



March 1, 1996

Mr. Brian Nichols  
Speedwell, Inc.  
Box 84  
Lyndonville, Vermont 05851

RE: Report on the Investigation of Subsurface Petroleum Contamination at  
Speedwell Gas, Route 5, Lyndonville, Vermont (VTDEC Site # 95-1904)

Dear Mr. Nichols:

Enclosed, please find the report on the Investigation of Subsurface Petroleum Contamination at the above referenced site.

Griffin is pleased to have conducted this work for you. If you have any questions regarding the report or if we can be of assistance to you, please call me at (802) 865 - 4288.

Sincerely,

A handwritten signature in cursive script that reads "Laurie T. Reed".

Laurie T. Reed,  
Project Geologist

Encl.

c. Richard Spiese, VTDEC

**REPORT ON THE INVESTIGATION  
OF SUBSURFACE  
PETROLEUM CONTAMINATION**

**AT**

**SPEEDWELL GAS  
ROUTE 5  
LYNDONVILLE, VERMONT**

**VTDEC SITE #95-1904**

**February, 1996**

**PREPARED FOR:**

**Speedwell, Inc.  
PO Box 84  
Lyndonville, Vermont**



**PO Box 943 / 19 Commerce Street  
Williston, VT 05495  
(802) 865-4288**

**Griffin Project #1964796**

## TABLE OF CONTENTS

| <u>SECTION</u>                                   | <u>Page</u> |
|--|-------------|
| I. INTRODUCTION                                  | 1           |
| II. SITE DESCRIPTION                             | 2           |
| III. INVESTIGATIVE PROCEDURES                    | 3           |
| A. Monitoring Well Installation                  |             |
| B. Soil Boring and Screening                     |             |
| C. Water Table Measurements and Groundwater Flow |             |
| D. Groundwater Sampling and Analysis             |             |
| IV. RECEPTOR SURVEY AND RISK ASSESSMENT          | 5           |
| V. CONCLUSIONS                                   | 6           |
| VI. RECOMMENDATIONS                              | 7           |
| APPENDIX A:                                      |             |
| Location Map                                     |             |
| Area Map   |             |
| Site Map   |             |
| Groundwater Contour Map                          |             |
| Groundwater Contaminant Distribution Map         |             |
| APPENDIX B:                                      |             |
| Drilling Logs                                    |             |
| APPENDIX C:                                      |             |
| Water Level Data                                 |             |
| APPENDIX D:                                      |             |
| Laboratory Results                               |             |

## I. INTRODUCTION

This report describes the investigation of subsurface petroleum contamination at Speedwell Gas located on Route 5 at the corner of Redvillage Road in Lyndonville, Vermont. This investigation was conducted by Griffin International Inc. (Griffin) for Speedwell, Inc. of Lyndonville, Vermont, owner of the site.

This investigation was initiated after petroleum contamination was discovered at the site during the closure of nine underground storage tanks (USTs) at the site on November 7, 1995. All of the former USTs, except for UST#1 and UST #9, were located in a common field located in the central portion of the western side of the property. UST #1 was located directly in front (south) of the former building which was located in the same general area of the new building constructed in Autumn, 1995. UST#9 was located behind (north) of the former building. All of the UST ancillary equipment were also removed, including two pump islands. A diesel pump island was formerly located at the western side of the central portion of the property. A gasoline pump island was formerly located near the center of the property, just east of the former main UST field. The USTs removed were:

- #1, 500 gallon capacity No. 2 heating oil installed in 1974.
- #2, 4,000 gallon capacity gasoline installed in 1974.
- #3, 4,000 gallon capacity gasoline installed in 1974.
- #4, 4,000 gallon capacity gasoline installed in 1974.
- #5, 4,000 gallon capacity gasoline installed in 1974.
- #6, 4,000 gallon capacity gasoline installed in 1974.
- #7, 10,000 gallon capacity diesel installed in 1980's.
- #8, 10,000 gallon capacity No. 2 fuel oil installed in 1980's.
- #9, 1,000 gallon capacity kerosene installed in 1974.

No significant petroleum contamination was detected during the UST removals in the excavations of UST#1 or UST#9. Based on photo ionization device (PID) screening results, soil in the area from the gasoline pump island, through the main UST field, and to the western portion of the site adjacent to Route 5, contained relatively high concentrations of adsorbed petroleum compounds. PID (Model HNU- HW101) responses in the area of the main tank field averaged approximately 100 parts per million (ppm) and peaked at 320 ppm at a depth of 12 feet. Concentrations of volatile organic compounds (VOCs) recorded by PID increased with depth. VOC concentrations at the north and south upper excavation limits of the main UST field were lower at the east and west limits of the excavation.

Eighty (80) cubic yards of contaminated soil were removed to allow space for new UST installation. This soil was transported to an off-site location owned by Speedwell, Inc., where it was placed on and covered with plastic sheeting. Permission for off-site soil transport was requested from the Vermont Department of Environmental Conservation (VTDEC) on November 13, 1995. Permission was granted by Jason Feingold, VTDEC, on November 14, 1995 in a telephone conversation with Peter Schuyler of Griffin.

This investigation was requested by the VTDEC in a letter (dated December 13, 1995) to Brian Nichols, Speedwell, Inc., from Jason Feingold, VTDEC. Griffin prepared a Work Plan and Cost Estimate detailing the work performed in this assessment, which was submitted to Speedwell, Inc. on January 4, 1996 and was submitted to the VTDEC on January 8, 1996. The Work Plan was approved by the VTDEC on January 10, 1996. Site investigation work began at Speedwell Gas on February 1, 1996.

## **II. SITE DESCRIPTION**

The site is located in a mixed commercial and residential area on Route 5 in Lyndonville, Vermont (See Site Location Map in Appendix A.). Speedwell Gas is currently a filling station and convenience store. A filling station has operated at this site for more than 20 years. One building is located at the site. The building was constructed in Autumn of 1995 after an older building was demolished.

The site is generally level to gently sloping towards the south and west. The vicinity of the site is also generally level to gently sloping towards the south and west. Storm drainage from the site drains to Route 5 and to Redvillage road and then to catch basins located on Route 5. The storm drain system discharges to Passumpsic River which is located southwest of the site.

The site lies near the edge of the flood plain of the Passumpsic River. According to the Surficial Geologic Map of Vermont (Charles G. Doll, 1970), overburden at the site consists of Pleistocene, glaciolacustrine, littoral sand which is predominantly well sorted sand with no pebbles or boulders. An esker is mapped directly northeast of the site, and alluvium is mapped southwest of the site. Drilling conducted during this investigation indicates that coarse sand and small gravel from the esker are interbedded with the littoral sands at the site. The Geologic Map of Vermont (Charles G. Doll, 1961) indicates that bedrock beneath the site is the Lower Devonian Waits River Formation which is characterized by gray quartzose and micaceous crystalline limestone interbedded and intergradational with gray quartzite-muscovite phyllite or schist.

Two new USTs are currently in use at the site. The USTs were installed in November, 1995. These are: a 18,000 gallon capacity split tank containing high-octane and regular gasoline and a 15,000 gallon capacity split tank containing diesel, off-road diesel, and kerosene. The diesel/ kerosene UST is located on the western portion of the site, adjacent to Route 5. The gasoline UST is located on the eastern portion of the site.

The site is abutted to the west by Route 5. West from the site, across Route 5, is the Canadian Pacific Rail Road, Agway, and the Shop and Save/ Rite Aid shopping center in order from nearest to furthest. Southwest from the site, across Route 5, is the Passumpsic Savings Bank. The site is abutted to the north-northeast by South End Auto Repair. There may be USTs at South End Auto Repair; two vent pipes were observed connected to the building wall. The site is abutted to the south-southwest by Redvillage Road. Across Redvillage Road is the

Canadian Pacific Rail Road and a residential property. South and east of the site are residential properties and one vacant commercial building.

