LINCOLN APPLIED GEOLOGY, INC.
Environmental Consultants

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February 11, 2010

Mr. George Pratt
Bradford Oil Company
PO Box 394
Bradford, VT 05033

RE: November 2009 Semiannual Summary Report
Ward's Garage
Vershire, Vermont
VTDEC SMS Site #91-1129
LAG Project #00666

Dear Mr. Pratt:

Lincoln Applied Geology, Inc. is pleased to present the results of the recent ground water monitoring and sampling event performed at the above referenced site. Ground water elevation measurements, photoionization detector headspace assays, and ground water quality sampling were performed on November 20, 2009. Monitoring and sampling events are performed on a semiannual basis.

If you have any questions or comments regarding this project, feel free to contact us at your convenience.

Sincerely,
Lincoln Applied Geology, Inc.

Dagan Murray
Senior Geologist

DAM/SR/LR:kj
Enclosures

cc: Steve Ward
Bob Haslam (VTDEC)

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November 2009
Semiannual Summary Report

Ward's Garage
Vershire, Vermont
VDEC SMS Site #91-1129
LAG Project #00666

February 11, 2010

Prepared for:

Bradford Oil Company
P.O. Box 394
Bradford, Vermont 05033

Prepared by:

Lincoln Applied Geology, Inc.
163 Revell Road
Lincoln, Vermont

Dagan Murray
Senior Geologist

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1.0 INTRODUCTION

Ward's Garage is located at the intersection of Route 113 and McIver Road in Vershire, Vermont (the "Site"). The Site is currently used as a retail petroleum (gasoline) and automotive repair facility.

Petroleum contaminated soils were discovered at the Site during the closure of three underground storage tanks (USTs) in 1991. The three tanks were located north of the on-site building (see Figure 1).

Six monitoring wells were installed at the Site as part of an Initial Subsurface Investigation requested by the Vermont Department of Environmental Conservation (VTDEC). Due to plowing and site restoration activities, MW-4 and MW-5 have been destroyed and are no longer part of the monitoring and sampling network. Semiannual ground water monitoring has been conducted at the Site since 1997.

2.0 MONITORING ACTIVITIES

Monitoring activities include depth to ground water level measurements, photoionization detector (PID) well headspace assays, and collection of ground water samples from all accessible monitoring wells. These investigations are summarized below.

2.1 Ground Water Elevation Data and Site Hydrogeology

On November 20, 2009, depth to ground water measurements were collected from all accessible monitoring wells at the Site (MW-1, MW-2, MW-3, and MW-6). "Sump" well SW-1 could not be gauged as a piece of farm machinery was parked over this well and could not be moved. MW-4 and MW-5 have been destroyed at the Site. Ground water elevation data for the November 20, 2009 monitoring event is presented in Table 1. Historical ground water elevation data are presented in Table 2.

Water levels ranged from 2.72 (MW-2) to 3.53 (MW-1) feet below top of casing across the Site. Ground water elevations across the Site decreased between the May and November 2009 monitoring events. The ground water elevation data from the November 2009 monitoring event are consistent with previous fall historical data.

The November 20, 2009 ground water elevation data were used to generate the Ground Water Contour Map presented as Figure 1. Based on the November 2009 data, ground water beneath the Site flows in a northwesterly direction at an estimated hydraulic gradient of 2.0%. Flow direction and gradient values are consistent with historical data obtained from the Site. Ground water flow at the Site is controlled by the nearby wetlands, located directly north of the Site, as they are the ultimate discharge point for ground water in the area.

2.2 Well Headspace Monitoring Results

Each monitoring well headspace was screened with a PID to determine residual vapor phase contamination present in the vadose zone beneath the Site. PID assay results are presented in Table 3. Petroleum related volatile organic compounds (VOCs) were detected only in monitoring well MW-2 at a concentration of 262 parts per million (ppm). Review of Table 3 indicates that vapor phase contamination significantly decreased between May and November 2009. VOC concentrations in the vadose zone continue to be inconsistent since no VOCs were measured with a PID in May 2008. There appears to be no discernable pattern in the fluctuations of vapor phase contamination in the subsurface at the Site. Over the past year, the highest reported concentrations have been when the water table is at its highest elevation in the month of December. Typically, vapor phase contamination increases as the water table declines, exposing more vadose zone to the screened interval of the well. However, based on PID readings obtained since 2007, it is apparent that residual vapor phase contamination still remains within the source area and historically fluctuates in and between MW-1, MW-2, and MW-3.

2.3 Ground Water Quality Results

During the November 20, 2009 monitoring and sampling event, ground water quality samples were collected from all accessible monitoring locations with exception of SW-1, MW-4, and MW-5. These wells were not sampled due to the previously described conditions stated in Section 2.1. Ground water samples were analyzed at Green Mountain Laboratory in Montpelier, Vermont for petroleum related VOCs per EPA Method 8260M. Water quality results are summarized in Table 4 and the laboratory analytical reports are included in Appendix A. The November 2009 data were used to generate the Total Targeted VOC Map presented as Figure 2.

No petroleum related VOCs were reported in MW-1 and MW-3. Petroleum related VOCs were reported above the Vermont Ground Water Enforcement Standards (VGES) only in monitoring well MW-2. VOCs were reported in MW-6, but were below their respective VGES. Between May and November 2009, the dissolved VOC concentrations significantly decreased across the Site.

Charts 1 - 4 indicate total VOC concentrations and ground water elevation data over time for select wells. Review of these charts indicates that VOC concentrations are generally stable across the Site; however, significant fluctuations in contaminant concentrations have been observed in MW-1 and MW-2 (Charts 1 and 2) within the past three years. Further review of the Charts reveals a direct relationship between ground water elevations and contaminant concentrations in MW-2 (Chart 2) and MW-3 (Chart 3). This is more typical of monitoring wells located within the source area. MW-6 (Chart 4) displays a

general declining trend in contaminant concentrations independent of water table fluctuations.

The results of the November 2009 semiannual monitoring event indicate the dissolved contaminant plume is focused in the vicinity of the former USTs.

2.4 Surface Water Quality Results

On November 20, 2009, surface water quality samples were collected from wetland points W-1 and W-2. The outlet of Whitehouse Pond (W-1 Mid) and the outlet pipe from Whitehouse Pond (W-1 Outlet) have been removed from the sampling schedule. Surface water samples were analyzed at Green Mountain Laboratory in Montpelier, Vermont for petroleum related VOCs per EPA Method 8260M. Water quality results are summarized in Table 4 and the laboratory analytical reports are included in Appendix A. The surface water quality data are plotted on Figure 2.

