ngineering and technology

R + R - OSH RECEIVED

JUL 30 2002

TRACKED | REVIEWED |

Phase 2.5 Environmental Sampling Investigation

# A-Z Sales and Service 100 West Main Street Bowler, Shawano County, Wisconsin

DNR BRRTS No. 03-59-190963

Prepared for: Wisconsin Department of Transportation - Bureau of Environment WisDOT Project I.D. 9308-04-00

Prepared by: Earth Tech, Inc. 200 Indiana Avenue Stevens Point, WI 54481

July 2002

Earth Tech Project No. 52065

# Phase 2.5 Environmental Sampling Investigation A-Z Sales and Service 100 West Main Street Bowler, Shawano County, Wisconsin DNR BRRTS No. 03-59-190963 WisDOT Project I.D. 9308-04-00 Earth Tech Job ID No. 52065

July 2002

Prepared by:

Michael W. Marcell

Environmental Scientist

Earth Tech, Inc.

Reviewed by:

Kyle W. Wagoner, P.G., CHMM

Project Manager

Earth Tech, Inc.

# TABLE OF CONTENTS

| IST C<br>IST C<br>IBLIC | F FIG<br>F TAE<br>OGRAI | ONTENTSURESBLESBHYBREVIATIONSBREVIATIONS |  |
|-------------------------|-------------------------|--|--|
| hapte                   | <u>r</u>                |  |  |
| 1.0                     | EXE                     | CUTIVE SUMMARY                           |  |
|                         | 1.1                     | FINDINGS AND CONCLUSIONS                 |  |
|                         | 1.2                     | OPINION                                  |  |
| 2.0                     | SITI                    | E INVESTIGATION                          |  |
|                         | 2.1                     | BACKGROUND                               |  |
|                         | 2.2                     | PURPOSE AND SCOPE                        |  |
|                         | 2.3                     | SITE DESCRIPTION                         |  |
|                         | 2.4                     | DESCRIPTION OF FIELD INVESTIGATION       |  |
|                         | 2.5                     | SUBSURFACE CONDITIONS                    |  |
|                         | 2.6                     | ANALYTICAL PARAMETERS AND RESULTS        |  |
|                         |                         | 2.6.1 Soil                               |  |
|                         | 2.7                     | CONCLUSIONS                              |  |
|                         | 2.8                     | OPINION                                  |  |
|                         | 2.9                     | STATEMENT OF LIMITATIONS                 |  |
| 3.0                     | APP                     | ENDICES                                  |  |
|                         | 3.1                     | SOIL BORING LOGS                         |  |
|                         | 3.2                     | PHOTOGRAPHIC LOG                         |  |
|                         | 3.3                     | SOIL GAS MONITORING                      |  |
|                         | 3.4                     | STANDARD SAMPLING PROCEDURES             |  |
|                         | 3.5                     | BOREHOLE ABANDONMENT FORMS               |  |
|                         | 3.6                     | STANDARD ANALYTICAL PROCEDURES           |  |
|                         | 3.7                     | CHAIN OF CUSTODY FORM                    |  |

# LIST OF FIGURES

| <u>Figure</u> | <u>Follows</u> | Page |
|---------------|----------------|------|
| 2-1           | Location Map   | 2-2  |
|               | Site Plan      | 2-2  |

# LIST OF TABLES

| <u>Table</u> | Follow                         | vs Page |
|--------------|--------------------------------|---------|
| 2-1          | Soil Sample Analytical Results | . 2-3   |

# **BIBLIOGRAPHY**

Graef, Anhalt, Schloemer and Associates, Inc., Phase 1 Hazardous Materials Assessment Report, August 16, 2001.

USGS, Bowler, Wisconsin, 1982, Quadrangle Map, 7.5 Minute Series (Topographic), 1:24,000.

Olcott, Perry G., Water Resources of Wisconsin - Fox-Wolf River Basin, WGNHS, Hydrologic Atlas HA-321.

# LIST OF ABBREVIATIONS

| bgs    | below ground surface                            |
|--------|---|
| i.u.   | instrument units                                |
| kg     | kilogram  |
| 1      | liter   |
| mg     | milligram                                       |
| ppm    | parts per million                               |
| ug     | microgram                                       |
|        |   |
| COMM   | Wisconsin Department of Commerce                |
| DCA    | Dichloroethane                                  |
| DNR    | Wisconsin Department of Natural Resources       |
| DRO    | Diesel Range Organics                           |
| EPA    | U.S. Environmental Protection Agency            |
| GRO    | Gasoline Range Organics                         |
| MEOH   | Methanol  |
| PVOCs  | Petroleum Volatile Organic Compounds            |
| PID    | Photoionization Detector                        |
| RCL    | Residual Containment Level                      |
| USGS   | U.S. Geological Survey                          |
| VOCs   | Volatile Organic Compounds                      |
| WisDOT | Wisconsin Department of Transportation          |
| WGNHS  | Wisconsin Geological and Natural History Survey |
|        |   |

#### 1.0 EXECUTIVE SUMMARY

This report summarizes the results of a Phase 2.5 Environmental Sampling Investigation conducted in the CTH A right of way next to A-Z Sales and Service, 100 West Main Street, Bowler, Wisconsin. The site was investigated for possible impacts related to the release of petroleum hydrocarbons from USTs located on the subject property. Two 1,000-gallon leaded gasoline USTs were previously removed from the property. A 1,200-gallon UST containing fuel oil is still in use according to COMM's storage tank database.

The investigation was conducted to determine if contaminated soil may be encountered at three planned storm inlet locations near A-Z Sales and Service during the reconstruction of CTH A. Highway reconstruction will include regrading and the installation of storm sewer and inlets. The planned maximum depth of excavation during storm inlet installation is estimated by WisDOT to be 3 feet. The planned maximum depth of the storm sewer trench is 6 feet. Highway reconstruction is scheduled to begin in 2003.

During the field investigation completed by Earth Tech on April 29, 2002, three soil probe borings (B-1, B-2, and B-3) were advanced to 3 feet bgs within WisDOT right of way next to the planned storm inlets. Soil samples were collected from each boring for laboratory analysis of GRO, DRO, PVOCs, and lead.

#### 1.1 FINDINGS AND CONCLUSIONS

The following is concluded from the information collected during the Phase 2.5 Environmental Sampling Investigation:

- 1. Subsurface materials encountered while drilling included brown, fine to coarse-grained sand with varying amounts of gravel to the terminus of the borings. Groundwater was not encountered in any of the borings. The approximate depth to groundwater ranges from 10 to 12 feet bgs.
- 2. No obvious petroleum odors or stains were identified in the borings. All PID readings were 0 i.u.
- 3. DRO, GRO, PVOCs, and lead were not detected above DNR RCLs in soil samples from Borings B-2 and B-3. DRO was detected at 125 ppm in B-1, which exceeds the NR 720 RCL (100 ppm).
- 4. Free phase petroleum product was measured in Mary's Place upgradient Monitoring Well, MW-2, at a thickness of about 0.5 feet. The layer of free product is approximately 4 feet below the planned maximum depth of the storm sewer trench.

## 1.2 OPINION

Based on the data and information collected during the Phase 2.5 investigation conducted at the A-Z Sales and Service site, it is Earth Tech's opinion that no additional investigation is warranted at this time for the CTH A reconstruction.

Options for managing DRO impacted soil within construction limits include the following:

Beneficial reuse as fill material during construction by placing the impacted soil within the CTH A
roadway subgrade or another acceptable location within the WisDOT right of way. A plan for beneficial
reuse would have to be approved by the DNR prior to construction. The material could be excavated and
temporarily stockpiled on site prior to the letting of the highway construction contract. Special Provisions

- in the highway construction contract could provide "Instructions to Contractor" for placing the stockpiled material within a specific location during reconstruction of CTH A and storm sewers.
- 2. Off-site treatment at a DNR permitted bioremediation facility approved by WisDOT. The material could be excavated and transported to the biopile facility during the highway construction.

#### 2.0 SITE INVESTIGATION

### 2.1 BACKGROUND

Two 1,000-gallon leaded gasoline USTs were closed and removed in October 1988, according to COMM's Storage Tank Database. A third 1,200-gallon fuel oil UST remains in use at A-Z Sales and Service. Free phase petroleum product was detected in a Mary's Place upgradient monitoring well (MW-2). Monitoring Well MW-2 is located near the north perimeter of the A-Z Sales and Service property. The release was reported to the DNR by Envirogen in November 1998. The DNR issued a Notice of Noncompliance on April 23, 1999, and a Notice of Violation on November 15, 1999. A-Z Sales and Service is currently under a land contract. However, the landowner cannot be located by the DNR. Consequently, the DNR is taking the lead responsibility for the site investigation. Limited background information for this site was taken from the Phase 1 Hazardous Materials Assessment Report prepared by Graef, Anhalt, Schloemer and Associates, Inc., dated August 16, 2001. Additional information was obtained by calling Cheryl Laatsch of the Wisconsin DNR in Oshkosh.

This investigation was conducted to determine if contaminated soils may be encountered during the planned reconstruction of CTH A. Highway reconstruction will include regrading and installation of storm sewer and inlets. Acquisition of additional right of way is not anticipated. The maximum depth of excavation during storm inlet installation is estimated by WisDOT to be 3 feet. The planned maximum depth of the storm sewer trench is 6 feet. Highway reconstruction is scheduled to begin in 2003.

### 2.2 PURPOSE AND SCOPE

The purpose of this project was to investigate for evidence and extent of soil contamination by petroleum hydrocarbons at the planned storm inlet locations within the existing highway right of way next to A-Z Sales and Service.

The Phase 2.5 scope of work included:

- 1. Advancement of three soil probe borings to approximately 3 feet bgs directly next to the planned storm inlets.
- Visual classification of soil samples obtained continuously from the borings and field screening of samples for volatile organic vapors using a PID and the headspace method.
- 3. Collection of one soil sample from each boring for laboratory analysis.
- 4. Measurement of free product and depth to water in Mary's Place Monitoring Well MW-2.
- 5. Completion of borehole closure in accordance with the requirements of Wisconsin Administrative Code, Chapter NR 141.
- 6. Preparation of this report summarizing the results of the Phase 2.5 Environmental Sampling Investigation.

#### 2.3 SITE DESCRIPTION

A-Z Sales and Service is located at the southwest corner of the intersection of CTH A and Main Street in Bowler, Wisconsin (see Figure 2-1). General site information includes:

Location:

NE 1/4, SE 1/4, Section 36, Township 28 North, Range 12 East

Address:

100 West Main Street

Bowler, Wisconsin 54416

County:

Shawano

### 2.4 DESCRIPTION OF FIELD INVESTIGATION

On April 29, 2002, three soil probe borings (B-1, B-2, and B-3 on Figure 2-2) were performed next to the planned location of the storm sewer inlets. The borings were advanced using a truck-mounted Geoprobe<sup>TM</sup> rig operated by SES, Inc. of Madison, Wisconsin. Soil boring logs are presented in Appendix 3.1. Photographs of the site indicating boring locations are included in Appendix 3.2.

Field measurements detected approximately 0.5 feet of free product in Mary's Place Monitoring Well MW-2 at 9.89 feet below top of casing.

Soil samples collected continuously from the borings were field screened using a PID. The PID is capable of detecting and measuring relative concentrations of volatile organic vapors in the soil gas. PID readings were recorded on the soil boring logs. Soil gas monitoring procedures are described in Appendix 3.3.

One soil sample was collected from the bottom interval of each boring for laboratory analysis. Soil sampling procedures are discussed in Appendix 3.4.