The relative area is shown on the Area Map in Appendix A. The site and surrounding area are served by municipal water and sewer systems.

### **III. INVESTIGATIVE PROCEDURES**

To better define the extent of subsurface petroleum contamination at the site, Griffin installed three monitoring wells on February 1, 1996. MW1 is located east-northeast of the former gasoline pump island and east of the former main UST field. MW2 is located north (up-gradient) of the former main UST field. MW3 is located directly southwest of and slightly down-gradient from the former main UST field. The locations of the wells are indicated on the Site Map in Appendix A.

Depths to groundwater were measured in all on-site monitoring wells on February 6, 1996. Groundwater samples were collected from the monitoring wells for laboratory analysis. Soil samples collected from the boreholes were screened for volatile organic compounds (VOCs) with a photo ionization detector (PID).

#### **A. Monitoring Well Installation**

Monitoring wells (MW1, MW2, and MW3) were installed on February 1, 1996 by Tri State Drilling and Boring of West Burke, Vermont under the direct supervision of Griffin. The wells were installed using a truck mounted 4 1/4" I.D. hollow stem auger. The wells are constructed of two inch diameter, 0.010" slot, PVC well screen and attached solid PVC riser. The annulus between the borehole wall and the screened section of each well is filled with grade #0 sand pack to filter fine sediments in groundwater from entering the well. Approximately two feet above the screened section of each well and approximately two feet below grade, the annulus between the borehole wall and the riser is filled with a bentonite clay seal to prevent surface water from entering the borehole. Each well is protected at the surface by a flush mounted steel well head man-hole with a bolt down cover. In the Spring of 1996 the manholes will be set in cement or asphalt; this was not done on the day of the site assessment due to sub-freezing conditions. Well construction details are listed on the well logs in Appendix B.

#### **B. Soil Boring and Screening**

Undisturbed soil samples were collected at five foot intervals from the borings using a split spoon sampling device. Samples were screened for VOCs using an HNU Model PI-101 PID equipped with a 10.2 electron-volt lamp. Samples were logged by the supervising Geologist. Prior to screening, the PID was calibrated with isobutylene with reference made to

benzene. Detailed soil descriptions and VOC concentrations are listed on the well logs in Appendix B.

MW1 was drilled directly south of the Speedwell Gas building, approximately 30 feet east-northeast of the former gasoline pump island and 60 feet east of the former main UST field. The boring of MW1 intersected dry, brown, well graded, fine sand and medium grained sand underlain by damp and wet, gray and brown, medium and coarse grained sand with some small gravel. This soil was subsequently underlain by wet, reddish brown, fine sand. MW1 was drilled to 22 feet below grade. The water table was intersected at approximately 16 feet below grade. VOC concentrations detected ranged from 0.8 to 14 ppm in the vadose zone and 185 to 300 ppm in the phreatic zone. The highest VOC concentration (300 ppm) was recorded in the soil sample collected from the intersection of the phreatic surface where the soil sample exhibited a strong gasoline odor.

MW2 was drilled approximately 25 feet northwest of the Speedwell Gas building and approximately 25 feet northeast (up-gradient) of the former main UST field. The boring of MW2 intersected dry, brown, fine sand with some silt underlain by damp, gray and brown, medium and coarse grained sand with some small subrounded gravel. This soil was subsequently underlain by wet, brown, fine sand. MW2 was drilled to 20.25 feet below grade. The water table was intersected at approximately 15.3 feet below grade. VOC concentrations detected ranged from 5 to 20 ppm in soil samples collected from the vadose zone and were 10.5 ppm in the soil sample collected from the phreatic zone. The highest VOC concentration detected was 20 ppm at just below grade.

MW3 was drilled directly southwest of and down-gradient from the former main UST field. The boring of MW3 intersected dry, brown, fine and medium grained sand underlain by damp, gray, fine sand and subsequently by gray and brown, medium and coarse grained sand with some small subrounded gravel. This soil was subsequently underlain by wet, brown, fine sand exhibiting a strong gasoline odor. MW3 was drilled to 20 feet below grade. The water table was intersected at approximately 15.5 feet below grade. VOC concentrations detected in soil samples collected from the vadose zone ranged from 30 to 186 ppm, increasing with depth. VOC concentrations detected from the soil sample collected from the phreatic zone were 360 ppm.

### C. Water Table Measurements And Groundwater Flow

The water table elevations in all on-site monitoring wells were measured on February 6, 1996. Water table elevations are plotted on the Groundwater Contour Map in Appendix A. The map indicates that groundwater in the vicinity of the site flows west-southwest towards the Passumpsic River. The average hydraulic gradient at the site is calculated to be approximately 0.42 percent.

No free product was detected in any of the monitoring wells. All groundwater level data are recorded on the Liquid Level Table in Appendix C.

#### D. Groundwater Sampling and Analysis

On February 6, 1996, Griffin collected groundwater samples from all three of the on-site monitoring wells. Laboratory results are summarized below in Table 1. BTEX and MTBE concentrations detected are plotted on the Contaminant Distribution Map in Appendix A. Laboratory report forms are presented in Appendix D. All collected samples were analyzed for the presence of the petroleum compounds benzene, toluene, ethyl benzene, and xylenes via EPA Method 602 and for methyl tertiary butyl ether (MTBE) which is an octane boosting additive used in gasoline. All samples were collected according to Griffin's groundwater sampling protocol. Duplicate, trip blank, and equipment blank samples collected during sampling indicate that adequate quality assurance/quality control was maintained during sample collection and analysis.

Analysis of the groundwater sample collected from MW1 indicates the presence of BTEX (53,120 micrograms per liter (ug/l)). All petroleum compounds detected were in concentrations above the Vermont Groundwater Enforcement Standards (VGES) or Health Advisory Levels (HALS). Benzene was detected in concentration of 1,910 ug/l which exceeds the VGES for the compound of 5.0 ug/l.

Analysis of the groundwater sample collected from MW2 indicates the presence of benzene in concentration of 369 ug/l which is above the VGES for the compound. MTBE was detected in concentrations of 446 ug/l which is above the HAL for the compound of 40 ug/l. Ethyl benzene, toluene and xylenes were detected in the groundwater sample collected from MW2 in concentrations below applicable regulatory levels.

Analysis of the groundwater sample collected from MW3, located directly down-gradient from the former UST field, indicates the presence of high concentrations of BTEX (76,650 ug/l). All petroleum compounds detected were in concentrations above applicable regulatory levels. Benzene was detected in concentration of 19,500 ug/l which significantly exceeds the VGES for the compound. MTBE was detected in concentration of 10,600 ug/l which exceeds the HAL for the compound.

#### **IV. RECEPTOR SURVEY AND RISK ASSESSMENT**

Griffin conducted a visual survey of the site and vicinity to identify local potential receptors of subsurface petroleum contaminants.

The Speedwell Gas building has not been reported to have been impacted by petroleum vapors. This building is of slab on grade construction built in Autumn, 1995. Residences and commercial buildings with basements, located east and north of the site, are not at significant risk of impact from petroleum vapors from Speedwell Gas, since all of these buildings are up-gradient from the site. The Agway building, Shop and Save Mall, and the Passumpsic Savings

TABLE 1.

