FINAL DRAFT
PRELIMINARY RESULTS
UNDERGROUND STORAGE TANK REMOVAL AND ASSESSMENT
USARC PROPERTY
BUILDING 511 - FUEL OIL
FORT SNELLING, MINNESOTA

Prepared for:

Mr. Kurt Brownell
Environmental Management Division
ATTN: AFZR-DE-E
2160 South J Street
Fort McCoy, Wisconsin 54656-5162

May 5, 1994

Project Number 3088

Prepared By:

AGASSIZ ENVIRONMENT SYSTEMS, INC.
Route 1, Box 119
Hancock, MN 56244

530 SO. CLEVELAND ST.
P.O. BOX 349
CAMBRIDGE, MN 55008

MIDWEST ANALYTICAL SERVICES

MINNESOTA CERTIFIED LABORATORY
NUMBER 027-059-156

LAB (612) 689-2175
METRO (612) 444-9270
FAX (612) 689-3660

October 15, 1993

John Landwehr
Agassiz Environmental Systems, Inc.
Rt. 1 Box 119
Hancock, MN 56244

Project ID: Army 511-Fuel Oil
Chain of Custody: 7482
Date Sampled: 10-04-93
Date Received: 10-07-93
Date Analyzed: 10-11-93
Matrix: Soil
Sample Identification:

Lab ID:		
93-07334	S-1	South SW 12.5'
93-07335	S-2	Tank Bottom 12.5'
93-07336	S-3	North SW 12.5'
93-07337	S-4	East SW 12.5'
93-07338	S-5	West SW 12.5'
93-07339	S-6	Waste Pile South
93-07340	S-7	Waste Pile North

Samples were analyzed for benzene, toluene, ethylbenzene, and xylenes according to method 8020 of EPA manual SW-846. Samples were analyzed according to method DRO. The results are reported on the following page.

Sincerely,

Lon Jones 10/15

Lon Jones
Senior Chemist

Parameter:	Benzene	Toluene	Ethyl Benzene	Xylenes
Units	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Method Detection Limit	0.005	0.005	0.005	0.015
Sample Number				
93-07334 S-1	BQL	BQL	BQL	BQL
93-07335 S-2	BQL	BQL	BQL	BQL
93-07336 S-3	BQL	BQL	BQL	BQL
93-07337 S-4	BQL	BQL	BQL	BQL
93-07338 S-5	BQL	BQL	BQL	BQL
93-07339 S-6	BQL	BQL	BQL	BQL
93-07340 S-7	BQL	BQL	BQL	BQL

BQL = Below Quantifiable Level

Parameter:	Total Hydrocarbons as DRO	Percent Moisture
Units	(mg/kg)	(%)
Method Detection Limit	5.0	
Sample Number		
93-07334 S-1	BQL	9.5
93-07335 S-2	BQL	9.1
93-07336 S-3	BQL	10.7
93-07337 S-4	BQL	8.2
93-07338 S-5	BQL	7.1
93-07339 S-6	BQL	7.3
93-07340 S-7	BQL	11.6

BQL = Below Quantifiable Level

MIDWEST ANALYTICAL SERVICES

330 SO. CLEVELAND ST.
P.O. BOX 349
CAMBRIDGE, MN 55008

CHAIN OF CUSTODY RECORD
AND
REQUEST FOR ANALYSIS
(Instructions on Back of Form)

METRO (6
FAX (612) 689-38

CLIENT: Aquatic Environmental
SAMPLER NAME: John Lawlucki
PROJECT I.D.: Army 511 - Fuel O. I
SAMPLER SIGNATURE: J. L. Lawlucki
REPORTS TO BE SENT TO: Home Office
REMARKS:

SHADED AREAS FOR LABORATORY USE ONLY

NO. OF CONTAINERS	COMP.	GRAB	DATE	TIME	MATRIX: WATER	MATRIX: SOIL	MATRIX: OTHER	SAMPLE	SAMPLE NO.	LABORATORY I.D. NO.	GRO (Includes BTEX)	DRO	BTEX	VOC (465-D)	pH	Pb (Diss. or Total)	RCRA 8 METALS	BOD or CBOD	TSS	FCOL or TCOL	PRESERVATIVE: HCl	HNO3	H2SO4	ICE	OTHER
1		X	10/4/1	17:10		X		South SW 12.5'	S-1	93-07334		X	X												
1		X		17:15				Tank Bottom 12.5'	S-2	7335		X	X												
1		X		17:20				North SW. 12.5'	S-3	7336		X	X												
1		X		17:25				East SW 12.5'	S-4	7337		X	X												
1		X		17:30				West SW 12.5'	S-5	7338		X	X												
1		X		18:00				waste Pile South	S-6	7339		X	X												
1		X		18:00				waste Pile North	S-7	7340		X	X												

