*		µg/kg wet		*30.0*		*101*	*70-130*		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 8102340 - SW846 5030 Soil (high level)										
LCS Dup (8102340-BSD1)										
Prepared & Analyzed: 31-Oct-08										
Surrogate: 1,2-Dichloroethane-d4	*32.6*		µg/kg wet		*30.0*		*109*	*70-130*		
Surrogate: Dibromofluoromethane	*31.5*		µg/kg wet		*30.0*		*105*	*70-130*		
Matrix Spike (8102340-MS1)	**Source: SA86698-01**									
Prepared & Analyzed: 31-Oct-08										
Benzene	17.1		µg/kg wet		20.0	BRL	85	70-130		
Chlorobenzene	20.4		µg/kg wet		20.0	BRL	102	70-130		
1,1-Dichloroethene	17.8		µg/kg wet		20.0	BRL	89	70-130		
Toluene	18.6		µg/kg wet		20.0	BRL	93	70-130		
Trichloroethene	18.0		µg/kg wet		20.0	BRL	90	70-130		
Surrogate: 4-Bromofluorobenzene	*31.1*		µg/kg wet		*30.0*		*104*	*70-130*		
Surrogate: Toluene-d8	*31.7*		µg/kg wet		*30.0*		*106*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*31.9*		µg/kg wet		*30.0*		*106*	*70-130*		
Surrogate: Dibromofluoromethane	*29.8*		µg/kg wet		*30.0*		*99*	*70-130*		
Matrix Spike Dup (8102340-MSD1)	**Source: SA86698-01**									
Prepared & Analyzed: 31-Oct-08										
Benzene	17.5		µg/kg wet		20.0	BRL	88	70-130	3	30
Chlorobenzene	21.4		µg/kg wet		20.0	BRL	107	70-130	5	30
1,1-Dichloroethene	17.6		µg/kg wet		20.0	BRL	88	70-130	2	30
Toluene	18.6		µg/kg wet		20.0	BRL	93	70-130	0.05	30
Trichloroethene	18.9		µg/kg wet		20.0	BRL	94	70-130	4	30
Surrogate: 4-Bromofluorobenzene	*30.9*		µg/kg wet		*30.0*		*103*	*70-130*		
Surrogate: Toluene-d8	*31.2*		µg/kg wet		*30.0*		*104*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*30.6*		µg/kg wet		*30.0*		*102*	*70-130*		
Surrogate: Dibromofluoromethane	*30.4*		µg/kg wet		*30.0*		*101*	*70-130*		

Extractable Petroleum Hydrocarbons - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 8102300 - SW846 3550B										
Blank (8102300-BLK1)										
Prepared & Analyzed: 31-Oct-08										
Fuel Oil #2	BRL		mg/kg wet	13.3						
Fuel Oil #4	BRL		mg/kg wet	13.3						
Fuel Oil #6	BRL		mg/kg wet	13.3						
Motor Oil	BRL		mg/kg wet	13.3						
Aviation Fuel	BRL		mg/kg wet	13.3						
Unidentified	BRL		mg/kg wet	13.3						
Other Oil	BRL		mg/kg wet	13.3						
Diesel Range Organics (DRO)	BRL		mg/kg wet	13.3						
C9 - C36	BRL		mg/kg wet	13.3						
Surrogate: 1-Chlorooctadecane	*2.77*		mg/kg wet		*3.33*		*83*	*40-140*		
LCS (8102300-BS1)										
Prepared & Analyzed: 31-Oct-08										
Fuel Oil #2	677		mg/kg wet	13.3	667		102	40-140		
C9 - C36	BRL		mg/kg wet	13.3				40-140		
Surrogate: 1-Chlorooctadecane	*3.50*		mg/kg wet		*3.33*		*105*	*40-140*		
Duplicate (8102300-DUP1) **Source: SA86730-03**										
Prepared: 31-Oct-08 Analyzed: 03-Nov-08										
Fuel Oil #2	BRL		mg/kg dry	27.2		BRL				50
Fuel Oil #4	BRL		mg/kg dry	27.2		BRL				50
Fuel Oil #6	BRL		mg/kg dry	27.2		BRL				50
Motor Oil	BRL		mg/kg dry	27.2		BRL				50
Aviation Fuel	BRL		mg/kg dry	27.2		BRL				50
Unidentified	BRL		mg/kg dry	27.2		BRL				50
Other Oil	BRL		mg/kg dry	27.2		BRL				50
Diesel Range Organics (DRO)	BRL		mg/kg dry	27.2		BRL				50
Surrogate: 1-Chlorooctadecane	*3.11*		mg/kg dry		*3.40*		*91*	*40-140*		

General Chemistry Parameters - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 8110429 - General Preparation										
Duplicate (8110429-DUP1) **Source: SA86697-01**										
Prepared & Analyzed: 06-Nov-08										
% Solids	32.8		%			33.3			1	20

Notes and Definitions

VC10	The VOC preserved soil sample is not within the 1:1 weight to volume ratio as recommended by SW846 methods 5030 and 5035 but may be within the 1:1 volume to volume ratio. This variance may affect the final reporting limit.
BRL	Below Reporting Limit - Analyte NOT DETECTED at or above the reporting limit
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

A plus sign (+) in the Method Reference column indicates the method is not accredited by NELAC.

Interpretation of Total Petroleum Hydrocarbon Report

Petroleum identification is determined by comparing the GC fingerprint obtained from the sample with a library of GC fingerprints obtained from analyses of various petroleum products. Possible match categories are as follows:

Gasoline - includes regular, unleaded, premium, etc.
Fuel Oil #2 - includes home heating oil, #2 fuel oil, and diesel
Fuel Oil #4 - includes #4 fuel oil
Fuel Oil #6 - includes #6 fuel oil and bunker "C" oil
Motor Oil - includes virgin and waste automobile oil
Ligroin - includes mineral spirits, petroleum naphtha, vm&p naphtha
Aviation Fuel - includes kerosene, Jet A and JP-4
Other Oil - includes lubricating and cutting oil, and silicon oil

At times, the unidentified petroleum product is quantified using a calibration that most closely approximates the distribution of compounds in the sample. When this occurs, the result is qualified as *TPH (Calculated as).

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

Matrix Spike: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

Method Blank: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

Surrogate: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

Validated by:
Hanibal C. Tayeh, Ph.D.

SA 86718 EM

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

CHAIN OF CUSTODY RECORD

Page 1 of 1

Special Handling:
- [x] Standard TAT - 7 to 10 business days
- [ ] Rush TAT - Date Needed: _____
- All TATs subject to laboratory approval. Min. 24-hour notification needed for rushes.
- Samples disposed of after 60 days unless otherwise instructed.

Report To: ECS
1 Elm St Suite 3
Waterbury VT

Project Mgr.: Beth Erickson

Invoice To: →

P.O. No.: _____ RQN: 0002

Project No.: 08-209727.01
Site Name: Merchants Bank
Location: South Burlington State: VT
Sampler(s): Beth Erickson

1=$Na_2S_2O_3$ 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH_3OH 8=$NaHSO_4$ 9=_____ 10=_____

DW=Drinking Water GW=Groundwater WW=Wastewater
O=Oil SW=Surface Water SO=Soil SL=Sludge A=Air
X1=_____ X2=_____ X3=_____

G=Grab C=Composite

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix	Preservative	Containers: # of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Analyses: 8021 B VT Scan	8015 DRO	QA Reporting Notes: (check if needed)
86718 01	MW-2	10/28/08	11:00	G	SO	7/none	1	1			X	X	

QA Reporting Notes (check if needed):
- [ ] Provide MA DEP MCP CAM Report
- [ ] Provide CT DEP RCP Report

QA/QC Reporting Level
- [ ] Standard [ ] No QC
- [ ] Other _____

State specific reporting standards: _____

- [ ] Fax results when available to (____) _____
- [x] E-mail to eerickson@ecsconsult.com
EDD Format _____

Condition upon receipt: [ ] Iced [ ] Ambient [ ] °C 9.6

Relinquished by:	Received by:	Date:	Time:
Elizabeth K Erickson	UPS	10/29/08	9:00
UPS		10/30/8	10:10 Am

UPS CampusShip: View/Print Label

1. **Print the label(s):** Select the Print button on the print dialog box that appears. Note: If your browser does not support this function select Print from the File menu to print the label.

2. **Fold the printed label at the dotted line.** Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.

3. **GETTING YOUR SHIPMENT TO UPS**
   Customers without a Daily Pickup
   - Schedule a same day or future day Pickup to have a UPS driver pickup all your CampusShip packages.
   - Hand the package to any UPS driver in your area.
   - Take your package to any location of The UPS Store®, UPS Drop Box, UPS Customer Center, UPS Alliances (Office Depot® or Staples®) or Authorized Shipping Outlet near you. Items sent via UPS Return Services℠ (including via Ground) are accepted at Drop Boxes.
   - To find the location nearest you, please visit the Resources area of CampusShip and select UPS Locations.

   Customers with a Daily Pickup
   - Your driver will pickup your shipment(s) as usual.

FOLD HERE

APPENDIX D

LOW-FLOW SAMPLING FIELD FORMS AND FIELD NOTES

ECS Well Sampling Form – Page 1 of 2

Site Name/Location: Merchant's Shelburne Rd Date: 11/4/08

Sample I.D.: MW-4 Collection Time 10:30

Sampling Sequence: 1 Of 4

EC S Field Staff Collecting This Sample: EM

Climatic Conditions (Temp/Precip): 55°F Sunny/Breezy

Depth To Product: ND Feet Depth To Water: 5.10 Feet

Reference Point (TOC or other -Describe) TOC

Ref. Point Elev. Relative To Ground Surface (Use "+" For Aboveground, "–" For Belowground): -0.2 feet

Measurement Technique (WLM, IP or other -Describe) IP

Presence/Absence Of NAPL And Detection Method: ND

Total Depth Of Boring (Take Measurement After Sampling): 10.65

Well Yield: High X Low Pumped Dry?

Final Water Appearance (At Sample Collection) Clear X Cloudy Opaque

Sample Collected from (tubing, bailer, or other-describe) tubing

Submitted For Analysis By (Method or Methods): 8260, 8015 DRO

Field Test Results (HACH Kits):

Alkalinity: NA Chloride: NA

Iron (II): NA Sulfate: NA

Notes:

--USE REVERSE SIDE OF FORM FOR LOW FLOW SAMPLING PARAMETERS--

Low-Flow Well Sampling Form – Page 2 of 2

Location: Merchant's Shelburne Rd
Well Id: MW-4
Field Personnel: EM
Reference Point (RP – TOC or other-describe): TOC

Depth To / 10.65ft Of Screen (Below RP)
Top Bottom
Pump Intake Depth: 8.0 ft
Pumping Device: Peristaltic

Time (24 Hr)	Depth To Water (ft)	Purge Rate mL/min)	Pump Speed RPM	Cumulative Volume Purged(gal)	Temperature °C	Specific Conductance (uS/cm)	pH	ORP / eH (mV)	DO (Mg/L)	*Turbidity (NTU)	Comments
9:50	5.35		150		15.79	5.181	6.65	-119.3	0.30	98.39	
9:55	5.40			0.5	16.25	5.122	6.71	-124.2	0.12	38.38	
10:00	5.40				16.00	5.131	6.74	-121.9	0.11	24.37	
10:05	5.40			1.0	16.08	5.131	6.77	-131.2	0.01	8.10	
10:10	5.40				16.11	5.128	6.78	-128.4	0.01	5.42	
10:15	5.40				16.16	5.123	6.79	-130.0	0.01	3.45	
10:20	5.40			1.5	16.24	5.119	6.80	-135.6	0.00	4.38	
10:25	5.40				16.23	5.117	6.81	-131.0	0.00	1.39	
10:30	5.40			2.0	16.28	5.116	6.82	-129.0	0.00	2.02	Sampled

Notes:

ECS Well Sampling Form – Page 1 of 2

Site Name/Location: Merchants Shelburne Rd Date: 11/4/08

Sample I.D.: MW-3 Collection Time 11:25

Sampling Sequence: 2 Of 4

EC S Field Staff Collecting This Sample: EM

Climatic Conditions (Temp/Precip): 55°F Sunny

Depth To Product: ND Feet Depth To Water: 5.25 Feet

Reference Point (TOC or other -Describe) TOC

Ref. Point Elev. Relative To Ground Surface (Use "+" For Aboveground, "–" For Belowground): -0.2 feet

Measurement Technique (WLM, IP or other -Describe) IP

Presence/Absence Of NAPL And Detection Method: ND

Total Depth Of Boring (Take Measurement After Sampling): 10.22

Well Yield: High X Low Pumped Dry?