Select petroleum VOCs were reported above method detection limits in the samples collected from both wetland points. However, only naphthalene at wetland point W-2 was above its respective VGES. After four consecutive rounds of non-detect concentrations, VOCs reappeared at wetland point W-1. Total VOC concentrations increased at W-2 after four consecutive rounds of relatively stable concentrations.

3.0 CONCLUSIONS

Based on the results presented herein, LAG provides the following conclusions:

- Ground water flows in a northwesterly direction across the Site toward the wetlands at an estimated hydraulic gradient of 2.0%.

- Based on well headspace screening results and water quality data, there is residual vapor phase and dissolved phase contamination in the vicinity of the former gasoline USTs at the Site.

- Vapor and dissolved phase contamination has been fluctuating over the past three plus years. Both vapor phase and dissolved phase contamination significantly decreased in the source area (MW-2 and MW-3) between May and November 2009.

- Based on historical well headspace screening data and ground water quality data for the Site, natural attenuation of vapor phase and dissolved phase contamination is not readily occurring beneath the Site. After 18 years of natural attenuation monitoring, the Site is not effectively remediating in an appropriate

time frame. It is our professional opinion that Site closure will not occur at this Site without some type of active remediation or enhanced biological remediation.

4.0 RECOMMENDATIONS

Based on the above conclusions, LAG presents the following recommendations:

- LAG recommends continuing with the current semiannual ground water sampling schedule. The next sampling event is scheduled for May 2010. Water levels, well headspace PID screening, and ground water quality samples will be collected from sampling points MW-1, MW-2, MW-3, MW-6, SW-1, W-1, and W-2.

- Since vapor and dissolved phase contamination does not appear to be naturally attenuating in a reasonable time frame, LAG recommends conducting a focused desktop Corrective Action Feasibility Investigation (CAFI) in an attempt to expedite the cleanup time frame and site closure.

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Tables

Project: Ward's Garage
Location: Vershire, Vermont
VDEC Site #91-1129
LAG Project #00666

Liquid Level Monitoring Data

Table 1

November 20, 2009

Well ID	TOC Elevation	Total Well Depth	Depth to Product	Depth to Water	Product Thickness	Water Table Elevation
MW-1	100.00	4.55	-	3.53	-	**96.47**
MW-2	99.49	8.80	-	2.72	-	**96.77**
MW-3	99.82	6.00	-	3.14	-	**96.68**
MW-6	98.07	9.00	-	3.26	-	**94.81**
SW-1	101.38	8.30	-	-	-	**-**
WP-1		3.25	-	0.9	-	**-**

NOTES:
TOC - Reference elevation is elevation of top of PVC well casing relative to an arbitrary datum on-site
All data measured in feet.
Dark Grey - Inaccessible

Project: Ward's Garage
Location: Vershire, Vermont
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Table 2

Historical Ground Water Elevation Data
(feet)

Data Point	TOC [2]	11-6-03	5-21-04	11-9-04	4-29-05	4-18-06	12-15-06	4-12-07	8-13-07	12-5-07	5-28-08	12-15-08	5-1-09	11-20-09
MW-1	100.00 [1]	99.00	95.98	95.35	99.80	97.40	97.21	98.17	95.79	97.15	96.73	97.19	97.89	96.47
MW-2	99.66	98.69	96.18	95.59	99.39		96.92	97.14	95.38	96.88	96.41	97.14	97.94	96.77
MW-3	99.82	98.47	96.34	95.72	99.72	97.62	97.25		95.79	97.17	96.67	97.05	97.92	96.68
MW-6	98.32	94.72	93.93	93.42	94.50	94.13	94.25	94.47					91.97	94.81
Sump Well SW-1	101.38	100.32	96.78	96.18	100.98	98.48	98.39	98.53		98.07	97.70	98.34	98.67	
(wetland) WP-1		1.26	1.35	1.45	1.23	1.26	1.84	1.21			2.75	2.91	1.95	0.90

NOTES:
1 - Elevation datum assumed
2 - Reference elevation is elevation of top of PVC well casing
Gray = Dry or Inaccessible

Project: Ward's Garage
Location: Vershire, Vermont
VDEC Site #91-1129
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Table 3

Photoionization Detector Readings
(ppm)

Data Point	11-6-03	5-21-04	11-9-04	4-29-05	4-18-06	12-15-06	4-12-07	8-13-07	12-5-07	5-28-08	12-15-08	5-1-09	11-20-09
MW-1	0.0	1.4	0.0	0.0	0.0	66.0	1,200	0.0	9.8	0.0	150.0	0.0	0.0
MW-2	123	68	74	3.0		91.6	34.5	0.0	978.0	0.0	210.0	1,060	262
MW-3	88	564	156	4.7	325	122.1	0.0	0.0	99.4	0.0	0.0	84.2	0.0
MW-6	0.0	0.7	0.0	0.0	0.0	0.0	0.0		0.0			0.0	0.0
SW-1	0.0	BG	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
WP-1	0.0	BG	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0

NOTES:
BG - Background
SL - Saturated Lamp
Gray - Inaccessible

Project: Ward's Garage
Location: Vershire, Vermont
VDEC Site #91-1129
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Table 4

Water Quality Results
(ppb)

