



Glenn Springs Holdings, Inc.

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July 3, 2008

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

Dear Mr. Negrelli:

Re: Quarterly Report – Second Quarter 2008 (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

Consistent with Sections 42, 91, and 55 of the above-referenced orders and the USEPA approved 100% Biosparge System Design Report, this letter and attached Tables 1 and 2 provide the Quarterly Progress Report covering April through June 2008. This report covers OU-1, OU-2 and OU-3. Please note that the next Quarterly Progress Report will be submitted by October 15, 2008 and will cover July through September 2008.

Quarterly Progress Report

The following activities were performed in April through June 2008.

Operable Unit-1 (On-Site Soil)

All work has been successfully completed. OU-1 is closed.

Operable Unit-2 (Soils Impacted by On-Site Release of PCBs)

All work has been successfully completed. OU-2 is closed.

Operable Unit-3 (Off-Site Groundwater)

Supplemental Treatment System

- Operation and monitoring of the GP-1/GP-3 supplemental treatment system continued.
- The carbon bed was changed out on May 8, 2008.
- Evaluations of possible upgrade alternatives for the supplemental treatment system are ongoing.

Biosparge System

- An evaluation of the first year of operation of Phase I of the biosparge system and the proposed modifications to the design and operations of the biosparge system were submitted on January 15, 2008. The design modifications will be applied to the remainder of the biosparge system which is still to be constructed and the operations modifications will be applied to the entire biosparge system.
- Based on the results of the first year of performance monitoring of the Phase I biosparge system, the following changes are recommended for the remainder of the biosparge system:
 - i) increase the diameter of the water and air injection wells from 1-inch to 1.25-inch;
 - ii) install the water injection well and shallow air injection well in separate sandpacked intervals;
 - iii) install a steel plate on the bottom of the air injection wells to prevent settling of the wells;
 - iv) install a spacer in the upper 0 to 20 feet of the injection well nests to maintain separation between the wells;
 - v) maintain the current weekly frequency of the 8-hour air injections to the extent practicable; and
 - vi) maintain the injection rate at the current 100 cfm.
- Finalization of potential well locations and of the bid documents for the remainder of the middle fence is on hold pending receipt of USEPA approval of the January 15, 2008 submission.
- The Phase I system is operating with air injection occurring weekly at each well for eight hours. The temporary connections for IW16-DIA were converted to hard piping on May 7, 2008.
- The quarterly performance monitoring of the biosparge system was performed from April 16 to 25, 2008. The groundwater analytical results and QA/QC review for the quarterly performance monitoring are attached.
- Injection of treated water from Northrop's Tower 96 (GP-1/GP-3) system started on January 22, 2007 at a flow rate of 10 gpm and has been ongoing since that time. The injection rate was increased to 15 gpm in July 2007 to overcome some of the back pressure created by the air injections.
- GSHI is working with Steel Equities (owner of the former Northrop Plant 12 property) where sections of the North fence line of the biosparge system will be installed. Installation of the subsurface components of the North fence line is being coordinated with Steele Equities ongoing development of the property and is expected in the third quarter of 2008.
- Notification of the seventh quarterly Phase I biosparge system sampling event scheduled to start the week of July 14, 2008 was emailed to the USEPA and their oversight contractor on June 30, 2008.