Final Water Appearance (At Sample Collection) Clear X Cloudy Opaque

Sample Collected from (tubing, bailer, or other-describe) tubing

Submitted For Analysis By (Method or Methods): 8015 DRO, 8260

Field Test Results (HACH Kits):

Alkalinity: NA Chloride: NA

Iron (II): NA Sulfate: NA

Notes:

--USE REVERSE SIDE OF FORM FOR LOW FLOW SAMPLING PARAMETERS--

Low-Flow Well Sampling Form – Page 2 of 2

Location: ~~Shell~~ Merchant's Shelburne
Well Id: MW-3
Field Personnel: EM
Reference Point (RP – TOC or other-describe): TOC

Depth To / 10.22 ft Of Screen (Below RP)
Top Bottom
Pump Intake Depth: 8.5 ft
Pumping Device: Peristaltic

Time (24 Hr)	Depth To Water (ft)	Purge Rate mL/min)	Pump Speed RPM	Cumulative Volume Purged(gal)	Temperature °C	Specific Conductance (uS/cm)	pH	ORP / eH (mV)	DO (Mg/L)	Turbidity (NTU)	Comments
10:45	5.33		150		15.48	4.119	7.06	-112.4	0.02	292.5	
10:50	5.33			0.5	15.58	4.111	7.03	-117.2	0.08	81.10	
10:55	5.35				15.56	4.112	6.99	-117.2	0.02	18.58	
11:00	5.35			1.0	15.56	4.113	6.97	-120.4	0.01	9.36	
11:05	5.35				15.61	4.112	6.96	-122.4	0.00	6.30	
11:10	5.35			1.5	15.60	4.112	6.95	-125.0	0.00	10.07	
11:15	5.35				15.60	4.112	6.94	-126.3	0.00	1.86	
11:20	5.35				15.61	4.112	6.94	-126.6	-0.01	6.19	
11:25	5.35			2.0	15.58	4.113	6.94	-126.3	-0.01	7.97	sampled

Notes:

ECS Well Sampling Form – Page 1 of 2

Site Name/Location: Merchant's Shelburne Date: 11/4/08

Sample I.D.: MW-1 Collection Time 12:25

Sampling Sequence: # 3 Of 4

EC S Field Staff Collecting This Sample: EM

Climatic Conditions (Temp/Precip): 50°F Sunny/Breezy

Depth To Product: ND Feet Depth To Water: 6.62 Feet

Reference Point (TOC or other -Describe) TOC

Ref. Point Elev. Relative To Ground Surface (Use "+" For Aboveground, "–" For Belowground): +0.60 feet

Measurement Technique (WLM, IP or other -Describe) IP

Presence/Absence Of NAPL And Detection Method: ND

Total Depth Of Boring (Take Measurement After Sampling): 11.62

Well Yield: High_____ Low_____ Pumped Dry? _____

Final Water Appearance (At Sample Collection) Clear_____ Cloudy_____ Opaque_____

Sample Collected from (tubing, bailer, or other-describe) tubing

Submitted For Analysis By (Method or Methods): 8015 DRO, 8260

Field Test Results (HACH Kits):

Alkalinity: NA Chloride: NA

Iron (II): NA Sulfate: NA

Notes:

--USE REVERSE SIDE OF FORM FOR LOW FLOW SAMPLING PARAMETERS--

Low-Flow Well Sampling Form – Page 2 of 2

Location: Merchant's Shelburne
Well Id: MW-1
Field Personnel: EM
Reference Point (RP – TOC or other-describe): TOC

Depth To Top / 11.68 Bottom Of Screen (Below RP)
Pump Intake Depth: 9.5ft
Pumping Device: Peristaltic

Time (24 Hr)	Depth To Water (ft)	Purge Rate mL/min)	Pump Speed	Cumulative Volume Purged (gal)	Temperature °C	Specific Conductance (uS/cm)	pH	ORP / eH (mV)	DO (Mg/L)	Turbidity (NTU)	Comments
11:40	6.62		150	—	14.30	3.575	7.03	-75.2	0.20	398.7	
11:45	6.62				14.29	3.583	7.02	-75.2	0.18	102.5	
11:50	6.62			0.5	14.27	3.621	7.00	-74.3	0.10	68.64	
11:55	6.62				14.25	3.700	6.95	-72.1	0.08	71.72	
12:00	6.62				14.25	3.722	6.93	-68.6	0.02	62.17	
12:05	6.62				14.24	3.745	6.92	-65.0	0.00	44.99	
12:10	6.62				14.23	3.775	6.90	-57.9	-0.01	24.90	
12:15	6.62				14.24	3.778	6.90	-57.5	-0.01	17.76	
12:20	6.63				14.23	3.783	6.90	-56.5	-0.01	14.83	
12:25	6.63				14.19	3.784	6.90	-56.4	-0.01	8.74	Sampled

Notes:

ECS Well Sampling Form – Page 1 of 2

Site Name/Location: Merchant's Shelburne Rd Date: 11/4/08

Sample I.D.: MW-2 Collection Time 13:40

Sampling Sequence: 4 of 4

EC S Field Staff Collecting This Sample: EM

Climatic Conditions (Temp/Precip): 55°F Sunny/Breezy

Depth To Product: ND Feet Depth To Water: 5.30 Feet

Reference Point (TOC or other -Describe) TOC

Ref. Point Elev. Relative To Ground Surface (Use "+" For Aboveground, "–" For Belowground): -0.25 feet

Measurement Technique (WLM, IP or other -Describe) IP

Presence/Absence Of NAPL And Detection Method: ND

Total Depth Of Boring (Take Measurement After Sampling): 7.45 ft

Well Yield: High_____ Low_____ Pumped Dry? X

Final Water Appearance (At Sample Collection) Clear_____ Cloudy X Opaque_____

Sample Collected from (tubing, bailer, or other-describe) tubing

Submitted For Analysis By (Method or Methods): 8260, 8015 DRO

Field Test Results (HACH Kits):

Alkalinity: NA Chloride: NA

Iron (II): NA Sulfate: NA

Notes:

--USE REVERSE SIDE OF FORM FOR LOW FLOW SAMPLING PARAMETERS--

Low-Flow Well Sampling Form – Page 2 of 2

Location: Merchant's Shelburne Rd
Well Id: MW-2
Field Personnel: EM
Reference Point (RP – TOC or other-describe): TOC

Depth To Top / 7.45 Bottom Of Screen (Below RP)
Pump Intake Depth: 6.0 ft
Pumping Device: Peristaltic

Time (24 Hr)	Depth To Water (ft)	Purge Rate mL/min)	Pump Speed	Cumulative Volume Purged	Temperature °C	Specific Conductance (uS/cm)	pH	ORP / eH (mV)	DO (Mg/L)	Turbidity (NTU)	Comments
→ PUMPED DRY ←											

Notes:

Well pumped dry on lowest pump speed prior to low-flow cell filling.

Left to Recharge and then sample

11/4/08

08-209727.01
Merchant's Shelburne

8:30 EM onsite
55°F sunny

BE met onsite checked in w/ construction crew

Perform ISI

Location	top	mid	bot	angle
MW-3	5.60	~~5.55~~ 5.49	5.38	0
SB-D	5.36	5.51	5.68	9
MW-4	5.71	5.99	6.25	358
MW-2	5.16	5.42	5.70	19
MW-1	3.78	4.09	4.40	44
Curb-1	3.60	3.91	4.21	44
Curb-2	3.58	4.25	4.63	29
Curb-3	3.23	3.48	3.73	69
CP-1	0.07	0.70	1.40	44
CP-2	0.17	0.78	1.34	75
WV-1	3.35	3.98	4.60	18
CB-1	4.63	5.17	5.70	12

34

11/4/08

08-209727.01
Merchants Shelburne

loc	top	mid	bot	Angle
~~curb-4~~	~~5.24~~	~~5.80~~	~~5.24~~	
curb-5	7.86	7.31	6.75	337
curb-6	11.58	10.82	10.05	304
curb-4	6.70	6.15	5.61	353
CP-4	10.48	9.80	9.14	340
CP-3	12.45	11.60	10.75	309
SB-C	8.04	7.60	7.15	328

Take Swing Tie measurements

~~MW-3~~

Start	End	dist
MW-3	MW-4	31.25
MW-4	MW-2	19.9
MW-3	MW-2	33.7
MW-1	MW-4	49.0
MW-1	MW-2	27.0

Low flow Wells

Duplicate taken from MW-1 @ 12:25

14:30 EM offsite

Elisabeth Miller 11/4/08

APPENDIX E

GROUNDWATER LABORATORY ANALYTICAL RESULTS

Report Date:
17-Nov-08 11:49

☑ Final Report
☐ Re-Issued Report
☐ Revised Report

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

Laboratory Report

Environmental Compliance Services
1 Elm St. Suite 3
Waterbury, VT 05676
Attn: Beth Erickson

Project: Merchant's Shelburne Rd - South Burlington, VT
Project 08-209727.01

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
SA87135-01	MW-4	Ground Water	04-Nov-08 10:30	06-Nov-08 10:40
SA87135-02	MW-3	Ground Water	04-Nov-08 11:25	06-Nov-08 10:40
SA87135-03	MW-2	Ground Water	04-Nov-08 13:40	06-Nov-08 10:40
SA87135-04	MW-1	Ground Water	04-Nov-08 12:25	06-Nov-08 10:40
SA87135-05	Duplicate	Ground Water	04-Nov-08 00:00	06-Nov-08 10:40
SA87135-06	Trip Blank	Ground Water	04-Nov-08 08:00	06-Nov-08 10:40

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the sample(s) as received.
All applicable NELAC requirements have been met.
Spectrum Analytical holds certification in the State of New York for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes.
Please note that this report contains 20 pages of analytical data plus Chain of Custody document(s).

Massachusetts # M-MA138/MA1110
Connecticut # PH-0777
Florida # E87600/E87936
Maine # MA138
New Hampshire # 2538
New Jersey # MA011/MA012
New York # 11393/11840
Pennsylvania # 68-04426/68-02924
Rhode Island # 98
USDA # S-51435
Vermont # VT-11393

Authorized by:

Hanibal C. Tayeh, Ph.D.
President/Laboratory Director

Technical Reviewer's Initial:

Spectrum Analytical, Inc. is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Spectrum is currently accredited for the specific method or analyte indicated. Please refer to our "Quality" web page at www.spectrum-analytical.com for a full listing of our current certifications and fields of accreditation. States in which Spectrum Analytical, Inc. holds NELAC certification are New York, New Hampshire, New Jersey and Florida. All analytical work for Volatile Organic and Air analysis are transferred to and conducted at our 830 Silver Street location (NY-11840, FL-E87936 and NJ-MA012).

