

AQUA-TECH_{INC.}

July 30, 1991

Mr. John Lewis
Wisconsin Department of Transportation
Office of Environmental Analysis, Room 651
P.O. Box 7916
Madison, WI 53707

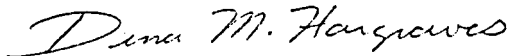
Dear Mr. Lewis:

Enclosed is the Phase II Environmental Assessment Report for the Terry's Kerr McGee (Site No. 4), 505 North Iowa Street (State Highway 23), City of Dodgeville, Iowa County, Wisconsin, Department of Transportation Project 5255-04-00 (ATI Project 95643).

If you have any questions regarding this report, please do not hesitate to contact me.

Sincerely,

AQUA-TECH, INC.



Dena M. Hargraves
Environmental Technician

DMH/er

Enclosure

PHASE II
ENVIRONMENTAL ASSESSMENT REPORT
FOR THE
TERRY'S KERR-MCGEE (SITE NO. 4)
505 NORTH IOWA STREET (STATE HIGHWAY 23)
CITY OF DODGEVILLE
IOWA COUNTY, WISCONSIN

JULY 1991

PREPARED FOR THE
WISCONSIN DEPARTMENT OF TRANSPORTATION
PROJECT 5255-04-00

PREPARED BY
AQUA-TECH, INC.
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ATI PROJECT 95643

PHASE II
ENVIRONMENTAL ASSESSMENT REPORT
FOR THE
TERRY'S KERR-MCGEE (SITE NO. 4)
505 NORTH IOWA STREET (STATE HIGHWAY 23)
CITY OF DODGEVILLE
IOWA COUNTY, WISCONSIN
WDOT PROJECT 5255-04-00

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1.0 SUMMARY

Aqua-Tech, Inc. has completed a Phase II Environmental Assessment for the Terry's Kerr-McGee (Site No. 4) located at 505 North Iowa Street (State Highway 23), Dodgeville, Wisconsin. This assessment was contracted on April 25, 1991, by the Wisconsin Department of Transportation (WDOT), Office of Environmental Analysis under project 5255-04-00.

The purpose of this assessment was to identify possible environmental contamination within the existing WDOT right-of-way which may be associated with three underground petroleum storage tanks located at the site. The assessment included the following:

- * Regulatory background review
- * Site representative interview
- * Reconnaissance inspection
- * Three soil borings to a maximum depth of 11.5 feet
- * Collection of subsurface soil samples
- * Field screening of subsurface soil samples for volatile organic compounds (VOCs) with a photoionization detector (PID)
- * Chemical analyses of three subsurface soil samples for total petroleum hydrocarbons (TPH)
- * Collection of three groundwater samples
- * Field screening of three groundwater samples for VOCs with a PID

- * Chemical analyses of the water samples for benzene, toluene, ethylbenzene, and xylenes (BTEX)

Results of this assessment indicate that the soils at this site are contaminated by petroleum products. Field screening of soil samples with a photoionization detector (PID) did indicate the presence of volatile organic compounds above background levels for the site. TPH levels above the 10 mg/kg (ppm) Wisconsin Department of Industry, Labor and Human Relations (WDILHR) remedial action guideline for petroleum contaminated soil were detected by laboratory analysis of soil sample KM-1.

Chemical analyses of groundwater samples collected from the soil borings indicate that groundwater is also contaminated with benzene, toluene, ethylbenzene, and xylenes above the Groundwater Quality Standards outlined in Wisconsin Administrative Code NR 140.10.

Aqua-Tech, Inc. recommends further investigation to determine the extent of contamination. Information gathered during the additional investigation will be used to determine the type of corrective action suitable for this site. Suggested pressure testing of the underground tanks has been scheduled. Contractual agreements should be concluded with the property owner and the additional investigation should be completed prior to initiating construction operations for State Highway 23. The additional investigation should be scheduled in conjunction with that of Marathon Oil No. 2 site (Site No. 5) which is located to the southwest across North Iowa Street.

2.0 SITE DESCRIPTION

2.1 Introduction

This section describes the location and physiographic setting of the site.

2.2 Site Location

The Terry's Kerr-McGee (Site No. 4) site occupies a 0.3 acre parcel of land at 505 North Iowa Street (State Highway 23) in the city of Dodgeville, Iowa County, Wisconsin. The site is part of a commercial/residential area (See Figure 2-1).

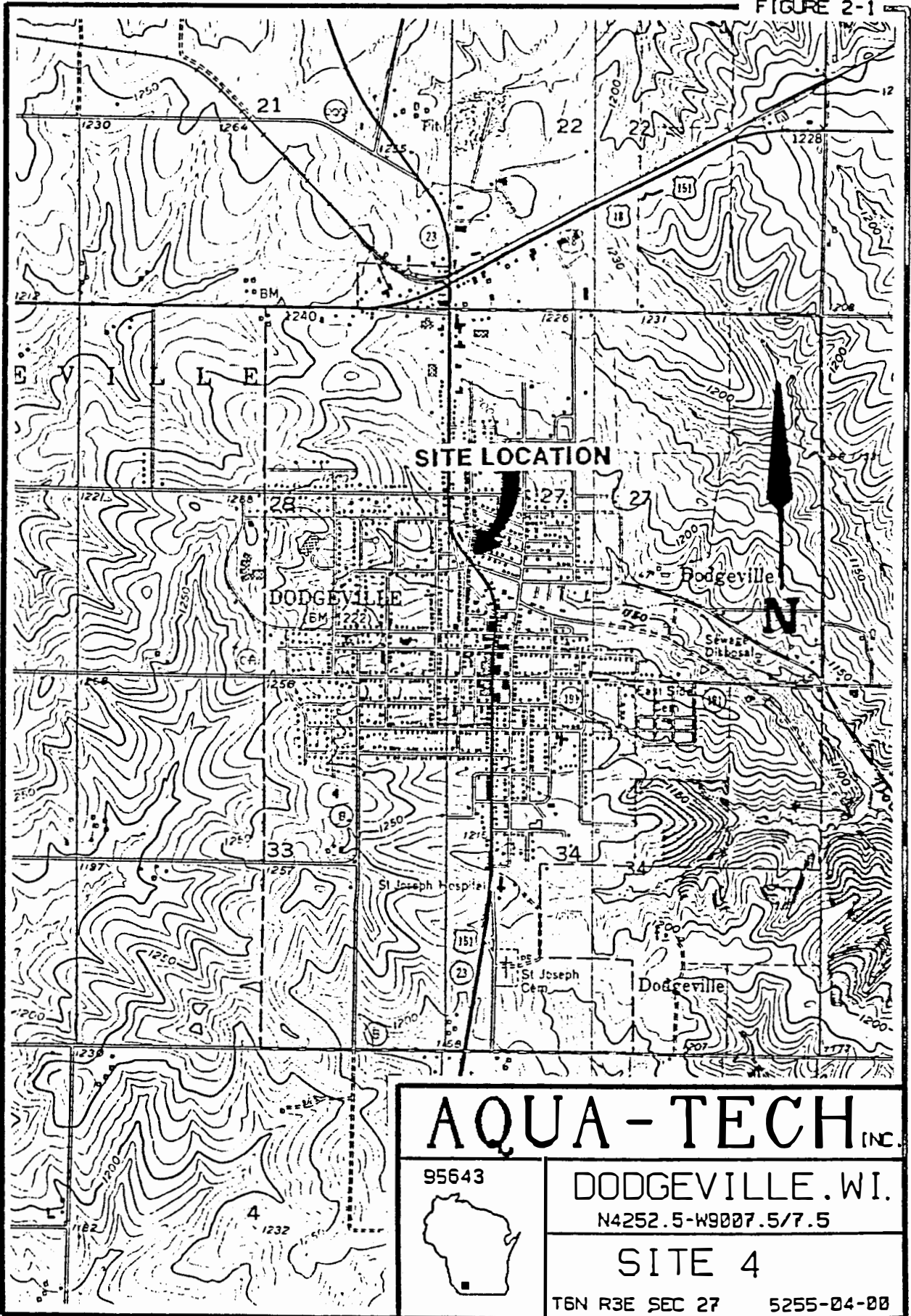
2.3 Site Geology

This site occurs in the Western Uplands Physiographic Province of southwestern Wisconsin. It is in the portion of Wisconsin called the Driftless Area that is not covered by ice transported deposits. The surface geology and physiography of the region have been determined by the differential erosion of bedrock. This erosion has resulted in an intricate dendritic drainage pattern with deep, narrow valleys separated by flat topped ridges.

The Palsgrove, Dubuque, and Fayette silt loam, which are characteristic of the gently rolling to very steep terrain on limestone ridges or on quartzite uplands, are the dominant type of soil at this site. The soils encountered in the test borings consist of silty sand and clay with medium grained sand underlain by tan weathered sandstone.

Bedrock in the area is buried to varying depths by alluvium from several branches of the Pecatonica River. It was encountered in one of the soil borings at

FIGURE 2-1



a depth of 11.5 feet. Regionally, bedrock consists of Paleozoic age dolomite of the Ordovician system with some sandstone, limestone, and shale of the Galena, Decorah, and Platteville formations which are well exposed in cliffs more than one mile east and west of the site.

Local topography consists of upland ridges and adjacent narrow valleys. Local topography at the site ranges from 6 to 12 percent slope with the ground surface sloping to the east/southeast. Regionally the ground surface slopes to the east in the area.

Groundwater was encountered in all three soil borings completed at this site at depths ranging from 5.9 to 9.0 feet. Based on surface topography, groundwater is believed to be moving in an easterly direction toward the Dodge Branch of the Pecatonica River which is approximately 300 feet east/southeast of the site.

3.0 ASSESSMENT PROCEDURES AND FIELD OBSERVATIONS

3.1 Introduction

This section outlines assessment procedures and field observations for the environmental assessment of Terry's Kerr-McGee (Site No. 4). Individual subsections include information obtained from the regulatory background review, site background review, and reconnaissance inspection.

3.2 Regulatory Background Review

A regulatory review of Terry's Kerr-McGee (Site No. 4) was conducted to ensure that the site and surrounding areas have not been identified as causing or having the potential to cause environmental pollution. Records of solid and liquid waste disposal, spills, and leaks are an indication of whether hazardous materials have been introduced to the subsurface. The following sources were referenced during this review:

- * U.S. Environmental Protection Agency CERCLIS List (March 1990)
- * U.S. Environmental Protection Agency Facility Index System: Selected Facilities Report List (FINDS) (May 1990)
- * Wisconsin Department of Natural Resources (WDNR) Registry of Waste Disposal Sites in Wisconsin (February 1990)
- * WDNR Inventory of Sites or Facilities Which May Cause or Threaten to Cause Environmental Pollution (Environmental Repair Program) (July 1987)

- * WDNR Statewide Spills and Hazardous Incident Report List, January 1978 to December 1989
- * WDNR List of Leaking Underground Storage Tanks (LUST List) (June 1991)
- * Wisconsin Department of Industry, Labor and Human Relations (WDILHR) Computer Inventory of Underground Storage Tanks

The Terry's Kerr McGee (Site No. 4) does not appear on any of the above lists.

There are 14 sites within a one mile radius of this site in Iowa County which may cause or threaten to cause environmental pollution to this site. Considering the distance and direction from the project area, the potential contaminant sources are believed to pose a minimal threat to the site. Listings of these sites are included in Appendixes A through D.

Two underground storage tanks at the site are on record in the computer inventory at The Wisconsin Department of Industry, Labor and Human Relations (DILHR) (See Appendix E).

3.3 Site Representative Interview

Interviews are conducted for the purpose of gathering information concerning present and past uses of the Terry's Kerr-McGee (Site No. 4) and the potential environmental impact of these activities. Dena Hargraves of Aqua-Tech, Inc. conducted a personal interview with Mr. Terry Bystol, the site owner, on May 20, 1991.

Dena Hargraves of Aqua-Tech, Inc. conducted a telephone interview with Mr. Keith Halverson on May 24, 1991, a previous site owner.

3.4 Site History

The site has been owned by Mr. Terry Bystol and utilized as a gasoline/repair station since it was purchased from Mr. Keith Halverson in 1976. The mailing address and telephone number for the property owner are:

Mr. Terry Bystol
505 North Iowa Street
Dodgeville, Wisconsin 53533
(608) 935-2401

Mr. Keith Halverson owned the property for approximately 30 years. The gasoline station was built and the tanks were installed in the 1960s. Mr. Emitt Awida, deceased, owned the property prior to 1946.

There are currently three underground storage tanks (USTs) at Terry's Kerr-McGee (Site No. 4). The sizes, contents, and installation dates are summarized in Table 3-1.