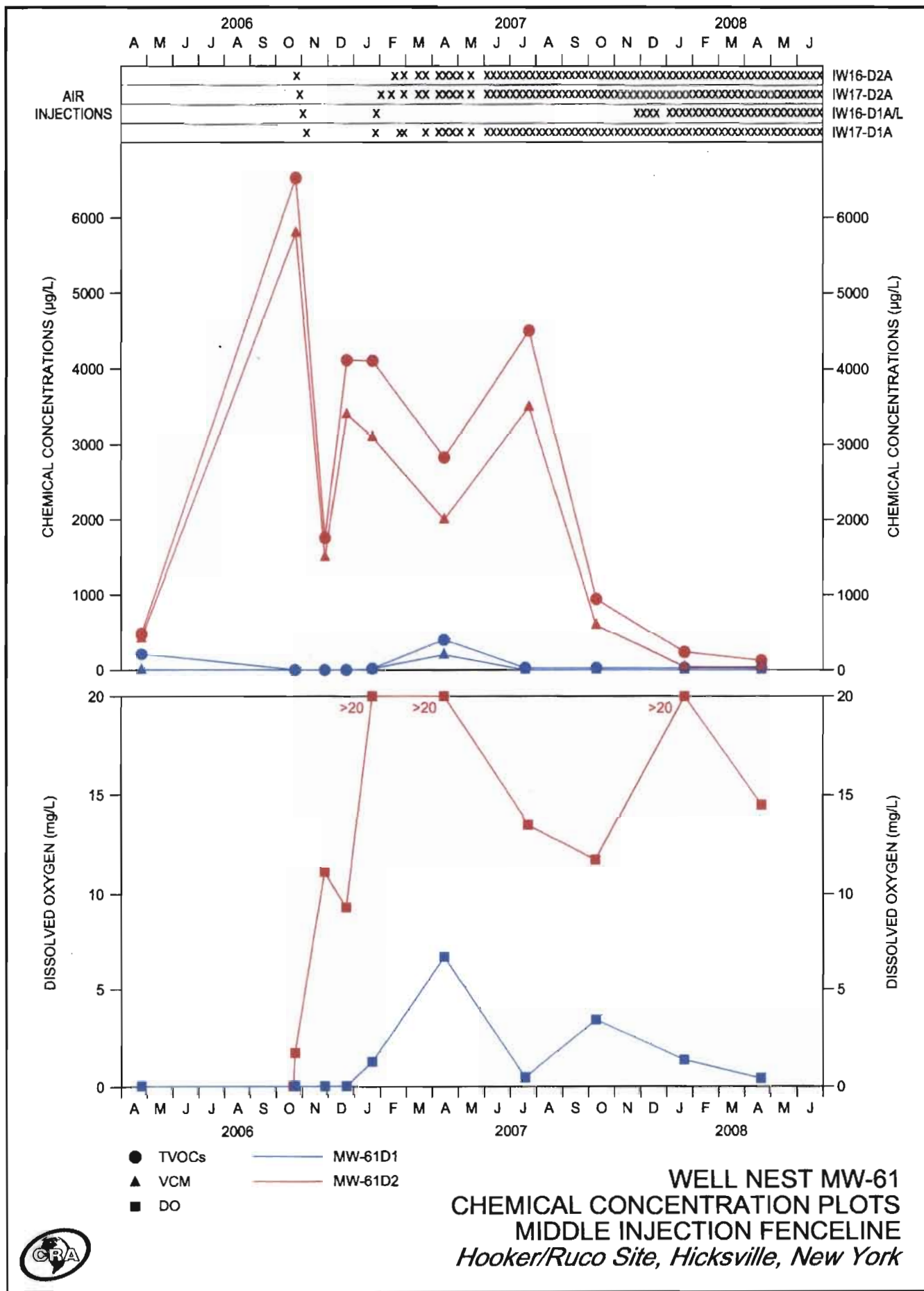
Summary of Biosparge Pilot System

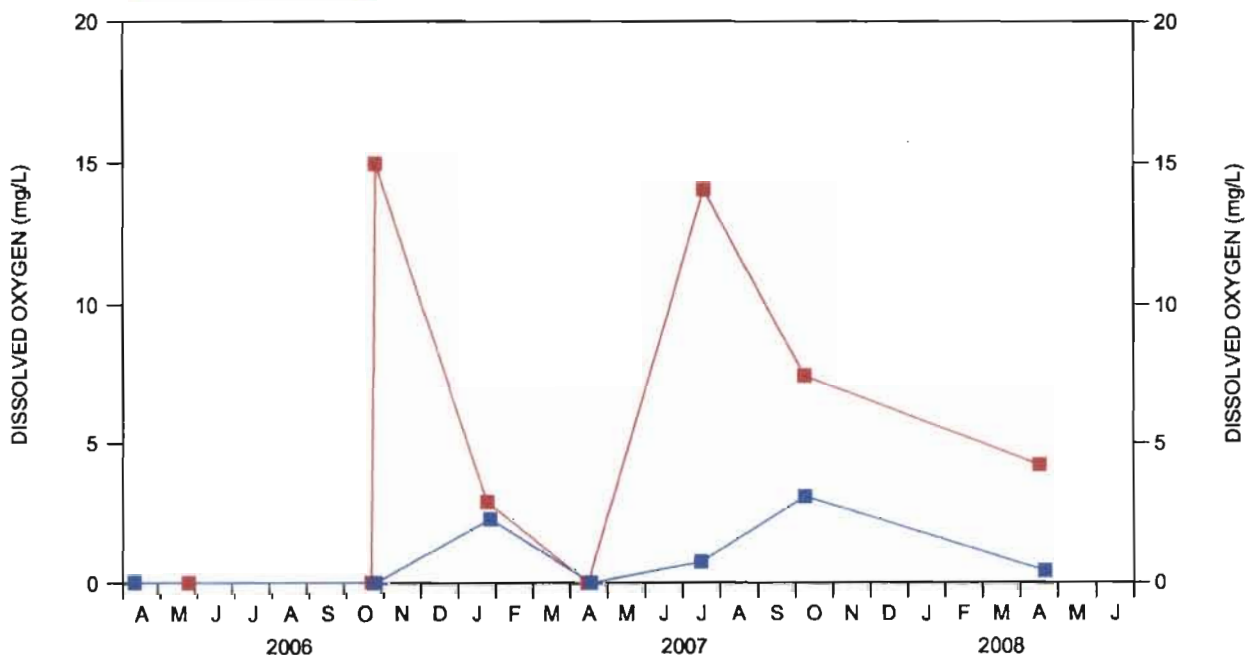
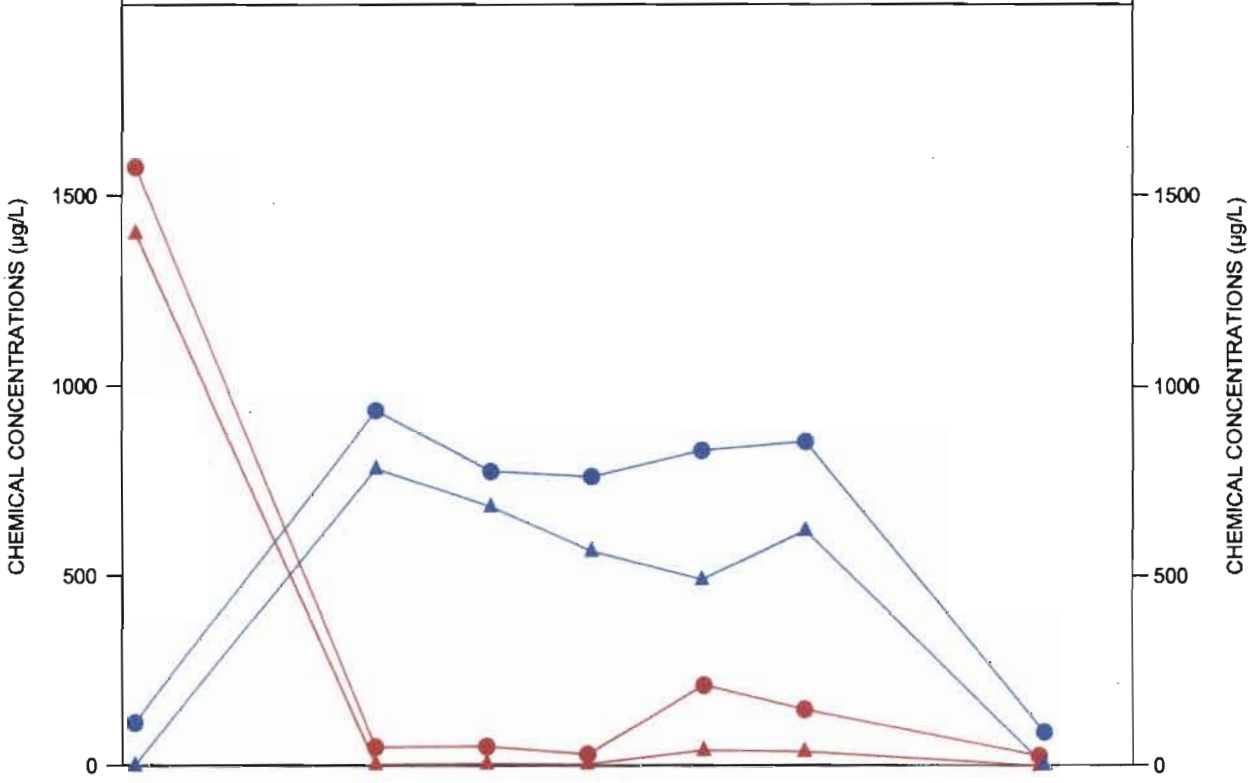
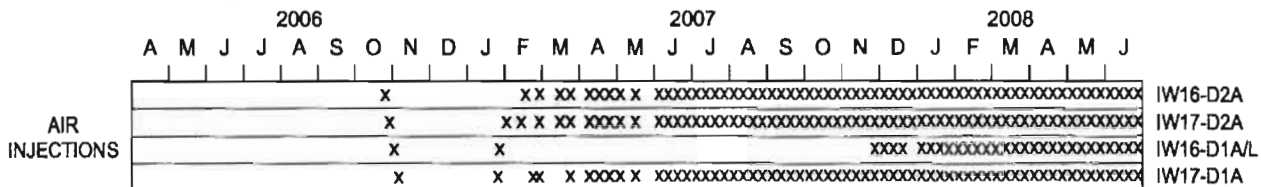
To date the biosparge system has operated successfully. The oxygen levels in the formation are increasing. The VCM concentrations are decreasing. No detrimental side effects are evident. The injection well spacing appears to be correct. The water injections have also contributed to the oxygen levels in the formation.

Planned Third Quarter 2008 Activities

- The following activities are planned for the third quarter of 2008:
 - i) Quarterly sampling of the biosparge system is to be started the week of July 14, 2008;
 - ii) Continue operation and monitoring of the GP-1/GP-3 supplemental system;
 - iii) Sumps 1 and 2 on the former Hooker/Ruco Site are to be back-filled by the new property owner once the property transfer is completed; and
 - iv) Installation of the underground components of the north fence located on the Steel Equities property.

- The following activities are pending an approval or review by an outside party or Agency. The follow-up schedule is based on receipt of the review or approval.