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-4 SA87135-01	08-209727.01	Ground Water	04-Nov-08 10:30	06-Nov-08

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	Dilution	Method Ref.	Prepared	Analyzed	Batch	Cert.
Volatile Organic Compounds											
Volatile Organic Compounds											
Prepared by method SW846 5030 Water MS											
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	BRL		µg/l	1.0	1	SW846 8260B	11-Nov-08	12-Nov-08	8110777	X
67-64-1	Acetone	BRL		µg/l	10.0	1	"	"	"	"	X
107-13-1	Acrylonitrile	BRL		µg/l	0.5	1	"	"	"	"	X
71-43-2	Benzene	BRL		µg/l	1.0	1	"	"	"	"	X
108-86-1	Bromobenzene	BRL		µg/l	1.0	1	"	"	"	"	
74-97-5	Bromochloromethane	BRL		µg/l	1.0	1	"	"	"	"	X
75-27-4	Bromodichloromethane	BRL		µg/l	0.5	1	"	"	"	"	X
75-25-2	Bromoform	BRL		µg/l	1.0	1	"	"	"	"	X
74-83-9	Bromomethane	BRL		µg/l	2.0	1	"	"	"	"	X
78-93-3	2-Butanone (MEK)	BRL		µg/l	10.0	1	"	"	"	"	X
104-51-8	n-Butylbenzene	BRL		µg/l	1.0	1	"	"	"	"	X
135-98-8	sec-Butylbenzene	BRL		µg/l	1.0	1	"	"	"	"	X
98-06-6	tert-Butylbenzene	BRL		µg/l	1.0	1	"	"	"	"	
75-15-0	Carbon disulfide	BRL		µg/l	5.0	1	"	"	"	"	X
56-23-5	Carbon tetrachloride	BRL		µg/l	1.0	1	"	"	"	"	X
108-90-7	Chlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	X
75-00-3	Chloroethane	BRL		µg/l	2.0	1	"	"	"	"	X
67-66-3	Chloroform	BRL		µg/l	1.0	1	"	"	"	"	X
74-87-3	Chloromethane	BRL		µg/l	2.0	1	"	"	"	"	X
95-49-8	2-Chlorotoluene	BRL		µg/l	1.0	1	"	"	"	"	
106-43-4	4-Chlorotoluene	BRL		µg/l	1.0	1	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	BRL		µg/l	2.0	1	"	"	"	"	X
124-48-1	Dibromochloromethane	BRL		µg/l	0.5	1	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	BRL		µg/l	0.5	1	"	"	"	"	X
74-95-3	Dibromomethane	BRL		µg/l	1.0	1	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	BRL		µg/l	2.0	1	"	"	"	"	X
75-34-3	1,1-Dichloroethane	BRL		µg/l	1.0	1	"	"	"	"	X
107-06-2	1,2-Dichloroethane	BRL		µg/l	1.0	1	"	"	"	"	X
75-35-4	1,1-Dichloroethene	BRL		µg/l	1.0	1	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	BRL		µg/l	1.0	1	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	BRL		µg/l	1.0	1	"	"	"	"	X
78-87-5	1,2-Dichloropropane	BRL		µg/l	1.0	1	"	"	"	"	X
142-28-9	1,3-Dichloropropane	BRL		µg/l	1.0	1	"	"	"	"	X
594-20-7	2,2-Dichloropropane	BRL		µg/l	1.0	1	"	"	"	"	X
563-58-6	1,1-Dichloropropene	BRL		µg/l	1.0	1	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	BRL		µg/l	0.5	1	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	BRL		µg/l	0.5	1	"	"	"	"	X
100-41-4	Ethylbenzene	BRL		µg/l	1.0	1	"	"	"	"	X
87-68-3	Hexachlorobutadiene	BRL		µg/l	0.5	1	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	BRL		µg/l	10.0	1	"	"	"	"	X
98-82-8	Isopropylbenzene	BRL		µg/l	1.0	1	"	"	"	"	X
99-87-6	4-Isopropyltoluene	BRL		µg/l	1.0	1	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	BRL		µg/l	1.0	1	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	BRL		µg/l	10.0	1	"	"	"	"	X
75-09-2	Methylene chloride	BRL		µg/l	5.0	1	"	"	"	"	X
91-20-3	Naphthalene	BRL		µg/l	1.0	1	"	"	"	"	X
103-65-1	n-Propylbenzene	BRL		µg/l	1.0	1	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-4 SA87135-01	08-209727.01	Ground Water	04-Nov-08 10:30	06-Nov-08

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	Dilution	Method Ref.	Prepared	Analyzed	Batch	Cert.
Volatile Organic Compounds											
Volatile Organic Compounds											
Prepared by method SW846 5030 Water MS											
100-42-5	Styrene	BRL		µg/l	1.0	1	SW846 8260B	11-Nov-08	12-Nov-08	8110777	X
630-20-6	1,1,1,2-Tetrachloroethane	BRL		µg/l	1.0	1	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	BRL		µg/l	0.5	1	"	"	"	"	X
127-18-4	Tetrachloroethene	BRL		µg/l	1.0	1	"	"	"	"	X
108-88-3	Toluene	BRL		µg/l	1.0	1	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	BRL		µg/l	1.0	1	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	BRL		µg/l	1.0	1	"	"	"	"	X
79-01-6	Trichloroethene	BRL		µg/l	1.0	1	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	BRL		µg/l	1.0	1	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	BRL		µg/l	1.0	1	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	BRL		µg/l	1.0	1	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	BRL		µg/l	1.0	1	"	"	"	"	X
75-01-4	Vinyl chloride	BRL		µg/l	1.0	1	"	"	"	"	X
179601-23-1	m,p-Xylene	BRL		µg/l	2.0	1	"	"	"	"	X
95-47-6	o-Xylene	BRL		µg/l	1.0	1	"	"	"	"	X
109-99-9	Tetrahydrofuran	BRL		µg/l	10.0	1	"	"	"	"	
60-29-7	Ethyl ether	BRL		µg/l	1.0	1	"	"	"	"	
994-05-8	Tert-amyl methyl ether	BRL		µg/l	1.0	1	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	BRL		µg/l	1.0	1	"	"	"	"	X
108-20-3	Di-isopropyl ether	BRL		µg/l	1.0	1	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	BRL		µg/l	10.0	1	"	"	"	"	X
123-91-1	1,4-Dioxane	BRL		µg/l	20.0	1	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-butene	BRL		µg/l	5.0	1	"	"	"	"	X
64-17-5	Ethanol	BRL		µg/l	400	1	"	"	"	"	X
Surrogate recoveries:											
460-00-4	*4-Bromofluorobenzene*	*89*		*70-130 %*			"	"	"	"	
2037-26-5	*Toluene-d8*	*101*		*70-130 %*			"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*111*		*70-130 %*			"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*105*		*70-130 %*			"	"	"	"	
Extractable Petroleum Hydrocarbons											
Diesel Range Organics											
Prepared by method SW846 3510C											
68476-30-2	Fuel Oil #2	BRL		mg/l	0.2	1	8015BM/ME4.1.25	12-Nov-08	13-Nov-08	8110838	
68476-31-3	Fuel Oil #4	BRL		mg/l	0.2	1	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL		mg/l	0.2	1	"	"	"	"	
M09800000	Motor Oil	BRL		mg/l	0.2	1	"	"	"	"	
J00100000	Aviation Fuel	BRL		mg/l	0.2	1	"	"	"	"	
	Unidentified	BRL		mg/l	0.2	1	"	"	"	"	
	Other Oil	BRL		mg/l	0.2	1	"	"	"	"	
	Diesel Range Organics (DRO)	BRL		mg/l	0.2	1	"	"	"	"	
Surrogate recoveries:											
3386-33-2	*1-Chlorooctadecane*	*61*		*40-140 %*			"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-3 SA87135-02	08-209727.01	Ground Water	04-Nov-08 11:25	06-Nov-08

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	Dilution	Method Ref.	Prepared	Analyzed	Batch	Cert.
Volatile Organic Compounds											
Volatile Organic Compounds											
Prepared by method SW846 5030 Water MS											
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	BRL		µg/l	1.0	1	SW846 8260B	11-Nov-08	12-Nov-08	8110777	X
67-64-1	Acetone	BRL		µg/l	10.0	1	"	"	"	"	X
107-13-1	Acrylonitrile	BRL		µg/l	0.5	1	"	"	"	"	X
71-43-2	Benzene	BRL		µg/l	1.0	1	"	"	"	"	X
108-86-1	Bromobenzene	BRL		µg/l	1.0	1	"	"	"	"	
74-97-5	Bromochloromethane	BRL		µg/l	1.0	1	"	"	"	"	X
75-27-4	Bromodichloromethane	BRL		µg/l	0.5	1	"	"	"	"	X
75-25-2	Bromoform	BRL		µg/l	1.0	1	"	"	"	"	X
74-83-9	Bromomethane	BRL		µg/l	2.0	1	"	"	"	"	X
78-93-3	2-Butanone (MEK)	BRL		µg/l	10.0	1	"	"	"	"	X
104-51-8	n-Butylbenzene	BRL		µg/l	1.0	1	"	"	"	"	X
135-98-8	sec-Butylbenzene	BRL		µg/l	1.0	1	"	"	"	"	X
98-06-6	tert-Butylbenzene	BRL		µg/l	1.0	1	"	"	"	"	
75-15-0	Carbon disulfide	BRL		µg/l	5.0	1	"	"	"	"	X
56-23-5	Carbon tetrachloride	BRL		µg/l	1.0	1	"	"	"	"	X
108-90-7	Chlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	X
75-00-3	Chloroethane	BRL		µg/l	2.0	1	"	"	"	"	X
67-66-3	Chloroform	BRL		µg/l	1.0	1	"	"	"	"	X
74-87-3	Chloromethane	BRL		µg/l	2.0	1	"	"	"	"	X
95-49-8	2-Chlorotoluene	BRL		µg/l	1.0	1	"	"	"	"	
106-43-4	4-Chlorotoluene	BRL		µg/l	1.0	1	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	BRL		µg/l	2.0	1	"	"	"	"	X
124-48-1	Dibromochloromethane	BRL		µg/l	0.5	1	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	BRL		µg/l	0.5	1	"	"	"	"	X
74-95-3	Dibromomethane	BRL		µg/l	1.0	1	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	BRL		µg/l	2.0	1	"	"	"	"	X
75-34-3	1,1-Dichloroethane	BRL		µg/l	1.0	1	"	"	"	"	X
107-06-2	1,2-Dichloroethane	BRL		µg/l	1.0	1	"	"	"	"	X
75-35-4	1,1-Dichloroethene	BRL		µg/l	1.0	1	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	BRL		µg/l	1.0	1	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	BRL		µg/l	1.0	1	"	"	"	"	X
78-87-5	1,2-Dichloropropane	BRL		µg/l	1.0	1	"	"	"	"	X
142-28-9	1,3-Dichloropropane	BRL		µg/l	1.0	1	"	"	"	"	X
594-20-7	2,2-Dichloropropane	BRL		µg/l	1.0	1	"	"	"	"	X
563-58-6	1,1-Dichloropropene	BRL		µg/l	1.0	1	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	BRL		µg/l	0.5	1	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	BRL		µg/l	0.5	1	"	"	"	"	X
100-41-4	Ethylbenzene	BRL		µg/l	1.0	1	"	"	"	"	X
87-68-3	Hexachlorobutadiene	BRL		µg/l	0.5	1	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	BRL		µg/l	10.0	1	"	"	"	"	X
98-82-8	Isopropylbenzene	BRL		µg/l	1.0	1	"	"	"	"	X
99-87-6	4-Isopropyltoluene	BRL		µg/l	1.0	1	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	BRL		µg/l	1.0	1	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	BRL		µg/l	10.0	1	"	"	"	"	X
75-09-2	Methylene chloride	BRL		µg/l	5.0	1	"	"	"	"	X
91-20-3	Naphthalene	BRL		µg/l	1.0	1	"	"	"	"	X
103-65-1	n-Propylbenzene	BRL		µg/l	1.0	1	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-3 SA87135-02	08-209727.01	Ground Water	04-Nov-08 11:25	06-Nov-08

