Environmental Resources Management

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30 October 2006

Mr. Michael Hinton, P.E.
New York State Department of Environmental Conservation
Division of Regulatory Affairs
270 Michigan Avenue
Buffalo, New York 14203-2999

RE: April and July Quarterly Ground Water Sampling
Greif Bros. Facility – Tonawanda, New York
NYSDEC VCP Number V00334-9
ERM Project Number 0019800

Dear Mr. Hinton:

Environmental Resources Management (ERM) collected ground water samples at the Greif Bros. Corporation Facility located at 2122 Colvin Boulevard in the Town of Tonawanda, Erie County, New York (the Site) as part of the New York State Department of Environmental Conservation (NYSDEC)-approved quarterly ground water monitoring program for the Site. ERM followed sampling protocol outlined in the Interim Remedial Measures (IRM) Work Plan previously approved by NYSDEC and the NYSDEC-approved modifications outlined in correspondence from ERM to NYSDEC dated 31 January 2006.

This report presents data and results for two quarterly ground water sampling events: the first quarterly event conducted on 17 and 18 April 2006 and the second quarterly event conducted on 10 and 11 July 2006. Subsequent quarterly ground water monitoring reports will be submitted after each event.

Ground water was collected from the following monitoring wells:

Shallow Ground Water Zone

- MW-12;
- MW-13;
- MW-14;
- MW-21-S;
- MW-24; and
- MW-25.

Intermediate Ground Water Zone

- MW-18;

- MW-21-I; and
- MW-22.

Shallow monitoring well MW-23 and intermediate monitoring well MW-20 were not sampled due to the presence of light, non-aqueous phase liquid (LNAPL) and dense non-aqueous phase liquid (DNAPL), respectively.

Each of the monitoring wells had a minimum of three well volumes of ground water purged from the well or were purged until the monitoring wells were dry. In situ ground water geochemical parameters were measured with a calibrated YSI Model 650 MDS meter in the field prior to purging and after each well volume were removed. Turbidity was measured in the field at the same frequency with a Lamotte Model 2020 E/I turbidity meter. Each of the monitoring wells were given time to recover to facilitate the collection of representative ground water samples. Samples were collected using dedicated polyethylene bailers. Ground water samples were collected and handled according to procedures outlined in the NYSDEC-approved Quality Assurance Project Plan (QAPP; ERM, 2000) and were transported under proper chain of custody to Severn Trent Laboratories located in Amherst, New York (STL-Buffalo). STL-Buffalo is a New York State Department of Health (NYSDOH)-approved environmental laboratory.

STL-Buffalo analyzed ground water samples for Site-specific volatile organic compounds (VOCs) of potential concern identified in Table 6-5 of the Data Gap Investigation (DGI) Report (ERM, 2003) by United States Environmental Protection Agency (USEPA) Method 8260. Ground water samples were also analyzed for the following parameters useful in the evaluation of natural attenuation processes:

- common degradation products not listed in USEPA Method 8260 (methane, ethane, and ethene);
- common electron acceptors (dissolved oxygen, ferric iron, sulfate, nitrate);
- common electron donors (ferrous iron, sulfide, ammonia);
- alkalinity (bicarbonate, carbonate, hydroxide);
- free carbon dioxide (nomographic determination);
- dissolved organic carbon;
- total dissolved solids; and
- hardness.

Dissolved oxygen (DO), oxidation reduction potential (ORP), conductivity, temperature, and pH were measured in the field with a calibrated YSI 650 MDS meter. Ferrous iron was measured in the field using a Hach Model IR-18C (1,10-phenanthrolene) iron reagent test kit method or was determined at the project laboratory by an approved laboratory method.

Estimated ground water flow direction, laboratory analytical results, and evaluation of natural attenuation processes are discussed below by ground water zone (i.e., shallow or intermediate) due to the existence of distinct hydrogeologic units at the Site as described in the Remedial Investigation Report (ERM, 2001).

SHALLOW GROUND WATER

April 2006 Sampling Event

Ground water level measurements and other data were obtained from existing monitoring wells, recovery wells, and vapor monitoring points. Field data and sampling information for the April 2006 sampling event were recorded on ERM ground water sampling records (Attachment A). Table 1 (Attachment B) presents shallow ground water elevation data. Figure 1 (Attachment C) presents a shallow ground water contour map for the April 2006 sampling event. The estimated ground water flow direction at the Site during the referenced sampling event was generally towards the north. However, a cone of depression is evident in the Varnish Pit Area due to ongoing DNAPL Recovery IRM operations. Shallow ground water contours around the Varnish Pit demonstrate the operation of the DNAPL recovery system is establishing a significant hydraulic influence in the vicinity of the Varnish Pit.

A copy of the laboratory analytical report for the April 2006 ground water sampling event is presented in Attachment D. Laboratory analytical results for the April 2006 sampling event are summarized in Table 2 (Attachment B). Review of Table 2 indicates that a total of fifteen VOCs were detected in shallow ground water at the Site. Of these, 10 VOCs were detected at non-estimated concentration above ambient ground water quality standards or guidance values (NYSDEC, 1998). These results are generally consistent with previous ground water sampling events. Specific VOCs detected at non-estimated concentrations above applicable standards or guidance values include:

- benzene;
- 1,1- dichloroethane (DCA);

- 1,1- dichloroethene (DCE);
- cis-1,2-DCE;
- trans-1,2-DCE;
- tetrachloroethene (PCE);
- toluene;
- 1,1,1-trichloroethane (TCA);
- trichloroethene (TCE); and
- vinyl chloride.

DNAPL was observed in the following shallow wells during the April 2006 quarterly sampling event:

- RW-1;
- RW-2; and
- RW-4;

LNAPL was observed in the following shallow well during the April 2006 quarterly sampling event:

- MW-23.

July 2006 Sampling Event

Shallow ground water level measurements were obtained from existing monitoring wells, recovery wells, and vapor monitoring points. Field data and sampling information from the July 2006 sampling event were recorded on ERM ground water sampling records (Attachment E). Table 1 (Attachment B) presents shallow ground water elevation data. Figure 2 (Attachment C) presents a shallow ground water contour map for the July 2006 sampling event. The estimated ground water flow direction at the Site during the referenced sampling event was generally towards the north. However, a cone of depression is evident in the Varnish Pit Area due to ongoing DNAPL Recovery IRM operations. Shallow ground water contours around the Varnish Pit demonstrate the operation of the DNAPL recovery system is establishing a significant hydraulic influence in the vicinity of the Varnish Pit.

A copy of the laboratory analytical report for the July 2006 sampling event is presented in Attachment F. Laboratory analytical results for the July 2006 sampling event are summarized in Table 3 (Attachment B). Review of Table 3 indicates that a total of 14 VOCs were detected in shallow ground water at the Site. Of these, eight VOCs were detected at non-estimated

concentration above ambient ground water quality standards or guidance values (NYSDEC, 1998). These results are generally consistent with previous ground water sampling events. Specific VOCs detected at non-estimated concentrations above applicable standards or guidance values include:

- benzene;
- 1,1- DCA;
- 1,1- DCE;
- cis-1,2-DCE;
- trans-1,2-DCE;
- 1,1,1-TCA;
- TCE; and
- vinyl chloride.

DNAPL was observed in the following shallow wells during the July 2006 quarterly sampling event:

- RW-1;
- RW-2;
- RW-4; and
- VMP-2.

LNAPL was observed in shallow monitoring well MW-23 during the July 2006 quarterly sampling event.

INTERMEDIATE GROUND WATER

April 2006 Sampling Event

Intermediate ground water level measurements were obtained from existing monitoring wells. Intermediate ground water elevation data are presented in Table 1 (Attachment B). Figure 3 (Attachment C) presents an intermediate ground water contour map for the April 2006 sampling event. Review of ground water level data indicates that the estimated lateral direction of intermediate ground water flow during the April 2006 ground water sampling event is generally towards north-northeast. This flow direction is generally consistent with previous sampling events.

A copy of the laboratory analytical report for the April 2006 ground water sampling event is presented in Attachment D. Laboratory analytical results for the April 2006 sampling event are summarized in Table 2

(Attachment B). Review of Table 2 indicates that a total of nine VOCs were detected in intermediate ground water at the Site during the April 2006 sampling event. Of these, six VOCs were detected at concentrations above ambient ground water quality standards and guidance values (NYSDEC, 1998). These results are generally consistent with previous ground water sampling events. Specific VOCs detected at non-estimated concentrations above applicable standards or guidance values include:

- 1,1-DCA;
- 1,1-DCE;
- cis-1,2-DCE;
- 1,1,1-TCA;
- TCE; and
- vinyl chloride.

DNAPL was observed in intermediate recovery well MW-20 during the April 2006 quarterly sampling event. LNAPL was not observed in any intermediate wells.

July 2006 Sampling Event

Intermediate ground water level measurements were obtained from existing monitoring wells and an intermediate recovery well (MW-20). Intermediate ground water elevation data are presented in Table 3 (Attachment B). Figure 4 (Attachment C) presents an intermediate ground water contour map for the July 2006 sampling event. Review of ground water level data indicates that the estimated lateral direction of intermediate ground water flow during the July 2006 ground water sampling event is generally towards the north-northeast. This flow direction is generally consistent with previous sampling events. An area of pumping influence is evident around recovery well MW-20 due to the initiation of a pumping on MW-20 as part of the on going DNAPL Recovery IRM effort.

A copy of the laboratory analytical report for the July 2006 sampling event is presented in Attachment F. Laboratory analytical results for the July 2006 sampling event are summarized in Table 3 (Attachment B). Review of Table 3 indicates that a total of 11 VOCs were detected in intermediate ground water at the Site during the July 2006 sampling event. Of these, six VOCs were detected at concentrations above ambient ground water quality standards and guidance values (NYSDEC, 1998). These results are generally consistent with previous ground water sampling events. Specific

VOCs detected at non-estimated concentrations above applicable standards or guidance values include:

- 1,1-DCA;
- 1,1-DCE;
- cis-1,2-DCE;
- 1,1,1-TCA;
- TCE; and
- vinyl chloride.

DNAPL was observed in intermediate recovery well MW-20 during the July 2006 quarterly sampling event. LNAPL was not observed in any intermediate wells.

EVALUATION OF NATURAL ATTENUATION DATA

Field and laboratory analytical data relevant to the evaluation of natural attenuation processes in Site ground water for the April 2006 and July 2006 sampling events are summarized in Table 4 and Table 5, respectively (Attachment B). Ground water sampling results from both the April 2006 and July 2006 sampling events show evidence of continued natural attenuation of the chlorinated VOCs through reductive dechlorination. At MW-18 in the intermediate zone, cis-1,2-DCE and 1,1-DCA, which are the initial daughter products of the reductive dechlorination of TCE and 1,1,1-TCA, respectively, are the primary VOCs. Vinyl chloride and chloroethane, the final chlorinated products of TCE and 1,1,1-TCA, are also present at MW-18. Additionally, 1,1-DCE, the abiotic degradation product of 1,1,1-TCA, is also present at MW-18. Similar patterns are observed in the shallow zone with cis-1,2-DCE and 1,1-DCA, which are the major VOCs present in MW-12, MW-24 and MW-25. Significant amounts of these compounds are also present in MW-13 and MW-14 relative to the parent compounds TCE and 1,1,1-TCA.

These geochemical data indicate reducing conditions conducive to reductive dechlorination are generally present in ground water in both the shallow and intermediate zones. In April, ORP values ranged between 55 and -70 mV in the shallow zone and -116 and -166 mV in the intermediate zone. ORP values were slightly higher in July and ranged between 193 and -26 mV in the shallow zone and -70 and -147mV in the intermediate zone. DO concentrations are higher than would be expected based on the ORP values and ranged between 2.01 and 4.33 mg/L in April and 4.44 and 6.72 mg/L in July. These DO results are anomalous and may be suggestive of

potential calibration errors with the field meter. The other major electron acceptor, sulfate, continues to range from approximately 68 and 1390 mg/L in the shallow zone and 112 and 517 mg/L in the intermediate zone, with little change from the previous sampling event (with the exception of MW-25). In July 2006, the sulfate concentration at MW-25 exhibited a significant decrease in concentration (approximately 25-fold) as compared to the two previous events. This result appears to be anomalous. Low concentrations of ferrous iron, the product of the use of ferric ion as an electron acceptor, continue to be detected intermittently in the shallow ground water zone and also at intermediate well MW-22.

The next quarterly sampling event occurred in mid-October 2006. ERM will submit an updated quarterly ground water monitoring report to NYSDEC after laboratory analytical data are received and reviewed.

Thank you for your assistance. Please contact the undersigned at 315-445-2554 if you have any questions or comments regarding this report.

Sincerely,

FOR

Robert Sents
Project Geologist

Jon S. Fox, P.G.
Senior Project Manager

Attachment A - April 2006 Ground Water Sampling Records
Attachment B – Tables
Attachment C – Figures
Attachment D – April 2006 Laboratory Analytical Report
Attachment E – July 2006 Ground Water Sampling Records
Attachment F – July 2006 Laboratory Analytical Report

Cc: Mr. Matt Forcucci (NYSDOH)
Mr. Pete Gruene (Palmetto Env. Mgmt. Solutions)
Mr. Edward Hinchey, P.G. (ERM)
Mr. Robert Powell, C.S.P., A.R.M. (Sonoco Products Co.)
Mr. Joseph Ryan, Esq. (NYSDEC)
Mr. Gregory Sutton, P.E. (NYSDEC)
Mr. A. Joseph White (NYSDEC)
Mr. Patrick Wolfe (Greif Bros. Corp. - two copies)

REFERENCES CITED

ERM, 2000. Quality Assurance Project Plan - Appendix C of Work Plan for Remedial Investigation, 2122 Colvin Boulevard, Tonawanda, New York. ERM Project Number D6713.00.01, June 2000.

ERM, 2001. Voluntary Remedial Investigation Report, Greif Bros. Site, 2122 Colvin Boulevard, Town of Tonawanda, Erie County, New York. ERM Project Number D6714.00, 28 November 2001.

ERM, 2003. Data Gap Investigation Report, Greif Bros. Site, 2122 Colvin Boulevard, Town of Tonawanda, Erie County, New York. ERM Project Number 001242, December 2003.

NYSDEC, 1998. Ambient Water Quality Standards, Guidance Values, and Ground Water Effluent Limitations. NYSDEC Division of Water Technical and Operations Guidance Series Memorandum Number 1.1.1, June 1998 (latest amendment April 2000).

ATTACHMENT A
APRIL 2006 GROUND WATER SAMPLING RECORDS

GROUND WATER SAMPLING RECORD

SITE Greif Bros. Facility- Tonawanda, New York DATE 17-18 April 06

PROJECT NUMBER: 0019800

SAMPLE ID : Greif- MW-17 (04/06)

WELL ID :

SAMPLERS R. Sents, C. Wunderlich, M. Otz

	Time Onsite:	Time Offsite:

Depth of well (from top of casing) ..... 15.96 Time: ____

Static water level (from top of casing) ..... 6.66 Time: ____

Water level after purging (from top of casing) ..... 10. Time: ____

Water level before sampling (from top of casing) ..... 10.95 Time: ____

Purging Method:

____ Airlift ____ Low-Flow Pump

X Bailer ____ Peristaltic Pump

____ Submersible ____ Ded. Pump

Well Volume Calculation:

		1 volume	3 volumes
2 in. well:	9.3 ft. of water x 0.16 =	1.5 gal.	x 3 = 4.6 gal.
3 in. well:	____ ft. of water x 0.36 =	____ gal.	x 3 = ____ gal.
4 in. well:	____ ft. of water x 0.65 =	____ gal.	x 3 = ____ gal.
6 in. well:	____ ft. of water x 1.47 =	____ gal.	x 3 = ____ gal.

Volume of water removed: 5 gal. >3 volumes: yes X no ____ purged dry? yes ____ no X

Field Tests:

	pH	Cond.	Turb.	DO	Temp.	DEP	SAL	TDS	ORP
units	-	mg/cm	NTU	g/L	C F	-	-	g/L	mV
Initial	6.50	1.83	6.6	4.22	18.90	0.5	0.1	1.2	111
1 Volume	6.67	1.87	253.0	3.65	18.48	0.9	0.1	1.2	103
2 Volumes	6.76	1.88	301.0	3.46	18.12	0.6	0.1	1.2	87
3 Volumes	7.98	1.86	249.0	3.11	17.80	0.7	0.1	1.2	-53

Sampling

Time of Sample Collection: 15:50 on 4/18/06

Collection Method:

X Disposable bailer

____ Teflon bailer

____ Dedicated pump

____ Submersible Pump

____ Low-Flow Sampling

____ Other: ____

Analyses:

X VOCs -

____ SVOCs

____ Metals

____ PCB/Pest

____ MNA

X Other

Analytical Method:

8260 ____ 503.1 ____ Other ____

Ethene, Ethane, DOC, Sulfate, Sulfide, Nitrate, Alkalinity, TOS, Hardness, BFA

Observations

Weather/Temperature: 65°F, clear, breezy

Sample Description: clear, no odor

Free Product? yes ____ no X describe ____

Sheen? yes ____ no X describe ____

Odor? yes ____ no X describe ____

Comments:

Ferrous Iron: 0.0 mg/l Duplicate collected

GROUND WATER SAMPLING RECORD

SITE Greif Bros. Facility- Tonawanda, New York DATE 17-18 April 06
PROJECT NUMBER:
SAMPLE ID : Greif- MW-13 (04/06)
WELL ID : MW-13 Time Onsite: Time Offsite:
SAMPLERS R. Sents, C. Wunderlich, M. Otz

Depth of well (from top of casing) ..... 16.38 Time:
Static water level (from top of casing) ..... 5.41 Time:
Water level after purging (from top of casing) ..... Time:
Water level before sampling (from top of casing) ..... 10.15 Time:

Purging Method:

___ Airlift ___ Low-Flow Pump
X Bailer ___ Peristaltic Pump
___ Submersible ___ Ded. Pump

Well Volume Calculation:

		1 volume	3 volumes
2 in. well:	10.97 ft. of water x 0.16 =	1.76 gal.	x 3 = 5.27 gal.
3 in. well:	___ ft. of water x 0.36 =	___ gal.	x 3 = ___ gal.
4 in. well:	___ ft. of water x 0.65 =	___ gal.	x 3 = ___ gal.
6 in. well:	___ ft. of water x 1.47 =	___ gal.	x 3 = ___ gal.

