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Comprehensive Long-Term Environmental Action Navy (CLEAN) II
Contract No. N62742-94-D-0048
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Progress Report

Vadose Zone Remediation Volatile Organic Compound Source Area Installation Restoration Program Site 24

Marine Corps Air Station, El Toro

Prepared for

Department of the Navy
Commander, Pacific Division
Naval Facilities Engineering Command
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Phase I Vadose Zone Remediation, Installation Restoration Program Site 24
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ACRONYMS AND ABBREVIATIONS

µg/L	micrograms per liter
°F	degrees Fahrenheit
Bgs	below ground surface
CLEAN	Comprehensive Long-Term Environmental Action Navy
CTO	contract task officer
DON	Department of the Navy
EDR	engineering design report
EPA	Environmental Protection Agency
EROI	effective radius of influence
IRP	Installation Restoration Program
MCAS	Marine Corps Air Station
MCL	maximum contaminant level
OU	operable unit
PACNAVFACENGCOM	Pacific Division, Naval Facilities Engineering Command
PID	photoionization detector
PVC	polyvinyl chloride
ROD	record of decision
SAP	sampling and analysis plan
SCAQMD	South Coast Air Quality Management District
scfm	standard cubic feet per minute
SEOR	system evaluation and optimization report
SVE	soil vapor extraction
TCE	trichloroethylene
VOC	volatile organic compound

1. INTRODUCTION

This progress report presents results of remediation of the vadose zone during November and December 1999 at the volatile organic compound (VOC) source area at Installation Restoration Program (IRP) Site 24 - Marine Corp Air Station (MCAS), El Toro. Remediation is being implemented in accordance with the draft *Final Interim Record of Decision (ROD) for Operable Unit (OU) 2A- Site 24 VOC Source Area, Vadose Zone* (BNI 1997c), the *draft Final Engineering Design Report (EDR) Vadose Zone Remediation at Site 24* (BNI 1998a) and the draft *System Evaluation and Optimization Report (SEOR), IRP Site 24 Vadose Zone Remediation* (Earth Tech 1999b).

This progress report was prepared by Earth Tech, Inc. (Earth Tech) on behalf of the United States Department of the Navy (DON), Southwest Division, Naval Facilities Engineering Command, as authorized by the U.S. Navy, Pacific Division, Naval Facilities Engineering Command (PACNAVFACENGCOM) under contract task order (CTO) no. 0068 of the Comprehensive Long-Term Environmental Action Navy (CLEAN) II program, contract number N62742-94-D-0048.

The objective of this remedial action is to reduce concentrations of volatile organic compounds (VOCs) in the vadose zone to levels that will not cause VOC concentrations in groundwater to exceed the maximum contaminant level (MCL). Phase I of the remedial action was initiated with the startup of the central soil vapor extraction (SVE) system, the installation of additional SVE wells, and the continued use of portable SVE systems to remediate areas that are not contiguous with hangars 296 and 297.

Specific objectives for Phase I include

- Installation and operation of SVE wells to accurately evaluate the effective radius of influence (EROI) and provide data regarding the current VOC plume configuration;
- Acquisition of operational data required for the selection of SVE well locations that will provide full coverage of the contaminant plume in the vadose zone;
- Evaluation of VOC rebound concentrations and possible deactivation for wells with concentrations below threshold values;
- Continued use of portable SVE systems for rebound testing of SVE wells and identification of areas within Site 24, where the use of the portable units would be most cost-effective.

2. REMEDIATION SYSTEM OPERATIONS

The installation of the Phase I SVE wells and operation of the Central SVE System began on 7 May and 17 May, 1999, respectively. The Phase I SVE wells are being used as either active extraction wells or as monitoring wells to evaluate the extent of contamination and effective radius of influence (EROI). In addition, portable SVE systems were used to remediate soils in the vicinity of wells 24SVE13, 24SVE15, 24SVE18, 24SVE138A, 24SVE147A, and 24SVE154/154A/154B. Data collected will be evaluated as described in the draft *SEOR*, and conclusions and recommendations will be presented in subsequent progress reports and the final *SEOR*.

2.1 SVE WELL INSTALLATION

Five wells were installed in May 1999 using a hollow-stem auger. Eighteen wells were completed in June and July 1999 using a triple-casing percussion hammer drill rig and either 2- or 4-inch schedule 40 polyvinyl chloride (PVC) casing and screen.

The 23 wells installed between May and July 1999 included 15 triple-completions, 3 dual-completions and 5 single-completion wells. This number includes the following three wells not listed in the draft *SEOR:* 24SVE18 located near 24SVE13; 24SVE15 located west of the crash crew area in the vicinity of groundwater monitoring well 24NEW1; and 24SVE154 located near the Agua Chinon Wash. One well, 24SVE43 located within hangar 297 was not installed due to height restrictions. Table A-1 in Appendix A summarizes well installation and completion details.

The November Monthly *Progress Report* (Earth Tech 1999c) presented EROI coverage and plume boundary data gaps in coverage of the TCE plume area. These gaps were to be addressed by the installation of fourteen additional wells and the extension Phase I operations for three additional months. Eight were to be deep completion wells, five intermediate completion wells, and one a shallow completion well.

Of the proposed fourteen wells, seven were installed in December 1999 using an air-percussion drill rig. Five of the seven SVE wells were completed in the deep interval, and two wells were completed in the intermediate zone. Table A-2 in Appendix A summarizes the well installation and completion details of the installed wells and gives the specifications on those still to be installed. The remaining seven wells will be installed in January 2000. Eight of the fourteen wells will be connected to the central treatment system and the remaining six to the portable treatment systems. Once connected, 24-hr baseline samples will be collected in Tedlar™ bags for fixed-base laboratory analysis, using modified EPA Method TO14, as specified in the draft *SEOR*. The locations for the new deep, intermediate, and shallow interval SVE wells are shown on Figures 2-16, 2-17, and 2-18, respectively. Final surveyed locations will be shown in the February 2000 Monthly Progress Report.

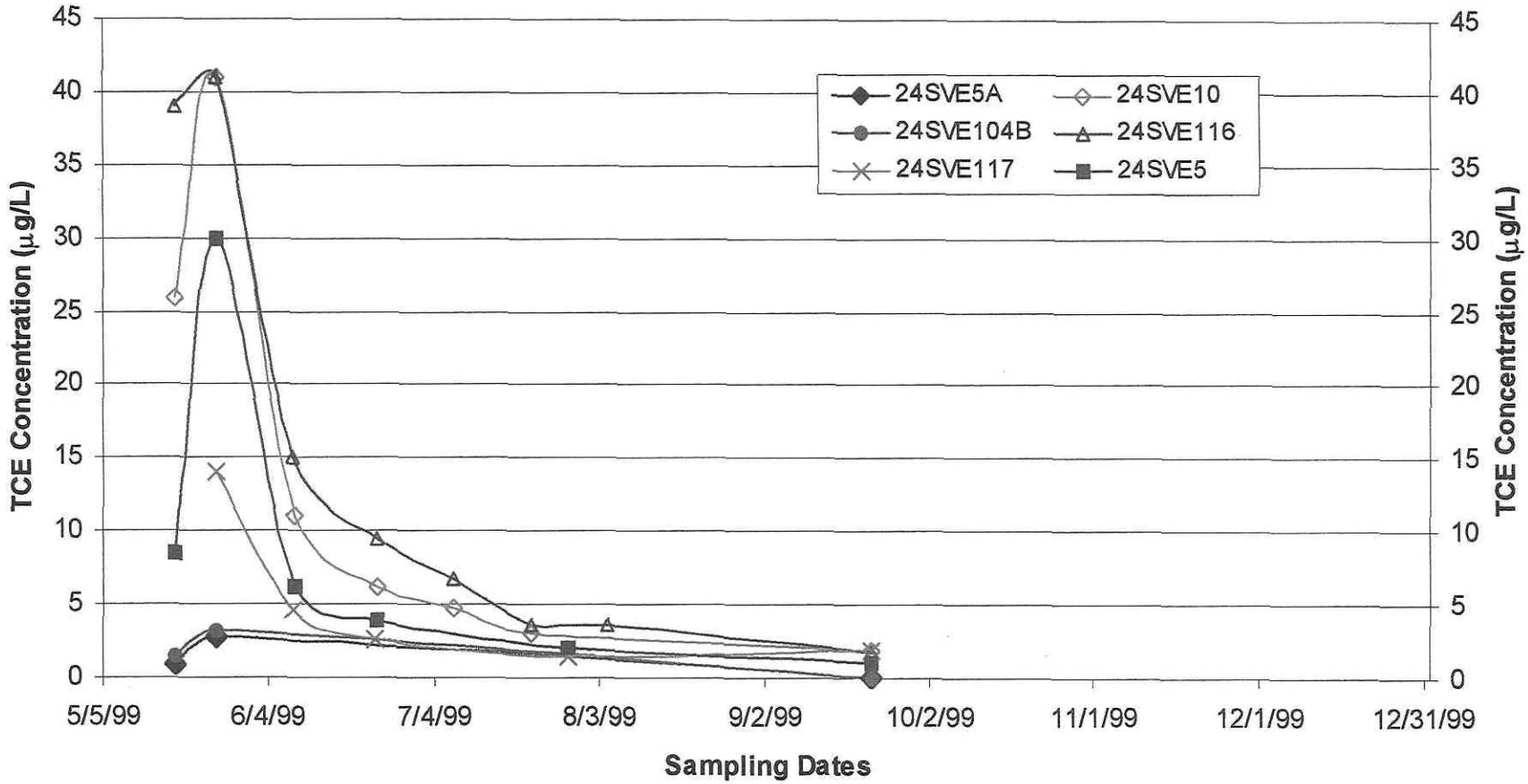
2.2 SVE WELL FIELD MONITORING AND SAMPLING

Extraction from wells connected to the central SVE system began on 17 May 1999. Field monitoring of extracted vapor concentrations was conducted using a photoionization detector (PID). In addition to vapor concentrations, flowrates and applied vacuum were also monitored. Sampling and monitoring were conducted as described in the draft *Sampling and Analysis Plan* (SAP) (Earth Tech 1999d) and the *SEOR*, with modifications noted on Table A-3 in Appendix A.

Baseline samples from each newly installed SVE well were collected in Tedlar™ bags for fixed-base laboratory analysis, using modified EPA Method TO14. These samples were collected after approximately 24 hours of extraction, as specified in the draft *SEOR*.

Samples for fixed-base analysis were then collected every two weeks from each well where baseline concentrations were above the soil cleanup threshold. The laboratory results were then used as a basis for optimizing the mass of VOCs extracted. In general, extraction from SVE wells with baseline concentrations less than 10 µg/L was discontinued following receipt of the preliminary baseline analytical data. Summaries of the sampling and monitoring data collected through the end of December 1999 are presented in Appendix A and plots of extracted vapor concentrations are presented on Figures 2-1 through 2-9. During November routine sampling was only conducted at well 24SVE54. However, on December 1, 1999, rebound samples were collected from wells 24SVE2, 24SVE7, 24SVE35, 24SVE49, 24SVE51, 24SVE53, 24SVE54, 24SVE55, 24SVE67, and 24SVE77. The analytical results indicate that only one of wells had a concentration exceeding 5 µg/L for TCE. This occurred at well 24SVE67, which had a concentration of 6.2 µg/L.

During November and December samples were collected from 24SVE9, 24SVE11 24SVE18, 24SVE35, 24SVE35A, 24SVE49, 24SVE51, 24SVE94, 24SVE128B, and 24SVE147A, as part of a Pneulog test discussed in section 2.5.



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Extracted Vapor Concentrations from SVE Wells - Group I
Site 24 - Vadose Zone Remediation

Date: 1-00	MCAS, El Toro	Figure
Project No. 29307	EARTH TECH A TYCO INTERNATIONAL LTD. COMPANY	2-1

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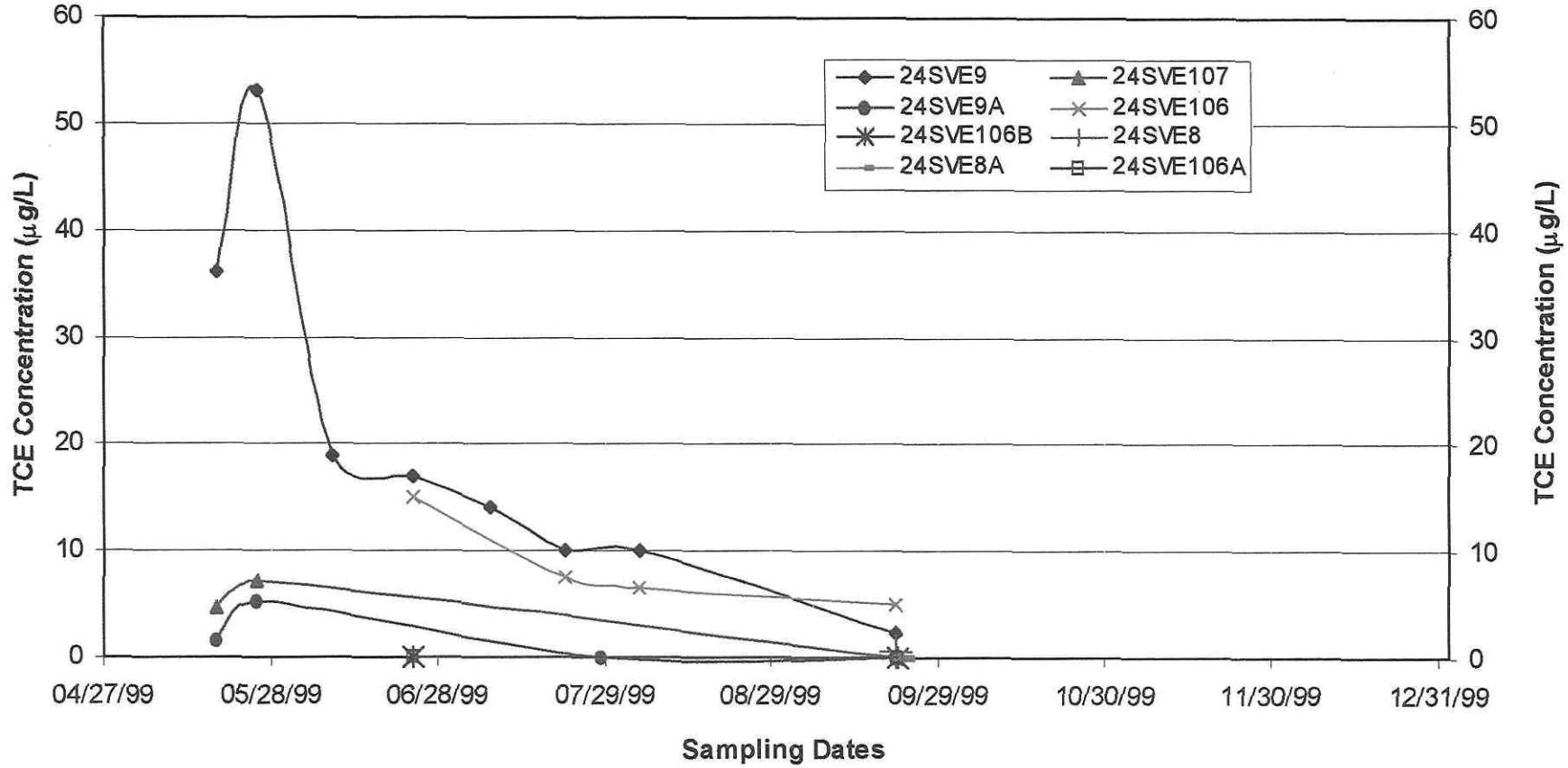

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Extracted Vapor Concentrations from SVE Wells - Group II
Site 24 - Vadose Zone Remediation

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Project No. 29307	EARTH TECH A tyco INTERNATIONAL LTD. COMPANY	2-2

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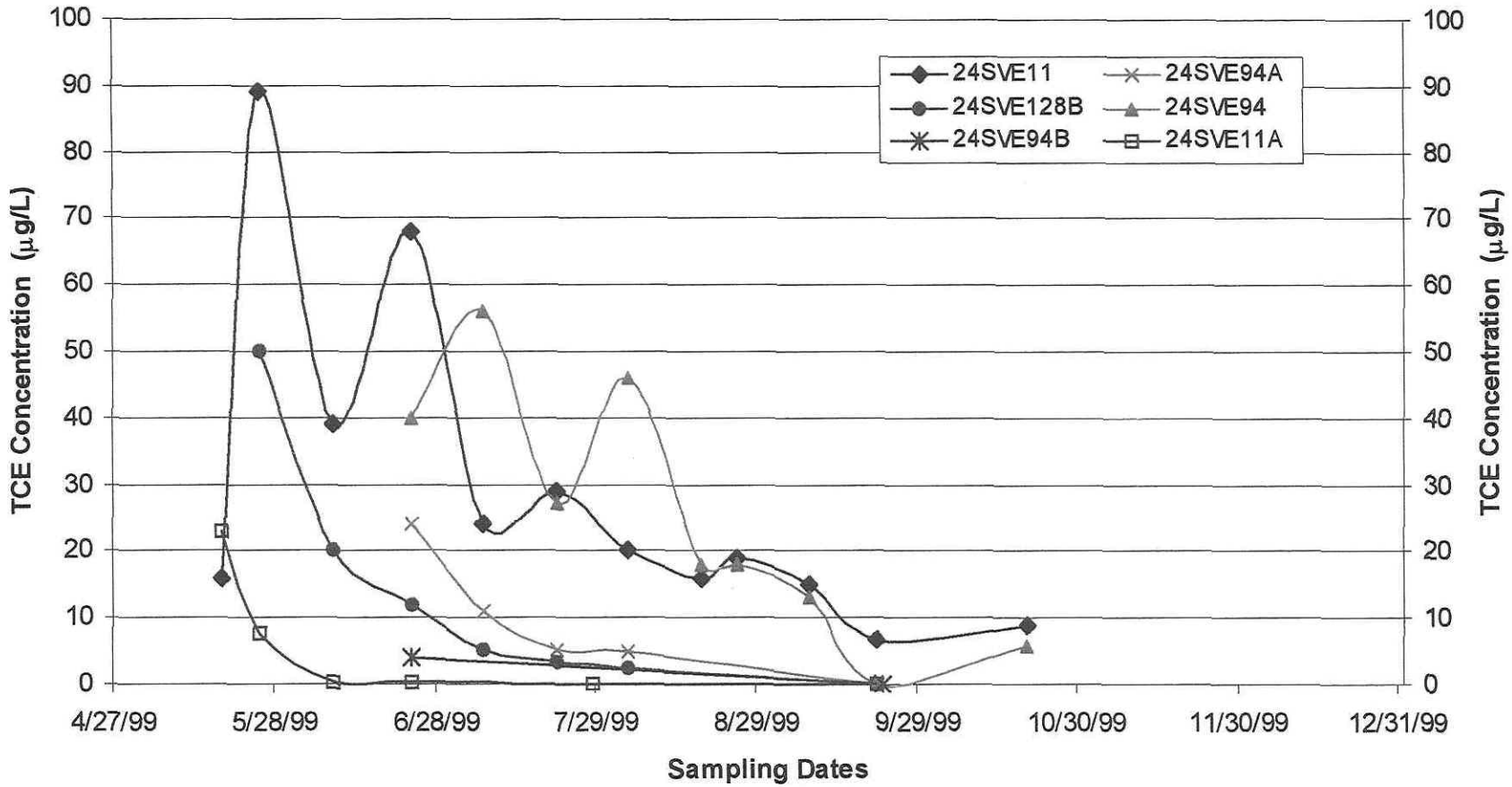

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Extracted Vapor Concentrations from SVE Wells - Group III Site 24 - Vadose Zone Remediation

Date: 1-00	MCAS, El Toro	Figure
Project No. 29307	EARTH TECH A TYCO INTERNATIONAL LTD. COMPANY	2-3

