

10 May 2006

Mr. Michael J. Hinton, P.E.  
Environmental Engineer 2  
New York State Department of Environmental Conservation  
Division of Environmental Remediation - Region 9  
270 Michigan Avenue  
Buffalo, New York 14203

RE: Monthly Progress Report - April 2006  
Greif Bros. Facility - Tonawanda, New York  
NYSDEC VCP Number V00334-9



***Key Actions  
This Period:***

- Continued operation and maintenance (O&M) of the dense, non-aqueous phase liquid (DNAPL) recovery system in the Varnish Pit Area as an Interim Remedial Measure (IRM).
- Collected and recorded DNAPL and ground water levels in recovery wells and nearby shallow wells and vapor monitoring points. A table summarizing these data is presented on Pages 5 and 6.
- Collected and recorded light, non-aqueous phase liquid (LNAPL) and ground water level measurements periodically from monitoring well MW-23. LNAPL present within MW-23 is manually pumped from the monitoring well and transferred to a 55-gallon drum. These data are summarized in a table on Pages 7 and 8.
- Collected and recorded DNAPL and ground water level measurements periodically from monitoring well MW-20. DNAPL present in the monitoring well is manually pumped to a 55-gallon drum.
- Completed and submitted the Interim Soil Excavation IRM Report to the New York Department of Conservation (NYSDEC) and others.
- A quarterly ground water sampling event was conducted at the Site on 17-18 April 06. Monitoring wells listed in the NYSDEC-approved sampling schedule were purged using disposable polyethylene bailers. In situ ground water field parameters were

measured in the field using electronic equipment. Samples were transported under proper chain-of-custody documentation to the project laboratory for analysis of volatile organic compounds (VOCs) of potential concern by United States Environmental Protection Agency Method 8260 and selected natural attenuation parameters.

- Organized and held a Site meeting on 25 April 2006 with representatives from the NYSDEC, Greif Bros., Sonoco, and ERM to discuss work completed to date, the proposed approach and outline for the Focused FS, and upcoming project schedule considerations.
- Planning for low vacuum-enhancement of DNAPL recovery operations in the Varnish Pit Area (the next phase of the DNAPL Recovery IRM).
- Attended a Site meeting with representatives from Pinto Construction, Greif Bros., and ERM on 28 April 2006 to schedule and discuss restoration of the western portion of the Soil Excavation IRM work area.

***Problems/  
Resolutions:*** None.

***Analytical Data  
Received:*** None.

***Documents  
Submitted:***

- Monthly Progress Report for March 2006 dated 10 April 2006.
- E-mail correspondence dated 12 April 2006 responding to a request from the New York State Department of Health (NYSDOH) for modification of the Voluntary Cleanup Agreement communications list.
- Interim Soil Excavation IRM Report Soil dated April 2006.

***Anticipated  
Actions -  
May 2006:***

- Install and grade clean topsoil fill in the western portion of the Soil IRM work area followed by seeding and emplacement of straw.
- Submission of a revised estimated project schedule to

NYSDEC as requested during the recent Site meeting.

- Submission of a Remedial Action Plan to NYSDEC for review and approval for waste management activities associated with the DNAPL Recovery IRM, and preparation for installation of secondary containment and barrier protection around a temporary 1500-gallon waste container.
- Continuation of DNAPL recovery system O&M and implementation of low-vacuum enhancements to the recovery system.
- Continuation of monitoring of DNAPL and ground water levels in recovery wells, nearby shallow monitoring wells, and vapor monitoring points.
- Continuation of LNAPL and ground water level measurements in monitoring well MW-23 and removal of LNAPL from the well.
- Continuation of DNAPL and ground water level measurements and removal of DNAPL from monitoring well MW-20.
- Continue preparation for low vacuum-enhancement of DNAPL recovery operations in the Varnish Pit Area.
- Receive, review, and summarize ground water laboratory analytical data from the April 2006 quarterly sampling event.

**NYSDEC-  
Approved Field  
Decisions:**

None.

**Prepared By:**



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

**Date:**

10 May 2006

**Greif Bros. Facility - Tonawanda, New York**

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Cc: Mr. Matt Forcucci (NYSDOH)  
Mr. Pete Gruene (Palmetto Env. Mgmt. Solutions)  
Mr. Robert Powell, C.S.P., A.R.M. (Sonoco)  
Mr. Joseph Ryan, Esq. (NYSDEC)  
Mr. James Strickland, P.E. (NYSDEC)  
Mr. Gregory Sutton, P.E. (NYSDEC)  
Mr. A. Joseph White (NYSDEC)

