36

MINNESOTA POLLUTION CONTROL AGENCY
COMMISSIONER'S SITE REPORT
TO THE PETROLEUM TANK RELEASE
COMPENSATION BOARD

MEL

SITE ID#	RELEASE SITE	APPLICANT	REGION
LEAK00001338	MNDOT Jordan Truck Station	MNDOT	Metro
LEAK00002753	Magelssen Elementary School	ISD #601	III
LEAK00005023	Gunflint Distribution Warehouse	MN Shares Contracting Unit	I
LEAK00005692	Arco Pump N Munch	Jim Tracy	II
LEAK00005795	Brownton Oil Bulk Plant	Brownton Oil Company	IV
LEAK00006730	Southside ICO	Southtown ICO	II

1. Eligibility Determination

I hereby determine that the corrective action described in the application was appropriate in terms of protecting public health, welfare, and the environment and that the applicant is eligible for Petrofund reimbursement, pursuant to Minn. Stat. § 115C.09, subd. 2, items (a) and (c) (1996).

2. Compliance with Applicable Requirements: **ADEQUATE**

Information readily available to the Minnesota Pollution Control Agency staff shows that the applicant has complied with the applicable requirements of Minn. Stat. § 115C.09, subd. 3(I) (1996).

The determinations in this report are made solely for the purpose of determining eligibility for reimbursement under Minn. Stat. § 115C.09, subds. 2 and 3 (1996). Nothing in this site report releases any person from liability, and the Minnesota Pollution Control Agency does not waive any of its authority to require additional corrective action at the above-referenced site or to enforce other provisions of state law.

Dated: 4/21/97

Mark Schmitt

Mark Schmitt
Supervisor
Tanks and Emergency Response Section

HYDROLOGIST REVIEW SUBMITTAL

PRIORITY: ~~III~~

UNIT No.: _____

SITE NAME: MNDOT - Jordan CITY: Jordan

LEAK No. : 1338 NAME OF REPORT : RI

PROJECT MANAGER: JGB DATE MPCA RECEIVED : 11/18/91

HYDROLOGIST : _____ DATE HYDRO RECEIVED: 1/22/91

DATE HYDRO REVIEWED: _____

PRIORITY SYSTEM (CHECK ONE)

I IMMEDIATE PRIORITY	II MEDIUM PRIORITY	III GENERAL PRIORITY
___ ACTUAL/POTENTIAL DRINKING WATER IMPACT	___ RI IN HYDRO SENSITIVE AREA.	___ PROGRESS/MONITORING REPORT
___ EMERGENCY, Vapor impact(s)	___ STATE CONTRACTORS	___ RI REPORT
___ FREE PRODUCT Recovery not begun Pre 5/19/90 PTR	___ CAD during field season	___ CAD PROPOSAL
___ DUE DATE LETTER	___ RI/CAD FREE PRODUCT Recovery begun Post 5/19/90 PTR	X CLOSURE REPORT
___ RI complete, establish clean up goal.	___ OTHER, explain	___ OTHER, explain
___ LEGISLATIVE INQUIRY		
___ OTHER, explain		

COMMENTS:

1. Soil removed
2. wells installed
3. Wells below RAL's
4. Receptors Survey indicates downgradient receptors will not be effected
5. Propose to monitor ~~wells~~ MW's quarterly

BRAUN INTERTEC

Braun Intertec Environmental, Inc.
1345 Northland Drive
Mendota Heights, Minnesota 55120-1141
612-683-8700 Fax: 683-8888

Engineers and Scientists Serving the Built and Natural Environments

March 26, 1993

Project No. CMKX-92-0192

Mr. Brian Kamnikar
Minnesota Department of Transportation
395 John Ireland Boulevard, Room 124
St. Paul, Mn 55155

Dear Mr. Kamnikar:

Re: Monitoring Well Installation Report, Jordan-MnDOT Truck Station, Jordan, Minnesota.

In accordance with your written authorization dated November 30, 1992, Braun Intertec Environmental, Inc. installed a groundwater monitoring well at the referenced property. The monitoring well was installed in accordance with the Minnesota Department of Transportation Groundwater Monitoring Well Installation Report Specifications dated October 22, 1992.

Please refer to the attached report for the scope, methods, results and conclusions of the monitoring well installation.

We appreciate the opportunity to provide our professional services to you for this project. If you have any questions concerning the contents of the attached report, please contact Ron Weaver at 683-8738 or LeeAnn Hammerbeck at 683-8740.

Sincerely,

Ronald C. Weaver

Ronald C. Weaver
Hydrogeologist, Project Manager

LeeAnn M. Hammerbeck

LeeAnn M. Hammerbeck
Supervisor, Hydrogeology Unit

Attachment: Monitoring Well Installation Report

lkf: cmkx\92-0192\0192.R01

Table of Contents

1.0 Introduction

On November 30, 1992, Braun Intertec Environmental, Inc. (Braun Intertec) was authorized by Brian Kamnikar of the Minnesota Department of Transportation (MnDOT) to install one groundwater monitoring well at the MnDOT Truck Station located at 705 Syndicate Street in Jordan, Minnesota. A site location map is provided as Figure 1 in Appendix A. The purpose of the monitoring well was to further characterize the on-site geology and evaluate the potential for groundwater contamination resulting from the former USTs.

The scope of services provided for the monitoring well installation were in accordance with the MnDOT Groundwater Monitoring Well Installation Report Specifications dated October 22, 1992 and consisted of the following:

- Conducting one soil boring on December 9, 1992 and scanning soil samples collected from the bore hole for the presence of volatile organic vapors using a photoionization detector (PID).
- Completing the soil boring as a monitoring well.
- Collecting water level measurements from the site monitoring wells on December 9 and 15, 1992.
- Surveying the top of riser elevations of the site monitoring wells.
- Preparing this report detailing the scope, methods, results, and conclusions of the monitoring well installation.

2.0 Methods

2.1. Soil Boring

Braun Intertec conducted one standard penetration boring (MW-4) on December 9, 1992 to a depth of 15.5 feet. The soil boring location is provided in Figure 2 in Appendix A.

The soil boring was performed with 6 1/4-inch I.D. hollow-stem auger and a truck-mounted core and auger drill. All down-hole equipment was steam cleaned prior to use, and clean auger was used for the bore hole. The split-barrels were cleaned with soap and water prior to collection of each sample. Samples from the borings were collected according to ASTM D 1586 "Penetration Test and Split-Barrel Sampling of Soils." Using this method, the bore hole was advanced with the 6 1/4-inch hollow-stem auger to the desired test depth. Then, a 140-pound hammer falling 30 inches drove a standard, 2-inch OD, split-barrel sampler a total penetration of 1 1/2-feet below the tip of the lead flight of the hollow-stem auger. The blows for the last foot of penetration were recorded and are used as an index of soil strength characteristics and for stratigraphic correlation. Samples were taken at 2 1/2-foot vertical intervals to the termination depth of the boring.

Soils encountered in the boring were visually and manually classified in the field by the crew chief in general accordance with ASTM D 2487 "Unified Soils Classification System" and ASTM D 2488 "Recommended Practice for Visual and Manual Description of Soils." A copy of ASTM D 2487 is attached in Appendix B. All samples were returned to the office for review of the field classification by an environmental geologist. Representative samples will remain in our Mendota Heights office for a period of 60 days from the time of sample collection to be available for examination.

2.2. Monitoring Well

The monitoring well (MW-4) was installed at the location depicted in Figure 2. The monitoring well was installed in accordance with the MDH Water Well Construction Code. The monitoring well materials consisted of 2-inch diameter, black iron riser pipe and a 10-foot long, 2-inch diameter, 0.010-inch slot stainless steel screen. Silica sand was placed around the screen as a filter pack, and a bentonite seal was placed above the filter pack. The annular space above the seal was grouted to the surface with neat cement placed through a tremie pipe. A protective vault was placed over the monitoring well, which was then completed as an at-grade well. Boring logs, monitoring well construction diagrams,and Minnesota Department of Health (MDH) Water Well Records are provided in Appendix B.

After completion, the monitoring well was developed on December 9 and December 15, 1992 using a 5-foot long Teflon® bailer. The well was purged until the well yielded relatively sediment-free water. A Well Development Data sheet is provided in Appendix C.

2.3. Field-Screening

During the monitoring well installation, split-barrel samples were examined visually by an environmental geologist for staining or other apparent signs of contamination. In addition, soils were monitored for the presence of organic vapors using a PID equipped with a 10.2 eV lamp. The PID was calibrated to a benzene standard. The PID was used to test fresh surfaces of material retrieved in the split-barrel sampler and using jar-headspace procedures outlined in "Jar-Headspace Analytical Screening Procedures" (MPCA May 1992).

2.4. Monitoring Well Surveying and Water Level Measurements

The top-of-riser elevations of the four site monitoring wells were surveyed to the nearest 0.01 foot using the top nut of the fire hydrant located north of the driveway (elevation 757.25 feet NGVD) as a reference point. The ground surface elevation at MW-4 was measured to an accuracy of 0.1 foot.

Groundwater measurements were collected from the three existing site wells (MW-1, MW-2 and MW-3) on December 9, 1992 and from the four site monitoring wells (MW-1, MW-2, MW-3 and MW-4) on December 15, 1992 using an electronic water level indicator. These measurements were recorded to a precision of 0.01 foot and referenced to the top of-the-riser pipe. Water Level Measurements sheets are provided in Appendix D.