**Groundwater Quality Summary  
Speedwell Gas  
Lyndonville, Vermont**

Monitoring Date: 2/6/95  
All Values Reported in ug/L (ppb)

| PARAMETER     |            |         |          | Enforcement Standard |
|---------------|------------|---------|----------|----------------------|
|               | MW1        | MW2     | MW3      |                      |
| Benzene       | 1,910.     | 369.    | 19,500.  | 5.0*                 |
| Chlorobenzene | ND > 500   | ND > 5  | ND > 200 | 100**                |
| 1,2-DCB       | ND > 500   | ND > 5  | ND > 200 | 600*                 |
| 1,3-DCB       | ND > 500   | ND > 5  | ND > 200 | 600**                |
| 1,4-DCB       | ND > 500   | ND > 5  | ND > 200 | 75*                  |
| Ethylbenzene  | 5,410.     | 16.5    | 3,550.   | 700**                |
| Toluene       | 13,600.    | 23.9    | 32,500.  | 1,000**              |
| Xylenes       | 32,200.    | 36.2    | 21,100.  | 400***               |
| Total BTEX    | 53,120.    | 446.    | 76,650.  | -                    |
| MTBE          | ND > 5,000 | ND > 50 | 10,600.  | 40**                 |
| BTEX + MTBE   | 53,120.    | 446.    | 87,250.  | -                    |

\* - EPA Maximum Contaminant Level

\*\* - VT Health Advisory Level

\*\*\* - VT Groundwater Enforcement Standard

ANALYSIS BY EPA METHOD 602

ND > - None detected above stated limits

TBQ - Trace, below stated quantitation limits

Bank are slab-on-grade constructions. The residential property, located to the south-southwest of the site, is more than 400 feet from the site. Considering the distance from Speedwell Gas and the depth of the water table in the vicinity of the site, it is unlikely that petroleum vapors will impact any of these buildings.

Municipal water and sewer serves the area including the subject property. The water source is not at risk of impact from subsurface petroleum contamination at the subject property, since the water supply is located several miles north of the site. No supply wells were identified in the vicinity of the site.

Subsurface utilities in the vicinity of the site include water force-mains, sewer mains, and storm sewers. These utilities are indicated on the Site Map in Appendix A. Because the water and sewer lines are located above the water table near the site, it is not possible for the lines to be significant conduits for or receptors of contaminated groundwater from Speedwell Gas.

The Passumpsic River, located approximately 800 feet southwest of and down-gradient from the site, is the discharge point for groundwater at the site. However, it is likely that dilution, dispersion, and attenuation of dissolved petroleum compounds act to dissipate any contaminants significantly by the time groundwater from Speedwell Gas reaches the river.

## **V. CONCLUSIONS**

On the basis of this investigation, Griffin has concluded the following:

- 1) There have been release(s) of petroleum product at this site. The amounts and duration of the release(s) are unknown. Data collected during the site assessment, in the areas where borings were drilled, indicates that gasoline is the principal contaminant present in these areas.
- 2) The release(s) have resulted in contamination of soil and groundwater at the site. Groundwater at the site is impacted by petroleum compounds in concentrations above regulatory levels. The full degree and extent of the groundwater contaminant plume has not been defined.
- 3) The source of the release may be from former piping leaks and UST overfills. The nine USTs removed in November, 1995, did not evidence indications of leaks. The significant potential on-site primary sources of a release (old USTs and ancillary equipment) have been removed. The site is now equipped with modern petroleum equipment.
- 4) There appear to be USTs located up-gradient from the site at South End Auto Repair north of Speedwell Gas. No USTs are listed on the State of Vermont List under the Name "South End Auto Repair". It has not been determined whether or not potential

PROJECT SPEEDWELL GAS

LOCATION LYNDONVILLE, VERMONT

DATE DRILLED 2/1/96 TOTAL DEPTH OF HOLE 22.0'

DIAMETER 8.25"

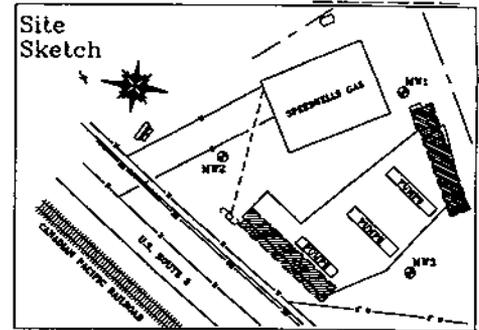
SCREEN DIA. 2" LENGTH 10.0' SLOT SIZE 0.010"

