BARR

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378982

January 30, 2006

Mr. Gary Krueger
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155

Re: Nutting Truck and Caster Company Site
Faribault, Minnesota

Dear Mr. Krueger:

On behalf of Prairie Avenue Leasing, Barr Engineering is submitting the Tier 2 Monitoring Report for data collected during the fourth quarter 2005 as required by the Long Term Monitoring Plan. As indicated by the data, the plume appears to be stable.

Please contact me if you have any question concerning this document.

Sincerely,

Marta Nelson

c: Stewart Shaft
Mark Kaster

Fourth Quarter 2005 Tier 2 Monitoring Report
Former Nutting Truck and Caster Company Site

Nutting Truck and Caster Site **Monitoring Period: Fourth Quarter 2005**
Tier 2 Groundwater Monitoring Program **Date: October 25, 2005**

Sample Collection and Analysis Completeness: 100%

Samples were collected from wells B4, B5, B8, B12, W13, PW17, and PW18 and analyzed by Legend Technical Services for trichloroethylene, 1,1-dichlorothylene, cis-1,2-dichlorothylene, and trans-1,2-dichlorothylene and vinyl chloride.

Contingency Plan Criteria Elements

Sentinel Wells B8, B12, W14

COC concentrations are less than detection limit: Yes

Wells PW17 and PW18

TCE concentration trend is stable or decreasing: Yes, see Figures 3a and 3b

Quality Assurance Review (See Laboratory Report for Details):

Holding Time: All holding times were met by Legend Technical Services.

Duplicates: PW17, Relative Percent Differences were less than 10% for all parameters. Duplicate values are included on Table 2.

Blanks: All parameters were reported as less than the detection limit in the trip, field and method blanks.

Surrogate Recovery: Met QA/QC requirements.

Matrix Spike Duplicate Recovery: Met QA/QC requirements.

List of Tables:	**Table 1 Groundwater Elevations** **Table 2 Water Quality Data**
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Attachments	**Attachment A Field Data Report** **Attachment B Laboratory Data Report**

Report was prepared by:

Janet B Dalgleish **Janet B. Dalgleish PG No. 30407**	**Date: January 24, 2006**

Table 1
Tier 2 Groundwater Elevations
1996-2005
(elevations in ft./MSL)

Location	B4	B5	B8	B12	W13	W14	PW17	PW18
11/25/1987	974.44	--	972.37	972.06	974.83	973.51	972.38	972.41
12/03/1987	973.89	--	972.77	970.73	974.19	971.97	946.96	971.03
12/11/1987	974.83	--	972.66	971.86	975.15	972.90	933.59	971.14
12/21/1987	973.82	--	972.64	970.72	974.16	971.88	933.59	971.58
01/13/1988	973.71	--	972.64	970.62	974.03	971.85	940.38	971.56
02/04/1988	973.64	--	972.62	970.59	973.98	971.82	938.41	971.68
03/21/1988	974.16	--	972.86	970.89	974.36	972.10	933.29	972.17
05/18/1988	974.03	--	972.04	971.79	974.33	972.16	933.28	972.34
07/27/1988	973.58	--	971.45	971.35	973.74	971.61	942.56	972.02
09/01/1988	973.27	--	971.23	970.97	973.53	971.30	949.86	962.17
11/18/1988	973.14	--	971.15	970.93	973.35	971.27	951.68	961.94
04/07/1989	--	--	--	--	--	--	945.35	964.95
05/15/1989	973.46	--	971.51	971.30	973.65	971.63	950.04	965.89
08/16/1989	972.81	--	--	--	973.0	--	951.68	964.98
10/23/1989	972.54	--	970.45	970.50	972.76	970.86	947.09	964.49
01/02/1990	--	--	--	--	972.54	--	937.61	965.04
05/08/1990	972.55	--	970.66	970.76	972.76	970.89	950.17	962.97
08/20/1990	--	--	--	--	--	--	933.39	961.99
12/11/1990	973.15	--	971.02	971.11	973.40	971.42	932.99	959.76
03/11/1991	--	--	--	--	973.08	--	933.31	961.81
06/18/1991	974.63	--	972.67	972.47	974.85	972.79	933.53	--
09/10/1991	--	--	--	--	--	--	946.68	960.22
11/21/1991	974.09	--	972.11	971.87	974.43	972.22	943.93	962.04
06/11/1992	974.86	--	972.75	972.50	975.20	972.85	949.69	967.75
09/22/1992	--	--	--	--	--	--	955.49	965.84
11/24/1992	974.75	--	--	--	975.15	--	948.14	965.00
03/29/1993	--	--	--	--	--	--	961.48	965.09
07/14/1993	976.74	--	974.51	974.24	977.13	974.63	964.16	966.60
09/08/1993	--	--	--	--	--	--	974.28	970.89
11/11/1993	975.68	--	--	--	976.15	--	966.19	966.39
05/12/1994	975.41	978.84	973.13	972.86	975.80	973.24	973.44	966.51
10/25/1994	975.60	--	--	--	975.96	--	968.19	967.04
05/24/1995	975.03	978.34	972.73	972.50	975.39	972.86	967.87	963.09
09/25/1995	974.63	--	--	--	975.07	--	962.47	966.44
08/02/1996	975.30	978.34	972.58	972.36	975.35	972.70	969.02	962.29
11/20/1996	974.49	--	--	--	974.74	--	952.89	961.59
05/30/1997	974.58	--	972.42	972.16	975.00	972.54	950.75	965.39
11/26/1997	974.94	--	--	--	975.44	--	950.84	966.39
06/02/1999	975.51	978.90	973.38	973.12	975.95	973.50	958.19	963.59
05/02/2000	974.16	977.45	972.10	969.82	974.61	972.19	964.63	961.66
03/21/2001	973.75	976.84	971.76	971.52	974.15	971.88	966.74	961.61
05/08/2002	973.84	976.97	971.78	971.56	974.27	971.93	955.92	961.59
04/17/2003	973.48	976.36	971.50	971.25	973.84	971.60	966.41	972.03
05/12/2004	973.12	975.72	971.24	970.96	973.69	971.33	955.99	961.91
12/02/2004	974.10	976.99	972.08	971.84	974.39	972.17	972.78	972.75
05/10/2005	974.09	976.78	971.99	971.72	974.36	972.08	972.71	972.68
10/25/2005	974.84	977.90	972.58	972.33	975.10	972.68	973.38	973.35

-- Not measured.

Table 2
Groundwater Quality Data
Former Nutting Truck and Caster Company Site

(concentrations in ug/L)

Location	Date	Lab	Dup	1,1-Dichloro-ethylene	1,2-Dichloro-ethylene,cis	1,2-Dichloro-ethylene, trans	Trichloro-ethylene	Vinyl chloride
B4	05/24/1995	50		<1.5	<2.5	<1.5	84	--
B4	09/25/1995	50		<1.5	<2.5	<1.5	77	--
B4	08/02/1996	50		<2.5	<5.0	<5.0	100	<5.0
B4	11/20/1996	50		<0.5	<1.0	<1.0	68	--
B4	05/30/1997	50		<0.50	<0.50	<0.50	73	--
B4	11/26/1997	50		<0.50	<0.50	<0.50	82	--
B4	05/19/1998	770		0.66	<0.50	<0.50	47	--
B4	06/02/1999	770		<0.50	0.57	<0.50	350	--
B4	05/02/2000	770		<0.20	<0.30	<0.30	130	--
B4	03/21/2001	770		<0.50	0.52	<0.50	200	<1.0
B4	05/08/2002	770		<5.0	<5.0	<5.0	150	<5.0
B4	04/17/2003	770		<1.0	<1.0	<1.0	82	<1.0
B4	05/12/2004	950		<1.0	<1.0	<1.0	35	<0.20
B4	12/02/2004	770		<1.0	<1.0	<1.0	47	--
B4	05/10/2005	770		<1.0	<1.0	<1.0	24	<1.0
B4	10/25/2005	770		<1.0	<1.0	<1.0	27	<1.0
B5	08/02/1996	50		<0.50	<1.0	<1.0	4.9	<1.0
B5	05/19/1998	770		<0.50	<0.50	<0.50	9.1	--
B5	06/02/1999	770		<0.50	<0.50	<0.50	1.7	--
B5	05/02/2000	770		<0.20	<0.30	<0.30	2.2	--
B5	03/21/2001	770		<0.50	<0.50	<0.50	2.4	<1.0
B5	05/08/2002	770		<5.0	<5.0	<5.0	<5.0	<5.0
B5	04/17/2003	770		<1.0	<1.0	<1.0	1.1	<1.0
B5	05/12/2004	950		<1.0	<1.0	<1.0	1.0	<0.20
B5	12/02/2004	770		<1.0	<1.0	<1.0	2.1	--
B5	05/10/2005	770		<1.0	<1.0	<1.0	1.3	<1.0
B5	10/25/2005	770		<1.0	<1.0	<1.0	2.4	<1.0
B8	05/24/1995	50		<0.3	<0.5	<0.3	0.8	--
B8	08/02/1996	50		<0.50	<1.0	<1.0	<0.50	<1.0
B8	05/30/1997	50		<0.50	<0.50	<0.50	<0.50	--
B8	05/19/1998	770		<0.50	<0.50	<0.50	<0.50	--
B8	06/02/1999	770		<0.50	<0.50	<0.50	<0.50	--
B8	05/02/2000	770		<0.20	<0.30	<0.30	0.77	--
B8	03/21/2001	770		<0.50	<0.50	<0.50	<0.50	<1.0
B8	05/08/2002	770		<5.0	<5.0	<5.0	<5.0	<5.0
B8	04/17/2003	770		<1.0	<1.0	<1.0	<1.0	<1.0
B8	05/12/2004	950		<1.0	<1.0	<1.0	<1.0	<0.20
B8	12/02/2004	770		<1.0	<1.0	<1.0	<1.0	--
B8	05/10/2005	770		<1.0	<1.0	<1.0	<1.0	<1.0
B8	10/25/2005	770		<1.0	<1.0	<1.0	<1.0	<1.0
B12	05/24/1995	50		<0.3	<0.5	<0.3	<0.5	--
B12	08/02/1996	50		<0.50	<1.0	<1.0	<0.50	<1.0
B12	05/30/1997	50		<0.50	<0.50	<0.50	<0.50	--
B12	05/19/1998	770		<0.50	<0.50	<0.50	<0.50	--
B12	06/02/1999	770		<0.50	<0.50	<0.50	<0.50	--

