

10-24-90  
RP needed

STATE OF WISCONSIN

CORRESPONDENCE/MEMORANDUM-----

DATE: October 8, 1990

TO: Paul Anderson  
District Five, Design

FROM: Julie White, Site Assessment Coordinator  
Risk, Safety, and Hazardous Materials Management

*Julie White*

Subject: ENVIRONMENTAL SITE ASSESSMENT REPORT  
Property: McGlynn Property  
Project ID# 5042-02-00

*Thaddeus McGlynn  
RFD 3*

Attached are two copies of the report for the site assessment above property.

The assessment concludes:

Soils at this site are contaminated.  
Groundwater is contaminated.

The assessment recommends:

Phase III investigation. Responsible parties should conduct additional investigation and remediation efforts. The WDOT should not acquire any right of way until this site is remediated.

If you have any questions about the data contained within this report or need additional information, please contact me at (608) 266-1476.

cc: File ✓  
DNR ✓

PHASE II  
ENVIRONMENTAL ASSESSMENT REPORT  
FOR THE  
MC GLYNN PROPERTY  
STATE HIGHWAY 80  
HUB CITY  
RICHLAND COUNTY, WISCONSIN  
OCTOBER 1990

PREPARED FOR THE  
WISCONSIN DEPARTMENT OF TRANSPORTATION  
PROJECT 5042-02-00

PREPARED BY  
AQUA-TECH, INC.  
140 SOUTH PARK STREET  
PORT WASHINGTON, WISCONSIN 53074  
ATI PROJECT 92500

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PHASE II  
ENVIRONMENTAL ASSESSMENT REPORT  
FOR THE  
MC GLYNN PROPERTY  
STATE HIGHWAY 80  
HUB CITY  
RICHLAND COUNTY, WISCONSIN  
WDOT PROJECT 5042-02-00  
ATI PROJECT 92500

Prepared By: James H. Cheshire Date: 10-5-90  
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Environmental Assessment Specialist  
Aqua-Tech, Inc.

Reviewed By: Stephen G. Reuter Date: 10-5-90  
Stephen G. Reuter, C.P.G.  
Hydrogeologist  
AIPG Certificate #7836  
Aqua-Tech, Inc.



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## 1.0 SUMMARY

Aqua-Tech, Inc. has completed a Phase II Environmental Assessment for the McGlynn Property as contracted April 26, 1990, by the Wisconsin Department of Transportation (WDOT) Risk and Safety Management Section as part of WDOT Project 5042-02-00.

The purpose of this assessment was to identify possible soil and/or groundwater contamination associated with underground storage tanks at the site. The assessment included the following:

- \* Regulatory background review
- \* Site representative interview
- \* Site reconnaissance inspection
- \* Two soil borings to a maximum depth of 13.0 feet
- \* Collection and field screening of subsurface soil samples for volatile organic compounds (VOCs)
- \* Chemical analyses of two subsurface soil samples for total petroleum hydrocarbons (TPH) as gasoline and as diesel fuel
- \* Chemical analysis of a groundwater sample for benzene, toluene, ethylbenzene, and xylenes (BTEX)

Results of the assessment indicate that THE SOIL AND GROUNDWATER AT THE SITE AND EXISTING WDOT RIGHT-OF-WAY ARE CONTAMINATED WITH PETROLEUM PRODUCTS. HOWEVER, THE EXTENT OF CONTAMINATION HAS NOT BEEN DEFINED AND FURTHER INVESTIGATION AT THE SITE IS RECOMMENDED.

Chemical analyses of two subsurface soil samples collected at the site revealed TPH levels exceeding the 10 ug/g (ppm) Wisconsin Department of Industry, Labor and Human Relations (WDILHR) remedial

action standard for petroleum contaminated soils which has been adopted by the Wisconsin Department of Natural Resources (WDNR).

Chemical analysis of a groundwater sample collected from boring location B-1 indicated BTEX levels exceeding the Wisconsin Administrative Code -- Chapter N.R. 140 -- Groundwater Quality Standards. No groundwater samples were collected from boring location B-2 completed on the existing WDOT right-of-way at the site. Based on the results of the chemical analysis of soil sample SB-2 collected at the interface of the surface of the groundwater table and chemical analysis of groundwater sample WB-1, the GROUNDWATER ON THE EXISTING RIGHT-OF-WAY IS BELIEVED TO BE CONTAMINATED WITH PETROLEUM PRODUCTS.

Aqua-Tech, Inc. recommends additional investigation is necessary to determine the extent of soil and groundwater contamination. A series of three to six borings are recommended to delineate the contaminant plume on the existing WDOT right-of-way at the site.

Aqua-Tech estimates the cost of the Phase III Assessment to range from \$2,750 to \$4,500.

## 2.0 SITE BACKGROUND

### 2.1 Introduction

This section includes information obtained from the site reconnaissance inspection, regulatory background review, and the site representative interview.

### 2.2 Site Location

The McGlynn Property site (formerly referred to by the WDOT as the Waldsmith Property) occupies approximately 0.2 acres on the east side of State Highway 80 in the unincorporated village of Hub City, township of Henrietta, Richland County, Wisconsin (Refer to Figure 2-1).