 - i) Awaiting USEPA review of the draft Declaration of Covenants and Restrictions for the Site, submitted on April 20, 2006 by Bayer;
 - ii) Awaiting USEPA review of the Phase I As-Built drawings, O&M Manual, and HASP submitted February 1, 2007; and
 - iii) Awaiting USEPA review of the proposed modifications for the physical and operational components of the biosparge system submitted on January 15, 2008. Following approval, GSHI will complete preparation of the bid documents for construction of the remainder of the middle fence. Construction could start in 2008 contingent upon timely USEPA acceptance. In accordance with the 100% Design Report, additional injection wells will be installed at 100-foot spacings west of IW-16 and east of IW-19 to a location where the groundwater VCM concentration is $\leq 40 \mu\text{g/L}$. The number and locations of groundwater and vadose zone monitoring wells will be based on the number and locations of the additional injection wells installed.

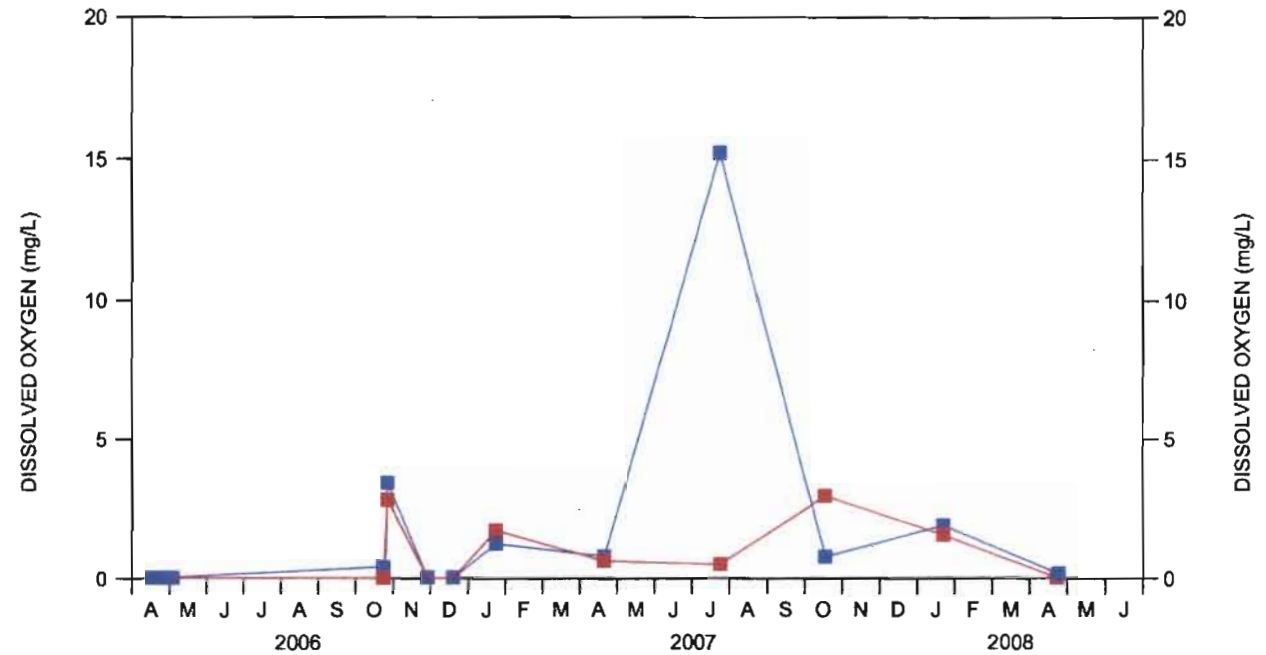
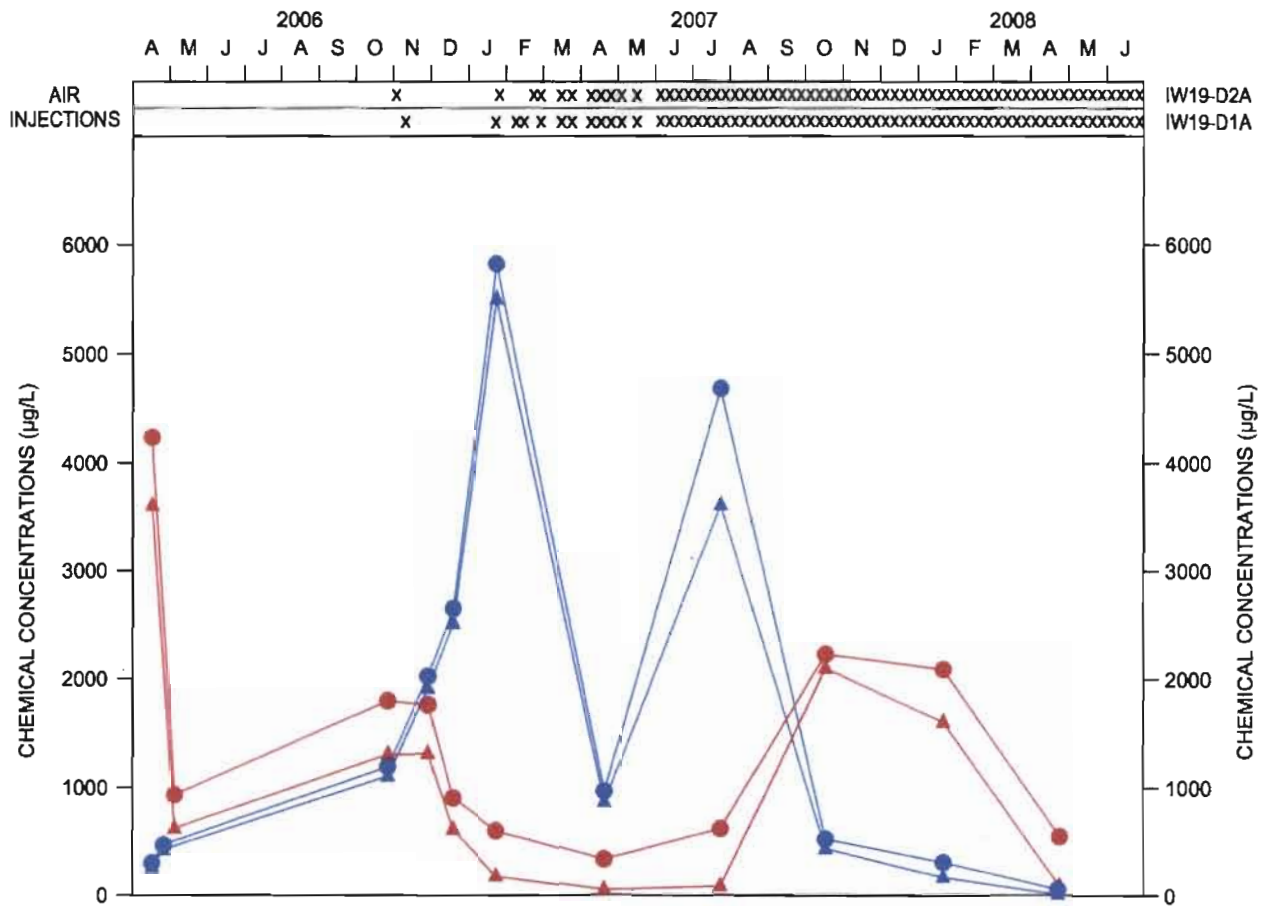




