03-09-000918

WISCONSIN
DEPT. OF NATURAL RESOURCES

George E. Meyer
Secretary

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

2004 Highland Avenue
Eau Claire, WI 54701-4346
TELEPHONE 715-839-3777
TELEFAX 715-839-1605

April 30, 1993

File Ref: 4440
Chippewa County

Mr. Frank Draxler
Chippewa Valley Regional Airport
720 Oxford Avenue
Eau Claire, WI 54701

SUBJECT: Review of the Remedial Investigation Work Plan for the Chippewa Valley Regional Airport Located at 3800 Starr Avenue in Eau Claire

Dear Mr. Draxler:

I have reviewed the above-captioned work plan that was submitted by Alan Bishop, Cedar Corporation. The work plan outlines the installation of four (4) soil borings to determine the degree and extent of contamination in the vicinity of a former diesel underground storage tank. This tank was located adjacent to Hangar A-1. The tank closure report indicated a release of petroleum contamination near the dispenser and below both ends of the tank.

The work plan states that field screening of soils from the borings will utilize a PID or FID. Since the tank contained diesel fuel, a FID must be used to field screen soil samples. I am approving this work plan as amended. If you have any questions concerning this letter, please contact me at (715) 839-3775.

Sincerely,

John R. Grump

John R. Grump
Hydrogeologist

JRG/ah

c: Bill Evans
Alan Bishop, Cedar

File
03-09-000918

WISCONSIN
DEPT. OF NATURAL RESOURCES
George E. Meyer
Secretary

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

2004 Highland Avenue
Eau Claire, WI 54701-4346
TELEPHONE 715-839-3777
TELEFAX 715-839-1605

March 4, 1994

File Ref: 4440
Chippewa County

Mr. Frank Draxler
Chippewa Valley Regional Airport
720 Oxford Avenue
Eau Claire, WI 54701

SUBJECT: Site Closure for Chippewa Valley Regional Airport Located at 3800 Starr Avenue in Eau Claire, WI

Dear Mr. Draxler:

I have submitted a site closure request to our District Close-Out Committee for the above-captioned site. Based on the data submitted by Alan Bishop of Cedar Corporation, the committee recommended that this site undergo closure.

Closure is intended to mean that currently available information indicates that this site does not pose a threat to the environment. Be aware that if future data indicates that current or pre-existing activities on this site have created a threat to the environment, this Department reserves the right to request additional information and remediation.

If you have any questions concerning this letter, please contact me at (715) 839-3775.

Sincerely,

John R. Grump
Hydrogeologist

JRG/ah

c: Bill Evans
Alan Bishop, Cedar

WD CASE SUMMARY AND CLOSE-OUT FORM

CLOSE-OUT OPTION:(Circle one) (Committee) Fast Track SITE I.D. NO. 918

SITE NAME Chippewa Valley Regional Airport PROJECT MANAGER John Grump

LOCATION 3800 Starr Ave., Eau Claire PRIORITY (High) Medium Low

TYPE OF DISCHARGE (LUST) Spill Other _____ Unknown

CONTAMINATION PRESENT IN (Soil) Groundwater Other _____ Unknown

CONTAMINANT TYPE Diesel DISCHARGE VOLUME Unk

POTENTIAL RECEPTORS: None

DATE OF SITE DISCOVERY 12/11/92 CONSULTANT Cedar Corporation

SOIL TYPE(S) Sandy DEPTH TO BEDROCK/ROCK TYPE Unk

DEPTH TO GROUNDWATER/DIRECTION OF FLOW ≈ 85 ft. / toward Chippewa River

CASE SUMMARY: A 560 gallon diesel tank was removed. Pump was located adjacent to tank. Soil below pump (1.5 ft) contained DRO at 30,000 ppm. Installed four (4) soil borings to determine degree and extent. Small area of soil contamination from 4.5 to 6.5' at boring location B-4. This is adjacent to and below the pump. Initial soil sample at 1.5 ft during tank removal was at boring B-4 location.

(Details of contamination are on the back of this page.)

COMMITTEE RECOMMENDATION:

1. CLOSE OUT Signatures APPROVAL Larry Schaefer, Douglas Jagh, Bill Evans, James E Boettcher DATE 3-3-94

OR:

2. ADDITIONAL WORK REQUIRED

DEGREE OF CONTAMINATION

SOIL:
Extent defined? (Yes) No NA

(Lab Analyses) Field Analysis No Data Number of sampling points? ~~3~~ 8

Contaminant	PPM	Contaminant	PPM
DRO	74		

Post-remediation Concentration

Remedial action taken: None

GROUNDWATER:
Extent defined? Yes No (NA) Lab Analyses Field Analysis No Data

Groundwater monitoring: Permanent Wells Yes No Temporary Wells Yes No

Number of sampling points? _____

Contaminant	Post-remediation Concentration	Applicable Standard ES	PAL

Remedial action taken:

I certify that, to the best of my knowledge, the information presented on and attached to this form is true and accurate. This recommendation for case closure is based on all the available data as of

_____ *(date) and is submitted by* _____

(Please print and sign your name)

_____ *of* _____ *(firm).* 11.92:2.2

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS SUMMARY
CHIPPEWA VALLEY REGIONAL AIRPORT
EAU CLAIRE, WISCONSIN

6,000 GALLON FUEL OIL TANK

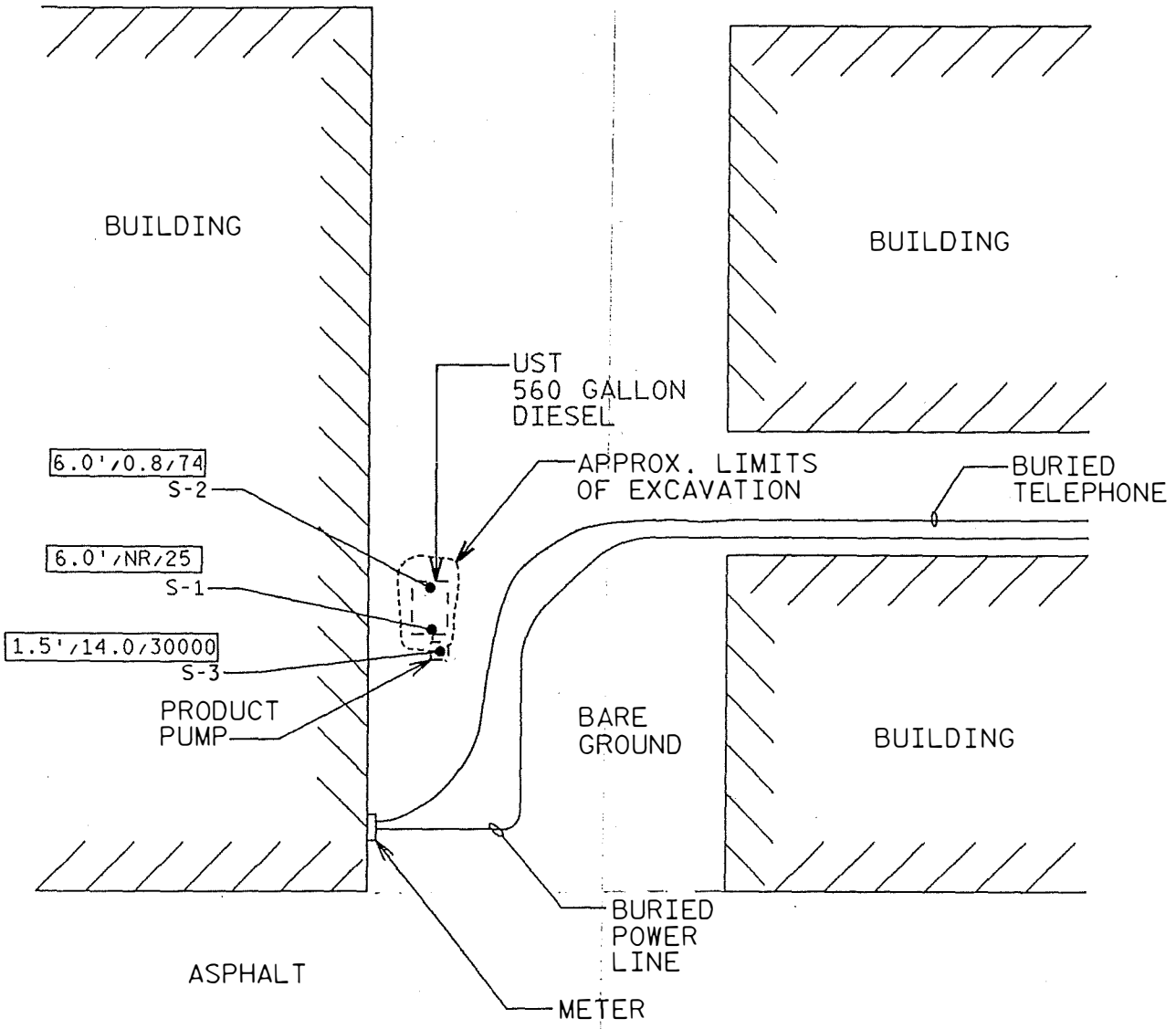
Date	Ayres Sample No.	Lab Sample No.	Sample Location	Sample Depth (FT) Below Existing Grade	Instrument Response (a) FID (Lab)	Diesel Range Organics (DRO) (mg/kg) (b)
10/12/92	HA-1, S-1	0298871	South End of Tank	13.0-13.5	No Response	< 10.0
10/12/92	HA-2, S-1	0298872	North End of Tank	12.5-13.0	No Response	< 10.0

560 GALLON DIESEL FUEL TANK

Date	Ayres Sample No.	Lab Sample No.	Sample Location	Sample Depth (FT) Below Existing Grade	Instrument Response (a) FID (Lab)	Diesel Range Organics (DRO) (mg/kg) (b)
11/17/92	S-1	302476	South End of Tank	6.0	No Response	25
11/17/92	S-2	302477	North End of Tank	6.0	0.8	74
11/17/92	S-3	302478	Below Pump	1.5	14	30,000

mg/kg = milligrams per kilograms

a = FID response given in instrument units as methane equivalents
b = The Practical Quantitation Limit (PQL) for Diesel Range Organics (DRO) was 10.0 mg/Kg



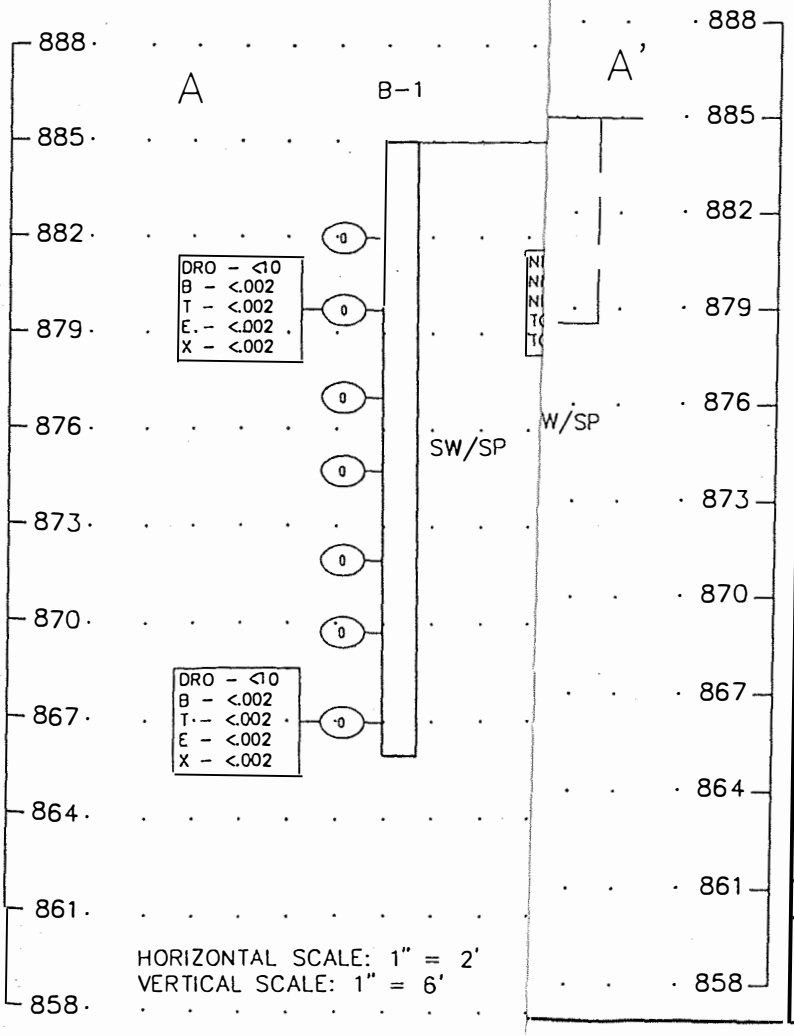
LEGEND:	
• S-3	SOIL SAMPLE
6.0'/NR/25	DEPTH/PID/DRO CONCENTRATION (mg/kg)
NR	NO RESPONSE

TANK CLOSURE SITE ASSESSMENT CHIPPEWA VALLEY REGIONAL AIRPORT EAU CLAIRE, WISCONSIN	DRN. BY: MLE CHK. BY: MAZ DATE: JAN. 1993 AYRES ASSOCIATES	SITE PLAN (560 GALLON DIESEL TANK)	FIGURE 3

4720SITE.DGN

REMO
DISPE

SCALE: 1" = 20'



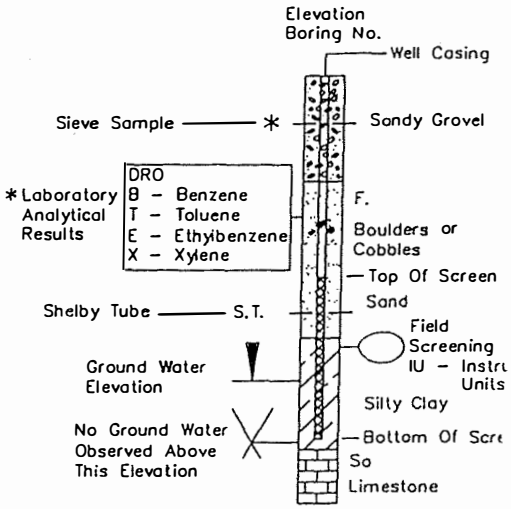
ABBREVIATIONS

F---Fine M---Medium C---Coorse
Ws---Weothered So---Sound

MATERIAL SYMBOLS

Topsoil, Silt, Sandstone
Sand, Peat, Limestone
Gravel, Clay, Igneous Rc

LEGEND OF BORING



BDL = BELOW DETECTION LIMIT

* All Laboratory Results Reported In PPM.

GEOLOGIC LEGEND

A - WELL AND POORLY GRADED SA AND GRAVELLY SANDS, LITTLE NO FINES

SOIL CONTAMINATION ABOVE 10 PPM DRO

CHIPPEWA VALLEY REG. AIRPC

SW TO NE CROSS SECTION

CROSS SECTION A - A', FIG.

Drawn By	Revised By	Plans Checked
SJR		AJB

cedar corporation

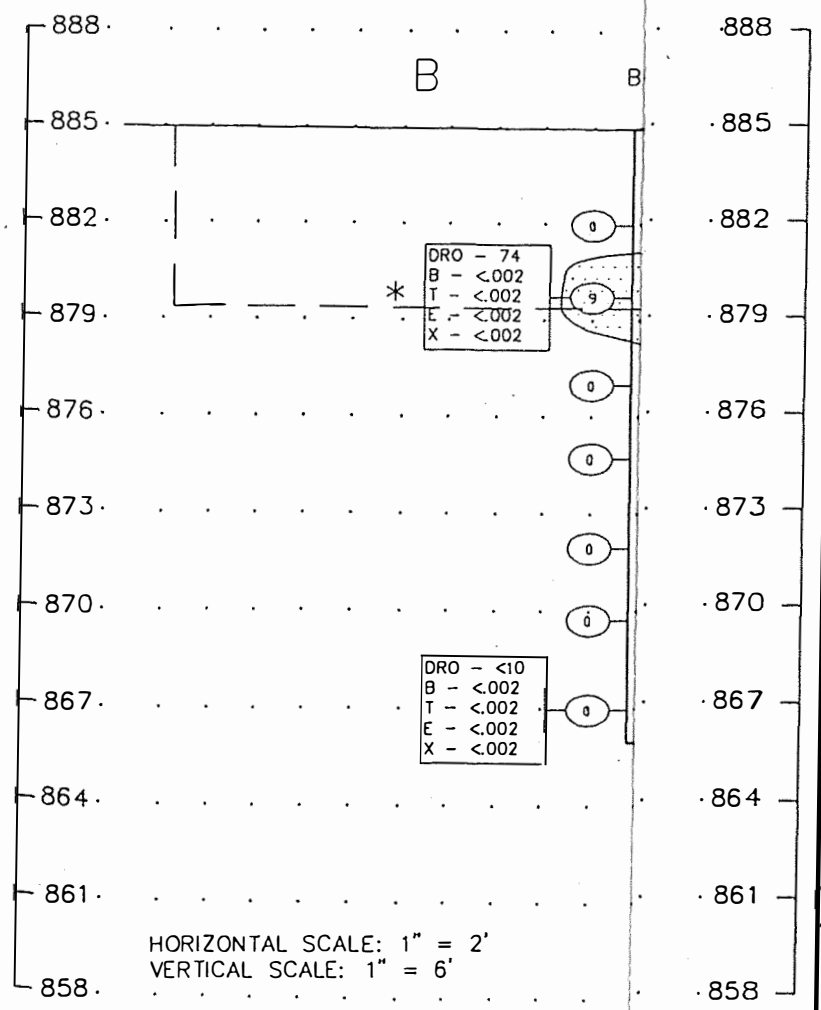
CADD FILE CHIPXSA..

JOB NUMBER 1673-001

REMOVED F
DISPENSING

U/G E

SCALE: 1" = 20'



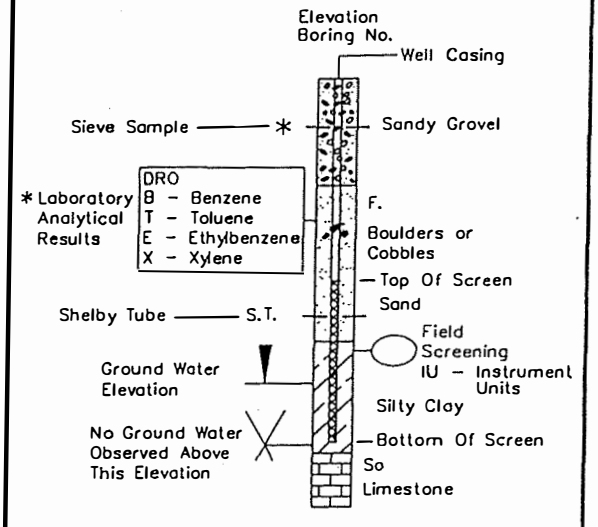
ABBREVIATIONS

F---Fine M---Medium C---Coorse
Ws---Weathered So---Sound

MATERIAL SYMBOLS

Topsoil, Silt, Sandstone
Sand, Peat, Limestone
Gravel, Clay, Igneous Rock

LEGEND OF BORING



BDL = BELOW DETECTION LIMIT

* All Laboratory Results Reported In PPM.

GEOLOGIC LEGEND

A - WELL AND POORLY GRADED SANDS AND GRAVELLY SANDS, LITTLE OR NO FINES

SOIL CONTAMINATION ABOVE 10 PPM DRO

CHIPPEWA VALLEY REG. AIRPORT

NW TO SE CROSS SECTION

CROSS SECTION B - B', FIG. 4

Drawn By	Revised By	Plans Checked
SJR		AJB

cedar corporation

CADD FILE CHIPXSB.DWG

JOB NUMBER 1673-001

TABLE 1
CHIPPEWA VALLEY REGIONAL AIRPORT

FIELD SCREENING RESULTS
(VALUES IN INSTRUMENT UNITS)

B–1		B–2		B–3		B–4	
DEPTH	FID	DEPTH	FID	DEPTH	FID	DEPTH	FID
2' – 4'	0	2' – 4'	0	2' – 4'	0	2' – 4'	0
5' – 7'	0	4.5' – 6.5'	0	4.5' – 6.5'	0	4.5' – 6.5'	9
7' – 9'	0	7' – 9'	0	7' – 9'	0	7' – 9'	0
9.5' – 11.5'	0	9.5' – 11.5'	0	9.5' – 11.5'	0	9.5' – 11.5'	0
12' – 14'	0	12' – 14'	0	12' – 14'	0	12' – 14'	–
14.5' – 16.5'	0	14.5' – 16.5'	0	14.5' – 16.5'	0	14.5' – 16.5'	0
17' – 19'	0	17' – 19'	0			17' – 19'	0

TABLE 2
CHIPPEWA VALLEY REGIONAL AIRPORT

SOIL ANALYSES
VALUES IN PARTS PER MILLION

SAMPLE NUMBER	FIELD SCREEN FID–IU(a)	DRO	BENZENE	TOLUENE	ETHYL–BENZENE	XYLENES	1,2,4 TMB (b)	1,3,5 TMB	MTBE (C)	SAMPLE DEPTH/ LOCATION
B–1–2	0	<10	<0.002	<0.002	<0.002	<0.002	0.0046	<0.002	<0.002	5'–7' AT B–1
B–1–7	0	<10	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	17'–19' AT B–1
B–2–3	0	<10	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	7'–9' AT B–2
B–2–7	0	<10	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	17'–19' AT B–2
B–3–3	0	<10	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	7'–9' AT B–3
B–3–6	0	<10	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	14.5'–16.5' AT B–3
B–4–2	9	74	<0.002	<0.002	<0.002	<0.002	0.0044	<0.002	<0.002	4.5'–6.5' AT B–4
B–4–7	0	<10	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	17'–19' AT B–4

(a) IU = INSTRUMENT UNITS, FLAME IONIZATION DETECTOR
(b) TMB = TRIMETHYLBENZENE
(c) MTBE = TERT–METHYL BUTYL ETHER

COMPLETE ANALYTICAL REPORTS CAN BE FOUND IN APPENDIX E.

An Investigative Work Plan
Prepared on Behalf of

Chippewa Valley Regional Airport

for

The Chippewa Valley Regional Airport - Hangar A-1
3800 Starr Avenue
Eau Claire, WI

April 23, 1993

A REMEDIAL INVESTIGATION WORK PLAN

A release of petroleum product has occurred from an underground storage tank at 3800 Starr Avenue in Eau Claire , Wisconsin. To determine the extent of the petroleum product contamination at this location in accordance with the Wisconsin DNR spill statute 144.76, an environmental investigation including the following is recommended:

I. Complete the environmental services under the direct supervision of a trained and experienced environmental investigator.

II. Scope of Investigative Work:

1. The investigation will focus on identifying the extent of contamination in soils and, if determined, groundwater through the construction of soil borings. All work will be completed within existing Administrative Codes and Investigative Guidelines.

2. Soil samples will be acquired using the methodology prescribed by the DNR as to location, number, duplication, handling, documentation and transfer. These methods include those procedures presented as Section III to this plan.

3. Field screening results of soil samples will be used to direct the investigation in the field. As these in field results are not conclusive, laboratory analyses may indicate that additional work may be necessary and an addendum to this program may be required.

4. Laboratory analyses will be employed to document the extent and magnitude of soil contamination. These analyses will be performed by a third party subcontracted analytical laboratory certified by the Wisconsin DNR under NR 149 to complete purgeable organic compound analyses. The methods employed will be as specified by the DNR in the LUST Analytical Guidance, April, 1992, PUBL-SW-130-92REV. In view of the nature of the petroleum product released, the Wisconsin DNR has determined that soil samples be tested for the following substances:

   A. DRO (Diesel Range Organics)

   B. PVOC's (Petroleum Volatile Organic Compounds) in soils including: benzene, ethylbenzene, methyl-tertiary-butyl ether, toluene, trimethylbenzenes and xylenes

   C. PAH's (Polynuclear Aromatic Hydrocarbons)

5. As shown on the attached plan four borings are proposed. Each boring will be drilled to 20 feet of depth. Sampling in each boring will be completed as per item III of this plan. Laboratory analyses will be completed as follows:

    2 DRO analyses each boring
    2 PVOC analyses each boring
    2 PAH analyses from the boring through the tank bed/pump island

6. In the event groundwater is encountered in this program, groundwater monitoring wells will be constructed according to Wisconsin Administrative Code NR 141. A separate plan will be submitted if wells are necessary.

7. Cedar Corporation will formally prepare and submit to the proper authorities a Remedial Investigation Report

8. Cedar Corporation will obtain all necessary permits necessary to complete this project.

III. Sampling Procedures During Soil Boring Construction

1. The investigation will include the collection of those soil and/or water samples as necessary for the proper evaluation of existing conditions at the site.

2. All samples will be field screened using accepted and regularly used methods. Field screening will employ the standard "headspace" method wherein a measure of total volatile organic compounds is made using a flame ionization or photoionization detector with a 10.6 eV ionization lamp.

3. The environmental investigator will acquire samples for field screening as follows:

    A. In all soils where discoloring or odor suggests contamination is present.

    B. In soil borings:

        i) one sample for each 2.5 feet of depth in a continuous soil unit; and,

        ii) one sample for each different soil unit encountered.

4. The environmental investigator will acquire samples for laboratory analysis as follows:

   A. Two samples each boring:

      i) Where contamination is determined by field screening;

         a) one sample from that soil sample having the highest field screen value;

         b) one sample from the bottom of the soil boring or at that point immediately above the water table.

      ii) Where contamination is not determined by field screening:

         a) one sample from the bottom of the soil boring or at that point immediately above the water table.

         b) one sample from that point below the base of the underground storage tanks and associated equipment.

      iii) For areas where water is encountered within 10 feet of surface, one soil sample is required and will be acquired at either the highest PID reading or the water table.

5. All samples to be sent to a laboratory for analysis will be properly labelled. Each label will include:

   A. Sample identification number.

   B. Time and date of acquisition.

   C. Sample location.

   D. Analyses required.

   E. Name of sampler.

6. For all samples to be sent to a laboratory, a chain-of-custody document will be completed. This document (DNR Form 4400-151) will:

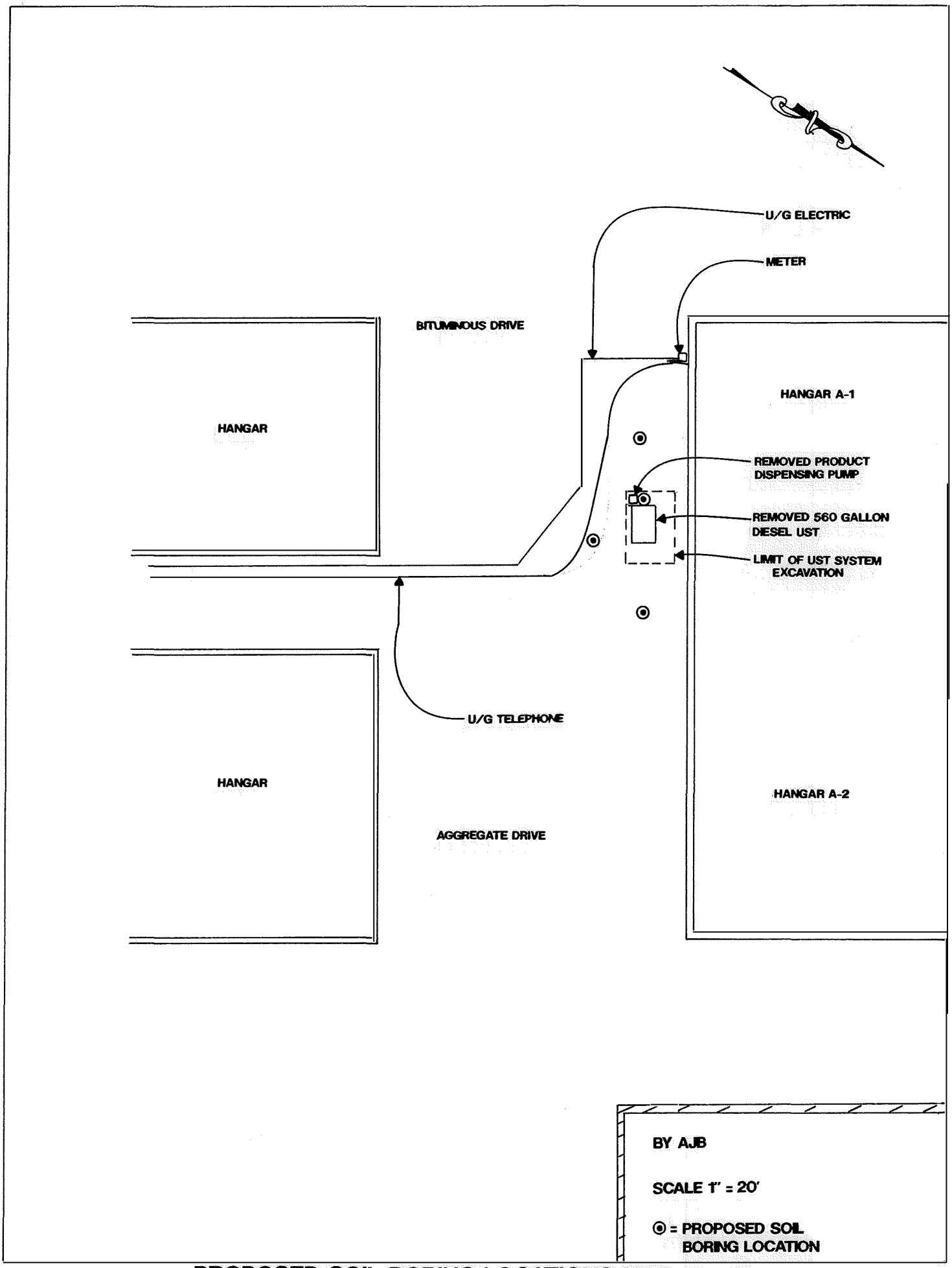
   A. Be completed in duplicate.

