Sites with free product (free-floating petroleum), drinking water supply impacts, surface water impacts, indoor vapor impacts, fire or explosion hazards, or ground water impacts which pose a significant threat to public health or the environment, are considered high priority for staff review. If one or more of these situations apply to your site, an RI/CAD report must be submitted within 90 days. In addition, if you know or discover that there is free-product from a well, excavation, or borehole, you must notify the MPCA within 24 hours and IMMEDIATELY begin interim free product recovery.

If you have not already done so, the MPCA recommends that you hire a qualified consulting firm registered with the Petro Board that has experience in conducting petroleum tank release site investigations and in proposing and implementing appropriate corrective actions. A list of registered contractors is available from the Petrofund staff. The MPCA reserves the right to reject proposed corrective actions if the requirements of the site investigation have not been fulfilled. Please note that, under Minn. R. 2890 (1998), you must solicit a minimum of two written competitive consultant proposals on a form prescribed by the Petro Board. A minimum of two written competitive contractor bids must also be obtained for each contractor service. We encourage you to contact Petrofund staff for answers to all of your questions about bidding and the other Petrofund reimbursement program requirements.

Required Response

MPCA staff requests a response to this letter within 30 days. Please tell us whether you intend to proceed with the requested work. If you do not respond within this time frame, the MPCA staff will assume that you do not intend to comply, in which case the MPCA Commissioner may order you to take corrective action. Failure to cooperate with the MPCA in a timely manner may result in reduced reimbursement from the Petro Board. See Minn. R. 2890 (1998). The enclosed fact sheets will provide you with the information necessary to complete a successful investigation and cleanup. If you have any questions concerning this letter or need additional information, please contact me at 651-296-7824. Please reference the above LEAK # in all correspondence. If you are calling long distance, you may reach the MPCA by calling 1-800-657-3864.

Sincerely,

A. Sandbeck

for Sarah Henderson
Project Manager
Petroleum Remediation Unit
Petroleum and Landfill Remediation Section
Majors and Remediation Division

SAH:ais

Enclosures

cc: Mark D. Larson, Administrative City Clerk, Glencoe
Robert Scbeidt, Fire Chief, Glencoe
Roger Berggren, McLeod County Solid Waste Officer
Tim Rogers, Service Engineering Group, St. Paul

Minnesota Pollution Control Agency

August 27, 2003

Mr. DuWayne Olson
Associated Milk Producers Inc.
818 East Ninth Street, P.O. Box 100
Glencoe, MN 55336

RE: Petroleum Storage Tank Release Investigation and Corrective Action
Site: Associated Milk Producers Inc., 818 East Ninth Street, P.O. Box 100, Glencoe, 55336, McLeod
Site ID#: LEAK00015362

Dear Mr. Olson:

Notice of Release

The Minnesota Pollution Control Agency (MPCA) has been informed that a release of petroleum has occurred from storage tank facilities that you own and/or operate. We appreciate your timely notification so this site can be handled in an efficient manner.

Legal Obligations

Federal and state laws require that persons legally responsible for storage tank releases notify the MPCA of the release, investigate the release and, if necessary, clean up the release. A person is considered legally responsible for a tank release if the person owned or operated the tank either during or after the release, unless specifically exempted under the law. If you believe that you are not legally responsible for this storage tank release, please contact the project manager listed below.

If you are not legally responsible for the release, but hold legal or equitable title to the property where a petroleum tank release occurred, you may volunteer to take corrective action. The legislature established the Petroleum Tank Release Compensation Fund (Petrofund) to reimburse responsible persons and volunteers who take corrective action for a portion of their costs. The Petrofund is administered by the Petroleum Tank Release Compensation Board (Petro Board), which is part of the Minnesota Department of Commerce. To learn more about the Petrofund reimbursement program and the responsibilities of an eligible applicant, please contact Petrofund staff at 651/215-1775 or 1-800-638-0418 (in greater Minnesota only). We strongly encourage you to familiarize yourself with the enclosed proposal and invoice forms and the other program requirements in order to maximize the available reimbursement (Please note that final decisions regarding the amount of reimbursement are made by the Petro Board).

Request to Take Corrective Action

The MPCA staff requests that you take steps to investigate and, if necessary, clean up the release in accordance with the enclosed MPCA fact sheets. The site investigation must fully define the extent and magnitude of the soil and/or ground water contamination caused by the release. A report (excavation report and/or remedial investigation/corrective action design (RI/CAD)) which details the results of the investigation or concludes that excavation was sufficient to clean up the release must be submitted to this office within 10 months of the date of this letter. Please refer to MPCA fact sheets for information pertaining to the amount of work needed at the petroleum release site(s).

5. The MPCA's approval of this application does not release you from any duty to comply with county or local ordinances.

We believe these actions will provide treatment of the excavated petroleum contaminated soil. The MPCA reserves the right to require additional work if this is determined to be necessary to protect public health and the environment. This letter does not release any person from liability for this contamination. In addition, this letter does not address the adequacy of cleanup or investigative work completed or yet to be completed at the leak site.

Please note that this approval applies only to the process of land treatment of the petroleum contaminated soil. This approval should not be construed to constitute a finding that the volume of contaminated soil excavated at the above-referenced leak site was appropriate.

Please contact me at (651) 296-7824, if you have any questions.

Sincerely,

Sarah Henderson

Sarah Henderson
Project Manager
Petroleum Remediation Unit
Petroleum and Landfill Remediation Section
Majors and Remediation Division

SH:tf

cc: Mark D. Larson, Glencoe City Administrator
Roger Berggren, McLeod County Solid Waste Officer
Tim Rogers, Service Engineering Group
Minnesota Department of Commerce Petrofund Staff

Minnesota Pollution Control Agency

October 22, 2003

Mr. Bob Mathews
12897 Falcon Ave
Glencoe, MN 55336

Mr. Duwayne Olson and Mr. Tom Beringer
AMPI Creamery
818 East 9th Street
Glencoe, MN 55336

RE: Land Treatment of Petroleum Contaminated Soil/Soil Corrective Action Plan Approval
Land Treatment Site: Bob Mathews property, consisting of approximately 21.8 acres in the NW ¼ of the NE ¼ of Section 16, T 116N, R 27W, Bergen Township, McLeod County.
Preapproval ID: LTF003
Leak Site: Associated Milk Producers Inc., 818 E. 9th St, Glencoe, MN 55336
Site ID#: LEAK00015362

Gentlemen:

The application dated October 2, 2003, to land treat approximately 70 cubic yards of petroleum contaminated soil from the above-referenced leak site at the above-referenced land treatment site is hereby approved by the Minnesota Pollution Control Agency (MPCA). This approval is based upon the MPCA staff's understanding that the appropriate county and local officials have been notified of the proposed land treatment of this soil and is subject to the conditions indicated below. The portions of Minn. R. ch. 7037 referenced in this letter are summarized in the MPCA fact sheet #3.8 *Land Treatment of Petroleum Contaminated Soil: Land Treatment Sites* (April 2000).
Minn. R. ch. 7037 indicates that the land treatment site owner and operator are to be responsible for the requirements listed below. However, the generator of the soil is not relieved from responsibility under Minn. Stat. § 115.061 (2002) to ensure the proper treatment of petroleum contaminated soil.

1. If soil is to be stored prior to spreading then the conditions and limitations indicated in Minn. R.. 7037.0810 must be followed for soil storage.

2. Soil must be spread to a thickness of no more than four inches and incorporated into the top four to six inches of native soil in accordance with Minn. R. 7037.2300. All other land treatment procedures and limitations described in Minn. R. 7037.1700 to 7037.2500 must be followed.

3. The MPCA fact sheet #3.11 *Notification of Spreading Petroleum Contaminated Soil at a Land Treatment Site* (April 2000) must be submitted to the MPCA within ten days following spreading (Minn. R. 7037.2600).

4. The land treated soil must be sampled and reports must be submitted in accordance with Minn. R. 7037.2700 until analyses indicate 10 parts per million total petroleum hydrocarbons or lower. The MPCA fact sheet #3.12 *Soil Monitoring Results for Land Treated Petroleum Contaminated Soil* (April 2000) must be used for reporting.

Minnesota Pollution Control Agency

December 27, 2004

Mr. DuWayne Olson
Associated Milk Producers Inc.
818 E 9th St, P.O. Box 100
Glencoe, MN 55336

RE: Request For Additional Work
Site: Associated Milk Producers Inc., 818 E 9th St, Glencoe, MN 55336
Site ID#: LEAK00015362

Dear Mr. Olson:

The Minnesota Pollution Control Agency (MPCA) staff has reviewed the report titled, "LSI Report", dated August 3, 2004. Based upon the information provided in the report, it has been determined that additional work is required at the above-referenced property. Specifically, the following activities should be conducted at the site:

1. Please resample the onsite water supply well Unique #210278. This sample should be analyzed for VOCs and DRO. If similar levels of DRO are detected in the repeat sampling as in the March 23, 2004, sampling, GC/MS analysis should be done on the sample extract as discussed with the lab on December 20, 2004. Please ask the lab to exercise precautions to eliminate and/or identify detections stemming from natural organics.

The MPCA staff request that the work be completed within 4 months of the date of this letter. Failure to meet this deadline in a timely manner may result in reductions in Petrofund reimbursement or lead to MPCA enforcement actions.

If you have any questions regarding this letter, please contact Sandeep Burman, staff hydrogeologist at (651) 296-7717 or Sarah Larsen, at (651) 296-7824. If you are calling long distance, you may reach the MPCA by calling 1-800-657-3864.

Sincerely,

Sarah Larsen
Project Manager
Petroleum Remediation Unit 2
Petroleum & Closed Landfill Section
Remediation Division

Sandeep Burman
Hydrogeologist
Petroleum Remediation Unit 2
Petroleum & Closed Landfill Section
Remediation Division

SL:SB:tf

cc: Tim Rogers, Service Engineering Group

Page ____ of ____

775 Vandalia Street, St. Paul, MN 55114 - Telephone: 651-642-1150, Fax: 651-642-1239

CHAIN-OF-CUSTODY RECORD

Client Name: Service Eng Group

Address: 675 Vandalia Street St. Paul, MN 55114

Attn: Tim Rogers

Bill To: Same

Address:

PO #:

Phone: 651-644-6680 Fax: 651-644-7008

Project Name: AMPI Project #: 03039

LEGEND Project #: 2004030389

Turnaround Time:
- [x] Normal
- [ ] RUSH Date: _____

Condition Received:
- [ ] Received at 2-3 °C
- [x] Received on ice
- [ ] Received on blue ice
- [ ] Received ambient
- [ ] No temp. blank
- [ ] Acceptable

Item No.	Field ID No.	Sample Description	Collection Date	Collection Time	Sample Matrix	Lab ID No.	Number of Containers	Analysis: DRO	Analysis: GRO	Analysis: VOC's 465.E			
1	210278	Production well	3/23/04	11:30	H2O	-1	8	+	+	+			
2		Trip Blank			W	-2	2		+	+			
3													
4													
5													
6													
7													
8													
9													
10													

Sample Collector (please print):	Item No.	Relinquished By:	Date:	Time:	Accepted By:	Date:	Time:
Dean Myers		Dean Myers	3/23/04	4:46			
Comments:	Item No.	Relinquished By:	Date:	Time:	Received By Lab: VY by Legend	Date: 3-23-04	Time: 16:45

Form LAB-268 (02/03)

PLEASE REVIEW TERMS AND CONDITIONS ON BACK BEFORE SIGNING

White Copy - Original Accompanies Shipment to Lab **Yellow Copy** - Lab **Pink Copy** - Customer or Field Copy

L jend Technical Service

Client Name:	Service Environmental & Engineering	**Legend Project #:**	2004030389
Client Project:	03039	**Matrix:**	Aqueous
Date Sampled:	03/23/04	**Date Received:**	03/23/04

GRO/8021B WATER

Analysis Date:	04/02/04	04/02/04	04/02/04	--
Analysis Method:	WI GRO	WI GRO	WI GRO	--
Client Sample ID:	210278 Production well	Trip Blank	Method Blank	µg/L
Compound	**1**	**2**	**3**	**RL**
Gasoline range organics	<100	<100	<100	100
1-Chloro-4-fluorobenzene (Surr)	101%	102%	102%	--

Client Name:	Service Environmental & Engineering	**Legend Project #:**	2004030389
Client Project:	03039	**Matrix:**	Aqueous
Date Sampled:	03/23/04	**Date Received:**	03/23/04

DRO/8015B WATER

Extraction Date:	03/26/04	03/26/04	--
Analysis Date:	03/29/04	03/26/04	--
Analysis Method:	WI DRO	WI DRO	--
Client Sample ID:	210278 Production well	Method Blank	ug/L
Compound	**1**	**3**	**RL**
Diesel range organics	**160**	<100	100
C-30 (Surrogate)	92.2%	97.6%	--

LEGEND
Technical Services, Inc.

04/06/04

APR 12 2004

* Revised 4/8/04

Mr. Tim Rogers
Service Environmental & Engineering Co.
675 Vandalia Street
St. Paul MN
55114

Subject: 03039 AMP I
Legend No: 2004030389

LEGEND TECHNICAL SERVICES, INC. (LEGEND) received the following sample(s).

Matrix	Samples	Date Sampled	Date Received	Comments
Drinking Water	1	03/23/04	03/23/04	Received @ 8.3 C

* The associated batch quality assurance / quality control criteria were met with satisfaction.

* All samples will be retained by LEGEND for 30 days from the date of this report and then discarded unless other instructions are received from the client.

* Minnesota Laboratory Certification # 027-123-295.

* The %RPD for the DRO extraction batch duplicate exceeded method limits. The duplicate sample was not associated with this project.

* This report was revised on 4/8/04 to change the matrix description.

Prepared by,
LEGEND TECHNICAL SERVICES, INC

Chris Bremer
Laboratory Director

Karla Reps
Client Representative

Minnesota Pollution Control Agency
520 Lafayette Road, St. Paul, MN 55155
(651) 296-6300

FAX Cover Page

Date: March 28, 2005

To: John Kimble

From: **Sarah Larsen**

Company: AMPI

Number: **651/296-7824**

Fax: 507-359-8668

Total Number of Pages: 5

RE: Water testing results for Leak #15362

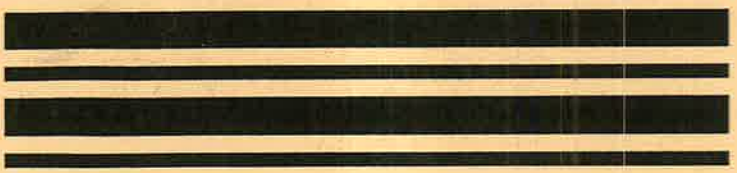
Here are a few pages of sampling results from the production well analysis. Please call if you have any further questions regarding this round of well sampling.

Sincerely,

Sarah Larsen

Sarah Larsen

Sarah Henderson
Project Manager
Petroleum Remediation Unit
Petroleum & Landfill Remediation Section
Majors & Remediation Division




CHAIN OF CUSTODY RECORD

Page _____ of _____

PLEASE DO NOT WRITE IN THE SHADED AREAS

205.00
15%

095425

MVTL LABORATORIES, Inc.
1126 North Front Street
New Ulm, MN 56073
Phone: (507) 354-8517
Toll Free: (800) 782-3557 Fax: (507) 359-2890

WORK ORDER # 22-0076

Company Name and Address: AMPI, 315 N. Broadway, New Ulm	Account #:	Phone #: 507 359-8678
	Contact:	Fax #: 507 359 8668
	Name of Sampler: John Kimble	For faxed report check box ☒
Billing Address (indicate name and address if different from above):	Quote #:	Date Submitted:
	Project Name/Number: Glencoe Well	Purchase Order #:

Lab Use Only	Your Sample I.D. or Number	Sample Description	Date / Time	Type of Sample (Matrix or Substance) Soil	Water	Food	Other (Please Be Specific)	Analyze For:
	Example	Tank Bottom Tank #3	01/01/99 11:45 a.m.			X	Sampled Liquid Layer Not bottom sludge	Vitamin A, TKN, Iron, Calcium BOD, COD, Acetone, Shelf Life
A8524 25	1	Well Water	4/4/05 12:45 PM		X			DRO (04-1), VOC

	Transferred by:	Comments: (Sample Condition)	Date / Time	Received by:	Comments: (Sample Condition)	Date / Time	°C
1	John Kimble		4/5/05 1:30 PM			4-5-05 1:30p	-1°
2							
3							

Disposed of By: | Disposal Comments:

N208 KEMSKE PAPER CO., NEW ULM, MN

Please submit the top two copies with your samples. We will return the completed original with your results.

MINNESOTA VALLEY TESTING LABORATORIES, INC.
1126 N. Front St. ~ New Ulm, MN 56073 ~ 800-782-3557 ~ Fax 507-359-2890
1411 S. 12th St. ~ Bismarck, ND 58502 ~ 800-279-6885 ~ Fax 701-258-9724
35 W. Lincoln Way ~ Nevada, IA 50201 ~ 800-362-0855 ~ Fax 515-382-3885
www.mvtl.com
MEMBER ACIL

JOHN KIMBLE
AMPI/NEW ULM
PO BOX 455
NEW ULM MN 56073-0098

Project Name: GLENCOE WELL
Sample Description: TRIP BLANK

Report Date: 19 Apr 05
Lab Number: 05-A8525
Work Order #:22-0076
Account #: 014080
Sample Matrix: GROUNDWATER
Date Sampled: 4 Apr 05
Date Received: 5 Apr 05
Chain of Custody Number: 095425
Temp at Receipt: -1.0 C

	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
1,1,1,2-Tetrachloroethane	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05	DWR
1,1-Dichloropropene	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05	DWR
Dichlorofluoromethane	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05	DWR
Trichlorotrifluoroethane	< 0.9	ug/L	0.9	SW8021 MDH 465F	8 Apr 05	DWR
Ethyl Ether	< 0.8	ug/L	0.8	SW8021 MDH 465F	8 Apr 05	DWR
Acetone	< 10	ug/L	10	SW8021 MDH 465F	8 Apr 05	DWR
Dibromomethane	< 0.7	ug/L	0.7	SW8021 MDH 465F	8 Apr 05	DWR
2,2-Dichloropropane	< 1	ug/L	1	SW8021 MDH 465F	8 Apr 05	DWR
Bromochloromethane	< 0.6	ug/L	0.6	SW8021 MDH 465F	8 Apr 05	DWR
Methyl tert-butyl Ether	< 0.6	ug/L	0.6	SW8021 MDH 465F	8 Apr 05	DWR
Styrene	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05	DWR
n-Propylbenzene	< 0.8	ug/L	0.8	SW8021 MDH 465F	8 Apr 05	DWR
Bromobenzene	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05	DWR
2-Chlorotoluene	< 0.8	ug/L	0.8	SW8021 MDH 465F	8 Apr 05	DWR
1,3,5-Trimethylbenzene	< 0.9	ug/L	0.9	SW8021 MDH 465F	8 Apr 05	DWR
4-Chlorotoluene	< 0.6	ug/L	0.6	SW8021 MDH 465F	8 Apr 05	DWR
t-Butylbenzene	< 0.6	ug/L	0.6	SW8021 MDH 465F	8 Apr 05	DWR
1,2,4-Trimethylbenzene	< 0.7	ug/L	0.7	SW8021 MDH 465F	8 Apr 05	DWR
sec-Butylbenzene	< 0.7	ug/L	0.7	SW8021 MDH 465F	8 Apr 05	DWR
p-Isopropyltoluene	< 0.7	ug/L	0.7	SW8021 MDH 465F	8 Apr 05	DWR
n-Butylbenzene	< 0.7	ug/L	0.7	SW8021 MDH 465F	8 Apr 05	DWR
1,2-Dibromo-3-chloropropane	< 1	ug/L	1	SW8021 MDH 465F	8 Apr 05	DWR
1,2,4-Trichlorobenzene	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05	DWR
Hexachlorobutadiene	< 0.7	ug/L	0.7	SW8021 MDH 465F	8 Apr 05	DWR
Naphthalene	< 1	ug/L	1	SW8021 MDH 465F	8 Apr 05	DWR
1,2,3-Trichlorobenzene	< 0.6	ug/L	0.6	SW8021 MDH 465F	8 Apr 05	DWR
Sample Concentration For GRO	< 0.03	ppm	0.03	GRO WILUST	12 Apr 05 8:58	TB

GC VOC Sample pH < 2

1-CHLORO-4-FLUOROBENZENE (SURROGATE) RECOVERY: 103 %

BTEX/GRO Sample pH < 2

BTEX/GRO SURROGATE RECOVERY: 86 %

Approved by:
Dan O'Connell, Organic
Laboratory Manager New Ulm, MN

RL = Reporting Limit

Elevated "Less Than Result" (<): @ = Due to sample matrix
! = Due to sample quantity
= Due to sample concentration
+ = Due to extract volume

CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132

MINNESOTA VALLEY TESTING LABORATORIES, INC.
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www.mvtl.com

JOHN KIMBLE
AMPI/NEW ULM
PO BOX 455
NEW ULM MN 56073-0098

Project Name: GLENCOE WELL
Sample Description: TRIP BLANK

Report Date: 19 Apr 05
Lab Number: 05-A8525
Work Order #:22-0076
Account #: 014080
Sample Matrix: GROUNDWATER
Date Sampled: 4 Apr 05
Date Received: 5 Apr 05
Chain of Custody Number: 095425
Temp at Receipt: -1.0 C

	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
Chloroethane	< 0.7	ug/L	0.7	SW8021 MDH 465F	8 Apr 05	DWR
Chloromethane	< 1	ug/L	1	SW8021 MDH 465F	8 Apr 05	DWR
Bromomethane	< 0.7	ug/L	0.7	SW8021 MDH 465F	8 Apr 05	DWR
Dichlorodifluoromethane	< 0.9	ug/L	0.9	SW8021 MDH 465F	8 Apr 05	DWR
Vinyl Chloride	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05	DWR
Methylene Chloride	< 0.7	ug/L	0.7	SW8021 MDH 465F	8 Apr 05	DWR
Trichlorofluoromethane	< 0.9	ug/L	0.9	SW8021 MDH 465F	8 Apr 05	DWR
1,1-Dichloroethene	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05	DWR
1,1-Dichloroethane	< 0.8	ug/L	0.8	SW8021 MDH 465F	8 Apr 05	DWR
trans-1,2-Dichloroethene	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05	DWR
Chloroform	< 0.8	ug/L	0.8	SW8021 MDH 465F	8 Apr 05	DWR
1,2-Dichloroethane	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05	DWR
1,1,1-Trichloroethane	< 0.9	ug/L	0.9	SW8021 MDH 465F	8 Apr 05	DWR
Carbon Tetrachloride	< 0.8	ug/L	0.8	SW8021 MDH 465F	8 Apr 05	DWR
Bromodichloromethane	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05	DWR
1,2-Dichloropropane	< 0.7	ug/L	0.7	SW8021 MDH 465F	8 Apr 05	DWR
trans-1,3-Dichloropropene	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05	DWR
Trichloroethene	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05	DWR
Chlorodibromomethane	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05	DWR
1,1,2-Trichloroethane	< 0.6	ug/L	0.6	SW8021 MDH 465F	8 Apr 05	DWR
cis-1,3-Dichloropropene	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05	DWR
Bromoform	< 1	ug/L	1	SW8021 MDH 465F	8 Apr 05	DWR
1,1,2,2-Tetrachloroethane	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05	DWR
Tetrachloroethene	< 0.7	ug/L	0.7	SW8021 MDH 465F	8 Apr 05	DWR
Chlorobenzene	< 0.6	ug/L	0.6	SW8021 MDH 465F	8 Apr 05	DWR
Benzene	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05	DWR
Toluene	< 0.6	ug/L	0.6	SW8021 MDH 465F	8 Apr 05	DWR
Ethyl Benzene	< 0.6	ug/L	0.6	SW8021 MDH 465F	8 Apr 05	DWR
1,2-Dichlorobenzene	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05	DWR
1,3-Dichlorobenzene	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05	DWR
1,4-Dichlorobenzene	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05	DWR
cis-1,2-Dichloroethene	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05	DWR
1,3-Dichloropropane	< 0.6	ug/L	0.6	SW8021 MDH 465F	8 Apr 05	DWR
1,2,3-Trichloropropane	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05	DWR
Allyl Chloride	< 0.7	ug/L	0.7	SW8021 MDH 465F	8 Apr 05	DWR
1,2-Dibromoethane	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05	DWR
Methyl Ethyl Ketone	< 5	ug/L	5	SW8021 MDH 465F	8 Apr 05	DWR
Methyl Isobutyl Ketone	< 1.4	ug/L	1.4	SW8021 MDH 465F	8 Apr 05	DWR
Tetrahydrofuran	< 5	ug/L	5	SW8021 MDH 465F	8 Apr 05	DWR
m-Xylene and p-Xylene	< 0.7	ug/L	0.7	SW8021 MDH 465F	8 Apr 05	DWR
o-Xylene	< 0.3	ug/L	0.3	SW8021 MDH 465F	8 Apr 05	DWR
Cumene	< 0.7	ug/L	0.7	SW8021 MDH 465F	8 Apr 05	DWR

RL = Reporting Limit

Elevated "Less Than Result" (<): @ = Due to sample matrix
! = Due to sample quantity
= Due to sample concentration
+ = Due to extract volume

CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132

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JOHN KIMBLE
AMPI/NEW ULM
PO BOX 455
NEW ULM MN 56073-0098

Project Name: GLENCOE WELL
Sample Description: WELL WATER

Report Date: 19 Apr 05
Lab Number: 05-A8524
Work Order #:22-0076
Account #: 014080
Sample Matrix: GROUNDWATER
Date Sampled: 4 Apr 05
Date Received: 5 Apr 05
Chain of Custody Number: 095425
Temp at Receipt: -1.0 C

	As Received Result		Method RL	Method Reference	Date Analyzed		Analyst
Cumene	< 0.7	ug/L	0.7	SW8021 MDH 465F	8 Apr 05		DWR
1,1,1,2-Tetrachloroethane	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05		DWR
1,1-Dichloropropene	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05		DWR
Dichlorofluoromethane	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05		DWR
Trichlorotrifluoroethane	< 0.9	ug/L	0.9	SW8021 MDH 465F	8 Apr 05		DWR
Ethyl Ether	< 0.8	ug/L	0.8	SW8021 MDH 465F	8 Apr 05		DWR
Acetone	< 10	ug/L	10	SW8021 MDH 465F	8 Apr 05		DWR
Dibromomethane	< 0.7	ug/L	0.7	SW8021 MDH 465F	8 Apr 05		DWR
2,2-Dichloropropane	< 1	ug/L	1	SW8021 MDH 465F	8 Apr 05		DWR
Bromochloromethane	< 0.6	ug/L	0.6	SW8021 MDH 465F	8 Apr 05		DWR
Methyl tert-butyl Ether	< 0.6	ug/L	0.6	SW8021 MDH 465F	8 Apr 05		DWR
Styrene	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05		DWR
n-Propylbenzene	< 0.8	ug/L	0.8	SW8021 MDH 465F	8 Apr 05		DWR
Bromobenzene	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05		DWR
2-Chlorotoluene	< 0.8	ug/L	0.8	SW8021 MDH 465F	8 Apr 05		DWR
1,3,5-Trimethylbenzene	< 0.9	ug/L	0.9	SW8021 MDH 465F	8 Apr 05		DWR
4-Chlorotoluene	< 0.6	ug/L	0.6	SW8021 MDH 465F	8 Apr 05		DWR
t-Butylbenzene	< 0.6	ug/L	0.6	SW8021 MDH 465F	8 Apr 05		DWR
1,2,4-Trimethylbenzene	< 0.7	ug/L	0.7	SW8021 MDH 465F	8 Apr 05		DWR
sec-Butylbenzene	< 0.7	ug/L	0.7	SW8021 MDH 465F	8 Apr 05		DWR
p-Isopropyltoluene	< 0.7	ug/L	0.7	SW8021 MDH 465F	8 Apr 05		DWR
n-Butylbenzene	< 0.7	ug/L	0.7	SW8021 MDH 465F	8 Apr 05		DWR
1,2-Dibromo-3-chloropropane	< 1	ug/L	1	SW8021 MDH 465F	8 Apr 05		DWR
1,2,4-Trichlorobenzene	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05		DWR
Hexachlorobutadiene	< 0.7	ug/L	0.7	SW8021 MDH 465F	8 Apr 05		DWR
Naphthalene	< 1	ug/L	1	SW8021 MDH 465F	8 Apr 05		DWR
1,2,3-Trichlorobenzene	< 0.6	ug/L	0.6	SW8021 MDH 465F	8 Apr 05		DWR
Sample Concentration For GRO	< 0.03	ppm	0.03	GRO WILUST	12 Apr 05	8:58	TB
Sample Concentration For DRO	< 0.035	ppm	0.035	DRO WILUST	19 Apr 05		JMM

GC VOC Sample pH < 2

1-CHLORO-4-FLUOROBENZENE (SURROGATE) RECOVERY: 104 %

BTEX/GRO Sample pH < 2
DRO Sample pH < 2

BTEX/GRO SURROGATE RECOVERY: 88 %

Approved by:
Dan O'Connell, Organic
Laboratory Manager New Ulm, MN

RL = Reporting Limit

Elevated "Less Than Result" (<): @ = Due to sample matrix
! = Due to sample quantity
= Due to sample concentration
+ = Due to extract volume

CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132

MINNESOTA VALLEY TESTING LABORATORIES, INC.
1126 N. Front St. ~ New Ulm, MN 56073 ~ 800-782-3557 ~ Fax 507-359-2890
1411 S. 12th St. ~ Bismarck, ND 58502 ~ 800-279-6885 ~ Fax 701-258-9724
35 W. Lincoln Way ~ Nevada, IA 50201 ~ 800-362-0855 ~ Fax 515-382-3885
www.mvtl.com

JOHN KIMBLE
AMPI/NEW ULM
PO BOX 455
NEW ULM MN 56073-0098

Project Name: GLENCOE WELL
Sample Description: WELL WATER

Report Date: 19 Apr 05
Lab Number: 05-A8524
Work Order #:22-0076
Account #: 014080
Sample Matrix: GROUNDWATER
Date Sampled: 4 Apr 05
Date Received: 5 Apr 05
Chain of Custody Number: 095425
Temp at Receipt: -1.0 C

	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
DRO Extraction					7 Apr 05	LJW
Chloroethane	< 0.7	ug/L	0.7	SW8021 MDH 465F	8 Apr 05	DWR
Chloromethane	< 1	ug/L	1	SW8021 MDH 465F	8 Apr 05	DWR
Bromomethane	< 0.7	ug/L	0.7	SW8021 MDH 465F	8 Apr 05	DWR
Dichlorodifluoromethane	< 0.9	ug/L	0.9	SW8021 MDH 465F	8 Apr 05	DWR
Vinyl Chloride	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05	DWR
Methylene Chloride	< 0.7	ug/L	0.7	SW8021 MDH 465F	8 Apr 05	DWR
Trichlorofluoromethane	< 0.9	ug/L	0.9	SW8021 MDH 465F	8 Apr 05	DWR
1,1-Dichloroethene	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05	DWR
1,1-Dichloroethane	< 0.8	ug/L	0.8	SW8021 MDH 465F	8 Apr 05	DWR
trans-1,2-Dichloroethene	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05	DWR
Chloroform	< 0.8	ug/L	0.8	SW8021 MDH 465F	8 Apr 05	DWR
1,2-Dichloroethane	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05	DWR
1,1,1-Trichloroethane	< 0.9	ug/L	0.9	SW8021 MDH 465F	8 Apr 05	DWR
Carbon Tetrachloride	< 0.8	ug/L	0.8	SW8021 MDH 465F	8 Apr 05	DWR
Bromodichloromethane	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05	DWR
1,2-Dichloropropane	< 0.7	ug/L	0.7	SW8021 MDH 465F	8 Apr 05	DWR
trans-1,3-Dichloropropene	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05	DWR
Trichloroethene	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05	DWR
Chlorodibromomethane	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05	DWR
1,1,2-Trichloroethane	< 0.6	ug/L	0.6	SW8021 MDH 465F	8 Apr 05	DWR
cis-1,3-Dichloropropene	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05	DWR
Bromoform	< 1	ug/L	1	SW8021 MDH 465F	8 Apr 05	DWR
1,1,2,2-Tetrachloroethane	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05	DWR
Tetrachloroethene	< 0.7	ug/L	0.7	SW8021 MDH 465F	8 Apr 05	DWR
Chlorobenzene	< 0.6	ug/L	0.6	SW8021 MDH 465F	8 Apr 05	DWR
Benzene	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05	DWR
Toluene	< 0.6	ug/L	0.6	SW8021 MDH 465F	8 Apr 05	DWR
Ethyl Benzene	< 0.6	ug/L	0.6	SW8021 MDH 465F	8 Apr 05	DWR
1,2-Dichlorobenzene	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05	DWR
1,3-Dichlorobenzene	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05	DWR
1,4-Dichlorobenzene	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05	DWR
cis-1,2-Dichloroethene	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05	DWR
1,3-Dichloropropane	< 0.6	ug/L	0.6	SW8021 MDH 465F	8 Apr 05	DWR
1,2,3-Trichloropropane	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05	DWR
Allyl Chloride	< 0.7	ug/L	0.7	SW8021 MDH 465F	8 Apr 05	DWR
1,2-Dibromoethane	< 0.5	ug/L	0.5	SW8021 MDH 465F	8 Apr 05	DWR
Methyl Ethyl Ketone	< 5	ug/L	5	SW8021 MDH 465F	8 Apr 05	DWR
Methyl Isobutyl Ketone	< 1.4	ug/L	1.4	SW8021 MDH 465F	8 Apr 05	DWR
Tetrahydrofuran	< 5	ug/L	5	SW8021 MDH 465F	8 Apr 05	DWR
m-Xylene and p-Xylene	< 0.7	ug/L	0.7	SW8021 MDH 465F	8 Apr 05	DWR
o-Xylene	< 0.3	ug/L	0.3	SW8021 MDH 465F	8 Apr 05	DWR

RL = Reporting Limit

Elevated "Less Than Result" (<): @ = Due to sample matrix
! = Due to sample quantity
= Due to sample concentration
+ = Due to extract volume

CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132

Associated Milk Producers Inc.

315 N. Broadway, P.O. Box 455, New Ulm, MN 56073
Phone: (507) 354-8295 Fax: (507) 359-8651

Sarah Larsen, Project Manager
Minnesota Pollution Control Agency
Petroleum Remediation Unit 2
520 Lafayette Road N.
Saint Paul, Minnesota 55155-4194

April 21, 2005

Re: Additional Water Supply Sampling for Site ID# LEAK00015362 (Glencoe, MN)

Dear Sarah,

As requested by the Minnesota Pollution Control Agency (MPCA) in a letter dated December 27, 2004, Associated Milk Producers, Inc. (AMPI) completed another round of sampling of the drinking water well at AMPI's facility in Glencoe, Minnesota on April 4, 2005. The MPCA requested this sampling after initial sampling performed on March 23, 2004 indicated an elevated result for Diesel Range Organics (DRO). These results were presented to the MPCA in a Remedial Investigation (RI) Report submitted to the agency on AMPI's behalf by Service Engineering Group, Inc.

As I mentioned to you previously, this well is currently not in operation. For the purpose of resampling, the well was reconnected and operated for several hours prior to taking the sample. 10,000 to 12,000 gallons were pumped prior to collecting the sample.

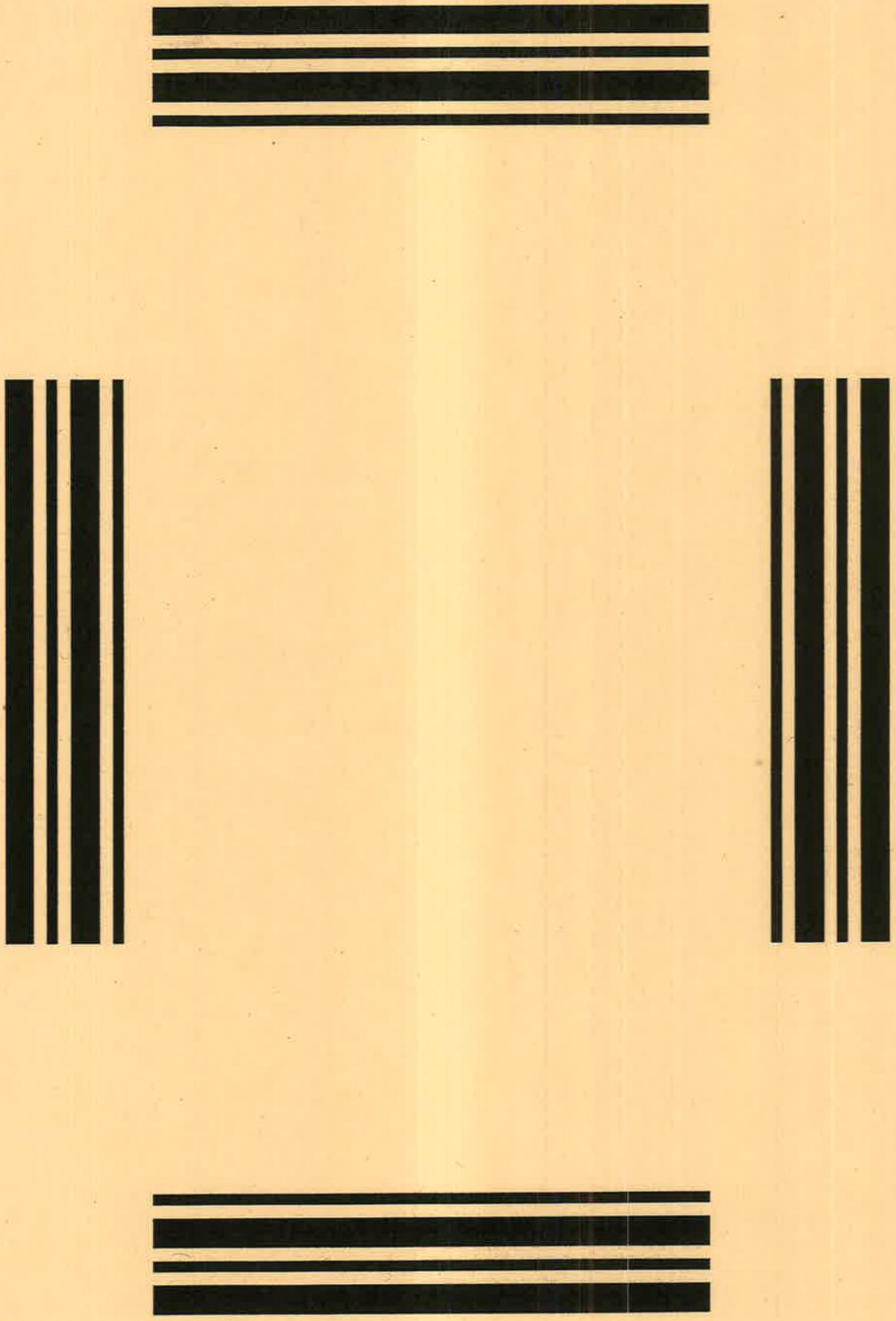
The results of the resampling are attached and did not indicate elevated results for DRO. All analyses were reported as below detection levels (BDL). The reported detection level was .035 ppm (35 ug/l) for DRO. The previous result of 160 ug/l is therefore not indicative of actual concentrations in the groundwater aquifer beneath the site.

You verbally indicated that resampling of this well was the only thing holding up closure for this site. Therefore, AMPI would like to request that the MPCA continue with site closure protocol for this location as requested in the Remedial Investigation Report. Please let me know if you have any questions.

Thanks,

John Kimble, P.E.
Environmental Engineer

Cc: Kevin Skelly, AMPI Director of Engineering
Matt Quade, AMPI Division Manager
Ed Welch, AMPI Director of Operations



For specific information regarding petroleum contamination that may remain at this leak site, please call the Petroleum Remediation Program File Request Program at 651/297-8499. The MPCA fact sheet *Request to Bill for Services Performed* 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 (651) 296-7824 or the site hydrogeologist Sandeep Burman at (651) 296-7717.

Sincerely,

Sarah Larsen

Sarah Larsen
Project Manager
Petroleum Remediation Unit 2
Petroleum & Closed Landfill Section
Remediation Division

SB for

Sandeep Burman
Hydrogeologist
Petroleum Remediation Unit 2
Petroleum & Closed Landfill Section
Remediation Division

SL:SB:tf

cc: Mark D. Larson, Glencoe City Clerk
Robert Scheidt, Glencoe Fire Chief
Ed Homan, McLeod County Solid Waste Officer
Tim Rogers, Service Engineering
Minnesota Department of Commerce Petrofund Staff

Minnesota Pollution Control Agency

June 16, 2005

Mr. John Kimble
Associated Milk Producers Inc.
315 N Broadway
PO Box 455
New Ulm, MN 56073

RE: Petroleum Tank Release Site File Closure
Site: Associated Milk Producers Inc., 818 E 9th Street, Glencoe, MN 55336
Site ID#: LEAK00015362

Dear Mr. Kimble:

We are pleased to let you know that the Minnesota Pollution Control Agency (MPCA) 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 MPCA staff has closed the release site file.

Closure of the file means that the MPCA 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 MPCA staff has concluded that any remaining contamination, if present, does not appear to pose a threat to public health or the environment under current conditions.

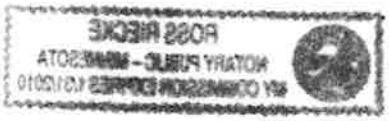
The MPCA reserves the right to reopen this file and to require additional investigation and/or cleanup work if new information, changing regulatory requirements or changed land use make additional work necessary. If you or other parties discover additional contamination (either petroleum or nonpetroleum) 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 (2002) 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 (2002), the Minnesota Superfund Law.

Please note that as a result of performing the requested work you may be eligible to apply to the Petroleum Tank Release Compensation Fund (Petrofund) for partial reimbursement of the costs you have incurred in investigating and cleaning up this petroleum tank release. The Petrofund is administered by the Petroleum Tank Release Compensation Board (Petro Board) and the Minnesota Department of Commerce. To learn more about who is eligible for reimbursement, the type of work that is eligible for reimbursement, and the amount of reimbursement available, please contact Petrofund staff at 651-297-1119 or 1-800-638-0418.

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.



Contact persons

Please list the name(s) of your current environmental consultant and legal counsel, if applicable.

Consultant	DPRA Inc.	Phone	651-227-6500	Fax	651-227-5522
Name	Jennifer Wolff	Email	jennifer.wolff@dpra.com		
Address	332 Minnesota Street, Suite E-1500				
City	St. Paul	State	Minnesota	Zip Code	55101
Attorney		Phone		Fax	
Name		Email			
Address					
City		State		Zip Code	

Certification

I certify that I have read and am familiar with the information on this form and all attached documents, and that the submitted information is true, accurate and complete to the best of my knowledge.

I hereby ask the MPCA Commissioner to assist me and the company/organization I represent, as requested by this application. I understand this assistance may include the review of MPCA records and files, and review and approval of investigation plans and reports as well as response action plans and oversight of implementation actions.

I understand that the applicant (or other person signing below) must pay the MPCA Commissioner for the MPCA's costs of providing this assistance under Minn. Stat. § 115C.03 subd. 9. The current fee is $150.00 per hour. I understand that the MPCA Commissioner will send invoices for these costs and that failure to pay the MPCA's costs in a timely manner may result in the MPCA Commissioner taking appropriate administrative or legal action.

I hereby agree to pay the costs of the MPCA to provide services to the applicant as requested in this application. Furthermore, I hereby certify that I have the authority to submit this application on behalf of the applicant named herein.

Typed/printed name Clark Field Title President

Signature Clark Field Date 12-12-05

Subscribed and sworn to before me this 12 day of Dec., 2005.

Notary Public

ROSS RIECKE
NOTARY PUBLIC – MINNESOTA
MY COMMISSION EXPIRES 1/31/2010

Nature of the problem or suspected problem

Check all that apply:

- [x] Soil contamination
- [x] Ground water contamination
- [ ] Surface water contamination
- [ ] Not known
- [ ] Other (explain)

Involvement with other regulatory programs

Please indicate all environmental/health related programs or agencies that have been involved with the property in question (note the contact person(s) if known).

Minnesota Pollution Control Agency Leaking Underground Storage Tank Program #15362

City Contact:

Known or suspected sources

Please check all applicable boxes below regarding the nature of the problem source.

- [x] Underground tank or pipeline release(s)
- [ ] Drums or other storage containers
- [ ] Septic tank or drainfield
- [ ] Surface spillage or discharge
- [ ] Dumping or burial of waste
- [ ] Above-ground tank or pipeline release(s)
- [ ] Seepage pit or dry well(s)
- [ ] Adjacent property
- [ ] Not known
- [ ] Other (explain)

Information about attachments to the request form

Please list any reports, maps or other attachments to this form (use separate page if necessary).

Pre-Removal Site Assessment Results – December 1, 1999
Application to Land Treat Petroleum Contaminated Soil at an Approved Site – September 26, 2003
Notification of Spreading Petroleum Contaminated Soil at a Land Treatment Site – November 6, 2003
Investigation Report – August 3, 2004

Disclosure

- [x] Yes [ ] No Has the release at this site been reported to the State Duty Officer pursuant to Minn. Stat. § 115.061 (Duty to Notify and Avoid Water Pollution)? If so, please indicate notification date. 8/11/2003

- [ ] Yes [x] No To your knowledge, have on- or off-site wells been contaminated? If so, attach a separate sheet detailing well location (site map), owner, well number, aquifers, depth and use.

Current property owner *(if different from applicant)*

Name Pat Kearney | Title Environmental Relations
Organization AMPI | Phone 507-359-8678 | Fax
Address 315 N. Broadway | Email kearnep@ampi.com
City New Ulm | State MN | Zip Code 56073

Applicant's Interest in Property

☐ Currently owns property
☒ Considering purchasing property
☐ Renting or leasing property
☐ Mortgagee interest in property
☐ Other (explain)
☐ Brownfields Eligibility

Description of Applicant's Request (See Guidance Document 5-02 *Petroleum Brownfields Program General Information* for a detailed description of the following services.)

☐ Technical expedited review of a petroleum storage tank release site (e.g., leak site), or petroleum impacted property for which the contamination did not originate from a tank (e.g., petroleum non-tank release site).
☐ Request for closure
MPCA ID# _____

☐ Technical review of a *DRAP* for a petroleum impacted property. (note: need 45 days for Grants)
MPCA ID# _____

☐ Leak site Tank Removal Verification Letter. (Minn. Stat. 115C.03, subd. 9C).
MPCA ID# _____

☒ Leak site File Closure Confirmation Letter. (Minn. Stat. 115C.03, subd. 9C).
MPCA ID# 15362

☐ Off-site Tank Release Determination Letter. (Minn. Stat. 115C.03, subd. 9C).
Suspected source MPCA ID# _____

☐ General Liability Letter.

☐ Grant Eligibility Letters

☐ Other technical assistance not specified above (please describe on a separate sheet).

Petroleum Remediation Program
Minnesota Pollution Control Agency
http://www.pca.state.mn.us/programs/lust_p.html

Petroleum Brownfields Program
Application/Request for Assistance Form

Guidance Document 5-04

Please complete this form to request assistance from the Minnesota Pollution Control Agency (MPCA) staff in the Petroleum Brownfields Program, pursuant to Minn. Stat. § 115C.03, subd. 9. If you have any questions about the services offered by the Program or this form, please call 651/296-7999. The MPCA can also be reached toll free at 1-800/657-3864.