**SUMMARY OF DNAPL RECOVERY DATA**  
**VARNISH PIT AREA DNAPL RECOVERY IRM**

Date	Volume Recovered (gallons)		RW-1 Thickness (feet)		RW-2 Thickness (feet)		RW-4 Thickness (feet)	
	DNAPL	Water	DNAPL	Water	DNAPL	Water	DNAPL	Water
Pilot Test	270.0	0.0	5.62	3.56	0.88	3.90	NI	NI
12-Sept-05	54.9	1.9	1.79	7.75	1.56	7.94	1.47	7.42
1-Nov-05	4.8	296.2	2.57	6.66	3.39	5.81	2.17	6.32
11-Nov-05	3.6	38.8	1.77	6.17	3.42	5.68	1.30	7.18
14-Nov-05	0.6	97.2	1.74	6.49	3.14	5.68	1.28	7.11
15-Nov-05	14.1	49.0	1.73	5.79	2.27	6.53	1.30	7.00
16-Nov-05	0.0	120.3	1.86	4.64	2.32	6.29	1.28	6.89
17-Nov-05	2.0	77.6	1.75	5.54	2.27	6.02	1.28	6.77
18-Nov-05	0.0	52.9	1.79	6.88	2.37	6.33	1.28	6.81
21-Nov-05	0.0	338.8	1.98	1.07	2.67	5.27	1.32	6.29
22-Nov-05	0.0	50.3	2.04	2.63	2.69	5.40	1.31	6.29
23-Nov-05	0.0	74.0	2.06	6.08	2.72	5.51	1.33	6.28
28-Nov-05	5.6	362.4	2.13	5.63	2.78	4.86	1.56	5.54
1-Dec-05	0.0	8.7	2.11	5.77	2.80	5.05	1.76	5.44
2-Dec-05	0.0	52.0	2.08	5.39	2.69	4.58	1.59	5.45
6-Dec-05	10.4	163.2	2.24	3.06	2.76	4.69	1.58	5.04
7-Dec-05	3.4	48.0	2.02	0.02	2.77	4.66	1.63	4.96
8-Dec-05	1.8	48.5	2.02	0.16	2.62	0.42	1.58	4.90
9-Dec-05	7.4	24.6	1.99	0.18	2.60	0.26	1.58	4.81
12-Dec-05	30.3	72.8	2.01	0.15	2.81	4.34	1.56	2.74
13-Dec-05	6.3	14.6	2.03	0.02	3.62	0.94	2.96	3.08
14-Dec-05	7.6	0.6	2.00	0.08	2.68	1.15	3.04	3.14
15-Dec-05	17.0	29.8	2.03	0.01	2.63	1.18	1.61	0.25
19-Dec-05	1.9	5.7	2.00	0.07	2.81	4.17	2.63	3.55
21-Dec-05	12.3	38.7	2.00	0.10	2.66	1.68	1.78	1.04
22-Dec-05	7.6	6.5	1.99	0.07	2.66	2.95	1.41	0.22
27-Dec-05	8.0	18.5	2.03	0.03	2.49	0.17	2.20	3.95
28-Dec-05	7.4	18.6	2.00	0.10	2.56	0.05	1.37	0.03
29-Dec-05	5.3	2.9	2.00	0.10	2.57	0.05	1.37	0.03
3-Jan-06	2.6	38.7	2.01	0.02	2.49	0.03	1.38	0.10
6-Jan-06	6.6	10.2	1.97	0.08	2.46	0.05	1.37	0.11
10-Jan-06	16.8	2.5	1.96	1.04	2.48	0.11	1.47	0.02
12-Jan-06	10.0	0.0	2.00	0.08	2.52	0.07	1.37	0.03
19-Jan-06	4.7	34.8	1.97	0.05	2.48	0.13	1.37	0.02
23-Jan-06	6.0	14.3	1.98	0.11	2.47	0.12	1.37	0.03
26-Jan-06	6.5	11.3	1.96	0.07	2.49	0.12	1.37	0.05
30-Jan-06	4.3	14.8	1.93	0.15	2.49	0.09	1.49	0.33
2-Feb-06	3.2	0.1	1.96	0.07	2.49	0.14	1.36	0.06
3-Feb-06	0.5	5.6	1.96	0.07	2.49	0.13	1.35	0.07
6-Feb-06	0.5	24.0	1.95	0.25	2.47	0.13	1.58	1.74
9-Feb-06	3.5	18.9	1.94	0.07	2.47	0.12	1.34	0.06