Data Point	Compound	VGES	4-18-06	12-15-06	4-12-07	8-13-07	12-5-07	5-28-08	12-15-08	5-1-09	11-20-09
MW-1	Benzene	**5**	<1	2,000	3,300	27	3.2	<1	<1	<1	<1
	Toluene	**1,000**	<1	6,100	24,000	380	<1	<1	<1	<1	<1
	Ethylbenzene	**700**	<1	630	760	200	<1	<1	<1	<1	<1
	Xylenes	**10,000**	<3	3,500	9,800	2,600	<3	<3	<3	<3	<3
	Total BTEX		**ND/BQL**	**12,230**	**37,860**	**3,207**	**3.2**	**ND/BQL**	**ND/BQL**	**ND/BQL**	**ND/BQL**
	1,3,5-Trimethylbenzene	**350**	<2	300	310	130	<2	<2	<2	<2	<2
	1,2,4-Trimethylbenzene		<2	1,100	1,200	460	<2	<2	<2	<2	<2
	Naphthalene	**20**	<5	<125	<125	<125	<5	<5	<5	<5	<5
	MTBE	**40**	<5	<125	<125	<125	<5	<5	<5	<5	<5
	Total Targeted VOCs		**ND/BQL**	**13,630**	**39,370**	**3,797**	**3.2**	**ND/BQL**	**ND/BQL**	**ND/BQL**	**ND/BQL**
MW-2	Benzene	**5**	Well	1,400	260		1,900	720	800	960	<10
	Toluene	**1,000**	Not	31,000	4,400		3,700	20,000	2,700	22,000	190
	Ethylbenzene	**700**	Sampled	3,300	180		1,700	2,100	2,400	3,800	36
	Xylenes	**10,000**		21,000	3,100		11,000	16,000	13,000	20,000	3,400
	Total BTEX			**56,700**	**7,940**		**18,300**	**38,820**	**18,900**	**46,760**	**3,626**
	1,3,5-Trimethylbenzene	**350**	Obstruction	630	150		270	53	<200	<100	<20
	1,2,4-Trimethylbenzene		at 2.1 feet	2,200	350		890	440	490	680	1,300
	Naphthalene	**20**		280	33		<125	740	1,200	740	300
	MTBE	**40**		<250	<5		<125	<125	<500	<250	<50
	Total Targeted VOCs			**59,810**	**8,473**		**19,460**	**40,053**	**20,590**	**48,180**	**5,226**
MW-3	Benzene	**5**	<25	<25			9.8	6.9	6	29	<1
	Toluene	**1,000**	260	260	Not		80	200	54	350	<1
	Ethylbenzene	**700**	990	580	Sampled		79	470	220	340	<1
	Xylenes	**10,000**	2,200	2,000			910	1,900	690	3,200	<3
	Total BTEX		**3,475**	**2,865**			**1,079**	**2,577**	**970**	**3,919**	**ND/BQL**
	1,3,5-Trimethylbenzene	**350**	800	770			150	76	63	30	<2
	1,2,4-Trimethylbenzene		2,800	2,500	Well		340	560	440	420	<2
	Naphthalene	**20**	290	200	Frozen		20	140	99	38	<5
	MTBE	**40**	<125	<125			<10	<10	<25	<10	<5
	Total Targeted VOCs		**7,365**	**6,335**			**1,589**	**3,353**	**1,572**	**4,407**	**ND/BQL**

NOTES:
VGES = Vermont Groundwater Enforcement Standard
Dark Gray - Inaccessible/Off Sampling Schedule
Shaded Cell > VGES

Project: Ward's Garage
Location: Vershire, Vermont
VDEC Site #91-1129
LAG Project #00666

Table 4

Water Quality Results
(ppb)

Data Point	Compound	VGES	4-18-06	12-15-06	4-12-07	8-13-07	12-5-07	5-28-08	12-15-08	5-1-09	11-20-09
MW-6	Benzene	**5**	2.5	3.5	3.2					13	<1
	Toluene	**1,000**	<1	<1	25					1.6	1.8
	Ethylbenzene	**700**	<1	<1	<1					18	<1
	Xylenes	**10,000**	<3	<3	5.4					<3	20
	Total BTEX		**2.5**	**3.5**	**33.6**					**32.6**	**21.8**
	1,3,5-Trimethylbenzene	**350**	<2	<2	<2					4.4	<2
	1,2,4-Trimethylbenzene		<2	<2	<2					<2	6.5
	Naphthalene	**20**	<5	<5	<5					<5	15
	MTBE	**40**	<5	<5	<5					<5	<5
	Total Targeted VOCs		**2.5**	**3.5**	**33.6**					**37.0**	**43.3**
SW-1 (Sump)	Benzene	**5**	<1	<1	<1		<1	<1	<1	<1	Vehicle
	Toluene	**1,000**	<1	<1	<1		<1	<1	<1	<1	Parked
	Ethylbenzene	**700**	<1	<1	<1		<1	<1	<1	<1	Over
	Xylenes	**10,000**	<3	<3	<3		<3	<3	<3	<3	Well
	Total BTEX		**ND/BQL**	**ND/BQL**	**ND/BQL**		**ND/BQL**	**ND/BQL**	**ND/BQL**	**ND/BQL**	
	1,3,5-Trimethylbenzene	**350**	<2	<2	<2		<2	<2	<2	<2	No
	1,2,4-Trimethylbenzene		<2	<2	<2		<2	<2	<2	<2	Sample
	Naphthalene	**20**	<5	<5	<5		<5	<5	<5	<5	
	MTBE	**40**	<5	<5	<5		<5	<5	<5	<5	
	Total Targeted VOCs		**ND/BQL**	**ND/BQL**	**ND/BQL**		**ND/BQL**	**ND/BQL**	**ND/BQL**	**ND/BQL**	
W-1	Benzene	**5**	31	2.3	<1		<1	<1	<1	<1	11
	Toluene	**1,000**	<1	1.5	<1		<1	<1	<1	<1	<1
	Ethylbenzene	**700**	<1	<1	<1		<1	<1	<1	<1	4.4
	Xylenes	**10,000**	<3	<3	<3		<3	<3	<3	<3	<3
	Total BTEX		**31**	**3.8**	**ND/BQL**		**ND/BQL**	**ND/BQL**	**ND/BQL**	**ND/BQL**	**15.4**
	1,3,5-Trimethylbenzene	**350**	<2	<2	<2		<2	<2	<2	<2	6.6
	1,2,4-Trimethylbenzene		<2	<2	<2		<2	<2	<2	<2	<2
	Naphthalene	**20**	<5	<5	<5		<5	<5	<5	<5	<5
	MTBE	**40**	6.8	<5	<5		<5	<5	<5	<5	<5
	Total Targeted VOCs		**37.8**	**3.8**	**ND/BQL**		**ND/BQL**	**ND/BQL**	**ND/BQL**	**ND/BQL**	**22.0**

NOTES:
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Dark Gray - Inaccessible/Off Sampling Schedule
Shaded Cell > VGES

Project: Ward's Garage
Location: Vershire, Vermont
VDEC Site #91-1129
LAG Project #00666

Table 4

Water Quality Results
(ppb)