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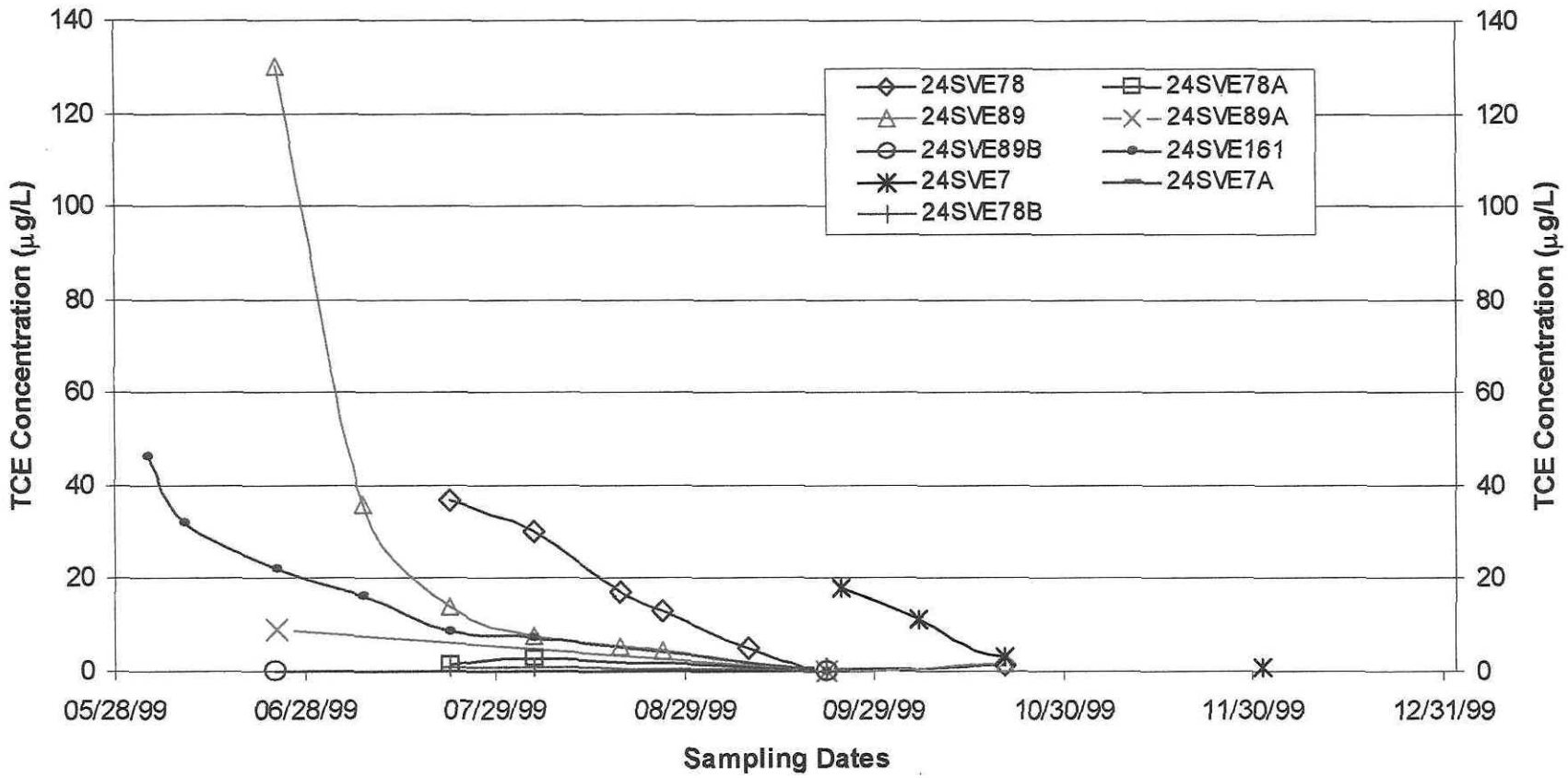

Notes:

1. Sample collected on 12/1/99 was a rebound sample.

Progress Report - January 2000		
Extracted Vapor Concentrations from SVE Wells - Group IV Site 24 - Vadose Zone Remediation		
Date: 1-00	MCAS, El Toro	Figure
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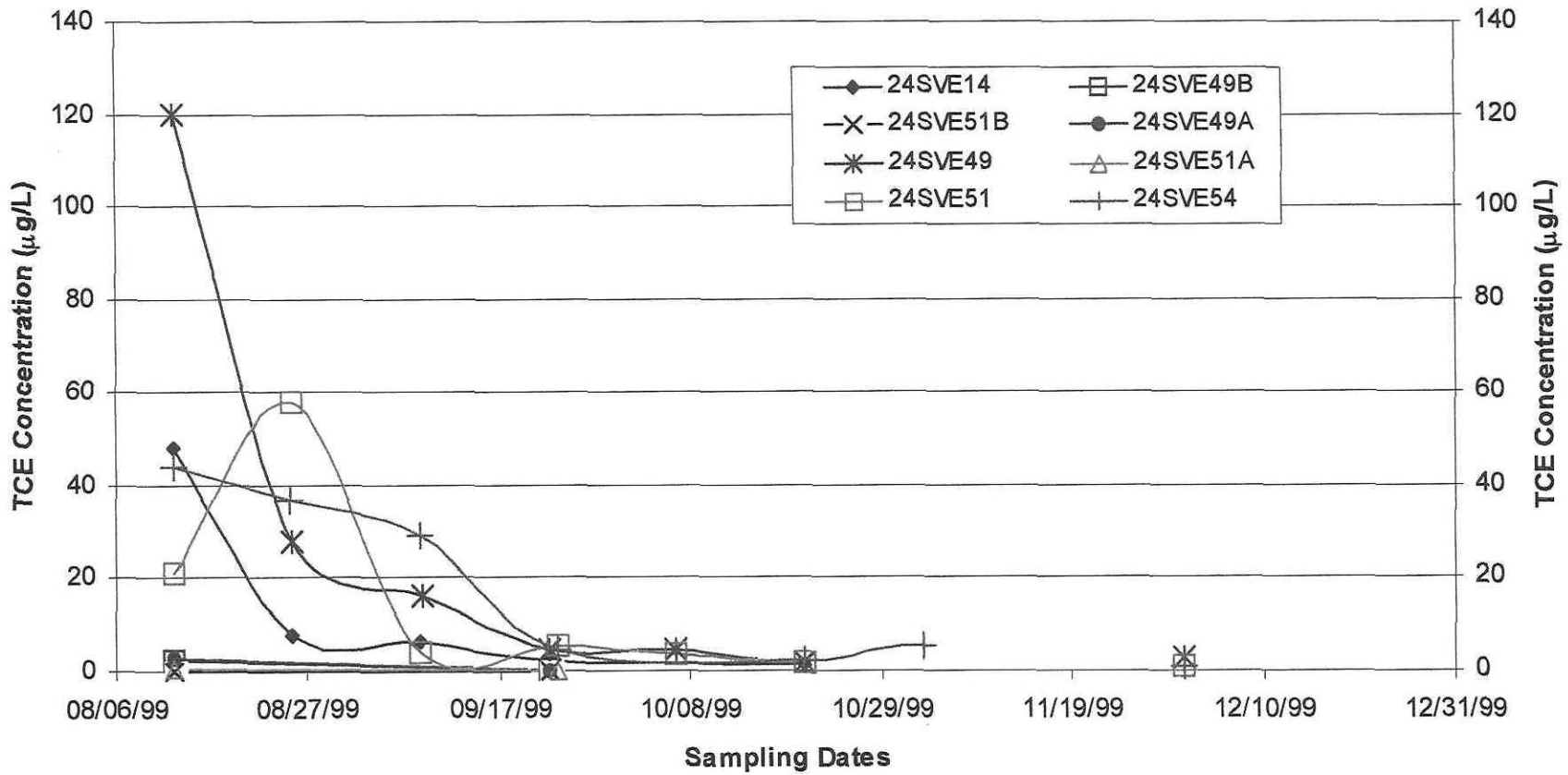

Notes:

1. Samples collected on 12/1/99 were rebound samples.

Progress Report - January 2000

Extracted Vapor Concentrations from SVE Wells - Group V
Site 24 - Vadose Zone Remediation

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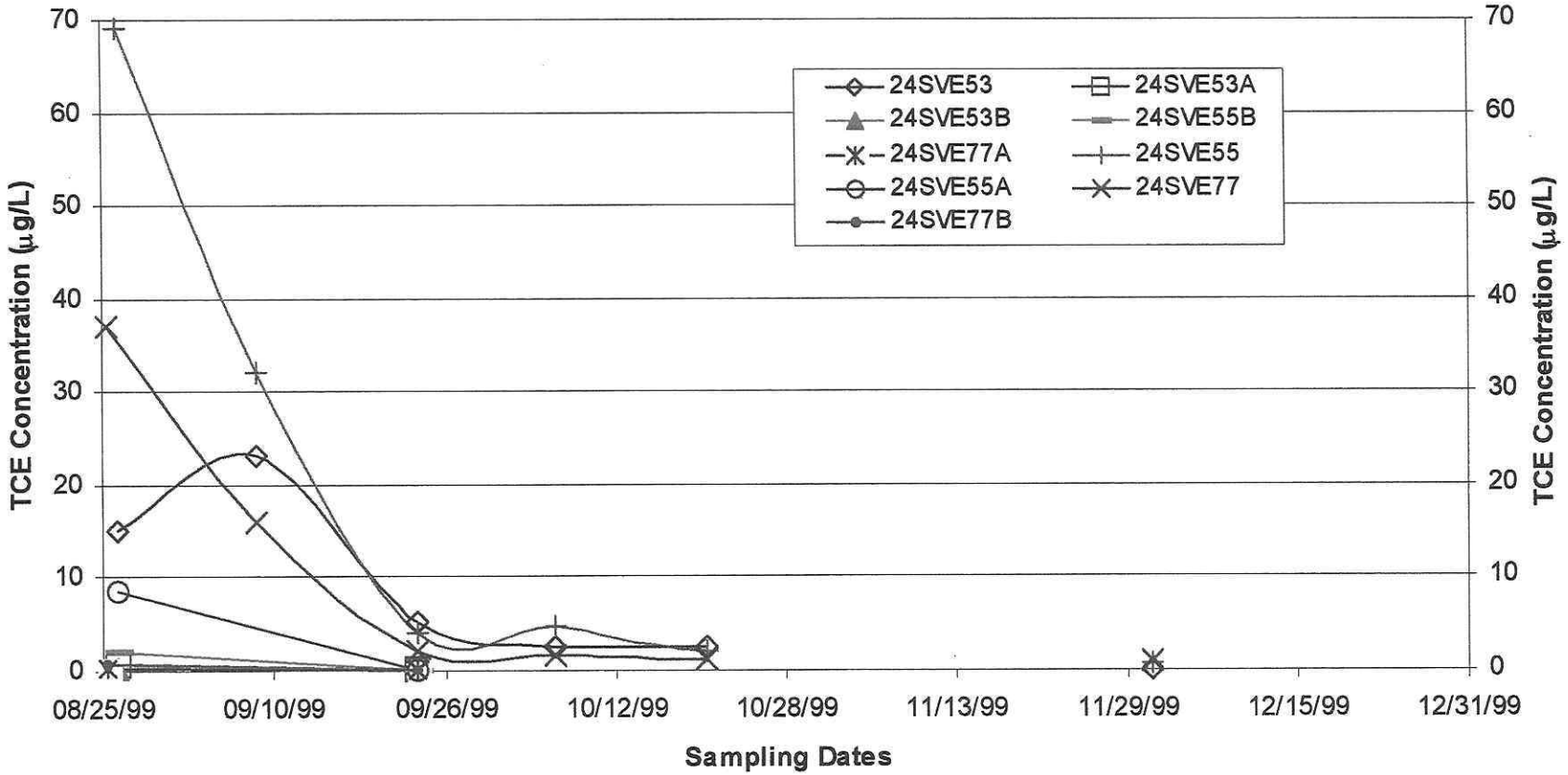

Notes:

1. Samples collected on 12/1/99 were rebound samples.

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Extracted Vapor Concentrations from SVE Wells - Group VI Site 24 - Vadose Zone Remediation

Date: 1-00	MCAS, El Toro	Figure
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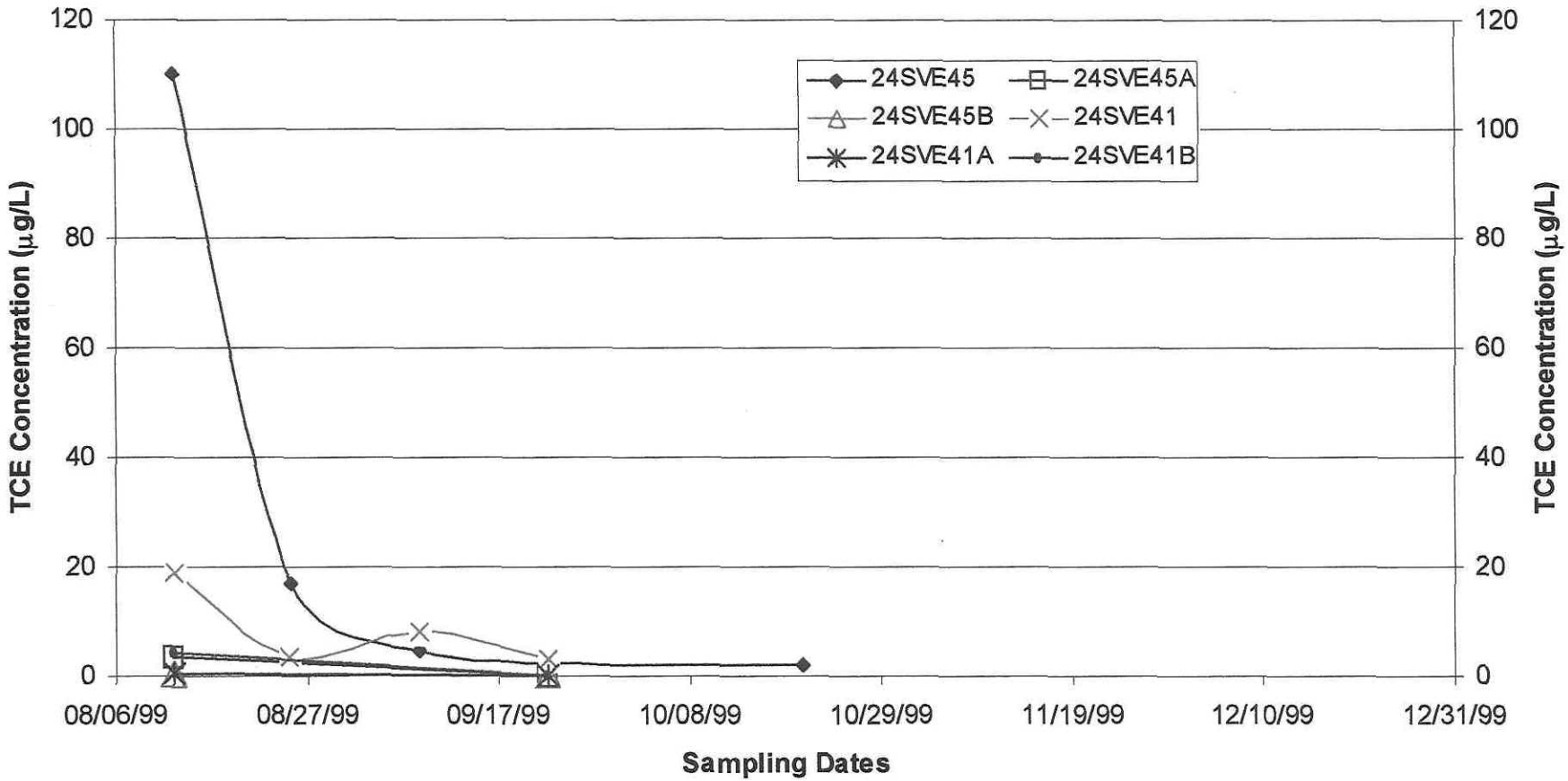

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Extracted Vapor Concentrations from SVE Wells - Group VII

Site 24 - Vadose Zone Remediation

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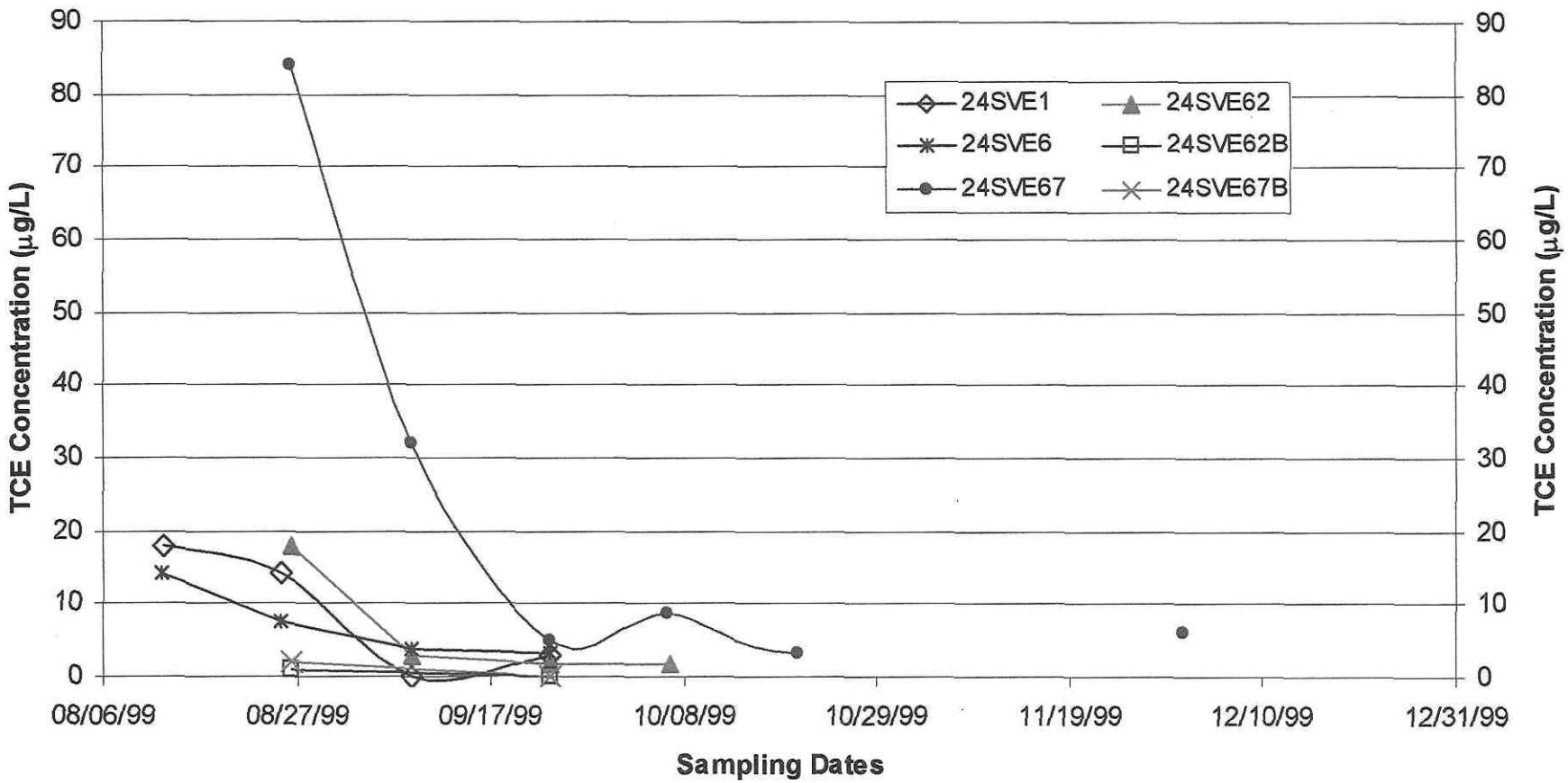

Notes:

1. Sample collected on 12/1/99 was a rebound sample.

Progress Report - January 2000 Extracted Vapor Concentrations from SVE Wells - Group VIII Site 24 - Vadose Zone Remediation		
Date: 1-00	MCAS, El Toro	Figure
Project No. 29307	EARTH TECH A tyco INTERNATIONAL LTD. COMPANY	2-8