TABLE 3-1

UNDERGROUND STORAGE TANKS

TERRY'S KERR-MCGEE (SITE NO. 4)

<u>Size (gallons)</u>	<u>Contents</u>	<u>Installation Date</u>
4,000	empty	1960s
4,000	unleaded gasoline	1960s
3,000	premium unleaded gasoline	1960s

The empty 4,000 gallon underground storage tank previously contained leaded gasoline but was pumped dry when the company discontinued the sale of leaded gasoline. The underground storage tanks are scheduled for pressure testing to determine if the tanks are secure. Safety Kleen picks up the waste oil generated on site.

3.5 Site Reconnaissance Inspection

Dena Hargraves of Aqua-Tech, Inc. conducted a reconnaissance inspection of Terry's Kerr-McGee (Site No. 4) and surrounding area on May 20, 1991. The site reconnaissance inspection included a walk through to observe the physical and surface environmental setting of the site and to determine appropriate sampling locations. Underground tank bed locations, underground and overhead utilities, and site accessibility were taken into consideration.

Reconnaissance Inspection Observations

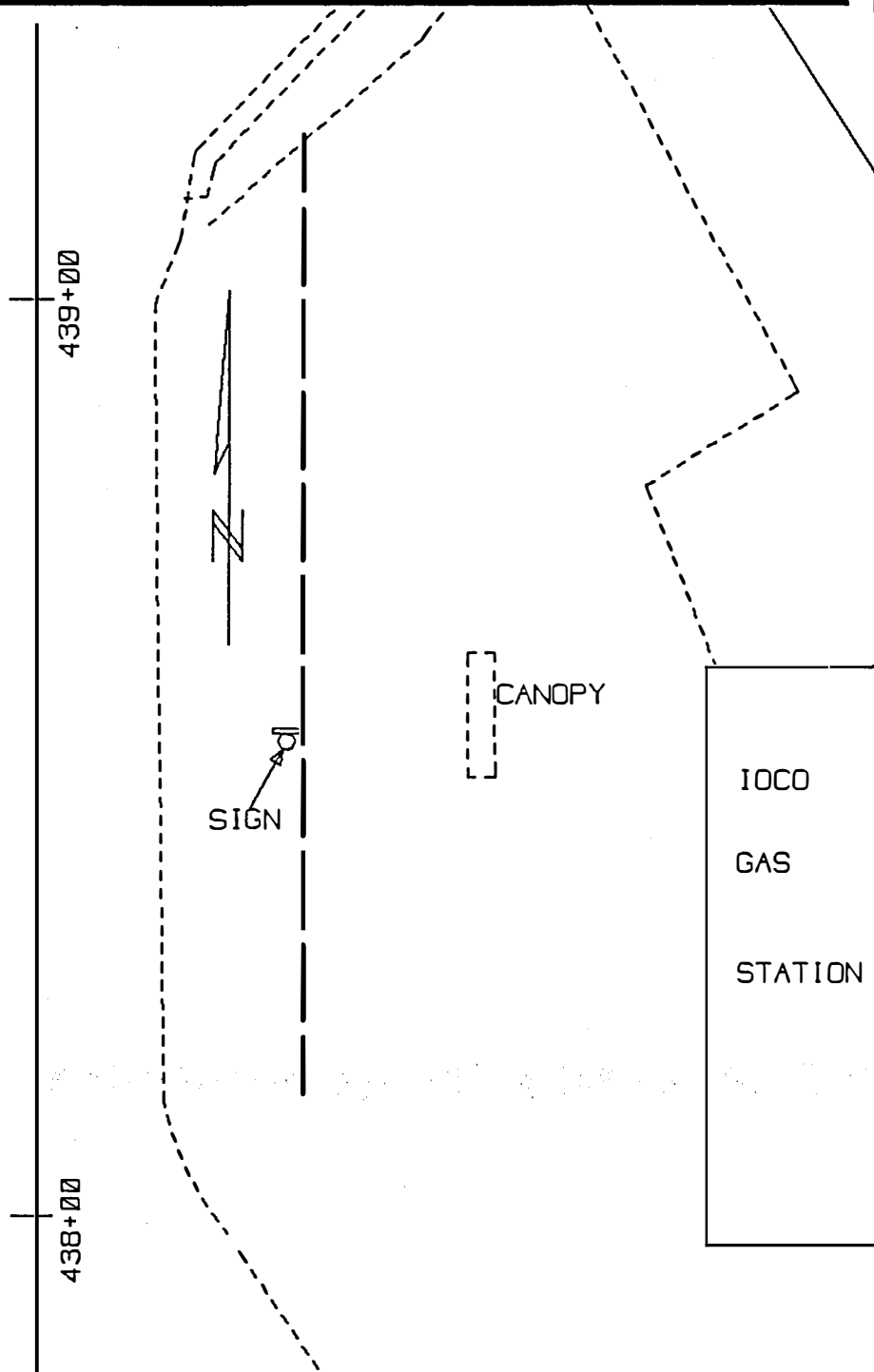
Terry's Kerr-McGee (Site No. 4) is bound on the east by residential property, on the north by Main Street, and then the Old Railroad Coal Storage site (Site No. 2, Aqua-Tech Project 95642). The site is bound on the south by East Spring Street then a vacant lot. The site is bound on the west by North Iowa Street (State Highway 23) and then Al's Small Engine site (Site No. 6, Aqua-Tech Project 95638). The Marathon Oil No. 2 site (Site No. 5, Aqua-Tech Project 95644) is located southwest of the site across North Iowa Street.

The interior of the building was not inspected. The site is serviced by a municipal water supply system.

There are three underground storage tanks at this site. No evidence of spills or leakage of petroleum products or other hazardous substances was noted at the site (e.g., stressed vegetation, stained soil).

Figure 3-1 depicts the site features and the location of the underground storage tanks at the Terry's Kerr-McGee (Site No. 4). Photographs of the site are provided in Appendix F.

FIGURE 3-1



AQUA-TECH INC.

SCALE: 1" = 20'

APP. BY:

DRAWN BY:

DATE: 7/23/91

J.H.

RICHARDSON

SITE NO. 4

5255-04-00

95643

4.0 SAMPLING AND ANALYTICAL PROCEDURES

4.1 Introduction

This section outlines procedures followed for collecting soil or groundwater samples, maintaining security and integrity of the samples and chemical analysis of the samples.

4.2 Sampling Procedures

Soil samples are collected from the subsurface to determine if soil at the site is contaminated. Likewise, groundwater samples are collected to determine if the groundwater is contaminated at the site.

Soil Sampling Procedures

Subsurface soil samples are collected with a truck-mounted rotary drill equipped with a hollow stem auger and a two inch diameter, 18 inch split spoon sampler. The split spoon sampler is advanced at 18 inch intervals by conventional methods, including the attachment of the sampler to an AW rod and standard 140 pound hammer.

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

Subsurface soil samples are screened for volatile organic compounds with a photoionization detector (PID) immediately after the split spoon sampling tube is opened. Instrumental readings (PID levels in ppm) and sample descriptions/re-

marks are recorded on a soil profile log at the appropriate depth intervals. Results from this screening survey are used to aid in the selection of samples for laboratory analysis.

The following headspace methodologies are utilized for PID field screening of soil samples:

1. Headspace samples are collected in clean four ounce glass jars.
2. The jars are filled one-half full.
3. Immediately after the headspace sample is packed in the jar, the mouth of the jar is covered with a heavy gauge aluminum foil.
4. Once the headspace sample is sealed, the sample is agitated for at least 30 seconds to break soil clods and release vapors.
5. After the sample is agitated, the sample is allowed to equilibrate for 20 minutes at approximately 70°F out of direct sunlight.
6. Following equilibration, the sample headspace is analyzed by inserting the tip of the PID probe through a single, small hole in the foil seal to a position halfway between the seal and sample surface and then recording the highest instrumental reading.
7. The PID is properly maintained and calibrated according to the manufacturer's specifications at the site at least daily before commencing field operations. Results of the calibration are recorded on a calibration log sheet (See Appendix G).

The second sample from each sampling location is a split sample collected from the same two foot depth interval and at the same time that the headspace sample is collected.

After pedologic logging, the sample selected for chemical analyses is tightly packed into a clean, Teflon™ lidded, four ounce jar and cooled to 4°C for transport to the laboratory.

Groundwater Sampling Procedures

A groundwater sample is collected by inserting a clean disposable polyethylene bailer down the hollow stem augers and transferring the contents into the appropriate container. If the parameter to be tested is BTEX or VOCs, the contents are transferred into 40 ml. glass vials, containing HCL preservative, taking care to ensure no air space is included. The water sample containers are then sealed and cooled to 4°C for transport to the laboratory.

4.3 Procedures for Abandoning a Borehole

After all necessary soil and groundwater samples are collected at a given borehole, the borehole is completely backfilled with bentonite and abandoned according to procedures outlined in Wisconsin Administrative Code NR 141.25. If field screening revealed the soil samples were contaminated, the cuttings were containerized in a DOT approved container while awaiting approval for disposal at a WDNR approved facility. One 55 gallon drum and one 30 gallon drum remain at the site. Boring abandonment documentation is included in Appendix H.

4.4 Chain of Custody Procedures

This section describes procedures used for sample identification and chain of custody. The purpose of these procedures is to ensure security and integrity of the sample from collection through 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 include:

- * Field Notebooks
- * Sample Labels
- * Chain of Custody Records

Each sample is labeled, chemically or physically preserved, and sealed immediately after collection. To minimize handling of sampling containers, a label is filled out prior to sample collection. The sample label is completed using waterproof ink and then firmly affixed to the sample container. 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 is fully completed in triplicate by the Aqua-Tech sampler immediately following sample collection (See Appendix I).

Transfer of Custody Shipment

The samples are packed in a cooler and are accompanied by the chain of custody record. When transferring samples, the individuals 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 sample and verifies 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.

5.0 FIELD AND ANALYTICAL RESULTS

5.1 Introduction

This section summarizes results of screening soil samples in the field for volatile organic compounds (VOCs) and chemical analyses of soil samples for total petroleum hydrocarbons (TPH) and groundwater samples for benzene, toluene, ethylbenzene and xylenes.

5.2 Sample Locations

On May 28, 1991, Dena Hargraves of Aqua-Tech, Inc. collected three subsurface soil samples and three groundwater samples from borings completed at Terry's Kerr-McGee (Site No. 4). See Figure 5-1 for boring locations.

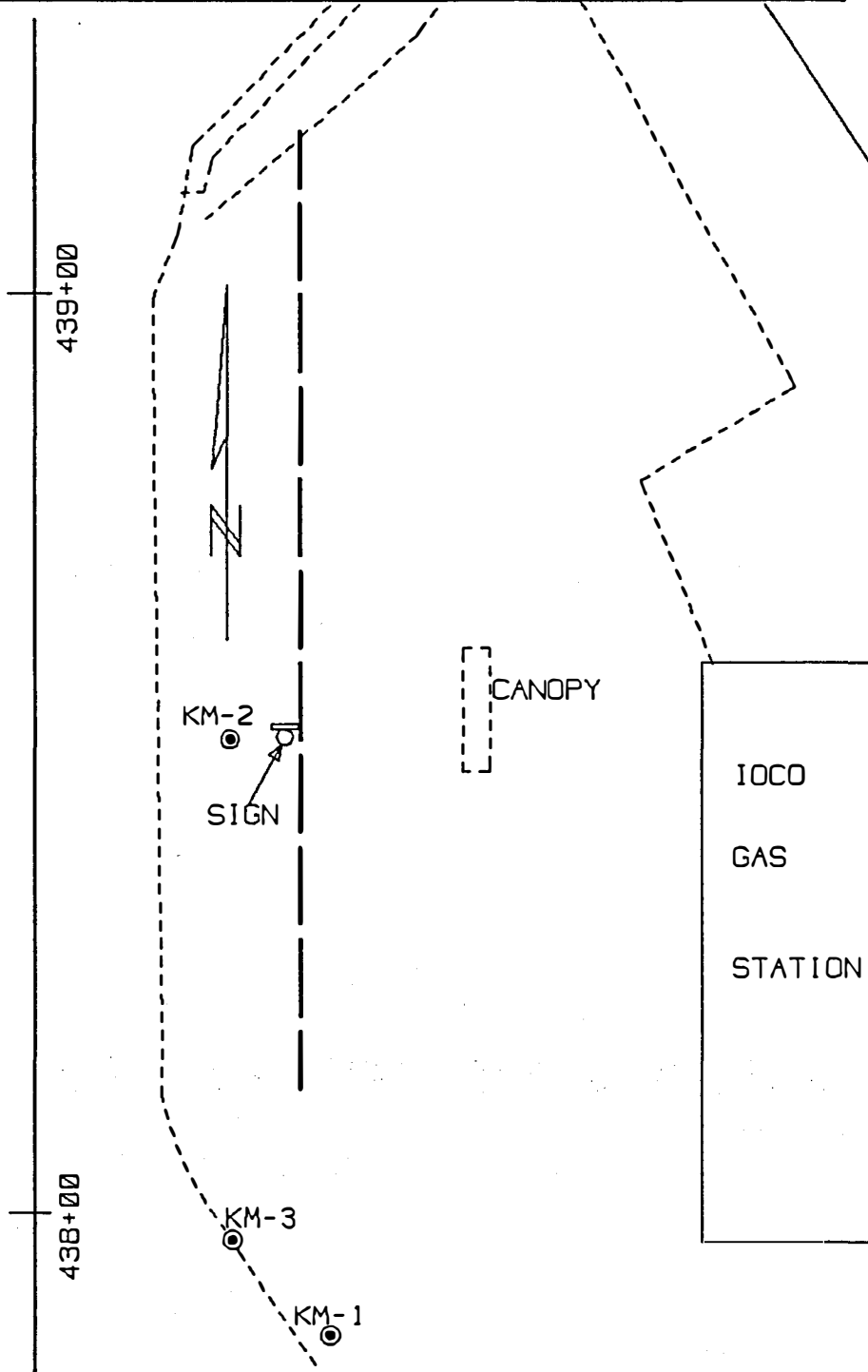
The borings completed at the site are referenced according to the following survey station locations:

<u>Boring</u>	<u>Sample Location</u>	<u>Offset (Feet)</u>
KM-1	437 + 87	Right 33
KM-2	438 + 52	Right 22
KM-3	437 + 97	Right 22

Subsurface soil samples KM-1 and KM-3 were collected as grab samples from the 5.5 to 7.0 foot depth interval. These samples were collected because they were the intervals with the highest PID reading in the borings.