Data Point	Compound	VGES	4-18-06	12-15-06	4-12-07	8-13-07	12-5-07	5-28-08	12-15-08	5-1-09	11-20-09
W-1 Mid	Benzene	**5**	<1	<1	<1		<1	<1			
	Toluene	**1,000**	<1	<1	<1		<1	<1			
	Ethylbenzene	**700**	<1	<1	<1		<1	<1			
	Xylenes	**10,000**	<3	<3	<3		<3	<3			
	Total BTEX		**ND/BQL**	**ND/BQL**	**ND/BQL**		**ND/BQL**	**ND/BQL**			
	1,3,5-Trimethylbenzene	**350**	<2	<2	<2		<2	<2			
	1,2,4-Trimethylbenzene		<2	<2	<2		<2	<2			
	Naphthalene	**20**	<5	<5	<5		<5	<5			
	MTBE	**40**	<5	<5	<5		<5	<5			
	Total Targeted VOCs		**ND/BQL**	**ND/BQL**	**ND/BQL**		**ND/BQL**	**ND/BQL**			
W-1 Outlet	Benzene	**5**	<1	<1	<1		<1	<1			
	Toluene	**1,000**	<1	19	<1		<1	<1			
	Ethylbenzene	**700**	<1	2.2	<1		<1	<1			
	Xylenes	**10,000**	<3	11	<3		<3	<3			
	Total BTEX		**ND/BQL**	**32.2**	**ND/BQL**		**ND/BQL**	**ND/BQL**			
	1,3,5-Trimethylbenzene	**350**	<2	<2	<2		<2	<2			
	1,2,4-Trimethylbenzene		<2	<2	<2		<2	<2			
	Naphthalene	**20**	<5	<5	<5		<5	<5			
	MTBE	**40**	<5	<5	<5		<5	<5			
	Total Targeted VOCs		**ND/BQL**	**32.2**	**ND/BQL**		**ND/BQL**	**ND/BQL**			
W-2	Benzene	**5**	11		7.2		30	<1	<1	8.3	1
	Toluene	**1,000**	<1	Not	<1		<1	<1	4	<1	3.7
	Ethylbenzene	**700**	<1	Sampled	1.6		3.7	3.9	1.1	<1	22
	Xylenes	**10,000**	<3		3.4		3.5	13.0	6.3	<3	100
	Total BTEX		**11**		**12.2**		**37.2**	**16.9**	**11.4**	**8.3**	**127**
	1,3,5-Trimethylbenzene	**350**	<2		<2		<2	<2	<2	<2	3.5
	1,2,4-Trimethylbenzene		<2	Area	<2		<2	<2	<2	<2	110
	Naphthalene	**20**	<5	Dry	<5		<5	<5	<5	<5	25
	MTBE	**40**	<5		<5		<5	<5	<5	<5	<5
	Total Targeted VOCs		**11**		**12.2**		**37.2**	**16.9**	**11.4**	**8.3**	**265**

NOTES:
VGES = Vermont Groundwater Enforcement Standard
Dark Gray - Inaccessible/Off Sampling Schedule
Shaded Cell > VGES