3.0 Results

3.1. Soil Boring

The unconsolidated sediments encountered in the soil boring were consistent with those encountered during the Remedial Investigation (RI) conducted by Braun Intertec in August 1990. Swamp deposits consisting of silty sand (SM), silty clayey sand (CL-ML) and silt with sand (ML) were encountered to a depth of 10 feet. An alluvium deposit consisting of poorly-graded sand with silt (SP-SM) was present beneath the swamp deposits to a depth of at least 15.5 feet, the termination depth of the boring.

3.2. Monitoring Well

Water level measurements were collected from the site monitoring wells on December 9 and December 15, 1992. A summary of this data is provided in Table 1. A groundwater flow direction map, based on water levels collected on December 15, 1992, is provided as Figure 3 in Appendix A. A hydraulic gradient of 0.003 to the northwest was calculated on this date.

Table 1
Groundwater Elevation Data (ft)

Well #	Date	Monitoring Point Elevation	Depth to Water	Groundwater Elevation	Depth to free Product	Free Product Elevation
MW-1	8-20-90	757.78	10.56	747.22	NA	NA
	12-9-92	757.78	10.24	747.54	NA	NA
	12-15-92	757.78	10.17	747.61	NA	NA
MW-2	8-20-90	757.08	10.04	747.04	NA	NA
	12-9-92	757.08	9.75	747.33	NA	NA
	12-15-92	757.08	9.68	747.40	NA	NA
MW-3	8-20-90	757.25	10.14	747.11	NA	NA
	12-9-92	757.25	9.78	747.47	NA	NA
	12-15-92	757.25	9.71	747.54	NA	NA
MW-4	12-15-92	754.23	6.80	747.43	NA	NA

NA - Not applicable

A summary of the site monitoring well construction details, including the top-of-riser elevations, ground surface elevations, top of well screen elevations, bottom of well screen elevations, top of filter pack elevations and top of bentonite seal elevations is provided in Table 2.

Table 2

Monitoring Well Construction Summary (NGVD)

Well #	Ground Surface Elevation	Top of Riser Elevation	Top of Well Screen Elevation	Bottom of Well Screen Elevation	Top of Filter Pack Elevation	Top of Bentonite Seal Elevation
MW-1	755.0	757.78	750.2	740.2	751.0	752.0
MW-2	754.5	757.08	749.5	739.5	750.5	751.5
MW-3	754.8	757.25	749.8	739.8	750.8	751.8
MW-4	754.4	754.23	750.4	740.4	750.9	751.9

3.3. Field-Screening

Soils were monitored for organic vapors with a PID using both direct readings from each split-barrel sample and a jar-headspace method of analysis. PID split-barrel and jar-headspace readings collected during the drilling of MW-4 were below detection limits. The Organic Vapor Field Data Sheet is provided in Appendix E.

4.0 Conclusions

Based on the results of the monitoring well installation, the following conclusions can be made:

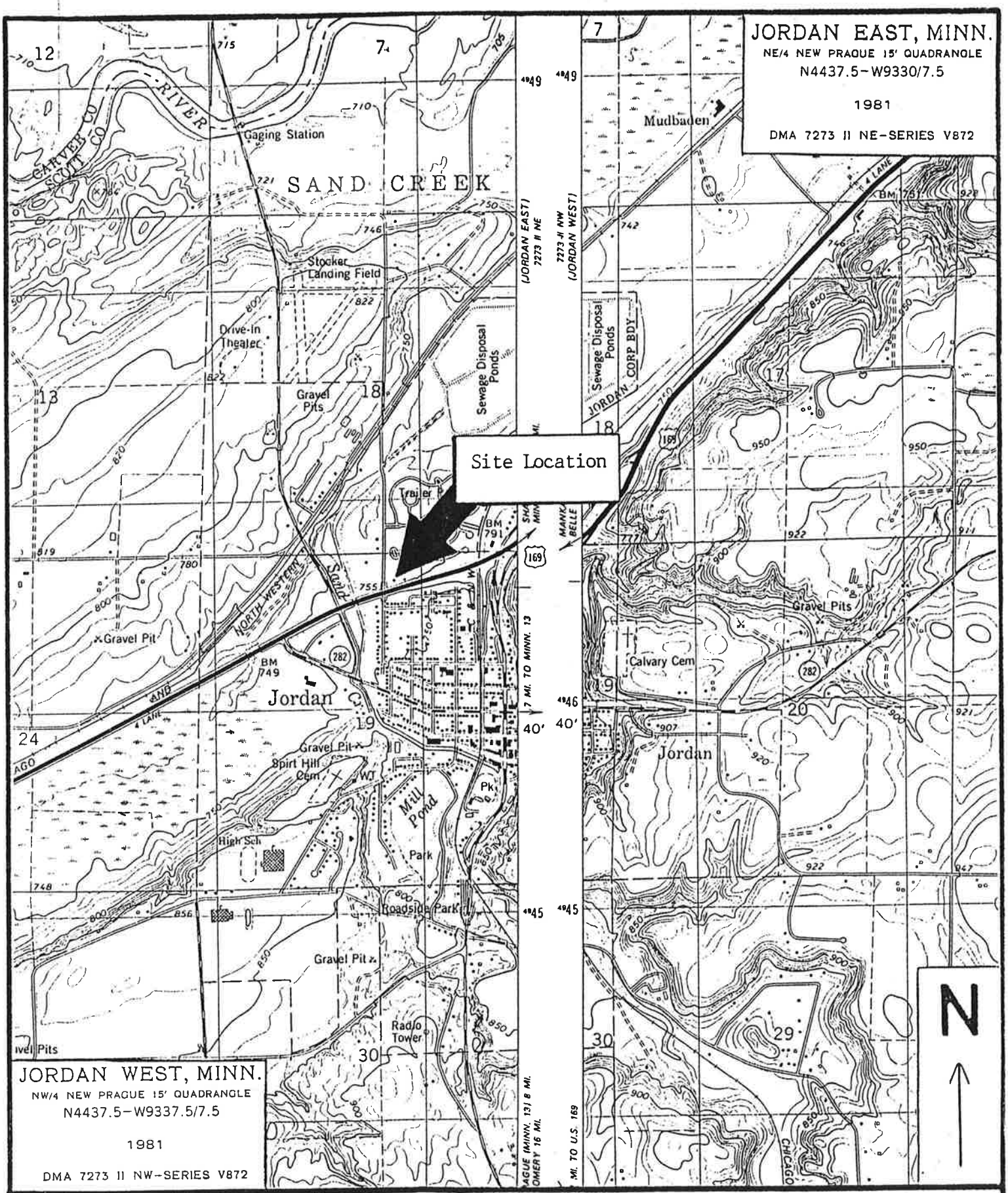
- The unconsolidated sediments encountered at MW-4 were consistent with those encountered during the RI. Swamp deposits consisting of silty sand, silty clayey sand, and silt with sand were found to a depth of 10 feet, and were underlain by alluvium deposits consisting of poorly-graded sand with silt to a depth of at least 15.5 feet, the termination depth of the boring.

- The groundwater flow direction at the site on December 9 and 15, 1992 was to the northwest. The measured hydraulic gradient at the site on December 15, 1992 was about 0.003. This gradient and flow direction are consistent with those reported in the RI report (Braun, October 1990).

- All PID split-barrel and jar-headspace readings collected during the drilling of MW-4 were below method detection limits. There were no measured or visible signs of contamination found during the monitoring well installation.

5.0 General

Services performed for this project have been conducted in a manner consistent with that level of care and skill ordinarily exercised by members of the profession practicing in this area under similar budget and time restraints. No warranty, expressed or implied, is made.