   B. Include that information required on sample labels.

   C. Provide sufficient space for signature, time and date of those persons relinquishing and receiving the samples.

   D. Be signed by those persons relinquishing and receiving the samples.

   E. Be kept with the sample at all times until the sample is analyzed and be returned to the sampler with sample analyses when complete.



PROPOSED SOIL BORING LOCATIONS MAP

CEDAR CORPORATION
604 Wilson Avenue
MENOMONIE, WISCONSIN 54751
715-235-9081 800-472-7372
FAX 715-235-2727

LETTER OF TRANSMITTAL

RECEIVED
APR 26 1993
DNR - ECA

TO WDNR
2004 Highland Ave.
Eau Claire, WI 54701-4346

DATE 4-23-93	JOB NO.
ATTENTION John Grump	
RE: Chippewa Valley Regional Airport	

WE ARE SENDING YOU ☒ Attached ☐ Under separate cover via _____ the following items:

☐ Shop drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications
☐ Copy of letter ☐ Change order ☐ _____

COPIES	DATE	NO.	DESCRIPTION
1	4-23-93	1	Investigative Workplan

THESE ARE TRANSMITTED as checked below:

☒ For approval ☐ Approved as submitted ☐ Resubmit _____ copies for approval
☐ For your use ☐ Approved as noted ☐ Submit _____ copies for distribution
☐ As requested ☐ Returned for corrections ☐ Return _____ corrected prints
☒ For review and comment ☐ _____
☐ FOR BIDS DUE _____ 19_____ ☐ PRINTS RETURNED AFTER LOAN TO US

REMARKS _____

Sincerely
Alan J. Bishop

COPY TO _____

SIGNED: _____

If enclosures are not as noted, kindly notify us at once.

AYRES ASSOCIATES

April 15, 1993

Mr. Frank Draxler
Chippewa Valley Regional Airport
720 Oxford Avenue
Eau Claire, WI 54703

Re: Tank Closure Site Assessment
Chippewa Valley Regional Airport
Eau Claire, Wisconsin
Addendum - Site Plan (6,000 gallon Fuel Oil Tank)

Dear Mr. Draxler:

Enclosed please find one (1) copy of Figure 2, Site Plan for the Tank Closure Site Assessment for Chippewa Valley Regional Airport. After reviewing our field notes, we concur with Mr. Grump's observation that the walkway is 14 feet wide and we have amended Figure 2. Please consider this as an addendum to the January 1993 Tank Closure Report.

If you have any questions, please give me a call.

Sincerely,

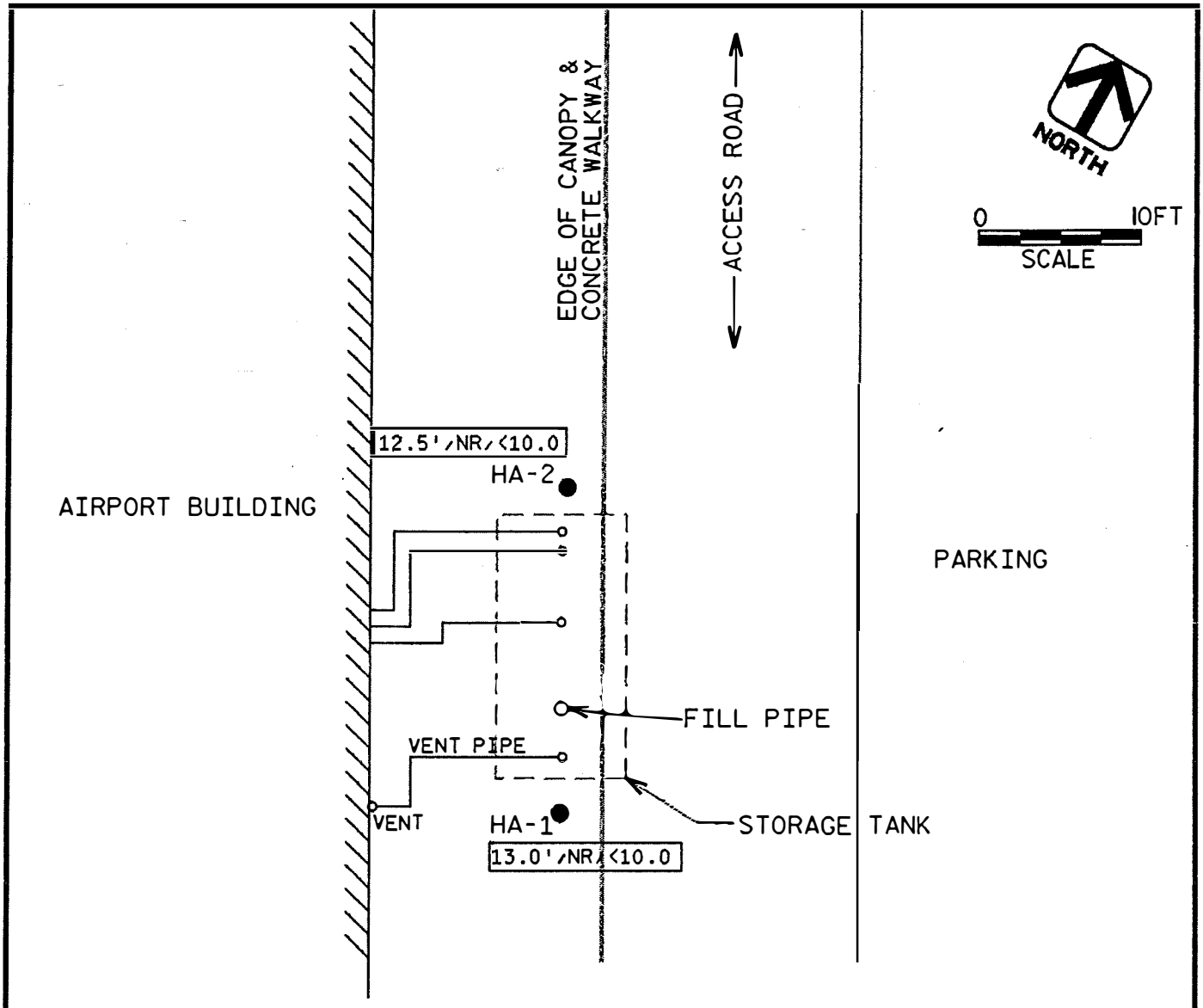
Owen Ayres & Associates, Inc.

Mark A. Zich
Environmental Specialist

MAZ:lkj

Enclosures

cc: Mr. John Grump
Mr. Burt Wright



NOTE:
HAND AUGER BORINGS WERE ANGLED TOWARD UNDERGROUND STORAGE TANK

LEGEND:	
● HA-1	HAND AUGER BORING
13.0'/NR/<10.0	DEPTH/FID/DRO CONCENTRATION (mg/kg)
NR	NO RESPONSE

TANK CLOSURE SITE ASSESSMENT CHIPPEWA VALLEY REGIONAL AIRPORT EAU CLAIRE, WISCONSIN	DRN. BY: MLE CHK. BY: MAZ DATE: APRIL 1993 AYRES ASSOCIATES	SITE PLAN (6000 GALLON FUEL OIL TANK)	FIGURE 2

455TTANK.DGN

WISCONSIN
DEPT. OF NATURAL RESOURCES
George E. Meyer
Secretary

file

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

2004 Highland Avenue
Eau Claire, WI 54701-4346
TELEPHONE 715-839-3777
TELEFAX 715-839-1605

April 13, 1993

File Ref: 4440
Chippewa County

Mr. Frank Drexler
Chippewa Valley Regional Airport
720 Oxford Avenue
Eau Claire, WI 54701

SUBJECT: Review of the Tank Closure Site Assessment Report for Two Underground Storage Tanks Located at the Chippewa Valley Regional Airport

Dear Mr. Drexler:

I have reviewed the above-captioned report submitted by Mark Zich, Ayres Associates. The report outlines the closing in-place of a 6,000 gallon fuel oil tank and the removal of a 560 gallon diesel tank. The fuel oil tank was located beneath the sidewalk adjacent to the airport terminal. Due to the potential compromise of the terminal, this tank was abandoned by cleaning of the tank interior and the subsequent filling with sand.

While the analytical results for the soil samples taken below the fuel oil tank were non-detect, the three (3) soil samples taken adjacent and below the diesel tank were all contaminated. While the analytical results below the pump island indicate that the source of the soil contamination was related to the pump or piping, there was no evaluation of the tank condition in the report.

Based on these findings, the report recommends additional investigatory drilling and sampling. I concur with this recommendation. Please direct your consultant to submit a remedial investigation work plan detailing the anticipated procedures and time schedule. These procedures must specify the use of a drilling rig incorporating a hollow-stem auger for placement of the recommended borings. A timely response within thirty (30) days from receipt of this letter will be appreciated. Also, direct your consultant to resubmit Figure 2 of the report. According to the figure, the concrete walkway is 30 feet wide. In actuality, the walkway is 14 feet wide. This Department expects drawings to be accurate and to scale. Subsequent investigatory work often depends on the accuracy of the locations and depths to delineate the extent of contamination.

If you have any questions concerning this letter, please contact me at (715) 839-3775.

Sincerely,

John R. Grump
Hydrogeologist

JRG/ah

c: Bill Evans
Mark Zich, Ayres
Dennis Johnson, Ayres

Eau Claire County
PURCHASING DEPARTMENT
County Courthouse
721 Oxford Avenue
Eau Claire, Wisconsin 54703

Area Code 715
839-5101

December 15, 1992

Dennis Johnson
Ayres Associates
1300 W Clairemont Ave
PO Box 1590
Eau Claire WI 54702-1590

SUBJECT: Soil Contamination at Chippewa Valley Regional Airport

Dear Mr. Johnson:

Pursuant to a letter I received from the State of Wisconsin Department of Natural Resources, signed by John R. Grump dated December 11, 1992 in regards to the above project, I am requesting your services to perform a remedial investigation of this project. I am aware that you are somewhat familiar with this project and may have already been contacted by the contractor; Hale Company. As indicated in the letter, I am requesting you to provide a work plan for conducting the remedial investigation 30 days from December 14, 1992. Submit an estimate of your cost and cost for clean up for this work plan. Please also indicate any other information you will need from my office.

By receiving a copy of this letter, the State DNR is notified that we have engaged an environmental consultant to perform this remedial investigation.

Sincerely,

Frank D. Draxler
Purchasing Agent

FDD/kjl

cc: John R. Grump, Hydrogeologist, State of Wisconsin Department of Natural Resources
Burt Wright, Airport Manager
Keith Zehms, Corporation Counsel

WISCONSIN
DEPT. OF NATURAL RESOURCES
Carroll D. Besadny
Secretary

file

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

2004 Highland Avenue
Eau Claire, WI 54701-4346
TELEPHONE 715-839-3777
TELEFAX 715-839-1605

December 11, 1992

File Ref: 4440
CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Frank Drexler
720 Oxford Avenue
Eau Claire, WI 54701

SUBJECT: Soil Contamination at Chippewa Valley Regional Airport Located in Eau Claire, WI

Dear Mr. Drexler:

The Department of Natural Resources has been notified that petroleum contamination was discovered during a tank closure site assessment at the above facility. The purpose of this letter is to inform you of your legal responsibilities to address this situation.

Wisconsin Statute 144.76(3) states: "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."

Releases from underground storage tanks regulated under Subtitle I of the Resource Conservation and Recovery Act require compliance with the provisions of 40 CFR Parts 280 and 281. This is federal law administered by the Environmental Protection Agency (EPA). EPA has the authority to take enforcement action at any time but will generally not take action against parties cooperating with the state.

Because a hazardous substance has been released to the environment, you are responsible for conducting an investigation to determine the extent of contamination and potential for groundwater impact. Remedial actions must be taken to clean up contaminated soils and groundwater, if applicable. An immediate concern is to identify any risks of explosive or toxic vapors and/or water well contamination.

Generally, the sooner a release is discovered and responded to, the smaller the damaging impacts and the cost of remediation are. Please be sure that all products, soils, wastewater or sludges are disposed of or treated in an approved manner.

Because of the potential threats to human health and/or the environment posed by this situation, the Department requests that within seven days of receiving this letter that you notify this office in writing whether you have hired an experienced environmental consultant to conduct a remedial investigation. We also request that the consultant submit a workplan for conducting a remedial

investigation within 30 days of receiving this letter. Your consultant may contact this office to obtain our guidelines for conducting a remedial investigation.

One copy of the report containing complete documentation of the investigation and cleanup shall be sent to this office when completed. You are encouraged to contact the Department of Industry, Labor, and Human Relations (DILHR), the state agency that administers the Petroleum Environmental Cleanup Fund (PECFA). This fund will reimburse you for eligible costs associated with the remedial investigation and cleanup. DILHR should be contacted at (608) 267-4545 to obtain current information regarding the PECFA program. If you have any questions regarding this letter, please feel free to contact me at (715) 839-3775.

Sincerely,

John R. Grump
Hydrogeologist

JRG/ah

c: John Paddock
Bill Evans
John Andersen, DILHR

UNITED STATES POSTAL SERVICE

Official Business

PENALTY FOR PRIVATE USE TO AVOID PAYMENT OF POSTAGE, $300

U.S.MAIL

RECEIVED
DEC 15 1992
DNR - ECA

Print your name, address and ZIP Code here

Mr. John R. Grump - DNR
Eau Claire Area Office
2004 Highland Avenue
Eau Claire, WI 54701

P 208 352 902

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Environmental Investigation Report
For
Chippewa Valley Regional Airport
Eau Claire, Wisconsin

(Submit to Closure) 2/8/94

September, 1993

Prepared by:

Cedar Corporation
604 Wilson Avenue
Menomonie, WI 54751

SIGNATURE PAGE

FOR

ENVIRONMENTAL INVESTIGATION REPORT

FOR

CHIPPEWA VALLEY REGIONAL AIRPORT

EAU CLAIRE, WISCONSIN

Author: _____ date: Sept. 15, 1993

Alan J. Bishop
Environmental Specialist

Reviewer: _____ date: Sept. 15, 1993

Scott E. McCurdy
Hydrogeologist

AMERICAN INSTITUTE OF PROFESSIONAL GEOLOGISTS
CERTIFICATE NUMBER
8146
AIPG
SCOTT E. McCURDY
CERTIFIED PROFESSIONAL GEOLOGIST

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APPENDICES

I. INTRODUCTION

Cedar Corporation has completed an environmental investigation for the Chippewa Valley Regional Airport as authorized in April, 1993. The site is located at 3800 Starr Avenue, in Eau Claire, Wisconsin, and includes an area between two of the airport hangars.

The purpose of this investigation was to identify and define the extent of petroleum contamination discovered during the removal of one (1) underground storage tank (UST) at the site.

The investigation includes:

* Historical review of site.
* Hydrologic review of site.
* Subsurface investigation using soil borings and split spoon sampling during the completion of four (4) soil borings.
* Collection, soil classification, and field screening (with an FID) of subsurface soil samples for volatile organic compounds (VOC's).
* Chemical analysis of soil samples for volatile organic compounds (VOC's) and Diesel Range Organics (DRO).
* Collection of a soil sample with a hand auger and chemical analysis for total organic carbon, total organic nitrogen, and total phosphate.

This report documents the investigations undertaken in July, 1993.

II. SITE LOCATION AND HISTORY

The Chippewa Valley Regional Airport site is located at 3800 Starr Avenue in the City of Eau Claire, Wisconsin (see Figure 1). The site consists of the airport terminal and runways as well as many hangars and out-buildings. The work site is located in the NE 1/4 of the SW 1/4 of Section 33, Township 28 North and Range 9 West.

The present investigation included a site inspection with a metal detector. This did not reveal the presence of any buried metal objects such as underground storage tanks. In addition, there is no physical evidence of vents, fill pipes, or abandoned pump islands remaining at the work site. However, there are several underground storage tanks remaining at other locations on the property.

SITE LOCATION

architects engineers land surveyors planners
cedar corporation
604 vixon avenue menomonie, wisconsin 54751 715-235-9081
Fax Number 715-235-8787 WATS 800-472-7372

DRAWN BY: SJR	PROJECT TITLE: CHIPPEWA VALLEY REGIONAL AIRPORT	CHECKED BY: AJB
DATE: 09/14/93	HANGAR A-1	JOB NO.: 1673-001
REVISED BY/DATE:	EAU CLAIRE, WI	FIGURE: 1
SCALE: 1:24,000	SITE LOCATION MAP	

III. PREVIOUS WORK

On November 17, 1992, one (1) underground storage tank (UST) was removed from the Chippewa Valley Regional Airport at 3800 Starr Avenue in Eau Claire, Wisconsin. Mark Zich of Ayres Associates was on site to conduct the necessary environmental site assessment procedures for the Hale Company of Wisconsin who was overseeing the project. Soil sample screening with a Flame Ionization Detector (FID) indicated low levels of volatile organic compounds to be present in the soils. The site was reported to John Grump (WDNR) per Wisconsin State Statues. Laboratory analysis of the soil samples confirmed the presence of contamination at the site.

IV. GEOLOGY OF EAU CLAIRE AREA

Bedrock geology of northwestern Eau Claire County consists of Cambrian age formations including sandstones, pebble conglomerates, and shales of the Mount Simon Formation. Also present near the site are granites and schists of the early Proterozoic. The bedrock underlying Eau Claire is mapped as the Mount Simon Formation. The depth to bedrock in the work area is believed to be present at greater than 100 feet below surface.

The Eau Claire surface soils consist of sands and gravels (alluvial deposits) with areas of glacial tills. These are placed in the SW/SP category of the USCS. The river valleys and related terraces consist of alluvial sands. The plateau areas generally are underlain by Pleistocene Age glacial materials including tills and outwash plains. These are characteristically found to overlie sandstones.

The Pleistocene sediments in the Eau Claire area are mapped as the Kinnickinnick Member of the Pierce Formation (Pleistocene Stratigraphic Units of Wisconsin, Attig, Clayton, and Mickelson, 1984-1987). The Kinnickinnick Member consists of thinly laminated calcareous glaciolocustrine sediment. Color ranges from very dark grayish brown to dark gray and is classified as a silt loam. These sediments were deposited by the damming of the Trimbelle, Chippewa, and Buffalo Rivers which formed a series of pro-glacial lakes. It is considered to be pre-Illinoian in age.

V. HYDROGEOLOGY OF THE EAU CLAIRE AREA

Groundwater in the area is considered to be at or near the elevation of the Chippewa River located 3800 feet to the northwest of the site. Using a river elevation of 800 feet and an 885 foot site elevation, the depth to groundwater is estimated to be 85 feet. This does not preclude the presence of perched aquifers or extremely high gradient water tables in the area. However, groundwater was not evident during the subsurface investigation proceedings, nor is there evidence in the local area of shallow groundwater.

Based on the data collected during the investigation, groundwater is not considered to be threatened by the diesel fuel contamination at the Chippewa Valley Regional Airport site. The limits of contamination have been determined to be present only in the surface soils surrounding the removed underground storage tank and product dispensing pump.

VI. ENVIRONMENTAL INVESTIGATION PROCEDURES

The continuation of the investigation into other potential contamination sources as well as a definition of the extent of contamination at the site was undertaken on July 1, 1993, using a soil boring drill rig and the completion of soil borings by Braun Intertec. This method is explained in Appendix B. A record of the encountered geology is presented as Soil Boring Logs in Appendix C.

The investigation using the split spoon sampling was chosen to determine the following:

* Define the local lithology.

* Define the extent of contamination.

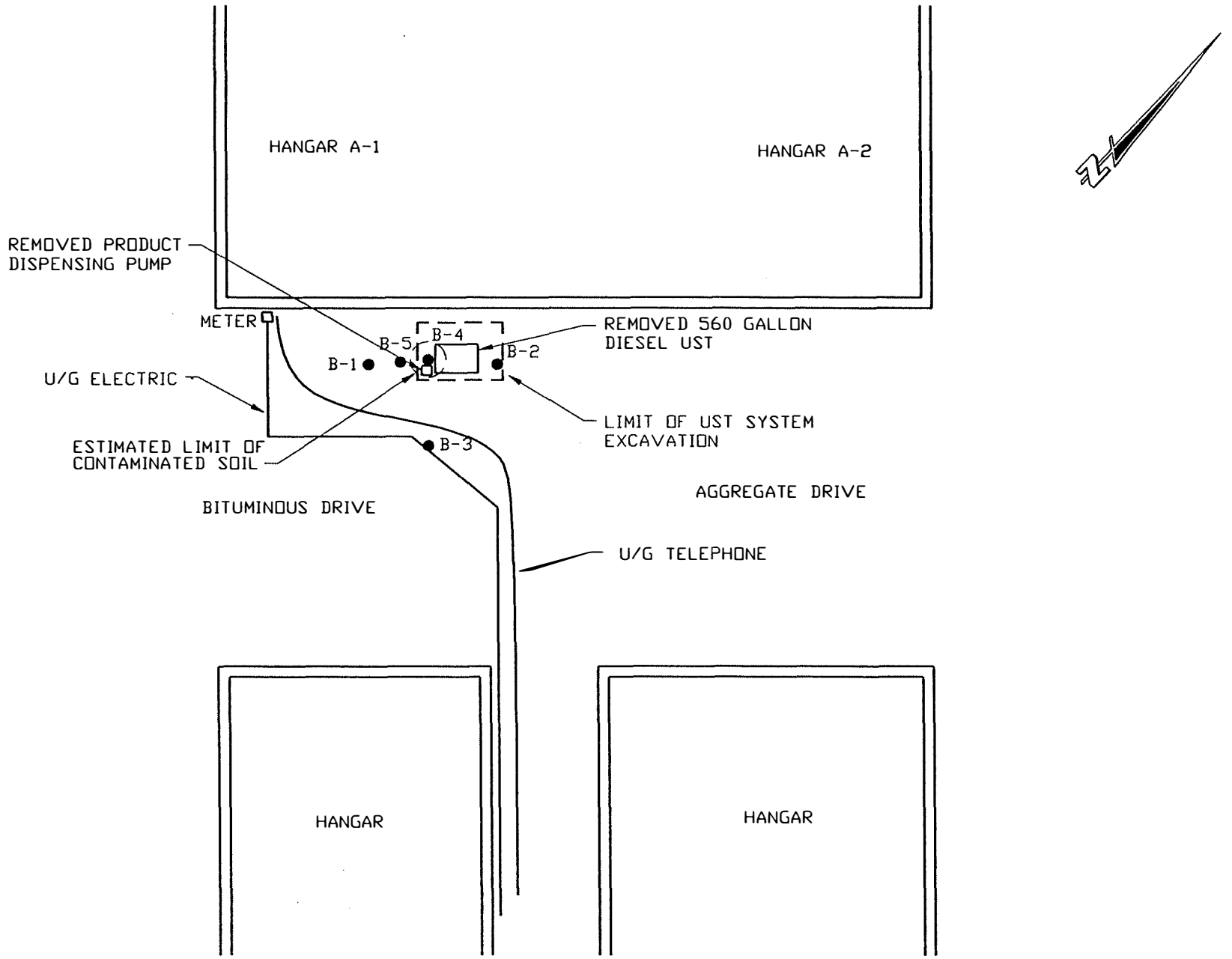
* Determine physical and chemical soil characteristics.

Four (4) boreholes were placed on the property (see Figure 2 - Site Features Map) to complete the investigation. During the borehole construction process, contaminated soils were not detected based on field screening results and on site observations.

The soil borings were completed at the removed diesel fuel tank and associated product pump location (Figure 2) and in a radial pattern surrounding these locations. Borings could not be completed further north due to the presence of a hangar building adjacent to the tank bed location.

During borings, samples were recovered at various depths as directed by the environmental specialist on location. These samples were logged, field screened, and sampled as discussed in Appendix B. Two soil samples, one for field screening and one for laboratory analysis were collected from each boring for analysis. The sample for field screening was placed in a one quart mason jar and sealed with aluminum foil, while the laboratory sample was placed in glass jars having a teflon lined septum.

Samples for laboratory analysis were transported in a preserved state (cooled at 4° Celsius) to a laboratory with a completed chain-of-custody document for detailed analysis (see Appendix B for chain-of-custody procedures).



CHIPPEWA VALLEY REGIONAL AIRPORT, FIG. 2

SCALE: 1" = 20'

PREPARED BY: S. ROYSTER
cedar corporation
604 WILSON AVE.
MENOMONIE, WI 54751 (715) 235-9081

The following analyses were completed by NET Midwest, Rockford, IL (WDNR #999447240) using the specified methods.

SOILS:

Diesel Range Organics (DRO)	WDNR Mod. DRO Method
Petroleum Volatile Organic Compounds (PVOC's)	EPA Method 8020
Polynuclear Aromatic Hydrocarbons (PAH)	EPA Method 8310
Total Organic Nitrogen	EPA Methods 350.2, 351.3
Total Phosphate	EPA Method 365.3
Total Organic Carbon	Corp. of Eng.

The methodology references contain specific quality control criteria as associated to the particular method. These requirements include calibration and quality control samples and are described in detail in the methods as defined in EPA Volume SW-846.

No groundwater samples were collected as groundwater was not encountered to the maximum boring depth of 19.0 feet.

VII. DISCUSSION OF RESULTS

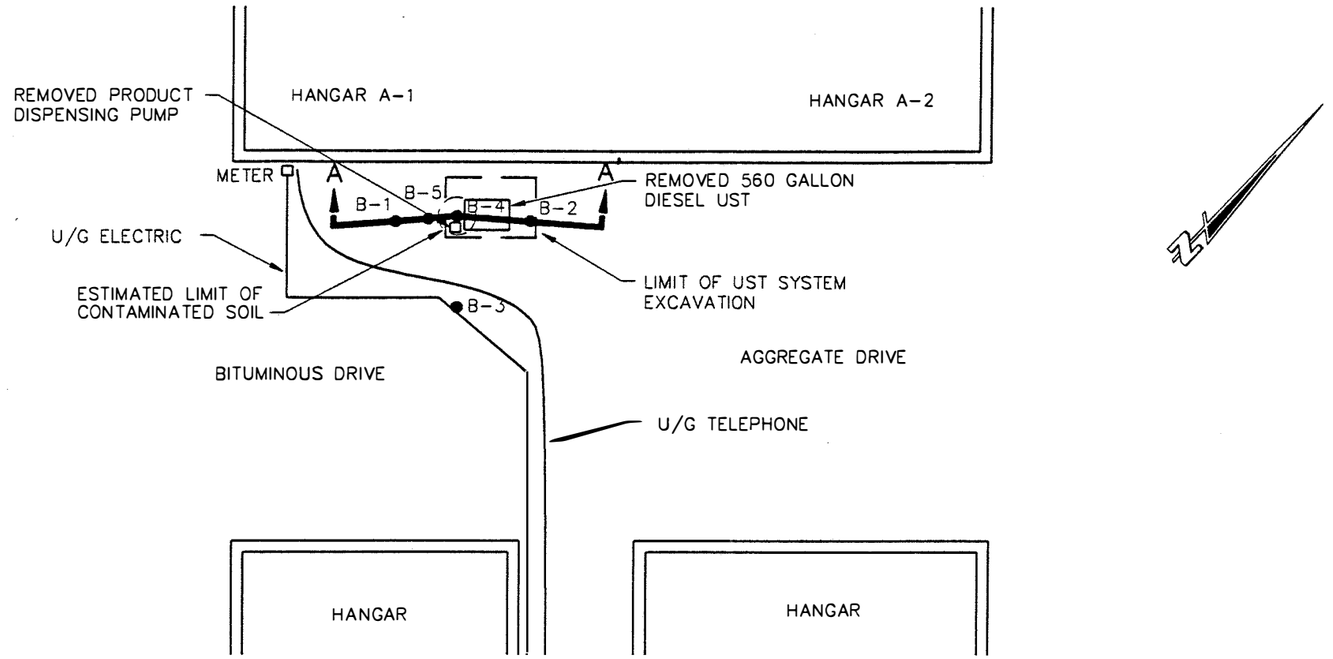
A. Geology:

Soil borings were advanced through the upper 19 feet of strata at this site. Under the surficial grading layer, one individual soil sediment was encountered. This unit is briefly described as:

Layer A - brown to red medium to coarse sand, with an occasional trace of gravel (Description: USCS SW/SP).

Soil partical sieve analysis samples were acquired during drilling and were later laboratory analyzed. The results are presented in Appendix D.

The following two cross-sections, A-A' and B-B' (Figures 3 and 4, respectively), document the uniformity of the geology and contamination limits at this site.



SCALE: 1" = 20'

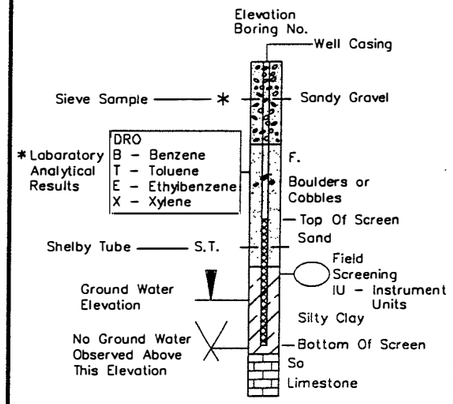
ABBREVIATIONS

F---Fine M---Medium C---Coorse
Ws---Weathered So---Sound

MATERIAL SYMBOLS

Topsoil, Silt, Sandstone, Sand, Peat, Limestone, Gravel, Clay, Igneous Rock

LEGEND OF BORING



BDL = BELOW DETECTION LIMIT

* All Laboratory Results Reported in PPM.