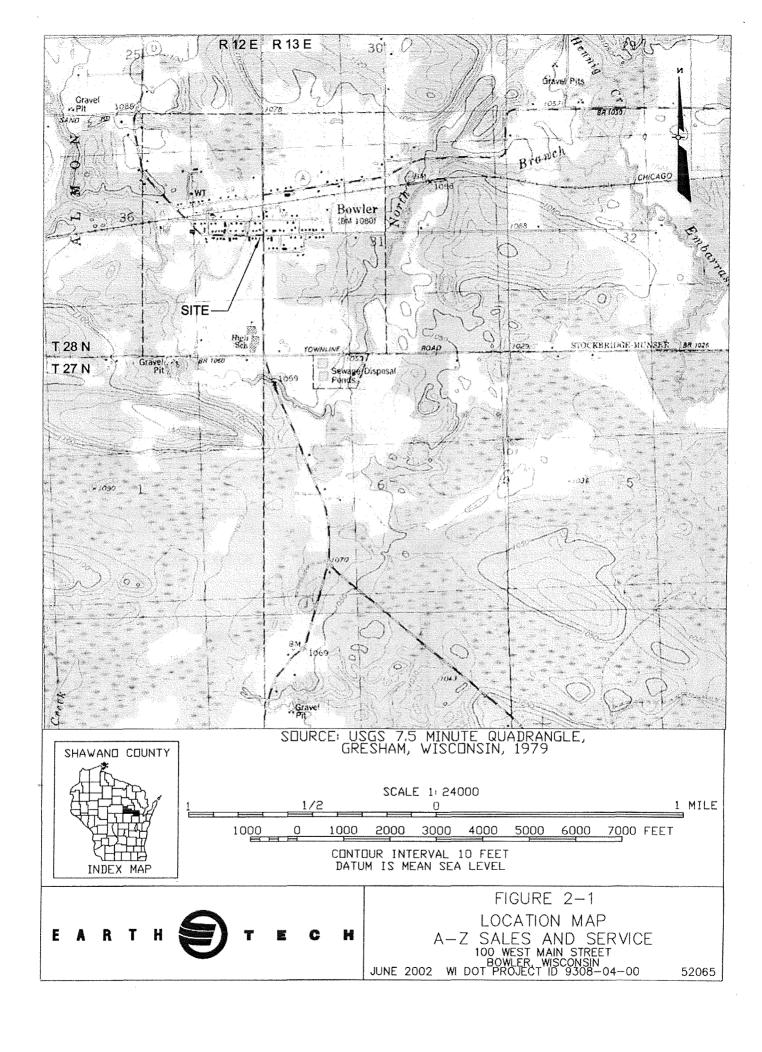
Upon completion of sampling, the borings were abandoned with granular bentonite poured into the boreholes in accordance with the requirements of Wisconsin Administrative Code, Chapter NR 141. Borehole abandonment forms are presented in Appendix 3.5.

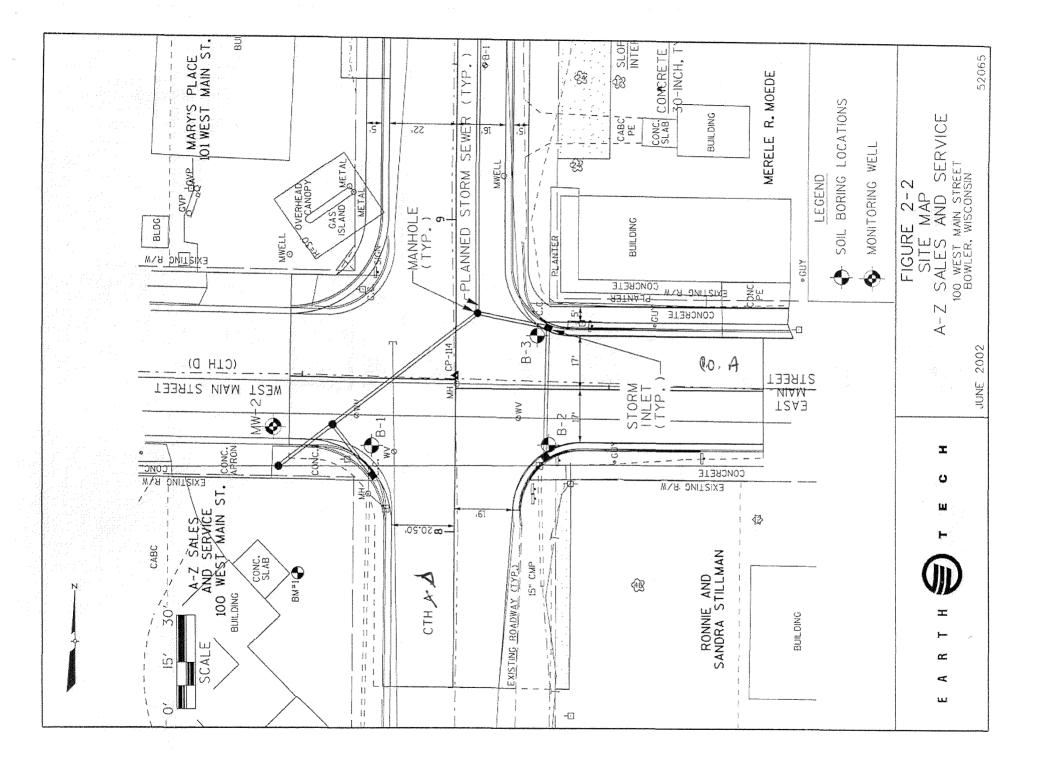
A negligible volume of soil cuttings were thin-spread on the ground surface in the vicinity of the respective borings because field screening results indicated that soil cuttings generated during borehole construction were not impacted.

### 2.5 SUBSURFACE CONDITIONS

A-Z Sales and Service is located in the north central portion of the Fox-Wolf River Basin. The area was glaciated and is generally covered with an average of approximately 100 feet of stratified glacial drift composed of sand and gravel. The stratified drift is underlain by Precambrian crystalline bedrock. Soil permeability is relatively high, ranging from 2.0 to 2.5 inches per hour. The regional direction of groundwater flow is southeast, toward the Wolf and upper Fox Rivers. Based on previous site investigation reporting for Mary's Place the direction of groundwater flow at the site is to the north/northeast. The depth to groundwater ranges from approximately 10 to 12 feet bgs.

Subsurface materials encountered while drilling included brown, fine to coarse grained sand with varying amounts of gravel to the terminus of the borings (approximately 3 feet bgs). Groundwater was not encountered





in any of the borings. No obvious petroleum odors or stains were identified in the borings. All PID readings were 0 i.u.

#### 2.6 ANALYTICAL PARAMETERS AND RESULTS

Analytical parameters were selected in general accordance with WisDOT and DNR guidance for investigations of petroleum storage tank sites and included GRO, DRO, PVOCs, and lead. Standard analytical procedures are discussed in Appendix 3.6.

### 2.6.1 Soil

Soil samples were collected from Soil Borings B-1, B-2, and B-3 at 2 to 3 feet bgs. The soil sample collected at Soil Boring B-1, located next to the storm inlet nearest A-Z Sales and Service, had a DRO concentration of 125 ppm which exceeds the DNR NR 720 RCL of 100 ppm for DRO in soil. Lead levels in soil samples from Soil Borings B-1, B-2, and B-3 were below the non-industrial RCL of 50 ppm. PVOC concentrations in soil samples collected from Borings B-1, B-2, and B-3 were either below the minimum detection limits or below the NR 720 RCLs. GRO was not detected.

Soil sample analytical results are summarized in Table 2-1. The sample chain of custody form and laboratory reports are included in Appendices 3.7 and 3.8, respectively.

### 2.7 CONCLUSIONS

The following is concluded from the data and information collected during the Phase 2.5 Environmental Sampling Investigation:

- 1. Subsurface materials encountered while drilling included brown, fine to coarse grained sand with varying amounts of gravel to the terminus of the borings.
- 2. No obvious petroleum odors or stains were identified in the borings. All PID readings were 0 i.u.
- 3. DRO, GRO, PVOCs, and lead were not detected above DNR RCLs in soil samples from Borings B-2 and B-3. DRO was detected at 125 ppm in B-1, which exceeds the NR 720 RCL (100 ppm).
- 4. Approximately 0.5 feet of free phase petroleum was measured in Mary's Place Monitoring Well MW-2 at a depth of 9.89 feet bgs. The layer of free product is approximately 4 feet below the planned maximum depth of the storm sewer trench.

#### 2.8 OPINION

Based on the data and information collected during the Phase 2.5 investigation conducted at the A-Z Sales and Service site, it is Earth Tech's opinion that no additional investigation is warranted at this time for the CTH A reconstruction.

Options for managing DRO impacted soil within construction limits include the following:

1. Beneficial reuse as fill material during construction by placing the impacted soil within the CTH A roadway subgrade or another acceptable location within the WisDOT right of way. A plan for beneficial reuse would have to be approved by the DNR prior to construction. The material could be excavated and

# **TABLE 2-1**

# SOIL SAMPLE ANALYTICAL RESULTS

# A-Z SALES AND SERVICES

## 100 WEST MAIN STREET

# BOWLER, SHAWANO COUNTY, WISCONSIN WISDOT PROJECT I.D. No. 9308-04-00

| 111000111100001100100000 |              |                  |            |            |            |  |  |  |  |  |
|--------------------------|--------------|------------------|------------|------------|------------|--|--|--|--|--|
|                          |              | Boring No.:      | B-1        | B-2        | B-3        |  |  |  |  |  |
|                          | Sample Depth | Interval (feet): | 2.0 to 3.0 | 2.0 to 3.0 | 2.0 to 3.0 |  |  |  |  |  |
|                          |              | Date Collected:  | 04/29/02   | 04/29/02   | 04/29/02   |  |  |  |  |  |
|                          |              | PID (i.u.):      | 0.0        | 0.0        | 0.0        |  |  |  |  |  |
|                          | NR 720       | COMM 46          |            |            |            |  |  |  |  |  |
|                          | RCL          | SSL              |            |            |            |  |  |  |  |  |
| Analyte                  |              |                  |            |            |            |  |  |  |  |  |
| GRO (mg/kg)              | 100          | N/A              | <5.18      | <5.77      | <5.29      |  |  |  |  |  |
| DRO (mg/kg)              | 100          | N/A              | 125.0      | 28.4       | <5.29      |  |  |  |  |  |
| PVOCs (mg/kg)            |              |                  |            |            |            |  |  |  |  |  |
| Benzene                  | 0.0055       | 8.5              | < 0.025    | < 0.025    | < 0.025    |  |  |  |  |  |
| Ethylbenzene             | 2.9          | 4.6              | < 0.025    | < 0.025    | 0.0299     |  |  |  |  |  |
| Methyl-tert-butyl ether  | N/A          | N/A              | < 0.025    | < 0.025    | < 0.025    |  |  |  |  |  |
| Toluene                  | 1.5          | 38               | < 0.025    | < 0.025    | < 0.025    |  |  |  |  |  |
| 1,2,4-Trimethylbenzene   | N/A          | 83               | < 0.025    | < 0.025    | 0.106      |  |  |  |  |  |
| 1,3,5-Trimethylbenzene   | N/A          | 11               | < 0.025    | < 0.025    | 0.0355     |  |  |  |  |  |
| Xylene (total)           | 4.1          | 42               | < 0.050    | < 0.050    | <0.171     |  |  |  |  |  |
| Lead (mg/kg)             | 50           | N/A              | 3.37       | 4.21       | 6.89       |  |  |  |  |  |

# Notes:

- 1. "RCL" means applicable "Residual Contaminant Level" for non-industrial sites as listed in Tables 1 and 2 of NR 720.
- 2. "SSL" means applicable "Soil Screening Level" as listed in Table 1 of COMM 46.
- 3. Bold type indicates an analyte which exceeds NR 720 RCL.

 $L: \WORK \Projects \S2065 \wp\reports \a-z\ sales \[table 2-1\_mwm.xls]A$ 

temporarily stockpiled on site prior to the letting of the highway construction contract. Special Provisions in the highway construction contract could provide "Instructions to Contractor" for placing the stockpiled material within a specific location during reconstruction of CTH A and storm sewers.

2. Off-site treatment at a DNR permitted bioremediation facility approved by WisDOT. The material could be excavated and transported to the biopile facility during the highway construction.

# 2.9 STATEMENT OF LIMITATIONS

Earth Tech's Scope of Services was limited to conducting a Phase 2.5 Environmental Sampling Investigation within the existing highway right of way next to A-Z Sales and Service.

Earth Tech's opinion regarding existing conditions at the site does not constitute a guarantee or warranty as to the potential environmental liability associated with the site. Furthermore, the findings and conclusions given are not scientific certainties, but rather probabilities based on data obtained or activities performed during this assessment and professional judgment concerning the significance of this data. All information was collected in accordance with generally accepted professional standards and practices, accepted in good faith, and is assumed to be factual and accurate.