Table 2
Groundwater Quality Data
Former Nutting Truck and Caster Company Site

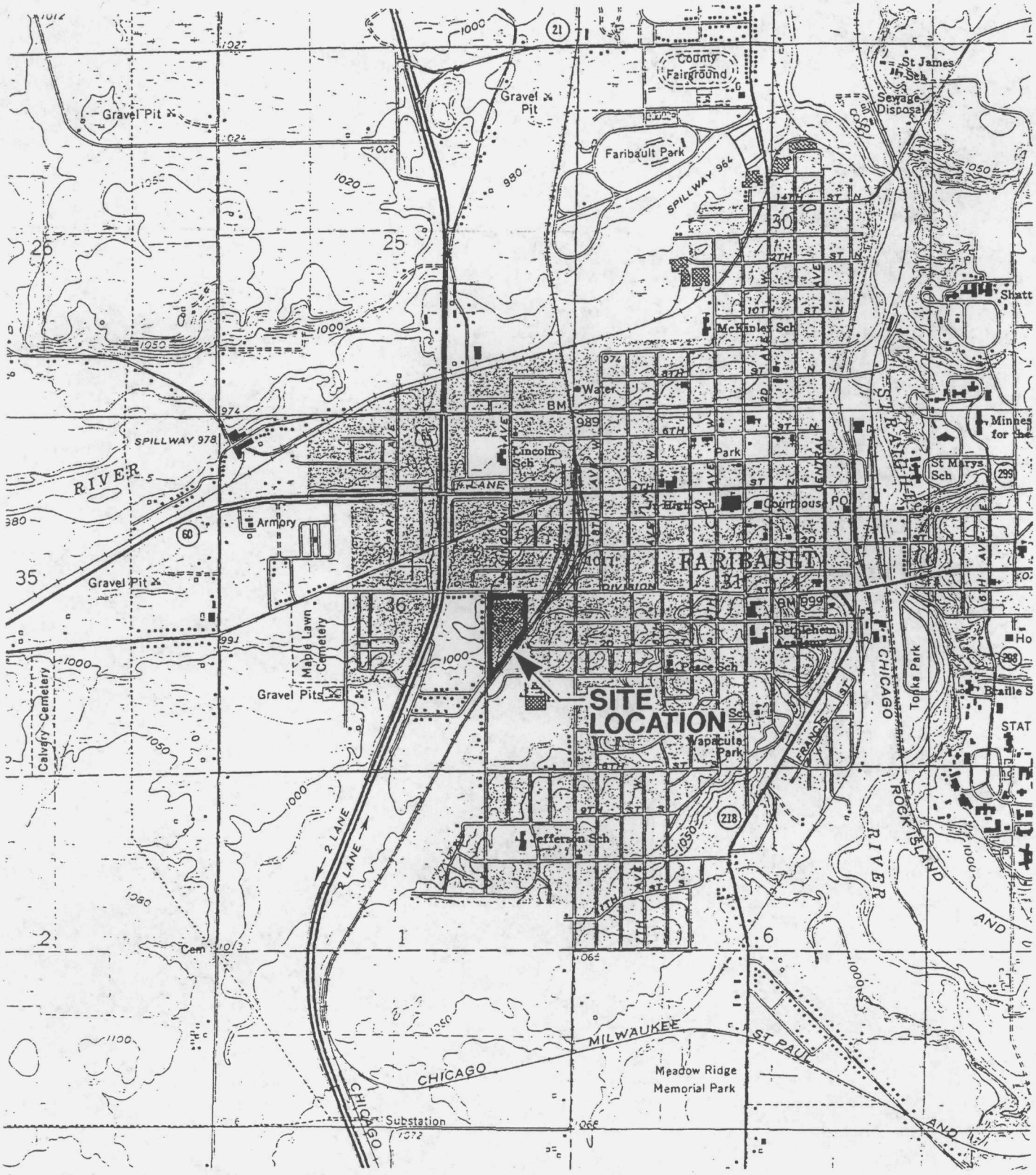
(concentrations in ug/L)

Location	Date	Lab	Dup	1,1-Dichloro-ethylene	1,2-Dichloro-ethylene,cis	1,2-Dichloro-ethylene, trans	Trichloro-ethylene	Vinyl chloride
B12	05/02/2000	770		<0.20	<0.30	<0.30	0.49	--
B12	03/21/2001	770		<0.50	<0.50	<0.50	<0.50	<1.0
B12	05/08/2002	770		<5.0	<5.0	<5.0	<5.0	<5.0
B12	04/17/2003	770		<1.0	<1.0	<1.0	<1.0	<1.0
B12	05/12/2004	950		<1.0	<1.0	<1.0	<1.0	<0.20
B12	12/02/2004	770		<1.0	<1.0	<1.0	<1.0	--
B12	05/10/2005	770		<1.0	<1.0	<1.0	<1.0	<1.0
B12	10/25/2005	770		<1.0	<1.0	<1.0	<1.0	<1.0
W13	05/24/1995	50		<0.3	2.0	<0.3	10	--
W13	09/25/1995	50		<0.3	1.0	<0.3	16	--
W13	08/02/1996	50		<0.50	2.4	<1.0	9.9	<1.0
W13	11/20/1996	50		<0.5	1.4	<1.0	5.7	--
W13	05/30/1997	50		<0.50	2.6	<0.50	16	--
W13	11/26/1997	50		<0.50	2.2	<0.50	11	--
W13	05/19/1998	770		<0.50	3.3	<0.50	11	--
W13	06/02/1999	770		<0.50	5.5	<0.50	22	--
W13	05/02/2000	770		<0.20	1.3	<0.30	24	--
W13	04/17/2003	770		<1.0	2.4	<1.0	21	<1.0
W13	05/12/2004	950		<1.0	2.9	<1.0	18	<0.20
W13	12/02/2004	770		<1.0	2.6	<1.0	20	--
W13	05/10/2005	770		<1.0	2.2	<1.0	20	<1.0
W13	10/25/2005	770		<1.0	2.1	<1.0	21	<1.0
W14	05/24/1995	50		<0.3	<0.5	<0.3	<0.5	--
W14	08/02/1996	50		<0.50	<1.0	<1.0	<0.50	<1.0
W14	05/30/1997	50		<0.50	<0.50	<0.50	<0.50	--
W14	05/19/1998	770		<0.50	<0.50	<0.50	<0.50	--
W14	06/02/1999	770		<0.50	<0.50	<0.50	<0.50	--
W14	05/02/2000	770		<0.20	<0.30	<0.30	0.96	--
W14	03/21/2001	770		<0.50	<0.50	<0.50	<0.50	<1.0
W14	05/08/2002	770		<5.0	<5.0	<5.0	<5.0	<5.0
W14	04/17/2003	770		<1.0	<1.0	<1.0	<1.0	<1.0
W14	05/12/2004	950		<1.0	<1.0	<1.0	<1.0	<0.20
W14	12/02/2004	770		<1.0	<1.0	<1.0	<1.0	--
W14	05/10/2005	770		<1.0	<1.0	<1.0	<1.0	<1.0
W14	10/25/2005	770		<1.0	<1.0	<1.0	<1.0	<1.0
PW17	05/24/1995	50		<0.3	0.6	<0.3	4.4	--
PW17	09/25/1995	50		<0.3	<0.5	<0.3	3.8	--
PW17	08/02/1996	50		<0.50	1.1	<1.0	5.0	<1.0
PW17	11/20/1996	50		<0.5	1.4	<1.0	4.2	--
PW17	05/30/1997	50		<0.50	0.99	<0.50	5.0	--
PW17	11/26/1997	50		<0.50	0.56	<0.50	5.0	--
PW17	05/19/1998	770		<0.50	0.51	<0.50	3.9	--
PW17	06/02/1999	770		<0.50	0.58	<0.50	4.9	--
PW17	05/02/2000	770		<0.20	0.53	<0.30	4.0	--
PW17	03/21/2001	770		<0.50	0.75	<0.50	4.0	<1.0

Table 2
Groundwater Quality Data
Former Nutting Truck and Caster Company Site

(concentrations in ug/L)

Location	Date	Lab	Dup	1,1-Dichloro-ethylene	1,2-Dichloro-ethylene,cis	1,2-Dichloro-ethylene, trans	Trichloro-ethylene	Vinyl chloride
PW17	05/08/2002	770		<5.0	<5.0	<5.0	3.3 j	<5.0
PW17	04/17/2003	770		<1.0	<1.0	<1.0	6.2	<1.0
PW17	05/12/2004	950		<1.0	<1.0	<1.0	2.6	<0.20
PW17	05/10/2005	770		<1.0	<1.0	<1.0	3.0	<1.0
PW17	05/10/2005	770	DUP	<1.0	<1.0	<1.0	3.3	<1.0
PW17	10/25/2005	770		<1.0	1.0	<1.0	3.2	<1.0
PW17	10/25/2005	770	DUP	<1.0	1.1	<1.0	3.1	<1.0
PW18	05/24/1995	50		<0.3	0.5	<0.3	9.8	--
PW18	09/25/1995	50		<0.3	<0.5	<0.3	16	--
PW18	08/02/1996	50		<0.50	<1.0	<1.0	9.2	<1.0
PW18	11/20/1996	50		<0.5	<1.0	<1.0	5.9	--
PW18	05/30/1997	50		<0.50	0.65	<0.50	11	--
PW18	05/30/1997	50	DUP	<0.50	0.63	<0.50	11	--
PW18	11/26/1997	50		<0.50	<0.50	<0.50	11	--
PW18	05/19/1998	770		<0.50	<0.50	<0.50	9.9	--
PW18	06/02/1999	770		<0.50	0.59	<0.50	11	--
PW18	05/02/2000	770		<0.20	<0.30	<0.30	8.2	--
PW18	03/21/2001	770		<0.50	<0.50	<0.50	8.5	<1.0
PW18	05/08/2002	770		<5.0	<5.0	<5.0	7.9	<5.0
PW18	04/17/2003	770		<1.0	<1.0	<1.0	12	<1.0
PW18	05/12/2004	950		<1.0	<1.0	<1.0	6.1	<0.20
PW18	12/02/2004	770		<1.0	<1.0	<1.0	9.5	--
PW18	12/02/2004	770	DUP	<1.0	<1.0	<1.0	9.8	--
PW18	05/10/2005	770		<1.0	<1.0	<1.0	5.8	<1.0
PW18	10/25/2005	770		<1.0	<1.0	<1.0	4.5	<1.0



