



June 12, 1996

Mr. Michael B. Smith
Agency of Natural Resources
DEC, Waste Management Division
103 South Main Street / West Building
Waterbury, Vermont 05671-0404

WASTE MANAGEMENT
DIVISION

JUN 13 10 16 AM '96

RE: Report on the Limited Phase II Environmental Site Assessment at:
Champlain Valley Cleaners, One Blair Park, Williston, Vermont.

Dear Mr. Smith:

Enclosed, please find the report summarizing the results of the investigation at the above referenced site.

According to Mr. Raymond Lawrence, owner of the subject property, Champlain Valley Cleaners has installed spill containment under the dry cleaning machine which is suspected to be the source of solvent contamination at the subject property.

Your prompt attention to this matter is appreciated. Feel free to call me at (802) 865 - 4288 if you have any questions or comments.

Sincerely,

Laurie T. Reed,
Project Geologist

Encl.

c. Mr. Raymon Lawrence, Lawrence Realty

**REPORT ON THE LIMITED PHASE II
ENVIRONMENTAL SITE ASSESSMENT**

**CHAMPLAIN VALLEY CLEANERS
ONE BLAIR PARK ROAD
WILLISTON, VERMONT**

June 5, 1996

Jun 13 10 16 AM '96

Prepared for:

Lawrence Realty, Inc.
Suite #1, One Blair Park Road
Williston, Vermont 05495

Prepared by:



P.O. Box 943
Williston, Vermont 05495
(802) 865-4288

Griffin Project #3965174

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I. INTRODUCTION

This report describes the Phase II Environmental Site Assessment of a property on One Blair Park Road in Williston, Vermont. The property is owned by East Williston Road Associates of Williston, Vermont, and occupied by Champlain Valley Cleaners and other occupants. This investigation was conducted by Griffin International, Inc. (Griffin), to assess the impact to groundwater at the site from solvents used in the dry-cleaning operation at Champlain Valley Cleaners.

This site assessment work was requested by Michael B. Smith of the State of Vermont Department of Environmental Conservation (VTDEC) in a letter (dated April 26, 1996) to Mr. Ramon Lawrence, Lawrence Realty. The VTDEC requested additional assessment work be conducted after their review of a Limited Phase II Environmental Site Assessment Report which describes site assessment work conducted by Twin State Environmental Corporation (TSE) in February and March, 1996. The TSE assessment identified tetrachloroethene (PCE) and trichloroethene (TCE) contamination at the subject property. TSE installed seven soil borings at the site. The highest levels of contamination were identified in soil samples collected from below the concrete slab of the building, in the area near the dry-cleaning machine. Contamination was also detected in soil and groundwater samples collected in the area directly outside the building, directly west of the rear door of Champlain Valley Cleaners. No contamination was detected in soil samples collected from four borings located north, south, and west of the area of the rear door; no groundwater samples were collected in these areas.

II. SITE DESCRIPTION

The site is located in a commercial area in Williston, Vermont. The site is at an approximate elevation of 490 feet above sea level. The site is generally level. The area where drilling was conducted slopes gently toward the west. The area around the building is paved. West of the paved area behind the building, is a large open lawn area. Drainage from the paved areas at the subject property flows to storm drains. Drainage of the general area of the site flows northwest toward Muddy Brook.

The site is abutted to the east by Route 2A. The surrounding properties are commercial.

The facility is served by municipal water and sewer. Utilities include underground power, natural gas, and telephone.

III. INVESTIGATIVE PROCEDURES

Four soil borings (SB1 and MW1 - MW3) were drilled at the subject property on May 14, 1996. All borings were drilled under the direct supervision of Griffin by Adams Engineering of Jericho, Vermont.

The first soil boring (MW1) was drilled six feet west of the rear door of Champlain Valley Cleaners, in the same area as TSE's boring SB4, to assess conditions of the previously defined contaminated area. The second soil boring (SB1) was drilled in the grass lawn, approximately 40 feet west of MW1, to assess down-gradient conditions. The third soil boring (MW2) was drilled behind the paved driveway area, approximately 16 feet from MW1, to assess conditions down-gradient of the previously defined contaminated area. The fourth soil boring (MW3) was drilled in the paved drive area, approximately 27 feet southwest of MW1, to assess down-gradient conditions.

A. Soil Boring and Screening

Continuous soil samples were collected from each boring using a polyethylene lined 5' x 2.375" ID (NQ) casing. Samples were screened for volatile organic compounds (VOCs) using a photo-ionization detector (PID) and were logged by the supervising geologist. Detailed soil descriptions and VOC concentrations are listed on the well logs in Appendix 2. An interpretation of the geology of the relative area is shown on the Geologic Cross-Section in Appendix 2. A PhotoVac Micro-tip, Model (HL-2000) PID, equipped with a 10.6 electron-volt lamp, was utilized for screening. The PID was calibrated with isobutylene and referenced to TCE, according to Griffin protocol, using the manufacturer's procedures.

The boring of MW1 intersected asphalt underlain by gravel fill and subsequently by fine and medium grained sands, silt and clay, and dry, dense clay. The water table was encountered at approximately 1/2 foot below grade. The base of the shallow aquifer was at approximately three feet below grade at a dense clay confining layer. VOC concentrations detected by PID were 130 parts per million (ppm) in the soil sample collected from one foot below grade, 90 ppm in the soil sample collected from 2 feet below grade, and 0.2 ppm in the soil samples collected from 2.5 to 7 feet below grade. Prior to installation of the monitoring well in the boring, the portion of the boring from 3 to 7 feet below grade was sealed with bentonite pellets.

SB1 intersected moist clay at the surface, underlain by dry, dense clay and subsequently by a unit of dry, dense very fine sand with few silt, medium grained sand, and small subrounded gravel which is interpreted to be reworked glacial till. No water table was encountered. No significant VOC concentrations were detected by PID in the soil samples collected from SB1. SB1 was completely backfilled with bentonite and cement grout mixture.

The boring of MW2 intersected asphalt underlain by gravel fill and then by fine and medium grained sands interbedded with silt and clay which were subsequently underlain by dense clay. The water table was encountered at approximately 1/2 foot below grade. The base of the shallow aquifer was at approximately 4.5 feet below grade at the dense clay confining layer. VOC concentrations detected by PID in all soil samples collected from the boring of MW2, were 0.5 ppm.

The boring of MW3 intersected asphalt underlain by gravel fill and then by fine and medium grained sands interbedded with silt and clay which were subsequently underlain by

dense clay. The water table was encountered at approximately 1/2 foot below grade. The base of the shallow aquifer was at approximately 3.5 feet below grade at the dense clay confining layer. VOC concentrations detected by PID in all soil samples collected from the boring of MW3, were 0.5 ppm.

