Leaksite ID# 7371	Tank Facility ID 3025
HANUS BUS COMPANY INC	FRED & SUSAN HANUS
Site Name	Responsible Party

LEAKSITE REMARKS

==========REMARKS==========

5/16/94 MDN: Release reported by Doug Mensing, Summit Env. Contamination discovered during site assessment. Borings in area of a diesel UST (exact location of tank not verified) indicated vapor readings at the surface and 15 ft. Soil sent for testing. Groundwater estimated at 30 ft. Contamination also found in the area of a floor drain discharge. The drain from inside the shop discharges onto the ground outside. A boring in this area indicated contamination from the surface to the termination of the boring at 15 ft.

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05/22/95: KAS called Doug Mensing (Summit) to get an update. There is an UST and AST at this site. It sounds like the releases from the tanks are minor. Also, the site has contamination near the discharge pipes for the floor drains in the bus garage. Apparently, there are two floor drains in the bus garage and they discharge onto the gravel parking lot. When Summit was at the site performing a phase one, they detected organic vapors in the area on the gravel lot where the floor drains discharge to. He said he talked w/BAH on 12/8/94 about it. I told him I would talk w/ spills abou the floor drain issue and call him back. He will send in a copy of the phase one. Because he was waiting for our assistance since Dec., I will extend the deadline for a report until 7/30/95. KAS

05/24/95: KAS talked w/MDN. He said that the non-tank/petro contam. should be handled by the VPIC program. He suggested that the tank contam. be dealt w/ and then suggest to the RP to go

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05/28/96: File ready to close. Letter to typing. KAS

09/24/97 sent to archives kl

End of Remarks

TSR040 Remarks Listing For Leaksite = 7371
Report Date: May 28, 1996

Leaksite ID# 7371	Tank Facility ID 3025
HANUS BUS COMPANY INC	FRED & SUSAN HANUS
Site Name	Responsible Party

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End of Remarks

MINNESOTA POLLUTION CONTROL AGENCY
TANKS AND SPILLS SECTION
PETROLEUM TANK RELEASE REPORT

Report Taken By: MDN
Date/Time Occurred:
Date/Time Reported: 5/16/94
Date/Time Discovered: 5/13/94

LEAK# 7371 | PROJECT MANAGER: BAH | USTIS # 3025

CALLER
Name: Douglas Mersing
Phone: 595-8888
Relationship to site: Summit Env. (representing potential buyer)

SITE
Name: Hanus Bus Company Inc.
Street: 4500 Tonka wood Road
City: Minnetonka Zip: 55345
County: Hennepin Region: M/3

TANK OPERATOR
Name:
Street:
City: Zip:
Contact Person:
Phone:

TANK OWNER
Name: Fred & Sue Hanus
Street: 4500 Tonkawood Road
City: Minnetonka St.: MN Zip: 55345
Contact Person: Sue Hanus
Phone: (612) 935-1808

Own tanks/product/property?
Share in profits?
Control over inventory, maintenace and tank decisions?

SITUATION
Material Released/Amount: DIESEL

Source of Release: UST

Release Discovery: ASSESSMENT

TANK INFORMATION

Contents	Size	Age	Removed	Condition	Registered
DIESEL	7,500	10 yrs old	no		
UNLEADED	10,000	20 yrs	no		
GASOLINE (empty)	1,000	30 yrs	no		

State or Federal Excavation Contractor:
Notification prior to removal:
Consultant:

SOIL
Contaminated soil excavated: no
Was it a total excavation: —
Vapor readings: 33 ppm
Soil samples:
Borings:
Native soil type: sand
Stockpiled properly/disposal arranged: —
Other:

Boring
Surficial Staining: 2 ppm
ND
15' 16 ppm
proximity unknown to tank

borings
Shop building on site
- floor drains discharge on soil surface
OVM = 3 to 33 ppm
Surface to 15' 29, 33, 10, 6, 24
15' 3 ppm

WATER
Groundwater in excavation: ~~boring~~ no

Free product present: —

Depth to groundwater: unknown - believed to be 30'

City water/wells private/municipal:

Surface water: small wetland area W/NW on adjacent

VAPORS.
Sewers/buildings: no

SITE INFORMATION
Description of area:

Previous release(s):

INSTRUCTION GIVEN	**CONTACTS**
Hire consultant	Local Fire/Police
Submit report	Local Officials
Staff will call	Regional Staff
Contact staff	Other

CONCLUSIONS AND OTHER RELATED INFORMATION

- consultant

STATE OF MINNESOTA

DEPARTMENT OF PUBLIC SAFETY – DIVISION OF EMERGENCY MANAGEMENT
85 STATE CAPITOL SAINT PAUL 55155-1049

MINNESOTA DUTY OFFICER
HAZARDOUS MATERIAL INCIDENT REPORT: TANKS

REPORT DATE: 5/10/94 TIME: 1612 DUTY OFFICER: TONY RECORD#:

REPORTED BY:
NAME: DOUGLAS MENSING
C/O: SUMMIT ENVIRO SOLUTIONS
ADDRESS:
CITY: STATE:
PHONE: 595-8888 ZIP:
ALT.PHONE:

SUSPECTED SOURCE/RESPONSIBLE PARTY:
CONTACT: FRED & SUE HANUS
C/O: HANUS BUS CO. INC.
ADDRESS: 4500 TONKAWOOD RD
CITY: MINNETONKA STATE: MN
PHONE: 935-1808 ZIP: 55345
ALT.PHONE:

DISCOVERY DATE: 5/13/94 TIME: PM
SITE NAME & LOCATION: HANUS BUS CO. INC., 4500 TONKAWOOD RD, MINNETONKA, HENNEPIN CO.
LEGAL: – SECTION: – TOWNSHIP: – RANGE: –
NUMBER/SIZE OF TANK(S): ONE 7500 GAL. UST - STILL IN USE
TANK CONTENTS: DIESEL
NATIVE SOIL TYPE: SAND / CLAY
PREVIOUSLY REPORTED SITE?: YES / (NO) / UNKNOWN LEAK #:
CONTAMINATED SOIL EXCAVATED?: YES / (NO) / UNKNOWN QUANTITY:
GROUND WATER ENCOUNTERED?: YES / NO / UNKNOWN DEPTH TO GW: EST. 30 FT.
FREE PRODUCT FOUND?: YES / (NO)
STAINED SOIL?: (YES) / NO PETROLEUM ODORS: YES / (NO)
HIGH VAPOR READINGS: 33 ppm @ 15 ft. ANALYTICAL RESULTS: –

NARRATIVE: ALSO FOUND CONTAMINATION IN BORING FROM OUTLET OF SHOP FLOOR DRAIN WHICH EMPTIES TO SURFACE SOIL OUTSIDE. THAT BORING HIGH VAPOR READING WAS 33 PPM.

HAS MATERIAL ESCAPED FACILITY PROPERTY?: YES / NO / (UNKNOWN)

**IS THIS A BUSINESS OR GOVERNMENT FACILITY REPORTING IN COMPLIANCE WITH SARA TITLE III, SECTION 304?: YES / (NO) / UNKNOWN
(IF YES, COMPLETE PAGE TWO: SARA SUPPLEMENT)

DUTY OFFICER NOTIFICATIONS MADE (AGENCY, NAME, TIME)

MPCA - TANKS MIKE N. 1612	
SERC j/m VO MAIL -	
MPCA - TANKS FAX	

QUESTIONS? CONTACT THE MINNESOTA DUTY OFFICER AT 649-5451 OR 1-800-422-0798

Minnesota Pollution Control Agency

May 29, 1996

Ms. Sue Hanus
Hanus Bus Company
4500 Tonkawood Boulevard
Minnetonka, Minnesota 55345

RE: Petroleum Tank Release Site File Closure/8,000 Gallon Diesel Tank
Site: Hanus Bus Company Incorporated, 4500 Tonkawood Road, Minnetonka
Site ID#: LEAK00007371

Dear Ms. Hanus:

We are pleased to let you know that the Minnesota Pollution Control Agency (MPCA) Tanks and Emergency Response Section (TERS) staff has determined that your investigation and/or cleanup has adequately addressed the 8,000 gallon diesel fuel underground storage petroleum tank (diesel tank) release at the site listed above. Based on the information provided, the TERS staff has closed the release site file.

This letter only closes the investigation work completed in conjunction with removal of the diesel tank as discussed in the Excavation Report completed by Summit Envirosolutions dated June 7, 1995. Information in the Excavation Report and the Phase I Environmental Site Assessment suggests that several other tanks still exist at the site. Please note that any tank which is empty and not currently being used must be removed according to Minnesota Uniform Fire Code, Chapter 79.116 within one year of discontinuing use. Also, all other tanks that are currently being used must in compliance with MPCA tank rules. If you have questions about applicable tank rules, please call 297-8679. Enclosed with this letter are fact sheet that provide additional information on tank regulations.

Also, the Phase I Environmental Site Assessment states that several of the areas are contaminated with petroleum that is not associated with a regulated tank system. Therefore, MPCA TERS staff will not actively oversee the investigation and/or cleanup of the contamination of these areas at this time or in the foreseeable future. However, please be aware that the file regarding this release of petroleum at your property remains open. To request regulatory review of the actions you take in response to the non-tank related petroleum contamination, you may enter the MPCA's Voluntary Petroleum Investigation and Cleanup program. In accordance with state law, the applicant will be billed for the time spent by Voluntary Petroleum Investigation and Cleanup staff to review the site file. If you have any questions about the Voluntary Petroleum Investigation and Cleanup program, please contact Laurie Kania at 612/297-8600.

This closure letter indicates that the TERS staff does not require any additional investigation and/or cleanup work at this time in regards to the diesel tank. The MPCA reserves the right to reopen this file and to require additional investigation and/or cleanup work if new information or changing regulatory requirements make additional work necessary. If you or other parties discover additional contamination (either petroleum or nonpetroleum) that was not previously reported to the MPCA, Minnesota law requires that the MPCA be immediately notified.

You should understand that this letter does not release any party from liability for the petroleum contamination under Minn. Stat. ch. 115C (1994) or any other applicable state or federal law. In addition, this letter does not release any party from liability for nonpetroleum contamination, if present, under Minn. Stat. ch. 115B (1994), the Minnesota Superfund Law.

Because you performed the requested work, the State may reimburse you for a major portion of your costs for the cleanup and investigation work pertaining to the diesel tank. The Petroleum Tank Release Cleanup Act establishes a fund which may provide partial reimbursement for petroleum tank release cleanup costs. This fund is administered by the Department of Commerce Petro Board. Specific eligibility rules are available from the Petro Board at 612/297-1119 or 612/297-4203.

If future development of this property or the surrounding area is planned, it should be assumed that petroleum contamination may still be present. If petroleum contamination is encountered during future development work, the MPCA staff should be notified immediately.

For specific information regarding petroleum contamination that may remain at this leaksite, please call the TERS File Request Program at 612/297-8499. The "Leak/Spill and Underground Storage Tank File Request Form" (TERS Fact Sheet #35) must be completed prior to arranging a time for file review.

Thank you for your response to this petroleum tank release and for your cooperation with the MPCA to protect public health and the environment.

If you have any questions regarding this letter, please call me at 612/297-8582. Thank you.

Sincerely,

Diana Schaberg

for Kathryn Serier
Project Manager
Cleanup Unit III
Tanks and Emergency Response Section

KAS:dms

Enclosures

cc: Betty Norton, City Clerk, Minnetonka
Joe Wallin, Fire Chief, Minnetonka
Scott Tracy, Summit Envirosolutions, Minneapolis
Minnesota Department of Commerce, Petrofund Staff

MPCA TANKS AND SPILLS SECTION
SITE SUMMARY FORM

Site Name: Hanus Bus Company, Inc.
Leak Site #: LEAK 7371
Project Manager: Kathryn Serier
Leak report date: 05/16/94
Discovery Date: 05/13/94
Consultant(s): Summit Environmental
Reports Reviewed: Phase I Environmental Site Assesssment and Limited Subsurface Assessment
Exacavation Report for Petroleum Release Sites
Date Reviewed: 05/16/96
Reviewed by: Kathryn Serier

Tank Information:

Tank Number	Contents of Tank	Capacity of Tank	Type of Tank	Date Tank Removed	Condition of Tank	Age of Tank
2	diesel	8000 gal	steel - UST	9/15/94	good	10 years
1	gas	10,000 gal	steel	not removed		20 years
3	empty/ former waste oil	1,000 gal	AST	not removed		30 years

UST ID# 3025

Dates/Summary of major events:

4/18/94: Hand auger borings were conducted as part of a site assessment
5/13/94: Soil borings were conducted as part of a site assessment.
6/6/94: A geoprobe investigation was completed as part of a site assessment
9/15/94: A diesel tank was removed from the property
9/15/94: < 1 cubic yard of petroleum contamiantion soil was thin-spread on site after the excavation

Summary: A site assessment was conducted April - June 1994. Six hand auger borings, 6 soil borings and 1 geoprobe point was completed as part of the site assessment. Petroleum impacted soil was encountered at the deisel fuel pump and diesel UST, waste oil AST, the area of the floor drain discharge pipes, and minor soil staining in the north parking lot.

The hand auger borings detected high levels, but only w/in the first few inches of hte surface. Also, minimal contamination was encountered in the other borings w/ the exception of the geoprobe #P-3. At 14.5 feet to 16.5 feet levels as high as 6.9 ppm GRO and 162 ppm DRO were detected. However, results from the same probe at 20 feet bls were non-detect.

Based upon the results of the phase I, Summit recommended excavation of the diesel UST.

Soil Information:

Was soil excavated? < 1 cubic yard

Date soil excavated: 9/15/94

Maximum levels remaining: Excavation sidewalls: 29 ppm (organic vapors w/ PID)

Excavation bottom: ND (organic vapors w/ PID)

Soil samples collected from the tank basin bottom were ND for DRO and BETX

Soil treatment method: Thin spread on site

Ground Water Information:

Was ground water encountered? No

Petrofund Issues: The release was not reported on time. Also, during the phase I investigation, several non-tank areas were investigated. These expenses are not eligible for petrofund reimbursement.

MPCA staff recommendation:

During the review, MPCA staff called the consultant w/ many questions regarding the non-tank petroleum areas and the other tanks located on site that were not addressed in the reports. After the discussion, it was decided to close ONLY the portion of the site related to the removal of the 8,000 gallon diesel UST. All the other tanks located on site are in use and/or going to be removed some day. I will specify in the closure letter that all existing tanks follow all applicable tank rules and regs and all unused/empty tanks have to be removed within 1 year, etc. Also, I will also specify in the closure letter that the non-tank petroleum contamination at the site be reviewed by the VPIC program.

The consultant recommends that no additional work is needed regarding the diesel tank release, LEAK 7371. Minimal contamination was encountered during excavation activities and the extent of contamination has been defined. Also, it does not appear that vapors and/or gw contamination problems are associated w/ the contamination from the diesel tank. MPCA staff agree with the conclusions of the consultant that LEAK 7371 be closed.

It should be noted that several other areas on the site have been impacted by petroleum contamiantion. However, these releases are not assosciated w/ a petroleum tank(s). Therefore, MPCA staff will recommend in the file closure letter for LEAK 7371 that the VPIC program be contacted if they want a review of that information and a decision on the non-tank petroleum contamination.

Also, MPCA staff will recommend that the additional tanks at the site be upgraded and/or make sure that all applicable tank rules and regs are being followed.