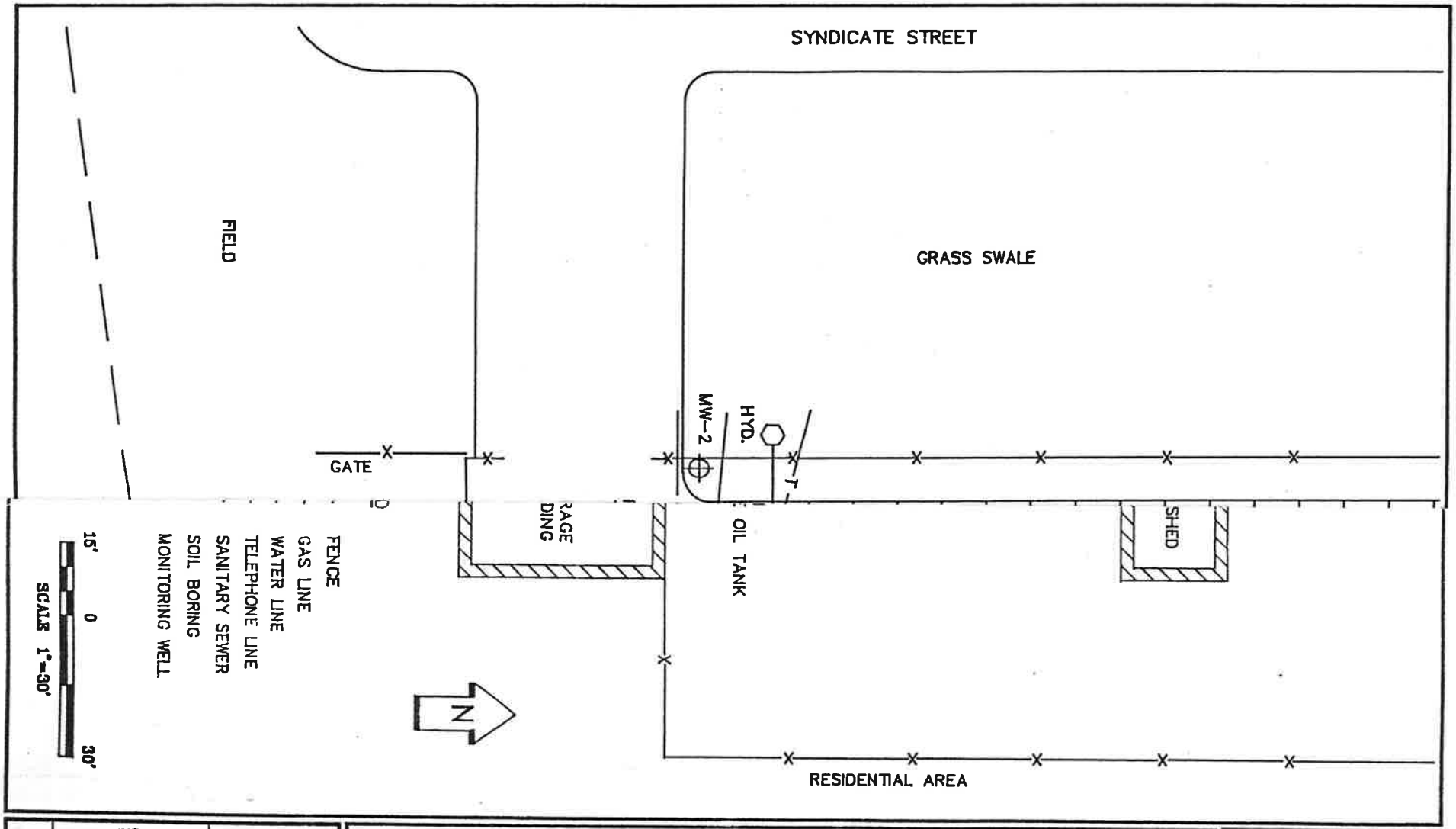


BRAUN

Figure 1
SITE Location Map
Monitoring Well Installation

MN Dept. of Transportation
Jordan, MN

Date: 3-25-93	Revised:	Drawn: RCW	Scale: 1"=2000'

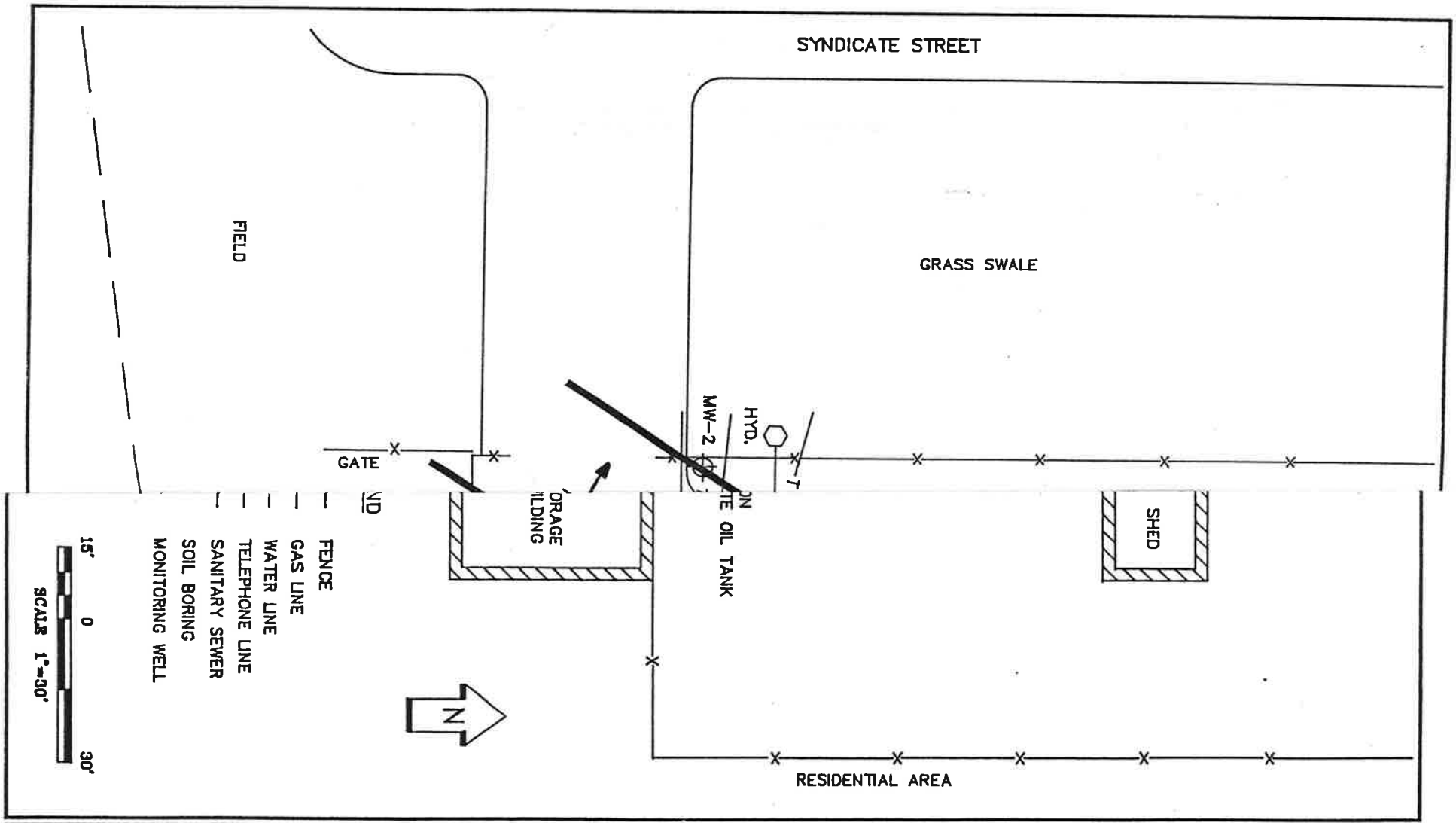


	INT	DATE
DRAWN BY:	NTM	12-15-92
APP'D BY:	GB	
JOB No.	CMKX-92-0192 C1	
DWG.No.	MK20192	SHEET 1 OF 2
SCALE	1"=30'	

FIGURE # 2

SITE LOCATION MAP
GROUNDWATER MONITORING WELL INSTALLATION
Minnesota Department of Transportation
Jordan MnDOT Truck Station
Jordan, Minnesota

BRAUN INTERTEC



	INT	DATE
DRAWN BY:	NTM	12-15-92
APP'D BY:	GB	
JOB No.	CMKX-92-0192 C1	
DWG.No.	MK20192	SHEET 1 OF 2
SCALE	1"=30'	

FIGURE # 3

WATER TABLE CONTOUR MAP (12-15-92)
GROUNDWATER MONITORING WELL INSTALLATION
Minnesota Department of Transportation
Jordan MnDOT Truck Station
Jordan, Minnesota

BRAUN INTERTEC

LOG OF BORING

PROJECT: CMKX-92-0192
GROUNDWATER MONITORING WELL INSTALLATION
Minnesota Department of Transportation
Jordan MnDOT Truck Station
Jordan, Minnesota

BORING: MW-4

LOCATION: 37 ft. W and 4 ft. N of NW corner of main building

DATE: 12/9/92 SCALE: 1" = 4'

Elev.	Depth	ASTM Symbol	Description of Materials (ASTM D2488)	BPF	WL	Tests or Notes
754.4	0.0					
753.8	0.6		7" Bituminous			HNU Readings (ppm) SS HS
		SM	SILTY SAND, fine to medium grained, brown, moist.			
751.9	2.5		(Swamp Deposit)	16		0 0
		CL ML	SILTY CLAYEY SAND, with a trace of Peat, black, moist, rather stiff to stiff. (Swamp Deposit)	10		*0 0
747.4	7.0			4		0 0
		ML	SILT with SAND, dark grey, waterbearing, rather soft. (Swamp Deposit)			
744.4	10.0			13		0 0
		SP SM	POORLY GRADED SAND with SILT and GRAVEL, fine to medium grained, light brown to brown, waterbearing, medium dense. (Alluvium)	14		0 0
738.9	15.5			15		0 0
			END OF BORING			

Water down 7.6 feet with 15 feet of hollow-stem auger in the ground.

Monitoring well MW-4 installed to 14.0 feet.

Groundwater elevation: 747.43 feet on 12/15/92.

Drilling method: 6 1/4" hollow-stem auger.

Drill Crew Chief: Scott McLean.

Field Inspector: Greg Browne.

Licensed Monitoring Well Engineer: Jon Scharf.

*PID reading from auger cuttings at 5- foot interval; sampler empty.