B. Installation of Monitoring Wells

Three monitoring wells (MW1, MW2, and MW3) were installed on May 14, 1996. A one inch (1") inside diameter (i.d.) monitoring was installed in each boring. Each well was constructed of a length of 0.010" slotted, 1" i.d., sch. 40 PVC well screen and attached 1" i.d., sch. 40 PVC riser pipe. The annulus between the screen section of each well and the borehole wall was filled with Grade #0 silica sand to retard sediments from entering the well. A betonite seal was placed at the top of the screen. Each monitoring well is protected at the surface with a small man-hole with a bolt-down cover. Each man-hole was set in concrete, flush with existing grade. The top of casing of each well was surveyed with reference to elevation and location. Well construction details are indicated on the well logs in Appendix 2.

C. Groundwater Measurements

On May, 16, 1996, a Griffin technician gauged the water level in each of the three monitoring wells. The data was used to calculate the relative water table elevation in each well. Water level data is summarized in Appendix 2. Water table elevations were used to prepare a Groundwater Contour Map (Appendix 1). The map indicates that groundwater under the paved area in the vicinity of the wells, flows northwest at a hydraulic gradient of approximately 16 percent.

D. Groundwater Sampling and Analysis

On May 16, 1996, a Griffin technician collected water samples from all three monitoring wells. The wells were sampled according to Griffin's protocol which complies with state, federal, and industry standards. A Trip Blank sample was collected and analyzed for quality control and assurance. The water samples were analyzed by Endyne, Inc., of Williston, Vermont, for EPA Method 8010 halocarbon compounds via EPA Method 8260. Results of the laboratory analyses are shown below in Table 1. Total halocarbon concentrations detected are plotted and contoured on the Contaminant Concentration Map (Appendix 1).

Analysis of the groundwater sample collected from MW1, located directly west of Champlain Valley Cleaner's rear door, indicates the presence of PCE and TCE in concentrations exceeding applicable groundwater standards. PCE was detected in concentration of 10,100 parts per billion (ppb) which is above the EPA Maximum Contaminant Level (MCL) for the compound of 5.0

TABLE 1.

SUMMARY OF LABORATORY RESULTS
ANALYSIS FOR EPA METHOD 8010 COMPOUNDS VIA EPA METHOD 8260

Champlain Valley Cleaners
Williston, Vermont

Monitoring Date: May 16, 1996
All Values Reported in ug/L (ppb)

PARAMETER				Enforcement Standard	
	MW1	MW2	MW3	MCL	HAL
cis-1,2-Dichloroethene	39.7	7.1	ND > 2	70	-
Tetrachloroethene (PCE)	10,100.	10.2	TBQ < 2	5	0.7
1,1,1-Trichloroethane	1.1	ND > 2	ND > 1	200	-
Trichloroethene (TCE)	85.5	12.5	ND > 1	5	3
Total Halocarbons	10,226.	29.8	TBQ < 2	-	-

MCL = EPA Maximum Contaminant Level

HAL = Vermont Health Advisory Level

ND > - None detected above stated limits

TBQ - Trace, below stated quantitation limits

ppm and above the Vermont Health advisory Level (HAL) for the compound of 0.7 ppb. TCE was detected in concentration of 85.5 ppb which is above the MCL for the compound of 5.0 ppb and above the HAL for the compound of 3.0 ppb. The compounds cis-1,2-dichloroethene (cis-1,2-DCE) and 1,1,1-trichloroethane were detected in concentrations below their respective MCLs.

Analysis of the groundwater sample collected from MW2, located down-gradient from MW1, indicates PCE and TCE in concentrations exceeding groundwater standards. PCE was detected in concentration of 10.2 ppb, and TCE was detected in concentration of 12.5 ppb. The compound cis-1,2-DCE was detected in concentration below the MCL for the compound.

Analysis of the groundwater sample collected from MW3, located down-gradient from MW1, indicates a trace concentration of PCE.

IV. CONCLUSIONS

-There has been a release(s) of solvents at the site. The release(s) has resulted in contamination of groundwater below and directly behind the Champlain Valley Cleaners building. The source of the release(s) is likely Champlain Valley Cleaners.

-Concentrations of PCE and TCE detected in groundwater samples, collected from directly outside the rear door of Champlain Valley Cleaners, are above groundwater standards. Concentrations of PCE and TCE detected down-gradient from this area are also higher than groundwater standards, but they are significantly lower than concentrations detected near the rear door. Concentrations of PCE and TCE detected in the groundwater sample collected from MW1 on May 16, 1996, are higher than the concentrations detected by TSE in a groundwater sample collected from the same general area on February 27, 1996.

-Subsurface materials in the area of the subsurface exploration are generally crushed stone underlain by sand fill and subsequently by interbedded sands with silt and clay. A dense, lake-bottom clay confining layer underlies these units at an average depth of approximately three feet below grade under the paved area behind Champlain Valley Cleaners. A thin, perched water table is present from just below the asphalt driveway and concrete slab of the building to the top of the dense clay unit. The dense clay unit is exposed at the surface in the field area 35 feet west of the building. No shallow water table exists in this area where the upper units (mostly fill) are absent. The dense clay unit at this site is underlain by a very dense unit of reworked glacial till.

-The solvent contamination at the subject property appears to be limited to the area below the concrete slab and to the area under the driveway west of the Champlain Valley Cleaners Building. The contamination does not extend west of the driveway, since there is no water table in this area. The very low transmissivity of the dense clay confining layer significantly retards or eliminates the vertical migration of contaminants. It is possible

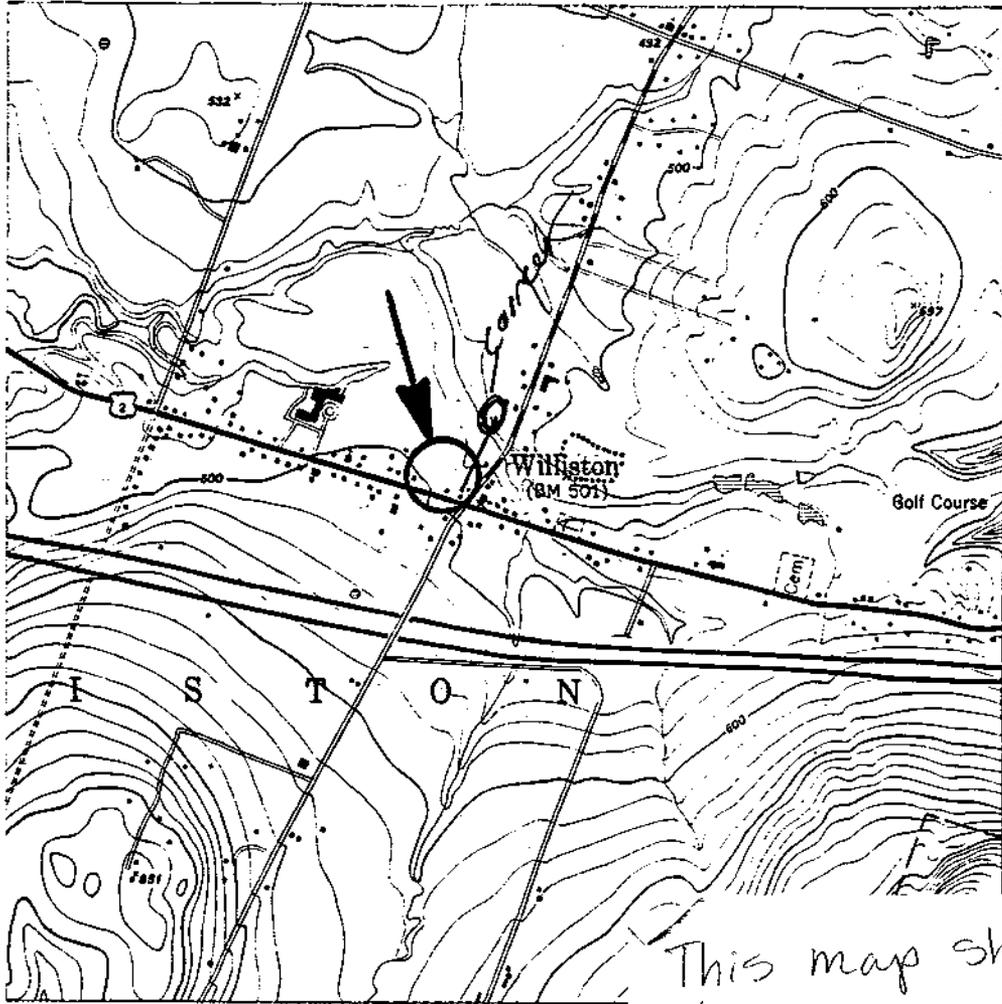
that subsurface utility corridors may act as a preferential pathway for contaminant migration at the site.

