

THE JOHNSON COMPANY, INC.

**Environmental Sciences and Engineering**

October 8, 1996

Mr. Matthew Moran  
Waste Management Division  
Department of Environmental Conservation  
103 South Main Street/West Office  
Waterbury, Vermont 05671-0404

RECEIVED  
OCT 9 11 33 AM '96

Re: Completion of Site Investigation at Basin Restaurant Property, Sherburne, Vermont.  
Site #96-1991. JCO No. 1-2032-1.

Dear Matt:

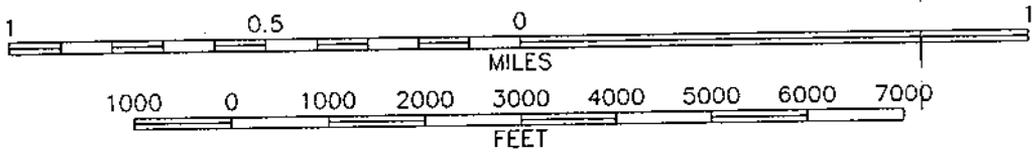
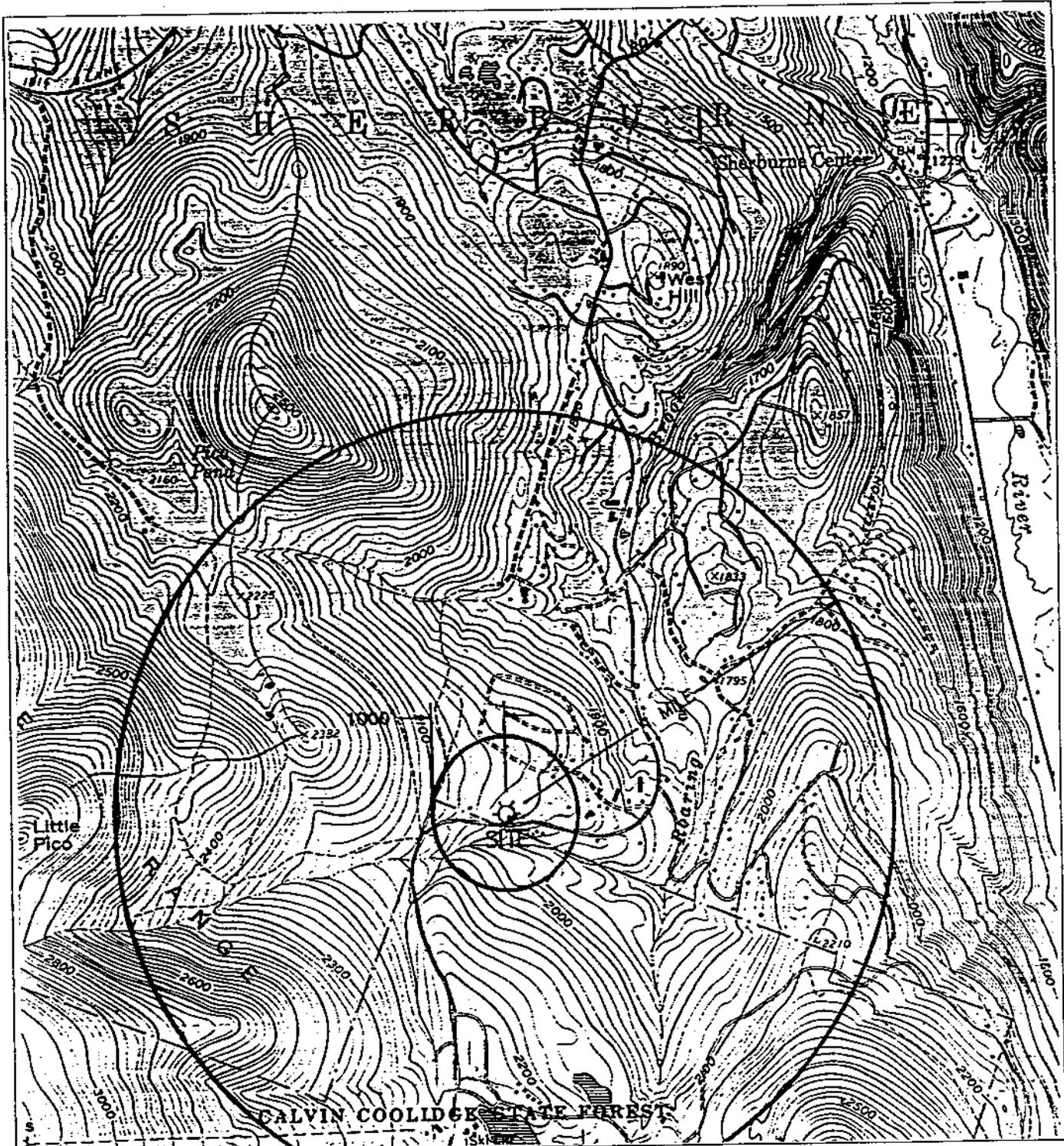
The Johnson Company has recently completed the site investigation for the referenced project. The investigation consisted of the installation of three groundwater monitoring wells on the property as a follow-up to a fuel-oil underground storage tank (UST) closure performed on April 19, 1996. Groundwater samples collected from each of the three groundwater monitoring wells exhibited low concentrations of petroleum-related hydrocarbons. All concentrations were below Vermont Groundwater Enforcement Standards. We are recommending that this property be assigned Site Management Activities Completed (SMAC) status by the Department of Environmental Conservation (DEC). A detailed description of the investigation, and our conclusions and recommendations, follow.