Minnesota unique well number: 522024

SS = Split Spoon
HS = Jar Headspace

MN Unique
Well Number 522024

Monitoring Well Field Data Sheet

Client MnDOT Project Number CMKX-92-0192 Location Jordan MnDOT Truck Station, Jordan, MN

Well Number MW-4 Well Location See attached sketch Date of Installation 12/09/92

B.M. Location and Elevation (± 0.01') Top nut of fire hydrant north of driveway (755.63 ft. NGVD)

Crew SM/LH Geologist G. Browne

Ground surface elevation (±0.1') 754.4'

Top of riser pipe elevation (±0.01')(w/o cap) 754.23'

Approximate water level before installation 7.6'

Approximate depth to first water encountered in drilling 10'

Depth to top of seal 2.5'

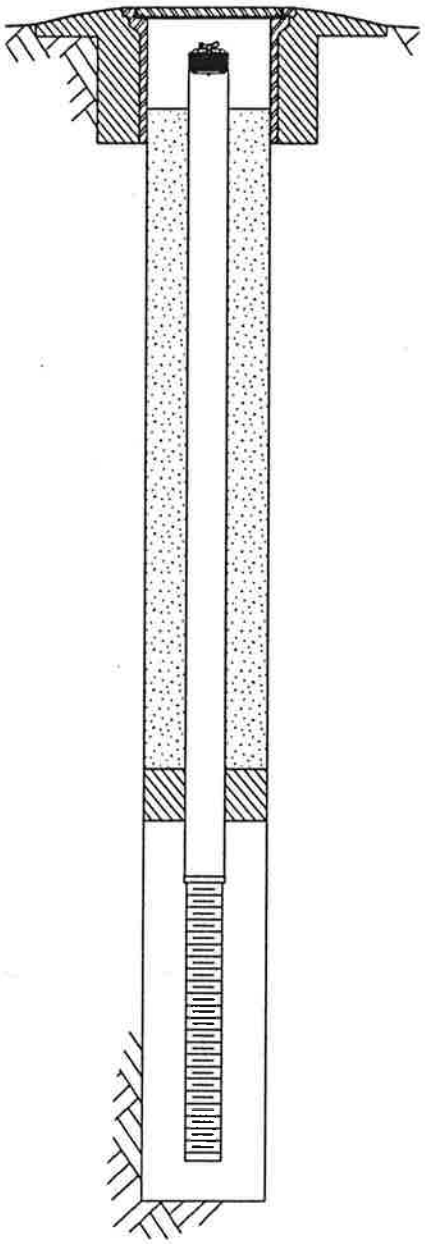
Depth to bottom of seal 3.5'

Depth to top of screen 4.0'

Depth to bottom of screen 14'

Depth to bottom of boring 15'

Method of Advance:
HSA X I.D. 6 1/4"
Casing _____ I.D. _____
Tricone _____ O.D. _____



Protective Vault:

Manufacturer Griffin Industries
Model # 7091 ACE
Diameter 8"
Hex wrench access Yes
Watertight Seal Yes

Neat Cement Grout Above Seal:

Amount of material used (lb) N/A
Proportions: Bentonite ____ Cement ____

Riser Pipe:

Type	Black Iron
Diameter	2"
Total Length	5'
Sections used	1
Couplings	1
Caps Yes ____ No X	
Lock #	255

Seal Material Bentonite Chips
Amount of material used (lb) 50

Filter Material Silica Sand
Amount of material used (lb) 350

Screen:

Type	Stainless Steel
Slot Size	0.010"
Length	10'
Diameter	2"
Plug/Point	Plug

Remarks: _____

Completed by: G. Browne

BRAUN™ INTERTEC

cmkx\92-0192\0192.F04

MINNESOTA UNIQUE WELL NO. **522024**

MINNESOTA DEPARTMENT OF HEALTH
WELL RECORD
Minnesota Statutes Chapter 103I

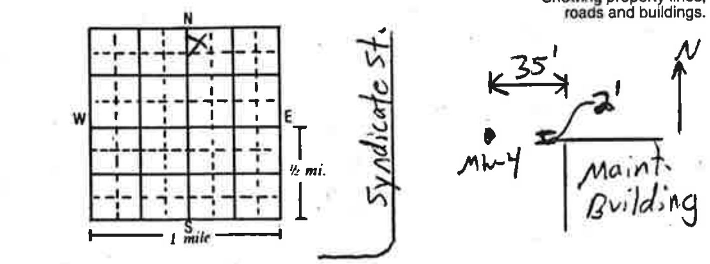
WELL LOCATION

County Name				
Scott				
Township Name	Township No.	Range No.	Section No.	Fraction
Sand Creek	114N	23W	19	NW¼ NE¼

Numerical Street Address and City of Well Location: 705 Syndicate St., Jordan

or Fire Number:

Show exact location of well in section grid with "X". Sketch map of well location. Showing property lines, roads and buildings.



PROPERTY OWNER'S NAME: Minnesota Department of Transportation

Mailing address if different than property address indicated above.
395 John Ireland Blvd.
Transportation Building, Room 124
St. Paul, MN 55155

GEOLOGICAL MATERIALS	COLOR	HARDNESS OF MATERIAL	FROM	TO
Silty Sand	Brown		0	2.5
Silty Clayey Sand	Black	Stiff	2.5	7.0
Silt with Sand	Dark grey	Rather Soft	7.0	10.0
Poorly grades sand with silt	Lt. Brown to brown	medium dense	10.0	15.0

Use a second sheet, if needed

REMARKS, ELEVATION, SOURCE OF DATA, etc.

MW-4

WELL DEPTH (completed) 14 ft. **Date Work Completed** 12/9/92

DRILLING METHOD
☐ Cable Tool ☐ Driven ☐ Dug
☒ Auger ☐ Rotary ☐ Jetted
☐

DRILLING FLUID N/A

USE
☐ Domestic ☒ Monitoring ☐ Heating/Cooling
☐ Irrigation ☐ Public ☐ Industry/Commercial
☐ Test Well ☐ Dewatering ☐ Remedial
☐

CASING ☒ Steel ☐ Plastic ☐
Drive Shoe? ☒ Yes ☐ No
☐ Threaded ☐ Welded

CASING DIAMETER / WEIGHT / HOLE DIAM.
2 in. to 4 ft. ____ lbs./ft. — Hole diam.: 12 in. to 15 ft.
____ in. to ____ ft. ____ lbs./ft. ____ in. to ____ ft.
____ in. to ____ ft. ____ lbs./ft. ____ in. to ____ ft.

SCREEN
Make: Johnson
Type: Stainless Steel
Slot/Gauze: 0.010"
Set between 4 ft. and 14 ft.

Diam. 2"
Length 10'
FITTINGS:

OPEN HOLE from ____ ft. to ____ ft.

STATIC WATER LEVEL 6.8 ft. ☒ below ☐ above land surface Date measured 12/15/92

PUMPING LEVEL (below land surface) N/A ft. after ____ hrs. pumping ____ g.p.m.

WELL HEAD COMPLETION At-grade
☐ Pitless adapter manufacturer ____ Model ____
☐ Casing Protection ____ ☐ 12 in. above grade

GROUTING INFORMATION
Well grouted? ☒ Yes ☐ No
Grout Material ☒ Neat cement ☐ Bentonite
from 0 to 2.5 ft. ____ ☐ yds. ☐ bags
from ____ to ____ ft. ____ ☐ yds. ☐ bags
from ____ to ____ ft. ____ ☐ yds. ☐ bags

NEAREST KNOWN SOURCE OF CONTAMINATION
35 feet SE direction Petroleum type
Well disinfected upon completion? ☐ Yes ☒ No

PUMP
☒ Not installed Date installed ____
Manufacturer's name ____
Model number ____ HP ____ Volts ____
Length of drop pipe ____ ft. Capacity ____ g.p.m.
Pressure Tank Capacity ____
Type: ☐ Submersible ☐ L.S. Turbine ☐ Reciprocating ☐ Jet ☐ ____

ABANDONED WELLS
Does property have any not in use and not sealed well(s)? ☐ Yes ☒ No

WELL CONTRACTOR CERTIFICATION
This well was drilled under my supervision and in accordance with Minnesota Rules, Chapter 4725. The information contained in this report is true to the best of my knowledge.

Braun Intertec Environmental, Inc. — Licensee Business Name; M0109 — Lic. or Reg. No.

[signature] — Authorized Representative Signature; 12/16/92 — Date

Scott McLean — Name of Driller; 12/16/92 — Date

MINN. DEPT. OF HEALTH COPY 522024

HE-01205-04 (Rev. 5/92)

MINNESOTA DEPARTMENT OF HEALTH
MONITORING WELL PERMIT APPLICATION

Make check or money order payable to the Minnesota State Treasurer. Mail completed application and fee to the Minnesota Department of Health (MDH), Well Management Unit, P.O. Box 59040, Minneapolis, Minnesota 55459-0040, ATTN: Permits.

MDH USE ONLY
Amount Received NC. Govt
Date Received 12-1-92
So. Codes: Well (20) Site (21)
Deposit No.
Not Approved
Date Approved ZWA 12-3-92
Site Permit No.

CHECK ALL THAT APPLY. — FEE

- ☐ Motor fuel retail outlet. — $50/site
  - ☐ Site permit exists, Permit No. ______ — None
- ☒ Well owned by State or local government. — None
- ☐ All other monitoring wells — $50/well

1. LEGAL DESCRIPTION OF WELL LOCATION   COUNTY Scott

A.

Township Name	Township	Range	Section	Quarters (smallest … largest)	Unique Well Number	Depth
Sand Creek	114 N	23 W	17	¼ NW ¼ NW ¼ NE ¼	522024	20
	N	W		¼ ¼ ¼ ¼		
	N	W		¼ ¼ ¼ ¼		
	N	W		¼ ¼ ¼ ¼		
	N	W		¼ ¼ ¼ ¼		

B. Site address 705 Syndicate Street (Street)   Jordan, MN 55352 (City)

C. Sketch (attach map showing well location including distance from nearest road intersection)

2. ☐ For wells constructed through a CONFINING LAYER, submit the following information: well diameter, grout material, drilling method, grouting method, casing materials, cross-sectional diagram of well, and cross-section of anticipated geologic formations.