CASING DIA. 2" LENGTH 11.5' TYPE sch 40 pvc

DRIILLING CO. TRI-STATE DRILLING METHOD HSA

DRILLER NEIL FAULKNER LOG BY L. REED

WELL NUMBER MW1

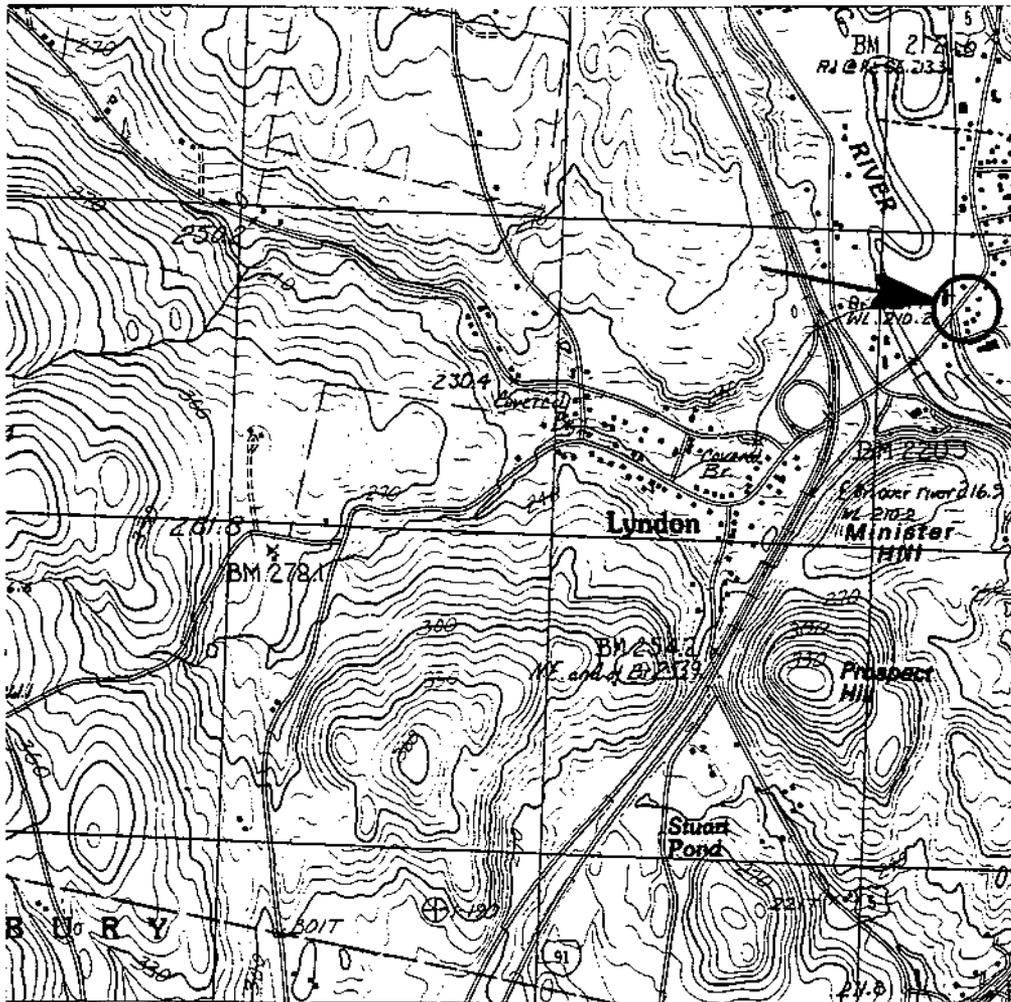


GRIFFIN INTERNATIONAL, INC

| 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                      |                                      |  | 0             |
| 0             |                   | LOCKING WELL CAP              |                                      | Asphalt  | 0             |
| 0             |                   | CONCRETE TO BE INSTALLED 5/96 |                                      |  | 0             |
| 1             |                   | NATIVE BACKFILL               | 0.3'-2.5'                            | Dry, brown, fine SAND with some medium sand and silt.  | 1             |
| 2             |                   | BENTONITE                     | 0.8 ppm                              |  | 2             |
| 3             |                   | NATIVE BACKFILL               |                                      |  | 3             |
| 4             |                   | NATIVE BACKFILL               |                                      |  | 4             |
| 5             |                   |                               |                                      | Damp, brown, interbedded fine and medium SAND with fine SAND and SILT, no odor.  | 5             |
| 6             |                   | WELL RISER                    | 5'-7'- 4/3/4/5                       |  | 6             |
| 7             |                   |                               | 0.2 ppm                              |  | 7             |
| 8             |                   |                               |                                      |  | 8             |
| 9             |                   | BENTONITE                     |                                      |  | 9             |
| 10            |                   |                               |                                      | Damp, gray and brown, medium SAND with some coarse sand and small subrounded gravel, slight petroleum odor.  | 10            |
| 11            |                   |                               | 10'-12'- 4/5/6/6                     |  | 11            |
| 12            |                   |                               | 14 ppm                               |  | 12            |
| 13            |                   |                               |                                      |  | 13            |
| 14            |                   |                               |                                      |  | 14            |
| 15            |                   | WELL SCREEN                   |                                      |  | 15            |
| 16            |                   |                               | 15'-17'- 5/5/5/6                     | 16.0' WATER TABLE  | 16            |
| 17            |                   | SAND PACK                     | 300 ppm                              | Spoon strattles water table at 16.0', 1/2 sample dry, 1/2 wet, appears product saturated, strong gas odor. Gray and brown, coarse and medium SAND with some small subrounded gravel. | 17            |
| 18            |                   |                               |                                      |  | 18            |
| 19            |                   |                               |                                      |  | 19            |
| 20            |                   |                               |                                      |  | 20            |
| 21            |                   | BOTTOM CAP                    | 20'-22'- 5/5/4/5                     | Wet, reddish brown, iron oxide stained fine SAND with little silt, strong gas odor.  | 21            |
| 22            |                   | UNDISTURBED NATIVE SOIL       | 185 ppm                              | BASE OF WELL AT 22'  | 22            |
| 23            |                   |                               |                                      | END OF EXPLORATION AT 22'  | 23            |
| 24            |                   |                               |                                      |  | 24            |
| 25            |                   |                               |                                      |  | 25            |

**APPENDIX A**

SITE LOCATION MAP  
AREA MAP  
SITE MAP  
GROUNDWATER CONTOUR MAP  
CONTAMINANT DISTRIBUTION MAP



JOB #: 1964796  
 SOURCE: USGS- LYNDONVILLE, VERMONT QUADRANGLE



## SPEEDWELLS GAS

LYNDONVILLE,

VERMONT

### SITE LOCATION MAP

DATE: 2/14/96

DWG.#:1

SCALE: 1:24000

DRN.:SB

APP.:LR



RES.  
RES.  
RES.

VACANT  
COMMERCIAL  
BUILDING

SOUTH END AUTO REPAIR

SPEEDWELLS GAS  
PUMPS  
PUMPS  
PUMPS

MW1  
MW2  
MW3

RED VILLAGE ROAD

RES.

U.S. ROUTE 5

STORE

CANADIAN PACIFIC RAILROAD

AGWAY

PASSUMPSIC  
SAVINGS BANK

SHOP AND SAVE  
RITE AID

PASSUMPSIC RIVER

JOB #: 1964796

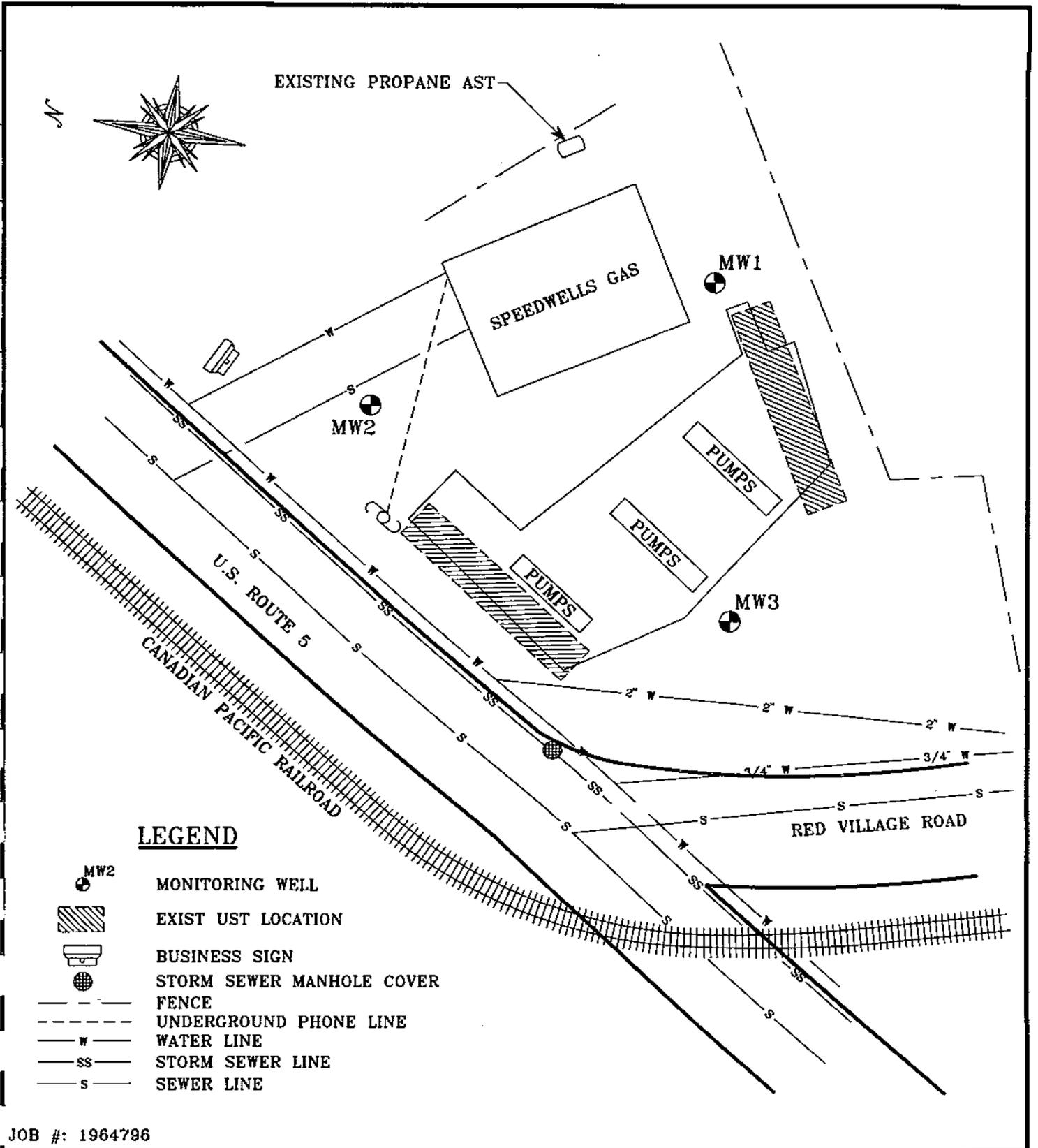


# SPEEDWELLS GAS

LYNDONVILLE, VERMONT

## AREA MAP

|               |          |             |         |         |
|---------------|----------|-------------|---------|---------|
| DATE: 2/14/96 | DWG.#: 2 | SCALE: NONE | DRN.:SB | APP.:LR |
|---------------|----------|-------------|---------|---------|