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	10/5 18:10	[signature]	[signature]	10/7/93 9:45	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
		[signature]			
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Temperature:	Comments:
		[signature]	10/8/93 11:10	17.4°	

CHECK HERE FOR DRINKING WATER DETECTION LIMITS ☐

TURNAROUND TIME REQUIRED:
☑ NORMAL ☐ RUSH
DATE REQUIRED:

APPENDIX C

MPCA NOTIFICATION FORMS

	TANK 1	TANK 2	TANK 3
t Capacity			
mt 1			
ient 2			
nent 3			

ment Product:			
ment 1			
tment 2			
rtment 3			

oduct stored in tank used only for heating?

	TANK 1	TANK 2	TANK 3
compartment 1	☐ yes ☐ no	☐ yes ☐ no	☐ yes ☐ no
compartment 2	☐ yes ☐ no	☐ yes ☐ no	☐ yes ☐ no
compartment 3	☐ yes ☐ no	☐ yes ☐ no	☐ yes ☐ no

Piping Please check all applicable boxes

Construction Material:	TANK 1	TANK 2	TANK 3
Epoxy coated steel	☐	☐	☐
Galvanized steel	☐	☐	☐
Wrapped	☐	☐	☐
Bare steel/Black iron	☐	☐	☐
Fiberglass	☐	☐	☐
Copper	☐	☐	☐
Other *(specify in Box H)*	☐	☐	☐
Secondary Containment			
Double wall	☐	☐	☐
Exterior liner	☐	☐	☐
Cathodic Protection:			
Anodes	☐	☐	☐
Impressed current	☐	☐	☐
Not needed *(ie. fiberglass)*	☐	☐	☐

rtified by corrosion expert, write name and PE or certification # in Box H

Type of Pump:			
Suction	☐	☐	☐
check valve located at: ☐ tank ☐ dispenser			
Submersible	☐	☐	☐
Gravity	☐	☐	☐
Other *(specify in Box H)*	☐	☐	☐

1. Tanks:	TANK 1	TANK 2	TANK 3
Inventory control (daily sticking)	☐	☐	☐
Tank precision test	☐	☐	☐
Manual tank gauging	☐	☐	☐
Automatic tank gauging	☐	☐	☐
Soil vapor monitoring	☐	☐	☐
Groundwater monitoring	☐	☐	☐
Interstitial monitoring	☐	☐	☐
Tracer monitoring	☐	☐	☐
None	☐	☐	☐
Other *(specify in Box H)*	☐	☐	☐

1a. For newly installed tanks only
Was a tank precision test conducted prior to placing the system into operation? ☐ yes ☐ no

If yes, date test was conducted: ___/___/___

2. Piping:			
Automatic line leak detector	☐	☐	☐
Line precision test annually	☐	☐	☐
Vapor monitoring	☐	☐	☐
Groundwater monitoring	☐	☐	☐
Interstitial monitoring	☐	☐	☐
Line precision test every three years	☐	☐	☐
None	☐	☐	☐
Other *(specify in Box H)*	☐	☐	☐

2a. For newly installed piping only
Was a line precision test conducted prior to placing the system into operation? ☐ yes ☐ no

If yes, date test was conducted: ___/___/___

H. Comments (attach additional sheets if necessary)

Questions?
Call
(612) 297-8664
or
1-800-657-3864
during normal
business hours

Owner's Signature

certify under penalty of law that the information submitted is accurate nd complete to the best of my knowledge. For tank work performed fter July 9, 1990, I certify that the tank contractor was in compliance ith the certification requirements of Minn. Rules ch. 7105. All work ompleted after Dec. 1988 was performed in accordance with anufacturers' instructions, industry standards, and applicable state nd federal regulations.