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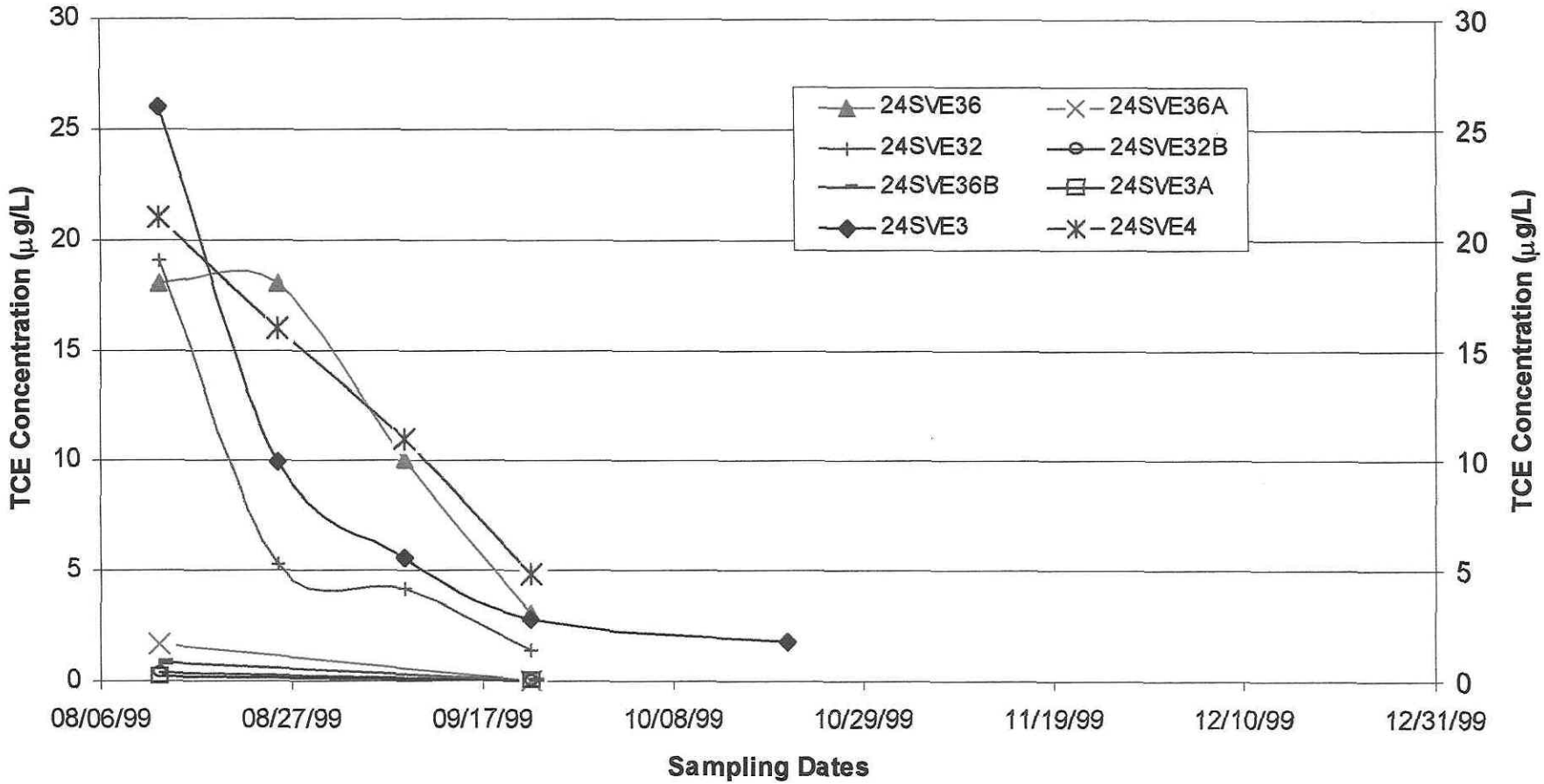

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Extracted Vapor Concentrations from SVE Wells - Group IX
Site 24 - Vadose Zone Remediation

Date: 1-00	MCAS, El Toro	Figure
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2.3 CENTRAL TREATMENT SYSTEM OPERATIONS

Monitoring of the central treatment system was conducted to assess whether the individual components were operating within their intended range. Monitoring included sampling of 1) the extracted vapor concentrations at the inlet to the lead carbon vessel, 2) between the lead and the second carbon vessel, and 3) at the outlet from the second carbon vessel. Discharges from the treatment system did not exceed the South Coast Air Quality Management District (SCAQMD) emission requirements. In addition, the flowrate, temperature, and relative humidity were recorded on an Operation and Maintenance Data Form (see Figure 5-4 of the Draft *SEOR*).

Tables 2-1, 2-2, and 2-3 summarize results of vapor sampling at influent, midpoint, and effluent of the central treatment system. Influent soil vapor concentrations are plotted on Figure 2-10. Table 2-4 presents a summary of the central treatment system monitoring data. The data indicate that the system has operated as intended with no major unscheduled maintenance events and at a cumulative on-line efficiency of 83 percent. The cumulative on-line efficiency has dropped from 95% in October because the system had been turned off for rebound sampling in November and turned off due to low concentrations system wide in December. Based on an average total flowrate of 913 standard cubic feet per minute (scfm) and the average laboratory concentrations of the principal contaminants, approximately 257 pounds of VOCs have been removed using the central SVE system since 17 May 1999.

Figure 2-11 shows a plot of the cumulative mass of the principal contaminants removed by the central treatment system. Table 2-5 summarizes the total cumulative mass of principal VOCs removed as a result of pilot testing and current SVE activities at Site 24.

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Table 2-1: Central Treatment System Vapor Sampling Results – Influent

Sample Location	EPA Sample Number	Sample Identifier	Date	TCE µg/L	Freon-113 µg/L	PCE µg/L	1,1 DCE µg/L
Influent	LC001	24 S1 01 VS	5/17/99	23	31	0.36	0.32
	LC007	24 S1 02 VS	5/18/99	16	21.0	0.32	0.35 JA
	LC023	24 S1 03 VS	5/21/99	15	21	ND	ND
	LC026	24 S1 04 VS	5/25/99	20	39	0.34	0.30 JA
	LC027	24 S1 04 VSD	5/25/99	20	38	0.29	0.32 JA
	LC042	24 S1 05 VS	6/2/99	20	21	ND	ND
	LC047	24 S1 06 VS	6/8/99	14	18	0.33	0.22 JA
	LC048	24 S1 07 VS	6/8/99	15	21	0.34	0.19
	LC070	24 S1 08 VS	6/15/99	11	17	0.41	0.20
	LC071	24 S1 09 VS	6/15/99	11	16	0.38	0.20
	LC072	24 S1 09 VSD	6/15/99	11	17	0.39	0.25
	LC073	24 S1 10 VS	6/23/99	11	10	0.17	0.15
	LC094	24 S1 12 VS	7/7/99	12	9.7	ND	0.14 JA
	LC119	24 S1 13 VS	7/21/99	7.9	6.4	0.21	0.20
	LC129	24 S1 14 VS	7/28/99	10	13	0.56	0.23
	LC144	24 S1 15 VS	8/4/99	8.2	6.5	0.20	0.13
	LC181	24 S1 16 VS	8/12/99	21	3.7	0.5	0.9
	LC187	24 S1 17 VS	8/18/99	16	4.1	0.36	0.63
	LC215	24 S1 18 VS	8/25/99	14	4.2	0.34	0.64
	LC254	24 S1 19 VS	9/8/99	ND	ND	ND	ND
	LC337	24 S1 20 VS	9/23/99	ND	ND	ND	ND
	LC341	24 S1 20 VSD	9/23/99	ND	ND	ND	ND
	LC354	24 S1 21 VS	10/6/99	2.5	0.98	0.057	0.16
	LC376	24 S1 22 VS	10/20/99	1.6	0.81	0.031	0.08
	LC390	24 S1 23 VS	12/1/99	6	2.2	0.12	0.24

Notes:
JA = The compound was positively identified, but the quantification is an estimate.
ND = not detected

Table 2-2: Central Treatment System Vapor Sampling Results - Midpoint

Sample Location	EPA Sample Number	Sample Identifier	Date	TCE µg/L	Freon-113 µg/L	PCE µg/L	1,1 DCE µg/L
Midpoint	LC002	24 S2 01 VS	5/17/99	0.01	0.031	ND	ND
	LC005	24 S2 02 VS	5/18/99	ND	0.02	ND	ND
	LC025	24 S2 03 VS	5/25/99	0.26	0.37	ND	ND
	LC049	24 S2 05 VS	6/8/99	0.056	1.8	ND	ND
	LC050	24 S2 06 VS	6/8/99	0.15	1.9	ND	ND
	LC068	24 S2 07 VS	6/15/99	0.081	1.8	ND	ND
	LC069	24 S2 08 VS	6/15/99	0.1	1.5	ND	ND
	LC095	24 S2 09 VS	7/7/99	ND	3.2	ND	ND
	LC145	24 S2 10 VS	8/4/99	ND	4.7 *D*	ND	ND
	LC147	24 S2 10 VSD	8/4/99	ND	4.7	ND	ND
	LC255	24 S2 11 VS	9/8/99	ND	5.9	ND	0.039
	LC338	24 S2 12 VS	9/23/99	ND	ND	ND	ND
	LC377	24 S2 13 VS	10/20/99	ND	15	ND	0.49
	LC391	24 S2 14 VS	12/1/99	0.3	9.8 *E*	ND	0.48

Notes:
D = The result was obtained from an analysis of a dilution.
E = Estimated result. Result concentration exceeds the calibration range.
ND = not detected

Table 2-3: Central Treatment System Vapor Sampling Results - Effluent

Sample Location	EPA Sample Number	Sample Identifier	Date	TCE µg/L	Freon-113 µg/L	PCE µg/L	1,1 DCE µg/L
Effluent	LC003	24 S3 01 VS	5/17/99	0.012	0.025	ND	ND
	LC004	24 S3 02 VS	5/17/99	ND	0.02	ND	ND
	LC006	24 S3 03 VS	5/18/99	ND	0.02	ND	ND
	LC019	24 S3 04 VS	5/19/99	ND	ND	ND	ND
	LC020	24 S3 05 VS	5/20/99	ND	ND	ND	ND
	LC021	24 S3 05 VSD	5/20/99	ND	ND	ND	ND
	LC022	24 S3 06 VS	5/21/99	0.049	0.16	ND	ND
	LC024	24 S3 07 VS	5/25/99	0.039	ND	ND	ND
	LC044	24 S3 08 VS	6/2/99	0.058	0.037	ND	ND
	LC051	24 S3 09 VS	6/8/99	ND	0.05	ND	ND
	LC052	24 S3 10 VS	6/8/99	0.021	0.072	ND	ND
	LC066	24 S3 11 VS	6/15/99	0.02	0.19	ND	ND
	LC067	24 S3 12 VS	6/15/99	0.02	0.18	ND	ND
	LC074	24 S3 13 VS	6/23/99	ND	7.500	ND	ND
	LC093	24 S3 14 VS	6/29/99	ND	0.21	ND	ND
	LC096	24 S3 15 VS	7/7/99	ND	0.34	ND	ND
	LC120	24 S3 16 VS	7/21/99	ND	0.16	ND	ND
	LC130	24 S3 17 VS	7/28/99	0.018	0.64	ND	ND
	LC146	24 S3 18 VS	8/4/99	0.02	0.97	ND	ND
	LC182	24 S3 19 VS	8/12/99	0.182	0.768	ND	ND
	LC216	24 S3 20 VS	8/25/99	0.28	0.87	ND	ND
	LC256	24 S3 21 VS	9/8/99	ND	2.7	ND	ND
	LC339	24 S3 22 VS	9/23/99	ND	ND	ND	ND
	LC342	24 S3 22 VSD	9/23/99	0.096	2.8	ND	ND
	LC378	24 S3 23 VS	10/20/99	ND	26	ND	ND
	LC392	24 S3 24 VS	12/1/99	0.24	23	ND	ND

Note:
ND = not detected

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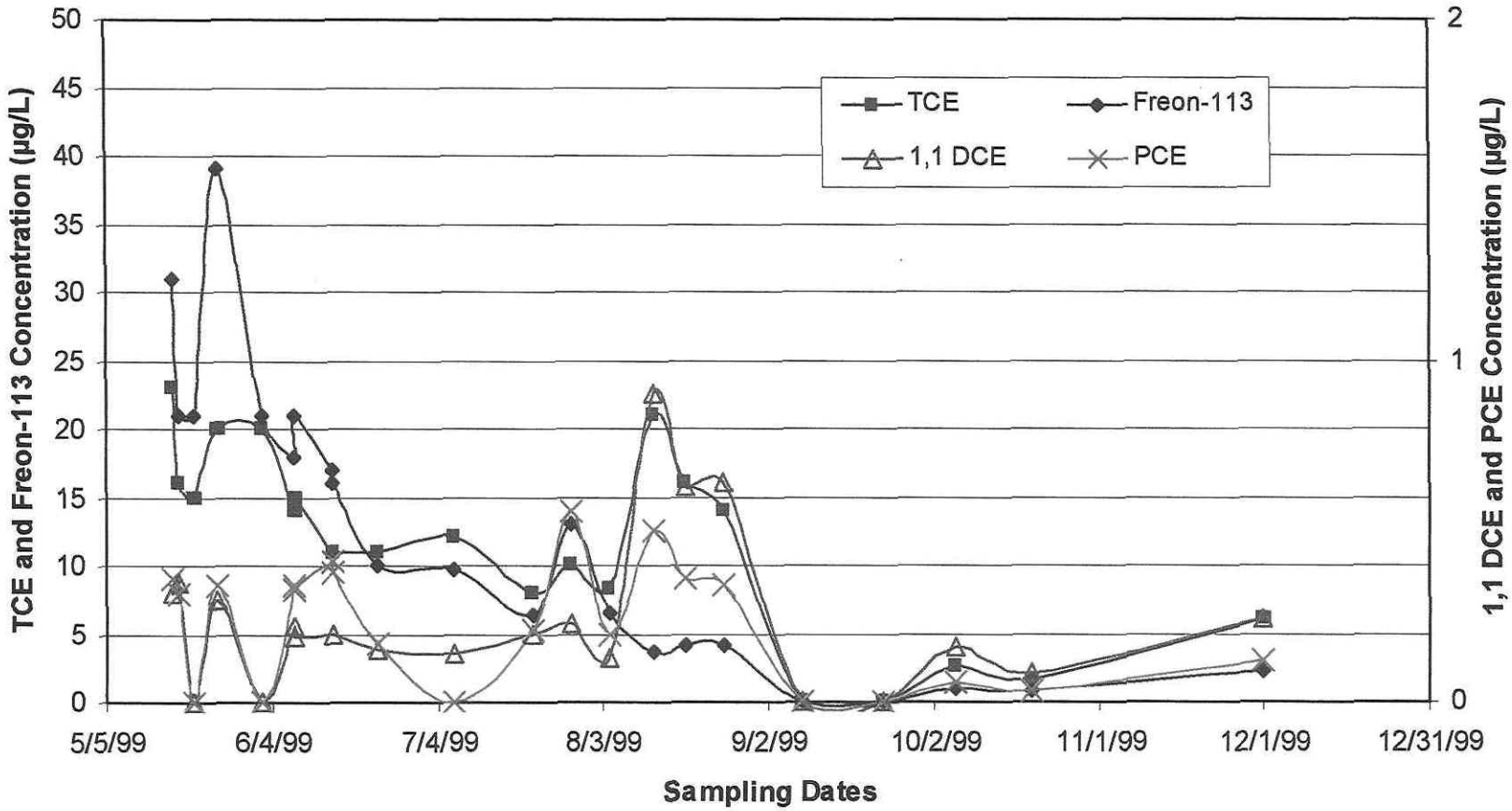

Progress Report - January 2000

Central Treatment System
Influent Soil Vapor Concentrations
Site 24 - Vadose Zone Remediation

Date: 1-00	MCAS, El Toro	Figure
Project No. 29307	EARTH TECH A tyco INTERNATIONAL LTD. COMPANY	2-10

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Table 2-4: Summary of Central Treatment System Monitoring Data

Date	Blower "B" Hours of Operation	Cumulative On-line Efficiency (%)	Total System Flowrate (scfm)	Blower "B" Amperage (AMPS)	Blower "B" Inlet Vacuum (inches of water)	Blower "B" Inlet Temp. (°F)	Blower "B" Outlet Temp. (°F)	Relative Humidity (%)	Temp. at Lead GAC Vessel (°F)	Makeup Water Flow Totalizer (gal)	Remarks
5/17/99 04:50 PM	141.0	-	898	69	106	82	149	-	103	48305.0	10 wells on-line
5/18/99 09:37 AM	158.9	100	915	60	102	80	145	-	110	48305.0	
5/19/99 09:42 AM	181.9	100	-	70	103	78	130	-	-	48344.0	
5/21/99 12:00 PM	232.2	100	876	60	110	70	140	84	98	48391.0	
5/24/99 07:52 AM	300.0	100	887	60	110	65	138	81	95	48391.0	
5/25/99 08:00 AM	324.2	100	970	65	100	66	120	63.7	94	48391.0	12 wells on-line
5/25/99 05:20 PM	333.8	100	838	70	117	74	148	-	90	48402.0	
5/26/99 07:20 AM	346.0	99	843	70	120	74	140	-	95	48402.0	
5/26/99 02:00 PM	353.5	100	833	75	120	80	150	54	100	-	
5/28/99 09:00 AM	396.7	100	845	75	120	70	145	63	100	48451.0	
5/31/99 12:30 PM	470.3	99	837	70	118	73	154	-	108	48570.0	
6/01/99 07:20 AM	490.7	100	842	72	120	64	136	-	90	48599.0	8 wells on-line
6/02/99 08:50 AM	516.2	100	841	73	120	63	132	70	93.9	48611.0	
6/04/99 07:30 AM	563.1	100	841	75	120	60	130	70	90	48644.0	
6/08/99 09:05 AM	660.5	100	815	73	124	65	140	62.8	90	48747.0	
6/10/99 07:30 AM	682.5	96	827	72.5	122	66	140	-	90	48780.0	
6/11/99 07:30 AM	706.8	96	817	75	120	65	140	73	95	48814.0	9 wells on-line
6/14/99 07:05 AM	778.1	96	830	70	121	66	142	-	-	48893.1	
6/15/99 08:20 AM	787.8	94	843	75	119	70	134	78	90	48923.0	
6/17/99 04:16 PM	843.7	95	788	75	120	80	160	-	100	49419.0	
6/23/99 09:00 AM	980.4	95	988	63	89	69	122	63.5	97	50486.8	18 wells on-line
6/23/99 06:30 PM	988.55	95	900	65	100	78	138	-	98	50489.3	Performed scheduled system maintenance.
6/29/99 08:30 AM	1,123.1	96	924	65	100	71	134	66	100	50743.6	Cleaned clogged float valve.
7/03/99 11:15 AM	1,179.5	93	947	65	96	72	94	-	79	50776.0	
7/06/99 07:24 AM	1,207.4	90	883	70	113	68	103	-	80	50778.0	
7/07/99 10:15 AM	1,233.7	90	857	65	112	78	148	-	102	50784.0	10 wells on-line

Table 2-4: Summary of Central Treatment System Monitoring Data

Date	Blower "B" Hours of Operation	Cumulative On-line Efficiency (%)	Total System Flowrate (scfm)	Blower "B" Amperage (AMPS)	Blower "B" Inlet Vacuum (inches of water)	Blower "B" Inlet Temp. (°F)	Blower "B" Outlet Temp. (°F)	Relative Humidity (%)	Temp. at Lead GAC Vessel (°F)	Makeup Water Flow Totalizer (gal)	Remarks
7/13/99 09:00 AM	1,374.5	91	800	70	120	82	162	-	100	50789.7	
7/15/99 09:30 AM	1,422.0	91	808	70	122	80	158	-	94	50829.0	
7/19/99 07:45 AM	1,516.9	92	800	73	130	70	154	84	82	50903.0	
7/20/99 07:14 AM	1,540.4	92	792	74	130	68	150	91.6	78	50923.0	
7/21/99 09:20 AM	1,566.5	91	858	70	116	74	148	-	110	50942.4	
7/21/99 02:10 PM	1,571.7	92	853	70	112	88	148	59.9	94	50943.0	13 wells on-line
7/23/99 08:23 AM	1,613.1	92	854	70	116	70	146	86.5	92	50982.0	
7/26/99 07:20 AM	1,684.0	92	819	74	128	70	150	-	90	51029.0	
7/27/99 08:15 AM	1,708.0	92	809	74	129	78	148	-	88	51060.0	
7/28/99 08:15 AM	1,732.8	93	856	58	116	70	140	73.8	88	51082.1	16 wells on-line
7/30/99 07:40 AM	1,780.0	93	822	74	127	68	150	70	90	51120.0	
8/04/99 08:53 AM	1,901.7	93	822	75	126	70	154	-	105	51199.0	
8/11/99 09:45 AM	2069.7	94	825	72	126	70	154	-	104	51299.0	
8/11/99 01:30 PM	2,073.5	94	1240	55	44	104	108	-	100	51301.0	34 wells on-line
8/12/99 10:25 AM	-	94	1220	55	50	94	112	-	100	51368.0	
8/12/99 03:00 PM	2,098.8	94	1043	60	72	104	130	-	106	51318.2	
8/16/99 07:15 AM	2,187.0	94	1020	63	86	66	110	-	86	51366.0	
8/18/99 09:00 AM	2,236.6	94	1010	63	50	80	104	-	98	51401.0	18 wells on-line
8/23/99 09:45 AM	2,357.0	95	910	65	98	84	138	-	110	51470.0	
8/24/99 09:47 AM	2,381.0	95	1110	60	64	90	124	-	103	51537.0	
8/25/99 10:40 AM	2,406.7	95	913	65	92	100	147	-	118	51558.2	
8/25/99 01:45 PM	2,409.6	95	1130	60	57	110	132	-	110	51560.9	
8/30/99 06:50 AM	2,522.0	95	1333	55	43	68	86	-	78	51619.0	32 wells on-line
9/01/99 04:00 PM	2,578	95	1130	57	57	92	116	50	100	51654.0	
9/08/99 11:30 AM	2,741.7	95	1120	60	62	98	124	-	119	51711.3	23 wells on-line
9/15/99 06:30 PM	2,915.4	95	1103	60	72	80	120	65.5	96	53083.0	Cooling tower maintenance performed.
9/20/99 02:10 PM	3,032.3	96	1220	55	52	79	111	-	108	53118.5	

