Minnesota Pollution Control Agency

#3900

February 18, 2004

Mr. Paul Bargman
Bargman Oil
101 Main Street
Hector, MN 55342

RE: Petroleum Tank Release Site File Closure
Site: Bargman Oil, 101 South Main Street, Hector
Site ID#: LEAK00003900

Dear Mr. Bargman:

We are pleased to let you know that the Minnesota Pollution Control Agency (MPCA) Petroleum Remediation Program (PRP) staff has determined that your investigation and/or cleanup has adequately addressed the petroleum tank release at the site listed above. Based on the information provided, the PRP staff has closed the release site file.

Closure of the file means that the PRP staff does not require any additional investigation and/or cleanup work at this time or in the foreseeable future. Please be aware that file closure does not necessarily mean that all petroleum contamination has been removed from this site. However, the PRP staff has concluded that any remaining contamination, if present, does not appear to pose a threat to public health or the environment.

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 non-petroleum) 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 (2002) or any other applicable state or federal law. In addition, this letter does not release any party from liability for non-petroleum contamination, if present, under Minn. Stat. ch. 115B (2002), the Minnesota Superfund Law.

Because you performed the requested work, the state may reimburse you for a major portion of your costs. 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 651/297-1119 or 651/297-4203.

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 leak site, please call the PRP File Request Program at 651/297-8499. The MPCA fact sheet #3.35 *Leak/Spill and Underground Storage Tank File Request Form* 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 Mark Koplitz at 651/296-7999 or site hydrogeologist Bassou Oulgout at 651/297-8597.

Sincerely,

Mark Koplitz
Project Manager
Petroleum Remediation Program
Petroleum and Landfill Remediation Section

Bassou Oulgout
Hydrogeologist
Petroleum Remediation Program
Petroleum and Landfill Remediation Section

MK:tf

cc: Matt Jaunich, City Administrator, Hector
Robert Rassmussen, Fire Chief, Hector
Diane Mitchell, Renville County Solid Waste Officer
Eric Halpaus, Nova Consulting Group, Inc., Chaska
Minnesota Department of Commerce Petrofund Staff

Bay West

Bay West Inc.
Five Empire Drive
St. Paul, Minnesota
55103-1867

612-291-0456
FAX 291-0099
1-800-279-0456

TELECOMMUNICATION TRANSMITTAL

DATE	10/11/96 11:23 AM
TO Addressee:	Mark Koplitz
Company:	MPCA
Fax No.:	297-8676 Phone: 297-8611
FROM Originator:	Edward J. Bacig
From Phone:	291-3414

 # Pages (incl. transmittal sheet): 4

Title of Document:

Hector Vapor Survey Results

Comments:

Dear Mr. Koplitz

Attached is a copy of the report you requested. Please call me at 291-3414 if you have any questions or need additional information.

Please call the Originator at 612-291-0456 or 1-800-279-0456 if you have any problems receiving this transmission. Thank you.

ORIGINALS FORWARDED VIA:

_____ First Class Mail

_____ Federal Express/UPS overnight or 2-day service

_____ Originals not forwarded

960114

Bay West

BAY WEST, INC.
FIVE EMPIRE DRIVE
SAINT PAUL, MN 55103-1867

612-291-0456 1-800-279-0456
FAX 612-291-0099

April 3, 1995

Mr. Dick Kable
Minnesota Pollution Control Agency
Tanks and Spills Section
520 Lafayette Road
St. Paul, Minnesota 55155

RE: Investigation of Gasoline Vapors in the Basement of Sipe Hardware, Hector, Minnesota

On March 29, 1996 Bay West was called out by the Minnesota Pollution Control Agency to investigate gasoline vapors in a basement of a hardware store in Hector Minnesota. The hardware store, which is located next to a Phillips 66 gasoline station, has had problems with vapors in the past, but not in concentrations to alarm workers at the hardware store.

Prior to Bay West's arrival, the hardware store owners shut down the furnace as a safety precaution. On arrival, Bay West checked the basement for gasoline vapors. No vapors were detected in the basement or in cracks in the walls along the wall adjacent to the gasoline station. There were two floor drains in located in the basement of the hardware store. The drains are believed to be abandoned and are no longer connected to the city sewer.

A sewer vapor survey was completed in the area around the site, including both storm and sanitary sewers up stream and down stream of the hardware store and Phillips 66 station. Results of the vapor survey are listed below and survey locations are shown on the attached map. All sewer readings were 0 parts per million (ppm) with the exception of SV-1, located in front of the Phillips 66, and SV-9 the main catchment basin prior to entering the tile line.

SV-1	6 & 24 ppm	SV-7	0 ppm
SV-2	0 ppm	SV-8	0 ppm
SV-3	0 ppm	SV-9	1 ppm
SV-4	0 ppm	SV-10	0 ppm
SV-5	0 ppm	SV-11	0 ppm
SV-6	0 ppm	SV-12	0 ppm

The old gasoline station across the street from the site was inspected. During the inspection it was brought to our attention that three underground storage tanks (USTs) were still in the ground (two gasoline USTs and one waste oil UST). While inspecting

Bay West

one of the gasoline USTs, we found that the UST was not vented and approximately 3 to 5 inches of gasoline remained in the bottom of the tank.

On the advise of Craig Shaffer of the MPCA, a sewer vapor extraction fan was installed in the manhole in front of the Phillips 66 station with the elevated vapor reading (SV-1, 24ppm). Power was supplied by the owner of the Phillips 66 station.

Another vapor survey was performed the next day (Saturday 3-30-1996) in the basement of the hardware store and the surrounding manholes at the site. All readings were 0 ppm in the basement and the sewers in the area.

On Monday, April 1,1996 Jon Hintze, the fire Marshal of Hector, Minnesota, was contacted concerning the fan and further periodic inspections of the basement of the hardware store.

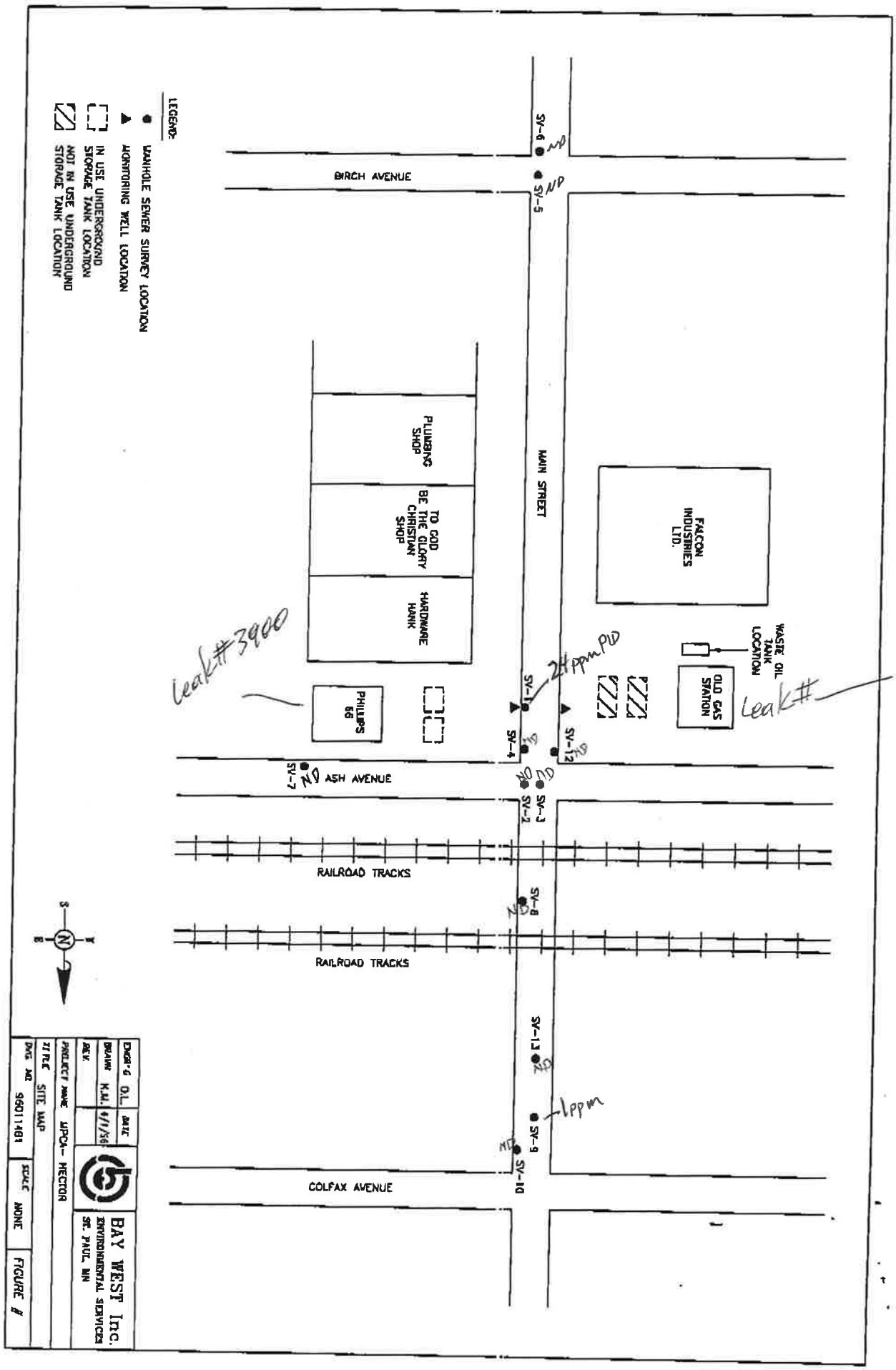
Please call us at 291-0456 if you have questions on this information.