Source: Faribault, Minnesota Quadrangle, 7.5 Minute Series, 1960

N

0 2000 4000

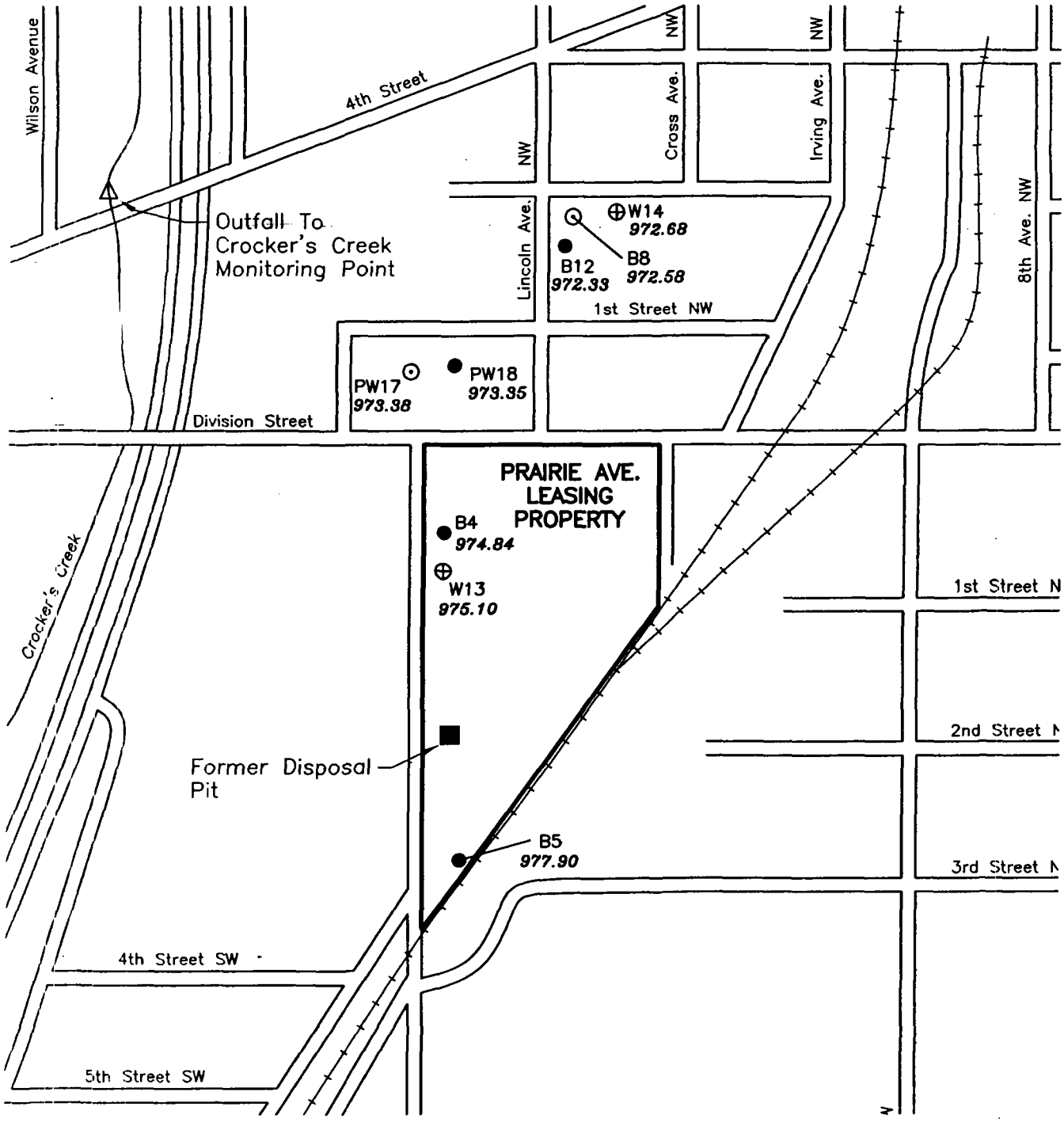
Scale in Feet

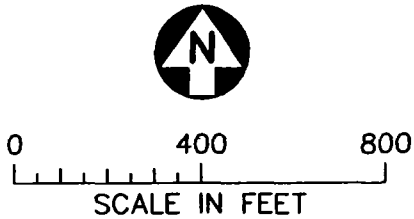
QUADRANGLE LOCATION

Figure 1

SITE LOCATION MAP

Prairie Avenue Leasing
Faribault, Minnesota





RLG M:\CAD\236006\22882_1.DWG Plot at 1 01/30/2006 12:43:18

Monitoring Wells

- ● Glacial Drift Aquifer
- ⊙ St. Peter Sandstone Aquifer
- ⊕ Praire du Chien Aquifer

Figure 2

GROUNDWATER ELEVATIONS
OCTOBER 2005
Nutting Truck and Caster Site
Faribault, Minnesota

Figure 3A
MANN-KENDALL STATISTICAL ANALYSIS
PW-17 Trichloroethene

Date	05/19/1998	06/02/1999	05/02/2000	03/21/2001	05/08/2002	04/17/2003	05/12/2004	12/02/2004	05/10/2005	10/25/2005	
Sampling Event	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8	Event 9	Event 10	
Trichloroethene Concentratio	5	3.9	4.9	4	4	3.3	6.2	2.6	3	3.2	**Sum of Rows**
Compare to Event 1		1	-1	-1	-1	-1	1	-1	-1	-1	-5
Compare to Event 2			1	1	1	-1	1	-1	-1	-1	0
Compare to Event 3				-1	-1	-1	1	-1	-1	-1	-5
Compare to Event 4					0	-1	1	-1	-1	-1	-3
Compare to Event 5						-1	1	-1	-1	-1	-3
Compare to Event 6							1	-1	-1	-1	-2
Compare to Event 7								-1	-1	-1	-3
Compare to Event 8									1	1	2
Compare to Event 9										1	1
	10	9	8	7	6	5	4	3	2	1	

Mann-Kendall Statistic (Total) =	-18.000
Total Number of Variables	45.000
Standard Deviation	1.093
tau	-0.400
Mean	4.010
COV	0.273
MAROS Trend Conclusion	Probably Decreasi

