Waite-Heindel
Environmental Management

January 31, 2013

Alan Young
Duncan's Auto
291 St. Paul Street
Burlington, Vermont 05401

RE: Annual Groundwater Monitoring Report: November 2012
Duncan's Auto, 291 St. Paul Street, Burlington, Vermont (Site #1990-0594)

Dear Alan:

Waite-Heindel Environmental Management (WHEM) is pleased to present the *Annual Monitoring Report* for sampling conducted in November 2012 at the Duncan's Auto site. Copies of this report have also been forwarded to the Vermont Department of Environmental Conservation (VT DEC) and to Liberty Mutual Insurance.

Do not hesitate to call me if you have any questions about the report. I look forward to continuing to assist you in the future.

Sincerely,

Miles E. Waite, Ph.D., P.G.
Senior Hydrogeologist

Chris Page
Staff Scientist

Enclosure

cc: Gerold Noyes, VT DEC
Jeff Chandler, Liberty Mutual (electronic copy only)

ANNUAL GROUNDWATER MONITORING REPORT: NOVEMBER 2012

DUNCAN'S AUTO
291 St. Paul Street
Burlington, Vermont

SMS Site #1990-0594

Prepared for:

Duncan's Auto
291 St. Paul Street
Burlington, Vermont 05401
Contact: Mr. Alan Young

Prepared by:

Waite - Heindel
Environmental Management

P.O. Box 4602
Burlington, Vermont 05406
(802) 860-9400

January 31, 2013

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1.0 INTRODUCTION

The following Groundwater Monitoring Report was prepared by Waite-Heindel Environmental Management (WHEM) for the Duncan's Auto property at 291 St. Paul Street in Burlington, Vermont ("Site"; refer to Site Location Map in Appendix A). This report was prepared in accordance with the recommendations in Waite Environmental Management's (WEM) *Corrective Action Plan* (CAP) dated November 13, 2008 to conduct post-remediation groundwater monitoring at the Site and on the neighboring Kilburn & Gates property (VT DEC Site #2003-3138) to monitor petroleum contamination in groundwater stemming from former petroleum storage and pumping operations at the Duncan's Site. In accordance with the VT DEC request dated March 21, 2011, groundwater monitoring is now being conducted on an annual basis.

1.1 Background

The initial gasoline release(s) was noted during tank removal activities in 1990 while the site was owned and operated by Leo Duncan. Some removal of gasoline contaminated soil was conducted at that time under the supervision of the VT DEC, but no testing of soil and groundwater was conducted and the Site was closed. The Site became active again in 2004 under the ownership of Alan Young after groundwater testing at the neighboring Kilburn & Gates property at 20 Kilburn Street revealed gasoline contamination migrating onto the property from the east. Environmental investigation ensued, resulting in the installation of nine (9) groundwater monitoring wells on the Kilburn & Gates site, and fifteen (15) soil borings on the Duncan's property and at the edges of St. Paul and Kilburn Streets, with eight (8) installed with groundwater monitoring wells and one (1) installed as a free product recovery well. Monitoring during 2004 – 2008 showed a dissolved contaminant plume centered west of the former Duncan's USTs extending to the west with an areal extent of 12,000 – 17,000 ft^2. A small zone of non-aqueous phase liquid (NAPL) contamination was present under the former pump island. Refer to the attached Site Plan for all well and boring locations.

Corrective action occurred December 8-11, 2008, and involved the excavation and offsite disposal of 516 tons of petroleum contaminated soil (refer to WEM's *Excavation Summary Report* dated January 6, 2009). The excavation zone was approximately 1,300 square feet and extended to a depth of 10.5 – 14.0 ft deep.

Groundwater monitoring is being conducted to continue to monitor the effect of the remediation effort. Description of the eighth round of post remediation monitoring conducted in November 2012 follows.

2.0 GROUNDWATER SAMPLING

2.1 Groundwater Level Measurement

Groundwater level measurements were collected by WEM from the seven (7) wells at Duncan's Auto Site and six (6) of the seven (7) monitoring wells on the Kilburn & Gates Site on November 30, 2012 (see Table 1 in Appendix B); MW-7 was inaccessible due to a parked car. In the "upper" Duncan's wells, depth to groundwater ranged from 5.85 to 10.74 feet below top of casing (btoc). Three wells were observed to be dry: DMW-1, DMW-5 and DMW-6. In the "lower" Kilburn & Gates wells, depth to groundwater ranged from 3.60 to 6.30 ft btoc. The depth to groundwater measurements were converted to water table elevations. Compared to the previous round of sampling in July 2011, the water table elevations from November 2012 showed decreases in elevation in all wells. On average, groundwater elevations decreased by 2.23 feet across the site. The most significant decreases were observed DMW-2R and DMW-4R. The fluctuations in water table elevations can be seen visually for select wells in the Graphs in Appendix B.

No free product was measured in any of the groundwater monitoring wells. The 2009-2012 groundwater monitoring results indicate that the source area excavation has eliminated the free product that was formerly detected in well DMW-2.

Water table elevations were plotted and contoured to illustrate the estimated gradient and direction of groundwater flow beneath the site (see Figure 2 in Appendix A). While the overall flow direction continues to be toward the west-southwest, there is southerly flow toward the intersection of Kilburn and St. Paul Streets. The flow gradient ranges from 1.4% at the former UST grave to 5.5% below the hillside west of the Duncan's building.

2.2 Groundwater Sample Collection

WHEM collected groundwater samples from six (6) monitoring wells on November 30, 2012. Wells sampled include: MW-2, MW-6, MW-8, DMW-2R, DMW-3R, and DMW-4R; DMW-5 was dry to depth so no sample could be obtained. Groundwater samples were collected from the wells using a peristaltic pump with dedicated HDPE tubing. The purge rates ranged from 200-600 ml/min. Wells were purged of a minimum of three well volumes or until dry, in accordance with industry and state standards. Once purging was complete, groundwater samples were collected in approved containers, placed on ice in a cooler, and transported to Endyne Laboratory in Williston, Vermont under chain-of-custody procedures. The samples were analyzed for petroleum VOCs via EPA Method 8021B.

Mild petroleum odors were noted in groundwater collected from all wells sampled. Groundwater conditions in the source area are much better than previously with the disappearance of free product, sheen and strong odor.

2.3 Groundwater Sampling Results

Groundwater quality results from sampling on November 30, 2012 are summarized in Table 2 in Appendix B. Full laboratory reports are included in Appendix C. Based on these results, petroleum VOCs were present in all of the monitoring wells sampled, with a range in total reported petroleum VOC concentrations between 2,477 ppb at MW-6 and 78.0 ppb at DMW-2R. Exceedences of the Vermont Groundwater Enforcement Standards (VGES), mostly for the compound benzene, were noted for one or more compounds in all wells.

Graphs in Appendix B show the November 2012 contaminant concentrations (total reported VOCs) and groundwater elevations compared to the previous rounds of groundwater sampling in 2003-2011. These graphs indicate the following:

- There were increases in contaminant concentrations in lower wells MW-2, MW-6 and MW-8 attributed to decreases in water table elevations at these locations. Concentrations in these wells are typically negatively correlated with water table elevation, meaning that when water table increases the concentrations decrease.
- There were continued decreases in contaminant concentrations in upper wells DMW-2R DMW-3R, and DMW-4R. For the second consecutive round, the decrease at DMW-3R was significant, from approximately 4,000 ppb to 2,000 ppb. These decreases can be attributed to removal of contaminant mass from the December 2008 excavation. Concentrations in these wells do not appear to be correlated with water table elevation.

The distribution of the contaminant plume is shown visually in the contour map in Appendix A (Figure 3). As this map shows, the petroleum VOC plume is now centered west of the former tank grave in the vicinity of DMW-3 and extends westward to just beyond well MW-6. The high magnitude portion of the plume in November 2012 is smaller than in November 2010 due to the reduction in concentrations at DMW-3. This plume configuration suggests a zone or conduit of preferential movement westward situated under the southern property line of the Kilburn and Gates property. The plume configuration is complicated and often hard to interpret. The portion of the plume underneath the Duncan's Auto building is inferred only, as there are no groundwater monitoring well locations here.

After 4 years of post-excavation groundwater monitoring it is evident that there has been significant reduction in contaminant concentrations in the source area and east and south of the source area. However, there has not been a significant improvement in groundwater quality west (downgradient) of the source area. The excavation was successful at removing an estimated 400-450 lbs of contaminant mass, but significant levels of contamination were observed along the sidewalls of the excavation particularly in the western portion. Based on observations made during the excavation, there is likely more widespread contamination underneath the Duncan's Auto building than previously estimated given the presence of three (3) abandoned USTs under the building. It is likely that petroleum contaminated clay soils underneath the building is a significant factor in the continued presence of high downgradient concentrations.

2.4 Quality Assurance / Quality Control

As part of WEM's quality assurance/quality control (QA/QC) procedure, duplicate sample "MW-X" was collected in conjunction with the sample from well MW-2 for analysis by EPA Method 8021B. The results of the laboratory analysis of the duplicate pair were then analyzed using a relative percent difference (RPD) analysis. The RPD is defined as 100 times the difference in reported concentration between sample and duplicate, divided by the mean of the two samples. A small RPD indicates good precision between sample and duplicate analyses. Precision in the field duplicate pair was acceptable (less than 30% RPD for all target analytes greater than 2 times the quantitation limit).

There was no contamination reported in the trip blank, confirming that there were no spurious influences on sample quality during the November 2012 sampling event.

3.0 CONCLUSIONS AND RECOMMENDATIONS

On November 30, 2012 WHEM conducted annual groundwater monitoring from monitoring wells at the Duncan's Auto and neighboring Kilburn & Gates Sites. Based on this work, WHEM has developed the following conclusions:

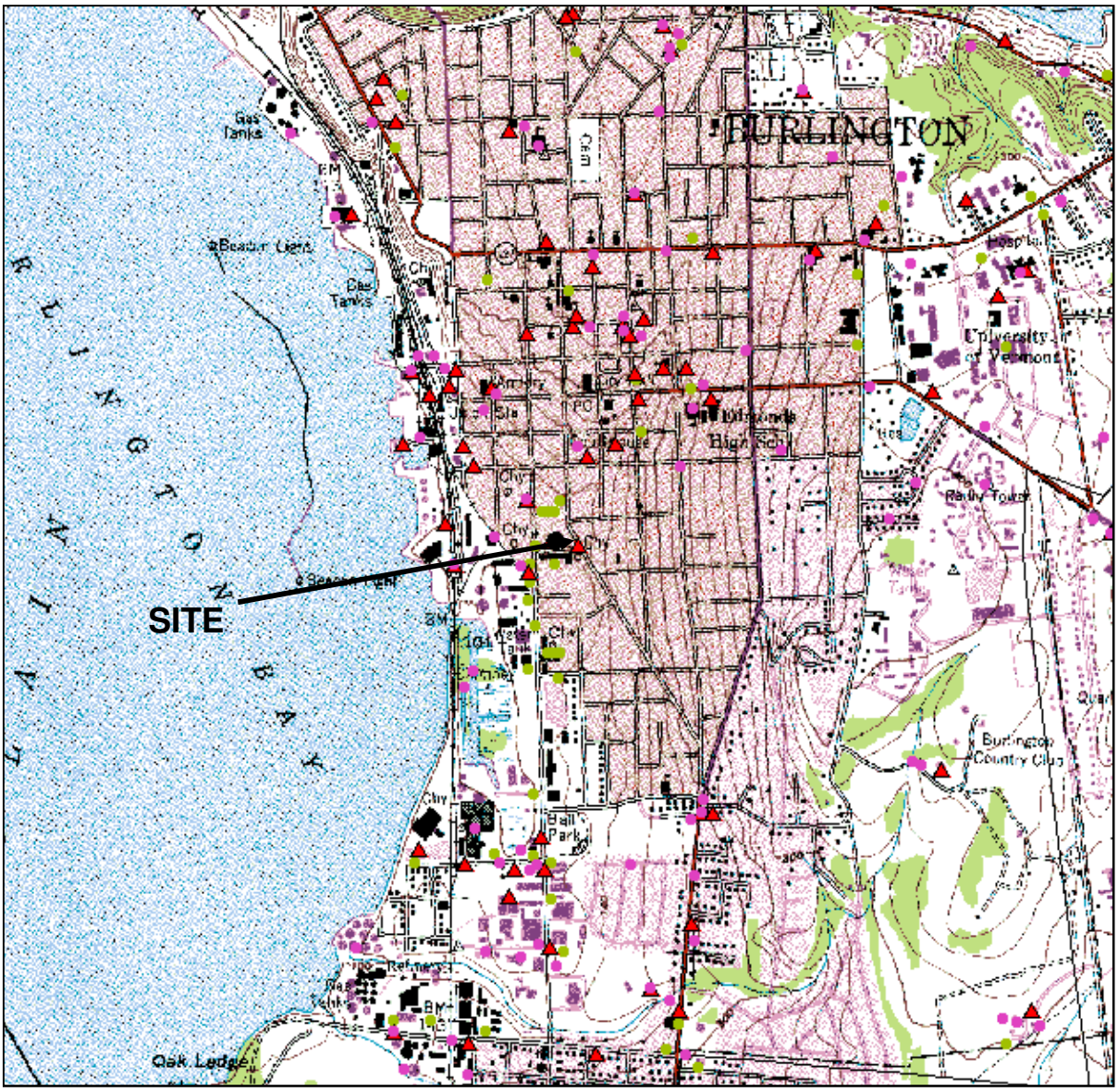
- Depth to groundwater from fourteen (14) wells ranged from 2.02 to 7.51 feet below top of casing (btoc), with three wells observed to be dry. Water table elevations decreased in lower wells and increased in upper wells compared to the previous round of sampling in November 2010. Groundwater flow direction continues to be toward the west and to the south, with flow gradient ranging from 1.4% at the former UST grave to 5.5% below the hillside west of the Duncan's building.
- Groundwater sampling results from six (6) wells indicate exceedences of the VGES for six (6) wells: MW-2, MW-6, MW-8, DMW-2R, DMW-3R, and DMW-4R. Most of the exceedences were for the compound benzene. DMW-5 was dry, so no sample was obtained.
- There were increases in contaminant concentrations in lower wells MW-2, MW-6 and MW-8 likely attributed to decreased water table elevations at these locations.
- There were continued decreases in contaminant concentrations in upper wells DMW-2R, DMW-3R and DMW-5R that can be attributed to the 2008 excavation.
- Evaluation of the past 4 years of monitoring results indicates significant reduction in contaminant concentrations in the source area and east and south of the source area, but that groundwater quality west of the former tank grave has not improved significantly likely due to residual contamination underneath the building that could not be removed during the 2008 excavation.