Sincerely,

Joyce Beier for
Mark Sonaglia, CHMM, REP
Emergency Response Manager

Dennis Littfin for
Dennis Littfin
Geologist, Engineering Services

BW960114


LEGEND
MANHOLE SEWER SURVEY LOCATION
MONITORING WELL LOCATION
IN USE UNDERGROUND STORAGE TANK LOCATION
NOT IN USE UNDERGROUND STORAGE TANK LOCATION
BIRCH AVENUE
MAIN STREET
ASH AVENUE
RAILROAD TRACKS
RAILROAD TRACKS
COLFAX AVENUE
PLUMBING SHOP
TO GOD BE THE GLORY CHRISTIAN SHOP
HARDWARE HANK
PHILLIPS 66
FALCON INDUSTRIES LTD.
OLD GAS STATION
WASTE OIL TANK LOCATION
Leak #3900
Leak #
24ppm PID
1ppm
SV-1
SV-2
SV-3
SV-4
SV-5
SV-6
SV-7
SV-8
SV-9
SV-10
SV-11
SV-12
ND
DRWG. NO. 960114B1
TITLE SITE MAP
PROJECT NAME UPCA - HECTOR
BAY WEST Inc.
ENVIRONMENTAL SERVICES
ST. PAUL, MN
SCALE NONE
FIGURE #

Bay West

Bay West Inc.
Five Empire Drive
St. Paul, Minnesota
55103-1867

612-291-0456
FAX 291-0099
1-800-279-0456

297-8676

TELECOMMUNICATION TRANSMITTAL

6-5-96

DATE	05/30/96 3:16 PM
TO Addressee:	Mr. Jonh Aho
Company:	MPCA
Fax No.:	297-8676 Phone: 297-8660
FROM Originator:	Edward J. Bacig
From Phone:	291-3414

 # Pages (incl. transmittal sheet): 8

Title of Document:

Analytical Results for April Sampling of Monitoring Wells in Hector Minnesota.

Comments:

Dear Mr. Aho,

Attached are the analytical results from samples collected in April from two monitoring well located adjacent to Snipe Hardware (Figure 1) in Hector Minnesota. Monitoring wells MW-1 contains elevated concentrations of GRO (4700 ppb), DRO 130 ppb, Benzene 1.9 ppb, sec-butylbenzene 1.1 ppb, MTBE 51ppb, and tetrahydrofuran 2.2 ppb. MW-2 contain elevated concentrations of DRO 2300 ppb, acetone 67ppb, benzene 1400 ppb, n-butylbenzene 21 ppb, sec-butylbenzene 100 ppb, tert-butylbenzene 16 ppb, 1,2 dichloroethane, ethylbenzene 250 ppb, ethyl ether 5.6 ppb, MTBE 210 ppb, Tolune 64 ppb, and xylenes 436 ppb. MW-2 also contains several other VOC compounds with elevated concentrations. Please call me at 291-3414 if you have any questions or comments. Bay West appreciates the opportunity to work with MPCA personnel on this project.

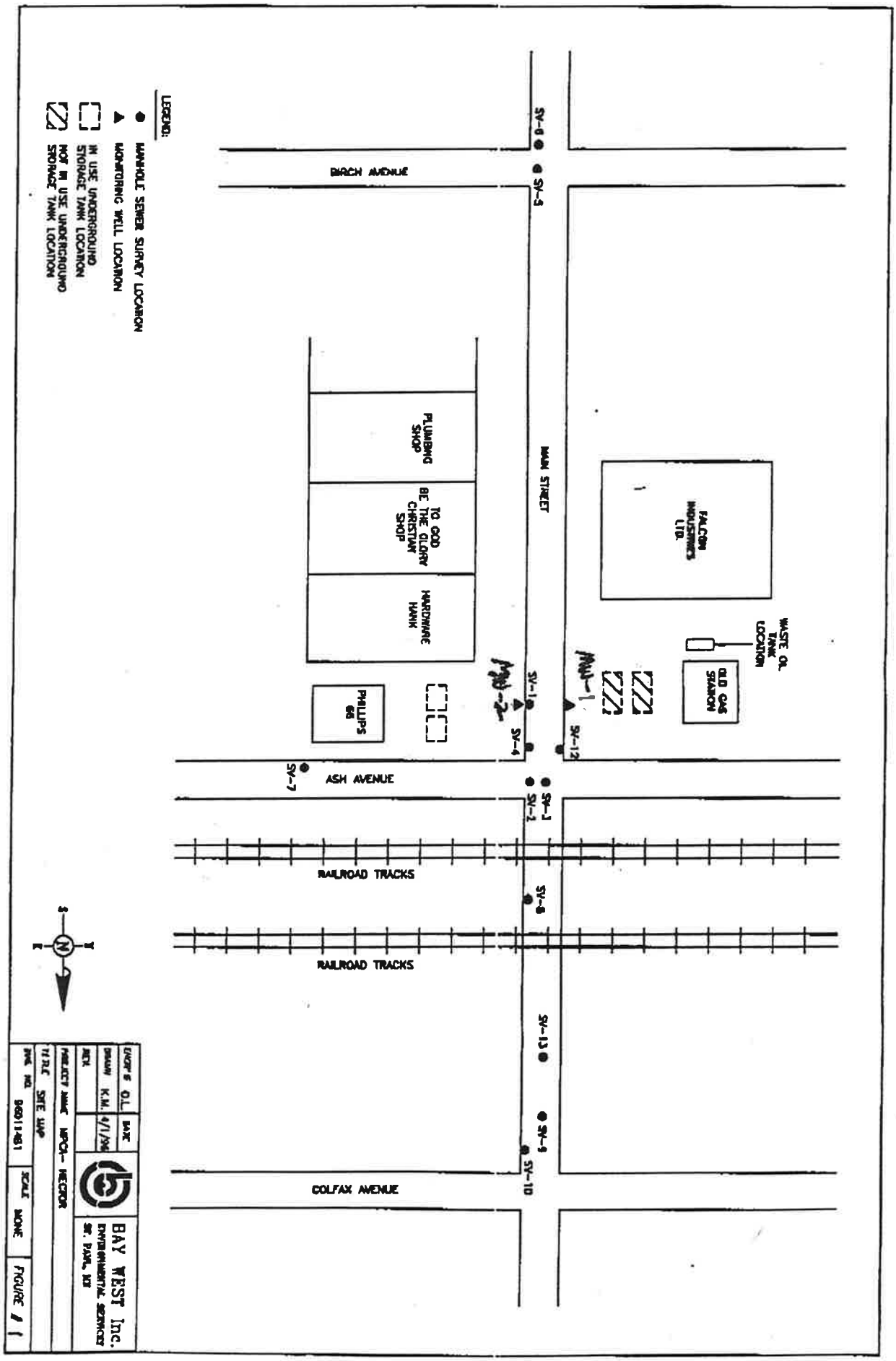
Please call the Originator at 612-291-0456 or 1-800-279-0456 if you have any problems receiving this transmission. Thank you.

ORIGINALS FORWARDED VIA:

_____ First Class Mail

_____ Federal Express/UPS overnight or 2-day service

_____ Originals not forwarded


LEGEND:
MANHOLE SEWER SURVEY LOCATION
MONITORING WELL LOCATION
IN USE UNDERGROUND STORAGE TANK LOCATION
NOT IN USE UNDERGROUND STORAGE TANK LOCATION
SV-6
SV-5
BIRCH AVENUE
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WASTE OIL TANK LOCATION
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MW-2
MW-1
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SV-12
SV-7
ASH AVENUE
SV-3
SV-2
RAILROAD TRACKS
SV-8
RAILROAD TRACKS
SV-13
SV-9
SV-11
COLFAX AVENUE
N
CHKD'S O.L.L
DRAWN K.M.
DATE 4/1/96
BAY WEST Inc.
ENVIRONMENTAL SERVICES
ST. PAUL, MN
PROJECT NAME MPCA - HECTOR
TITLE SITE MAP
SCALE NONE
FIGURE 1

File 960114

American Science
CORPORATION

11 EMPIRE DRIVE, SAINT PAUL, MN 55103

TEL: 612-291-9472
FAX: 612-291-9475

May 7, 1996

Bay West, Inc.
5 Empire Drive
St. Paul, MN 55103

Attn: Mr. Ed Bacig

Client Project ID.:	**960114**	**PO # 1290**	**(COC: GW-3358)**
American Science Project No.:	**91-6798**		
Samples Collected:	**April 19, 1996**		

The following are results from the samples you submitted for analysis on April 19, 1996.

Please contact me if you have any questions or comments.

Sincerely,

Steven Petersen
Project Manager

SP/ly

encl.

The Original Goldenrod Invoice is attached to the front of your report. Please forward to accounts payable.

American Science Project No.: *91-6798*
Client Project ID: *960114*
Chain of Custody Reference: *GW-3358*
Report Date: *5/7/96*

GRO IN WATER

Sample ID:	960114-MW-1		960114-MW-2		Trip Blank
Lab sample No:	64895		64896		64898
Sample Collected:	4/19/96		4/19/96		NA
Sample Analyzed:	4/26/96		4/26/96		4/26/96

Analytes	QL µg/L	µg/L	QL µg/L	µg/L	QL µg/L	µg/L
TPH-Gasoline Range Organics (GRO)	1000	4700	100	ND	100	ND
pH		2		2		2
Other (See Key)		7,9		7		7

Method: Wisconsin DNR GRO Modified
All samples received on ice unless otherwise noted.