Curt Brownell

nt name of owner or authorized representative — Title

nature of owner or authorized representative — Date

Unsigned forms will be returned

Please retain a copy for your own records

J. Tank Contractor's Signature

I certify under penalty of law that all work was performed as specified by the manufacturers' instructions, and according to industry standards, applicable state and federal regulations and is complete to the best of my knowledge. I certify that I am in compliance with Minn. Rules ch. 7105, for work completed after July 9, 1990.

PETIC TANK SERVICES 7614

Print name of tank contractor — MPCA Contractor #

DANA NELSON

Print name of contractor's authorized representative — Title

Signature of tank contractor's representative — Date

John Lardner 7/4

Print name of supervisor on site during tank work — MPCA Supervisor #

John Lardner 7-10-94

Signature of supervisor — Date

tion/Change in Status for Underground Storage Tanks

Minnesota Pollution Control Agency
Hazardous Waste Division Tanks and Spills Section
520 Lafayette Road North St. Paul, MN 55155
(612) 297-8664 or 1-800-657-3864

Site #:	
Leak #:	
Owner #:	
Date received:	

Information

1. Facility Location	2. Owner Location
Facility Name FRC Fort Snelling	Name USARC Environmental Mgmnt Div
Address Bldg 511	Street ATTN: AFZR-DE-E/2160 S. J Street
City MPLS County HENNEPIN	City Fort McCoy County
State MN Zip 55111 Phone ( )	State WI Zip 54655 Phone (608)388-4789
Contact Person	Contact Person Curt Brownell

3. Type of Facility Please check applicable box.
Service station ☐ Government ☒ Education ☐ Industry/factory ☐
Church ☐ Auto dealer ☐ Utility ☐ Other (specify): _____

4. Is tank facility located on Tribal Lands? ☐ yes ☐ no

C. Tank Number

Type or use black ink and complete as well as possible. Please photocopy form if site has more than three tanks.

1. Assign a 3 digit number to each tank *(ie. 001, 002...)*

	TANK 1	TANK 2	TANK 3
	001	002	003

2. Tank installation date: TANK 1 ? mo/da/yr; TANK 2 ? mo/da/yr; TANK 3 ? mo/da/yr

Tank Action

Please check applicable boxes.

	TANK 1	TANK 2	TANK 3	Date Occurred
Initial notification of site	☐	☐	☐	
Changed site name/address *(please give previous name/address in Box H)*	☐	☐	☐	__/__/__
Changed tank owner *(please give previous owner's name and address in Box H)*	☐	☐	☐	__/__/__
Changed tank contents	☐	☐	☐	__/__/__
Installed new tanks & piping	☐	☐	☐	
Installed new tank(s) at site	☐	☐	☐	
Installed new piping	☐	☐	☐	__/__/__
Repaired/upgraded tank *(complete D3, D4, D5 and Box G if pertains and explain actions in Box H)*	☐	☐	☐	__/__/__
Repaired/upgraded piping *(please complete Box F and explain actions in Box H)*	☐	☐	☐	__/__/__
Removed tank	☒	☒	☒	10/4/94
Name of tank disposal company:	PETRO TANK SERVICES			
Hazardous waste generator ID #:	MND980993877			
Closed tank in place	☐	☐	☐	__/__/__
Abandoned	☐	☐	☐	__/__/__
Is tank empty?	☐ yes	☐ no		
Temporarily closed	☐	☐	☐	__/__/__
Is tank empty?	☐ yes	☐ no		

D. Tank Information

Please check applicable boxes.

1. Type of Tank:	TANK 1	TANK 2	TANK 3
STIP3	☐	☐	☐
Fiberglass	☐	☐	☐
Composite	☐	☐	☐
Jacketed steel	☐	☐	☐
Asphalt coated steel	☐	☐	☐
Painted steel	☐	☐	☐
Bare steel	☐	☐	☐
Other *(specify in Box H)*	☐	☐	☐

D. Tank Information continued

2. Secondary Containment:	TANK 1	TANK 2	TANK 3
Double wall	☐	☐	☐
Vault	☐	☐	☐
Internal bladder	☐	☐	☐
External liner	☐	☐	☐

3. Cathodic Protection:			
Anodes	☐	☐	☐
Impressed current	☐	☐	☐
Lined tank	☐	☐	☐
Not needed (ie. fiberglass)	☐	☐	☐

If certified by corrosion expert, write name and PE or certification # in Box H.