### 1.0 INTRODUCTION

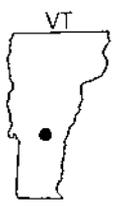
The Basin Restaurant property is located on the Killington Ski Area access road in Sherburne, Vermont (Figure 1). On April 19, 1996, a 1,000-gallon UST used to store #2 fuel oil (heating oil) was excavated and removed from the property. The Johnson Company performed an environmental assessment during the UST closure which was detailed in an April 29, 1996 letter to Mr. Ted Unkles of the DEC's Underground Storage Tank Program. Due to the poor condition of the UST and elevated concentrations of volatile organic compound (VOC) vapors noted during the environmental assessment, the DEC's Sites Management Section (SMS) requested that additional investigation work be performed at the property. Mr. Matthew Moran of the SMS indicated in a May 31, 1996 letter to Mr. Rick Torrey, the property owner, that additional work be performed on the property to determine the degree and extent of soil and groundwater contamination, identify any sensitive receptors that may exist in the area, and develop a monitoring plan for the petroleum-contaminated soils that are stockpiled on the property. The Johnson Company submitted a Site Investigation Expressway form to the DEC on June 26, 1996 and we proceeded with the investigation.

### 2.0 SITE INVESTIGATION

Site investigation activities were performed under the direction of The Johnson Company on August 21, 1996. A site sketch map is included as Figure 2.