**LEGEND**

- MW2 MONITORING WELL
- EXIST UST LOCATION
- BUSINESS SIGN
- STORM SEWER MANHOLE COVER
- FENCE
- UNDERGROUND PHONE LINE
- WATER LINE
- STORM SEWER LINE
- SEWER LINE

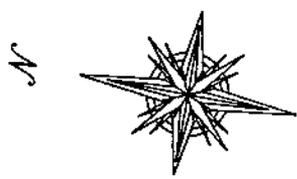
JOB #: 1964796



**SPEEDWELLS GAS**  
 LYNDONVILLE, VERMONT

**SITE MAP**

DATE: 2/14/96 DWG.#: 3 SCALE: 1"=30' DRN.:SB APP.:LR



EXISTING PROPANE AST

SPEEDWELLS GAS

MW1  
83.91'

MW2  
83.97'

MW3  
83.63'

PUMPS

PUMPS

PUMPS

U.S. ROUTE 5

CANADIAN PACIFIC RAILROAD

APPROX DIRECTION OF  
GROUNDWATER FLOW

RED VILLAGE ROAD

**LEGEND**

- MW2 XXX MONITORING WELL AND WATER TABLE ELEVATION IN FEET
- xx GROUNDWATER CONTOUR IN FEET (DASHED WHERE INFERRED)
- EXIST UST LOCATION
- BUSINESS SIGN
- STORM SEWER MANHOLE COVER
- FENCE
- UNDERGROUND PHONE LINE
- WATER LINE
- STORM SEWER LINE
- SEWER LINE

JOB #: 1964796  
MEASUREMENT DATE: 2/6/96

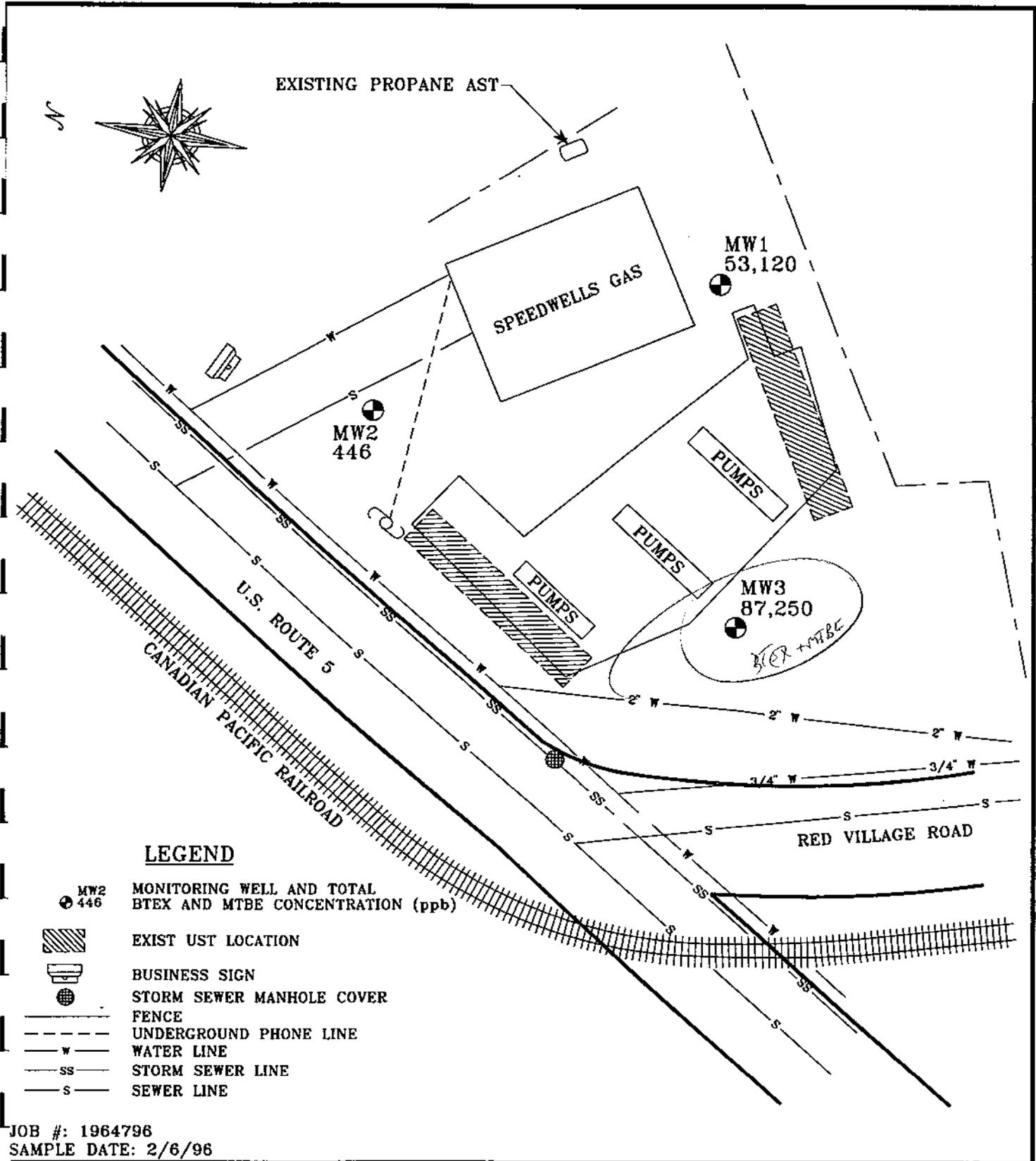


**SPEEDWELLS GAS**

LYNDONVILLE, VERMONT

**GROUNDWATER CONTOUR MAP**

DATE: 2/14/96 DWG.#: 4 SCALE: 1"=30' DRN.:SB APP.:LR



**LEGEND**

- MW2 446 MONITORING WELL AND TOTAL BTEX AND MTBE CONCENTRATION (ppb)
- EXIST UST LOCATION
- BUSINESS SIGN
- STORM SEWER MANHOLE COVER
- FENCE
- UNDERGROUND PHONE LINE
- WATER LINE
- STORM SEWER LINE
- SEWER LINE

JOB #: 1964796  
 SAMPLE DATE: 2/6/96



**SPEEDWELLS GAS**

LYNDONVILLE, VERMONT

**CONTAMINANT CONCENTRATION MAP**

|               |          |               |         |         |
|---------------|----------|---------------|---------|---------|
| DATE: 2/14/96 | DWG.#: 5 | SCALE: 1"=30' | DRN.:SB | APP.:LR |
|---------------|----------|---------------|---------|---------|

**APPENDIX B**

DRILLING LOGS

PROJECT SPEEDWELL GAS

LOCATION LYNDONVILLE, VERMONT

DATE DRILLED 2/1/96 TOTAL DEPTH OF HOLE 22.0'

DIAMETER 8.25"

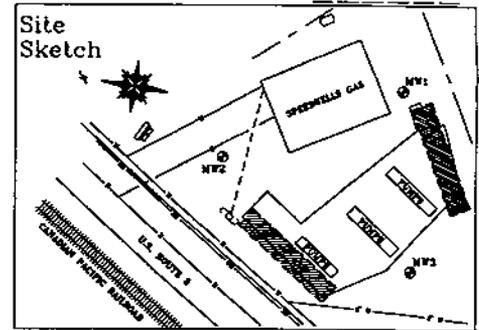
SCREEN DIA. 2" LENGTH 10.0' SLOT SIZE 0.010"