Mail the completed form to:

Mark Koplitz
Petroleum Brownfields Program
Petroleum and Closed Landfill Section
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194
Fax: 651/296-9707

MPCA SITE ID#: 15362 /T*8154

Subject Property

Property/Site Name: Associated Milk Producers, Inc.
Address: 818 East 9th Street – P.O. Box 100
City (or Township): Glencoe State: MN Zip Code: 55336

Public land survey coordinates:
County: McLeod Twp.: 116N Range: 27W Sec.: 16 Qtr.: NE

Property Size: 21.8 (in acres)

Applicant

Name: Mr. Clark Field
Organization: Veblen-Protein Inc.
Address: 2761 410th Street
City: Clarkfield State: Minnesota Zip Code: 56223
State Taxpayer ID#:
Social Security #: (if applicant is an individual)

Title: President
Phone: 320-669-1233 Fax: 320-669-1233
Email:
Federal Taxpayer ID#: 46-0451310

Additional Interested Party

Name:
Organization:
Address:
City: State: Zip Code:

Title:
Phone: Fax:
Email:

DPRA

RECEIVED
DEC 19 2005

December 16, 2005

Mark Koplitz
Petroleum Brownfields Program
Petroleum and Closed Landfill Section
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194
Fax: 651/296-9707

RE: Request for File Closure Confirmation Letter.
Associated Milk Producers, Inc. Site, 818 East 9th Street, Glencoe, Minnesota
MPCA Leak No. 15362

Dear Mark:

The applicant, Mr. Clark Field of Veblen-Protein Inc., is considering purchasing the property located at 818 East 9th Street in Glencoe, Minnesota (the subject property). A release from an underground storage tank was reported on August 11, 2003. The release was assigned leak number 15362. The Minnesota Pollution Control Agency issued a closure letter on June 16, 2005.

As part of the pre-purchase discussion with the current owner, Associated Milk Producers Inc. (AMPI), Mr. Field was provided a copy of a report entitled "Pre-Removal Site Assessment Results, Associated Milk Producers, Inc., 818 East 9th Street, Glencoe, Minnesota 55336", prepared by Northern Environmental, and dated December 1, 1999. A copy of this report is attached. This report does not appear to have been submitted to the MPCA either prior to or during the investigation of the release at the subject property.

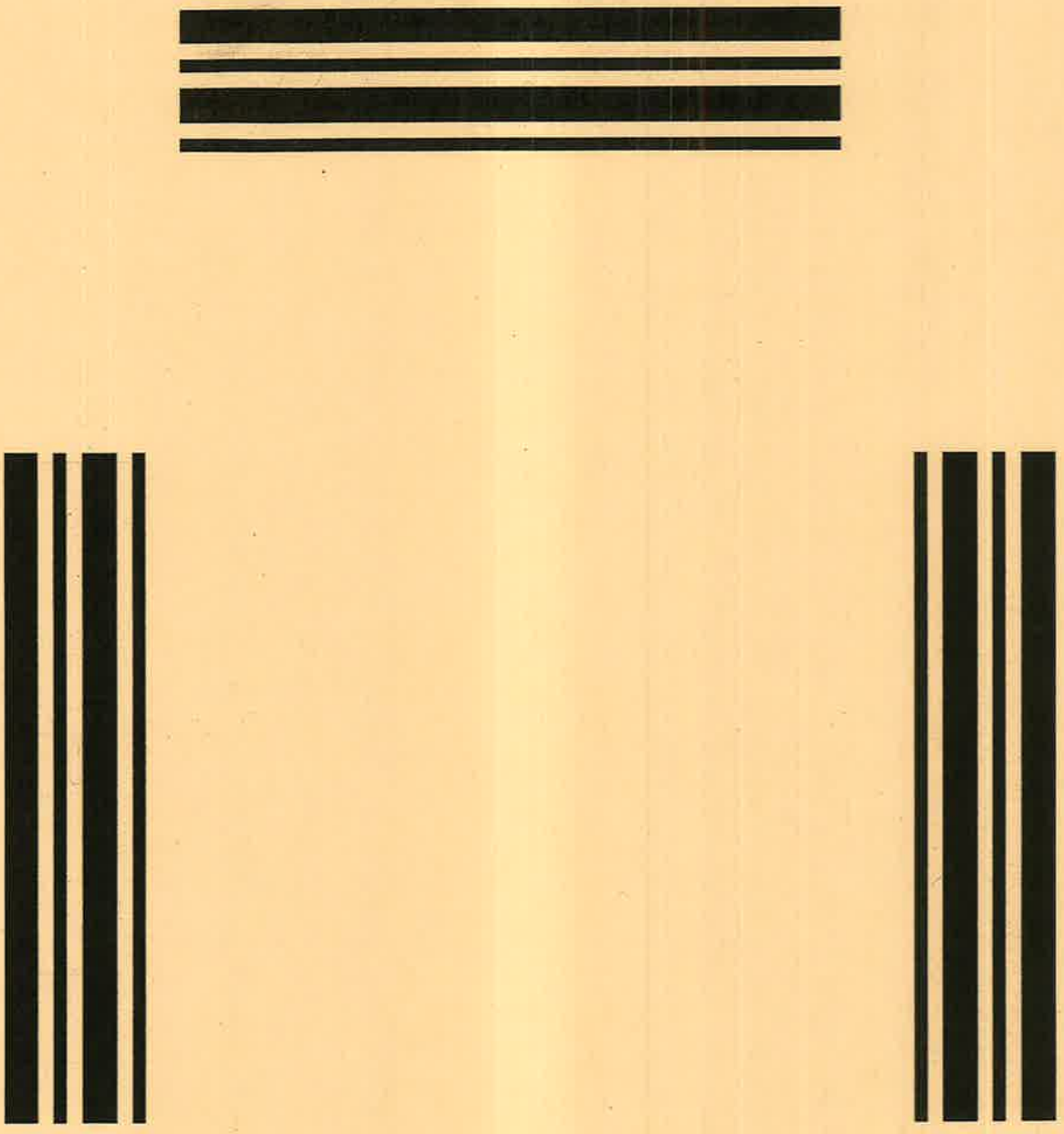
Mr. Field was also informed of the presence of a 20,000-gallon underground fuel oil tank which is still on the subject property. The existence of this tank was not noted in the reports submitted to the MPCA during the investigation of the release at the subject property, although the tank does appear to be registered.

Veblen-Protein Inc. is requesting a file closure confirmation letter for the subject property. If you have any questions, please contact me at (651) 215-4237.

Sincerely,

Jennifer B. Wolff, P.G., C.P.G.
Geologist

cc: DPRA file 050108.0001



Minnesota Pollution Control Agency

January 13, 2005

Mr. Clark Field
Veblen-Protein, Inc.
2761 - 410th Street
Clarkfield, MN 56223

Re: Petroleum Storage Tank Release Site File Closure Confirmation
Site: Associated Milk Producers, Inc. 818 East 9th Street-P.O. Box 100, Glencoe, MN 55336
Site ID#: LEAK00015362

Dear Mr. Field:

The above-referenced site was the location of a petroleum storage tank release reported on August 11, 2003. The file pertaining to the petroleum storage tank release at the site was closed on June 16, 2005. As of the date of this letter, MPCA staff are not aware of any information which would change the site's closure status. As a result, pursuant to Minn. Stat. § 115C.03, subd. 9 (c) (2002), the Commissioner hereby confirms that a petroleum release has occurred at the site, and the MPCA has issued a file closure letter for the above-referenced site and closure status has not been revoked.

This confirmation extends to the successors and assigns of the entity to which it originally applies, if the successors and assigns are not otherwise responsible for the release.

If future development of the site or the surrounding area is planned, it should be assumed that petroleum contamination is present. Property with petroleum contamination to soil or ground water may cause on-site vapor risks to future occupants. The MPCA can assist you with environmental risk and development plan review. MPCA Petroleum Brownfields staff will review and approve plans for property development. If petroleum contamination is encountered during future development work, the MPCA staff should be notified immediately.

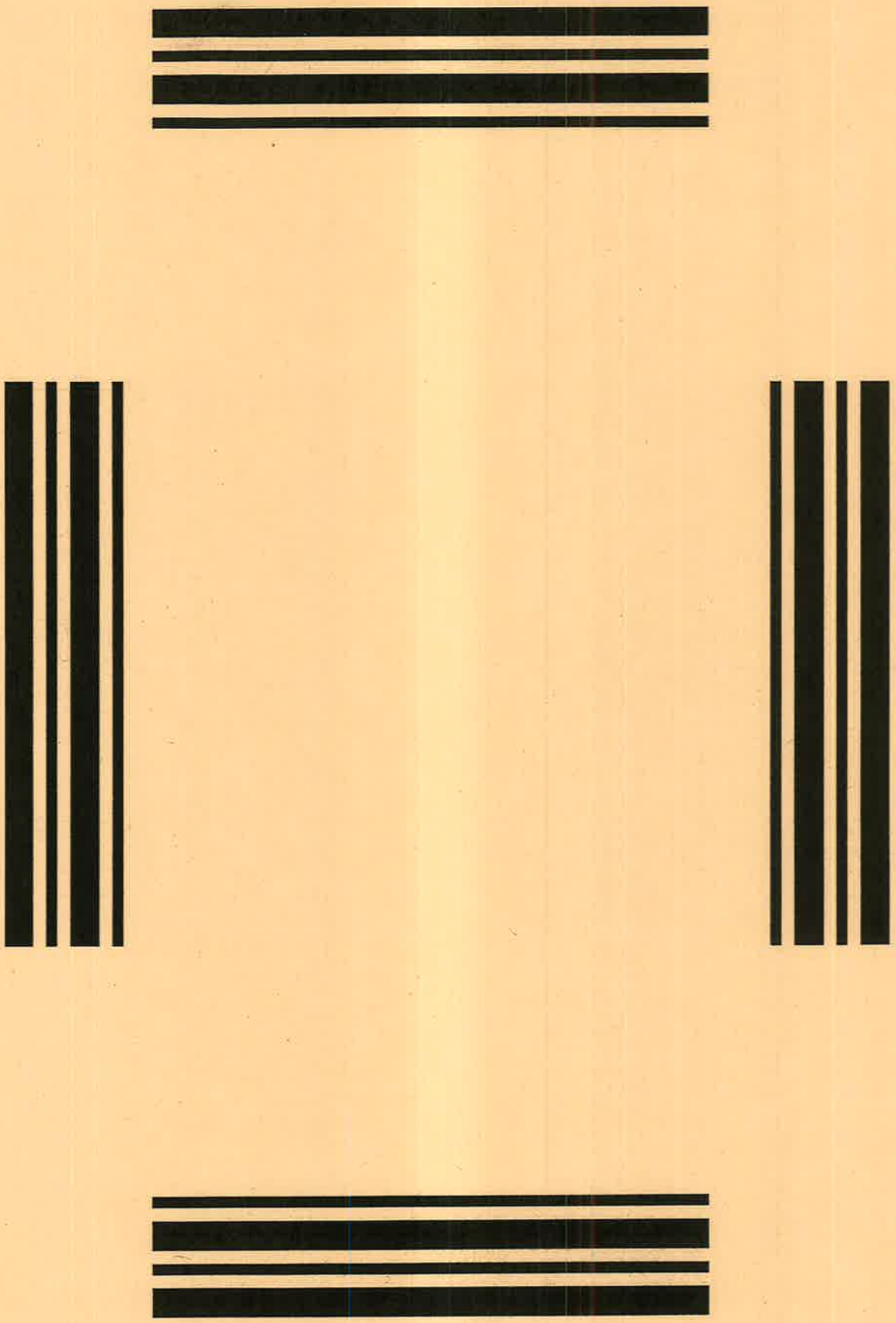
This letter represents the view of the MPCA, and is based upon information disclosed to the MPCA as of the date hereof. Depending on your circumstances, it may or may not be construed as releasing any person from liability under state or federal laws. If you have questions concerning your particular situation, the MPCA recommends that you discuss your concerns with your legal counsel.

If you would like to obtain information regarding petroleum contamination at this site, please call the Petroleum Remediation Program File Request Program at 651/297-8499. If you have any questions regarding this letter, please call me at 651/297-8577.

Sincerely,

Stacey Hendry-VanPatten
Project Leader
Petroleum and Closed Landfill Section
Remediation Division

SHV:ls



Notifications

Report #:	ReportDate:	ReportTime:	DO:
52186	8/11/2003	15:42	37

In:	Out:	Link:	Date:	Time:	Agency:	County:	Method of Contact:
☐	☑	☐	8/11/2003	15:47	MPCA Metro		Fax
Narrative:							

In:	Out:	Link:	Date:	Time:	Agency:	County:	Method of Contact:
☐	☑	☐	8/11/2003	15:47		McLEOD	Fax
Narrative:							

In:	Out:	Link:	Date:	Time:	Agency:	County:	Method of Contact:
☐	☑	☐	8/11/2003	15:47	MPCA Region 4		Fax
Narrative:							

STATE OF MINNESOTA

Department of Public Safety - Division of Emergency Management
444 Cedar St. Suite 223 St. Paul, MN 55101

MINNESOTA DUTY OFFICER

Report #: 52186	Report Date: 8/11/2003	Report Time: 15:42	DO#: 37

CALLER INFORMATION

Contact: Tim Rogers
Address: 675 Vandalia St
City: St. Paul
Phone: (651) 644-6680 Ext:
Have local police and/or fire been notified? No

Company: Service Engineering Group
State: MN Zip: 55114-
Alt phone: Ext:

NARRATIVE

DRO's are pending. They will be doing an investigation. Ground water was impacted by this release.

ENTERED AUG 2 5 2003

INCIDENT REPORT: TANK

RESPONSIBLE PARTY/PROPERTY OWNER

Name: DuWayne Olson
Company: Associated Milk Producers Inc.
Address: 818 E. 9th St./ PO Box 100
City: Glencoe State MN Zip 55336-
Phone: (320) 864-5577 Ext
Alt. phone: Ext

SITE LOCATION

Name: Associated Milk Producers Inc.
Address: 818 E. 9th St./ PO Box 100
City: GLENCOE
County McLEOD Zip: 55336-

SITE INFORMATION

Discovery date 8/11/2003 Discovery time: 12:00 Previously reported site? NO Leak #: 0

TANK INFORMATION

Number/Size of Tank(s)	Tank Contents	Age of Tank(s)	Type of Tank
1 @ 10000 gallon	#6 fuel oil	mid 70's	U.S.T. - Steel

Native soil type: sandy clay
Surface water nearby? No
Monitoring wells on site? No
Site water source: Municipal
Contaminated soil excavated? Yes
Quantity: 75 yards
Able to dig out contamination? No
Ground water encountered? Yes
Depth to ground water: 14 ft.
Free product found? No
Stained soils? Yes
Petroleum odors? Yes
Highest vapor reading: PID 30-45 ppm
Analytical results: pending
If this incident involves an A.S.T. is there secondary containment around the tank?
If a Phase I or Phase II site assessment is being done, is it tank related Yes

MPCA Project Manager: SAH
Leak Number: 15362

ANY QUESTIONS - PLEASE CONTACT THE MN DUTY OFFICER AT 651-649-5451 OR 800-422-0798

TH 8154- 3 active USTs
2 F.O.
1 other (remid?)

Preferred Id: 15362

Interest Name: Associated Milk Producers Inc

Address1: 818 E 9TH ST - PO BOX 100

City: GLENCOE

State: MN

Zip: 55336

Interest Remarks Date and Time Printed: 6/16/2005 17:28:03

10,000 gl #6 fuel oil UST. T# 8154 for site also lists 2 other active atnks on site, fuel oil. Sandy clay, muni, 75 yards soil removed , but state they were NOT able to get out of it and also hit ground water at 14'. Staining and odors, high vapor of 30-45ppm. Remarks indicates they plan on dcing investigation because ground water is impacted, so unsure why soil was removed. (SHV)

8/27/03 SAH: File received.

9/3/03 SAH: Call from Tim Rogers with Cirrus regarding work completed at this site. They have completed the LSI, waiting for lab results, but think they will be recommending closure. Report should be in in a month or so.

9/16/03 SAH: Call from Dwayne Olson, AMPI called to let us know they are proceeding with work.

10/02/03 SAH: Received App for Soil Treatment, Form B for this property.

7/1/04 SAH: Call from John Kimmel, AMPI corp. Wondering about status of site. Told him we hadn't received any reporting as of yet, and still need Form D for soil treatment. He will look into this. Also questioning status of tanks in database, sent him to Joann Henry for the changes.
12/14/04:SRB- Reviewed LSI/CLS. High levels of DRO in source area GW. Perimeter borings all also have DRO, at orders of magnitude lower concs. There is a water supply well (classified as public water since site is a milk processing plant) located close dgrdt. of source area. 160ppb DRO detected in this well. This is the only detection and well is cased to over 420' deep. High likelihood that DRO is false positive and not result of the petro contamination. However some kind of verification will be needed. Resample well for and analyze for voc's using GC/MS and for GRO + DRO. Optional add ons - include semi-vols and low - level PAH analyses to see if there really are any compounds that pose a risk that may have been getting picked up by the DRO analysis. Ask lab to exercise precautions to eliminate and/or identify detetction stemming from natural organics. There is reportedly a silica gel cleansing procedure that can help eliminating organic interference. Consult with lab to determine if DRO detect could be from non-petroleum sources such a tannin or lignin.

12/27/2004 SAL: RMW letter sent after consultation with the lab.

3/28/2005 SAL: Call from John Kimble, needed copies of the analytical work from the last sampling in order to provide this to his new lab. Want to do well analysis this week.
6/13/05:SRB - Expedited review of CLSREQ. Well re-sampled after purging ~12,000 gallons. Resulting sample BDL for DRO. Other qa/qc measures recommended to verify DRO presence were not done, sample was analyzed for DRO & MDH 465 (which should not be used at all as it has long been replaced by Code 468). However given the BDL results, additional work is not justified. Previous sampling was wihout purging this unoperational well which may be related to the DRO detection.
6/13/2005 SAL: Closure letter sent to typing.




Leaking Petroleum Storage Tanks
Minnesota Pollution Control Agency
http://www.pca.state.mn.us/programs/lust_p.html

APPLICATION TO LAND TREAT PETROLEUM CONTAMINATED SOIL AT AN APPROVED SITE (FORM B)

Fact Sheet # 3.10

This form is to be submitted to the Minnesota Pollution Control Agency (MPCA) after specific soil contamination information is known and a land treatment site has been selected. This form may be submitted at the same time as land treatment Form A. **Please refer to Minn. R. ch. 7037 for specific information on application requirements for land treatment sites.** A copy of the rules is included with this application. Petroleum contaminated soil may be spread upon approval of a Form B application which is contingent on proper local notification.

I. Background

A. Land Treatment Site Owner
PREAPPROVAL NUMBER: LTF003
Name: Bob Mathews
Address: 12897 Falcon Ave.
City, Zip: Glencoe, MN 55336
Telephone: (320)864-6060

B. Site from which contaminated was generated:
MPCA Site ID#: LEAK000015362
Address: 818 E 9th St
City, Zip: Glencoe, MN 55336
County: McLeod

C. Land Treatment Operator
Name: Bob Mathews
Address: 12897 Falcon Ave
City, Zip: Glencoe, MN 55336
Telephone: (320)864-6060

D. Person completing this application:
Name: Tim Rogers
Address: 675 Vandalia St.
City, Zip: St Paul, MN 55114
Telephone: (651)664-6680

E. Responsible Person Name/Address: Duwayne Olson or Tom Beringer AMPI Creamery 818 E 9th St Glencoe, MN 55336

F. Description of Land Treatment Site: NW1/4 of NE1/4 of Section16, Township 116N, Range 27W, Township Name Bergen, County Mcleod.
Latitude/Longitude Date Collected .

G. Provide the following for contaminated soil that has been spread or has already been approved for spreading at this land treatment site: (attach sheet for additional information, if necessary)

Leaksite (name,city)	Leaksite Number	Soil Volume (cu.yds)	Date spread

Total Soil Volume 5282 cubic yards **Multiple spread site** **See attached drawing**
5282 + 70 = 5352 new total spread

Total Soil Volume 5352 cubic yards.

H. Volume of soil of proposed batch to be spread: 70 cubic yards

I. Projected date of soil spreading: 10/15/03

II. Soil Storage Information

Complete the following. Refer to fact sheet #3.8 *Land Treatment of Petroleum Contaminated Soil: Land Treatment Sites* for storage and run-off control options and storage time limits.

A. Location of proposed batch (circle): **leaksite property,** land treatment site, not yet excavated, other (specify) .

B. Date soil excavated (stockpiled): 8/11/03

C. Type of run-off controls POLY

III. Petroleum Contaminated Soil Sampling Results

Type(s) of petroleum contamination: unleaded gas, regular gas, diesel fuel, No. 1,2,3,4,5 or **6 fuel oil,** used oil, other (specify) .

Results of organic matter in native topsoil as required in Form A. 14%

Refer to Minn. R. ch.7037.0500 "Sampling and Analysis of Petroleum Contaminated Soil." Please report all parameters as averages. Please analyze lead as a grab sample. Also, if additional analyses are required attach a separate table, listing the appropriate analytical parameters and results. (Please ensure that the proper number of soil samples are collected and the appropriate analyses are conducted.)

Sample Code	TPH/GRO/DRO (mg/kg)	Benzene (mg/kg)	Ethylbenzene (mg/kg)	Toluene (mg/kg)	Xylene (mg/kg)	MTBE (mg/kg)	Lead (mg/kg)
AVERAGE	8.0	n/d	n/d	n/d	n/d	n/d	2.0

IV. Soil Spreading Information and Soil Nutrient Information

Refer to the enclosed Minn. R. ch. 7037.1800 "Petroleum Loading Limitations" and 7037.2200 "Fertilizer Application" that explain acceptable spreading thickness of petroleum contaminated soil based on contaminant levels, site characteristics of the land treatment area, and nutrient availability. Consult with your local Soil Conservation Service, environmental consulting firms, or a professional soil scientist, in order to determine proper spreading thickness and soil nutrient information. For additional information on how to calculate the above, refer to MPCA fact sheet #3.8 *Land Treatment of Petroleum Contaminated Soil: Land Treatment Sites.*

A. Proposed spreading thickness: 4 inches

B. Area of land to be used: .13 acres

V. Site Map and Supporting Information

Attach the following to this form. CLEARLY MARK exact location of the borders of land treatment site (indicate dimensions of each side in feet).

A. Site Map - which delineates proposed plot for this batch of soil (label dimensions in feet)
- delineate all other plots previously used for land treatment (indicate leak number)
- north arrow

B. Copies of laboratory reports and chain of custody forms for contaminated soil

C. Native soil nutrient test results for phosphorus, if conducted.

VI. Local Government Notification Information

Attach copies of notifications and approvals that were secured for Form A unless local government has advised the MPCA in writing that they wish to review and approve each form B application. In this event the applicant will need to supply with this form B application written evidence that the county or township has been notified of the batch and county or township has approved of this specific batch of soil. Refer to Form A for an explanation of local government notification information.

VII. Applicant Signature

By signing below you take responsibility for complying with all requirements Minn. R. ch. 7037 "Petroleum Contaminated Soil Management" and will be subject to the contents and practices herein. The MPCA reserves the right to inspect your land treatment plot at any time and enforce through available means if it has been determined that the site was not suitable for land treatment of petroleum contaminated soil and/or if proper land application procedures have not been adhered to.

Land Owner Signature Bob Matthews Date 9-26-03

Site Operator Signature Bob Matthews Date 9-26-03

Generator Signature [signature] Date 9/30/03

VIII. Local Officials Mailing Addresses

County McLeod
Official: Zoning
Title: Zoning Office
Street/Box: ------
City, Zip: Glencoe, MN 55336
Telephone: 320-864-5551

Township, City or Tribal Office: Eugene Feltman
Title: Bergen Township Chairman
Street/Box: 17687 Babcock Ave
City, Zip Lester Prairie, MN 55354
Telephone: 320-395-2020

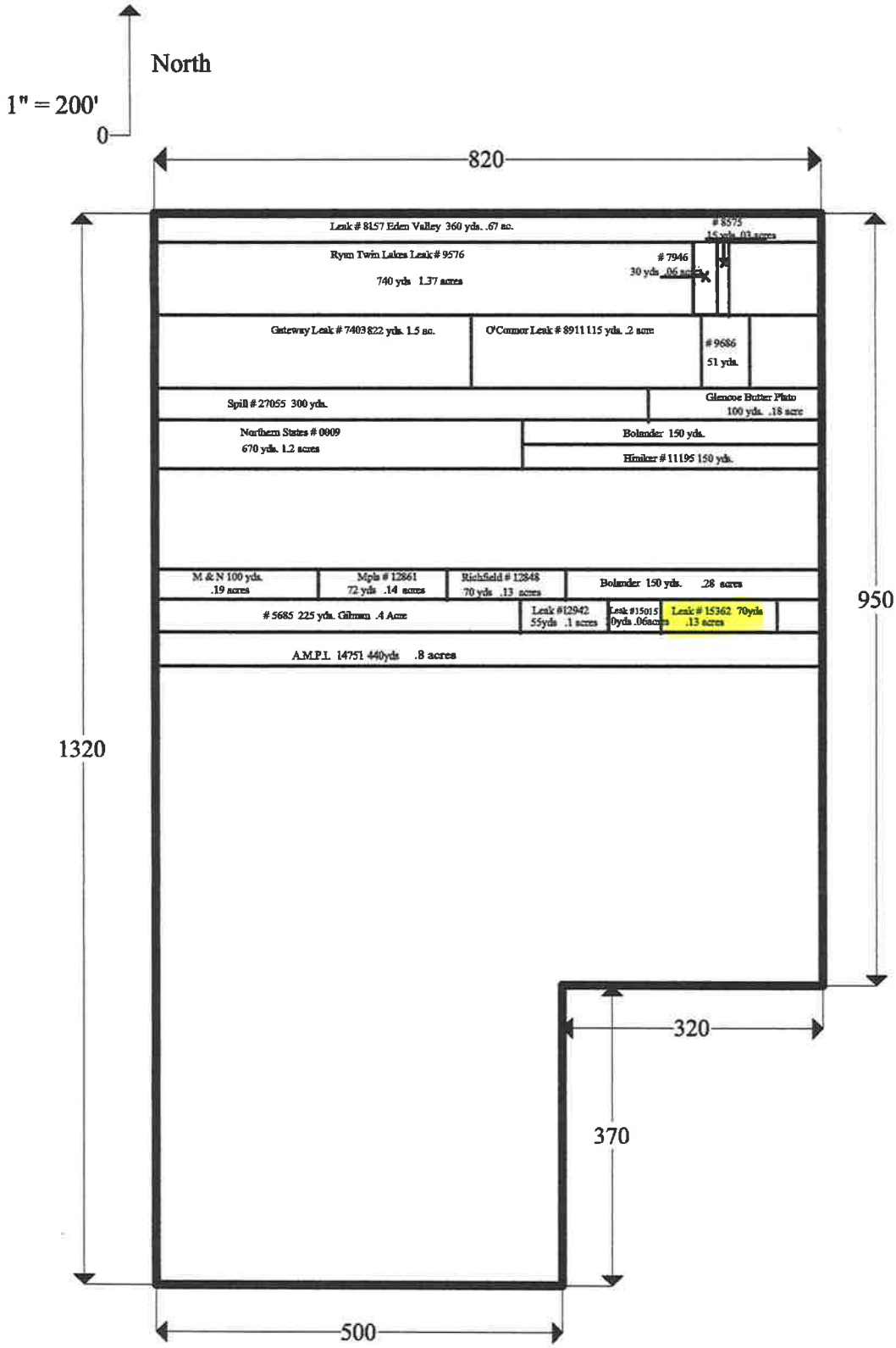
Web pages and phone numbers

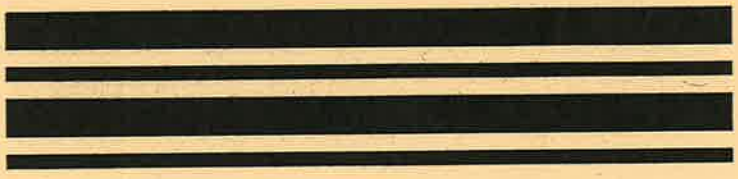
MPCA staff	http://data.pca.state.mn.us/pca/emplsearch.html
MPCA toll free	**1-800-657-3864**
LUST web page	http://www.pca.state.mn.us/programs/lust_p.html
MPCA Infor. Request	http://www.pca.state.mn.us/about/inforequest.html
PetroFund Web Page	http://www.commerce.state.mn.us/mainpf.htm
PetroFund Phone	**651-297-1119, or 1-800-638-0418**
State Duty Officer	**651-649-5451 or 1-800-422-0798**

MATHEWS FARMS

Facility # POS/LTF-3

21.8 Acres






RECEIVED
NOV 0 6 2003
MPCA, MAR Division
PLR/SS Section

Leaking Petroleum Storage Tanks
Minnesota Pollution Control Agency
http://www.pca.state.mn.us/programs/lust_p.html

NOTIFICATION OF SPREADING PETROLEUM CONTAMINATED SOIL AT A LAND TREATMENT SITE (FORM C)

Fact Sheet #3.11

This form must be used to notify the Minnesota Pollution Control Agency (MPCA) that petroleum contaminated soil approved for land treatment has been spread. **This form must be completed and submitted to the MPCA within 10 days following spreading.**

I. BACKGROUND AND SOIL SPREADING INFORMATION

A. Generator (and mailing address):

Name: Bob Mathews
Business name: Mathews Farms
Street/Box: 12897 Falcon Ave
City, Zip: Glencoe, MN 55336
Telephone: (320) 864-6060

B. Site from which contaminated soil was generated:

MPCA Site ID#: LEAK000015362
Business name: AMPI Creamery
Street: 818 9th St E
City, Zip: Glencoe, MN 55336
County: McLeod
Telephone: 320-864-5561

C. Land Treatment Site Owner (and mailing address)

Name: Bob Mathews
Street/Box: 12897 Falcon Ave
City, Zip: Glencoe, MN 55336
Telephone: (320) 864-6060

D. Land Treatment Site Operator (and mailing address)

Name: Bob Mathews
Street/Box: 12897 Falcon Ave
City, Zip: Glencoe, MN 55336
Telephone: (320) 864-6060

E. Person(s) who completed this form:

Name: Bob Mathews
Business name: Mathews Farms
Street/Box: 12897 Falcon Ave
City, Zip: Glencoe, MN 55336
Telephone: (320) 864-6060

Name: Shannon Burrow
Business name: Mathews Farms
Street/Box: 12897 Falcon Ave
City, Zip: Glencoe, MN 55336
Telephone: (320) 864-6060

F. Legal Description of Land Treatment Site:

NW ¼ of NE ¼ of Section 16, Township 116N, Range 27W,

Township Name Bergen, County McLeod
Latitude/Longitude Date Collected

G. Date of MPCA Approval Letter for the batch of soil: 10/22/03

H. Name of MPCA staff who issued Approval Letter for the batch of soil: Sarah Henderson

I. Date contaminated soil spread: 10/30/03

J. Volume of Soil spread: 70 cubic yards

K. Spreading thickness: 4inches

L. Area of land used: .13 acres

II. SITE MAP

Attach a site map (scale: 1 inch = 50 feet) that indicates the following:

- borders of land treatment site (indicate dimensions of each side in feet)
- delineate actual plot used for this batch of soil (label dimensions in feet)
- delineate all other plots previously used for land treatment (label dimensions in feet and indicate with leak site number)
- north arrow

III. LOCAL GOVERNMENT NOTIFICATION INFORMATION

A copy of this form must be sent to the appropriate local government officials before or at the same time that it is submitted to the MPCA. Provide the following for the local government officials to whom copies of this form have been sent:

County official: Zoning

Title: Zoning Office
Street/Box: 830 11th St E
City, Zip: Glencoe, MN 55336
Telephone: (320) 864-5551

Township, City, or
Tribal official: Eugene Feltman
Title: Bergen Township Chairman
Street/Box: 17687 Babcock Ave
City, Zip: Lester Prairie, MN 55354
Telephone: (320) 395-2020




PRE-REMOVAL SITE ASSESSMENT RESULTS

ASSOCIATED MILK PRODUCERS, INC.
818 EAST 9TH STREET
GLENCOE, MINNESOTA 55336

DECEMBER 1, 1999

Northern Environmental℠
Hydrologists • Engineers • Geologists

372 West County Road D
New Brighton, MN 55112
651-635-9100
800-776-7169
Fax 651-635-0643

December 1, 1999
(AMP-02-1408-5406)

Mr. Doug Lundburg
Associated Milk Producers, Inc.
818 East 9th Street
Glencoe, Minnesota 55336

RE: Pre-removal Site Assessment Results, Associated Milk Producers, Inc., 818 East 9th Street, Glencoe, Minnesota.

Dear Mr. Lundburg:

On November 1, 1999 Northern Environmental Technologies, Incorporated (Northern Environmental) personnel observed the drilling of five soil borings as part of a Pre-removal Site Assessment at the Associated Milk Producers, Inc. (AMPI) plant, in Glencoe, Minnesota. Soil and ground-water samples were collected by Northern Environmental personnel for laboratory analysis.

Two #6 fuel oil underground storage tanks (USTs) are currently in use at the above referenced site, one 20,000-gallon UST and one 10,000-gallon UST.

Soil borings were not completed south of the 10,000-gallon UST, due to its proximity to the building. Also, according to Mr. Ron Maresh, AMPI maintenance, the UST basins have sides made of timbers held up with "I" beams. The timber/beams structures were used to keep the basin from under-cutting the building during UST installation. The structures were then buried with the USTs.

Soil encountered at the site consisted of sand and gravel from below the asphalt to the bottom of the boreholes, which were advanced to 12 feet to 13 feet below ground surface. Soil boring logs can be found attached to this report.

Visual observations and photoionization detector (PID) readings of the soil did not indicate hydrocarbon impacts. Laboratory analysis of the soil indicated no detectable hydrocarbon impacts, except for low concentrations of diesel range organics (DRO) sampled at the soil/ground water interface from soil samples collected at SB-1 (6 mg/kg DRO) and SB-4 (6 mg/kg DRO).

Ground-water samples were collected at SB-1 and SB-3. Ground-water samples were analyzed for DRO volatile organic compounds (VOC). No detectable hydrocarbons were detected from the ground-water samples except for a very low concentration of naphthalene (5.4 µg/L) from ground water collected at SB-1.

Based on the soil and ground-water samples collected, it is the opinion of Northern Environmental that the very low concentrations of hydrocarbons found in the soil and ground water does not constitute a release. In addition, the low levels of hydrocarbons found do not exceed the Minnesota Pollution Control Agency action limits for DRO contamination or the Minnesota Department of Health Health Risk Limits for groundwater. Thus, it does not appear that further action with respect to active clean up of the AMPI site in Glencoe, Minnesota is warranted at this time.

The Pre-removal Site Assessment costs are eligible for Petrofund reimbursement under Minnesota Statute 115C.09. However, since no significant hydrocarbon impacts were detected, the costs cannot be reimbursed until after the USTs are removed as stated in Minnesota Statute 115C.092, Subdivision 2.

If we can provide you with any additional information, please call Andrew Craig or Bob Anderson at (800) 776-7169 or (651) 635-9100.

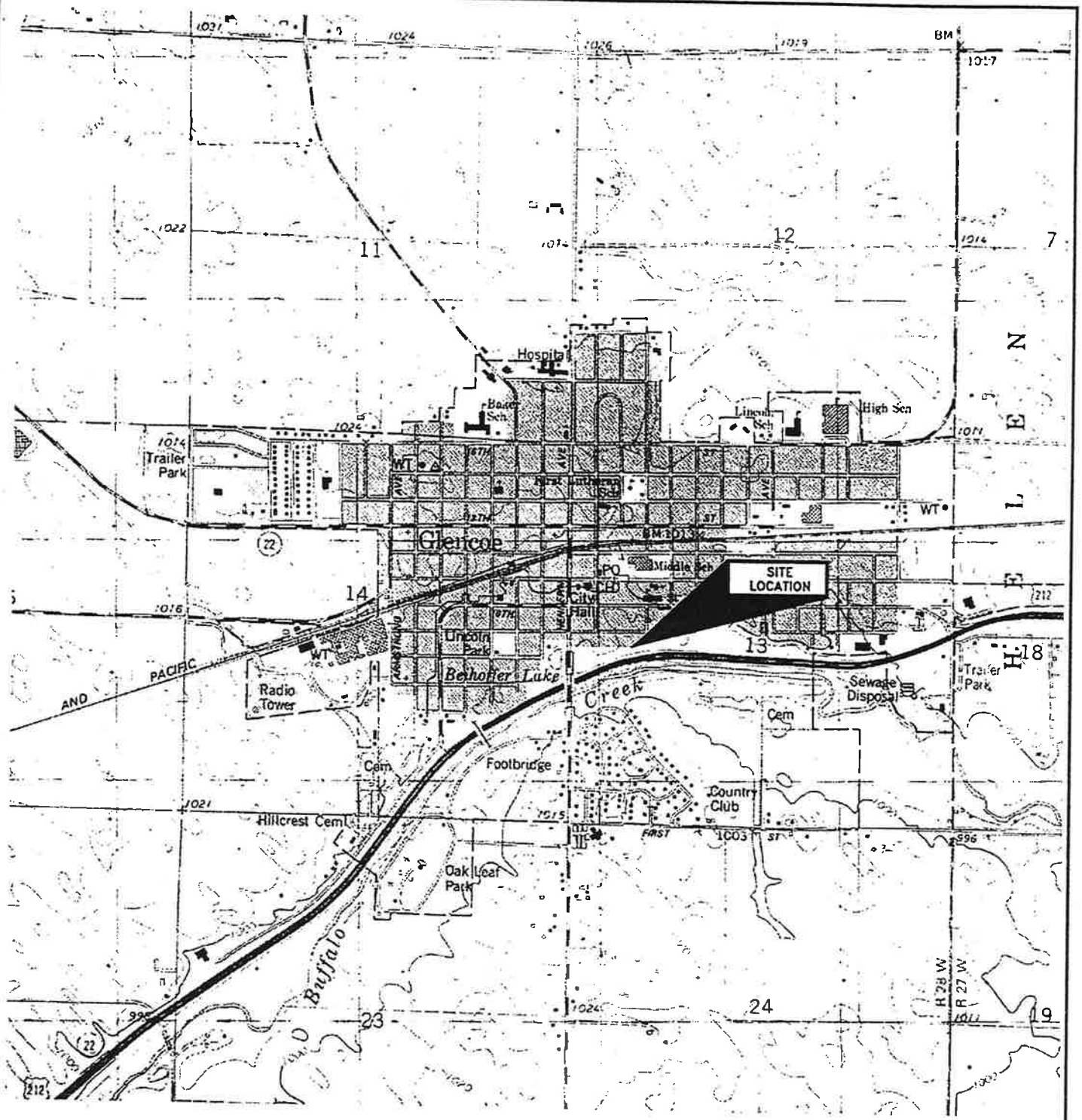
Sincerely,
Northern Environmental Technologies, Incorporated

Andrew A. Craig
Hydrogeologist

Robert L. Anderson
Project Manager

AAC/njf

Attachments: Figure 1 – Site Location
Figure 2 – Site Layout
Laboratory Analytical Results
Soil Boring Logs



SCALE IN FEET

1000 0 1000 2000

N

BASE MAP SOURCE: USGS 7.5' QUADRANGLE (GLENCOE, MINNESOTA)

DRAWN BY: AAC	PROJ:AMP-02-1408-5406	DATE: 12/01/99

REV. DATE

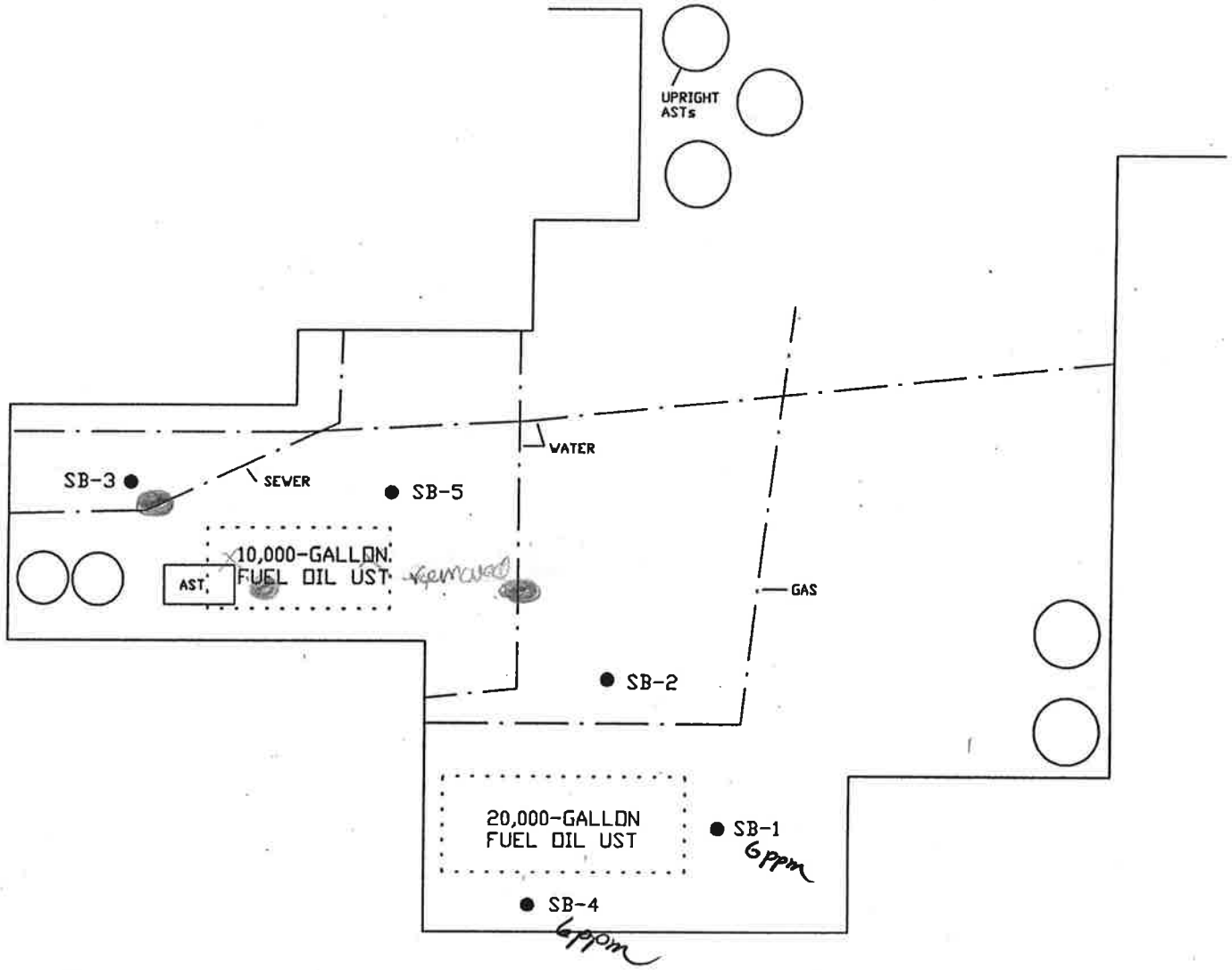
Northern Environmental
Hydrologists • Engineers • Geologists

ASSOCIATED MILK PRODUCERS, INC
GLENCOE, MINNESOTA

SITE
LOCATION

ORIGINAL IN FILE

FIGURE 1



SCALE IN FEET

10 0 10 20

N

DRAWN BY: AAC	PROJ: AMP-02-1408-5406	DATE: 11/30/99
REV. DATE	THIS DRAWING AND ALL INFORMATION CONTAINED THEREON IS THE PROPERTY OF NORTHERN ENVIRONMENTAL INCORPORATED AND SHALL NOT BE COPIED OR USED EXCEPT FOR THE PURPOSE FOR WHICH IT IS EXPRESSLY FURNISHED.	