WHEM recommends continued annual groundwater monitoring, with monitoring events to be conducted in the fall of each year, from the following seven (7) monitoring wells: MW-2, MW-6, MW-8, DMW-2R, DMW-3R, DMW-4R, and DMW-5. The next sampling event is scheduled for the fall of 2013.

APPENDIX A

FIGURES

USGS Site Location Map
Site Plan
Groundwater Elevation Contour Map
Petroleum VOC Concentration Contour Map



LEGEND

- State-Listed Hazardous Waste Site
- Registered UST
- Registered Hazardous Waste Generator

N

WEM Job Number:	*10042-26*
Map Source:	*USGS Mapping 7.5 Minute Burlington, Vermont Quadrangle (1987)*
Data Source	*ANR databases, updated August 2003*

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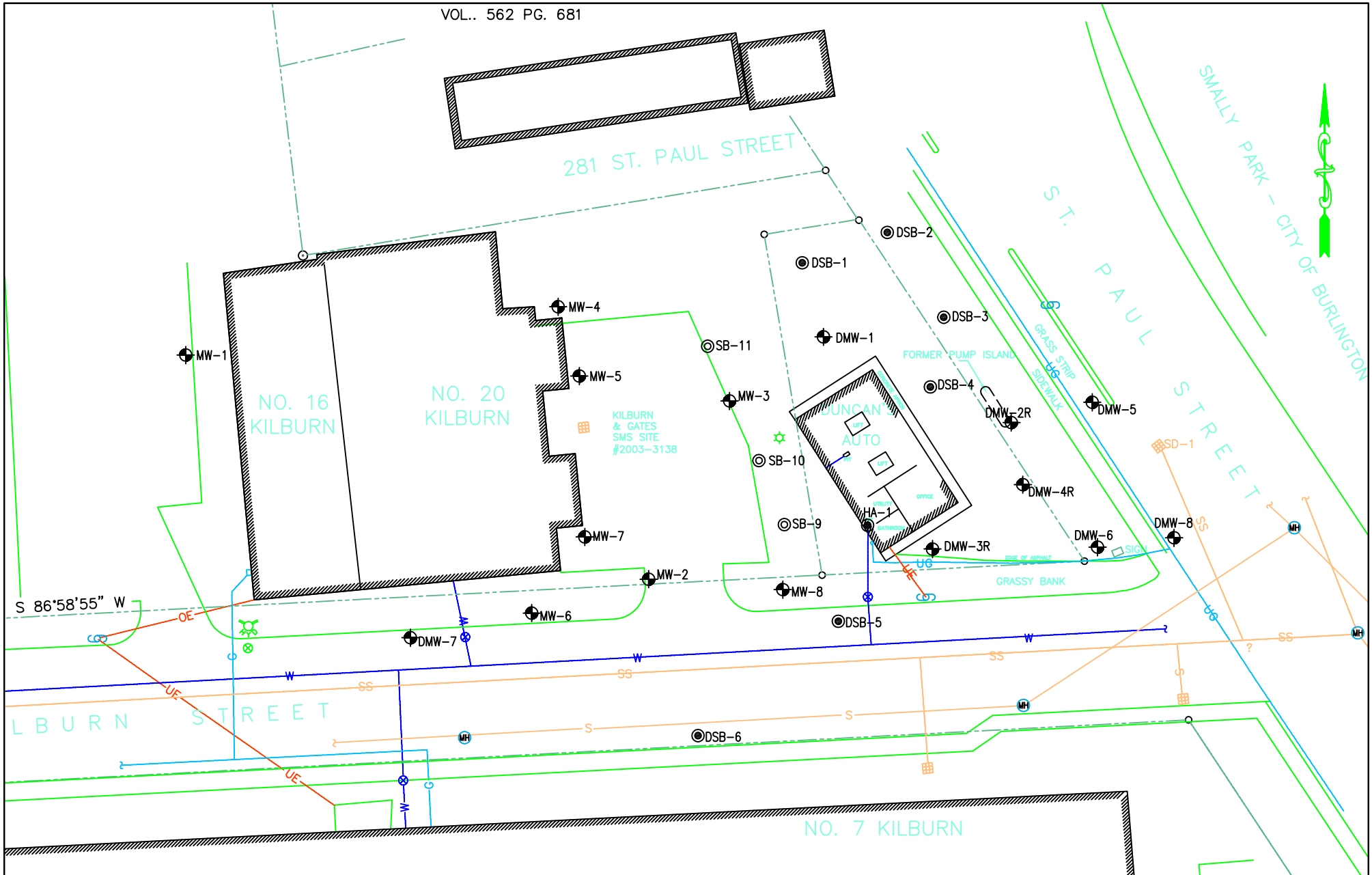
SITE LOCATION MAP

Duncan's Auto

291 St. Paul Street, Burlington, VT (Site #90-0594)

Date: 01/31/13	Drawing No. 1	Scale: 1:24,000	By: MEW



GRAPHIC SCALE: 1" = 40'

40 20 0 40 120

NOTE:

BASE MAP PROVIDED BY J. GRAHAM GOLDSMITH ARCHITECTS DRAWING TITLED "95254S~1.dwg" DATED 08/21/98.
MAP ANNOTATED BY W.E.M. AFTER SURVEYS CONDUCTED ON 11/10/03, 8/26/04, AND 2/15/06.

DRAWING LEGEND

— — —	PROPERTY LINE
SB-10	KILBURN & GATES SOIL BORING
MW-1	KILBURN & GATES MONITORING WELL
DMW-1	DUNCAN'S MONITORING WELL
DSB-1	DUNCAN'S SOIL BORING

SITE PLAN

DUCAN'S AUTO (SMS #1990-0594)
291 ST. PAUL STREET, BURLINGTON, VERMONT

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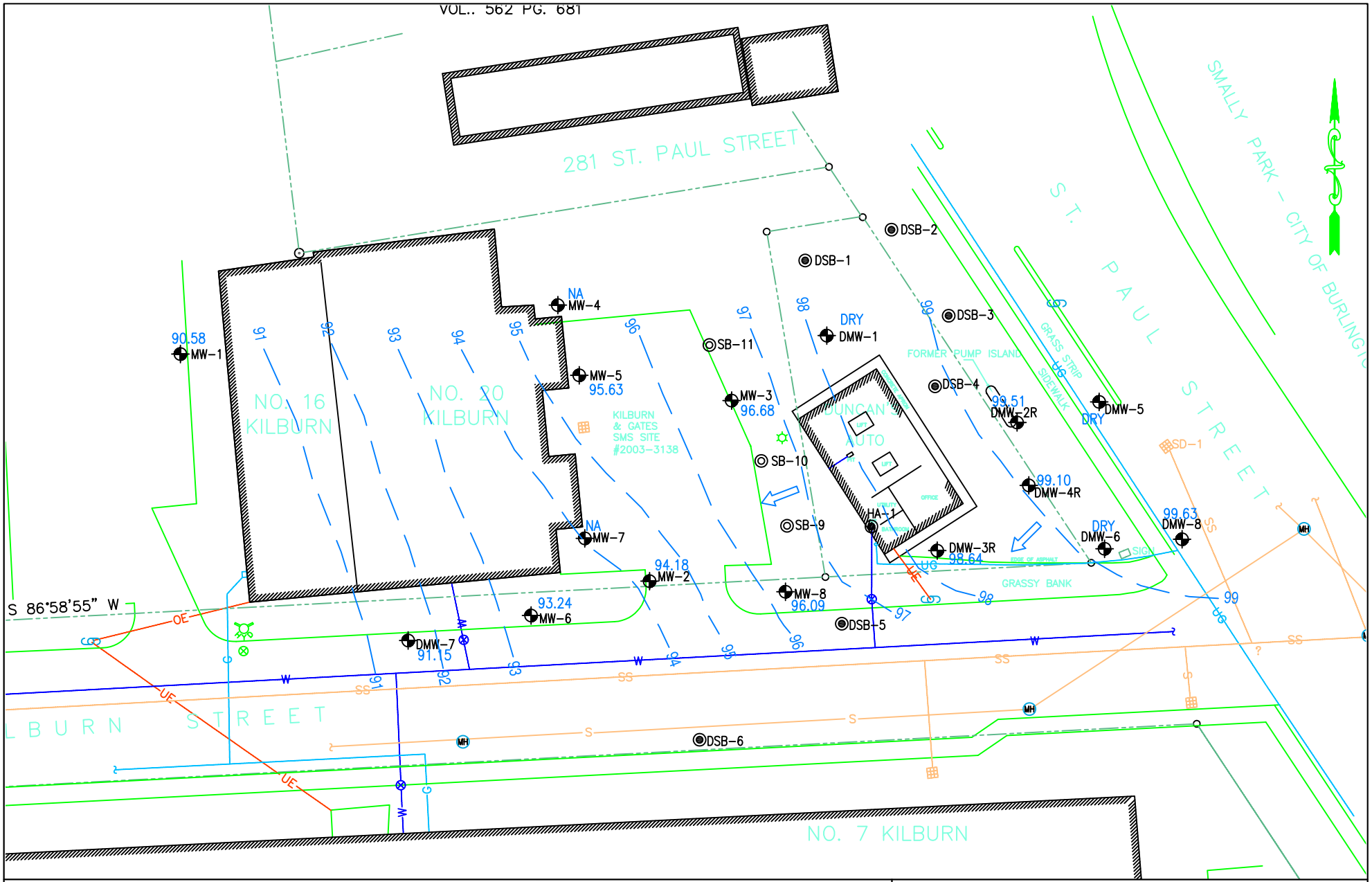
Burlington, Vermont • (802) 860-9400

SCALE: 1=40'	1/25/13
DRAWN BY: MEW	PROJECT NO.: 10042-26
PROJECT MANAGER: CP	APPROVED BY: MEW
LAYOUT: GWMAP1112	☐ DRAFT ☒ FINAL
SHEET 1	3



GRAPHIC SCALE: 1" = 40'

40 20 0 40

NOTE:

1. ALL ELEVATIONS BASED ON AN ARBITRARY BENCHMARK OF 100.0 FT AT THE TOP-OF-CASING OF WELL MW-2
2. GROUNDWATER ELEVATION MEASUREMENTS COLLECTED BY W.E.M. ON 11/30/12.

