Wisconsin
Department of Commerce

P. O. Box 530
Park Falls, Wisconsin 54552
(715) 762-5557
FAX (715) 762-0054

Tommy G. Thompson, Governor
Brenda J. Blanchard, Secretary

March 1, 1999

COPY

Mr. Dave Rasmussen, Jr.
PO Box 938
Superior, WI 54880

Subject: **Close-out of Case #54880-0938-24 / BRRTS # 02-16-110461**
Fagerlin Fuels
1124 North 6th St.
Superior, WI 54880

Dear Mr. Rasmussen:

On March 1, 1999 the above site was reviewed for closure by the Site Review staff of the PECFA Bureau. Because the site involved only soil contamination, without a threat to groundwater, all issues relating to this site are administered by the staff within the Department of Commerce's PECFA Bureau. Using the standards established in NR 700, the Department has determined that this site has been remediated to a level protective of the environment and human health. The Department considers this site to meet environmental standards, and no further action is necessary.

This is based upon the information provided to us by your consultant. If, in the future, site conditions indicate that any contamination that might remain poses a threat, the need for further remediation would be determined and required if necessary.

Be sure to include a copy of this letter with your PECFA claim package, if your site is eligible for reimbursement. This letter is to take the place of the Form 4-B.

Thank you for your efforts in the protection of the environment. If you have any additional questions, please call me at 715-762-5557.

Sincerely,

Shanna L. Laube, P.G.
Hydrogeologist
PECFA Program

cc: Drake, Todd Troskey«Company»

Close

Case Summary and Close Out Form Instructions

Forms that are not completed correctly will be returned.

1. Shaded areas are for Department use only.

2. Provide a Case Summary and analytic tables along with the completed form. The information supplied should succinctly summarize the chronological history of the **entire** case, and should reinforce the justification for closure. Do not submit previously submitted reports as attachments. The Close Out Form should be a "stand alone" document and not require a file search to determine closure.

3. The following items should be included as attachments to the form:

☑ Location map (USGS topographic map, 1:24,000 scale or plat map).

☑ Site map, per s. NR 716.09(2)(c).(scale 1"=10' to 1"=20', if possible), depicting sample locations which correspond to sample result tables.

NA ☐ Groundwater flow maps, per s. NR 716.15(3)(g)5.

NA ☐ Cross section(s), per s. NR 716.15(3)(g)6,include source location(s), pre and post remediation contaminant levels, sample locations and extent of excavation.

☑ Maps depicting locations of water supply (NA) wells, wetlands (✓), utilities (✓) and other potential (NA) receptors.

NA ☐ Sites with groundwater contamination must include detailed information on private wells (well depth, casing size, well use, sample data, etc.). Private well sample results must be submitted on Form 3300-67.

☑ Applicable laboratory sample results, Chains of Custody and tables. (Note: In cases with large numbers of sample results, it may not be necessary to submit all of the laboratory sheets and Chain of Custody sheets. **Submit only samples necessary to make justification for closure.)**

☑ Feel free to use your own tables, just be consistent throughout the form with labeling the tables. Clearly identify Pre and Post remediation samples. **Put DRO and GRO samples in ppm and VOC's and PAH's in ppb.**

4. **DO NOT** submit the Close Out Form in a bound report.

5. The more concise and to the point the form is filled out the easier it will be for the site to be reviewed and closed in a timely manner.

CASE SUMMARY AND CLOSE OUT FORM
GENERAL SITE INFORMATION

RECEIVED
MAR 0 1 1999
ERS DIVISION

BRRTS
UID # 02-16-110461

Responsible Party Name/ Full Address: DAVE RASMUSSEN, JR.
P.O. BOX 938
SUPERIOR, WI 54880

Site Name/Full Address(include county): FAGERLIN FUEL BULK PLANT, 1124 NORTH 6TH ST.
SUPERIOR, WI 54880 / COUNTY : DOUGLAS

02-16 54880-

Legal Descript.: SW 1/4, NW 1/4, Sec 14, T 49 N, R 14 (E/W) DNR #: 10461 PECFA #:

Contaminant Type(s) FUEL OIL Quantity Released UNKNOWN

Incident Type: (amount released if known): SYSTEM LEAKS UNKNOWN

Date of Incident/Discovered: 9-18-96 If Incident = (LUST): Form 4 Pending? ___Yes X No

Depth to Groundwater & Flow Direction: NA Perched Water? ___Y X N Depth:

Soil Type MEDIUM SAND BACKFILL "FAT" CLAY NATIVE SOIL Depth to Bedrock 300 - 400 FT.

Potential Receptors: GROUNDWATER.

Investigation/Remediation Consultant: DRAKE ENVIRONMENTAL

Certified Lab Testing Soils/Water: EN CHEM / NORTHERN LAKE SERVICE.

Status of water supply wells within 1200 feet of the site? NA - ALL CITY WATER

Date Closure Submitted : 2-25-99 Enforcement Actions or Permits Closed Out? _____Yes _____No

Attach Case Summary and Justification for Closure

SOIL

Attach the Tables for Pre and Post Remedial Soil Results

REMEDIAL ACTION

Remedial Action Completed? X Y ___N 720.19 analysis___Y ___N (if Y attach supporting documentation)

Final Confirmation Sampling Methods: DNR CERTIFIED LAB - DRO / PVOCS / PAHS

Attach description of remedial action taken

Were Soils Excavated? X Y ___N Quantity: 952 TONS Disposal Method: THERMAL TREATMENT (OFF-SITE)

Final Disposal Location: LAKEHEAD BLACKTOP OF SUPERIOR 5800 ALBANY AVENUE, SUPERIOR, WI 54880.

Attach Soil Disposal Reciepts: INCLUDED WITH REMEDIATION REPORT

GROUNDWATER ANALYTICAL RESULTS

NA- NO GROUNDWATER CONTAMINATION ENCOUNTERED.

Extent Defined? ___Y ___N ___NA

Remedial Action Completed? ___Y ___N

Field Analyses? ___Y ___N Lab Analyses? ___Y ___N No. of Sampling Points:_____

Number of Sample Rounds:_____

#NR 141 Temporary Wells:_____ #Recovery Sumps:_____

#Private Wells:_____ For private wells, Form 3300-67 completed:_____

#Municipal Wells:_____ #NR 141 Monitoring Wells:_____

Preventive Action Limit exceeded? ___Y___N (If yes, location)_____

Enforcement Standard exceeded? ___Y___N (If yes, location)_____

Attach Table of Groundwater Results

Description of remedial action taken:

Form completed by:
I certify that, to the best of my knowledge, the information presented on and attached to this form are true and accurate. This recommendation for case closure is based upon all available data as of 2-25-99 (date). I have read the Case Summary and Close Out Form Instructions and all required information has been included.

Name: TODD TROSKEY Firm Name: DRAKE ENVIRONMENTAL

Affiliation with Site Owner: CONSULTANT

Address: P.O. Box 610

City: MINOCQUA State: WI Zip: 54548

Telephone Number: (715) 358-7018

Todd D. Troskey
(Signature)

Narrative Summary of Case

Background Information

The Fagerlin Fuel Bulk Plant property is located at 1124 North 6th Street in Superior, Wisconsin (Figure 1). Drake Environmental, Inc. conducted a Phase II Environmental Assessment on June 26, 1996, to determine the presence or absence of soil contamination at the property. Soil contamination was documented during the Phase II, and was subsequently reported to the Wisconsin Department of Natural Resources (DNR) on September 18, 1996. In a letter dated September 25, 1996, the DNR requested that a remedial investigation (RI) be conducted to estimate the degree and extent of soil and groundwater contamination, and to develop recommendations for remediation, if warranted. Mr. Rasmussen, Sr. retained Drake to complete the RI.

Site Investigation

On October 7, 1997, nine soil probeholes were completed at the property (Figure 2). The results of the investigation indicated the presence of soil contamination related to the fuel oil underground storage tank (UST) systems. Groundwater was not encountered at the site to a depth of 20 feet below ground surface (bgs), the maximum depth explored during the site investigation. Based upon the RI results and geologic and hydrogeologic information, groundwater at the property is estimated to be at a depth of greater than 45 feet. Therefore, no groundwater contamination was documented at the property. Based on the results of the site investigation, Drake recommended thermal treatment of contaminated soils as the most cost-effective method of site remediation.

Summary of Investigation Results

Soil samples were collected for field screening purposes at 2-foot intervals from 2 to 20 feet bgs. Table 1 (attached) presents a summary of the field screening results. Soil probeholes P-5 and P-8 exhibited PID readings ranging from less than 1 to 106 parts per million (ppm). The remaining soil probeholes did not exhibit PID readings greater than 1 ppm. Drake considers PID readings above 10 ppm to be indicative of potential

soil contamination. The PID results indicate that soils were contaminated at concentrations that required remediation.

Ten soil samples from the soil probeholes were submitted for diesel range organics (DRO), petroleum volatile organic compounds (PVOCs), and polynuclear aromatic hydrocarbons (PAHs) analyses. Table 2 presents the soil sample analytical results. The soil sample collected from P-5 at 7 to 9 feet bgs and P-8 from 8 to 10 feet bgs contained DRO and PVOCs above the laboratory method detection limits. All of the remaining soil samples submitted for analysis did not exhibit detections above laboratory method detection limits. DRO was detected in P-5 and in P-8 above the NR 720 groundwater pathway standards.

Site Remediation

Mr. Rasmussen, Jr. retained Drake Environmental Inc. to complete site remediation.

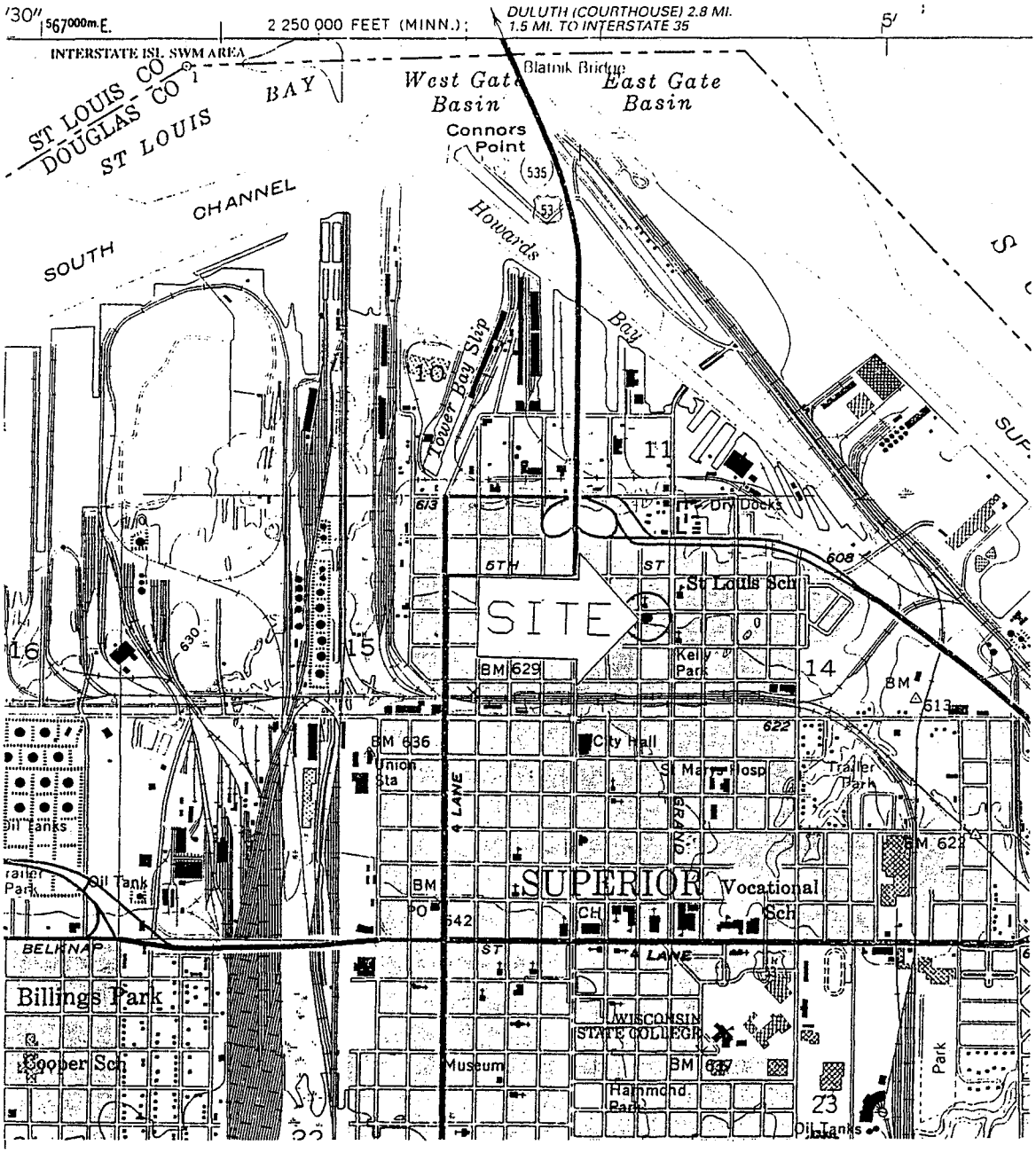
On November 2 through 5, 1998, Drake personnel documented the removal of approximately 952 tons of fuel oil-contaminated soils. The fuel oil-contaminated soils were transported to the Lakehead Blacktop thermal treatment facility. Soil samples were collected and confirm that the excavated soils were contaminated (Table 3). Soil samples were collected from the walls and base of the final excavation to confirm that soil remediation was accomplished (Figure 3). In addition, soil samples were collected to confirm that adequate soil remediation was accomplished. Remediation soil sample analytical results are presented in Table 3.

Conclusions

Based upon the excavation soil sample results, successful soil remediation was accomplished; and based upon the site investigation, groundwater was not encountered during the RI and soil excavation activities and is anticipated to be at a depth of greater than 45 feet.

Drake recommends that no additional investigation or remediation be conducted at this time. Drake also recommends that the Department of Commerce consider the site for closure.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY



COPIED FROM 7.5 SERIES [TOPOGRAPHIC] - U.S.G.S. QUADRANGLE

SUPERIOR - WISCONSIN

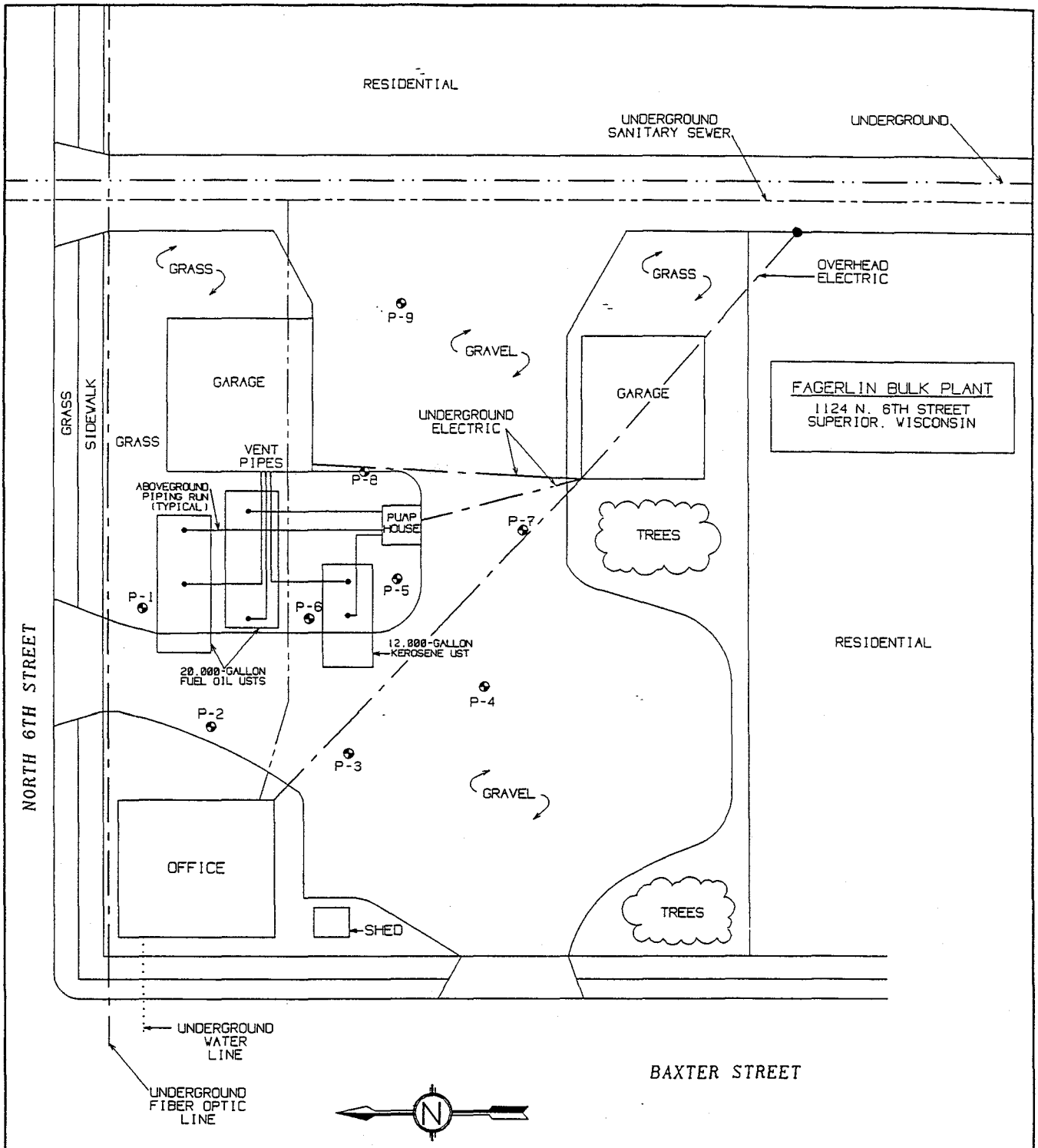
SW 1/4 NW 1/4 SEC 14 T49N R14W

DIAGRAM SCALE
0 1000 2000
1 INCH = 2000 FEET

N

DRAKE ENVIRONMENTAL, INC.

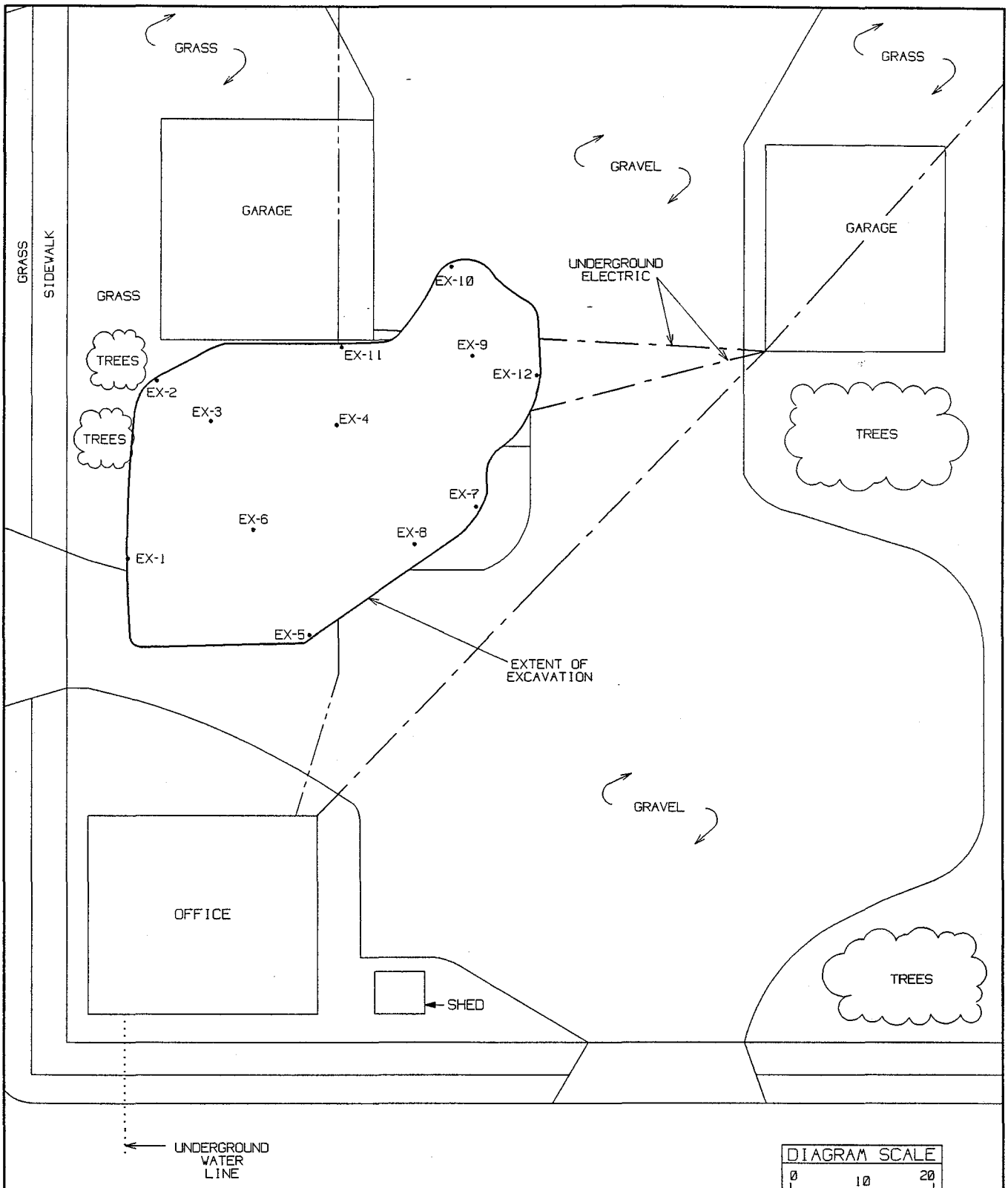
FAGERLIN BULK PLANT REMEDIATION	PROJECT NO. 896070 PM TDT TOPO COPIED DATE: 02/16/99 CHKD BY DATE APRVD BY DATE	VICINITY DIAGRAM	FIGURE 1



DRAKE ENVIRONMENTAL, INC.

FAGERLIN BULK PLANT REMEDIATION	PROJECT NO. B96070 PM TDT DRAWN BY RV DATE: 10/21/97 REVISED: RV DATE: 02/16/99 APPRVD BY DATE:	SOIL PROBEHOLE LOCATIONS DIAGRAM	FIGURE 2

FILE: B6070C



DRAKE ENVIRONMENTAL, INC.

FAGERLIN BULK PLANT
REMEDIATION

PROJECT NO. B96070	PM TDT	
DRAWN BY RV	DATE: 02/16/99	
CHKD BY	DATE	
APRVD BY	DATE	

SOIL REMEDIATION SOIL SAMPLE LOCATIONS DIAGRAM

FIGURE 3

FILE: B96070D

TABLE 1
PID Screening Results — Investigation
Fagerlin Fuel Bulk Plant
Superior, Wisconsin
Drake Project No. B96070

Sample No.	Depth (ft.)	PID Readings (iu)
P-1:S1	0-2	<1
P-1:S2	2-4	NR
P-1:S3	4-6	<1
P-1:S4	6-8	NR
P-1:S5	8-10	<1
P-1:S6	10-12	<1
P-1:S7	12-14	<1
P-1:S8	**14-16**	**<1**
P-2:S1	0-2	<1
P-2:S2	2-4	<1
P-2:S3	4-6	<1
P-2:S4	6-8	<1
P-2:S5	8-10	<1
P-2:S6	10-12	<1
P-2:S7	12-14	<1
P-2:S8	14-16	<1
P-2:S9	16-18	<1
P-2:S10	**18-20**	**<1**
P-3:S1	0-2	<1
P-3:S2	2-4	<1
P-3:S3	4-6	<1
P-3:S4	6-8	<1
P-3:S5	8-10	<1
P-3:S6	**10-12**	**<1**
P-4:S1	0-2	<1
P-4:S2	2-4	<1
P-4:S3	4-6	<1
P-4:S4	6-8	<1
P-4:S5	8-10	<1
P-4:S6	**10-12**	**<1**
P-5:S1	0-2	<1
P-5:S2	2-4	<1
P-5:S3	4-6	<1
P-5:S4	6-8	<1
P-5:S5	8-10	<1
P-5:S6	10-12	45
P-5:S7	12-14	72
P-5:S8	**14-16**	**106**
P-5:S9	16-17.5	58

i.u. = instrument units
NR = no sample recovery
Note: Bold type indicates samples submitted for analytical testing.

TABLE 1 (cont.)
PID Screening Results — Investigation
Fagerlin Fuel Bulk Plant
Superior, Wisconsin
Drake Project No. B96070

Sample No.	Depth (ft.)	PID Readings (iu)
P-6:S1	0-2	<1
P-6:S2	2-4	<1
P-6:S3	4-6	<1
P-6:S4	6-8	<1
P-6:S5	8-10	<1
P-6:S6	10-12	<1
P-6:S7	12-14	<1
P-6:S8	**14-16**	**<1**
P-7:S1	0-2	<1
P-7:S2	2-4	<1
P-7:S3	4-6	<1
P-7:S4	6-8	<1
P-7:S5	8-10	<1
P-7:S6	10-12	<1
P-7:S7	12-14	<1
P-7:S8	**14-16**	**<1**
P-8:S1	0-2	<1
P-8:S2	2-4	<1
P-8:S3	4-6	5
P-8:S4	6-8	74
P-8:S5	**8-10**	**90**
P-8:S6	10-12	2
P-8:S7	12-14	47
P-8:S8	**14-16**	**<1**
P-9:S1	0-2	<1
P-9:S2	2-4	<1
P-9:S3	4-6	<1
P-9:S4	6-8	<1
P-9:S5	8-10	<1
P-9:S6	10-12	<1
P-9:S7	12-14	<1
P-9:S8	**14-16**	**<1**

i.u. = instrument units
NR = no sample recovery
Note: Bold type indicates samples submitted for analytical testing.

TABLE 2
Analytical Results — Investigation Soil Samples
Fagerlin Fuel Bulk Plant Property
Superior, Wisconsin
Drake Project No. B96070

Parameter	P-1:S8	P-2:S10	P-3:S6	P-4S6	P-5:S8	P-6:S8	P-7S8	P-8:S5	P-8:S8	P-9:S8	Field Blank	NR 720 Groundwater Pathway Standards
Depth (ft.)	14-16	18-20	10-12	10-12	14-16	14-16	14-16	8-10	14-16	14-16	NA	—
PID (i.u.)	<1	<1	<1	<1	106	<1	<1	90	<1	<1	NA	—
DRO (ppm)	<5.2	<4.7	<4.9	<4.7	**920**	<4.7	<4.6	**2,100**	<4.7	<4.7	NA	250
PVOCs (ppb)												
Benzene	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	5.5
Ethylbenzene	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	2,900
Toluene	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	1,500
Total xylenes	<50	<50	<50	<50	1,750	<50	<50	<50	<50	<50	<50	4,100
1,3,5-trimethylbenzene	<25	<25	<25	<25	3,800	<25	<25	1,200	<25	<25	<25	NS
PAHs (ppb)												
Acenaphthene	<17	<17	<17	<17	230	<17	<17	150	<17	<18	NA	38,000*
Benzo(a)pyrene	<14	<14	<14	<15	<13	<15	<14	<14	<14	<15	NA	48,000*
Fluorene	<20	<20	<20	<21	280	<21	<20	120	<20	<21	NA	100,000*
1-methylnaphthalene	<20	<20	<20	<21	490	<21	<20	340	<20	<21	NA	23,000*
2-methylnaphthalene	<19	<19	<19	<19	200	<19	<19	<19	<19	<20	NA	20,000*
Phenanthrene	<18	<18	<18	<19	260	<19	<18	230	<18	<19	NA	1,800*
Pyrene	<17	<17	<17	<17	44	<17	<17	<17	<17	<18	NA	8,700,000*

i.u. = instrument units
NA = not analyzed
NS = no established standard
*Generic soil standards presented in publication RR-519-97, April 1997 (corrected)

TABLE 3
Soil Sample Analytical Results — Soil Remediation
Fagerlin Fuel Bulk Plant Property
(Only the detected analytes are presented.)

Sample No.	EX-1	EX-2	EX-3	EX-4	EX-5	EX-6	EX-7	NR 720 Standard
Representative location	North wall	North wall	Base	Base	West wall	Base	South wall	—
Depth (ft.)	10	8	15	14	8	15	8	—
PID reading (ppm)	<1	3	<1	<1	<1	<1	<1	—
DRO (ppm)	<2.7	<2.7	<2.7	<2.7	<2.7	<2.7	<2.7	250

Sample No.	EX-8	EX-9	EX-10	EX-11	EX-12	T-6	T-28	NR 720 Standard
Representative location	Base	Base	East wall	East wall	South wall	—	—	—
Depth (ft.)	12	14	8	7	9	4	4	—
PID reading (ppm)	2	2	4	4	2	276	147	—
DRO (ppm)	<2.7	<2.7	<2.7	<2.7	<3.3	70	110	250

ppm = parts per million
Note: No PVOCs or PAHs were detected above laboratory detection limits.

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SOIL REMEDIATION DOCUMENTATION REPORT

FAGERLIN FUEL BULK PLANT PROPERTY
SUPERIOR, WISCONSIN

MR. DAVE RASMUSSEN, JR.

February 25, 1999

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RECEIVED
MAR 0 1 1999
ERS DIVISION

Mr. Dave Rasmussen, Jr.
P.O. Box 938
Superior, WI 54880

RE: Soil Remediation Documentation for the Fagerlin Fuel Bulk Plant Property in Superior, Wisconsin — Project No. B96070; DNR Case No. 02-16-110461; PECFA Claim No. 54880-0938-24

Dear Mr. Rasmussen:

We have completed the soil remediation services at the above-referenced site, located at 1124 North 6th Street in Superior, Wisconsin. The attached report presents the results of the field and laboratory testing, a discussion of the results, and our conclusions and recommendations.

With your approval, a copy of this report has been submitted to the following agency:

Ms. Shanna Laube
Wisconsin Department of Commerce
P.O. Box 530
Park Falls, WI 54552-0530

Following site closure, a copy of this report will be submitted with the completed Petroleum Environmental Cleanup Fund Act (PECFA) application to the following agency:

UST Program
Wisconsin Department of Commerce
P.O. Box 7969
Madison, WI 53707

We appreciated this opportunity to provide professional environmental consulting services. If you have any concerns regarding this report, please feel free to contact Todd Troskey at (715) 358-7018.

Respectfully,

DRAKE ENVIRONMENTAL, INC.

Todd D. Troskey
Project Manager

Richard W. Frieseke
Project Director

Attachments
B96070L

8554 Highway 51 North
Post Office Box 610
Minocqua, WI 54548-0610
(715) 358-7018
1-800-358-7018
Fax:(715)358-7612

REPORT

PROJECT
Soil Remediation Documentation
Fagerlin Fuel Bulk Plant Property
Superior, Wisconsin
BRRTS No. 02-16-110461
PECFA Claim No. 54880-0938-24

CLIENT
Mr. Dave Rasmussen, Jr.
P.O. Box 938
Superior, WI 54880

Drake Project Number
B96070

Date
February 25, 1999

DRAKE ENVIRONMENTAL, INC.
8554 Highway 51 North, Unit #6
Post Office Box 610
Minocqua, Wisconsin 54548-0610

REPORT CONTENTS

REPORT SUMMARY

The Fagerlin Fuel Bulk Plant property is located at 1124 North 6th Street in Superior, Wisconsin. The property is currently utilized as a bulk petroleum storage facility. Three underground storage tanks (USTs) had been used at the property.

Drake confirmed soil contamination during a Phase II Environmental site assessment on June 26, 1996. The Wisconsin Department of Natural Resources (DNR) was notified of soil contamination at the property and, in a letter dated September 18, 1996, the DNR requested that an investigation be conducted to estimate the extent and degree of petroleum contamination.

Drake Environmental, Inc. was subsequently retained to conduct a Remedial Investigation (RI) to estimate the vertical and lateral extent of soil contamination at the site. Based on the RI results, Drake estimated approximately 560 tons (400 cubic yards) of contaminated soils were present and that soil remediation was considered warranted. However, the RI was limited due to the presence of the UST systems.

Based on Drake's *Remedial Action Plan* (dated September 8, 1998), Drake considered excavation of the petroleum-contaminated soils followed by off-site thermal treatment as the most technically feasible and cost-effective remedial action. In accordance with Comm 47.339, the Department of Commerce was notified of the intent to achieve a closed remedial action within the $80,000 limit.

During soil remediation, 952 tons of contaminated soils were excavated from the property and transported to Lakehead Blacktop & Materials of Superior in Superior, Wisconsin, for off-site thermal treatment. Physical observations, field screening, and laboratory analyses of samples representative of the soils left in place along the walls of the excavation indicated that soil remediation was completed. Laboratory analysis indicates that no soil contamination was left in place along the walls or base of the excavation.

Based on the laboratory results, successful remediation was accomplished. Therefore, Drake recommends site closure.

Please refer to the attached report for a detailed description of the project.

Project Scope

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SOIL REMEDIATION DOCUMENTATION
FAGERLIN FUEL BULK PLANT PROPERTY
SUPERIOR, WISCONSIN

1.0 PROJECT SCOPE

1.1 Project History

The Fagerlin Fuel Bulk Plant property is located at 1124 North 6th Street in Superior, Wisconsin (Figure 1). The property is currently utilized as a bulk fuel oil storage facility. Two 20,000-gallon fuel oil underground storage tanks (USTs) have been used at the property since approximately January 1, 1954. One 12,000-gallon kerosene UST has been used at the property since January 11, 1981. Drake Environmental, Inc. confirmed soil contamination during a Phase II Environmental Assessment conducted on June 26, 1996. On September 18, 1996, on behalf of Mr. Dave Rasmussen, Sr., the former site owner, Drake reported the contamination to the Wisconsin Department of Natural Resources (DNR). In a letter to Mr. Rasmussen, Sr., dated September 25, 1996, the DNR requested that an investigation be conducted to estimate the extent and degree of petroleum contamination at the property.

Mr. Rasmussen, Sr. subsequently retained Drake to conduct a Remedial Investigation (RI) to determine the extent and degree of soil and groundwater contamination and to develop recommendations for remediation. Drake conducted RI activities on October 7, 1997. The RI consisted of advancing a soil probe at nine locations in the vicinity of the UST systems. The probes were advanced to depths ranging from 12 to 20 feet below ground surface (bgs). Figure 2 in Appendix A illustrates the approximate soil probe locations. Drake collected a total of seventy-two samples for field screening at 2-foot continuous vertical intervals. Ten soil samples were submitted for laboratory analysis of diesel range organics (DRO), petroleum volatile organic compounds (PVOCs), and polynuclear aromatic hydrocarbons (PAHs). Based on the analytical testing results, petroleum-contaminated soils were estimated to exist in an approximate 900-square-foot area at the property. Contaminated soils were estimated to exist at depths ranging from 6 to 14 feet bgs. There were several physical limitations in conducting the RI related to the site and location of the UST systems. However, the

estimated volume of petroleum-contaminated soils was 400 cubic yards (560 tons). The estimated extent of soil contamination is illustrated in Figure 3. Drake also determined that there was no groundwater contamination associated with the petroleum contamination at the property.

Prior to the promulgation of the emergency rule Comm 47, a majority of the RI report had been completed; therefore, Drake submitted the RI report on June 26, 1998.

Mr. Rasmussen, Sr. further retained Drake to document the proposed soil remediation. In the summer of 1998 Dave Rasmussen, Sr. gave control of the company to Dave Rasmussen, Jr. Excavation of contaminated soils followed by off-site thermal treatment was selected as the most technically feasible and cost-effective method of remediation for the site (Drake's *Remedial Action Plan*, dated September 8, 1998). The USTs were to be removed in conjunction with soil excavation activities.

Based on the estimated volume of soil contamination, Drake submitted a notification of attempt to achieve a closed remedial action within the $80,000 cost limit to the Wisconsin Department of Commerce on August 21, 1998. This report describes the soil remediation project procedures and results, and presents Drake's conclusions regarding the effectiveness of remediation based on the results.

1.2 Site Description

The property is situated in the southwest quarter of the northwest quarter of Section 14, Township 49N, Range 14W (based on the Superior Quadrangle map). The property is bordered on the north by North 6th Street, on the west by Baxter Street, on the east and south by residential properties.

The property is approximately 130 feet by 145 feet in plan size (18,850 square feet). A 900-square-foot office building and a 900-square-foot and a 700-square-foot garage building are currently located on the site. Three driveways allow access to the property: one from North 6th Street, one from Baxter Street, and one from an alleyway on the east side of the property. Prior to soil remediation, the site was primarily covered with crushed gravel and grass. Two 20,000-gallon fuel oil USTs and one 12,000-gallon kerosene UST were located to the east side of the building. The area in the vicinity of the property is serviced by overhead and underground electric,

underground water, sanitary sewer, and a fiber optic line. Figure 2 in Appendix A illustrates the general site features prior to soil remediation.

The capacities, contents, and Wisconsin Department of Commerce tank identification numbers of the USTs are summarized in Table 1.

TABLE 1
Summary of Former USTs
Fagerlin Fuel Bulk Plant Property

Tank Capacity (gallons)	Tank Contents	DILHR Tank I.D. No.
20,000	Fuel oil	160100041
20,000	Fuel oil	160100042
12,000	Kerosene	160100039

The ground surface at the property and in the general vicinity of the property is relatively flat. Lake Superior is located approximately 4,000 feet northeast of the property.

1.3 Scope of Work

Drake completed the following tasks during the soil remediation project:

- Obtained approval for thermal treatment of the contaminated soils at a licensed facility.
- Coordinated the project with the excavation contractor and analytical laboratory.
- Documented the soil excavation, transportation, disposal, and backfilling procedures.
- Collected and field screened representative soil samples to evaluate the conditions of the in-place and excavated soils during the soil remediation activities.
- Submitted representative soil samples to an independent DNR-certified laboratory for analyses.
- Evaluated the results of the field and laboratory data and provided conclusions regarding the effectiveness of the remediation project.
- Prepared this report.

1.4 Client, Consultant, and Contractor Information

Mr. Rasmussen, Jr. retained J. Kimmes Construction, Inc., located in Superior, Wisconsin, to excavate and transport the contaminated soils to Lakehead Blacktop & Materials of Superior, Inc. for thermal treatment. Mr. Rasmussen, Jr. also retained Northern Lake Service Inc. (NLS), a DNR-certified analytical laboratory, to provide laboratory analytical services.

The following presents the information required in accordance with Wisconsin Administrative Code Chapter NR 722.13 (2)(c) 1.

Client:
Mr. Dave Rasmussen, Jr.
Fagerlin Fuel Bulk Plant
1124 North 6th Street
Superior, Wisconsin 54880
Telephone No.: (715) 394-5561

Consultant:
Drake Environmental, Inc.
P.O. Box 610
Minocqua, Wisconsin 54548
Contacts: Mr. Todd D. Troskey, Project Manager
Telephone No.: (715) 358-7018
Mr. Richard W. Frieseke, Project Director
Telephone No.: (414) 253-1440

Soil Analytical Laboratory:
Northern Lake Service, Inc. (NLS)
DNR Laboratory Certification No. 721026460
400 North Lake Avenue
Crandon, Wisconsin 54520
Contact: Mr. Steve Crupi
Telephone No.: (715) 478-2777

Excavating Contractor:
Kimmes Construction, Inc.
6327 Tower Avenue
Superior, Wisconsin 54880
Contact: Mr. Joseph Kimmes, Sr.
Telephone No.: (715) 394-4233

Thermal Treatment Contractor:

Lakehead Blacktop & Materials of Superior, Inc.
6327 Tower Avenue
Superior, Wisconsin 54880
Contact: Mr. Scott Kimmes
Telephone No.: (715) 392-1989

State Certified Underground Storage Tank Remover/Cleaner:

Superior Engineering & Technical Services, Inc.
P.O. Box 2
Superior, Wisconsin 54880
Contact: Mr. Rick Hogland
Certification No.: 00106
Telephone No.: (715) 392-2236

Procedures

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2.0 PROCEDURES

2.1 Excavation Documentation Procedures

On November 2 through 5, 1998, Drake documented the excavation and disposal of approximately 952 tons of contaminated soils. Documentation also included recording the extent of soil removal, the soil conditions encountered (odors, staining), and the methods used to sample and field screen soils.

2.2 Soil Field Screening Procedures

The soil samples were screened with a photoionization detector (PID) following the PID screening procedure described in Appendix B. PID screening provides a qualitative measure of volatile organic vapors in soils. Drake considers PID readings greater than 10 as an indication of contamination from products containing petroleum volatile organic compounds (PVOCs), such as fuel oil. During the investigation, two soil samples that were submitted for laboratory analysis of DRO and PVOCs exhibited PID readings of 90 and 106 ppm. Although these two samples contained relatively low PID readings, DRO and PVOC results were relatively high. Therefore, the PID readings were used in conjunction with physical observations (soil staining and odors) while evaluating the soil conditions.

2.3 Soil Classification Procedures

Drake visually examined and classified the 8-ounce soil samples on the basis of texture and plasticity in general accordance with the Unified Soil Classification System (USCS). Drake also documented observations of soil staining and obvious petroleum odors. Drake maintained records of the soil sampling activities to document the general soil types encountered during excavation. These observations are included under the Results and Analysis section of this report, "3.2 Soil Conditions." A chart describing the USCS classification system is included in Appendix C.

2.4 Soil Sample Analytical Testing Procedures

Drake submitted a total of fourteen samples to NLS for analyses. The samples were submitted to confirm that adequate soil remediation was accomplished, to confirm that the excavated soils were contaminated, and to estimate the extent and degree of contaminated soils that may have been left in place. The samples were submitted for laboratory analyses within 48 hours following sample collection. Chain of Custody procedures were adhered to throughout sample collection, handling, and laboratory submittal as established by the DNR in a guidance document dated July 1993 (Leaking Underground Storage Tank [LUST] Petroleum Analytical and Quality Assurance Guidance, PUBL-SW-130 93). Copies of the Chain of Custody records are included in Appendix C.

The analysis of soil samples consisted of quantifying the following petroleum-related parameters:

Parameter	Quantity	Method of Analysis
Diesel range organics (DRO)	14 samples	Wisconsin DNR Modified DRO Method
Petroleum volatile organic compounds (PVOCs)	14 samples	EPA Method 8020
Polynuclear aromatic hydrocarbons (PAHs)	6 samples	EPA Method 8310

The soil samples were collected following the excavation sampling and companion sampling procedures described in Appendix B. The laboratory reports, which present a complete list of all the quantified parameters, are included in Appendix C.

2.5 Underground Storage Tank Removal Procedures

Because of site limitations, UST removals (the two 20,000-gallon USTs) and soil excavation activities proceeded concurrently. On March 2 and 5, 1998, Superior Engineering removed and cleaned the two 20,000-gallon fuel oil USTs. Field screening, soil sampling, etc., were not delayed during the UST removals and therefore there was no standby time by Drake personnel or by the excavation contractor. Underground Storage Tank Closure Documentation Procedures and the associated Checklist for Tank Closure and Underground Petroleum Product Tank Inventory forms are included in Appendix D.

Results & Analysis

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3.0 RESULTS AND ANALYSIS

3.1 Soil Removal Documentation

On March 2 through 5, 1998, Kimmes Construction excavated and transported approximately 952 tons of fuel oil-contaminated soils from the property. Soil excavation began in the vicinity of the 20,000-gallon fuel oil USTs and advanced to the west and south. Soils with petroleum odors, staining, and/or PID readings above 10 were excavated, where possible. Soils around the UST system piping were field screened during UST system removal. Some soils around the system piping were contaminated, therefore, the contaminated and clean soils were separated. The clean soils were stockpiled on site and subsequently used as backfill. Copies of the contaminated soil disposal weight receipts are included in Appendix E.

Kimmes Construction loaded the contaminated soils directly onto trucks and transported the soils to Lakehead Blacktop & Materials of Superior. A "Notification to Treat or Dispose of Petroleum Contaminated Soil & Water" (Form 4400-120) was submitted to Ms. Phyliss Holmbeck of the DNR. A copy of the completed form is included in Appendix E.

Upon completion of excavation, sampling, and system upgrade activities, Kimmes Construction subsequently backfilled the excavation with clean, granular backfill. Drake was not present on site during the system upgrades and therefore, did not observe a majority of the backfilling activities. The final excavation related to the fuel oil-contaminated soils was approximately 2,500 square feet in plan size and varied in depth from 2 to 14 feet. Figure 4 in Appendix A illustrates the approximate horizontal and vertical extent of the excavation.

3.2 Soil Conditions

The soil profile within the final excavation consisted of unconsolidated brown fine sand (fill) from the ground surface to a depth of approximately 14 feet bgs around the USTs and from ground surface to a depth of approximately 3 feet bgs in areas south and east of the USTs. Underlying these fill materials and extending downward to a depth of approximately 14 feet in areas south and east of the USTs, the soils consisted of a red-

brown clay ("fat clay"). The clay soil is expected to exhibit relatively low permeabilities (1 x 10^{-7}cm/s to 1 x 10^{-10} cm/s).

Groundwater was not encountered within the excavation. In addition, groundwater was not encountered to a depth of approximately 20 feet bgs during the investigation. Based on the soil remediation results, site investigation results, and regional geologic and hydrogeologic information, groundwater is anticipated to be present at depths ranging from 45 to 75 feet bgs.

The contaminated soils excavated as part of remedial activities exhibited petroleum odors and staining. In general, the soils left in place along the walls of the excavation did not exhibit petroleum odors or staining.

3.3 PID Screening Results

A total of 53 soil samples representative of soils left in place and of excavated soils were collected and field screened during soil removal activities. Table 2 presents the results of the PID screening of the soil samples representative of soils left in place. Table 3 presents the results of the PID screening of soil samples representative of excavated soils.

TABLE 2
PID Screening Results—Soil Samples Left in Place
Fagerlin Fuel Bulk Plant Property

Sample No.	Depth (ft.)	Excavation Location	PID Reading (ppm)
EX-1	10	North wall	<1
EX-2	8	North wall	3
EX-3	15	Base	<1
EX-4	14	Base	<1
EX-5	8	West wall	<1
EX-6	15	Base	<1
EX-7	8	South wall	8
EX-8	12	Base	2
EX-9	14	Base	2
EX-10	8	East wall	4
EX-11	7	East wall	4
EX-12	9	South wall	2

Drake compared the PID readings to 10, a guideline limit frequently used by the DNR to identify possible VOC contamination. All of the twelve samples collected from the walls and base of the final excavation exhibited PID readings of less than 10.

TABLE 3
PID Screening Results—Excavated Soil Samples
Fagerlin Fuel Bulk Plant Property

Sample No.	Depth (ft.)	PID Reading (ppm)
T1	4	218
T2	6	125
T3	8	89
T4	10	42
T5	12	78
T6	**10**	**276**
T7	4	48
T8	7	218
T9	4	57
T10	10	103
T11	8	143
T12	11	28
T13	5	63
T14	5	69
T15	12	21
T16	8	144
T17	9	192
T18	3	59
T19	8	227
T20	5	68
T21	11	97
T22	9	169
T23	10	27
T24	12	36
T25	4	25
T26	6	56
T27	3	29
T28	**4**	**147**
T29	8	205
T30	10	255
T31	10	152
T32	6	23
T33	8	205
T34	5	110
T35	7	52
T36	10	79
T37	11	28
T38	7	62
T39	11	19
T40	5	11
T41	5	89

Bold type indicates soil sample submitted for laboratory analysis.

Based on the field screening results, the accessible contaminated soils were excavated vertically and laterally to the extent practical. The PID screening results of the forty-one samples (T1 through T41) representative of the excavated soils ranged from 11 to 276. In addition, these soil samples exhibited petroleum odors and/or staining. The PID results, in conjunction with the physical observations, indicate that the excavated soils were contaminated.

3.5 Soil Sample Analytical Results

A total of fourteen soil samples were submitted to NLS for laboratory analysis. Twelve soil samples were collected from the walls and base of the final excavation and two from the excavated, contaminated soils. Soil samples EX-1 through EX-12 were collected from the area of the fuel oil-contaminated soils. Figure 5 in Appendix A illustrates the soil sample locations. Table 4 presents the results of DRO, PVOCs, and PAHs of the selected soil samples. Copies of the laboratory reports are included in Appendix C.

TABLE 4
Soil Sample Analytical Results — Soil Remediation
Fagerlin Fuel Bulk Plant Property
(Only the detected analytes are presented.)

Sample No.	EX-1	EX-2	EX-3	EX-4	EX-5	EX-6	EX-7	NR 720 Standard
Representative location	North wall	North wall	Base	Base	West wall	Base	South wall	—
Depth (ft.)	10	8	15	14	8	15	8	—
PID reading (ppm)	<1	3	<1	<1	<1	<1	<1	—
DRO (ppm)	<2.7	<2.7	<2.7	<2.7	<2.7	<2.7	<2.7	250

Sample No.	EX-8	EX-9	EX-10	EX-11	EX-12	T-6	T-28	NR 720 Standard
Representative location	Base	Base	East wall	East wall	South wall	—	—	—
Depth (ft.)	12	14	8	7	9	4	4	—
PID reading (ppm)	2	2	4	4	2	276	147	—
DRO (ppm)	<2.7	<2.7	<2.7	<2.7	<3.3	70	110	250

ppm = parts per million
Note: No PVOCs or PAHs were detected above laboratory detection limits.

DRO in soils is regulated in Wisconsin based on the permeability of the soils present at a site (Wisconsin Administrative Code Chapter NR 720). At sites with soils exhibiting a saturated hydraulic conductivity of 10^{-6} centimeters per second (cm/s) or greater, the NR 720 standard is 100 parts per million (ppm) for DRO. At sites with soils exhibiting a saturated hydraulic conductivity of less than 10^{-6} cm/s, the NR 720 standard is 250 ppm for DRO. The soils at the property consist of clay which typically exhibits hydraulic conductivities ranging from 10^{-10} cm/s to 10^{-7} cm/s. Therefore, the NR 720 standard of 250 ppm for DRO would likely be applicable for the site. This standard was also used to evaluate DRO concentrations in the soil samples during the RI.

None of the soil samples collected from the walls or base of the final excavation contained DRO, PVOC, or PAH concentrations exceeding the laboratory method detection limits.

The two soil samples representative of the excavated, contaminated soils (T6 and T28) contained DRO concentrations ranging from 70 to 110 ppm (Table 4). These sample results are representative of the average contaminated soils excavated from the site. Analytical results in conjunction with the PID screening and field observations, indicate the excavated soils were contaminated.

Concentrations of four selected PVOCs (benzene, ethylbenzene, toluene, and total xylenes) are currently regulated under NR 720.09. None of the soil samples collected from the final excavation walls and base contained detectable PVOC concentrations above the laboratory method detection limits.

Conclusions & Recommendations

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4.0 CONCLUSIONS AND RECOMMENDATIONS

4.1 Conclusions

Soils excavated for thermal treatment were stained and contained petroleum odors and high PID readings. Based on the field screening and laboratory results of samples representative of the soils left in place along the walls and base of the excavation, soil remediation was accomplished at the property. No soil contamination above DNR soil cleanup standards was left in place along the walls or base of the excavation. The quantity of soils remediated at the site was greater than the amount estimated (based on the investigation results) because of physical limitations in conducting the investigation related to the location and size of the UST systems. However, the total consultant and contractor project costs will be less than the $80,000 cost limit.

4.2 Recommendations

Based on the analytical results of the samples collected from the walls and base of the final excavation, it is Drake's opinion that soil remediation was accomplished. Drake recommends no further remediation be conducted at the property. Drake recommends the Department of Commerce consider the site for closure. Wisconsin Department of Commerce Case Close Out forms and accompanying documentation are enclosed. Following closure, a copy of the report will be submitted to the Department of Commerce with the PECFA claim.

4.3 General Qualifications

Drake conducts their services with that degree of care and skill ordinarily exercised by members of the environmental consulting community practicing under similar conditions at the same time in the same or similar locality. The procedures Drake followed in completing this project were in general accordance with applicable regulations of the Wisconsin DNR and the Department of Commerce at the time the work was conducted. If the applicable regulations change, the DNR and/or Department of Commerce may require additional information.

The results, conclusions, and recommendations presented in this report are based on the data obtained from the specific sampling locations at the times and under the conditions stated in this report. Variations in soil and groundwater conditions typically exist at most sites between sampling locations and may change with time. If variations are noted in the future, Drake should be informed to determine if these variations affect the conclusions and recommendations in this report. Some of the factual information in this report was obtained from the client, client's agents, and third parties, and is assumed by Drake to be correct and complete. Changes or modifications to the site and/or facilities made after the site visit are not included. The conclusions are Drake's professional opinion and should not be construed as a guarantee or warranty that liabilities do or do not exist.

Drake assumes no responsibility for the discovery and elimination of hazards that could possibly cause accidents, injuries, or damage. Compliance with the recommendations and/or suggestions contained in this report in no way assures elimination of hazards or a fulfillment of a property owner's obligation under local, state, or federal laws. It is the responsibility of the property owner to notify authorities of any conditions that are in violation of the current legal standards.

Drake prepared this report at the request of their client. Drake assumes responsibility for the accuracy of the contents of this report subject to what is stated elsewhere in this section, but recommends the report be used only for the purpose intended by the client and Drake when the report was prepared. The report may be unsuitable for other uses and reliance upon its contents by anyone other than the client is done at the sole risk of the user. Drake accepts no responsibility for application or interpretation of the results by anyone other than the client.

CERTIFICATION STATEMENTS

Following are submittal certification statements required by Chapter NR 722 of the Wisconsin Administrative Code which apply to this document.