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	Dilution	Method Ref.	Prepared	Analyzed	Batch	Cert.
Volatile Organic Compounds											
Volatile Organic Compounds											
Prepared by method SW846 5030 Water MS											
100-42-5	Styrene	BRL		µg/l	1.0	1	SW846 8260B	11-Nov-08	12-Nov-08	8110777	X
630-20-6	1,1,1,2-Tetrachloroethane	BRL		µg/l	1.0	1	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	BRL		µg/l	0.5	1	"	"	"	"	X
127-18-4	Tetrachloroethene	BRL		µg/l	1.0	1	"	"	"	"	X
108-88-3	Toluene	BRL		µg/l	1.0	1	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	BRL		µg/l	1.0	1	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	BRL		µg/l	1.0	1	"	"	"	"	X
79-01-6	Trichloroethene	BRL		µg/l	1.0	1	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	BRL		µg/l	1.0	1	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	BRL		µg/l	1.0	1	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	BRL		µg/l	1.0	1	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	BRL		µg/l	1.0	1	"	"	"	"	X
75-01-4	Vinyl chloride	BRL		µg/l	1.0	1	"	"	"	"	X
179601-23-1	m,p-Xylene	BRL		µg/l	2.0	1	"	"	"	"	X
95-47-6	o-Xylene	BRL		µg/l	1.0	1	"	"	"	"	X
109-99-9	Tetrahydrofuran	BRL		µg/l	10.0	1	"	"	"	"	
60-29-7	Ethyl ether	BRL		µg/l	1.0	1	"	"	"	"	
994-05-8	Tert-amyl methyl ether	BRL		µg/l	1.0	1	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	BRL		µg/l	1.0	1	"	"	"	"	X
108-20-3	Di-isopropyl ether	BRL		µg/l	1.0	1	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	BRL		µg/l	10.0	1	"	"	"	"	X
123-91-1	1,4-Dioxane	BRL		µg/l	20.0	1	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-butene	BRL		µg/l	5.0	1	"	"	"	"	X
64-17-5	Ethanol	BRL		µg/l	400	1	"	"	"	"	X
Surrogate recoveries:											
460-00-4	*4-Bromofluorobenzene*	*90*		*70-130 %*			"	"	"	"	
2037-26-5	*Toluene-d8*	*101*		*70-130 %*			"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*112*		*70-130 %*			"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*106*		*70-130 %*			"	"	"	"	
Extractable Petroleum Hydrocarbons											
Diesel Range Organics											
Prepared by method SW846 3510C											
68476-30-2	Fuel Oil #2	BRL		mg/l	0.2	1	8015BM/ME4.1.25	12-Nov-08	13-Nov-08	8110838	
68476-31-3	Fuel Oil #4	BRL		mg/l	0.2	1	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL		mg/l	0.2	1	"	"	"	"	
M09800000	Motor Oil	BRL		mg/l	0.2	1	"	"	"	"	
J00100000	Aviation Fuel	BRL		mg/l	0.2	1	"	"	"	"	
	Unidentified	BRL		mg/l	0.2	1	"	"	"	"	
	Other Oil	BRL		mg/l	0.2	1	"	"	"	"	
	Diesel Range Organics (DRO)	BRL		mg/l	0.2	1	"	"	"	"	
Surrogate recoveries:											
3386-33-2	*1-Chlorooctadecane*	*57*		*40-140 %*			"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-2	08-209727.01	Ground Water	04-Nov-08 13:40	06-Nov-08
SA87135-03				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	Dilution	Method Ref.	Prepared	Analyzed	Batch	Cert.
Volatile Organic Compounds											
Volatile Organic Compounds											
Prepared by method SW846 5030 Water MS											
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	BRL		µg/l	1.0	1	SW846 8260B	11-Nov-08	12-Nov-08	8110777	X
67-64-1	Acetone	BRL	R03	µg/l	20.0	1	"	"	"	"	X
107-13-1	Acrylonitrile	BRL		µg/l	0.5	1	"	"	"	"	X
71-43-2	Benzene	BRL		µg/l	1.0	1	"	"	"	"	X
108-86-1	Bromobenzene	BRL		µg/l	1.0	1	"	"	"	"	
74-97-5	Bromochloromethane	BRL		µg/l	1.0	1	"	"	"	"	X
75-27-4	Bromodichloromethane	BRL		µg/l	0.5	1	"	"	"	"	X
75-25-2	Bromoform	BRL		µg/l	1.0	1	"	"	"	"	X
74-83-9	Bromomethane	BRL		µg/l	2.0	1	"	"	"	"	X
78-93-3	2-Butanone (MEK)	BRL		µg/l	10.0	1	"	"	"	"	X
104-51-8	n-Butylbenzene	BRL		µg/l	1.0	1	"	"	"	"	X
135-98-8	sec-Butylbenzene	BRL		µg/l	1.0	1	"	"	"	"	X
98-06-6	tert-Butylbenzene	BRL		µg/l	1.0	1	"	"	"	"	
75-15-0	Carbon disulfide	BRL		µg/l	5.0	1	"	"	"	"	X
56-23-5	Carbon tetrachloride	BRL		µg/l	1.0	1	"	"	"	"	X
108-90-7	Chlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	X
75-00-3	Chloroethane	BRL		µg/l	2.0	1	"	"	"	"	X
67-66-3	Chloroform	BRL		µg/l	1.0	1	"	"	"	"	X
74-87-3	Chloromethane	BRL		µg/l	2.0	1	"	"	"	"	X
95-49-8	2-Chlorotoluene	BRL		µg/l	1.0	1	"	"	"	"	
106-43-4	4-Chlorotoluene	BRL		µg/l	1.0	1	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	BRL		µg/l	2.0	1	"	"	"	"	X
124-48-1	Dibromochloromethane	BRL		µg/l	0.5	1	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	BRL		µg/l	0.5	1	"	"	"	"	X
74-95-3	Dibromomethane	BRL		µg/l	1.0	1	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	BRL		µg/l	2.0	1	"	"	"	"	X
75-34-3	1,1-Dichloroethane	BRL		µg/l	1.0	1	"	"	"	"	X
107-06-2	1,2-Dichloroethane	BRL		µg/l	1.0	1	"	"	"	"	X
75-35-4	1,1-Dichloroethene	BRL		µg/l	1.0	1	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	BRL		µg/l	1.0	1	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	BRL		µg/l	1.0	1	"	"	"	"	X
78-87-5	1,2-Dichloropropane	BRL		µg/l	1.0	1	"	"	"	"	X
142-28-9	1,3-Dichloropropane	BRL		µg/l	1.0	1	"	"	"	"	X
594-20-7	2,2-Dichloropropane	BRL		µg/l	1.0	1	"	"	"	"	X
563-58-6	1,1-Dichloropropene	BRL		µg/l	1.0	1	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	BRL		µg/l	0.5	1	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	BRL		µg/l	0.5	1	"	"	"	"	X
100-41-4	Ethylbenzene	BRL		µg/l	1.0	1	"	"	"	"	X
87-68-3	Hexachlorobutadiene	BRL		µg/l	0.5	1	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	BRL		µg/l	10.0	1	"	"	"	"	X
98-82-8	Isopropylbenzene	BRL		µg/l	1.0	1	"	"	"	"	X
99-87-6	4-Isopropyltoluene	BRL		µg/l	1.0	1	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	BRL		µg/l	1.0	1	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	BRL		µg/l	10.0	1	"	"	"	"	X
75-09-2	Methylene chloride	BRL		µg/l	5.0	1	"	"	"	"	X
91-20-3	Naphthalene	BRL		µg/l	1.0	1	"	"	"	"	X
103-65-1	n-Propylbenzene	BRL		µg/l	1.0	1	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-2 SA87135-03	08-209727.01	Ground Water	04-Nov-08 13:40	06-Nov-08

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	Dilution	Method Ref.	Prepared	Analyzed	Batch	Cert.
Volatile Organic Compounds											
Volatile Organic Compounds											
Prepared by method SW846 5030 Water MS											
100-42-5	Styrene	BRL		µg/l	1.0	1	SW846 8260B	11-Nov-08	12-Nov-08	8110777	X
630-20-6	1,1,1,2-Tetrachloroethane	BRL		µg/l	1.0	1	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	BRL		µg/l	0.5	1	"	"	"	"	X
127-18-4	Tetrachloroethene	BRL		µg/l	1.0	1	"	"	"	"	X
108-88-3	Toluene	BRL		µg/l	1.0	1	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	BRL		µg/l	1.0	1	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	BRL		µg/l	1.0	1	"	"	"	"	X
79-01-6	Trichloroethene	BRL		µg/l	1.0	1	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	BRL		µg/l	1.0	1	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	BRL		µg/l	1.0	1	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	BRL		µg/l	1.0	1	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	BRL		µg/l	1.0	1	"	"	"	"	X
75-01-4	Vinyl chloride	BRL		µg/l	1.0	1	"	"	"	"	X
179601-23-1	m,p-Xylene	BRL		µg/l	2.0	1	"	"	"	"	X
95-47-6	o-Xylene	BRL		µg/l	1.0	1	"	"	"	"	X
109-99-9	Tetrahydrofuran	BRL		µg/l	10.0	1	"	"	"	"	
60-29-7	Ethyl ether	BRL		µg/l	1.0	1	"	"	"	"	
994-05-8	Tert-amyl methyl ether	BRL		µg/l	1.0	1	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	BRL		µg/l	1.0	1	"	"	"	"	X
108-20-3	Di-isopropyl ether	BRL		µg/l	1.0	1	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	BRL		µg/l	10.0	1	"	"	"	"	X
123-91-1	1,4-Dioxane	BRL		µg/l	20.0	1	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-butene	BRL		µg/l	5.0	1	"	"	"	"	X
64-17-5	Ethanol	BRL		µg/l	400	1	"	"	"	"	X
Surrogate recoveries:											
460-00-4	*4-Bromofluorobenzene*	*92*		*70-130 %*			"	"	"	"	
2037-26-5	*Toluene-d8*	*101*		*70-130 %*			"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*112*		*70-130 %*			"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*106*		*70-130 %*			"	"	"	"	
Extractable Petroleum Hydrocarbons											
Diesel Range Organics											
Prepared by method SW846 3510C											
68476-30-2	Fuel Oil #2	Calculated as		mg/l	0.2	1	8015BM/ME4.1.25	12-Nov-08	13-Nov-08	8110838	
68476-31-3	Fuel Oil #4	BRL		mg/l	0.2	1	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL		mg/l	0.2	1	"	"	"	"	
M09800000	Motor Oil	Calculated as		mg/l	0.2	1	"	"	"	"	
J00100000	Aviation Fuel	BRL		mg/l	0.2	1	"	"	"	"	
	Unidentified	9.6		mg/l	0.2	1	"	"	"	"	
	Other Oil	BRL		mg/l	0.2	1	"	"	"	"	
	Diesel Range Organics (DRO)	9.6		mg/l	0.2	1	"	"	"	"	
Surrogate recoveries:											
3386-33-2	*1-Chlorooctadecane*	*52*		*40-140 %*			"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-1 SA87135-04	08-209727.01	Ground Water	04-Nov-08 12:25	06-Nov-08