Date	Volume Recovered (gallons)		RW-1 Thickness (feet)		RW-2 Thickness (feet)		RW-4 Thickness (feet)	
	DNAPL	Water	DNAPL	Water	DNAPL	Water	DNAPL	Water
13-Feb-06	7.2	9.8	1.95	0.08	2.53	0.08	1.36	0.04
16-Feb-06	3.9	8.6	1.96	0.07	2.50	0.42	1.35	0.07
20-Feb-06	4.0	12.8	1.92	0.11	2.49	1.62	1.34	0.14
27-Feb-06	5.3	13.2	1.93	0.10	2.51	4.41	1.35	0.05
3-Mar-06	2.6	32.0	1.93	0.17	2.42	0.16	1.35	0.03
7-Mar-06	2.6	21.6	1.94	0.09	2.42	0.08	1.35	0.10
10-Mar-06	0.0	5.8	1.94	0.01	2.43	0.05	1.36	0.11
13-Mar-06	1.4	12.2	1.93	0.17	2.38	0.18	1.35	0.04
16-Mar-06	0.7	12.3	1.94	0.08	2.39	0.19	1.35	0.05
20-Mar-06	2.4	11.7	1.48	0.06	2.02	0.20	1.05	2.33
23-Mar-06	4.0	16.2	1.46	0.14	1.99	0.17	0.82	0.03
30-Mar-06	4.9	15.7	1.46	0.07	1.96	0.23	0.80	0.07
3-April-06	3.5	31.28	1.46	0.12	1.96	0.18	0.80	0.04
7-Apr-06	4.8	15.48	1.46	0.07	1.96	0.20	0.81	0.04
11-Apr-06	4.0	6.88	1.46	0.13	1.96	0.20	0.80	0.04
13-Apr-06	2.2	7.92	1.47	0.12	1.96	0.18	0.80	0.02
17-Apr-06	1.1	21.44	1.45	0.08	1.96	0.23	0.80	0.08
21-Apr-06	3.2	13.56	1.44	0.14	1.96	0.16	0.80	0.02
28-Apr-06	4.3	21.88	1.46	0.07	2.01	0.07	0.80	0.10
<b>TOTAL</b>	<b>609.7</b>	<b>2,578.74</b>						

**NOTES:**

- Pilot test data reported at the end of the pilot test on 16 November 2004.
- NI = well not installed yet.
- Volume readings represent the volume recovered since the previous reading.

**SUMMARY OF LNAPL RECOVERY DATA - WELL MW-23**

<b>Date</b>	<b>Volume of LNAPL Recovered (gallons)</b>	<b>LNAPL Thickness in MW-23 (feet)</b>	<b>Water Thickness in MW-23 (feet)</b>
9-Sept-05	0.00	0.40	3.38
12-Sept-05	0.00	0.41	3.23
20-Sept-05	0.00	0.52	2.98
11-Oct-05	0.00	0.56	2.67
21-Oct-05	0.00	0.57	2.78
26-Oct-05	0.00	0.60	2.78
2-Nov-05	0.00	0.68	2.67
11-Nov-05	0.04	0.27	2.53
15-Nov-05	0.10	0.61	2.10
16-Nov-05	0.04	0.25	1.55
17-Nov-05	0.03	0.18	1.22
18-Nov-05	0.00	0.08	0.97
21-Nov-05	0.02	0.15	1.09
22-Nov-05	0.04	0.27	0.68
23-Nov-05	0.04	0.26	0.49
29-Nov-05	0.04	0.23	0.54
2-Dec-05	0.00	0.20	0.42
6-Dec-05	0.03	0.20	0.51
7-Dec-05	0.00	0.16	0.36
8-Dec-05	0.03	0.16	0.40
9-Dec-05	0.00	0.07	0.35
12-Dec-05	0.00	0.07	0.41
19-Dec-05	0.00	0.17	0.39
22-Dec-05	0.03	0.17	0.54
27-Dec-05	0.00	0.14	0.45
29-Dec-05	0.03	0.17	0.48
3-Jan-06	0.02	0.15	0.37
6-Jan-06	0.00	0.12	0.30
10-Jan-06	0.00	0.08	0.42
12-Jan-06	0.00	0.13	0.35
19-Jan-06	0.02	0.12	0.48
26-Jan-06	0.03	0.18	0.50
30-Jan-06	0.00	0.18	0.57
2-Feb-06	0.03	0.17	0.61
3-Feb-06	0.00	0.17	0.40
6-Feb-06	0.00	0.20	0.40
9-Feb-06	0.00	0.20	0.45
13-Feb-06	0.00	0.20	0.54
16-Feb-06	0.00	0.14	0.66
20-Feb-06	0.00	0.07	0.75
27-Feb-06	0.02	0.15	0.75

<b>Date</b>	<b>Volume of LNAPL Recovered (gallons)</b>	<b>LNAPL Thickness in MW-23 (feet)</b>	<b>Water Thickness in MW-23 (feet)</b>
3-Mar-06	0.03	0.17	0.48
7-Mar-06	0.03	0.17	0.38
10-Mar-06	0.01	0.08	0.38
13-Mar-06	0.04	0.28	0.0
16-Mar-06	0.00	0.27	0.0
23-Mar-06	0.02	0.10	0.39
30-Mar-06	0.02	0.14	0.30
3-Apr-06	0.02	0.10	0.20
7-Apr-06	0.01	0.07	0.23
11-Apr-06	0.01	0.06	0.26
13-Apr-06	0.02	0.11	0.26
18-Apr-06	0.03	0.16	0.16
<b>TOTAL</b>	<b>0.83</b>		

**NOTES:**

- Data refers to light, non-aqueous phase liquid (LNAPL) measured and recovered from monitoring well MW-23 (the only well observed with LNAPL to date).
- LNAPL volumes are estimated based on the measured thickness of LNAPL in the well prior to removal and the cross-sectional volume of the well screen and are thought to be conservatively low (additional LNAPL migration into the well during bailing is not accounted for).
- Volume readings represent the volume recovered since the previous reading.
- LNAPL and ground water thickness data were collected as static level measurements prior to bailing of the well.