GROUNDWATER MONITORING
OF SUBSURFACE PETROLEUM CONTAMINATION

ST. ALBANS EXXON

NOVEMBER 2009

KAS # 412040150
VTDEC # 2002-2953

Site Location:

St. Albans Exxon
Route 7
St. Albans, Vermont

Prepared For:

Wesco, Inc.
32 San Remo Drive
P.O. Box 2287
South Burlington, VT 05403
(802) 864-5155

Prepared By:

368 Avenue D, Suite 15 / P.O. Box 787
Williston, VT 05495
(802) 383-0486 (ph) ● (802) 383-0490 (fax)
info@kas-consulting.com

TABLE OF CONTENTS

APPENDICES

I. INTRODUCTION

This report summarizes the annual groundwater monitoring of subsurface petroleum contamination at the St. Albans Exxon located on Route 7 in St. Albans, Vermont (see Site Location Map in Appendix A). KAS, Inc., (KAS) has conducted this work on behalf of Wesco, Inc., pursuant to the work plan and cost estimate (WP/CE) prepared by KAS for groundwater monitoring at St. Albans Exxon and dated December 22, 2004. The WP/CE was approved by Wesco, Inc. via fax on December 22, 2004. Continued bi-annual monitoring at the site was requested by Mr. Gerold Noyes of the Vermont Department of Environmental Conservation in a letter to Wesco dated February 15, 2008.

Groundwater monitoring was initiated at this site due to a detection of petroleum impact to on-site subsurface soils during a piping replacement inspection conducted on November 14, 2001. Ten soil borings were advanced under the supervision of Heindel & Noyes, Inc., in August 2002; six of them were completed as monitoring wells. Groundwater monitoring was conducted periodically from August 2002 to December 2003. Annual groundwater monitoring has been conducted at this site since December 2003. Copies of the summary reports of prior work are on file at the offices of the DEC in Waterbury, Vermont.

In order to avoid harsh winter conditions at the site, which have previously prevented sample collection from select site monitoring wells, this monitoring event was scheduled for November 2009 instead of January 2010.

II. INVESTIGATIVE PROCEDURES

A. Determination of Groundwater Flow Direction and Gradient

Depth-to-fluid measurements were collected from the six on-site monitoring wells on November 17, 2009 with a Keck™ Interface Meter. Depth-to-liquid measurements were collected using the KAS Water/Product Level Measurement protocol. Results are tabulated as Liquid Level Data in Appendix B. A benchmark at the northeast corner of the on-site building was previously assigned an arbitrary datum elevation of 100.00 feet.

The depth to water in the accessible wells was subtracted from the top of casing elevation to obtain the relative water table elevation. The depths-to-water measured on November 17, 2009 ranged from 11.22 feet below top of casting (btoc) in MW-6 to 14.45 feet btoc in MW-5. No light non-aqueous phase liquid (LNAPL) was observed or measured in the wells on November 17, 2009.

Groundwater elevations for the November 17, 2009 monitoring event were plotted on the site map to generate the Groundwater Contour Map in Appendix A. Groundwater flow was determined to be flowing to the west at an approximate hydraulic gradient of approximately 8.6%. This groundwater flow direction and gradient is generally consistent with the previous ranges documented for the site. Groundwater elevation data, both present and historic, are included in Appendix B.

B. Groundwater Sample Collection and Analysis

Groundwater samples were collected on November 17, 2009 from monitoring wells MW-1 through MW-5 immediately following well gauging, and in accordance with the KAS monitoring well sampling protocol. MW-6 was removed from the sampling schedule as recommended in the January 2004 *Semi-annual Groundwater Monitoring Report*.

The samples were preserved, chilled, and delivered under proper chain-of-custody procedures to Endyne, Inc., Laboratory Services of Williston, Vermont. Samples were analyzed for petroleum-related volatile organic compounds (VOCs) via EPA Method 8021B. A Contaminant Distribution Map for the November 17, 2009 sampling event is included in Appendix A. Results of the laboratory analyses for the groundwater samples are summarized in Appendix C. The laboratory analysis report is contained in Appendix D.

Petroleum compounds were reported above detection limits in the groundwater samples collected from all five sampled wells, with select compounds reported above the Vermont Groundwater Enforcement Standards (VGES) in samples collected from MW-1, MW-2, and MW-3.

Trend Analysis

Overall, concentrations in site monitoring wells are gradually decreasing over time, with levels in monitoring wells MW-1, MW-2, MW-4, and MW-5 having decreased since sampling began in August 2002. Total targeted VOC concentrations in MW-3 exhibited an overall increasing trend up until December 2006, but have exhibited a declining trend since. Contaminant concentrations in groundwater collected from monitoring wells MW-1 and MW-2 during the November 17, 2009 monitoring event were reported at their lowest levels to date. Based on historic data, no direct relationship are present between groundwater elevations and contaminant concentrations in groundwater collected from any site monitoring wells.

The extent of the low to moderate dissolved petroleum VOC impact is limited to the area down gradient of the former USTs. The core of the contaminant plume is located in the vicinity of MW-2 and MW-3. It is not likely that any sensitive receptors, beyond site soil and groundwater, are being impacted at this time.

QA/QC

A trip blank and a duplicate sample were collected and tested during the November 17, 2009 monitoring event. The results of the duplicate sample analysis were analyzed using a relative percent difference (RPD) method. The RPD is defined as 100 times the difference between the sample result and the duplicate result, divided by the mean of the sample and duplicate result.

The RPD calculations are presented in the Groundwater Quality Summary in Appendix C. The RPD values, in absolute terms, ranged from 3.6% for benzene to 19.1% for toluene. The overall RPD was calculated to be 13.0% in absolute terms, indicating adequate precision.

The effect of spurious influences on sample quality was insignificant, as none of the tested compounds were reported above detection limits and no un-identified peaks were reported in the trip blank collected on November 17, 2009.

III. CONCLUSIONS

Based on the most recent monitoring event, the following conclusions are offered:

1. The groundwater flow direction for the November 17, 2009 monitoring event was to the west at an estimated hydraulic gradient of approximately 8.6%. The groundwater elevation and flow direction are consistent with previous estimates from the site.

2. Select petroleum constituents were reported in groundwater samples collected from MW-1, MW-2 and MW-3 at concentrations above the applicable VGES.

3. Overall, contaminant concentrations in groundwater collected from site monitoring wells exhibit a decreasing trend, with levels reported at their lowest to date in groundwater collected from monitoring wells MW-1 and MW-2 during the November 17, 2009 monitoring event.

4. The extent of the low to moderate dissolved petroleum VOC impact is limited to the area down gradient of the former USTs. The core of the contaminant plume is located in the vicinity of MW-2 and MW-3.

5. There is no apparent threat to human health or sensitive receptors from the low to moderate concentrations of dissolved contamination beneath the St. Albans Exxon Site.