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	Dilution	Method Ref.	Prepared	Analyzed	Batch	Cert.
Volatile Organic Compounds											
Volatile Organic Compounds											
Prepared by method SW846 5030 Water MS											
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	BRL		µg/l	1.0	1	SW846 8260B	11-Nov-08	12-Nov-08	8110777	X
67-64-1	Acetone	BRL		µg/l	10.0	1	"	"	"	"	X
107-13-1	Acrylonitrile	BRL		µg/l	0.5	1	"	"	"	"	X
71-43-2	Benzene	BRL		µg/l	1.0	1	"	"	"	"	X
108-86-1	Bromobenzene	BRL		µg/l	1.0	1	"	"	"	"	
74-97-5	Bromochloromethane	BRL		µg/l	1.0	1	"	"	"	"	X
75-27-4	Bromodichloromethane	BRL		µg/l	0.5	1	"	"	"	"	X
75-25-2	Bromoform	BRL		µg/l	1.0	1	"	"	"	"	X
74-83-9	Bromomethane	BRL		µg/l	2.0	1	"	"	"	"	X
78-93-3	2-Butanone (MEK)	BRL		µg/l	10.0	1	"	"	"	"	X
104-51-8	n-Butylbenzene	BRL		µg/l	1.0	1	"	"	"	"	X
135-98-8	sec-Butylbenzene	BRL		µg/l	1.0	1	"	"	"	"	X
98-06-6	tert-Butylbenzene	BRL		µg/l	1.0	1	"	"	"	"	
75-15-0	Carbon disulfide	BRL		µg/l	5.0	1	"	"	"	"	X
56-23-5	Carbon tetrachloride	BRL		µg/l	1.0	1	"	"	"	"	X
108-90-7	Chlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	X
75-00-3	Chloroethane	BRL		µg/l	2.0	1	"	"	"	"	X
67-66-3	Chloroform	BRL		µg/l	1.0	1	"	"	"	"	X
74-87-3	Chloromethane	BRL		µg/l	2.0	1	"	"	"	"	X
95-49-8	2-Chlorotoluene	BRL		µg/l	1.0	1	"	"	"	"	
106-43-4	4-Chlorotoluene	BRL		µg/l	1.0	1	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	BRL		µg/l	2.0	1	"	"	"	"	X
124-48-1	Dibromochloromethane	BRL		µg/l	0.5	1	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	BRL		µg/l	0.5	1	"	"	"	"	X
74-95-3	Dibromomethane	BRL		µg/l	1.0	1	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	BRL		µg/l	2.0	1	"	"	"	"	X
75-34-3	1,1-Dichloroethane	BRL		µg/l	1.0	1	"	"	"	"	X
107-06-2	1,2-Dichloroethane	BRL		µg/l	1.0	1	"	"	"	"	X
75-35-4	1,1-Dichloroethene	BRL		µg/l	1.0	1	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	BRL		µg/l	1.0	1	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	BRL		µg/l	1.0	1	"	"	"	"	X
78-87-5	1,2-Dichloropropane	BRL		µg/l	1.0	1	"	"	"	"	X
142-28-9	1,3-Dichloropropane	BRL		µg/l	1.0	1	"	"	"	"	X
594-20-7	2,2-Dichloropropane	BRL		µg/l	1.0	1	"	"	"	"	X
563-58-6	1,1-Dichloropropene	BRL		µg/l	1.0	1	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	BRL		µg/l	0.5	1	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	BRL		µg/l	0.5	1	"	"	"	"	X
100-41-4	Ethylbenzene	BRL		µg/l	1.0	1	"	"	"	"	X
87-68-3	Hexachlorobutadiene	BRL		µg/l	0.5	1	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	BRL		µg/l	10.0	1	"	"	"	"	X
98-82-8	Isopropylbenzene	BRL		µg/l	1.0	1	"	"	"	"	X
99-87-6	4-Isopropyltoluene	BRL		µg/l	1.0	1	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	BRL		µg/l	1.0	1	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	BRL		µg/l	10.0	1	"	"	"	"	X
75-09-2	Methylene chloride	BRL		µg/l	5.0	1	"	"	"	"	X
91-20-3	Naphthalene	BRL		µg/l	1.0	1	"	"	"	"	X
103-65-1	n-Propylbenzene	BRL		µg/l	1.0	1	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-1	08-209727.01	Ground Water	04-Nov-08 12:25	06-Nov-08
SA87135-04				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	Dilution	Method Ref.	Prepared	Analyzed	Batch	Cert.
Volatile Organic Compounds											
Volatile Organic Compounds											
Prepared by method SW846 5030 Water MS											
100-42-5	Styrene	BRL		µg/l	1.0	1	SW846 8260B	11-Nov-08	12-Nov-08	8110777	X
630-20-6	1,1,1,2-Tetrachloroethane	BRL		µg/l	1.0	1	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	BRL		µg/l	0.5	1	"	"	"	"	X
127-18-4	Tetrachloroethene	BRL		µg/l	1.0	1	"	"	"	"	X
108-88-3	Toluene	BRL		µg/l	1.0	1	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	BRL		µg/l	1.0	1	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	BRL		µg/l	1.0	1	"	"	"	"	X
79-01-6	Trichloroethene	BRL		µg/l	1.0	1	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	BRL		µg/l	1.0	1	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	BRL		µg/l	1.0	1	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	BRL		µg/l	1.0	1	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	BRL		µg/l	1.0	1	"	"	"	"	X
75-01-4	Vinyl chloride	BRL		µg/l	1.0	1	"	"	"	"	X
179601-23-1	m,p-Xylene	BRL		µg/l	2.0	1	"	"	"	"	X
95-47-6	o-Xylene	BRL		µg/l	1.0	1	"	"	"	"	X
109-99-9	Tetrahydrofuran	BRL		µg/l	10.0	1	"	"	"	"	
60-29-7	Ethyl ether	BRL		µg/l	1.0	1	"	"	"	"	
994-05-8	Tert-amyl methyl ether	BRL		µg/l	1.0	1	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	BRL		µg/l	1.0	1	"	"	"	"	X
108-20-3	Di-isopropyl ether	BRL		µg/l	1.0	1	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	BRL		µg/l	10.0	1	"	"	"	"	X
123-91-1	1,4-Dioxane	BRL		µg/l	20.0	1	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-butene	BRL		µg/l	5.0	1	"	"	"	"	X
64-17-5	Ethanol	BRL		µg/l	400	1	"	"	"	"	X
Surrogate recoveries:											
460-00-4	*4-Bromofluorobenzene*	*90*		*70-130 %*			"	"	"	"	
2037-26-5	*Toluene-d8*	*101*		*70-130 %*			"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*110*		*70-130 %*			"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*107*		*70-130 %*			"	"	"	"	
Extractable Petroleum Hydrocarbons											
Diesel Range Organics											
Prepared by method SW846 3510C											
68476-30-2	Fuel Oil #2	BRL		mg/l	0.2	1	8015BM/ME4.1.25	12-Nov-08	13-Nov-08	8110838	
68476-31-3	Fuel Oil #4	BRL		mg/l	0.2	1	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL		mg/l	0.2	1	"	"	"	"	
M09800000	Motor Oil	BRL		mg/l	0.2	1	"	"	"	"	
J00100000	Aviation Fuel	BRL		mg/l	0.2	1	"	"	"	"	
	Unidentified	BRL		mg/l	0.2	1	"	"	"	"	
	Other Oil	BRL		mg/l	0.2	1	"	"	"	"	
	Diesel Range Organics (DRO)	BRL		mg/l	0.2	1	"	"	"	"	
Surrogate recoveries:											
3386-33-2	*1-Chlorooctadecane*	*62*		*40-140 %*			"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Duplicate SA87135-05	08-209727.01	Ground Water	04-Nov-08 00:00	06-Nov-08

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	Dilution	Method Ref.	Prepared	Analyzed	Batch	Cert.
Volatile Organic Compounds											
Volatile Organic Compounds											
Prepared by method SW846 5030 Water MS											
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	BRL		µg/l	1.0	1	SW846 8260B	11-Nov-08	12-Nov-08	8110777	X
67-64-1	Acetone	BRL		µg/l	10.0	1	"	"	"	"	X
107-13-1	Acrylonitrile	BRL		µg/l	0.5	1	"	"	"	"	X
71-43-2	Benzene	BRL		µg/l	1.0	1	"	"	"	"	X
108-86-1	Bromobenzene	BRL		µg/l	1.0	1	"	"	"	"	
74-97-5	Bromochloromethane	BRL		µg/l	1.0	1	"	"	"	"	X
75-27-4	Bromodichloromethane	BRL		µg/l	0.5	1	"	"	"	"	X
75-25-2	Bromoform	BRL		µg/l	1.0	1	"	"	"	"	X
74-83-9	Bromomethane	BRL		µg/l	2.0	1	"	"	"	"	X
78-93-3	2-Butanone (MEK)	BRL		µg/l	10.0	1	"	"	"	"	X
104-51-8	n-Butylbenzene	BRL		µg/l	1.0	1	"	"	"	"	X
135-98-8	sec-Butylbenzene	BRL		µg/l	1.0	1	"	"	"	"	X
98-06-6	tert-Butylbenzene	BRL		µg/l	1.0	1	"	"	"	"	
75-15-0	Carbon disulfide	BRL		µg/l	5.0	1	"	"	"	"	X
56-23-5	Carbon tetrachloride	BRL		µg/l	1.0	1	"	"	"	"	X
108-90-7	Chlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	X
75-00-3	Chloroethane	BRL		µg/l	2.0	1	"	"	"	"	X
67-66-3	Chloroform	BRL		µg/l	1.0	1	"	"	"	"	X
74-87-3	Chloromethane	BRL		µg/l	2.0	1	"	"	"	"	X
95-49-8	2-Chlorotoluene	BRL		µg/l	1.0	1	"	"	"	"	
106-43-4	4-Chlorotoluene	BRL		µg/l	1.0	1	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	BRL		µg/l	2.0	1	"	"	"	"	X
124-48-1	Dibromochloromethane	BRL		µg/l	0.5	1	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	BRL		µg/l	0.5	1	"	"	"	"	X
74-95-3	Dibromomethane	BRL		µg/l	1.0	1	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	BRL		µg/l	2.0	1	"	"	"	"	X
75-34-3	1,1-Dichloroethane	BRL		µg/l	1.0	1	"	"	"	"	X
107-06-2	1,2-Dichloroethane	BRL		µg/l	1.0	1	"	"	"	"	X
75-35-4	1,1-Dichloroethene	BRL		µg/l	1.0	1	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	BRL		µg/l	1.0	1	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	BRL		µg/l	1.0	1	"	"	"	"	X
78-87-5	1,2-Dichloropropane	BRL		µg/l	1.0	1	"	"	"	"	X
142-28-9	1,3-Dichloropropane	BRL		µg/l	1.0	1	"	"	"	"	X
594-20-7	2,2-Dichloropropane	BRL		µg/l	1.0	1	"	"	"	"	X
563-58-6	1,1-Dichloropropene	BRL		µg/l	1.0	1	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	BRL		µg/l	0.5	1	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	BRL		µg/l	0.5	1	"	"	"	"	X
100-41-4	Ethylbenzene	BRL		µg/l	1.0	1	"	"	"	"	X
87-68-3	Hexachlorobutadiene	BRL		µg/l	0.5	1	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	BRL		µg/l	10.0	1	"	"	"	"	X
98-82-8	Isopropylbenzene	BRL		µg/l	1.0	1	"	"	"	"	X
99-87-6	4-Isopropyltoluene	BRL		µg/l	1.0	1	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	BRL		µg/l	1.0	1	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	BRL		µg/l	10.0	1	"	"	"	"	X
75-09-2	Methylene chloride	BRL		µg/l	5.0	1	"	"	"	"	X
91-20-3	Naphthalene	BRL		µg/l	1.0	1	"	"	"	"	X
103-65-1	n-Propylbenzene	BRL		µg/l	1.0	1	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Duplicate SA87135-05	08-209727.01	Ground Water	04-Nov-08 00:00	06-Nov-08

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	Dilution	Method Ref.	Prepared	Analyzed	Batch	Cert.
Volatile Organic Compounds											
Volatile Organic Compounds											
Prepared by method SW846 5030 Water MS											
100-42-5	Styrene	BRL		µg/l	1.0	1	SW846 8260B	11-Nov-08	12-Nov-08	8110777	X
630-20-6	1,1,1,2-Tetrachloroethane	BRL		µg/l	1.0	1	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	BRL		µg/l	0.5	1	"	"	"	"	X
127-18-4	Tetrachloroethene	BRL		µg/l	1.0	1	"	"	"	"	X
108-88-3	Toluene	BRL		µg/l	1.0	1	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	BRL		µg/l	1.0	1	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	BRL		µg/l	1.0	1	"	"	"	"	X
79-01-6	Trichloroethene	BRL		µg/l	1.0	1	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	BRL		µg/l	1.0	1	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	BRL		µg/l	1.0	1	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	BRL		µg/l	1.0	1	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	BRL		µg/l	1.0	1	"	"	"	"	X
75-01-4	Vinyl chloride	BRL		µg/l	1.0	1	"	"	"	"	X
179601-23-1	m,p-Xylene	BRL		µg/l	2.0	1	"	"	"	"	X
95-47-6	o-Xylene	BRL		µg/l	1.0	1	"	"	"	"	X
109-99-9	Tetrahydrofuran	BRL		µg/l	10.0	1	"	"	"	"	
60-29-7	Ethyl ether	BRL		µg/l	1.0	1	"	"	"	"	
994-05-8	Tert-amyl methyl ether	BRL		µg/l	1.0	1	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	BRL		µg/l	1.0	1	"	"	"	"	X
108-20-3	Di-isopropyl ether	BRL		µg/l	1.0	1	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	BRL		µg/l	10.0	1	"	"	"	"	X
123-91-1	1,4-Dioxane	BRL		µg/l	20.0	1	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-butene	BRL		µg/l	5.0	1	"	"	"	"	X
64-17-5	Ethanol	BRL		µg/l	400	1	"	"	"	"	X
Surrogate recoveries:											
460-00-4	*4-Bromofluorobenzene*	*89*		*70-130 %*			"	"	"	"	
2037-26-5	*Toluene-d8*	*102*		*70-130 %*			"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*111*		*70-130 %*			"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*107*		*70-130 %*			"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Trip Blank SA87135-06	08-209727.01	Ground Water	04-Nov-08 08:00	06-Nov-08

