Glenn Springs Holdings, Inc.

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July 11, 2011

Mr. Thomas Taccone
Western New York Remediation Section
Emergency and Remedial Response Division
United States Environmental Protection Agency – Region II
290 Broadway, 20th Floor
New York, New York 10007-1866

Re: Quarterly Report – Second Quarter 2011 (April through June)
Administrative Orders – Hooker Chemical/Ruco Polymer Corporation Site
Index Nos. II-CERCLA-80216, II-CERCLA-94-0210, and II-CERCLA-02-2001-2018

Dear Mr. Taccone:

Consistent with Sections 42, 91, and 55 of the above-referenced orders, respectively, and the USEPA approved 100% Biosparge System Design Report, this submittal provides the Quarterly Progress Report covering April 2011 through June 2011 for the Hooker/Ruco Site. This report covers OU-1, OU-2, and OU-3. Please note that the next Quarterly Progress Report will be submitted by October 15, 2011 and will cover July through September 2011.

Quarterly Progress Report

The following activities were performed from April 2011 through June 2011.

Operable Unit-1 (Onsite Soil)
All work has been successfully completed. OU-1 is closed.

Operable Unit-2 (Soils Impacted by Onsite Release of PCBs)
All work has been successfully completed. OU-2 is closed.

Operable Unit-3 (Offsite Groundwater)

- Supplemental Treatment System
  - Operation and monitoring of the GP-1/GP-3 supplemental air treatment system continued.
  - The carbon bed was changed out on May 12, 2011.
  - Evaluations of possible upgrade alternatives for the supplemental treatment system are ongoing.

Biosparge System

See Figures 1 & 2 for system layout and Figures 3 & 4 for system cross-sections.

Installation of the injection and monitoring wells for the biosparge system expansion started on September 20, 2010 and was completed on May 14, 2011. The well installation and instrumentation details are provided in Table 4. A surveyor will be retained when installation of the biosparge system expansion is complete and will survey the system including the associated monitoring wells. The details provided in Table 4 will be updated upon receipt of the survey.

The bid documents for the remaining components of the biosparge system were distributed on May 4, 2011. An onsite pre-bid meeting was held on May 20, 2011. Bids were received on June 17, 2011 and are currently under evaluation.

USEPA approval for the GROWS Landfill in Morrisville, PA for the disposal of drill cuttings and for the Cycle Chem facility in Elizabeth, NJ for use as a transfer facility were received on March 17 and 23, 2011, respectively. The first roll-off was delivered to the Cycle Chem facility on March 23, 2011. Two additional roll-offs were delivered to the Cycle Chem facility on each of May 20, 2011 and June 7, 2011.

The first 2011 semi-annual biosparge performance monitoring event was performed in April 2011. This event included the background (pre-air injection) sampling of the newly installed groundwater and vadose zone monitoring wells (except MW-75/VZ-4, which were not installed at the time of the sampling event) and repeating the permeable diffusion bag/HydraSleeve™ (PDB) sampling trial. The results of these samples are provided in the attached QA/QC report.

A presentation was made to the Technical Advisory Committee on June 17, 2011 to update the Committee on the progress of the OU3 groundwater remedy.

Summary of Biosparge Pilot System

The dissolved oxygen, total volatile organic compounds (TVOC), and vinyl chloride monomer (VCM) concentration trends for the various groundwater monitoring wells are shown on Figures 5 through 11.

To date, the results show that the biosparge system has operated successfully as demonstrated by the following:

1. Dissolved oxygen (DO) levels in the groundwater have increased and, in general, are greater than the target concentration of 2 milligrams per liter (mg/L).
2. The VCM concentrations are decreasing as a result of the microbial biodegradation processes.

As part of the biosparge system monitoring program, soil gas samples of the vadose zone have also been collected. In accordance with Section 9.2 of the 100% Final Design Report dated May 2005, further sampling of the ten vadose zone wells which monitored the Pilot System is no longer needed. The background (pre-air-injection) results for the newly installed vadose zone wells are listed in Table 3.

Planned Third Quarter 2011 Activities

The following activities are planned for the third quarter of 2011:

1. Continue operation and monitoring of the GP-1/GP-3 supplemental air treatment system.
2. Change-out of the supplemental treatment system carbon bed is tentatively planned for the week of August 1, 2011.
3. Award contract for installation of the vaults, piping, conduit, etc. for the remainder of the biosparge system middle fence and the north fence.

The following activities are pending an approval or review by the USEPA. The follow-up schedule is based on receipt of the review or approval:

1. No activities for this quarter.

Should you have any questions on the above, please do not hesitate to contact me at (972) 687-7511 or by email at jeffrey_kogut@oxy.com.

Sincerely yours,

Jeffrey A. Kogut

Enclosures

cc: P. Olivo (USEPA)
K. Lynch (USEPA)
M. E. Wieder (USEPA)
S. Scharf (NYSDEC – pdf on CD)
M. Popper (CDM)
T. Kelly (Nassau County)
W. Baldwin (Bayer)
J. Kay (CRA)

HOOKER/RUCO SITE

SOUTH OYSTER BAY ROAD

NAVY SITE

PLANT 3

HAZEL STREET

PLANT 2

PLANT 5

GRUMMAN ROAD

HICKSVILLE ROAD

SITE

N

0 200 400ft

5/10 | 12 MW-64
4/11 | 100 MW-92
MW-93 4/11 | 190
IW-4
4/11 | 1000 MW-70
IW-3
IW-2
IW-1
IW-5 IW-6 IW-7
MW-77 4/11 | 140
MW-73 4/11 | 1400
MW-90 4/11 | 4100
4/11 | NS MW-75
4/11 | 21 MW-72
4/11 | 1100 MW-76
5/10 | 47 MW-63
MW-62 5/10 | 8.0
IW-19
MW-82 5/11 | 74
IW-20
IW-21
IW-22
IW-18
IW-17
IW-16
IW-15
4/11 | 14 MW-86
4/11 | 160 MW-87
4/11 | 34 MW-83
4/11 | 14 MW-61
4/11 | 190 MW-81
MW-89 4/11 | 63
MW-85 4/11 | 1100
MW-88 4/11 | 160
MW-84 4/11 | ND
MW-60 5/10 | NS
4/06 | 3300 MW-66
5/10 | 91 MW-67
MW-68 5/10 | 34
MW-58 5/10 | ND
10/06 | ND MW-59
GP-3 4/10 | 193
GP-1 4/10 | ND

2
100
500
1000

LEGEND

- MW-57 — MONITORING WELL LOCATION
- GP-3 — EXTRACTION WELL LOCATION
- IW-1 — INJECTION WELL LOCATION
- 4/11 | 14 — VCM CONCENTRATION (µg/L); MONTH/YEAR
- 2 — VCM PLUME (µg/L)

figure 1

MOST RECENT VCM GROUNDWATER CONCENTRATIONS

Hooker/Ruco Site, Hicksville, New York

06883-D23102(TACC018)GN-WA001 JUL 05/2011

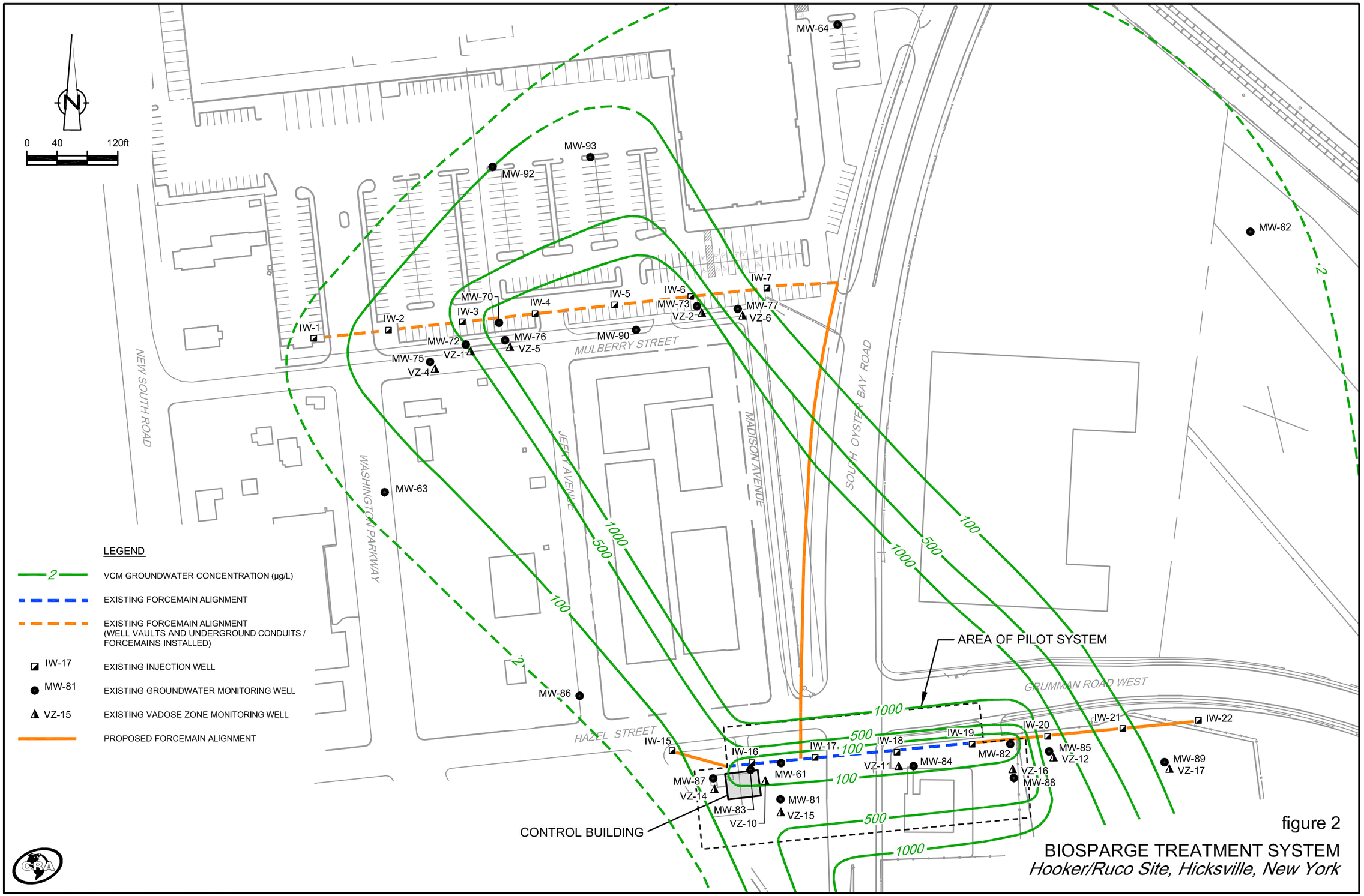
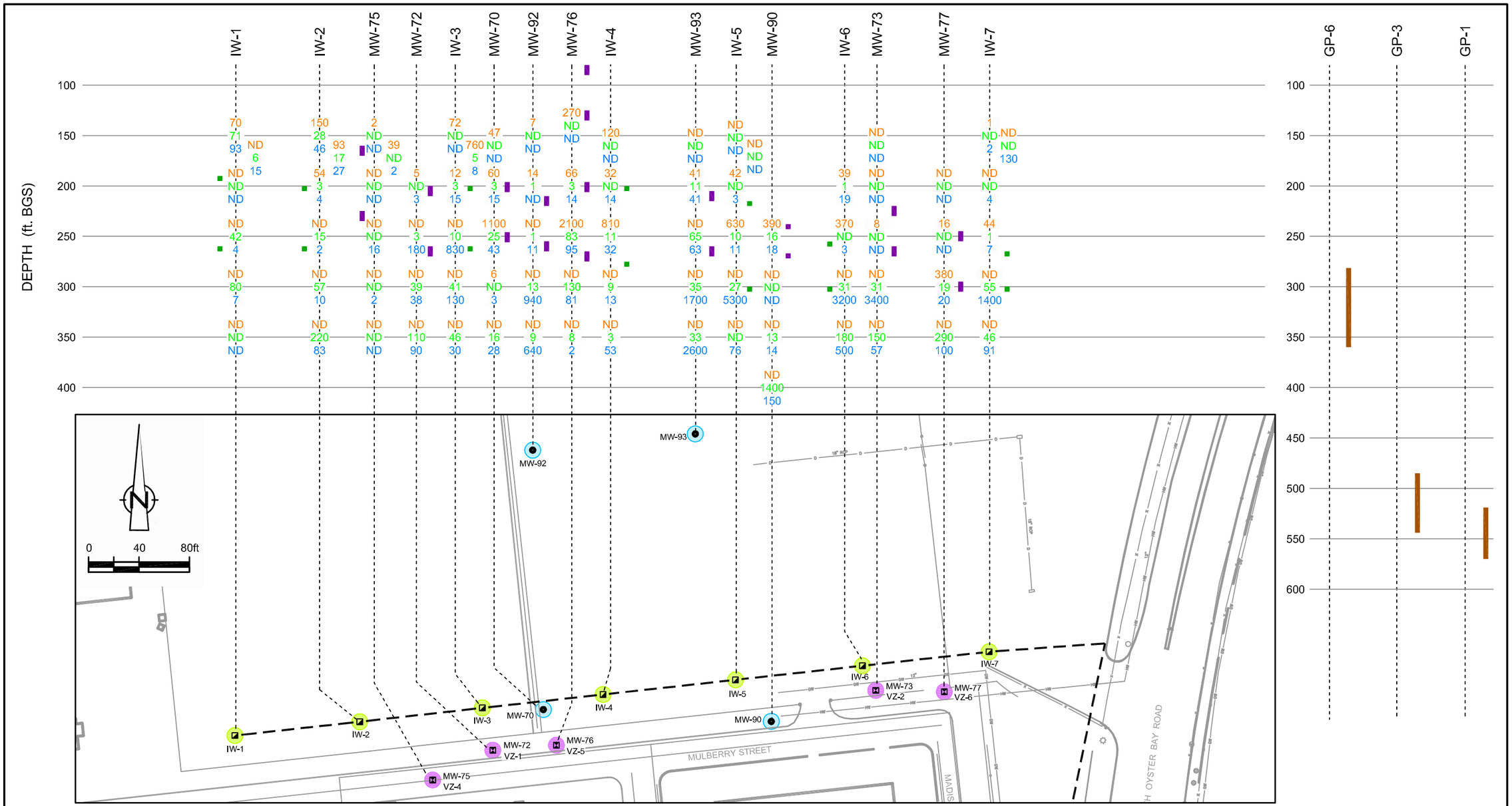