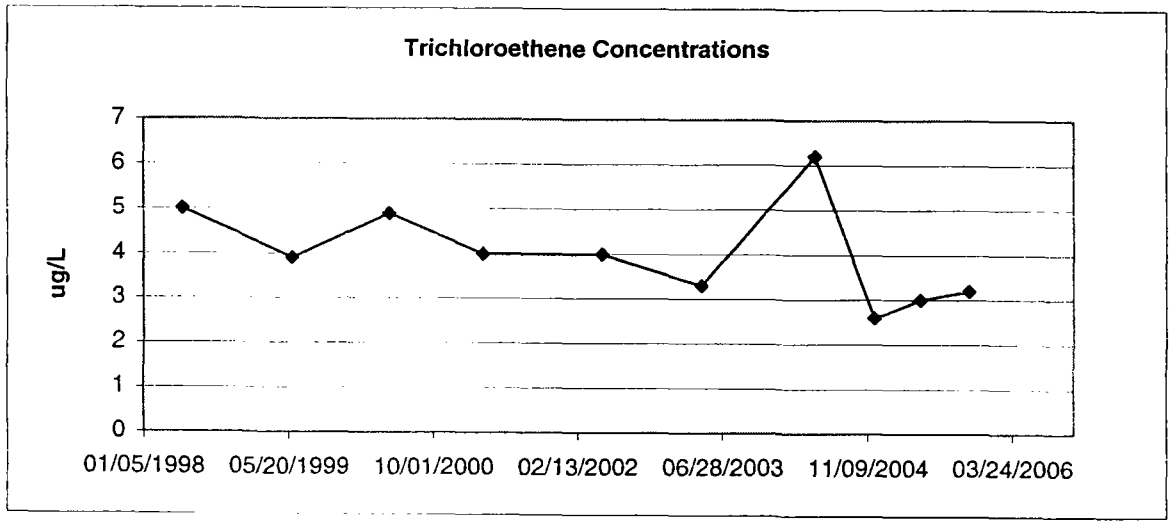


Figure 3B

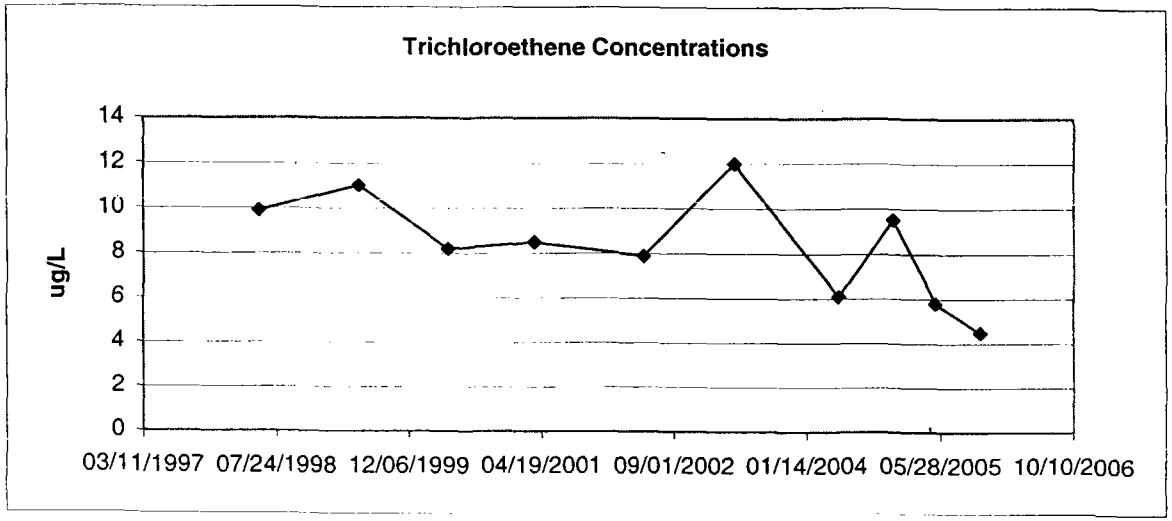
MANN-KENDALL STATISTICAL ANALYSIS

PW-18

Trichloroethene Concentrations

Date	05/19/1998	06/02/1999	05/02/2000	03/21/2001	05/08/2002	04/17/2003	05/12/2004	12/02/2004	05/10/2005	10/25/2005	
Sampling Event	Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7	Event 8	Event 9	Event 10	
Contaminant Concentration	9.9	11	8.2	8.5	7.9	12	6.1	9.5	5.8	4.5	**Sum of Rows**
Compare to Event 1		1	-1	-1	-1	1	-1	-1	-1	-1	-5
Compare to Event 2			-1	-1	-1	1	-1	-1	-1	-1	-6
Compare to Event 3				1	-1	1	-1	1	-1	-1	-1
Compare to Event 4					-1	1	-1	1	-1	-1	-2
Compare to Event 5						1	-1	1	-1	-1	-1
Compare to Event 6							-1	-1	-1	-1	-4
Compare to Event 7								1	-1	-1	-1
Compare to Event 8									-1	-1	-2
Compare to Event 9										-1	-1

Mann-Kendall Statistic (Total) =	-23
Total Number of Variables	45.000
Standard Deviation	2.374
tau	-0.511
Mean	8.340
COV	0.285
MAROS Trend Conclusion	Probably Decreasing



Attachment A

BARR

FIELD SAMPLING REPORT

Date: 11/22/2005

Project: 23/66-006

Contact: Marta Nelson
Barr Engineering Company
4700 W. 77th Street
Minneapolis, MN 55435-4803

Field Sampling

2nd Tier groundwater sampling was conducted at the Prairie Avenue Site on October 25, 2005

Field Report

Attachments:

* Field log cover sheet
* Field log data summary
* Field log data sheets
* Meter calibration summary
* COC #20414
* Analytical parameter table

Laboratory Analysis Status

Samples were delivered to Legend Technical Laboratories in St Paul on October 26, 2005
Refer to chain of custody for additional information.

Kim Johannessen
Sr. Environmental Technician

BARR

FIELD LOG COVER SHEET
WATER SAMPLING

Client: **Prairie Avenue Leasing** **Project No:** **23/66-006**

Technician: **KSJ** **Sampling Period:** 10/25/2005

Date	Temperature	Wind Speed	Wind Direction	Cloud Cover
10/25/2005	38-50	5-10	WNW	clear

Summary of Field Activities

* Routine methods for purging and sampling for this site were followed.
* Blind duplicate sample M-1 was collected at PW17
* Field blank FB-1 was collected at PW17
* All wells were in good condition and sampling was consistent with previous events.

WATER LEVEL REPORT

Project: PRAIRIE AVE. LEASING

Project Number: 23/66-006

Staff: KSJ Date: 10-25-05

Monitoring Location	Measuring point elevation	Water level depth	Total well depth	Static water elevation	Comments
B4	1006.54	31.70	44.0	974.84	
B5	1008.74	30.84	40.0	977.90	
B8	999.28	26.70	67.0	972.58	
B12	998.16	25.83	47.0	972.33	
W13	1006.74	31.64	96.0	975.10	
W14	999.00	26.32	79.0	972.68	
B15	1007.43		43.0	--	
PW17	1007.39	34.01	73.0	973.38	
PW18	1007.39	34.04	48.5	973.35	

WATER LEVEL REPORT

Project: PRAIRIE AVE. LEASING

Project Number: 23/66-006

Staff: KSJ

Date: 10.25-05

Monitoring Location	Measuring point elevation	Water level depth	Total well depth	Static water elevation	Comments
B4	1006.54	31.70	44.0	--	
B5	1008.74	30.84	40.0	--	
B8	999.28	26.70	67.0	--	
B12	998.16	25.83	47.0	--	
W13	1006.74	31.64	96.0	--	
W14	999.00	26.32	79.0	--	
B15	1007.43	—	43.0	--	
PW17	1007.39	34.01	73.0	--	
PW18	1007.39	34.04	48.5	--	

FIELD DATA SUMMARY

Project: PRAIRIE AVE. LEASING

Project number: 23/66-006

Staff: KSJ

Monitoring location	Date	Temp (oC)	Conductivity @ 25 oC	pH	Eh	DO mg/l
W14	**10/25/05**	**10.4**	**627**	**7.18**	**-71**	**0.21**
B8	**"**	**10.7**	**416**	**7.89**	**-109**	**2.05**
B12	**"**	**10.7**	**739**	**7.26**	**29**	**3.57**
B5	**"**	**10.6**	**550**	**6.95**	**132**	**9.30**
B4	**"**	**12.2**	**878**	**6.75**	**219**	**8.60**
W13	**"**	**11.6**	**683**	**7.11**	**-53**	**2.23**
PW17	**"**	**11.0**	**543**	**7.18**	**-180**	**0.05**
PW18	**"**	**11.0**	**712**	**7.07**	**-28**	**1.35**

BARR

Barr Engineering Company
Field Log Data Sheet

Client: Prairie Ave Leasing	Monitoring Point: W14
Location: Faribault	Date: 10-25-05
Project #: 23/66-006	Sample Time: 1200

GENERAL DATA		STABILIZATION TEST						
Barr lock:	YES							
Casing diameter:	4"	Time/ Volume	Temp. °C	Cond. @ 25	pH	Eh	D.O.	Turbidity Appearance
Total well depth:*	79	1044/103g	10.3	588	7.39	-156	.12	clear
Static water level:*	26.32	1107/138g	10.3	609	7.27	-112	.19	"
Water depth:*	52.7	1130/173g	10.3	618	7.21	-85	.23	"
Well volume: (gal)	35	1157/208g	10.4	627	7.18	-71	.21	"
Purge method:	Subm.							—
Sample method:	bailer							
Start time:	0935	Odor: none detected						
Stop time:	1157	Purge Appearance: clear						
Duration: (minutes)	139	Sample Appearance: clear						
Rate, gpm:	1.5	Comments:						
Volume, purged:	208 gal							
Duplicate collected?	—							
Sample collection by:	KSJ	CO2-	Mn2-	Fe(T)-	Fe2-			

Others present:

WELL INSPECTION (answer for each category, state if lock replaced, detail any repairs needed on back of form)

CASING & CAP: COLLAR: LOCK: OTHER:

MW: groundwater monitoring well WS: water supply well SW: surface water SE: sediment other:

VOC- 3 semi-volatile- general- nutrient- cyanide- DRO- Sulfide-

oil, grease- bacteria- total metal- filtered metal- methane- filter-

Others:

*Measurements are referenced from top of riser pipe, unless otherwise indicated.

BARR

Barr Engineering Company
Field Log Data Sheet

Client: Prairie Ave Leasing	Monitoring Point: B8
Location: Faribault	Date: 10-25-05
Project #: 23/66-006	Sample Time: 1255

GENERAL DATA		STABILIZATION TEST						
Bar lock:	YES							
Casing diameter:	2"	Time/ Volume	Temp. °C	Cond. @ 25	pH	Eh	D.O.	Turbidity Appearance
Total well depth:*	67.0	1233/20g	10.7	411	7.84	-92	2.27	clear
Static water level:*	26.70	1240/27g	10.7	415	7.87	-103	2.17	"
Water depth:*	40.3	1247/34g	10.7	416	7.89	-109	2.05	"
Well volume: (gal)	7							
Purge method:	Subm.							
Sample method:	bailer							
Start time:	1213	Odor: none detected						
Stop time:	1247	Purge Appearance: clear						
Duration: (minutes)	34	Sample Appearance: clear						
Rate, gpm:	1	Comments:						
Volume, purged:	34 gal							
Duplicate collected?	—							
Sample collection by:	KSJ	CO2-	Mn2-	Fe(T)-	Fe2-			

Others present:

WELL INSPECTION (answer for each category, state if lock replaced, detail any repairs needed on back of form)

CASING & CAP: COLLAR: LOCK: OTHER:

MW: groundwater monitoring well WS: water supply well SW: surface water SE: sediment other:

VOC- 3 semi-volatile- general- nutrient- cyanide- DRO- Sulfide-

oil, grease- bacteria- total metal- filtered metal- methane- filter-

Others:

*Measurements are referenced from top of riser pipe, unless otherwise indicated.