### 2.3 Geology

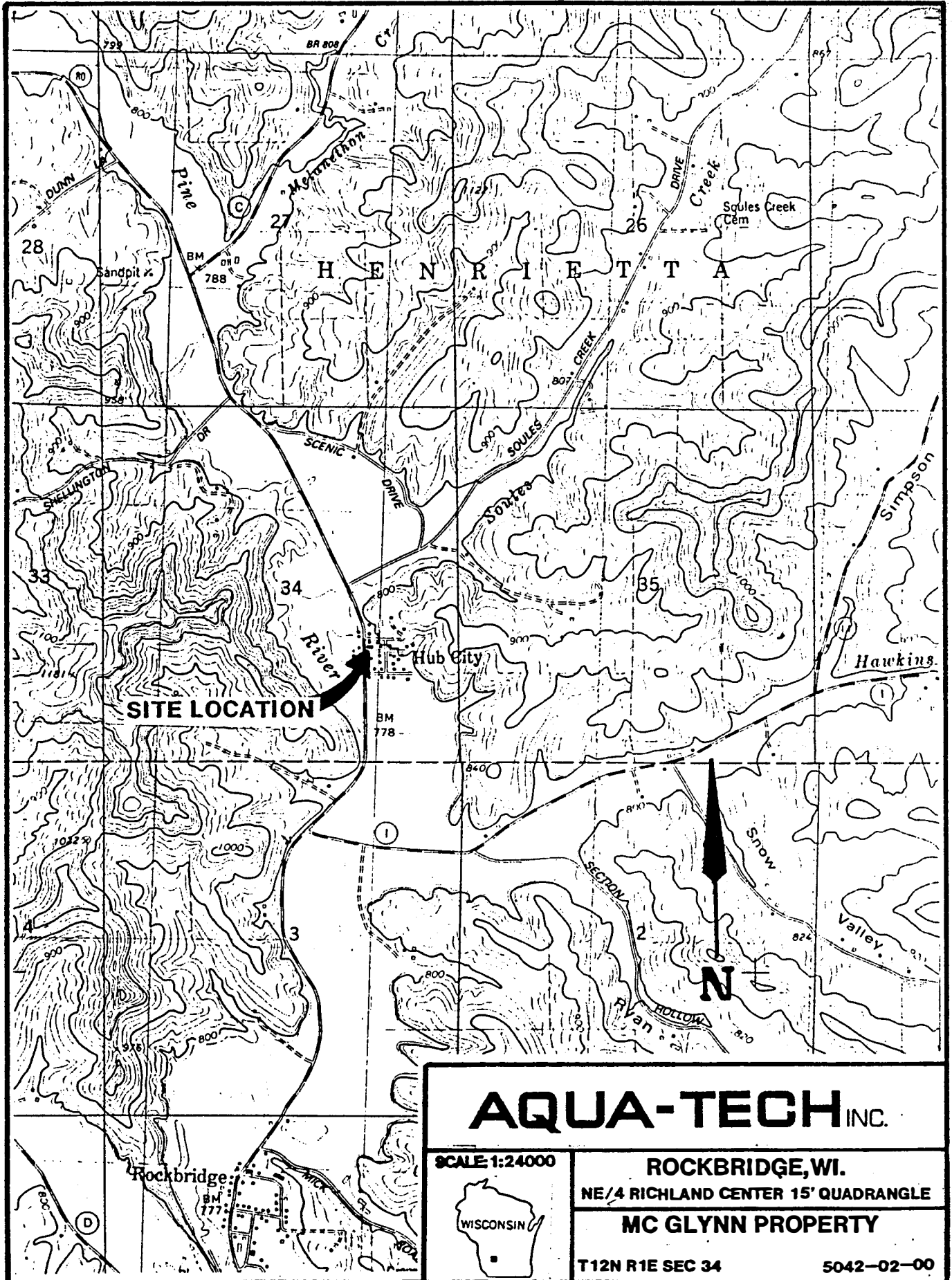
The site is located in the Driftless Area of the Western Uplands Province of western Wisconsin. The Driftless Area is the portion of Wisconsin that was not affected by glaciers of the last ice age. The physiography of the region has been determined by differential erosion of Cambrian age sandstone bedrock.

The soils encountered in the test borings range from a silty loam to a coarse sand with some fine gravel.

Groundwater was encountered in both soil borings at depths of 7.0 and 8.75 feet. No direction of groundwater flow was determined from boring water levels. Based on local topography, the groundwater is suspected to flow in a southwesterly to southerly direction across the site toward the Pine River located approximately 1,000 feet to the southwest.



FIGURE 2-1



#### 2.4 Site History

According to Mr. Francis Waldsmith, former owner of the property, a hotel was located at the site prior to 1932 or 1933 when the gasoline service station was constructed. The size and contents of the underground storage tanks at the site are unknown. However, Mr. Waldsmith recollects two hand pumps being located at the site and he thinks that the station sold regular and ethyl gasolines. The year the station became inactive remains undetermined, but according to Mr. Waldsmith, the station was not operating at the time his father bought the property in 1958. Mr. Waldsmith does not know of any underground storage tanks ever being removed from the property.

#### 2.5 Regulatory Review

The McGlynn Property site is not listed on the U.S. Environmental Protection Agency's CERCLIS inventory of potential uncontrolled hazardous waste sites. In addition, there are no regulatory response records of the site in the Wisconsin Department of Natural Resources (WDNR) files. These files include the List of Active and Abandoned Landfills, the Wisconsin Inventory of Sites or Facilities Which May Cause or Threaten to Cause Environmental Pollution, and the Statewide Spills and Hazardous Incident Report for the period of January 1978 to December 1989.

There was no release of hazardous materials listed within a one mile radius of the site on the WDNR's Statewide Spills and Hazardous Incident Report.

There are no underground storage tanks listed on the Wisconsin Department of Industry, Labor, and Human Relations computer inventory at the site.