EXCAVATION REPORT FOR PETROLEUM RELEASE SITES

Minnesota Pollution Control Agency
Tanks and Spills Section
August 1994

COPY

Complete the information below and submit to the Minnesota Pollution Control Agency (MPCA) Tanks and Spills Section to document excavation and treatment of petroleum contaminated soil. Conduct excavations in accordance with "Excavation of Petroleum Contaminated Soil" (Fact Sheet #13). Please attach any available preliminary site investigation reports to this excavation report.

RECEIVED
JUN 13 1995
MPCA, HAZARDOUS WASTE DIVISION

Additional pages may be attached. Please type or print clearly.

The excavation reporting deadline is 10 months from the date of receipt of the standard letter. A shorter deadline may be established by MPCA staff for high priority sites.

I. BACKGROUND

A. Site: **Hanus Bus Company, Inc.**
Street: **4500 Tonkawood Road**
City, Zip: **Minnetonka, Minnesota**
County: **Hennepin**

MPCA Site ID#: LEAK7371

B. Tank Owner/Operator: **Fred Hanus**
Mailing Address:
Street/Box: **4500 Tonkawood Road**
City, Zip: **Minnetonka, 55343**
Telephone: **(612) 935-1808**

C. Excavating Contractor: **Frattalone Excavating, Inc.**
Contact: **Tony Frattalone**
Telephone: **(612) 484-0448**
Tank Contractor Certification Number: **0040**

D. Consultant: **Summit Envirosolutions**
Contact: **D. Mensing/S. Tracy**
Street/Box: **10201 Wayzata Blvd. #100**
City, Zip: **Minnetonka, 55305**
Telephone: **(612) 595-8888**

E. Others on-site during site work (e.g., fire marshal, local officials, MPCA staff, etc.):

Fire Marshal # 9398598

Note: If person other than tank owner and/or operator is conducting the cleanup, provide name, address, and relationship to site on a separate attached sheet. **See attached sheet.**

II. DATES

A. Date release reported to MPCA: **5/16/94**

B. Dates site work performed:

Work Performed	Date
Tank Excavation	**9/15/94**
Thin Spreading	**9/15/94**

III. RELEASE INFORMATION

A. Provide the following information for all removed tanks.

Tank 2: Capacity **8000 Gal** Type **Steel** Age **~ 10 yrs**

Condition: **Excellent condition, no pitting or holes.**

Product history: **Diesel Fuel**

Approximate quantity of petroleum released, if known: **Unknown**

Cause of release: **Overfill**

B. Provide the following information for all existing tanks.

Tank No.	Capacity	Contents	Type	Age
1	**10,000**	**Gasoline**	**Steel**	**~ 20 Yrs**
3	**1000**	**Empty**	**Steel**	**~ 30 Yrs**

C. If the release was associated with the lines or dispensers, briefly describe the problem: **N/A**

D. If the release was a surface spill, briefly describe the problem: **Overfilling tank.**

IV. EXCAVATION

A. Dimensions of excavation: **~ 16'x30'x15'**

B. Original tank backfill material (sand, gravel, etc.): **Sand**

C. Native soil type (clay, sand, etc.): **Sand**

D. Quantity of contaminated soil removed (cubic yards): **1**

E. Was ground water encountered or was there evidence of a seasonally high ground water table? At what depth? **Groundwater was not encountered.**

F. If a soil boring was required, (see Face Sheet #13, "Excavation of Petroleum Contaminated Soil" Part VI Additional Investigation) describe the soil screening and analytical results. Attach the boring logs and laboratory results to this report. **N/A**

G. If no soil boring was required, explain. **Dug out of impacted soil; less than 1 yd^3 of soil impacted.**

H. If groundwater was encountered or if a soil boring was conducted, was there evidence of groundwater contamination? Specify, e.g., free product (specify thickness), product sheen, groundwater in contact with petroleum contaminated soil, water analytical results, etc. **N/A.**

[NOTE: If free product was observed, contact MPCA staff immediately as outlined in "Petroleum Tank Release Reports" (Fact Sheet #3). Also consult Fact Sheet #18, "Free Product: Evaluation and Recovery"]

I. Was bedrock encountered in the excavation? At what depth? **No**

J. Were other unique conditions associated with this site? If so, explain. **N/A**

V. SAMPLING

A. Briefly describe the field screening methods used to distinguish contaminated from uncontaminated soil:

Soil samples were screened for the presence of organic vapors using a OVM photoionization detector (PID) Model 580B. The OVM is equipped with a 11.8 electron volt lamp and calibrated with isobutylene balanced with air (1-C_4H_8/AIR) for direct reading in parts per million (ppm) volume/volume of benzene.

B. List soil vapor headspace analysis results. Indicate sampling locations using sample codes (with sampling depths in parentheses), e.g. R-1 (2 feet), R-2 (10 feet), etc. "R" stands for "removed". Samples collected at different depths at the same location should be labeled R-1A (2 feet), R-1B (4 feet), R-1C (6 feet), etc. If the sample was collected from the sidewall or bottom after excavation was complete, label it S-1 (for sidewall) or B-1 (for "bottom). Be sure the sample codes correspond with the site map required in part VI, below.

Sample Code	Soil Type	Reading ppm
R-1 (5')	**Sand**	**ND**
R-2 (5')	**Sand**	**ND**
R-3 (5')	**Sand**	**ND**
R-4 (5')	**Sand**	**ND**
R-5 (7')	**Sand**	**ND**
R-6 (13')	**Sand**	**ND**
R-7 (5')	**Sand**	**ND**
R-8 (13')	**Sand**	**ND**
R-9 (5')	**Sand**	**ND**
S-1 (5',13')	**Sand**	**ND**
S-2 (5',13')	**Sand**	**ND**
S-3 (5',13')	**Sand**	**ND**

Sample Code	Soil Type	Reading ppm
S-4 (5')	**Sand**	**ND**
S-5 (5')	**Sand**	**ND**
S-6 (5',13')	**Sand**	**ND**
S-7 (5',13')	**Sand**	**ND**
S-8 (5',13')	**Sand**	**ND**
S-9 (5',13')	**Sand**	**ND**
S-10 (13')	**Sand**	**29**
S-11 (5',13')	**Sand**	**ND**
S-12 (13')	**Sand**	**4**
S-13 (5',13')	**Sand**	**ND**
B-1 through B-6 (15')	**Sand**	**ND**

See Figure 3 for soil vapor locations.

C. Briefly describe the soil sampling and handling procedures used:

Soil samples were collected while wearing a new pair of disposable latex gloves. Soil sampling jars supplied by the laboratory were filled so minimal headspace was observed. The jar was then labeled and placed in a cooler with ice along with a chain-of-custody and transported to the laboratory.

D. List below the soil sample analytical results from the bottom and sidewall samples (i.e., soils left in place when excavation is complete). Code the samples with sampling depths in parentheses S-1 (8 feet), S-2 (4 feet), etc. Be sure the sample codes correspond to the site map required in part VI. Do not include analyses from the stockpiled soils.

Sample Code	**GRO** ppm	Benzene ppm	Ethyl-benzene ppm	Toluene ppm	Xylene ppm	**DRO** ppm	Lead ppm
B-1 (15')	**NA**	**< 0.001**	**< 0.001**	**< 0.001**	**< 0.001**	**< 8.0**	**NA**
B-2 (15')	**NA**	**< 0.001**	**< 0.001**	**< 0.001**	**< 0.001**	**< 8.0**	**NA**

NOTE: ATTACH COPIES OF LABORATORY REPORTS AND CHAIN OF CUSTODY FORMS

VI. FIGURES

Attach the following figures to this report:

1. Site location map.
2. Site map(s) drawn to scale illustrating the following:

   a. location (or former location) of all present and former tanks, lines, and dispensers;
   b. location of other structures (buildings, canopies, etc.);
   c. adjacent city, township, or county roadways;
   d. final extent and depth of excavation;
   e. location of soil screening samples (e.g. R-1), soil analytical samples (e.g., S-1 or B-1), and soil borings (e.g. SB-1). Also, attach all boring logs.
   f. north arrow, bar scale and map legend.

VII. SUMMARY

Briefly summarize evidence indicating whether additional-investigation is necessary at the site, as discussed in part VI of "Excavation of Petroleum Contaminated Soil" (Fact Sheet #13). If no further action is recommended, the MPCA staff will review this report following notification of soil treatment.

No further action is recommended regarding the diesel UST removed from the site. The area of impact was relatively small and was successfully removed during excavation activities.

VIII. SOIL TREATMENT INFORMATION

A. Soil treatment method used (thermal, land application, other). If you choose "other" specify treatment method: **Spread on dirt/gravel parking lot owned by Hanus Bus Company, Inc.**

B. Location of treatment site/facility: **On-site**

C. Date MPCA approved soil treatment (if thermal treatment was used after May 1, 1991, indicate date that the MPCA permitted thermal treatment facility agreed to accept soil): **N/A**

D. Identify the location of any stockpiled contaminated soil: **Approximately one cubic yard was spread on site.**

IX. CONSULTANT (OR OTHER) PREPARING THIS REPORT

Company Name:	**Summit Envirosolutions**
Street/Box:	**10201 Wayzata Boulevard, Suite 100**
City, Zip:	**Minnetonka, Minnesota 55305**
Telephone:	**(612) 595-8888**
Contact:	**Douglas M. Mensing/Scott C. Tracy**

Signature: _____ Date: 6/7/95

If additional investigation is not required at the site, please mail this form and all necessary attachments to:

Jessica Ebertz
Minnesota Pollution Control Agency
Hazardous Waste Division
Tanks and Spills Section
520 Lafayette Road
St. Paul, Minnesota 55155

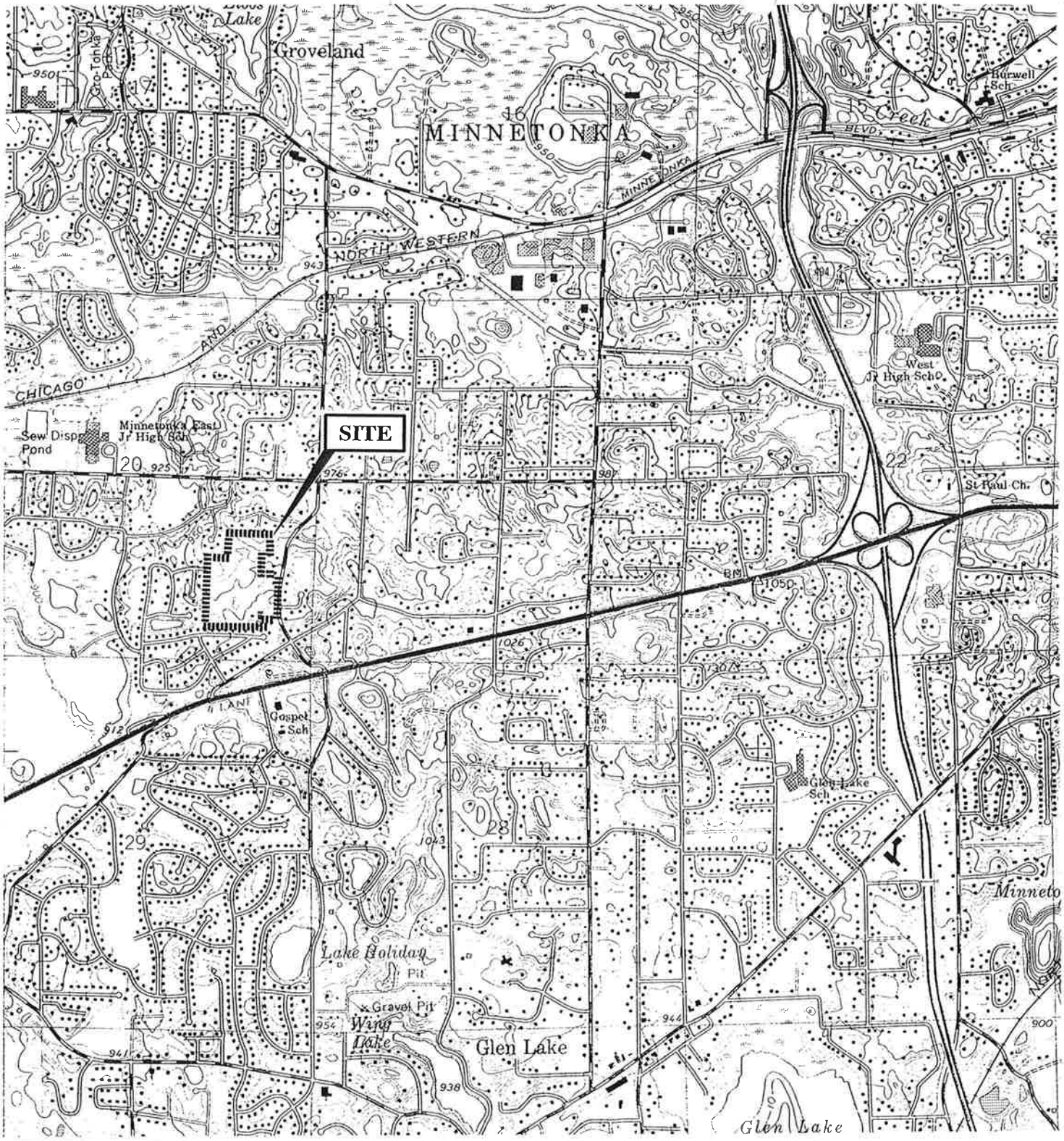
If additional investigation is required at the site, include this form as a section in the Remedial Investigation/Corrective Action Design report. Excavation reports indicating a remedial investigation (RI) is necessary will not be reviewed by MPCA staff until the RI has been completed.