Earth Tech is not able to determine whether the site or adjoining land areas contain hazardous waste, oil, or other latent conditions beyond those detected or observed by Earth Tech at the time the investigation was conducted. The possibility always exists for contaminants to migrate through the surface water, air, or groundwater. Detailed analysis and discussion of the environmental risk associated with contaminant transport in these media was beyond the scope of this assessment.

The findings, conclusions, and opinion contained in this report are intended for exclusive use by WisDOT and are applicable to only the A-Z Sales and Service Phase 2.5 Environmental Sampling Investigation. Earth Tech has no obligations to other persons or organizations who may use or rely upon this information.

2-4

3.0 APPENDICES

# APPENDIX 3.1

# SOIL BORING LOGS

| State of Wisconsin              |
|---------------------------------|
| Department of Natural Resources |

Signature

# SOIL BORING LOG INFORMATION

Form 4400-122 Watershed/Wastewater Waste Management Route To: Remediation/Revelopment Other Page \_\_\_\_\_ of \_\_\_\_\_ Boring Number Facility/Project Name License/Permit/Monitoring Number Boring Drilled By: Name of crew chief (first, last) and Firm Date Drilling Started Date Drilling Completed Drilling Method First Name: RICK Last Name: Z' SPUT SPORT Firm: SES NC WI Unique Well No. DNR Well ID No. Well Name Final Static Water Level Surface Elevation Borehole Diameter Feet MSL Feet MSL inches Local Grid Origin (estimated: ) or Boring Location n Local Grid Location 0 DE  $\square$  N 0 NE 1/4 of SE 1/4 of Section 36, T Z8N, R 1200W Long Feet  $\square$  S Feet□ W County Code Civil Town/City/ or Village SHAWAND Sample Soil Properties Depth in Feet (Below ground surface) Length Att. & Recovered (in) Soil/Rock Description Blow Counts Compressive Strength Number and Type And Geologic Origin For Moisture Content Plasticity Index uscs Graphic Log Well Diagram Each Major Unit Linging P 200 7" CONCRETE 0.570 Z.O LOOKE, BROWN JOYR 44) 0 SP MONE MORS 2.DT0 3,0 5P NOHE 0 MOST EDB @301 I hereby certify that the information on this form is true and correct to the best of my knowledge.

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

FARTH LECH.

| State of Wisconsin    |           |
|-----------------------|-----------|
| Department of Natural | Resources |

# SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

|                    |                                 |                | Rou                                     |  | Vastewater 🔲 Wi<br>/Revelopment 🔯  |         |          |                 | •               |         |                         |                     |                     |                     |          |                  |
|--------------------|---------------------------------|----------------|---|--|------------------------------------|---------|----------|-----------------|-----------------|---------|-------------------------|---------------------|---------------------|---------------------|----------|------------------|
|                    |                                 |                |   | Remediation                                  | Acceptant E                        | Outer [ | <b>.</b> | <del></del>     |                 |         |                         |                     |                     | ,                   | _        | 1                |
| Facili             | ty/Proj                         | ect Na         | me                                      |  |                                    | Lice    | nse/Pen  | mit/Mo          | mitorir         | g Num   | nber                    | Borin               | g Num               | ber                 | _ ot _   |                  |
|                    | W                               | 15 <u>0</u> €  | 27-                                     | BOWLER — (e of crew chief (first, Last Name: | 74A                                |         |          |                 | <u></u> -       |         |                         | <u> </u>            | <u>B~</u>           |                     |          |                  |
| Borin<br>First l   | g Drille<br>Name:               | KICI<br>KICI   | Name<br>Li                              | Last Name:                                   | iast) and ritm                     | 1       | Drilling | _               |                 |         |                         |                     |                     | Drillin             |          |                  |
| Firm:              | 38                              | <b>:</b>       | INC                                     |  |                                    |         | 1,29     |                 |                 |         |                         |                     |                     | 1                   |          | it spacks        |
| WI U               | nique \                         | Vell N         | 0.                                      | DNR Well ID No.                              | Well Name                          | Final   | Static   | Water<br>Feet N |                 | Surfac  | c Elev                  | ation<br>_Feet.     |                     |                     |          | ameter           |
| Local              | Grid C                          | rigin          | - l                                     | stimated:  ) or Bo                           | ring Location                      |         |          |                 |                 | Local   | Grid L                  |                     |                     |                     | <u> </u> | nches            |
| State I            | _                               |                |   | N. 34  | E S/C/                             | -       | Lat      | 0 '             |                 |         | _                       |                     | N                   |                     |          | □ E              |
| Facili             |                                 | SW             | /1/4 ot                                 | Section Z, T Z                               | <u>8 N, R / 3 /6</u> /             | W Lo    |          | Civil           | Town/           | City/ o |                         | eel [               | S _                 |                     | Feet     | ID W             |
| `                  |                                 | سادند ۱۸۸۰ ایج |   | SHAU   | VANO                               | 5       |          | 1               | Bow             | -       | _                       |                     |                     |                     |          |                  |
| Sam                | ple<br>læ ⊋                     | Ì              | face)                                   | ·  |                                    |         |          |                 |                 |         |                         | Soil                | Prope               | rties               |          | ,                |
| •                  | Length Att. &<br>Recovered (in) | Blow Counts    | Depth in Feet<br>(Below ground surface) | Soil/Roo<br>And Geol                         | ck Description<br>logic Origin For |         | 1        |                 |                 |         | sive                    |                     | apr                 |                     |          | ស្               |
| Number<br>and Type | gth ,                           | ပိ             | ith in                                  | Each   | Major Unit                         | ,       | scs      | 겵               | = 5             | PID/E   | ngth                    | Moisture<br>Content |                     | Plasticity<br>Index | 2        | RQD/<br>Comments |
| Nur                | 72 %                            | Blo            | 75                                      |  |                                    |         | ă        | رِّجُ الْحُ     | Well<br>Diagram | PIC     | Compressive<br>Strength | Ž<br>Č<br>Ž<br>Č    |                     | Plas<br>Indo        | P 200    | S 2              |
|                    |                                 |                | =                                       | 2" 95 PHAY<br>0.3 TO Z.O BR<br>SILTY F/M S   | OWN (1042 4/4                      | LOSE    |          |                 |                 |         |                         |                     | ·                   |                     |          |                  |
|                    |                                 |                | Ei                                      | SILTY F/M S                                  | AND MOIST                          | 7       | SP       |                 |                 | Ö       |                         |                     | LONE                |                     |          | 11:10            |
| 5-1                | 12                              |                | E '                                     |  | ,                                  |         |          |                 |                 |         |                         |                     |                     |                     |          |                  |
| ·                  | , –                             |                | <u> </u>                                | 2,0 103,0                                    | 544                                |         |          |                 |                 |         |                         |                     | <b>h</b> ( <b>a</b> |                     |          | iius             |
| 5.z                | 16                              |                | E,                                      |  |                                    |         | 5P       |                 |                 | 0       |                         |                     | Nove                |                     |          | DRO GRO/PA       |
| <u> </u>           |                                 |                | F                                       | EOB 6  | 3.01                               |         | 1        |                 |                 |         |                         |                     |                     |                     |          | VINO EXCIPTION   |
|                    |                                 |                | 臣                                       |  |                                    |         | 1        |                 |                 |         |                         |                     |                     |                     |          |                  |
|                    |                                 |                | E                                       |  | 4                                  |         |          |                 |                 | ٠.      |                         |                     |                     |                     |          |                  |
|                    |                                 |                | E                                       |  |                                    | , A     | 1        |                 |                 |         | ام.                     |                     |                     |                     |          |                  |
| •                  |                                 |                | E                                       | 77   |                                    |         | -10      |                 |                 |         |                         |                     |                     |                     |          | -                |
|                    |                                 |                | E                                       |  |                                    |         | l        |                 | İ               |         | -                       |                     |                     |                     |          |                  |
| •                  |                                 |                | E                                       |  | •                                  |         |          |                 |                 |         |                         |                     |                     |                     |          |                  |
|                    |                                 |                | E                                       |  |                                    |         |          |                 |                 |         |                         |                     |                     | ,                   |          |                  |
|                    |                                 |                | F                                       |  |                                    |         |          |                 |                 |         |                         |                     |                     |                     |          |                  |
|                    |                                 |                | E                                       | 1  |                                    |         |          |                 |                 |         |                         |                     |                     | -                   |          |                  |
|                    |                                 |                | E                                       |  |                                    |         |          |                 |                 |         |                         |                     |                     |                     |          |                  |
|                    |                                 |                | E                                       |  |                                    |         |          |                 |                 |         |                         |                     |                     |                     |          |                  |
|                    |                                 |                |   |  |                                    |         |          |                 |                 |         |                         |                     |                     |                     |          |                  |
|                    |                                 |                | F                                       |  |                                    |         |          |                 |                 |         |                         |                     |                     |                     |          |                  |
|                    |                                 |                | F                                       |  |                                    |         |          | ĺ               |                 |         |                         |                     |                     |                     |          |                  |
|                    |                                 |                | E                                       |  |                                    |         |          |                 |                 |         |                         |                     |                     |                     |          |                  |
| I baust            | L                               | :6. 4          |   | info   | nem in term and an                 |         | <u> </u> | <u> </u>        | L               |         |                         | L                   | <u> </u>            |                     |          | <u></u>          |
| Signati            |                                 | ary th         | at the                                  | information on this f                        | orm is true and co                 | Firm    | ne des   | t ot m          | у клоч          | vicage  | ·                       |                     |                     |                     |          | ·                |
|                    |                                 | //h            | il                                      | Com  |                                    |         |          | E               | 7<br>A/27       | 7+      | TE                      | -4                  | 140                 | E                   |          |                  |