Key
1. Sample odor detected.
2. Unidentified but detected compounds.
3. Analysis holding times exceeded.
4. Sample received by Laboratory beyond 4 days of collection.
5. Samples not received on ice, temperature reported.
6. QC sample(s) out of control.
7. Sample not preserved by Laboratory, pH reported.
8. Sample vials preserved by Laboratory, pH not reported.
9. Sample run at dilution.

ND = Not Detected, concentration less than Quantitation Limit.
QL = Quantitation Limit
NA = Not Applicable

American Science Project No.: *91-6798*
Client Project ID: *960114*
Chain of Custody Reference: *GW-3358*
Report Date: *5/7/96*

DRO IN WATER

Sample ID:	960114-MW-1		960114-MW-2
Lab sample No:	64895		64896
Sample Collected:	4/19/96		4/19/96
Sample Extracted:	4/26/96		4/26/96
Sample Analyzed:	5/1/96		5/1/96

Parameter	QL µg/L	µg/L	QL µg/L	µg/L
TPH-Diesel Range Organics (DRO)	100	130	100	2300
pH		1.6		1.6
Other (See Key)		8		8

Method: Wisconsin DNR DRO Modified

All samples received on ice unless otherwise noted.

Key:
1. Sample odor detected.
2. Unidentified but detected compounds.
3. Analysis holding times exceeded.
4. Sample received by Laboratory beyond 4 days of collection.
5. Samples not received on ice, temperature reported.
6. QC sample(s) out of control.
7. Samples not extracted within 7 days of collection.
8. Containers not supplied with preservative, pH reported.
9. Containers supplied with preservative, pH not reported.
10. Sample run at a dilution.

ND = Not Detected, concentration less than Quantitation Limit.
QL = Quantitation Limit

American Science Project No.: *91-6798*
Client Project ID: *960114*
Chain of Custody Reference: *GW-3358*
Report Date: *5/7/96*

Purgeable Halogenated and Non-Halogenated Compounds
(MDH 465D Compound List)

Sample ID:	960114-MW-1		960114-MW-2		Field Blank	Trip Blank
Lab sample No:	64895		64896		64897	64898
Sample Collected:	4/19/96		4/19/96		4/19/96	NA
Sample Analyzed:	5/3/96		5/3/96		5/2/96	5/2/96

Analytes	QL µg/L	µg/L	QL µg/L	µg/L	QL µg/L	µg/L	µg/L
Acetone	5.0	ND	5.0	67	5.0	ND	ND
Allyl Chloride	1.0	ND	1.0	ND	1.0	ND	ND
Benzene	1.0	1.9	86	1400	1.0	ND	ND
Bromobenzene	1.0	ND	1.0	ND	1.0	ND	ND
Bromochloromethane	1.0	ND	1.0	ND	1.0	ND	ND
Bromodichloromethane	1.0	ND	1.0	ND	1.0	ND	ND
Bromoform	1.0	ND	1.0	ND	1.0	ND	ND
Bromomethane	1.0	ND	1.0	ND	1.0	ND	ND
Butylbenzene, n-	1.0	ND	1.0	21	1.0	ND	ND
Butylbenzene, sec-	1.0	1.1	86	100	1.0	ND	ND
Butylbenzene, tert-	1.0	ND	1.0	16	1.0	ND	ND
Carbon Tetrachloride	1.0	ND	1.0	ND	1.0	ND	ND
Chlorobenzene	1.0	ND	1.0	ND	1.0	ND	ND
Chloroethane	1.0	ND	1.0	ND	1.0	ND	ND
Chloroform	1.0	ND	1.0	ND	1.0	ND	ND
Chloromethane	1.0	ND	1.0	ND	1.0	ND	ND
Chlorotoluene, 2-	1.0	ND	1.0	ND	1.0	ND	ND
Chlorotoluene, 4-	1.0	ND	1.0	ND	1.0	ND	ND
Dibromochloromethane	1.0	ND	1.0	ND	1.0	ND	ND
Dibromo-3-chloropropane	1.0	ND	1.0	ND	1.0	ND	ND
Dibromoethane, 1,2-	1.0	ND	1.0	ND	1.0	ND	ND
Dibromomethane	1.0	ND	1.0	ND	1.0	ND	ND
Dichlorobenzene, 1,2-	1.0	ND	1.0	ND	1.0	ND	ND
Dichlorobenzene, 1,3-	1.0	ND	1.0	ND	1.0	ND	ND
Dichlorobenzene, 1,4-	1.0	ND	1.0	ND	1.0	ND	ND
Dichlorodifluoromethane	1.0	ND	1.0	ND	1.0	ND	ND
Dichloroethane, 1,1-	1.0	ND	1.0	ND	1.0	ND	ND
Dichloroethane, 1,2-	1.0	ND	1.0	6.0	1.0	ND	ND
Dichloroethene, 1,1-	1.0	ND	1.0	ND	1.0	ND	ND
Dichloroethene, c-1,2-	1.0	ND	1.0	ND	1.0	ND	ND
Dichloroethene, t-1,2-	1.0	ND	1.0	ND	1.0	ND	ND
Dichlorofluoromethane	1.0	ND	1.0	ND	1.0	ND	ND
Dichloropropane, 1,2-	1.0	ND	1.0	ND	1.0	ND	ND
Dichloropropane, 1,3-	1.0	ND	1.0	ND	1.0	ND	ND
Dichloropropane, 2,2-	1.0	ND	1.0	ND	1.0	ND	ND

(continued)

American Science Project No.: 91-6798
Client Project ID: 960114
Chain of Custody Reference: GW-3358
Report Date: 5/7/96
(Continued)

Purgeable Halogenated and Non-Halogenated Compounds
(MDH 465D Compound List)

Sample ID:	960114-MW-1		960114-MW-2		Field Blank	Trip Blank
Lab sample No:	64895		64896		64897	64898
Sample Collected:	4/19/96		4/19/96		4/19/96	NA
Sample Analyzed:	5/3/96		5/3/96		5/2/96	5/2/96
Analytes	QL µg/L	µg/L	QL µg/L	µg/L	QL µg/L	µg/L	µg/L
Dichloropropene, 1,1-	1.0	ND	1.0	ND	1.0	ND	ND
Dichloropropene, c-1,3-	1.0	ND	1.0	ND	1.0	ND	ND
Dichloropropene, t-1,3-	1.0	ND	1.0	ND	1.0	ND	ND
Ethylbenzene	1.0	ND	86	250	1.0	ND	ND
Ethyl Ether	1.0	ND	1.0	5.6	1.0	ND	ND
Hexachlorobutadiene	1.0	ND	1.0	ND	1.0	ND	ND
Isopropylbenzene	1.0	ND	1.0	13	1.0	ND	ND
Isopropyltoluene, p-	1.0	ND	1.0	1.4	1.0	ND	ND
Methyl Ethyl Ketone	1.0	ND	1.0	20	1.0	ND	ND
Methyl Isobutyl Ketone	1.0	ND	1.0	3.0	1.0	ND	ND
Methyl t-Butyl Ether	1.0	51	86	210	1.0	ND	ND
Methylene Chloride	1.0	ND	1.0	ND	1.0	ND	ND
Naphthalene	1.0	ND	1.0	59	1.0	ND	ND
Propylbenzene, n-	1.0	ND	1.0	14	1.0	ND	ND
Styrene	1.0	ND	1.0	2.6	1.0	ND	ND
Tetrachloroethane, 1,1,1,2-	1.0	ND	1.0	ND	1.0	ND	ND
Tetrachloroethane, 1,1,2,2-	1.0	ND	1.0	ND	1.0	ND	ND
Tetrachloroethene	1.0	ND	1.0	ND	1.0	ND	ND
Tetrahydrofuran	1.0	2.2	1.0	48	1.0	ND	ND
Toluene	1.0	ND	1.0	64	1.0	ND	ND
Trichlorobenzene, 1,2,3-	1.0	ND	1.0	ND	1.0	ND	ND
Trichlorobenzene, 1,2,4-	1.0	ND	1.0	ND	1.0	ND	ND
Trichloroethane, 1,1,1-	1.0	ND	1.0	ND	1.0	ND	ND
Trichloroethane, 1,1,2-	1.0	ND	1.0	ND	1.0	ND	ND
Trichloroethene	1.0	ND	1.0	ND	1.0	ND	ND
Trichlorofluoromethane	1.0	ND	1.0	ND	1.0	ND	ND
Trichloropropane, 1,2,3-	1.0	ND	1.0	ND	1.0	ND	ND
Trichlorotrifluoroethane	1.0	ND	1.0	ND	1.0	ND	ND
Trimethylbenzene,1,2,4-	1.0	ND	1.0	ND	1.0	ND	ND
Trimethylbenzene,1,3,5-	1.0	ND	1.0	57	1.0	ND	ND
Vinyl chloride	1.0	ND	1.0	ND	1.0	ND	ND
Xylene, m,p-	1.0	ND	86	360	1.0	ND	ND
Xylene, o-	1.0	ND	1.0	56	1.0	ND	ND

Method: MDH 465 Modified
ND = Not Detected, concentration less than Quantitation Limit.
QL = Quantitation Limit
NA = Not Applicable

GROUND WATER CHAIN-OF-CUSTODY RECORD

91-6796

BW-GW: 7/93

Bay West

LAB: Am. Sci.