Table 2-4: Summary of Central Treatment System Monitoring Data

Date	Blower "B" Hours of Operation	Cumulative On-line Efficiency (%)	Total System Flowrate (scfm)	Blower "B" Amperage (AMPS)	Blower "B" Inlet Vacuum (inches of water)	Blower "B" Inlet Temp. (°F)	Blower "B" Outlet Temp. (°F)	Relative Humidity (%)	Temp. at Lead GAC Vessel (°F)	Makeup Water Flow Totalizer (gal)	Remarks
9/21/99 12:30 PM	3,054.5	96	1220	57	54	74	100	-	98	53123.0	Performing EROI tests
9/22/99 11:30 AM	3,077.6	96	1130	55	63	94	124	-	120	53136.0	Performing EROI tests
9/23/99 11:35 AM	3,101.7	96	873	69	110	95	155	-	134	53142.0	21 wells on-line
9/29/99 8:00 AM	3,242.0	96	1140	60	68	67	100	63.5	96	53172.0	Well #54 - 4" pipe disconnected
10/6/99 12:15 PM	3,414	96	747	75	144	82	172	-	102	53367.0	10 wells on-line
10/14/99 7:35 AM	3,600	96	721	72	127	62	142	47.5	80	53664.0	Performing EROI tests
10/18/99 1:00 PM	3,676.7	96	-	65	100	100	130	-	96	53172.0	
10/19/99 8:20 AM	3,696	96	725	73	123	68	130	-	80	53769.0	
10/20/99 7:45 AM	3,719	96	836	65	100	72	120	-	72	53811.0	Cooling tower water drained due to a broken water main, which supplied makeup water to cooling tower.
10/22/99 5:00 PM	3,742	95	764	70	105	86	0	-	109	53981.0	SVE system turned back on.
10/27/99 7:20 AM	3,853	95	1090	55	50	62	85	54	80	56005.0	Main vapor line east wing at bldg. 297 disconnected; no VOC readings taken.
10/27/99 6:00 PM	3,863	95	767	70	120	72	150	55	95	56086.0	
11/3/99 7:00 AM	3,997.9	95	680	70	120	70	136	49.4	94	56323.0	Vapor samples collected from 24SVE54. System shut down for well rebound sampling in December.
12/1/99 1:30 PM	4,040.9	82	673	74	127	74	153	-	114	56370.0	System turned on 11/30 for rebound sampling.
12/10/99 8:00 AM	4,250	83	929	65	100	52	100	-	86	56393.0	Oil changed in blower, and the system shut down.

Note:
- = data not collected

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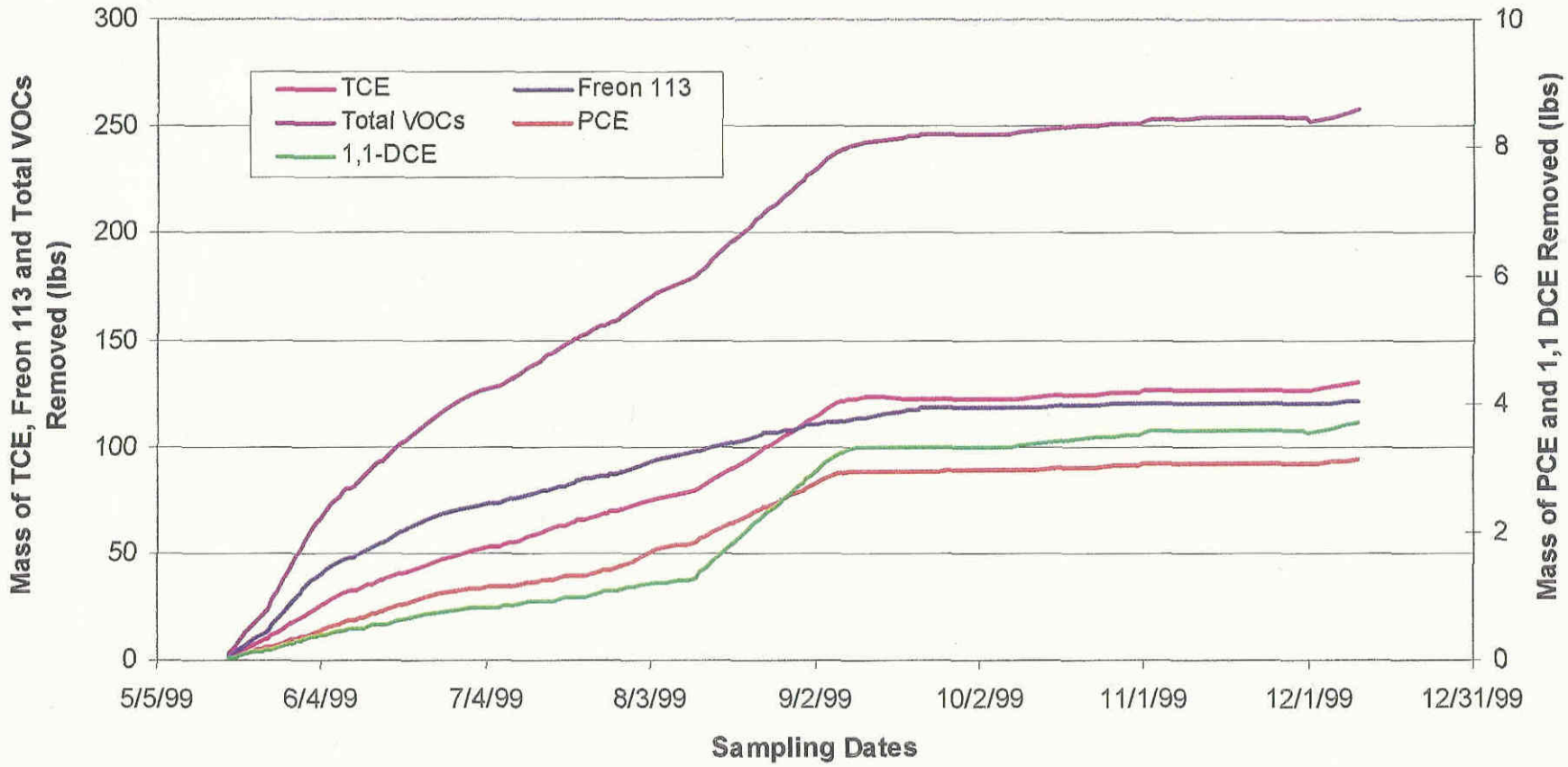

Progress Report - January 2000

Cumulative Mass of VOCs Removed by the Central SVE System
Site 24 - Vadose Zone Remediation

Date: 1-00	MCAS, El Toro	Figure
Project No. 29307	EARTH TECH A tyco INTERNATIONAL LTD. COMPANY	2-11

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Table 2-5: Mass of VOCs Removed During Vadose Remediation at Site 24

Remediation Phase	Dates	Mass (lbs)[a]	Remarks
Mass of VOCs removed during pilot scale testing	4/95 - 5/98	1439	Based on amounts stated in the Draft *Final Engineering Design Report* (BNI 1998a)
Mass of VOCs removed by portable SVE units [b]	6/98 - 12/98	70	Preliminary mass estimates based on data provided by OHM Corporation.
Mass of VOCs removed by central treatment system [c]	5/99 - 12/99	257	Mass estimates for the current period (5/99 –11/99) is based on treatment system inlet concentrations.
Mass of VOCs removed by portable SVE units	1/99 - 12/99	181	Preliminary mass estimates based on data provided by OHM Corporation.
	Total	1947	

Notes:
[a]Total mass of VOCs extracted includes TCE, Freon, 1,1 DCE and PCE.
[b]Cumulative mass removal by the Portable SVE units between 6/98 and 12/98 was adjusted to 70 lbs.
[c]Cumulative mass removal by the CTS through 9/99 was adjusted to 246 lbs.

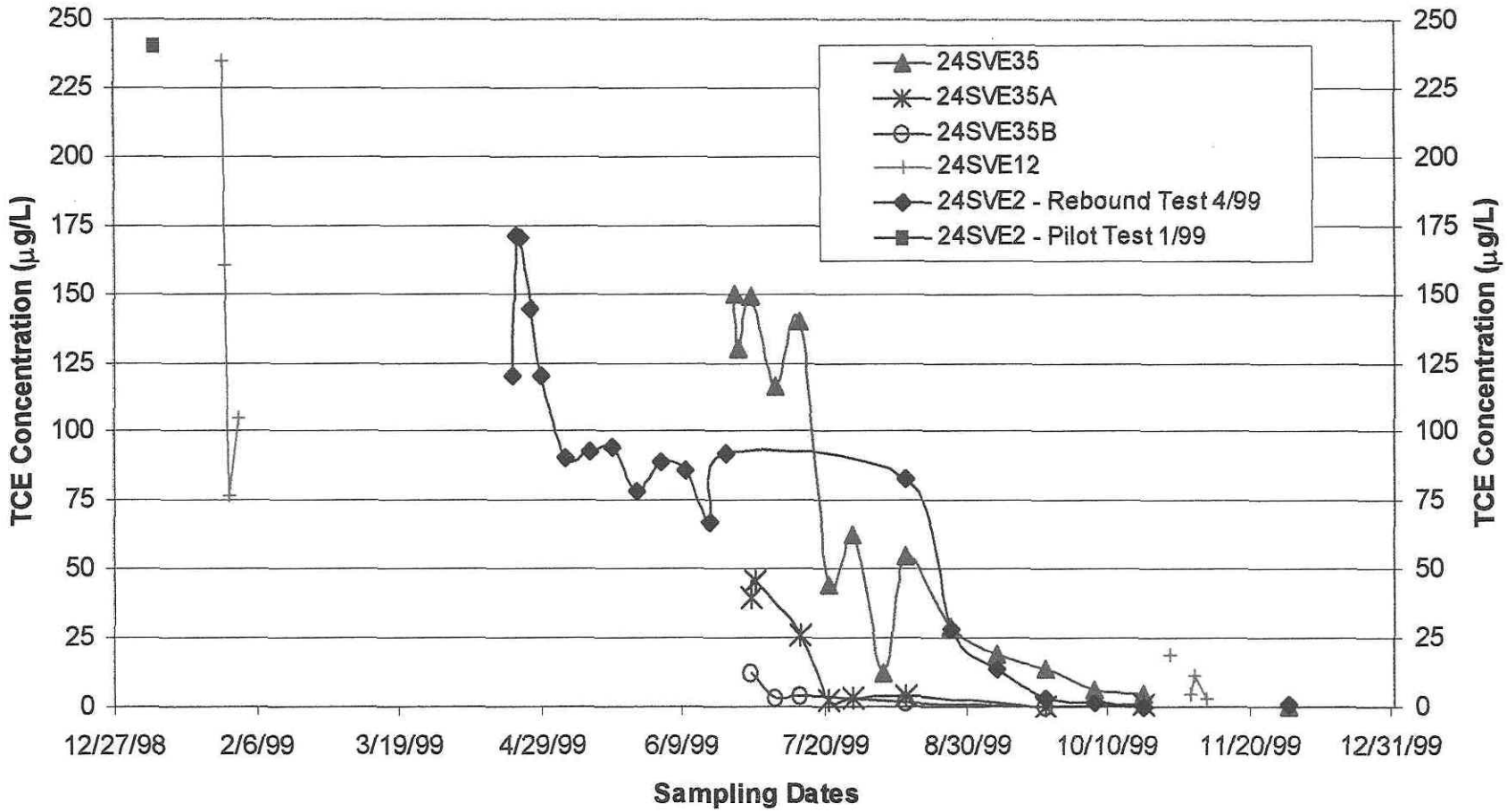
2.4 PORTABLE TREATMENT SYSTEMS OPERATIONS

The portable systems were used to extract soil vapor from wells 24SVE12 and 24SVE147A. Concentrations of TCE in SVE12 dropped from a 24-hr sample of 19 µg/L in October to 3 µg/L in November, while concentrations in SVE147A dropped from a 24-hr sample of 51 µg/L in November to 19 µg/L in December. Rebound samples were collected from 24SVE18 in November and showed concentrations to be less than 1.5 µg/L for TCE, and 15 µg/L for PCE.

Operational data for the portable SVE systems are summarized on Table 2-6. Figures 2-12, 2-13, 2-14 and 2-15 present plots of the extracted VOC concentrations from 24SVE2, 24SVE12, 24SVE35, 24SVE35A, and 24SVE35B; 24SVE13 and 24SVE18; 24SVE138A and 24SVE147A; and 24SVE15, 24SVE 15A, 24SVE 15B, 24SVE154, 24SVE 154A, and 24SVE 154B respectively.

Table 2-6: Summary of Portable Systems Operational Data

Extraction Well	Average Flowrate (scfm)	Average System Inlet Vacuum (inches of water)	Dates Operated	Remarks
24SVE2	7.6	5.9	4/21/99 - 6/22/99	Portable system relocated and connected to 24SVE35 on 6/23/99. Well was connected to the central treatment system on 8/11/99.
24SVE12	42	54	1/28/99 - 2/01/99 10/28/99 - 10/28/99 11/03/99 -	Well shut down 6/19/99. Restarted 10/28/99, shut down the same day, restarted in November and is currently on-line.
24SVE13	28	96	4/27/99 - 7/19/99	Portable system connected to 24SVE18. Rebound samples were collected on 10/26, 10/27, and 10/28.
24SVE15	103	31	8/26/99 - 10/08/99	Portable system relocated and connected to 24SVE154/154A/154B.
24SVE18	77	10	7/19/99 - 9/27/99 11/2/99 - 12/08/99	Well located within 70 feet of 24SVE13. Rebound samples were collected on 11/01, 11/02, and 11/03. System shut down on 12/8/99.
24SVE35	75	85	6/23/99 - 8/06/99	Well was connected to the central treatment system on 8/11/99.
24SVE35A	60	85	6/29/99 - 7/28/99	Well was connected to the central treatment system on 8/11/99.
24SVE35B	100	85	6/29/99 - 7/21/99	Well was connected to the central treatment system on 8/11/99.
24SVE138A	100	100	6/29/99 – 10/20/99	Well is currently off-line.
24SVE147A	36	54	6/16/99 - 6/18/99 10/26/99 - 10/28/99 11/03/99 -	Well was resampled in October, shut down, and restarted in November and is currently on-line.
24SVE154, 154A, 154B	10	54	10/13/99 - 10/20/99	Wells sampled on 10/14,10/15,10/18 and 10/20, and shut down on 10/20. Wells located near the Agua Chinnon Wash.



Notes:

1. In June and July wells 24SVE35/35A/35B and 24SVE2 were treated using the mobile treatment units, and starting in August they were switched onto the central treatment system.
2. Samples collected on 12/1/99 were rebound samples.

Progress Report - January 2000

Extracted Vapor Concentrations from 24SVE2, 24SVE12 and 24SVE35/35A/35B Site 24 - Vadose Zone Remediation

Date: 1-00	MCAS, El Toro	Figure
Project No. 29307	EARTH TECH A Tyco INTERNATIONAL LTD. COMPANY	2-12

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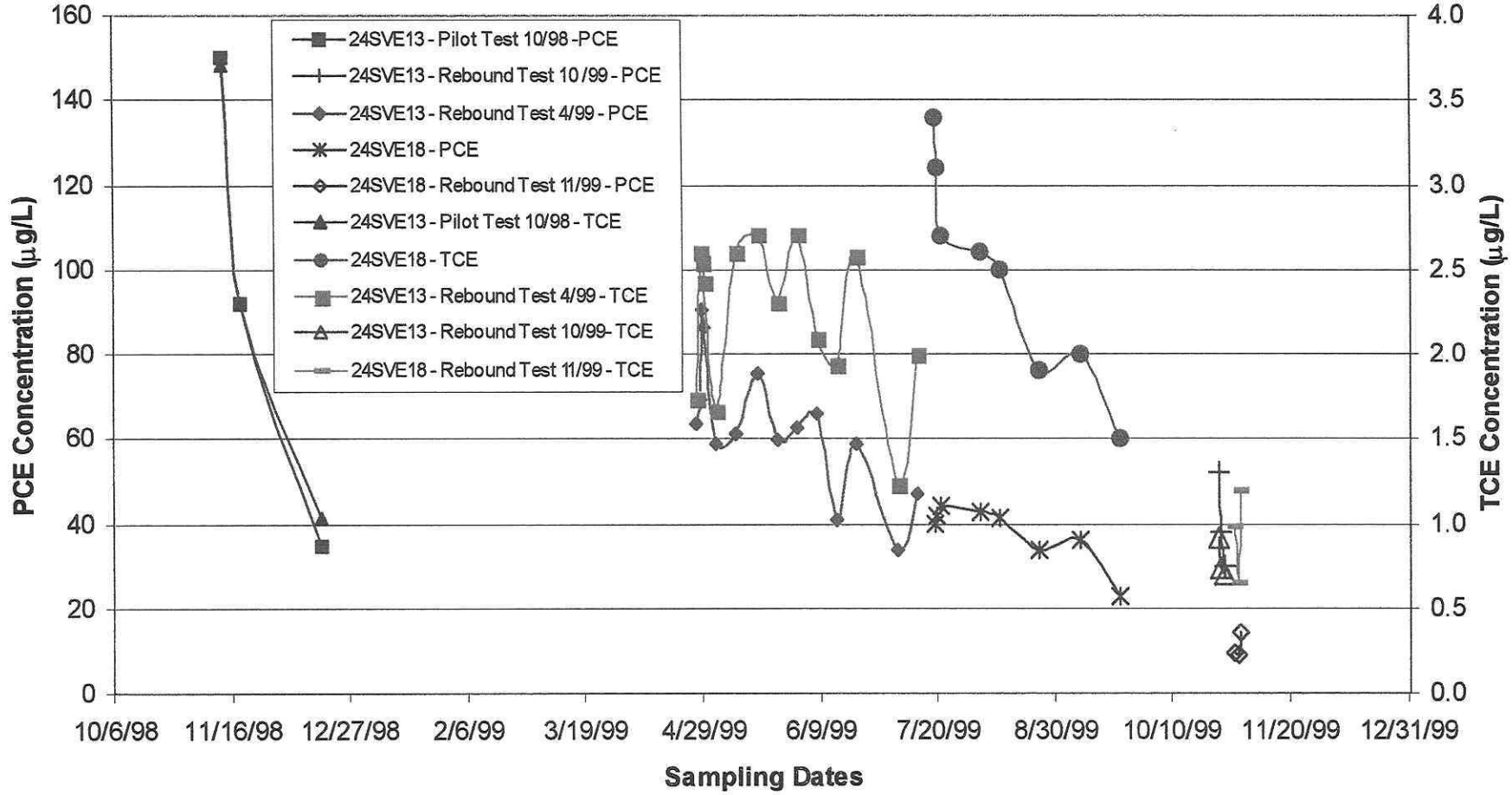

Progress Report - January 2000

Extracted Vapor Concentrations from 24SVE13 and 24SVE18
Site 24 - Vadose Zone Remediation

Date: 1-00	MCAS, El Toro	Figure
Project No. 29307	EARTH TECH A CH2M INTERNATIONAL LTD. COMPANY	2-13