I, Todd D. Troskey, hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

Todd D. Troskey PROJECT MANAGER — 2-25-99

Signature and title — Date

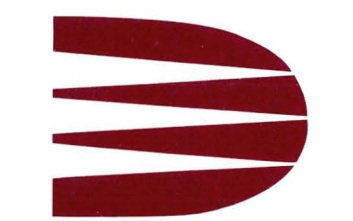
I, Richard W. Frieseke, hereby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with the requirements of ch. A-E4, Wis. Adm. Code; that this document has been prepared in accordance with the Rules of Professional Conduct in ch. A-E8, Wis. Adm. Code; and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

Richard W. Frieseke PE#29877

Signature, title and P.E. number

P.E. Stamp

Appendices



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APPENDICES

Appendix A

Figure 1 - Vicinity Diagram
Figure 2 - Soil Probehole Locations Diagram
Figure 3 - Estimated Extent of Soil Contamination Diagram
Figure 4 - Horizontal and Vertical Limits of Excavation Diagram
Figure 5 - Soil Sample Locations Diagram

Appendix B

Soil Sampling Procedures
- Excavation Sampling Procedure
- Companion Sampling Procedure

PID Screening Procedure

Appendix C

United Soil Classification System (USCS) Chart
Analytical Laboratory Reports
Chain of Custody Records

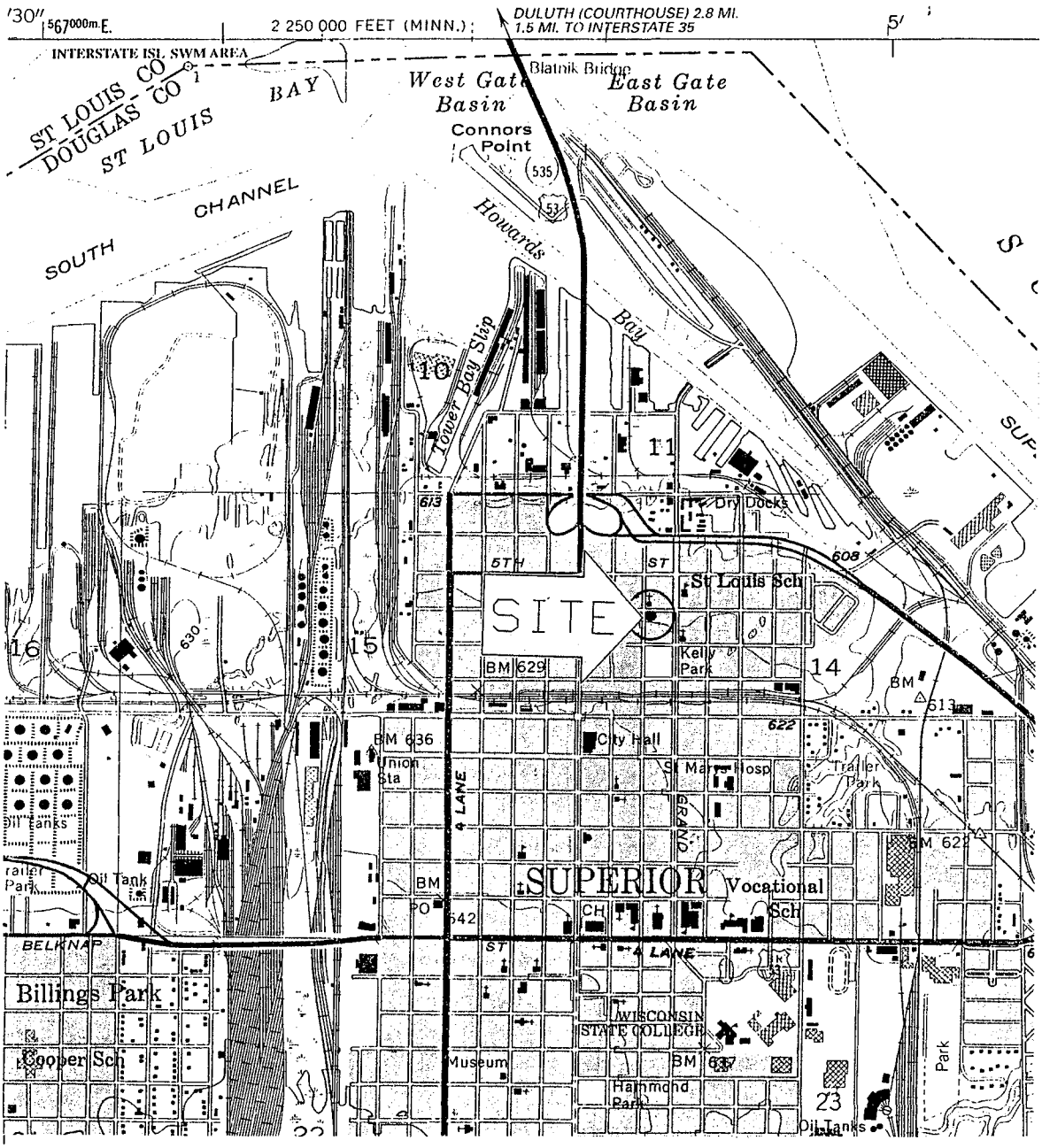
Appendix D

Underground Storage Tank Closure Documentation Procedures
- Checklist for Tank Closure Form
- Underground Petroleum Product Tank Inventory Form

Appendix E

Excavated Contaminated Soil Weight Disposal Receipts
Notification to Treat or Dispose of Petroleum Contaminated Soil & Water (Form 4400-120)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY



COPIED FROM 7.5 SERIES [TOPOGRAPHIC] - U.S.G.S. QUADRANGLE

SUPERIOR - WISCONSIN

SW 1/4 NW 1/4 SEC 14 T49N R14W

DIAGRAM SCALE
0 1000 2000
1 INCH = 2000 FEET

N

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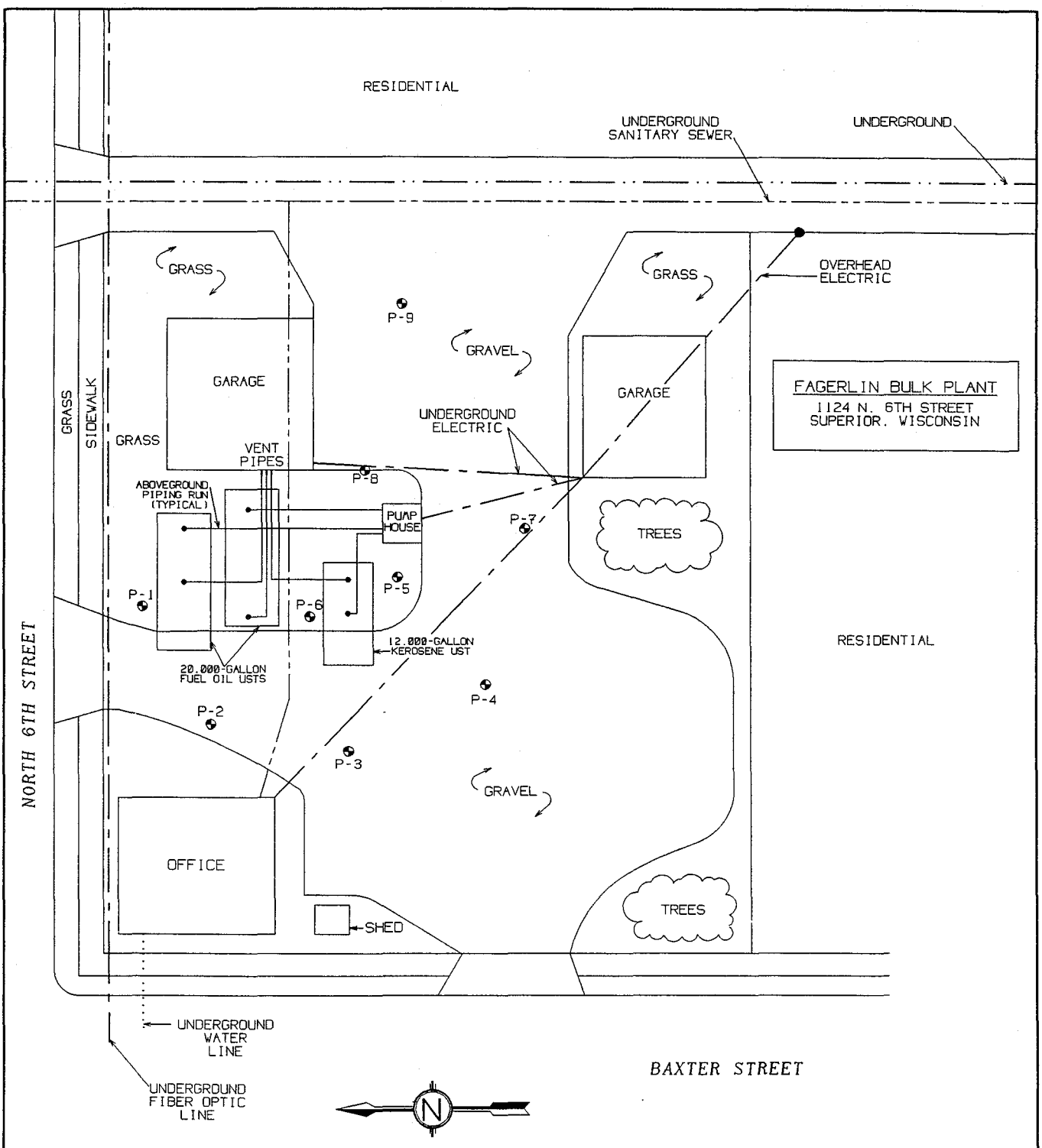
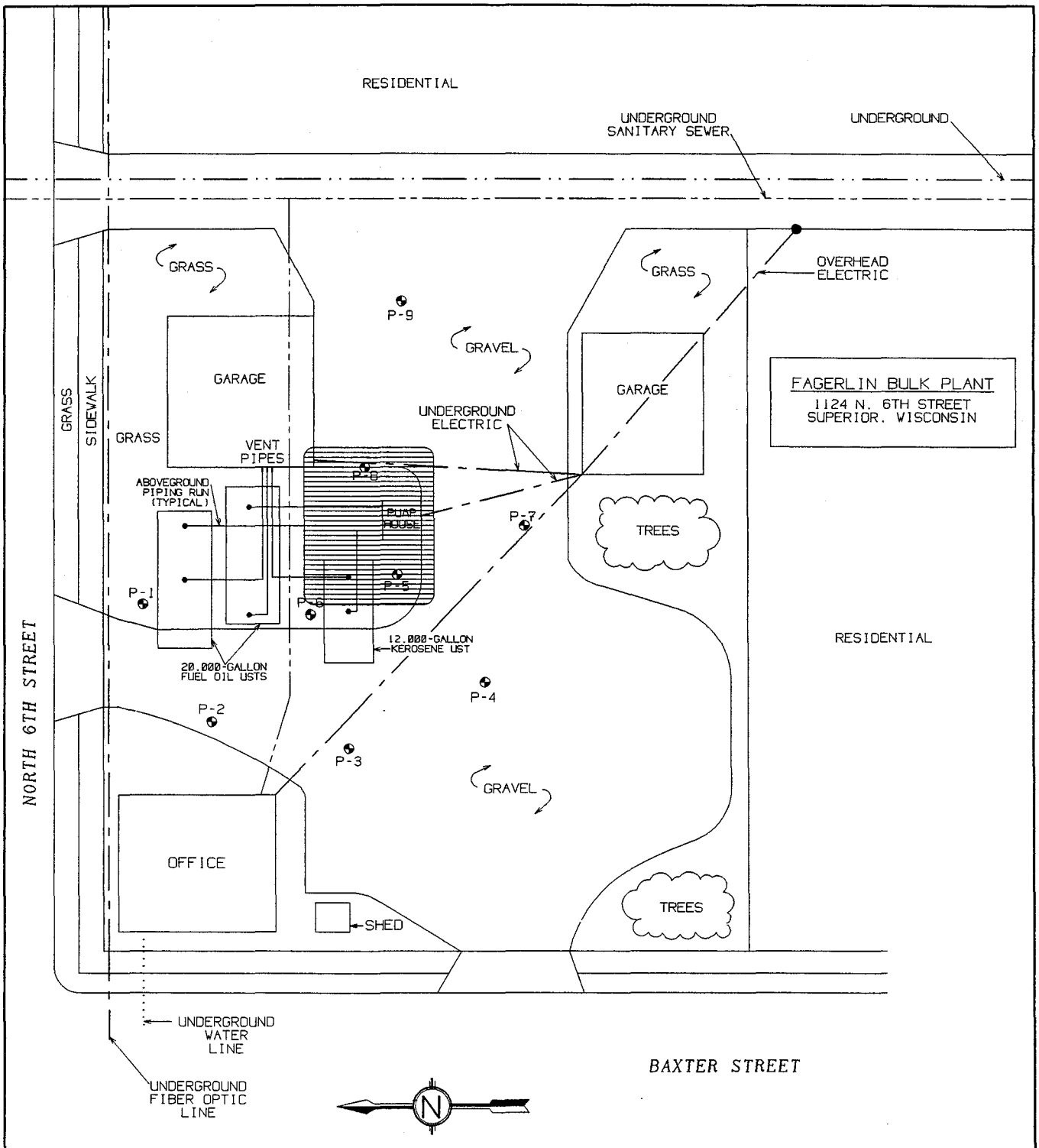
FAGERLIN BULK PLANT REMEDIATION	PROJECT NO. B96070	PM TDT	VICINITY DIAGRAM
	TOPO COPIED	DATE: 02/16/99	FIGURE 1
	CHKD BY	DATE	
	APRVD BY	DATE	



DRAKE ENVIRONMENTAL, INC.

FAGERLIN BULK PLANT REMEDIATION	PROJECT NO. B96070 PM TDT DRAWN BY RV DATE: 10/21/97 REVISED: RV DATE: 02/16/99 APPRVD BY DATE:	SOIL PROBEHOLE LOCATIONS DIAGRAM	FIGURE 2

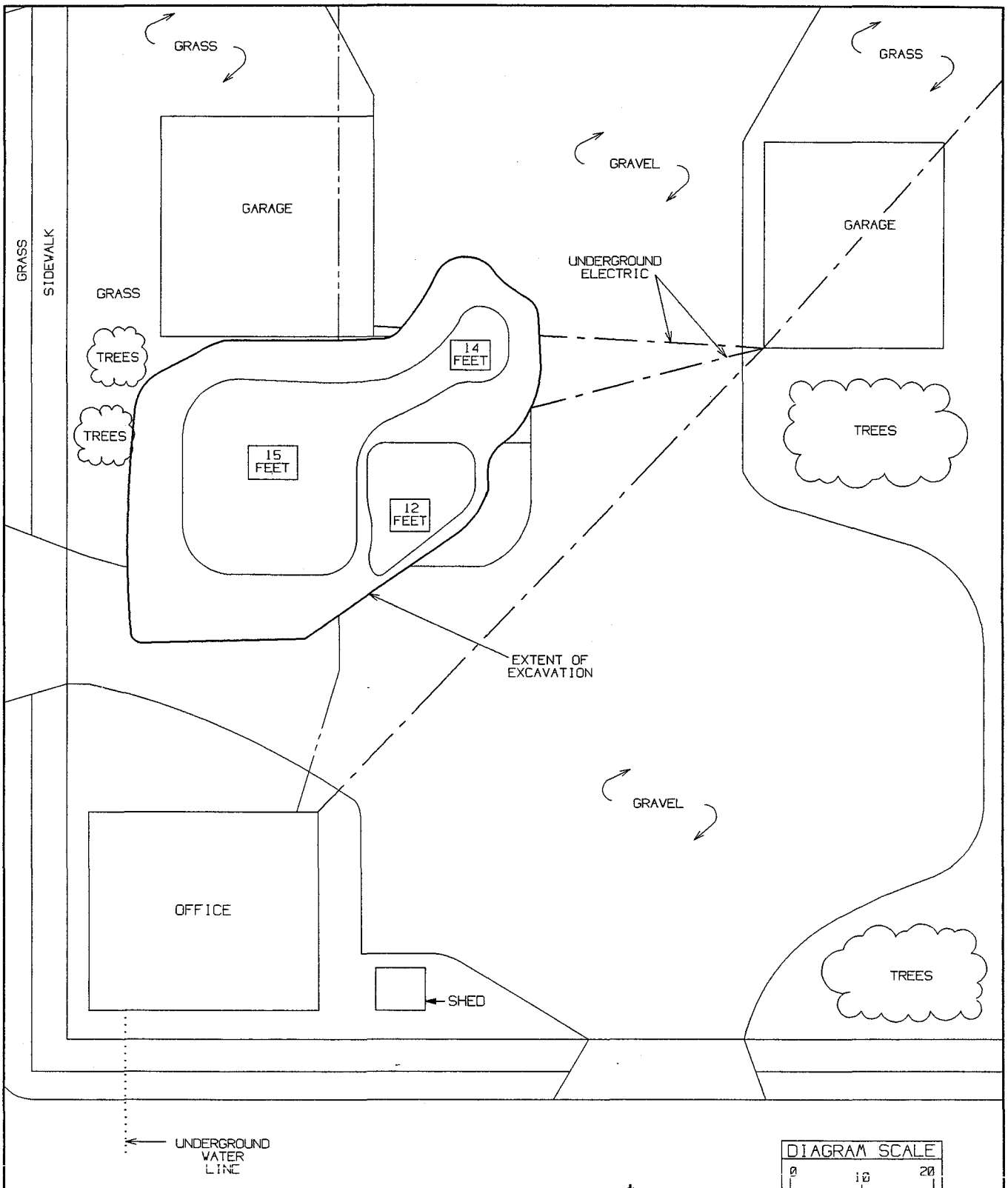
FILE: B6070C



DRAKE ENVIRONMENTAL, INC.

FAGERLIN BULK PLANT REMEDIATION	PROJECT NO. B96070 PM TDT DRAWN BY RV DATE: 10/21/97 REVISED: RV DATE: 02/16/99 APPRVD BY DATE:	ESTIMATED EXTENT OF SOIL CONTAMINATION DIAGRAM	FIGURE 3

FILE: B6070C



DRAKE ENVIRONMENTAL, INC.

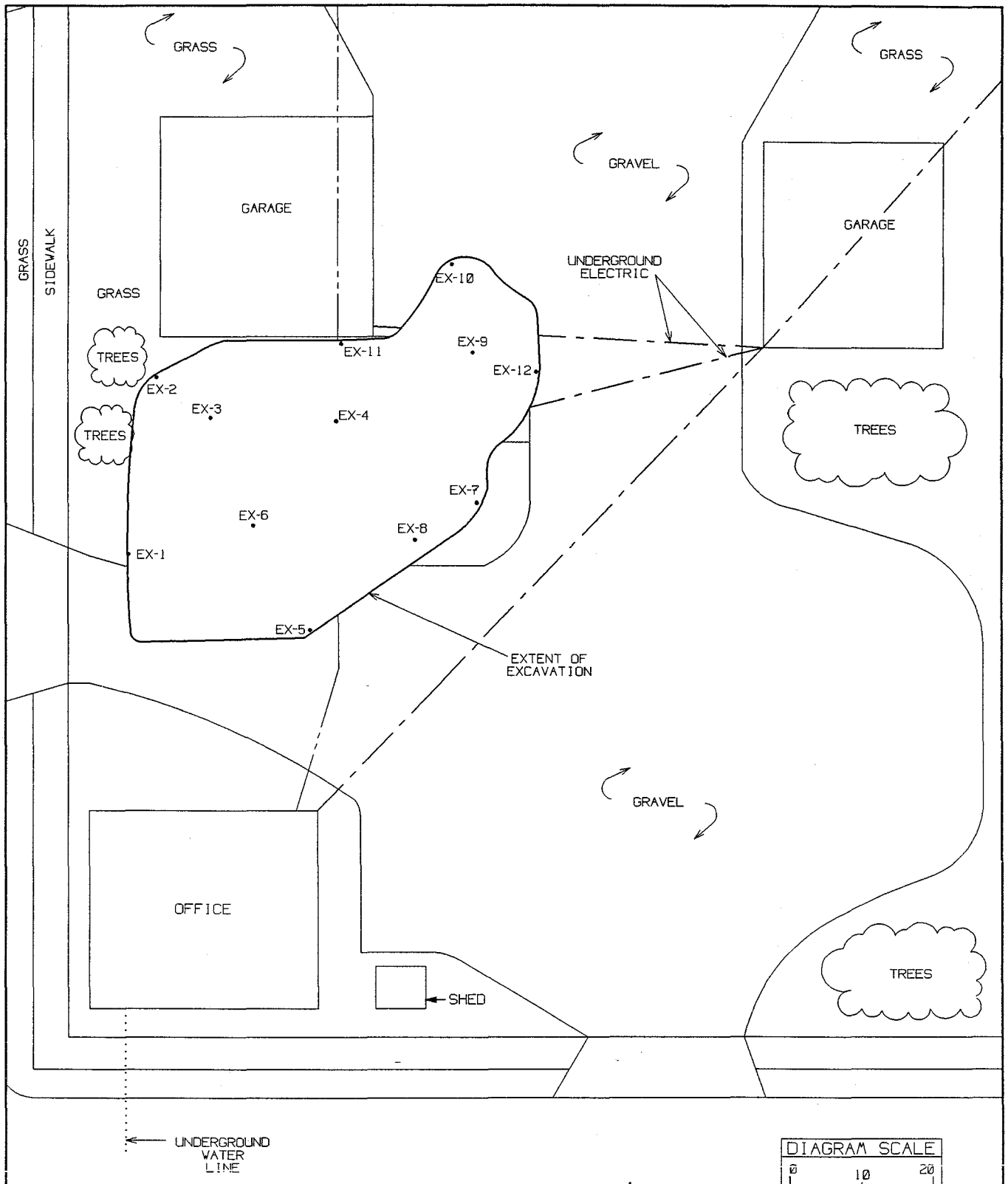
FAGERLIN BULK PLANT
REMEDIATION

PROJECT NO. B96070	PM TDT	
DRAWN BY RV	DATE: 02/16/99	
CHKD BY	DATE	
APRVD BY	DATE	

APPROXIMATE HORIZONTAL AND VERTICAL EXTENT OF EXCAVATION DIAGRAM

FIGURE 4

FILE: B96070D



DRAKE ENVIRONMENTAL, INC.

FAGERLIN BULK PLANT REMEDIATION

PROJECT NO. B96070	PM TDT	
DRAWN BY RV	DATE: 02/16/99	
CHKD BY	DATE	
APRVD BY	DATE	

SOIL REMEDIATION SOIL SAMPLE LOCATIONS DIAGRAM

FIGURE 5

FILE: B96070D

SOIL SAMPLING PROCEDURES

Excavation Sampling Procedure

The excavation sampling procedure consisted of collecting a soil sample from an exposed surface or from the bucket of the excavating equipment. Soil was scraped away to expose soils that have not been exposed to the atmosphere. The sample was recovered with a stainless steel trowel and was relatively undisturbed. The trowel was washed in an Alconox detergent and potable water solution, and double-rinsed in two separate containers with potable water between each use. However, the sample was representative of soils at a discrete location and is placed into an appropriate container for future classification, screening, and analysis.

Companion Sampling Procedure

Each soil sample was transferred to three separate containers: three 60-ml preweighed glass jars, one 60-ml unweighed plastic container, and an 8-ounce unweighed glass jar (the individual jars containing samples collected from one sampling location are referred to as companion samples). The jars were new with Teflon-lined plastic, plastic or metal screw-on lids. Approximately 25 to 30 grams of soil was placed into one of the 60-ml preweighed jars. The 8-ounce companion samples were collected for PID screening, while selected 60-ml samples were submitted for laboratory analyses. The 60-ml plastic containers were filled completely, and the 8-ounce jars were filled approximately halfway. The 60-ml glass and 60-ml plastic containers were placed in a cooler filled with ice. Drake added 20 milliliters (ml) of methanol (a laboratory-supplied preservative) to the 60-ml preweighed glass jars from each sample set selected for analytical testing immediately after adding the soil. Methanol is required when testing for petroleum volatile organic compounds (PVOCs) (Wisconsin Department of Natural Resources—DNR, Leaking Underground Storage Tank [LUST] Analytical and Quality Assurance Guidance, July 1993, PUBL-SW-130 93). The 60-ml glass jars and plastic containers samples were then returned to Drake's facility and refrigerated until laboratory submittal. The 8-ounce companion samples were returned to Drake's field vehicle for screening. Following screening, the 8-ounce samples were returned to the excavation for disposal.

PID SCREENING PROCEDURE

To evaluate the soils for the presence of volatile organic compounds (VOCs), soil samples were screened with an OVM Model 580B photoionization detector (PID) equipped with a 10.6 electron volt (eV) lamp calibrated to isobutylene. The PID provides a qualitative measure of vapors commonly emitted by VOCs with ionization potentials less than 10.6 eV, which include those present in the more volatile petroleum fuels and solvents.

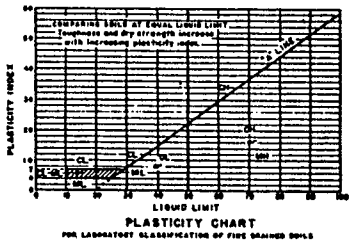
A representative portion of soil was placed into an 8-ounce glass jar and the jar was sealed with a metal lid. The jar was filled about half full with the soil sample. The sealed container was allowed to warm prior to screening. The actual time period the samples are allowed to warm is in general accordance with the Department of Natural Resources (DNR) guidelines set forth in "Leaking Underground Storage Tank (LUST) Field Screening Procedures," PUBL-SW-176, September 1992. The lid of the container was slightly opened, the PID tip was inserted into the headspace (area in the jar above the soil), and the highest reading on the meter was recorded.

Drake considered PID readings greater than 10 an indication of contamination by volatile chemicals. However, lower readings do not necessarily indicate the absence of contamination, because a nonvolatile contaminant, such as motor oil, may be present. PID screening is not as meaningful in such cases. In addition, the PID does not identify the types of chemicals present. All results should be evaluated by considering the contaminants present and the limitations of the PID meter.

SOIL CLASSIFICATION SYSTEM CHART

UNIFIED SOIL CLASSIFICATION
INCLUDING IDENTIFICATION AND DESCRIPTION

FIELD IDENTIFICATION PROCEDURES (Excluding particles larger than 3 inches and basing fractions on estimated weights)				GROUP SYMBOLS [a]	TYPICAL NAMES	INFORMATION REQUIRED FOR DESCRIBING SOILS	LABORATORY CLASSIFICATION CRITERIA
COARSE GRAINED SOILS — More than half of material is larger than No. 200 sieve size [b]	GRAVELS — More than half of coarse fraction is larger than No. 4 sieve size (For visual classifications, the ¼" size may be used as equivalent to the No. 4 sieve size.)	CLEAN GRAVELS (Little or no fines)	Wide range in grain size and substantial amounts of all intermediate particle sizes.	GW	Well graded gravels, gravel-sand mixtures, little or no fines.	Give typical name; indicate approximate percentages of sand and gravel; max. size; angularity, surface condition, and hardness of the coarse grains; local or geologic name and other pertinent descriptive information; and symbol in parentheses. For undisturbed soils add information on stratification, degree of compactness, cementation, moisture conditions and drainage characteristics. EXAMPLE:- Silty sand, gravelly; about 20% hard, angular gravel particles ½-in maximum size; rounded and subangular sand grains coarse to fine; about 15% non-plastic fines with low dry strength; well compacted and moist in place; alluvial sand; (SM)	Determine percentages of gravel and sand from grain size curve. Depending on percentage of fines (fraction smaller than No. 200 sieve size) coarse grained soils are classified as follows:- GW, GP, SW, SP, GM, GC, SM, SC. Borderline cases requiring use of dual symbols. Less than 5% More than 12% 5% to 12%
			Predominantly one size or a range of sizes with some intermediate sizes missing.	GP	Poorly graded gravels, gravel-sand mixtures, little or no fines		
		GRAVELS WITH FINES (Appreciable amount of fines)	Non-plastic fines (for identification procedures see ML below).	GM	Silty gravels, poorly graded gravel-sand-silt mixtures.		
			Plastic fines (for identification procedures see CL below).	GC	Clayey gravels; poorly graded gravel-sand-clay mixtures.		
	SANDS — More than half of coarse fraction is smaller than No. 4 sieve size.	CLEAN SANDS (Little or no fines)	Wide range in grain sizes and substantial amounts of all intermediate particle sizes.	SW	Well graded sands, gravelly sands; little or no fines.		$C_u = \frac{D_{60}}{D_{10}}$ Greater than 4 $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ Between one and 3 Not meeting all gradation requirements for SW Atterberg limits below "A" line, or PI less than 4 Above "A" line with PI between 4 and 7 are borderline cases requiring use of dual symbols. Atterberg limits above "A" line with PI greater than 7
			Predominantly one size or a range of sizes with some intermediate sizes missing.	SP	Poorly graded sands, gravelly sands; little or no fines.		
		SANDS WITH FINES (Appreciable amount of fines)	Non-plastic fines (for identification procedures see ML below).	SM	Silty sands, poorly graded sand-silt mixtures.		$C_u = \frac{D_{60}}{D_{10}}$ Greater than 6 $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ Between one and 3 Not meeting all gradation requirements for SW Atterberg limits below "A" line or PI less than 4 Above "A" line with PI between 4 and 7 are borderline cases requiring use of dual symbols. Atterberg limits above "A" line with PI greater than 7
			Plastic fines (for identification procedures see CL below).	SC	Clayey sands, poorly graded sand-clay mixtures.		
FINE GRAINED SOILS — More than half of material is smaller than No. 200 sieve size. (The No. 200 sieve size is about the smallest particle visible to the naked eye)	IDENTIFICATION PROCEDURES ON FRACTION SMALLER THAN No. 40 SIEVE SIZE						
		DRY STRENGTH (CRUSHING CHARACTERISTICS)	DILATANCY (REACTION TO SHAKING)	TOUGHNESS (CONSISTENCY NEAR PLASTIC LIMIT)			
	SILTS AND CLAYS — Liquid limit less than 50	None to slight	Quick to slow	None	ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands with slight plasticity.	Use grain size curve in identifying the fractions as given under field identification.
		Medium to high	None to very slow	Medium	CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.	
		Slight to medium	Slow	Slight	OL	Organic silts and organic silt-clays of low plasticity.	
	SILTS AND CLAYS — Liquid limit greater than 50	Slight to medium	Slow to none	Slight to medium	MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts.	
		High to very high	None	High	CH	Inorganic clays of high plasticity, fat clays.	
		Medium to high	None to very slow	Slight to medium	OH	Organic clays of medium to high plasticity.	
HIGHLY ORGANIC SOILS		Readily identified by color, odor, spongy feel and frequently by fibrous texture.			Pt	Peat and other highly organic soils.	



PLASTICITY CHART
FOR LABORATORY CLASSIFICATION OF FINE GRAINED SOILS

[a] Boundary classifications:- Soils possessing characteristics of two groups are designated by combinations of group symbols. For example GW-GC, well graded gravel-sand mixture with clay binder.

[b] All sieve sizes on this chart are U.S. standard.

FIELD IDENTIFICATION PROCEDURES FOR FINE GRAINED SOILS OR FRACTIONS

These procedures are to be performed on the minus No. 40 sieve size particles, approximately ½ in. For field classification purposes, screening is not intended, simply remove by hand the coarse particles that interfere with the tests.

DEFINITIONS

COMPONENT SIZE

Cobble = 3-12 in.
Gravel = 0.19-3 in.
Sand = 0.0003-0.19 in.
Silt = 0.0002-0.003 in.
Clay = <0.0002 in.

COMPONENT PERCENTAGES

Trace = 5-15%
Few = 15-25%
Some = 25-35%
And = 35-50%

CONSISTENCY (CLAY SOILS)

Soft = <0.5 tsf
Firm = 0.5-1 tsf
Stiff = 1-2 tsf
Very Stiff = 2-4 tsf
Hard = >4 tsf
tsf = Tons per Square Foot

RELATIVE DENSITY (GRANULAR SOIL)

Very Loose = 1-5 bpf
Loose = 5-9 bpf
Medium = 10-29 bpf
Dense = 30-49 bpf
Very Dense = >50 bpf
bpf = Blows per Foot

DRAKE ENVIRONMENTAL, INC.

11-23-98

NORTHERN LAKE SERVICE, INC.
Analytical Laboratory and Environmental Services
400 North Lake Avenue - Crandon, WI 54520
Tel:(715)478-2777 Fax:(715)478-3060

WIS. LAB CERT. NO. 721026460

ANALYTICAL REPORT

NLS PROJECT# 44650

NLS CUST# 09114

Client: Drake Environmental (Minoc)
Attn: Todd Troskey
8554 Hwy 51 North
P.O. Box 610
Minocqua, WI 54548

Project Description: Fagerlin Fuel Bulk Plant
Project Title: B96070

Sample ID: Soil, T-6 NLS#: 184328
Ref. Line 1 of COC 30099 Description: Soil, T-6
Collected: 11/02/98 Received: 11/04/98 Reported: 11/19/98

Parameter	Result	Units	LOD	LOQ	Method	Analyzed	Lab
Solids, total on solids	78.1	%	0.10		ASTM D2216	11/05/98	721026460
DRO (solid)	70	mg/Kg DWB	2.7	9.4	WI MOD DRO	11/10/98	721026460
	Additional Comments: spike-104%, duplicate-103%, surrogate-92%						
Organics Extraction (DRO)	yes				WI MOD DRO	11/05/98	721026460

Sample ID: Soil, EX-1 NLS#: 184329
Ref. Line 2 of COC 30099 Description: Soil, EX-1
Collected: 11/03/98 Received: 11/04/98 Reported: 11/19/98

Parameter	Result	Units	LOD	LOQ	Method	Analyzed	Lab
Solids, total on solids	79.8	%	0.10		ASTM D2216	11/05/98	721026460
PVOCs (solid) by EPA 8020 (MeOH)	see attached				WI MOD GRO	11/18/98	721026460
DRO (solid)	ND	mg/Kg DWB	2.7	9.4	WI MOD DRO	11/10/98	721026460
	Additional Comments: spike-104%, duplicate-103%, surrogate-91%						
Organics Extraction (DRO)	yes				WI MOD DRO	11/05/98	721026460

NORTHERN LAKE SERVICE, INC.
Analytical Laboratory and Environmental Services
400 North Lake Avenue - Crandon, WI 54520
Tel:(715)478-2777 Fax:(715)478-3060

WIS. LAB CERT. NO. 721026460

ANALYTICAL REPORT

 NLS PROJECT# 44650

NLS CUST# 09114

Client: Drake Environmental (Minoc)
Attn: Todd Troskey
8554 Hwy 51 North
P.O. Box 610
Minocqua, WI 54548

Project Description: Fagerlin Fuel Bulk Plant
Project Title: B96070

Sample ID: Soil, EX-2 NLS#: 184330
Ref. Line 3 of COC 30099 Description: Soil, EX-2
Collected: 11/03/98 Received: 11/04/98 Reported: 11/19/98

Parameter	Result	Units	LOD	LOQ	Method	Analyzed	Lab
Solids, total on solids	81.2	%	0.10		ASTM D2216	11/05/98	721026460
PVOCs (solid) by EPA 8020 (MeOH)	see attached				WI MOD GRO	11/18/98	721026460
DRO (solid)	ND	mg/Kg DWB	2.7	9.4	WI MOD DRO	11/10/98	721026460
	Additional Comments: spike-104%, duplicate-103%, surrogate-92%						
Organics Extraction (DRO)	yes				WI MOD DRO	11/05/98	721026460

Sample ID: Soil, EX-4 NLS#: 184331
Ref. Line 5 of COC 30099 Description: Soil, EX-4
Collected: 11/03/98 Received: 11/04/98 Reported: 11/19/98

Parameter	Result	Units	LOD	LOQ	Method	Analyzed	Lab
Solids, total on solids	78.4	%	0.10		ASTM D2216	11/05/98	721026460
PVOCs (solid) by EPA 8020 (MeOH)	see attached				WI MOD GRO	11/18/98	721026460
DRO (solid)	ND	mg/Kg DWB	2.7	9.4	WI MOD DRO	11/10/98	721026460
	Additional Comments: spike-104%, duplicate-103%, surrogate-91%						
Organics Extraction (DRO)	yes				WI MOD DRO	11/05/98	721026460

NORTHERN LAKE SERVICE, INC.
Analytical Laboratory and Environmental Services
400 North Lake Avenue - Crandon, WI 54520
Tel:(715)478-2777 Fax:(715)478-3060

WIS. LAB CERT. NO. 721026460

ANALYTICAL REPORT

 NLS PROJECT# 44650

NLS CUST# 09114

Client: Drake Environmental (Minoc)
Attn: Todd Troskey
8554 Hwy 51 North
P.O. Box 610
Minocqua, WI 54548

Project Description: Fagerlin Fuel Bulk Plant
Project Title: B96070

Sample ID: Soil, EX-5 **NLS#: 184332**
Ref. Line 6 of COC 30099 Description: Soil, EX-5
Collected: 11/03/98 Received: 11/04/98 Reported: 11/19/98

Parameter	Result	Units	LOD	LOQ	Method	Analyzed	Lab
Solids, total on solids	75.8	%	0.10		ASTM D2216	11/05/98	721026460
PVOCs (solid) by EPA 8020 (MeOH)	see attached				WI MOD GRO	11/18/98	721026460
DRO (solid)	ND	mg/Kg DWB	2.7	9.4	WI MOD DRO	11/10/98	721026460
	Additional Comments: spike-104%, duplicate-103%, surrogate-89%						
Organics Extraction (DRO)	yes				WI MOD DRO	11/05/98	721026460

Sample ID: Soil, EX-6 **NLS#: 184333**
Ref. Line 7 of COC 30099 Description: Soil, EX-6
Collected: 11/03/98 Received: 11/04/98 Reported: 11/19/98

Parameter	Result	Units	LOD	LOQ	Method	Analyzed	Lab
Solids, total on solids	77.0	%	0.10		ASTM D2216	11/05/98	721026460
PVOCs (solid) by EPA 8020 (MeOH)	see attached				WI MOD GRO	11/18/98	721026460
DRO (solid)	ND	mg/Kg DWB	2.7	9.4	WI MOD DRO	11/10/98	721026460
	Additional Comments: spike-104%, duplicate-103%, surrogate-84%						
Organics Extraction (DRO)	yes				WI MOD DRO	11/05/98	721026460

Values in brackets represent results greater than the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than the LOQ are considered to be in the region of "Certain Quantitation".

LOD = Limit of Detection
DWB = Dry Weight Basis
LOQ = Limit of Quantitation
NA = Not Applicable
ND = Not Detected
%DWB = (mg/kg DWB)/10000

Steven R. Cuyi

Reviewed by:

Authorized by:

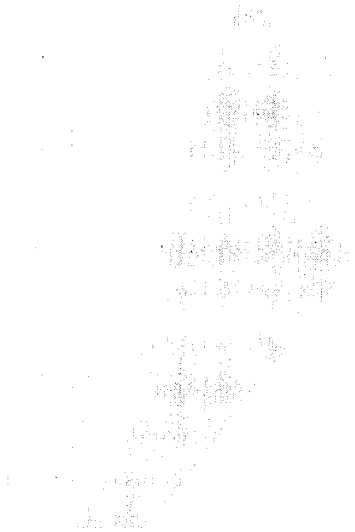
R. T. Krueger
Laboratory Manager

ANALYTICAL RESULTS: WISCONSIN DNR MODIFIED GRO

Customer: Drake Environmental (Minoc)
Project Description: Fagerlin Fuel Bulk Plant Project Title: B96070
Northern Lake Service Project Number: 44650

Analyte Name	184333 Soil, EX-6 ug/Kg	DILUTION FACTOR	LOD ug/Kg	LOQ ug/Kg
MTBE	ND	1	22	73
Benzene	ND	1	25	80
Toluene	ND	1	24	81
Ethylbenzene	ND	1	23	75
M/P-xylene	ND	1	50	160
O-xylene	ND	1	25	94
1,3,5-Trimethylbenzene	ND	1	24	87
1,2,4-Trimethylbenzene	ND	1	24	84

Surrogate Recovery on 1,2,3-Trichlorobenzene = 92.0 %



NORTHERN LAKE SERVICE, INC.

Analytical Laboratory and Environmental Services

400 North Lake Avenue • Crandon, WI 54520
Tel: (715) 478-2777 • Fax: (715) 478-3060

NO. 30099

SAMPLE COLLECTION AND CHAIN OF CUSTODY RECORD

Wisconsin Lab Cert. No. 721026460

RETURN THIS FORM WITH SAMPLES.

CLIENT	PROJECT TITLE	
DAVID RASMUSSEN, JR.	FAGERLIN FUEL BULK PLANT	
ADDRESS	PROJECT NO.	P.O. NO.
P.O. BOX 938	B960070	
CITY / STATE / ZIP	CONTACT	PHONE
SUPERIOR / WI / 54880	DAVID RASMUSSEN, JR.	715-394-5561

ITEM NO.	NLS LAB. NO.	SAMPLE ID	COLLECTION DATE	COLLECTION TIME	SAMPLE TYPE	GRAB/ COMP.	CONTAINER/PRESERVATIVE G/UP	G/HL	P/NP			COLLECTION REMARKS
1.	[illegible]	T-6	11-2-98	1340	SOIL	GRAB	X2		X2			PID = 276
2.	[illegible]	EX-1	11-3-98	0800			X1	X1	X2			<1
3.	[illegible]	EX-2		0815			1	1	2			3
4.	[illegible]	EX-3		0850			1	1	2			<1
5.	[illegible]	EX-4		0933			1	1	2			<1
6.	[illegible]	EX-5	11-3-98	1100	SOIL	GRAB	1	1	2			<1
7.	[illegible]	EX-6		1133			1	1	2			<1
8.												
9.												
10.												
11.												
12.												

SAMPLE TYPE:
SW = surface water; WW = wastewater; GW = groundwater; DW = drinking water; TIS = tissue; AIR = air; PROD = product; SOIL = soil; SED = sediment; describe others

CONTAINER: P = plastic; G = glass; V = glass vial; B = plastic bag; describe others

PRESERVATIVES & PREPARATION: NP = nothing added; S = sulfuric acid; N = nitric acid; Z = zinc acetate; OH = sodium hydroxide; HA = hydrochloric & ascorbic acid; H = hydrochloric acid; F = field filtered

COLLECTED BY (signatures) Todd S. Trusky		CUSTODY SEAL NO. (IF ANY) DATE/TIME 11-4-98 / 732
RELINQUISHED BY (signature) C. Trusky	RECEIVED BY (signature)	DATE/TIME
RELINQUISHED BY (signature)	RECEIVED BY (signature)	DATE/TIME
DISPATCHED BY (signature)	METHOD OF TRANSPORT	DATE/TIME

RECEIVED AT NLS BY (signature)	DATE/TIME	CONDITION	TEMP.
Steven R. Cupp	11/4/98 0730	ON ICE	

SEAL INTACT? ☐ YES ☐ NO | SEAL #

REMARKS & OTHER INFORMATION: did not rec. any sample bottles w/ EX-3 - per Todd

he will resample these at a later date

IMPORTANT: 1. TO MEET REGULATORY REQUIREMENTS, THIS FORM **MUST** BE COMPLETED IN DETAIL AND INCLUDED IN THE SHIPPER CONTAINING THE SAMPLES DESCRIBED.
2. PLEASE USE ONE LINE PER SAMPLE, **NOT** PER BOTTLE.
3. RETURN THIS FORM WITH SAMPLES - CLIENT MAY KEEP PINK COPY.

DUPLICATE COPY

NORTHERN LAKE SERVICE, INC.

400 NORTH LAKE AVENUE
CRANDON, WI 54520 (715)478-2777

ORDER OF ANALYSIS

RESULTS ORDERED BY:	CHAIN OF CUSTODY RECORD NUMBER:
TODD TROSKEY DRAKE ENVIRONMENTAL P.O. Box 610 MINOCQUA, WI 54548	30999 QUOTATION NUMBER: 98590 ANALYZE FOR DISSOLVED OR TOTAL PARAMETERS?
SEND RESULTS TO:	SEND INVOICE TO:
AA 5	DAVID RASMUSSEN, JR. P.O. Box 938 SUPERIOR, WI 54880 C/O DRAKE ENVIRONMENTAL

Note "L" for low level ICP analysis, and "F" for furnace analysis.

Samples on line #s: 4 to be analyzed for the parameters checked below:

- ☐ Alkalinity, total
- ☐ Alkalinity, bicarb.
- ☐ Aluminum
- ☐ Antimony
- ☐ Arsenic
- ☐ Barium
- ☐ Beryllium
- ☐ B.O.D.-5
- ☐ Boron
- ☐ Cadmium
- ☐ Calcium
- ☐ C.O.D.
- ☐ Chloride
- ☐ Chromium
- ☐ Chromium, hexavalent
- ☐ Cobalt
- ☐ Coliform, fecal
- ☐ Color
- ☐ Conductivity
- ☐ Copper
- ☐ _____
- ☐ _____

- ☐ Cyanide, total
- ☐ Amenable
- ☐ Fluoride
- ☐ Hardness
- ☐ Iron
- ☐ Lead
- ☐ Magnesium
- ☐ Manganese
- ☐ Mercury
- ☐ Molybdenum
- ☐ Nickel
- ☐ Nitrogen, total
- ☐ Ammonia
- ☐ Nitrate
- ☐ Nitrite
- ☐ Nitrate + Nitrite
- ☐ Total Kjeldahl
- ☐ Total Organic
- ☐ Oil & Grease
- ☐ pH
- ☐ _____
- ☐ _____

- ☐ Phenols
- ☐ Phosphorus, total
- ☐ Tot. reactive
- ☐ Dis. reactive
- ☐ Potassium
- ☐ Selenium
- ☐ Silica
- ☐ Silver
- ☐ Sodium
- ☐ Solids, total
- ☐ Tot. dissolved
- ☐ Tot. suspended
- ☐ Sulfate
- ☐ Sulfide
- ☐ Surfactants (MBAS)
- ☐ Thallium
- ☐ Tin
- ☐ T.O.C.
- ☐ Turbidity
- ☐ Vanadium
- ☐ Zinc
- ☐ Munic.Sludge,WI List

- ☐ Acid Extractables by 625/8270
- ☐ Base/Neutral Extractables by 625/8270
- ☐ BNAs by 625/8270
- ☐ Chlorinated Hydrocarbons by 612
- ☐ Haloethers by 611
- ☐ Nitrosamines by 607
- ☐ Pesticides-Organochlorine by 608/8080
- ☐ Pesticides-Organophosphate by 3141
- ☐ PCBs by 608/8080
- ☐ Phenols by GC 604/8040
- ☐ Phenoxy Acid Herbicides by 8150
- ☐ TCLP-metals ☐ TCLP-VOCs ☐ TCLP-BNAs
- ☐ TCLP-pesticides/herbicides
- ☐ VOCs by EPA 601+602 or 8010+8020
  - -by EPA 8021
  - -by EPA 624/8240/8260
  - -by EPA 524.2 (SDWA)
- ☐ BTEX by 8020
- ☒ PVOCs by 8020
- ☐ GRO-WI Modified ☐ GRO+PVOCs
- ☒ DRO-WI Modified
- ☒ PAHs by 610LC/8310

Samples on line #s: 2, 3, 5-7 to be analyzed for the parameters checked below:

- ☐ Alkalinity, total
- ☐ Alkalinity, bicarb.
- ☐ Aluminum
- ☐ Antimony
- ☐ Arsenic
- ☐ Barium
- ☐ Beryllium
- ☐ B.O.D.-5
- ☐ Boron
- ☐ Cadmium
- ☐ Calcium
- ☐ C.O.D.
- ☐ Chloride
- ☐ Chromium
- ☐ Chromium, hexavalent
- ☐ Cobalt
- ☐ Coliform, fecal
- ☐ Color
- ☐ Conductivity
- ☐ Copper
- ☐ _____
- ☐ _____

- ☐ Cyanide, total
- ☐ Amenable
- ☐ Fluoride
- ☐ Hardness
- ☐ Iron
- ☐ Lead
- ☐ Magnesium
- ☐ Manganese
- ☐ Mercury
- ☐ Molybdenum
- ☐ Nickel
- ☐ Nitrogen, total
- ☐ Ammonia
- ☐ Nitrate
- ☐ Nitrite
- ☐ Nitrate + Nitrite
- ☐ Total Kjeldahl
- ☐ Total Organic
- ☐ Oil & Grease
- ☐ pH
- ☐ _____
- ☐ _____

- ☐ Phenols
- ☐ Phosphorus, total
- ☐ Tot. reactive
- ☐ Dis. reactive
- ☐ Potassium
- ☐ Selenium
- ☐ Silica
- ☐ Silver
- ☐ Sodium
- ☐ Solids, total
- ☐ Tot. dissolved
- ☐ Tot. suspended
- ☐ Sulfate
- ☐ Sulfide
- ☐ Surfactants (MBAS)
- ☐ Thallium
- ☐ Tin
- ☐ T.O.C.
- ☐ Turbidity
- ☐ Vanadium
- ☐ Zinc
- ☐ Munic.Sludge,WI List

- ☐ Acid Extractables by 625/8270
- ☐ Base/Neutral Extractables by 625/8270
- ☐ BNAs by 625/8270
- ☐ Chlorinated Hydrocarbons by 612
- ☐ Haloethers by 611
- ☐ Nitrosamines by 607
- ☐ Pesticides-Organochlorine by 608/8080
- ☐ Pesticides-Organophosphate by 3141
- ☐ PCBs by 608/8080
- ☐ Phenols by GC 604/8040
- ☐ Phenoxy Acid Herbicides by 8150
- ☐ TCLP-metals ☐ TCLP-VOCs ☐ TCLP-BNAs
- ☐ TCLP-pesticides/herbicides
- ☐ VOCs by EPA 601+602 or 8010+8020
  - -by EPA 8021
  - -by EPA 624/8240/8260
  - -by EPA 524.2 (SDWA)
- ☐ BTEX by 8020
- ☒ PVOCs by 8020
- ☐ GRO-WI Modified ☐ GRO+PVOCs
- ☒ DRO-WI Modified
- ☐ PAHs by 610LC/8310

SPECIAL INSTRUCTIONS: _____

NORTHERN LAKE SERVICE, INC.

400 NORTH LAKE AVENUE
CRANDON, WI 54520 (715)478-2777

ORDER OF ANALYSIS

RESULTS ORDERED BY:	CHAIN OF CUSTODY RECORD NUMBER:
TODD TROSKEY DRAKE ENVIRONMENTAL P.O. Box 610 MINOCQUA, WI 54548	30099
	QUOTATION NUMBER:
	98590
	ANALYZE FOR DISSOLVED OR TOTAL PARAMETERS?
SEND RESULTS TO:	SEND INVOICE TO:
AA	DAVID RASMUSSEN, JR. P.O. Box 938 SUPERIOR, WI 54880 C/O DRAKE ENVIRONMENTAL

Note "L" for low level ICP analysis, and "F" for furnace analysis.

Samples on line #s: 1 to be analyzed for the parameters checked below:

- ☐ Alkalinity, total
- ☐ Alkalinity, bicarb.
- ☐ Aluminum
- ☐ Antimony
- ☐ Arsenic
- ☐ Barium
- ☐ Beryllium
- ☐ B.O.D.-5
- ☐ Boron
- ☐ Cadmium
- ☐ Calcium
- ☐ C.O.D.
- ☐ Chloride
- ☐ Chromium
- ☐ Chromium, hexavalent
- ☐ Cobalt
- ☐ Coliform, fecal
- ☐ Color
- ☐ Conductivity
- ☐ Copper
- ☐ _____
- ☐ _____

- ☐ Cyanide, total
- ☐ Amenable
- ☐ Fluoride
- ☐ Hardness
- ☐ Iron
- ☐ Lead
- ☐ Magnesium
- ☐ Manganese
- ☐ Mercury
- ☐ Molybdenum
- ☐ Nickel
- ☐ Nitrogen, total
- ☐ Ammonia
- ☐ Nitrate
- ☐ Nitrite
- ☐ Nitrate + Nitrite
- ☐ Total Kjeldahl
- ☐ Total Organic
- ☐ Oil & Grease
- ☐ pH
- ☐ _____
- ☐ _____

- ☐ Phenols
- ☐ Phosphorus, total
- ☐ Tot. reactive
- ☐ Dis. reactive
- ☐ Potassium
- ☐ Selenium
- ☐ Silica
- ☐ Silver
- ☐ Sodium
- ☐ Solids, total
- ☐ Tot. dissolved
- ☐ Tot. suspended
- ☐ Sulfate
- ☐ Sulfide
- ☐ Surfactants (MBAS)
- ☐ Thallium
- ☐ Tin
- ☐ T.O.C.
- ☐ Turbidity
- ☐ Vanadium
- ☐ Zinc
- ☐ Munic.Sludge,WI List

- ☐ Acid Extractables by 625/8270
- ☐ Base/Neutral Extractables by 625/8270
- ☐ BNAs by 625/8270
- ☐ Chlorinated Hydrocarbons by 612
- ☐ Haloethers by 611
- ☐ Nitrosamines by 607
- ☐ Pesticides-Organochlorine by 608/8080
- ☐ Pesticides-Organophosphate by 3141
- ☐ PCBs by 608/8080
- ☐ Phenols by GC 604/8040
- ☐ Phenoxy Acid Herbicides by 8150
- ☐ TCLP-metals ☐ TCLP-VOCs ☐ TCLP-BNAs
- ☐ TCLP-pesticides/herbicides
- ☐ VOCs by EPA 601+602 or 8010+8020
- ☐ -by EPA 8021
- ☐ -by EPA 624/8240/8260
- ☐ -by EPA 524.2 (SDWA)
- ☐ BTEX by 8020
- ☐ PVOCs by 8020
- ☐ GRO-WI Modified ☐ GRO+PVOCs
- ☒ DRO-WI Modified
- ☐ PAHs by 610LC/8310

Samples on line #s: _____ to be analyzed for the parameters checked below:

- ☐ Alkalinity, total
- ☐ Alkalinity, bicarb.
- ☐ Aluminum
- ☐ Antimony
- ☐ Arsenic
- ☐ Barium
- ☐ Beryllium
- ☐ B.O.D.-5
- ☐ Boron
- ☐ Cadmium
- ☐ Calcium
- ☐ C.O.D.
- ☐ Chloride
- ☐ Chromium
- ☐ Chromium, hexavalent
- ☐ Cobalt
- ☐ Coliform, fecal
- ☐ Color
- ☐ Conductivity
- ☐ Copper
- ☐ _____
- ☐ _____

- ☐ Cyanide, total
- ☐ Amenable
- ☐ Fluoride
- ☐ Hardness
- ☐ Iron
- ☐ Lead
- ☐ Magnesium
- ☐ Manganese
- ☐ Mercury
- ☐ Molybdenum
- ☐ Nickel
- ☐ Nitrogen, total
- ☐ Ammonia
- ☐ Nitrate
- ☐ Nitrite
- ☐ Nitrate + Nitrite
- ☐ Total Kjeldahl
- ☐ Total Organic
- ☐ Oil & Grease
- ☐ pH
- ☐ _____
- ☐ _____

- ☐ Phenols
- ☐ Phosphorus, total
- ☐ Tot. reactive
- ☐ Dis. reactive
- ☐ Potassium
- ☐ Selenium
- ☐ Silica
- ☐ Silver
- ☐ Sodium
- ☐ Solids, total
- ☐ Tot. dissolved
- ☐ Tot. suspended
- ☐ Sulfate
- ☐ Sulfide
- ☐ Surfactants (MBAS)
- ☐ Thallium
- ☐ Tin
- ☐ T.O.C.
- ☐ Turbidity
- ☐ Vanadium
- ☐ Zinc
- ☐ Munic.Sludge,WI List

- ☐ Acid Extractables by 625/8270
- ☐ Base/Neutral Extractables by 625/8270
- ☐ BNAs by 625/8270
- ☐ Chlorinated Hydrocarbons by 612
- ☐ Haloethers by 611
- ☐ Nitrosamines by 607
- ☐ Pesticides-Organochlorine by 608/8080
- ☐ Pesticides-Organophosphate by 3141
- ☐ PCBs by 608/8080
- ☐ Phenols by GC 604/8040
- ☐ Phenoxy Acid Herbicides by 8150
- ☐ TCLP-metals ☐ TCLP-VOCs ☐ TCLP-BNAs
- ☐ TCLP-pesticides/herbicides
- ☐ VOCs by EPA 601+602 or 8010+8020
- ☐ -by EPA 8021
- ☐ -by EPA 624/8240/8260
- ☐ -by EPA 524.2 (SDWA)
- ☐ BTEX by 8020
- ☐ PVOCs by 8020
- ☐ GRO-WI Modified ☐ GRO+PVOCs
- ☐ DRO-WI Modified
- ☐ PAHs by 610LC/8310

SPECIAL INSTRUCTIONS: _____

ANALYTICAL RESULTS: WISCONSIN DNR MODIFIED GRO

Customer: Drake Environmental (Minoc)
Project Description: Fagerlin Fuel Bulk Plant Project Title: B96070
Northern Lake Service Project Number: 44650

Analyte Name	184329 Soil, EX-1 ug/Kg	DILUTION FACTOR	LOD ug/Kg	LOQ ug/Kg
MTBE	ND	1	22	73
Benzene	ND	1	25	80
Toluene	ND	1	24	81
Ethylbenzene	ND	1	23	75
M/P-xylene	ND	1	50	160
O-xylene	ND	1	25	94
1,3,5-Trimethylbenzene	ND	1	24	87
1,2,4-Trimethylbenzene	ND	1	24	84

Surrogate Recovery on 1,2,3-Trichlorobenzene = 90.0 %

Analyte Name	184330 Soil, EX-2 ug/Kg	DILUTION FACTOR	LOD ug/Kg	LOQ ug/Kg
MTBE	ND	1	22	73
Benzene	ND	1	25	80
Toluene	ND	1	24	81
Ethylbenzene	ND	1	23	75
M/P-xylene	ND	1	50	160
O-xylene	ND	1	25	94
1,3,5-Trimethylbenzene	ND	1	24	87
1,2,4-Trimethylbenzene	ND	1	24	84

Surrogate Recovery on 1,2,3-Trichlorobenzene = 91.0 %

Analyte Name	184331 Soil, EX-4 ug/Kg	DILUTION FACTOR	LOD ug/Kg	LOQ ug/Kg
MTBE	ND	1	22	73
Benzene	ND	1	25	80
Toluene	ND	1	24	81
Ethylbenzene	ND	1	23	75
M/P-xylene	ND	1	50	160
O-xylene	ND	1	25	94
1,3,5-Trimethylbenzene	ND	1	24	87
1,2,4-Trimethylbenzene	ND	1	24	84

Surrogate Recovery on 1,2,3-Trichlorobenzene = 91.0 %

Analyte Name	184332 Soil, EX-5 ug/Kg	DILUTION FACTOR	LOD ug/Kg	LOQ ug/Kg
MTBE	ND	1	22	73
Benzene	ND	1	25	80
Toluene	ND	1	24	81
Ethylbenzene	ND	1	23	75
M/P-xylene	ND	1	50	160
O-xylene	ND	1	25	94
1,3,5-Trimethylbenzene	ND	1	24	87
1,2,4-Trimethylbenzene	ND	1	24	84

Surrogate Recovery on 1,2,3-Trichlorobenzene = 92.0 %

NORTHERN LAKE SERVICE, INC.
Analytical Laboratory and Environmental Services
400 North Lake Avenue - Crandon, WI 54520
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WIS. LAB CERT. NO. 721026460

ANALYTICAL REPORT

NLS PROJECT# 44755

NLS CUST# 09114

Client: Drake Environmental (Minoc)
Attn: Todd Troskey
8554 Hwy 51 North
P.O. Box 610
Minocqua, WI 54548

Project Description: Fagerlin Fuel Bulk Plant
Project Title: B96070

Sample ID: Soil, EX-3 **NLS#: 184832**
Ref. Line 1 of COC 30100 Description: Soil, EX-3
Collected: 11/05/98 Received: 11/09/98 Reported: 11/24/98

Parameter	Result	Units	LOD	LOQ	Method	Analyzed	Lab
Solids, total on solids	75.5	%	0.10		ASTM D2216	11/11/98	721026460
PVOCs (solid) by EPA 8020 (MeOH)	see attached				WI MOD GRO	11/22/98	721026460
PAHs (solid) by SW846 8310	see attached				SW846 8310	11/13/98	721026460
Organics Extraction for PAHs	yes				SW846 3500	11/11/98	721026460
DRO (solid)	ND	mg/Kg DWB	2.7	9.4	WI MOD DRO	11/13/98	721026460
	Additional Comments: spike-104%, duplicate-104%, surrogate-87%						
Organics Extraction (DRO)	yes				WI MOD DRO	11/10/98	721026460

Sample ID: Soil, EX-7 **NLS#: 184833**
Ref. Line 2 of COC 30100 Description: Soil, EX-7
Collected: 11/05/98 Received: 11/09/98 Reported: 11/24/98

Parameter	Result	Units	LOD	LOQ	Method	Analyzed	Lab
Solids, total on solids	77.3	%	0.10		ASTM D2216	11/11/98	721026460
PVOCs (solid) by EPA 8020 (MeOH)	see attached				WI MOD GRO	11/22/98	721026460
DRO (solid)	ND	mg/Kg DWB	2.7	9.4	WI MOD DRO	11/13/98	721026460
	Additional Comments: spike-104%, duplicate-104%, surrogate-86%						
Organics Extraction (DRO)	yes				WI MOD DRO	11/10/98	721026460

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WIS. LAB CERT. NO. 721026460

ANALYTICAL REPORT

 NLS PROJECT# 44755
NLS CUST# 09114

Client: Drake Environmental (Minoc)
Attn: Todd Troskey
8554 Hwy 51 North
P.O. Box 610
Minocqua, WI 54548

Project Description: Fagerlin Fuel Bulk Plant
Project Title: B96070

Sample ID: Soil, T-28 NLS#: 184834
Ref. Line 3 of COC 30100 Description: Soil, T-28
Collected: 11/05/98 Received: 11/09/98 Reported: 11/24/98

Parameter	Result	Units	LOD	LOQ	Method	Analyzed	Lab
Solids, total on solids	80.2	%	0.10		ASTM D2216	11/11/98	721026460
DRO (solid)	110	mg/Kg DWB	2.7	9.4	WI MOD DRO	11/13/98	721026460
	Additional Comments: spike-104%, duplicate-104%, surrogate-84%						
Organics Extraction (DRO)	yes				WI MOD DRO	11/10/98	721026460

Sample ID: Soil, EX-8 NLS#: 184835
Ref. Line 4 of COC 30100 Description: Soil, EX-8
Collected: 11/05/98 Received: 11/09/98 Reported: 11/24/98

Parameter	Result	Units	LOD	LOQ	Method	Analyzed	Lab
Solids, total on solids	76.5	%	0.10		ASTM D2216	11/11/98	721026460
PVOCs (solid) by EPA 8020 (MeOH)	see attached				WI MOD GRO	11/22/98	721026460
PAHs (solid) by SW846 8310	see attached				SW846 8310	11/13/98	721026460
Organics Extraction for PAHs	yes				SW846 3500	11/11/98	721026460
DRO (solid)	ND	mg/Kg DWB	2.7	9.4	WI MOD DRO	11/13/98	721026460
	Additional Comments: spike-104%, duplicate-104%, surrogate-88%						
Organics Extraction (DRO)	yes				WI MOD DRO	11/10/98	721026460

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WIS. LAB CERT. NO. 721026460

ANALYTICAL REPORT

 NLS PROJECT# 44755

NLS CUST# 09114

Client: Drake Environmental (Minoc)
Attn: Todd Troskey
8554 Hwy 51 North
P.O. Box 610
Minocqua, WI 54548

Project Description: Fagerlin Fuel Bulk Plant
Project Title: B96070

Sample ID: Soil, EX-9 **NLS#: 184836**
Ref. Line 5 of COC 30100 Description: Soil, EX-9
Collected: 11/05/98 Received: 11/09/98 Reported: 11/24/98

Parameter	Result	Units	LOD	LOQ	Method	Analyzed	Lab
Solids, total on solids	78.8	%	0.10		ASTM D2216	11/11/98	721026460
PVOCs (solid) by EPA 8020 (MeOH)	see attached				WI MOD GRO	11/22/98	721026460
PAHs (solid) by SW846 8310	see attached				SW846 8310	11/13/98	721026460
Organics Extraction for PAHs	yes				SW846 3500	11/11/98	721026460
DRO (solid)	ND	mg/Kg DWB	2.7	9.4	WI MOD DRO	11/13/98	721026460
	Additional Comments: spike-104%, duplicate-104%, surrogate-82%						
Organics Extraction (DRO)	yes				WI MOD DRO	11/10/98	721026460

Sample ID: Soil, EX-10 **NLS#: 184837**
Ref. Line 6 of COC 30100 Description: Soil, EX-10
Collected: 11/05/98 Received: 11/09/98 Reported: 11/24/98

Parameter	Result	Units	LOD	LOQ	Method	Analyzed	Lab
Solids, total on solids	76.6	%	0.10		ASTM D2216	11/11/98	721026460
PVOCs (solid) by EPA 8020 (MeOH)	see attached				WI MOD GRO	11/22/98	721026460
DRO (solid)	ND	mg/Kg DWB	2.7	9.4	WI MOD DRO	11/13/98	721026460
	Additional Comments: spike-104%, duplicate-104%, surrogate-88%						
Organics Extraction (DRO)	yes				WI MOD DRO	11/10/98	721026460

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WIS. LAB CERT. NO. 721026460

ANALYTICAL REPORT

 NLS PROJECT# 44755
NLS CUST# 09114

Client: Drake Environmental (Minoc)
Attn: Todd Troskey
8554 Hwy 51 North
P.O. Box 610
Minocqua, WI 54548

Project Description: Fagerlin Fuel Bulk Plant
Project Title: B96070

Sample ID: Soil, EX-11 **NLS#: 184838**
Ref. Line 7 of COC 30100 Description: Soil, EX-11
Collected: 11/05/98 Received: 11/09/98 Reported: 11/24/98

Parameter	Result	Units	LOD	LOQ	Method	Analyzed	Lab
Solids, total on solids	77.5	%	0.10		ASTM D2216	11/11/98	721026460
PVOCs (solid) by EPA 8020 (MeOH)	see attached				WI MOD GRO	11/22/98	721026460
PAHs (solid) by SW846 8310	see attached				SW846 8310	11/13/98	721026460
Organics Extraction for PAHs	yes				SW846 3500	11/11/98	721026460
DRO (solid)	ND	mg/Kg DWB	2.7	9.4	WI MOD DRO	11/13/98	721026460
	Additional Comments: spike-104%, duplicate-104%, surrogate-80%						
Organics Extraction (DRO)	yes				WI MOD DRO	11/10/98	721026460

Sample ID: Soil, EX-12 **NLS#: 184839**
Ref. Line 8 of COC 30100 Description: Soil, EX-12
Collected: 11/05/98 Received: 11/09/98 Reported: 11/24/98

Parameter	Result	Units	LOD	LOQ	Method	Analyzed	Lab
Solids, total on solids	75.9	%	0.10		ASTM D2216	11/11/98	721026460
PVOCs (solid) by EPA 8020 (MeOH)	see attached				WI MOD GRO	11/22/98	721026460
PAHs (solid) by SW846 8310	see attached				SW846 8310	11/13/98	721026460
Organics Extraction for PAHs	yes				SW846 3500	11/11/98	721026460
DRO (solid)	< 3.3 >	mg/Kg DWB	2.7	9.4	WI MOD DRO	11/13/98	721026460
	Additional Comments: spike-104%, duplicate-104%, surrogate-89%						
Organics Extraction (DRO)	yes				WI MOD DRO	11/10/98	721026460

Values in brackets represent results greater than the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than the LOQ are considered to be in the region of "Certain Quantitation".