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

State of Wisconsin Department of Natural Resources

# SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

|                    |                              |             | Rout                                    |              |                                 | Vastewater [                 |                    |               |   |           |                 |          |                         |                     |                    |                     |        |                  |
|--------------------|------------------------------|-------------|---|--------------|---------------------------------|------------------------------|--------------------|---------------|---|-----------|-----------------|----------|-------------------------|---------------------|--------------------|---------------------|--------|------------------|
|                    |                              |             |   | ı            | Remediation                     | /Revelopmer                  | ıı 🗀 Oth           | er L          | J   |           |                 |          |                         |                     |                    |                     |        |                  |
| -                  |                              |             |   |              |                                 |                              |                    |               |   | 1.0.4     |                 |          |                         | -                   | Page               |                     | _ of _ |                  |
|                    | ty/Proje                     |             |   | Z            | - 07                            | 2 دن                         |                    | Licen         | se/ren  | niyMo     | mitorin         | g Nun    | iber                    | Borni               | Numi               | Der<br>ろ            |        | •                |
| Borin              | g Drille                     | d By:       | Name                                    | of crew      | chief (first,                   | IA A last) and Fire          | m                  | Date I        | Date Drilling Started   Date Drilling Completed   Drilling Method |           |                 |          |                         |                     |                    |                     | hod    |                  |
| First 1            | lame:                        | RK          | -H                                      | Last Nam     | e:                              |                              |                    | 04            | 129   | 120       |                 |          | _                       | _                   |                    |                     | -      | IT Spack         |
| Firm:              | <u> </u>                     | <u> </u>    | MC                                      | 7010 311     | il ID No.                       | Well Name                    |                    |               |   |           | y y<br>Level    |          |                         |                     |                    |                     |        |                  |
| WI U               | uidne A                      | ACII IA     | o.                                      | DNK W        | ii ib no.                       | Mell Manue                   |                    | Linai         |   | Feet N    |                 | SWIM     | æ Elev                  | ation<br>_Feet l    |                    |                     | ole U1 | ameter           |
| Local              | Grid C                       | rigin       |   | timated:     | l) or Bo                        | ring Location                | , 0                | <u> </u>      |   | 0         |                 | Local    | Grid L                  | _                   |                    |                     |        | narcs            |
|                    |                              |             |   |              |                                 |                              |                    | 1             | .al   | ō ,       |                 |          | -                       |                     | N                  |                     |        | DE               |
| Facili             | 1/4 of                       | <u>5u</u>   | /1/4 of                                 | Section_     | <u>∂/</u> , T <u>∠</u><br>unty_ | 8 N. R /=                    | <u>5 €</u> W<br>Co | Lor<br>unty C |   | Civil     | Town/           | City/o   | F Villa                 | eet 🗆               | <u>s</u> _         |                     | Feet   | U W              |
|                    | .,                           |             |   |              | SHAW                            | AND                          | _                  | 5             | 2_  |           |                 | WLL      |                         |                     |                    |                     |        |                  |
| Sam                | ple                          |             | <u> </u>                                |              |                                 |                              |                    |               |   |           |                 |          |                         | Soil I              | Prope              | ties                |        |                  |
|                    | Length Att. & Recovered (in) | nts         | Depth in Feet<br>(Below ground surface) |              |                                 | ck Descriptio                |                    |               | 2   |           |                 |          | ů<br>>                  |                     | anse               |                     |        |                  |
| ម្ន                | h Ai                         | Com         | in F                                    |              |                                 | logic Origin l<br>Major Unit | For                |               | SS  | ပ္        | Ę               | <b>£</b> | essi<br>th              | 8 =                 | OWK.               | ity                 |        | ents             |
| Number<br>and Type | eng!                         | Blow Counts | cpth<br>elow                            |              | 200.1                           | Major Olar                   |                    | ,             | USC   | Graphic 5 | Well<br>Diagram | PID/RHD  | Compressive<br>Strength | Moisture<br>Content | Linging<br>Linging | Plasticity<br>Index | P 200  | RQD/<br>Comments |
| Z #                | 7 %                          | 18          | Δe                                      |              |                                 |                              |                    | ·             | 1-  | 27        | 20              | <u>a</u> | ೧೯                      | ≥0                  | 27                 | 교기                  | Ь      | αŭ               |
|                    |                              |             | E                                       | _            | CONCRET                         |                              |                    | ,             |   |           |                 |          | -                       |                     |                    |                     |        |                  |
|                    | 16                           |             | -1                                      | 0,77         | 0 1,6 3                         | MOIST                        | . /                |               | SW  |           |                 | 0        |                         | Mice                |                    |                     |        | 11:25            |
| 5-1                | "                            |             | E                                       | 167          | , 200                           | ASE, BR                      | OWN (D)            | 124/4         | SP  |           |                 | •        |                         | ~24                 | HONE               |                     |        | ,                |
|                    |                              |             | <u>-</u> 2                              | The state of | 4 SAND,                         | MOIST                        |                    | ,,,           | ĺ ′   |           |                 |          |                         | Mast                | NAAPE              |                     |        | 11:30            |
| 5-2                | 9                            |             | =                                       | 2.0          | TO 3.0                          | GRASELLY                     | SAHRA              | uakt          | SW  |           |                 | 0        |                         | WE131               | 1202               |                     |        | DRO GROPPIO      |
|                    | <u> </u>                     |             | =3                                      |              | FOR 6                           | 2 301                        |                    |               | l   |           |                 |          |                         |                     |                    |                     |        |                  |
|                    |                              |             | E                                       |              | و وردي                          | ,_                           |                    |               |   |           |                 |          |                         |                     |                    |                     |        |                  |
|                    |                              |             | =                                       |              |                                 |                              |                    |               |   |           |                 |          |                         |                     |                    |                     |        |                  |
|                    |                              |             | E                                       |              |                                 |                              |                    |               | l   |           |                 |          |                         |                     |                    |                     | l      |                  |
|                    |                              |             | E                                       |              | •                               | •                            |                    |               | 1   |           |                 |          |                         |                     |                    |                     |        | 1                |
|                    |                              |             | F                                       |              |                                 |                              |                    |               | 1   |           |                 |          |                         |                     |                    |                     |        |                  |
|                    |                              |             | E                                       |              |                                 |                              |                    |               |   |           |                 |          | ·                       |                     |                    |                     |        |                  |
|                    |                              |             | =                                       |              |                                 |                              |                    |               |   |           | 1               |          |                         |                     |                    |                     |        | ·                |
|                    |                              | ,           | E                                       |              |                                 |                              | •                  |               |   |           |                 |          |                         |                     |                    |                     |        |                  |
|                    |                              |             | Ė.                                      |              |                                 |                              |                    |               |   |           |                 |          |                         |                     |                    |                     |        |                  |
|                    |                              |             | F                                       |              |                                 |                              |                    |               | l   | ļ         |                 |          |                         |                     |                    |                     |        |                  |
|                    |                              |             | E.                                      | l            |                                 |                              |                    |               |   | 1         |                 |          |                         |                     |                    |                     |        |                  |
|                    |                              |             | E                                       |              |                                 |                              |                    |               |   |           |                 |          |                         |                     |                    |                     |        |                  |
|                    |                              |             | E                                       |              |                                 |                              |                    |               |   |           |                 |          |                         |                     |                    |                     |        |                  |
|                    |                              |             | F                                       |              |                                 |                              |                    |               | ĺ   |           |                 |          |                         |                     |                    |                     |        |                  |
|                    |                              |             | E                                       |              |                                 |                              |                    |               |   |           |                 |          |                         |                     |                    |                     |        |                  |
|                    |                              |             | E                                       |              |                                 |                              |                    |               |   |           |                 |          |                         |                     |                    |                     |        |                  |
|                    |                              |             | E                                       |              |                                 |                              |                    |               |   |           |                 |          |                         |                     |                    |                     |        |                  |
| I here             | by cen                       | ify th      | at the                                  | informati    | ion on this f                   | form is true                 | and corre          | ct to t       | he bes  | t of m    | y knov          | vledge   | e.                      |                     |                    |                     |        |                  |
| Signat             |                              | ///         | -//                                     | 67           |                                 |                              |                    | Firm          | _   |           |                 |          |                         |                     |                    |                     |        |                  |
|                    | - 5                          | MAN         | 1/2                                     | 1 -          | m                               |                              | į                  |               | 4   | 200       | 1 T             | رد مست   | · /A                    | 1                   |                    |                     |        |                  |

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

# APPENDIX 3.2

# PHOTOGRAPH LOG

Phase 2.5 Environmental Sampling Investigation
A-Z Sales and Service
100 West Main Street
Bowler, Shawano County, Wisconsin
April 29, 2002



View southwest of A-Z Sales and Service at the corner of CTH A and Main Street. The orange cones indicate the locations of Soil Borings B-1 (right cone) and B-2 (left cone).



View northeast from A-Z Sales and Service. The orange cones indicate the locations of Soil Borings B-1 (foreground), B-2 (right), and B-3 (background).

# APPENDIX 3.3

SOIL GAS MONITORING

# 3.3 SOIL GAS MONITORING

PID Model:

HNu PI-101

Probe:

10.2 eV Lamp

Calibration Gas:

100 ppm Isobutylene/Air

Reading:

55 ppm

The PID was calibrated before and after sampling was conducted.

| Date     | Time       | Initial Setting | Final Adjusted Setting |
|----------|------------|-----------------|------------------------|
| 04/29/02 | 10:45 a.m. | 7.60            | 7.80                   |
| 04/29/02 | 12:30 p.m. | 7.80            | 7.06                   |

Soil gas readings were obtained using the headspace method. Soil samples were placed in plastic zip-lock bags, and the air in each bag was allowed to equilibrate with the soil sample for up to 30 minutes. If the outside air temperature was below 70 degrees Fahrenheit, the soil samples were heated to a temperature of approximately 75 degrees Fahrenheit. The PID probe was then inserted into the bag headspace and the instrument reading was recorded.

# APPENDIX 3.4 STANDARD SAMPLING PROCEDURES

# 3.4 STANDARD SAMPLING PROCEDURES

# 3.4.1 Soil

Soil samples were collected continuously from the soil probe borings using 2-inch diameter samplers with disposable teflon liners. Samples collected for laboratory analysis were removed from the teflon liners and placed directly into laboratory supplied glass jars using new protective gloves. Protective gloves were disposed after collection of each sample. All soil samples were preserved according to DNR and EPA protocol. The samplers were washed in a solution of Alconox soap and water, and double rinsed with tap water between samples.

# **APPENDIX 3.5**

# **BOREHOLE ABANDONMENT FORMS**

WELL/DRILLHOLE/BOREHOLE ABANDONMENT Form 3300-5B Rev. 8-89

All abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112 or NR 141, Wis. Admin. Code, whichever is applicable. Also, see instructions on back.

| (I) GENERAL INFORMATION                | Annual Market Control of the Control | (2) FACILITY NAME  |                                     |  |                                |  |  |  |  |  |
|--|--|--|-------------------------------------|--|--------------------------------|--|--|--|--|--|
| Well/Drillhole/Borehole                | County   | Original Well Owner (If Known)   |                                     |  |                                |  |  |  |  |  |
| Location                               | SHAWANO  | WIS DOT- BOE   |                                     |  |                                |  |  |  |  |  |
| -                                      |  | Prese  | nt Well Owne                        | er   |                                |  |  |  |  |  |
| NE 1/4 of SE 1/4 of Sec. 3             | 6; T. 28 N. R. 12 17   |  |                                     |  |                                |  |  |  |  |  |
| (If applicable)                        |  | Stree  | t or Route                          |  |                                |  |  |  |  |  |
| Gov't Lot                              | Grid Number  | 2  | 1802                                | SHERN  | WAN AL                         |  |  |  |  |  |
| Grid Location                          |  |  | State, Zip Co                       | ode  | YEAR AVE                       |  |  |  |  |  |
| ft.   N.   S.,                         | ft.   E.   W   |  | 14DISON                             |  | 53707                          |  |  |  |  |  |
| Civil Town Name                        |  | Facili   | v Well No. a                        | nd/or Name (It A   | Applicable) WI Unique Well No. |  |  |  |  |  |
|  |  | K  | _/                                  | (  | WI Single Well 116.            |  |  |  |  |  |
| Street Address of Well                 |  | Page   | n For Abando                        | an-mant  |                                |  |  |  |  |  |
|  |  | 1  |                                     |  |                                |  |  |  |  |  |
| 100 W. MAIN                            |  | - David  | EMPOR                               | ent'   | VOLE                           |  |  |  |  |  |
| City Village                           |  | Date   |                                     |  |                                |  |  |  |  |  |
| BOWLERS                                |  |  | 4/29                                | 9/02   |                                |  |  |  |  |  |
| WELL/DRILLHOLE/BOREHOLE                |  | -  |                                     |  |                                |  |  |  |  |  |
| (3) Original Well/Drillhole/Borehole C | onstruction Completed On   | (4) Depth  | to Water (Fe                        | et) NA   |                                |  |  |  |  |  |
| (Date) 4/29/02                         |  | Pump   | & Piping Rei                        | moved?   | Yes No No Applicable           |  |  |  |  |  |
|  |  | Liner(s  | s) Removed?                         |  | Yes No Not Applicable          |  |  |  |  |  |
| ☐ Monitoring Well                      | Construction Report Available?   | Screen   | Removed?                            | Ħ  | Yes No Not Applicable          |  |  |  |  |  |
| ☐ Water Well                           | □-Yes □ No   | Casing   | Left in Place                       | :? ☐   | Yes No                         |  |  |  |  |  |
| Drillhole                              |  | If No,   | Explain                             |  | .6075                          |  |  |  |  |  |
| Borehole                               |  | 1  |                                     |  |                                |  |  |  |  |  |
|  |  | Was C  | asing Cut Off                       | Below Surface?   | ☐ Yes ☐ No                     |  |  |  |  |  |
| Construction Type:                     |  |  |                                     | Rise to Surface  |                                |  |  |  |  |  |
|  | Sandroint) Dug   |  |                                     | After 24 Hours?  | Yes No                         |  |  |  |  |  |
|  | oatapoutt)   |  | s, Was Hole I                       |  | Yes No                         |  |  |  |  |  |
| 2 Onle (Specify) POSH 57               | 21115-5POON  |  |                                     |  |                                |  |  |  |  |  |
| Formation Type:                        |  | (5) Require  | d Method of                         | Placing Sealing I  | Material                       |  |  |  |  |  |
| Unconsolidated Formation               | ☐ Bedrock  | Conductor Pipe-Gravity Conductor Pipe-Pumped Dump Bailer Conductor Pipe-Pumped  RAWITY - Trend |                                     |  |                                |  |  |  |  |  |
| er Unconsolidated Formation            | L Bedrock  |  |                                     |  |                                |  |  |  |  |  |
| Total Well Depth (ft.) 3.0 C           | asing Diameter (ins.)  | (6) Sealing  | Materials                           |  | For monitoring wells and       |  |  |  |  |  |
| (From groundsurface)                   |  |  | t Cement Gro                        | out  | monitoring well boreholes only |  |  |  |  |  |
| ,                                      |  |  |                                     | oncrete) Grout   | g ver coronored any            |  |  |  |  |  |
| Casing Depth (ft.)                     |  | Con  |                                     | ,  | Bentonite Pellets              |  |  |  |  |  |
| Transfer (m)                           |  |  | Clay-Sand Slurry Granular Bentonite |  |                                |  |  |  |  |  |
| Was Well Annular Space Grouted?        | ☐ Yes ☐ No ☐ Unknown   |  |                                     |  |                                |  |  |  |  |  |
| If Yes, To What Depth?                 | Feet   | ☐ Bentonite-Sand Slurry ☐ Bentonite - Cement Grout   |                                     |  |                                |  |  |  |  |  |
| in res, to what beput:                 | Tect   | City   | рественни                           |  |                                |  |  |  |  |  |
| 7) Sealing Materia                     | Lilead   | From (Ft.)   | To (Ft.)                            | No. Yards,<br>Sacks Sealant<br>or Volume   | Mix Ratio or Mud Weight        |  |  |  |  |  |
| Seaming Wateria                        | l Osed   | From (Ft.)   | 16 (Fi.)                            | or Volume  | WIX Rado of Wild Weight        |  |  |  |  |  |
|  |  | Surface  | A                                   |  |                                |  |  |  |  |  |
| QUICKCRETE                             | a .  | Surface  | 0.4                                 |  |                                |  |  |  |  |  |
| QVICKCRETE<br>HOLE PLUG                |  |  |                                     | 11-  |                                |  |  |  |  |  |
| MAIE DIN                               |  | 0,4  | 3.0                                 | 18   | 1                              |  |  |  |  |  |
| HOLL PLUM                              |  |  |                                     |  |                                |  |  |  |  |  |
|  |  |  |                                     |  |                                |  |  |  |  |  |
|  |  | -2   |                                     |  |                                |  |  |  |  |  |
|  |  |  |                                     |  |                                |  |  |  |  |  |
| S) Comments:                           |  |  |                                     |  |                                |  |  |  |  |  |
| comments:                              |  |  |                                     |  |                                |  |  |  |  |  |
|  |  |  |                                     |  |                                |  |  |  |  |  |
| Name of Person or Firm Doing Sealin    |  | (10)   |                                     | The second liverage of | DUNTY USE ONLY                 |  |  |  |  |  |
| SES /4C.,                              | EARTH TECH   | Date   | Received/Insp                       | ected  | District/County                |  |  |  |  |  |
| Signature of Person Doing Work         | Date Signed ,  |  |                                     |  |                                |  |  |  |  |  |
| Phil Cooper                            | 4/28/02  | Revie  | wer/Inspector                       |  |                                |  |  |  |  |  |
|  | Telephone Number   |  |                                     |  |                                |  |  |  |  |  |
| ZOO /NDVANA                            | (7/5) 34Z-3537   | Follow   | v-up Necessa                        | ry   |                                |  |  |  |  |  |
| City, State, Zip Code                  |  |  |                                     |  |                                |  |  |  |  |  |
| STEVENS POINT, WI                      | 15444  |  |                                     |  |                                |  |  |  |  |  |
| -1016/10 10/14/1                       | -1.131   |  |                                     |  |                                |  |  |  |  |  |