Northern Environmental
Hydrologists • Engineers • Geologists

ASSOCIATED MILK PRODUCERS, INC
GLENCOE, MINNESOTA

SITE LAYOUT

S:\PROJ\AMP\FIGURES\SITELAY

FIGURE 2

SPECTRUM LABS INC
301 West County Road E2 • St. Paul, MN 55112-6859
651.633.0101 • FAX 651.633.1402
www.spectrum-labs.com

LABORATORY ANALYSIS REPORT

DATE:	*November 18, 1999*	*PAGE:*	*1 Of 15*
CLIENT:	*Northern Environmental*	*PROJECT NO.:*	*110199-200004*
	372 West County Rd. D	*COLLECTION DATE:*	*11/01/99*
	New Brighton, MN 55112	*COLLECTED BY:*	*Client*
		RECEIVED DATE:	*11/01/99*
CONTACT:	*Robert Anderson*	*PROJECT DESCP:*	*AMP02-1408-5406*

NOV 22 1999

		Sample No.:		*28194-1*
		Sample ID.:		*SB-1-7*
ANALYSIS	***UNITS***	***MDL***	***PQL***	***RESULT***
EPA 8020				
Date Analyzed: 11/08/99				
Benzene	*mg/kg*	*0.2*	*1.0*	*ND*
Toluene	*mg/kg*	*0.2*	*1.0*	*ND*
Ethylbenzene	*mg/kg*	*0.2*	*1.0*	*ND*
*m,p-Xylene**	*mg/kg*	*0.3*	*1.0*	*ND*
o-Xylene	*mg/kg*	*0.2*	*1.0*	*ND*

Surrogate Recovery	***Detector***	***% Recovery***
1-chloro-4-Fluorobenzene	*PID*	*87.3%*

ANALYSIS	***UNITS***	***MDL***	***PQL***	***RESULT***
WIS DNR DRO				
Date Preserved: 11/04/99				
Date Extracted: 11/04/99				
Date Analyzed: 11/04,08/99				
Diesel Range Organics	*mg/kg*	*2*	*10*	*(r)6*

(r)Result is above MDL, but below PQL.
** means Coeluting Compounds*
ND means Not Detected or below reported MDL
MDL means Method Detection Limit
PQL means Practical Quantification Limit
mg/kg means Milligrams Per Kilogram which is equivalent to Parts Per Million (ppm)

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301 West County Road E2 • St. Paul, MN 55112-6859
651.633.0101 • FAX 651.633.1402
www.spectrum-labs.com

LABORATORY ANALYSIS REPORT

DATE:	*November 18, 1999*	*PAGE:*	*5 Of 15*
CLIENT:	*Northern Environmental* *372 West County Rd. D* *New Brighton, MN 55112*	*PROJECT NO.:* *COLLECTION DATE:* *COLLECTED BY:* *RECEIVED DATE:*	*110199-200004* *11/01/99* *Client* *11/01/99*
CONTACT:	*Robert Anderson*	*PROJECT DESCP:*	*AMP02-1408-5406*

		Sample No.:		*28194-3*
		Sample ID.:		*SB-2-7*
ANALYSIS	*UNITS*	*MDL*	*POL*	*RESULT*
EPA 8020				
Date Analyzed: 11/08/99				
Benzene	*mg/kg*	*0.2*	*1.0*	*ND*
Toluene	*mg/kg*	*0.2*	*1.0*	*ND*
Ethylbenzene	*mg/kg*	*0.2*	*1.0*	*ND*
*m,p-Xylene**	*mg/kg*	*0.3*	*1.0*	*ND*
o-Xylene	*mg/kg*	*0.2*	*1.0*	*ND*

Surrogate Recovery	*Detector*	*% Recovery*
1-chloro-4-Fluorobenzene	*PID*	*75.1%*

ANALYSIS	*UNITS*	*MDL*	*POL*	*RESULT*
WIS DNR DRO				
Date Preserved: 11/04/99				
Date Extracted: 11/04/99				
Date Analyzed: 11/04,08/99				
Diesel Range Organics	*mg/kg*	*2*	*10*	*ND*

** means Coeluting Compounds*
ND means Not Detected or below reported MDL
MDL means Method Detection Limit
PQL means Practical Quantification Limit
mg/kg means Milligrams Per Kilogram which is equivalent to Parts Per Million (ppm)

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301 West County Road E2 • St. Paul, MN 55112-6859
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LABORATORY ANALYSIS REPORT

DATE:	November 18, 1999	PAGE:	6 Of 15
CLIENT:	Northern Environmental 372 West County Rd. D New Brighton, MN 55112	PROJECT NO.: COLLECTION DATE: COLLECTED BY: RECEIVED DATE: PROJECT DESCP:	110199-200004 11/01/99 Client 11/01/99 AMP02-1408-5406
CONTACT:	Robert Anderson		

		Sample No.:		28194-4
		Sample ID.:		SB-3-8
ANALYSIS	UNITS	MDL	PQL	RESULT
EPA 8020				
Date Analyzed: 11/08/99				
Benzene	mg/kg	0.2	1.0	ND
Toluene	mg/kg	0.2	1.0	ND
Ethylbenzene	mg/kg	0.2	1.0	ND
m,p-Xylene*	mg/kg	0.3	1.0	ND
o-Xylene	mg/kg	0.2	1.0	ND

Surrogate Recovery	Detector	% Recovery
1-chloro-4-Fluorobenzene	PID	81.5%

ANALYSIS	UNITS	MDL	PQL	RESULT
WIS DNR DRO				
Date Preserved: 11/04/99				
Date Extracted: 11/04/99				
Date Analyzed: 11/04,08/99				
Diesel Range Organics	mg/kg	2	10	ND

* means Coeluting Compounds
ND means Not Detected or below reported MDL
MDL means Method Detection Limit
PQL means Practical Quantification Limit
mg/kg means Milligrams Per Kilogram which is equivalent to Parts Per Million (ppm)

SPECTRUM LABS INC
301 West County Road E2 • St. Paul, MN 55112-6859
651.633.0101 • FAX 651.633.1402
www.spectrum-labs.com

LABORATORY ANALYSIS REPORT

DATE:	*November 18, 1999*	*PAGE:*	*10 Of 15*
CLIENT:	*Northern Environmental* *372 West County Rd. D* *New Brighton, MN 55112*	*PROJECT NO.:* *COLLECTION DATE:* *COLLECTED BY:* *RECEIVED DATE:*	*110199-200004* *11/01/99* *Client* *11/01/99*
CONTACT:	*Robert Anderson*	*PROJECT DESCP:*	*AMP02-1408-5406*

		Sample No.:		*28194-6*
		Sample ID.:		*SB-4-7*
ANALYSIS	*UNITS*	*MDL*	*PQL*	*RESULT*
EPA 8020				
Date Analyzed: 11/08/99				
Benzene	*mg/kg*	*0.2*	*1.0*	*ND*
Toluene	*mg/kg*	*0.2*	*1.0*	*ND*
Ethylbenzene	*mg/kg*	*0.2*	*1.0*	*ND*
*m,p-Xylene**	*mg/kg*	*0.3*	*1.0*	*ND*
o-Xylene	*mg/kg*	*0.2*	*1.0*	*ND*

Surrogate Recovery	*Detector*	*% Recovery*
1-chloro-4-Fluorobenzene	*PID*	*86.2%*

ANALYSIS	*UNITS*	*MDL*	*PQL*	*RESULT*
WIS DNR DRO				
Date Preserved: 11/04/99				
Date Extracted: 11/04/99				
Date Analyzed: 11/04,08/99				
Diesel Range Organics	*mg/kg*	*2*	*10*	*[r]6*

[r]Result is above MDL, but below PQL.
** means Coeluting Compounds*
ND means Not Detected or below reported MDL
MDL means Method Detection Limit
PQL means Practical Quantification Limit
mg/kg means Milligrams Per Kilogram which is equivalent to Parts Per Million (ppm)

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LABORATORY ANALYSIS REPORT

DATE:	*November 18, 1999*	***PAGE:***	*11 Of 15*
CLIENT:	*Northern Environmental*	***PROJECT NO.:***	*110199-200004*
	372 West County Rd. D	***COLLECTION DATE:***	*11/01/99*
	New Brighton, MN 55112	***COLLECTED BY:***	*Client*
		RECEIVED DATE:	*11/01/99*
CONTACT:	*Robert Anderson*	***PROJECT DESCP:***	*AMP02-1408-5406*

				Sample No.:	*28194-7*
				Sample ID.:	*SB-4-11*
ANALYSIS	***UNITS***	***MDL***	***PQL***	***RESULT***
EPA 8020				
Date Analyzed: 11/08/99				
Benzene	*mg/kg*	*0.2*	*1.0*	*ND*
Toluene	*mg/kg*	*0.2*	*1.0*	*ND*
Ethylbenzene	*mg/kg*	*0.2*	*1.0*	*ND*
*m,p-Xylene**	*mg/kg*	*0.3*	*1.0*	*ND*
o-Xylene	*mg/kg*	*0.2*	*1.0*	*ND*

Surrogate Recovery	***Detector***	***% Recovery***
1-chloro-4-Fluorobenzene	*PID*	*84.7%*

ANALYSIS	***UNITS***	***MDL***	***PQL***	***RESULT***
WIS DNR DRO				
Date Preserved: 11/04/99				
Date Extracted: 11/04/99				
Date Analyzed: 11/04,08/99				
Diesel Range Organics	*mg/kg*	*2*	*10*	*ND*

** means Coeluting Compounds*
ND means Not Detected or below reported MDL
MDL means Method Detection Limit
PQL means Practical Quantification Limit
mg/kg means Milligrams Per Kilogram which is equivalent to Parts Per Million (ppm)

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CONTACT:	*Robert Anderson*	*PROJECT DESCP:*	*AMP02-1408-5406*

		Sample No.:		*28194-8*
		Sample ID.:		*SB-5-8*
ANALYSIS	*UNITS*	*MDL*	*POL*	*RESULT*
EPA 8020				
Date Analyzed: 11/08/99				
Benzene	*mg/kg*	*0.2*	*1.0*	*ND*
Toluene	*mg/kg*	*0.2*	*1.0*	*ND*
Ethylbenzene	*mg/kg*	*0.2*	*1.0*	*ND*
*m,p-Xylene**	*mg/kg*	*0.3*	*1.0*	*ND*
o-Xylene	*mg/kg*	*0.2*	*1.0*	*ND*

Surrogate Recovery	*Detector*	*% Recovery*
1-chloro-4-Fluorobenzene	*PID*	*85.1%*

ANALYSIS	*UNITS*	*MDL*	*POL*	*RESULT*
WIS DNR DRO				
Date Preserved: 11/04/99				
Date Extracted: 11/04/99				
Date Analyzed: 11/04,08/99				
Diesel Range Organics	*mg/kg*	*2*	*10*	*ND*

** means Coeluting Compounds*
ND means Not Detected or below reported MDL
MDL means Method Detection Limit
PQL means Practical Quantification Limit
mg/kg means Milligrams Per Kilogram which is equivalent to Parts Per Million (ppm)

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LABORATORY ANALYSIS REPORT

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CLIENT:	*Northern Environmental* *372 West County Rd. D* *New Brighton, MN 55112*	*PROJECT NO.:* *COLLECTION DATE:* *COLLECTED BY:* *RECEIVED DATE:*	*110199-200004* *11/01/99* *Client* *11/01/99*
CONTACT:	*Robert Anderson*	*PROJECT DESCP:*	*AMP02-1408-5406*

ANALYSIS	*UNITS*	*MDL*	*PQL*	*Sample No.: 28194-2* *Sample ID.: SB-1* *RESULTS*
EPA 8021/MDH 465E List[dd]				
Date Analyzed: 11/12/99				
Acetone	ug/L	2.0	10	ND
Allyl Chloride	ug/L	4.0	10	ND
Benzene	ug/L	0.4	2	ND
Bromobenzene	ug/L	0.8	2	ND
Bromochloromethane	ug/L	0.6	2	ND
Bromodichloromethane	ug/L	0.6	2	ND
Bromoform	ug/L	1.0	2	ND
Bromomethane	ug/L	0.6	4	ND
n-Butylbenzene	ug/L	0.8	2	ND
sec-Butylbenzene	ug/L	0.8	2	ND
tert-Butylbenzene	ug/L	0.8	2	ND
Carbon tetrachloride	ug/L	0.6	2	ND
Chlorobenzene	ug/L	0.8	2	ND
Chloroethane	ug/L	0.6	4	ND
Chloroform	ug/L	0.6	2	ND
Chloromethane	ug/L	0.6	4	ND
2-Chlorotoluene	ug/L	0.8	2	ND
4-Chlorotoluene	ug/L	0.8	2	ND
1,2-Dibromo-3-chloropropane	ug/L	0.6	2	ND
Dibromochloromethane	ug/L	0.6	2	ND
1,2-Dibromoethane	ug/L	0.6	2	ND
Dibromomethane	ug/L	0.6	2	ND
1,2-Dichlorobenzene	ug/L	0.8	2	ND
1,3-Dichlorobenzene	ug/L	0.8	2	ND
1,4-Dichlorobenzene	ug/L	0.8	2	ND
Dichlorodifluoromethane	ug/L	1.4	4	ND
1,1-Dichloroethane	ug/L	0.6	2	ND
1,2-Dichloroethane	ug/L	0.6	2	ND
1,1-Dichloroethene	ug/L	0.6	2	ND
cis-1,2-Dichloroethene	ug/L	0.6	2	ND
trans-1,2-Dichloroethene	ug/L	0.6	2	ND
Dichlorofluoromethane	ug/L	0.4	4	ND
1,2-Dichloropropane	ug/L	0.4	2	ND
1,3-Dichloropropane	ug/L	0.6	2	ND
2,2-Dichloropropane	ug/L	0.6	2	ND
1,1-Dichloropropene	ug/L	0.6	2	ND
cis-1,3-Dichloropropene	ug/L	0.6	2	ND
trans-1,3-Dichloropropene	ug/L	0.6	2	ND
Ethyl Ether	ug/L	0.6	4	ND

[dd] A dilution was necessary due to sample matrix; therefore, detection limits were raised.
ND means Not Detected or below reported MDL
MDL means Method Detection Limit
PQL means Practical Quantification Limit
ug/L means Micrograms Per Liter which is equivalent to Parts Per Billion (ppb)

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LABORATORY ANALYSIS REPORT

DATE: November 18, 1999

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CLIENT: Northern Environmental
372 West County Rd. D
New Brighton, MN 55112

CONTACT: Robert Anderson

PROJECT NO.: 110199-200004
COLLECTION DATE: 11/01/99
COLLECTED BY: Client
RECEIVED DATE: 11/01/99
PROJECT DESCP: AMP02-1408-5406

ANALYSIS	UNITS	Sample No.: / Sample ID.: MDL	POL	28194-2 SB-1 RESULTS
EPA 8021/MDH 465E List[dd]				
Date Analyzed: 11/12/99				
Ethyl benzene	ug/L	0.6	2	ND
Hexachlorobutadiene	ug/L	1.0	2	ND
Isopropylbenzene	ug/L	0.6	2	ND
p-Isopropyltoluene	ug/L	0.8	2	ND
Methyl ethyl ketone	ug/L	1.0	4	ND
Methyl isobutyl ketone	ug/L	0.4	4	ND
Methyl tert butyl ether	ug/L	0.4	4	ND
Methylene Chloride[v]	ug/L	1.4	4	ND
Naphthalene	ug/L	0.6	4	5.4
n-Propylbenzene	ug/L	0.8	2	ND
Styrene	ug/L	0.6	2	ND
1,1,1,2-Tetrachloroethane	ug/L	0.6	2	ND
1,1,2,2-Tetrachloroethane	ug/L	0.8	2	ND
Tetrachloroethene	ug/L	0.8	2	ND
Tetrahydrofuran	ug/L	2.0	4	ND
Toluene	ug/L	0.6	2	ND
1,2,3-Trichlorobenzene	ug/L	0.8	2	ND
1,2,4-Trichlorobenzene	ug/L	1.0	2	ND
1,1,1-Trichloroethane	ug/L	0.6	2	ND
1,1,2-Trichloroethane	ug/L	0.6	2	ND
Trichloroethene	ug/L	0.6	2	ND
Trichlorofluoromethane	ug/L	0.8	4	ND
1,1,2-Trichlorotrifluoroethane	ug/L	1.8	4	ND
1,2,3-Trichloropropane	ug/L	0.8	2	ND
1,2,4-Trimethylbenzene	ug/L	0.8	2	ND
1,3,5-Trimethylbenzene	ug/L	0.8	2	ND
Vinyl Chloride	ug/L	0.4	4	ND
o-Xylene	ug/L	0.6	2	ND
m,p-Xylene*	ug/L	1.2	2	ND

Surrogate	Detector	Limit	% Rec.
4-Fluorochlorobenzene	PID	80 - 120	107%
4-Fluorochlorobenzene	ELCD	80 - 120	106%

[dd] A dilution was necessary due to sample matrix; therefore, detection limits were raised.
[v] Verification standard was high for this compound.
* means Coeluting Compounds
ND means Not Detected or below reported MDL
MDL means Method Detection Limit
PQL means Practical Quantification Limit
ug/L means Micrograms Per Liter which is equivalent to Parts Per Billion (ppb)

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CLIENT:	*Northern Environmental* *372 West County Rd. D* *New Brighton, MN 55112*	***PROJECT NO.:*** ***COLLECTION DATE:*** ***COLLECTED BY:*** ***RECEIVED DATE:***	*110199-200004* *11/01/99* *Client* *11/01/99*
CONTACT:	*Robert Anderson*	***PROJECT DESCP:***	*AMP02-1408-5406*

				Sample No.:	*28194-2*
				Sample ID.:	*SB-1*
ANALYSIS	***UNITS***	***MDL***	***PQL***	***RESULT***
WIS DNR DRO				
Date Extracted: 11/08/99				
Date Analyzed: 11/09/99				
Diesel Range Organics	*ug/L*	*35*	*100*	*ND*

***ND** means Not Detected or below reported MDL*
***MDL** means Method Detection Limit.*
***PQL** means Practical Quantification Limit.*
***ug/L** means Micrograms Per Liter which is equivalent to Parts Per Billion (ppb).*

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LABORATORY ANALYSIS REPORT

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CONTACT:	*Robert Anderson*	*PROJECT DESCP:*	*AMP02-1408-5406*

		Sample No.:		*28194-5*
		Sample ID.:		*SB-3*
ANALYSIS	*UNITS*	*MDL*	*PQL*	*RESULTS*
EPA 8021/MDH 465E List[dd]				
Date Analyzed: 11/12/99				
Acetone	*ug/L*	*2.0*	*10*	*ND*
Allyl Chloride	*ug/L*	*4.0*	*10*	*ND*
Benzene	*ug/L*	*0.4*	*2*	*ND*
Bromobenzene	*ug/L*	*0.8*	*2*	*ND*
Bromochloromethane	*ug/L*	*0.6*	*2*	*ND*
Bromodichloromethane	*ug/L*	*0.6*	*2*	*ND*
Bromoform	*ug/L*	*1.0*	*2*	*ND*
Bromomethane	*ug/L*	*0.6*	*4*	*ND*
n-Butylbenzene	*ug/L*	*0.8*	*2*	*ND*
sec-Butylbenzene	*ug/L*	*0.8*	*2*	*ND*
tert-Butylbenzene	*ug/L*	*0.8*	*2*	*ND*
Carbon tetrachloride	*ug/L*	*0.6*	*2*	*ND*
Chlorobenzene	*ug/L*	*0.8*	*2*	*ND*
Chloroethane	*ug/L*	*0.6*	*4*	*ND*
Chloroform	*ug/L*	*0.6*	*2*	*ND*
Chloromethane	*ug/L*	*0.6*	*4*	*ND*
2-Chlorotoluene	*ug/L*	*0.8*	*2*	*ND*
4-Chlorotoluene	*ug/L*	*0.8*	*2*	*ND*
1,2-Dibromo-3-chloropropane	*ug/L*	*0.6*	*2*	*ND*
Dibromochloromethane	*ug/L*	*0.6*	*2*	*ND*
1,2-Dibromoethane	*ug/L*	*0.6*	*2*	*ND*
Dibromomethane	*ug/L*	*0.6*	*2*	*ND*
1,2-Dichlorobenzene	*ug/L*	*0.8*	*2*	*ND*
1,3-Dichlorobenzene	*ug/L*	*0.8*	*2*	*ND*
1,4-Dichlorobenzene	*ug/L*	*0.8*	*2*	*ND*
Dichlorodifluoromethane	*ug/L*	*1.4*	*4*	*ND*
1,1-Dichloroethane	*ug/L*	*0.6*	*2*	*ND*
1,2-Dichloroethane	*ug/L*	*0.6*	*2*	*ND*
1,1-Dichloroethene	*ug/L*	*0.6*	*2*	*ND*
cis-1,2-Dichloroethene	*ug/L*	*0.6*	*2*	*ND*
trans-1,2-Dichloroethene	*ug/L*	*0.6*	*2*	*ND*
Dichlorofluoromethane	*ug/L*	*0.4*	*4*	*ND*
1,2-Dichloropropane	*ug/L*	*0.4*	*2*	*ND*
1,3-Dichloropropane	*ug/L*	*0.6*	*2*	*ND*
2,2-Dichloropropane	*ug/L*	*0.6*	*2*	*ND*
1,1-Dichloropropene	*ug/L*	*0.6*	*2*	*ND*
cis-1,3-Dichloropropene	*ug/L*	*0.6*	*2*	*ND*
trans-1,3-Dichloropropene	*ug/L*	*0.6*	*2*	*ND*
Ethyl Ether	*ug/L*	*0.6*	*4*	*ND*

[dd] A dilution was necessary due to sample matrix; therefore, detection limits were raised.
ND means Not Detected or below reported MDL
MDL means Method Detection Limit
PQL means Practical Quantification Limit
ug/L means Micrograms Per Liter which is equivalent to Parts Per Billion (ppb)

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LABORATORY ANALYSIS REPORT

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CLIENT:	Northern Environmental 372 West County Rd. D New Brighton, MN 55112	**PROJECT NO.:** **COLLECTION DATE:** **COLLECTED BY:** **RECEIVED DATE:**	110199-200004 11/01/99 Client 11/01/99
CONTACT:	Robert Anderson	**PROJECT DESCP:**	AMP02-1408-5406

				Sample No.:	28194-5
				Sample ID.:	SB-3
ANALYSIS	**UNITS**	**MDL**	**PQL**	**RESULTS**
EPA 8021/MDH 465E List[dd]				
Date Analyzed: 11/12/99				
Ethyl benzene	ug/L	0.6	2	ND
Hexachlorobutadiene	ug/L	1.0	2	ND
Isopropylbenzene	ug/L	0.6	2	ND
p-Isopropyltoluene	ug/L	0.8	2	ND
Methyl ethyl ketone	ug/L	1.0	4	ND
Methyl isobutyl ketone	ug/L	0.4	4	ND
Methyl tert butyl ether	ug/L	0.4	4	ND
Methylene Chloride[v]	ug/L	1.4	4	ND
Naphthalene	ug/L	0.6	4	ND
n-Propylbenzene	ug/L	0.8	2	ND
Styrene	ug/L	0.6	2	ND
1,1,1,2-Tetrachloroethane	ug/L	0.6	2	ND
1,1,2,2-Tetrachloroethane	ug/L	0.8	2	ND
Tetrachloroethene	ug/L	0.8	2	ND
Tetrahydrofuran	ug/L	2.0	4	ND
Toluene	ug/L	0.6	2	ND
1,2,3-Trichlorobenzene	ug/L	0.8	2	ND
1,2,4-Trichlorobenzene	ug/L	1.0	2	ND
1,1,1-Trichloroethane	ug/L	0.6	2	ND
1,1,2-Trichloroethane	ug/L	0.6	2	ND
Trichloroethene	ug/L	0.6	2	ND
Trichlorofluoromethane	ug/L	0.8	4	ND
1,1,2-Trichlorotrifluoroethane	ug/L	1.8	4	ND
1,2,3-Trichloropropane	ug/L	0.8	2	ND
1,2,4-Trimethylbenzene	ug/L	0.8	2	ND
1,3,5-Trimethylbenzene	ug/L	0.8	2	ND
Vinyl Chloride	ug/L	0.4	4	ND
o-Xylene	ug/L	0.6	2	ND
m,p-Xylene*	ug/L	1.2	2	ND

Surrogate	**Detector**	**Limit**	**% Rec.**
4-Fluorochlorobenzene	PID	80 - 120	108%
4-Fluorochlorobenzene	ELCD	80 - 120	116%

[dd] A dilution was necessary due to sample matrix; therefore, detection limits were raised.
[v] Verification standard was high for this compound.
* means Coeluting Compounds
ND means Not Detected or below reported MDL
MDL means Method Detection Limit
PQL means Practical Quantification Limit
ug/L means Micrograms Per Liter which is equivalent to Parts Per Billion (ppb)

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CONTACT:	*Robert Anderson*	*PROJECT DESCP:*	*AMP02-1408-5406*

		Sample No.:		*28194-5*
		Sample ID.:		*SB-3*
ANALYSIS	*UNITS*	*MDL*	*PQL*	*RESULT*
WIS DNR DRO				
Date Extracted: 11/08/99				
Date Analyzed: 11/09/99				
Diesel Range Organics	*ug/L*	*35*	*100*	*ND*

ND means Not Detected or below reported MDL
MDL means Method Detection Limit.
PQL means Practical Quantification Limit.
ug/L means Micrograms Per Liter which is equivalent to Parts Per Billion (ppb).

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CLIENT:	Northern Environmental 372 West County Rd. D New Brighton, MN 55112	**PROJECT NO.:** **COLLECTION DATE:** **COLLECTED BY:** **RECEIVED DATE:**	110199-200004 11/01/99 Client 11/01/99
CONTACT:	Robert Anderson	**PROJECT DESCP:**	AMP02-1408-5406

		Sample No.:		28194-9
		Sample ID.:		Trip Blank
ANALYSIS	**UNITS**	**MDL**	**PQL**	**RESULTS**
EPA 8021/MDH 465E List				
Date Analyzed: 11/11/99				
Acetone	ug/L	1.0	5	(r)2.3
Allyl Chloride	ug/L	2.0	5	ND
Benzene	ug/L	0.2	1	ND
Bromobenzene	ug/L	0.4	1	ND
Bromochloromethane	ug/L	0.3	1	ND
Bromodichloromethane	ug/L	0.3	1	ND
Bromoform	ug/L	0.4	1	ND
Bromomethane	ug/L	0.3	2	ND
n-Butylbenzene	ug/L	0.4	1	ND
sec-Butylbenzene	ug/L	0.4	1	ND
tert-Butylbenzene	ug/L	0.4	1	ND
Carbon tetrachloride	ug/L	0.3	1	ND
Chlorobenzene	ug/L	0.4	1	ND
Chloroethane	ug/L	0.3	2	ND
Chloroform	ug/L	0.3	1	ND
Chloromethane	ug/L	0.3	2	ND
2-Chlorotoluene	ug/L	0.4	1	ND
4-Chlorotoluene	ug/L	0.4	1	ND
1,2-Dibromo-3-chloropropane	ug/L	0.3	1	ND
Dibromochloromethane	ug/L	0.3	1	ND
1,2-Dibromoethane	ug/L	0.3	1	ND
Dibromomethane	ug/L	0.3	1	ND
1,2-Dichlorobenzene	ug/L	0.4	1	ND
1,3-Dichlorobenzene	ug/L	0.4	1	ND
1,4-Dichlorobenzene	ug/L	0.4	1	ND
Dichlorodifluoromethane	ug/L	0.2	2	ND
1,1-Dichloroethane	ug/L	0.3	1	ND
1,2-Dichloroethane	ug/L	0.3	1	ND
1,1-Dichloroethene	ug/L	0.3	1	ND
cis-1,2-Dichloroethene	ug/L	0.3	1	ND
trans-1,2-Dichloroethene	ug/L	0.3	1	ND
Dichlorofluoromethane	ug/L	0.2	2	ND
1,2-Dichloropropane	ug/L	0.2	1	ND
1,3-Dichloropropane	ug/L	0.3	1	ND
2,2-Dichloropropane	ug/L	0.3	1	ND
1,1-Dichloropropene	ug/L	0.3	1	ND
cis-1,3-Dichloropropene	ug/L	0.3	1	ND
trans-1,3-Dichloropropene	ug/L	0.3	1	ND
Ethyl Ether	ug/L	0.3	2	ND

(r)Result is above MDL, but below PQL.
ND means Not Detected
MDL means Method Detection Limit
PQL means Practical Quantification Limit
ug/L means Micrograms Per Liter which is equivalent to Parts Per Billion (ppb)

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LABORATORY ANALYSIS REPORT

DATE:	November 18, 1999	PAGE:	14 Of 15
CLIENT:	Northern Environmental 372 West County Rd. D New Brighton, MN 55112	PROJECT NO.:	110199-200004
		COLLECTION DATE:	11/01/99
		COLLECTED BY:	Client
		RECEIVED DATE:	11/01/99
CONTACT:	Robert Anderson	PROJECT DESCP:	AMP02-1408-5406

ANALYSIS	UNITS	Sample No.: / Sample ID.: MDL	PQL	28194-9 Trip Blank RESULTS
EPA 8021/MDH 465E List				
Date Analyzed: 11/11/99				
Ethyl benzene	ug/L	0.3	1	ND
Hexachlorobutadiene	ug/L	0.5	1	ND
Isopropylbenzene	ug/L	0.3	1	ND
p-Isopropyltoluene	ug/L	0.4	1	ND
Methyl ethyl ketone	ug/L	0.5	2	ND
Methyl isobutyl ketone	ug/L	0.2	2	ND
Methyl tert butyl ether	ug/L	0.2	2	ND
Methylene Chloride[v]	ug/L	0.7	2	ND
Naphthalene	ug/L	0.3	2	ND
n-Propylbenzene	ug/L	0.4	1	ND
Styrene	ug/L	0.3	1	ND
1,1,1,2-Tetrachloroethane	ug/L	0.3	1	ND
1,1,2,2-Tetrachloroethane	ug/L	0.4	1	ND
Tetrachloroethene	ug/L	0.4	1	ND
Tetrahydrofuran	ug/L	1.0	2	ND
Toluene	ug/L	0.3	1	ND
1,2,3-Trichlorobenzene	ug/L	0.4	1	ND
1,2,4-Trichlorobenzene	ug/L	0.5	1	ND
1,1,1-Trichloroethane	ug/L	0.3	1	ND
1,1,2-Trichloroethane	ug/L	0.3	1	ND
Trichloroethene	ug/L	0.3	1	ND
Trichlorofluoromethane	ug/L	0.2	2	ND
1,1,2-Trichlorotrifluoroethane	ug/L	0.9	2	ND
1,2,3-Trichloropropane	ug/L	0.4	1	ND
1,2,4-Trimethylbenzene	ug/L	0.4	1	ND
1,3,5-Trimethylbenzene	ug/L	0.4	1	ND
Vinyl Chloride	ug/L	0.2	2	ND
o-Xylene	ug/L	0.3	1	ND
m,p-Xylene*	ug/L	0.6	1	ND

Surrogate	Detector	Limit	% Rec.
4-Fluorochlorobenzene	PID	80 - 120	109%
4-Fluorochlorobenzene	ELCD	80 - 120	107%

[v]Verification standard was high for this compound.
* means Coeluting Compounds
ND means Not Detected
MDL means Method Detection Limit
PQL means Practical Quantification Limit
ug/L means Micrograms Per Liter which is equivalent to Parts Per Billion (ppb)

SPECTRUM LABS INC
301 West County Road E2 • St. Paul, MN 55112-6859
651.633.0101 • FAX 651.633.1402
www.spectrum-labs.com

LABORATORY ANALYSIS REPORT

DATE:	*November 18, 1999*	*PAGE:*	*15 Of 15*
CLIENT:	*Northern Environmental* *372 West County Rd. D* *New Brighton, MN 55112*	*PROJECT NO.:* *COLLECTION DATE:* *COLLECTED BY:* *RECEIVED DATE:*	*110199-200004* *11/01/99* *Client* *11/01/99*
CONTACT:	*Robert Anderson*	*PROJECT DESCP:*	*AMP02-1408-5406*

This report has been reviewed by me for technical accuracy and completeness. The analyses were performed using EPA or other approved methodologies and the results were reported on a dry weight basis. The results reported relate only to the items tested. Please contact me if you have any questions or comments regarding this report. Spectrum Labs, Inc. appreciates the opportunity to provide this analytical service for you.

Report Submitted By,

Gerard Herro
Laboratory Manager

GJH:wmc
ne322-1

CHAIN OF CUSTODY RECORD REQUEST FOR ANALYSIS

Page 1 of 1

No: 11522

Northern Environmental℠
Hydrologists • Engineers • Geologists

☐ 1214 W. Venture Ct.
Mequon, WI 53092
414-241-3133
FAX 414-241-8222

☒ 372 West County Road D
New Brighton, MN 55112
651-635-9100
FAX 651-635-0643

☐ 954 Circle Drive
Green Bay, WI 54304
920-592-8400
FAX 920-592-8444

☐ 330 South 4th Avenue
Park Falls, WI 54552
715-762-1544
FAX 715-762-1844

☐ 1203 Storbeck Drive
Waupun, WI 53963
920-324-8600
FAX 920-324-3023

☐ 217 S. 7th Street Suite 208
Brainerd, MN 56401
218-825-9001
FAX 218-825-9002

Check office originating request

Project No: AMP-02- Task No: 1108- 5106
Project Location: (city) Glencoe
Project Manager: RLA
Sampler: (name) Andrew Craig
Sampler: (Signature)
Sampling Date(s): 11/1/99
Reports to be Sent to: RLA

Laboratory: Spectrum
Wisconsin DNR Certification #:
Laboratory Contact:
Price Quote:

TURNAROUND TIME REQUIRED
☒ Normal ☐ Rush
Date Needed

Sample Integrity - To be completed by receiving lab
Seal intact upon receipt ☐ yes ☐ no
Method of shipment
Contents Temperature °C Refrigerator No.

Lab ID No.	Sample No.	Collection Date	Collection Time	No. of Containers, Size & Type	Description Water	Description Soil	Description Other	Preservative	DRO (WI Modified Method)	GRO (WI Modified Method)	BETX (EPA Method 8020)	PVOC (EPA Method 8020)	VOC (EPA Method 8021)	PAH (EPA Method)	Pb (EPA Method)	7 day wt
28194-1	SB-1-7	11/1	1030	2-2oz		X		1-Ø; 1-MeOH	X		X					X
-2	SB-1		1015	1-1L, 3-40mL	X			HCl	X				X			
-3	SB-2-7		1055	2-2oz		X		1-Ø; 1-MeOH	X		X					X
-4	SB-3-8		1120	↓		X		↓	X		X					X
-5	SB-3		1115	1-1L; 3-40mL	X			HCl	X				X			
-6	SB-4-7		1155	2-2oz		X		1-Ø; 1-MeOH	X		X					X
-7	SB-4-11		1200	↓		X		↓	X		X					X
-8	SB-5-8	↓	1230	↓		X		↓	X		X					X
-9	Trip			1-40mL	X								X			

Packed for Shipping by: AAC
Shipment Date: 11/1/99

Comments:

Relinquished By:	Date:	Relinquished By:	Date:	Relinquished By:	Date:
AAC	11/1/99				
Company: NETI	Time: 1525	Company:	Time:	Company:	Time:
Received By: Patrick Lynch	Date: 3:30	Received By:	Date:	Received By:	Date:
Company: Spectrum	Time: 11/1/99	Company:	Time:	Company:	Time:

Northern Environmental Tech., Inc.

SOIL BOREHOLE LOG

Sheet 1 of 1

PROJECT: **Associated Milk Producers, Inc**

BOREHOLE ID: **SB-1**

LOCATION: **Glencoe, Minnesota**

LOGGED BY: **AAC**

GROUND ELEV: **Local**
WATER LEVEL (ft. below grade):
▼ 7 DURING DRILLING
▼ AFTER DEV.(OR STATIC)
TOTAL DEPTH: **12.0 ft**
BOREHOLE DIA: **2**

DRILLER: **Guy Paquette**
METHOD: **push probe**
RIG: **Geoprobe**
BIT(S):
FLUID:

	START	END
DATE:	11/01/99	11/01/99
TIME:	0950	1040

COMPLETED AS: **Abandon**

Sample Number	Sample Length (in) Rec./Driven	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plastic Limit	P 200	RQD/ Comments
	36 48		0	0.0' to 0.3' ASPHALT 0.3' to 7.0' CLAYEY SAND, brown to buff, moist	SC			0						
	36 48		4											
SB-1-7			7	7.0' to 12.0' SAND, brown, coarse grained, wet	SP		▼	0						
	12 48		8											
			12	EOB 12 feet Grouted to surface				0						
			15	Continued Next Page										

SOIL AMP.GPJ NORTHENV.GDT 11/30/99

Northern Environmental Tech., Inc.

SOIL BOREHOLE LOG

Sheet 1 of 1

PROJECT: **Associated Milk Producers, Inc**

BOREHOLE ID: **SB-2**

LOCATION: **Glencoe, Minnesota**

LOGGED BY: **AAC**

GROUND ELEV: **Local**
WATER LEVEL (ft. below grade):
▽ 7 DURING DRILLING
▼ AFTER DEV.(OR STATIC)
TOTAL DEPTH: **12.0 ft**
BOREHOLE DIA: **2**

DRILLER: **Guy Paquette**
METHOD: **push probe**
RIG: **Geoprobe**
BIT(S):
FLUID:

	START	END
DATE:	11/01/99	11/01/99
TIME:	1045	1055

COMPLETED AS: **Abandon**

Sample Number	Sample Length (in) Rec./Driven	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plastic Limit	P 200	RQD/ Comments
	36 48		1 2 3 4	0.0' to 0.3' ASPHALT 0.3' to 4.0' SAND, brown, medium to coarse grained, trace gravel, moist	SP			0						
SB-2-7	36 48		5 6 7 8	4.0' to 12.0' CLAYEY SAND, brown, fine to medium grained, moist Becomes wet at 7 feet	SC		▽	0						
	24 48		9 10 11 12											
			13 14 15	EOB 12 feet Grouted to surface Continued Next Page				0						

SOIL AMP.GPJ NORTHENV.GDT 11/30/99

Northern Environmental Tech., Inc.

SOIL BOREHOLE LOG

Sheet 1 of 1

PROJECT: **Associated Milk Producers, Inc**

BOREHOLE ID: **SB-3**

LOCATION: **Glencoe, Minnesota**

LOGGED BY: **AAC**

GROUND ELEV: **Local**
WATER LEVEL (ft. below grade):
▽ 8 DURING DRILLING
▼ AFTER DEV.(OR STATIC)
TOTAL DEPTH: **13.0 ft**
BOREHOLE DIA: **2**

DRILLER: **Guy Paquette**
METHOD: **push probe**
RIG: **Geoprobe**
BIT(S):
FLUID:

	START	END
DATE:	11/01/99	11/01/99
TIME:	1100	1135

COMPLETED AS: **Abandon**

Sample Number	Sample Length (in) Rec./Driven	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plastic Limit	P 200	RQD/ Comments
	36 48		1 2 3 4	0.0' to 0.3' ASPHALT 0.3' to 4.0' SAND, brown, medium to coarse grained, trace gravel, moist	SP			0						
SB-3-8	36 48		5 6 7 8	4.0' to 13.0' CLAYEY SAND, brown, fine to medium grained, moist Becomes wet at 8 feet	SC		▽	0						
	48 48		9 10 11 12 13											
			14 15	EOB 12 feet Grouted to surface Continued Next Page				0						

SOIL AMP.GPJ NORTHENV.GDT 11/30/99

Northern Environmental Tech., Inc.

SOIL BOREHOLE LOG

Sheet 1 of 1

PROJECT: **Associated Milk Producers, Inc**

BOREHOLE ID: **SB-4**

LOCATION: **Glencoe, Minnesota**

LOGGED BY: **AAC**

GROUND ELEV: **Local**
WATER LEVEL (ft. below grade):
▽ 7 DURING DRILLING
▼ AFTER DEV.(OR STATIC)
TOTAL DEPTH: **12.0 ft**
BOREHOLE DIA: **2**

DRILLER: **Guy Paquette**
METHOD: **push probe**
RIG: **Geoprobe**
BIT(S):
FLUID:

	START	END
DATE:	11/01/99	11/01/99
TIME:	1140	1200

COMPLETED AS: **Abandon**

Sample Number	Sample Length (in) Rec./Driven	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plastic Limit	P 200	RQD/ Comments
	24 48		0	0.0' to 0.3' ASPHALT 0.3' to 8.0' SAND, brown, fine to medium grained, moist	SP			0						
SB-4-7	24 48		4				▽	0						
SB-4-11	32 48		8	8.0' to 12.0' SAND, brown, coarse grained with gravel, wet	SP			0						
			12	EOB 12 feet Grouted to surface Continued Next Page										

SOIL_AMP.GPJ NORTHENV.GDT 11/30/99

Northern Environmental Tech., Inc.

SOIL BOREHOLE LOG

Sheet 1 of 1

PROJECT: **Associated Milk Producers, Inc**

BOREHOLE ID: **SB-5**

LOCATION: **Glencoe, Minnesota**

LOGGED BY: **AAC**

GROUND ELEV: **Local**
WATER LEVEL (ft. below grade):
▽ 8 DURING DRILLING
▼ AFTER DEV.(OR STATIC)
TOTAL DEPTH: **13.0 ft**
BOREHOLE DIA: **2**

DRILLER: **Guy Paquette**
METHOD: **push probe**
RIG: **Geoprobe**
BIT(S):
FLUID:

	START	END
DATE:	11/01/99	11/01/99
TIME:	1205	1220

COMPLETED AS: **Abandon**

Sample Number	Sample Length (in) Rec./Driven	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plastic Limit	P 200	RQD/ Comments
	36 48		0 1 2 3 4	0.0' to 0.3' ASPHALT 0.3' to 4.0' SAND, brown, mesium to coarse grained with gravel, moist	SP			0						
SB-5-8	24 48		4 5 6 7 8	4.0' to 8.0' CLAYEY SAND, brown, fine to medium grained, moist Becomes wet at 7 feet	SC		▽	0						
	32 48		8 9 10 11 12 13	8.0' to 13.0' GRAVEL, brown, wet	GP									
			13 14 15	EOB 12 feet Grouted to surface Continued Next Page				0						

SOIL_AMP.GPJ NORTHENV.GDT 11/30/99




Leaking Petroleum Storage Tanks

Minnesota Pollution Control Agency

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

RECEIVED
AUG - 5 2004
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:	**0015362**	Date:	**August 3, 2004**
Responsible Party:	**Associated Milk Producers, Inc.**	R.P. phone #:	**(320) 864-5577**
Consultant:	**SERVICE Engineering Group**	Consultant phone #:	**(651) 644-6680**
Facility Name:	**Associated Milk Producers, Inc. Glencoe Facility**		
Facility Address:	**818 East 9th Street**	City:	**Glencoe**
County:	**McLeod**	Zip Code:	**55336**

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) **409,036 meters**
Y coordinate (Northing) **4,957,838 meters**

SERVICE ENGINEERING GROUP
675 Vandalia Street, St. Paul, MN 55114
Phone: 651-644-6680 Fax: 651-644-7008

August 3, 2004

Sarah Henderson
Minnesota Pollution Control Agency
520 Lafayette Road
St. Paul, MN 55155-4194

Re: LSI Report, MPCA Fact Sheet 3.24 for
Leak #15362
Associated Milk Producers Inc., - Glencoe, Minnesota

Ms. Henderson:

On behalf of our client, SERVICE Engineering Group has enclosed the referenced report for your review.

Please call me if you have questions.

Sincerely,

Tim Rogers
Project Manager

Enclosure

cc: John Kimble – Associated Milk Producers Inc.

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

Approximate 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.)

USGS Glencoe, Minnesota, topographic map, 7.5 series, 1:24,000. Revised 1976.

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 UST and associated piping were removed on August 11, 2003.

2.2a Describe the land use and pertinent geographic features within 1,000 feet of the site.

The site is located in downtown Glencoe and is bordered on the north, east, south and west by a mixture of commercial and single family residential properties.

2.2b List other potential leak sources within 500 feet of the site.

None known.

2.3 Identify and describe the source or suspected source(s) of the release.

The source of the petroleum release appears to be associated with Tank #1. Holes and pitting were observed in the UST during tank removal.

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: **08/11/03**

Volume removed: **70** cubic yards

3.3 Indicate soil treatment type: **N/A**

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

Name and location of treatment facility:
Matthews Farms
12897 Falcon Avenue
Glencoe, Minnesota 55376

Section 4: Extent and Magnitude of Soil Contamination

4.1 Were soil borings conducted in or immediately adjacent to all likely 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.

Soil boring GP-1 was completed in the former UST basin to evaluate the vertical extent of contamination and site stratigraphy. Soil borings GP-2, GP-3 and GP-6 were completed down gradient of the former UST basin, and as a close to the former UST basin as feasible, to evaluate the horizontal extent of contamination. Soil borings GP-4 and GP-5 were completed to the north and east of the former UST basin to evaluate the horizontal extent of 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.

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.

Based on soil headspace screening and soil analytical results, the horizontal and vertical extent of soil contamination is limited to the area directly below the former UST location. The vertical extent is limited to a depth of less than 16 feet below grade.

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

None detected.

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 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? feet

4.11 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.

No evidence of mottling was observed in the soil samples collected from the soil borings. Large fluctuations in the water table surface are not expected. Local stratigraphy consists of clay with thin, water-bearing sand and gravel seams.

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*

The shallow groundwater at the site, approximately nine to twelve feet below the ground surface, is not a resource aquifer. The shallowest aquifer identified as being used for water supply during the receptor survey was more than 190 feet deep.

The source of the petroleum release in the location of GP-1 appears to be leakage over a long period of time from the former UST. The UST was removed on August 11, 2003. The LSI adequately defined the horizontal and vertical extent of the petroleum release in this location. None of the groundwater samples collected in or around the former UST basin exceed MDH-HRLS. The thickness of the petroleum-impacted water-bearing sand unit is less than 10 feet, and is underlain by undifferentiated drift comprised mainly of clay.

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 = **2.83** ft/day

Indicate the method of measurement (i.e., Hazen, Masch and Denny, Kozeny-Carmen, etc.): Grain-size distribution approximations by **reference values for medium to coarse silty sand** 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} = **42 ft^2/day if the silty sand seam is 15 feet thick.**
T_{Low} = **16.8 ft^2/day if the silty sand seam is 6 feet thick.**

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.

Based on field classification by a SERVICE field scientist, local statigraphy consists of clay with thin silty sand and gravel seams. Review of Minnesota Geological Survey Maps indicate approximately 350 feet of unconsolidated, undifferentiated drift underlain by the Mount Simon-Hinckley Sandstone.

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.

Groundwater flow direction was not determined based on water level measurements in the soil borings. Groundwater flow direction is estimated to be to the south, toward Buffalo Creek, located approximately ¼ mile south of the site.

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.

The groundwater sample collected from GP-1 in the former UST basin detected a DRO concentration of 340, 000 µg/L. The detected benzene and ethylbenzene concentration of 2.8 µg/L and 15 µg/L repectively, do not exceed the MDH-HRLS. DRO concentrations detected in groundwater samples collected from soil borings GP-2, GP-3, GP-4, GP-5, and GP-6 ranged from 210 µg/L to 510 µg/L. BETX were not detected above the laboratory detection limits in groundwater samples collected from GP-2 through GP-6.

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.

Low concentrations of petroleum-related VOCs were detected in the groundwater sample collected from GP-1. The compounds are typical of those representative of #6 fuel oil.

5.7 Laboratory certification number: **027-123-295**

Additional Ground Water Investigation

Complete **Section 6** only if: 1*) an aquifer has been impacted at or above Minnesota Department of Health HRLs, 2) an aquifer has been impacted below the HRLs, but the levels are likely to reach the HRLs, or 3) there is an insufficient distance separating the petroleum contaminated soil (or an impacted non- aquifer) from the underlying aquifer.* Complete **Section 7** only if remediation is anticipated. Regardless of whether you are submitting a *LSI* or a *full RI*, all sections following Section 7 must be completed.

Section 6. Extent and Magnitude of Ground Water Contamination

6.1 Discuss drilling and installation of wells, including the rationale for their locations. Attach boring logs in Appendix D.

6.2 Attach Table 8 - Monitoring Well Completion Information.

6.3 Attach Table 9 - Summary of Water Levels Measured in Wells.

6.4 Attach Table 10 - Analytical Results of Water Samples Collected from Wells. Indicate here whether samples were purged or unpurged (see fact sheet 3.23). If purged, indicate purging method.

6.5 Attach Table 11 - Other Contaminants Detected in Water Samples Collected from Wells (Petroleum or Non-Petroleum Derived). Indicate here whether samples were purged or unpurged (see fact sheet 3.23). If purged, indicate purging method.

6.6 Describe the extent and magnitude of the ground water contamination. Discuss the presence of non-petroleum compounds, if detected, and identify possible sources of these compounds. Also provide a discussion on QA/QC, including information on the samples collected and laboratory analyses performed.

6.7 Is there a clean or nearly clean (below HRLs) down-gradient monitoring well located along the longitudinal axis of the contaminant plume? (approximately 20 degrees plus or minus the axis) ☐*Yes* ☐*No*

6.8 Is there a worst case well completed through the source area(s) of the release? ☐*Yes* ☐*No*

If you have answered *NO* to any of the above two questions, please explain why a well was not completed in the required location.

6.9 Provide an estimate of the longitudinal length of the dissolved feet

contaminant plume:

6.10 Calculate groundwater flow velocity (based on Darcy's Law) using the average K-value, average horizontal hydraulic gradient, and effective porosity. Provide documentation in Appendix F.

Hydraulic Conductivity (K) = Method
Porosity (n) = method/reference
Average horizontal gradient (dh/dl) =
Calculated GW velocity (v) = cm/s ft/day

6.11 Using the calculated groundwater flow velocity (above), is there a receptor within a five-year travel time? ☐*Yes* ☐*No*

If *YES*, provide the unique well number and identify the location of the receptor(s).

6.12 Were any deep monitoring wells completed at the site? ☐*Yes* ☐*No*

If *YES*, list them and indicate their depths:

Contact the MPCA project hydrologist before installing a deep monitoring well. A deep monitoring well may be necessary if: 1) Contamination exists more than 10 feet below the water table or 2) the impacted aquifer is a drinking water aquifer or is hydraulically connected to the aquifer(s) presently utilized by a water supply well located within 500 feet of the release source.