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	Dilution	Method Ref.	Prepared	Analyzed	Batch	Cert.
Volatile Organic Compounds											
Volatile Organic Compounds											
Prepared by method SW846 5030 Water MS											
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	BRL		µg/l	1.0	1	SW846 8260B	11-Nov-08	12-Nov-08	8110777	X
67-64-1	Acetone	BRL		µg/l	10.0	1	"	"	"	"	X
107-13-1	Acrylonitrile	BRL		µg/l	0.5	1	"	"	"	"	X
71-43-2	Benzene	BRL		µg/l	1.0	1	"	"	"	"	X
108-86-1	Bromobenzene	BRL		µg/l	1.0	1	"	"	"	"	
74-97-5	Bromochloromethane	BRL		µg/l	1.0	1	"	"	"	"	X
75-27-4	Bromodichloromethane	BRL		µg/l	0.5	1	"	"	"	"	X
75-25-2	Bromoform	BRL		µg/l	1.0	1	"	"	"	"	X
74-83-9	Bromomethane	BRL		µg/l	2.0	1	"	"	"	"	X
78-93-3	2-Butanone (MEK)	BRL		µg/l	10.0	1	"	"	"	"	X
104-51-8	n-Butylbenzene	BRL		µg/l	1.0	1	"	"	"	"	X
135-98-8	sec-Butylbenzene	BRL		µg/l	1.0	1	"	"	"	"	X
98-06-6	tert-Butylbenzene	BRL		µg/l	1.0	1	"	"	"	"	
75-15-0	Carbon disulfide	BRL		µg/l	5.0	1	"	"	"	"	X
56-23-5	Carbon tetrachloride	BRL		µg/l	1.0	1	"	"	"	"	X
108-90-7	Chlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	X
75-00-3	Chloroethane	BRL		µg/l	2.0	1	"	"	"	"	X
67-66-3	Chloroform	BRL		µg/l	1.0	1	"	"	"	"	X
74-87-3	Chloromethane	BRL		µg/l	2.0	1	"	"	"	"	X
95-49-8	2-Chlorotoluene	BRL		µg/l	1.0	1	"	"	"	"	
106-43-4	4-Chlorotoluene	BRL		µg/l	1.0	1	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	BRL		µg/l	2.0	1	"	"	"	"	X
124-48-1	Dibromochloromethane	BRL		µg/l	0.5	1	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	BRL		µg/l	0.5	1	"	"	"	"	X
74-95-3	Dibromomethane	BRL		µg/l	1.0	1	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	BRL		µg/l	2.0	1	"	"	"	"	X
75-34-3	1,1-Dichloroethane	BRL		µg/l	1.0	1	"	"	"	"	X
107-06-2	1,2-Dichloroethane	BRL		µg/l	1.0	1	"	"	"	"	X
75-35-4	1,1-Dichloroethene	BRL		µg/l	1.0	1	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	BRL		µg/l	1.0	1	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	BRL		µg/l	1.0	1	"	"	"	"	X
78-87-5	1,2-Dichloropropane	BRL		µg/l	1.0	1	"	"	"	"	X
142-28-9	1,3-Dichloropropane	BRL		µg/l	1.0	1	"	"	"	"	X
594-20-7	2,2-Dichloropropane	BRL		µg/l	1.0	1	"	"	"	"	X
563-58-6	1,1-Dichloropropene	BRL		µg/l	1.0	1	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	BRL		µg/l	0.5	1	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	BRL		µg/l	0.5	1	"	"	"	"	X
100-41-4	Ethylbenzene	BRL		µg/l	1.0	1	"	"	"	"	X
87-68-3	Hexachlorobutadiene	BRL		µg/l	0.5	1	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	BRL		µg/l	10.0	1	"	"	"	"	X
98-82-8	Isopropylbenzene	BRL		µg/l	1.0	1	"	"	"	"	X
99-87-6	4-Isopropyltoluene	BRL		µg/l	1.0	1	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	BRL		µg/l	1.0	1	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	BRL		µg/l	10.0	1	"	"	"	"	X
75-09-2	Methylene chloride	BRL		µg/l	5.0	1	"	"	"	"	X
91-20-3	Naphthalene	BRL		µg/l	1.0	1	"	"	"	"	X
103-65-1	n-Propylbenzene	BRL		µg/l	1.0	1	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Trip Blank SA87135-06	08-209727.01	Ground Water	04-Nov-08 08:00	06-Nov-08

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	Dilution	Method Ref.	Prepared	Analyzed	Batch	Cert.
Volatile Organic Compounds											
Volatile Organic Compounds											
Prepared by method SW846 5030 Water MS											
100-42-5	Styrene	BRL		µg/l	1.0	1	SW846 8260B	11-Nov-08	12-Nov-08	8110777	X
630-20-6	1,1,1,2-Tetrachloroethane	BRL		µg/l	1.0	1	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	BRL		µg/l	0.5	1	"	"	"	"	X
127-18-4	Tetrachloroethene	BRL		µg/l	1.0	1	"	"	"	"	X
108-88-3	Toluene	BRL		µg/l	1.0	1	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	BRL		µg/l	1.0	1	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	BRL		µg/l	1.0	1	"	"	"	"	X
79-01-6	Trichloroethene	BRL		µg/l	1.0	1	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	BRL		µg/l	1.0	1	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	BRL		µg/l	1.0	1	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	BRL		µg/l	1.0	1	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	BRL		µg/l	1.0	1	"	"	"	"	X
75-01-4	Vinyl chloride	BRL		µg/l	1.0	1	"	"	"	"	X
179601-23-1	m,p-Xylene	BRL		µg/l	2.0	1	"	"	"	"	X
95-47-6	o-Xylene	BRL		µg/l	1.0	1	"	"	"	"	X
109-99-9	Tetrahydrofuran	BRL		µg/l	10.0	1	"	"	"	"	
60-29-7	Ethyl ether	BRL		µg/l	1.0	1	"	"	"	"	
994-05-8	Tert-amyl methyl ether	BRL		µg/l	1.0	1	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	BRL		µg/l	1.0	1	"	"	"	"	X
108-20-3	Di-isopropyl ether	BRL		µg/l	1.0	1	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	BRL		µg/l	10.0	1	"	"	"	"	X
123-91-1	1,4-Dioxane	BRL		µg/l	20.0	1	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-butene	BRL		µg/l	5.0	1	"	"	"	"	X
64-17-5	Ethanol	BRL		µg/l	400	1	"	"	"	"	X
Surrogate recoveries:											
460-00-4	*4-Bromofluorobenzene*	*89*		*70-130 %*			"	"	"	"	
2037-26-5	*Toluene-d8*	*101*		*70-130 %*			"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*111*		*70-130 %*			"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*107*		*70-130 %*			"	"	"	"	