HORIZONTAL SCALE: 1" = 2'
VERTICAL SCALE: 1" = 6'

GEOLOGIC LEGEND

A - WELL AND POORLY GRADED SANDS AND GRAVELLY SANDS, LITTLE OR NO FINES

SOIL CONTAMINATION ABOVE 10 PPM DRO

CHIPPEWA VALLEY REG. AIRPORT

SW TO NE CROSS SECTION

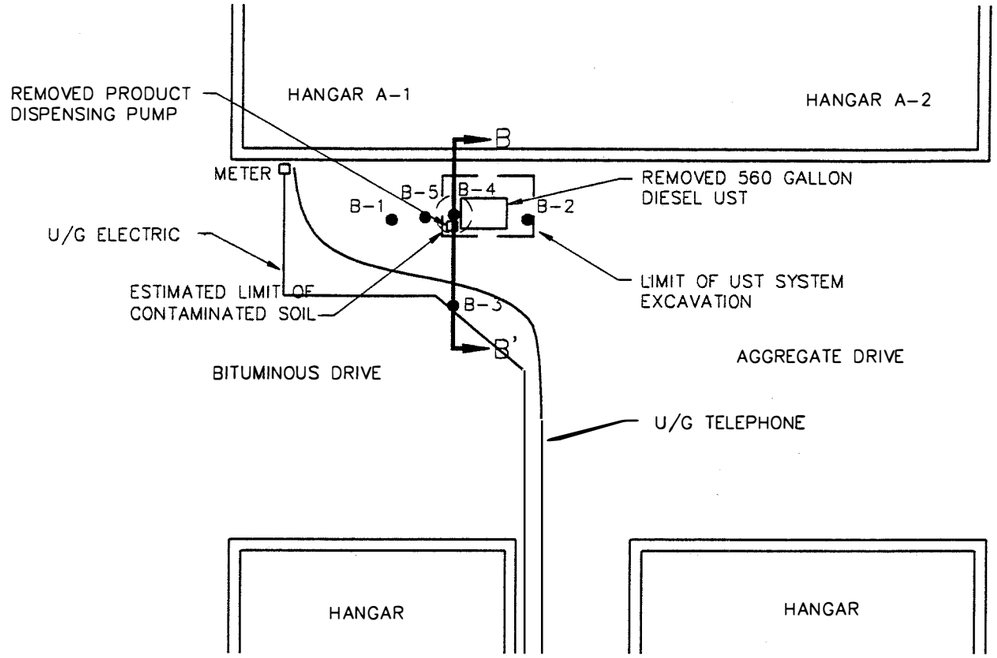
CROSS SECTION A - A', FIG. 3

Drawn By	Revised By	Plans Checked
SJR		AJB

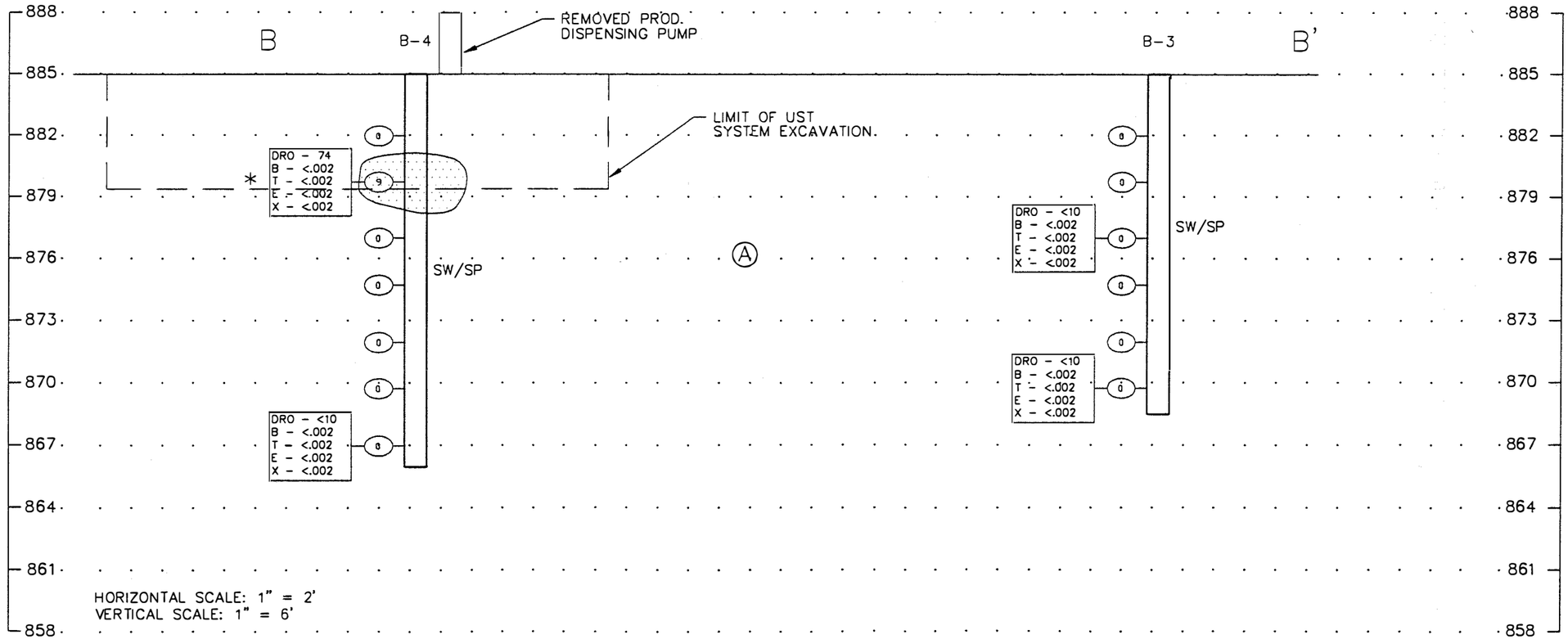
cedar corporation

CADD FILE CHIPXSA.DWG

JOB NUMBER 1673-001



SCALE: 1" = 20'



HORIZONTAL SCALE: 1" = 2'
VERTICAL SCALE: 1" = 6'

ABBREVIATIONS

F---Fine M---Medium C---Coorse
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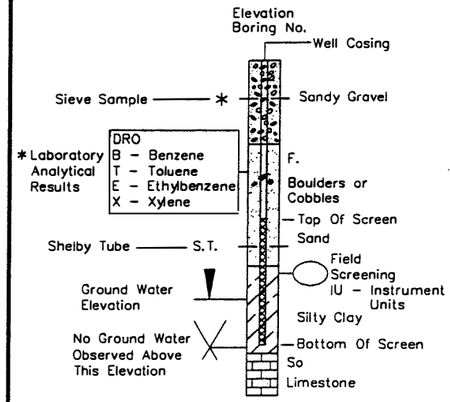


BDL = BELOW DETECTION LIMIT

* All Laboratory Results Reported In PPM.

GEOLOGIC LEGEND

A - WELL AND POORLY GRADED SANDS AND GRAVELLY SANDS, LITTLE OR NO FINES

SOIL CONTAMINATION ABOVE 10 PPM DRO

CHIPPEWA VALLEY REG. AIRPORT

NW TO SE CROSS SECTION

CROSS SECTION B - B', FIG. 4

Drawn By	Revised By	Plans Checked
SJR		AJB

cedar corporation

CADD FILE CHIPXSB.DWG

JOB NUMBER 1673-001

B. Summary of Extent of Contamination:

Soil Contamination:

Samples were collected from the borings as previously discussed. Soil samples for DRO and PVOC's were collected from the soil samples exhibiting the highest FID reading in each borehole. In the case that the field instrument indicated no detects, a soil sample was collected from a depth near the base of the removed UST as well as from the bottom of the boring. Multiple samples were collected from contaminated boreholes as determined by field screening. Table 1 presents all field screening results, while Table 2 breaks down the laboratory analytical results. Complete analytical reports can be found in Appendix E.

During the investigation, contaminated soils were encountered on the Chippewa Valley Regional Airport property (Borings B-1 and B-4) around and beneath the removed product pump. The anticipated horizontal and vertical extents are outlined on Figures 2, 3, and 4. The vertical extent of contamination has been defined by the soil boring completed through the contaminated area (Boring B-4). The extent of vertical contamination was determined to be at its maximum (7 feet) at boring B-4, completed near the removed product dispensing pump location. Borings B-1, B-2 and B-3 were completed around the contaminated area.

No detects above 10 ppm DRO were found in any of the soils at the site except for boring B-4 at 4.5 to 6.5 feet of depth which indicated 74 ppm DRO present. Very low levels (4.6 and 4.4 ppb) of 1, 2, 4 Trimethylbenzene were also detected in soil samples B-1-2 and B-4-2 (5'-7' at B-1 and 4.5'-6.5' at B-4, respectively). Low level "hits" of the Polynuclear Aromatic Hydrocarbons (PAH's) were also detected in sample B-1-2 (5'-7' of depth, 8 feet west of the removed product dispensing pump). However, <10 ppm DRO was detected in sample B-1-2.

Based on field screening and laboratory soil sample analytical results, it is calculated that the low level soil contamination detected at the site is present only in the upper 6 to 7 feet of soils (see cross-sections). The contamination observed at B-4 during the UST removal site assessment and subsequent investigation is believed to be the result of a small surface spill and has been determined by field screening to be a thin layer at 4.5 to 6.5 feet of depth.

TABLE 1
CHIPPEWA VALLEY REGIONAL AIRPORT

FIELD SCREENING RESULTS
(VALUES IN INSTRUMENT UNITS)

B–1		B–2		B–3		B–4	
DEPTH	FID	DEPTH	FID	DEPTH	FID	DEPTH	FID
2' – 4'	0	2' – 4'	0	2' – 4'	0	2' – 4'	0
5' – 7'	0	4.5' – 6.5'	0	4.5' – 6.5'	0	4.5' – 6.5'	9
7' – 9'	0	7' – 9'	0	7' – 9'	0	7' – 9'	0
9.5' – 11.5'	0	9.5' – 11.5'	0	9.5' – 11.5'	0	9.5' – 11.5'	0
12' – 14'	0	12' – 14'	0	12' – 14'	0	12' – 14'	–
14.5' – 16.5'	0	14.5' – 16.5'	0	14.5' – 16.5'	0	14.5' – 16.5'	0
17' – 19'	0	17' – 19'	0			17' – 19'	0

TABLE 2
CHIPPEWA VALLEY REGIONAL AIRPORT

SOIL ANALYSES
VALUES IN PARTS PER MILLION

SAMPLE NUMBER	FIELD SCREEN FID–IU(a)	DRO	BENZENE	TOLUENE	ETHYL–BENZENE	XYLENES	1,2,4 TMB (b)	1,3,5 TMB	MTBE (C)	SAMPLE DEPTH/ LOCATION
B–1–2	0	<10	<0.002	<0.002	<0.002	<0.002	0.0046	<0.002	<0.002	5'–7' AT B–1
B–1–7	0	<10	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	17'–19' AT B–1
B–2–3	0	<10	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	7'–9' AT B–2
B–2–7	0	<10	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	17'–19' AT B–2
B–3–3	0	<10	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	7'–9' AT B–3
B–3–6	0	<10	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	14.5'–16.5' AT B–3
B–4–2	9	74	<0.002	<0.002	<0.002	<0.002	0.0044	<0.002	<0.002	4.5'–6.5' AT B–4
B–4–7	0	<10	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	17'–19' AT B–4

(a) IU = INSTRUMENT UNITS, FLAME IONIZATION DETECTOR
(b) TMB = TRIMETHYLBENZENE
(c) MTBE = TERT–METHYL BUTYL ETHER

COMPLETE ANALYTICAL REPORTS CAN BE FOUND IN APPENDIX E.

VIII. CONCLUSIONS

A small area of low level contaminated soil was encountered adjacent to the location of the removed diesel fuel pump. The total impact in this area is estimated at 3 to 5 cubic yards and the principle contamination is near surface (within the upper 7 feet). The contamination has been identified through on site and laboratory observations as being diesel range organics.

High levels (30,000 ppm DRO at 1.5 feet of depth) of contamination were detected in the soil sample collected beneath the product dispensing pump during the UST system removal by Ayres Associates. This is believed to be the result of surface spillage and/or piping leakage at the pump. However, during the completion of the investigation (B-4), only very low levels of contamination were detected in the surface soils (4.5'-6.5') beneath the removed product pump. This indicates that a very small area of highly contaminated soil was present during the UST removal under the product pump, and that it does not extend to the soils below 1 to 2 feet of depth.

Low levels of volatile organic compounds (VOC's) were also detected at boring B-1 which was completed approximately 8 feet west of the removed product pump and boring B-1. This is believed to be the result of contaminant migration from the product pump area or a surface spill that has migrated to the depth at which it was detected (4.5' - 6.5'). No contamination was detected in any of the soils collected to the south and east (B-3 and B-2, respectively).

It is believed that the contamination was introduced due to surface spillage and/or product pump leakage, however, a large product loss is not believed to have occurred . The removed UST was not observed to be leaking according to Ayres Associates. Also, the deepest contamination was identified under this investigation as being within the upper 6 to 7 feet of soils.

Contamination does appear to be vertically limited based on DRO, PAH and BTEX values below the laboratory detection limits observed in the soil samples collected from the base of the borings. This limit is defined on the cross-sections, as is the boundary of the horizontal contamination extent. This limited vertical extent of soil contamination suggests that contamination of the permanent groundwater table, some 85 feet below surface, is unlikely. Therefore, the groundwater present below the Chippewa Valley Regional Airport property is not believed to be threatened by the diesel fuel contamination based on the following:

1. The source of hydrocarbon contamination (UST system) has been removed.

2. The amount of hydrocarbon contamination of the soil is minimal (3 to 5 cubic yards).

3. The depth to groundwater is estimated at 85 feet.

4. The high adsorption characteristics of diesel fuel to soil grains.

Cedar Corporation's environmental investigation also included site characterization for the suitability of natural biodegradation. Soil samples were analyzed for Total Organic Nitrogen, Total Phosphates, and Total Organic Carbon (See Appendix E). In addition, saturated hydraulic conductivity values were estimated based on the sandy soils observed (see sieves Appendix D). Based on the data, it appears that the C:N and C:P ratios fall below the optimal ranges for natural biodegradation to occur. Organic nitrogen and total organic carbon levels are low, which would slow the biodegradation process. Permeability estimates indicate optimum biodegradation conditions for the unsaturated soils where the contamination was encountered (10^{-3} cm/sec.). Even with the lower Carbon:Phosphate and Carbon:Nitrogen levels, it appears that natural biodegradation would remediate the soils over time as the contaminant levels are of such a minimal nature.

IX. RECOMMENDATIONS

Based on the information obtained from the investigation, Cedar Corporation makes the following recommendations as necessary under ILHR 47:

Option #1:

Excavation of all accessible contaminated soils (3 to 5 yd^3) and disposal/remediation by thermal desorption.

As the observed contamination is located in the surface soils and not immediately adjacent to any site structures, it is believed all affected soils could be excavated. If contamination was found to have migrated beneath the adjacent hangar building, a passive soil vent would be installed.

Monitoring of the soil vent would be on a semi-annual basis for three years then discontinued if no elevated detects of VOC's are encountered. Samples would be collected with Draeger tubes for benzene and a FID for total hydrocarbons.

The estimated cost for this option is as follows:

Soil Disposal and Trucking (7 tons at $50/ton)	$ 350.00
Cedar Corporation Fees	$ 750.00
Laboratory Costs	$1,000.00
Excavate and Backfill	$ 350.00
Option #1 Total	$2,450.00

Option #2:

Installation of an active SVE system to remediate contaminated soils.

The system would consist of a 0.5 or 1.0 hp blower connected to a single soil vent. The effective radius would be adequate due to the regional geology (sandy soils). Monitoring and pilot testing would be conducted to determine the radius of influence and air monitoring requirements.

The estimated cost for this option is as follows:

Vent Installation	$ 750.00
SVE Blower Equipment and Installation	$ 7,500.00
Cedar Corporation Fees	$ 4,600.00
Power Usage and Maintenance	$ 3,200.00
Laboratory Costs	$ 2,000.00
Option #2 Total	$18,050.00

Note: Option #2 cost estimate is based on two years of operation if additional operating time is necessary, costs will increase.

Option #3:

Passive bioremediation of the contaminated soils.

An evaluation of the natural nutrients (Total Organic Carbon and Nitrogen, and Total Phosphate) occurring at the site has been completed. The ratios indicate less than optimum nutrient conditions at the site, however, due to the minor contamination observed, this option should be considered.

Ratios:

Optimum C:N:P = 100:10:1

Actual C:N:P = 200:-:7

Permeability:

- Optimum = greater than 10^{-3} cm/sec.

* Permeability = est. 10^{-3} to 10^{-1} cm/sec.

* Permeability value is based on the medium to coarse sands observed and the range of values presented in Table 4.5, pg. 80, C.W. Fetter, Applied Hydrogeology, 1988.

If a more extensive bioremediation investigation is required, it will drive the cost of this remediation technique above the cost of Option #1 (soil excavation). However, due to the minor quantity and concentration (3 to 5 cubic yards) of contaminated soils present, it is believed that they do not pose a threat to the public, environment, or ground water at the site.

As this option is believed to be the most cost effective method of remediation at the site, it is requested that the WDNR review the data presented and approve this remediation alternative.

If accepted, at the end of two years (summer/fall, 1995), the passive bioremediation alternative will be evaluated through the collection of one soil sample at the location of the known contaminated soils, Boring B-4. The sample can be collected with a hand auger and analyzed for DRO and PVOC's. If no contaminants are detected, it will have been determined that the contaminants have been successfully remediated. Closure of the site file can then be pursued.

The estimated cost for this option is as follows:

Sample Collection	$ 100.00
Laboratory Costs and Shipping	$ 165.00
Reporting	$ 150.00
Option #3 Total	$ 415.00

Note: Option #3 cost estimates for laboratory analytical services, sample shipping, and consulting fees are based on August, 1993 prices/rates.

X. LIMITATIONS

Cedar Corporation has completed or observed the completion of the services provided during this project. Laboratory analyses are reported within the accuracy of the method employed. Cedar Corporation reserves the right to alter the opinions expressed herein should additional information pertaining to the environmental quality of this site become available.

APPENDIX A

SITE ASSESSOR CERTIFICATION

The State of Wisconsin

Dept. of Industry, Labor & Human Relations
Safety & Buildings Division

Certification

Expiration Date:	Certification Number:
05/01/94	00028

Activity:

SA

Name:

ALAN J BISHOP

APPENDIX B

FIELD PROCEDURES

SOIL SAMPLE COLLECTION AND HANDLING PROCEDURES

HAND AUGER SOIL BORING:

Soil samples are recovered from soil borings completed with a stainless steel auger. The auger consists of a 12 inch long, 3 1/2 inch diameter enclosed sampling device. It is connected to 4 1/2 foot long rods equipped with screw threads such that additional sections can be added to increase the depth of sampling. The auger sections are marked to identify the depth of the sampler. The auger is cleaned in an Alconox detergent and water solution and triple rinsed prior to each sampling event.

SOIL BORINGS:

Soil borings at this site were completed using 4 1/4 inch HSA (hollow stem augers) at locations as determined by the existing conditions and at the direction of the field supervisor. Soil samples were recovered using standard split spoon sampling methods. In this method, a 2 inch diameter, 24 inch sample spoon is attached to an AW rod. When the auger has reached the desired depth, the spoon is lowered into the auger until it reaches the top of the next interval to be sampled. Using a 140 pound hammer, dropped 30 inches, the spoon is driven into the formation. A sample catcher in the tip holds the sample in the spoon. During the driving of the spoon, the number of hammer blows is noted for each six inches of advancement. These values are recorded on the driller's logs.

The sample spoon is retrieved from the boring and immediately opened. A field geological log is completed and the soils are prepared for field screening laboratory analysis and/or sieve analysis. Prior to reuse, the spoon is cleaned in a detergent solution and triple rinsed.

SAMPLE COLLECTION:

Soil samples are recovered at various depths and locations as directed by the Environmental Specialist on location during the investigation. Samples are recovered using clean stainless steel sampling devices which are cleaned between each sampling event by personnel trained in sampling procedures.

At the desired sample depth, a soil sample is immediately collected from the split spoon sampler with a clean sampling device in a one quart glass jar for field screening and, if desired, a split sample is collected in the appropriate container for laboratory analysis.

Disposable latex gloves are worn during all sampling procedures.

Personal protective equipment including safety glasses, boots, hard hats, and organic vapor masks are provided as necessary for protection from potential contaminants.

TOOL CLEANING METHODS:

Any tools used in a sampling event (soil or groundwater) are thoroughly cleaned between each sampling event to eliminate potential cross-contamination of samples. An Alconox detergent and hot water solution is used along with a scrub brush to remove residual contaminants that may be present on the device. After all potential contaminants are believed to have been removed, a triple rinse of deionized water is used to remove the detergent solution. The tools are then placed on a clean surface to air dry.

SAMPLE PRESERVATION METHODS:

Samples that are to be laboratory analyzed are placed in a cooler with ice to reduce the sample temperature to 4° Celsius. In the laboratory, samples are stored in a refrigerated location to minimize volatilization of contaminants.

FIELD SCREENING:

Soil samples recovered at various depths and locations during the investigation are logged and field screened using a Foxboro OVA 128 GC FID (Flame Ionization Detector). Field screening is completed using the "Jar Headspace Method" wherein sufficient sample is taken to half fill a one quart glass jar. The jar is then tightly sealed with aluminum foil, agitated to break up the soil, and slightly warmed to encourage the release of the volatiles. After a suitable waiting period as defined in Wisconsin Administrative Code ILHR 10, the foil is pierced and the sampling probe of the FID introduced into the "headspace" and an analysis of the vapor in the jar is recorded.

FIELD SCREENING DATA:

Instrument make and model:	Foxboro OVA 128 GC FID
Date of last factory calibration:	4-93
Date of last field calibration:	7-1-93
Site location:	Eau Claire, WI
Site name:	Chippewa Valley Regional Airport
Instrument operator:	Alan J. Bishop
Weather conditions:	65° F., cloudy, occ. shower
Ambient air temperature where samples are warmed:	65° F.
Field cleaning or repairs:	None

SOIL SAMPLING FOR LABORATORY ANALYSES:

If a soil sample is to be laboratory analyzed, a sample is collected and sealed in a glass jar with a teflon lined septum. The analytical laboratory provides clean sample jars. WDNR Analytical Guidance, July 1993, PUBL-SW-175-93 is used for sampling and analytical guidance for modified GRO and modified DRO analysis. For modified GRO analyses, a minimum of 25 grams to a maximum of 35 grams of soils is preserved in methanol in 60 ml capacity sample containers. For modified DRO analyses, a minimum of 25 grams to a maximum of 35 grams of soils is collected in a tared 60 ml capacity VOC vial. VOC and PVOC samples are collected in 4 ounce sample jars as are samples collected to determine dry weight for modified GRO and DRO analyses. The pertinent sample data is recorded on the label and the sample is transferred to a cooler containing ice to maintain a sample temperature of 4° Celsius. The pertinent information is completed on the chain-of-custody document and the cooled sample is then transported to an analytical laboratory with the completed chain-of-custody document.

LABORATORY PROCEDURES:

Samples were sent to a Wisconsin Department of Natural Resources certified laboratory, National Environmental Testing, Inc. of Rockford, IL (certification number 999-447-240). The samples were analyzed utilizing those methods as determined from the LUST Analytical Guidance, WDNR, JULY 1993, PUBL SW-175-93. The methods, as specified in the main body of the report, are defined in the EPA Manual Methods (EPA SW-846) which fully describes the procedures for each method. These procedures include specific quality control criteria as associated with the particular method. The requirements include instrument calibration and quality control samples and require daily performance tests as well as demonstrations of precision and accuracy.

CHAIN-OF-CUSTODY PROCEDURES:

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

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

Sample identification documents included:

* field notebooks
* sample labels
* chain-of-custody form (DNR Form 4400-151)

Each sample is labelled, sealed, and preserved immediately after collection. To minimize handling of sample containers, labels are filled out just prior to sample collection. The sample label is completed using waterproof ink and is firmly attached to the sample containers.

The sample label provides the following information:

* location
* sample number
* date and time of collection
* analysis required
* name of sampler

A chain-of-custody record (DNR Form 4400-151) is fully completed in duplicate by the Cedar Corporation sampler immediately following sample collection.

TRANSFER OF CUSTODY SHIPMENT:

The coolers in which the samples are packed are accompanied by the chain-of-custody record. When transferring samples, the individuals relinquishing and receiving them sign, date, and note the time of transfer on the chain-of-custody record.

LABORATORY CUSTODY PROCEDURES:

A designated sample custodian accepts custody of the shipped samples and verifies that the sample identification number matches that on the chain-of-custody record. A copy of the completed chain-of-custody record is retained by the laboratory until analyses are completed. The record is then returned to the site file with the analytical results.

APPENDIX C

BORING LOGS
AND
ABANDONMENT FORMS

State of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☑ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Other

SOIL BORING LOG INFORMATION
Form 4400-122 7-91

Page 1 of 1

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Chippewa Valley Regional Airport		B-1

Boring Drilled By (Firm name and name of crew chief)	Date Drilling Started	Date Drilling Completed	Drilling Method
Braun - Bob Tufte	07/01/93 (MM DD YY)	07/01/93 (MM DD YY)	Hollow Stem

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		—	Feet MSL	Feet MSL	3.25 HSA inches

Boring Location
State Plane ____ N, ____ E S/C/N | Lat ____ Long ____
NE 1/4 of SW 1/4 of Section 33, T 28 N, R 9 E/W

Local Grid Location (If applicable)
☐ N ☐ E
____ Feet ☐ S ____ Feet ☐ W

County	DNR County Code	Civil Town/City/or Village
Eau Claire	18	Eau Claire

Sample Number	Sample Length Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID (FID)	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plastic Limit	P 200	RQD/ Comments
			2											
1	3	21 11	4	Brn Med. Sand w/ org.				0						
2	13	23 57	6	Brn/Red Med/Cs Sand w/ Trc Gravel				0						B-1-2 DRC, PVOC NAU
3	14	79 109	8	Brn Med Sand w/ Trc Gravel				0						
4	13	55 9 10	10	A/A				0						
5	19	79 12 13	12 14	Brn Med/Cs Brn Sand w/ Trc Gravel				0						
6	19	7 12 16 15	16	A/A				0						
7	20	55 69	18	A/A				0						B-1-1 SRO, PVOC NAU
			20	EOB. 19.0'										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: Alan J. Bishop Firm: Cedar Corp.

This form is authorized by Chapters 144.147 and 162, Wis. Stats. Completion of this report is mandatory. Penalties: Forfeit not less than $10 nor more than $5,000 for each violation. Fined not less than $10 or more than $100 or imprisoned not less than 30 days, or both for each violation. Each day of continued violation is a separate offense, pursuant to ss 144.99 and 162.06, Wis. Stats.

State of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☑ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Other _____

SOIL BORING LOG INFORMATION
Form 4400-122 7-91

Page 1 of 1

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Chippewa Valley Regional Airport	_ _ _ _ _ _ _ _	B-2

Boring Drilled By (Firm name and name of crew chief)	Date Drilling Started (M M / D D / Y Y)	Date Drilling Completed (M M / D D / Y Y)	Drilling Method
Braun - Bob Tufte	07/01/93	07/01/93	Hollow Stem

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
_ _ _	_ _ _ _ _ _ _ _	—	_____ Feet MSL	_____ Feet MSL	6 inches

Boring Location
State Plane _____ N, _____ E S/C/N | Lat _ _ _ Long _ _ _
NE 1/4 of SW 1/4 of Section 33, T 28 N, R 9 E(W)

Local Grid Location (If applicable)
_____ Feet ☐ N ☐ S _____ Feet ☐ E ☐ W

County	DNR County Code	Civil Town/City/ or Village
Eau Claire	18	Eau Claire

Sample Number	Sample Length Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plastic Limit	P 200	RQD/ Comments
1	17	4 7 9 12	2–4	Brn Med Sand w/ Trc Gravel				0						
2	18	5 10 11 11	6	A/A				0						
3	18	5 6 8 9	8	A/A				0						B-2-3 DRO, PVOC
4	14	6 6 9 9	10	A/A				0						
5	13	6 8 10 10	12–14	A/A				0						
6	15	6 9 11 1	16	A/A				0						
7	12	5 6 9 9	18	A/A				0						B-2-7 DRO, PVOC
			20	E.O.B. 19.0'										
			22											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: Alan J. Bishop | Firm: Cedar Corp.

This form is authorized by Chapters 144.147 and 162, Wis. Stats. Completion of this report is mandatory. Penalties: Forfeit not less than $10 nor more than $5,000 for each violation. Fined not less than $10 or more than $100 or imprisoned not less than 30 days, or both for each violation. Each day of continued violation is a separate offense, pursuant to ss 144.99 and 162.06, Wis. Stats.