3. ☐ For AT-GRADE WELLS, check the box and submit the following information: an explanation of why the well casing cannot terminate 12 inches above ground; a map showing the location of the proposed well referenced to a benchmark, permanent landmark, or property boundaries; cross-sectional diagram of the well cap and vault or manhole. Approved for at-grade 12/9/92 SDB

4. WELL CONTRACTOR INFORMATION
Business name Braun Intertec Environmental, Inc.   Reg. or Lic. No. M0109
Contact person Ron Weaver / Jim Schaff   Phone No. (612) 683-8700

5. CONSULTANT NAME ______   Phone No. ( )

6. WELL OWNER INFORMATION
Well owner name Minnesota Dept. of Transportation
Well owner address Transportation Building (Street)   St. Paul (City)   MN (State)   55155 (Zip Code)
Contact person Brian Kamnikar   Phone No. ( ) 297-2703

7. PROPERTY OWNER INFORMATION if different from well owner (if completed, see No. 8 below)
Property owner name ______
Property owner address ______ (Street, City, State, Zip Code)

8. If the well owner is not the property owner, Minnesota Statutes, Chapter 103I.205, require that "A person may not construct a monitoring well on the property of another until the owner of the property on which the well is to be located and the well owner sign a written agreement that identifies which party will be responsible for obtaining maintenance permits and for sealing the monitoring well. If the property owner refuses to sign the agreement, the well owner may, in lieu of a written agreement, state in writing that the well owner will be responsible for obtaining maintenance permits and sealing the well."

☒ Well owner and property owner same.   ☐ Signed agreement exists.   ☐ Statement enclosed.

I certify that all the information provided in this application is true and complete. I understand that misstatement of facts may result in forfeiture of all rights to licensure/registration as a well contractor/monitoring well contractor in accordance with Minnesota Statutes, Chapter 103I.

Licensed or Registered Contractor Signature   Property Owner Signature (or agent)

Penalties! Failure to obtain a permit prior to well construction is a violation of Minnesota Statutes, Chapter 103I, and will result in the assessment of a $250 fine.

All variance requests must be accompanied by a permit application.

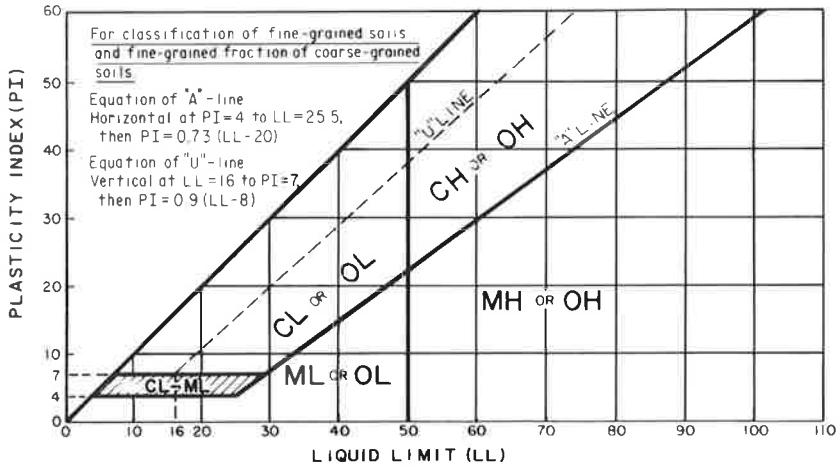
Descriptive Terminology

Designation D 2487 — 83

Standard Test Method for CLASSIFICATION OF SOILS FOR ENGINEERING PURPOSES

CRITERIA FOR ASSIGNING GROUP SYMBOLS AND GROUP NAMES USING LABORATORY TESTS [a]				SOIL CLASSIFICATION	
				GROUP SYMBOL	GROUP NAME [b]
COARSE-GRAINED SOILS more than 50% retained on No. 200 sieve	GRAVELS More than 50% of coarse fraction retained on No. 4 sieve	CLEAN GRAVELS Less than 5% fines [c]	$C_u \geq 4$ and $1 \leq C_c \leq 3$ [e]	GW	Well-graded gravel [f]
			$C_u < 4$ and/or $1 > C_c > 3$ [e]	GP	Poorly graded gravel [f]
		GRAVELS WITH FINES More than 12% fines [c]	Fines classify as ML or MH	GM	Silty gravel [f,g,h]
			Fines classify as CL or CH	GC	Clayey gravel [f,g,h]
	SANDS 50% or more of coarse fraction passes No. 4 sieve	CLEAN SANDS Less than 5% fines [d]	$C_u \geq 6$ and $1 \leq C_c \leq 3$ [e]	SW	Well-graded sand [i]
			$C_u < 6$ and/or $1 > C_c > 3$ [e]	SP	Poorly graded sand [i]
		SANDS WITH FINES More than 12% fines [d]	Fines classify as ML or MH	SM	Silty sand [g,h,i]
			Fines classify as CL or CH	SC	Clayey sand [g,h,i]
FINE-GRAINED SOILS 50% or more passed the No. 200 sieve	SILTS AND CLAYS Liquid limit less than 50%	inorganic	PI > 7 and plots on or above "A" line [j]	CL	Lean clay [k,l,m]
			PI < 4 or plots below "A" line [j]	ML	Silt [k,l,m]
		organic	Liquid limit - oven dried / Liquid limit - not dried < 0.75	OL	Organic clay [k,l,m,n] Organic silt [k,l,m,o]
	SILTS AND CLAYS Liquid limit 50% or more	inorganic	PI plots on or above "A" line	CH	Fat clay [k,l,m]
			PI plots below "A" line	MH	Elastic silt [k,l,m]
		organic	Liquid limit - oven dried / Liquid limit - not dried < 0.75	OH	Organic clay [k,l,m,p] Organic silt [k,l,m,q]
Highly organic soils		Primarily organic matter, dark in color, and organic odor		PT	Peat

a. Based on the material passing the 3-in (75-mm) sieve.
b. If field sample contained cobbles and/or boulders, add "with cobbles and/or boulders" to group name.
c. Gravels with 5 to 12% fines require dual symbols
   GW-GM well graded gravel with silt
   GW-GC well graded gravel with clay
   GP-GM poorly graded gravel with silt
   GP-GC poorly graded gravel with clay
d. Sands with 5 to 12% fines require dual symbols
   SW-SM well graded sand with silt
   SW-SC well graded sand with clay
   SP-SM poorly graded sand with silt
   SP-SC poorly graded sand with clay
e. $C_u = D_{60}/D_{10}$ $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$
f. If soil contains ≥ 15% sand, add "with sand" to group name.
g. If fines classify as CL-ML, use dual symbol GC-GM, SC-SM.
h. If fines are organic, add "with organic fines" to group name.
i. If soil contains ≥ 15% gravel, add "with gravel" to group name.
j. If Atterberg limits plot in hatched area, soil is a CL-ML, silty clay.
k. If soil contains 15 to 29% plus No. 200, add "with sand" or "with gravel" whichever is predominant.
l. If soil contains ≥ 30% plus No. 200, predominantly sand, add "sandy" to group name.
m. If soil contains ≥ 30% plus No. 200, predominantly gravel, add "gravelly" to group name.
n. PI ≥ 4 and plots on or above "A" line.
o. PI < 4 or plots below "A" line.
p. PI plots on or above "A" line.
q. PI plots below "A" line.



LABORATORY TESTS

DD	Dry Density, pcf	OC	Organic Content, %
WD	Wet Density, pcf	S	Percent of Saturation, %
MC	Natural Moisture Content, %	SG	Specific Gravity
LL	Liquid Limit, %	C	Cohesion
PL	Plastic Limit, %	Ø	Angle of Internal Friction
PI	Plasticity Index, %	qu	Unconfined Compressive Strength

PARTICLE SIZE IDENTIFICATION

Boulders	over 12"
Cobbles	3" to 12"
Gravel	
Coarse	¾" — 3"
Fine	No. 4 — ¾"
Sand	
Coarse	No. 4 — No. 10
Medium	No. 10 — No. 40
Fine	No. 40 — No. 200
Silt	No. 200 — .005 mm
Clay	less than .005 mm

RELATIVE DENSITY OF COHESIONLESS SOILS

very loose	0 — 4 BPF
loose	5 — 10 BPF
medium dense	11 — 30 BPF
dense	31 — 50 BPF
very dense	50+ BPF

CONSISTENCY OF COHESIVE SOILS

very soft	0 — 1 BPF
soft	2 — 3 BPF
rather soft	4 — 5 BPF
medium	6 — 8 BPF
rather stiff	9 — 12 BPF
stiff	13 — 16 BPF
very stiff	17 — 30 BPF
hard	30+ BPF

DRILLING NOTES

Standard penetration test borings were advanced by 3¼" or 6¼" I.D. hollow-stem augers unless noted otherwise. Jetting water was used to clean out auger prior to sampling only where indicated on logs. Standard penetration test borings are designated by the prefix "ST" (Split Tube).

Power auger borings were advanced by 4" or 6" diameter, continuous-flite, solid stem augers. Soil classification and strain depths are inferred from disturbed samples augered to the surface and are therefore somewhat approximate. Power auger borings are designated by the prefix "B".