- TVOCs
- ▲ VCM
- DO
- MW-81D1
- MW-81D2

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

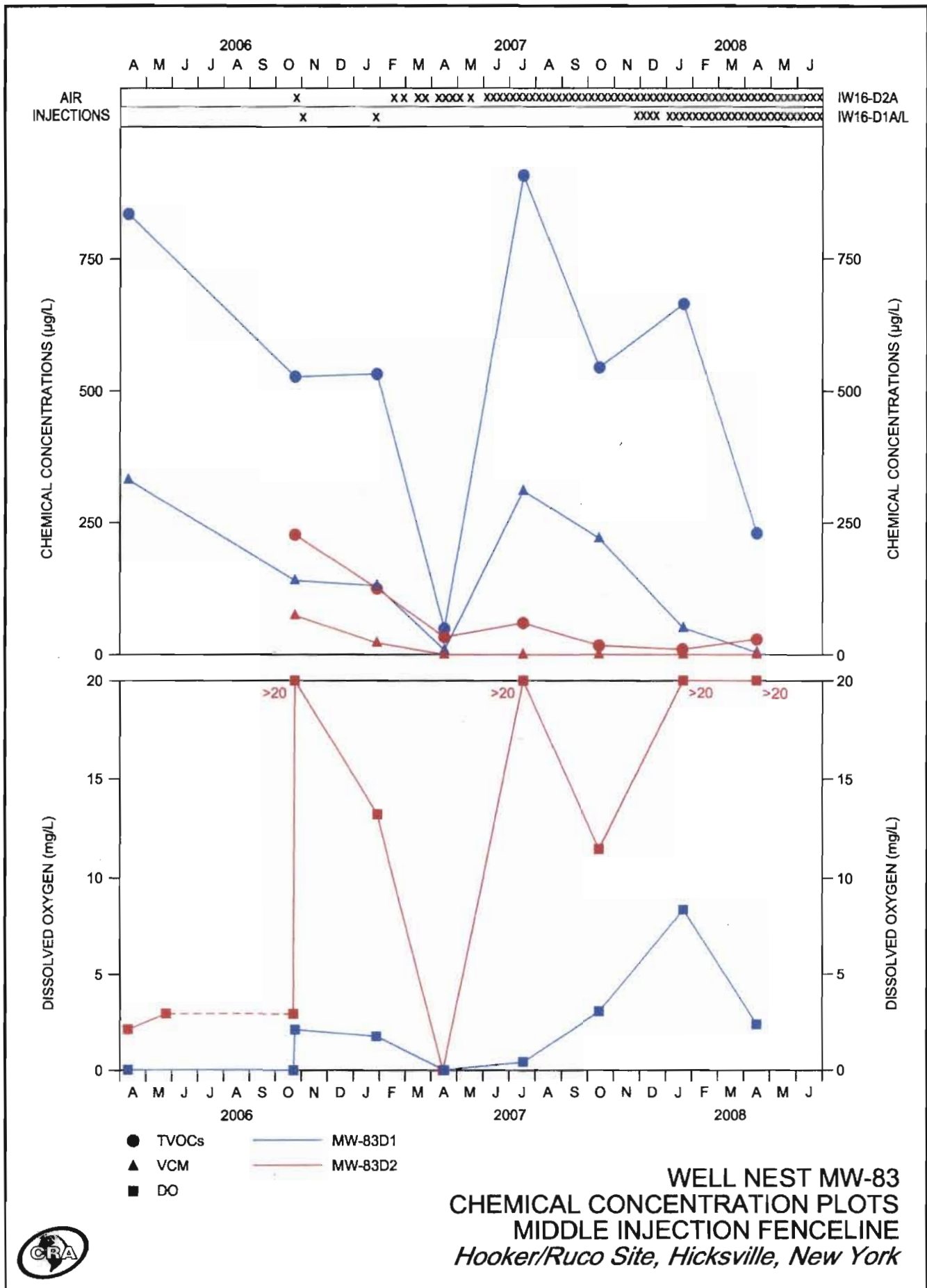


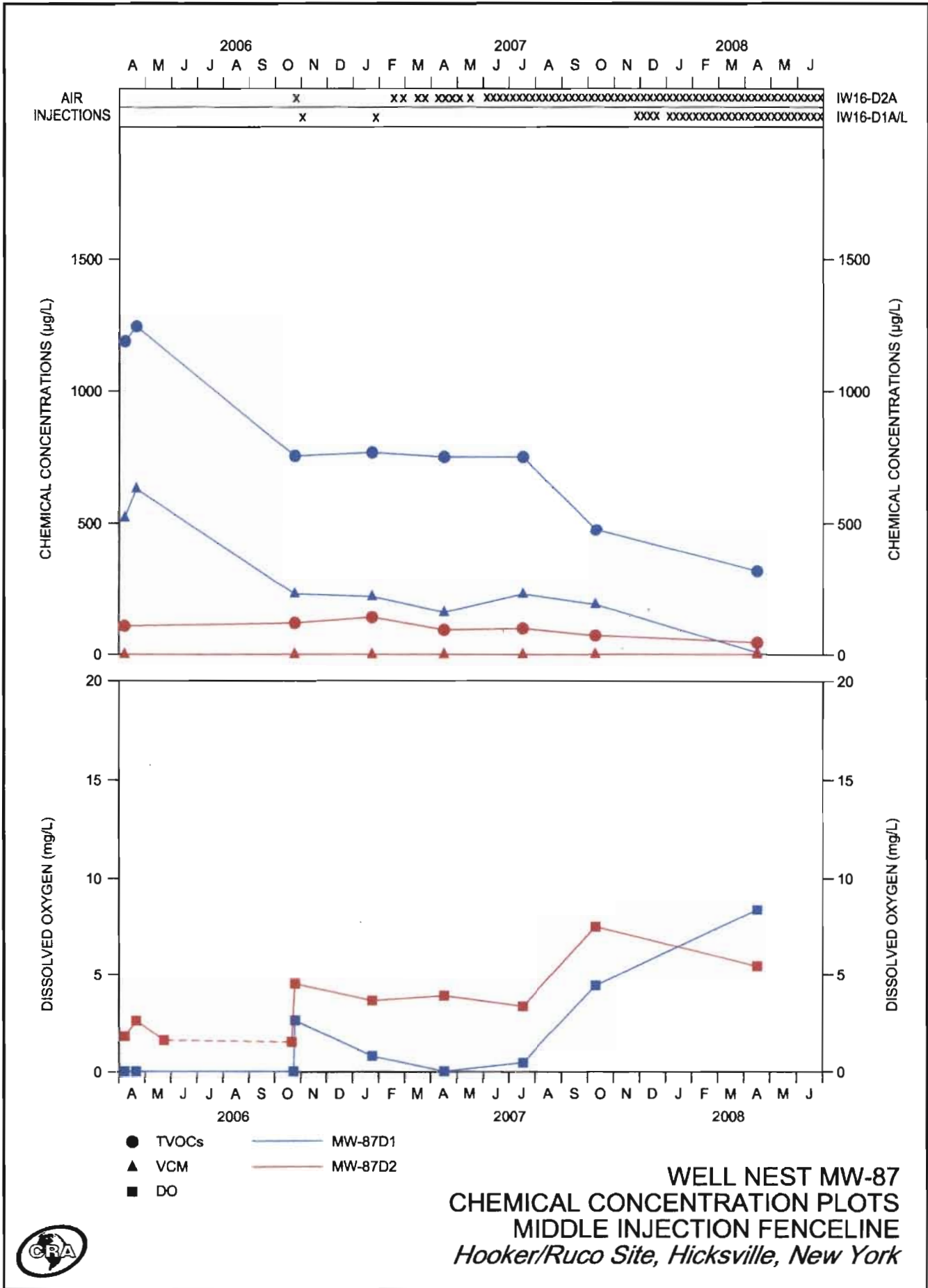


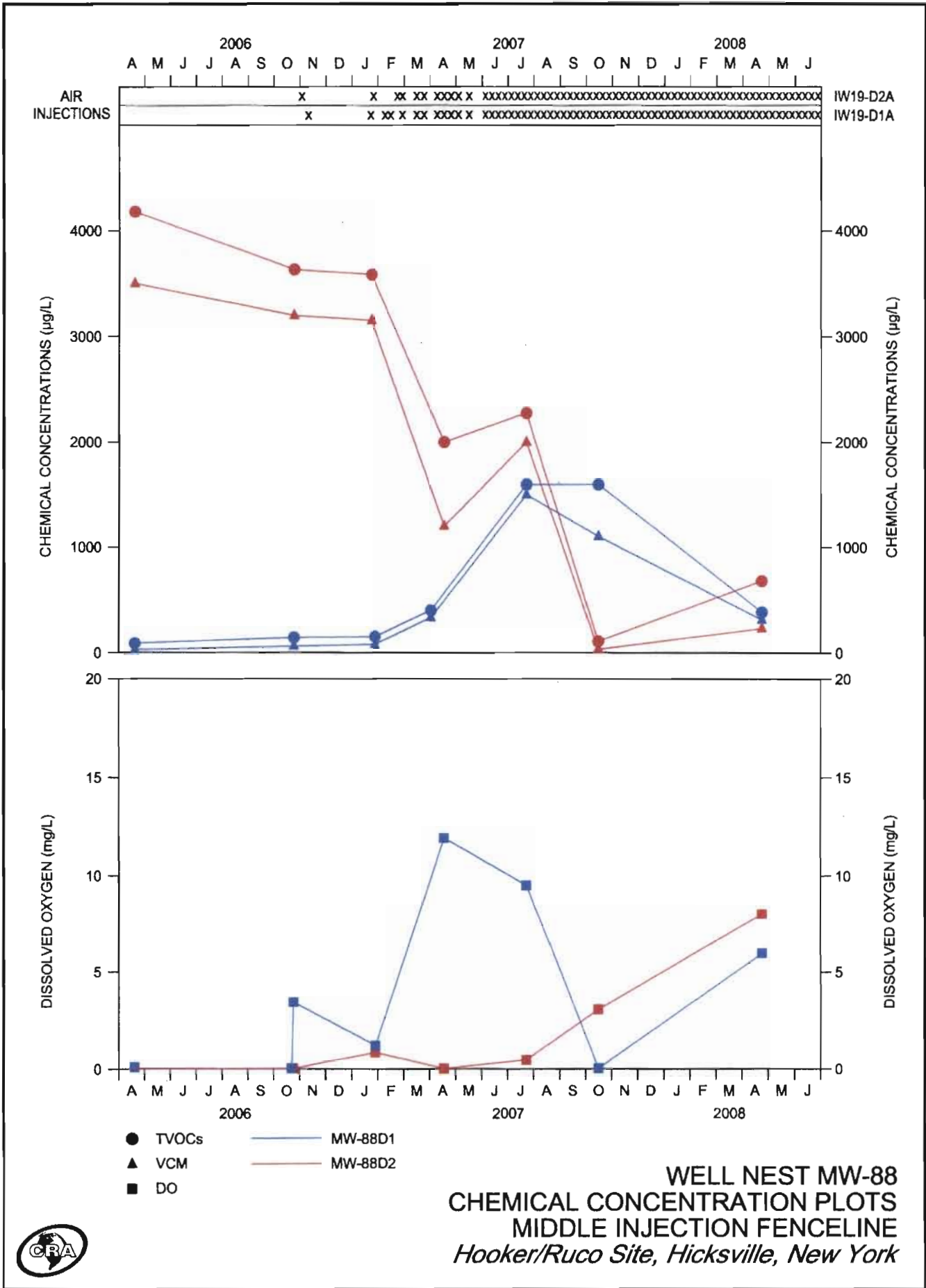
● TVOCs — MW-82D1
 ▲ VCM — MW-82D2
 ■ DO

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









MILLER SPRINGS REMEDIATION MANAGEMENT, INC.
HOOKER/RUCO SITE
HICKSVILLE, NEW YORK

Groundwater Investigations Beyond the Ruco Property (OU-3)

April through June 2008

<i>Task and Activity</i>	<i>Percentage of Activity Completed</i>	<i>Start Date</i>	<i>Scheduled Completion Date</i>	<i>Completion Date</i>
• 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

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• 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
• 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

**MILLER SPRINGS REMEDIATION MANAGEMENT, INC.
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Groundwater Investigations Beyond the Ruco Property (OU-3)

April through June 2008

<i>Task and Activity</i>	<i>Percentage of Activity Completed</i>	<i>Start Date</i>	<i>Scheduled Completion Date</i>	<i>Completion Date</i>
• 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
• 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

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	0.0	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
MW-58 D1	10/26/2006	0.14	3.2	6.34	16.9	0.222	-101	2.58	68.6	8.80
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-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
	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
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
MW-61 D2	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
MW-62I	5/16/2007	0.10	7.1	5.31	14.1	0.278	59	0.00	113	0.69
MW-62D	5/16/2007	0.15	5.4	10.56	14.9	0.119	-125	0.00	570	0.38
MW-63 D1	5/23/2006	0.20	2.4	5.03	15.9	0.152	230	0.00	0.0	2.13
MW-63 D2	5/24/2006	-0.21	5.5	5.30	15.0	0.152	246	0.41	6.5	0.06
	6/14/2006	0.05	5.1	5.01	16.3	0.171	222	0.92	3.5	NM
MW-63 S	5/19/2006	0.12	2.4	5.20	14.8	0.150	238	0.16	411	0.18
MW-63 I	5/23/2006	0.20	4.6	5.09	15.4	0.154	241	0.00	0.0	0.03

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-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	
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	
MW-64D	4/26/2007	0.00	2.7	6.72	14.6	0.324	-115	0.00	22.9	1.98	
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	13.08	
MW-67 D	3/29/2006	0.47	4.3	5.64	17.1	0.223	86	0.50	>999	16.88	
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	9.72	
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	
	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		
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		
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		

**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	0.00	
	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	
	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	0.00	
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	0.00	
4/18/2007		0.21	3.4	8.16	13.0	0.233	97	0.00	103	0.00	
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	0.23	
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	
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	0.00	
	4/24/2008	0.04	4.4	7.34	17.2	0.165	210	0.60	83	0.03	
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	
	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	
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	

**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 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	
	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	
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
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	

Notes:

(1) Negative indicates groundwater level during purging higher than initial water level
 NM Not measured



**CONESTOGA-ROVERS
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ANALYTICAL DATA ASSESSMENT AND VALIDATION
HOOKER-RUCO BIOSPARGE SYSTEM PERFORMANCE SAMPLING
GLENN SPRINGS HOLDINGS, INC.
HICKSVILLE, NEW YORK
APRIL 2008

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1.0 INTRODUCTION

Groundwater samples were collected at the former Hooker Ruco Site in Hicksville, New York (Site), in support of the biosparge system performance monitoring program. Analytical services were performed by H2M Labs, Inc., in Melville, New York (H2M). A summary of the sampling and analysis scheme is presented in Table 1.

A summary of the analytical data is presented in Table 2. The groundwater samples were analyzed for volatile organic compounds (VOCs), total organic carbon (TOC), nitrite, nitrate, phosphorus, and ammonia.

The quality assurance/quality control (QA/QC) criteria by which these data have been assessed are outlined in the analytical methods. Additional validation guidelines were referenced from the following documents:

- i) "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review", United States Environmental Protection Agency (USEPA) 540/R-94-012, February 1994; and
- ii) "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review", USEPA 540/R-94-013, February 1994.

Full raw data deliverables were provided by the laboratory. The data quality assessment and validation presented in the following subsections were performed based on the sample results and supporting QA/QC provided.