State of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☑ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Other

SOIL BORING LOG INFORMATION
Form 4400-122 7-91

Page 1 of 1

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Chippewa Valley Regional Airport		R-3

Boring Drilled By (Firm name and name of crew chief)	Date Drilling Started (MM/DD/YY)	Date Drilling Completed (MM/DD/YY)	Drilling Method
Braun - Bob Tufte	07/01/93	07/01/93	Hollow Stem

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		—	Feet MSL	Feet MSL	6 inches

Boring Location
State Plane ____ N, ____ E S/C/N | Lat ____ Long ____
NE 1/4 of SW 1/4 of Section 33, T 28 N, R 9 E/W

Local Grid Location (If applicable)
____ Feet ☐ N ☐ S ____ Feet ☐ E ☐ W

County: Eau Claire | DNR County Code: 18 | Civil Town/City/ or Village: Eau Claire

Sample Number	Sample Length Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plastic Limit	P 200	RQD/ Comments
			2											
1	10	4 7 10 10	4	Brn Med Cs Sand w/ Trc. Gravel				0						
2	11	7 9 10 10	6	A/A				0						
3	14	3 10 10 10	8	A/A				0						B-3-3 DRO, PVOC
4	15	10 6 10 12	10	A/A				0						
5	17	10 10 12 14	12 14	A/A				0						
6	16	6 12 14 12	16	A/A				0						B-3-6 DRO, PVOC
			18	E.O.B. 16.5'										
			20											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: [signature] Firm: Cedar Corp.

This form is authorized by Chapters 144.147 and 162, Wis. Stats. Completion of this report is mandatory. Penalties: Forfeit not less than $10 nor more than $5,000 for each violation. Fined not less than $10 or more than $100 or imprisoned not less than 30 days, or both for each violation. Each day of continued violation is a separate offense, pursuant to ss 144.99 and 162.06, Wis. Stats.

State of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☑ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Other _____

SOIL BORING LOG INFORMATION
Form 4400-122 7-91

Page 1 of 1

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Chippewa Valley Regional Airport	_ _ _ _ _ _ _ _	B-4

Boring Drilled By (Firm name and name of crew chief)	Date Drilling Started (M M / D D / Y Y)	Date Drilling Completed (M M / D D / Y Y)	Drilling Method
Braun - Bob Tufte	07/21/93	07/01/93	Hollow Stem

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
_ _ _	_ _ _ _ _ _ _ _	—	_____ Feet MSL	_____ Feet MSL	6 inches

Boring Location
State Plane _____ N, _____ E S/C/N
NE 1/4 of SW 1/4 of Section 33, T 28N, R 9 E/W
Lat _ _ _ Long _ _ _

Local Grid Location (If applicable)
_____ Feet ☐ N ☐ S _____ Feet ☐ E ☐ W

County: Eau Claire | DNR County Code: 18 | Civil Town/City/or Village: Eau Claire

Sample Number	Sample Length Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plastic Limit	P 200	RQD/ Comments
			2											
1	13	5 8 / 10 10	4	Brn Med Sand w/ Trc Gravel				0						
2	12	7 7 / 9 12	6	Brn Fn Sand				9						B-4-2 DRO, PVOC
				Brn Med/CS Sand w/ Trc Gravel										
3	14	7 9 / 12 12	8	A/A				0						
4	13	7 9 / 9 16	10	A/A				0						
			12	Pour-da Rock										
5	0	20 10 / 20 20	14					1						
6	13	9 9 / 12 10	16	Brn Fn/Med Sand w/ Trc Gravel				0						
7	12	8 11 / 9 9	18	"				0						B-4-7 DRO, PVOC
			20	E.C.B. 19.0'										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: A. J. Bishop | Firm: Cedar Corp.

This form is authorized by Chapters 144.147 and 162, Wis. Stats. Completion of this report is mandatory. Penalties: Forfeit not less than $10 nor more than $5,000 for each violation. Fined not less than $10 or more than $100 or imprisoned not less than 30 days, or both for each violation. Each day of continued violation is a separate offense, pursuant to ss 144.99 and 162.06, Wis. Stats.

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

Form 3300-5B Rev. 12-91

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

(1) GENERAL INFORMATION

Well/Drillhole/Borehole Location

County: Eau Claire

NE 1/4 of SW 1/4 of Sec. 33 ; T. 28 N; R. 9 ☐ E ☑ W

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

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

Civil Town Name

Street Address of Well: 3800 Starr Ave.

City, Village: Eau Claire

(2) FACILITY NAME

Original Well Owner (If Known)

Present Well Owner: Chippewa Valley Regional Airport

Street or Route: 3800 Starr Ave.

City, State, Zip Code: Eau Claire, WI 54703-0567

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

WI Unique Well No. _ _ _ _ _

Reason For Abandonment: Borehole

Dat of Abandonment: 7-1-93

WELL/DRILLHOLE/BOREHOLE INFORMATION

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

(Date) 7-1-93

☐ Monitoring Well
☐ Wat r Well
☐ Drillhole
☑ Borehole

Construction Report Available? ☑ Yes ☐ No

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

Formation Type:
☑ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft.) 19 Casing Diameter (ins.) ____
(From groundsurface)

Casing Depth (ft.) ____

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

(4) Depth to Water (Feet) —

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	

If No, Explain: Borehole

Was Casing Cut Off Below Surface?	☐ Yes	☐ No
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 (Circle One)	Mix Ratio or Mud Weight
Granular Bent/Sand Slurry	Surface	19	40 gal.	

(8) Comments:

(9) Name of Person or Firm Doing Sealing Work: Bob Tuttle-Braun

Signature of Person Doing Work: Sup. Alan J. Schaf

Date Signed: 9-9-93

Street or Route: 604 Wilson Ave

Telephone Number: (715) 235-9081

City, State, Zip Code: Menomonie WI 54751

(10) FOR DNR OR COUNTY USE ONLY

Date Received/Inspected	District/County
Reviewer/Inspector	☐ Complying Work ☐ Noncomplying Work
Follow-up Necessary	

DNR/COUNTY

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

Form 3300-5B Rev. 12-91

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

(1) GENERAL INFORMATION

Well/Drillhole/Borehole Location

County: Eau Claire

NE 1/4 of SW 1/4 of Sec. 33 ; T. 28 N; R. 9 ☐ E ☐ W

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

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

Civil Town Name

Street Address of Well: 3800 Starr Ave.

City, Village: Eau Claire

(2) FACILITY NAME

Original Well Owner (If Known)

Present Well Owner: Chipp. Vall. Reg. Airport

Street or Route: 3800 Starr Ave.

City, State, Zip Code: Eau Claire, WI 54703-0567

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

WI Unique Well No. _ _ _ _ _ _

Reason For Abandonment: Borehole

Date of Abandonment: 7-1-93

WELL/DRILLHOLE/BOREHOLE INFORMATION

(3) Original Well/Drillhole/Borehole Construction Completed On (Date): 7-1-93

☐ Monitoring Well
☐ Water Well
☐ Drillhole
☒ Borehole

Construction Report Available? ☒ Yes ☐ No

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

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft.) 19 Casing Diameter (ins.) _____
(From groundsurface)

Casing Depth (ft.) _____

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

(4) Depth to Water (Feet) –

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
If No, Explain: Borehole

Was Casing Cut Off Below Surface? ☐ Yes ☐ No
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 (Circle One)	Mix Ratio or Mud Weight
Bent/Sand Slurry	Surface	19	40 gal.	

(8) Comments: _____

(9) Name of Person or Firm Doing Sealing Work: Bob Tufte - Braun

Signature of Person Doing Work: Sup. Alan J. Bishop
Date Signed: 7-9-93

Street or Route: 604 Wilson Ave
Telephone Number: (715) 235 9081

City, State, Zip Code: Menomonie WI 54751

(10) FOR DNR OR COUNTY USE ONLY

Date Received/Inspected	District/County
Reviewer/Inspector	☐ Complying Work ☐ Noncomplying Work
Follow-up Necessary	

DNR/COUNTY

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

Form 3300-5B Rev. 12-91

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

(1) GENERAL INFORMATION

Well/Drillhole/Borehole Location

County: Eau Claire

NE 1/4 of SW 1/4 of Sec. 33 ; T. 28 N; R. 9 ☐ E ☒ W

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

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

Civil Town Name

Street Address of Well: 3800 Starr Ave.

City, Village: Eau Claire

(2) FACILITY NAME

Original Well Owner (If Known)

Present Well Owner: Chipp. Vall. Reg. Airport

Street or Route: 3800 Starr Ave.

City, State, Zip Code: Eau Claire WI 54703-0567

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

WI Unique Well No.: _____

Reason For Abandonment: Borehole

Date of Abandonment: 7-1-93

WELL/DRILLHOLE/BOREHOLE INFORMATION

(3) Original Well/Drillhole/Borehole Construction Completed On (Date): 7-1-93

☐ Monitoring Well
☐ Water Well
☐ Drillhole
☒ Borehole

Construction Report Available? ☒ Yes ☐ No

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

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft.) 16.5' (From groundsurface) Casing Diameter (ins.) _____

Casing Depth (ft.) _____

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

(4) Depth to Water (Feet) _____

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	

If No, Explain: Borehole

Was Casing Cut Off Below Surface?	☐ Yes	☐ No
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 (Circle One)	Mix Ratio or Mud Weight
Bent/Sand Slurry	Surface	16.5	30 gal.	

(8) Comments: _____

(9) Name of Person or Firm Doing Sealing Work: Bob Tufte - Brown

Signature of Person Doing Work: Sp. Al J. Bishop
Date Signed: 7-9-93

Street or Route: 604 Wilson Ave
Telephone Number: (715) 235-9081

City, State, Zip Code: Menomonie, WI 54751

(10) FOR DNR OR COUNTY USE ONLY

Date Received/Inspected	District/County
Reviewer/Inspector	☐ Complying Work ☐ Noncomplying Work
Follow-up Necessary	

DNR/COUNTY

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

Form 3300-5B Rev. 12-91

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

(1) GENERAL INFORMATION

Well/Drillhole/Borehole Location

County: Eau Claire

NE 1/4 of SW 1/4 of Sec. 33 ; T. 28N; R. 9 ☐ E ☑ W

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

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

Civil Town Name

Street Address of Well: 3800 Starr Ave.

City, Village: Eau Claire

(2) FACILITY NAME

Original Well Owner (If Known)

Present Well Owner: Chipp. Vall. Reg. Airport

Street or Route: 3800 Starr Ave.

City, State, Zip Code: Eau Claire, WI 54703-0567

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

WI Unique Well No. _ _ _ _ _ _

Reason For Abandonment: Borehole

Date of Abandonment: 7-1-93

WELL/DRILLHOLE/BOREHOLE INFORMATION

(3) Original Well/Drillhole/Borehole Construction Completed On (Date): 7-1-93

☐ Monitoring Well
☐ Water Well
☐ Drillhole
☑ Borehole

Construction Report Available? ☑ Yes ☐ No

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

Formation Type:
☑ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft.) 19 (From groundsurface) Casing Diameter (ins.) ____

Casing Depth (ft.) ____

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

(4) Depth to Water (Feet) ____

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
If No, Explain: Borehole

Was Casing Cut Off Below Surface? ☐ Yes ☐ No
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 (Circle One)	Mix Ratio or Mud Weight
Bent/Sand Slurry	Surface	19	40gal.	

(8) Comments:

(9) Name of Person or Firm Doing Sealing Work: Bob Tufte - Braun

Signature of Person Doing Work: Sig. Al S. Bishop
Date Signed: 7-9-93
Street or Route: 604 Wilson Ave
Telephone Number: (715) 235-9081
City, State, Zip Code: Menomonie, WI 54751

(10) FOR DNR OR COUNTY USE ONLY

Date Received/Inspected	District/County
Reviewer/Inspector	☐ Complying Work ☐ Noncomplying Work
Follow-up Necessary	

DNR/COUNTY

LOG OF BORING

PROJECT: **BRDX-93-009A**

Environmental Drilling Services
Chippewa Valley Regional Airport
Eau Claire, Wisconsin

BORING: **B-1**

LOCATION:
As staked by client.

DATE: **7/1/93**

SCALE: **1" = 4'**

(See Report and Standard Plates for evaluation and descriptive terminology.)

Elev.	Depth	ASTM D2487 Symbol	Description of Materials (ASTM D2488)	BPF	WL	Tests or Notes
	0.0					
	1.0	SP	POORLY GRADED SAND, fine- to coarse-grained, a trace of Gravel, brown, moist.			
		SP	POORLY GRADED SAND, fine- to coarse-grained, brown, moist, very loose to dense.	3		
				2		
				5		
				12		
				16		
				19		
				10		
				19		
				16		
				25		
				19		
				31		
				10		
	19.5			15		
			END OF BORING.			
			Water not observed with 18 1/2 feet of hollow-stem auger in the ground.			
			Boring then grouted with Bentonite.			

LOG OF BORING

PROJECT: **BRDX-93-009A**

Environmental Drilling Services
Chippewa Valley Regional Airport
Eau Claire, Wisconsin

BORING: **B-2**

LOCATION:
As staked by client.

DATE: **7/1/93**

SCALE: **1" = 4'**

(See Report and Standard Plates for evaluation and descriptive terminology.)

Elev.	Depth	ASTM D2487 Symbol	Description of Materials (ASTM D2488)	BPF	WL	Tests or Notes
	0.0	SP	POORLY GRADED SAND, fine- to coarse-grained, brown, moist, medium.	11 21 15 22 11 17 12 18 14 20 15 22 11 18		
	19.0		END OF BORING. Water not observed with 18 feet of hollow-stem auger in the ground. Boring then grouted with bentonite.			

LOG OF BORING

PROJECT: **BRDX-93-009A**

Environmental Drilling Services
Chippewa Valley Regional Airport
Eau Claire, Wisconsin

BORING: **B-3**

LOCATION:
As staked by client.

DATE: **7/1/93**

SCALE: **1" = 4'**

(See Report and Standard Plates for evaluation and descriptive terminology.)

Elev.	Depth	ASTM D2487 Symbol	Description of Materials (ASTM D2488)	BPF	WL	Tests or Notes
	0.0					
	0.3	SP	BITUMINOUS PAVEMENT POORLY GRADED SAND, fine- to coarse-grained, brown, moist, medium.	11 20		
	5.0	SP	POORLY GRADED SAND, fine- to coarse-grained, with a trace of Gravel, brown, moist, medium.	16 20 13 20		
	9.0	SP	POORLY GRADED SAND, fine- to medium-grained, brown, moist, medium.	16 22 20		
	13.0	SP	POORLY GRADED SAND, fine- to medium-grained, with a trace of Gravel, brown, moist, medium.	26 18 26		
	16.5		END OF BORING. Water not observed with 15 feet of hollow-stem auger in the ground. Boring then grouted with bentonite.			

LOG OF BORING

PROJECT: **BRDX-93-009A** **Environmental Drilling Services** **Chippewa Valley Regional Airport** **Eau Claire, Wisconsin**	BORING: **B-4** LOCATION: **As staked by client.** DATE: **7/1/93** SCALE: **1" = 4'**

(See Report and Standard Plates for evaluation and descriptive terminology.)

Elev.	Depth	ASTM D2487 Symbol	Description of Materials (ASTM D2488)	BPF	WL	Tests or Notes
	0.0	SP	POORLY GRADED SAND, fine- to coarse-grained, brown, moist, medium.	13 20		
	4.0	SP	POORLY GRADED SAND, fine- to coarse-grained, with seams of fine-grained Poorly Graded Sand, brown, moist, medium.	14 21 16 24 16		
	10.5	SP	POORLY GRADED SAND with GRAVEL and COBBLES, fine- to coarse-grained, brown, moist, medium to dense.	25 39 40		
	14.0	SP	POORLY GRADED SAND, fine- to coarse-grained, brown, moist, medium.	18 30 17 30		
	19.0		END OF BORING. Water not observed with 18 feet of hollow-stem auger in the ground. Boring then grouted with bentonite.			

APPENDIX D

SIEVE ANALYSES

SIEVE ANALYSIS OF SOILS

Project Name: CHIPPEWA AIRPORT		Project Number: 1673-001-61
Sample Number: B-4 4.5'-6.5'		Sample Location: B-4
Soil Type:	Tested By: Carl Vande Vrede	Date: 9-02-93

U.S. Standard Sieve Mesh #	Phi Size	Millimeters	Weight Retained on Sieve (grams)	Total Weight Retained on Sieve (grams)	% Passing
3/4 inch	-4.29	19.05	0.000	0.000	100.000
1/2 inch	-3.67	12.7	0.000	0.000	100.000
3/8 inch	-3.27	9.52	11.330	11.330	92.009
4	-2.25	4.75	5.970	17.300	87.798
8	-1.25	2.38	1.930	19.230	86.437
10	-1.0	2.00	0.780	20.010	85.887
20	0.25	0.84	2.500	22.510	84.123
30	0.75	0.59	7.960	30.470	78.509
40	1.25	0.42	3.880	34.350	75.772
50	1.75	0.30	5.460	39.810	71.921
100	2.75	0.149	81.790	121.600	14.233
200	3.75	0.074	1.820	123.420	12.950

Sample Size:	
Unwashed:	141.780
Washed:	123.970
Loss by Washing:	17.810

SIEVE ANALYSIS OF SOIL

PROJECT Chippewa Airport DATE 9-2-93

SAMPLE LOCATION B-4 @ 5'-6.5' SAMPLE

SAMPLE DESCRIPTION TESTED BY CC

1/2" = 0/0

3/8" = 11.33/11.33

SIEVE SIZE	WT. RETAINED	% PASSING
4	5.97/17.30	
8	1.93/19.23	
10	.78/20.01	
20	2.50/22.51	
30	7.96/30.47	
40	3.88/34.35	
50	5.46/39.81	
100	81.79/121.60	
200	1.82/123.42	
<200	.06/123.48	

SAMPLE SIZE

UNWASHED 141.78

WASHED 123.97

LOSS BY WASHING 17.81

cedar corporation 604 wilson avenue, menomonie, wi 54751 715-236-6081

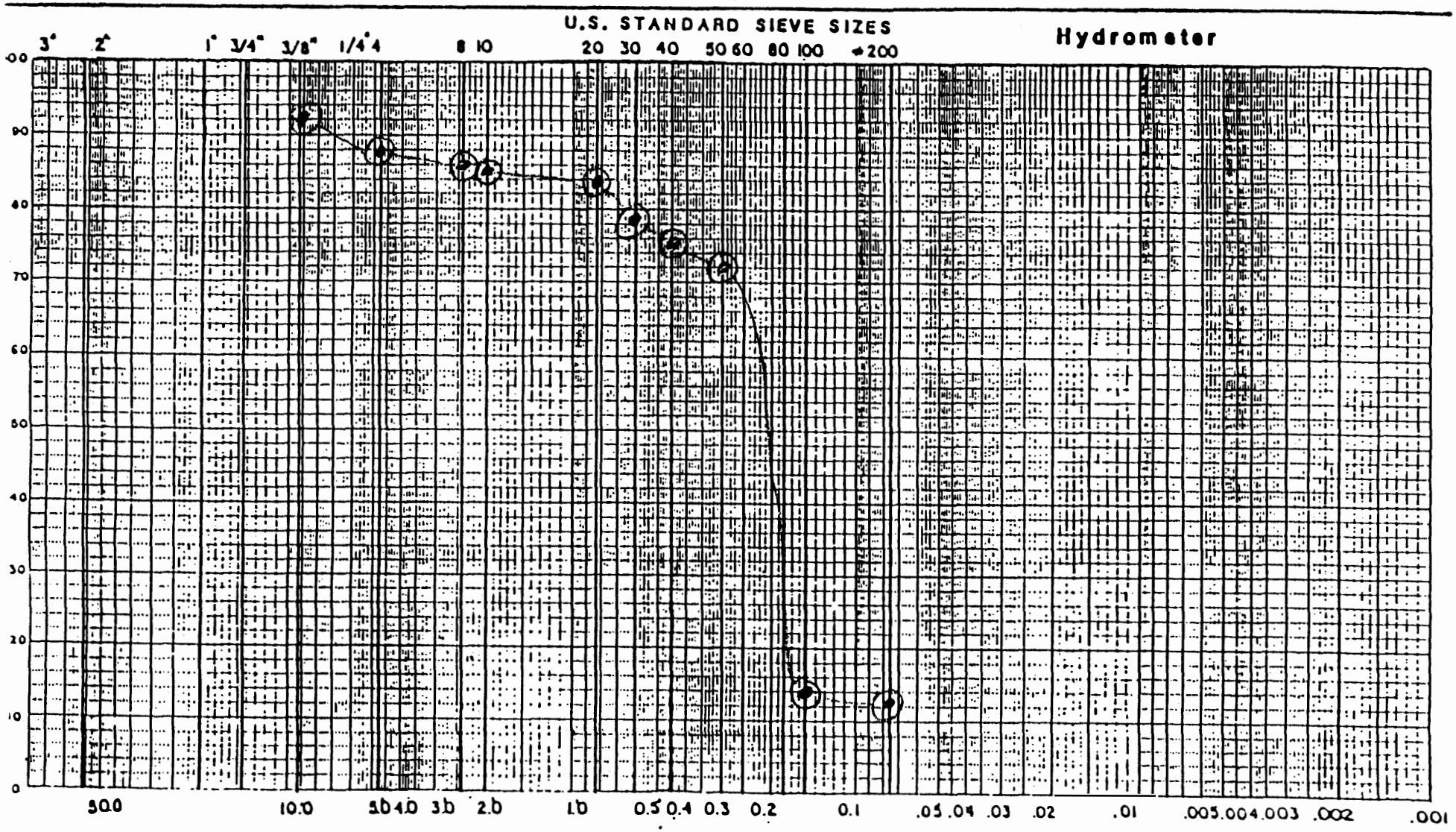
GRAIN SIZE DISTRIBUTION CURVE

SAMPLE

DESCRIPTION B-4 4.5-6.5'

JOB NO. _____ DATE 9-2-93

PROJECT Chippewa Air Port



Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

cellar corporation 804 wilson avenue menomonie wi 54751

SIEVE ANALYSIS OF SOILS

Project Name: CHIPPEWA AIRPORT		Project Number: 1673-001-61
Sample Number: B-2 4.5'-6.5'		Sample Location: B-2
Soil Type:	Tested By: Carl Vande Vrede	Date: 9-02-93

U.S. Standard Sieve Mesh #	Phi Size	Millimeters	Weight Retained on Sieve (grams)	Total Weight Retained on Sieve (grams)	% Passing
3/4 inch	-4.29	19.05	0.000	0.000	100.000
1/2 inch	-3.67	12.7	0.000	0.000	100.000
3/8 inch	-3.27	9.52	0.000	0.000	100.000
4	-2.25	4.75	12.090	12.090	92.272
8	-1.25	2.38	6.690	18.780	87.995
10	-1.0	2.00	2.370	21.150	86.480
20	0.25	0.84	10.050	31.200	80.056
30	0.75	0.59	37.220	68.420	56.264
40	1.25	0.42	19.940	88.360	43.518
50	1.75	0.30	9.620	97.980	37.369
100	2.75	0.149	41.060	139.040	11.122
200	3.75	0.074	7.880	146.920	6.085

Sample Size:	
Unwashed:	156.440
Washed:	147.100
Loss by Washing:	9.340

SIEVE ANALYSIS OF SOIL

PROJECT Chippewa Airport DATE 9-2-93

SAMPLE LOCATION B-2 4.5'-6.5' SAMPLE

SAMPLE DESCRIPTION TESTED BY CV

3/8" = 0/0

1/2" = 0/0

SIEVE SIZE	WT. RETAINED	% PASSING
4	12.09/12.09	
8	6.69/18.78	
10	2.37/21.15	
20	10.05/31.20	
30	37.22/68.42	
40	19.94/88.36	
50	9.62/97.98	
100	41.06/139.04	
200	7.88/146.92	
∠ 200	.04/146.96	

SAMPLE SIZE

UNWASHED 156.44

WASHED 147.10

LOSS BY WASHING

GRAIN SIZE DISTRIBUTION CURVE

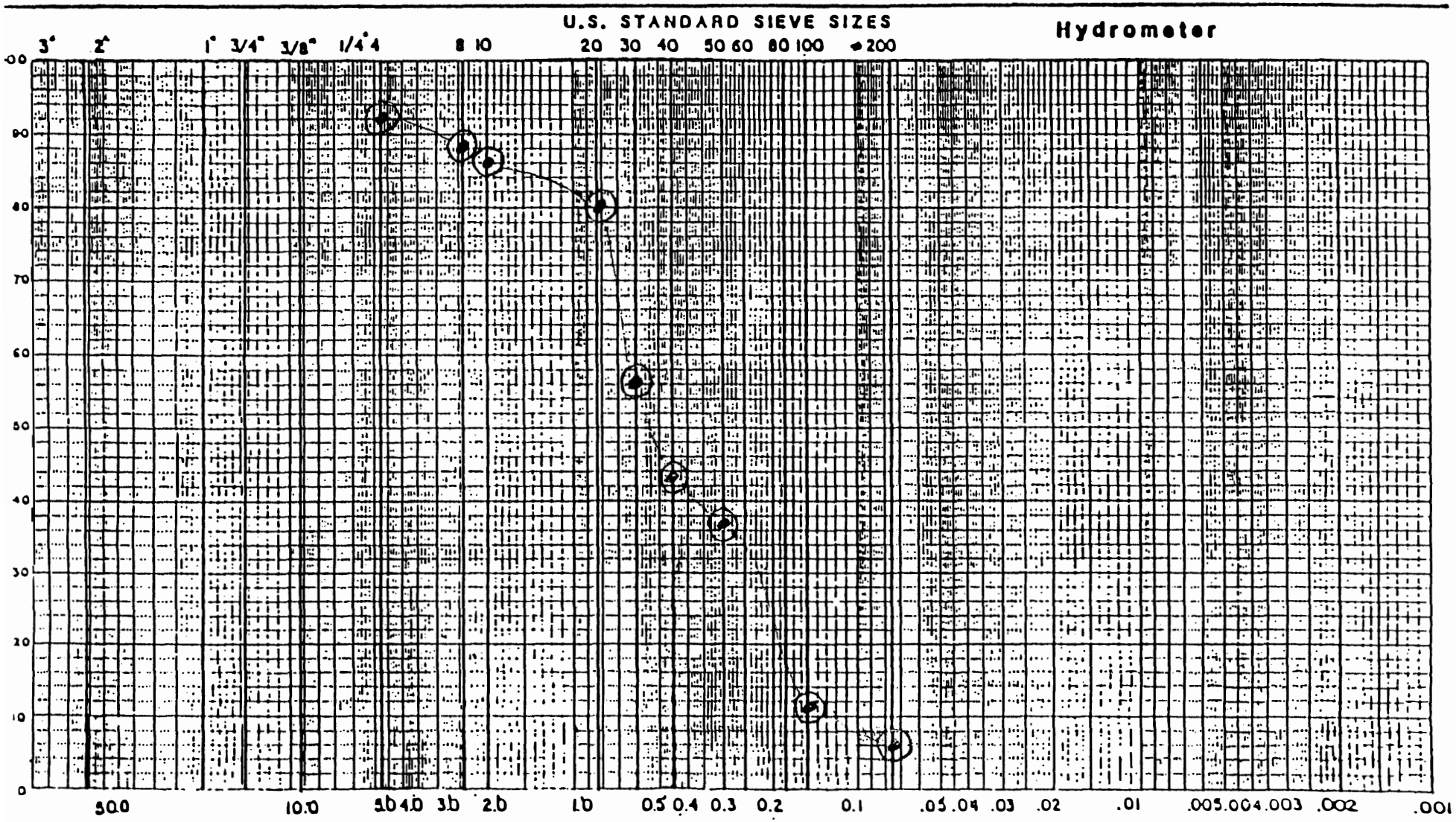
SAMPLE

DESCRIPTION B-2 4.5'-6.5'

JOB NO.

DATE 9-2-93

PROJECT Chippewa Airport



Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

cellar corporation 604 allison avenue menomonie wi 54751

APPENDIX E

ANALYTICAL REPORTS

State o. sonsin
Department of Natural Resources

CHAIN OF CUSTODY RECORD
LUST PROGRAM
Form 4400-151 11-91

Note: This form is required by the Department of Natural Resources for leaking underground storage tank sites in compliance with ch. NR 500-540, NR 158 and NR 419, Wis. Adm. Code.

Sample Collector(s)	Title/Work Station/Company	Telephone Number (include area code)
Alan J. Bishop	Env Spec. Cedar Corp.	715-235-9081
Property Owner	**Property Address**	**Telephone Number (include area code)**
Chippewa Valley Regional Airport	Starr Ave. Eau Claire, WI	

I hereby certify that I received, properly handled, and disposed of these samples as noted below:

Relinquished By (Signature)	Date/Time	Received By (Signature)
Alan J. Bishop	7-1-93 / 3:00	
Relinquished By (Signature)	Date/Time	Received By (Signature)
Relinquished By (Signature)	Date/Time	Received for Laboratory By (Signature)
	7/2/93 9:00	John D. Simpson

Temperature of temperature blank: Received on ice

If samples were received on ice and there was ice remaining, you may report the temperature as "received on ice". If all of the ice was melted, the temperature of the melt may be substituted for a temperature blank.