# State of Wisconsin Department of Natural Resources

# WELL/DRILLHOLE/BOREHOLE ABANDONMENT Form 3300-5B Rev. 8-89

All abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112 or NR 141, Wis. Admin. Code, whichever is applicable. Also, see instructions on back.

| (I) CENEDAL INCORMATION                |  | IO FAC                            | UL PTV NIALA                                     |  |  |                            |  |  |  |  |
|--|--|-----------------------------------|--|--|--|----------------------------|--|--|--|--|
| (1) GENERAL INFORMATION                | County   |                                   | (2) FACILITY NAME Original Well Owner (If Known) |  |  |                            |  |  |  |  |
| Well/Drillhole/Borehole<br>Location    | SHANAMO  | WIS DOT - BOE                     |  |  |  |                            |  |  |  |  |
| <u>NW</u> 1/4 of <u>SW</u> 1/4 of Sec. | FA   |                                   | nt Well Own                                      |  |  |                            |  |  |  |  |
| (If applicable)                        |  | Stree                             | t or Route                                       |  |  |                            |  |  |  |  |
| Gov't Lot                              | Grid Number  |                                   | 4802   | SHERD                                    | IMAH   |                            |  |  |  |  |
| Grid Location                          |  | City,                             | State, Zip C                                     | ode                                      |  |                            |  |  |  |  |
| ft. N. S.,                             | ft, E W  |                                   | M4015  | er. WI                                   | 5370   | WI Unique Well No.         |  |  |  |  |
| Civil Town Name                        |  | Facili                            | ty Well No. a                                    | nd/or Name (It A                         | Applicable)  | WI Unique Well No.         |  |  |  |  |
|  |  |                                   | 5-2  |  |  |                            |  |  |  |  |
| Street Address of Well                 |  | 1 .                               | n For Aband                                      |  |  |                            |  |  |  |  |
| City, Village                          |  |                                   | of Abandonm                                      | ent for                                  | 足形之云   |                            |  |  |  |  |
| BOWLER                                 |  | Dane                              | 4/29/  | <i>)</i>                                 |  |                            |  |  |  |  |
| WELL/DRILLHOLE/BOREHOLE                | INFORMATION  |                                   | 1/47/5   |  |  |                            |  |  |  |  |
| (3) Original Well/Drillhole/Borehole C |  | (4) Depth                         | to Water (Fe                                     | el) NA                                   |  |                            |  |  |  |  |
| (Date) 4/29/07                         |  | Pump                              | & Piping Re                                      |  | Yes 🔲 No   | Not Applicable             |  |  |  |  |
| 77 = 17 = 17                           |  | Liner(s                           | s) Removed?                                      | $\overline{\Box}$                        | Yes No   | Not Applicable             |  |  |  |  |
| Monitoring Well                        | Construction Report Available?   | 1                                 | Removed?   | 百  | Yes No   | Not Applicable             |  |  |  |  |
| Water Well                             | ET Yes D No  |                                   | Left in Place                                    | 27                                       | Yes No   |                            |  |  |  |  |
| Drillhole                              | ·  | If No,                            | Explain  |  |  |                            |  |  |  |  |
| 2 Borehole                             |  | West                              | orina Cus Off                                    | Below Surface?                           | □ V <sub>ee</sub>  |                            |  |  |  |  |
| Construction Type:                     |  |                                   |  | l Rise to Surface                        | The state of the s | □ No                       |  |  |  |  |
|  | (Sandpoint) Dug  |                                   | -  | After 24 Hours?                          |  | ₩ No                       |  |  |  |  |
|  | 121T - Spach   | If Yes, Was Hole Retopped? Yes No |  |  |  |                            |  |  |  |  |
| and (opening)                          | Specific Spe |                                   |  | Placing Sealing I                        |  |                            |  |  |  |  |
| Formation Type:                        | •  | 1                                 |  |  |  |                            |  |  |  |  |
| Unconsolidated Formation               | ☐ Bedrock  | 1                                 | ductor Pipe-C<br>np Bailer                       |  | Conductor Pipe   | :-rumpea<br>1) GRAV17Y -DU |  |  |  |  |
| Total Well Depth (ft.) 3.0 C           | asing Diameter (ins.)  | (6) Sealing                       | -  |  | For monito   | ring wells and             |  |  |  |  |
| (From groundsurface)                   |  |                                   | t Cement Gro                                     | out                                      |  | well boreholes only        |  |  |  |  |
| · -                                    |  | ☐ Sand                            | d-Cement (Co                                     | oncrete) Grout                           | •  |                            |  |  |  |  |
| Casing Depth (ft.)                     | •  |                                   | crete  |  | Bentoni  |                            |  |  |  |  |
|  |  |                                   | Clay-Sand Slurry Granular Bentonite              |  |  |                            |  |  |  |  |
| Was Well Annular Space Grouted?        | Yes No Unknown   | . —                               | tonite-Sand S                                    | •  | Bentonii   | te - Cement Grout          |  |  |  |  |
| If Yes, To What Depth?                 | Feet   | ☐ Chip                            | ped Bentonit                                     |  |  |                            |  |  |  |  |
| ) Sealing Materia                      | l Used   | From (Ft.)                        | To (Ft.)   | No. Yards,<br>Sacke Sealant<br>or Volume | Mix Ratio  | or Mud Weight              |  |  |  |  |
|  |  |                                   |  | or Volume                                |  | ****                       |  |  |  |  |
| COLD PATCHS                            |  | Surface                           | 0. 2   |  |  |                            |  |  |  |  |
| COLD PATCH<br>HOLE PLVG                |  | 0,2                               | 2 2  | 1/8                                      |  |                            |  |  |  |  |
| HOLE PLUCY                             |  | 0, 2                              | 3.0  | / 4                                      |  |                            |  |  |  |  |
|  |  |                                   |  |  |  |                            |  |  |  |  |
|  |  |                                   |  |  |  |                            |  |  |  |  |
|  |  |                                   |  |  |  |                            |  |  |  |  |
| Comments:                              |  |                                   |  |  |  |                            |  |  |  |  |
| Name of Person or Firm Doing Sealin    | g Work   | (10)                              | FOR  | DNR OR CO                                | UNTY USE   | ONLY                       |  |  |  |  |
| SES. INC                               |  |                                   | Received/Insp                                    |  | District/C   |                            |  |  |  |  |
| Signature of Person Doing Work         | Date Signed  |                                   |  |  |  |                            |  |  |  |  |
| this togen                             | 4/29/02  | Revie                             | wer/Inspector                                    |  |  |                            |  |  |  |  |
| Street or Route                        | Telephone Number   |                                   |  |  |  |                            |  |  |  |  |
| ZOO MORNA                              | (715) 342-3037   | Follow                            | v-up Necessa                                     | ry                                       |  |                            |  |  |  |  |
| City, State, Zip Code                  |  |                                   |  |  |  |                            |  |  |  |  |
| STEVENS BILLT,                         | 1154481  |                                   |  |  |  |                            |  |  |  |  |

All abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112 or NR 141, Wis. Admin. Code, whichever is applicable. Also, see instructions on back.