figure 2

BIOSPARGE TREATMENT SYSTEM

Hooker/Ruco Site, Hicksville, New York

06883-D23102(TACC018)GN-WA002 JUL 03/2011



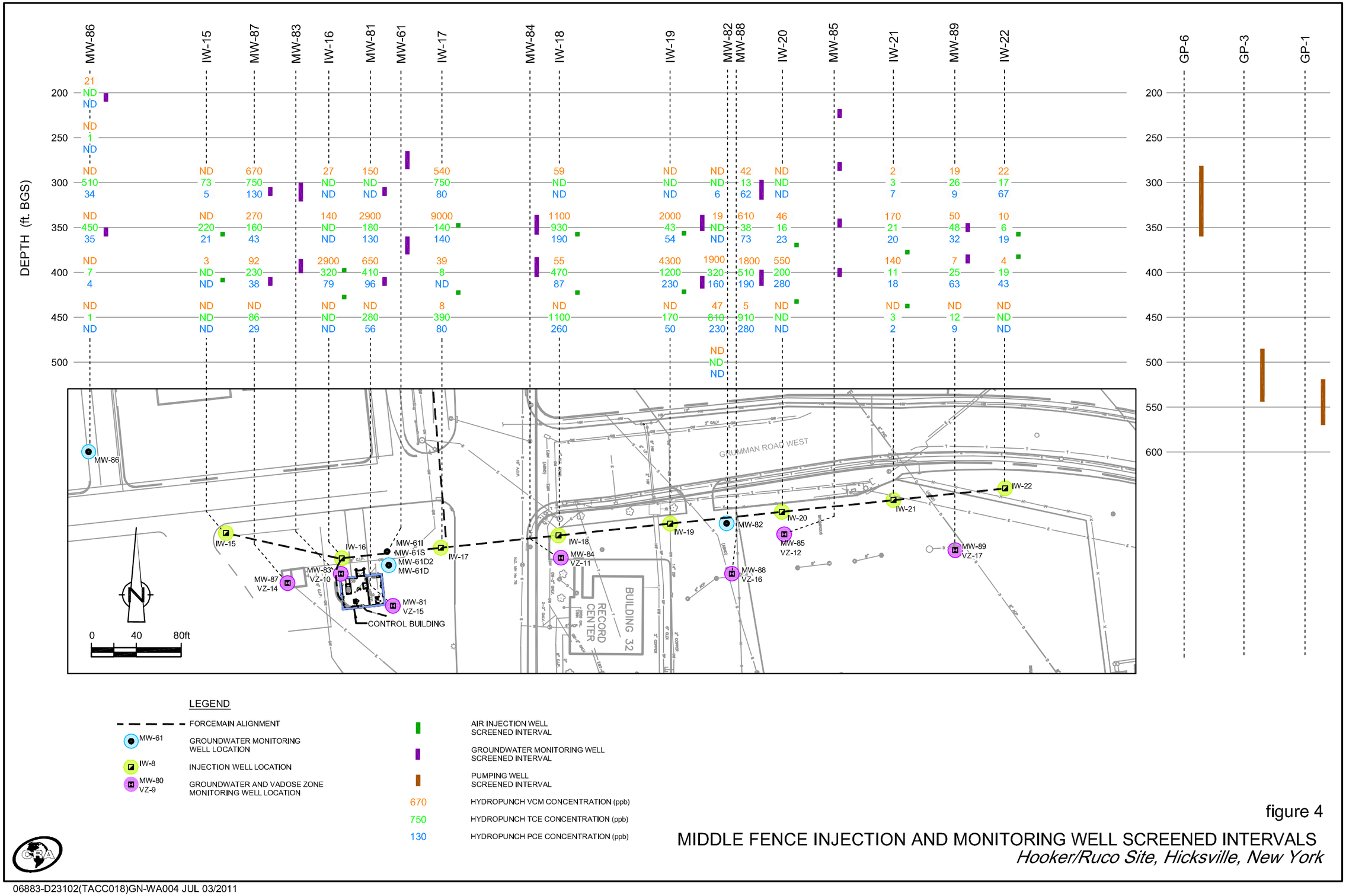
LEGEND

- FORCEMAIN ALIGNMENT
- MW-90 — GROUNDWATER MONITORING WELL LOCATION
- IW-4 — INJECTION WELL LOCATION
- MW-76 VZ-5 — GROUNDWATER AND VADOSE ZONE MONITORING WELL LOCATION
- AIR INJECTION WELL SCREENED INTERVAL
- GROUNDWATER MONITORING WELL SCREENED INTERVAL
- PUMPING WELL SCREENED INTERVAL
- 670 — HYDROPUNCH VCM CONCENTRATION (ppb)
- 750 — HYDROPUNCH TCE CONCENTRATION (ppb)
- 130 — HYDROPUNCH PCE CONCENTRATION (ppb)

figure 3

NORTH FENCE INJECTION AND MONITORING WELL SCREENED INTERVALS

Hooker/Ruco Site, Hicksville, New York



LEGEND

- FORCEMAIN ALIGNMENT
- MW-61 — GROUNDWATER MONITORING WELL LOCATION
- IW-8 — INJECTION WELL LOCATION
- MW-80 VZ-9 — GROUNDWATER AND VADOSE ZONE MONITORING WELL LOCATION
- AIR INJECTION WELL SCREENED INTERVAL
- GROUNDWATER MONITORING WELL SCREENED INTERVAL
- PUMPING WELL SCREENED INTERVAL
- 670 — HYDROPUNCH VCM CONCENTRATION (ppb)
- 750 — HYDROPUNCH TCE CONCENTRATION (ppb)
- 130 — HYDROPUNCH PCE CONCENTRATION (ppb)

figure 4

MIDDLE FENCE INJECTION AND MONITORING WELL SCREENED INTERVALS

Hooker/Ruco Site, Hicksville, New York

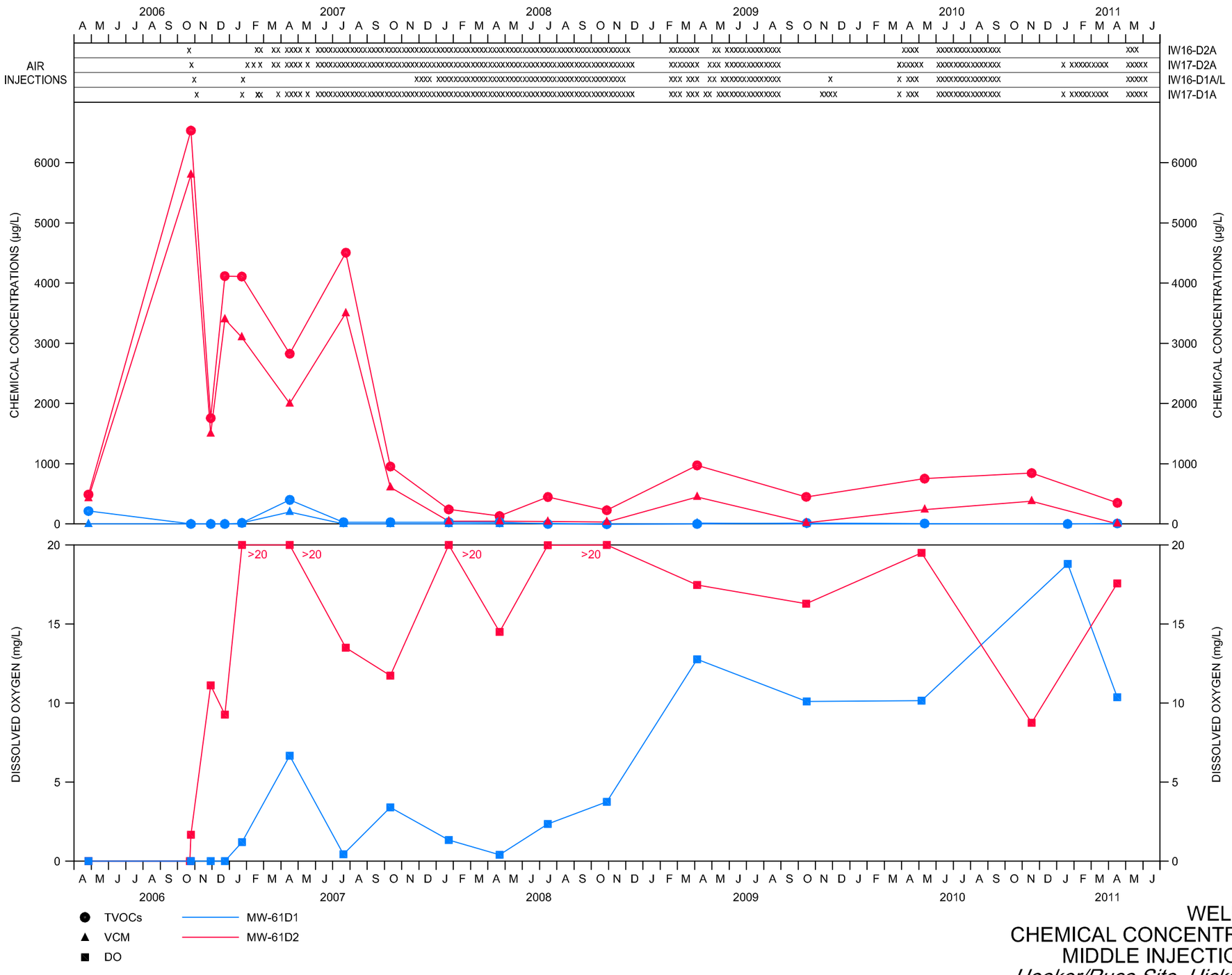


figure 5

WELL NEST MW-61
CHEMICAL CONCENTRATION PLOTS
MIDDLE INJECTION FENCELINE
Hooker/Ruco Site, Hicksville, New York

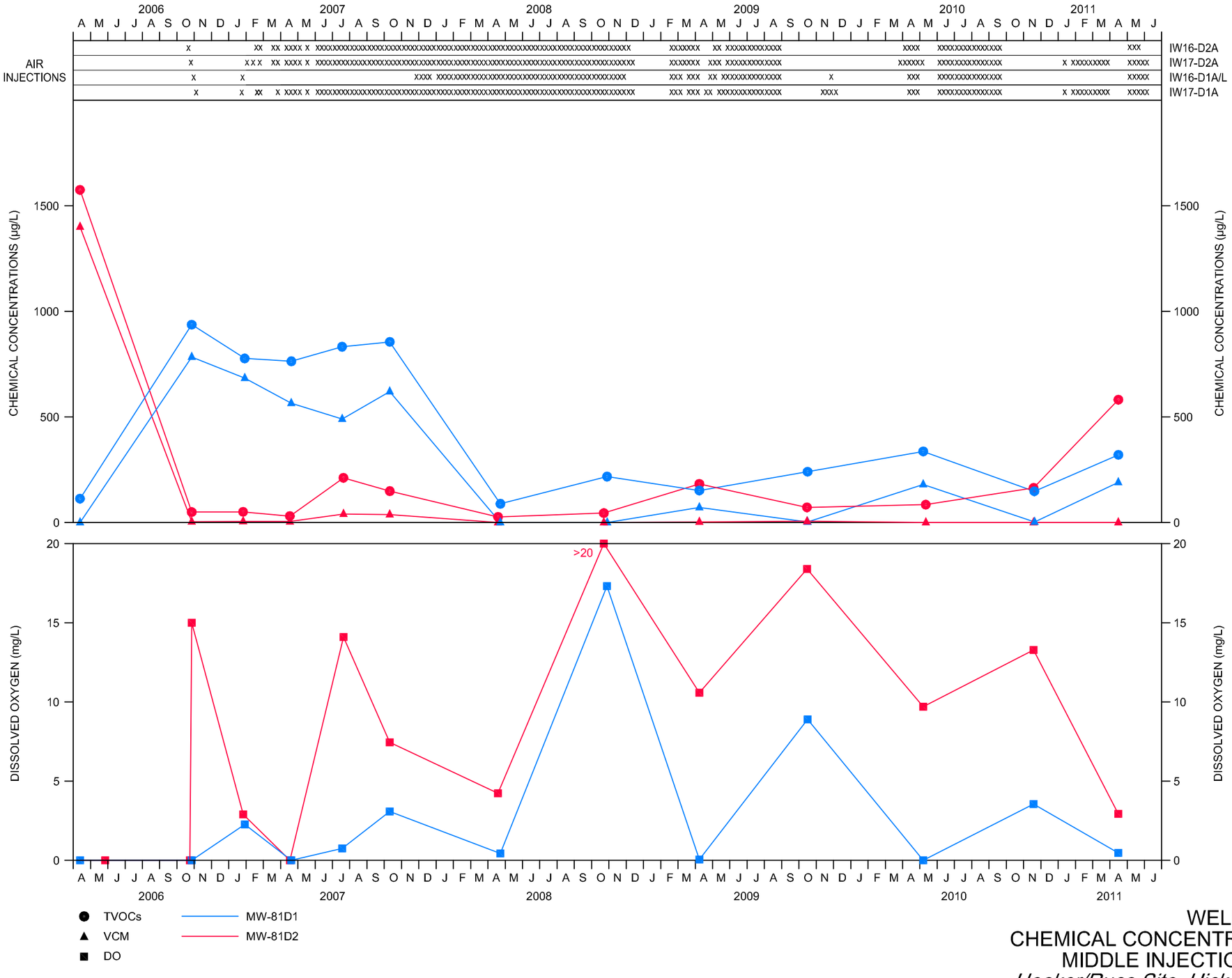


figure 6

WELL NEST MW-81
CHEMICAL CONCENTRATION PLOTS
MIDDLE INJECTION FENCELINE
Hooker/Ruco Site, Hicksville, New York

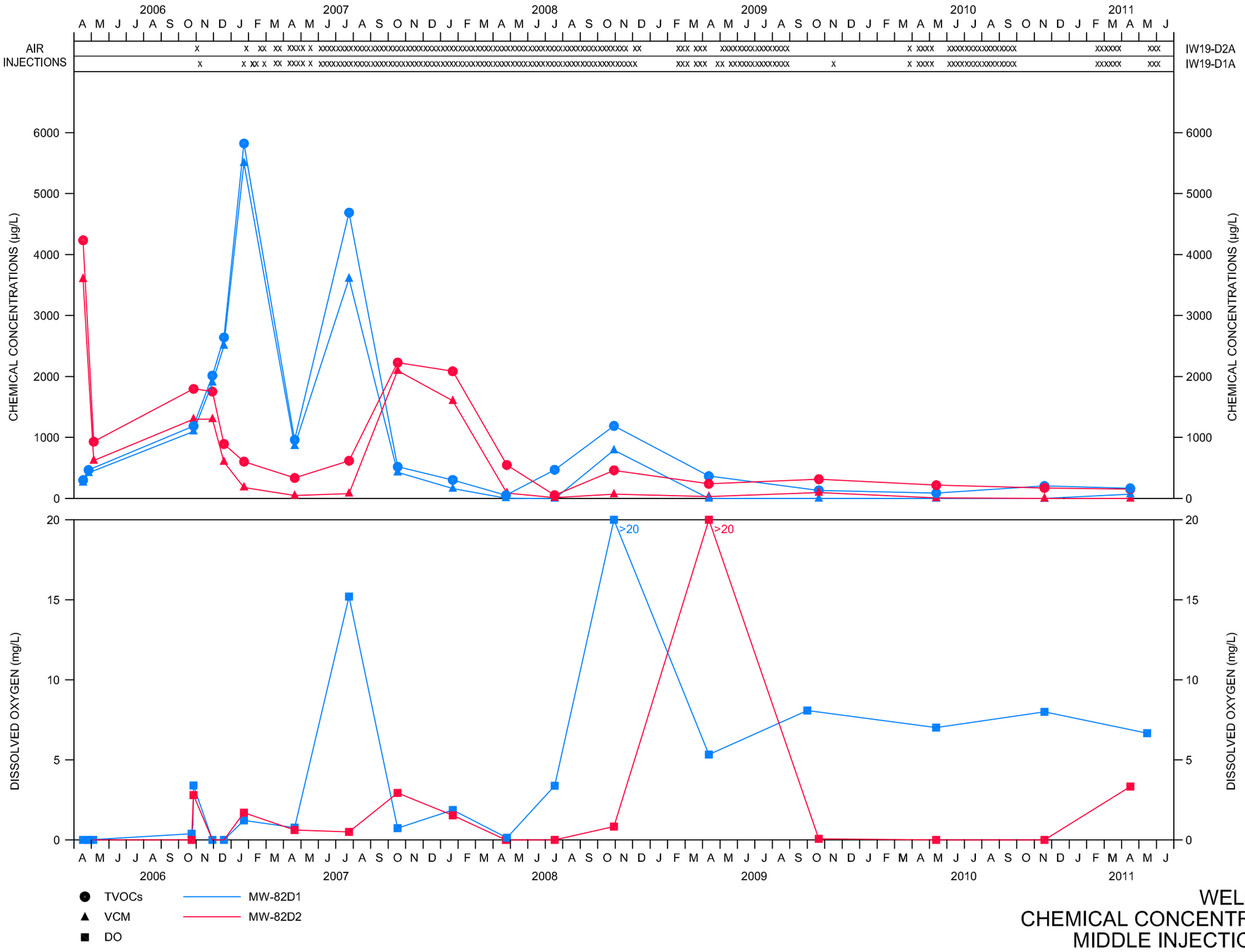


figure 7

WELL NEST MW-82
CHEMICAL CONCENTRATION PLOTS
MIDDLE INJECTION FENCELINE
Hooker/Ruco Site, Hicksville, New York