DRAWING LEGEND

100.51 MW-1	KILBURN & GATES MONITORING WELL WITH GROUNDWATER ELEVATION (FT)
100.51 DMW-1	DUNCAN'S MONITORING WELL WITH GROUNDWATER ELEVATION (FT)
—100—	GROUNDWATER ELEVATION CONTOUR (FT)
⇨	DIRECTION OF GROUNDWATER FLOW

GROUNDWATER ELEVATION CONTOUR MAP: NOVEMBER 2012

DUCAN'S AUTO (SMS #1990-0594)
291 ST. PAUL STREET, BURLINGTON, VERMONT

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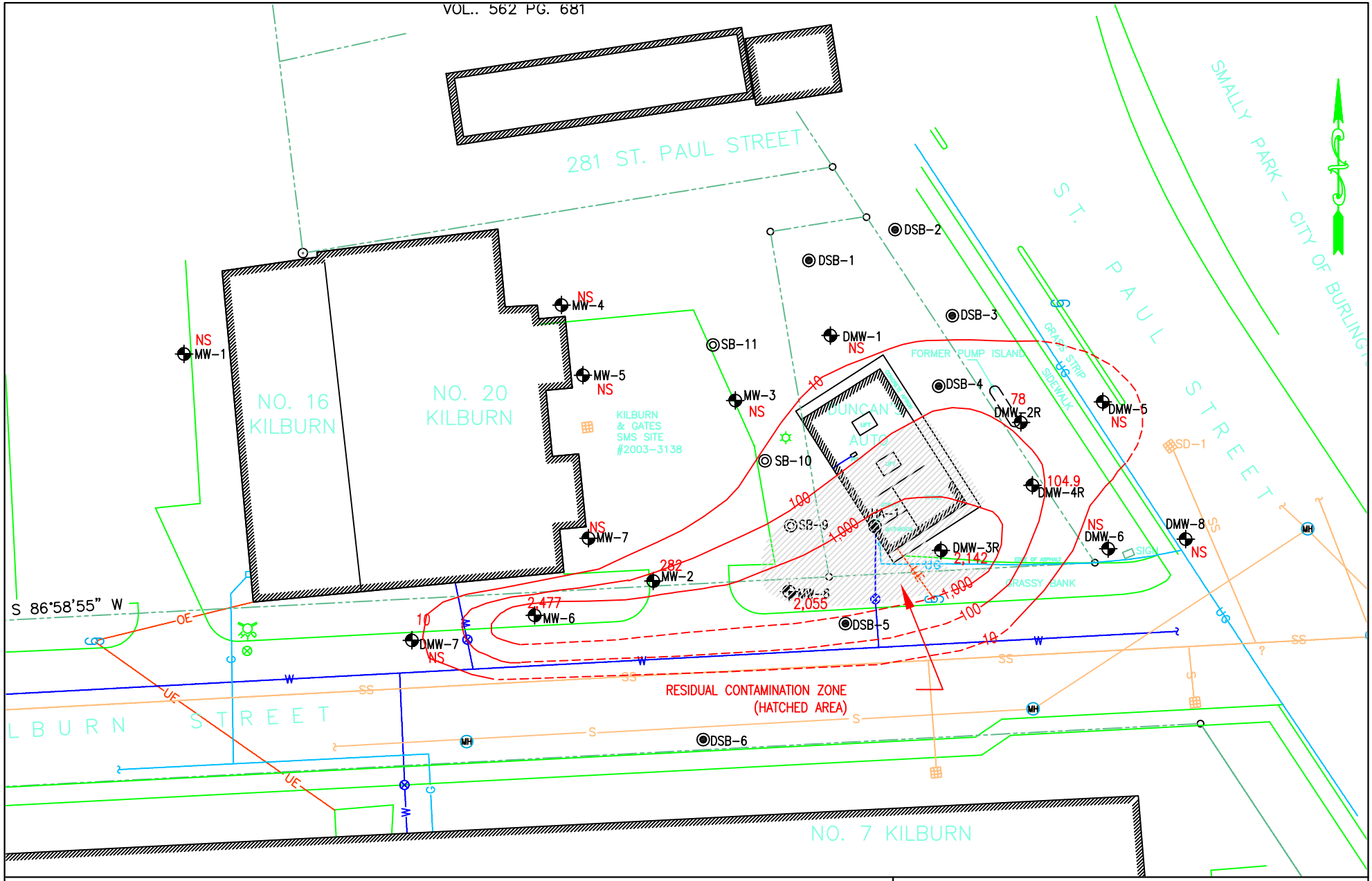
SCALE: 1=40'	DATE: 1/25/13
DRAWN BY: MEW	PROJECT NO.: 10042-26
PROJECT MANAGER: CP	APPROVED BY: MEW
LAYOUT: GWMAP1112	☐ DRAFT ☒ FINAL
SHEET 2	OF 3



GRAPHIC SCALE: 1" = 40'

40 20 0 40

NOTE:

1. TOTAL PETROLEUM VOC CONCENTRATIONS (PPB) CALCULATED AS SUM OF BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, TRIMETHLYBENZENES, NAPHTHALENE, AND MTBE CONCENTRATIONS FROM EPA METHOD 8021B. SAMPLES COLLECTED ON 11/30/12.
2. ND = NOT DETECTED ABOVE REPORTING LIMITS; NS = NOT SAMPLED.

DRAWING LEGEND

MW-1 32.3	KILBURN & GATES MONITORING WELL WITH DISSOLVED PETROLEUM VOC CONCENTRATION (PPB)
DMW-1 226	DUNCAN'S MONITORING WELL WITH DISSOLVED PETROLEUM VOC CONCENTRATION (PPB)
100	PETROLEUM VOC CONCENTRATION CONTOUR (PPB) DASHED WHERE INFERRED

PETROLEUM VOC CONCENTRATION CONTOUR MAP: NOVEMBER 2012

DUCAN'S AUTO (SMS #1990-0594)

291 ST. PAUL STREET, BURLINGTON, VERMONT

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SCALE: 1=40'	1/25/13
DRAWN BY: MEW	PROJECT NO.: 10042-26
PROJECT MANAGER: CP	APPROVED BY: MEW
LAYOUT: VOCMAP1112	☐ DRAFT ☒ FINAL
SHEET 3	3

APPENDIX B

TABLES AND GRAPHS

Table 1: Liquid Level Monitoring Data
Table 2: Groundwater Quality Summary
Table 3: QA/QC Summary
Groundwater Quality Graphs

TABLE 1
Groundwater Elevation Monitoring Data
Duncan's Auto / Kilburn & Gates
Burlington, Vermont

Measurement Date: 7/8/2011

Well I.D.	Top of Casing Elevation (ft)	Depth To Product	Depth To Water	Product Thickness	Specific Gravity Of Product	Water Equivalent	Corrected Depth To Water	Corrected Water Table Elevation
MW-1	94.47		2.87	n/a				91.60
MW-2	100.00		3.38	n/a				96.62
MW-3	100.83		2.02	n/a				98.81
MW-5	99.23		2.17	n/a				97.06
MW-6	99.09		4.66	n/a				94.43
MW-7	99.26							
MW-8	102.39		4.13	n/a				98.26
DMW-1	110.30		7.21	n/a				103.09
DMW-2R	109.35		6.42	n/a				102.93
DMW-3R	109.38		7.51	n/a				101.87
DMW-4R	108.97		6.02	n/a				102.95
DMW-5	108.63		6.05	n/a				102.58
DMW-6	107.78		6.09	n/a				101.69
DMW-7	97.00		4.03	n/a				92.97
DMW-8	107.33		6.82	n/a				100.51

Measurement Date: 11/30/2012

Well I.D.	Top of Casing Elevation (ft)	Depth To Product	Depth To Water	Product Thickness	Specific Gravity Of Product	Water Equivalent	Corrected Depth To Water	Corrected Water Table Elevation
MW-1	94.47		3.89	n/a				90.58
MW-2	100.00		5.82	n/a				94.18
MW-3	100.83		4.15	n/a				96.68
MW-5	99.23		3.60	n/a				95.63
MW-6	99.09		5.85	n/a				93.24
MW-7	99.26		Inaccessible					
MW-8	102.39		6.30	n/a				96.09
DMW-1	110.30		Dry (>8.30)	n/a				102.00
DMW-2R	109.35		9.84	n/a				99.51
DMW-3R	109.38		10.74	n/a				98.64
DMW-4R	108.97		9.87	n/a				99.10
DMW-5	108.63		Dry (>9.40)	n/a				99.23
DMW-6	107.78		Dry (>9.35)	n/a				98.43
DMW-7	97.00		5.85	n/a				91.15
DMW-8	107.33		7.70	n/a				99.63

Notes:

All data in feet.

Elevations referenced to an elevation of 100 feet at top of casing of well MW-2.

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TABLE 2
Groundwater Quality Summary:
VOCs
Duncans Auto / Kilburn & Gates

MW-2	Date		5/28/08	3/25/09	6/5/09	9/25/09	1/15/10	6/11/10	11/16/10	7/8/11	11/30/12
	Method		8021B	8021B	8021B	8021B	8021B	8021B	8021B	8021B	8021B
PETROLEUM VOCs		**VGES**									
Benzene	ug/L (ppb)	5.0	**4.6**	**21.9**	**12.2**	**468**	**640**	**13.1**	**14.4**	**33.3**	**203**
Toluene	ug/L (ppb)	1000	ND<1.0	ND<1.0	ND<1.0	ND<10.0	ND<100	ND<1.0	ND<1.0	**1.2**	ND<2.0
Ethylbenzene	ug/L (ppb)	700	ND<1.0	ND<1.0	ND<1.0	ND<10.0	ND<100	ND<1.0	ND<1.0	ND<1.0	ND<2.0
Xylenes	ug/L (ppb)	10000	ND<2.0	ND<2.0	ND<2.0	ND<20.0	ND<200	ND<2.0	ND<2.0	ND<2.0	ND<4.0
1,3,5-Trimethylbenzene	ug/L (ppb)	350	ND<1.0	ND<1.0	ND<1.0	ND<10.0	ND<100	ND<1.0	ND<1.0	ND<1.0	ND<2.0
1,2,4-Trimethylbenzene	ug/L (ppb)		ND<1.0	ND<1.0	ND<1.0	ND<10.0	ND<100	ND<1.0	ND<1.0	ND<1.0	ND<2.0
Naphthalene	ug/L (ppb)	20.0	ND<2.0	ND<2.0	ND<2.0	ND<20.0	ND<200	ND<2.0	ND<2.0	ND<2.0	ND<4.0
MTBE	ug/L (ppb)	40.0	**2.7**	**9.6**	**5.2**	**203**	**245**	**2.6**	**7.3**	**6.6**	**78.2**
Total Reported VOCs	ug/L (ppb)	--	**7.3**	**31.5**	**17.4**	**671**	**885**	**16**	**22**	**41**	**281**
Total BTEX	ug/L (ppb)	--	**4.6**	**21.9**	**12.2**	**468**	**640**	**13**	**14**	**35**	**203**
Unidentified Peaks (UIP)	#	--	0	**2**	0	1	3	1	0	>10	**2**

MW-3	Date		5/28/08	3/25/09	6/5/09	9/25/09	1/15/10	6/11/10	11/16/10	7/8/11	11/30/12
	Method		8021B	8021B	8021B	8021B	8021B				
PETROLEUM VOCs		**VGES**									
Benzene	ug/L (ppb)	5.0	**4.5**	**5.2**	**6.0**	**7.3**	**1.6**				
Toluene	ug/L (ppb)	1000	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0				
Ethylbenzene	ug/L (ppb)	700	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0				
Xylenes	ug/L (ppb)	10000	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	NO	NO	NO	NO
1,3,5-Trimethylbenzene	ug/L (ppb)	350	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	SAMPLE	SAMPLE	SAMPLE	SAMPLE
1,2,4-Trimethylbenzene	ug/L (ppb)		ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0				
Naphthalene	ug/L (ppb)	20.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0				
MTBE	ug/L (ppb)	40.0	**11.5**	**4.1**	**11.1**	**4.7**	**10.9**				
Total Reported VOCs	ug/L (ppb)	--	**16.0**	**9.3**	**17.1**	**12.0**	**12.5**				
Total BTEX	ug/L (ppb)	--	**4.5**	**5.2**	**6.0**	**7.3**	**1.6**				
Unidentified Peaks (UIP)	#	--	**9.**	**>10**	**4.**	**>10**	**>10**				
Total Petroleum Hydrocarbons - GRO	mg/L (ppm)	--									