### 3.0 SITE ASSESSMENT PROCEDURES AND FIELD OBSERVATIONS

#### 3.1 Introduction

This section outlines assessment procedures and field observations for the environmental assessment at the McGlynn Property. Individual subsections address the site representative interview, reconnaissance inspection, and sampling procedures. Rationales for specific assessment activities are also provided. Prior to Aqua-Tech, Inc. completing the soil borings at the site, a right-of-entry agreement was obtained from the property owner by the WDOT on April 26, 1990 (Refer to Appendix A).

#### 3.2 Site Representative Interview

On July 23, 1990, James H. Cheshire of Aqua-Tech, Inc. conducted a telephone interview with Mr. Francis Waldsmith, former owner of the property. The interview was conducted for the purpose of gathering information that would aid in completing the Environmental Assessment at the McGlynn Property.

#### 3.3 Site Reconnaissance Inspection

James H. Cheshire of Aqua-Tech conducted a reconnaissance inspection of the site on June 8, 1990. The reconnaissance inspection included a walk through of the site to determine appropriate sampling locations, taking into consideration underground tank bed location, underground and overhead utilities, and site accessibility.

### Reconnaissance Inspection Observations

The McGlynn Property site is located in a mixed commercial/residential area in the unincorporated village of Hub City, Wisconsin. The site is bounded to the north by Mandt Street. Across Mandt Street to the north is a supper club. The site is bounded to the south by a vacant tavern, to the east by a parking lot with a shack structure, and to the west by State Highway 80. Across State Highway 80 to the west is a single family dwelling. The Pine River is located approximately 1,000 feet west of the site and approximately 1,150 feet south of the site.

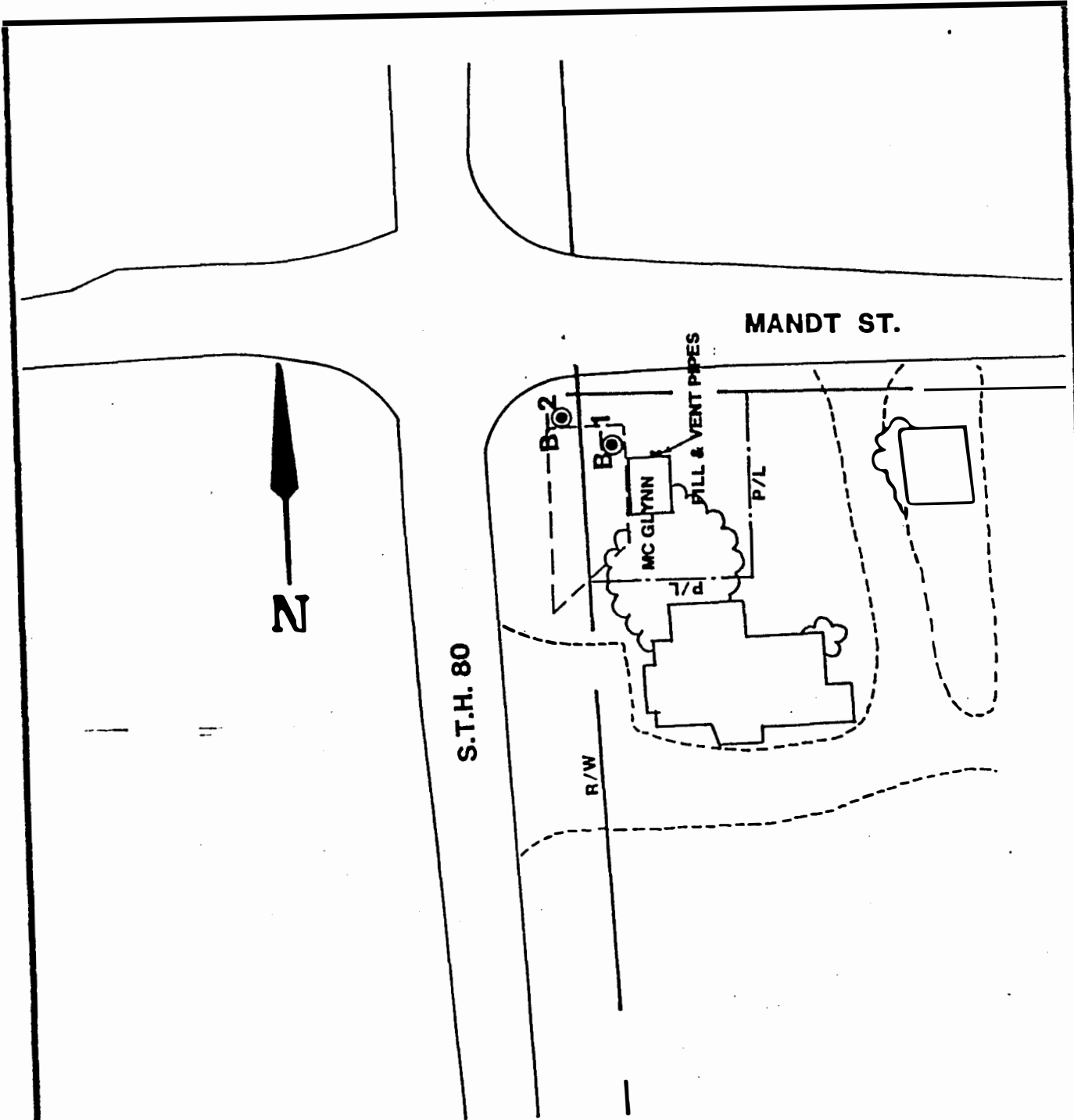
A vent and a fill pipe were observed indicating the presence of an underground storage tank in the location depicted in Figure 3-1. The tank appeared to be empty, but an "old" gasoline odor was apparent in the tank. A one story building (approximately 18 by 13 feet) and a 60 by 25 feet concrete slab were observed which are remnants of the former gasoline station. Remnants of piping believed to be associated with the former pump island were observed in the concrete slab. Much of the concrete slab is now covered with topsoil and sparse grass.