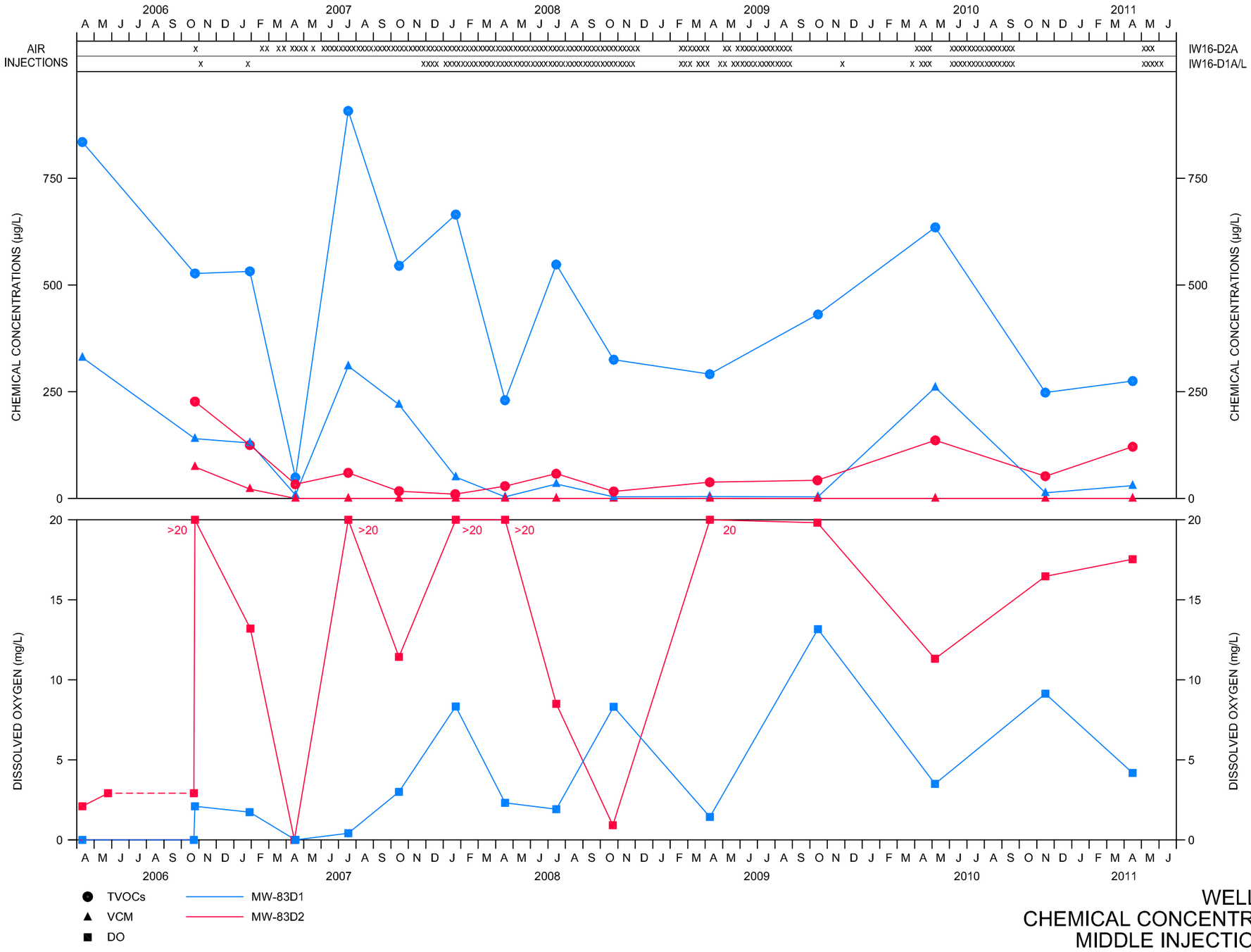


figure 8

WELL NEST MW-83
CHEMICAL CONCENTRATION PLOTS
MIDDLE INJECTION FENCELINE
Hooker/Ruco Site, Hicksville, New York

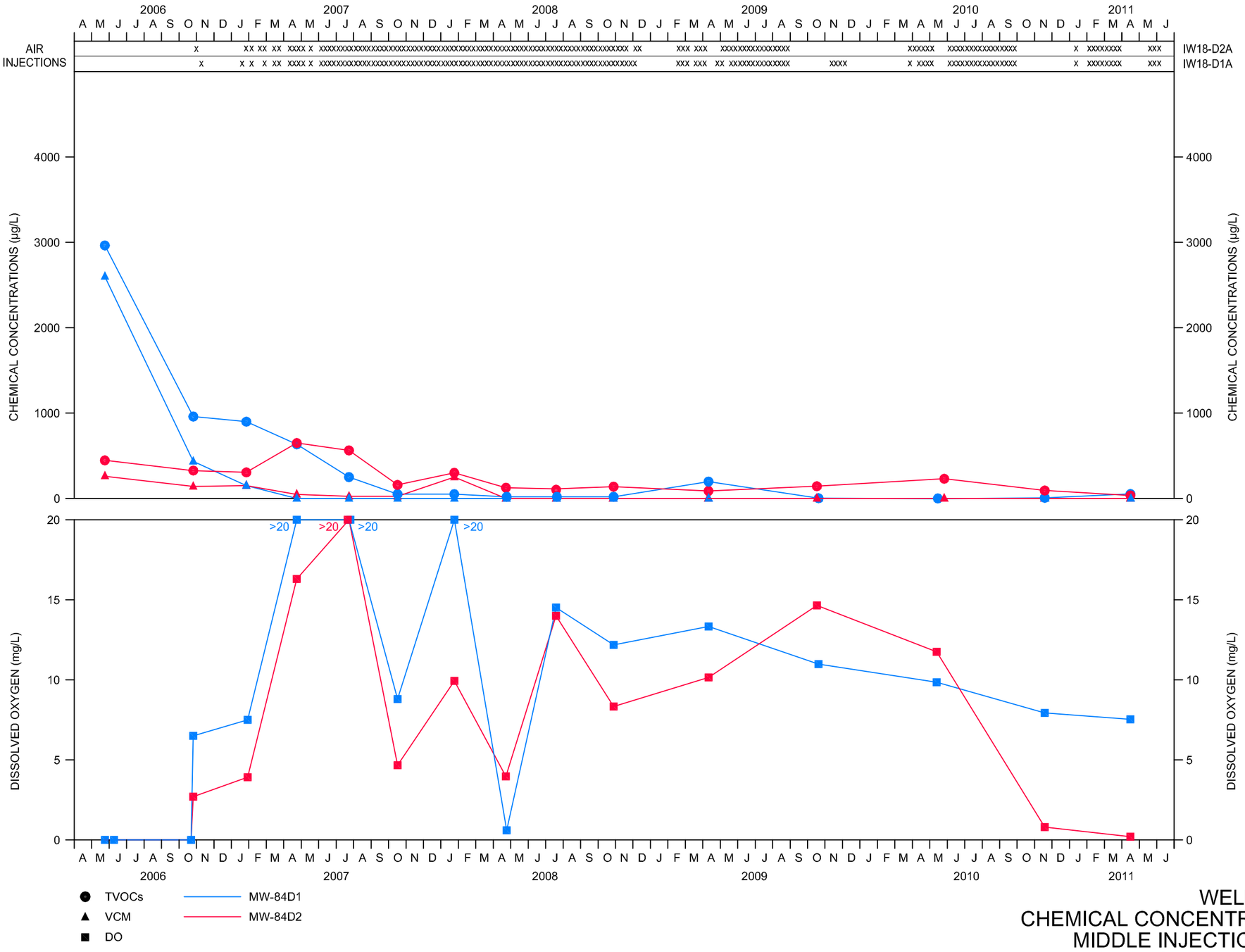


figure 9

WELL NEST MW-84
CHEMICAL CONCENTRATION PLOTS
MIDDLE INJECTION FENCELINE
Hooker/Ruco Site, Hicksville, New York

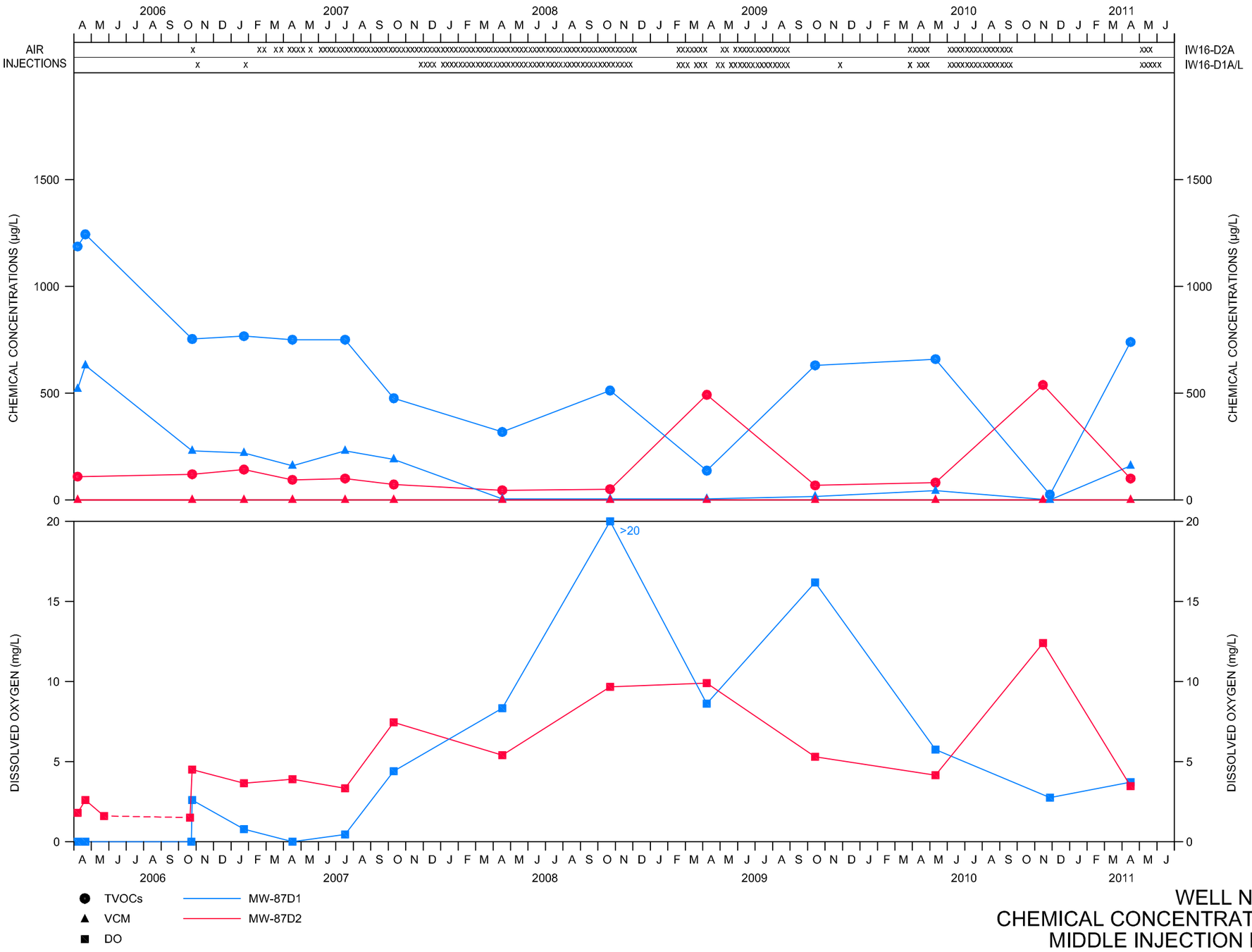


figure 10

WELL NEST MW-87
CHEMICAL CONCENTRATION PLOTS
MIDDLE INJECTION FENCELINE
Hooker/Ruco Site, Hicksville, New York