MW-6	Date		5/28/08	3/25/09	6/5/09	9/25/09	1/15/10	6/11/10	11/16/10	7/8/11	11/30/12
	Method		8021B	8021B	8021B	8021B	8021B	8021B	8021B	8021B	8021B
PETROLEUM VOCs		**VGES**									
Benzene	ug/L (ppb)	5.0	**136**	**1.3**	**68.3**	**394**	**1,570**	**363**	**1.9**	**76.5**	**679**
Toluene	ug/L (ppb)	1000	**34.0**	ND<1.0	**5.4**	ND<20.0	**332**	ND<50.0	ND<1.0	**3.8**	**33.2**
Ethylbenzene	ug/L (ppb)	700	**193.**	**6.3**	**106**	**169**	**1,300**	**225**	**10.7**	**72.7**	**300**
Xylenes	ug/L (ppb)	10000	**422.**	**20.7**	**225**	ND<40.0	**3,980**	**309**	**19.7**	**95.3**	**524**
1,3,5-Trimethylbenzene	ug/L (ppb)	350	**10.1**	ND<1.0	**8.8**	ND<20.0	**81.6**	ND<50.0	**1.7**	**2.0**	**14.7**
1,2,4-Trimethylbenzene	ug/L (ppb)		**159.**	**5.5**	**132**	**69**	**685**	**104**	**16.2**	**52.3**	**126**
Naphthalene	ug/L (ppb)	20.0	**34.0**	ND<2.0	**22.9**	ND<40.0	**146**	ND<100.0	**2.5**	**12.1**	**41.3**
MTBE	ug/L (ppb)	40.0	**63.1**	ND<2.0	ND<10.0	**2,770**	**1,030**	**594**	ND<2.0	**17.2**	**759**
Total Reported VOCs	ug/L (ppb)	--	**1,051.**	**33.8**	**568**	**3,402**	**9,125**	**1,595**	**52.7**	**332**	**2,477**
Total BTEX	ug/L (ppb)	--	**785.**	**28.3**	**405**	**563**	**7,182**	**897**	**32.3**	**248**	**1,536**
Unidentified Peaks (UIP)	#	--	**>10**	**>10**	**>10**	**>10**	**>10**	**3**	**>10**	**>10**	**>10**

MW-8	Date		5/28/08	3/25/09	6/5/09	9/25/09	1/15/10	6/11/10	11/16/10	7/8/11	11/30/12
	Method		8021B	8021B	8021B	8021B	8021B	8021B	8021B	8021B	8021B
PETROLEUM VOCs		**VGES**									
Benzene	ug/L (ppb)	5.0	**365.**	ND<1.0	**513**	**3,750**	**179**	**2,390**	**1.7**	**386**	**464**
Toluene	ug/L (ppb)	1000	**105.**	ND<1.0	**116**	**397**	**13.8**	**329**	**5.4**	**67.5**	**56.7**
Ethylbenzene	ug/L (ppb)	700	**119.**	ND<1.0	**161**	**1,300**	**224**	**652**	**25.8**	**164**	**288**
Xylenes	ug/L (ppb)	10000	**472.**	ND<2.0	**626**	**4,790**	**283**	**2,010**	**115**	**432**	**525**
1,3,5-Trimethylbenzene	ug/L (ppb)	350	**16.8**	ND<1.0	**19.6**	**213**	**12.8**	**91.2**	**7.7**	**22.1**	**18.4**
1,2,4-Trimethylbenzene	ug/L (ppb)		**76.1.**	ND<1.0	**97.6**	**916**	**234**	**418**	**30.2**	**114**	**204**
Naphthalene	ug/L (ppb)	20.0	**47.3**	ND<2.0	**30.0**	**343**	**32**	**140**	**9.4**	**37.9**	**71.3**
MTBE	ug/L (ppb)	40.0	**562**	ND<2.0	**597**	**6,470**	**223**	**1,970**	**2.1**	**386**	**458**
Total Reported VOCs	ug/L (ppb)	--	**1,763**	ND<6.0	**2,160**	**18,179**	**1,201**	**8,000**	**197**	**1,610**	**2,085**
Total BTEX	ug/L (ppb)	--	**1,061**	ND<2.5	**1,416**	**10,237**	**700**	**5,381**	**148**	**1,050**	**1,334**
Unidentified Peaks (UIP)	#	--	**>10**	0	**>10**	**>10**	**>10**	**>10**	**>10**	**>10**	**>10**

Waite - Heindel

TABLE 2
Groundwater Quality Summary:
VOCs
Duncans Auto / Kilburn & Gates

DMW-1	Date		5/28/08	3/25/09	6/5/09	9/25/09	1/15/10	6/11/10	11/16/10	7/8/11	11/30/12
	Method		8021B	8021B	8021B						
PETROLEUM VOCs		**VGES**									
Benzene	ug/L (ppb)	5.0	**2.9**	**8.3**	**5.1**						
Toluene	ug/L (ppb)	1000	ND<1.0	**3.1**	ND<1.0						
Ethylbenzene	ug/L (ppb)	700	ND<1.0	**1.0**	**1.5**						
Xylenes	ug/L (ppb)	10000	ND<2.0	**3.9**	ND<2.0	WELL DRY	WELL DRY	NO	NO	NO	NO
1,3,5-Trimethylbenzene	ug/L (ppb)	350	ND<1.0	ND<1.0	ND<1.0	NO SAMPLE	NO SAMPLE	SAMPLE	SAMPLE	SAMPLE	SAMPLE
1,2,4-Trimethylbenzene	ug/L (ppb)		ND<1.0	ND<1.0	ND<1.0						
Naphthalene	ug/L (ppb)	20.0	ND<1.0	ND<1.0	ND<1.0						
MTBE	ug/L (ppb)	40.0	**3.9**	**3.2**	**3.4**						
Total Reported VOCs	ug/L (ppb)	--	**6.8**	**19.5**	**10.0**						
Total BTEX	ug/L (ppb)	--	**2.9**	**16.3**	**6.6**						
Unidentified Peaks (UIP)	#	--	**>10**	**>10**	**>10**						

DMW-2 / DMW-2R	Date		5/28/08	3/25/09	6/5/09	9/25/09	1/15/10	6/11/10	11/16/10	7/8/11	11/30/12
	Method				8021B	8021B	8021B	8021B	8021B	8021B	8021B
PETROLEUM VOCs		**VGES**									
Benzene	ug/L (ppb)	5.0			**16.4**	**1,210**	**75.9**	**68.0**	**149**	**40.0**	**10.1**
Toluene	ug/L (ppb)	1000			**3.8**	**105**	**72.3**	ND<5.0	**413**	ND<1.0	ND<1.0
Ethylbenzene	ug/L (ppb)	700	FREE		**1.1**	**166**	**38.5**	**37.6**	**210**	**33.8**	ND<1.0
Xylenes	ug/L (ppb)	10000	PRODUCT	NO	**6.1**	**139**	**80.9**	**15.0**	**634**	ND<2.0	ND<2.0
1,3,5-Trimethylbenzene	ug/L (ppb)	350	NO SAMPLE	SAMPLE	ND<1.0	ND<20.0	**1.4**	ND<5.0	**18.1**	ND<1.0	ND<1.0
1,2,4-Trimethylbenzene	ug/L (ppb)				ND<1.0	**20.8**	**37.5**	**6.2**	**159**	ND<1.0	ND<1.0
Naphthalene	ug/L (ppb)	20.0			ND<2.0	ND<40.0	**5.2**	ND<5.0	**36.0**	ND<2.0	ND<2.0
MTBE	ug/L (ppb)	40.0			**73.3**	**535**	**129**	**92.7**	**98.8**	**33.2**	**34.0**
Total Reported VOCs	ug/L (ppb)	--			**100.7**	**2,176**	**441**	**220**	**1,718**	**107**	**44**
Total BTEX	ug/L (ppb)	--			**27.4**	**1,620**	**268**	**121**	**1,406**	**74**	**10**
Unidentified Peaks (UIP)	#	--			**>10**	**>10**	**>10**	**>10**	**>10**	**>10**	**4**

DMW-3 / DMW-3R	Date		5/28/08	3/25/09	6/5/09	9/25/09	1/15/10	6/11/10	11/16/10	7/8/11	11/30/12
	Method		8021B		8021B	8021B	8021B	8021B	8021B	8021B	8021B
PETROLEUM VOCs		**VGES**									
Benzene	ug/L (ppb)	5.0	**8,280.**		**7,960.**	**2,630.**	**4,050.**	**4,560.**	**4,090**	**1,330**	**1,160**
Toluene	ug/L (ppb)	1000	**28,900.**		**23,600.**	**7,340.**	**10,600.**	**9,670.**	**4,220**	**104**	**50.7**
Ethylbenzene	ug/L (ppb)	700	**2,550.**		**1,930.**	**697.**	**956.**	**960.**	**706**	**564**	**258**
Xylenes	ug/L (ppb)	10000	**14,600.**	NO	**10,700.**	**3,610.**	**5,210.**	**4,900.**	**3,600**	**1,060**	**392**
1,3,5-Trimethylbenzene	ug/L (ppb)	350	**514.**	SAMPLE	**280.**	**107.**	ND<200	ND<200	**128**	**151**	**55.0**
1,2,4-Trimethylbenzene	ug/L (ppb)		**1,870.**		**1,110.**	**380.**	**644.**	**482.**	**450**	**538**	**177**
Naphthalene	ug/L (ppb)	20.0	**736.**		**424.**	ND<200	ND<400	ND<400	ND<200	**165**	**49.3**
MTBE	ug/L (ppb)	40.0	ND<400.		ND<400.	ND<200	ND<400	ND<400	ND<200	**26.9**	ND/<40
Total Reported VOCs	ug/L (ppb)	--	**57,450.**		**46,004.**	**14,764.**	**21,460.**	**20,572.**	**13,194.**	**3,939.**	**2,142.**
Total BTEX	ug/L (ppb)	--	**54,330.**		**44,190.**	**14,277.**	**20,816.**	**20,090.**	**12,616.**	**3,058.**	**1,861.**
Unidentified Peaks (UIP)	#	--	**>10**		0	**>10**	**>10**	**5**	**>10**	**>10**	**5**

DMW-4 / DMW-4R	Date		5/28/08	3/25/09	6/5/09	9/25/09	1/15/10	6/11/10	11/16/10	7/8/11	11/30/12
	Method		8021B								
PETROLEUM VOCs		**VGES**									
Benzene	ug/L (ppb)	5.0	**131.**		**29.3**	**40.7**	**33.9**	**10.8**	ND<1.0	**50.9**	**7.3**
Toluene	ug/L (ppb)	1000	ND<100		ND<5.0	ND<1.0	ND<10.0	ND<5.0	ND<1.0	ND<1.0	ND<1.0
Ethylbenzene	ug/L (ppb)	700	**240.**		ND<5.0	**4.2**	**48.5**	ND<5.0	ND<1.0	ND<1.0	**7.6**
Xylenes	ug/L (ppb)	10000	**975.**	NO	**19.5**	**10.2**	ND<20.0	ND<10.0	ND<2.0	ND<2.0	ND<2.0
1,3,5-Trimethylbenzene	ug/L (ppb)	350	ND<100	SAMPLE	ND<5.0	**3.1**	ND<10.0	ND<5.0	ND<1.0	ND<1.0	ND<1.0
1,2,4-Trimethylbenzene	ug/L (ppb)		**1,530.**		**5.8**	**31.6**	**141**	ND<5.0	ND<1.0	ND<1.0	ND<1.0
Naphthalene	ug/L (ppb)	20.0	**543.**		ND<10.0	**5.7**	**35.5**	ND<10.0	ND<2.0	ND<2.0	ND<2.0
MTBE	ug/L (ppb)	40.0	**4,700.**		**244**	**231**	**522**	**59.1**	**51.7**	**33.5**	**90.0**
Total Reported VOCs	ug/L (ppb)	--	**8,119.**		**299**	**327**	**781**	**69.9**	**51.7**	**84.4**	**104.9**
Total BTEX	ug/L (ppb)	--	**1,346.**		**48.8**	**55.1**	**82.4**	**10.8**	ND	**50.9**	**14.9**
Unidentified Peaks (UIP)	#	--	**3**		**1**	**>10**	**>10**	0	0	**1**	**5**