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 8110777 - SW846 5030 Water MS										
Blank (8110777-BLK1)										
Prepared & Analyzed: 11-Nov-08										
1,1,2-Trichlorotrifluoroethane (Freon 113)	BRL		µg/l	1.0						
Acetone	BRL		µg/l	10.0						
Acrylonitrile	BRL		µg/l	0.5						
Benzene	BRL		µg/l	1.0						
Bromobenzene	BRL		µg/l	1.0						
Bromochloromethane	BRL		µg/l	1.0						
Bromodichloromethane	BRL		µg/l	0.5						
Bromoform	BRL		µg/l	1.0						
Bromomethane	BRL		µg/l	2.0						
2-Butanone (MEK)	BRL		µg/l	10.0						
n-Butylbenzene	BRL		µg/l	1.0						
sec-Butylbenzene	BRL		µg/l	1.0						
tert-Butylbenzene	BRL		µg/l	1.0						
Carbon disulfide	BRL		µg/l	5.0						
Carbon tetrachloride	BRL		µg/l	1.0						
Chlorobenzene	BRL		µg/l	1.0						
Chloroethane	BRL		µg/l	2.0						
Chloroform	BRL		µg/l	1.0						
Chloromethane	BRL		µg/l	2.0						
2-Chlorotoluene	BRL		µg/l	1.0						
4-Chlorotoluene	BRL		µg/l	1.0						
1,2-Dibromo-3-chloropropane	BRL		µg/l	2.0						
Dibromochloromethane	BRL		µg/l	0.5						
1,2-Dibromoethane (EDB)	BRL		µg/l	0.5						
Dibromomethane	BRL		µg/l	1.0						
1,2-Dichlorobenzene	BRL		µg/l	1.0						
1,3-Dichlorobenzene	BRL		µg/l	1.0						
1,4-Dichlorobenzene	BRL		µg/l	1.0						
Dichlorodifluoromethane (Freon12)	BRL		µg/l	2.0						
1,1-Dichloroethane	BRL		µg/l	1.0						
1,2-Dichloroethane	BRL		µg/l	1.0						
1,1-Dichloroethene	BRL		µg/l	1.0						
cis-1,2-Dichloroethene	BRL		µg/l	1.0						
trans-1,2-Dichloroethene	BRL		µg/l	1.0						
1,2-Dichloropropane	BRL		µg/l	1.0						
1,3-Dichloropropane	BRL		µg/l	1.0						
2,2-Dichloropropane	BRL		µg/l	1.0						
1,1-Dichloropropene	BRL		µg/l	1.0						
cis-1,3-Dichloropropene	BRL		µg/l	0.5						
trans-1,3-Dichloropropene	BRL		µg/l	0.5						
Ethylbenzene	BRL		µg/l	1.0						
Hexachlorobutadiene	BRL		µg/l	0.5						
2-Hexanone (MBK)	BRL		µg/l	10.0						
Isopropylbenzene	BRL		µg/l	1.0						
4-Isopropyltoluene	BRL		µg/l	1.0						
Methyl tert-butyl ether	BRL		µg/l	1.0						
4-Methyl-2-pentanone (MIBK)	BRL		µg/l	10.0						
Methylene chloride	BRL		µg/l	5.0						
Naphthalene	BRL		µg/l	1.0						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 8110777 - SW846 5030 Water MS										
Blank (8110777-BLK1)										
Prepared & Analyzed: 11-Nov-08										
n-Propylbenzene	BRL		µg/l	1.0						
Styrene	BRL		µg/l	1.0						
1,1,1,2-Tetrachloroethane	BRL		µg/l	1.0						
1,1,2,2-Tetrachloroethane	BRL		µg/l	0.5						
Tetrachloroethene	BRL		µg/l	1.0						
Toluene	BRL		µg/l	1.0						
1,2,3-Trichlorobenzene	BRL		µg/l	1.0						
1,2,4-Trichlorobenzene	BRL		µg/l	1.0						
1,3,5-Trichlorobenzene	BRL		µg/l	1.0						
1,1,1-Trichloroethane	BRL		µg/l	1.0						
1,1,2-Trichloroethane	BRL		µg/l	1.0						
Trichloroethene	BRL		µg/l	1.0						
Trichlorofluoromethane (Freon 11)	BRL		µg/l	1.0						
1,2,3-Trichloropropane	BRL		µg/l	1.0						
1,2,4-Trimethylbenzene	BRL		µg/l	1.0						
1,3,5-Trimethylbenzene	BRL		µg/l	1.0						
Vinyl chloride	BRL		µg/l	1.0						
m,p-Xylene	BRL		µg/l	2.0						
o-Xylene	BRL		µg/l	1.0						
Tetrahydrofuran	BRL		µg/l	10.0						
Ethyl ether	BRL		µg/l	1.0						
Tert-amyl methyl ether	BRL		µg/l	1.0						
Ethyl tert-butyl ether	BRL		µg/l	1.0						
Di-isopropyl ether	BRL		µg/l	1.0						
Tert-Butanol / butyl alcohol	BRL		µg/l	10.0						
1,4-Dioxane	BRL		µg/l	20.0						
trans-1,4-Dichloro-2-butene	BRL		µg/l	5.0						
Ethanol	BRL		µg/l	400						
Surrogate: 4-Bromofluorobenzene	*44.9*		µg/l		*50.0*		*90*	*70-130*		
Surrogate: Toluene-d8	*50.4*		µg/l		*50.0*		*101*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*53.6*		µg/l		*50.0*		*107*	*70-130*		
Surrogate: Dibromofluoromethane	*51.9*		µg/l		*50.0*		*104*	*70-130*		
LCS (8110777-BS1)										
Prepared & Analyzed: 11-Nov-08										
1,1,2-Trichlorotrifluoroethane (Freon 113)	14.7		µg/l		20.0		74	70-130		
Acetone	21.9		µg/l		20.0		109	31.7-144		
Acrylonitrile	20.5		µg/l		20.0		103	70-130		
Benzene	21.8		µg/l		20.0		109	70-130		
Bromobenzene	21.7		µg/l		20.0		109	70-130		
Bromochloromethane	21.8		µg/l		20.0		109	70-130		
Bromodichloromethane	22.1		µg/l		20.0		110	70-130		
Bromoform	19.3		µg/l		20.0		97	70-130		
Bromomethane	21.5		µg/l		20.0		108	43-158		
2-Butanone (MEK)	16.3		µg/l		20.0		82	54.5-137		
n-Butylbenzene	17.4		µg/l		20.0		87	70-130		
sec-Butylbenzene	17.8		µg/l		20.0		89	70-130		
tert-Butylbenzene	18.1		µg/l		20.0		90	70-130		
Carbon disulfide	18.6		µg/l		20.0		93	70-130		
Carbon tetrachloride	18.5		µg/l		20.0		92	70-130		
Chlorobenzene	21.3		µg/l		20.0		106	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 8110777 - SW846 5030 Water MS										
LCS (8110777-BS1)										
Prepared & Analyzed: 11-Nov-08										
Chloroethane	20.4		µg/l		20.0		102	60.1-131		
Chloroform	22.2		µg/l		20.0		111	70-130		
Chloromethane	19.3		µg/l		20.0		96	70-130		
2-Chlorotoluene	20.1		µg/l		20.0		101	70-130		
4-Chlorotoluene	20.3		µg/l		20.0		102	70-130		
1,2-Dibromo-3-chloropropane	21.2		µg/l		20.0		106	70-130		
Dibromochloromethane	22.5		µg/l		20.0		113	66.2-145		
1,2-Dibromoethane (EDB)	22.7		µg/l		20.0		114	70-130		
Dibromomethane	21.8		µg/l		20.0		109	70-130		
1,2-Dichlorobenzene	23.0		µg/l		20.0		115	70-130		
1,3-Dichlorobenzene	22.6		µg/l		20.0		113	70-130		
1,4-Dichlorobenzene	21.3		µg/l		20.0		106	70-130		
Dichlorodifluoromethane (Freon12)	12.7		µg/l		20.0		64	46.9-168		
1,1-Dichloroethane	21.4		µg/l		20.0		107	70-130		
1,2-Dichloroethane	22.4		µg/l		20.0		112	70-130		
1,1-Dichloroethene	18.2		µg/l		20.0		91	70-130		
cis-1,2-Dichloroethene	23.3		µg/l		20.0		116	70-130		
trans-1,2-Dichloroethene	20.3		µg/l		20.0		101	70-130		
1,2-Dichloropropane	22.0		µg/l		20.0		110	70-130		
1,3-Dichloropropane	21.9		µg/l		20.0		110	70-130		
2,2-Dichloropropane	19.6		µg/l		20.0		98	70-130		
1,1-Dichloropropene	19.4		µg/l		20.0		97	70-130		
cis-1,3-Dichloropropene	22.3		µg/l		20.0		112	70-130		
trans-1,3-Dichloropropene	19.9		µg/l		20.0		99	70-130		
Ethylbenzene	19.5		µg/l		20.0		98	70-130		
Hexachlorobutadiene	18.7		µg/l		20.0		93	70-135		
2-Hexanone (MBK)	17.8		µg/l		20.0		89	70-130		
Isopropylbenzene	18.6		µg/l		20.0		93	70-130		
4-Isopropyltoluene	18.2		µg/l		20.0		91	70-130		
Methyl tert-butyl ether	22.5		µg/l		20.0		112	70-130		
4-Methyl-2-pentanone (MIBK)	19.2		µg/l		20.0		96	57.6-130		
Methylene chloride	22.6		µg/l		20.0		113	70-130		
Naphthalene	19.6		µg/l		20.0		98	70-130		
n-Propylbenzene	18.3		µg/l		20.0		91	70-130		
Styrene	19.5		µg/l		20.0		97	70-130		
1,1,1,2-Tetrachloroethane	22.4		µg/l		20.0		112	70-130		
1,1,2,2-Tetrachloroethane	22.5		µg/l		20.0		112	70-130		
Tetrachloroethene	19.1		µg/l		20.0		96	70-130		
Toluene	20.9		µg/l		20.0		104	70-130		
1,2,3-Trichlorobenzene	21.9		µg/l		20.0		110	70-130		
1,2,4-Trichlorobenzene	18.9		µg/l		20.0		95	70-130		
1,3,5-Trichlorobenzene	19.6		µg/l		20.0		98	70-130		
1,1,1-Trichloroethane	20.0		µg/l		20.0		100	70-130		
1,1,2-Trichloroethane	21.4		µg/l		20.0		107	70-130		
Trichloroethene	20.8		µg/l		20.0		104	70-130		
Trichlorofluoromethane (Freon 11)	16.0		µg/l		20.0		80	64.9-147		
1,2,3-Trichloropropane	22.6		µg/l		20.0		113	70-130		
1,2,4-Trimethylbenzene	19.8		µg/l		20.0		99	70-130		
1,3,5-Trimethylbenzene	18.9		µg/l		20.0		94	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 8110777 - SW846 5030 Water MS										
LCS (8110777-BS1)										
Prepared & Analyzed: 11-Nov-08										
Vinyl chloride	21.8		µg/l		20.0		109	70-130		
m,p-Xylene	40.2		µg/l		40.0		101	70-130		
o-Xylene	21.0		µg/l		20.0		105	70-130		
Tetrahydrofuran	20.0		µg/l		20.0		100	70-130		
Ethyl ether	22.5		µg/l		20.0		113	70-130		
Tert-amyl methyl ether	22.6		µg/l		20.0		113	70-130		
Ethyl tert-butyl ether	20.1		µg/l		20.0		101	70-130		
Di-isopropyl ether	20.0		µg/l		20.0		100	70-130		
Tert-Butanol / butyl alcohol	211		µg/l		200		106	70-130		
1,4-Dioxane	233		µg/l		200		116	53.8-137		
trans-1,4-Dichloro-2-butene	17.1		µg/l		20.0		86	70-130		
Ethanol	503		µg/l		400		126	70-130		
Surrogate: 4-Bromofluorobenzene	*50.7*		µg/l		*50.0*		*101*	*70-130*		
Surrogate: Toluene-d8	*49.5*		µg/l		*50.0*		*99*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*49.5*		µg/l		*50.0*		*99*	*70-130*		
Surrogate: Dibromofluoromethane	*49.6*		µg/l		*50.0*		*99*	*70-130*		
LCS Dup (8110777-BSD1)										
Prepared & Analyzed: 11-Nov-08										
1,1,2-Trichlorotrifluoroethane (Freon 113)	14.1		µg/l		20.0		71	70-130	4	25
Acetone	19.3		µg/l		20.0		96	31.7-144	13	50
Acrylonitrile	20.0		µg/l		20.0		100	70-130	3	25
Benzene	21.0		µg/l		20.0		105	70-130	4	25
Bromobenzene	21.2		µg/l		20.0		106	70-130	3	25
Bromochloromethane	21.6		µg/l		20.0		108	70-130	0.8	25
Bromodichloromethane	21.3		µg/l		20.0		106	70-130	4	25
Bromoform	18.0		µg/l		20.0		90	70-130	7	25
Bromomethane	20.3		µg/l		20.0		101	43-158	6	50
2-Butanone (MEK)	16.0		µg/l		20.0		80	54.5-137	2	50
n-Butylbenzene	17.5		µg/l		20.0		87	70-130	0.6	25
sec-Butylbenzene	17.6		µg/l		20.0		88	70-130	1	25
tert-Butylbenzene	17.7		µg/l		20.0		88	70-130	2	25
Carbon disulfide	17.5		µg/l		20.0		88	70-130	6	25
Carbon tetrachloride	17.9		µg/l		20.0		90	70-130	3	25
Chlorobenzene	20.4		µg/l		20.0		102	70-130	4	25
Chloroethane	19.3		µg/l		20.0		97	60.1-131	5	50
Chloroform	20.8		µg/l		20.0		104	70-130	6	25
Chloromethane	18.1		µg/l		20.0		90	70-130	6	25
2-Chlorotoluene	19.6		µg/l		20.0		98	70-130	3	25
4-Chlorotoluene	19.7		µg/l		20.0		98	70-130	3	25
1,2-Dibromo-3-chloropropane	20.2		µg/l		20.0		101	70-130	5	25
Dibromochloromethane	21.4		µg/l		20.0		107	66.2-145	5	50
1,2-Dibromoethane (EDB)	22.2		µg/l		20.0		111	70-130	2	25
Dibromomethane	21.4		µg/l		20.0		107	70-130	2	25
1,2-Dichlorobenzene	22.8		µg/l		20.0		114	70-130	1	25
1,3-Dichlorobenzene	22.1		µg/l		20.0		111	70-130	2	25
1,4-Dichlorobenzene	21.1		µg/l		20.0		106	70-130	0.7	25
Dichlorodifluoromethane (Freon12)	12.1		µg/l		20.0		61	46.9-168	5	50
1,1-Dichloroethane	20.5		µg/l		20.0		102	70-130	5	25
1,2-Dichloroethane	22.0		µg/l		20.0		110	70-130	2	25
1,1-Dichloroethene	17.5		µg/l		20.0		88	70-130	4	25

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 8110777 - SW846 5030 Water MS										
LCS Dup (8110777-BSD1)										
Prepared & Analyzed: 11-Nov-08										
cis-1,2-Dichloroethene	22.2		µg/l		20.0		111	70-130	5	25
trans-1,2-Dichloroethene	20.0		µg/l		20.0		100	70-130	1	25
1,2-Dichloropropane	20.8		µg/l		20.0		104	70-130	6	25
1,3-Dichloropropane	21.6		µg/l		20.0		108	70-130	1	25
2,2-Dichloropropane	18.6		µg/l		20.0		93	70-130	5	25
1,1-Dichloropropene	18.4		µg/l		20.0		92	70-130	6	25
cis-1,3-Dichloropropene	21.7		µg/l		20.0		109	70-130	3	25
trans-1,3-Dichloropropene	19.1		µg/l		20.0		96	70-130	4	25
Ethylbenzene	18.7		µg/l		20.0		93	70-130	4	25
Hexachlorobutadiene	17.8		µg/l		20.0		89	70-135	5	50
2-Hexanone (MBK)	17.9		µg/l		20.0		90	70-130	0.8	25
Isopropylbenzene	18.3		µg/l		20.0		91	70-130	2	25
4-Isopropyltoluene	18.4		µg/l		20.0		92	70-130	0.9	25
Methyl tert-butyl ether	22.3		µg/l		20.0		111	70-130	1	25
4-Methyl-2-pentanone (MIBK)	19.2		µg/l		20.0		96	57.6-130	0.2	50
Methylene chloride	22.1		µg/l		20.0		110	70-130	3	25
Naphthalene	17.7		µg/l		20.0		89	70-130	10	25
n-Propylbenzene	17.9		µg/l		20.0		90	70-130	2	25
Styrene	19.1		µg/l		20.0		95	70-130	2	25
1,1,1,2-Tetrachloroethane	21.5		µg/l		20.0		107	70-130	4	25
1,1,2,2-Tetrachloroethane	21.7		µg/l		20.0		109	70-130	3	25
Tetrachloroethene	18.4		µg/l		20.0		92	70-130	4	25
Toluene	20.2		µg/l		20.0		101	70-130	3	25
1,2,3-Trichlorobenzene	20.6		µg/l		20.0		103	70-130	6	25
1,2,4-Trichlorobenzene	18.6		µg/l		20.0		93	70-130	2	25
1,3,5-Trichlorobenzene	19.9		µg/l		20.0		100	70-130	2	25
1,1,1-Trichloroethane	18.8		µg/l		20.0		94	70-130	6	25
1,1,2-Trichloroethane	21.2		µg/l		20.0		106	70-130	1	25
Trichloroethene	19.7		µg/l		20.0		98	70-130	6	25
Trichlorofluoromethane (Freon 11)	15.4		µg/l		20.0		77	64.9-147	4	50
1,2,3-Trichloropropane	22.0		µg/l		20.0		110	70-130	3	25
1,2,4-Trimethylbenzene	19.3		µg/l		20.0		97	70-130	2	25
1,3,5-Trimethylbenzene	18.7		µg/l		20.0		93	70-130	1	25
Vinyl chloride	20.6		µg/l		20.0		103	70-130	6	25
m,p-Xylene	38.4		µg/l		40.0		96	70-130	5	25
o-Xylene	19.8		µg/l		20.0		99	70-130	6	25
Tetrahydrofuran	20.0		µg/l		20.0		100	70-130	0.2	25
Ethyl ether	21.6		µg/l		20.0		108	70-130	4	50
Tert-amyl methyl ether	21.7		µg/l		20.0		109	70-130	4	25
Ethyl tert-butyl ether	20.0		µg/l		20.0		100	70-130	0.5	25
Di-isopropyl ether	19.7		µg/l		20.0		98	70-130	2	25
Tert-Butanol / butyl alcohol	207		µg/l		200		104	70-130	2	25
1,4-Dioxane	205		µg/l		200		102	53.8-137	13	25
trans-1,4-Dichloro-2-butene	16.4		µg/l		20.0		82	70-130	4	25
Ethanol	452		µg/l		400		113	70-130	11	30
Surrogate: 4-Bromofluorobenzene	*50.5*		µg/l		*50.0*		*101*	*70-130*		
Surrogate: Toluene-d8	*49.8*		µg/l		*50.0*		*100*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*49.7*		µg/l		*50.0*		*99*	*70-130*		
Surrogate: Dibromofluoromethane	*49.5*		µg/l		*50.0*		*99*	*70-130*		