Charts

Chart 1

Wards Garage
Total VOC Concentrations and Ground Water Elevations vs. Time
MW-1

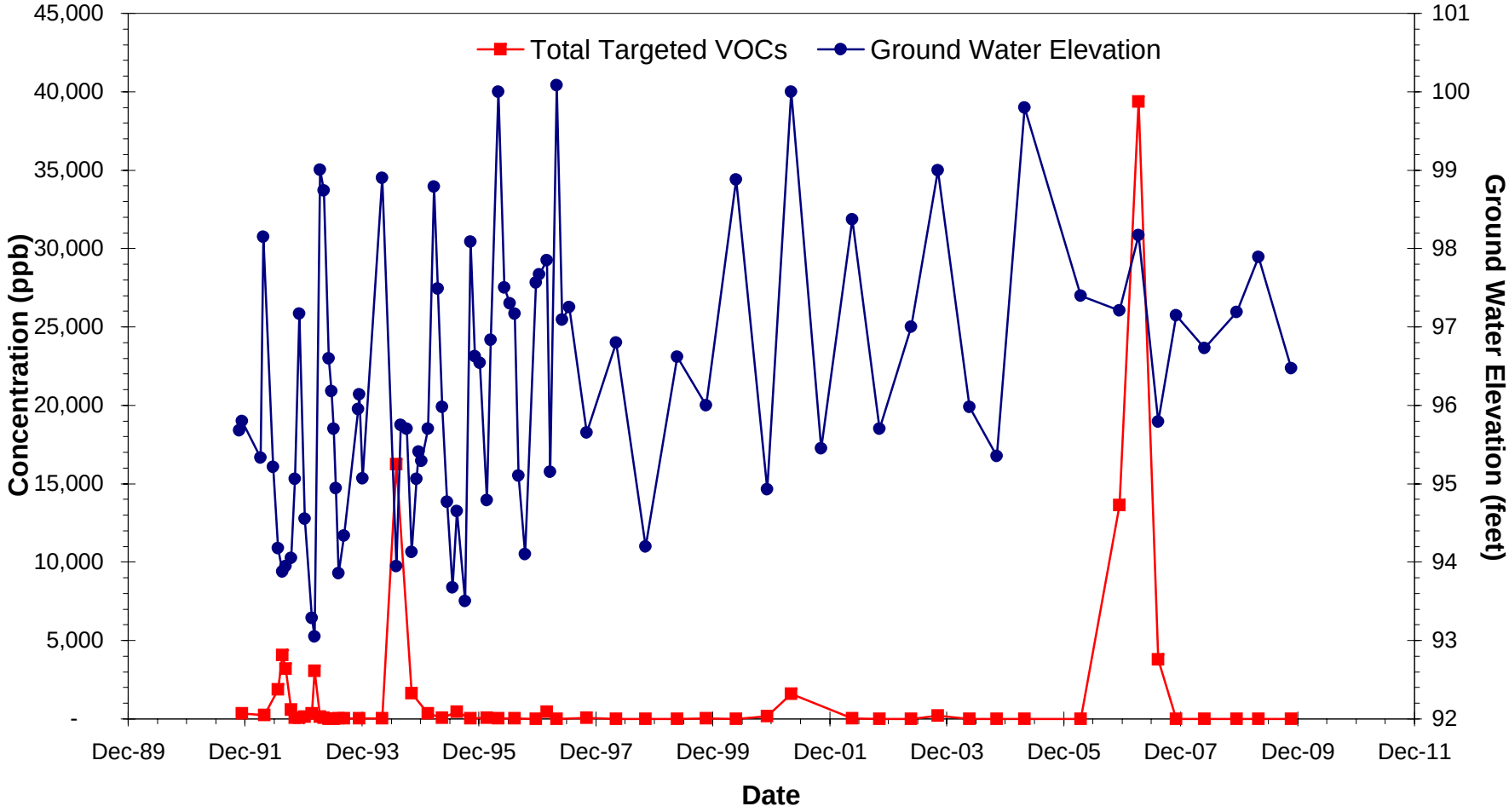


Chart 2

Wards Garage
Total VOC Concentrations and Ground Water Elevations vs. Time
MW-2

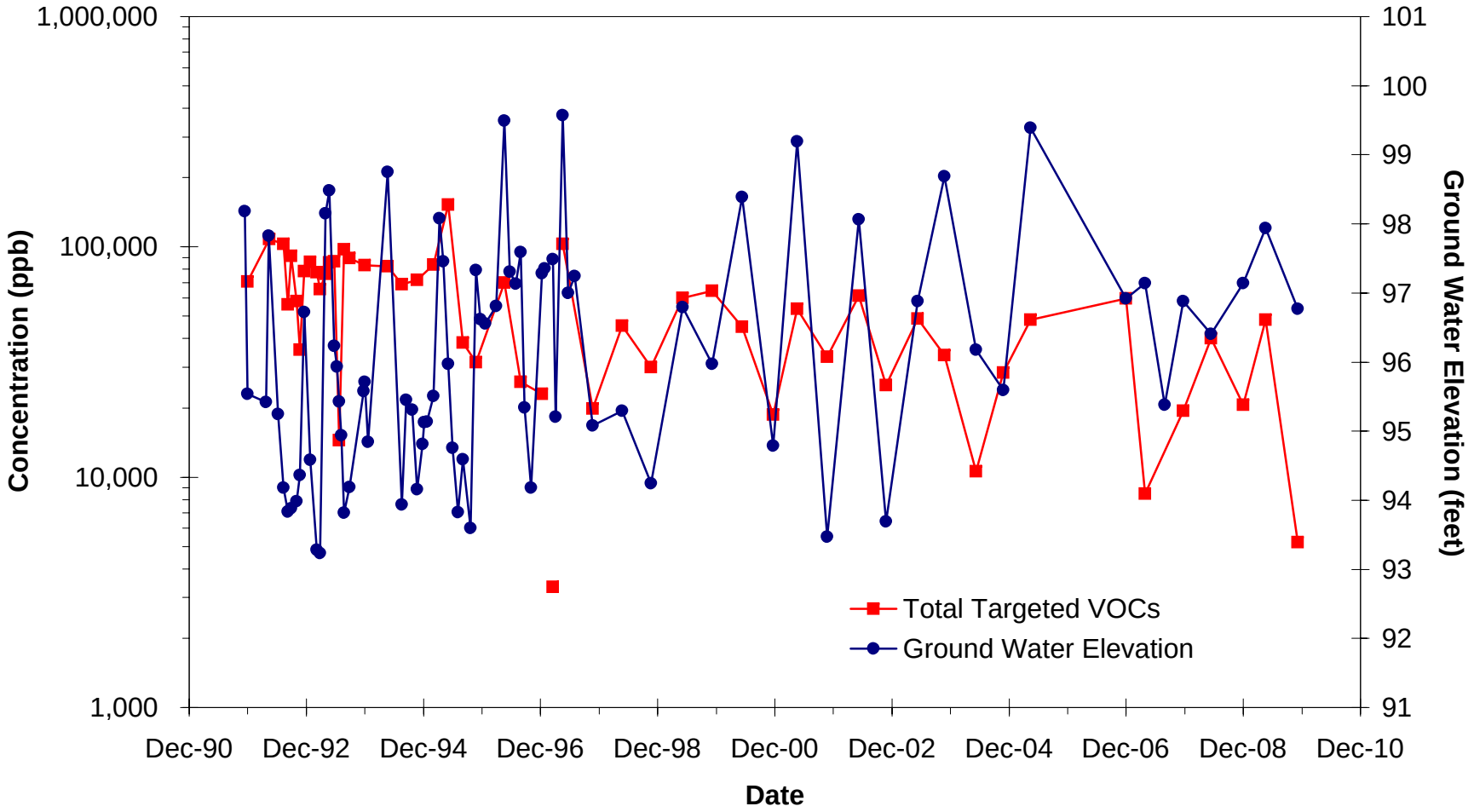


Chart 3

Wards Garage
Total VOC Concentrations and Ground Water Elevations vs. Time
MW-3

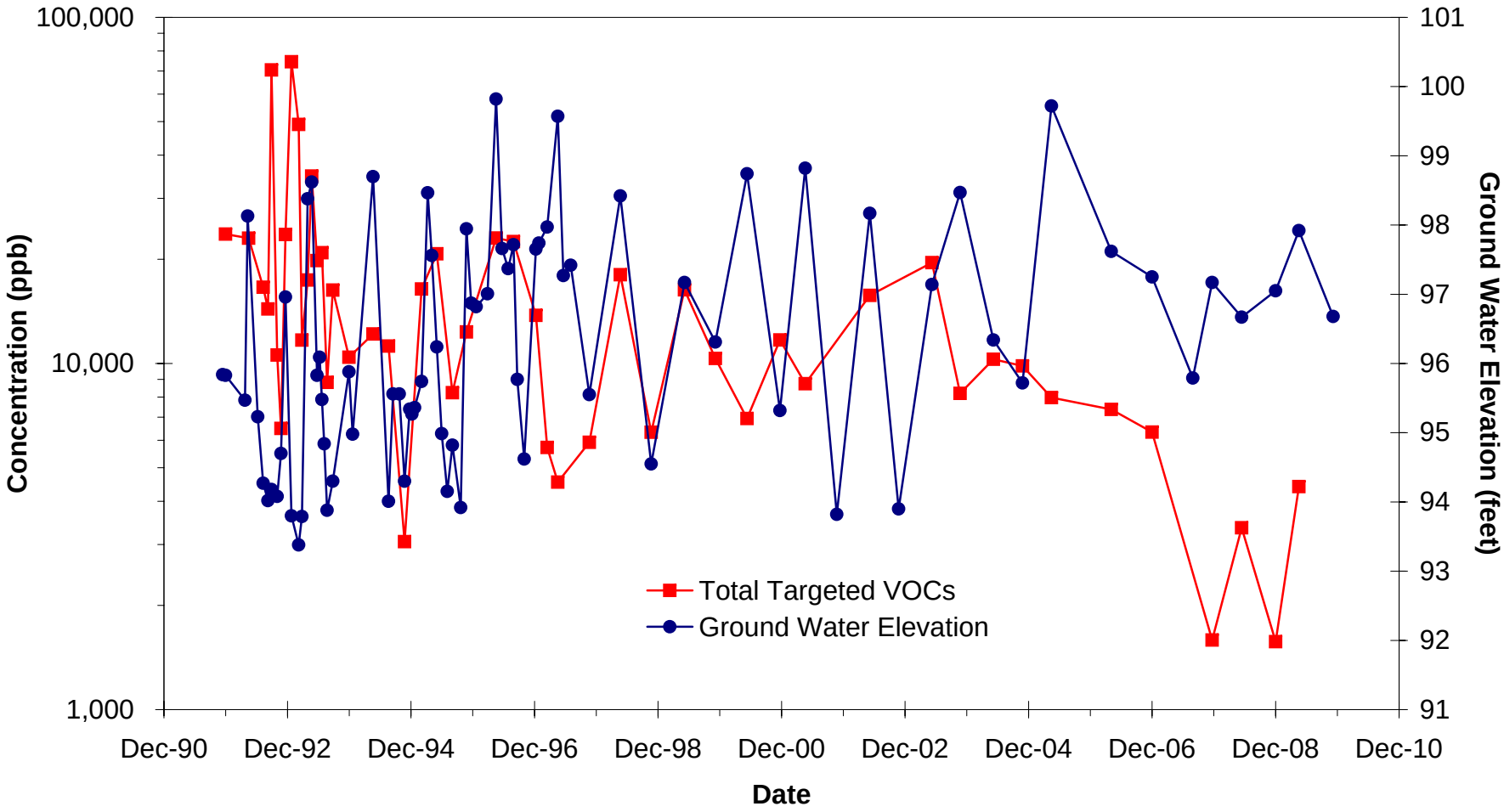