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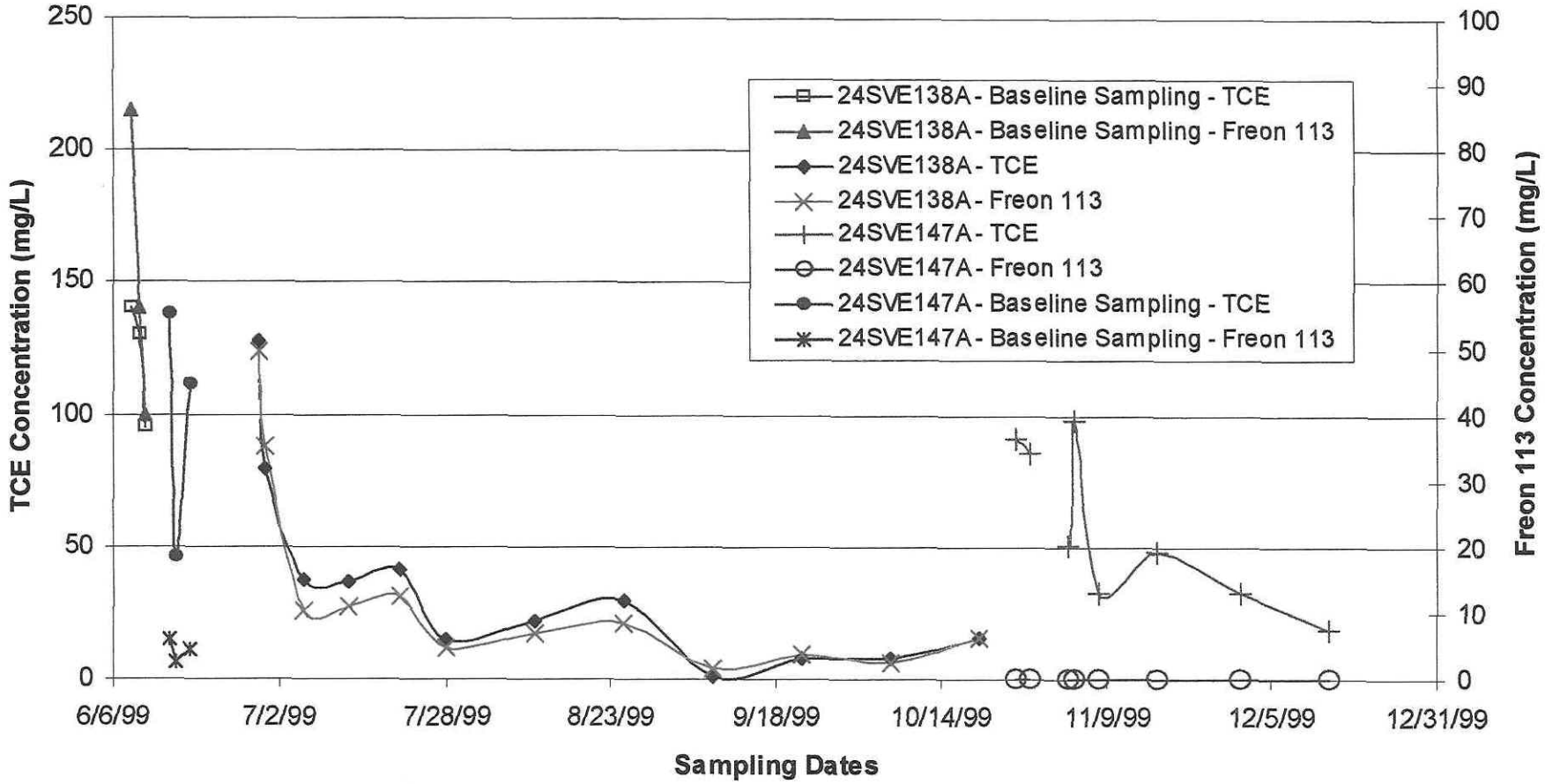

Notes:

1. Samples collected on 11/3/99 were restart samples.

Progress Report - January 2000

Extracted Vapor Concentrations from 24SVE138A and 24SVE147A Site 24 - Vadose Zone Remediation

Date: 1-00	MCAS, El Toro	Figure
Project No. 29307	EARTH TECH A tyco INTERNATIONAL LTD. COMPANY	2-14

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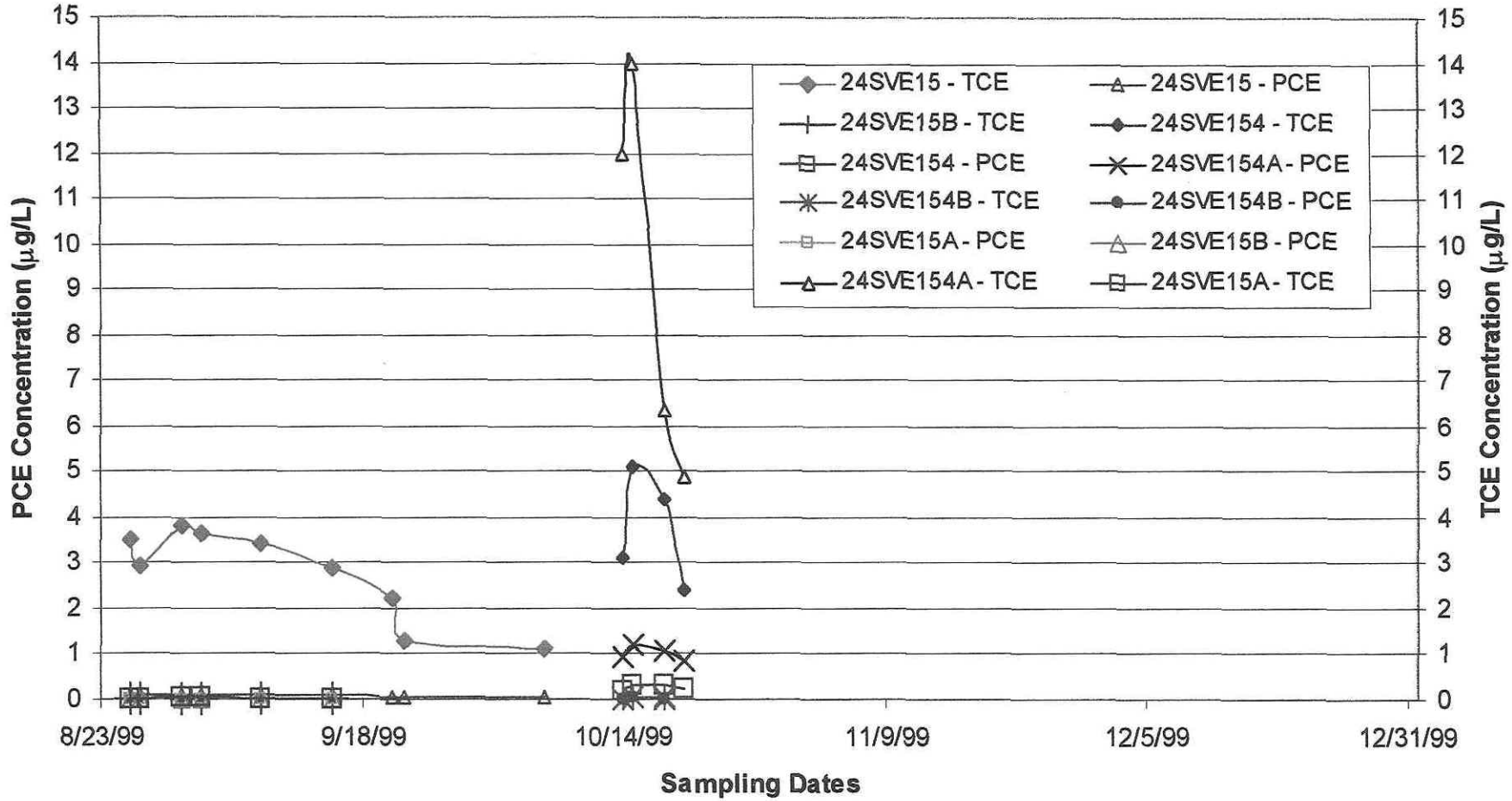

Progress Report - January 2000

Extracted Vapor Concentrations from 24SVE15/15A/15B and 24SVE154/154A/154B Site 24 - Vadose Zone Remediation

Date: 1-00	MCAS, El Toro	Figure
Project No. 29307	EARTH TECH A AECOM INTERNATIONAL LTD. COMPANY	2-15

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2.5 SVE Performance Evaluation

Objectives for Phase I operations include installation and operation of SVE wells to accurately evaluate the effective radius of influence (EROI), provide data regarding the current VOC plume configuration, and acquisition of operational data required for the selection of SVE well locations that will provide full coverage of the contaminant plume in the vadose zone. Extracted vapor concentrations and calculated EROI values, along with previous soil gas survey data, were used to assess the aerial coverage of the existing Phase I extraction wells. Recent vapor concentrations were used to assess progress of the remedial effort.

In November, baseline concentrations for each well connected to the central treatment system were compiled to generate baseline TCE concentration plume maps for the deep, intermediate, and shallow intervals as shown on Figure 2-16, Figure 2-17 and Figure 2-18 respectively.

In addition, during October a radius of influence (ROI) and an EROI were calculated for 22 wells in the deep interval, 9 wells in the intermediate interval, and 8 wells in the shallow interval. The lower of the calculated ROI or EROI was used for each well. A summary of the calculated ROI and EROI for each tested well is provided in Table A-5. The calculated EROI for each well was then plotted over the TCE contaminant plume and are presented in Figure 2-16 (Deep Zone), Figure 2-17 (Intermediate Zone), and Figure 2-18 (Shallow Zone). The results indicate that well operation in the intermediate zone provided full coverage of the May 1999 intermediate zone plume area, while operation in both the deep and shallow zones did not provide full coverage of the May 1999 contaminant plume. However, the shallow zone extraction wells provided full coverage of the contaminant plume based on the baseline extracted soil vapor concentrations. A discussion of these results was also presented in the November Monthly *Progress Report* (Earth Tech 1999c).

Along with determining the need for additional wells, an evaluation of the flow and concentration characteristics was performed using a downhole well logging tool, the Pneulog. Ten wells were evaluated using this tool, and preliminary results indicate that two of the ten wells had TCE concentrations that exceed the soil gas threshold value of 27 µg/L. A more detailed presentation of these results will be presented in the February 2000 Monthly Progress Report.

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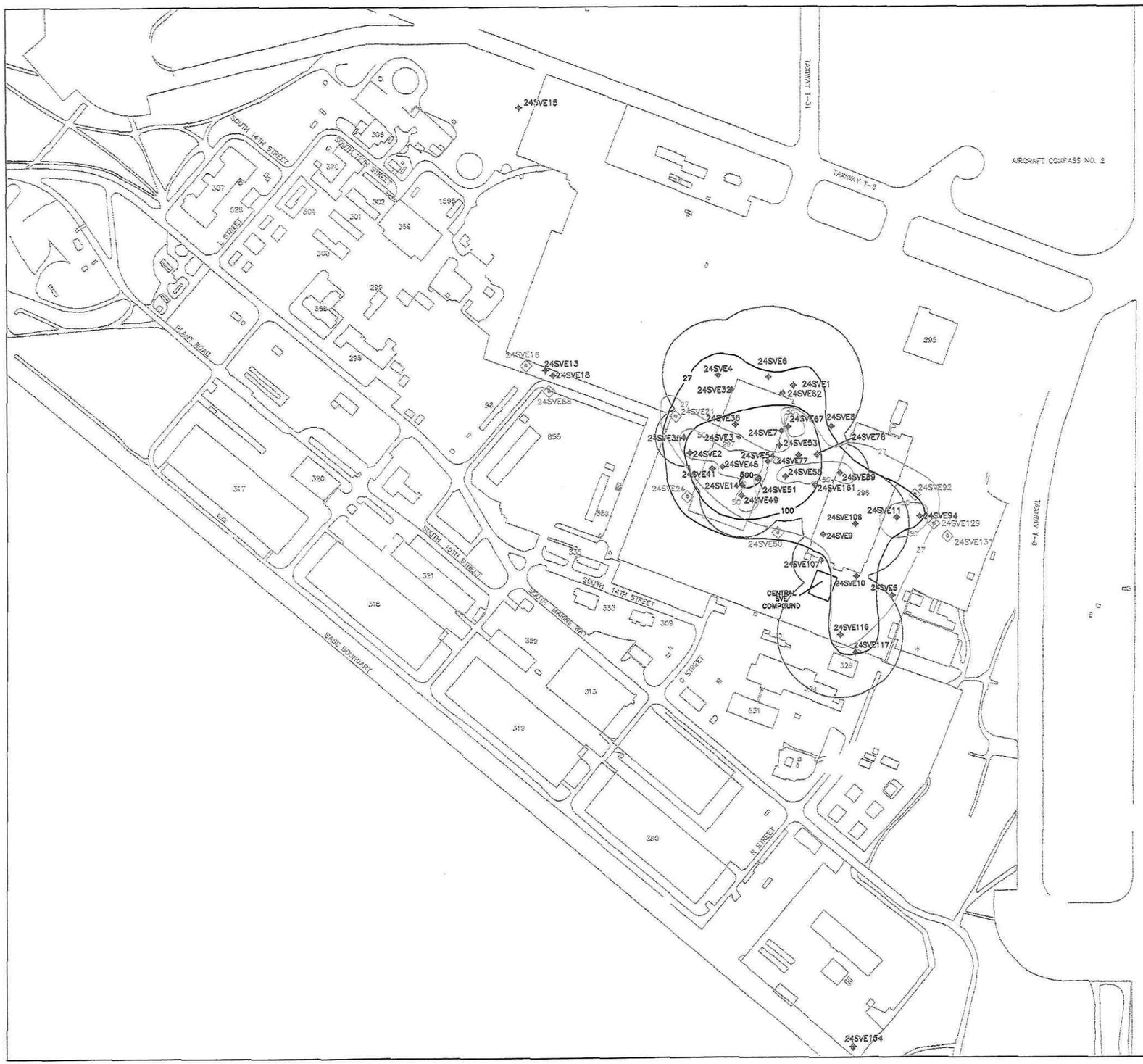

PRIMARY SOURCE OF MAP INFORMATION
DRAFT FINAL ENGINEERING
DESIGN REPORT (BECHTEL)

EXPLANATION

24SVE1 — SOIL VAPOR EXTRACTION WELL

PROPOSED SOIL VAPOR EXTRACTION WELL

27 — CONTOUR LINE OF TCE SOIL GAS CONCENTRATION IN UG\L MAY 1999

27 — CONTOUR LINE OF TCE BASELINE SAMPLE CONCENTRATION IN UG\L

EROI BOUNDARY

NORTH

0 225 450

SCALE: 1" = 450

Progress Report - January 2000

Deep Zone Baseline TCE Concentrations vs EROI and Proposed Well Locations
Site 24 - Vadose Zone Remediation

Date: 1-00	MCAS, El Toro	Figure
Project No. 29307	EARTH TECH — A CH2M HILL INTERNATIONAL LTD. COMPANY	2-16

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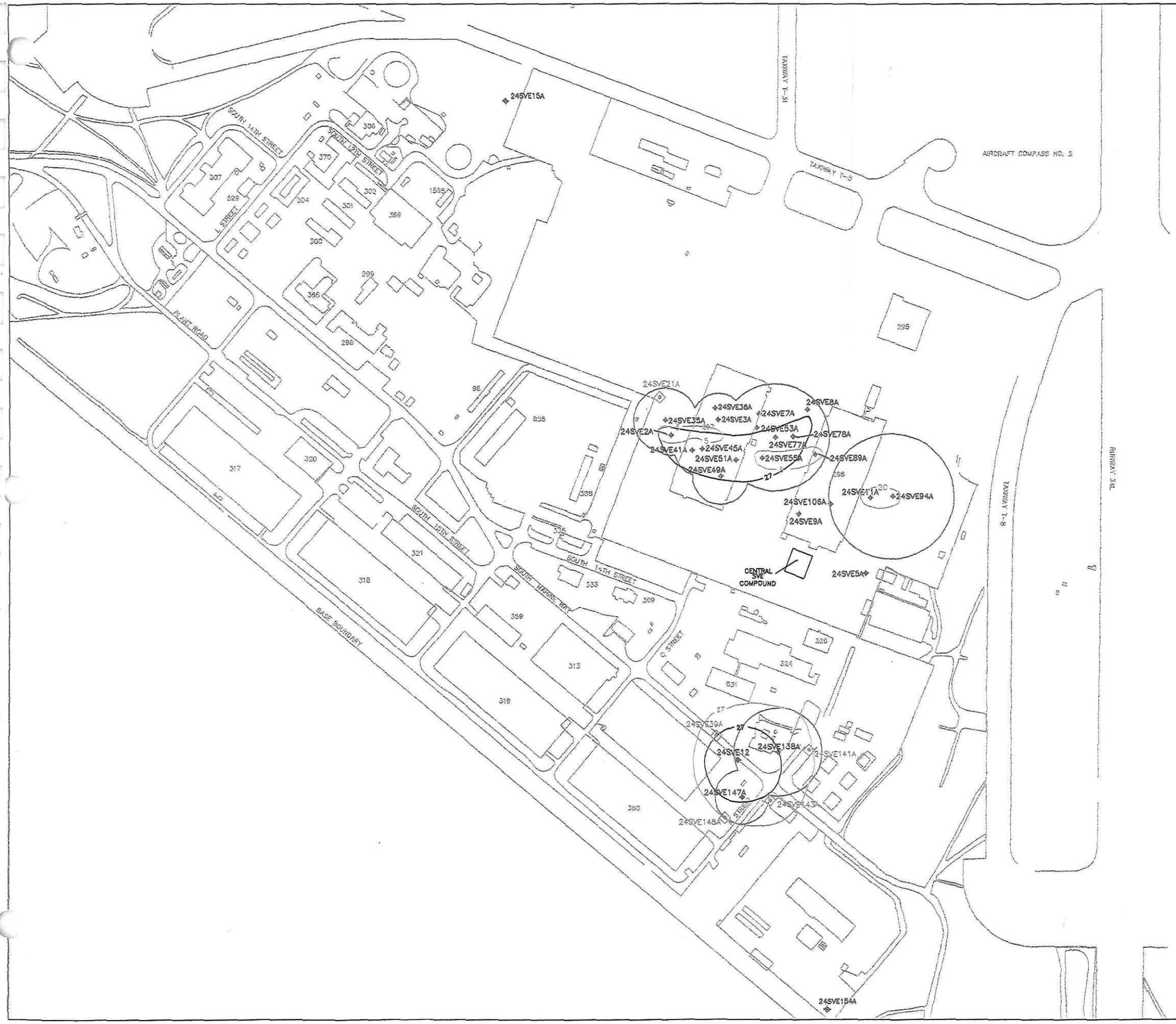

EXPLANATION

24SVE1 — SOIL VAPOR EXTRACTION WELL

PROPOSED SOIL VAPOR EXTRACTION WELL

27 — CONTOUR LINE OF TCE SOIL GAS CONCENTRATION IN UG/L MAY 1999

20 — CONTOUR LINE OF TCE BASELINE SAMPLE CONCENTRATION IN UG\L

EROI BOUNDARY

NORTH

0 225 450

SCALE: 1" = 450

Progress Report - January 2000

Intermediate Zone Baseline TCE Concentrations vs EROI and Proposed Well Locations
Site 24 - Vadose Zone Remediation

Date 1-00	MCAS, El Toro	Figure
Project No. 29307	EARTH TECH — A Tyco INTERNATIONAL LTD. COMPANY	2-17

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DRAFT FINAL ENGINEERING
DESIGN REPORT (BECHTEL)

EXPLANATION

24SVE1 — SOIL VAPOR EXTRACTION WELL

PROPOSED SOIL VAPOR EXTRACTION WELL

27 — CONTOUR LINE OF TCE SOIL GAS CONCENTRATION IN UG\L MAY 1999

27 — CONTOUR LINE OF TCE BASELINE SAMPLE CONCENTRATION IN UG\L

EROI BOUNDARY

NORTH

0 225 450

SCALE: 1" = 450

Progress Report - January 2000

Shallow Zone Baseline TCE Concentrations vs EROI and Proposed Well Locations
Site 24 - Vadose Zone Remediation

Date 1-00	MCAS, El Toro	Figure
Project No. 29307	EARTH TECH — A TYCO INTERNATIONAL LTD. COMPANY	2-18

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3. PLANNED OPERATIONS AND ACTIVITIES

Activities planned for January 2000 include

- Continuation of SVE at some existing wells and the operation of the central treatment system,
- Completion of installation and baseline sampling of the fourteen additional SVE wells,
- Continuation of SVE at 24SVE12 and 24SVE147A using a portable treatment system.