2.0 SAMPLE HOLDING TIMES

The method-specific holding time criteria are summarized in Table 5.1 of the Quality Assurance Project Plan (QAPP). All sample extractions and/or analyses were performed within the specified holding times.

All samples were properly preserved and cooled to 4°C ($\pm 2^\circ\text{C}$) after collection. All samples were received by the laboratory in good condition.

3.0 INSTRUMENT CALIBRATION

3.1 GC/MS CALIBRATION - GROUNDWATER VOCs

3.1.1 TUNING AND MASS CALIBRATION

Prior to analysis, GC/MS instrumentation is tuned to ensure optimization over the mass range of interest. To evaluate instrument tuning, the VOC method requires the analysis of the specific tuning compounds BFB. The resulting spectra must meet the criteria cited in the method before analysis is initiated. Analysis of the tuning compound must then be repeated every 12 hours throughout sample analysis to ensure the continued optimization of the instrument.

Instrument tuning data were reviewed. Tuning compounds were analyzed at the required frequency throughout the VOC analysis period. All tuning criteria were met for the analyses, indicating proper optimization of the instrumentation.

3.1.2 INITIAL CALIBRATION

To quantify compounds of interest in samples, calibration of the GC/MS over a specific concentration range must be performed. Initially, a five-point calibration curve containing all compounds of interest is analyzed to characterize instrument response for each analyte over a specific concentration range. Linearity of the calibration curve and instrument sensitivity are evaluated against the following criteria:

- i) all relative response factors (RRFs) must be greater than or equal to 0.05; and
- ii) when average response factors are employed, percent relative standard deviation (%RSD) values must not exceed 30 percent.

The initial calibration data for VOCs were reviewed and met the above criteria for linearity and sensitivity for all compounds of interest.

3.1.3 CONTINUING CALIBRATION

To ensure that instrument calibration is acceptable throughout the sample analysis period, continuing calibration standards must be analyzed and compared to the initial calibration curve every 12 hours.

The following criteria were employed to evaluate continuing calibration data:

- i) all RRF values must be greater than or equal to 0.05; and
- ii) percent difference (%D) values must not exceed 25 percent.

Calibration standards were analyzed at the required frequency and the results met the above criteria for instrument sensitivity and linearity of response with the exception of some low %D recoveries. Associated sample results have been qualified as estimated (see Table 3).

3.2 INSTRUMENTAL CALIBRATION - GENERAL CHEMISTRY

3.2.1 INITIAL CALIBRATION

Initial calibration of the instruments ensures that they are capable of producing satisfactory quantitative data at the beginning of a series of analyses. For general chemistry, calibration is performed based on the analysis of at least three standards and a blank. Resulting correlation coefficients for curves must be at least 0.995.

After calibration, an initial calibration verification (ICV) standard must be analyzed to verify the analytical accuracy of the calibration curves. All analyte recoveries from the analyses of the ICVs must be within control limits of 85 to 115 percent.

Upon review of the data, it was determined that all inorganic calibration curves and ICVs were analyzed at the proper frequencies and that all of the above-specified criteria were met. The laboratory effectively demonstrated that instrumentation used for these analyses were properly calibrated prior to sample analyses.

3.2.2 CONTINUING CALIBRATION

To ensure that instrument calibration is acceptable throughout the sample analysis period, continuing calibration verification (CCV) standards are analyzed on a regular basis. Each CCV is deemed acceptable if all analyte recoveries are within the control limits specified above for the ICVs. If some of the CCV analyte recoveries are outside the control limits, samples analyzed before and after the CCV, up until the previous and proceeding CCV analyses, are affected.

For this study, CCVs were analyzed at the proper frequency. All analyte recoveries reported for the CCVs were within the specified limits.

4.0 SURROGATE COMPOUND ANALYSES - VOCs

In accordance with the methods employed, all samples, blanks, and standards analyzed for VOCs are spiked with surrogate compounds prior to sample analysis. Surrogate recoveries provide a means to evaluate the effects of individual sample matrices on analytical efficiency and are assessed against method control limits.

Surrogates were added to all samples, blanks, and QC samples prior to analysis. Surrogate recoveries met the acceptance criteria for all samples demonstrating acceptable analytical accuracy in this sample matrix.

5.0 INTERNAL STANDARD (IS) RECOVERIES - VOCs

To ensure that changes in GC/MS response and sensitivity do not affect sample analysis results, IS compounds are added to all samples, blanks, and spike samples prior to VOC analysis. All results are calculated as a ratio of the IS response. The criteria by which the IS results are assessed are as follows:

- i) IS area counts must not vary by more than a factor of two (-50 percent to +100 percent) from the associated calibration standard; and
- ii) the retention time of the IS must not vary more than ± 30 seconds from the associated calibration standard.

The sample IS recoveries met the above criteria and were used to calculate all positive sample results.

6.0 MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) ANALYSES VOCs

To evaluate the effects of sample matrices on the measurement procedures, and accuracy of a particular analysis, samples are spiked in duplicate with a known concentration of the analytes of concern and analyzed as MS/MSD samples. Spike recoveries are not assessed for samples having original concentrations significantly greater than the spike concentration (>four times).

Analytical precision is evaluated based on the relative percent difference (RPD) between the MS and MSD.

MS/MSDs were performed at the required frequency for VOCs. The results showed acceptable accuracy and precision on this sample matrix.

7.0 MATRIX SPIKE (MS) AND DUPLICATE ANALYSES - GENERAL CHEMISTRY

To evaluate the effects of sample matrices on the measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS samples. The established control limits for inorganic matrix spike recoveries are 75 to 125 percent. Spike recoveries are not assessed for samples having original concentrations significantly greater than the spike concentration (>four times).

Analytical precision is evaluated based on the analysis of duplicate samples. Laboratory duplicate results are assessed against a maximum RPD of 20 percent.

MS and duplicate analyses were performed at the required frequency for all general chemistry parameters. The results showed acceptable accuracy and precision on this sample matrix.

8.0 LABORATORY CONTROL SAMPLE (LCS) ANALYSES

The LCS serves as a monitor of the overall performance of all steps in the analysis, including the sample preparation. LCSs are analyzed using the same sample preparation, analytical methods, and QA/QC procedures employed for the investigative samples.

LCSs were prepared and analyzed for all general chemistry and groundwater VOC parameters. Most LCS results showed good overall analytical accuracy. Associated sample results for low groundwater VOC recoveries were qualified as estimated to reflect the potential low bias. Non-detect results associated with high recoveries would not be impacted by the potential high bias (see Table 4).

9.0 METHOD BLANK ANALYSES

Method blanks are prepared from deionized water and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced

during the procedures. Additionally, continuing calibration blanks (CCBs) are routinely analyzed after each CCV for the inorganic parameters.

For this study, method blanks were analyzed at a minimum frequency of one per analytical batch and CCBs were analyzed for inorganic parameters after each CCV. The data were non-detect for the analytes of interest with the exception of a low concentration of styrene in one method blank. Associated sample results were non-detect and no qualification of data was necessary.

10.0 FIELD QA/QC SAMPLES

The field QA/QC consisted of eight trip blanks, one rinse blank, and one field duplicate sample.

The trip blanks and rinse blank were non-detect for the compounds of interest

The field duplicate sample was collected as summarized in Table 1 and submitted "blind" to the laboratory for analysis. All sample results outside estimated ranges of detection showed acceptable sampling and analytical precision.

11.0 CONCLUSION

Based on the preceding assessment, the data summarized in Tables 2 are acceptable with the specific qualifications noted herein.

TABLES

TABLE 1
SAMPLING AND ANALYSIS SUMMARY
HOOKER-RUCO BIOSPARGE SYSTEM PERFORMANCE SAMPLING
GLENN SPRINGS HOLDINGS, INC.
HICKSVILLE, NEW YORK
APRIL 2008

Sample ID	Location ID	<u>Analysis/Parameters</u>					Comments
		Collection Date (mm/dd/yy)	Collection Time (hr:min)	VOCs	TOC, NO ₂ , NO ₃ , NH ₃ , Phosphorus		
GW-6883-041608-RR-001	MW-87 D1	4/16/2008	10:50	x	x		
GW-6883-041608-RR-002	MW-87 D2	4/16/2008	14:05	x	x		
trip blank	-	4/16/2008	-	x		Trip Blank	
GW-6883-041708-RR-003	MW-83 D1	4/17/2008	10:50	x	x		
GW-6883-041708-RR-004	MW-83 D2	4/17/2008	14:20	x	x		
GW-6883-041708-RR-005	MW-83 D2	4/17/2008	14:40	x	x	Duplicate of sample GW-6883-041708-RR-004	
trip blank	-	4/17/2008	-	x		Trip Blank	
GW-6883-041808-RR-006	MW-81 D2	4/18/2008	11:15	x	x		
trip blank	-	4/18/2008	-	x		Trip Blank	
GW-6883-042108-RR-007	MW-81 D1	4/21/2008	12:30	x	x		
GW-6883-042108-RR-008	rinse blank	4/21/2008	13:35	x	x	Rinse Blank	
trip blank	-	4/21/2008	-	x		Trip Blank	
GW-6883-042208-RR-009	MW-61 D2	4/22/2008	10:40	x	x		
GW-6883-042208-RR-010	MW-61 D1	4/22/2008	15:00	x	x		
trip blank	-	4/22/2008	-	x		Trip Blank	
GW-6883-042308-RR-011	MW-61 I	4/23/2008	10:45	x	x		
GW-6883-042308-RR-012	MW-84 D2	4/23/2008	15:15	x	x		
trip blank	-	4/23/2008	-	x		Trip Blank	
GW-6883-042408-RR-013	MW-84 D1	4/24/2008	10:45	x	x		
GW-6883-042408-RR-014	MW-82 D2	4/24/2008	15:15	x	x		
trip blank	-	4/24/2008	-	x		Trip Blank	
GW-6883-042508-RR-015	MW-88 D1	4/25/2008	11:30	x	x		
GW-6883-042508-SD-016	MW-82 D1	4/25/2008	13:05	x	x		
GW-6883-042508-RR-017	MW-88 D2	4/25/2008	15:00	x	x	MS/Dup	
GW-6883-042408-RR-018	wastewater composite	4/25/2008	16:15	x			
trip blank	-	4/25/2008	-	x		Trip Blank	

Notes:

- Not applicable.
- Dup Duplicate.
- MS Matrix Spike.
- NH₃ Total Ammonia.
- NO₂ Nitrate.
- NO₃ Nitrite.
- TOC Total Organic Carbon.
- VOCs Volatile Organic Compounds.