Volume of water removed: 6 gal. >3 volumes: yes X no ___ purged dry? yes ___ no X

Field Tests:

	pH	Cond.	Turb.	DO	Temp.	DEP	SAL	TDS	ORP
units	-	mg/cm	NTU	g/L	C F	-	-	g/L	mV
Initial	7.29	3.10	53.8	1.60	17.57	0.9	0.2	2.0	-46
1 Volume	7.37	3.21	149.0	3.64	17.54	0.7	0.2	2.1	-54
2 Volumes	7.58	3.23	244.0	2.81	17.43	0.8	0.2	2.1	-65
3 Volumes	7.55	3.15	346.0	2.16	17.26	0.2	0.2	2.0	-62

Sampling

Time of Sample Collection: 16:15

Collection Method:		Analyses:		Analytical Method:
X	Disposable bailer	X	VOCs -	8260 ___ 503.1 ___ Other ___
___	Teflon bailer	___	SVOCs	
___	Dedicated pump	___	Metals	
___	Submersible Pump	___	PCB/Pest	
___	Low-Flow Sampling	___	MNA	
___	Other: ___	X	Other	Ethene, Ethane, DOC, Sulfate, Sulfide, Nitrate, Alkalinity, TDS, Hardness, BFA

Observations

Weather/Temperature: 65°F, clear, breezy
Sample Description: clear, no odor
Free Product? yes ___ no X describe
Sheen? yes ___ no X describe
Odor? yes ___ no X describe

Comments:
Ferrous Iron: 0.0 mg/l

GROUND WATER SAMPLING RECORD

SITE Greif Bros. Facility- Tonawanda, New York DATE 17-18 April 06

PROJECT NUMBER: 0019800

SAMPLE ID : Greif- MW-14 (04/06)

WELL ID : MW-14 Time Onsite: Time Offsite:

SAMPLERS R. Sents, C. Wunderlich, M. Otz

Depth of well (from top of casing) ..... 16.63 Time:

Static water level (from top of casing) ..... 10.06 Time:

Water level after purging (from top of casing) ..... Time:

Water level before sampling (from top of casing) ..... ~~14.85~~ (RS) 13.72 Time:

Purging Method:

___	Airlift	___	Low-Flow Pump
X	Bailer	___	Peristaltic Pump
___	Submersible	___	Ded. Pump

Well Volume Calculation:

			1 volume	3 volumes
2 in. well:	6.57 ft. of water x 0.16 =	1.05 gal.	x 3 = 3.15 gal.
3 in. well:	___ ft. of water x 0.36 =	___ gal.	x 3 = ___ gal.
4 in. well:	___ ft. of water x 0.65 =	___ gal.	x 3 = ___ gal.
6 in. well:	___ ft. of water x 1.47 =	___ gal.	x 3 = ___ gal.

Volume of water removed: 3.5 gal. >3 volumes: yes X no ___ purged dry? yes ___ no X

Field Tests:

	pH	Cond.	Turb.	DO	Temp.		DEP	SAL	TDS	ORP
units	-	mg/cm	NTU	g/L	C	F	-	-	g/L	mV
Initial	7.12	0.926	20.9	2.15	18.58		0.6	0.0	0.59	27
1 Volume	7.27	0.939	210.0	3.45	18.58		0.4	0.0	0.60	20
2 Volumes	7.97	0.929	378.0	2.07	18.49		0.6	0.0	0.59	-59
3 Volumes	7.97	0.925	509.0	2.03	18.44		0.7	0.0	0.59	-70

Sampling

Time of Sample Collection: 15:30 on 4/18/06

Collection Method:		Analyses:		Analytical Method:
X	Disposable bailer	X	VOCs -	8260 ___ 503.1 ___ Other ___
___	Teflon bailer	___	SVOCs	
___	Dedicated pump	___	Metals	
___	Submersible Pump	___	PCB/Pest	
___	Low-Flow Sampling	___	MNA	
___	Other: ___	X	Other	Ethene, Ethane, DOC, Sulfate, Sulfide, Nitrate, Alkalinity, TOS, Hardness, BFA

Observations

Weather/Temperature: 65°F, clear, breezy

Sample Description: clear, no odor

Free Product? yes ___ no X describe ___

Sheen? yes ___ no X describe ___

Odor? yes ___ no X describe ___

Comments:

Ferrous Iron: 0.0 mg/l

GROUND WATER SAMPLING RECORD

SITE: Greif Bros. Facility- Tonawanda, New York DATE: 17-18 April 06

PROJECT NUMBER: 0019800

SAMPLE ID: Greif- MW-18 (04/06)

WELL ID:

SAMPLERS: R. Sents, C. Wunderlich, M. Otz

	Time Onsite:	Time Offsite:

Depth of well (from top of casing) ..... 28.35 Time:

Static water level (from top of casing) ..... 8.68 Time:

Water level after purging (from top of casing) ..... Time:

Water level before sampling (from top of casing) ..... 8.72 Time:

Purging Method:

	Airlift		Low-Flow Pump
X	Bailer		Peristaltic Pump
	Submersible		Ded. Pump

Well Volume Calculation:

		1 volume	3 volumes
2 in. well:	19.67 ft. of water x 0.16 =	3.1 gal.	x 3 = 9.3 gal.
3 in. well:	ft. of water x 0.36 =	gal.	x 3 = gal.
4 in. well:	ft. of water x 0.65 =	gal.	x 3 = gal.
6 in. well:	ft. of water x 1.47 =	gal.	x 3 = gal.

Volume of water removed: 7.0 gal. >3 volumes: yes ___ no X purged dry? yes X no ___

Field Tests:

	pH	Cond.	Turb.	DO	Temp.	DEP	SAL	TDS	ORP
units	-	mg/cm	NTU	g/L	C F	-	-	g/L	mV
Initial	10.30	2.67	589	6.01	15.30	0.7	0.1	1.7	-99
1 Volume	8.20	1.84	252.6	3.47	15.19	0.5	0.1	1.2	-18
2 Volumes	9.25	1.88	+999.0	3.01	15.06	0.8	0.1	1.2	-116
3 Volumes				Dry					

Sampling

Time of Sample Collection: 08:20 on 4/18/06

Collection Method:		Analyses:		Analytical Method:
X	Disposable bailer	X	VOCs -	8260 ___ 503.1 ___ Other ___
___	Teflon bailer	___	SVOCs	
___	Dedicated pump	___	Metals	
___	Submersible Pump	___	PCB/Pest	
___	Low-Flow Sampling	___	MNA	
___	Other:	X	Other	Ethene, Ethane, DOC, Sulfate, Sulfide, Nitrate, Alkalinity, TOS, Hardness, BFA

Observations

Weather/Temperature: 53°f, clear, calm

Sample Description: Slightly cloudy (wht)

Free Product? yes ___ no X describe

Sheen? yes ___ no X describe

Odor? yes ___ no X describe

Comments:

Ferrous Iron: 0.0 mg/l MS/MSD collected

GROUND WATER SAMPLING RECORD

SITE Greif Bros. Facility- Tonawanda, New York DATE 17-18 April 06

PROJECT NUMBER: 0019800

SAMPLE ID : Greif-MW-21S (04/06)

WELL ID : MW-21S Time Onsite: Time Offsite:

SAMPLERS R. Sents, C. Wunderlich, M. Otz

Depth of well (from top of casing) ..... 16.38 Time:

Static water level (from top of casing) ..... 13.40 Time:

Water level after purging (from top of casing) ..... Time:

Water level before sampling (from top of casing) ..... 14.70 Time:

Purging Method:

	Airlift		Low-Flow Pump
X	Bailer		Peristaltic Pump
	Submersible		Ded. Pump

Well Volume Calculation:

		1 volume	3 volumes
2 in. well:	2.98 ft. of water x 0.16 =	0.48 gal.	x 3 = 1.43 gal.
3 in. well:	____ ft. of water x 0.36 =	____ gal.	x 3 = ____ gal.
4 in. well:	____ ft. of water x 0.65 =	____ gal.	x 3 = ____ gal.
6 in. well:	____ ft. of water x 1.47 =	____ gal.	x 3 = ____ gal.

Volume of water removed: 1.1 gal. >3 volumes: yes ___ no X purged dry? yes X no ___

Field Tests:

	pH	Cond.	Turb.	DO	Temp.	DEP	SAL	TDS	ORP
units	-	mg/cm	NTU	g/L	C F	-	-	g/L	mV
Initial	6.99	0.684	46.7	5.77	18.61	0.5	0.0	0.44	77
1 Volume	7.03	0.677	188.0	3.85	18.73	0.4	0.0	0.43	71
2 Volumes	7.16	0.671	317.0	3.21	18.73	0.1	0.0	0.43	55
3 Volumes				Dry					

Sampling

Time of Sample Collection: 14:20 on 4/18/06

Collection Method:		Analyses:		Analytical Method:
X	Disposable bailer	X	VOCs -	8260 ____ 503.1 ____ Other ____
____	Teflon bailer	____	SVOCs	
____	Dedicated pump	____	Metals	
____	Submersible Pump	____	PCB/Pest	
____	Low-Flow Sampling	____	MNA	
____	Other: ____	X	Other	Ethene, Ethane, DOC, Sulfate, Sulfide, Nitrate, Alkalinity, TDS, Hardness, BFA

Observations

Weather/Temperature: 65°F, clear, breezy

Sample Description: clear, no odor

Free Product? yes ___ no X describe

Sheen? yes ___ no X describe

Odor? yes ___ no X describe

Comments:

Ferrous Iron: 0.0 mg/l

GROUND WATER SAMPLING RECORD

SITE Greif Bros. Facility- Tonawanda, New York DATE 17-18 April 06

PROJECT NUMBER: 0019800

SAMPLE ID : Greif- MW-21I (04/06)

WELL ID : MW-21I Time Onsite: Time Offsite:

SAMPLERS R. Sents, C. Wunderlich, M. Otz

Depth of well (from top of casing) ..... 35.54 Time:

Static water level (from top of casing) ..... 13.16 Time:

Water level after purging (from top of casing) ..... Time:

Water level before sampling (from top of casing) ..... ~~14.70~~ (RS) 13.26 Time:

Purging Method:

____ Airlift ____ Low-Flow Pump

X Bailer ____ Peristaltic Pump

____ Submersible ____ Ded. Pump

Well Volume Calculation:

		1 volume	3 volumes
2 in. well:	21.98 ft. of water x 0.16 =	3.51 gal.	x 3 = 10.6 gal.
3 in. well:	____ ft. of water x 0.36 =	____ gal.	x 3 = ____ gal.
4 in. well:	____ ft. of water x 0.65 =	____ gal.	x 3 = ____ gal.
6 in. well:	____ ft. of water x 1.47 =	____ gal.	x 3 = ____ gal.

Volume of water removed: 8 gal. >3 volumes: yes ___ no X purged dry? yes X no ____

Field Tests:

	pH	Cond.	Turb.	DO	Temp. C F	DEP	SAL	TDS	ORP
units	-	mg/cm	NTU	g/L		-	-	g/L	mV
Initial	7.24	0.684	10.0	3.90	18.75	0.6	0.0	0.44	54
1 Volume	7.44	0.673	+999.0	3.37	18.13	0.5	0.0	0.43	36
2 Volumes	8.68	0.706	+999.0	4.68	17.75	0.6	0.0	0.45	-113
3 Volumes				Dry					

Sampling

Time of Sample Collection: 1440 on 4/18/06

Collection Method:		Analyses:		Analytical Method:
X	Disposable bailer	X	VOCs -	8260 ____ 503.1 ____ Other ____
____	Teflon bailer	____	SVOCs	
____	Dedicated pump	____	Metals	
____	Submersible Pump	____	PCB/Pest	
____	Low-Flow Sampling	____	MNA	
____	Other: ____	X	Other	Ethene, Ethane, DOC, Sulfate, Sulfide, Nitrate, Alkalinity, TDS, Hardness, BFA

Observations

Weather/Temperature: 65°F, clear, breezy

Sample Description: clear, no odor

Free Product? yes ___ no X describe

Sheen? yes ___ no X describe

Odor? yes ___ no X describe

Comments:

Ferrous Iron: 0.0 mg/l

GROUND WATER SAMPLING RECORD

SITE Greif Bros. Facility- Tonawanda, New York DATE 17-18 April 06

PROJECT NUMBER: 0019800

SAMPLE ID : Greif- MW-22 (04/06)

WELL ID : MW-22 Time Onsite: Time Offsite:

SAMPLERS R. Sents, C. Wunderlich, M. Otz

Depth of well (from top of casing) ..... 33.81 Time:

Static water level (from top of casing) ..... 14.17 Time:

Water level after purging (from top of casing) ..... Time:

Water level before sampling (from top of casing) ..... 14.83 Time:

Purging Method:

	Airlift		Low-Flow Pump
X	Bailer		Peristaltic Pump
	Submersible		Ded. Pump

Well Volume Calculation:

			1 volume		3 volumes
2 in. well:	19.66	ft. of water x 0.16 =	3.14	gal.	x 3 = 9.43 gal.
3 in. well:		ft. of water x 0.36 =		gal.	x 3 = gal.
4 in. well:		ft. of water x 0.65 =		gal.	x 3 = gal.
6 in. well:		ft. of water x 1.47 =		gal.	x 3 = gal.

Volume of water removed: 10 gal. >3 volumes: yes X no ___ purged dry? yes ___ no X

Field Tests:

	pH	Cond.	Turb.	DO	Temp.		DEP	SAL	TDS	ORP
units	-	mg/cm	NTU	g/L	C	F	-	-	g/L	mV
Initial	7.31	1.77	16.4	4.33		17.52	0.5	0.1	1.1	26
1 Volume	8.60	1.80	679.0	2.73		16.41	0.7	0.1	1.2	-125
2 Volumes	8.32	1.69	677	2.14		16.27	0.6	0.1	1.1	-113
3 Volumes	8.32	1.67	403.0	2.01		16.25	0.8	0.1	1.1	-116

Sampling

Time of Sample Collection: 15:10 on 4/18/06

Collection Method:

X	Disposable bailer
	Teflon bailer
	Dedicated pump
	Submersible Pump
	Low-Flow Sampling
	Other:

Analyses:

X	VOCs -
	SVOCs
	Metals
	PCB/Pest
	MNA
X	Other

Analytical Method: 8260 ___ 503.1 ___ Other ___

Ethene, Ethane, DOC, Sulfate, Sulfide, Nitrate, Alkalinity, TDS, Hardness, BFA

Observations

Weather/Temperature: 65°F, clear, windy

Sample Description: clear, no odor

Free Product? yes ___ no X describe ___

Sheen? yes ___ no X describe ___

Odor? yes ___ no X describe ___

Comments:

Ferrous Iron: 1.0 mg/l

GROUND WATER SAMPLING RECORD

SITE: Greif Bros. Facility- Tonawanda, New York DATE: 17-18 April 06

PROJECT NUMBER: 0019800

SAMPLE ID: Greif- MW-24 (04/06)

WELL ID: Time Onsite: Time Offsite:

SAMPLERS: R. Sents, C. Wunderlich, M. Otz

Depth of well (from top of casing)	14.4	Time:
Static water level (from top of casing)	2.72	Time:
Water level after purging (from top of casing)	2.84	Time:
Water level before sampling (from top of casing)	2.85	Time:

Purging Method:

- ___ Airlift
- ___ Low-Flow Pump
- X Bailer
- ___ Peristaltic Pump
- ___ Submersible
- ___ Ded. Pump

Well Volume Calculation:

		1 volume	3 volumes
2 in. well:	11.68 ft. of water x 0.16 =	1.9 gal.	x 3 = 5.6 gal.
3 in. well:	___ ft. of water x 0.36 =	___ gal.	x 3 = ___ gal.
4 in. well:	___ ft. of water x 0.65 =	___ gal.	x 3 = ___ gal.
6 in. well:	___ ft. of water x 1.47 =	___ gal.	x 3 = ___ gal.

Volume of water removed: 6 gal. >3 volumes: yes X no ___ purged dry? yes ___ no X

Field Tests:

	pH	Cond.	Turb.	DO	Temp.	DEP	SAL	TDS	ORP
units	-	mg/cm	NTU	g/L	C F	-	-	g/L	mV
Initial	8.96	1.63	78.3	11.29	10.77	-0.1	0.1	1.0	-28
1 Volume	7.76	0.000	580.0	9.17	11.14	-0.1	0.0	1.0	52
2 Volumes	7.51	3.98	397.0	5.52	9.86	0.4	0.2	2.5	-5
3 Volumes	7.36	3.83	158	4.69	9.93	0.2	0.2	2.4	-1

Sampling

Time of Sample Collection: 09:50 on 4/18/06

Collection Method:

- X Disposable bailer
- ___ Teflon bailer
- ___ Dedicated pump
- ___ Submersible Pump
- ___ Low-Flow Sampling
- ___ Other: ___

Analyses:

- X VOCs -
- ___ SVOCs
- ___ Metals
- ___ PCB/Pest
- ___ MNA
- X Other

Analytical Method: 8260 ___ 503.1 ___ Other ___

Ethene, Ethane, DOC, Sulfate, Sulfide, Nitrate, Alkalinity, TOS, Hardness, BFA

Observations

Weather/Temperature: 55°F, clear, breezy

Sample Description: slightly silty, no odor

Free Product? yes ___ no X describe ___

Sheen? yes ___ no X describe ___

Odor? yes ___ no X describe ___

Comments:

Ferrous Iron: 0.6 mg/l

GROUND WATER SAMPLING RECORD

SITE Greif Bros. Facility- Tonawanda, New York DATE 17-18 April 06

PROJECT NUMBER: 0019800

SAMPLE ID : Greif- MW-25 (04/06)

WELL ID : Time Onsite: Time Offsite:

SAMPLERS R. Sents, C. Wunderlich, M. Otz

Depth of well (from top of casing) ..... 14.55 Time:

Static water level (from top of casing) ..... 4.42 Time:

Water level after purging (from top of casing) ..... Time:

Water level before sampling (from top of casing) ..... 4.43 Time:

Purging Method:

___	Airlift	___	Low-Flow Pump
X	Bailer	___	Peristaltic Pump
___	Submersible	___	Ded. Pump

Well Volume Calculation:

			1 volume		3 volumes
2 in. well:	10.13	ft. of water x 0.16 =	1.62 gal.	x 3 =	4.9 gal.
3 in. well:	___	ft. of water x 0.36 =	___ gal.	x 3 =	___ gal.
4 in. well:	___	ft. of water x 0.65 =	___ gal.	x 3 =	___ gal.
6 in. well:	___	ft. of water x 1.47 =	___ gal.	x 3 =	___ gal.

