

10 December 2012

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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 2012  
Greif, Inc. Facility – Tonawanda, New York  
NYSDEC VCP Number V00334-9

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***Key Actions  
This Period:***

- Performed routine operations and maintenance (O&M) on the Sub-Slab Depressurization (SSD) system and dense, non-aqueous phase liquid (DNAPL) recovery equipment. Collected and recorded relevant data. Data collected included liquid level measurements in selected Site wells and monitoring points (Table 1), vacuum readings in vacuum monitoring points (Table 2), and treatment system operational data (Table 3). The locations of sampling and monitoring points are presented in Figure 1. A map showing the estimated distribution of vacuum beneath the floor slab on 20 November 2012 is presented in Figure 2.
- Off-site transport and disposal of three 55-gallon drums of hazardous waste from the treatment building.
- Semiannual groundwater sampling of 10 monitoring wells was conducted between 26 November and 29 November 2012.
- Completion of planning, preparations, and subcontractor procurements for construction of NYSDEC-approved modifications to the SSD System.

***Problems/  
Resolutions:***

- During the semiannual groundwater sampling event, ERM discovered that monitoring well MW-19 was accidentally paved over with asphalt by a Greif contractor and was not available for sampling. ERM discussed the situation with Greif and contacted the

NYSDEC to advise them of this development. The NYSDEC requested that ERM work with Greif to uncover the well and sample it as soon as possible. Well MW-19 will be uncovered and sampled in December 2012.

- Greif's plumbing subcontractor removed a portion of the concrete floor to repair a leaking roof drainage pipe. Excavated material consisted of historic fill, gravel, and soil. The excavated material was removed from the site by Greif's plumbing contractor. The NYSDEC has requested that Greif have their contractor provide documentation that the material has been properly disposed as a solid waste in a permitted landfill. ERM will coordinate with Greif to provide the documentation to the NYSDEC after it is received.
- Vacuum monitoring point VAC-13 was destroyed by Greif's contractor during the excavation and replacement of the leaking roof drainage pipe. A new vacuum monitoring point to be designated VAC-62 will be installed at the approximate location of VAC-13 in December 2012 during the SSD System Modifications site work.

*Analytical Data Received:*

- None.

*Documents Submitted:*

- Monthly Progress Report for October 2012 dated 15 November 2012.

*Anticipated Actions - December 2012:*

- A kick-off meeting and remedial construction work for NYSDEC-approved modifications to the SSD System were initiated on 4 December 2012. Site work is expected to continue through December 2012 and into the first half of January 2013.
- Receipt of laboratory analytical results for semiannual ground water samples collected in November 2012.
- Uncovering of monitoring well MW-19 asphalt removal and collection of a groundwater sample.
- Receipt of waste disposal documentation for

excavated materials from Greif's roof drain repair work.

- Routine O&M of the SSD System and DNAPL recovery equipment.
- Off-site transport of wastes from remedial construction activities.

**NYSDEC-  
Approved Field  
Decisions:**

- None.