TABLE 2
ANALYTICAL RESULTS SUMMARY - GROUNDWATER
HOOKER-RUCO BIOSPARGE SYSTEM PERFORMANCE SAMPLING
GLENN SPRINGS HOLDINGS, INC
HICKSVILLE, NEW YORK
APRIL 2008

Parameters	Units	MW-61DI GW-6883-042208-RR-010 4/22/2008	MW-61I GW-6883-042308-RR-011 4/23/2008	MW-61D2 GW-6883-042208-RR-009 4/22/2008	MW-61DI GW-6883-042108-RR-007 4/21/2008	MW-61D2 GW-6883-041808-RR-006 4/18/2008
Sample Location:						
Sample ID:						
Sample Date:						
Volatile Organic Compounds						
1,1,1-Trichloroethane	ug/L	5U	5U	5U	5U	5U
1,1,2,2-Tetrachloroethane	ug/L	5U	5U	5U	5U	5U
1,1,2-Trichloroethane	ug/L	5U	5U	5U	5U	5U
1,1-Dichloroethane	ug/L	5U	5U	5U	5U	5U
1,1-Dichloroethene	ug/L	5U	5U	5U	5U	5U
1,2-Dichloroethane	ug/L	5U	5U	5U	5U	5U
1,2-Dichloroethene (total)	ug/L	5U	5U	16	14	3J
1,2-Dichloropropane	ug/L	5U	5U	5U	5U	5U
2-Butanone (Methyl Ethyl Ketone)	ug/L	5U	5U	5U	5U	5U
2-Hexanone	ug/L	5U	5U	5U	5U	5U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	5U	5U	5U	5U	5U
Acetone	ug/L	6	8	3J	5U	5U
Benzene	ug/L	0.7U	0.7U	0.7U	0.7U	0.7U
Bromodichloromethane	ug/L	5U	5U	5U	5U	5U
Bromoform	ug/L	5U	5U	5U	5U	5U
Bromomethane (Methyl Bromide)	ug/L	5U	5U	5U	5U	5U
Carbon disulfide	ug/L	5U	5U	5U	5U	5U
Carbon tetrachloride	ug/L	5U	5U	5U	5U	5U
Chlorobenzene	ug/L	5U	5U	5U	5U	5U
Chloroethane	ug/L	5U	5U	5U	5U	5U
Chloroform (Trichloromethane)	ug/L	5U	5U	5U	5U	5U
Chloromethane (Methyl Chloride)	ug/L	5U	5U	5U	5U	5U
cis-1,2-Dichloroethene	ug/L	5U	5U	15	13	3J
cis-1,3-Dichloropropene	ug/L	5U	5U	5U	5U	5U
Dibromochloromethane	ug/L	5U	5U	5U	5U	5U
Ethylbenzene	ug/L	5U	5U	5U	5U	5U
Methylene chloride	ug/L	5U	5U	5U	5U	5U
Styrene	ug/L	5UJ	5UJ	5UJ	5UJ	5UJ
Tetrachloroethene	ug/L	5U	5U	11	14	2J
Toluene	ug/L	5U	5U	5U	5U	5U
trans-1,3-Dichloropropene	ug/L	5U	5U	5U	5U	5U
Trichloroethene	ug/L	5U	5U	89	54	20
Vinyl chloride	ug/L	2U	2U	11	2	2U
Xylene (total)	ug/L	5U	5U	5U	5U	5U
General Chemistry						
Ammonia	mg/L	0.33	0.34	1.65	0.48	0.22
Nitrate (as N)	mg/L	0.50	0.50	1.57	0.23	4.34
Nitrite (as N)	mg/L	0.1U	0.1U	0.1U	0.1U	0.1U

TABLE 2
ANALYTICAL RESULTS SUMMARY - GROUNDWATER
HOOKER-RUCO BIOSPARGE SYSTEM PERFORMANCE SAMPLING
GLENN SPRINGS HOLDINGS, INC.
HICKSVILLE, NEW YORK
APRIL 2008

Sample Location: MW-61DI MW-61J MW-61D2 MW-61DI MW-61D2
Sample ID: GW-6883-042208-RR-010 GW-6883-042308-RR-011 GW-6883-042208-RR-009 GW-6883-042108-RR-007 GW-6883-041808-RR-006
Sample Date: 4/22/2008 4/23/2008 4/22/2008 4/21/2008 4/18/2008

Parameters

Parameters	Units	010	011	009	007	006
Phosphorus	mg/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Total Organic Carbon (TOC)	mg/L	2.8	2.5	1 U	1.2	1.4

Notes:

- Not analyzed.
- J Estimated.
- U Not detected.
- UJ Not detected, estimated reporting limit.

TABLE 2
ANALYTICAL RESULTS SUMMARY - GROUNDWATER
HOOKER-RUCO BIOSPARGE SYSTEM PERFORMANCE SAMPLING
GLENN SPRINGS HOLDINGS, INC
HICKSVILLE, NEW YORK
APRIL 2008

Parameters	Sample Location:	MW-82D1	MW-82D2	MW-83D1	MW-83D2	MW-83D2
	Sample ID:	GW-6883-042508-SD-016	GW-6883-042408-RR-014	GW-6883-041706-RR-003	GW-6883-041706-RR-004	GW-6883-041706-RR-005
	Sample Date:	4/25/2008	4/24/2008	4/17/2008	4/17/2008	4/17/2008
	Units					(Duplicate)
Volatile Organic Compounds						
1,1,1-Trichloroethane	ug/L	5 U	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	ug/L	5 U	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	ug/L	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethane	ug/L	4 J	5 U	5 U	1 J	1 J
1,1-Dichloroethene	ug/L	3 J	5 U	5 U	5 U	5 U
1,2-Dichloroethane	ug/L	5 UJ	5 UJ	5 U	5 U	5 U
1,2-Dichloroethene (total)	ug/L	250	8	25	2 J	2 J
1,2-Dichloropropane	ug/L	5 U	5 U	5 U	5 U	5 U
2-Butanone (Methyl Ethyl Ketone)	ug/L	5 U	5 U	5 U	5 U	5 U
2-Hexanone	ug/L	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	5 U	5 U	5 U	5 U	5 U
Acetone	ug/L	5 U	5 U	5 U	5 U	5 U
Benzene	ug/L	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
Bromodichloromethane	ug/L	5 U	5 U	5 U	5 U	5 U
Bromoform	ug/L	5 U	5 U	5 U	5 U	5 U
Bromomethane (Methyl Bromide)	ug/L	5 U	5 U	5 U	5 U	5 U
Carbon disulfide	ug/L	5 U	5 U	5 U	5 U	5 U
Carbon tetrachloride	ug/L	5 U	5 U	5 U	5 U	5 U
Chlorobenzene	ug/L	5 U	5 U	5 U	5 U	5 U
Chloroethane	ug/L	7	5 U	3 J	5 U	5 U
Chloroform (Trichloromethane)	ug/L	5 U	5 U	5 U	5 U	5 U
Chloromethane (Methyl Chloride)	ug/L	5 U	5 U	5 U	5 U	5 U
cis-1,2-Dichloroethene	ug/L	210	7	24	1 J	2 J
cis-1,3-Dichloropropene	ug/L	5 U	5 U	5 U	5 U	5 U
Dibromochloromethane	ug/L	5 UJ	5 UJ	5 U	5 U	5 U
Ethylbenzene	ug/L	5 U	5 U	5 U	5 U	5 U
Methylene chloride	ug/L	5 U	5 U	5 U	5 U	5 U
Styrene	ug/L	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Tetrachloroethene	ug/L	38	25	40	5	4 J
Toluene	ug/L	5 U	5 U	5 U	5 U	5 U
trans-1,3-Dichloropropene	ug/L	5 U	5 U	5 U	5 U	5 U
Trichloroethene	ug/L	160	18	160	22	21
Vinyl chloride	ug/L	85	5	2	2 U	2 U
Xylene: (total)	ug/L	5 U	5 U	5 U	5 U	5 U
General Chemistry						
Ammonia	mg/L	0.1 U	0.56	0.1 U	0.1 U	0.1 U
Nitrate (as N)	mg/L	0.1 U	1.24	1.18	4.30	4.35
Nitrite (as N)	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U

TABLE 2
ANALYTICAL RESULTS SUMMARY - GROUNDWATER
HOOVER-RUCO BIOSPARGE SYSTEM PERFORMANCE SAMPLING
GLENN SPRINGS HOLDINGS, INC.
HICKSVILLE, NEW YORK
APRIL 2008

Sample Location:	MW-82D1	MW-82D2	MW-83D1	MW-83D2	MW-83D2
Sample ID:	GW-6883-042508-SD-016	GW-6883-042408-RR-014	GW-6883-041708-RR-003	GW-6883-041708-RR-004	GW-6883-041708-RR-005
Sample Date:	4/25/2008	4/24/2008	4/17/2008	4/17/2008	4/17/2008 (Duplicate)

Parameters

General Chemistry	Units
Phosphorus	mg/L
Total Organic Carbon (TOC)	mg/L

Notes:

- Not analyzed.
- J Estimated.
- U Not detected.
- UJ Not detected, estimated reporting limit.