IV. RECOMMENDATIONS

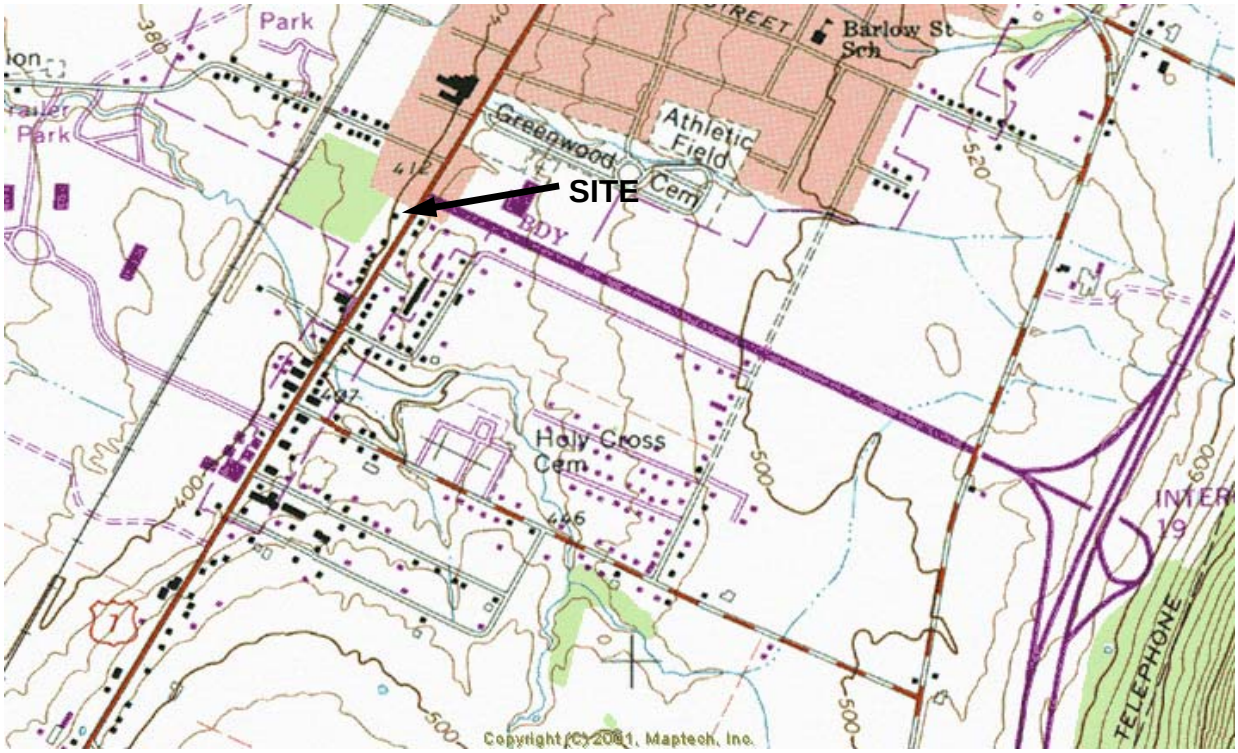
1. Because petroleum compounds are still present in groundwater monitoring wells at levels above the applicable groundwater standards, KAS recommends that bi-annual groundwater monitoring continue. The next sampling event will be scheduled for November 2011.

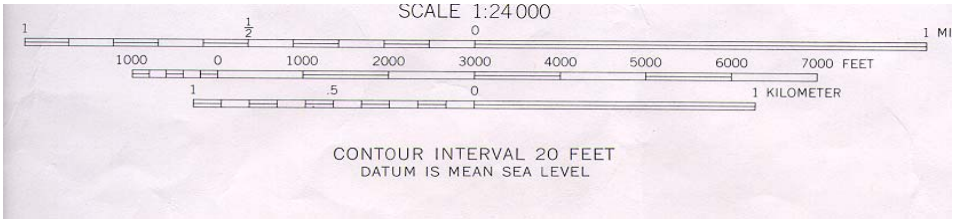
2. Groundwater levels will be collected from the accessible groundwater monitoring wells on the Site per the sampling schedule. Groundwater samples will be collected from monitoring wells MW-1 through MW-5. These samples will be analyzed by EPA Method 8021B for the presence of petroleum related VOCs.

Appendix A

Maps

1) Site Location Map
2) Site Map
3) Groundwater Contour Map
4) Contaminant Distribution Map





North

KAS Job Number: *412040150*

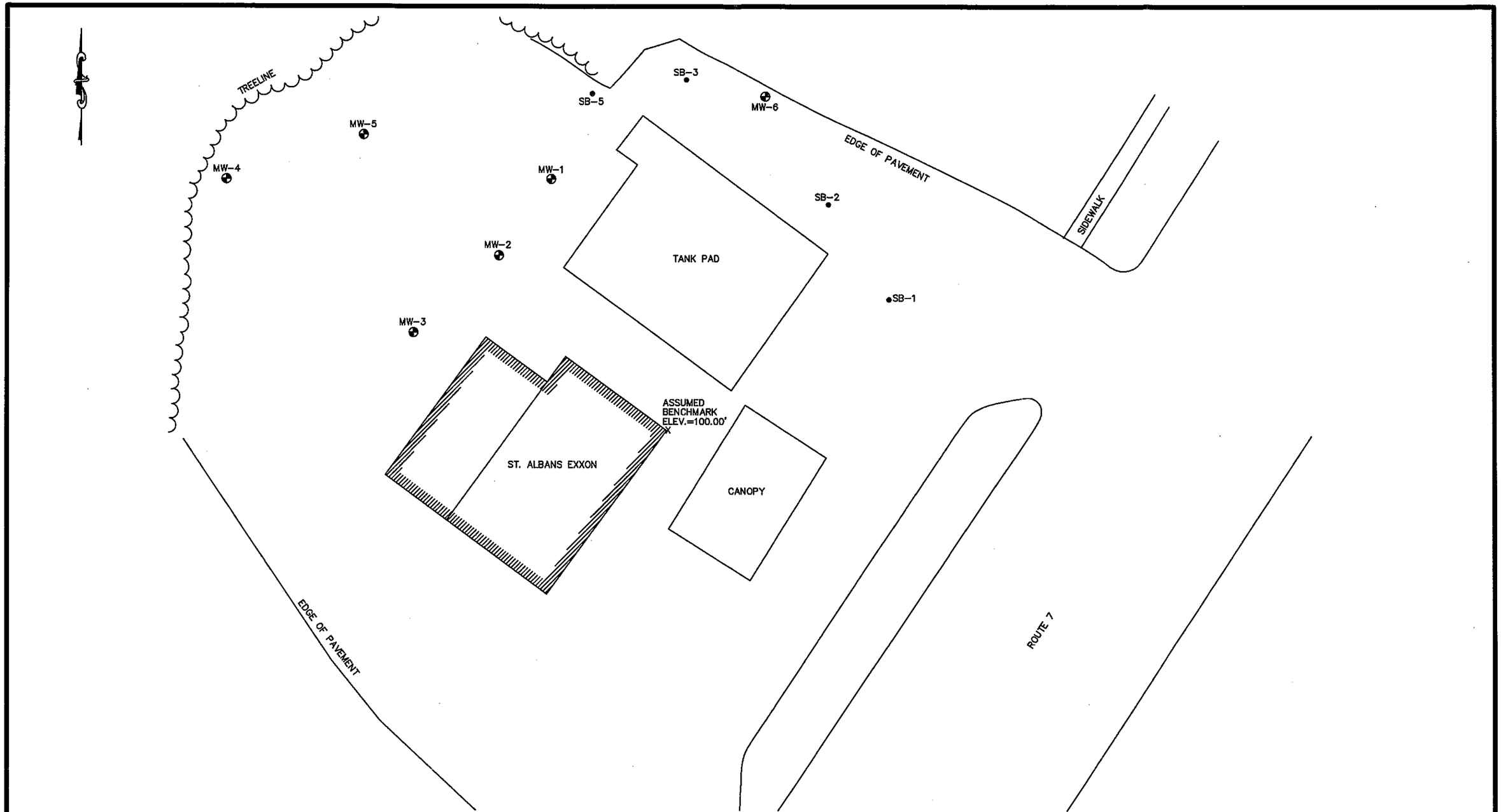
Source: *USGS 7.5' Mapping St. Albans, VT 1948, photorevised 1987*