Waite - Heindel

TABLE 2
Groundwater Quality Summary:
VOCs
Duncans Auto / Kilburn & Gates

DMW-5	Date		5/28/08	3/25/09	6/5/09	9/25/09	1/15/10	6/11/10	11/16/10	7/8/11	11/30/12
	Method		8021B	8021B	8021B	8021B	8021B	8021B	8021B	8021B	8021B
PETROLEUM VOCs		**VGES**									
Benzene	ug/L (ppb)	5.0	**10.5**	**10.7**	**15.2**	**15.4**		**3.6**	**4.9**	**4.2**	
Toluene	ug/L (ppb)	1000	**3.5**	**5.5**	**13.3**	**3.8**		ND<1.0	**1.6**	ND<1.0	
Ethylbenzene	ug/L (ppb)	700	**60.2**	**33.5**	**151**	**64**		**2.6**	**49.2**	**6.9**	WELL DRY
Xylenes	ug/L (ppb)	10000	**63.8**	**57.0**	**271**	**56**	WELL DRY	ND<2.0	**43.0**	**5.4**	NO
1,3,5-Trimethylbenzene	ug/L (ppb)	350	**4.2**	**24.3**	**57.9**	**3.7**	NO SAMPLE	ND<1.0	**3.7**	ND<1.0	SAMPLE
1,2,4-Trimethylbenzene	ug/L (ppb)		**107.**	**61.6**	**259**	**82**		**3.2**	**69.7**	**7.2**	
Naphthalene	ug/L (ppb)	20.0	**17.4**	**26.2**	**57.3**	**13.8**		ND<2.0	**8.3**	ND<2.0	
MTBE	ug/L (ppb)	40.0	**79.8**	**7.5**	**68.2**	**84.7**		**14.3**	**23.4**	**22.3**	
Total Reported VOCs	ug/L (ppb)	--	**346.**	**226.**	**893.**	**323.**		**24**	**204**	**46**	
Total BTEX	ug/L (ppb)	--	**138.**	**107.**	**451.**	**139.**		**6.2**	**98.7**	**16.5**	
Unidentified Peaks (UIP)	#	--	**>10**	**>10**	**>10**	**>10**		**0**	**>10**	**>10**	

DMW-6	Date		5/28/08	3/25/09	6/5/09	9/25/09	1/15/10	6/11/10	11/16/10	7/8/11	11/30/12
	Method		8021B	8021B	8021B	8021B	8021B	8021B	8021B	8021B	8021B
PETROLEUM VOCs		**VGES**									
Benzene	ug/L (ppb)	5.0	**30.1**	ND<2.0	**4.7**	ND<1.0		ND<1.0	ND<1.0		
Toluene	ug/L (ppb)	1000	**72.0**	ND<2.0	**9.9**	ND<1.0		ND<1.0	ND<1.0		
Ethylbenzene	ug/L (ppb)	700	**137.**	**11.2**	**18.6**	ND<1.0		ND<1.0	ND<1.0		
Xylenes	ug/L (ppb)	10000	**356.**	**18.9**	**35.3**	ND<2.0	WELL DRY	ND<2.0	ND<2.0	NO	NO
1,3,5-Trimethylbenzene	ug/L (ppb)	350	**37.5**	**5.8**	**6.2**	ND<1.0	NO SAMPLE	ND<1.0	ND<1.0	SAMPLE	SAMPLE
1,2,4-Trimethylbenzene	ug/L (ppb)		**210.**	**39.8**	**49.4**	ND<1.0		ND<1.0	ND<1.0		
Naphthalene	ug/L (ppb)	20.0	**35.1**	ND<4.0	**5.3**	ND<2.0		ND<2.0	ND<2.0		
MTBE	ug/L (ppb)	40.0	**364.**	ND<4.0	**45.5**	ND<2.0		ND<2.0	ND<2.0		
Total Reported VOCs	ug/L (ppb)	--	**1,242.**	**75.7**	**174.9**	ND<6.0		ND<6.0	ND<6.0		
Total BTEX	ug/L (ppb)	--	**595.**	**30.1**	**68.5**	ND<2.5		ND<2.5	ND<2.5		
Unidentified Peaks (UIP)	#	--	**>10**	**>10**	**>10**	0		0	0		

DMW-7	Date		5/28/08	3/25/09	6/5/09	9/25/09	1/15/10	6/11/10	11/16/10	7/8/11	11/30/12
	Method		8021B	8021B	8021B	8021B	8021B	8021B	8021B	8021B	8021B
PETROLEUM VOCs		**VGES**									
Benzene	ug/L (ppb)	5.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0				
Toluene	ug/L (ppb)	1000	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0				
Ethylbenzene	ug/L (ppb)	700	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0				
Xylenes	ug/L (ppb)	10000	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	NO	NO	NO	NO
1,3,5-Trimethylbenzene	ug/L (ppb)	350	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	SAMPLE	SAMPLE	SAMPLE	SAMPLE
1,2,4-Trimethylbenzene	ug/L (ppb)		ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0				
Naphthalene	ug/L (ppb)	20.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0				
MTBE	ug/L (ppb)	40.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0				
Total Reported VOCs	ug/L (ppb)	--	ND<6.0	ND<6.0	ND<6.0	ND<6.0	ND<6.0				
Total BTEX	ug/L (ppb)	--	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5				
Unidentified Peaks (UIP)	#	--	0	0	0	0	0				

DMW-8	Date		5/28/08	3/25/09	6/5/09	9/25/09	1/15/10	6/11/10	11/16/10	7/8/11	11/30/12
	Method		8021B	8021B	8021B	8021B	8021B	8021B	8021B	8021B	8021B
PETROLEUM VOCs		**VGES**									
Benzene	ug/L (ppb)	5.0	ND<1.0	ND<1.0	ND<1.0	**1.1**	ND<1.0				
Toluene	ug/L (ppb)	1000	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0				
Ethylbenzene	ug/L (ppb)	700	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0				
Xylenes	ug/L (ppb)	10000	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	NO	NO	NO	NO
1,3,5-Trimethylbenzene	ug/L (ppb)	350	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	SAMPLE	SAMPLE	SAMPLE	SAMPLE
1,2,4-Trimethylbenzene	ug/L (ppb)		ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0				
Naphthalene	ug/L (ppb)	20.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0				
MTBE	ug/L (ppb)	40.0	**2.5**	**2.3**	ND<2.0	**3.9**	**4.0**				
Total Reported VOCs	ug/L (ppb)	--	**2.5**	**2.3**	ND<6.0	**5.0**	**4.0**				
Total BTEX	ug/L (ppb)	--	ND<2.5	ND<2.5	ND<2.5	**1.1**	ND<2.5				
Unidentified Peaks (UIP)	#	--	0	0	0	0	0				

NOTES:
VGES = Vermont Groundwater Enforcement Standard (Table 1 of the Groundwater Protection Rule and Strategy 1/00)
ND<X = Not Detected (Detection Limit); detection limit is calculated as half the sum or the individual reporting limits.
TBQ <X = Trace Below Quantitation Limit
Results reported above detection limits are indicated in bold.
Values greater than the VGES are shaded.
VGES for 1,3,5-Trimethylbenzene and 1,2,4-Trimethylbenzene were 4.0 ug/L and 5.0 ug/L, respectively until the June 2007 sampling event, when the standard was changed.

TABLE 3
Quality Assurance / Quality Control Summary
Duncan's Auto / Kilburn & Gates
Burlington, Vermont

PARAMETER	11/30/2012		
	Trip Blank	MW-2 Dup. (MW-X)	RPD
Benzene	ND<1.0	**239**	**-16.3**
Toluene	ND<1.0	ND<2.0	na
Ethylbenzene	ND<1.0	ND<2.0	na
Xylenes	ND<2.0	ND<4.0	na
1,3,5-Trimethylbenzene	ND<1.0	ND<2.0	na
1,2,4-Trimethylbenzene	ND<1.0	ND<2.0	na
Naphthalene	ND<2.0	ND<4.0	na
MTBE	ND<2.0	**90.9**	**-15.0**

The results of the laboratory analysis of the duplicate sample were analyzed using a relative percent difference (RPD) analysis. The RPD is defined as 100 times the difference in reported concentration between sample and duplicate, divided by the mean of the two samples. A small RPD indicates good correlation between sample and duplicate.

Notes:

All values reported in ug/l (ppb) unless otherwise noted.

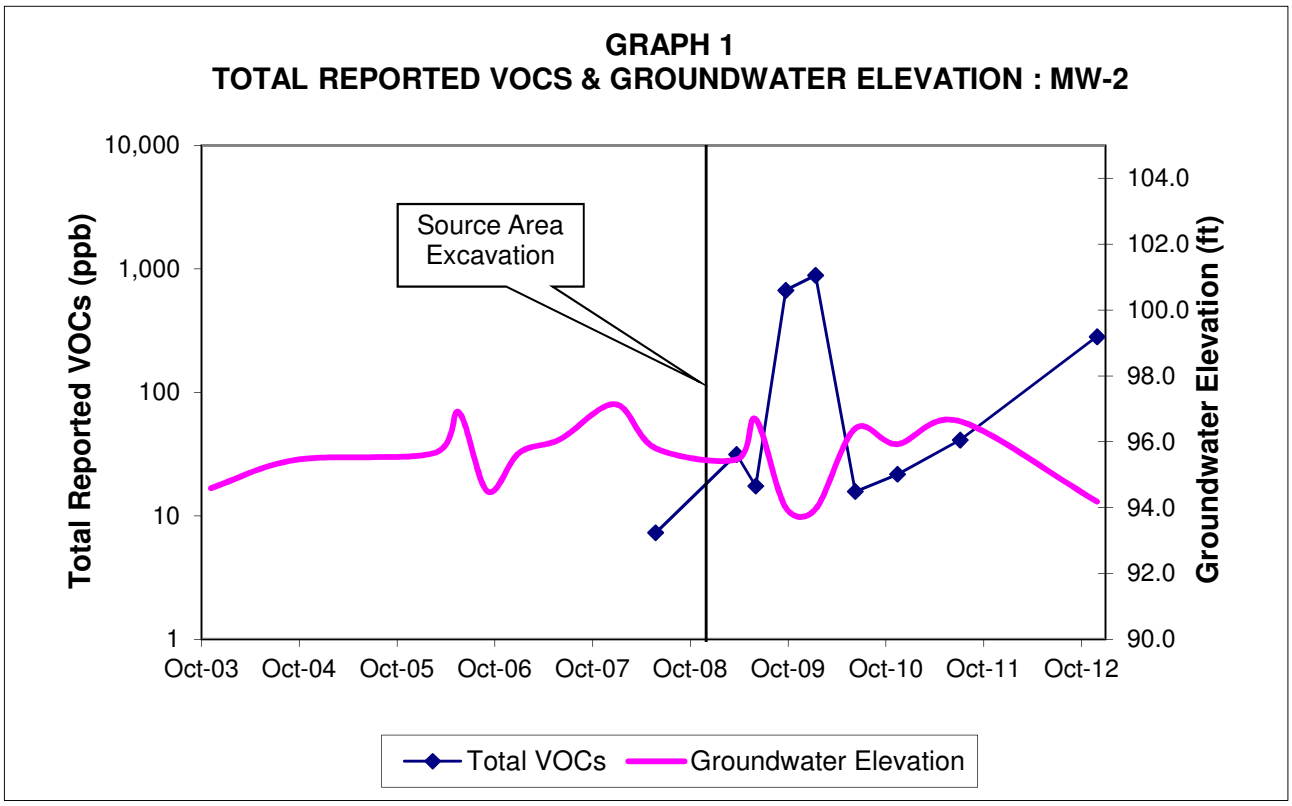
ND<X - Not Detected (Detection Limit).