CONTOUR INTERVAL 20 FEET

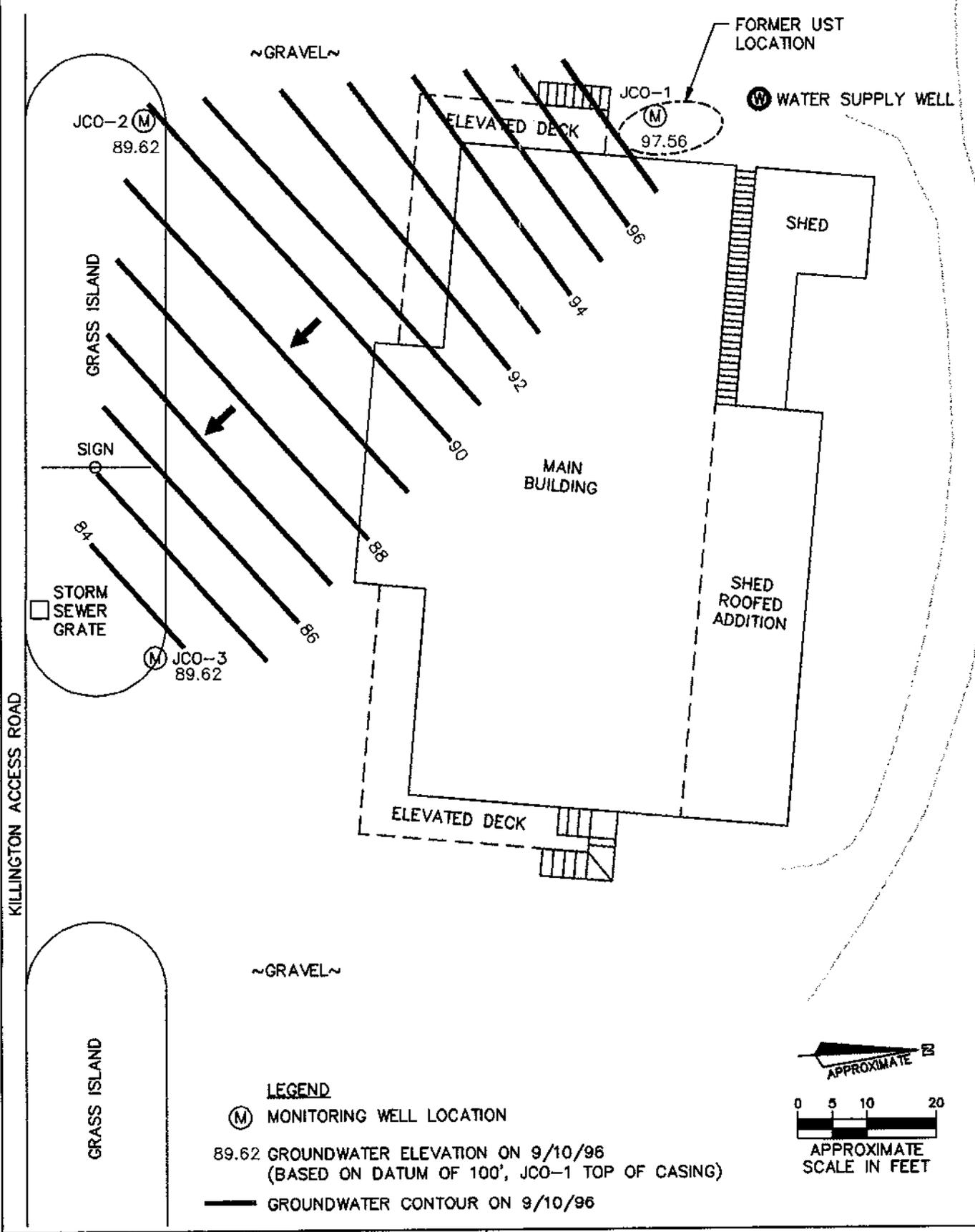


MAP LOCATION

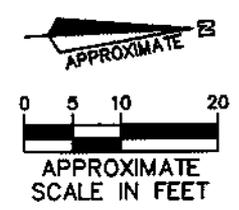
BASE MAP: USGS 7.5 Minute Topographic Quadrangle PICO PEAK, VT 1961 PHOTOREMSED 1980.

FIGURE 1 : Site Location Map  
 BASIN RESTAURANT PROPERTY  
 SHERBURNE, VERMONT

**THE JOHNSON COMPANY, INC.**  
*Environmental Sciences and Engineering*  
 100 STATE STREET      MONTPELIER, VT 05602



**LEGEND**  
 (M) MONITORING WELL LOCATION  
 89.62 GROUNDWATER ELEVATION ON 9/10/96  
 (BASED ON DATUM OF 100', JCO-1 TOP OF CASING)  
 — GROUNDWATER CONTOUR ON 9/10/96



GROUNDWATER CONTOUR MAP - 9/10/96  
 TORREY PROPERTY  
 KILLINGTON, VERMONT

**THE JOHNSON COMPANY, INC.**  
*Environmental Sciences and Engineering*  
 100 STATE STREET  
 MONTPELIER, VT 05602

## **2.1 SOIL SCREENING AND MONITORING WELL INSTALLATION**

### **2.1.1 Soil Screening**

Soil borings were completed and monitoring wells were installed at three locations on the property by Adams Engineering of Underhill, Vermont under the supervision of Johnson Company personnel (Figure 2). At the location of monitoring well JCO-1 (at the location of the former UST), the soil boring was completed using Adams Engineering's three-inch diameter vibratory coring tool that collects a continuous soil core during the advancement of the borehole allowing for detailed characterization of the soils and detailed profiling of VOC vapors using a photoionization detector (PID). At depths greater than 3.8 feet at the location of monitoring well JCO-2 and for the entire borehole at the location of monitoring well JCO-3, four-inch diameter solid stem augers were used to advance the boreholes due to difficult, rocky drilling conditions. Therefore, less detailed soil information was collected at these locations because only the cuttings from the augering were available for inspection and PID screening. Monitoring wells JCO-2 and JCO-3 are located hydraulically downgradient of monitoring well JCO-1.

Where possible, PID readings of the soils were collected using a PID that was calibrated on-site at the initiation of the investigation. The PID used was a Thermo Environmental Model 580B OVM calibrated to 100 parts per million (ppm) isobutylene gas. After calibration, the PID recorded 99.3 ppm while measuring the 100 ppm isobutylene gas. PID readings of the soil samples were performed by placing soil samples in resealable plastic bags, agitating the contents, and allowing the soil to sit at ambient conditions for a minimum of 15 minutes at which time the tip of the PID was inserted into the bag and the maximum reading was recorded. Detailed boring logs, including soil descriptions and PID readings, are included in Attachment 1.

The native soils on the property primarily consist of glacial till with a silty sand matrix. Over six feet of sand fill was present at the location of monitoring well JCO-1, the former UST location. It was at this location where, in the sandy silt strata present from 6.3 to 7.2 feet below ground surface, the highest PID reading of 27 ppm was noted. All other PID readings noted were below 9 ppm. PID readings were collected at the location of monitoring well JCO-2 only to a depth of three feet (highest reading = 0.5 ppm), and no PID readings were collected at the location of monitoring well JCO-3 due to the drilling methodology. However, at each of these locations, no visible contamination of the soils or petroleum-related odors were noted during the completion of the boreholes.

### **2.1.2 Monitoring Well Installation and Sampling**

After the completion of each of the boreholes, 1½-inch diameter PVC monitoring wells were installed. Construction of each of the monitoring wells can be noted on the well logs in Attachment 1. Each of the wells has a 10-foot screened interval. Monitoring well JCO-1 was installed in saturated soils in the borehole created by the vibratory coring tool. Some of the saturated soils collapsed into the borehole upon the tool's removal and the PVC well was equipped with a point and driven to the desired depth using the vibratory coring rig. The screen in this well is, therefore, surrounded by native/backfill material. Monitoring wells JCO-2 and JCO-3 were not saturated at the time of drilling, and the PVC wells were placed into the boreholes and the screened sections were sandpacked. All wells were constructed with a bentonite seal to prevent the infiltration of surface water and with flush-mounted,

cemented well guards. After completion of the monitoring wells, their locations were surveyed for both horizontal and vertical location by Adams Engineering.