0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
2.1	1 U	1 U	1 U	1 U

TABLE 2
ANALYTICAL RESULTS SUMMARY - GROUNDWATER
HOOKER-RUCO BIOSPARGE SYSTEM PERFORMANCE SAMPLING
GLENN SPRINGS HOLDINGS, INC.
HICKSVILLE, NEW YORK
APRIL 2008

Parameters	Units	Sample Location:	Sample ID:	Sample Date:	Sample Location:	Sample ID:	Sample Date:	Sample Location:	Sample ID:	Sample Date:	Sample Location:	Sample ID:	Sample Date:			
		MW-84D1	GW-6883-042408-RR-013	4/24/2008	MW-84D2	GW-6883-042308-RR-012	4/23/2008	MW-87D1	GW-6883-041608-RR-001	4/16/2008	MW-87D2	GW-6883-041608-RR-002	4/16/2008	MW-88D1	GW-6883-042508-RR-015	4/25/2008
Volatile Organic Compounds																
1,1,1-Trichloroethane	ug/L	5 U			5 U			5 U			5 U			5 U		
1,1,2,2-Tetrachloroethane	ug/L	5 U			5 U			5 U			5 U			5 U		
1,1,2-Trichloroethane	ug/L	5 U			5 U			5 U			5 U			5 U		
1,1-Dichloroethane	ug/L	5 U			5 U			2 J			3 J			5 U		
1,1-Dichloroethane	ug/L	5 U			5 U			1 J			3 J			5 U		
1,2-Dichloroethane	ug/L	5 UJ			5 U			5 U			5 U			5 UJ		
1,2-Dichloroethane (total)	ug/L	5 U			7			15			2 J			16		
1,2-Dichloropropane	ug/L	5 U			5 U			5 U			5 U			5 U		
2-Butanone (Methyl Ethyl Ketone)	ug/L	5 U			5 U			5 U			5 U			5 U		
2-Hexanone	ug/L	5 U			5 U			5 U			5 U			5 U		
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	5 U			5 U			5 U			5 U			5 U		
Acetone	ug/L	5 U			6			6			6			6		
Benzene	ug/L	0.7 U			0.7 U			0.7 U			0.7 U			0.7 U		
Bromodichloromethane	ug/L	5 U			5 U			5 U			5 U			5 U		
Bromoform	ug/L	5 U			5 U			5 U			5 U			5 U		
Bromomethane (Methyl Bromide)	ug/L	5 U			5 U			5 U			5 U			5 U		
Carbon disulfide	ug/L	5 U			5 U			5 U			5 U			5 U		
Carbon tetrachloride	ug/L	5 U			5 U			5 U			5 U			5 U		
Chlorobenzene	ug/L	5 U			5 U			5 U			5 U			5 U		
Chloroethane	ug/L	5 U			5 U			5 U			5 U			5 U		
Chloroform (Trichloromethane)	ug/L	5 U			5 U			5 U			5 U			5 U		
Chloromethane (Methyl Chloride)	ug/L	5 U			5 U			5 U			5 U			5 U		
cis-1,2-Dichloroethene	ug/L	5 U			6			6			6			6		
cis-1,3-Dichloropropene	ug/L	5 U			5 U			5 U			5 U			5 U		
Dibromochloromethane	ug/L	5 UJ			5 U			5 U			5 U			5 UJ		
Ethylbenzene	ug/L	5 U			5 U			5 U			5 U			5 U		
Methylene chloride	ug/L	5 U			5 U			5 U			5 U			5 U		
Styrene	ug/L	5 UJ			5 UJ			5 UJ			5 UJ			5 UJ		
Tetrachloroethene	ug/L	3 J			11			11			12			20		
Toluene	ug/L	5 U			5 U			5 U			5 U			5 U		
trans-1,3-Dichloropropene	ug/L	5 U			5 U			5 U			5 U			5 U		
Trichloroethene	ug/L	4 J			100			240			23			27		
Vinyl chloride	ug/L	2 U			2 U			4			2 U			310		
Xylenes (total)	ug/L	5 U			5 U			5 U			5 U			3 J		
General Chemistry																
Ammonia	mg/L	0.1 U			0.85			0.1 U			0.1 U			0.11		
Nitrate (as N)	mg/L	4.63			1.63			5.19			4.27			0.1 U		
Nitrite (as N)	mg/L	0.1 U			0.40			0.1 U			0.1 U			0.1 U		

TABLE 2
ANALYTICAL RESULTS SUMMARY - GROUNDWATER
HOOKER-RUCO BIOSPARGES SYSTEM PERFORMANCE SAMPLING
GLENN SPRINGS HOLDINGS, INC.
HICKSVILLE, NEW YORK
APRIL 2008

Sample Location: MW-84D1 MW-84D2 MW-87D1 MW-87D2 MW-88D1
 Sample ID: GW-6883-042408-RR-013 GW-6883-042308-RR-072 GW-6883-041608-RR-001 GW-6883-041608-RR-002 GW-6883-042508-RR-015
 Sample Date: 4/24/2008 4/23/2008 4/16/2008 4/16/2008 4/25/2008

Parameters

General Chemistry
 Phosphorus mg/L 0.05 U 0.05 U 0.05 U 0.05 U 0.05 U
 Total Organic Carbon (TOC) mg/L 1 U 1.1 2.1 1.1 1.3

Notes:

- Not analyzed.
- J Estimated.
- U Not detected.
- UJ Not detected, estimated reporting limit

TABLE 2
 ANALYTICAL RESULTS SUMMARY - GROUNDWATER
 HOOKER-RUCO BIOSPARGE SYSTEM PERFORMANCE SAMPLING
 GLENN SPRINGS HOLDINGS, INC
 HICKSVILLE, NEW YORK
 APRIL 2008

Parameters	Units	Sample Location: MW-89D2	WASTECOMP
		GW-6883-042508-RR-017	GW-6883-042508-RR-018
		Sample Date: 4/25/2008	4/25/2008
Volatile Organic Compounds			
1,1,1-Trichloroethane	ug/L	5 U	5 U
1,1,2,2-Tetrachloroethane	ug/L	5 U	5 U
1,1,2-Trichloroethane	ug/L	5 U	5 U
1,1-Dichloroethane	ug/L	2 J	5 U
1,1-Dichloroethene	ug/L	1 J	5 U
1,2-Dichloroethane	ug/L	5 UJ	5 UJ
1,2-Dichloroethene (total)	ug/L	30	7
1,2-Dichloropropane	ug/L	5 U	5 U
2-Butanone (Methyl Ethyl Ketone)	ug/L	5 U	5 U
2-Hexanone	ug/L	5 U	5 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	5 U	5 U
Acetone	ug/L	5 U	3 J
Benzene	ug/L	0.7 U	0.7 U
Bromodichloromethane	ug/L	5 U	5 U
Bromoform	ug/L	5 U	5 U
Bromomethane (Methyl Bromide)	ug/L	5 U	5 U
Carbon disulfide	ug/L	5 U	23
Carbon tetrachloride	ug/L	5 U	5 U
Chlorobenzene	ug/L	5 U	3 J
Chloroethane	ug/L	1 J	5 U
Chloroform (Trichloromethane)	ug/L	5 U	5 U
Chloromethane (Methyl Chloride)	ug/L	5 U	5 U
cis-1,2-Dichloroethene	ug/L	28	7
cis-1,3-Dichloropropene	ug/L	5 U	5 U
Dibromochloromethane	ug/L	5 UJ	5 UJ
Ethylbenzene	ug/L	5 U	5 U
Methylene chloride	ug/L	5 U	5 U
Styrene	ug/L	5 UJ	5 UJ
Tetrachloroethene	ug/L	280 J	6
Toluene	ug/L	6	2 J
trans-1,3-Dichloropropene	ug/L	5 U	5 U
Trichloroethene	ug/L	130	13
Vinyl chloride	ug/L	290	12
Xylene (total)	ug/L	5 U	5 U
General Chemistry			
Ammonia	mg/L	0.1 U	-
Nitrate (as N)	mg/L	1.08	-
Nitrite (as N)	mg/L	0.1 U	-

TABLE 2
ANALYTICAL RESULTS SUMMARY - GROUNDWATER
HOOKER-RUCO BIOSPARGES SYSTEM PERFORMANCE SAMPLING
GLENN SPRINGS HOLDINGS, INC.
HICKSVILLE, NEW YORK
APRIL 2008

Sample Location: MW-88D2 WASTECOMP
 Sample ID: GW-6883-042508-RR-017 GW-6883-042508-RR-018
 Sample Date: 4/25/2008 4/25/2008

Parameters	Units
General Chemistry	
Phosphorus	mg/L 0.05 U
Total Organic Carbon (TOC)	mg/L 2.4

Notes:
 - Not analyzed.
 J Estimated.
 U Not detected.
 UJ Not detected, estimated reporting limit.