Attachment:

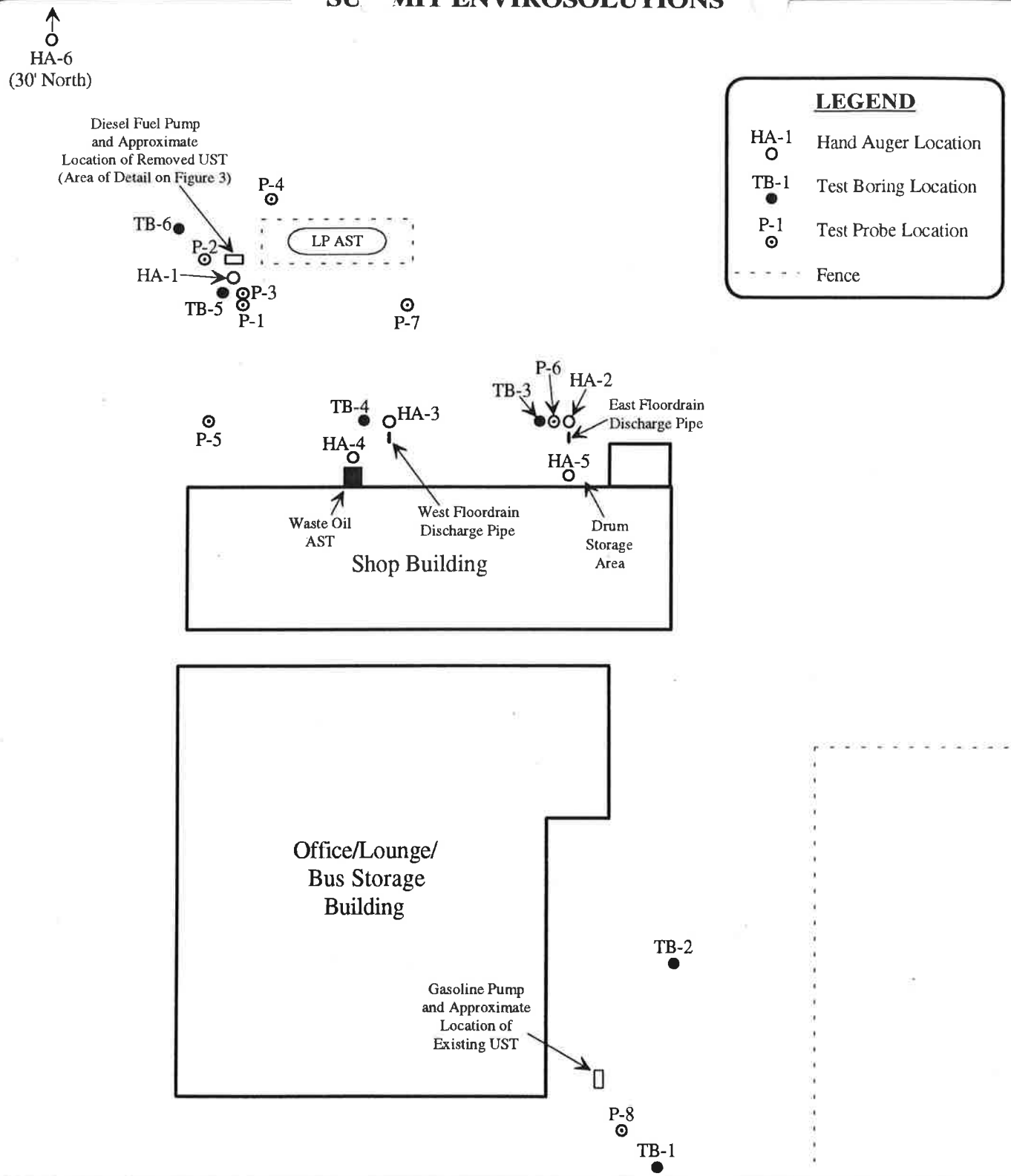
Section I. E. Prior to the removal of the UST, the tank owner and/or operator was Fred Hanus of Hanus Bus Company, Incorporated. However, the UST removal and cleanup was conducted by a developer who was in the process of purchasing the Hanus Bus Company, Inc. property. The address of the developer and a contact name is provided below:

Janco, Inc.
Attn: Mr. Thomas Graham
10201 Wayzata Boulevard, Suite 220
Minnetonka, Minnesota 55305

SUMMIT ENVIROSOLUTIONS



APPROXIMATE SCALE: 0 2000 4000 ONE INCH = 2000 FEET	**NORTH**	**FIGURE 1** **GENERAL SITE LOCATION MAP** **JANCO, INC.** **HANUS BUS COMPANY, INC. SITE** **4500 TONKAWOOD ROAD** **MINNETONKA MINNESOTA** **SUMMIT PROJECT NO. 940870**
REMARKS: **Map taken from USGS Hopkins, Minnesota 7 ½ minute quadrangle.**	**DATE:** **JUNE 1994**	
DRAWN BY: DMM REVIEWED BY: SCT		



APPROXIMATE SCALE:

0 30 60

ONE INCH = 30 FEET

NORTH

REMARKS:

Map adapted from Summit field sketch.

DRAWN BY: DMM REVIEWED BY: SCT

DATE:

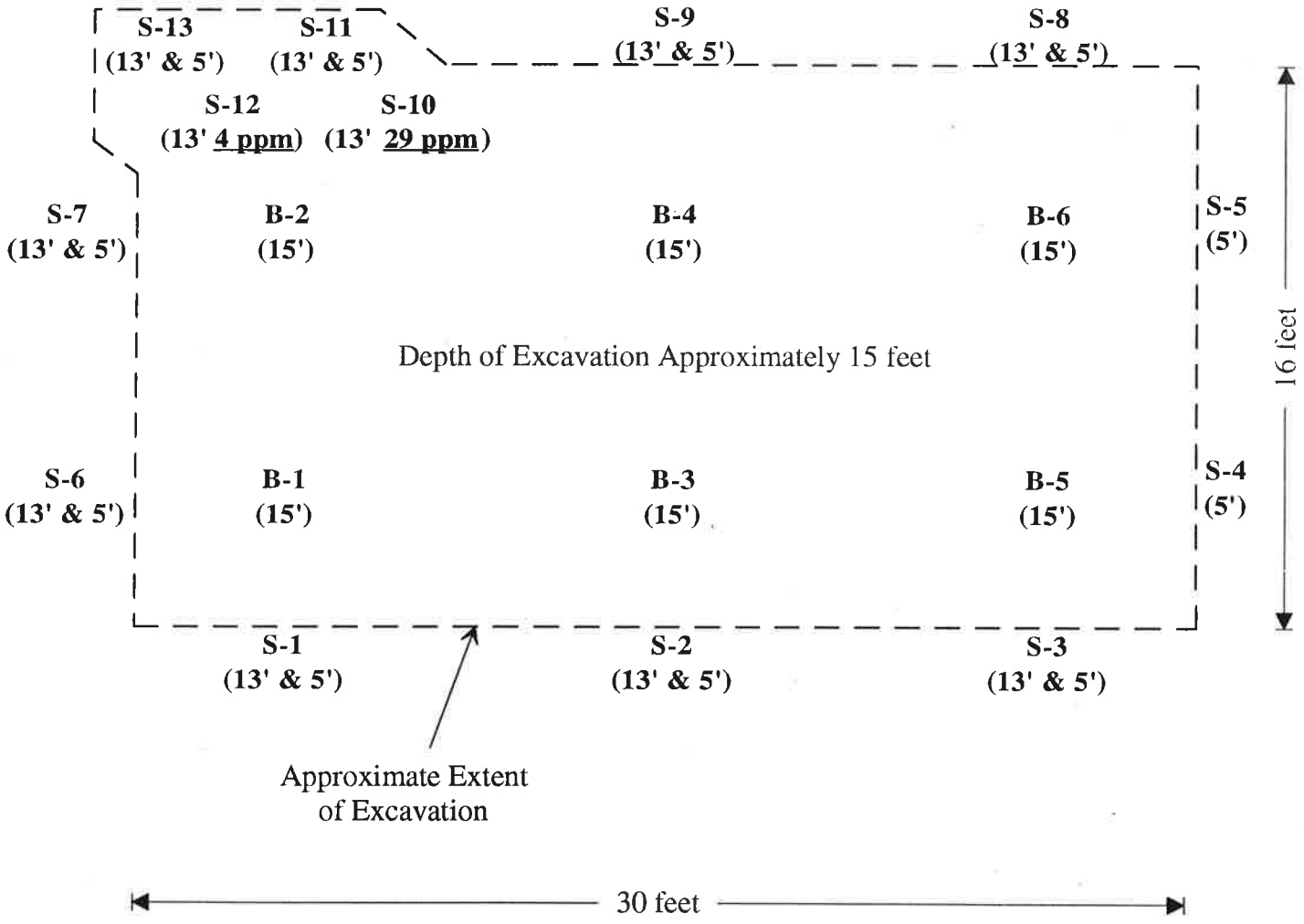
OCTOBER 1994

FIGURE 2

DETAIL OF HANUS BUS COMPANY, INC. PROPERTY

JANCO, INC.
HANUS BUS COMPANY, INC. SITE
4500 TONKAWOOD ROAD
MINNETONKA MINNESOTA
SUMMIT PROJECT NO. 940870

Note: Organic vapors were not detected in screened soil samples with the exception of S-10 (29 ppm) and S-12 (4 ppm).



APPROXIMATE SCALE: 0 5 10 ONE INCH = 5 FEET	**NORTH**	**FIGURE 3** DETAIL OF EXCAVATION AREA SHOWING SOIL SCREENING AND SAMPLING LOCATIONS
REMARKS: Map adapted from Summit field sketch.	**DATE:** OCTOBER 1994	JANCO, INC. HANUS BUS COMPANY, INC. SITE 4500 TONKAWOOD ROAD MINNETONKA MINNESOTA SUMMIT PROJECT NO. 940870
DRAWN BY: DMM REVIEWED BY: SCT		

Summary of Analytical Results
Hanus Bus Site - Minnetonka, Minnesota
Summit Project No. 940870

Sampling Location	Depth	GRO (mg/kg)	DRO (mg/kg)	Ethyl-benzene (mg/kg)	Xylenes (mg/kg)	1,3,5-Trimethyl-benzene (mg/kg)	1,2,4-Trimethyl-benzene (mg/kg)	n-Butyl benzene (mg/kg)	tert-Butyl benzene (mg/kg)	sec-Butyl-benzene (mg/kg)	Isopropyl-benzene (mg/kg)	n-Propyl benzene (mg/kg)
HA-1	0-1"	70	34,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
HA-2	0-6"	460	1,200	1.5	< 0.50	3.0	3.5	8.3	2.4	4.9	1.7	7.6
HA-3	0-6"	44	150	< 0.50	< 0.50	< 0.50	< 0.50	0.70	< 0.50	< 0.50	< 0.50	< 0.50
HA-4	0-6"	< 5.0	23,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
HA-6	0-6"	7.0	240	NA	NA	NA	NA	NA	NA	NA	NA	NA
TB-3	5'	NA	NA	< 0.50	< 0.50	< 0.50	< 0.50	0.71	< 0.50	0.55	< 0.50	< 0.50
TB-5	15'	NA	< 8.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
P-2	4'	< 0.05	< 5.0	< 0.002	< 0.002	< 0.002	< 0.002	NA	NA	NA	NA	NA
P-2	16'	< 0.05	< 5.0	< 0.002	< 0.002	< 0.002	< 0.002	NA	NA	NA	NA	NA
P-2	20'	< 0.05	< 5.0	< 0.002	< 0.002	< 0.002	< 0.002	NA	NA	NA	NA	NA
P-3	10-12'	< 0.05	< 5.0	< 0.002	< 0.002	< 0.002	< 0.002	NA	NA	NA	NA	NA
P-3	14.5'-16.5'	6.9	162	< 0.002	0.042	0.139	0.242	NA	NA	NA	NA	NA
P-3	19'-20'	< 0.05	< 5.0	< 0.002	< 0.002	< 0.002	< 0.002	NA	NA	NA	NA	NA
P-4	14.5'-16.5'	< 0.05	< 5.0	< 0.002	< 0.002	< 0.002	< 0.002	NA	NA	NA	NA	NA
P-4	19-20'	< 0.05	< 5.0	< 0.002	< 0.002	< 0.002	< 0.002	NA	NA	NA	NA	NA
P-5	14.5'-16.5'	< 0.05	< 5.0	< 0.002	< 0.002	< 0.002	< 0.002	NA	NA	NA	NA	NA
P-6	17'-19'	< 0.05	< 5.0	< 0.002	< 0.002	< 0.002	< 0.002	NA	NA	NA	NA	NA
P-7	10'-12'	< 0.05	< 5.0	< 0.002	< 0.002	< 0.002	< 0.002	NA	NA	NA	NA	NA
P-7	14.5'-16.5'	< 0.05	< 5.0	< 0.002	< 0.002	< 0.002	< 0.002	NA	NA	NA	NA	NA
P-8	10'-12'	< 0.05	< 5.0	< 0.002	< 0.002	< 0.002	< 0.002	NA	NA	NA	NA	NA
P-8	14.5'-16.5'	< 0.05	< 5.0	< 0.002	< 0.002	< 0.002	< 0.002	NA	NA	NA	NA	NA

Note: mg/kg is equivalent to parts-per-million
NA = Analyte not analyzed

SUMMIT ENVIROSOLUTIONS, INC.

DRILLING LOG

LOCATION	Hanus Bus Company, Inc. Site Minnetonka, MN	SUMMIT PROJECT NO.	940870
SOIL BORING NO.	TB-1	DATE COMPLETED	5/13/94
DRILLING COMPANY	Braun Intertec		
DRILLING METHOD	3 1/4" Hollow Stem Auger, 6 1/2" OD		
SAMPLING METHOD	2" split spoon, not continuous		
OBSERVER	JLB		
REMARKS	15' S and 23' E from SE corner of garage by regular gas pump.		

DEPTH (FEET) FROM	TO	DESCRIPTION	HEADSPACE PID
2	2.5	Clayey Sand, brown to orange brown, medium to fine grained sand, soft, moist to slightly moist.	ND
4.5	5	Sand and Gravel, brown, fine to coarse grained sand, fine to medium gravel, slightly moist.	ND
7	7.5	As Above, becoming increasingly light brown, gravel increases to medium to coarse.	ND
10	10.5	Silty Sand, brown, fine to medium grained sand, soft to firm, moist.	ND
12	12.5	Sand and Gravel, medium to light brown, coarse to fine grained sand, coarse to fine gravel, slightly moist.	ND
14.5	15	As Above, becoming predominately light brown.	ND
		End of boring.	
		NOTES:	
		PID =Headspace Photoionization Detector Reading (in parts per million)	
		NA = Not Analyzed	
		ND = Not Detected	
		TR = Trace (less than 1 part per million)	

SUMMIT ENVIROSOLUTIONS, INC.

DRILLING LOG

LOCATION	Hanus Bus Company, Inc. Site Minnetonka, MN	SUMMIT PROJECT NO.	940870
SOIL BORING NO.	TB-2	DATE COMPLETED	5/13/94
DRILLING COMPANY	Braun Intertec		
DRILLING METHOD	3 1/4" Hollow Stem Auger, 6 1/2" OD		
SAMPLING METHOD	2" split spoon, not continuous		
OBSERVER	JLB		
REMARKS	28' N and 27' E from SE corner of garage by regular gas pump.		

DEPTH (FEET) FROM	TO	DESCRIPTION	HEADSPACE PID
2	2.5	Sand, medium to light brown, fine to coarse grained, trace fine gravel, slightly moist.	ND
4.5	5	Silty Sand, brown, fine to medium grained, soft to firm in part, slightly moist.	4
7	7.5	Sand, medium brown, fine to coarse grained, some fine to coarse gravel, slightly moist.	ND
9.5	10	Sand, light brown to orange brown, fine to medium grained, trace silt, trace fine to medium gravel, slightly moist.	ND
12	12.5	As Above, grading to brown clay, soft, moist.	ND
14.5	15	Clayey Silt, medium to dark brown, soft to firm, trace fine grained sand, moist.	ND
		End of boring.	
		NOTES:	
		PID =Headspace Photoionization Detector Reading (in parts per million)	
		NA = Not Analyzed	
		ND = Not Detected	
		TR = Trace (less than 1 part per million)	

SUMMIT ENVIROSOLUTIONS, INC.

DRILLING LOG

LOCATION	Hanus Bus Company, Inc. Site Minnetonka, MN	SUMMIT PROJECT NO.	940870
SOIL BORING NO.	TB-3	DATE COMPLETED	5/13/94
DRILLING COMPANY	Braun Intertec		
DRILLING METHOD	3 1/4" Hollow Stem Auger, 6 1/2" OD		
SAMPLING METHOD	2" split spoon, not continuous		
OBSERVER	JLB		
REMARKS	75' E and 15' N from NW corner of garage by E floor drain exit. Soil sample #05131110 at 5' submitted for chemical analysis.		

DEPTH (FEET) FROM	TO	DESCRIPTION	HEADSPACE PID
2	2.5	Silt and Sand, dark gray, redbrown, fine to coarse grained sand, soft silt,	29
		very moist.	
4.5	5	Silty Clay, gray brown to brown, soft, trace fine to medium grained sand,	33
		very moist.	
7	7.5	As Above, grading to orange brown fine to coarse grained sand, trace	10
		weathered granite, moist to slightly moist.	
9.5	10	Sand, medium to light brown, fine to coarse grained, trace fine gravel,	6
		slightly moist.	
12	12.5	Clay, tan brown, soft, very moist.	24
14.5	15	Sand and Clay, clay as above, sand medium to light brown, coarse to fine	3
		grained, trace fine gravel, slightly moist.	
		End of boring.	
		PID of in situ auger cuttings at 10'=11ppm.	
		PID of in situ auger cuttings at 15'=2 ppm.	
		NOTES:	
		PID =Headspace Photoionization Detector Reading (in parts per million)	
		NA = Not Analyzed	
		ND = Not Detected	
		TR = Trace (less than 1 part per million)	

SUMMIT ENVIROSOLUTIONS, INC.