Volume of water removed: 6 gal. >3 volumes: yes X no ___ purged dry? yes ___ no X

Field Tests:

	pH	Cond.	Turb.	DO	Temp.	DEP	SAL	TDS	ORP
units	-	mg/cm	NTU	g/L	C F	-	-	g/L	mV
Initial	6.82	3.85	50.9	4.56	9.36	0.0	0.2	2.5	45
1 Volume	6.54	4.07	+999.0	3.00	9.27	0.0	0.2	2.6	71
2 Volumes	6.55	3.93	786.0	2.29	9.31	-0.1	0.2	2.5	70
3 Volumes	6.49	3.91	780.0	2.29	9.21	0.1	0.2	2.5	76

Sampling

Time of Sample Collection: 10:20 on 4/18/06

Collection Method:		Analyses:		Analytical Method:
X	Disposable bailer	X	VOCs -	8260 ___ 503.1 ___ Other ___
___	Teflon bailer	___	SVOCs	
___	Dedicated pump	___	Metals	
___	Submersible Pump	___	PCB/Pest	
___	Low-Flow Sampling	___	MNA	
___	Other: ___	X	Other	Ethene, Ethane, DOC, Sulfate, Sulfide, Nitrate, Alkalinity, TDS, Hardness, BFA

Observations

Weather/Temperature: clear, 60°F, breezy

Sample Description: slightly silty, no odor

Free Product? yes ___ no X describe

Sheen? yes ___ no X describe

Odor? yes ___ no X describe

Comments:

Ferrous Iron: 0.0 mg/l

ATTACHMENT B
TABLES

TABLE 1
SUMMARY OF GROUND WATER ELEVATION DATA
QUARTERLY GROUND WATER MONITORING REPORT
GREIF BROS. FACILITY - TONAWANDA, NEW YORK
NYSDEC VCP NUMBER V00334-9
ERM PROJECT NUMBER 0019800

MONITORING WELL / VAPOR POINT DESIGNATION		MW-12	MW-13	MW-14	MW-15	MW-16	MW-17	MW-21-S	MW-19	MW-24	MW-25	MW-23	VMP-1	VMP-2	VMP-3	VMP-4	VMP-5	VMP-6
GROUND WATER ZONE		Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow
GROUND		587.19	587.15	587.22	585.82	586.3	586.77	587.3	583.92	585.6	586.67	587.15	587.26	587.92	583.65	587.27	587.17	587.25
TOP OF CASING		586.84	586.84	586.84	585.3	586.05	586.22	586.88	583.17	585.38	586.72	586.70	587.06	587.13	583.34	586.78	586.71	586.92
TOP OF SCREEN		580.88	580.46	580.21	581.15	581.47	581.76	580.5	575.59	580.98	582.17	582.00	582.06	582.13	578.34	581.78	581.71	582.25
BOTTOM OF WELL		570.88	570.46	570.21	571.15	571.47	571.76	570.5	565.59	570.98	572.17	572.00	577.06	577.14	573.34	576.78	571.71	577.25
WATER LEVEL DATA	DATE																	
	12/4/1998	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
	12/9/1998	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
	9/20/1999	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
	9/12/2001	578.6	579.21	573.5	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
	12/9/2002	580.88	580.78	576.99	573.14	581.2	575.08	DRY	572.11	NI	NI	DRY	NI	NI	NI	NI	NI	NI
	1/30/2006	581.33	581.45	578.15	NM	NM	NM	573.32	576.51	584.45	582.21	573.02	581.33	NW	578.91	580.72	579.08	582.83
	4/17/2006	581.18	581.43	576.78	582.03	583.97	579.38	573.48	575.44	582.66	582.23	572.28	581.04	577.47	580.04	578.37	578.58	582.26
	7/10/2006	581.22	581.24	576.34	582.47	582.27	580.29	572.97	575.25	582.54	580.78	572.70	580.71	578.85	580.36	578.06	578.64	581.87

MONITORING WELL / VAPOR POINT DESIGNATION		RW-1	RW-2	RW-3	RW-4	RW-5	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7, MW-7A	MW-1, MW-1A	MW-18	MW-21-I	MW-22	MW-20
GROUND WATER ZONE		Shallow	Shallow	Shallow	Shallow	Shallow	Int.	Int.	Int.	Int.	Int.	Int.	Int.	Int.	Int.	Int.	Int.
GROUND		587.11	587.13	583.69	587.10	587.13	NM	NM	NM	NM	584.7	585.52	NM	583.62	587.3	587.2	587.1
TOP OF CASING		586.80	586.78	583.19	586.85	586.77	583.85	586.41	585.19	585.19	584.42	585.43	586.52	582.71	586.35	586.77	586.31
TOP OF SCREEN		581.72	581.74	578.19	582.60	582.27	565.26	562.08	567.83	567.83	565.89	560.03	567.13	564.36	560.81	562.96	564.67
BOTTOM OF WELL		571.72	571.74	568.19	572.60	572.27	555.26	552.08	557.83	557.83	555.39	549.53	557.13	554.36	550.81	552.96	554.67
WATER LEVEL DATA	DATE																
	12/4/1998	NI	NI	NI	NI	NI	563	569.17	569.87	569.87	NI	NI	570.88	NI	NI	NI	NI
	12/9/1998	NI	NI	NI	NI	NI	569.93	569.14	571.78	571.78	NI	NI	569.67	NI	NI	NI	NI
	9/20/1999	NI	NI	NI	NI	NI	569.5	569.17	571.47	571.47	NI	NI	571.34	NI	NI	NI	NI
	9/12/2001	NI	NI	NI	NI	NI	572.72	570.22	574.69	574.69	570	571.29	572.91	NI	NI	NI	NI
	12/9/2002	NI	NI	NI	NI	NI	572.87	570.57	574.95	574.95	574.96	572.18	572.57	572.53	571.80	571.08	572.11
	1/30/2006	573.80	574.32	576.43	574.17	574.05	NM	NM	NM	NM	NM	574.30	575.21	574.41	570.95	572.60	573.51
	4/17/2006	573.25	573.93	575.3	573.23	574.32	576.13	571.88	574.25	NM	578.57	574.33	575.13	573.49	573.19	572.60	573.35
	7/10/2006	572.80	577.78	578.64	575.87	574.32	576.03	571.87	574.27	577.17	578.70	574.28	575.07	573.86	572.83	572.44	571.44

NOTES:

- NM = not measured
- All ground water elevations are reported in feet above mean sea level based on survey data
- NI = well or vapor monitoring point not installed as of this date
- Int= Intermediate Ground Water Zone

NW- no water present in well

TABLE 2
SUMMARY OF VOLATILE ORGANIC COMPOUNDS DETECTED IN GROUND WATER
QUARTERLY GROUND WATER MONITORING - APRIL 2006
GREIF BROS. FACILITY - TONAWANDA, NEW YORK
NYSDEC VCP NUMBER V00334-9
ERM PROJECT NUMBER 0019800

Sample Designation	MW-18	MW-21I	MW-22	MW-12	MW-13	MW-14	MW-21S	MW-24	MW-25	NYSDEC
Ground Water Zone	Int	Int	Int	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Standard
Date Sampled	4/18/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006	4/18/2006	
VOCs (µg/L)										
Acetone	----	----	----	----	----	----	----	----	----	50
Benzene	----	----	----	----	----	----	----	32	----	1
2-Butanone	----	----	----	----	----	----	----	----	----	5
Chloroethane	35 J	----	----	----	----	----	----	----	0.72 J	5
Chloroform	----	----	----	----	----	----	----	----	----	7
1,1-Dichloroethane	2,100	----	1.8	2,000	8,300	2,600	----	30	10	5
1,2-Dichloroethane	----	----	----	----	----	----	----	----	----	0.6
1,1-Dichloroethene	190	----		450	12,000	----	----	8.6	1.2	5
cis-1,2-Dichloroethene	360	----	0.78 J	2,200	9,800	530 J	----	3,300	18.0	5
trans-1,2-Dichloroethene	----	----	----	49	----	----	----	12	----	5
Ethylbenzene	23 J	----	----	----	----	----	----	2.8 J	----	5
Methylene chloride	----	----	----	----	----	----	----	2.9 J	----	5
4-Methyl-2-pentanone	----	----	----	----	----	----	----	----	----	NA
Tetrachloroethene	----	----	----	----	----	----	----	8	----	5
Toluene	----	----	----	----	----	----	----	12	----	5
1,1,1-Trichloroethane	820	1.6	0.89 J	400	34,000	----	4.5	2.2 J	4.8	5
1,1,2-Trichloroethane	----	----	----	----	----	----	----	----	----	5
Trichloroethene	180	0.66 J	6.6	420	54,000	52,000	1.6	6,700	2.1	5
1,2,4-Trimethylbenzene	----	----	----	----	----	----	----	2.2 J	----	5
Vinyl chloride	100	----	----	140	----	----	----	49	0.66 J	2
Xylene (total)	74 J	----	----	----	----	----	----	8.1 J	----	5

NOTES:

- all analyte concentrations are reported in micrograms per liter (parts per billion) unless otherwise noted

----- = the compound was not detected at a concentration above the laboratory practical quantitation limit.

J = indicates an estimated value.

Hightlighted cells represent concentrations above the applicable ground water standard or guidance value.

NS = Not specified

TABLE 3
SUMMARY OF VOLATILE ORGANIC COMPOUNDS DETECTED IN GROUND WATER
QUARTERLY GROUND WATER MONITORING - JULY 2006
GREIF BROS. FACILITY - TONAWANDA, NEW YORK
NYSDEC VCP NUMBER V00334-9
ERM PROJECT NUMBER 0019800

Sample Designation	MW-18	MW-21I	MW-22	MW-12	MW-13	MW-14	MW-21S	MW-24	MW-25	NYSDEC
Ground Water Zone	Int	Int	Int	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Standard
Date Sampled	7/11/2006	7/11/2006	7/11/2006	7/11/2006	7/11/2006	7/11/2006	7/11/2006	7/11/2006	7/11/2006	
VOCs (µg/L)										
Acetone	---	---	---	---	---	---	---	---	---	50
Benzene	---	---	---	---	---	---	---	97	1.1	1
2-Butanone	---	---	---	---	---	---	---	---	---	5
Chloroethane	17 J	---	---	---	---	---	---	---	0.40 J	5
Chloroform	---	---	---	---	---	---	---	---	---	7
1,1-Dichloroethane	1,200	---	1.6	2,600	9,600	2,500	---	58 J	7.8	5
1,2-Dichloroethane	---	---	---	---	---	---	---	---	---	0.6
1,1-Dichloroethene	120	---	0.41 J	520	16,000	1,400	---	---	0.95 J	5
cis-1,2-Dichloroethene	240	---	---	3,200	10,000	---	---	5,600	18	5
trans-1,2-Dichloroethene	---	---	---	61	420 J	---	---	37 J	0.99 J	5
Ethylbenzene	14 J	---	---	---	---	---	---	---	---	5
Methylene chloride	15 J	---	---	54	510 J	470 J	---	48 J	---	5
4-Methyl-2-pentanone	---	---	---	---	---	---	---	---	---	NA
Tetrachloroethene	---	---	---	---	---	---	---	---	---	5
Toluene	---	---	---	---	---	---	---	36 J	---	5
1,1,1-Trichloroethane	160	---	---	660	41,000	---	3	---	9.5	5
1,1,2-Trichloroethane	---	---	---	---	---	---	---	---	---	5
Trichloroethene	110	---	3.5	640	61,000	45,000	0.91 J	10,000	3.1	5
1,2,4-Trimethylbenzene	12 J	---	---	---	---	---	---	---	---	5
Vinyl chloride	80	---	---	56	---	---	---	110	0.58 J	2
Xylene (total)	42 J	---	---	---	---	---	---	---	---	5

NOTES:

- all analyte concentrations are reported in micrograms per liter (parts per billion) unless otherwise noted

----- = the compound was not detected at a concentration above the laboratory practical quantitation limit.

J = indicates an estimated value.

Hightlighted cells represent concentrations greater than the applicable standard or guidance value

NA - Not applicable

TABLE 4
SUMMARY OF GROUND WATER NATURAL ATTENUATION DATA
QUARTERLY GROUND WATER MONITORING - APRIL 2006
GREIF BROS. FACILITY - TONAWANDA, NY
NYSDEC VCP NUMBER V00334-9
ERM PROJECT NUMBER 0019800

Well Designation	MW-18	MW-21I	MW-22	MW-12	MW-13	MW-14	MW-21S	MW-24	MW-25
Ground Water Zone	Int	Int	Int	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow
Date Sampled	18-Apr-06	18-Apr-06	18-Apr-06	18-Apr-06	18-Apr-06	18-Apr-06	18-Apr-06	18-Apr-06	18-Apr-06
PRIMARY CONTAMINANTS									
1,1,1-Trichloroethane	820	1.6	0.89 J	400	34,000	---	4.5	2.2 J	4.8
Trichloroethene	180	0.66 J	6.6	420	54,000	52,000	1.6	6700 D	2.1
Xylenes (Total)	74 J	---	---	---	---	---	---	160 DJ	---
DAUGHTER PRODUCTS									
Chloroethane	35 J	---	---	---	---	---	---	---	0.72 J
Ethane	----	----	----	----	----	----	----	----	----
Ethene	----	----	----	----	----	1.5	----	2.6	----
Methane	1.7	2.5	4.9	16	240	1.8	----	7.0	5.4
Total Dichloroethane	2,100	----	1.8	2000 D	8,300	2,600	----	30.0	10.0
Total Dichloroethene	550	----	0.78 J	2699 D	21,800	2230 J	----	3321 D	19.2
Vinyl Chloride	100	---	---	140	---	---	---	68 DJ	0.66 J
ELECTRON DONORS									
Iron, Ferrous (mg/L)	----	----	1.0	----	----	----	----	0.6	----
Sulfide (mg/L)	----	----	----	----	----	----	----	----	----
ELECTRON ACCEPTORS									
Dissolved Oxygen (mg/L)	4.44	5.92	4.86	4.46	4.57	6.92	3.60	6.38	3.89
Nitrate (mg/L)	----	----	----	----	----	----	----	0.13	1.4
Sulfate (mg/L)	414	120	519	145	182	134	83.1	1,020	1,960
MISCELLANEOUS									
Total Alkalinity (mg/L)	207	448	401	694	602	514	479	222	178
Bicarbonate Alkalinity (mg/L)	185	448	401	694	602	514	479	222	178
Carbonate Alkalinity (mg/L)	22.6	----	----	----	----	----	----	----	----
Hydroxide Alkalinity (mg/L)	----	----	----	----	----	----	----	----	----
Free Carbon Dioxide (mg/L)	NC	38	NC	NC	NC	65	90	NC	NC
Dissolved Organic Carbon (mg/L)	4.7	1.7	1.2	3.3	14.2	2.1	2.6	6.3	3.2
pH (standard units)	8.83	7.42	7.37	6.97	6.38	7.30	7.00	8.42	6.73
Temperature (degrees C)	14.78	17.67	16.47	18.18	17.08	18.14	18.66	21.58	18.25
Total Dissolved Solids (mg/L)	1,080	574	1,160	1,040	1,960	733	538	2,820	3,700
Total Hardness (mg/L)	432	351	643	688	2.7	508	381	1,500	1,870

NOTES:

- all analyte concentrations are reported in micrograms per liter (parts per billion) unless otherwise noted.

----- = compound was not detected above the laboratory quantitation limit.

J = indicates an estimated value.

- mg/L = miligrams per liter.

Free Carbon Dioxide calculated using a Ion Chromatograpgic Method.

- NC = the free carbon dioxide could not be calculated since one or more of the parameters necessary for the calculation were out of range of the scale limits on the nomograph utilized for the calculation.

Int= Intermediate Ground Water Zone

TABLE 5
SUMMARY OF GROUND WATER NATURAL ATTENUATION DATA
QUARTERLY GROUND WATER MONITORING REPORT- JULY 2006
GREIF BROS. FACILITY - TONAWANDA, NY
NYSDEC VCP NUMBER V00334-9
ERM PROJECT NUMBER 0019800

Well Designation	MW-18	MW-21I	MW-22	MW-12	MW-13	MW-14	MW-21S	MW-24	MW-25
Ground Water Zone	Int	Int	Int	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow
Date Sampled	11-Jul-06	11-Jul-06	11-Jul-06	11-Jul-06	11-Jul-06	11-Jul-06	11-Jul-06	11-Jul-06	11-Jul-06
PRIMARY CONTAMINANTS									
1,1,1-Trichloroethane	160	---	---	660	41,000	---	3	---	9.5
Trichloroethene	110	---	3.5	640	61,000	45,000	0.91 J	10,000	3.1
Xylenes (Total)	42 J	---	---	---	---	---	---	---	---
DAUGHTER PRODUCTS									
Chloroethane	17 J	---	---	---	---	---	---	---	0.40 J
Ethane	-----	-----	-----	-----	-----	-----	-----	-----	-----
Ethene	-----	-----	-----	-----	-----	-----	-----	-----	-----
Methane	-----	1.2	2.0	3.1	220.0	-----	-----	100.0	5.5
Total Dichloroethane	1,200	-----	1.6	2,600	9,600	2,500	-----	58 J	7.8
Total Dichloroethene	360	-----	0.41 J	3,781	26420 J	1,400	-----	5,600	19.94 J
Vinyl Chloride	80	---	---	56	---	---	---	110	0.58 J
ELECTRON DONORS									
Iron, Ferrous (mg/L)	-----	-----	0.2	-----	0.7	0.2	-----	3.5	0.6
Sulfide (mg/L)	-----	-----	-----	-----	-----	-----	-----	-----	-----
ELECTRON ACCEPTORS									
Dissolved Oxygen (mg/L)	4.44	5.92	4.86	4.46	4.57	6.92	3.60	6.38	3.89
Nitrate (mg/L)	-----	-----	-----	-----	-----	-----	0.088	-----	0.58
Sulfate (mg/L)	512	112	517	172	196	112	88.5	1,390	67.9
MISCELLANEOUS									
Total Alkalinity (mg/L)	415	512	422	773	682	603	546	401	231
Bicarbonate Alkalinity (mg/L)	391	509	417	774	682	606	544	399	240
Carbonate Alkalinity (mg/L)	8.6	-----	-----	-----	-----	-----	-----	-----	-----
Hydroxide Alkalinity (mg/L)	-----	-----	-----	-----	-----	-----	-----	-----	-----
Free Carbon Dioxide (mg/L)	NC	38	NC	NC	NC	65	90	NC	NC
Dissolved Organic Carbon (mg/L)	4.7	1.7	1.2	3.2	14.9	2.6	1.7	7.4	2.5
pH (standard units)	8.83	7.42	7.37	6.97	6.38	7.30	7.00	8.42	6.73
Temperature (degrees C)	14.78	17.67	16.47	18.18	17.08	18.14	18.66	21.58	18.25
Total Dissolved Solids (mg/L)	1,240	595	1,180	1,070	1,830	774	572	3,030	3,980
Total Hardness (mg/L)	734	398	724	779	758	583	411	1,780	2,570

NOTES:

- all analyte concentrations are reported in micrograms per liter (parts per billion) unless otherwise noted.

----- = compound was not detected above the laboratory quantitation limit.

J = indicates an estimated value.