4. Does tank have spill prevention equipment?	TANK 1	TANK 2	TANK 3
	☐ yes ☐ no	☐ yes ☐ no	☐ yes ☐ no

5. Overfill Prevention Equipment	TANK 1	TANK 2	TANK 3
Ball float valve	☐	☐	☐
Automatic shut-off	☐	☐	☐
Audible alarm	☐	☐	☐

6. Is the tank compartmental?	TANK 1	TANK 2	TANK 3
	☐ yes ☐ no	☐ yes ☐ no	☐ yes ☐ no

If answered "yes" to #6, please proceed to Box E

7. Capacity (in gallons):	TANK 1	TANK 2	TANK 3
	250	250	4,000

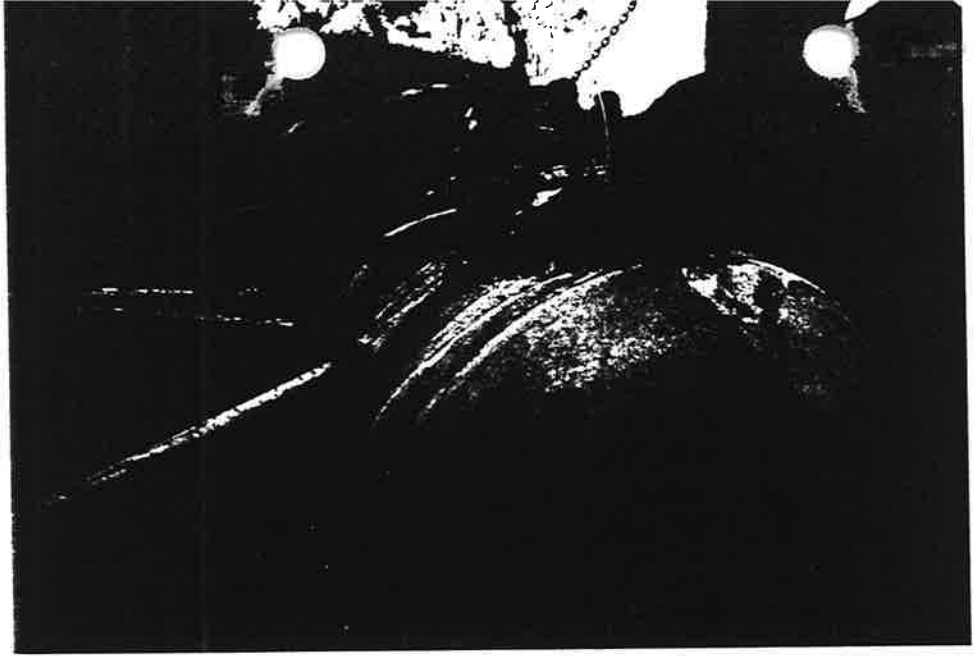
8. Substance currently or last stored:	TANK 1	TANK 2	TANK 3
Gasoline	☐	☐	☐
Alcohol blend (over 5%) gasoline	☐	☐	☐
Diesel	☐	☐	☐
Used (waste) oil	☒	☒	☐
Fuel oil	☐	☐	☒
Kerosene	☐	☐	☐
Hazardous substance *(specify chemical and tank # in Box H)*	☐	☐	☐
Other *(specify in Box H)*	☐	☐	☐

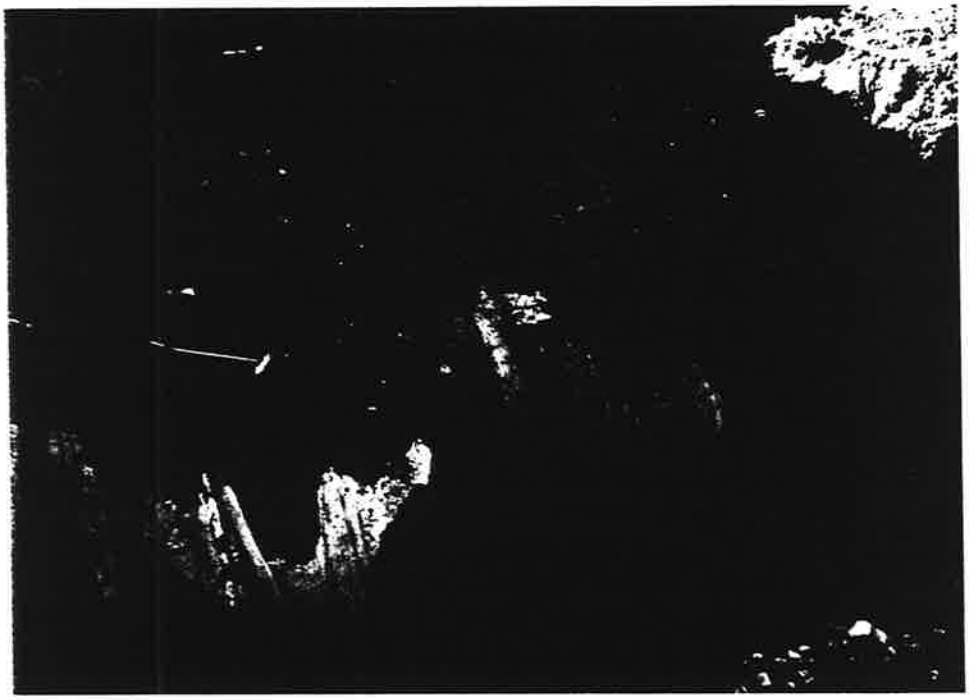
9. Is product stored in tank used only for heating?	TANK 1	TANK 2	TANK 3
	☐ yes ☒ no	☐ yes ☒ no	☒ yes ☐ no