CASING DIA. 2" LENGTH 11.5' TYPE sch 40 pvc

DRIILLING CO. TRI-STATE DRILLING METHOD HSA

DRILLER NEIL FAULKNER LOG BY L. REED

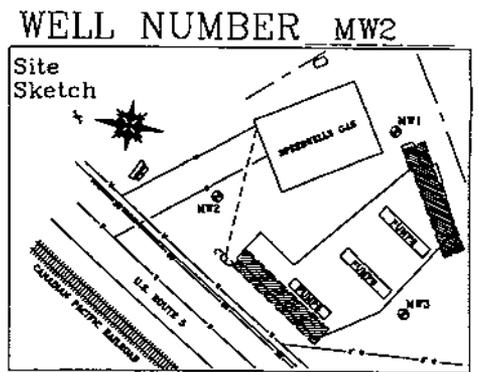
WELL NUMBER MW1



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                      |                                      |  | 0             |
| 0             |                   | LOCKING WELL CAP              |                                      | Asphalt  | 0             |
| 0             |                   | CONCRETE TO BE INSTALLED 5/96 |                                      |  | 0             |
| 1             |                   | NATIVE BACKFILL               | 0.3'-2.5'                            | Dry, brown, fine SAND with some medium sand and silt.  | 1             |
| 2             |                   | BENTONITE                     | 0.8 ppm                              |  | 2             |
| 3             |                   | NATIVE BACKFILL               |                                      |  | 3             |
| 4             |                   | NATIVE BACKFILL               |                                      |  | 4             |
| 5             |                   |                               |                                      |  | 5             |
| 6             |                   | WELL RISER                    | 5'-7'- 4/3/4/5                       | Damp, brown, interbedded fine and medium SAND with fine SAND and SILT. no odor.  | 6             |
| 7             |                   |                               | 0.2 ppm                              |  | 7             |
| 8             |                   |                               |                                      |  | 8             |
| 9             |                   | BENTONITE                     |                                      |  | 9             |
| 10            |                   |                               |                                      |  | 10            |
| 11            |                   |                               | 10'-12'- 4/5/6/6                     | Damp, gray and brown, medium SAND with some coarse sand and small subrounded gravel, slight petroleum odor.  | 11            |
| 12            |                   |                               | 14 ppm                               |  | 12            |
| 13            |                   |                               |                                      |  | 13            |
| 14            |                   |                               |                                      |  | 14            |
| 15            |                   | WELL SCREEN                   |                                      |  | 15            |
| 16            |                   |                               | 15'-17'- 5/5/5/6                     | 16.0' WATER TABLE  | 16            |
| 17            |                   | SAND PACK                     | 300 ppm                              | Spoon strattles water table at 16.0', 1/2 sample dry, 1/2 wet, appears product saturated, strong gas odor. Gray and brown, coarse and medium SAND with some small subrounded gravel. | 17            |
| 18            |                   |                               |                                      |  | 18            |
| 19            |                   |                               |                                      |  | 19            |
| 20            |                   |                               |                                      |  | 20            |
| 21            |                   | BOTTOM CAP                    | 20'-22'- 5/5/4/5                     | Wet, reddish brown, iron oxide stained fine SAND with little silt, strong gas odor.  | 21            |
| 22            |                   | UNDISTURBED NATIVE SOIL       | 185 ppm                              | BASE OF WELL AT 22'  | 22            |
| 23            |                   |                               |                                      | END OF EXPLORATION AT 22'  | 23            |
| 24            |                   |                               |                                      |  | 24            |
| 25            |                   |                               |                                      |  | 25            |

PROJECT SPEEDWELL GAS  
 LOCATION LYNDONVILLE, VERMONT  
 DATE DRILLED 2/1/96 TOTAL DEPTH OF HOLE 20.25'  
 DIAMETER 8.25"  
 SCREEN DIA. 2" LENGTH 10.0' SLOT SIZE 0.010"  
 CASING DIA. 2" LENGTH 9.75' TYPE sch 40 pvc  
 DRILLING CO. TRI-STATE DRILLING METHOD HSA  
 DRILLER NEIL FAULKNER LOG BY L. REED

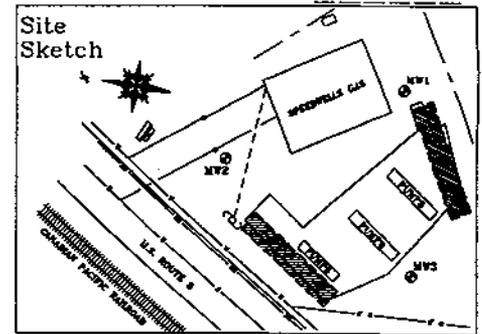


GRIFFIN INTERNATIONAL, INC

| DEPTH IN FEET | WELL CONSTRUCTION             | NOTES            | BLOWS PER 6" OF SPOON & PID READINGS | DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)                                 | DEPTH IN FEET |
|---------------|-------------------------------|------------------|--------------------------------------|--|---------------|
| 0             | ROAD BOX                      | LOCKING WELL CAP |                                      | Asphalt  | 0             |
| 0-1           | CONCRETE TO BE INSTALLED 5/96 |                  | 0.3'-2.5'                            | Dry, brown, fine SAND with some silt.  | 1             |
| 1-2           | NATIVE BACKFILL               |                  | 20 ppm                               |  | 2             |
| 2-3           | BENTONITE                     |                  |                                      |  | 3             |
| 3-4           | NATIVE BACKFILL               |                  |                                      |  | 4             |
| 4-5           | WELL RISER                    |                  |                                      |  | 5             |
| 5-6           | BENTONITE                     |                  | 5'-7'- 4/5/6/11                      | Dry, brown, fine SAND with some silt. no odor.   | 6             |
| 6-7           |                               |                  | 5.0 ppm                              |  | 7             |
| 7-8           |                               |                  |                                      |  | 8             |
| 8-9           |                               |                  |                                      |  | 9             |
| 9-10          |                               |                  |                                      |  | 10            |
| 10-11         |                               |                  | 10'-12'- 5/6/6/10                    | Damp, gray and brown, medium and coarse SAND with some small subrounded gravel. slight odor. | 11            |
| 11-12         |                               |                  | 6.5 ppm                              |  | 12            |
| 12-13         | WELL SCREEN                   |                  |                                      |  | 13            |
| 13-14         |                               |                  |                                      |  | 14            |
| 14-15         |                               |                  |                                      | 15.35' WATER TABLE   | 15            |
| 15-16         | SAND PACK                     |                  | 15'-17'- 3/3/3/3                     | Wet, brown, fine SAND with trace silt. no odor.  | 16            |
| 16-17         |                               |                  | 10.5 ppm                             |  | 17            |
| 17-18         |                               |                  |                                      |  | 18            |
| 18-19         |                               |                  |                                      |  | 19            |
| 19-20         | BOTTOM CAP                    |                  |                                      |  | 20            |
| 20-21         | UNDISTURBED NATIVE SOIL       |                  |                                      | BASE OF WELL AT 20.25'<br>END OF EXPLORATION AT 20.25'                                       | 21            |
| 21-22         |                               |                  |                                      |  | 22            |
| 22-23         |                               |                  |                                      |  | 23            |
| 23-24         |                               |                  |                                      |  | 24            |
| 24-25         |                               |                  |                                      |  | 25            |