If contamination is present at depth in the aquifer or in deeper aquifers, additional deep wells may be required. Provide the following information if deep wells are installed:

Vertical Gradient (dv/dl)
Inferred GW Flow Direction

Provide the following information for the deep aquifer unit if it appears to be hydrogeologically distinct from the upper unit.

Porosity (n):
Hydraulic Conductivity (K)

Submit this RI report after completing a minimum of *two quarterly sampling events.* Groundwater monitoring should continue until MPCA response is received.

Section 7: Evaluation of Natural Attenuation

Refer to the fact sheet #3.21 *Assessment of Natural Attenuation at Petroleum Release Sites.*
Note: Evaluation of natural attenuation is not required unless requested by MPCA staff.

7.1 Attach Table 12 - Natural Attenuation Parameters. Discuss the results. Specifically, compare the concentrations of the inorganic parameters inside and outside the plume.

7.2 In your judgment, is natural biodegradation occurring at this site? Please Explain. ☐*Yes* ☐*No*

If active remediation is anticipated, discuss reasons why natural attenuation (including biodegradation) can not adequately remediate the contaminants to acceptable risk levels.

Section 8: Well Receptor Information/Assessment

Include in Appendix E, copies of the water supply well logs obtained from MGS, MDH, drillers, and where applicable, from County well management authorities.

8.1 Attach Table 13 - Properties Located Within 500 Feet of the Release Source. Provide a map identifying the features listed in Table 13.

8.2 Were all property owners within 500 feet of the release source successfully contacted to determine if water wells are present? **If *NO***, please explain. ☒*Yes* ☐*No*

8.3 Attach Table 14 - Water Supply Wells Located within 500 Feet of the Release Source and Municipal or Industrial Wells Within ½ Mile.

8.4 Discuss the results of the ground water receptor survey and any analytical results from sampling conducted at nearby water wells. Comment on the risks to water supply wells identified within 500 feet from the release source as well as the risk posed by or to any municipal or industrial wells found within ½ mile. Specifically indicate whether water supply wells identified utilize the impacted aquifer. (Note: an impacted aquifer separated from another aquifer by a clay lens may not be considered a separate aquifer).

The risk to municipal and public supply wells within ½ mile of the identified petroleum release is extremely low, based on the laterally and vertically extensive clay soil in which the petroleum impact has been identified. The existing municipal and public wells are separated from the impacted groundwater by several hundred vertical feet of glacial clay.

8.5 Is municipal water available in the area? ☒*Yes* ☐*No*

8.6 Are there any plans for ground water development in the impacted aquifer within 1/2 mile of the site, or one mile down-gradient of the site if the aquifer is fractured? Please give the name, title and telephone number of the person that was contacted for this information (below). ☐*Yes* ☒*No*

Gary Schriefels, Public Works Director, (320) 864-5586.

Section 9: Surface Water Risk Assessment

9.1 Are there any surface waters or wetlands located within ¼ mile of the site? ☒ *Yes* ☐ *No*

If *YES*, list them: **Buffalo Creek and Beihoffer Lake.**

9.2 If surface water is present down-gradient of the site, is there a clean down-gradient monitoring well (temporary or permanent) located between the site and the surface water?

☒ *YES*
☐ *NO*
☐ *N/A*

Groundwater samples from all up-gradient and down-gradient soil borings detected DRO concentrations. Groundwater in the area appears to contain non petroleum based DRO constituents.

9.3 If you answered *NO* to question 9.2, we assume that contamination discharges to surface water. Therefore, complete the following information:

Name of receiving water:	**Buffalo Creek**
Receiving water classification	
ORVW?	☐ *Yes* ☒ *No*
Plume width, (W):	feet
Plume thickness, (H):	feet
Hydraulic conductivity, (K):	gal/day/ft^2
Horizontal gradient, (dh/dl):	(unitless)
Discharge, (Q) = H*W*K*(dh/dl)/1440	gal/min
Applicable chronic standard (7050 or 7052)	
Applicable max. standard (7050 or 7052)	
Applicable FAV (7050 or 7052)	
Contaminant concentration in ground water	

9.4 If you answered *YES* to question 9.2, identify the clean down-gradient boring or monitoring well, the distance to the surface water feature, and discuss the contamination risk potential.

Soil borings GP-2, GP-3, and GP-6 are located in the downgradient side of the former UST basin, approximately ¼ mile north of Buffalo Creek. No VOCs were detected above method detection limits in the groundwater samples collected from the three soil borings, although relatively low levels of DRO was detected in the samples.

no clean downgrad. water sample

Section 10: Vapor Risk Assessment/Survey

10.1 Is there a history of vapor impacts in the vicinity of the site ? ☐*Yes*☒*No*

If *YES*, describe:

10.2 Is there any indication that free product or contaminated ground water may be traveling off-site within the utility corridors? ☐*Yes*☒*No*

If *YES*, utility backfill investigation is required (refer to Fact Sheet 3.19). Discuss the investigation rationale and results.

10.3 Discuss the potential for vapor migration/accumulation near the site. Your discussion should consider: Soil types, product type, presence and distribution of free product or high concentrations of dissolved product. Also, using cross-sections to illustrate the relationship, compare the depth of contamination with the location of underground utility lines, location and depth of storm and sanitary sewers, and location of nearby basements and sumps.

There is very little potential for vapor migration/accumulation near the site. The impacted groundwater table does not intersect site utility lines. Tight clay soils will limit migration of vapors in the former UST basin area.

10.4 Conduct a vapor survey if the vapor risk assessment indicated a risk of vapor impacts to buildings or utilities. Ask occupants of nearby buildings if they have smelled petroleum odors. See fact sheet 3.20 *Potential Receptor Surveys and Risk Evaluation Procedures at Petroleum Release Sites*. Identify all vapor monitoring locations on an attached site map by labeling each monitoring location with a number. Tabulate the list of vapor monitoring locations in Table 15. Vapor monitoring methods, including instruments used, must be discussed in Appendix C. Provide a detailed description of each vapor monitoring location and an interpretation of the vapor monitoring results below.

All residents and business adjacent to the site were interviewed to determine if they had smelled any petroleum odors inside their buildings. All responses were negative. Storm sewer catch basins along 9th Street and Hennepin Avenue were monitored using a handheld PID and combustible gas meter. No vapors were detected.

10.5 Attach Table 15 - Results of Vapor Monitoring.

Section 11: Discussion

11.1 Discuss the risks associated with the remaining soil contamination:

Petroleum-impacted soil remain in-place beneath the former UST, however no significant petroleum impacts were detected in soil samples collected from the six soil borings completed to depths of 12-37 feet in and around the former tank basin. The remaining petroleum impacted soil in the former UST basin has recently been capped with a concrete slab and large AST. The petroleum release does not appear to represent a threat to public health.

11.2 Discuss the risks associated with the impacted ground water:

The impacted groundwater encountered at the site does not represent a resource aquifer. It is unlikely that this groundwater will be utilized for any purpose. Groundwater collected from Unique Well #210278, located down-gradient from the petroleum release, was analyzed for DRO and VOCs. No VOCs were detected in the sample. DRO was detected in the groundwater sample but the concentration appears to be caused by non-petroleum constituents. The well is cased to a depth of 423 feet. The risk to the well with the impacted groundwater is low.

11.3 Discuss other concerns not mentioned above:

None observed.

Section 12: Conclusions and Recommendations

12.1 Recommendation for site:

- ☒ site closure
- ☐ additional vapor monitoring
- ☐ additional ground water monitoring
- ☐ active remediation

12.2 Base the recommendation above on fact sheet #3.1 *Leaking Underground Storage Tank Program.* Describe below how you applied the policy to support your recommendation. If closure is recommended, please summarize significant site investigative events and describe how site specific risk issues have been adequately addressed or minimized to acceptable low risk levels.

The recommendation for Site Closure is consistent with the site-specific, risk based evaluation in MPCA Fact Sheet #3.1. A LSI performed at the AMPI property in Glencoe, Minnesota, defined the vertical and lateral extent of soil and groundwater contamination. The identified soil and groundwater impacts do not appear to have the potential to impact current or potential water supplies. Because the release poses a low risk to human health and the environment, the site has been recommended for closure.

12.3 If additional monitoring is recommended, indicate the proposed monitoring schedule and frequency. Conduct quarterly monitoring until the MPCA responds to this report.

N/A.

12.4 If active remediation is proposed, then recommend a conceptual approach by listing the remedial technologies or combination of technologies that are likely feasible. MPCA staff will review this RI report at a higher than normal priority to determine if active remediation is required. We will respond with either a request for proposal for additional monitoring or a Corrective Action Design report.

N/A.

Section 13: Figures

Attach the following figures in order of discussion in the text:

☒ Site location map using a U.S. Geological Survey 7.5 minute quadrangle map.

☒ One or more site map showing:

- Structures
- Locations and depths of on-site buried utilities
- All past and present petroleum storage tanks, piping, and dispensers
- Extent of soil excavation
- Boring and well locations (including any drinking water wells on site)
- Horizontal extent of soil contamination
- Horizontal extent of ground water contamination
- Location of end points for all geologic cross sections.

Distinguish sequential elements of investigations by dates, symbols, etc. in the key.

☐ Ground water gradient contour maps (for sites with monitoring wells) for each gauging event.

☒ Well receptor survey map showing 1/2 mile radius, 500 foot radius, water supply wells, other potential sources of contamination, using a U.S. Geological Survey 7.5 minute quadrangle.

☒ Vapor survey map showing utilities and buildings with basements and monitoring locations (if a survey was required).

☒ Provide at least two (2) geologic cross sections, including utilities.

TABLES

Section 14: Tables

Table 1
Tank Information

Tank #	UST or AST	Capacity	Contents	Year Installed	Status*	Condition
1	UST	10K	#6 fuel oil	Unknown	Removed 08/11/03	Poor – holes and pitting observed

*Indicate: *removed (**date**), abandoned in place (**date**), or currently used*
Notes:

Table 2
Results of Soil Headspace Screening

Depth (ft)	Soil Boring								
	1	2	3	4	5	6	7	8	9
0-4	NS	ND	ND	ND	ND	ND	ND		
4-8	NS	ND	ND	ND	ND	ND	ND		
8-12		ND	ND	ND	ND	ND	ND		
10-12	42								
12-16							ND		
16-18	ND								
23-25	ND								
29-31	ND								
35-37	ND								

List instruments used and discuss field methods and procedures in Appendix C.
Notes: **ND = No organic vapors detected.**
NS = Not Sampled (Backfill material placed in former UST Excavation.)

Table 3
Analytical Results of Soil Samples

Boring, Depth(ft)	Date Sampled	Benzene	Toluene	Ethylbenzene	Xylenes	GRO	DRO	Lab Type
GP-1 (35-37')	8/25/03	<0.25	<0.25	<0.25	<0.75	NA	<8.0	Fixed

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

Notes: **NA = Not analyzed for referenced parameter.**

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

Boring, Depth (ft)	Date Sampled						Lab Type

Report results in mg/kg. Indicate other contaminants (either petroleum or non-petroleum derived) detected in soil collected from borings.

Notes: **GP-1 (35-37') was analyzed for VOC MDH 466C. No VOCs were detected above method detection limits**

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)	12	9	9	9	9	9				
Sampled Depth (ft)	13	10	10	10	10	10				

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	**8/25/03**	**13'**	**2.8**	**<0.50**	**15**	**<1.5**	**<1.0**	**NA**	**340,000**	**Fixed**
GP-2	**8/25/03**	**10'**	**<0.50**	**<0.50**	**<0.50**	**<1.5**	**<1.0**	**NA**	**370**	**Fixed**
GP-3	**8/25/03**	**10'**	**<0.50**	**<0.50**	**<0.50**	**<1.5**	**<1.0**	**NA**	**300**	**Fixed**
GP-4	**8/25/03**	**10'**	**<0.50**	**<0.50**	**<0.50**	**<1.5**	**<1.0**	**NA**	**510**	**Fixed**
GP-5	**8/25/03**	**10'**	**<0.50**	**<0.50**	**<0.50**	**<1.5**	**<1.0**	**NA**	**210**	**Fixed**
GP-6	**8/25/03**	**10'**	**<0.50**	**<0.50**	**<0.50**	**<1.5**	**<1.0**	**NA**	**420**	**Fixed**
Trip Blank			**<0.50**	**<0.50**	**<0.50**	**<1.5**	**<1.0**	**NA**	**NA**	**Fixed**
Field Blank			--	--	--	--	--	--	--	--
Lab Blank			**<0.50**	**<0.50**	**<0.50**	**<1.5**	**<1.0**	**NA**	**<100**	**Fixed**
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 for referenced parameter.**

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

Boring Number	Date Sampled	isopropyl benzene	n-butyl benzene	n-propyl benzene	naphthalene	sec-butyl benzene	
GP-1	8/25/03	4.1	3.9	6.3	23	3.0	
Trip Blank		<0.50	<0.50	<0.50	<0.50	<0.50	
Field Blank		--	--	--	--	--	
Lab Blank		<0.50	<0.50	<0.50	<0.50	<0.50	
HRL (ug/L)		NL	NL	NL	300	NL	

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: **GP-2, GP-3, GP-4, GP-5, and GP-6 were analyzed for VOC MDH List by 8021B. No VOCs were detected above method detection limits.**

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 Thickness	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									
Water Supply Well Unique #210278	**3/23/04**	**<1.0**	**<1.0**	**<1.0**	**<3.0**	**<1.0**	**<100**	**160**	**Fixed**
Trip Blank	**3/23/04**	**<1.0**	**<1.0**	**<1.0**	**<3.0**	**<1.0**	**<100**	**<100**	**Fixed**
Field 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	**823 East 9th Street**	No	Visual	NA	Yes	Yes	Unknown	No	Residential
2	**827 East 9th Street**	No	Visual	NA	Yes	Yes	Unknown	No	Residential
3	**831 Hennepin**	No	Visual	NA	Yes	Yes	Unknown	No	Residential
4	**906 Hennepin**	No	Visual	NA	Yes	Yes	Unknown	No	Residential
5	**1017 East 9th Street**	No	Visual	NA	Yes	Yes	No	No	Business
6	**718 East 9th Street**	No	Visual	NA	Yes	Yes	Unknown	No	Residential
7	**905 Hennepin**	No	Visual	NA	Yes	Yes	Yes	No	Residential
8	**911 Hennepin**	No	Visual	NA	Yes	Yes	Unknown	No	Residential
9	**806 10th Street**	No	Visual	NA	Yes	Yes	No	No	Business
10	**920 Hennepin**	No	Visual	NA	Yes	Yes	No	No	Business
11	**912 Hennepin**	No	Visual	NA	Yes	Yes	No	No	Business
12	**818 10th Street**	No	Visual	NA	Yes	Yes	No	No	Business
13	**910 10th Street**	No	Visual	NA	Yes	Yes	No	No	Business
14	**920 10th Street**	No	Visual	NA	Yes	Yes	No	Yes	Business
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
210278	988	640	423	130	MTPL	Pub	AMPI	<0.1 mi, S
242998	993	581	NA	Unk	MTPL	Test	City of Glencoe	~ 0.2 mi, SW
210412	995	603	375	90	MTPL	Mun	City of Glencoe	~ 0.3 mi, W-SW
210324	995	738	434	132	MTPL	Mun	City of Glencoe	~ 0.3 mi, W-SW
210319	995	602	387	135	MTPL	Mun	City of Glencoe	~ 0.3 mi, W-SW
210317	1006	291	191	58	QBAA	Pub	Green Giant Company	~ 0.4 mi, NW

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:
Timothy Rogers, Project Manager	Timothy G Rogers	8/3/04

Company and mailing address: **SERVICE Engineering Group**
675 Vandalia Street
Saint Paul, MN 55114

Phone: **(651) 644-6680**

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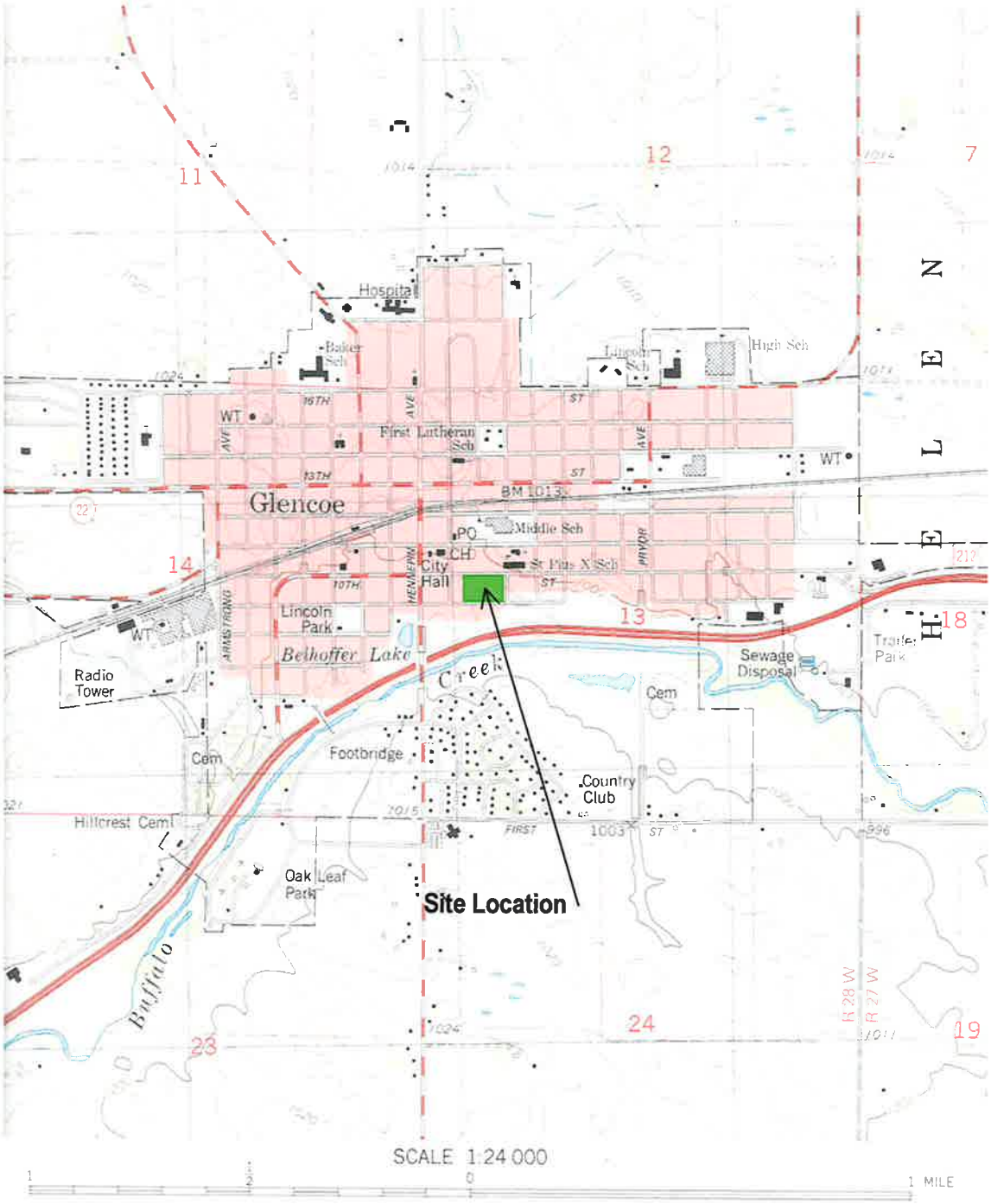
FIGURES



GLENCOE, MINN.
SW 4 GLENCOE 15' QUADRANGLE
N4445–W9407.5/7.5

FIGURE TITLE	FIGURE 1 SITE LOCATION MAP ASSOCIATED MILK PRODUCERS, INC. GLENCOE, MINNESOTA			
FILE NAME	DATE	REVISION DATE	DRAWN BY	REVIEWED BY
03039 fig 1.ppt		08/02/04	KU	TGR

SERVICE
Environmental & Engineering

906

823

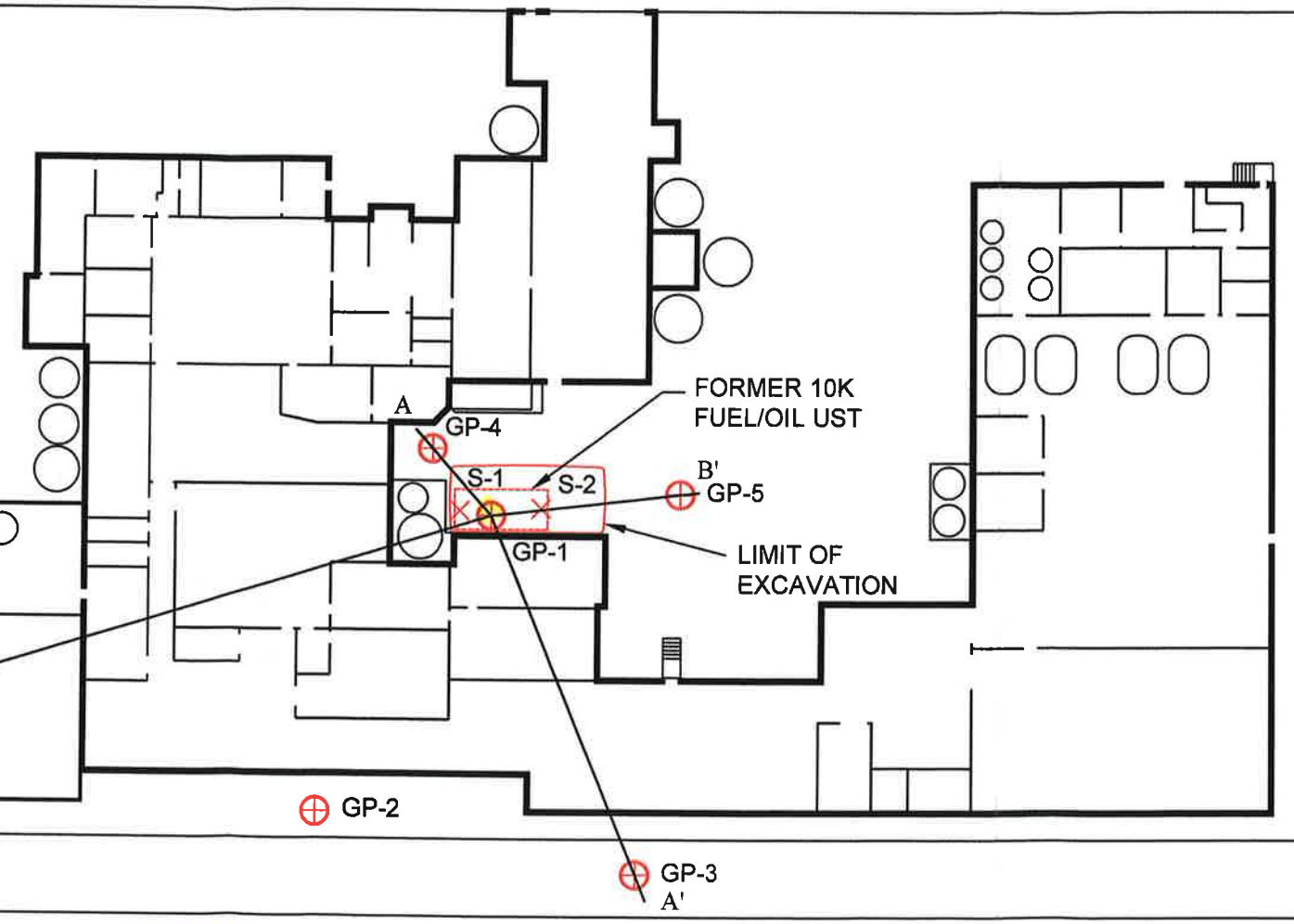
827

IVES AVE.

PARKING LOT

9th STREET E.

HENNEPIN AVE.



UNIQUE #
210278

WATER SUPPLY
WELL HOUSE

PROPANE
TANK AREA

GP-2 SOIL PROBE LOCATION

S-1 SOIL SAMPLE COLLECTED
FROM BENEATH UST

NORTH

0 5 10 20 30 50
Scale in Feet:

FIGURE TITLE

FIGURE 2
SITE DIAGRAM
ASSOCIATED MILK PRODUCERS, INC.
GLENCOE, MN

FILE NAME: SEE SIDEBAR	DATE	REVISION DATE	DRAWN BY	REVIEWED BY
03039-Layout1.dwg	09/26/03	08/02/04	KU	TR

SERVICE ENGINEERING GROUP

P:\2003\03039 Glencoe Creamery\J-Graphics\03039-layout1.dwg 8-03-04 03:38:11 PM kevinu

10th STREET E.

906 HENNEPIN

919 HENNEPIN

911 HENNEPIN

719 9th STREET

905 HENNEPIN

606 10th St.

920 HENNEPIN

912 HENNEPIN

818 10th STREET

906 HENNEPIN

823 9th STREET

827 9th STREET

IVES AVE.

910 9th STREET

920 9th STREET

PARKING LOT

500 FOOT RADIUS

1017 9th STREET

9th STREET E.

GREELEY AVE.

718 9th STREET

831 HENNEPIN

HENNEPIN AVE.

HYWAY 212

HYWAY 212

NORTH

0 20 40 60 100

Scale in Feet:

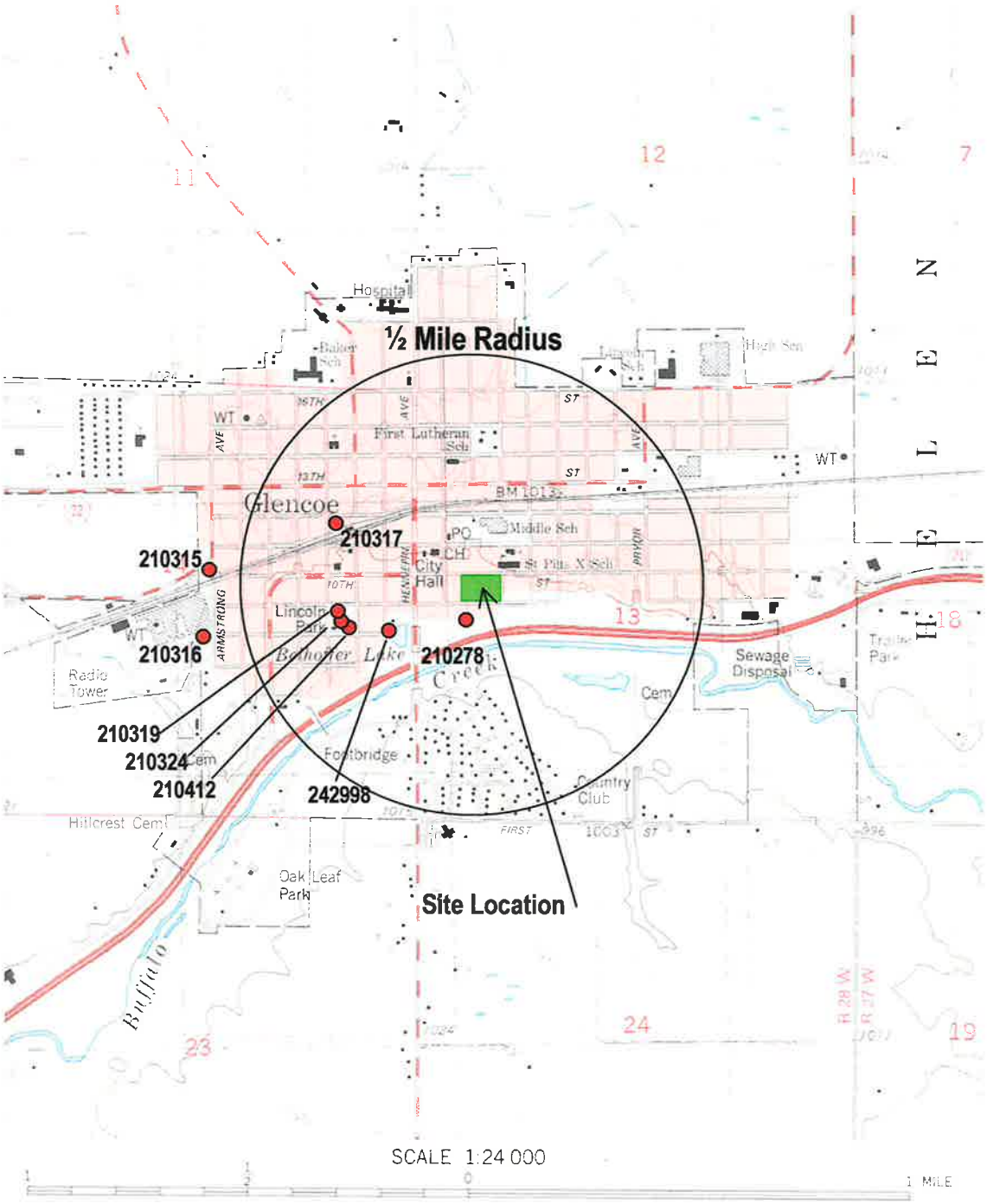
P:\2003\03039 Glencoe Creamery\J-Graphics\03039-layout1.dwg 8-03-04 01:57:32 PM kevinu

FIGURE TITLE

FIGURE 5
500 FOOT WALKING SURVEY DIAGRAM
ASSOCIATED MILK PRODUCERS, INC.
GLENCOE, MN

FILE NAME: SEE SIDEBAR	DATE	REVISION DATE	DRAWN BY	REVIEWED BY
03039-Layout1.dwg	09/26/03	08/02/04	KU	TR

SERVICE ENGINEERING GROUP



QUADRANGLE LOCATION

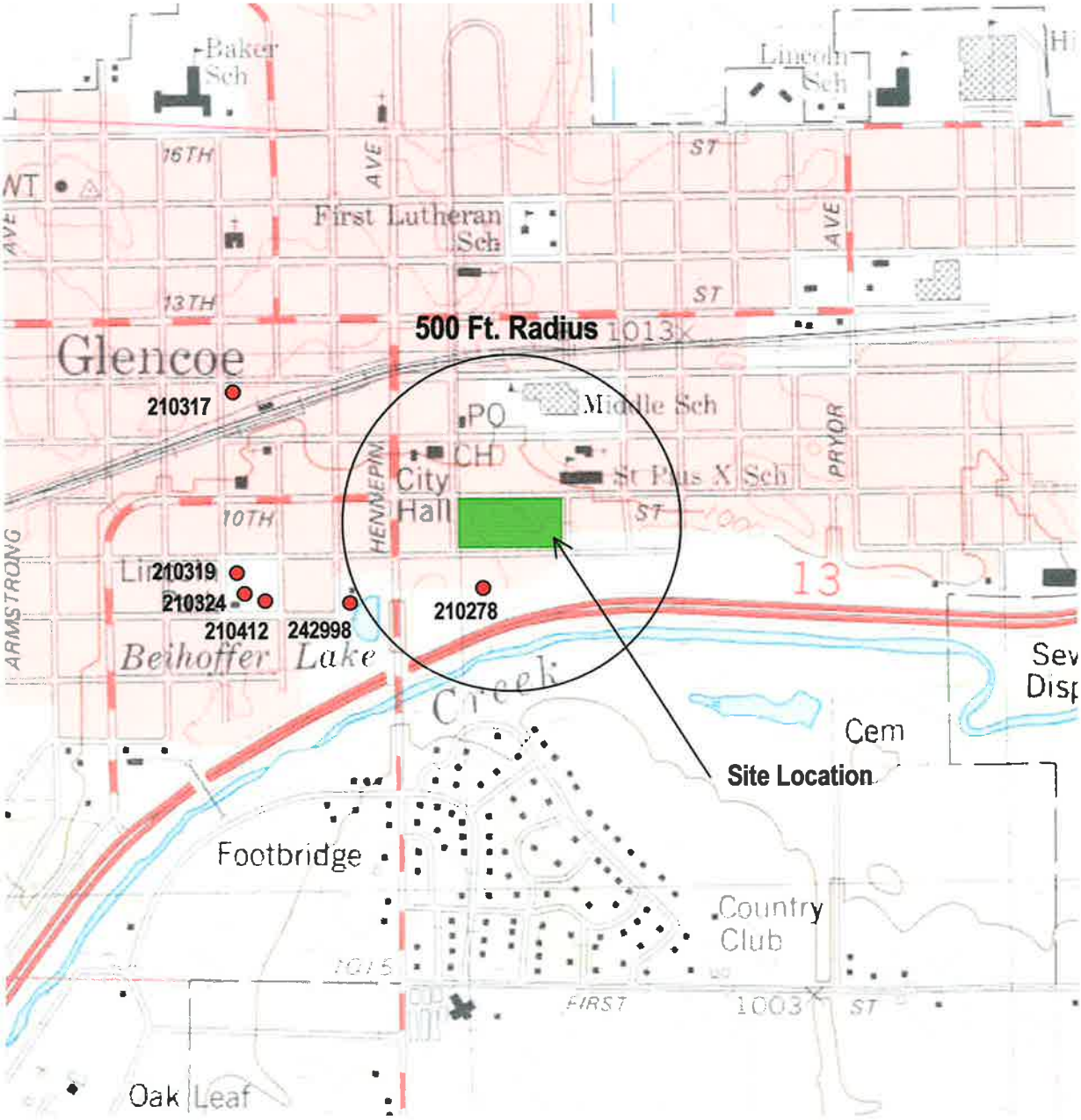
GLENCOE, MINN.
SW/4 GLENCOE 15' QUADRANGLE
N4445–W9407.5/7.5

FIGURE TITLE

FIGURE 3
½ MILE RADIUS WATER SUPPLY WELL LOCATION MAP
ASSOCIATED MILK PRODUCERS, INC.
GLENCOE, MINNESOTA

FILE NAME	DATE	REVISION DATE	DRAWN BY	REVIEWED BY
03039-fig 5.ppt		Aug 02, 04	KU	TGR

SERVICE ENGINEERING GROUP



GLENCOE, MINN.
SW 4 GLENCOE 15' QUADRANGLE
N4445–W9407.5/7.5

FIGURE TITLE	FIGURE 4 500 FOOT RADIUS WATER SUPPLY WELL LOCATION MAP ASSOCIATED MILK PRODUCERS, INC. GLENCOE, MINNESOTA			
FILE NAME	DATE	REVISION DATE	DRAWN BY	REVIEWED BY
03039-fig 4.ppt		Aug 02, 04	KU	TGR

SERVICE ENGINEERING GROUP

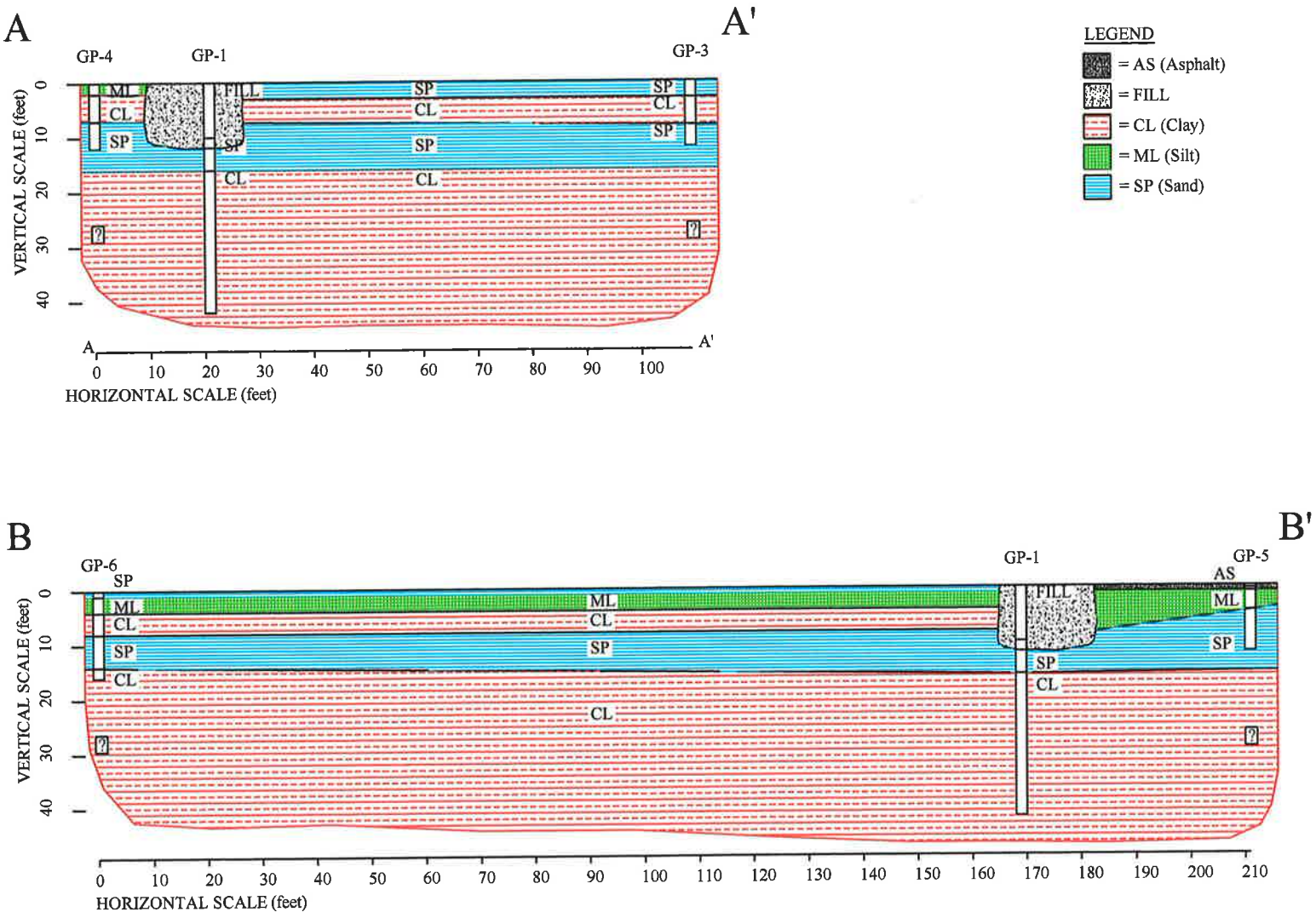


FIGURE TITLE

FIGURE 6
GEOLOGIC CROSS SECTION
ASSOCIATED MILK PRODUCERS, INC. (AMPI)
GLENCOE, MINNESOTA

FILE NAME: SEE SIDEBAR	DATE	REVISION DATE	DRAWN BY	REVIEWED BY
03039-XS.dwg	08/02/04	.	KU	TR

SERVICE ENGINEERING GROUP

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APPENDIX A
EXCAVATION REPORT WORKSHEET

Leaking Petroleum Storage Tanks
Minnesota Pollution Control Agency
http://www.pca.state.mn.us/programs/lust_p.html

EXCAVATION REPORT WORKSHEET FOR PETROLEUM RELEASE SITES

Fact Sheet #3.7

Complete the information below to document excavation and treatment of petroleum contaminated soil. Conduct excavations in accordance with fact sheet #3.6 *Excavation of Petroleum Contaminated Soil During Tank Removal*. Please attach any available preliminary site investigation reports to this excavation report, and attach additional pages if necessary. Please type or print clearly. Do not revise or delete text or questions from this report form.

The excavation worksheet deadline is 10 months from the date of receipt of the MPCA "Petroleum Storage Tank Release Investigation and Corrective Action" letter. MPCA staff may establish a shorter deadline for high priority sites.

PART I: BACKGROUND

A. Site: **Associated Milk Producers, Inc. (AMPI)**
MPCA Site ID#: LEAK00015362

Street: **818 East 9th Street**
City, Zip: **Glencoe, 55336**
County: **McLeod**
Site location (UTM required):

B. Tank Owner/Operator: **AMPI**

Mailing Address:**818 East 9th Street**

Street/Box: **P.O.Box 100**
City, Zip: **Glencoe, 55336**
Telephone: **320-864-5577**

C. Excavating Contractor: **Lemke & Sons**

Contact: **John Lemke**
Telephone: **320-864-3816**
Tank Contractor Certification Number: **120**

D. Consultant: **SERVICE Engineering Group**

Contact: **Tim Rogers**
Street/Box: **675 Vandalia Street**
City, Zip: **Saint Paul, 55114**
Telephone: **651-644-6680**

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

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.

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) **409,036** meters
Y coordinate (Northing) **4,957,838** 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)

The method used to determine coordinate was 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.)

USGS Glencoe, Minnesota, Topographic map, 7.5 series, 1:24,000. Revised 1976.

PART II: DATES

A. Date release reported to MPCA: **August 11, 2003.**

B. Dates site work performed (tanks removed, piping removed, soil excavation, soil borings, etc.):

Work Performed	Date
UST Removal	**August 11, 2003**
Soil Sample Collection from UST Excavation	**August 11, 2003**
Geoprobe Subsurface Investigation	**August 25, 2003**

PART III: SITE AND RELEASE INFORMATION

A. Describe the land use and pertinent geographic features within 1,000 feet of the site. (i.e. residential property, industrial, wetlands, etc.)

The topography is relatively flat with a slight slope toward the south. Residential and commercial property is located to the north, east, and west. The Buffalo River is located to the south.

B. Provide the following information for all tanks removed and any remaining at the site:

Table 1.

Tank #	UST or AST	Capacity (gallons)	Contents (product type)	Year installed	Status*	Condition of Tank
1	UST	10K	#6 fuel oil	Unknown	Removed 8/11/03	Poor – holes and pitting observed.

*Indicate: *removed (date), abandoned in place (date), or currently used*
Notes:

C. Describe the location and status of the other components of the tank system(s), (i.e., piping and dispensers) for those tanks listed above.

UST piping associated with Tank #1 was removed on 8/11/03.

D. Identify and describe the source or suspected source(s) of the release and how the release was discovered.

The petroleum release associated with Tank #1 appeared to be the result of tank deterioration. Holes and pitting were observed in the UST during UST removal.

E. What was the volume of the release? (if known): **UNKNOWN** gallons

F. When did the release occur? (if known): **UNKNOWN**

G. Describe source of on-site drinking water. **Water supply well (Unique well # 210278).**

PART IV: EXCAVATION INFORMATION

A. Dimensions of UST excavation(s): Length **34'** Width **18'** Depth **13'**

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

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

D. Quantity of contaminated soil removed for treatment (cubic yards):

Approximately 70 cubic yards was land applied at Matthews Farms in Glencoe, MN. (Approved by the MPCA on 10/22/03.)

[**Note**: If the volume removed is more than allowed in Fact Sheet 3.6 *Excavation of Petroleum Contaminated Soil During Tank Removal*, please document MPCA staff approval.]

E. Were new tanks and/or piping and dispensers installed? (yes/no) If yes, what volume of contaminated soil was excavated to accommodate the installation of the new tanks and piping?

No.

F. If contaminated soil was removed to accommodate the installation of new tanks and/or piping, show your calculations for the amount of soil removal allowed using Table 6.2 in Fact Sheet 3.6 *Excavation of Petroleum Contaminated Soil During Tank Removal.*

N/A.

G. Was ground water encountered or a suspected perched water layer or was there evidence of a seasonally high ground water table (i.e. mottling)? (yes/no) At what depth?

Yes, groundwater was encountered at a depth of approximately 12 feet below grade.

H. If ground water was not encountered during the excavation, what is the expected depth of ground water?

N/A.

I. Additional investigation is necessary at sites that have visual or other evidence of contamination remaining in the suspected source area, with sandy or silty sand soil [Unified Soil Classification System/American Society for Testing Materials] and where the water table is within 25 feet of the ground surface. See fact sheet #3.6 *Excavation of Petroleum Contaminated Soil*, Part VI Additional Investigation. If a soil boring is necessary, describe the soil screening and analytical results. Attach the boring logs and laboratory results to this report.

Results of the subsurface investigation are presented in the attached Remedial Investigation Report.

J. If no soil boring was performed, explain.

N/A.

K. If ground water was encountered or if a soil boring was conducted, was there evidence of ground water contamination? (yes/no) Describe this evidence of contamination, e.g., free product (specify thickness), product sheen, ground water in contact with petroleum contaminated soil, water analytical results, etc. **Note**: If you observe free product, contact MPCA staff immediately, as outlined in fact sheet 3.3 *Free Product: Evaluation and Recovery*.

Yes. A sheen was observed on water present in the UST excavation. A coarse to medium sand seam 1 to 2 feet in thickness was present at a depth of approximately 12 feet below ground surface.

L. Was bedrock encountered in the excavation? (☐yes/ ☒no) At what depth?

M. Were other unique conditions associated with this site? (☐yes/ ☒no) If so, explain.

PART V: SAMPLING INFORMATION

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

Soil encountered during excavation was screened using the headspace analysis method in accordance with MPCA Fact Sheet #3.22.

B. List soil vapor headspace analysis results collected during excavation of tanks, lines and dispensers. Indicate all 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. Similarly, 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"). Indicate the depth of sample collection. Be sure the sample codes correspond with the site map in part VI, below.

Sample Code	Soil Type	Reading ppm	Sample Code	Soil Type	Reading ppm
SV-1 (N Sidewall ~11')	**Sand**	**20**			
SV-2 (E Sidewall ~11')	**Sand**	**ND**			
SV-3 (W Sidewall ~11')	**Sand**	**25**			

C. Was the "removed soil" placed back into the excavation basin? (☐yes/ ☒no)
If no, please complete Part VIII: Soil Treatment Information section. If yes, a Limited Site Investigation is necessary (see fact sheet 3.19, *Soil and Ground Water Investigations Performed During Remedial Investigations*).

D. Briefly describe the soil analytical sampling and handling procedures used:

Soil samples were collected using dedicated nitrile gloves and placed directly in sample jars by the laboratory. A field scale was used to determine the proper soil mass for each sample. Samples were placed on ice in the field and during transportation to the laboratory. The samples were transported using chain-of-custody protocol.

E. List below all soil sample analytical results from bottom and side wall samples collected after excavation of tanks, lines and dispensers (i.e., soils left in place when excavation is complete). Code the samples with sampling depths in parentheses as follows: sidewall samples S-1 (8 feet), S-2 (4 feet), etc.; bottom samples B-1 (13 feet), B-2 (14 feet), stockpile samples SP-1, etc. Be sure the sample codes correspond to the site map required in part VI. Do not include analyses from the stockpiled soil.

Sample Code	GRO/ DRO	Benzene mg/kg	Ethyl-benzene mg/kg	Toluene mg/kg	Xylene mg/kg	MTBE mg/kg	Lead mg/kg
S-1 (12')	**27/1700**	**BDL**	**BDL**	**BDL**	**BDL**	**BDL**	**NA**
S-2 (12')	**BDL/BDL**	**BDL**	**BDL**	**BDL**	**BDL**	**BDL**	**NA**

Note: Attach copies of laboratory reports and chain of custody forms.

PART 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, piping, 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 any soil borings (e.g., SB-1). Also, attach all boring logs.
   f. North arrow, bar scale and map legend.
   g. Provide location of any on-site water wells. If on-site water wells exist, please provide well logs and/or construction diagrams.
   h. Locations of new tanks, piping and dispensers, if installed.

PART VII: SUMMARY

Briefly summarize evidence indicating whether additional investigation is necessary at the site, as discussed in parts VI and VII of fact sheet 3.6 *Excavation of Petroleum Contaminated Soil During Tank Removal*. If no further action is necessary, the MPCA staff will review this report following notification of soil treatment.