LOD = Limit of Detection
LOQ = Limit of Quantitation
ND = Not Detected
DWB = Dry Weight Basis
NA = Not Applicable
%DWB = (mg/kg DWB)/10000

Reviewed by:

Authorized by:
R. T. Krueger
Laboratory Manager

ANALYTICAL RESULTS: WISCONSIN DNR MODIFIED GRO

Customer: Drake Environmental (Minoc)
Project Description: Fagerlin Fuel Bulk Plant Project Title: B96070
Northern Lake Service Project Number: 44755

Analyte Name	184832 Soil, EX-3 ug/Kg	DILUTION FACTOR	LOD ug/Kg	LOQ ug/Kg
MTBE	ND	1	22	73
Benzene	ND	1	25	80
Toluene	ND	1	24	81
Ethylbenzene	ND	1	23	75
M/P-xylene	ND	1	50	160
O-xylene	ND	1	25	94
1,3,5-Trimethylbenzene	ND	1	24	87
1,2,4-Trimethylbenzene	ND	1	24	84

Surrogate Recovery on 1,2,3-Trichlorobenzene = 92.8 %

Analyte Name	184833 Soil, EX-7 ug/Kg	DILUTION FACTOR	LOD ug/Kg	LOQ ug/Kg
MTBE	ND	1	22	73
Benzene	ND	1	25	80
Toluene	ND	1	24	81
Ethylbenzene	ND	1	23	75
M/P-xylene	ND	1	50	160
O-xylene	ND	1	25	94
1,3,5-Trimethylbenzene	ND	1	24	87
1,2,4-Trimethylbenzene	ND	1	24	84

Surrogate Recovery on 1,2,3-Trichlorobenzene = 92.5 %

Analyte Name	184835 Soil, EX-8 ug/Kg	DILUTION FACTOR	LOD ug/Kg	LOQ ug/Kg
MTBE	ND	1	22	73
Benzene	ND	1	25	80
Toluene	ND	1	24	81
Ethylbenzene	ND	1	23	75
M/P-xylene	ND	1	50	160
O-xylene	ND	1	25	94
1,3,5-Trimethylbenzene	ND	1	24	87
1,2,4-Trimethylbenzene	ND	1	24	84

Surrogate Recovery on 1,2,3-Trichlorobenzene = 95.5 %

Analyte Name	184836 Soil, EX-9 ug/Kg	DILUTION FACTOR	LOD ug/Kg	LOQ ug/Kg
MTBE	ND	1	22	73
Benzene	ND	1	25	80
Toluene	ND	1	24	81
Ethylbenzene	ND	1	23	75
M/P-xylene	ND	1	50	160
O-xylene	ND	1	25	94
1,3,5-Trimethylbenzene	ND	1	24	87
1,2,4-Trimethylbenzene	ND	1	24	84

Surrogate Recovery on 1,2,3-Trichlorobenzene = 102 %

ANALYTICAL RESULTS: WISCONSIN DNR MODIFIED GRO

Customer: Drake Environmental (Minoc)
Project Description: Fagerlin Fuel Bulk Plant Project Title: B96070
Northern Lake Service Project Number: 44755

Analyte Name	184837 Soil, EX-10 ug/Kg	DILUTION FACTOR	LOD ug/Kg	LOQ ug/Kg
MTBE	ND	1	22	73
Benzene	ND	1	25	80
Toluene	ND	1	24	81
Ethylbenzene	ND	1	23	75
M/P-xylene	ND	1	50	160
O-xylene	ND	1	25	94
1,3,5-Trimethylbenzene	ND	1	24	87
1,2,4-Trimethylbenzene	ND	1	24	84

Surrogate Recovery on 1,2,3-Trichlorobenzene = 96.9 %

Analyte Name	184838 Soil, EX-11 ug/Kg	DILUTION FACTOR	LOD ug/Kg	LOQ ug/Kg
MTBE	ND	1	22	73
Benzene	ND	1	25	80
Toluene	ND	1	24	81
Ethylbenzene	ND	1	23	75
M/P-xylene	ND	1	50	160
O-xylene	ND	1	25	94
1,3,5-Trimethylbenzene	ND	1	24	87
1,2,4-Trimethylbenzene	ND	1	24	84

Surrogate Recovery on 1,2,3-Trichlorobenzene = 94.2 %

Analyte Name	184839 Soil, EX-12 ug/Kg	DILUTION FACTOR	LOD ug/Kg	LOQ ug/Kg
MTBE	ND	1	22	73
Benzene	ND	1	25	80
Toluene	ND	1	24	81
Ethylbenzene	ND	1	23	75
M/P-xylene	ND	1	50	160
O-xylene	ND	1	25	94
1,3,5-Trimethylbenzene	ND	1	24	87
1,2,4-Trimethylbenzene	ND	1	24	84

Surrogate Recovery on 1,2,3-Trichlorobenzene = 93.7 %

ANALYTICAL RESULTS: Polynuclear Aromatic Hydrocarbons by EPA 8310 (S)

Customer: Drake Environmental (Minoc)
Project Description: Fagerlin Fuel Bulk Plant Project Title: B96070
Northern Lake Service Project Number: 44755

Analyte Name	184832 Soil, EX-3 ug/kg	DILUTION FACTOR	LOD ug/kg	LOQ ug/kg
Acenaphthene	ND	1	3.6	12
Acenaphthylene	ND	1	2.2	7.4
Anthracene	ND	1	3.0	10
Benzo (a) anthracene	ND	1	3.8	13
Benzo (a) pyrene	ND	1	3.5	12
Benzo (b) fluoranthene	ND	1	3.7	12
Benzo (g,h,i) perylene	ND	1	4.1	14
Benzo (k) fluoranthene	ND	1	4.1	14
Chrysene	ND	1	3.9	13
Dibenzo (a,h) anthracene	ND	1	4.0	13
Fluoranthene	ND	1	3.9	13
Fluorene	ND	1	3.7	13
Indeno (1,2,3-cd) pyrene	ND	1	3.9	13
Methyl-1-Naphthalene	ND	1	3.7	12
Methyl-2-Naphthalene	ND	1	4.3	14
Naphthalene	ND	1	3.5	12
Phenanthrene	ND	1	3.7	12
Pyrene	ND	1	3.7	14

Surrogate Recovery on P-Terphenyl = 45.0 %

Analyte Name	184835 Soil, EX-8 ug/kg	DILUTION FACTOR	LOD ug/kg	LOQ ug/kg
Acenaphthene	ND	1	3.6	12
Acenaphthylene	ND	1	2.2	7.3
Anthracene	ND	1	3.0	10
Benzo (a) anthracene	ND	1	3.7	12
Benzo (a) pyrene	ND	1	3.4	11
Benzo (b) fluoranthene	ND	1	3.6	12
Benzo (g,h,i) perylene	ND	1	4.0	13
Benzo (k) fluoranthene	ND	1	4.0	13
Chrysene	ND	1	3.9	13
Dibenzo (a,h) anthracene	ND	1	3.9	13
Fluoranthene	ND	1	3.8	13
Fluorene	ND	1	3.7	12
Indeno (1,2,3-cd) pyrene	ND	1	3.8	13
Methyl-1-Naphthalene	ND	1	3.7	12
Methyl-2-Naphthalene	ND	1	4.2	14
Naphthalene	ND	1	3.5	12
Phenanthrene	ND	1	3.7	12
Pyrene	ND	1	3.7	14

Surrogate Recovery on P-Terphenyl = 47.0 %

ANALYTICAL RESULTS: Polynuclear Aromatic Hydrocarbons by EPA 8310 (S)

Customer: Drake Environmental (Minoc)
Project Description: Fagerlin Fuel Bulk Plant Project Title: B96070
Northern Lake Service Project Number: 44755

Analyte Name	184836 Soil, EX-9 ug/kg	DILUTION FACTOR	LOD ug/kg	LOQ ug/kg
Acenaphthene	ND	1	3.5	12
Acenaphthylene	ND	1	2.1	7.1
Anthracene	ND	1	2.9	9.7
Benzo (a) anthracene	ND	1	3.6	12
Benzo (a) pyrene	ND	1	3.3	11
Benzo (b) fluoranthene	ND	1	3.5	12
Benzo (g,h,i) perylene	ND	1	3.9	13
Benzo (k) fluoranthene	ND	1	3.9	13
Chrysene	ND	1	3.8	13
Dibenzo (a,h) anthracene	ND	1	3.8	13
Fluoranthene	ND	1	3.7	12
Fluorene	ND	1	3.6	12
Indeno (1,2,3-cd) pyrene	ND	1	3.7	12
Methyl-1-Naphthalene	ND	1	3.6	12
Methyl-2-Naphthalene	ND	1	4.1	14
Naphthalene	ND	1	3.4	11
Phenanthrene	ND	1	3.6	12
Pyrene	ND	1	3.6	14

Surrogate Recovery on P-Terphenyl = 41.0 %

Analyte Name	184838 Soil, EX-11 ug/kg	DILUTION FACTOR	LOD ug/kg	LOQ ug/kg
Acenaphthene	ND	1	3.5	12
Acenaphthylene	ND	1	2.2	7.2
Anthracene	ND	1	3.0	9.9
Benzo (a) anthracene	ND	1	3.7	12
Benzo (a) pyrene	ND	1	3.4	11
Benzo (b) fluoranthene	ND	1	3.6	12
Benzo (g,h,i) perylene	ND	1	3.9	13
Benzo (k) fluoranthene	ND	1	3.9	13
Chrysene	ND	1	3.8	13
Dibenzo (a,h) anthracene	ND	1	3.9	13
Fluoranthene	ND	1	3.8	13
Fluorene	ND	1	3.7	12
Indeno (1,2,3-cd) pyrene	ND	1	3.8	13
Methyl-1-Naphthalene	ND	1	3.6	12
Methyl-2-Naphthalene	ND	1	4.2	14
Naphthalene	ND	1	3.4	11
Phenanthrene	ND	1	3.7	12
Pyrene	ND	1	3.6	14

Surrogate Recovery on P-Terphenyl = 38.0 %

ANALYTICAL RESULTS: Polynuclear Aromatic Hydrocarbons by EPA 8310 (S)

Customer: Drake Environmental (Minoc)
Project Description: Fagerlin Fuel Bulk Plant Project Title: B96070
Northern Lake Service Project Number: 44755

Analyte Name	184839 Soil, EX-12 ug/kg	DILUTION FACTOR	LOD ug/kg	LOQ ug/kg
Acenaphthene	ND	1	3.6	12
Acenaphthylene	ND	1	2.2	7.4
Anthracene	ND	1	3.0	10
Benzo (a) anthracene	ND	1	3.8	13
Benzo (a) pyrene	ND	1	3.4	11
Benzo (b) fluoranthene	ND	1	3.6	12
Benzo (g,h,i) perylene	ND	1	4.0	13
Benzo (k) fluoranthene	ND	1	4.0	13
Chrysene	ND	1	3.9	13
Dibenzo (a,h) anthracene	ND	1	4.0	13
Fluoranthene	ND	1	3.9	13
Fluorene	ND	1	3.7	12
Indeno (1,2,3-cd) pyrene	ND	1	3.9	13
Methyl-1-Naphthalene	ND	1	3.7	12
Methyl-2-Naphthalene	ND	1	4.3	14
Naphthalene	ND	1	3.5	12
Phenanthrene	ND	1	3.7	12
Pyrene	ND	1	3.7	14

Surrogate Recovery on P-Terphenyl = 40.0 %

NORTHERN LAKE SERVICE, INC.

Analytical Laboratory and Environmental Services

400 North Lake Avenue • Crandon, WI 54520
Tel: (715) 478-2777 • Fax: (715) 478-3060

NO. 30100

SAMPLE COLLECTION AND CHAIN OF CUSTODY RECORD

Wisconsin Lab Cert. No. 721026460

RETURN THIS FORM WITH SAMPLES.

CLIENT	PROJECT TITLE
DAVID RASMUSSEN, JR.	FAGERLIN FUEL BULK PLANT
ADDRESS: P.O. Box 938	PROJECT NO.: B96070 / P.O. NO.:
CITY: SUPERIOR / STATE: WI / ZIP: 54880	CONTACT: TODD TROSKE/ c/o DRAKE ENV. / PHONE: (715) 358-7018

ITEM NO.	NLS LAB. NO.	SAMPLE ID	COLLECTION DATE	COLLECTION TIME	SAMPLE TYPE	GRAB/ COMP.	CONTAINER/PRESERVATIVE G/NP	G/ME	P/NP			COLLECTION REMARKS
1.		EX-3	11/5/98	0810	SOIL	GRAB	2	1	1			PID = <1
2.		EX-7		0850			1	1	1			= <1
3.		T-28		0910			1		1			= 147
4.		EX-8		0945			2	1	1			= 2
5.		EX-9		1100			2	1	1			= 2
6.		EX-10		1106			1	1	1			= 4
7.		EX-11		1130			2	1	1			= 4
8.		EX-12		1135			2	1	1			= 2
9.		~~FIELD BLANK~~		1115	MEOH	—		1				
10.		~~T-44~~	11/5/98	1140	"	"	1		1			= 89
11.												
12.												

SAMPLE TYPE:
SW = surface water; WW = wastewater; GW = groundwater; DW = drinking water; TIS = tissue; AIR = air; PROD = product; SOIL = soil; SED = sediment; describe others

CONTAINER: P = plastic; G = glass; V = glass vial; B = plastic bag; describe others

PRESERVATIVES & PREPARATION: NP = nothing added; S = sulfuric acid; N = nitric acid; Z = zinc acetate; OH = sodium hydroxide; HA = hydrochloric & ascorbic acid; H = hydrochloric acid; F = field filtered

COLLECTED BY (signatures): Todd D. Troske	CUSTODY SEAL NO. (IF ANY):	DATE/TIME: 11/9/98 / 0730
RELINQUISHED BY (signature)	RECEIVED BY (signature)	DATE/TIME
RELINQUISHED BY (signature)	RECEIVED BY (signature)	DATE/TIME
DISPATCHED BY (signature)	METHOD OF TRANSPORT	DATE/TIME

RECEIVED AT NLS BY (signature)	DATE/TIME	CONDITION	TEMP.
Steven R. Cupi	11/9/98 0730	ON ICE	1.7

SEAL INTACT? ☐ YES ☐ NO — SEAL #

REMARKS & OTHER INFORMATION: per Todd- omit #9 & #10 - rush night Batties - on order of analysis

Changes on ~~remarks~~ by me - per Todd · DMW 11-09-98

IMPORTANT: 1. TO MEET REGULATORY REQUIREMENTS, THIS FORM **MUST** BE COMPLETED IN DETAIL AND INCLUDED IN THE SHIPPER CONTAINING THE SAMPLES DESCRIBED.
2. PLEASE USE ONE LINE PER SAMPLE, **NOT** PER BOTTLE.
3. RETURN THIS FORM WITH SAMPLES - CLIENT MAY KEEP PINK COPY.

DUPLICATE COPY
JHS 11/25/98

NORTHERN LAKE SERVICE, INC.

400 NORTH LAKE AVENUE
CRANDON, WI 54520 (715)478-2777

ORDER OF ANALYSIS

RESULTS ORDERED BY:	CHAIN OF CUSTODY RECORD NUMBER:
TODD TROSKEY DRAKE ENV. P.O. Box 610 MINOCQUA, WI 54548	30100
	QUOTATION NUMBER:
	ANALYZE FOR DISSOLVED OR TOTAL PARAMETERS?
SEND RESULTS TO:	SEND INVOICE TO:
[redacted] DAVID RASMUSSEN, JR. P.O. Box 938 SUPERIOR, WI 54880 c/o DRAKE ENV.	TODD TROSKEY / DRAKE ENV. P.O. Box 610 MINOCQUA, WI 54548

Note "L" for low level ICP analysis, and "F" for furnace analysis.

Samples on line #s: 1, 4, 5, ~~11~~ 12 (9) (8) **to be analyzed for the parameters checked below:**

- ☐ Alkalinity, total
- ☐ Alkalinity, bicarb.
- ☐ Aluminum
- ☐ Antimony
- ☐ Arsenic
- ☐ Barium
- ☐ Beryllium
- ☐ B.O.D.-5
- ☐ Boron
- ☐ Cadmium
- ☐ Calcium
- ☐ C.O.D.
- ☐ Chloride
- ☐ Chromium
- ☐ Chromium, hexavalent
- ☐ Cobalt
- ☐ Coliform, fecal
- ☐ Coliform, total
- ☐ Color
- ☐ Conductivity
- ☐ Copper
- ☐ _____
- ☐ Cyanide, total
- ☐ Amenable
- ☐ Fluoride
- ☐ Hardness
- ☐ Iron
- ☐ Lead
- ☐ Magnesium
- ☐ Manganese
- ☐ Mercury
- ☐ Molybdenum
- ☐ Nickel
- ☐ Nitrogen, total
- ☐ Ammonia
- ☐ Nitrate
- ☐ Nitrite
- ☐ Nitrate + Nitrite
- ☐ Total Kjeldahl
- ☐ Total Organic
- ☐ Oil & Grease
- ☐ pH
- ☐ _____
- ☐ _____
- ☐ Phenols
- ☐ Phosphorus, total
- ☐ Tot. reactive
- ☐ Dis. reactive
- ☐ Potassium
- ☐ Selenium
- ☐ Silica
- ☐ Silver
- ☐ Sodium
- ☐ Solids, total
- ☐ Tot. dissolved
- ☐ Tot. suspended
- ☐ Sulfate
- ☐ Sulfide
- ☐ Surfactants (MBAS)
- ☐ Thallium
- ☐ Tin
- ☐ T.O.C.
- ☐ Turbidity
- ☐ Vanadium
- ☐ Zinc
- ☐ Munic.Sludge,WI List
- ☐ Acid Extractables by 625/8270
- ☐ Base/Neutral Extractables by 625/8270
- ☐ BNAs by 625/8270
- ☐ Chlorinated Hydrocarbons by 612
- ☐ Haloethers by 611
- ☐ Nitrosamines by 607
- ☐ Pesticides-Organochlorine by 608/8080
- ☐ Pesticides-Organophosphate by 8141
- ☐ PCBs by 608/8080
- ☐ Phenols by GC 604/8040
- ☐ Phenoxy Acid Herbicides by 8150
- ☐ TCLP-metals ☐ TCLP-VOCs ☐ TCLP-BNAs
- ☐ TCLP-pesticides/herbicides
- ☐ VOCs by EPA 601+602 or 8010+8020
- ☐ -by EPA 8021
- ☐ -by EPA 624/8260
- ☐ -by EPA 524.2 (SDWA)
- ☐ BTEX by 8020
- ☒ PVOCs by 8020
- ☐ GRO-WI Modified ☐ GRO + PVOCs
- ☒ DRO-WI Modified
- ☒ PAHs by 610LC/8310

Samples on line #s: 2, ~~10~~ (6) **to be analyzed for the parameters checked below:**

- ☐ Alkalinity, total
- ☐ Alkalinity, bicarb.
- ☐ Aluminum
- ☐ Antimony
- ☐ Arsenic
- ☐ Barium
- ☐ Beryllium
- ☐ B.O.D.-5
- ☐ Boron
- ☐ Cadmium
- ☐ Calcium
- ☐ C.O.D.
- ☐ Chloride
- ☐ Chromium
- ☐ Chromium, hexavalent
- ☐ Cobalt
- ☐ Coliform, fecal
- ☐ Coliform, total
- ☐ Color
- ☐ Conductivity
- ☐ Copper
- ☐ _____
- ☐ Cyanide, total
- ☐ Amenable
- ☐ Fluoride
- ☐ Hardness
- ☐ Iron
- ☐ Lead
- ☐ Magnesium
- ☐ Manganese
- ☐ Mercury
- ☐ Molybdenum
- ☐ Nickel
- ☐ Nitrogen, total
- ☐ Ammonia
- ☐ Nitrate
- ☐ Nitrite
- ☐ Nitrate + Nitrite
- ☐ Total Kjeldahl
- ☐ Total Organic
- ☐ Oil & Grease
- ☐ pH
- ☐ _____
- ☐ _____
- ☐ Phenols
- ☐ Phosphorus, total
- ☐ Tot. reactive
- ☐ Dis. reactive
- ☐ Potassium
- ☐ Selenium
- ☐ Silica
- ☐ Silver
- ☐ Sodium
- ☐ Solids, total
- ☐ Tot. dissolved
- ☐ Tot. suspended
- ☐ Sulfate
- ☐ Sulfide
- ☐ Surfactants (MBAS)
- ☐ Thallium
- ☐ Tin
- ☐ T.O.C.
- ☐ Turbidity
- ☐ Vanadium
- ☐ Zinc
- ☐ Munic.Sludge,WI List
- ☐ Acid Extractables by 625/8270
- ☐ Base/Neutral Extractables by 625/8270
- ☐ BNAs by 625/8270
- ☐ Chlorinated Hydrocarbons by 612
- ☐ Haloethers by 611
- ☐ Nitrosamines by 607
- ☐ Pesticides-Organochlorine by 608/8080
- ☐ Pesticides-Organophosphate by 8141
- ☐ PCBs by 608/8080
- ☐ Phenols by GC 604/8040
- ☐ Phenoxy Acid Herbicides by 8150
- ☐ TCLP-metals ☐ TCLP-VOCs ☐ TCLP-BNAs
- ☐ TCLP-pesticides/herbicides
- ☐ VOCs by EPA 601+602 or 8010+8020
- ☐ -by EPA 8021
- ☐ -by EPA 624/8260
- ☐ -by EPA 524.2 (SDWA)
- ☐ BTEX by 8020
- ☒ PVOCs by 8020
- ☐ GRO-WI Modified ☐ GRO + PVOCs
- ☒ DRO-WI Modified
- ☐ PAHs by 610LC/8310

SPECIAL INSTRUCTIONS: _____

NORTHERN LAKE SERVICE, INC.

400 NORTH LAKE AVENUE
CRANDON, WI 54520 (715)478-2777

ORDER OF ANALYSIS

RESULTS ORDERED BY:	CHAIN OF CUSTODY RECORD NUMBER:
TODD TROSKEY DRAKE ENVIRONMENTAL P.O. Box 610 MINOCQUA, WI 54548	30100
	QUOTATION NUMBER:
	ANALYZE FOR DISSOLVED OR TOTAL PARAMETERS?
SEND RESULTS TO:	SEND INVOICE TO:
DRAKE ENVIRONMENTAL TODD TROSKEY P.O. Box 610 MINOCQUA, WI 54548	DAVID RASMUSSEN JR. FARRLIN FUEL, INC. P.O. Box 938 SUPERIOR WI 54880 c/o DRAKE ENV.

Note "L" for low level ICP analysis, and "F" for furnace analysis.

Samples on line #s: 3, 10 **to be analyzed for the parameters checked below:**

- ☐ Alkalinity, total
- ☐ Alkalinity, bicarb.
- ☐ Aluminum
- ☐ Antimony
- ☐ Arsenic
- ☐ Barium
- ☐ Beryllium
- ☐ B.O.D.-5
- ☐ Boron
- ☐ Cadmium
- ☐ Calcium
- ☐ C.O.D.
- ☐ Chloride
- ☐ Chromium
- ☐ Chromium, hexavalent
- ☐ Cobalt
- ☐ Coliform, fecal
- ☐ Coliform, total
- ☐ Color
- ☐ Conductivity
- ☐ Copper
- ☐ _____

- ☐ Cyanide, total
- ☐ Amenable
- ☐ Fluoride
- ☐ Hardness
- ☐ Iron
- ☐ Lead
- ☐ Magnesium
- ☐ Manganese
- ☐ Mercury
- ☐ Molybdenum
- ☐ Nickel
- ☐ Nitrogen, total
- ☐ Ammonia
- ☐ Nitrate
- ☐ Nitrite
- ☐ Nitrate + Nitrite
- ☐ Total Kjeldahl
- ☐ Total Organic
- ☐ Oil & Grease
- ☐ pH
- ☐ _____
- ☐ _____

- ☐ Phenols
- ☐ Phosphorus, total
- ☐ Tot. reactive
- ☐ Dis. reactive
- ☐ Potassium
- ☐ Selenium
- ☐ Silica
- ☐ Silver
- ☐ Sodium
- ☐ Solids, total
- ☐ Tot. dissolved
- ☐ Tot. suspended
- ☐ Sulfate
- ☐ Sulfide
- ☐ Surfactants (MBAS)
- ☐ Thallium
- ☐ Tin
- ☐ T.O.C.
- ☐ Turbidity
- ☐ Vanadium
- ☐ Zinc
- ☐ Munic.Sludge,WI List

- ☐ Acid Extractables by 625/8270
- ☐ Base/Neutral Extractables by 625/8270
- ☐ BNAs by 625/8270
- ☐ Chlorinated Hydrocarbons by 612
- ☐ Haloethers by 611
- ☐ Nitrosamines by 607
- ☐ Pesticides-Organochlorine by 608/8080
- ☐ Pesticides-Organophosphate by 8141
- ☐ PCBs by 608/8080
- ☐ Phenols by GC 604/8040
- ☐ Phenoxy Acid Herbicides by 8150
- ☐ TCLP-metals ☐ TCLP-VOCs ☐ TCLP-BNAs
- ☐ TCLP-pesticides/herbicides
- ☐ VOCs by EPA 601+602 or 8010+8020
- ☐ -by EPA 8021
- ☐ -by EPA 624/8260
- ☐ -by EPA 524.2 (SDWA)
- ☐ BTEX by 8020
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- ☐ GRO-WI Modified ☐ GRO + PVOCs
- ☒ DRO-WI Modified
- ☐ PAHs by 610LC/8310

Samples on line #s: _____ **to be analyzed for the parameters checked below:**

- ☐ Alkalinity, total
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- ☐ Aluminum
- ☐ Antimony
- ☐ Arsenic
- ☐ Barium
- ☐ Beryllium
- ☐ B.O.D.-5
- ☐ Boron
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- ☐ C.O.D.
- ☐ Chloride
- ☐ Chromium
- ☐ Chromium, hexavalent
- ☐ Cobalt
- ☐ Coliform, fecal
- ☐ Coliform, total
- ☐ Color
- ☐ Conductivity
- ☐ Copper
- ☐ _____

- ☐ Cyanide, total
- ☐ Amenable
- ☐ Fluoride
- ☐ Hardness
- ☐ Iron
- ☐ Lead
- ☐ Magnesium
- ☐ Manganese
- ☐ Mercury
- ☐ Molybdenum
- ☐ Nickel
- ☐ Nitrogen, total
- ☐ Ammonia
- ☐ Nitrate
- ☐ Nitrite
- ☐ Nitrate + Nitrite
- ☐ Total Kjeldahl
- ☐ Total Organic
- ☐ Oil & Grease
- ☐ pH
- ☐ _____
- ☐ _____

- ☐ Phenols
- ☐ Phosphorus, total
- ☐ Tot. reactive
- ☐ Dis. reactive
- ☐ Potassium
- ☐ Selenium
- ☐ Silica
- ☐ Silver
- ☐ Sodium
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- ☐ Tot. dissolved
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- ☐ Phenoxy Acid Herbicides by 8150
- ☐ TCLP-metals ☐ TCLP-VOCs ☐ TCLP-BNAs
- ☐ TCLP-pesticides/herbicides
- ☐ VOCs by EPA 601+602 or 8010+8020
- ☐ -by EPA 8021
- ☐ -by EPA 624/8260
- ☐ -by EPA 524.2 (SDWA)
- ☐ BTEX by 8020
- ☐ PVOCs by 8020
- ☐ GRO-WI Modified ☐ GRO + PVOCs
- ☐ DRO-WI Modified
- ☐ PAHs by 610LC/8310

SPECIAL INSTRUCTIONS: _____

UNDERGROUND STORAGE TANK
CLOSURE DOCUMENTATION PROCEDURES

On March 2 and 5, 1998, the two 20,000-gallon fuel oil underground storage tanks (USTs) were removed from the property. In addition, the 12,000-gallon kerosene UST was removed after site soil remediation was completed. The USTs were registered on the Wisconsin Department of Commerce UST database.

The USTs were cleaned by Superior Engineering, Inc. of Superior, Wisconsin, and disposed of by Kimmes Construction. A copy of the UST disposal receipt will be provided, if requested.

Approximately 40 gallons of petroleum product and tank sludge were removed from the USTs. A copy of the UST sludge disposal receipt will be provided, if requested. Mr. Rick Rugg of the City of Superior Fire Department (ILHR 10 inspector) was present during the UST removal and cleanings. Obvious petroleum odors and soil staining were observed around and below the two fuel oil USTs. The USTs were in good condition, with no noticeable holes and minor rusting and pitting. The piping associated with the USTs was in good condition. The piping fittings that were below ground were fairly brittle. The Checklist for Tank Closure and Underground Petroleum Product Tank Inventory forms are included in Appendix D.

Complete one form for each site closure.

The information you provide may be used by other government agency programs (Privacy Law, s.15.04 (1)(m)).

CHECKLIST FOR TANK CLOSURE

CHECK ONE:
☐ UNDERGROUND
☒ ABOVEGROUND
FOR PORTIONS OF THE FORM THAT DO NOT APPLY, CHECK THE N/A BOX

RETURN COMPLETED CHECKLIST TO:
Wisconsin Department of Commerce
ERS Division
Bureau of Storage Tank Regulation
P.O. Box 7969
Madison, WI 53707

A. IDENTIFICATION: (Please Print) Indicate whether closure is for: ☒ Tank System ☐ Tank Only ☐ Piping Only

1. Site Name	2. Owner Name
Fagerlin Fuel Inc	Fagerlin Fuel Inc
Site Street Address (not P.O. Box)	Owner Street Address
1124 N 6th St	1124 N 6th St
☒ City ☐ Village ☐ Town of:	☒ City ☐ Village ☐ Town of:
Superior	Superior
State: Wisconsin	Zip Code: 54880
County: Douglas	County: Douglas
	Telephone No. (include area code): (715) 394-5561
3. Closure Company Name (print)	Closure Company Street Address
Superior Engineering Inc	1725 Tower Ave
Closure Company Telephone No. (include area code)	Closure Company City, State, Zip Code
(715) 392-2236	Superior Wisconsin 54880
4. Name of Company Performing Closure Assessment	Assessment Company Street Address, City, State, Zip Code
Telephone # (include area code) ( )	Certified Assessor Name (print) / Assessor Signature / Assessor Certification No.

Tank ID #	Closure	Temp. Closure	Closure in Place	Tank Capacity	Contents*	Closure Assessment
1. 160100039	☒	☐	☐	12,000	14	☒ Y ☐ N
2. 160100041	☒	☐	☐	20,000	04	☒ Y ☐ N
3. 160100042	☒	☐	☐	20,000	04	☒ Y ☐ N
4.	☐	☐	☐			☐ Y ☐ N
5.	☐	☐	☐			☐ Y ☐ N
6.	☐	☐	☐			☐ Y ☐ N

* Indicate which product by numeric code: 01-Diesel; 02-Leaded; 03-Unleaded; 04-Fuel Oil; 05-Gasohol; 06-Other:_____; 10-Premix; 11-Waste Oil; 13-Chemical (indicate the chemical name(s) or number(s) _____ _____ _____; 14-Kerosene; 15-Aviation.

Written notification was provided to the local agent 15 days in advance of closure date. ☒ Y ☐ N ☐ NA
All local permits were obtained before beginning closure. ☒ Y ☐ N ☐ NA

Check applicable box at right in response to all statements in Sections B-E.	Remover Verified		Inspector Verified	NA
B. TEMPORARILY OUT OF SERVICE				
Written inspector approval of temporary closure obtained, which is effective until (provide date) _____	☐ Y	☐ N	☐	☐
1. Product Removed				
a. Product lines drained into tank (or other container) and resulting liquid removed, AND	☐ Y	☐ N	☐	☐
b. All product removed to bottom of suction line, OR	☐ Y	☐ N	☐	☐
c. All product removed to within 1" of bottom.	☐ Y	☐ N	☐	☐
2. Fill pipe, gauge pipe, tank truck vapor recovery fittings, and vapor return lines capped.	☐ Y	☐ N	☐	☐
3. All product lines at the islands or pumps located elsewhere are removed and capped, OR	☐ Y	☐ N	☐	☐
4. Dispensers/pumps left in place but locked and power disconnected.	☐ Y	☐ N	☐	☐
5. Vent lines left open.	☐ Y	☐ N	☐	☐
6. Inventory form filed indicating temporary closure.	☐ Y	☐ N	☐	☐
C. CLOSURE BY REMOVAL				
1. Product from piping drained into tank (or other container).	☒ Y	☐ N	☐	☐
2. Piping disconnected from tank and removed.	☒ Y	☐ N	☐	☐
3. All liquid and residue removed from tank using explosion proof pumps or hand pumps.	☒ Y	☐ N	☐	☐
4. All pump motors and suction hoses bonded to tank or otherwise grounded.	☒ Y	☐ N	☐	☐
5. Fill pipes, gauge pipes, vapor recovery connections, submersible pumps and other fixtures removed.	☒ Y	☐ N	☐	☐
NOTE: DROP TUBE SHOULD NOT BE REMOVED IF THE TANK IS TO BE PURGED THROUGH THE USE OF AN EDUCTOR.				
6. Vent lines left connected until tanks purged.	☒ Y	☐ N	☐	☐
7. Tank openings temporarily plugged so vapors exit through vent.	☒ Y	☐ N	☐	☐
8. Tank atmosphere reduced to 10% of the lower flammable range (LEL) - see Section F. 0% LEL	☒ Y	☐ N	☐	☐
9. Tank removed from excavation after PURGING/INERTING; placed on level ground and blocked to prevent movement.	☒ Y	☐ N	☐	☐
10. Tank cleaned before being removed from site.	☒ Y	☐ N	☐	☐

- CONTINUE ON NEXT PAGE -

C. CLOSURE BY REMOVAL (continued)	Remover Verified	Inspector Verified	NA
11. Tank labeled in 2" high letters after removal but before being moved from site.	☒Y ☐N	☐	☐
NOTE: COMPLETE TANK LABELING SHOULD INCLUDE WARNING AGAINST REUSE; FORMER CONTENTS; VAPOR STATE; VAPOR FREEING TREATMENT; DATE.			
12. Tank vent hole (1/8" in uppermost part of tank) installed prior to moving the tank from site.	☐Y ☐N	☐	☒
13. Inventory form ERS-7437 filed by owner with the Department of Commerce indicating closure by removal.	☒Y ☐N	☐	☐
14. Site security is provided while the excavation is open.	☒Y ☐N	☐	☐

D. CLOSURE IN PLACE			
NOTE: CLOSURES IN PLACE ARE ONLY ALLOWED WITH THE PRIOR WRITTEN APPROVAL OF THE DEPARTMENT OF COMMERCE OR LOCAL AGENT.			
1. Product from piping drained into tank (or other container).	☐Y ☐N	☐	☐
2. Piping disconnected from tank and removed.	☐Y ☐N	☐	☐
3. All liquid and residue removed from tank using explosion proof pumps or hand pumps.	☐Y ☐N	☐	☐
4. All pump motors and suction hoses bonded to tank or otherwise grounded.	☐y ☐N	☐	☐
5. Fill pipes, gauge pipes, vapor recovery connections, submersible pumps and other fixtures removed.	☐Y ☐N	☐	☐
NOTE: DROP TUBE SHOULD NOT BE REMOVED IF THE TANK IS TO BE PURGED THROUGH THE USE OF AN EDUCTOR - EDUCTOR OUTPUT 12 FT. ABOVE GRADE.			
6. Vent lines left connected until tanks purged.	☐Y ☐N	☐	☐
7. Tank openings temporarily plugged so vapors exit through vent.	☐Y ☐N	☐	☐
8. Tank atmosphere reduced to 10% of the lower flammable range (LEL) see Section F.	☐Y ☐N	☐	☐
9. Tank properly cleaned to remove all sludge and residue.	☐Y ☐N	☐	☐
10. Solid inert material (sand, cyclone boiler slag, pea gravel recommended) introduced and tank filled.	☐Y ☐N	☐	☐
11. Vent line disconnected or removed.	☐Y ☐N	☐	☐
12. Inventory form filed by owner with the Department of Commerce indicating closure in place.	☐Y ☐N	☐	☐

E. CLOSURE ASSESSMENTS Site is in Remediation

NOTE: DETERMINE IF A CLOSURE ASSESSMENT IS REQUIRED BY REFERRING TO ILHR 10.

1. Individual conducting the assessment has a closure assessment plan (written) which is used as the basis for their work on the site.	☐Y ☐N	☐	☐
2. Do points of obvious contamination exist?	☐Y ☐N	☐	☐
3. Are there strong odors in the soils?	☐Y ☐N	☐	☐
4. Was a field screening instrument used to pre-screen soil sample locations?	☐Y ☐N	☐	☐
5. Was a closure assessment omitted because of obvious contamination?	☐Y ☐N	☐	☐
6. Was the DNR notified of suspected or obvious contamination?	☒Y ☐N	☐	☐

Agency, office and person contacted: WDNR HQ Chris Saari 09/18/96

7. Contamination suspected because of: ☒Odor ☒Soil Staining ☐Free Product ☐Sheen on Groundwater ☐Field Instrument Test

F. METHOD OF ACHIEVING 10% LEVEL DESCRIPTION

☐Eductor Or Diffused Air Blower
Eductor driven by compressed air, bonded and drop tube left in place; vapors discharged minimum of 12 feet above ground. Diffused air blower bonded and drop tube removed. Air pressure not exceeding 5 psig.

☐Dry Ice
Dry Ice introduced at 1.5 pounds per 100 gallons of tank capacity. Dry ice crushed and distributed over the greatest possible tank area. Dry ice evaporated before proceeding.

☐Inert Gas (CO/2 or N/2) NOTE: INERT GASSES PRODUCE AN OXYGEN DEFICIENT ATMOSPHERE. THE TANK MAY NOT BE ENTERED IN THIS STATE WITHOUT SPECIAL EQUIPMENT.
Gas introduced through a single opening at a point near the bottom of the tank at the end of the tank opposite the vent. Gas introduced under low pressure not to exceed 5 psig to reduce static electricity. Gas introducing device grounded.

☒Tank atmosphere monitored for flammable or combustible vapor levels.
Calibrate combustible gas indicator. Drop tube removed prior to checking atmosphere. Tank space monitored at bottom, middle and upper portion of tank. Readings of 10% or less of the lower flammable range (LEL) obtained before removing tank from ground.

G. NOTE SPECIFIC PROBLEMS OR NONCOMPLIANCE ISSUES BELOW

H. REMOVER/CLEANER INFORMATION

Remover Name (print)	Remover Signature	Remover Certification No.	Date Signed
Richard M Haglund	Richard M Haglund	42003	11-05-96

I. INSPECTOR INFORMATION

Inspector Name (print)	Inspector Signature	Inspector Certification No.

FDID # For Location Where Inspection Performed	Inspector Telephone Number	Date Signed

TANK INVENTORY FORM ERS-7437 SIGNED BY THE OWNER MUST BE SUBMITTED WITH EACH CLOSURE CHECKLIST

DEPT OF COMMERCE/BUREAU OF STORAGE TANK REGULATION

Wisconsin Department of Industry, Labor and Human Relations

For Office Use Only:
Tank ID # 16010 0042

UNDERGROUND PETROLEUM PRODUCT TANK INVENTORY

Information Required By Sec. 102.142, Wis. Stats.

Send Completed Form To:
Safety & Buildings Division
P.O. Box 7969
Madison, WI 53707
Telephone: (608) 267-5280

Underground tanks in Wisconsin that have stored or currently store petroleum or regulated substances must be registered. 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 (included 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. Have you previously registered this tank by submitting a form? ☒ YES ☐ NO If yes, are you correcting/updating information only? ☒ Yes ☐ No

The information you provide may be used by other government agency programs (Privacy Law, s. 15.04 (1) (m)).

This registration applies to a tank that is (check one):
1A. ☐ In Use or 1B. ☐ Newly Installed
2. ☐ Abandoned With Product
3. ☐ Abandoned No Product (empty) or With Water
4. ☒ Closed - Tank Removed
6. ☐ Closed - Filled With Inert Material
7. ☐ Out of Service - Provide Date: _____
8. ☐ Changed Ownership (Indicate new owner below)

Fire Department Providing Fire Coverage Where Tank Located: Superior Fire Dept #1601

A. IDENTIFICATION: (Please Print)

1. Tank Site Name	Site Address	Site Telephone No.
Fagerlin Fuel	1124 N 6th Street	(715) 394-5561

☒ City ☐ Village ☐ Town of:	State	Zip Code	County
Superior	Wisconsin	54880	Douglas

2. Owner Name (mail sent here unless indicated otherwise in #3 below)	Owner Mailing Address (mail sent here unless indicated otherwise in #3)
SAME	

☐ City ☐ Village ☐ Town of:	State	Zip Code	County

3. Alternate Mailing Name If Different Than #2	Alternate Mailing Street Address If Different From #2

☐ City ☐ Village ☐ Town of:	State	Zip Code	County

4. Tank Age (date installed, if known; or years old)	5. Tank Capacity (gallons)	6. Tank Manufacturer's Name (if known)

B. 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): _____

C. TANK CONSTRUCTION:
1. ☐ Bare Steel
2. ☐ Cathodically Protected and Coated Steel (A. ☐ Sacrificial Anodes or B. ☐ Impressed Current)
3. ☒ Coated Steel
4. ☐ Fiberglass
5. ☐ Other (specify): _____
6. ☐ Relined - Date _____
7. ☐ Steel - Fiberglass Reinforced Plastic Composite
9. ☐ Unknown

Approval: 1. ☐ Nat'l Std. 2. ☐ UL 3. ☐ Other: Unknown
Is Tank Double Walled? ☐ Yes ☒ No
Overfill Protection Provided? ☐ Yes ☒ No If yes, identify type:
Spill Containment? ☐ Yes ☒ No

Tank leak detection method: 1. ☐ Automatic tank gauging 2. ☐ Vapor monitoring 3. ☐ Groundwater monitoring 4. ☒ Inventory control and tightness testing 5. ☐ Interstitial monitoring 6. ☐ Not required at present 7. ☐ Manual Tank Gauging (only for tanks of 1,000 gallons or less)

D. PIPING CONSTRUCTION
1. ☐ Bare Steel 2. ☐ Cathodically Protected and Coated or Wrapped Steel (A. ☐ Sacrificial Anodes or B. ☐ Impressed Current) 3. ☒ Coated Steel
4. ☐ Fiberglass 5. ☐ Other (specify): _____ 9. ☐ Unknown

Piping System Type: 1. ☐ Pressurized piping with: A. ☐ auto shutoff; B. ☐ alarm; or C. ☐ flow restrictor 2. ☒ Suction piping with check valve at tank 3. ☐ Suction piping with check valve at pump and inspectable

Piping leak detection method: used if pressurized or check valve at tank: 1. ☐ Vapor monitoring 2. ☐ Interstitial monitoring 3. ☐ Groundwater monitoring 4. ☒ Tightness testing 5. ☐ Line Leak Detector 6. ☐ Not Required

Approval: 1. ☐ Nat'l Std 2. ☐ UL 3. ☐ Other: Unknown
Double Walled: ☐ Yes ☒ No

E. TANK CONTENTS
1. ☐ Diesel
2. ☐ Leaded
3. ☐ Unleaded
4. ☒ Fuel Oil
5. ☐ Gasohol
6. ☐ Other
7. ☐ Empty
8. ☐ Sand/Gravel/Slurry
9. ☐ Unknown
10. ☐ Premix
11. ☐ Waste Oil
12. ☐ Propane
13. ☐ Chemical * _____
14. ☐ Kerosene
15. ☐ Aviation

* If # 13 is checked, indicate the chemical name(s) or number(s) of the chemical or waste.

If Tank Closed, Give Date (mo/day/yr):	Has a site assessment been completed? (see reverse side for details)
11-05-98	☐ Yes ☒ No Remediation

If installation of a new tank is being reported, indicate who performed the installation inspection:
1. ☐ Fire Department 2. ☐ DILHR 3. ☐ Other (identify) _____

Name of Owner or Operator (please print):	Indicate Whether:
David P. Rasmussen Jr.	☐ Owner or ☒ Operator

Signature of Owner or Operator:	Date Signed:
David P. Rasmussen Jr.	11-9-98

SBD-7437 (R. 05/94)

IMPORTANT: Complete as many items on this form as possible. Failure to provide sufficient information may cause you to fall under additional regulations.

Wisconsin Department of Industry, Labor and Human Relations

For Office Use Only:
Tank ID # 160100041

UNDERGROUND PETROLEUM PRODUCT TANK INVENTORY

Information Required By Sec. 102.142, Wis. Stats.

Send Completed Form To:
Safety & Buildings Division
P.O. Box 7969
Madison, WI 53707
Telephone: (608) 267-5280

Underground tanks in Wisconsin that have stored or currently store petroleum or regulated substances must be registered. 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 (included 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. Have you previously registered this tank by submitting a form? ☑ YES ☐ NO If yes, are you correcting/updating information only? ☑ Yes ☐ No

The information you provide may be used by other government agency programs [Privacy Law, s. 15.04 (1) (m)].

This registration applies to a tank that is (check one):
1A. ☐ In Use or 1B. ☐ Newly Installed
2. ☐ Abandoned With Product
3. ☐ Abandoned No Product (empty) or With Water
4. ☑ Closed - Tank Removed
6. ☐ Closed - Filled With Inert Material
7. ☐ Out of Service - Provide Date: _____
8. ☐ Changed Ownership (Indicate new owner below)

Fire Department Providing Fire Coverage Where Tank Located: Superior Fire Dept #1601

A. IDENTIFICATION: (Please Print)

1. Tank Site Name: Fagerlin Fuel | Site Address: 1124 N 6th Street | Site Telephone No.: (715) 394-5564

☑ City ☐ Village ☐ Town of: Superior | State: Wisconsin | Zip Code: 54880 | County: Douglas

2. Owner Name (mail sent here unless indicated otherwise in #3 below): SAME | Owner Mailing Address (mail sent here unless indicated otherwise in #3)

☐ City ☐ Village ☐ Town of: | State | Zip Code | County

3. Alternate Mailing Name If Different Than #2 | Alternate Mailing Street Address If Different From #2

☐ City ☐ Village ☐ Town of: | State | Zip Code | County

4. Tank Age (date installed, if known: or years old): 28 | 5. Tank Capacity (gallons): 20,000 | 6. Tank Manufacturer's Name (if known)

B. 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): _____

C. TANK CONSTRUCTION:
1. ☐ Bare Steel 2. ☐ Cathodically Protected and Coated Steel (A. ☐ Sacrificial Anodes or B. ☐ Impressed Current)
3. ☒ Coated Steel 4. ☐ Fiberglass 5. ☐ Other (specify): _____
6. ☐ Relined - Date _____ 7. ☐ Steel - Fiberglass Reinforced Plastic Composite 9. ☐ Unknown

Approval: 1. ☐ Nat'l Std. 2. ☐ UL 3. ☐ Other: Unknown | Is Tank Double Walled? ☐ Yes ☒ No

Overfill Protection Provided? ☐ Yes ☒ No If yes, identify type: | Spill Containment? ☐ Yes ☑ No

Tank leak detection method: 1. ☐ Automatic tank gauging 2. ☐ Vapor monitoring 3. ☐ Groundwater monitoring 4. ☒ Inventory control and tightness testing 5. ☐ Interstitial monitoring 6. ☐ Not required at present 7. ☐ Manual Tank Gauging (only for tanks of 1,000 gallons or less)

D. PIPING CONSTRUCTION
1. ☐ Bare Steel 2. ☐ Cathodically Protected and Coated or Wrapped Steel (A. ☐ Sacrificial Anodes or B. ☐ Impressed Current) 3. ☒ Coated Steel
4. ☐ Fiberglass 5. ☐ Other (specify): _____ 9. ☐ Unknown

Piping System Type: 1. ☐ Pressurized piping with: A. ☐ auto shutoff; B. ☐ alarm; or C. ☐ flow restrictor 2. ☒ Suction piping with check valve at tank
3. ☐ Suction piping with check valve at pump and inspectable

Piping leak detection method: used if pressurized or check valve at tank: 1. ☐ Vapor monitoring 2. ☐ Interstitial monitoring
3. ☐ Groundwater monitoring 4. ☒ Tightness testing 5. ☐ Line Leak Detector 6. ☐ Not Required

Approval: 1. ☐ Nat'l Std 2. ☐ UL 3. ☐ Other: Unknown | Double Walled: ☐ Yes ☒ No

E. TANK CONTENTS
1. ☐ Diesel 2. ☐ Leaded 3. ☐ Unleaded 4. ☑ Fuel Oil
5. ☐ Gasohol 6. ☐ Other 7. ☐ Empty 8. ☐ Sand/Gravel/Slurry
9. ☐ Unknown 10. ☐ Premix 11. ☐ Waste Oil 12. ☐ Propane
13. ☐ Chemical * _____ 14. ☐ Kerosene 15. ☐ Aviation

* If # 13 is checked, indicate the chemical name(s) or number(s) of the chemical or waste.

If Tank Closed, Give Date (mo/day/yr): 11-05-98 | Has a site assessment been completed? (see reverse side for details) ☐ Yes ☒ No Remediation

If installation of a new tank is being reported, indicate who performed the installation inspection:
1. ☐ Fire Department 2. ☐ DILHR 3. ☐ Other (identify) _____

Name of Owner or Operator (please print): David P. Rasmussen Sr | Indicate Whether: ☐ Owner or ☑ Operator

Signature of Owner or Operator: David P. Rasmussen | Date Signed: 11-9-98

SBD-7437 (R. 05/94) IMPORTANT: Complete as many items on this form as possible. Failure to provide sufficient information may cause you to fall under additional regulations.

Wisconsin Department of Industry, Labor and Human Relations

For Office Use Only:
Tank ID # 160100039

UNDERGROUND PETROLEUM PRODUCT TANK INVENTORY

Information Required By Sec. 102.142, Wis. Stats.

Send Completed Form To:
Safety & Buildings Division
P.O. Box 7969
Madison, WI 53707
Telephone: (608) 267-5280

Underground tanks in Wisconsin that have stored or currently store petroleum or regulated substances must be registered. 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 (included 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. Have you previously registered this tank by submitting a form? ☒ YES ☐ NO If yes, are you correcting/updating information only? ☒ Yes ☐ No

The information you provide may be used by other government agency programs [Privacy Law, s. 15.04 (1) (m)].

This registration applies to a tank that is (check one):
1A. ☐ In Use or 1B. ☐ Newly Installed
2. ☐ Abandoned With Product
3. ☐ Abandoned No Product (empty) or With Water
4. ☒ Closed - Tank Removed
5. ☐ Closed - Filled With Inert Material
7. ☐ Out of Service - Provide Date: _____
8. ☐ Changed Ownership (Indicate new owner below)

Fire Department Providing Fire Coverage Where Tank Located: Superior Fire Dept #1601

A. IDENTIFICATION: (Please Print)

1. Tank Site Name	Site Address	Site Telephone No.
Fagerlin Fuel	1124 N 6th Street	(715) 394-5561

☒ City ☐ Village ☐ Town of:	State	Zip Code	County
Superior	Wisconsin	54880	Douglas

2. Owner Name (mail sent here unless indicated otherwise in #3 below)	Owner Mailing Address (mail sent here unless indicated otherwise in #3)		
SAME			
☐ City ☐ Village ☐ Town of:	State	Zip Code	County

3. Alternate Mailing Name if Different Than #2	Alternate Mailing Street Address If Different From #2		
☐ City ☐ Village ☐ Town of:	State	Zip Code	County

4. Tank Age (date installed, if known; or years old)	5. Tank Capacity (gallons)	6. Tank Manufacturer's Name (if known)
20	12,000	Unknown

B. 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): _____

C. TANK CONSTRUCTION:
1. ☐ Bare Steel 2. ☐ Cathodically Protected and Coated Steel (A. ☐ Sacrificial Anodes or B. ☐ Impressed Current)
3. ☒ Coated Steel 4. ☐ Fiberglass 5. ☐ Other (specify): _____
6. ☐ Relined - Date _____ 7. ☐ Steel - Fiberglass Reinforced Plastic Composite 9. ☐ Unknown

Approval: 1. ☐ Nat'l Std. 2. ☐ UL 3. ☐ Other: Unknown	Is Tank Double Walled? ☐ Yes ☒ No
Overfill Protection Provided? ☐ Yes ☒ No If yes, identify type:	Spill Containment? ☐ Yes ☒ No

Tank leak detection method: 1. ☐ Automatic tank gauging 2. ☐ Vapor monitoring 3. ☐ Groundwater monitoring 4. ☒ Inventory control and tightness testing 5. ☐ Interstitial monitoring 6. ☐ Not required at present 7. ☐ Manual Tank Gauging (only for tanks of 1,000 gallons or less)

D. PIPING CONSTRUCTION
1. ☐ Bare Steel 2. ☐ Cathodically Protected and Coated or Wrapped Steel (A. ☐ Sacrificial Anodes or B. ☐ Impressed Current) 3. ☒ Coated Steel
4. ☐ Fiberglass 5. ☐ Other (specify): _____ 9. ☐ Unknown

Piping System Type: 1. ☐ Pressurized piping with: A. ☐ auto shutoff; B. ☐ alarm; or C. ☐ flow restrictor 2. ☒ Suction piping with check valve at tank
3. ☐ Suction piping with check valve at pump and inspectable

Piping leak detection method: used if pressurized or check valve at tank: 1. ☐ Vapor monitoring 2. ☐ Interstitial monitoring
3. ☐ Groundwater monitoring 4. ☒ Tightness testing 5. ☐ Line Leak Detector 6. ☐ Not Required

Approval: 1. ☐ Nat'l Std 2. ☐ UL 3. ☐ Other: Unknown	Double Walled: ☐ Yes ☒ No

E. TANK CONTENTS
1. ☐ Diesel 2. ☐ Leaded 3. ☐ Unleaded 4. ☐ Fuel Oil
5. ☐ Gasohol 6. ☐ Other 7. ☐ Empty 8. ☐ Sand/Gravel/Slurry
9. ☐ Unknown 10. ☐ Premix 11. ☐ Waste Oil 12. ☐ Propane
13. ☐ Chemical * _____ _____ _____ 14. ☒ Kerosene 15. ☐ Aviation

* If # 13 is checked, indicate the chemical name(s) or number(s) of the chemical or waste.