The monitoring wells were sampled by The Johnson Company on September 10, 1996. Prior to sampling, the water levels and total depths of each of the monitoring wells was measured to determine the required volume to be purged prior to sampling and to enable the construction of a groundwater flow direction map. Groundwater samples were collected after purging each of the monitoring wells using a decontaminated PVC bailer. The groundwater samples and a trip blank for quality assurance/quality control purposes were submitted to Scitest Laboratory Services of Randolph, Vermont for analysis for petroleum-contaminated VOC's using Environmental Protection Agency (EPA) Method 8020 which uses gas chromatography. A summary of the analytical results can be noted in Table 1. The complete analytical report is included in Attachment 2. The groundwater contour map developed from the September 10, 1996 groundwater level data can be noted on Figure 2. The horizontal flow of groundwater is towards the southeast at an approximate gradient of 0.14 ft/ft.

It is possible that the depth to groundwater in monitoring well JCO-1 is artificially high because the former UST location is beneath the drip edge of the building's roof, and precipitation water may collect in the non-native fill soils above the more dense, native glacial till soils. On September 10, 1996, the depth to groundwater in monitoring well JCO-1 was 2.74 feet below ground surface (fbgs) and the depth to groundwater in monitoring well JCO-2, located at essentially the same elevation as JCO-1, was 10.85 fbgs. Therefore, the actual groundwater flow direction in the native overburden may be more towards the east than indicated by the groundwater contours presented on Figure 2. This, however, does not affect the conclusions of the site investigation.

Table 1: Groundwater Analytical Results Summary ( $\mu\text{g/L}$ )				
Analyte	JCO-1	JCO-2	JCO-3	Groundwater Enforcement Standard
Benzene	1	1	BPQL	5
Toluene	5	10	2	2420
MTBE	1	BPQL	BPQL	40

$\mu\text{g/L}$  = micrograms per liter  
MTBE = methyl tertiary butyl ether  
BPQL = below practical quantitation limit, 1  $\mu\text{g/L}$

As can be noted, the concentrations of detected petroleum-related VOCs in the groundwater beneath the property are quite low, and in all cases lower than the Vermont Groundwater Enforcement Standards. The detection of MTBE in monitoring well JCO-1, at the detection limit of 1  $\mu\text{g/L}$ , is questionable because MTBE is not an additive usually used in #2 fuel oil. It is likely that this

questionable result would have been eliminated had the sample been analyzed using a gas chromatography/mass spectrometry analytical method, such as EPA Method 8260. In any case, the noted concentration is so low as to not be of concern.

## **2.2 RECEPTOR SURVEY**

The receptor survey completed by The Johnson Company included a visual inspection of nearby properties to determine if there are any sensitive receptors in the vicinity of the Basin Restaurant property. Other than the 300-foot deep drilled bedrock well that serves the property located six feet northwest of the former UST (see well log, Attachment 3), no sensitive receptors were identified. The Basin Restaurant building is constructed on a concrete slab. The nearest building hydraulically downgradient is the so-called Killington Mall which houses an assortment of retail shops and restaurants. This is located approximately 300 feet east-southeast of the Basin Restaurant property on the opposite (i.e., south) side of the access road. This building is likely served by its own water supply and municipal sewer, as are most of the businesses along the access road. However, based on the soil and groundwater quality information collected during the investigation, it is unlikely that soil or groundwater quality at the Killington Mall property has been compromised by the former fuel oil UST at the Basin Restaurant property. A groundwater sample collected from the Basin Restaurant well during the UST closure revealed no petroleum-related contamination.

A buried telephone cable and storm sewer line pass in front of the property beneath the northern edge of the Killington Ski Area access road. Based on the depths to groundwater measured in monitoring wells JCO-2 and JCO-3 measured on September 10, 1996 (10.85 fbs and 13.91 fbs, respectively), it is unlikely that groundwater would enter these potential preferential pathways except, possibly, during periods of high groundwater (e.g., Spring runoff). No petroleum-related odors or elevated PID readings were noted at the locations of monitoring wells JCO-2 and JCO-3. Therefore, it is unlikely that elevated concentrations of VOC vapors would accumulate or migrate in these preferential pathways.

## **2.3 SOIL STOCKPILE**

We propose that the existing polyencapsulated petroleum-contaminated soil stockpile on the property be screened once annually with a PID to determine its suitability for reuse on the property. The first screening of the soil should take place in April 1997. When readings at various locations around and within the soil stockpile are all less than 1 ppm, the soil can be thin-spread on the property as specified in the Agency Guidelines for Petroleum Contaminated Soils and Debris. In the interim, we recommend that a monthly inspection of the polyencapsulated stockpile be conducted to ensure that the soil remains adequately covered with the plastic sheeting.