Collection Information								Parameters																Sample Condition			
Sample ID	Sampling Location	Date	Time	GRAB	COMP	Sample Type	No. of Container	DRO	VOA	PAH														No./Type of Containers	Cracked /Broken	Improperly Sealed	Good Condition	Other Comments
121811	B-1-2	7-1-93	10:00	X		Soil	3	X	X	X														1-60ml 2-4oz				
19	B-1-7		10:10	X			3	X	X	X														1-60ml 2-4oz				
25	B-2-3		10:45	X			2	X	X															1-60ml 1-4oz				
26	B-2-7		10:55	X			2	X	X																			
27	B-3-3		12:30	X			2	X	X																			
28	B-3-6		12:40	X			2	X	X																			
29	B-4-2		11:30	X			2	X	X																			
30	B-4-7	↓	11:35	X		↓	2	X	X															↓				

[1] Specify groundwater, surface water, soil, leachate, sludge, etc.

93. 02627

[2] Sample description must clearly correlate the sample ID to the sampling location.

1673-001-61

DEPARTMENT USE/OPTIONAL FOR SOIL SAMPLERS

Disposition of unused portion of sample
Laboratory should:

☐ Dispose ☐ Retain for ___ days

☐ Return ☐ Other

DEPARTMENT USE ONLY

Split samples: Offered? ☐ Yes ☐ No (Check one)

Accepted? ☐ Yes ☐ No (Check one)

Accepted By: _____
Signature

NATIONAL ENVIRONMENTAL TESTING, INC.

Rockford Division
3548 35th Street
Rockford, IL 61109
Tel: (815) 874-2171
Fax: (815) 874-5622

ANALYTICAL REPORT

Mr. Al Bishop
CEDAR CORPORATION
604 Wilson
Menomonie, WI 54751

07/22/1993

Job No: 93.02627

The following samples were received by NET for analysis:

Sample Number	Sample Description	Date Collected
121811	B-1-2, Grab Soil	07/01/1993
121819	B-1-7, Grab Soil	07/01/1993
121825	B-2-3, Grab Soil	07/01/1993
121826	B-2-7, Grab Soil	07/01/1993
121827	B-3-3, Grab Soil	07/01/1993
121828	B-3-6, Grab Soil	07/01/1993
121829	B-4-2, Grab Soil	07/01/1993
121830	B-4-7, Grab Soil	07/01/1993

The abbreviations and references listed below have been adopted by NET as standard conventions and are used throughout this report:

(1) Method reference from EPA SW-846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," USEPA SW-846, 3rd Ed., September, 1986.

(2) Method reference from ASTM, "American Society for Testing Materials."

(3) Method reference from EPA "Methods for Chemical Analysis of Waters and Wastes," USEPA, EPA 600/4-79-020, revised March, 1983.

(4) Method reference from "Standard Methods for the Examination of Water and Wastewater."

(5) Method reference from EPA "Methods for the Determination of Organic Compounds in Drinking Water," USEPA, 524.2, Revised 1989

(6) EPA 40 CFR, Part 763 Appendix A to Subpart F - PLM

(7) Method reference from EPA SW-846 "Testing Methods for Evaluating Solid Waste, Physical/Chemical Methods",USEPA SW-846, Revision 1, 8260A, November 1990. Modification of method in SPCC requirements.

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ANALYTICAL REPORT

Mr. Al Bishop
CEDAR CORPORATION
604 Wilson
Menomonie, WI 54751

07/22/1993

Job No: 93.02627
Sample No: 121811

SAMPLE DESCRIPTION: B-1-2, Grab Soil
1673-001-61 Chippewa
Date Collected: 07/01/1993
IEPA Cert. No.100220

Date Received: 07/02/1993
WDNR Cert. No.999447240

TEST NAME	RESULTS	UNITS	METHODS	DATE ANALYZED
PVOC - 8020				
Benzene	<2.0	ug/kg	8020 (1)	07/09/1993
Ethylbenzene	<2.0	ug/kg	8020 (1)	07/09/1993
Tert-methyl butyl ether	<2.0	ug/kg	8020 (1)	07/09/1993
Toluene	<2.0	ug/kg	8020 (1)	07/09/1993
1,2,4-Trimethylbenzene	4.6	ug/kg	8020 (1)	07/09/1993
1,3,5-Trimethylbenzene	<2.0	ug/kg	8020 (1)	07/09/1993
Xylenes	<2.0	ug/kg	8020 (1)	07/09/1993

Brian Wanner, Division Manager
Rockford Division

OCEAN GROUP

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ANALYTICAL REPORT

Mr. Al Bishop
CEDAR CORPORATION
604 Wilson
Menomonie, WI 54751

07/22/1993

Job No: 93.02627
Sample No: 121811

SAMPLE DESCRIPTION: B-1-2, Grab Soil
1673-001-61 Chippewa

Date Collected: 07/01/1993
IEPA Cert. No.100220

Date Received: 07/02/1993
WDNR Cert. No.999447240

TEST NAME	RESULTS	UNITS	METHODS	DATE ANALYZED
PNA'S				
Acenaphthene	<1200.	ug/kg	8310 (1)	07/07/1993
Acenaphthylene	<660.	ug/kg	8310 (1)	07/07/1993
Anthracene	<660.	ug/kg	8310 (1)	07/07/1993
Benzo(a)anthracene	48.	ug/kg	8310 (1)	07/07/1993
Benzo(b)fluoranthene	59.	ug/kg	8310 (1)	07/07/1993
Benzo(k)fluoranthene	38.	ug/kg	8310 (1)	07/07/1993
Benzo(a)pyrene	67.	ug/kg	8310 (1)	07/07/1993
Benzo(ghi)perylene	69.	ug/kg	8310 (1)	07/07/1993
Chrysene	<100.	ug/kg	8310 (1)	07/07/1993
Dibenzo(a,h)anthracene	<20.	ug/kg	8310 (1)	07/07/1993
Fluoranthene	<660.	ug/kg	8310 (1)	07/14/1993
Fluorene	<140.	ug/kg	8310 (1)	07/07/1993
Indeno(1,2,3-cd)pyrene	55.	ug/kg	8310 (1)	07/07/1993
Naphthalene	<660.	ug/kg	8310 (1)	07/07/1993
Phenanthrene	<660.	ug/kg	8310 (1)	07/07/1993
Pyrene	<180.	ug/kg	8310 (1)	07/14/1993

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ANALYTICAL REPORT

Mr. Al Bishop
CEDAR CORPORATION
604 Wilson
Menomonie, WI 54751

07/22/1993

Job No: 93.02627
Sample No: 121811

SAMPLE DESCRIPTION: B-1-2, Grab Soil
1673-001-61 Chippewa
Date Collected: 07/01/1993
IEPA Cert. No.100220

Date Received: 07/02/1993
WDNR Cert. No.999447240

TEST NAME	RESULTS	UNITS	METHODS	DATE ANALYZED
Solids, Total	96.1	%	160.3 (3)	07/07/1993

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ANALYTICAL REPORT

Mr. Al Bishop
CEDAR CORPORATION
604 Wilson
Menomonie, WI 54751

07/22/1993

Job No: 93.02627
Sample No: 121811

SAMPLE DESCRIPTION: B-1-2, Grab Soil
1673-001-61 Chippewa
Date Collected: 07/01/1993
IEPA Cert. No.100220

Date Received: 07/02/1993
WDNR Cert. No.999447240

TEST NAME	RESULTS	UNITS	METHODS	DATE ANALYZED
WDNR-DRO	<10.	mg/kg	WDNR	07/16/1993

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ANALYTICAL REPORT

Mr. Al Bishop
CEDAR CORPORATION
604 Wilson
Menomonie, WI 54751

07/22/1993

Job No: 93.02627
Sample No: 121819

SAMPLE DESCRIPTION: B-1-7, Grab Soil
1673-001-61 Chippewa
Date Collected: 07/01/1993
IEPA Cert. No.100220

Date Received: 07/02/1993
WDNR Cert. No.999447240

TEST NAME	RESULTS	UNITS	METHODS	DATE ANALYZED
Solids, Total	96.1	%	160.3 (3)	07/07/1993

Brian Wanner, Division Manager
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ANALYTICAL REPORT

Mr. Al Bishop
CEDAR CORPORATION
604 Wilson
Menomonie, WI 54751

07/22/1993

Job No: 93.02627
Sample No: 121819

SAMPLE DESCRIPTION: B-1-7, Grab Soil
1673-001-61 Chippewa
Date Collected: 07/01/1993
IEPA Cert. No.100220

Date Received: 07/02/1993
WDNR Cert. No.999447240

TEST NAME	RESULTS	UNITS	METHODS	DATE ANALYZED
PVOC - 8020				
Benzene	<2.0	ug/kg	8020 (1)	07/09/1993
Ethylbenzene	<2.0	ug/kg	8020 (1)	07/09/1993
Tert-methyl butyl ether	<2.0	ug/kg	8020 (1)	07/09/1993
Toluene	<2.0	ug/kg	8020 (1)	07/09/1993
1,2,4-Trimethylbenzene	<2.0	ug/kg	8020 (1)	07/09/1993
1,3,5-Trimethylbenzene	<2.0	ug/kg	8020 (1)	07/09/1993
Xylenes	<2.0	ug/kg	8020 (1)	07/09/1993

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ANALYTICAL REPORT

Mr. Al Bishop
CEDAR CORPORATION
604 Wilson
Menomonie, WI 54751

07/22/1993

Job No: 93.02627
Sample No: 121819

SAMPLE DESCRIPTION: B-1-7, Grab Soil
1673-001-61 Chippewa
Date Collected: 07/01/1993
IEPA Cert. No.100220

Date Received: 07/02/1993
WDNR Cert. No.999447240

TEST NAME	RESULTS	UNITS	METHODS	DATE ANALYZED
PNA'S				
Acenaphthene	<1200.	ug/kg	8310 (1)	07/07/1993
Acenaphthylene	<660.	ug/kg	8310 (1)	07/07/1993
Anthracene	<660.	ug/kg	8310 (1)	07/07/1993
Benzo(a)anthracene	<8.7	ug/kg	8310 (1)	07/07/1993
Benzo(b)fluoranthene	<11.	ug/kg	8310 (1)	07/07/1993
Benzo(k)fluoranthene	<11.	ug/kg	8310 (1)	07/07/1993
Benzo(a)pyrene	<15.	ug/kg	8310 (1)	07/07/1993
Benzo(ghi)perylene	<51.	ug/kg	8310 (1)	07/07/1993
Chrysene	<100.	ug/kg	8310 (1)	07/07/1993
Dibenzo(a,h)anthracene	<20.	ug/kg	8310 (1)	07/07/1993
Fluoranthene	<660.	ug/kg	8310 (1)	07/07/1993
Fluorene	<140.	ug/kg	8310 (1)	07/07/1993
Indeno(1,2,3-cd)pyrene	<29.	ug/kg	8310 (1)	07/07/1993
Naphthalene	<660.	ug/kg	8310 (1)	07/07/1993
Phenanthrene	<660.	ug/kg	8310 (1)	07/07/1993
Pyrene	<180.	ug/kg	8310 (1)	07/07/1993

Brian Wanner, Division Manager
Rockford Division

OCEAN GROUP

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Fax: (815) 874-5622

ANALYTICAL REPORT

Mr. Al Bishop
CEDAR CORPORATION
604 Wilson
Menomonie, WI 54751

07/22/1993

Job No: 93.02627
Sample No: 121819

SAMPLE DESCRIPTION: B-1-7, Grab Soil
1673-001-61 Chippewa
Date Collected: 07/01/1993
IEPA Cert. No.100220

Date Received: 07/02/1993
WDNR Cert. No.999447240

TEST NAME	RESULTS	UNITS	METHODS	DATE ANALYZED
WDNR-DRO	<10.	mg/kg	WDNR	07/16/1993

Brian Wanner, Division Manager
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ANALYTICAL REPORT

Mr. Al Bishop
CEDAR CORPORATION
604 Wilson
Menomonie, WI 54751

07/22/1993

Job No: 93.02627
Sample No: 121825

SAMPLE DESCRIPTION: B-2-3, Grab Soil
1673-001-61 Chippewa

Date Collected: 07/01/1993
IEPA Cert. No.100220

Date Received: 07/02/1993
WDNR Cert. No.999447240

TEST NAME	RESULTS	UNITS	METHODS	DATE ANALYZED
Solids, Total	96.3	%	160.3 (3)	07/07/1993

Brian Wanner, Division Manager
Rockford Division

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ANALYTICAL REPORT

Mr. Al Bishop
CEDAR CORPORATION
604 Wilson
Menomonie, WI 54751

07/22/1993

Job No: 93.02627
Sample No: 121825

SAMPLE DESCRIPTION: B-2-3, Grab Soil
1673-001-61 Chippewa
Date Collected: 07/01/1993
IEPA Cert. No.100220

Date Received: 07/02/1993
WDNR Cert. No.999447240

TEST NAME	RESULTS	UNITS	METHODS	DATE ANALYZED
PVOC - 8020				
Benzene	<2.0	ug/kg	8020 (1)	07/10/1993
Ethylbenzene	<2.0	ug/kg	8020 (1)	07/10/1993
Tert-methyl butyl ether	<2.0	ug/kg	8020 (1)	07/10/1993
Toluene	<2.0	ug/kg	8020 (1)	07/10/1993
1,2,4-Trimethylbenzene	<2.0	ug/kg	8020 (1)	07/10/1993
1,3,5-Trimethylbenzene	<2.0	ug/kg	8020 (1)	07/10/1993
Xylenes	<2.0	ug/kg	8020 (1)	07/10/1993

Brian Wanner, Division Manager
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ANALYTICAL REPORT

Mr. Al Bishop
CEDAR CORPORATION
604 Wilson
Menomonie, WI 54751

07/22/1993

Job No: 93.02627
Sample No: 121825

SAMPLE DESCRIPTION: B-2-3, Grab Soil
1673-001-61 Chippewa
Date Collected: 07/01/1993
IEPA Cert. No.100220

Date Received: 07/02/1993
WDNR Cert. No.999447240

TEST NAME	RESULTS	UNITS	METHODS	DATE ANALYZED
WDNR-DRO	<10.	mg/kg	WDNR	07/16/1993

Brian Wanner, Division Manager
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ANALYTICAL REPORT

Mr. Al Bishop
CEDAR CORPORATION
604 Wilson
Menomonie, WI 54751

07/22/1993

Job No: 93.02627
Sample No: 121826

SAMPLE DESCRIPTION: B-2-7, Grab Soil
1673-001-61 Chippewa
Date Collected: 07/01/1993
IEPA Cert. No.100220

Date Received: 07/02/1993
WDNR Cert. No.999447240

TEST NAME	RESULTS	UNITS	METHODS	DATE ANALYZED
Solids, Total	96.8	%	160.3 (3)	07/07/1993

Brian Wanner, Division Manager
Rockford Division

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ANALYTICAL REPORT

Mr. Al Bishop
CEDAR CORPORATION
604 Wilson
Menomonie, WI 54751

07/22/1993

Job No: 93.02627
Sample No: 121826

SAMPLE DESCRIPTION: B-2-7, Grab Soil
1673-001-61 Chippewa
Date Collected: 07/01/1993
IEPA Cert. No.100220

Date Received: 07/02/1993
WDNR Cert. No.999447240

TEST NAME	RESULTS	UNITS	METHODS	DATE ANALYZED
PVOC - 8020				
Benzene	<2.0	ug/kg	8020 (1)	07/09/1993
Ethylbenzene	<2.0	ug/kg	8020 (1)	07/09/1993
Tert-methyl butyl ether	<2.0	ug/kg	8020 (1)	07/09/1993
Toluene	<2.0	ug/kg	8020 (1)	07/09/1993
1,2,4-Trimethylbenzene	<2.0	ug/kg	8020 (1)	07/09/1993
1,3,5-Trimethylbenzene	<2.0	ug/kg	8020 (1)	07/09/1993
Xylenes	<2.0	ug/kg	8020 (1)	07/09/1993

Brian Wanner, Division Manager
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ANALYTICAL REPORT

Mr. Al Bishop
CEDAR CORPORATION
604 Wilson
Menomonie, WI 54751

07/22/1993

Job No: 93.02627
Sample No: 121826

SAMPLE DESCRIPTION: B-2-7, Grab Soil
1673-001-61 Chippewa
Date Collected: 07/01/1993
IEPA Cert. No.100220

Date Received: 07/02/1993
WDNR Cert. No.999447240

TEST NAME	RESULTS	UNITS	METHODS	DATE ANALYZED
WDNR-DRO	<10.	mg/kg	WDNR	07/16/1993

Brian Wanner, Division Manager
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ANALYTICAL REPORT

Mr. Al Bishop
CEDAR CORPORATION
604 Wilson
Menomonie, WI 54751

07/22/1993

Job No: 93.02627
Sample No: 121827

SAMPLE DESCRIPTION: B-3-3, Grab Soil
1673-001-61 Chippewa
Date Collected: 07/01/1993
IEPA Cert. No.100220

Date Received: 07/02/1993
WDNR Cert. No.999447240

TEST NAME	RESULTS	UNITS	METHODS	DATE ANALYZED
Solids, Total	96.5	%	160.3 (3)	07/07/1993

Brian Wanner, Division Manager
Rockford Division

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ANALYTICAL REPORT

Mr. Al Bishop
CEDAR CORPORATION
604 Wilson
Menomonie, WI 54751

07/22/1993

Job No: 93.02627
Sample No: 121827

SAMPLE DESCRIPTION: B-3-3, Grab Soil
1673-001-61 Chippewa
Date Collected: 07/01/1993
IEPA Cert. No.100220

Date Received: 07/02/1993
WDNR Cert. No.999447240

TEST NAME	RESULTS	UNITS	METHODS	DATE ANALYZED
PVOC - 8020				
Benzene	<2.0	ug/kg	8020 (1)	07/10/1993
Ethylbenzene	<2.0	ug/kg	8020 (1)	07/10/1993
Tert-methyl butyl ether	<2.0	ug/kg	8020 (1)	07/10/1993
Toluene	<2.0	ug/kg	8020 (1)	07/10/1993
1,2,4-Trimethylbenzene	<2.0	ug/kg	8020 (1)	07/10/1993
1,3,5-Trimethylbenzene	<2.0	ug/kg	8020 (1)	07/10/1993
Xylenes	<2.0	ug/kg	8020 (1)	07/10/1993

Brian Wanner, Division Manager
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ANALYTICAL REPORT

Mr. Al Bishop
CEDAR CORPORATION
604 Wilson
Menomonie, WI 54751

07/22/1993

Job No: 93.02627
Sample No: 121827

SAMPLE DESCRIPTION: B-3-3, Grab Soil
1673-001-61 Chippewa
Date Collected: 07/01/1993
IEPA Cert. No.100220

Date Received: 07/02/1993
WDNR Cert. No.999447240

TEST NAME	RESULTS	UNITS	METHODS	DATE ANALYZED
WDNR-DRO	<10.	mg/kg	WDNR	07/16/1993

Brian Wanner, Division Manager
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ANALYTICAL REPORT

Mr. Al Bishop
CEDAR CORPORATION
604 Wilson
Menomonie, WI 54751

07/22/1993

Job No: 93.02627
Sample No: 121828

SAMPLE DESCRIPTION: B-3-6, Grab Soil
1673-001-61 Chippewa
Date Collected: 07/01/1993
IEPA Cert. No.100220

Date Received: 07/02/1993
WDNR Cert. No.999447240

TEST NAME	RESULTS	UNITS	METHODS	DATE ANALYZED
Solids, Total	96.1	%	160.3 (3)	07/07/1993

Brian Wanner, Division Manager
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ANALYTICAL REPORT

Mr. Al Bishop
CEDAR CORPORATION
604 Wilson
Menomonie, WI 54751

07/22/1993

Job No: 93.02627
Sample No: 121828

SAMPLE DESCRIPTION: B-3-6, Grab Soil
1673-001-61 Chippewa
Date Collected: 07/01/1993
IEPA Cert. No.100220

Date Received: 07/02/1993
WDNR Cert. No.999447240

TEST NAME	RESULTS	UNITS	METHODS	DATE ANALYZED
PVOC - 8020				
Benzene	<2.0	ug/kg	8020 (1)	07/12/1993
Ethylbenzene	<2.0	ug/kg	8020 (1)	07/12/1993
Tert-methyl butyl ether	<2.0	ug/kg	8020 (1)	07/12/1993
Toluene	<2.0	ug/kg	8020 (1)	07/12/1993
1,2,4-Trimethylbenzene	<2.0	ug/kg	8020 (1)	07/12/1993
1,3,5-Trimethylbenzene	<2.0	ug/kg	8020 (1)	07/12/1993
Xylenes	<2.0	ug/kg	8020 (1)	07/12/1993

Brian Wanner, Division Manager
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ANALYTICAL REPORT

Mr. Al Bishop
CEDAR CORPORATION
604 Wilson
Menomonie, WI 54751

07/22/1993

Job No: 93.02627
Sample No: 121828

SAMPLE DESCRIPTION: B-3-6, Grab Soil
1673-001-61 Chippewa
Date Collected: 07/01/1993
IEPA Cert. No.100220

Date Received: 07/02/1993
WDNR Cert. No.999447240

TEST NAME	RESULTS	UNITS	METHODS	DATE ANALYZED
WDNR-DRO	<10.	mg/kg	WDNR	07/16/1993

Brian Wanner, Division Manager
Rockford Division

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ANALYTICAL REPORT

Mr. Al Bishop
CEDAR CORPORATION
604 Wilson
Menomonie, WI 54751

07/22/1993

Job No: 93.02627
Sample No: 121829

SAMPLE DESCRIPTION: B-4-2, Grab Soil
1673-001-61 Chippewa
Date Collected: 07/01/1993
IEPA Cert. No.100220

Date Received: 07/02/1993
WDNR Cert. No.999447240

TEST NAME	RESULTS	UNITS	METHODS	DATE ANALYZED
Solids, Total	93.7	%	160.3 (3)	07/07/1993

Brian Wanner, Division Manager
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ANALYTICAL REPORT

Mr. Al Bishop
CEDAR CORPORATION
604 Wilson
Menomonie, WI 54751

07/22/1993

Job No: 93.02627
Sample No: 121829

SAMPLE DESCRIPTION: B-4-2, Grab Soil
1673-001-61 Chippewa
Date Collected: 07/01/1993
IEPA Cert. No.100220

Date Received: 07/02/1993
WDNR Cert. No.999447240

TEST NAME	RESULTS	UNITS	METHODS	DATE ANALYZED
PVOC - 8020				
Benzene	<2.0	ug/kg	8020 (1)	07/13/1993
Ethylbenzene	<2.0	ug/kg	8020 (1)	07/13/1993
Tert-methyl butyl ether	<2.0	ug/kg	8020 (1)	07/13/1993
Toluene	<2.0	ug/kg	8020 (1)	07/13/1993
1,2,4-Trimethylbenzene	4.4	ug/kg	8020 (1)	07/13/1993
1,3,5-Trimethylbenzene	<2.0	ug/kg	8020 (1)	07/13/1993
Xylenes	<2.0	ug/kg	8020 (1)	07/13/1993

Brian Wanner, Division Manager
Rockford Division

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ANALYTICAL REPORT

Mr. Al Bishop
CEDAR CORPORATION
604 Wilson
Menomonie, WI 54751

07/22/1993

Job No: 93.02627
Sample No: 121829

SAMPLE DESCRIPTION: B-4-2, Grab Soil
1673-001-61 Chippewa
Date Collected: 07/01/1993
IEPA Cert. No.100220

Date Received: 07/02/1993
WDNR Cert. No.999447240

TEST NAME	RESULTS	UNITS	METHODS	DATE ANALYZED
WDNR-DRO	74.	mg/kg	WDNR	07/16/1993

Brian Wanner, Division Manager
Rockford Division

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ANALYTICAL REPORT

Mr. Al Bishop
CEDAR CORPORATION
604 Wilson
Menomonie, WI 54751

07/22/1993

Job No: 93.02627
Sample No: 121830

SAMPLE DESCRIPTION: B-4-7, Grab Soil
1673-001-61 Chippewa

Date Collected: 07/01/1993
IEPA Cert. No.100220

Date Received: 07/02/1993
WDNR Cert. No.999447240

TEST NAME	RESULTS	UNITS	METHODS	DATE ANALYZED
Solids, Total	96.9	%	160.3 (3)	07/07/1993

Brian Wanner, Division Manager
Rockford Division

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ANALYTICAL REPORT

Mr. Al Bishop
CEDAR CORPORATION
604 Wilson
Menomonie, WI 54751

07/22/1993

Job No: 93.02627
Sample No: 121830

SAMPLE DESCRIPTION: B-4-7, Grab Soil
1673-001-61 Chippewa
Date Collected: 07/01/1993
IEPA Cert. No.100220

Date Received: 07/02/1993
WDNR Cert. No.999447240

TEST NAME	RESULTS	UNITS	METHODS	DATE ANALYZED
PVOC - 8020				
Benzene	<4.0	ug/kg	8020 (1)	07/14/1993
Ethylbenzene	<4.0	ug/kg	8020 (1)	07/14/1993
Tert-methyl butyl ether	<4.0	ug/kg	8020 (1)	07/14/1993
Toluene	<4.0	ug/kg	8020 (1)	07/14/1993
1,2,4-Trimethylbenzene	<4.0	ug/kg	8020 (1)	07/14/1993
1,3,5-Trimethylbenzene	<4.0	ug/kg	8020 (1)	07/14/1993
Xylenes	<4.0	ug/kg	8020 (1)	07/14/1993

Brian Wanner, Division Manager
Rockford Division

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ANALYTICAL REPORT

Mr. Al Bishop
CEDAR CORPORATION
604 Wilson
Menomonie, WI 54751

07/22/1993

Job No: 93.02627
Sample No: 121830

SAMPLE DESCRIPTION: B-4-7, Grab Soil
1673-001-61 Chippewa
Date Collected: 07/01/1993
IEPA Cert. No.100220

Date Received: 07/02/1993
WDNR Cert. No.999447240

TEST NAME	RESULTS	UNITS	METHODS	DATE ANALYZED
WDNR-DRO	<10.	mg/kg	WDNR	07/16/1993

Brian Wanner, Division Manager
Rockford Division

OCEAN GROUP

Department of Natural Resources

LUST PROGRAM
Form 4400-151 Rev. 4-93

Note: Use of this form is voluntary but is requested by the Department pursuant to ch. NR 149, NR 500-540, NR 158 and NR 419, Wis. Adm. Code. Personally identifiable information will be used for no other purpose.

Sample Collector(s)	Title/Work Station/Company	Telephone Number (include area code)
Alan J. Bishop	Env. Spec. Cedar Corp.	715-235-9081
Property Owner	**Property Address**	**Telephone Number (include area code)**
Chippewa Valley Regional Airport	Eau Claire, WI	

I hereby certify that I received, properly handled, and disposed of these samples as noted below:

Relinquished By (Signature)	Date/Time	Received By (Signature)
A. J. Bishop	8-4-93 / 3:15	
Relinquished By (Signature)	Date/Time	Received By (Signature)
Relinquished By (Signature)	Date/Time	Received for Laboratory By (Signature)
		8/5/93 14:30 Mary Miller

Sample Condition on Receipt by Laboratory
LABORATORY USE ONLY
Temperature of temperature blank: Recd on ice

If samples were received on ice and there was ice remaining, you may report the temperature as "received on ice". If all of the ice was melted, the temperature of the melt may be substituted for a temperature blank.

Field ID Number [1]	Date Collected	Time Collected	Sample Type [2]	Sample Device [3]	Preserv. Type	Field Screening	Description	Analysis Type	Lab ID Number	No./Type of Containers	Cracked /Broken	Improperly Sealed	Good Condition	Other Comments
B-5-5	8-4-93	1:15	Soil	Grab / Auger	Temp. None	— / —		Tot. Org. C, Tot. Org. N Tot. Phos.		2-4oz				
#12345														
93-031-13														

[1] Sample description must clearly correlate the sample ID to the sampling location shown on a map.

[2] Specify groundwater, surface water, soil, leachate, sludge, etc.

[3] Type of sampling device; split spoon, hand auger, metal spatula, soil syringe, etc.

1673-001-61

DEPARTMENT USE/OPTIONAL FOR SOIL SAMPLERS

Disposition of unused portion of sample

Laboratory should: ☐ Dispose ☐ Retain for ___ days ☐ Return ☐ Other

DEPARTMENT USE ONLY

Split samples: Offered? ☐ Yes ☐ No (Check one)

Accepted? ☐ Yes ☐ No (Check one)

Accepted By:

NATIONAL ENVIRONMENTAL TESTING, INC.

Rockford Division
3548 35th Street
Rockford, IL 61109
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ANALYTICAL REPORT

Mr. Al Bishop
CEDAR CORPORATION
604 Wilson
Menomonie, WI 54751

08/27/1993

Job No: 93.03173

The following samples were received by NET for analysis:

Sample Number	Sample Description	Date Collected
123489	B-5 5', Soil	08/04/1993

The abbreviations and references listed below have been adopted by NET as standard conventions and are used throughout this report:

(1) Method reference from EPA SW-846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," USEPA SW-846, 3rd Ed., September, 1986.

(2) Method reference from ASTM, "American Society for Testing Materials."

(3) Method reference from EPA "Methods for Chemical Analysis of Waters and Wastes," USEPA, EPA 600/4-79-020, revised March, 1983.

(4) Method reference from "Standard Methods for the Examination of Water and Wastewater."

(5) Method reference from EPA "Methods for the Determination of Organic Compounds in Drinking Water," USEPA, 524.2, Revised 1989

(6) EPA 40 CFR, Part 763 Appendix A to Subpart F - PLM

(7) Method reference from EPA SW-846 "Testing Methods for Evaluating Solid Waste, Physical/Chemical Methods",USEPA SW-846, Revision 1, 8260A, November 1990. Modification of method in SPCC requirements.