KAS INC

St. Albans Exxon
Route 7
St. Albans, VT

Site Location Map
USGS Mapping

Date:	02/08/05	Drawing No.	1
Scale:	1:21,600	By:	TK



LEGEND

MW-1 MONITORING WELL

SB-3 SOIL BORING

VTDEC #: 2002-2953
ESPC #: 20044085
KAS #: 412040150

KAS

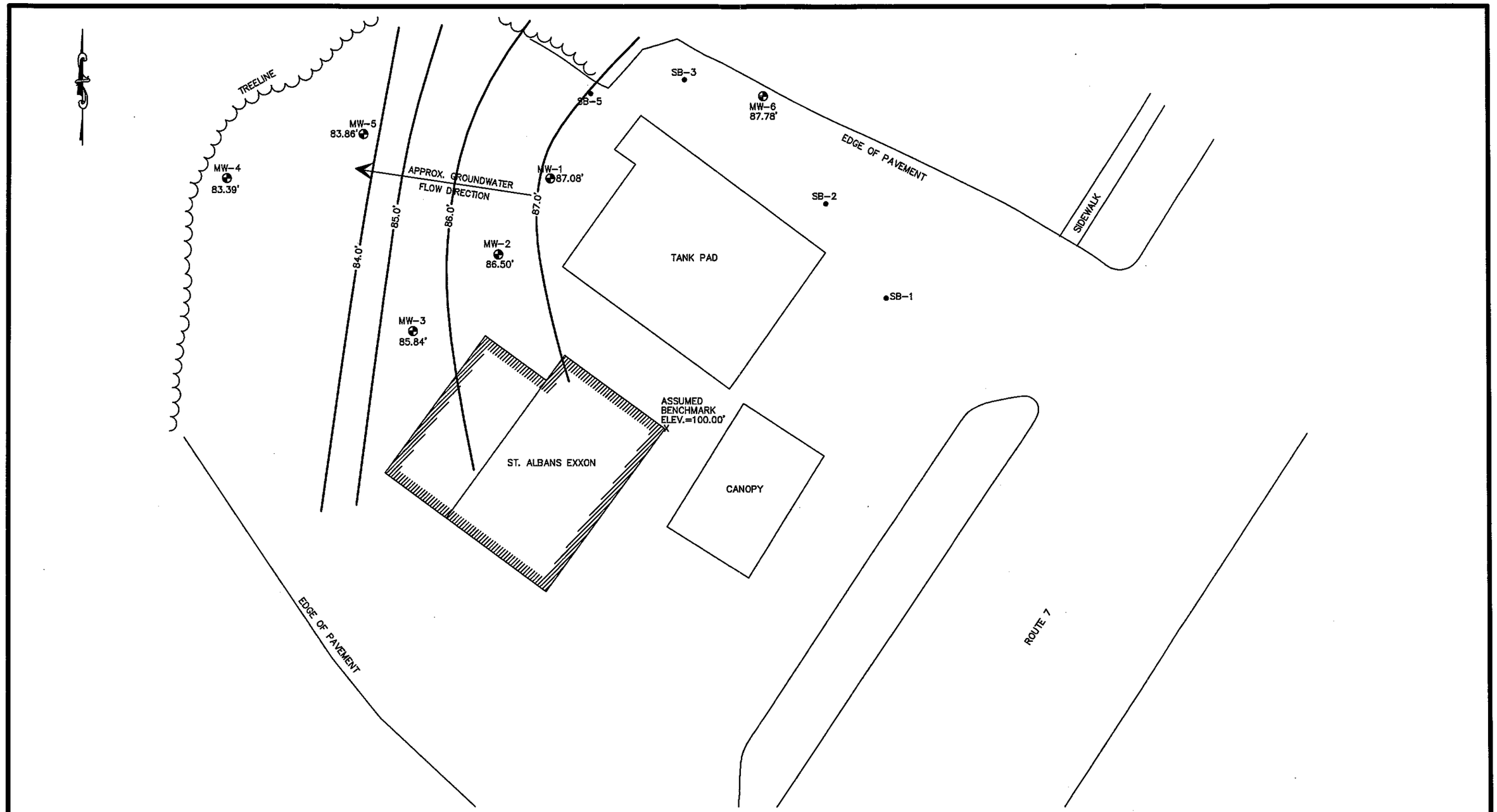
P.O. BOX 787, WILLISTON, VT, 05495
KAS-CONSULTING.COM

ST. ALBANS EXXON

ROUTE 7
ST. ALBANS, VERMONT

SITE MAP

DATE: 12/10/09	DWG #: 1	SCALE: 1"=20'	DRN.: DM	APP.: MG



LEGEND

MW-1 87.08'	MONITORING WELL WITH GROUNDWATER ELEVATION (ft)
87.0'	GROUNDWATER ELEVATION CONTOUR (ft) (DASHED WHERE INFERRED)
SB-3	SOIL BORING

VTDEC #: 2002-2953
ESPC #: 20044085
KAS #: 412040150

KAS

P.O. BOX 787, WILLISTON, VT, 05495
KAS-CONSULTING .COM

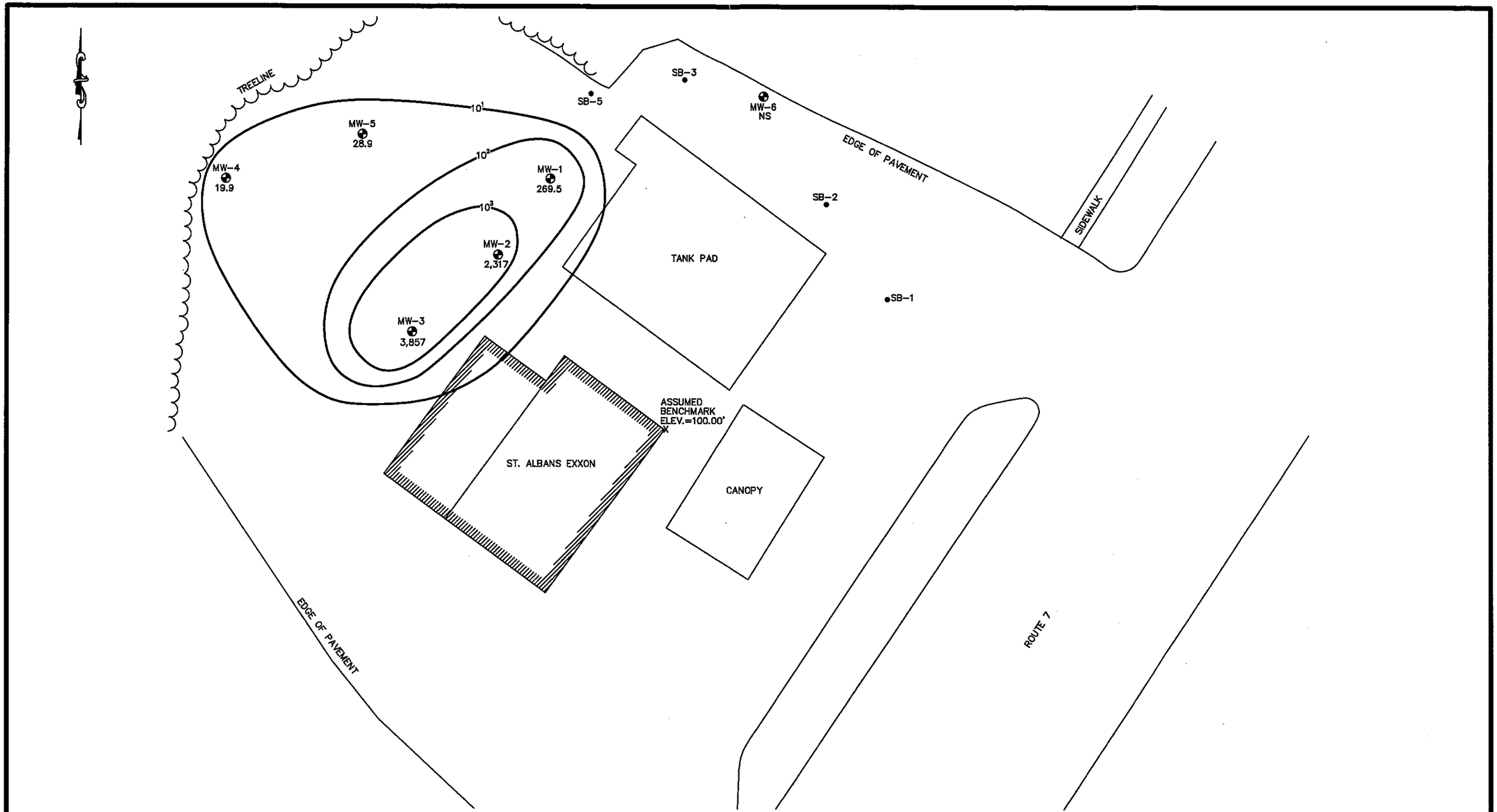
ST, ALBANS EXXON

ROUTE 7
ST. ALBANS, VERMONT

GROUNDWATER CONTOUR MAP

MEASURED: 11/17/09

DATE: 12/10/09	DWG #: 2	SCALE: 1"=20'	DRN.: DM	APP.: MG



LEGEND

MW-3 ⊕ 3,857	MONITORING WELL WITH TOTAL TARGETED VOC CONCENTRATION (ppb) (M=8021B)
10^2	CONTAMINANT CONCENTRATION CONTOUR (ppb) (DASHED WHERE INFERRED)
SB-3 •	SOIL BORING
NS	NOT SAMPLED