DRILLING LOG

LOCATION	Hanus Bus Company, Inc. Site Minnetonka, MN	SUMMIT PROJECT NO.	940870
SOIL BORING NO.	TB-4	DATE COMPLETED	5/13/94
DRILLING COMPANY	Braun Intertec		
DRILLING METHOD	3 1/4" Hollow Stem Auger, 6 1/2" OD		
SAMPLING METHOD	2" split spoon, not continuous		
OBSERVER	JLB		
REMARKS	40' E and 15' N from NW corner of garage by waste oil tank and floor drain exit.		

DEPTH (FEET) FROM	TO	DESCRIPTION	HEADSPACE PID
1	2	Wet, very coarse gravel on auger.	NA
2	2.5	Sandy Clay, dark brown, gray brown, fine to medium grained sand,	TR
		soft, wet.	
4.5	5	As Above, sand becoming red brown, predominately medium grained.	ND
7	7.5	Sandy Clay, medium brown, gray brown, fine grained sand, soft, wet.	TR
9.5	10	Sand, medium brown, red brown, fine to coarse grained, trace gray brown	ND
		clay, moist.	
12	12.5	Sand, light brown, fine to coarse grained, trace fine to medium gravel, trace	ND
		weathered granite, slightly moist.	
14.5	15	As Above.	ND
		End of boring.	
		NOTES:	
		PID =Headspace Photoionization Detector Reading (in parts per million)	
		NA = Not Analyzed	
		ND = Not Detected	
		TR = Trace (less than 1 part per million)	

SUMMIT ENVIROSOLUTIONS, INC.

DRILLING LOG

LOCATION	Hanus Bus Company, Inc. Site Minnetonka, MN	SUMMIT PROJECT NO.	940870
SOIL BORING NO.	TB-5	DATE COMPLETED	5/13/94
DRILLING COMPANY	Braun Intertec		
DRILLING METHOD	3 1/4" Hollow Stem Auger, 6 1/2" OD		
SAMPLING METHOD	2" split spoon, not continuous		
OBSERVER	JLB		
REMARKS	5' E and 46' N from NW corner of garage by diesel stain. Soil sample #05131315 at 15' submitted for chemical analysis.		

DEPTH (FEET) FROM	TO	DESCRIPTION	HEADSPACE PID
2	2.5	Silty Sand, dark gray brown, very fine to medium grained, soft, petrolike odor, very moist.	2
4.5	5	Sandy Clay, red brown, dark gray brown, fine to medium grained sand, trace fine gravel, soft, very moist.	ND
7	7.5	Silty Sand, medium to light brown, fine to coarse grained, predominately unconsolidated, trace fine gravel, slightly moist.	ND
9.5	10	Sand, light brown, fine to coarse grained, trace fine gravel, slightly moist.	ND
12	12.5	As Above.	ND
14.5	15	As Above, some silt in part, slightly moist.	16
		End of boring.	
		NOTES:	
		PID =Headspace Photoionization Detector Reading (in parts per million)	
		NA = Not Analyzed	
		ND = Not Detected	
		TR = Trace (less than 1 part per million)	

SUMMIT ENVIROSOLUTIONS, INC.

DRILLING LOG

LOCATION	Hanus Bus Company, Inc. Site Minnetonka, MN	SUMMIT PROJECT NO.	940870
SOIL BORING NO.	TB-6	DATE COMPLETED	5/13/94
DRILLING COMPANY	Braun Intertec		
DRILLING METHOD	3 1/4" Hollow Stem Auger, 6 1/2" OD		
SAMPLING METHOD	2" split spoon, not continuous		
OBSERVER	JLB		
REMARKS	2' W and 54' N from NW corner of garage W of diesel fill area.		

DEPTH (FEET) FROM	TO	DESCRIPTION	HEADSPACE PID
2	2.5	Silt, Gravel and Sand, dark to light gray brown fine to coarse grained	ND
		sand, dark gray silt, coarse to fine gravel, moist.	
4.5	5	Sand, light brown to red brown, coarse to fine grained, trace fine gravel,	ND
		slightly moist.	
7	7.5	As Above, predominately light brown.	ND
9.5	10	Sand, light brown, medium to coarse grained, trace fine to medium	ND
		gravel, slightly moist.	
12	12.5	Silty Sand, medium brown, light red brown, fine to coarse grained sand,	ND
		trace soft, trace fine gravel, moist.	
14.5	15	As Above.	ND
		End of boring.	
		NOTES:	
		PID =Headspace Photoionization Detector Reading (in parts per million)	
		NA = Not Analyzed	
		ND = Not Detected	
		TR = Trace (less than 1 part per million)	

No. 9111-117a

Legend
Technical Services, Inc.

739 VANDALIA ST.
ST. PAUL, MN 55114
(612) 642-1150
FAX (612) 642-1239

October 5, 1994

Mr. Doug Mensing
Summit Envirosolutions
10201 Wayzata Blvd.
Suite 100
Minneapolis, MN 55305

SUBJECT: 940870 Janko - Hanus Bus
LEGEND No. 94-1956

1.0 INTRODUCTION

LEGEND TECHNICAL SERVICES, INC. (LEGEND) received five soil samples from a representative of Summit Envirosolutions on September 15, 1994. The parameters and analytical results are listed in the attached tables.

2.0 SAMPLE IDENTIFICATION

LABORATORY NO.	CLIENT IDENTIFICATION
SN94-29358	09151032 B-1 15'
SN94-29359	09151037 B-2 15'
SN94-29360	09151005 S-1 15' Hold
SN94-29361	09151012 S-3 14' Hold
SN94-29362	09151028 S-5 13' Hold

3.0 METHODOLOGY

Petroleum Volatile Organic Analysis

The samples were prepared and analyzed with methods based on EPA SW-846, Method 8020.

Diesel Range Organics

The samples were prepared and analyzed using methods based on the Wisconsin Department of Natural Resources Method, PUBL-SW-141, for Modified DRO.

4.0 CASE NARRATIVE

The samples were taken on September 15, 1994 and were received chilled at 4 °C in acceptable condition.

The method blanks were free of target analytes at detectable levels, and the associated batch quality assurance/quality control criteria were met with satisfaction.

5.0 REMARKS

The unconsumed samples will be retained by our laboratory for 30 days from the date of this report and then discarded unless other instructions are received by the client.

Submitted by,

LEGEND TECHNICAL SERVICES, INC.

Chris Bremer
Laboratory Manager

Jennifer Nelson
Chemist

CB/JN/ee

LEGEND TECHNICAL SERVICES, INC.

TABLE #1

LEGEND No. 94-1956

SUMMIT ENVIROSOLUTIONS

PETROLEUM VOLATILE ORGANIC COMPOUNDS - SOIL

Compound	B-1 15' (mg/kg)	B-2 15' (mg/kg)	Method Blank (mg/kg)	PQL (mg/kg)
Benzene	<0.001	<0.001	<0.001	0.001
Toluene	<0.001	<0.001	<0.001	0.001
Ethyl benzene	<0.001	<0.001	<0.001	0.001
Total xylenes	<0.001	<0.001	<0.001	0.001
Percent Solids	97.1	89.1	----	----
Surrogate Recovery Result, (percent)	91.5	88.5	99.6	
DATE ANALYZED:	9/23/94	9/23/94	9/23/94	

< = Less than number shown

PQL = Practical quantitation limit

mg/kg is equal to parts-per-million (dry weight basis)

LEGEND TECHNICAL SERVICES, INC.

TABLE #2

LEGEND No. 94-1956

SUMMIT ENVIROSOLUTIONS

QUALITY ASSURANCE/QUALITY CONTROL SUMMARY

PETROLEUM VOLATILE ORGANIC COMPOUNDS - SOIL

Parameter	Percent Recovery A	Percent Recovery B	Reproducibility	Acceptable Range
Benzene	97.1	97.2	99.9	$\geq$ 80
Toluene	95.6	96.3	99.3	$\geq$ 80
Ethyl benzene	96.3	95.7	99.4	$\geq$ 80
m,p-Xylene	98.0	97.4	99.4	$\geq$ 80
o-Xylene	97.1	96.2	99.1	$\geq$ 80

$\geq$ = Greater than or equal to

LEGEND TECHNICAL SERVICES, INC.

TABLE #3

LEGEND No. 94-1956

SUMMIT ENVIROSOLUTIONS

DIESEL RANGE ORGANICS - SOIL

Sample ID	Diesel Range Organics (mg/kg)
B-1 15'	<8.0
B-2 15'	<8.0
Practical quantitation limit	8.0
Recovery Data	**Percent Recovery**
Spike #1 Spike #2	99.6 105
DATE EXTRACTED: DATE ANALYZED:	9/20/94 9/23/94 9/26/94 10/02/94

< = Less than number shown

mg/kg is equal to parts-per-million (dry weight basis)

LEGEND TECHNICAL SERVICES, INC.
739 Vandalia Street
St. Paul, MN 55114
(612)642-1150

CHAIN OF CUSTODY RECORD

Client Name: Janko – Hanus Bldg/o

Report To:
Summit Envirosolutions
10201 Wayzata Blvd. Suite 100
Minneapolis MN 55305

Samplers: MDH, Rick

Project No.: 940870

Verbal Results To:

Copy of Report To: Doug Mensing (Summit)

Samples Returned To:

Laboratory Project No.: 94-1956

Analysis / # Of Containers: GRO | DRO | BTEX | 465 D | Hold

Item #	Field ID #	Sample Description	Collection Date	Collection Time	Sample Matrix Air	Liq.	Sol.	Lab ID#	GRO	DRO	BTEX	465 D	Hold
1	09151032	B-1 15'	9/15/94	10:32			X	94-29358		X	X		
2	09151037	B-2 15'	9/15/94	10:37				29359		X	X		
3	09151005	S-1 15'	9/15/94	10:05				29360					X
4	09151012	S-3 14'	9/15/94	10:12				29361					X
5	09151028	S-5 13'	9/15/94	10:28				29362					X
6													
7													
8													
9													
10													
11													

Transfer No.	Item Number	Relinquished By	Accepted By	Date	Time	Comments
1	All	Mike Hayes	Jennifer Nikkel	9/15/94		Ticket up. Samples Chilled 4°C.
2						
3						
4						

PHASE I ENVIRONMENTAL SITE ASSESSMENT AND LIMITED SUBSURFACE ASSESSMENT

Janco, Inc.

Hanus Bus Company, Inc. Site
4500 Tonkawood Road
Minnetonka, Minnesota

Summit Project No. 940870

Prepared By:

Summit Envirosolutions, Inc.
10201 Wayzata Boulevard, Suite 100, Minneapolis, Minnesota 55305
(612) 595-8888

July 20, 1994

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PHASE I ENVIRONMENTAL SITE ASSESSMENT AND LIMITED SUBSURFACE ASSESSMENT

JANCO, INC.

HANUS BUS COMPANY, INC. SITE
4500 TONKAWOOD ROAD
MINNETONKA, MINNESOTA

SUMMIT PROJECT NO. 940870

1.0 EXECUTIVE SUMMARY

Summit Envirosolutions, Inc. has completed a Phase I Environmental Site Assessment and Limited Subsurface Assessment of the Hanus Bus Company, Inc. site located at 4500 Tonkawood Road in Minnetonka, Minnesota. This site consists of the Hanus Bus Company, Inc. property as well as adjacent agricultural and residential land. Historical information reviewed indicated that the subject site has been occupied by a farmstead, bus company, residential land, agricultural land, and undeveloped land through the years. According to interview information, the Hanus Bus Company, Inc. has operated at the subject site since 1961. It should be noted that the residential land located on-site (the Hanus residence and the west 150 feet of the Howard Miller Addition) was not thoroughly assessed for the purposes of this report due to private occupancy at the time of site reconnaissance.

On-site sources of potential soil and/or groundwater contamination were identified at the subject site. Three underground storage tanks, three above ground storage tanks, hazardous waste materials, and a significant amount of general debris were identified and/or observed at the subject site. Minnesota Pollution Control Agency records identify two underground storage tanks at the subject site address, and the subject site is listed by Hennepin County as a conditionally exempt hazardous waste generator. Fluorescent lights and potential asbestos-containing building materials were observed in the site buildings. Two pole-mounted transformers were observed at the subject site; however, indications of leaking dielectric fluid were not observed.

Petroleum-impacted soil was identified at the subject site during limited subsurface assessment activities. This impacted soil appeared to be associated with the diesel fuel pump and underground storage tank, the shop building floor drain discharge pipes, and the waste oil above ground storage tank. Limited subsurface assessment activities at the site suggested that these areas of impact were limited in horizontal and vertical extent. An area of minor soil staining was also observed along the northern portion of the site parking lot.

The subject site is located in a primarily residential setting, with a few commercial businesses along Highway 7. The potential of soil and/or groundwater contamination from off-site activities appears low. Based upon the review of historical information, interview information, regulatory

information, and the site reconnaissance, the closest potential off-site source of soil and/or groundwater contamination appears to be Schjeldahl G T, a "negative generator" located at 4436 Marlborough Court in Minnetonka, approximately one-quarter mile west of the subject site. The classification "negative generator" indicates that the facility has been visited by the county and has been classified as a facility which does not generate hazardous waste. Therefore, it appears unlikely that this facility poses an environmental concern to subject site.

Based upon the discussion and conclusions of this Phase I Environmental Site Assessment and Limited Subsurface Assessment, further environmental assessment of the subject site for on-site sources of soil and/or groundwater contamination does appear to be warranted at this time. Due to indications of petroleum-related impacts in the vicinity of the diesel fuel underground storage tank, Summit Envirosolutions, Inc. recommends that this underground storage tank be removed and that petroleum-impacted soil be excavated and treated following state and local regulations. The unused underground storage tank should also be removed, and if petroleum-impacted soil is encountered, this soil should also be excavated and treated following state and local regulations. The gasoline underground storage tank should be managed according to applicable state and federal regulations.

Petroleum impacted soil associated with the shop building floor drain discharge pipes and waste oil above ground storage tank should also be excavated and treated following state and local regulations. Summit Envirosolutions, Inc. recommends that the site owner notify appropriate local, state, and federal agencies regarding the two shop building floor drains which discharge untreated wastewater onto the ground. Any necessary permits should be acquired pertaining to this discharge. The source of the minor soil staining observed in the northern portion of the site parking lot should be determined and removed, if possible. Summit Envirosolutions, Inc. also recommends that regulated and hazardous materials at the subject site be stored, handled, and disposed of properly. These materials would include oils, gasoline, diesel fuel, solvents, fluorescent lights, and asbestos-containing building materials. In particular, containers and materials located in a drum storage area should be moved inside the shop building. Summit Envirosolutions, Inc. also recommends that the debris observed at the subject site be characterized and disposed of properly. Should additional information regarding past site activities or off-site sources become available, this information should be reviewed and the need for additional assessment re-evaluated.

2.0 INTRODUCTION

The purpose of this Phase I Environmental Site Assessment (ESA) and Limited Subsurface Assessment was to assess the potential risk of environmental concerns associated with past or current site use. Summit Envirosolutions, Inc. (Summit) was authorized to conduct this assessment by Mr. Thomas Graham of Janco, Inc. on March 31, 1994.