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ANALYTICAL REPORT

Mr. Al Bishop
CEDAR CORPORATION
604 Wilson
Menomonie, WI 54751

08/27/1993

Job No: 93.03173
Sample No: 123489

SAMPLE DESCRIPTION: B-5 5', Soil
1673-001-61 Chippewa
Date Collected: 08/04/1993
IEPA Cert. No.100220

Date Received: 08/05/1993
WDNR Cert. No.999447240

TEST NAME	RESULTS	UNITS	METHODS	DATE ANALYZED
Nitrogen, Ammonia	10	ug/g	350.2 (3)	08/23/1993
Nitrogen, Kjeldahl	<10	ug/g	351.3 (3)	08/19/1993
Nitrogen, Organic	Not Detected		4500N (4)	
Phosphate, Total	<7.7	ug/g	365.3 (3)	08/18/1993
Total Organic Carbon (TOC)	195	ug/g	CORP OF ENG	08/23/1993

BW

Brian Wanner, Division Manager
Rockford Division

OCEAN GROUP

TANK CLOSURE SITE ASSESSMENTS
TWO UNDERGROUND STORAGE TANKS
CHIPPEWA VALLEY REGIONAL AIRPORT
EAU CLAIRE, WISCONSIN

PREPARED FOR:

THE HALE COMPANY OF WISCONSIN
EAU CLAIRE, WISCONSIN

JANUARY 1993

AYRES ASSOCIATES

TANK CLOSURE SITE ASSESSMENTS
TWO UNDERGROUND STORAGE TANKS
CHIPPEWA VALLEY REGIONAL AIRPORT
EAU CLAIRE, WISCONSIN
JANUARY 1993

THIS REPORT PREPARED BY:

OWEN AYRES & ASSOCIATES, INC.

Mark A. Zich 1/12/93

Mark A. Zich, Environmental Specialist, DILHR Site Assessor Cert. #01201

REVIEWED BY:

Dennis L. Johnson 1/12/93

Dennis L. Johnson, P.E. Project Manager, DILHR Site Assessor Cert. #00165

AYRES ASSOCIATES

Owen Ayres & Associates, Inc.
1300 W. Clairemont Avenue
P.O. Box 1590
Eau Claire, WI 54702-1590
(715/834-3161)

Ayres Project No. 4720.00
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LIST OF APPENDICES

1.0 INTRODUCTION

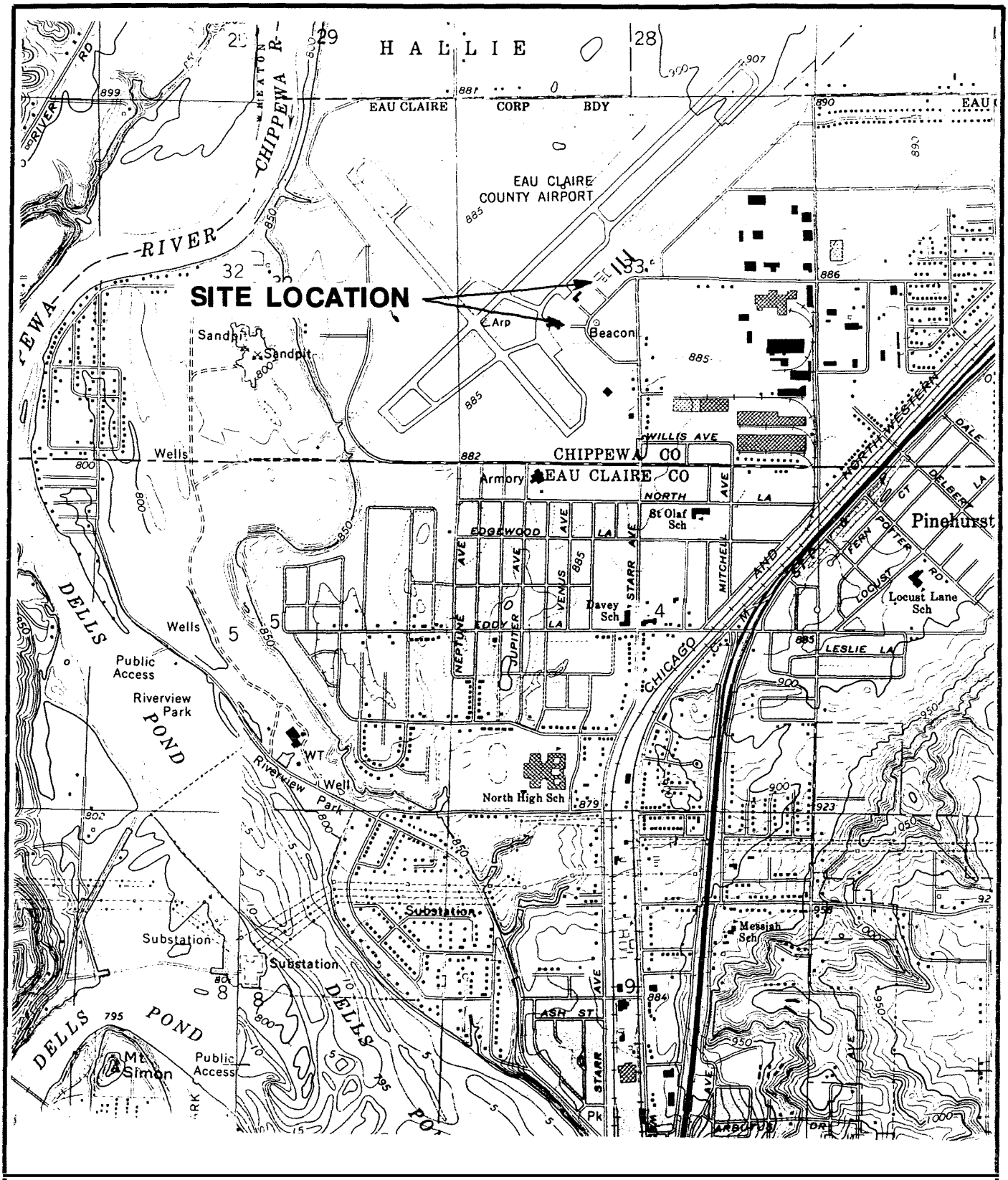
Ayres Associates was retained by the Hale Company of Wisconsin to conduct tank closure site assessments of two underground storage tanks located at the Chippewa Valley Regional Airport in Eau Claire, Wisconsin. The purpose of these assessments was to check for the presence of spilled or leaked petroleum products that may have contaminated the surrounding soil.

These site assessments were conducted in accordance with guidelines set forth in Wisconsin Administrative Code ILHR 10 "Flammable and Combustible Liquids", and Wisconsin Department of Natural Resources (WDNR) LUST Release Publications PUBL-SW-116-REV-March 1992, and PUBL-SW-116-REV-Jan. 1992. The assessment procedures and results are reported in the following paragraphs.

2.0 SITE BACKGROUND

2.1 SITE DESCRIPTION

The Chippewa Valley Regional Airport is located at 3800 Starr Avenue in Eau Claire, Wisconsin, in the NE 1/4 of the SW 1/4, Section 33, Township 28 North, Range 9 West. The regional location of the site is shown on Figure 1, "Location Map." Ayres Associates was retained by The Hale Company of Wisconsin to conduct tank closure site assessments on a 6,000 gallon fuel oil underground storage tank (UST) and a 560 gallon diesel fuel UST. The 6,000 fuel oil UST was abandoned in place and the 560 gallon diesel fuel UST was removed. Zervas Company of Duluth, Minnesota, was retained by Hale Company to remove and dispose of the underground diesel fuel tank and to abandon the 6,000 gallon fuel oil UST in place. Information on both tanks is presented in a tabular format, based on the October 1992 Wisconsin DNR site assessment completeness checklist for closure reporting, and is included in Appendix A, "Closure Assessment Information."



SCALE 1:24000

1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

NORTH

TANK CLOSURE SITE ASSESSMENT CHIPPEWA VALLEY REGIONAL AIRPORT EAU CLAIRE, WISCONSIN	DRN. BY: MLE CHK. BY: MAZ DATE: JAN. 1993 AYRES ASSOCIATES	LOCATION MAP	FIGURE 1

2.2 REGIONAL SETTING

As shown in Figure 1, the site is located approximately one mile east of the Chippewa River. Based on U.S. Geological Survey Map, the approximate elevation of the site is 885 feet above mean sea level (m.s.l.). The depth to ground water is approximately 70 feet, according to June 21, 1990, data collected during a Remedial Investigation/Feasibility Study, National Presto Industries, Inc., by Eder Associates.

The City of Eau Claire supplies water to the facility. The City of Eau Claire municipal water well area, located 3,000 feet southwest of the site, is the closest known potable water well area. As mentioned previously, the on-going National Presto Industries ground water investigation has numerous monitoring wells in the general vicinity of the site. RW-11 and RW-12 are located approximately 700 feet northwest and south of the tanks, respectively.

According to Linda Storlie, Department of Industry, Labor, and Human Relations (DILHR), there are 12 underground storage tanks listed in their database for the Eau Claire County Airport. Three 10,000 gallon aviation fuel tanks were removed in 1988. The remaining nine tanks are still listed as active, except a 1,000 gallon tank with contents unknown. This tank was still in ground, but has been listed as not in use since 1989. Gibson Aviation, also located at 3800 Starr Avenue, has seven UST's listed in DILHR's database. Only one 200 gallon diesel UST is still listed as active, and the remaining six have been removed. The following list of tanks are listed in DILHR's database, including the 6,000 gallon fuel oil (Registration #18010-225) and 560 gallon diesel (Registration #78010-224), which are the subject of this report.

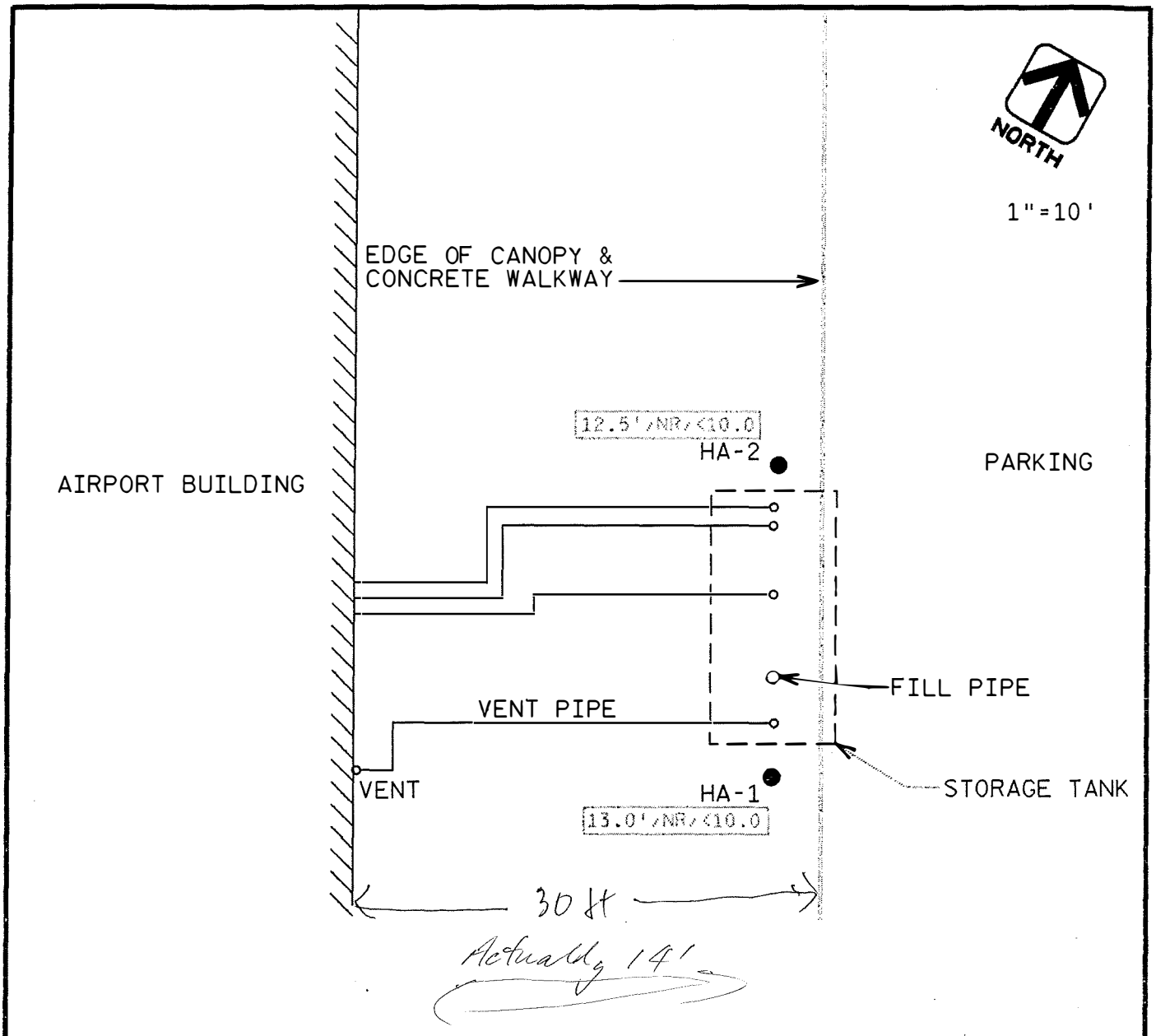
Tank Size (gallons)	Contents	ID Number	Status
10,000	Unleaded	18010-220	Active
10,000	Fuel Oil	18010-221	Active
10,000	Diesel	18010-222	Active
3,000	Fuel Oil	18010-223	Active
500	Diesel	18010-224	Removed 1992
6,000	Fuel Oil	18010-225	Removed 1992
10,000	Aviation	18010-226	Removed 1988
10,000	Aviation	18010-227	Removed 1988
10,000	Aviation	18010-228	Removed 1988
1,000	Unknown	10810-229	Empty
500	Diesel	10810-230	Active
10,000	Aviation	10810-231	Active

3.0 CLOSURE ASSESSMENT OF 6,000 GALLON FUEL OIL TANK--SITE OBSERVATION, SAMPLE COLLECTION, SAMPLE RESULTS, AND RECOMMENDATIONS

3.1 GENERAL

On October 12, 1992, at 10:00 a.m., Mark A. Zich and Angi M. Weiss, Ayres Associates, arrived on site and installed two hand auger borings at both ends of a 6,000 gallon UST. The sky was partly cloudy, and the temperature was approximately 55 degrees Fahrenheit. The UST was located northeast of the main airport terminal between the front access road and the terminal. Figure 2, "6,000 Gallon UST Site Plan," shows the site layout, including the location of the UST, product piping, and fill pipe.

The 6,000 gallon UST was 16 feet long and eight feet in diameter, with the UST bottom lying 11 feet below existing grade. The surface area above the UST is covered with a concrete walkway. The UST fill pipe is located directly above



NOTE:
HAND AUGER BORINGS WERE
ANGLED TOWARD UNDERGROUND
STORAGE TANK

LEGEND:	
● HA-1	HAND AUGER BORING
13.0'/NR/<10.0	DEPTH/PID/DRO CONCENTRATION (mg/kg)
NR	NO RESPONSE

TANK CLOSURE SITE ASSESSMENT CHIPPEWA VALLEY REGIONAL AIRPORT EAU CLAIRE, WISCONSIN	DRN. BY: MLE CHK. BY: MAZ DATE: JAN. 1993 AYRES ASSOCIATES	SITE PLAN (6000 GALLON FUEL OIL TANK)	FIGURE 2

4557TANK.DGN

the UST. According to a building plan sheet supplied by the airport manager, the fill pipe is located four feet northwest of the southeast end of the tank. Measurements were taken from the fill pipe to locate the ends of the tank. This enabled the soil borings to be installed in close proximity to the tank ends. Access to soils was achieved after coring through the concrete sidewalk.

3.2 SAMPLE COLLECTION

Two 3-1/2 inch diameter hand auger borings were installed at the ends of the UST. The stainless steel auger was cleaned prior to arrival at the job site, and prior to each sample collection, to minimize the potential for cross contamination. The three-step cleaning procedure consisted of an Alconox soap wash using a brush, tap water rinse, and final rinse with distilled water. The tap water was taken from the City of Eau Claire water system from Ayres Associates' tap.

Hand auger boring HA-1 was installed two feet south of the southeast end of the UST, and HA-2 was installed one foot north of the northwest end of the UST. Both borings were slightly angled towards the base of the UST. HA-1 and HA-2 were installed to depths of 13.5 and 13.0 feet, respectively. Two samples (HA-1, S-1 and HA-2, S-1) were collected at depths of 13.0 to 13.5 feet and 12.5 to 13.0 feet beneath existing grade, or 1.5 to 2.5 feet beneath the base of the UST. Soil boring logs and borehole abandonment forms are included in Appendix B, "Soil Boring Logs and Borehole Abandonment Forms."

Soil samples were collected to ascertain the correct amount of soil necessary to obtain a 25 gram sample in a 20 cc syringe. A 20 cc syringe filled to 17 cc weighed 25 grams. At each sample location, two samples, weighing 25 grams, were collected in an open-ended 20 cc syringe and placed in a 60 milliliter wide mouth jar with a Teflon lined lid and septum on top. Upon collection, the soil samples were immediately placed on ice for

shipment to laboratory. Moisture samples were also collected from each location in 5 ounce plastic jars. Additional soil samples were also collected in 16 ounce Mason jars for head space analysis in Ayres' laboratory following the proper equilibration time.

3.3 HEAD SPACE SCREENING

The head space of each 16 ounce jar was qualitatively screened for the presence of organic vapors using a Foxboro Model OVA 128 Century Flame Ionization Detector (FID). The FID is factory calibrated with three methane gas standards. The accuracy of the FID instrument is checked daily by adjusting the instrument to a "Zero Air" standard (less than 1 part per million total hydrocarbons), then using a 95 part per million (ppm) methane gas standard to verify the factory calibration. According to manufacturer's specifications, the daily check should be within 20% of the 95 ppm methane standard, corresponding to readings of 76 to 114. The FID calibration check for October 12, 1992, was 76. The soil samples were not field screened; however, they were screened in Ayres Associates laboratory. After allowing soil samples to equilibrate for a ten minute period inside at an ambient air temperature of 70 degrees Fahrenheit, total organic vapors in the jar head space were screened by piercing the jar lid and inserting the FID probe. The highest meter responses were noted and recorded. Meter responses are reported as ppm methane equivalents. Field screening results for samples HA-1, S-1 and HA-2, S-1 are reported in Table 1, "Soil Sample Analytical Results Summary." None of the samples contained detectable VOC's with the FID. The FID responses are relative indications of total ionizable volatile organic compounds (VOC's) present in the atmosphere surrounding the samples and do not necessarily represent the concentration of a specific compound.

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS SUMMARY
CHIPPEWA VALLEY REGIONAL AIRPORT
EAU CLAIRE, WISCONSIN

6,000 GALLON FUEL OIL TANK

Date	Ayres Sample No.	Lab Sample No.	Sample Location	Sample Depth (FT) Below Existing Grade	Instrument Response (a) FID (Lab)	Diesel Range Organics (DRO) (mg/kg) (b)
10/12/92	HA-1, S-1	0298871	South End of Tank	13.0-13.5	No Response	< 10.0
10/12/92	HA-2, S-1	0298872	North End of Tank	12.5-13.0	No Response	< 10.0

560 GALLON DIESEL FUEL TANK

Date	Ayres Sample No.	Lab Sample No.	Sample Location	Sample Depth (FT) Below Existing Grade	Instrument Response (a) FID (Lab)	Diesel Range Organics (DRO) (mg/kg) (b)
11/17/92	S-1	302476	South End of Tank	6.0	No Response	25
11/17/92	S-2	302477	North End of Tank	6.0	0.8	74
11/17/92	S-3	302478	Below Pump	1.5	14	30,000

mg/kg = milligrams per kilograms

a = FID response given in instrument units as methane equivalents
b = The Practical Quantitation Limit (PQL) for Diesel Range Organics (DRO) was 10.0 mg/Kg

3.4 TANK ABANDONMENT IN PLACE

On November 17, 1992, Zervas Company pumped, inerted, cut open, and cleaned the 6,000 gallon fuel oil UST. The UST was then checked by Mr. William Klee, Fire Inspector for the City of Eau Claire. After inspection, the tank was filled with sand. Concrete was placed on the surface over the tank. Waste Research and Reclamation Company, Inc., removed the sludge and surplus product.

The UST was registered with the Department of Industry, Labor and Human Relations (DILHR). A completed copy of the UST registration form (DILHR Form SBD-7437) is included in Appendix C, "Tank Inventory Forms," along with the original registration form. Surplus product and sludge management information is included in Appendix D, "Tank, Surplus Product, and Sludge Management Information."

3.5 LABORATORY ANALYSIS

Soil samples were shipped via United Parcel Service to Twin City Testing, St. Paul, Minnesota (Wisconsin Laboratory Certification No. (999446910), for quantitative analysis. The soil samples were analyzed for Diesel Range Organics (DRO).

Laboratory results are summarized in Table 1, and laboratory report forms are included in Appendix E, "Laboratory Analysis Results and Chain of Custody." Laboratory results are reported in mg/Kg (milligrams per kilogram). Soil samples HA-1, S-1 and HA-2, S-1, collected from beneath the UST, contained no detects of DRO at the Method Detection Limit (MDL) of <10.0 mg/kg.

3.6 RECOMMENDATIONS

On the basis of qualitative and quantitative analysis of soil samples collected from beneath the 6,000 gallon fuel oil UST, it is concluded that no petroleum hydrocarbon contamination exceeding WDNR remedial action guidelines of 10 ppm was

detected beneath the UST. No further action is recommended for the 6,000 gallon fuel oil UST, and the tank should be considered as a "clean closure."

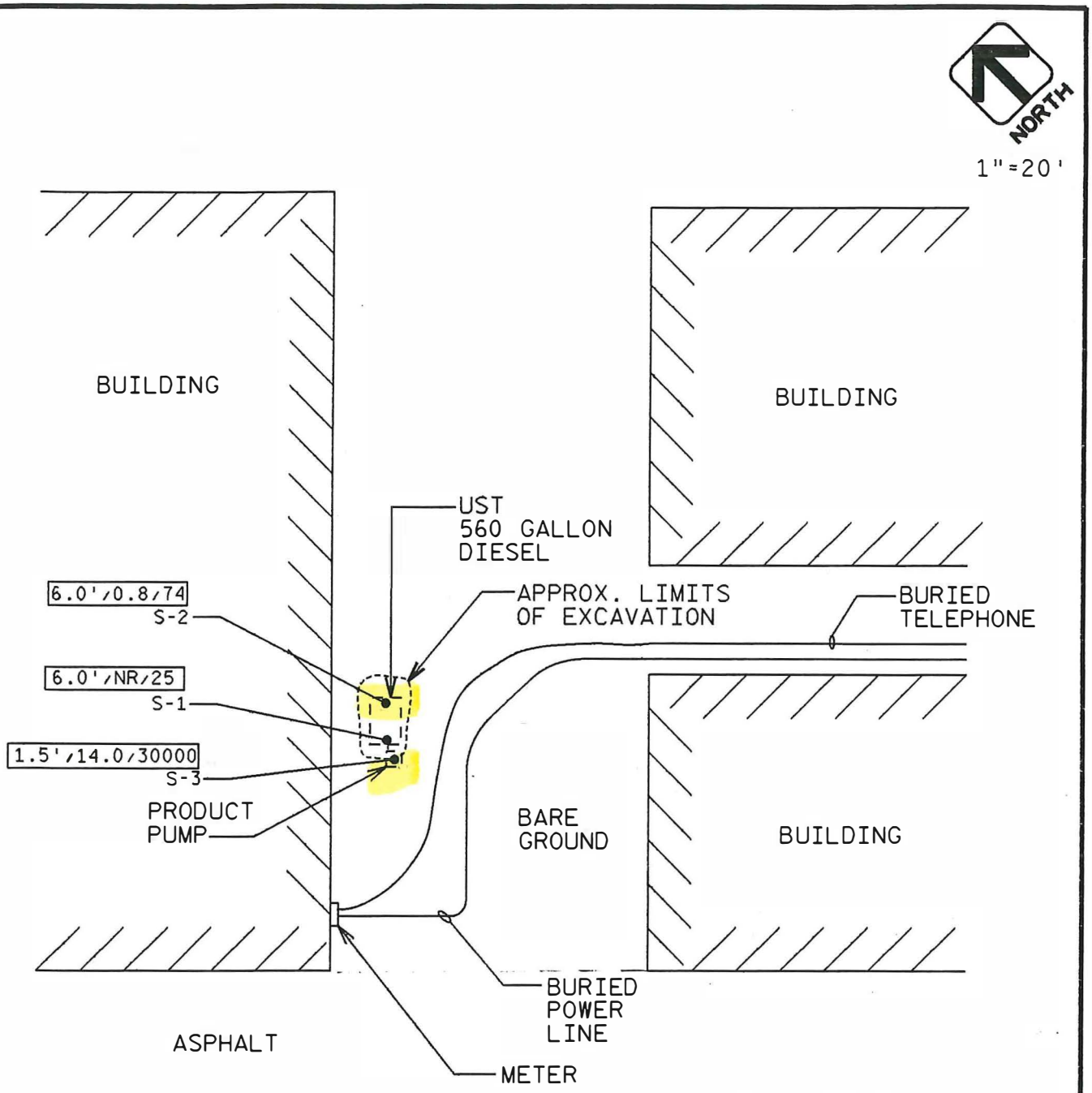
4.0 CLOSURE ASSESSMENT OF 560 GALLON DIESEL FUEL TANK--SITE OBSERVATION, SAMPLE COLLECTION

4.1 GENERAL

A single sampling trip was made to the site by Mark Zich, Ayres Associates, on November 17, 1992, to observe the removal of a diesel fuel tank, sample soil, and to check for the presence of spilled or leaked petroleum products. The weather was cloudy, with an air temperature of approximately 45 degrees Fahrenheit.

The UST was located north of the Gibson Aviation Office between three buildings (airport hangers and equipment storage). Figure 3, "560 Gallon Diesel Fuel UST Site Plan," shows the site layout, including the location of the UST and product pump. Site photographs are shown in Appendix E, "Site Photographs." The 560 gallon UST is six feet long by four feet in diameter, with the UST bottom lying five feet below existing grade. The tank was reported to have been used by Gibson Aviation to store diesel fuel and was not used for approximately the past 15 years. The product pump was located approximately one foot southwest of the UST. The fill pipe was directly over the UST.

Approximately 125 gallons of diesel fuel was removed from the UST and placed into three 55-gallon drums. The tank was inerted with CO^2 and scraped clean prior to removal. Waste Research and Reclamation Company, Inc., transported the three 55-gallon drums. The material was fuel blended and shipped to a cement kiln. Tank manifests, surplus product, and sludge management information are included in Appendix D.



LEGEND:	
• S-3	SOIL SAMPLE
6.0'/NR/25	DEPTH/PID/DRO CONCENTRATION (mg/kg)
NR	NO RESPONSE

TANK CLOSURE SITE ASSESSMENT CHIPPEWA VALLEY REGIONAL AIRPORT EAU CLAIRE, WISCONSIN	DRN. BY: MLE CHK. BY: MAZ DATE: JAN. 1993 AYRES ASSOCIATES	SITE PLAN (560 GALLON DIESEL TANK)	FIGURE 3

4720SITE.DGN

4.2 SAMPLE COLLECTION

Soils on site were logged by observing soils in the tank excavation. The top one foot of the soil profile in the excavation consisted of sandy silts followed by a six inch layer of dark organic material. Immediately beneath this organic layer was a six inch layer of sandy gravel. The remainder of the excavation, from two feet to six feet, was fine to medium brown sand, with some silt and gravel. Ground water was not encountered at the excavation base at a depth of six feet. There was no noticeable petroleum staining or odors in the tank excavation soils; however, there was a slight odor under the product pump. Since there was a dark organic layer approximately one foot in depth, it was difficult to determine if soils were stained under the pump.

Soil sampling was conducted concurrent with the tank removal to determine if petroleum hydrocarbon contamination was present at the site. Soil samples S-1 and S-2 were collected at equal depths of six feet below existing grade (or 1.5 feet beneath the tank bottom). S-3 was taken below the pump at a depth of 1.5 feet. Although DILHR guidelines do not require sampling under the pump when it is located within two feet of the UST, the dark organic soils did seem to have a slight petroleum odor and were sampled. The sample locations are shown on Figure 2.

Two soil samples were collected to ascertain the correct amount of soil necessary to obtain a 25 gram sample. A 20 cc syringe filled to 17 cc weighed 25 grams. At each sample location, two samples, weighing 25 grams, were collected in an open-ended 20 cc syringe and placed in a 60 ml wide mouth jar with a Teflon lined lid and a septum on top. Upon collection, the soil samples were immediately placed on ice for shipment to laboratory for analysis Moisture samples were also collected from each location in 5 ounce plastic jars. Duplicate samples were also collected in 16 ounce Mason jars for sample screening in the laboratory following the proper equilibration time.

4.3 HEAD SPACE SCREENING

The head space of each 16 ounce jar was qualitatively screened for the presence of organic vapors using a Foxboro Model OVA 128 Century Flame Ionization Detector (FID). The same FID procedures, as outlined previously, were followed for the 560 gallon UST closure. The FID calibration check for November 17, 1992, was 86. The soil samples were not field screened; however, they were screened in Ayres Associates laboratory. Field screening results for samples S-1 through S-3 are reported in Table 1, "Soil Sample Analytical Results Summary." Sample S-1 contained no detectable VOC's with the FID, however; S-2 and S-3 contained levels of 0.8 and 14.0 ppm, respectively.