Subsurface soil sample KM-2 was collected as a grab sample from the 7.0 to 8.5 foot depth interval. This sample was collected because it was directly above the water table.

FIGURE 5-1



LEGEND:

⊙ - SOIL SAMPLE

AQUA-TECH INC.		
SCALE: 1" = 20'	APP. BY: <i>D.H.</i>	DRAWN BY:
DATE: 7/23/91		RICHARDSON
SITE NO. 4		
5255-04-00		95643

Groundwater samples KMGW-1, KMGW-2, and KMGW-3 were collected at depths of 5.9, 9.0, and 6.0 feet, respectively, to determine if any petroleum products are present in the groundwater at the site.

5.3 Results of Field Screening

A summary of field screening results of subsurface soil samples for VOCs with a photoionization detector (PID) is as follows:

- * Subsurface soil samples from boring KM-1, yielded PID readings that ranged from 0 to 100 ppm.
- * Subsurface soil samples from borings KM-2 and KM-3, yielded PID readings that ranged from 0 to 16 ppm.
- * Groundwater samples from borings KM-1, KM-2, and KM-3 yielded PID readings that ranged from 1 to 32 ppm.

All PID readings relative to depth for each boring completed at Terry's Kerr-McGee (Site No. 4) are recorded on soil profile logs (See Appendix G).

5.4 Analytical Methods Utilized for Chemical Analyses of Samples

The ORTEK Environmental laboratory in Green Bay, Wisconsin analyzed the soil and groundwater samples collected at Terry's Kerr-McGee (Site No. 4) utilizing the California Method and EPA Method 8020, respectively. Each analytical method follows specific quality control (QC) criteria listed in the reference manual describing the method. This includes the selection and calibration of appropriate instruments

and the use of QC samples. Daily performance tests and the demonstration of precision and accuracy in the laboratory are required.

5.5 Results of Chemical Analysis of Aqua-Tech Collected Samples

Soil Samples

Chemical analyses of three soil samples yielded the following results:

- l. * No TPH as kerosene, gasoline, or diesel was identified in soil samples KM-2 and KM-3 at concentrations above the 5.0 mg/kg (ppm) laboratory detection limit.
- ⊙ * A TPH level of 173.7 mg/kg as gasoline was identified in soil sample KM-1. No TPH as kerosene or diesel was identified in soil sample KM-1 at concentrations above the 5.0 mg/kg laboratory detection limit.

Table 5-1 contains complete results of the chemical analyses of the soil samples. All TPH results were calculated on a dry weight basis as required by Wisconsin DILHR. Original laboratory data are provided in Appendix I.

Groundwater Samples

Chemical analyses of three groundwater samples yielded the following results:

- * Groundwater sample KMGW-1 is contaminated by benzene (25,000 ug/l), toluene (6,300 ug/l), ethylbenzene (4,700 ug/l), and xylenes

(14,000 ug/l). An elevated laboratory detection limit was necessary due to the high level of compounds present.

- * Groundwater sample KMGW-2 had detectable amounts of benzene (2.6 ug/l), toluene (1.3 ug/l), ethylbenzene (1.6 ug/l), and xylenes (4.2 ug/l).
- * Groundwater sample KMGW-3 had detectable amounts of benzene (91.0 ug/l) and ethylbenzene (1.6 ug/l). No toluene or xylenes were identified above the 1.0 ug/l and 3.0 ug/l respective laboratory detection limits.

Table 5-2 contains complete results of the chemical analyses of the groundwater samples. Original laboratory data are provided in Appendix I.

TABLE 5-1

RESULTS OF CHEMICAL ANALYSES OF
 AQUA-TECH, INC. COLLECTED SOIL SAMPLES FOR
 TERRY'S KERR-MCGEE (SITE NO. 4)

DATE SAMPLED: MAY 28, 1991

DATE ANALYZED: JUNE 5, 1991

Parameter	Sample KM-1	Sample KM-2	Sample KM-3	Laboratory Detection Limit
Depth Interval (feet)	5.5-7.0	7.0-8.5	5.5-7.0	---
Total Solids (%)	77.1	73.3	78.9	---
Total Petroleum Hydrocarbons (TPH)* (mg/kg)** +				
as kerosene	ND	ND	ND	5.0
as gasoline	173.7	ND	ND	5.0
as diesel	ND	ND	ND	5.0

ND = Not Detected

* All TPH results reported on a dry weight basis.

** Ten mg/kg (ppm) is the maximum level of petroleum contamination allowed in soil before remediation is required by the Wisconsin Department of Industry, Labor and Human Relations (WDILHR).

+ The terms "as gasoline", "as diesel", or "as kerosene" do not necessarily indicate the type of petroleum hydrocarbon present. Rather, they indicate the closest standard used to quantitate the sample result.

TABLE 5-2

RESULTS OF CHEMICAL ANALYSES OF
 AQUA-TECH, INC. COLLECTED GROUNDWATER SAMPLES FOR
 TERRY'S KERR-MCGEE (SITE NO. 4)

DATE SAMPLED: MAY 28, 1991

DATE ANALYZED: JUNE 5, 1991

Parameter	Sample KMGW-1	Laboratory Detection Limit	Sample KMGW-2	Laboratory Detection Limit	Sample KMGW-3	Laboratory Detection Limit
Depth (feet)	5.9	—	9.0	—	6.0	—
Benzene (ug/L)	25,000	200	2.6	1.0	91.0	1.0
Toluene (ug/L)	6,300	200	1.3	1.0	ND	1.0
Ethylbenzene (ug/L)	4,700	200	1.6	1.0	1.6	1.0
Xylenes (ug/L)	14,000	600	4.2	3.0	ND	3.0

ND = Not Detected
 ug/L = ppb

6.0 DISCUSSION OF ASSESSMENT RESULTS

6.1 Introduction

This section discusses field observations and analytical data pertaining to observed or potential contamination which may be attributed to the Terry's Kerr-McGee (Site No. 4).

6.2 Site History, Regulatory Review, and Reconnaissance Inspection

The site history failed to produce any evidence of intentional or accidental releases of hazardous materials at the site.

The regulatory review identified 14 sites within a one mile radius of the site which may have a potential to contaminate the Terry's Kerr-McGee (Site No. 4).

U.S. EPA Regulatory Program

The U.S. EPA maintains a computer inventory (FINDS) of facilities regulated under various programs. There are seven sites regulated in the city of Dodgeville that are within a one mile radius of the site. The nearest site is the Iowa County Cooperative Warehouse, 401 North Union Street, approximately 750 feet southeast of the Terry's Kerr-McGee (Site No. 4).

WDNR Registry of Waste Disposal Sites in Wisconsin

The WDNR maintains a list of waste disposal sites in the state. There are two sites in the city of Dodgeville that are within a one mile radius of the site. The nearest site is the city of Dodgeville Waste Disposal site, approximately 2,700 feet southwest of the Terry's Kerr-McGee (Site No. 4).

WDNR Environmental Repair Program

The WDNR maintains an inventory of sites or facilities which may cause or threaten to cause environmental pollution. There is one site in the city of Dodgeville. This site is the city of Dodgeville Municipal Well #3 which is approximately 400 feet west of the Terry's Kerr-McGee (Site No. 4).

WDNR Statewide Spills and Hazardous Incident Report

January 1978 to December 1989

The WDNR maintains a list of spills and hazardous incidents which have occurred in the state since January 1978. There are four reported spills within a one mile radius of the site. The nearest incident is at Jack's Service Center (Site No. 9, ATI #95731), 405 North Iowa Street, approximately 700 feet southeast of Terry's Kerr-McGee (Site No. 4). This spill consisted of 25 gallons of gasoline due to a malfunctioning shut off valve on July 28, 1989.

A reconnaissance inspection of the site and surrounding area failed to identify any signs (stressed vegetation, soil stains) of potential contamination.

6.3 Soil

Field screening of split spoon samples from borings KM-1, KM-2, and KM-3 with a PID suggested the presence of VOCs in excess of background levels.

No TPHs were detected by laboratory analyses in soil samples KM-2 and KM-3. TPH contamination as gasoline (173.7 mg/kg) (ppm) was identified by laboratory analysis of subsurface soil sample KM-1. This value is above the

Wisconsin DILHR remedial action guideline of 10 mg/kg (ppm) for petroleum contaminated soil.

6.4 Groundwater

Groundwater was encountered in borings KM-1, KM-2, and KM-3 at depths of 5.9, 9.0, and 6.0 feet, respectively. Chemical analysis of groundwater sample KMGW-1 collected from boring KM-1 revealed the presence of benzene (25,000 ug/l), toluene (6,300 ug/l), ethylbenzene 4,700 ug/l), and xylenes (14,000 ug/l). These concentrations are well above the Groundwater Quality Enforcement Standards outlined in Wisconsin Administrative Code NR 140.10 (See Table 6-1).

Chemical analyses of groundwater sample KMGW-2 collected from boring KM-2 revealed detectable amounts of benzene (2.6 ug/l), toluene (1.3 ug/l), ethylbenzene (1.6 ug/l), and xylenes (4.2 ug/l). The benzene concentration is above the Preventive Action Limit outlined in Wisconsin Administrative Code NR 140.10.

Chemical analyses of groundwater sample KMGW-3 collected from boring KM-3 revealed detectable amounts of benzene (91.0 ug/l) and ethylbenzene (1.6 ug/l). The benzene concentration is above the Groundwater Quality Enforcement Standards. No toluene or xylenes were identified in groundwater sample KMGW-3 above the 1.0 ug/l and 3.0 ug/l respective laboratory detection limits.

TABLE 6-1

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>Preventive Action (micrograms per liter)</u>
Benzene	5	0.067
Ethylbenzene	1360	272
Toluene	343	68.6
Xylenes	620	124

7.0 RECOMMENDATIONS

After completing the Phase II Environmental Assessment for Terry's Kerr-McGee (Site No. 4), Aqua-Tech, Inc. recommends further investigation to determine the extent of contamination. Information obtained from the additional investigation will be used to determine the type of corrective action suitable for this site. The underground storage tanks are scheduled for pressure testing. Contractual agreements should be concluded with the property owner and the additional investigation should be completed prior initiating construction operations for State Highway 23. The additional investigation should be scheduled in conjunction with that of Marathon Oil No. 2 site (Site No. 5) which is located to the southwest across North Iowa Street.

APPENDIX A

1. The first part of the document is a list of the names of the authors and their affiliations. This is followed by a list of the titles of the papers included in the appendix. The titles are listed in alphabetical order.