BARR

Barr Engineering Company
Field Log Data Sheet

Client:	Prairie Ave Leasing	Monitoring Point:	B12
Location:	Faribault	Date:	10-25-05
Project #:	23/66-006	Sample Time:	1335

GENERAL DATA		STABILIZATION TEST						
Barr lock:	YES							
Casing diameter:	2"	Time/ Volume	Temp. °C	Cond. @ 25	pH	Eh	D.O.	Turbidity Appearance
Total well depth:*	47.0	1322/10g.	10.6	717	7.36	11	3.60	clear
Static water level:*	25.83	1326/14g.	10.7	710	7.31	22	3.39	"
Water depth:*	21.2	1329/17g.	10.7	739	7.26	29	3.57	"
Well volume: (gal)	3.5							
Purge method:	Subm.							
Sample method:	bailer							
Start time:	1312	Odor: none detected						
Stop time:	1329	Purge Appearance: begin-cloudy brownish yellow/ clear						
Duration: (minutes)	17	Sample Appearance: clear						
Rate, gpm:	1	Comments:						
Volume, purged:	17 gal							
Duplicate collected?	–							
Sample collection by:	KSJ	CO2-	Mn2-	Fe(T)-	Fe2-			

Others present:

WELL INSPECTION (answer for each category, state if lock replaced, detail any repairs needed on back of form)

CASING & CAP: COLLAR: LOCK: OTHER:

MW: groundwater monitoring well WS: water supply well SW: surface water SE: sediment other:

VOC- 3 semi-volatile- general- nutrient- cyanide- DRO- Sulfide-

oil,grease- bacteria- total metal- filtered metal- methane- filter-

Others:

*Measurements are referenced from top of riser pipe, unless otherwise indicated.

BARR

Barr Engineering Company
Field Log Data Sheet

Client:	Prairie Ave Leasing	Monitoring Point:	BS
Location:	Faribault	Date:	10-25-05
Project #:	23/66-006	Sample Time:	1425

GENERAL DATA		STABILIZATION TEST						
Barr lock:	YES							
Casing diameter:	2" PVC	Time/ Volume	Temp. °C	Cond. @ 25	pH	Eh	D.O.	Turbidity Appearance
Total well depth:*	40.0	1411/5g.	10.8	554	7.07	125	8.70	clear
Static water level:*	30.84	1415/6g.	10.7	554	7.00	130	8.98	"
Water depth:*	9.2	1421/8g.	10.7	552	6.97	133	9.12	"
Well volume: (gal)	1.5	1425/9g.	10.6	550	6.95	132	9.30	"
Purge method:	Subm.							
Sample method:	Bailer							
Start time:	1351	Odor: none detected						
Stop time:	1425	Purge Appearance: clear						
Duration: (minutes)	34	Sample Appearance: clear						
Rate, gpm:	.25	Comments:						
Volume, purged:	9 gal							
Duplicate collected?	–							
Sample collection by:	KSJ	CO2-	Mn2-	Fe(T)-	Fe2-			

Others present:

WELL INSPECTION (answer for each category, state if lock replaced, detail any repairs needed on back of form)

CASING & CAP: COLLAR: LOCK: OTHER:

MW: groundwater monitoring well WS: water supply well SW: surface water SE: sediment other:

VOC- 3 semi-volatile- general- nutrient- cyanide- DRO- Sulfide-

oil,grease- bacteria- total metal- filtered metal- methane- filter-

Others:

*Measurements are referenced from top of riser pipe, unless otherwise indicated.

BARR

Barr Engineering Company
Field Log Data Sheet

Client:	Prairie Ave Leasing	Monitoring Point:	B4
Location:	Faribault	Date:	10-25-05
Project #:	23/66-006	Sample Time:	1500

GENERAL DATA		STABILIZATION TEST						
Barr lock:	YES							
Casing diameter:	2" PVC	Time/ Volume	Temp. °C	Cond. @ 25	pH	Eh	D.O.	Turbidity Appearance
Total well depth:*	44.0	1452/6g.	12.1	884	6.84	202	8.64	Clear
Static water level:*	31.70	1455/8g.	12.1	881	6.79	214	8.51	"
Water depth:*	12.3	1459/10g.	12.2	878	6.75	219	8.60	"
Well volume: (gal)	2							
Purge method:	Subm.							
Sample method:	bailer							

Start time:	1439	Odor:	none detected
Stop time:	1459	Purge Appearance:	Clear
Duration: (minutes)	20	Sample Appearance:	Clear
Rate, gpm:	.5	Comments:	
Volume, purged:	10 gal		
Duplicate collected?	—		
Sample collection by:	KSJ	CO2- Mn2- Fe(T)- Fe2-	

Others present:

WELL INSPECTION (answer for each category, state if lock replaced, detail any repairs needed on back of form)

CASING & CAP: COLLAR: LOCK: OTHER:

MW: groundwater monitoring well WS: water supply well SW: surface water SE: sediment other:

VOC- 3 semi-volatile- general- nutrient- cyanide- DRO- Sulfide-

oil ,grease- bacteria- total metal- filtered metal- methane- filter-

Others:

*Measurements are referenced from top of riser pipe, unless otherwise indicated.

P:\23\19\258\LTF\FieldLogDataSheet-LTF.doc

BARR

Barr Engineering Company
Field Log Data Sheet

Client:	Prairie Ave Leasing	Monitoring Point:	W13
Location:	Faribault	Date:	10-25-05
Project #:	23/66-006	Sample Time:	1730

GENERAL DATA		STABILIZATION TEST						
Barr lock:	YES							
Casing diameter:	4"	Time/ Volume	Temp. °C	Cond. @ 25	pH	Eh	D.O.	Turbidity Appearance
Total well depth:*	96.0	1628/126g	11.6	656	7.21 ~~7.23~~	-123	1.64	clear
Static water level:*	31.64	1656/168g	11.6	672	7.15	-78	1.95	"
Water depth:*	64.4	1724/210g	11.6	683	7.11	-53	2.23	"
Well volume: (gal)	42							
Purge method:	Subm.							
Sample method:	bailer							
Start time:	1504	Odor: None detected						
Stop time:	1724	Purge Appearance: Clear						
Duration: (minutes)	140.	Sample Appearance: Clear						
Rate, gpm:	1.5	Comments:						
Volume, purged:	210 gal							
Duplicate collected?	—							
Sample collection by:	KSJ	CO2-	Mn2-	Fe(T)-	Fe2-			

Others present:

WELL INSPECTION (answer for each category, state if lock replaced, detail any repairs needed on back of form)

CASING & CAP: COLLAR: LOCK: OTHER:

MW: groundwater monitoring well WS: water supply well SW: surface water SE: sediment other:

VOC- 3 semi-volatile- general- nutrient- cyanide- DRO- Sulfide-

oil,grease- bacteria- total metal- filtered metal- methane- filter-

Others:

*Measurements are referenced from top of riser pipe, unless otherwise indicated.

BARR

Barr Engineering Company
Field Log Data Sheet

Client:	Prairie Ave Leasing	Monitoring Point:	PW17
Location:	Faribault	Date:	10-25-05
Project #:	23/66-006	Sample Time:	1955

GENERAL DATA		STABILIZATION TEST						
Barr lock:	YES							
Casing diameter:	8"	Time/ Volume	Temp. °C	Cond. @ 25	pH	Eh	D.O.	Turbidity Appearance
Total well depth:*	73.0	1836/93/281 g	11.0	530	7.23	-207	0.07	clear
Static water level:*	34.01	1915/186/374 g	11.0	545	7.20	-187	0.05	"
Water depth:*	39	1955/209/469 g	11.0	543	7.18	-180	0.05	"
Well volume: (gal)	93							
Purge method:	Subm.							
Sample method:	bailer							
Start time:	1749	Odor: none detected						
Stop time:	1955	Purge Appearance: clear						
Duration: (minutes)	140	Sample Appearance: clear						
Rate, gpm:	2	Comments:						
Volume, purged:	279 gal	FB-1						
Duplicate collected?	M-1							
Sample collection by:	KSJ	CO2-	Mn2-	Fe(T)-	Fe2-			

Others present:

WELL INSPECTION (answer for each category, state if lock replaced, detail any repairs needed on back of form)

CASING & CAP: COLLAR: LOCK: OTHER:

MW: groundwater monitoring well WS: water supply well SW: surface water SE: sediment other:

VOC- 3-f3 semi-volatile- general- nutrient- cyanide- DRO- Sulfide-

oil,grease- bacteria- total metal- filtered metal- methane- filter-

Others:

*Measurements are referenced from top of riser pipe, unless otherwise indicated.

BARR

Barr Engineering Company
Field Log Data Sheet

Client:	Prairie Ave Leasing	Monitoring Point:	PW18
Location:	Faribault	Date:	10-25-05
Project #:	23/66-006	Sample Time:	2055

GENERAL DATA		STABILIZATION TEST						
Barr lock:	YES							
Casing diameter:	8"	Time/ Volume	Temp. °C	Cond. @ 25	pH	Eh	D.O.	Turbidity Appearance
Total well depth:*	48.5	2018/37g	11.0	680	6.99	-37	1.39	Clear
Static water level:*	34.04	2034/74g	11.0	697	7.04	-31	1.21	"
Water depth:*	14.5	2054/110g	11.0	712	7.07	-28	1.35	"
Well volume: (gal)	37							
Purge method:	Subm.							
Sample method:	bailer							
Start time:	1959	Odor: none detected						
Stop time:	2054	Purge Appearance: clear						
Duration: (minutes)	55	Sample Appearance: clear						
Rate, gpm:	2	Comments:						
Volume, purged:	110 gal							
Duplicate collected?	—							
Sample collection by:	KSJ	CO2-	Mn2-	Fe(T)-	Fe2-			

Others present:

WELL INSPECTION (answer for each category, state if lock replaced, detail any repairs needed on back of form)

CASING & CAP: COLLAR: LOCK: OTHER:

MW: groundwater monitoring well WS: water supply well SW: surface water SE: sediment other:

VOC- 3 semi-volatile- general- nutrient- cyanide- DRO- Sulfide-

oil,grease- bacteria- total metal- filtered metal- methane- filter-

Others:

*Measurements are referenced from top of riser pipe, unless otherwise indicated.