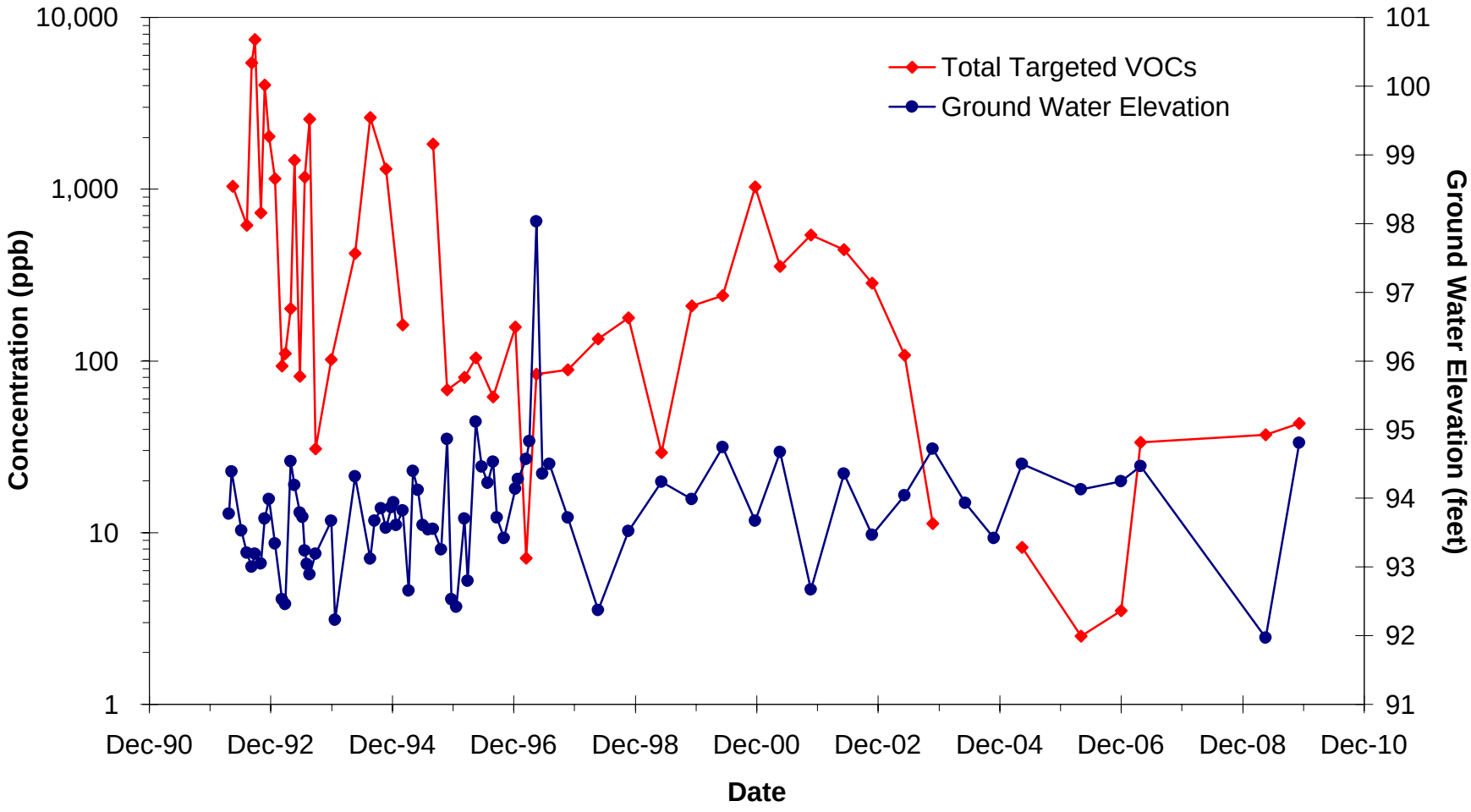
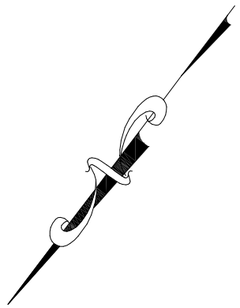


Chart 4

Wards Garage
Total VOC Concentrations and Ground Water Elevations vs. Time
MW-6



Figures



LEGEND

MW-1	2" MONITORING WELL
B7-A	LARGE DIAMETER SUMP WELL
B7-A	SOIL BORING - BACKFILLED
□	WETLAND SURFACE WATER SAMPLING LOCATION
96.47	GROUND WATER ELEVATION
95.0	GROUND WATER CONTOUR LINE
	GROUND WATER FLOW DIRECTION