Mr. Matthew Moran  
Waste Management Division  
Department of Environmental Conservation  
Waterbury, Vermont

October 8, 1996  
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### 3.0 CONCLUSIONS AND RECOMMENDATIONS

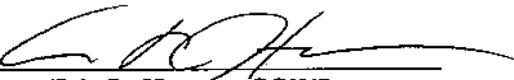
The soil screening and groundwater sampling results from this investigation indicate that the petroleum-related contamination at the Basin Restaurant property is of low concentration and minimal areal extent. No sensitive receptors are threatened by the noted contamination. The small stockpile of petroleum-contaminated soils poses little risk as long as the polyencapsulation is maintained.

Because the minimal contamination noted at this property is below applicable enforcement standards, and because the contaminant source (the UST and the majority of the residual contaminated soil) has been removed, we recommend that this site be assigned SMAC status.

If you have any questions, please do not hesitate to call.

Respectfully Submitted,

THE JOHNSON COMPANY, INC.

By:   
Eric R. Hanson, CGWP  
Project Hydrologist

cc: Rick Torrey

**Attachment 1**  
**Monitoring Well Logs**

The Johnson Company, Inc.  
 Environmental Sciences and Engineering  
 100 State Street  
 Montpelier, Vermont 05602

DRILLING LOG  
 WELL # JCO-1

Project: Torrey  
 Location: Killington Access Rd., VT  
 Job # 1-2032-1  
 Logged By: ERH  
 Date Drilled: 8/21/96  
 Driller: Adams Engineering  
 Drill Method: Vibratory Coring

Casing Type: PVC  
 Casing Diameter: 1.5 in.  
 Casing Length: 4.7 ft.  
 Screen Type: PVC  
 Screen Diameter: 1.5 in.  
 Screen Length: 10.0 ft.  
 Slot Size: .010"

Total Pipe: 14.7 ft.  
 Stick Up: -0.3 ft.  
 Total Hole Depth: 15.0 ft.  
 Well Guard Length: 1.0 ft.  
 Initial Water Level: 97.6 ft.  
 Surface Elevation: -  
 T.O.C. Elevation: 100.00'

■ = Sampled Interval

Sheet 1 of 1

Depth (feet)	Well Construction	Notes	Geology	PID Reading	Description
5					
4					
3					
2					
1					
0		Well Guard			0-1': brn, dmp, loose, pebbly snd fill.
		Cement			
1		Bentonite		8.3	1-2': olive gry, sat, fri, slty snd w/rounded pebs & stones.
2					
3					
4					
5				6.2	5-6.3': dk brn, sat, loose, med-cse snd (likely fill).
6					
7				27.0	6.3-7.2': dk olive brn, sat, fri, sndy slt w/subang pebs & stones.
8		Backfill		2.6	7.2-8.3': tan, damp, firm, slty snd till.
9					
10				4.6	10-12': brn, sat, loose, cse slty snd w/pebs (likely spoil).
11					
12		Screen		2.1	12-12.8': tan, sat, fri, sndy slt w/few subang stones (likely spoil).
13				1.7	12.8-14.5': gry, dmp, v.firm, slty snd till w/subang stones.
14					
15					
16					
17					

The Johnson Company, Inc.  
 Environmental Sciences and Engineering  
 100 State Street  
 Montpelier, Vermont 05602

DRILLING LOG  
 WELL # JCO-2

Project: Torrey  
 Location: Killington Access Rd., VT  
 Job # 1-2032-1  
 Logged By: ERH  
 Date Drilled: 8/21/96  
 Driller: Adams Engineering  
 Drill Method: Vibratory Coring/SSA

Casing Type: PVC  
 Casing Diameter: 1.5 in.  
 Casing Length: 7.9 ft.  
 Screen Type: PVC  
 Screen Diameter: 1.5 in.  
 Screen Length: 10.0 ft.  
 Slot Size: .010"

Total Pipe: 17.9 ft.  
 Stick Up: -0.5 ft.  
 Total Hole Depth: 18.5 ft.  
 Well Guard Length: 1.0 ft.  
 Initial Water Level: 89.6 ft.  
 Surface Elevation: -  
 T.O.C. Elevation: 99.97'

█ = Sampled Interval

Sheet 1 of 1

Depth (feet)	Well Construction	Notes	Geology	PID Reading	Description
5					
4					
3					
2					
1					
0					
1	Well Guard				
1	Cement				
2	Backfill			0.3	0-1.2': 0.4' brn snd loam topsoil over brn, hum, loose, snd loam w/rounded pebs and stones.
3				0.5	
4	Bentonite				1.2-2.2': dk brn, hum, fri, sndy slt loam w/few subang pebs.
5					
6					
7					
8					2.2-3': dk brn, moist, fri, slt loam w/subang pebs & stones. Refusal with vibratory coring tools on stones.
9					
10					
11					
12	Sand Pack				
13					
14					
15	Screen				3-18.5': lt brn, hum-dmp, slty snd w/subang pebs & stones (based on inspection of cuttings from solid stem auger).
16					
17					
18					
19					
20					
21					
22					
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The Johnson Company, Inc.  
 Environmental Sciences and Engineering  
 100 State Street  
 Montpelier, Vermont 05602