4. REFERENCES

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Appendix A

Table A-1 Phase I SVE Well Installation Summary
Table A-2 Additional Well Installation and Completion Details
Table A-3 Modified Sampling and Monitoring Schedule
Table A-4 Extraction Well Sampling and Monitoring Data Summaries
Table A-5 Summary of EROI Estimates

Table A-1: Phase I SVE Well Installation Summary

Well Number	Date Installed	Total Depth (feet bgs)	Well Diameter (inches)	Screen Interval (feet bgs)	Depth Zone	Primary Purpose /Remarks
24SVE138A	5/7/99	71.2	2	45-70	Intermediate	Monitoring well for 24SVE12.
24SVE147A	5/7/99	77.75	2	57-77	Intermediate	Monitoring well for 24SVE12.
24SVE 117	5/11/99	105	4	73-98	Deep	Monitoring well for 24SVE116 and evaluation of the extent of contamination to the southeast of 24SVE116.
24SVE 128B	5/17/99	41	4	15-40	Shallow	Extraction well and evaluation of shallow contamination to the east of hangar 296.
24SVE67B	5/13/99	104	2	17-32	Shallow	Monitor extraction at 24SVE1 and 24SVE7.
24SVE67			2	75-100	Deep	
24SVE32B	6/17/99	105	4	20-40	Shallow	Concentration and vacuum monitoring; provides EROI data for SVE3 and SVE4.
24SVE32			2	77-102	Deep	
24SVE35B	6/10/99	105	2	15-35	Shallow	Concentration and vacuum monitoring; provides EROI data for SVE2; plume delineation.
24SVE35A			2	50-75	Intermediate	
24SVE35			2	85-105	Deep	
24SVE36B	6/29/99	105	2	15-40	Shallow	Concentration and vacuum monitoring; provides EROI data for SVE2, SVE3, SVE14, and SVE45.
24SVE36A			2	45-65	Intermediate	
24SVE36			2	80-100	Deep	
24SVE41B	6/24/99	105	4	20-40	Shallow	Concentration and vacuum monitoring; provides EROI data for SVE14 and SVE45; plume delineation.
24SVE41A			2	55-75	Intermediate	
24SVE41			2	85-105	Deep	
24SVE45B	6/25/99	105	2	20-40	Shallow	Extraction
24SVE45A			2	50-70	Intermediate	
24SVE45			2	80-100	Deep	
24SVE49B	6/23/99	105	4	18-33	Shallow	Concentration and vacuum monitoring; provides EROI data for SVE14; plume delineation.
24SVE49A			2	45-65	Intermediate	
24SVE49			2	83-103	Deep	
24SVE51B	6/22/99	105	2	18-33	Shallow	Concentration and vacuum monitoring; provides EROI data for SVE14 and SVE54; plume delineation.
24SVE51A			2	49-69	Intermediate	
24SVE51			2	83-103	Deep	
24SVE53B	6/14/99	105	2	15-35	Shallow	Concentration and vacuum monitoring; provides EROI data for SVE3, SVE7, SVE54, and SVE77; plume delineation.
24SVE53A			2	45-65	Intermediate	
24SVE53			2	73-88	Deep	
24SVE55B	6/18/99	105	2	15-30	Shallow	Concentration and vacuum monitoring; provides EROI data for SVE14, SVE54, SVE77, and SVE161.
24SVE55A			2	40-70	Intermediate	
24SVE55			2	80-100	Deep	
24SVE62B	6/30/99	105	2	15-40	Shallow	Concentration and vacuum monitoring; provides EROI data for SVE1.
24SVE62			2	80-105	Deep	
24SVE77B	6/15/99	105	2	18-33	Shallow	Extraction
24SVE77A			2	39-54	Intermediate	
24SVE77			2	75-100	Deep	
24SVE89B	6/9/99	105	2	15-35	Shallow	Concentration and vacuum monitoring; provides EROI data for SVE161.
24SVE89A			2	50-75	Intermediate	
24SVE89			2	80-105	Deep	
24SVE94B	6/4/99	105	2	25-45	Shallow	Concentration and vacuum monitoring; provides EROI data for SVE11; plume delineation.
24SVE94A			2	50-70	Intermediate	
24SVE94			2	75-105	Deep	
24SVE106B	6/8/99	105	2	15-40	Shallow	Concentration and vacuum monitoring; provides EROI data for SVE9, SVE11, and SVE161.
24SVE106A			2	45-65	Intermediate	
24SVE106			2	70-95	Deep	

Well Number	Date Installed	Total Depth (feet bgs)	Well Diameter (inches)	Screen Interval (feet bgs)	Depth Zone	Primary Purpose /Remarks
24SVE78B	7/2/99	100	2	20-35	Shallow	Concentration and vacuum monitoring; provides EROI data for SVE7, SVE77, and SVE161; plume delineation.
24SVE78A			2	45-60	Intermediate	
24SVE78			2	80-100	Deep	
24SVE18	7/7/99	100	4	80-100	Deep	Concentration and vacuum monitoring; provides EROI data for SVE13; plume delineation.
24SVE154B	7/9/99	100	2	15-35	Shallow	Plume delineation in the vicinity of Agua Chinon Wash.
24SVE154A			2	45-60	Intermediate	
24SVE154			2	65-75	Deep	
24SVE15B	7/12/99	104	2	15-30	Shallow	Plume delineation in the crash crew area.
24SVE15A			2	38-53	Intermediate	
24SVE15			2	79-104	Deep	

Notes:
bgs = below ground surface
EROI = effective radius of influence

Table A-2 Additional Well Installation and Completion Details

Well ID	Date Drilled	Date Installed	Screened Interval Range (feet)	Depth Interval	Initial Function
24SVE16	12/13/99	12/14/99	80–100	Deep	Plume delineation; extraction; provides EROI data for SVE 13 and SVE18.
24SVE21A				Intermediate	Plume delineation; extraction.
24SVE21				Deep	Plume delineation; extraction.
24SVE24	12/15/99	12/16/99	70–105	Deep	Plume delineation; extraction.
24SVE50	12/16/99	12/16/99	78–103	Deep	Plume delineation; extraction.
24SVE68	12/14/99	12/14/99	79–105	Deep	Plume delineation; extraction; provides EROI data for SVE 18 and SVE13.
24SVE92	12/17/99	12/17/99	75–100	Deep	Plume delineation; extraction; provides EROI data for SVE94.
24SVE129				Deep	Plume delineation; extraction; provides EROI data for SVE94.
24SVE131B				Shallow	Plume delineation; extraction;
24SVE131				Deep	Plume delineation; extraction; provides EROI data for SVE94.
24SVE39A				Intermediate	Plume delineation; extraction; provides EROI data for SVE12.
24SVE141A				Intermediate	Plume delineation; provides EROI data for SVE138A.
24SVE143A	12/21/99	12/22/99	50–75	Intermediate	Plume delineation; provides EROI data for SVE147A.
24SVE148A	12/20/99	12/21/99	55–75	Intermediate	Plume delineation; provides EROI data for SVE147A.

Table A-3: Modified Sampling and Monitoring Schedule

Time	Sample Location(s)	Frequency	Measurements
System startup (Week 1)	S1, S2, S3	Daily	Flowrates, system vacuum, and system effluent
Initial operation period (Week 2 – 4)	S1, S2, S3	Weekly	VOCs by TO14/ 8021 (Tedlar™ bag) for operational assessment
Initial operation period (Week 5 – 8)	S1, S2, S3	Biweekly	Flowrates, vacuum, vapor concentration
Initial operation period (Week 5 – 8)	S1, S3	Biweekly	VOCs by TO14/ 8021 (Tedlar™ bag) for operational assessment
Initial operation period (Week 5 – 8)	S2	Monthly	VOCs by TO14/ 8021 (Tedlar™ bag) for compliance
End of initial operation period (Week 15)	Extraction wells	Event I	VOCs in extracted vapors by Method 8021
Phase I operations (Month 2 – Month 6)	Treatment system and extraction wells	Biweekly	Flowrates, vacuum, vapor concentration, wellhead vacuum
Phase I and Phase II operations	Groundwater monitoring wells	Monthly	Groundwater elevations
End of Phase I operations (Month 6)	Extraction wells	Event II	VOCs in extracted vapors by Method 8021
Phase II operations (Month 6 – Month 18)	S1,S3 and extraction wells	Biweekly	Flowrates, vacuum, vapor concentration, wellhead vacuum
Phase II operations (Month 6 – Month 18)	S2	Monthly	VOCs by TO14/ 8021 (Tedlar™ bag) for operational assessment
Phase II operations (Month 8)	Extraction wells	Event III	VOCs in extracted vapors by Method 8021
Phase II operations (Month 12)	Extraction wells	Event IV	VOCs in extracted vapors by Method 8021
Phase II operations (Month 18)	Extraction wells	Event V	VOCs in extracted vapors by Method 8021
Initial load of condensate and spent carbon	T-100 and VT100	Initial load	Waste characterization

Table A-4
(Page 1 of 5)

IRP Site 24 Extraction Well Sampling and Monitoring Data Summary

		Depth of Screen Interval	Wells on-line 5/18/99	Extracted Vapor Concentrations after 24 Hrs (5/18/99) µg/L							Wells on-line 5/25/99	Extracted Vapor Concentrations after 7 days (5/25/99) µg/L							Wells on line 6/2/99	Extracted Vapor Concentrations (6/2/99) µg/L							Wells on line 6/8/99	Extracted Vapor Concentrations (6/8/99) µg/L							Wells on-line 6/23/99	Extracted Vapor Concentrations (6/23/99) µg/L							Wells on-line 6/29/99	Extracted Vapor Concentrations (6/29/99) µg/L							Wells on line 7/7/99	Extracted Vapor Concentrations (7/7/99) µg/L						
				Vacuum (in. H2O)	Flow (scfm)	TCE	Freon 113	1,1 DCE	PCE	CCL4		Vacuum (in. H2O)	Flow (scfm)	TCE	Freon 113	1,1 DCE	CCL4	PCE		Vacuum (in. H2O)	Flow (scfm)	TCE	Freon 113	1,1 DCE	CCL4	PCE		Vacuum (in. H2O)	Flow (scfm)	TCE	Freon 113	1,1 DCE	CCL4	PCE		Vacuum (in. H2O)	Flow (scfm)	TCE	Freon 113	1,1 DCE	CCL4	PCE		Vacuum (in. H2O)	Flow (scfm)	TCE	Freon 113	1,1 DCE	CCL4	PCE		Vacuum (in. H2O)	Flow (scfm)	TCE	Freon 113	1,1 DCE	CCL4	PCE
24SVE10	Deep	79-109	Y	32	225	26	23	0.4-JA	ND	ND	Y	25	175	**41**	31.00	0.42	ND	ND	Y	55	> 125	-	-	-	-	-	Y	-	-	11	14	0.16	ND	0.30	Y	50	> 125	6.10	11.00	ND	ND	ND	N	38	-	-	-	-	-	-	Y	44	> 125	4.80	8.5	0.1-JA	ND	0.15
24SVE 8	Deep	83-113	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE 8A	Intermediate	50-78	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE104B	Shallow	25-45	Y	25	-	1.4	0.69	ND	ND	ND	Y	16	300	3.10	1.30	ND	ND	ND	N	1.5	-	-	-	-	-	-	N	1.35	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	0.9	-	-	-	-	-	-	N	1.2	-	-	-	-	-	-
24SVE106	Deep	70-95	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	Y	50	> 45	15.00	0.77	ND	ND	ND	Y	55	> 125	-	-	-	-	-	Y[3]	72	> 165	-	-	-	-	-
24SVE106A	Intermediate	45-65	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	Y	50	9	0.046	ND	ND	ND	ND	N	3	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE106B	Shallow	15-40	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	50	> 45	0.04	ND	ND	ND	ND	N	1.2	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE107	Deep	70-95	Y	> 100	50	4.7	66	ND	ND	ND	Y	90	50	7.10	120-D	0.20-JA	ND	0.16	N	-	-	-	-	-	-	-	N	0.15	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	0.1	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE11	Deep	79-109	Y	99	20.2	16	8.5	ND	ND	ND	Y	80	25	**89**	27.00	ND	ND	ND	Y	90	25	-	-	-	-	-	Y	95	30	**39**	3.30	ND	ND	ND	Y	45	19	**68**	2.40	ND	ND	ND	Y	45	9	-	-	-	-	-	Y	70	25	24	0.46	ND	ND	ND
24SVE11A	Intermediate	43-73	Y	99	20	23	14	ND	ND	ND	Y	80	25	7.50	1.00	ND	ND	ND	Y	90	25	-	-	-	-	-	Y	95	25	0.45	ND	ND	ND	ND	Y	45	5	0.3	ND	ND	ND	ND	N	2.5	-	-	-	-	-	-	N	3	-	-	-	-	-	-
24SVE116	Deep	75-95	Y	99	119.43	**39**	81	1.1	1.2	ND	Y	90	110	**41**	63	1.10-JA	ND	1.20	Y	110	125	-	-	-	-	-	Y	115	> 125	15	22	0.63-JA	ND	0.74	Y	65	75	9.50	14.07	0.37	0.09	0.56	Y	75	77	-	-	-	-	-	Y	78	84	6.70	21	0.34-JA	ND	0.59
24SVE117	Deep	73-98	N	-	-	-	-	-	-	-	Y	90	70	14	330-D	0.98-JA	0.76	4.4	Y	110	77	-	-	-	-	-	Y	110	88	4.60	87-D	0.39	0.42	2.30	Y	81	70	2.60	72.00	ND	ND	1.90	N	-	-	-	-	-	-	-	N	0.01	-	-	-	-	-	-
24SVE128B	Shallow	15-40	N	-	-	-	-	-	-	-	Y	70	280	**50**	37	ND	ND	ND	N	-	-	-	-	-	-	-	Y	83	308	20	8.10	ND	ND	ND	Y	35	140	12.00	2.80	ND	ND	ND	Y	39	150	-	-	-	-	-	Y	60	224	5.30	1.6	ND	ND	ND
24SVE161	Deep	70-95	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	Y	97	70	**46**	13	0.53	ND	ND	Y	100	62	**32**	10	0.37	ND	ND	Y	45	32	22	21	0.25 JA	ND	ND	Y	48	30	-	-	-	-	-	Y	75	55	16	44 D	0.22-JA	0.19	0.41
24SVE5	Deep	68-88	Y	95	21.25	8.5	9.1	0.45-JA	0.92	0.3	Y	95	25	**30**	35.00	1.60	1.50	4.00	N	0.7	-	-	-	-	-	-	Y	120	25	6.20	1.10	0.12	0.12	0.59	Y	85	5	3.90	0.27	0.052	0.042	0.35	N	0.85	-	-	-	-	-	-	N	1.15	-	-	-	-	-	-
24SVE5A	Intermediate	42-57	Y	80	120	0.84	0.49	0.031	0.097	0.023	Y	65	120	2.70	1.90	0.09	0.079	0.31	N	1.25	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-					N	0.6	-	-	-	-	-	-	N	0.75	-	-	-	-	-	-
24SVE78	Deep	80-100	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE78A	Intermediate	45-60	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE78B	Shallow	20-35	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE89	Deep	80-105	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	Y	35	25	**130**	24	2.70	ND	ND	Y	40	30	-	-	-	-	-	Y	70	75	**36**	7.7	0.65	ND	0.36
24SVE89A	Intermediate	50-75	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	Y	32	> 45	8.90	1.20	0.15	ND	ND	Y	35	100	-	-	-	-	-	N	3.5	-	-	-	-	-	-
24SVE89B	Shallow	15-35	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	Y	30	> 45	0.07	0.05	ND	ND	ND	Y	30	> 125	-	-	-	-	-	N	0.6	-	-	-	-	-	-
24SVE9	Deep	81-111	Y	> 100	> 15	**36**	68	0.38-JA	ND	ND	Y	90	16	**53**	170	0.44-JA	ND	ND	Y	110	18	-	-	-	-	-	Y	112	14	19	58	ND	ND	ND	Y	70.00	18	17	80	ND	ND	ND	Y	78	13	-	-	-	-	-	Y	95	25	14	140-D	0.24-JA	0.2	0.34
24SVE9A	Intermediate	55-85	Y	> 100	-	1.6	2.3	0.014-JA	ND	ND	Y	90	50	5.20	11	ND	ND	ND	N	0.75	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	0.85	-	-	-	-	-	-	N	1	-	-	-	-	-	-
24SVE94	Deep	75-105	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	2.6	-	-	-	-	-	-	Y	30	12.6	**40**	16	0.82	0.61	ND	Y	35	25	-	-	-	-	-	Y	55	30	**56**	18	0.50-JA	0.83	ND
24SVE94A	Intermediate	45-65	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	3.1	-	-	-	-	-	-	Y	28	> 45	24	15	0.26 JA	0.44	ND	Y	30	70	-	-	-	-	-	Y	50	> 125	11	3.7	0.068-JA	0.25	ND
24SVE94B	Shallow	15-40	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	3.2	-	-	-	-	-	-	Y	25	> 45	3.90	3.50	0.052	0.14	ND	Y	28	> 125	-	-	-	-	-	N	5	-	-	-	-	-	-
PORTABLE SVE UNITS																																																										
24SVE12	Intermediate	34-74	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE13	Deep	79-109	Y	84	27	2.71	2.29	ND	75.4	ND	Y	74	23	2.65	2.357	ND	ND	66.07	Y	100	27	2.71	2.67	ND	ND	62.7	Y	100	27	1.95	1.9	ND	ND	65.5	Y	98	27	2.585	2.32	ND	ND	58.7	Y	100	27	ND	ND	ND	ND	ND	Y	100	27	1.235	0.98	ND	ND	26.8
24SVE15	Deep	79-104	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE15A	Intermediate	38-53	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE15B	Shallow	15-30	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE18	Deep	80-100	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE138A	Intermediate	45-70	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	Y[1]	94	70	**140**	215.3	ND	5.266	5.24	Y	98	70	Not sampled					Y[4]	100	85	**79.74**	87.70	ND	2.50	2.57	Y	100	90	**37**	26	ND	0.69	0.77
24SVE147A	Intermediate	57-77	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	Y[2]	98	60	**138**	5.885	1.116	2.95	3.29	Y[3]	98	60	**111.53**	4.45	ND	ND	2.46	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE154	Deep	65-75	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE154A	Intermediate	45-60	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE154B	Shallow	15-35	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-

Table A-4
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IRP Site 24 Extraction Well Sampling and Monitoring Data Summary