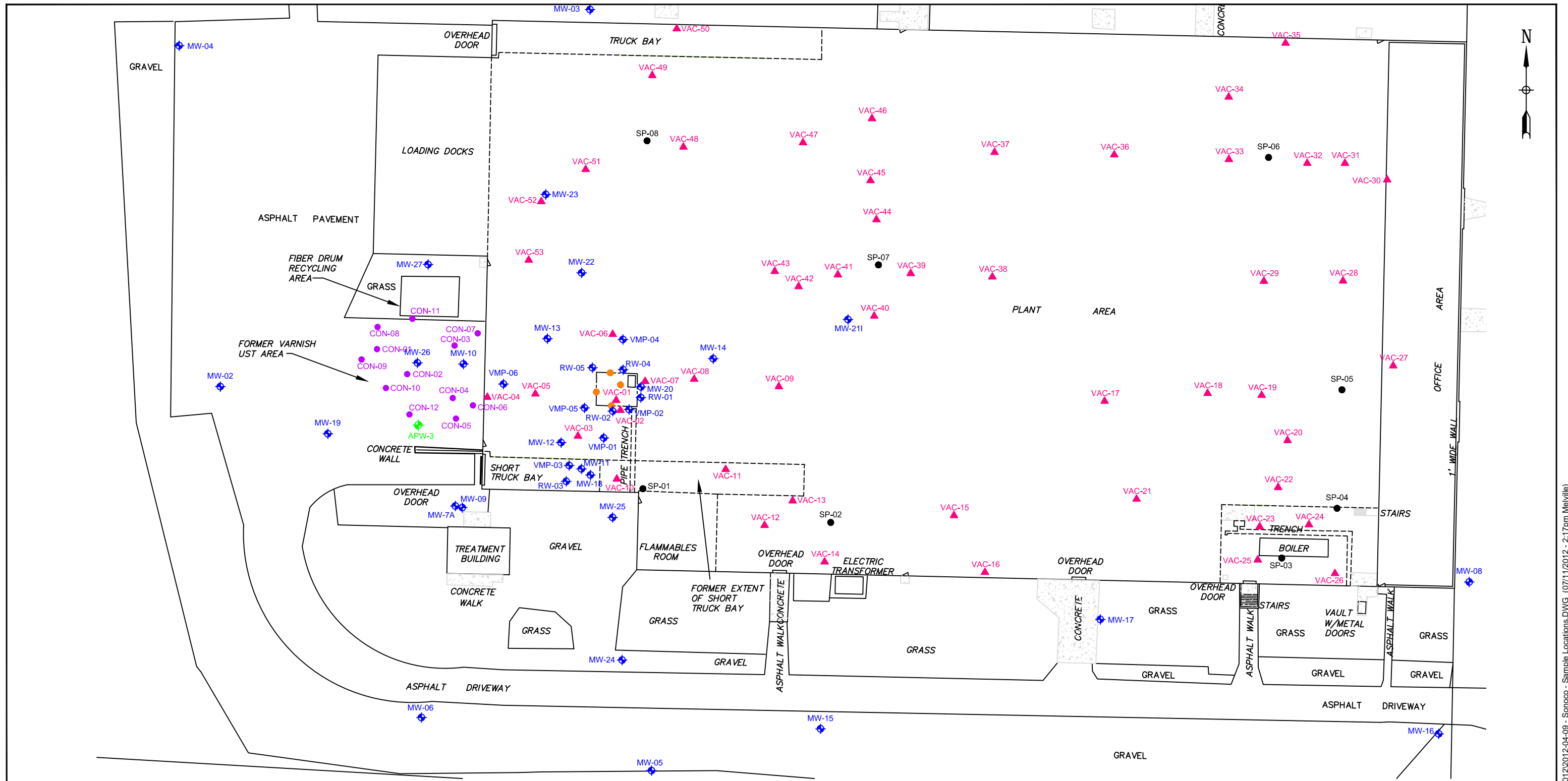
**Prepared By:**



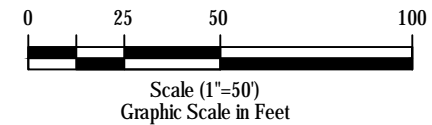
Jon S. Fox, P.G.  
Senior Consultant

**Date:** 10 December 2012

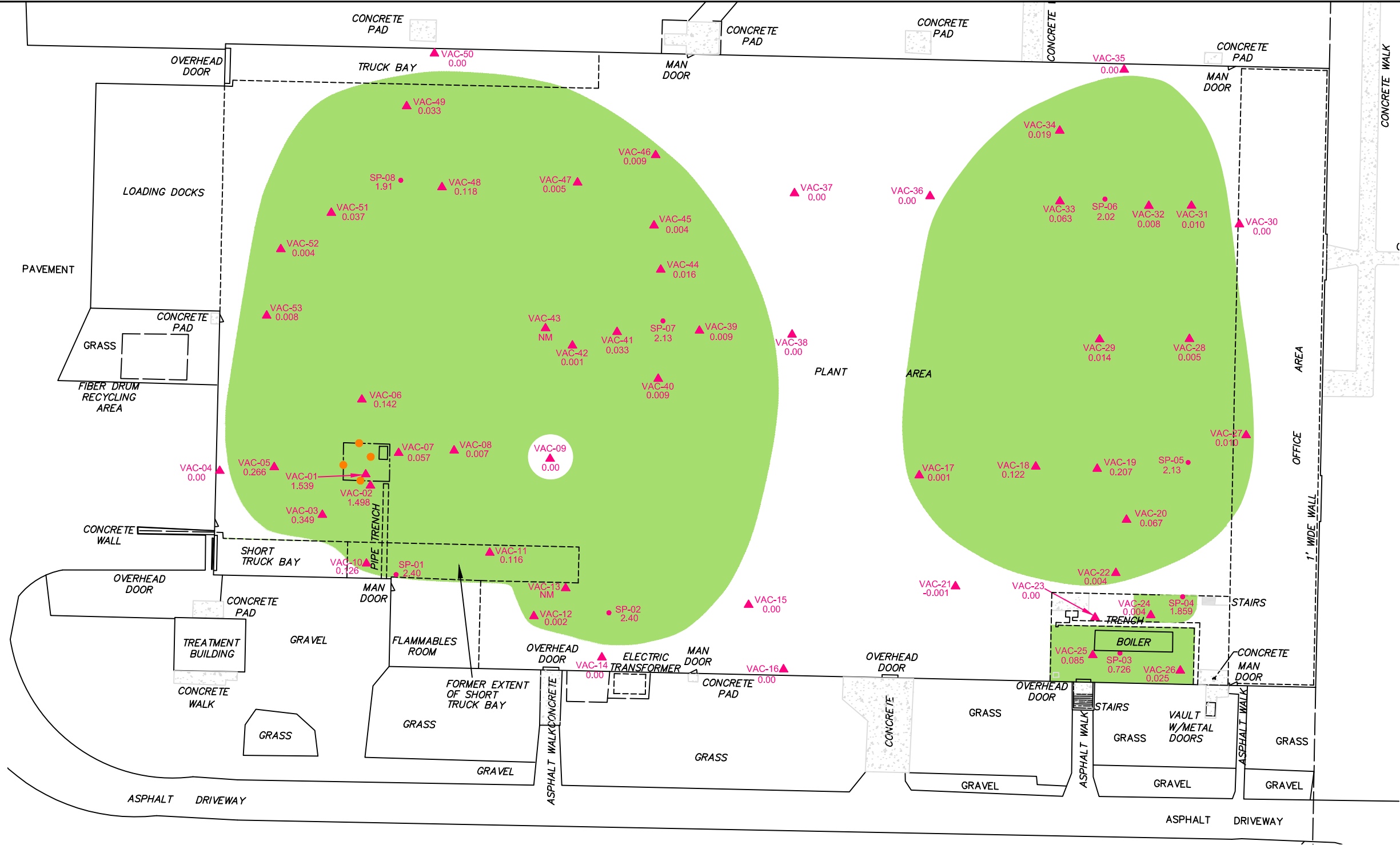
Cc: Mike Sunderland (Sonoco)  
Larry Pattengill (Sonoco)  
Pete Gruene (Sonoco)  
Patrick Wolfe (Greif)  
George Frazer (Greif)  
Gregory Sutton, P.E. (NYSDEC)  
James Charles, Esq. (NYSDEC)  
Matt Forcucci (NYSDOH)  
A. Joseph White (NYSDEC)  
John Kuhn (ERM)  
John Mohlin, P.E. (ERM)  
Rob Sents (ERM)