A petroleum release was identified at the base of the UST excavation based on PID headspace monitoring and laboratory analysis of soil samples collected from the base of the former tank basin. Water encountered in the tank basin at a depth of approximately 12 feet exhibited a sheen and petroleum odor. A limited site investigation is recommended to determine the extent of the petroleum release identified during removal of the #6 fuel oil UST at AMPI.

PART VIII: SOIL TREATMENT INFORMATION

A. Soil treatment method used (thermal, land application, composting, other). If you choose "other" specify treatment method: **Land application.**

B. Location of treatment site/facility: **NA.**

Matthews Farms
12897 Falcon Avenue
Glencoe, Minnesota 55376

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):

10/22/03.

D. Identify the location of stockpiled contaminated soil:

N/A.

PART IX: CONSULTANT (OR OTHER) PREPARING THIS REPORT

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. 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 excavation reports or if the report form has been altered.

Name and Title: Signature: Date signed:

Tim Rogers
Project Manager

8/3/04

Company and mailing address: **SERVICE Engineering Group**
675 Vandalia Street
Saint Paul, MN 55114

Telephone **651-644-6680** Fax: **651-644-7008**

If additional investigation is not necessary, please mail this form and all necessary attachments to the MPCA project manager. If additional investigation is necessary, include this form as an appendix to Fact Sheet 3.24 *Investigation Report Form.* **MPCA staff will not review excavation reports indicating a limited site investigation is necessary unless the limited site investigation has been completed.**

Web pages and phone numbers

MPCA staff	http://data.pca.state.mn.us/pca/emplsearch.html
MPCA toll free	**1-800-657-3864**
LUST web page	http://www.pca.state.mn.us/programs/lust_p.html
MPCA Infor. Request	http://www.pca.state.mn.us/about/inforequest.html
MPCA VPIC program	http://www.pca.state.mn.us/programs/vpic_p.html
PetroFund Web Page	http://www.commerce.state.mn.us/mainpf.htm
PetroFund Phone	**651-297-1119**, or **1-800-638-0418**
State Duty Officer	**651-649-5451 or 1-800-422-0798**

APPENDIX B
LABORATORY ANALYTICAL REPORTS

LEGEND
Technical Services, Inc.

AUG 21 2003

08/19/03

Mr. Tim Rogers
Service Environmental & Engineering Co.
675 Vandalia Street
St. Paul MN
55114

Subject: 03039 Glencoe Creamery
Legend No: 2003080213

LEGEND TECHNICAL SERVICES, INC. (LEGEND) received the following sample(s).

Matrix	Samples	Date Sampled	Date Received	Comments
Soil	4	08/11/03	08/12/03	Received on ice at 6 C.

* The associated batch quality assurance / quality control criteria were met with satisfaction.

* All samples will be retained by LEGEND for 30 days from the date of this report and then discarded unless other instructions are received from the client.

* Minnesota Laboratory Certification # 027-123-295.

Prepared by,
LEGEND TECHNICAL SERVICES, INC

Chris Bremer
Laboratory Director

Karla Reps
Project Manager

Legend Technical Services

Client Name:	Service Environmental & Engineerir	**Legend Project #:**	2003080213
Client Project:	03039	**Matrix:**	Soil
Date Sampled:	08/11/03	**Date Received:**	08/12/03

DRO/8015B SOIL

Extraction Date:	08/13/03	08/13/03	08/13/03	08/13/03	08/13/03	--
Analysis Date:	08/13/03	08/13/03	08/13/03	08/13/03	08/13/03	--
Analysis Method:	WI DRO	WI DRO	WI DRO	WI DRO	WI DRO	--
Client Sample ID:	S-1 @ 12'	S-2 @ 13'	Composite 1	Composite 2	Method Blank	mg/kg
Compound	1	2	3	4	6	RL
Diesel range organics	**1,700**	<8.0	**160 DH**	**92**	<8.0	8.0
C-30 (Surrogate)	D1	72.7%	92.7%	110%	83.7%	--
Percent Solids	84%	78%	88%	84%	--	--

D1=Surrogate recovery could not be quantitated due to high dilution of the sample.

DH=The initial sample weight exceeded 35 grams and can no longer be considered DRO.

Legend Technical Services

Client Name:	Service Environmental & Engineerir	**Legend Project #:**	2003080213
Client Project:	03039	**Matrix:**	Soil
Date Sampled:	08/11/03	**Date Received:**	08/12/03

GRO/8021B SOIL

Extraction Date:	--	--	--	--	--
Analysis Date:	08/13/03	08/13/03	08/13/03	08/13/03	--
Analysis Method:	WI GRO	WI GRO	WI GRO	WI GRO	--
Client Sample ID:	S-1 @ 12'	S-2 @ 13'	Methanol Trip Blank	Method Blank	mg/kg
Compound	**1**	**2**	**5**	**6**	**RL**
Gasoline range organics	**27 H**	<5.0	<5.0	<5.0	5.0
Benzene	<0.025	<0.025	<0.025	<0.025	0.025
Ethyl benzene	<0.025	<0.025	<0.025	<0.025	0.025
Methyl-tert-butyl ether	<0.025	<0.025	<0.025	<0.025	0.025
Toluene	<0.025	<0.025	<0.025	<0.025	0.025
Total xylenes	<0.075	<0.075	<0.075	<0.075	0.075
1-Chloro-4-fluorobenzene(Surr)	106%	101%	103%	102%	--
Percent Solids	84%	78%	--	--	--

H=Higher boiling hydrocarbons are present outside of the GRO window.

Legend Technical Services

Client Name:	Service Environmental & Engineerir	**Legend Project #:**	2003080213
Client Project:	03039	**Matrix:**	Soil
Date Sampled:	08/11/03	**Date Received:**	08/12/03

METALS SOIL 6010/7000

Digestion Date:	08/13/03	08/13/03	08/13/03	--
Analysis Date:	08/13/03	08/13/03	08/13/03	--
Analysis Method:	6010B	6010B	6010B	--
Client Sample ID:	Composite 1	Composite 2	Method Blank	mg/kg
Compound	3	4	6	RL
Lead (total)	16	22	<2.0	2.0
Percent Solids	88%	84%	--	--

Legend Technical Services

Client Name:	Service Environmental & Engineering Cc	**Legend Project #:**	2003080213
Client Project Number:	3039	**Sample #:**	3
Client Project Name:	Glencoe Creamery	**Matrix:**	Soil
Date Sampled:	08/11/03	**Date Received:**	08/12/03
Client Sample ID:	Composite 1	**Percent Solids**	88%

VOC MDH 466C

Extraction Date: --
Analysis Method: MDH 466C
Analysis Date: 08/13/03
Client ID: Composite 1

Compound	Sample Results	Units	RL	MDL
1,1,1,2-Tetrachloroethane	<0.25	mg/kg	0.25	0.030
1,1,1-Trichloroethane	<0.25	mg/kg	0.25	0.042
1,1,2,2-Tetrachloroethane	<0.25	mg/kg	0.25	0.029
1,1,2-Trichloroethane	<0.25	mg/kg	0.25	0.035
1,1,2-Trichlorotrifluoroethane	<0.25	mg/kg	0.25	0.026
1,1-Dichloroethane	<0.25	mg/kg	0.25	0.056
1,1-Dichloroethene	<0.25	mg/kg	0.25	0.067
1,1-Dichloropropene	<0.25	mg/kg	0.25	0.047
1,2,3-Trichlorobenzene	<0.25	mg/kg	0.25	0.037
1,2,3-Trichloropropane	<0.25	mg/kg	0.25	0.042
1,2,4-Trichlorobenzene	<0.25	mg/kg	0.25	0.038
1,2,4-Trimethylbenzene	<0.25	mg/kg	0.25	0.021
1,2-Dibromo-3-chloropropane	<0.25	mg/kg	0.25	0.052
1,2-Dibromoethane	<0.25	mg/kg	0.25	0.042
1,2-Dichlorobenzene	<0.25	mg/kg	0.25	0.062
1,2-Dichloroethane	<0.25	mg/kg	0.25	0.050
1,2-Dichloropropane	<0.25	mg/kg	0.25	0.026
1,3,5-Trimethylbenzene	<0.25	mg/kg	0.25	0.020
1,3-Dichlorobenzene	<0.25	mg/kg	0.25	0.034
1,3-Dichloropropane	<0.25	mg/kg	0.25	0.022
1,4-Dichlorobenzene	<0.25	mg/kg	0.25	0.031
2,2-Dichloropropane	<0.25	mg/kg	0.25	0.060
2-Butanone	<2.0	mg/kg	2.0	0.023
2-Chlorotoluene	<0.25	mg/kg	0.25	0.020
4-Chlorotoluene	<0.25	mg/kg	0.25	0.021
Acetone	<2.0	mg/kg	2.0	0.045
Allyl chloride	<0.25	mg/kg	0.25	0.025
Benzene	<0.25	mg/kg	0.25	0.021
Bromobenzene	<0.25	mg/kg	0.25	0.031
Bromochloromethane	<0.25	mg/kg	0.25	0.031
Bromodichloromethane	<0.25	mg/kg	0.25	0.057
Bromoform	<0.25	mg/kg	0.25	0.046
Bromomethane	<0.25	mg/kg	0.25	0.050
Carbon tetrachloride	<0.25	mg/kg	0.25	0.046
Chlorobenzene	<0.25	mg/kg	0.25	0.011
Chloroethane	<0.25	mg/kg	0.25	0.035
Chloroform	<0.25	mg/kg	0.25	0.032
Chloromethane	<0.25	mg/kg	0.25	0.069
cis-1,2-Dichloroethene	<0.25	mg/kg	0.25	0.037
cis-1,3-Dichloropropene	<0.25	mg/kg	0.25	0.040
Dibromochloromethane	<0.25	mg/kg	0.25	0.033
Dibromomethane	<0.25	mg/kg	0.25	0.026
Dichlorodifluoromethane	<0.50	mg/kg	0.50	0.097
Dichlorofluoromethane	<0.25	mg/kg	0.25	0.034
Ethyl benzene	<0.25	mg/kg	0.25	0.0083
Ethyl ether	<0.25	mg/kg	0.25	0.024
Hexachlorobutadiene	<0.25	mg/kg	0.25	0.035
Isopropyl benzene	<0.25	mg/kg	0.25	0.0095
Methyl isobutyl ketone	<0.25	mg/kg	0.25	0.016
Methyl-tert-butyl ether	<0.25	mg/kg	0.25	0.015
Methylene chloride	<1.5	mg/kg	1.5	0.069
n-Butyl benzene	<0.25	mg/kg	0.25	0.021
n-Propyl benzene	<0.25	mg/kg	0.25	0.013
Naphthalene	<0.25	mg/kg	0.25	0.010
o-Xylene	<0.25	mg/kg	0.25	0.013
p-Isopropyltoluene	<0.25	mg/kg	0.25	0.018
p/m-Xylene	<0.50	mg/kg	0.50	0.026
sec-butyl benzene	<0.25	mg/kg	0.25	0.0067
Styrene	<0.25	mg/kg	0.25	0.010
tert-Butyl benzene	<0.25	mg/kg	0.25	0.0072
Tetrachloroethene	<0.25	mg/kg	0.25	0.024
Tetrahydrofuran	<2.0	mg/kg	2.0	0.042
Toluene	<0.25	mg/kg	0.25	0.011
trans-1,2-Dichloroethene	<0.25	mg/kg	0.25	0.054
trans-1,3-Dichloropropene	<0.25	mg/kg	0.25	0.037
Trichloroethene	<0.25	mg/kg	0.25	0.027
Trichlorofluoromethane	<0.25	mg/kg	0.25	0.056
Vinyl chloride	<0.25	mg/kg	0.25	0.050
4-Bromofluorobenzene (Surr)	99.7	%	--	--
Dibromofluoromethane (Surr)	89.9	%	--	--
Toluene-d8 (Surr)	90.8	%	--	--

Legend Technical Services

Client Name:	Service Environmental & Engineering Cc	**Legend Project #:**	2003080213
Client Project Number:	3039	**Sample #:**	4
Client Project Name:	Glencoe Creamery	**Matrix:**	Soil
Date Sampled:	08/11/03	**Date Received:**	08/12/03
Client Sample ID:	Composite 2	**Percent Solids**	84%

VOC MDH 466C

Extraction Date: --
Analysis Method: MDH 466C
Analysis Date: 08/13/03
Client ID: Composite 2

Compound	Sample Results	Units	RL	MDL
1,1,1,2-Tetrachloroethane	<0.25	mg/kg	0.25	0.030
1,1,1-Trichloroethane	<0.25	mg/kg	0.25	0.042
1,1,2,2-Tetrachloroethane	<0.25	mg/kg	0.25	0.029
1,1,2-Trichloroethane	<0.25	mg/kg	0.25	0.035
1,1,2-Trichlorotrifluoroethane	<0.25	mg/kg	0.25	0.026
1,1-Dichloroethane	<0.25	mg/kg	0.25	0.056
1,1-Dichloroethene	<0.25	mg/kg	0.25	0.067
1,1-Dichloropropene	<0.25	mg/kg	0.25	0.047
1,2,3-Trichlorobenzene	<0.25	mg/kg	0.25	0.037
1,2,3-Trichloropropane	<0.25	mg/kg	0.25	0.042
1,2,4-Trichlorobenzene	<0.25	mg/kg	0.25	0.038
1,2,4-Trimethylbenzene	<0.25	mg/kg	0.25	0.021
1,2-Dibromo-3-chloropropane	<0.25	mg/kg	0.25	0.052
1,2-Dibromoethane	<0.25	mg/kg	0.25	0.042
1,2-Dichlorobenzene	<0.25	mg/kg	0.25	0.062
1,2-Dichloroethane	<0.25	mg/kg	0.25	0.050
1,2-Dichloropropane	<0.25	mg/kg	0.25	0.026
1,3,5-Trimethylbenzene	<0.25	mg/kg	0.25	0.020
1,3-Dichlorobenzene	<0.25	mg/kg	0.25	0.034
1,3-Dichloropropane	<0.25	mg/kg	0.25	0.022
1,4-Dichlorobenzene	<0.25	mg/kg	0.25	0.031
2,2-Dichloropropane	<0.25	mg/kg	0.25	0.060
2-Butanone	<2.0	mg/kg	2.0	0.023
2-Chlorotoluene	<0.25	mg/kg	0.25	0.020
4-Chlorotoluene	<0.25	mg/kg	0.25	0.021
Acetone	<2.0	mg/kg	2.0	0.045
Allyl chloride	<0.25	mg/kg	0.25	0.025
Benzene	<0.25	mg/kg	0.25	0.021
Bromobenzene	<0.25	mg/kg	0.25	0.031
Bromochloromethane	<0.25	mg/kg	0.25	0.031
Bromodichloromethane	<0.25	mg/kg	0.25	0.057
Bromoform	<0.25	mg/kg	0.25	0.046
Bromomethane	<0.25	mg/kg	0.25	0.050
Carbon tetrachloride	<0.25	mg/kg	0.25	0.046
Chlorobenzene	<0.25	mg/kg	0.25	0.011
Chloroethane	<0.25	mg/kg	0.25	0.035
Chloroform	<0.25	mg/kg	0.25	0.032
Chloromethane	<0.25	mg/kg	0.25	0.069
cis-1,2-Dichloroethene	<0.25	mg/kg	0.25	0.037
cis-1,3-Dichloropropene	<0.25	mg/kg	0.25	0.040
Dibromochloromethane	<0.25	mg/kg	0.25	0.033
Dibromomethane	<0.25	mg/kg	0.25	0.026
Dichlorodifluoromethane	<0.50	mg/kg	0.50	0.097
Dichlorofluoromethane	<0.25	mg/kg	0.25	0.034
Ethyl benzene	<0.25	mg/kg	0.25	0.0083
Ethyl ether	<0.25	mg/kg	0.25	0.024
Hexachlorobutadiene	<0.25	mg/kg	0.25	0.035
Isopropyl benzene	<0.25	mg/kg	0.25	0.0095
Methyl isobutyl ketone	<0.25	mg/kg	0.25	0.016
Methyl-tert-butyl ether	<0.25	mg/kg	0.25	0.015
Methylene chloride	<1.5	mg/kg	1.5	0.069
n-Butyl benzene	<0.25	mg/kg	0.25	0.021
n-Propyl benzene	<0.25	mg/kg	0.25	0.013
Naphthalene	<0.25	mg/kg	0.25	0.010
o-Xylene	<0.25	mg/kg	0.25	0.013
p-Isopropyltoluene	<0.25	mg/kg	0.25	0.018
p/m-Xylene	<0.50	mg/kg	0.50	0.026
sec-butyl benzene	<0.25	mg/kg	0.25	0.0067
Styrene	<0.25	mg/kg	0.25	0.010
tert-Butyl benzene	<0.25	mg/kg	0.25	0.0072
Tetrachloroethene	<0.25	mg/kg	0.25	0.024
Tetrahydrofuran	<2.0	mg/kg	2.0	0.042
Toluene	<0.25	mg/kg	0.25	0.011
trans-1,2-Dichloroethene	<0.25	mg/kg	0.25	0.054
trans-1,3-Dichloropropene	<0.25	mg/kg	0.25	0.037
Trichloroethene	<0.25	mg/kg	0.25	0.027
Trichlorofluoromethane	<0.25	mg/kg	0.25	0.056
Vinyl chloride	<0.25	mg/kg	0.25	0.050
4-Bromofluorobenzene (Surr)	96.8	%	--	--
Dibromofluoromethane (Surr)	91.0	%	--	--
Toluene-d8 (Surr)	89.4	%	--	--

Legend Technical Services

Client Name:	Service Environmental & Engineering Cc	**Legend Project #:**	2003080213
Client Project Number:	3039	**Sample #:**	5
Client Project Name:	Glencoe Creamery	**Matrix:**	Soil
Date Sampled:	08/11/03	**Date Received:**	08/12/03
Client Sample ID:	Methanol Trip Blank		

VOC MDH 466C

Extraction Date: --
Analysis Method: MDH 466C
Analysis Date: 08/13/03
Client ID: Methanol Trip Blank

Compound	Sample Results	Units	RL	MDL
1,1,1,2-Tetrachloroethane	<0.25	mg/kg	0.25	0.030
1,1,1-Trichloroethane	<0.25	mg/kg	0.25	0.042
1,1,2,2-Tetrachloroethane	<0.25	mg/kg	0.25	0.029
1,1,2-Trichloroethane	<0.25	mg/kg	0.25	0.035
1,1,2-Trichlorotrifluoroethane	<0.25	mg/kg	0.25	0.026
1,1-Dichloroethane	<0.25	mg/kg	0.25	0.056
1,1-Dichloroethene	<0.25	mg/kg	0.25	0.067
1,1-Dichloropropene	<0.25	mg/kg	0.25	0.047
1,2,3-Trichlorobenzene	<0.25	mg/kg	0.25	0.037
1,2,3-Trichloropropane	<0.25	mg/kg	0.25	0.042
1,2,4-Trichlorobenzene	<0.25	mg/kg	0.25	0.038
1,2,4-Trimethylbenzene	<0.25	mg/kg	0.25	0.021
1,2-Dibromo-3-chloropropane	<0.25	mg/kg	0.25	0.052
1,2-Dibromoethane	<0.25	mg/kg	0.25	0.042
1,2-Dichlorobenzene	<0.25	mg/kg	0.25	0.062
1,2-Dichloroethane	<0.25	mg/kg	0.25	0.050
1,2-Dichloropropane	<0.25	mg/kg	0.25	0.026
1,3,5-Trimethylbenzene	<0.25	mg/kg	0.25	0.020
1,3-Dichlorobenzene	<0.25	mg/kg	0.25	0.034
1,3-Dichloropropane	<0.25	mg/kg	0.25	0.022
1,4-Dichlorobenzene	<0.25	mg/kg	0.25	0.031
2,2-Dichloropropane	<0.25	mg/kg	0.25	0.060
2-Butanone	<2.0	mg/kg	2.0	0.023
2-Chlorotoluene	<0.25	mg/kg	0.25	0.020
4-Chlorotoluene	<0.25	mg/kg	0.25	0.021
Acetone	<2.0	mg/kg	2.0	0.045
Allyl chloride	<0.25	mg/kg	0.25	0.025
Benzene	<0.25	mg/kg	0.25	0.021
Bromobenzene	<0.25	mg/kg	0.25	0.031
Bromochloromethane	<0.25	mg/kg	0.25	0.031
Bromodichloromethane	<0.25	mg/kg	0.25	0.057
Bromoform	<0.25	mg/kg	0.25	0.046
Bromomethane	<0.25	mg/kg	0.25	0.050
Carbon tetrachloride	<0.25	mg/kg	0.25	0.046
Chlorobenzene	<0.25	mg/kg	0.25	0.011
Chloroethane	<0.25	mg/kg	0.25	0.035
Chloroform	<0.25	mg/kg	0.25	0.032
Chloromethane	<0.25	mg/kg	0.25	0.069
cis-1,2-Dichloroethene	<0.25	mg/kg	0.25	0.037

Compound	Sample Results	Units	RL	MDL
cis-1,3-Dichloropropene	<0.25	mg/kg	0.25	0.040
Dibromochloromethane	<0.25	mg/kg	0.25	0.033
Dibromomethane	<0.25	mg/kg	0.25	0.026
Dichlorodifluoromethane	<0.50	mg/kg	0.50	0.097
Dichlorofluoromethane	<0.25	mg/kg	0.25	0.034
Ethyl benzene	<0.25	mg/kg	0.25	0.0083
Ethyl ether	<0.25	mg/kg	0.25	0.024
Hexachlorobutadiene	<0.25	mg/kg	0.25	0.035
Isopropyl benzene	<0.25	mg/kg	0.25	0.0095
Methyl isobutyl ketone	<0.25	mg/kg	0.25	0.016
Methyl-tert-butyl ether	<0.25	mg/kg	0.25	0.015
Methylene chloride	<1.5	mg/kg	1.5	0.069
n-Butyl benzene	<0.25	mg/kg	0.25	0.021
n-Propyl benzene	<0.25	mg/kg	0.25	0.013
Naphthalene	<0.25	mg/kg	0.25	0.010
o-Xylene	<0.25	mg/kg	0.25	0.013
p-Isopropyltoluene	<0.25	mg/kg	0.25	0.018
p/m-Xylene	<0.50	mg/kg	0.50	0.026
sec-butyl benzene	<0.25	mg/kg	0.25	0.0067
Styrene	<0.25	mg/kg	0.25	0.010
tert-Butyl benzene	<0.25	mg/kg	0.25	0.0072
Tetrachloroethene	<0.25	mg/kg	0.25	0.024
Tetrahydrofuran	<2.0	mg/kg	2.0	0.042
Toluene	<0.25	mg/kg	0.25	0.011
trans-1,2-Dichloroethene	<0.25	mg/kg	0.25	0.054
trans-1,3-Dichloropropene	<0.25	mg/kg	0.25	0.037
Trichloroethene	<0.25	mg/kg	0.25	0.027
Trichlorofluoromethane	<0.25	mg/kg	0.25	0.056
Vinyl chloride	<0.25	mg/kg	0.25	0.050
4-Bromofluorobenzene (Surr)	93.9	%	--	--
Dibromofluoromethane (Surr)	95.2	%	--	--
Toluene-d8 (Surr)	88.7	%	--	--

Legend Technical Services

Client Name:	Service Environmental & Engineering Cc	**Legend Project #:**	2003080213
Client Project Number:	3039	**Sample #:**	6
Client Project Name:	Glencoe Creamery	**Matrix:**	Soil
Date Sampled:	08/11/03	**Date Received:**	08/12/03
Client Sample ID:	Method Blank		

VOC MDH 466C

Extraction Date: --
Analysis Method: MDH 466C
Analysis Date: 08/13/03
Client ID: Method Blank

Compound	Sample Results	Units	RL	MDL
1,1,1,2-Tetrachloroethane	<0.25	mg/kg	0.25	0.030
1,1,1-Trichloroethane	<0.25	mg/kg	0.25	0.042
1,1,2,2-Tetrachloroethane	<0.25	mg/kg	0.25	0.029
1,1,2-Trichloroethane	<0.25	mg/kg	0.25	0.035
1,1,2-Trichlorotrifluoroethane	<0.25	mg/kg	0.25	0.026
1,1-Dichloroethane	<0.25	mg/kg	0.25	0.056
1,1-Dichloroethene	<0.25	mg/kg	0.25	0.067
1,1-Dichloropropene	<0.25	mg/kg	0.25	0.047
1,2,3-Trichlorobenzene	<0.25	mg/kg	0.25	0.037
1,2,3-Trichloropropane	<0.25	mg/kg	0.25	0.042
1,2,4-Trichlorobenzene	<0.25	mg/kg	0.25	0.038
1,2,4-Trimethylbenzene	<0.25	mg/kg	0.25	0.021
1,2-Dibromo-3-chloropropane	<0.25	mg/kg	0.25	0.052
1,2-Dibromoethane	<0.25	mg/kg	0.25	0.042
1,2-Dichlorobenzene	<0.25	mg/kg	0.25	0.062
1,2-Dichloroethane	<0.25	mg/kg	0.25	0.050
1,2-Dichloropropane	<0.25	mg/kg	0.25	0.026
1,3,5-Trimethylbenzene	<0.25	mg/kg	0.25	0.020
1,3-Dichlorobenzene	<0.25	mg/kg	0.25	0.034
1,3-Dichloropropane	<0.25	mg/kg	0.25	0.022
1,4-Dichlorobenzene	<0.25	mg/kg	0.25	0.031
2,2-Dichloropropane	<0.25	mg/kg	0.25	0.060
2-Butanone	<2.0	mg/kg	2.0	0.023
2-Chlorotoluene	<0.25	mg/kg	0.25	0.020
4-Chlorotoluene	<0.25	mg/kg	0.25	0.021
Acetone	<2.0	mg/kg	2.0	0.045
Allyl chloride	<0.25	mg/kg	0.25	0.025
Benzene	<0.25	mg/kg	0.25	0.021
Bromobenzene	<0.25	mg/kg	0.25	0.031
Bromochloromethane	<0.25	mg/kg	0.25	0.031
Bromodichloromethane	<0.25	mg/kg	0.25	0.057
Bromoform	<0.25	mg/kg	0.25	0.046
Bromomethane	<0.25	mg/kg	0.25	0.050
Carbon tetrachloride	<0.25	mg/kg	0.25	0.046
Chlorobenzene	<0.25	mg/kg	0.25	0.011
Chloroethane	<0.25	mg/kg	0.25	0.035
Chloroform	<0.25	mg/kg	0.25	0.032
Chloromethane	<0.25	mg/kg	0.25	0.069
cis-1,2-Dichloroethene	<0.25	mg/kg	0.25	0.037
cis-1,3-Dichloropropene	<0.25	mg/kg	0.25	0.040
Dibromochloromethane	<0.25	mg/kg	0.25	0.033
Dibromomethane	<0.25	mg/kg	0.25	0.026
Dichlorodifluoromethane	<0.50	mg/kg	0.50	0.097
Dichlorofluoromethane	<0.25	mg/kg	0.25	0.034
Ethyl benzene	<0.25	mg/kg	0.25	0.0083
Ethyl ether	<0.25	mg/kg	0.25	0.024
Hexachlorobutadiene	<0.25	mg/kg	0.25	0.035
Isopropyl benzene	<0.25	mg/kg	0.25	0.0095
Methyl isobutyl ketone	<0.25	mg/kg	0.25	0.016
Methyl-tert-butyl ether	<0.25	mg/kg	0.25	0.015
Methylene chloride	<1.5	mg/kg	1.5	0.069
n-Butyl benzene	<0.25	mg/kg	0.25	0.021
n-Propyl benzene	<0.25	mg/kg	0.25	0.013
Naphthalene	<0.25	mg/kg	0.25	0.010
o-Xylene	<0.25	mg/kg	0.25	0.013
p-Isopropyltoluene	<0.25	mg/kg	0.25	0.018
p/m-Xylene	<0.50	mg/kg	0.50	0.026
sec-butyl benzene	<0.25	mg/kg	0.25	0.0067
Styrene	<0.25	mg/kg	0.25	0.010
tert-Butyl benzene	<0.25	mg/kg	0.25	0.0072
Tetrachloroethene	<0.25	mg/kg	0.25	0.024
Tetrahydrofuran	<2.0	mg/kg	2.0	0.042
Toluene	<0.25	mg/kg	0.25	0.011
trans-1,2-Dichloroethene	<0.25	mg/kg	0.25	0.054
trans-1,3-Dichloropropene	<0.25	mg/kg	0.25	0.037
Trichloroethene	<0.25	mg/kg	0.25	0.027
Trichlorofluoromethane	<0.25	mg/kg	0.25	0.056
Vinyl chloride	<0.25	mg/kg	0.25	0.050
4-Bromofluorobenzene (Surr)	89.8	%	--	--
Dibromofluoromethane (Surr)	95.6	%	--	--
Toluene-d8 (Surr)	85.8	%	--	--

Page 1 of 1

LEGEND TECHNICAL SERVICES, INC.

775 Vandalia Street, St. Paul, MN 55114 - Telephone: 651-642-1150, Fax: 651-642-1239

CHAIN-OF-CUSTODY RECORD

Client Name: SERVICE Engineering
Address: Group

Bill To: SERVICE Engineering
Address: Group

Attn: Tim Rogers

PO #:

Phone: 651-644-6680 Fax: 651-644-7008

Project Name: Glencoe Creamery Project #: 03039

LEGEND Project #: 2030850013

Turnaround Time:
- ☐ Normal
- ☒ RUSH Date: 8/14/03

Condition Received:
- ☐ Received at 6 °C
- ☒ Received on ice
- ☐ Received on blue ice
- ☐ Received ambient
- ☐ No temp. blank
- ☐ Acceptable

Item No.	Field ID No.	Sample Description	Collection Date	Collection Time	Sample Matrix	Lab ID No.	Number of Containers	Analysis: DRO	Analysis: BETX/MTBE	Analysis: VOCs	Analysis: Lead		
1	Rush(2)	S-1 @ 12' Rush 48hr	8/11/03	PM	Soil	-1		X	X				
2	Rush(2)	S-2 @ 13' Rush 48hr				-2		X	X				
3	Rush(2)	Composite-1 Standard Trnarnd				-3		X		X	X		
4	Rush(2)	Composite-2 Standard Trnarnd				-4		X		X	X		
5	ICE 8/12/03												
6													
7													
8													
9													
10													

RUSH!

Sample Collector (please print): Tim Rogers

Comments:

Item No.	Relinquished By:	Date	Time	Accepted By:	Date:	Time:
	Tim Rogers	8/12/03	2:30	Karla Repo	8/12/03	2:30
Item No.	Relinquished By:	Date:	Time:	Received By Lab: Legend	Date:	Time:

Form LAB-268 (02/03)

PLEASE REVIEW TERMS AND CONDITIONS ON BACK BEFORE SIGNING

White Copy - Original Accompanies Shipment to Lab **Yellow Copy** - Lab **Pink Copy** - Customer or Field Copy

LEGEND
Technical Services, Inc.

SEP 10 2003

09/08/03

Mr. Tim Rogers
Service Environmental & Engineering Co.
675 Vandalia Street
St. Paul MN
55114

Subject: 03039 AMPI, Glencoe
Legend No: 2003080416

LEGEND TECHNICAL SERVICES, INC. (LEGEND) received the following sample(s).

Matrix	Samples	Date Sampled	Date Received	Comments
Groundwater	6	08/25/03	08/26/03	
Soil	1	08/25/03	08/26/03	Received on ice @ 8 C

* The associated batch quality assurance / quality control criteria were met with satisfaction.

* All samples will be retained by LEGEND for 30 days from the date of this report and then discarded unless other instructions are received from the client.

* Minnesota Laboratory Certification # 027-123-295.

* LCSD recovery for DRO water was below target limits. The resulting % RPD exceeded limits. LCS recovery was within limits and the % RPD for the batch duplicates was within limits. There is no data bias.

Prepared by,
LEGEND TECHNICAL SERVICES, INC

Chris Bremer
Laboratory Director

Karla Reps
Project Manager

Legend Technical Services

Client Name:	Service Environmental & Engineerir	**Legend Project #:**	2003080416
Client Project:	03039	**Matrix:**	Soil
Date Sampled:	08/25/03	**Date Received:**	08/26/03

DRO/8015B SOIL

Extraction Date:	08/27/03	08/27/03	--
Analysis Date:	08/28/03	08/28/03	--
Analysis Method:	WI DRO	WI DRO	--
Client Sample ID:	GP-1 @ 35-37'	Method Blank	mg/kg

Compound	7	11	RL
Diesel range organics	<8.0	<8.0	8.0
C-30 (Surrogate)	103%	99.1%	--
Percent Solids	86%	--	--

Legend Technical Services

Client Name:	Service Environmental & Engineerir	**Legend Project #:**	2003080416
Client Project:	03039	**Matrix:**	Groundwater
Date Sampled:	08/25/03	**Date Received:**	08/26/03

DRO/8015B WATER

Extraction Date:	08/27/03	08/27/03	08/27/03	08/27/03	08/27/03	08/27/03	08/27/03	--
Analysis Date:	08/29/03	08/29/03	08/29/03	08/29/03	08/29/03	08/29/03	08/28/03	--
Analysis Method:	WI DRO	WI DRO	WI DRO	WI DRO	WI DRO	WI DRO	WI DRO	--
Client Sample ID:	GP-1 @ 13'	GP-2 @ 10'	GP-3 @ 10'	GP-4 @ 10'	GP-5 @ 10'	GP-6 @ 10'	Method Blank	µg/L
Compound	**1**	**2**	**3**	**4**	**5**	**6**	**10**	**RL**
Diesel range organics	**340,000**	**370 A**	**300 A**	**510 A**	**210**	**420 A**	<100	100
C-30 (Surrogate)	% D1	110%	71.2%	89.2%	67.6%	93.0%	108%	--

D1=Surrogate recovery could not be calculated due to high dilution of the sample.

A=The sample chromatogram is atypical of petroleum product patterns.

Legend Technical Services

Client Name:	Service Environmental & Engineering Cc	**Legend Project #:**	2003080416
Client Project Number:	3039	**Sample #:**	7
Client Project Name:	AMPI, Glencoe	**Matrix:**	Soil
Date Sampled:	08/25/03	**Date Received:**	08/26/03
Client Sample ID:	GP-1 @ 35-37'	**Percent Solids**	86%

VOC MDH 466C

Extraction Date: --
Analysis Method: MDH 466C
Analysis Date: 08/30/03
Client ID: GP-1 @ 35-37'

Compound	Sample Results	Units	RL	MDL	Compound	Sample Results	Units	RL	MDL
1,1,1,2-Tetrachloroethane	<0.25	mg/kg	0.25	0.030	cis-1,3-Dichloropropene	<0.25	mg/kg	0.25	0.040
1,1,1-Trichloroethane	<0.25	mg/kg	0.25	0.042	Dibromochloromethane	<0.25	mg/kg	0.25	0.033
1,1,2,2-Tetrachloroethane	<0.25	mg/kg	0.25	0.029	Dibromomethane	<0.25	mg/kg	0.25	0.026
1,1,2-Trichloroethane	<0.25	mg/kg	0.25	0.035	Dichlorodifluoromethane	<0.50	mg/kg	0.50	0.097
1,1,2-Trichlorotrifluoroethane	<0.25	mg/kg	0.25	0.026	Dichlorofluoromethane	<0.25	mg/kg	0.25	0.034
1,1-Dichloroethane	<0.25	mg/kg	0.25	0.056	Ethyl benzene	<0.25	mg/kg	0.25	0.0083
1,1-Dichloroethene	<0.25	mg/kg	0.25	0.067	Ethyl ether	<0.25	mg/kg	0.25	0.024
1,1-Dichloropropene	<0.25	mg/kg	0.25	0.047	Hexachlorobutadiene	<0.25	mg/kg	0.25	0.035
1,2,3-Trichlorobenzene	<0.25	mg/kg	0.25	0.037	Isopropyl benzene	<0.25	mg/kg	0.25	0.0095
1,2,3-Trichloropropane	<0.25	mg/kg	0.25	0.042	Methyl isobutyl ketone	<0.25	mg/kg	0.25	0.016
1,2,4-Trichlorobenzene	<0.25	mg/kg	0.25	0.038	Methyl-tert-butyl ether	<0.25	mg/kg	0.25	0.015
1,2,4-Trimethylbenzene	<0.25	mg/kg	0.25	0.021	Methylene chloride	<1.5	mg/kg	1.5	0.069
1,2-Dibromo-3-chloropropane	<0.25	mg/kg	0.25	0.052	n-Butyl benzene	<0.25	mg/kg	0.25	0.021
1,2-Dibromoethane	<0.25	mg/kg	0.25	0.042	n-Propyl benzene	<0.25	mg/kg	0.25	0.013
1,2-Dichlorobenzene	<0.25	mg/kg	0.25	0.062	Naphthalene	<0.25	mg/kg	0.25	0.010
1,2-Dichloroethane	<0.25	mg/kg	0.25	0.050	o-Xylene	<0.25	mg/kg	0.25	0.013
1,2-Dichloropropane	<0.25	mg/kg	0.25	0.026	p-Isopropyltoluene	<0.25	mg/kg	0.25	0.018
1,3,5-Trimethylbenzene	<0.25	mg/kg	0.25	0.020	p/m-Xylene	<0.50	mg/kg	0.50	0.026
1,3-Dichlorobenzene	<0.25	mg/kg	0.25	0.034	sec-butyl benzene	<0.25	mg/kg	0.25	0.0067
1,3-Dichloropropane	<0.25	mg/kg	0.25	0.022	Styrene	<0.25	mg/kg	0.25	0.010
1,4-Dichlorobenzene	<0.25	mg/kg	0.25	0.031	tert-Butyl benzene	<0.25	mg/kg	0.25	0.0072
2,2-Dichloropropane	<0.25	mg/kg	0.25	0.060	Tetrachloroethene	<0.25	mg/kg	0.25	0.024
2-Butanone	<2.0	mg/kg	2.0	0.023	Tetrahydrofuran	<2.0	mg/kg	2.0	0.042
2-Chlorotoluene	<0.25	mg/kg	0.25	0.020	Toluene	<0.25	mg/kg	0.25	0.011
4-Chlorotoluene	<0.25	mg/kg	0.25	0.021	trans-1,2-Dichloroethene	<0.25	mg/kg	0.25	0.054
Acetone	<2.0	mg/kg	2.0	0.045	trans-1,3-Dichloropropene	<0.25	mg/kg	0.25	0.037
Allyl chloride	<0.25	mg/kg	0.25	0.025	Trichloroethene	<0.25	mg/kg	0.25	0.027
Benzene	<0.25	mg/kg	0.25	0.021	Trichlorofluoromethane	<0.25	mg/kg	0.25	0.056
Bromobenzene	<0.25	mg/kg	0.25	0.031	Vinyl chloride	<0.25	mg/kg	0.25	0.050
Bromochloromethane	<0.25	mg/kg	0.25	0.031	Fluorobenzene (Surrogate)	89.6	%	--	--
Bromodichloromethane	<0.25	mg/kg	0.25	0.057					
Bromoform	<0.25	mg/kg	0.25	0.046					
Bromomethane	<0.25	mg/kg	0.25	0.050					
Carbon tetrachloride	<0.25	mg/kg	0.25	0.046					
Chlorobenzene	<0.25	mg/kg	0.25	0.011					
Chloroethane	<0.25	mg/kg	0.25	0.035					
Chloroform	<0.25	mg/kg	0.25	0.032					
Chloromethane	<0.25	mg/kg	0.25	0.069					
cis-1,2-Dichloroethene	<0.25	mg/kg	0.25	0.037					

Legend Technical Services

Client Name:	Service Environmental & Engineering Cc	**Legend Project #:**	2003080416
Client Project Number:	3039	**Sample #:**	9
Client Project Name:	AMPI, Glencoe	**Matrix:**	Soil
Date Sampled:	08/25/03	**Date Received:**	08/26/03
Client Sample ID:	Trip Blank		

VOC MDH 466C

Extraction Date: –
Analysis Method: MDH 466C
Analysis Date: 08/30/03
Client ID: Trip Blank

Compound	Sample Results	Units	RL	MDL	Compound	Sample Results	Units	RL	MDL
1,1,1,2-Tetrachloroethane	<0.25	mg/kg	0.25	0.030	cis-1,3-Dichloropropene	<0.25	mg/kg	0.25	0.040
1,1,1-Trichloroethane	<0.25	mg/kg	0.25	0.042	Dibromochloromethane	<0.25	mg/kg	0.25	0.033
1,1,2,2-Tetrachloroethane	<0.25	mg/kg	0.25	0.029	Dibromomethane	<0.25	mg/kg	0.25	0.026
1,1,2-Trichloroethane	<0.25	mg/kg	0.25	0.035	Dichlorodifluoromethane	<0.50	mg/kg	0.50	0.097
1,1,2-Trichlorotrifluoroethane	<0.25	mg/kg	0.25	0.026	Dichlorofluoromethane	<0.25	mg/kg	0.25	0.034
1,1-Dichloroethane	<0.25	mg/kg	0.25	0.056	Ethyl benzene	<0.25	mg/kg	0.25	0.0083
1,1-Dichloroethene	<0.25	mg/kg	0.25	0.067	Ethyl ether	<0.25	mg/kg	0.25	0.024
1,1-Dichloropropene	<0.25	mg/kg	0.25	0.047	Hexachlorobutadiene	<0.25	mg/kg	0.25	0.035
1,2,3-Trichlorobenzene	<0.25	mg/kg	0.25	0.037	Isopropyl benzene	<0.25	mg/kg	0.25	0.0095
1,2,3-Trichloropropane	<0.25	mg/kg	0.25	0.042	Methyl isobutyl ketone	<0.25	mg/kg	0.25	0.016
1,2,4-Trichlorobenzene	<0.25	mg/kg	0.25	0.038	Methyl-tert-butyl ether	<0.25	mg/kg	0.25	0.015
1,2,4-Trimethylbenzene	<0.25	mg/kg	0.25	0.021	Methylene chloride	<1.5	mg/kg	1.5	0.069
1,2-Dibromo-3-chloropropane	<0.25	mg/kg	0.25	0.052	n-Butyl benzene	<0.25	mg/kg	0.25	0.021
1,2-Dibromoethane	<0.25	mg/kg	0.25	0.042	n-Propyl benzene	<0.25	mg/kg	0.25	0.013
1,2-Dichlorobenzene	<0.25	mg/kg	0.25	0.062	Naphthalene	<0.25	mg/kg	0.25	0.010
1,2-Dichloroethane	<0.25	mg/kg	0.25	0.050	o-Xylene	<0.25	mg/kg	0.25	0.013
1,2-Dichloropropane	<0.25	mg/kg	0.25	0.026	p-Isopropyltoluene	<0.25	mg/kg	0.25	0.018
1,3,5-Trimethylbenzene	<0.25	mg/kg	0.25	0.020	p/m-Xylene	<0.50	mg/kg	0.50	0.026
1,3-Dichlorobenzene	<0.25	mg/kg	0.25	0.034	sec-butyl benzene	<0.25	mg/kg	0.25	0.0067
1,3-Dichloropropane	<0.25	mg/kg	0.25	0.022	Styrene	<0.25	mg/kg	0.25	0.010
1,4-Dichlorobenzene	<0.25	mg/kg	0.25	0.031	tert-Butyl benzene	<0.25	mg/kg	0.25	0.0072
2,2-Dichloropropane	<0.25	mg/kg	0.25	0.060	Tetrachloroethene	<0.25	mg/kg	0.25	0.024
2-Butanone	<2.0	mg/kg	2.0	0.023	Tetrahydrofuran	<2.0	mg/kg	2.0	0.042
2-Chlorotoluene	<0.25	mg/kg	0.25	0.020	Toluene	<0.25	mg/kg	0.25	0.011
4-Chlorotoluene	<0.25	mg/kg	0.25	0.021	trans-1,2-Dichloroethene	<0.25	mg/kg	0.25	0.054
Acetone	<2.0	mg/kg	2.0	0.045	trans-1,3-Dichloropropene	<0.25	mg/kg	0.25	0.037
Allyl chloride	<0.25	mg/kg	0.25	0.025	Trichloroethene	<0.25	mg/kg	0.25	0.027
Benzene	<0.25	mg/kg	0.25	0.021	Trichlorofluoromethane	<0.25	mg/kg	0.25	0.056
Bromobenzene	<0.25	mg/kg	0.25	0.031	Vinyl chloride	<0.25	mg/kg	0.25	0.050
Bromochloromethane	<0.25	mg/kg	0.25	0.031	Fluorobenzene (Surrogate)	90.3	%	–	–
Bromodichloromethane	<0.25	mg/kg	0.25	0.057					
Bromoform	<0.25	mg/kg	0.25	0.046					
Bromomethane	<0.25	mg/kg	0.25	0.050					
Carbon tetrachloride	<0.25	mg/kg	0.25	0.046					
Chlorobenzene	<0.25	mg/kg	0.25	0.011					
Chloroethane	<0.25	mg/kg	0.25	0.035					
Chloroform	<0.25	mg/kg	0.25	0.032					
Chloromethane	<0.25	mg/kg	0.25	0.069					
cis-1,2-Dichloroethene	<0.25	mg/kg	0.25	0.037					

Legend Technical Services

Client Name:	Service Environmental & Engineering Cc	**Legend Project #:**	2003080416
Client Project Number:	3039	**Sample #:**	11
Client Project Name:	AMPI, Glencoe	**Matrix:**	Soil
Date Sampled:	08/25/03	**Date Received:**	08/26/03
Client Sample ID:	Method Blank		

VOC MDH 466C

Extraction Date: --
Client ID: Method Blank
Analysis Method: MDH 466C
Analysis Date: 08/30/03