PROJECT SPEEDWELL GAS  
 LOCATION LYNDONVILLE, VERMONT  
 DATE DRILLED 2/1/96 TOTAL DEPTH OF HOLE 20.0'  
 DIAMETER 8.25"  
 SCREEN DIA. 2" LENGTH 10.0' SLOT SIZE 0.010"  
 CASING DIA. 2" LENGTH 9.5' TYPE sch 40 pvc  
 DRILLING CO. TRI-STATE DRILLING METHOD HSA  
 DRILLER NEIL FAULKNER 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                      | LOCKING WELL CAP |                                      | Asphalt   | 0             |
| 0-1           | CONCRETE TO BE INSTALLED 5/96 |                  |                                      |   | 0-1           |
| 1-2           | NATIVE BACKFILL               |                  | 0.3'-2.5' 30 ppm                     | Dry, brown, fine SAND with some medium sand and few small gravel, slight odor.                          | 1-2           |
| 2-3           | BENTONITE                     |                  |                                      |   | 2-3           |
| 3-4           | NATIVE BACKFILL               |                  |                                      |   | 3-4           |
| 4-5           | WELL RISER                    |                  |                                      |   | 4-5           |
| 5-6           | BENTONITE                     |                  | 5'-7'- 2/2/3/6 40 ppm                | Damp, brownish gray fine SAND with trace silt, slight odor.   | 5-6           |
| 6-7           | BENTONITE                     |                  |                                      |   | 6-7           |
| 7-8           |                               |                  |                                      |   | 7-8           |
| 8-9           |                               |                  |                                      |   | 8-9           |
| 9-10          |                               |                  |                                      |   | 9-10          |
| 10-11         |                               |                  | 10'-12'- 3/3/4/5 186 ppm             | Damp, gray and brown, medium and coarse SAND with some small subrounded gravel, odor.                   | 10-11         |
| 11-12         |                               |                  |                                      |   | 11-12         |
| 12-13         | WELL SCREEN                   |                  |                                      |   | 12-13         |
| 13-14         |                               |                  |                                      |   | 13-14         |
| 14-15         |                               |                  |                                      |   | 14-15         |
| 15-16         | SAND PACK                     |                  | 15'-17'- 3/4/5/6 360 ppm             | 15.5' WATER TABLE  | 15-16         |
| 16-17         |                               |                  |                                      | Wet, brown, fine SAND with trace silt, strong gasoline odor.  | 16-17         |
| 17-18         |                               |                  |                                      |   | 17-18         |
| 18-19         | BOTTOM CAP                    |                  |                                      |   | 18-19         |
| 19-20         | UNDISTURBED NATIVE SOIL       |                  |                                      |   | 19-20         |
| 20-21         |                               |                  |                                      | BASE OF WELL AT 20.0'<br>END OF EXPLORATION AT 20.0'  | 20-21         |
| 21-22         |                               |                  |                                      |   | 21-22         |
| 22-23         |                               |                  |                                      |   | 22-23         |
| 23-24         |                               |                  |                                      |   | 23-24         |
| 24-25         |                               |                  |                                      |   | 24-25         |

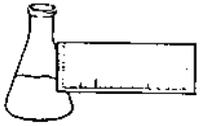
APPENDIX C

WATER LEVEL DATA



**APPENDIX D**

LABORATORY RESULTS



**ENDYNE, INC.**

Laboratory Services

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

REPORT OF LABORATORY ANALYSIS

CLIENT: Griffin International  
PROJECT NAME: Speedwells Gas  
REPORT DATE: February 12, 1996  
DATE SAMPLED: February 6, 1996

PROJECT CODE: GISW1770  
REF.#: 85,509 - 85,514

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody. Chain of custody indicated sample preservation with HCl.

All samples were prepared and analyzed by requirements outlined in the referenced method and within the specified holding times. All instrumentation was calibrated with the appropriate frequency and verified by the requirements outlined in the referenced method. Blank contamination was not observed at levels affecting the analytical results.

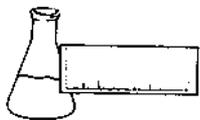
Analytical method precision and accuracy was monitored by laboratory control standards which included matrix spike, duplicate and quality control analyses. These standards were determined to be within established laboratory method acceptance limits.

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

Reviewed by,

Harry B. Locker, Ph.D.  
Laboratory Director

enclosures



**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: Speedwells Gas  
REPORT DATE: February 12, 1996  
DATE SAMPLED: February 6, 1996  
DATE RECEIVED: February 7, 1996  
DATE ANALYZED: February 8, 1996

PROJECT CODE: GISW1770  
REF.#: 85,509  
STATION: Trip Blank  
TIME SAMPLED: 7:14  
SAMPLER: R. Higgins & P. Hack

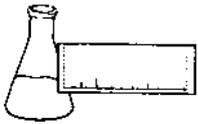
| <u>Parameter</u>    | <u>Detection Limit (ug/L)</u> | <u>Concentration (ug/L)</u> |
|---------------------|-------------------------------|-----------------------------|
| Benzene             | 1                             | ND <sup>1</sup>             |
| Chlorobenzene       | 1                             | ND                          |
| 1,2-Dichlorobenzene | 1                             | ND                          |
| 1,3-Dichlorobenzene | 1                             | ND                          |
| 1,4-Dichlorobenzene | 1                             | ND                          |
| Ethylbenzene        | 1                             | ND                          |
| Toluene             | 1                             | ND                          |
| Xylenes             | 1                             | ND                          |
| MTBE                | 10                            | ND                          |

Bromobenzene Surrogate Recovery: 95%

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected



**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: Speedwells Gas  
REPORT DATE: February 12, 1996  
DATE SAMPLED: February 6, 1996  
DATE RECEIVED: February 7, 1996  
DATE ANALYZED: February 9, 1996

PROJECT CODE: GISW1770  
REF.#: 85,510  
STATION: MW1  
TIME SAMPLED: 9:50  
SAMPLER: R. Higgins & P. Hack

| <u>Parameter</u>    | <u>Detection Limit (ug/L)<sup>1</sup></u> | <u>Concentration (ug/L)</u> |
|---------------------|---|-----------------------------|
| Benzene             | 500                                       | 1,910.                      |
| Chlorobenzene       | 500                                       | ND <sup>2</sup>             |
| 1,2-Dichlorobenzene | 500                                       | ND                          |
| 1,3-Dichlorobenzene | 500                                       | ND                          |
| 1,4-Dichlorobenzene | 500                                       | ND                          |
| Ethylbenzene        | 500                                       | 5,410.                      |
| Toluene             | 500                                       | 13,600.                     |
| Xylenes             | 500                                       | 32,200.                     |
| MTBE                | 5,000                                     | ND                          |

Bromobenzene Surrogate Recovery: 98%

NUMBER OF UNIDENTIFIED PEAKS FOUND: >10

NOTES:

1 Detection limit raised due to high levels of contaminants. Sample run at a 0.2% dilution.

2 None detected

RECEIVED FEB 14 1996



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: Speedwells Gas  
REPORT DATE: February 12, 1996  
DATE SAMPLED: February 6, 1996  
DATE RECEIVED: February 7, 1996  
DATE ANALYZED: February 8, 1996

PROJECT CODE: GISW1770  
REF.#: 85,511  
STATION: Duplicate MW1  
TIME SAMPLED: 9:50  
SAMPLER: R. Higgins & P. Hack

| <u>Parameter</u>    | <u>Detection Limit (ug/L)<sup>1</sup></u> | <u>Concentration (ug/L)</u> |
|---------------------|---|-----------------------------|
| Benzene             | 500                                       | 2,310.                      |
| Chlorobenzene       | 500                                       | ND <sup>2</sup>             |
| 1,2-Dichlorobenzene | 500                                       | ND                          |
| 1,3-Dichlorobenzene | 500                                       | ND                          |
| 1,4-Dichlorobenzene | 500                                       | ND                          |
| Ethylbenzene        | 500                                       | 5,880.                      |
| Toluene             | 500                                       | 14,800.                     |
| Xylenes             | 500                                       | 34,500.                     |
| MTBE                | 5,000                                     | ND                          |

