PERIODIC REVIEW REPORT / SEMI-ANNUAL REPORT NO. 48
JULY THROUGH DECEMBER 2009
NYSDEC SITE NUMBER 3-44-021
BLAUVELT, NEW YORK

by

Haley & Aldrich of New York
Rochester, New York

for

Xerox Corporation
Webster, New York

File No. 32077-100
25 January 2010

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25 January 2010
File No. 32077-100

New York State Department of Environmental Conservation
625 Broadway, BURC
Albany, NY 12233-7014

Attention: James Candiloro, Project Manager

Subject: Periodic Review Report and Semi-Annual Report #48 (July through December 2009)
NYSDEC Site Number 3-44-021
Xerox Corporation, Blauvelt, New York

Ladies and Gentlemen:

Haley & Aldrich of New York (Haley & Aldrich), on behalf of Xerox Corporation (Xerox), is pleased to submit this Periodic Review Report (PRR) for the former Xerox facility located in Blauvelt, New York (Site). The Site is listed on the New York State Department of Environmental Conservation (NYSDEC) Registry of Inactive Hazardous Waste Disposal Sites as Site 3-044-021. This PRR is submitted in response to a request from NYSDEC dated 17 December 2009, to document compliance with the Site Management Plan (SMP) for the Site. As required by NYSDEC, this PRR also includes a signed and completed Institutional and Engineering Controls (IC/EC) Certification Form (Appendix A).

Submittal of this PRR coincides with the semi-annual reporting schedule for the Site as required by the SMP. As such, we propose that this PRR also serves as Semi-Annual Monitoring Report #48 (for the period July through December 2009) for the Site. Semi-annual reports provide progress updates on the remedial performance and activities associated with the Site and are similar in content to the PRR as outlined in the PRR General Guidance by NYSDEC. This PRR provides updates for the reporting period July through December 2009. For Site activities conducted during the first half of 2009, please see the last semi-annual report dated 28 August 2009, prepared by Haley & Aldrich of New York.

The Site is currently in "maintenance mode", with the groundwater treatment plant (GTP) and sub-slab depressurization system (SSDS) operating consistently, with little to no changes to the systems or Site conditions during each semi-annual reporting period. As such, we propose to reduce the reporting frequency from semi-annual to annual. We proposed that the PRR take the place of the annual update reports and that the due date occurs on March 1st of each year. Semi-annual monitoring and sampling of the groundwater well network and routine operating, monitoring and maintenance of the GTP and SSDS will continue as required by the SMP.

SITE OVERVIEW

The Xerox Blauvelt, New York facility (Site) is located on Bradley Hill Road near the intersection of Route 303 in Blauvelt, Rockland County, New York (see Figure 1). The facility was previously used by Xerox as a refurbishing and distribution center. From the mid 1980's through the mid 1990's, Xerox subleased a portion of the building (the Central Refurbishing Center (CRC) area and the adjacent warehouse comprising the old building portion of the site) to Materials Research Inc (MRI). Xerox vacated the building in 2002 subleasing the entire facility to Advanced Distribution Systems (ADS). Since that time, ADS has operated within the building, using the structure as a warehouse and shipping site.

The Site is located between the west side of Route 303 and an active CSX freight rail line. A small unnamed tributary that discharges into the Hackensack River runs along the western perimeter of the Xerox facility to the north into a light industrial park. The site is located in a valley that slopes downward to the north. The immediate area surrounding the facility is a mixture of light industrial and commercial locations. The former CRC "old building" structure consists of a single story slab-on-grade, approximately 166,200 square feet, steel frame structure with aluminum siding expansions. In 1982, the main facility structure was expanded by 97,344 square feet ("new building"). Utility services (water, heat and electric) have been maintained for operation within the building.

Beginning in 1970, operations at the site included the refurbishing of electrostatic copiers and copier parts using a variety of chlorinated solvent blends. Two underground storage tanks (UST) located at the north end of the property stored both virgin and spent solvents used in the refurbishing process. In addition to the underground storage tanks, other areas investigated included former paint booths, a former solvent storage room and the former CRC area. The operations that resulted in the contamination at the Site have not been present at the Site since 1979.

Contamination at the Site has been identified as moving downgradient from the former UST locations toward the north and northwest Site boundaries. Contamination is also present under the former CRC area of the Blauvelt plant building. Based on the results of a Remedial Investigation (RI) and Feasibility Study (FS), a Record of Decision (ROD) was issued in March 1993 selecting 2-PHASE Extraction for contaminants in soil and groundwater in the source area. Conventional groundwater pumping systems were also employed north of the source area for migration control. A significant volume of contaminant mass has been removed from the Site (over 50,000 pounds of VOCs) using 2-PHASE Extraction, and as a result, groundwater concentrations of VOCs have been substantially reduced. The 2-PHASE Extraction system, which had been in operation at the facility since June 1993, was shut-down in October 2002 with approval of NYSDEC. It was determined that the 2-PHASE Extraction system had reached its practical and technically feasible limits for attaining further site environmental improvement, as evidenced by asymptotic mass removal conditions and subsequent limited improvement to groundwater quality over the last two (2) years of its operation.

Currently, Xerox's operations at the Site consist of operation of a groundwater treatment plant (GTP) for groundwater recovery and migration control and a sub-slab depressurization system (SSDS). The GTP has remained mostly operational since 1989 and has been refined over the years in response to site groundwater conditions. The groundwater recovery system consists of air stripping and discharge of groundwater to the nearby stream. Currently, only well R-3 remains online as the only active recovery well. The SSDS system

was installed in the vicinity of the former CRC area to mitigate the potential for intrusion of vapor-phase contaminants into the indoor air.

OVERVIEW OF REMEDY PERFORMANCE

Groundwater Recovery System

On 23 July 2009 through 19 August 2009, Haley & Aldrich performed a step test of the GTP to support long term Site planning. The objective of the step test was to assess the ability to optimize pumping rates at lower flow while providing reasonable assurance of plume containment/capture at the lower flow rates. A second objective of the test was to minimize dewatering of downgradient water bodies, specifically the Magee pond, and impact to pond habitat resulting from Site groundwater management. A memorandum detailing the pump test and results is included in Appendix B.

Step test results and capture zone calculations showed that source area capture is achieved at a pumping rate of 80 gallons per minute (gpm), while pumping at higher rates does not add value in the form of source area containment and control. We expect that operating at 80 gpm rather than 100 gpm will reduce the water level drawdown impact to off-site water bodies caused by system pumping and will result in effective capture of the source area remaining in the overburden soils, while still protecting against off-site migration. Capture zone calculations show that source area capture may also be achieved at 60 gpm.

Based on the step test findings, the operating flow rate of pumping well R-3 was reduced from 100 gpm to 80 gpm for the remainder of the reporting period. We recommend continued operation at 80 gpm for 12 months (September 2009 through August 2010), and continued semi-annual sampling of wells in accordance with the approved Sampling and Analysis Plan (SAP). After the 12 month period, if groundwater concentration data confirm that plume containment is achieved at the reduced flow rate, we propose to further reduce the pumping rate to 60 gpm and continue sampling on a semi-annual basis for the following 12 months (September 2010 through August 2011) to determine if containment is achieved. If plume containment is achieved, we will propose to continue operating the system at 60 gpm and continue sampling according to the approved semi-annual SAP schedule.

During the reporting period, monthly sampling of the GTP continued as required by the SMP. System primary influent, secondary influent and effluent sample data is summarized in Table 1. Based on the monthly effluent samples, GTP discharges were in compliance during the reporting period. Total volatile organic compound (VOC) concentrations at the system influent have increased to an average of 83 micrograms per liter (μg/L) during the quarter. Total VOC concentrations prior to the rebound event and reduction in GTP flow rate averaged approximately 57 μg/L.

Routine groundwater sampling was performed for both the on-site and off-site monitoring wells in accordance with the current SAP. Monitoring well locations for the current SAP approved for the site are shown in Figure 1. The total VOC concentrations for these wells are summarized in Table 2, and water level data is summarized in Table 3. Laboratory analytical reports for the groundwater monitoring events

conducted during the period are provided in Appendix C. Groundwater analytical trend graphs are included in Appendix D.

Total VOC concentrations in offsite wells OS-2R and OS-5R have decreased to pre-rebound event concentrations. The October 2009 samples were collected after the GTP flow rate was reduced to 80 gpm, confirming that the GTP is maintaining effective capture of the source area on-site.

During the October sampling event an anomalous concentration (191 μg/L total VOCs) was observed in well OS-12R. Historically, this well has had low concentrations of total VOCs (historical high in 1993 was 36 μg/L) and recently total VOC concentrations at this well have been non-detect. The Blauvelt site groundwater monitoring wells were sampled most recently during the week of 18 January 2010 as part of the continued groundwater monitoring program. We will continue to monitor closely the groundwater concentrations in well OS-12R. In addition, we will examine the contaminant signature of the detection to gain an understanding of whether it originates from Xerox or a potentially alternate source.

In order to better understand the long-term management requirements for the site, Xerox will continue to explore options to mitigate any unacceptable site risks with the goal of further reducing or eliminating ongoing active site remediation efforts. As a result of the GTP step test, and further contemplated evaluations of contaminant fate and transport, Xerox may consider evaluating other alternatives to the groundwater recovery and treatment system to mitigate off-site groundwater impacts. Similarly, Xerox may explore applicable methods that would accelerate or improve the overall remedial performance at the site. Any changes to the approach for migration control or treatment system requirements or the overall remedial approach for the Site would not be implemented without first receiving NYSDEC concurrence.

Sub-slab Depressurization System

The operation and monitoring of the SSDS continued during the reporting period. Vacuum monitoring locations are shown in Figure 2. Sub-slab vacuum measurements were collected using a handheld digital manometer and are summarized in Table 4.

During the most recent sub-slab monitoring event in October 2009, all vacuum monitoring points showed vacuum levels above the 0.002 inches of water design criteria.

To date, over two years of sub-slab vacuum data has been collected for the SSDS. We continue to monitor vacuum levels at the SSDS blowers at four permanent manometer locations on a monthly basis to ensure proper operation of the blowers. Sub-slab vacuum monitoring across the full target area is currently conducted on a semi-annual basis - during April and October of each year - as proposed in Semi Annual Report #46. As additional vacuum data is collected, we may propose revisions to the frequency of future sub-slab vacuum monitoring events, as site conditions allow.

FUTURE ACTIVITIES

A summary of the activities planned for 2010 are provided below for your information:

- Assess contaminant fate and transport to validate the current remedial measures or propose modification
- Continued groundwater well monitoring and sampling according to the SMP
- Continued monitoring of the SSDS

If you have any questions or require additional information regarding this report please contact us.

Sincerely yours,
HALEY & ALDRICH OF NEW YORK

Janice R. Szucs
Staff Engineer

Paul M. Tornatore, P.E.
Vice President

Enclosures:
Tables
Figures
Appendix A – Institutional and Engineering Controls (IC/EC) Certification Form
Appendix B – Project Correspondence
Appendix C – Laboratory Analytical Reports
Appendix D – Historical Groundwater Analytical Trend Graphs

c: Eliott Duffney, Xerox Corporation
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TABLE 1
XEROX BLAUVELT REMEDIATION
SUMMARY OF ON-SITE GROUNDWATER TREATMENT SYSTEM DATA
TOTAL TARGET VOLATILES - METHOD 601/602

Date	System Influent	1^{o} Air Stripper Effluent	2^{o} Air Stripper Effluent
1/23/2006	153.5	1.5	ND
2/6/2006	116.8	1.3	ND
3/7/2006	70	ND	ND
4/4/2006	70.9	ND	ND
5/1/2006	18.6	ND	ND
6/5/2006	94	ND	ND
7/11/2006	78.5	1.4	ND
8/7/2006	72	1.4	ND
10/31/2006	494	11	1.4
11/13/2006	125.1	2.2	ND
12/4/2006	102	1.8	ND
1/2/2007	82.1	1.1	ND
2/5/2007	54.7	ND	ND
3/5/2007	69.8	ND	ND
4/2/2007	60.5	ND	ND
5/7/2007	72.4	1.2	ND
6/4/2007	68.5	1.3	ND
7/10/2007	31.2	ND	ND
8/6/2007	37.8	ND	ND
9/5/2007	26.8	ND	ND
10/4/2007	21.2	ND	ND
11/8/2007	27.9	ND	ND
12/5/2007	109.2	2.0	ND
1/3/2008	47	ND	ND
2/4/2008	42.6	ND	ND
3/3/2008	91.7	1.3	ND
4/7/2008	71.5	1.0	ND
5/5/2008	55.7	ND	ND
6/9/2008	40.5	ND	ND
7/7/2008	49.9	1.2	ND
7/16/2009	87.3	ND	ND
8/6/2009	125.2	4.3	1.4
9/10/2009	74.3	ND	ND
10/8/2009	61.1	ND	ND
11/6/2009	77.1	ND	ND
12/17/2009	71.9	ND	ND

Notes:
1. Results are presented in ug/L.
2. ND = Non-Detect
3. Rebound event initiated 1 August 2008. System restarted on 23 June 2009.

TABLE 2
XEROX CORPORATION - BLAUVELT, NEW YORK
SUMMARY OF GROUNDWATER ANALYTICAL DATA
TOTAL TARGET VOLATILE ORGANIC COMPOUNDS - METHOD 8021B

	Depth to Bottom	Feb-06	Jul-06	Feb-07	Aug-07	Jan-08	Jul-08	Oct-08	Jan-09	Apr-09	Jul-09	Oct-09
ON-SITE WELLS												
W-2	13.97	25.3	57	1.3	8.3	5.4	5.4	7.4	5.1	5.1	10.8	5.6
U-6D	26.20	1.7	1.6	ND	ND	ND	ND	ND	ND	ND	ND	4.3
MW-12	14.25	1348	NS	NS	NS	NS	NS	759	2600	7490	11140	4720
MW-13	15.25	NS	NS	NS	NS	NS	NS	1556.4	2500	1854	NS	NS
PW-2	20.11	2686	3310	2788	2660	2019	3409	3614	9700	12850	9220	6014
OW-1	36.22	59	41.3	30.7	17	155.2	112.8	71.9	670	134.3	34.7	1.5
OW-2	32.58	169.3	240.1	224.8	106.8	100	318	879	560	1218	399.3	85.7
RI-6	23.62	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.2	1.4
OFF-SITE WELLS												
OS-2R	46.36	42.3	22	23.2	15	23.3	17.4	54.7	98	148.6	42.9*	29.6
OS-5R	37.85	41.4	21.9	30	24.4	18.4	19.9	57.3	84	117	51.7*	41.1
OS-5D	74.7	25.4	13.2	14.5	11.4	10.4	8.1	17.8	8.1	5.6	40.2	2.6
OS-6	23.61	5.8	15.1	20.1	21.3	22.2	21.9	19.3	12	13.6	18.5	35.6
OS-6R	43.3	204.3	158.8	177.8	135.9	117.2	146.1	96.9	190	169.8	189.4	8.7
OS-7R	44.9	3.4	1.2	3.9	3.3	3.3	2.8	8.0	9.9	11.7	13*	ND
OS-7D	75.45	1.3	1.3	1.2	ND	1.2	ND	ND	ND	ND	1.2	ND
OS-9	20.49	ND	ND	ND	ND	ND	ND	3.1	3.3	4.2	1.5	3.6
OS-9R	43.8	ND	ND	ND	ND	ND	ND	ND	1.3	ND	1.1	ND
OS-11R	44.38	33	33.5	43.8	29.2	33.8	29.2	31.5	40	31.7	31.2	32.3
OS-11D	77.4	78.8	51.9	20.2	23.1	16.6	18.4	17.3	13	27.7	29	21.9
OS-12R	32.98	3	5.7	2.9	3.8	4.6	1.0	ND	ND	ND	ND	191.0
OS-15R	49.34	5.3	4.1	3.2	2.7	2.9	1.4	1.6	1.7	1.3	1.5	1.4
OS-15D	82	3.7	1.5	ND	ND	ND	ND	ND	1.1	ND	1.3	2.2

Notes:
1. Results are presented in ug/L.
2. ND = Non-Detect
3. NS = Not Sampled
4. Rebound event initiated 1 August 2008. System restarted on 23 June 2009.
5. * = Samples from wells OS-2R, OS-5R and OS-7R were collected on 14 September 2009. Samples could not be collected from these wells during the scheduled July sampling event due to water level monitoring instruments installed in the wells during the groundwater treatment plant step test.