turn page over!

APPENDIX *D*

PHOTOGRAPHIC DOCUMENTATION





Executive Summary

On October 5, 1993 one (1) underground storage tanks (UST) was removed from the United States Army Reserve Center (USARC) Fort Snelling, Minnesota property by Crude Oil Inc. dba Petro Tank Service (Petro Tank) of St. Paul, Minnesota. Agassiz Environmental Systems, Inc. (Agassiz) of Hancock, Minnesota provided environmental consulting services. The current operator/owner of the property is the Department of Army, Real Property Branch, Fort McCoy, Wisconsin. The UST was a 4,000 gallon fiberglass tank. The age of the tank is unknown.

Evidence of petroleum hydrocarbon contamination was found in the excavation cavity as determined by visual/olfactory observation and headspace analysis of soil samples.

Groundwater was not encountered during the excavation activities.

Laboratory analysis of the post-excavation soil sample was below quantifiable limit for DRO and BETX.

Results of the investigation indicate that the tank was in poor condition with perforations. An area in the bottom center appears to have been patched.

The removal of the UST and excavation of appositely 80 cubic yards of contaminated soils has successfully removed the source and mitigated the residual petroleum hydrocarbon contamination. The excavated soils were thermally treated at the Clean Soils facility in St. Paul, Minnesota.

Agassiz recommends that no further investigation is warranted and that the site be submitted for closure. The USARC should comply with the MPCA reporting requirements for removal of USTs.

TABLE of CONTENTS

TABLES

FIGURES

LIST of APPENDICES

1.0 INTRODUCTION

On October 5, 1993 one (1) underground storage tank (UST) was removed from the United States Army Reserve Center (USARC) Fort Snelling, Minnesota Petro Tank of St. Paul, Minnesota. Agassiz Environmental Systems, Inc. (Agassiz) of Hancock, Minnesota provided environmental consulting services. The current operator/owner of the property is the Department of Army, Real Property Branch, Fort McCoy, Wisconsin. The UST was a 4,000 gallon fiberglass tank. The age of the tank is unknown.

2.0 BACKGROUND

The site is located in Section 20, Township 28 north, Range 23 west in Hennepin County, Fort Snelling, Minnesota (Figure 1). The latitude and longitude for the site is 44^{o} 53' and 93^{o} 20', respectively.

The UST was located off the northeast corner of the OMS building (Figure 2). The UST was used to store heating oil.

3.0 EXCAVATION RESULTS

On October 5, 1993 one 4,000 gallon underground storage tank (UST) was removed from the United States Army Reserve Center (USARC) property; the excavating contractor was Petro Tank of St. Paul, Minnesota and Agassiz provided environmental consulting services.

The UST measured 7' by 14' and was found to be in fair condition upon removal; the UST was in poor condition, a hole and several patches were visible on the tank's bottom. The excavation cavity measured 19' by 16 ' and approximately 12.5' deep (Figure 3). No free product was observed.

The results of the excavation are contained in the MPCA document "Excavation Report For Petroleum Release Sites" attached as Appendix A.

The subsurface soils are characterized by medium sand with gravel, underlying loam and sand.