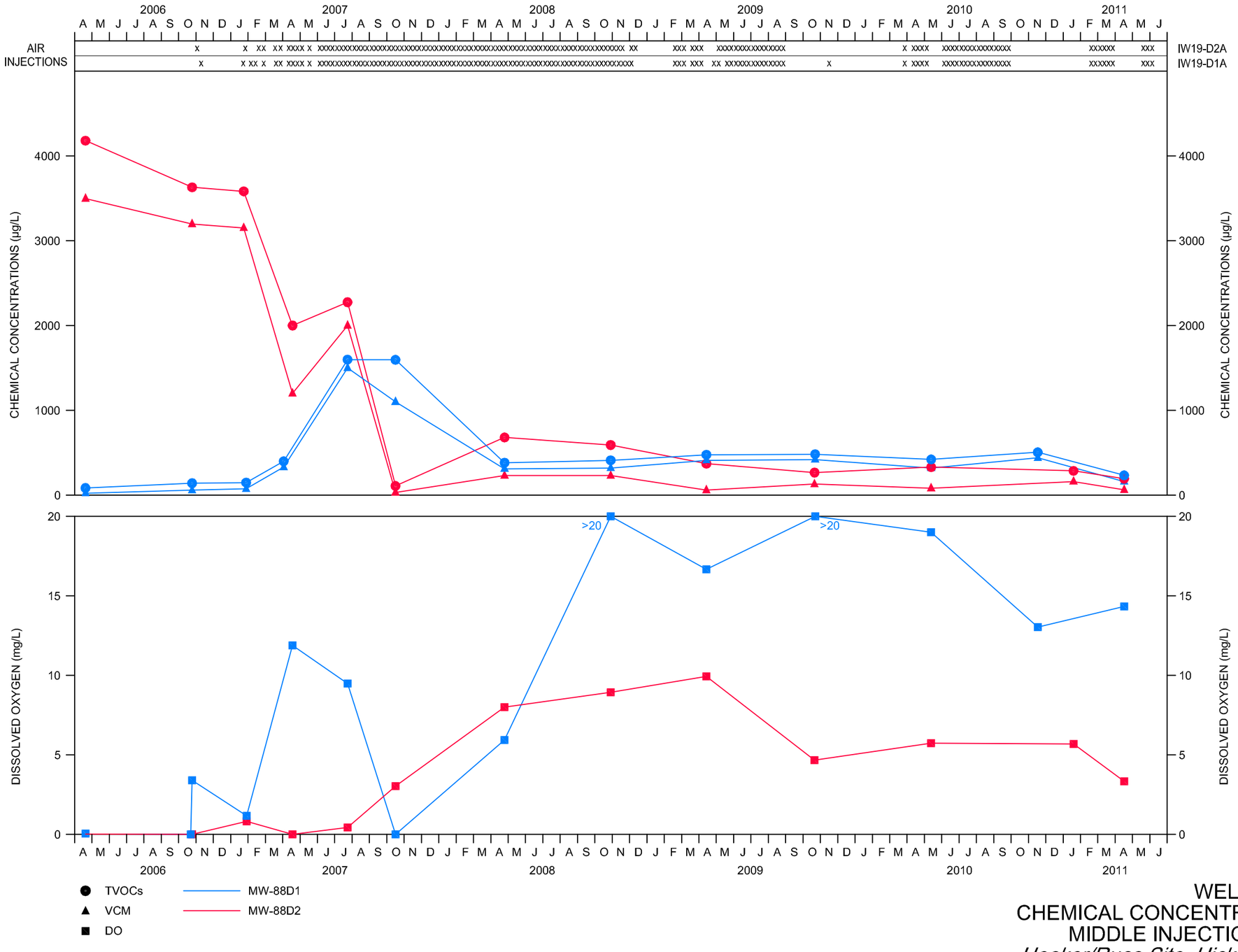


figure 11

WELL NEST MW-88
CHEMICAL CONCENTRATION PLOTS
MIDDLE INJECTION FENCELINE
Hooker/Ruco Site, Hicksville, New York

06883-D23102(TACC018)GN-WA011 JUL 03/2011

TABLE 4

GROUNDWATER MONITORING WELL INSTALLATION DETAILS
OPERABLE UNIT 3
HOOKER/RUCO SITE, HICKSVILLE, NEW YORK

Well Designation	Date Completed	Ground Surface (ft amsl)	Measuring Point Elevation [1] (ft amsl)	Top of Sandpack		Top of Screen		Bottom of Screen		Bottom of Sandpack		Well Diameter (in)	Well Screen Slot Size	Well Material
				(ft bgs)	(ft amsl)	(ft bgs)	(ft amsl)	(ft bgs)	(ft amsl)	(ft bgs)	(ft amsl)			
MW-50D1[2]	02/23/95	130.6	132.63	279	-148.37	285	-154.37	305	-174.37	305	-174.37	2	10	Sch. 80 PVC
MW-50D2[2]	02/13/95	130.0	132.03	405	-274.97	415	-284.97	435	-304.97	435	-304.97	2	10	Sch. 80 PVC
MW-51D1	10/24/95	129.2	131.85	224	-94.80	235	-105.80	255	-125.80	260	-130.80	2	10	Sch. 80 PVC
MW-51D2	10/02/95	128.8	130.38	342	-213.20	350	-221.20	365	-236.20	370	-241.20	2	10	Sch. 80 PVC
MW-52S[2]	01/17/96	125.8	125.48	119.4	6.40	125	0.80	140	-14.20	142	-16.20	2	10	Sch. 80 PVC
MW-52I[2]	12/14/95	125.6	125.30	213.7	-88.10	220	-94.40	235	-109.40	237	-111.40	2	10	Sch. 80 PVC
MW-52D[2]	12/12/95	126.1	125.88	366.2	-240.10	371	-244.90	386	-259.90	387	-260.90	2	10	Sch. 80 PVC
MW-53I	06/08/95	120.7	120.73	145	-24.27	150	-29.27	170	-49.27	173	-52.27	2	10	Sch. 80 PVC
MW-53D1	06/19/95	120.8	120.80	294	-173.20	300	-179.20	330	-209.20	335	-214.20	2	10	Sch. 80 PVC
MW-53D2	06/05/95	120.7	120.66	415	-294.34	430	-309.34	460	-339.34	460	-339.34	2	10	Sch. 80 PVC
MW-56S[2]	01/26/96	133.9	133.60	98.5	35.40	105	28.90	120	13.90	123	10.90	2	10	Sch. 80 PVC
MW-56I[2]	01/25/96	133.9	133.47	253.5	-119.60	260	-126.10	275	-141.10	280	-146.10	2	10	Sch. 80 PVC
MW-57S	01/23/96	127.9	127.68	131.7	-3.80	137	-9.10	152	-24.10	155.5	-27.60	2	10	Sch. 80 PVC
MW-57I	01/25/96	128.0	127.48	184.5	-56.50	191	-63.00	206	-78.00	208	-80.00	2	10	Sch. 80 PVC
MW-58D	03/26/02	116.22	115.99	395	-278.78	400	-283.78	410	-293.78	415	-298.78	2	10	BI/SS
MW-58D1	03/26/02	116.22	115.99	460	-343.78	465	-348.78	475	-358.78	480	-363.78	2	10	BI/SS
MW-58D2	03/26/02	116.22	115.99	495	-378.78	500	-383.78	510	-393.78	515	-398.78	2	10	BI/SS
MW-59D	04/06/02	117.37	117.13	395	-277.63	400	-282.63	410	-292.63	415	-297.63	2	10	BI/SS
MW-59D1	04/06/02	117.37	117.13	460	-342.63	465	-347.63	475	-357.63	480	-362.63	2	10	BI/SS
MW-59D2	04/06/02	117.37	117.13	495	-377.63	500	-382.63	510	-392.63	515	-397.63	2	10	BI/SS
MW-60D1	03/05/02	119.02	118.70	325	-205.98	330	-210.98	340	-220.98	345	-225.98	2	10	BI/SS
MW-60S	03/08/02	118.96	118.93	175	-56.04	180	-61.04	190	-71.04	195	-76.04	2	10	BI/SS
MW-60I	03/08/02	118.96	118.93	225	-106.04	230	-111.04	240	-121.04	245	-126.04	2	10	BI/SS
MW-60D	03/08/02	118.96	118.93	275	-156.04	280	-161.04	290	-171.04	295	-176.04	2	10	BI/SS
MW-61S	02/22/02	121.19	120.91	165	-43.81	170	-48.81	180	-58.81	185	-63.81	2	10	BI/SS
MW-61I	02/22/02	121.19	120.91	200	-78.81	205	-83.81	215	-93.81	220	-98.81	2	10	BI/SS
MW-61D1	02/22/02	121.19	120.91	265	-143.81	270	-148.81	280	-158.81	285	-163.81	2	10	BI/SS
MW-61D2	03/12/02	121.15	121.05	360	-238.85	365	-243.85	375	-253.85	380	-258.85	2	10	BI/SS
MW-62D	04/20/02	128.03	127.82	325	-196.97	330	-201.97	340	-211.97	345	-216.97	2	10	BI/SS
MW-62I	05/14/02	128.27	128.15	255	-126.73	260	-131.73	270	-141.73	275	-146.73	2	10	Sch. 80 PVC
MW-63S	02/18/02	118.67	118.45	175	-56.33	180	-61.33	190	-71.33	195	-76.33	2	10	Sch. 80 PVC
MW-63I	02/18/02	118.67	118.45	210	-91.33	215	-96.33	225	-106.33	230	-111.33	2	10	Sch. 80 PVC
MW-63D1	02/18/02	118.67	118.45	245	-126.33	250	-131.33	260	-141.33	265	-146.33	2	10	Sch. 80 PVC
MW-63D2	02/18/02	118.67	118.45	280	-161.33	285	-166.33	295	-176.33	300	-181.33	2	10	Sch. 80 PVC

TABLE 4

GROUNDWATER MONITORING WELL INSTALLATION DETAILS
OPERABLE UNIT 3
HOOKER/RUCO SITE, HICKSVILLE, NEW YORK

Well Designation	*Date Completed*	*Ground Surface (ft amsl)*	*Measuring Point Elevation* [1] *(ft amsl)*	*Top of Sandpack*		*Top of Screen*		*Bottom of Screen*		*Bottom of Sandpack*		*Well Diameter (in)*	*Well Screen Slot Size*	*Well Material*
				(ft bgs)	*(ft amsl)*	*(ft bgs)*	*(ft amsl)*	*(ft bgs)*	*(ft amsl)*	*(ft bgs)*	*(ft amsl)*			
MW-64S	02/09/02	125.66	125.59	175	-49.34	180	-54.34	190	-64.34	200	-74.34	2	10	Sch. 80 PVC
MW-64I	02/09/02	125.66	125.59	245	-119.34	250	-124.34	260	-134.34	265	-139.34	2	10	Sch. 80 PVC
MW-64D	02/09/02	125.66	125.59	285	-159.34	290	-164.34	300	-174.34	305	-179.34	2	10	Sch. 80 PVC
MW-66D2[2]	06/08/02	118.60	118.15	450	-331.40	455	-336.40	465	-346.40	475	-356.40	2	10	BI/SS
MW-66I[2]	06/19/02	118.27	118.20	290	-171.73	295	-176.73	305	-186.73	310	-191.73	2	10	BI/SS
MW-66D1[2]	06/19/02	118.27	118.20	350	-231.73	355	-236.73	365	-246.73	320	-201.73	2	10	BI/SS
MW-67S	01/11/03	118.68	118.37	440.0	-321.32	445.0	-326.32	455.0	-336.32	460.0	-341.32	2	10	BI/SS
MW-67D	01/11/03	118.68	118.33	490.0	-371.32	495.0	-376.32	505.0	-386.32	510.0	-391.32	2	10	BI/SS
MW-68S	02/09/03	119.20	118.97	455.0	-335.80	457.0	-337.80	467.0	-347.80	470.0	-350.80	2	10	BI/SS
MW-68D	02/09/03	119.20	119.00	485.0	-365.80	490.0	-370.80	500.0	-380.80	505.0	-385.80	2	10	BI/SS
MW-70D1	02/02/11			191.0		196.0		206.0		211.0		2	10	BI/SS
MW-70D2	02/02/11			241.0		246.0		256.0		257.0		2	10	BI/SS
MW-72D1	03/16/11			195.0		200.0		210.0		215.0		2	10	BI/SS
MW-72D2	03/16/11			255.0		260.0		270.0		271.0		2	10	BI/SS
MW-73D1	02/11/11			215.0		220.0		230.0		235.0		2	10	BI/SS
MW-73D2	02/11/11			255.0		260.0		270.0		271.0		2	10	BI/SS
MW-75D1	05/02/11			155.0		160.0		170.0		175.0		2	10	BI/SS
MW-75D2	05/02/11			220.0		225.0		235.0		236.0		2	10	BI/SS
MW-76S	03/03/11			75.0		80.0		90.0		95.0		2	10	BI/SS
MW-76I	03/03/11			120.0		125.0		135.0		136.0		2	10	BI/SS
MW-76D1	02/15/11			190.0		195.0		205.0		210.0		2	10	BI/SS
MW-76D2	02/15/11			260.0		265.0		275.0		276.0		2	10	BI/SS
MW-77D1	02/26/11			240.0		245.0		255.0		260.0		2	10	BI/SS
MW-77D2	02/26/11			290.0		295.0		305.0		306.0		2	10	Sch. 80 PVC
MW-81D1	11/01/05	121.60	121.07	300.0	-178.40	305.0	-183.40	315.0	-193.40	319.0	-197.40	2	10	Sch. 80 PVC
MW-81D2	11/01/05	121.60	121.05	397.0	-275.40	405.0	-283.40	415.0	-293.40	416.0	-294.40	2	10	Sch. 80 PVC
MW-82D1	02/15/06	120.50	120.14	337.0	-216.50	345.0	-224.50	355.0	-234.50	355.5	-235.00	2	10	Sch. 80 PVC

TABLE 4

GROUNDWATER MONITORING WELL INSTALLATION DETAILS
OPERABLE UNIT 3
HOOKER/RUCO SITE, HICKSVILLE, NEW YORK

Well Designation	*Date Completed*	*Ground Surface (ft amsl)*	*Measuring Point Elevation (1) (ft amsl)*	*Top of Sandpack*		*Top of Screen*		*Bottom of Screen*		*Bottom of Sandpack*		*Well Diameter (in)*	*Well Screen Slot Size*	*Well Material*
				(ft bgs)	*(ft amsl)*	*(ft bgs)*	*(ft amsl)*	*(ft bgs)*	*(ft amsl)*	*(ft bgs)*	*(ft amsl)*			
MW-82D2	02/15/06	120.50	120.15	404.8	-284.30	409.4	-288.90	419.4	-298.90	420.5	-300.00	2	10	BI/SS
MW-83D1	11/06/05	121.58	120.99	300.0	-178.42	305.0	-183.42	315.0	-193.42	321.0	-199.42	2	10	Sch. 80 PVC
MW-83D2	11/06/05	121.58	121.02	385.0	-263.42	390.0	-268.42	400.0	-278.42	401.0	-279.42	2	10	Sch. 80 PVC
MW-84D1	04/12/06	121.34	120.90	335.6	-214.26	345.0	-223.66	355.0	-233.66	358.0	-236.66	2	10	Sch. 80 PVC
MW-84D2	04/12/06	121.34	120.94	382.6	-261.26	390.6	-269.26	400.6	-279.26	405.0	-283.66	2	10	BI/SS
MW-85S	12/04/10			213.0		218.0		228.0		233.0		2	10	BI/SS
MW-85I	12/04/10			273.0		277.0		287.0		287.0		2	10	BI/SS
MW-85D1	12/02/10			335.0		340.0		350.0		355.0		2	10	BI/SS
MW-85D2	12/02/10			390.0		395.0		405.0		407.0		2	10	BI/SS
MW-86D1	11/11/10			195.0		200.0		210.0		215.0		2	10	BI/SS
MW-86D2	11/11/10			345.0		350.0		360.0		365.0		2	10	BI/SS
MW-87D1	10/04/05	121.05	120.55	299.0	-177.95	307.0	-185.95	317.0	-195.95	319.0	-197.95	2	10	Sch. 80 PVC
MW-87D2	10/04/05	121.05	120.55	400.0	-278.95	405.0	-283.95	415.0	-293.95	416.0	-294.95	2	10	Sch. 80 PVC
MW-88D1	03/21/06	120.89	120.17	297.7	-176.81	305.0	-184.11	315.0	-194.11	320.4	-199.51	2	10	Sch. 80 PVC
MW-88D2	03/21/06	120.89	120.05	398.5	-277.61	405.6	-284.71	415.6	-294.71	416.0	-295.11	2	10	BI/SS
MW-89D1	12/19/10			340.0		345.0		355.0		360.0		2	10	BI/SS
MW-89D2	12/19/10			375.0		380.0		390.0		391.0		2	10	BI/SS
MW-90D1	03/28/06	123.31	122.93	222.0	-98.69	238.0	-114.69	243.0	-119.69	245.0	-121.69	1.5	10	BI/SS
MW-90D2	03/28/06	123.29	122.85	262.0	-138.71	267.0	-143.71	272.0	-148.71	280.0	-156.71	1.5	10	BI/SS
MW-92D1	03/11/11			205.0		210.0		220.0		225.0		2	10	BI/SS
MW-92D2	03/11/11			250.0		255.0		265.0		266.0		2	10	BI/SS
MW-93D1	03/03/11			200.0		205.0		215.0		220.0		2	10	BI/SS
MW-93D2	03/03/11			255.0		260.0		270.0		271.0		2	10	BI/SS