TABLE 3
XEROX CORPORATION - BLAUVELT NEW YORK
SUMMARY OF GROUNDWATER STATIC WATER LEVELS

	Depth to Bottom	Feb-06	Jul-06	Feb-07	Aug-07	Jan-08	Jul-08	Oct-08	Jan-09	Apr-09	Jul-09	Oct-09
ON-SITE WELLS												
W-2	13.97	7.81	10.57	11.1	7.05	10.39	10.06	6.27	5.3	4.05	5.35	6.36
U-6D	26.20	6.26	5.67	6.66	6.76	6.67	6.66	6.82	5.22	5.45	5.87	6.09
MW-12	14.25	11.58	DRY	14.19 (DRY)	14.2 (DRY)	14.17 (DRY)	14.2 (DRY)	8.25	7.13	7.15	11.65	11.2
MW-13	15.25	BLOCKED	BLOCKED	BLOCKED	15.2 (DRY)	15.24 (DRY)	15.16 (DRY)	12.3	10.8	10.71	15.44 (DRY)	15.3 (DRY)
PW-2	20.11	13.18	17.2	17.68	18.3	19.35	18.48	10.11	8.88	8.76	12.9	12.56
OW-1	36.22	14.94	19.43	19.78	20.72	22.1	20.88	11.05	9.63	9.71	15.61	15.37
OW-2	32.58	12.55	17.07	17.42	18.29	19.81	18.6	9.61	8.38	8.43	12.57	12.01
RI-6	23.62	8.67	13.05	11.31	12.79	12.55	12.78	9.64	8	8.1	10.19	15.05
OFF-SITE WELLS												
OS-2R	46.36	14.29	17.26	19.94	18.74	17.51	18.5	16.49	15.34	15.17	17.85*	17.42
OS-5R	37.85	7.05	12.88	13.14	12.29	11.8	11.43	10.22	8.91	8.86	10.25*	10.65
OS-5D	74.7	11.87	18.21	15.4	17.26	14.95	16.85	14.6	16.91	14.23	13.61	16.46
OS-6	23.61	8.37	11.61	12.16	13.3	12.15	13.35	11.31	12.05	8.9	10.21	12.32
OS-6R	43.3	11.32	16.4	14.8	14.42	12.99	14.17	12.96	11.6	11.94	12.01	13.84
OS-7R	44.9	10.38	11.51	12.19	12.38	11.82	12.75	12.87	12.19	11.71	12.7*	12.63
OS-7D	75.45	6.24	11.28	9.5	10.28	8.62	10.12	9.5	8.08	7.87	8.65	9.5
OS-9	20.49	2.5	3.26	3.66	3.76	3.46	4.06	4.18	3.76	3.37	3.5	3.5
OS-9R	43.8	2.99	4.89	3.5	5.42	4.9	4.82	13.76	13.26	15.57	18.15	19.35
OS-11R	44.38	19.52	21.89	22.15	23	22.35	22.89	24.73	21.16	21.02	21.31	22.84
OS-11D	77.4	18.9	20.7	20.74	22.02	20.77	21.93	20.8	19.58	19.52	20	21.2
OS-12R	32.98	10.08	9.23	9.02	9.19	9.30	9.28	9.81	11.94	9.37	9.29	9.87
OS-15R	49.34	14.7	15.3	15.21	15.71	15.51	16.6	16.87	16.18	16.12	16.28	17.12
OS-15D	82	11.5	11.8	12.1	12.24	12	12.76	12.92	12.35	12.08	12.28	12.8

Notes:
1. Results are presented in feet below top of casing.
2. NA = Not Accessible
3. NM = Not Measured
4. Rebound event initiated 1 August 2008. System restarted on 23 June 2009.
5. * = Water level readings from wells OS-2R, OS-5R and OS-7R were collected on 14 September 2009. Water level readings could not be collected from these wells during the scheduled July sampling event due to water level monitoring instruments installed in the wells during the groundwater treatment plant step test.

TABLE 4
XEROX BLAUVELT SUB-SLAB DEPRESSURIZATION SYSTEM
SUMMARY OF SUB-SLAB VACUUM READINGS

Monitoring Point	Sub-Slab Vacuum Readings											
	2/1/2007	3/1/2007	4/19/2007	7/25/2007	10/30/2007	3/4/2008	10/1/2008	11/6/2008	12/23/2008	2/23/2009	6/19/2009	10/6/2009
T-01	0.0092	**0.0015**	0.020	NA	NA	NA	NA	0.0170	0.005	**0.001**	0.045	0.037
T-02	0.1678	0.0022	0.112	NA	0.0434	0.0537	NA	0.4330	1.06	NM	0.148	0.036
T-03	0.0478	0.0142	0.034	NA	NA	NA	0.302	0.2290	0.153	0.038	0.091	0.175
T-04	**0.0014**	**0.0002**	**0.0016**	0.009	NA	NA	0.017	0.0058	**0.0008**	**0.001**	0.034	0.008
T-05	0.0462	0.0396	NA	0.129	0.0954	0.0079	0.137	0.0664	0.0257	0.025	0.097	0.072
T-06	0.3505	**0.0015**	0.215	0.517	0.0678	0.0347	1.310	0.8120	0.357	0.326	1.047	1.244
T-07	0.0024	**0.0003**	0.067	0.178	0.1791	0.1431	0.332	0.1583	0.0484	0.041	0.256	0.335
T-08	0.0124	0.0064	0.019	0.18	NA	NA	0.130	0.0451	0.0124	0.011	0.11	0.065
T-09	0.0058	0.183	0.388	0.073	0.0743	0.007	NA	0.3770	0.1052	0.093	0.546	0.334
T-10	0.003	0.33	0.550	1.66	1.55	0.1862	1.946	1.0670	0.305	0.283	1.865	0.226
T-11	**0.0012**	0.0071	0.310	0.738	0.1045	0.1365	0.169	0.0175	**0.0008**	0.023	0.036	0.04
T-12	**0.0014**	0.0547	0.0939	0.196	0.0215	0.0127	0.196	0.0805	0.0046	0.007	0.16	0.01
T-13	0.0063	0.0021	0.0025	0.005	0.0041	0.0225	0.023	0.0032	0.0027	0.002	0.013	0.038
T-14	**0.0006**	**0.0018**	0.0042	0.002	0.0102	**0.0003**	0.023	0.0030	**POS 0.0002**	0.003	0.01	0.022
T-15	**0.0001**	0.0031	0.230	0.015	**0.0005**	0.1222	**0.000**	0.0393**	0.0205	0.004	0.015	0.023
T-16	**0.0003**	**0.0005**	0.090	**0.0005***	**0.0005**	0.794	NA	0.0572**	0.0662	0.054	0.005	0.41
T-17	**0.0003**	0.0619	0.0957	0.296	0.1491	0.1531	0.133	0.0545	**POS 0.003**	0.004	0.09	0.003

Notes:
1. Data is reported in inches of water column (" WC)
2. NA = Monitoring point could not be accessed due to obstructions caused by building inventory
3. NM = Not measured as part of monitoring event
4. "POS" = positive reading
5. Values in bold represent readings below the 0.002 system design criteria
6. * = reading measured on 22 August 2007
7. ** = reading measured on 21 November 2008

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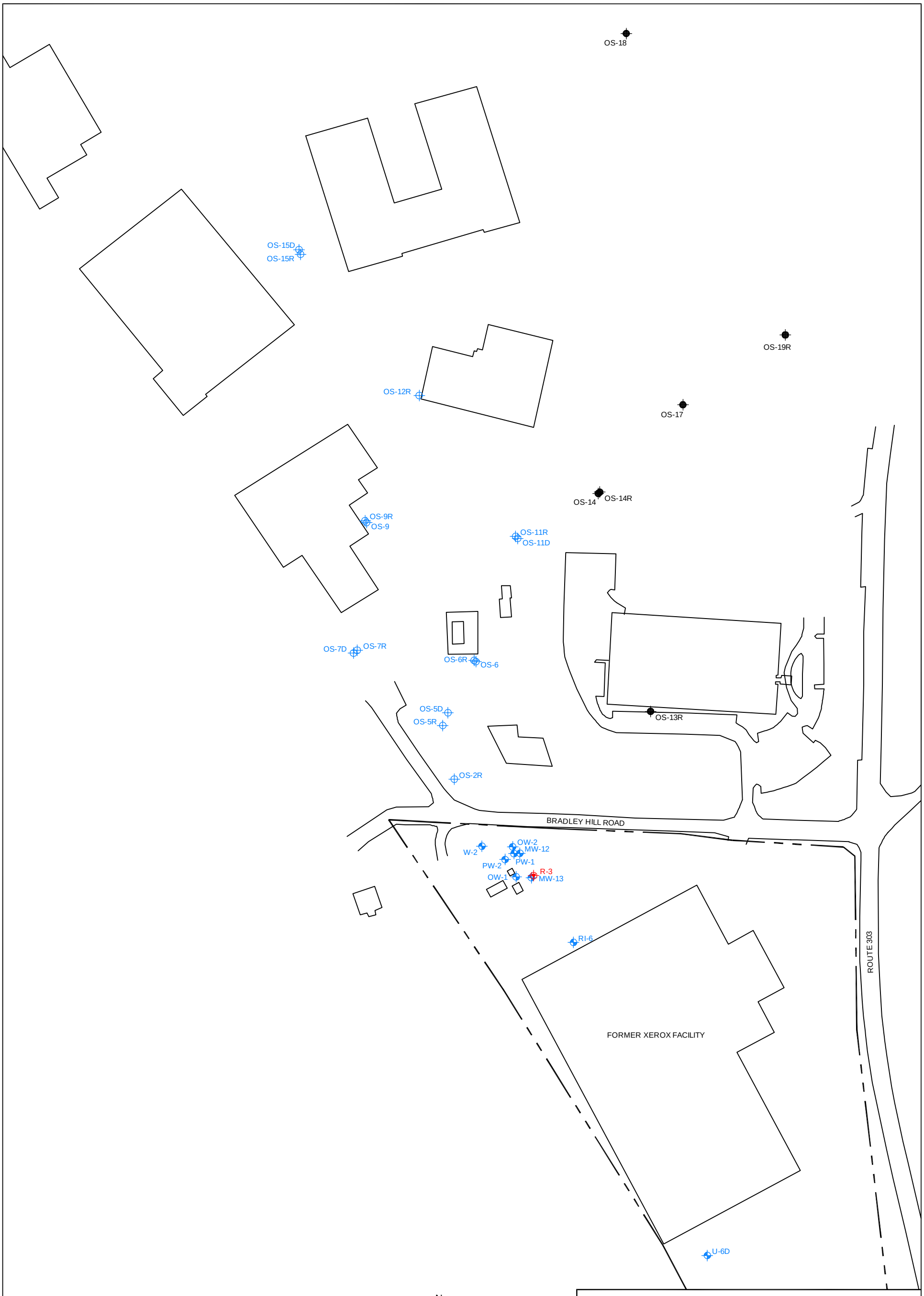


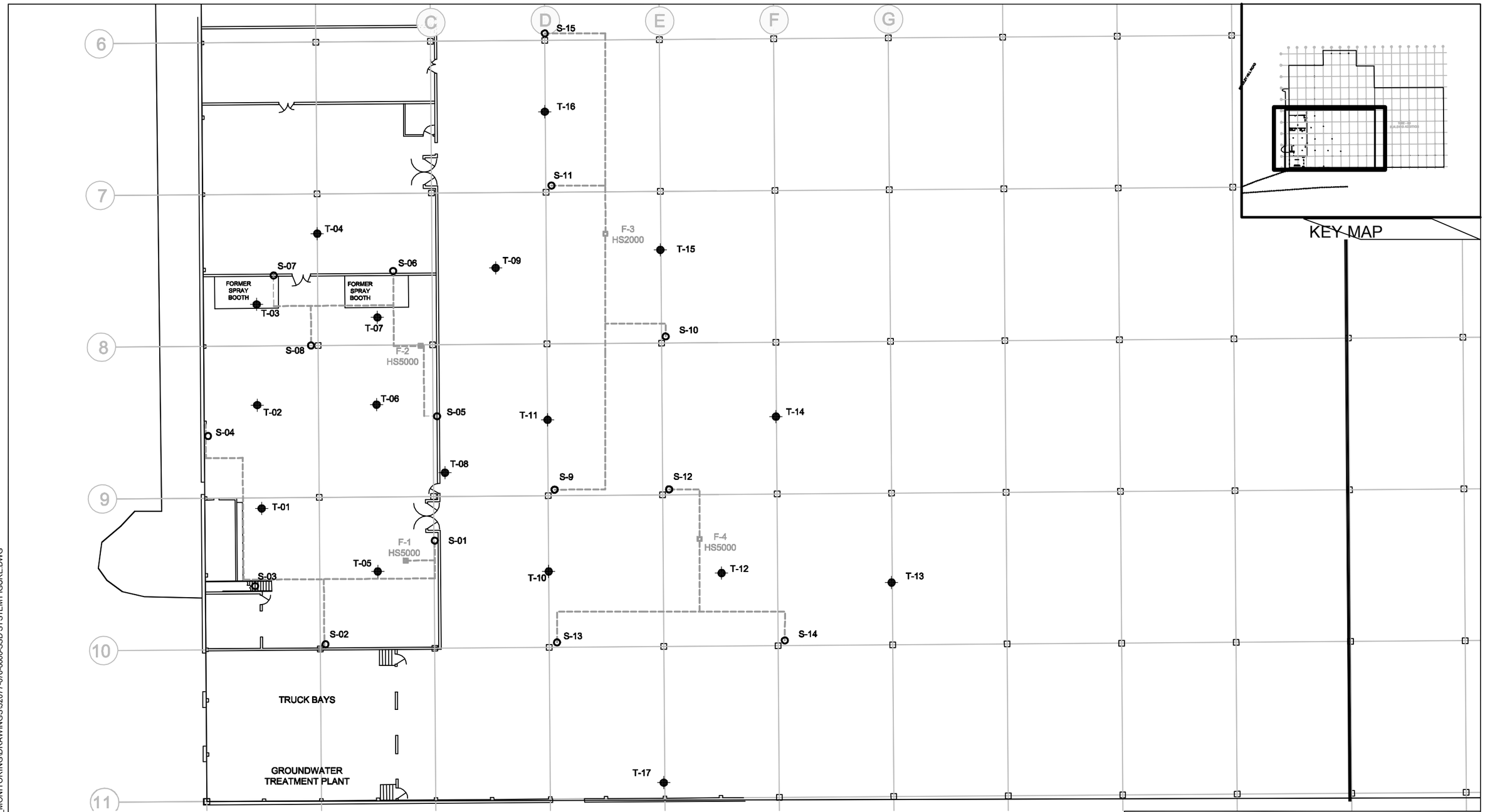
HALEY & ALDRICH

XEROX CORPORATION
BLAUVELT, NEW YORK
NYSDEC SITE NO. 3-044-021

MONITORING WELL LOCATIONS

SCALE: AS SHOWN
JANUARY 2010

FIGURE 1



LEGEND

- ○ APPROXIMATE LOCATION OF SUB-SLAB DEPRESSURIZATION SUCTION POINTS
- ● T-01 APPROXIMATE LOCATION OF SUB-SLAB DEPRESSURIZATION VACUUM POINTS
- APPROXIMATE LOCATION OF SUB-SLAB DEPRESSURIZATION SYSTEM PIPING

N E S W

0 15 30 45 60

SCALE IN FEET

HALEY & ALDRICH

XEROX CORPORATION
BLAUVELT, NEW YORK FACILITY
NYSDEC SITE NO. 3-44-021

SUB-SLAB DEPRESSURIZATION SYSTEM

SCALE: AS SHOWN
DECEMBER 2008

FIGURE 2

G:\PROJECTS\320771076_BLV_SSD_MONITORING\DRAWINGS\320771076-0000-SSD SYSTEM FIGURE.DWG

APPENDIX A

Institutional and Engineering Controls (IC/EC) Certification Form

New York State Department of Environmental Conservation
Division of Environmental Remediation, 11th Floor
625 Broadway, Albany, New York 12233-7011
Phone: (518) 402-9553 **Fax:** (518) 402-9577
Website: www.dec.ny.gov

Alexander B. Grannis
Commissioner

45-Day Reminder Notice: Site Management Periodic Review

Mr. Eliott Duffney
Program Manager, Env. Remediation
Xerox Corporation
800 Phillips Road
Webster, NY 14580

December 17, 2009
Site Name: Xerox Corporation
Site No.: 344021
Site Address: Blauvelt Facility (near intersection of Rt
Orangetown, NY 10962

Dear Mr. Eliott Duffney:

This is a reminder that as part of the last phase of a site's remedial program (i.e., "Site Management" (SM)), a progress report for your site is to be submitted by you, the site owner or Remedial Party, to the New York State Department of Environmental Conservation (Department) by **Monday, February 1, 2010**. This report, now referred to as the Periodic Review Report (PRR) documents the implementation of and compliance with the Site Management requirements for this site. SM is a concept defined in regulation (6 NYCRR 375-1.2(at)). A suggested outline for the PRR is enclosed. If the site is comprised of multiple properties or parcels, then you as the owner or Remedial Party must arrange to submit one PRR for all parcels that comprise the site.

Depending on the age of the remedial program for your site, the document(s) governing SM for your site will be different. Previously, SM requirements were contained in separate documents with specific titles (e.g., Operation, Maintenance, and Monitoring Plan or Soil Management Plan) and are now being incorporated into one comprehensive "Site Management Plan" (SMP). A SMP may contain one or all of the following elements as applicable to the site; a plan to maintain institutional and/or engineering controls ("IC/EC Plan"), a plan for monitoring the performance and effectiveness of the selected remedy ("Monitoring Plan"), and/or a plan for the operation and maintenance of the selected remedy ("O&M Plan"). Additionally, the requirements for SM are normally stated in the decision document (e.g., Record of Decision) and/or the legal agreement directing the remediation of the site (e.g., order on consent, voluntary agreement, etc.).

When you submit the PRR (by the due date above), please sign and include the enclosed forms documenting that all SM requirements are being met. If there is some reason you cannot certify that all SM requirements are being met, you should indicate this and include a statement of explanation in the PRR with a schedule for addressing the problem(s). The Periodic Review process will not be considered complete until all necessary corrective measures are completed and any required controls are certified. Instructions for completing the certifications are enclosed.

If you have any questions, or need additional information, please contact James Candiloro, Project Manager at 518-402-9564.

Enclosures

ec: James Candiloro, Project Manager
Robert Schick, Bureau Director
Edward Moore, Hazardous Waste Remediation Engineer, Region 3
Gary Litwin, DOH

cc: Pbn Associates C/O Pat Management, LLC

Enclosure
Periodic Review Report (PRR) General Guidance

I. Introduction: (½-page or less)

A. Provide a brief summary of site, nature and extent of contamination, and remedial history.

B. Effectiveness of the Remedial Program - Provide overall conclusions regarding;
   1. progress made during the reporting period toward meeting the remedial objectives for the site
   2. the ultimate ability of the remedial program to achieve the remedial objectives for the site.

C. Compliance
   1. Identify any areas of non-compliance regarding the major elements of the Site Management Plan (SMP, i.e., the Institutional/Engineering Control (IC/EC) Plan, the Monitoring Plan, and the Operation & Maintenance (O&M) Plan).
   2. Propose steps to be taken and a schedule to correct any areas of non-compliance.

D. Recommendations
   1. recommend whether any changes to the SMP are needed
   2. recommend any changes to the frequency for submittal of PRRs (increase, decrease)
   3. recommend whether the requirements for discontinuing site management have been met.

II. Site Overview (one page or less)

A. Describe the site location, boundaries (figure), significant features, surrounding area, and the nature and extent of contamination prior to site remediation.

B. Describe the chronology of the main features of the remedial program for the site, the components of the selected remedy, cleanup goals, site closure criteria, and any significant changes to the selected remedy and site that have been made since remedy selection.

