

DEC 12 1990



635

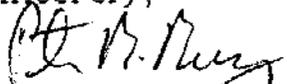
December 11, 1990

Mr. Chuck Schwer
State of Vermont
Department of Environmental Conservation
Petroleum Sites Management Section
103 South Main St.
Waterbury, VT 05676

Dear Chuck,

I have enclosed a copy of the report on the investigation of subsurface petroleum contamination at Rebo Motors in Sheldon Jct., as per the request of Homer Durkee. Please call me with any questions which you may have regarding this project.

Sincerely,


Peter M. Murray



- Wells 1 & 2 screened at water table DEC 12 1990
- Groundwater gradient 0.270
- All wells by [unclear]

November 27, 1990

Mr. Homer Durkee
P.O. Box 425
Sheldon Springs, VT 05485

Dear Mr. Durkee:

This letter details the investigation of subsurface petroleum contamination at the former Rebo Motors, in Sheldon Jct., Vermont. The investigation was conducted by Griffin International, Inc. and included the installation of three groundwater monitoring wells and the collection and analysis of water samples from the monitoring wells and a supply well for an adjacent residence. In addition, Griffin measured the groundwater gradient across the site to determine the direction of groundwater flow and the potential for local receptors to be impacted.

The three monitoring wells were installed on November 6th in holes which were excavated using a backhoe, under the supervision of the Griffin Hydrogeologist. The locations of each well are illustrated on the enclosed site map. Each well was constructed of two inch diameter, PVC well screen and casing. Well construction details are listed in the enclosed well logs. During installation of the wells, the hydrogeologist screened excavated soils for petroleum vapors, using a portable photoionization device.

The first monitoring well, MW-1, was installed in the tank pit after the old tanks had been removed earlier that day. The soils which had been excavated from the tank pit and the soils which remained in the walls and the floor of the pit were screened for vapors before the pit was backfilled. Vapors were detected in varying concentrations in a few locations in the pit, with the highest vapor concentrations, 52 ppm, detected in the area which had been between the two tanks. Additionally, groundwater which had accumulated in the pit contained some broken sheens, but no free floating product.

The second well, MW-2, was installed in a location which was

assumed to be directly downgradient of the tank pit. No petroleum vapors were detected in soils excavated for the installation of this well. MW-3 was also installed in a location which was assumed to be downgradient of the tank pit. Soils excavated for the installation of this well also contained no detectable petroleum vapors.

On November 7th, water table elevations in each of the three monitoring wells were measured relative to a benchmark with an elevation of 100'. The elevations are listed beneath each well on the attached groundwater contour map. The map indicates that the groundwater flow direction in the vicinity of the former Rebo Motors is northerly. The groundwater gradient is 0.2%.

In addition, water samples were collected from the three monitoring wells and from the supply well for the adjacent Reed residence on November 7th. The samples were analyzed for BTEX and MTBE using EPA Method 602. The attached laboratory results indicate that only one well, MW-1 contained detectable concentrations of BTEX. Both downgradient wells and the Reed supply well contained no BTEX or MTBE.

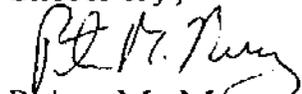
In conclusion, Griffin has determined that the extent of the subsurface petroleum contamination in the vicinity of the former Rebo Motors is minimal and is likely confined to the immediate vicinity of the tank pit. The contamination likely resulted from a leak or leaks in the old storage tanks and underground piping. Since the tanks and piping have since been removed, there no longer exists a continued source of the contamination.

In addition, the risk that the Reed well will be impacted as a result of the existence of the remaining contamination is also minimal. The groundwater contamination is likely confined within the upper five to ten feet of the saturated zone while the Reed well, which is a drilled bedrock well, likely draws water from strata considerably deeper than ten feet. Also, the groundwater nearest the water table is flowing to the north, whereas the Reed well is west of the tank pit.