Photographs of the site are provided in Appendix B.

#### 3.4 Sampling Procedures

Samples were collected from borings at locations selected during the reconnaissance inspection to determine whether environmental contamination exists at the site. On

FIGURE 3-1



NOTE:-

● -SOIL TEST BORING

----- DRIVEWAY & GRASS BOUNDARY

**AQUA-TECH** INC.

SCALE: 1"=50'

APPROVED:

DRAWN BY:

DATE: 7/26/90

*R. H. E.*

RICHARDSON

**MC GLYNN PROPERTY**

5042-02-00

June 8, 1990, two soil borings were completed at the site in the locations depicted in Figure 3-1.

#### Soil Sampling Procedures

Subsurface soil samples were collected with a truck-mounted rotary drill equipped with hollow stem augers and a two inch diameter, 24 inch split spoon sampler. The split spoon sampler was advanced at two foot intervals by conventional methods, including the attachment of the sampler to an AW rod and standard 140 pound hammer.

All drilling tools and equipment were washed with high pressure steam equipment prior to the start of sampling work. All sampling equipment was decontaminated with an alconox and reagent water solution between sampling points to prevent cross contamination.

A preliminary survey was conducted by screening samples with a photoionization detector (PID) immediately upon opening the split spoon sampling tube. Results from the survey were used to select the most contaminated soils from each boring for laboratory analysis. Data from the preliminary survey are recorded on the soil profile logs in Appendix C.

Prior to the start of the assessment, the PID was calibrated according to the manufacturers specifications and recorded on a calibration log sheet. A copy of the calibration log sheet is provided in Appendix D.

After pedologic logging (See Appendix C), the selected samples were stored in clean, teflon-capped four ounce jars and cooled to 4°C for transport to the laboratory.

Upon completion of sampling, the boreholes were completely backfilled with bentonite according to Chapter N.R. 141.25 of the Wisconsin Administrative Code and WDNR form 3300-5B is provided in Appendix C. The soil cuttings were stockpiled on and covered with an impermeable membrane at the site.

#### Groundwater Sampling Procedures

Groundwater samples were collected by inserting a clean, disposable PVC bailer down the hollow stem auger and transferring the contents to sample containers. The samples were cooled to 4°C for transport to the laboratory.

### 3.5 Chain of Custody Procedures

This section describes procedures used for sample identification and chain of custody. The purpose of these procedures is to ensure that the quality of the samples is maintained during collection, transportation, storage and analysis.

Sample identification documents are carefully prepared so that sample identification and chain of custody are maintained and sample disposition is controlled. Sample identification documents included:

- \* Field Notebooks
- \* Sample Labels



\* Chain of Custody Records

Each sample is labeled, physically preserved, and sealed immediately after collection. To minimize handling of sample containers, labels are filled out prior to sample collection. The sample label is completed using waterproof ink and firmly affixed to the sample containers. The sample label provides the following information:

- \* Location
- \* Sample Number
- \* Date and Time of Collection
- \* Analysis Required
- \* Name of Sampler

A chain of custody record (See Appendix E) is fully completed in triplicate by the Aqua-Tech sampler immediately following sample collection.

Transfer of Custody Shipment

The cooler in which the samples are packed is accompanied by the chain of custody record. When transferring samples, the individual's relinquishing and receiving them sign, date, and note the time on the chain of custody record. This record documents sample custody.

Laboratory Custody Procedures

A designated sample custodian accepts custody of the shipped samples and verifies that the sample identification number matches that on the chain of custody record. A copy of the completed chain of custody record is retained by the

laboratory until analyses are complete. The record is then transferred to the site file with the analytical results.

## 4.0 ANALYTICAL PROCEDURES AND RESULTS

### 4.1 Introduction

This section includes results of chemical analyses of Aqua-Tech collected soil samples and groundwater samples for total petroleum hydrocarbons (TPH) and benzene, toluene, ethylbenzene, and xylenes (BTEX).

### 4.2 Analytical Procedures

The samples were analyzed by Aqua-Tech, Inc. in Port Washington, Wisconsin. The TPH analyses were conducted using a gas chromatograph (GC) equipped with a flame-ionization detector according to the Modified California Method. The BTEX analyses were conducted with a GC equipped with a photoionization detector according to U.S. EPA Method 601/602.

Methodology references contain specific quality control (QC) criteria associated with the particular methods. These specific requirements include calibration and QC samples and are described in detail within the methods. Daily performance tests and demonstration of precision and accuracy are required. Specifics of the analytical methodologies utilized are available from the laboratory.

### 4.3 Results of Chemical Analyses of Aqua-Tech Collected Samples

Chemical analyses for TPH of soil samples SB-1 and SB-2 collected from boring locations B-1 and B-2, respectively, revealed the following:

SB-1:  
TPH as gasoline: 53 ug/g  
TPH as diesel fuel: 75 ug/g  
duplicate: 86 ug/g

SB-2:  
TPH as gasoline: 59 ug/g  
duplicate: 32 ug/g  
TPH as diesel fuel: 14 ug/g

The laboratory analytical detection limit for TPH as gasoline in soil is 1.0 ug/g. The detection limit for TPH as diesel fuel in soil is 10 ug/g.

Chemical analysis for BTEX of groundwater sample WB-1(A) revealed the following estimated concentrations in ug/l (ppb):

Benzene: 1,184 ug/l  
Toluene: 570 ug/l  
Ethylbenzene: 210 ug/l  
Xylenes: 3,420 ug/l

The laboratory analytical detection limit for BTEX is 1.0 ug/l. The results of the BTEX analysis are estimated concentrations because the concentrations exceeded the instrument calibration range due to large amounts of solids present in the water sample.