VTDEC #: 2002-2953
ESPC #: 20044085
KAS #: 412040150

KAS

P.O. BOX 787, WILLISTON, VT, 05495
KAS-CONSULTING.COM

ST. ALBANS EXXON

ROUTE 7
ST. ALBANS, VERMONT

CONTAMINANT DISTRIBUTION MAP

SAMPLED: 11/17/09

DATE: 12/10/09	DWG #: 3	SCALE: 1"=20'	DRN.: DM	APP.: MG

Appendix B

Liquid Level Monitoring Data

Monitoring Date: November 17, 2009

Well I.D.	Top of Casing Elevation	Depth To Product	Depth To Water	Product Thickness	Specific Gravity Of Product	Hydro Equivalent	Corrected Depth To Water	Corrected Water Table Elevation
MW-1	99.60	-	**12.52**	-	-	-	12.52	**87.08**
MW-2	99.49	-	**12.99**	-	-	-	12.99	**86.50**
MW-3	98.90	-	**13.06**	-	-	-	13.06	**85.84**
MW-4	96.70	-	**13.31**	-	-	-	13.31	**83.39**
MW-5	98.31	-	**14.45**	-	-	-	14.45	**83.86**
MW-6	99.00	-	**11.22**	-	-	-	11.22	**87.78**

Historic Water Levels

	Measurement Date:							
Well I.D.	11/13/2002	6/30/2003	12/2/2003	1/10/2005	12/29/2005	12/6/2006	1/10/2008	11/17/2009
MW-1	86.85	86.68	87.35	87.05	87.04	87.29	87.52	87.08
MW-2	86.75	86.61	87.19	86.88	86.92	87.12	87.26	86.50
MW-3	85.62	86.50	86.20	85.71	85.80	85.99	86.32	85.84
MW-4	83.40	83.23	84.16	NM	NM	84.16	84.54	83.39
MW-5	83.94	83.74	84.50	NM	84.09	84.41	85.13	83.86
MW-6	88.08	87.67	89.52	88.5	88.64	89.65	90.39	87.78

all measurements in feet

Appendix C

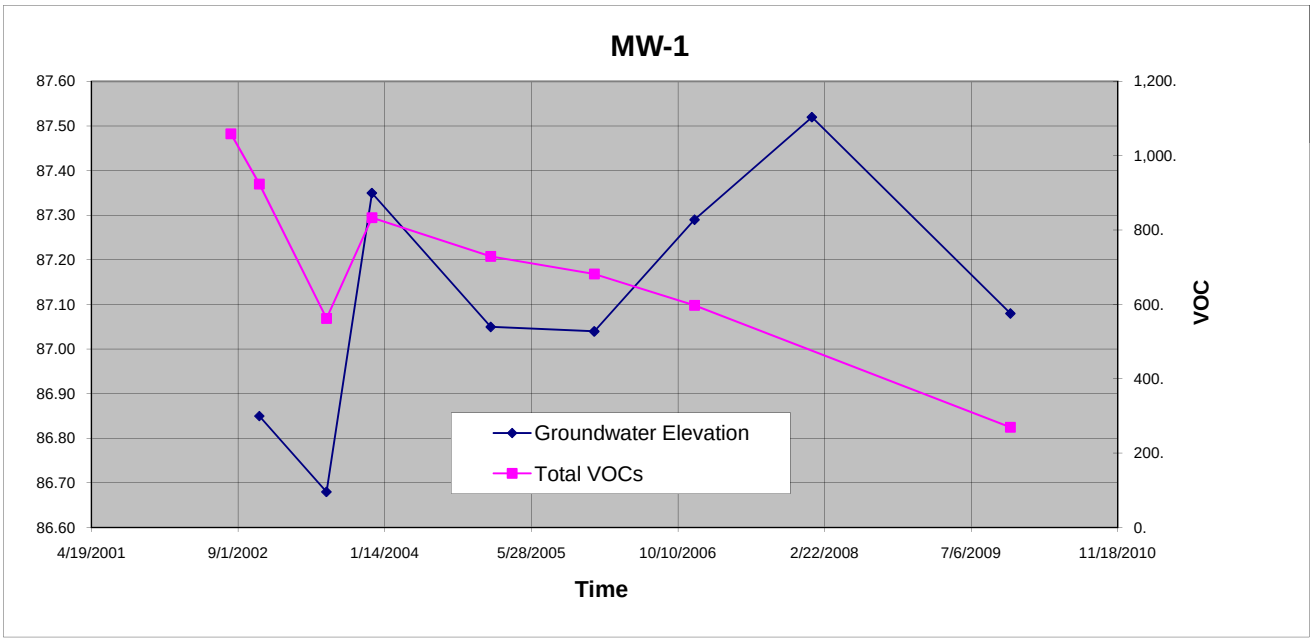
Groundwater Quality Summary & Graphs

MW-1

PARAMETER	Sample Date: 08/08/02	11/13/02	6/30/03	12/2/03	1/10/05	12/29/05	12/6/06	1/10/08	VGES
Benzene	**32.0**	**25.8**	**17.1**	**24.6**	**15.1**	**19.9**	**33.8**	Could	5
Toluene	ND<5.0	ND<5.0	ND<5.0	**6.8**	ND<5.0	ND<5.0	ND<5.0	not	1000
Ethylbenzene	**39.0**	**53.3**	**37.0**	**40.0**	**32.9**	**39.7**	**37.8**	be	700
Xylenes	**188.**	**91.3**	**27.3**	**71.0**	**85.8**	**110.**	**70.8**	sampled	10000
Total BTEX	**259.**	**170.**	**81.4**	**142.4**	**133.8**	**170.**	**142.4**		-
MTBE	**500.**	**435.**	**311.**	**457.**	**386.**	**283.**	**251.**		40
1,3,5-Trimethylbenzene	**37.0**	**51.8**	**34.6**	**42.3**	**38.2**	**44.6**	**46.1**		350
1,2,4-Trimethylbenzene	**134.**	**136.**	**66.2**	**95.2**	**104.**	**118.**	**104.**		
Naphthalene	**129.**	**131.**	**68.8**	**96.6**	**67.0**	**66.4**	**54.5**		20
Total VOCs	**1,059.**	**924.**	**562.**	**834.**	**729.**	**682.**	**598.**		-
TPH (mg/L)	**4.91**	NA	NA	NA	NA	NA	NA		-

PARAMETER	Sample Date: 11/17/09								VGES
Benzene	**12.6**								5
Toluene	ND<5.0								1000
Ethylbenzene	**26.5**								700
Xylenes	**35.1**								10000
Total BTEX	**74.2**								-
MTBE	**87.2**								40
1,3,5-Trimethylbenzene	**17.2**								350
1,2,4-Trimethylbenzene	**54.3**								
Naphthalene	**36.6**								20
Total VOCs	**269.5**								-

ANALYSIS: EPA Method 8021B, except for TPH by EPA Method 8015 DRO
VGES = Vermont Groundwater Enforcement Standard (2/14/2005)
ND<1 = not detected less than detection limit
Bold indicates a detection.
NA = not applicable, not analyzed
All Values Reported in ug/L (ppb), except where indicated
> VGES