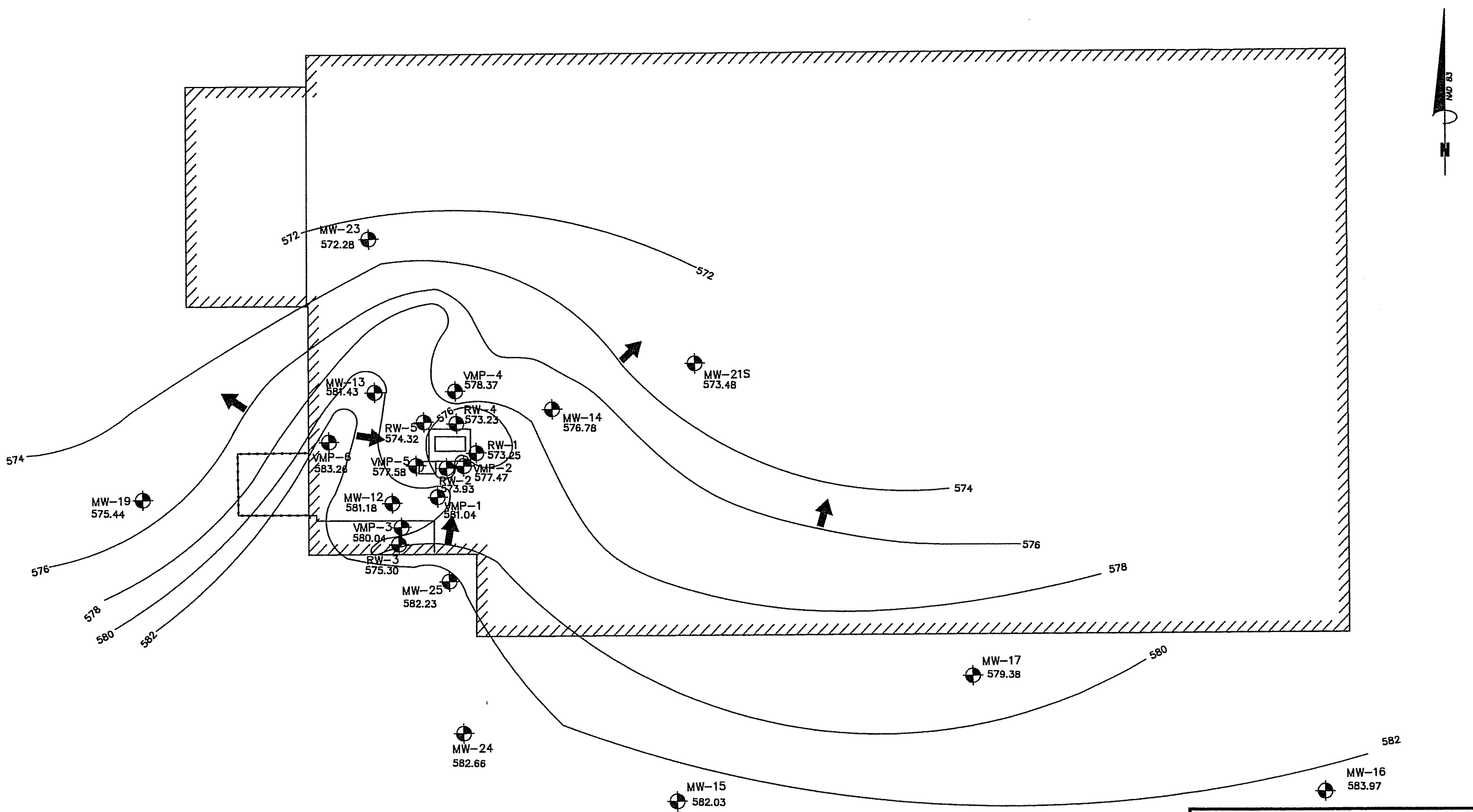
- mg/L = miligrams per liter.

Free Carbon Dioxide calculated using a nomographic standard method.

- NC = the free carbon dioxide could not be calculated since one or more of the parameters necessary for the calculation were out of range of the scale limits on the nomograph utilized for the calculation.

Int= Intermediate Ground Water Zone

ATTACHMENT C
FIGURES



LEGEND

VMP-3 ⊕ Well Location

580.00 — Ground Water Contour (feet amsl)

577.96 Ground Water Elevation (feet amsl)

➡ Direction of Ground Water Flow

Note: Ground water elevation data collected during operation of DNAPL recovery system.

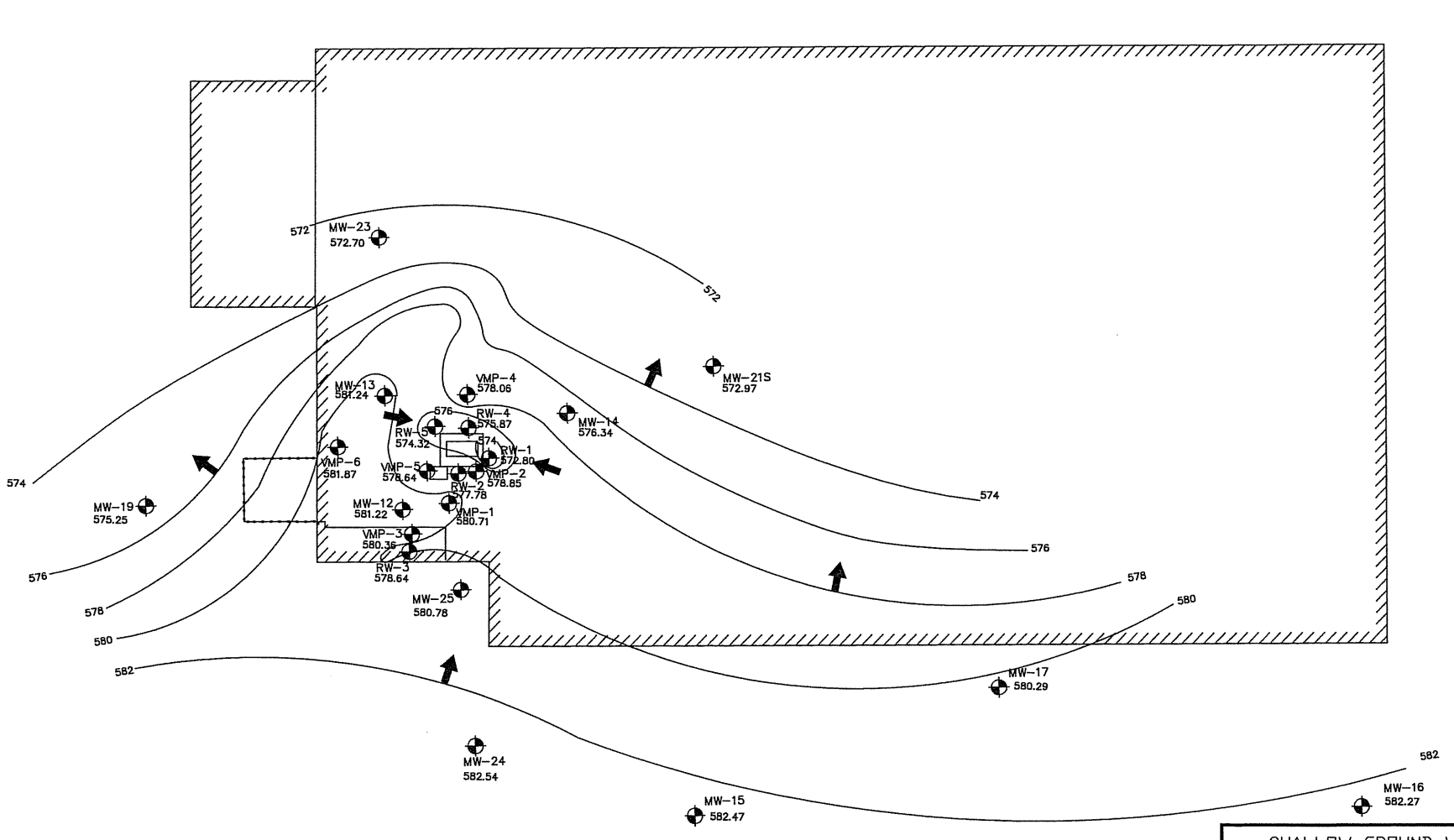
Note: Base map obtained from WM. Schutt & Associates, P.C. survey drawings updated on 12 January 2006.

SHALLOW GROUND WATER
CONTOUR PLOT 17 & 18 April 2006
Greif Brothers Facility
2122 Colvin Boulevard
Tonawanda, New York

PREPARED FOR
SONOCO PRODUCTS CO.

ERM
5788 WIDEWATERS PARKWAY
DEWITT, NEW YORK 13214

SCALE	FIGURE
NTS	1
DATE 06/06	



LEGEND

VMP-3 Well Location

580.00 Ground Water Contour (feet amsl)

577.96 Ground Water Elevation (feet amsl)

Direction of Ground Water Flow

Note: Ground water elevation data collected during operation of DNAPL recovery system.

Note: Base map obtained from WM. Schutt & Associates, P.C. survey drawings updated on 12 January 2006.

SHALLOW GROUND WATER
CONTOUR PLOT 10 & 11 July 2006
Greif Brothers Facility
2122 Colvin Boulevard
Tonawanda, New York

PREPARED FOR
SUNOCO Producst Co.

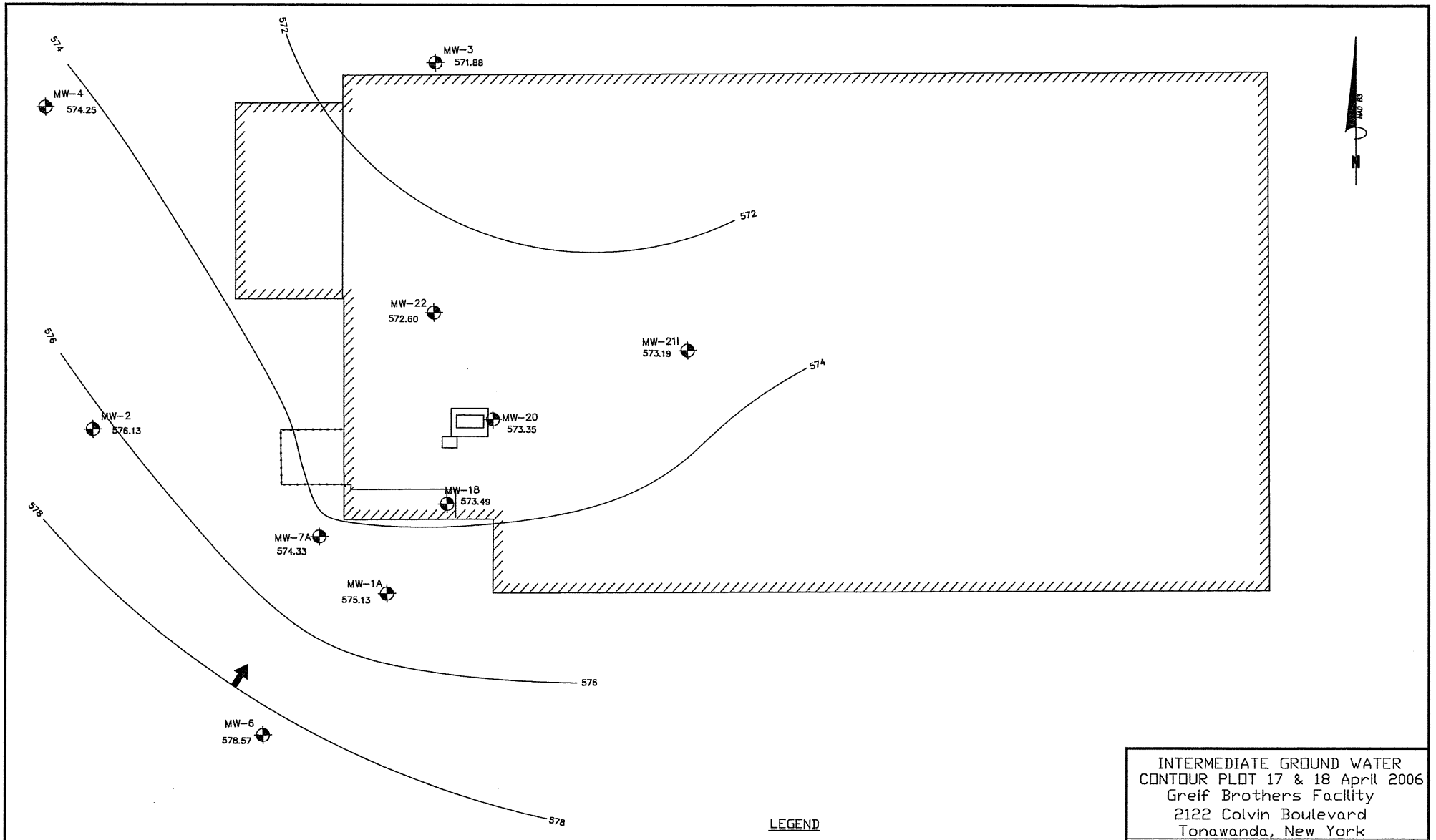
ERM
5788 WIDEWATERS PARKWAY
DEWITT, NEW YORK 13214

SCALE 1"=1"

FIGURE 2

DATE 07/06

PROJECT 0027I491



LEGEND

MW-5 ⊕ Well Location

580.00 — Ground Water Contour (feet amsl)

577.96 Ground Water Elevation (feet amsl)

➡ Direction of Ground Water Flow

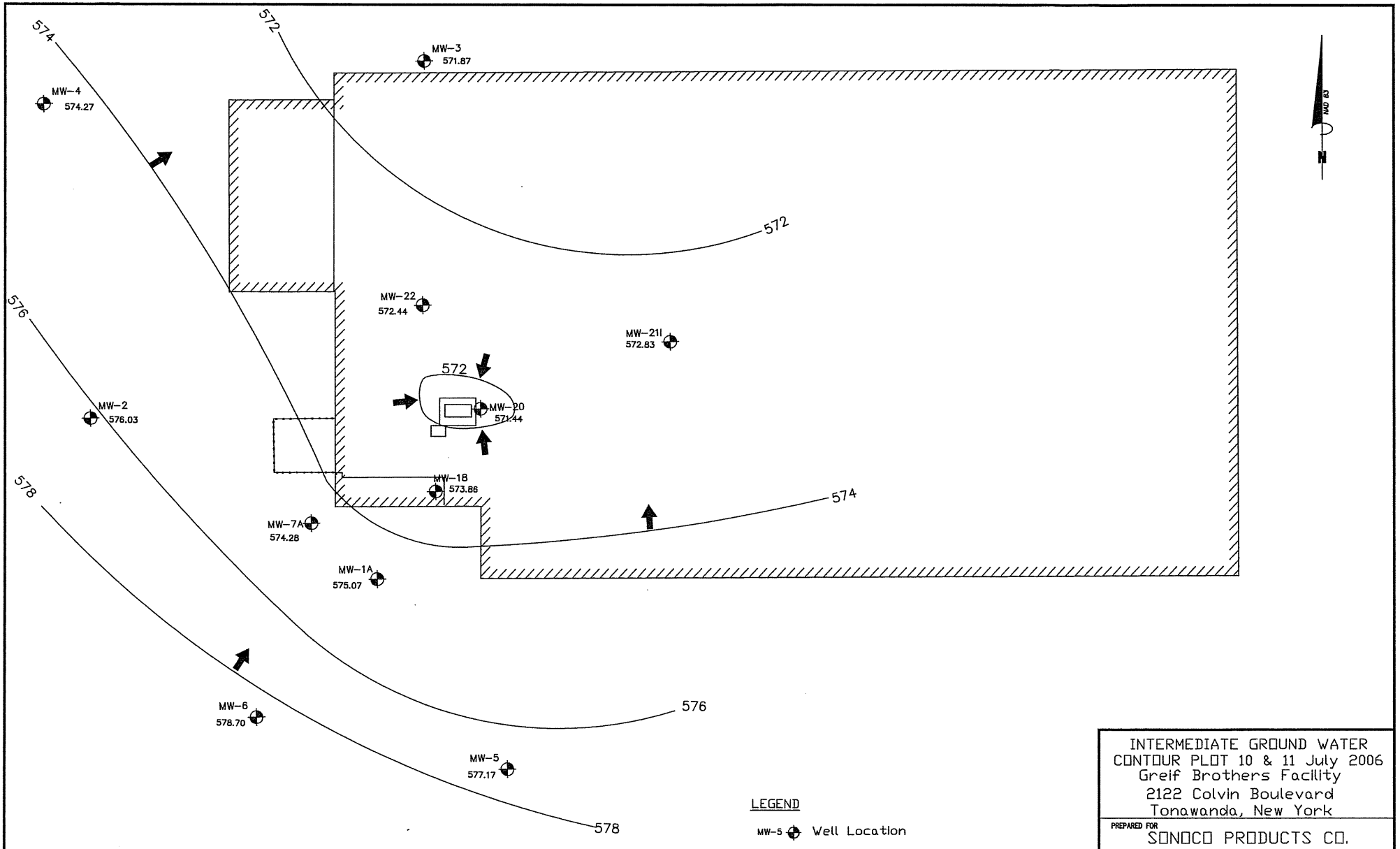
Note: Base map obtained from WM. Schutt & Associates, P.C. survey drawings updated on 12 January 2006.

INTERMEDIATE GROUND WATER
CONTOUR PLOT 17 & 18 April 2006
Greif Brothers Facility
2122 Colvin Boulevard
Tonawanda, New York

PREPARED FOR
SUNOCO

ERM
5788 WIDEWATERS PARKWAY
DEWITT, NEW YORK 13214

SCALE 1"=1"
DATE 06/06
FIGURE 3



LEGEND

MW-5 ⊕ Well Location

580.00 — Ground Water Contour (feet amsl)

578 Ground Water Elevation (feet amsl)

➡ Direction of Ground Water Flow

Note: Base map obtained from WM. Schutt & Associates, P.C. survey drawings updated on 12 January 2006.

INTERMEDIATE GROUND WATER CONTOUR PLOT 10 & 11 July 2006
Greif Brothers Facility
2122 Colvin Boulevard
Tonawanda, New York

PREPARED FOR
SUNOCO PRODUCTS CO.