III. Evaluate Remedy Performance, Effectiveness, and Protectiveness

A. Using tables, graphs, charts and bulleted text to the extent practicable, describe the effectiveness of the remedy in achieving the remedial goals for the site. Base findings, recommendations, and conclusions on objective data. Evaluations should be presented simply and concisely.

IV. IC/EC Plan Compliance Report (if applicable)

A. IC/EC Requirements and Compliance
   1. Describe each control, its objective, and how performance of the control is evaluated.
   2. Summarize the status of each goal (whether it is fully in place and its effectiveness).
   3. Corrective Measures: describe steps proposed to address any deficiencies in ICECs.
   4. Conclusions and recommendations for changes.

B. IC/EC Certification
   1. The certification must be complete (even if there are IC/EC deficiencies), and certified by the appropriate party as set forth in a Department-approved certification form(s).

V. Monitoring Plan Compliance Report (if applicable)

A. Components of the Monitoring Plan (tabular presentations preferred) - Describe the requirements of the monitoring plan by media (i.e., soil, groundwater, sediment, etc.) and by any remedial technologies being used at the site.

B. Summary of Monitoring Completed During Reporting Period - Describe the monitoring tasks actually completed during this PRR reporting period. Tables and/or figures should be used to show all data.

C. Comparisons with Remedial Objectives - Compare the results of all monitoring with the remedial objectives for the site. Include trend analyses where possible.

D. Monitoring Deficiencies - Describe any ways in which monitoring did not fully comply with the monitoring plan.

E. Conclusions and Recommendations for Changes - Provide overall conclusions regarding the monitoring completed and the resulting evaluations regarding remedial effectiveness.

VI. Operation & Maintenance (O&M) Plan Compliance Report (if applicable)

A. Components of O&M Plan - Describe the requirements of the O&M plan including required activities, frequencies, recordkeeping, etc.

B. Summary of O&M Completed During Reporting Period - Describe the O&M tasks actually completed during this PRR reporting period.

C. Evaluation of Remedial Systems - Based upon the results of the O&M activities completed, evaluated the ability of each component of the remedy subject to O&M requirements to perform as designed/expected.

D. O&M Deficiencies - Identify any deficiencies in complying with the O&M plan during this PRR reporting period.

E. Conclusions and Recommendations for Improvements - Provide an overall conclusion regarding O&M for the site and identify problems, their severity, and any suggested improvements requiring changes in the O&M Plan.

VII. Overall PRR Conclusions and Recommendations

A. Compliance with SMP - For each component of the SMP (i.e., IC/EC, monitoring, O&M), summarize;

1. whether all requirements of each plan were met during the reporting period
2. any requirements not met such as new completed exposure pathways resulting in unacceptable risk
3. proposed plans and a schedule for coming into full compliance.

B. Performance and Effectiveness of the Remedy - Based upon your evaluation of the components of the SMP, form conclusions about the performance of each component and the ability of the remedy to achieve the remedial objectives for the site.

C. Future PRR Submittals

1. Recommend, with supporting justification, whether the frequency of the submittal of PRRs should be changed (either increased or decreased).
2. If the requirements for site closure have been achieved, contact the Department's Project Manager for the site to determine what, if any, additional documentation is needed to support a decision to discontinue site management.

VIII. Additional Guidance

A. Additional guidance regarding the preparation and submittal of an acceptable PRR can be obtained from the Department's Project Manager for the site.

Enclosure 1

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. 344021

Site Name Xerox Corporation

Site Address: Blauvelt Facility (near intersection of Rt 303) Zip Code: 10962
City/Town: Orangetown
County: Rockland
Allowable Use(s) (if applicable, does not address local zoning): Industrial
Site Acreage: 1.0
Owner: PBN ASSOCIATES c/o PAT Management, LLC
126 East 56th Street. 32nd Floor, New York Ny, NY 10022

Reporting Period: January 30, 2008 to November 30, 2009

Verification of Site Details **Box 2**

		YES	NO
1.	Is the information in Box 1 correct?	☒	☐
	If NO, are changes handwritten above or included on a separate sheet?	☐	
2.	Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	☒
	If YES, is documentation or evidence that documentation has been previously submitted included with this certification?	☐	
3.	Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	☒
	If YES, is documentation (or evidence that documentation has been previously submitted) included with this certification?	☐	
4.	If use of the site is restricted, is the current use of the site consistent with those restrictions?	☒	☐
	If NO, is an explanation included with this certification?	☐	
5.	For non-significant-threat Brownfield Cleanup Program Sites subject to ECL 27-1415.7(c), has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?	☐	N/A ☐
	If YES, is the new information or evidence that new information has been previously submitted included with this Certification?	☐	
6.	For non-significant-threat Brownfield Cleanup Program Sites subject to ECL 27-1415.7(c), are the assumptions in the Qualitative Exposure Assessment still valid (must be certified every five years)?	☐	N/A ☐
	If NO, are changes in the assessment included with this certification?	☐	

SITE NO. 344021 **Box 3**

Description of Institutional Controls

Parcel	Institutional Control
S_B_L Image:	

Box 4

Description of Engineering Controls

Parcel	Engineering Control
S_B_L Image: **70.06-1-2**	Groundwater Containment Pump & Treat Vapor Mitigation

Attach documentation if IC/ECs cannot be certified or why IC/ECs are no longer applicable. (See instructions)

Control Description for Site No. 344021

Parcel: 70.06-1-2

Implementation of the approved Site Managment Plan (SMP)which includes:

1) Continued groundwater containment in the source area through an active groundwater pump and treat system,

2)Continued operation of the active sub-slab depressurization system.

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
☒	☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

   (a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   NYSDEC approved on-going Step Test

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
☒	☐

3. If this site has an Operation and Maintenance (O&M) Plan (or equivalent as required in the Decision Document);

   I certify by checking "YES" below that the O&M Plan Requirements (or equivalent as required in the Decision Document) are being met.

YES	NO
☒	☐

4. If this site has a Monitoring Plan (or equivalent as required in the remedy selection document);

   I certify by checking "YES" below that the requirements of the Monitoring Plan (or equivalent as required in the Decision Document) is being met.

YES	NO
☒	☐

IC CERTIFICATIONS
SITE NO. 344021

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 2 and/or 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Eliott Duffney (print name) at Xerox Corporation 800 Phillips Rd - 205-99F Webster, NY 14580 (print business address),

am certifying as Remedial Party (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Signature of Owner or Remedial Party Rendering Certification — Date: 1/28/2010

IC/EC CERTIFICATIONS

Box 7

QUALIFIED ENVIRONMENTAL PROFESSIONAL (QEP) SIGNATURE

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Mark N. Ramsdell (print name) at Haley & Aldrich of NY at 200 Town Centre Dr., Suite 2, Rochester, NY 14623 (print business address)

am certifying as a Qualified Environmental Professional for the Xerox Corporation

(Owner or Remedial Party) for the Site named in the Site Details Section of this form.

Signature of Qualified Environmental Professional, for the Owner or Remedial Party, Rendering Certification

Stamp (if Required): STATE OF NEW YORK ★ MARK N. RAMSDELL ★ LICENSED PROFESSIONAL ENGINEER 71627

Date: 1/28/10

Enclosure 2

Certification Instructions

I. Verification of Site Details (Box 1 and Box 2):

Answer the six questions in the Verification of Site Details Section. Questions 5 and 6 only refer to sites in the Brownfield Cleanup Program. The Owner and/or Qualified Environmental Professional (QEP) may include handwritten changes and/or other supporting documentation, as necessary.

II. Certification of Institutional / Engineering Controls (Boxes 3, 4, and 5)

1. Review the listed IC/ECs, confirming that all existing controls are listed, and that all existing controls are still applicable. If there is a control that is no longer applicable the Owner / Remedial Party is to petition the Department requesting approval to remove the control.

2. In Box 5, complete certifications for all Plan components, as applicable, by checking the corresponding checkbox.

3. If you cannot certify "YES" for each Control and/or certify the other SM Plan components that are applicable, continue to complete the remainder of this **Certification** form. Attach supporting documentation that explains why the **Certification** cannot be rendered, as well as a statement of proposed corrective measures, and an associated schedule for completing the corrective measures. Note that this **Certification** form must be submitted even if an IC or EC cannot be certified; however, the certification process will not be considered complete until corrective action is completed.

   If the Department concurs with the explanation, the proposed corrective measures, and the proposed schedule, a letter authorizing the implementation of those corrective measures will be issued by the Department's Project Manager. Once the corrective measures are complete, a new Periodic Review Report (with IC/EC Certification) is to be submitted within 45 days to the Department. If the Department has any questions or concerns regarding the PRR and/or completion of the IC/EC Certification, the Project Manager will contact you.

III. IC/EC Certification by Signature (Box 6 and Box 7)**:**

If you certified "YES" for each Control, please complete and sign the IC/EC Certifications page. Where the only control is an Institutional Control on the use of the property the certification statement in Box 6 shall be completed and may be made by the property owner. Where the site has Institutional and Engineering Controls, the certification statement in Box 7 must be completed by a Professional Engineer or Qualified Environmental Professional (see table below).

Table 1. Signature Requirements for Control Certification Page

Type of Control	Example of IC/EC	Required Signatures
EC which does not include a treatment system or engineered caps.	Fence, Clean Soil Cover, Individual House Water Treatment System, Vapor Mitigation System	A site or property owner or remedial party, and a QEP. (P.E. license not required)
EC that includes treatment system or an engineered cap.	Pump & Treat System providing hydraulic control of a plume, Part 360 Cap.	A site or property owner or remedial party, and a QEP with a P.E. license.

WHERE to mail the signed Certification Form by **Monday, February 1, 2010**:

New York State Department of Environmental Conservation

625 Broadway, BURC
Albany, NY 12233

Attn: James Candiloro, Project Manager

Please note that extra postage may be required.

APPENDIX B

Project Correspondence

Haley & Aldrich of New York
200 Town Centre Drive
Suite 2
Rochester, NY 14623-4264

Tel: 585.359.9000
Fax: 585.359.4650
HaleyAldrich.com

HALEY & ALDRICH

MEMORANDUM

15 September 2009
File No. 32077-099

TO: Xerox Corporation
Mr. Eliott Duffney

FROM: Haley & Aldrich of New York
Janice R. Szucs, Mark N. Ramsdell, Paul M. Tornatore

SUBJECT: Results of Groundwater Treatment System Step Test

BACKGROUND

On 23 July 2009 through 19 August 2009, Haley & Aldrich performed a step test of the groundwater treatment system to support long term site planning. The objective of the step test was to assess the ability to optimize pumping rates at lower flow while providing reasonable assurance of plume containment/capture at the lower flow rates. A second objective of this work focused on minimizing dewatering of downgradient water bodies, specifically the Magee pond, and impact to pond habitat resulting from site groundwater management. The proposed step test procedure was outlined in a memorandum dated 26 June 2009 and was approved by NYSDEC in a letter dated 30 June 2009.

SUMMARY OF PUMP TEST

Water level data collectors were installed in on-site well PW-1 (near pumping well R-3) and off-site wells OS-2R, OS-5R and OS-7R (see Figure 1). A water level data collector could not be installed in well R-3 due to the lack of available space from the amount of existing piping in the well. The groundwater recovery system and downgradient water level response was tested at two flow rates, 80 gallons per minute (gpm) and 110 gpm. Groundwater levels were also evaluated with the system turned off to attain baseline conditions. At the completion of the step test, repairs to the pump variable frequency drive did not allow for immediate start-up of the system. The system was restarted on 25 August 2009 at the pre-step test flow rate of 80 gpm.

Water level response data was used to determine the optimum production rate that protects against off-site migration and minimizes impact to downgradient water bodies. The data from the step test was also used to calculate the effective capture zone of the groundwater treatment system under various flow rates.

RESULTS

Figure 2 is a graph showing system response versus flow rate. Operating at 80 gpm and 110 gpm showed responses in off-site wells OS-2R and OS-5R, with changes in water level corresponding with changes in water level at well PW-1 near the pumping well (R-3).

Capture zone calculations were performed at 110 gpm, 80 gpm and 60 gpm. Calculation of capture zones based on the step test data indicated that operating at 80 gpm provided capture to the site boundary along Bradley Hill Road. The 110 gpm capture zone indicated capture beyond Bradley Hill Road to the north, while the 60 gpm capture zone encompasses an area just beyond well OW-2, comprising most of the area where source potentially remains. Results of capture zone calculations are shown in Figure 3.

CONCLUSIONS AND RECOMMENDATIONS

Since step test results and capture zone calculations show that source area capture is achieved at 80 gpm, pumping at higher rates does not add value in the form of plume containment or control. Based on this finding, we recommend that the groundwater recovery system continue to operate at 80 gpm while concentrations in off-site wells are monitored. We expect that operating at 80 gpm rather than 100 gpm will reduce the water level drawdown impact to off-site water bodies caused by system pumping and will result in effective capture of the source area remaining in the overburden soils, while still protecting against off-site migration. Capture zone calculations show that source area capture may also be achieved at 60 gpm. Once monitoring data provides reasonable assurance of plume capture at 80 gpm, we will recommend lowering the pumping rate to 60 gpm and monitoring for rebound.

We recommend continued operation of pumping well R-3 at the current 80 gpm flow rate for 12 months, through August 2010, and continued semi-annual sampling of wells in accordance with the approved Sampling and Analysis Plan (SAP). (Samples from wells OS-2R, OS-5R and OS-7R are planned to be collected this week to complete the second half of 2009 semi-annual SAP sampling event that took place during the step test; Samples could not be collected from these wells during the step test due to the level logging devices in the wells.) After the 12 month period, if groundwater concentration data confirm that plume containment is achieved at the reduced flow rate, we propose to further reduce the pumping rate to 60 gpm and continue sampling on a semi-annual basis for the following 12 months, September 2010 through August 2011, to determine if containment is achieved. If plume containment is achieved, we will continue operating the system at 60 gpm and continue sampling according to the approved semi-annual SAP schedule.

G:\PROJECTS\32077\099_2009_BLV_PROG_MGMT\CAD\32077-099-0000-BLVSITEPLAN.DWG

OS-18
OS-15D
OS-15R
OS-19R
OS-12R
OS-17
OS-14
OS-14R
OS-9R
OS-9
OS-11R
OS-11D
OS-7D
OS-7R
OS-6R
OS-6
OS-13R
OS-5D
OS-5R
OS-2R
BRADLEY HILL ROAD
OW-2
MW-12
W-2
PW-2
PW-1
OW-1
R-3
MW-13
RI-6
ROUTE 303
FORMER XEROX FACILITY
U-6D

LEGEND

- GROUNDWATER RECOVERY WELL R-3
- ON-SITE SAP MONITORING WELL
- OFF-SITE SAP MONITORING WELL
- OFF-SITE MONITORING WELL (NOT PART OF SAP)

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SCALE IN FEET

HALEY & ALDRICH

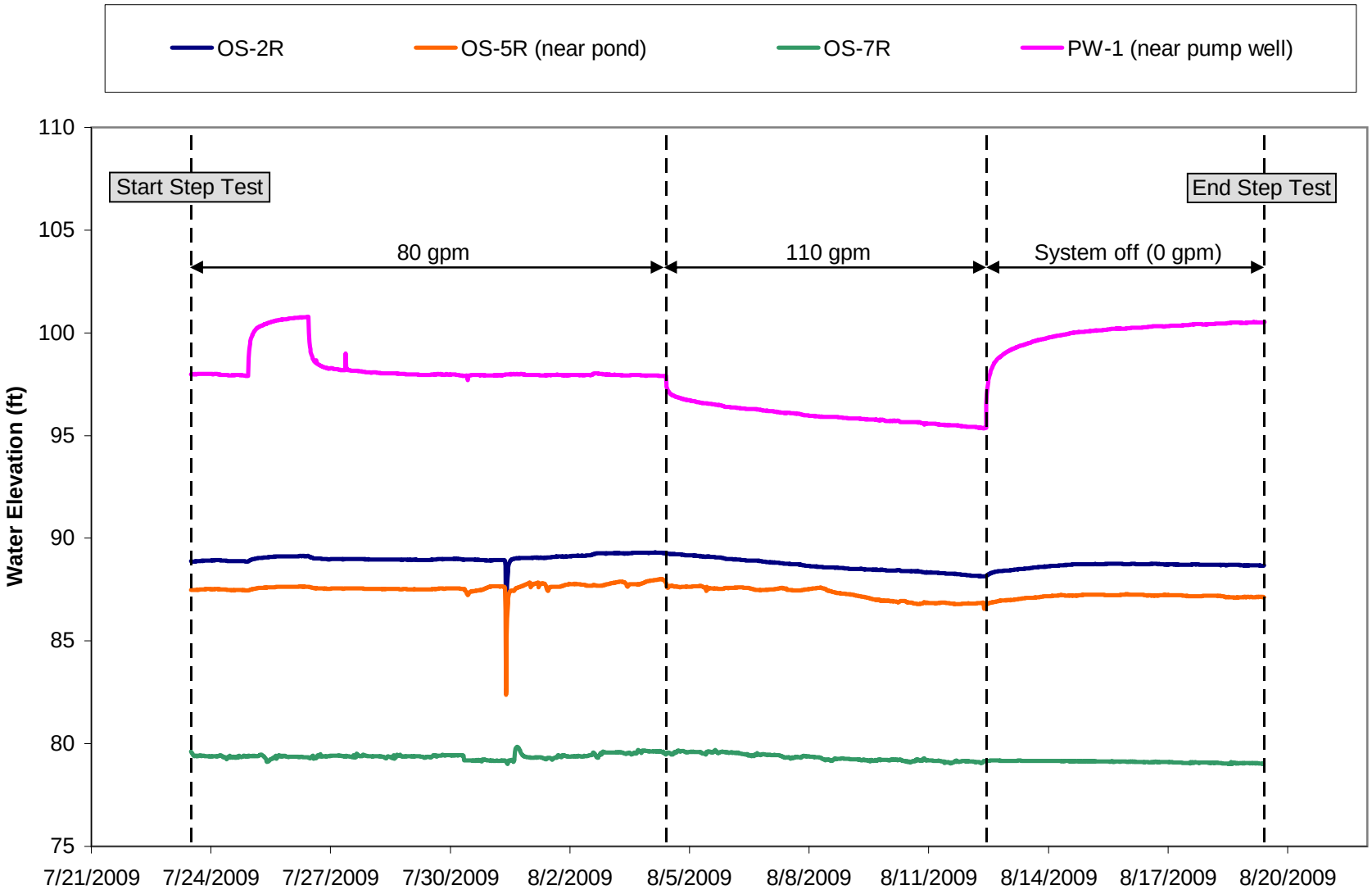
XEROX CORPORATION
BLAUVELT, NEW YORK
NYSDEC SITE NO. 3-044-021