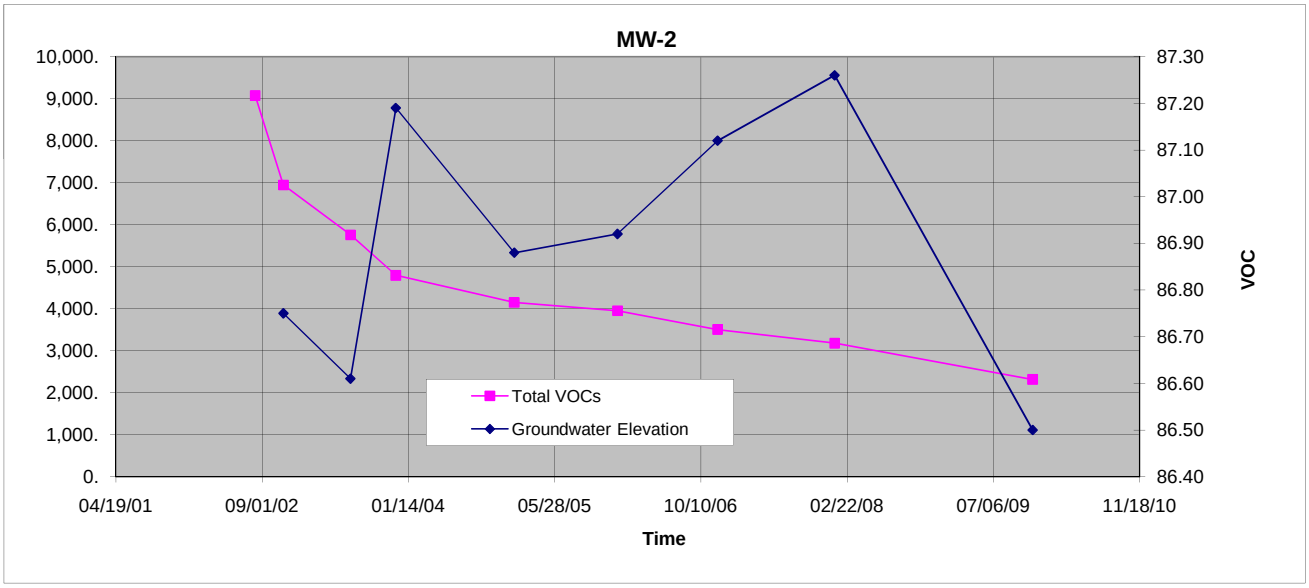


MW-2

PARAMETER	Sample Date: 08/08/02	11/13/02	6/30/03	12/2/03	1/10/05	12/29/05	12/6/06	01/10/08	VGES
Benzene	**337.**	**423.**	**412.**	**326.**	**265.**	**260.**	**250.**	**178.**	5
Toluene	**118.**	**115.**	**79.6**	**125.**	**55.3**	**58.7**	**56.0**	**33.6**	1000
Ethylbenzene	**1,230.**	**989.**	**917.**	**832.**	**1,100.**	**992.**	**885.**	**1,020.**	700
Xylenes	**2,660.**	**1,450.**	**827.**	**792.**	**407.**	**618.**	**496.**	**387.**	10000
Total BTEX	**4,345.**	**2,977.**	**2,236.**	**2,075.**	**1,827.**	**1,929.**	**1,687.**	**1,619.**	-
MTBE	**1,240.**	**1,010.**	**1,050.**	**657.**	**295.**	**153.**	**ND<100.**	ND<40.0	40
1,3,5-Trimethylbenzene	**687.**	**675.**	**642.**	**537.**	**456.**	**471.**	**465.**	**264.**	350
1,2,4-Trimethylbenzene	**2,390.**	**1,780.**	**1,380.**	**1,090.**	**1,120.**	**1,060.**	**961.**	**925.**	
Naphthalene	**414.**	**504.**	**450.**	**435.**	**452.**	**340.**	**392.**	**372.**	20
Total VOCs	**9,076.**	**6,946.**	**5,758.**	**4,794.**	**4,150.**	**3,953.**	**3,505.**	**3,180.**	-
TPH (mg/L)	**35.50**	NA	NA	NA	NA	NA	NA		-

PARAMETER	Sample Date: 11/17/09								VGES
Benzene	**85.1**								5
Toluene	**19.9**								1000
Ethylbenzene	**730.**								700
Xylenes	**238.**								10000
Total BTEX	**1,073.**								-
MTBE	ND<20.0								40
1,3,5-Trimethylbenzene	**234.**								350
1,2,4-Trimethylbenzene	**737.**								
Naphthalene	**273.**								20
Total VOCs	**2,317.**								-

ANALYSIS: EPA Method 8021B, except for TPH by EPA Method 8015 DRO
VGES = Vermont Groundwater Enforcement Standard (2/14/2005)
ND<1 = not detected less than detection limit
Bold indicates a detection.
NA = not applicable, not analyzed
All Values Reported in ug/L (ppb), except where indicated
> VGES