SEND RESULTS TO: E. Brie

PROJECT NUMBER	PROJECT MANAGER	TURNAROUND REQUEST	SAMPLE RETENTION		CHAIN-OF-CUSTODY NO:
			RETURN	DISPOSE	
960114	EB	normal			GW- 3358

ITEM NO.	SAMPLE NUMBER	SAMPLE DATE / TIME	MATRIX	NUMBER & TYPE OF CONTAINER	ANALYSIS CODE(S)	DESCRIPTION / COMMENTS
1	960114-MW-1	4-19-96 / 11:30	W	6 x 40mL 1 x 1L	05, 19 20	960114 * MW-1 64895
2	960114-MW-2	4-19-96 / 12:30	W	6 x 40mL 1 x 1L	05, 19 20	960114 - MW-2 64896
3	FIELD BLANK	4-19-96 / 1:00	W	3 x 40mL	05,	FIELD BLANK 64897
4	TRIP		W	2 x 40mL	05, 20	64898
5						
6						
7						4/23/96
8						PO # 1290 per Ed

SAMPLER: D. Griffin

AFFILIATION: BW

DATE: 4/19/96

TIME: 3:00

TRANS NO.	ITEM NO.	RELINQUISHED BY	ACCEPTED BY	DATE	TIME
1	1-4	[signature]	C. Hansen	4/19/96	1510
2					
3					
4					
5					

Preservative:

All samples must be preserved on ice (4°C), unless specified otherwise.

GROs -soil preserved with methanol -water preserved with 3 drops of 1:1 HCL

VOCs -water preserved with 3 drops of 1:1 HCL

DROs -water preserved with 6 mL of 1:1 HCL

Matrix:

W = Water
L = Liquid Sample
S = Soil Sample
SD = Solids Sample
SL = Sludge Sample
O = Other (Specify _____)

ANALYSIS CODES

- Cross out any unwanted parameter.
- List any additional parameters in the "Description / Comments" column.

01	BTEX, MTBE (EPA 8020)
02	VOCs- Ground Water (EPA 601/602-8010/8020)
03	VOCs (by GC/MS) (EPA 624/8240)
04	Semi-Volatiles (by GC/MS) (EPA 625/8270)
(05)	VOCs- Water/Soil (MDH 465 list)
06	Pentachlorophenol (PCP) (EPA 604/8040)
07	Phenols (EPA 604/8040)
08	Phthalates (EPA 606/8060)
09	PCBs/Pesticides (EPA 608/8080)
10	PAHs (EPA 610/8100/8310)
11	Herbicides (EPA 615/8150)
12	Lead (total)/(dissolved)
13	RCRA Metals (8)
14	Lead, Cadmium, Chromium
15	BOD (EPA 405.1)
16	COD (EPA 410.1) - pH <2 with H_2SO_4
17	pH, TSS (EPA 150.1/160.2)
18	Oil/Grease (EPA 413.1/9071)
(19)	DROs
(20)	GROs
21	TPH (8020 modified)
22	_____
23	_____

05/30/96 15:25 FAX 612 291 0099 BAY WEST, INC. 008/008

INVOICE #MW000359

TEST DATE: 03/30/96

MIDWEST TANK TESTING INC.
313 ELEANOR AVE.
MORRIS, MN 56267

TANK STATUS EVALUATION REPORT

***** CUSTOMER DATA *****

BARGMAN OIL
101 MAIN STREET
P.O. BOX 505
HECTOR, MN
55342

CONTACT: BARGMAN PAUL
PHONE #: 612-848-2229

***** SITE DATA *****

BARGMAN OIL
101 MAIN STREET
P.O. BOX 505
HECTOR, MN
55342

CONTACT: BARGMAN PAUL
PHONE #: 612-848-2229

***** COMMENT LINES *****

CURRENT EPA STANDARDS DICTATE
THAT FOR UNDERGROUND FUEL TANKS, THE MAXIMUM ALLOWABLE LEAK/GAIN RATE
OVER THE PERIOD OF ONE HOUR IS .05 GALLONS.

TANK #1: SUPER UNLEADED TYPE: STEEL RATE: .003875 G.P.H. LOSS

TANK IS TIGHT.

TANK #2: REG UNLEADED TYPE: STEEL RATE: .021012 G.P.H. LOSS

TANK IS TIGHT.

OPERATOR: Mark Dingmor SIGNATURE: Mark Dingmor DATE: 4-1-96

******* T A N K D A T A ********

	TANK NO. 1	TANK NO. 2	TANK NO. 3	TANK NO. 4
TANK DIAMETER (IN)	108	108		
LENGTH (FT)	21.01	21.01		
VOLUME (GAL)	10000	10000		
TYPE	ST	ST		
FUEL LEVEL (IN)	58	59		
FUEL TYPE	SUP UNLD	REG UNLD		
dVOL/dy (GAL/IN)	117.56	117.38		

CALIBRATION ROD	DISTANCE
1	10.65625
2	26.95313
3	41.93750
4	56.93750
5	74.93750

******* C U S T O M E R D A T A ********

JOB NUMBER	: 000359
CUSTOMER (COMPANY NAME)	: BARGMAN OIL
CUSTOMER CONTACT(LAST, FIRST)	: BARGMAN PAUL
ADDRESS - LINE 1	: 101 MAIN STREET
ADDRESS - LINE 2	: P.O. BOX 505
CITY, STATE	: HECTOR, MN
ZIP CODE (XXXXX-XXXX)	: 55342
PHONE NUMBER (XXX)XXX-XXXX	: 612-848-2229

******* C O M M E N T L I N E S *******

******* S I T E D A T A ********

SITE NAME (COMPANY NAME)	: BARGMAN OIL
SITE CONTACT(LAST, FIRST)	: BARGMAN PAUL
ADDRESS - LINE 1	: 101 MAIN STREET
ADDRESS - LINE 2	: P.O. BOX 505
CITY, STATE	: HECTOR, MN
ZIP CODE (XXXXX-XXXX)	: 55342
PHONE NUMBER (XXX)XXX-XXXX	: 612-848-2229
GROUND WATER LEVEL (FT)	: 0
NUMBER OF TANKS	: 2
LENGTH OF PRE-TEST (MIN)	: 30
LENGTH OF TEST (MIN)	: 180

Leaking Petroleum Storage Tanks

Minnesota Pollution Control Agency

http://www.pca.state.mn.us/programs/lust_p.html

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NOV 1 3 2003

MPCA, MAR Division
PLR / SS Section

Investigation Report Form

Fact Sheet #3.24

Complete this form to document remedial investigation (RI) activities, including Limited Site Investigations (LSIs) and full RIs. Do not revise or delete any text or questions from this report form. Include any additional information that is important for making a site cleanup decision. If only a LSI is necessary, you may skip Section 6 and Section 7 of this report form.

Refer to Minnesota Pollution Control Agency (MPCA) fact sheet 3.1 *Leaking Underground Storage Tank Program* for the overall RI objectives, and to other MPCA fact sheets for details on investigation methods. When a tank has been excavated, refer to fact sheets 3.6 *Excavation of Petroleum Contaminated Soil During Tank Removal* and 3.7 *Excavation Report Worksheet for Petroleum Release Sites* for reporting requirements. Document the occurrence of free product using fact sheet 3.3 *Free Product: Evaluation and Recover,* and fact sheet 3.4 *Free Product Recovery Report Worksheet*.

MPCA Site ID: Leak: 0003900 Date: November 6, 2003

Responsible Party: Paul Bargman R.P. phone #: 320-848-2229

Consultant: Nova Consulting Group - Tony LaBarre Consultant phone #: 952-448-9393

Facility Name: Bargman Oil

Facility Address: 101 Main Street City: Hector

County: Renville Zip Code: 55342

Site location: The required coordinate scheme for reporting site location is Universal Transverse Mercator (UTM), Extended Zone 15, 1983 North American Datum (NAD83). Refer to **http://www.ot.state.mn.us/ot_files/handbook/standard/std17-1.html** for Minnesota spatial data standards, or **http://mac.usgs.gov/mac/isb/pubs/factsheets/fs15799.html** for more information about UTM Coordinates.

X coordinate (Easting) 364,200 meters
Y coordinate (Northing) 4,956,000 meters

What feature does the coordinate represent? (i.e. center of parcel, approximate center of source area, etc. Please describe) **Center of Parcel**

What method was used to determine the coordinate? (i.e. GPS receiver, map interpolation, address matching, etc. Please describe) **Map Interpolation**

If a paper map, digital map, aerial photo or digital orthophotoquad was used to find the site location, please provide the scale of the map or photo (i.e. 1:24,000, etc.)
1:24,000

Section 1: Emergency and High Priority Sites

1. Is an existing drinking water well impacted or likely to be impacted within a two-year travel time? ☐*Yes* ☒*No*

2. Are there existing vapor impacts? ☐*Yes* ☒*No*

3. Is there an existing surface water impact as indicated by 1) a product sheen on the surface water or 2) a product sheen or volatile organic compounds in the part per million (ppm) range in ground water in a well located close to the surface water. ☐*Yes* ☒*No*

4. Has the release occurred in the last 30 days? ☐*Yes* ☒*No*

5. Has free product been detected at the site? **If *YES***, attach fact sheet 3.4 *Free Product Recovery Report Worksheet.* ☐*Yes* ☒*No*

6. Is sand or gravel aquifer impacted which is tapped by water wells within or potentially within 500 feet from the release source **or** does impacted soil overlie a geologically sensitive area? **If *YES***, explain: ☐*Yes* ☒*No*

If you answered *YES* to any of questions 1 through 6 above describe below the actions taken to date to reduce or eliminate the risk posed by the release.