- LEGEND**
- ▲ Vacuum Monitoring Point Location
  - ◆ Monitoring or Recovery Well Location
  - ◆ Antenna Placement Well
  - Vertical Suction Point Location
  - Horizontal Suction Point Location
  - Soil Confirmation Location
  - Former Varnish Pit
  - ▤ Man Door
  - ▤ Concrete Pad



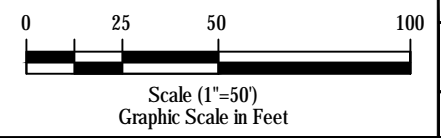
TITLE <b>SAMPLE AND MEASUREMENT LOCATIONS          GREIF FACILITY-TONAWANDA, NEW YORK          NYSDEC VCP NUMBER V00334-9</b>			
PREPARED FOR <b>SONOCO PRODUCTS COMPANY</b>			
<b>Environmental Resources Management</b>		FIGURE <b>1</b>	
DRAWN BY	SCALE	DATE	JOB NO.
EMF	GRAPHIC	11-Jul-2012	0129254-01



**LEGEND**

- Horizontal Suction Point Location
- Vertical Suction Point Location
- ▲ Vacuum Monitoring Point Location (vacuum in " H<sub>2</sub>O)
- NM Not Measured
- Estimated Extent of Sub-Floor Vacuum
- Former Varnish Pit
- Man Door
- Concrete Pad

**NOTES:**  
 1. " H<sub>2</sub>O = inches of water column



<b>TITLE</b>			
SUBSURFACE VACUUM DISTRIBUTION 20 NOVEMBER 2012 GREIF FACILITY-TONAWANDA, NEW YORK			
PREPARED FOR			
<b>SONOCO PRODUCTS COMPANY</b>			
Environmental Resources Management			
DRAWN BY	SCALE	DATE	JOB NO.
EMF	GRAPHIC	5 December 2012	0129254.01
			<b>2</b>

**Table 1**  
**Summary of Non-Aqueous Phase Liquid Thicknesses in Wells**  
**Greif Facility - Tonawanda, New York**  
**NYSDEC VCP Number V00334-9**

WELL	RW-1 (ft.) (DNAPL)	RW-2 (ft.) (DNAPL)	RW-4 (ft.) (DNAPL)	RW-5 (ft.) (LNAPL)	RW-6 (ft.) (DNAPL)	VMP-2 (ft.) (DNAPL)	VMP-5 (ft.) (DNAPL)	MW-20 (ft.) (DNAPL)	MW-23 (ft.) (LNAPL)
<b>Date</b>									
19-May-08	0.00	0.00	0.00	0.00	NI	0.00	HS	0.09	0.14
30-May-08	0.00	0.16	0.00	0.00	NI	0.00	HS	0.03	0.14
16-Jun-08	0.00	0.14	0.00	0.02	NI	0.00	0.02	0.07	0.13
25-Jun-08	0.00	0.16	0.00	0.02	NI	0.00	HS	0.07	0.26
3-Jul-08	0.00	0.16	0.00	0.02	NI	0.00	HS	0.09	0.18
23-Jul-08	0.00	0.16	0.00	0.02	NI	0.00	HS	0.10	0.09
6-Aug-08	0.03	0.16	0.00	0.04	NI	0.00	HS	0.11	0.09
19-Aug-08	0.03	0.16	0.00	0.04	NI	0.00	HS	0.13	0.11
21-Nov-08	HS	0.11	0.00	0.00	NI	0.00	HS	0.22	0.29
17-Dec-08	HS	0.11	0.00	0.00	NI	0.00	HS	0.24	0.29
14-Jan-09	0.00	0.00	0.00	0.00	NI	0.00	0.00	HS	0.13
26-Feb-09	0.00	0.00	0.00	0.00	NI	0.00	0.00	0.01	0.24
12-Mar-09	0.00	0.00	0.00	0.00	NI	0.00	0.00	0.00	0.09
22-Apr-09	0.00	0.00	0.00	0.00	NI	0.00	0.00	0.00	0.11
13-May-09	0.00	0.00	0.00	0.00	NI	0.00	0.00	0.00	0.09
25-Jun-09	NM	0.00	NM	0.00	NI	0.00	0.00	NM	0.12
17-Jul-09	NM	0.00	NM	0.00	NI	0.00	0.00	NM	0.11
27-Aug-09	0.00	0.00	0.00	0.00	NI	0.00	NM	NM	0.09
25-Sep-09	0.00	0.00	0.00	0.00	NM	0.00	NM	0.04	0.11
16-Oct-09	NM	0.00	0.00	0.00	NM	0.00	NM	NM	0.11
19-Nov-09	NM	0.00	NM	NM	NM	0.00	NM	NM	0.21
17-Dec-09	0.00	0.00	NM	NM	NM	0.00	0.00	0.01	0.23
14-Jan-10	0.00	0.00	0.00	NM	NM	0.00	0.00	0.01	0.21
17-Feb-10	0.00	0.00	NM	NM	NM	0.00	0.00	0.01	0.17
18-Mar-10	0.00	0.00	0.00	0.00	NM	0.00	0.00	0.01	0.09
13-Apr-10	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.01	0.12
18-May-10	0.00	0.00	0.00	0.00	0.53	0.00	NM	0.01	0.08
15-Jun-10	0.00	0.00	0.00	NM	0.01*	0.00	0.00	0.01	0.07
14-Jul-10	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.07
13-Aug-10	0.00	NM	0.00	NM	0.08	0.00	0.00	HS	0.10
14-Sep-10	0.00	NM	0.00	NM	0.04	0.00	0.00	NM	0.06
14-Oct-10	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.01	0.08
22-Nov-10	0.00	0.00	NM	0.00	0.04	0.00	0.00	0.01	0.14
15-Dec-10	0.00	0.00	0.00	NM	0.01	0.00	NM	0.01	0.09
18-Jan-11	0.00	0.00	0.00	NM	HS	0.00	NM	0.02	0.09
21-Feb-11	NM	0.00	0.00	0.00	0.03	0.00	0.00	0.03	0.04
11-Mar-11	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.04	0.03
21-Apr-11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
24-May-11	0.00	0.00	0.00	NM	0.15	0.3	0.00	0.1	0.1
21-June-11	0.00	0.00	0.00	0.00	0.1	0.00	0.00	0.03	0.08
21-July-11	0.00	0.00	0.00	NM	HS	0.00	0.00	0.01	0.06
29-Aug-11	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	HS
26-Sept-11	0.00	NM	0.00	0.00	0.10	0.00	NM	0.04	HS
28-Oct-11	0.00	0.00	NM	0.00	0.03	0.00	0.00	0.02	HS
18-Nov-11	0.00	0.00	NM	NM	HS	0.00	0.00	0.01	0.04
22-Dec-11	0.00	0.00	NM	NM	0.03	0.00	0.00	0.02	0.06
20-Jan-12	0.00	0.00	0.00	0.00	HS	0.00	0.00	0.02	HS
21-Feb-12	0.00	0.00	0.00	0.00	HS	0.00	0.00	0.03	HS
16-Mar-12	0.00	0.00	0.00	0.00	HS	0.00	0.00	HS	0.15
20-Apr-12	0.00	0.00	NM	NM	HS	0.00	0.00	0.02	0.02
17-May-12	0.00	0.00	0.00	0.00	1.06	0.00	0.00	0.01	0.03
20-Jun-12	0.00	0.00	0.00	0.00	HS	0.00	0.00	0.01	0.04
20-Jul-12	NM	0.00	NM	0.00	HS	0.00	0.00	NM	0.02
21-Aug-12	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.12	0.19
14-Sept-12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.09
17-Oct-12	0.00	0.00	0.00	0.00	0.11	0.00	NM	0.14	0.09
20-Nov-12	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.02	HS