		Depth of Screen Interval	Wells on-line 7/21/99	Extracted Vapor Concentrations (7/21/99) µg/L							Wells on-line 7/28/99	Extracted Vapor Concentrations[6] (7/28/99) µg/L							Wells on-line 8/4/99	Extracted Vapor Concentrations (8/4/99) µg/L							Wells on-line 8/18/99	Extracted Vapor Concentrations (8/18/99) µg/L							Wells on-line 8/25/99	Extracted Vapor Concentrations (8/25/99) µg/L							Wells on-line 8/27/99	Extracted Vapor Concentrations (8/27/99) µg/L							Wells on-line 8/31/99	Extracted Vapor Concentrations (8/31/99) µg/L						
				Vacuum (in. H2O)	Flow (scfm)	TCE	Freon 113	1,1 DCE	CCL4	PCE		Vacuum (in. H2O)	Flow (scfm)	TCE	Freon 113	1,1 DCE	CCL4	PCE		Vacuum (in. H2O)	Flow (scfm)	TCE	Freon 113	1,1 DCE	CCL4	PCE		Vacuum (in. H2O)	Flow (scfm)	TCE	Freon 113	1,1 DCE	CCL4	PCE		Vacuum (in. H2O)	Flow (scfm)	TCE	Freon 113	1,1 DCE	CCL4	PCE		Vacuum (in. H2O)	Flow (scfm)	TCE	Freon 113	1,1 DCE	CCL4	PCE		Vacuum (in. H2O)	Flow (scfm)	TCE	Freon 113	1,1 DCE	CCL4	PCE
24SVE10	Deep	79-109	Y	25	170	3	6.9	0.1 JA	ND	0.16	N	0.45	-	-	-	-	-	-	n	-	-	-	-	-	-	-	n	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE 8	Deep	83-113	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE 8A	Intermediate	50-78	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE104B	Shallow	25-45	N	0.8	-	-	-	-	-	-	N	0.15	-	-	-	-	-	-	n	-	-	-	-	-	-	-	n	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE106	Deep	70-95	Y	50	125	7.60	3.4	ND	ND	ND	Y	50	125	-	-	-	-	-	Y	50	125	6.6	1.6	ND	ND	ND	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE106A	Intermediate	45-65	N	2	-	-	-	-	-	-	N	0	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE106B	Shallow	15-40	N	1.15	-	-	-	-	-	-	N	1.1	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE107	Deep	70-95	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE11	Deep	79-109	Y	60	25	29	ND	ND	ND	ND	Y	61	25	-	-	-	-	-	Y	56	25	20	ND	ND	ND	ND	Y	70	25	16	ND	ND	ND	ND	Y	55	21	16	ND	ND	ND	ND	Y	-	-	-	-	-	-	-	Y	-	-	-	-	-	-	-
24SVE11A	Intermediate	43-73	N	3	-	-	-	-	-	-	Y	3	-	0.04	ND	ND	ND	ND	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE116	Deep	75-95	Y	110	210	3.60	14	0.26-JA	ND	0.48	Y	105	210	-	-	-	-	-	Y	110	220	3.6	17	0.28	0.094	0.53	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE117	Deep	73-98	N	0.1	-	-	-	-	-	-	Y	106	168	1.40	45	ND	ND	1.3	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE128B	Shallow	15-40	Y	50	105	3.40	1.9	ND	ND	ND	Y	50	105	-	-	-	-	-	Y	50	-	2.5	1.6	ND	ND	ND	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE161	Deep	70-95	Y	60	7	8.60	24	0.15	0.15	0.35	Y	56	56	-	-	-	-	-	Y	55	30	7.2	27	ND	ND	0.21	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE5	Deep	68-88	N	0.8	-	-	-	-	-	-	Y	110	25	2	0.34	0.057	0.062	0.24	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE5A	Intermediate	42-57	N	0.55	-	-	-	-	-	-	N	0.4	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE78	Deep	80-100	Y	40	75	37	4.8	0.76	ND	ND	Y	40	75	-	-	-	-	-	Y	40	80	30	9.4	0.65	ND	0.54	Y	60	125	17	6.1	0.38	ND	0.41	Y	50	95	13	3.7	0.25	ND	0.24	Y	-	-	-	-	-	-	-	Y	-	-	-	-	-	-	-
24SVE78A	Intermediate	45-60	Y	42	25	1.20	0.093	ND	ND	0.062	Y	45	25	-	-	-	-	-	Y	40	25	2.6	0.43	ND	ND	0.075	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE78B	Shallow	20-35	Y	40	> 125	1.10	0.039	ND	ND	0.32	Y	32	> 125	-	-	-	-	-	Y	30	125	0.74	0.55	ND	ND	0.28	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE89	Deep	80-105	Y	55	50	14	1.7	0.25	ND	0.23	Y	55	50	-	-	-	-	-	Y	55	55	7.7	8.6	0.11	ND	0.13	Y	65	65	5.4	3.9	0.072	ND	0.096	Y	55	50	4.7	1.2	ND	ND	ND	Y	-	-	-	-	-	-	-	Y	-	-	-	-	-	-	-
24SVE89A	Intermediate	50-75	N	4	-	-	-	-	-	-	N	4	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE89B	Shallow	15-35	N	0.3	-	-	-	-	-	-	N	1.2	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE9	Deep	81-111	Y	90	12	10	88	ND	ND	ND	Y	87	30	-	-	-	-	-	Y	92	30	10	55	ND	ND	ND	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE9A	Intermediate	55-85	N	1.05	-	-	-	-	-	-	Y	87	45	0.049	ND	ND	ND	ND	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE94	Deep	75-105	Y	50	35	27	8.4	ND	ND	ND	Y	50	25	-	-	-	-	-	Y	50	25	46	11	0.32	0.67	ND	Y	70	25	18	5.4	ND	0.34	ND	Y	55	30	18	4.3	ND	0.2	ND	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE94A	Intermediate	45-65	Y	35	60	5.30	2.3	ND	0.17	ND	Y	43	115	-	-	-	-	-	Y	45	>125	4.8	2	0.028	0.12	ND	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE94B	Shallow	15-40	N	5	-	-	-	-	-	-	N	0.002	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
PORTABLE SVE UNITS																																																									
24SVE12	Intermediate	34-74	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE13	Deep	79-109	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE15	Deep	79-104	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	Y	10	65	2.95	0.335	ND	ND	0.08	Y	11	65	3.8	0.44	ND	ND	0.09
24SVE15A	Intermediate	38-53	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	Y	10	60	0.012	0.035	ND	ND	ND	Y	11	60	0.029	0.052	ND	ND	ND
24SVE15B	Shallow	15-30	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	Y	10	55	ND	ND	ND	ND	ND	Y	11	55	ND	ND	ND	ND	ND
24SVE18	Deep	80-100	Y	12	80	3.1	2.55	ND	ND	41.5	Y	12	80	Not sampled					Y	5	72	2.6	2.05	ND	ND	42.5	Y	10	85	Not sampled					Y	10	85	1.9	1.1	ND	ND	33.5	Y	10	87	Not sampled					Y	10	87	Not sampled							
24SVE138A	Intermediate	45-70	Y	100	100	41.02	30.81	ND	0.7	0.87	Y	100	100	13.5	11	0.1	0.2	0.3	Y[7]	100	105	22	17	ND	0.26	0.49	Y	100	105	Not sampled					Y	100	105	29.89	21.29	0.16	0.39	0.66	Y	100	105	Not sampled					Y	100	105	Not sampled							
24SVE147A	Intermediate	57-77	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE154	Deep	65-75	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE154A	Intermediate	45-60	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE154B	Shallow	15-35	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-

Table A-4
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IRP Site 24 Extraction Well Sampling and Monitoring Data Summary

		Depth of Screen Interval	Wells on-line 9/8/99	Extracted Vapor Concentrations (9/8/99) µg/L							Wells on-line 9/21-9/23/99	Extracted Vapor Concentrations (9/21-9/23/99) µg/L							Wells on-line 10/6/99	Extracted Vapor Concentrations (10/6/99) µg/L							Wells on-line 10/20/99	Extracted Vapor Concentrations (10/20/99) µg/L							Wells on-line 12/1/99	Extracted Vapor Concentrations (12/1/99) µg/L							Wells on-line 12/15/99	Extracted Vapor Concentrations (12/15/99) µg/L						
				Vacuum (in. H2O)	Flow (scfm)	TCE	Freon 113	1,1 DCE	CCL4	PCE		Vacuum (in. H2O)	Flow (scfm)	TCE	Freon 113	1,1 DCE	CCL4	PCE		Vacuum (in. H2O)	Flow (scfm)	TCE	Freon 113	1,1 DCE	PCE	CCL4		Vacuum (in. H2O)	Flow (scfm)	TCE	Freon 113	1,1 DCE	CCL4	PCE		Vacuum (in. H2O)	Flow (scfm)	TCE	Freon 113	1,1 DCE	CCL4	PCE		Vacuum (in. H2O)	Flow (scfm)	TCE	Freon 113	1,1 DCE	CCL4	PCE
24SVE10	Deep	79-109	N	-	-	-	-	-	-	-	Y	26	185	ND	3.3	ND	ND	ND	N	-	-	-	-	-	-	-	N	0.12	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE 8	Deep	83-113	N	-	-	-	-	-	-	-	Y	22	0	ND	ND	ND	ND	ND	N	-	-	-	-	-	-	-	N	2	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE 8A	Intermediate	50-78	N	-	-	-	-	-	-	-	Y	22	35	ND	ND	ND	ND	ND	N	-	-	-	-	-	-	-	N	2	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE104B	Shallow	25-45	N	-	-	-	-	-	-	-	Y	33	>350	ND	ND	ND	ND	ND	N	-	-	-	-	-	-	-	N	0.04	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE106	Deep	70-95	N	-	-	-	-	-	-	-	Y	16	37	ND	ND	ND	ND	ND	N	-	-	-	-	-	-	-	N	0.37	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE106A	Intermediate	45-65	N	-	-	-	-	-	-	-	Y	32	25	ND	ND	ND	ND	ND	N	-	-	-	-	-	-	-	N	0	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE106B	Shallow	15-40	N	-	-	-	-	-	-	-	Y	32	35	ND	ND	ND	ND	ND	N	-	-	-	-	-	-	-	N	0.09	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE107	Deep	70-95	N	-	-	-	-	-	-	-	Y	45	35	ND	11	ND	ND	ND	N	-	-	-	-	-	-	-	N	0.2	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE11	Deep	79-109	Y	58	22	15	ND	ND	ND	ND	Y	17	9	6.8	ND	ND	ND	ND	N	-	-	-	-	-	-	-	Y	58	22	8.7	0.16	ND	ND	ND	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE11A	Intermediate	43-73	N	-	-	-	-	-	-	-	Y	20	30	ND	ND	ND	ND	ND	N	-	-	-	-	-	-	-	N	0.5	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE116	Deep	75-95	N	-	-	-	-	-	-	-	Y	43	90	1.7	11	ND	ND	ND	N	-	-	-	-	-	-	-	N	0	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE117	Deep	73-98	N	-	-	-	-	-	-	-	Y	45	-	ND	71	ND	ND	ND	N	-	-	-	-	-	-	-	N	0	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE128B	Shallow	15-40	N	-	-	-	-	-	-	-	Y	20	91	ND	ND	ND	ND	ND	N	-	-	-	-	-	-	-	N	0.25	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE161	Deep	70-95	N	-	-	-	-	-	-	-	Y	20	0	ND	ND	ND	ND	ND	N	-	-	-	-	-	-	-	N	0.5	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE5	Deep	68-88	N	-	-	-	-	-	-	-	Y	46	84	1	ND	ND	ND	ND	N	-	-	-	-	-	-	-	N	0	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE5A	Intermediate	42-57	N	-	-	-	-	-	-	-	Y	43	100	ND	ND	ND	ND	ND	N	-	-	-	-	-	-	-	N	0.04	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE78	Deep	80-100	Y	50	80	5.1	0.41	0.16	ND	ND	Y	16	90	ND	ND	ND	ND	ND	N	-	-	-	-	-	-	-	Y	58	105	1.3	ND	0.028	ND	ND	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE78A	Intermediate	45-60	N	6	-	-	-	-	-	-	Y	16	0	ND	ND	ND	ND	ND	N	-	-	-	-	-	-	-	N	1.9	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE78B	Shallow	20-35	N	4.5	-	-	-	-	-	-	Y	15	100	ND	ND	ND	ND	ND	N	-	-	-	-	-	-	-	N	2.1	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE89	Deep	80-105	N	-	-	-	-	-	-	-	Y	19	45	ND	ND	ND	ND	ND	N	-	-	-	-	-	-	-	Y	62	56	1.6	0.029	ND	ND	ND	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE89A	Intermediate	50-75	N	-	-	-	-	-	-	-	Y	16	100	ND	ND	ND	ND	ND	N	-	-	-	-	-	-	-	N	3	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE89B	Shallow	15-35	N	-	-	-	-	-	-	-	Y	15	96	ND	ND	ND	ND	ND	N	-	-	-	-	-	-	-	N	0.75	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE9	Deep	81-111	N	-	-	-	-	-	-	-	Y	40	25	2.6	3.7	ND	ND	ND	N	-	-	-	-	-	-	-	N	0.5	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE9A	Intermediate	55-85	N	-	-	-	-	-	-	-	Y	40	35	ND	ND	ND	ND	ND	N	-	-	-	-	-	-	-	N	0.15	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE94	Deep	75-105	Y	58	30	13	4	ND	0.29	ND	Y	20	30	ND	ND	ND	ND	ND	N	-	-	-	-	-	-	-	Y	76	27	5.8	2.7	ND	0.15	ND	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE94A	Intermediate	45-65	N	-	-	-	-	-	-	-	Y	12	75	ND	ND	ND	ND	ND	N	-	-	-	-	-	-	-	N	0.35	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE94B	Shallow	15-40	N	-	-	-	-	-	-	-	Y	40	100	ND	ND	ND	ND	ND	N	-	-	-	-	-	-	-	N	0.25	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
PORTABLE SVE UNITS																																																			
24SVE12	Intermediate	34-74	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	Y[9]	36	35	19	3.8	91	0.7	0.57	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE13	Deep	79-109	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	Y[10]	96	32	0.91	ND	ND	ND	52	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE15	Deep	79-104	Y	11	65	3.4	0.53	ND	ND	0.08	Y	54	120	1.3	0.31	0.0082	0.013	0.041	Y	51	120	1.1	0.3	ND	0.032	0.016	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE15A	Intermediate	38-53	Y	11	60	0.021	0.024	ND	ND	ND	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE15B	Shallow	15-30	Y	11	55	ND	ND	ND	ND	ND	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE18	Deep	80-100	Y	10	87	2	1.3	ND	ND	36	Y	12	75	1.5	0.88	0.079	0.046	22.5	N	-	-	-	-	-	-	-	Y[11]	10	74	0.98	0.51	ND	-	9.6	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE138A	Intermediate	45-70	Y	100	105	5.8	4.6	ND	ND	0.15	Y	100	105	8.55	7.55	ND	ND	0.1635	Y	100	105	7.4	6.6	ND	0.12	ND	Y	100	105	15.5	15.5	ND	0.295	0.3	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE147A	Intermediate	57-77	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	Y[10]	98	60	91	ND	ND	2.2	2.3	Y[12]	64	45	33	ND	0.2	0.52	0.54	Y[13]	56	44	19	ND	0.175	0.45	0.43
24SVE154	Deep	65-75	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	Y[4]	54	10	3.1	ND	ND	0.18	ND	Y	54	10	2.4	0.072	ND	ND	0.22	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE154A	Intermediate	45-60	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	Y[4]	54	10	12	0.21	ND	0.94	ND	Y	54	10	4.9	0.14	ND	ND	0.85	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE154B	Shallow	15-35	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	Y[4]	54	10	0.016	ND	ND	ND	ND	Y	54	10	0.016	ND	ND	ND	ND	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-

Notes

Wells 24SVE138A and 24SVE147A are treated using portable SVE systems.

Bold data indicate concentrations of contaminants are above threshold for the specific contaminant.

JA The analyte was positively identified, but the quantification is an estimate.

D The result was obtained from the analysis of a dilution.

ND Non-Detect

Y Yes N No

* Wells not on-line 5/18/99. Samples collected from all the wells on 5/25/99.

[1] Well was on-line on 6/8/99. A 24-hr sample was collected on 6/9/99.

[2] Well was on-line on 6/14/99. A 24-hr sample was collected on 6/15/99.

[3] Well was on-line and sampled on 6/18/99.

[4] Well was on-line on 6/29/99. A 24-hr sample was collected on 6/30/99.

[5] Sample not analyzed. Tedlar bag leaked enroute to the lab.

[6] Rebound sampling

[7] Sample collected on 8/11/99.

[8] Well was on-line on 10/13/99. A 24-hr sample was collected on 10/14/99.

[9] Well was on-line on 10/27/99. A 24-hr sample was collected on 10/28/99.

[10] Well was on-line on 10/25/99. A 24-hr sample was collected on 10/26/99.

[11] Well was on-line on 10/31/99. A 24-hr sample was collected on 11/1/99.

[12] Sample collected on 11/30/99.

[13] Sample collected on 12/14/99.

Table A-4
(4of 5)

IRP Site 24 Extraction Well Sampling and Monitoring Data Summary

		Screen Interval (ft)	Wells on-line 6/23/99	Extracted Vapor Concentrations after 24 Hrs (6/23/99) µg/L							Wells on-line 6/29/99	Extracted Vapor Concentrations (6/29/99) µg/L						
				Vacuum (in. H2O)	Flow (scfm)	TCE	Freon 113	1,1 DCE	PCE	CCL4		Vacuum (in. H2O)	Flow (scfm)	TCE	Freon 113	1,1 DCE	PCE	CCL4
24SVE1	Deep	91-109	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE14	Deep	78-108	N	-	60	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE2	Deep	80-105	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE2A	Intermediate	40-70	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE3	Deep	80-105	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE3A	Intermediate	45-60	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE32	Deep	77-102	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE32B	Shallow	20-40	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE35	Deep	85-105	Y[1]	85	75	**150**	10	33	ND	5.5	Y2	65	75	-	-	-	-	-
24SVE35A	Intermediate	50-75	N	-	-	-	-	-	-	-	Y	85	60	**39.2**	2.06	6.18	1.45	ND
24SVE35B	Shallow	15-35	N	-	-	-	-	-	-	-	Y	85	100	11.8	0.66	0.79	0.82	ND
24SVE36	Deep	80-100	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE36A	Intermediate	45-65	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE36B	Shallow	15-40	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE4	Deep	85-105	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE41	Deep	85-105	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE41A	Intermediate	55-75	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE41B	Shallow	20-40	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE45	Deep	80-100	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE45A	Intermediate	50-70	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE45B	Shallow	20-40	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE49	Deep	83-103	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE49A	Intermediate	45-65	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE49B	Shallow	18-33	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE51	Deep	83-103	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE51A	Intermediate	49-69	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE51B	Shallow	18-33	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE53	Deep	73-88	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE53A	Intermediate	45-65	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE53B	Shallow	15-35	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE54	Deep	75-95	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE55	Deep	80-100	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE55A	Intermediate	40-70	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE55B	Shallow	15-30	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE6	Deep	85-110	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE62	Deep	80-105	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE62B	Shallow	15-40	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE67	Deep	75-100	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE67B	Shallow	17-32	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE7	Deep	80-110	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE7A	Intermediate	63-74	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE77	Deep	75-100	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE77A	Intermediate	39-54	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE77B	Shallow	18-33	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-

	Wells on line 7/6/99	Extracted Vapor Concentrations (7/6/99) µg/L							Wells on line 7/21/99	Extracted Vapor Concentrations (7/21/99) µg/L						
		Vacuum (in. H2O)	Flow (scfm)	TCE	Freon 113	1,1 DCE	PCE	CCL4		Vacuum (in. H2O)	Flow (scfm)	TCE	Freon 113	1,1 DCE	PCE	CCL4
24SVE1	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE14	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE2	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE2A	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE3	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE3A	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE32	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE32B	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE35	Y	65	75	121.295	12.15	20.62	3.38	1.34	Y	65	75	1.49	4.70	7.2	1.49	ND
24SVE35A	Y	85	60	**45.4**	4.2	8.49	1.50	ND	Y	85	60	2.5	0.13	0.15	0.09	ND
24SVE35B	Y	85	100	3.26	0.45	0.33	0.23	ND	N	-	-	-	-	-	-	-
24SVE36	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE36A	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE36B	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE4	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE41	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE41A	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE41B	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE45	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE45A	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE45B	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE49	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE49A	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE49B	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE51	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE51A	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE51B	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE53	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE53A	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE53B	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE54	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE55	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE55A	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE55B	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE6	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE62	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE62B	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE67	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE67B	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE7	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE7A	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE77	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE77A	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE77B	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-