4.4 LABORATORY ANALYSIS

Soil samples were shipped via United Parcel Service to Twin City Testing, St. Paul, Minnesota (Wisconsin Laboratory Certification No. (999446910), for quantitative analysis. The soil samples were analyzed for Diesel Range Organics (DRO).

Laboratory results are summarized in Table 1, and laboratory report forms are included in Appendix D, "Laboratory Analysis Results and Chain of Custody." Laboratory results are reported in mg/Kg (milligrams per kilogram). Soil sample S-1, collected beneath the south end of the tank, contained 25 ppm of DRO. The Method Detection Limit (MDL) was 10.0 ppm. Soil samples from the north end of the tank excavation, and from under the product pump, contained detectable levels of DRO, with 74 ppm in S-2 and 30,000 ppm in S-3, respectively.

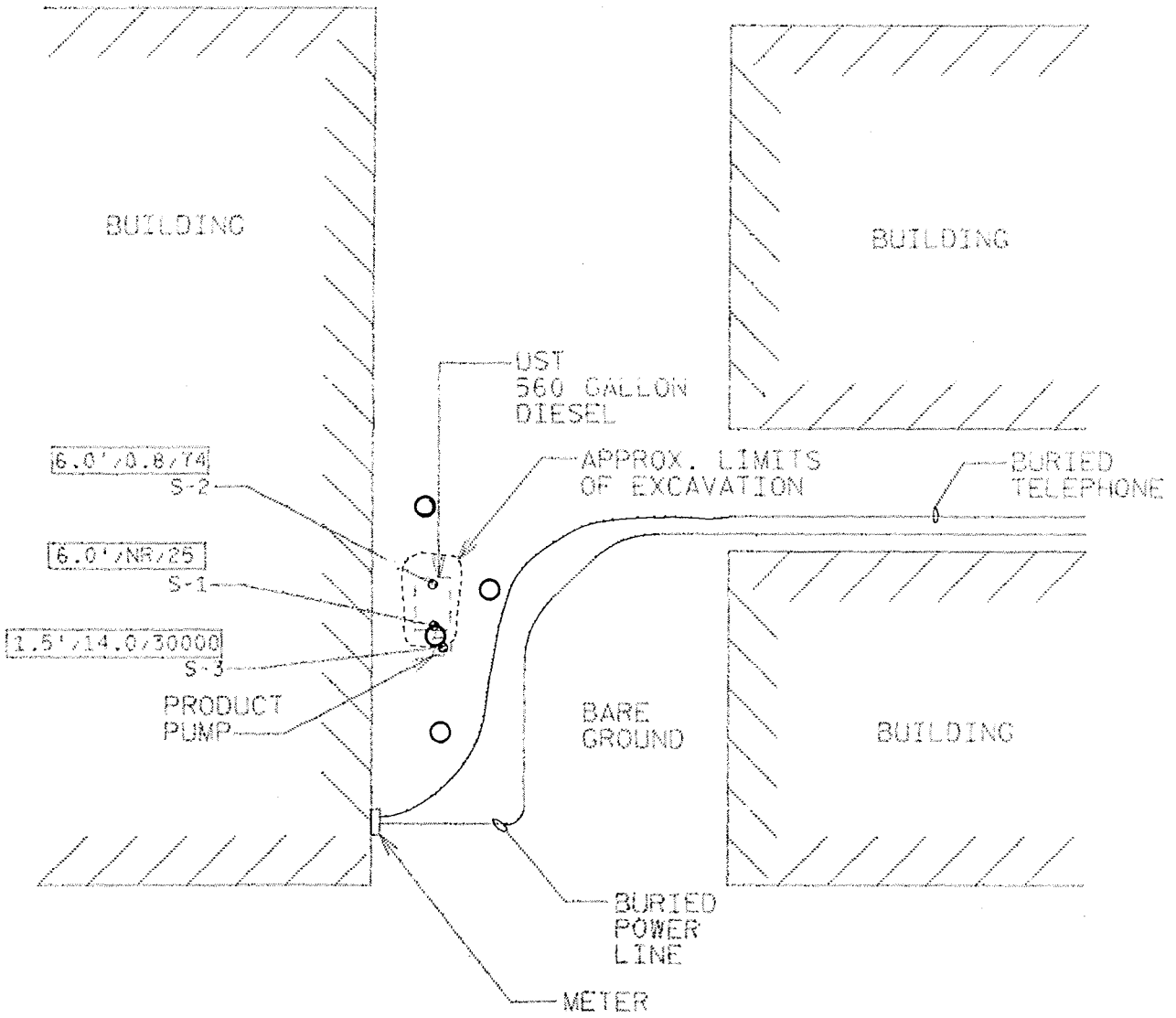
4.5 CONCLUSIONS AND RECOMMENDATIONS

On the basis of qualitative and quantitative analysis of soil samples collected on site, it is concluded that petroleum hydrocarbon contamination exceeding WDNR remedial action guidelines of 10 ppm was detected in the UST excavation and

under the product pump. In order to estimate the horizontal and vertical extent of soil contamination, it is recommended that four soil borings be installed to an estimated depth of 20 feet in the area of the tank excavation and product pump. The proposed soil boring locations are shown on Figure 4, "Proposed Soil Boring Location Map." The soils should be sampled at 2.5 foot intervals and field screened with an FID. The soils with the highest FID readings should be analyzed by a Wisconsin DNR certified laboratory for Diesel Range Organics (DRO) and Petroleum Volatile Organic Compounds (PVOC's). Samples collected from the soil boring to be located at the former pump island will also be analyzed for Polynuclear Aromatic Hydrocarbons (PAH's). A minimum of two soil samples from each boring should be analyzed. Based on the findings of soil sampling, a remedial action plan will be proposed for the site.

4.6 STANDARD OF CARE

These tank closure site assessments are based on data produced by Ayres Associates and their subcontractors through the collection and analysis of soil samples. Soil qualities reported herein apply only to the specific locations and times at which this work was performed. Variations may occur at other locations between the soil samples. Conclusions and recommendations made represent our professional engineering judgement in interpreting these data, as well as data obtained from reports prepared by others, relative to soil and ground water in the study area. Ayres' personnel conducting this work are certified under DILHR guidelines for site assessments.



LEGEND:	
⊙ S-3	SOIL SAMPLE
6.0'/NR/25	DEPTH/PID/DRO CONCENTRATION (mg/kg)
NR	NO RESPONSE
○	PROPOSED SOIL BORING

TANK CLOSURE SITE ASSESSMENT CHIPPEWA VALLEY REGIONAL AIRPORT EAU CLAIRE, WISCONSIN	DRN. BY: MLE CHK. BY: MAZ DATE: JAN. 1993 AVRES ASSOCIATES	PROPOSED SOIL BORINGS (560 GALLON DIESEL TANK)	FIGURE 4

4720PSB.DGN

APPENDIX A

CLOSURE SITE ASSESSMENT INFORMATION

SITE NAME	Chippewa Valley Regional Airport
CONSULTANT	Ayres Associates (Retained by Hale Company of Wisconsin)
DATE OF SITE ASSESSMENT	**October 12, 1992 and abandoned in place on November 17, 1992**
TANK IDENTIFICATION NUMBER	Tank ID No. 18010–225 6,000 gallon fuel oil
SITE BACKGROUND INFORMATION	
UST SYSTEM OWNER (S)	Eau Claire County, 721 Oxford Avenue, Eau Claire, WI
UST SYSTEM OPERATOR	Eau Claire County, 721 Oxford Avenue, Eau Claire, WI
UST SYSTEM LANDOWNER	Eau Claire County, 721 Oxford Avenue, Eau Claire, WI
ADDRESS OF TANK SITE	Chippewa Valley Regional Airport, 3800 Starr Avenue, Eau Claire, WI
LEGAL DESCRIPTION OF SITE	NE 1/4, SW 1/4, Section 33, T 28 N, R 9 W
SITE ASSESSMENT CONTRACTOR	Dan McMahon, Hale Company – DILHR Certification # 00994
CERTIFIED SITE ASSESSOR INFORMATION	Mark A. Zich, Ayres Associates– DILHR Certification # 012001
CERTIFIED TANK REMOVER INFORMATION	Roy Miller, Zervas Company – DILHR Certification # 00768
PROPERTY USE	Agriculture prior to utilization as Eau Claire County Airport
PERVIOUSLY REMOVED TANKS	Three 10,000 gallon aviation fuel tanks in 1988
TANK TIGHTNESS TESTING RESULTS	Unknown – Data not availible
PAST SYSTEM LEAKS OR REPAIRS	The tank has no history of system leaks or repairs
PREVIOUS INVESTIGATIONS	Aviation Fuel Spill– Chippewa Valley Regional Airport, Oct. 1992 and National Presto Invest.
AREA TANKS, GAS STATIONS, LUST SITES	DILHR list seven (7) remaining tanks on airport property
DEPTH TO GROUND WATER	Ground water elevation is approximately 815 feet and depth to water is approximately 70 feet
TANK ACTIVITIES AND INFORMATION	
METHOD OF TANK REMOVAL	Tank was abandoned in place by filling with sand
DATE OF REMOVAL	Soils were sampled on Oct. 12, 1992 and the UST was abandoned in place on Nov. 17, 1992
DILHR CERTIFIED REMOVER/CLEANER	Zervas Company
SUBCONTRACTORS	Zervas Company was the excavator and remover while Hale Co. was the project coordinator
DESCRIPTION OF TANKS REMOVED	One 6,000 gallon fuel oil tank (8.0'diameter by 16.0' length) was abandoned in place
NUMBER OF TANKS REMAINING ON SITE	DILHR list seven (7) remaining tanks on airport property
TANK CLEANING AND DISPOSAL	
HANDLING OF CLEANING WASTEWATER	No wastewater was generated. The tank was scraped clean with scrapers.
LOCATION OF TANK CLEANING	in place underground
METHOD OF TANK TRANSPORT	Not Applicable
TANK DISMANTLING, TRANSPORT, AND DISPOSAL	Tank was abandoned in place
SURPLUS PRODUCT MANAGEMENT	
TYPES OF LIQUID AND QUANTITY	900 gallons of Waste Fuel Oil
FINAL DISPOSITION OF LIQUIDS	Waste Research and Reclamation Co. Inc., 5200 State Rd Hwy 93, Eau Claire WI
LIQUID TRANSPORT AND STORAGE	Waste Research and Reclamation Co. Inc., 5200 State Rd Hwy 93, Eau Claire WI
TANK SLUDGE MANAGEMENT	
TYPES OF SLUDGE	Tank was dry scraped clean and any sludge was added to the surplus product according
QUANTITY OF SLUDGE	to Hale Company
WASTE CHARACTERIZATION DATA	None
FINAL DISPOSITION OF SLUDGE	Waste Research and Reclamation Co. Inc., 5200 State Rd Hwy 93, Eau Claire WI
LIQUID TRANSPORT AND STORAGE	
VISUAL INSPECTION	
WEATHER	Partly Cloudy with a temperature of approximately 55 degrees Fahrenheit
PRECIPITATION (Same day & previous day)	No precipatation either day
EXCAVATION DEPTH	No Excavation, however the hand augered soil boring were 13.5 feet in depth
UNEXPECTED TANKS	No additional tanks
SURFACE STAINING OR STESSED VEGETATION	No surface staining or stressed vegetation was observed (Concrete walkway)
OIL SHEEN, PRODUCT, ODOR, DISCOLOR.	None observed or smelled
SOIL TYPE	Fine to medium silty sand (Unified Soil Classification System – SM–SP)
FREE STANDING WATER	None
TANK CONDITION	Unknown
PIPING CONDITION	Unknown
POSSIBLE LEAK LOCATIONS	None observed
CONFIRMATION SAMPLE FOR OBVIOUS CONTAM.	Site was not obviously contaminated
SOIL SAMPLING	(See table 1 in report)
FIELD SCREENING RESULTS	(See table 1 in report)
FIELD INSTRUMENT	Foxboro Model OVA Century Flame Ionization Detector
FIELD INSTRUMENT DAILY CALIBRATION	76 (calibrated on 10/12/92)
LABORATORY REPORTS	
LABORATORY	Twin City Testing
WISCONSIN CERTIFIED LAB NUMBER	# 999446910

SITE NAME	Chippewa Valley Regional Airport
CONSULTANT	Ayres Associates (Retained by Hale Company of Wisconsin)
DATE OF SITE ASSESSMENT	November 17, 1992
TANK IDENTIFICATION NUMBER	Tank ID No. 18010–224 560 gallon diesel fuel tank
SITE BACKGROUND INFORMATION	
UST SYSTEM OWNER (S)	Eau Claire County, 721 Oxford Avenue, Eau Claire, WI
UST SYSTEM OPERATOR	Eau Claire County, 721 Oxford Avenue, Eau Claire, WI
UST SYSTEM LANDOWNER	Eau Claire County, 721 Oxford Avenue, Eau Claire, WI
ADDRESS OF TANK SITE	Chippewa Valley Regional Airport, 3800 Starr Avenue, Eau Claire, WI
LEGAL DESCRIPTION OF SITE	NE 1/4, SW 1/4, Section 33, T 28 N, R 9 W
SITE ASSESSMENT CONTRACTOR	Dan McMahon, Hale Company – DILHR Certification # 00994
CERTIFIED SITE ASSESSOR INFORMATION	Mark A. Zich, Ayres Associates– DILHR Certification # 012001
CERTIFIED TANK REMOVER INFORMATION	Roy Miller – DILHR Certification # 00768 (Remover/Cleaner)
PROPERTY USE	Agriculture prior to utilization as Eau Claire County Airport
PERVIOUSLY REMOVED TANKS	Three 10,000 gallon aviation fuel tanks in 1988
TANK TIGHTNESS TESTING RESULTS	Unknown – Data not availible,(Tank Reportedly was not used for the past 15 yrs.)
PAST SYSTEM LEAKS OR REPAIRS	The tank has no history of system leaks or repairs
PREVIOUS INVESTIGATIONS	Aviation Fuel Spill– Chippewa Valley Regional Airport, Oct. 1992 and National Presto Invest.
AREA TANKS, GAS STATIONS, LUST SITES	DILHR list seven (7) remaining tanks on airport property
DEPTH TO GROUND WATER	Ground water elevation is approximately 815 feet and depth to water is approximately 70 feet
TANK ACTIVITIES AND INFORMATION	
METHOD OF TANK REMOVAL	Tank was excavated with backhoe
DATE OF REMOVAL	Soils were sampled on November 17, 1992
DILHR CERTIFIED REMOVER/CLEANER	Zervas Company
SUBCONTRACTORS	Zervas Company was the excavator and remover while Hale Co. was the project coordinator
DESCRIPTION OF TANKS REMOVED	One 560 gallon diesel fuel tank (4.0'diameter by 6.0' length)
NUMBER OF TANKS REMAINING ON SITE	DILHR list seven (7) remaining tanks on airport property
TANK CLEANING AND DISPOSAL	
HANDLING OF CLEANING WASTEWATER	Tank was dry scraped clean.
LOCATION OF TANK CLEANING	On site
METHOD OF TANK TRANSPORT	Intact on Truck
TANK DISMANTLING, TRANSPORT, AND DISPOSAL	One foot square hole in each end of tank.
SURPLUS PRODUCT MANAGEMENT	
TYPES OF LIQUID AND QUANTITY	125 gallons of diesel fuel
FINAL DISPOSITION OF LIQUIDS	Waste Research and Reclamation Co. Inc., 5200 State Rd Hwy 93, Eau Claire WI
LIQUID TRANSPORT AND STORAGE	Waste Research and Reclamation Co. Inc., 5200 State Rd Hwy 93, Eau Claire WI
TANK SLUDGE MANAGEMENT	
TYPES OF SLUDGE	Tank was dry scaped clean and dryed any sludge generated as a result was added to the
QUANTITY OF SLUDGE	125 gallons of surplus product
WASTE CHARACTERIZATION DATA	Not availible
FINAL DISPOSITION OF SLUDGE	Waste Research and Reclamation Co. Inc., 5200 State Rd Hwy 93, Eau Claire WI
LIQUID TRANSPORT AND STORAGE	Waste Research and Reclamation Co. Inc., 5200 State Rd Hwy 93, Eau Claire WI
VISUAL INSPECTION	
WEATHER	Cloudy with a temperature of approximately 45 degrees Fahrenheit
PRECIPITATION (Same day & previous day)	No precipatation either day
EXCAVATION DEPTH	6.0 feet
UNEXPECTED TANKS	None
SURFACE STAINING OR STESSED VEGETATION	No surface staining or stressed vegetation was observed
OIL SHEEN, PRODUCT, ODOR, DISCOLOR.	Slight staining possibly under the product pump with slight odor
SOIL TYPE	Dark organic layer followed by medium to coarse sand with some gravel (USCS – SP)
FREE STANDING WATER	None
TANK CONDITION	Good
PIPING CONDITION	Good
POSSIBLE LEAK LOCATIONS	Under Pump
CONFIRMATION SAMPLE FOR OBVIOUS CONTAM.	Site was not obviously contaminated
SOIL SAMPLING	(See table 1 in report)
FIELD SCREENING RESULTS	(See table 1 in report)
FIELD INSTRUMENT	Foxboro Model OVA Century Flame Ionization Detector
FIELD INSTRUMENT DAILY CALIBRATION	86 (calibrated on 11/17/92)
LABORATORY REPORTS	
LABORATORY	Twin City Testing
WISCONSIN CERTIFIED LAB NUMBER	# 999446910

APPENDIX B

SOIL BORING LOGS
AND
BOREHOLE ABANDONMENT FORMS

State of Wisconsin
Department of Natural Resources

Route to:
___ Solid Waste
___ Emergency Response
___ Waste Water
___ Haz. Waste
___ Underground Tanks
___ Water Resources
___ Other

SOIL BORING LOG INFORMATION

Form 4400-122 7-91

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Chippewa Valley Regional Airport – Hale Company		HA-1

Boring Drilled By (Firm name and name of crew chief)	Date Drilling Started	Date Drilling Completed	Drilling Method
AYRES ASSOCIATES – MARK ZICH	10/12/92 MM/DD/YY	10/12/92 MM/DD/YY	HAND AUGER

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Dia
					3 1/2"

Boring Location State Plane	Lat. / Long.	Local Grid Location (If applicable)
NE 1/4 of SW 1/4 of Section 33, Township 28 North, Range 9 West	----------	___ Feet ___ N ___ S ___ Feet ___ E ___ W

County	DNR County Code	Civil Town/City/or Village
CHIPPEWA COUNTY	09	EAU CLAIRE

SAMPLE NUMBER	SAMPLE LENGTH RECOVERED (IN)	BLOW COUNT	DEPTH IN FEET	SOIL/ROCK DESCRIPTION AND GEOLOGIC ORIGIN FOR EACH MAJOR UNIT	USCS	GRAPHIC LOG	WELL DIAGRAM	FID Lab	MOISTURE CONTENT	LAB RESULTS (mg / Kg) Diesel Range Organics
			0							
			1							
			2							
			3	Reddish-Brown Silty (Medium to Fine) Sand	SM-SP				Dry	
			4							
			5							
			6							
			7							
			8							
			9							
			10							
			11							
			12							
1			13	Reddish-Brown Silty (Medium to Fine) Sand	SM-SP			No Response	Dry	No Detect
			14	End of Boring 13.5'						
			15							
			16							
			17							
			18							
			19							
			20							
			21							
			22							
			23							
			24							
			25							
			26							

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm
Mark A. Zich	Ayres Associates

This form is authorized by Chapters 144.147 and 162, Wis.Stats. Completion of this report is mandatory. Penalties: Forfeit not less than $10 or nor more than $5,000 for each violation. Fined not less than $10 or more than $100 or imprisoned not less than 30 days, or both for each violation. Each day of continued violation is a separate offense, pursuant to ss 144.99 and 162.06, Wis. Stats.

State of Wisconsin
Department of Natural Resources

Route to:
___ Solid Waste
___ Emergency Response
___ Waste Water
___ Haz. Waste
___ Underground Tanks
___ Water Resources
___ Other

SOIL BORING LOG INFORMATION

Form 4400-122 7-91

Facility/Project Name: Chippewa Valley Regional Airport – Hale Company	License/Permit/Monitoring Number		Boring Number: HA-2
Boring Drilled By (Firm name and name of crew chief): AYRES ASSOCIATES – MARK ZICH	Date Drilling Started: 10/12/92 MM/DD/YY	Date Drilling Completed: 10/12/92 MM/DD/YY	Drilling Method: HAND AUGER
DNR Facility Well No.:	WI Unique Well No.:	Common Well Name:	Final Static Water Level:
Surface Elevation:	Borehole Dia: 3 1/2"		
Boring Location State Plane: NE 1/4 of SW 1/4 of Section 33, Township 28 North, Range 9 West	Lat. ---------- Long.	Local Grid Location (If applicable): ___ Feet ___ N ___ S ___ Feet ___ E ___ W	
County: CHIPPEWA COUNTY	DNR County Code: 09	Civil Town/City/or Village: EAU CLAIRE	

SAMPLE NUMBER	SAMPLE LENGTH RECOVERED (IN)	BLOW COUNT	DEPTH IN FEET	SOIL/ROCK DESCRIPTION AND GEOLOGIC ORIGIN FOR EACH MAJOR UNIT	USCS	GRAPHIC LOG	WELL DIAGRAM	FID Lab	MOISTURE CONTENT	LAB RESULTS (mg / Kg) Diesel Range Organics
			0							
			1							
			2							
			3	Brown Silty (Fine to Medium) Sand	SM-SP					
			4							
			5							
			6	Brown Silty (Fine to Medium) Sand with pieces of Asphalt	SM-SP				DRY	
			7							
			8	Brown Silty (Fine to Medium) Sand	SM-SP					
			9							
			10							
			11							
			12							
1			13	Brown (Fine to Medium) Sand	SP			No Response	DRY	No Detect
			14	End of Boring 13.0'						
			15							
			16							
			17							
			18							
			19							
			20							
			21							
			22							
			23							
			24							
			25							
			26							

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: Mark A. Zich

Firm: Ayres Associates

This form is authorized by Chapters 144.147 and 162, Wis.Stats. Completion of this report is mandatory. Penalties: Forfeit not less than $10 or nor more than $5,000 for each violation. Fined not less than $10 or more than $100 or imprisoned not less than 30 days, or both for each violation. Each day of continued violation is a separate offense, pursuant to ss 144.99 and 162.06, Wis. Stats.

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

Form 3300-5W 11-89

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.

(1) GENERAL INFORMATION

Well/Drillhole/Borehole Location: HA-1

County: Chippewa County

NE 1/4 of SW 1/4 of Sec. 33 ; T. 28 N R. 9 ☐ E ☒ W

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

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

Civil Town Name: Eau Claire

Street Address of Well: 3800 Starr Avenue

City, Village: Eau Claire, WI

(2) FACILITY NAME

Original Well Owner (If Known): Chippewa Valley Regional Airport

Present Well Owner: SAME

Street or Route: 3800 Starr Ave.

City, State, Zip Code: Eau Claire, WI 54703

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

WI Unique Well No.: _____

Reason For Abandonment: Temporary borehole for soil sampling

Date of Abandonment: 10-12-92

WELL/DRILLHOLE/BOREHOLE INFORMATION

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

(Date) 10-12-92

☐ Monitoring Well
☐ Water Well
☐ Drillhole
☒ Borehole

Construction Report Available? ☒ Yes ☐ No (Soil Boring Log)

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

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft.) 13.5 Casing Diameter (ins.) N/A
(From groundsurface)

Casing Depth (ft.) N/A

Was Well Annular Space Grouted? ☐ Yes ☐ No ☐ Unknown (N/A)
If Yes, To What Depth? _____ Feet

(4) Depth to Water (Feet) Approximately 10 Feet

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	

If No, Explain N/A

Was Casing Cut Off Below Surface?	☐ Yes	☐ No
Did Sealing Material Rise to Surface?	☐ Yes	☐ No (N/A)
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) Gravity

(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
Concrete	Surface	.5		
Native soils	.5	2.0		
Chipped Bentonite	2.0	13.5	2 SACKS	

(8) Comments: Hand Auger borings were installed to sample soils beneath an underground storage tank. The UST was abandoned in place.

(9) Name of Person or Firm Doing Sealing Work: Ayres Associates

Signature of Person Doing Work: Mark A. Zach
Date Signed: 12-14-92

Street or Route: 1300 W. Clairemont Ave
Telephone Number: (715) 834-3161

City, State, Zip Code: Eau Claire, WI 54702-1590

(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 3300-5W 11-89

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.

(1) GENERAL INFORMATION

Well/Drillhole/Borehole Location: HA-2

County: Chippewa County

NE 1/4 of SW 1/4 of Sec. 33 ; T. 28 N; R. 9 ☐ E ☒ W

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

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

Civil Town Name: Eau Claire

Street Address of Well: 3800 Starr Avenue

City, Village: Eau Claire, WI

(2) FACILITY NAME

Original Well Owner (If Known): Chippewa Valley Regional Airport

Present Well Owner: SAME

Street or Route: 3800 Starr Avenue

City, State, Zip Code: Eau Claire, WI 54703

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

WI Unique Well No.: _____

Reason For Abandonment: Temporary borehole for soil sampling

Date of Abandonment: 10-12-92

WELL/DRILLHOLE/BOREHOLE INFORMATION

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

(Date) 10-12-92

☐ Monitoring Well
☐ Water Well
☐ Drillhole
☒ Borehole

Construction Report Available? Soil Boring Log
☒ Yes ☐ No

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

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft.) 13.0 Casing Diameter (ins.) N/A
(From groundsurface)

Casing Depth (ft.) N/A

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

(4) Depth to Water (Feet) Approximately 70 feet

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	

If No, Explain N/A

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

N/A

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

(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
Concrete	Surface	.5		
Native Soils	.5	2.0		
Chipped Bentonite	2.0	13.0	2 SACKS	

(8) Comments: Hand Auger Borings were installed to sample soils beneath an underground storage tank (UST). The UST was abandoned in place.

(9) Name of Person or Firm Doing Sealing Work
Ayres Associates

Signature of Person Doing Work: Mark A. Zech
Date Signed: 12-14-92

Street or Route: 3300 W. Clairemont Av.
Telephone Number: (715) 834-3161

City, State, Zip Code: Eau Claire, WI 54702-1590

(10) FOR DNR OR COUNTY USE ONLY

Date Received/Inspected: _____ District/County: _____

Reviewer/Inspector: _____

Follow-up Necessary: _____

DNR/COUNTY

APPENDIX C

TANK INVENTORY FORMS

6,000 GALLON UST

Wisconsin Department of Industry, Labor and Human Relations

UNDERGROUND PETROLEUM PRODUCT TANK INVENTORY

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

For Office Use Only:
Tank ID # 18010-225

This form is to be completed pursuant to Section 101.142, Wis. Stats., to register all underground tanks in Wisconsin that have stored or currently store petroleum or regulated substances. Please see the reverse side for additional information on this program. An underground storage tank is defined as any tank with at least 10 percent of its total volume (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.**

This registration applies to a tank that is (check one):
1. ☐ In Use or New
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
8. ☐ Changed Ownership (Indicate new owner below)

Fire Department Providing Fire Coverage Where Tank Located: 18011

A. IDENTIFICATION: (Please Print)

1. Tank Site Name: Chippewa Valley Regional Airport
Site Address: 3800 Starr Ave
Site Telephone No.: (715) 839-2952
☒ City ☐ Village ☐ Town of: Eau Claire
State: WI
Zip Code: 54703
County: Chippewa

2. Owner Name (mail sent here unless indicated otherwise in #3 below): Chippewa Valley Regional Airport
Owner Mailing Address (mail sent here unless indicated otherwise in #3)
☒ City ☐ Village ☐ Town of: Eau Claire
State: WI
Zip Code: 54703
County: Chippewa Co.

3. Alternate Mailing Name If Different Than #2: Eau Claire County Airport (name changed 1992)
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): 1960
5. Tank Capacity (gallons): 6,000
6. Tank Manufacturer's Name (if known): 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
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 Unknown

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): 11/18/92
Has a site assessment been completed? (see reverse side for details) ☒ Yes ☐ No

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

Name of Owner or Operator (please print): Chippewa Valley Regional Airport
Indicate Whether: ☒ Owner or ☐ Operator

Signature of Owner or Operator:
Date Signed: 1/6/93

SBD-7437 (R. 03/91)

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

UNDERGROUND PETROLEUM PRODUCT TANK INVENTORY

Send Completed Form To
Safety & Buildings Divisio
P.O. Box 7969
Madison, WI 53707
Telephone (608) 267-528

For Office Use Only:
Tank ID #

This form is to be completed pursuant to Section 101.142, Wis. Stats., to register all underground tanks in Wisconsin that have stored or currently store petroleum or regulated substances. Please see the reverse side for additional information on this program. An underground storage tank is defined as any tank with at least 10 percent of its total volume (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.