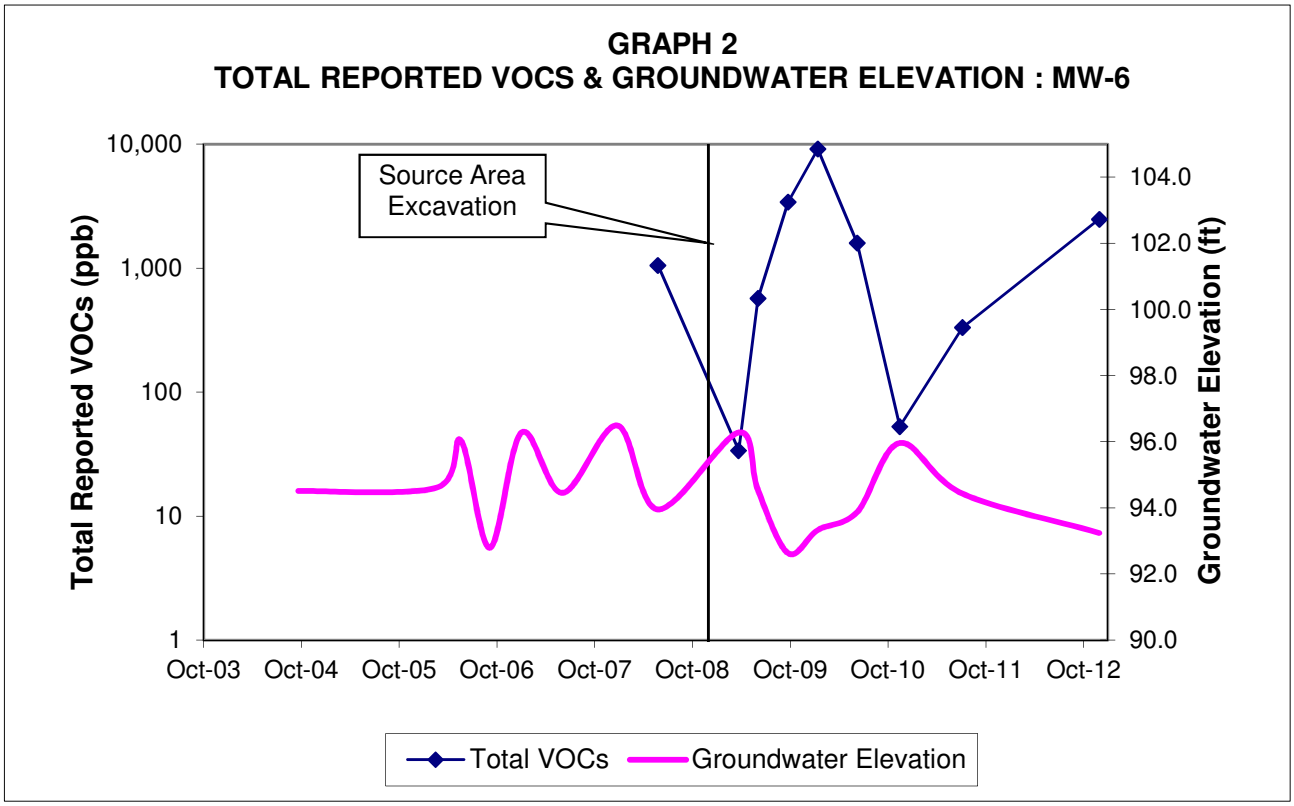
na - not applicable (RPD cannot be calculated)

DMW-2R duplicate is labelled as "DMW-X".

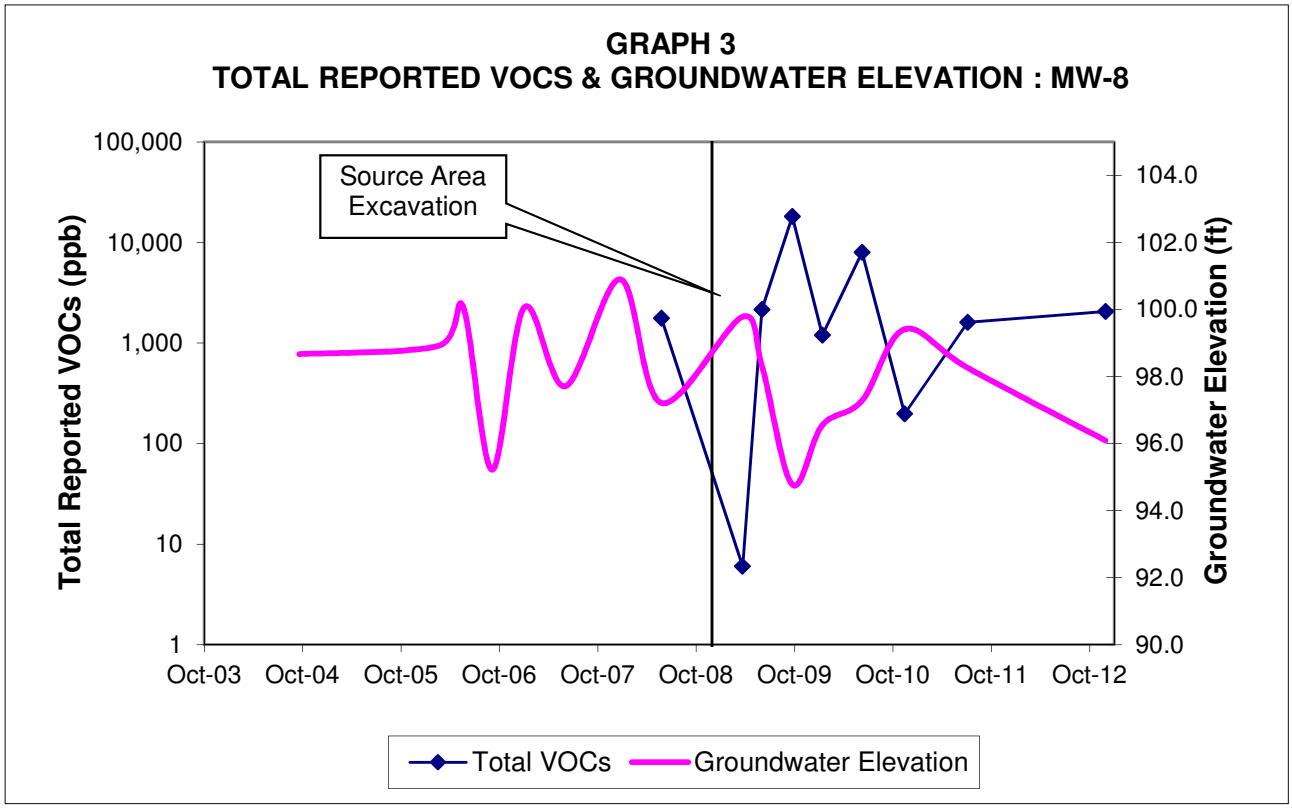
All analyses by EPA Method 8021B.