BARR ENGINEERING COMPANY
METER CALIBRATION SUMMARY

PROJECT Nutting / Prairie Ave
TECHNICIAN KSJ

WEATHER CONDITIONS

Date	Wind Direction	Wind Speed	Temperature F	Cloud Cover	Comments
10-25-05	WNW	5-10	38-50	Clear	

Meter type and number	Date	Time	Temperature C	Standard Solution	pH Meter Reading	Cond. Cell Result	ORP Reading
YSI 556	10-25-05	0920	6	7/10	7.00/10.00	1000 mmhos	256 mV
231+,- 10mV @ 25C							

231 mV = Display Value + [(Display Temp. - 25 C) x (1.3 mV)]

BARR

Chain of Custody

4700 West 77th Street
Minneapolis, MN 55435-4803
(952) 832-2600

Project Number: 23/66-006 DEP

20414

	Sample Identification	Collection Date	Collection Time	Matrix: Water	Matrix: Soil	Type: Grab	Type: Comp.	Type: QC	Volatile Organic (Unpres.)	Volatile Organic (Pres.)	Semivolatile Organic	Total Metals (HNO_3)	Dissolved Metals (HNO_3)	General (Unpreserved)	Cyanide (NaOH, Asc. Acid)	Nutrients (H_2SO_4)	Oil and Grease (H_2SO_4)	TOC (H_2SO_4)	Sulfide (Zn Acetate)	Total Phenol (H_2SO_4)	Methane	Bacteria	DRO (HCL)			Total No. Of Containers	Remarks/ Analysis Required
1.	W14	10.25.05	1200	✓		✓				3																3	Table 1, Partial VOCs
2.	B8	↓	1255	✓		✓				3																3	(4 compounds 8260)
3.	B12		1335	✓		✓				3																3	↓
4.	B5		1425	✓		✓				3																3	
5.	B4		1500	✓		✓				3																3	
6.	W13		1730	✓		✓				3																3	
7.	PW17		1915	✓		✓				3																3	
8.	PW18		2035	✓		✓				3																3	
9.	M-1			✓		✓		✓		3																3	
10.	FB-1			✓				✓		3																3	
11.	TB	↓		✓				✓		1																1	↓
12.																											
13.																											
14.																											
15.																											
16.																											
17.																											

Number of Containers/Preservative

Project Manager: JBD

Project Contact: MSH

Laboratory: Legend

Remarks/ Analysis Required:

temp of 2 on ice 2-4°C

Sampled By: Kim Johannessen

Relinquished By: Kim Johannessen — Date: 10-26-05 — Time:

Samples Shipped VIA: ☐ Air Freight ☐ Fed. Exp. ☒ Sampler ☐ Other

Received by: Victor Yatovlin — Date: 10/26/05 — Time: 9:30

Air Bill Number:

Distribution: White-Original Accompanies Shipment to Lab; Yellow - Field Copy; Green - Lab Coordinator

H:RLG\STDFORMS\Chain Of Custody Form RLG Rev. 01/01/05

Attachment B

LEGEND
Technical Services, Inc.
www.legend-group.com

88 Empire Drive
St. Paul, MN 55103
Tel: 651.642.1150
Fax: 651.642.1239

November 09, 2005

Ms. Marta Nelson
Barr Engineering Co.
4700 W 77th St
Minneapolis, MN 55435

Work Order Number: 0504829
RE: 23/66-006

Enclosed are the results of analyses for samples received by the laboratory on 10/26/05. If you have any questions concerning this report, please feel free to contact me.

All samples will be retained by LEGEND for 30 days from the date of this report and then discarded unless other arrangements are made.

Minnesota Certification # 027-123-295

Prepared by,
LEGEND TECHNICAL SERVICES, INC

Chris Bremer
Laboratory Director

Terri Olson (sm)
Terri Olson
QA/QC Coordinator

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

LEGEND
Technical Services, Inc.

88 Empire Drive
St Paul, MN 55103
651.642.1150

Barr Engineering Co. 4700 W 77th St Minneapolis MN, 55435	Project: 23/66-006 Project Number: 23/66-006 DEP Project Manager: Ms. Marta Nelson	Date Reported: November 09, 2005

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
W-4	0504829-01	Groundwater	10/25/05 12:00	10/26/05 09:30
B8	0504829-02	Groundwater	10/25/05 12:55	10/26/05 09:30
B12	0504829-03	Groundwater	10/25/05 13:35	10/26/05 09:30
B5	0504829-04	Groundwater	10/25/05 14:25	10/26/05 09:30
B4	0504829-05	Groundwater	10/25/05 15:00	10/26/05 09:30
W-3	0504829-06	Groundwater	10/25/05 17:30	10/26/05 09:30
PW-17	0504829-07	Groundwater	10/25/05 19:15	10/26/05 09:30
PW-18	0504829-08	Groundwater	10/25/05 20:35	10/26/05 09:30
M-1	0504829-09	Groundwater	10/25/05 00:00	10/26/05 09:30
FB-1	0504829-10	Groundwater	10/25/05 00:00	10/26/05 09:30
Trip Blank	0504829-11	Groundwater	10/11/05 00:00	10/26/05 09:30

Shipping container information

Default Cooler Temperature: 7.4

Received on ice: Yes
Received on melt water: No
Custody seals: No

Temperature blank was present
Ambient: No

Received on blue ice: No
Acceptable (IH/ISO only): No

Case Narrative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

LEGEND
Technical Services, Inc.

88 Empire Drive
St Paul, MN 55103
651.642.1150

Barr Engineering Co. 4700 W 77th St Minneapolis MN, 55435	Project: 23/66-006 Project Number: 23/66-006 DEP Project Manager: Ms. Marta Nelson	Date Reported: November 09, 2005

VOC GCMS 8260B
Legend Technical Services, Inc

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
W14 (0504829-01) Groundwater Received:10/26/05 09:30 Sampled:10/25/05 12:00										
1,1-Dichloroethene	<1.0	1.0	0.14	ug/L	1	B5J3116	10/31/05	10/31/05	EPA 8260B	
cis-1,2-Dichloroethene	<1.0	1.0	0.13	ug/L	1	"	"	"	"	
trans-1,2-Dichloroethene	<1.0	1.0	0.14	ug/L	1	"	"	"	"	
Trichloroethene	<1.0	1.0	0.20	ug/L	1	"	"	"	"	
Vinyl chloride	<1.0	1.0	0.13	ug/L	1	"	"	"	"	
Surrogate: 4-Bromofluorobenzene	*103*			*80-120*	*%*	"	"	"	"	
Surrogate: Dibromofluoromethane	*109*			*80-120*	*%*	"	"	"	"	
Surrogate: Toluene-d8	*108*			*80-120*	*%*	"	"	"	"	
B8 (0504829-02) Groundwater Received:10/26/05 09:30 Sampled:10/25/05 12:55										
1,1-Dichloroethene	<1.0	1.0	0.14	ug/L	1	B5J3116	10/31/05	10/31/05	EPA 8260B	
cis-1,2-Dichloroethene	<1.0	1.0	0.13	ug/L	1	"	"	"	"	
trans-1,2-Dichloroethene	<1.0	1.0	0.14	ug/L	1	"	"	"	"	
Trichloroethene	<1.0	1.0	0.20	ug/L	1	"	"	"	"	
Vinyl chloride	<1.0	1.0	0.13	ug/L	1	"	"	"	"	
Surrogate: 4-Bromofluorobenzene	*98.2*			*80-120*	*%*	"	"	"	"	
Surrogate: Dibromofluoromethane	*108*			*80-120*	*%*	"	"	"	"	
Surrogate: Toluene-d8	*106*			*80-120*	*%*	"	"	"	"	
B12 (0504829-03) Groundwater Received:10/26/05 09:30 Sampled:10/25/05 13:35										
1,1-Dichloroethene	<1.0	1.0	0.14	ug/L	1	B5J3116	10/31/05	10/31/05	EPA 8260B	
cis-1,2-Dichloroethene	<1.0	1.0	0.13	ug/L	1	"	"	"	"	
trans-1,2-Dichloroethene	<1.0	1.0	0.14	ug/L	1	"	"	"	"	
Trichloroethene	<1.0	1.0	0.20	ug/L	1	"	"	"	"	
Vinyl chloride	<1.0	1.0	0.13	ug/L	1	"	"	"	"	
Surrogate: 4-Bromofluorobenzene	*107*			*80-120*	*%*	"	"	"	"	
Surrogate: Dibromofluoromethane	*110*			*80-120*	*%*	"	"	"	"	
Surrogate: Toluene-d8	*105*			*80-120*	*%*	"	"	"	"	

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Technical Services, Inc.