MONITORING WELL LOCATIONS

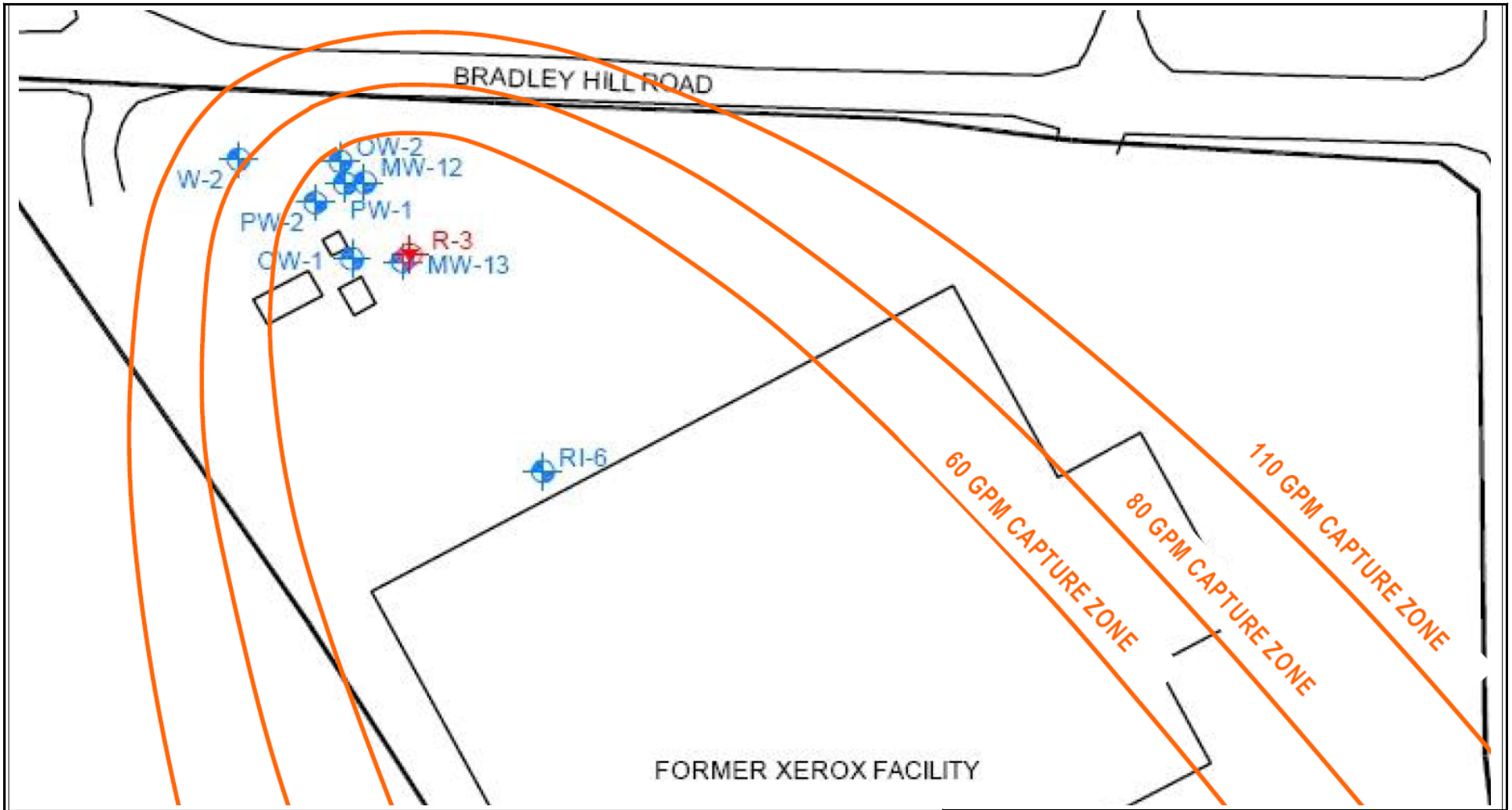
SCALE: AS SHOWN
JULY 2009

FIGURE 1

Figure 2. Groundwater Elevation



G:\PROJECTS\32077\099_2009_BLV_PROG_MGMT\PUMP TEST_POND\32077-099-0000-CAPTUREZONE.DWG



NOTE: CAPTURE ZONE CALCULATIONS ARE BASED ON PUMPING FROM WELL R-3. DURING THE PUMPING TEST, WATER LEVEL DATA COLLECTORS WERE INSTALLED IN ON-SITE WELL PW-1 AND OFF-SITE WELLS OS-2R, OS-5R AND OS-7R (SEE FIGURE 1). SEE ACCOMPANYING MEMORANDUM FOR EXPLANATION ON PUMPING TEST.

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APPROXIMATE SCALE IN FEET

HALEY & ALDRICH

XEROX CORPORATION
BLAUVELT, NEW YORK
NYSDEC SITE NO. 3-044-021

CAPTURE ZONES

SCALE: AS SHOWN
SEPTEMBER 2009

FIGURE 3

New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau C, 11th Floor
625 Broadway, Albany, New York 12233-7014
Phone: (518) 402-9662 • **FAX:** (518) 402-9679
Website: www.dec.state.ny.us

Alexander B. Grannis
Commissioner

June 30, 2009

Mr. Eliott Duffney
Program Manager, Environmental Engineering
Xerox Corporation
800 Phillips Road
Webster, New York 14580

Re: Groundwater Treatment Step Test
Xerox-Blauvelt, #344021
Blauvelt, Rockland County

Dear Mr. Duffney:

The New York State Department of Environmental Conservation (Department) has reviewed your letter report "Groundwater System Step Test", dated June 26, 2009.

The Department hereby approves the proposed plan to optimize pumping rate with the objective of maintaining plume containment/capture while minimizing de-watering of down gradient water bodies.

If you have any questions concerning the above, please feel free to contact me at (518)-402-9662.

Sincerely

James E. Candiloro
Project Manager
Remedial Bureau C
Division of Environmental Remediation

cc:
C. Quinn - RCHD

ec: M. Ryan
J. Candiloro
K. Kulow- NYSDOH

Haley & Aldrich of New York
200 Town Centre Drive
Suite 2
Rochester, NY 14623-4264

Tel: 585.359.9000
Fax: 585.359.4650
HaleyAldrich.com

HALEY&
ALDRICH

MEMORANDUM

26 June 2009
File No. 32077-099

TO: Xerox Corporation
Mr. Eliott Duffney

FROM: Haley & Aldrich of New York
Janice R. De Jesus, Paul M. Tornatore

SUBJECT: Groundwater Treatment System Step Test

SUMMARY / BACKGROUND

The groundwater treatment system was restarted on 23 June 2009, which effectively ended the planned groundwater rebound test. Groundwater rebound test data showed that shut down of the groundwater treatment resulted in increasing VOC concentrations in off-site wells OS-2R and OS-5R, located downgradient of the site. In a letter dated 28 April 2009, NYSDEC requested that the treatment system be restarted to prevent the continued increase of VOCs in off-site wells.

As a follow-up to the groundwater rebound test results, Xerox would like to continue to evaluate groundwater treatment system operations to better understand the long-term management requirements for the site. Given the need to continue pumping operations on-site, we propose to evaluate the current system in order to determine if the system can pump at a reduced flow rate while still retaining effective groundwater plume capture. The system is currently arbitrarily programmed to run at a flow rate of approximately 100 gallons per minute creating a substantially larger area of influence than required for effective plume control.

Shortly after returning the system to service, Xerox received a complaint from the property owner located across Bradley Hill Road, immediately downgradient of the site. Pumping operations onsite have resulted in dewatering of downgradient water bodies, specifically the Magee pond located approximately 350 feet from pumping well R-3. We understand that Xerox would like to optimize the pumping rate to maintain plume capture and determine if an optimized pumping rate will also reduce dewatering of the Magee pond.

PROPOSED PLAN

The objective of the proposed plan is to optimize pumping rates to provide assurance of plume containment/capture and minimize dewatering of downgradient water bodies, specifically the Magee pond, and impact to pond habitat.

Approach:

Perform a limited step test and observe responses at downgradient wells based on changes in pumping rate from well R-3.

Steps:

- Install water level data collectors in pumping well R-3, and three (3) downgradient monitoring wells (OS-2R, OS-5R and PW-2)
- Use existing instrumentation at treatment system influent to monitor pumping flow rate.
- Temporarily reduce pumping from the current maximum rate in 25 gpm increments and observe aquifer response/impacts at downgradient monitoring wells. Do not go below 25 gpm during this sequence, and hold the reduced pumping rate at each step of this test for a minimum of three (3) and maximum of seven (7) days to allow aquifer conditions to stabilize.
- After the final step, return pumping rates to normal and retrieve response data.
- Graph system response versus flow rate to determine optimum production rate and R-3 water level/drawdown that protects against offsite migration and minimizes impact to downgradient water bodies.
- Install a level control in R-3 at the completion of analysis and set operating point at optimum conditions derived above.

Monitored Parameters:

- Level in pumping well, R-3
- Level in downgradient monitoring wells, OS-2R, OS-5R and PW-2
- Flow rate and speed (Hz) of pump

CLOSING

We propose that the setup and monitoring of the step test be conducted by Haley & Aldrich personnel with support from the site operations contractor. After we have determined the minimum flow rate for effective capture of groundwater, we will advise you of our findings and recommend continued operation of the groundwater treatment plant at that optimized flow rate. The plant will continue to operate at the optimized flow rate on an interim basis pending your review of the test report. Results of the pump test will be reported to NYSDEC for final approval. New operating instructions/procedures will be made to groundwater treatment plant operations after approval from NYSDEC.

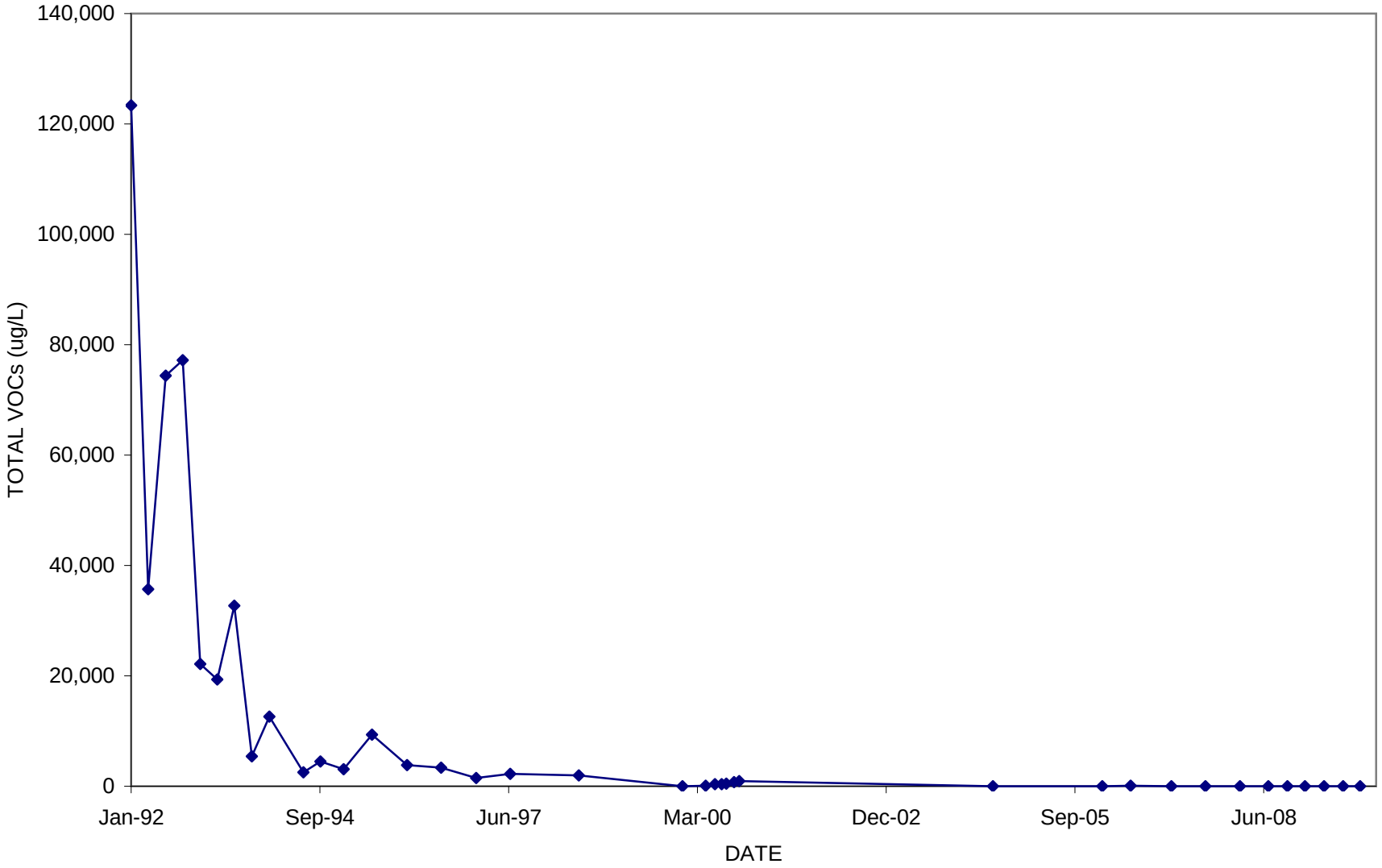
APPENDIX C

Laboratory Analytical Reports
(See CD for full report)