Compound	Sample Results	Units	RL	MDL	Compound	Sample Results	Units	RL	MDL
1,1,1,2-Tetrachloroethane	<0.25	mg/kg	0.25	0.030	cis-1,3-Dichloropropene	<0.25	mg/kg	0.25	0.040
1,1,1-Trichloroethane	<0.25	mg/kg	0.25	0.042	Dibromochloromethane	<0.25	mg/kg	0.25	0.033
1,1,2,2-Tetrachloroethane	<0.25	mg/kg	0.25	0.029	Dibromomethane	<0.25	mg/kg	0.25	0.026
1,1,2-Trichloroethane	<0.25	mg/kg	0.25	0.035	Dichlorodifluoromethane	<0.50	mg/kg	0.50	0.097
1,1,2-Trichlorotrifluoroethane	<0.25	mg/kg	0.25	0.026	Dichlorofluoromethane	<0.25	mg/kg	0.25	0.034
1,1-Dichloroethane	<0.25	mg/kg	0.25	0.056	Ethyl benzene	<0.25	mg/kg	0.25	0.0083
1,1-Dichloroethene	<0.25	mg/kg	0.25	0.067	Ethyl ether	<0.25	mg/kg	0.25	0.024
1,1-Dichloropropene	<0.25	mg/kg	0.25	0.047	Hexachlorobutadiene	<0.25	mg/kg	0.25	0.035
1,2,3-Trichlorobenzene	<0.25	mg/kg	0.25	0.037	Isopropyl benzene	<0.25	mg/kg	0.25	0.0095
1,2,3-Trichloropropane	<0.25	mg/kg	0.25	0.042	Methyl isobutyl ketone	<0.25	mg/kg	0.25	0.016
1,2,4-Trichlorobenzene	<0.25	mg/kg	0.25	0.038	Methyl-tert-butyl ether	<0.25	mg/kg	0.25	0.015
1,2,4-Trimethylbenzene	<0.25	mg/kg	0.25	0.021	Methylene chloride	<1.5	mg/kg	1.5	0.069
1,2-Dibromo-3-chloropropane	<0.25	mg/kg	0.25	0.052	n-Butyl benzene	<0.25	mg/kg	0.25	0.021
1,2-Dibromoethane	<0.25	mg/kg	0.25	0.042	n-Propyl benzene	<0.25	mg/kg	0.25	0.013
1,2-Dichlorobenzene	<0.25	mg/kg	0.25	0.062	Naphthalene	<0.25	mg/kg	0.25	0.010
1,2-Dichloroethane	<0.25	mg/kg	0.25	0.050	o-Xylene	<0.25	mg/kg	0.25	0.013
1,2-Dichloropropane	<0.25	mg/kg	0.25	0.026	p-Isopropyltoluene	<0.25	mg/kg	0.25	0.018
1,3,5-Trimethylbenzene	<0.25	mg/kg	0.25	0.020	p/m-Xylene	<0.50	mg/kg	0.50	0.026
1,3-Dichlorobenzene	<0.25	mg/kg	0.25	0.034	sec-butyl benzene	<0.25	mg/kg	0.25	0.0067
1,3-Dichloropropane	<0.25	mg/kg	0.25	0.022	Styrene	<0.25	mg/kg	0.25	0.010
1,4-Dichlorobenzene	<0.25	mg/kg	0.25	0.031	tert-Butyl benzene	<0.25	mg/kg	0.25	0.0072
2,2-Dichloropropane	<0.25	mg/kg	0.25	0.060	Tetrachloroethene	<0.25	mg/kg	0.25	0.024
2-Butanone	<2.0	mg/kg	2.0	0.023	Tetrahydrofuran	<2.0	mg/kg	2.0	0.042
2-Chlorotoluene	<0.25	mg/kg	0.25	0.020	Toluene	<0.25	mg/kg	0.25	0.011
4-Chlorotoluene	<0.25	mg/kg	0.25	0.021	trans-1,2-Dichloroethene	<0.25	mg/kg	0.25	0.054
Acetone	<2.0	mg/kg	2.0	0.045	trans-1,3-Dichloropropene	<0.25	mg/kg	0.25	0.037
Allyl chloride	<0.25	mg/kg	0.25	0.025	Trichloroethene	<0.25	mg/kg	0.25	0.027
Benzene	<0.25	mg/kg	0.25	0.021	Trichlorofluoromethane	<0.25	mg/kg	0.25	0.056
Bromobenzene	<0.25	mg/kg	0.25	0.031	Vinyl chloride	<0.25	mg/kg	0.25	0.050
Bromochloromethane	<0.25	mg/kg	0.25	0.031	Fluorobenzene (Surrogate)	90.6	%	--	--
Bromodichloromethane	<0.25	mg/kg	0.25	0.057					
Bromoform	<0.25	mg/kg	0.25	0.046					
Bromomethane	<0.25	mg/kg	0.25	0.050					
Carbon tetrachloride	<0.25	mg/kg	0.25	0.046					
Chlorobenzene	<0.25	mg/kg	0.25	0.011					
Chloroethane	<0.25	mg/kg	0.25	0.035					
Chloroform	<0.25	mg/kg	0.25	0.032					
Chloromethane	<0.25	mg/kg	0.25	0.069					
cis-1,2-Dichloroethene	<0.25	mg/kg	0.25	0.037					

Legend Technical Services

Client Name:	Service Environmental & Engineering Cc	**Legend Project #:**	2003080416
Client Project Number:	3039	**Sample #:**	1
Client Project Name:	AMPI, Glencoe	**Matrix:**	Groundwater
Date Sampled:	08/25/03	**Date Received:**	08/26/03
Client Sample ID:	GP-1 @ 13'		

VOC MDH LIST BY 8021B

Extraction Date: --
Analysis Method: 8021B
Analysis Date: 08/29/03
Client ID: GP-1 @ 13'

Compound	Sample Results	Units	RL	MDL	Compound	Sample Results	Units	RL	MDL
1,1,1,2-Tetrachloroethane	<1.0	µg/L	1.0	0.24	Dibromomethane	<0.50	µg/L	0.50	0.021
1,1,1-Trichloroethane	<0.50	µg/L	0.50	0.078	Dichlorodifluoromethane	<2.0	µg/L	2.0	0.11
1,1,2,2-Tetrachloroethane	<0.50	µg/L	0.50	0.10	Dichlorofluoromethane	<5.0	µg/L	5.0	0.12
1,1,2-Trichloroethane	<0.50	µg/L	0.50	0.085	**Ethyl benzene**	**15**	µg/L	0.50	0.052
1,1-Dichloroethane	<0.50	µg/L	0.50	0.055	Ethyl ether	<5.0	µg/L	5.0	0.090
1,1-Dichloroethene	<0.50	µg/L	0.50	0.033	Hexachlorobutadiene	<0.50	µg/L	0.50	0.083
1,1-Dichloropropene	<0.50	µg/L	0.50	0.087	**Isopropyl benzene**	**4.1**	µg/L	0.50	0.051
1,2,3-Trichlorobenzene	<0.50	µg/L	0.50	0.11	Methyl ethyl ketone	<5.0	µg/L	5.0	0.54
1,2,3-Trichloropropane	<0.50	µg/L	0.50	0.059	Methyl isobutyl ketone	<5.0	µg/L	5.0	0.46
1,2,4-Trichlorobenzene	<0.50	µg/L	0.50	0.084	Methyl-tert-butyl ether	<1.0	µg/L	1.0	0.079
1,2,4-Trimethyl benzene	<0.50	µg/L	0.50	0.074	Methylene chloride	<5.0	µg/L	5.0	0.22
1,2-Dibromo-3-chloropropane	<0.50	µg/L	0.50	0.080	**n-Butyl benzene**	**3.9**	µg/L	0.50	0.078
1,2-Dibromoethane	<0.50	µg/L	0.50	0.11	**n-Propyl benzene**	**6.3**	µg/L	0.50	0.042
1,2-Dichlorobenzene	<0.50	µg/L	0.50	0.065	**Naphthalene**	**23**	µg/L	0.50	0.077
1,2-Dichloroethane	<0.50	µg/L	0.50	0.042	o-Xylene	<0.50	µg/L	0.50	0.060
1,2-Dichloropropane	<0.50	µg/L	0.50	0.037	p,m-Xylene	<1.0	µg/L	1.0	0.10
1,3,5-Trimethyl benzene	<0.50	µg/L	0.50	0.070	p-Isopropyltoluene	<0.50	µg/L	0.50	0.13
1,3-Dichlorobenzene	<0.50	µg/L	0.50	0.048	**sec-Butyl benzene**	**3.0**	µg/L	0.50	0.072
1,3-Dichloropropane	<0.50	µg/L	0.50	0.12	Styrene	<0.50	µg/L	0.50	0.042
1,4-Dichlorobenzene	<0.50	µg/L	0.50	0.080	tert-Butyl benzene	<0.50	µg/L	0.50	0.049
2,2-Dichloropropane	<0.50	µg/L	0.50	0.11	Tetrachloroethene	<0.50	µg/L	0.50	0.11
2-Chlorotoluene	<0.50	µg/L	0.50	0.063	Tetrahydrofuran	<5.0	µg/L	5.0	0.82
4-Chlorotoluene	<0.50	µg/L	0.50	0.13	Toluene	<0.50	µg/L	0.50	0.054
Acetone	<10	µg/L	10	0.66	trans-1,2-Dichloroethene	<0.50	µg/L	0.50	0.059
Allyl chloride	<1.0	µg/L	1.0	0.13	trans-1,3-Dichloropropene	<0.50	µg/L	0.50	0.047
Benzene	**2.8**	µg/L	0.50	0.052	Trichloroethene	<0.50	µg/L	0.50	0.063
Bromobenzene	<0.50	µg/L	0.50	0.14	Trichlorofluoromethane	<1.0	µg/L	1.0	0.022
Bromochloromethane	<0.50	µg/L	0.50	0.038	Trichlorotrifluoroethane	<5.0	µg/L	5.0	0.58
Bromodichloromethane	<0.50	µg/L	0.50	0.063	Vinyl chloride	<0.50	µg/L	0.50	0.072
Bromoform	<0.50	µg/L	0.50	0.13	Fluorobenzene (Surrogate)	93.2	%	--	--
Bromomethane	<2.0	µg/L	2.0	0.082					
Carbon tetrachloride	<0.50	µg/L	0.50	0.097					
Chlorobenzene	<0.50	µg/L	0.50	0.15					
Chloroethane	<1.0	µg/L	1.0	0.076					
Chloroform	<0.50	µg/L	0.50	0.058					
Chloromethane	<2.0	µg/L	2.0	0.077					
cis-1,2-Dichloroethene	<0.50	µg/L	0.50	0.049					
cis-1,3-Dichloropropene	<0.50	µg/L	0.50	0.061					
Dibromochloromethane	<0.50	µg/L	0.50	0.11					

Legend Technical Services

Client Name:	Service Environmental & Engineering Cc	**Legend Project #:**	2003080416
Client Project Number:	3039	**Sample #:**	2
Client Project Name:	AMPI, Glencoe	**Matrix:**	Groundwater
Date Sampled:	08/25/03	**Date Received:**	08/26/03
Client Sample ID:	GP-2 @ 10'		

VOC MDH LIST BY 8021B

Extraction Date: --
Analysis Method: 8021B
Analysis Date: 08/29/03
Client ID: GP-2 @ 10'

Compound	Sample Results	Units	RL	MDL
1,1,1,2-Tetrachloroethane	<1.0	µg/L	1.0	0.24
1,1,1-Trichloroethane	<0.50	µg/L	0.50	0.078
1,1,2,2-Tetrachloroethane	<0.50	µg/L	0.50	0.10
1,1,2-Trichloroethane	<0.50	µg/L	0.50	0.085
1,1-Dichloroethane	<0.50	µg/L	0.50	0.055
1,1-Dichloroethene	<0.50	µg/L	0.50	0.033
1,1-Dichloropropene	<0.50	µg/L	0.50	0.087
1,2,3-Trichlorobenzene	<0.50	µg/L	0.50	0.11
1,2,3-Trichloropropane	<0.50	µg/L	0.50	0.059
1,2,4-Trichlorobenzene	<0.50	µg/L	0.50	0.084
1,2,4-Trimethyl benzene	<0.50	µg/L	0.50	0.074
1,2-Dibromo-3-chloropropane	<0.50	µg/L	0.50	0.080
1,2-Dibromoethane	<0.50	µg/L	0.50	0.11
1,2-Dichlorobenzene	<0.50	µg/L	0.50	0.065
1,2-Dichloroethane	<0.50	µg/L	0.50	0.042
1,2-Dichloropropane	<0.50	µg/L	0.50	0.037
1,3,5-Trimethyl benzene	<0.50	µg/L	0.50	0.070
1,3-Dichlorobenzene	<0.50	µg/L	0.50	0.048
1,3-Dichloropropane	<0.50	µg/L	0.50	0.12
1,4-Dichlorobenzene	<0.50	µg/L	0.50	0.080
2,2-Dichloropropane	<0.50	µg/L	0.50	0.11
2-Chlorotoluene	<0.50	µg/L	0.50	0.063
4-Chlorotoluene	<0.50	µg/L	0.50	0.13
Acetone	<10	µg/L	10	0.66
Allyl chloride	<1.0	µg/L	1.0	0.13
Benzene	<0.50	µg/L	0.50	0.052
Bromobenzene	<0.50	µg/L	0.50	0.14
Bromochloromethane	<0.50	µg/L	0.50	0.038
Bromodichloromethane	<0.50	µg/L	0.50	0.063
Bromoform	<0.50	µg/L	0.50	0.13
Bromomethane	<2.0	µg/L	2.0	0.082
Carbon tetrachloride	<0.50	µg/L	0.50	0.097
Chlorobenzene	<0.50	µg/L	0.50	0.15
Chloroethane	<1.0	µg/L	1.0	0.076
Chloroform	<0.50	µg/L	0.50	0.058
Chloromethane	<2.0	µg/L	2.0	0.077
cis-1,2-Dichloroethene	<0.50	µg/L	0.50	0.049
cis-1,3-Dichloropropene	<0.50	µg/L	0.50	0.061
Dibromochloromethane	<0.50	µg/L	0.50	0.11
Dibromomethane	<0.50	µg/L	0.50	0.021
Dichlorodifluoromethane	<2.0	µg/L	2.0	0.11
Dichlorofluoromethane	<5.0	µg/L	5.0	0.12
Ethyl benzene	<0.50	µg/L	0.50	0.052
Ethyl ether	<5.0	µg/L	5.0	0.090
Hexachlorobutadiene	<0.50	µg/L	0.50	0.083
Isopropyl benzene	<0.50	µg/L	0.50	0.051
Methyl ethyl ketone	<5.0	µg/L	5.0	0.54
Methyl isobutyl ketone	<5.0	µg/L	5.0	0.46
Methyl-tert-butyl ether	<1.0	µg/L	1.0	0.079
Methylene chloride	<5.0	µg/L	5.0	0.22
n-Butyl benzene	<0.50	µg/L	0.50	0.078
n-Propyl benzene	<0.50	µg/L	0.50	0.042
Naphthalene	<0.50	µg/L	0.50	0.077
o-Xylene	<0.50	µg/L	0.50	0.060
p,m-Xylene	<1.0	µg/L	1.0	0.10
p-Isopropyltoluene	<0.50	µg/L	0.50	0.13
sec-Butyl benzene	<0.50	µg/L	0.50	0.072
Styrene	<0.50	µg/L	0.50	0.042
tert-Butyl benzene	<0.50	µg/L	0.50	0.049
Tetrachloroethene	<0.50	µg/L	0.50	0.11
Tetrahydrofuran	<5.0	µg/L	5.0	0.82
Toluene	<0.50	µg/L	0.50	0.054
trans-1,2-Dichloroethene	<0.50	µg/L	0.50	0.059
trans-1,3-Dichloropropene	<0.50	µg/L	0.50	0.047
Trichloroethene	<0.50	µg/L	0.50	0.063
Trichlorofluoromethane	<1.0	µg/L	1.0	0.022
Trichlorotrifluoroethane	<5.0	µg/L	5.0	0.58
Vinyl chloride	<0.50	µg/L	0.50	0.072
Fluorobenzene (Surrogate)	91.9 P	%	--	--

P=The pH of the sample was greater than 2.0.

Legend Technical Services

Client Name:	Service Environmental & Engineering Cc	**Legend Project #:**	2003080416
Client Project Number:	3039	**Sample #:**	3
Client Project Name:	AMPI, Glencoe	**Matrix:**	Groundwater
Date Sampled:	08/25/03	**Date Received:**	08/26/03
Client Sample ID:	GP-3 @ 10'		

VOC MDH LIST BY 8021B

Extraction Date: --
Analysis Method: 8021B
Analysis Date: 08/29/03
Client ID: GP-3 @ 10'

Compound	Sample Results	Units	RL	MDL
1,1,1,2-Tetrachloroethane	<1.0	µg/L	1.0	0.24
1,1,1-Trichloroethane	<0.50	µg/L	0.50	0.078
1,1,2,2-Tetrachloroethane	<0.50	µg/L	0.50	0.10
1,1,2-Trichloroethane	<0.50	µg/L	0.50	0.085
1,1-Dichloroethane	<0.50	µg/L	0.50	0.055
1,1-Dichloroethene	<0.50	µg/L	0.50	0.033
1,1-Dichloropropene	<0.50	µg/L	0.50	0.087
1,2,3-Trichlorobenzene	<0.50	µg/L	0.50	0.11
1,2,3-Trichloropropane	<0.50	µg/L	0.50	0.059
1,2,4-Trichlorobenzene	<0.50	µg/L	0.50	0.084
1,2,4-Trimethyl benzene	<0.50	µg/L	0.50	0.074
1,2-Dibromo-3-chloropropane	<0.50	µg/L	0.50	0.080
1,2-Dibromoethane	<0.50	µg/L	0.50	0.11
1,2-Dichlorobenzene	<0.50	µg/L	0.50	0.065
1,2-Dichloroethane	<0.50	µg/L	0.50	0.042
1,2-Dichloropropane	<0.50	µg/L	0.50	0.037
1,3,5-Trimethyl benzene	<0.50	µg/L	0.50	0.070
1,3-Dichlorobenzene	<0.50	µg/L	0.50	0.048
1,3-Dichloropropane	<0.50	µg/L	0.50	0.12
1,4-Dichlorobenzene	<0.50	µg/L	0.50	0.080
2,2-Dichloropropane	<0.50	µg/L	0.50	0.11
2-Chlorotoluene	<0.50	µg/L	0.50	0.063
4-Chlorotoluene	<0.50	µg/L	0.50	0.13
Acetone	<10	µg/L	10	0.66
Allyl chloride	<1.0	µg/L	1.0	0.13
Benzene	<0.50	µg/L	0.50	0.052
Bromobenzene	<0.50	µg/L	0.50	0.14
Bromochloromethane	<0.50	µg/L	0.50	0.038
Bromodichloromethane	<0.50	µg/L	0.50	0.063
Bromoform	<0.50	µg/L	0.50	0.13
Bromomethane	<2.0	µg/L	2.0	0.082
Carbon tetrachloride	<0.50	µg/L	0.50	0.097
Chlorobenzene	<0.50	µg/L	0.50	0.15
Chloroethane	<1.0	µg/L	1.0	0.076
Chloroform	<0.50	µg/L	0.50	0.058
Chloromethane	<2.0	µg/L	2.0	0.077
cis-1,2-Dichloroethene	<0.50	µg/L	0.50	0.049
cis-1,3-Dichloropropene	<0.50	µg/L	0.50	0.061
Dibromochloromethane	<0.50	µg/L	0.50	0.11
Dibromomethane	<0.50	µg/L	0.50	0.021
Dichlorodifluoromethane	<2.0	µg/L	2.0	0.11
Dichlorofluoromethane	<5.0	µg/L	5.0	0.12
Ethyl benzene	<0.50	µg/L	0.50	0.052
Ethyl ether	<5.0	µg/L	5.0	0.090
Hexachlorobutadiene	<0.50	µg/L	0.50	0.083
Isopropyl benzene	<0.50	µg/L	0.50	0.051
Methyl ethyl ketone	<5.0	µg/L	5.0	0.54
Methyl isobutyl ketone	<5.0	µg/L	5.0	0.46
Methyl-tert-butyl ether	<1.0	µg/L	1.0	0.079
Methylene chloride	<5.0	µg/L	5.0	0.22
n-Butyl benzene	<0.50	µg/L	0.50	0.078
n-Propyl benzene	<0.50	µg/L	0.50	0.042
Naphthalene	<0.50	µg/L	0.50	0.077
o-Xylene	<0.50	µg/L	0.50	0.060
p,m-Xylene	<1.0	µg/L	1.0	0.10
p-Isopropyltoluene	<0.50	µg/L	0.50	0.13
sec-Butyl benzene	<0.50	µg/L	0.50	0.072
Styrene	<0.50	µg/L	0.50	0.042
tert-Butyl benzene	<0.50	µg/L	0.50	0.049
Tetrachloroethene	<0.50	µg/L	0.50	0.11
Tetrahydrofuran	<5.0	µg/L	5.0	0.82
Toluene	<0.50	µg/L	0.50	0.054
trans-1,2-Dichloroethene	<0.50	µg/L	0.50	0.059
trans-1,3-Dichloropropene	<0.50	µg/L	0.50	0.047
Trichloroethene	<0.50	µg/L	0.50	0.063
Trichlorofluoromethane	<1.0	µg/L	1.0	0.022
Trichlorotrifluoroethane	<5.0	µg/L	5.0	0.58
Vinyl chloride	<0.50	µg/L	0.50	0.072
Fluorobenzene (Surrogate)	92.0	%	--	--

Legend Technical Services

Client Name:	Service Environmental & Engineering Cc	**Legend Project #:**	2003080416
Client Project Number:	3039	**Sample #:**	4
Client Project Name:	AMPI, Glencoe	**Matrix:**	Groundwater
Date Sampled:	08/25/03	**Date Received:**	08/26/03
Client Sample ID:	GP-4 @ 10'		

VOC MDH LIST BY 8021B

Extraction Date: --
Analysis Method: 8021B
Analysis Date: 08/29/03
Client ID: GP-4 @ 10'

Compound	Sample Results	Units	RL	MDL
1,1,1,2-Tetrachloroethane	<1.0	µg/L	1.0	0.24
1,1,1-Trichloroethane	<0.50	µg/L	0.50	0.078
1,1,2,2-Tetrachloroethane	<0.50	µg/L	0.50	0.10
1,1,2-Trichloroethane	<0.50	µg/L	0.50	0.085
1,1-Dichloroethane	<0.50	µg/L	0.50	0.055
1,1-Dichloroethene	<0.50	µg/L	0.50	0.033
1,1-Dichloropropene	<0.50	µg/L	0.50	0.087
1,2,3-Trichlorobenzene	<0.50	µg/L	0.50	0.11
1,2,3-Trichloropropane	<0.50	µg/L	0.50	0.059
1,2,4-Trichlorobenzene	<0.50	µg/L	0.50	0.084
1,2,4-Trimethyl benzene	<0.50	µg/L	0.50	0.074
1,2-Dibromo-3-chloropropane	<0.50	µg/L	0.50	0.080
1,2-Dibromoethane	<0.50	µg/L	0.50	0.11
1,2-Dichlorobenzene	<0.50	µg/L	0.50	0.065
1,2-Dichloroethane	<0.50	µg/L	0.50	0.042
1,2-Dichloropropane	<0.50	µg/L	0.50	0.037
1,3,5-Trimethyl benzene	<0.50	µg/L	0.50	0.070
1,3-Dichlorobenzene	<0.50	µg/L	0.50	0.048
1,3-Dichloropropane	<0.50	µg/L	0.50	0.12
1,4-Dichlorobenzene	<0.50	µg/L	0.50	0.080
2,2-Dichloropropane	<0.50	µg/L	0.50	0.11
2-Chlorotoluene	<0.50	µg/L	0.50	0.063
4-Chlorotoluene	<0.50	µg/L	0.50	0.13
Acetone	<10	µg/L	10	0.66
Allyl chloride	<1.0	µg/L	1.0	0.13
Benzene	<0.50	µg/L	0.50	0.052
Bromobenzene	<0.50	µg/L	0.50	0.14
Bromochloromethane	<0.50	µg/L	0.50	0.038
Bromodichloromethane	<0.50	µg/L	0.50	0.063
Bromoform	<0.50	µg/L	0.50	0.13
Bromomethane	<2.0	µg/L	2.0	0.082
Carbon tetrachloride	<0.50	µg/L	0.50	0.097
Chlorobenzene	<0.50	µg/L	0.50	0.15
Chloroethane	<1.0	µg/L	1.0	0.076
Chloroform	<0.50	µg/L	0.50	0.058
Chloromethane	<2.0	µg/L	2.0	0.077
cis-1,2-Dichloroethene	<0.50	µg/L	0.50	0.049
cis-1,3-Dichloropropene	<0.50	µg/L	0.50	0.061
Dibromochloromethane	<0.50	µg/L	0.50	0.11
Dibromomethane	<0.50	µg/L	0.50	0.021
Dichlorodifluoromethane	<2.0	µg/L	2.0	0.11
Dichlorofluoromethane	<5.0	µg/L	5.0	0.12
Ethyl benzene	<0.50	µg/L	0.50	0.052
Ethyl ether	<5.0	µg/L	5.0	0.090
Hexachlorobutadiene	<0.50	µg/L	0.50	0.083
Isopropyl benzene	<0.50	µg/L	0.50	0.051
Methyl ethyl ketone	<5.0	µg/L	5.0	0.54
Methyl isobutyl ketone	<5.0	µg/L	5.0	0.46
Methyl-tert-butyl ether	<1.0	µg/L	1.0	0.079
Methylene chloride	<5.0	µg/L	5.0	0.22
n-Butyl benzene	<0.50	µg/L	0.50	0.078
n-Propyl benzene	<0.50	µg/L	0.50	0.042
Naphthalene	<0.50	µg/L	0.50	0.077
o-Xylene	<0.50	µg/L	0.50	0.060
p,m-Xylene	<1.0	µg/L	1.0	0.10
p-Isopropyltoluene	<0.50	µg/L	0.50	0.13
sec-Butyl benzene	<0.50	µg/L	0.50	0.072
Styrene	<0.50	µg/L	0.50	0.042
tert-Butyl benzene	<0.50	µg/L	0.50	0.049
Tetrachloroethene	<0.50	µg/L	0.50	0.11
Tetrahydrofuran	<5.0	µg/L	5.0	0.82
Toluene	<0.50	µg/L	0.50	0.054
trans-1,2-Dichloroethene	<0.50	µg/L	0.50	0.059
trans-1,3-Dichloropropene	<0.50	µg/L	0.50	0.047
Trichloroethene	<0.50	µg/L	0.50	0.063
Trichlorofluoromethane	<1.0	µg/L	1.0	0.022
Trichlorotrifluoroethane	<5.0	µg/L	5.0	0.58
Vinyl chloride	<0.50	µg/L	0.50	0.072
Fluorobenzene (Surrogate)	92.9 P	%	--	--

P=The pH of the sample was greater than 2.0.

Legend Technical Services

Client Name:	Service Environmental & Engineering Cc	**Legend Project #:**	2003080416
Client Project Number:	3039	**Sample #:**	5
Client Project Name:	AMPI, Glencoe	**Matrix:**	Groundwater
Date Sampled:	08/25/03	**Date Received:**	08/26/03
Client Sample ID:	GP-5 @ 10'		

VOC MDH LIST BY 8021B

Extraction Date: --
Analysis Method: 8021B
Analysis Date: 09/02/03
Client ID: GP-5 @ 10'

Compound	Sample Results	Units	RL	MDL
1,1,1,2-Tetrachloroethane	<1.0	µg/L	1.0	0.24
1,1,1-Trichloroethane	<0.50	µg/L	0.50	0.078
1,1,2,2-Tetrachloroethane	<0.50	µg/L	0.50	0.10
1,1,2-Trichloroethane	<0.50	µg/L	0.50	0.085
1,1-Dichloroethane	<0.50	µg/L	0.50	0.055
1,1-Dichloroethene	<0.50	µg/L	0.50	0.033
1,1-Dichloropropene	<0.50	µg/L	0.50	0.087
1,2,3-Trichlorobenzene	<0.50	µg/L	0.50	0.11
1,2,3-Trichloropropane	<0.50	µg/L	0.50	0.059
1,2,4-Trichlorobenzene	<0.50	µg/L	0.50	0.084
1,2,4-Trimethyl benzene	<0.50	µg/L	0.50	0.074
1,2-Dibromo-3-chloropropane	<0.50	µg/L	0.50	0.080
1,2-Dibromoethane	<0.50	µg/L	0.50	0.11
1,2-Dichlorobenzene	<0.50	µg/L	0.50	0.065
1,2-Dichloroethane	<0.50	µg/L	0.50	0.042
1,2-Dichloropropane	<0.50	µg/L	0.50	0.037
1,3,5-Trimethyl benzene	<0.50	µg/L	0.50	0.070
1,3-Dichlorobenzene	<0.50	µg/L	0.50	0.048
1,3-Dichloropropane	<0.50	µg/L	0.50	0.12
1,4-Dichlorobenzene	<0.50	µg/L	0.50	0.080
2,2-Dichloropropane	<0.50	µg/L	0.50	0.11
2-Chlorotoluene	<0.50	µg/L	0.50	0.063
4-Chlorotoluene	<0.50	µg/L	0.50	0.13
Acetone	<10	µg/L	10	0.66
Allyl chloride	<1.0	µg/L	1.0	0.13
Benzene	<0.50	µg/L	0.50	0.052
Bromobenzene	<0.50	µg/L	0.50	0.14
Bromochloromethane	<0.50	µg/L	0.50	0.038
Bromodichloromethane	<0.50	µg/L	0.50	0.063
Bromoform	<0.50	µg/L	0.50	0.13
Bromomethane	<2.0	µg/L	2.0	0.082
Carbon tetrachloride	<0.50	µg/L	0.50	0.097
Chlorobenzene	<0.50	µg/L	0.50	0.15
Chloroethane	<1.0	µg/L	1.0	0.076
Chloroform	<0.50	µg/L	0.50	0.058
Chloromethane	<2.0	µg/L	2.0	0.077
cis-1,2-Dichloroethene	<0.50	µg/L	0.50	0.049
cis-1,3-Dichloropropene	<0.50	µg/L	0.50	0.061
Dibromochloromethane	<0.50	µg/L	0.50	0.11
Dibromomethane	<0.50	µg/L	0.50	0.021
Dichlorodifluoromethane	<2.0	µg/L	2.0	0.11
Dichlorofluoromethane	<5.0	µg/L	5.0	0.12
Ethyl benzene	<0.50	µg/L	0.50	0.052
Ethyl ether	<5.0	µg/L	5.0	0.090
Hexachlorobutadiene	<0.50	µg/L	0.50	0.083
Isopropyl benzene	<0.50	µg/L	0.50	0.051
Methyl ethyl ketone	<5.0	µg/L	5.0	0.54
Methyl isobutyl ketone	<5.0	µg/L	5.0	0.46
Methyl-tert-butyl ether	<1.0	µg/L	1.0	0.079
Methylene chloride	<5.0	µg/L	5.0	0.22
n-Butyl benzene	<0.50	µg/L	0.50	0.078
n-Propyl benzene	<0.50	µg/L	0.50	0.042
Naphthalene	<0.50	µg/L	0.50	0.077
o-Xylene	<0.50	µg/L	0.50	0.060
p,m-Xylene	<1.0	µg/L	1.0	0.10
p-Isopropyltoluene	<0.50	µg/L	0.50	0.13
sec-Butyl benzene	<0.50	µg/L	0.50	0.072
Styrene	<0.50	µg/L	0.50	0.042
tert-Butyl benzene	<0.50	µg/L	0.50	0.049
Tetrachloroethene	<0.50	µg/L	0.50	0.11
Tetrahydrofuran	<5.0	µg/L	5.0	0.82
Toluene	<0.50	µg/L	0.50	0.054
trans-1,2-Dichloroethene	<0.50	µg/L	0.50	0.059
trans-1,3-Dichloropropene	<0.50	µg/L	0.50	0.047
Trichloroethene	<0.50	µg/L	0.50	0.063
Trichlorofluoromethane	<1.0	µg/L	1.0	0.022
Trichlorotrifluoroethane	<5.0	µg/L	5.0	0.58
Vinyl chloride	<0.50	µg/L	0.50	0.072
Fluorobenzene (Surrogate)	84.1	%	--	--

Legend Technical Services

Client Name:	Service Environmental & Engineering Cc	**Legend Project #:**	2003080416
Client Project Number:	3039	**Sample #:**	6
Client Project Name:	AMPI, Glencoe	**Matrix:**	Groundwater
Date Sampled:	08/25/03	**Date Received:**	08/26/03
Client Sample ID:	GP-6 @ 10'		

VOC MDH LIST BY 8021B

Extraction Date: --
Analysis Method: 8021B
Analysis Date: 08/29/03
Client ID: GP-6 @ 10'

Compound	Sample Results	Units	RL	MDL
1,1,1,2-Tetrachloroethane	<1.0	µg/L	1.0	0.24
1,1,1-Trichloroethane	<0.50	µg/L	0.50	0.078
1,1,2,2-Tetrachloroethane	<0.50	µg/L	0.50	0.10
1,1,2-Trichloroethane	<0.50	µg/L	0.50	0.085
1,1-Dichloroethane	<0.50	µg/L	0.50	0.055
1,1-Dichloroethene	<0.50	µg/L	0.50	0.033
1,1-Dichloropropene	<0.50	µg/L	0.50	0.087
1,2,3-Trichlorobenzene	<0.50	µg/L	0.50	0.11
1,2,3-Trichloropropane	<0.50	µg/L	0.50	0.059
1,2,4-Trichlorobenzene	<0.50	µg/L	0.50	0.084
1,2,4-Trimethyl benzene	<0.50	µg/L	0.50	0.074
1,2-Dibromo-3-chloropropane	<0.50	µg/L	0.50	0.080
1,2-Dibromoethane	<0.50	µg/L	0.50	0.11
1,2-Dichlorobenzene	<0.50	µg/L	0.50	0.065
1,2-Dichloroethane	<0.50	µg/L	0.50	0.042
1,2-Dichloropropane	<0.50	µg/L	0.50	0.037
1,3,5-Trimethyl benzene	<0.50	µg/L	0.50	0.070
1,3-Dichlorobenzene	<0.50	µg/L	0.50	0.048
1,3-Dichloropropane	<0.50	µg/L	0.50	0.12
1,4-Dichlorobenzene	<0.50	µg/L	0.50	0.080
2,2-Dichloropropane	<0.50	µg/L	0.50	0.11
2-Chlorotoluene	<0.50	µg/L	0.50	0.063
4-Chlorotoluene	<0.50	µg/L	0.50	0.13
Acetone	<10	µg/L	10	0.66
Allyl chloride	<1.0	µg/L	1.0	0.13
Benzene	<0.50	µg/L	0.50	0.052
Bromobenzene	<0.50	µg/L	0.50	0.14
Bromochloromethane	<0.50	µg/L	0.50	0.038
Bromodichloromethane	<0.50	µg/L	0.50	0.063
Bromoform	<0.50	µg/L	0.50	0.13
Bromomethane	<2.0	µg/L	2.0	0.082
Carbon tetrachloride	<0.50	µg/L	0.50	0.097
Chlorobenzene	<0.50	µg/L	0.50	0.15
Chloroethane	<1.0	µg/L	1.0	0.076
Chloroform	<0.50	µg/L	0.50	0.058
Chloromethane	<2.0	µg/L	2.0	0.077
cis-1,2-Dichloroethene	<0.50	µg/L	0.50	0.049
cis-1,3-Dichloropropene	<0.50	µg/L	0.50	0.061
Dibromochloromethane	<0.50	µg/L	0.50	0.11
Dibromomethane	<0.50	µg/L	0.50	0.021
Dichlorodifluoromethane	<2.0	µg/L	2.0	0.11
Dichlorofluoromethane	<5.0	µg/L	5.0	0.12
Ethyl benzene	<0.50	µg/L	0.50	0.052
Ethyl ether	<5.0	µg/L	5.0	0.090
Hexachlorobutadiene	<0.50	µg/L	0.50	0.083
Isopropyl benzene	<0.50	µg/L	0.50	0.051
Methyl ethyl ketone	<5.0	µg/L	5.0	0.54
Methyl isobutyl ketone	<5.0	µg/L	5.0	0.46
Methyl-tert-butyl ether	<1.0	µg/L	1.0	0.079
Methylene chloride	<5.0	µg/L	5.0	0.22
n-Butyl benzene	<0.50	µg/L	0.50	0.078
n-Propyl benzene	<0.50	µg/L	0.50	0.042
Naphthalene	<0.50	µg/L	0.50	0.077
o-Xylene	<0.50	µg/L	0.50	0.060
p,m-Xylene	<1.0	µg/L	1.0	0.10
p-Isopropyltoluene	<0.50	µg/L	0.50	0.13
sec-Butyl benzene	<0.50	µg/L	0.50	0.072
Styrene	<0.50	µg/L	0.50	0.042
tert-Butyl benzene	<0.50	µg/L	0.50	0.049
Tetrachloroethene	<0.50	µg/L	0.50	0.11
Tetrahydrofuran	<5.0	µg/L	5.0	0.82
Toluene	<0.50	µg/L	0.50	0.054
trans-1,2-Dichloroethene	<0.50	µg/L	0.50	0.059
trans-1,3-Dichloropropene	<0.50	µg/L	0.50	0.047
Trichloroethene	<0.50	µg/L	0.50	0.063
Trichlorofluoromethane	<1.0	µg/L	1.0	0.022
Trichlorotrifluoroethane	<5.0	µg/L	5.0	0.58
Vinyl chloride	<0.50	µg/L	0.50	0.072
Fluorobenzene (Surrogate)	92.2	%	--	--

Legend Technical Services

Client Name:	Service Environmental & Engineering Cc	**Legend Project #:**	2003080416
Client Project Number:	3039	**Sample #:**	8
Client Project Name:	AMPI, Glencoe	**Matrix:**	Groundwater
Date Sampled:	08/25/03	**Date Received:**	08/26/03
Client Sample ID:	Trip Blank		

VOC MDH LIST BY 8021B

Extraction Date: --
Analysis Method: 8021B
Analysis Date: 08/29/03
Client ID: Trip Blank

Compound	Sample Results	Units	RL	MDL
1,1,1,2-Tetrachloroethane	<1.0	µg/L	1.0	0.24
1,1,1-Trichloroethane	<0.50	µg/L	0.50	0.078
1,1,2,2-Tetrachloroethane	<0.50	µg/L	0.50	0.10
1,1,2-Trichloroethane	<0.50	µg/L	0.50	0.085
1,1-Dichloroethane	<0.50	µg/L	0.50	0.055
1,1-Dichloroethene	<0.50	µg/L	0.50	0.033
1,1-Dichloropropene	<0.50	µg/L	0.50	0.087
1,2,3-Trichlorobenzene	<0.50	µg/L	0.50	0.11
1,2,3-Trichloropropane	<0.50	µg/L	0.50	0.059
1,2,4-Trichlorobenzene	<0.50	µg/L	0.50	0.084
1,2,4-Trimethyl benzene	<0.50	µg/L	0.50	0.074
1,2-Dibromo-3-chloropropane	<0.50	µg/L	0.50	0.080
1,2-Dibromoethane	<0.50	µg/L	0.50	0.11
1,2-Dichlorobenzene	<0.50	µg/L	0.50	0.065
1,2-Dichloroethane	<0.50	µg/L	0.50	0.042
1,2-Dichloropropane	<0.50	µg/L	0.50	0.037
1,3,5-Trimethyl benzene	<0.50	µg/L	0.50	0.070
1,3-Dichlorobenzene	<0.50	µg/L	0.50	0.048
1,3-Dichloropropane	<0.50	µg/L	0.50	0.12
1,4-Dichlorobenzene	<0.50	µg/L	0.50	0.080
2,2-Dichloropropane	<0.50	µg/L	0.50	0.11
2-Chlorotoluene	<0.50	µg/L	0.50	0.063
4-Chlorotoluene	<0.50	µg/L	0.50	0.13
Acetone	<10	µg/L	10	0.66
Allyl chloride	<1.0	µg/L	1.0	0.13
Benzene	<0.50	µg/L	0.50	0.052
Bromobenzene	<0.50	µg/L	0.50	0.14
Bromochloromethane	<0.50	µg/L	0.50	0.038
Bromodichloromethane	<0.50	µg/L	0.50	0.063
Bromoform	<0.50	µg/L	0.50	0.13
Bromomethane	<2.0	µg/L	2.0	0.082
Carbon tetrachloride	<0.50	µg/L	0.50	0.097
Chlorobenzene	<0.50	µg/L	0.50	0.15
Chloroethane	<1.0	µg/L	1.0	0.076
Chloroform	<0.50	µg/L	0.50	0.058
Chloromethane	<2.0	µg/L	2.0	0.077
cis-1,2-Dichloroethene	<0.50	µg/L	0.50	0.049
cis-1,3-Dichloropropene	<0.50	µg/L	0.50	0.061
Dibromochloromethane	<0.50	µg/L	0.50	0.11
Dibromomethane	<0.50	µg/L	0.50	0.021
Dichlorodifluoromethane	<2.0	µg/L	2.0	0.11
Dichlorofluoromethane	<5.0	µg/L	5.0	0.12
Ethyl benzene	<0.50	µg/L	0.50	0.052
Ethyl ether	<5.0	µg/L	5.0	0.090
Hexachlorobutadiene	<0.50	µg/L	0.50	0.083
Isopropyl benzene	<0.50	µg/L	0.50	0.051
Methyl ethyl ketone	<5.0	µg/L	5.0	0.54
Methyl isobutyl ketone	<5.0	µg/L	5.0	0.46
Methyl-tert-butyl ether	<1.0	µg/L	1.0	0.079
Methylene chloride	<5.0	µg/L	5.0	0.22
n-Butyl benzene	<0.50	µg/L	0.50	0.078
n-Propyl benzene	<0.50	µg/L	0.50	0.042
Naphthalene	<0.50	µg/L	0.50	0.077
o-Xylene	<0.50	µg/L	0.50	0.060
p,m-Xylene	<1.0	µg/L	1.0	0.10
p-Isopropyltoluene	<0.50	µg/L	0.50	0.13
sec-Butyl benzene	<0.50	µg/L	0.50	0.072
Styrene	<0.50	µg/L	0.50	0.042
tert-Butyl benzene	<0.50	µg/L	0.50	0.049
Tetrachloroethene	<0.50	µg/L	0.50	0.11
Tetrahydrofuran	<5.0	µg/L	5.0	0.82
Toluene	<0.50	µg/L	0.50	0.054
trans-1,2-Dichloroethene	<0.50	µg/L	0.50	0.059
trans-1,3-Dichloropropene	<0.50	µg/L	0.50	0.047
Trichloroethene	<0.50	µg/L	0.50	0.063
Trichlorofluoromethane	<1.0	µg/L	1.0	0.022
Trichlorotrifluoroethane	<5.0	µg/L	5.0	0.58
Vinyl chloride	<0.50	µg/L	0.50	0.072
Fluorobenzene (Surrogate)	92.3	%	--	--

Legend Technical Services

Client Name:	Service Environmental & Engineering Cc	**Legend Project #:**	2003080416
Client Project Number:	3039	**Sample #:**	10
Client Project Name:	AMPI, Glencoe	**Matrix:**	Groundwater
Date Sampled:	08/25/03	**Date Received:**	08/26/03
Client Sample ID:	Method Blank		

VOC MDH LIST BY 8021B

Extraction Date: --
Analysis Method: 8021B
Analysis Date: 08/29/03
Client ID: Method Blank

Compound	Sample Results	Units	RL	MDL
1,1,1,2-Tetrachloroethane	<1.0	µg/L	1.0	0.24
1,1,1-Trichloroethane	<0.50	µg/L	0.50	0.078
1,1,2,2-Tetrachloroethane	<0.50	µg/L	0.50	0.10
1,1,2-Trichloroethane	<0.50	µg/L	0.50	0.085
1,1-Dichloroethane	<0.50	µg/L	0.50	0.055
1,1-Dichloroethene	<0.50	µg/L	0.50	0.033
1,1-Dichloropropene	<0.50	µg/L	0.50	0.087
1,2,3-Trichlorobenzene	<0.50	µg/L	0.50	0.11
1,2,3-Trichloropropane	<0.50	µg/L	0.50	0.059
1,2,4-Trichlorobenzene	<0.50	µg/L	0.50	0.084
1,2,4-Trimethyl benzene	<0.50	µg/L	0.50	0.074
1,2-Dibromo-3-chloropropane	<0.50	µg/L	0.50	0.080
1,2-Dibromoethane	<0.50	µg/L	0.50	0.11
1,2-Dichlorobenzene	<0.50	µg/L	0.50	0.065
1,2-Dichloroethane	<0.50	µg/L	0.50	0.042
1,2-Dichloropropane	<0.50	µg/L	0.50	0.037
1,3,5-Trimethyl benzene	<0.50	µg/L	0.50	0.070
1,3-Dichlorobenzene	<0.50	µg/L	0.50	0.048
1,3-Dichloropropane	<0.50	µg/L	0.50	0.12
1,4-Dichlorobenzene	<0.50	µg/L	0.50	0.080
2,2-Dichloropropane	<0.50	µg/L	0.50	0.11
2-Chlorotoluene	<0.50	µg/L	0.50	0.063
4-Chlorotoluene	<0.50	µg/L	0.50	0.13
Acetone	<10	µg/L	10	0.66
Allyl chloride	<1.0	µg/L	1.0	0.13
Benzene	<0.50	µg/L	0.50	0.052
Bromobenzene	<0.50	µg/L	0.50	0.14
Bromochloromethane	<0.50	µg/L	0.50	0.038
Bromodichloromethane	<0.50	µg/L	0.50	0.063
Bromoform	<0.50	µg/L	0.50	0.13
Bromomethane	<2.0	µg/L	2.0	0.082
Carbon tetrachloride	<0.50	µg/L	0.50	0.097
Chlorobenzene	<0.50	µg/L	0.50	0.15
Chloroethane	<1.0	µg/L	1.0	0.076
Chloroform	<0.50	µg/L	0.50	0.058
Chloromethane	<2.0	µg/L	2.0	0.077
cis-1,2-Dichloroethene	<0.50	µg/L	0.50	0.049
cis-1,3-Dichloropropene	<0.50	µg/L	0.50	0.061
Dibromochloromethane	<0.50	µg/L	0.50	0.11
Dibromomethane	<0.50	µg/L	0.50	0.021
Dichlorodifluoromethane	<2.0	µg/L	2.0	0.11
Dichlorofluoromethane	<5.0	µg/L	5.0	0.12
Ethyl benzene	<0.50	µg/L	0.50	0.052
Ethyl ether	<5.0	µg/L	5.0	0.090
Hexachlorobutadiene	<0.50	µg/L	0.50	0.083
Isopropyl benzene	<0.50	µg/L	0.50	0.051
Methyl ethyl ketone	<5.0	µg/L	5.0	0.54
Methyl isobutyl ketone	<5.0	µg/L	5.0	0.46
Methyl-tert-butyl ether	<1.0	µg/L	1.0	0.079
Methylene chloride	<5.0	µg/L	5.0	0.22
n-Butyl benzene	<0.50	µg/L	0.50	0.078
n-Propyl benzene	<0.50	µg/L	0.50	0.042
Naphthalene	<0.50	µg/L	0.50	0.077
o-Xylene	<0.50	µg/L	0.50	0.060
p,m-Xylene	<1.0	µg/L	1.0	0.10
p-Isopropyltoluene	<0.50	µg/L	0.50	0.13
sec-Butyl benzene	<0.50	µg/L	0.50	0.072
Styrene	<0.50	µg/L	0.50	0.042
tert-Butyl benzene	<0.50	µg/L	0.50	0.049
Tetrachloroethene	<0.50	µg/L	0.50	0.11
Tetrahydrofuran	<5.0	µg/L	5.0	0.82
Toluene	<0.50	µg/L	0.50	0.054
trans-1,2-Dichloroethene	<0.50	µg/L	0.50	0.059
trans-1,3-Dichloropropene	<0.50	µg/L	0.50	0.047
Trichloroethene	<0.50	µg/L	0.50	0.063
Trichlorofluoromethane	<1.0	µg/L	1.0	0.022
Trichlorotrifluoroethane	<5.0	µg/L	5.0	0.58
Vinyl chloride	<0.50	µg/L	0.50	0.072
Fluorobenzene (Surrogate)	92.3	%	--	--

Page 1 of 1

LEGEND TECHNICAL SERVICES, INC.