The scope of environmental services performed by Summit consisted of the following items:

- Collecting, reviewing, and evaluating historical, geological and regulatory information;
- Conducting a site reconnaissance;
- Advancing six hand augers for the purpose of collecting soil samples in areas of suspected surficial releases for field screening and chemical analysis;
- Observing the advancement of six test borings for the purpose of collecting soil samples for field screening and chemical analyses for the presence of petroleum hydrocarbons and volatile organic compounds (VOCs);
- Advancing eight test probes for the purpose of collecting and analyzing soil samples for the presence of petroleum hydrocarbons and VOCs; and
- Issuing a report presenting the project data, results, conclusions and recommendations.

The scope of work for this Phase I ESA and Limited Subsurface Assessment did not include sampling or analyses of materials such as water, air, building materials, asbestos, radon, lead, or PCBs.

3.0 SITE DESCRIPTION

3.1 Site Location

The site is located west of Tonkawood Road in Minnetonka, Minnesota (Figure 1). The mailing address for the Hanus Bus Company, Inc. portion of the site is 4500 Tonkawood Road, Minnetonka, Minnesota 55345. The legal description of the subject site is provided in Appendix I.

3.2 Site and Vicinity Characteristics

As Figure 2 shows, the site consists of approximately 25 acres of land. Two buildings and four sheds were observed to be associated with the Hanus Bus Company, Inc. (Hanus Bus) property. The northern and western portions of the site were primarily agricultural, with some wooded

areas. Small areas of residential land were located in the northeast corner (the west 150 feet of the Howard Miller Addition) and the east-central portion (Hanus residence) of the subject site. The site is located within an area of residential development. As shown on Figure 2, single-family houses are located around the subject site, with Tonkawood Road located to the east.

3.3 Descriptions of Structures, Roads, Other Improvements on the Site

At the time of the site visit, there were two buildings observed at the subject site: a two-level building used as an office, lounge, and bus storage area; and a one-level shop building used for bus maintenance. Four sheds of varying size and construction were observed to the west of the two buildings. The buildings and sheds were associated with the Hanus Bus property, and were located in the southeast portion of the subject site. Dirt and asphalt parking/drive areas were observed around the buildings. The site areas to the north and west of these structures were generally agricultural with some wooded areas. Figure 2 illustrates the general layout of the subject site and surrounding areas.

3.4 Interviews Regarding Current and Past Usage of Site and Surrounding Area

Representatives from the subject site and the city of Minnetonka were contacted regarding the history of the site and surrounding area, and to assist in identifying potential environmental concerns at or near the subject site.

Site Representatives

Ms. Sue Hanus, one of the current owners of the subject site and the Hanus Bus Company, and Mr. Mark Severson, dispatch operator for Hanus Bus for the past six years, were interviewed regarding the history of the subject site, and regarding potential environmental concerns at and near the subject site. Ms. Hanus stated that the Hanus Bus Company has occupied the southeastern portion of the subject site since the company's origination in 1961. According to Ms. Hanus, the Hanus Bus property was used for agricultural purposes prior to the construction of the bus company buildings. Ms. Hanus stated that the shop building was constructed in 1962, and that the current office/lounge/storage building was constructed in 1985 after a tornado destroyed the former office building built around 1962. Both Ms. Hanus and Mr. Severson stated that the Hanus Bus Company was serviced by public sewer, water, natural gas, and electricity. Both Ms. Hanus and Mr. Severson stated that they were not aware of septic tanks or water wells at the subject site.

Mr. Severson stated that the Hanus property is used for parking, maintaining, fueling, and storing school buses. According to Ms. Hanus and Mr. Severson, gasoline, diesel fuel, propane, oil, cleaning solvent, and paint are handled at the Hanus Bus property. Ms. Hanus stated that there

are two above ground storage tanks (ASTs) on the Hanus Bus property: a waste oil AST approximately 250-gallons in size, located on the north side of the shop building; and an LP AST located adjacent to a diesel pump to the north of the shop building.

Ms. Hanus stated that there are three underground storage tanks (USTs) on the Hanus Bus property: a 10,000-gallon steel gasoline UST located beneath the gasoline pump located just east of the office/lounge/storage building; an 8,000-gallon steel diesel fuel UST located adjacent to the diesel pump located to the north of the shop building; and a 1,000-gallon steel UST located near the gasoline UST. According to Ms. Hanus, the gasoline and diesel USTs are currently in use. Ms. Hanus stated that the 1,000-gallon UST was formerly used for gasoline, and later heating oil storage, but is currently empty and not used. Ms. Hanus estimated that the gasoline UST is 20 years old, the diesel UST is less than 10 years old, and the 1,000-gallon UST is 30 years old. According to Ms. Hanus, annual integrity testing of the two active USTs has not indicated leaks in either of the USTs. The 1,000-gallon UST has not been tested for integrity according to Ms. Hanus. The most recent integrity testing of the two active USTs was conducted in September 1993. The results of these tests indicated that both USTs passed, as well as the lines associated with the gasoline UST (the diesel UST lines were identified as "European" and, according to the tank testing contractor, did not require testing). The results of the most recent integrity testing of the two active USTs at the subject site are provided in Appendix II.

According to Mr. Severson, the majority of the maintenance materials on-site, such as oil and solvents, are stored inside the shop building. Ms. Hanus stated that up until approximately one year ago, some of these materials were stored in the sheds located to the west of the shop and office/lounge/storage buildings.

Ms. Hanus stated that wastes generated at the site include used bus batteries, waste oil, used oil filters, scrap metal, used solvents, and used fluorescent lights. According to Ms. Hanus, the used bus batteries are collected by the manufacturer, Battery & Tire Warehouse; however, according to Ms. Hanus, Hanus Bus does not have a formal contract with this company. Ms. Hanus stated that waste oil and used oil filters are collected by First Recovery, and used solvents are collected by Safety Kleen. According to Ms. Hanus, used fluorescent lights have been collected at the Hanus site; however, these light have not been disposed of yet. Copies of the most recent pickup tickets and hazardous waste manifests for the waste oil, used oil filters, and used solvent (petroleum naptha) generated at the Hanus Bus facility are provided in Appendix III.

Ms. Hanus stated that the Hanus Bus Company is licensed by the U. S. EPA and by Hennepin County. The U. S. EPA license, provided by Ms. Hanus, identifies Hanus Bus Company, Inc. (EPA ID# MND064755465) as a facility which generates less than 100 kilograms of hazardous waste per month. The Hennepin County license identifies this facility as a conditionally exempt generator (Company Site ID: 00000017 05326015). Ms. Hanus also provided Summit with a copy of a State of Minnesota, Department of Public Safety, Emergency Response Commission

(ERC) form for the subject site. This form is completed annually for the purpose of identifying hazardous materials present at a given facility. The ERC form identified the Hanus Bus facility (ERC ID#271400052) as a facility with two active USTs containing diesel fuel and unleaded gasoline. Copies of the U. S. EPA and Hennepin County licenses, as well as a copy of the ERC form for the subject site, are provided in Appendix IV.

According to Ms. Hanus, the Hanus property has been inspected by the Occupational Safety and Health Administration (OSHA) and by Hennepin County. Ms. Hanus stated that the Hennepin County inspection related to dust coat spraying which was performed at the site by Dust Coating, Inc. in order to reduce the amount of dust generated by the dirt parking/drive areas. Ms. Hanus stated that Hennepin County authorized the spraying of emulsion onto the Hanus property as a dust control measure.

Both Ms. Hanus and Mr. Severson stated that overfills associated with the fuel pumps have occurred through the years. According to Ms. Hanus, these overfills were generally associated with individuals leaving the gasoline pump running unattended and causing an overfill to occur, not exceeding five to ten gallons. According to Ms. Hanus, floor drains in the office/lounge/storage building discharge to the sanitary sewer; however, two floor drains located in the shop building discharge to the dirt parking/drive area to the north of the shop building.

Ms. Hanus stated that the structures destroyed by the 1985 tornado were hauled off-site, and that she was not aware of debris being burned or buried on the Hanus property. Mr. Severson stated that a pile of dirt located in the parking/drive area was brought in from off-site for grading purposes, and that Hanus Bus occasionally gets deliveries of gravel for filling potholes on-site. Ms. Hanus stated that the on-site soil pile was not believed to contain contaminated soil.

Both Ms. Hanus and Mr. Severson stated that they were not aware of PCB-containing electrical equipment, asbestos-containing building materials, pesticides, herbicides, fungicides, or wood preservatives existing at the subject site. Ms. Hanus and Mr. Severson stated that they were not aware of other potential environmental concerns at or near the subject site.

City Building Inspector

Mr. Chris Faste, Building Inspector for the city of Minnetonka for one year, was contacted regarding the history of the subject site, and regarding potential environmental concerns at or near the site. Mr. Faste has been a resident of the area for approximately 28 years. According to Mr. Faste, the subject site has been occupied by the Hanus Bus Company and utilized for agricultural purposes since at least 1966. Mr. Faste stated that he was not aware of other potential environmental concerns at or near the subject site.

Fire Marshal

Mr. Steve Anderson, Fire Marshal for the city of Minnetonka for seven years, was contacted regarding the history of the subject site, and regarding potential environmental concerns at or near the site. Mr. Anderson stated that the bus company has occupied the southeastern portion of the subject site for many years. The only information Mr. Anderson had on record pertaining to the site address (4500 Tonkawood Road) was information regarding the installation of an LP AST at the subject site on April 7, 1982. Mr. Anderson was not aware of petroleum pipelines or other potential environmental concerns at or near the subject site.

A summary of contacts made by Summit during the project is included in Appendix V.

4.0 RECORDS REVIEW

4.1 Regulatory Agency Review

The Minnesota Pollution Control Agency (MPCA) was contacted regarding review of their files for sites of environmental concern in the vicinity of the property (Appendix VI). Information obtained from Hennepin County, the Metropolitan Waste Control Commission (MWCC), and the 1991 Toxic Release Inventory Report for the State of Minnesota was also reviewed for potential environmental concerns in the site area. The MPCA conducts a site specific search (one-mile radius) of numerous federal and state data bases. The MPCA file evaluation included the following sources:

- EPA - National Priorities List (NPL);
- EPA - Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS);
- MPCA - Permanent List of Priorities (PLP);
- MPCA - Regulatory Compliance, Hazardous Waste Enforcement Log;
- MPCA - List of Permitted Solid Waste Facilities;
- MPCA - Hazardous Waste Permit Unit Project Identification List;
- MPCA - 1980 Metropolitan Area Waste Disposal Site Inventory;
- MPCA - 1980 Statewide Open Dump Inventory;
- MPCA - Voluntary Investigation and Cleanup (VIC) Unit List;
- MPCA - Permitted Air Facilities;
- MPCA - Facilities with Air Emission Violations;
- MPCA - Large Quantity Generators (LQG).

The MPCA file evaluation, dated April 6, 1994, of these sources did not reveal listings under the subject property's exact address. The MPCA file evaluation included a review of the Underground Storage Tank City Leaksite and Facility List data base for zip code area 55345. LUST sites or spills of hazardous substances and/or petroleum products have not been reported under the subject property's exact address according to the MPCA file evaluation; however, USTs registered to "Minnetonka" were identified at the subject site address (4500 Tonkawood Road, Minnetonka).

MPCA File Evaluation Sites

The MPCA response for the subject property indicated that EPA or MPCA-listed sites are not located within a one-mile radius of the subject site.

MPCA Air-Permitted Facilities and Violators

A review of the MPCA Air-Permitted Facilities list for Minnetonka, dated April 5, 1994, indicated that there are no air-permitted facilities within one-quarter mile of the subject site. The MPCA response also indicated that there are no air permit violations for the city of Minnetonka.

MPCA Hazardous Waste Generators

A review of the MPCA Hazardous Waste Generators list, dated April 5, 1994, indicated that there are no registered generators of hazardous waste within approximately one-quarter mile of the subject site.

MPCA Underground Storage Tank (UST) Sites

A review of the MPCA UST list for zip code 55345, dated April 5, 1994, indicated that the only registered USTs within approximately one-quarter mile of the subject site are located at the subject site. "Minnetonka" is identified as the owner of two USTs located at 4500 Tonkawood Road (ID# 3025).

MPCA LUST Sites

A review of the City Leaksite List for zip code 55345, dated April 5, 1994, indicated that the following leaksite was reported within approximately one-half mile of the subject site: Don Stodola Well Drilling, 15306 Highway 7, Leak ID# 6401. Based on the regulatory information received for this project, this site has not been "closed" by the MPCA. A site is considered "closed" by the MPCA when it does not appear to pose a significant risk to public health, safety, or welfare and no further action is necessary at the leaksite.

MPCA Spill Sites

The Spills and Leak Report Log for the city of Minnetonka, dated April 5, 1994, did not indicate that there have been spills/leaks reported within approximately one-half mile of the subject site; however, complete address information was not provided for numerous release sites identified in the report.

Hennepin County

A list of hazardous waste generators licensed by Hennepin County was reviewed for zip code 55345. This list, dated March 3, 1994, indicated that there were two licensed hazardous waste generators located within approximately one-quarter mile of the subject site. One of these sites was the subject site, Hanus Bus Co. Inc., located at 4500 Tonkawood Road, Minnetonka. The Hanus facility was identified as a conditionally exempt hazardous waste generator, Site ID# 00000017 05326015. Wastes generated at this facility include hazardous components such as used petroleum-based oil (approximately 800 gallons per year), non-halogenated hydrocarbon flammable solvents (approximately 20 gallons per year), and petroleum-based oil and lead (approximately 20 gallons per year). Non-hazardous carrier wastes generated at this site include lead and sulfuric acid (approximately 25 units per year).

The other licensed hazardous waste generator identified within approximately one-quarter mile of the subject site was listed as: Schjeldahl G T, 4436 Marlborough Court, Minnetonka. This facility (Site ID# 00005888 05314961) is located approximately one-quarter mile west of the subject site. However, this site was identified as a "negative generator", indicating that the facility has been visited by the county and has been classified as a facility which does not generate hazardous waste.

Metropolitan Waste Control Commission (MWCC) Permit Review

A review of MWCC file information, dated April 1, 1994, indicated that there are no facilities permitted with the MWCC to discharge industrial waste into the sanitary sewer within approximately one-quarter mile of the subject site.

1991 Toxic Release Inventory Report for the State of Minnesota

A review of the 1991 Toxic Release Inventory Report for the state of Minnesota did not identify the subject site as a facility which submitted toxic chemical report forms to the state of Minnesota in calendar year 1991.

4.2 Geologic/Hydrogeologic Setting

A Minnesota Geological Survey (MGS) publication and MGS well logs for the site area were reviewed. According to the MGS publication, the site is located in an area of outwash, lacustrine clay and silt, and sandy till deposits. The outwash deposits consist of sand, loamy sand, and gravel overlain by loess less than four feet thick, the lacustrine clay and silt deposits consist of laminated clay to silt generally less than 10 feet thick, and the sandy till deposits consist of loam to sandy loam, commonly capped by, and interbedded with, thin deposits of silty to gravelly stratified sediment. Well logs reviewed indicated that the soil in the site area consists of layers of sand, clay, and gravel.

The MGS information and the well logs reviewed indicated that bedrock underlying the site is St. Peter Sandstone, with a lobe of the Prairie du Chien Group crossing the center of the subject site. According to area well log information, the depth to bedrock in the site area ranges from 98 to 345 feet below grade (bg). According to the MGS publication, the bedrock topography in the site area is generally sloping to the southeast.