Chemical analysis of groundwater sample WB-1(B) for TPH detected the following:

TPH as diesel fuel: 23,100 ug/l

The laboratory analytical detection limit for TPH in groundwater is 50 ug/l.

The complete results of the chemical analyses are provided in Table 4-1. The original analytical data are provided in Appendix F.

TABLE 4-1

RESULTS OF THE CHEMICAL ANALYSES OF  
AQUA-TECH COLLECTED SOIL AND GROUNDWATER SAMPLES

<u>Parameter</u>	<u>Sample</u> Number <u>SB-1</u>	<u>Sample</u> Number <u>SB-2</u>	<u>Sample</u> Number <u>WB-1(A)</u>	<u>Sample</u> Number <u>WB-1(B)</u>
	Soil Boring B-1	Soil Boring B-1	Groundwater Boring B-1	Groundwater Boring B-1
Sample Description	Soil Boring B-1	Soil Boring B-1	Groundwater Boring B-1	Groundwater Boring B-1
Depth interval (feet)	5.0-7.0	7.0-9.0	---	---
Total Solids (%)	84	86	---	---
TPH as Diesel Fuel	75 ug/g <sup>1</sup>	14 ug/g	---	23,100 ug/l <sup>2</sup>
duplicate	86 ug/g	----	---	---
spike	----	126%	---	---
TPH as Gasoline	53 ug/g	59 ug/g	---	---
duplicate	----	32 ug/g	---	---
Benzene <sup>3</sup>	----	----	1,184 ug/l*	---
Toluene <sup>3</sup>	----	----	570 ug/l*	---
Ethylbenzene <sup>3</sup>	----	----	210 ug/l*	---
Xylenes <sup>3</sup>	----	----	3,420 ug/l*	---

<sup>1</sup> The remedial action standard for TPH in soils as prescribed by the WDILHR and the WDNR is 10 ug/g (ppm). The laboratory analytical detection limit for TPH as gasoline is 1.0 ug/g and for TPH as diesel fuel 10 ug/g.

<sup>2</sup> There is no remedial action standard for TPH in groundwater. The laboratory analytical detection limit for TPH is 50 ug/l.

<sup>3</sup> The remedial action standards for BTEX in groundwater as prescribed by the Wisconsin Administrative Code are included in Table 5-1. The laboratory analytical detection limit for BTEX is 1.0 ug/l (ppb).

\* Response for this parameter exceeded instrument calibration range because of large amounts of solids in sample. Concentrations listed are estimated.

## 5.0 DISCUSSION OF ASSESSMENT RESULTS

### 5.1 Introduction

This section discusses data and information that apply to observed and potential contamination that may be attributable to the McGlynn Property site. In addition, potential migration pathways of contaminants are discussed if warranted.

### 5.2 Soil

Chemical analyses of soil samples SB-1 and SB-2 detected total petroleum hydrocarbon (TPH) concentrations above the 10 ppm remedial action standard for petroleum contaminated soils prescribed by the Wisconsin DILHR. The extent of contamination is unknown, but the contamination is known to be present on the existing WDOT right-of-way. Boring B-2 was completed approximately 30 feet east of the existing State Highway 80 centerline on the existing WDOT right-of-way.

Field screening of the soils with a photoionization detector (PID) revealed volatile organic compound (VOC) levels ranging from 5 to 200 ppm in boring B-1 and from 0 to 110 ppm in boring B-2. Results of the PID field screening survey suggest that the contaminated soil on the existing WDOT right-of-way is caused by migration of the petroleum contaminants at the interface of the groundwater table. No VOCs were detected upon field screening of soil samples collected above the groundwater interface in boring B-2.

### 5.3 Groundwater

Results of the chemical analysis of groundwater sample WB-1 indicate that the groundwater at the site is contaminated with benzene, toluene, ethylbenzene, and xylenes (BTEX) above the Preventive Action Standard prescribed by the Wisconsin Administrative Code Chapter N.R. 140.10 (See Table 5-1). No groundwater samples were collected from boring B-2. However, based on the results of soil sample SB-2 collected at the interval where the groundwater table was encountered (7.0 to 9.0 feet), the groundwater on the existing WDOT right-of-way at the site is believed to be contaminated. The direction of groundwater flow and the extent of groundwater contamination have not been determined.



TABLE 5-1

PUBLIC HEALTH GROUNDWATER QUALITY STANDARDS

WISCONSIN ADMINISTRATIVE CODE

CHAPTER N.R. 140 SUBCHAPTER II

GROUNDWATER QUALITY STANDARDS

<u>Substance</u>	<u>Enforcement Standard (micrograms per liter)</u>	<u>Preventative Action (micrograms per liter)</u>
Benzene	0.67	0.067
Ethylbenzene	1360	272
Toluene	343	68.6
Xylenes	620	124

## 6.0 RECOMMENDATIONS

After completing the Phase II Environmental Assessment for the McGlynn Property, Aqua-Tech recommends that further investigation to determine the extent of soil and groundwater contamination is necessary. Aqua-Tech recommends that a series of three to six borings be completed to delineate the contaminated plume on the existing WDOT right-of-way. Aqua-Tech estimates the cost of the Phase III assessment to range from approximately \$2,750 to \$4,500.