Over time, the remaining subsurface petroleum contamination will likely be dispersed and diluted to nondetectable levels by migrating groundwater. To adequately document the natural reduction of contamination concentrations, Griffin recommends that water from the three monitoring wells and the Reed supply well be analyzed for BTEX and MTBE, on a yearly basis, until contamination levels in all the wells have fallen below acceptable levels.

Griffin International has appreciated the opportunity to perform this investigation for you and would be glad to provide our services to you in the future, if necessary. Please, if you have any questions regarding this letter, call me at (802) 879-7708.

Sincerely,

A handwritten signature in black ink, appearing to read "Peter M. Murray". The signature is written in a cursive style with a large initial "P" and "M".

Peter M. Murray

Project Hydrogeologist

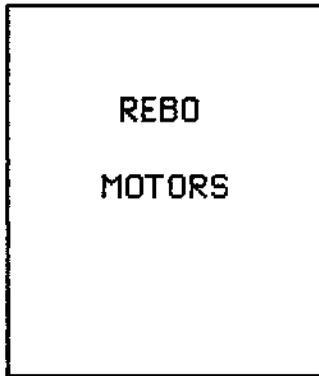
SITE MAP

PROJECT : HOMER DURKEE
LOCATION : REBO MOTORS, SHELDON JCT.,
VERMONT

- MONITORING WELL
- ⊙ DRILLED SUPPLY WELL

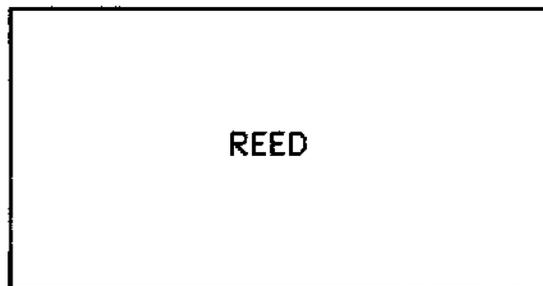


● MW-2



● MW-3

PUMP ISLAND



⊙ SUPPLY WELL

ROUTE 105

TRAILOR OFFICE

GROUNDWATER CONTOUR MAP

PROJECT: HOMER DURKEE
LOCATION: REBO MOTORS, SHELDON JCT., VERMONT
MONITORING DATE: 11/7/90

- MONITORING WELL
- ⊙ DRILLED SUPPLY WELL

WELL IDENTIFICATION:
MW-1 - WELL I.D.
94.63 - WATER TABLE ELEVATION IN FEET



94.40'

94.50'

94.60'