-If no more releases of solvents occur, contamination at the subject property will eventually be reduced by attenuation.

-Based on existing data, there appears to be little risk of impact to human health and the environment from the subsurface groundwater contamination detected at the subject property. Sampling and analysis of indoor air quality was not performed for this assessment. No water supply wells are located near the subject property. The facility and other establishments in the area are served by the Champlain Water District, and therefore, local drinking water supply (Lake Champlain) is not at risk of impact from the contamination present at Champlain Valley Cleaners.

APPENDIX 1

Site Location Map
Site Sketch
Groundwater Contour Map
Contaminant Concentration Map



This map shows the wrong site location.

JOB #: 3965174
 SOURCE: USGS- ESSEX JUNCTION, VERMONT QUADRANGLE

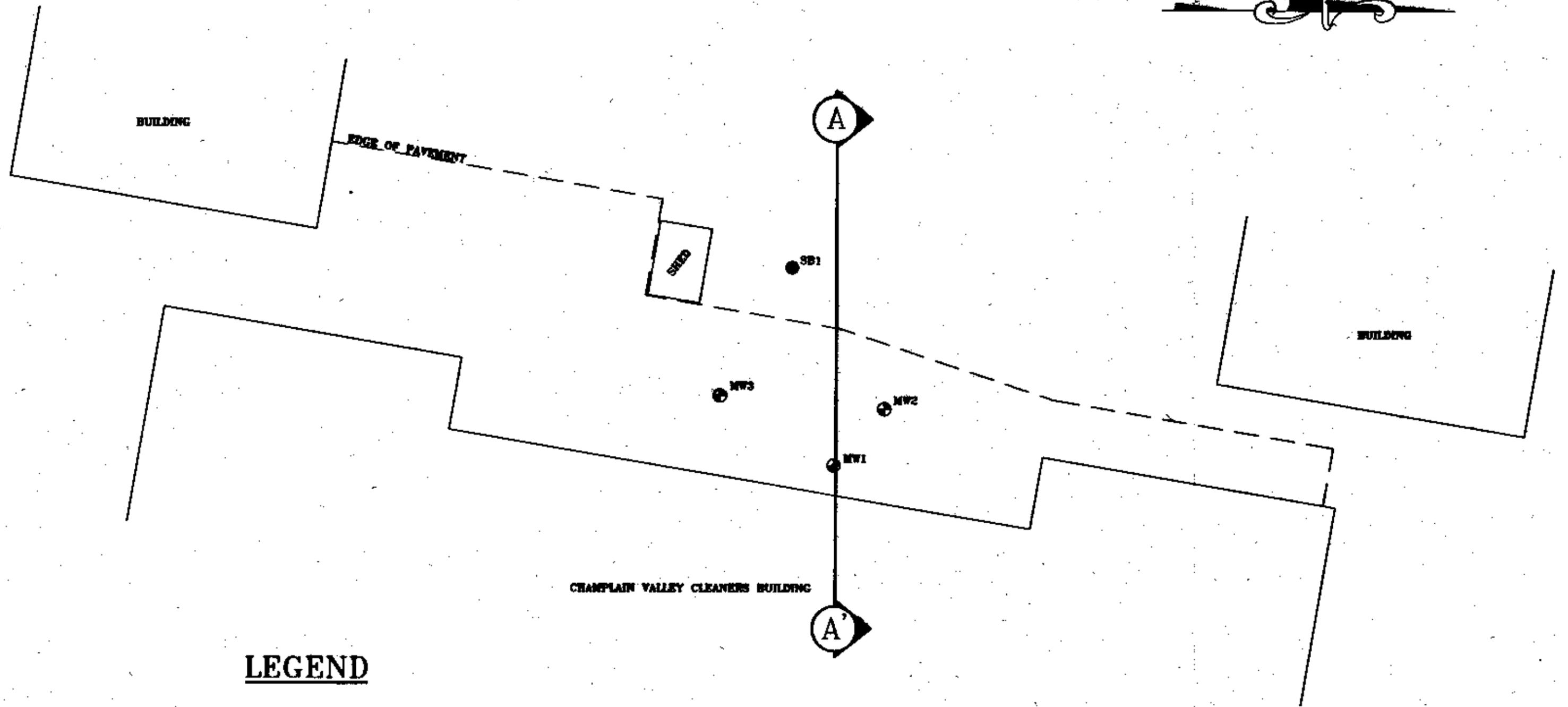


CHAMPLAIN VALLEY CLEANERS

WILLISTON, VERMONT

SITE LOCATION MAP

DATE: 6/5/96	DWG.#:1	SCALE: 1:24000	DRN.:SB	APP.:LR
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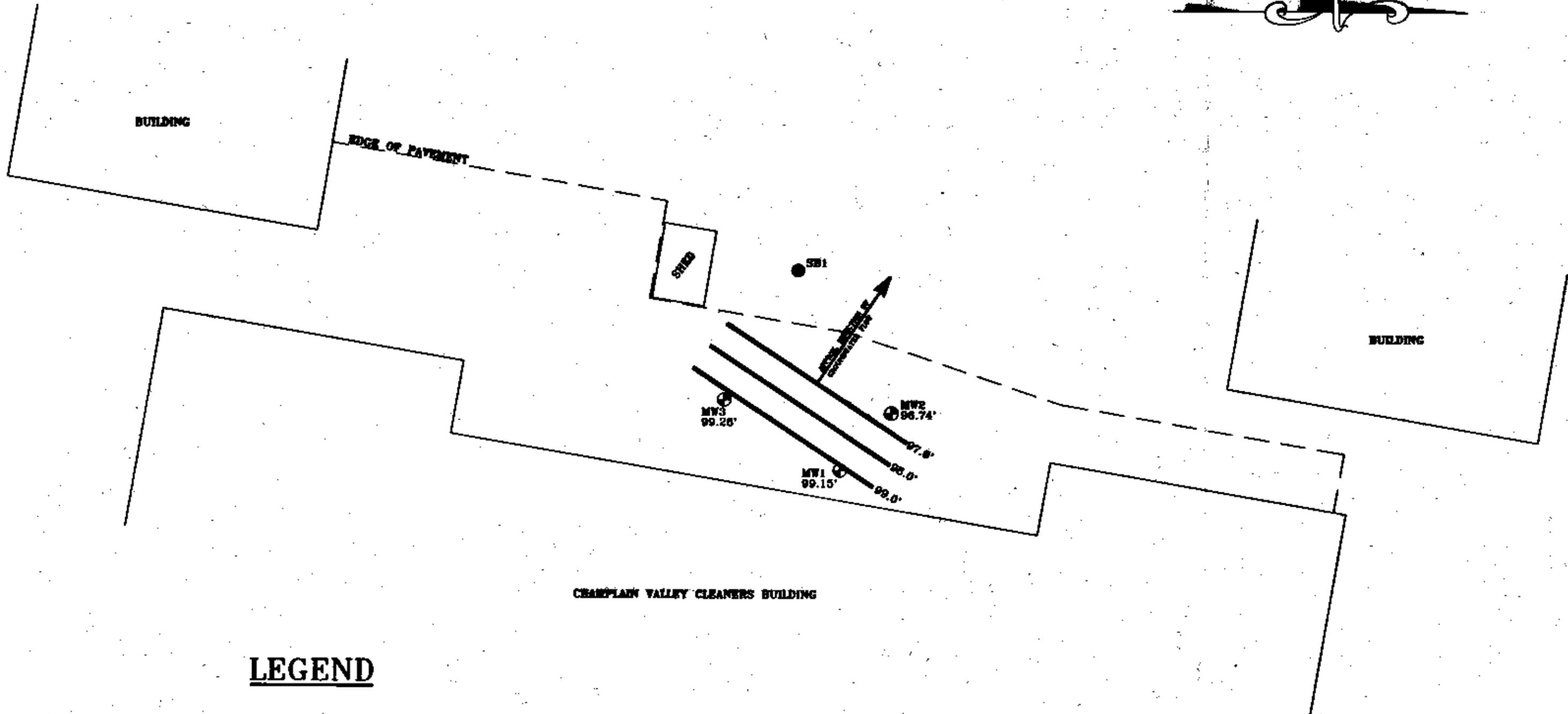


LEGEND

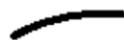
-  MW2 MONITORING WELL
-  SB1 SOIL BORE

 <p>GRIFFIN INTERNATIONAL</p>	JOB NO. 3060174			
	CHAMPLAIN VALLEY CLEANERS			
	WILLISTON, VERMONT			
SITE SKETCH				
DATE: 5/15/06	DWG. #: 2	SCALE: ~ 1"=20'	DRN.: SJB	APP.: LR

NOTE: SITE SKETCH TAKEN FROM SITE PLAN DRAWN BY VERMONT STATE ENVIRONMENTAL COM. DATED 2/8/06.

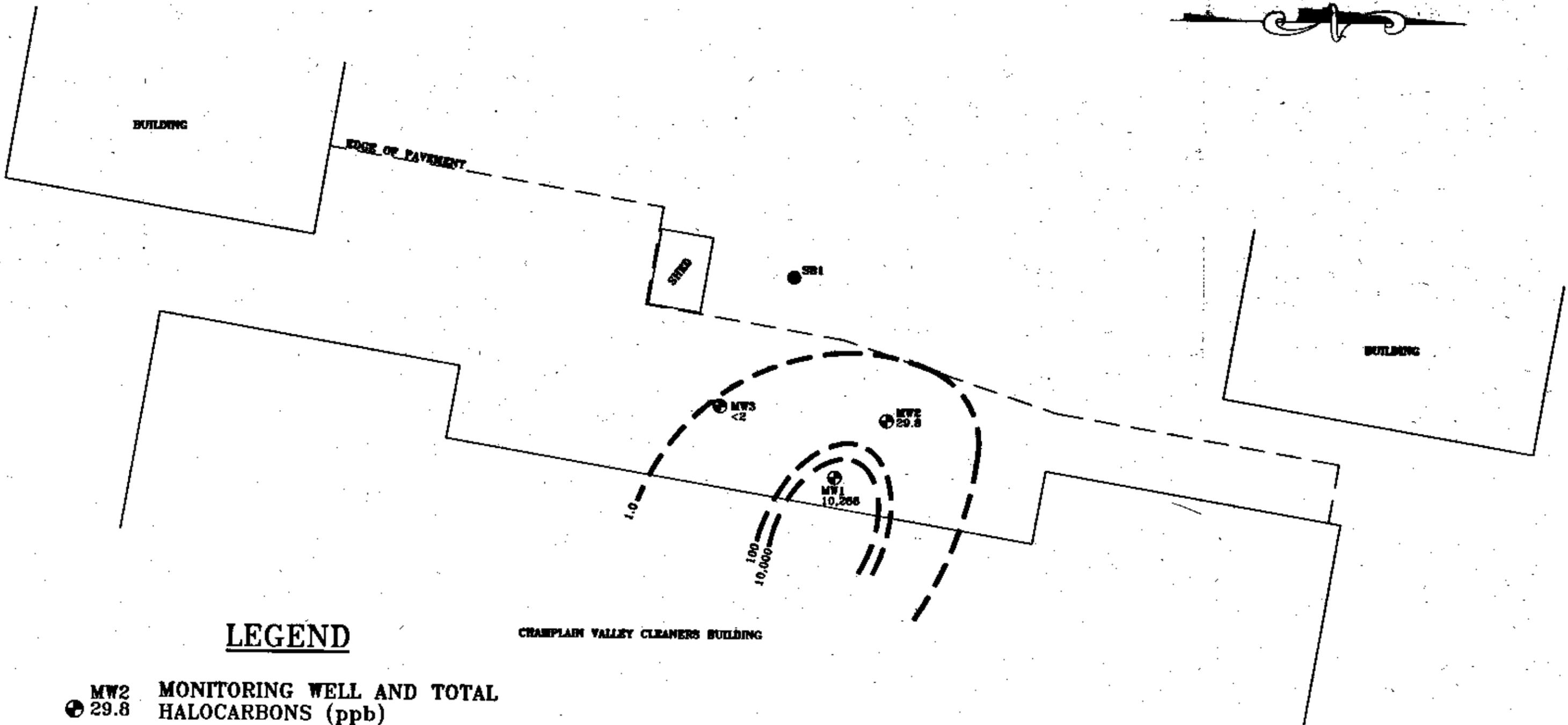


LEGEND

- 
MW2 96.74' MONITORING WELL AND WATER TABLE ELEVATION IN FEET
- 
98.0' GROUNDWATER CONTOUR IN FEET (DASHED WHERE INFERRED)
- 
SB1 SOIL BORE

NOTE: SITE SURVEY TAKEN FROM SITE PLAN DRAWN BY THE STATE ENVIRONMENTAL CORP. DATED 4/2/96.