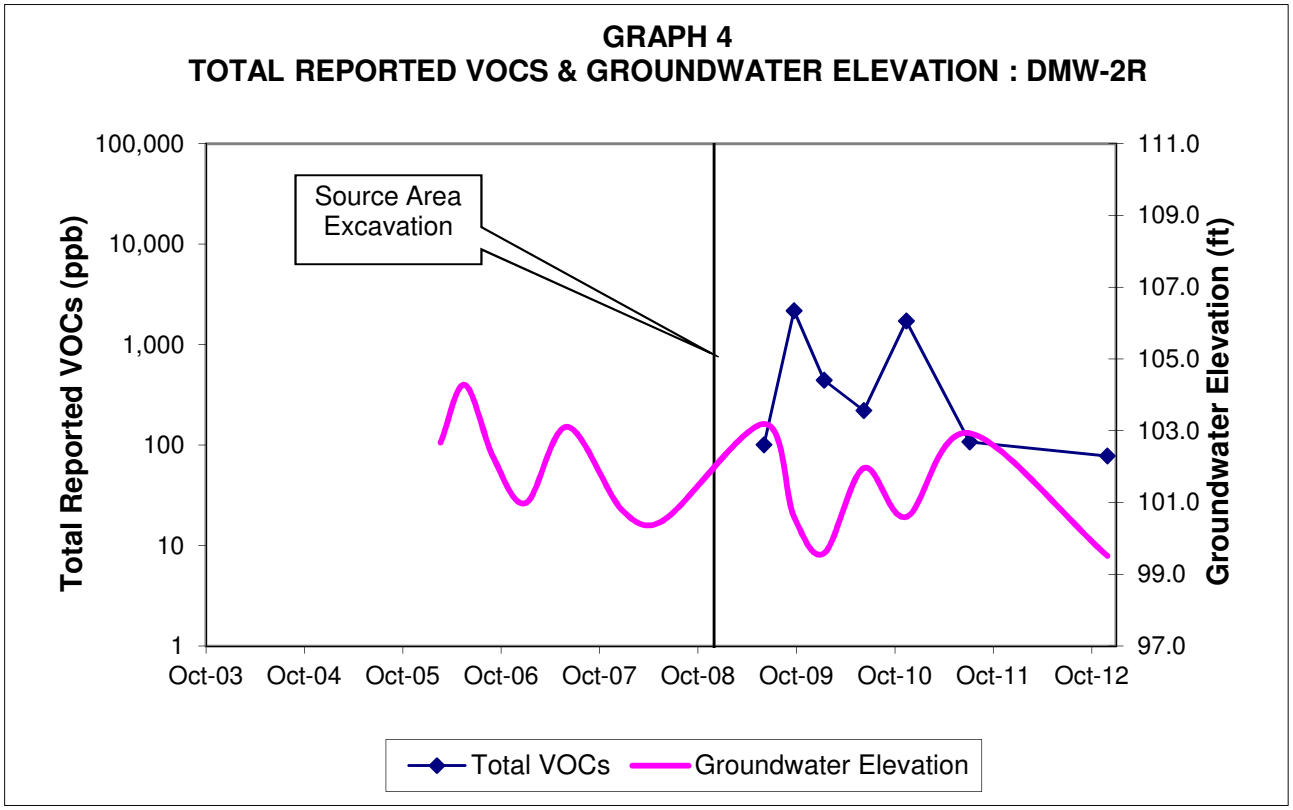
GROUNDWATER QUALITY GRAPHS, DUNCANS AUTO, BURLINGTON, VERMONT



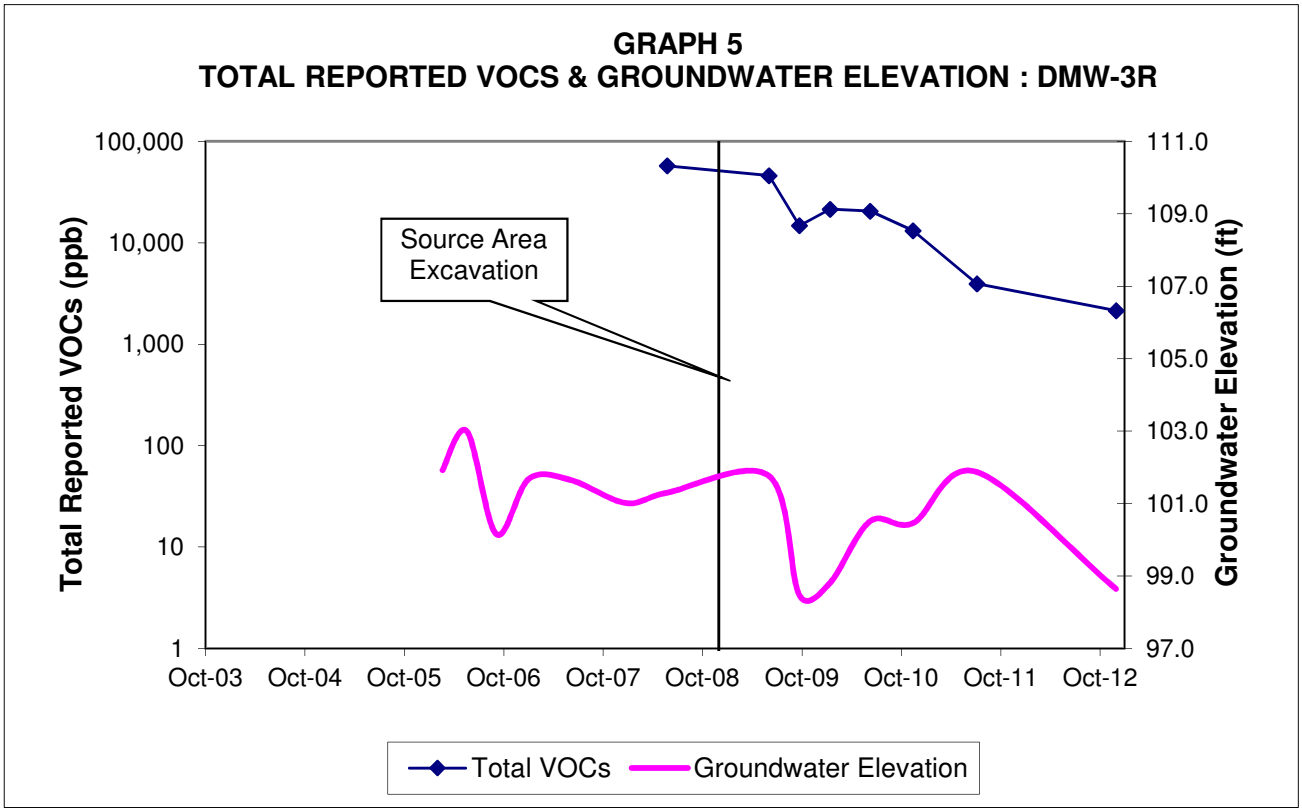


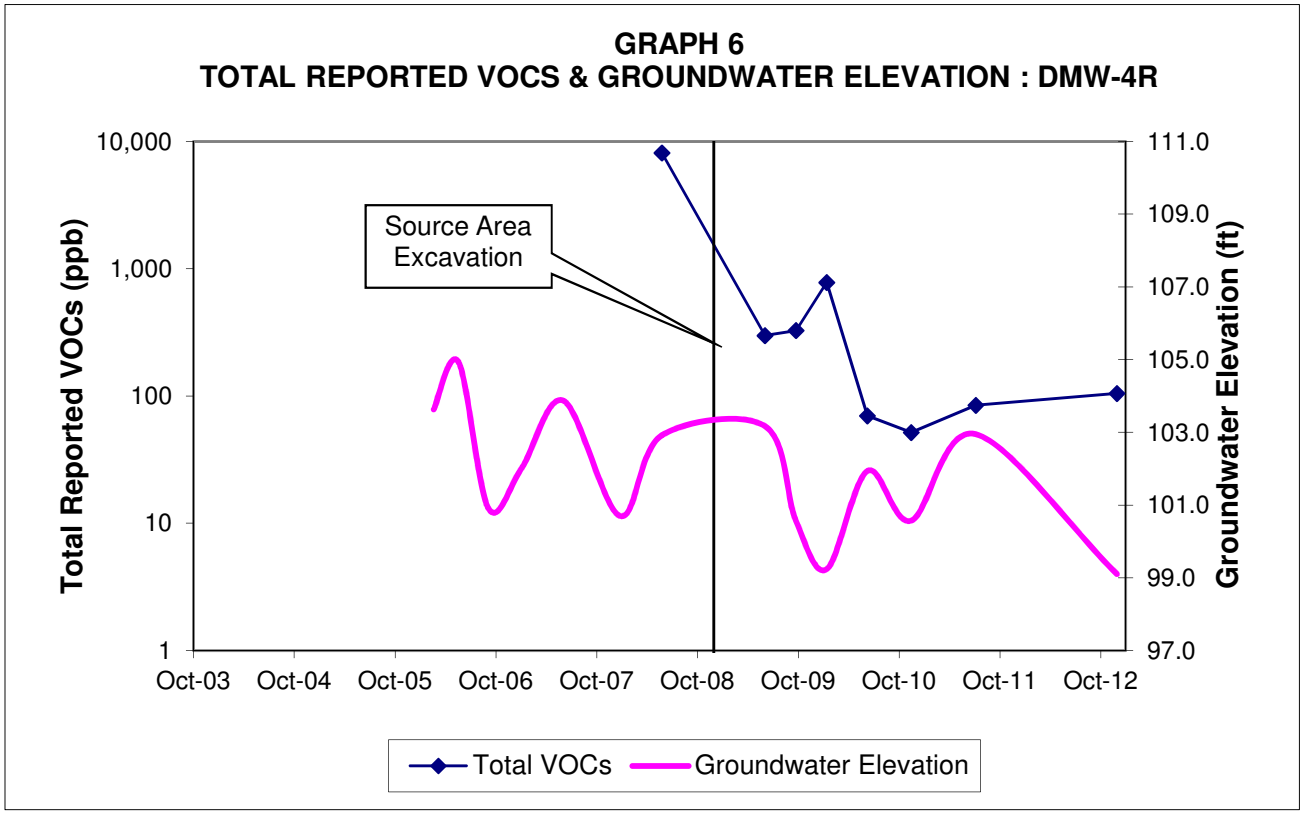
GROUNDWATER QUALITY GRAPHS, DUNCANS AUTO, BURLINGTON, VERMONT



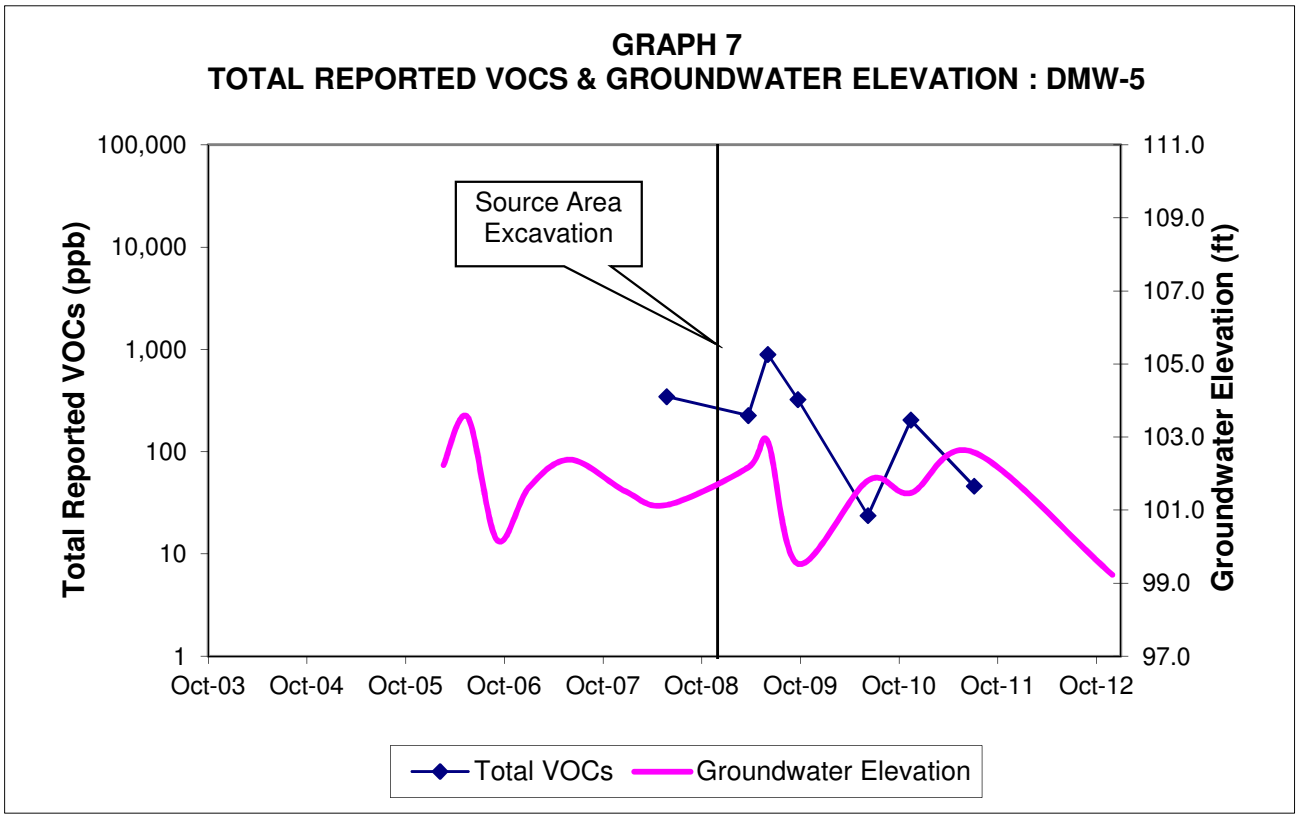


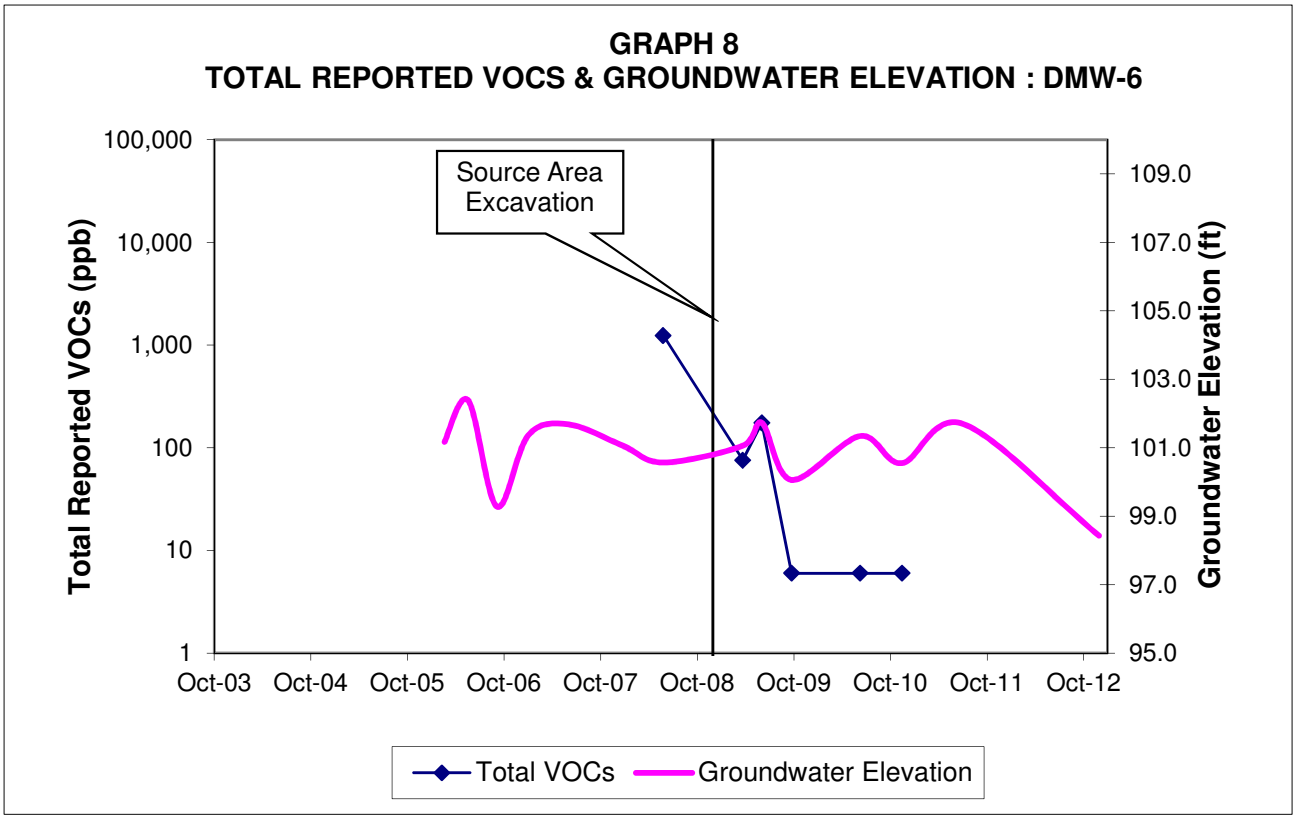
GROUNDWATER QUALITY GRAPHS, DUNCANS AUTO, BURLINGTON, VERMONT





GROUNDWATER QUALITY GRAPHS, DUNCANS AUTO, BURLINGTON, VERMONT





APPENDIX C

LABORATORY REPORT

ENDYNE Inc.
Environmental Laboratories

WaiteHeindel Environmental Mgt	
PO Box 4602	100675
Burlington, VT 05406	
Atten: Miles Waite	

PROJECT: Duncan's Auto
WORK ORDER: **1211-18183**
DATE RECEIVED: November 30, 2012
DATE REPORTED: December 12, 2012
SAMPLER: Chris Page

Laboratory Report

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody. All required method quality control elements including instrument calibration were performed in accordance with method requirements and determined to be acceptable unless otherwise noted.

The column labeled Lab/Tech in the accompanying report denotes the laboratory facility where the testing was performed and the technician who conducted the assay. A "W" designates the Williston, VT lab under NELAC certification ELAP 11263; "R" designates the Lebanon, NH facility under certification NH 2037 and “N” the Plattsburgh, NY lab under certification ELAP 11892. “Sub” indicates the testing was performed by a subcontracted laboratory. The accreditation status of the subcontracted lab is referenced in the corresponding NELAC and Qual fields.

The NELAC column also denotes the accreditation status of each laboratory for each reported parameter. “A” indicates the referenced laboratory is NELAC accredited for the parameter reported. “N” indicates the laboratory is not accredited. “U” indicates that NELAC does not offer accreditation for that parameter in that specific matrix. Test results denoted with an “A” meet all National Environmental Laboratory Accreditation Program requirements except where denoted by pertinent data qualifiers. Test results are representative of the samples as they were received at the laboratory

Endyne, Inc. warrants, to the best of its knowledge and belief, the accuracy of the analytical test results contained in this report, but makes no other warranty, expressed or implied, especially no warranties of merchantability or fitness for a particular purpose.