Notes:

(1) - Measuring Point is generally top of well riser pipe. Measuring point is marked.
(2) - Abandoned
amsl - above mean sea level
bgs - below ground surface
BI - Black Steel Riser
SS - Stainless Steel Well Screen
PVC - Polyvinyl Chloride

TABLE 3

PRIMARY DETECTED COMPOUNDS IN VADOSE ZONE AIR
BIOSPARGE SYSTEM
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Parameter	*VZ-2S* 4/28/2011
Acetone	4.4
Carbon Disulfide	ND
Ethanol	2.6
Methyl Ethyl Ketone	0.52
Methyl Chloride	ND
Tetrachloroethene	0.33J
Tetrahydrofuran	0.38J
Toluene	0.85
Vinyl Chloride	ND

Parameter	*VZ-2D* 4/28/2011
Acetone	ND
Carbon Disulfide	3.9
Ethanol	4.3
Methyl Ethyl Ketone	2.0J
Methyl Chloride	3.6
Tetrachloroethene	1.8J
Tetrahydrofuran	2.0J
Toluene	18.0
Vinyl Chloride	ND

PRIMARY DETECTED COMPOUNDS IN VADOSE ZONE AIR
BIOSPARGE SYSTEM
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Parameter	*VZ-5S* *4/26/2011*
Acetone	7.7
Carbon Disulfide	0.23J
Ethanol	2.6
Methyl Ethyl Ketone	1.0
Methyl Chloride	ND
Tetrachloroethene	0.99
Tetrahydrofuran	1.0
Toluene	0.34J
Vinyl Chloride	ND

Parameter	*VZ-5D* *4/26/2011*
Acetone	2,640
Carbon Disulfide	21
Ethanol	48
Methyl Ethyl Ketone	8.4J
Tetrachloroethene	ND
Tetrahydrofuran	ND
Toluene	38
Vinyl Chloride	ND

PRIMARY DETECTED COMPOUNDS IN VADOSE ZONE AIR
BIOSPARGE SYSTEM
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Parameter	*VZ-6S* *4/27/2011*
Acetone	1.3
Carbon Disulfide	ND
Ethanol	2.0
Methyl Ethyl Ketone	0.38J
Methyl Chloride	ND
Tetrachloroethene	0.56
Tetrahydrofuran	0.35J
Toluene	0.20J
Vinyl Chloride	ND

Parameter	*VZ-6D* *4/27/2011*
Acetone	
Carbon Disulfide	
Ethanol	
Methyl Ethyl Ketone	
Tetrachloroethene	
Tetrahydrofuran	
Toluene	
Vinyl Chloride	

TABLE 3

PRIMARY DETECTED COMPOUNDS IN VADOSE ZONE AIR
BIOSPARGE SYSTEM
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Parameter	*VZ-12S* *4/21/2011*
Acetone	4.6
Carbon Disulfide	0.19J
Ethanol	1.7
Methyl Ethyl Ketone	1.5
Methyl Chloride	ND
Tetrachloroethene	22
Tetrahydrofuran	4.1
Toluene	ND
Vinyl Chloride	1.5

Parameter	*VZ-12D* *4/21/2011*
Acetone	3.2
Carbon Disulfide	1.7
Ethanol	1.3
Methyl Ethyl Ketone	1.6
Tetrachloroethene	19
Tetrahydrofuran	3.9
Toluene	0.23J
Vinyl Chloride	ND

TABLE 3

PRIMARY DETECTED COMPOUNDS IN VADOSE ZONE AIR
BIOSPARGE SYSTEM
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Parameter	*VZ-17S* *4/21/2011*
Acetone	3.7
Carbon Disulfide	0.52
Ethanol	4.8
Methyl Ethyl Ketone	1.4
Methyl Chloride	0.56
Tetrachloroethene	10
Tetrahydrofuran	3.2
Toluene	0.25J
Vinyl Chloride	ND

Parameter	*VZ-17D* *4/21/2011*
Acetone	16
Carbon Disulfide	1.5
Ethanol	8.9
Methyl Ethyl Ketone	6.9
Tetrachloroethene	16
Tetrahydrofuran	8.5
Toluene	0.71
Vinyl Chloride	0.37J

Notes:

(1) Units are ppbv
J - Estimated Concentration
NL - Not Listed

TABLE 2

SUMMARY OF PURGING FINAL STABILIZATION PARAMETER VALUES
HOOKER RUCO SITE
HICKSVILLE, NEW YORK

Well	*Date Sampled*	*Drawdown from Initial Water Level* [1] *(feet)*	*Well Screen Volumes Purged*	*pH (S.U.)*	*Temperature (Celsius)*	*Conductivity (mS/cm)*	*ORP (mV)*	*DO (mg/L)*	*Turbidity (NTU)*	*Fe^{+2} (mg/L)*
MW-52 S	4/7/2006	0.03	4.3	5.62	14.3	0.199	-7	0.00	0	1.60
	3/13/2007	0.20	6.1	6.34	14.8	0.652	5	1.64	58.4	1.66
MW-52 I	4/13/2006	0.04	4.5	4.56	15.0	0.121	303	9.77	12.4	0.05
	3/14/2007	0.05	4.9	5.42	14.6	0.192	259	5.85	44.8	0.04
MW-52D	3/14/2007	0.00	5.3	5.67	14.7	0.314	226	3.07	307	0.11
MW-58 D	10/26/2006	0.01	3.4	5.69	16.8	0.192	21	2.42	58.1	4.30
	5/18/2010	0.00	8..4	5.52	16.1	0.201	30	0.00	25	1.8
MW-58 D1	10/26/2006	0.14	3.2	6.34	16.9	0.222	-101	2.58	68.6	8.80
	5/19/2010	0.00	10.4	6.21	16.3	0.221	-50	0.00	198	2.2
MW-58 D2	10/25/2006	0.11	2.8	6.95	17.3	0.266	-198	0.00	15.1	5.16
MW-59 D1	10/25/2006	0.00	2.0	6.07	17.4	0.432	-20	0.58	261	3.24
MW-59 D2	10/25/2006	0.02	5.5	6.50	17.5	0.452	-99	0.47	240	2.00
MW-59 D	10/26/2006	0.07	4.5	10.29	17.1	0.364	-108	0.00	9.6	2.65
MW-61S	10/19/2009	0.00	2.9	5.12	14.8	0.184	372	>20	165	0.02
	5/10/2010	0.00	5.5	6.81	14.6	0.223	100	10.95	0	0.0
MW-61 I	4/28/2006	0.00	4.6	5.68	14.3	0.221	139	0.00	121	1.76
	5/8/2006	0.08	1.9	4.86	14.9	0.182	136	0.00	64.7	1.49
	5/18/2006	0.20	2.9	4.90	16.1	0.155	123	0.00	571	2.16
	5/30/2006	0.20	5.7	5.10	15.7	0.167	118	0.00	110	2.61
	10/24/2006	0.14	4.3	5.53	15.1	0.999	102	0.00	166	2.76
	10/25/2006	0.00	4.1	5.32	15.1	0.202	112	0.41	370	3.04
	10/26/2006	0.02	3.9	5.33	14.6	0.251	133	0.00	900	2.49
	11/29/2006	0.10	5.1	5.58	14.8	0.242	60	0.00	397	1.96
	11/29/2006	0.10	5.1	5.58	14.8	0.242	60	0.00	397	1.96
	12/21/2006	0.08	5.2	5.20	14.4	0.185	118	0.00	18.2	2.17
	1/24/2007	-0.05	4.5	5.54	14.9	0.275	101	1.93	46.4	1.84
	4/19/2007	0.00	6.1	5.88	14.7	0.320	124	3.21	254	0.03
	7/20/2007	0.16	9.3	5.29	15.7	0.189	90	0.37	2	5.19
	10/11/2007	0.22	10.7	5.61	15.6	0.193	50	3.56	33.6	3.12
	1/24/2008	-0.02	6.2	5.56	14.5	0.216	86	1.44	87.2	3.11
	4/23/2008	0.23	9.3	5.88	15.2	0.216	60	0.45	0	2.83
	7/16/2008	0.20	4.0	5.60	16.6	0.183	69	2.78	0	10.82
	10/28/2008	0.26	5.6	5.02	14.9	0.199	351	7.11	4.2	1.11
	4/8/2009	0.07	2.1	5.21	10.9	0.178	306	12.18	7.0	0.05
	10/15/2009	0.00	2.4	5.25	14.5	0.172	366	17.66	0	0.49
	5/10/2010	0.00	10.6	6.30	14.6	0.178	120	10.65	0	0.0
	1/20/2011	0.00	4.4	5.90	11.6	0.253	266	11.10	45	0.0
	4/19/2011	0.02	3.7	5.69	13.4	0.217	249	10.10	39.9	0.0
MW-61 D1	4/28/2006	0.00	4.7	6.07	14.5	0.210	122	0.00	356	1.78
	5/8/2006	0.05	5.7	5.07	15.0	0.210	101	0.00	172	2.77
	5/18/2006	0.16	2.9	5.18	16.2	0.170	91	0.00	>999	>3.30
	5/30/2006	0.25	4.5	5.27	15.9	0.196	93	0.00	138	4.66
	10/24/2006	0.01	4.4	5.49	15.2	0.999	110	0.00	72.4	2.30
	10/25/2006	0.08	4.1	5.33	15.1	0.201	107	0.65	129	3.74
	10/26/2006	0.03	3.9	5.41	14.9	0.273	109	0.00	86	2.99
	11/29/2006	0.00	3.6	5.72	14.9	0.246	54	0.00	310	1.92
	12/21/2006	0.08	5.8	5.29	14.6	0.192	90	0.00	80.7	2.59
	1/23/2007	0.00	8.1	5.73	14.3	0.389	54	1.21	137	1.84
	4/19/2007	0.14	8.1	6.19	14.6	0.304	79	6.66	95.9	0.26
	7/20/2007	0.23	11.7	5.31	16.4	0.163	83	0.44	20	3.30
	10/10/2007	0.00	4.9	5.84	15.5	0.198	26	3.39	27.2	4.20
	1/24/2008	0.18	5.4	5.58	14.4	0.244	78	1.33	38.7	3.21
	4/22/2008	0.08	13.1	5.90	15.5	0.220	60	0.41	321	2.91
	7/16/2008	0.36	6.2	5.42	16.1	0.158	87	2.35	0	2.13
	10/28/2008	0.06	1.8	4.88	15.1	0.182	335	3.75	215	0.21
	4/8/2009	0.15	8.8	5.23	14.5	0.183	267	12.77	9.2	0.08
	10/15/2009	0.00	3.4	5.32	14.2	0.179	336	10.11	0	0.96
	5/10/2010	0.00	7.7	6.18	14.5	0.223	140	10.15	0	0.0
	1/20/2011	0.00	3.1	6.16	10.1	0.346	231	18.80	42.5	0.0

TABLE 2

SUMMARY OF PURGING FINAL STABILIZATION PARAMETER VALUES
HOOKER RUCO SITE
HICKSVILLE, NEW YORK

Well	*Date Sampled*	*Drawdown from Initial Water Level* [1] *(feet)*	*Well Screen Volumes Purged*	*pH (S.U.)*	*Temperature (Celsius)*	*Conductivity (mS/cm)*	*ORP (mV)*	*DO (mg/L)*	*Turbidity (NTU)*	*Fe^{+2} (mg/L)*
MW-61D1	4/19/2011	-0.01	3.7	5.76	13.5	0.227	248	10.38	*	0.0
MW-61D2	4/28/2006	0.05	6.4	7.03	15.2	0.230	-186	0.00	413	2.00
	5/5/2006	0.00	10.5	6.65	15.1	0.370	-160	0.00	>999	10.08
	5/18/2006	0.30	4.9	6.63	16.1	0.294	-127	0.00	999	>3.30
	5/30/2006	0.00	4.4	6.32	15.8	0.249	-100	0.00	84.6	2.99
	10/24/2006	0.10	6.4	6.22	14.9	0.904	37	0.00	>999	0.15
	10/25/2006	0.20	4.4	5.77	15.1	0.236	27	1.42	316	5.46
	10/26/2006	0.25	4.2	5.63	14.9	0.233	62	1.94	550	4.04
	11/29/2006	0.00	4.4	6.25	14.8	0.253	110	11.12	>999	1.91
	12/21/2006	0.19	5.1	5.58	14.2	0.216	120	9.28	89.4	2.36
	1/23/2007	0.10	5.1	6.62	14.0	0.273	131	>20	>999	0.89
	4/23/2007	0.05	8.6	5.38	15.1	0.189	361	>20	231	0.21
	7/23/2007	0.04	5.1	5.19	17.6	0.219	71	13.45	>999	1.34
	10/11/2007	0.00	2.0	5.95	15.4	0.211	300	11.71	>999	0.21
	1/24/2008	-17.50	5.3	6.30	13.1	0.195	326	>20	228	0.78
	4/22/2008	7.38	6.0	6.73	14.1	0.239	248	14.49	>999	0.09
	7/15/2008	0.24	3.6	6.40	16.0	0.187	173	19.99	486	0.08
	10/27/2008	NM	6.7	5.92	15.6	0.222	381	>20	220	0.18
	4/9/2009	0.28	2.4	5.67	13.7	0.208	319	17.47	943	1.95
	10/14/2009	0.00	6.7	5.50	14.6	0.227	155	16.29	>999	2.80
	5/10/2010	0.00	4.9	5.70	14.8	0.153	224	19.51	60	0.0
	11/16/2010	0.00	3.1	7.42	14.5	0.210	55	8.75	*	(2)
	4/7/2011	0.00	3.1	6.42	12.8	0.204	196	17.58	389	(2)
MW-62I	5/16/2007	0.10	7.1	5.31	14.1	0.278	59	0.00	113	0.69
	5/25/2010	0.00	3.1	5.08	16.5	0.152	14.8	0.00	0	4.2
MW-62D	5/16/2007	0.15	5.4	10.56	14.9	0.119	-125	0.00	570	0.38
	5/25/2010	0.00	4.9	7.23	16.8	0.186	-200	0.00	200	6.2
MW-63 D1	5/23/2006	0.20	2.4	5.03	15.9	0.152	230	0.00	0.0	0.13
	5/24/2010	0.00	1.8	5.25	16.1	0.191	166	0.00	20	0.0
MW-63 D2	5/24/2006	-0.21	5.5	5.30	15.0	0.152	246	0.41	6.5	NM
	6/14/2006	0.05	5.1	5.01	16.3	0.171	222	0.92	3.5	NM
	5/24/2010	0.00	4.1	5.28	16.0	0.199	169	0.00	NM	0.00
MW-63 S	5/19/2006	0.12	2.4	5.20	14.8	0.150	238	0.16	411	0.18
	5/21/2010	0.00	5.8	5.82	16.2	0.172	-111	0.00	132	0.06
MW-63 I	5/23/2006	0.20	4.6	5.09	15.4	0.154	241	0.00	0.0	0.03
	5/21/2010	0.00	6.1	4.73	15.5	0.217	-102	0.00	130	0.0
MW-64 S	3/23/2006	0.10	2.9	5.83	14.3	0.188	-18	0.00	13.8	4.71
	4/26/2007	0.00	5.3	6.71	14.2	0.304	-114	0.00	53.6	2.37
	5/24/2010	0.00	2.5	6.46	15.3	0.201	-98	0.00	10	4.0
MW-64 I	3/24/2006	-0.01	3.6	5.87	14.1	0.203	-38	0.00	0.0	3.21
	4/26/2007	0.00	6.1	6.78	14.2	0.317	-121	0.00	17.5	1.87
	5/24/2010	0.00	3.3	6.62	15.3	0.218	-110	0.00	11	4.0
MW-64D	4/26/2007	0.00	2.7	6.72	14.6	0.324	-115	0.00	22.9	1.98
	5/24/2010	0.05	1.8	6.63	15.3	0.218	-107	0.00	16	2.30
MW-66 D2	4/3/2006	0.03	5.2	5.23	15.2	0.197	-16	0.00	24.3	4.50
MW-67 S	3/28/2006	0.35	5.2	5.88	15.7	0.206	-117	0.00	271	4.36
	5/20/2010	0.00	4.9	6.73	18.4	0.354	-170	0.00	NM	7.0
MW-67 D	3/29/2006	0.47	4.3	5.64	17.1	0.223	86	0.50	>999	4.22
	5/20/2010	0.00	7.4	6.60	18.3	0.234	-187	1.30	NM	0.2
MW-68 S	4/6/2006	-0.10	5.1	8.87	17.4	0.144	-281	0.00	27.8	0.60
MW-68 D	3/31/2006	0.10	5.1	5.67	17.6	0.165	-150	0.00	440	4.86
	5/19/2010	0.00	9.2	5.89	16.2	0.157	-29	0.00	79	2.40