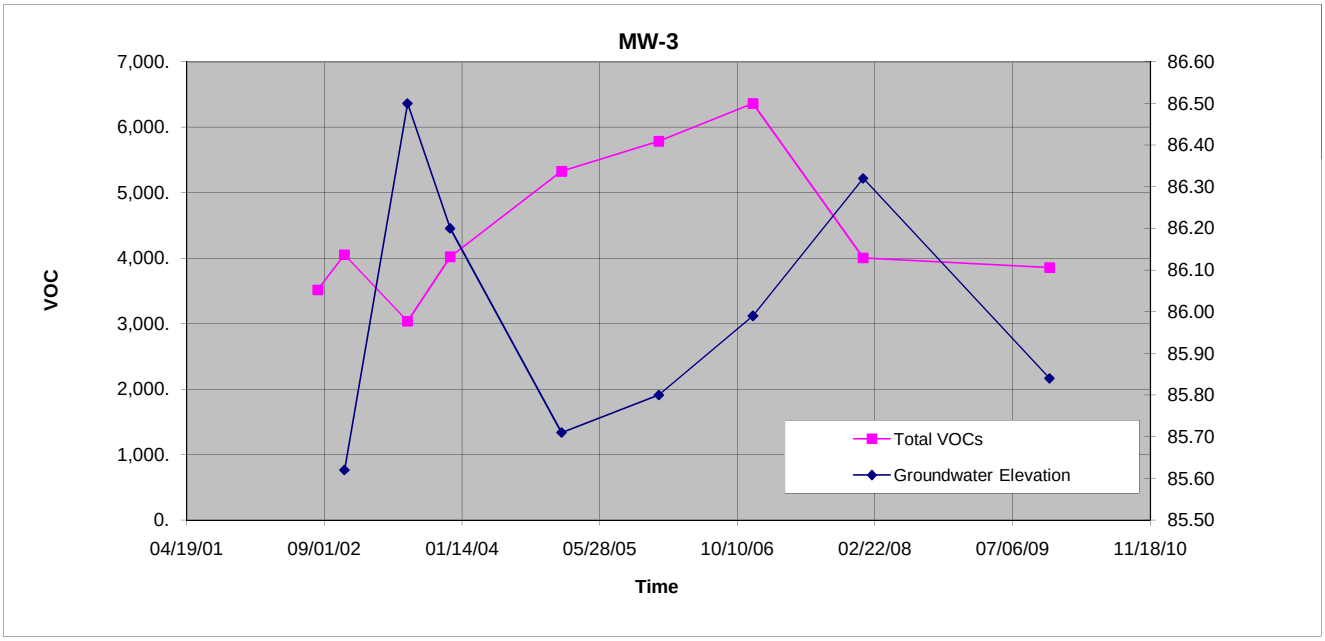


MW-3

PARAMETER	Sample Date: 08/08/02	11/13/02	6/30/03	12/2/03	1/10/05	12/29/05	12/6/06	1/10/08	VGES
Benzene	**356.**	**592.**	**293.**	**345.**	**274.**	**285.**	**332.**	**119.**	5
Toluene	**33.0**	**19.7**	**16.4**	**43.3**	**48.3**	**46.7**	**76.6**	**28.3**	1000
Ethylbenzene	**557.**	**755.**	**519.**	**704.**	**1,010.**	**1,160.**	**1,330.**	**893.**	700
Xylenes	**1,250.**	**872.**	**542.**	**802.**	**1,520.**	**1,820.**	**2,270.**	**1,290.**	10000
Total BTEX	**2,196.**	**2,239.**	**1,370.**	**1,894.**	**2,852.**	**3,312.**	**4,009.**	**2,330.**	-
MTBE	**448.**	**501.**	**805.**	**952.**	**829.**	**355.**	**161.**	**28.0**	40
1,3,5-Trimethylbenzene	**218.**	**408.**	**221.**	**341.**	**401.**	**557.**	**576.**	**421.**	350
1,2,4-Trimethylbenzene	**524.**	**668.**	**405.**	**579.**	**927.**	**1,230.**	**1,230.**	**1,000.**	
Naphthalene	**127.**	**235.**	**233.**	**253.**	**316.**	**331.**	**385.**	**223.**	20
Total VOCs	**3,513.**	**4,051.**	**3,034.**	**4,019.**	**5,325.**	**5,785.**	**6,361.**	**4,002.**	-
TPH (mg/L)	**9.78**	NA	NA	NA	NA	NA	NA		-

PARAMETER	Sample Date: 11/17/09								VGES
Benzene	**68.9**								5
Toluene	**21.6**								1000
Ethylbenzene	**856.**								700
Xylenes	**1,080.**								10000
Total BTEX	**2,027.**								-
MTBE	ND<20.0								40
1,3,5-Trimethylbenzene	**480.**								350
1,2,4-Trimethylbenzene	**1,100.**								
Naphthalene	**250.**								20
Total VOCs	**3,857.**								-

ANALYSIS: EPA Method 8021B, except for TPH by EPA Method 8015 DRO
VGES = Vermont Groundwater Enforcement Standard (2/14/2005)
ND<1 = not detected less than detection limit
Bold indicates a detection.
NA = not applicable, not analyzed
All Values Reported in ug/L (ppb), except where indicated
> VGES

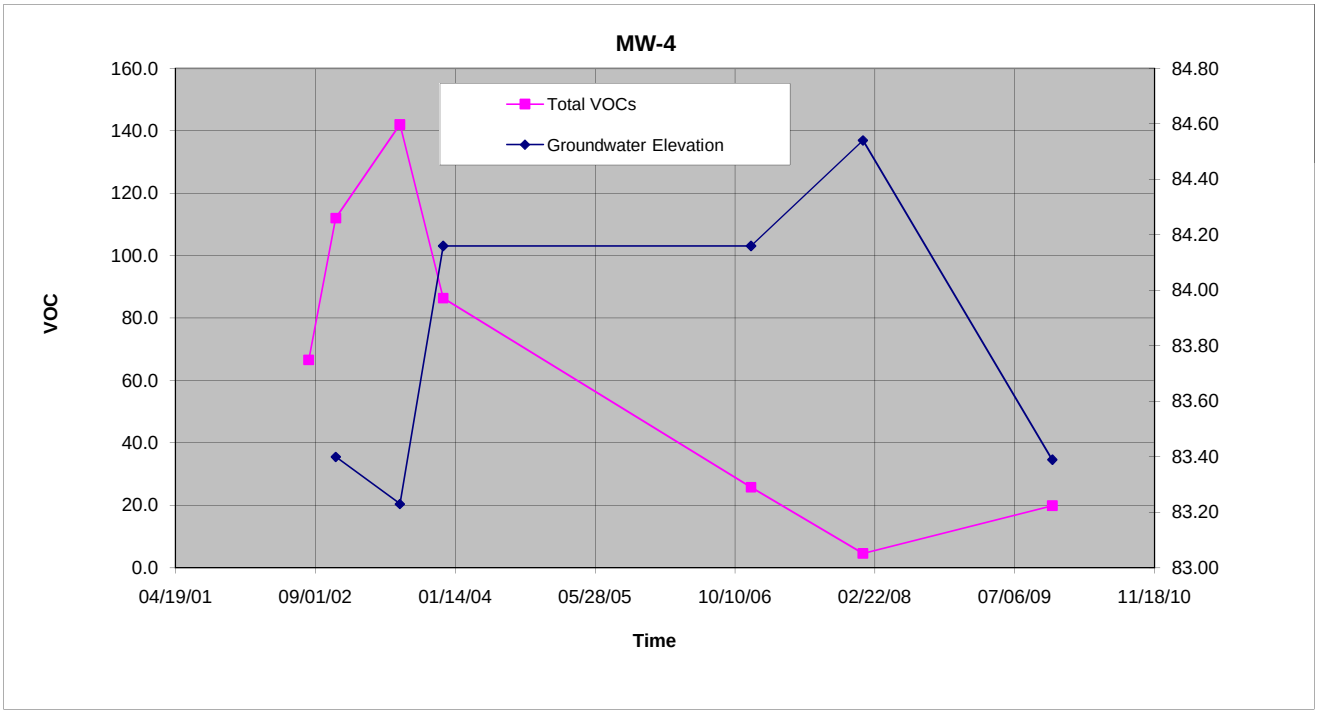


MW-4

PARAMETER	Sample Date: 08/08/02	11/13/02	6/30/03	12/2/03	1/10/05	12/29/05	12/6/06	1/10/08	VGES
Benzene	ND<1.0	ND<1.0	ND<1.0	ND<1.0	Not	Not	**3.4**	ND<1.0	5
Toluene	ND<1.0	ND<1.0	ND<1.0	ND<1.0	Sampled	Sampled	ND<1.0	ND<1.0	1000
Ethylbenzene	ND<1.0	ND<1.0	ND<1.0	ND<1.0	Well not	Well not	ND<1.0	ND<1.0	700
Xylenes	ND<2.0	ND<2.0	ND<2.0	ND<2.0	Found	Found	ND<2.0	ND<2.0	10000
Total BTEX	ND	ND	ND	ND			**3.4**	ND	-
MTBE	**66.6**	**112.**	**142.**	**86.4**			**22.4**	**4.6**	40
1,3,5-Trimethylbenzene	ND<1.0	ND<1.0	ND<1.0	ND<1.0			ND<1.0	ND<1.0	350
1,2,4-Trimethylbenzene	ND<1.0	ND<1.0	ND<1.0	ND<1.0			ND<1.0	ND<1.0	
Naphthalene	ND<2.0	ND<1.0	ND<1.0	ND<1.0			ND<2.0	ND<2.0	20
Total VOCs	**66.6**	**112.**	**142.**	**86.4**			**25.8**	**4.6**	-
TPH (mg/L)	**0.21**	NA	NA	NA			NA		-

PARAMETER	Sample Date: 11/17/09								VGES
Benzene	ND<1.0								5
Toluene	ND<1.0								1000
Ethylbenzene	ND<1.0								700
Xylenes	ND<2.0								10000
Total BTEX	ND								-
MTBE	**19.9**								40
1,3,5-Trimethylbenzene	ND<1.0								350
1,2,4-Trimethylbenzene	ND<1.0								
Naphthalene	ND<2.0								20
Total VOCs	**19.9**								-

ANALYSIS: EPA Method 8021B, except for TPH by EPA Method 8015 DRO
VGES = Vermont Groundwater Enforcement Standard (2/14/2005)
ND<1 = not detected less than detection limit
Bold indicates a detection.
NA = not applicable, not analyzed
All Values Reported in ug/L (ppb), except where indicated
> VGES