Reviewed by:

Harry B. Locker, Ph.D.
Laboratory Director

Laboratory Report

DATE REPORTED: 12/12/2012

CLIENT: WaiteHeindel Environmental Mgt
PROJECT: Duncan's Auto

WORK ORDER: **1211-18183**
DATE RECEIVED 11/30/2012

001 Site: MW-6 Date Sampled: 11/30/12 Time: 11:24

Parameter	Result	Units	Method	Analysis Date/Time	Lab/Tech	NELAC	Qual.
Vt Petroleum List 8021B							
Methyl-t-butyl ether (MTBE)	759	ug/L	EPA 8021B	12/10/12	W RBF	N	
Benzene	679	ug/L	EPA 8021B	12/10/12	W RBF	N	
Toluene	33.2	ug/L	EPA 8021B	12/10/12	W RBF	N	
Ethylbenzene	300	ug/L	EPA 8021B	12/10/12	W RBF	N	
Xylenes, Total	524	ug/L	EPA 8021B	12/10/12	W RBF	N	
1,3,5-Trimethylbenzene	14.7	ug/L	EPA 8021B	12/7/12	W RBF	N	
1,2,4-Trimethylbenzene	126	ug/L	EPA 8021B	12/10/12	W RBF	N	
Naphthalene	41.3	ug/L	EPA 8021B	12/10/12	W RBF	N	
Surr. 1 (Bromobenzene)	97	%	EPA 8021B	12/10/12	W RBF	N	
Unidentified Peaks	> 10		EPA 8021B	12/10/12	W RBF	N	

002 Site: MW-2 Date Sampled: 11/30/12 Time: 12:15

Parameter	Result	Units	Method	Analysis Date/Time	Lab/Tech	NELAC	Qual.
Vt Petroleum List 8021B							
Methyl-t-butyl ether (MTBE)	78.2	ug/L	EPA 8021B	12/10/12	W RBF	N	
Benzene	203	ug/L	EPA 8021B	12/10/12	W RBF	N	
Toluene	< 2.0	ug/L	EPA 8021B	12/10/12	W RBF	N	
Ethylbenzene	< 2.0	ug/L	EPA 8021B	12/10/12	W RBF	N	
Xylenes, Total	< 4.0	ug/L	EPA 8021B	12/10/12	W RBF	N	
1,3,5-Trimethylbenzene	< 2.0	ug/L	EPA 8021B	12/10/12	W RBF	N	
1,2,4-Trimethylbenzene	< 2.0	ug/L	EPA 8021B	12/10/12	W RBF	N	
Naphthalene	< 4.0	ug/L	EPA 8021B	12/10/12	W RBF	N	
Surr. 1 (Bromobenzene)	113	%	EPA 8021B	12/10/12	W RBF	N	
Unidentified Peaks	2		EPA 8021B	12/10/12	W RBF	N	

003 Site: MW-8 Date Sampled: 11/30/12 Time: 11:55

Parameter	Result	Units	Method	Analysis Date/Time	Lab/Tech	NELAC	Qual.
Vt Petroleum List 8021B							
Methyl-t-butyl ether (MTBE)	458	ug/L	EPA 8021B	12/7/12	W RBF	N	
Benzene	464	ug/L	EPA 8021B	12/7/12	W RBF	N	
Toluene	56.7	ug/L	EPA 8021B	12/7/12	W RBF	N	
Ethylbenzene	288	ug/L	EPA 8021B	12/7/12	W RBF	N	
Xylenes, Total	525	ug/L	EPA 8021B	12/7/12	W RBF	N	
1,3,5-Trimethylbenzene	18.4	ug/L	EPA 8021B	12/7/12	W RBF	N	
1,2,4-Trimethylbenzene	204	ug/L	EPA 8021B	12/7/12	W RBF	N	
Naphthalene	71.3	ug/L	EPA 8021B	12/7/12	W RBF	N	
Surr. 1 (Bromobenzene)	99	%	EPA 8021B	12/7/12	W RBF	N	
Unidentified Peaks	> 10		EPA 8021B	12/7/12	W RBF	N	

004 Site: DMW-4R Date Sampled: 11/30/12 Time: 12:45

Parameter	Result	Units	Method	Analysis Date/Time	Lab/Tech	NELAC	Qual.
Vt Petroleum List 8021B							
Methyl-t-butyl ether (MTBE)	90.0	ug/L	EPA 8021B	12/7/12	W RBF	N	

Laboratory Report

DATE REPORTED: 12/12/2012

CLIENT: WaiteHeindel Environmental Mgt
PROJECT: Duncan's Auto

WORK ORDER: **1211-18183**
DATE RECEIVED 11/30/2012

004 Site: DMW-4R Date Sampled: 11/30/12 Time: 12:45

Parameter	Result	Units	Method	Analysis Date/Time	Lab/Tech	NELAC	Qual.
Benzene	7.3	ug/L	EPA 8021B	12/7/12	W RBF	N	
Toluene	< 1.0	ug/L	EPA 8021B	12/7/12	W RBF	N	
Ethylbenzene	7.6	ug/L	EPA 8021B	12/7/12	W RBF	N	
Xylenes, Total	< 2.0	ug/L	EPA 8021B	12/7/12	W RBF	N	
1,3,5-Trimethylbenzene	< 1.0	ug/L	EPA 8021B	12/7/12	W RBF	N	
1,2,4-Trimethylbenzene	< 1.0	ug/L	EPA 8021B	12/7/12	W RBF	N	
Naphthalene	< 2.0	ug/L	EPA 8021B	12/7/12	W RBF	N	
Surr. 1 (Bromobenzene)	111	%	EPA 8021B	12/7/12	W RBF	N	
Unidentified Peaks	5		EPA 8021B	12/7/12	W RBF	N	

005 Site: DMW-2R Date Sampled: 11/30/12 Time: 13:10

Parameter	Result	Units	Method	Analysis Date/Time	Lab/Tech	NELAC	Qual.
Vt Petroleum List 8021B							
Methyl-t-butyl ether (MTBE)	34.0	ug/L	EPA 8021B	12/10/12	W RBF	N	
Benzene	10.1	ug/L	EPA 8021B	12/10/12	W RBF	N	
Toluene	< 1.0	ug/L	EPA 8021B	12/10/12	W RBF	N	
Ethylbenzene	< 1.0	ug/L	EPA 8021B	12/10/12	W RBF	N	
Xylenes, Total	< 2.0	ug/L	EPA 8021B	12/10/12	W RBF	N	
1,3,5-Trimethylbenzene	< 1.0	ug/L	EPA 8021B	12/10/12	W RBF	N	
1,2,4-Trimethylbenzene	< 1.0	ug/L	EPA 8021B	12/10/12	W RBF	N	
Naphthalene	< 2.0	ug/L	EPA 8021B	12/10/12	W RBF	N	
Surr. 1 (Bromobenzene)	99	%	EPA 8021B	12/10/12	W RBF	N	
Unidentified Peaks	4		EPA 8021B	12/10/12	W RBF	N	

006 Site: DMW-3R Date Sampled: 11/30/12 Time: 13:19

Parameter	Result	Units	Method	Analysis Date/Time	Lab/Tech	NELAC	Qual.
Vt Petroleum List 8021B							
Methyl-t-butyl ether (MTBE)	< 40.0	ug/L	EPA 8021B	12/7/12	W RBF	N	
Benzene	1,160	ug/L	EPA 8021B	12/7/12	W RBF	N	
Toluene	50.7	ug/L	EPA 8021B	12/7/12	W RBF	N	
Ethylbenzene	258	ug/L	EPA 8021B	12/7/12	W RBF	N	
Xylenes, Total	392	ug/L	EPA 8021B	12/7/12	W RBF	N	
1,3,5-Trimethylbenzene	55.0	ug/L	EPA 8021B	12/7/12	W RBF	N	
1,2,4-Trimethylbenzene	177	ug/L	EPA 8021B	12/7/12	W RBF	N	
Naphthalene	49.3	ug/L	EPA 8021B	12/7/12	W RBF	N	
Surr. 1 (Bromobenzene)	103	%	EPA 8021B	12/7/12	W RBF	N	
Unidentified Peaks	5		EPA 8021B	12/7/12	W RBF	N	

007 Site: Duplicate Date Sampled: 11/30/12 0:00

Parameter	Result	Units	Method	Analysis Date/Time	Lab/Tech	NELAC	Qual.
Vt Petroleum List 8021B							
Methyl-t-butyl ether (MTBE)	90.9	ug/L	EPA 8021B	12/10/12	W RBF	N	
Benzene	239	ug/L	EPA 8021B	12/10/12	W RBF	N	
Toluene	< 2.0	ug/L	EPA 8021B	12/10/12	W RBF	N	

Laboratory Report

DATE REPORTED: 12/12/2012

CLIENT: WaiteHeindel Environmental Mgt
PROJECT: Duncan's Auto

WORK ORDER: **1211-18183**
DATE RECEIVED 11/30/2012

007 Site: Duplicate Date Sampled: 11/30/12 0:00

Parameter	Result	Units	Method	Analysis Date/Time	Lab/Tech	NELAC	Qual.
Ethylbenzene	< 2.0	ug/L	EPA 8021B	12/10/12	W RBF	N	
Xylenes, Total	< 4.0	ug/L	EPA 8021B	12/10/12	W RBF	N	
1,3,5-Trimethylbenzene	< 2.0	ug/L	EPA 8021B	12/10/12	W RBF	N	
1,2,4-Trimethylbenzene	< 2.0	ug/L	EPA 8021B	12/10/12	W RBF	N	
Naphthalene	< 4.0	ug/L	EPA 8021B	12/10/12	W RBF	N	
Surr. 1 (Bromobenzene)	104	%	EPA 8021B	12/10/12	W RBF	N	
Unidentified Peaks	2		EPA 8021B	12/10/12	W RBF	N	

ENDYNE, INC.
160 James Brown Drive
Williston, Vermont 05495
(802) 879-4333

CHAIN-OF-CUSTODY-RECORD

e-mail Miles
cc CP

052515

Special Reporting Instructions/PO#:

Project Name: Duncan's Auto	Client/Contact Name: Miles Waite Phone #: 860-9400	Sampler Name: C. Page Phone #: H+N +43
State of Origin: VT X NY __ NH __ Other __ Endyne WO # 1211-18183	Mailing Address: WEM	Billing Address: WHEM

Sample Location	Matrix	GRAB	COMP	Date/Time Sampled	Sample Containers No.	Sample Containers Type/Size	Sample Preservation	Analysis Required	FieldResults/Remarks	Due Date
MW-6	H_2O	X		11/30/12 11:29	2	40ml	HCl	19		
MW-2	↓	↓		↓ 12:15	↓	↓	↓	↓		
MW-8	↓	↓		↓ 11:55	↓	↓	↓	↓		
DMW-4R	↓	↓		↓ 12:45	↓	↓	↓	↓		
DMW-2R	↓	↓		↓ 13:10	↓	↓	↓	↓		
DMW-3R	↓	↓		↓ 13:19	↓	↓	↓	↓		
Duplicate	↓	↓		↓	↓	↓	↓	↓		

Relinquished by:	Date/Time	Received by:	Date/Time	Received by:	Date/Time
Chris Page	11/30/12 15:45			Eileen Lomoy	11/30@ 3:45

1	pH	6	TKN	11	Total Solids	16	Sulfate	21	1664 TPH/FOG	26	8270 PAH Only
2	Chloride	7	Total P	12	TSS	17	Coliform (Specify)	22	8015 GRO	27	8081 Pest
3	Ammonia N	8	Total Diss. P	13	TDS	18	COD	23	8015 DRO	28	8082 PCB
4	Nitrite N	9	BOD	14	Turbidity	19	VT PCF	24	8260B	29	PP13 Metals
5	Nitrate N	10	Alkalinity	15	Conductivity	20	VOC Halocarbons	25	8270 B/N or Acid	30	Total RCRA8
31	Metals (Total, Diss.) Ag, Al, As, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Hg, K, Mg, Mn, Mo, Na, Ni, Pb, Sb, Se, Sn, Tl, U, V, Zn										
32	TCLP (volatiles, semi-volatiles, metals, pesticides, herbicides)					33	Other				
34	Corrosivity	35	Ignitability	36	Reactivity	37	Other				
38	Other										

LAB USE ONLY
Delivery: Client
Temp: 27
Comment:

(White - Laboratory / Yellow - Client)