

10 April 2006

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Mr. Michael J. Hinton, P.E.
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Division of Environmental Remediation - Region 9
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RE: Monthly Progress Report – March 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 4 and 5.
- Collected and recorded light, non-aqueous phase liquid (LNAPL) and ground water level measurements periodically from monitoring well MW-23. These data are summarized in a table on Pages 6 and 7.
- Removed LNAPL from monitoring well MW-23. LNAPL recovery data are summarized on Pages 6 and 7.
- Collected and recorded DNAPL and ground water level measurements periodically from monitoring well MW-20 and vapor monitoring point VMP-2.
- Recovered DNAPL from monitoring well MW-20 and vapor monitoring point VMP-2.
- Continued preparation of the Soil Excavation IRM Report including data reduction, preparation of tables and figures, and laboratory analytical data validation.
- Planning for implementation of a Focused Feasibility Study (Focused FS) for affected soil and ground

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water beneath the building.

- Planning for low vacuum-enhancement of DNAPL recovery operations in the Varnish Pit Area (the next phase of the DNAPL Recovery IRM).
- Off Site transport and disposal of two drums of hazardous waste (DNAPL product) on 13 March 2006.
- Received approval from NYSDEC in an e-mail dated 13 March 2006 to store hazardous wastes associated with the DNAPL Recovery IRM onsite for up to one year providing compliance with any Resource Conservation and Recovery Act (RCRA) applicable or relevant and appropriate requirements (ARARs) is achieved.

Problems/ None.

Resolutions:

Analytical Data None.

Received:

Documents

Submitted:

- Letter dated 10 March 2006 requesting an extension of the RCRA 90-day storage limit for aqueous hazardous wastes associated with the operation of the DNAPL recovery system.
- Monthly Progress Report for February 2006 dated 10 March 2006.
- E-mail correspondence dated 31 March 2006 providing NYSDEC with the draft table of contents for the Soil IRM Report.

Anticipated

Actions -

April 2006:

- Restoration of disturbed areas of topsoil on the western portion of the Soil Excavation IRM work area.
- 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

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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 and vapor monitoring point VMP-2.
- Ongoing management of wastes generated during IRM activities and planning for aqueous hazardous waste management and disposal.
- Hold a meeting at the Site on 25 April 2006 to discuss the proposed approach and outline for the Focused FS and other topics as appropriate.
- Initiate preparation of the Focused FS for affected media beneath the building.
- Submission of the Soil Excavation IRM Report to NYSDEC on or before 14 April 2006 as approved during the telephone conversation between ERM and NYSDEC on 6 April 2006.

NYSDEC- None.

Approved Field Decisions:

Prepared By:



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

Date: 10 April 2006

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

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

	Volume Recovered (gallons)		RW-1 Thickness (feet)		RW-2 Thickness (feet)		RW-4 Thickness (feet)	
Date	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

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	Volume Recovered (gallons)		RW-1 Thickness (feet)		RW-2 Thickness (feet)		RW-4 Thickness (feet)	
	Date	DNAPL	Water	DNAPL	Water	DNAPL	Water	DNAPL
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
TOTAL	586.6	2,460.3						

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.

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SUMMARY OF LNAPL RECOVERY DATA - WELL MW-23

Date	Volume of LNAPL Recovered (gallons)	LNAPL Thickness in MW-23 (feet)	Water Thickness in MW-23 (feet)
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

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Date	Volume of LNAPL Recovered (gallons)	LNAPL Thickness in MW-23 (feet)	Water Thickness in MW-23 (feet)
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
TOTAL	0.74		

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.