| /II ADVIDE A WIGGON COMPANY             |  | Las B.   |   |  |                                |  |  |  |  |  |  |
|---|--|--|---|--|--------------------------------|--|--|--|--|--|--|
| (I) GENERAL INFORMATION                 | 16   | (2) FACILITY NAME  |   |  |                                |  |  |  |  |  |  |
| Well/Drillhole/Borehole                 | County   | Original Well Owner (If Known)   |   |  |                                |  |  |  |  |  |  |
| Location                                | SHAWAND  | WISDOT - BOE   |   |  |                                |  |  |  |  |  |  |
|   | Name of the last o |  | Present Well Owner                          |  |                                |  |  |  |  |  |  |
| 1/4 of 5W 1/4 of Sec. 3                 | 1 ; T. 28 N; R. 13 1   | W  |   |  |                                |  |  |  |  |  |  |
| (If applicable)                         |  | Stree  | t or Route                                  |  |                                |  |  |  |  |  |  |
| Gov't Lot                               | Grid Number  |  | 4507  | Suxon                                    | 1.0.1 0.5=                     |  |  |  |  |  |  |
| Grid Location                           | Old Hallou   | City   | State Zin Co                                | ode State                                | ISBN AVE                       |  |  |  |  |  |  |
|   | . ПЕП  | City,  | AA .  | 1. 11                                    | _                              |  |  |  |  |  |  |
| ft. N. S.,                              | ft. [] E. [] W   | . /  | MOISON                                      | nd/or Name (It A                         | 3767                           |  |  |  |  |  |  |
| Civil Town Name                         |  | Facili   | ty well No. a                               | novor Name (II A                         | pplicable) WI Unique Well No.  |  |  |  |  |  |  |
| BARTEIME                                | =  |  | :3  |  |                                |  |  |  |  |  |  |
| Street Address of Well                  |  | Reaso  | n For Abando                                | onment                                   |                                |  |  |  |  |  |  |
| E, MAIN                                 |  | TEMPORISEY BOREHOLE  |   |  |                                |  |  |  |  |  |  |
| City, Village)                          |  | Date o   | of Abandonme                                | ent                                      | 277000                         |  |  |  |  |  |  |
| BOWLER                                  |  |  | 4/29  |  |                                |  |  |  |  |  |  |
| WELL/DRILLHOLE/BOREHOLE                 | INFORMATION  |  | 1101  | 100                                      |                                |  |  |  |  |  |  |
| (3) Original Well/Drillhole/Borehole Co |  | Ita Donah  | to Water (Ea                                |  |                                |  |  |  |  |  |  |
| , ,                                     | onstruction Completed On   |  | to Water (Fe                                |  |                                |  |  |  |  |  |  |
| (Date) 4/29/02                          |  |  | & Piping Res                                | noved?                                   | Yes No Not Applicable          |  |  |  |  |  |  |
|   |  | Liner(   | s) Removed?                                 |  | Yes No Not Applicable          |  |  |  |  |  |  |
| Monitoring Well                         | Construction Report Available?   | Screen   | Removed?                                    | ñ  | Yes No Not Applicable          |  |  |  |  |  |  |
| ☐ Water Well                            | Yes No   | Casing   | Left in Place                               | ? =                                      | Yes No                         |  |  |  |  |  |  |
| Drillhole                               | D 16 D 10  |  | Explain                                     |  | L                              |  |  |  |  |  |  |
| Borehole                                |  |  |   |  |                                |  |  |  |  |  |  |
| LA Borenole                             |  | Week   | C Off                                       | D.1 C                                    | C Ver C V                      |  |  |  |  |  |  |
|   |  | 1  |   | Below Surface?                           |                                |  |  |  |  |  |  |
| Construction Type:                      |  | 1  | _   | Rise to Surface                          |                                |  |  |  |  |  |  |
| Drilled Driven (                        | Sandpoint) Dug   |  |   | After 24 Hours?                          | Yes No                         |  |  |  |  |  |  |
| Other (Specify) DUSH SW                 | ZIT SDOOK  | If Ye  | s, Was Hole I                               | Retopped?                                | Yes No                         |  |  |  |  |  |  |
|   | 7  | (5) Paguire  | d Method of                                 | Placing Sealing N                        | Antonial                       |  |  |  |  |  |  |
| Formation Type:                         |  |  |   |  |                                |  |  |  |  |  |  |
| Unconsolidated Formation                | Bedrock  | Conductor Pipe-Gravity Conductor Pipe-Pumped   |   |  |                                |  |  |  |  |  |  |
| Checkbondance I commuter                |  | Dun  | np Bailer                                   | R  | Other (Explain) GRAVITY-DUM    |  |  |  |  |  |  |
| Total Well Depth (ft.) 3.0 Ca           | sing Diameter (ins.)   | (6) Sealing  | Materials                                   |  | For monitoring wells and       |  |  |  |  |  |  |
| (From groundsurface)                    |  | ☐ Nea  | t Cement Gro                                | บเ                                       | monitoring well boreholes only |  |  |  |  |  |  |
| ,                                       |  |  |   | ncrete) Grout                            | one concion only               |  |  |  |  |  |  |
| Casing Depth (ft.)                      |  |  | crete                                       |  | Bentonite Pellets              |  |  |  |  |  |  |
| Cashing Deput (it.)                     | *  |  |   |  |                                |  |  |  |  |  |  |
| 777 777 11 4 1 0 0 1 10                 | O O O  |  | -Sand Slurry                                |  | Granular Bentonite             |  |  |  |  |  |  |
| Was Well Annular Space Grouted?         | Yes No Unknown   |  | Bentonite-Sand Slurry Bentonite - Cement Gr |  |                                |  |  |  |  |  |  |
| If Yes, To What Depth?                  | Feet   | ☐ Chip   | ped Bentonit                                | 8  | 1                              |  |  |  |  |  |  |
| ^                                       |  |  | T T   | No. Yards.                               |                                |  |  |  |  |  |  |
| Sealing Material                        | Used   | From (Ft.)   | To (Ft.)                                    | No. Yards,<br>Sacks Sealant<br>or Volume | Mix Ratio or Mud Weight        |  |  |  |  |  |  |
|   |  |  |   | or Volume                                |                                |  |  |  |  |  |  |
|   |  | Surface  | 211   |  |                                |  |  |  |  |  |  |
| QVICK CRETE                             |  |  | 0,4   |  |                                |  |  |  |  |  |  |
|   |  |  |   | 11                                       |                                |  |  |  |  |  |  |
| HOLE PLUG                               |  | 0,4  | 3.0   | 1/8                                      |                                |  |  |  |  |  |  |
| 11000 12001                             |  |  |   |  |                                |  |  |  |  |  |  |
|   |  |  |   |  |                                |  |  |  |  |  |  |
|   |  |  |   |  |                                |  |  |  |  |  |  |
|   |  |  |   |  |                                |  |  |  |  |  |  |
|   |  |  |   |  |                                |  |  |  |  |  |  |
| Comments:                               |  |  |   |  |                                |  |  |  |  |  |  |
|   |  |  |   |  |                                |  |  |  |  |  |  |
| Name of Person or Firm Doing Sealing    | Work   | (10)   | FOR   | DNR OR CO                                | UNTY USE ONLY                  |  |  |  |  |  |  |
|   | EARTH TECH   | Contract Con | Received/Insp                               |  | District/County                |  |  |  |  |  |  |
| SES INC.                                | Date Signed  |  |   |  |                                |  |  |  |  |  |  |
| Signature of Person Doing Work          | Date Signed  | 30   | wer/Inspector                               |  |                                |  |  |  |  |  |  |
| This Coman                              | 4/29/02  | Revie  | wei/mspeciot                                |  |                                |  |  |  |  |  |  |
|   | Telephone Number   |  |   |  |                                |  |  |  |  |  |  |
| ZOO MOUSINA                             | (715) 342-3037   | Follow   | v-up Necessa                                | ry                                       |                                |  |  |  |  |  |  |
| City, State, Zip Code                   |  |  |   |  |                                |  |  |  |  |  |  |
| STEVENS BINT WI                         | 5440)  |  |   |  | 0.000                          |  |  |  |  |  |  |
| -16-16-10 101141 101                    | - 1 / 9 /  |  |   |  |                                |  |  |  |  |  |  |

# APPENDIX 3.6 STANDARD ANALYTICAL PROCEDURES

# 3.6 STANDARD ANALYTICAL PROCEDURES

Soil samples were analyzed by U.S. Filter/Enviroscan, Rothschild, Wisconsin (DNR Certification No. 737053130).

The analytical methods used included:

- 1. GRO by the Wisconsin Modified GRO Method
- 2. DRO by the Wisconsin Modified DRO Method
- 3. PVOCs by EPA Method 8021
- 4. Lead by EPA Method 6010

Sample detection limits for specific analyses are included on the laboratory data sheets.

# APPENDIX 3.7

# **CHAIN OF CUSTODY FORM**

# REQUEST FOR SERVICES

| ENVIROSCAN SERV  | <b>ICES</b>                             | 301                   | W. MILI                | TARY RD.       | ROTI          | <b>HSCH</b>     | HLD,    | WI 5              | 4474           |        | 1-800-33   | 38-SCAN           |  |
|--|---|-----------------------|------------------------|----------------|---------------|-----------------|---------|-------------------|----------------|--------|--|-------------------|--|
| REPORT TO:   |   |                       |                        |                | BILL TO       | <b>):</b> (if ( | differe | ent fro           | om Re          | epor   | t To info)   |                   |  |
| Name: Kyze   | Wassi                                   | YER                   |                        |                | Name:         |                 |         |                   |                |        |  |                   |  |
| Company: BART  | H TE                                    | CH. IN                | ic.                    |                | Name:         |                 |         |                   |                |        |  |                   |  |
| Name: <u>Kyle</u><br>Company: <u>Bart</u><br>Address: <u>200</u> (   | NDIAN                                   | a AVE                 |                        |                | Address:      |                 |         |                   |                |        |  |                   |  |
|  | EUR FE                                  | BINT W                | 115448                 | 81             |               |                 |         |                   |                |        |  |                   |  |
| Phone: (7/5) 3   | 42-30                                   | 238                   |                        |                | Phone:        | (               | )       |                   |                |        |  |                   |  |
| P. O. #  | ,                                       |                       |                        |                |               | ,               |         |                   |                |        |  |                   |  |
| P. O. #<br>Project # _ <i>52065</i>  |   | Quote #               | !                      |                |               |                 |         |                   |                |        |  |                   |  |
| Location WK DOT- Bo  | OUI ER                                  |                       |                        |                |               |                 | 3       | ۸۱۱۸              | IVT            |        | L REQU   | IECTO             |  |
|  |   |                       |                        |                |               |                 |         |                   |                |        |  |                   |  |
| Sample Type  | 7                                       | Turnaroun             | d Time                 |                |               |                 |         | (use              | sepa           | rate s | heet if nece   | ssary)            |  |
| (Check all that apply  |   | Norma                 |                        |                |               |                 |         | / /               | / /            | / /    | / / /  | /                 |  |
| ☐ Groundwater  | ´                                       | Rush                  | (Pre-approv            | ved by Lab)    |               |                 | /       |                   | /              | /      | / /  |                   |  |
| ☐ Wastewater   | ,                                       | D.A. M                | la al                  |                |               |                 | /       |                   | /              | /      | / /  |                   |  |
| Soil/Solid Drinking Water  | L                                       | Date Need<br>Approved | led<br>By              |                |               | 1               | /       | / ,               | ./             |        | / /  |                   |  |
| Oil  | ,                                       | фричи                 |                        |                |               |                 |         | / W               | /              | / /    | / /  |                   |  |
|  |   |                       |                        |                |               | 1               | 0/      | S                 | /              |        | /  |                   |  |
| Other  |   |                       |                        |                |               | 1/              | 3/      | 270               | 18             |        | / .  |                   |  |
|  |   |                       | No. of                 |                |               |                 | 7       |                   | Y              | /      | /  |                   |  |
| LAB USE ONLY D   | ATE                                     |                       | Containers<br>OMP GRAB | SAME           | PLE ID        | V               |         | 9/ /              | / /            | / /    |  | MARKS             |  |
| 16099634 4/29  | 2/02 10                                 | 2:43                  |                        | MEDH           | BLANK         |                 | X       |                   |                |        | 17.50  | me off<br>un pres |  |
| 16099635   | <i>f</i> :                              | 1:55                  | 1 -                    | B-/ z          |               | 12              | 7       | 4                 |                |        | 16000  | Du NERS           |  |
| 16099636   |   | :/2                   |                        | B-Z Z.         |               |                 |         | 1                 |                |        | 0 90   | on pies           |  |
| 16099637   |   |                       |                        | B-3 z.         |               |                 |         | 1                 | _              |        |  |                   |  |
|  | - 1                                     | 130                   | -                      | D-7 Z          | 0 703,0       | 1               |         | _                 |                |        |  |                   |  |
| 16099638   | 11                                      | 150                   | 3                      | B-4 4.         | 0'756.0'      | X               | 7       | X                 |                |        |  |                   |  |
| 16399639   | 1                                       | 105                   |                        | B-5 4.         |               | 1               | 4       | 1                 |                |        |  |                   |  |
|  | 12                                      | 205                   |                        | 0-0 7.         | 0106.0        | 4               |         |                   |                | -+     |  |                   |  |
|  |   |                       |                        |                |               |                 |         |                   |                |        |  |                   |  |
| Section 1  |   |                       |                        |                |               |                 |         |                   |                |        |  |                   |  |
|  |   |                       |                        |                |               |                 |         |                   | -              | -      |  |                   |  |
|  |   |                       |                        |                |               |                 |         |                   |                |        |  |                   |  |
|  |   |                       |                        |                |               |                 |         |                   |                |        |  |                   |  |
|  |   | 1                     |                        | l <del>-</del> |               |                 | 1       |                   | 1              |        |  |                   |  |
|  |   |                       |                        |                |               |                 | C       | eľv: (            | Hane           | P cc   | mm:  | 4.4               |  |
|  | *************************************** |                       |                        |                |               |                 | 8       | hip. C            | ont. (         | JK 👢   | M(A)   | N/A               |  |
| CHAIN OF C   | HSTO                                    | DDV I                 | RECOI                  | BD             |               |                 |         | ample             |                | king/  | Santana and Caratain and Carata | N/A               |  |
| CIMILITY OF C  | Core                                    |                       | CCO.                   | IXID           |               |                 |         | eals (<br>lec'd ( |                | ?      | -X5 N  | N/A/JG            |  |
|  | 7                                       | 1 (                   | 7                      |                |               |                 |         |                   | ***            |        |  | 9.52              |  |
| SAMPLERS: (Signature)  | U -11                                   |                       |                        |                |               | 3               |         | omm               | ents:          |        |  |                   |  |
| <i></i>  | Me                                      |                       | yar                    |                |               |                 | ٦. ا    | 3.7111            | 5,,,,          |        |  |                   |  |
| RELINQUISHED BY: (Signatu  | ire)                                    | DATE/T                | IME                    | RECEIVED       | Y; (S)gnature |                 | /   '   |                   |                |        |  |                   |  |
| Plal Caran   |   | 4/30/02               | 16:30                  | Mall           | 1 Stra        | h               | .       |                   |                |        |  |                   |  |
| RELINQUISHED BY: Signatu   | ire)                                    | DATE/T                |                        | RECEIVED B     | Y: (Signature | 1               | 1   .   |                   |                |        |  |                   |  |
| The state of the billion of the state of the |   | JAIL!                 | i l                    |                | joignataro    | ,               |         |                   |                |        |  |                   |  |
| RELINQUISHED BY (Signatu   | re) /                                   | DATE/F                | IME                    | RECEIVED F     | OR LARORA     | TORY            | р       | ATE/TIA           | AF -           | 9      |  |                   |  |
| 11/1/11  | 11                                      | 1/2/                  | Land                   | By (Signatu    | re)           | 4               | 200     | 8-05              | and the second |        |  |                   |  |
| WI all let IVI   | IN                                      | 477251117             | 111:00                 | and the same   |               | 112             |         | ri (c)            |                | 78     |  |                   |  |