According to area well logs reviewed, the aquifers in use in the site area are quaternary water table aquifers, quaternary buried artesian aquifers, Pleistocene deposits, and the Platteville, St. Peter Sandstone, and Jordan aquifers. The recorded usage of the MGS-registered wells in the site area appear to be for domestic, commercial, municipal, and public supply purposes. Logs of wells in the vicinity of the site on record at the MGS are summarized in tabular form and contained in Appendix VII.

According to the MGS publication, the groundwater flow direction within the saturated zone of surficial materials and underlying bedrock is east or southeast towards the Minnesota and Mississippi Rivers. Local variations in groundwater flow direction may exist due to nearby lakes, wells, wetlands, or geologic features. The depth to groundwater in the site area ranges from 7 to 130 feet bg according to well log information.

4.3 Historical Site Data Review

Sanborn Fire Insurance Maps

The subject site and surrounding area were not covered by Sanborn Fire Insurance Maps due to the recent development of the site area.

Polk City Directories

R. L. Polk and Company's Minneapolis Suburbs City Directories for the years 1963, 1965, 1970-71, 1974, 1980, and 1986 were reviewed for the site area. In general, the subject site has existed in a residential setting through the years, with a few retail establishments along Tonkawood Road.

The 1963 directory did not have a listing for Tonkawood Road. The 1965 directory identified Hanus Bus Co./Hanus Hayrides & Sleighrides/James Hanus at the subject site address (4500 Tonkawood Road). Other listings along Tonkawood Road in the 1965 directory consisted of residences, with some retail establishments. Streets in the vicinity of the subject site such as Avondale Road, Highwood Drive, Kensington Court, West Oaks, and Tonkawood Court were not listed in the 1965 directory. The 1970-71 directory listings were similar to the 1965 listings.

The 1974 directory identified Hanus Bus Company/James Hanus at the subject site address. Residential listings were identified along nearby streets such as Avondale Road, Highwood Drive, Kensington Court, and Tonkawood Court. Residences and a few retail establishments were identified along Tonkawood Road in the vicinity of the subject site in the 1974 directory. The 1980 directory listings were similar to the 1974 listings.

The 1986 directory identified Hanus Bus Company/Florence Hanus at the subject site address. Residential listings were identified along nearby streets, as well as the majority of Tonkawood Road, which again was identified as having a few retail establishments in the vicinity of the subject site. Copies of selected city directory listings for the site area are provided in Appendix VIII.

Aerial Photographs

Aerial photographs on file at the University of Minnesota's Wilson Library for the years 1940, 1945, 1953, 1957, 1971, 1980, 1987, and 1990 were available for review.

Several structures were visible in the southeast corner of the subject site in each of the photographs reviewed. In the 1940 photograph, these structures appeared to represent a farmstead. Another farmstead, which appeared to be located off-site, was observed near the northeastern corner of the subject site. An apparent residence was observed just southeast of the site, on the west side of Tonkawood road. The 1940 photograph showed the majority of the subject site to be agricultural fields. The site appeared to be bordered by agricultural fields and wooded land in the 1940 photograph, with Tonkawood Road to the east.

The 1945, 1953, 1957, and 1971 photographs appeared similar to the 1940 photograph. The 1971 photograph showed what appeared to be the current shop building and several other buildings in the southeast corner of the subject site. The 1971 photograph also showed several apparent bus or truck-like vehicles located on the parking/drive areas of the subject site. The majority of the subject site appeared to consist of active agricultural fields in the 1971 photograph. An apparent depression containing standing water was observed in the south-central portion of the subject site in the 1953, 1957, and 1971 photographs. Residential development was observed on properties adjacent to the subject site in the 1957 and 1971 photographs.

The structures in the southeast corner of the subject site appeared to be different in the 1980, 1987, and 1990 photographs when compared to the 1971 photograph. A large structure was observed in this area in the 1980 photograph; however, this structure was not observed in the 1987 or 1990 photographs. This would be consistent with the reported tornado damage in 1985. The apparent depression containing standing water in the south-central portion of the subject site was evident on the 1980 photograph, but was less evident on the 1987 and 1990 photographs. The subject site appeared to be bordered by residential houses to the north, south, east, and west in the 1980, 1987, and 1990 photographs.

Topographic Map

The 1967 topographic map for the site area (Hopkins, photorevised in 1972 and 1980) was also reviewed (Figure 1). Several structures were shown in the southeast corner of the subject site on the map. The map indicated residential development to the north, south, east, and west of the subject site, with Tonkawood Road shown to the east. The map depicted the topography of the site as being rolling to hilly.

5.0 SITE RECONNAISSANCE

On April 6, 1994, a Summit representative conducted a reconnaissance of the subject site. The purpose of the site reconnaissance was to review present land usage at and near the site, and to document evidence of potential environmental concerns pertaining to soil and/or groundwater contamination. The site reconnaissance identified the following items:

5.1 Chemicals and Hazardous/Unidentified Materials

Containers of hazardous materials or waste observed at the site at the time of the site reconnaissance included three ASTs, numerous drums, paints, cleaners, solvents, automotive batteries and fluids, gasoline cans, and lubricants. In addition, two pump islands and fill/vent pipes were observed, suggesting the presence of two or three USTs at the subject site.

One AST (approximately 100 gallons in capacity) was located inside the shop building and was labeled as containing oil. A spout valve was observed near the bottom of this AST, and stained floor dry was observed beneath the spout. A coffee can which appeared to be half full of an oil-like substance was observed beneath this AST. A second AST was located on the ground outside the shop building, along the north wall. This AST (approximately 265 gallons in capacity) reportedly contained waste oil. A bung was observed on the top of the AST. A spout valve was observed near the bottom of this AST, and stained soil was observed beneath the spout. A wall-mounted funnel which discharged into the AST via a pipe was observed inside the shop building. The third AST observed at the site consisted of a large liquid propane (LP) tank located north of the shop building, adjacent to the diesel pump.

5.2 Interior Site Review/Site Buildings

Two main site buildings (office/lounge/storage building and shop building) were associated with the Hanus Bus property located in the southeast corner of the subject site. Four sheds, also belonging to Hanus Bus, were located in this area as well (Figure 2).

Office/Lounge/Storage Building

The office/lounge/storage building was observed to consist of a first floor (foyer, office, restrooms), a second floor (lounge, computer room, office), and a lower level used for bus storage. The majority of the building was of wooden frame construction with corrugated sheet metal roofing and walls. Other building materials observed in this building included 10" x 10" ceiling tiles, wood paneling, concrete, sheet flooring, plastic wall paneling, painted wallboard, carpeting, and fiberglass insulation. The interior of the building was illuminated by fluorescent and incandescent lights, with mercury vapor lamps on the exterior of the building.

Several household cleaning products such as rug cleaner, wood polish, and bathroom cleaners were observed in the restrooms and lounge areas. A Van EE central ventilation heat recovery ventilator unit was observed inside the lounge area. Air ducts were observed to be connected to this unit, as well as a hose which flowed into a pipe that was observed to run into a hole in the wall. A box of absorbent pads and booms was observed in the lounge area, as well as a box of apparently used fluorescent lights. A storage cubby was observed behind a hatch in the wall, located in the stairwell. This cubby was observed to contain boxes of files. The second floor office was inaccessible at the time of site reconnaissance.

The bus storage area consisted of a large, open room with a concrete floor and skylights. The floor was covered with a layer of sand and dirt, and wooden shelves were observed along portions of the walls. Numerous school buses were in the storage area at the time of the site reconnaissance. Other items observed in the storage area included a partially full 1-gallon poly container labeled as containing a gasoline/oil mix, a weed wacker, a half full 1-gallon poly jug of

what appeared to be used oil, three partially full 2.5-gallon poly jugs labeled as containing gear lube and oil, a pile of old bus seats, a roll of sheet flooring, and assorted spare parts. The half full 1-gallon poly jug apparently containing used oil was situated on a wooden shelf that was observed to be stained.

Shop Building

The shop building was observed to consist of a single level, metal frame building with corrugated sheet metal walls and roof. Insulation was observed on the ceiling of the building. The insulation appeared to be fiberglass. Two large cracks were observed in the concrete floor of the shop building.

The main shop area is used for maintaining and cleaning of the school buses stored on-site. Shelving and storage closets lined the interior walls of the shop building. Items observed in the shop included an AST labeled as containing oil (see Section 5.1), a small hot water heater, slop sink, water fountain, parts washer, an apparent vacuum unit, automotive jacks, spare parts, four machining tools, an oxy-acetylene torch unit, two battery chargers, an air compressor, and a natural gas space heater suspended from the ceiling. A hose, which appeared to be associated with the hot water heater, was observed to occasionally spray liquid onto the floor. The slop sink, which was significantly stained, was observed to drain directly into a 5-gallon poly bucket. During the site reconnaissance, the contents of this bucket were observed to be dumped down one of the two floor drains in the shop building. These floor drains discharge directly onto the dirt parking/drive area located on the north side of the shop building.

Numerous maintenance materials were also observed in the shop building. Materials observed included: two full 55-gallon drums labeled as containing gasoline additive; three 55-gallon drums containing unknown substances; a 55-gallon drum labeled as containing transmission fluid (mostly empty); approximately nine assorted containers labeled as containing oil; a full 30-gallon drum labeled as containing industrial solvent; a 55-gallon drum full of used oil filters; a full 55-gallon drum labeled as containing window washer fluid; five 30-gallon drums labeled as containing oil, lubricants, and diesel fuel additive; and numerous small containers labeled as containing automotive fluids, lubricants, deodorizers, additives, cleaners, degreasers, and paints.

A small storage room attached to the shop building was observed to be constructed primarily of wood, with carpeting and sheet flooring. The walls of this storage room were lined with shelves containing several fire extinguishers, spare parts, two gasoline cans, two poly jugs labeled as containing oil, safety cones, three automotive batteries, automotive air filters, and numerous cleaners and lubricants.

Sheds

Four sheds were observed to the west of the office/lounge/storage building and shop building (Figure 2). Shed #1 was observed to be constructed of sheet metal, and contained bus tires, spare parts, scrap sheet metal, and tire inner tubes. Shed #2 was observed to be constructed of wood, and contained wheel rims, old tires, inner tubes, tools, spare parts, and what appeared to be three bus gasoline tanks. Shed #3 was observed to be constructed of wood and sheet metal, and contained a motor boat, spare parts, farm implements, tires, shock absorbers, an old sleigh, a tractor which appeared to be operational, a container of soft water salt crystals, one apparently empty 55-gallon drum labeled as containing antifreeze, and three additional 55-gallon drums. Shed #4 was observed to be constructed of sheet metal, and contained part of a bus engine and spare parts. The majority of the floor space in these sheds consisted of bare soil.

5.2.1 Asbestos-Containing Building Materials

A general survey of suspect asbestos-containing building materials (ACBMs) was not conducted during the site reconnaissance; however, based upon Summit's past experience with building materials of similar construction and age, potential ACBMs were identified in the buildings at the site. These materials include, but are not limited to, ceiling tiles, wallboard, joint compound, and carpet adhesive.

5.2.2 PCB-Containing Electrical Equipment

Fluorescent lights were observed in the site building. Fluorescent light ballasts manufactured prior to 1979 may contain small amounts of PCB oils. If the ballasts are not labeled as "non-PCB", the date stamp code on the ballast can be checked with the ballast's manufacturer for PCB content. Electrical transformers or capacitors were not observed in the site buildings.

5.3 Exterior Site Review

Parking/drive areas were observed adjacent to the site buildings on the Hanus Bus property. These parking/drive areas consisted of bare soil and asphalt. The remainder of the site consisted of agricultural fields, gardens, wooded areas, two wetland basins, and residential yards. The general topography of the site was observed to be rolling to hilly.

Two fuel pumps were observed at the subject site. A gasoline pump and its associated fill/vent pipes was observed just east of the office/lounge/storage building. Soil staining was not apparent in the vicinity of the gasoline pump. An additional fill port near the gasoline pump suggested the presence of a second UST in this area. A diesel pump and its associated fill/vent pipes was observed to the north of the shop building. Stained soil was apparent in front of this diesel fuel pump.

Two discharge pipes were observed just north of the shop building. These pipes are reportedly connected to the shop building floor drains and discharge onto the dirt parking/drive area. Soil in the vicinity of the discharge points appeared to be saturated, and was observed to have a petroleum-like odor. A trash dumpster was observed near the northeast corner of the shop building. Numerous tires and tools were observed between the shop and office/lounge/storage buildings.

An area near the northeast corner of the shop building was observed to be used for outside storage purposes. Approximately 15 drums, 30 to 55-gallons in capacity, were observed in this area. Most of these drums appeared to be empty; however, trash was observed in some of the drums, and a petroleum-like odor was observed in the vicinity of the drums. Two automotive batteries were observed in this area, as well as a PVC pipe which was observed to be flush with the ground surface and lead into the ground. According to Ms. Hanus, this PVC pipe leads into a buried 55-gallon drum. Ms. Hanus stated that this PVC pipe/drum unit was formerly hooked up to toilets on the subject site. An AST reportedly containing waste oil was located along the north side of the shop building, and an LP tank was located to the north of the shop building (see Section 5.1).

A considerable amount of debris was observed to the west of, and around, the four on-site sheds. Items observed in the vicinity of Sheds #1 and #2 included: five small trailers; assorted automobile parts; a snow plow; five 55-gallon drums (some containing trash); a large pile of lumber and debris; several fire extinguishers; three metal troughs; a wooden pen; a mattress boxspring; a ladder; cushions; a significant amount of scrap sheet metal; concrete rubble; tires; a pile of soil containing building debris; a bus gasoline tank; old fuel pumps; telephone poles; automobile parts; tubing; and a conveyor belt system.

Items observed in the vicinity of Sheds #3 and #4 included: three empty 55-gallon drums; one open-top 55-gallon drum containing an unidentified liquid; one 30-gallon drum containing an unknown substance; lumber; an apparently inoperable bus; a truck; a tractor; plastic sheeting; metal girders; a mattress; approximately seven farm implements; approximately 12 telephone poles; metal debris; an old boat; approximately six old propane tanks; an apparent anhydrous fertilizer tank (approximately 120 gallons in capacity) mounted on a trailer; a water trough; an active bee hive; and assorted tires.

Several areas of debris were also observed in the wooded portions of the subject site, off of the Hanus Bus property. Items observed in these areas included: a small, old trailer; lawn debris; tires; lumber; a mattress; cans; bottles; and one old gasoline can. During the site reconnaissance, a resident to the north of the subject site appeared to be draining their swimming pool onto the subject site. A large dump area was observed near the northwest corner of the subject site (Figure 2). Items observed in this dump included: a farm implement; a mattress; a water trough; cut brush; approximately ten old paint cans; lumber; tires; sheet metal; a garbage can; pipes;

large logs; an old stove; an old clothes washer; an old saw; cut trees; and PVC pipes. Two old farm implements were observed in the central portion of the subject site, and an old, rusted-out 55-gallon drum was observed in one of the on-site wetlands.

At the time of the site reconnaissance, a pile of soil was observed on the parking/drive area, north of the shop building. Apparent grading activities had been occurring near the northwest corner of the Hanus Bus property. A strip of stained soil was observed in this recently graded area. The stained soil was observed to have a petroleum-like odor.

Evidence of dying or distressed vegetation was not observed during the site reconnaissance. Indications of monitoring wells or water wells were not observed at the subject site. Pole-mounted transformers were observed near the southeast corner and southwest corner of the subject site (Figure 2). Indications of leaking dielectric fluid from the transformers were not observed. A natural gas meter was observed near the northeast corner of the office/lounge/storage building, and an electric hook-up was observed on the southwest corner of the same building. An air conditioning unit was observed on the east side of the office/lounge/storage building.