 <p>GRIFFIN INTERNATIONAL</p>	JOB NO. 3085174			
	CHAMPLAIN VALLEY CLEANERS			
	WILLISTON, VERMONT			
GROUNDWATER CONTOUR MAP				
DATE MEASURED: 5/17/96				
DATE: 5/20/96	DWG. #: 3	SCALE: ~ 1"=20'	DES.: SJB	APP.: LR



LEGEND

CHAMPLAIN VALLEY CLEANERS BUILDING

 MW2 29.8 MONITORING WELL AND TOTAL HALOCARBONS (ppb)

 100 ISOCONCENTRATION CONTOUR, TOTAL HALOCARBON (ppb), (DASHED WHERE INFERRED)

 SB1 SOIL BORE

JOB NO. 3085174



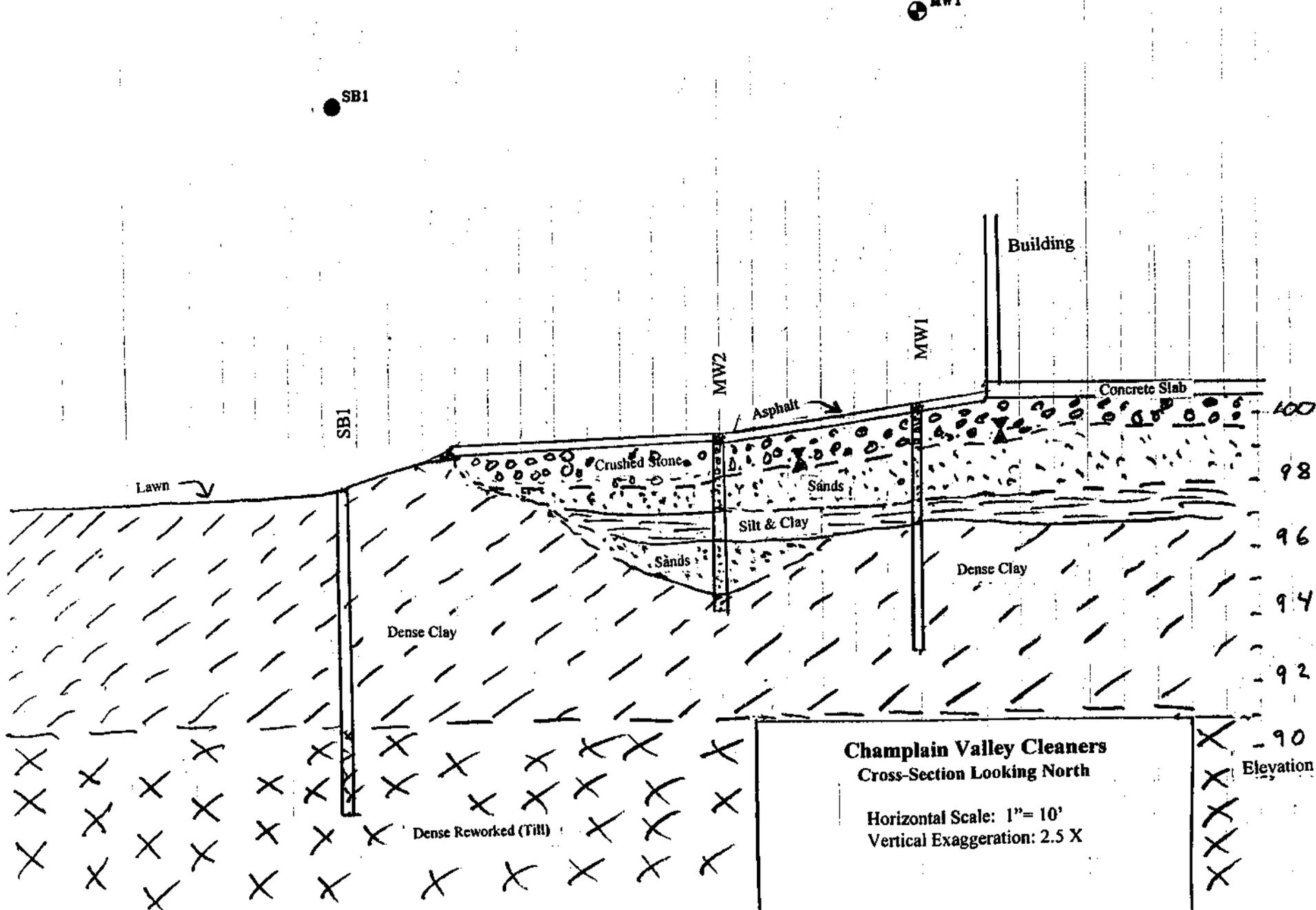
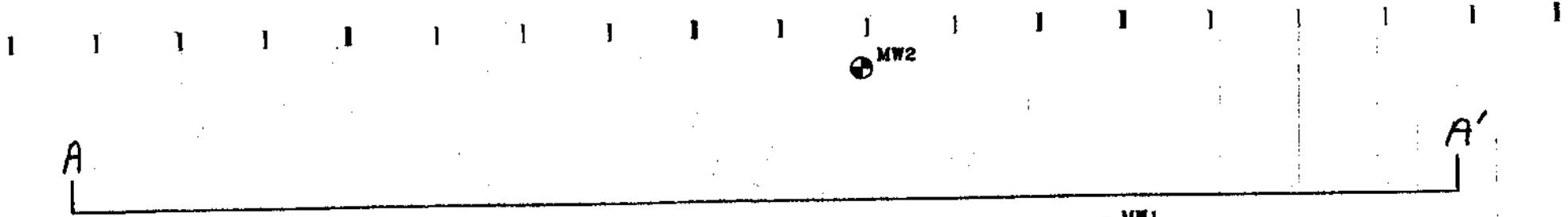
GRIFFIN INTERNATIONAL

CHAMPLAIN VALLEY CLEANERS			
WILLISTON, VERMONT			
CONTAMINANT CONCENTRATION MAP			
DATE SAMPLED: 5/17/96			
DATE: 6/6/96	DRG. #: 4	SCALE: ~ 1"=30'	APP.: LR

NOTE: SITE SKETCH TAKEN FROM SITE PLAN DRAWN BY THE STATE ENVIRONMENTAL CORP. DATED 3/8/96.