ERM
5788 WIDEWATERS PARKWAY
DEWITT, NEW YORK 13214

SCALE NTS

FIGURE 4

DATE 07/06

PROJECT NUMBER

ATTACHMENT D
APRIL 2006 LABORATORY ANALYTICAL REPORT

SEVERN TRENT STL

STL Buffalo
10 Hazelwood Drive, Suite 106
Amherst, NY 14228

Tel: 716 691 2600 Fax: 716 691 7991
www.stl-inc.com

ANALYTICAL REPORT

Job#: A06-4186

STL Project#: NY1A8821
Site Name: ERM - GREIF BROTHERS
Task: ERM GREIF BROS. AQUEOUS SAMPLING

Mr. Jon Fox
ERM
5788 Widewaters Pkwy
Dewitt, NY 13214

STL Buffalo

Brian J. Fischer
Project Manager

04/28/2006

STL Buffalo
Current Certifications

As of 4/10//2006

STATE	Program	Cert # / Lab ID
AFCEE	AFCEE	
Arkansas	SDWA, CWA, RCRA, SOIL	03-054-D/88-0686
California	NELAP CWA, RCRA	01169CA
Connecticut	SDWA, CWA, RCRA, SOIL	PH-0568
Florida	NELAP CWA, RCRA	E87672
Georgia	SDWA	956
Illinois	NELAP SDWA, CWA, RCRA	200003
Iowa	SW/CS	374
Kansas	NELAP SDWA, CWA, RCRA	E-10187
Kentucky	SDWA	90029
Kentucky UST	UST	30
Louisiana	NELAP CWA, RCRA	2031
Maine	SDWA, CWA	NY044
Maryland	SDWA	294
Massachusetts	SDWA, CWA	M-NY044
Michigan	SDWA	9937
Minnesota	SDWA,CWA, RCRA	036-999-337
New Hampshire	NELAP SDWA, CWA	233701
New Jersey	SDWA, CWA, RCRA, CLP	NY455
New York	NELAP, AIR, SDWA, CWA, RCRA,ASP	10026
Oklahoma	CWA, RCRA	9421
Pennsylvania	Env. Lab Reg.	68-281
South Carolina	RCRA	91013
Tennessee	SDWA	02970
USACE	USACE	
USDA	FOREIGN SOIL PERMIT	S-41579
USDOE	Department of Energy	DOECAP-STB
Virginia	SDWA	278
Washington	CWA,RCRA	C1677
West Virginia	CWA,RCRA	252
Wisconsin	CWA	998310390

SAMPLE SUMMARY

LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	SAMPLED DATE	SAMPLED TIME	RECEIVED DATE	RECEIVED TIME
A6418601	GREIF-DUP (04/06)	WATER	04/18/2006		04/19/2006	07:30
A6418609	GREIF-MW-12 (04/06)	WATER	04/18/2006	15:50	04/19/2006	07:30
A6418610	GREIF-MW-13 (04/06)	WATER	04/18/2006	16:15	04/19/2006	07:30
A6418608	GREIF-MW-14 (04/06)	WATER	04/18/2006	15:30	04/19/2006	07:30
A6418602	GREIF-MW-18 (04/06)	WATER	04/18/2006	08:20	04/19/2006	07:30
A6418602MS	GREIF-MW-18 (04/06)	WATER	04/18/2006	08:20	04/19/2006	07:30
A6418602SD	GREIF-MW-18 (04/06)	WATER	04/18/2006	08:20	04/19/2006	07:30
A6418606	GREIF-MW-21I (04/06)	WATER	04/18/2006	14:40	04/19/2006	07:30
A6418605	GREIF-MW-21S (04/06)	WATER	04/18/2006	14:20	04/19/2006	07:30
A6418607	GREIF-MW-22 (04/06)	WATER	04/18/2006	15:10	04/19/2006	07:30
A6418603	GREIF-MW-24 (04/06)	WATER	04/18/2006	09:50	04/19/2006	07:30
A6418604	GREIF-MW-25 (04/06)	WATER	04/18/2006	10:20	04/19/2006	07:30
A6418611	TRIP BLANK (04/06)	WATER	04/18/2006		04/19/2006	07:30

METHODS SUMMARY

Job#: A06-4186

STL Project#: NY1A8821
Site Name: ERM - GREIF BROTHERS

PARAMETER	ANALYTICAL METHOD
METHOD 8260 - SELECT VOLATILE ORGANICS	SW8463 8260
DISSOLVED GASES - ETHANE, ETHENE, AND METHANE	OTHER RSK175
Bicarbonate Alkalinity	MCAWW 310.1
Carbonate Alkalinity	MCAWW 310.1
Hydroxyl Alkalinity	MCAWW 310.1
Nitrate	MCAWW 353.2
Soluble Organic Carbon	SW8463 9060
Sulfate	MCAWW 375.4
Sulfide	MCAWW 376.1
Total Alkalinity	MCAWW 310.1
Total Dissolved Solids	MCAWW 160.1
Total Hardness	MCAWW 130.2

MCAWW "Methods for Chemical Analysis of Water and Wastes",EPA/600/4-79-020 (Mar 1983) with updates and supplements EPA/600/4-91-010 (Jun 1991), EPA/600/R-92-129 (Aug 1992) and EPA/600/R-93-100 (Aug 1993)

OTHER Non-Standard Protocol and Method Defined by State, Client QAPP or Developed by Laboratory

SW8463 "Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW846), Third Edition, 9/86; Update I, 7/92; Update IIA, 8/93; Update II, 9/94; Update IIB, 1/95; Update III, 12/96.

NON-CONFORMANCE SUMMARY

Job#: A06-4186

STL Project#: NY1A8821
Site Name: ERM - GREIF BROTHERS

General Comments

The enclosed data may or may not have been reported utilizing data qualifiers (Q) as defined on the Data Comment Page.

Soil, sediment and sludge sample results are reported on "dry weight" basis unless otherwise noted in this data package.

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. pH-Field), they were not analyzed immediately, but as soon as possible after laboratory receipt.

Sample dilutions were performed as indicated on the attached Dilution Log. The rationale for dilution is specified by the 3-digit code and definition.

Sample Receipt Comments

A06-4186
Sample Cooler(s) were received at the following temperature(s); 2@2.0 °C
Samples for parameter SOC were not filtered in the field. These samples were filtered in Sample Control using 0.45 um paper and poured into 1, 40 ml vial per each, pre-preserved with hcl.

GC/MS Volatile Data

No deviations from protocol were encountered during the analytical procedures.

GC Volatile Data

No deviations from protocol were encountered during the analytical procedures.

Wet Chemistry Data

The recovery of sample Greif MW 18(04/06) Matrix Spike exhibited results below the quality control limits for Sulfate. The recovery of sample Greif MW 18(04/06) Matrix Spike Duplicate exhibited results below the quality control limits for Sulfate. However, the LCS was acceptable.

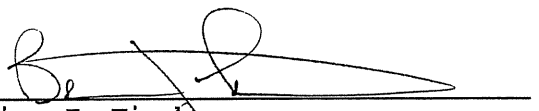
The value obtained for Total Dissolved Solids on sample GREIF-MW-25 has a TDS/Conductivity ratio outside the valid range. Reanalysis was performed and the value was confirmed.

The requested reporting limit for Hydroxide Alkalinity is below STL's standard reporting limit. It must be noted that results reported below STL's standard reporting limit may result in false positive/false negative results, less accurate quantitation and potential misidentification at the lower concentrations. Therefore, no corrective action has been taken for any detections between the requested reporting limit and STLs standard reporting limit.

****

The results presented in this report relate only to the analytical testing and condition of the sample at receipt. This report pertains to only those samples actually tested. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

"I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature."



Brian J. Fischer
Project Manager

4-28-04

Date

Dilution Log w/Code Information
For Job A06-4186

Client Sample ID	Lab Sample ID	Parameter (Inorganic)/Method (Organic)	Dilution	Code
GREIF-DUP (04/06)	A6418601	8260	40.00	008
GREIF-DUP (04/06)	A6418601	Sulfate	25.00	008
GREIF-MW-18 (04/06)	A6418602	8260	40.00	008
GREIF-MW-18 (04/06)	A6418602	Sulfate	25.00	008
GREIF-MW-18 (04/06)	A6418602MS	8260	40.00	008
GREIF-MW-18 (04/06)	A6418602MS	Sulfate	25.00	008
GREIF-MW-18 (04/06)	A6418602SD	8260	40.00	008
GREIF-MW-18 (04/06)	A6418602SD	Sulfate	25.00	008
GREIF-MW-24 (04/06)	A6418603	8260	4.00	008
GREIF-MW-24 (04/06)	A6418603	Sulfate	121.00	008
GREIF-MW-24 (04/06)	A6418603	Total Hardness	5.00	008
GREIF-MW-24 (04/06)	A6418603DL	8260	80.00	008
GREIF-MW-25 (04/06)	A6418604	Sulfate	121.00	008
GREIF-MW-25 (04/06)	A6418604	Total Hardness	5.00	008
GREIF-MW-21S (04/06)	A6418605	Sulfate	5.00	008
GREIF-MW-21I (04/06)	A6418606	Sulfate	5.00	008
GREIF-MW-22 (04/06)	A6418607	Sulfate	25.00	008
GREIF-MW-14 (04/06)	A6418608	8260	800.00	008
GREIF-MW-14 (04/06)	A6418608	Sulfate	5.00	008
GREIF-MW-12 (04/06)	A6418609	8260	20.00	008
GREIF-MW-12 (04/06)	A6418609	RSK175	10.00	008
GREIF-MW-12 (04/06)	A6418609	Sulfate	20.00	008
GREIF-MW-12 (04/06)	A6418609DL	8260	40.00	008
GREIF-MW-13 (04/06)	A6418610	8260	800.00	008
GREIF-MW-13 (04/06)	A6418610	RSK175	100.00	008
GREIF-MW-13 (04/06)	A6418610	Sulfate	20.00	008

Dilution Code Definition:

002 - sample matrix effects
003 - excessive foaming
004 - high levels of non-target compounds
005 - sample matrix resulted in method non-compliance for an Internal Standard
006 - sample matrix resulted in method non-compliance for Surrogate
007 - nature of the TCLP matrix
008 - high concentration of target analyte(s)
009 - sample turbidity
010 - sample color
011 - insufficient volume for lower dilution
012 - sample viscosity
013 - other

SEVERN TRENT STL

DATA QUALIFIER PAGE

These definitions are provided in the event the data in this report requires the use of one or more of the qualifiers. Not all qualifiers defined below are necessarily used in the accompanying data package.

ORGANIC DATA QUALIFIERS

ND or U	Indicates compound was analyzed for, but not detected.
J	Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
C	This flag applies to pesticide results where the identification has been confirmed by GC/MS.
B	This flag is used when the analyte is found in the associated blank, as well as in the sample.
E	This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at the secondary dilution factor.
N	Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds, where the identification is based on the Mass Spectral library search. It is applied to all TIC results.
P	This flag is used for CLP methodology only. For Pesticide/Aroclor target analytes, when a difference for detected concentrations between the two GC columns is greater than 25%, the lower of the two values is reported on the data page and flagged with a "P".
A	This flag indicates that a TIC is a suspected aldol-condensation product.
[1]	Indicates coelution.
*	Indicates analysis is not within the quality control limits.

INORGANIC DATA QUALIFIERS

ND or U	Indicates element was analyzed for, but not detected. Report with the detection limit value.
J or B	Indicates a value greater than or equal to the instrument detection limit, but less than the quantitation limit.
N	Indicates spike sample recovery is not within the quality control limits.
S	Indicates value determined by the Method of Standard Addition.
E	Indicates a value estimated or not reported due to the presence of interferences.
H	Indicates analytical holding time exceedance. The value obtained should be considered an estimate.
*	Indicates the spike or duplicate analysis is not within the quality control limits.
+	Indicates the correlation coefficient for the Method of Standard Addition is less than 0.995.

Client ID		GREIF-DUP (04/06)		GREIF-MW-12 (04/06)		GREIF-MW-12 (04/06)		GREIF-MW-13 (04/06)	
Job No / Lab ID		A06-4186 / A6418601		A06-4186 / A6418609		A06-4186 / A6418609DL		A06-4186 / A6418610	
Sample Date		04/18/2006		04/18/2006		04/18/2006		04/18/2006	
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Acetone	UG/L	ND	200	ND	100	ND	200	ND	4000
Benzene	UG/L	ND	40	ND	20	ND	40	ND	800
2-Butanone	UG/L	ND	200	ND	100	ND	200	ND	4000
Chloroethane	UG/L	ND	40	ND	20	ND	40	ND	800
Chloroform	UG/L	ND	40	ND	20	ND	40	ND	800
1,1-Dichloroethane	UG/L	2000	40	2300 E	20	2000 D	40	8300	800
1,2-Dichloroethane	UG/L	ND	40	ND	20	ND	40	ND	800
1,1-Dichloroethene	UG/L	410	40	450	20	390 D	40	12000	800
cis-1,2-Dichloroethene	UG/L	2300	40	2500 E	20	2200 D	40	9800	800
trans-1,2-Dichloroethene	UG/L	43	40	49	20	46 D	40	ND	800
Ethylbenzene	UG/L	ND	40	ND	20	ND	40	ND	800
Methylene chloride	UG/L	ND	40	ND	20	ND	40	ND	800
4-Methyl-2-pentanone	UG/L	ND	200	ND	100	ND	200	ND	4000
Tetrachloroethene	UG/L	ND	40	ND	20	ND	40	ND	800
Toluene	UG/L	ND	40	ND	20	ND	40	ND	800
1,1,1-Trichloroethane	UG/L	360	40	400	20	340 D	40	34000	800
1,1,2-Trichloroethane	UG/L	ND	40	ND	20	ND	40	ND	800
Trichloroethene	UG/L	370	40	420	20	360 D	40	54000	800
1,2,4-Trimethylbenzene	UG/L	ND	40	ND	20	ND	40	ND	800
Vinyl chloride	UG/L	120	40	140	20	120 D	40	ND	800
Total Xylenes	UG/L	ND	120	ND	60	ND	120	ND	2400
IS/SURROGATE(S)									
Chlorobenzene-D5	%	92	50-200	81	50-200	87	50-200	84	50-200
1,4-Difluorobenzene	%	98	50-200	84	50-200	92	50-200	87	50-200
1,4-Dichlorobenzene-D4	%	80	50-200	73	50-200	76	50-200	77	50-200
Toluene-D8	%	104	76-122	104	76-122	108	76-122	106	76-122
p-Bromofluorobenzene	%	91	73-120	92	73-120	95	73-120	93	73-120
1,2-Dichloroethane-D4	%	99	72-143	100	72-143	108	72-143	102	72-143

9/59

Date: 04/28/2006
Time: 15:57:48

ERM - GREIF BROS.
ERM GREIF BROS. AQUEOUS SAMPLING
METHOD 8260 - SELECT VOLATILE ORGANICS

Rept: AN0326

Client ID		GREIF-MW-14 (04/06)		GREIF-MW-18 (04/06)		GREIF-MW-21I (04/06)		GREIF-MW-21S (04/06)	
Job No / Lab ID		A06-4186	A6418608	A06-4186	A6418602	A06-4186	A6418606	A06-4186	A6418605
Sample Date		04/18/2006		04/18/2006		04/18/2006		04/18/2006	
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Acetone	UG/L	ND	4000	ND	200	ND	5.0	ND	5.0
Benzene	UG/L	ND	800	ND	40	ND	1.0	ND	1.0
2-Butanone	UG/L	ND	4000	ND	200	ND	5.0	ND	5.0
Chloroethane	UG/L	ND	800	35 J	40	ND	1.0	ND	1.0
Chloroform	UG/L	ND	800	ND	40	ND	1.0	ND	1.0
1,1-Dichloroethane	UG/L	2600	800	2100	40	ND	1.0	ND	1.0
1,2-Dichloroethane	UG/L	ND	800	ND	40	ND	1.0	ND	1.0
1,1-Dichloroethene	UG/L	1700	800	190	40	ND	1.0	ND	1.0
cis-1,2-Dichloroethene	UG/L	530 J	800	360	40	ND	1.0	ND	1.0
trans-1,2-Dichloroethene	UG/L	ND	800	ND	40	ND	1.0	ND	1.0
Ethylbenzene	UG/L	ND	800	23 J	40	ND	1.0	ND	1.0
Methylene chloride	UG/L	ND	800	ND	40	ND	1.0	ND	1.0
4-Methyl-2-pentanone	UG/L	ND	4000	ND	200	ND	5.0	ND	5.0
Tetrachloroethene	UG/L	ND	800	ND	40	ND	1.0	ND	1.0
Toluene	UG/L	ND	800	ND	40	ND	1.0	ND	1.0
1,1,1-Trichloroethane	UG/L	ND	800	820	40	1.6	1.0	4.5	1.0
1,1,2-Trichloroethane	UG/L	ND	800	ND	40	ND	1.0	ND	1.0
Trichloroethene	UG/L	52000	800	180	40	0.66 J	1.0	1.6	1.0
1,2,4-Trimethylbenzene	UG/L	ND	800	ND	40	ND	1.0	ND	1.0
Vinyl chloride	UG/L	ND	800	100	40	ND	1.0	ND	1.0
Total Xylenes	UG/L	ND	2400	74 J	120	ND	3.0	ND	3.0
==========IS/SURROGATE(S)==========									
Chlorobenzene-D5	%	84	50-200	89	50-200	83	50-200	90	50-200
1,4-Difluorobenzene	%	85	50-200	91	50-200	86	50-200	96	50-200
1,4-Dichlorobenzene-D4	%	77	50-200	83	50-200	73	50-200	79	50-200
Toluene-D8	%	103	76-122	107	76-122	105	76-122	99	76-122
p-Bromofluorobenzene	%	91	73-120	97	73-120	94	73-120	86	73-120
1,2-Dichloroethane-D4	%	101	72-143	102	72-143	108	72-143	98	72-143

10/59

NA = Not Applicable ND = Not Detected

STL Buffalo

Date: 04/28/2006
Time: 15:57:48

ERM - GREIF BROS.
ERM GREIF BROS. AQUEOUS SAMPLING
METHOD 8260 - SELECT VOLATILE ORGANICS

Rept: AN0326

Client ID		GREIF-MW-22 (04/06)		GREIF-MW-24 (04/06)		GREIF-MW-24 (04/06)		GREIF-MW-25 (04/06)	
Job No / Lab ID		A06-4186	A6418607	A06-4186	A6418603	A06-4186	A6418603DL	A06-4186	A6418604
Sample Date		04/18/2006		04/18/2006		04/18/2006		04/18/2006	
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Acetone	UG/L	ND	5.0	ND	20	ND	400	ND	5.0
Benzene	UG/L	ND	1.0	32	4.0	40 DJ	80	ND	1.0
2-Butanone	UG/L	ND	5.0	ND	20	ND	400	ND	5.0
Chloroethane	UG/L	ND	1.0	ND	4.0	ND	80	0.72 J	1.0
Chloroform	UG/L	ND	1.0	ND	4.0	ND	80	ND	1.0
1,1-Dichloroethane	UG/L	1.8	1.0	30	4.0	ND	80	10	1.0
1,2-Dichloroethane	UG/L	ND	1.0	ND	4.0	ND	80	ND	1.0
1,1-Dichloroethene	UG/L	ND	1.0	8.6	4.0	ND	80	1.2	1.0
cis-1,2-Dichloroethene	UG/L	0.78 J	1.0	2600 E	4.0	3300 D	80	18	1.0
trans-1,2-Dichloroethene	UG/L	ND	1.0	12	4.0	ND	80	ND	1.0
Ethylbenzene	UG/L	ND	1.0	2.8 J	4.0	ND	80	ND	1.0
Methylene chloride	UG/L	ND	1.0	2.9 J	4.0	ND	80	ND	1.0
4-Methyl-2-pentanone	UG/L	ND	5.0	ND	20	ND	400	ND	5.0
Tetrachloroethene	UG/L	ND	1.0	8.0	4.0	ND	80	ND	1.0
Toluene	UG/L	ND	1.0	12	4.0	ND	80	ND	1.0
1,1,1-Trichloroethane	UG/L	0.89 J	1.0	2.2 J	4.0	ND	80	4.8	1.0
1,1,2-Trichloroethane	UG/L	ND	1.0	ND	4.0	ND	80	ND	1.0
Trichloroethene	UG/L	6.6	1.0	4600 E	4.0	6700 D	80	2.1	1.0
1,2,4-Trimethylbenzene	UG/L	ND	1.0	2.2 J	4.0	ND	80	ND	1.0
Vinyl chloride	UG/L	ND	1.0	49	4.0	68 DJ	80	0.66 J	1.0
Total Xylenes	UG/L	ND	3.0	8.1 J	12	160 DJ	240	ND	3.0
IS/SURROGATE(S)									
Chlorobenzene-D5	%	85	50-200	88	50-200	92	50-200	91	50-200
1,4-Difluorobenzene	%	86	50-200	89	50-200	98	50-200	95	50-200
1,4-Dichlorobenzene-D4	%	77	50-200	81	50-200	80	50-200	78	50-200
Toluene-D8	%	107	76-122	104	76-122	105	76-122	103	76-122
p-Bromofluorobenzene	%	95	73-120	93	73-120	92	73-120	92	73-120
1,2-Dichloroethane-D4	%	105	72-143	100	72-143	100	72-143	103	72-143