As stated previously, the residential land located on-site (the Hanus residence and the west 150 feet of the Howard Miller Addition) was not thoroughly assessed for the purposes of this report due to private occupancy at the time of site reconnaissance. It should also be noted that site observations may be restricted due to obstructions at the subject site such as dense vegetation, large piles of debris, or other barriers.

5.4 Off-Site Review

Properties adjacent to the subject site consisted primarily of single-family residential lots. Indications of ASTs, USTs (fill or vent pipes), or monitoring wells were not observed on adjacent properties during the site reconnaissance. It should be noted that adjacent property observation may be restricted due to obstructions such as buildings, landscaping, or other barriers.

6.0 LIMITED SUBSURFACE ASSESSMENT ACTIVITIES

6.1 Hand Augers

On April 18, 1994, Summit advanced six hand auger borings (HA-1 through HA-6) at the following site locations: to the south of the diesel pump (HA-1); at the discharge points of the shop building's eastern and western floor drains (HA-2 and HA-3, respectively); beneath the waste oil AST spout (HA-4); at the drum storage area (HA-5); and at an area of stained soil in the

northern portion of the site parking lot (HA-6). The approximate locations of these hand auger borings are shown on Figure 3. These hand auger boring locations were chosen based on areas that were likely to have been impacted by petroleum-hydrocarbon releases. The hand augers were only able to be advanced to depths ranging from six to 15 inches below grade due to gravelly soil conditions. Soil samples collected from the hand auger borings were screened in the field for organic vapors, and sampled for chemical analysis of petroleum-related compounds and volatile organic compounds.

6.2 Test Borings

On May 13, 1994, Summit observed the advancement of six test borings (TB-1 through TB-6) at the following site locations: near the gasoline UST and the unused UST (TB-1 and TB-2); at the discharge points of the shop building's eastern and western floor drains (TB-3 and TB-4, respectively); and near the diesel UST (TB-5 and TB-6). The approximate locations of these test borings are shown on Figure 3. These test borings were advanced in areas of known soil impacts, as well as in areas that were likely to have been impacted by UST releases. Each of the test borings was advanced to 15 feet below grade, and was abandoned using a bentonite grout. The logs for the test borings are presented in Appendix IX.

The test borings were completed by Braun using hollow-stem-auger drilling methods and following modified ASTM standards D-1586-84. Using this procedure, a two-inch outer diameter split barrel sampler is driven into the soil by a 140-pound weight falling 30 inches. A two-foot soil sample is retrieved from the split barrel sampler for screening and sampling. After potentially impacted soil was identified in a test boring, Braun utilized clean split-barrel samplers and augers to prevent cross-contamination between borings.

In the field, a Summit field technician visually classified soil samples recovered during the advancement of the test borings. The sample descriptions included soil type, color, grain size, content, texture, and moisture and were recorded on the test boring logs (Appendix IX). Soil collected at the test boring locations was screened in the field for organic vapors, and sampled for chemical analysis of petroleum-related hydrocarbons and VOCs.

6.3 Field Screening for Organic Vapors

Summit performed headspace organic vapor screening on soil samples collected at the hand auger boring and test boring locations. An MPCA-approved jar headspace technique was used to screen soil collected from the test borings, and a modified headspace technique was used to screen soil collected from the hand augers. Summit screened soil samples for organic vapors using a portable photoionization detector (PID), Thermo Environmental Instruments Inc. Organic

Vapor Monitor (OVM) Model 520, that was equipped with a 10.6 electron volt lamp. This instrument was calibrated at the beginning of the day using ambient air as a zero gas and 100 parts per million (ppm) isobutylene in air as the calibration gas. The calibration allowed direct readings of benzene in parts-per-million (ppm) on a volume basis.

6.4 Soil Sampling for Laboratory Analyses

Summit collected soil samples at the hand auger boring and test boring locations for laboratory analysis of gasoline range organics (GRO), diesel range organics (DRO), and VOCs. Soil samples were collected in laboratory-prepared containers, sealed with Teflon-lined lids, and stored in a cooler chest. Chain-of-custody documentation was prepared and accompanied the samples to the laboratory.

6.5 Geoprobe Test Probes

On June 6, 1994, Summit advanced eight test probes (P-1 through P-8) at the following site locations: near the diesel UST (P-1 through P-4); to the south of the diesel UST (P-5); at the discharge point of the shop building's eastern floor drain (P-6); to the east of the diesel pump (P-7); and to the southeast of the gasoline and unused USTs (P-8). The approximate locations of these test probes are shown on Figure 3. These test probe locations were chosen based on the results of the test borings advanced at the site. Test probe P-1 was advanced to a depth of 31 feet below grade (bg), test probes P-2, P-3, and P-4 were advanced to a depth of 20 feet bg, test probes P-5, P-7, and P-8 to a depth of 16.5 feet bg, and test probe P-6 to a depth of 29 feet bg. The test probes were abandoned using a bentonite grout.

Soil samples collected with the Geoprobe unit were analyzed on-site for petroleum related parameters. Petroleum related parameters were analyzed in general accordance with Environmental Protection Agency 8015/8020 Methodology. The method used to quantify gasoline range organics (GRO) and diesel range organics (DRO) was a modified version of the Wisconsin Department of Natural Resources GRO method utilizing purge-and-trap sample concentration. DRO was calculated by extending the GC analysis time beyond the GRO range. Soil samples were concentrated with an OI-Analytical Model 4460A purge-and-trap sample concentrator and transferred directly into the GC column via a heated transfer line for chromatographic separation. Benzene, ethylbenzene, toluene, xylenes, 1,2,4-trimethyl benzene, 1,3,5-trimethyl benzene, GRO, and DRO standards were analyzed to generate response factors for each analyte.

7.0 LIMITED SUBSURFACE ASSESSMENT PROJECT RESULTS

7.1 Subsurface Lithology

Soil encountered at the test boring locations was comprised predominantly of sand and gravel. Detailed descriptions of the soil encountered at the test boring locations are included with the test boring logs provided in Appendix IX.

7.2 Contaminant Observations

Visual and/or olfactory indications of contaminants were observed in soil samples collected at each of the hand auger locations with the exception of HA-5. Organic vapors were detected during field screening of soil samples collected at each of the hand auger locations with the exception of HA-5. The PID readings observed in the field for these hand auger soil samples are presented in Table 1.

Table 1
Summary of Hand Auger Field Screening
Hanus Bus Site - Minnetonka, Minnesota
Summit Project No. 940870

Sampling Location	Sample Interval (inches below grade)	PID Reading (ppm)
HA-1	0-1	38
	6	11
	12	3
HA-2	0-6	121
	9	88
HA-3	0-6	9
HA-4	0-6	17
	12	14
	15	1
HA-5	0-6	ND
HA-6	0-6	1
	12	1

Note: ppm = parts-per-million
ND = Not Detected (or less than 1 ppm)

Organic vapors were also detected during field screening of soil samples collected at TB-2, TB-3, and TB-5. The PID readings observed in the field for soil samples collected at the test boring locations are provided in the test boring logs (Appendix IX).

7.3 Results of Laboratory Analysis of Soil Samples

Shallow soil samples collected at each hand auger location were submitted for chemical analyses, with the exception of the soil sample collected at HA-5; field screening of this soil sample did not indicate the presence of organic vapors. The five hand auger soil samples were analyzed for a combination of GRO, DRO, and VOCs. Soil samples collected at TB-3 and TB-5 were submitted for chemical analysis of VOCs and DRO, respectively. A low organic vapor reading (4 parts-per-million) was detected during field screening of soil collected at TB-2 from 5 feet bg, and for this reason a sample was not submitted for analysis from this boring location. The results of the laboratory analyses performed on the hand auger and test boring soil samples are summarized in Table 2, along with the results of the on-site analyses of Geoprobe samples. Complete laboratory reports and chain-of-custody documentation for the soil samples submitted to the laboratory are presented in Appendix X.

7.4 Results of On-Site Chemical Analysis of Soil Samples

Soil samples were collected at test probes P-2 through P-8 and analyzed on-site using Summit's Geoprobe mobile sampling and analytical unit. A soil sample was not collected at P-1 because this probe was advanced with the intent of collecting a water sample; however, groundwater was not encountered at the terminus of this probe, and the probe was not able to be advanced further due to an obstruction. Fourteen soil samples were analyzed on-site for concentrations of GRO, DRO, benzene, toluene, ethylbenzene, and xylenes (BTEX), 1,3,5-Trimethylbenzene, and 1,2,4-Trimethylbenzene. The results of the chemical analysis performed on the soil samples are summarized in Table 2.

Table 2
Summary of Analytical Results
Hanus Bus Site - Minnetonka, Minnesota
Summit Project No. 940870

Sampling Location	Depth	GRO (mg/kg)	DRO (mg/kg)	Ethyl-benzene (mg/kg)	Xylenes (mg/kg)	1,3,5-Trimethyl-benzene (mg/kg)	1,2,4-Trimethyl-benzene (mg/kg)	n-Butyl benzene (mg/kg)	tert-Butyl benzene (mg/kg)	sec-Butyl-benzene (mg/kg)	Isopropyl-benzene (mg/kg)	n-Propyl benzene (mg/kg)
HA-1	0-1"	70	34,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
HA-2	0-6"	460	1,200	1.5	ND	3.0	3.5	8.3	2.4	4.9	1.7	7.6
HA-3	0-6"	44	150	< 0.50	ND	< 0.50	< 0.50	0.70	< 0.50	< 0.50	< 0.50	< 0.50
HA-4	0-6"	< 5.0	23,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
HA-6	0-6"	7.0	240	NA	NA	NA	NA	NA	NA	NA	NA	NA
TB-3	5'	NA	NA	< 0.50	ND	< 0.50	< 0.50	0.71	< 0.50	0.55	< 0.50	< 0.50
TB-5	15'	NA	< 8.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
P-2	4'	< 0.05	< 5.0	< 0.002	< 0.002	< 0.002	< 0.002	NA	NA	NA	NA	NA
P-2	16'	< 0.05	< 5.0	< 0.002	< 0.002	< 0.002	< 0.002	NA	NA	NA	NA	NA
P-2	20'	< 0.05	< 5.0	< 0.002	< 0.002	< 0.002	< 0.002	NA	NA	NA	NA	NA
P-3	10-12'	< 0.05	< 5.0	< 0.002	< 0.002	< 0.002	< 0.002	NA	NA	NA	NA	NA
P-3	14.5'-16.5'	6.9	162	< 0.002	0.042	0.139	0.242	NA	NA	NA	NA	NA
P-3	19'-20'	< 0.05	< 5.0	< 0.002	< 0.002	< 0.002	< 0.002	NA	NA	NA	NA	NA
P-4	14.5'-16.5'	< 0.05	< 5.0	< 0.002	< 0.002	< 0.002	< 0.002	NA	NA	NA	NA	NA
P-4	19-20'	< 0.05	< 5.0	< 0.002	< 0.002	< 0.002	< 0.002	NA	NA	NA	NA	NA
P-5	14.5'-16.5'	< 0.05	< 5.0	< 0.002	< 0.002	< 0.002	< 0.002	NA	NA	NA	NA	NA
P-6	17'-19'	< 0.05	< 5.0	< 0.002	< 0.002	< 0.002	< 0.002	NA	NA	NA	NA	NA
P-7	10'-12'	< 0.05	< 5.0	< 0.002	< 0.002	< 0.002	< 0.002	NA	NA	NA	NA	NA
P-7	14.5'-16.5'	< 0.05	< 5.0	< 0.002	< 0.002	< 0.002	< 0.002	NA	NA	NA	NA	NA
P-8	10'-12'	< 0.05	< 5.0	< 0.002	< 0.002	< 0.002	< 0.002	NA	NA	NA	NA	NA
P-8	14.5'-16.5'	< 0.05	< 5.0	< 0.002	< 0.002	< 0.002	< 0.002	NA	NA	NA	NA	NA

Note: mg/kg is equivalent to parts-per-million
NA = Analyte not analyzed
ND = Not detected at or above Method Detection Limit

As the results indicate, detectable concentrations of petroleum-related parameters were observed in soil samples collected at HA-1, HA-2, HA-3, HA-4, HA-6, TB-3, and P-3. These sampling locations are shown on Figure 3.

7.0 DISCUSSION/CONCLUSIONS

Summit has completed a Phase I ESA and Limited Subsurface Assessment of the Hanus Bus Company site. Historical information reviewed indicated that the subject site has been occupied by a farmstead, bus company, residential land, agricultural land, and undeveloped land through the years. According to interview information, the Hanus Bus Company, Inc. has operated at the subject site since 1961.

On-site sources of potential soil and/or groundwater contamination were identified at the subject site. Three USTs, three ASTs, hazardous waste materials, and a significant amount of general debris were identified and/or observed at the subject site. MPCA records identify two underground storage tanks at the subject site address, and the subject site is listed by Hennepin County as a conditionally exempt hazardous waste generator. Fluorescent lights and potential asbestos-containing building materials were observed in the site buildings. Two pole-mounted transformers were observed at the subject site; however, indications of leaking dielectric fluid were not observed.

Petroleum-impacted soil was identified at the subject site during limited subsurface assessment activities. This impacted soil appeared to be associated with the diesel fuel pump and UST, the shop building floor drain discharge pipes, and the waste oil AST. Limited subsurface assessment activities at the site suggested that these areas of impact were limited in horizontal and vertical extent. An area of minor soil staining was also observed along the northern portion of the site parking lot.

The subject site is located in a primarily residential setting, with a few commercial businesses along Highway 7. The potential of soil and/or groundwater contamination from off-site activities appears low. Based upon the review of historical information, interview information, regulatory information, and the site reconnaissance, the closest potential off-site source of soil and/or groundwater contamination appears to be Schjeldahl G T, a "negative generator" located at 4436 Marlborough Court in Minnetonka, approximately one-quarter mile west of the subject site. The classification "negative generator" indicates that the facility has been visited by the county and has been classified as a facility which does not generate hazardous waste. Therefore, it appears unlikely that this facility poses an environmental concern to subject site.

8.0 RECOMMENDATIONS

Based upon the discussion and conclusions of this Phase I ESA and Limited Subsurface Assessment, further environmental assessment of the subject site for on-site sources of soil and/or groundwater contamination does appear to be warranted at this time. Due to indications of petroleum-related impacts in the vicinity of the diesel fuel underground storage tank, Summit recommends that this underground storage tank be removed and that petroleum-impacted soil be excavated and treated following state and local regulations. The unused underground storage tank should also be removed, and if petroleum-impacted soil is encountered, this soil should also be excavated and treated following state and local regulations. The gasoline underground storage tank should be managed according to applicable state and federal regulations.

Petroleum impacted soil associated with the shop building floor drain discharge pipes and waste oil AST should also be excavated and treated following state and local regulations. Summit recommends that the site owner notify appropriate local, state, and federal agencies regarding the two shop building floor drains which discharge untreated wastewater onto the ground. Any necessary permits should be acquired pertaining to this discharge. The source of the minor soil staining observed in the northern portion of the site parking lot should be determined and removed, if possible. Summit also recommends that regulated and hazardous materials at the subject site be stored, handled, and disposal of properly. These materials would include oils, gasoline, diesel fuel, solvents, fluorescent lights, and asbestos-containing building materials. In particular, containers and materials located in the drum storage area (Figure 3) should be moved inside the shop building. Summit also recommends that the debris observed at the subject site be characterized and disposed of properly. Should additional information regarding past site activities or off-site sources become available, this information should be reviewed and the need for additional assessment re-evaluated.