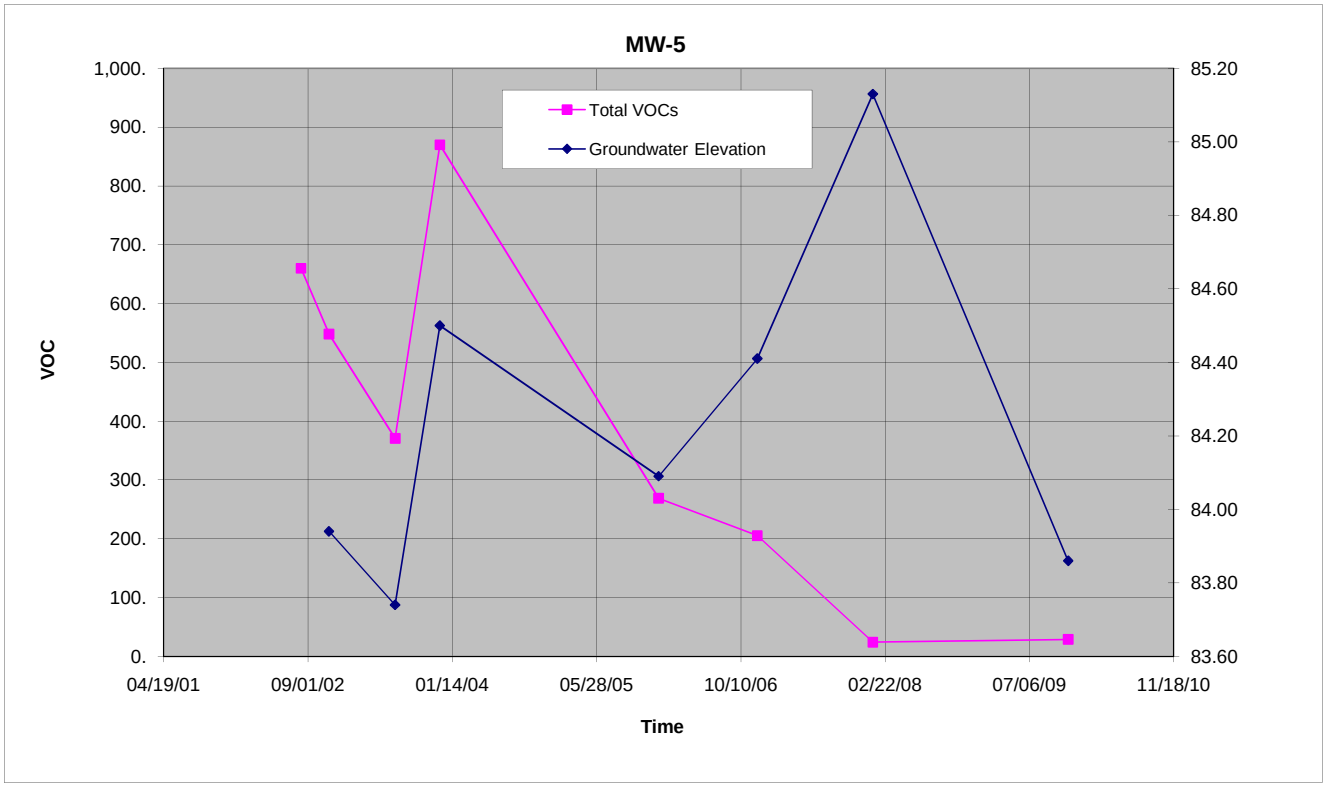


MW-5

PARAMETER	Sample Date: 08/08/02	11/13/02	6/30/03	12/2/03	1/10/05	12/29/05	12/6/06	1/10/08	VGES
Benzene	ND<7.0	ND<5.0	ND<5.0	**6.1**	Not	**1.9**	**22.4**	ND<1.0	5
Toluene	ND<5.0	ND<5.0	ND<5.0	ND<5.0	Sampled	ND<1.0	ND<5.0	ND<1.0	1000
Ethylbenzene	ND<5.0	ND<5.0	ND<5.0	ND<5.0	Well not	ND<1.0	ND<5.0	ND<1.0	700
Xylenes	ND<10.0	ND<10.0	ND<10.0	ND<10.0	Found	ND<2.0	ND<10.0	ND<2.0	10000
Total BTEX	ND	ND	ND	**6.1**		**1.9**	**22.4**	ND	-
MTBE	**660.**	**548.**	**365.**	**864.**		**267.**	**183.**	**24.1**	40
1,3,5-Trimethylbenzene	ND<5.0	ND<5.0	ND<5.0	ND<5.0		ND<1.0	ND<5.0	ND<1.0	350
1,2,4-Trimethylbenzene	ND<5.0	ND<5.0	ND<5.0	ND<5.0		ND<1.0	ND<5.0	ND<1.0	
Naphthalene	ND<10.0	ND<10.0	**5.9**	ND<5.0		ND<10.0	ND<10.0	ND<2.0	20
Total VOCs	**660.**	**548.**	**371.**	**870.**		**269.**	**205.**	**24.1**	-
TPH (mg/L)	**1.40**	NA	NA	NA		NA	NA	NA	-

PARAMETER	Sample Date: 11/17/09								VGES
Benzene	ND<1.0								5
Toluene	ND<1.0								1000
Ethylbenzene	ND<1.0								700
Xylenes	ND<2.0								10000
Total BTEX	ND								-
MTBE	**28.9**								40
1,3,5-Trimethylbenzene	ND<1.0								350
1,2,4-Trimethylbenzene	ND<1.0								
Naphthalene	ND<2.0								20
Total VOCs	**28.9**								-

ANALYSIS: EPA Method 8021B, except for TPH by EPA Method 8015 DRO
VGES = Vermont Groundwater Enforcement Standard (2/14/2005)
ND<1 = not detected less than detection limit
Bold indicates a detection.
NA = not applicable, not analyzed
All Values Reported in ug/L (ppb), except where indicated
> VGES



Sample Date: November 17, 2009

PARAMETER	Trip Blank	MW-2	Duplicate (MW-2)	RPD
Benzene	ND(1.0)	**85.1**	**88.2**	**-3.6**
Toluene	ND(1.0)	**19.9**	**24.1**	**-19.1**
Ethylbenzene	ND(1.0)	**730.**	**842.**	**-14.2**
Xylenes	ND(2.0)	**238.**	**270.**	**-12.6**
Total BTEX	ND	**1,073.**	**1,224.**	**-13.2**
MTBE	ND(2.0)	ND<20.0	ND<20.0	**ND**
1,3,5 Trimethyl Benzene	ND(1.0)	**234.**	**275.**	**-16.1**
1,2,4 Trimethyl Benzene	ND(1.0)	**737.**	**829.**	**-11.7**
Napthalene	ND(2.0)	**273.**	**310.**	**-12.7**
Total Targeted VOCs	ND	**2,317.**	**2,638.**	**-13.0**

Analysis by EPA Method 8021B
All values in ug/L (ppb) unless noted
ND( ) = None detected (detection limit) **>VGES**
TBQ( ) = Trace below quantitation (detection limit)
RPD = Relative Percent Difference
VGES = Vermont Groundwater Enforcement Standards (Vermont Groundwater Protection Rule and Strategy, 2/14/2005)

Appendix D

Groundwater Laboratory Analytical Report

ENDYNE Inc.
Environmental Laboratories

Laboratory Report

KAS, Inc. 100306
PO Box 787
Williston, VT 05495

Atten: Myles Gray

PROJECT: 412040150 St Albans Exxon
WORK ORDER: **0911-17185**
DATE RECEIVED: November 18, 2009
DATE REPORTED: December 02, 2009
SAMPLER: Caitlin Andrews

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody located at the end of this report.

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 Randolph, VT 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.