If Tank Closed, Give Date (mo/day/yr):	Has a site assessment been completed? (see reverse side for details)
11-05-98	☒ Yes ☒ No Remediation

If installation of a new tank is being reported, indicate who performed the installation inspection:
1. ☐ Fire Department 2. ☐ DILHR 3. ☐ Other (identify) _____

Name of Owner or Operator (please print):	Indicate Whether:
David P. Rasmussen Jr.	
Signature of Owner or Operator: David P. Rasmussen Jr.	Date Signed: 11-9-98

SBD-7437 (R. 05/94) IMPORTANT: Complete as many items on this form as possible. Failure to provide sufficient information may cause you to fall under additional regulations.

LAKEHEAD BLACKTOP
& MATERIALS
ALBANY PLANT, SUP. WI

TIME 9:26 DATE 11 05 98

11725 CN

(63820) lb GROSS

26000 lb (TARE

37820 lb NET

18-11

Haerlin Fuel
Company Name

Address

State

Cont. Soil

K-6 / Larry C.
Authorized Signature/Truck No.

LAKEHEAD BLACKTOP
& MATERIALS
ALBANY PLANT, SUP. WI

TIME 10:06 DATE 11 05 98

11729 CN

(73460) lb GROSS

26000 lb (TARE

47460 lb NET

23.73

Tagerlin Fuel
Company Name

Address

State

Cont. Soil

K-6 Larry S.
Authorized Signature/Truck No.

LAKEHEAD BLACKTOP
& MATERIALS
ALBANY PLANT, SUP. WI

TIME 9:32 DATE 11 05 98

11727 CN

(79480) lb GROSS

28440 lb (TARE

51040 lb NET

25.52

Tagerlin Fuel
Company Name

Address

State

Cont. Soil

K-24- Larry C.
Authorized Signature/Truck No.

Tagerlin Fuel
Company Name

Address

State

Cont. Soil

LAKEHEAD BLACKTOP
& MATERIALS
ALBANY PLANT, SUP. WI

TIME 10:42 DATE 11 05 98

11739 CN

(64880) lb GROSS

26000 lb (TARE

38880 lb NET

19.44

K-6 Larry S.
Authorized Signature/Truck No.

2

Tagerlin Fuel
Company Name

Address

State

Cont. Soil

LAKEHEAD BLACKTOP
& MATERIALS
ALBANY PLANT, SUP. WI

TIME 10:08 DATE 11 05 98

11731 CN

(77740) lb GROSS

28440 lb (TARE

49300 lb NET

24.65

K-24- Larry C.
Authorized Signature/Truck No.

LAKEHEAD BLACKTOP
& MATERIALS
ALBANY PLANT, SUP. WI

TIME 11:19 DATE 11 05 98

11746 CN

(32560) lb GROSS

() lb TARE

() lb NET

TARE WT.

Company Name

Address

State

Authorized Signature/Truck No.

LAKEHEAD BLACKTOP
& MATERIALS
ALBANY PLANT, SUP. WI

TIME 10:51 DATE 11 05 98

11741 CN

(82220) lb GROSS

28440 lb (TARE

53780 lb NET

26.89

Tagerlin Fuel

Company Name

Address

State

Cont. Soil

K-24 Larry C.

Authorized Signature/Truck No.

LAKEHEAD BLACKTOP
& MATERIALS
ALBANY PLANT, SUP. WI

TIME 11:23 DATE 11 05 98

11748 CN

(65660) lb GROSS

26000 lb (TARE

39660 lb NET

19.83

Jaqerlin Fuel
Company Name

Address

State

Cont. Soil

K-6 Larry S.
Authorized Signature/Truck No.

LAKEHEAD BLACKTOP
& MATERIALS
ALBANY PLANT, SUP. WI

TIME 11:14 DATE 11 05 98

11744 CN

(79200) lb GROSS

32560() lb TARE

46640() lb NET

23.32

Jaqerlin Fuel
Company Name

Address

Lagro-L-39
State

Cont. Soil

Authorized Signature/Truck No.

LAKEHEAD BLACKTOP
& MATERIALS
ALBANY PLANT, SUP. WI

TIME 11:59 DATE 11 05 98

11755 CN

(85280) lb GROSS

32560 lb (TARE

52720 lb NET

26.36

Fagerlin Fuel
Company Name

Address

State

Cont Soil

L39
Authorized Signature/Truck No.

LAKEHEAD BLACKTOP
& MATERIALS
ALBANY PLANT, SUP. WI

TIME 11:27 DATE 11 05 98

11751 CN

(70040) lb GROSS

28440 lb (TARE

41600 lb NET

20.8

Fagerlin Fuel
Company Name

Address

State

Cont. Soil

K-24- Larry C.
Authorized Signature/Truck No.

LAKEHEAD BLACKTOP
& MATERIALS
ALBANY PLANT, SUP. WI

TIME 12:11 DATE 11 05 98

11758 CN

(74020) lb GROSS

28440 lb (TARE

45580 lb NET

22.79

Fagerlin Fuel
Company Name

Address

State
Cont Soil

K-24 Larry C
Authorized Signature/Truck No.

Fagerlin Fuel
Company Name

Address

State
Cont. Soil

LAKEHEAD BLACKTOP
& MATERIALS
ALBANY PLANT, SUP. WI

TIME 12:06 DATE 11 05 98

11757 CN

(63100) lb GROSS

26000 lb (TARE

37100 lb NET

18.55

K-6 Larry S.
Authorized Signature/Truck No.

LAKEHEAD BLACKTOP
& MATERIALS
ALBANY PLANT, SUP. WI

TIME 9:14 DATE 11 03 98

11613 CN

(84080) lb GROSS

30360 () lb TARE

53720 () lb NET

26.86

Tagerlin Fuel
Company Name

Address

State

Cont. Soil

K-23 Fred
Authorized Signature/Truck No.

LAKEHEAD BLACKTOP
& MATERIALS
ALBANY PLANT, SUP. WI

TIME 9:10 DATE 11 03 98

11612 CN

(70880) lb GROSS

26220 lb TARE

44660 () lb NET

22.33

Tagerlin Fuel
Company Name

Address

State

Cont. Soil

K-6 Larry S
Authorized Signature/Truck No.

LAKEHEAD BLACKTOP
& MATERIALS
ALBANY PLANT, SUP. WI

TIME 9:29 DATE 11 03 98

11616 CN

<79800> lb GROSS

29560<> lb TARE

50240<> lb NET

25.12

Jaderlin Fuel
Company Name

Address

State
Cont. Soil

K-20 Gary B.
Authorized Signature/Truck No.

LAKEHEAD BLACKTOP
& MATERIALS
ALBANY PLANT, SUP. WI

TIME 9:17 DATE 11 03 98

11614 CN

<77180> lb GROSS

29740 ~~<> lb~~ TARE

<> lb NET

47440

23.72

Jaderlin Fuel
Company Name

Address

State
Cont. Soil

K-19-Fritz
Authorized Signature/Truck No.

LAKEHEAD BLACKTOP
& MATERIALS
ALBANY PLANT, SUP. WI

TIME 9:58 DATE 11 03 98

11625 CN

(80760) lb GROSS

26060 lb (TARE

54700 lb NET

27.35

Tagerlin Fuel
Company Name

Address

State Cont. Said

K-24-Larry C.
Authorized Signature/Truck No.

LAKEHEAD BLACKTOP
& MATERIALS
ALBANY PLANT, SUP. WI

TIME 9:50 DATE 11 03 98

11621 CN

(73120) lb GROSS

26220 lb (TARE

46900 lb NET

23.45

Tagerlin Fuel
Company Name

Address

State Cont. Said

K-6 Larry S.
Authorized Signature/Truck No.

LAKEHEAD BLACKTOP
& MATERIALS
ALBANY PLANT, SUP. WI

TIME 10:12 DATE 11 03 98

11632 CN

(81640) lb GROSS

29740 lb (TARE

51900 lb NET

25.95

Tagerlin Fuel
Company Name

Address

State

Cont. Soil

K-19 Fritz
Authorized Signature/Truck No.

LAKEHEAD BLACKTOP
& MATERIALS
ALBANY PLANT, SUP. WI

TIME 9:57 DATE 11 03 98

11624 CN

(84100) lb GROSS

30360 lb (TARE

53740 lb NET

26.87

Tagerlin Fuel
Company Name

Address

State

Cont. Soil

K-23 Fred
Authorized Signature/Truck No.

LAKEHEAD BLACKTOP
& MATERIALS
ALBANY PLANT, SUP. WI

TIME 10:35 DATE 11 03 98

11637 CN

(67940) lb GROSS

26220 lb (TARE

41720 lb NET

20.86

Faggerlin Fuel
Company Name

Address

State

Cont. Soil

K-6 Larry S.
Authorized Signature/Truck No.

LAKEHEAD BLACKTOP
& MATERIALS
ALBANY PLANT, SUP. WI

TIME 10:22 DATE 11 03 98

11636 CN

(85400) lb GROSS

29560 lb (TARE

55840 lb NET

27.92

Faggerlin Fuel
Company Name

Address

State

Cont. Soil

K-20
Authorized Signature/Truck No.

LAKEHEAD BLACKTOP
& MATERIALS
ALBANY PLANT, SUP. WI

TIME 10:50 DATE 11 03 98

11642 CN

(83820) lb GROSS

30360 lb (TARE

53460 lb NET

26.73

Flaherlin Fuel
Company Name

Address

State

Cont. Soil

K-23 Fred
Authorized Signature/Truck No.

LAKEHEAD BLACKTOP
& MATERIALS
ALBANY PLANT, SUP. WI

TIME 10:47 DATE 11 03 98

11640 CN

(86900) lb GROSS

29060 lb (TARE

57840 lb NET

28.92

Flaherlin Fuel
Company Name

Address

State

Cont. Soil

K-24 Larry C.
Authorized Signature/Truck No.

Tagerlin Fuel
Company Name

Address

State

Cont. Soil

LAKEHEAD BLACKTOP
& MATERIALS
ALBANY PLANT, SUP. WI

TIME 11:04 DATE 11 03 98

11647 CN

(77940) lb GROSS

29560 lb (TARE

48380 lb NET

24.19

K-20 Gary B.
Authorized Signature/Truck No.

Tagerlin Fuel
Company Name

Address

State

Cont. Soil

LAKEHEAD BLACKTOP
& MATERIALS
ALBANY PLANT, SUP. WI

TIME 11:05 DATE 11 03 98

11648 CN

(77220) lb GROSS

29740 lb (TARE

47480 lb NET

23.74

K-19 Frits
Authorized Signature/Truck No.

LAKEHEAD BLACKTOP
& MATERIALS
ALBANY PLANT, SUP. WI

TIME 11:29 DATE 11 03 98

11657 CN

(81360) lb GROSS

29060 lb (TARE

52300 lb NET

26.15

Tagerlin Fuel
Company Name

Address

State

Cont. Soil

K-24 Larry C.
Authorized Signature/Truck No.

LAKEHEAD BLACKTOP
& MATERIALS
ALBANY PLANT, SUP. WI

TIME 11:13 DATE 11 03 98

11651 CN

(71560) lb GROSS

26220 lb (TARE

45340 lb NET

22.67

Tagerlin Fuel
Company Name

Address

State

Cont. Soil

K-6 Larry S.
Authorized Signature/Truck No.

LAKEHEAD BLACKTOP
& MATERIALS
ALBANY PLANT, SUP. WI

TIME 11:45 DATE 11 03 98

11661 CN

‹82080› lb GROSS

29560 lb (TARE

52520 lb NET

26.26

Company Name: Tagerlin Fuel

Address:

State:

Cont. Soil

K-20 Gary B.

Authorized Signature/Truck No.

LAKEHEAD BLACKTOP
& MATERIALS
ALBANY PLANT, SUP. WI

TIME 11:30 DATE 11 03 98

11658 CN

‹82300› lb GROSS

30360 lb (TARE

51940 lb NET

25.97

Company Name: Tagerlin Fuel

Address:

State:

Cont. Soil

K-23 Fred

Authorized Signature/Truck No.

Tagerlin Fuel
Company Name

Address

State

Cont. Soil

LAKEHEAD BLACKTOP
& MATERIALS
ALBANY PLANT, SUP. WI

TIME 12:03 DATE 11 03 98

11664 CN

‹84540› lb GROSS

29740 lb (TARE

54800 lb NET

27.4

K-19 Tsitz
Authorized Signature/Truck No.

Tagerlin Fuel
Company Name

Address

State

Cont. Soil

LAKEHEAD BLACKTOP
& MATERIALS
ALBANY PLANT, SUP. WI

TIME 12:01 DATE 11 03 98

11663 CN

‹73880› lb GROSS

26220 lb (TARE

47660 lb NET

23.83

K-6 Larry S.
Authorized Signature/Truck No.

LAKEHEAD BLACKTOP
& MATERIALS
ALBANY PLANT, SUP. WI

TIME 12:40 DATE 11 03 98

11674 CN

(61560) lb GROSS

26220 lb (TARE

35340 lb NET

17.67

Taquin Fuel
Company Name

Address

State

Cont. Soil

K-6 Larry S.
Authorized Signature/Truck No.

LAKEHEAD BLACKTOP
& MATERIALS
ALBANY PLANT, SUP. WI

TIME 12:18 DATE 11 03 98

11668 CN

(78040) lb GROSS

30360 lb (TARE

47680 lb NET

23.84

Taquin Fuel
Company Name

Address

State

Cont. Soil

K-23- Fred
Authorized Signature/Truck No.

Company Name: Jaquelin Fuel

Address:

State:

LAKEHEAD BLACKTOP
& MATERIALS
ALBANY PLANT, SUP. WI

TIME 12:44 DATE 11 02 98

11599 CN

〈71860〉 lb GROSS

26040 lb (TARE

45820 lb NET

22.91

Cont. Soil

K-6 Larry S.

Authorized Signature/Truck No.

Company Name: Jaquelin Fuel

Address:

State:

LAKEHEAD BLACKTOP
& MATERIALS
ALBANY PLANT, SUP. WI

TIME 13:02 DATE 11 03 98

11680 CN

〈72240〉 lb GROSS

29740 lb (TARE

42500 lb NET

21.25

Cont. Soil

K-19 Fritz

Authorized Signature/Truck No.

LAKEHEAD BLACKTOP
& MATERIALS
ALBANY PLANT, SUP. WI

TIME 13:34 DATE 11 02 98

11604 CN

(76840) lb GROSS

29800 lb (TARE

47040 lb NET

23.52

Jaderlin Fuel
Company Name

Address

State

Cont. Soil

K-23 Fred
Authorized Signature/Truck No.

LAKEHEAD BLACKTOP
& MATERIALS
ALBANY PLANT, SUP. WI

TIME 12:52 DATE 11 02 98

11600 CN

(77540) lb GROSS

29800 lb (TARE

47740 lb NET

23.87

Jaderlin Fuel
Company Name

Address

State

Cont. Soil

K-23 Fred
Authorized Signature/Truck No.

LAKEHEAD BLACKTOP
& MATERIALS
ALBANY PLANT, SUP. WI

TIME 15:00 DATE 11 02 98

11607 CN

(68400) lb GROSS

26040 lb (TARE

42360 lb NET

Fagerlin Fuels
Company Name

Address

State

Cont Soil

21.18

K-6 Larry
Authorized Signature/Truck No.

LAKEHEAD BLACKTOP
& MATERIALS
ALBANY PLANT, SUP. WI

TIME 13:56 DATE 11 02 98

11605 CN

(67900) lb GROSS

26040 lb (TARE

41860 lb NET

20.93

Fagerlin Fuel
Company Name

Address

State

Cont. Soil

K-6 Larry S.
Authorized Signature/Truck No.

State of Wisconsin
Department of Natural Resources

NOTIFICATION TO TREAT OR DISPOSE OF PETROLEUM CONTAMINATED SOIL & WATER

Form 4400-120 Rev. 10-95

This form is required by the Department of Natural Resources (DNR) to ensure that the remediation of petroleum contaminated soil and water is in compliance with NR 158, NR 500-540, NR 419 and NR 445, Wis. Adm. Code. Failure to comply with applicable statutes and administrative rules may lead to violations of subchapters III and IV of Ch. 144, Wis. Stats. and may result in forfeitures of not less than $10 or more than $25,000 for each violation, pursuant to ss. 144.426(1), 144.74(1), 144.99, Wis. Stats., or fines of not less than $100 or more than $150,000 or imprisonment for not more than 10 years, or both, pursuant to s. 144.74(2), Wis. Stats. Each day of a continuing violation constitutes a separate violation. Except for the remediation of virgin petroleum spills, this form needs to be submitted to the DNR 10 business days prior to the commencement of the remediation. Personally identifiable information found on this form is not intended to be used for any other purpose.

DIRECTIONS: 1) complete both sides of the form. 2) Have the responsible party sign the form. This signature certifies that the information on this form and in all supporting documents is accurate. 3) Submit the form with supporting documentation, lab reports and any maps to the appropriate District Air Management Program at least 10 business days prior to the commencement of remediation. 4) Submit a copy of this form to the DNR project manager and retain a copy for your records.

PART I - GENERAL INFORMATION

Site Name & Address: FAGERLIN FUEL BULK PLANT 1124 NORTH 6TH STREET SUPERIOR, WI 54880	Date of Form Completion: 1/6/99
Site Number: BRRTS # 02-16-110461	Do Other Remediation Systems Exist at This Site: ☐ Yes ☒ No
County: DOUGLAS	Site Type: ☒ LUST ☐ ERP ☐ CERCLA ☐ Other, Explain:
Responsible Party Name & Address: DAVE RASMUSSEN, JR. 1124 N. 6TH STREET SUPERIOR, WI 54880	Responsible Party Signature: T. Tinsley for Dave Rasmussen JR Telephone Number: (715) 394-5561
Consulting Firm Name & Address: DRAKE ENVIRONMENTAL P.O. Box 610 MINOCQUA, WI 54548	Consulting Firm Contact: TODD TINSLEY Telephone Number: (715) 358-7018

PART II - SOIL AND WATER DATA (Attach Lab Reports and Calculations)

Type of Contamination: ☐ Gasoline ☐ Diesel ☒ Fuel Oil ☐ Waste Oil ☐ Chlorinated Organics ☐ Other: _____

Soil Concentration:

GRO:	_____	mg/kg/10^6	x	2800 lb/yd^3	x	_____	yd^3	=	_____	lb
DRO:	310	mg/kg/10^6	x	2800 lb/yd^3	x	400	yd^3	=	347	lb
Benzene:	.024	mg/kg/10^6	x	2800 lb/yd^3	x	400	yd^3	=	.027	lb
Chlorinated Organics:	_____	mg/kg/10^6	x	2800 lb/yd^3	x	_____	yd^3	=	_____	lb
Other:	_____	mg/kg/10^6	x	2800 lb/yd^3	x	_____	yd^3	=	_____	lb

Water Concentration:

NA GRO: _____ mg/L DRO: _____ mg/L Benzene: _____ mg/L

Chlorinated Organics: _____ mg/L Other: _____ mg/L

PART III - TREATMENT OR DISPOSAL FACILITY INFORMATION

ment/Disposal Facility Name & Address: AKEHEAD BLACKTOP AND MATERIALS OF SUPERIOR 800 ALBANY AVENUE SUPERIOR, WI 54880	Facility ID: 816037640
	Air Pollution Control Permit Number: 93-BAB-802 816-037640-F01
lity Contact: SCOTT KIMMES	Facility Located in 10-county Area in Southeast Wisconsin? ☐ Yes ☒ No
hone Number: (715) 392-1989	Distance to Nearest Residence or Business: 1,000 FEET.
eadquarter Address: KIMMES OIL COMPANY 6327 TOWER AVENUE SUPERIOR, WI 54880	Portable Sources Only: Has a Portable Source Relocation Notification (Form 4500-25) Been Submitted for This Location? ☐ Yes ☐ No NA

NA

PART III - SOIL VACUUM EXTRACTION OR GROUNDWATER REMEDIATION

Contact :	Proposed Operations: (Attach Calculations)
hone Number: ( )	Anticipated Start-Up Date:
ocated in 10-county Area in Southeast Wisconsin? ☐ Yes ☐ No	Estimated Project Duration:
nce to Nearest Residence or Business:	Number of Wells:
	Number of Emission Points:
ot Test/Soil Venting Only: (Attach Lab Reports and Calculations)	
of Test:	Stack Height:
ow Rate (scfm):	Maximum Equipment Flow Rate (scfm or gpm):
Withdrawal of Air (scf):	Total VOC Emission Rate (lb/hr):
tal VOC Emission Rate (lb/hr):	Benzene Emission Rate (lb/hr):
ene Emission Rate (lb/hr):	Benzene Emission Rate (lb/yr):

NA.

PART III - OTHER REMEDIATION METHODS (Attach Lab Reports and Calculations)

osing Other Remediation Method? ☐ Yes Method Name: _____

n a project description for other remediation methods including landspreading, passive aeration and bioremediation. At a minimum, the mation submitted should include the following items (with any supporting lab reports and calculations):

- √ Address/Location of Remediation Site - Indicate if this location is in the 10-county area in Southeast Wisconsin and the distance to the nearest residence or business. Include a map or site plan if appropriate.
- √ Description of Remediation Method.
- √ Project Contact & Telephone Number.
- √ Anticipated Start-Up and Estimated Project Duration.
- √ Highest Estimated Hourly VOC Emissions.
- √ Highest Estimated Hourly and Annual Benzene Emissions.
- √ Emission Testing Methodology.
- √ Final Destination of Soil.

February 25, 1999

DRAKE
ENVIRONMENTAL, INC.
Common Sense. Uncommon Service.

RECEIVED
MAR 0 1 1999
ERS DIVISION

Ms. Shanna Laube
Wisconsin Department of Commerce
Environmental and Regulatory Services Division
P.O. Box 530
Park Falls, WI 54552-0530

RE: Request for Closure for the Fagerlin Fuel Bulk Plant Property in Superior, Wisconsin — Drake Project No. B96070; BRRTS #02-16-110461

Dear Ms. Laube:

The Fagerlin Fuel Bulk Plant property is located at 1124 North 6th Street in Superior, Wisconsin. Enclosed are two copies of the Wisconsin Department of Commerce Case Summary and Close Out Form and accompanying documentation. Please review the enclosed information and consider the project for closure.

If you have any questions regarding this project, please contact Todd Troskey at (715) 358-7018.

Respectfully,

DRAKE ENVIRONMENTAL, INC.

Todd D. Troskey
Project Manager

cc: Mr. Dave Rasmussen, Jr.

Enclosures
B96070L

8554 Highway 51 North
Post Office Box 610
Minocqua, WI 54548-0610
(715) 358-7018
1-800-358-7018
Fax:(715)358-7612

Case Summary and Close Out Form Instructions

Forms that are not completed correctly will be returned.

1. Shaded areas are for Department use only.

2. Provide a Case Summary and analytic tables along with the completed form. The information supplied should succinctly summarize the chronological history of the **entire** case, and should reinforce the justification for closure. Do not submit previously submitted reports as attachments. The Close Out Form should be a "stand alone" document and not require a file search to determine closure.

3. The following items should be included as attachments to the form:

☑ Location map (USGS topographic map, 1:24,000 scale or plat map).

☑ Site map, per s. NR 716.09(2)(c).(scale 1"=10' to 1"=20', if possible), depicting sample locations which correspond to sample result tables.

NA ☐ Groundwater flow maps, per s. NR 716.15(3)(g)5.

NA ☐ Cross section(s), per s. NR 716.15(3)(g)6,include source location(s), pre and post remediation contaminant levels, sample locations and extent of excavation.

☑ Maps depicting locations of water NA supply wells, wetlands, utilities and other potential NA receptors.

NA ☐ Sites with groundwater contamination must include detailed information on private wells (well depth, casing size, well use, sample data, etc.). Private well sample results must be submitted on Form 3300-67.

☑ Applicable laboratory sample results, Chains of Custody and tables. (Note: In cases with large numbers of sample results, it may not be necessary to submit all of the laboratory sheets and Chain of Custody sheets. **Submit only samples necessary to make justification for closure.**)

☑ Feel free to use your own tables, just be consistent throughout the form with labeling the tables. Clearly identify Pre and Post remediation samples. **Put DRO and GRO samples in ppm and VOC's and PAH's in ppb.**

4. <u>DO NOT</u> submit the Close Out Form in a bound report.

5. The more concise and to the point the form is filled out the easier it will be for the site to be reviewed and closed in a timely manner.

CASE SUMMARY AND CLOSE OUT FORM
GENERAL SITE INFORMATION

BRRTS
UID # 02-16-110461

Responsible Party Name/ Full Address: DAVE RASMUSSEN, JR.
P.O. BOX 938
SUPERIOR, WI 54880

Site Name/Full Address(include county): FAGERLIN FUEL BULK PLANT, 1124 NORTH 6TH ST.
SUPERIOR, WI 54880 / COUNTY: DOUGLAS
02-16 54880-

Legal Descript.: SW 1/4, NW 1/4, Sec 14, T 49 N, R 14 (E/W) DNR #: 110461 PECFA #: _____

Contaminant Type(s) FUEL OIL Quantity Released UNKNOWN

Incident Type: (amount released if known): SYSTEM LEAKS UNKNOWN/

Date of Incident/Discovered: 9-18-96 If Incident = (LUST): Form 4 Pending? ___Yes X No

Depth to Groundwater & Flow Direction: NA Perched Water? ___Y X N Depth: _____

Soil Type "FAT" CLAY NATIVE SOIL MEDIUM SAND BACKFILL Depth to Bedrock 300 - 400 FT.

Potential Receptors: GROUNDWATER.

Investigation/Remediation Consultant: DRAKE ENVIRONMENTAL

Certified Lab Testing Soils/Water: EN CHEM / NORTHERN LAKE SERVICE.

Status of water supply wells within 1200 feet of the site? NA - ALL CITY WATER

Date Closure Submitted : 2-25-99 Enforcement Actions or Permits Closed Out? _____Yes _____No

Attach Case Summary and Justification for Closure

SOIL

Attach the Tables for Pre and Post Remedial Soil Results

REMEDIAL ACTION

Remedial Action Completed? X Y ___N 720.19 analysis___Y ___N (if Y attach supporting documentation)

Final Confirmation Sampling Methods: DNR CERTIFIED LAB: DRO / PVOCS / PAHS

Attach description of remedial action taken

Were Soils Excavated? X Y ___N Quantity: 952 TONS Disposal Method: THERMAL TREATMENT (OFF-SITE)
LAKEHEAD BLACKTOP OF SUPERIOR

Final Disposal Location: 5800 ALBANY AVENUE, SUPERIOR, WI 54880.

Attach Soil Disposal Reciepts: INCLUDED WITH REMEDIATION REPORT

GROUNDWATER ANALYTICAL RESULTS

NA- NO GROUNDWATER CONTAMINATION ENCOUNTERED.

Extent Defined? ____Y ____N ____NA

Remedial Action Completed? ____Y ____N

Field Analyses? ____Y ____N Lab Analyses? ____Y ____N No. of Sampling Points:_____

Number of Sample Rounds:_____

#NR 141 Temporary Wells:_____ #Recovery Sumps:_____

#Private Wells:_____ For private wells, Form 3300-67 completed:_____

#Municipal Wells:_____ #NR 141 Monitoring Wells:_____

Preventive Action Limit exceeded? ____Y___N (If yes, location)_____

Enforcement Standard exceeded? ___Y___N (If yes, location)_____

Attach Table of Groundwater Results

Description of remedial action taken:

Form completed by:
I certify that, to the best of my knowledge, the information presented on and attached to this form are true and accurate. This recommendation for case closure is based upon all available data as of 2-25-99 (date). I have read the Case Summary and Close Out Form Instructions and all required information has been included.

Name: TODD TROSKEY Firm Name: DRAKE ENVIRONMENTAL

Affiliation with Site Owner: CONSULTANT

Address: P.O. Box 610

City: MINOCQUA State: WI Zip: 54548

Telephone Number: (715) 358-7018

Todd D. Troskey
(Signature)

Narrative Summary of Case

Background Information

The Fagerlin Fuel Bulk Plant property is located at 1124 North 6th Street in Superior, Wisconsin (Figure 1). Drake Environmental, Inc. conducted a Phase II Environmental Assessment on June 26, 1996, to determine the presence or absence of soil contamination at the property. Soil contamination was documented during the Phase II, and was subsequently reported to the Wisconsin Department of Natural Resources (DNR) on September 18, 1996. In a letter dated September 25, 1996, the DNR requested that a remedial investigation (RI) be conducted to estimate the degree and extent of soil and groundwater contamination, and to develop recommendations for remediation, if warranted. Mr. Rasmussen, Sr. retained Drake to complete the RI.

Site Investigation

On October 7, 1997, nine soil probeholes were completed at the property (Figure 2). The results of the investigation indicated the presence of soil contamination related to the fuel oil underground storage tank (UST) systems. Groundwater was not encountered at the site to a depth of 20 feet below ground surface (bgs), the maximum depth explored during the site investigation. Based upon the RI results and geologic and hydrogeologic information, groundwater at the property is estimated to be at a depth of greater than 45 feet. Therefore, no groundwater contamination was documented at the property. Based on the results of the site investigation, Drake recommended thermal treatment of contaminated soils as the most cost-effective method of site remediation.

Summary of Investigation Results

Soil samples were collected for field screening purposes at 2-foot intervals from 2 to 20 feet bgs. Table 1 (attached) presents a summary of the field screening results. Soil probeholes P-5 and P-8 exhibited PID readings ranging from less than 1 to 106 parts per million (ppm). The remaining soil probeholes did not exhibit PID readings greater than 1 ppm. Drake considers PID readings above 10 ppm to be indicative of potential

soil contamination. The PID results indicate that soils were contaminated at concentrations that required remediation.

Ten soil samples from the soil probeholes were submitted for diesel range organics (DRO), petroleum volatile organic compounds (PVOCs), and polynuclear aromatic hydrocarbons (PAHs) analyses. Table 2 presents the soil sample analytical results. The soil sample collected from P-5 at 7 to 9 feet bgs and P-8 from 8 to 10 feet bgs contained DRO and PVOCs above the laboratory method detection limits. All of the remaining soil samples submitted for analysis did not exhibit detections above laboratory method detection limits. DRO was detected in P-5 and in P-8 above the NR 720 groundwater pathway standards.

Site Remediation

Mr. Rasmussen, Jr. retained Drake Environmental Inc. to complete site remediation.

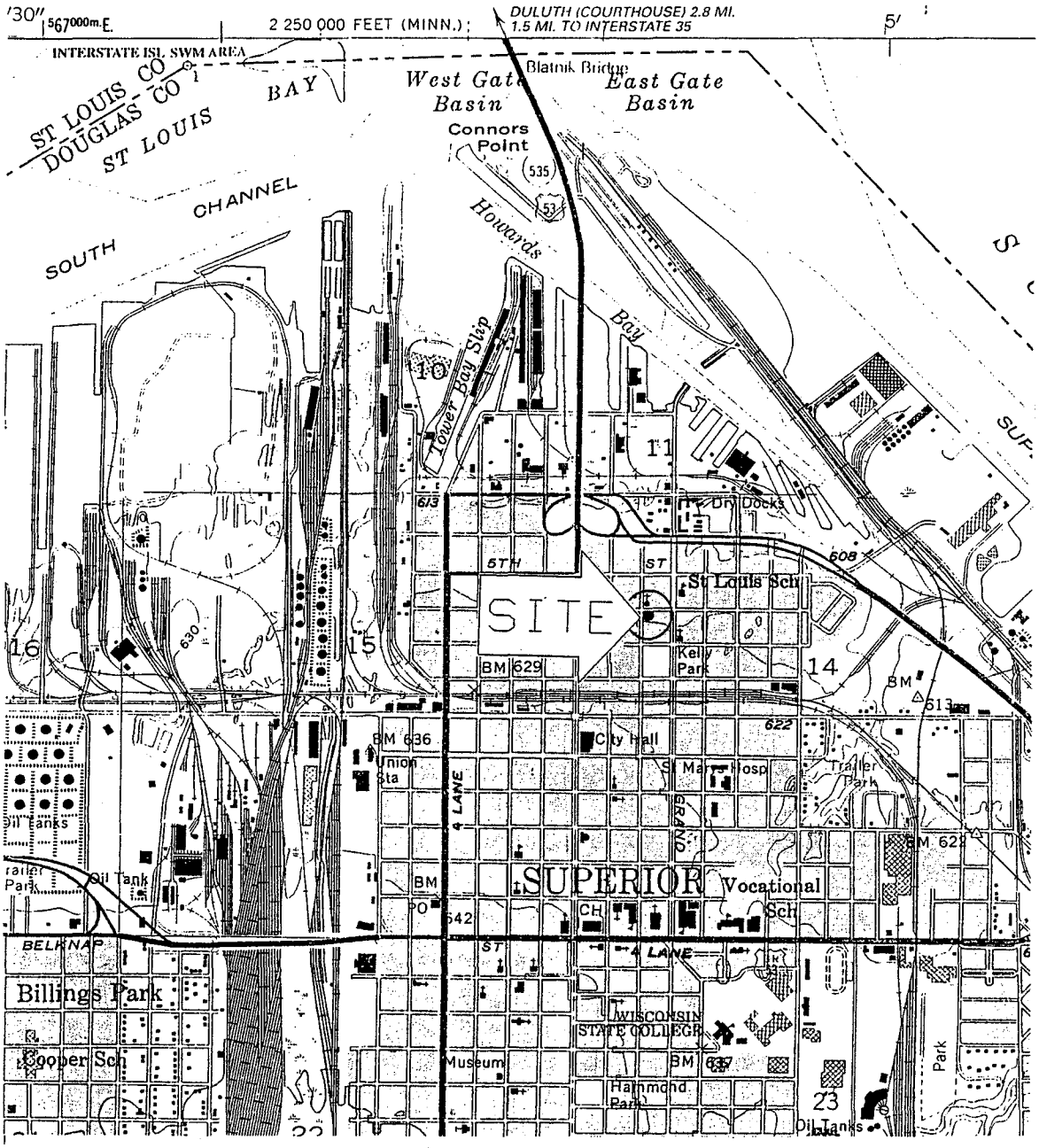
On November 2 through 5, 1998, Drake personnel documented the removal of approximately 952 tons of fuel oil-contaminated soils. The fuel oil-contaminated soils were transported to the Lakehead Blacktop thermal treatment facility. Soil samples were collected and confirm that the excavated soils were contaminated (Table 3). Soil samples were collected from the walls and base of the final excavation to confirm that soil remediation was accomplished (Figure 3). In addition, soil samples were collected to confirm that adequate soil remediation was accomplished. Remediation soil sample analytical results are presented in Table 3.

Conclusions

Based upon the excavation soil sample results, successful soil remediation was accomplished; and based upon the site investigation, groundwater was not encountered during the RI and soil excavation activities and is anticipated to be at a depth of greater than 45 feet.

Drake recommends that no additional investigation or remediation be conducted at this time. Drake also recommends that the Department of Commerce consider the site for closure.

UNITED STATES
EPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY



DRAKE ENVIRONMENTAL, INC.

COPIED FROM 7.5 SERIES [TOPOGRAPHIC] - U.S.G.S. QUADRANGLE

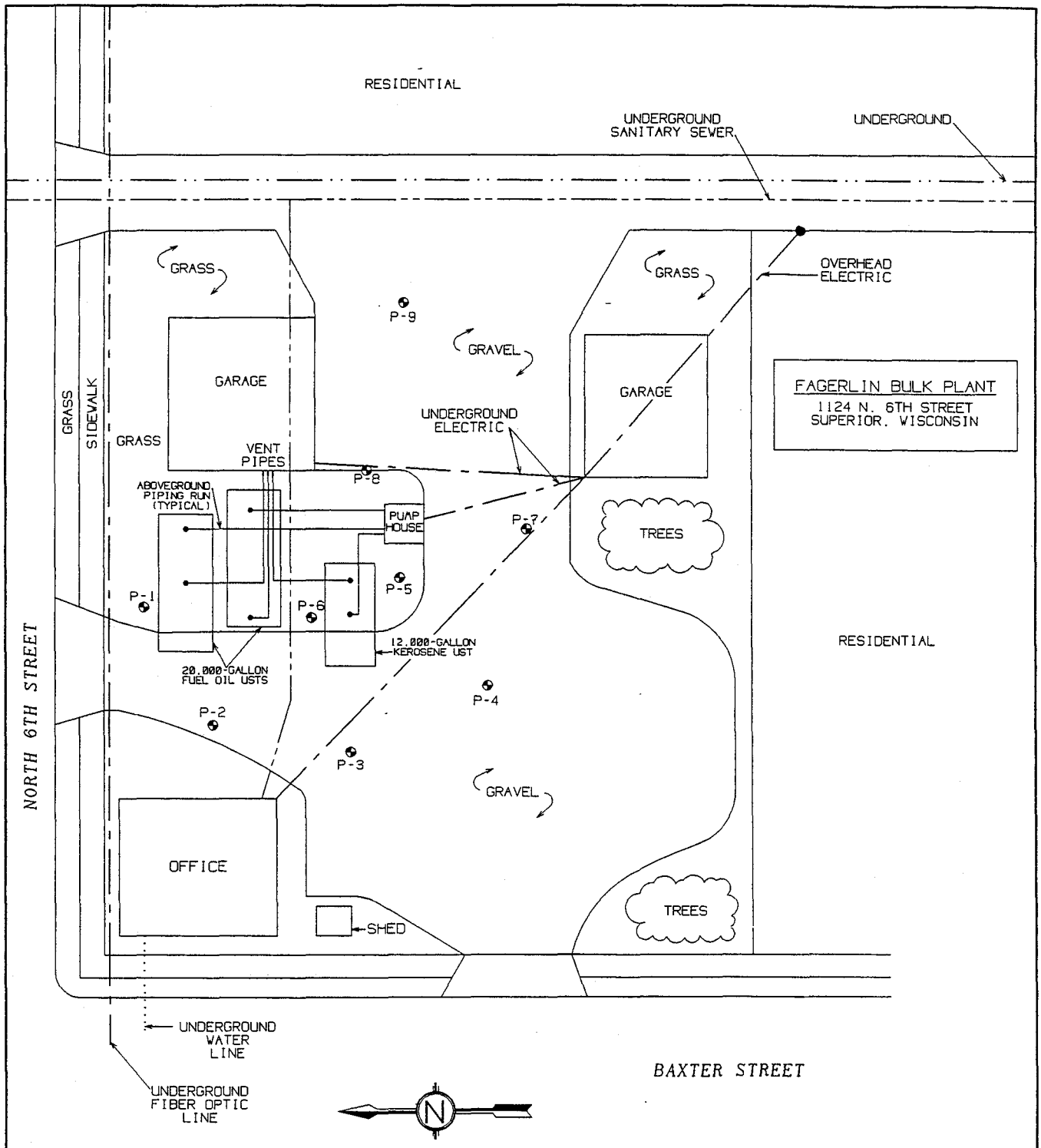
SUPERIOR - WISCONSIN

SW 1/4 NW 1/4 SEC 14 T49N R14W

DIAGRAM SCALE
0 1000 2000
1 INCH = 2000 FEET

N

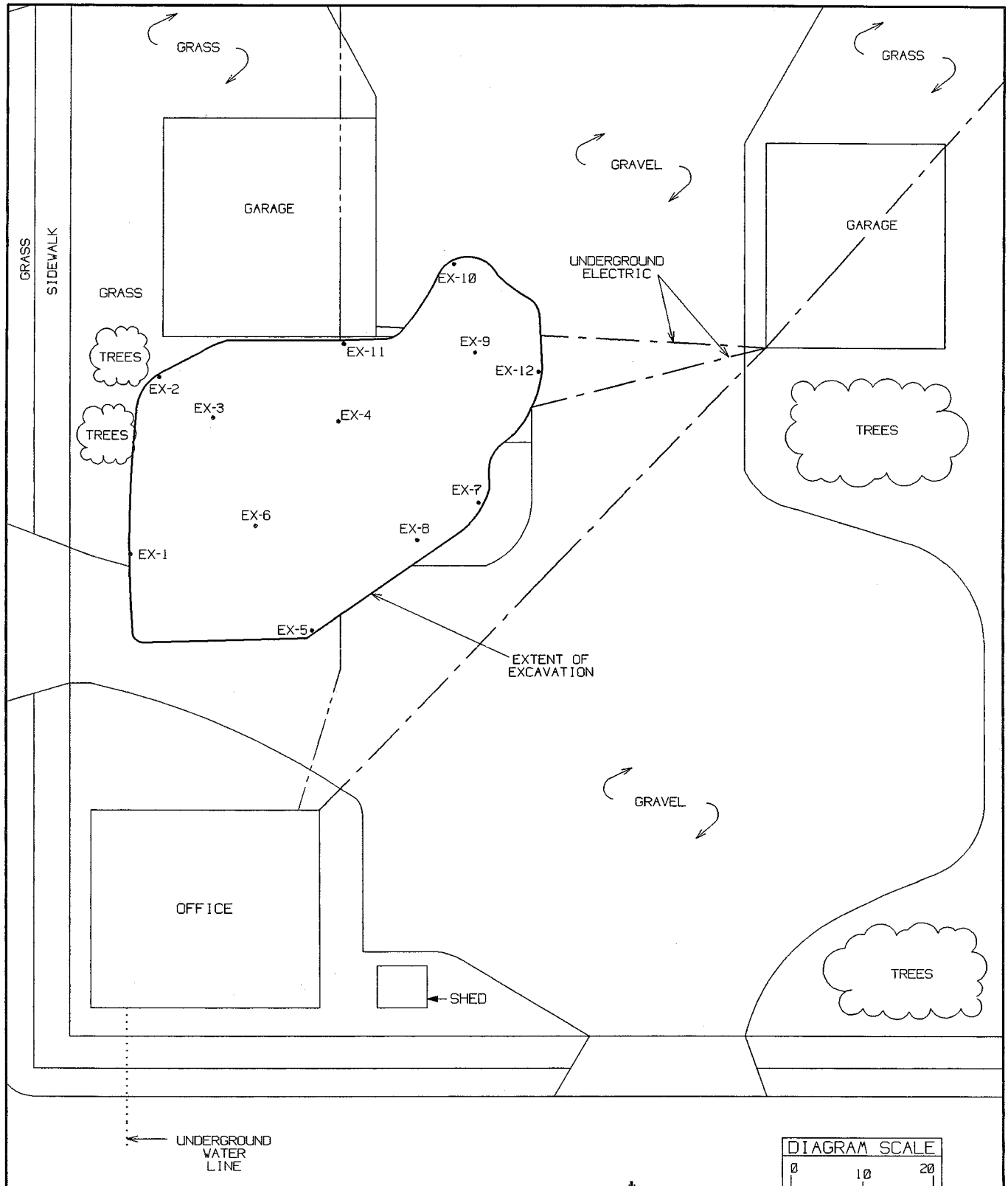
FAGERLIN BULK PLANT REMEDIATION	PROJECT NO. B96070 PM TDT TOPO COPIED DATE: 02/16/99 CHKD BY DATE APRVD BY DATE	VICINITY DIAGRAM	FIGURE 1



DRAKE ENVIRONMENTAL, INC.

FAGERLIN BULK PLANT REMEDIATION	PROJECT NO. B96070 PM TDT DRAWN BY RV DATE: 10/21/97 REVISED: RV DATE: 02/16/99 APPRVD BY DATE:	SOIL PROBEHOLE LOCATIONS DIAGRAM	FIGURE 2

FILE: B6070C



DRAKE
ENVIRONMENTAL, INC.

FAGERLIN BULK PLANT
REMEDIATION

PROJECT NO. B96070	PM TDT
DRAWN BY RV	DATE: 02/16/99
CHKD BY	DATE
APRVD BY	DATE

SOIL REMEDIATION SOIL SAMPLE
LOCATIONS DIAGRAM

FIGURE
3

FILE: B96070D

TABLE 1
PID Screening Results — Investigation
Fagerlin Fuel Bulk Plant
Superior, Wisconsin
Drake Project No. B96070

Sample No.	Depth (ft.)	PID Readings (iu)
P-1:S1	0-2	<1
P-1:S2	2-4	NR
P-1:S3	4-6	<1
P-1:S4	6-8	NR
P-1:S5	8-10	<1
P-1:S6	10-12	<1
P-1:S7	12-14	<1
P-1:S8	**14-16**	**<1**
P-2:S1	0-2	<1
P-2:S2	2-4	<1
P-2:S3	4-6	<1
P-2:S4	6-8	<1
P-2:S5	8-10	<1
P-2:S6	10-12	<1
P-2:S7	12-14	<1
P-2:S8	14-16	<1
P-2:S9	16-18	<1
P-2:S10	**18-20**	**<1**
P-3:S1	0-2	<1
P-3:S2	2-4	<1
P-3:S3	4-6	<1
P-3:S4	6-8	<1
P-3:S5	8-10	<1
P-3:S6	**10-12**	**<1**
P-4:S1	0-2	<1
P-4:S2	2-4	<1
P-4:S3	4-6	<1
P-4:S4	6-8	<1
P-4:S5	8-10	<1
P-4:S6	**10-12**	**<1**
P-5:S1	0-2	<1
P-5:S2	2-4	<1
P-5:S3	4-6	<1
P-5:S4	6-8	<1
P-5:S5	8-10	<1
P-5:S6	10-12	45
P-5:S7	12-14	72
P-5:S8	**14-16**	**106**
P-5:S9	16-17.5	58

i.u. = instrument units
NR = no sample recovery
Note: Bold type indicates samples submitted for analytical testing.

TABLE 1 (cont.)
PID Screening Results — Investigation
Fagerlin Fuel Bulk Plant
Superior, Wisconsin
Drake Project No. B96070

Sample No.	Depth (ft.)	PID Readings (iu)
P-6:S1	0-2	<1
P-6:S2	2-4	<1
P-6:S3	4-6	<1
P-6:S4	6-8	<1
P-6:S5	8-10	<1
P-6:S6	10-12	<1
P-6:S7	12-14	<1
P-6:S8	**14-16**	**<1**
P-7:S1	0-2	<1
P-7:S2	2-4	<1
P-7:S3	4-6	<1
P-7:S4	6-8	<1
P-7:S5	8-10	<1
P-7:S6	10-12	<1
P-7:S7	12-14	<1
P-7:S8	**14-16**	**<1**
P-8:S1	0-2	<1
P-8:S2	2-4	<1
P-8:S3	4-6	5
P-8:S4	6-8	74
P-8:S5	**8-10**	**90**
P-8:S6	10-12	2
P-8:S7	12-14	47
P-8:S8	**14-16**	**<1**
P-9:S1	0-2	<1
P-9:S2	2-4	<1
P-9:S3	4-6	<1
P-9:S4	6-8	<1
P-9:S5	8-10	<1
P-9:S6	10-12	<1
P-9:S7	12-14	<1
P-9:S8	**14-16**	**<1**

i.u. = instrument units
NR = no sample recovery
Note: Bold type indicates samples submitted for analytical testing.

TABLE 2
Analytical Results — Investigation Soil Samples
Fagerlin Fuel Bulk Plant Property
Superior, Wisconsin
Drake Project No. B96070

Parameter	P-1:S8	P-2:S10	P-3:S6	P-4S6	P-5:S8	P-6:S8	P-7S8	P-8:S5	P-8:S8	P-9:S8	Field Blank	NR 720 Groundwater Pathway Standards
Depth (ft.)	14-16	18-20	10-12	10-12	14-16	14-16	14-16	8-10	14-16	14-16	NA	—
PID (i.u.)	<1	<1	<1	<1	106	<1	<1	90	<1	<1	NA	—
DRO (ppm)	<5.2	<4.7	<4.9	<4.7	**920**	<4.7	<4.6	**2,100**	<4.7	<4.7	NA	250
PVOCs (ppb)												
Benzene	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	5.5
Ethylbenzene	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	2,900
Toluene	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	1,500
Total xylenes	<50	<50	<50	<50	1,750	<50	<50	<50	<50	<50	<50	4,100
1,3,5-trimethylbenzene	<25	<25	<25	<25	3,800	<25	<25	1,200	<25	<25	<25	NS
PAHs (ppb)												
Acenaphthene	<17	<17	<17	<17	230	<17	<17	150	<17	<18	NA	38,000*
Benzo(a)pyrene	<14	<14	<14	<15	<13	<15	<14	<14	<14	<15	NA	48,000*
Fluorene	<20	<20	<20	<21	280	<21	<20	120	<20	<21	NA	100,000*
1-methylnaphthalene	<20	<20	<20	<21	490	<21	<20	340	<20	<21	NA	23,000*
2-methylnaphthalene	<19	<19	<19	<19	200	<19	<19	<19	<19	<20	NA	20,000*
Phenanthrene	<18	<18	<18	<19	260	<19	<18	230	<18	<19	NA	1,800*
Pyrene	<17	<17	<17	<17	44	<17	<17	<17	<17	<18	NA	8,700,000*

i.u. = instrument units
NA = not analyzed
NS = no established standard
*Generic soil standards presented in publication RR-519-97, April 1997 (corrected)

TABLE 3
Soil Sample Analytical Results — Soil Remediation
Fagerlin Fuel Bulk Plant Property
(Only the detected analytes are presented.)

Sample No.	EX-1	EX-2	EX-3	EX-4	EX-5	EX-6	EX-7	NR 720 Standard
Representative location	North wall	North wall	Base	Base	West wall	Base	South wall	—
Depth (ft.)	10	8	15	14	8	15	8	—
PID reading (ppm)	<1	3	<1	<1	<1	<1	<1	—
DRO (ppm)	<2.7	<2.7	<2.7	<2.7	<2.7	<2.7	<2.7	250

Sample No.	EX-8	EX-9	EX-10	EX-11	EX-12	T-6	T-28	NR 720 Standard
Representative location	Base	Base	East wall	East wall	South wall	—	—	—
Depth (ft.)	12	14	8	7	9	4	4	—
PID reading (ppm)	2	2	4	4	2	276	147	—
DRO (ppm)	<2.7	<2.7	<2.7	<2.7	<3.3	70	110	250

ppm = parts per million
Note: No PVOCs or PAHs were detected above laboratory detection limits.

February 25, 1999

DRAKE
ENVIRONMENTAL, INC.
Common Sense. Uncommon Service.

RECEIVED
MAR 0 1 1999
ERS DIVISION

Ms. Shanna Laube
Wisconsin Department of Commerce
P.O. Box 530
Park Falls, WI 54552-0530

RE: Soil Remediation Documentation Report for the Fagerlin Fuel Bulk Plant Property in Superior, Wisconsin — Drake Project No. B96070; DNR Case No. 02-16-110461; PECFA Claim No. 54880-00938-24

Dear Ms. Laube:

The Fagerlin Fuel Bulk Plant property is located at 1124 North 6th in Superior, Wisconsin.

Drake Environmental, Inc. has prepared the enclosed Soil Remediation Documentation Report in accordance with the requirements of the Wisconsin Administrative Code Chapter NR 724. As stated in the enclosed report, Drake documented the removal of 952 tons of contaminated soils from the property. The contaminated soils were transported to Lakehead Blacktop & Materials of Superior in Superior, Wisconsin, for off-site thermal treatment. This report describes the soil remediation project procedures and results, and presents Drake's conclusions regarding the effectiveness of remediation based on the results. Also enclosed are two copies of the Case Close Out forms and accompanying documentation.

If you have any questions or comments regarding the information contained in the enclosed report or regarding the project in general, please call Mr. Todd Troskey at (715) 358-7018.

Respectfully,

DRAKE ENVIRONMENTAL, INC.

Todd D. Troskey
Project Manager

Richard W. Frieseke, P.E.
Project Director

cc: Mr. David Rasmussen, Jr.

Enclosures
B96070L

8554 Highway 51 North
Post Office Box 610
Minocqua, WI 54548-0610
(715) 358-7018
1-800-358-7018
Fax:(715)358-7612

54882-0938-24

DRAKE
ENVIRONMENTAL, INC.
Common Sense. Uncommon Service.

REMEDIAL ACTION PLAN

FAGERLIN FUEL *BULK PLANT PROPERTY*
SUPERIOR, WISCONSIN

MR. DAVID RASMUSSEN, JR.

September 2, 1998

DRAKE
ENVIRONMENTAL, INC.
Common Sense. Uncommon Service.

Mr. David Rasmussen, Jr.
P.O. Box 938
Superior, WI 54880

RE: Remedial Action Plan for Soil Remediation at the Fagerlin Fuel Bulk Plant Property in Superior, Wisconsin — Drake Project No. B96070 (PECFA Claim No. 54880-0938-24)

Dear Mr. Rasmussen:

Please find enclosed the attached Remedial Action Plan (RAP) for the Fagerlin Fuel Bulk Plant property located at 1124 North 6th Street in Superior, Wisconsin. The RAP describes the approved remedial alternative and the proposed scope of work associated with the remediation project.

Drake has concluded that soil contamination above Wisconsin Department of Natural Resources standards exist at the property. This RAP has been prepared to meet the requirements of Wisconsin Administrative Code Chapter NR 724. The costs associated with this project will likely be eligible for reimbursement under the Petroleum Environmental Cleanup Fund Act (PECFA) program administered by the Wisconsin Department of Commerce. A copy of this letter will be submitted to the Department of Commerce for review and concurrence prior to initiating the project.

If you have any questions regarding this project, please contact us at (715) 358-7018.

Respectfully,

DRAKE ENVIRONMENTAL, INC.

Todd D. Troskey
Project Manager

JK FOR

James Kralick
Senior Project Manager

cc: Ms. Shanna Laube

Attachments
B96070I

8554 Highway 51 North
Post Office Box 610
Minocqua, WI 54548-0610
(715) 358-7018
1-800-358-7018
Fax: (715) 358-7612

REMEDIAL ACTION PLAN

PROJECT
Remedial Action Plan
Fagerlin Fuel Bulk Plant Property
Superior, Wisconsin
PECFA Claim No. 54880-0938-24

CLIENT
Mr. David Rasmussen, Jr.
Fagerlin Fuel, Inc.
1124 North 6th Street
P.O. Box 938
Superior, WI 54880

Project Number
B96070

Date
September 2, 1998

DRAKE ENVIRONMENTAL, INC.
8554 Highway 51 North, Unit #6
Post Office Box 610
Minocqua, WI 54548-0610

REPORT CONTENTS

REMEDIAL ACTION PLAN SUMMARY

The Fagerlin Fuel Bulk Plant property is located at 1124 North 6th Street in Superior, Wisconsin. Drake was retained to conduct a Remedial Investigation (RI) to estimate the extent and degree of soil and/or groundwater contamination and to develop recommendations for remediation.

Drake conducted investigation activities from September 1997 to June 1998. The RI consisted of advancing a soil probe at nine locations. Soil samples were collected from the nine probeholes for field screening and analytical testing. Based on the RI results, Drake determined that approximately 400 cubic yards (560 tons) of contaminated soil requires remediation. Drake concluded that the most cost-effective remedial alternative is soil excavation and disposal by thermal treatment. The soil remediation activities will take place in conjunction with the petroleum system upgrade in October/November 1998. Drake submitted a letter notification of attempt to achieve a closed remedial action within the $80,000 cost limit letter to the Department of Commerce on July 16, 1998.

Please refer to the attached remedial action plan (RAP) for a detailed discussion of the soil remediation project and recommended work plan.

REMEDIAL ACTION PLAN
FAGERLIN FUEL BULK PLANT PROPERTY
SUPERIOR, WISCONSIN

1.0 Project Background

1.1 Introduction

Drake Environmental, Inc. has prepared this Remedial Action Plan (RAP) for the Fagerlin Fuel Bulk Plant property on behalf of Mr. David Rasmussen, Jr. The Fagerlin Fuel Bulk Plant property is located at 1124 North 6th Street in Superior, Wisconsin (Figure 1 in Appendix A). In accordance with Wisconsin Administrative Code Chapter NR 724 requirements, this RAP presents a summary of the Remedial Investigation (RI) and discusses a selected remedial option (soil excavation and thermal treatment) and scope of work for the selected remedial alternative.

Drake completed the initial RI field activities June 1998. Drake concluded that approximately 400 cubic yards (560 tons) of contaminated soil exists on site to a maximum depth of 14 feet below ground surface (bgs). The static groundwater table was not encountered during the RI to a depth of 20 feet bgs, the maximum depth explored. Therefore, based on the data obtained during the RI and Drake's experience with two additional sites within 3 blocks of the subject site, it was concluded that groundwater was not likely impacted by petroleum products.

Figure 2 in Appendix A illustrates the estimated extent of the contaminated soil that requires remediation. Table 1 presents the soil analytical data accumulated during the RI.