APPENDIX 2

Cross-Section
Drilling Logs
Water Level Data



PROJECT CHAMPLAIN VALLEY CLEANERS

LOCATION WILLISTON, VERMONT

DATE DRILLED 5/14/96 TOTAL DEPTH OF HOLE 7.0'

DIAMETER _____

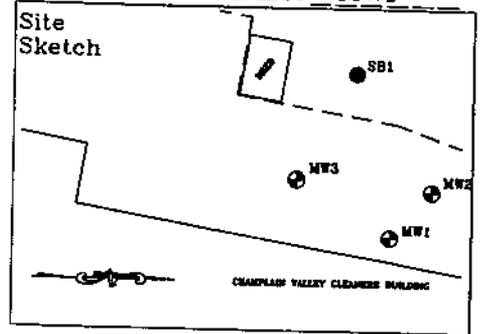
SCREEN DIA. 1" LENGTH 1.45' SLOT SIZE 0.010"

CASING DIA. 1" LENGTH 1.0' TYPE sch 40 PVC

DRILLING CO. ADAMS CONST. DRILLING METHOD VIBRATORY

DRILLER JERRY ADAMS LOG BY L. REED

WELL NUMBER MW1



GRIFFIN INTERNATIONAL, INC

DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6" OF SPOON & PID READINGS	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)	DEPTH IN FEET
0	ROAD BOX	LOCKING WELL CAP			0
1	CONCRETE		0'-1' 130 ppm	0.5' WATER TABLE	1
2	BENTONITE			ASPHALT and GRAVEL FILL	2
3	WELL RISER		2'-2.5' 90 ppm	Wet, brown, fine and medium grained SAND with some small subangular gravel.	3
4	WELL SCREEN		2.5'-3' 0.2 ppm	Wet, brown, fine and medium grained SAND with few small gravel.	4
5	BOTTOM CAP			Dry, damp, gray with brown mottling, SILT and CLAY with few fine gravel.	5
6	SAND PACK		3'-7' 0.2 ppm	Dry, brown CLAY with trace silt and fine sand, dense.	6
7	BENTONITE				7
8	UNDISTURBED NATIVE SOIL			BASE OF WELL AT 2.9' END OF EXPLORATION AT 7.0'	8
9					9
10					10
11					11
12					12
13					13
14					14
15					15
16					16
17					17
18					18
19					19
20					20
21					21
22					22
23					23
24					24
25					25

PROJECT CHAMPLAIN VALLEY CLEANERS

LOCATION WILLISTON, VERMONT

DATE DRILLED 5/14/96 TOTAL DEPTH OF HOLE 4.8'

DIAMETER _____

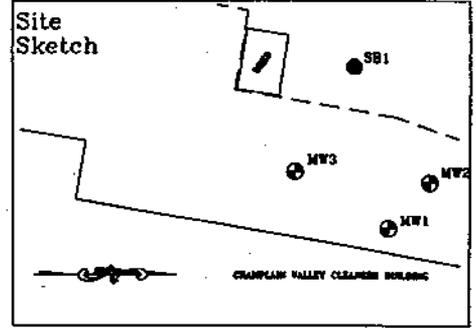
SCREEN DIA. 1" LENGTH 3.4' SLOT SIZE 0.010"

CASING DIA. 1" LENGTH 0.5' TYPE sch 40 PVC

DRILLING CO. ADAMS CONST. DRILLING METHOD VIBRATORY

DRILLER JERRY ADAMS LOG BY L REED

WELL NUMBER MW2



GRIFFIN INTERNATIONAL, INC

DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6" OF SPOON & PID READINGS	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)	DEPTH IN FEET
0		ROAD BOX			0
0		LOCKING WELL CAP			0
0.5		CONCRETE		0.5' WATER TABLE	0.5
1		BENTONITE		ASPHALT over GRAVEL FILL	1
1		WELL RISER	1'-1.5'		1
2		SAND PACK	0.5 ppm	6" of moist, brown, fine and medium SAND with trace silt, over 12" of wet-moist, brown CLAY and SILT with fine and medium SAND, over wet, brown, medium and fine SAND with few coarse sand and trace small gravel and silt.	2
2		WELL SCREEN	1.5'-2.5'		2
3		BOTTOM CAP	0.5 ppm		3
3		UNDISTURBED NATIVE SOIL	2.5'-4.5'	Dry, brown CLAY with some silt.	3
4			0.5 ppm		4
4			4.5'-4.8'	BASE OF WELL AT 4.5'	4
5			0.5 ppm	END OF EXPLORATION AT 4.8'	5
6					6
7					7
8					8
9					9
10					10
11					11
12					12
13					13
14					14
15					15
16					16
17					17
18					18
19					19
20					20
21					21
22					22
23					23
24					24
25					25

PROJECT CHAMPLAIN VALLEY CLEANERS

LOCATION WILLISTON, VERMONT

DATE DRILLED 5/14/96 TOTAL DEPTH OF HOLE 4.7'

DIAMETER _____

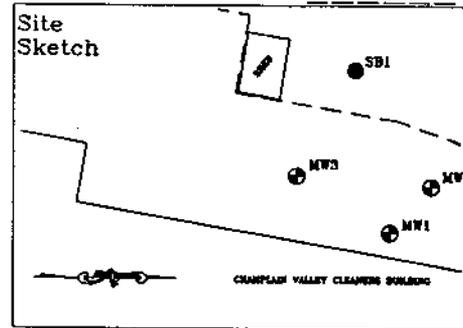
SCREEN DIA. 1" LENGTH 2.9' SLOT SIZE 0.010"

CASING DIA. 1" LENGTH 0.2' TYPE sch 40 PVC

DRILLING CO. ADAMS CONST. DRILLING METHOD VIBRATORY

DRILLER JERRY ADAMS LOG BY L. REED

WELL NUMBER MW3



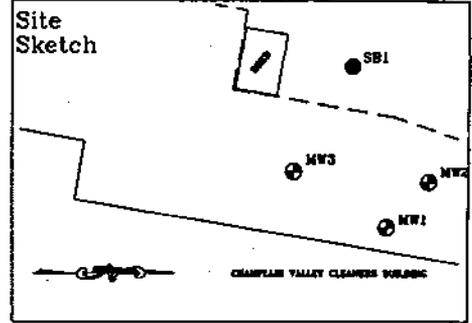
GRIFFIN INTERNATIONAL, INC

DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6" OF SPOON & PID READINGS	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)	DEPTH IN FEET	
0		ROAD BOX			0	
		LOCKING WELL CAP			0.5' WATER TABLE	0
1		CONCRETE		0'-1' 0.5 ppm		1
		BENTONITE		1'-1.5' 0.5 ppm	ASPHALT over SAND and GRAVEL FILL	1
2		WELL RISER		1.5'-3.0' 0.5 ppm	Moist, brown, fine and medium SAND, trace silt and small gravel.	2
		SAND PACK		3.0'-3.5' 0.5 ppm	Wet, SILT grading to moist brown CLAY.	3
3	WELL SCREEN			Moist to wet, brown, fine and medium SAND with few small gravel & trace clay.	4	
	BOTTOM CAP			Moist to dry CLAY with trace silt.	5	
4	BENTONITE			BASE OF WELL AT 3.5'	6	
5	UNDISTURBED NATIVE SOIL			END OF EXPLORATION AT 4.7'	6	
6					6	
7					7	
8					8	
9					9	
10					10	
11					11	
12					12	
13					13	
14					14	
15					15	
16					16	
17					17	
18					18	
19					19	
20					20	
21					21	
22					22	
23					23	
24					24	
25					25	