FOREST FIRE WARDEN
(S. WARD)

B7-A

CURRENT
GASOLINE
UST'S

SW-1

B7-B

WARD'S
GARAGE

PUMP
ISLAND

96.47
MW-1

FORMER
UST LOCATION

SEPTIC
TANK

96.68
MW-3

MW-2
96.77

96.5

96.0

CORINTH ROAD

McIVER ROAD

MW-4
(DESTROYED)

DUG WELL LOCATION
ABOUT 800' UPGRADIENT

95.5

TELEPHONE
POLE

94.81

MW-6

95.0

W-1
MID

WHITEHOUSE
POND

W-1
OUTLET

INTERMITTENT
STREAM

UNPAVED
PARKING AREA

WETLAND

ROUTE 113

MW-5
(DESTROYED)

DRIVEWAY

W-1

W-2

WETLAND

HOUSE

15 0 30

GRAPHIC SCALE IN FEET
1"=30'

LINCOLN
APPLIED GEOLOGY, INC.
Environmental Consultants

Ward's Garage

Vershire, Vermont

Ground Water Contour Map
for
November 20, 2009

VDEC SMS SITE NUMBER
91-1129

LAG PROJECT #	00666
DATE	Feb. 2010
PROJECT MANAGER	DAM
DRAWN BY	TAM
FIGURE	1

LEGEND

MW-1	2" MONITORING WELL
B7-A	LARGE DIAMETER SUMP WELL
	SOIL BORING - BACKFILLED
	WETLAND SURFACE WATER SAMPLING LOCATION
5,226	TOTAL TARGETED VOC'S (ppb)
ND/BQL	NON-DETECT/BELOW QUANTATIVE LIMIT
1,000	ISOCONCENTRATION CONTOUR (ppb)

FOREST FIRE WARDEN
(S. WARD)

B7-A

CURRENT
GASOLINE
UST'S

SW-1

B7-B

WARD'S
GARAGE

PUMP
ISLAND

ND/BQL
MW-1

FORMER
UST LOCATION

SEPTIC
TANK

5,226
MW-2

MW-3
ND/BQL

100

1,000

CORINTH ROAD

McIVER ROAD

MW-4
(DESTROYED)

DUG WELL LOCATION
ABOUT 800' UPGRADIENT

UNPAVED
PARKING AREA

ROUTE 113

MW-5
(DESTROYED)

265
W-2

WETLAND

WHITEHOUSE
POND

W-1
MID

W-1
OUTLET

INTERMITTENT
STREAM

TELEPHONE
POLE

43.3
MW-6

WETLAND

22.0
W-1

DRIVEWAY

HOUSE

15 0 30
GRAPHIC SCALE IN FEET
1"=30'

LINCOLN
APPLIED GEOLOGY, INC.
Environmental Consultants

Ward's Garage

Vershire, Vermont

Total Targeted VOC Map
for
November 20, 2009

VDEC SMS SITE NUMBER
91-1129

LAG PROJECT #
00666

DATE
Feb. 2010

PROJECT MANAGER
DAM

DRAWN BY
TAM

FIGURE
2

Appendix A

Laboratory Analytical Reports

November 20, 2009

GREEN MOUNTAIN LABORATORIES, INC.

2 Moonlight Terrace
Montpelier, VT 05602
Phone (802) 262-2004

LABORATORY RESULTS

CLIENT NAME:	Lincoln Applied Geology	REFERENCE NO.:	921C
ADDRESS:	163 Revell Drive	PROJECT NO.:	'00666
	Lincoln, VT 05443	DATE OF SAMPLE:	11/20/2009
SAMPLE LOCATION:	Ward's	DATE OF RECEIPT:	11/24/2009
SAMPLER:	Joseph Hagan	DATE OF ANALYSIS:	11/25-12/01/2009
ATTENTION:	Dagan Murray	DATE OF REPORT:	12/02/2009

Pertaining to the analyses of specimens submitted under the accompanying chain of custody form, please note the following:

- Water samples submitted for VOC analysis were preserved with HCl. The trip blank was prepared by the client with reagent water supplied by the laboratory.
- Specimens were processed and examined according to the procedures outlined in the specified method.
- Holding times were honored.
- Instruments were appropriately tuned and calibrations were checked with the frequencies required in the specified method.
- Blank contamination was not observed at levels interfering with the analytical results.
- Continuing Calibration Standards were monitored at intervals indicated in the specified method. The resulting analytical precision and accuracy were determined to be within method QA/QC acceptance limits.
- The efficiency of analyte recovery for individual samples was monitored by the addition of surrogate analyte to all samples, standards, and blanks. Surrogate recoveries were found to be within laboratory QA/QC acceptance limits, unless noted otherwise.

Reviewed by:

Raul Sanchez
Chemical Services

GREEN MOUNTAIN LABORATORIES, INC.

2 Moonlight Terrace
Montpelier, VT 05602
Phone (802) 262-2004

LABORATORY RESULTS

GC/MS METHOD - 8260M

GML REF. # : 921C
SAMPLE ID: TRIP BLANK
ANALYSIS DATE: 11/25/2009
SAMPLE DATE: 11/20/2009
SAMPLE TYPE: WATER

PARAMETER	PQL (ug/L)	RESULT (ug/L)
Methyl-t-butyl-ether (MTBE)	5	ND
Benzene	1	ND
1,2-Dicholorethane	1	ND
Toluene	1	ND
1,2-Dibromoethane	1	ND
Ethylbenzene	1	ND
Xylenes	3	ND
1,3,5-Trimethylbenzene	2	ND
1,2,4-Trimethylbenzene	2	ND
Naphthalene	5	ND

Surrogate % Recovery: 100 %

ND = Not Detected
BPQL = Below Practical Quantitation Limit

GREEN MOUNTAIN LABORATORIES, INC.

2 Moonlight Terrace
Montpelier, VT 05602
Phone (802) 262-2004

LABORATORY RESULTS

GC/MS METHOD - 8260M

GML REF. # : 921C
SAMPLE ID: MW-1
ANALYSIS DATE: 11/25/2009
SAMPLE DATE: 11/20/2009
SAMPLE TYPE: WATER

PARAMETER	PQL (ug/L)	RESULT (ug/L)
Methyl-t-butyl-ether (MTBE)	5	ND
Benzene	1	ND
1,2-Dicholorethane	1	ND
Toluene	1	ND
1,2-Dibromoethane	1	ND
Ethylbenzene	1	ND
Xylenes	3	ND
1,3,5-Trimethylbenzene	2	ND
1,2,4-Trimethylbenzene	2	ND
Naphthalene	5	ND

Surrogate % Recovery: 100 %

ND = Not Detected
BPQL = Below Practical Quantitation Limit

GREEN MOUNTAIN LABORATORIES, INC.