TABLE 1
Analytical Results—Soil Samples
Fagerlin Fuel Bulk Plant Property
Superior, Wisconsin
Drake Project No. B96070

Parameter	P-1:S8	P-2:S10	P-3:S6	P-4S6	P-5:S8	P-6:S8	P-7S8	P-8:S5	P-8:S8	P-9:S8	Field Blank	NR 720 Groundwater Pathway Standards
Date Sampled	10/7/98	10/7/98	10/7/98	10/7/98	10/7/98	10/7/98	10/7/98	10/7/98	10/7/98	10/7/98	—	—
Depth (ft.)	14-16	18-20	10-12	10-12	14-16	14-16	14-16	8-10	14-16	14-16	NA	—
PID (i.u.)	<1	<1	<1	<1	106	<1	<1	90	<1	<1	NA	—
DRO (ppm)	<5.2	<4.7	<4.9	<4.7	**920**	<4.7	<4.6	**2,100**	<4.7	<4.7	NA	250
PVOCs (ppb)												
Benzene	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	5.5
Ethylbenzene	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	2,900
Toluene	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	1,500
Total xylenes	<50	<50	<50	<50	1,750	<50	<50	<50	<50	<50	<50	4,100
1,3,5-trimethylbenzene	<25	<25	<25	<25	3,800	<25	<25	1,200	<25	<25	<25	NS
PAHs (ppb)												
Acenaphthene	<17	<17	<17	<17	230	<17	<17	150	<17	<18	NA	38,000*
Benzo(a)pyrene	<14	<14	<14	<15	<13	<15	<14	<14	<14	<15	NA	48,000*
Fluorene	<20	<20	<20	<21	280	<21	<20	120	<20	<21	NA	100,000*
1-methylnaphthalene	<20	<20	<20	<21	490	<21	<20	340	<20	<21	NA	23,000*
2-methylnaphthalene	<19	<19	<19	<19	200	<19	<19	<19	<19	<20	NA	20,000*
Phenanthrene	<18	<18	<18	<19	260	<19	<18	230	<18	<19	NA	1,800*
Pyrene	<17	<17	<17	<17	44	<17	<17	<17	<17	<18	NA	8,700,000*

DRO = diesel range organics
PVOCs = petroleum volatile organic compounds
PAHs = poly cyclic aromatic hydrocarbons
i.u. = instrument units
NA = not analyzed
NS = no established standard
*Generic soil standards presented in publication RR-519-97, April 1997 (corrected)

1.2 Scope of Work

The proposed scope of work Drake has developed includes the field, laboratory, and documentation services considered necessary to comply with Wisconsin Administrative Code Chapters NR 158.05(2), NR 720.09(4), and NR 724.05(1).

The following list presents the services Drake proposes to provide for the remediation project to comply with applicable regulatory requirements and effectively manage the project.

- Assist with the selection of an analytical laboratory through a competitive bidding process.
- Assist with obtaining DNR approval for thermal treatment of the contaminated soil.
- Coordinate the project with the selected contractors and laboratory.
- Supervise and document the removal of petroleum-contaminated soil.
- Field screen the soil samples to preliminarily evaluate the degree of petroleum contamination and the effectiveness of contaminant removal.
- Submit selected soil samples to an analytical laboratory.
- Prepare a report presenting the procedures and results of the soil remediation project, along with conclusions and recommendations based on the results.

If additional services are requested or the scope of work described in this RAP is substantially altered, an added or revised scope of work may be documented in future correspondence and addended to this RAP.

1.3 Client, Consultant and Laboratory Information

The following presents the information required in accordance with the Wisconsin Administrative Code Chapter NR 722.13.

Property Owner:

Mr. David Rasmussen, Jr.
1124 North 6th Street
P.O. Box 938
Superior, Wisconsin 54880
Telephone no.: (715) 394-5561

Consultant:	Drake Environmental, Inc. P.O. Box 610 Minocqua, Wisconsin 54548 Contacts: Mr. Todd Troskey, Project Manager Mr. James Kralick, Senior Project Manager Telephone no.: (715) 358-7018
Soil Analytical Laboratory:	To be determined by competitive bidding.
Excavating and Hauling Contractor:	To be determined by competitive bidding.
Thermal Treatment Contractor:	To be determined by competitive bidding.

2.0 Remedial Action Plan

2.1 Introduction

The following information provides an RAP for the selected soil remediation alternative (limited excavation and thermal treatment of the contaminated soil) in accordance with the Wisconsin Administrative Code Chapter NR 724 requirements.

2.2 Soil Treatment Approval

Drake will use the analytical results from soil samples collected during the RI to complete a "Notification to Treat or Dispose of Petroleum Contaminated Soil & Water" (DNR Form 4400-120). The completed form will be submitted to the DNR Northern District Air Management Section for approval prior to conducting soil remediation.

2.3 Excavation and Backfilling Procedures

Drake will document the soil removal procedures and soil conditions during the excavation activities. Excavation of contaminated soil will continue both vertically and laterally to the approximate extent estimated during the investigation (Figure 2).

The excavation is expected to be approximately 900 square feet in plan size, extending to a depth of 14 feet bgs. The estimated volume of contaminated soil to be excavated is approximately 400 cubic yards (560 tons). During excavation activities, an estimated 2,000 gallons of petroleum-contaminated, perched groundwater/rainwater may need to be pumped from the excavation for transport to a DNR-approved treatment/disposal facility. A flash-point analysis will be conducted on the petroleum-contaminated groundwater prior to transport.

The excavation will be backfilled and compacted subsequent to the petroleum system upgrade by the contractor with imported granular clay or fill materials following removal of the contaminated soil. However, Drake will not complete any compaction testing of the backfill.

2.4 Soil Sampling, Screening, and Analytical Testing Procedures

In accordance with the DNR's guidance document entitled, Soil Sampling Requirements for Leaking Underground Storage Tank (LUST) Site Investigations and Excavations (PUBL-SW-127, dated March 1991), one soil sample for approximately every 15 cubic yards of contaminated soil excavated will be collected and field screened with a PID. Also in accordance with this guidance document, one sample per every 300 cubic yards of the excavated, contaminated soil will be submitted for DRO analysis to confirm the excavated soil is contaminated (approximately 2 samples). In addition, Drake estimates that ten soil samples will be collected from the excavation walls and base for submittal for DRO/PVOC/PAH analysis to confirm that soil remediation has been accomplished. The soil sampling procedures and PID field screening procedures are provided in Appendix B.

2.5 Soil Remediation Report Preparation

Drake will prepare a report documenting the procedures and results of soil remediation in accordance with NR 724 requirements. Included in this report will be Drake's conclusions and recommendations for additional investigation, remediation, or monitoring, as warranted. Drake will also provide copies of site diagrams, laboratory reports, and field forms in the report. The report will be presented in a format appropriate for submittal to the Department of Commerce for approval.

3.0 Recommendations

3.1 Recommendations

Drake recommends that approximately 560 tons of contaminated soil be excavated and thermally treated. Soil will be excavated vertically to a maximum depth of 14 feet below grade and horizontally to the approximate extent estimated during the RI. Drake also recommends that a copy of this report be submitted to the Department of Commerce. The eligible costs associated with the RI will likely be reimbursed through the Petroleum Environmental Cleanup Fund Act (PECFA) program administered by the Department of Commerce. Therefore, a copy of this report should also be submitted to the Department of Commerce with a completed PECFA claim.

3.2 General Qualifications

Drake conducts their services with that degree of care and skill ordinarily exercised by members of the environmental consulting community practicing under similar conditions at the same time in the same or similar locality. The procedures Drake followed in completing this project were in general accordance with applicable regulations of the Wisconsin DNR and the Department of Commerce at the time the work was conducted. If the applicable regulations change, the DNR and/or Department of Commerce may require additional information.

The results, conclusions, and recommendations presented in this RAP are based on the data obtained from the specific sampling locations at the times and under the conditions stated in this RAP. Variations in soil and groundwater conditions typically exist at most sites between sampling locations and may change with time. If variations are noted in the future, Drake should be informed to determine if these variations affect the conclusions and recommendations in this RAP. Some of the factual information in this RAP was obtained from the client, client's agents, and third parties, and is assumed by Drake to be correct and complete. Changes or modifications to the site and/or facilities made after the site visit are not included. Detailed plans and specifications are also not included. The conclusions are Drake's professional opinion and should not be construed as a guarantee or warranty that liabilities do or do not exist.

Drake assumes no responsibility for the discovery and elimination of hazards that could possibly cause accidents, injuries, or damage. Compliance with the recommendations

and/or suggestions contained in this RAP in no way assures elimination of hazards or a fulfillment of a property owner's obligation under local, state, or federal laws. It is the responsibility of the property owner to notify authorities of any conditions that are in violation of the current legal standards.

Drake prepared this RAP at the request of their client. Drake assumes responsibility for the accuracy of the contents of this RAP subject to what is stated elsewhere in this section, but recommends the RAP be used only for the purpose intended by the client and Drake when the RAP was prepared. The RAP may be unsuitable for other uses and reliance upon its contents by anyone other than the client is done at the sole risk of the user. Drake accepts no responsibility for application of interpretation of the results by anyone other than the client.

Appendices

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APPENDICES

Appendix A

Figure 1 - Vicinity Diagram

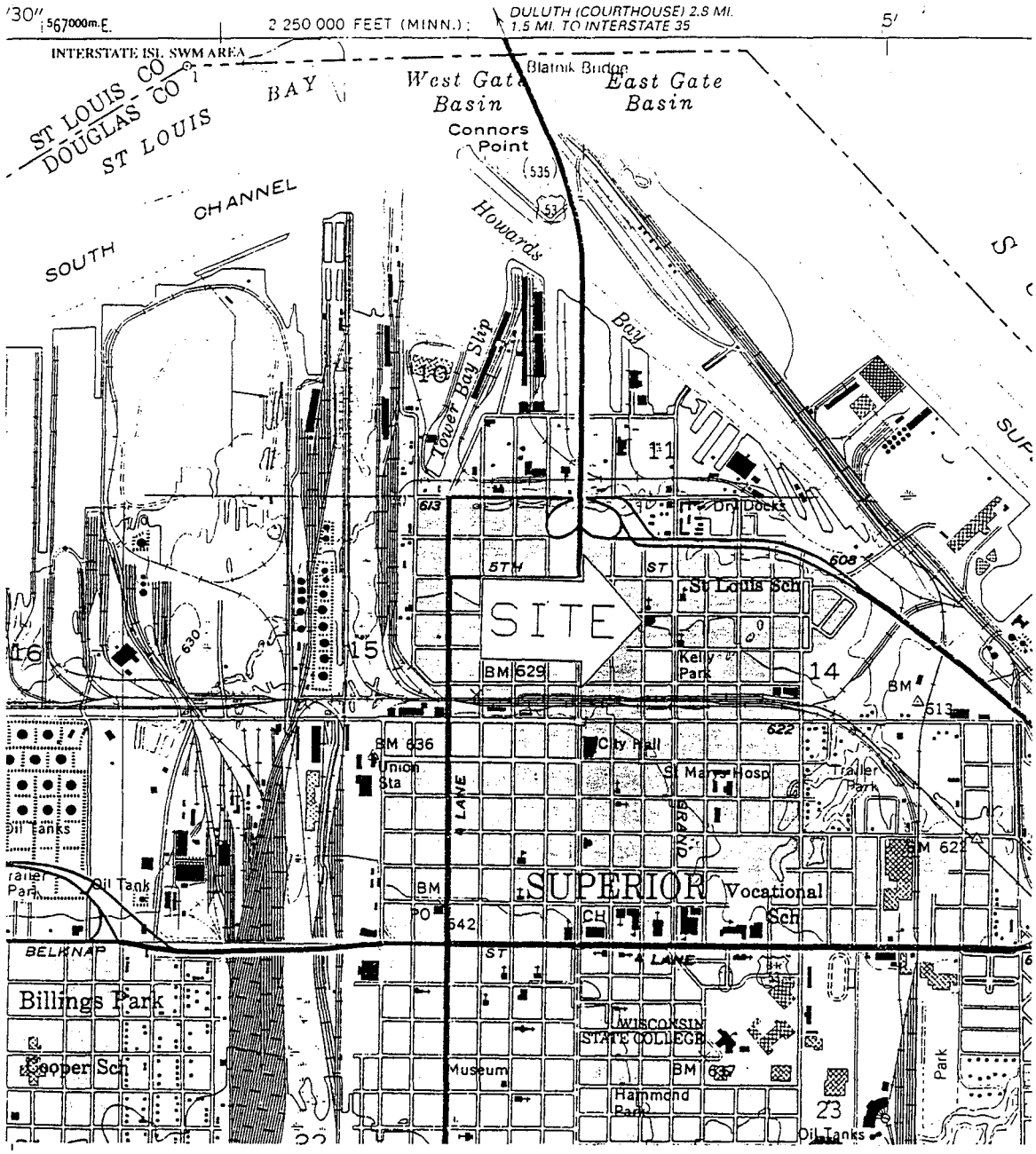
Figure 2 – Extent of Soil Contamination Diagram

Appendix B

Soil Sampling Procedures

Excavation Soil Sampling Procedure

PID Screening Procedure



COPIED FROM 7.5 SERIES [TOPOGRAPHIC] - U.S.G.S. QUADRANGLE

SUPERIOR - WISCONSIN

SW 1/4 NW 1/4 SEC 14 T49N R14W

DIAGRAM SCALE

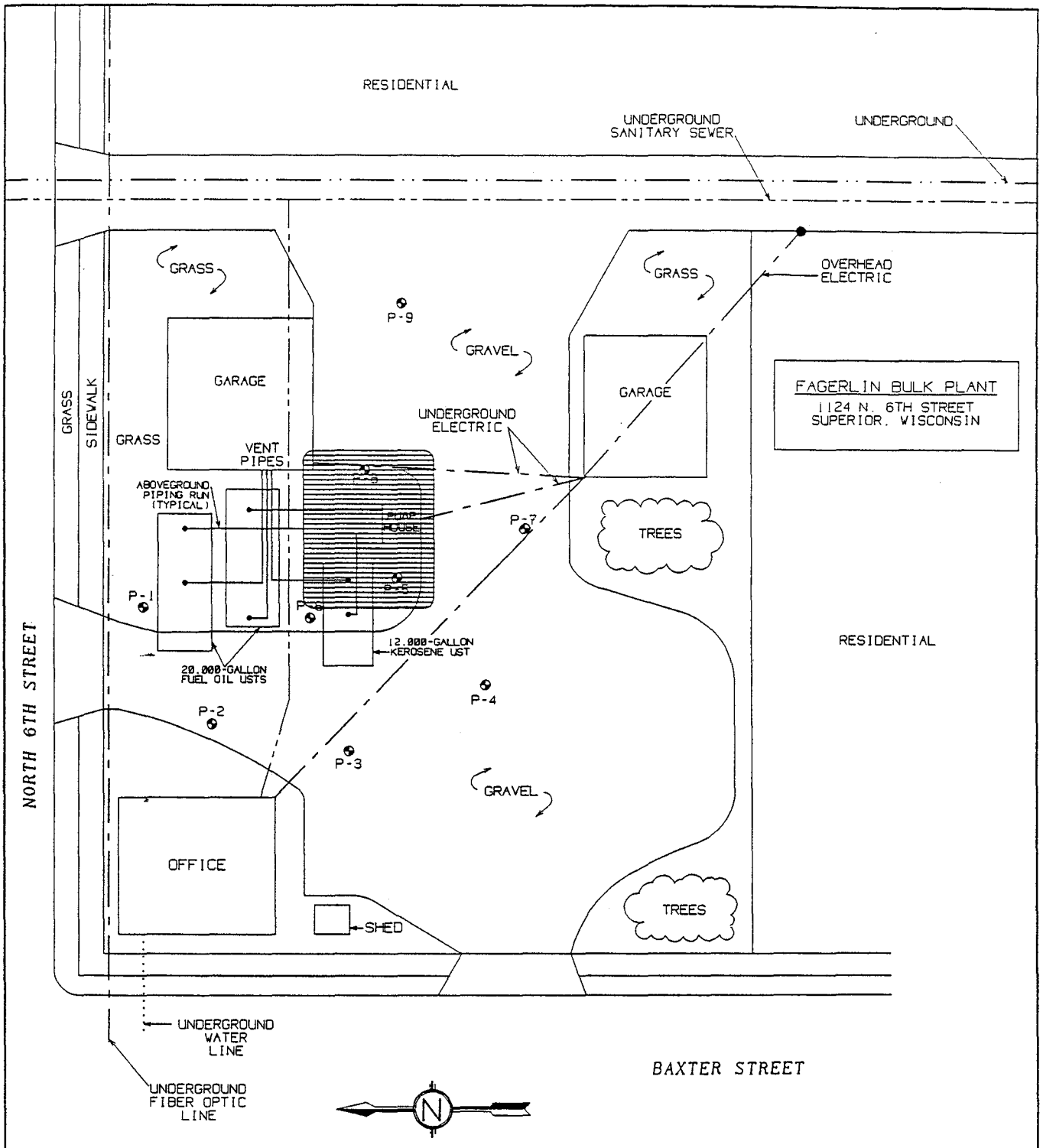
0 1000 2000

1-INCH = 2000-FEET

DRAKE ENVIRONMENTAL, INC.

FAGERLIN BULK PLANT REMEDIAL INVESTIGATION	PROJECT NO. B96070 PM MJS TOPO COPIED DATE: 01/14/98 CHKD BY DATE APRVD BY DATE	VICINITY DIAGRAM

FIGURE 1



DRAKE ENVIRONMENTAL, INC.

FAGERLIN BULK PLANT
REMEDIAL INVESTIGATION

PROJECT NO. B96070	PM MJS	
DRAWN BY RV	DATE: 10/21/97	
CHECKED BY	DATE:	
APPRVD BY	DATE:	

ESTIMATED EXTENT OF SOIL CONTAMINATION DIAGRAM

FIGURE 2

FILE: B6070A

SOIL SAMPLING PROCEDURES

The actual procedures utilized to collect soil samples at the subject site may vary slightly from Drake Environmental's standard procedures, described below, which are in general accordance with applicable industry standards (i.e., standards of the American Society for Testing and Materials {ASTM} and Wisconsin Department of Natural Resources (DNR) regulations and guidelines (Wisconsin Administrative Code Chapter NR 700.13 and Leaking Underground Storage Tank {LUST} Petroleum Analytical and Quality Assurance Guidance, July 1993, PUBL-SW-130 93).

Excavation Sampling Procedure

The excavation sampling procedure consists of collecting a soil sample from a newly exposed surface or from the bucket of the excavation equipment with a decontaminated stainless steel scoop and/or dedicated sampling glove. If necessary, surface soil is scraped away to expose soil that has not been exposed to the atmosphere. Each sample collected by this procedure is representative of soil at a discrete location and can be placed into a container for future classification, screening, and/or analysis.

PID SCREENING PROCEDURE

To evaluate soil for the presence of volatile organic vapors commonly emitted by volatile organic compounds (VOCs), soil samples are screened with an OVM Model 580B photoionization detector (PID) equipped with a 10.6 electron volt (eV) lamp calibrated to isobutylene. The PID provides a qualitative measure of volatile organic vapors with ionization potentials less than 10.6 eV, which include those present in the more volatile petroleum fuels and solvents. PID readings are measured in instrument units (iu).

A representative portion of soil is placed in an 8-ounce glass jar until the jar is approximately half full. The jar is sealed with a metal lid and allowed to warm prior to screening. The actual time period and temperature to which the samples are allowed to warm are in general accordance with Wisconsin Department of Natural Resources (DNR) guidelines (Leaking Underground Storage Tank {LUST} Field Screening Procedures, PUBL-SW-176 92, September 1992). Following agitation of the container, the lid of the container is slightly opened, the PID tip inserted into the headspace (area in the jar above the soil), and the highest reading on the meter recorded.

To evaluate the significance of PID readings, Drake generally considers PID readings greater than 10 iu an indication of contamination. It should be noted that lower readings do not necessarily indicate the absence of contamination, because nonvolatile contaminants may be present. PID readings are not as meaningful in such cases. In addition, the PID does not identify the types of chemicals present. The screening results should be evaluated by considering the contaminants present, the limitations of the PID meter, and physical observations (soil staining or odors).

cl. 3/1/99
in box 535055
at rec. ctr.

DRAKE
ENVIRONMENTAL, INC.
Common Sense Uncommon Service

August 21, 1998

RECEIVED
AUG 24 1998
ERS DIVISION

Ms. Shanna Laube
Wisconsin Department of Commerce
P.O. Box 530
Park Falls, WI 54552

RE: Notification of Attempt to Achieve a Closed Remedial Action within the $80,000 Cost Limit at the Fagerlin Bulk Plant Property Located in Superior, Wisconsin — Drake Project No. B96070; PECFA Claim No. 54880-0938-24

Dear Ms. Laube:

Per the requirements of Comm 47.339(2), Drake Environmental, Inc. representing the property owner, Mr. Dave Rasmussen, is hereby notifying the Wisconsin Department of Commerce of the attempt to obtain a closed remedial action under the $80,000 cap. Drake plans on achieving a closed remedial action for the above-referenced property by conducting soil excavation and thermal treatment activities.

Implementation of the specified remedial action will begin in late October or early November 1998 in conjunction with system upgrade activities. If you have any questions regarding this letter or the status of the project, please contact Todd Troskey at (715) 358-7018.

Respectfully,

DRAKE ENVIRONMENTAL, INC.

Todd D. Troskey

Todd Troskey
Project Manager

cc: Mr. David Rasmussen, Jr.

B96070F

8554 Highway 51 North
Post Office Box 610
Minocqua, WI 54548-0610
(715) 358-7018
1-800-358-7018
Fax:(715)358-7612

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Tommy G. Thompson, Governor
George E. Meyer, Secretary
William Smith, District Director

North Central District Headquarters
PO Box 818, 107 Sutliff Ave.
Rhinelander, WI 54501-0818
TELEPHONE 715-365-8900
FAX 715-365-8932
TDD 715-365-8957

July 14, 1998

NOR UID # 02-16-110641

David Rassmussen
Fagerlin Fuel Inc.
PO Box 938
Superior, WI 54880

Subject: Fagerlin Fuel Bulk Plant, 1306 N 6th St., Superior, WI

Dear Mr. Rassmussen:

The Department of Natural Resources - Remediation and Redevelopment Program recently received a report from your consultant for the above-referenced site. The report indicates that groundwater is not impacted by contamination at the site.

Based on this report, the Department is transferring authority for the site to the Wisconsin Department of Commerce, in accordance with statutory requirements.

Please notify your consultant of this change.

Sincerely,
NORTHERN REGION

Danielle Lancour

Danielle Lancour
Remediation and Redevelopment Program

c: File
Shanna Laube
WI Dept of Commerce
PO Box 530
Park Falls, WI 54552-0530

DRAKE
ENVIRONMENTAL, INC.
Common Sense Uncommon Service

June 29, 1998

Ms. Danielle Lancour
Wisconsin Department of Natural Resources
P.O. Box 818
Rhinelander, WI 54501

Re: Remedial Investigation at the Fagerlin Fuel Bulk Plant Property in Superior, Wisconsin — Drake Project No. B96070; DNR UID No. 02-16-110461; PECFA Claim No. 54880-0938-24

Dear Ms. Lancour:

Please find the enclosed Remedial Investigation Report completed by Drake Environmental, Inc. for the Fagerlin Fuel Bulk Plant property, located at 1124 North 6th Street in Superior, Wisconsin. The attached report documents the investigation activities completed to date, an evaluation of remedial alternatives, and our conclusions and recommencations.

If you have any questions regarding this project, please contact us.

Respectfully,

DRAKE ENVIRONMENTAL, INC.

Mark J. Stephenson
Project Manager

James Kralick
Senior Project Manager

cc: Mr. David Rasmussen

Enclosure
B96070E

"low priority"
no GW
→ DCOM
6/30/98

8554 Highway 51 North
Post Office Box 610
Minocqua, WI 54548-0610
(715) 358-7018
1-800-358-7018
Fax:(715)358-7612

DRAKE
ENVIRONMENTAL, INC.
Common Sense. Uncommon Service.

REMEDIAL INVESTIGATION REPORT

FAGERLIN FUEL BULK PLANT PROPERTY
SUPERIOR, WISCONSIN

MR. DAVID P. RASMUSSEN

June 26, 1998

DRAKE
ENVIRONMENTAL, INC.
Common Sense. Uncommon Service.

Mr. David P. Rasmussen
Fagerlin Fuel Bulk Plant
P.O. Box 938
Superior, WI 54880

RE: Remedial Investigation at the Fagerlin Fuel Bulk Plant Property in Superior, Wisconsin — Drake Project No. B96070; DNR UID 02-16-110461; PECFA Claim No. 54880-0938-24

Dear Mr. Rasmussen:

We have completed the Remedial Investigation (RI) at the above-referenced site, located at 1124 North 6th Street in Superior, Wisconsin. The attached report presents the results of the field and laboratory testing, a discussion of the results and our conclusions and recommendations.

In accordance with your verbal approval, a copy of this report has been submitted to the following agency:

Ms. Danielle Lancour
Wisconsin Department of Natural Resources
P.O. Box 818
Rhinelander, WI 54501

In addition, a copy of this report should be submitted with the completed Petroleum Environmental Cleanup Fund Act (PECFA) claim to the following agency:

Wisconsin Department of Commerce
PECFA Bureau
201 West Washington Avenue
P.O. Box 7838
Madison, WI 53707

We appreciate this opportunity to provide you with professional environmental consulting services. If you have any concerns regarding this report, please feel free to contact us.

Respectfully,

DRAKE ENVIRONMENTAL, INC.

Mark J. Stephenson
Project Manager

James Kralick
Senior Project Manager

Attachments
B96070E

8554 Highway 51 North
Post Office Box 610
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(715) 358-7018
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REPORT

PROJECT
Fagerlin Fuel Bulk Plant Property
Superior, Wisconsin
DNR UID #02-16-110461

CLIENT
Mr. David P. Rasmussen
Fagerlin Fuel Bulk Plant
P.O. Box 938
Superior, WI 54880

Project Number
B96070

Date
June 26, 1998

DRAKE ENVIRONMENTAL, INC.
8554 Highway 51 North, Unit #6
Post Office Box 610
Minocqua, WI 54548-0610

REPORT CONTENTS

REPORT SUMMARY

The Fagerlin Fuel Bulk Plant property is located at 1124 North 6th Street in Superior, Wisconsin. The subject property is currently utilized as a bulk fuel oil and bulk kerosene distribution point for Fagerlin Fuel, Inc. delivery trucks. Currently, there are three underground storage tanks (USTs) in use at this site.

On June 26, 1996, Drake Environmental, Inc. conducted a Limited Phase II Environmental Assessment for the property owner, Mr. David Rasmussen. Analytical testing of two soil samples collected during the Limited Phase II assessment identified diesel range organics (DRO) at concentrations of 16 parts per million (ppm) and 4,500 ppm. The Wisconsin Department of Natural Resources (DNR) was notified, and in a letter dated September 29, 1996, the DNR requested that an investigation be conducted to estimate the extent and degree of petroleum contamination. Mr. Rasmussen subsequently retained Drake to conduct a Remedial Investigation (RI) to estimate the extent and degree of soil contamination and, if present, groundwater contamination; and to develop recommendations for remediation.

On October 7, 1997, Drake documented the advancement of a soil probe at nine locations during the RI. Drake collected soil samples from the nine soil probe locations for field screening and analytical testing. Based on the results, Drake estimates that approximately 560 tons (400 cubic yards) of contaminated soil exists on site to a maximum depth of approximately 14 feet.

The static groundwater table was not encountered at the nine probehole locations to a depth of 20 feet, the maximum depth explored during the RI. Based on the RI results, groundwater at the subject site is not considered to be impacted by petroleum products.

Soil contamination exceeding Wisconsin Administrative Code NR 720 soil cleanup standards exists at the subject site. Therefore, some form of active soil remediation is warranted. Soil remediation can likely be accomplished by a limited soil excavation during system upgrade activities. Please refer to the attached report for a detailed discussion of the project.

Project Scope

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REMEDIAL INVESTIGATION REPORT
FAGERLIN FUEL BULK PLANT
SUPERIOR, WISCONSIN

1.0 PROJECT SCOPE

1.1 Project Background

The Fagerlin Fuel Bulk Plant is located at 1124 North 6th Street in Superior, Wisconsin (see Figure 1 in Appendix A for the site location map). The property is currently utilized as a fuel oil/kerosene bulk fuel storage facility for Fagerlin Fuel, Inc. Mr. David P. Rasmussen, the property owner, has retained Drake Environmental, Inc. to complete a Remedial Investigation (RI) at the subject site. Drake prepared this report to document the RI procedures and results in accordance with Wisconsin Administrative Code Chapter NR 716 requirements.

On June 26, 1996, Drake conducted a Limited Phase II Environmental Assessment at the site on behalf of Mr. Rasmussen. See Figure 2 in Appendix A for a site diagram. The assessment was conducted to confirm the presence or absence of contamination associated with a petroleum underground storage tank (UST) system located at the site. During the Limited Phase II, Drake drilled five soil borings (designated B-1, B-2, B-3, B-4, and B-5) adjacent to the UST system with a hand-operated electric, flighted-stem auger system. All five borings were drilled to a depth of 6.5 feet below ground surface (bgs). The boring locations are illustrated on Figure 3 in Appendix A. One soil sample was collected from B-4 at a depth of 4 to 4.5 feet bgs, and one soil sample was collected from B-5 at a depth of 6 to 6.5 bgs. These samples were submitted to a laboratory for diesel range organics (DRO) analysis. A DRO concentration of 16 parts per million (ppm) and 4,500 ppm were identified in borings B-4 and B-5, respectively. The DRO concentration in B-5 exceeds the Wisconsin Administrative Code Chapter NR 720.09 soil cleanup standard.

On September 18, 1996, Drake notified the Wisconsin Department of Natural Resources (DNR) of the presence of contamination on behalf of Mr. Rasmussen. In a letter dated September 29, 1996, the DNR requested that Mr. Rasmussen complete a site investigation and develop a remedial action plan (RAP).

On October 7, 1997, Drake conducted an RI to evaluate the extent and degree of soil and groundwater contamination in the area of the existing UST system. This report represents the results of field screening and laboratory analysis, a discussion of the results, and Drake's conclusions and recommendations.

1.2 Site Description

The Fagerlin Fuel Bulk plant is located in the SW 1/4 of the NW 1/4 of Section 14, Township 49 North, Range 14 West in Douglas County, Wisconsin. The site is bordered on the north by North 6th Street, on the west by Baxter Street, and on the east and south by residential properties. Figure 1 in Appendix A illustrates the regional location of the property.

The subject property has been utilized as a bulk fuel dispensing plant for Fagerlin Fuel, Inc. since 1954. The property is developed with an office building in the northwest corner and two garages along the eastern portion of the site. There are two 20,000-gallon bulk fuel oil USTs, a 12,000-gallon bulk kerosene UST, and a pump house. All piping associated with these tanks is above ground. The area in the vicinity of the subject site is serviced by overhead electric, underground electric, underground water, sanitary sewer, and an underground fiber optic line. Figure 2 in Appendix A illustrates the general site layout as well as utility locations adjacent to the subject site.

The following is a list of the three USTs which currently exist at the property.

Size/Contents	Tank I.D.
20,000-gallon/bulk fuel oil	160100041
20,000-gallon/bulk fuel oil	160100042
12,000-gallon/bulk kerosene	160100039

Based on Wisconsin Geologic and Natural History Survey (WGNHS) records, no potable wells exist within a 1,200-foot radius of the subject site. The nearest surface water body is Lake Superior, located approximately 3,400 feet northeast of the site.

1.3 Scope of Work

The purpose of the RI is to estimate the extent and degree of soil and groundwater contamination and develop recommendations for remediation, if warranted. Drake completed the following services during the RI:

- Prepared and submitted an RI work plan to the DNR.
- Prepared a site-specific health and safety plan.
- Assisted in the selection of a soil probe contractor and an analytical laboratory through a competitive bidding process.
- Coordinated the project with the soil probe contractor and analytical laboratory.
- Collected representative soil samples from nine probeholes.
- Field screened the soil samples to preliminarily estimate the extent and degree of soil contamination.
- Submitted soil samples to a laboratory for analysis of selected petroleum parameters.
- Evaluated the resulting data.
- Prepared this report.

Drake evaluated the results of the field and laboratory testing and developed conclusions regarding the on-site environmental conditions. This report describes the procedures followed during the RI, the results of the field and laboratory testing, an analysis of the collected data, and recommendations for remediation.

1.4 Client, Consultant and Contractor Information

The following presents the information required in accordance with Wisconsin Administrative Code Chapter NR 716.15(3)(d) 2 and 3.

Client:

Mr. David P. Rasmussen
Fagerlin Fuel, Inc.
P.O. Box 938
Superior, WI 54880
Telephone no.: 715-394-5561

Consultant:	Drake Environmental, Inc. P.O. Box 610 Minocqua, WI 54548 Contacts: Mark Stephenson, Project Manager James Kralick, Senior Project Manager Telephone no.: 715-358-7018
Contractors:	
-Soil Probing	SGS, Inc. W4490 Pope Road Merrill, WI 54452 Contact: Mr. Peter Wegner Telephone no.: 715-539-2803
-Analytical Testing	En Chem, Inc. DNR Laboratory Certification No. 405132750 1423 North 8th Street, Suite 122 Superior, WI 54880 Contact: Ms. Cindy Coaty Telephone no.: 715-392-5844

Procedures

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2.0 PROCEDURES

2.1 Soil Probe Advancement Procedures

To allow for the collection of representative soil samples at the site, SGS, Inc. advanced a soil probe at nine locations (designated as P-1 through P-9) on October 7, 1997. The probes were advanced to depths ranging from 12 to 20 feet bgs. The soil probe locations were selected in general conformance with DNR guidance, Soil Sampling Requirements for Leaking Underground Storage Tank (LUST) Site Investigations and Excavations (PUBL-SW-127 91). Figure 4 in Appendix A illustrates the approximate soil probe locations.

Drake collected a total of seventy-two samples at 2-foot continuous intervals from the soil probe locations. These samples were collected following the soil probe sampling procedure described in Appendix B.

The soil probe equipment was decontaminated prior to conducting the fieldwork and between each probehole location to avoid the introduction of contaminants or cross-contamination between locations. The decontamination procedure consisted of cleaning the soil probe rods with an Alconox detergent and municipal water solution, and double-rinsing with municipal water in two separate containers.

Following soil sampling, the probeholes were backfilled with bentonite chips. Associated borehole abandonment forms are included in Appendix C.

Drake maintained field logs of the probing and soil sampling activities to document the general soil types and groundwater conditions observed in each probehole. The field logs were used to prepare the final probehole logs presented in Appendix C.

2.2 Soil Screening Procedures

An 8-ounce soil sample was collected at each sample interval and was subsequently screened with a photoionization detector (PID) following the PID screening procedure described in Appendix B. PID screening provides a qualitative measure of volatile organic vapors commonly emitted by volatile organic compounds (VOCs) in soil. PID

readings greater than 10 are generally considered an indication of contamination from products containing VOCs, such as gasoline and/or diesel fuel.

2.3 Soil Classification Procedures

Drake visually examined and classified the 8-ounce soil samples on the basis of texture and plasticity in general accordance with the Unified Soil Classification System (USCS) chart provided in Appendix C. Drake denoted the soil stratifications presented on the logs based on field logs and sample observations. The stratification lines are considered approximate boundaries; the transition between soil types in the subsurface may be gradual in both the horizontal and vertical directions.

Drake also noted olfactory and visual observations of the soil samples to record the presence of obvious petroleum products. These observations are included in the soil descriptions on the probehole logs in Appendix C.

2.4 Soil Sample Analytical Testing Procedures

Drake submitted a total of ten sets of companion samples to En Chem, Inc. for analysis to quantify the degree of petroleum contamination at each sampling location. The soil samples were selected for laboratory analysis based on field screening results and the depths from which they were collected. The soil samples collected from P-5 and P-8 at depths of 14 to 16 feet and 8 to 10 feet, respectively, were selected for submittal for analytical testing because they exhibited the highest PID readings at these two probehole locations. The remaining samples submitted for analytical testing were selected because each was the deepest sample collected from their respective soil probe location. The selected samples were chosen in conformance with DNR guidance (PUBL-SW-127 91).

The soil samples were submitted for laboratory analyses within 1 day following sample collection. Chain of Custody procedures were adhered to throughout sample collection, handling, and laboratory submittal as established by the DNR (Leaking Underground Storage Tank [LUST] and Petroleum Analytical and Quality Assurance Guidance, PUBL-SW-130 93, July 1993). Copies of the laboratory report and Chain of Custody form are included in Appendix D.

The analysis of soil samples consisted of quantifying the following petroleum-related parameters:

Parameter	Quantity	Method
DRO	10 samples	Wisconsin DNR Modified DRO Method
Petroleum volatile organic compounds (PVOCs)	*11 samples	U.S. EPA Method 8020
Polynuclear aromatic hydrocarbons (PAHs)	10 samples	U.S. EPA Method 8310

*Includes a quality control field blank.

Note: The soil samples not submitted for laboratory analysis will be retained at Drake's facility for a period of 60 days from the date of this report. If the samples should be retained for a longer period of time, written instructions should be submitted to Drake.

The laboratory report in Appendix D presents a complete list of the quantified parameters.

2.5 Groundwater Monitoring Wells

Groundwater was not encountered during the site investigation; therefore, there was no need for monitoring well installation. Drake's experience with projects in this area of Superior, Wisconsin, indicates that groundwater exists at depths ranging from 45 to 75 feet below surface elevation.

Results & Analysis

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3.0 RESULTS AND ANALYSIS

3.1 Regional Geology and Hydrogeology

Information available from the WGNHS indicates that the surficial soil in the vicinity of the site consists of lake-modified glacial till deposits of the Miller Creek Formation. The till contains reddish, unbedded, unsorted sandy silt and clay with scattered pebbles, cobbles, and boulders. These glacial till deposits are approximately 100 to 200 feet thick and overlie Precambrian sedimentary rocks. The topography is generally subdued due to wave action or as a result of being deposited in a highly fluid state during high stages of Lake Superior.

In general, the groundwater elevation in unconsolidated sandy clay deposits in the Superior area ranges from approximately 0 to 50 feet bgs. Based upon local topography, groundwater is expected to flow towards Lake Superior, which is located approximately 3,400 feet northeast of the subject property.

3.2 Soil and Groundwater Conditions

Fill materials generally consisting of sands, silty sands, and silty clays were observed at four probe locations at depths ranging from 4 to 8 feet bgs. The natural soil at the subject site generally consists of red-brown clays with traces of silt, fine sand, and coarse sand to approximately 20 feet bgs, the maximum depth explored.

No staining was observed in any of the soil samples collected from the nine soil probe locations. In addition, no petroleum odors were noted in the soil samples collected from P-1, P-2, P-3, P-4, P-6, P-7, or P-9. However, petroleum odors were noted in the soil samples collected from P-5 and P-8 at depths of 12 to 16 feet and 8 to 14 feet, respectively.

The primarily clay natural soil on site is anticipated to exhibit low permeabilities. Therefore, migration of petroleum contaminants is likely limited both horizontally and vertically.

The general soil profile is based on the probehole log descriptions. The specific conditions encountered at each sampling location are indicated on the probehole logs included in Appendix C. A cross section location diagram is included as Figure 5 in Appendix A. A cross section diagram depicting the general soil conditions is included as Figure 6 in Appendix A.

3.3 PID Screening Results

Drake collected a total of 72 samples from the nine probeholes advanced during the RI. Table 1 presents the PID screening results of the soil samples.

TABLE 1
PID Screening Results
Fagerlin Fuel Bulk Plant
Superior, Wisconsin
Drake Project No. B96070

Sample No.	Depth (ft.)	PID Readings (iu)
P-1:S1	0-2	<1
P-1:S2	2-4	NR
P-1:S3	4-6	<1
P-1:S4	6-8	NR
P-1:S5	8-10	<1
P-1:S6	10-12	<1
P-1:S7	12-14	<1
P-1:S8	**14-16**	**<1**
P-2:S1	0-2	<1
P-2:S2	2-4	<1
P-2:S3	4-6	<1
P-2:S4	6-8	<1
P-2:S5	8-10	<1
P-2:S6	10-12	<1
P-2:S7	12-14	<1
P-2:S8	14-16	<1
P-2:S9	16-18	<1
P-2:S10	**18-20**	**<1**
P-3:S1	0-2	<1
P-3:S2	2-4	<1
P-3:S3	4-6	<1
P-3:S4	6-8	<1
P-3:S5	8-10	<1
P-3:S6	**10-12**	**<1**
P-4:S1	0-2	<1
P-4:S2	2-4	<1
P-4:S3	4-6	<1
P-4:S4	6-8	<1
P-4:S5	8-10	<1
P-4:S6	**10-12**	**<1**
P-5:S1	0-2	<1
P-5:S2	2-4	<1
P-5:S3	4-6	<1
P-5:S4	6-8	<1
P-5:S5	8-10	<1
P-5:S6	10-12	45
P-5:S7	12-14	72
P-5:S8	**14-16**	**106**
P-5:S9	16-17.5	58

i.u. = instrument units
NR = no sample recovery
Note: Bold type indicates samples submitted for analytical testing.

TABLE 1 (cont.)
PID Screening Results
Fagerlin Fuel Bulk Plant
Superior, Wisconsin
Drake Project No. B96070

Sample No.	Depth (ft.)	PID Readings (iu)
P-6:S1	0-2	<1
P-6:S2	2-4	<1
P-6:S3	4-6	<1
P-6:S4	6-8	<1
P-6:S5	8-10	<1
P-6:S6	10-12	<1
P-6:S7	12-14	<1
P-6:S8	**14-16**	**<1**
P-7:S1	0-2	<1
P-7:S2	2-4	<1
P-7:S3	4-6	<1
P-7:S4	6-8	<1
P-7:S5	8-10	<1
P-7:S6	10-12	<1
P-7:S7	12-14	<1
P-7:S8	**14-16**	**<1**
P-8:S1	0-2	<1
P-8:S2	2-4	<1
P-8:S3	4-6	5
P-8:S4	6-8	74
P-8:S5	**8-10**	**90**
P-8:S6	10-12	2
P-8:S7	12-14	47
P-8:S8	**14-16**	**<1**
P-9:S1	0-2	<1
P-9:S2	2-4	<1
P-9:S3	4-6	<1
P-9:S4	6-8	<1
P-9:S5	8-10	<1
P-9:S6	10-12	<1
P-9:S7	12-14	<1
P-9:S8	**14-16**	**<1**

i.u. = instrument units
NR = no sample recovery
Note: Bold type indicates samples submitted for analytical testing.

To evaluate the significance of the PID screening, Drake compared the readings to 10, a guideline limit frequently used by the DNR to identify possible VOC contamination. No PID readings greater than 1 were exhibited in any of the soil samples collected

from P-1, P-2, P-3, P-4, P-6, P-7, or P-9. These results suggest that no petroleum contamination exists at the seven probe locations.

PID readings ranging from 45 to 106 were exhibited in soil samples collected from P-5 at depths ranging from 10 to 17.5 feet. Probe refusal, presumably on gravel or cobble, was encountered at 17.5 feet in this probehole. PID readings ranging from 2 to 90 were exhibited in the soil samples collected from P-8 between 4 and 14 feet. No detectable PID reading was recorded in the soil sample collected below 14 feet in probehole P-8. The PID results suggest that soil contamination exists in the vicinity of the UST system at probehole locations P-5 and P-8. Selected soil samples from each of the probeholes were submitted for laboratory analysis to confirm the presence of absence of petroleum contamination.

3.4 Soil Sample Analytical Results

Ten soil samples were submitted to En Chem, Inc. for laboratory analysis. Table 2 presents the analytical results of these samples. Appendix D includes a copy of the laboratory report and associated Chains of Custody.

TABLE 2
Analytical Results—Soil Samples
Fagerlin Fuel Bulk Plant Property
Superior, Wisconsin
Drake Project No. B96070

Parameter	P-1:S8	P-2:S10	P-3:S6	P-4S6	P-5:S8	P-6:S8	P-7S8	P-8:S5	P-8:S8	P-9:S8	Field Blank	NR 720 Groundwater Pathway Standards
Depth (ft.)	14-16	18-20	10-12	10-12	14-16	14-16	14-16	8-10	14-16	14-16	NA	—
PID (i.u.)	<1	<1	<1	<1	106	<1	<1	90	<1	<1	NA	—
DRO (ppm)	<5.2	<4.7	<4.9	<4.7	**920**	<4.7	<4.6	**2,100**	<4.7	<4.7	NA	250
PVOCs (ppb)												
Benzene	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	5.5
Ethylbenzene	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	2,900
Toluene	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	1,500
Total xylenes	<50	<50	<50	<50	1,750	<50	<50	<50	<50	<50	<50	4,100
1,3,5-trimethylbenzene	<25	<25	<25	<25	3,800	<25	<25	1,200	<25	<25	<25	NS
PAHs (ppb)												
Acenaphthene	<17	<17	<17	<17	230	<17	<17	150	<17	<18	NA	38,000*
Benzo(a)pyrene	<14	<14	<14	<15	<13	<15	<14	<14	<14	<15	NA	48,000*
Fluorene	<20	<20	<20	<21	280	<21	<20	120	<20	<21	NA	100,000*
1-methylnaphthalene	<20	<20	<20	<21	490	<21	<20	340	<20	<21	NA	23,000*
2-methylnaphthalene	<19	<19	<19	<19	200	<19	<19	<19	<19	<20	NA	20,000*
Phenanthrene	<18	<18	<18	<19	260	<19	<18	230	<18	<19	NA	1,800*
Pyrene	<17	<17	<17	<17	44	<17	<17	<17	<17	<18	NA	8,700,000*

i.u. = instrument units
NA = not analyzed
NS = no established standard
*Generic soil standards presented in publication RR-519-97, April 1997 (corrected)

DRO in soil is regulated in Wisconsin based on the permeability of the soil present at a site (Wisconsin Administrative Code Chapter NR 720.09). At sites with soil exhibiting a saturated hydraulic conductivity of 10-6 centimeters per second (cm/s) or greater, NR 720.09 has set a standard of 100 parts per million (ppm) for DRO concentrations. At sites with soil exhibiting a saturated hydraulic conductivity of less than 10-6 cm/s, NR 720.09 has set a standard of 250 ppm for DRO concentrations. The natural soil at the subject site consists of primarily clays, which typically exhibit hydraulic conductivities less than 10-6 cm/s. Therefore, the NR 720.09 standard of 250 ppm for DRO is considered to be applicable for the site.

No detectable DRO concentrations were identified in the soil analytical samples collected from P-1, P-2, P-3, P-4, P-6, P-7, or P-9. Based on these results, no DRO-contaminated soil exists at these seven sample locations. DRO concentrations of 920 ppm and 2,100 ppm were identified in the soil samples collected from probe locations P-5:S8 and P-8:S5, respectively.

Concentrations of selected PVOCs (benzene, 1,2-dichloroethane, ethylbenzene, toluene, and total xylenes) are also currently regulated under NR 720.09. No detectable PVOC concentrations were identified in the soil analytical samples collected from P-1, P-2, P-3, P-4, P-6, P-7, or P-9. These results suggest that no soil PVOC contamination exists at these soil sample locations. A detectable PVOC concentration of 1,750 parts per billion (ppb) total xylenes was identified in the soil sample collected from probe P-5 at 14 to 16 feet. This detected concentration is below the NR 720.09 soil cleanup standard. The remaining PVOC parameters detected at P-5 and P-8 do not have established standards.

Polycyclic aromatic hydrocarbon (PAH) concentrations in soil are also regulated in Wisconsin. The DNR generally considers detectable PAH concentrations to be an indication of the presence of contamination associated with relatively nonvolatile petroleum products (diesel fuel, fuel oil, kerosene, etc.). Several detectable PAH concentrations were identified at P-5 and P-8. However, the reported PAH levels are below the suggested generic soil cleanup levels presented in Publication RR-519-97 April 1997 (corrected).

The analytical testing results are generally consistent with Drake's field observations and the results of PID screening. Based on the field screening and analytical testing

results, petroleum-contaminated soil is estimated to exist in an approximate 900-square-foot area at the subject site. The contaminated soil exists at depths ranging from approximately 6 to 14 feet bgs. The estimated volume of petroleum-contaminated soil is 400 cubic yards (560 tons). The estimated extent of soil contamination is illustrated on Figure 7 in Appendix A.

Conclusions & Recommendations

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4.0 CONCLUSIONS AND RECOMMENDATIONS

4.1 Conclusions and Recommendations

Based on field observations and the results of PID screening and analytical testing, petroleum-contaminated soil exists in an approximate 900-square-foot area around the UST system. The contaminated soil is estimated to be present at depths ranging from 6 to 14 feet bgs in the vicinity of the former UST cavity. The contaminated soil appears to be accessible to excavation without damaging the on-site buildings or underground utilities; although buried electric wires are present within the estimated area of contamination/excavation. Based on the estimated extent of soil contamination, preferential migration of the petroleum contaminants along underground utilities is not anticipated to have occurred.

The static water table was not encountered to a depth of 20 feet bgs, the maximum depth explored during the RI. Based on the RI results and regional geologic and hydrogeologic information, groundwater is anticipated to be present at depths ranging from 45 to 75 feet bgs at the subject site. Based on the impermeable nature of the primarily clay soil on site and the estimated vertical extent of soil contamination, groundwater contamination is not considered to exist at the subject site.

Based on the RI results, the extent and degree of petroleum-contaminated soil and the potential for groundwater contamination have been adequately evaluated. Consequently, no further investigation is considered warranted. However, DRO concentrations exceeding NR 720.09 cleanup standards were identified around the UST system. An estimated 400 cubic yards (560 tons) of petroleum-contaminated soil are present in this area. The USTs currently in use at this bulk plant will be replaced with new tanks in the summer of 1998, as part of a facility upgrade. Consequently, it appears that a limited soil excavation conducted concurrently with system upgrade activities will be the most cost-effective and technically feasible remedial alternative for this site.

5.0 CERTIFICATION STATEMENT

Following is a submittal certification statement required by Chapter NR 712 of the Wisconsin Administrative Code which applies to this document.

I, Mark Stephenson, hereby certify that I am a scientist as that term is defined in s. NR 712.03 (3), Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

Mark Stephenson HYDROGEOLOGIST — JUNE 26, 1998

Signature and title — Date

Appendices

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APPENDICES

Appendix A

Figure 1 - Vicinity Diagram
Figure 2 - Site Diagram
Figure 3 – Phase II Boring Locations Diagram
Figure 4 – Soil Probe Locations Diagram
Figure 5 – Soil Profile Diagram
Figure 6 – Cross Section A-A' Diagram
Figure 7 – Estimated Extent of Soil Contamination Diagram

Appendix B

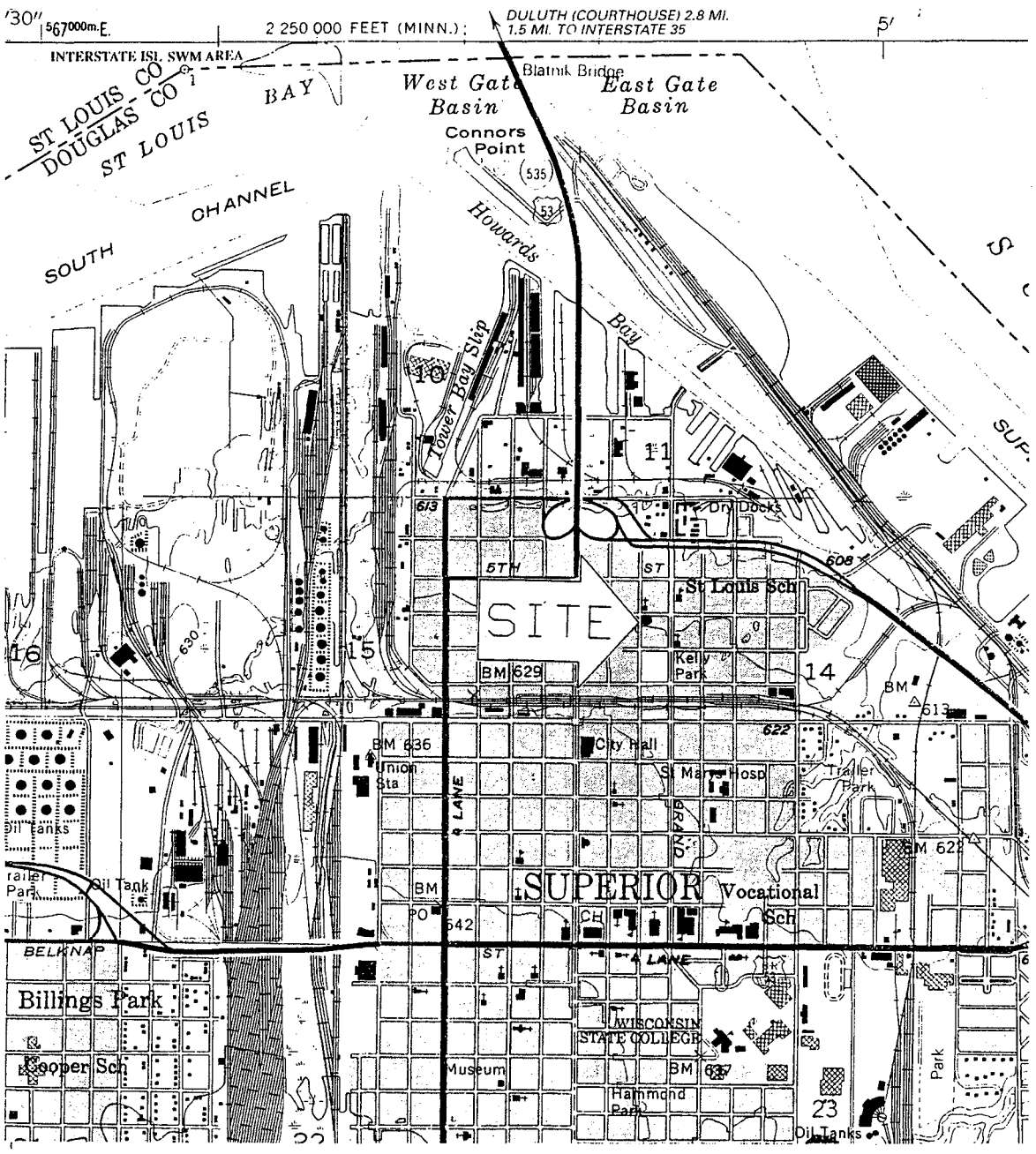
Soil Probe Sampling Procedure
PID Screening Procedure

Appendix C

Borehole Abandonment Forms
Soil Probe Logs
Unified Soil Classification System (USCS) Chart

Appendix D

Laboratory Report
Chain of Custody Forms



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SUPERIOR - WISCONSIN

SW 1/4 NW 1/4 SEC 14 T49N R14W

DIAGRAM SCALE
0 1000 2000
1-INCH = 2000-FEET

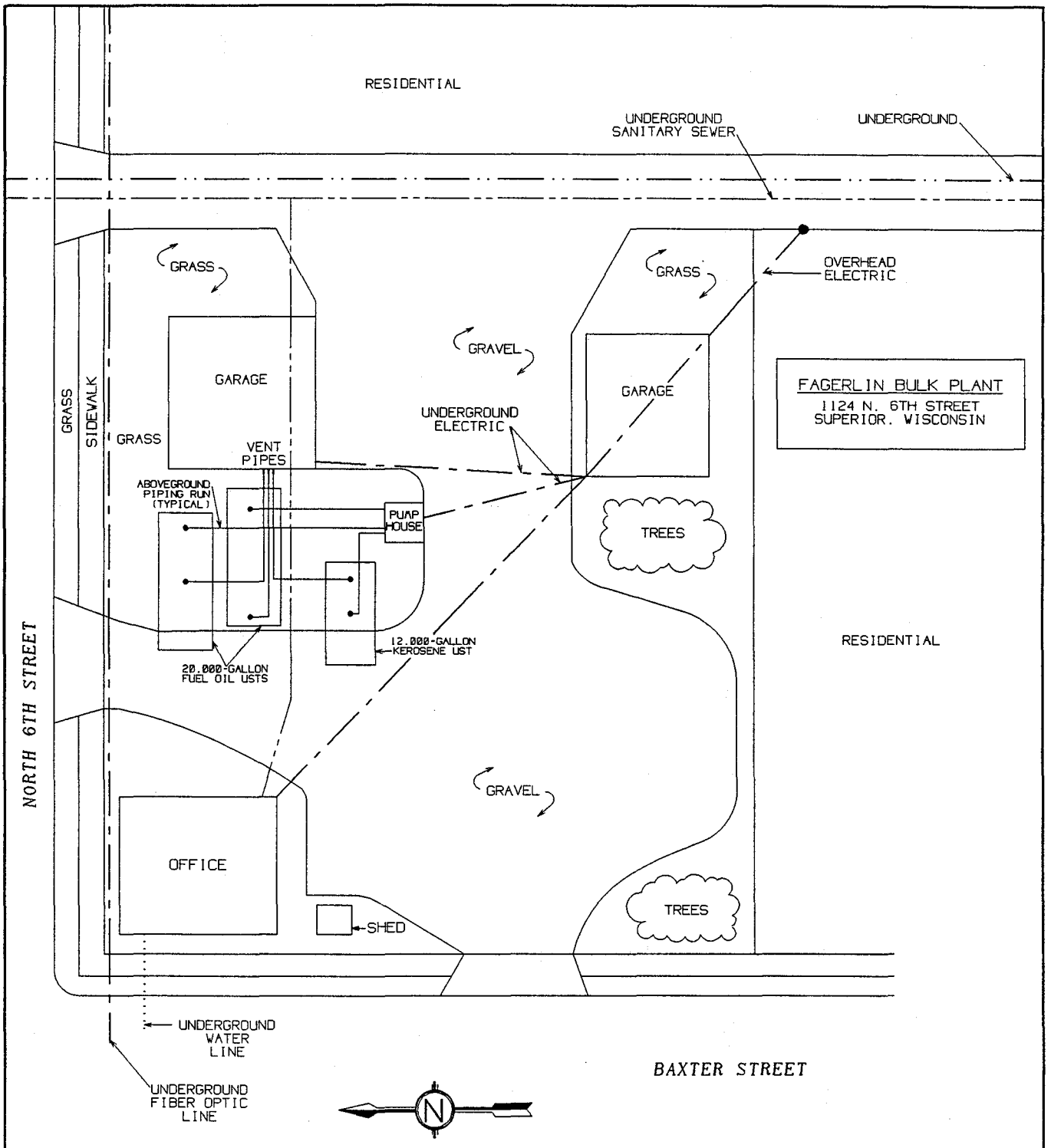
DRAKE ENVIRONMENTAL, INC.