**Notes:**

All values are reported in feet as measured with an electronic interface probe.

HS - heavy sheen but no measureable thickness.

NM - not measured; was covered with pallets or other surface obstruction.

NI - not installed as of this date.

\* - Product level after ERM initiated DNAPL recovery test

**Table 2**  
**Summary of Vacuum Readings**  
**Greif, Inc. - Tonawanda, NY**  
**NYSDEC VCP Number V00334-9**

Location	Vac-01	Vac-02	Vac-03	Vac-04	Vac-05	Vac-06	Vac-07	Vac-08	Vac-09	Vac-10	Vac-11	Vac-12	Vac-13	Vac-14
Date														
16-Jun-10	0.1175	0.1375	0.1375	0	0.1425	0.1625	0.095	0.0325	0	0.10	0.0950	0	NM	0
14-Jul-10	1.65	1.45	0.47	0	0.68	0.46	0.125	0.0525	0	0.1625	0.16	0	0	0
13-Aug-10	1.3	1.25	0.46	0	0.65	0.45	0.135	0.07	0	0.19	0.175	0	0	NM
14-Sep-10	0.8	NM	0.29	0	0.28	0.195	0.055	0.015	0	NM	0.125	0	0	0
14-Oct-10	0.82	0.84	0.29	0	0.28	0.185	0.05	0.015	0	0.1375	0.12	0	0	NM
22-Nov-10	0.29	2.3	0.49	0	0.35	0.28	0.105	0.0025	0	0.155	0.135	0	NM	NM
16-Dec-10	0.26	2.1	0.42	0	0.2	0.14	0.075	0	0	0.13	0.105	0	0	NM
19-Jan-11	0.77	2	0.41	0	0.24	0.18	0.1	NM	0	0.155	0.125	0	NM	0
21-Feb-11	1.35	1.8	0.4	0	NM	0.17	0.1	0	0	NM	0.12	NM	0	0
11-Mar-11	1.8	2.25	0.5	0	NM	0.22	NM	0.01	0	NM	0.12	0	0	NM
21-Apr-11	1.35	2	0.45	0	0.25	0.2	0.1025	0	0	0.155	0.135	0	0	0
24-May-11	2.15	2.05	0.47	0	0.35	0.28	0.1325	0.0275	0	0.1625	0.15	0	NM	0
21-Jun-11	2.05	2.1	0.46	0	0.45	0.4	0.165	0.0575	0	0.19	0.18	0	NM	0
21-Jul-11	2.55	2.25	0.46	0	0.62	0.55	0.2	0.1	0	0.21	0.21	0	0	0
29-Aug-11	2.3	2.2	0.44	0	0.48	0.4	0.155	0.055	0	0.15	0.145	0	0	0
26-Sep-11	1.3	NM	0.46	0	0.44	0.36	0.155	0.06	0	0.1775	0.16	0	0.0025	0
28-Oct-11	1	1.6	0.33	0	0.2125	0.195	0.0925	0.005	0	0.1125	0.1	0	0	0
18-Nov-11	NM	1.3	0.28	0	0.135	0.13	0.06	0.005	0	0.1	0.09	0	0	0
22-Dec-11	1.58	1.464	0.343	0	0.245	0.171	0.069	0.008	0	0.114	0.097	0.002	0.006	0
20-Jan-12	1.395	1.432	0.315	0	0.249	0.174	0.067	0.008	0	0.108	0.094	0.005	0.01	0
21-Feb-12	1.464	1.22	0.244	0	0.179	0.128	0.041	0.004	0	0.102	0.09	0.001	0.003	0
16-Mar-12	1.102	1.438	0.227	0	0.267	0.206	0.051	0.011	0	NM	0.101	0	0.006	0
20-Apr-12	1.81	NM	0.844	0.001	0.241	NM	0.057	0.007	0	0.104	0.1	0.002	0.003	0
17-May-12	1.421	1.364	0.306	0	0.265	0.185	0.059	0.01	0.01	NM	0.01	0.001	0.006	NM
20-Jun-12	1.783	1.861	0.439	0	0.247	0.375	0.107	0.038	0.002	NM	0.161	0.002	0.009	0
20-Jul-12	1.621	1.781	0.439	0	0.247	0.331	0.048	0.035	0	NM	0.1	0.001	0.007	0
21-Aug-12	1.591	1.846	0.436	0	0.241	0.242	0.092	NM	0	0.145	0.145	0.002	0.007	0.003
14-Sep-12	2.06	2.43	0.618	0	0.57	0.441	0.139	0.047	0.002	0.204	0.167	0.002	0.008	0
17-Oct-12	1.486	1.578	0.366	0	0.22	0.172	0.055	0.006	0	0.12	0.111	0	0.004	0
20-Nov-12	1.539	1.498	0.349	0	0.266	0.142	0.057	0.007	0	0.126	0.116	0.002	NM	0

