

12 December 2005

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 - November 2005  
Greif Bros. Facility - Tonawanda, New York  
NYSDEC VCP Number V00334-9



***Key Actions  
This Period:***

- Continued operation of the dense, non-aqueous phase liquid (DNAPL) recovery system through the optimization of pumping speeds and times; re-positioned recovery well intake tubes as necessary to help maintain DNAPL levels in the recovery wells.
- Daily monitoring of DNAPL and ground water levels in recovery wells and weekly monitoring at nearby shallow wells and vapor monitoring points.
- Performed light, non-aqueous phase liquid (LNAPL) bail-down testing in monitoring well MW-23 as required by the New York State Department of Environmental Conservation (NYSDEC).
- Transfer of aqueous waste generated during operation of the DNAPL recovery system from the Varnish Pit Are to a 10,000-gallon frac container temporarily staged on-Site.
- Continuation of the NYSDEC-approved soil Interim Remedial Measure (IRM) in the GB-10/Former Drum Storage Area.
- Completed installation of steel sheeting and interior bracing for the cofferdam to facilitate protection of the structural integrity of the building.
- Completed removal of grossly-affected soil within the cofferdam cell, including associated demolition and removal of a large concrete foundation, management of excavated soil, and de-watering of the excavation into a frac container as necessary.

- Collected five confirmation soil samples from within the cofferdam cell for laboratory analysis.
- Completed backfilling and compaction of the cofferdam to grade with select structural fill (#2 crusher run) and removed the bracing support system from within the cofferdam cell.
- Measurement of elevations at structural control stations outside and inside the building to monitor for potential subsidence in the work area.
- Implementation of the Community Air Monitoring Program and odor suppression activities as required by NYSDEC.
- Maintenance of moisture, erosion, and sedimentation control measures within the work area.
- Management of flooded work areas due to a very heavy rain event on 9 November 2005.
- Re-routed the parking lot storm sewer catch basin drain through the cofferdam and connected it to the existing storm water drainage system along the south side of the building.
- Waste characterization sampling of the staged "clean" soil waste piles.
- Off-Site transport and disposal of hazardous wastes generated during the soil excavation IRM.

***Problems/  
Resolutions:***

Valves used in DNAPL IRM recovery wells RW-1, RW-2, and RW-4 failed and required replacement. The valves were successfully replaced and DNAPL recovery operations continued.

Several large concrete foundations were discovered in and around the cofferdam in the Former Drum Storage Area. Greif Bros. personnel suggested that these foundations may have been associated with a water tower that was formerly used to store water for the original fire suppression system. These foundations had to be demolished and removed from the work area to allow for additional excavation of grossly-affected soil.

The mass and volume of grossly-affected soil is significantly larger than originally estimated. Grossly-

affected soil was concentrated around and beneath the previously unknown concrete foundations, a concrete vault, and piping associated with an older fire protection system, indicating that these subsurface features acted as conduits and preferential pathways for additional contaminant migration.

A significant flood event occurred on 9 November as a result of heavy rains. The storm water catch basin located in the access road west of the soil IRM work area was not backing up, resulting in significant water accumulation. Flood water was entering the Short Truck Bay and the soil IRM excavation. Work was halted and pumps were installed to divert storm water flow away from the Short Truck Bay and the soil IRM work area. It was subsequently determined that storm water piping from the non-functioning catch basin was intercepted by the cofferdam in the Former Drum Storage Area. ERM was previously advised that the storm water piping from the catch basin in question flowed to the north away from the work area. Piping was traced from the catch basin and several test pits were installed to confirm the lines location. A temporary lift station was installed on the west side of the work area to divert water from the catch basin into the existing storm water system at a location "downstream" from the work area.