Hand probings were advanced manually with a 1½" diameter probe and are limited to the depth from which the probe can be manually withdrawn. Hand probings are indicated by the prefix "H".

SAMPLING — All samples are taken with the standard 2" O.D. split tube sampler, except where noted. TW indicates thin-wall (undisturbed) sample.

BPF — Numbers indicate blows per foot recorded in standard penetration test, also known as "N" value. The sampler is set 6" into undisturbed soil below the hollow-stem auger. Driving resistances are then counted for second and third 6" increments and added to get BPF. Where they differ significantly, they are reported in the following form — 2/12 for the second and third 6" increments respectively.

WH — WH indicates that sampler penetrated soil under weight of hammer and rods alone, driving not required.

NOTE — All tests run in accordance with applicable ASTM standards.

BRAUN INTERTEC SM

Well Development Data

Project Number CMKX-92-0192 Geologist G. Browne Date 12/9/92 and 12/15/92

Location Jordan MnDOT Truck Station, Jordan, MN Well Number MW-4

Weather Conditions Cloudy, wind S at 15 mph, 34°F

Depth to Water (ft.) 12/9/92 - 7.11 Well Depth 14.9 * Well Volume (gallons) 1.3
Depth to Water (ft.) 12/15/92 - 6.80 Well Depth 13.1 Well Volume (gallons) 1.0

*MEASUREMENT TAKEN BEFORE CONSTRUCTING AT-GRADE WELL

Method: Surged and Bailed X Surge and Pumped ____ Bailed ____
Pumped ____ Blown ____ Jetted ____
Water Source ____

Equipment: Bailer:Diameter 1.5 Length (ft.) 5.0 Material PTFE
Surge Block ____ Airlift ____ N_2 Lift ____
Pump Make ____

Decontamination Procedure Laboratory cleaned

Well sampled same day? No (stabilization data on Sampling Data Sheet)

Can well be purged dry? Yes If so, number of times 5

Stabilization Test

Date	Time	Cum. Vol. (gallons)	Temperature (C)	pH	Conductivity (umhos/cm)	Color	Odor	Turbidity
12/9/92	13:29	4.0	-	-	-	Brown	None	Moderate
12/9/92	13:39	6.0	-	-	-	Brown	None	Moderate
12/9/92	13:50	7.0	-	-	-	Brown	None	Moderate
12/15/92	13:29	10.0	-	-	-	Brown	None	Moderate
12/15/92	13:39	11.0	-	-	-	Brown	None	Moderate

Comments: Water silty at beginning of development; less silty at end of development. Moderate amount of very fine to fine-grained sand retrieved by bailer at 4.0 gallons; small amount at 6.0 gallons; very small amounts at 7.0 through 11.0 gallons. Slow recharge.

cmkx\92-0192\0192.F03

Water Level Measurements

Date: 12-9-92

Project Number: CMKX-92-0192

Project: Jordan MnDOT Truck Station, Jordan, MN

Measurements Taken By: G. Browne

Measuring Device: Electronic Tape

Weather Conditions: ***Sky*** cloudy ***Temp:*** 35° F ***Wind:*** ***Speed*** 15 ***Direction From:*** S

Well Number	Time	Well Depth	Measuring Point (MP)	MP Elevation	Depth to Groundwater	Groundwater Elevation	Depth to Free Product	Free Product Elevation	Locked?	Comments Below?
MW-1	8:57	--	TOR	757.78	10.24	747.54	N/A	N/A	Yes	
MW-2	9:01	--	TOR	757.08	9.75	747.33	N/A	N/A	Yes	
MW-3	9:03	--	TOR	757.25	9.78	747.47	N/A	N/A	Yes	

Comments (Well conditions, deviation from SOPs, etc.): _____

Site Elevation Reference Datum:

Location: Top nut of fire hydrant located north of driveway Elevation: 757.25'

lgj:cmkx\92-0192\0192.F02

Water Level Measurements

Date: 12/15/92

Project Number: CMKX-92-0192

Project: Jordan MnDOT Truck Station, Jordan, MN

Measurements Taken By: G. Browne

Measuring Device: Electronic tape

Weather Conditions: *Sky* Cloudy *Temp:* 36°F *Wind:* *Speed* Calm *Direction From:* -

Well Number	Time	Well Depth	Measuring Point (MP)	MP Elevation	Depth to Groundwater	Groundwater Elevation	Depth to Free Product	Free Product Elevation	Locked?	Comments Below?
MW-1	12:10	17.2	TOR	757.78	10.17	747.61	N/A	N/A	Yes	
MW-2	12:12	17.1	TOR	757.08	9.68	747.40	N/A	N/A	Yes	
MW-3	12:13	17.1	TOR	757.25	9.71	747.54	N/A	N/A	Yes	
MW-4	12:14	13.1	TOR	754.23	6.80	747.43	N/A	N/A	Yes	

Comments (Well conditions, deviation from SOPs, etc.): TOR = top of riser.

Site Elevation Reference Datum:

Location: Top nut of fire hydrant located north of driveway Elevation: 757.25'

Organic Vapor Field Data Sheet

Boring Identification: MW-4 ***Project No.:*** CMKX-92-0192 ***Date:*** 12-9-92

Weather Conditions: Cloudy, wind S at 15 mph, 34° F

Field Personnel: G. Browne

Auger Steam Cleaned: ***Yes*** X ***No***

Sampler Cleaned Between Samples: ***Yes*** X ***No***

Method: TSP and water

Detector: ***OVA:*** ***HNu:*** ***10.2eV*** X
OVM: ***11.7eV***

Calibration: ***Gas:*** 28.7 ppm benzene
Date: 12-9-92

Depth (feet)	Auger (ppm)	Split Spoon (ppm)	Headspace (ppm)	Notes/Geology
2.5		0.0	0.0	
5.0	0.0	*	0.0	*sampler empty
7.0		0.0	0.0	
10.0		0.0	0.0	
12.5		0.0	0.0	
15.0		0.0	0.0	

kaj:cmkx\92-0192\0192.F01

Petroleum Tank Release Compliance Checklist

SITE NAME MnDOT Jordan Truck Station LEAK0000 1338

USE THE FOLLOWING GUIDELINES TO DETERMINE IF THE LEAKING TANK IS IN COMPLIANCE

_____UNREGULATED TANKS.....are ASTs/USTs 110 gallons or less, OR heating oil ASTs/USTs 1,100 gallons or less with product consumed on the premises, OR farm/residential ASTs/USTs 1,100 gallons or less containing motor fuel not for resale.

_____STATE REGULATED TANKS.....are heating oil USTs with a capacity more than 1,100 gallons or all ASTs not specified above.

__X__FEDERALLY REGULATED TANKS.....are all USTs not specified above.

STATUS OF RESPONSIBLE PARTY: Regular Applicant _____ Limited Use Applicant_____

UNREGULATED TANKS, STATE TANKS, FEDERAL TANKS

Release Notification: Date release discovered: MPCA 7/19/89 Petro App 10/20/89

Date release reported: MPCA 7/19/89 Petro App 10/20/89

When/how was release discovered? Tank Removal

Was there environmental damage due to delay? Yes_____ No_____

__X__**Adequate** ____**Inadequate** Recommend Reduction? Yes____ No_____

Comments: _____

Cooperation Issues: Yes_____ No__X__

If Yes, please prepare a narrative to be appended to the Commissioner's Site Report.

STATE TANKS, FEDERAL TANKS

Corrosion Protection: Tanks: Yes_____ No_____ N/A__X__ Piping: Yes_____ No_____ N/A__X__

Applicable for steel piping/steel USTs installed after 12/22/88. Steel piping/steel USTs installed before 8/1/85 require corrosion protection no later than 12/22/98. Heating oil USTs installed before 8/1/85 don't ever require corrosion protection. Steel piping/steel USTs installed between 8/1/85 and 12/22/88 should be cited as inadequate, but not recommended for reduction. ASTs do not require corrosion protection.

__X__**Adequate** ____**Inadequate** Recommend Reduction? Yes____ No____

STATE TANKS, FEDERAL TANKS (cont.)

AST Secondary Containment: Yes_____ No_____ N/A__X__
___**Adequate** ___**Inadequate** Recommend Reduction? Yes___ No___

FEDERAL TANKS

Spill Prevention: Yes_____ No_____ N/A__X__
Applicable for USTs installed after 12/22/88. USTs installed before 12/22/88 require spill prevention by 12/22/98.

_____**Adequate** _____**Inadequate** Recommend Reduction? Yes_____ No_____

Overfill Protection: Yes_____ No_____ N/A__X__
Applicable for USTs installed after 12/22/88. USTs installed before 12/22/88 require spill protection by 12/22/98.

_____**Adequate** _____**Inadequate** Recommend Reduction? Yes_____ No_____

Leak Detection: Tanks: Tank Leak Detection: Yes_____ No_____ N/A_____

Tank Tightness Testing Yes_____ No_____ N/A_____

If tank was installed	Then the leaks detection deadline is
before 1965 or unknown	12/22/89
1965-1969	12/22/90
1970-1974	12/22/91
1975-1979	12/22/92
1980-12/22/88	12/22/93

Tanks installed after 12/22/88 should have leak detection at installation.

Piping: Pipe leak detection: Yes:_____ No_____ N/A__X__

Pipe tightness testing: Yes_____ No_____ N/A__X__

Applicable for pressurized piping installed after 12/22/88. Pressurized piping installed before 12/22/88 must have leak detection by 12/22/90.