775 Vandalia Street, St. Paul, MN 55114 - Telephone: 651-642-1150, Fax: 651-642-1239

CHAIN-OF-CUSTODY RECORD

Client Name: SERVICE Engineering Group

Address: 675 Vandalia St. Paul, Mn 55114

Attn: Tim Rogers

Bill To:

Address: Same

PO #:

Phone: 651-644-6680 Fax: 651-644-7008

Project Name: AMPI, Glencoe Project #: 03039

LEGEND Project #: 2003080416

Turnaround Time:
- [x] Normal
- [ ] RUSH Date: _____

Condition Received:
- [x] Received at 8 °C
- [x] Received on ice
- [ ] Received on blue ice
- [ ] Received ambient
- [ ] No temp. blank
- [ ] Acceptable

Item No.	Field ID No.	Sample Description	Collection Date	Collection Time	Sample Matrix	Lab ID No.	Number of Containers	Analysis: DRO	Analysis: VOCs 465/466	Analysis: Moisture			
1		GP-1 @ 13'	8/25/03	AM	Water	-1		X	X				
2		GP-2 @ 10'		AM		-2		X	X				
3		GP-3 @ 10'		AM		-3		X	X				
4		GP-4 @ 10'		PM		-4		X	X				
5		GP-5 @ 10'		PM		-5		X	X				
6		GP-6 @ 10'		PM		-6		X	X				
7		GP-1 @ 35-37'		AM	Soil	-7		X	X	X			
8		Trip Blank			W	-8		XXX	X				
9		Trip Blank			S	-9			X				
10													

Sample Collector (please print): Tim Rogers

Comments:

Item No. | Relinquished By: Tim Rogers | Date: 8/26/03 | Time: 8:04a | Accepted By: Marcy Ryan Legend | Date: 8/26/03 | Time: 0805

Item No. | Relinquished By: | Date: | Time: | Received By Lab: | Date: | Time:

Form LAB-268 (02/03)

PLEASE REVIEW TERMS AND CONDITIONS ON BACK BEFORE SIGNING

White Copy - Original Accompanies Shipment to Lab **Yellow Copy** - Lab **Pink Copy** - Customer or Field Copy

LEGEND
Technical Services, Inc.

04/06/04

APR 12 2004

Mr. Tim Rogers
Service Environmental & Engineering Co.
675 Vandalia Street
St. Paul MN
55114

* Revised 4/8/04

Subject: 03039 AMP I
Legend No: 2004030389

LEGEND TECHNICAL SERVICES, INC. (LEGEND) received the following sample(s).

Matrix	Samples	Date Sampled	Date Received	Comments
Drinking Water	1	03/23/04	03/23/04	Received @ 8.3 C

* The associated batch quality assurance / quality control criteria were met with satisfaction.

* All samples will be retained by LEGEND for 30 days from the date of this report and then discarded unless other instructions are received from the client.

* Minnesota Laboratory Certification # 027-123-295.

* The %RPD for the DRO extraction batch duplicate exceeded method limits. The duplicate sample was not associated with this project.

* This report was revised on 4/8/04 to change the matrix description.

Prepared by,
LEGEND TECHNICAL SERVICES, INC

Chris Bremer
Laboratory Director

Karla Reps
Client Representative

Legend Technical Services

Client Name:	Service Environmental & Engineering	**Legend Project #:**	2004030389
Client Project:	03039	**Matrix:**	Aqueous
Date Sampled:	03/23/04	**Date Received:**	03/23/04

DRO/8015B WATER

Extraction Date:	03/26/04	03/26/04	--
Analysis Date:	03/29/04	03/26/04	--
Analysis Method:	WI DRO	WI DRO	--
Client Sample ID:	210278 Production well	Method Blank	ug/L

Compound	1	3	RL
Diesel range organics	**160**	<100	100
C-30 (Surrogate)	92.2%	97.6%	--

Legend Technical Services

Client Name:	Service Environmental & Engineering	**Legend Project #:**	2004030389
Client Project:	03039	**Matrix:**	Aqueous
Date Sampled:	03/23/04	**Date Received:**	03/23/04

GRO/8021B WATER

Analysis Date:	04/02/04	04/02/04	04/02/04	--
Analysis Method:	WI GRO	WI GRO	WI GRO	--
Client Sample ID:	210278 Production well	Trip Blank	Method Blank	µg/L

Compound	1	2	3	RL
Gasoline range organics	<100	<100	<100	100
1-Chloro-4-fluorobenzene (Surr)	101%	102%	102%	--

Legend Technical Services

Client Name:	Service Environmental & Engineering Cc	**Legend Project #:**	2004030389
Client Project Number:	3039	**Sample #:**	1
Client Project Name:	AMP I	**Matrix:**	Aqueous
Date Sampled:	03/23/04	**Date Received:**	03/23/04
Client Sample ID:	210278 Production well		

VOC GCMS 8260B

Extraction Date: --
Analysis Method: 8260B
Analysis Date: 03/30/04
Client ID: 210278 Production well

Compound	Sample Results	Units	RL	MDL	Compound	Sample Results	Units	RL	MDL
1,1,1,2-Tetrachloroethane	<5.0	µg/L	5.0	0.33	cis-1,2-Dichloroethene	<1.0	µg/L	1.0	0.039
1,1,1-Trichloroethane	<1.0	µg/L	1.0	0.086	cis-1,3-Dichloropropene	<1.0	µg/L	1.0	0.14
1,1,2,2-Tetrachloroethane	<1.0	µg/L	1.0	0.061	Dibromochloromethane	<1.0	µg/L	1.0	0.16
1,1,2-Trichloroethane	<1.0	µg/L	1.0	0.12	Dibromomethane	<5.0	µg/L	5.0	0.24
1,1,2-Trichlorotrifluoroethane	<5.0	µg/L	5.0	0.69	Dichlorodifluoromethane	<5.0	µg/L	5.0	0.93
1,1-Dichloroethane	<1.0	µg/L	1.0	0.063	Dichlorofluoromethane	<1.0	µg/L	1.0	0.094
1,1-Dichloroethene	<1.0	µg/L	1.0	0.14	Ethyl benzene	<1.0	µg/L	1.0	0.050
1,1-Dichloropropene	<1.0	µg/L	1.0	0.12	Ethyl ether	<1.0	µg/L	1.0	0.13
1,2,3-Trichlorobenzene	<5.0	µg/L	5.0	0.16	Hexachlorobutadiene	<5.0	µg/L	5.0	0.48
1,2,3-Trichloropropane	<1.0	µg/L	1.0	0.070	Isopropyl benzene	<1.0	µg/L	1.0	0.065
1,2,4-Trichlorobenzene	<5.0	µg/L	5.0	0.12	Methyl isobutyl ketone	<5.0	µg/L	5.0	0.54
1,2,4-Trimethylbenzene	<1.0	µg/L	1.0	0.074	Methyl-tert-butyl ether	<1.0	µg/L	1.0	0.093
1,2-Dibromo-3-chloropropane	<5.0	µg/L	5.0	0.48	Methylene chloride	<10	µg/L	10	1.3
1,2-Dibromoethane	<1.0	µg/L	1.0	0.070	n-Butyl benzene	<1.0	µg/L	1.0	0.13
1,2-Dichlorobenzene	<1.0	µg/L	1.0	0.061	n-Propyl benzene	<1.0	µg/L	1.0	0.028
1,2-Dichloroethane	<1.0	µg/L	1.0	0.053	Naphthalene	<5.0	µg/L	5.0	0.078
1,2-Dichloropropane	<1.0	µg/L	1.0	0.092	o-Xylene	<1.0	µg/L	1.0	0.14
1,3,5-Trimethylbenzene	<1.0	µg/L	1.0	0.078	p,m-Xylene	<2.0	µg/L	2.0	0.12
1,3-Dichlorobenzene	<1.0	µg/L	1.0	0.11	sec-Butyl benzene	<1.0	µg/L	1.0	0.10
1,3-Dichloropropane	<1.0	µg/L	1.0	0.077	Styrene	<1.0	µg/L	1.0	0.078
1,4-Dichlorobenzene	<1.0	µg/L	1.0	0.068	tert-Butyl benzene	<1.0	µg/L	1.0	0.079
2,2-Dichloropropane	<5.0	µg/L	5.0	0.35	Tetrachloroethene	<1.0	µg/L	1.0	0.18
2-Butanone	<20	µg/L	20	0.63	Tetrahydrofuran	<20	µg/L	20	0.20
2-Chlorotoluene	<1.0	µg/L	1.0	0.11	Toluene	<1.0	µg/L	1.0	0.075
4-Chlorotoluene	<1.0	µg/L	1.0	0.069	trans-1,2-Dichloroethene	<1.0	µg/L	1.0	0.11
4-Isopropyltoluene	<1.0	µg/L	1.0	0.055	trans-1,3-Dichloropropene	<1.0	µg/L	1.0	0.12
Acetone	<20	µg/L	20	1.3	Trichloroethene	<1.0	µg/L	1.0	0.094
Allyl chloride	<5.0	µg/L	5.0	0.31	Trichlorofluoromethane	<1.0	µg/L	1.0	0.11
Benzene	<1.0	µg/L	1.0	0.061	Vinyl chloride	<1.0	µg/L	1.0	0.13
Bromobenzene	<1.0	µg/L	1.0	0.15	4-Bromofluorobenzene (Surr)	89.1	%	--	--
Bromochloromethane	<1.0	µg/L	1.0	0.11	Dibromofluoromethane (Surr)	90.6	%	--	--
Bromodichloromethane	<1.0	µg/L	1.0	0.082	Toluene-d8 (Surr)	90.9	%	--	--
Bromoform	<5.0	µg/L	5.0	0.54					
Bromomethane	<10	µg/L	10	2.1					
Carbon tetrachloride	<1.0	µg/L	1.0	0.26					
Chlorobenzene	<1.0	µg/L	1.0	0.054					
Chloroethane	<1.0	µg/L	1.0	0.11					
Chloroform	<1.0	µg/L	1.0	0.054					
Chloromethane	<1.0	µg/L	1.0	0.15					

Legend Technical Services

Client Name:	Service Environmental & Engineering Cc	**Legend Project #:**	2004030389
Client Project Number:	3039	**Sample #:**	2
Client Project Name:	AMP I	**Matrix:**	Aqueous
Date Sampled:	03/23/04	**Date Received:**	03/23/04
Client Sample ID:	Trip Blank		

VOC GCMS 8260B

Extraction Date: –
Analysis Method: 8260B
Analysis Date: 03/30/04
Client ID: Trip Blank

Compound	Sample Results	Units	RL	MDL
1,1,1,2-Tetrachloroethane	<5.0	µg/L	5.0	0.33
1,1,1-Trichloroethane	<1.0	µg/L	1.0	0.086
1,1,2,2-Tetrachloroethane	<1.0	µg/L	1.0	0.061
1,1,2-Trichloroethane	<1.0	µg/L	1.0	0.12
1,1,2-Trichlorotrifluoroethane	<5.0	µg/L	5.0	0.69
1,1-Dichloroethane	<1.0	µg/L	1.0	0.063
1,1-Dichloroethene	<1.0	µg/L	1.0	0.14
1,1-Dichloropropene	<1.0	µg/L	1.0	0.12
1,2,3-Trichlorobenzene	<5.0	µg/L	5.0	0.16
1,2,3-Trichloropropane	<1.0	µg/L	1.0	0.070
1,2,4-Trichlorobenzene	<5.0	µg/L	5.0	0.12
1,2,4-Trimethylbenzene	<1.0	µg/L	1.0	0.074
1,2-Dibromo-3-chloropropane	<5.0	µg/L	5.0	0.48
1,2-Dibromoethane	<1.0	µg/L	1.0	0.070
1,2-Dichlorobenzene	<1.0	µg/L	1.0	0.061
1,2-Dichloroethane	<1.0	µg/L	1.0	0.053
1,2-Dichloropropane	<1.0	µg/L	1.0	0.092
1,3,5-Trimethylbenzene	<1.0	µg/L	1.0	0.078
1,3-Dichlorobenzene	<1.0	µg/L	1.0	0.11
1,3-Dichloropropane	<1.0	µg/L	1.0	0.077
1,4-Dichlorobenzene	<1.0	µg/L	1.0	0.068
2,2-Dichloropropane	<5.0	µg/L	5.0	0.35
2-Butanone	<20	µg/L	20	0.63
2-Chlorotoluene	<1.0	µg/L	1.0	0.11
4-Chlorotoluene	<1.0	µg/L	1.0	0.069
4-Isopropyltoluene	<1.0	µg/L	1.0	0.055
Acetone	<20	µg/L	20	1.3
Allyl chloride	<5.0	µg/L	5.0	0.31
Benzene	<1.0	µg/L	1.0	0.061
Bromobenzene	<1.0	µg/L	1.0	0.15
Bromochloromethane	<1.0	µg/L	1.0	0.11
Bromodichloromethane	<1.0	µg/L	1.0	0.082
Bromoform	<5.0	µg/L	5.0	0.54
Bromomethane	<10	µg/L	10	2.1
Carbon tetrachloride	<1.0	µg/L	1.0	0.26
Chlorobenzene	<1.0	µg/L	1.0	0.054
Chloroethane	<1.0	µg/L	1.0	0.11
Chloroform	<1.0	µg/L	1.0	0.054
Chloromethane	<1.0	µg/L	1.0	0.15
cis-1,2-Dichloroethene	<1.0	µg/L	1.0	0.039
cis-1,3-Dichloropropene	<1.0	µg/L	1.0	0.14
Dibromochloromethane	<1.0	µg/L	1.0	0.16
Dibromomethane	<5.0	µg/L	5.0	0.24
Dichlorodifluoromethane	<5.0	µg/L	5.0	0.93
Dichlorofluoromethane	<1.0	µg/L	1.0	0.094
Ethyl benzene	<1.0	µg/L	1.0	0.050
Ethyl ether	<1.0	µg/L	1.0	0.13
Hexachlorobutadiene	<5.0	µg/L	5.0	0.48
Isopropyl benzene	<1.0	µg/L	1.0	0.065
Methyl isobutyl ketone	<5.0	µg/L	5.0	0.54
Methyl-tert-butyl ether	<1.0	µg/L	1.0	0.093
Methylene chloride	<10	µg/L	10	1.3
n-Butyl benzene	<1.0	µg/L	1.0	0.13
n-Propyl benzene	<1.0	µg/L	1.0	0.028
Naphthalene	<5.0	µg/L	5.0	0.078
o-Xylene	<1.0	µg/L	1.0	0.14
p,m-Xylene	<2.0	µg/L	2.0	0.12
sec-Butyl benzene	<1.0	µg/L	1.0	0.10
Styrene	<1.0	µg/L	1.0	0.078
tert-Butyl benzene	<1.0	µg/L	1.0	0.079
Tetrachloroethene	<1.0	µg/L	1.0	0.18
Tetrahydrofuran	<20	µg/L	20	0.20
Toluene	<1.0	µg/L	1.0	0.075
trans-1,2-Dichloroethene	<1.0	µg/L	1.0	0.11
trans-1,3-Dichloropropene	<1.0	µg/L	1.0	0.12
Trichloroethene	<1.0	µg/L	1.0	0.094
Trichlorofluoromethane	<1.0	µg/L	1.0	0.11
Vinyl chloride	<1.0	µg/L	1.0	0.13
4-Bromofluorobenzene (Surr)	85.8	%	--	--
Dibromofluoromethane (Surr)	89.6	%	--	--
Toluene-d8 (Surr)	90.6	%	--	--

Legend Technical Services

Client Name:	Service Environmental & Engineering Cc	**Legend Project #:**	2004030389
Client Project Number:	3039	**Sample #:**	3
Client Project Name:	AMP I	**Matrix:**	Aqueous
Date Sampled:	03/23/04	**Date Received:**	03/23/04
Client Sample ID:	Method Blank		

VOC GCMS 8260B

Extraction Date: --
Analysis Method: 8260B
Analysis Date: 03/30/04
Client ID: Method Blank

Compound	Sample Results	Units	RL	MDL	Compound	Sample Results	Units	RL	MDL
1,1,1,2-Tetrachloroethane	<5.0	µg/L	5.0	0.33	cis-1,2-Dichloroethene	<1.0	µg/L	1.0	0.039
1,1,1-Trichloroethane	<1.0	µg/L	1.0	0.086	cis-1,3-Dichloropropene	<1.0	µg/L	1.0	0.14
1,1,2,2-Tetrachloroethane	<1.0	µg/L	1.0	0.061	Dibromochloromethane	<1.0	µg/L	1.0	0.16
1,1,2-Trichloroethane	<1.0	µg/L	1.0	0.12	Dibromomethane	<5.0	µg/L	5.0	0.24
1,1,2-Trichlorotrifluoroethane	<5.0	µg/L	5.0	0.69	Dichlorodifluoromethane	<5.0	µg/L	5.0	0.93
1,1-Dichloroethane	<1.0	µg/L	1.0	0.063	Dichlorofluoromethane	<1.0	µg/L	1.0	0.094
1,1-Dichloroethene	<1.0	µg/L	1.0	0.14	Ethyl benzene	<1.0	µg/L	1.0	0.050
1,1-Dichloropropene	<1.0	µg/L	1.0	0.12	Ethyl ether	<1.0	µg/L	1.0	0.13
1,2,3-Trichlorobenzene	<5.0	µg/L	5.0	0.16	Hexachlorobutadiene	<5.0	µg/L	5.0	0.48
1,2,3-Trichloropropane	<1.0	µg/L	1.0	0.070	Isopropyl benzene	<1.0	µg/L	1.0	0.065
1,2,4-Trichlorobenzene	<5.0	µg/L	5.0	0.12	Methyl isobutyl ketone	<5.0	µg/L	5.0	0.54
1,2,4-Trimethylbenzene	<1.0	µg/L	1.0	0.074	Methyl-tert-butyl ether	<1.0	µg/L	1.0	0.093
1,2-Dibromo-3-chloropropane	<5.0	µg/L	5.0	0.48	Methylene chloride	<10	µg/L	10	1.3
1,2-Dibromoethane	<1.0	µg/L	1.0	0.070	n-Butyl benzene	<1.0	µg/L	1.0	0.13
1,2-Dichlorobenzene	<1.0	µg/L	1.0	0.061	n-Propyl benzene	<1.0	µg/L	1.0	0.028
1,2-Dichloroethane	<1.0	µg/L	1.0	0.053	Naphthalene	<5.0	µg/L	5.0	0.078
1,2-Dichloropropane	<1.0	µg/L	1.0	0.092	o-Xylene	<1.0	µg/L	1.0	0.14
1,3,5-Trimethylbenzene	<1.0	µg/L	1.0	0.078	p,m-Xylene	<2.0	µg/L	2.0	0.12
1,3-Dichlorobenzene	<1.0	µg/L	1.0	0.11	sec-Butyl benzene	<1.0	µg/L	1.0	0.10
1,3-Dichloropropane	<1.0	µg/L	1.0	0.077	Styrene	<1.0	µg/L	1.0	0.078
1,4-Dichlorobenzene	<1.0	µg/L	1.0	0.068	tert-Butyl benzene	<1.0	µg/L	1.0	0.079
2,2-Dichloropropane	<5.0	µg/L	5.0	0.35	Tetrachloroethene	<1.0	µg/L	1.0	0.18
2-Butanone	<20	µg/L	20	0.63	Tetrahydrofuran	<20	µg/L	20	0.20
2-Chlorotoluene	<1.0	µg/L	1.0	0.11	Toluene	<1.0	µg/L	1.0	0.075
4-Chlorotoluene	<1.0	µg/L	1.0	0.069	trans-1,2-Dichloroethene	<1.0	µg/L	1.0	0.11
4-Isopropyltoluene	<1.0	µg/L	1.0	0.055	trans-1,3-Dichloropropene	<1.0	µg/L	1.0	0.12
Acetone	<20	µg/L	20	1.3	Trichloroethene	<1.0	µg/L	1.0	0.094
Allyl chloride	<5.0	µg/L	5.0	0.31	Trichlorofluoromethane	<1.0	µg/L	1.0	0.11
Benzene	<1.0	µg/L	1.0	0.061	Vinyl chloride	<1.0	µg/L	1.0	0.13
Bromobenzene	<1.0	µg/L	1.0	0.15	4-Bromofluorobenzene (Surr)	86.7	%	--	--
Bromochloromethane	<1.0	µg/L	1.0	0.11	Dibromofluoromethane (Surr)	89.8	%	--	--
Bromodichloromethane	<1.0	µg/L	1.0	0.082	Toluene-d8 (Surr)	90.0	%	--	--
Bromoform	<5.0	µg/L	5.0	0.54					
Bromomethane	<10	µg/L	10	2.1					
Carbon tetrachloride	<1.0	µg/L	1.0	0.26					
Chlorobenzene	<1.0	µg/L	1.0	0.054					
Chloroethane	<1.0	µg/L	1.0	0.11					
Chloroform	<1.0	µg/L	1.0	0.054					
Chloromethane	<1.0	µg/L	1.0	0.15					

LEGEND
Technical Services, Inc.

04/06/04

APR - 8 2004

Mr. Tim Rogers
Service Environmental & Engineering Co.
675 Vandalia Street
St. Paul MN
55114

Subject: 03039 AMP I
Legend No: 2004030389

LEGEND TECHNICAL SERVICES, INC. (LEGEND) received the following sample(s).

Matrix	Samples	Date Sampled	Date Received	Comments
Groundwater	1	03/23/04	03/23/04	Received @ 8.3 C

* The associated batch quality assurance / quality control criteria were met with satisfaction.

* All samples will be retained by LEGEND for 30 days from the date of this report and then discarded unless other instructions are received from the client.

* Minnesota Laboratory Certification # 027-123-295.

* The %RPD for the DRO extraction batch duplicate exceeded method limits. The duplicate sample was not associated with this project.

Prepared by,
LEGEND TECHNICAL SERVICES, INC

Chris Bremer
Laboratory Director

Karla Reps
Client Representative

Legend Technical Services

Client Name:	Service Environmental & Engineering	**Legend Project #:**	2004030389
Client Project:	03039	**Matrix:**	Aqueous
Date Sampled:	03/23/04	**Date Received:**	03/23/04

DRO/8015B WATER

Extraction Date:	03/26/04	03/26/04	--
Analysis Date:	03/29/04	03/26/04	--
Analysis Method:	WI DRO	WI DRO	--
Client Sample ID:	210278 Production well	Method Blank	ug/L
Compound	**1**	**3**	**RL**
Diesel range organics	**160**	<100	100
C-30 (Surrogate)	92.2%	97.6%	--

Legend Technical Services

Client Name:	Service Environmental & Engineering	**Legend Project #:**	2004030389
Client Project:	03039	**Matrix:**	Aqueous
Date Sampled:	03/23/04	**Date Received:**	03/23/04

GRO/8021B WATER

Analysis Date:	04/02/04	04/02/04	04/02/04	--
Analysis Method:	WI GRO	WI GRO	WI GRO	--
Client Sample ID:	210278 Production well	Trip Blank	Method Blank	µg/L

Compound	1	2	3	RL
Gasoline range organics	<100	<100	<100	100
1-Chloro-4-fluorobenzene (Surr)	101%	102%	102%	--

Legend Technical Services

Client Name:	Service Environmental & Engineering Cc	**Legend Project #:**	2004030389
Client Project Number:	3039	**Sample #:**	1
Client Project Name:	AMP I	**Matrix:**	Aqueous
Date Sampled:	03/23/04	**Date Received:**	03/23/04
Client Sample ID:	210278 Production well		

VOC GCMS 8260B

Extraction Date: --
Analysis Method: 8260B
Analysis Date: 03/30/04
Client ID: 210278 Production well

Compound	Sample Results	Units	RL	MDL
1,1,1,2-Tetrachloroethane	<5.0	µg/L	5.0	0.33
1,1,1-Trichloroethane	<1.0	µg/L	1.0	0.086
1,1,2,2-Tetrachloroethane	<1.0	µg/L	1.0	0.061
1,1,2-Trichloroethane	<1.0	µg/L	1.0	0.12
1,1,2-Trichlorotrifluoroethane	<5.0	µg/L	5.0	0.69
1,1-Dichloroethane	<1.0	µg/L	1.0	0.063
1,1-Dichloroethene	<1.0	µg/L	1.0	0.14
1,1-Dichloropropene	<1.0	µg/L	1.0	0.12
1,2,3-Trichlorobenzene	<5.0	µg/L	5.0	0.16
1,2,3-Trichloropropane	<1.0	µg/L	1.0	0.070
1,2,4-Trichlorobenzene	<5.0	µg/L	5.0	0.12
1,2,4-Trimethylbenzene	<1.0	µg/L	1.0	0.074
1,2-Dibromo-3-chloropropane	<5.0	µg/L	5.0	0.48
1,2-Dibromoethane	<1.0	µg/L	1.0	0.070
1,2-Dichlorobenzene	<1.0	µg/L	1.0	0.061
1,2-Dichloroethane	<1.0	µg/L	1.0	0.053
1,2-Dichloropropane	<1.0	µg/L	1.0	0.092
1,3,5-Trimethylbenzene	<1.0	µg/L	1.0	0.078
1,3-Dichlorobenzene	<1.0	µg/L	1.0	0.11
1,3-Dichloropropane	<1.0	µg/L	1.0	0.077
1,4-Dichlorobenzene	<1.0	µg/L	1.0	0.068
2,2-Dichloropropane	<5.0	µg/L	5.0	0.35
2-Butanone	<20	µg/L	20	0.63
2-Chlorotoluene	<1.0	µg/L	1.0	0.11
4-Chlorotoluene	<1.0	µg/L	1.0	0.069
4-Isopropyltoluene	<1.0	µg/L	1.0	0.055
Acetone	<20	µg/L	20	1.3
Allyl chloride	<5.0	µg/L	5.0	0.31
Benzene	<1.0	µg/L	1.0	0.061
Bromobenzene	<1.0	µg/L	1.0	0.15
Bromochloromethane	<1.0	µg/L	1.0	0.11
Bromodichloromethane	<1.0	µg/L	1.0	0.082
Bromoform	<5.0	µg/L	5.0	0.54
Bromomethane	<10	µg/L	10	2.1
Carbon tetrachloride	<1.0	µg/L	1.0	0.26
Chlorobenzene	<1.0	µg/L	1.0	0.054
Chloroethane	<1.0	µg/L	1.0	0.11
Chloroform	<1.0	µg/L	1.0	0.054
Chloromethane	<1.0	µg/L	1.0	0.15

Compound	Sample Results	Units	RL	MDL
cis-1,2-Dichloroethene	<1.0	µg/L	1.0	0.039
cis-1,3-Dichloropropene	<1.0	µg/L	1.0	0.14
Dibromochloromethane	<1.0	µg/L	1.0	0.16
Dibromomethane	<5.0	µg/L	5.0	0.24
Dichlorodifluoromethane	<5.0	µg/L	5.0	0.93
Dichlorofluoromethane	<1.0	µg/L	1.0	0.094
Ethyl benzene	<1.0	µg/L	1.0	0.050
Ethyl ether	<1.0	µg/L	1.0	0.13
Hexachlorobutadiene	<5.0	µg/L	5.0	0.48
Isopropyl benzene	<1.0	µg/L	1.0	0.065
Methyl isobutyl ketone	<5.0	µg/L	5.0	0.54
Methyl-tert-butyl ether	<1.0	µg/L	1.0	0.093
Methylene chloride	<10	µg/L	10	1.3
n-Butyl benzene	<1.0	µg/L	1.0	0.13
n-Propyl benzene	<1.0	µg/L	1.0	0.028
Naphthalene	<5.0	µg/L	5.0	0.078
o-Xylene	<1.0	µg/L	1.0	0.14
p,m-Xylene	<2.0	µg/L	2.0	0.12
sec-Butyl benzene	<1.0	µg/L	1.0	0.10
Styrene	<1.0	µg/L	1.0	0.078
tert-Butyl benzene	<1.0	µg/L	1.0	0.079
Tetrachloroethene	<1.0	µg/L	1.0	0.18
Tetrahydrofuran	<20	µg/L	20	0.20
Toluene	<1.0	µg/L	1.0	0.075
trans-1,2-Dichloroethene	<1.0	µg/L	1.0	0.11
trans-1,3-Dichloropropene	<1.0	µg/L	1.0	0.12
Trichloroethene	<1.0	µg/L	1.0	0.094
Trichlorofluoromethane	<1.0	µg/L	1.0	0.11
Vinyl chloride	<1.0	µg/L	1.0	0.13
4-Bromofluorobenzene (Surr)	89.1	%	--	--
Dibromofluoromethane (Surr)	90.6	%	--	--
Toluene-d8 (Surr)	90.9	%	--	--

Legend Technical Services

Client Name:	Service Environmental & Engineering Cc	**Legend Project #:**	2004030389
Client Project Number:	3039	**Sample #:**	2
Client Project Name:	AMP I	**Matrix:**	Aqueous
Date Sampled:	03/23/04	**Date Received:**	03/23/04
Client Sample ID:	Trip Blank		

VOC GCMS 8260B

Extraction Date: --
Analysis Method: 8260B
Analysis Date: 03/30/04
Client ID: Trip Blank

Compound	Sample Results	Units	RL	MDL
1,1,1,2-Tetrachloroethane	<5.0	µg/L	5.0	0.33
1,1,1-Trichloroethane	<1.0	µg/L	1.0	0.086
1,1,2,2-Tetrachloroethane	<1.0	µg/L	1.0	0.061
1,1,2-Trichloroethane	<1.0	µg/L	1.0	0.12
1,1,2-Trichlorotrifluoroethane	<5.0	µg/L	5.0	0.69
1,1-Dichloroethane	<1.0	µg/L	1.0	0.063
1,1-Dichloroethene	<1.0	µg/L	1.0	0.14
1,1-Dichloropropene	<1.0	µg/L	1.0	0.12
1,2,3-Trichlorobenzene	<5.0	µg/L	5.0	0.16
1,2,3-Trichloropropane	<1.0	µg/L	1.0	0.070
1,2,4-Trichlorobenzene	<5.0	µg/L	5.0	0.12
1,2,4-Trimethylbenzene	<1.0	µg/L	1.0	0.074
1,2-Dibromo-3-chloropropane	<5.0	µg/L	5.0	0.48
1,2-Dibromoethane	<1.0	µg/L	1.0	0.070
1,2-Dichlorobenzene	<1.0	µg/L	1.0	0.061
1,2-Dichloroethane	<1.0	µg/L	1.0	0.053
1,2-Dichloropropane	<1.0	µg/L	1.0	0.092
1,3,5-Trimethylbenzene	<1.0	µg/L	1.0	0.078
1,3-Dichlorobenzene	<1.0	µg/L	1.0	0.11
1,3-Dichloropropane	<1.0	µg/L	1.0	0.077
1,4-Dichlorobenzene	<1.0	µg/L	1.0	0.068
2,2-Dichloropropane	<5.0	µg/L	5.0	0.35
2-Butanone	<20	µg/L	20	0.63
2-Chlorotoluene	<1.0	µg/L	1.0	0.11
4-Chlorotoluene	<1.0	µg/L	1.0	0.069
4-Isopropyltoluene	<1.0	µg/L	1.0	0.055
Acetone	<20	µg/L	20	1.3
Allyl chloride	<5.0	µg/L	5.0	0.31
Benzene	<1.0	µg/L	1.0	0.061
Bromobenzene	<1.0	µg/L	1.0	0.15
Bromochloromethane	<1.0	µg/L	1.0	0.11
Bromodichloromethane	<1.0	µg/L	1.0	0.082
Bromoform	<5.0	µg/L	5.0	0.54
Bromomethane	<10	µg/L	10	2.1
Carbon tetrachloride	<1.0	µg/L	1.0	0.26
Chlorobenzene	<1.0	µg/L	1.0	0.054
Chloroethane	<1.0	µg/L	1.0	0.11
Chloroform	<1.0	µg/L	1.0	0.054
Chloromethane	<1.0	µg/L	1.0	0.15
cis-1,2-Dichloroethene	<1.0	µg/L	1.0	0.039
cis-1,3-Dichloropropene	<1.0	µg/L	1.0	0.14
Dibromochloromethane	<1.0	µg/L	1.0	0.16
Dibromomethane	<5.0	µg/L	5.0	0.24
Dichlorodifluoromethane	<5.0	µg/L	5.0	0.93
Dichlorofluoromethane	<1.0	µg/L	1.0	0.094
Ethyl benzene	<1.0	µg/L	1.0	0.050
Ethyl ether	<1.0	µg/L	1.0	0.13
Hexachlorobutadiene	<5.0	µg/L	5.0	0.48
Isopropyl benzene	<1.0	µg/L	1.0	0.065
Methyl isobutyl ketone	<5.0	µg/L	5.0	0.54
Methyl-tert-butyl ether	<1.0	µg/L	1.0	0.093
Methylene chloride	<10	µg/L	10	1.3
n-Butyl benzene	<1.0	µg/L	1.0	0.13
n-Propyl benzene	<1.0	µg/L	1.0	0.028
Naphthalene	<5.0	µg/L	5.0	0.078
o-Xylene	<1.0	µg/L	1.0	0.14
p,m-Xylene	<2.0	µg/L	2.0	0.12
sec-Butyl benzene	<1.0	µg/L	1.0	0.10
Styrene	<1.0	µg/L	1.0	0.078
tert-Butyl benzene	<1.0	µg/L	1.0	0.079
Tetrachloroethene	<1.0	µg/L	1.0	0.18
Tetrahydrofuran	<20	µg/L	20	0.20
Toluene	<1.0	µg/L	1.0	0.075
trans-1,2-Dichloroethene	<1.0	µg/L	1.0	0.11
trans-1,3-Dichloropropene	<1.0	µg/L	1.0	0.12
Trichloroethene	<1.0	µg/L	1.0	0.094
Trichlorofluoromethane	<1.0	µg/L	1.0	0.11
Vinyl chloride	<1.0	µg/L	1.0	0.13
4-Bromofluorobenzene (Surr)	85.8	%	--	--
Dibromofluoromethane (Surr)	89.6	%	--	--
Toluene-d8 (Surr)	90.6	%	--	--

Legend Technical Services

Client Name:	Service Environmental & Engineering Cc	**Legend Project #:**	2004030389
Client Project Number:	3039	**Sample #:**	3
Client Project Name:	AMP I	**Matrix:**	Aqueous
Date Sampled:	03/23/04	**Date Received:**	03/23/04
Client Sample ID:	Method Blank		

VOC GCMS 8260B

Extraction Date: --
Analysis Method: 8260B
Analysis Date: 03/30/04
Client ID: Method Blank

Compound	Sample Results	Units	RL	MDL
1,1,1,2-Tetrachloroethane	<5.0	µg/L	5.0	0.33
1,1,1-Trichloroethane	<1.0	µg/L	1.0	0.086
1,1,2,2-Tetrachloroethane	<1.0	µg/L	1.0	0.061
1,1,2-Trichloroethane	<1.0	µg/L	1.0	0.12
1,1,2-Trichlorotrifluoroethane	<5.0	µg/L	5.0	0.69
1,1-Dichloroethane	<1.0	µg/L	1.0	0.063
1,1-Dichloroethene	<1.0	µg/L	1.0	0.14
1,1-Dichloropropene	<1.0	µg/L	1.0	0.12
1,2,3-Trichlorobenzene	<5.0	µg/L	5.0	0.16
1,2,3-Trichloropropane	<1.0	µg/L	1.0	0.070
1,2,4-Trichlorobenzene	<5.0	µg/L	5.0	0.12
1,2,4-Trimethylbenzene	<1.0	µg/L	1.0	0.074
1,2-Dibromo-3-chloropropane	<5.0	µg/L	5.0	0.48
1,2-Dibromoethane	<1.0	µg/L	1.0	0.070
1,2-Dichlorobenzene	<1.0	µg/L	1.0	0.061
1,2-Dichloroethane	<1.0	µg/L	1.0	0.053
1,2-Dichloropropane	<1.0	µg/L	1.0	0.092
1,3,5-Trimethylbenzene	<1.0	µg/L	1.0	0.078
1,3-Dichlorobenzene	<1.0	µg/L	1.0	0.11
1,3-Dichloropropane	<1.0	µg/L	1.0	0.077
1,4-Dichlorobenzene	<1.0	µg/L	1.0	0.068
2,2-Dichloropropane	<5.0	µg/L	5.0	0.35
2-Butanone	<20	µg/L	20	0.63
2-Chlorotoluene	<1.0	µg/L	1.0	0.11
4-Chlorotoluene	<1.0	µg/L	1.0	0.069
4-Isopropyltoluene	<1.0	µg/L	1.0	0.055
Acetone	<20	µg/L	20	1.3
Allyl chloride	<5.0	µg/L	5.0	0.31
Benzene	<1.0	µg/L	1.0	0.061
Bromobenzene	<1.0	µg/L	1.0	0.15
Bromochloromethane	<1.0	µg/L	1.0	0.11
Bromodichloromethane	<1.0	µg/L	1.0	0.082
Bromoform	<5.0	µg/L	5.0	0.54
Bromomethane	<10	µg/L	10	2.1
Carbon tetrachloride	<1.0	µg/L	1.0	0.26
Chlorobenzene	<1.0	µg/L	1.0	0.054
Chloroethane	<1.0	µg/L	1.0	0.11
Chloroform	<1.0	µg/L	1.0	0.054
Chloromethane	<1.0	µg/L	1.0	0.15
cis-1,2-Dichloroethene	<1.0	µg/L	1.0	0.039
cis-1,3-Dichloropropene	<1.0	µg/L	1.0	0.14
Dibromochloromethane	<1.0	µg/L	1.0	0.16
Dibromomethane	<5.0	µg/L	5.0	0.24
Dichlorodifluoromethane	<5.0	µg/L	5.0	0.93
Dichlorofluoromethane	<1.0	µg/L	1.0	0.094
Ethyl benzene	<1.0	µg/L	1.0	0.050
Ethyl ether	<1.0	µg/L	1.0	0.13
Hexachlorobutadiene	<5.0	µg/L	5.0	0.48
Isopropyl benzene	<1.0	µg/L	1.0	0.065
Methyl isobutyl ketone	<5.0	µg/L	5.0	0.54
Methyl-tert-butyl ether	<1.0	µg/L	1.0	0.093
Methylene chloride	<10	µg/L	10	1.3
n-Butyl benzene	<1.0	µg/L	1.0	0.13
n-Propyl benzene	<1.0	µg/L	1.0	0.028
Naphthalene	<5.0	µg/L	5.0	0.078
o-Xylene	<1.0	µg/L	1.0	0.14
p,m-Xylene	<2.0	µg/L	2.0	0.12
sec-Butyl benzene	<1.0	µg/L	1.0	0.10
Styrene	<1.0	µg/L	1.0	0.078
tert-Butyl benzene	<1.0	µg/L	1.0	0.079
Tetrachloroethene	<1.0	µg/L	1.0	0.18
Tetrahydrofuran	<20	µg/L	20	0.20
Toluene	<1.0	µg/L	1.0	0.075
trans-1,2-Dichloroethene	<1.0	µg/L	1.0	0.11
trans-1,3-Dichloropropene	<1.0	µg/L	1.0	0.12
Trichloroethene	<1.0	µg/L	1.0	0.094
Trichlorofluoromethane	<1.0	µg/L	1.0	0.11
Vinyl chloride	<1.0	µg/L	1.0	0.13
4-Bromofluorobenzene (Surr)	86.7	%	--	--
Dibromofluoromethane (Surr)	89.8	%	--	--
Toluene-d8 (Surr)	90.0	%	--	--

Page ____ of ____

LEGEND TECHNICAL SERVICES, INC.

775 Vandalia Street, St. Paul, MN 55114 - Telephone: 651-642-1150, Fax: 651-642-1239

CHAIN-OF-CUSTODY RECORD

Client Name: Service Eng Group

Address: 675 Vandalia Street
St. Paul, MN 55114

Attn: Tim Rogers

Bill To: Same

Address:

PO #:

Phone: 651-644-6680 Fax: 651-644-7008

Project Name: AMPI Project #: 03039

LEGEND Project #: 2004030389

Turnaround Time:
- ☒ Normal
- ☐ RUSH Date: _____

Condition Received:
- ☐ Received at 8.3 °C
- ☒ Received on ice
- ☐ Received on blue ice
- ☐ Received ambient
- ☐ No temp. blank
- ☐ Acceptable

Item No.	Field ID No.	Sample Description	Collection Date	Collection Time	Sample Matrix	Lab ID No.	Number of Containers	Analysis: DRO	Analysis: GRO	Analysis: VOC's 465.6			
1	210278	Production well	3/23/04	11:30	H2O	-1	8	+	+	+			
2		Trip Blank			W	-2	2		+	+			
3													
4													
5													
6													
7													
8													
9													
10													

Sample Collector (please print):	Item No.	Relinquished By:	Date:	Time:	Accepted By:	Date:	Time:
Dean Myers		Dean Myers	3/23/04	4:46			
Comments:	Item No.	Relinquished By:	Date:	Time:	Received By Lab: VY by Legend	Date: 3-23-04	Time: 16:45

Form LAB-268 (02/03)

PLEASE REVIEW TERMS AND CONDITIONS ON BACK BEFORE SIGNING

White Copy - Original Accompanies Shipment to Lab **Yellow Copy** - Lab **Pink Copy** - Customer or Field Copy

APPENDIX C
METHODOLOGIES AND PROCEDURES

APPENDIX C

METHODS AND PROCEDURES

Soil Probes

All soil probe operations were conducted in accordance with, Minnesota Department of Health (MDH) and Minnesota Pollution Control Agency (MPCA) rules and regulations. Soil probes were completed using a Geoprobe truck-mounted rig and advanced using 1.75-inch outside diameter (O.D.) outer casings and 1.2-inch OD inner rods for soil and water sampling. Water samples were drawn using a 0.25-inch diameter plastic tube equipped with a check ball.

Decontamination of Equipment

All down hole drilling equipment and associated tools were steam cleaned before initiating project work. The samplers were cleaned between samples to minimize the risk of cross-contamination. The cleaning procedure consisted of a soap and hot water wash using a brush, with a hot water rinse. The soap and water were changed between borings. Water used in cleaning the samplers was disposed of on-site.

Soil Sample Collection and Classification

Soil samples were collected in all borings at two-foot intervals. The samplers were hydraulically driven into undisturbed soil and the resulting soil sample was returned to the surface for each two-foot interval.

As the samples were obtained in the field, they were visually and manually classified by the field geologist. Soil probe logs indicating the depth and identification of the various strata, field observations, photoionization detector (PID) headspace monitoring results, water level information, and pertinent information regarding the method of maintaining and advancing the probe holes were prepared and are included as an appendix in the investigation report.

Petroleum Vapor Monitoring

Soil samples were screened for the presence of petroleum vapors using the headspace method with a PID containing a 10.6 eV bulb calibrated to an isobutylene standard. The PID has a range of 0-2,000 parts per million (ppm) and detects a wide range of volatile organic compounds.

PID headspace analysis was performed by filling dedicated self-sealing plastic freezer bags approximately half full of soil and sealing the freezer bags securely. The samples were vigorously shaken for approximately 15 seconds and vapors were allowed to develop in the headspace for approximately ten minutes. After the development period, the soil samples were

again shaken for approximately 15 seconds, the probe of the PID was inserted through the seal into the headspace and the highest reading was recorded. PID soil screening results are included on the soil boring logs.

Soil Sample Collection for Chemical Analysis

Laboratory analysis was performed on six soil samples to verify field vapor monitoring and determine petroleum constituent concentrations. Soil samples were placed in laboratory-supplied containers and kept cool in the field and while being transported to a contract laboratory under chain of custody protocol. A field scale was used to ensure the proper soil mass for each diesel range organic (DRO) and benzene, toluene, ethylbenzene, xylenes (BETX) sample.

Water Sample Collection for Chemical Analysis

Dedicated plastic tubing was inserted into the probe rod and a screen in the probe rod was exposed. Water samples were submitted for analysis for the presence of DRO and volatile organic compounds (VOC). Water samples were placed in laboratory-supplied containers and kept cool in the field and while being transported to a contract laboratory under chain of custody protocol.

APPENDIX D
GEOLOGIC LOGS OF SOIL BORINGS

SERVICE ENGINEERING GROUP
675 Vandalia Street
St. Paul, MN 55114
651-644-6680 (Phone)
651-644-7008 (Fax)

GEOPROBE BORING LOG

Borehole# GP1

Site Location: Former Fuel Oil UST Excavation

GPS (UTM) :

(File Data) 03039-gpl01.dat

(Template Data) 03039-gpl01.ldf

Project Information

Project Name: AMPI
Project Number: 03039
Location: Glenco, MN
Scientist: Tim Rogers

Drilling Information

Date: 8/25/03
Driller: Bergerson Caswell
Depth: 37'
Method: Geoprobe
Notes:

Sample Interval	Depth (in feet)	H-NU PID Reading (ppm)	Approximate Groundwater Depth	USCS Symbol	Depth (in feet)	Soil Symbols	SOIL DESCRIPTION
	0				0		**GRAVEL** Backfill
	-5			FILL	-5		
	-10	42	▼	SP	-10		**SAND** Brown silty sand & gravel at 12 feet, wet, odor, staining.
	-15	ND		CL	-15		**CLAY** Gray sandy clay, no odor, moist.
	-20				-20		
	-25	ND			-25		Gray sandy clay, no odor, moist. 1" med sand seam at 23.5 feet, moist

SERVICE ENGINEERING GROUP
675 Vandalia Street
St. Paul, MN 55114
651-644-6680 (Phone)
651-644-7008 (Fax)

GEOPROBE BORING LOG

Borehole# GP1
Project Name AMPI
Project Number 03039

Sample Interval	Screen Set	H-NU Reading (ppm)	Approximate Groundwater Depth	USCS Symbol	Depth (in feet)	Soil Symbols	SOIL DESCRIPTION
	-30	ND		CL	-30		CLAY Gray sandy clay, no odor, moist.
	-35	ND			-35		Gray sandy clay, no odor, moist.
							END OF BORING @ 37 FEET

SERVICE ENGINEERING GROUP
675 Vandalia Street
St. Paul, MN 55114
651-644-6680 (Phone)
651-644-7008 (Fax)

GEOPROBE BORING LOG

Borehole# GP2

Site Location: South of Building

GPS (UTM)

(File Data) 03039-gpl02.dat

(Template Data) 03039-gpl01.ldf

Project Information

Project Name: AMPI

Project Number: 03039

Location: Glenco, MN

Scientist: Tim Rogers

Drilling Information

Date: 8/25/03

Driller: Bergerson Caswell

Depth: 12'

Method: Geoprobe

Notes:

Sample Interval	Depth (in feet)	H-NU PID Reading (ppm)	Approximate Groundwater Depth	USCS Symbol	Depth (in feet)	Soil Symbols	SOIL DESCRIPTION
	0				0		
	-5	ND		CL	-5		CLAY Brown sandy silty clay, few gravel, no odor, moist.
	-10	ND		SP	-10		SAND Brown clayey sand from 6-10 feet, no odor, moist Medium sand, from 10-12 feet, no odor, wet
		ND					END OF BORING @ 12 FEET

SERVICE ENGINEERING GROUP
675 Vandalia Street
St. Paul, MN 55114
651-644-6680 (Phone)
651-644-7008 (Fax)

(File Data) 03039-gpl03.dat

(Template Data) 03039-gpl01.ldf

GEOPROBE BORING LOG

Borehole# GP3

Site Location: South of Building

GPS (UTM) :

Project Information

Project Name: AMPI

Project Number: 03039

Location: Glenco, MN

Scientist: Tim Rogers

Drilling Information

Date: 8/25/03 Driller: Bergerson Caswell

Depth: 12' Method: Geoprobe

Notes: .