Section 2: Site and Release Information

2.1 Attach Table 1 - Tank Information. Describe the status of the other components of the tank system(s), (i.e., piping and dispensers). **The tanks, dispensers and piping are currently in use.**

2.2a Describe the land use and pertinent geographic features within 1,000 feet of the site.
The land to the east, south and west consists of commercial properties followed by residential properties. The land to the north consists of light industrial followed by railroad tracks, residential homes and farmland.

2.2b List other potential leak sources within 500 feet of the site.
A gas station (Joel Best Property) was formerly located across Main Street to the west of Bargman Oil. This former gas station is leaksite #3899. This Site was closed by the MPCA in February 2000. The Contel building (leakSite #3899) is located approximately 300 feet south of the Site. This leaksite was closed in December 1991.

2.3 Identify and describe the source or suspected source(s) of the release.
The source of the release is most likely due to tank failure of the former gasoline and diesel tanks located on the Site. The tanks have been removed and replaced. Pipe joint leaks may have also contributed to the release at the Site.

2.4 What was the volume of the release? (if known): ***Unknown*** gallons

2.5 When did the release occur? (if known): ***Unknown***

Section 3: Excavated Soil Information

3.1 Include the Fact Sheet 3.7 *Excavation Report Worksheet* in Appendix A

3.2 Was soil excavated for off-site treatment? ☐*Yes* ☒*No*

Date excavated:

Volume removed: cubic yards

3.3 Indicate soil treatment type:

☐ land treatment
☐ thermal treatment
☐ composting/biopiling
☐ other ( )

Name and location of treatment facility:

Section 4: Extent and Magnitude of Soil Contamination

4.1 Were soil borings conducted in or immediately adjacent to all likely s sources including: ☒ *YES* ☐ *NO*

dispensers,	☒ *yes* ☐ *no* ☐ *not present*
underground storage tank basins,	☒ *yes* ☐ *no* ☐ *not present*
above ground storage tank areas,	☐ *yes* ☐ *no* ☒ *not present*
piping,	☒ *yes* ☐ *no* ☐ *not present*
remote fill pipes,	☐ *yes* ☐ *no* ☒ *not present*
and known spill areas	☐ *yes* ☐ *no* ☒ *not present*

4.2 To adequately define the vertical extent of contamination, soil borings should be completed at least five feet below the water table or ten feet below the deepest measurable (field screening and visual observation) contamination, whichever is deeper. Were all soil borings completed to the required depth? ☒ *YES* ☐ *NO*

4.3 To adequately evaluate site stratigraphy complete at least one boring to 20 feet below the water table, or to 20 feet below the deepest site contamination, whichever is deeper. If a confining layer is present, drill the boring in an uncontaminated area. Was this done? ☒ *YES* ☐ *NO*

If you answered *NO* to any of the three previous questions, explain why the borings were not conducted in the required locations or to the required depths (see fact sheet #3.19, *Soil and Ground Water Investigations Performed During Remedial Investigations* regarding exceptions and MPCA approval for depth of drilling):

4.4 Indicate the drilling method:

- ☐ hollow-stem auger
- ☐ sonic drilling
- ☒ push probes
- ☐ other

Note: MPCA staff hydrologist approval is required before use of flight augers

4.5 Discuss soil borings drilled and provide rationale for their locations. Attach boring logs in Appendix D.

Seven soil borings (GP-1 through GP-7) were completed at the Site. GP-1 and GP-5 were completed adjacent to the UST and dispensers. GP-2, GP-3, GP-4, GP-6 and GP-7 were completed adjacent to the north, west and south sides of the USTs and dispensers.

The borings were completed to evaluate potential source areas and to delineate the magnitude and extent of petroleum contamination.

4.6 Attach Table 2 - Results of Soil Headspace Screening, In Appendix C, discuss soil headspace screening method and describe any deviation from recommended and/or required methods and procedures.

The soil samples collected during the completion of GP-1, GP-2, GP-3, GP-4, GP-5, GP-6 and GP-7 were screened in the field for indications of contamination by the Nova environmental geologist. The soil samples were evaluated visually and olfactorily for the presence of petroleum-like odors and/or staining. Additionally, soil samples were screened for the presence of organic vapors using a HNu PID. The PID measures organic vapor concentration in parts per million (ppm) and has a range of 0.2 ppm to 2,000 ppm. The PID was equipped with an 10.2 eV lamp and was calibrated with an isobutylene standard to 58 parts per million. The soil samples were screened utilizing the headspace technique outlined in Minnesota Pollution Control Agency (MPCA) guidance document 3.22.

4.7 Attach Table 3 - Analytical Results of Soil Samples. Provide analytical results in Appendix B. In Appendix C, discuss soil sampling and analytical methods used and describe any deviation from recommended and/or required methods and procedures

4.8 Describe the vertical and horizontal extent and magnitude of soil contamination. Provide a plan-view map and two cross-sections that illustrate both soil head space and laboratory analytical results. See Section 13.

Petroleum impacted soil appears to be located adjacent to the USTs and extends to a maximum depth of approximately 16 feet. Petroleum impacted soil, above the water table, was not encountered in the soil borings completed away from the UST basin.

4.9 Attach Table 4 - Other Contaminants Detected in Soils (Petroleum or Non-petroleum Derived). Discuss the possible sources of these compounds.

4.10 Is contaminated soil in contact with ground water? ☐ *Yes* ☒ *No*

If *YES* or if ground water contamination appears likely, then complete Section 5.

If *NO* (contaminated soil is not in contact with ground water), what is **45 feet**

the distance separating the deepest contamination from the surface of the water table? Was this distance measured during site activities, referenced from geologic information, or estimated based on professional opinion during a site visit?

Contaminated soil is in contact with perched water throughout the Site. The water is present in discontinuous small sand lenses. Based on the physical characteristics, the saturated material at the Site is considered a "non-aquifer".

Based on the presence of clay till observed in the deep boring labeled GP-5, it is unlikely that the impacted soil is impacting the regional water table at approximately 60 feet to 70 feet below land surface.

4.10 Describe observations of any evidence of a fluctuating water table and a seasonal high water table (e.g., mottling). Also, from other sources of information describe the range of natural water table fluctuations in the area.

Mottling was observed in some of the borings at depths ranging 6 feet bls to 8 feet bls. The water noted in the borings came from small sand lenses throughout the borehole. The regional groundwater at the Site is estimated at approximately 60-70 feet below land surface.

4.12 In your judgment, is there a sufficient distance separating the petroleum contaminated soil (or an impacted non- aquifer) from the underlying aquifer to prevent petroleum contamination of the aquifer? Please explain in detail. In your explanation, consider the data and information of this section as well as the nature of the petroleum release (i.e., volume, when it occurred, petroleum product). ☒*Yes* ☐*No*

If *YES,* a ground water contamination assessment is not necessary as part of the LSI.

If *NO*, a ground water contamination assessment is necessary. Complete Section 5.

Section 5: Aquifer Characteristics/Ground Water Contamination Assessment

Complete Section 5 if groundwater has been contaminated or may become contaminated. Aquifer determination is made during the LSI. It is based upon the stratigraphy and a hydraulic conductivity measurement calculated from grain size distribution analysis. The site stratigraphy gives the context within which the hydraulic conductivity measurement can be interpreted. Please refer to Fact Sheet 3.19, *Soil and Ground Water Investigations Performed During Remedial Investigations* for methods and requirements.

5.1 Provide an average hydraulic conductivity value (K) measured:

K = ft/day

Indicate the method of measurement (i.e., Hazen, Masch and Denny, Kozeny-Carmen, etc.): Grain-size distribution approximations by method(s).

Indicate the locations and depths of soil samples submitted for grain size analyses. Provide the results of grain size analyses and other information used for the determination of K-values in Appendix F.

5.2 Calculate a range for aquifer transmissivity (T) using the equation T = Kb, where b is the thickness of the aquifer:

T_{High} = ft^2/day
T_{Low} = ft^2/day

Determine the aquifer thickness (b) from geologic logs of soil borings, water well logs, and available published information. Attach water well logs in Appendix D. If the transmissivity of a contaminated hydrogeologic unit is greater than 50 ft^2/day, it is considered an aquifer (for the purpose of the LUST program), and monitoring wells will be necessary.

5.3 Discuss in detail the site geology and stratigraphy, including a discussion of local and regional hydrogeology, using soil boring data and cross sections, geologic logs of near-by water wells, and available published information.

The Site geology consisted mostly of a glacial till. Some small sand lenses were observed in all of the boring completed at the Site. Groundwater samples were collected from these sand lenses. The regional groundwater at the Site is estimated to be 60 feet to 70 feet bls.

5.4 Attach Table 5- Water Level Measurements and Depths of Water Samples Collected from Borings. Indicate the method used to measure the water levels in borings, and the depth water samples were collected from borings. Allow water levels in borings to equilibrate to static conditions, and the adjust the effective screened intervals in borings to intercept the static water table prior to water sample collection. Discuss groundwater flow direction.

5.5 Attach Table 6 - Analytical Results of Water Samples Collected from Borings. Summarize the analytical results of groundwater samples collected as part of an LSI. Discuss the extent and magnitude of groundwater contamination. Also provide a discussion on QA/QC, including information on the samples collected and laboratory analyses performed.

A groundwater sample was collected from all of the soil borings completed at the Site to evaluate the ground water for the presence of petroleum contamination. Due to the slow recharge of or lack of water bearing materials, water samples were collected using 10 foot PVC screen threaded to PVC riser. The groundwater was then collected using a 3/8-inch bailer. The sampling point was developed until a significant reduction in the amount of suspended solids was observed in the discharge water. After development, ground water samples were collected for chemical analysis of DRO, GRO and volatile organic compounds (VOCs). The ground water samples were collected using new polyethylene bailer for each sampling point. The groundwater samples were placed in laboratory supplied containers and transported to En Chem Inc. in Minnetonka, Minnesota for chemical analysis.