•

REPORT: FIRILJA
REGION: 05

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
FACILITY INDEX SYSTEM (FINDS)
MATRIX REPORT WITH X INDICATING MONITORING PROGRAMS

PAGE:
ROW DATE:

PROGRAM OFFICE SOURCE CODE
EPA-ID FAC. NAME/ADDRESS/CITY STATE ZIP 01 02 03 04 05 07 08 09 10 13 14 15 16

*10990703086 PAYNE & DOLAN INC DEFOREST PLT
5338 NORWAY GROVE SCHOOL RD
DE FOREST WI 53532 X X

W10106723976 POLK DIESEL AND MACHINE INC
5960 HASSE RD
DEFOREST WI 53532 X

W10073840084 STOKELY USA INC
HWY 51
DE FOREST WI 53532 X

W10137783765 TACA-GOLD CORPORATION
116 ANTIQUE LANE
DE FOREST WI 53532 X

W10023199951 WINDSOR MARATHON TRUCK STOP
6155 HIGHWAY 51
DEFOREST WI 53532 X

W10980903504 WIS BELL INC DEFOREST W9620
CO TRK W S PATTON RD
DE FOREST WI 53532 X

X W10073845123 DODGEVILLE MEMORIAL HOSPITAL
825 S IOWA ST
DODGEVILLE WI 53533 X

X W10095347165 DODGEVILLE SCHOOL DIST
312 W CHAPEL ST
DODGEVILLE WI 53533 X X

W10981192214 GENERAL TELEPHONE CO OF WISCON
105 LEFFLER
DODGEVILLE WI 53533 X

W10988557582 IOWA CAPP HWY DEPT
WILLIAMS RD
DODGEVILLE WI 53533 X

X W10023204885 IOWA COUNTY COOPERATIVE WAREHO
401 NORTH UNION
DODGEVILLE WI 53533 X

W10988567508 IVERSON CONSTRUCTION CO
1/4 1/4 SEC10
DODGEVILLE WI 53533 X

REPORT: #11014 REGION: 05
 UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 FACILITY INDEX SYSTEM (FINDS)
 MATRIX REPORT WITH INDICATING MONITORING PROGRAMS

PROGRAM OFFICE SOURCE CODE
 EPA-ID FAC. NAME/ADDRESS/CITY STATE ZIP 01 02 03 04 05 07 08 09 10 11 14 15 16

PAGE: 1
 RUN DATE: 05/15/16

REPORT	REGION	FACILITY NAME	ADDRESS	CITY	STATE	ZIP	INDICATING MONITORING PROGRAMS
#109857352	05	KALK LAKE	115 S IOLA ST	DOUGLASSVILLE	GA	30132	X
#109857597	05	MC CORMACK CHAPEL	KING ST	DOUGLASSVILLE	GA	30132	X
#1002205297	05	ROCK BOY & SONS INC	OLD US HWY 19 #231	DOUGLASSVILLE	GA	30132	X
#10090362548	05	ROYAL LINE TRAILER CORP	109 E DIVISION ST	DOUGLASSVILLE	GA	30132	X
#1004296503	05	SILICON SENSORS INC	OLD HWY 18 E CRT 2	DOUGLASSVILLE	GA	30132	X
#10121056117	05	ST JOSEPH GRADE SCHOOL	305 E WALNUT ST	DOUGLASSVILLE	GA	30132	X
#10000773132	05	TRAIL LAKE	RT 3	DOUGLASSVILLE	GA	30132	X
#10000443104	05	ALBION POLYMER FABR INC	HWY 23 N	DOUGLASSVILLE	GA	30132	X
#1000073274	05	SUSSEX DISHWASHER SERVICE INC	893 HWY 73	DOUGLASSVILLE	GA	30132	X
#1560011454	05	CATERPILLAR TRACTOR CO EDGECROFT	1220 W POLK ST	DOUGLASSVILLE	GA	30132	X
#10059972265	05	DATA CORP	1220 W POLK ST	DOUGLASSVILLE	GA	30132	X
#10093017408	05	DOSSER TRAILERS INC	405 E POLK ST	DOUGLASSVILLE	GA	30132	X

APPENDIX B

WASTE DISPOSAL SITES IN WISCONSIN

DNR DIST.	COUNTY	FACILITY NAME	LOCATION		ID NUM.	STATUS / INFO. SOURCE
			TOWN/CITY	ADDRESS/LEGAL DESCRIPT.		
SD	GREEN LAKE	TN PRINCETON	PRINCETON	SW SW 04 15N 12E	626	ACTIVE SITE
SD 9	GREEN LAKE	TN SENECA	SENECA	SW SW 07 17N 12E	481	INACT 1/87
SD	GREEN LAKE	TN SENECA LANDFILL	SENECA	E SW 01 17N 11E	3050	ACTIVE SITE
SD	GREEN LAKE	BADGER MINING CORP-ST MARIE	ST MARIE	NW NE 13 16N 12E	1842	ACTIVE SITE
SD	IOWA	VIL ARENA	ARENA	NE SW S09 08N 05E	183 TEMP	LIC LOG 1970
SD	IOWA	VIL-TN ARENA	ARENA	NE SW 17 08N 05E	1944	ACTIVE SITE
SD	IOWA	WISC RIVER DEVELOPMENT CORP	ARENA	SE SW S21 08N 04E	POST-REG	CO FILES BUREAU
SD	IOWA	VIL BARNEVELD DUMP	BARNEVELD	NE S09 06N 05E	POST-REG	DODGEVILLE AREA
SD	IOWA	VIL BARNEVELD	BRIGHAM	NE NW S02 06N 05E	968 TEMP	INACT FILE 2/84
SD	IOWA	WATSON QUARRY	BRIGHAM	NE NE S10 6N 5E	ONE TIME	AREA FILES
SD	IOWA	TN CLYDE	CLYDE	SE NW 36 08N 02E	825	ACTIVE SITE
X SD	IOWA	CTY DODGEVILLE	DODGEVILLE	SW SE S28 06N 03E	PRE-REG	K. PALZKILL
SD	IOWA	IOWA CO HIGHWAY DEPT	DODGEVILLE	S25 06N 03E	POST-REG	DODGEVILLE AREA
SD 5	IOWA	MILITARY TRAIL-DNR	DODGEVILLE		ONE-TIME	EGRE 1-4-85
SD	IOWA	WI DNR-GOVERNOR DODGE ST PARK	DODGEVILLE	SW NE S03 06N 03E	2848 TEMP	INACT FILE 2/84
SD	IOWA	CTY DODGEVILLE SLF	DODGEVILLE	NW NW S35 06N 03E	1082 TEMP	INACT FILE 2/84
X SD	IOWA	JOE KING LUMBER	DODGEVILLE	STH 23 NORTH	POST-REG	DODGEVILLE AREA
SD	IOWA	TN DODGEVILLE	DODGEVILLE	NE SW 17 06N 03E	202	ACTIVE SITE
SD	IOWA	VIL MONTFORT	EDEN	NE NW 30 06N 01E	647	ACTIVE SITE
SD	IOWA	VIL COBB	EDEN	NW NW S19 06N 02E	1712 TEMP	LIC LOG 1970
SD	IOWA	TN HIGHLAND	HIGHLAND	SE SE S20 07N 02E	983 TEMP	LIC LOG 1970
SD	IOWA	TN HIGHLAND	HIGHLAND	SE NW S15 07N 01E	POST-REG	DODGEVILLE AREA
SD	IOWA	VIL HIGHLAND	HIGHLAND	NE SE 29 07N 01E	1934	ACTIVE SITE
SD	IOWA	VIL HIGHLAND	HIGHLAND	NE NE S28 07N 02E	PRE-REG	AREA FILES
SD 5	IOWA	VIL HIGHLAND	HIGHLAND	SW SE 28 07N 01E	1361 TEMP	INACT LOG 1/85
SD	IOWA	VIL LINDEN	LINDEN	NE SW S08 05N 02E	PRE-REG	DODGEVILLE AREA
SD	IOWA	VIL LINDEN	LINDEN	NW NE 08 05N 02E	813	ACTIVE SITE
SD	IOWA	TN LINDEN	LINDEN	NE NW 17 05N 02E	1649	ACTIVE SITE
SD	IOWA	IOWA COUNTY HWY DEPT	LINDEN	S15 05N 02E	POST-REG	CO FILES BUREAU
SD	IOWA	TN MIFFLIN	MIFFLIN	NE NW S06 04N 01E	644 TEMP	LIC LOG 1970
SD	IOWA	ROBERT HELGESEN PROPERTY	MINERAL POINT	JACKSON ST AT CREEK	POST-REG	CO FILES BUREAU
SD	IOWA	VINCENT SCHAAF	MINERAL POINT	NE S11 04N 02E	POST-REG	CO FILES BUREAU
SD	IOWA	DAVID J SCHICKEL PROPERTY	MINERAL POINT	S1/2 S08 04N 03E	ONE-TIME	CO FILES BUREAU
SD	IOWA	MINE DUMP	MINERAL POINT	SW SE S06 04N 03E	PRE-REG	MINE SURVEY

SD 9 = SITE ADDED TO LIST IN 1989.

APPENDIX C

1. The first part of the document is a list of the names of the authors of the papers included in the appendix. The names are listed in alphabetical order of the last name.

INVENTORY OF SITES OR FACILITIES WHICH MAY CAUSE OR THREATEN TO CAUSE ENVIRONMENTAL POLLUTION

DNR DIST	COUNTY	SITE OR FACILITY NAME	SITE OR FACILITY OWNER/OPERATOR/PRP	LOCATION			ROUTE(S) MIGRATION	CURRENT ACTION	LIKELY INVESTIGATION FUNDING	LIKELY REPAIR FUNDING
				TOWN OR CITY	ADDRESS	GEOGRAPHIC				
CATEGORY II (CONT'D) - SITES WHERE PUBLIC FUNDS (SUPERFUND OR ERF) WILL LIKELY BE USED TO FUND INVESTIGATION OR REPAIR										
SE	OZAUKEE	GRAFTON WATER SUPPLY	GRAFTON WATERWORKS (O)	VIL GRAFTON		S13 10N 21N	GW	ERF	ERF	ERF
SE	OZAUKEE	SAUKVILLE WELL FIELD		CTY SAUKVILLE		S35 11N 21E	GW		ERF	ERF
SE	WASHINGTON	HARTLAND WATER SUPPLY		TN HARTLAND		08N 18E	GW		ERF	ERF
SE	WASHINGTON	WEST BEND WATER SUPPLY	WEST BEND WATER UTIL. (O)	CTY WEST BEND		SE NW S11 11N 19E	GW	ERF	ERF	ERF
SE	WAUKESHA	SAN. TRANS & LDFL-DELAFIELD		TN DELAFIELD		S SW S22 07N 18E	GW		ERF	ERF
*SE	MILWAUKEE	MOSS-AMERICAN (KERR/MCGEE)	MOSS-AMERICAN (OP)	CTY MILWAUKEE	8716 GRANVILLE RD	N S08 08N 21E	GW, SW	SUPERFUND	SUPERFUND	SUPERFUND
SO	DANE	FITCHBURG WATER SUPPLY		CTY FITCHBURG		NE 07N 09E	GW		ERF	ERF
SO	DODGE	WAUPUN WATER SUPPLY	WAUPUN PUB. UTILITIES (O)	CTY WAUPUN		S05 13N 15E	GW	ERF	ERF	ERF
X SO	IOWA	DODGEVILLE MUNI. WELL #3		CTY DODGEVILLE		E S28 06N 03E	GW	ERF	ERF	ERF
SO	ROCK	MILTON MUNICIPAL WELL		CTY MILTON		S S27 04N 13E	GW		ERF	ERF
*SO	DODGE	OCOMONOC ELECTROPLATING	OCOMONOC ELECTROPLATING(O)	TN ASHIPGUN	W2573 OAK STREET	SE S30 09N 17E	GW, SW, SITE	SUPERFUND	SUPERFUND	SUPERFUND
VC	CLARK	OWEN LDFL	CITY OF OWEN			SE NE S01 28N 02W	SITE		ERF	UNKNOWN
VC	CLARK	WITHEE LDFL	VILLAGE OF WITHEE	TN HIXON		SE NE S32 29N 02W	SITE		ERF	UNKNOWN
VC	CRAWFORD	PRAIRIE SAND & GRAVEL INC		TN PRAIRIE DU CHIEN		S24 07N 07W	GW		ERF	UNKNOWN
VC	LA CROSSE	LA CROSSE ISLE LA PLUME LDFL	CITY OF LA CROSSE (O)	CTY LA CROSSE	MARCO DRIVE	N S07 15N 07W	GW		ERF	UNKNOWN
VC	LACROSSE	LACROSSE MUNI. WATER SUPPLY	CITY OF LA CROSSE (O)	CTY LACROSSE		17N 07W	GW	ERF	ERF	UNKNOWN
VC	MONROE	NORTH TOMAH WATER SUPPLY		CTY TOMAH		S09 17N 01W	GW	ERF	ERF	UNKNOWN
VC	ST CROIX	LEE FARMS (ROSEN METALS)		TN EAU GALLE		N NE S32 28N 16W	SITE	SF EMERG	ERF	ERF
*VC	MONROE	TOMAH ARMORY AREA		CTY TOMAH		E S33 18N 01W	SITE	PRO. NPL	SUPERFUND	UNKNOWN
*VC	MONROE	TOMAH FAIRGROUNDS	CITY OF TOMAH (O)	CTY TOMAH	CTH C	NE NE S08 17N 01N	SITE	PRO. NPL	SUPERFUND	UNKNOWN
*VC	EAU CLAIRE	EAU CLAIRE MUN. WELL FIELD	CTY EAU CLAIRE (O)	CTY EAU CLAIRE		SE SW S05 27N 09W	GW	SUPERFUND	SUPERFUND (C)	SUPERFUND