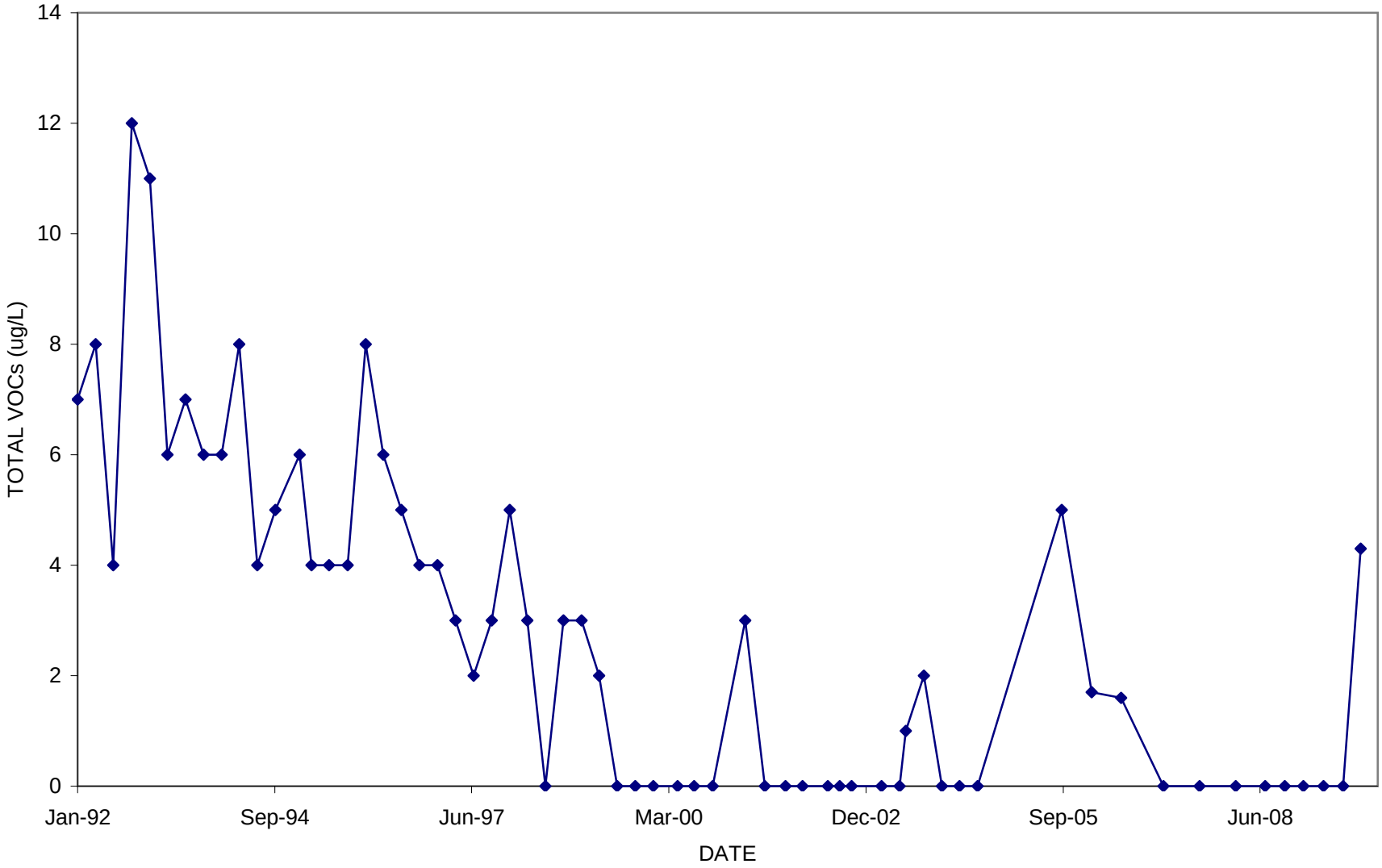
APPENDIX D

Historical Groundwater Analytical Trend Graphs

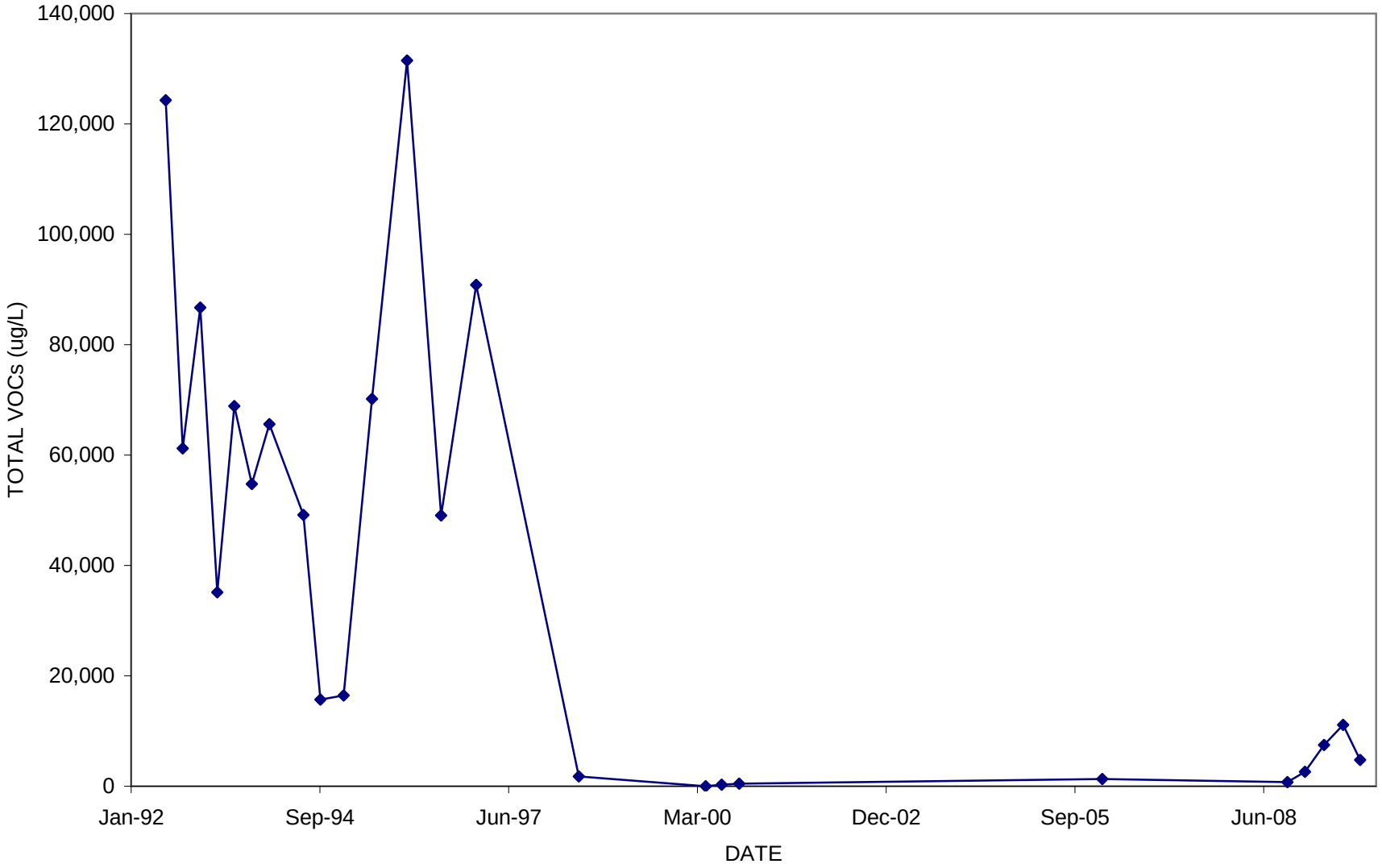
ON-SITE WELL W-2 TOTAL VOCs



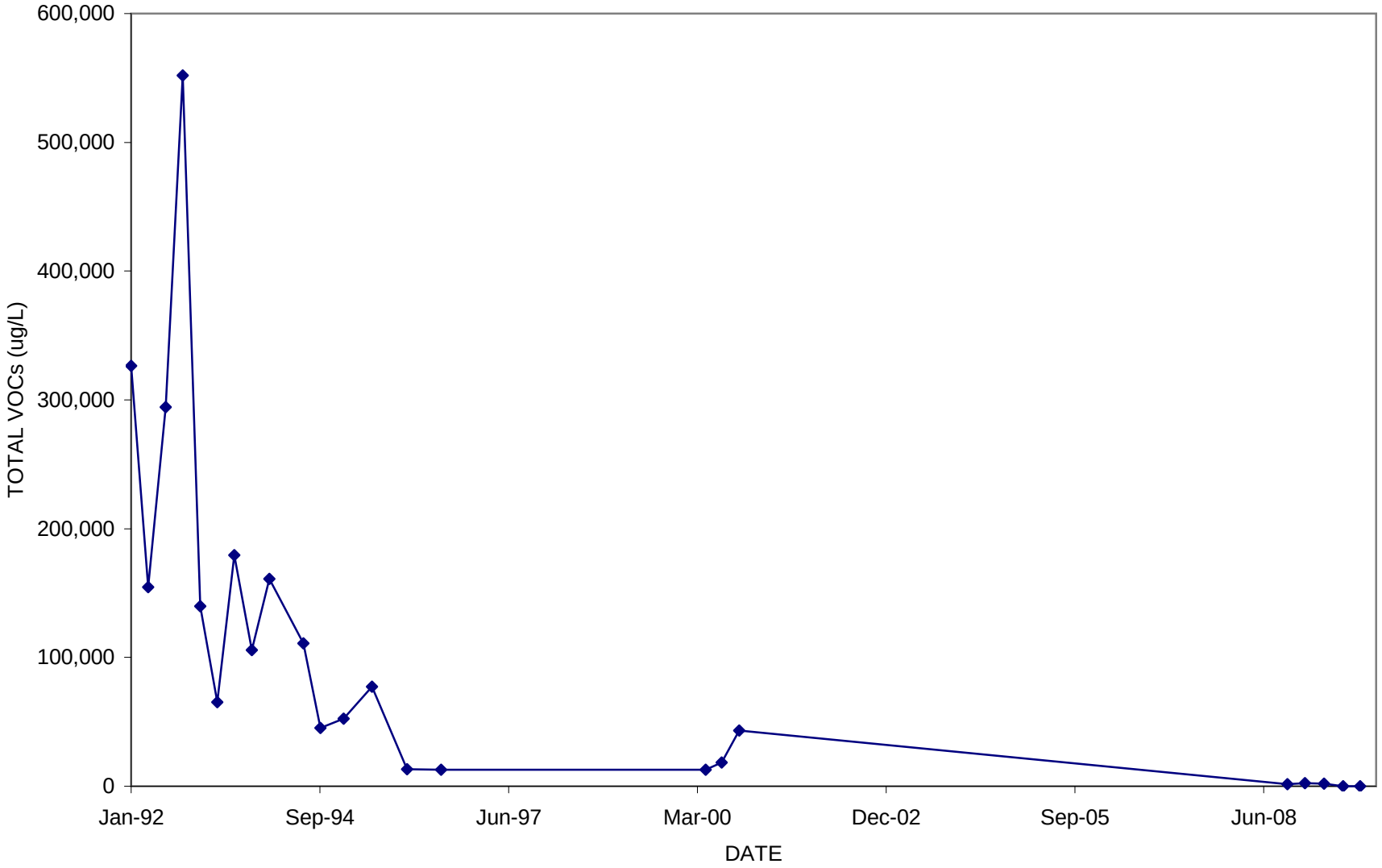
ON-SITE WELL U-6D TOTAL VOCs



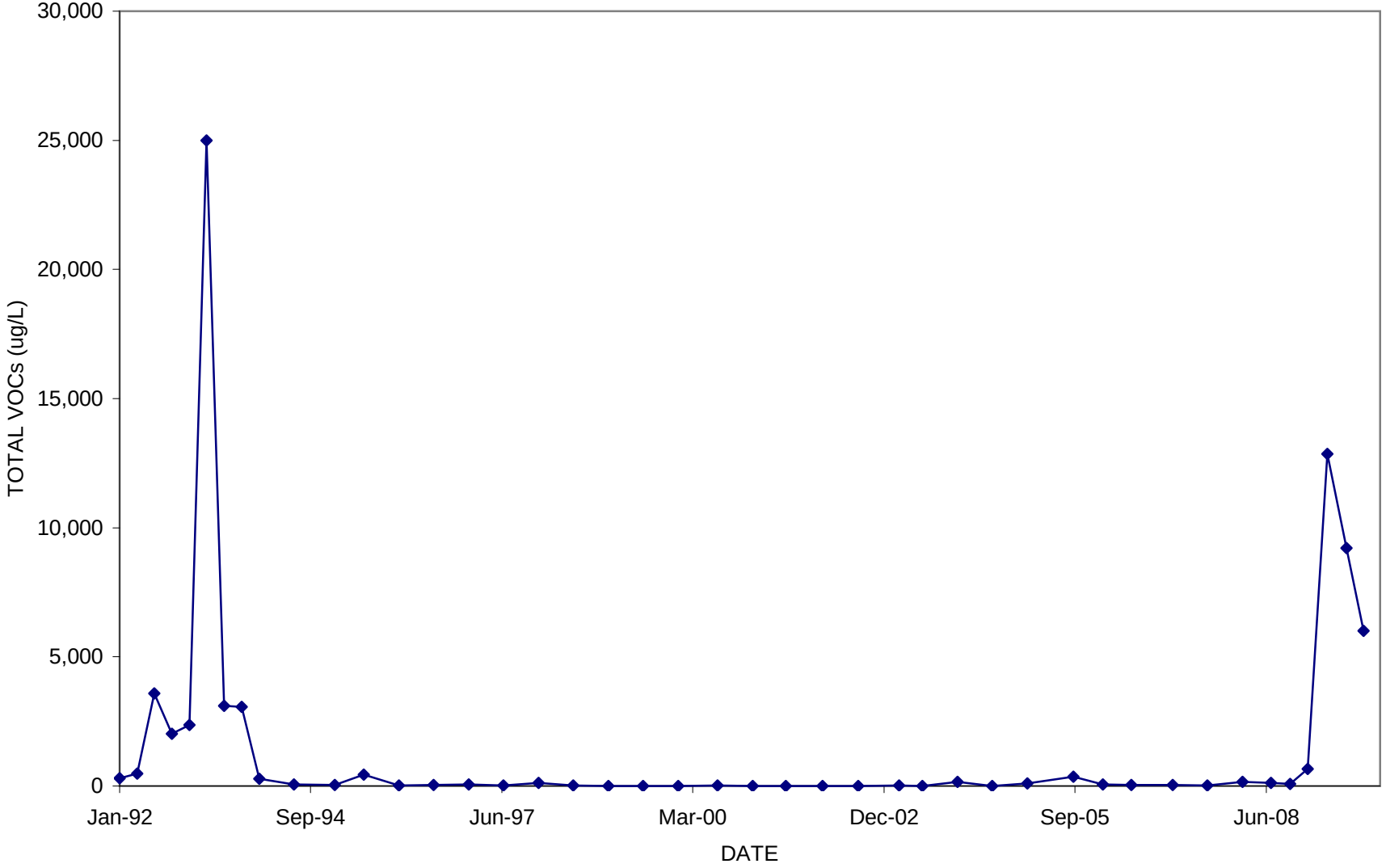
ON-SITE WELL MW-12 TOTAL VOCs



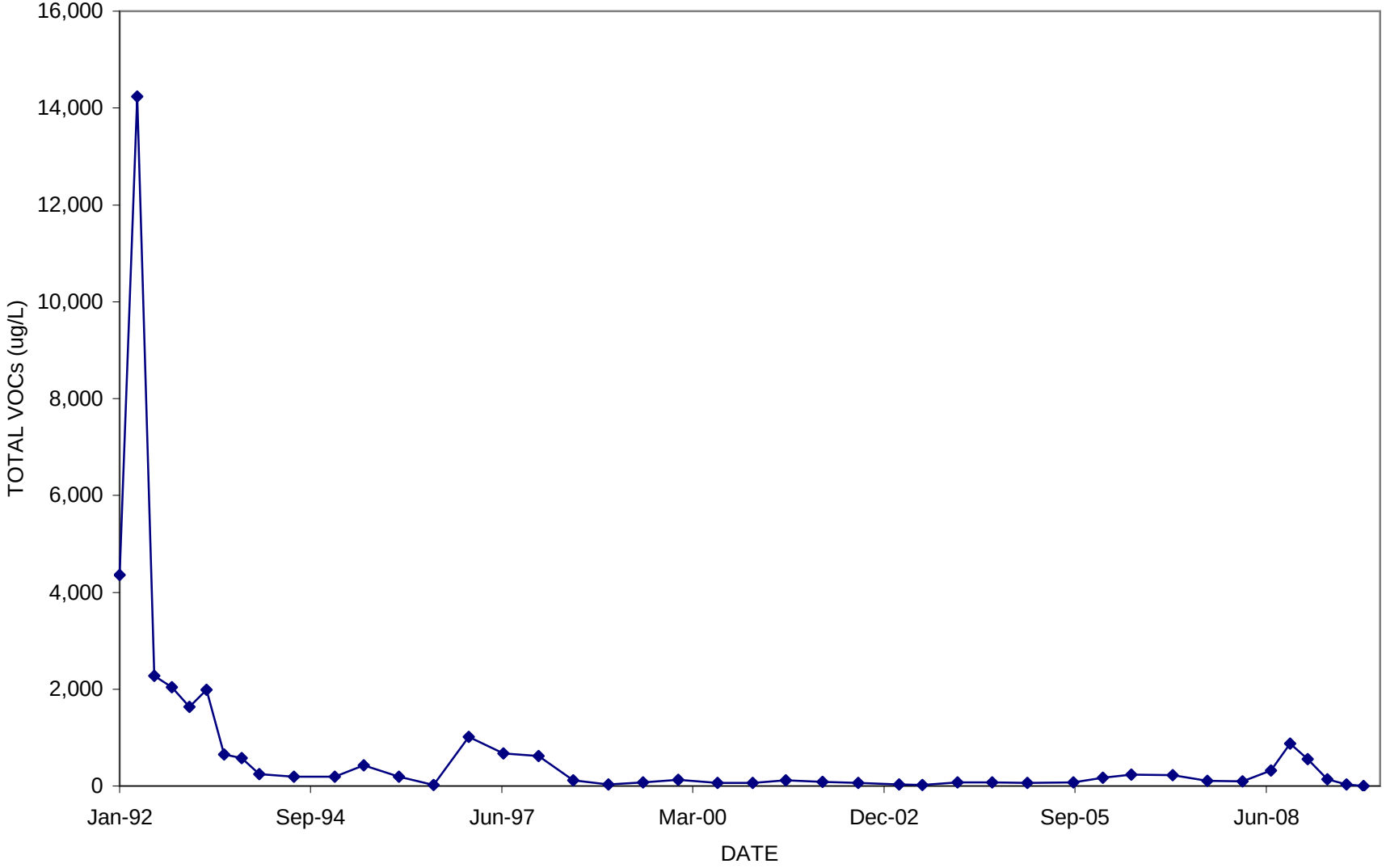
ON-SITE WELL MW-13 TOTAL VOCs