88 Empire Drive
St Paul, MN 55103
651.642.1150

Bar Engineering Co. 4700 W 77th St Minneapolis MN, 55435	Project: 23/66-006 Project Number: 23/66-006 DEP Project Manager: Ms. Marta Nelson	Date Reported: November 09, 2005

VOC GCMS 8260B
Legend Technical Services, Inc

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
B5 (0504829-04) Groundwater Received:10/26/05 09:30 Sampled:10/25/05 14:25										
1,1-Dichloroethene	<1.0	1.0	0.14	ug/L	1	B5J3116	10/31/05	10/31/05	EPA 8260B	
cis-1,2-Dichloroethene	<1.0	1.0	0.13	ug/L	1	"	"	"	"	
trans-1,2-Dichloroethene	<1.0	1.0	0.14	ug/L	1	"	"	"	"	
Trichloroethene	**2.4**	1.0	0.20	ug/L	1	"	"	"	"	
Vinyl chloride	<1.0	1.0	0.13	ug/L	1	"	"	"	"	
Surrogate: 4-Bromofluorobenzene	*113*			*80-120*	*%*	"	"	"	"	
Surrogate: Dibromofluoromethane	*113*			*80-120*	*%*	"	"	"	"	
Surrogate: Toluene-d8	*112*			*80-120*	*%*	"	"	"	"	
B4 (0504829-05) Groundwater Received:10/26/05 09:30 Sampled:10/25/05 15:00										
1,1-Dichloroethene	<1.0	1.0	0.14	ug/L	1	B5J3116	10/31/05	10/31/05	EPA 8260B	
cis-1,2-Dichloroethene	<1.0	1.0	0.13	ug/L	1	"	"	"	"	
trans-1,2-Dichloroethene	<1.0	1.0	0.14	ug/L	1	"	"	"	"	
Trichloroethene	**27**	1.0	0.20	ug/L	1	"	"	"	"	
Vinyl chloride	<1.0	1.0	0.13	ug/L	1	"	"	"	"	
Surrogate: 4-Bromofluorobenzene	*102*			*80-120*	*%*	"	"	"	"	
Surrogate: Dibromofluoromethane	*107*			*80-120*	*%*	"	"	"	"	
Surrogate: Toluene-d8	*106*			*80-120*	*%*	"	"	"	"	
W13 (0504829-06) Groundwater Received:10/26/05 09:30 Sampled:10/25/05 17:30										
1,1-Dichloroethene	<1.0	1.0	0.14	ug/L	1	B5J3116	10/31/05	10/31/05	EPA 8260B	
cis-1,2-Dichloroethene	**2.1**	1.0	0.13	ug/L	1	"	"	"	"	
trans-1,2-Dichloroethene	<1.0	1.0	0.14	ug/L	1	"	"	"	"	
Trichloroethene	**21**	1.0	0.20	ug/L	1	"	"	"	"	
Vinyl chloride	<1.0	1.0	0.13	ug/L	1	"	"	"	"	
Surrogate: 4-Bromofluorobenzene	*105*			*80-120*	*%*	"	"	"	"	
Surrogate: Dibromofluoromethane	*113*			*80-120*	*%*	"	"	"	"	
Surrogate: Toluene-d8	*107*			*80-120*	*%*	"	"	"	"	

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Bar Engineering Co. 4700 W 77th St Minneapolis MN, 55435	Project: 23/66-006 Project Number: 23/66-006 DEP Project Manager: Ms. Marta Nelson	Date Reported: November 09, 2005

VOC GCMS 8260B
Legend Technical Services, Inc

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PW 17 (0504829-07) Groundwater Received:10/26/05 09:30 Sampled:10/25/05 19:15										
1,1-Dichloroethene	<1.0	1.0	0.14	ug/L	1	B5K0602	11/05/05	11/06/05	EPA 8260B	
cis-1,2-Dichloroethene	**1.0**	1.0	0.13	ug/L	1	"	"	"	"	
trans-1,2-Dichloroethene	<1.0	1.0	0.14	ug/L	1	"	"	"	"	
Trichloroethene	**3.2**	1.0	0.20	ug/L	1	"	"	"	"	
Vinyl chloride	<1.0	1.0	0.13	ug/L	1	"	"	"	"	
Surrogate: 4-Bromofluorobenzene	*112*			*80-120*	*%*	"	"	"	"	
Surrogate: Dibromofluoromethane	*117*			*80-120*	*%*	"	"	"	"	
Surrogate: Toluene-d8	*113*			*80-120*	*%*	"	"	"	"	
PW 18 (0504829-08) Groundwater Received:10/26/05 09:30 Sampled:10/25/05 20:35										
1,1-Dichloroethene	<1.0	1.0	0.14	ug/L	1	B5K0602	11/05/05	11/06/05	EPA 8260B	
cis-1,2-Dichloroethene	<1.0	1.0	0.13	ug/L	1	"	"	"	"	
trans-1,2-Dichloroethene	<1.0	1.0	0.14	ug/L	1	"	"	"	"	
Trichloroethene	**4.5**	1.0	0.20	ug/L	1	"	"	"	"	
Vinyl chloride	<1.0	1.0	0.13	ug/L	1	"	"	"	"	
Surrogate: 4-Bromofluorobenzene	*109*			*80-120*	*%*	"	"	"	"	
Surrogate: Dibromofluoromethane	*120*			*80-120*	*%*	"	"	"	"	
Surrogate: Toluene-d8	*114*			*80-120*	*%*	"	"	"	"	
M-1 (0504829-09) Groundwater Received:10/26/05 09:30 Sampled:10/25/05 00:00										
1,1-Dichloroethene	<1.0	1.0	0.14	ug/L	1	B5K0602	11/05/05	11/06/05	EPA 8260B	
cis-1,2-Dichloroethene	**1.1**	1.0	0.13	ug/L	1	"	"	"	"	
trans-1,2-Dichloroethene	<1.0	1.0	0.14	ug/L	1	"	"	"	"	
Trichloroethene	**3.1**	1.0	0.20	ug/L	1	"	"	"	"	
Vinyl chloride	<1.0	1.0	0.13	ug/L	1	"	"	"	"	
Surrogate: 4-Bromofluorobenzene	*109*			*80-120*	*%*	"	"	"	"	
Surrogate: Dibromofluoromethane	*118*			*80-120*	*%*	"	"	"	"	
Surrogate: Toluene-d8	*114*			*80-120*	*%*	"	"	"	"	

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Barr Engineering Co. 4700 W 77th St Minneapolis MN, 55435	Project: 23/66-006 Project Number: 23/66-006 DEP Project Manager: Ms. Marta Nelson	Date Reported: November 09, 2005

VOC GCMS 8260B
Legend Technical Services, Inc

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FB-1 (0504829-10) Groundwater Received:10/26/05 09:30 Sampled:10/25/05 00:00										
1,1-Dichloroethene	<1.0	1.0	0.14	ug/L	1	B5J3116	10/31/05	10/31/05	EPA 8260B	–
cis-1,2-Dichloroethene	<1.0	1.0	0.13	ug/L	1	"	"	"	"	
trans-1,2-Dichloroethene	<1.0	1.0	0.14	ug/L	1	"	"	"	"	
Trichloroethene	<1.0	1.0	0.20	ug/L	1	"	"	"	"	
Vinyl chloride	<1.0	1.0	0.13	ug/L	1	"	"	"	"	
Surrogate: 4-Bromofluorobenzene	*108*			*80-120*	*%*	"	"	"	"	
Surrogate: Dibromofluoromethane	*112*			*80-120*	*%*	"	"	"	"	
Surrogate: Toluene-d8	*108*			*80-120*	*%*	"	"	"	"	
Trip Blank (0504829-11) Groundwater Received:10/26/05 09:30 Sampled:10/11/05 00:00										H3b
1,1-Dichloroethene	<1.0	1.0	0.14	ug/L	1	B5K0602	11/05/05	11/06/05	EPA 8260B	
cis-1,2-Dichloroethene	<1.0	1.0	0.13	ug/L	1	"	"	"	"	
trans-1,2-Dichloroethene	<1.0	1.0	0.14	ug/L	1	"	"	"	"	
Trichloroethene	<1.0	1.0	0.20	ug/L	1	"	"	"	"	
Vinyl chloride	<1.0	1.0	0.13	ug/L	1	"	"	"	"	
Surrogate: 4-Bromofluorobenzene	*109*			*80-120*	*%*	"	"	"	"	
Surrogate: Dibromofluoromethane	*116*			*80-120*	*%*	"	"	"	"	
Surrogate: Toluene-d8	*113*			*80-120*	*%*	"	"	"	"	

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Barr Engineering Co. 4700 W 77th St Minneapolis MN, 55435	Project: 23/66-006 Project Number: 23/66-006 DEP Project Manager: Ms. Marta Nelson	Date Reported: November 09, 2005

VOC GCMS 8260B - Quality Control
Legend Technical Services, Inc

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	%RPD	%RPD Limit	Notes
Batch B5J3116 - Volatiles										
Blank (B5J3116-BLK1)				Prepared & Analyzed: 10/31/05						
1,1-Dichloroethene	<1.0	1.0	ug/L							
cis-1,2-Dichloroethene	<1.0	1.0	ug/L							
trans-1,2-Dichloroethene	<1.0	1.0	ug/L							
Trichloroethene	<1.0	1.0	ug/L							
Vinyl chloride	<1.0	1.0	ug/L							
Surrogate: 4-Bromofluorobenzene	*65.1*		*ug/L*	*61.0*		107	*80-120*			
Surrogate: Dibromofluoromethane	*66.4*		*ug/L*	*61.0*		109	*80-120*			
Surrogate: Toluene-d8	*65.9*		*ug/L*	*61.0*		108	*80-120*			
LCS (B5J3116-BS1)				Prepared & Analyzed: 10/31/05						
1,1-Dichloroethene	53.5	1.0	ug/L	50.0		107	80-125			
cis-1,2-Dichloroethene	51.2	1.0	ug/L	50.0		102	70-130			
trans-1,2-Dichloroethene	55.6	1.0	ug/L	50.0		111	70-130			
Trichloroethene	49.7	1.0	ug/L	50.0		99.4	75-125			
Vinyl chloride	45.7	1.0	ug/L	50.0		91.4	70-130			
Surrogate: 4-Bromofluorobenzene	*66.6*		*ug/L*	*61.0*		109	*80-120*			
Surrogate: Dibromofluoromethane	*66.4*		*ug/L*	*61.0*		109	*80-120*			
Surrogate: Toluene-d8	*65.9*		*ug/L*	*61.0*		108	*80-120*			
Matrix Spike (B5J3116-MS1)		**Source: 0504704-05**		Prepared & Analyzed: 10/31/05						
1,1-Dichloroethene	57.9	1.0	ug/L	50.0	<1.0	116	80-125			
cis-1,2-Dichloroethene	56.0	1.0	ug/L	50.0	<1.0	112	70-130			
trans-1,2-Dichloroethene	63.3	1.0	ug/L	50.0	<1.0	127	70-130			
Trichloroethene	51.4	1.0	ug/L	50.0	<1.0	103	80-120			
Vinyl chloride	49.3	1.0	ug/L	50.0	<1.0	98.6	70-130			
Surrogate: 4-Bromofluorobenzene	*63.5*		*ug/L*	*61.0*		104	*80-120*			
Surrogate: Dibromofluoromethane	*65.3*		*ug/L*	*61.0*		107	*80-120*			
Surrogate: Toluene-d8	*64.9*		*ug/L*	*61.0*		106	*80-120*			