TABLE 3
QUALIFIED SAMPLE RESULTS DUE TO OUTLYING CONTINUING CALIBRATION RESULTS
HOOVER-RUCO BIOSPARGE SYSTEM PERFORMANCE SAMPLING
GLENN SPRINGS HOLDINGS, INC.
HICKSVILLE, NEW YORK
APRIL 2008

Parameter	Calibration Date	Compound	%D	Associated Sample ID	Sample Results	Units	Qualifier
VOCs	05/01/08	1,2-Dichloroethane	31	GW-6883-042408-RR-013	5 U	ug/L	UJ
				GW-6883-042408-RR-014	5 U	ug/L	UJ
				GW-6883-042508-RR-015	5 U	ug/L	UJ
				GW-6883-042508-RR-017	5 U	ug/L	UJ
				GW-6883-042508-RR-018	5 U	ug/L	UJ
				GW-6883-042508-SD-016	5 U	ug/L	UJ
VOCs	05/01/08	Dibromochloromethane	32	GW-6883-042408-RR-013	5 U	ug/L	UJ
				GW-6883-042408-RR-014	5 U	ug/L	UJ
				GW-6883-042508-RR-015	5 U	ug/L	UJ
				GW-6883-042508-RR-017	5 U	ug/L	UJ
				GW-6883-042508-RR-018	5 U	ug/L	UJ
				GW-6883-042508-SD-016	5 U	ug/L	UJ
VOCs	05/01/08	Styrene	26	GW-6883-042408-RR-013	5 U	ug/L	UJ
				GW-6883-042408-RR-014	5 U	ug/L	UJ
				GW-6883-042508-RR-015	5 U	ug/L	UJ
				GW-6883-042508-RR-017	5 U	ug/L	UJ
				GW-6883-042508-RR-018	5 U	ug/L	UJ
				GW-6883-042508-SD-016	5 U	ug/L	UJ
VOCs	05/02/08	Tetrachloroethene	31	GW-6883-042508-RR-017	280	ug/L	J

Notes:
J Estimated.
U Not detected.
UJ Not detected, estimated reporting limit.
VOCs Volatile Organic Compounds.

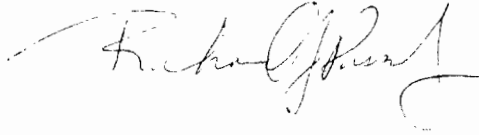
TABLE 4
QUALIFIED SAMPLE RESULTS DUE TO OUTLYING LABORATORY CONTROL SAMPLE RECOVERIES
HOOVER-RUCO BIOSPARGE SYSTEM PERFORMANCE SAMPLING
GLENN SPRINGS HOLDINGS, INC.
HICKSVILLE, NEW YORK
APRIL 2008

Parameter	Compound	Percent Recovery	Control Limits (percent)	Associated Sample ID	Sample Results	Units	Qualifier
VOCs	Styrene	71	72 - 124	GW-6883-041608-RR-001	5 U	ug/L	UJ
				GW-6883-041608-RR-002	5 U	ug/L	UJ
				GW-6883-041708-RR-003	5 U	ug/L	UJ
				GW-6883-041708-RR-004	5 U	ug/L	UJ
				GW-6883-041708-RR-005	5 U	ug/L	UJ
				GW-6883-041808-RR-006	5 U	ug/L	UJ
				GW-6883-042108-RR-007	5 U	ug/L	UJ
				GW-6883-042208-RR-009	5 U	ug/L	UJ
				GW-6883-042208-RR-010	5 U	ug/L	UJ
				VOCs	Styrene	59	72 - 124
GW-6883-042308-RR-012	5 U	ug/L	UJ				
VOCs	Styrene	61	72 - 124	GW-6883-042408-RR-013	5 U	ug/L	UJ
				GW-6883-042408-RR-014	5 U	ug/L	UJ
				GW-6883-042408-RR-015	5 U	ug/L	UJ
				GW-6883-042408-RR-017	5 U	ug/L	UJ
				GW-6883-042508-RR-018	5 U	ug/L	UJ
				GW-6883-042508-SD-016	5 U	ug/L	UJ

Notes:
U Not detected.
UJ Not detected, estimated reporting limit.
VOCs Volatile Organic Compounds.

Should you have any questions on the above, please do not hesitate to contact me at (972) 687-7504 or e-mail at rick_passmore@oxy.com.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Rick Passmore". The signature is fluid and cursive, with a large initial "R" and a long, sweeping underline.

Rick Passmore
Senior Director Operations

KDS/cb/006883/3

Encl.

c.c.: P. Olivio (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)
D. Reed (GSHI)

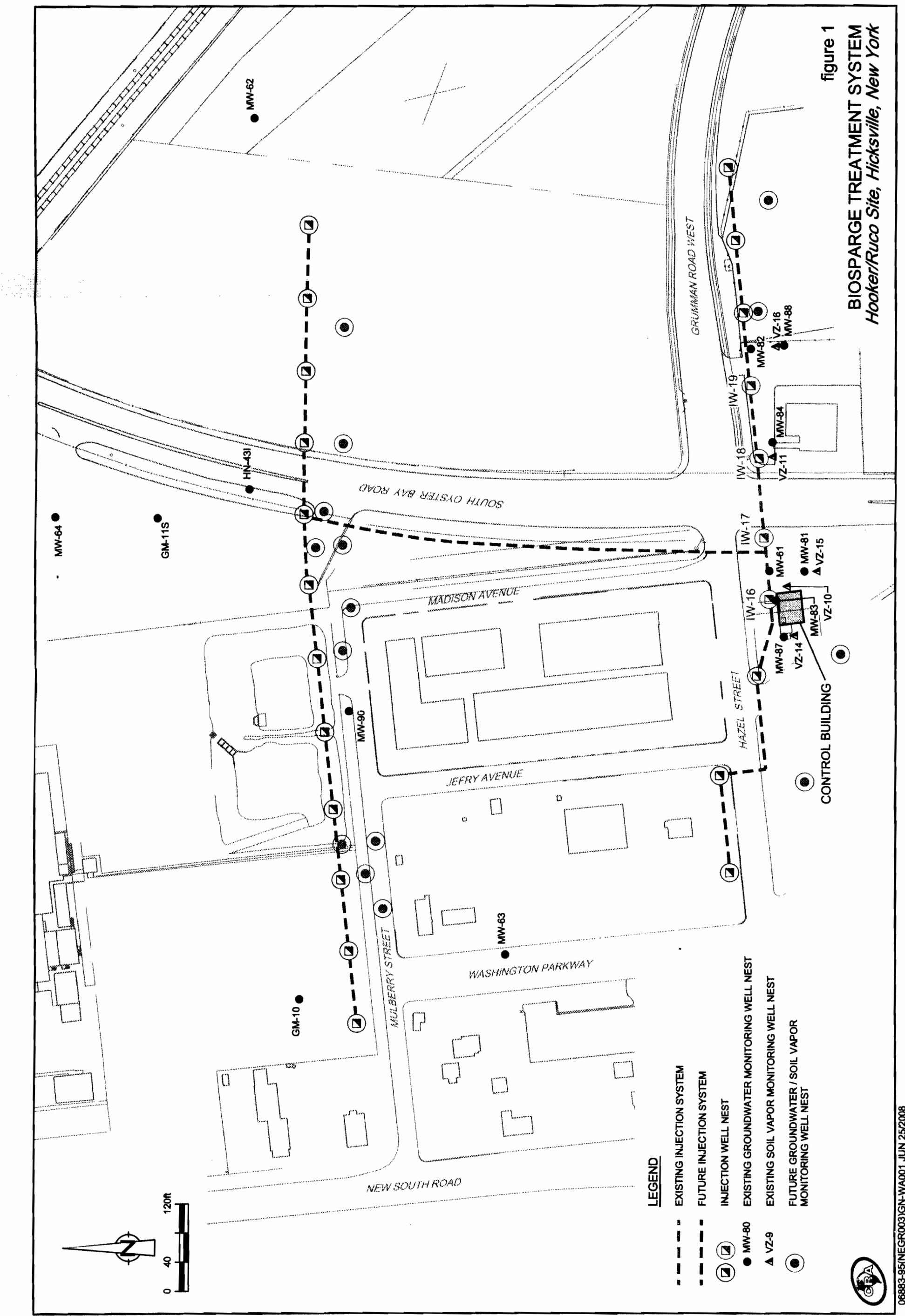


figure 1
 BIOSPARGE TREATMENT SYSTEM
 Hooker/Ruco Site, Hicksville, New York

- LEGEND**
- EXISTING INJECTION SYSTEM
 - FUTURE INJECTION SYSTEM
 - (◻) INJECTION WELL NEST
 - MW-80
 - ▲ VZ-9
 - EXISTING GROUNDWATER MONITORING WELL NEST
 - EXISTING SOIL VAPOR MONITORING WELL NEST
 - FUTURE GROUNDWATER / SOIL VAPOR MONITORING WELL NEST