CATEGORY III - SITES WHERE FUNDING SOURCE IS UNKNOWN AT THIS TIME (YET TO BE DETERMINED)

LM	BROWN	WIS PUBLIC SERV CORP	WIS. PUBLIC SERV CORP (O)	CTY GREEN BAY	GOV LOTS 16,18,19,20		GW		UNKNOWN	UNKNOWN
LM	BROWN	R.L. O'KEEFE & SONS	R.L. O'KEEFE & SONS (OP)	TN DEPERE	CTH X	S36 22N 20E	GW		UNKNOWN	UNKNOWN
LM	BROWN	CITY DISPOSAL CORP (WMI)	WASTE MANAGEMENT, INC (O,OP)	TN EATON		SW NW S31 23N 22E	GW		UNKNOWN	UNKNOWN
LM	BROWN	GREEN BAY (HUMBOLT RD)	CITY OF GREEN BAY (O,OP)	TN GREEN BAY		NW S35 24N 21E	GW		UNKNOWN	UNKNOWN
LM	WAUPACA	J&J LAUNDRY/DRY CLEAN.	J&J LAUNDRY/DRY CLEAN.(O)	CTY WAUPACA	CHURCHILL ST.	S29 & S30 22N 12E	GW	ST ENF	UNKNOWN	UNKNOWN
LM	WINNEBAGO	BERGSTROM PAPER LF-NEENAH	P.H. GLATFELTER (O,OP)	TN NEENAH	LARSEN RD.	NW NE S30 20N 17E	GW		UNKNOWN	UNKNOWN

APPENDIX D

4. The following information is provided for the year ended 31/12/2019:

Spills by County Within District

Date	Substance	Quantity	Location	City	Town	Range	Section	Q01	Q02	Cause	Spiller and City
04/22/1978	ANHYDROUS AMMONIA	UNKNOWN		DODGEVILLE						FARM TRAILER OVERTURNED	UNKNOWN
04/29/1978	ANHYDROUS AMMONIA	UNKNOWN	CTH I & CTH PD	HYLAND	07	02E				TRAILER OVERTURNED	STANDARD OIL FERTILIZERS, EDWARD
07/18/1978	ANHYDROUS AMMONIA	UNKNOWN	HWY 23	DODGEVILLE	07	03	15	NW	NW	TRUCK OVERTURNED	NEILSVILLE CO-OP, NEILSVILLE
06/15/1979	ANHYDROUS AMMONIA	3,900 G	INTERSECTION OF CTH Z & HWY 18/151		06	03E				TANK OVERTURNED	DOUGLAS JAMES, DODGEVILLE
03/13/1980	LIQUID NITROGEN FERT., 28 %	16,800 G	.2 MILES EAST OF CTH T & HWY 18	BARNEVELD	06	05E	09	SW		TANK LEAK	QUAD COUNTY CO-OP, BARNEVELD
03/17/1980	FUEL OIL, #2	100 G	1/4 MILE W. OF EVANS QUARRY RD. & HWY 18	DODGEVILLE	06	04E	20	SE	SW	LEAKING HOSE	DAVID DERENDINGER, DODGEVILLE
05/23/1980	LASSO	10 G	1HM ROAD, 1 MILE WEST OF 18, 1HM FARM	BARNEVELD	06	05E	08	NE	NW	FRAME ON SPRAYER BROKE, TANK SPLIT	JERRY IHN, BARNEVELD
04/27/1981	ANHYDROUS AMMONIA	36,840 #	STN 23	WYOMING	78	03E	03			SUSPENSION OF TRAILER GAVE OUT	N-REN CORP/CROWMARK INC., COLUMBUS
X 10/18/1981	GASOLINE	641 G	SPRING & UNION	DODGEVILLE						AUTO STRUCK 4 PIPES	IONIA COUNTY CO-OP, DODGEVILLE
12/11/1981	WHEY	400-500 G	STN 133, 1 1/2 MILES EAST OF CTH G	MUSCODA	89	01E	07			REAR AXLE CAME OFF	STANLEY MEISTER, MUSCODA
02/01/1982	UNKNOWN	UNKNOWN	BLUFF RIVER		06	01E	22	SE	SW	SUSPECT CATTLE FEED LOT UPSTREAM	UNKNOWN
02/12/1982	MAMURE, HOG	11,000 G	CT HWY T AND PIKES PEAK ROAD	RIDGEWAY	07	04E	24	SE	NW	10 LOADS MAMURE PUMPED ON HILLSIDE	JANE GAHLMAN, RIDGEWAY
06/19/1982	WHEY	UNKNOWN	HWY 18	DODGEVILLE	08	01E	34	SW	NW	TRUCK ROLL-OVER	RODNEY DEYO, BARABOO
08/05/1982	NITRIC ACID	5 G	HWY 60 & 16-SPRING GREEN TRUCK STOP	SPRING GREEN						LEAKING VALVE ON TRUCK	PAT BOHLEN, NEWPORT MN
09/16/1982	WASTEWATER FROM CREAMED CORN	10,000 G	OCOMONJOC CANNING	OCOMONJOC						UNKNOWN	OCOMONJOC CANNING, COLBY
X 12/31/1982	FUEL OIL	UNKNOWN	UNION & SPRING ST.-IN STREAM	DODGEVILLE						UNKNOWN	UNKNOWN
06/01/1983	TRANSFORMER FLUID	UNK	RT. 3 SPRINGGREEN	N/A						LEAKING TRANSFORMER	WISCONSIN POWER AND LIGHT
07/19/1983	PCB	UNK	UNK	N/A						TRANSFORMER BLEW DOWN	WISC. POWER & LIGHT, MINERAL PT.
08/04/1983	DIMETHOATE 267	1 G	UNK	N/A	03	04E	21	SE	SE	EQUIPMENTAL FAILURE	ALLEN PIERCE, MINERAL PT.
09/19/1983	TRANSFORMER OIL	25 G	114 SHAKERAG ST	MINERAL POINT						STORM BROKE OFF LIMB	VIS POWER & LIGHT
10/19/1983	WHEY	UNK	HEXEBURG CHEESE FACTORY	MINERAL POINT						DUMPED WHEY INTO RIVER STREAM	HEXEBURG CHEESE FACTORY, MINERAL PT
05/18/1984	LIQUID NITROGEN 28X	2000 G	DRY DOG RAO	HIGHLAND	09	01E	28	NW	SE	TRUCK MECHANICAL FAILURE	RIVERDALE AG. SERVICE, MUSCODA
05/18/1984	UNK	UNK	HWY 151, SOUTH OF MINERAL PT	N/A	UNK					UNK	UNK
05/23/1984	PCB	2 QUARTS	WPL SUB STATION- HWY 16	SPRING GREER	UNK					UNK	VIS POWER & LIGHT, MINERAL POINT

Spills by County Within District

Date	Substance	Quantity	Location	City	Town	Range	Section	Q01	Q02	Cause	Spiller and City
06/08/1984	FUEL OIL, OTHER	6500 G	UNK	BARNEVELD	06	05E	03	SW	SW	TORNADO	QUAD COUNTY COOP, BARNEVELD
06/18/1984	INSECTICIDE-HEPTACHLOR	UNK	UNK	BARNEVELD	UNK					TORNADO DEPOSITED ON RESIDENCE	MONICA OLDAY, BARNEVELD
06/19/1984	ATRAZINE & LASSO & WATER	400 G	-300 YDS NE OF N. WARDELL HOME	N/A	08	01E		SW	NE	SPREADING EQUIPMENT ACCIDENT	BEN MINTER, AVOCA
10/16/1984	DIESEL FUEL	200-2000 G	3 M S OF MINERAL POINT-HWY 23	N/A	UNK					TRUCK ROLLED OVER	HERTEN'S TRANSPORT CO, MADISON
04/19/1985	FERTILIZER, 9-23-30	1000 #	WILLOW SPRINGS RD	N/A	106					TRUCK RAN OFF ROAD	GRANTLAND FS, MONTFORT
X 05/31/1986	28X NITROGEN	40 G	401 N. UNION	DODGEVILLE	06	02E	28	SW	NW	M/RSE TANK SPRANG A LEAK IN FITTING	IOWA CO. CO-OP, DODGEVILLE
12/11/1986	GASOLINE	UNKNOWN	COMMERCE AND HIGH ST.	UNKNOWN						LEAKING TANKS	HARR'S SHELL SERVICE, MINERAL POINT
01/13/1987	UNLEADED GAS	410 G	HWY. 23 AT DODGE ST.	UNKNOWN	6N	3E	28	SE	NE	FAILED SEAL ON PUMP	BRAADEN OIL CO., DODGEVILLE
04/17/1987	PROM	1-5 G	.1 M. N. OF INTERS. CTH A AND HWY. 151	UNKNOWN	04	2E	16	SE	NE	CONT.FELL OFF TRUCK & RAN OVER SEMI	TERRA CHEMICAL, SUN PRAIRIE
06/07/1987	FUEL OIL	UNKNOWN	WYOMING VALLEY SCHOOL	SPRING GREEN	7N	3E	3	NE	NE	LEAKING UNDERGROUND TANK	RIVER VALLEY SCHOOL DIST., SPRING GR
08/24/1987	28X N SOLUTION	18,964 G	BAKER RD., NORTH CITY LIMITS ST.	VIL.EDMOND	6N	2E	28	SE	NW	COUPLE VALVE ON STORAGE TANK BROKE	EDMUND AGRI CENTER, EDMUND
10/02/1987	GASOLINE	15-200 G	1 MILE FROM DODGEVILLE AT BRAY FARM	DODGEVILLE						MOLE IN UNDERGROUND TANK WHILE TEST	GET, SUN PRAIRIE
11/17/1987	GASOLINE	UNKNOWN	UNKNOWN	UNKNOWN	6N	3E	27	NW	SW	UNDERGROUND LEAK	UNKNOWN
11/28/1987	DIESEL FUEL	80-100 G	HWY. 151, RED ROOSTER RESTAURANT	UNKNOWN	5N	3E	31	NE	NE	FUEL LINE BREAK	DUFFY BROS., COLUMBUS
01/26/1988	DIESEL FUEL	50 G	HWY. 151 AT MINERAL POINT HIGH SCHOOL	UNKNOWN	5N	3E	31	SW	SW	SEMI JACK KNIFED AND HIT POLE	POOLE TRUCK LINE, INC., EVERGREEN, AL
04/10/1988	DIESEL FUEL	15-25 G	HIGHWAY 151	UNKNOWN	5N	03E	31			UNKNOWN	QUICK-STOP, MINERAL POINT
04/16/1988	NITROGEN FERTILIZER	500 #	SPREAD 1/2 MI. ON HWY. 130 SO. OF FLOYD RD	DODGEVILLE	7N	3E	29	NW	NE	RELEASE ON SPREADER TRIPPED	CURT PETERSON, JR., DODGEVILLE
08/22/1988	MOTOR OIL	MINIMAL	CTH K AT W. DR. BLUE MOUNDS CREEK	BARNEVELD	07	05E	11	SE	SW	UNKNOWN	YAHARA MATERIALS INC., WAUNAKEE
08/28/1988	GAS, AIRPLANE	UNKNOWN	HWY. 23 AT DODGEVILLE MUNICIPAL AIRPORT	DODGEVILLE	6N	3E	16	NW	SE	AIRPLANE CRASH	THEODORE J. BACHMUBER, MAYVILLE
11/30/1988	BLACK TAR	UNKNOWN	CTH I, 1 MILE SOUTH OF HIGHLAND	HIGHLAND	06	01E	04	NE	NW	UNKNOWN	CHEST SCALES SALVAGE, HIGHLAND
06/21/1989	DIESEL FUEL	60 G	WHP RADIO STATION FRONT YARD/HW. 151	DODGEVILLE	05	3E	09	SE	SE	TRAFFIC ACCIDENT	J&J MAIL SERVICE, INC. MADISON
07/14/1989	GAS, UNLEADED	2,000-3,000 G	OLD HWY. 18-151, W OF STOP LIGHT	UNKNOWN						LOADING GAS INTO TRUCK SHORT IN TAN	COOP OIL ASSOCIATION, DODGEVILLE
X 07/28/1989	GASOLINE	25 G	JACK'S SERVICE CENTER	DODGEVILLE	06	03E	27	SW	SW	SHUTOFF VALVE MALFUNCTIONED	THOMAS OIL CO., DODGEVILLE

APPENDIX E

1. The first part of the appendix is a list of the names of the members of the committee who have been appointed to the various sub-committees.