Soil samples collected from the excavation cavity were screened for the presence of organic vapors using a organic vapor analyzer utilizing a hydrogen flame ionization detector (FID). The FID readings represent a qualitative indicator of contamination by compounds which are ionized or "burned" in a flame. The soil samples were screened for volatile organic compounds (VOCs) in accordance with the MPCA document "Jar Headspace Analytical Screening Procedures."

Results for soil vapor from the samples collected in the excavation cavity ranged from nondetectable to 42 ppm (Table 1).

Samples for laboratory analysis were selected based on field observations and headspace results Five (5) soil sample (SS-1, SS-2, SS-3, SS-4 and SS-5) were collected from the bottom center of the excavation cavity (Figure 3).

The soil sample collected for analytical laboratory analysis was packed in a clean, laboratory-supplied 2 ounce glass jar equipped with nylon septum. Approximately 25 grams of soil was placed in the jar. The sample was kept in a cooler on site and during transit to the laboratory. Proper sample chain of custody was maintained. Samples collected for diesel range organics (DRO) were preserved at the laboratory.

The following parameters, via corresponding methods, were preformed on the soil samples submitted for laboratory analysis:

o	BTEX	Method SW846 8020
o	Total Petroleum Hydrocarbon as Fuel Oil (DRO)	Method Modified 8020

The soil samples were submitted to Midwest Analytical Services of Cambridge, Minnesota for analysis. The results are presented on Table 2. The laboratories' analytical report is contained in Appendix B.

Concentrations of DRO and BTEX were below quantifiable limits for all samples.

4.0 DISCUSSION/CONCLUSIONS

Results of the investigation indicate that the tank was in poor condition and evidence of petroleum hydrocarbon contamination was detected in the soils beneath the former UST basin.

The removal of the UST and excavation of approximately 80 cubic yards of contaminated soils has successfully removed the source and mitigated the residual petroleum hydrocarbon contamination. The excavated soils were thermally treated at the Clean Soils facility in St. Paul, Minnesota.

5.0 RECOMMENDATIONS

Agassiz recommends that no further investigation is warranted and that the site be submitted for closure.

Agassiz recommends that the Department of Army comply with the release reporting requirements of the MPCA by completing a petroleum tank release report (i.e., excavation report).

The MPCA requires that you complete and submit a Petroleum Tank Release Report (PTR) if you are the responsible party (RP) in the release from a petroleum underground storage tank (UST). The PTR is actually comprised of several documents, the site specific factors determine which of the reports are included in the PTR. The possible reports include:

- **Excavation Report:** If there has been no contamination of groundwater or surface water and the release can be cleaned up by excavating the contaminated soil this report is submitted alone, no further reports are usually required. Excavation reports which indicate that a RI is necessary will not be reviewed by the MPCA until the RI has been completed.

- **Remedial Investigation Report:** If further investigation is needed, this report is submitted to document all RI activities, show that the objectives of the investigation have been met, and give recommendations for corrective actions that should be taken to clean up soil and/or groundwater contamination, if necessary. The excavation report is an attachment to the RI report.

- **Corrective Action Design Report:** If the investigation finds remaining soil or groundwater contamination that must be corrected a CAD should be submitted with the RI report.

- **Progress Report:** If additional monitoring, cleanup or testing is needed after the RI or excavation is completed, periodic progress reports will be required.

TABLES

TABLE 1
Summary of Soil Vapor Results

Site: Army Project / Building 511 / Fuel Oil
Project # 3088
Date: October 5, 1993

Soil Vapor #	Depth	Readings (ppm)	Location
SV-1		ND	Tank covering
SV-2	4'	38	Sidewall (east)
SV-3	6'	42	Sidewall (east)
SV-4	3'	ND	Sidewall (west)
SV-5	6'	30	Sidewall (west)
SV-6	12.5'	3	Sidewall (north)
SV-7	12.5'	ND	Sidewall (south)
SV-8	12.5'	ND	Sidewall (east)
SV-9	12.5'	ND	Sidewall (west)

Explanations: SV = Soil Vapor
ND = No Detection

The head space of each soil sample was screened for petroleum hydrocarbon content using a Heath Detecto-Pak III flame-ionization detector in accordance with the MPCA protocol for "Jar Soil Headspace Screening Procedures" (Guidance Document #7)