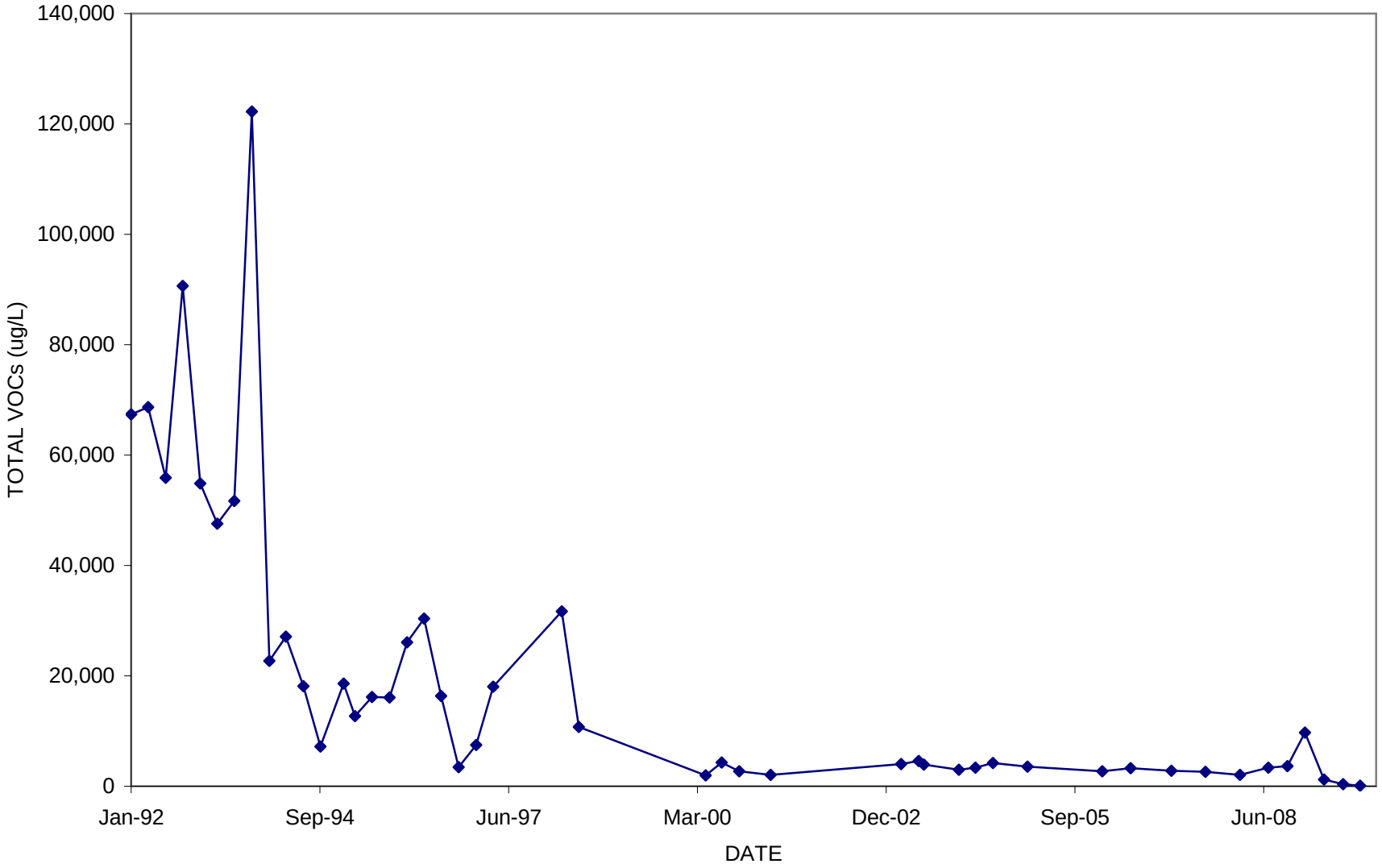
ON-SITE WELL PW-2 TOTAL VOCs



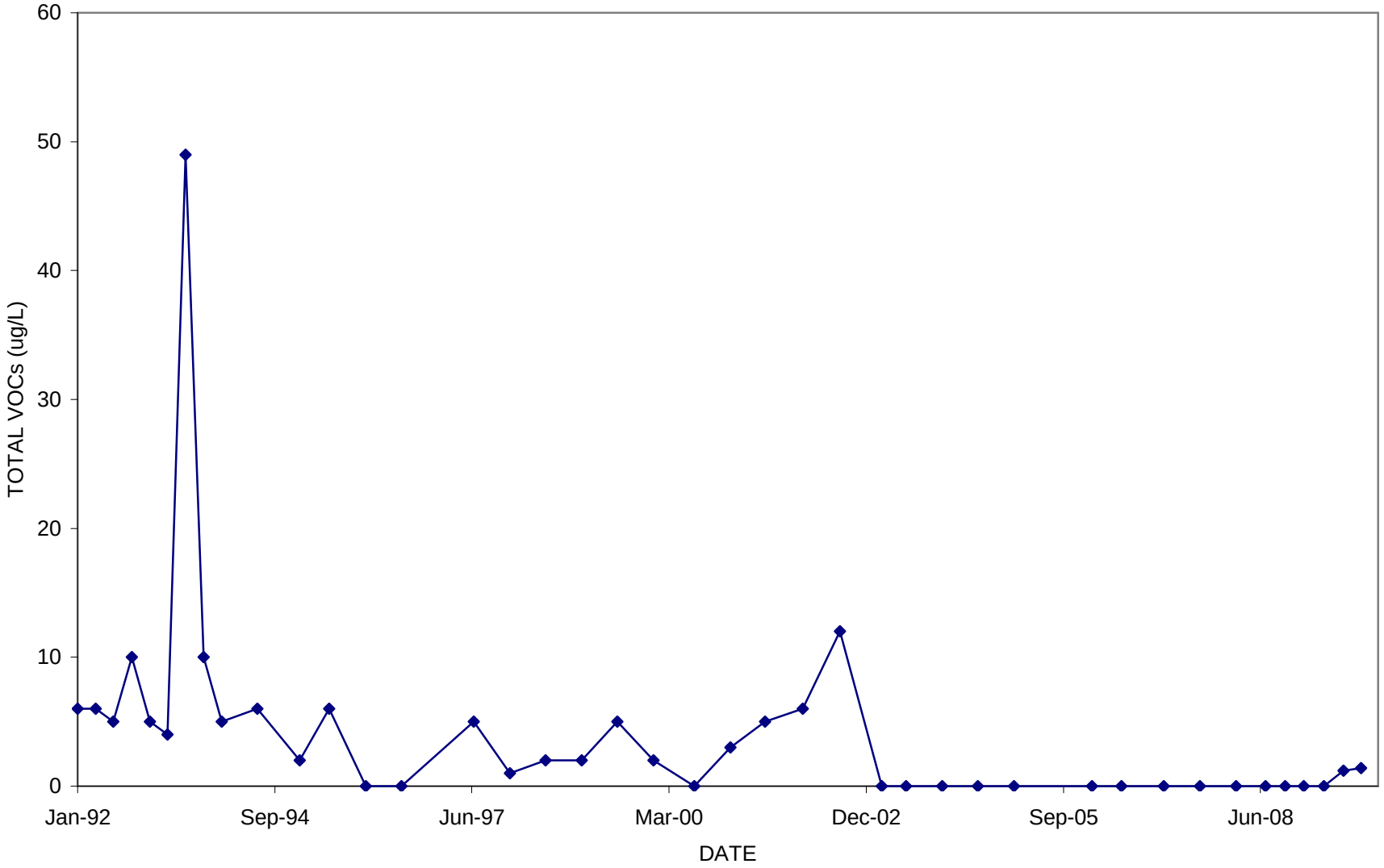
ON-SITE WELL OW-1 TOTAL VOCs



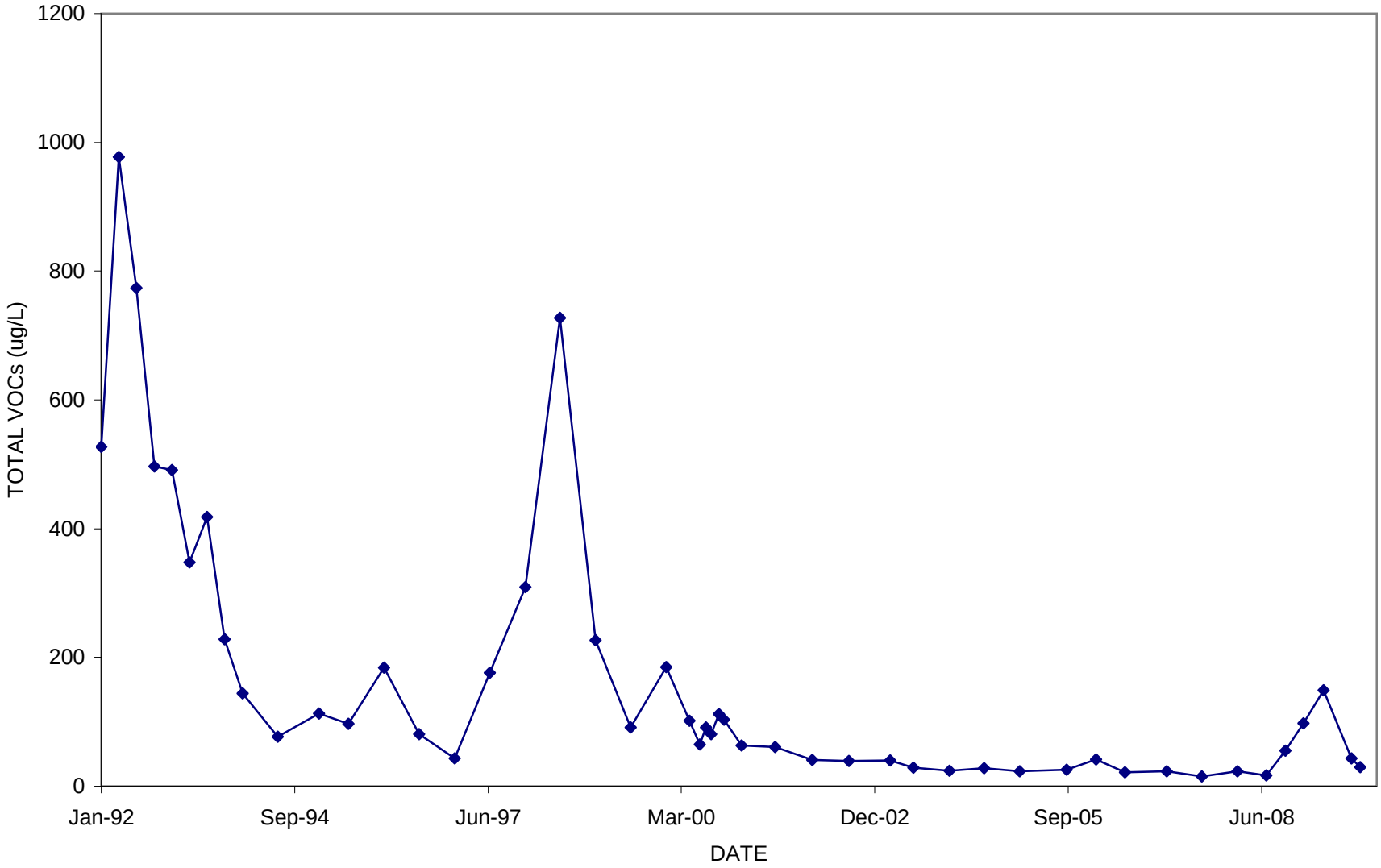
ON-SITE WELL OW-2 TOTAL VOCs



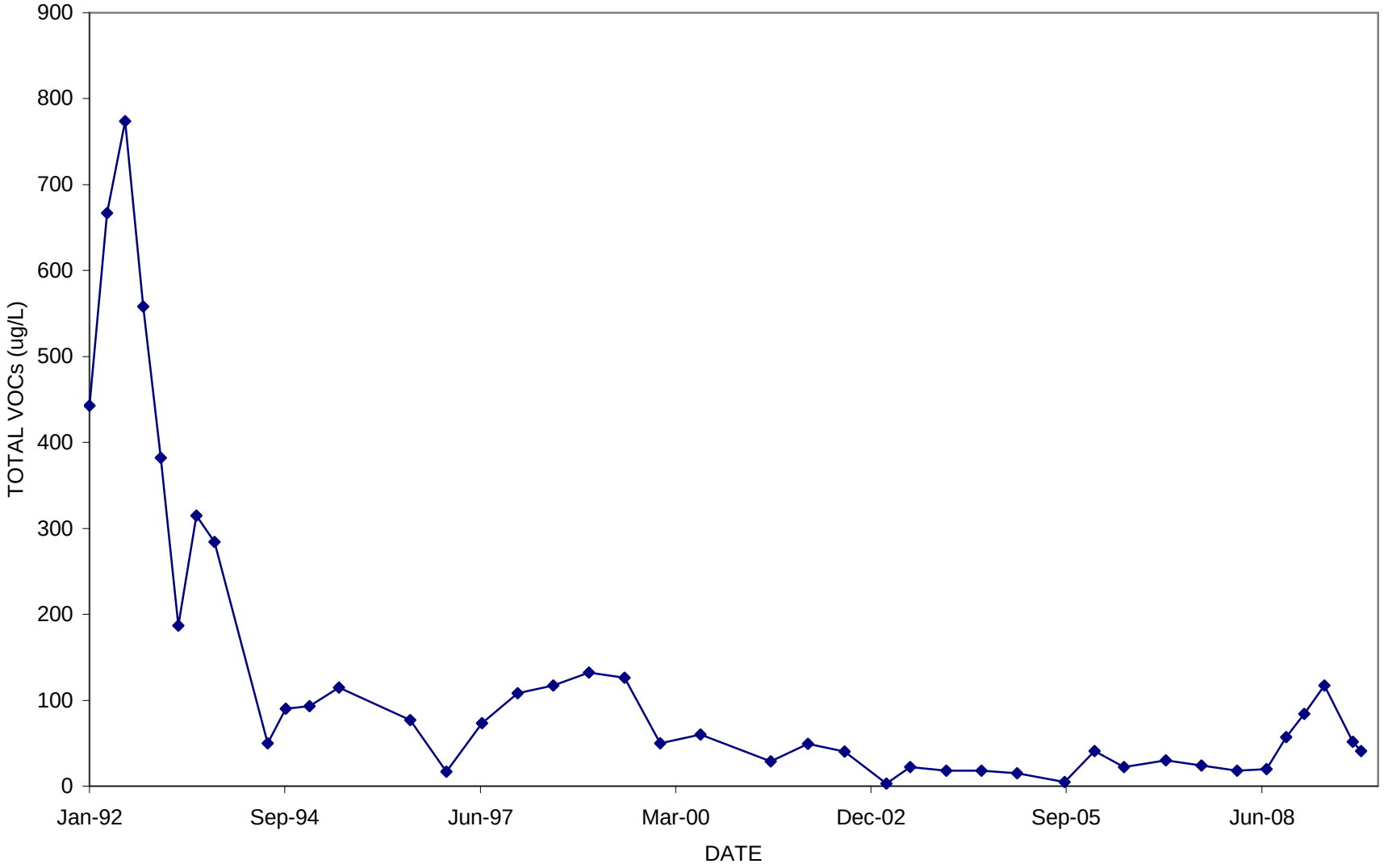
ON-SITE WELL RI-6 TOTAL VOCs



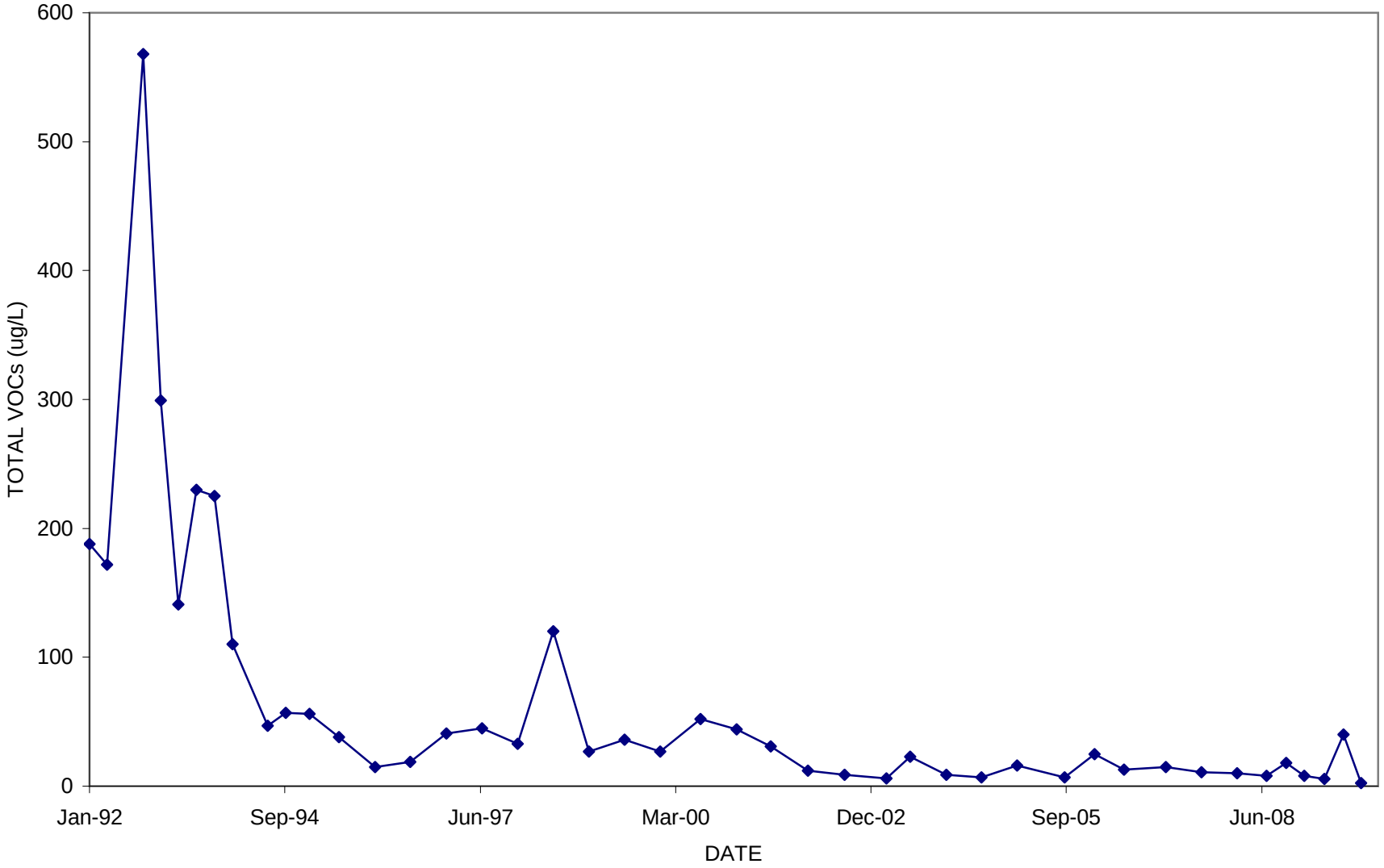
OFF-SITE WELL OS-2R TOTAL VOCs



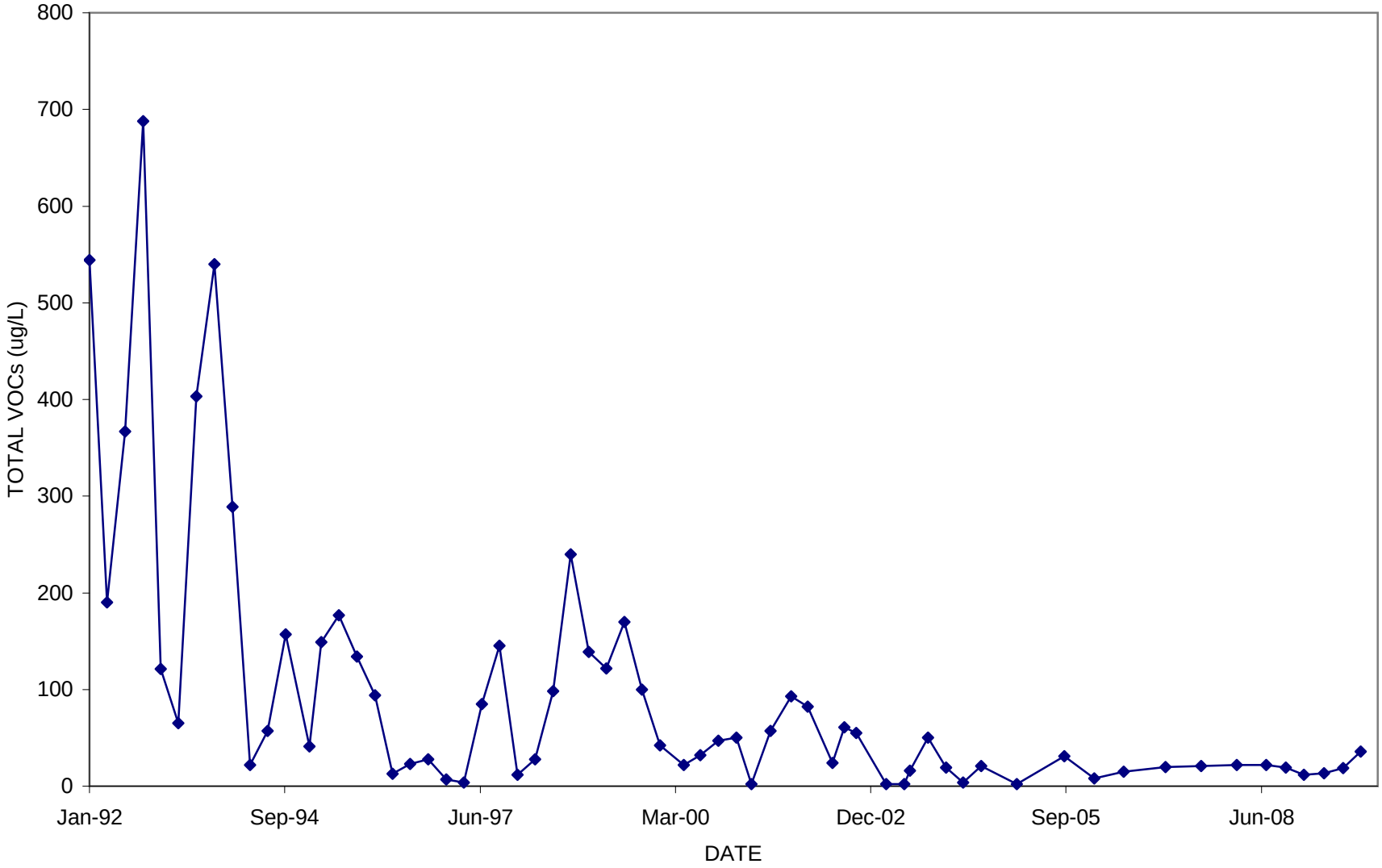