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Barr Engineering Co. 4700 W 77th St Minneapolis MN, 55435	Project: 23/66-006 Project Number: 23/66-006 DEP Project Manager: Ms. Marta Nelson	Date Reported: November 09, 2005

VOC GCMS 8260B - Quality Control
Legend Technical Services, Inc

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	%RPD	%RPD Limit	Notes
Batch E5J3116 - Volatiles										
Matrix Spike Dup (B5J3116-MSD1)		**Source: 0504704-05**		Prepared & Analyzed: 10/31/05						
1,1-Dichloroethene	59.1	1.0	ug/L	50.0	<1.0	118	80-125	2.05	20	
cis-1,2-Dichloroethene	56.9	1.0	ug/L	50.0	<1.0	114	70-130	1.59	20	
trans-1,2-Dichloroethene	64.0	1.0	ug/L	50.0	<1.0	128	70-130	1.10	20	
Trichloroethene	51.8	1.0	ug/L	50.0	<1.0	104	80-120	0.775	20	
Vinyl chloride	48.7	1.0	ug/L	50.0	<1.0	97.4	70-130	1.22	20	
Surrogate: 4-Bromofluorobenzene	*65.7*		*ug/L*	*61.0*		108	*80-120*			
Surrogate: Dibromofluoromethane	*68.7*		*ug/L*	*61.0*		113	*80-120*			
Surrogate: Toluene-d8	*65.4*		*ug/L*	*61.0*		107	*80-120*			
Batch E5K0602 - Volatiles										
Blank (B5K0602-BLK1)				Prepared & Analyzed: 11/05/05						
1,1-Dichloroethene	<1.0	1.0	ug/L							
cis-1,2-Dichloroethene	<1.0	1.0	ug/L							
trans-1,2-Dichloroethene	<1.0	1.0	ug/L							
Trichloroethene	<1.0	1.0	ug/L							
Vinyl chloride	<1.0	1.0	ug/L							
Surrogate: 4-Bromofluorobenzene	*65.5*		*ug/L*	*61.0*		107	*80-120*			
Surrogate: Dibromofluoromethane	*70.8*		*ug/L*	*61.0*		116	*80-120*			
Surrogate: Toluene-d8	*67.2*		*ug/L*	*61.0*		110	*80-120*			
LCS (B5K0602-BS1)				Prepared: 11/05/05 Analyzed: 11/06/05						
1,1-Dichloroethene	57.3	1.0	ug/L	50.0		115	80-125			
cis-1,2-Dichloroethene	50.2	1.0	ug/L	50.0		100	70-130			
trans-1,2-Dichloroethene	54.6	1.0	ug/L	50.0		109	70-130			
Trichloroethene	53.0	1.0	ug/L	50.0		106	75-125			
Vinyl chloride	48.9	1.0	ug/L	50.0		97.8	70-130			
Surrogate: 4-Bromofluorobenzene	*63.9*		*ug/L*	*61.0*		105	*80-120*			

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Barr Engineering Co. 4700 W 77th St Minneapolis MN, 55435	Project: 23/66-006 Project Number: 23/66-006 DEP Project Manager: Ms. Marta Nelson	**Date Reported:** November 09, 2005

VOC GCMS 8260B - Quality Control
Legend Technical Services, Inc

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	%RPD	%RPD Limit	Notes
Batch B5K0602 - Volatiles										
LCS (B5K0602-BS1)				Prepared: 11/05/05	Analyzed: 11/06/05					
Surrogate: Dibromofluoromethane	*69.0*		*ug/L*	*61.0*		113	*80-120*			
Surrogate: Toluene-d8	*66.6*		*ug/L*	*61.0*		109	*80-120*			
Matrix Spike (B5K0602-MS1)		**Source: 0504994-01**		Prepared: 11/05/05	Analyzed 11/06/05					
1,1-Dichloroethene	55.7	1.0	ug/L	50.0	<1.0	111	80-125			
cis-1,2-Dichloroethene	49.7	1.0	ug/L	50.0	<1.0	99.4	70-130			
trans-1,2-Dichloroethene	52.2	1.0	ug/L	50.0	<1.0	104	70-130			
Trichloroethene	46.7	1.0	ug/L	50.0	<1.0	93.4	80-120			
Vinyl chloride	50.8	1.0	ug/L	50.0	<1.0	102	70-130			
Surrogate: 4-Bromofluorobenzene	*68.7*		*ug/L*	*61.0*		113	*80-120*			
Surrogate: Dibromofluoromethane	*71.1*		*ug/L*	*61.0*		117	*80-120*			
Surrogate: Toluene-d8	*68.7*		*ug/L*	*61.0*		113	*80-120*			
Matrix Spike Dup (B5K0602-MSD1)		**Source: 0504994-01**		Prepared: 11/05/05	Analyzed: 11/06/05					
1,1-Dichloroethene	57.2	1.0	ug/L	50.0	<1.0	114	80-125	2.66	20	
cis-1,2-Dichloroethene	50.5	1.0	ug/L	50.0	<1.0	101	70-130	1.60	20	
trans-1,2-Dichloroethene	54.1	1.0	ug/L	50.0	<1.0	108	70-130	3.57	20	
Trichloroethene	46.5	1.0	ug/L	50.0	<1.0	93.0	80-120	0.429	20	
Vinyl chloride	51.2	1.0	ug/L	50.0	<1.0	102	70-130	0.784	20	
Surrogate: 4-Bromofluorobenzene	*67.4*		*ug/L*	*61.0*		110	*80-120*			
Surrogate: Dibromofluoromethane	*71.7*		*ug/L*	*61.0*		118	*80-120*			
Surrogate: Toluene-d8	*69.0*		*ug/L*	*61.0*		113	*80-120*			

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Barr Engineering Co. 4700 W 77th St Minneapolis MN, 55435	Project: 23/66-006 Project Number: 23/66-006 DEP Project Manager: Ms. Marta Nelson	**Date Reported:** November 09, 2005

Notes and Definitions

H3b	The trip-blank sample was received and analyzed past holding time.
<	Less than value listed
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
NA	Not applicable. The %RPD is not calculated from values less than the reporting limit.

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#0504829

BARR

Chain of Custody

4700 West 77th Street
Minneapolis, MN 55435-4803
(952) 832-2600

Project Number: 23/66-006 DEP

№ 20414

Project Manager: JBD

Project Contact: MSH

Laboratory: Legend

Remarks/ Analysis Required: Table 1, Partial VOCs (4 compounds 8260)

	Sample Identification	Collection Date	Collection Time	Matrix: Water	Matrix: Soil	Type: Grab	Type: Comp.	Type: QC	Volatile Organic (Unpres.)	Volatile Organic (Pres.)	Semivolatile Organic	Total Metals (HNO_3)	Dissolved Metals (HNO_3)	General (Unpreserved)	Cyanide (NaOH, Asc. Acid)	Nutrients (H_2SO_4)	Oil and Grease (H_2SO_4)	TOC (H_2SO_4)	Sulfide (Zn Acetate)	Total Phenol (H_2SO_4)	Methane	Bacteria	DRO (HCL)			Total No. Of Containers
1	W14	10-25-05	1200	✓		✓				3																3
2	B8		1255	✓		✓				3																3
3	B12		1335	✓		✓				3																3
4	B5		1425	✓		✓				3																3
5	B4		1500	✓		✓				3																3
6	W13		1730	✓		✓				3																3
7	PW17		1915	✓		✓				3																3
8	PW18		2035	✓		✓				3																3
9	M-1			✓		✓		✓		3																3
10	FB-1			✓				✓		3																3
11	TB			✓				✓		1																1
12.																										
13.																										
14.																										
15.																										
16.																										
17.																										

Number of Containers/Preservative

Disposal ok
on ice 2-4°C

Sampled By:	Relinquished By:	Date:	Time:	Received by:	Date:	Time:
Kim Johannessen	Kim Johannessen	10-25-05		Victor Yatowler / Legend	10/26/05	9:30

Samples Shipped VIA: ☐ Air Freight ☐ Fed. Exp. ☒ Sampler ☐ Other

Air Bill Number:

Distribution: White-Original Accompanies Shipment to Lab; Yellow - Field Copy; Green - Lab Coordinator

H:RLG\STDFORMS\Chain Of Custody Form RLG Rev. 01/01/0

#0504829

Table 1
Monitoring Network Summary

	Tier 1	Tier 2			
Sample Locations	**2nd Qtr.**	**Year 1 Event 1**	**Year 1 Event 2**	**Year 2 Events 3 & 4**	**Year 3 Events 5 & 6**
B4	P VOCs/8260	VOCs/8260 Natural Attenuation Parameters	Detected and P VOCs/8260 Recommended Natural Attenuation Parameters	Detected and P VOCs/8260	Detected and P VOCs/8260
B8					
B12					
W13					
W14					
B15					
PW17					
PW18					
NPDES Permit Monitoring					
PW17	P VOCs/8260	NA	NA	NA	NA
PW18	P VOCs/8260	NA	NA	NA	NA
Outfall 20100 (Catch Basin)	Oil & Grease, TOC, pH P VOCs/8260	NA	NA	NA	NA
Outfall Crocker=s Creek	P VOCs/8260	NA	NA	NA	NA

P VOCs/8260 Partial Volatile Organic Compounds include: 1,1-dichloroethylene, 1,2-dichloroethylene, (cis/trans),1,1,2-trichloroethylene(TCE), vinyl chloride. Samples will be analyzed by Method 8260. Detection limit is 1 µg/L for all P VOC parameters.

NA - Not Applicable

651-642-1239