APPENDIX A

**RIGHT OF ENTRY**

Wisconsin Department of Transportation

The undersigned grants to the State of Wisconsin, Department of Transportation, it's agents and contractors, the right to enter upon the following described lands for the purpose of conducting an Environmental Site Assessment. On the property of Francis P. Waldsmith (Richland County Wisconsin), this site assessment will consist of drilling holes for soil testing purposes in the area described as follows:

Said area lies between a line (parallel to existing R/W line) lying one foot in front of the abandoned gas station building and the existing Right of Way line (see attached exhibit).

The holes will then be filled and capped at the surface with material matching the surrounding ground.

By accepting this Right of Entry, the State of Wisconsin agrees, as required by Wisconsin law, to pay any liabilities arising out of the exercise of its rights of entry whenever those liabilities result from an act or omission of a State of Wisconsin officer, employee, or agent acting within the scope of his or her State of Wisconsin authority.

The Right of Entry shall expire upon completion of the Environmental Site Assessment.

647-2427

~~Francis P. Waldsmith~~ Thaddeus & Susan McGlynn

\_\_\_\_\_  
(Owner) (Date) Thaddeus McGlynn (Owner) (Date)

\_\_\_\_\_  
(Owner) (Date) Susan McGlynn (Owner) (Date)

\_\_\_\_\_  
James R. Crooks  
(Agent, for the State of Wisconsin)

Project, 5042-02-00 Highway, STH 80 County, Richland Parcel, \_\_\_\_\_

APPENDIX B

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: McGlynn Property

PAGE 1 OF 1

DATE: 6/8/90

TIME: 9:50 am

DIRECTION OF PHOTOGRAPH:

Southeast

WEATHER CONDITIONS:

Overcast, 60°F

PHOTOGRAPHED BY:

Jim Cheshire

SAMPLE ID:  
(If Applicable):

SB-1, WB-1(A), WB-1(B)



DESCRIPTION: View of boring B-1 in progress from across State Highway 80.

DATE: 6/8/90

TIME: 10:15 am

DIRECTION OF PHOTOGRAPH:

Northeast

WEATHER CONDITIONS:

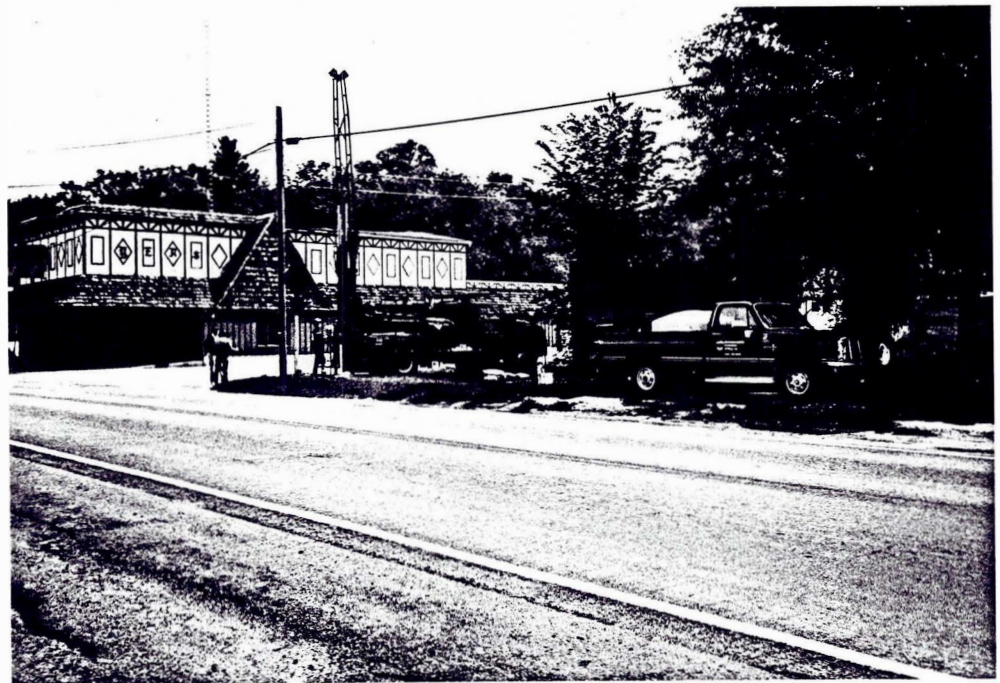
Overcast, 60°F

PHOTOGRAPHED BY:

Jim Cheshire

SAMPLE ID:  
(If Applicable):

SB-2



DESCRIPTION: View of boring B-2 in progress from across State Highway 80.

APPENDIX C

<b>AQUA-TECH, INC</b> 140 S. PARK ST. PORT WASHINGTON, WI 53074 TELEPHONE: (414) 284-5746 (414) 375-0407 (MILW METRO)	<b>SOIL PROFILE LOG</b> PROJECT: <b>MC GLYNN</b> LOCATION: STH 80, HUBCITY RICHLAND COUNTY, WI PROJECT#: 5042-02-00 ATI WO#: 92500
--	---

BORING B-1				SURFACE ELEVATION _____	
SAMPLES					DESCRIPTION AND REMARKS
NO.	MOISTURE (bpf)	REC	PID LEVELS (PPM)	DEPTH (FT)	
				0.0	6" TOPSOIL AND 4" CONCRETE
		N/R			
	MOIST		5		3.0' - 4.0' LT BROWN SILTY SAND W/SOME GRAVEL
			50		4.0' - 5.5' LT RED-BROWN FINE TO MEDIUM SAND
SB-1			200	5.0	5.5' - 9.0' LIGHT BROWN SILT W/FINE SAND
			110		
	WET		190		9.0' - 13.0' LIGHT RED-BROWN SILTY FINE SAND W/FINE GRAVEL
			15	10.0	
			160		
			25		
				13.0	TERMINATED BORING AT 13.0'
				15.0	*SOIL SAMPLE SB-1: 5.0' - 7.0' = 200PPM *GROUNDWATER SAMPLES WB-1(A): 2 X 40 ml WB-1(B): 1 X 1 LITER
				20.0	

WATER LEVEL OBSERVATIONS		GENERAL INFORMATION	
WHILE DRILLING	8.0'	START DATE	6/08/90
DEPTH TO WATER	8.9'	COMPLETION DATE	6/08/90
DEPTH TO CAVE-IN	----	DRILLING METHOD:	2 1/4" HOLLOW STEM AUGER; SPLIT SPOON SAMPLING
		LOGGER:	<i>James H. Chesler</i>



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.