The impacted groundwater is present only in small intermittent sand lenses encountered in GP-1 and GP-6. Benzene was the only petroleum constituent detected at or above the health risk limits (HRLs) established by the Minnesota Department of Health (MDH). Benzene was detected at concentrations of 32 ppb in the groundwater collected from GP-1 and 10 ppb in the groundwater detected from GP-6. Moderated levels of DRO and GRO were also detected.

5.6 Attach Table 7 - Other Contaminants Detected in Water Samples Collected from Borings (Petroleum or Non-petroleum Derived). Discuss the possible sources of these contaminants and provide a discussion of QA/QC information.

5.7 Laboratory certification number: **027-053-137**

Section 11: Discussion

11.1 Discuss the risks associated with the remaining soil contamination:

Chemical analysis of the soil samples collected from GP-1 through GP-7 show that the concentrations of BTEX are below the Tier I SRVs established by the MPCA. There is no standard for DRO and GRO. However, the concentrations of DRO and GRO are relatively low. Therefore the remaining soil contamination poses little risk to human health or the environment.

11.2 Discuss the risks associated with the impacted ground water:

The impacted groundwater is present only in small intermittent sand lenses encountered in GP-1 and GP-6. Benzene was the only petroleum constituent detected at or above the health risk limits (HRLs) established by the Minnesota Department of Health (MDH). Benzene was detected at concentrations of 32 ppb in the groundwater collected from GP-1 and 10 ppb in the groundwater detected from GP-6. Moderated levels of DRO and GRO were also detected. Some of the impacted groundwater may be migrating through small sand lenses from the leaksite approximately 50 feet west which was closed in February 2000. It is unlikely that the impacted groundwater collected in GP-1 and GP-6 would penetrate the clay till observed below 16 feet below land surface to impacted the regional groundwater estimated at 60 feet to 70 feet bls. It is our professional opinion that the remaining groundwater poses little risk to human health or the environment.

11.3 Discuss other concerns not mentioned above:

Table 3
Analytical Results of Soil Samples

Boring, Depth(ft)	Date Sampled	Benzene	Toluene	Ethylbenzene	Xylenes	GRO	DRO	Lab Type
GP-1(8'-12')	4/24/03	<.073	<.073	.230	.880	230	16	Fixed
GP-2 (8'-12')	8/28/03	<.031	<.032	<.032	<.31	<3.2	<4.2	Fixed
GP-3 (8'-12')	8/28/03	.050	.210	<.032	.410	19	8.7	Fixed
GP-4 (12'-16')	8/28/03	<.034	<.034	<.034	<.034	<3.4	<4.5	Fixed
GP-5 (34'-36')	8/28/03	<.029	<.029	<.029	<.029	<2.9	<3.7	Fixed
GP-6 (8 feet)	10/8/03	.083	<.033	.470	.820	46	37	Fixed
GP-7 (10 feet)	10/8/03	<.029	<.029	<.029	<.029	<2.9	<4.2	Fixed
Tier I SRV		1.5	107	200	110			

Report results in mg/kg. Use less than symbols to show detection limit. Indicate mobile or fixed based in the lab type column.
Notes:

Table 4
Other Contaminants Detected in Soils (Petroleum or Non-petroleum Derived)

Boring, Depth (ft)	Date Sampled	124 Trimethylbenzene	135 Trimethylbenzene	Naphthalene	N-Propylbenzne		Lab Type
GP-1 4'-8'	4/23/03	3.9	.780	.190			Fixed
Tier I SRV		5	4	10	30		

Report results in mg/kg. Indicate other contaminants (either petroleum or non-petroleum derived) detected in soil collected from borings.
Notes:
Soils in GP-2, GP-3, GP-4, GP-5, GP-6 and GP-7 were analyzed for DRO, GRO and BETX

Table 5
Water Level Measurements and Depths of Water Samples Collected from Borings

	Soil Boring									
	1	2	3	4	5	6	7	8	9	10
Static Water level depth (ft)	9'	10'	9'	9'	9'	9'	9'			
Sampled Depth (ft)	7'-12'	8'-13'	7'-12'	7'-12'	7'-12'	7'-12'	7'-12'			

Describe in Appendix C, the methods and procedures used to measure water levels in borings.
Notes:

Table 6
Analytical Results of Water Samples Collected from Borings

Boring Number	Date Sampled	Sampled Depth	Benzene	Toluene	Ethyl benzene	Xylenes	MTBE	GRO	DRO	Lab Type
GP-1	4/24/03	7'-12'	32	55	240	810	41	3,900	1,800	Fixed
GP-2	8/28/03	8'-13'	<1.0	<1.0	<1.0	<2.0	<1.0	<50	<100	Fixed
GP-3	8/28/03	7'-12'	<2.0	<2.0	<2.0	<2.0	220	<50	<100	Fixed
GP-4	8/28/03	7'-12'	<1.0	<1.0	<1.0	<2.0	1.8	<50	220	Fixed
GP-6	10/8/03	7'-12'	10	<1.0	64	46.9	<1.0	2,300	3,100	Fixed
GP-7	10/8/03	7'-12'	<1.0	<1.0	<1.0	<2.0	<1.0	<50	<100	Fixed
Trip Blank	8/29/03		<1.0	<1.0	<1.0	<2.0	<1.0	NA	NA	Fixed
Field Blank										
Lab Blank										
HRL			10	1000	700	10000				

Report results in ug/L. Use less than symbols to show detection limit. Indicate mobile or fixed based in the lab type column.
Notes
NA - Not Analyzed

Table 7
Other Contaminants Detected in Water Samples
Collected from Borings (Petroleum or Non-petroleum Derived)

Boring Number	Date Sampled	1,2 DCA	Isopropyl benzene	Naptha lene	Ace tone	135 Trimethyl benzene	124 Trimethyl benzene	Npropyl benzene	Sec-butyl benzene	p-isopropyl toluene
GP-1	4/23/03	ND	11	200	110	100	460	42	ND	ND
GP-6	10/8/03	ND	15	41	38	30	140	41	4.6	4.3
GP-4	8/29/03	2	ND	ND	ND	ND	ND	ND	ND	ND
GP-3	8/29/03	ND	ND	ND	12	ND	ND	ND	ND	ND
Trip Blank	8/29/03	ND	ND	ND	ND	ND	ND	ND	ND	ND
HRL (ug/L)		4	300	300	700	NS	NS	NS	NS	NS

Report results in ug/L. Indicate other contaminants (either petroleum or non-petroleum derived) detected in water samples collected from the borings, temporary wells or push probes.
Notes:
NS - No Standard
ND - Not Detected

Table 8
Monitoring Well Completion Information

Well Number	Unique Well Number	Date Installed	Surface Elevation	Top of Riser Elevation	Bottom of Well (Elevation)	Screen Interval (Elev. - Elev.)

Notes: (location and elevation of benchmark)

Table 9
Water Level Measurements in Wells

Well Number	Date Sampled	Depth of Water from Top of Riser	Product Thicknes s	Depth of Water Below Grade	Relative Groundwater Elevation	Water Level Above Screen (Y/N)

Describe in Appendix C, the methods and procedures used to measure water levels.
Notes:

Table 10
Analytical Results of Water Samples Collected from Wells

Well #	Date Sampled	Benzene	Toluene	Ethyl benzene	Xylenes	MTBE	GRO	DRO	Lab Type
MW-1									
MW-2									
MW-3									
MW-4									
Trip Blank									
Field Blank									
Lab Blank HRL(ug/L)		10	1000	700	10000				

Report results in ug/L. Use less than symbols to show detection limit. Indicate mobile or fixed based in the lab type column.
Notes

Table 11
Other Contaminants Detected in Water Samples
Collected from Wells (Petroleum or Non-petroleum Derived)

Well Number	Date Sampled	1,2 DCA	EDB				
MW-1							
MW-2							
MW-3							
Field Blank							
Trip Blank							
Lab Blank							
HRL (ug/L)		4	0.004				

Report results in ug/L. Indicate other contaminants (either petroleum or non-petroleum derived) detected in water samples collected from the borings, temporary wells or push probes.
Notes:

Table 12
Natural Attenuation Parameters

Monitoring Well	Sample Date	Temp. °C	pH	Dissolved Oxygen (mg/L)	Nitrate (mg/L)	(Fe II) (mg/L)	(H_2S, HS^-) (mg/L)
MW-1							
MW-2							
MW-3							
MW-4							

In Appendix C, describe the methods and procedures used.
Notes:

Table 13
Properties Located Within 500 Feet of the Release Source.