PROJECT CHAMPLAIN VALLEY CLEANERS

WELL NUMBER SB1

LOCATION WILLISTON, VERMONT



DATE DRILLED 5/14/96 TOTAL DEPTH OF HOLE 8.5'

DIAMETER _____

SCREEN DIA. N/A LENGTH N/A SLOT SIZE N/A

CASING DIA. N/A LENGTH N/A TYPE N/A

DRILLING CO. ADAMS CONST. DRILLING METHOD VIBRATORY

DRILLER JERRY ADAMS LOG BY L. REED

GRIFFIN INTERNATIONAL, INC

DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6" OF SPOON & PID READINGS	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)	DEPTH IN FEET	
0		GROUT	0'-5' 0.5 ppm	Moist at surface, otherwise dry, brown, dense CLAY with few silt, trace fine sand.	0	
1					1	
2					2	
3					3	
4					4	
5				5'-6' 0.5 ppm	Dry, same soil characteristics as above.	5
6				6'-7' 0 ppm	Dry, light brown very fine SAND with few silt, medium sand and small subrounded gravel. (Dense reworked till)	6
7				7'-8.5' 0 ppm	Dry, light brown very fine SAND with few medium sand and small subrounded gravel. (Dense reworked till)	7
8		UNDISTURBED NATIVE SOIL		END OF EXPLORATION AT 8.5' REFUSAL AT 8.5'	8	
9					9	
10					10	
11					11	
12					12	
13					13	
14					14	
15			15			
16			16			
17			17			
18			18			
19			19			
20			20			
21			21			
22			22			
23			23			
24			24			
25			25			

**Water Level Monitoring Data
Champlain Valley Cleaners
Williston, Vermont**

Monitoring Date: 5/16/96

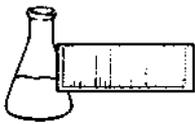
Well I.D.	Well Depth (ft < Grade)	Top of Casing Elevation	Depth To Water	Water Table Elevation
MW-1	2.90	100.00	0.85	99.15
MW-2	4.50	98.76	2.02	96.74
MW-3	3.50	99.93	0.67	99.26

Elevations Based on Arbitrary Datum With Top of MW1 Casing Set at 100.00 ft.

All Values Reported in feet.

APPENDIX 3

Laboratory Report Forms



ENDYNE, INC.

LTR
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

REPORT OF LABORATORY ANALYSIS

CLIENT: Griffin International
PROJECT NAME: Champlain Valley Cleaners
DATE REPORTED: May 22, 1996
DATE SAMPLED: May 16, 1996

PROJECT CODE: GICV1776
REF. #: 89,043 - 89,046

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody record.

Chain of custody indicated sample preservation with HCl.

All samples were prepared and analyzed by requirements outlined in the referenced methods and within the specified holding times.

All instrumentation was calibrated with the appropriate frequency and verified by the requirements outlined in the referenced methods.

Blank contamination was not observed at levels affecting the analytical results.

Analytical method precision and accuracy was monitored by laboratory control standards which included matrix spike, duplicate and quality control analyses. These standards were determined to be within established laboratory method acceptance limits.

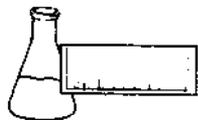
Individual sample performance was monitored by the addition of surrogate analytes to each sample. All surrogate data was determined to be within Laboratory QA/QC guidelines unless otherwise noted.

Reviewed by,

Harry B. Locker, Ph.D.
Laboratory Director

enclosures

RECEIVED JUN 24 1996



LABORATORY REPORT

EPA METHOD 8010 COMPOUNDS BY EPA METHOD 8260 -- PURGEABLE HALOCARBONS

CLIENT: Griffin International
PROJECT NAME: Champlain Valley Cleaners
REPORT DATE: May 22, 1996
SAMPLER: S. Bombardier
DATE SAMPLED: May 16, 1996
DATE RECEIVED: May 17, 1996

PROJECT CODE: GICV1776
ANALYSIS DATE: May 22, 1996
STATION: Trip Blank
REF.#: 89,043
TIME SAMPLED: 8:56

<u>Parameter</u>	<u>Minimum Detection Limit(ug/L)</u>	<u>Concentration (ug/L)</u>
Bromodichloromethane	1.	ND ¹
Bromoform	5.	ND
Bromomethane	5.	ND
Carbon tetrachloride	2.	ND
Chlorobenzene	2.	ND
Chloroethane	5.	ND
2-Chloroethylvinyl ether	5.	ND
Chloroform	10.	ND
Chloromethane	10.	ND
Dibromochloromethane	2.	ND
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Dichlorodifluoromethane	10.	ND
1,1-Dichloroethane	2.	ND
1,2-Dichloroethane	5.	ND
1,1-Dichloroethene	2.	ND
cis-1,2-Dichloroethene	2.	ND
trans-1,2-Dichloroethene	2.	ND
1,2-Dichloropropane	1.	ND
cis-1,3-Dichloropropene	1.	ND
trans-1,3-Dichloropropene	1.	ND
Methylene Chloride	20.	ND
1,1,2,2-Tetrachloroethane	1.	ND
Tetrachloroethene	2.	ND
1,1,1-Trichloroethane	1.	ND
1,1,2-Trichloroethane	2.	ND
Trichloroethene	1.	ND
Trichlorofluoromethane	2.	ND
Vinyl Chloride	10.	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

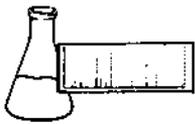
ANALYTICAL SURROGATE RECOVERY:

4-Bromofluorobenzene:	89%
Dibromofluoromethane:	87%
Toluene-d8:	106%

NOTES:

1 None detected

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LABORATORY REPORT

EPA METHOD 8010 COMPOUNDS BY EPA METHOD 8260 -- PURGEABLE HALOCARBONS

CLIENT: Griffin International
PROJECT NAME: Champlain Valley Cleaners
REPORT DATE: May 22, 1996
SAMPLER: S. Bombardier
DATE SAMPLED: May 16, 1996
DATE RECEIVED: May 17, 1996

PROJECT CODE: GICV1776
ANALYSIS DATE: May 21, 1996
STATION: MW 1
REF.#: 89,046
TIME SAMPLED: 10:48

<u>Parameter</u>	<u>Minimum Detection Limit(ug/L)</u>	<u>Concentration (ug/L)</u>
Bromodichloromethane	1.	ND ¹
Bromoform	5.	ND
Bromomethane	5.	ND
Carbon tetrachloride	2.	ND
Chlorobenzene	2.	ND
Chloroethane	5.	ND
2-Chloroethylvinyl ether	5.	ND
Chloroform	10.	ND
Chloromethane	10.	ND
Dibromochloromethane	2.	ND
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Dichlorodifluoromethane	10.	ND
1,1-Dichloroethane	2.	ND
1,2-Dichloroethane	5.	ND
1,1-Dichloroethene	2.	ND
cis-1,2-Dichloroethene	2.	39.7
trans-1,2-Dichloroethene	2.	ND
1,2-Dichloropropane	1.	ND
cis-1,3-Dichloropropene	1.	ND
trans-1,3-Dichloropropene	1.	ND
Methylene Chloride	20.	ND
1,1,2,2-Tetrachloroethane	1.	ND
Tetrachloroethene	2.	10,100.
1,1,1-Trichloroethane	1.	1.1
1,1,2-Trichloroethane	2.	ND
Trichloroethene	1.	85.5
Trichlorofluoromethane	2.	ND
Vinyl Chloride	10.	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 1