Location	Vac-15	Vac-16	Vac-17	Vac-18	Vac-19	Vac-20	Vac-21	Vac-22	Vac-23	Vac-24	Vac-25	Vac-26	Vac-27	Vac-28
Date														
16-Jun-10	0	NM	0.0025	0.25	0.42	0.175	0	0.0075	0	0	0.089	0.020	0.005	0.0175
14-Jul-10	0	0	NM	0.31	0.54	0.205	0	0	NM	NM	NM	NM	0.005	0.01
13-Aug-10	0	0	0.0025	0.31	0.52	NM	0	0	0	0	0.08	0.02	0.005	0.025
14-Sep-10	0	0	0	0.165	0.31	0.075	0	0	0	0	0.08	0.015	0.005	0.005
14-Oct-10	NM	0	0	0.18	0.35	0.105	0	0	0	0	0.08	0.015	0.0025	0.005
22-Nov-10	0	0	0	0.2	0.35	0.1	0	0	0	0	0.08	0.02	0.0025	0.0025
16-Dec-10	0	0	0	0.145	0.29	0.08	0	0	0	0	0.055	0.01	0	0.0025
19-Jan-11	0	0	0	0.15	0.29	0.08	0	0	0	0	0.075	0.02	0	0.0075
21-Feb-11	0.005	0	NM	0.18	0.35	NM	0	0.0125	0	0	0.0675	0.035	0.015	0.01
11-Mar-11	0	0	0	0.1875	0.34	0.12	0	0	0	0	0.08	0.025	0.01	0.02
21-Apr-11	0	0	0	0.18	0.32	0.105	0	0.01	0	0	0.08	0.0325	0.01	0.0125
24-May-11	0	0	0	0.215	0.36	0.1475	0	0	0	0	0.0775	0.03	0.015	0.0175
21-Jun-11	0	0	NM	0.23	0.39	0.16	0	0	0	0	0.085	0.03	0.02	0.02
21-Jul-11	0	0	NM	0.24	0.39	0.17	0	0.0175	0	0	0.1	0.025	0.02	0.035
29-Aug-11	0	0	NM	0.21	0.32	0.12	0	0	0	0	0.09	0.0225	0.0175	0.02
26-Sep-11	0	0	NM	0.205	0.32	0.12	0.0025	0	0	0	0.0725	0.025	0.0175	0.0175
28-Oct-11	0	0	0	0.15	0.24	0.0525	0	0	0	0	0.08	0.03	0.01	0.01
18-Nov-11	0	0	0	0.14	0.21	0.06	0	0.0075	0	0	0.085	0.0275	0.015	0.015
22-Dec-11	0	0	0.003	0.138	0.227	0.06	0	0.01	0	0.003	0.083	0.024	0.012	0.009
20-Jan-12	0	0	0.001	0.135	0.222	0.064	0	0.01	0	0	0.078	0.022	0.01	0.007
21-Feb-12	0	0	0.001	0.105	0.186	0.045	-0.001	0.006	0	0	0.077	0.021	0.01	0.004
16-Mar-12	0	0	0.001	0.0153	0.256	0.085	-0.001	0.005	0	0	0.061	0.023	0.014	0.009
20-Apr-12	0	0	0.001	0.141	0.202	0.051	0	0.003	0	0	0.075	0.001	0.017	0.014
17-May-12	0	0	0.001	0.131	0.007	0.062	0	0	0	0.001	0.079	0.022	0.017	0.006
20-Jun-12	0	0	0.001	0.128	0.16	0.003	0	0.003	0	0.004	0.098	0	0.022	0.017
20-Jul-12	0	0	0.004	0.105	0.201	0.083	0	0.001	0	0.003	0.093	0.029	0.016	0.013
21-Aug-12	0	0	0.003	0.131	0.171	0.072	0	0	0	0.004	0.091	0.026	0.012	0.009
14-Sep-12	0	0	0.007	NM	NM	NM	0	0.009	0	0.004	0.093	0.023	0.015	0.015
17-Oct-12	0	0	0.001	0.123	0.212	0.07	0	0.001	0	0.004	0.081	0.024	0.009	0.006
20-Nov-12	0	0	0.001	0.122	0.207	0.067	-0.001	0.004	0	0.004	0.085	0.025	0.01	0.005