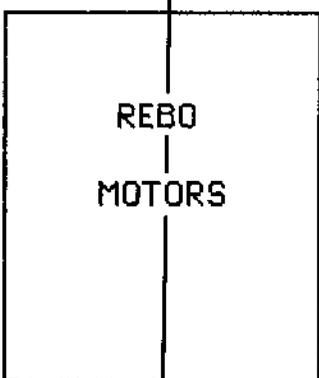
Drilled well in 50' dia

MW-2
94.42

MW-1
94.63

← GROUNDWATER FLOW DIRECTION →

TANK PIT

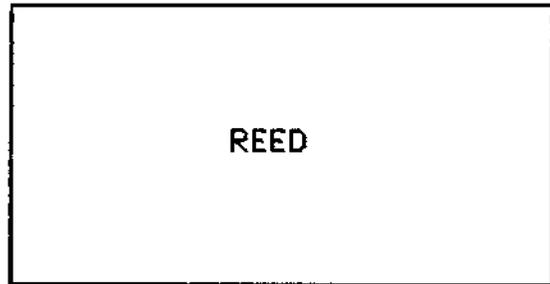


MW-3
94.41

PUMP ISLAND

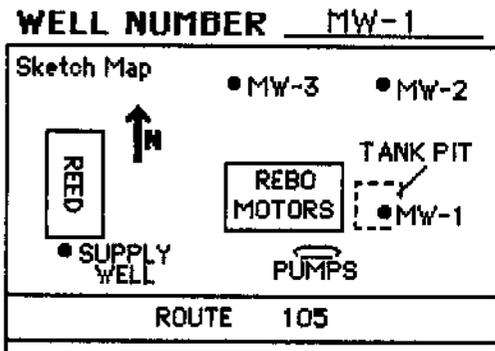


ROUTE 105



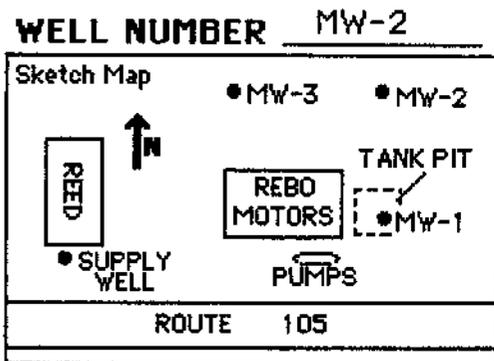
⊙ SUPPLY WELL

PROJECT HOMER DURKEE
 LOCATION REBO MOTORS, SHELDON JCT., VERMONT
 DATE DRILLED 11/6/90 TOTAL DEPTH OF HOLE 9.5'
 DIAMETER _____
 SCREEN DIA. 2" LENGTH 5' SLOT SIZE .010"
 CASING DIA. 2" LENGTH 3' TYPE PVC
 DRILLING CO. _____ DRILLING METHOD BACKHOE
 DRILLER _____ LOG BY P. MURRAY



DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 5" OF SPOON	DESCRIPTION / SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
0		CAP		
1		WELL CASING		Medium to coarse SAND and rounded GRAVEL, some rounded cobbles
2				PETROLEUM VAPOR CONCENTRATIONS UP TO 52 PPM IN TANK PIT SOILS
3				
4		NATIVE BACKFILL		WATER TABLE
5				
6		WELL SCREEN		
7				
8				
9		BOTTOM PLUG		BASE OF EXPLORATION AT 9.5'
10				
11				
12				
13				
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22				
23				
24				
25				
26				

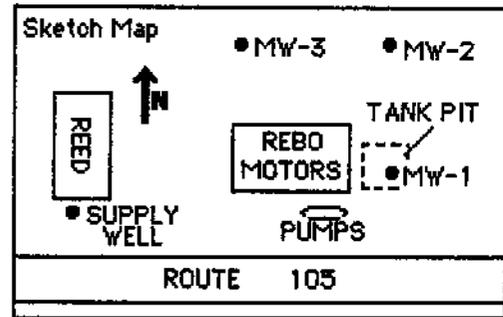
PROJECT HOMER DURKEE
 LOCATION REBO MOTORS, SHELDON JCT., VERMONT
 DATE DRILLED 11/6/90 TOTAL DEPTH OF HOLE 9.5'
 DIAMETER _____
 SCREEN DIA. 2" LENGTH 5' SLOT SIZE .010"
 CASING DIA. 2" LENGTH 5' TYPE PVC
 DRILLING CO. _____ DRILLING METHOD BACKHOE
 DRILLER _____ LOG BY P. MURRAY



DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6" OF SPOON	DESCRIPTION / SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
0		CAP		
1		WELL CASING		Medium to coarse SAND and rounded GRAVEL, some rounded cobbles
2				NO PETROLEUM ODOR - 0 PPM
3				WATER TABLE
4		NATIVE BACKFILL		
5				
6		WELL SCREEN		
7				
8				
9		BOTTOM PLUG		Tight, gray SILT and CLAY
10				BASE OF EXPLORATION AT 9.5'
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25				
26				

PROJECT HOMER DURKEE
 LOCATION REBO MOTORS, SHELDON JCT., VERMONT
 DATE DRILLED 11/6/90 TOTAL DEPTH OF HOLE 9.5'
 DIAMETER _____
 SCREEN DIA. 2" LENGTH 5' SLOT SIZE .010"
 CASING DIA. 2" LENGTH 5' TYPE PVC
 DRILLING CO. _____ DRILLING METHOD BACKHOE
 DRILLER _____ LOG BY P. MURRAY