FAGERLIN BULK PLANT
REMEDIAL INVESTIGATION

PROJECT NO. B96070	PM MJS
TOPO COPIED	DATE: 01/14/98
CHKD BY	DATE
APRVD BY	DATE

VICINITY DIAGRAM

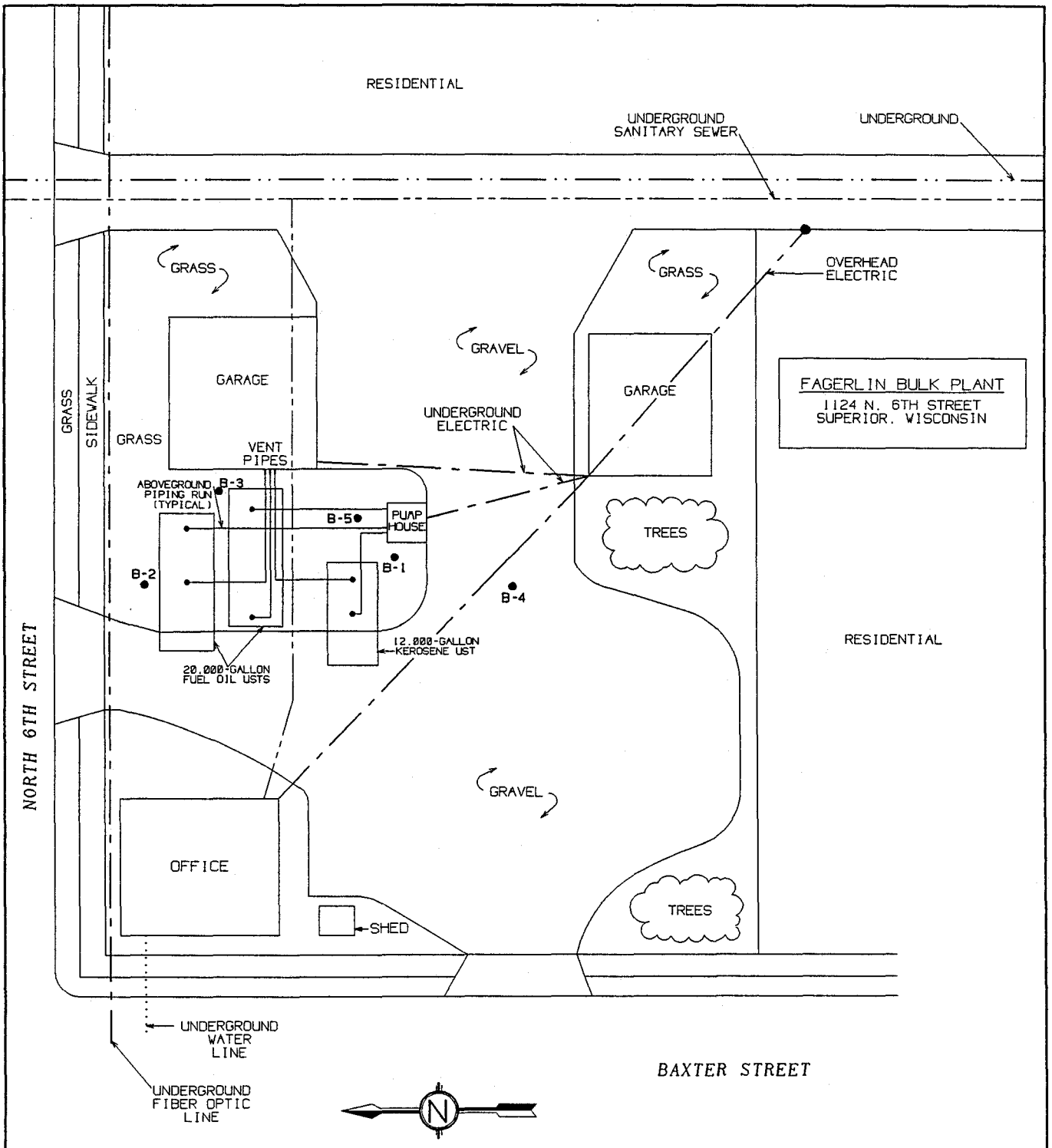
FIGURE 1



DRAKE ENVIRONMENTAL, INC.

FAGERLIN BULK PLANT REMEDIAL INVESTIGATION	PROJECT NO. B96070 PM MJS DRAWN BY RV DATE: 10/21/97 CHECKED BY DATE: APPRVD BY DATE:	SITE DIAGRAM	FIGURE 2

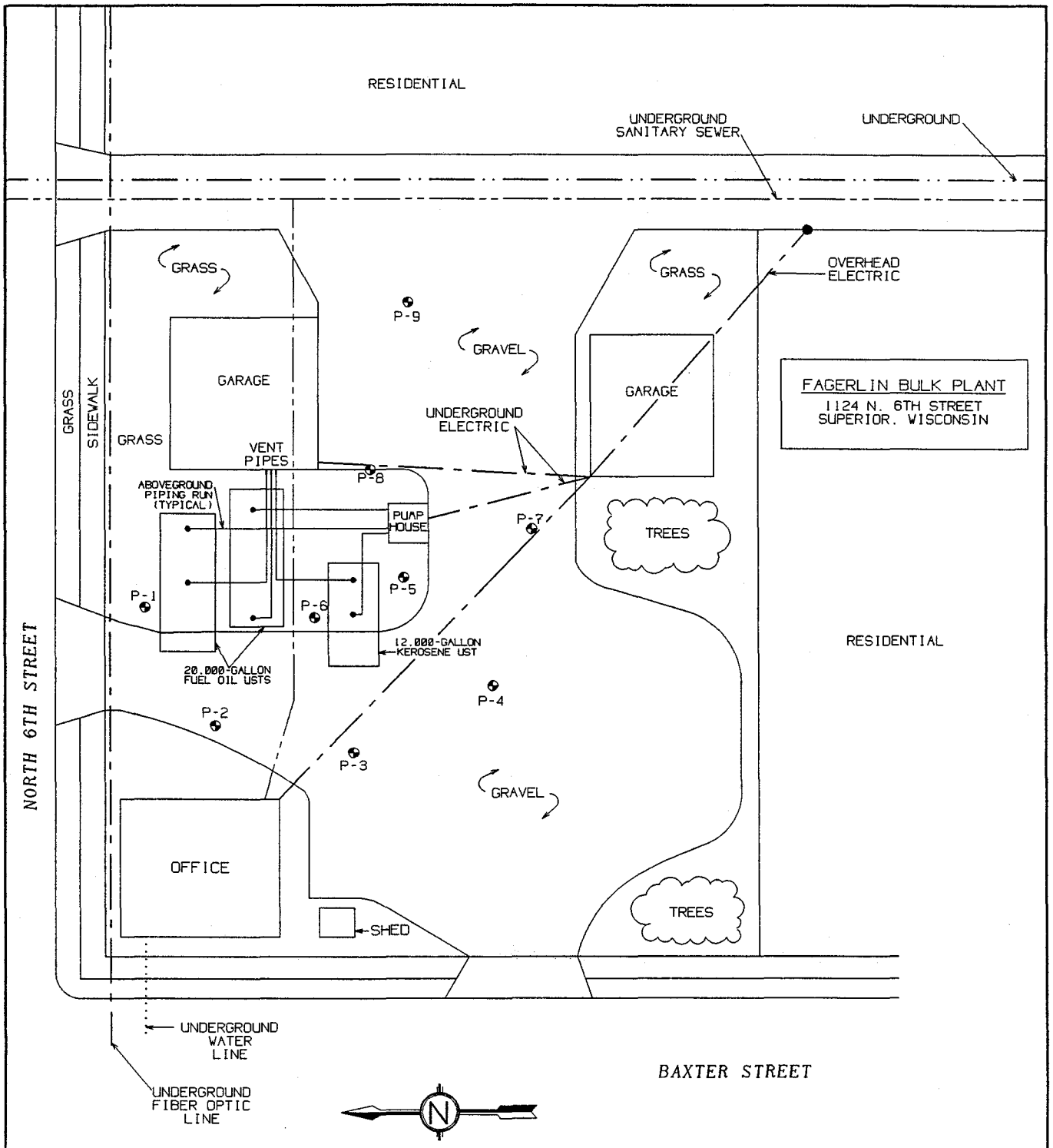
FILE: B6070A



DRAKE ENVIRONMENTAL, INC.

FAGERLIN BULK PLANT REMEDIAL INVESTIGATION	PROJECT NO. B96070 | PM MJS DRAWN BY RV DATE: 10/21/97 CHECKED BY DATE: APPRVD BY DATE:	PHASE II BORING LOCATIONS DIAGRAM	FIGURE 3

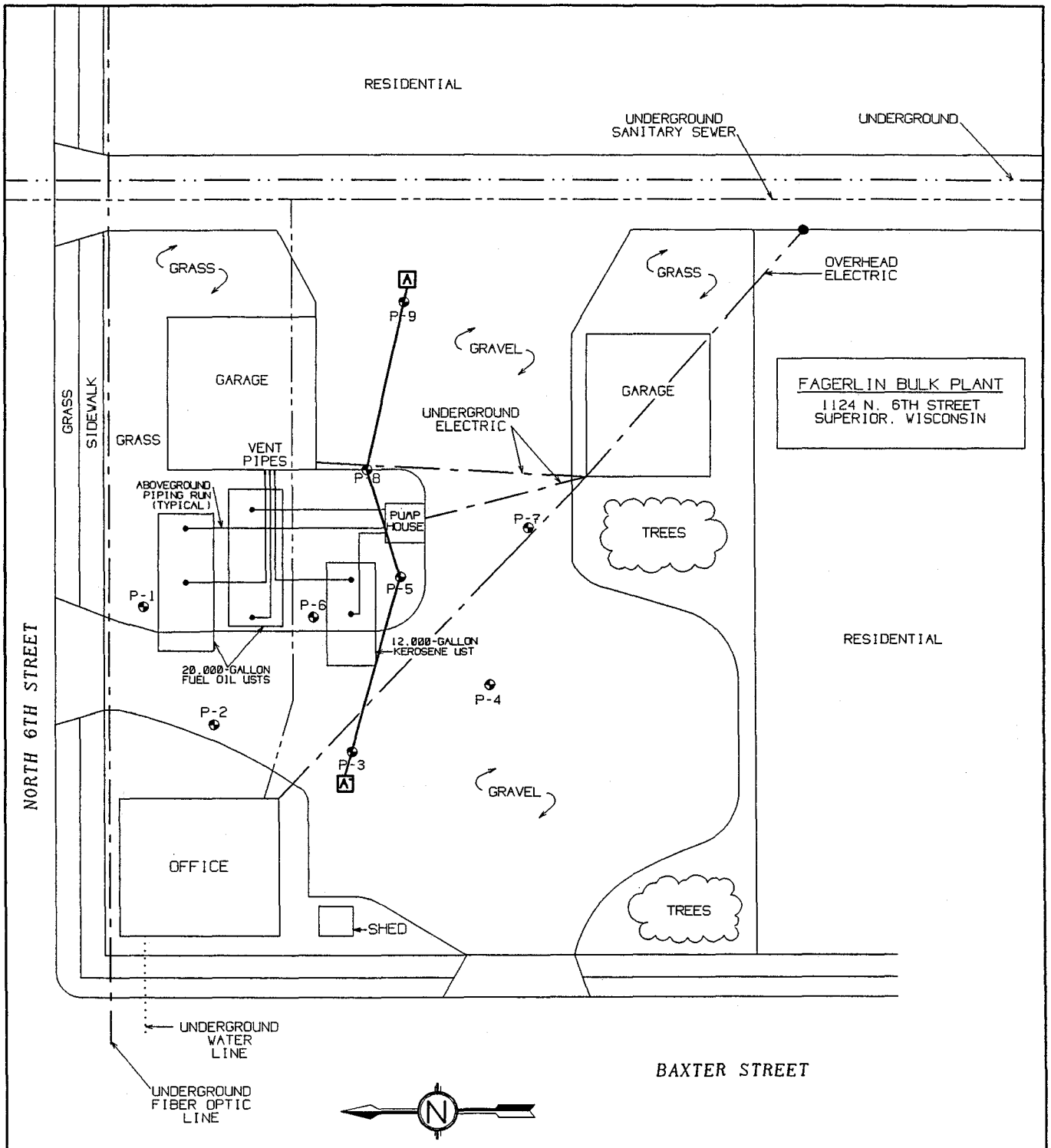
FILE: B6070A



DRAKE ENVIRONMENTAL, INC.

FAGERLIN BULK PLANT REMEDIAL INVESTIGATION	PROJECT NO. B96070 | PM MJS DRAWN BY RV DATE: 10/21/97 CHECKED BY DATE: APPRVD BY DATE:	SOIL PROBE LOCATIONS DIAGRAM	FIGURE 4

FILE: B6070A



DRAKE ENVIRONMENTAL, INC.

FAGERLIN BULK PLANT REMEDIAL INVESTIGATION	PROJECT NO. B96070 | PM MJS DRAWN BY RV DATE: 10/21/97 CHECKED BY DATE: APPRVD BY DATE:	SOIL PROFILE DIAGRAM	FIGURE 5

FILE: B6070A

DRAKE ENVIRONMENTAL, INC.

SCALE

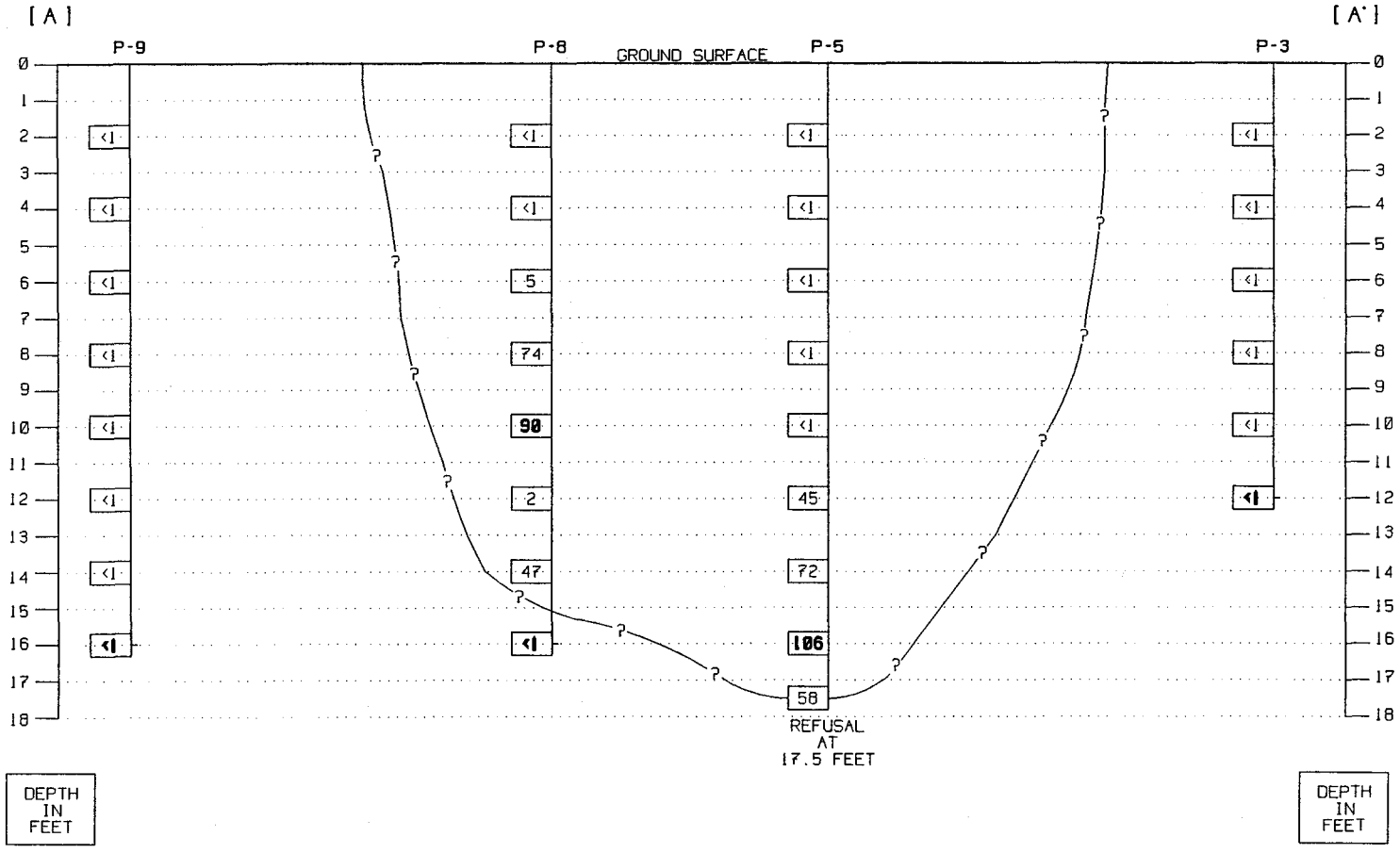
HORIZONTAL: 0 7.5 15 — 1-INCH = 15 FEET

VERTICAL: 0 2.5 5 — 1-INCH = 5 FEET

P-1 XX = BORING LOCATIONS WITH PID READINGS (BOLD PRINT INDICATES SUBMITTED FOR LABORATORY TESTING)

▼ = GROUNDWATER LEVEL

VERTICAL EXAGGERATION = 3X



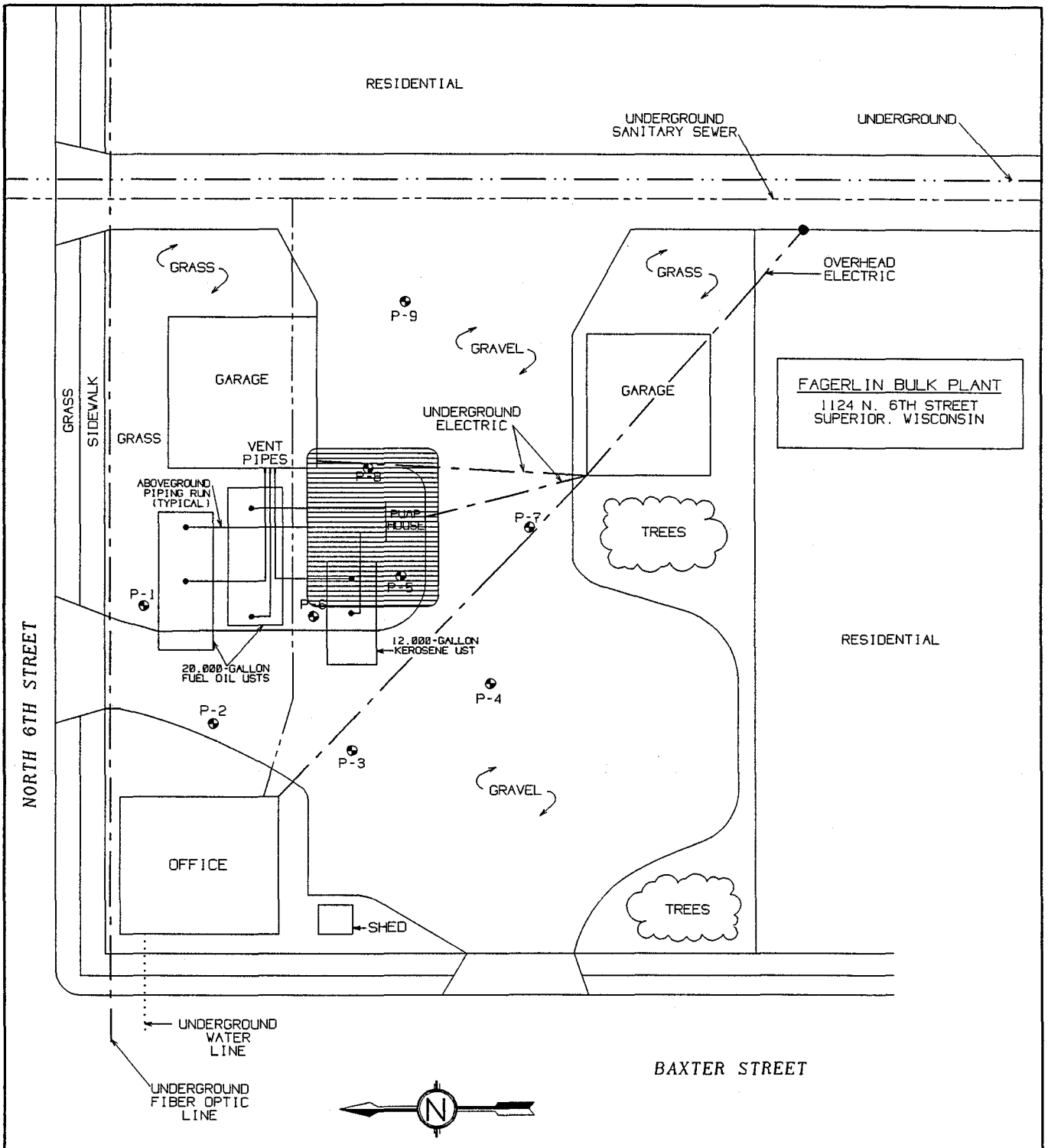
FAGERLIN BULK PLANT
REMEDIAL INVESTIGATION

PROJECT NO. B96070	PM AJS	
DRAWN BY RV	DATE: 01/14/98	
CHKD BY	DATE	
APRVD BY	DATE	

CROSS SECTION A - A'
DIAGRAM

FIGURE 6

FILE: B6070B



DRAKE ENVIRONMENTAL, INC.

FAGERLIN BULK PLANT REMEDIAL INVESTIGATION	PROJECT NO. B96070 | PM MJS DRAWN BY RV DATE: 10/21/97 CHECKED BY DATE: APPRVD BY DATE:	ESTIMATED EXTENT OF SOIL CONTAMINATION DIAGRAM	FIGURE 7

FILE: B6070A

SOIL PROBE SAMPLING PROCEDURE

The soil probe sampling procedure consists of advancing a 1-inch outside diameter (O.D.), thick-walled, hollow sampler that contains a rigid plastic sheath. The probe sampler is hydraulically advanced into the soil at 2-foot vertical intervals. As the sampler is advanced, soil is collected in the plastic sheath. The samples collected by this procedure provide a general indication of subsurface conditions and general stratigraphic changes; and can be placed into containers for classification, screening, and/or laboratory analysis.

PID SCREENING PROCEDURE

To evaluate soil for the presence of volatile organic vapors commonly emitted by volatile organic compounds (VOCs), soil samples are screened with an OVM Model 580B photoionization detector (PID) equipped with a 10.6 electron volt (eV) lamp calibrated to isobutylene. The PID provides a qualitative measure of volatile organic vapors with ionization potentials less than 10.6 eV, which include those present in the more volatile petroleum fuels and solvents. PID readings are measured in instrument units (iu).

A representative portion of soil is placed in an 8-ounce glass jar until the jar is approximately half full. The jar is sealed with a metal lid and allowed to warm prior to screening. The actual time period and temperature to which the samples are allowed to warm are in general accordance with Wisconsin Department of Natural Resources (DNR) guidelines (Leaking Underground Storage Tank {LUST} Field Screening Procedures, PUBL-SW-176 92, September 1992). Following agitation of the container, the lid of the container is slightly opened, the PID tip inserted into the headspace (area in the jar above the soil), and the highest reading on the meter recorded.

To evaluate the significance of PID readings, Drake generally considers PID readings greater than 10 iu an indication of contamination. It should be noted that lower readings do not necessarily indicate the absence of contamination, because nonvolatile contaminants may be present. PID readings are not as meaningful in such cases. In addition, the PID does not identify the types of chemicals present. The screening results should be evaluated by considering the contaminants present, the limitations of the PID meter, and physical observations (soil staining or odors).

C

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

Form 3300-5B Rev. 8-89

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

P-1

(1) GENERAL INFORMATION

Well/Drillhole/Borehole Location

County: DOUGLAS

SW 1/4 of NW 1/4 of Sec. 14 ; T. 49 N; R. 14 ☐ E ☒ W

(If applicable) _____ Gov't Lot _____ Grid Number

Grid Location _____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Civil Town Name: SUPERIOR

Street Address of Well: 1124 NORTH 6TH STREET

City, Village: SUPERIOR

(2) FACILITY NAME

Original Well Owner (If Known): MR. DAVID RASMUSSEN

Present Well Owner:

Street or Route: 1124 NORTH 6TH STREET

City, State, Zip Code: SUPERIOR WI 54880

Facility Well No. and/or Name (If Applicable): P-1

WI Unique Well No.: _____

Reason For Abandonment: EXPLORATORY GEOPROBE BORING

Date of Abandonment: 10/7/97

WELL/DRILLHOLE/BOREHOLE INFORMATION

(3) Original Well/Drillhole/Borehole Construction Completed On

(Date) 10/7/97

☐ Monitoring Well
☐ Water Well
☐ Drillhole
☒ Borehole

Construction Report Available? ☐ Yes ☐ No

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (Specify) GEOPROBE

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft.) NA Casing Diameter (ins.) NA
(From groundsurface)

Casing Depth (ft.) NA

Was Well Annular Space Grouted? ☐ Yes ☐ No ☐ Unknown
If Yes, To What Depth? _____ Feet

(4) Depth to Water (Feet) NA

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	NA

If No, Explain _____

Was Casing Cut Off Below Surface?	☐ Yes	☐ No	NA
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☐ No	

(5) Required Method of Placing Sealing Material
☒ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☐ Dump Bailer ☐ Other (Explain)

(6) Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Pellets
☐ Granular Bentonite
☐ Bentonite - Cement Grout

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
CHIPPED BENTONITE	Surface	15	2 QTS.	

(8) Comments: _____

(9) Name of Person or Firm Doing Sealing Work
CRAIG / SGS.

Signature of Person Doing Work: T. Trushey for SGS
Date Signed: 10-8-97
Street or Route: P.O. Box 610
Telephone Number: (715) 358-7018.
City, State, Zip Code: MINOCQUA, WI 54548

(10) FOR DNR OR COUNTY USE ONLY

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

DNR/COUNTY

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

Form 3300-5B Rev. 8-89

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

P-2

(1) GENERAL INFORMATION

Well/Drillhole/Borehole Location

County: DOUGLAS

SW 1/4 of NW 1/4 of Sec. 14 : T. 49 N; R. 14 ☐ E ☒ W

(If applicable) _____ Gov't Lot _____ Grid Number

Grid Location _____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Civil Town Name: SUPERIOR

Street Address of Well: 1124 NORTH 6TH STREET

City, Village: SUPERIOR

(2) FACILITY NAME

Original Well Owner (If Known): MR. DAVID RASMUSSEN

Present Well Owner

Street or Route: 1124 NORTH 6TH STREET

City, State, Zip Code: SUPERIOR WI 54880

Facility Well No. and/or Name (If Applicable): P-2

WI Unique Well No. _ _ _ _ _ _

Reason For Abandonment: EXPLORATORY GEOPROBE BORING

Date of Abandonment: 10/7/97

WELL/DRILLHOLE/BOREHOLE INFORMATION

(3) Original Well/Drillhole/Borehole Construction Completed On

(Date) 10/7/97

☐ Monitoring Well
☐ Water Well
☐ Drillhole
☒ Borehole

Construction Report Available? ☐ Yes ☐ No

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (Specify) GEOPROBE

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft.) NA Casing Diameter (ins.) NA
(From groundsurface)

Casing Depth (ft.) NA

Was Well Annular Space Grouted? ☐ Yes ☐ No ☐ Unknown
If Yes, To What Depth? _____ Feet

(4) Depth to Water (Feet) NA

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	NA

If No, Explain _____

Was Casing Cut Off Below Surface?	☐ Yes	☐ No	NA
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☐ No	

(5) Required Method of Placing Sealing Material
☒ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☐ Dump Bailer ☐ Other (Explain)

(6) Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Pellets
☐ Granular Bentonite
☐ Bentonite - Cement Grout

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
CHIPPED BENTONITE	Surface	20	3 QTS.	

(8) Comments: _____

(9) Name of Person or Firm Doing Sealing Work
CRAIG / SGS.

Signature of Person Doing Work: T. Trusky for SGS
Date Signed: 10-8-97
Street or Route: P.O. Box 610
Telephone Number: (715) 358-7018.
City, State, Zip Code: MINOCQUA, WI 54548

(10) FOR DNR OR COUNTY USE ONLY

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

DNR/COUNTY

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

Form 3300-5B Rev. 8-89

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

P-3

(1) GENERAL INFORMATION

Well/Drillhole/Borehole Location

County: DOUGLAS

SW 1/4 of NW 1/4 of Sec. 14 ; T. 49 N; R. 14 ☐ E ☒ W

(If applicable) _____ Gov't Lot _____ Grid Number

Grid Location _____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Civil Town Name: SUPERIOR

Street Address of Well: 1124 NORTH 6TH STREET

City, Village: SUPERIOR

(2) FACILITY NAME

Original Well Owner (If Known): MR. DAVID RASMUSSEN

Present Well Owner:

Street or Route: 1124 NORTH 6TH STREET

City, State, Zip Code: SUPERIOR WI 54880

Facility Well No. and/or Name (If Applicable): P-3

WI Unique Well No.: _____

Reason For Abandonment: EXPLORATORY GEOPROBE BORING

Date of Abandonment: 10/7/97

WELL/DRILLHOLE/BOREHOLE INFORMATION

(3) Original Well/Drillhole/Borehole Construction Completed On

(Date) 10/7/97

☐ Monitoring Well
☐ Water Well
☐ Drillhole
☒ Borehole

Construction Report Available? ☐ Yes ☐ No

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (Specify) GEOPROBE

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft.) NA Casing Diameter (ins.) NA
(From groundsurface)

Casing Depth (ft.) NA

Was Well Annular Space Grouted? ☐ Yes ☐ No ☐ Unknown
If Yes, To What Depth? _____ Feet

(4) Depth to Water (Feet) NA

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	NA

If No, Explain _____

Was Casing Cut Off Below Surface?	☐ Yes	☐ No	NA
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☐ No	

(5) Required Method of Placing Sealing Material
☒ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☐ Dump Bailer ☐ Other (Explain)

(6) Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Pellets
☐ Granular Bentonite
☐ Bentonite - Cement Grout

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
CHIPPED BENTONITE	Surface	12	1 QT.	

(8) Comments: _____

(9) Name of Person or Firm Doing Sealing Work: CRAIG / SGS.

Signature of Person Doing Work: T. Trusky for SGS
Date Signed: 10-8-97
Street or Route: P.O. Box 610
Telephone Number: (715) 358-7018.
City, State, Zip Code: MINOCQUA, WI 54548

(10) FOR DNR OR COUNTY USE ONLY

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

DNR/COUNTY

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

Form 3300-5B Rev. 8-89

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

P-4

(1) GENERAL INFORMATION

Well/Drillhole/Borehole Location

County: DOUGLAS

SW 1/4 of NW 1/4 of Sec. 14 ; T. 49 N; R. 14 ☐ E ☒ W

(If applicable) Gov't Lot ____ Grid Number ____

Grid Location ____ ft. ☐ N. ☐ S., ____ ft. ☐ E. ☐ W.

Civil Town Name: SUPERIOR

Street Address of Well: 1124 NORTH 6TH STREET

City, Village: SUPERIOR

(2) FACILITY NAME

Original Well Owner (If Known): MR. DAVID RASMUSSEN

Present Well Owner:

Street or Route: 1124 NORTH 6TH STREET

City, State, Zip Code: SUPERIOR WI 54880

Facility Well No. and/or Name (If Applicable): P-4

WI Unique Well No.: _____

Reason For Abandonment: EXPLORATORY GEOPROBE BORING

Date of Abandonment: 10/7/97

WELL/DRILLHOLE/BOREHOLE INFORMATION

(3) Original Well/Drillhole/Borehole Construction Completed On

(Date) 10/7/97

☐ Monitoring Well
☐ Water Well
☐ Drillhole
☒ Borehole

Construction Report Available? ☐ Yes ☐ No

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (Specify) GEOPROBE

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft.) NA Casing Diameter (ins.) NA
(From groundsurface)

Casing Depth (ft.) NA

Was Well Annular Space Grouted? ☐ Yes ☐ No ☐ Unknown
If Yes, To What Depth? ____ Feet

(4) Depth to Water (Feet) NA

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	NA

If No, Explain ____

Was Casing Cut Off Below Surface?	☐ Yes	☐ No	NA
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☐ No	

(5) Required Method of Placing Sealing Material
☒ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☐ Dump Bailer ☐ Other (Explain)

(6) Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Pellets
☐ Granular Bentonite
☐ Bentonite - Cement Grout

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
CHIPPED BENTONITE	Surface	12	1 QT.	

(8) Comments: ____

(9) Name of Person or Firm Doing Sealing Work

CRAIG / SGS.

Signature of Person Doing Work: T. Trudeau for SGS
Date Signed: 10-8-97
Street or Route: P.O. Box 610
Telephone Number: (715) 358-7018.
City, State, Zip Code: MINOCQUA, WI 54548

(10) FOR DNR OR COUNTY USE ONLY

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

DNR/COUNTY

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

Form 3300-5B Rev. 8-89

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P-5

(1) GENERAL INFORMATION

Well/Drillhole/Borehole Location

County: DOUGLAS

SW 1/4 of NW 1/4 of Sec. 14 ; T. 49 N; R. 14 ☐ E ☒ W

(If applicable) _____ Gov't Lot _____ Grid Number

Grid Location _____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Civil Town Name: SUPERIOR

Street Address of Well: 1124 NORTH 6TH STREET

City, Village: SUPERIOR

(2) FACILITY NAME

Original Well Owner (If Known): MR. DAVID RASMUSSEN

Present Well Owner:

Street or Route: 1124 NORTH 6TH STREET

City, State, Zip Code: SUPERIOR WI 54880

Facility Well No. and/or Name (If Applicable): P-5

WI Unique Well No.: _____

Reason For Abandonment: EXPLORATORY GEOPROBE BORING

Date of Abandonment: 10/7/97

WELL/DRILLHOLE/BOREHOLE INFORMATION

(3) Original Well/Drillhole/Borehole Construction Completed On

(Date) 10/7/97

☐ Monitoring Well
☐ Water Well
☐ Drillhole
☒ Borehole

Construction Report Available? ☐ Yes ☐ No

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (Specify) GEOPROBE

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft.) NA Casing Diameter (ins.) NA
(From groundsurface)

Casing Depth (ft.) NA

Was Well Annular Space Grouted? ☐ Yes ☐ No ☐ Unknown
If Yes, To What Depth? _____ Feet

(4) Depth to Water (Feet) NA

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	NA

If No, Explain _____

Was Casing Cut Off Below Surface?	☐ Yes	☐ No	NA
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☐ No	

(5) Required Method of Placing Sealing Material
☒ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☐ Dump Bailer ☐ Other (Explain)

(6) Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Pellets
☐ Granular Bentonite
☐ Bentonite - Cement Grout

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
CHIPPED BENTONITE	Surface	17.5	2 QTS.	

(8) Comments: _____

Name of Person or Firm Doing Sealing Work
CRAIG / SGS.

Signature of Person Doing Work: T. Trusher for SGS
Date Signed: 10-8-97

Street or Route: P.O. Box 610
Telephone Number: (715) 358-7018.

City, State, Zip Code: MINOCQUA, WI 54548

(10) FOR DNR OR COUNTY USE ONLY

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

DNR/COUNTY

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

Form 3300-5B Rev. 8-89

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

P-6

(1) GENERAL INFORMATION

Well/Drillhole/Borehole Location

County: DOUGLAS

SW 1/4 of NW 1/4 of Sec. 14 ; T. 49 N; R. 14 ☐ E ☒ W

(If applicable) _____ Gov't Lot _____ Grid Number

Grid Location _____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Civil Town Name: SUPERIOR

Street Address of Well: 1124 NORTH 6TH STREET

City, Village: SUPERIOR

(2) FACILITY NAME

Original Well Owner (If Known): MR. DAVID RASMUSSEN

Present Well Owner:

Street or Route: 1124 NORTH 6TH STREET

City, State, Zip Code: SUPERIOR WI 54880

Facility Well No. and/or Name (If Applicable): P-6

WI Unique Well No.: _ _ _ _ _ _

Reason For Abandonment: EXPLORATORY GEOPROBE BORING

Date of Abandonment: 10/7/97

WELL/DRILLHOLE/BOREHOLE INFORMATION

(3) Original Well/Drillhole/Borehole Construction Completed On

(Date) 10/7/97

☐ Monitoring Well
☐ Water Well
☐ Drillhole
☒ Borehole

Construction Report Available? ☐ Yes ☐ No

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (Specify) GEOPROBE

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft.) NA Casing Diameter (ins.) NA
(From groundsurface)

Casing Depth (ft.) NA

Was Well Annular Space Grouted? ☐ Yes ☐ No ☐ Unknown
If Yes, To What Depth? _____ Feet

(4) Depth to Water (Feet) NA

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	NA

If No, Explain _____

Was Casing Cut Off Below Surface?	☐ Yes	☐ No	NA
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☐ No	

(5) Required Method of Placing Sealing Material
☒ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☐ Dump Bailer ☐ Other (Explain)

(6) Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Pellets
☐ Granular Bentonite
☐ Bentonite - Cement Grout

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
CHIPPED BENTONITE	Surface	16	2 QTS.	

(8) Comments: _____

(9) Name of Person or Firm Doing Sealing Work
CRAIG / SGS.

Signature of Person Doing Work: T. Trosky for SGS
Date Signed: 10-8-97
Street or Route: P.O. Box 610
Telephone Number: (715) 358-7018.
City, State, Zip Code: MINOCQUA, WI 54548

(10) FOR DNR OR COUNTY USE ONLY

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

DNR/COUNTY

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

Form 3300-5B Rev. 8-89

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

P-7

(1) GENERAL INFORMATION

Well/Drillhole/Borehole Location

County: DOUGLAS

SW 1/4 of NW 1/4 of Sec. 14 ; T. 49 N; R. 14 ☐ E ☒ W

(If applicable) _____ Gov't Lot _____ Grid Number

Grid Location _____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Civil Town Name: SUPERIOR

Street Address of Well: 1124 NORTH 6TH STREET

City, Village: SUPERIOR

(2) FACILITY NAME

Original Well Owner (If Known): MR. DAVID RASMUSSEN

Present Well Owner:

Street or Route: 1124 NORTH 6TH STREET

City, State, Zip Code: SUPERIOR WI 54880

Facility Well No. and/or Name (If Applicable): P-7

WI Unique Well No.: _____

Reason For Abandonment: EXPLORATORY GEOPROBE BORING

Date of Abandonment: 10/7/97

WELL/DRILLHOLE/BOREHOLE INFORMATION

(3) Original Well/Drillhole/Borehole Construction Completed On

(Date) 10/7/97

☐ Monitoring Well
☐ Water Well
☐ Drillhole
☒ Borehole

Construction Report Available? ☐ Yes ☐ No

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (Specify) GEOPROBE

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft.) NA Casing Diameter (ins.) NA
(From groundsurface)

Casing Depth (ft.) NA

Was Well Annular Space Grouted? ☐ Yes ☐ No ☐ Unknown
If Yes, To What Depth? _____ Feet

(4) Depth to Water (Feet) NA

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	NA

If No, Explain _____

Was Casing Cut Off Below Surface?	☐ Yes	☐ No	NA
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☐ No	

(5) Required Method of Placing Sealing Material
☒ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☐ Dump Bailer ☐ Other (Explain)

(6) Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Pellets
☐ Granular Bentonite
☐ Bentonite - Cement Grout

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
CHIPPED BENTONITE	Surface	16	2 QTS.	

(8) Comments: _____

Name of Person or Firm Doing Sealing Work: CRAIG / SGS.

Signature of Person Doing Work: T. Trusher for SGS

Date Signed: 10-8-97

Street or Route: P.O. Box 610

Telephone Number: (715) 358-7018.

City, State, Zip Code: MINOCQUA, WI 54548

(10) FOR DNR OR COUNTY USE ONLY

Date Received/Inspected | District/County

Reviewer/Inspector

Follow-up Necessary

DNR/COUNTY

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

Form 3300-5B Rev. 8-89

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

P-8

(1) GENERAL INFORMATION

Well/Drillhole/Borehole Location

County: DOUGLAS

SW 1/4 of NW 1/4 of Sec. 14 ; T. 49 N; R. 14 ☐ E ☒ W

(If applicable) ____ Gov't Lot ____ Grid Number

Grid Location ____ ft. ☐ N. ☐ S., ____ ft. ☐ E. ☐ W.

Civil Town Name: SUPERIOR

Street Address of Well: 1124 NORTH 6TH STREET

City, Village: SUPERIOR

(2) FACILITY NAME

Original Well Owner (If Known): MR. DAVID RASMUSSEN

Present Well Owner:

Street or Route: 1124 NORTH 6TH STREET

City, State, Zip Code: SUPERIOR WI 54880

Facility Well No. and/or Name (If Applicable): P-8

WI Unique Well No.: _____

Reason For Abandonment: EXPLORATORY GEOPROBE BORING

Date of Abandonment: 10/7/97

WELL/DRILLHOLE/BOREHOLE INFORMATION

(3) Original Well/Drillhole/Borehole Construction Completed On

(Date) 10/7/97

☐ Monitoring Well
☐ Water Well
☐ Drillhole
☒ Borehole

Construction Report Available? ☐ Yes ☐ No

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (Specify) GEOPROBE

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft.) NA Casing Diameter (ins.) NA
(From groundsurface)

Casing Depth (ft.) NA

Was Well Annular Space Grouted? ☐ Yes ☐ No ☐ Unknown
If Yes, To What Depth? ____ Feet

(4) Depth to Water (Feet) NA

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	NA

If No, Explain ____

Was Casing Cut Off Below Surface?	☐ Yes	☐ No	NA
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☐ No	

(5) Required Method of Placing Sealing Material
☒ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☐ Dump Bailer ☐ Other (Explain)

(6) Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Pellets
☐ Granular Bentonite
☐ Bentonite - Cement Grout

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
CHIPPED BENTONITE	Surface	16	2 QTS.	

(8) Comments: ____

(9) Name of Person or Firm Doing Sealing Work

CRAIG / SGS.

Signature of Person Doing Work: T. Trosbey for SGS
Date Signed: 10-8-97
Street or Route: P.O. Box 610
Telephone Number: (715) 358-7018.
City, State, Zip Code: MINOCQUA, WI 54548

(10) FOR DNR OR COUNTY USE ONLY

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

DNR/COUNTY

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

Form 3300-5B Rev. 8-89

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

P-9

(1) GENERAL INFORMATION

Well/Drillhole/Borehole Location

County: DOUGLAS

SW 1/4 of NW 1/4 of Sec. 14 ; T. 49 N; R. 14 ☐ E ☒ W

(If applicable) _____ Gov't Lot _____ Grid Number

Grid Location _____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Civil Town Name: SUPERIOR

Street Address of Well: 1124 NORTH 6TH STREET

City, Village: SUPERIOR

(2) FACILITY NAME

Original Well Owner (If Known): MR. DAVID RASMUSSEN

Present Well Owner:

Street or Route: 1124 NORTH 6TH STREET

City, State, Zip Code: SUPERIOR WI 54880

Facility Well No. and/or Name (If Applicable): P-9

WI Unique Well No.: _ _ _ _ _ _

Reason For Abandonment: EXPLORATORY GEOPROBE BORING

Date of Abandonment: 10/7/97

WELL/DRILLHOLE/BOREHOLE INFORMATION

(3) Original Well/Drillhole/Borehole Construction Completed On

(Date) 10/7/97

☐ Monitoring Well
☐ Water Well
☐ Drillhole
☒ Borehole

Construction Report Available? ☐ Yes ☐ No

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (Specify) GEOPROBE

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft.) NA Casing Diameter (ins.) NA
(From groundsurface)

Casing Depth (ft.) NA

Was Well Annular Space Grouted? ☐ Yes ☐ No ☐ Unknown
If Yes, To What Depth? _____ Feet

(4) Depth to Water (Feet) NA

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	NA

If No, Explain _____

Was Casing Cut Off Below Surface?	☐ Yes	☐ No	NA
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☐ No	

(5) Required Method of Placing Sealing Material
☒ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☐ Dump Bailer ☐ Other (Explain)

(6) Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Pellets
☐ Granular Bentonite
☐ Bentonite - Cement Grout

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
CHIPPED BENTONITE	Surface	16	2QTS.	

(8) Comments: _____

Name of Person or Firm Doing Sealing Work: CRAIG / SGS.

Signature of Person Doing Work: T. Trusher for SGS

Date Signed: 10-8-97

Street or Route: P.O. Box 610

Telephone Number: (715) 358-7018.

City, State, Zip Code: MINOCQUA, WI 54548

(10) FOR DNR OR COUNTY USE ONLY

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

DNR/COUNTY

DRAKE ENVIRONMENTAL, INC.

PROJECT NAME	FIELD TEC	DRAWN BY	BORING NUMBER
FAGERLIN FUEL BULK PLANT	TDT	TDT	P-1
CLIENT: MR. DAVID P. RASMUSSEN	PROJECT NUMBER: B96070		
LOCATION: 1124 NORTH 6TH STREET, SUPERIOR, WI	LOCATION DESCRIPTION: SW1/4 NW1/4 SEC 14 T49N R14W		

DEPTH	SAMPLE	TYPE	N	QP	DESCRIPTION	USCS	PID	GRAPHIC
0–1	S-1	GP			FINE SAND WITH TRACE FINE GRAVEL, RED BROWN (5YR4/3), MOIST (FILL)	SP	<1	
2–3	S-2	GP					NR	
4–5	S-3	GP					<1	
6–7	S-4	GP					NR	
8–9	S-5	GP			CLAY WITH SOME FINE SAND, TRACE MEDIUM SAND, RED BROWN (5YR4/3), MOIST	CH	<1	
10–11	S-6	GP					<1	
12–13	S-7	GP					<1	
14	S-8	GP			CLAY, WITH TRACE FINE SAND, TRACE GRAY MOTTLING, RED BROWN (5YR4/3), MEDIUM TO HIGH PLASTICITY, MOIST		<1	
15					BORING TERMINATED AT 15 FEET			
16–21								

NOTE: THE STRATIFICATION LINES ARE APPROXIMATE BOUNDARIES. ACTUAL TRANSITION MAY BE GRADUAL.

DRILLING DATE: 10/7/97 | DRILL RIG: GEOPROBE G-40

DRILLED BY: SGS, INC.

BORING DRILLED WITH 2-INCH O.D. GEOPROBE

NOTES

NR = NO SAMPLE RECOVERY

DRAKE
ENVIRONMENTAL, INC.

PROJECT NAME	FIELD TEC	DRAWN BY	BORING NUMBER
FAGERLIN FUEL BULK PLANT	TDT	TDT	
CLIENT	PROJECT NUMBER		P-2
MR. DAVID P. RASMUSSEN	B96070		
LOCATION	LOCATION DESCRIPTION		
1124 NORTH 6TH STREET, SUPERIOR, WI	SW1/4 NW1/4 SEC 14 T49N R14W		

DEPTH	SAMPLE	TYPE	N	QP	DESCRIPTION	USCS	PID	GRAPHIC
0								
1	S-1	GP			CLAY WITH TRACE FINE SAND, TRACE GRAY MOTTLING, RED BROWN (5YR4/3), MEDIUM PLASTICITY, MOIST	CH	<1	
2								
3	S-2	GP					<1	
4								
5	S-3	GP					<1	
6								
7	S-4	GP					<1	
8								
9	S-5	GP					<1	
10								
11	S-6	GP					<1	
12								
13	S-7	GP					<1	
14								
15	S-8	GP			CLAY WITH TRACE FINE SAND, RED BROWN (5YR4/3), HIGH PLASTICITY, MOIST		<1	
16								
17	S-9	GP					<1	
18								
19	S-10	GP			CLAY WITH TRACE FINE SAND SEAMS, RED BROWN (5YR4/3), HIGH PLASTICITY, MOIST		<1	
20					BORING TERMINATED AT 20 FEET			
21								

NOTE: THE STRATIFICATION LINES ARE APPROXIMATE BOUNDARIES. ACTUAL TRANSITION MAY BE GRADUAL.

DRILLING DATE: 10/7/97	DRILL RIG: GEOPROBE G-40
DRILLED BY: SGS, INC.	
BORING DRILLED WITH 2-INCH O.D. GEOPROBE	

NOTES

DRAKE
ENVIRONMENTAL, INC.

PROJECT NAME	FIELD TEC	DRAWN BY	BORING NUMBER
FAGERLIN FUEL BULK PLANT	TDT	TDT	P-3
CLIENT: MR. DAVID P. RASMUSSEN	PROJECT NUMBER: B96070		
LOCATION: 1124 NORTH 6TH STREET, SUPERIOR, WI	LOCATION DESCRIPTION: SW1/4 NW1/4 SEC 14 T49N R14W		

DEPTH	SAMPLE	TYPE	N	QP	DESCRIPTION	USCS	PID	GRAPHIC
0								
1	S-1	GP			CLAY, WITH TRACE FINE TO MEDIUM SAND, RED BROWN (5YR4/3), MEDIUM PLASTICITY, MOIST	CH	<1	
2								
3	S-2	GP					<1	
4								
5	S-3	GP					<1	
6								
7	S-4	GP					<1	
8					CLAY, WITH TRACE FINE SAND, TRACE GRAY MOTTLING, RED BROWN (5YR4/3), HIGH PLASTICITY, MOIST			
9	S-5	GP					<1	
10								
11	S-6	GP					<1	
12					BORING TERMINATED AT 12 FEET			
13								
14								
15								
16								
17								
18								
19								
20								
21								

NOTE: THE STRATIFICATION LINES ARE APPROXIMATE BOUNDARIES. ACTUAL TRANSITION MAY BE GRADUAL.

DRILLING DATE: 10/7/97 | DRILL RIG: GEOPROBE G-40

DRILLED BY: SGS, INC.

BORING DRILLED WITH 2-INCH O.D. GEOPROBE

NOTES

DRAKE
ENVIRONMENTAL, INC.

PROJECT NAME	FIELD TEC	DRAWN BY	BORING NUMBER
FAGERLIN FUEL BULK PLANT	TDT	TDT	P-4
CLIENT: MR. DAVID P. RASMUSSEN	PROJECT NUMBER: B96070		
LOCATION: 1124 NORTH 6TH STREET, SUPERIOR, WI	LOCATION DESCRIPTION: SW1/4 NW1/4 SEC 14 T49N R14W		

DEPTH	SAMPLE	TYPE	N	QP	DESCRIPTION	USCS	PID	GRAPHIC
0								
1	S-1	GP			FINE SAND AND CLAY, WITH TRACE COARSE GRAVEL, RED BROWN (5YR4/3), MOIST (FILL)	SP	<1	
2								
3	S-2	GP					<1	
4					CLAY, WITH TRACE FINE SAND, RED BROWN (5YR4/3), MEDIUM TO HIGH PLASTICITY, MOIST	CH		
5	S-3	GP					<1	
6								
7	S-4	GP					<1	
8								
9	S-5	GP					<1	
10								
11	S-6	GP					<1	
12					BORING TERMINATED AT 12 FEET			
13								
14								
15								
16								
17								
18								
19								
20								
21								

NOTE: THE STRATIFICATION LINES ARE APPROXIMATE BOUNDARIES. ACTUAL TRANSITION MAY BE GRADUAL.

DRILLING DATE: 10/7/97 | DRILL RIG: GEOPROBE G-40

DRILLED BY: SGS, INC.

BORING DRILLED WITH 2-INCH O.D. GEOPROBE

NOTES

DRAKE
ENVIRONMENTAL, INC.

PROJECT NAME	FIELD TEC	DRAWN BY	BORING NUMBER
FAGERLIN FUEL BULK PLANT	TDT	TDT	P-5
CLIENT: MR. DAVID P. RASMUSSEN	PROJECT NUMBER: B96070		
LOCATION: 1124 NORTH 6TH STREET, SUPERIOR, WI	LOCATION DESCRIPTION: SW1/4 NW1/4 SEC 14 T49N R14W		

DEPTH	SAMPLE	TYPE	N	QP	DESCRIPTION	USCS	PID	GRAPHIC
0								
1	S-1	GP			FINE SAND WITH TRACE COARSE SAND AND TRACE COARSE GRAVEL, RED BROWN (5YR4/3), DRY (FILL)	SP	<1	
2								
3	S-2	GP					<1	
4								
5	S-3	GP					<1	
6								
7	S-4	GP			FINE SAND AND CLAY WITH TRACE COARSE SAND, TRACE GRAVEL, DARK BROWN (10YR3/3), MOIST TO WET	CL	<1	
8								
9	S-5	GP					<1	
10								
11	S-6	GP					45	
12								
13	S-7	GP					72	
14								
15	S-8	GP			SANDY SILTY CLAY, BROWN (7.5YR4/3), MOIST		106	
16								
17	S-9	GP					58	
18					BORING TERMINATED AT 17.5 FEET			
19								
20								
21								

NOTE: THE STRATIFICATION LINES ARE APPROXIMATE BOUNDARIES. ACTUAL TRANSITION MAY BE GRADUAL.

DRILLING DATE: 10/7/97	DRILL RIG: GEOPROBE G-40
DRILLED BY: SGS, INC.	
BORING DRILLED WITH 2-INCH O.D. GEOPROBE	

NOTES

DRAKE
ENVIRONMENTAL, INC.

PROJECT NAME	FIELD TEC	DRAWN BY	BORING NUMBER
FAGERLIN FUEL BULK PLANT	TDT	TDT	P-6
CLIENT: MR. DAVID P. RASMUSSEN	PROJECT NUMBER: B96070		
LOCATION: 1124 NORTH 6TH STREET, SUPERIOR, WI	LOCATION DESCRIPTION: SW1/4 NW1/4 SEC 14 T49N R14W		

DEPTH	SAMPLE	TYPE	N	QP	DESCRIPTION	USCS	PID	GRAPHIC
0								
1	S-1	GP			CLAY WITH TRACE FINE SAND, TRACE GRAVEL, DARK BROWN (10YR2/2) TO RED BROWN (5YR4/3), MOIST (FILL)	CH	<1	
2								
3	S-2	GP					<1	
4								
5	S-3	GP			CLAY WITH TRACE FINE GRAVEL, RED BROWN (5YR4/3), MEDIUM TO HIGH PLASTICITY, MOIST		<1	
6								
7	S-4	GP					<1	
8								
9	S-5	GP			CLAY WITH TRACE COARSE SAND, TRACE SILT, RED BROWN (5YR4/3), MEDIUM TO HIGH PLASTICITY, MOIST		<1	
10								
11	S-6	GP					<1	
12								
13	S-7	GP					<1	
14								
15	S-8	GP					<1	
16					BORING TERMINATED AT 16 FEET			
17								
18								
19								
20								
21								

NOTE: THE STRATIFICATION LINES ARE APPROXIMATE BOUNDARIES. ACTUAL TRANSITION MAY BE GRADUAL.

DRILLING DATE: 10/7/97 | DRILL RIG: GEOPROBE G-40

DRILLED BY: SGS, INC.

BORING DRILLED WITH 2-INCH O.D. GEOPROBE

NOTES

DRAKE ENVIRONMENTAL, INC.

PROJECT NAME	FIELD TEC	DRAWN BY	BORING NUMBER
FAGERLIN FUEL BULK PLANT	TDT	TDT	P-7
CLIENT: MR. DAVID P. RASMUSSEN	PROJECT NUMBER: B96070		
LOCATION: 1124 NORTH 6TH STREET, SUPERIOR, WI	LOCATION DESCRIPTION: SW1/4 NW1/4 SEC 14 T49N R14W		

DEPTH	SAMPLE	TYPE	N	QP	DESCRIPTION	USCS	PID	GRAPHIC
0								
1	S-1	GP			SILTY CLAY LOAM, BLACK (10YR2/1), MOIST	OL	<1	
2								
3	S-2	GP			CLAY, WITH TRACE FINE GRAVEL AND TRACE SILT, RED BROWN (5YR4/3), MEDIUM PLASTICITY, MOIST	CH	<1	
4								
5	S-3	GP					<1	
6								
7	S-4	GP			CLAY WITH TRACE FINE SAND, RED BROWN (5YR4/3), MEDIUM TO HIGH PLASTICITY, MOIST		<1	
8								
9	S-5	GP					<1	
10								
11	S-6	GP					<1	
12								
13	S-7	GP					<1	
14								
15	S-8	GP					<1	
16					BORING TERMINATED AT 16 FEET			
17								
18								
19								
20								
21								

NOTE: THE STRATIFICATION LINES ARE APPROXIMATE BOUNDARIES. ACTUAL TRANSITION MAY BE GRADUAL.

DRILLING DATE: 10/7/97 | DRILL RIG: GEOPROBE G-40

DRILLED BY: SGS, INC.

BORING DRILLED WITH 2-INCH O.D. GEOPROBE

NOTES

DRAKE
ENVIRONMENTAL, INC.