DRILLING LOG  
 WELL # JCO-3

Project: Torrey  
 Location: Killington Access Rd., VT  
 Job # 1-2032-1  
 Logged By: ERH  
 Date Drilled: 8/21/96  
 Driller: Adams Engineering  
 Drill Method: SSA

Casing Type: PVC  
 Casing Diameter: 1.5 in.  
 Casing Length: 12.0 ft.  
 Screen Type: PVC  
 Screen Diameter: 1.5 in.  
 Screen Length: 10.0 ft.  
 Slot Size: .010"

Total Pipe: 22.0 ft.  
 Stick Up: -0.5 ft.  
 Total Hole Depth: 22.5 ft.  
 Well Guard Length: 1.0 ft.  
 Initial Water Level: 83.5 ft.  
 Surface Elevation: -  
 T.O.C. Elevation: 96.94'

█ = Sampled Interval

Sheet 1 of 1

Depth (feet)	Well Construction	Notes	Geology	PID Reading	Description
5					
4					
3					
2					
1					
0					
1	█	Well Guard	[Cross-hatched pattern]		0-22.5': lt brn, humid, slty snd. No visible discoloration or odor (based on inspection of cuttings from solid stem auger).
1	█	Cement			
2	█	Backfill			
3	█	Bentonite			
4	█				
5	█				
6	█				
7	█	Backfill			
8	█				
9	█				
10	█				
11	█				
12	█				
13	█				
14	█				
15	█				
16	█	Sand Pack			
17	█				
18	█				
19	█	Screen			
20	█				
21	█				
22	█				
23					
24					
25					
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**Attachment 2**  
**Laboratory Analytical Report**



**SCITEST**  
LABORATORY SERVICES

ANALYTICAL REPORT

**RECEIVED**  
SEP 23 1996  
JOHNSON CO. INC.  
MONTEPELIER, VT  
Work Order No.: 9609-02929

P.O. Box 539  
Randolph, Vermont 05060-0339  
(802) 728-6343

The Johnson Company  
100 State Street  
Montpelier, VT 05602

Project Name: Torrey Site  
Customer Nos.: 078611

Date Received: 9/10/96  
Date Reported: 9/20/96

Sample Desc.: JCO-3

Sample Date: 9/10/96

Sample Nos: 1

Collection Time: 11:20

Test Performed	Method	Results	Units	Analyst	Analysis Date
Aromatic Volatile Organics	EPA 8020			JPM	9/19/96
Methyl Tertiary Butyl Ether	EPA 8020	BPQL	ug/L	JPM	9/19/96
Benzene	EPA 8020	BPQL	ug/L	JPM	9/19/96
Toluene	EPA 8020	2	ug/L	JPM	9/19/96
Ethyl Benzene	EPA 8020	BPQL	ug/L	JPM	9/19/96
Total Xylenes	EPA 8020	BPQL	ug/L	JPM	9/19/96
Chlorobenzene	EPA 8020	BPQL	ug/L	JPM	9/19/96
1,2-Dichlorobenzene	EPA 8020	BPQL	ug/L	JPM	9/19/96
1,3-Dichlorobenzene	EPA 8020	BPQL	ug/L	JPM	9/19/96
1,4-Dichlorobenzene	EPA 8020	BPQL	ug/L	JPM	9/19/96
Surrogate: 8020				JPM	9/19/96
***Bromofluorobenzene-8020		99	% Recovery	JPM	9/19/96

Sample Desc.: JCO-2

Sample Date: 9/10/96

Sample Nos: 2

Collection Time: 11:40

Test Performed	Method	Results	Units	Analyst	Analysis Date
Aromatic Volatile Organics	EPA 8020			JPM	9/19/96
Methyl Tertiary Butyl Ether	EPA 8020	BPQL	ug/L	JPM	9/19/96
Benzene	EPA 8020	1	ug/L	JPM	9/19/96
Toluene	EPA 8020	10	ug/L	JPM	9/19/96
Ethyl Benzene	EPA 8020	BPQL	ug/L	JPM	9/19/96
Total Xylenes	EPA 8020	BPQL	ug/L	JPM	9/19/96
Chlorobenzene	EPA 8020	BPQL	ug/L	JPM	9/19/96
1,2-Dichlorobenzene	EPA 8020	BPQL	ug/L	JPM	9/19/96
1,3-Dichlorobenzene	EPA 8020	BPQL	ug/L	JPM	9/19/96
1,4-Dichlorobenzene	EPA 8020	BPQL	ug/L	JPM	9/19/96
Surrogate: 8020				JPM	9/19/96
***Bromofluorobenzene-8020		99	% Recovery	JPM	9/19/96