11/59

NA = Not Applicable ND = Not Detected

STL Buffalo

Date: 04/28/2006
Time: 15:57:52

ERM - GREIF BROS.
ERM GREIF BROS. AQUEOUS SAMPLING
DISSOLVED GASES - ETHANE, ETHENE, AND METHANE

Rept: AN0326

Client ID		GREIF-DUP (04/06)		GREIF-MW-12 (04/06)		GREIF-MW-13 (04/06)		GREIF-MW-14 (04/06)	
Job No / Lab ID		A06-4186	A6418601	A06-4186	A6418609	A06-4186	A6418610	A06-4186	A6418608
Sample Date		04/18/2006		04/18/2006		04/18/2006		04/18/2006	
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Ethane	UG/L	ND	1.5	ND	15	ND	150	ND	1.5
Ethene	UG/L	ND	1.5	ND	15	ND	150	1.5	1.5
Methane	UG/L	6.5	1.0	16	10	240	100	1.8	1.0

Client ID		GREIF-MW-18 (04/06)		GREIF-MW-21I (04/06)		GREIF-MW-21S (04/06)		GREIF-MW-22 (04/06)	
Job No / Lab ID		A06-4186	A6418602	A06-4186	A6418606	A06-4186	A6418605	A06-4186	A6418607
Sample Date		04/18/2006		04/18/2006		04/18/2006		04/18/2006	
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Ethane	UG/L	ND	1.5	ND	1.5	ND	1.5	ND	1.5
Ethene	UG/L	ND	1.5	ND	1.5	ND	1.5	ND	1.5
Methane	UG/L	1.7	1.0	2.5	1.0	ND	1.0	4.9	1.0

Client ID		GREIF-MW-24 (04/06)		GREIF-MW-25 (04/06)					
Job No / Lab ID		A06-4186	A6418603	A06-4186	A6418604				
Sample Date		04/18/2006		04/18/2006					
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Ethane	UG/L	ND	1.5	ND	1.5	NA		NA	
Ethene	UG/L	2.6	1.5	ND	1.5	NA		NA	
Methane	UG/L	7.0	1.0	5.4	1.0	NA		NA	

12/59

NA = Not Applicable ND = Not Detected

STL Buffalo

Client ID		GREIF-DUP (04/06)		GREIF-MW-12 (04/06)		GREIF-MW-13 (04/06)		GREIF-MW-14 (04/06)	
Job No / Lab ID		A06-4186	A6418601	A06-4186	A6418609	A06-4186	A6418610	A06-4186	A6418608
Sample Date		04/18/2006		04/18/2006		04/18/2006		04/18/2006	
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Bicarbonate Alkalinity	MG/L	688	5.0	694	5.0	602	5.0	514	5.0
Carbonate Alkalinity	MG/L	ND	5.0	ND	5.0	ND	5.0	ND	5.0
Hydroxyl Alkalinity	MG/L	ND	0.79	ND	0.79	ND	0.79	ND	0.79

Client ID		GREIF-MW-18 (04/06)		GREIF-MW-21I (04/06)		GREIF-MW-21S (04/06)		GREIF-MW-22 (04/06)	
Job No / Lab ID		A06-4186	A6418602	A06-4186	A6418606	A06-4186	A6418605	A06-4186	A6418607
Sample Date		04/18/2006		04/18/2006		04/18/2006		04/18/2006	
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Bicarbonate Alkalinity	MG/L	185	5.0	448	5.0	479	5.0	401	5.0
Carbonate Alkalinity	MG/L	22.6	5.0	ND	5.0	ND	5.0	ND	5.0
Hydroxyl Alkalinity	MG/L	ND	0.79	ND	0.79	ND	0.79	ND	0.79

Client ID		GREIF-MW-24 (04/06)		GREIF-MW-25 (04/06)					
Job No / Lab ID		A06-4186	A6418603	A06-4186	A6418604				
Sample Date		04/18/2006		04/18/2006					
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Bicarbonate Alkalinity	MG/L	222	5.0	178	5.0	NA		NA	
Carbonate Alkalinity	MG/L	ND	5.0	ND	5.0	NA		NA	
Hydroxyl Alkalinity	MG/L	ND	0.79	ND	0.79	NA		NA	

NA = Not Applicable ND = Not Detected

Date: 04/28/2006
Time: 15:58:01

ERM - GREIF BROS.
ERM GREIF BROS. AQUEOUS SAMPLING
WET CHEMISTRY ANALYSIS

Rept: AN0326

Client ID		GREIF-DUP (04/06)		GREIF-MW-12 (04/06)		GREIF-MW-13 (04/06)		GREIF-MW-14 (04/06)	
Job No / Lab ID		A06-4186	A6418601	A06-4186	A6418609	A06-4186	A6418610	A06-4186	A6418608
Sample Date		04/18/2006		04/18/2006		04/18/2006		04/18/2006	
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Nitrate	MG/L-N	ND	0.050	ND	0.050	ND	0.050	ND	0.050
Soluble Organic Carbon	MG/L	4.0	1.0	3.3	1.0	14.2	1.0	2.1	1.0
Sulfate	MG/L	139	125	145	100	182	100	134	25.0
Sulfide	MG/L	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Total Alkalinity	MG/L	688	5.0	694	5.0	602	5.0	514	5.0
Total Dissolved Solids	MG/L	1020	10	1040	10	1960	10	733	10
Total Hardness	MG/L	771	2.0	688	2.0	2.7	2.0	508	2.0

Client ID		GREIF-MW-18 (04/06)		GREIF-MW-21I (04/06)		GREIF-MW-21S (04/06)		GREIF-MW-22 (04/06)	
Job No / Lab ID		A06-4186	A6418602	A06-4186	A6418606	A06-4186	A6418605	A06-4186	A6418607
Sample Date		04/18/2006		04/18/2006		04/18/2006		04/18/2006	
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Nitrate	MG/L-N	ND	0.050	ND	0.050	ND	0.050	ND	0.050
Soluble Organic Carbon	MG/L	4.7	1.0	1.7	1.0	2.6	1.0	1.2	1.0
Sulfate	MG/L	414	125	120	25.0	83.1	25.0	519	125
Sulfide	MG/L	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Total Alkalinity	MG/L	207	5.0	448	5.0	479	5.0	401	5.0
Total Dissolved Solids	MG/L	1080	10	574	10	538	10	1160	10
Total Hardness	MG/L	432	2.0	351	2.0	381	2.0	643	2.0

Client ID		GREIF-MW-24 (04/06)		GREIF-MW-25 (04/06)					
Job No / Lab ID		A06-4186	A6418603	A06-4186	A6418604				
Sample Date		04/18/2006		04/18/2006					
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Nitrate	MG/L-N	0.13	0.050	1.4	0.050	NA		NA	
Soluble Organic Carbon	MG/L	6.3	1.0	3.2	1.0	NA		NA	
Sulfate	MG/L	1020	605	1960	605	NA		NA	
Sulfide	MG/L	ND	1.0	ND	1.0	NA		NA	
Total Alkalinity	MG/L	222	5.0	178	5.0	NA		NA	
Total Dissolved Solids	MG/L	2820	10	3700	10	NA		NA	
Total Hardness	MG/L	1500	10	1870	10	NA		NA	

NA = Not Applicable ND = Not Detected

STL Buffalo

ATTACHMENT E
JULY 2006 GROUND WATER SAMPLING RECORDS

GROUND WATER SAMPLING RECORD

SITE Groif Bros. DATE 10-11 July 2006

PROJECT NUMBER: 0019800

SAMPLE ID : Groif-MW-24 (07/06)

WELL ID : MW-24

SAMPLERS : R. Sentz, C. Wunderlich

	Time Onsite:	Time Offsite:
7/10	07:30	21:15
7/11	08:00	15:30

Depth of well (from top of casing) ..... 14.40 Time: _____

Static water level (from top of casing) ..... 2.84 Time: _____

Water level after purging (from top of casing) ..... _____ Time: _____

Water level before sampling (from top of casing) ..... _____ Time: _____

Purging Method:

- ___ Airlift
- ___ Low-Flow Pump
- X Bailer
- ___ Peristaltic Pump
- ___ Submersible
- ___ Ded. Pump

Well Volume Calculation:

			1 volume	3 volumes
2 in. well:	11.56	ft. of water x 0.16 =	1.8 gal.	x 3 = 5.5 gal.
3 in. well:	___	ft. of water x 0.36 =	___ gal.	x 3 = ___ gal.
4 in. well:	___	ft. of water x 0.65 =	___ gal.	x 3 = ___ gal.
6 in. well:	___	ft. of water x 1.47 =	___ gal.	x 3 = ___ gal.

Volume of water removed: 5.5 gal. >3 volumes: yes X no ___ purged dry? yes ___ no X

Field Tests:

	pH	Cond.	Turb.	DO	Temp.	DEP	SAL	TDS	ORP
units	-	mg/cm	NTU	g/L	C F	-	-	g/L	mV
Initial	9.07	1.68	63.7	5.70	22.57	–	0.85	1.10	153.9
1 Volume	7.16	3.82	179.	4.60	21.27	–	2.02	2.48	-2.7
2 Volumes	6.66	3.82	1182	6.04	21.47	–	2.02	2.48	24.3
3 Volumes	8.42	3.77	492	6.38	21.58	–	1.89	2.40	1.1

Sampling

Time of Sample Collection: 08:50

Collection Method:

- X Disposable bailer
- ___ Teflon bailer
- ___ Dedicated pump
- ___ Submersible Pump
- ___ Low-Flow Sampling
- ___ Other: _____

Analyses:

- X VOCs -
- ___ SVOCs
- ___ Metals
- ___ PCB/Pest
- ___ MNA
- X Other

Analytical Method: 8260 X 503.1 ___ Other _____

Select Natural Attenuation Parameters

Observations

Weather/Temperature: ±75°f, rain, calm

Sample Description: _____

Free Product? yes ___ no X describe _____

Sheen? yes ___ no X describe _____

Odor? yes ___ no X describe _____

Comments:

Field Fe^{2+}: 3.5 mg/l

GROUND WATER SAMPLING RECORD

SITE Greif Bros. DATE 10-11 July 2006

PROJECT NUMBER: 0019800

SAMPLE ID : Greif-MW-25 (07/06)

WELL ID : MW-25

SAMPLERS : R. Sentz, C. Wunderlich

	Time Onsite:	Time Offsite:
7/10	07:30	21:15
7/11	08:00	15:30

Depth of well (from top of casing) ..... 14.55 Time: _____

Static water level (from top of casing) ..... 5.78 Time: _____

Water level after purging (from top of casing) ..... _____ Time: _____

Water level before sampling (from top of casing) ..... _____ Time: _____

Purging Method:

- ___ Airlift
- ___ Low-Flow Pump
- X Bailer
- ___ Peristaltic Pump
- ___ Submersible
- ___ Ded. Pump

Well Volume Calculation:

		1 volume	3 volumes
2 in. well:	8.73 ft. of water x 0.16 =	1.39 gal.	x 3 = 4.2 gal.
3 in. well:	____ ft. of water x 0.36 =	____ gal.	x 3 = ____ gal.
4 in. well:	____ ft. of water x 0.65 =	____ gal.	x 3 = ____ gal.
6 in. well:	____ ft. of water x 1.47 =	____ gal.	x 3 = ____ gal.

Volume of water removed: 4.2 gal. >3 volumes: yes X no ___ purged dry? yes ___ no X

Field Tests:

	pH	Cond.	Turb.	DO	Temp.	DEP	SAL	TDS	ORP
units	-	mg/cm	NTU	g/L	C F	-	-	g/L	mV
Initial	6.67	3.97	99	3.14	18.64	-	2.11	2.58	171.2
1 Volume	6.70	4.23	1918	4.42	18.10	-	2.27	2.76	90.8
2 Volumes	6.68	4.34	1843	2.09	18.35	-	2.31	2.81	60.8
3 Volumes	6.73	4.19	3902	389	18.25	-	2.24	2.73	56.1

Sampling

Time of Sample Collection: 9:20

Collection Method:

- X Disposable bailer
- ___ Teflon bailer
- ___ Dedicated pump
- ___ Submersible Pump
- ___ Low-Flow Sampling
- ___ Other: _____

Analyses:

- X VOCs -
- ___ SVOCs
- ___ Metals
- ___ PCB/Pest
- ___ MNA
- X Other

Analytical Method: 8260 X 503.1 ___ Other _____

Other: select Natural Attenuation Parameters

Observations

Weather/Temperature: ±75°F, rain, calm

Sample Description: _____

Free Product? yes ___ no X describe _____

Sheen? yes ___ no X describe _____

Odor? yes ___ no X describe _____

Comments:

Field Fe^{2+}: 0.6 mg/l

GROUND WATER SAMPLING RECORD

SITE Groif Bros. DATE 10-11 July 2006

PROJECT NUMBER: 0019800

SAMPLE ID : Groif-MW-21S(07/06)

WELL ID : MW-21S

SAMPLERS : R. Sentz, C. Wunderlich

	Time Onsite:	Time Offsite:
7/10	07:30	21:15
7/11	08:00	15:30

Depth of well (from top of casing) ..... 16.38 Time: _____

Static water level (from top of casing) ..... 13.91 Time: _____

Water level after purging (from top of casing) ..... _____ Time: _____

Water level before sampling (from top of casing) ..... _____ Time: _____

Purging Method:

___ Airlift ___ Low-Flow Pump

X Bailer ___ Peristaltic Pump

___ Submersible ___ Ded. Pump

Well Volume Calculation:

		1 volume	3 volumes
2 in. well:	2.47 ft. of water x 0.16 =	0.39 gal.	x 3 = 1.1 gal.
3 in. well:	___ ft. of water x 0.36 =	___ gal.	x 3 = ___ gal.
4 in. well:	___ ft. of water x 0.65 =	___ gal.	x 3 = ___ gal.
6 in. well:	___ ft. of water x 1.47 =	___ gal.	x 3 = ___ gal.

Volume of water removed: 1.1 gal. >3 volumes: yes X no ___ purged dry? yes ___ no X

Field Tests:

	pH	Cond.	Turb.	DO	Temp.	DEP	SAL	TDS	ORP
units	-	mg/cm	NTU	g/L	C F	-	-	g/L	mV
Initial	6.91	1.01	7.67	3.51	18.72	-	0.50	0.66	161.1
1 Volume	7.02	1.00	15.5	3.37	18.65	-	0.49	0.65	179.9
2 Volumes	6.97	0.99	24.8	4.42	18.66	-	0.49	0.65	186.5
3 Volumes	7.00	0.99	41.4	3.6	18.66	-	0.49	0.65	192.5

Sampling

Time of Sample Collection: 10:10

Collection Method:

X Disposable bailer

___ Teflon bailer

___ Dedicated pump

___ Submersible Pump

___ Low-Flow Sampling

___ Other: _____

Analyses:

X VOCs -

___ SVOCs

___ Metals

___ PCB/Pest

___ MNA

X Other Select Natural Attenuation Parameters

Analytical Method:

8260 X 503.1 ___ Other _____

Observations

Weather/Temperature: ±80°F, overcast, calm

Sample Description: _____

Free Product? yes ___ no X describe _____

Sheen? yes ___ no X describe _____

Odor? yes ___ no X describe _____

Comments:

Field Fe^{2+}: 0.0 mg/l

GROUND WATER SAMPLING RECORD

SITE Groif Bros. DATE 10-11 July 2006

PROJECT NUMBER: 0019800

SAMPLE ID: Groif-MW-21I(07/06)

WELL ID: MW-21I

SAMPLERS:		Time Onsite:	Time Offsite:
R. Sentz	7/10	07:30	21:15
C. Wunderlich	7/11	08:00	15:30

Depth of well (from top of casing) ..... 35.54 Time: _____

Static water level (from top of casing) ..... 13.52 Time: _____

Water level after purging (from top of casing) ..... _____ Time: _____

Water level before sampling (from top of casing) ..... _____ Time: _____

Purging Method:

___ Airlift ___ Low-Flow Pump

X Bailer ___ Peristaltic Pump

___ Submersible ___ Ded. Pump

Well Volume Calculation:

			1 volume	3 volumes
2 in. well:	22.02	ft. of water x 0.16 =	___ gal.	x 3 = ___ gal.
3 in. well:	___	ft. of water x 0.36 =	___ gal.	x 3 = ___ gal.
4 in. well:	___	ft. of water x 0.65 =	___ gal.	x 3 = ___ gal.
6 in. well:	___	ft. of water x 1.47 =	___ gal.	x 3 = ___ gal.

Volume of water removed: 7.5 gal. >3 volumes: yes ___ no X purged dry? yes X no ___

Field Tests:

	pH	Cond.	Turb.	DO	Temp.	DEP	SAL	TDS	ORP
units	-	mg/cm	NTU	g/L	C F	-	-	g/L	mV
Initial	7.10	0.99	6.60	2.35	18.66	—	0.49	0.64	182.6
1 Volume	7.30	0.98	228	2.53	17.97	—	0.49	0.64	161.4
2 Volumes	7.42	1.04	8498	5.92	17.67	—	0.52	0.67	-69.8
3 Volumes					Dry				

Sampling

Time of Sample Collection: 10:25

Collection Method:		Analyses:		Analytical Method:
X	Disposable bailer	X	VOCs -	8260 X 503.1 ___ Other ___
___	Teflon bailer	___	SVOCs	
___	Dedicated pump	___	Metals	
___	Submersible Pump	___	PCB/Pest	
___	Low-Flow Sampling	___	MNA	
___	Other: ___	X	Other	Select Natural Attenuation Parameters

Observations

Weather/Temperature: ±80°F, partly cloudy, calm

Sample Description: _____

Free Product? yes ___ no X describe _____

Sheen? yes ___ no X describe _____

Odor? yes ___ no X describe _____

Comments:

Field Fe^{2+}: 0.0 mg/l

GROUND WATER SAMPLING RECORD

SITE Greif Bros. DATE 10-11 July 2006

PROJECT NUMBER: 0019800

SAMPLE ID : Greif-MW-22(07/06)

WELL ID : MW-22

SAMPLERS : R. Sentz, C. Wunderlich

	Time Onsite:	Time Offsite:
7/10	07:30	21:15
7/11	08:00	15:30

Depth of well (from top of casing) ..... 33.81 Time: _____

Static water level (from top of casing) ..... 14.33 Time: _____

Water level after purging (from top of casing) ..... _____ Time: _____

Water level before sampling (from top of casing) ..... _____ Time: _____

Purging Method:

- ___ Airlift
- ___ Low-Flow Pump
- X Bailer
- ___ Peristaltic Pump
- ___ Submersible
- ___ Ded. Pump

Well Volume Calculation:

		1 volume	3 volumes
2 in. well:	19.48 ft. of water x 0.16 =	3.1 gal.	x 3 = 9.3 gal.
3 in. well:	___ ft. of water x 0.36 =	___ gal.	x 3 = ___ gal.
4 in. well:	___ ft. of water x 0.65 =	___ gal.	x 3 = ___ gal.
6 in. well:	___ ft. of water x 1.47 =	___ gal.	x 3 = ___ gal.