	Wells on line 8/12/99	Extracted Vapor Concentrations (8/12/99) µg/L							Wells on-line 8/25/99	Extracted Vapor Concentrations (8/25/99) µg/L							Wells on line 8/26/99	Extracted Vapor Concentrations (8/26/99) µg/L						
		Vacuum (in. H2O)	Flow (scfm)	TCE	Freon 113	1,1 DCE	PCE	CCL4		Vacuum (in. H2O)	Flow (scfm)	TCE	Freon 113	1,1 DCE	PCE	CCL4		Vacuum (in. H2O)	Flow (scfm)	TCE	Freon 113	1,1 DCE	PCE	CCL4
24SVE1	Y	30	308	18	5.9	2.1	ND	ND	Y	30	330	14	6.7	1.9	ND	ND	Y	-	-	-	-	-	-	-
24SVE14	Y	25	5	**48**	2.4	1.3	1	ND	Y	45	25	7.7	ND	0.088	0.17	ND	Y	-	-	-	-	-	-	-
24SVE2	Y	34	15	**83**	7.01	4.8	2.2	ND	Y	50	21	**28**	3.6	3.5	0.62	ND	Y	-	-	-	-	-	-	-
24SVE2A	Y	34	25	11	0.68	0.56	0.36	ND	Y	50	50	1.9	0.38	0.21	0.12	ND	Y	-	-	-	-	-	-	-
24SVE3	Y	25	30	26	ND	0.34	0.38	ND	Y	45	40	9.9	ND	0.10	0.17	ND	Y	-	-	-	-	-	-	-
24SVE3A	Y	25	0	0.18	ND	ND	ND	ND	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE32	Y	30	72	19	0.54	0.86	0.27	ND	Y	40	95	5.3	0.19	0.19	ND	ND	Y	-	-	-	-	-	-	-
24SVE32B	Y	30	224	0.33	ND	ND	0.029	ND	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE35	Y	30	25	**55**	7.5	8.7	1.6	ND	Y	50	40	**29**	3.9	5.1	0.77	ND	Y	-	-	-	-	-	-	-
24SVE35A	Y	30	10	3.6	0.84	0.35	0.22	ND	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE35B	Y	25	90	1.4	0.26	0.069	0.19	ND	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE36	Y	26	45	18	ND	0.48	0.41	ND	Y	40	18	18	ND	0.31	0.3	ND	Y	-	-	-	-	-	-	-
24SVE36A	Y	26	0	1.7	ND	ND	0.16	ND	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE36B	Y	25	55	0.76	ND	ND	0.11	ND	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE4	Y	27	60	21	1.9	1.3	0.37	ND	Y	40	90	16	2	0.84	0.26	ND	Y	-	-	-	-	-	-	-
24SVE41	Y	25	55	19	0.87	0.64	0.34	ND	Y	40	100	3.6	0.49	0.27	0.08	ND	Y	-	-	-	-	-	-	-
24SVE41A	Y	25	12	0.31	ND	ND	ND	ND	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE41B	Y	25	224	4.4	ND	ND	0.29	ND	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE45	Y	25	35	**110**	ND	1.9	1.5	ND	Y	45	65	17	0.24	0.21	0.21	ND	Y	-	-	-	-	-	-	-
24SVE45A	Y	25	25	3.4	ND	ND	0.099	ND	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE45B	Y	25	85	0.5	ND	ND	0.043	ND	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE49	Y	25	50	**120**	25	1.6	3.4	ND	Y	45	90	**28**	22	0.45	0.94	ND	Y	-	-	-	-	-	-	-
24SVE49A	Y	25	12	2.5	0.047	ND	0.12	ND	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE49B	Y	25	330	2.1	ND	ND	0.19	ND	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE51	Y	30	12	21	5.6	ND	0.52	ND	Y	35	14	**58**	33	0.55	1.2	ND	Y	-	-	-	-	-	-	-
24SVE51A	Y	30	12	0.34	ND	ND	0.024	ND	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE51B	Y	30	90	0.13	ND	ND	ND	ND	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE53	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	Y[3]	20	30	15	ND	0.17	0.28	ND
24SVE53A	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	Y[3]	20	ND	0.72	ND	ND	0.9	ND
24SVE53B	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	Y[3]	20	ND	0.21	0.12	ND	0.93	ND
24SVE54	Y	30	35	**44**	1.40	0.49	0.91	ND	Y	46	35	**37**	9.90	ND	0.84	ND	Y	-	-	-	-	-	-	-
24SVE55	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	Y	25	45	**69 D**	57	0.81	2.7	0.93
24SVE55A	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	Y	25	10	8.5	6	ND	0.43	ND
24SVE55B	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	Y	20	90	2	2.7	ND	0.25	ND
24SVE6	Y	30	290	14	0.96	0.83	ND	ND	Y	30	280	7.5	1.6	0.61	ND	ND	Y	-	-	-	-	-	-	-
24SVE62	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	Y	19	25	18	ND	0.41	0.24	ND
24SVE62B	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	Y	19	5	1	ND	ND	0.023	ND
24SVE67	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	Y	20	12.5	**84**	ND	1.2	ND	ND
24SVE67B	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	Y	20	30	2.1	0.062	ND	0.067	ND
24SVE7	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE7A	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE77	N	-	-	-	-	-	-	-	Y	30	80	**37**	7	0.32	0.87	ND	Y	-	-	-	-	-	-	-
24SVE77A	N	-	-	-	-	-	-	-	Y	35	5	0.23	ND	ND	0.83	ND	Y	-	-	-	-	-	-	-
24SVE77B	N	-	-	-	-	-	-	-	Y	25	>125	0.68	0.46	ND	0.14	ND	Y	-	-	-	-	-	-	-

IRP Site 24 Extraction Well Sampling and Monitoring Data Summary

		Screen Interval (ft)	Wells on-line 9/8/99	Extracted Vapor Concentrations (9/8/99) µg/L							Wells on-line 9/21-9/23/99	Extracted Vapor Concentrations (9/21-9/23/99) µg/L						
				Vacuum (in. H2O)	Flow (scfm)	TCE	Freon 113	1,1 DCE	PCE	CCL4		Vacuum (in. H2O)	Flow (scfm)	TCE	Freon 113	1,1 DCE	PCE	CCL4
24SVE1	Deep	91-109	Y	35	290	0.038	ND	ND	ND	ND	Y	25	300	3	ND	1.2	ND	ND
24SVE14	Deep	78-108	Y	50	25	6.1	ND	ND	0.099	ND	Y	30	0	2.4	ND	ND	ND	ND
24SVE2	Deep	80-105	Y	50	26	14	4.6	3.3	0.56	ND	Y	44	19	3	ND	1.5	ND	ND
24SVE2A	Intermediate	40-70	Y	50	70	1.1	0.29	0.17	0.097	ND	Y	44	308	ND	ND	ND	ND	ND
24SVE3	Deep	80-105	Y	45	45	5.6	ND	0.041	0.093	ND	Y	25	27	2.8	ND	ND	ND	ND
24SVE3A	Intermediate	45-60	N	-	-	-	-	-	-	-	Y	25	0	ND	ND	ND	ND	ND
24SVE32	Deep	77-102	Y	42	97	4.2	0.35	0.17	0.11	ND	Y	30	72	1.4	ND	ND	ND	ND
24SVE32B	Shallow	20-40	N	-	-	-	-	-	-	-	Y	35	250	0.33	ND	ND	ND	ND
24SVE35	Deep	85-105	Y	50	45	19	3.4	5	0.61	0.31	Y	40	30	14	3	5.8	ND	ND
24SVE35A	Intermediate	50-75	N	-	-	-	-	-	-	-	Y	40	37	ND	ND	ND	ND	ND
24SVE35B	Shallow	15-35	N	-	-	-	-	-	-	-	Y	35	100	ND	ND	ND	ND	ND
24SVE36	Deep	80-100	Y	45	20	10	0.26	0.24	0.23	ND	Y	26	73	3.1	ND	ND	ND	ND
24SVE36A	Intermediate	45-65	N	-	-	-	-	-	-	-	Y	27	0	ND	ND	ND	ND	ND
24SVE36B	Shallow	15-40	N	-	-	-	-	-	-	-	Y	26	100	ND	ND	ND	ND	ND
24SVE4	Deep	85-105	Y	42	85	11	2.4	0.66	ND	ND	Y	32	6	4.8	ND	ND	ND	ND
24SVE41	Deep	85-105	Y	45	100	8.2	1.6	0.76	0.24	ND	Y	25	55	3	ND	ND	ND	ND
24SVE41A	Intermediate	55-75	N	-	-	-	-	-	-	-	Y	26	35	ND	ND	ND	ND	ND
24SVE41B	Shallow	20-40	N	-	-	-	-	-	-	-	Y	26	224	ND	ND	ND	ND	ND
24SVE45	Deep	80-100	Y	45	75	4.6	0.13	0.056	0.081	ND	Y	26	35	2.3	ND	ND	ND	ND
24SVE45A	Intermediate	50-70	N	-	-	-	-	-	-	-	Y	26	60	ND	ND	ND	ND	ND
24SVE45B	Shallow	20-40	N	-	-	-	-	-	-	-	Y	25	100	ND	ND	ND	ND	ND
24SVE49	Deep	83-103	Y	45	75	16	11	0.17	0.43	ND	Y	25	50	4.4	12	ND	ND	ND
24SVE49A	Intermediate	45-65	N	-	-	-	-	-	-	-	Y	27	0	ND	ND	ND	ND	ND
24SVE49B	Shallow	18-33	N	-	-	-	-	-	-	-	Y	26	100	ND	ND	ND	ND	ND
24SVE51	Deep	83-103	Y	2.5	1	4.1	1.1	ND	0.082	ND	Y	35	14	5.4	ND	ND	ND	ND
24SVE51A	Intermediate	49-69	N	-	-	-	-	-	-	-	Y	35	65	ND	ND	ND	ND	ND
24SVE51B	Shallow	18-33	N	-	-	-	-	-	-	-	Y	31	100	ND	ND	ND	ND	ND
24SVE53	Deep	73-88	Y	35	55	23	ND	ND	ND	ND	Y	24	36	5.2	ND	ND	ND	ND
24SVE53A	Intermediate	45-65	N	-	-	-	-	-	-	-	Y	24	290	ND	ND	ND	ND	ND
24SVE53B	Shallow	15-35	N	-	-	-	-	-	-	-	Y	11	100	ND	ND	ND	ND	ND
24SVE54	Deep	75-95	Y	40	10	29	2.4	ND	0.47	ND	Y	34	0	4.6	ND	ND	ND	ND
24SVE55	Deep	80-100	Y	36	75	**32**	34	0.28	0.98	0.33	Y	30	50	4.1	ND	ND	ND	ND
24SVE55A	Intermediate	40-70	N	-	-	-	-	-	-	-	Y	30	5	ND	ND	ND	ND	ND
24SVE55B	Shallow	15-30	N	-	-	-	-	-	-	-	Y	25	100	ND	ND	ND	ND	ND
24SVE6	Deep	85-110	Y	45	260	3.8	0.81	0.36	ND	ND	Y	24	280	3.1	ND	ND	ND	ND
24SVE62	Deep	80-105	Y	35	25	2.8	ND	0.022	0.029	ND	Y	25	65	1.8	ND	ND	ND	ND
24SVE62B	Shallow	15-40	N	-	-	-	-	-	-	-	Y	25	20	ND	ND	ND	ND	ND
24SVE67	Deep	75-100	Y	37	25	**32**	ND	0.26	ND	ND	Y	44	35	4.8	ND	ND	ND	ND
24SVE67B	Shallow	17-32	N	-	-	-	-	-	-	-	Y	30	25	ND	ND	ND	ND	ND
24SVE7	Deep	80-110	N	-	-	-	-	-	-	-	Y	29	0	21	ND	ND	ND	ND
24SVE7A	Intermediate	63-74	N	-	-	-	-	-	-	-	Y	29	25	15	ND	ND	ND	ND
24SVE77	Deep	75-100	Y	30	87	16	2	0.13	0.25	ND	Y	25	55	2	ND	ND	ND	ND
24SVE77A	Intermediate	39-54	N	-	-	-	-	-	-	-	Y	29	100	ND	ND	ND	ND	ND
24SVE77B	Shallow	18-33	N	25	-	-	-	-	-	-	Y	21	25	ND	ND	ND	ND	ND

	Wells on-line 10/6/99	Extracted Vapor Concentrations (10/6/99) µg/L							Wells on-line 10/20/9	Extracted Vapor Concentrations (10/20/99) µg/L						
		Vacuum (in. H2O)	Flow (scfm)	TCE	Freon 113	1,1 DCE	PCE	CCL4		Vacuum (in. H2O)	Flow (scfm)	TCE	Freon 113	1,1 DCE	PCE	CCL4
24SVE1	N	-	-	-	-	-	-	-	N	0.9	-	-	-	-	-	-
24SVE14	N	-	-	-	-	-	-	-	N	60	49	1.2	0.08	0.023	0.024	ND
24SVE2	Y	116	35	1.3	0.49	0.36	0.11	ND	Y	90	9	0.12	0.064	0.041	ND	ND
24SVE2A	N	-	-	-	-	-	-	-	N	1.9	-	-	-	-	-	-
24SVE3	N	-	-	-	-	-	-	-	Y	45	49	1.8	ND	0.023	0.024	ND
24SVE3A	N	-	-	-	-	-	-	-	N	2.2	-	-	-	-	-	-
24SVE32	N	-	-	-	-	-	-	-	N	0.18	-	-	-	-	-	-
24SVE32B	N	-	-	-	-	-	-	-	N	0.1	-	-	-	-	-	-
24SVE35	Y	113	65	6.4	1.2	1.2	0.21	ND	Y	89	45	4.7	0.99	0.89	0.2	ND
24SVE35A	N	-	-	-	-	-	-	-	Y	45	42	0.5	0.065	0.05	0.061	ND
24SVE35B	N	-	-	-	-	-	-	-	N	1.5	-	-	-	-	-	-
24SVE36	N	-	-	-	-	-	-	-	N	2.2	-	-	-	-	-	-
24SVE36A	N	-	-	-	-	-	-	-	N	1.65	-	-	-	-	-	-
24SVE36B	N	-	-	-	-	-	-	-	N	0.6	-	-	-	-	-	-
24SVE4	N	-	-	-	-	-	-	-	N	0.1	-	-	-	-	-	-
24SVE41	N	-	-	-	-	-	-	-	N	25	-	-	-	-	-	-
24SVE41A	N	-	-	-	-	-	-	-	N	2	-	-	-	-	-	-
24SVE41B	N	-	-	-	-	-	-	-	N	0.9	-	-	-	-	-	-
24SVE45	N	-	-	-	-	-	-	-	Y	55	84	2	0.27	0.1	0.036	ND
24SVE45A	N	-	-	-	-	-	-	-	N	4	-	-	-	-	-	-
24SVE45B	N	-	-	-	-	-	-	-	N	1	-	-	-	-	-	-
24SVE49	Y	90	>175	4.4	6	0.093	0.11	ND	Y	70	170	1.8	2.8	0.048	0.05	ND
24SVE49A	N	-	-	-	-	-	-	-	N	0.45	-	-	-	-	-	-
24SVE49B	N	-	-	-	-	-	-	-	N	1.7	-	-	-	-	-	-
24SVE51	Y	100	42	3.7	1.5	ND	0.056	ND	Y	79	42	1.6	1	ND	ND	ND
24SVE51A	N	-	-	-	-	-	-	-	N	4	-	-	-	-	-	-
24SVE51B	N	-	-	-	-	-	-	-	N	1.35	-	-	-	-	-	-
24SVE53	Y	84	130	2.4	ND	0.016	0.046	ND	Y	70	112	2.5	ND	ND	0.046	ND
24SVE53A	N	-	-	-	-	-	-	-	N	9.5	-	-	-	-	-	-
24SVE53B	N	-	-	-	-	-	-	-	N	2	-	-	-	-	-	-
24SVE54	N	-	-	-	-	-	-	-	Y	78	40	2.2	0.056	ND	ND	ND
24SVE55	Y	80	150	4.7	3.3	ND	ND	ND	Y	65	126	2	1.6	0.017	0.043	ND
24SVE55A	N	-	-	-	-	-	-	-	N	21	-	-	-	-	-	-
24SVE55B	N	-	-	-	-	-	-	-	N	3	-	-	-	-	-	-
24SVE6	N	-	-	-	-	-	-	-	N	0.7	-	-	-	-	-	-
24SVE62	Y	90	56	1.8	0.069	0.04	0.021	ND	N	0.95	-	-	-	-	-	-
24SVE62B	N	-	-	-	-	-	-	-	N	0.5	-	-	-	-	-	-
24SVE67	Y	93	49	8.6	ND	0.12	0.089	ND	Y	75	18	3.3	0.051	0.035	ND	ND
24SVE67B	N	-	-	-	-	-	-	-	N	1.5	-	-	-	-	-	-
24SVE7	Y	90	0	11	ND	ND	ND	ND	Y	75	0	3.3	ND	ND	ND	ND
24SVE7A	N	-	-	-	-	-	-	-	N	3.5	-	-	-	-	-	-
24SVE77	Y	75	>175	1.6	0.12	0.02	0.026	ND	Y	62	154	1.1	0.11	0.01	ND	ND
24SVE77A	N	-	-	-	-	-	-	-	N	8	-	-	-	-	-	-
24SVE77B	N	-	-	-	-	-	-	-	N	3	-	-	-	-	-	-

	Wells on-line 11/3/99	Extracted Vapor Concentrations (11/3/99) µg/L							Wells on-line 12/1/99	Extracted Vapor Concentrations (12/1/99) µg/L						
		Vacuum (in. H2O)	Flow (scfm)	TCE	Freon 113	1,1 DCE	PCE	CCL4		Vacuum (in. H2O)	Flow (scfm)	TCE	Freon 113	1,1 DCE	PCE	CCL4
24SVE1	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE14	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE2	N	-	-	-	-	-	-	-	Y	119	16	0.38	0.25	0.14	ND	ND
24SVE2A	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE3	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE3A	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE32	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE32B	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE35	N	-	-	-	-	-	-	-	Y	130	77	0.051	ND	ND	ND	ND
24SVE35A	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE35B	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE36	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE36A	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE36B	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE4	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE41	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE41A	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE41B	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE45	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE45A	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE45B	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE49	N	-	-	-	-	-	-	-	Y	89	>175	2.5	1.9	0.058	0.083	ND
24SVE49A	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE49B	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE51	N	-	-	-	-	-	-	-	Y	100	41	0.94	0.38	ND	0.028	ND
24SVE51A	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE51B	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE53	N	-	-	-	-	-	-	-	Y	85	133	0.046	ND	ND	0.021	ND
24SVE53A	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE53B	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE54	Y[4]	80	50	5.6	ND	ND	ND	ND	Y	100	50	0.74	0.02	ND	0.021	ND
24SVE55	N	-	-	-	-	-	-	-	Y	81	150	0.65	0.63	ND	0.024	ND
24SVE55A	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE55B	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE6	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE62	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE62B	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE67	N	-	-	-	-	-	-	-	Y	104	56	6.2	0.52	0.12	ND	ND
24SVE67B	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE7	N	-	-	-	-	-	-	-	Y	105	7	0.72	ND	ND	0.03	ND
24SVE7A	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE77	N	-	-	-	-	-		-	Y	78	>175	0.95	0.036	0.012	0.019	ND
24SVE77A	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-
24SVE77B	N	-	-	-	-	-	-	-	N	-	-	-	-	-	-	-

Notes
Wells 24SVE35/35A/35B were treated using portable SVE systems in June and July.
Bold data indicate concentrations of contaminants are above threshold for the specific contaminant.
JA The analyte was positively identified, but the quantification is an estimate.
D The result was obtained from the analysis of a dilution.
ND Non-Detect
Y Yes N No
[1] Well was on-line on 6/23/99. A 24-hr sample was collected on 6/24/99.
[2] Well was on-line but not sampled.
[3] Flow measurements could not be taken.
[4] Sample collected on 11/02/99.

Table A-5: Summary of EROI Estimates

Well ID Number (24-)	Completion Zone	Screen Interval		Screen Length	Vacuum	Flow	EROI	ROI
		From (ft)	To (ft)	(ft)	(inches water)	(scfm)	(ft)	(ft)
SVE1	Deep	91	109	18	30	280	654	299
SVE2	Deep	80	105	25	90	30	0	0
SVE3	Deep	80	105	25	80	82	159	160
SVE4	Deep	85	105	20	65	140	335	234
SVE6	Deep	85	110	25	30	224	524	298
SVE7	Deep	80	110	30	90	0	0	0
SVE9	Deep	81	111	30	110	18	29	32
SVE10	Deep	79	109	30	36	175	270	53
SVE11	Deep	79	109	30	90	30	0	0
SVE14	Deep	78	108	30	80	23	38	107
SVE32	Deep	77	102	25	40	100	238	230
SVE35	Deep	85	105	20	80	50	122	174
SVE45	Deep	80	100	20	35	59	140	170
SVE49	Deep	83	103	20	35	75	178	178
SVE51	Deep	83	103	20	90	36	87	85
SVE53	Deep	73	88	15	47	84	201	211
SVE54	Deep	75	95	20	80	50	121	111
SVE55	Deep	80	100	20	38	80	190	196
SVE62	Deep	80	105	25	50	54	104	131
SVE77	Deep	75	100	25	39	90	214	268
SVE89	Deep	80	105	25	55	52	125	141
SVE94	Deep	75	105	30	100	36	0	0
SVE106	Deep	70.5	95.5	25	55	125	299	228
SVE107	Deep	70.3	95.3	25	90	50	122	161
SVE116	Deep	75	95	20	95	110	267	276
SVE161	Deep	70.3	95.3	25	70	57	110	104
SVE2A	Intermediate	40	70	30	42	56	90	239
SVE3A	Intermediate	45	60	15	120	55	178	115
SVE11A	Intermediate	43	73	30	90	27	66	27
SVE35A	Intermediate	50	75	25	80	70	169	140
SVE45A	Intermediate	50	70	20	60	56	135	124
SVE49A	Intermediate	45	65	20	110	50	123	161
SVE55A	Intermediate	40	70	30	100	0	0	0
SVE77A	Intermediate	39	54	15	30	100	235	235
SVE78A	Intermediate	45	60	15	90	49	156	90
SVE94A	Intermediate	50	70	20	40	115	274	335
SVE32B	Shallow	20	40	20	30	110	204	70
SVE35B	Shallow	15	35	20	60	175	417	241

Well ID Number (24-)	Completion Zone	Screen Interval		Screen Length	Vacuum	Flow	EROI	ROI
		From (ft)	To (ft)	(ft)	(inches water)	(scfm)	(ft)	(ft)
SVE36B	Shallow	15	40	25	90	175	314	28
SVE45B	Shallow	20	40	20	35	154	362	205
SVE62B	Shallow	15	40	25	110	35	0	0
SVE77B	Shallow	18	33	15	30	175	408	178
SVE94B	Shallow	25	45	20	55	175	334	269
SVE104B	Shallow	25.3	45.3	20	19	308	701	293
SVE128B	Shallow	15	40	25	40	170	324	349