2 Moonlight Terrace
Montpelier, VT 05602
Phone (802) 262-2004

LABORATORY RESULTS

GC/MS METHOD - 8260M

GML REF. # : 921C
SAMPLE ID: MW-2
ANALYSIS DATE: 12/01/2009
SAMPLE DATE: 11/20/2009
SAMPLE TYPE: WATER

PARAMETER	PQL (ug/L)	RESULT (ug/L)
Methyl-t-butyl-ether (MTBE)	50	ND
Benzene	10	ND
1,2-Dicholorethane	10	ND
Toluene	10	190
1,2-Dibromoethane	10	ND
Ethylbenzene	10	36
Xylenes	30	3400
1,3,5-Trimethylbenzene	20	ND
1,2,4-Trimethylbenzene	20	1300
Naphthalene	50	300

Surrogate % Recovery: 98 %

ND = Not Detected
BPQL = Below Practical Quantitation Limit

GREEN MOUNTAIN LABORATORIES, INC.

2 Moonlight Terrace
Montpelier, VT 05602
Phone (802) 262-2004

LABORATORY RESULTS

GC/MS METHOD - 8260M

GML REF. # : 921C
SAMPLE ID: MW-3
ANALYSIS DATE: 11/30/2009
SAMPLE DATE: 11/20/2009
SAMPLE TYPE: WATER

PARAMETER	PQL (ug/L)	RESULT (ug/L)
Methyl-t-butyl-ether (MTBE)	5	ND
Benzene	1	ND
1,2-Dicholorethane	1	ND
Toluene	1	ND
1,2-Dibromoethane	1	ND
Ethylbenzene	1	ND
Xylenes	3	ND
1,3,5-Trimethylbenzene	2	ND
1,2,4-Trimethylbenzene	2	ND
Naphthalene	5	ND

Surrogate % Recovery: 99 %

ND = Not Detected
BPQL = Below Practical Quantitation Limit

GREEN MOUNTAIN LABORATORIES, INC.

2 Moonlight Terrace
Montpelier, VT 05602
Phone (802) 262-2004

LABORATORY RESULTS

GC/MS METHOD - 8260M

GML REF. # : 921C
SAMPLE ID: MW-6
ANALYSIS DATE: 11/25/2009
SAMPLE DATE: 11/20/2009
SAMPLE TYPE: WATER

PARAMETER	PQL (ug/L)	RESULT (ug/L)
Methyl-t-butyl-ether (MTBE)	5	ND
Benzene	1	ND
1,2-Dicholorethane	1	ND
Toluene	1	1.8
1,2-Dibromoethane	1	ND
Ethylbenzene	1	BPQL
Xylenes	3	20
1,3,5-Trimethylbenzene	2	ND
1,2,4-Trimethylbenzene	2	6.5
Naphthalene	5	15

Surrogate % Recovery: 100 %

ND = Not Detected
BPQL = Below Practical Quantitation Limit

GREEN MOUNTAIN LABORATORIES, INC.

2 Moonlight Terrace
Montpelier, VT 05602
Phone (802) 262-2004

LABORATORY RESULTS

GC/MS METHOD - 8260M

GML REF. # : 921C
SAMPLE ID: W-1
ANALYSIS DATE: 11/25/2009
SAMPLE DATE: 11/20/2009
SAMPLE TYPE: WATER

PARAMETER	PQL (ug/L)	RESULT (ug/L)
Methyl-t-butyl-ether (MTBE)	5	ND
Benzene	1	11
1,2-Dicholorethane	1	ND
Toluene	1	ND
1,2-Dibromoethane	1	ND
Ethylbenzene	1	4.4
Xylenes	3	BPQL
1,3,5-Trimethylbenzene	2	6.6
1,2,4-Trimethylbenzene	2	ND
Naphthalene	5	ND

Surrogate % Recovery: 98 %

ND = Not Detected
BPQL = Below Practical Quantitation Limit

GREEN MOUNTAIN LABORATORIES, INC.

2 Moonlight Terrace
Montpelier, VT 05602
Phone (802) 262-2004

LABORATORY RESULTS

GC/MS METHOD - 8260M

GML REF. # : 921C
SAMPLE ID: W-2
ANALYSIS DATE: 11/25/2009
SAMPLE DATE: 11/20/2009
SAMPLE TYPE: WATER

PARAMETER	PQL (ug/L)	RESULT (ug/L)
Methyl-t-butyl-ether (MTBE)	5	ND
Benzene	1	1
1,2-Dicholorethane	1	ND
Toluene	1	3.7
1,2-Dibromoethane	1	ND
Ethylbenzene	1	22
Xylenes	3	100
1,3,5-Trimethylbenzene	2	3.5
1,2,4-Trimethylbenzene	2	110
Naphthalene	5	25

Surrogate % Recovery: 100 %

ND = Not Detected
BPQL = Below Practical Quantitation Limit

Green Mountain Laboratories, Inc.

2 Moonlight Terrace
Montpelier, Vermont 05602
Phone (802) 262-2004 Fax (802) 262-2005
www.greenmtlabs.com

GML SAMPLE #

Client Name: Lincoln Applied Geology
Address: 163 Revell Dr., Lincoln Vt. 05443
Phone / Fax (802) 453-4384 (802) 453-5399
Project Name: Ward's
Project Number: 00666
Project Manager: Dagan Murray
Sampler: Joseph Hagan

Analysis Requested: 8021 B

Page 1 of 1

GML # 421C

#	Sample Location	Date	Time	# of Cont.	Pres.	Sample Type	Remarks
1	Trip Blank	11/20/09	0800	2	HCL	H_2O	
2	MW-1		1235				
3	W-1		1240				
4	W-2		1245				
5	MW-6		1250				
6	MW-3		1255				
7	MW-2		1300				

☐ Digital Copy Requested

Chain of Custody

Relinquished By:	Date/Time: 11/20/09 1305	Received By:	Date/Time:
Relinquished By:	Date/Time: 11/24/09 0915	Received By:	Date/Time: 11/24/09 0915
Relinquished By:	Date/Time:	Received By:	Date/Time:
Temperature Blank:	Vial Lot ID #:		