# (From Map)	Property Address	Water Well (Y or N)	How Determined*	Well Use**	Public Water Supply (Y or N)	Confirmed By City (Y or N)	Basement Or Sumps (Y or N)	Possible Petroleum Sources (Y or N)	Comments (including property use)
1	106 Main Street	N	Interview		Y	Y	N	Y	Leaksite # 3899
2	110 Main Street	N	Interview		Y	Y	N	N	
3	126 Main Street	N	Interview		Y	Y	N	N	
4	140 Main Street	N	Interview		Y	Y	N	N	
5	144 Main Street	N	Interview		Y	Y	N	N	
6	148 Main Street	N	Interview		Y	Y	N	N	
7	154 Main Street	N	Interview		Y	Y	N	N	
8	131 Ash Street	N	Interview		Y	Y	N	N	
9	107 Main Street	N	Interview		Y	Y	Y	Y	Possible Fuel Oil UST
10	Ash Street	N	Visual		N	Y	N	N	
11	125 Main Street	N	Interview		Y	Y	N	N	
12	Vacant	N	Visual		Y	Y	N	N	
13	155 Main Street	N	Interview		Y	Y	N	N	
14									
15									

**E.g., visual observation, personal contact, telephone, returned postcard, assumed (i.e., no postcard returned).*
***E.g., domestic, industrial, municipal, livestock, lawn/gardening, irrigation.*

Table 14
Water Supply Wells Located Within 500 Feet of the Release Source and Municipal or Industrial Wells Within ½ Mile

Unique Well #	Ground Elevation	Total Depth (ft)	Base of Casing (ft)	Static Elevation	Aquifer	Use	Owner	Distance & Direction from source
None								

Notes:

Table 15
Results of Vapor Monitoring

Location # and description	Date	PID reading (ppm)	Percent of the LEL

Notes: Location numbers must match locations on the site map. Provide a brief description of the monitoring point (e.g., sump, basement corner, sanitary sewer manhole, storm sewer basin, etc.).

Section 15: Appendices

Attach the following appendices.

☐	*Appendix A*	Excavation Report Worksheet for Petroleum Release Sites.
☒	*Appendix B*	Laboratory Analytical Reports for Soil and Ground Water. Include laboratory QA/QC data and laboratory certification number.
☒	*Appendix C*	Methodologies and Procedures, Including Field Screening of Soil, Other Field Analyses, Soil Boring, Soil Sampling, Well Installation, and Water Sampling.
☒	*Appendix D*	Geologic Logs of Soil Borings, Including Construction Diagrams of Temporary and Permanent Wells, and Copies of the Minnesota Department of Health Well Record.
☐	*Appendix E*	Copies of Water Supply Well Logs With Legible Unique Numbers.
☐	*Appendix F*	Grain Size Analysis, Hydraulic Conductivity Measurements, and Other Calculations.

Section 16: Consultant (or other) Information

By signing this document, I/we acknowledge that we are submitting this document on behalf of and as agents of the responsible person or volunteer for this leak site. I/we acknowledge that if information in this document is inaccurate or incomplete, it will delay the completion of remediation and may harm the environment and may result in reduction of reimbursement awards. In addition, I/we acknowledge on behalf of the responsible person or volunteer for this leak site that if this document is determined to contain a false material statement, representation, or certification, or if it omits material information, the responsible person or volunteer may be found to be in violation of Minn. Stat. § 115.075 (1994) or Minn. R. 7000.0300 (Duty of Candor), and that the responsible person or volunteer may be liable for civil penalties.

MPCA staff are instructed to reject unsigned investigation reports or if the report form has been altered.

Name and Title:	Signature:	Date signed:
Eric Halpaus Environmental Geologist		11/6/03
Anthony R. LaBarre, PG Subsurface Investigations Group Leader		11/6/03

Company and mailing address:

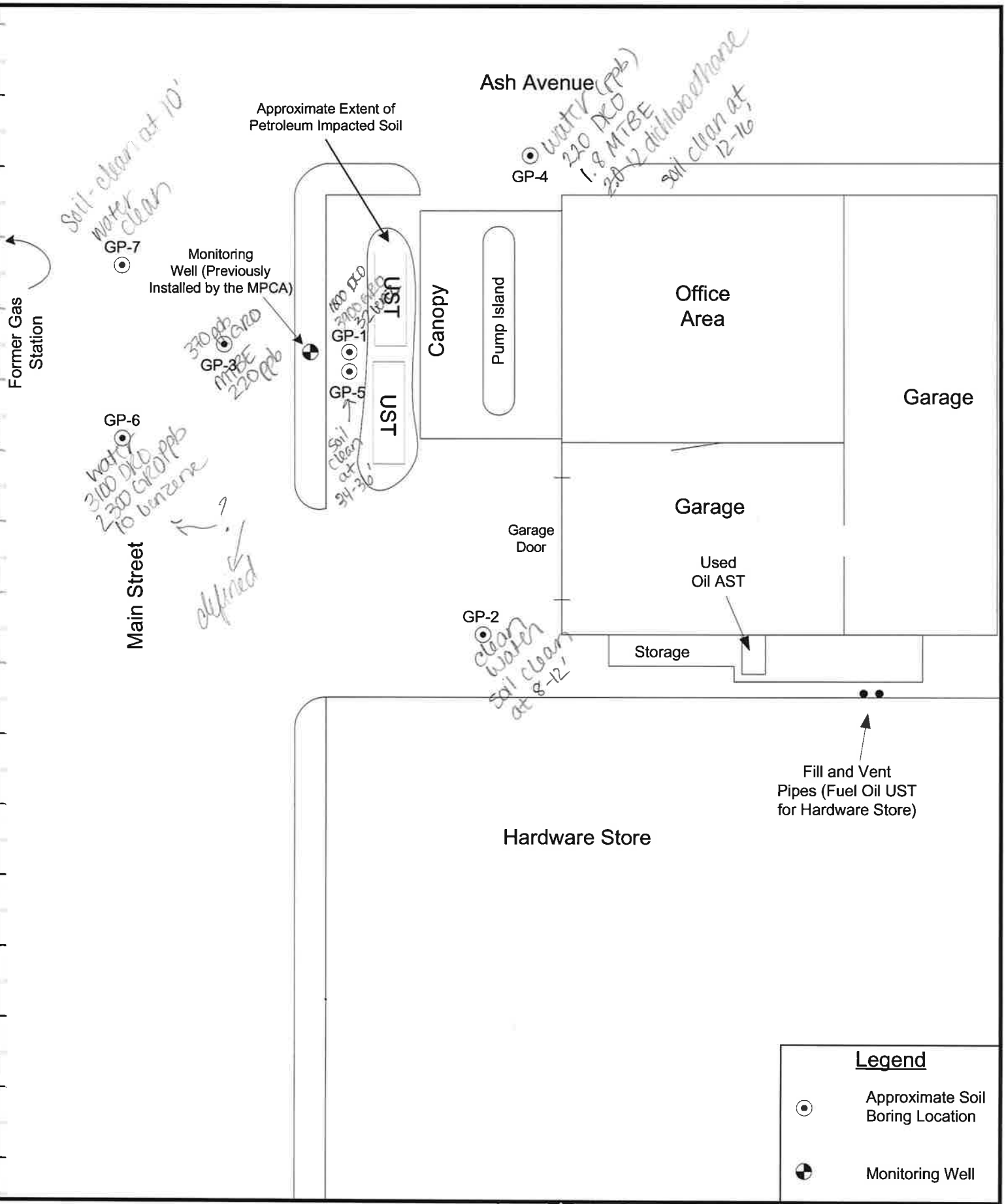
Nova Consulting Group

1107 Hazeltine Boulevard, Suite 400

Chaska, MN 55318

Phone: 952-448-9393

Fax: 952-448-9390



Extent of Petroleum Impacted Soil Map
Bargman Oil
101 Main Street
Hector, Minnesota

Scale: 1 inch = Approx 15 feet

N

E03-1457

Environmental Architecture Engineering
Nova Consulting Group, Inc.

May - 2003

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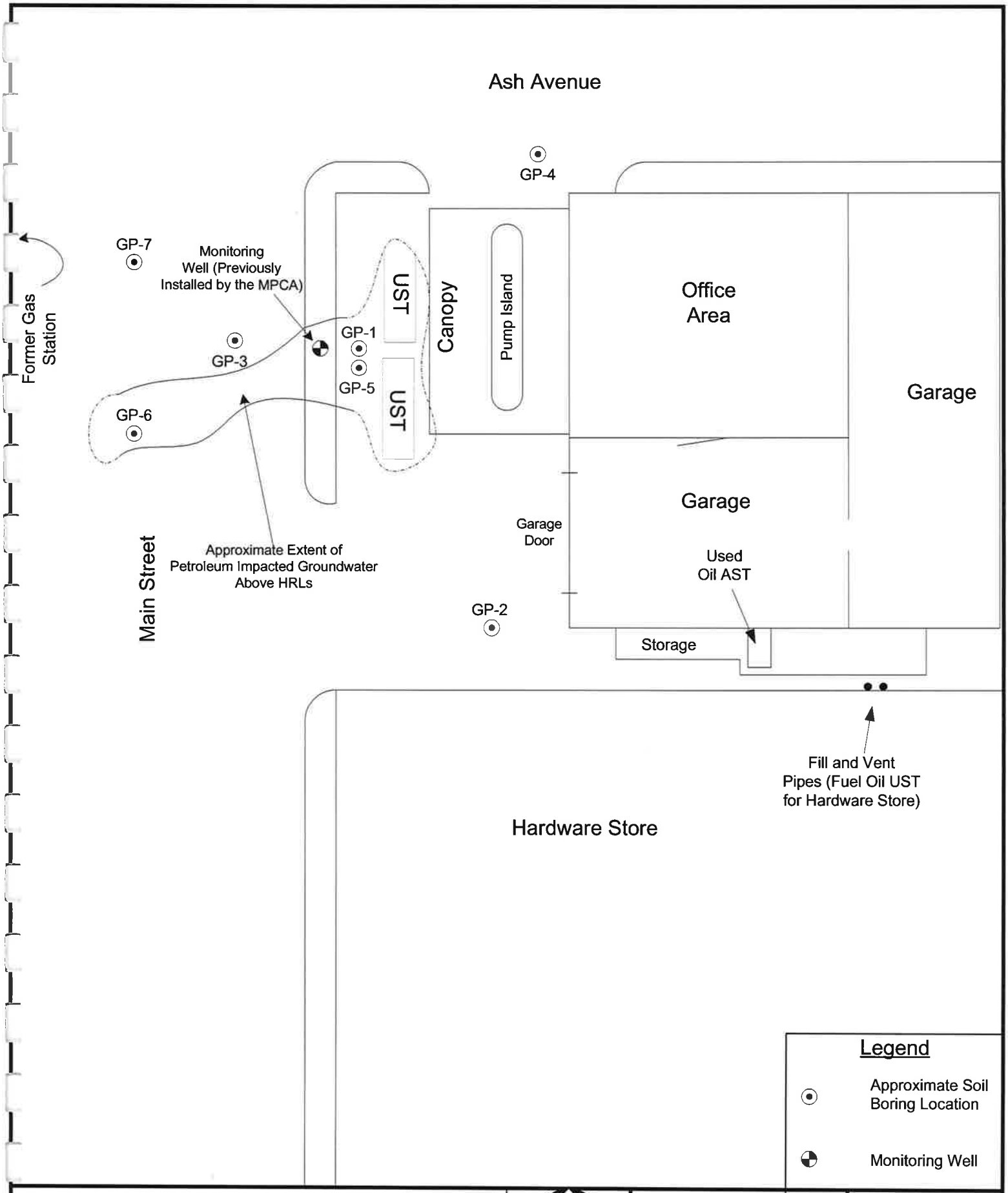