**Table 2**  
**Summary of Vacuum Readings**  
**Greif, Inc. - Tonawanda, NY**  
**NYSDEC VCP Number V00334-9**

Location	Vac-29	Vac-30	Vac-31	Vac-32	Vac-33	Vac-34	Vac-35	Vac-36	Vac-37	Vac-38	Vac-39	Vac-40	Vac-41	Vac-42
Date														
16-Jun-10	0.040	0	0	0.040	0.0675	0.0225	NM	0	0.030	NM	0.025	0.0275	0.0525	0.0025
14-Jul-10	NM	NM	NM	NM	0.125	0.0325	0	0	0	NM	0.03	0.0325	NM	0.005
13-Aug-10	0.0725	0	0.0375	0.0875	0.1625	0.05	0	0	0	0	0.05	0.04	0.0875	0.015
14-Sep-10	0.025	0	0.01	0.03	0.06	0.015	0	0	0	0	0.02	0.0075	0.025	0.0025
14-Oct-10	0.025	0	0.005	0.03	0.055	0.01	0	0	0	0	0.01	0.01	0.025	NM
22-Nov-10	0.015	0	0.0025	0.025	0.065	0.01	0	NM	0	0	0.005	NM	0.015	NM
16-Dec-10	0.02	NM	0.005	0.035	0.055	0.015	0	NM	0	0	0.005	NM	0.0125	NM
19-Jan-11	0.02	NM	0.0075	0.03	0.04	0.015	0	0	0	0	0.01	NM	0.0125	NM
21-Feb-11	0.015	0	0.01	0.035	0.0325	NM	NM	0	0	0.0025	0.015	0.01	0.0175	NM
11-Mar-11	0.02	0	0.02	0.0425	0.0625	0.03	0	0	0	0	0.0225	0.02	0.02	NM
21-Apr-11	0.0175	0	0.01	0.035	0.06	NM	NM	0	0	0	0.01	0.005	0.0125	0
24-May-11	0.0325	0	0.0225	0.0525	0.075	NM	NM	0	0	NM	0.0125	NM	0.035	0
21-Jun-11	0.04	0	0.03	0.075	0.11	0.04	NM	0	0	0	0	0.0225	0.0425	0
21-Jul-11	0.055	0	0.05	0.1025	0.17	0.06	0	0.0125	0	0	0.0325	0.035	0.08	0.0075
29-Aug-11	0.0375	0	0.0325	0.07	0.13	0.0375	0	0	0	0	NM	0.02	0.035	0.05
26-Sep-11	0.045	0	0.03	0.06	0.1175	0.035	0	0	NM	0	0	NM	NM	0.01
28-Oct-11	NM	0	0.0075	0.0375	0.0775	0.0775	NM	0	0	0	0.0075	0.005	0.01	NM
18-Nov-11	NM	0	0.01	0.0325	0.065	0.0175	NM	0	0	0	0.0075	0	0.01	NM
22-Dec-11	0.014	0.005	0.012	0.032	0.077	0.021	0	0	0	0	0.008	0.011	0.014	0.001
20-Jan-12	0.011	-0.003	0.012	0.032	0.064	0.018	0	0	0	0	0.007	0.008	0.012	0.001
21-Feb-12	0.009	-0.002	0.007	0.023	0.054	0.016	NM	0	0	0	0.006	0.007	0.009	NM
16-Mar-12	0.013	0	0.013	0.034	0.076	0.02	0	0	0	0	0.01	0.011	0.017	NM
20-Apr-12	0.019	0.007	0.015	0.035	0.021	0	0	0	0	0	0.689	0.119	0.001	NM
17-May-12	0.004	0.005	0.008	0.025	0.071	0.016	NM	0.001	0	0	0.001	0.01	0.009	NM
20-Jun-12	0.027	0	0.008	0.073	0.135	0.038	NM	0.004	0	0.001	NM	0.016	0.03	0.033
20-Jul-12	0.022	0.001	0.023	NM	0.102	0.026	NM	0.001	0	0.001	0.012	0.016	0.019	NM
21-Aug-12	0.019	0	0.016	0.037	0.091	0.025	NM	0.001	0	0	0.001	0.013	0.002	0.001
14-Sep-12	0.032	0	0.013	0.064	0.138	0.037	0	0.002	0	0	0.013	0.017	0.032	0.004
17-Oct-12	0.014	-0.001	0.009	0.025	0.071	0.02	0	0	0	0	0.011	0.009	0.03	0.002
20-Nov-12	0.014	0	0.01	0.008	0.063	0.019	0	0	0	0	0.009	0.009	0.033	0.001