PROJECT NAME	FIELD TEC	DRAWN BY	BORING NUMBER
FAGERLIN FUEL BULK PLANT	TDT	TDT	
CLIENT	PROJECT NUMBER		P-8
MR. DAVID P. RASMUSSEN	B96070		
LOCATION	LOCATION DESCRIPTION		
1124 NORTH 6TH STREET, SUPERIOR, WI	SW1/4 NW1/4 SEC 14 T49N R14W		

DEPTH	SAMPLE	TYPE	N	QP	DESCRIPTION	USCS	PID	GRAPHIC
0								
1	S-1	GP			FINE SAND, BROWN (10YR3/3), MOIST (FILL)	SP	<1	
2								
3	S-2	GP					<1	
4								
5	S-3	GP					5	
6					CLAY WITH TRACE SILT AND TRACE FINE SAND, RED BROWN (5YR4/3) , MEDIUM TO HIGH PLASTICITY, MOIST	CH		
7	S-4	GP					74	
8								
9	S-5	GP					90	
10								
11	S-6	GP					2	
12								
13	S-7	GP					47	
14								
15	S-8	GP					<1	
16					BORING TERMINATED AT 16 FEET			
17								
18								
19								
20								
21								

NOTE: THE STRATIFICATION LINES ARE APPROXIMATE BOUNDARIES. ACTUAL TRANSITION MAY BE GRADUAL.

DRILLING DATE: 10/7/97 | DRILL RIG: GEOPROBE G-40

DRILLED BY: SGS, INC.

BORING DRILLED WITH 2-INCH O.D. GEOPROBE

NOTES

DRAKE
ENVIRONMENTAL, INC.

PROJECT NAME	FIELD TEC	DRAWN BY	BORING NUMBER
FAGERLIN FUEL BULK PLANT	TDT	TDT	P-9
CLIENT	PROJECT NUMBER		
MR. DAVID P. RASMUSSEN	B96070		
LOCATION	LOCATION DESCRIPTION		
1124 NORTH 6TH STREET, SUPERIOR, WI	SW1/4 NW1/4 SEC 14 T49N R14W		

DEPTH	SAMPLE	TYPE	N	QP	DESCRIPTION	USCS	PID	GRAPHIC
0								
1	S-1	GP			CLAY, TRACE FINE TO MEDIUM SAND AND SILT, BROWN (10YR3/3), MOIST (FILL)	CL	<1	
2								
3	S-2	GP			CLAY WITH TRACE FINE SAND AND TRACE COARSE SAND, RED BROWN (5YR4/3), MEDIUM TO HIGH PLASTICITY, MOIST	CH	<1	
4								
5	S-3	GP					<1	
6								
7	S-4	GP					<1	
8								
9	S-5	GP					<1	
10								
11	S-6	GP					<1	
12								
13	S-7	GP					<1	
14								
15	S-8	GP					<1	
16					BORING TERMINATED AT 16 FEET			
17								
18								
19								
20								
21								

NOTE: THE STRATIFICATION LINES ARE APPROXIMATE BOUNDARIES. ACTUAL TRANSITION MAY BE GRADUAL.

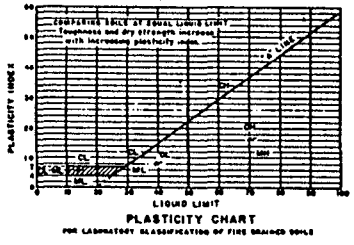
DRILLING DATE: 10/7/97	DRILL RIG: GEOPROBE G-40
DRILLED BY: SGS, INC.	
BORING DRILLED WITH 2-INCH O.D. GEOPROBE	

NOTES

SOIL CLASSIFICATION SYSTEM CHART

UNIFIED SOIL CLASSIFICATION
INCLUDING IDENTIFICATION AND DESCRIPTION

FIELD IDENTIFICATION PROCEDURES (Excluding particles larger than 3 inches and basing fractions on estimated weights)				GROUP SYMBOLS [a]	TYPICAL NAMES	INFORMATION REQUIRED FOR DESCRIBING SOILS	LABORATORY CLASSIFICATION CRITERIA
COARSE GRAINED SOILS More than half of material is larger than No. 200 sieve size [b]	GRAVELS More than half of coarse fraction is larger than No. 4 sieve size (For visual classifications, the ¾" size may be used as equivalent to the No. 4 sieve size.)	CLEAN GRAVELS (Little or no fines)	Wide range in grain size and substantial amounts of all intermediate particle sizes.	GW	Well graded gravels, gravel-sand mixtures, little or no fines.	Give typical name; indicate approximate percentages of sand and gravel; max. size; angularity, surface condition, and hardness of the coarse grains; local or geologic name and other pertinent descriptive information, and symbol in parentheses.	Determine percentages of gravel and sand from grain size curve. Depending on percentage of fines (fraction smaller than No. 200 sieve size) coarse grained soils are classified as follows:- GW, GP, SW, SP. More than 12% GM, GC, SM, SC. 5% to 12% Borderline cases requiring use of dual symbols. $C_u = \frac{D_{60}}{D_{10}}$ Greater than 4 $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ Between one and 3
			Predominantly one size or a range of sizes with some intermediate sizes missing.	GP	Poorly graded gravels, gravel-sand mixtures, little or no fines		Not meeting all gradation requirements for GW
		GRAVELS WITH FINES (Appreciable amount of fines)	Non-plastic fines (for identification procedures see ML below).	GM	Silty gravels, poorly graded gravel-sand-silt mixtures.	For undisturbed soils add information on stratification, degree of compactness, cementation, moisture conditions and drainage characteristics.	Atterberg limits below "A" line, or PI less than 4 / Atterberg limits above "A" line with PI greater than 7 / Above "A" line with PI between 4 and 7 are borderline cases requiring use of dual symbols.
			Plastic fines (for identification procedures see CL below).	GC	Clayey gravels; poorly graded gravel-sand-clay mixtures.		
	SANDS More than half of coarse fraction is smaller than No. 4 sieve size.	CLEAN SANDS (Little or no fines)	Wide range in grain sizes and substantial amounts of all intermediate particle sizes.	SW	Well graded sands, gravelly sands; little or no fines.	EXAMPLE:- Silty sand, gravelly; about 20% hard, angular gravel particles ½-in maximum size; rounded and subangular sand grains coarse to fine; about 15% non-plastic fines with low dry strength; well compacted and moist in place; alluvial sand; (SM)	$C_u = \frac{D_{60}}{D_{10}}$ Greater than 6 $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ Between one and 3
			Predominantly one size or a range of sizes with some intermediate sizes missing.	SP	Poorly graded sands, gravelly sands; little or no fines.		Not meeting all gradation requirements for SW
		SANDS WITH FINES (Appreciable amount of fines)	Non-plastic fines (for identification procedures see ML below).	SM	Silty sands, poorly graded sand-silt mixtures.		Atterberg limits below "A" line or PI less than 4 / Atterberg limits above "A" line with PI greater than 7 / Above "A" line with PI between 4 and 7 are borderline cases requiring use of dual symbols.
			Plastic fines (for identification procedures see CL below).	SC	Clayey sands, poorly graded sand-clay mixtures.		
FINE GRAINED SOILS More than half of material is smaller than No. 200 sieve size. (The No. 200 sieve size is about the smallest particle visible to the naked eye)	IDENTIFICATION PROCEDURES ON FRACTION SMALLER THAN No. 40 SIEVE SIZE	DRY STRENGTH (CRUSHING CHARACTERISTICS)	DILATANCY (REACTION TO SHAKING)	TOUGHNESS (CONSISTENCY NEAR PLASTIC LIMIT)			
	SILTS AND CLAYS Liquid limit less than 50	None to slight	Quick to slow	None	ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands with slight plasticity.	Use grain size curve in identifying the fractions as given under field identification.
		Medium to high	None to very slow	Medium	CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.	Give typical name; indicate degree and character of plasticity, amount and maximum size of coarse grains; color in wet condition, odor if any, local or geologic name, and other pertinent descriptive information; and symbol in parentheses.
		Slight to medium	Slow	Slight	OL	Organic silts and organic silt-clays of low plasticity.	For undisturbed soils add information on structure, stratification, consistency in undisturbed and remolded states, moisture and drainage conditions.
	SILTS AND CLAYS Liquid limit greater than 50	Slight to medium	Slow to none	Slight to medium	MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts.	EXAMPLE:- Clayey silt, brown; slightly plastic; small percentage of fine sand; numerous vertical root holes; firm and dry in place; loess; (ML)
		High to very high	None	High	CH	Inorganic clays of high plasticity, fat clays.	
		Medium to high	None to very slow	Slight to medium	OH	Organic clays of medium to high plasticity.	
HIGHLY ORGANIC SOILS	Readily identified by color, odor, spongy feel and frequently by fibrous texture.			Pt	Peat and other highly organic soils.		



PLASTICITY CHART
FOR LABORATORY CLASSIFICATION OF FINE GRAINED SOILS

[a] Boundary classifications:- Soils possessing characteristics of two groups are designated by combinations of group symbols. For example GW-GC, well graded gravel-sand mixture with clay binder.

[b] All sieve sizes on this chart are U.S. standard.

FIELD IDENTIFICATION PROCEDURES FOR FINE GRAINED SOILS OR FRACTIONS

These procedures are to be performed on the minus No. 40 sieve size particles, approximately ¼ in. For field classification purposes, screening is not intended; simply remove by hand the coarse particles that interfere with the tests.

DEFINITIONS

COMPONENT SIZE	COMPONENT PERCENTAGES	CONSISTENCY (CLAY SOILS)	RELATIVE DENSITY (GRANULAR SOIL)
Cobble = 3-12 in.	Trace = 5-15%	Soft = <0.5 tsf	Very Loose = 1-5 bpf
Gravel = 0.19-3 in.	Few = 15-25%	Firm = 0.5-1 tsf	Loose = 5-9 bpf
Sand = 0.0003-0.19 in.	Some = 25-35%	Stiff = 1-2 tsf	Medium = 10-29 bpf
Silt = 0.0002-0.003 in.	And = 35-50%	Very Stiff = 2-4 tsf	Dense = 30-49 bpf
Clay = <0.0002 in.		Hard = >4 tsf	Very Dense = >50 bpf
		tsf = Tons per Square Foot	bpf = Blows per Foot

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1-800-7-ENCHEM

- Analytical Report -

Project Name : FAGERLIN FUEL BULK PLANT

Project Number : B96070

Client: DRAKE ENVIRONMENTAL

WI DNR LAB ID : 816079330

Report Date : 10/28/97

Sample No.	Field ID	Collection Date	Sample No.	Field ID	Collection Date
770215-001	P-1 S-8	10/7/97			
770215-002	P-2 S-10	10/7/97			
770215-003	P-3 S-6	10/7/97			
770215-004	FIELD BLANK	10/7/97			
770215-005	P-4 S-6	10/7/97			
770215-006	P-5 S-8	10/7/97			
770215-007	P-6 S-8	10/7/97			
770215-008	P-7 S-8	10/7/97			
770215-009	P-8 S-5	10/7/97			
770215-010	P-8 S-8	10/7/97			
770215-011	P-9 S-8	10/7/97			

The "Q" flag is present when a parameter has been detected below the LOQ. This indicates the results are qualified due to the uncertainty of the parameter concentration between the LOD and the LOQ.

Soil VOC detects are corrected for the total solids, unless otherwise noted.

I certify that the data contained in this Final Report has been generated and reviewed in accordance with approved methods and Laboratory Standard Operating Procedure. Exceptions, if any, are discussed in the accompanying sample narrative. Release of this final report is authorized by Laboratory management, as is verified by the following signature.

Michael D. Cuta

Approval Signature

10-28-97

Date

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Lab#:	TestGroupID:	Comment:
770215-006	PVOC-S-ME	Sample exhibits hydrocarbon pattern resembling diesel fuel or extremely weathered gasoline.
	DRO-S	Front peaks present along with diesel range peaks.
770215-009	PVOC-S-ME	Sample exhibits hydrocarbon pattern resembling diesel fuel or extremely weathered gasoline.
	DRO-S	Diesel range peaks present in the chromatogram.

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- Analytical Report -

Project Name : FAGERLIN FUEL BULK PLANT
Project Number : B96070
Field ID : P-1 S-8
Lab Sample Number : 770215-001
WI DNR LAB ID : 816079330

Client : DRAKE ENVIRONMENTAL
Report Date : 10/24/97
Collection Date : 10/7/97
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analys
Solids, percent	77.9				%		10/10/97	SM2540G	SM2540G	KIG

Organic Results

Preservation Date : 10/7/97

DIESEL RANGE ORGANICS - SOIL **Prep Method:** WI Mod DRO **Prep Date:** 10/9/97 **Analyst:** DLP

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 5.2			5.2	mg/kg		10/12/97	WI Mod DRO
Blank spike	101				%Recov		10/12/97	WI Mod DRO
Blank spike duplicate	90				%Recov		10/12/97	WI Mod DRO

Organic Results

PAH - WI LUST LIST - SEMIVOLATILES **Prep Method:** SW846 3550 **Prep Date:** 10/13/97 **Analyst:** GB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acenaphthene	< 17	17	54		ug/kg		10/14/97	SW846 8270
Acenaphthylene	< 18	18	57		ug/kg		10/14/97	SW846 8270
Anthracene	< 16	16	51		ug/kg		10/14/97	SW846 8270
Benzo(a)anthracene	< 15	15	48		ug/kg		10/14/97	SW846 8270
Benzo(a)pyrene	< 14	14	45		ug/kg		10/14/97	SW846 8270
Benzo(b)fluoranthene	< 18	18	57		ug/kg		10/14/97	SW846 8270
Benzo(g,h,i)perylene	< 17	17	54		ug/kg		10/14/97	SW846 8270
Benzo(k)fluoranthene	< 16	16	51		ug/kg		10/14/97	SW846 8270
Chrysene	< 16	16	51		ug/kg		10/14/97	SW846 8270
Dibenzo(a,h)anthracene	< 24	24	76		ug/kg		10/14/97	SW846 8270
Fluoranthene	< 17	17	54		ug/kg		10/14/97	SW846 8270
Fluorene	< 20	20	64		ug/kg		10/14/97	SW846 8270
Indeno(1,2,3-cd)pyrene	< 16	16	51		ug/kg		10/14/97	SW846 8270
1-Methylnaphthalene	< 20	20	64		ug/kg		10/14/97	SW846 8270

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : FAGERLIN FUEL BULK PLANT
Project Number : B96070
Field ID : P-1 S-8
Lab Sample Number : 770215-001
WI DNR LAB ID : 816079330
Client : DRAKE ENVIRONMENTAL
Report Date : 10/24/97
Collection Date : 10/7/97
Matrix Type : SOIL

2-Methylnaphthalene	< 19	19	61	ug/kg	10/14/97	SW846 8270
Naphthalene	< 18	18	57	ug/kg	10/14/97	SW846 8270
Phenanthrene	< 18	18	57	ug/kg	10/14/97	SW846 8270
Pyrene	< 17	17	54	ug/kg	10/14/97	SW846 8270
Nitrobenzene-d5	77			%Recov	10/14/97	SW846 8270
2-Fluorobiphenyl	68			%Recov	10/14/97	SW846 8270
Terphenyl-d14	70			%Recov	10/14/97	SW846 8270

Organic Results

PVOC - METHANOL PRESERVED SOIL — **Prep Method:** SW846 5030 — **Prep Date:** 10/14/97 — **Analyst:** MDC

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
a,a,a-Trifluorotoluene	102				%Recov		10/15/97	SW846 8020
Benzene	< 25	25	60		ug/kg		10/15/97	SW846 8020
Ethylbenzene	< 25	25	60		ug/kg		10/15/97	SW846 8020
Methyl-tert-butyl-ether	< 25	25	60		ug/kg		10/15/97	SW846 8020
Toluene	< 25	25	60		ug/kg		10/15/97	SW846 8020
1,3,5-Trimethylbenzene	< 25	25	60		ug/kg		10/15/97	SW846 8020
1,2,4-Trimethylbenzene	< 25	25	60		ug/kg		10/15/97	SW846 8020
Xylenes, -m, -p	< 25	25	60		ug/kg		10/15/97	SW846 8020
Xylene, -o	< 25	25	60		ug/kg		10/15/97	SW846 8020

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- Analytical Report -

Project Name : FAGERLIN FUEL BULK PLANT
Project Number : B96070
Field ID : P-2 S-10
Lab Sample Number : 770215-002
WI DNR LAB ID : 816079330

Client : DRAKE ENVIRONMENTAL
Report Date : 10/24/97
Collection Date : 10/7/97
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analys
Solids, percent	78.4				%		10/10/97	SM2540G	SM2540G	KIG

Organic Results

Preservation Date : 10/7/97

DIESEL RANGE ORGANICS - SOIL **Prep Method:** WI Mod DRO **Prep Date:** 10/9/97 **Analyst:** DLP

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 4.7			4.7	mg/kg		10/12/97	WI Mod DRO
Blank spike	101				%Recov		10/12/97	WI Mod DRO
Blank spike duplicate	90				%Recov		10/12/97	WI Mod DRO

Organic Results

PAH - WI LUST LIST - SEMIVOLATILES **Prep Method:** SW846 3550 **Prep Date:** 10/13/97 **Analyst:** GB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acenaphthene	< 17	17	54		ug/kg		10/14/97	SW846 8270
Acenaphthylene	< 18	18	57		ug/kg		10/14/97	SW846 8270
Anthracene	< 16	16	51		ug/kg		10/14/97	SW846 8270
Benzo(a)anthracene	< 15	15	48		ug/kg		10/14/97	SW846 8270
Benzo(a)pyrene	< 14	14	45		ug/kg		10/14/97	SW846 8270
Benzo(b)fluoranthene	< 18	18	57		ug/kg		10/14/97	SW846 8270
Benzo(g,h,i)perylene	< 17	17	54		ug/kg		10/14/97	SW846 8270
Benzo(k)fluoranthene	< 16	16	51		ug/kg		10/14/97	SW846 8270
Chrysene	< 16	16	51		ug/kg		10/14/97	SW846 8270
Dibenzo(a,h)anthracene	< 24	24	76		ug/kg		10/14/97	SW846 8270
Fluoranthene	< 17	17	54		ug/kg		10/14/97	SW846 8270
Fluorene	< 20	20	64		ug/kg		10/14/97	SW846 8270
Indeno(1,2,3-cd)pyrene	< 16	16	51		ug/kg		10/14/97	SW846 8270
1-Methylnaphthalene	< 20	20	64		ug/kg		10/14/97	SW846 8270

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- Analytical Report -

Project Name : FAGERLIN FUEL BULK PLANT
Project Number : B96070
Field ID : P-2 S-10
Lab Sample Number : 770215-002
WI DNR LAB ID : 816079330
Client : DRAKE ENVIRONMENTAL
Report Date : 10/24/97
Collection Date : 10/7/97
Matrix Type : SOIL

2-Methylnaphthalene	< 19	19	61	ug/kg	10/14/97	SW846 8270
Naphthalene	< 18	18	57	ug/kg	10/14/97	SW846 8270
Phenanthrene	< 18	18	57	ug/kg	10/14/97	SW846 8270
Pyrene	< 17	17	54	ug/kg	10/14/97	SW846 8270
Nitrobenzene-d5	67			%Recov	10/14/97	SW846 8270
2-Fluorobiphenyl	71			%Recov	10/14/97	SW846 8270
Terphenyl-d14	73			%Recov	10/14/97	SW846 8270

Organic Results

PVOC - METHANOL PRESERVED SOIL **Prep Method:** SW846 5030 **Prep Date:** 10/14/97 **Analyst:** MDC

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
a,a,a-Trifluorotoluene	103				%Recov		10/15/97	SW846 8020
Benzene	< 25	25	60		ug/kg		10/15/97	SW846 8020
Ethylbenzene	< 25	25	60		ug/kg		10/15/97	SW846 8020
Methyl-tert-butyl-ether	< 25	25	60		ug/kg		10/15/97	SW846 8020
Toluene	< 25	25	60		ug/kg		10/15/97	SW846 8020
1,3,5-Trimethylbenzene	< 25	25	60		ug/kg		10/15/97	SW846 8020
1,2,4-Trimethylbenzene	< 25	25	60		ug/kg		10/15/97	SW846 8020
Xylenes, -m, -p	< 25	25	60		ug/kg		10/15/97	SW846 8020
Xylene, -o	< 25	25	60		ug/kg		10/15/97	SW846 8020

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- Analytical Report -

Project Name : FAGERLIN FUEL BULK PLANT
Project Number : B96070
Field ID : P-3 S-6
Lab Sample Number : 770215-003
WI DNR LAB ID : 816079330
Client : DRAKE ENVIRONMENTAL
Report Date : 10/24/97
Collection Date : 10/7/97
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analys
Solids, percent	74.6				%		10/10/97	SM2540G	SM2540G	KIG

Organic Results

Preservation Date : 10/7/97

DIESEL RANGE ORGANICS - SOIL **Prep Method:** WI Mod DRO **Prep Date:** 10/9/97 **Analyst:** DLP

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 4.9			4.9	mg/kg		10/12/97	WI Mod DRO
Blank spike	101				%Recov		10/12/97	WI Mod DRO
Blank spike duplicate	90				%Recov		10/12/97	WI Mod DRO

Organic Results

PAH - WI LUST LIST - SEMIVOLATILES **Prep Method:** SW846 3550 **Prep Date:** 10/13/97 **Analyst:** GB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acenaphthene	< 17	17	54		ug/kg		10/14/97	SW846 8270
Acenaphthylene	< 18	18	57		ug/kg		10/14/97	SW846 8270
Anthracene	< 15	15	48		ug/kg		10/14/97	SW846 8270
Benzo(a)anthracene	< 15	15	48		ug/kg		10/14/97	SW846 8270
Benzo(a)pyrene	< 14	14	45		ug/kg		10/14/97	SW846 8270
Benzo(b)fluoranthene	< 17	17	54		ug/kg		10/14/97	SW846 8270
Benzo(g,h,i)perylene	< 17	17	54		ug/kg		10/14/97	SW846 8270
Benzo(k)fluoranthene	< 16	16	51		ug/kg		10/14/97	SW846 8270
Chrysene	< 15	15	48		ug/kg		10/14/97	SW846 8270
Dibenzo(a,h)anthracene	< 24	24	76		ug/kg		10/14/97	SW846 8270
Fluoranthene	< 17	17	54		ug/kg		10/14/97	SW846 8270
Fluorene	< 20	20	64		ug/kg		10/14/97	SW846 8270
Indeno(1,2,3-cd)pyrene	< 16	16	51		ug/kg		10/14/97	SW846 8270
1-Methylnaphthalene	< 20	20	64		ug/kg		10/14/97	SW846 8270

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : FAGERLIN FUEL BULK PLANT
Project Number : B96070
Field ID : P-3 S-6
Lab Sample Number : 770215-003
WI DNR LAB ID : 816079330
Client : DRAKE ENVIRONMENTAL
Report Date : 10/24/97
Collection Date : 10/7/97
Matrix Type : SOIL

2-Methylnaphthalene	< 19	19	61	ug/kg	10/14/97	SW846 8270
Naphthalene	< 17	17	54	ug/kg	10/14/97	SW846 8270
Phenanthrene	< 18	18	57	ug/kg	10/14/97	SW846 8270
Pyrene	< 17	17	54	ug/kg	10/14/97	SW846 8270
Nitrobenzene-d5	71			%Recov	10/14/97	SW846 8270
2-Fluorobiphenyl	73			%Recov	10/14/97	SW846 8270
Terphenyl-d14	71			%Recov	10/14/97	SW846 8270

Organic Results

PVOC - METHANOL PRESERVED SOIL **Prep Method:** SW846 5030 **Prep Date:** 10/14/97 **Analyst:** MDC

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
a,a,a-Trifluorotoluene	102				%Recov		10/15/97	SW846 8020
Benzene	< 25	25	60		ug/kg		10/15/97	SW846 8020
Ethylbenzene	< 25	25	60		ug/kg		10/15/97	SW846 8020
Methyl-tert-butyl-ether	< 25	25	60		ug/kg		10/15/97	SW846 8020
Toluene	< 25	25	60		ug/kg		10/15/97	SW846 8020
1,3,5-Trimethylbenzene	< 25	25	60		ug/kg		10/15/97	SW846 8020
1,2,4-Trimethylbenzene	< 25	25	60		ug/kg		10/15/97	SW846 8020
Xylenes, -m, -p	< 25	25	60		ug/kg		10/15/97	SW846 8020
Xylene, -o	< 25	25	60		ug/kg		10/15/97	SW846 8020

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- Analytical Report -

Project Name : FAGERLIN FUEL BULK PLANT
Project Number : B96070
Field ID : FIELD BLANK
Lab Sample Number : 770215-004
WI DNR LAB ID : 816079330
Client : DRAKE ENVIRONMENTAL
Report Date : 10/17/97
Collection Date : 10/7/97
Matrix Type : METHANOL

Organic Results

PVOC - METHANOL — **Prep Method:** SW846 5030 **Prep Date:** 10/14/97 **Analyst:** MDC

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
a,a,a-Trifluorotoluene	104				%Recov		10/15/97	SW846 8020
Benzene	< 25	25	60		ug/l		10/15/97	SW846 8020
Ethylbenzene	< 25	25	60		ug/l		10/15/97	SW846 8020
Methyl-tert-butyl-ether	< 25	25	60		ug/l		10/15/97	SW846 8020
Toluene	< 25	25	60		ug/l		10/15/97	SW846 8020
1,3,5-Trimethylbenzene	< 25	25	60		ug/l		10/15/97	SW846 8020
1,2,4-Trimethylbenzene	< 25	25	60		ug/l		10/15/97	SW846 8020
Xylenes, -m, -p	< 25	25	60		ug/l		10/15/97	SW846 8020
Xylene, -o	< 25	25	60		ug/l		10/15/97	SW846 8020

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- Analytical Report -

Project Name : FAGERLIN FUEL BULK PLANT
Project Number : B96070
Field ID : P-4 S-6
Lab Sample Number : 770215-005
WI DNR LAB ID : 816079330
Client : DRAKE ENVIRONMENTAL
Report Date : 10/24/97
Collection Date : 10/7/97
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analys
Solids, percent	76.2				%		10/10/97	SM2540G	SM2540G	KIG

Organic Results

Preservation Date : 10/7/97

DIESEL RANGE ORGANICS - SOIL **Prep Method:** WI Mod DRO **Prep Date:** 10/9/97 **Analyst:** DLP

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 4.7			4.7	mg/kg		10/12/97	WI Mod DRO
Blank spike	101				%Recov		10/12/97	WI Mod DRO
Blank spike duplicate	90				%Recov		10/12/97	WI Mod DRO

Organic Results

PAH - WI LUST LIST - SEMIVOLATILES **Prep Method:** SW846 3550 **Prep Date:** 10/13/97 **Analyst:** GB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acenaphthene	< 17	17	54		ug/kg		10/14/97	SW846 8270
Acenaphthylene	< 19	19	61		ug/kg		10/14/97	SW846 8270
Anthracene	< 16	16	51		ug/kg		10/14/97	SW846 8270
Benzo(a)anthracene	< 15	15	48		ug/kg		10/14/97	SW846 8270
Benzo(a)pyrene	< 15	15	48		ug/kg		10/14/97	SW846 8270
Benzo(b)fluoranthene	< 18	18	57		ug/kg		10/14/97	SW846 8270
Benzo(g,h,i)perylene	< 17	17	54		ug/kg		10/14/97	SW846 8270
Benzo(k)fluoranthene	< 17	17	54		ug/kg		10/14/97	SW846 8270
Chrysene	< 16	16	51		ug/kg		10/14/97	SW846 8270
Dibenzo(a,h)anthracene	< 25	25	80		ug/kg		10/14/97	SW846 8270
Fluoranthene	< 17	17	54		ug/kg		10/14/97	SW846 8270
Fluorene	< 21	21	67		ug/kg		10/14/97	SW846 8270
Indeno(1,2,3-cd)pyrene	< 17	17	54		ug/kg		10/14/97	SW846 8270
1-Methylnaphthalene	< 21	21	67		ug/kg		10/14/97	SW846 8270

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- Analytical Report -

Project Name : FAGERLIN FUEL BULK PLANT
Project Number : B96070
Field ID : P-4 S-6
Lab Sample Number : 770215-005
WI DNR LAB ID : 816079330
Client : DRAKE ENVIRONMENTAL
Report Date : 10/24/97
Collection Date : 10/7/97
Matrix Type : SOIL

2-Methylnaphthalene	< 19	19	61	ug/kg	10/14/97	SW846 8270
Naphthalene	< 18	18	57	ug/kg	10/14/97	SW846 8270
Phenanthrene	< 19	19	61	ug/kg	10/14/97	SW846 8270
Pyrene	< 17	17	54	ug/kg	10/14/97	SW846 8270
Nitrobenzene-d5	75			%Recov	10/14/97	SW846 8270
2-Fluorobiphenyl	61			%Recov	10/14/97	SW846 8270
Terphenyl-d14	80			%Recov	10/14/97	SW846 8270

Organic Results

PVOC - METHANOL PRESERVED SOIL **Prep Method:** SW846 5030 **Prep Date:** 10/14/97 **Analyst:** MDC

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
a,a,a-Trifluorotoluene	102				%Recov		10/15/97	SW846 8020
Benzene	< 25	25	60		ug/kg		10/15/97	SW846 8020
Ethylbenzene	< 25	25	60		ug/kg		10/15/97	SW846 8020
Methyl-tert-butyl-ether	< 25	25	60		ug/kg		10/15/97	SW846 8020
Toluene	< 25	25	60		ug/kg		10/15/97	SW846 8020
1,3,5-Trimethylbenzene	< 25	25	60		ug/kg		10/15/97	SW846 8020
1,2,4-Trimethylbenzene	< 25	25	60		ug/kg		10/15/97	SW846 8020
Xylenes, -m, -p	< 25	25	60		ug/kg		10/15/97	SW846 8020
Xylene, -o	< 25	25	60		ug/kg		10/15/97	SW846 8020

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- Analytical Report -

Project Name : FAGERLIN FUEL BULK PLANT
Project Number : B96070
Field ID : P-5 S-8
Lab Sample Number : 770215-006
WI DNR LAB ID : 816079330

Client : DRAKE ENVIRONMENTAL
Report Date : 10/24/97
Collection Date : 10/7/97
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analys
Solids, percent	84.2				%		10/10/97	SM2540G	SM2540G	KIG

Organic Results

Preservation Date : 10/7/97

DIESEL RANGE ORGANICS - SOIL **Prep Method:** WI Mod DRO **Prep Date:** 10/9/97 **Analyst:** DLP

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	920			44	mg/kg		10/13/97	WI Mod DRO
Blank spike	101				%Recov		10/13/97	WI Mod DRO
Blank spike duplicate	90				%Recov		10/13/97	WI Mod DRO

Organic Results

PAH - WI LUST LIST - SEMIVOLATILES **Prep Method:** SW846 3550 **Prep Date:** 10/13/97 **Analyst:** GB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acenaphthene	230	15	48		ug/kg		10/16/97	SW846 8270
Acenaphthylene	< 16	16	51		ug/kg		10/16/97	SW846 8270
Anthracene	< 14	14	45		ug/kg		10/16/97	SW846 8270
Benzo(a)anthracene	< 13	13	41		ug/kg		10/16/97	SW846 8270
Benzo(a)pyrene	< 13	13	41		ug/kg		10/16/97	SW846 8270
Benzo(b)fluoranthene	< 16	16	51		ug/kg		10/16/97	SW846 8270
Benzo(g,h,i)perylene	< 15	15	48		ug/kg		10/16/97	SW846 8270
Benzo(k)fluoranthene	< 15	15	48		ug/kg		10/16/97	SW846 8270
Chrysene	< 14	14	45		ug/kg		10/16/97	SW846 8270
Dibenzo(a,h)anthracene	< 22	22	70		ug/kg		10/16/97	SW846 8270
Fluoranthene	< 15	15	48		ug/kg		10/16/97	SW846 8270
Fluorene	280	18	57		ug/kg		10/16/97	SW846 8270
Indeno(1,2,3-cd)pyrene	< 15	15	48		ug/kg		10/16/97	SW846 8270
1-Methylnaphthalene	490	18	57		ug/kg		10/16/97	SW846 8270

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- Analytical Report -

Project Name : FAGERLIN FUEL BULK PLANT
Project Number : B96070
Field ID : P-5 S-8
Lab Sample Number : 770215-006
WI DNR LAB ID : 816079330
Client : DRAKE ENVIRONMENTAL
Report Date : 10/24/97
Collection Date : 10/7/97
Matrix Type : SOIL

2-Methylnaphthalene	200	17	54	ug/kg		10/16/97	SW846 8270
Naphthalene	< 16	16	51	ug/kg		10/16/97	SW846 8270
Phenanthrene	260	16	51	ug/kg		10/16/97	SW846 8270
Pyrene	44	15	48	ug/kg	Q	10/16/97	SW846 8270
Nitrobenzene-d5	101			%Recov		10/16/97	SW846 8270
2-Fluorobiphenyl	79			%Recov		10/16/97	SW846 8270
Terphenyl-d14	84			%Recov		10/16/97	SW846 8270

Organic Results

PVOC - METHANOL PRESERVED SOIL **Prep Method:** SW846 5030 **Prep Date:** 10/14/97 **Analyst:** MDC

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
a,a,a-Trifluorotoluene	102				%Recov		10/15/97	SW846 8020
Benzene	< 25	25	60		ug/kg		10/15/97	SW846 8020
Ethylbenzene	< 25	25	60		ug/kg		10/15/97	SW846 8020
Methyl-tert-butyl-ether	< 25	25	60		ug/kg		10/15/97	SW846 8020
Toluene	< 25	25	60		ug/kg		10/15/97	SW846 8020
1,3,5-Trimethylbenzene	3800	30	72		ug/kg		10/15/97	SW846 8020
1,2,4-Trimethylbenzene	< 25	25	60		ug/kg		10/15/97	SW846 8020
Xylenes, -m, -p	1500	30	72		ug/kg		10/15/97	SW846 8020
Xylene, -o	250	30	72		ug/kg		10/15/97	SW846 8020

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- Analytical Report -

Project Name : FAGERLIN FUEL BULK PLANT
Project Number : B96070
Field ID : P-6 S-8
Lab Sample Number : 770215-007
WI DNR LAB ID : 816079330

Client : DRAKE ENVIRONMENTAL
Report Date : 10/24/97
Collection Date : 10/7/97
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analys
Solids, percent	75.9				%		10/10/97	SM2540G	SM2540G	KIG

Organic Results

Preservation Date : 10/7/97

DIESEL RANGE ORGANICS - SOIL **Prep Method:** WI Mod DRO **Prep Date:** 10/9/97 **Analyst:** DLP

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 4.7			4.7	mg/kg		10/12/97	WI Mod DRO
Blank spike	101				%Recov		10/12/97	WI Mod DRO
Blank spike duplicate	90				%Recov		10/12/97	WI Mod DRO

Organic Results

PAH - WI LUST LIST - SEMIVOLATILES **Prep Method:** SW846 3550 **Prep Date:** 10/13/97 **Analyst:** GB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acenaphthene	< 17	17	54		ug/kg		10/14/97	SW846 8270
Acenaphthylene	< 19	19	61		ug/kg		10/14/97	SW846 8270
Anthracene	< 16	16	51		ug/kg		10/14/97	SW846 8270
Benzo(a)anthracene	< 15	15	48		ug/kg		10/14/97	SW846 8270
Benzo(a)pyrene	< 15	15	48		ug/kg		10/14/97	SW846 8270
Benzo(b)fluoranthene	< 18	18	57		ug/kg		10/14/97	SW846 8270
Benzo(g,h,i)perylene	< 17	17	54		ug/kg		10/14/97	SW846 8270
Benzo(k)fluoranthene	< 17	17	54		ug/kg		10/14/97	SW846 8270
Chrysene	< 16	16	51		ug/kg		10/14/97	SW846 8270
Dibenzo(a,h)anthracene	< 25	25	80		ug/kg		10/14/97	SW846 8270
Fluoranthene	< 17	17	54		ug/kg		10/14/97	SW846 8270
Fluorene	< 21	21	67		ug/kg		10/14/97	SW846 8270
Indeno(1,2,3-cd)pyrene	< 17	17	54		ug/kg		10/14/97	SW846 8270
1-Methylnaphthalene	< 21	21	67		ug/kg		10/14/97	SW846 8270

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- Analytical Report -

Project Name : FAGERLIN FUEL BULK PLANT
Project Number : B96070
Client : DRAKE ENVIRONMENTAL
Field ID : P-6 S-8
Report Date : 10/24/97
Lab Sample Number : 770215-007
Collection Date : 10/7/97
WI DNR LAB ID : 816079330
Matrix Type : SOIL

2-Methylnaphthalene	< 19	19	61	ug/kg	10/14/97	SW846 8270
Naphthalene	< 18	18	57	ug/kg	10/14/97	SW846 8270
Phenanthrene	< 19	19	61	ug/kg	10/14/97	SW846 8270
Pyrene	< 17	17	54	ug/kg	10/14/97	SW846 8270
Nitrobenzene-d5	66			%Recov	10/14/97	SW846 8270
2-Fluorobiphenyl	60			%Recov	10/14/97	SW846 8270
Terphenyl-d14	76			%Recov	10/14/97	SW846 8270

Organic Results

PVOC - METHANOL PRESERVED SOIL **Prep Method:** SW846 5030 **Prep Date:** 10/14/97 **Analyst:** MDC

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
a,a,a-Trifluorotoluene	102				%Recov		10/15/97	SW846 8020
Benzene	< 25	25	60		ug/kg		10/15/97	SW846 8020
Ethylbenzene	< 25	25	60		ug/kg		10/15/97	SW846 8020
Methyl-tert-butyl-ether	< 25	25	60		ug/kg		10/15/97	SW846 8020
Toluene	< 25	25	60		ug/kg		10/15/97	SW846 8020
1,3,5-Trimethylbenzene	< 25	25	60		ug/kg		10/15/97	SW846 8020
1,2,4-Trimethylbenzene	< 25	25	60		ug/kg		10/15/97	SW846 8020
Xylenes, -m, -p	< 25	25	60		ug/kg		10/15/97	SW846 8020
Xylene, -o	< 25	25	60		ug/kg		10/15/97	SW846 8020

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- Analytical Report -

Project Name : FAGERLIN FUEL BULK PLANT
Project Number : B96070
Field ID : P-7 S-8
Lab Sample Number : 770215-008
WI DNR LAB ID : 816079330

Client : DRAKE ENVIRONMENTAL
Report Date : 10/24/97
Collection Date : 10/7/97
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analys
Solids, percent	79.3				%		10/10/97	SM2540G	SM2540G	KIG

Organic Results

Preservation Date : 10/7/97

DIESEL RANGE ORGANICS - SOIL **Prep Method:** WI Mod DRO **Prep Date:** 10/9/97 **Analyst:** DLP

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 4.6			4.6	mg/kg		10/12/97	WI Mod DRO
Blank spike	101				%Recov		10/12/97	WI Mod DRO
Blank spike duplicate	90				%Recov		10/12/97	WI Mod DRO

Organic Results

PAH - WI LUST LIST - SEMIVOLATILES **Prep Method:** SW846 3550 **Prep Date:** 10/13/97 **Analyst:** GB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acenaphthene	< 17	17	54		ug/kg		10/14/97	SW846 8270
Acenaphthylene	< 18	18	57		ug/kg		10/14/97	SW846 8270
Anthracene	< 16	16	51		ug/kg		10/14/97	SW846 8270
Benzo(a)anthracene	< 15	15	48		ug/kg		10/14/97	SW846 8270
Benzo(a)pyrene	< 14	14	45		ug/kg		10/14/97	SW846 8270
Benzo(b)fluoranthene	< 18	18	57		ug/kg		10/14/97	SW846 8270
Benzo(g,h,i)perylene	< 17	17	54		ug/kg		10/14/97	SW846 8270
Benzo(k)fluoranthene	< 16	16	51		ug/kg		10/14/97	SW846 8270
Chrysene	< 16	16	51		ug/kg		10/14/97	SW846 8270
Dibenzo(a,h)anthracene	< 24	24	76		ug/kg		10/14/97	SW846 8270
Fluoranthene	< 17	17	54		ug/kg		10/14/97	SW846 8270
Fluorene	< 20	20	64		ug/kg		10/14/97	SW846 8270
Indeno(1,2,3-cd)pyrene	< 16	16	51		ug/kg		10/14/97	SW846 8270
1-Methylnaphthalene	< 20	20	64		ug/kg		10/14/97	SW846 8270

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- Analytical Report -

Project Name : FAGERLIN FUEL BULK PLANT
Project Number : B96070
Field ID : P-7 S-8
Lab Sample Number : 770215-008
WI DNR LAB ID : 816079330
Client : DRAKE ENVIRONMENTAL
Report Date : 10/24/97
Collection Date : 10/7/97
Matrix Type : SOIL

2-Methylnaphthalene	< 19	19	61	ug/kg	10/14/97	SW846 8270
Naphthalene	< 18	18	57	ug/kg	10/14/97	SW846 8270
Phenanthrene	< 18	18	57	ug/kg	10/14/97	SW846 8270
Pyrene	< 17	17	54	ug/kg	10/14/97	SW846 8270
Nitrobenzene-d5	68			%Recov	10/14/97	SW846 8270
2-Fluorobiphenyl	72			%Recov	10/14/97	SW846 8270
Terphenyl-d14	79			%Recov	10/14/97	SW846 8270

Organic Results

PVOC - METHANOL PRESERVED SOIL **Prep Method:** SW846 5030 **Prep Date:** 10/14/97 **Analyst:** MDC

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
a,a,a-Trifluorotoluene	102				%Recov		10/15/97	SW846 8020
Benzene	< 25	25	60		ug/kg		10/15/97	SW846 8020
Ethylbenzene	< 25	25	60		ug/kg		10/15/97	SW846 8020
Methyl-tert-butyl-ether	< 25	25	60		ug/kg		10/15/97	SW846 8020
Toluene	< 25	25	60		ug/kg		10/15/97	SW846 8020
1,3,5-Trimethylbenzene	< 25	25	60		ug/kg		10/15/97	SW846 8020
1,2,4-Trimethylbenzene	< 25	25	60		ug/kg		10/15/97	SW846 8020
Xylenes, -m, -p	< 25	25	60		ug/kg		10/15/97	SW846 8020
Xylene, -o	< 25	25	60		ug/kg		10/15/97	SW846 8020

All soil results are reported on a dry weight basis unless otherwise noted.

Superior Laboratory
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1-800-837-8238

EN CHEM INC.

Corporate Office & Laboratory
1795 Industrial Drive
Green Bay, WI 54302
414-469-2436 • Fax: 414-469-8827
1-800-7-ENCHEM

- Analytical Report -

Project Name : FAGERLIN FUEL BULK PLANT
Project Number : B96070
Field ID : P-8 S-5
Lab Sample Number : 770215-009
WI DNR LAB ID : 816079330
Client : DRAKE ENVIRONMENTAL
Report Date : 10/24/97
Collection Date : 10/7/97
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analys
Solids, percent	84.1				%		10/10/97	SM2540G	SM2540G	KIG

Organic Results

Preservation Date : 10/7/97

DIESEL RANGE ORGANICS - SOIL **Prep Method:** WI Mod DRO **Prep Date:** 10/9/97 **Analyst:** DLP

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	2100			55	mg/kg		10/13/97	WI Mod DRO
Blank spike	100				%Recov		10/13/97	WI Mod DRO
Blank spike duplicate	90				%Recov		10/13/97	WI Mod DRO

Organic Results

PAH - WI LUST LIST - SEMIVOLATILES **Prep Method:** SW846 3550 **Prep Date:** 10/13/97 **Analyst:** GB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acenaphthene	150	17	54		ug/kg		10/15/97	SW846 8270
Acenaphthylene	< 18	18	57		ug/kg		10/15/97	SW846 8270
Anthracene	< 16	16	51		ug/kg		10/15/97	SW846 8270
Benzo(a)anthracene	< 15	15	48		ug/kg		10/15/97	SW846 8270
Benzo(a)pyrene	< 14	14	45		ug/kg		10/15/97	SW846 8270
Benzo(b)fluoranthene	< 18	18	57		ug/kg		10/15/97	SW846 8270
Benzo(g,h,i)perylene	< 17	17	54		ug/kg		10/15/97	SW846 8270
Benzo(k)fluoranthene	< 16	16	51		ug/kg		10/15/97	SW846 8270
Chrysene	< 16	16	51		ug/kg		10/15/97	SW846 8270
Dibenzo(a,h)anthracene	< 24	24	76		ug/kg		10/15/97	SW846 8270
Fluoranthene	< 17	17	54		ug/kg		10/15/97	SW846 8270
Fluorene	120	20	64		ug/kg		10/15/97	SW846 8270
Indeno(1,2,3-cd)pyrene	< 16	16	51		ug/kg		10/15/97	SW846 8270
1-Methylnaphthalene	340	20	64		ug/kg		10/15/97	SW846 8270

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- Analytical Report -

Project Name : FAGERLIN FUEL BULK PLANT
Project Number : B96070
Client : DRAKE ENVIRONMENTAL
Field ID : P-8 S-5
Report Date : 10/24/97
Lab Sample Number : 770215-009
Collection Date : 10/7/97
WI DNR LAB ID : 816079330
Matrix Type : SOIL

2-Methylnaphthalene	< 19	19	61	ug/kg	10/15/97	SW846 8270
Naphthalene	< 18	18	57	ug/kg	10/15/97	SW846 8270
Phenanthrene	230	18	57	ug/kg	10/15/97	SW846 8270
Pyrene	< 17	17	54	ug/kg	10/15/97	SW846 8270
Nitrobenzene-d5	70			%Recov	10/15/97	SW846 8270
2-Fluorobiphenyl	55			%Recov	10/15/97	SW846 8270
Terphenyl-d14	53			%Recov	10/15/97	SW846 8270

Organic Results

PVOC - METHANOL PRESERVED SOIL **Prep Method:** SW846 5030 **Prep Date:** 10/14/97 **Analyst:** MDC

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
a,a,a-Trifluorotoluene	104				%Recov		10/15/97	SW846 8020
Benzene	< 25	25	60		ug/kg		10/15/97	SW846 8020
Ethylbenzene	< 25	25	60		ug/kg		10/15/97	SW846 8020
Methyl-tert-butyl-ether	< 25	25	60		ug/kg		10/15/97	SW846 8020
Toluene	< 25	25	60		ug/kg		10/15/97	SW846 8020
1,3,5-Trimethylbenzene	1200	30	72		ug/kg		10/15/97	SW846 8020
1,2,4-Trimethylbenzene	< 25	25	60		ug/kg		10/15/97	SW846 8020
Xylenes, -m, -p	< 25	25	60		ug/kg		10/15/97	SW846 8020
Xylene, -o	< 25	25	60		ug/kg		10/15/97	SW846 8020

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- Analytical Report -

Project Name : FAGERLIN FUEL BULK PLANT
Project Number : B96070
Field ID : P-8 S-8
Lab Sample Number : 770215-010
WI DNR LAB ID : 816079330

Client : DRAKE ENVIRONMENTAL
Report Date : 10/24/97
Collection Date : 10/7/97
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analys
Solids, percent	79.9				%		10/10/97	SM2540G	SM2540G	KIG

Organic Results

Preservation Date : 10/7/97

DIESEL RANGE ORGANICS - SOIL **Prep Method:** WI Mod DRO **Prep Date:** 10/9/97 **Analyst:** DLP

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 4.7			4.7	mg/kg		10/12/97	WI Mod DRO
Blank spike	101				%Recov		10/12/97	WI Mod DRO
Blank spike duplicate	90				%Recov		10/12/97	WI Mod DRO

Organic Results

PAH - WI LUST LIST - SEMIVOLATILES **Prep Method:** SW846 3550 **Prep Date:** 10/13/97 **Analyst:** GB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acenaphthene	< 17	17	54		ug/kg		10/14/97	SW846 8270
Acenaphthylene	< 18	18	57		ug/kg		10/14/97	SW846 8270
Anthracene	< 16	16	51		ug/kg		10/14/97	SW846 8270
Benzo(a)anthracene	< 15	15	48		ug/kg		10/14/97	SW846 8270
Benzo(a)pyrene	< 14	14	45		ug/kg		10/14/97	SW846 8270
Benzo(b)fluoranthene	< 18	18	57		ug/kg		10/14/97	SW846 8270
Benzo(g,h,i)perylene	< 17	17	54		ug/kg		10/14/97	SW846 8270
Benzo(k)fluoranthene	< 16	16	51		ug/kg		10/14/97	SW846 8270
Chrysene	< 16	16	51		ug/kg		10/14/97	SW846 8270
Dibenzo(a,h)anthracene	< 24	24	76		ug/kg		10/14/97	SW846 8270
Fluoranthene	< 17	17	54		ug/kg		10/14/97	SW846 8270
Fluorene	< 20	20	64		ug/kg		10/14/97	SW846 8270
Indeno(1,2,3-cd)pyrene	< 16	16	51		ug/kg		10/14/97	SW846 8270
1-Methylnaphthalene	< 20	20	64		ug/kg		10/14/97	SW846 8270

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- Analytical Report -

Project Name : FAGERLIN FUEL BULK PLANT
Project Number : B96070
Field ID : P-8 S-8
Lab Sample Number : 770215-010
WI DNR LAB ID : 816079330
Client : DRAKE ENVIRONMENTAL
Report Date : 10/24/97
Collection Date : 10/7/97
Matrix Type : SOIL

2-Methylnaphthalene	< 19	19	61	ug/kg	10/14/97	SW846 8270
Naphthalene	< 18	18	57	ug/kg	10/14/97	SW846 8270
Phenanthrene	< 18	18	57	ug/kg	10/14/97	SW846 8270
Pyrene	< 17	17	54	ug/kg	10/14/97	SW846 8270
Nitrobenzene-d5	60			%Recov	10/14/97	SW846 8270
2-Fluorobiphenyl	60			%Recov	10/14/97	SW846 8270
Terphenyl-d14	67			%Recov	10/14/97	SW846 8270

Organic Results

PVOC - METHANOL PRESERVED SOIL **Prep Method:** SW846 5030 **Prep Date:** 10/14/97 **Analyst:** MDC

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
a,a,a-Trifluorotoluene	101				%Recov		10/15/97	SW846 8020
Benzene	< 25	25	60		ug/kg		10/15/97	SW846 8020
Ethylbenzene	< 25	25	60		ug/kg		10/15/97	SW846 8020
Methyl-tert-butyl-ether	< 25	25	60		ug/kg		10/15/97	SW846 8020
Toluene	< 25	25	60		ug/kg		10/15/97	SW846 8020
1,3,5-Trimethylbenzene	< 25	25	60		ug/kg		10/15/97	SW846 8020
1,2,4-Trimethylbenzene	< 25	25	60		ug/kg		10/15/97	SW846 8020
Xylenes, -m, -p	< 25	25	60		ug/kg		10/15/97	SW846 8020
Xylene, -o	< 25	25	60		ug/kg		10/15/97	SW846 8020

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : FAGERLIN FUEL BULK PLANT
Project Number : B96070
Field ID : P-9 S-8
Lab Sample Number : 770215-011
WI DNR LAB ID : 816079330

Client : DRAKE ENVIRONMENTAL
Report Date : 10/24/97
Collection Date : 10/7/97
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analys
Solids, percent	77.4				%		10/10/97	SM2540G	SM2540G	KIG

Organic Results

Preservation Date : 10/7/97

DIESEL RANGE ORGANICS - SOIL — **Prep Method:** WI Mod DRO **Prep Date:** 10/9/97 **Analyst:** DLP

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 4.7			4.7	mg/kg		10/12/97	WI Mod DRO
Blank spike	101				%Recov		10/12/97	WI Mod DRO
Blank spike duplicate	90				%Recov		10/12/97	WI Mod DRO

Organic Results

PAH - WI LUST LIST - SEMIVOLATILES — **Prep Method:** SW846 3550 **Prep Date:** 10/13/97 **Analyst:** GB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acenaphthene	< 18	18	57		ug/kg		10/14/97	SW846 8270
Acenaphthylene	< 19	19	61		ug/kg		10/14/97	SW846 8270
Anthracene	< 16	16	51		ug/kg		10/14/97	SW846 8270
Benzo(a)anthracene	< 16	16	51		ug/kg		10/14/97	SW846 8270
Benzo(a)pyrene	< 15	15	48		ug/kg		10/14/97	SW846 8270
Benzo(b)fluoranthene	< 18	18	57		ug/kg		10/14/97	SW846 8270
Benzo(g,h,i)perylene	< 18	18	57		ug/kg		10/14/97	SW846 8270
Benzo(k)fluoranthene	< 17	17	54		ug/kg		10/14/97	SW846 8270
Chrysene	< 16	16	51		ug/kg		10/14/97	SW846 8270
Dibenzo(a,h)anthracene	< 25	25	80		ug/kg		10/14/97	SW846 8270
Fluoranthene	< 18	18	57		ug/kg		10/14/97	SW846 8270
Fluorene	< 21	21	67		ug/kg		10/14/97	SW846 8270
Indeno(1,2,3-cd)pyrene	< 17	17	54		ug/kg		10/14/97	SW846 8270
1-Methylnaphthalene	< 21	21	67		ug/kg		10/14/97	SW846 8270

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- Analytical Report -

Project Name : FAGERLIN FUEL BULK PLANT
Project Number : B96070
Client : DRAKE ENVIRONMENTAL
Field ID : P-9 S-8
Report Date : 10/24/97
Lab Sample Number : 770215-011
Collection Date : 10/7/97
WI DNR LAB ID : 816079330
Matrix Type : SOIL

2-Methylnaphthalene	< 20	20	64	ug/kg	10/14/97	SW846 8270
Naphthalene	< 18	18	57	ug/kg	10/14/97	SW846 8270
Phenanthrene	< 19	19	61	ug/kg	10/14/97	SW846 8270
Pyrene	< 18	18	57	ug/kg	10/14/97	SW846 8270
Nitrobenzene-d5	80			%Recov	10/14/97	SW846 8270
2-Fluorobiphenyl	78			%Recov	10/14/97	SW846 8270
Terphenyl-d14	74			%Recov	10/14/97	SW846 8270

Organic Results

PVOC - METHANOL PRESERVED SOIL **Prep Method:** SW846 5030 **Prep Date:** 10/14/97 **Analyst:** MDC

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
a,a,a-Trifluorotoluene	101				%Recov		10/15/97	SW846 8020
Benzene	< 25	25	60		ug/kg		10/15/97	SW846 8020
Ethylbenzene	< 25	25	60		ug/kg		10/15/97	SW846 8020
Methyl-tert-butyl-ether	< 25	25	60		ug/kg		10/15/97	SW846 8020
Toluene	< 25	25	60		ug/kg		10/15/97	SW846 8020
1,3,5-Trimethylbenzene	< 25	25	60		ug/kg		10/15/97	SW846 8020
1,2,4-Trimethylbenzene	< 25	25	60		ug/kg		10/15/97	SW846 8020
Xylenes, -m, -p	< 25	25	60		ug/kg		10/15/97	SW846 8020
Xylene, -o	< 25	25	60		ug/kg		10/15/97	SW846 8020

All soil results are reported on a dry weight basis unless otherwise noted.

Company Name: DRAKE ENVIRONMENTAL

Branch or Location: MINOCQUA, WI

Project Contact: MARK STEPHENSON

Telephone: 715-358-7018

Project Number: B76020

Project Name: FAKERUN FUEL BULK PLANT

Project Location: 1124 N. 6TH ST SUPERIOR

Sampled By (Print): TODD TROSKEY

Regulatory Program *(circle)*: (UST) RCRA CLP SDWA

NPDES/WPDES CAA NR_____ Other_____

EN CHEM INC. CHAIN OF CUSTODY

1241 Bellevue St., Suite 9
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Madison, WI 53717
608-827-5501 • 1-888-5 ENCHEM
Fax: 608-827-5503

VDP 10.7.97

NR720 Confirmation Analysis Required?

(En Chem will confirm unless otherwise instructed.)

P.O. # _____ Quote # _____ Page 1 of ____

Mail Report To: MARK STEPHENSON

Company: DRAKE

Address: P.O. BOX 610

MINOCQUA WI 54548

Invoice To: DAVID RASMUSSEN

Company: FAKERUN FUEL

Address: 1124 N. 6TH ST.

SUPERIOR WI 54880

Mail Invoice To: MARK STEPHENSON

Field ID	Sample Description	Collection Date	Collection Time	Field Screen	Matrix	Filt'd Y/N	Preserv*	Analysis Requested	SHADED AREA FOR LABORATORY USE ONLY: Good Cond.	Total Bottles	Comments	Laboratory Number
P-1; S-8	GEOPROBE SOIL SAMPLE	10/7	0845	<1	Soil	N	F	DRO/PVOC/PAH	X	1-807, 1-507, 2-207 1in MeOH		-001
P-2; S-10		10/7	0937	<1	Soil	N	F		X			-002
P-3; S-6		10/7	0955	<1	Soil	N	F		X			-003
FIELD BLANK	—	10/7	1000	—	H2O	N	F	PVOC	X	1-207 w/MeOH		-004
P-4; S-6	GEOPROBE SOIL SAMPLE	10/7	1015	<1	Soil	N	F	DRO/PVOC/PAH	X	1-807, 1-507, 2-207 1in MeOH		-005
P-5; S-8		10/7	1042	100	Soil	N	F		X			-006
P-6; S-8		10/7	1127	<1	Soil	N	F		X			-007
P-7; S-8		10/7	1210	<1	Soil	N	F		X			-008
P-8; S-5		10/7	1418	90	Soil	N	F		X			-009
P-8; S-8		10/7	1228	<1	Soil	N	F		X			-010
P-9; S-8		10/7	1320	<1	Soil	N	F		X			-011

***Preservation Code**

A=None B=HCL C=H2SO4
D=HN03 E=EnCore F=Methanol**
G=NaOH O=Other (Indicate)

****If not using En Chem's methanol, indicate volume of methanol added and mark the appropriate samples.**

Relinquished By:	Date/Time:	Received By:	En Chem Project No.
Todd A Troskey	10/7/97		770215
Relinquished By:	Date/Time:	Received By:	Sample Receipt Temp. *(Must be rec'd at 4°C)*
			ROT
Relinquished By:	Date/Time:	Received By (En Chem):	
		10-7-97 1408	

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Tommy G. Thompson, Governor
George E. Meyer, Secretary
William H. Smith, District Director

Brule Area Headquarters
6250 South Ranger Road
P.O. Box 125
Brule, WI 54820-0125
TELEPHONE 715-372-4866
TELEFAX 715-372-4836

November 20, 1996

FILE COPY

MR DAVID RASMUSSEN
FAGERLIN FUEL INC
PO BOX 938
SUPERIOR WI 54880

Re: Petroleum Contamination at the Fagerlin Fuel Bulk Plant (Case #02-16-110461),
1124 North 6th Street, Superior, Wisconsin

Dear Mr. Rasmussen:

The Department has received the *Remedial Investigation Work Plan*, prepared for the above named site by Drake Environmental, Inc., and dated November 12, 1996. Your site is currently ranked as an "Unknown priority" site based on the Department's lack of knowledge of the risks the site poses to the public and the environment. However, current workload and staffing levels do not allow us to provide you with direct oversight at this time.