Extent of Petroleum Impacted Groundwater Map
Bargman Oil
101 Main Street
Hector, Minnesota

Scale: 1 inch = Approx 15 feet

N

E03-1457

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BORING LOG

PROJECT NAME: *Bargman Oil*			Boring No. : **GP-1**	
PROJECT LOCATION: *101 Main Street, Hector, Minnesota*			Nova Project No. : *E03-0573*	
DEPTH (FEET)	USCS GROUP SYMBOL	DESCRIPTION	COLLECTED SAMPLE NAME	PID (PPM)
1.0		Concrete, Class 5 gravel, Clay, black, moist.		
2.0	CL	Clay, grey, with mottling, petroleum odor, moist.		
3.0		(Glacial Till)		
4.0			GP-1 @ 4'	ND
5.0				
6.0				
7.0				
8.0			GP-1 @ 8'	260
9.0	CL	Clay with Gravel, grey, olive, moist, petroleum odor, small sand lenses throughout.		
10.0		(Glacial Till)		
11.0				
12.0			GP-1 @ 12'	240
13.0				
14.0				
15.0				
16.0			GP-1 @ 16'	210
17.0				
18.0				
19.0				
20.0			GP-1 @ 20'	38
Boring Depth (feet):	20	Driller: Eric Halpaus	Date of Boring:	4/23/03
Groundwater Depth:	9 feet	Rig: *Geoprobe 5400*		

ND = Not detected above background.

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BORING LOG

PROJECT NAME: *Bargman Oil*	Boring No. : **GP-3**
PROJECT LOCATION: *101 Main Street, Hector, Minnesota*	Nova Project No. : *E03-1457*

DEPTH (FEET)	USCS GROUP SYMBOL	DESCRIPTION	COLLECTED SAMPLE NAME	PID (PPM)
1.0		Concrete, Class 5 gravel, Clay, black, moist.		
2.0	CL	Clay, gray, brown, moist, intermittent Sand lenses.		
3.0		(Glacial Till)		
4.0			GP-3 @ 4'	ND
5.0				
6.0				
7.0				
8.0			GP-3 @ 8'	ND
9.0				
10.0				
11.0				
12.0			GP-3 @ 12'	ND
13.0				
14.0				
15.0				
16.0			GP-3 @ 16'	ND

END OF BORING

Boring Depth (feet):	16	Driller: Eric Halpaus	Date of Boring: 8/27/03
Groundwater Depth:	9 feet	Rig: *Geoprobe 5400*	

ND = Not detected above background.

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BORING LOG

PROJECT NAME: *Bargman Oil*	Boring No. : **GP-4**
PROJECT LOCATION: *101 Main Street, Hector, Minnesota*	Nova Project No. : *E03-1457*

DEPTH (FEET)	USCS GROUP SYMBOL	DESCRIPTION	COLLECTED SAMPLE NAME	PID (PPM)
1.0		Concrete, Class 5 gravel, Clay, black, moist.		
2.0	CL	Clay, gray, brown, moist, intermittent Sand lenses.		
3.0		(Glacial Till)		
4.0			GP-4 @ 4'	ND
5.0				
6.0				
7.0				
8.0			GP-4 @ 8'	ND
9.0				
10.0				
11.0				
12.0			GP-4 @ 12'	ND
13.0				
14.0				
15.0				
16.0			GP-4 @ 16'	ND

END OF BORING

Boring Depth (feet):	16	Driller: Eric Halpaus	Date of Boring: 8/27/03
Groundwater Depth:	9 feet	Rig: *Geoprobe 5400*	

ND = Not detected above background.

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BORING LOG

PROJECT NAME: *Bargman Oil*	Boring No. : **GP-5**
PROJECT LOCATION: *101 Main Street, Hector, Minnesota*	Nova Project No. : *E03-0573*

DEPTH (FEET)	USCS GROUP SYMBOL	DESCRIPTION	COLLECTED SAMPLE NAME	PID (PPM)
1.0		Concrete, Class 5 gravel, Clay, black, moist.		
2.0	CL	Clay, grey, with mottling, petroleum odor, moist.		
3.0		(Glacial Till)		
4.0			GP-5 @ 4'	Not Sampled
5.0				
6.0				
7.0				
8.0			GP-5 @ 8'	Not Sampled
9.0	CL	Clay with Gravel, grey, olive, moist, petroleum odor, small sand lenses throughout.		
10.0		(Glacial Till)		
11.0				
12.0			GP-5 @ 12'	Not Sampled
13.0				
14.0				
15.0				
16.0			GP-5 @ 16'	Not Sampled
17.0				
18.0				
19.0				
20.0			GP-5 @ 20'	Not Sampled

Boring Depth (feet):	36	Driller: Eric Halpaus	Date of Boring:	8/27/03
Groundwater Depth:	9 feet	Rig: *Geoprobe 5400*		

ND = Not detected above background.

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BORING LOG

PROJECT NAME: *Bargman Oil*	Boring No. : **GP-5**
PROJECT LOCATION: *101 Main Street, Hector, Minnesota*	Nova Project No. : *E03-1457*

DEPTH (FEET)	USCS GROUP SYMBOL	DESCRIPTION	COLLECTED SAMPLE NAME	PID (PPM)
21.0	CL	Clay with trace Gravel, grey, moist.		
22.0				
23.0				
24.0				
25.0			GP-5 @ 25'	ND
26.0				
27.0				
28.0				
29.0				
30.0			GP-5 @ 30'	ND
31.0				
32.0				
33.0				
34.0				
35.0				
36.0			GP-5 @ 36'	ND

Boring Depth (feet):	36	Driller: Eric Halpaus	Date of Boring: 8/27/03
Groundwater Depth:	9 feet	Rig: *Geoprobe 5400*	

ND = Not detected above background.

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BORING LOG

PROJECT NAME: *Bargman Oil*			Boring No. : **GP-6**
PROJECT LOCATION: *101 Main Street, Hector, Minnesota*			Nova Project No. : *E03-1457*

DEPTH (FEET)	USCS GROUP SYMBOL	DESCRIPTION	COLLECTED SAMPLE NAME	PID (PPM)
1.0		Concrete, Class 5 gravel, Clay, black, moist.		
2.0	CL	Clay, gray, with mottling, petroleum odor, moist, intermittent Sand lenses.		
3.0		(Glacial Till)		
4.0			GP-6 @ 4'	26
5.0				
6.0				
7.0				
8.0			GP-6 @ 8'	47
9.0	CL	Clay with Gravel, gray, brown, moist, petroleum odor.		
10.0		(Glacial Till)		
11.0				
12.0			GP-6 @ 12'	4
13.0				
14.0				
15.0				
16.0			GP-6 @ 16'	ND

END OF BORING

Boring Depth (feet):	16	Driller: Eric Halpaus	Date of Boring: 10/8/03
Groundwater Depth:	9 feet	Rig: *Geoprobe 5400*	

ND = Not detected above background.

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BORING LOG

PROJECT NAME: *Bargman Oil*	Boring No. : **GP-7**
PROJECT LOCATION: *101 Main Street, Hector, Minnesota*	Nova Project No. : *E03-1457*

DEPTH (FEET)	USCS GROUP SYMBOL	DESCRIPTION	COLLECTED SAMPLE NAME	PID (PPM)
1.0		Concrete, Class 5 gravel, Clay, black, moist.		
2.0	CL	Clay, gray, brown, moist, intermittent Sand lenses.		
3.0		(Glacial Till)		
4.0			GP-7 @ 4'	ND
5.0				
6.0				
7.0				
8.0			GP-7 @ 8'	ND
9.0	CL	Clay with Gravel, gray, brown, moist,		
10.0		(Glacial Till)		
11.0				
12.0			GP-7 @ 12'	ND
13.0				
14.0				
15.0				
16.0			GP-7 @ 16'	ND

END OF BORING

Boring Depth (feet): 16	Driller: Eric Halpaus	Date of Boring: 10/8/03
Groundwater Depth: 9 feet	Rig: *Geoprobe 5400*	

ND = Not detected above background.