Volume of water removed: 9.5 gal. >3 volumes: yes X no ___ purged dry? yes ___ no X

Field Tests:

	pH	Cond.	Turb.	DO	Temp.	DEP	SAL	TDS	ORP
units	-	mg/cm	NTU	g/L	C F	-	-	g/L	mV
Initial	7.49	1.76	20.8	5.05	17.51	-	0.89	1.14	109.8
1 Volume	7.35	1.87	86.3	4.27	16.66	-	0.96	1.21	-82.2
2 Volumes	7.37	1.72	105	5.09	16.46	-	0.88	1.12	-79.0
3 Volumes	7.37	1.70	86.9	4.86	16.47	-	0.87	1.10	-77.2

Sampling

Time of Sample Collection: 13.50

Collection Method:

- X Disposable bailer
- ___ Teflon bailer
- ___ Dedicated pump
- ___ Submersible Pump
- ___ Low-Flow Sampling
- ___ Other: _____

Analyses:

- X VOCs -
- ___ SVOCs
- ___ Metals
- ___ PCB/Pest
- ___ MNA
- X Other

Analytical Method: 8260 X 503.1 ___ Other ___

Other: Select Natural Attenuation Parameters

Observations

Weather/Temperature: ±80°F, overcast, calm

Sample Description: _____

Free Product? yes ___ no X describe _____

Sheen? yes ___ no X describe _____

Odor? yes ___ no X describe _____

Comments:

Field Fe^{2+}: 0.2 mg/l

GROUND WATER SAMPLING RECORD

SITE Greif Bros. DATE 10-11 July 2006

PROJECT NUMBER: 0019800

SAMPLE ID: Greif-MW-18 (07/06) & Greif-Dup (07/06)

WELL ID: MW-18

SAMPLERS: R. Sentz, C. Wunderlich

	Time Onsite:	Time Offsite:
7/10	07:30	21:15
7/11	08:00	15:30

Depth of well (from top of casing) ..... 28.35 Time: _____

Static water level (from top of casing) ..... 8.85 Time: _____

Water level after purging (from top of casing) ..... _____ Time: _____

Water level before sampling (from top of casing) ..... _____ Time: _____

Purging Method:

___ Airlift ___ Low-Flow Pump

X Bailer ___ Peristaltic Pump

___ Submersible ___ Ded. Pump

Well Volume Calculation:

			1 volume	3 volumes
2 in. well:	19.5	ft. of water x 0.16 =	3.12 gal.	x 3 = 9.36 gal.
3 in. well:	___	ft. of water x 0.36 =	___ gal.	x 3 = ___ gal.
4 in. well:	___	ft. of water x 0.65 =	___ gal.	x 3 = ___ gal.
6 in. well:	___	ft. of water x 1.47 =	___ gal.	x 3 = ___ gal.

Volume of water removed: 6.5 gal. >3 volumes: yes ___ no X purged dry? yes X no ___

Field Tests:

	pH	Cond.	Turb.	DO	Temp.	DEP	SAL	TDS	ORP
units	-	mg/cm	NTU	g/L	C F	-	-	g/L	mV
Initial	11.63	2.84	143	9.22	15.68	—	1.48	1.84	43.2
1 Volume	8.54	1.97	118	5.73	14.90	—	1.01	1.28	-81.9
2 Volumes	8.83	1.90	1,200	4.44	14.78	—	0.97	1.23	-146.8
3 Volumes					Dry				

Sampling

Time of Sample Collection: 11:40

Collection Method:

X Disposable bailer

___ Teflon bailer

___ Dedicated pump

___ Submersible Pump

___ Low-Flow Sampling

___ Other: _____

Analyses:

X VOCs - 8260 X 503.1 ___ Other ___

___ SVOCs

___ Metals

___ PCB/Pest

___ MNA

X Other Select Natural Attenuation Parameters

Observations

Weather/Temperature: ±80°F, partly cloudy, calm

Sample Description: _____

Free Product? yes ___ no X describe _____

Sheen? yes ___ no X describe _____

Odor? yes ___ no X describe _____

Comments:

Field Fe^{2+}: 0.0 mg/l

Purge water is a milky color

*Duplicate collected at this location

GROUND WATER SAMPLING RECORD

SITE Groif Bros. DATE 10-11 July 2006

PROJECT NUMBER: 0019800

SAMPLE ID : Groif-MW-12 (07/06)

WELL ID : MW-12

SAMPLERS : R. Sentz, C. Wunderlich

	Time Onsite:	Time Offsite:
7/10	07:30	21:15
7/11	08:00	15:30

Depth of well (from top of casing) ..... 15.96 Time: _____

Static water level (from top of casing) ..... 5.62 Time: _____

Water level after purging (from top of casing) ..... _____ Time: _____

Water level before sampling (from top of casing) ..... _____ Time: _____

Purging Method:

- ___ Airlift
- ___ Low-Flow Pump
- X Bailer
- ___ Peristaltic Pump
- ___ Submersible
- ___ Ded. Pump

Well Volume Calculation:

		1 volume	3 volumes
2 in. well:	16.34 ft. of water x 0.16 =	1.65 gal.	x 3 = 4.96 gal.
3 in. well:	___ ft. of water x 0.36 =	___ gal.	x 3 = ___ gal.
4 in. well:	___ ft. of water x 0.65 =	___ gal.	x 3 = ___ gal.
6 in. well:	___ ft. of water x 1.47 =	___ gal.	x 3 = ___ gal.

Volume of water removed: 50 gal. >3 volumes: yes X no ___ purged dry? yes ___ no X

Field Tests:

	pH	Cond.	Turb.	DO	Temp.	DEP	SAL	TDS	ORP
units	-	mg/cm	NTU	g/L	C F	-	-	g/L	mV
Initial	6.95	1.88	15.2	4.39	20.97	-	0.95	1.22	171.6
1 Volume	6.85	1.89	160.2	3.54	19.93	-	0.97	1.23	167.9
2 Volumes	6.91	1.88	107.9	3.64	18.61	-	0.96	1.23	157.9
3 Volumes	6.97	1.77	140.0	4.46	18.18	-	0.96	1.22	126.3

Sampling

Time of Sample Collection: 13:10

Collection Method:

- X Disposable bailer
- ___ Teflon bailer
- ___ Dedicated pump
- ___ Submersible Pump
- ___ Low-Flow Sampling
- ___ Other: _____

Analyses:

- X VOCs -
- ___ SVOCs
- ___ Metals
- ___ PCB/Pest
- ___ MNA
- X Other

Analytical Method: 8260 X 503.1 ___ Other _____

Select Natural Attenuation Parameters

Observations

Weather/Temperature: ±80°F, overcast, calm

Sample Description: _____

Free Product? yes ___ no X describe _____

Sheen? yes ___ no X describe _____

Odor? yes ___ no X describe _____

Comments:

Field Fe^{2+}: 0.0 mg/l

GROUND WATER SAMPLING RECORD

SITE Groif Bros. DATE 10-11 July 2006

PROJECT NUMBER: 0019800

SAMPLE ID: Groif-MW-13 (07/06)

WELL ID: MW-13

SAMPLERS: R. Sentz, C. Wunderlich

	Time Onsite:	Time Offsite:
7/10	07:30	21:15
7/11	08:00	15:30

Depth of well (from top of casing) ..... 16.38 Time: _____

Static water level (from top of casing) ..... 5.60 Time: _____

Water level after purging (from top of casing) ..... _____ Time: _____

Water level before sampling (from top of casing) ..... _____ Time: _____

Purging Method:

___ Airlift ___ Low-Flow Pump

X Bailer ___ Peristaltic Pump

___ Submersible ___ Ded. Pump

Well Volume Calculation:

		1 volume	3 volumes
2 in. well:	10.78 ft. of water x 0.16 =	1.72 gal.	x 3 = 5.2 gal.
3 in. well:	___ ft. of water x 0.36 =	___ gal.	x 3 = ___ gal.
4 in. well:	___ ft. of water x 0.65 =	___ gal.	x 3 = ___ gal.
6 in. well:	___ ft. of water x 1.47 =	___ gal.	x 3 = ___ gal.

Volume of water removed: 5.5 gal. >3 volumes: yes X no ___ purged dry? yes ___ no X

Field Tests:

	pH	Cond.	Turb.	DO	Temp.	DEP	SAL	TDS	ORP
units	-	mg/cm	NTU	g/L	C F	-	-	g/L	mV
Initial	6.41	3.08	5.90	3.20	18.59	-	1.61	2.00	-7.0
1 Volume	6.46	3.31	36.8	4.99	17.88	-	1.74	2.15	-12.7
2 Volumes	6.44	3.22	182	4.57	17.38	-	1.69	2.09	-38.5
3 Volumes	6.38	3.27	158	4.57	17.08	-	1.73	2.13	-26.4

Sampling

Time of Sample Collection: 13:40

Collection Method:

X Disposable bailer

___ Teflon bailer

___ Dedicated pump

___ Submersible Pump

___ Low-Flow Sampling

___ Other: _____

Analyses:

X VOCs -

___ SVOCs

___ Metals

___ PCB/Pest

___ MNA

X Other Select Natural Attenuation Parameters

Analytical Method:

8260 X 503.1 ___ Other _____

Observations

Weather/Temperature: ±80°F, rain, calm

Sample Description: slight odor

Free Product? yes ___ no X describe _____

Sheen? yes ___ no X describe _____

Odor? yes X no ___ describe "Solvent" like odor (slight)

Comments:

Field Fe^{2+}: 0.7 mg/l

Purge water has a sheen and strong "solvent" like odor

GROUND WATER SAMPLING RECORD

SITE Groif Bros. DATE 10-11 July 2006

PROJECT NUMBER: 0019800

SAMPLE ID : Groif-MW-14 (07/06)

WELL ID : MW-14

SAMPLERS : R. Sentz

C. Wunderlich

	Time Onsite:	Time Offsite:
7/10	07:30	21:15
7/11	08:00	15:30

Depth of well (from top of casing) ..... 16.63 Time: _____

Static water level (from top of casing) ..... 10.05 Time: _____

Water level after purging (from top of casing) ..... _____ Time: _____

Water level before sampling (from top of casing) ..... _____ Time: _____

Purging Method:

- ___ Airlift
- ___ Low-Flow Pump
- X Bailer
- ___ Peristaltic Pump
- ___ Submersible
- ___ Ded. Pump

Well Volume Calculation:

			1 volume	3 volumes
2 in. well:	6.58	ft. of water x 0.16 =	1.05 gal.	x 3 = 3.15 gal.
3 in. well:	___	ft. of water x 0.36 =	___ gal.	x 3 = ___ gal.
4 in. well:	___	ft. of water x 0.65 =	___ gal.	x 3 = ___ gal.
6 in. well:	___	ft. of water x 1.47 =	___ gal.	x 3 = ___ gal.

Volume of water removed: 3.5 gal. >3 volumes: yes X no ___ purged dry? yes ___ no X

Field Tests:

	pH	Cond.	Turb.	DO	Temp.	DEP	SAL	TDS	ORP
units	-	mg/cm	NTU	g/L	C F	-	-	g/L	mV
Initial	7.47	1.34	11.0	3.68	18.44	—	0.68	0.87	46.6
1 Volume	7.30	1.36	113	4.62	18.37	—	0.69	0.89	40.9
2 Volumes	7.16	1.34	178	4.36	18.17	—	0.67	0.88	-29.8
3 Volumes	7.30	1.81	303	6.92	18.14	—	0.67	0.89	-42.1

Sampling

Time of Sample Collection: 14:10

Collection Method:

- X Disposable bailer
- ___ Teflon bailer
- ___ Dedicated pump
- ___ Submersible Pump
- ___ Low-Flow Sampling
- ___ Other: _____

Analyses:

- X VOCs - 8260 X 503.1 ___ Other ___
- ___ SVOCs
- ___ Metals
- ___ PCB/Pest
- ___ MNA
- X Other Select Natural Attenuation Parameters

Observations

Weather/Temperature: ±80°f, rain, calm

Sample Description: slight "solvent" like odor

Free Product? yes ___ no X describe _____

Sheen? yes ___ no X describe _____

Odor? yes X no ___ describe _____

Comments:

Field Fe2+: 0.2 mg/l

ATTACHMENT F
JULY 2006 LABORATORY ANALYTICAL REPORT

ANALYTICAL REPORT

Job#: A06-7828

STL Project#: NY1A8821
Site Name: ERM - GREIF BROTHERS
Task: ERM GREIF BROS. AQUEOUS SAMPLING

Mr. Jon Fox
ERM
5788 Widewaters Pkwy
Dewitt, NY 13214

STL Buffalo

Brian J. Fischer
Project Manager

07/28/2006

STL Buffalo
Current Certifications

As of 4/10//2006

STATE	Program	Cert # / Lab ID
AFCEE	AFCEE	
Arkansas	SDWA, CWA, RCRA, SOIL	03-054-D/88-0686
California	NELAP CWA, RCRA	01169CA
Connecticut	SDWA, CWA, RCRA, SOIL	PH-0568
Florida	NELAP CWA, RCRA	E87672
Georgia	SDWA	956
Illinois	NELAP SDWA, CWA, RCRA	200003
Iowa	SW/CS	374
Kansas	NELAP SDWA, CWA, RCRA	E-10187
Kentucky	SDWA	90029
Kentucky UST	UST	30
Louisiana	NELAP CWA, RCRA	2031
Maine	SDWA, CWA	NY044
Maryland	SDWA	294
Massachusetts	SDWA, CWA	M-NY044
Michigan	SDWA	9937
Minnesota	SDWA,CWA, RCRA	036-999-337
New Hampshire	NELAP SDWA, CWA	233701
New Jersey	SDWA, CWA, RCRA, CLP	NY455
New York	NELAP, AIR, SDWA, CWA, RCRA,ASP	10026
Oklahoma	CWA, RCRA	9421
Pennsylvania	Env. Lab Reg.	68-281
South Carolina	RCRA	91013
Tennessee	SDWA	02970
USACE	USACE	
USDA	FOREIGN SOIL PERMIT	S-41579
USDOE	Department of Energy	DOECAP-STB
Virginia	SDWA	278
Washington	CWA,RCRA	C1677
West Virginia	CWA,RCRA	252
Wisconsin	CWA	998310390

SAMPLE SUMMARY

LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	SAMPLED DATE	SAMPLED TIME	RECEIVED DATE	RECEIVED TIME
A6782801	GREIF-DUP(07/06)	WATER	07/11/2006		07/11/2006	15:25
A6782807	GREIF-MW-12(07/06)	WATER	07/11/2006	13:10	07/11/2006	15:25
A6782808	GREIF-MW-13(07/06)	WATER	07/11/2006	13:40	07/11/2006	15:25
A6782810	GREIF-MW-14(07/06)	WATER	07/11/2006	14:10	07/11/2006	15:25
A6782806	GREIF-MW-18(07/06)	WATER	07/11/2006	11:40	07/11/2006	15:25
A6782805	GREIF-MW-21I(07/06)	WATER	07/11/2006	10:25	07/11/2006	15:25
A6782804	GREIF-MW-21S(07/06)	WATER	07/11/2006	10:10	07/11/2006	15:25
A6782809	GREIF-MW-22(07/06)	WATER	07/11/2006	13:50	07/11/2006	15:25
A6782803	GREIF-MW-24(07/06)	WATER	07/11/2006	08:50	07/11/2006	15:25
A6782802	GREIF-MW-25(07/06)	WATER	07/11/2006	09:20	07/11/2006	15:25
A6782802MS	GREIF-MW-25(07/06)	WATER	07/11/2006	09:20	07/11/2006	15:25
A6782802SD	GREIF-MW-25(07/06)	WATER	07/11/2006	09:20	07/11/2006	15:25
A6782811	TRIP BLANK	WATER	07/11/2006		07/11/2006	15:25

METHODS SUMMARY

Job#: A06-7828

STL Project#: NY1A8821
Site Name: ERM - GREIF BROTHERS

PARAMETER	ANALYTICAL METHOD
METHOD 8260 - SELECT VOLATILE ORGANICS	SW8463 8260
DISSOLVED GASES - ETHANE, ETHENE, AND METHANE	OTHER RSK175
Bicarbonate Alkalinity	MCAWW 310.1
Carbonate Alkalinity	MCAWW 310.1
Hydroxyl Alkalinity	MCAWW 310.1
Nitrate	MCAWW 353.2
Soluble Organic Carbon	SW8463 9060
Sulfate	MCAWW 375.4
Sulfide	MCAWW 376.1
Total Alkalinity	MCAWW 310.1
Total Dissolved Solids	MCAWW 160.1
Total Hardness	MCAWW 130.2

MCAWW "Methods for Chemical Analysis of Water and Wastes",EPA/600/4-79-020 (Mar 1983) with updates and supplements EPA/600/4-91-010 (Jun 1991), EPA/600/R-92-129 (Aug 1992) and EPA/600/R-93-100 (Aug 1993)

OTHER Non-Standard Protocol and Method Defined by State, Client QAPP or Developed by Laboratory

SW8463 "Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW846), Third Edition, 9/86; Update I, 7/92; Update IIA, 8/93; Update II, 9/94; Update IIB, 1/95; Update III, 12/96.

NON-CONFORMANCE SUMMARY

Job#: A06-7828

STL Project#: NY1A8821
Site Name: ERM - GREIF BROTHERS

General Comments

The enclosed data may or may not have been reported utilizing data qualifiers (Q) as defined on the Data Comment Page.

Soil, sediment and sludge sample results are reported on "dry weight" basis unless otherwise noted in this data package.

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. pH-Field), they were not analyzed immediately, but as soon as possible after laboratory receipt.

Sample dilutions were performed as indicated on the attached Dilution Log. The rationale for dilution is specified by the 3-digit code and definition.

Sample Receipt Comments

A06-7828
Sample Cooler(s) were received at the following temperature(s); 3@4.6 °C
Samples for parameter DOC were not filtered in the field. These samples were filtered in Sample Control using 0.45 um paper and poured into 1, 40 ml vial per each, pre-preserved with hcl.

GC/MS Volatile Data

No deviations from protocol were encountered during the analytical procedures.

GC Volatile Data

The relative percent difference between the Matrix Spike and the Matrix Spike Duplicate exceed quality control limits for Methane.

For method RSK, the recoveries of Methane in sample GREIF-MW-25(07/06) Matrix Spike and Matrix Spike Duplicate exceeded QC limits. The Matrix Spike Blank recoveries are compliant.

Wet Chemistry Data

The requested reporting limits for Carbonate and Hydroxyl Alkalinity are below STL's standard reporting limits. It must be noted that results reported below STL's standard reporting limit may result in false positive/false negative results, less accurate quantitation and potential misidentification at the lower concentrations. Therefore, no corrective actions have been taken for any detections between the requested reporting limits and STLs standard reporting limits.

The recovery of sample GREIF-MW-25(07/06) Matrix Spike and Matrix Spike Duplicate exhibited results below the quality control limits for Total Hardness as CaCO3. Sample matrix is suspect. However, the LCS was acceptable.

The recovery of sample W-11 Matrix Spike exhibited results below the quality control limits for Sulfate. The recovery of sample W-11 Matrix Spike Duplicate exhibited results below the quality control limits for Sulfate. However, the LCS was acceptable.

****

The results presented in this report relate only to the analytical testing and condition of the sample at receipt. This report pertains to only those samples actually tested. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

"I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature."