OFF-SITE WELL OS-5R TOTAL VOCs



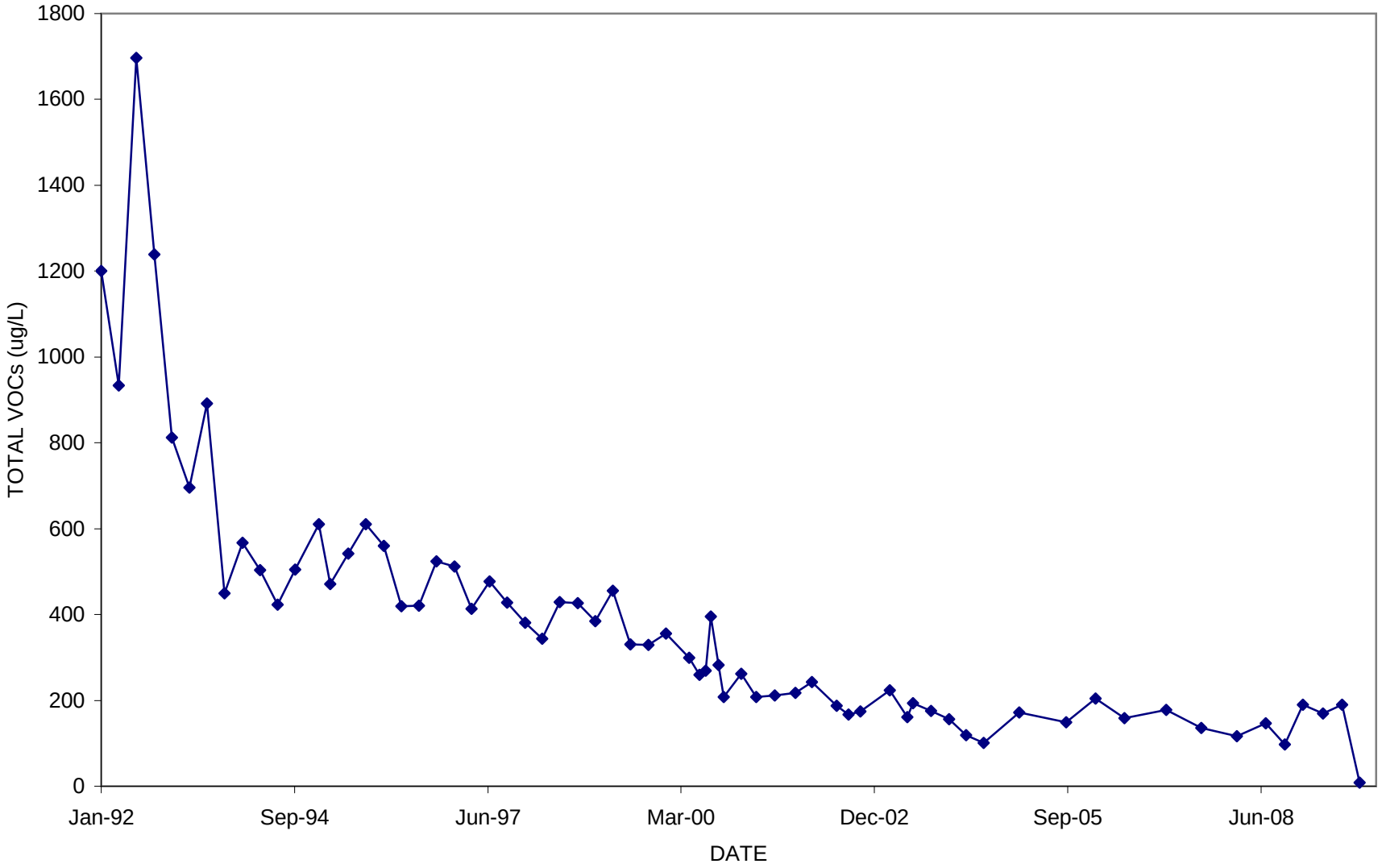
OFF-SITE WELL OS-5D TOTAL VOCs



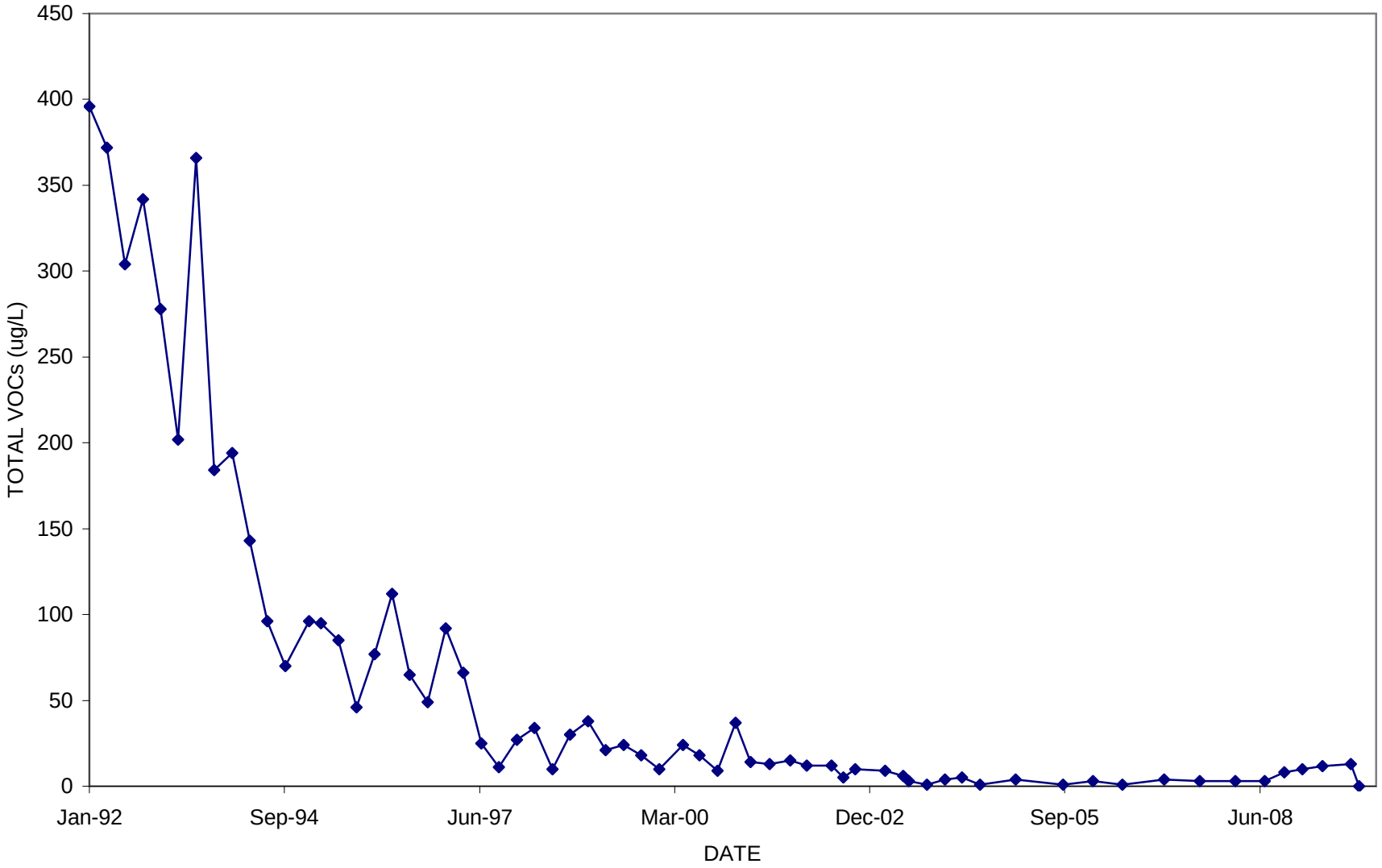
OFF-SITE WELL OS-6 TOTAL VOCs



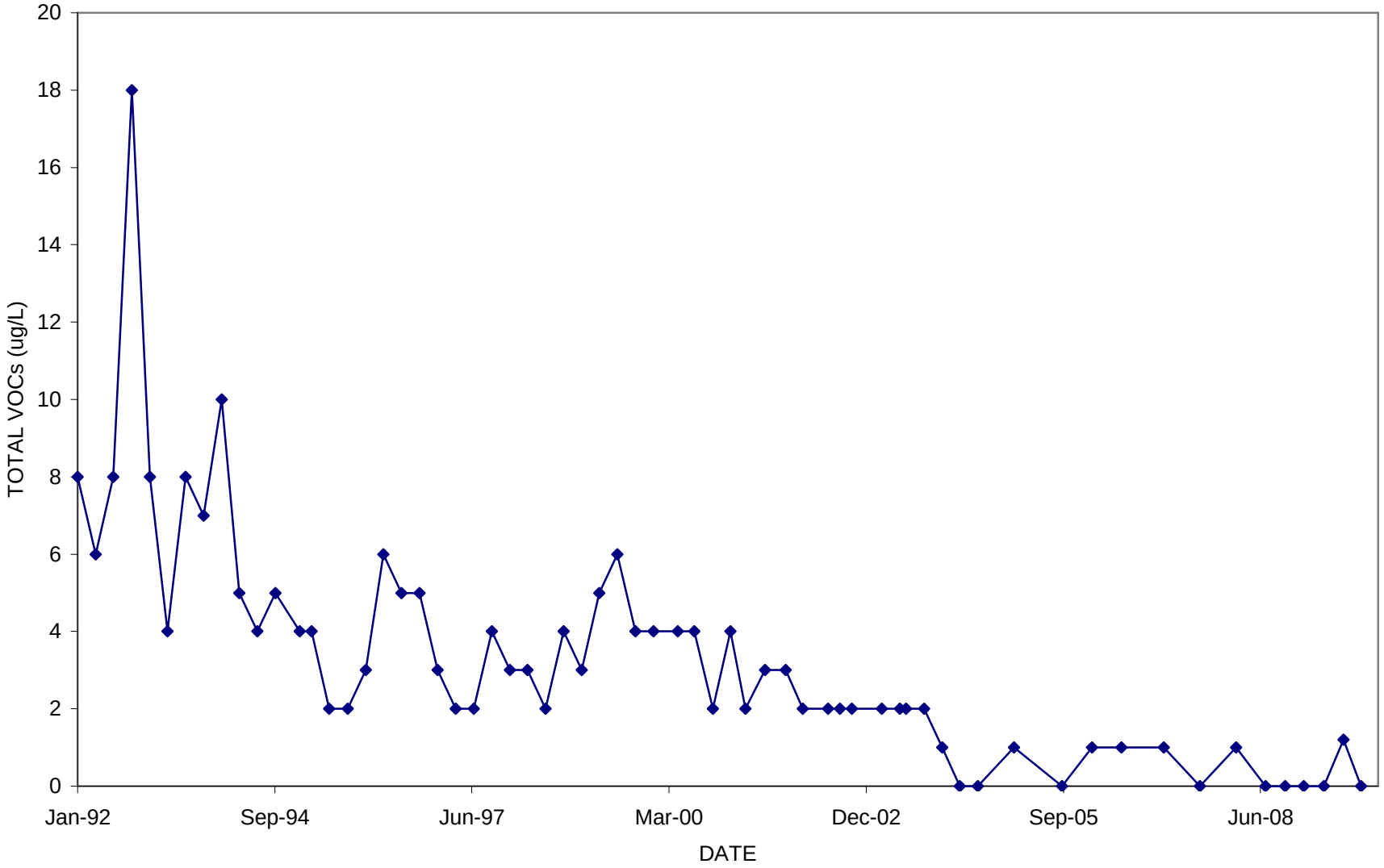
OFF-SITE WELL OS-6R TOTAL VOCs



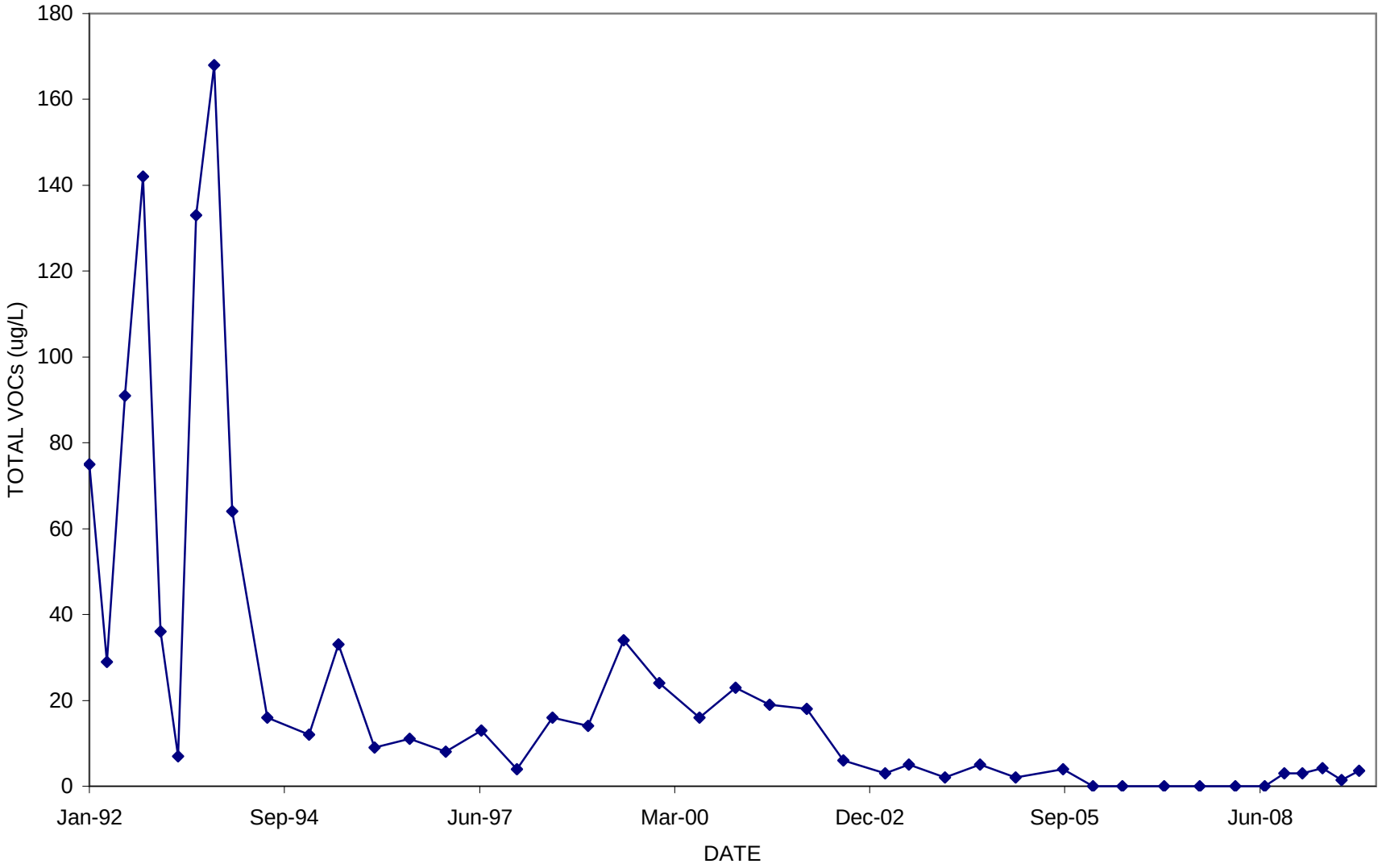
OFF-SITE WELL OS-7R TOTAL VOCs



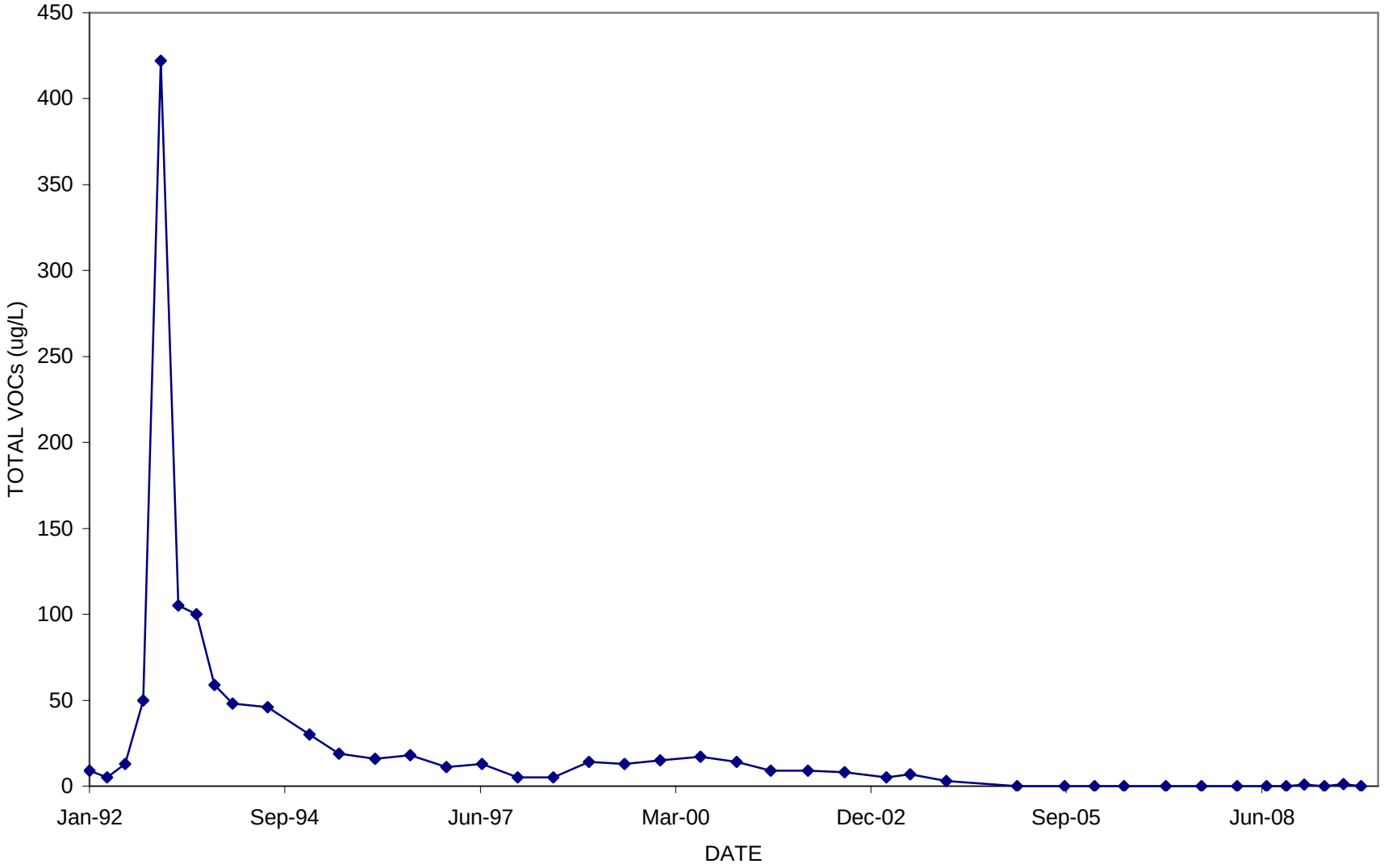
OFF-SITE WELL OS-7D TOTAL VOCs