WELL NUMBER MW-3



DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6" OF SPOON	DESCRIPTION / SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
0		CAP		
1		WELL CASING		Medium to coarse SAND and rounded GRAVEL, some rounded cobbles
2				
3				NO PETROLEUM VAPORS - 0 PPM
4		NATIVE BACKFILL		
5				WATER TABLE
6		WELL SCREEN		Tight, gray SILT and CLAY
7				
8				NO PETROLEUM VAPORS - 0 PPM
9		BOTTOM PLUG		BASE OF EXPLORATION AT 9.5'
10				
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RECEIVED NOV 26 1990



ENDYNE, INC.

Laboratory Services

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

LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Durkee/Sheldon Vermont
REPORT DATE: November 21, 1990 ANALYSIS DATE: November 20, 1990
SAMPLER: Don Tourangeau STATION: MW#1
DATE SAMPLED: November 7, 1990 REF.#: 16,099
DATE RECEIVED: November 7, 1990 TIME SAMPLED: 14:15

<u>Parameter</u>	<u>Minimum Detection Limit</u>	<u>Concentration (ug/L)</u>
Benzene	2.	208.
Chlorobenzene	1.	ND ¹
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Ethylbenzene	1.	296.
Toluene	1.	302.
Xylenes	5.	8,260.
MTBE	1.	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 2

NOTES:

1 None detected

Reviewed by Suzanne M. Hendon



ENDYNE, INC.

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Williston, Vermont 05495
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FAX 879-7103

LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Durkee/Sheldon Vermont
REPORT DATE: November 21, 1990 ANALYSIS DATE: November 20, 1990
SAMPLER: Don Tourangeau STATION: MW#2
DATE SAMPLED: November 7, 1990 REF.#: 16,100
DATE RECEIVED: November 7, 1990 TIME SAMPLED: 14:45

<u>Parameter</u>	<u>Minimum Detection Limit</u>	<u>Concentration (ug/L)</u>
Benzene	2.	ND ¹
Chlorobenzene	1.	ND
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Ethylbenzene	1.	ND
Toluene	1.	ND
Xylenes	5.	ND
MTBE	1.	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

Reviewed by Suzanne M. Donohue



ENDYNE, INC.

Laboratory Services

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

LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Durkee/Sheldon Vermont
REPORT DATE: November 21, 1990 ANALYSIS DATE: November 20, 1990
SAMPLER: Don Tourangeau STATION: MW#3
DATE SAMPLED: November 7, 1990 REF.#: 16,101
DATE RECEIVED: November 7, 1990 TIME SAMPLED: 15:05

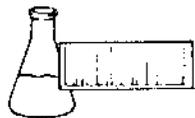
<u>Parameter</u>	<u>Minimum Detection Limit</u>	<u>Concentration (ug/L)</u>
Benzene	2.	ND ¹
Chlorobenzene	1.	ND
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Ethylbenzene	1.	ND
Toluene	1.	ND
Xylenes	5.	ND
MTBE	1.	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

Reviewed by Suzanne M. Hensch



ENDYNE, INC.

Laboratory Services

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

LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Durkee/Sheldon Vermont
REPORT DATE: November 21, 1990 ANALYSIS DATE: November 20, 1990
SAMPLER: Don Tourangeau STATION: Supply Well
DATE SAMPLED: November 7, 1990 REF.#: 16,102
DATE RECEIVED: November 7, 1990 TIME SAMPLED: 15:30

<u>Parameter</u>	<u>Minimum Detection Limit</u>	<u>Concentration (ug/L)</u>
Benzene	2.	ND ¹
Chlorobenzene	1.	ND
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Ethylbenzene	1.	ND
Toluene	1.	ND
Xylenes	5.	ND
MTBE	1.	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

Reviewed by Suzanne M. Bronck