UNDERGROUND PETROLEUM PRODUCT

Send Completed Form To:
Safety & Buildings Div.
Fire Prevention Section
P.O. Box 7969
Madison, WI 53707
Telephone (608) 266-7874

For Office Use Only:
Tank ID # 25083-6

TANK INVENTORY

Instructions

This form is to be completed pursuant to Section 101.142, Wis. Stats., to register all underground tanks in Wisconsin that have stored, currently store or will store petroleum or regulated substances. Please see the reverse side for additional information on this program. An underground storage tank is defined as any tank with at least 10 percent of its total volume (including piping) located below ground level. A separate form is needed for each tank. Send each completed form to the agency designated in the top right corner.

This Individual Tank
Registration Applies
To (check one):

1. Tank still in active use
2. Inoperative or abandoned tank with product still in tank
3. Inoperative or abandoned tank with no known product in tank
4. Location for which tank has been removed
5. New tank to be installed (provide date): _____

RECEIVED

JUN 11 1985

A. IDENTIFICATION

1. Name of Installation <u>TERRIP MOBIL</u>			2. Name for Mailing if Different Than #1 <u>SAFETY & BLDGS. DIV.</u>		
Street Address of Installation <u>505 N. IOWA</u>			Mailing Address if Different Than #1		
<input checked="" type="checkbox"/> City	<input type="checkbox"/> Village	<input type="checkbox"/> Town of:	<input type="checkbox"/> City	<input type="checkbox"/> Village	<input type="checkbox"/> Town of:
State <u>WI</u>	Zip Code <u>53533</u>	County <u>Dodgeville</u>	State	Zip Code	County
3. Name of Contact Person <u>TERRY BYSTAL</u>			4. Name of Owner if Different from #3		
Street Address			Street Address		
<input checked="" type="checkbox"/> City	<input type="checkbox"/> Village	<input type="checkbox"/> Town of:	<input type="checkbox"/> City	<input type="checkbox"/> Village	<input type="checkbox"/> Town of:
State <u>WI</u>	Zip Code <u>53533</u>	County <u>IOWA</u>	State	Zip Code	County
Telephone Number (include area code) <u>608-935-2401</u>			Telephone Number (include area code)		

5. Fire Department Name and ID # <u>DODGEVILLE FIRE DEPT.</u>	6. Tank Age (date installed, if known, or years old) <u>20 1965</u>	7. If Tank Abandoned, Give Date (mo / day / yr):
--	--	--

8. Tank Capacity (in gallons) <u>3000</u>	9. Tank Manufacturer's Name, if known:
--	--

B. TANK CONSTRUCTION:

1. Bare Steel
2. Cathodically Protected Steel
3. Coated Steel
4. Fiberglass
5. Other (specify): _____

C. TANK CONTENTS:

1. Diesel
2. Leaded Gasoline
3. Unleaded Gasoline
4. Fuel Oil
5. Gasohol
6. Other (specify): Premium

D. TYPE OF USER (check one):

1. Gas Station
2. Bulk Storage
3. Utility
4. Mercantile
5. Industrial
6. Government
7. School
8. Residential
9. Agricultural
10. Other (specify): _____

Signature of Person Completing Form:
Scott Thomet

Date Completed:
6-7-85

UNDERGROUND PETROLEUM PRODUCT TANK INVENTORY

Send Completed Form To:
Safety & Buildings Div.
Fire Prevention Section
P.O. Box 7969
Madison, WI 53707
Telephone (608) 266-7874

For Office Use Only:
Tank ID # 25083

Instructions

This form is to be completed pursuant to Section 101.142, Wis. Stats., to register all underground tanks in Wisconsin that have stored or currently store or will store petroleum or regulated substances. Please see the reverse side for additional information on this program. An underground storage tank is defined as any tank with at least 10 percent of its total volume (including piping) located below ground level. A separate form is needed for each tank. Send each completed form to the agency designated in the top right corner.

This Individual Tank
Registration Applies
To (check one):

1. Tank still in active use
2. Inoperative or abandoned tank with product still in tank
3. Inoperative or abandoned tank with no known product in tank
4. Location for which tank has been removed
5. New tank to be installed (provide date):

RECEIVED

JUN 11 1985

A. IDENTIFICATION

1. Name of Installation <u>TERRIP MOBIC</u>			2. Name for Mailing if Different Than #1 <u>SAFETY & BLDGS. DIV.</u>		
Street Address of Installation <u>505 N. IOWA</u>			Mailing Address if Different Than #1		
<input checked="" type="checkbox"/> City	<input type="checkbox"/> Village	<input type="checkbox"/> Town of: <u>DOUGEVILLE</u>	<input type="checkbox"/> City	<input type="checkbox"/> Village	<input type="checkbox"/> Town of:
State <u>WI</u>	Zip Code <u>53533</u>	County <u>IOWA</u>	State	Zip Code	County
3. Name of Contact Person <u>TERRY BUSTOL</u>			4. Name of Owner if Different from #3 /		
Street Address			Street Address		
<input checked="" type="checkbox"/> City	<input type="checkbox"/> Village	<input type="checkbox"/> Town of: <u>DOUGEVILLE</u>	<input type="checkbox"/> City	<input type="checkbox"/> Village	<input type="checkbox"/> Town of:
State <u>WI</u>	Zip Code <u>53533</u>	County <u>IOWA</u>	State	Zip Code	County
Telephone Number (include area code) <u>608-935-2401</u>			Telephone Number (include area code)		

5. Fire Department Name and ID # <u>DOUGEVILLE FIRE DEPT.</u>	6. Tank Age (date installed, if known; or years old) <u>20 1965</u>	7. If Tank Abandoned, Give Date (mo / day / yr)
--	--	---

8. Tank Capacity (in gallons) <u>4000</u>	9. Tank Manufacturer's Name, if known:
--	--

B. TANK CONSTRUCTION:

1. Bare Steel
2. Cathodically Protected Steel
3. Coated Steel
4. Fiberglass
5. Other (specif):

C. TANK CONTENTS:

1. Diesel
2. Leaded Gasoline
3. Unleaded Gasoline
4. Fuel Oil
5. Gasohol
6. Other (specif):

D. TYPE OF USER (check one):

1. Gas Station
2. Bulk Storage
3. Utility
4. Mercantile
5. Industrial
6. Government
7. School
8. Residential
9. Agricultural
10. Other (specif):

Signature of Person Completing Form:

SCOTT THOMAS

Date Completed:

6-7-85

APPENDIX F

1. The following information is provided for the year ended 31/12/2014:

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Terry's Kerr-McGee (Site No. 4)

PAGE 1 OF 3

DATE: 5/20/91

TIME: 11:15 am

DIRECTION OF PHOTOGRAPH:

Southeast

WEATHER CONDITIONS:

Sunny, 80°F

PHOTOGRAPHED BY:

Dena Hargraves

SAMPLE ID:
(If Applicable):

N/A



DESCRIPTION: The Terry's Kerr-McGee site.

DATE: 5/20/91

TIME: 11:15 am

DIRECTION OF PHOTOGRAPH:

Northwest

WEATHER CONDITIONS:

Sunny, 80°F

PHOTOGRAPHED BY:

Dena Hargraves

SAMPLE ID:
(If Applicable):

N/A



DESCRIPTION: The Terry's Kerr-McGee site with Spring Street in the foreground and North Iowa Street to the left of the photograph.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Terry's Kerr-McGee (Site No. 4)

PAGE 2 OF 3

DATE: 5/20/91

TIME: 11:15 am

DIRECTION OF PHOTOGRAPH:

North

WEATHER CONDITIONS:

Sunny, 80°F

PHOTOGRAPHED BY:

Dena Hargraves

SAMPLE ID:
(If Applicable):

N/A



DESCRIPTION: The Terry's Kerr-McGee site showing the tank bed location in the center of the photograph.

DATE: 5/28/91

TIME: 6:00 pm

DIRECTION OF PHOTOGRAPH:

Southeast

WEATHER CONDITIONS:

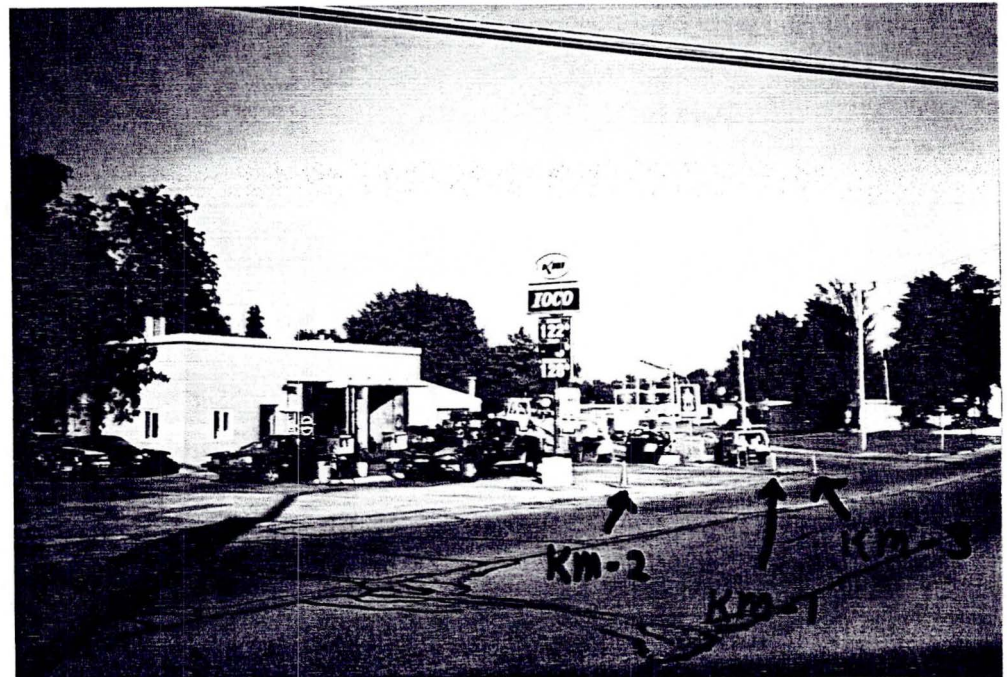
Sunny, 85°F

PHOTOGRAPHED BY:

Dena Hargraves

SAMPLE ID:
(If Applicable):

KM-1, KM-2, KM-3



DESCRIPTION: The Terry's Kerr-McGee site showing soil boring locations KM-1, KM-2, and KM-3. North Iowa Street is in the foreground.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Terry's Kerr-McGee (Site No. 4)

PAGE 3 OF 3

DATE: 5/28/91

TIME: 6:00 pm

DIRECTION OF PHOTOGRAPH:

Southeast

WEATHER CONDITIONS:

Sunny, 85°F

PHOTOGRAPHED BY:

Dena Hargraves

SAMPLE ID:
(If Applicable):

KM-1, KM-2, KM-3



DESCRIPTION: The Terry's Kerr-McGee site showing soil boring locations KM-1, KM-2, and KM-3. North Iowa Street is in the foreground and Spring Street runs along the right edge of the photograph.

APPENDIX G

AQUA-TECH INC.

HNU Photoionization Detector Calibration Documentation

HNU Photoionization Detector Number 4 was calibrated with 101 ppm Isobutylene which is equivalent in response to 55 ppm Benzene at a span setting of 4.08 with a 10.2 electron volt (eV) lamp.

Job Name and Number: Aqua Tech Shop # 95641
Calibration Location: "
Date: 5/28/91 Time: 11:15
Signature: Dana Anderson

Procedure For Calibration

- A. Battery Check - Attach probe to unit. Turn function switch to BATT. The needle should be in the green region. If not, recharge the battery.
- B. Zero Set - Instrument should be zeroed on site if possible. Turn function switch to STANDBY. Listen to make sure fan is operating. Set the zero point with the ZERO set control.
- C. Calibration - Attach calibration gas to end of probe extension. Adjust SPAN control setting to obtain the necessary meter reading. If meter does not respond, or if the correct reading cannot be adjusted, the unit must be serviced or cleaned

The above calibration procedure is taken from Calibration Procedure, Section 3.4, of the Instruction Manual, Trace Gas Analyzer, HNU Model 101, December, 1985.

APPENDIX H

AQUA-TECH INC.