***Analytical Data  
Received:***

- Laboratory analytical report dated 1 November 2005 from STL-Buffalo (STL) with volatile organic compound (VOC), semivolatile organic compound (SVOC), and pH results for two soil samples collected from test pits installed to investigate the location and extent of subsurface utilities. The analytical results for soil sample GREIF-EX-TP-01-SP were reported in the Monthly Progress Report for October 2005.
- Laboratory analytical report dated 10 November 2005 from STL with VOC, SVOC and pH results for a waste characterization sample collected from a "clean" soil pile staged on-Site.

Tables summarizing detected compounds, elements, or other parameters are presented on Pages 6-7.

***Documents Submitted:***

- Monthly Progress Report for October 2005 dated 9 November 2005.
- E-mail correspondence dated 29 November 2005 providing NYSDEC with ERM's meeting summaries for the Kick-Off Meeting and the first three Weekly Progress Meetings held at the Site.
- E-mail correspondence dated 29 November 2005 providing NYSDEC with the laboratory analytical results for the "clean" soil pile waste characterization sample and requesting that NYSDEC approve the disposal of the soil as non-hazardous waste.

***Anticipated Actions - December 2005:***

- Continuation of DNAPL Recovery IRM system operations and maintenance.
- Continuation of monitoring of DNAPL and/or 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.
- Additional development of recovery well RW-5 as requested by NYSDEC.
- Completion of the NYSDEC-approved soil IRM in the GB-10/Former Drum Storage Area, including additional excavation outside the cofferdam cell and backfilling with excavated "clean" soil as approved by NYSDEC and/or "clean" fill imported to the Site.
- Ongoing management of generated wastes and off-site transport and disposal of hazardous wastes.

***NYSDEC-Approved Field Decisions:***

None.

**Prepared By:**

A handwritten signature in black ink, appearing to read "Jon S. Fox", is positioned above a solid horizontal line.

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

**Date:** 12 December 2005

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)

**SUMMARY OF LABORATORY ANALYTICAL DATA  
 RECEIVED IN NOVEMBER 2005  
 GREIF BROS. FACILITY - TONAWANDA, NEW YORK  
 NYSDEC VCP NUMBER V00334-9**

**VOC RESULTS**

Sample Designation	Sample Matrix	Sample Date	Compounds Detected	Concentration (ppb)
<b>Soil IRM</b>				
GREIF-EX-TP-01-6-7	Soil	14-Oct-05	1,1-Dichloroethane	51
			1,1-Dichloroethene	15
			cis-1,2-Dichloroethene	2,100 D
			trans-1,2-Dichloroethene	120
			Ethylbenzene	1 J
			Tetrachloroethene	4 J
			Toluene	13
			1,1,1-Trichloroethane	7
			Trichloroethene	12,000 D
GREIF-EX-PB-CSP	Soil	3-Nov-05	1,1,1-Trichloroethane	2 J

**SVOC RESULTS**

Sample Designation	Sample Matrix	Sample Date	Compounds Detected	Concentration (ppb)
<b>Soil IRM</b>				
GREIF-EX-TP-01-6-7	Soil	14-Oct-05	None	---
GREIF-EX-PB-CSP	Soil	3-Nov-05	Benzo(a)anthracene	760
			Benzo(b)fluoranthene	900
			Benzo(k)fluoranthene	220 J
			Benzo(a)pyrene	660
			Chrysene	720
			Fluoranthene	1,800
			Naphthalene	33 J

**OTHER RESULTS**

Sample Designation	Sample Matrix	Sample Date	Parameters Detected	Concentration (see notes)
<b>Soil IRM</b>				
GREIF-EX-TP-01-6-7	Soil	14-Oct-05	Leachable pH	8.45
GREIF-EX-PB-CSP	Soil	3-Nov-05	Leachable pH	8.05

**CONTINUED ON NEXT PAGE**

**NOTES:**

- Compounds, elements, or other parameters listed are limited to those that were detected.
- ---- = not detected in this sample.
- All results are reported on a dry weight basis.
- J = Indicates an estimated value.
- D= Indicates that the concentration was identified in an analysis at the secondary dilution factor.
- pH is reported in standard units.