This letter serves as your **"Notice to Proceed"** with investigation and remediation of the site. All actions must comply with all applicable Federal and State laws, Wisconsin Administrative Code chs. NR 140, NR 141, NR 700 through NR 728, and program guidance. This letter is not an approval of your work plans and/or reports. They will be filed as public records until the Department is able to review them, or until site remediation is completed.

In order to ensure compliance with applicable requirements and to make sure your project proceeds to closure in a timely fashion, your consultant should follow the Department's Guidance for Conducting Environmental Response Actions. All groundwater and soil samples must be collected and analyzed in accordance with the Department's Leaking Underground Storage Tank (LUST) and Petroleum Analytical and Quality Assurance Guidance. It is very important that your consultant understands and meets the standards established by the Department; however, per s. 144.76, Wisconsin Statutes, as the responsible party, you are ultimately responsible for the investigation and remediation that is required at your site. Failure to follow guidance may result in delays when the site is reviewed for closure or reimbursement from PECFA.

If you are interested in obtaining the protection of limited liability under s. 144.765, Wis. Stats., please contact the Contaminated Land Recycling Program at (800) 367-6076 (instate long distance) or (608) 264-6020 (local or out of state), in the Department of Natural Resources' Madison office for more information. The liability exemption under s. 144.765, Wis. Stats., is available to persons who meet the definition of "purchaser" in s. 144.765 (1)(c) and receive Department approval for the response actions taken at the property undergoing cleanup. The Department will determine eligibility for this program on a case-by-case basis, prior to the "purchaser" developing a scope of work for conducting a ch. NR 716, Wis. Adm. Code, site investigation at the property.

Effective the date of this letter, **every 90 days**, you or your consultant should provide the Department with a brief status report of one or two pages, providing an update on site activities and your proposed schedule. The Department must be notified **immediately** of any emergency conditions (e.g. explosive vapors in a basement, contaminated drinking water well, detection of free product), and you must implement any actions necessary to correct the emergency situation as soon as possible.

The Department will continue to review soil disposal applications as they are submitted. Any well construction variances or WPDES permits should be obtained prior to construction, disposal or discharge. PECFA progress payment requests for Phase 2 - IMPLEMENTATION OF THE REMEDIAL ACTION, and Phase 3 - OPERATION/MAINTENANCE AND ENVIRONMENTAL MONITORING, along with necessary reports, can still be submitted for review. The Department will review your case for closure when the full extent of contamination has been determined and the appropriate cleanup has been completed.

As workload and staff levels are adjusted, the status of this case may be changed and we may be able to review your consultant's work for completeness and acceptability. You will be informed, in writing, if the site status is changed.

If you should have any questions, please feel free to contact our office at 715/372-4866.

Sincerely,

Christopher A. Saari

Christopher A. Saari
Hydrogeologist

cc: James H. Cheshire - Drake Environmental, Inc.

DRAKE
ENVIRONMENTAL, INC.
Common Sense. Uncommon Service.

REMEDIAL INVESTIGATION WORK PLAN

FAGERLIN FUEL BULK PLANT PROPERTY
SUPERIOR, WISCONSIN

MR. DAVID P. RASMUSSEN

DRAKE
ENVIRONMENTAL, INC.
Common Sense. Uncommon Service.

November 12, 1996

Mr. Christopher Saari, Hydrogeologist
Wisconsin Department of Natural Resources
P.O. Box 125
Brule, WI 54820

RE: Remedial Investigation Work Plan for the Fagerlin Fuel Bulk Plant Property in Superior, Wisconsin — Drake Project No. B96070 (DNR ID No. 02-16-110461)

Dear Mr. Saari:

Drake Environmental, Inc. has prepared the attached Remedial Investigation (RI) Work Plan for the above-referenced site in accordance with the requirements of Wisconsin Administrative Code Chapter NR 716.09. The site is located at 1306 North 6th Street in Superior, Wisconsin. As stated in the work plan, a soil probe will be advanced at an estimated six locations and three temporary groundwater monitoring wells will be constructed to estimate the extent and degree of soil and groundwater contamination at the site. The RI is tentatively scheduled for November or December 1996. Therefore, your prompt review of the report and a written response would be appreciated.

If you have any questions or comments regarding the information contained in the work plan, or the project in general, please call Mr. James H. Cheshire at (715) 358-7018.

Respectfully,

DRAKE ENVIRONMENTAL, INC.

James H. Cheshire
Senior Project Manager

Jim P. Erickson
Vice President

cc: Mr. David P. Rasmussen

Attachment
13/B96070A

8554 Highway 51 North
Post Office Box 610
Minocqua, WI 54548-0610
(715) 358-7018
1-800-358-7018
Fax:(715)358-7612

WORK PLAN

PROJECT
Remedial Investigation
Fagerlin Fuel Bulk Plant Property
Superior, Wisconsin

CLIENT
Mr. David P. Rasmussen
Fagerlin Fuel, Inc.
P.O. Box 938
Superior, Wisconsin 54880

PROJECT NUMBER
B96070

DATE
November 12, 1996

DRAKE ENVIRONMENTAL, INC.
8554 Highway 51 North, Unit #6
Post Office Box 610
Minocqua, Wisconsin 54548-0610

WORK PLAN CONTENTS

REMEDIAL INVESTIGATION WORK PLAN
FAGERLIN FUEL BULK PLANT PROPERTY
SUPERIOR, WISCONSIN

1.0 BACKGROUND INFORMATION

1.1 Project Background

Mr. David P. Rasmussen owns the Fagerlin Fuel Bulk Plant property, located at 1124 North 6th Street in Superior, Wisconsin. The property is located in the southwest quarter of the northwest quarter of Section 14, Township 49N, Range 14W in Douglas County. The site is bordered to the north by North 6th Street, to the west by Baxter Street, and to the east and south by residential properties. Figure 1 in Appendix A illustrates the location of the property. Mr. Rasmussen has retained Drake Environmental, Inc. to complete a Remedial Investigation (RI) at the subject site. Drake has prepared this work plan in accordance with Wisconsin Administrative Code Chapter NR 716.09 requirements to describe the scope of work for the RI.

The site is currently utilized as a petroleum bulk plant facility and is developed with four buildings. An office building is located in the northwest corner of the property. A storage shed is located south of the office building. A garage is located in the northeast corner of the property. A second garage is located in the southeast corner of the property. One 20,000-gallon no. 1 fuel oil underground storage tank (UST), one 20,000-gallon no. 2 fuel oil UST, and one 12,000-gallon kerosene UST are located in the central portion of the property. Aboveground piping connects the USTs to a pump house and petroleum dispenser platform located south of the USTs. One 550-gallon fuel oil aboveground storage tank is located adjacent to the east wall of the office building. The existing site features are illustrated on Figure 2 in Appendix A.

On June 26, 1996, Drake conducted a Limited Phase II Environmental Assessment at the site on behalf of Mr. Rasmussen. The assessment was conducted to confirm the presence or absence of contamination at the site. During the Limited Phase II Environmental Assessment, Drake advanced five borings (designated nos. HA-1 through HA-5) with a hand-operated electric, flighted-stem auger system in the vicinity

of the UST systems. The hand auger boring locations are illustrated on Figure 2 in Appendix A.

The borings were advanced to a depth of 6.5 feet below ground surface (bgs). One soil sample collected from HA-4 at a depth of 4 to 4.5 feet bgs and one sample collected from HA-5 at a depth of 6 to 6.5 feet bgs were submitted for diesel range organics (DRO) analytical testing. DRO concentrations of 16 mg/kg and 4,500 mg/kg, were identified in the soil samples collected from HA-4 and HA-5, respectively. A copy of the Chain of Custody form and laboratory report are included in Appendix B.

Drake notified the Wisconsin Department of Natural Resources (DNR) of the presence of contamination on September 18, 1996, after obtaining authorization from Mr. Rasmussen. In a letter dated September 25, 1996, the DNR requested that Mr. Rasmussen complete a site investigation and develop a remedial action plan. Therefore, to comply with DNR regulations, an RI is considered necessary to estimate the extent and degree of soil and groundwater contamination and to develop recommendations for remediation, if warranted. This work plan provides background information regarding the site and describes the proposed scope of work and procedures to be followed during the RI.

1.2 Regional Geology and Hydrogeology

Information available from the Wisconsin Geological and Natural History Survey (WGNHS) indicates that the surficial soils in the area of the site consist of lake modified glacial till deposits of the Miller Creek Formation. The till contains reddish, unbedded, unsorted sandy silt and clay with scattered pebbles, cobbles, and boulders. These glacial till deposits are approximately 100-200 feet thick and are underlain by Precambrian Sandstone. The topography is generally subdued due to wave action or as a result of being deposited in a highly fluid state during high stages of Lake Superior.

In general, the groundwater elevation in unconsolidated sandy clay deposits in the Superior area ranges from approximately 0 to 50 feet bgs. Based on the ground surface elevations in relation to Lake Superior, groundwater is anticipated to be present at a depth of approximately 10 feet bgs in the vicinity of the subject property. Based upon

local topography, groundwater is expected to flow towards Lake Superior located approximately 2,600 feet northeast of the subject site.

1.3 Site-Specific Geology and Hydrogeology

During drilling for the Phase II Environmental Site Assessment conducted at the site on June 26, 1996, Drake observed that the surficial soils consist of medium-grained sand with some fine and coarse gravel fill materials to a depth of 6.5 feet (the maximum depth explored during the investigation). Groundwater was not encountered during the Limited Phase II Environmental Assessment.

1.4 Site Investigation Scoping

The following information regarding site scoping is provided in accordance with the requirements of Wisconsin Administrative Code Chapter NR 716.07.

Based on the Phase II Environmental Site Assessment results, contamination exists in the vicinity of the pump house and dispenser platform at the subject site. However, the volume of petroleum discharged at the Fagerlin Fuel Bulk Plant site is unknown. The discharge of petroleum is known to have caused soil contamination. The potential for groundwater contamination to exist will be addressed during the proposed RI described in this work plan.

The properties adjacent to the Fagerlin Fuel Bulk Plant property are not likely to have caused contamination at the subject property. The proposed investigation activities do not include assessing the potential for contamination at adjacent properties at this time. In addition, no endangered species, sensitive species habitats or ecosystems, wetlands, outstanding or exceptional water resources, historical or archaeological sites are anticipated to be affected by the contamination at the Fagerlin Fuel Bulk Plant site.

Water to the subject property and surrounding areas is serviced by the City of Superior. Therefore, it is unlikely that there are potable wells in use within a 1,200-foot radius of the property. However, Drake will provide information regarding potable wells within a 1,200-foot radius of the site in the RI report.

With the exception of underground utilities servicing the property and within North 6th Street and Baxter Street, no underground structures are known to be present which could potentially act as migration conduits. The potential for preferential migration of petroleum contaminants along underground utilities will be evaluated during the RI.

No climatological or background soil or groundwater conditions are anticipated to affect the scope of work for the proposed investigation. Potential interim actions and remedial actions will be evaluated following the proposed investigation at the Fagerlin Fuel Bulk Plant site.

1.5 Scope of Work

The following lists the tasks Drake proposes to complete for the RI. Each task is also described in detail.

- Prepare a site-specific health and safety plan.
- Assist with the selection of a soil probe contractor and analytical laboratory.
- Coordinate the project with the soil probe contractor to advance a soil probe at six locations.
- Collect representative soil samples from the soil probe locations.
- Screen the soil samples to preliminarily evaluate the degree of petroleum contamination.
- Submit selected soil samples to an analytical laboratory for analytical testing to quantify contaminants.
- Document the construction of temporary groundwater monitoring wells in three of the probeholes, if necessary.
- Complete an elevation survey of the wells to determine the direction of groundwater flow.
- Collect one round of groundwater samples from each well and submit the samples for analytical testing.
- Prepare a report presenting the procedures and results of the project, along with conclusions and recommendations based on the results.
- Evaluate remedial action alternatives for the site if remediation is warranted.
- Develop a Remedial Action Plan (RAP) if remediation is warranted.
- Prepare a Petroleum Environmental Cleanup Fund Act (PECFA) claim to apply for reimbursement of eligible project costs.

1.6 Property Owner, Consultant, And Contractor Information

The following presents the information required in accordance with the Wisconsin Administrative Code Chapter NR 716.15 (3) 2. and 3:

Owner (Client):	Mr. David Rasmussen Fagerlin Fuel, Inc. P.O. Box 938 Superior, Wisconsin 54880 Business telephone no.: (715) 394-5561
Consultant:	Drake Environmental, Inc. P.O. Box 610 Minocqua, Wisconsin 54548 Contacts: James H. Cheshire, Senior Project Manager Ronald S. Illium, P.E., Project Director Telephone no.: (715) 358-7018 (James H. Cheshire) Telephone no.: (414) 253-1440 (Ronald Illium)
Soil Probe Contractor:	METCO P.O. Box 448 Hillsboro, Wisconsin 54634 Contact: Ms. Linda Eastman Telephone no.: (608) 489-2198
Analytical Laboratory Contractor:	En Chem, Inc. (DNR Lab Certification No. 405132750) 2231 Catlin Avenue Superior, Wisconsin 54880 Contact: Ms. Cindy Coaty Telephone no.: (715) 392-5844

Mr. Rasmussen will contract directly with METCO to provide soil probing and well construction services. Mr. Rasmussen will also contract directly with En Chem to provide laboratory analytical services.

2.0 SCOPE OF WORK

2.1 Health and Safety Plan

Prior to implementation of the fieldwork, Drake will prepare a site-specific health and safety plan to comply with requirements of the Occupational Safety and Health Administration (OSHA). The plan will apply to Drake staff members conducting fieldwork or providing project support at the site. A description of site characteristics, a hazards evaluation, safety requirements, and emergency procedures will be included in the plan. The health and safety plan will be available on site during the fieldwork.

2.2 Soil Probe Advancement Procedures

It is estimated that a soil probe advanced at five locations will be required to allow for the collection of representative soil samples and construction of three temporary groundwater monitoring wells. The soil probe will be advanced by the soil probe contractor with truck-mounted equipment in accordance with the soil probe sampling procedure described in Appendix C. In accordance with DNR guidelines, the probeholes will be approximately 25 feet (or less) apart (unless site obstructions prevent probehole spacing of 25 feet) and will extend vertically to the groundwater table (approximately 20 feet). The proposed locations of the soil probeholes are illustrated on Figure 3 in Appendix A. The actual number and depths of the probeholes will depend on the site conditions and the extent of contamination.

Equipment decontamination procedures will be followed by the soil probe contractor prior to advancing the soil probes to prevent the transfer of contaminants by the equipment. Decontamination of the sampling equipment will be conducted prior to the collection of each soil sample. Decontamination will include an Alconox detergent/water wash and a double rinse in municipal water.

2.3 Soil Sampling Procedures

Soil samples will be collected from the probeholes to identify the site's geologic conditions and estimate the horizontal and vertical extent of soil contamination. The

soil probe contractor will assist Drake in collecting the samples at 2-foot vertical intervals to recover representative, relatively undisturbed samples. The samplers utilized to collect soils will be decontaminated before and after each sample recovery to prevent the transfer of contaminants by the sampling equipment. The samples will be placed into the appropriate containers for field and laboratory testing.

Following sampling, the probeholes that are not utilized for temporary groundwater monitoring wells will be backfilled with bentonite to prohibit surface water infiltration. Drake will prepare soil boring abandonment forms to comply with DNR requirements.

2.4 Soil Sample Screening Procedures

Drake will preliminarily evaluate the soil samples in the field to identify indications of petroleum contamination. The samples will be screened with a photoionization detector (PID) following the DNR "headspace" method. PID screening detects the presence of vapors emitted by volatile organic compounds (VOCs), which are common constituents in petroleum fuels.

2.5 Soil Classification Procedures

Following the PID screening, the samples will be transported to Drake's facility. Drake will visually examine and classify the samples on the basis of texture and plasticity in general accordance with the Unified Soil Classification System (USCS). Each sample will also be evaluated to identify the presence of staining and odors indicative of contamination. The soil description and accompanying USCS identification of each sample will be presented on soil probe logs prepared by Drake. To comply with the DNR regulations, Drake will also prepare a geologic cross section depicting the stratigraphy of the site.

2.6 Soil Sample Analytical Testing Procedures

Drake will submit selected samples exhibiting elevated PID readings, odors, and/or staining to an independent certified laboratory for analyses. Chain of Custody forms will be maintained for the soil samples submitted to the laboratory. In accordance with DNR requirements, the following sampling plan will be utilized:

Number of Samples	Parameter	Method of Analysis
6	Diesel Range Organics (DRO)	DNR Modified DRO Method
*7	Petroleum Volatile Organic Compounds (PVOCs)	EPA Method 8021
6	Polynuclear Aromatic Hydrocarbons (PAHs)	EPA Method 8310

*Includes a quality control trip blank.

Drake will compare the laboratory results to Wisconsin Administrative Code Chapter NR 720 standards to evaluate the extent and degree of contamination.

Drake proposes to submit one soil sample from each of the proposed soil probe locations in the vicinity of the fuel oil USTs for DRO, PVOC, and PAHs. The soil sample submitted for analytical testing from each probehole will be collected from the sampling interval assumed to be the most contaminated based on PID screening results. If no detectable PID readings are observed, the soil sample collected at the groundwater table interface will be submitted for analytical testing. If no detectable PID readings are observed and groundwater is not encountered, the soil samples collected at the greatest depth from each probehole will be submitted for analytical testing.

2.7 Monitoring Well Construction and Development Procedures

If groundwater is encountered in the probeholes, Drake estimates three temporary groundwater monitoring wells will be constructed by the soil probe contractor in selected probeholes. The proposed monitoring well locations are indicated on Figure 3 in Appendix A. However, the actual locations of the monitoring wells will be established upon completion of the advancement of the probeholes.

The temporary monitoring wells will be constructed in general accordance with Wisconsin Administrative Code Chapter NR 141 requirements. The wells will be constructed with 1-inch inside diameter riser pipes attached to 0.010-inch machine slotted screens. The well screens and risers will be set in the probeholes to the desired completion depth, with the well screens within the water table zone. The monitoring wells will be completed with flush mount protective covers.

Drake will document well construction and prepare monitoring well construction details. Drake will also develop the wells in accordance with DNR requirements, and prepare monitoring well development forms. The groundwater purged from the wells during development will be contained in DOT 17H 55-gallon drums and stored on site pending characterization and disposal.

2.8 Elevation Survey Procedures

The elevations of the monitoring wells and probeholes will be surveyed using standard leveling techniques. The well and probehole elevations will be referenced to a United States Geological Survey (USGS) benchmark or to an established benchmark at the site. The top of casing and ground surface elevations will be determined to the nearest 0.01 foot. The water level at each monitoring well will be determined by using an electronic water level probe. To comply with DNR regulations, Drake will evaluate the survey data and water levels obtained after well development to determine water table elevations and will prepare a contour map depicting the direction of groundwater flow.

2.9 Groundwater Sampling and Analytical Testing Procedures

Following well development, three groundwater samples will be collected and submitted for laboratory analyses. A disposable bailer will be used to remove the water from each well. Temperature, specific conductance, and pH measurements will be taken following the removal of each casing volume.

Samples will be obtained by gently lowering the bailer into the screened interval of the water column to a depth approximately equal to the length of the bailer. Groundwater samples will be placed in laboratory-supplied containers, labeled, and placed on ice for transfer to the laboratory. Chain of Custody forms will be maintained for the groundwater samples. The following sampling plan will be utilized:

Number of Samples	Parameter	Method of Analysis
**5	DRO	DNR Modified DRO Method
*6	VOCs	EPA Method 8021
**5	PAHs	EPA Method 8310

*Includes three groundwater samples, a quality control trip blank, a quality control field blank, and a duplicate sample.
**Includes three groundwater samples, a quality control field blank, and a duplicate sample.

Drake will compare the laboratory results to standards set forth in Wisconsin Administrative Code Chapter NR 140 to evaluate the groundwater quality at the site.

3.0 DOCUMENTATION

3.1 Report Preparation

Following receipt of the laboratory results, Drake will prepare a detailed project report. The purposes of the report will be to present the technical project data and explain the significance of the data in a concise, comprehensive document. If warranted, the RI report will provide an evaluation of remedial alternatives in accordance with Wisconsin Administrative Code Chapter NR 722 requirements. The report will be intended to provide sufficient explanation and support of the data for the purposes of Fagerlin Fuel and their agents, as well as to obtain project approval from the DNR and the Department of Commerce.

Included in the report will be descriptions of the field procedures, field and laboratory results, and a detailed analysis of the results. The report will provide Drake's conclusions regarding the extent and degree of contamination and recommendations for additional investigation or soil and groundwater remediation, if warranted. Drake will also provide copies of the site diagrams, cross-section diagrams, laboratory reports, and field forms in the report. The report will be prepared according to Wisconsin Administrative Code Chapter NR 716 requirements for submittal to the DNR for review and approval.

3.2 Remedial Action Planning

If remediation is recommended, Drake will consider various alternatives for soil and groundwater remediation. Drake will evaluate the alternatives based on estimated cost, time, effectiveness, regulatory acceptance, and input from Fagerlin Fuel. Based on the results of the evaluation, Drake will develop and document a remedial program for the site. Drake will prepare a Remedial Action Options (RAO) letter providing an evaluation of the technical feasibility and cost-effectiveness of remedial alternatives for submittal to the Wisconsin Department of Commerce. Drake will also prepare a Remedial Action Plan (RAP) for the selected remedial alternative in accordance with Wisconsin Administrative Code Chapter NR 724 requirements.

3.3 General Qualifications

Drake conducts their services with that degree of care and skill ordinarily exercised by members of the environmental consulting community practicing under similar conditions at the same time in the same or similar locality.

The procedures Drake followed in preparing this work plan were in general accordance with applicable regulations of the Wisconsin DNR and Department of Commerce at the time this work plan was prepared. If the applicable regulations change, the DNR may require further investigation.

The investigative methods presented in this work plan are based on data obtained from specific sampling locations at the times and under the conditions stated in this report. Variations in soil and groundwater conditions typically exist at most sites between sampling locations and specific periods of time, the extent of which may not become evident without further exploration and/or excavation. If variations are noted in the future, Drake should be informed. It may be necessary to further evaluate the characteristics of these variations, and provide a re-evaluation of the proposed services in this work plan.

Potential economic liabilities may also be identified during this project. Drake assumes no responsibility for the discovery and elimination of hazards that could possibly cause accidents, injuries, or damage. Compliance with the recommendations and/or suggestions that result from Drake's services in no way assures elimination of hazards or a fulfillment of a property owner's obligation under local, state, or federal laws. It is the responsibility of the property owner to notify authorities of any conditions that violate current legal standards.

Some of the factual information in this work plan was obtained from the client, client's agents, and third parties and is assumed by Drake to be correct and in compliance. Because the facts stated in this work plan are subject to professional interpretation, they could result in differing conclusions. In addition, the services proposed in this work plan are based on various factors as they existed at the time of this study.

Drake prepared this work plan at the request of their client. Drake assumes responsibility for the accuracy of the contents of this work plan subject to what is stated elsewhere in this section, but recommends the work plan be used only for the purpose intended by the client and Drake when the work plan was prepared. The work plan may be unsuitable for other uses and reliance on its contents by anyone other than the client is at the sole risk of the user. Drake accepts no responsibility for application or interpretation of the contents by anyone other than the client.

APPENDICES

Appendix A

Figure 1 - Vicinity Diagram
Figure 2 - Site Diagram
Figure 3 - Proposed Soil Probe and Temporary Monitoring Well Locations Diagram

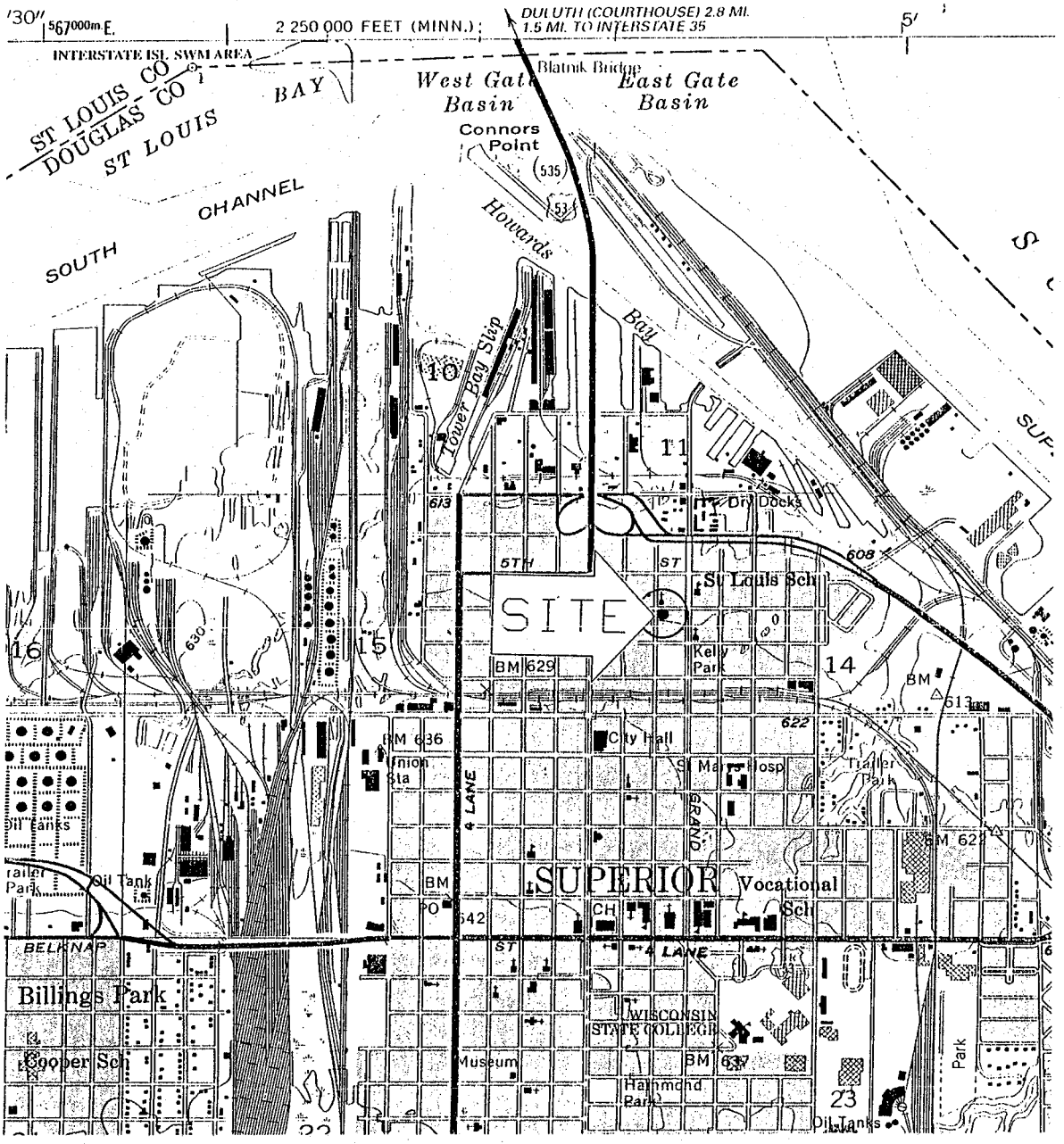
Appendix B

Chain of Custody and Laboratory Report for Soil Sample Collected During the Limited Phase II Environmental Assessment

Appendix C

Soil Probe Sampling Procedure

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY



COPIED FROM 7.5 SERIES [TOPOGRAPHIC] - U.S.G.S. QUADRANGLE

SUPERIOR - WISCONSIN

SW 1/4 NW 1/4 SEC 14 T49N R14W

DIAGRAM SCALE

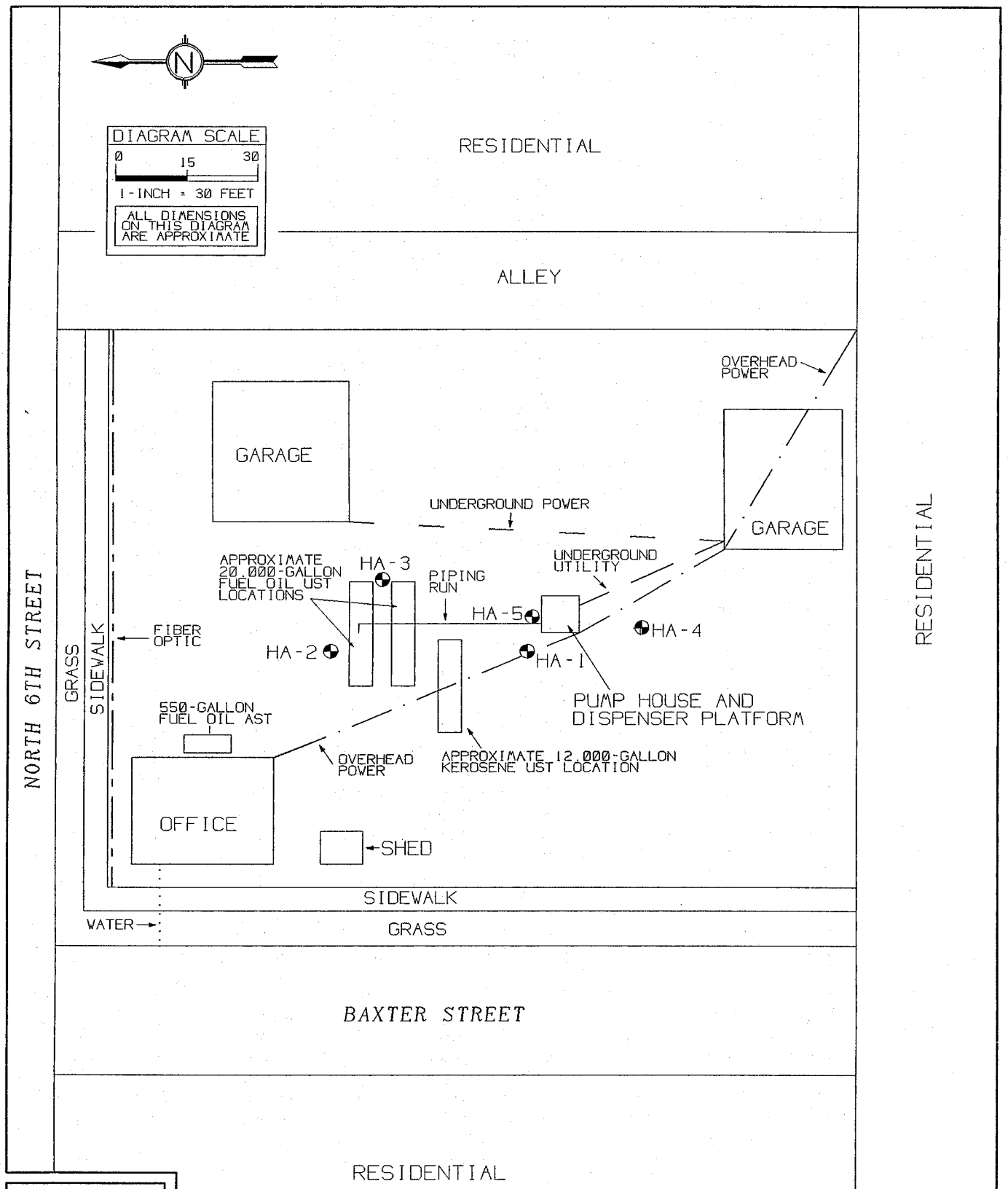
0 1000 2000

1-INCH = 2000-FEET

DRAKE ENVIRONMENTAL, INC.

FAGERLIN BULK PLANT REMEDIAL INVESTIGATION WORK PLAN	PROJECT NO. B96070 PM JHC TOPO COPIED DATE: 07/29/96 CHKD BY DATE APRVD BY DATE	VICINITY DIAGRAM	FIGURE 1

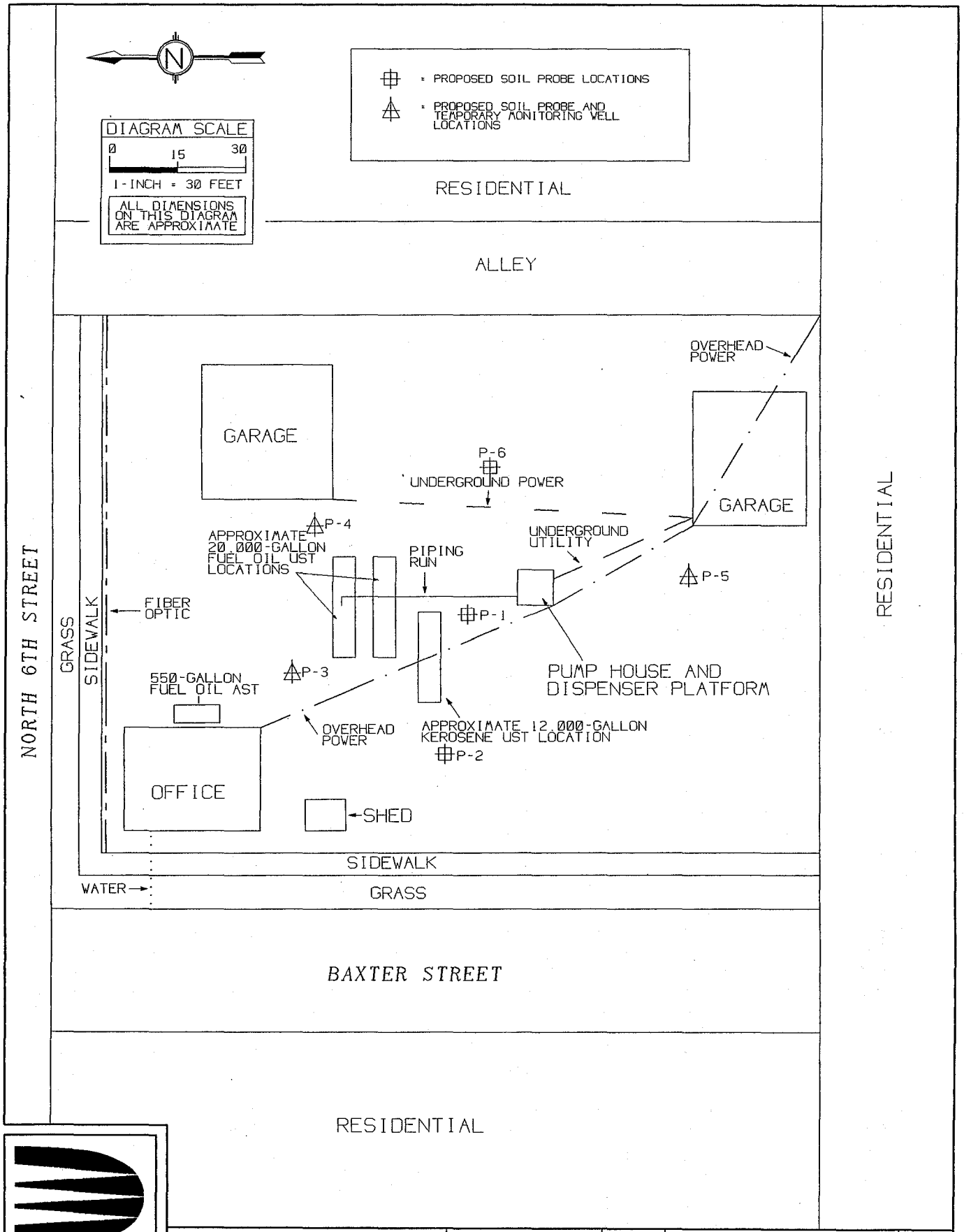
FILE:



DRAKE ENVIRONMENTAL, INC.

FAGERLIN BULK PLANT REMEDIAL INVESTIGATION WORK PLAN	PROJECT NO. B96070 PM JHC DRAWN BY RV DATE: 11/07/96 CHECKED BY DATE: APPRVD BY DATE:	SITE DIAGRAM	FIGURE 2

FILE: B6070F2



DRAKE ENVIRONMENTAL, INC.

FAGERLIN BULK PLANT REMEDIAL INVESTIGATION WORK PLAN	PROJECT NO. B96070 | PM JHC DRAWN BY RV DATE: 11/07/96 CHECKED BY DATE: APPRVD BY DATE:	PROPOSED SOIL PROBE AND TEMPORARY MONITORING WELL LOCATIONS DIAGRAM	FIGURE 3

FILE: B6070F3

Company Name: Drake Environmental, Inc.

Branch or Location: Minocqua, WI

Project Contact: James H. Cheshire

Telephone: (715) 358-7018

Project Number: B96036

Project Name: Fagerlin Bulk Plant

Project Location: 1124 N. 6th St., Superior, WI

Sampled By (Print): James H. Cheshire

Regulatory Program (circle): (UST) RCRA CLP SDWA NPDES/WPDES CAA NR_____ Other_____

6/26/96

EN CHEM INC.

1241 Bellevue St., Suite 9
Green Bay, WI 54302
414-469-2436 • 1-800-736-2436
FAX 414-469-8827

2231 Catlin Ave., Suite 420
Superior, WI 54880
715-392-5844 • 1-800-837-8238
FAX 715-392-5843

CHAIN OF CUSTODY

NR720 Confirmation Analysis Required? No

(En Chem will confirm unless otherwise instructed.)

Mail Report To: James H. Cheshire

Company: Drake Environmental, Inc.

Address: P.O. Box 610
Minocqua, WI 54548

Invoice To: David P. Rasmussen

Company: Fagerlin Fuel, Inc.

Address: P.O. Box 938
Superior, WI 54880

P.O. No.: Quote No.:

Field ID	Sample Description	Collection Date	Collection Time	Field Screen	Matrix	Filt'd Y/N	Preserv*	Analysis Requested	SHADED AREA FOR LABORATORY USE ONLY: Good Cond.	Total Bottles	Comments	Laboratory Number
B-4:5-3	Soil from B-4:5-3 at 4 to 4.5 ft.	6-26-96	4:15	<1	Soil	N	A	DRO, Total Solids				501857
B-5:5-4	Soil from B-5:5-4 at 6 to 6.5 ft.	6-26-96	5:05	56	Soil	N	A	DRO, Total Solids				501858

*Preservation Code
A=None B=HCL C=H2SO4
D=HN03 E=EnCore F=Methanol**
G=NaOH O=Other (Indicate)

**If not using En Chem's methanol, indicate volume of methanol added and mark the appropriate samples.

Relinquished By:	Date/Time:	Received By:	En Chem Project No.
James H. Cheshire	6-27-96 / 4:10	Robert Noatsch FED/EX	0696074
Relinquished By: Ted Ted	Date/Time: 6-28-96 10:05A	Received By:	Sample Receipt Temp. (Must be rec'd at 4°C)
Relinquished By:	Date/Time:	Received By (En Chem): Lyndsey Cooley	ROT

EN CHEM INC.

. . . chemistry for the environment

Superior Laboratory
2231 Catlin Ave., Suite 420
Superior, WI 54880
715-392-5844
1-800-837-8238
Fax: 715-392-5843

Lab Certification No. 816079330
Location : B96036/FAGERLIN BULK PLANT
En Chem Proj# : 0696074
Date Reported : 07/15/1996

Report to: DRAKE ENVIRONMENTAL

Thank you for using En Chem! Samples were analyzed according to strict EPA or Wisconsin DNR methodology. Any comments or problems associated with the receipt of or analysis are reported below:

Sample No. 501857: Later eluting peaks outside DRO window.

Sample No. 501858: Front peaks outside of DRO window, indicating lighter hydrocarbons are present.

EN CHEM INC.

. . . chemistry for the environment

Superior Laboratory
2231 Catlin Ave., Suite 420
Superior, WI 54880
715-392-5844
1-800-837-8238
Fax: 715-392-5843

Lab Certification No. 405132750
Location : B96036/FAGERLIN BULK PLANT
Your Sample ID: B-4:S-3
Sample Desc. : SOIL FROM B-4:S-3 AT 4 TO 4.5 FT
Sample Matrix : SOIL Date Collected: 06/26/1996
En Chem Proj# : 0696074 Date Received : 06/28/1996
En Chem Lab # : 501857 Date Reported : 07/15/1996

Report to: DRAKE ENVIRONMENTAL
P.O. BOX 610
MINOCQUA, WI 54548-0610

Bill to: DRAKE ENVIRONMENTAL

Analysis	Parameter	Result	Units	Detection Limit	Prep Method	Prep Date	Analysis Method	Analysis Date	Analyzed By
[redacted]SOLID	Total Solids	85	percent	0.0			EPA 160.3	07/02/1996	CLC
DRO-S	Diesel Range Organics(DRO)-Soil	16	mg/kg	4.6		07/03/1996	WDNR MOD DRO	07/12/1996	DLP
	Soil spike	101	% RECOV	50					
	Soil spike duplicate	97	% RECOV	50					

"ND" Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by Wisconsin DNR certified laboratories.

These results have been reviewed and their authenticity verified by:

EN CHEM INC.

. . . chemistry for the environment

Superior Laboratory
2231 Catlin Ave., Suite 420
Superior, WI 54880
715-392-5844
1-800-837-8238
Fax: 715-392-5843

Lab Certification No. 405132750
Location : B96036/FAGERLIN BULK PLANT
Your Sample ID: B-5:S-4
Sample Desc. : SOIL FROM B-5:S-4 AT 6 TO 6.5 FT
Sample Matrix : SOIL Date Collected: 06/26/1996
En Chem Proj# : 0696074 Date Received : 06/28/1996
En Chem Lab # : 501858 Date Reported : 07/15/1996

Report to: DRAKE ENVIRONMENTAL
P.O. BOX 610
MINOCQUA, WI 54548-0610

Bill to: DRAKE ENVIRONMENTAL

Analysis	Parameter	Result	Units	Detection Limit	Prep Method	Prep Date	Analysis Method	Analysis Date	Analyzed By
SOLID	Total Solids	82	percent	0.0			EPA 160.3	07/02/1996	CLC
DRO-S	Diesel Range Organics(DRO)-Soil	4500	mg/kg	190		07/03/1996	WDNR MOD DRO	07/14/1996	DLP
	Soil spike	101	% RECOV	50					
	Soil spike duplicate	97	% RECOV	50					

"ND" Indicates no detectable analyte at or above the listed detection limit. All results reported on a dry weight basis. All subcontracted analyses are performed by Wisconsin DNR certified laboratories.

These results have been reviewed and their authenticity verified by:

SOIL PROBE SAMPLING PROCEDURE

A typical soil probe apparatus consists of a truck- or van-mounted soil probe machine; 1-inch outside diameter stainless steel, 4-foot long sample rods; and an 18-inch long, 1-inch outside diameter core sampler. The soil probe rods and core sampler are assembled and driven into the ground to a depth approximately equal to the length of the core sampler. The sampler rods and core sampler are then extracted from the probehole and an 18-inch plastic sleeve is withdrawn from the core sampler. The required samples are then collected, the core sampler is decontaminated with an Alconox detergent/potable water wash and a double-rinse in potable water, and a new plastic sleeve is inserted into the core sampler.

November 5, 1996

DRAKE
ENVIRONMENTAL, INC.
Common Sense. Uncommon Service.

Mr. Christopher Saari, Hydrogeologist
Department of Natural Resources
P.O. Box 125
Brule, WI 54820

RE: Notification of Consultant Selection for the Fagerlin Fuel Bulk Plant Property in Superior, Wisconsin — Drake Project No. B96070; DNR Case No. NCD UID #02-16-110461

Dear Mr. Saari:

Drake Environmental, Inc. is writing this letter in response to your September 25, 1996 letter to Mr. David Rasmussen regarding selection of an environmental consultant to conduct a Remedial Investigation (RI) for the above-referenced property, located at 1124 North 6th Street in Superior, Wisconsin. Drake has been retained by Mr. Rasmussen to conduct the RI at the site and to develop recommendations for remediation, if warranted.

Drake is currently preparing a RI work plan for submittal for your review. The RI is tentatively scheduled to be conducted in November or December 1996, following completion of the work plan, establishment of Petroleum Environmental Cleanup Fund Act (PECFA) eligibility, and Mr. Rasmussen's procurement of a loan to finance the RI costs.

If you have any questions, please contact Mr. James Cheshire or Mr. Jim Erickson at (715) 358-7018.

Respectfully,

DRAKE ENVIRONMENTAL, INC.

James H. Cheshire
Senior Project Manager

Jim P. Erickson
Vice President

cc: Mr. David Rasmussen

13/B96070C

8554 Highway 51 North
Post Office Box 610
Minocqua, WI 54548-0610
(715) 358-7018
1-800-358-7018
Fax:(715)358-7612

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Tommy G. Thompson, Governor
George E. Meyer, Secretary
William H. Smith, District Director

Brule Area Headquarters
6250 South Ranger Road
P.O. Box 125
Brule, WI 54820-0125
TELEPHONE 715-372-4866
TELEFAX 715-372-4836

September 25, 1996

FILE COPY

MR DAVID RASMUSSEN
FAGERLIN FUEL INC
PO BOX 938
SUPERIOR WI 54880

SUBJECT: Petroleum Contamination at the Fagerlin Fuel, Inc. Bulk Plant, 1124 North 6th Street, Superior, Wisconsin

Dear Mr. Rasmussen:

On September 18, 1996, the Department was notified by an employee of Drake Environmental, Inc., of petroleum contaminated soil encountered during a site assessment performed at the above named site on June 26, 1996.

Based on the information we have received, the Department believes that you are responsible for restoring the environment at this site under Section 144.76, Wisconsin Statutes, known as the hazardous substances spills law. Your responsibilities include investigating the extent of the contamination, and then selecting and implementing the most appropriate remedial action. Enclosed is information to help you understand what you need to do to ensure your compliance with the spills law.

The purpose of this letter is threefold: 1) to describe your legal responsibilities, 2) to explain what you need to do to investigate and clean up the contamination, and 3) to provide you with information about cleanups, environmental consultants, and working cooperatively with the Department of Natural Resources.

Legal Responsibilities:

Your legal responsibilities are defined both in statute and in administrative rules. The hazardous substances spill law, Section 144.76 (3), Wisconsin Statutes, states:

* RESPONSIBILITY. A person who possesses or controls a hazardous substance which is discharged or who causes the discharge of a hazardous substance shall take the actions necessary to restore the environment to the extent practicable and minimize the harmful effects from the discharge to the air, lands, or waters of the state.

Wisconsin Administrative Codes NR 700 through NR 728 establish requirements for emergency and interim actions, public information, site investigations, design and operation of remedial action systems, and case closure. Chapter NR 708 includes provisions for immediate actions in response to limited contamination. Wisconsin Administrative Code NR 140 establishes groundwater standards.

Steps to Take:

The longer contamination is left in the environment the farther it can spread and the more it may cost to clean up. Quick action may lessen damage to your property and to neighboring properties and reduce your costs in investigating and cleaning up the contamination. To ensure that your cleanup complies with Wisconsin's laws and rules, you should hire a professional environmental consultant who understands what needs to be done. The following are the first four steps to take:

1. Within **60** days please submit written verification (such as a letter from the consultant) that you have hired an environmental consultant. You will need to work quickly to meet this timeline.

2. Within **90** days your consultant must submit a workplan and a schedule for conducting the investigation. The consultant must follow the Department's administrative rules and our technical guidance documents. Please include with your workplan a copy of any previous information that has been completed for your site (such as an underground tank removal report, or a preliminary soil excavation report).

3. Please keep us informed of what is being done at your site. You or your consultant must provide us with a brief report at least every 90 days, starting after your workplan is submitted. These quarterly reports should summarize the work completed since the last report. Quarterly reports need only include one or two pages of text, plus any relevant maps and tables. However, please note that should conditions at your site warrant, you may receive a letter requiring more frequent contacts with the Department. You will also receive one annual site status report form in February.

4. When the site investigation is complete, your consultant must submit a full report on the extent and degree of soil and groundwater contamination and a proposal for cleaning up the contamination.

Due to the number of contaminated sites and our staffing levels, we will be unable to respond to each report. To maintain your compliance with the spills law and chs. NR 700 through NR 728, do not delay the investigation and cleanup by waiting for DNR responses. We have provided detailed technical guidance to environmental consultants. Your consultant is expected to be familiar with our technical procedures and administrative codes and should be able to answer your questions on meeting Wisconsin's cleanup requirements.

Your correspondence and reports regarding this site should be sent to the Department at the following address:

Christopher A. Saari
WDNR Brule Area Headquarters
6250 S. Ranger Rd.
PO Box 125
Brule, WI 54820-0125

Unless otherwise requested, please send only one copy of all plans and reports. Correspondence should be identified with the assigned DNR identification number which will be assigned to your site in the near future.

Information for Site Owners:

The Department has previously forwarded to you information regarding environmental consultants and some tips on selecting a consultant. If you are eligible for Wisconsin's PECFA program (see end of letter) you will need to compare at least three consultants' proposals before hiring a consultant. Consultants and laboratories working in the PECFA program are required to carry errors and omissions insurance to help protect you against unsuitable work.

If you are interested in obtaining the protection of limited liability under s. 144.765, Stats., please contact the Contaminated Land Recycling Program at (800) 367-6076 (instate long distance) or (608) 264-6020 (local or out of state), in the Department of Natural Resources' Madison office for more information. The liability exemption under s. 144.765 Stats., is available to persons who meet the definition of "purchaser" in s. 144.765 (1)(c) and receive Department approval for the response actions taken at the property undergoing cleanup. The Department will determine eligibility for this program on a case-by-case basis, prior to the "purchaser" developing a scope of work for conducting a ch. NR 716 site investigation at the property.

Financial Information:

Reimbursement from the Petroleum Environmental Cleanup Fund (PECFA) is available for the costs of cleaning up contamination from eligible petroleum storage tanks. The fund is administered by the Department of Commerce (formerly DILHR). Please contact the Department of Commerce at (608) 267-3753 for more information on eligibility and regulations for this program.

If you have any questions about this letter or your responsibilities, please call me at (715) 372-4866.

Thank you for your cooperation.

Sincerely,

Christopher A. Saari

Christopher A. Saari
Hydrogeologist

Wisconsin Department of Natural Resources

Notification of Petroleum Contamination from Underground Storage Tank System

Please complete this form and FAX it to the appropriate DNR contact person listed on the back page of this form immediately upon discovery of a release from an UST system.

TO: DNR, Attn: Susie Sutter
FAX #: (715) 635-4105

1. Name, company, mailing address and phone number of person reporting the discharge:

James M. Christie
Drake Environmental, Inc.
P.O. Box 616
Minocqua, WI 54548

2. Site Information:

Name of site at which discharge occurred (local name of site/business, not responsible party name –unless a residence): Fagerlin Fuel, Inc. Bulk Plant

Location (actual street address, not P.O. box; if no street address, describe as precisely as possible, e.g., 1/4 mile NW of CTHs 60 & 123 on E side of CTH 60): 1124 North 6th Street
Superior, WI 54880

Municipality (city, village, township in which the site is located – not mailing address):

Superior

County: Douglas

Legal Description: SW 1/4, NW 1/4, Section 14, Tn 49N, Range 14 E (W)

3. Responsible Party (RP) and/or RP Representative Information

Company Name: Fagerlin Fuel, Inc.

Contact Person: Mr. David Rasmussen, President

Mailing Address (with zip code):
P.O. Box 938
Superior, WI 54880

Telephone Number:
(715) 394-5564

4. Identity, physical state and quantity of the hazardous substance discharged (check all that apply):

___Unleaded gasoline
___Leaded gasoline
___Diesel
_Y_Fuel oil
___Waste oil
_Y_Other Kerosene

5. Impacts to the environment (enter "K" for known or "P" for potential for all that apply):

___Fire/explosion threat	K Soil contamination
___Contaminated private wells (# of wells)_____	___Surface water impacts
___Contaminated public wells	P Floating product
P Groundwater contamination	___Other_____

6. Contamination was discovered as a result of:

___Tank closure assessment ___Site assessment ___Othe_____

On what date: 6-26-96 (based on PID Readings)
7-15-96 (based on receipt of laboratory results)

Additional Comments:
Fagerlin Furniture is in process of obtaining bids from consulting firms to conduct a Remedial Investigation.

FAX numbers to report LUST sites in DNR's six districts:

Lake Michigan District: 414-492-5859 Attention: Janis DeBrock
(Florence, Marinette, Oconto, Menominee, Shawano, Waupaca, Outagamie, Brown, Door, Kewaunee, Waushara, Winnebago, Calumet and Manitowoc Counties)

North Central District: 715-365-8932 Attention: Janet Kazda
(Vilas, Oneida, Forest, Lincoln, Langlade, Marathon, Wood, Portage, Juneau, and Adams Counties)

Northwest District: 715-635-4105 Attention: Susie Sutton
(Douglas, Bayfield, Ashland, Iron, Burnett, Washburn, Sawyer, Price, Polk, Barron, Rusk and Taylor Counties)

Southern District: 608-275-3338 Attention: Marilyn Jahnke
(Marquette, Green Lake, Richland, Sauk, Fond du Lac, Columbia, Dodge, Dane, Jefferson, Grant, Iowa, Lafayette, Green and Rock Counties)

Southeast District: 414-229-0810 Attention: Giselle Red
(Sheboygan, Washington, Ozaukee, Waukesha, Milwaukee, Walworth, Racine, and Kenosha Counties)

Western District: 715-839-6076 Attention: John Grump
(St. Croix, Dunn, Chippewa, Pierce, Pepin, Eau Claire, Clark, Buffalo, Trempealeau, Jackson, LaCrosse, Monroe, Vernon and Crawford Counties)

Department of Natural Resources

ENVIRONMENTAL REPAIR PROGRAM
CASE TRACKING FORM FOR VER. 2.1
Form 4400-150

09-26-96A10:44 RCVD

I.D. #02-16-110461

District: NWD County: Douglas (16)
Site Name: Fagerlin Fuel Bulk Plant
Address: 1124 N. 6th St.
Legal Municipality: Superior
T V ©

Case No.: PMN:
FID: 816047980
Proj. Mgr:
Support Person:
Legal Desc: SW 1/4 NW 1/4 Sec 14, T 49, R 14 ~~W~~
Lat: N ___ ° ___ . ___ ' Long: W ___ ° ___ . ___ '

Date of Discovery: 09 / 18 / 96
Date of RP Contact: 09 / 25 / 96

PRIORITY SCREENING:
___ 1 = High
___ 3 = Low
X 4 = Unknown

PRE-SCORE
_____ . _____

FUNDING SOURCE:
X 1 = PP
___ 2 = LTF
___ 3 = EF
___ 4 = SF
___ 5 = None
___ 6 = Other (Describe In Comments)
___ 7 = EPA Emergency Resp.

ENFORCEMENT AUTHORITY:
X 1 = Spill Law s. 144.76, Wis. Stats.
___ 2 = Envir Repair Law s. 144.442, Wis. Stats.
___ 3 = Hazardous Waste Rules NR 600 Series
___ 4 = Solid Waste Rules NR 500 Series
___ 5 = CERCLA
___ 6 = Abandoned Container s. 144.77, Wis. Stat.
___ 7 = Other (Describe in Comments)

PROGRAMS INVOLVED: (L - LEAD S - SUPPORT)

___ Aban Containers
___ Lust
___ NR 600 Hazardous Waste
___ NR 500 Solid Waste
___ Spills
___ Superfund
___ Water Supply
___ Water Resources Mgt
___ Env. Repair

RESPONSIBLE PARTY:

Business Name: Fagerlin Fuel, Inc.
Owner/Mgr.: David Rasmussen
Address: PO Box 938
Superior WI 54880
Phone: 715 / 394-5561
Contact Person:

Business Name:
Owner/Mgr.:
Address:
Phone: ___ /
Contact Person:

		KNOWN IMPACTS (X)	POTENTIAL IMPACTS (X)
No Threat			
Fire/Explosion threat	(1)		
Contaminated Private Well	(2)		
Contaminated Public Well	(3)		
Groundwater Contamination	(4)		X
Soil Contamination	(5)	X	
Direct Contact	(10)		
Contaminated Surface Water	(7)		
Contaminated Air	(8)		
Other _____	(6)		

CONSULTANT INFORMATION:

Company:
Contact Person:
Address:
Phone: ___ /
(List additional on separate sheet & attach.)

Company:
Contact Person:
Address:
Phone: ___ /

EPA HAZARDOUS SUBSTANCES

(Please indicate if quantities are product or contaminated soil in pounds, gallons or cubic yards.)

TYPE (Enter Code)	DISCHARGED	RECOVERED	TREATED	STORED	DISPOSED	DISPOSAL LOCATION CITY	STATE

ERP CASE STATUS

(x as appropriate)

		DATE INITATED (MM YY)	DATE COMPLETED (MM YY)	COMMENTS
	NO ACTION TAKEN			
	EMERGENCY	____/____	____/____	
	WORK PLAN APP	____/____	____/____	
	FIELD INVEST I	____/____	____/____	
	II	____/____	____/____	
	III	____/____	____/____	
	REM DESIGN	____/____	____/____	
	REM ACTION I	____/____	____/____	
	O & M I	____/____	____/____	
	REM ACTION II	____/____	____/____	
	O & M II	____/____	____/____	
	LONG TERM MONT	____/____	____/____	
	ENFORCEMENT	____/____	____/____	

EF STATE LEAD CONSULTANT COST (OPTIONAL)

CONSULTANT	CONTRACT/PURCHASE ORDER NUMBER	CONTRACT AMOUNT	AMOUNT PAID TO DATE	LAST INVOICE APPROVED DATE
		$	$	____/____/____
		$	$	____/____/____
		$	$	____/____/____
		$	$	____/____/____
		$	$	____/____/____
		$	$	____/____/____
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		$	$	____/____/____
		$	$	____/____/____