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 8110777 - SW846 5030 Water MS										
Matrix Spike (8110777-MS1) **Source: SA87135-01**										
Prepared: 11-Nov-08 Analyzed: 12-Nov-08										
Benzene	18.8		µg/l		20.0	BRL	94	70-130		
Chlorobenzene	20.2		µg/l		20.0	BRL	101	70-130		
1,1-Dichloroethene	18.2		µg/l		20.0	BRL	91	70-130		
Toluene	19.1		µg/l		20.0	BRL	96	70-130		
Trichloroethene	18.5		µg/l		20.0	BRL	92	70-130		
Surrogate: 4-Bromofluorobenzene	*51.9*		µg/l		*50.0*		*104*	*70-130*		
Surrogate: Toluene-d8	*49.7*		µg/l		*50.0*		*99*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*49.9*		µg/l		*50.0*		*100*	*70-130*		
Surrogate: Dibromofluoromethane	*48.8*		µg/l		*50.0*		*98*	*70-130*		
Matrix Spike Dup (8110777-MSD1) **Source: SA87135-01**										
Prepared: 11-Nov-08 Analyzed: 12-Nov-08										
Benzene	19.3		µg/l		20.0	BRL	97	70-130	3	30
Chlorobenzene	20.3		µg/l		20.0	BRL	102	70-130	0.5	30
1,1-Dichloroethene	19.3		µg/l		20.0	BRL	96	70-130	6	30
Toluene	19.6		µg/l		20.0	BRL	98	70-130	2	30
Trichloroethene	19.2		µg/l		20.0	BRL	96	70-130	4	30
Surrogate: 4-Bromofluorobenzene	*51.5*		µg/l		*50.0*		*103*	*70-130*		
Surrogate: Toluene-d8	*49.6*		µg/l		*50.0*		*99*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*50.7*		µg/l		*50.0*		*101*	*70-130*		
Surrogate: Dibromofluoromethane	*49.6*		µg/l		*50.0*		*99*	*70-130*		

Extractable Petroleum Hydrocarbons - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 8110838 - SW846 3510C										
Blank (8110838-BLK1)										
Prepared: 12-Nov-08 Analyzed: 13-Nov-08										
Fuel Oil #2	BRL		mg/l	0.1						
Fuel Oil #4	BRL		mg/l	0.1						
Fuel Oil #6	BRL		mg/l	0.1						
Motor Oil	BRL		mg/l	0.1						
Aviation Fuel	BRL		mg/l	0.1						
Unidentified	BRL		mg/l	0.1						
Other Oil	BRL		mg/l	0.1						
Diesel Range Organics (DRO)	BRL		mg/l	0.1						
C9 - C36	BRL		mg/l	0.01						
Surrogate: 1-Chlorooctadecane	*0.0275*		mg/l		*0.0500*		*55*	*40-140*		
LCS (8110838-BS1)										
Prepared: 12-Nov-08 Analyzed: 13-Nov-08										
Fuel Oil #2	10.7		mg/l	0.1	10.0		107	40-140		
C9 - C36	BRL		mg/l	0.01				40-140		
Surrogate: 1-Chlorooctadecane	*0.0296*		mg/l		*0.0500*		*59*	*40-140*		

Notes and Definitions

R03	The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.
BRL	Below Reporting Limit - Analyte NOT DETECTED at or above the reporting limit
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

A plus sign (+) in the Method Reference column indicates the method is not accredited by NELAC.

Interpretation of Total Petroleum Hydrocarbon Report

Petroleum identification is determined by comparing the GC fingerprint obtained from the sample with a library of GC fingerprints obtained from analyses of various petroleum products. Possible match categories are as follows:

Gasoline - includes regular, unleaded, premium, etc.
Fuel Oil #2 - includes home heating oil, #2 fuel oil, and diesel
Fuel Oil #4 - includes #4 fuel oil
Fuel Oil #6 - includes #6 fuel oil and bunker "C" oil
Motor Oil - includes virgin and waste automobile oil
Ligroin - includes mineral spirits, petroleum naphtha, vm&p naphtha
Aviation Fuel - includes kerosene, Jet A and JP-4
Other Oil - includes lubricating and cutting oil, and silicon oil

At times, the unidentified petroleum product is quantified using a calibration that most closely approximates the distribution of compounds in the sample. When this occurs, the result is qualified as *TPH (Calculated as).

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

Matrix Spike: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

Method Blank: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

Surrogate: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

Validated by:
Hanibal C. Tayeh, Ph.D.
Rebecca Merz

SA 87135

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

CHAIN OF CUSTODY RECORD

Page 1 of 1

Special Handling:
- [x] Standard TAT - 7 to 10 business days
- [ ] Rush TAT - Date Needed: _____
- All TATs subject to laboratory approval. Min. 24-hour notification needed for rushes.
- Samples disposed of after 60 days unless otherwise instructed.

Report To: ECS
1 Elm St Suite 3
Waterbury, VT 05676

Invoice To: _____

Project Mgr.: Beth Erickson

P.O. No.: _____ RQN: 0002

Project No.: 08-209727.01
Site Name: Merchant's Shelburne Rd
Location: South Burlington State: VT
Sampler(s): EM

1=$Na_2S_2O_3$ 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH_3OH 8=$NaHSO_4$ 9=_____ 10=_____

DW=Drinking Water GW=Groundwater WW=Wastewater
O=Oil SW=Surface Water SO=Soil SL=Sludge A=Air
X1=_____ X2=_____ X3=_____

G=Grab C=Composite

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix	Preservative	Containers: # of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Analyses: 8260	8015 DRO
87135 01	MW-4	11/4	10:30	G	GW	2	3	1			X	X
02	MW-3		11:25									
03	MW-2		13:40									
04	MW-1		12:25									
05	Duplicate		—									
06	trip blank		8:00				1					

QA Reporting Notes: (check if needed)
- [ ] Provide MA DEP MCP CAM Report
- [ ] Provide CT DEP RCP Report

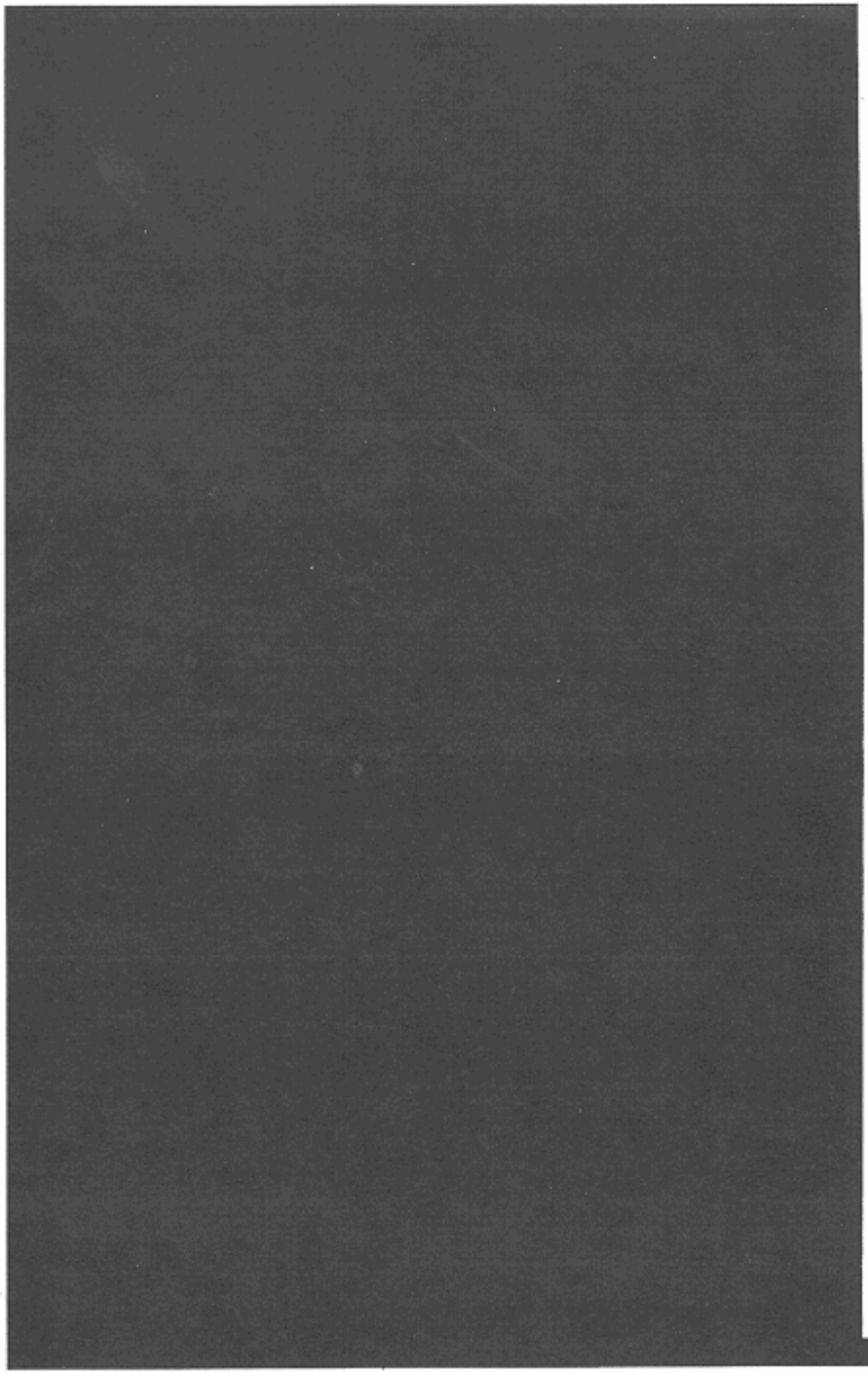
QA/QC Reporting Level
- [ ] Standard
- [ ] No QC
- [ ] Other _____

* State specific reporting standards: _____

- [ ] Fax results when available to (____) _____
- [x] E-mail to eerickson@ecsconsult.com
EDD Format _____

Condition upon receipt: [x] Iced [ ] Ambient [ ] °C 3

Relinquished by:	Received by:	Date:	Time:
Elisabeth Miller		11/5/08	8:00
		11/6/08	1040



AMY BETH CONNELL
8024344500
ECS WATERBURY
1 ELM STREET
WATERBURY VT 05676

35 LBS

1 OF 1

SHIP TO:
LAB
413 789 9018
SPECTRUM ANALYTICAL
11 ALMGREN DRIVE
AGAWAM MA 01001-3831

MA 011 9-02

UPS NEXT DAY AIR

TRACKING #: 1Z F31 7E5 01 9909 6772

1

BILLING: P/C BILL RECEIVER

Location Reference: 0008
Project Number: 8000

GS 10.6.07. WXFE370 84.0A 10/2008

TM