TABLE 2

SUMMARY OF PURGING FINAL STABILIZATION PARAMETER VALUES
HOOKER RUCO SITE
HICKSVILLE, NEW YORK

Well	*Date Sampled*	*Drawdown from Initial Water Level* [1] *(feet)*	*Well Screen Volumes Purged*	*pH (S.U.)*	*Temperature (Celsius)*	*Conductivity (mS/cm)*	*ORP (mV)*	*DO (mg/L)*	*Turbidity (NTU)*	*Fe^{+2} (mg/L)*
MW-70D1	4/11/2011	0.00	2.5	6.90	15.3	0.220	-135	0.69	13.8	4.0
MW-70D2	4/11/2011	0.00	3.1	6.72	16.8	0.270	-122	0.66	26.0	2.0
MW-72D1	4/12/2011	0.01	1.7	7.08	14.4	0.224	-159	0.57	109	3.5
MW-72D2	4/13/2011	0.00	3.1	7.25	12.8	0.224	-210	0.37	290	2.0
MW-73D1	4/25/2011	-0.87	2.5	7.02	15.0	0.218	-155	2.56	48.4	3.5
MW-73D2	4/25/2011	0.00	3.1	6.29	15.1	0.204	-53	1.86	0.7	3.5
MW-76S	4/6/2011	0.00	3.1	6.87	14.0	0.441	-148	0.78	85.6	7.0
MW-76I	4/8/2011	0.00	2.5	6.84	12.7	0.628	159	1.48	71.8	4.0
MW-76D1	4/11/2011	0.00	3.1	6.91	13.8	0.185	-123	0.98	45.0	2.0
MW-76D2	4/8/2011	0.00	3.1	6.53	13.6	0.248	-59	1.37	178	4.8
MW-77D1	4/14/2011	0.00	3.1	7.47	15.6	0.297	-194	0.24	36.4	3.5
MW-77D2	4/14/2011	0.00	3.1	6.66	14.2	0.206	-111	0.72	11.2	4.0
MW-81 D1	4/12/2006	0.16	2.9	6.44	14.5	0.228	-65	0.00	132	1.47
	5/2/2006	0.05	2.9	5.44	15.1	0.303	-31	0.00	0.9	3.20
	5/17/2006	0.00	3.9	6.04	16.8	0.263	-75	0.00	86.4	2.81
	5/25/2006	0.07	2.5	5.62	15.6	0.268	-32	0.00	31.1	>3.3
	10/24/2006	0.08	4.0	5.72	14.5	0.420	15	2.26	14	3.23
	10/25/2006	0.21	0.7	5.77	15.3	0.349	-55	3.01	0.0	9.76
	10/26/2006	-0.08	1.3	6.02	14.7	0.321	-25	0.00	0.0	10.12
	1/29/2007	-0.07	6.1	6.19	13.1	0.429	-55	2.26	704	2.36
	4/19/2007	0.18	5.3	6.20	14.2	0.380	-128	0.00	629	2.06
	7/23/2007	0.07	5.3	6.13	15.9	0.247	-22	0.74	9.2	5.19
	10/9/2007	0.00	7.9	6.02	15.8	0.228	-77	3.08	5.1	4.98
	4/21/2008	0.06	3.6	6.67	15.5	0.181	-99	0.92	0.0	2.69
	10/28/2008	0.00	4.0	5.13	15.3	0.215	292	17.31	336	2.04
	4/7/2009	0.07	4.7	5.75	13.1	0.274	158	0.04	0.0	5.52
	10/15/2009	0.00	1.3	5.30	13.8	0.210	216	8.90	30.7	0.71
	5/6/2010	0.00	2.7	6.03	16.5	0.159	72	0.00	54.3	2.2
	11/17/2010	-0.02	1.8	5.75	15.1	0.116	327	3.54	0.0	0.0
	4/7/2011	0.41	4.3	6.22	13.7	0.210	27	0.48	229	2.2
MW-81 D2	4/12/2006	0.05	2.4	5.79	15.2	0.357	-51	0.00	4.1	5.04
	5/4/2006	0.00	5.8	6.12	16.8	0.204	-6	1.10	119	1.37
	5/18/2006	0.12	3.4	8.18	15.1	0.220	-58	0.00	906	>3.30
	5/26/2006	0.21	3.2	8.58	15.8	0.225	-129	0.00	>999	>3.3
	10/24/2006	0.09	3.2	6.33	14.5	0.263	78	16.87	396	2.37
	10/25/2006	-0.04	1.9	6.49	15.7	0.251	73	17.96	170	0.40
	10/26/2006	0.21	1.9	7.64	15.1	0.229	93	15.00	>999	0.74
	1/24/2007	-0.05	5.9	7.21	13.1	0.234	-39	2.90	>999	0.98
	4/18/2007	0.00	1.3	9.84	12.5	0.301	-110	0.00	519	2.71
	7/19/2007	0.08	2.6	6.03	17.6	0.181	48	14.10	121	1.48
	10/10/2007	0.18	7.5	6.72	15.3	0.180	35	7.45	413	9.39
	4/18/2008	0.00	2.4	6.50	15.8	0.171	81	4.23	130	0.45
	10/22/2008	0.10	1.8	7.20	15.6	0.147	107	>20	0.0	0.09
	4/7/2009	0.07	1.3	6.12	12.4	0.161	326	10.58	31.8	0.45
	10/14/2009	0.03	3.4	6.13	15.1	0.162	227	18.39	14.9	0.50
	5/10/2010	-0.06	1.9	6.41	14.9	0.133	93	9.69	0.0	0.5
	11/16/2010	-0.24	4.3	6.32	14.5	0.137	254	13.28	297	1.0
	4/7/2011	0.00	4.9	6.46	13.6	0.181	85	2.92	0.0	0.0

SUMMARY OF PURGING FINAL STABILIZATION PARAMETER VALUES
HOOKER RUCO SITE
HICKSVILLE, NEW YORK

Well	*Date Sampled*	*Drawdown from Initial Water Level* [1] *(feet)*	*Well Screen Volumes Purged*	*pH (S.U.)*	*Temperature (Celsius)*	*Conductivity (mS/cm)*	*ORP (mV)*	*DO (mg/L)*	*Turbidity (NTU)*	*Fe^{+2} (mg/L)*
MW-82 D1	4/17/2006	0.00	2.8	6.88	16.4	0.391	-126	0.00	10.8	1.28
	4/25/2006	0.12	4.9	6.23	17.2	0.351	-170	0.00	281	1.89
	5/11/2006	0.10	2.4	6.39	16.5	0.356	-190	0.00	150	4.32
	5/25/2006	0.00	6.6	6.27	17.8	0.341	-200	0.00	226	5.22
	5/31/2006	0.00	5.0	6.98	20.8	0.374	-214	0.00	297	5.28
	10/24/2006	0.23	0.9	6.44	14.5	0.411	-119	1.93	202	6.14
	10/25/2006	0.00	1.6	7.37	14.5	0.491	-154	0.00	9	9.36
	10/26/2006	0.02	1.0	6.63	16.0	0.317	-142	2.77	116	6.32
	11/30/2006	-0.30	2.6	7.39	15.8	0.463	-158	0.00	252	1.86
	12/20/2006	0.05	2.3	6.89	12.9	0.327	-149	0.00	146	1.98
	1/25/2007	0.05	5.7	7.25	12.9	0.440	-145	1.21	48.8	1.94
	4/20/2007	0.05	2.6	6.76	18.1	0.305	-153	0.76	357	2.79
	7/25/2007	0.05	3.0	5.39	23.0	0.186	95	15.15	73	2.58
	10/18/2007	0.04	3.6	6.04	18.1	0.219	125	0.73	339	5.25
	1/23/2008	0.00	4.2	6.13	13.3	0.239	-38	1.89	7.8	5.82
	4/25/2008	0.45	4.3	4.35	17.5	0.183	108	0.13	81.2	1.49
	7/18/2008	0.03	5.3	5.73	17.6	0.147	96	3.38	0	NM
	10/30/2008	0.00	3.7	4.79	15.9	0.168	309	<20	137	NM
	4/13/2009	0.04	3.5	5.81	14.3	0.184	328	5.35	145	0.21
	10/20/2009	0.03	2.7	5.50	16.4	0.176	231	8.08	0.0	0.26
	5/12/2010	-0.06	1.8	5.81	14.2	0.161	53	7.01	527	0.0
	11/17/2010	0.02	1.8	6.12	16.5	0.097	307	8.00	321	NM
	5/19/2011	0.20	3.1	5.95	15.5	0.161	277	6.70	9.7	0.0
MW-82 D2	4/17/2006	0.08	3.6	6.14	16.2	0.256	-152	0.00	636	5.12
	4/24/2006	0.00	4.3	7.34	15.7	0.295	-367	0.00	315	1.64
	5/25/2006	0.00	2.9	6.06	17.2	0.239	-140	0.00	95	3.02
	6/5/2006	0.05	3.0	6.52	17.7	0.251	-139	0.00	65.1	6.40
	5/31/2006	0.00	3.9	6.54	16.7	0.239	-125	0.00	27.9	6.58
	10/24/2006	0.07	4.1	6.91	16.3	0.231	-166	0.38	234	10.44
	10/25/2006	-0.08	1.0	6.07	15.4	0.282	-95	1.98	6.8	11.64
	10/26/2006	0.14	1.3	6.23	17.5	0.260	-110	3.37	59	8.60
	11/30/2006	0.00	2.7	7.48	16.6	0.313	-179	0.00	37.9	2.31
	12/20/2006	0.00	3.4	7.11	14.1	0.226	-178	0.00	14.1	0.34
	1/25/2007	0.00	3.2	7.23	13.5	0.284	-147	1.70	66.1	2.01
	4/20/2007	0.00	3.4	6.87	18.9	0.182	-183	0.61	182	1.91
	7/25/2007	0.05	3.7	6.49	18.9	0.211	-192	0.50	47	6.56
	10/18/2007	0.05	5.2	9.88	20.6	0.499	-359	2.93	760	1.22
	1/23/2008	0.00	4.2	6.59	13.9	0.183	-147	1.51	61.5	4.74
	4/24/2008	0.28	2.9	7.80	19.0	0.217	-352	0.00	0	2.43
	7/18/2008	0.00	4.7	7.66	25.0	0.153	-472	0.00	0	16.32
	10/30/2008	0.00	1.9	5.62	15.4	0.169	-3	0.84	138	3.01
	4/13/2009	0.03	3.6	6.49	16.5	0.249	282	>20	113	0.05
	10/20/2009	0.09	4.4	6.98	16.5	0.197	-260	0.07	4.5	1.13
	5/12/2010	0.00	3.1	7.38	15.1	0.165	-137	0.00	42	1.0
	11/18/2010	0.17	1.5	6.75	14.8	0.109	276	0.83	21	1.2
	4/27/2011	0.02	4.9	6.52	15.8	0.187	-19	3.38	4.5	1.0