## ANALYTICAL REPORT

Project Name: Torrey Site  
Project No.: 078611

Work Order No.: 9609-02929

Sample Desc.: JCO-1	Method	Results	Units	Sample Date: 9/10/96	Collection Time: 12:10	Analyst	Analysis Date
Sample Nos: 3							
Test Performed							
Aromatic Volatile Organics	EPA 8020			JPM			9/19/96
Methyl Tertiary Butyl Ether	EPA 8020	1	ug/L	JPM			9/19/96
Benzene	EPA 8020	1	ug/L	JPM			9/19/96
Toluene	EPA 8020	5	ug/L	JPM			9/19/96
Ethyl Benzene	EPA 8020	BPQL	ug/L	JPM			9/19/96
Total Xylenes	EPA 8020	BPQL	ug/L	JPM			9/19/96
Chlorobenzene	EPA 8020	BPQL	ug/L	JPM			9/19/96
1,2-Dichlorobenzene	EPA 8020	BPQL	ug/L	JPM			9/19/96
1,3-Dichlorobenzene	EPA 8020	BPQL	ug/L	JPM			9/19/96
1,4-Dichlorobenzene	EPA 8020	BPQL	ug/L	JPM			9/19/96
Surrogate: 8020				JPM			9/19/96
***Bromofluorobenzene-8020		104	% Recovery	JPM			9/19/96

Sample Desc.: Trip Blank	Method	Results	Units	Sample Date: 9/10/96	Collection Time: 0:00	Analyst	Analysis Date
Sample Nos: 4							
Test Performed							
Aromatic Volatile Organics	EPA 8020			JPM			9/19/96
Methyl Tertiary Butyl Ether	EPA 8020	BPQL	ug/L	JPM			9/19/96
Benzene	EPA 8020	BPQL	ug/L	JPM			9/19/96
Toluene	EPA 8020	BPQL	ug/L	JPM			9/19/96
Ethyl Benzene	EPA 8020	BPQL	ug/L	JPM			9/19/96
Total Xylenes	EPA 8020	BPQL	ug/L	JPM			9/19/96
Chlorobenzene	EPA 8020	BPQL	ug/L	JPM			9/19/96
1,2-Dichlorobenzene	EPA 8020	BPQL	ug/L	JPM			9/19/96
1,3-Dichlorobenzene	EPA 8020	BPQL	ug/L	JPM			9/19/96
1,4-Dichlorobenzene	EPA 8020	BPQL	ug/L	JPM			9/19/96
Surrogate: 8020				JPM			9/19/96
***Bromofluorobenzene-8020		99	% Recovery	JPM			9/19/96

BPQL = Below Practical Quantitation Limit; 1 ug/L

ANALYTICAL REPORT

Project Name: Torrey Site  
Project No.: 078611

Work Order No.: 9609-02929

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Authorized by: Robert Lemath

**Scitest, Inc.**

P.O. Box 339

Route 66 Professional Center, Randolph, VT 05060

Phone: (802)728-6313 Fax: (802)728-6044

Client: The Johnson Company  
Address 100 State Street  
Montpelier, VT 05602

Sample Logged in By: AGB

Anomaly Sheet: Y    N   

Preservative Check:

Temperature Check:   

~~Forest~~  
Torrey site

Contact **Warren Davey**

Customer Nos: 78611

Project:

Job Template:

Date requested: 09/03/96

Date shipped: 9/3 w/Rod

Date scheduled:

Phone No 229-4600

**CHAIN OF CUSTODY**

Sampled by:	Date	Time	Print Name Here:	Date	Time
<u>Warren Davey</u>			Warren P. Davey		
Relinquished by: <u>Warren Davey</u>	9-10-96	12:40	Accepted by:		
Relinquished by:			Received by Scitest: <u>[Signature]</u>	9/10/96	12:40

Item Nos	Client ID or Description	Sample		Matrix	Preservative	Container Material	Container Volume	Containers per Sample	Parameters
		Date	Time						
1	JCO-3	9-10-96	11:20	GW	HCl	Glass	40 mL	2	EPA 8260 8020
2	JCO-2	↓	11:40	GW	HCl	Glass	40 mL	2	EPA 8260
3	JCO-1	↓	12:10	GW	HCl	Glass	40 mL	2	EPA 8260
4	Trip blank	9-3-96	-	<del>DIC</del>	HCl	Glass	40 mL	2	EPA 8260
5				GW	HCl	Glass	40 mL	2	EPA 8260
6				GW	HCl	Glass	40 mL	2	EPA 8260
7				GW	HCl	Glass	40 mL	2	EPA 8260
8				GW	HCl	Glass	40 mL	2	EPA 8260
9				GW	HCl	Glass	40 mL	2	EPA 8260
10				GW	HCl	Glass	40 mL	2	EPA 8260

include GOC copy in report  
1-29

X

<p><b>SAMPLES MUST REACH THE LAB</b> within _____ of sampling time to meet all holding times.</p>	<p>Parameters are correct as listed Client initial: _____ Please fill in ALL areas marked with an asterisk (*). Thank you. Additional instruction if applicable are attached.</p>	<p>Scitest Work Order: <u>9609-02929</u></p>
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**Attachment 3**  
**Water Supply Well Log**

WELL NO. / TAG NO

1993-82

(For Driller's Use)

This report must be completed and submitted to the Department of Environmental Conservation Water Supply Division, 103 South Main Street, The Old Pantry, Waterbury, VT 05671-0403 no later than 60 days after completion of the well.