<b>(1) GENERAL INFORMATION</b> Well/Drillhole/Borehole Location <u>B-1</u> County <u>Richland</u> NW 1/4 of SE 1/4 of Sec. <u>34</u> ; T. <u>10</u> N; R. <u>1</u> <input checked="" type="checkbox"/> E <input type="checkbox"/> W (If applicable) Gov't Lot _____ Grid Number _____ Grid Location _____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S., _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W. Civil Town Name _____ Street Address of Well <u>1150 N. Highway 80</u> City, Village <u>High City</u>	<b>(2) FACILITY NAME</b> Original Well Owner (If Known) <u>N/A</u> Present Well Owner _____ Street or Route _____ City, State, Zip Code _____ Facility Well No. and/or Name (If Applicable) <u>B-1</u> WI Unique Well No. _____ Reason for Abandonment <u>Exploration - Seal being complete</u> Date of Abandonment <u>6-8-90</u>
--	--

<b>WELL/DRILLHOLE/BOREHOLE INFORMATION</b> (3) Original Well/Drillhole/Borehole Construction Completed On (Date) <u>6-8-90</u> <input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input type="checkbox"/> Drillhole <input checked="" type="checkbox"/> Borehole Construction Report Available? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <u>Soil Profile log</u> Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (Specify) _____ Formation Type: _____ <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock Total Well Depth (ft.) <u>13.0</u> Casing Diameter (ins.) <u>N/A</u> (From ground surface) Casing Depth (ft.) <u>N/A</u> Was Well Annular Space Grouted? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown If Yes, To What Depth? <u>N/A</u> Feet	(4) Depth to Water (Feet) <u>5.75 ft.</u> Pump & Piping Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Liner(s) Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Screen Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Casing Left in Place? <input type="checkbox"/> Yes <input type="checkbox"/> No If No, Explain <u>N/A</u> Was Casing Cut Off Below Surface? <input type="checkbox"/> Yes <input type="checkbox"/> No Did Sealing Material Rise to Surface? <input type="checkbox"/> Yes <input type="checkbox"/> No Did Material Settle After 24 Hours? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, Was Hole Retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No
(5) Required Method of Placing Sealing Material <input type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped <input type="checkbox"/> Dump Bailer <input checked="" type="checkbox"/> Other (Explain) <u>Grout</u>	(6) Sealing Materials For monitoring wells and monitoring well boreholes only <input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Bentonite Pellets <input type="checkbox"/> Sand-Cement (Concrete) Grout <input checked="" type="checkbox"/> Granular Bentonite <input type="checkbox"/> Concrete <input type="checkbox"/> Clay-Sand Slurry <input type="checkbox"/> Bentonite-Sand Slurry <input type="checkbox"/> Chipped Bentonite

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
<u>Granular Bentonite</u>	Surface	<u>13.0</u>	<u>24</u>	—

(8) Comments: \_\_\_\_\_

(9) Name of Person or Firm Doing Sealing Work <u>James H. Cheshire (Agro-Tech, Inc.)</u> Signature of Person Doing Work _____ Date Signed <u>7-9-90</u> Street or Route <u>170 S. Park St.</u> Telephone Number <u>(714) 254-5746</u> City, State, Zip Code <u>Port Washington, WI 53074</u>	(10) FOR DNR OR COUNTY USE ONLY Date Received/Inspected _____ District/County _____ Reviewer/Inspector _____ Follow-up Necessary _____
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**AQUA-TECH, INC**

140 S. PARK ST.  
 PORT WASHINGTON, WI 53074  
 TELEPHONE:  
 (414) 284-5746  
 (414) 375-0407 (MILW METRO)

**SOIL PROFILE LOG**

PROJECT: **MC GLYNN**  
 LOCATION: STH 80, HUBCITY  
 RICHLAND COUNTY, WI  
 PROJECT#: 5042-02-00  
 ATI WO#: 92500

BORING B-2

SURFACE ELEVATION

**SAMPLES**

**DESCRIPTION AND REMARKS**

NO.	MOISTURE (bpf)	REC	PID LEVELS (PPM)	DEPTH (FT)	
				0.0	TOPSOIL
	MOIST		0		1.0' - 2.0' DK BRN SILTY LOAM TOPSOIL W/GRAVEL
			0		2.0' - 4.0' LIGHT RED-BROWN CLAYEY SILT
			0	5.0	4.0' - 7.0' LT BRN TO RD-BRN SILTY FINE SAND
SB-2	WET		110		7.0' - 8.0' LT BRN TO RD-BRN CLAYEY SILT W/SAND
			110	10.0	8.0' - 11.0' LT RD-BRN CSE SAND W/FINE GRAVEL
				11.0	TERMINATED BORING AT 11.0'
					*SOIL SAMPLE SB-2: 7.0' - 9.0'
				15.0	
				20.0	

**WATER LEVEL OBSERVATIONS**

**GENERAL INFORMATION**

WHILE DRILLING 7.0'  
 DEPTH TO WATER 7.0'  
 DEPTH TO CAVE-IN ----

START DATE 6/08/90 COMPLETION DATE 6/08/90  
 DRILLING METHOD: 2 1/4" HOLLOW STEM AUGER; SPLIT SPOON SAMPLING

LOGGER:

*James H. Edwards*

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.