SUMMARY OF PURGING FINAL STABILIZATION PARAMETER VALUES
HOOKER RUCO SITE
HICKSVILLE, NEW YORK

Well	*Date Sampled*	*Drawdown from Initial Water Level* [1] *(feet)*	*Well Screen Volumes Purged*	*pH (S.U.)*	*Temperature (Celsius)*	*Conductivity (mS/cm)*	*ORP (mV)*	*DO (mg/L)*	*Turbidity (NTU)*	*Fe^{+2} (mg/L)*
MW-83 D1	4/11/2006	0.08	4.3	10.04	15.3	0.472	-195	0.00	648	0.20
	5/1/2006	0.07	4.5	10.35	17.1	0.518	-125	0.00	178	0.44
	5/16/2006	0.01	5.7	11.56	13.5	0.978	-235	0.00	>999	1.20
	5/24/2006	0.05	6.3	10.89	16.0	0.375	-211	0.00	350	1.36
	10/24/2006	0.20	1.0	11.70	13.1	1.190	70	0.00	108	1.94
	10/25/2006	0.11	2.0	12.80	14.4	0.990	-146	0.00	102	0.23
	10/26/2006	0.24	3.1	10.30	14.1	0.561	-64	2.06	9.9	0.06
	1/30/2007	0.03	5.3	11.07	13.4	0.342	6	1.74	79.4	0.01
	4/18/2007	0.00	4.9	10.70	12.7	0.256	-70	0.00	690	0.0
	7/17/2007	0.00	2.4	10.70	16.3	0.271	-14	0.41	12	0.04
	10/12/2007	0.00	12.4	10.10	15.3	0.226	64	3.00	127	0.13
	1/22/2008	0.03	4.4	10.52	13.5	0.283	174	8.34	0.0	0.12
	4/17/2008	0.00	8.4	10.08	14.6	0.275	151	2.32	163	0.03
	7/15/2008	0.03	8.0	9.26	14.9	0.103	216	1.91	0	NM
	10/24/2008	0.03	4.1	8.65	15.6	0.264	291	8.31	35.1	0.04
	4/8/2009	0.10	6.2	7.71	13.7	0.276	274	1.44	61.1	0.09
	10/14/2009	0.01	4.0	7.01	14.9	0.285	361	13.17	141	0.41
	5/5/2010	0.02	6.1	5.50	15.3	0.254	284	3.50	9.1	NM
	11/15/2010	0.05	2.5	8.36	15.2	0.216	271	9.14	317	0.0
	4/7/2011	0.00	3.1	7.12	13.1	0.259	135	4.18	11.8	0.0
MW-83 D2	5/2/2006	-0.25	3.6	6.00	15.0	0.235	50	1.70	0.0	0.49
	5/16/2006	0.08	4.5	6.88	15.0	0.224	42	2.02	0.0	0.02
	5/25/2006	0.13	2.4	6.61	15.5	0.216	73	2.91	0.0	0.00
	10/24/2006	0.09	4.9	6.56	13.7	0.226	241	>19.99	17.5	9.88
	10/25/2006	0.10	1.2	6.18	14.3	0.297	179	>20	92	0.0
	10/26/2006	0.10	1.5	6.46	13.1	0.216	171	>20	0.0	0.06
	1/29/2007	0.00	2.9	6.55	10.3	0.197	249	13.20	69.3	0.0
	4/18/2007	0.21	3.4	8.16	13.0	0.233	97	0.00	103	0.0
	7/17/2007	0.04	3.0	6.42	17.3	0.147	289	>19.99	25	0.08
	10/15/2007	0.15	13.0	5.92	15.6	0.140	279	11.44	0.0	0.23
	1/22/2008	0.11	5.3	6.76	13.3	0.174	328	>20	0.0	0.14
	4/17/2008	0.10	11.1	6.35	15.2	0.169	295	>20	0.0	0.04
	7/15/2008	0.34	4.1	7.00	*	0.140	270	8.50	0.0	0.04
	10/21/2008	0.12	2.6	6.26	14.9	0.120	297	0.92	2.9	0.00
	4/8/2009	0.09	2.3	6.04	13.0	0.162	370	20.00	7.1	0.01
	10/13/2009	0.10	2.4	5.70	15.2	0.146	380	19.81	0.0	0.01
	5/6/2010	0.17	2.5	4.38	15.5	0.060	190	11.32	46	NM
	11/16/2010	0.00	2.5	6.85	14.7	0.127	370	16.45	632	0.0
	4/7/2011	0.00	4.3	6.12	13.3	0.170	249	17.54	16.6	0.0
MW-84 D1	5/23/2006	0.09	1.7	6.25	16.1	0.301	-71	0.00	18.5	3.19
	5/26/2006	0.00	3.4	6.45	16.8	0.305	-118	0.00	91.9	4.50
	6/6/2006	0.15	4.1	6.55	16.6	0.280	-139	0.00	10.3	5.50
	6/8/2006	0.00	5.1	6.58	16.3	0.263	-163	0.00	10.4	2.35
	10/24/2006	0.00	4.7	5.46	15.7	0.197	50	7.89	54.7	1.44
	10/25/2006	0.06	1.3	6.32	15.4	0.296	86	8.03	0.0	1.37
	10/26/2006	0.04	2.9	6.19	15.8	0.300	78	6.51	77	1.19
	1/30/2007	0.00	3.6	6.16	13.1	0.254	160	7.53	188	1.24
	4/24/2007	0.00	3.6	6.49	16.5	0.249	282	>20	113	0.05
	7/24/2007	0.10	5.1	6.26	19.2	0.137	301	>20	6.9	0.05
	10/17/2007	0.21	4.9	6.45	15.8	0.143	304	8.81	85	0.62
	1/28/2008	0.07	4.5	6.46	13.9	0.157	303	>20	70.4	0.0
	4/24/2008	0.04	4.4	7.34	17.2	0.165	210	0.60	83	0.03
	7/17/2008	0.17	2.8	6.93	20.0	0.141	95	14.51	0.0	0.13
	10/29/2008	0.03	2.8	5.69	14.1	0.125	319	12.18	231	0.0
	4/9/2009	0.14	4.4	5.71	15.2	0.142	214	13.34	12.5	0.0
	10/19/2009	0.10	3.6	6.01	15.5	0.137	271	10.98	0.0	0.19
	5/12/2010	0.00	2.4	6.63	14.7	0.125	127	9.85	30	NM
	11/18/2010	0.00	0.6	6.66	15.4	0.137	207	7.94	6.7	NM
	4/27/2011	0.00	NM	6.45	15.6	0.129	210	7.54	5.3	NM

TABLE 2

SUMMARY OF PURGING FINAL STABILIZATION PARAMETER VALUES
HOOKER RUCO SITE
HICKSVILLE, NEW YORK

Well	*Date Sampled*	*Drawdown from Initial Water Level* [1] *(feet)*	*Well Screen Volumes Purged*	*pH (S.U.)*	*Temperature (Celsius)*	*Conductivity (mS/cm)*	*ORP (mV)*	*DO (mg/L)*	*Turbidity (NTU)*	*Fe^{+2} (mg/L)*
MW-84 D2	5/23/2006	0.15	3.9	6.74	17.4	0.246	-131	0.00	780	12.68
	5/30/2006	0.20	2.4	6.59	18.8	0.241	-152	2.70	595	3.18
	6/6/2006	0.00	5.7	7.17	16.8	0.219	-221	0.00	228	2.70
	6/8/2006	0.00	3.0	6.78	16.5	0.220	-162	0.00	230	3.78
	10/24/2006	0.00	6.8	8.47	14.9	0.295	-90	4.69	131	1.53
	10/25/2006	-0.02	1.0	8.68	15.1	0.395	-47	2.84	127	0.27
	10/26/2006	-0.01	5.0	8.00	15.5	0.393	-77	2.67	>999	0.64
	1/29/2007	0.00	1.9	9.97	12.2	0.322	7	3.91	199	0.18
	4/24/2007	0.10	6.7	10.22	16.5	0.339	138	16.31	470	0.30
	7/24/2007	0.10	8.9	10.33	20.6	0.313	139	>20	200	0.21
	10/17/2007	0.09	4.7	10.88	17.1	0.396	34	4.68	817	0.23
	1/28/2008	0.00	6.5	11.01	13.8	0.789	97	9.91	187	0.79
	4/23/2008	0.20	12.9	10.97	16.8	0.575	6	3.96	603	0.09
	7/17/2008	0.16	4.1	10.05	18.1	0.287	13	14.05	>999	0.27
	10/29/2008	0.00	2.4	10.12	15.6	0.351	160	8.33	320	0.25
	4/9/2009	0.00	4.9	10.45	15.7	0.316	70	10.15	367	0.08
	10/16/2009	0.00	5.8	10.19	14.6	0.257	135	14.65	>999	1.45
	5/25/2010	0.00	3.1	10.63	21.9	0.233	-20	11.75	430	0.0
	11/18/2010	0.00	2.5	10.67	15.3	0.235	-21	0.79	>999	0.0
	4/15/2011	0.00	3.1	10.65	13.4	0.056	-49	0.37	144	0.0
MW-85S	4/20/2011	0.25	3.1	6.16	14.1	0.144	46	4.38	21.3	0.5
MW-85I	4/20/2011	0.13	3.1	6.14	14.5	0.144	93	2.90	67	2.4
MW-85D1	4/20/2011	0.00	2.6	6.87	15.1	0.253	-33	3.75	160	(3)
MW-85D2	4/20/2011	0.00	3.7	6.35	14.7	0.201	-190	1.59	3.6	4.0
MW-86D1	4/18/2011	0.00	3.1	6.53	14.6	0.240	-107	0.74	79.0	2.0
MW-86D2	4/18/2011	0.01	2.5	6.89	15.1	0.219	-107	1.24	34.6	3.0
MW-87 D1	4/5/2006	-0.04	2.9	5.04	12.8	0.197	142	0.00	64	0.99
	4/20/2006	0.02	3.9	4.94	17.5	0.184	218	0.00	43.8	0.30
	5/4/2006	0.02	2.6	5.03	16.2	0.187	231	0.00	0.0	0.34
	5/15/2006	0.02	2.0	5.28	15.1	0.165	207	0.00	66.2	0.27
	10/24/2006	0.25	4.5	5.45	14.9	0.229	234	0.70	5.4	0.17
	10/25/2006	-0.01	2.8	5.23	15.9	0.224	221	0.00	0.0	0.35
	10/26/2006	0.03	2.1	5.26	15.0	0.192	226	2.63	22.2	0.05
	1/24/2007	0.10	2.1	5.31	14.7	0.200	248	0.78	11.0	0.10
	4/17/2007	0.10	5.3	5.47	14.5	0.999	169	0.00	62	0.14
	7/17/2007	0.00	4.0	5.30	17.2	0.186	223	0.44	54	0.09
	10/8/2007	0.00	5.7	5.30	19.1	0.229	203	4.39	17.3	0.40
	4/16/2008	0.07	9.0	5.04	15.7	0.193	322	8.35	220	0.05
	10/21/2008	0.00	3.4	4.34	15.0	0.193	463	>20	16.2	0.00
	4/7/2009	0.00	3.6	5.12	14.0	0.148	289	8.62	0.0	0.00
	10/13/2009	0.03	2.4	4.60	16.1	0.205	379	16.18	0.0	0.17
	5/3/2010	0.00	4.9	3.23	16.2	0.170	282	5.74	2.0	0.0
	11/29/2010	0.00	3.4	5.88	16.2	0.133	192	2.75	5.8	0.0
	4/19/2011	0.05	2.5	5.18	13.6	0.200	300	3.72	325	0.0

SUMMARY OF PURGING FINAL STABILIZATION PARAMETER VALUES
HOOKER RUCO SITE
HICKSVILLE, NEW YORK

Well	*Date Sampled*	*Drawdown from Initial Water Level* [1] *(feet)*	*Well Screen Volumes Purged*	*pH (S.U.)*	*Temperature (Celsius)*	*Conductivity (mS/cm)*	*ORP (mV)*	*DO (mg/L)*	*Turbidity (NTU)*	*Fe^{+2} (mg/L)*
MW-87 D2	4/5/2006	0.00	2.8	5.21	14.1	0.172	121	1.81	129	1.14
	4/25/2006	-0.05	5.1	5.40	15.5	0.163	149	2.62	42.8	0.20
	5/15/2006	0.32	4.3	5.80	15.4	0.152	104	1.59	54.8	NM
	5/24/2006	0.10	4.9	5.45	16.2	0.155	163	1.62	0.0	1.36
	10/24/2006	0.13	3.9	5.69	15.5	0.183	212	4.00	131	0.08
	10/25/2006	0.06	1.5	5.34	15.5	0.173	137	6.68	25.5	0.09
	10/26/2006	-0.03	2.1	5.37	15.2	0.160	226	4.53	0.0	0.02
	1/24/2007	0.00	4.7	5.61	13.3	0.186	131	3.64	160	0.25
	4/17/2007	0.00	5.3	5.83	14.5	0.228	106	3.89	0.9	0.09
	7/16/2007	0.00	2.0	5.65	17.8	0.168	145	3.31	5.1	0.07
	10/9/2007	0.18	2.9	5.57	16.2	0.172	287	7.45	60.1	0.12
	4/16/2008	0.00	6.9	5.37	15.9	0.174	288	5.39	0.0	0.01
	10/21/2008	0.08	1.6	4.65	16.9	0.158	440	9.66	27	0.00
	4/7/2009	0.03	4.4	4.60	13.0	0.175	346	9.90	7.0	0.06
	10/13/2009	0.00	2.1	5.05	16.0	0.176	341	5.30	49.7	0.26
	5/5/2010	0.05	0.2	4.34	15.3	0.138	222	4.15	17.1	NM
	11/15/2010	0.01	2.5	5.21	15.4	0.148	397	12.41	7.7	0.0
	4/18/2011	0.00	3.1	5.52	14.9	0.173	234	3.46	5.6	0.0
MW-88 D1	4/19/2006	0.08	2.9	6.09	17.9	0.273	-90	0.00	>999	9.64
	4/26/2006	0.32	6.7	5.99	16.7	0.204	-53	0.00	589	4.96
	5/10/2006	0.25	4.2	5.68	15.4	0.200	-2	0.00	393	2.75
	5/30/2006	0.00	3.6	5.90	17.1	0.188	-65	3.13	408	3.62
	6/1/2006	0.10	5.0	6.13	19.9	0.188	-73	0.00	367	5.12
	10/24/2006	0.06	1.8	6.06	15.6	0.252	-43	0.00	88.6	11.04
	10/25/2006	0.09	1.4	5.86	15.3	0.233	-13	0.00	4.7	10.20
	10/26/2006	0.00	3.4	5.59	15.6	0.317	33	3.36	415	6.56
	1/30/2007	0.10	2.9	6.12	11.8	0.193	-45	1.16	257	2.01
	4/19/2007	0.03	4.9	5.84	15.4	0.187	172	11.88	334	1.84
	7/26/2007	0.22	2.0	5.75	22.4	0.249	232	9.48	284	0.74
	10/16/2007	0.00	2.5	6.35	17.7	0.226	3	0.02	92	5.47
	4/25/2008	0.11	2.8	6.11	17.8	0.226	225	5.95	967	0.52
	10/30/2008	NM	3.8	5.06	15.8	0.200	339	>20	14.1	0.00
	4/13/2009	0.01	5.5	5.46	16.0	0.174	205	16.71	>999	0.31
	10/21/2009	0.02	2.1	5.66	16.0	0.235	253	>20	268	0.47
	5/11/2010	0.02	5.7	5.94	15.5	0.191	177	19.00	177	0.50
	11/17/2010	0.03	2.5	6.12	17.0	0.121	366	13.04	39.7	0.0
	4/15/2011	0.00	3.1	5.89	14.0	0.195	184	14.39	163	0.0

TABLE 2

SUMMARY OF PURGING FINAL STABILIZATION PARAMETER VALUES
HOOKER RUCO SITE
HICKSVILLE, NEW YORK

Well	*Date Sampled*	*Drawdown from Initial Water Level (1) (feet)*	*Well Screen Volumes Purged*	*pH (S.U.)*	*Temperature (Celsius)*	*Conductivity (mS/cm)*	*ORP (mV)*	*DO (mg/L)*	*Turbidity (NTU)*	*Fe^{+2} (mg/L)*
MW-88 D2	4/20/2006	0.00	3.7	6.25	17.4	0.244	-152	0.00	951	6.16
	5/10/2006	0.03	3.5	8.05	16.6	0.330	-331	0.00	>999	9.44
	6/1/2006	0.00	4.9	7.24	18.5	0.287	-210	0.00	>999	12.95
	6/7/2006	0.10	4.3	8.44	15.9	0.320	-380	0.00	>999	12.52
	10/24/2006	0.00	5.8	9.10	15.8	0.387	-282	1.44	>999	18.96
	10/25/2006	0.17	1.0	9.44	15.0	0.426	-253	1.97	>999	11.40
	10/26/2006	0.00	1.5	7.33	17.7	0.286	-212	0.00	>999	NM
	1/25/2007	0.00	8.5	9.17	11.3	0.323	-315	0.82	993	0.16
	4/19/2007	0.10	4.0	7.13	16.8	0.278	-219	0.37	>999	2.17
	7/26/2007	0.31	2.5	9.18	31.2	0.427	-333	0.44	>999	1.21
	10/16/2007	0.03	5.7	7.48	18.2	0.192	-291	3.04	145	9.39
	4/25/2008	1.60	4.3	6.28	17.0	0.164	40	8.02	>999	2.65
	10/31/2008	0.00	5.3	6.64	17.5	0.191	45	8.94	435	2.70
	4/14/2009	0.08	11.9	5.99	13.9	0.206	41	9.94	>999	0.98
	10/20/2009	0.03	9.2	6.94	16.2	0.265	-3	4.67	325	4.49
	5/11/2010	-0.13	4.7	7.30	15.5	0.230	-5	5.70	697	0.50
	1/20/2011	0.00	1.9	9.99	11.3	0.450	232	5.58	206	0.00
	4/19/2011	0.00	1.9	10.35	14.4	0.522	-585	3.35	320	0.0
MW-89D1	4/21/2011	0.00	3.7	6.77	15.2	0.401	-142	1.57	558	6.0
MW-89D2	4/21/2011	0.00	3.1	7.60	14.6	0.373	-154	2.43	118	1.0
MW-90 D1	6/13/2006	0.10	7.8	6.25	17.0	0.230	-112	0.00	76.8	4.10
	4/25/2007	0.00	4.9	6.07	16.1	0.231	-100	0.93	542	2.30
	4/13/2011	-0.01	1.8	6.54	12.9	0.256	-103	0.34	14.6	NM
MW-90 D2	6/13/2006	0.05	7.8	5.91	18.4	0.191	-9	0.20	95.3	3.06
	4/25/2007	0.05	4.7	5.95	15.3	0.209	-47	1.38	102	1.76
	5/17/2010	0.00	12.9	5.75	15.5	0.186	-112	0.00	147	2.5
	4/14/2011	0.02	3.1	6.09	15.3	0.197	12	4.03	0.0	1.0
MW-92D1	4/12/2011	0.00	1.8	7.10	12.1	0.421	-190	1.13	34.0	4.0
MW-92D2	4/25/2011	0.02	3.1	6.69	15.7	0.206	-156	2.00	1.3	1.5
MW-93D1	4/26/2011	0.00	3.7	7.11	16.0	0.245	-191	2.18	800	2.5
MW-93D2	4/26/2011	0.00	3.1	7.34	15.6	0.203	-219	2.96	35.1	2.0