__X__**Adequate** _____**Inadequate** Recommend Reduction? Yes_____ No_____

Comments_____

Tanks Properly Closed: Yes__X__ No_____ Tanks must be removed or properly closed in place within one year of the date they are taken out of service. Applicable for USTs only.

__X__**Adequate** ____**Inadequate** Recommend Reduction? Yes____ No____

Completed by: M. Kaplan Date: 4/15/97

1338

MINNESOTA PETROLEUM TANK RELEASE COMPENSATION BOARD
Application for Reimbursement

PART I APPLICATION PROCESS

(Check One) Check appropriate Phase and complete the information requested for the Phase checked (See Application Guide).

[ ] **Phase 1.** MPCA approval of Soil Corrective Action Plan SCAP).
a) Date of SCAP approval __/__/__. (Attach copy)
b) Date SCAP was submitted to MPCA __/__/__.

State of Minnesota
JUN 26 1996
Dept. of Commerce

[X] **Phase 2.** Submission of Documentation of Soil Treatment
Date Documentation was submited to MPCA __/__/__.

[ ] **Phase 3.** MPCA approval of Comprehensive Correctin Action Plan (CCAP)
a) Date of CCAP approval __/__/__. (Attach copy)
b) Date CCAP was submitted to MPCA __/__/__.

on 4/2/97 O.K. do accept old app. C.S.

[ ] **Phase 4.** Submission of CCAP Installation Letter to MPCA
Date of CCAP Installation Letter __/__/__. (Attach copy)

[X] **Ongoing Expenses** Following Phase 4 Reimbursement or MPCA Site Closure or Conditional Closure

PART II APPLICANT INFORMATION

Please be advised that the information used to support this application is subject to audit by the MPCA and MDOC.

1. "Responsible Person" [X] "Volunteer" [ ] or "Non-Responsible Person" [ ]
(check one) (see application guide)

Name: John Sandahl, Assistant Chief Engineer

2. Mailing Address: Minnesota Department of Transportation
~~395 John Ireland Blvd., Room 413~~ OFFICE OF ENVIRONMENTAL SERVICES
~~St. Paul, MN 55155~~ 3485 HADLEY AVE N.
Phone (612) ~~296-1344~~ 779-5102 OAKDALE MN 55128

3. Site ID: Leak # 00001338

4. The applicant is a: [ ] Corporation [ ] Partnership [ ] Individual [X] Other Mn/DOT

5. Applicant was the owner or operator of the tank from __/__/__ to 10/25/89.

6. "Volunteer" Applicant owned property from __/__/__ to __/__/__.

7. Has applicant executed any Petrofund assignment aggrements? yes___ no X

Name of asignee(s)_____ (attach copy of agreement)

PART III TANK FACILITY

1. Name of "Tank Facility" (see application guide) where the petroeum release occurred:
   Jordan Maintenance Truck Station

2. Tank Facility address: 705 Syndicate Street
   Jordan, Minnesota 55352

3. Contact Person at Tank Facility: Carl Hoffstedt
   Phone: (612) 847-1412

4. To the best of your knowledge, list all other persons besides the applicant who were owners or operators of the tank during or after the petroleum release:

5. Did any of the persons listed in question 4 incur corrective action costs related to this pretroleum release? yes___ no___ If yes, list name and address if known:

6. Date when petroleum release was detected: 10/20/89.

   What test was performed to initially establish that a release occurred? Leak discovered during tank removal.

7. Date when petroleum release was reported to the MPCA: 10/20/89

8. a. Which tanks (or associated piping) were the source of the release at this tank facilitfy? (see application guide)

   Not definitely determined.

   b. What was the cause of the release?

   Possibly overfill of tank, piping fitting leaks or surface spills but not definitely determined.

9. Was this tank(s) used only to store heating oil for consumptive use on the premises where stored? (check one) **YES [ ] NO [X]**

PART IV TANK INFORMATION AND COMPLIANCE

(Note: If you do not know if tanks are registered and/or prior to tank removal notice was given, enter "unk" (unknown) for these items. Please do not contact the MPCA for this information.)

A. **Underground Storage Tanks.** Complete the following information to reflect the status of your underground storage tanks at the time the release was discovered. Refer to the attachment ***"Do Underground Storage Tanks and Piping Requirements Apply to Your Petroleum Tank?"*** and ***"What Do You Have To Do?/When Do You Have To Act?"*** to determine the applicability of registration, leak detection, corrosion protection, and spill/overfill protection.

(Please attach additional sheets of more than five tanks are involved.)

Tank	Petroleum Product	Capacity	Type of Tank	Date Installed	Registered Yes/No/Unk	Date Removed
1	unleaded gasoline	1,200 gal	steel	unk	unk	10/20/89
2	diesel fuel	3,000 gal	steel	unk	unk	10/20/89
3						
4						
5						

Tanks				Piping		
Tank	Leak Detection (Methods)	Corrosion Protection (Yes/No)	Spill/Overfill Protection (Yes/No)	Type of Piping	Leak Detection (Methods)	Corrosion Protection (Yes/No)
1	inventory	no	none	steel	inventory	no
2	inventory	no	none	steel	inventory	no
3						
4						
5						

Tank	Tank Tightness Test Dates	Piping Tightness Test Dates

* Was 10-day prior tank removal notice given to MPCA? (YES/NO) yes .

* Which MPCA office was notified:

St. Paul	X
Duluth	
Brainerd	
Detroit Lakes	
Marshall	
Rochester	

* If the tank(s) involved in the release was removed after July 9, 1990, complete the following:

Removal Contractor: _____

MPCA Contractor **(NOT Supervisor)** Certification Number: _____

* If the tank(s) involved in the release was installed after July 9, 1990, complete the following:

Installation Contractor: _____

MPCA Contractor **(NOT Supervisor)** Certification Number: _____

B. **Aboveground Storage Tanks.** Complete the following information to reflect the status of the above ground tanks involved in the release at the time the release was discovered.

In describing your secondary containment, specify:

* materials used to construct both the base and the walls, including type and thickness of materials (e.g., 6" compacted clay, 30 mil HDPE, reinforced concrete slab floor/concrete block walls, none)

* how material specifications are known (e.g., permeability tests/dates, installation specifications)

* is the volume of the secondary containment area adequate for the contents of the largest tank (Y/N)

Tank	Contents	Capacity	Date Installed	Registered Yes/No/Unk	Description of Secondary Containment Walls	Base	Verification	Vol
Sample	**unleaded**	**15,000**	**5/86**	**Y**	**Concrete Block**	**6" Compact clay/6" gravel fill**	**Perm test on (date)**	**N**

Are there any special circumstances you would like the persons reviewing your application to be aware of?
Please explain: **Any questions regarding the preparation of this application should be directed to: Leo C. Ryan, P.E. Transportation Building, M.S. 696, Phone 296-2743**

PART V ELIGIBLE COSTS

1. The Eligible Cost Worksheets attached are for INVESTIGATION costs, CLEAN-UP costs, and CONSULTANT costs. These worksheets must be completed listing each corrective action for which you are requesting reimbursement.

2. Invoices submitted with this application cover the period from 10/24/89 to 7/6/92

3. Area any of the costs listed in the Eligible Cost Worksheets in dispute? yes___ no_X_
(see application guide)

4. At this time, do you anticipate incurring any Ongoing corrective action costs relative to the petroleum release at this Tank Facility? yes___ no_X_

   If yes, explain briefly what work will be done and an approximate cost of that work.

   _____

   _____

5. a. Please state the total amount of contaminated soil which was treated at this site (cubic yards or tons): 100 cubic yards treated at Plymouth Truck Station Site

   b. What was the soil contamination concentration (total hydrocarbons) 150 ppm?

6. Has the applicant been eligible to recover cleanup costs arising from this petroleum release under any insurance policy at any time since June 4, 1987? yes__ no_X_

   If yes, provide the following:

Insurance Company	Policy #	Policy Limits	Deductible	Period Covered
				/ /
				/ /

7. Total of all eligible costs as listed in the Eligible Cost Worksheets: $17,435.85

   X 90%

   = $15,692.27

   Insurance Reimbursement (Subtract) = $(none)

   Total Reimbursement Request (See application guide) = $15,692.27

PART VI CONTRACTORS/CONSULTANTS

1. Complete the following for all contractors, subcontractors, consultants, engineering firms or other who performed corrective actions at this release site. (see application guide) **Failure to provide this information for ALL persons who performed corrective action may result in an action to recover any reimbursement which may be paid.** (Attach additional sheets if necessary).

   Name of individual or firm: STS Consultants, Ltd.

   Mailing address: 3650 Annapolis Lane, Minneapolis, MN 55447

   Contact person: Leslie Storving Phone: (612) 559-1900

   Name of individual or firm: Thermal Remediation, Inc.

   Mailing address: 443 8th Avenue N.W. New Brighton, MN 55112

   Contact person: David J. Ryak Phone: (218)829-5117

   Name of individual or firm: Braun Intertec Environmental Services, Inc

   Mailing address: P.O. Box 39108, Minneapolis, Minnesota

   Contact person: Ronald C. Weaver Phone: (612) 946-6001

   Name of individual or firm: _____

   Mailing address: _____

   Contact person: _____ Phone: _____

   Name of individual or firm: _____

   Mailing address: _____

   Contact person: _____ Phone: _____

2. Describe below any relationship, financial or otherwise, between the applicant and any contractor who performed work at this site:

PART VII **CERTIFICATION** **(see application guide)**

A. "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather an evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete.