<b>(1) GENERAL INFORMATION</b>		<b>(2) FACILITY NAME</b>	
Well/Drillhole/Borehole Location <u>B-2</u>	County <u>Richland</u>	Original Well Owner (If Known) <u>N/A</u>	
Section <u>N. 1/4 of SE 1/4 of Sec. 34</u> ; T. <u>10</u> N.; R. <u>1</u> W. (If applicable) Gov't Lot _____ Grid Number _____ Grid Location _____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S., _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W. Civil Town Name _____ Street Address of Well _____ City, Village _____ <u>Hills City</u>		Present Well Owner _____ Street or Route _____ City, State, Zip Code _____ Facility Well No. and/or Name (If Applicable) <u>B-2</u> WI Unique Well No. _____ Reason For Abandonment <u>Exhausted Soil Sealing Capacity</u> Date of Abandonment <u>6-8-91</u>	

<b>WELL/DRILLHOLE/BOREHOLE INFORMATION</b>			
(3) Original Well/Drillhole/Borehole Construction Completed On (Date) <u>6-8-91</u> <input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input type="checkbox"/> Drillhole <input checked="" type="checkbox"/> Borehole Construction Report Available? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <u>Soil Profile Log</u> Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (Specify) _____ Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock Total Well Depth (ft.) <u>11.0'</u> Casing Diameter (ins.) <u>N/A</u> (From ground surface) Casing Depth (ft.) <u>N/A</u> Was Well Annular Space Grouted? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown If Yes, To What Depth? <u>N/A</u> Feet	(4) Depth to Water (Feet) <u>7.0'</u> Pump & Piping Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Liner(s) Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Screen Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Casing Left in Place? <input type="checkbox"/> Yes <input type="checkbox"/> No If No, Explain <u>N/A</u> Was Casing Cut Off Below Surface? <input type="checkbox"/> Yes <input type="checkbox"/> No Did Sealing Material Rise to Surface? <input type="checkbox"/> Yes <input type="checkbox"/> No Did Material Settle After 24 Hours? <input type="checkbox"/> Yes <input type="checkbox"/> No <u>N/A</u> If Yes, Was Hole Retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No	(5) Required Method of Placing Sealing Material <input type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped <input type="checkbox"/> Dump Bailer <input checked="" type="checkbox"/> Other (Explain) _____ (6) Sealing Materials <input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Concrete <input type="checkbox"/> Clay-Sand Slurry <input type="checkbox"/> Bentonite-Sand Slurry <input type="checkbox"/> Chipped Bentonite For monitoring wells and monitoring well boreholes only <input type="checkbox"/> Bentonite Pellets <input checked="" type="checkbox"/> Granular Bentonite	

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
<u>Granular Bentonite</u>	Surface	<u>11.0'</u>	<u>2.5</u>	

(8) Comments: \_\_\_\_\_

(9) Name of Person or Firm Doing Sealing Work  
James H. Washburn Associates, Inc.

Signature of Person Doing Work <u>James H. Washburn</u>	Date Signed <u>7-9-91</u>
Street or Route <u>140 S. 1st St.</u>	Telephone Number <u>(414) 284-5746</u>
City, State, Zip Code <u>West Washington, WI 53074</u>	

(10) FOR DNR OR COUNTY USE ONLY

Date Received/Inspected	District/County
Reviewer/Inspector	
Follow-up Necessary	

APPENDIX D

# AQUA-TECH

GROCE LABORATORIES

The HNU Photoionization Meter was calibrated to 55 ppm at a span setting of 10.0 with a 10.2 eV lamp.

Job Name and # Raymond Henry (# 92498); Waldsmith (# 92500); Anderson (# 92834)

HNU I.D. # Unit A

DATE 6-7-90 TIME 7:30 p.m.

SIGNATURE James H. Christie

APPENDIX E



APPENDIX F



# AQUA-TECH

## GROCE LABORATORIES

ANALYTICAL LABORATORY REPORT

6-25-90

Sample #: WZ929 A-D  
 Customer: Mc Glynn  
 Date Sampled: 6-8-90  
 Date Received: 6-11-90  
 Date Analyzed: 6-22-90

Lab Director Approval: *[Signature]*  
 All Contact Names: \_\_\_\_\_

Sample Description

PARAMETER	2929 A	2929 B	2929 C	2929 D	Tech ID	Date Analysis Completed
total solids	84%	—	—	86%	PS	6-12-90
TPH - gasoline	53 $\mu$ g/g <i>(100%)</i>	—	—	59 $\mu$ g/g <i>(100%)</i> Dup - 32 $\mu$ g/g	TRK	6-13-90 6-13-90
TPH - diesel	75 $\mu$ g/g dup 86 $\mu$ g/g <i>(100%)</i>	—	23,100 $\mu$ g/L <i>(500%)</i>	14 $\mu$ g/g spike 126% <i>(100%)</i>	PS	6-21-90
Benzene	—	1184 $\mu$ g/L*	— <i>(16%)</i>	—	TRK	6-21-90
Toluene	—	510 $\mu$ g/L*	—	—		
Ethylbenzene	—	210 $\mu$ g/L*	—	—		
Xylene	—	3420 $\mu$ g/L*	— ↓	—		
ND - not detected	* Estimated concentration; sample concentration for this parameter exceeded instrument calibration range. Sample could not be detected due to large amounts of solids present.					
Detection limit is 10						