Notes:

(1) Negative indicates groundwater level during purging higher than initial water level
(2) Orange colored
NM - Not measured
* - Probe malfunctioned
(3) Black coloured water prevented reading on calorimtric meter

TABLE 1

GLENN SPRINGS HOLDINGS INC.
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Groundwater Investigations Beyond the Ruco Property (OU-3)

April through June 2011

Task and Activity	*Percentage of Activity Completed*	*Start Date*	*Scheduled Completion Date*	*Completion Date*
• Work Plan	100	July 1993		September 23, 1993
• Borehole/Well Installation (MW-50, MW-53, MW-54 and MW-55)	100	September 30, 1994		June 19, 1995
• Well Development, Sampling and Analysis	100	July 10, 1995		August 9, 1995
• Water Level Measurements	100	August 15, 1995		April, 1996
• Interim Report	100	May 23, 1995		June 15, 1995
• Interim Report - Addendum No. 1	100	July 28, 1995		August 2, 1995
• Grumman Production Wells Sample Collection and Analysis	100	August 1, 1995		October 4, 1995
• Well Installation (MW-51, MW-52, MW-56 and MW-57)	100	August 30, 1995		January 26, 1996
• Regional Groundwater Level Monitoring Event	100	October 3, 1995		October 3, 1995
• Well Development, Sampling and Analysis	100	January 22, 1996		July 5, 1996
• Grumman Groundwater Model	100	July 27, 1995		November 20, 1997
• Phase I Report	100	February 21, 1996		April 26, 1996
• Supporting Documentation Regarding the Effectiveness of In Situ Remediation	100	June 10, 1996		August 9, 1996
• Phase II Report	100	February 21, 1996		August 12, 1996
• Comments on DEC Draft Supplemental Feasibility Study	100	September 23, 1996		October 17, 1996
• Responses to Northrop Comments on the Phase I Report	100	April 17, 1997		June 6, 1997
• Comments on DEC Supplemental Feasibility Study	100	June 1, 1997		June 20, 1997
• Comments on Navy Regional Groundwater Feasibility Study	100	July 28, 1997		October 8, 1997
• Revised Pages for Navy Regional Groundwater Feasibility Study	100	July 28, 1997		November 3, 1997
• Comments on Groundwater Flow Model Report	100	November 20, 1997		December 5, 1997
• Comments on Draft Final Regional Groundwater Feasibility Study	100	March 27, 1998		May 1, 1998
• Comments on Northrop Letter Report	100	May 20, 1998		June 4, 1998
• Evaluation of MW-52 Area Groundwater Extraction System	100	July 1, 1998		July 29, 1998
• Remedial Investigation Report	100	December 1, 1998		January 21, 1999
• Feasibility Study Report	100	December 1, 1998		March 16, 1999
• Groundwater Treatability Study (GTS)	100	December 16, 1998		July 19, 1999
• Responses to EPA Comments on RI Report	100	May 25, 1999		June 11, 1999
• Responses to EPA Comments on FS Report	100	June 21, 1999		July 7, 1999
• Scope of Predesign Investigative Activities				
- Initial	100	June 1, 1999		June 11, 1999
- Revised	100	February 16, 2001		May 28, 2001
• Revised RI Report	100	May 25, 1999		November 16, 1999
• Revised FS Report	100	July 7, 1999		December 22, 1999
• Responses to EPA Comments on GTS	100	October 14, 1999		November 3, 1999
• Responses to EPA Comments on FS Report Responses	100	October 14, 1999		November 3, 1999
• Obtain access agreements	100	June 1999		December 2001

TABLE 1

GLENN SPRINGS HOLDINGS INC.
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Groundwater Investigations Beyond the Ruco Property (OU-3)

April through June 2011

Task and Activity	*Percentage of Activity Completed*	*Start Date*	*Scheduled Completion Date*	*Completion Date*
• Final RI Report	100	March 15, 2000		July 21, 2000
• Final FS Report	100	April 10, 2000		July 25, 2000
• PRAP	100			July 28, 2000
• ROD	100			September 29, 2000
• Unilateral Administrative Order	100			April 26, 2001
• Evaluate VCM presence in GP-3	100			August 15, 2001
• Design Supplemental System for VCM in GP-3	100	August 15, 2001		December 2001
• EPA Conditional Approval for Predesign Activities	100			September 28, 2001
• Issued Request for Bid for Well Installation	100			October 26, 2001
• Contractor Arrangements	100			January 15, 2002
• Arrangements for Biosparge Testing of Existing Wells	100			April 12, 2002
• Biosparge Testing of Existing Wells	100	April 15, 2002		August 13, 2002
• Phase 1 Well Installation	100	February 4, 2002		June 28, 2002
• Upgrade of GP-1/GP-3 Treatment System	100	April 8, 2002		July 9, 2003
• Sample Wells	100	June 17, 2002		July 12, 2002
• Evaluate Pre-Design Information /Develop Scope of Biosparge Remedy	100			November 22, 2002
• Install 2 Additional Wells (MW-67/68)	100	December 18, 2002		February 14, 2003
• Sample Wells MW-67 & MW-68				March 25/26, 2003
• Responses to EPA comments on Predesign Information Report	100	March 6, 2003		March 27, 2003
• EPA Meeting				April 17, 2003
• Closed Well T-1	100			May 12, 2003
• MW-67/68 Installation Report	100			May 23, 2003
• Responses to EPA comments on March 27, 2003 Responses	100	June 25, 2003		July 29, 2003
• Pre-Final (95%) RD Report	100	July 7, 2003		October 31, 2003
• Responses to EPA comments on 95% RD Report	100	April 12, 2004		May 27, 2004
• Submitted Due Diligence Request to Northrop	100			May 10, 2004
• Follow up Due Diligence Clarification to Northrop 6/11 Data Package	100			June 25, 2004
• Offer to Northrop for Property Purchase	100			October 1, 2004
• Sample 13 Wells and Submit Results	100	August 23, 2004		October 14, 2004
• Responses to EPA Comments on 95% RD Report	100	November 17, 2004		December 6, 2004
• Revised Property Purchase offer submitted to Northrop	100	December 22, 2004		December 22,2004
• Prepare 100% RD Report	100	January 12, 2005		May 27, 2005
• Property Purchased	100			June 2005
• 100% Design Approved	100			July 7, 2005
• Obtain Building Permits	100	July 11, 2005		November 10, 2005

TABLE 1

GLENN SPRINGS HOLDINGS INC.
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Groundwater Investigations Beyond the Ruco Property (OU-3)

April through June 2011

Task and Activity	*Percentage of Activity Completed*	*Start Date*	*Scheduled Completion Date*	*Completion Date*
• Arrange Contractors	100	January 2005		July 22, 2005
• Well Installation	100	September 13, 2005		April 28, 2006
• Biosparge System Installation	100	November 2005		May 2006
• Closure of On-Site and Off-Site Wells	100	November 2005		May 10, 2006
• OU-1 Soil Borings	100	November 2005		January 11, 2006
• Background Groundwater Sampling	100	March 27, 2006		June 14, 2006
• Pre-Start Sampling	100			October 24, 25, and 26, 2006
• Final Inspection	100			October 27, 2006
• Biosparge System Start-Up	100			October 27, 2006
• First Monthly Sampling	100			November 28 to 30, 2006
• Second Monthly Sampling	100			December 20 and 21, 2006
• Noise Survey	100			January 18, 2007
• 2007 First Quarterly Sampling	100			January 23 to 30, 2007
• Submission of Phase I Construction Documents	100			February 1, 2007
• 2007 Second Quarterly Sampling	100			April 18 to 27, 2007
• 2007 Third Quarterly Sampling	100			July 16 to 27, 2007
• 2007 Fourth Quarterly Sampling	100			October 8 to 18, 2007
• Evaluation/Recommendation for Design Modifications	100			January 15, 2008
• 2008 First Quarterly Sampling	100			January 22 to 28, 2008
• 2008 Second Quarterly Sampling	100			April 16 to 25, 2008
• 2008 Third Quarterly Sampling	100			July 15 to 18, 2008
• 2008 Fourth Quarterly Sampling	100			October 21 to 30, 2008
• Construction of North Fence Underground Components	100			December 23, 2008
• 2009 First Semi-Annual Sampling	100			April 7 to 14, 2009
• Response to USEPA Biosparge System Comments	100	August 27, 2009		September 23, 2009
• 2009 Second Semi-Annual Sampling	100			October 13 to 21, 2009
• Submittal of Biodegradation Supporting Information	100			November 30, 2009
• Submittal of Revised Schedule	100			February 3, 2010
• Submittal of PDB/HydraSleeve™ Evaluation	100			February 11, 2010
• Trailing Edge Proposal	100			March 15, 2010
• Distribution of RFP for Biosparge System Well Installation	100			June 25, 2010
• Contracted Well Driller	100			August 3, 2010
• Install Biosparge System Wells	100	September 20, 2010		May 15, 2011
• Distribution of REF for Biospace System Expansion	100			May 4, 2011
• Receipt of Bids	100			June 17, 2011

Glenn Springs Holdings, Inc.

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July 11, 2011

Mr. Thomas Taccone
Western New York Remediation Section
Emergency and Remedial Response Division
United States Environmental Protection Agency – Region II
290 Broadway, 20th Floor
New York, New York 10007-1866

Re: Quarterly Report – Second Quarter 2011 (April through June)
Administrative Orders – Hooker Chemical/Ruco Polymer Corporation Site
Index Nos. II-CERCLA-80216, II-CERCLA-94-0210, and II-CERCLA-02-2001-2018

Dear Mr. Taccone:

Consistent with Sections 42, 91, and 55 of the above-referenced orders, respectively, and the USEPA approved 100% Biosparge System Design Report, this submittal provides the Quarterly Progress Report covering April 2011 through June 2011 for the Hooker/Ruco Site. This report covers OU-1, OU-2, and OU-3. Please note that the next Quarterly Progress Report will be submitted by October 15, 2011 and will cover July through September 2011.

Quarterly Progress Report

The following activities were performed from April 2011 through June 2011.

Operable Unit-1 (Onsite Soil)
All work has been successfully completed. OU-1 is closed.

Operable Unit-2 (Soils Impacted by Onsite Release of PCBs)
All work has been successfully completed. OU-2 is closed.

Operable Unit-3 (Offsite Groundwater)

- Supplemental Treatment System
  - Operation and monitoring of the GP-1/GP-3 supplemental air treatment system continued.
  - The carbon bed was changed out on May 12, 2011.
  - Evaluations of possible upgrade alternatives for the supplemental treatment system are ongoing.

Biosparge System

See Figures 1 & 2 for system layout and Figures 3 & 4 for system cross-sections.

Installation of the injection and monitoring wells for the biosparge system expansion started on September 20, 2010 and was completed on May 14, 2011. The well installation and instrumentation details are provided in Table 4. A surveyor will be retained when installation of the biosparge system expansion is complete and will survey the system including the associated monitoring wells. The details provided in Table 4 will be updated upon receipt of the survey.

The bid documents for the remaining components of the biosparge system were distributed on May 4, 2011. An onsite pre-bid meeting was held on May 20, 2011. Bids were received on June 17, 2011 and are currently under evaluation.

USEPA approval for the GROWS Landfill in Morrisville, PA for the disposal of drill cuttings and for the Cycle Chem facility in Elizabeth, NJ for use as a transfer facility were received on March 17 and 23, 2011, respectively. The first roll-off was delivered to the Cycle Chem facility on March 23, 2011. Two additional roll-offs were delivered to the Cycle Chem facility on each of May 20, 2011 and June 7, 2011.

The first 2011 semi-annual biosparge performance monitoring event was performed in April 2011. This event included the background (pre-air injection) sampling of the newly installed groundwater and vadose zone monitoring wells (except MW-75/VZ-4, which were not installed at the time of the sampling event) and repeating the permeable diffusion bag/HydraSleeve™ (PDB) sampling trial. The results of these samples are provided in the attached QA/QC report.

A presentation was made to the Technical Advisory Committee on June 17, 2011 to update the Committee on the progress of the OU3 groundwater remedy.

Summary of Biosparge Pilot System

The dissolved oxygen, total volatile organic compounds (TVOC), and vinyl chloride monomer (VCM) concentration trends for the various groundwater monitoring wells are shown on Figures 5 through 11.

To date, the results show that the biosparge system has operated successfully as demonstrated by the following:

1. Dissolved oxygen (DO) levels in the groundwater have increased and, in general, are greater than the target concentration of 2 milligrams per liter (mg/L).
2. The VCM concentrations are decreasing as a result of the microbial biodegradation processes.

As part of the biosparge system monitoring program, soil gas samples of the vadose zone have also been collected. In accordance with Section 9.2 of the 100% Final Design Report dated May 2005, further sampling of the ten vadose zone wells which monitored the Pilot System is no longer needed. The background (pre-air-injection) results for the newly installed vadose zone wells are listed in Table 3.

Planned Third Quarter 2011 Activities

The following activities are planned for the third quarter of 2011:

1. Continue operation and monitoring of the GP-1/GP-3 supplemental air treatment system.
2. Change-out of the supplemental treatment system carbon bed is tentatively planned for the week of August 1, 2011.
3. Award contract for installation of the vaults, piping, conduit, etc. for the remainder of the biosparge system middle fence and the north fence.

The following activities are pending an approval or review by the USEPA. The follow-up schedule is based on receipt of the review or approval:

1. No activities for this quarter.

Should you have any questions on the above, please do not hesitate to contact me at (972) 687-7511 or by email at jeffrey_kogut@oxy.com.

Sincerely yours,

Jeffrey A. Kogut

Enclosures

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