Sample Interval	Depth (in feet)	H-NU PID Reading (ppm)	Approximate Groundwater Depth	USCS Symbol	Depth (in feet)	Soil Symbols	SOIL DESCRIPTION
	0				0		SAND Gravel and clayey sand, no odor, moist.
	-5	ND		SP	-5		CLAY Brown sandy clay, no odor, moist.
		ND		CL			
	-10	ND		SP	-10		SAND Brown clayey sand to 9.5 feet, then brown medium sand to 12 feet, no odor, wet at 9 feet
							END OF BORING @ 12 FEET

SERVICE ENGINEERING GROUP
675 Vandalia Street
St. Paul, MN 55114
651-644-6680 (Phone)
651-644-7008 (Fax)

GEOPROBE BORING LOG

Borehole# GP4

Site Location: NW of Former Fuel Oil UST

GPS (UTM) :

(File Data) 03039-gpl04.dat

(Template Data) 03039-gpl01.ldf

Project Information

Project Name: AMPI

Project Number: 03039

Location: Glenco, MN

Scientist: Tim Rogers

Drilling Information

Date: 8/25/03

Driller: Bergerson Caswell

Depth: 12'

Method: Geoprobe

Notes: .

Sample Interval	Depth (in feet)	H-NU PID Reading (ppm)	Approximate Groundwater Depth	USCS Symbol	Depth (in feet)	Soil Symbols	SOIL DESCRIPTION
	0				0		SILT Brown gravel and sandy silt. 2" asphalt layer at 2 feet.
	-5	ND		ML	-5		CLAY Gray sandy clay. Gray/black sandy clay to 7 feet, no odor, moist.
		ND		CL			
	-10	ND		SP	-10		SAND Brown silty medium sand, moist, no odor. Brown medium sand, few coarse sand, wet at 9 feet, no odor
							END OF BORING @ 12 FEET

SERVICE ENGINEERING GROUP
675 Vandalia Street
St. Paul, MN 55114
651-644-6680 (Phone)
651-644-7008 (Fax)

GEOPROBE BORING LOG

Borehole# GP5

Site Location: E of Former Fuel Oil UST

GPS (UTM)

(File Data) 03039-gpl05.dat

(Template Data) 03039-gpl01.ldf

Project Information

Project Name: AMPI

Project Number: 03039

Location: Glenco, MN

Scientist: Tim Rogers

Drilling Information

Date: 8/25/03

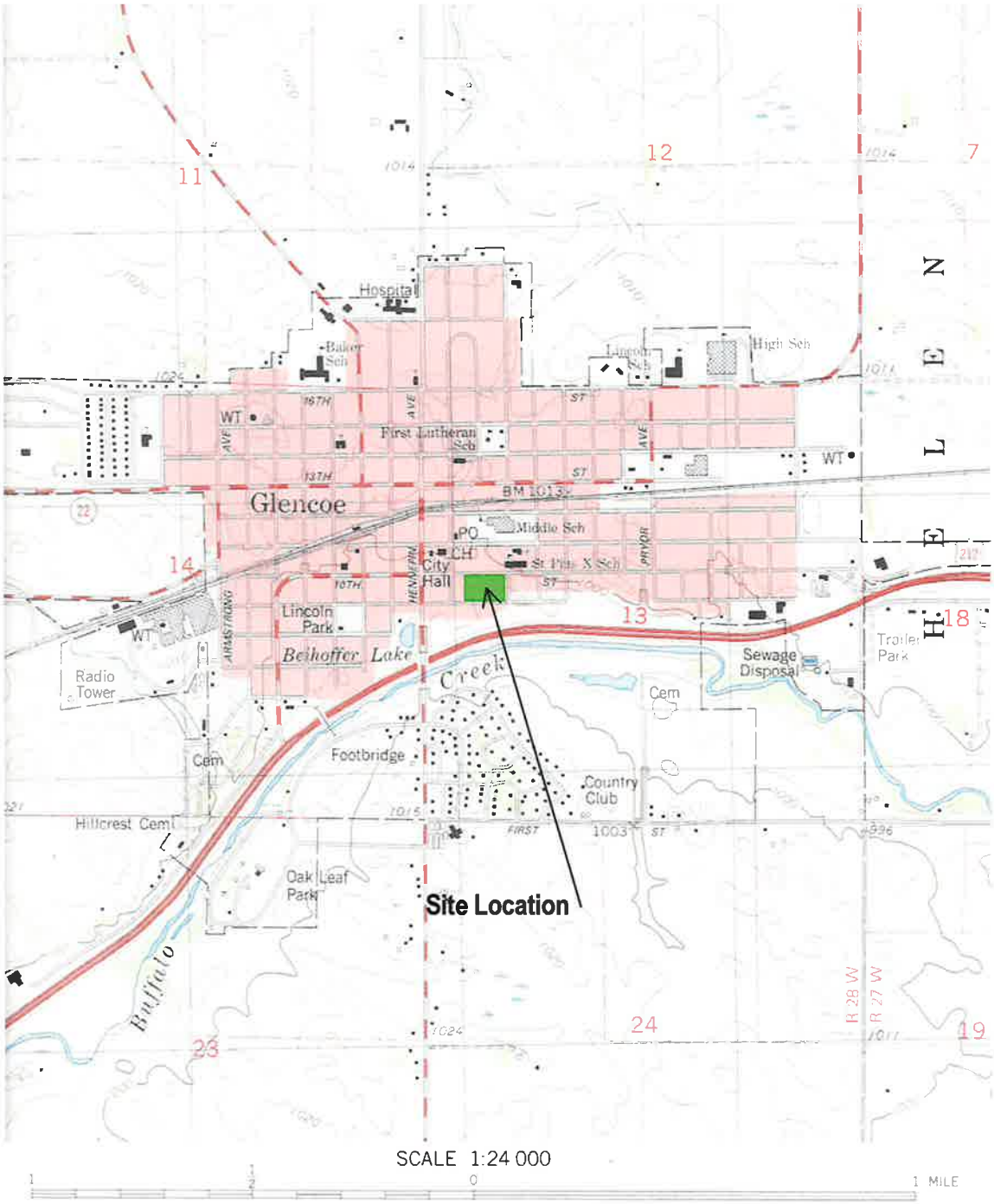
Driller: Bergerson Caswell

Depth: 12'

Method: Geoprobe

Notes:

Sample Interval	Depth (in feet)	H-NU PID Reading (ppm)	Approximate Groundwater Depth	USCS Symbol	Depth (in feet)	Soil Symbols	SOIL DESCRIPTION
	0				0		ASPHALT
	-5	ND		ML	-5		SILT Sandy silt & gravel backfill, moist, no odor.
		ND					SAND Medium to coarse silty sand, moist, no odor.
	-10	ND		SP	-10		Medium to coarse sand, with gravel at 9 feet, wet, no odor.
							END OF BORING @ 12 FEET



GLENCOE, MINN.
SW.4 GLENCOE 15' QUADRANGLE
N4445–W9407.5/7.5

FIGURE TITLE	FIGURE 1 SITE LOCATION MAP ASSOCIATED MILK PRODUCERS, INC. GLENCOE, MINNESOTA			
FILE NAME	DATE	REVISION DATE	DRAWN BY	REVIEWED BY
03039 fig 1.ppt		10/07/03	KU	TGR

SERVICE
Environmental & Engineering

SERVICE ENGINEERING GROUP
675 Vandalia Street
St. Paul, MN 55114
651-644-6680 (Phone)
651-644-7008 (Fax)

GEOPROBE BORING LOG

Borehole# GP6

Site Location: West of building

GPS (UTM) :

(File Data) 03039-gpl06.dat

(Template Data) 03039-gpl01.ldf

Project Information

Project Name: AMPI

Project Number: 03039

Location: Glenco, MN

Scientist: Tim Rogers

Drilling Information

Date: 8/25/03

Driller: Bergerson Caswell

Depth: 16'

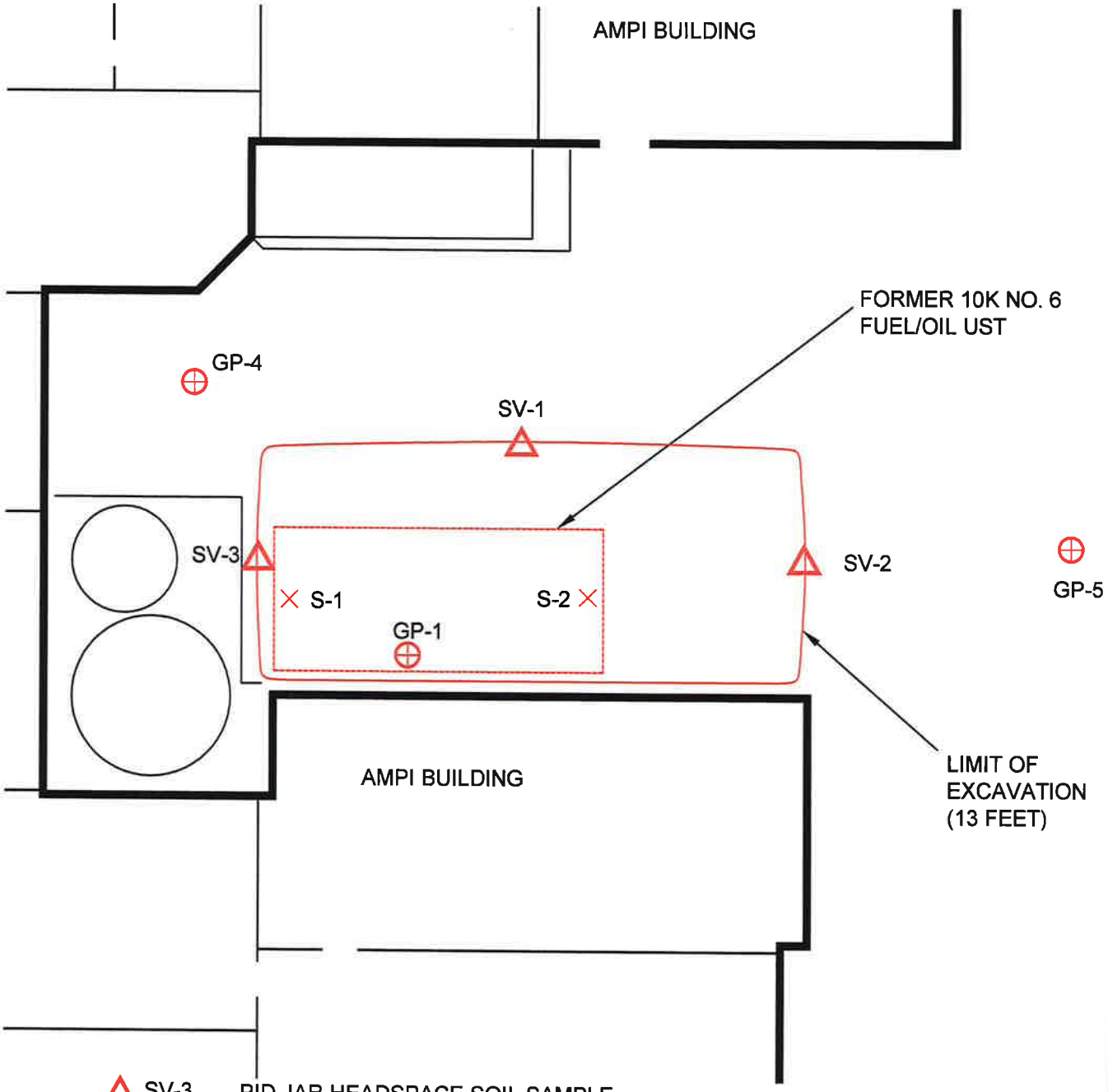
Method: Geoprobe

Notes: .

.

.

Sample Interval	Depth (in feet)	H-NU PID Reading (ppm)	Approximate Groundwater Depth	USCS Symbol	Depth (in feet)	Soil Symbols	SOIL DESCRIPTION
	0				0		SAND Gravel and sand.
		ND		SP			SILT Black and brown clayey, sandy, silt; moist, no odor.
	-5	ND		ML	-5		CLAY Gray and black sandy silty clay; moist, no odor.
				CL			
	-10	ND		SP	-10		SAND Gray and black, fine to medium silty sand, wet at 9 feet, no odor. Brown coarse to medium sand; organic (peaty) odor.
		ND		CL	-15		CLAY Gray sandy clay; moist, no odor.
	-15						END OF BORING @ 16 FEET



P:\2003\03039 Glencoe Creamery\J-Graphics\03039-layout1.dwg 8-03-04 01:27:17 PM kevinu

FIGURE TITLE

FIGURE 2
EXCAVATION DIAGRAM
ASSOCIATED MILK PRODUCERS, INC. (AMPI)
GLENCOE, MN

FILE NAME: SEE SIDEBAR	DATE	REVISION DATE	DRAWN BY	REVIEWED BY
03039-Layout1.dwg	04/01/04	08/02/04	KU	TR

SERVICE ENGINEERING GROUP

APPENDIX E
WATER SUPPLY WELL LOGS

Unique No. 00210278

County Name Mcleod

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING RECORD

Minnesota Statutes Chapter 1031

Update Date 2002/05/15

Entry Date 1995/04/19

Township Name	Township	Range	Dir	Section	Subsection
	115	28	W	13	CBABCB

Well Depth	Depth Completed	Date Well Completed
640 ft.	640 ft.	1974/08/29

Well Name GLENCOE BUTTER & PRODUCE

Drilling Method Cable Tool

Contact's Name GLENCOE BUTTER & PRODUCE

GLENCOE MN 55336

Drilling Fluid

Well Hydrofractured? ☐ Yes ☐ No

From ft. to ft.

Use Public Supply/non-comm.-non-transient

Casing **Drive Shoe?** ☐ Yes ☐ N

Hole Diameter

0 in. to 640 ft

Casing Diameter **Weight(lbs/ft)**

12 in. to 292 ft

10 in. to 423 ft

GEOLOGICAL MATERIAL	COLOR	HARDNESS	FROM	TO
NO RECORD			0	550
SANDROCK	RED		550	585
SANDROCK AND SHALE			585	600
SANDROCK	RED		600	640

Screen N

Make Type

Open Hole From 423 ft. to 640 ft.

Static Water Level 130 ft. from Land surface Date 1974/08/29

PUMPING LEVEL (below land surface)

176.7 ft. after 24 hrs. pumping 656 g.p.m.

Well Head Completion

Pitless adapter mfr Model

Casing Protection ☐ 12 in. above grade

☐ At-grade(Environmental Wells and Borings ONLY)

Grouting Information Well grouted? ☐ Yes ☐ No

Nearest Known Source of Contamination

ft. direction type

Well disinfected upon completion? ☐ Yes ☐ No

Pump ☐ Not Installed Date Installed Y

Mfr name FAIRBANKS-MORSE

Model HP 50 Volts 440

Drop Pipe Length 190 ft. Capacity 350 g.p.m

Type T

Any not in use and not sealed well(s) on property? ☐ Yes ☐ No

Was a variance granted from the MDH for this Well? ☐ Yes ☐ No

Well CONTRACTOR CERTIFICATION Lic. Or Reg. No. 10318

License Business Name

Name of Driller

USGS Quad: Glencoe Elevation 988

Aquifer: MTPL Alt Id: 5430003S01

Report Copy

Unique No. 00210278	MINNESOTA DEPARTMENT OF HEALTH	Update Date 2002/05/15
County Name Mcleod	**WELL AND BORING RECORD**	Entry Date 1995/04/19
	Minnesota Statutes Chapter 1031	

Township Name	Township	Range	Dir	Section	Subsection	Well Depth		Depth Completed		Date Well Completed
	115	28	W	13	CBABCB	640	ft.	640	ft.	1974/08/29

Well Name GLENCOE BUTTER & PRODUCE **Lic. Or Reg. No.** 10318 **Name of Driller**

USGS Quad Glencoe **Elevation** 988 **Aquifer** MTPL **Alternative Id** 5430003S01

GEOLOGICAL MATERIAL	COLOR	HARDNESS	FROM	TO	STRAT	LITH PRIM	LITH SEC	LITH MINOR
NO RECORD			0	550	NRCD	NRCD		
NRCD = No Record	NRCD = No Record							
SANDROCK	RED		550	585	PMHN	SNDS		
PMHN = Hinckley Sandstone	SNDS = Sandstone							
SANDROCK AND SHALE			585	600	PMHN	SNDS	SHLE	
PMHN = Hinckley Sandstone	SNDS = Sandstone				SHLE = Shale			
SANDROCK	RED		600	640	PMHN	SNDS		
PMHN = Hinckley Sandstone	SNDS = Sandstone							

Unique No. 00210317

County Name Mcleod

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING RECORD

Minnesota Statutes Chapter 1031

Update Date 2002/05/15

Entry Date 1988/04/11

Township Name	Township	Range	Dir	Section	Subsection
	115	28	W	14	ADBDBB

Well Depth	Depth Completed	Date Well Completed
291 ft.	291 ft.	1962/03/16

Well Name GREEN GIANT CO.

Drilling Method Non-specified Rotary

Well Owner's Name GREEN GIANT CO.

GLENCOE MN

Drilling Fluid

Well Hydrofractured? ☐ Yes ☐ No

From ft. to ft.

Contact's Name GREEEN GIANT CO

LE SUEUR MN

Use Public Supply/non-comm.-non-transient

Casing **Drive Shoe?** ☐ Yes ☐ N

Hole Diameter

Casing Diameter **Weight(lbs/ft)**

24 in. to 135 ft

16 in. to 191 ft

0 in. to ft

GEOLOGICAL MATERIAL	COLOR	HARDNESS	FROM	TO
SANDY CLAY			0	20
CLAY + SAND + GRAVEL			20	30
SAND + GRAVEL + CLAY			30	90
HARD SAND + GRAVEL + C			90	104
CLAY + SAND + GRAVEL			104	145
HARD SAND + GRAVEL			145	161
SAND + GRAVEL + CLAY			161	175
WATER SAND + GRAVEL			175	195
FINE WATER SAND			195	222
TOUGH SANDY CLAY			222	230
SAND + CLAY			230	240
MUDDY SAND			240	252
WATER SAND, LITL GRAVE			252	255
WATER SAND + GRAVEL			255	285
FINE WATER SAND + CHUN			285	291

Screen Y

Open Hole From ft. to ft.

Make Type

Diameter	Slot	Length	Set	Fitting
10	0	192	ft. to 223 ft	

Static Water Level 58 ft. from Land surface Date 1962/03/16

PUMPING LEVEL (below land surface)

81 ft. after 8 hrs. pumping 660 g.p.m.

Well Head Completion

Pitless adapter mfr Model

Casing Protection ☐ 12 in. above grade

☐ At-grade(Environmental Wells and Borings ONLY)

Grouting Information Well grouted? ☐ Yes ☐ No

Nearest Known Source of Contamination

ft. direction type

Well disinfected upon completion? ☐ Yes ☐ No

Pump ☐ Not Installed Date Installed

Mfr name

Model HP 0 Volts

Drop Pipe Length ft. Capacity g.p.m

Type

Any not in use and not sealed well(s) on property? ☐ Yes ☐ No

Was a variance granted from the MDH for this Well? ☐ Yes ☐ No

REMARKS, ELEVATION, SOURCE OF DATA, etc.

CASING: 024 TO 0135;016 TO 0191.

GRAVEL PACKED TO 172 FEET. GWQ NO.0302.

USGS Quad: Glencoe Elevation 1006

Aquifer: QBAA Alt Id: 5430004S01

Well CONTRACTOR CERTIFICATION Lic. Or Reg. No. 27058

License Business Name

Name of Driller DICKEY, R.

Report Copy

Unique No. 00210317	MINNESOTA DEPARTMENT OF HEALTH	Update Date 2002/05/15
County Name Mcleod	**WELL AND BORING RECORD**	Entry Date 1988/04/11
	Minnesota Statutes Chapter 1031	

Township Name	Township	Range	Dir	Section	Subsection	Well Depth		Depth Completed		Date Well Completed
	115	28	W	14	ADBDBB	291	ft.	291	ft.	1962/03/16

Well Name	GREEN GIANT CO.	Lic. Or Reg. No.	27058	Name of Driller	DICKEY, R.
USGS Quad	Glencoe	Elevation 1006	Aquifer	QBAA	Alternative Id	5430004S01

GEOLOGICAL MATERIAL	COLOR	HARDNESS	FROM	TO	STRAT	LITH PRIM	LITH SEC	LITH MINOR
SANDY CLAY QLUU = Clay & sand	CLAY = Clay		0	20	QLUU	CLAY	SAND	
CLAY + SAND + GRAVEL QPUU = Pebbly sand/silt/clay	CLAY = Clay		20	30	QPUU	CLAY	SAND	GRVL
						SAND = Sand		GRVL = Gravel
SAND + GRAVEL + CLAY QPUU = Pebbly sand/silt/clay	SAND = Sand		30	90	QPUU	SAND	GRVL	CLAY
						GRVL = Gravel		CLAY = Clay
HARD SAND + GRAVEL + CLAY QPUU = Pebbly sand/silt/clay	SAND = Sand		90	104	QPUU	SAND	GRVL	CLAY
						GRVL = Gravel		CLAY = Clay
CLAY + SAND + GRAVEL QPUU = Pebbly sand/silt/clay	CLAY = Clay		104	145	QPUU	CLAY	SAND	GRVL
						SAND = Sand		GRVL = Gravel
HARD SAND + GRAVEL QHUU = Sand & larger	SAND = Sand		145	161	QHUU	SAND	GRVL	
						GRVL = Gravel		
SAND + GRAVEL + CLAY QPUU = Pebbly sand/silt/clay	SAND = Sand		161	175	QPUU	SAND	GRVL	CLAY
						GRVL = Gravel		CLAY = Clay
WATER SAND + GRAVEL QHUU = Sand & larger	SAND = Sand		175	195	QHUU	SAND	GRVL	
						GRVL = Gravel		
FINE WATER SAND QFUU = Sand	SAND = Sand		195	222	QFUU	SAND		
TOUGH SANDY CLAY QLUU = Clay & sand	CLAY = Clay		222	230	QLUU	CLAY	SAND	
						SAND = Sand		
SAND + CLAY QLUU = Clay & sand	SAND = Sand		230	240	QLUU	SAND	CLAY	
						CLAY = Clay		
MUDDY SAND QFUU = Sand	SAND = Sand		240	252	QFUU	SAND	SILT	
						SILT = Silt		
WATER SAND, LITL GRAVEL, LITLCLAY QPUU = Pebbly sand/silt/clay	SAND = Sand		252	255	QPUU	SAND	GRVL	CLAY
						GRVL = Gravel		CLAY = Clay

Unique No. 00210317	MINNESOTA DEPARTMENT OF HEALTH	Update Date 2002/05/15
County Name Mcleod	**WELL AND BORING RECORD**	Entry Date 1988/04/11
	Minnesota Statutes Chapter 1031	

Township Name	Township	Range	Dir	Section	Subsection	Well Depth		Depth Completed		Date Well Completed
	115	28	W	14	ADBDBB	291	ft.	291	ft.	1962/03/16

Well Name	GREEN GIANT CO.	Lic. Or Reg. No.	27058	Name of Driller	DICKEY, R.
USGS Quad	Glencoe	Elevation 1006	Aquifer	QBAA	Alternative Id 5430004S01

GEOLOGICAL MATERIAL	COLOR	HARDNESS	FROM	TO	STRAT	LITH PRIM	LITH SEC	LITH MINOR
WATER SAND + GRAVEL			255	285	QHUU	SAND	GRVL	
QHUU = Sand & larger	SAND = Sand		GRVL = Gravel					
FINE WATER SAND + CHUNKS OF CLAY			285	291	QLUU	SAND	CLAY	
QLUU = Clay & sand	SAND = Sand		CLAY = Clay					

Unique No. 00210319

County Name Mcleod

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
Minnesota Statutes Chapter 1031

Update Date 2003/01/14

Entry Date 1988/04/11

Township Name	Township	Range	Dir	Section	Subsection
	115	28	W	14	DABACB

Well Depth 602 ft. | Depth Completed 602 ft. | Date Well Completed 1947/00/00

Well Name GLENCOE 1

Drilling Method Cable Tool

Well Owner's Name GLENCOE 1

GLENCOE MN 55336-

Drilling Fluid

Well Hydrofractured? ☐ Yes ☐ No

From ft. to ft.

Contact's Name CITY OF GLENCOE

GLENCOE MN 55336-

Use Community Supply (municipal)

Casing Drive Shoe? ☑ Yes ☐ N

Hole Diameter

GEOLOGICAL MATERIAL	COLOR	HARDNESS	FROM	TO
OLD WELL			0	252
OLD SAND VEIN			252	273
SAND & GRAVEL			273	303
CLAY & SHALE			303	417
SANDSTONE			417	602

Casing Diameter				Weight(lbs/ft)
20	in. to	252	ft	
16	in. to	387	ft	64

Screen N

Open Hole From 387 ft. to 602 ft.

Make

Type

Static Water Level 135 ft. from Land surface Date 1964/06/12

PUMPING LEVEL (below land surface)

178 ft. after 40 hrs. pumping 525 g.p.m.

Well Head Completion

Pitless adapter mfr Model

Casing Protection ☑ 12 in. above grade

☐ At-grade(Environmental Wells and Borings ONLY)

Grouting Information Well grouted? ☐ Yes ☐ No

Nearest Known Source of Contamination

ft. direction type

Well disinfected upon completion? ☐ Yes ☐ No

Pump ☐ Not Installed Date Installed

Mfr name DEMING

Model HP 60 Volts 440

Drop Pipe Length 200 ft. Capacity 535 g.p.m

Type T

Any not in use and not sealed well(s) on property? ☐ Yes ☐ No

Was a variance granted from the MDH for this Well? ☐ Yes ☐ No

REMARKS, ELEVATION, SOURCE OF DATA, etc.

FIRST TIME DRILLED BY MCCARTHY WELL CO. IN 1947.

USGS Quad: Glencoe Elevation 995

Aquifer: MTPL Alt Id: 75-4220

Well CONTRACTOR CERTIFICATION Lic. Or Reg. No. 27022

License Business Name

Name of Driller MUELLER BROS.

Report Copy

Unique No. 00210319	MINNESOTA DEPARTMENT OF HEALTH	Update Date 2003/01/14
County Name Mcleod	**WELL AND BORING RECORD**	Entry Date 1988/04/11
	Minnesota Statutes Chapter 1031	

Township Name	Township	Range	Dir	Section	Subsection	Well Depth		Depth Completed		Date Well Completed
	115	28	W	14	DABACB	602	ft.	602	ft.	1947/00/00

Well Name	GLENCOE 1	Lic. Or Reg. No.	27022	Name of Driller	MUELLER BROS.
USGS Quad	Glencoe	Elevation 995	Aquifer	MTPL	Alternative Id	75-4220

GEOLOGICAL MATERIAL	COLOR	HARDNESS	FROM	TO	STRAT	LITH PRIM	LITH SEC	LITH MINOR
OLD WELL			0	252	QUUU	DRFT		
QUUU = Unknown deposit type	DRFT = Drift							
OLD SAND VEIN			252	273	QFUU	SAND		
QFUU = Sand	SAND = Sand							
SAND & GRAVEL			273	303	QHUU	SAND	GRVL	
QHUU = Sand & larger	SAND = Sand		GRVL = Gravel					
CLAY & SHALE			303	417	UREG	SHLE		
UREG = Weathering Residuum	SHLE = Shale							
SANDSTONE			417	602	CMSH	SNDS		
CMSH = Mt.Simon-Hinckley	SNDS = Sandstone							

Unique No. 00210324

County Name Mcleod

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
Minnesota Statutes Chapter 1031

Update Date 2002/05/15

Entry Date 1988/04/11

Township Name	Township	Range	Dir	Section	Subsection
	115	28	W	14	DABACB

Well Depth 738 ft. | Depth Completed 738 ft. | Date Well Completed 1970/00/00

Well Name GLENCOE 2

Drilling Method

Well Owner's Name GLENCOE 2

GLENCOE MN 55336-

Drilling Fluid

Well Hydrofractured? ☐ Yes ☐ No

From ft. to ft.

Use Community Supply (municipal)

Casing Drive Shoe? ☐ Yes ☐ N

Hole Diameter

Casing Diameter Weight(lbs/ft)

14 in. to 434 ft

GEOLOGICAL MATERIAL	COLOR	HARDNESS	FROM	TO
NO RECORD			0	420
JORDAN			420	585
HINCKLEY	RED		585	605
STONE W/SPECKS	WHT/G		605	637
HINCKLEY	RED		637	738
REDDISH SANDSTONE W/D	RED		738	738

Screen N

Open Hole From 434 ft. to 738 ft.

Make Type

Static Water Level 132 ft. from Land surface Date 1970/00/00

PUMPING LEVEL (below land surface)

180 ft. after 6 hrs. pumping 1000 g.p.m.

Well Head Completion

Pitless adapter mfr Model

Casing Protection ☐ 12 in. above grade

☐ At-grade(Environmental Wells and Borings ONLY)

Grouting Information Well grouted? ☐ Yes ☐ No

Nearest Known Source of Contamination

ft. direction type

Well disinfected upon completion? ☐ Yes ☐ No

Pump ☐ Not Installed Date Installed

Mfr name

Model HP Volts

Drop Pipe Length ft. Capacity g.p.m

Type

Any not in use and not sealed well(s) on property? ☐ Yes ☐ No

Was a variance granted from the MDH for this Well? ☐ Yes ☐ No

USGS Quad: Glencoe Elevation 995

Aquifer: Alt Id: 75-4220

Well CONTRACTOR CERTIFICATION Lic. Or Reg. No. 43099

License Business Name

Name of Driller

Report Copy

Unique No. 00210324	MINNESOTA DEPARTMENT OF HEALTH	Update Date 2002/05/15
County Name Mcleod	**WELL AND BORING RECORD**	Entry Date 1988/04/11
	Minnesota Statutes Chapter 1031	

Township Name	Township	Range	Dir	Section	Subsection	Well Depth		Depth Completed		Date Well Completed
	115	28	W	14	DABACB	738	ft.	738	ft.	1970/00/00

Well Name	GLENCOE 2	Lic. Or Reg. No.	43099	Name of Driller	
USGS Quad	Glencoe	Elevation 995	Aquifer	Alternative Id	75-4220

GEOLOGICAL MATERIAL	COLOR	HARDNESS	FROM	TO	STRAT	LITH PRIM	LITH SEC	LITH MINOR
NO RECORD			0	420	NRCD	NRCD		
NRCD = No Record	NRCD = No Record							
JORDAN			420	585	CMTS	SNDS		
CMTS = Mt.Simon	SNDS = Sandstone							
HINCKLEY	RED		585	605	PMHN	SNDS		
PMHN = Hinckley Sandstone	SNDS = Sandstone							
STONE W/SPECKS	WHT/GRY		605	637	PMHN	SNDS		
PMHN = Hinckley Sandstone	SNDS = Sandstone							
HINCKLEY	RED		637	738	PMHN	SNDS		
PMHN = Hinckley Sandstone	SNDS = Sandstone							
REDDISH SANDSTONE W/DARK SPECKS	RED		738	738	PMHN	SNDS		
PMHN = Hinckley Sandstone	SNDS = Sandstone							

Unique No. 00210412

County Name Mcleod

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING RECORD

Minnesota Statutes Chapter 1031

Update Date 2002/05/15

Entry Date 1988/04/11

Township Name	Township	Range	Dir	Section	Subsection
	115	28	W	14	DABACC

Well Depth 603 ft. | Depth Completed 603 ft. | Date Well Completed 1925/06/00

Well Name WATER TREATMENT PLANT

Drilling Method Cable Tool

Well Owner's Name WATER TREATMENT PLANT

GLENCOE MN 55336-

Drilling Fluid

Well Hydrofractured? ☐ Yes ☐ No

From ft. to ft.

Contact's Name CITY OF GLENCOE

GLENCOE MN 55336-

Use Community Supply (municipal)

Casing Drive Shoe? ☑ Yes ☐ N

Hole Diameter in. to 603 ft

GEOLOGICAL MATERIAL	COLOR	HARDNESS	FROM	TO
CLAY			0	50
GRAVEL			50	78
NO RECORD			78	247
SAND & GRAVEL			247	274
CLAY & SAND			274	352
SHALE	PNK/W		352	420
SANDSTONE	WHITE		420	540
SANDSTONE	RED		540	603

Casing Diameter / Weight(lbs/ft)

12 in. to 378 ft 51.15

8 in. to 375 ft 16.94

Screen N

Open Hole From 378 ft. to 603 ft.

Make

Type

Static Water Level 90 ft. from Land surface Date 1925/06/00

PUMPING LEVEL (below land surface)

150 ft. after 48 hrs. pumping 220 g.p.m.

Well Head Completion

Pitless adapter mfr Model

Casing Protection ☑ 12 in. above grade

☐ At-grade(Environmental Wells and Borings ONLY)

Grouting Information Well grouted? ☑ Yes ☐ No

Material	From	To (ft.)	Amount(yds/bags)
G	0	375	

Nearest Known Source of Contamination

ft. direction type

Well disinfected upon completion? ☐ Yes ☐ No

Pump ☐ Not Installed Date Installed Y

Mfr name FAIRBANKS MORSE

Model 10735 HP 40 Volts 220

Drop Pipe Length 150 ft. Capacity 220 g.p.m

Type T

Any not in use and not sealed well(s) on property? ☐ Yes ☐ No

Was a variance granted from the MDH for this Well? ☐ Yes ☐ No

REMARKS, ELEVATION, SOURCE OF DATA, etc.

WELL RECASED 12-21-1953.

USGS Quad: Glencoe Elevation 995

Aquifer: MTPL Alt Id: 1430003S02

Well CONTRACTOR CERTIFICATION Lic. Or Reg. No. 27022

License Business Name

Name of Driller MILLES, L.

Report Copy

Unique No.	00210412	MINNESOTA DEPARTMENT OF HEALTH	Update Date	2002/05/15
County Name	Mcleod	**WELL AND BORING RECORD**	Entry Date	1988/04/11
		Minnesota Statutes Chapter 1031		

Township Name	Township	Range	Dir	Section	Subsection	Well Depth		Depth Completed		Date Well Completed
	115	28	W	14	DABACC	603	ft.	603	ft.	1925/06/00

Well Name	WATER TREATMENT PLANT	Lic. Or Reg. No.	27022	Name of Driller	MILLES, L.
USGS Quad	Glencoe	Elevation 995	Aquifer	MTPL	Alternative Id	1430003S02

GEOLOGICAL MATERIAL	COLOR	HARDNESS	FROM	TO	STRAT	LITH PRIM	LITH SEC	LITH MINOR
CLAY QCUU = Clay	CLAY = Clay		0	50	QCUU	CLAY		
GRAVEL QGUU = Gravel (+larger)	GRVL = Gravel		50	78	QGUU	GRVL		
NO RECORD QUUU = Unknown deposit type	DRFT = Drift		78	247	QUUU	DRFT		
SAND & GRAVEL QHUU = Sand & larger	SAND = Sand		247	274	QHUU	SAND	GRVL	GRVL = Gravel
CLAY & SAND QLUU = Clay & sand	CLAY = Clay		274	352	QLUU	CLAY	SAND	SAND = Sand
SHALE UREG = Weathering Residuum	PNK/WHT SHLE = Shale		352	420	UREG	SHLE		
SANDSTONE CMTS = Mt.Simon	WHITE SNDS = Sandstone		420	540	CMTS	SNDS		
SANDSTONE PMHN = Hinckley Sandstone	RED SNDS = Sandstone		540	603	PMHN	SNDS		

Unique No. 00242998

County Name Mcleod

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
Minnesota Statutes Chapter 1031

Update Date 2002/05/15

Entry Date 1990/12/02

Township Name	Township	Range	Dir	Section	Subsection
	115	28	W	14	DAABDC

Well Depth	Depth Completed	Date Well Completed
581 ft.	581 ft.	1990/04/05

Well Name GLENCOE TW

Drilling Method Non-specified Rotary

Contact's Name CITY OF GLENCOE

GLENCOE MN 55336-

Well Owner's Name GLENCOE TW

GLENCOE MN 55336-

Drilling Fluid Bentonite

Well Hydrofractured? ☐ Yes ☐ No

From ft. to ft.

Use Test well

Casing **Drive Shoe?** ☐ Yes ☐ N

Hole Diameter in. to 581 ft

Screen

Make Type

Open Hole From ft. to ft.

Static Water Level ft. from Date

PUMPING LEVEL (below land surface)

ft. after hrs. pumping g.p.m.

Well Head Completion

Pitless adapter mfr Model

Casing Protection ☐ 12 in. above grade

☐ At-grade(Environmental Wells and Borings ONLY)

Grouting Information Well grouted? ☐ Yes ☑ No

Nearest Known Source of Contamination

ft. direction type

Well disinfected upon completion? ☐ Yes ☐ No

Pump ☐ Not Installed Date Installed

Mfr name

Model HP Volts

GEOLOGICAL MATERIAL	COLOR	HARDNESS	FROM	TO
FILL LOAM GRAVEL	BLACK	MEDIUM	0	20
GRAVEL 20 SLOT	BROW		20	26
CLAY	BLUE	SOFT	26	45
GRAVEL	BROW		45	46
CLAY	BLUE	SOFT	46	47
SAND			47	48
CLAY & GRAVEL MIXTURE	BLUE	SOFT	48	55
GRAVEL	BLUE		55	66
CLAY & GRAVEL	BLUE	MEDIUM	66	78
SAND 15 SLOT	BLUE		78	81
CLAY & GRAVEL	BLUE	MEDIUM	81	85
SAND (FINE) 12 SLOT	BLUE		85	89
CLAY & GRAVEL	BLUE	MEDIUM	89	95
CLAY	GRAY	HARD	95	124
SANDY CLAY 12 SLOT	GRAY		124	132
CLAY (FINE SAND)	GRAY	MEDIUM	132	141
CLAY	GRAY	SOFT	141	146
SAND (FINE) 10 SLOT	BLUE		146	153
CLAY	GREE	SOFT	153	157
SAND (FINE) 12 SLOT	GRAY		157	193
CLAY	GRY/G	SOFT	193	201
SAND 12 SLOT	GRAY		201	203
CLAY	GRAY	MEDIUM	203	214
SAND 12 SLOT	BLUE		214	220
CLAY	GRAY	MEDIUM	220	222
SAND 18 SLOT	BLUE		222	295
CLAY (FINE SAND)	GRY/G	MEDIUM	295	304
SAND 10 SLOT	BLUE		304	321
CLAY	BLUE	MEDIUM	321	324
CLAY	TAN	SOFT	324	354
SHALE-CLAY	GRAY	MEDIUM	354	374

SHALE-CLAY	WHITE	SFT-	374	416
SANDSTONE FINE	WHITE		416	424
SANDSTONE FINE	WHITE		424	556
SANDSTONE QTZ. COARSE	VARIE		556	558
SHALE	RED	MEDIUM	558	560
SANDSTONE QTZ.	VARIE		560	566
SANDSTONE	PINK	HARD	566	581

REMARKS, ELEVATION, SOURCE OF DATA, etc.

GAMMA LOGGED. 4-5-1990. M.G.S. NO.2948.

USGS Quad: Glencoe Elevation 993

Aquifer: Alt Id: 2948

Report Copy

Drop Pipe Length ft. Capacity g.p.m

Type

Any not in use and not sealed well(s) on property? ☐ Yes ☐ No

Was a variance granted from the MDH for this Well? ☐ Yes ☐ No

Well CONTRACTOR CERTIFICATION Lic. Or Reg. No. 34480

License Business Name

Name of Driller DAHL, J.

HE-01205-06 (Rev. 9/96)

Unique No. 00242998	MINNESOTA DEPARTMENT OF HEALTH	Update Date 2002/05/15
County Name Mcleod	**WELL AND BORING RECORD**	Entry Date 1990/12/02
	Minnesota Statutes Chapter 1031	

Township Name	Township	Range	Dir	Section	Subsection	Well Depth		Depth Completed		Date Well Completed
	115	28	W	14	DAABDC	581	ft.	581	ft.	1990/04/05

Well Name GLENCOE TW | Lic. Or Reg. No. 34480 | Name of Driller DAHL, J.

USGS Quad Glencoe | Elevation 993 | Aquifer | Alternative Id 2948

GEOLOGICAL MATERIAL	COLOR	HARDNESS	FROM	TO	STRAT	LITH PRIM	LITH SEC	LITH MINOR
FILL LOAM GRAVEL	BLACK	MEDIUM	0	20	RMMF	FILL	ORGD	GRVL
RMMF = Man-made fill	FILL = Fill				ORGD = Organic Deposits		GRVL = Gravel	
GRAVEL 20 SLOT	BROWN		20	26	QGUB	GRVL		
QGUB = Gravel (+larger)	GRVL = Gravel							
CLAY	BLUE	SOFT	26	45	QCUG	CLAY		
QCUG = Clay	CLAY = Clay							
GRAVEL	BROWN		45	46	QGUB	GRVL		
QGUB = Gravel (+larger)	GRVL = Gravel							
CLAY	BLUE	SOFT	46	47	QCUG	CLAY		
QCUG = Clay	CLAY = Clay							
SAND			47	48	QFUU	SAND		
QFUU = Sand	SAND = Sand							
CLAY & GRAVEL MIXTURE	BLUE	SOFT	48	55	QPUG	CLAY	GRVL	
QPUG = Pebbly sand/silt/clay	CLAY = Clay				GRVL = Gravel			
GRAVEL	BLUE		55	66	QGUG	GRVL		
QGUG = Gravel (+larger)	GRVL = Gravel							
CLAY & GRAVEL	BLUE	MEDIUM	66	78	QPUG	CLAY	GRVL	
QPUG = Pebbly sand/silt/clay	CLAY = Clay				GRVL = Gravel			
SAND 15 SLOT	BLUE		78	81	QFUG	SAND		
QFUG = Sand	SAND = Sand							
CLAY & GRAVEL	BLUE	MEDIUM	81	85	QPUG	CLAY	GRVL	
QPUG = Pebbly sand/silt/clay	CLAY = Clay				GRVL = Gravel			
SAND (FINE) 12 SLOT	BLUE		85	89	QFUG	SAND		
QFUG = Sand	SAND = Sand							
CLAY & GRAVEL	BLUE	MEDIUM	89	95	QPUG	CLAY	GRVL	
QPUG = Pebbly sand/silt/clay	CLAY = Clay				GRVL = Gravel			

Unique No. 00242998	MINNESOTA DEPARTMENT OF HEALTH	Update Date 2002/05/15
County Name Mcleod	**WELL AND BORING RECORD**	Entry Date 1990/12/02
	Minnesota Statutes Chapter 1031	

Township Name	Township	Range	Dir	Section	Subsection	Well Depth		Depth Completed		Date Well Completed
	115	28	W	14	DAABDC	581	ft.	581	ft.	1990/04/05

Well Name	GLENCOE TW	Lic. Or Reg. No.	34480	Name of Driller	DAHL, J.
USGS Quad	Glencoe	Elevation 993	Aquifer	Alternative Id	2948

GEOLOGICAL MATERIAL	COLOR	HARDNESS	FROM	TO	STRAT	LITH PRIM	LITH SEC	LITH MINOR
CLAY QCUG = Clay	GRAY CLAY = Clay	HARD	95	124	QCUG	CLAY		
SANDY CLAY 12 SLOT QLUG = Clay & sand	GRAY CLAY = Clay		124	132	QLUG	CLAY SAND = Sand	SAND	
CLAY (FINE SAND) QLUG = Clay & sand	GRAY CLAY = Clay	MEDIUM	132	141	QLUG	CLAY SAND = Sand	SAND	
CLAY QCUG = Clay	GRAY CLAY = Clay	SOFT	141	146	QCUG	CLAY		
SAND (FINE) 10 SLOT QFUG = Sand	BLUE SAND = Sand		146	153	QFUG	SAND		
CLAY QCUL = Clay	GREEN CLAY = Clay	SOFT	153	157	QCUL	CLAY		
SAND (FINE) 12 SLOT QFUG = Sand	GRAY SAND = Sand		157	193	QFUG	SAND		
CLAY QCUU = Clay	GRY/GRN CLAY = Clay	SOFT	193	201	QCUU	CLAY		
SAND 12 SLOT QFUG = Sand	GRAY SAND = Sand		201	203	QFUG	SAND		
CLAY QCUG = Clay	GRAY CLAY = Clay	MEDIUM	203	214	QCUG	CLAY		
SAND 12 SLOT QFUG = Sand	BLUE SAND = Sand		214	220	QFUG	SAND		
CLAY QCUG = Clay	GRAY CLAY = Clay	MEDIUM	220	222	QCUG	CLAY		
SAND 18 SLOT QFUG = Sand	BLUE SAND = Sand		222	295	QFUG	SAND		

Unique No. 00242998	MINNESOTA DEPARTMENT OF HEALTH	Update Date 2002/05/15
County Name Mcleod	**WELL AND BORING RECORD**	Entry Date 1990/12/02
	Minnesota Statutes Chapter 1031	

Township Name	Township	Range	Dir	Section	Subsection	Well Depth		Depth Completed		Date Well Completed
	115	28	W	14	DAABDC	581	ft.	581	ft.	1990/04/05

Well Name GLENCOE TW | Lic. Or Reg. No. 34480 | Name of Driller DAHL, J.

USGS Quad Glencoe | Elevation 993 | Aquifer | Alternative Id 2948

GEOLOGICAL MATERIAL	COLOR	HARDNESS	FROM	TO	STRAT	LITH PRIM	LITH SEC	LITH MINOR
CLAY (FINE SAND) QLUU = Clay & sand	GRY/GRN CLAY = Clay	MEDIUM	295	304	QLUU SAND = Sand	CLAY	SAND	
SAND 10 SLOT QFUG = Sand	BLUE SAND = Sand		304	321	QFUG	SAND		
CLAY QTUG = Till	BLUE CLAY = Clay	MEDIUM	321	324	QTUG	CLAY		
CLAY KRET = Cretaceous,Undiff.	TAN SHLE = Shale	SOFT	324	354	KRET	SHLE		
SHALE-CLAY UREG = Weathering Residuum	GRAY SHLE = Shale	MEDIUM	354	374	UREG	SHLE		
SHALE-CLAY UREG = Weathering Residuum	WHITE SHLE = Shale	SFT-MED	374	416	UREG	SHLE		
SANDSTONE FINE CECR = Eau Claire	WHITE SHLE = Shale		416	424	CECR SNDS = Sandstone	SHLE	SNDS	
SANDSTONE FINE CMTS = Mt.Simon	WHITE SNDS = Sandstone		424	556	CMTS	SNDS		
SANDSTONE QTZ. COARSE CMTS = Mt.Simon	VARIED SNDS = Sandstone		556	558	CMTS	SNDS		
SHALE CMTS = Mt.Simon	RED SNDS = Sandstone	MEDIUM	558	560	CMTS	SNDS		
SANDSTONE QTZ. CMTS = Mt.Simon	VARIED SNDS = Sandstone		560	566	CMTS	SNDS		
SANDSTONE PMHN = Hinckley Sandstone	PINK SNDS = Sandstone	HARD	566	581	PMHN	SNDS		