140 South Park Street
Port Washington, Wisconsin 53074

TELEPHONE:

(414) 284-5746
(414) 375-0407 (MILW METRO)

SOIL PROFILE LOG

PROJECT: **TERRY'S KERR MCGEE**

LOCATION: 505 NORTH IOWA STREET (STH 23)
DODGEVILLE, WI

PROJECT#: 5255-04-00

ATI WO#: 95643

BORING <u>KM-1</u>				SURFACE ELEVATION	
SAMPLES				DESCRIPTION AND REMARKS	
NO.	MOISTURE (BLOWS)	REC	PID LEVELS (PPM) HEADSPACE		
				0.0	0.0' - 1.0' BLACKTOP, CEMENT
	DRY 7 9 6		0		1.0' - 2.0' TAN/DARK BROWN SILTY SAND, MOTTLING
	DRY 4 7 7		6		2.0' - 2.5' BROWN SILTY SAND
	DRY 2 3 2		56		2.5' - 3.0' REMNANTS OF OLD BLACKTOP/CEMENT
					3.0' - 4.0' TAN FINE TO MEDIUM GRAINED SAND
				5.0	4.0' - 8.0' BROWN SILTY CLAY
KM-1	MOIST 8 4 5		100	▼	
KMGW-1				▼	
	MOIST 3 1 2		95		8.0' - 8.5' ORANGE/TAN MEDIUM GRAINED SAND
	WET 3 4 15		11		8.5' - 9.5' ORANGE MEDIUM GRAINED SAND
	WET 17 50 -		13	10.0	9.5' - 11.0' BEIGE FINE GRAINED SAND TO A SILTY CLAY
				11.5	11.0' - 11.5' TAN WEATHERED SANDSTONE
					TERMINATED BORING AT 11.5' (BEDROCK)
					*SOIL SAMPLE KM-1: 5.5' - 7.0' (TPH)
					*GROUNDWATER SAMPLE KMGW-1: 5.9' (BTEX)
					HEADSPACE = 32 PPM
				15.0	
				20.0	
				25.0	

WATER LEVEL OBSERVATIONS

WHILE DRILLING 6.0' ▼

DEPTH TO WATER 5.9' ▼

DEPTH TO CAVE-IN ----

GENERAL INFORMATION

START DATE 05/28/91 COMPLETION DATE 05/28/91

DRILLING METHOD: HOLLOW STEM AUGERS; SPLIT SPOON SAMPLING

LOGGER: *Dennis M. Hayes*

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.

(1) GENERAL INFORMATION		(2) FACILITY NAME	
Well/Drillhole/Borehole Location <u>Km-1</u>	County <u>Iowa</u>	Original Well Owner (If Known)	
<u>NW 1/4 of SW 1/4 of Sec. 27 ; T. 6 N.R. 3</u> (If applicable)		Present Well Owner	
Gov't Lot	Grid Number	Street or Route	
Grid Location _____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S., _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W.		City, State, Zip Code	
Civil Town Name		Facility Well No. and/or Name (If Applicable) <u>Km-1</u>	WI Unique Well No.
Street Address of Well <u>505 North Iowa Street (STH 23)</u>		Reason For Abandonment <u>Soil Test Borings</u>	
City, Village <u>City of Dodgeville</u>		Date of Abandonment <u>5/28/91</u>	

WELL/DRILLHOLE/BOREHOLE INFORMATION	
(3) Original Well/Drillhole/Borehole Construction Completed On (Date) <u>5/28/91</u>	(4) Depth to Water (Feet) <u>5.9'</u>
<input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input checked="" type="checkbox"/> Drillhole <input type="checkbox"/> Borehole	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 _____
Construction Report Available? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <u>Soil Profile log</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
Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (Specify) _____	(5) Required Method of Placing Sealing Material
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock	<input type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped <input type="checkbox"/> Dump Bailer <input type="checkbox"/> Other (Explain) _____
Total Well Depth (ft.) <u>11.5</u> Casing Diameter (ins.) <u>1 1/4</u> (From ground surface) Casing Depth (ft.) <u>N/A</u>	(6) Sealing Materials
Was Well Annular Space Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If Yes, To What Depth? _____ Feet	For monitoring wells and monitoring well boreholes only <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 checked="" type="checkbox"/> Chipped Bentonite <input type="checkbox"/> Bentonite Pellets <input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite - Cement Grout

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
<u>Bentonite Hole Plug</u>	<u>Surface</u>	<u>11.5</u>		

(8) Comments: _____

(9) Name of Person or Firm Doing Sealing Work

Dana M. Hargreaves / Aquan-Tech, Inc.
 Signature of Person Doing Work Date Signed 6/24/91
Dana M. Hargreaves
 Street or Route Telephone Number
140 S. Park St. (414) 284-5746
 City, State, Zip Code
Port Washington, WI 53074

(10) FOR DNR OR COUNTY USE ONLY

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

AQUA-TECH INC.

140 South Park Street
Port Washington, Wisconsin 53074

TELEPHONE:

(414) 284-5746
(414) 375-0407 (MILW METRO)

SOIL PROFILE LOG

PROJECT: **TERRY'S KERR MCGEE**

LOCATION: 505 NORTH IOWA STREET (STH 23)
DODGEVILLE, WI

PROJECT#: 5255-04-00

ATI WO#: 95643

BORING <u>KM-2</u>				SURFACE ELEVATION	
SAMPLES				DESCRIPTION AND REMARKS	
NO.	MOISTURE (BLOWS)	REC	PID LEVELS (PPM) HEADSPACE		
				0.0	0.0' - 1.0' CEMENT
	DRY 6 4 7		0		1.0' - 4.0' BROWN SILTY SAND W/SOME GRAVEL
	DRY 5 5 3		0		
	MOIST 2 3 3		0	5.0	4.0' - 5.0' GREY/BROWN SILTY SAND W/SOME MOTTLING
	MOIST 3 2 4		1		5.0' - 5.5' ORANGE/BRN MEDIUM SAND, MOTTLING
KM-2	MOIST 2 2 3		5		5.5' - 6.0' GREY BROWN SILTY SAND
KMGW-2	WET 1 1 1		8		6.0' - 6.5' ORANGE/BROWN MEDIUM GRAINED SAND
	WET 1 1 2		5	10.0	6.5' - 11.0' BLACK SILTY CLAY
				11.5	11.0' - 11.5' TAN MEDIUM GRAINED SAND
				15.0	TERMINATED BORING AT 11.5'
				20.0	*SOIL SAMPLE KM-2: 7.0' - 8.5' (TPH)
				25.0	*GROUNDWATER SAMPLE KMGW-2: 9.0' (BTEX)
					HEADSPACE = 4 PPM

WATER LEVEL OBSERVATIONS

WHILE DRILLING 8.5' ▽
DEPTH TO WATER 9.0' ▼
DEPTH TO CAVE-IN ----

GENERAL INFORMATION

START DATE 05/28/91 COMPLETION DATE 05/28/91
DRILLING METHOD: HOLLOW STEM AUGERS; SPLIT SPOON SAMPLING
LOGGER: *Dan M. Rogers*

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.

(1) GENERAL INFORMATION		(2) FACILITY NAME	
Well/Drillhole/Borehole Location <u>Km-2</u>	County <u>Iowa</u>	Original Well Owner (If Known)	
NW 1/4 of SW 1/4 of Sec. 27 ; T. 4 N. R. 3 (If applicable)		Present Well Owner	
Gov't Lot _____ Grid Number _____		Street or Route	
Grid Location _____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S., _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W.		City, State, Zip Code	
Civil Town Name		Facility Well No. and/or Name (If Applicable) <u>Km-2</u>	WI Unique Well No. _____
Street Address of Well <u>505 North Iowa Street (STH 23)</u>		Reason For Abandonment <u>Soil Test Boring</u>	
City, Village <u>City of Dodgeville</u>		Date of Abandonment <u>5/28/91</u>	

WELL/DRILLHOLE/BOREHOLE INFORMATION		(4) Depth to Water (Feet) <u>9.0</u>	
(3) Original Well/Drillhole/Borehole Construction Completed On (Date) <u>5/28/91</u>		Pump & Piping Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable	
<input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input checked="" type="checkbox"/> Drillhole <input type="checkbox"/> Borehole		Liner(s) Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable	
Construction Report Available? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <u>Soil Profile log</u>		Screen Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable	
Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (Specify) _____		Casing Left in Place? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock		If No, Explain _____	
Total Well Depth (ft.) <u>11.5</u> Casing Diameter (ins.) <u>N/A</u> (From ground surface)		Was Casing Cut Off Below Surface? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Casing Depth (ft.) <u>N/A</u>		Did Sealing Material Rise to Surface? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Was Well Annular Space Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If Yes, To What Depth? _____ Feet		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 type="checkbox"/> Other (Explain) _____	
		(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 type="checkbox"/> Granular Bentonite	
		<input type="checkbox"/> Concrete <input type="checkbox"/> Bentonite-Cement Grout	
		<input type="checkbox"/> Clay-Sand Slurry	
		<input type="checkbox"/> Bentonite-Sand Slurry	
		<input checked="" type="checkbox"/> Chipped Bentonite	

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
<u>Bentonite Hole Plug</u>	<u>Surface</u>	<u>11.5</u>		

(8) Comments: _____

(9) Name of Person or Firm Doing Sealing Work
Dena M. Henshaw / Aqua-Tech, Inc.

Signature of Person Doing Work <u>Dena M. Henshaw</u>	Date Signed <u>4/24/91</u>
Street or Route <u>140 S. Pearl St.</u>	Telephone Number <u>(414) 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	

AQUA-TECH INC.

140 South Park Street
Port Washington, Wisconsin 53074

TELEPHONE:

{414} 284-5746
{414} 375-0407 (MILW METRO)

SOIL PROFILE LOG

PROJECT: **TERRY'S KERR MCGEE**

LOCATION: 505 NORTH IOWA STREET (STH 23)
DODGEVILLE, WI

PROJECT#: 5255-04-00

ATI WO#: 95643

BORING <u>KM-3</u>				SURFACE ELEVATION	
SAMPLES				DESCRIPTION AND REMARKS	
NO.	MOISTURE (BLOWS)	REC	PID LEVELS (PPM) HEADSPACE		
				0.0	0.0' - 0.5' BLACKTOP
	DRY 5 14 13	■	1		0.5' - 3.0' BROWN SILTY SAND W/SOME MOTTLING & GRAVEL
	DRY 5 6 9	■	2		3.0' - 3.5' GRAVEL W/WEATHERED SANDSTONE
	DRY 4 6 6	■	15		3.5' - 4.0' BLACK/BROWN SILTY CLAY W/SAND
					4.0' - 5.0' BROWN SILTY SAND W/SOME MOTTLING & WEATHERED ROCK
				5.0	5.0' - 7.5' BROWN SILTY SAND
KM-3	MOIST 3 2 4	■	16	▼	
	MOIST 4 4 2	■	2		7.5' - 8.0' TAN WEATHERED SANDSTONE
	WET 1 3 3	■	1		8.0' - 10.0' BROWN SILTY SAND, SOME MOTTLING
				10.0	TERMINATED BORING AT 10.0'
					*SOIL SAMPLE KM-3: 5.5' - 7.0' (TPH)
					*GROUNDWATER SAMPLE KMGW-3: 6.0' (BTEX)
					H ADSPACE = 1 PPM
				15.0	
				20.0	
				25.0	

WATER LEVEL OBSERVATIONS

WHILE DRILLING 6.0'
DEPTH TO WATER 6.0' ▼
DEPTH TO CAVE-IN ----

GENERAL INFORMATION

START DATE 05/28/91 COMPLETION DATE 05/28/91
DRILLING METHOD: HOLLOW STEM AUGERS; SPLIT SPOON SAMPLING
LOGGER: Michael J. Kestey

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.