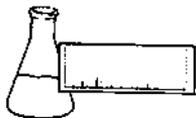
ANALYTICAL SURROGATE RECOVERY:

4-Bromofluorobenzene:	105%
Dibromofluoromethane:	95%
Toluene-d8:	92%

NOTES:

1 None detected

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32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

EPA METHOD 8010 COMPOUNDS BY EPA METHOD 8260 -- PURGEABLE HALOCARBONS

CLIENT: Griffin International
PROJECT NAME: Champlain Valley Cleaners
REPORT DATE: May 22, 1996
SAMPLER: S. Bombardier
DATE SAMPLED: May 16, 1996
DATE RECEIVED: May 17, 1996

PROJECT CODE: GICV1776
ANALYSIS DATE: May 21, 1996
STATION: MW 2
REF.#: 89,045
TIME SAMPLED: 10:36

<u>Parameter</u>	<u>Minimum Detection Limit(ug/L)</u>	<u>Concentration (ug/L)</u>
Bromodichloromethane	1.	ND ¹
Bromoform	5.	ND
Bromomethane	5.	ND
Carbon tetrachloride	2.	ND
Chlorobenzene	2.	ND
Chloroethane	5.	ND
2-Chloroethylvinyl ether	5.	ND
Chloroform	10.	ND
Chloromethane	10.	ND
Dibromochloromethane	2.	ND
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Dichlorodifluoromethane	10.	ND
1,1-Dichloroethane	2.	ND
1,2-Dichloroethane	5.	ND
1,1-Dichloroethene	2.	ND
cis-1,2-Dichloroethene	2.	7.1
trans-1,2-Dichloroethene	2.	ND
1,2-Dichloropropane	1.	ND
cis-1,3-Dichloropropene	1.	ND
trans-1,3-Dichloropropene	1.	ND
Methylene Chloride	20.	ND
1,1,2,2-Tetrachloroethane	1.	ND
Tetrachloroethene	2.	10.2
1,1,1-Trichloroethane	1.	ND
1,1,2-Trichloroethane	2.	ND
Trichloroethene	1.	12.5
Trichlorofluoromethane	2.	ND
Vinyl Chloride	10.	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

ANALYTICAL SURROGATE RECOVERY:

4-Bromofluorobenzene: 99%
Dibromofluoromethane: 98%
Toluene-d8: 117%

NOTES:

1 None detected

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LABORATORY REPORT

EPA METHOD 8010 COMPOUNDS BY EPA METHOD 8260 -- PURGEABLE HALOCARBONS

CLIENT: Griffin International
PROJECT NAME: Champlain Valley Cleaners
REPORT DATE: May 22, 1996
SAMPLER: S. Bombardier
DATE SAMPLED: May 16, 1996
DATE RECEIVED: May 17, 1996

PROJECT CODE: GICV1776
ANALYSIS DATE: May 22, 1996
STATION: MW 3
REF.#: 89,044
TIME SAMPLED: 10:20

<u>Parameter</u>	<u>Minimum Detection Limit(ug/L)</u>	<u>Concentration (ug/L)</u>
Bromodichloromethane	1.	ND ¹
Bromoform	5.	ND
Bromomethane	5.	ND
Carbon tetrachloride	2.	ND
Chlorobenzene	2.	ND
Chloroethane	5.	ND
2-Chloroethylvinyl ether	5.	ND
Chloroform	10.	ND
Chloromethane	10.	ND
Dibromochloromethane	2.	ND
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Dichlorodifluoromethane	10.	ND
1,1-Dichloroethane	2.	ND
1,2-Dichloroethane	5.	ND
1,1-Dichloroethene	2.	ND
cis-1,2-Dichloroethene	2.	ND
trans-1,2-Dichloroethene	2.	ND
1,2-Dichloropropane	1.	ND
cis-1,3-Dichloropropene	1.	ND
trans-1,3-Dichloropropene	1.	ND
Methylene Chloride	20.	ND
1,1,2,2-Tetrachloroethane	1.	ND
Tetrachloroethene	2.	TBQ ²
1,1,1-Trichloroethane	1.	ND
1,1,2-Trichloroethane	2.	ND
Trichloroethene	1.	ND
Trichlorofluoromethane	2.	ND
Vinyl Chloride	10.	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 1

ANALYTICAL SURROGATE RECOVERY:

4-Bromofluorobenzene:	93%
Dibromofluoromethane:	92%
Toluene-d8:	109%

NOTES:

- 1 None detected
- 2 Trace below quantitation limit

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CHAIN-OF-CUSTODY RECORD

GI # 3965174

Project Name: Champlain Valley Cleaners	Reporting Address: Griffin International	Billing Address: ← SAME
Site Location: Williston, Vermont	P.O. Box 943 Williston, Vermont	
Endyne Project Number: GICV1776	Company: Griffin S. Bombardier	Sampler Name: S. Bombardier
	Contact Name/Phone #: 802 865 4288	Phone #: (802) 865-4288

Lab #	Sample Location	Matrix	G R A B	C O M P	Date/Time	Sample Containers		Field Results/Remarks	Analysis Required	Sample Preservation	Rush
						No.	Type/Size				
89,043	Trip Blank	GW	✓		5-16-96 8:56	2	40MLG		8010	HCL	
89,044	MW3	↓	↓		10:20	↓	↓		↓	↓	
89,045	MW2	↓	↓		10:36	↓	↓		↓	↓	
89,046	MW1	↓	↓		10:48	↓	↓		↓	↓	

Relinquished by: Signature <i>Stephen Bombardier</i>	Received by: Signature <i>Beth Ward</i>	Date/Time 5-17-96 9:07
Relinquished by: Signature <i>Beth Ward</i>	Received by: Signature <i>Lorna M. Chambers</i>	Date/Time 5-17-96 10:00

New York State Project: Yes No

Requested Analyses

1	pH	6	TKN	11	Total Solids	16	Metals (Specify)	21	EPA 624	26	EPA 8270 B/N or Acid
2	Chloride	7	Total P	12	TSS	17	Coliform (Specify)	22	EPA 625 B/N or A	27	EPA 8010/8020
3	Ammonia N	8	Total Diss. P	13	TDS	18	COD	23	EPA 418.1	28	EPA 8080 Pest/PCB
4	Nitrite N	9	BOD ₅	14	Turbidity	19	BTEX	24	EPA 608 Pest/PCB		
5	Nitrate N	10	Alkalinity	15	Conductivity	20	EPA 601/602	25	EPA 8240		
29	TCPLP (Specify: volatiles, semi-volatiles, metals, pesticides, herbicides)										
30	Other (Specify):										