This registration applies to a tank that is (check one):
1. ☒ In Use
2. ☐ Abandoned With Product
3. ☐ Abandoned No Product (empty) or With Water
4. ☐ Abandoned - Tank Removed
5. ☐ Abandoned - Filled With Inert Material
7. ☐ Out of Service

Fire Department Providing Fire Coverage Where Tank Located:
CITY OF EAU CLAIRE
ID #18011

A. IDENTIFICATION: (Please Print)

1. Installation Name: EAU CLAIRE COUNTY AIRPORT
Installation Street Address: 3800 STARR AVE
☒ City ☐ Village ☐ Town of: EAU CLAIRE
State: WIS | Zip Code: 54703 | County: CHIPPEWA

2. Mailing Name if Different Than #1: EAU CLAIRE COUNTY AIRPORT
Mailing Address if Different Than #1: Same as #3
☐ City ☐ Village ☐ Town of:
State: | Zip Code: | County:

3. Name of Contact Person: THOMAS WALTHER
Street Address: 2000 SPOONER AVE
☒ City ☐ Town ☐ Village of: ALTOONA
State: WIS | Zip Code: 54720
County: EAU CLAIRE | Telephone No. (include area code): 715/839-2152

4. Owner Name if Different Than #3: Same as #2
Street Address:
☐ City ☐ Town ☐ Village of:
State: | Zip Code:
County: | Telephone No. (include area code):

5. Tank Age (date installed, if known; or years old): 1960
6. Tank Capacity (gallons): 6,000
7. 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 (☐ Sacrificial Anodes or ☐ Impressed Current)
3. ☐ Coated Steel
4. ☐ Fiberglass
5. ☐ Other (specify): _____
6. ☐ Relined
7. ☐ Steel - Fiberglass Reinforced Plastic Composite

Is tank UL Approved? ? ☐ Yes ☐ No
Is Tank Double Walled? ? ☐ Yes ☐ No
Overfill Protection Provided? ? ☐ Yes ☐ No If yes, identify type:

D. PIPING CONSTRUCTION

1. ☐ Bare Steel
2. ☐ Cathodically Protected Steel (With Coating? ☐ Yes ☐ No)
3. ☐ Coated Steel
4. ☐ Fiberglass
5. ☐ Other (specify): _____
6. ☒ Unknown

Cathodic Protection By: ☐ Sacrificial Anodes or ☐ Impressed Current ? | UL Approved? ☐ Yes ☐ No ? | 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 Abandoned, Give Date (mo/day/yr): —
Has Clean Closure Status Been verified? (see reverse side for details) — ☐ Yes ☐ No

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

Signature of Person Completing Report: Rodney Thompson
Date Signed: 6/12/89

SBD 7437 (R 08/88)

Wisconsin Department of Industry, Labor and Human Relations

Complete one form for each site closure.

CHECKLIST FOR UNDERGROUND TANK CLOSURE

RETURN COMPLETED CHECKLIST TO:
Safety & Buildings Division
Fire Prevention & Underground Storage Tank Section
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
Chippewa Regional Regional Airport	Eau Claire County -
Site Street Address (not P.O. Box)	Owner Street Address
3800 Starr Ave	720 Oxford ave
☒ City ☐ Village ☐ Town of:	☒ City ☐ Village ☐ Town of: / State / Zip Code
Eau Claire	Eauclaire / WI / 54703
State / Zip Code / County	County / Telephone No. (include area code)
WIS / 54703 / Chippewa	E.C. County / (715) 839-5101

3. Closure Company Name (Print)	Closure Company Street Address,
Hale Co of WIS	1705 OXFORD
Closure Company Telephone No. (include area code)	Closure Company City, State, Zip Code
(715) 835-7364	Eau Claire WI 54703
4. Name of Company Performing Closure Assessment	Assessment Company Street Address, City, State, Zip Code
HYRPS + Associates	1300 West Clairemont Eau Claire WI 54701
Telephone # (include area code) / Certified Assessor Name (Print)	Assessor Signature / Assessor Certification No.
(715) 834-3161 / * Mark A. Zich	* Mark A. Zich 11-25-92 / * 01201

Tank ID #	Closure	Temp. Closure	Closure In Place	Tank Capacity	Contents *	Closure Assessment
1.	☐	☐	☒	6000	#2 Fuel (4)	☒ Y ☐ N
2.	☐	☐	☐			☐ Y ☐ N
3.	☐	☐	☐			☐ 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; 09-Unknown; 10-Premix; 11-Waste oil; 13-Chemical (indicate the chemical name(s) or numbers(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. **NOTE: DROP TUBE SHOULD NOT BE REMOVED IF THE TANK IS TO BE PURGED THROUGH THE USE OF AN EDUCTOR.**	☐ Y ☐ N	☐	☐
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 removed from excavation after **PURGING/INERTING**; placed on level ground and blocked to prevent movement.	☐ Y ☐ N	☐	☐
10. Tank cleaned before being removed 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 th " in uppermost part of tank) installed prior to moving the tank from site.	☐ Y ☐ N	☐	☐
13. Inventory form filed by owner with Safety and Buildings Division 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 INDUSTRY, LABOR AND HUMAN RELATIONS OR LOCAL AGENT.

1. Product from piping drained into tank (or other container).			
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 Safety and Buildings Division indicating closure in place.	☒ Y ☐ N	☐	☐

E. CLOSURE ASSESSMENTS

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: _____

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

F. METHOD OF ACHIEVING 10% LEVEL DESCRIPTION

☐ Educator 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

Dan McMahon		00994	11-18-92
Remover Name (print)	Remover Signature	Remover Certification No.	Date Signed

I. INSPECTOR INFORMATION

Inspector Name (print)	Inspector Signature	Inspector Certification No.
FDID # For Location Where Inspection Performed	Inspector Telephone Number	Date Signed

560 GALLON UST

Wisconsin Department of Industry, Labor and Human Relations

UNDERGROUND PETROLEUM PRODUCT TANK INVENTORY

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

For Office Use Only:
Tank ID # 18010-224

This form is to be completed pursuant to Section 101.142, Wis. Stats., to register all underground tanks in Wisconsin that have stored or currently store petroleum or regulated substances. Please see the reverse side for additional information on this program. An underground storage tank is defined as any tank with at least 10 percent of its total volume (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.**

This registration applies to a tank that is (check one):
1. ☐ In Use or New
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
8. ☐ Changed Ownership (Indicate new owner below)

Fire Department Providing Fire Coverage Where Tank Located: 18011

A. IDENTIFICATION: (Please Print)

1. Tank Site Name: Chippewa Valley Regional Airport
Site Address: 3800 Starr Ave.
Site Telephone No.: (715) 839-2952
☒ City Eau Claire ☐ Village ☐ Town of:
State: WI
Zip Code: 54703
County: Chippewa Co.

2. Owner Name (mail sent here unless indicated otherwise in #3 below): Chippewa Valley Regional Airport
Owner Mailing Address (mail sent here unless indicated otherwise in #3)
☒ City Eau Claire ☐ Village ☐ Town of:
State: WI
Zip Code: 54703
County: Chippewa Co.

3. Alternate Mailing Name If Different Than #2: Eau Claire County Airport (name changed)
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): Unknown
5. Tank Capacity (gallons): 560
6. Tank Manufacturer's Name (if known): 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
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): 11/17/92
Has a site assessment been completed? (see reverse side for details) ☒ Yes ☐ No

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

Name of Owner or Operator (please print): Chippewa Valley Regional Airport
Indicate Whether: ☒ Owner or ☐ Operator

Signature of Owner or Operator:
Date Signed: 1/6/93

SBD-7437 (R. 03/91)

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

Complete one form for each site closure.

CHECKLIST FOR UNDERGROUND TANK CLOSURE

RETURN COMPLETED CHECKLIST TO:
Safety & Buildings Division
Fire Prevention & Underground Storage Tank Section
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
Chippewa Valley Regional Airport	Eau Claire County
Site Street Address (not P.O. Box)	Owner Street Address
3800 Starr Ave	720 Oxford
☒ City ☐ Village ☐ Town of:	☒ City ☐ Village ☐ Town of: / State / Zip Code
Eau Claire	Eau Claire / WI / 54703
State / Zip Code / County	County / Telephone No. (include area code)
WI 54703 Chippewa	Eau Claire (715) 839-5101

3. Closure Company Name (Print)	Closure Company Street Address,
Hale Co of WI	1705 Oxford
Closure Company Telephone No. (include area code)	Closure Company City, State, Zip Code
(715) 835-7364	Eau Claire WI 54703
4. Name of Company Performing Closure Assessment	Assessment Company Street Address, City, State, Zip Code
Ayres + Associates	1300 West Clairemont, Eau Claire WI 54701
Telephone # (include area code) / Certified Assessor Name (Print)	Assessor Signature / Assessor Certification No.
(715) 834-3161 Mark A. Zich	Mark A. Zich 11-25-97 / 01201

Tank ID #	Closure	Temp. Closure	Closure In Place	Tank Capacity	Contents *	Closure Assessment
1.	☒	☐	☐	500	04	☒ Y ☐ N
2.	☐	☐	☐			☐ Y ☐ N
3.	☐	☐	☐			☐ 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; 09-Unknown; 10-Premix; 11-Waste oil; 13-Chemical (indicate the chemical name(s) or numbers(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. **NOTE: DROP TUBE SHOULD NOT BE REMOVED IF THE TANK IS TO BE PURGED THROUGH THE USE OF AN EDUCTOR.**	☒ Y ☐ N	☐	☐
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 removed from excavation after **PURGING/INERTING**; placed on level ground and blocked to prevent movement.	☒ Y ☐ N	☐	☐
10. Tank cleaned before being removed 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 th " in uppermost part of tank) installed prior to moving the tank from site.	☒ Y ☐ N	☐	☐
13. Inventory form filed by owner with Safety and Buildings Division 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 INDUSTRY, LABOR AND HUMAN RELATIONS OR LOCAL AGENT.

1. Product from piping drained into tank (or other container).			
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 Safety and Buildings Division indicating closure in place.	☐ Y ☐ N	☐	☐

E. CLOSURE ASSESSMENTS

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: _____

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

F. METHOD OF ACHIEVING 10% LEVEL DESCRIPTION

☐ Educator 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

Dan McMahon	[signature]	00994	11-18-92
Remover Name (print)	Remover Signature	Remover Certification No.	Date Signed

I. INSPECTOR INFORMATION

Inspector Name (print)	Inspector Signature	Inspector Certification No.
FDID # For Location Where Inspection Performed	Inspector Telephone Number	Date Signed

APPENDIX D

TANK, SURPLUS PRODUCT, AND SLUDGE MANAGEMENT INFORMATION

24838

HAZARDOUS MATERIAL BILL OF LADING

WRR

Waste Research & Reclamation Co. Inc.
5200 State Road 93, Eau Claire, WI 54701 715-834-9624

Date Shipped	Your P.O. No.

All Information must be typed or printed.

1. Generator's Name and Mailing Address
Eau Claire County Airport
3800 Starr Avenue, Eau Claire, WI 54703

2. Generator's Phone (715) 839-4900

A. Profile #

B. State Generator's ID

3. Transporter 1 Company Name
Waste Research & Reclamation Co. Inc

4. US EPA ID Number
WID 990 829 475

C. State Transporter's ID 10715

D. Transporter's Phone 715 834 9624

5. Transporter 2 Company Name

6. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

7. Designated Facility Name and Site Address
Waste Research & Reclamation Co. Inc.
5200 State Road 93
Eau Claire, WI 54701

8. US EPA ID Number
WID 990 829 475

G. State Facility's ID

H. Facility's Phone
715-834-9624

9. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number) H.M.	10. Containers No.	Type	11. Total Quantity	12. Unit Wt/Vol	I. Waste No.
a. Waste Fuel Oil, Combustible Liquid, NA1993 (NR)	003	DM	00900	P	N R
1-MD7-1 1-M1261 1-MT					

J. Additional Descriptions for Materials Listed Above
a. 9105078-1FA276

K. Handling Code for Wastes Listed Above

13. Special Handling Instructions and Additional Information

14. Emergency Phone # 715839-4900

15. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all aspects in proper condition for transport by highway according to applicable international and national governmental regulations and according to the requirements of the Wisconsin Department of Natural Resources.

Printed/Typed Name & Position Title	Signature	Date (Month Day Year)
Judith Becker, Secretary	Judith Becker	12 26 92

16. TRANSPORTER 1 Acknowledgement of Receipt of Materials

Printed/Typed Name & Position Title	Signature	Date (Month Day Year)
Cliff Jamison DRIVER	Cliff Jamison	12 15 92

17. TRANSPORTER 2 Acknowledgement of Receipt of Materials

Printed/Typed Name & Position Title	Signature	Date (Month Day Year)

18. Discrepancy Indication Space

FACILITY OWNER OR OPERATOR: Certification of receipt of hazardous materials covered by this document except as noted in Item 18.

Printed/Typed Name & Position Title	Signature	Date (Month Day Year)
Kenneth Rindal Foreman	Kenneth Rindal	12 25 92

Copy Distribution: 1 — Facility retain 2 — Facility send to Generator 3 — Transporter retain 4 — Generator retain

5600 gal TANK

RESCO

Remedial Environmental Services Co.
A Division of Waste Research & Reclamation Co., Inc.

MAL

PROFILE SHEET FOR UST PROGRAM

A. General Information EPA Number _____

Business Name (Tank owner) Eau Claire City Regional Air Port
Site Address 3400 STARR AVE
City, State, Zip Eau Claire WI

Contact Bert Wright Phone (715) 839-4900

Contractor:
Name Hale Co of WIS
Address 1705 ox Road
City, State, Zip Eau Claire WI

Contact Mike Jonis Phone (715) 835-7364

Bill to Generator ____ Contractor X

B. Underground Tank Size Capacity (Gal.) 500

Date tank was taken out of service 11-17-92
Material currently in tank - Unleaded gasoline

(Check one)

Leaded gasoline	
Diesel fuel	X
Heating oil #1,#2	
Heating oil #5,#6	
Waste oil	
Other	

* Does the sludge contain PCB's? YES ____ NO ____
Tank will be disposed of at WR&R: YES ____ NO X
Transportation, of sludge, will be by:
Contractor ____
WR&R X

Total gallons (projected) to be disposed of at WR&R: 125 3 dr.

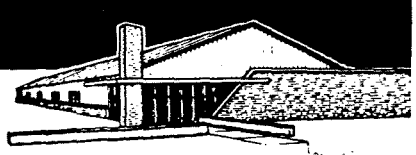
Quoted $196 TOTAL

Certification: I, the undersigned, the generator, or an employee of the generator, and having proper authority granted by the generator, hereby certify the information above is a true representation of the waste. I have examined and am familiar with the information submitted in this form. To the best of my knowledge it is true and correct, and that all known and suspected hazards have been disclosed.

Generator Signature Mike Jonis The Hale Co Date 11-24-92

WRR will accept this specific material for processing and disposal. Please contact Jim Wilkie (715) 836-8796 prior to shipment for labeling and shipping information. *If the material contains PCB's when it arrives at our plant, it will not be accepted.

Max Phillips & Son, Inc.



DATE	CHECK NUMBER	REFERENCE	EXTENSION
11-18-92			

Office, Warehouse and Yards
INDUSTRIAL PARK
Box 202 • Eau Claire, Wis. 54701
Area Code 715
Telephone: 832-3431

DEC 22 1992

Chippewa Valley Regional Airport (Name)		(Telephone)
3800 Starr Ave. (Address)		
Eau Claire (City)	WI (State)	54703 (Zip)

REMITTANCE

	DESCRIPTION OF MATERIAL	LOADS	WEIGHTS	PRICE	AMOUNT
1	560 Gallon				
2	Fuel Oil Tank				
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
				TOTAL	

THANK YOU! WE APPRECIATE YOUR BUSINESS

APPENDIX E

LABORATORY ANALYSIS RESULTS AND CHAIN OF CUSTODY

twin city testing corporation
662 CROMWELL AVENUE
ST. PAUL, MN 55114
PHONE 612/645-3601

REPORT OF: CHEMICAL ANALYSES

PROJECT: E.C. CO AIRPORT - HALE CO, 4720.00 **DATE:** November 2, 1992

REPORTED TO: Ayres & Associates
Attn: Donna Hainstock
1300 W Clairemont Avenue
Eau Claire, WI 54701

LABORATORY NO: 4410 93-0110

INTRODUCTION

This report presents the results of the analyses of two samples received on October 14, 1992, from a representative of Ayres & Associates. The scope of our services was limited to the parameters listed in the attached table.

METHODOLOGY

Analyses are performed according to Twin City Testing Standard Operating Procedures. The procedures are based on the references stated in the analytical results table.

RESULTS

The results are listed in the attached table.

REMARKS

The samples were collected on October 12, 1992. If samples are not consumed in the analysis, they are held for three months from the date of sample receipt and then disposed, unless written instructions to the contrary are received.

TWIN CITY TESTING CORPORATION

Stephanie A. Kidder
Project Manager

Susan D. Max
Director, Environmental Chemistry

SAK\SDM\lml

DIESEL RANGE ORGANIC RESULTS
MODIFIED DRO METHOD

(All values are in mg/Kg which is equal to parts-per-million)

Sample Identification	TCT ID	Diesel Range Organics	Triacontane Recovery (%)	Practical Quantitation Limit
1738 AB-1 S-1 13-15.5'	298871	ND	73	10
1739 AB-2 S-1 12.5-13'	298872	ND	78	10
Blank		ND	120	10
Method Spike		70% Recovery	79	
Method Spike Duplicate		74% Recovery	93	

Date Collected: 10/12/92

Date Extracted: 10/20/92

Date Analyzed: 10/24/92

All results are reported on a dry weight basis.

ND = Not Detected

Reference: Wisconsin Department of Natural Resources, PUBL-SW-141, April 1992.

LABORATORY NO: 4410 93-0110

J.S. / T.C.T.

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME / CLIENT
4720.00	E.C. CO. AIRPORT - HALE CO.

SAMPLERS: (Signature) Mark A. Zick

SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE LOCATION	NO. OF CONTAINERS	DRO	MOISTURE	REMARKS
1738	10-12-92	2:45		X	AB-1, S-1 (13.0'-13.5')	3	X	X	1 Extra DRO sample 29887
1739	10-12-92	4:00		X	AB-2, S-1 (12.5'-13.0')	3	X	X	" 29888

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
Mark A. Zick	10-13-92 3:30				
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED FOR LABORATORY BY: (Signature)	DATE/TIME	REMARKS: Samples iced on ice. 10-14-92	
		Edward J. Kelsey	10-14-92 9:50 AM		

AYRES ASSOCIATES
Owen Ayres & Associates, Inc.
Engineers/Architects/Scientists/Photogrammetrists
1300 W. Clairemont Avenue, P.O. Box 1590, Eau Claire, WI 54702-1590, (715) 834-3161

AyRES-4720.1 93-0110

twin city testing corporation
662 CROMWELL AVENUE
ST. PAUL, MN 55114
PHONE 612/645-3601

REPORT OF: CHEMICAL ANALYSES

PROJECT: CHIPPEWA VALLEY REGIONAL AIRPORT, 4720.00

DATE: December 2, 1992

REPORTED TO: Ayres & Associates
Attn: Donna Hainstock
1300 W. Clairemont Avenue
Eau Claire, WI 54701

REVISED: December 17, 1992

LABORATORY NO: 4410 93-0447

INTRODUCTION

This report presents the results of the analyses of three samples received on November 19, 1992, from a representative of Ayres & Associates. The scope of our services was limited to the parameters listed in the attached table.

METHODOLOGY

Analyses are performed according to Twin City Testing Standard Operating Procedures. The procedures are based on the reference stated in the analytical results table.

RESULTS

The results are listed in the attached table.

REMARKS

The sample was collected on November 17, 1992. If the sample is not consumed in the analysis, it is held for three months from the date of sample receipt and then disposed, unless written instructions to the contrary are received.

TWIN CITY TESTING CORPORATION

Stephanie A. Kidder
Project Manager

Susan D. Max
Director, Environmental Chemistry

SAK\SDM\sb

DIESEL RANGE ORGANIC RESULTS
MODIFIED DRO METHOD

(All values are in mg/Kg which is equal to parts-per-million)

TCT ID	Diesel Range Organics	Triacontane Recovery (%)	Practical Quantitation Limit
302476	25	99[4]	10
302477	74[1]	110[4]	20
302478	30,000	130[4]	1500
Blank	ND	95	10
Method Spike	83[2]	99	--
Method Spike Duplicate	85[2]	114	--
Date Sampled:	11-17-92		
Date Extracted:	12-7 & 8-92		
Date Analyzed:	12-9-92		

[1] Chromatographic profile also contains higher boiling hydrocarbons.
[2] Laboratory contamination was subtracted from the result.
[4] Continuing calibration verification was high for the surrogate.

All results are reported on a dry weight basis.

ND = Not Detected

Reference: Wisconsin Department of Natural Resources, PUBL-SW-141, April 1992.

LABORATORY NO: 4410 93-0447

TCT/D.J.

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME / CLIENT
4720.00	HALE CO - Chippewa Valley Regional Airport

SAMPLERS: (Signature) Mark a. Zich

SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE LOCATION	NO. OF CONTAINERS	DRO	MOISTURE	REMARKS	
1847	11-17-92	11:00		X	S-1, 6.0', SOUTH END	3	X	X	FID-NR	302476
1848	11-17-92	11:10		X	S-2, 6.0', NORTH END	3	X	X	FID - 8	302477
1849	11-17-92	11:30		X	S-3, 1-5, PUMP	3	X	X	FID - 14	302478

DRO's in Lab. EE

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
Mark a. Zich	11-17-92 3:30	[signature] 4/19/92 1158			
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED FOR LABORATORY BY: (Signature)	DATE/TIME	REMARKS: ON ICE to 11/12/92 93-0447 AYRES Chip.	

AYRES ASSOCIATES
Owen Ayres & Associates, Inc.
Engineers/Architects/Scientists/Photogrammetrists
1300 W. Clairemont Avenue, P.O. Box 1590, Eau Claire, WI 54702-1590, (715) 834-3161

APPENDIX F

SITE PHOTOGRAPHS

Photo 1 Removed 560 Gallon Diesel Tank

Photo 2 Tank Excavation

Photo 3 Location of Product Pump

Photo 4 Tank Excavation Northwest Sidewall

918

Department of Natural Resources
1/15/93

LEAKING UNDERGROUND STORAGE TANK (Case Tracking)
Form 4400-146 Rev. 10-92

UID Number	FID Number	PMN Number

County Chippewa
Site Name Chippewa Valley Regional Airport 1
Address 3800 Starr Ave.
Municipality Eau Claire, WI 54703
Legal Descript.:
NE 1/4 SW 1/4 Sec. 33 T 28 N R 9 (E)(W)

Initial Contact Date 12/1/92
Date RP Letter Sent 12/11/92
Date Closure Approved 03/03/94

Person/Firm Reporting Mark Zich
Ayres Associates
Phone Number 715/834-3161

Priority Screening
X 1 = High
__ 2 = Medium
__ 3 = Low
__ 4 = Unknown

Scoring Criteria
1. 2
2. ____
3. ____
4. 12
5. 6
Score 20 Init. ____ Date 1/4/93

Funding Source
X 1 = RP
__ 2 = LTF
__ 3 = EF
__ 4 = Other

Effective Date
__/__/__
__/__/__
__/__/__
__/__/__

LUST Trust Eligible
X 1 = Federal
__ 2 = Non-Federal

CASE STATUS	Start Date	End Date
___ (E) RP Emergency Response	__/__/__	__/__/__
___ (R) LTF Emergency Response	__/__/__	__/__/__
___ (L) Long Term Monitoring	__/__/__	__/__/__

Responsible Party:
Company Name Chippewa Valley Reg. Airport
Contact Person Frank Draxler
Address 720 Oxford Ave.
Eau Claire, WI 54701
Telephone 715/839-5101

CC's: John Paddock
Bill Evans
John Andersen, DILHR

Impacts:
Enter "P" for potential and "K" for known
___ (1) Fire/Explosion Threat
___ (2) Contaminated Private Well(s) ___# of Wells
___ (3) Contaminated Public Well
P (4) Groundwater Contamination
K (5) Soil Contamination
___ (6) Other: ____
___ (7) Surface Water Impacts
___ (9) Floating Product

Consultant:
Company Name Cedar Corporation
Contact Name Alan J. Bishop
Address 604 Wilson Avenue
Menomonie, WI 54751
Telephone: 715/235-2727

Substances:	# Tank(s)	Size
___ (1) Leaded Gas		
___ (2) Unleaded Gas		
X (3) Diesel	1	500 gal.
___ (4) Fuel Oil		
___ (5) Unkwn Hydrocrbn		
___ (8) Other		
___ (12) Waste Oil		

PRIORITY SCREENING WORKSHEET

HIGH FACTORS: (DEFINITION: Any case which presents an actual threat to human health, or has a high potential of causing a threat to human health and property; and/or any case which has caused or has a high potential of causing substantial impacts to the soil, waters and air of the State of Wisconsin).

EMERGENCY FACTORS:
___ Contaminated private or public well >NR 140 enf. std.
___ Explosive or toxic vapors in structures
___ Threat of fire

HIGH FACTORS:
___ Floating product (including scheen)
___ GW contamination (>140 enf. std)
___ Impacted surface water - - wetland, trout stream, etc. impacted
___ Saturated soil contamination posing a risk to groundwater

MEDIUM FACTORS: (DEFINITION: Any case which does not appear to be an immediate threat to human health or vital natural resources but which shows levels of contamination that may cause substantial environmental impacts if left unaddressed.)
___ Moderate soil contamination with potential for impacting groundwater.
___ Impacted surface water - - no critical habitat threats.
___ Groundwater contamination > NR 140 PAL.

LOW FACTORS: (DEFINITION: Any case where contamination has been documented, but which presents limited potential for immediate threat to human health and vital natural resources.)
___ Soil contamination which appears to have a limited potential for impacting groundwater.
___ Initial Remedial action has substantially reduced environmental threat.

UNKNOWN FACTORS: (DEFINITION: Any case where some indication of contamination is present, but due to incomplete or inaccurate information the leve of threat to human health or the environment can not be assessed at this time.)
___ Inadequate information to assign a high, medium, or low ranking.

NUMERICAL LUST SCORING WORKSHEET

1. GROUNDWATER & SOILS:

POINTS:
20 Municipal well impacted
18 >6 private wells impacted
16 4 - 6 private wells impacted
14 2-3 private wells impacted
12 1 private well impacted

Points:
10 Major soil and/or gw >ES within 1200' of a public well
8 Major soil and/or gw >ES within 1200' of one or more private wells
6 Groundwater contamination >ES
4 Groundwater contamination <ES
(2) Soil contamination

For purposes of this scoring, private well includes any non-municipal water supply system (e.g. non-community and other than municipal)

2. EXPLOSIVE OR TOXIC VAPORS:

POINTS: CONFIRMED	POTENTIAL	
20	10	Explosive levels in a residence or building
16	8	Explosive levels in a sewer or other confined space
12	6	Toxic levels in a residence or building

NOTE: Explosive levels determined to be >20% LEL as per an explosivity meter; toxicity levels are based on OSHA permissible exposure limits (PEL's)

3. SURFACE WATER IMPACTS:

POINTS: CONFIRMED	POTENTIAL	
14	7	Visible sheen or product on sensitive surface water environment (e.g. wetland, trout stream)
10	5	Visible sheen or product on non-sensitive surface water area.
6	3	Exceedance of NR 102, 103 or 104 surface water quality standards.

Request assistance from District Water Resources staff in evaluating surface water impacts.

4. HYDROGEOLOGIC SETTING:

POINTS:
(12) Permeable stratigraphy (gravel, sand, fractured bedrock or utilities capable of intercepting and directing flow) and groundwater withing 25 feet of the ground surface.
10 Permeable stratigraphy and groundwater greater than 25 feet below ground surface.
8 Moderately permeable stratigraphy (silty sands, silty gravel, clayey sands) and groundwater within 25 feet of ground surface.
6 Moderately permeable stratigraphy and groundwater greater than 25 feet below ground surface.
4 Low permeability stratigraphy (silt, clayey silt, sand clays) and groundwater within 25 feet of ground surface.
2. Low permeability stratigraphy and groundwater greater than 25 feet below ground surface.

5. TYPE OF PRODUCT:

POINTS: FREE PRODUCT	DISSOLVED PRODUCT	
12	8	Gasoline, mixture of gasoline and other products, other light petroleum products.
10	(6)	Diesel, fuel oil
6	2	Bunker oil, other heavy oils or crude fractions.

UID: # 918

SITE NAME: Chippewa Valley Regional Airport

CASE STATUS SUMMARY

03 = NTC of Non Compliance
04 = Enf. Conference
14 = Notice of Violation
18 = Admin. Order Issued
19 = Admin. Order Modified
20 = Admin. Order Cancelled
21 = Contest Case Hearing
23 = Referral to DOJ
30 = Notice to Proceed
31 = Tnk Cls/SA Work Plan
32 = Tnk Cls/SA WP Appv'd
33 = Tnk Cls/SA Rept Recv'd
34 = Tnk Cls/SA Rpt Appv'd
35 = SI Work Plan Recv'd
36 = SI Work Plan Appv'd
37 = SI Report Recv'd
38 = SI Report Appv'd
39 = RA Work Plan Recv'd
40 = RA Work Plan Appv'd
41 = RA Report Recv'd
42 = RA Report Appv'd
43 = Qrtly/Mthly Status Rpt
44 = Form 4 Received
45 = Form 4 Approved
46 = Form 4 Denied
47 = PECFA Reimbursement
48 = Free Product Recovery
49 = Alternate Water Supplied

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CASE STATUS UPDATES:

Action Code	Date Received/Sent	Compliance Due Date	Compliance Achieved	Date Entered in Tracking
33	01/19/93			
34	04/13/93			
35	04/23/93			
36	04/30/93			
37	09/20/93			
64	03/03/94			