_____

Brian J. Fischer
Project Manager

_____

Date

Client Sample ID	Lab Sample ID	Parameter (Inorganic)/Method (Organic)	Dilution	Code
GREIF-DUP(07/06)	A6782801	8260	20.00	008
GREIF-DUP(07/06)	A6782801	Sulfate	20.00	008
GREIF-MW-25(07/06)	A6782802	Sulfate	5.00	008
GREIF-MW-25(07/06)	A6782802	Total Hardness	5.00	008
GREIF-MW-25(07/06)	A6782802MS	Sulfate	5.00	008
GREIF-MW-25(07/06)	A6782802MS	Total Hardness	5.00	008
GREIF-MW-25(07/06)	A6782802SD	Sulfate	5.00	008
GREIF-MW-25(07/06)	A6782802SD	Total Hardness	5.00	008
GREIF-MW-24(07/06)	A6782803	8260	80.00	008
GREIF-MW-24(07/06)	A6782803	RSK175	20.00	008
GREIF-MW-24(07/06)	A6782803	Sulfate	50.00	008
GREIF-MW-24(07/06)	A6782803	Total Hardness	5.00	008
GREIF-MW-24(07/06)	A6782803DL	8260	200.00	008
GREIF-MW-21S(07/06)	A6782804	Sulfate	5.00	008
GREIF-MW-21I(07/06)	A6782805	Sulfate	5.00	008
GREIF-MW-18(07/06)	A6782806	8260	20.00	008
GREIF-MW-18(07/06)	A6782806	Sulfate	20.00	008
GREIF-MW-12(07/06)	A6782807	8260	40.00	008
GREIF-MW-12(07/06)	A6782807	Sulfate	7.00	008
GREIF-MW-13(07/06)	A6782808	8260	800.00	008
GREIF-MW-13(07/06)	A6782808	RSK175	40.00	008
GREIF-MW-13(07/06)	A6782808	Sulfate	6.00	008
GREIF-MW-13(07/06)	A6782808	Total Hardness	5.00	008
GREIF-MW-22(07/06)	A6782809	Sulfate	15.00	008
GREIF-MW-14(07/06)	A6782810	8260	800.00	008
GREIF-MW-14(07/06)	A6782810	Sulfate	5.00	008
GREIF-MW-14(07/06)	A6782810MS	Sulfate	5.00	008

Dilution Code Definition:

002 - sample matrix effects
003 - excessive foaming
004 - high levels of non-target compounds
005 - sample matrix resulted in method non-compliance for an Internal Standard
006 - sample matrix resulted in method non-compliance for Surrogate
007 - nature of the TCLP matrix
008 - high concentration of target analyte(s)
009 - sample turbidity
010 - sample color
011 - insufficient volume for lower dilution
012 - sample viscosity
013 - other

SEVERN TRENT STL

DATA QUALIFIER PAGE

These definitions are provided in the event the data in this report requires the use of one or more of the qualifiers. Not all qualifiers defined below are necessarily used in the accompanying data package.

ORGANIC DATA QUALIFIERS

ND or U	Indicates compound was analyzed for, but not detected.
J	Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
C	This flag applies to pesticide results where the identification has been confirmed by GC/MS.
B	This flag is used when the analyte is found in the associated blank, as well as in the sample.
E	This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at the secondary dilution factor.
N	Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds, where the identification is based on the Mass Spectral library search. It is applied to all TIC results.
P	This flag is used for CLP methodology only. For Pesticide/Aroclor target analytes, when a difference for detected concentrations between the two GC columns is greater than 25%, the lower of the two values is reported on the data page and flagged with a "P".
A	This flag indicates that a TIC is a suspected aldol-condensation product.
[1]	Indicates coelution.
*	Indicates analysis is not within the quality control limits.

INORGANIC DATA QUALIFIERS

ND or U	Indicates element was analyzed for, but not detected. Report with the detection limit value.
J or B	Indicates a value greater than or equal to the instrument detection limit, but less than the quantitation limit.
N	Indicates spike sample recovery is not within the quality control limits.
S	Indicates value determined by the Method of Standard Addition.
E	Indicates a value estimated or not reported due to the presence of interferences.
H	Indicates analytical holding time exceedance. The value obtained should be considered an estimate.
*	Indicates the spike or duplicate analysis is not within the quality control limits.
+	Indicates the correlation coefficient for the Method of Standard Addition is less than 0.995.

Client ID		GREIF-DUP(07/06)		GREIF-MW-12(07/06)		GREIF-MW-13(07/06)		GREIF-MW-14(07/06)	
Job No / Lab ID		A06-7828	A6782801	A06-7828	A6782807	A06-7828	A6782808	A06-7828	A6782810
Sample Date		07/11/2006		07/11/2006		07/11/2006		07/11/2006	
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Acetone	UG/L	ND	100	ND	200	ND	4000	ND	4000
Benzene	UG/L	ND	20	ND	40	ND	800	ND	800
2-Butanone	UG/L	ND	100	ND	200	ND	4000	ND	4000
Chloroethane	UG/L	22	20	ND	40	ND	800	ND	800
Chloroform	UG/L	ND	20	ND	40	ND	800	ND	800
1,1-Dichloroethane	UG/L	1500	20	2600	40	9600	800	2500	800
1,2-Dichloroethane	UG/L	ND	20	ND	40	ND	800	ND	800
1,1-Dichloroethene	UG/L	160	20	520	40	16000	800	1400	800
cis-1,2-Dichloroethene	UG/L	300	20	3200	40	10000	800	ND	800
trans-1,2-Dichloroethene	UG/L	ND	20	61	40	420 J	800	ND	800
Ethylbenzene	UG/L	17 J	20	ND	40	ND	800	ND	800
Methylene chloride	UG/L	15 J	20	54	40	510 J	800	470 J	800
4-Methyl-2-pentanone	UG/L	ND	100	ND	200	ND	4000	ND	4000
Tetrachloroethene	UG/L	ND	20	ND	40	ND	800	ND	800
Toluene	UG/L	ND	20	ND	40	ND	800	ND	800
1,1,1-Trichloroethane	UG/L	200	20	660	40	41000	800	ND	800
1,1,2-Trichloroethane	UG/L	ND	20	ND	40	ND	800	ND	800
Trichloroethene	UG/L	130	20	640	40	61000	800	45000	800
1,2,4-Trimethylbenzene	UG/L	14 J	20	ND	40	ND	800	ND	800
Vinyl chloride	UG/L	110	20	56	40	ND	800	ND	800
Total Xylenes	UG/L	54 J	60	ND	120	ND	2400	ND	2400
IS/SURROGATE(S)									
Chlorobenzene-D5	%	93	50-200	89	50-200	89	50-200	87	50-200
1,4-Difluorobenzene	%	95	50-200	88	50-200	88	50-200	86	50-200
1,4-Dichlorobenzene-D4	%	83	50-200	81	50-200	80	50-200	79	50-200
Toluene-D8	%	91	76-122	91	76-122	91	76-122	91	76-122
p-Bromofluorobenzene	%	86	73-120	87	73-120	85	73-120	86	73-120
1,2-Dichloroethane-D4	%	97	72-143	94	72-143	94	72-143	96	72-143

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Client ID		GREIF-MW-18(07/06)		GREIF-MW-21I(07/06)		GREIF-MW-21S(07/06)		GREIF-MW-22(07/06)	
Job No / Lab ID		A06-7828 / A6782806		A06-7828 / A6782805		A06-7828 / A6782804		A06-7828 / A6782809	
Sample Date		07/11/2006		07/11/2006		07/11/2006		07/11/2006	
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Acetone	UG/L	ND	100	ND	5.0	ND	5.0	ND	5.0
Benzene	UG/L	ND	20	ND	1.0	ND	1.0	ND	1.0
2-Butanone	UG/L	ND	100	ND	5.0	ND	5.0	ND	5.0
Chloroethane	UG/L	17 J	20	ND	1.0	ND	1.0	ND	1.0
Chloroform	UG/L	ND	20	ND	1.0	ND	1.0	ND	1.0
1,1-Dichloroethane	UG/L	1200	20	ND	1.0	ND	1.0	1.6	1.0
1,2-Dichloroethane	UG/L	ND	20	ND	1.0	ND	1.0	ND	1.0
1,1-Dichloroethene	UG/L	120	20	ND	1.0	ND	1.0	0.41 J	1.0
cis-1,2-Dichloroethene	UG/L	240	20	ND	1.0	ND	1.0	ND	1.0
trans-1,2-Dichloroethene	UG/L	ND	20	ND	1.0	ND	1.0	ND	1.0
Ethylbenzene	UG/L	14 J	20	ND	1.0	ND	1.0	ND	1.0
Methylene chloride	UG/L	15 J	20	ND	1.0	ND	1.0	ND	1.0
4-Methyl-2-pentanone	UG/L	ND	100	ND	5.0	ND	5.0	ND	5.0
Tetrachloroethene	UG/L	ND	20	ND	1.0	ND	1.0	ND	1.0
Toluene	UG/L	ND	20	ND	1.0	ND	1.0	ND	1.0
1,1,1-Trichloroethane	UG/L	160	20	ND	1.0	3.0	1.0	ND	1.0
1,1,2-Trichloroethane	UG/L	ND	20	ND	1.0	ND	1.0	ND	1.0
Trichloroethene	UG/L	110	20	ND	1.0	0.91 J	1.0	3.5	1.0
1,2,4-Trimethylbenzene	UG/L	12 J	20	ND	1.0	ND	1.0	ND	1.0
Vinyl chloride	UG/L	80	20	ND	1.0	ND	1.0	ND	1.0
Total Xylenes	UG/L	42 J	60	ND	3.0	ND	3.0	ND	3.0
IS/SURROGATE(S)									
Chlorobenzene-D5	%	92	50-200	90	50-200	93	50-200	88	50-200
1,4-Difluorobenzene	%	93	50-200	90	50-200	94	50-200	86	50-200
1,4-Dichlorobenzene-D4	%	81	50-200	83	50-200	83	50-200	78	50-200
Toluene-D8	%	91	76-122	92	76-122	92	76-122	90	76-122
p-Bromofluorobenzene	%	85	73-120	87	73-120	86	73-120	85	73-120
1,2-Dichloroethane-D4	%	98	72-143	92	72-143	97	72-143	95	72-143

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NA = Not Applicable ND = Not Detected

Client ID		GREIF-MW-24(07/06)		GREIF-MW-24(07/06)		GREIF-MW-25(07/06)			
Job No	Lab ID	A06-7828	A6782803	A06-7828	A6782803DL	A06-7828	A6782802		
Sample Date		07/11/2006		07/11/2006		07/11/2006			
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Acetone	UG/L	ND	400	ND	1000	ND	5.0	NA	
Benzene	UG/L	97	80	ND	200	1.1	1.0	NA	
2-Butanone	UG/L	ND	400	ND	1000	ND	5.0	NA	
Chloroethane	UG/L	ND	80	ND	200	0.40 J	1.0	NA	
Chloroform	UG/L	ND	80	ND	200	ND	1.0	NA	
1,1-Dichloroethane	UG/L	58 J	80	ND	200	7.8	1.0	NA	
1,2-Dichloroethane	UG/L	ND	80	ND	200	ND	1.0	NA	
1,1-Dichloroethene	UG/L	ND	80	ND	200	0.95 J	1.0	NA	
cis-1,2-Dichloroethene	UG/L	5600	80	5400 D	200	18	1.0	NA	
trans-1,2-Dichloroethene	UG/L	37 J	80	ND	200	0.99 J	1.0	NA	
Ethylbenzene	UG/L	ND	80	ND	200	ND	1.0	NA	
Methylene chloride	UG/L	48 J	80	160 DJ	200	ND	1.0	NA	
4-Methyl-2-pentanone	UG/L	ND	400	ND	1000	ND	5.0	NA	
Tetrachloroethene	UG/L	ND	80	ND	200	ND	1.0	NA	
Toluene	UG/L	36 J	80	ND	200	ND	1.0	NA	
1,1,1-Trichloroethane	UG/L	ND	80	ND	200	9.5	1.0	NA	
1,1,2-Trichloroethane	UG/L	ND	80	ND	200	ND	1.0	NA	
Trichloroethene	UG/L	10000 E	80	10000 D	200	3.1	1.0	NA	
1,2,4-Trimethylbenzene	UG/L	ND	80	ND	200	ND	1.0	NA	
Vinyl chloride	UG/L	110	80	110 DJ	200	0.58 J	1.0	NA	
Total Xylenes	UG/L	ND	240	ND	600	ND	3.0	NA	
IS/SURROGATE(S)									
Chlorobenzene-D5	%	93	50-200	92	50-200	93	50-200	NA	
1,4-Difluorobenzene	%	93	50-200	94	50-200	94	50-200	NA	
1,4-Dichlorobenzene-D4	%	85	50-200	80	50-200	86	50-200	NA	
Toluene-D8	%	90	76-122	91	76-122	90	76-122	NA	
p-Bromofluorobenzene	%	86	73-120	84	73-120	87	73-120	NA	
1,2-Dichloroethane-D4	%	91	72-143	97	72-143	91	72-143	NA	

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NA = Not Applicable ND = Not Detected

ERM - GREIF BROS.
ERM GREIF BROS. AQUEOUS SAMPLING
DISSOLVED GASES - ETHANE, ETHENE, AND METHANE

Client ID		GREIF-DUP(07/06)		GREIF-MW-12(07/06)		GREIF-MW-13(07/06)		GREIF-MW-14(07/06)	
Job No / Lab ID		A06-7828	A6782801	A06-7828	A6782807	A06-7828	A6782808	A06-7828	A6782810
Sample Date		07/11/2006		07/11/2006		07/11/2006		07/11/2006	
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Ethane	UG/L	ND	1.5	ND	1.5	ND	60	ND	1.5
Ethene	UG/L	ND	1.5	ND	1.5	ND	60	ND	1.5
Methane	UG/L	ND	1.0	3.1	1.0	220	40	ND	1.0

Client ID		GREIF-MW-18(07/06)		GREIF-MW-21I(07/06)		GREIF-MW-21S(07/06)		GREIF-MW-22(07/06)	
Job No / Lab ID		A06-7828	A6782806	A06-7828	A6782805	A06-7828	A6782804	A06-7828	A6782809
Sample Date		07/11/2006		07/11/2006		07/11/2006		07/11/2006	
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Ethane	UG/L	ND	1.5	ND	1.5	ND	1.5	ND	1.5
Ethene	UG/L	ND	1.5	ND	1.5	ND	1.5	ND	1.5
Methane	UG/L	ND	1.0	1.2	1.0	ND	1.0	2.0	1.0

Client ID		GREIF-MW-24(07/06)		GREIF-MW-25(07/06)					
Job No / Lab ID		A06-7828	A6782803	A06-7828	A6782802				
Sample Date		07/11/2006		07/11/2006					
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Ethane	UG/L	ND	30	ND	1.5	NA		NA	
Ethene	UG/L	ND	30	ND	1.5	NA		NA	
Methane	UG/L	100	20	5.5	1.0	NA		NA	

NA = Not Applicable ND = Not Detected

Client ID		GREIF-DUP(07/06)		GREIF-MW-12(07/06)		GREIF-MW-13(07/06)		GREIF-MW-14(07/06)	
Job No / Lab ID		A06-7828	A6782801	A06-7828	A6782807	A06-7828	A6782808	A06-7828	A6782810
Sample Date		07/11/2006		07/11/2006		07/11/2006		07/11/2006	
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Bicarbonate Alkalinity	MG/L	401	5.0	774	5.0	682	5.0	606	5.0
Carbonate Alkalinity	MG/L	ND	5.0	ND	5.0	ND	5.0	ND	5.0
Hydroxyl Alkalinity	MG/L	ND	0.79	ND	0.79	ND	0.79	ND	0.79

Client ID		GREIF-MW-18(07/06)		GREIF-MW-21I(07/06)		GREIF-MW-21S(07/06)		GREIF-MW-22(07/06)	
Job No / Lab ID		A06-7828	A6782806	A06-7828	A6782805	A06-7828	A6782804	A06-7828	A6782809
Sample Date		07/11/2006		07/11/2006		07/11/2006		07/11/2006	
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Bicarbonate Alkalinity	MG/L	391	5.0	509	5.0	544	5.0	417	5.0
Carbonate Alkalinity	MG/L	8.6	5.0	ND	5.0	ND	5.0	ND	5.0
Hydroxyl Alkalinity	MG/L	ND	0.79	ND	0.79	ND	0.79	ND	0.79

Client ID		GREIF-MW-24(07/06)		GREIF-MW-25(07/06)					
Job No / Lab ID		A06-7828	A6782803	A06-7828	A6782802				
Sample Date		07/11/2006		07/11/2006					
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Bicarbonate Alkalinity	MG/L	399	5.0	240	5.0	NA		NA	
Carbonate Alkalinity	MG/L	ND	5.0	ND	5.0	NA		NA	
Hydroxyl Alkalinity	MG/L	ND	0.79	ND	0.79	NA		NA	

NA = Not Applicable ND = Not Detected

Client ID		GREIF-DUP(07/06)		GREIF-MW-12(07/06)		GREIF-MW-13(07/06)		GREIF-MW-14(07/06)	
Job No / Lab ID		A06-7828	A6782801	A06-7828	A6782807	A06-7828	A6782808	A06-7828	A6782810
Sample Date		07/11/2006		07/11/2006		07/11/2006		07/11/2006	
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Nitrate	MG/L-N	ND	0.050	ND	0.050	ND	0.050	ND	0.050
Soluble Organic Carbon	MG/L	3.6	1.0	3.2	1.0	14.9	1.0	2.6	1.0
Sulfate	MG/L	499	100	172	35.0	196	30.0	112	25.0
Sulfide	MG/L	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Total Alkalinity	MG/L	415	5.0	773	5.0	682	5.0	603	5.0
Total Dissolved Solids	MG/L	1280	10	1070	10	1830	10	774	10
Total Hardness	MG/L	634	2.0	779	2.0	758	10	583	2.0

Client ID		GREIF-MW-18(07/06)		GREIF-MW-21I(07/06)		GREIF-MW-21S(07/06)		GREIF-MW-22(07/06)	
Job No / Lab ID		A06-7828	A6782806	A06-7828	A6782805	A06-7828	A6782804	A06-7828	A6782809
Sample Date		07/11/2006		07/11/2006		07/11/2006		07/11/2006	
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Nitrate	MG/L-N	ND	0.050	ND	0.050	0.088	0.050	ND	0.050
Soluble Organic Carbon	MG/L	4.7	1.0	1.7	1.0	1.7	1.0	1.2	1.0
Sulfate	MG/L	512	100	112	25.0	88.5	25.0	517	75.0
Sulfide	MG/L	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Total Alkalinity	MG/L	415	5.0	512	5.0	546	5.0	422	5.0
Total Dissolved Solids	MG/L	1240	10	595	10	572	10	1180	10
Total Hardness	MG/L	734	2.0	398	2.0	411	2.0	724	2.0

Client ID		GREIF-MW-24(07/06)		GREIF-MW-25(07/06)					
Job No / Lab ID		A06-7828	A6782803	A06-7828	A6782802				
Sample Date		07/11/2006		07/11/2006					
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Nitrate	MG/L-N	ND	0.050	0.58	0.050	NA		NA	
Soluble Organic Carbon	MG/L	7.4	1.0	2.5	1.0	NA		NA	
Sulfate	MG/L	1390	250	67.9	25.0	NA		NA	
Sulfide	MG/L	ND	1.0	ND	1.0	NA		NA	
Total Alkalinity	MG/L	401	5.0	231	5.0	NA		NA	
Total Dissolved Solids	MG/L	3030	10	3980	10	NA		NA	
Total Hardness	MG/L	1780	10	2570	10	NA		NA	

NA = Not Applicable ND = Not Detected