9.0 REFERENCES

N. H. Balaban, Editor, Hennepin County Atlas, Atlas C-4, Minnesota Geological Survey, 1989.

10.0 LIMITATIONS OF ENVIRONMENTAL SITE ASSESSMENT

10.1 Site Data and Related Records Review

Summit's opinions, conclusions and recommendations were based in part on information Summit obtained and evaluated from current sources including the client, property owner, and private, municipal, state, and federal agencies. Verification of the authenticity or accuracy of this information is not warranted by Summit or included in Summit's scope of services.

10.2 Site Reconnaissance

Summit performed a site reconnaissance to document the current conditions and physical evidence of potential contamination. Summit focused on those areas that were likely to exhibit hazardous material conditions, whereas other areas may have received limited attention, or were inaccessible at the time of our reconnaissance. Summit, therefore, will not guarantee the site to be free of hazardous or potentially hazardous materials or conditions.

10.3 Sample Collection and Analysis

Samples of soil that Summit believed had the potential of containing petroleum hydrocarbons were collected and analyzed for the presence of organic vapors. Sample locations, quantity of samples and analyses performed were selected to provide qualitative data to evaluate and document current site conditions or past site activities and were not intended to be inclusive of a complete remedial investigation. The scope of sample collection and analysis was based primarily on the information provided by the site data, and parameters not included in the aforementioned scope of analysis were not identified or evaluated. The data obtained from discrete sample locations were used to infer conditions between sample locations. No guarantee may be given that the inferred conditions exist because soil quality conditions between sample locations may vary significantly, because conditions at the time of sample collection may also vary significantly with respect to soil quality at any other given time, and for other reasons beyond Summit's control.

10.4 Final Report and Interpretation of Results

Summit's report is based upon Summit's observations made during the site reconnaissance. Given the inherent limitations of environmental site assessment work, Summit will not guarantee that the site is free of hazardous or potentially hazardous materials or conditions or that latent or undiscovered conditions will not become evident in the future. Summit's report was prepared in accordance with the proposal, scope of work, and Summit's general conditions and terms, and no other warranties, representations, or certifications are made.

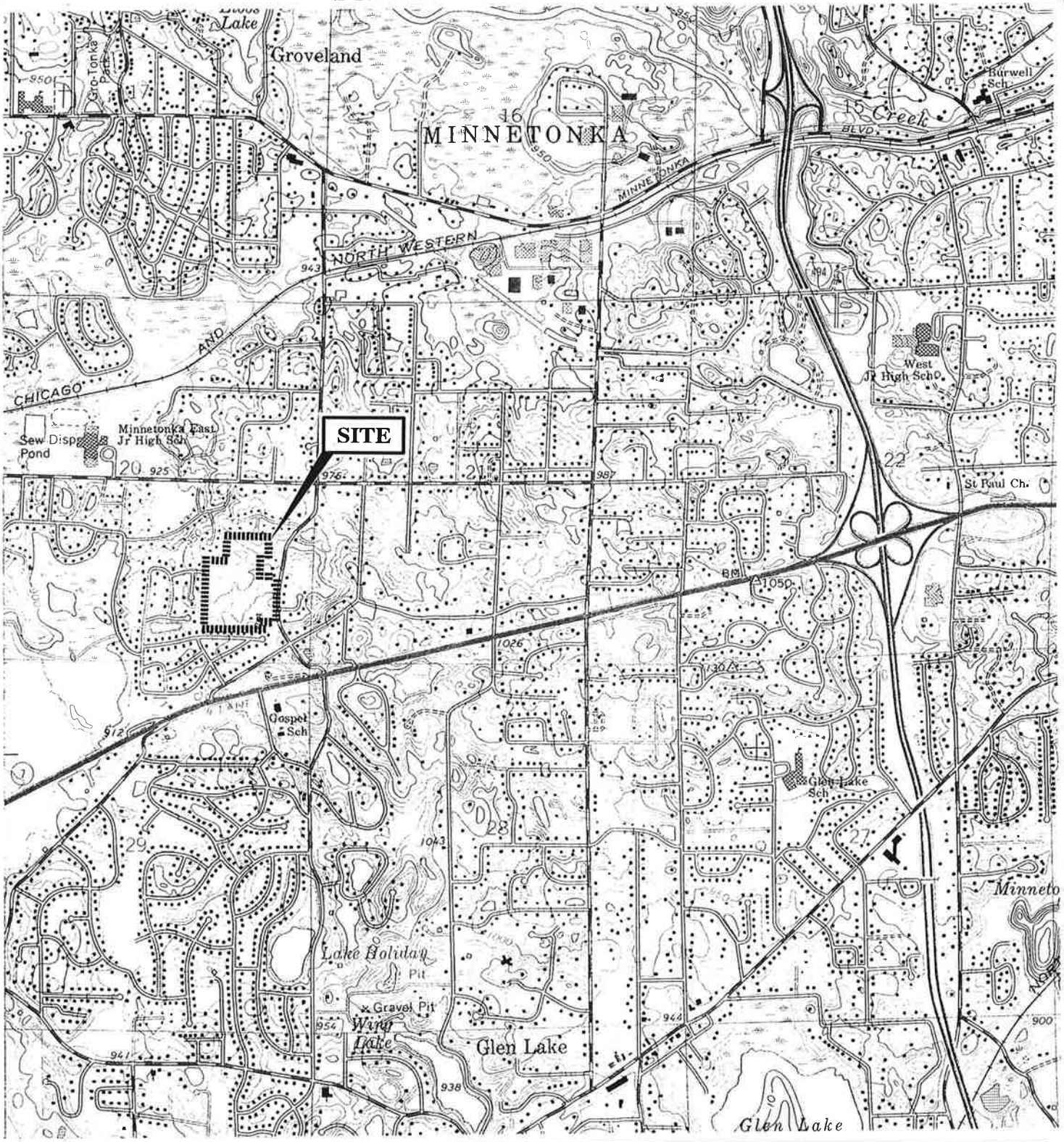
Summit Envirosolutions, Inc.

Douglas M. Mensing
Environmental Scientist

Scott C. Tracy
Site Assessment Department Manager

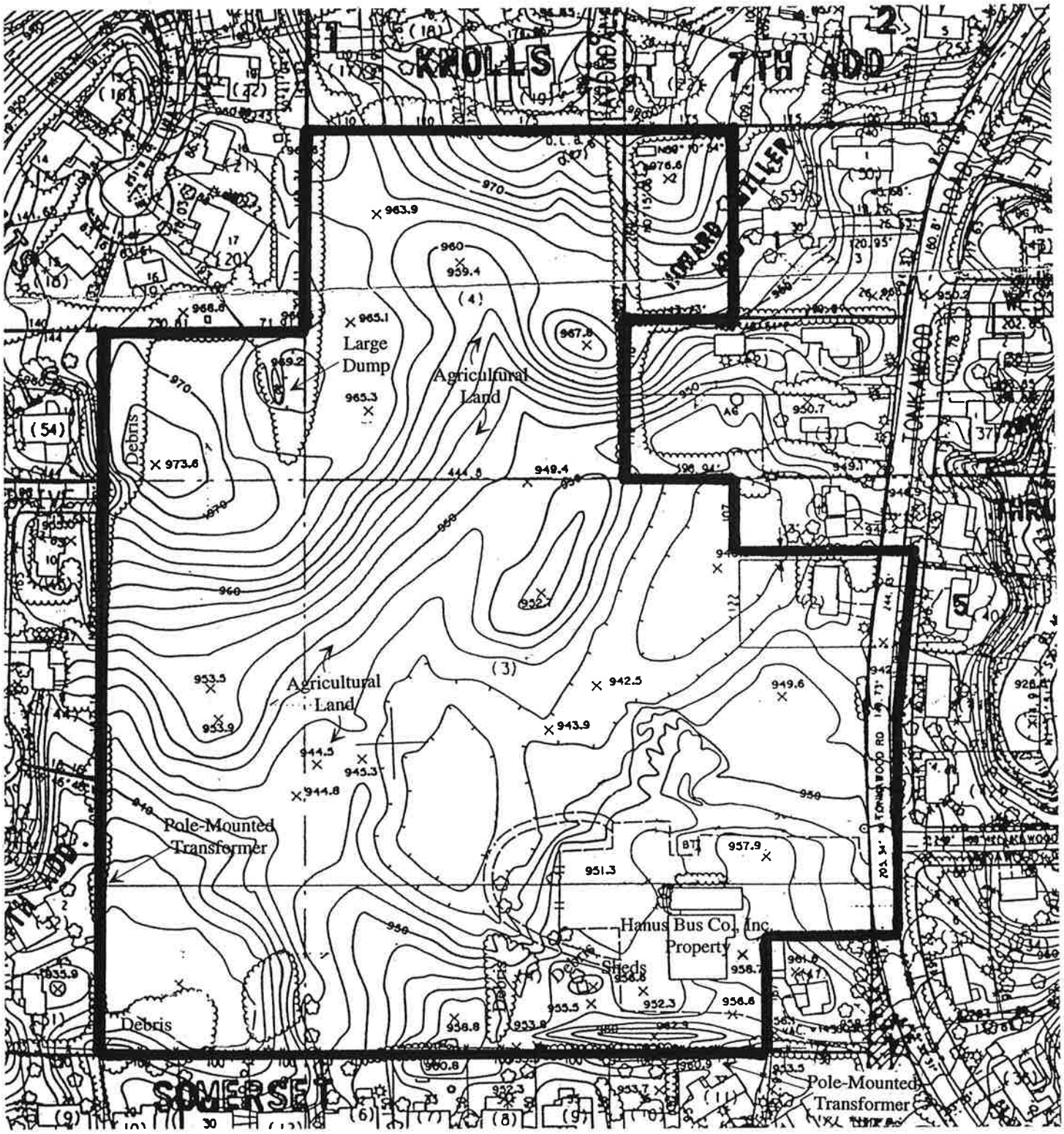
DMM/sdb

SUMMIT ENVIROSOLUTIONS



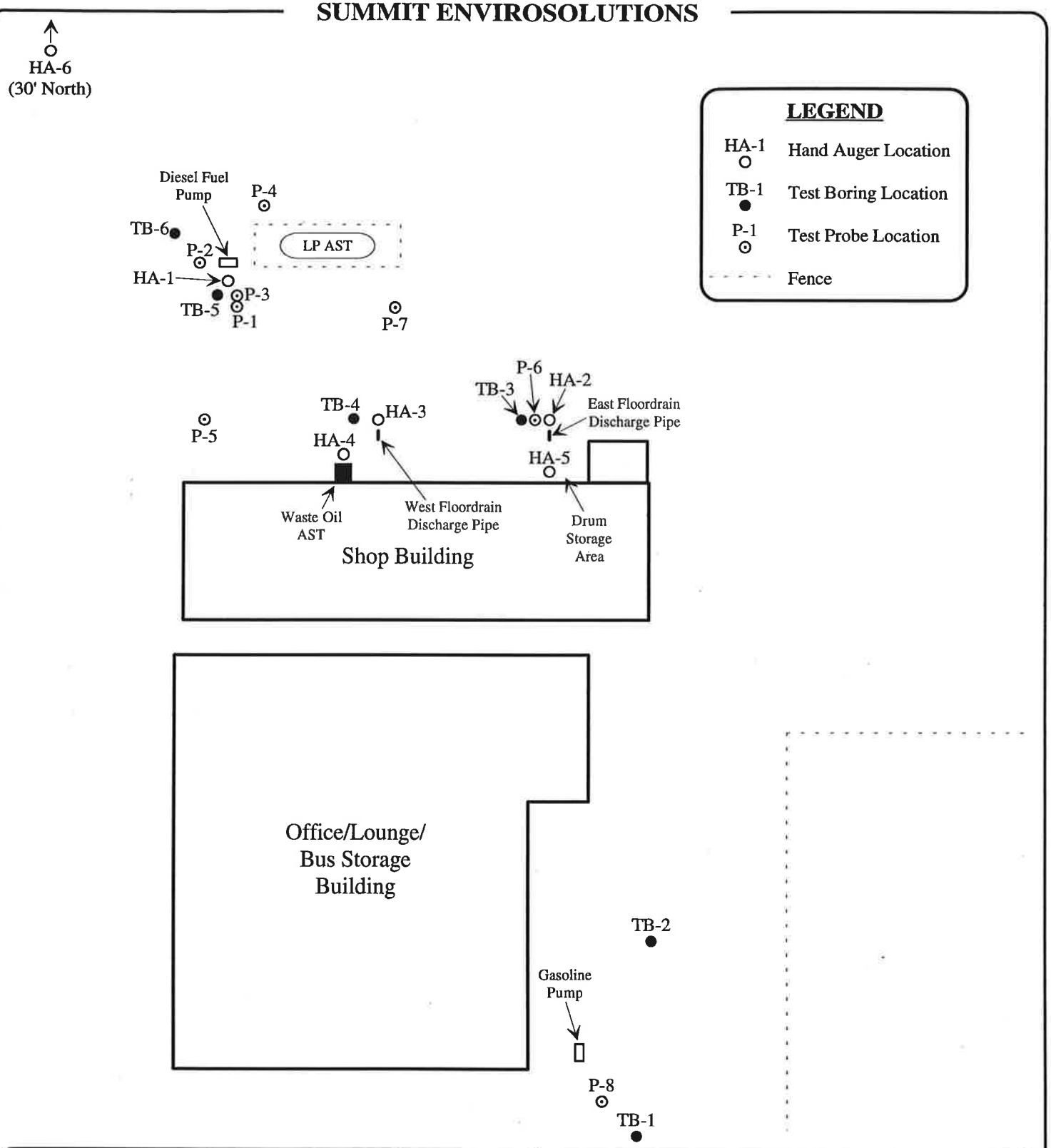
APPROXIMATE SCALE: 0 2000 4000 **ONE INCH = 2000 FEET**	**NORTH**	**FIGURE 1** **GENERAL SITE LOCATION MAP** **JANCO, INC.** **HANUS BUS COMPANY, INC. SITE** **4500 TONKAWOOD ROAD** **MINNETONKA MINNESOTA** **SUMMIT PROJECT NO. 940870**
REMARKS: **Map taken from USGS Hopkins, Minnesota 7 ½ minute quadrangle.**		
DRAWN BY: DMM REVIEWED BY: SCT	**DATE:** **JUNE 1994**	

SUMMIT ENVIROSOLUTIONS



APPROXIMATE SCALE: 0 — 200 — 400 ONE INCH = 200 FEET	**NORTH**	**FIGURE 2** SITE MAP JANCO, INC. HANUS BUS COMPANY, INC. SITE 4500 TONKAWOOD ROAD MINNETONKA MINNESOTA SUMMIT PROJECT NO. 940870
REMARKS: Map adapted from site sketch provided by client.	**DATE:** JUNE 1994	
DRAWN BY: DMM REVIEWED BY: SCT		

SUMMIT ENVIROSOLUTIONS



APPROXIMATE SCALE: 0 — 30 — 60 **ONE INCH = 30 FEET**	**NORTH**	**FIGURE 3** **DETAIL OF HANUS BUS COMPANY, INC. PROPERTY**
REMARKS: **Map adapted from Summit field sketch.**	**DATE:** **JUNE 1994**	**JANCO, INC.** **HANUS BUS COMPANY, INC. SITE** **4500 TONKAWOOD ROAD** **MINNETONKA MINNESOTA** **SUMMIT PROJECT NO. 940870**
DRAWN BY: DMM REVIEWED BY: SCT		