This 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

CLIENT: KAS, Inc.
PROJECT: 412040150 St Albans Exxon
REPORT DATE: 12/2/2009

WORK ORDER: **0911-17185**
DATE RECEIVED: 11/18/2009

TEST METHOD: EPA 8260B

001 Site: MW-1 Date Sampled: 11/17/09 15:04 Analysis Date: 11/30/09 W MMW

Parameter	Result	Unit	Nelac	Qual	Parameter	Result	Unit	Nelac	Qual
Methyl-t-butyl ether (MTBE)	87.2	ug/L	A		Benzene	12.6	ug/L	A	
Toluene	< 5.0	ug/L	A		Ethylbenzene	26.5	ug/L	A	
Xylenes, Total	35.1	ug/L	A		1,3,5-Trimethylbenzene	17.2	ug/L	A	
1,2,4-Trimethylbenzene	54.3	ug/L	A		Naphthalene	36.6	ug/L	A	
Surr. 1 (Dibromofluoromethane)	97	%	A		Surr. 3 (4-Bromofluorobenzene)	95	%	A	
Surr. 2 (Toluene d8)	97	%	A		Unidentified Peaks	> 10		U	

TEST METHOD: EPA 8260B

002 Site: MW-2 Date Sampled: 11/17/09 14:40 Analysis Date: 11/28/09 W EEP

Parameter	Result	Unit	Nelac	Qual	Parameter	Result	Unit	Nelac	Qual
Methyl-t-butyl ether (MTBE)	< 20.0	ug/L	A		Benzene	85.1	ug/L	A	
Toluene	19.9	ug/L	A		Ethylbenzene	730	ug/L	A	
Xylenes, Total	238	ug/L	A		1,3,5-Trimethylbenzene	234	ug/L	A	
1,2,4-Trimethylbenzene	737	ug/L	A		Naphthalene	273	ug/L	A	
Surr. 1 (Dibromofluoromethane)	103	%	A		Surr. 2 (Toluene d8)	104	%	A	
Surr. 3 (4-Bromofluorobenzene)	99	%	A		Unidentified Peaks	> 10		U	

TEST METHOD: EPA 8260B

003 Site: MW-3 Date Sampled: 11/17/09 14:27 Analysis Date: 11/28/09 W EEP

Parameter	Result	Unit	Nelac	Qual	Parameter	Result	Unit	Nelac	Qual
Methyl-t-butyl ether (MTBE)	< 20.0	ug/L	A		Benzene	68.9	ug/L	A	
Toluene	21.6	ug/L	A		Ethylbenzene	856	ug/L	A	
Xylenes, Total	1,080	ug/L	A		1,3,5-Trimethylbenzene	480	ug/L	A	
1,2,4-Trimethylbenzene	1,100	ug/L	A		Naphthalene	250	ug/L	A	
Surr. 1 (Dibromofluoromethane)	108	%	A		Surr. 2 (Toluene d8)	106	%	A	
Surr. 3 (4-Bromofluorobenzene)	104	%	A		Unidentified Peaks	> 10		U	

TEST METHOD: EPA 8260B

004 Site: MW-4 Date Sampled: 11/17/09 14:17 Analysis Date: 11/28/09 W EEP

Parameter	Result	Unit	Nelac	Qual	Parameter	Result	Unit	Nelac	Qual
Methyl-t-butyl ether (MTBE)	19.9	ug/L	A		Benzene	< 1.0	ug/L	A	
Toluene	< 1.0	ug/L	A		Ethylbenzene	< 1.0	ug/L	A	
Xylenes, Total	< 2.0	ug/L	A		1,3,5-Trimethylbenzene	< 1.0	ug/L	A	
1,2,4-Trimethylbenzene	< 1.0	ug/L	A		Naphthalene	< 2.0	ug/L	A	
Surr. 1 (Dibromofluoromethane)	97	%	A		Surr. 2 (Toluene d8)	103	%	A	
Surr. 3 (4-Bromofluorobenzene)	97	%	A		Unidentified Peaks	1		U	

TEST METHOD: EPA 8260B

005 Site: MW-5 Date Sampled: 11/17/09 14:51 Analysis Date: 11/28/09 W EEP

Parameter	Result	Unit	Nelac	Qual	Parameter	Result	Unit	Nelac	Qual
Methyl-t-butyl ether (MTBE)	28.9	ug/L	A		Benzene	< 1.0	ug/L	A	
Toluene	< 1.0	ug/L	A		Ethylbenzene	< 1.0	ug/L	A	
Xylenes, Total	< 2.0	ug/L	A		1,3,5-Trimethylbenzene	< 1.0	ug/L	A	
1,2,4-Trimethylbenzene	< 1.0	ug/L	A		Naphthalene	< 2.0	ug/L	A	
Surr. 1 (Dibromofluoromethane)	99	%	A		Surr. 2 (Toluene d8)	104	%	A	
Surr. 3 (4-Bromofluorobenzene)	101	%	A		Unidentified Peaks	> 10		U	

CLIENT: KAS, Inc.
PROJECT: 412040150 St Albans Exxon
REPORT DATE: 12/2/2009

WORK ORDER: **0911-17185**
DATE RECEIVED: 11/18/2009

TEST METHOD: EPA 8260B

006 Site: Duplicate Date Sampled: 11/17/09 14:40 Analysis Date: 11/28/09 W EEP

Parameter	Result	Unit	Nelac	Qual	Parameter	Result	Unit	Nelac	Qual
Methyl-t-butyl ether (MTBE)	< 20.0	ug/L	A		Benzene	88.2	ug/L	A	
Toluene	24.1	ug/L	A		Ethylbenzene	842	ug/L	A	
Xylenes, Total	270	ug/L	A		1,3,5-Trimethylbenzene	275	ug/L	A	
1,2,4-Trimethylbenzene	829	ug/L	A		Naphthalene	310	ug/L	A	
Surr. 1 (Dibromofluoromethane)	98	%	A		Surr. 2 (Toluene d8)	103	%	A	
Surr. 3 (4-Bromofluorobenzene)	101	%	A		Unidentified Peaks	> 10		U	

TEST METHOD: EPA 8260B

007 Site: Trip Blank Date Sampled: 11/17/09 09:20 Analysis Date: 11/28/09 W EEP

Parameter	Result	Unit	Nelac	Qual	Parameter	Result	Unit	Nelac	Qual
Methyl-t-butyl ether (MTBE)	< 2.0	ug/L	A		Benzene	< 1.0	ug/L	A	
Toluene	< 1.0	ug/L	A		Ethylbenzene	< 1.0	ug/L	A	
Xylenes, Total	< 2.0	ug/L	A		1,3,5-Trimethylbenzene	< 1.0	ug/L	A	
1,2,4-Trimethylbenzene	< 1.0	ug/L	A		Naphthalene	< 2.0	ug/L	A	
Surr. 1 (Dibromofluoromethane)	94	%	A		Surr. 2 (Toluene d8)	103	%	A	
Surr. 3 (4-Bromofluorobenzene)	102	%	A		Unidentified Peaks	0		U	

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

CHAIN-OF-CUSTODY-RECORD

41504

Special Reporting Instructions/PO#: 4120401SO

Project Name: St. Albans Exxon	Client/Contact Name: Myles Gray	Sampler Name: Caitlin Andrews
State of Origin: VT X NY __ NH __ Other __	Phone #: 383-0486	Phone #: 383-0486
Endyne WO # 0911-17185	Mailing Address: KAS, Inc. POBox 747 368 Avenue D, Williston, VT 05495	Billing Address: KAS, Inc. POBox 747 368 Avenue D, Williston, VT 05401

Sample Location	Matrix	GRAB	COMP	Date/Time Sampled 11-17-09	Sample Containers No.	Sample Containers Type/Size	Sample Preservation	Analysis Required	FieldResults/Remarks	Due Date
MW-1	H_2O	X		1504	2	40ml	HCl	19		
MW-2				1440						
MW-3				1427						
MW-4				1417						
MW-5				1451						
Duplicate				1440						
Trip Blank				920						

Relinquished by:	Date/Time	Received by:	Date/Time	Received by:	Date/Time
Caitlin Andrews	11/17/09 1630	[signature]	11/18/09 @ 1081	[signature]	11-18-09 @ 1045

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: 4.7
Comment:

(White - Laboratory / Yellow - Client)