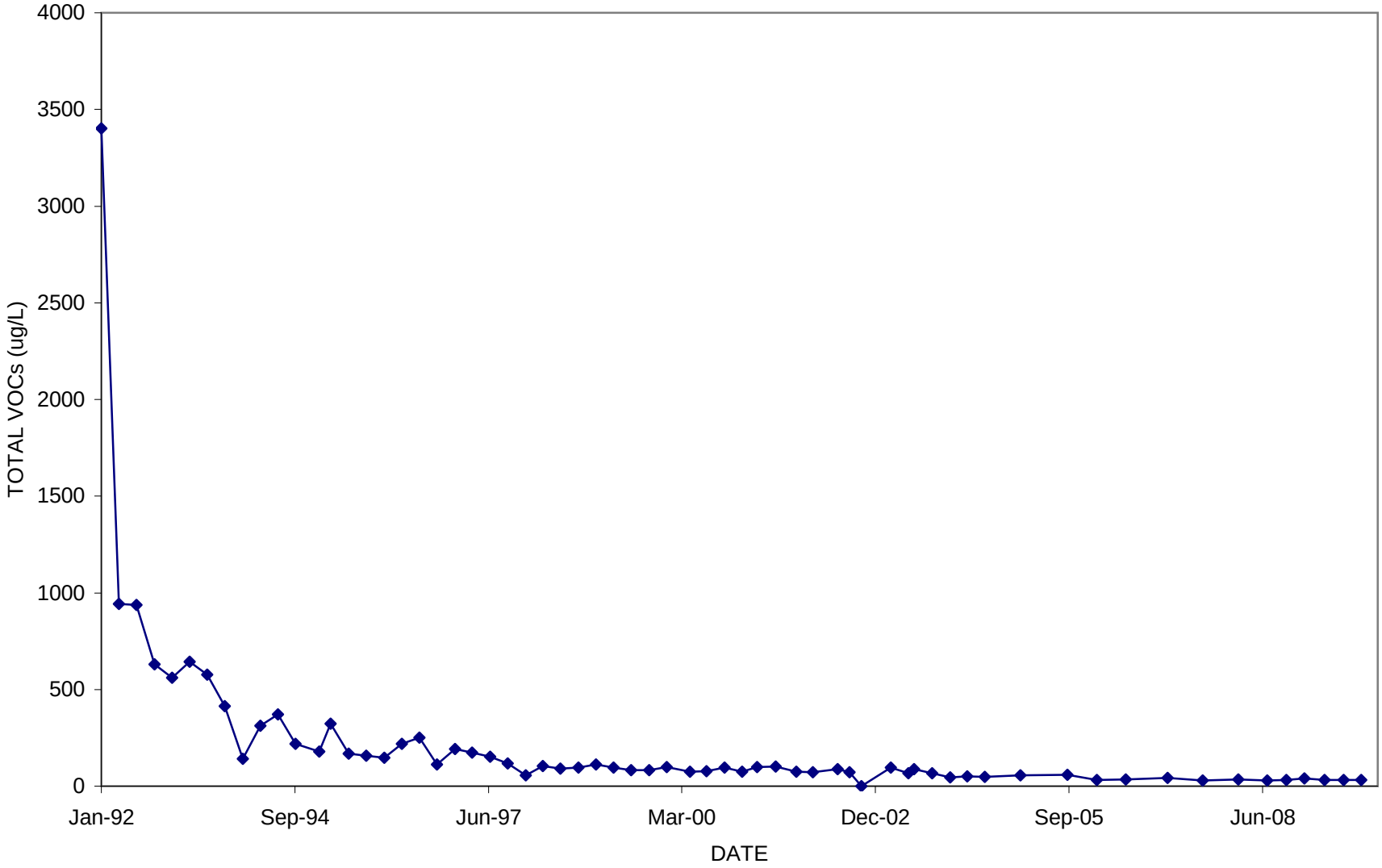
OFF-SITE WELL OS-9 TOTAL VOCs



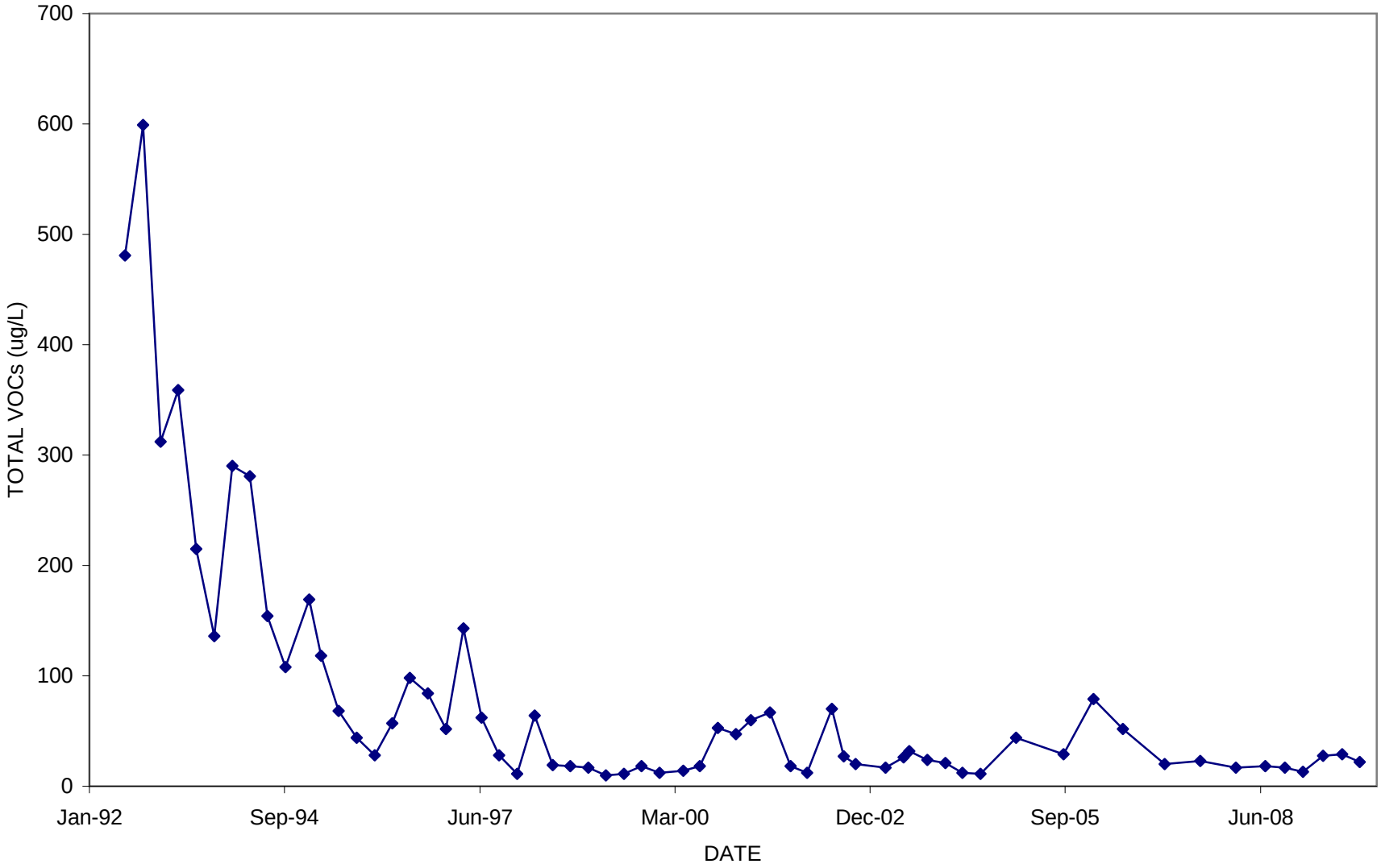
OFF-SITE WELL OS-9R TOTAL VOCs



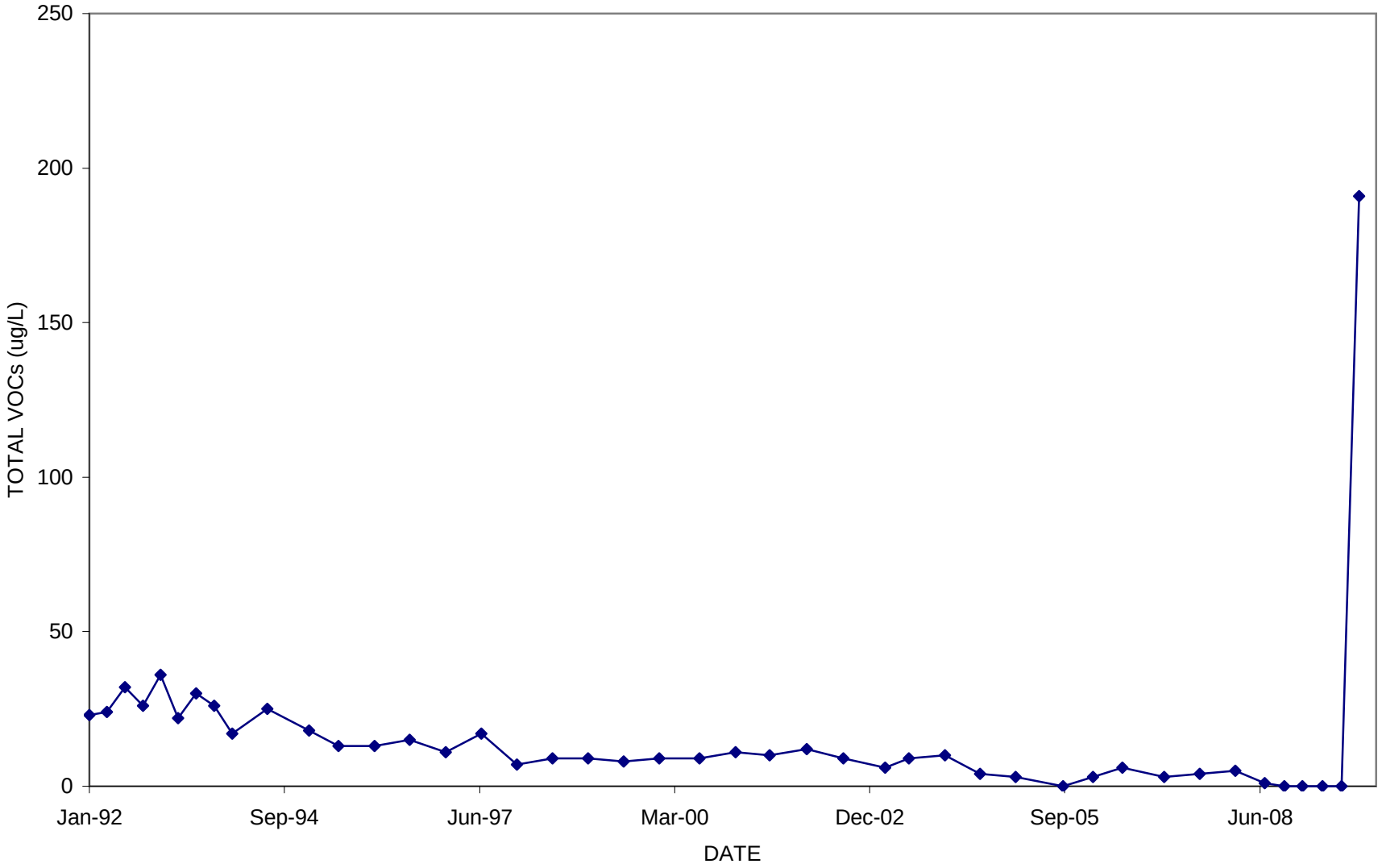
OFF-SITE WELL OS-11R TOTAL VOCs



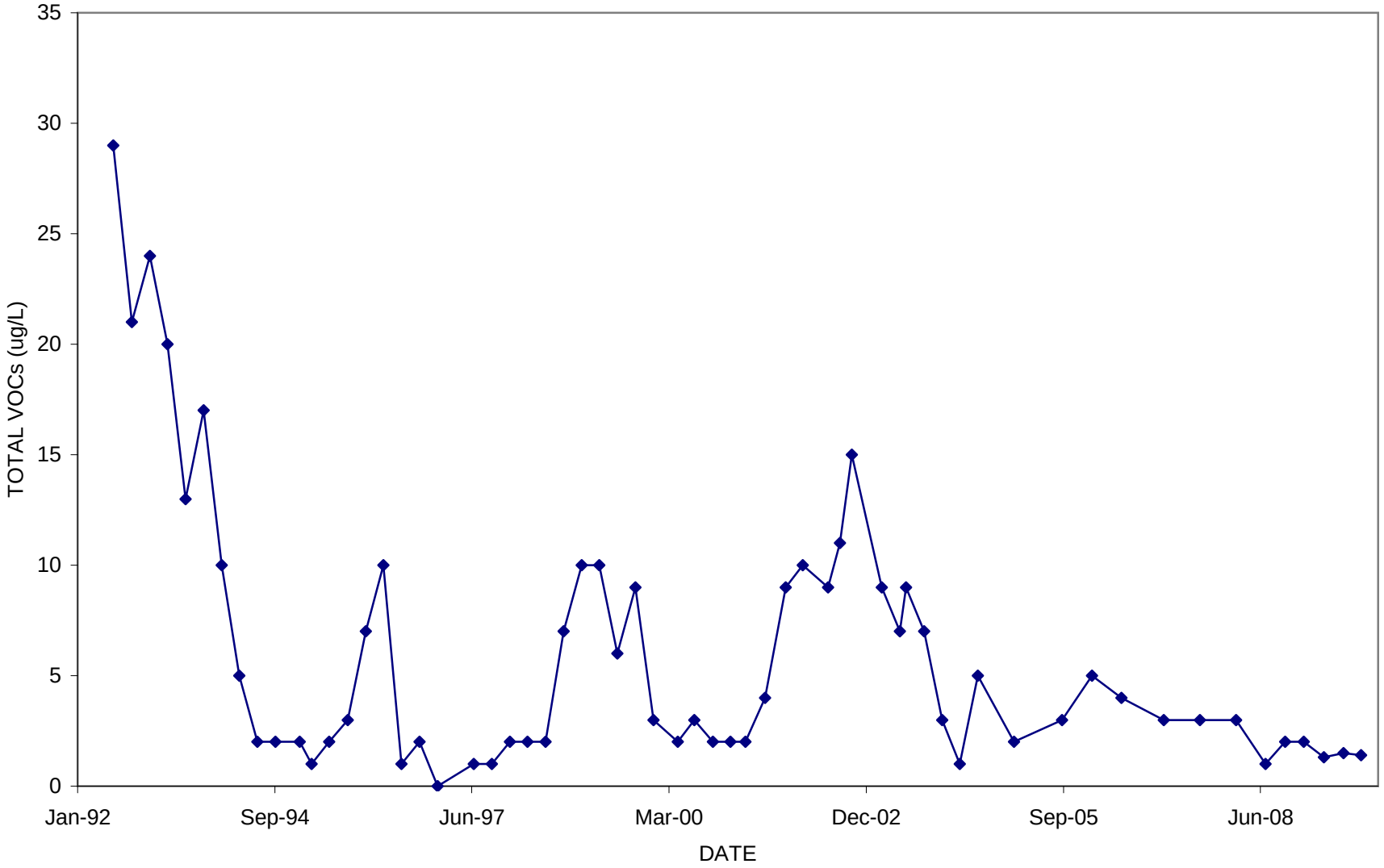
OFF-SITE WELL OS-11D TOTAL VOCs



OFF-SITE WELL OS-12R TOTAL VOCs



OFF-SITE WELL OS-15R TOTAL VOCs



OFF-SITE WELL OS-15D TOTAL VOCs