TABLE 2
Summary of Laboratory Soil Analysis

Site: Army / Building 511 / Fuel Oil
Project # 3088
***Date:* October 5, 1993**

SS-#	Depth	Location	DRO	Benzene	Xylene	Toluene	Ethly Benzene
SS-1	12.5'	Sidewall (south)	BQL	BQL	BQL	BQL	BQL
SS-2	12.5'	Tank Bottom	BQL	BQL	BQL	BQL	BQL
SS-3	12.5'	Sidewall (north)	BQL	BQL	BQL	BQL	BQL
SS-4	12.5'	Sidewall (east)	BQL	BQL	BQL	BQL	BQL
SS-5	12.5'	Sidewall (west)	BQL	BQL	BQL	BQL	BQL
SS-6		Wastepile (south)	BQL	BQL	BQL	BQL	BQL
SS-7		Wastepile (north)	BQL	BQL	BQL	BQL	BQL

Explanations: SS = Soil Sample
BQL = Below Quantifiable Level

FIGURES

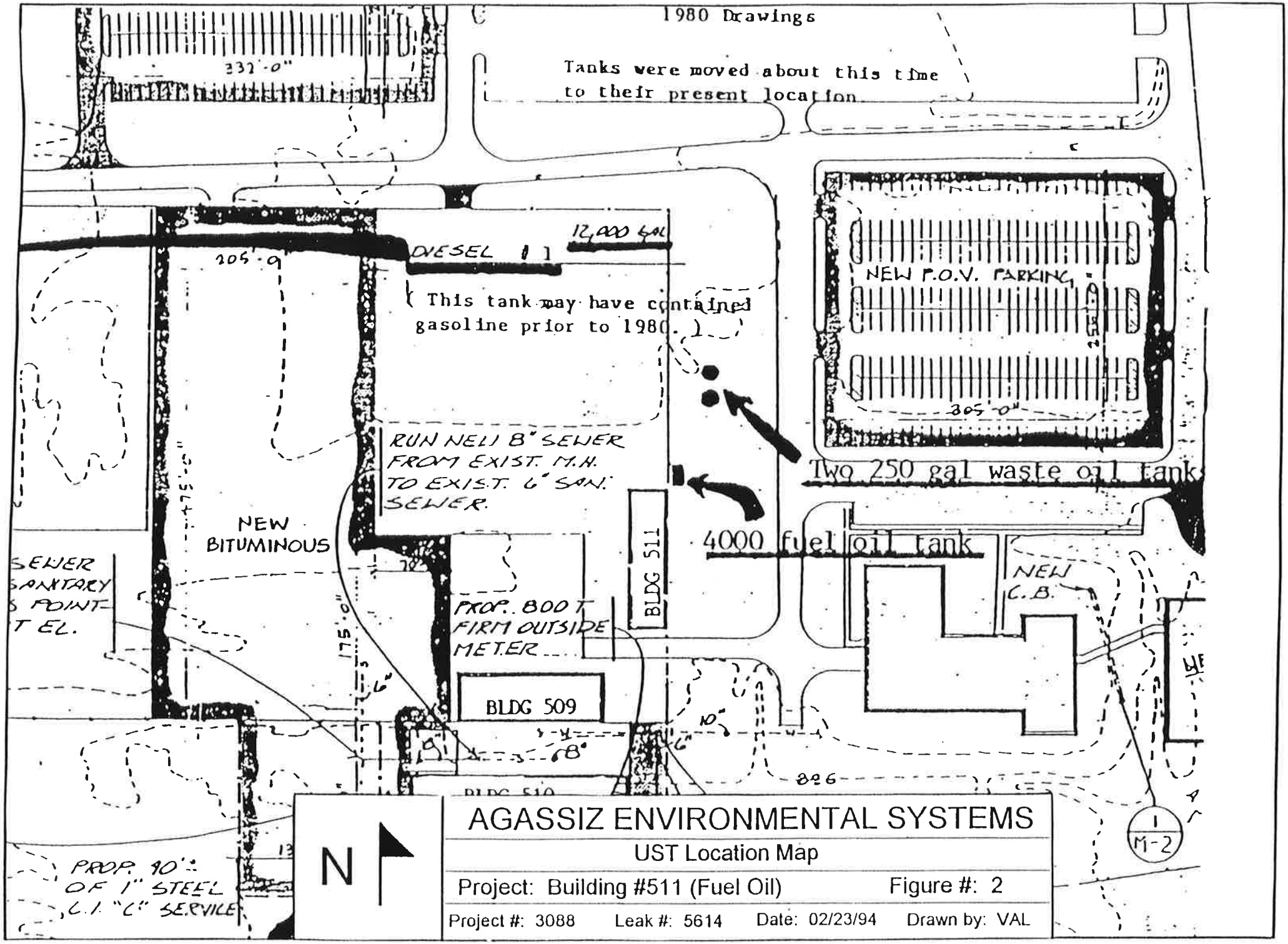
AGASSIZ ENVIRONMENTAL SYSTEMS

SITE LOCATION MAP

Project: Building #511 (Fuel Oil) Figure #: 1

Project #: 3088 Leak #: 5614 Date: 02/23/94 Drawn by: VAL

N



AGASSIZ ENVIRONMENTAL SYSTEMS

UST Location Map

Project: Building #511 (Fuel Oil) Figure #: 2

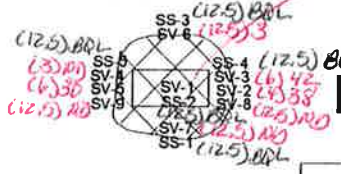
Project #: 3088 Leak #: 5614 Date: 02/23/94 Drawn by: VAL

Road

Drive

300 gal. W.O.

4M H.O.



Fence

Phone

Power

Gas

#511 Building

Scale	AGASSIZ ENVIRONMENTAL SYSTEMS	Legend
20' N	Site Map with Location of SVs and SSs	
	Project:Army/Building 511/Fuel Oil Figure #: 3	
	Project #:3088 Leak #:0000 Date:4/5/94 Drawn by:VAL	

APPENDIX A

EXCAVATION REPORT FOR PETROLEUM RELEASE SITES

Excavation Report Worksheet For Petroleum Release Sites
Fact Sheet #4
Minnesota Pollution control Agency
LUST Cleanup Program
April 1193

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. Attach additional pages if necessary. 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 the MPCA Staff for high priority sites.

I. BACKGROUND

A. Site:	**U.S.A.R.C. Fort Snelling**
Street:	**Building 511(Heating Oil)**
City, Zip:	**Fort Snelling, MN 55111-4092**
County:	**Hennepin**
MPCA LEAK #	**5614**
B. Tank Owner/Operator:	**Department of Army Real Property Branch**
Street/Box:	
City, Zip:	**Fort McCoy, Wisconsin**
Telephone:	**(608) 388-4789**
C. Excavating Contractor:	**Petro Tank Services**