(1) GENERAL INFORMATION		(2) FACILITY NAME	
Well/Drillhole/Borehole Location <u>Km - 3</u>	County <u>Iowa</u>	Original Well Owner (If Known)	
NW 1/4 of SW 1/4 of Sec. <u>27</u> ; T. <u>6</u> N. R. <u>3</u> (If applicable)		Present Well Owner	
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.		Street or Route	
Civil Town Name		City, State, Zip Code	
Street Address of Well <u>505 North Iowa Street (5TH 23)</u>		Facility Well No. and/or Name (If Applicable) WI Unique Well No. <u>Km - 3</u> _____	
City, Village <u>City of Dodgeville</u>		Reason For Abandonment <u>Soil Test Boring</u>	
		Date of Abandonment <u>5/28/91</u>	

WELL/DRILLHOLE/BOREHOLE INFORMATION			
(3) Original Well/Drillhole/Borehole Construction Completed On (Date) <u>5/28/91</u>	<input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input checked="" type="checkbox"/> Drillhole <input type="checkbox"/> Borehole	Construction Report Available? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <u>Soil Profile log</u>	(4) Depth to Water (Feet) <u>6.0</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 _____
Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (Specify) _____		(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 type="checkbox"/> Other (Explain) _____	
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock		(6) Sealing Materials For monitoring wells and monitoring well boreholes only <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 checked="" type="checkbox"/> Chipped Bentonite	
Total Well Depth (ft.) <u>10.0</u> Casing Diameter (ins.) <u>N/A</u> (From ground surface)		<input type="checkbox"/> Bentonite Pellets <input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite - Cement Grout	
Casing Depth (ft.) <u>N/A</u>		<input type="checkbox"/> Was Casing Cut Off Below Surface? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Did Sealing Material Rise to Surface? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> 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	
Was Well Annular Space Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If Yes, To What Depth? _____ Feet			

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
<u>Bentonite Hole Plug</u>	<u>Surface</u>	<u>10.0</u>		

(8) Comments: _____

(9) Name of Person or Firm Doing Sealing Work <u>Michael J. Kester / Deuca-Tech, Inc.</u> Signature of Person Doing Work _____ Date Signed <u>6/24/91</u> Street or Route _____ Telephone Number <u>(414) 284-5746</u> <u>140 S. Park St.</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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APPENDIX I

1. The following information is provided for the purpose of illustrating the format of the information to be provided in the Appendix I of the Form 10-K.

Use Black Ink Only, Press Hard

PROJ. NO: 95643
PROJECT NAME: Terry's Bear Mire

SAMPLERS: (Signature)
Dena M. Hargreaves

ATI Lab No.	Yr	Date	Time	Sample Station ID
<u>113176</u>	<u>5/28</u>	<u>3:10</u>		<u>Km-1 (5.5-7.0)</u>
<u>113177</u>	<u>5/28</u>	<u>3:40</u>		<u>KmGW-1 (5.9')</u>
<u>113178</u>	<u>5/28</u>	<u>5:00</u>		<u>Km-3 (7.0-8.5')</u>
<u>113179</u>	<u>5/28</u>	<u>5:15</u>		<u>KmGW-2</u>
<u>113180</u>	<u>5/28</u>	<u>6:00</u>		<u>Km-3 (5.5-7.0')</u>
<u>113181</u>	<u>5/28</u>	<u>6:15</u>		<u>KmGW-3 (6.0)</u>

Total Number of Containers

<u>459243</u> <u>N N N</u> <u>A A E</u> <u>Y Y Y</u> <u>6 6 6</u> <u>soil soil soil</u> <u>TPH Total Solids BTEX</u>	Filtered (Yes/No)	
	Preserved (Code)	
	Refrigerated (Yes/No)	
	Sample type (Grab/Composite)	
	Sample sources (WW, GW, DW, other)	
	Preservation Code:	
	Analysis	<u>H₂O</u>
Comments:	<u>COOLER SOURCE 3.2, 7.3</u>	

Relinquished by: (Signature) <u>Dena M. Hargreaves</u>	Date / Time <u>5/31/91 7:00 AM</u>	Received by: (Signature) <u>Gloria Axtator</u>	Date / Time <u>6/1/91 12:00</u>
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) <u>Gloria Axtator</u>	Date / Time <u>6/4/91 6:28</u>

Report to: Dena Hargreaves
Name: Aqua-Tech, Inc.
Street: 140 S. Park St.
City: Port Washington State: WI Zip: 53074
Phone no. (414) 284-5741
Fax no. (414) 284-0203

Remarks:
please return original chain of custody sent to CRTEK

Receipt pH _____
Receipt temp 16°C



ENVIRONMENTAL LABORATORY

414-498-2222
FAX: 414-498-4067

2496 West Mason Street

P.O. Box 12435

Green Bay, WI 54307-2435

- SAMPLE ANALYSIS REPORT -

To: AQUA-TECH
140 S PARK ST
PORT WASHINGTON WI 53074

Attn: DENA HARGRAVES

Batch ID : 9106017
Our lab # : 113176
Your sample ID: KM-1 5.5-7.0
Sample Matrix : SOIL

Report Date: 06/11/91

COLLECTION INFORMATION

Date/Time/By: 05/28/91 15:10 D M H
Location : TERRY'S KERR MCGEE

Lab#	Test	Result	Units
113176	Total Solids	77.1	%

Signed D. J. DeCulo

Date 6/11/91

Signed _____

Date _____



ENVIRONMENTAL LABORATORY

414-498-2222

FAX: 414-498-4067

2496 West Mason Street

P.O. Box 17435

Green Bay, WI 54307-2435

LABORATORY ANALYSIS RESULTS

Wisconsin Certification No.
405099530

Client: AQUA-TECH
Address: 140 S PARK ST
PORT WASHINGTON, WI 53074

Sample ID: KM-1 5.5-7.0
Date Collected: 05/28/91
Date Received: 06/04/91
Location: TERRY'S KERR MCGEE

Attn: DENA HARGRAVES
Telephone No.: (414) 284-5746

CALIFORNIA METHOD TPH ANALYSIS

PARAMETER	DETECTION LIMIT	CONCENTRATION	UNITS*
Kerosene	5.0	ND	mg/kg
Gasoline	5.0	173.7	mg/kg
Diesel	5.0	ND	mg/kg

ND = Not detected
* = Dry Weight Basis

Comments Lab Sample ID: 9106017:113176
Date Analyzed: 06/05/91
Analyzed by GC/FID on a DB-5 Capillary column

Signed: 

Date: 6-11-91



ENVIRONMENTAL LABORATORY

414-498-2222

FAX: 414-498-4067

2496 West Mason Street

P.O. Box 12435

Green Bay, WI 54307-2435

CLIENT: AQUA TECH
ADDRESS: 140 S PARK STREET
PORT WASHINGTON WI 53074

Wisconsin Certification No.
405099530

Sample ID: KMGW-1
Sample Desc: TERRY'S KERR
MCGEE

ATTENTION: DENA HARGRAVES
TELEPHONE: (414) 289-5796

Date Collected: 05/28/91
Date Received: 06/04/91
Job #: 95643

VOLATILE ORGANIC WATER ANALYSIS

PARAMETER	DETECTION LIMIT	CONCENTRATION	UNITS
Benzene	200	25,000	ug/l
Ethylbenzene	200	4,700	ug/l
Toluene	200	6,300	ug/l
Total Xylenes	600	14,000	ug/l

ND = Not Detected

Comments: Lab Sample ID: 9106017 - 113177
Date Analyzed: 06/05/91, 06/06/91 and 06/10/91
Analyzed by GC Method 8020

Signed:

Date:

6-20-91



ENVIRONMENTAL LABORATORY

414-498-2222
FAX: 414-498-4067

2496 West Mason Street

P.O. Box 12435

Green Bay, WI 54307-2435

- SAMPLE ANALYSIS REPORT -

To: AQUA-TECH
140 S PARK ST
PORT WASHINGTON WI 53074

Attn: DENA HARGRAVES

Batch ID : 9106017
Our lab # : 113178
Your sample ID: KM-2 (7.0-8.5')
Sample Matrix : SOIL

Report Date: 06/11/91

COLLECTION INFORMATION

Date/Time/By: 05/28/91 17:00 D M H
Location : TERRY'S KERR MCGEE

Lab#	Test	Result	Units
113178	Total Solids	73.3	%

Signed D. J. De Carlo
Signed _____

Date 6/11/91
Date _____



ENVIRONMENTAL LABORATORY

414-498-2222

FAX: 414-498-4067

2656 West Mason Street

P.O. Box 12435

Green Bay, WI 54307-2435

LABORATORY ANALYSIS RESULTS

Wisconsin Certification No.
405099530

Client: AQUA-TECH
Address: 140 S PARK ST
PORT WASHINGTON, WI 53074

Sample ID: KM-2 (7.0-8.5')
Date Collected: 05/28/91
Date Received: 06/04/91
Location: TERRY'S KERR MCGEE

Attn: DENA HARGRAVES
Telephone No.: (414) 284-5746

CALIFORNIA METHOD TPH ANALYSIS

PARAMETER	DETECTION LIMIT	CONCENTRATION	UNITS*
Kerosene	5.0	ND	mg/kg
Gasoline	5.0	ND	mg/kg
Diesel	5.0	ND	mg/kg

ND = Not detected

* = Dry Weight Basis

Comments Lab Sample ID: 9106017:113178
Date Analyzed: 06/05/91
Analyzed by GC/FID on a DB-5 Capillary column

Signed:

Date: 6-11-91



ENVIRONMENTAL LABORATORY

414-498-2222
FAX: 414-498-4067

2496 West Mason Street

P.O. Box 12435

Green Bay, WI 54307-2435

CLIENT: AQUA TECH
ADDRESS: 140 S PARK STREET
PORT WASHINGTON WI 53074

Wisconsin Certification No.
405099530

Sample ID: KMGW-2
Sample Desc: TERRY'S KERR
MCGEE

ATTENTION: DENA HARGRAVES
TELEPHONE: (414) 289-5796

Date Collected: 05/28/91
Date Received: 06/04/91
Job #: 95643

VOLATILE ORGANIC WATER ANALYSIS

PARAMETER	DETECTION LIMIT	CONCENTRATION	UNITS
Benzene	1.0	2.6	ug/l
Ethylbenzene	1.0	1.6	ug/l
Toluene	1.0	1.3	ug/l
Total Xylenes	3.0	4.2	ug/l

ND = Not Detected

Comments: Lab Sample ID: 9106017 - 113179
Date Analyzed: 06/05/91
Analyzed by GC Method 8020

Signed:

Date:

6-20-91



ENVIRONMENTAL LABORATORY

414-498-2222
FAX: 414-498-4067

2456 West Mason Street

P.O. Box 12435

Green Bay, WI 53072-2435

- SAMPLE ANALYSIS REPORT -

To: AQUA-TECH
140 S PARK ST
PORT WASHINGTON WI 53074

Attn: DENA HARGRAVES

Batch ID : 9106017
Our lab # : 113180
Your sample ID: KM-3(5.5-7.0)
Sample Matrix : SOIL

Report Date: 06/11/91

COLLECTION INFORMATION

Date/Time/By: 05/28/91 18:00 D M H
Location : TERRY'S KERR MCGEE

Lab#	Test	Result Units
113180	Total Solids	78.9 %

Signed *D. J. DeCabo*
Signed _____

Date 6/11/91
Date _____



ENVIRONMENTAL LABORATORY

414-498-2222

FAX: 414-498-4067

2496 West Mason Street

P.O. Box 12435

Green Bay, WI 54307-2435

LABORATORY ANALYSIS RESULTS

Wisconsin Certification No.
405099530

Client: AQUA-TECH
Address: 140 S PARK ST
PORT WASHINGTON, WI 53074

Sample ID: KM-3(5.5-7.0)
Date Collected: 05/28/91
Date Received: 06/04/91
Location: TERRY'S KERR MCGEE

Attn: DENA HARGRAVES
Telephone No.: (414) 284-5746

CALIFORNIA METHOD TPH ANALYSIS

PARAMETER	DETECTION LIMIT	CONCENTRATION	UNITS*
Kerosene	5.0	ND	mg/kg
Gasoline	5.0	ND	mg/kg
Diesel	5.0	ND	mg/kg

ND = Not detected

* = Dry Weight Basis

Comments Lab Sample ID: 9106017:113180
Date Analyzed: 06/05/91
Analyzed by GC/FID on a DB-5 Capillary column

Signed: 

Date: 6-11-91



ENVIRONMENTAL LABORATORY

414-498-2222

FAX: 414-498-4067

2496 West Mason Street

P.O. Box 12435

Green Bay, WI 54307-2435

CLIENT: AQUA TECH
ADDRESS: 140 S PARK STREET
PORT WASHINGTON WI 53074

Wisconsin Certification No.
405099530

Sample ID: KMGW-3
Sample Desc: TERRY'S KERR
MCGEE

ATTENTION: DENA HARGRAVES
TELEPHONE: (414) 289-5796

Date Collected: 05/28/91
Date Received: 06/04/91
Job #: 95643

VOLATILE ORGANIC WATER ANALYSIS

PARAMETER	DETECTION LIMIT	CONCENTRATION	UNITS
Benzene	1.0	91.0	ug/l
Ethylbenzene	1.0	1.6	ug/l
Toluene	1.0	ND	ug/l
Total Xylenes	3.0	ND	ug/l

ND = Not Detected

Comments: Lab Sample ID: 9106017 - 113181
Date Analyzed: 06/05/91
Analyzed by GC Method 8020

Signed: D. Schuch

Date: 6-20-91