State of Vermont  
Dept. of Environmental Conservation  
103 S. Main St., The Old Pantry  
Waterbury, VT 05671-0403

WELL COMPLETION REPORT

JAN 3 1994

Location map attached to WCR

DEPARTMENT USE ONLY

E.C. 711 U.S.G.S.  
Field Location  Map area 26Cb  
Latitude \_\_\_\_\_ Elev. \_\_\_\_\_  
Longitude \_\_\_\_\_ Topo. \_\_\_\_\_  
Scale: 62,500  25,000  24,000   
Data in Town Files

1. WELL OWNER: BASIL RESTAURANT & TAVERN ACCESS Rd. WILLINGTON, VT.  
OR  
WELL PURCHASER \_\_\_\_\_

2. LOCATION OF WELL: TOWN SHERBURNE SUBDIVISION \_\_\_\_\_ LOT NO. \_\_\_\_\_

3. DATE WELL WAS COMPLETED 11-30-93

4. PROPOSED USE OF WELL:  Domestic  Commercial

5. REASON FOR DRILLING WELL:  New Supply,  Replace Existing Supply,  Deepen Existing Well,  Test or Exploration,  
 Provide Additional Supply,  Other \_\_\_\_\_

6. DRILLING EQUIPMENT:  Cable Tool,  Rotary with A-P,  Other \_\_\_\_\_

7. TYPE OF WELL:  Open Hole in Bedrock,  Open End Casing,  Screened or Slotted,  Other \_\_\_\_\_

8. TOTAL DEPTH OF WELL: 300 feet below land surface

9. CASING FINISH:  Above ground, finished,  Above ground, unfinished,  Buried,  In Pit,  Removed,  Tens Lead,  Other \_\_\_\_\_

10. CASING DETAILS: Total length \_\_\_\_\_ ft. Length below L.S. \_\_\_\_\_ ft. Dia. 6 in. Material STEEL Wt. 19 lb./ft.

11. LINER OR INNER CASING DETAILS: Length used \_\_\_\_\_ ft. Diameter \_\_\_\_\_ in. Material \_\_\_\_\_ Weight \_\_\_\_\_ lb./ft.

12. METHOD OF SEALING CASING TO BEDROCK:  Drive Shoe,  Grout - Type \_\_\_\_\_, Drilled \_\_\_\_\_ in. hole \_\_\_\_\_ ft. in bedrock  
 Other \_\_\_\_\_

13. SCREEN DETAILS: Make and Type \_\_\_\_\_ Material \_\_\_\_\_ Length \_\_\_\_\_ ft. Diameter \_\_\_\_\_ in.  
Slot Size \_\_\_\_\_ in. Begin to top of screen in feet below land surface \_\_\_\_\_ ft. Gravel pack if used, Gravel Size or Type \_\_\_\_\_

14. YIELD TEST:  Galley,  Pumped,  Compressed Air, for 1 hour at 20 Gallons per minute  
Measured to  Surface,  Gravel top,  Water,  Water  Permanent Aquifer Indicator

15. STATIC WATER LEVEL: 0 feet below land surface, Date or Time measured 12-1-93, Overhaul at \_\_\_\_\_ G.P.M.

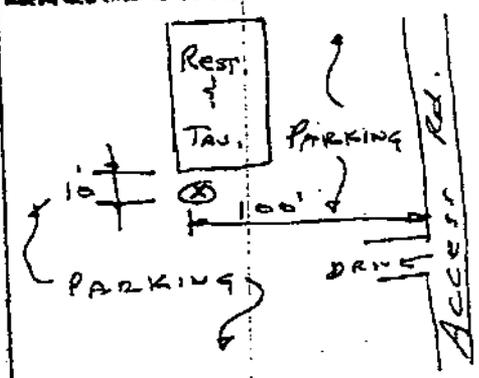
16. WATER ANALYSIS: Has the water been analyzed?  Yes  No, if Yes, Where \_\_\_\_\_

17. SPECIAL NOTES: \_\_\_\_\_

18. WELL LOG

Depth from Land Surface		Boring	Remarks/Description	Sketch
Feet	Feet			
Ground Surface	153	✓	ORIG. WELL	
	153	✓	SCHIST 4/QUARTZ	

19. SITE MAP  
Show permanent structures such as buildings, septic tanks, and/or other land marks and indicate not less than 100' distance to the well. Indicate local street name and subdivision lot number.



20. TESTED YIELD  
If the flow was constant at specified depths during drilling, fill down.

Feet	Gallons Per Minute
153	4

WELL DRILLED BY: RAY & JEFF LEONARD

DOING BUSINESS AS: GREEN MT. DRILLING Co., Inc.  
Company or Business Name

REPORT FILED BY: Raymond L. Leonard Jr.  
Authorized Signatory

DATE OF REPORT: 12-29-93 WELL DRILLERS LIC. NO. 51