Location	Vac-43	Vac-44	Vac-45	Vac-46	Vac-47	Vac-48	Vac-49	Vac-50	Vac-51	Vac-52	Vac-53
Date											
16-Jun-10	0.0025	0.0425	0.015	0.0125	NM	0.2125	0.0925	0	0.080	0.0125	0.0125
14-Jul-10	0	NM	NM	0.0125	NM	0.21	0.0875	NM	0.8	0.0175	0.0225
13-Aug-10	0	NM	NM	NM	NM	0.22	0.0925	0	0.085	NM	0.0225
14-Sep-10	0	NM	NM	0.0025	NM	0.1275	0.05	0	0.04	0.005	0
14-Oct-10	NM	NM	0	NM	NM	0.11	0.0375	0	0.03	0	0
22-Nov-10	0	NM	0	0	NM	0.135	0.0475	0	0.03	0.0025	0
16-Dec-10	0	0.015	0	0	NM	0.09	0.02	0	NM	0	0
19-Jan-11	0	NM	0	0	NM	0.12	0.035	0	0.03	0.0025	0
21-Feb-11	0	0.0325	0.01	0	0	0.125	0.035	0	0.03	0	0
11-Mar-11	0	NM	0.02	NM	0.005	0.16	0.0575	NM	0.05	0.03	0.01
21-Apr-11	0	NM	0	NM	0	0.1375	0.045	NM	0.025	0	0
24-May-11	0	0.03	0.005	NM	0.0075	0.175	0.06	0	0.055	0.005	0.0125
21-Jun-11	NM	NM	0.0175	NM	0.02	0.195	0.0675	0	0.065	0.0175	0.03
21-Jul-11	0.0125	0.0525	0.0375	0.025	0.035	0.235	0.0875	0	0.07	0.02	0.06
29-Aug-11	0	0.0325	NM	NM	NM	0.185	0.07	0	0.06	0.03	0.09
26-Sep-11	0.0075	NM	0.005	NM	0.0125	0.17	0.07	0	0.055	0.175	0.0325
28-Oct-11	0	0.0075	0	NM	0.0075	0.1225	0.03	0	0.03	0	0.0025
18-Nov-11	0	NM	0	0	0	0.09	0.03	0	0.0275	0.005	0.005
22-Dec-11	0.001	0.014	0.001	0.004	0.005	0.131	0.036	0.001	0.034	0.009	0.01
20-Jan-12	0.001	0.012	0.004	0.004	0.006	0.131	0.037	0.001	0.031	0.007	0.007
21-Feb-12	0.002	NM	0.003	0.002	0.004	0.114	0.026	0.001	0.026	0.008	0.009
16-Mar-12	NM	0.016	0.008	0.004	0.008	0.124	0.034	0.001	0.032	0.017	0.014
20-Apr-12	0.001	0.014	0.006	0.001	0.003	NM	0.031	0.001	0.03	0.009	0.014
17-May-12	NM	0.01	0.005	0.003	0.006	0.11	0.031	0	0.032	0.005	0.011
20-Jun-12	NM	0.027	0.014	0.009	0.003	0.164	0.06	0	0.054	0.019	0.039
20-Jul-12	NM	0.024	0.002	0.009	0.005	0.151	0.035	0	0.033	0.013	0.032
21-Aug-12	0.003	0.019	0.008	0.003	0.006	0.147	0.045	0	0.044	0.01	0.02
14-Sep-12	NM	0.03	0.013	0.01	NM	0.164	0.061	0	0.059	0.02	0.4
17-Oct-12	0.001	0.014	0.004	0.008	0.004	0.108	0.03	0	0.03	0.004	0.007
20-Nov-12	NM	0.016	0.004	0.009	0.005	0.118	0.033	0	0.037	0.004	0.008

**Notes:**

- All vacuum and/or pressure readings are reported in inches of water column ("H2O).  
 NM = not measured; was covered with pallets or other surface obstructions



**Table 3**  
**Summary of Treatment System Data**  
**Greif Facility - Tonawanda, New York**  
**NYSDEC VCP Number V00334-9**  
**Page 1 of 2**

Location Units	Header Vacuum						Header Air Flow					
	PG-101 " H <sub>2</sub> O	PG-102 " H <sub>2</sub> O	PG-103 " H <sub>2</sub> O	PG-104 " H <sub>2</sub> O	PG-105 " H <sub>2</sub> O	PG-106 " H <sub>2</sub> O	PG-101 cfm	PG-102 cfm	PG-103 cfm	PG-104 cfm	PG-105 cfm	PG-106 cfm
<b>Date</b>												
17-Dec-09	NF	11.5	NM	NF	NF	NF	NF	NM	NM	NF	NF	NF
14-Jan-10	NF	40	NM	NF	NF	NF	NF	94	NM	NF	NF	NF
17-Feb-10	NF	4.2	NM	NF	NF	NF	NF	16	NM	NF	NF	NF
18-Mar-10	NF	1.95	NM	NF	NF	NF	NF	15	NM	NF	NF	NF
13-Apr-10	NF	2.85	13.0	NF	NF	NF	NF	73	233	NF	NF	NF
18-May-10	NF	3.95	13.0	NF	NF	NF	NF	83	212	NF	NF	NF
15-Jun-10	NF	2.60	15.5	NF	NF	NF	NF	65	225	NF	NF	NF
14-Jul-10	NM	1.75	4.10	NM	NM	NF	NM	26	75	NM	NM	NF
13-Aug-10	3.75	1.30	3.75	3.70	3.75	NF	67	19	73	65	82	NF
14-Sep-10	3.15	0.85	3.25	3.15	3.2	NF	68	18	74	65	72	NF
14-Oct-10	3.45	0.91	3.50	3.45	3.55	NF	70	32	76	66	72	NF
22-Nov-10	4.05	0.30	4.15	4.00	4.2	NF	76	14	80	70	82	NF
16-Dec-10	4.05	0.30	4.05	3.95	4.05	NF	70	14	85	75	94	NF
19-Jan-11	3.55	0.85	3.60	3.55	3.6	NF	82	39	135	92	164	NF
21-Feb-11	3.4	1.55	3.50	3.40	3.5	NF	116	36	105	78	144	NF
11-Mar-11	3.35	2.00	3.35	3.35	3.4	NF	98	73	65	76	141	NF
21-Apr-11	3.1	1.65	3.10	3.05	3.15	NF	97	84	103	106	170	NF
24-May-11	3.0	2.60	3.10	3.00	3.10	NF	89.61	53.94	89.61	71.34	87.87	NF
21-Jun-11	3.0	2.70	3.00	3.00	3.10	NF	115.71	90.48	106.14	87.87	96.57	NF
21-Jul-11	3.1	2.80	3.20	3.10	3.10	NF	113.97	87.00	100.92	80.48	140.07	NF
29-Aug-11	3.00	2.90	3.00	3.00	3.00	NF	106.14	69.60	93.09	75.17	100.31	NF
26-Sep-11	2.90	1.40	2.90	2.90	2.90	NF	95.70	63.95	105.27	90.48	127.02	NF
28-Oct-11	2.70	1.20	2.80	2.70	2.80	NF	63.51	39.67	101.79	86.13	114.84	NF
18-Nov-11	2.50	1.00	2.50	2.40	2.50	NF	73.08	55.68	107.88	72.65	115.71	NF
22-Dec-11	2.40	1.80	2.50	2.40	2.40	NF	63.95	52.20	62.21	72.65	72.65	NF
20-Jan-12	2.40	1.60	2.40	2.55	2.50	NF	99.18	74.39	92.22	74.39	108.75	NF
21-Feb-12	2.30	1.70	2.40	2.30	2.40	NF	93.09	83.96	90.48	86.13	100.92	NF
16-Mar-12	2.20	1.20	2.20	2.20	2.20	NF	140.94	99.18	139.20	72.65	166.17	NF
20-Apr-12	2.00	1.90	2.20	2.10	2.20	NF	127.89	79.61	129.63	63.95	107.88	NF
17-May-12	2.25	1.60	2.30	2.20	2.30	NF	96.57	113.10	75.69	64.82	80.04	NF
12-Jun-12	2.45	2.00	2.30	2.50	2.50	NF	159.21	106.14	120.06	139.20	103.53	NF
20-Jul-12	2.40	1.80	2.50	2.40	2.45	NF	125.28	93.96	110.49	104.40	111.36	NF
21-Aug-12	2.80	1.90	2.85	2.80	2.85	NF	32.71	30.45	44.81	83.52	67.86	NF
14-Sep-12	3.60	2.45	3.65	3.55	3.60	NF	55.68	32.45	49.59	25.14	47.42	NF
17-Oct-12	2.60	1.70	2.65	2.60	2.70	NF	92.22	91.35	98.31	90.48	120.93	NF
20-Nov-12	2.60	1.85	2.70	2.70	2.80	NF	100.92	93.96	79.61	88.74	125.28	NF