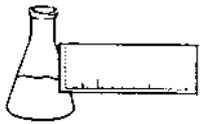
Bromobenzene Surrogate Recovery: 97%

NUMBER OF UNIDENTIFIED PEAKS FOUND: >10

NOTES:

- 1 Detection limit raised due to high levels of contaminants. Sample run at a 0.2% dilution.
- 2 None detected

RECEIVED FEB 14 1996



**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: Speedwells Gas  
REPORT DATE: February 12, 1996  
DATE SAMPLED: February 6, 1996  
DATE RECEIVED: February 7, 1996  
DATE ANALYZED: February 9, 1996

PROJECT CODE: GISW1770  
REF.#: 85,512  
STATION: MW3  
TIME SAMPLED: 10:01  
SAMPLER: R. Higgins & P. Hack

| <u>Parameter</u>    | <u>Detection Limit (ug/L)<sup>1</sup></u> | <u>Concentration (ug/L)</u> |
|---------------------|---|-----------------------------|
| Benzene             | 200                                       | 19,500.                     |
| Chlorobenzene       | 200                                       | ND <sup>2</sup>             |
| 1,2-Dichlorobenzene | 200                                       | ND                          |
| 1,3-Dichlorobenzene | 200                                       | ND                          |
| 1,4-Dichlorobenzene | 200                                       | ND                          |
| Ethylbenzene        | 200                                       | 3,550.                      |
| Toluene             | 200                                       | 32,500.                     |
| Xylenes             | 200                                       | 21,100.                     |
| MTBE                | 2,000                                     | 10,600.                     |

Bromobenzene Surrogate Recovery: 96%

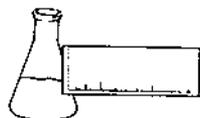
NUMBER OF UNIDENTIFIED PEAKS FOUND: > 10

NOTES:

1 Detection limit raised due to high levels of contaminants. Sample run at a 0.5% dilution.

2 None detected

3



**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: Speedwells Gas  
REPORT DATE: February 12, 1996  
DATE SAMPLED: February 6, 1996  
DATE RECEIVED: February 7, 1996  
DATE ANALYZED: February 9, 1996

PROJECT CODE: GISW1770  
REF.#: 85,513  
STATION: MW2  
TIME SAMPLED: 10:08  
SAMPLER: R. Higgins & P. Hack

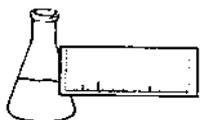
| <u>Parameter</u>    | <u>Detection Limit (ug/L)<sup>1</sup></u> | <u>Concentration (ug/L)</u> |
|---------------------|---|-----------------------------|
| Benzene             | 5   | 369.                        |
| Chlorobenzene       | 5   | ND <sup>2</sup>             |
| 1,2-Dichlorobenzene | 5   | ND                          |
| 1,3-Dichlorobenzene | 5   | ND                          |
| 1,4-Dichlorobenzene | 5   | ND                          |
| Ethylbenzene        | 5   | 16.5                        |
| Toluene             | 5   | 23.9                        |
| Xylenes             | 5   | 36.2                        |
| MTBE                | 50  | ND                          |

Bromobenzene Surrogate Recovery: 109%

NUMBER OF UNIDENTIFIED PEAKS FOUND: >10

NOTES:

- 1 Detection limit raised due to high levels of contaminants. Sample run at a 20% dilution.
- 2 None detected



**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: Speedwells Gas  
REPORT DATE: February 12, 1996  
DATE SAMPLED: February 6, 1996  
DATE RECEIVED: February 7, 1996  
DATE ANALYZED: February 9, 1996

PROJECT CODE: GISW1770  
REF.#: 85,514  
STATION: Equipment Blank  
TIME SAMPLED: 10:14  
SAMPLER: R. Higgins & P. Hack

| <u>Parameter</u>    | <u>Detection Limit (ug/L)</u> | <u>Concentration (ug/L)</u> |
|---------------------|-------------------------------|-----------------------------|
| Benzene             | 1                             | ND <sup>1</sup>             |
| Chlorobenzene       | 1                             | ND                          |
| 1,2-Dichlorobenzene | 1                             | ND                          |
| 1,3-Dichlorobenzene | 1                             | ND                          |
| 1,4-Dichlorobenzene | 1                             | ND                          |
| Ethylbenzene        | 1                             | ND                          |
| Toluene             | 1                             | ND                          |
| Xylenes             | 1                             | ND                          |
| MTBE                | 10                            | ND                          |

Bromobenzene Surrogate Recovery: 98%

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

**CHAIN-OF-CUSTODY RECORD**

18110

1964796

|   |   |  |
|---|---|--|
| Project Name: <u>SPEEDWELL'S GAS</u>    | Reporting Address: <u>GRIFFIN W/C</u>                               | Billing Address: <u>GRIFFIN</u>                            |
| Site Location: <u>LYNDONVILLE, VT</u>   |   |  |
| Endyne Project Number: <u>GESW 1770</u> | Company: <u>[Signature]</u><br>Contact Name/Phone #: <u>L. REED</u> | Sampler Name: <u>R. Higgins</u><br>Phone #: <u>P. Hart</u> |

| Lab # | Sample Location           | Matrix           | G<br>R<br>A<br>B | C<br>O<br>M<br>P | Date/Time       | Sample Containers |           | Field Results/Remarks | Analysis Required | Sample Preservation | Rush |
|-------|---------------------------|------------------|------------------|------------------|-----------------|-------------------|-----------|-----------------------|-------------------|---------------------|------|
|       |                           |                  |                  |                  |                 | No.               | Type/Size |                       |                   |                     |      |
| 85509 | TRIP Blank                | H <sub>2</sub> O | ✓                |                  | 2/16/96<br>7:14 | 2                 | 40ml G    |                       | 602               | HCl                 |      |
| 85510 | MW 1                      | ↓                | ↓                |                  | 9:50            | ↓                 | ↓         |                       | ↓                 | ↓                   |      |
| 85511 | <del>MW</del> DOLITE MW 1 | ↓                | ↓                |                  | 9:50            | ↓                 | ↓         |                       | ↓                 | ↓                   |      |
| 85512 | MW 3                      | ↓                | ↓                |                  | 10:01           | ↓                 | ↓         |                       | ↓                 | ↓                   |      |
| 85513 | MW 2                      | ↓                | ↓                |                  | 10:08           | ↓                 | ↓         |                       | ↓                 | ↓                   |      |
| 85514 | EQUIPMENT BLANK           | ↓                | ↓                |                  | 10:14           | ↓                 | ↓         |                       | ↓                 | ↓                   |      |

|   |   |                                   |
|---|---|-----------------------------------|
| Relinquished by: Signature <u>[Signature]</u> | Received by: Signature <u>[Signature]</u> | Date/Time <u>2/7/96 9:35</u>      |
| Relinquished by: Signature <u>[Signature]</u> | Received by: Signature <u>[Signature]</u> | Date/Time <u>2/7/96 9:55 A.M.</u> |

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 <sub>5</sub> | 14 | Turbidity    | 19 | BTEX               | 24 | EPA 608 Pest/PCB |    |                      |
| 5  | Nitrate N   | 10 | Alkalinity       | 15 | Conductivity | 20 | EPA 601/602        | 25 | EPA 8240         |    |                      |
| 29 | TCLP (Specify: volatiles, semi-volatiles, metals, pesticides, herbicides) |    |                  |    |              |    |                    |    |                  |    |                      |
| 30 | Other (Specify):  |    |                  |    |              |    |                    |    |                  |    |                      |

RECEIVED FEB 14 1996