"I certify that if I have submitted invoices for costs that I have incurred but that remain unpaid, I will pay these invoices within 30 days of receipt of reimbursement from the board. I understand that if I fail to do so, the board may demand return of all or any portion of reimbursement paid to me and that if I fail to comply with the board's demand, that the board may recover the reimbursement plus administrative and legal expenses in a civil action in district court. I understand that I may also be subject to a civil penalty."

Witnessed by:

John E. Sandahl
Signature of Applicant

John E. Sandahl, Assistant Chief Engineer
Name (Please Print)

7/3/96
Date

Dawn Groen
Name

July 3, 1996
Date

Every applicant must sign Part A. above. If applicant is a corporation or partnership, the following certification must also be made:

"I further certify that I am authorized to sign and submit this application on behalf of

_____

_____ _____
Signature Name (Please Print)

_____ _____
Title (See Application Guide, Part VI) Date

Please send this application and accompanying documents to:

Petroleum Tank Release Compensation Board
Minnesota Department of Commerce
133 East Seventh Street
St. Paul, Minnesota 55105
(612) 297-4203
(612) 297-1119

PART IV ELIGIBLE COST WORKSHEET - INVESTIGATION AND CLEAN-UP

- **Descriptions must be specific as to work performed.**
- **Invoices must be submitted for each cost listed below.**
- **Duplicate this form if additional worksheets are needed.**

A. SOIL BORINGS/MONITORING WELLS - ETC.

Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub-Total
Remedial investigation and installation of monitoring wells.	Braun Intertec Environmental, Inc.	040806 12/25/92	14.5 ft	$239.60 per ft	$3,474.25
"	"	041302 2/19/93	n/a	n/a	$185.40
"	"	041693 3/19/93	n/a	n/a	$1187.80
"	"	042462 4/16/93	n/a	n/a	$375.40
				TOTAL	$5,222.85

B. LABORATORY TESTS AND ANALYSIS

Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub-Total
				TOTAL	

PART IV ELIGIBLE COST WORKSHEET - INVESTIGATION AND CLEAN-UP

- **Descriptions must be specific as to work performed.**
- **Invoices must be submitted for each cost listed below.**
- **Duplicate this form if additional worksheets are needed.**

C. EXCAVATION

Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub-Total
				TOTAL	

D. SOIL DISPOSAL

Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub-Total
Contaminated soil from Plymouth, Ft. Snelling and Jordan Truck Stations was thermally treated at the Plymouth Truck Station.	Thermal Remediation, Inc. 443 8th Avenue N.W. New Brighton, MN 55112	6/04/90 to 6/29/90	700 cyd	$40.00 /cyd	$28,000.00
Personnel and equipment to conduct the burning of the contaminated soil.	Plmouth Truck Station Equipment (Code E) Labor (Code M) LaborAdditive (Code N)	6/04/90 to 6/29/90	950 mi 215 hr 557.5 hr	$0.22/mi $3.03 /hr $13.65/hr 49.9%	$209.00 $442.90 $7,521.63 $3,620.30
Above costs combined			700 cyd	$56.85 /cyd	**$39,793.83**
Amount prorated to the Jordan Truck Station			100 cyd	$56.85 /cyd	$5,685.00
				TOTAL	**$5,685.00**

PART IV ELIGIBLE COST WORKSHEET - INVESTIGATION AND CLEAN-UP

- **Descriptions must be specific as to work performed.**
- **Invoices must be submitted for each cost listed below.**
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E. WATER TREATMENT

Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub-Total
				TOTAL	

PART IV ELIGIBLE COST WORKSHEET - INVESTIGATION AND CLEAN-UP

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F. TRUCKING

Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub-Total
Load and haul contaminated soil from Jordan and Ft. Snelling to Plymouth Truck Station and haul pea rock for backfill.	Plymouth Truck Station Equipment (Code E) Labor (Code M) Labor Additive (Code N)	10/24/89 to 11/07/89	 281 hr 375 hr	 $14.13/hr $12.82/hr 48.7%	 $3,971.74 $4,807.75 $2,339.57
Load and haul contaminated soil from Jordan and Ft. Snelling to Plymouth Truck Station and haul pea rock for backfill.	Ft. Snelling Truck Station Equipment (Code E) Labor (Code M) Labor Additive (Code N)	10/24/89 to 11/07/89	 204 hr 209 hr	 $16.88/hr $13.55/hr 49.0%	 $3,054.66 $2,833.13 $1,388.01
aul contaminated soil from Jordan and Ft. Snelling to Plymouth Truck Station and haul pea rock for backfill.	Eden Prairie Truck Station Equipment (Code E) Labor (Code M) Labor Additive (Code N)	10/24/89 to 11/07/89	 16 hr 16 hr	 $23.44/hr $12.95/hr 49.5%	 $375.04 $207.20 $102.64
Haul contaminated soil from Jordan and Ft. Snelling to Plymouth Truck Station and haul pea rock for backfill.	France Ave Truck Station Equipment (Code E) Labor (Code M) Labor Additive (Code N)	10/24/89 to 11/07/89	 32 hr 32 hr	 $23.44/hr $12.95/hr 49.5%	 $750.08 $414.40 $205.29
Haul contaminated soil from Jordan and Ft. Snelling to Plymouth Truck Station and haul pea rock for backfill.	Golden Valley Headquarters Equipment (Code E) Labor (Code M) Labor Additive (Code N)	10/24/89 to 11/07/89	 32 hr 32 hr	 $23.44/hr $12.95/hr 49.5%	 $750.08 $414.40 $205.29
Haul contaminated soil from Jordan and Ft. Snelling to Plymouth Truck Station and haul pea rock for backfill.	Jordan Truck Station Equipment (Code E) Labor (Code M) Labor Additive (Code N)	10/24/89 to 11/07/89	 48 hr 48 hr	 $23.44/hr $12.95/hr 49.5%	 $1125.12 $621.60 $307.93
Haul contaminated soil from Jordan and Ft. Snelling to Plymouth Truck Station and haul pea rock for backfill	Laddie Lake Truck Station Equipment (Code E) Labor (Code M) Labor Additive (Code N)	10/24/89 to 11/07/89	 16 hr 16 hr	 $23.44/hr $12.95/hr 49.5%	 $375.04 $207.20 $102.64
Haul contaminated soil from Jordan and Ft. Snelling to Plymouth Truck Station and haul pea rock for backfill	Maple Grove Truck Station Equipment (Code E) Labor (Code M) Labor Additive (Code N)	10/24/89 to 11/07/89	 16 hr 16 hr	 $23.44/hr $12.95/hr 49.5%	 $375.04 $207.20 $102.64
Haul contaminated soil from Jordan and Ft. Snelling to Plymouth Truck Station and haul pea rock for backfill	Shackopee Truck Station Equipment (Code E) Labor (Code M) Labor Additive (Code N)	10/24/89 to 11/07/89	 128 hr 128 hr	 $23.44/hr $12.95/hr 49.5%	 $3,000.32 $1,657.60 $821.15
				TOTAL	**$30,722.77**

PART IV ELIGIBLE COST WORKSHEET - INVESTIGATION AND CLEAN-UP

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F. TRUCKING (continued)

Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub-Total
Sub total of combined costs for trucking of soil and pea rock	Equipment (Code E) Labor (Code M) Labor Additive (CodeN)	10/24/89 to 11/07/89	773 hr 880 hr	$17.82/hr $13.10/hr 49.0%	$13,777.12 $11,370.48 $5,575.17
Combined costs (400 cyd soil to Plymouth & 700 cyd pea rock)	Mn/DOT	10/24/89 to 11/07/89	1100 cyd	$27.93/yd	**$30,722.77**
Amount prorated to the Jordan Truck Station (200 cyd pea rock)	Mn/DOT	10/24/89 to 11/07/89	200 cyd	$27.93/yd	$5,586.00
				TOTAL	**$5,586.00**

G. EMERGENCY and TEMPORARY HAZARD CONTROL (See application guide)

Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub-Total
				TOTAL	

PART IV ELIGIBLE COST WORKSHEET - INVESTIGATION AND CLEAN-UP

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H. SITE RESTORATION AND CLOSURE
(See application guide)

Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub-Total
Replaced contaminated soil with pea rock material from stockpile and vendor.	J.L. Shiely Co. 1101 Snelling Ave. N. St. Paul, MN 55108	10/27/89 to 11/07/89	150 ton	$6.28/ton	$942.00
				TOTAL	**$942.00**

I. OTHER CLEAN-UP or INVESTAGATION COSTS

Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub-Total
				TOTAL	

PART IV ELIGIBLE COST WORKSHEET - CONSULTANT SERVICES

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J. REPORT PREPARATION; DATA COLLECTION; OPERATION OVERSIGHT AND MAINTENANCE; SYSTEM MONITORING; CORRESPONDENCE; MILEAGE; POSTAGE; AND PER DIEM

Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub-Total
				TOTAL	

PART IV ELIGIBLE COST WORKSHEET - CONSULTANT SERVICES

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K. MARK-UP

Description	Firm Name	General Contractor Invoice #	Sub-Contractor Invoice #	Mark Up %	Sub-Total
				TOTAL	

L. OTHER CONSULTANT SERVICES (specify)

Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub-Total
				TOTAL	