# **APPENDIX 3.8**

# LABORATORY REPORTS



TELEPHONE 800-338-7226 **FACSIMILE** 715-355-3221

May 18, 2002

Earth Tech, Inc. 200 Indiana Ave Stevens Point, Wi 54481



Attn: Kyle Wagoner

REPORT NO.: 099634

PROJECT NO.: 52065

Please find enclosed the analytical report, including the Sample Summary, Sample Narrative and Chain of Custody for your sample set received April 30, 2002.

All analyses were performed in accordance with approved methods as indicated on this report.

If you have any questions about the results, please call. Thank you for using USFilter, Enviroscan Services for your analytical needs.

Sincerely,

USFilter, Enviroscan Services

Gary L. Scharrer

Organic Laboratory Supervisor

I certify that the data contained in this report has been generated and reviewed in accordance with the USFilter, Enviroscan Services Quality Assurance Program. Exceptions, if any, are discussed in the sample narrative. Samples will be retained for 30 days from the date of this report, then disposed in an appropriate manner. USFilter, Enviroscan Services reserves the right to return samples identified as hazardous. Release of this Final Report is authorized as verified by the following signature.

Approved by: E.P. Wort





TELEPHONE 800-338-7226 FACSIMILE 715-355-3221

## Sample Summary

099634.2

| Lab Id | Client Sample ID | Date/Time      | Matrix |
|--------|------------------|----------------|--------|
| 099634 | MEOH BLANK-USF   | 04/29/02 10:45 | SOIL   |
| 099635 | B-1 2.0-3.0      | 04/29/02 10:55 | SOIL   |
| 099636 | B-2 2.0-3.0      | 04/29/02 11:12 | SOIL   |
| 099637 | B-3 2.0-3.0      | 04/29/02 11:30 | SOIL   |
| 099638 | B-4 4.0-6.0      | 04/29/02 11:50 | SOIL   |
| 099639 | B-5 4.0-6.0      | 04/29/02 12:05 | SOIL   |

## Sample Narrative/Sample Status

LOGIN:

GENERAL:

ANALYSES:

QA/QC:

REPORTING:

# **Definitions**

LOD = Limit of Detection
LOQ = Limit of Quantitation
< = Less Than
COMP = Complete
SUBCON = Subcontracted analysis
mv = millivolts
pCi/l = picocurie per liter
ml/l = milliters/Liter

μg/l = Micrograms per liter = parts per billion (ppb)
μg/kg = Micrograms per kilogram = parts per billion (ppb)
mg/l = Milligrams per liter = parts per million (ppm)
mg/kg = Milligrams per kilogram = parts per million (ppm)
NOT PRES = Not Present
ppth = Parts per thousand
(S) = Surrogate Compound





TELEPHONE 800-338-7226 FACSIMILE 715-355-3221

Earth Tech, Inc. 200 Indiana Ave Stevens Point, Wi 54481 PROJECT NO.: 52065 REPORT NO.: 099634.4 DATE REC'D: 04/30/02 REPORT DATE: 05/18/02 PREPARED BY: GLS

Attn: Kyle Wagoner

| Sample ID: B-1 2.0-3.0                                     | Matrix        | : SOIL       | Sample Date/Time: 04/29/02 10:55 |        |                           |            |                         | Lab No. <b>099635</b> |  |  |
|--|---------------|--------------|----------------------------------|--------|---------------------------|------------|-------------------------|-----------------------|--|--|
|  | <u>Result</u> | <u>Units</u> | LOD                              | LOQ    | Dilution<br><u>Factor</u> | Qualifiers | Date<br><u>Analyzed</u> | Analyst               |  |  |
| <u>EPA 3050</u><br>Metal Prep                              | СОМР          |              | <b>-</b>                         | -      | -                         |            | 05/03/02                | DJB                   |  |  |
| <u>EPA 6010</u><br>Total Lead                              | 3.37          | mg/kg        | 0.33                             | 1.1    | 1                         |            | 05/16/02                | BMS                   |  |  |
| EPA 8021 (Only positively                                  |               | analytes     |                                  |        | weight ba                 | sis        |                         |                       |  |  |
| Benzene  | <0.025        | mg/kg        | 0.008                            | 0.0266 | 1                         |            | 05/03/02                | LMP                   |  |  |
| Ethylbenzene   | <0.025        | mg/kg        | 0.007                            | 0.0233 | 1                         |            | 05/03/02                | LMP                   |  |  |
| Methyl t-Butyl Ether(MTBE)                                 | <0.025        | mg/kg        | 0.018                            | 0.0599 | 1                         |            | 05/03/02                | LMP                   |  |  |
| Toluene  | <0.025        | mg/kg        | 0.007                            | 0.0233 | 1                         |            | 05/03/02                | LMP                   |  |  |
| 1,2,4-Trimethylbenzene                                     | <0.025        | mg/kg        | 0.012                            | 0.04   | 1                         |            | 05/03/02                | LMP                   |  |  |
| 1,3,5-Trimethylbenzene                                     | <0.025        | mg/kg        | 0.01                             | 0.0333 | 1                         |            | 05/03/02                | LMP                   |  |  |
| m- & p-Xylene  | <0.025        | mg/kg        | 0.015                            | 0.05   | 1                         |            | 05/03/02                | LMP                   |  |  |
| o-Xylene   | <0.025        | mg/kg        | 0.008                            | 0.0266 | 1                         |            | 05/03/02                | LMP                   |  |  |
| MOSA21-2<br>Total Solids                                   | 96.6          | %            | -                                | 0.33   | -                         |            | 05/01/02                | LMV                   |  |  |
|  |               |              |                                  |        |                           |            |                         |                       |  |  |
| WI DNR<br>Soil Diesel Range Organics<br>Soil Org Ext - DRO | 125.<br>COMP  | mg/kg        | -                                | 5.0    | -                         | D2B D5     | 05/11/02<br>05/09/02    | LTD<br>CKV            |  |  |
| Soil Gasoline Range Organic                                | <5.18         | mg/kg        | -                                | 5.0    | 1                         |            | 05/03/02                | LMP                   |  |  |

All results calculated on a dry weight basis.





TELEPHONE 800-338-7226 FACSIMILE 715-355-3221

PROJECT NO.: 52065 REPORT NO.: 099634.5 DATE REC'D: 04/30/02 REPORT DATE: 05/18/02 PREPARED BY: GLS

Attn: Kyle Wagoner

Stevens Point, Wi 54481

Earth Tech, Inc. 200 Indiana Ave

Sample ID: B-2 2.0-3.0 Matrix: SOIL Sample Date/Time: 04/29/02 11:12 Lab No. 099636 Dilution Date Result Units LOD LOQ <u>Factor</u> Qualifiers Analyzed Analyst EPA 3050 Metal Prep COMP 05/03/02 DJB EPA 6010 Total Lead 4.21 mg/kg 0.33 1.1 1 05/16/02 **BMS** (Only positively identified analytes are reported on a dry weight basis EPA 8021 0.0266 05/04/02 <0.025 0.008 LMP Benzene mg/kg 0.007 0.0233 05/04/02 Ethylbenzene <0.025 mg/kg LMP <0.025 mg/kg 0.018 0.0599 05/04/02 LMP Methyl t-Butyl Ether(MTBE) <0.025 mg/kg 0.007 0.0233 05/04/02 LMP Toluene 05/04/02 <0.025 0.012 0.04 1,2,4-Trimethylbenzene mg/kg 1 LMP 1,3,5-Trimethylbenzene <0.025 0.01 0.0333 05/04/02 LMP mg/kg mg/kg 0.015 0.05 05/04/02 <0.025 LMP m- & p-Xylene 0.008 0.0266 05/04/02 <0.025 LMP o-Xylene mg/kg MOSA21-2 Total Solids 86.7 % 0.33 05/01/02 LMV WI DNR 5.0 D2B D5 05/11/02 Soil Diesel Range Organics 28.4 mg/kg 1 LTD 05/09/02 Soil Org Ext - DRO COMP CKV 5.0 Soil Gasoline Range Organic <5.77 mg/kg 1 05/04/02

All results calculated on a dry weight basis.





TELEPHONE 800-338-7226 FACSIMILE 715-355-3221

PROJECT NO.: 52065 REPORT NO.: 099634.6 DATE REC'D: 04/30/02 REPORT DATE: 05/18/02 PREPARED BY: GLS

Attn: Kyle Wagoner

Stevens Point, Wi 54481

Earth Tech, Inc. 200 Indiana Ave

Sample ID: B-3 2.0-3.0 Matrix: SOIL Sample Date/Time: 04/29/02 11:30 Lab No. 099637 Dilution Date <u>Qualifiers</u> <u>Result</u> <u>Units</u> LOD LOQ <u>Factor</u> <u>Analyzed</u> <u>Analyst</u> EPA 3050 05/03/02 COMP Metal Prep DJB EPA 6010 0.33 1 05/16/02 BMS 6.89 mg/kg 1.1 Total Lead EPA 8021 (Only positively identified analytes are reported on a dry weight basis mg/kg <0.025 0.008 0.0266 05/04/02 LMP Benzene 05/04/02 0.0299 mg/kg 0.007 0.0233 LMP Ethylbenzene 1 Methyl t-Butyl Ether(MTBE) <0.025 mg/kg 0.018 0.0599 05/04/02 LMP <0.025 mg/kg 0.007 0.0233 05/04/02 1 LMP Toluene 0.012 05/04/02 1,2,4-Trimethylbenzene 0.106 mg/kg 0.04 LMP 0.0333 1,3,5-Trimethylbenzene 0.0355 mg/kg 0.01 05/04/02 LMP mg/kg 0.015 0.05 05/04/02 m- & p-Xylene 0.146 LMP <0.025 mg/kg 0.008 0.0266 05/04/02 LMP o-Xylene MOSA21-2 0.33 05/01/02 Total Solids 94.6 % LMV WI DNR <5.29 mg/kg 5.0 05/11/02 Soil Diesel Range Organics 1 LTD Soil Org Ext - DRO 05/09/02 COMP CKV 5.0 1 05/04/02 Soil Gasoline Range Organic <5.29 mg/kg LMP

All results calculated on a dry weight basis.