**Location Key**

PG-101 = Suction Pits 05, 06, 07 and 08 (pipe 1 of 2).

PG-102 = interior of former varnish pit.

PG-103 = horizontal suction points through former varnish pit's north, west, and south walls.

PG-104 = Suction Pit 05, 06, 07, and 08 (pipe 2 of 2).

PG-105 = Suction Pit 01 and 02.

PG-106 = not connected.

**Notes:**

- Vacuum and pressure data are reported in inches of water.
- Air flow data are based on measured air velocity and are reported in cubic feet per minute.
- NM = not measured
- NF = no flow as the piping associated with these measurement locations was not open/ connected at the time of measurement.

**Table 3 (Continued)**  
**Summary of Treatment System Data**  
**Greif Facility - Tonawanda, New York**  
**NYSDEC VCP Number V00334-9**  
**Page 2 of 2**

Location	Pre-Carbon			Mid-Carbon		Post-Carbon		
	Pressure " H <sub>2</sub> O	Temp °F	PID ppm	Temp °F	PID ppm	Temp °F	PID ppm	Flow cfm
Date								
17-Dec-09	10.5	103	0.0	98	0.0	67	0.0	120
14-Jan-10	7.5	114	46.5	102	18.7	91	13.9	73
17-Feb-10	9.5	114	0.0	111	0.0	99	0.0	88
18-Mar-10	9.0	115	0.0	108	0.0	98	0.0	98
13-Apr-10	9.0	118	4.7	109	2.0	98	1.1	225
18-May-10	8.5	108	3.0	103	2.2	94	1.7	220
15-Jun-10	10.0	114	3.3	103	0.0	89	0.0	245
14-Jul-10	11.0	112	5.2	106	4.1	98	1.9	263
13-Aug-10	10.5	118	2.6	112	2.0	103	1.3	255
14-Sep-10	13.0	100	2.2	90	1.1	NM	0.5	461
14-Oct-10	15.5	104	0.3	104	0.0	NM	0.0	475
22-Nov-10	15.5	102	0.4	97	0.0	94	0.0	490
16-Dec-10	15.5	94	15.1	89	11.8	88	3.2	493
19-Jan-11	16.5	94	1.0	88	1.1	86	0.2	516
21-Feb-11	16	91	0.7	85	0	84	0	462
11-Mar-11	15.5	97	189	91	69.2	91	5.7	522
21-Apr-11	22.5	98	1.1	NM	0	97	0	220
24-May-11	28.5	111	6.3	NM	1.5	104	0	202.71
21-Jun-11	30	127	4.4	NM	0.7	112	0.1	181.83
21-Jul-11	41	137	0.0	NM	0.0	120	0.0	175.74
29-Aug-11	39	132	5.3	NM	0.0	121	0.0	176.61
26-Sep-11	46	132	1.1	NM	1.0	116	0.0	172.26
28-Oct-11	46	116	7	NM	4.6	99	0.0	186.18
18-Nov-11	46	124	3.4	NM	1.0	114	0.0	178.35
22-Dec-11	46	116	0.2	NM	0.0	118	0.0	185.31
20-Jan-12	44	114	0.00	80.1	0.0	112	0.0	180.96
21-Feb-12	45	118	6.4	88	0	115	0.0	181.83
16-Mar-12	44	124	2.2	91	1.4	114	0.5	154.86
20-Apr-12	44	107	2.3	89	2.5	112	0.8	134.85
17-May-12	48	124	2.2	87	0.9	112	1.5	159.21
20-Jun-12	48	134	2.1	89	1.3	114	0.7	167.91
20-Jul-12	48	139	2.7	NM	2.4	120	1.4	147.03
21-Aug-12	NM	NM	NM	NM	NM	120	0.6	53.94
14-Sep-12	NM	NM	NM	NM	1.1	114	0.2	93.09
17-Oct-12	27	69	2.1	NM	NM	106	0.0	217.5
20-Nov-12	32	92	0.0	NM	NM	114	0.0	196.62

**Notes:**

- Vacuum and pressure data are reported in inches of water.
- Air flow data are based on measured air velocity and are reported in cubic feet per minute.
- Temperature reported in degrees Fahrenheit.
- PID = photoionization detector reading reported in parts per million.
- NM = not measured