Contact:	**Dana Nelson**
Telephone:	**(612) 659-0086**
Certification Number:	**0013**
D. Consultant:	**Agassiz Environmental Systems, Inc.**
Contact:	**John Landwehr**
Street/Box:	**Route 1 Box 119**
City, Zip:	**Hancock, MN 56244**
Telephone:	**(612) 795-2200**
E. Other on site during site work:	**Kurt Brownell, U.S.A.R.C.**

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.

II. DATES

A. Date release was reported to the MPCA: **October 5, 1993 @ 9:25 pm**
B. Dates site was work was performed:

Work Performed	Date
Removed one (1) 4,000 gallon UST	**October 5, 1993**

I. V

III. RELEASE INFORMATION

A. Provide the following information for all removed tanks:

Tank #1

Capacity: **4,000**
Type: **Fiberglass**
Age: **Unknown**
Condition: **The UST was in fair condition, several patches were visible on the tank's bottom**
Product History: **Heating Oil**
Approximate quantity of petroleum released, if known: **Unknown**
Cause of release: **Unknown**

B. Provide the following information for all existing tanks: **Unknown**

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

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

IV. EXCAVATION

A. Dimensions of excavation:
16' X 19' X 12.5' below surface level

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

C. Native soil type (clay, sand, etc.):
0-4' loam/gravel; 4-11' loam/sand/gravel; 11-13' medium sand

D. Quantity of contaminated soil removed: (cu yd):
(Note: if more than 400 cubic yards removed, please attach copy of written approval from the MPCA)
Removed 80 cubic yard form the tank basins

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

F. If a soil boring was req... to this report: ...results. Attach
Not applicable

G. If ground water was encountered or if a soil boring was conducted, was there evidence of ground water contamination?
No evidence of groundwater contamination

H. Was bedrock encountered in the excavation?

V. SAMI

A

APPENDIX *B*

LABORATORY REPORTS