TELEPHONE 800-338-7226 FACSIMILE 715-355-3221

PROJECT NO.: 52065 REPORT NO.: 099634.3 DATE REC'D: 04/30/02 REPORT DATE: 05/18/02 PREPARED BY: GLS

Attn: Kyle Wagoner

Stevens Point, Wi 54481

Earth Tech, Inc. 200 Indiana Ave

| Sample ID: MEOH BLANK-USF   | Matri  | x: SOIL                                      | Śar   | mple Date/Ti   | Lab No. <b>099634</b>           |            |  |   |
|---|--|--|---|--|---------------------------------|------------|--|---|
|   | Result   | <u>Units</u>                                 | LOD   | LOQ  | Dilution<br><u>Factor</u>       | Qualifiers | Date<br><u>Analyzed</u>  | <u>Analyst</u>                                |
| EPA 8021 Benzene Ethylbenzene Methyl t-Butyl Ether(MTBE) Toluene 1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene m- & p-Xylene o-Xylene | <0.025<br><0.025<br><0.025<br><0.025<br><0.025<br><0.025<br><0.025<br><0.025 | mg/l<br>mg/l<br>mg/l<br>mg/l<br>mg/l<br>mg/l | 0.008<br>0.007<br>0.018<br>0.007<br>0.012<br>0.01<br>0.015<br>0.008 | 0.0266<br>0.0233<br>0.0599<br>0.0233<br>0.04<br>0.0333<br>0.05<br>0.0266 | 1<br>1<br>1<br>1<br>1<br>1<br>1 |            | 05/03/02<br>05/03/02<br>05/03/02<br>05/03/02<br>05/03/02<br>05/03/02<br>05/03/02<br>05/03/02 | LMP<br>LMP<br>LMP<br>LMP<br>LMP<br>LMP<br>LMP |
| WI DNR<br>Soil Gasoline Range Organic   | <2.50  | mg/l   | )<br>-  | 5.0  |                                 |            | 05/03/02   | LMP   |



TELEPHONE 800-338-7226 FACSIMILE 715-355-3221

# Sample Receipt Report

| Client:     | Fartec Date Received: 4/30/02  |     |
|-------------|--|-----|
| Analyt      | cal No.: 16099634 Through 99639  |     |
| Check       | all deviations from EPA or WDNR sample protocol.   |     |
| []          | Sample(s) received at°C which is above the EPA and WDNR limit of 4°C.  |     |
| []          | VOC vial(s) received with headspace. Explain:  |     |
| []          | Sample(s) received in bottles not furnished by Enviroscan. Preservation method, if used, is unknown.   | •   |
| []          | Sample(s) not properly preserved per EPA/WDNR protocol for the following:  |     |
| []          | Sample(s) received beyond EPA holding time for:  |     |
| []          | Sample date/time not supplied by client. Actual holding time unknown.  |     |
| []          | GRO/PVOC/VOC/DRO (circle appropriate) sample(s) are <19.5 gms and this report is the flag for that information. Sample(s) under-weight:  |     |
| [/]         | GRO/PVOC/VOC (circle appropriate) sample(s) were between 26.4-35.4 gms so methanol was added in a 1:1 ratio. Sample(s) included: $99635 \rightarrow 4ml$ , $99636 \rightarrow 3ml$ |     |
| []          | GRO/PVOC/VOC/DRO (circle appropriate) sample(s) were >35.4 gms and are required to be rejected. Sample(s) included:  |     |
| []          | Other:   |     |
| Client      | contact concerning the above deviations;   |     |
|             | (contact name) notified of the above deviation(s) on//_  |     |
| at:         | am/pm by and the client ordered:  (signature)  |     |
|             | [] Proceed with analyses as ordered.   |     |
|             | Proceed with analyses after taking the following corrective action:  |     |
|             | Do NOT proceed with analyses.  |     |
| All Analyse | s conducted in accordance with USFilter Quality Assurance Program  Water compa   | iny |

# REQUEST FOR SERVICES

| ENVIROSCAN SER                             | VICES    | 30            | 01 W. MILIT          | ARY RD    | ROT              | HSC      | IJLD,    | WI -        | 5447            | 4                                      | 1-800-3                               | 338-SCAN   |  |  |
|--|----------|---------------|----------------------|-----------|------------------|----------|----------|-------------|-----------------|--|---------------------------------------|------------|--|--|
| REPORT TO:                                 |          |               |                      |           |                  |          |          |             | om F            | lepor                                  | t To info)                            |            |  |  |
| Name: <u>Kyce</u><br>Company: <u>Ear</u> : | Wase     | DHER          |                      |           | Name:            |          |          |             |                 |  |                                       |            |  |  |
| Company: <u>Bar</u>                        | TH I     | ECH. 1        | <u> </u>             |           | Company: SAME    |          |          |             |                 |  |                                       |            |  |  |
| Address 2/22                               | Albia    | I'm All       | <u> </u>             |           | Address:         |          |          |             |                 |  |                                       |            |  |  |
| STEV                                       | IEUS     | POINT         | W15445               | 2/        |                  |          |          |             |                 |  |                                       |            |  |  |
|  | 74Z-3    | 3038          | ,                    |           | Phone: ()        |          |          |             |                 |  |                                       |            |  |  |
|  |          |               |                      |           |                  |          |          |             |                 |  |                                       |            |  |  |
| P. O. #<br>Project # <i>_52065</i>         |          | Quote         | #                    | ·····     |                  |          |          |             |                 |  |                                       |            |  |  |
| Location WS DOT-                           |          |               | ·                    |           | •                |          |          |             | ~               | -1 ~ ^                                 |                                       | 15070      |  |  |
| Location was total                         | S)WLEZ   | _             |                      |           |                  |          |          |             |                 |  |                                       | UESTS      |  |  |
| 0  |          | <b>-</b>      |                      |           |                  |          |          | (us         | e sepa          | arate s                                | sheet if nec                          | essary)    |  |  |
| Sample Type                                |          | Turnarou      |                      |           |                  |          |          | 7           | 7               | 7                                      | 7 7                                   | 7          |  |  |
| (Check all that app<br>Groundwater         | oly)     | Norr<br>Rusi  | nai<br>h (Pre-appro\ | ed by Lah | .)               |          | /        | / /         | / /             | ′ /                                    | ′//                                   | /          |  |  |
| ☐ Wastewater                               |          |               | ii (i ic appioi      | cu by Lac | ·,               |          |          | /           |                 |  | / /                                   |            |  |  |
| Soil/Solid Drinking Wate                   |          | Date Nee      | eded                 |           |                  |          | /        |             |                 | /                                      | / /                                   |            |  |  |
| Drinking Water                             | er       | Approve       | d By                 |           |                  |          | /        | / 1         | ]/              | /                                      | / /                                   |            |  |  |
| ☐ Oil<br>☐ Vapor                           |          |               |                      |           |                  |          | / _ /    | \ _ W       | 7 /             | / /                                    | /                                     |            |  |  |
| Other                                      |          |               |                      |           |                  | /        | d)/      | 37          | 20/             | /                                      | /                                     |            |  |  |
| <u> </u>                                   |          | <del></del> 1 |                      |           |                  | -   /    |          | s) Xo       | Q) <sup>y</sup> |  | /                                     |            |  |  |
| LAB USE ONLY                               | DATE     | TIME          | No. of<br>Containers | SAM       | PLE ID           | 1/       | / ()     |             | 7               |  | / RI                                  | EMARKS     |  |  |
| LAD GOL GILL                               | DAIL     | 111412        | COMP GRAB            | OAM       |                  | <u>/</u> |          | 7           |                 |  | ,                                     |            |  |  |
| 16099634 1/2                               | 29/      | 10:43         | . ,                  | MORH      | BLANK            |          | $ \chi $ | -           |                 | 1                                      | 17.50                                 | o meoH     |  |  |
|  | 1        |               | 1 -                  | 1         | •                | 1        | _        |             |                 |  | 1609                                  | o meon     |  |  |
| 16099635                                   |          | 10:55         | 3                    | B-/ :     | 2.0703.0         | 13       | 12       | 7           |                 |  | 16000                                 | Unpres     |  |  |
| 16099636                                   |          | 11:12         | 3                    | B-2 2     | .0' TO 3,C       |          | 1        | X           |                 |  |                                       | •          |  |  |
| 16099637                                   |          |               | 1                    | ı         |                  | i        |          | 1           |                 |  |                                       |            |  |  |
|  |          | 11:30         |                      |           | ,0'703.0         |          |          | -           |                 |  |                                       |            |  |  |
| 16099638                                   | 1. 1     | 1150          | _3                   | B-4/ 4    | 1.0'706.0'       | 1 1      | 1        | 4           |                 | l                                      |                                       |            |  |  |
| 16099639                                   | 17       |               |                      | l         |                  | 1 .      | 4        | 1           |                 |  |                                       |            |  |  |
|  | <u> </u> | Z:05          |                      | 15-5      | 1.000.0          | 1-4      |          | 4           |                 |  |                                       |            |  |  |
|  |          |               |                      |           |                  |          |          |             | l               |  |                                       |            |  |  |
|  |          |               |                      | ****      |                  | 1        |          |             |                 |  | · · · · · · · · · · · · · · · · · · · |            |  |  |
|  |          |               |                      |           |                  |          |          |             |                 |  |                                       | ·          |  |  |
|  |          |               |                      |           |                  |          |          |             |                 |  |                                       |            |  |  |
|  |          |               |                      |           |                  | 1        |          |             |                 |  |                                       |            |  |  |
|  |          |               |                      |           |                  |          |          |             |                 |  |                                       |            |  |  |
|  |          |               |                      |           |                  |          |          |             |                 | 3                                      |                                       |            |  |  |
|  |          |               |                      |           |                  |          |          |             | (Hap            |  | mm,                                   |            |  |  |
|  |          |               |                      |           |                  |          |          |             | Zont.<br>es les |  | , <b>(</b>                            | N/A<br>N/A |  |  |
| CHAIN OF (                                 | CUST     | ODY           | RECO                 | RD        |                  |          |          |             | OK?             |  |                                       | NA d       |  |  |
|  |          |               | r'                   |           |                  |          | Ř        | ec'd        | on ice          | 37                                     | · M                                   | N/A/J/C    |  |  |
| SAMPLERS: (Signature)                      | 0        | 1             | O                    |           |                  |          | 50000    |             |                 |  |                                       |            |  |  |
| OAMPLENO. (Olymature)                      | 11.1     |               |                      |           |                  |          |          | omn         | nents           |  |                                       |            |  |  |
|  | 1 rue    | <u> </u>      | Jan                  |           |                  | l        | ,        | <del></del> |                 |  |                                       |            |  |  |
| RELINQUISHED BY: (Signa                    | iture)   | DATE          | /TIME                | RECEIVED  | 197; (S) gnafure |          | /   `    |             |                 |  |                                       |            |  |  |
| Plil Caca                                  | <b>~</b> | 4/30/0        | 2 16:30              | Mall      | He Str           | h!/      | -        |             |                 |  |                                       |            |  |  |
| RELINQUISHED BY: Signa                     | iture)   | 17 7          |                      | RECEIVED  | BY: (Signature   | 1        | -        |             |                 | ······································ |                                       |            |  |  |
|  | ,        | 5/            |                      |           | (                | ,        | ▎╚       |             |                 |  |                                       |            |  |  |
| RELINQUISHED BY (Signa                     | tura) /  | DATE          | /FIME                | geoenien. | FOR LABORA       | TOPV     | · n      | ATE/TI      |                 | <b>7</b>                               |                                       |            |  |  |
| 1// (Sillie                                |          | 1,17          | # E3600              |           | ure) , , , ,     |          | ,, ,     |             |                 |  |                                       |            |  |  |
|  |          |               |                      |           |                  |          |          |             |                 |  |                                       |            |  |  |