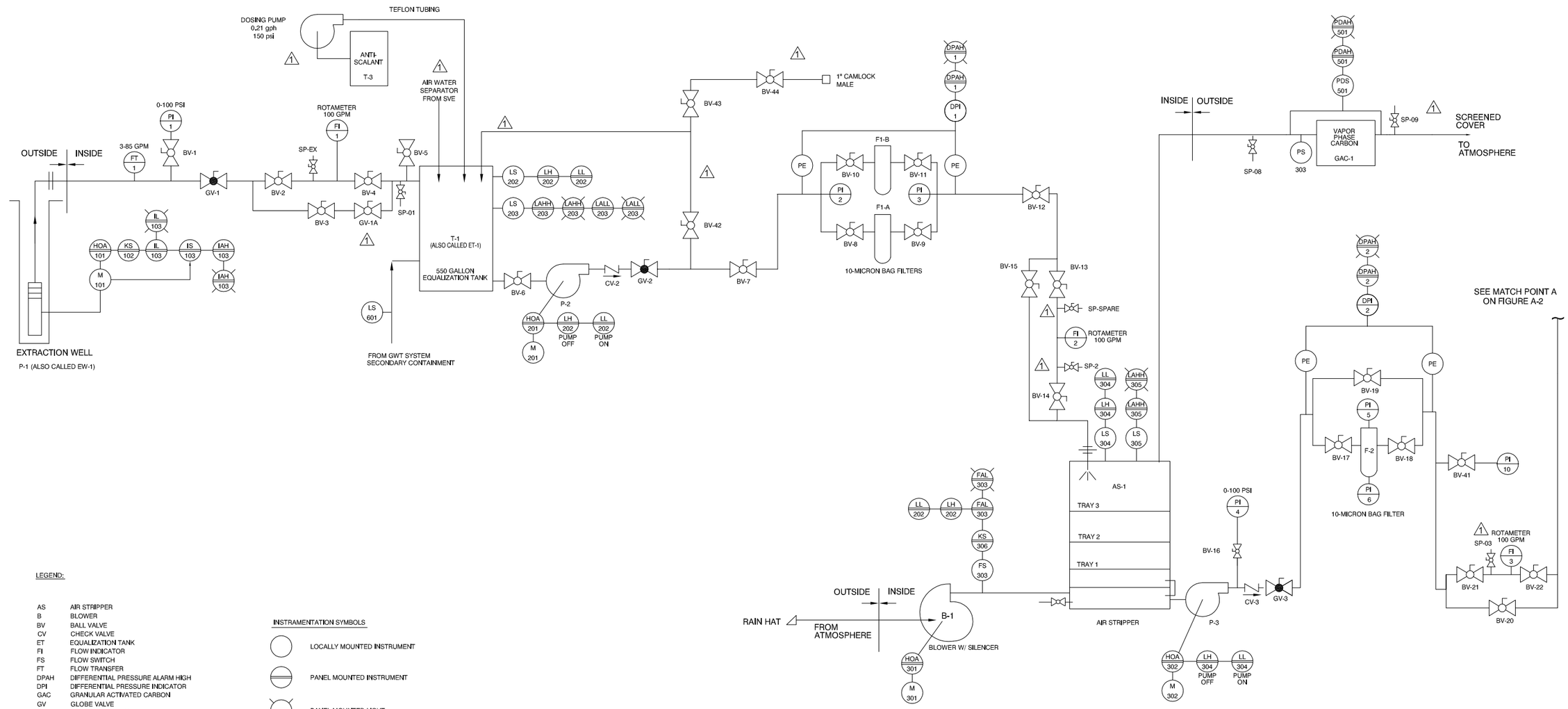
Appendix A
Treatment System Process and Instrumentation Diagrams



LEGEND:

AS	AIR STRIPPER
B	BLOWER
BV	BALL VALVE
CV	CHECK VALVE
ET	EQUALIZATION TANK
FI	FLOW INDICATOR
FS	FLOW SWITCH
FT	FLOW TRANSFER
DPAH	DIFFERENTIAL PRESSURE ALARM HIGH
DPI	DIFFERENTIAL PRESSURE INDICATOR
GAC	GRANULAR ACTIVATED CARBON
GV	GLOBE VALVE
HOA	HAND - OFF - AUTO
IAH	ELECTRICAL CURRENT ALARM HIGH
IEX	ION EXCHANGE
IL	ELECTRICAL CURRENT LOW
IS	ELECTRICAL CURRENT SWITCH
KS	TIME SWITCH
LAHH	LEVEL ALARM HIGH HIGH
LH	LEVEL HIGH
LL	LEVEL LOW
LS	LEVEL SWITCHES
M	MOTOR
P	PUMP
PDAH	PRESSURE DIFFERENTIAL ALARM HIGH
PDS	PRESSURE DIFFERENTIAL SWITCHES
PE	PRESSURE ELEMENT
PI	PRESSURE INDICATOR
SP	SAMPLE PORT
T	TANKS

INSTRAMENTATION SYMBOLS

- LOCALLY MOUNTED INSTRUMENT
- PANEL MOUNTED INSTRUMENT
- PANEL MOUNTED LIGHT
- FLANGED GLOBE VALVE
- UNION
- BALL VALVE
- FLANGE
- SAMPLE PORT
- CHECK VALVE

REFERENCES
TITLE

NOTE: REFERENCE
DESIGN BY
DIVERSIFIED REMEDIATION AND CONTROLS, INC.
ORIGINAL DRAWING REFERENCED FROM
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MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

GROUNDWATER TREATMENT P&ID

JOB NO.
PROJECT
SHEET NO. **1-1**

PLOT BY: ROBERT_P_TAYLOR – Mar 19, 2010 – 11:37:25am
DRAWING: T:\current–work files\Modesto\drawings\
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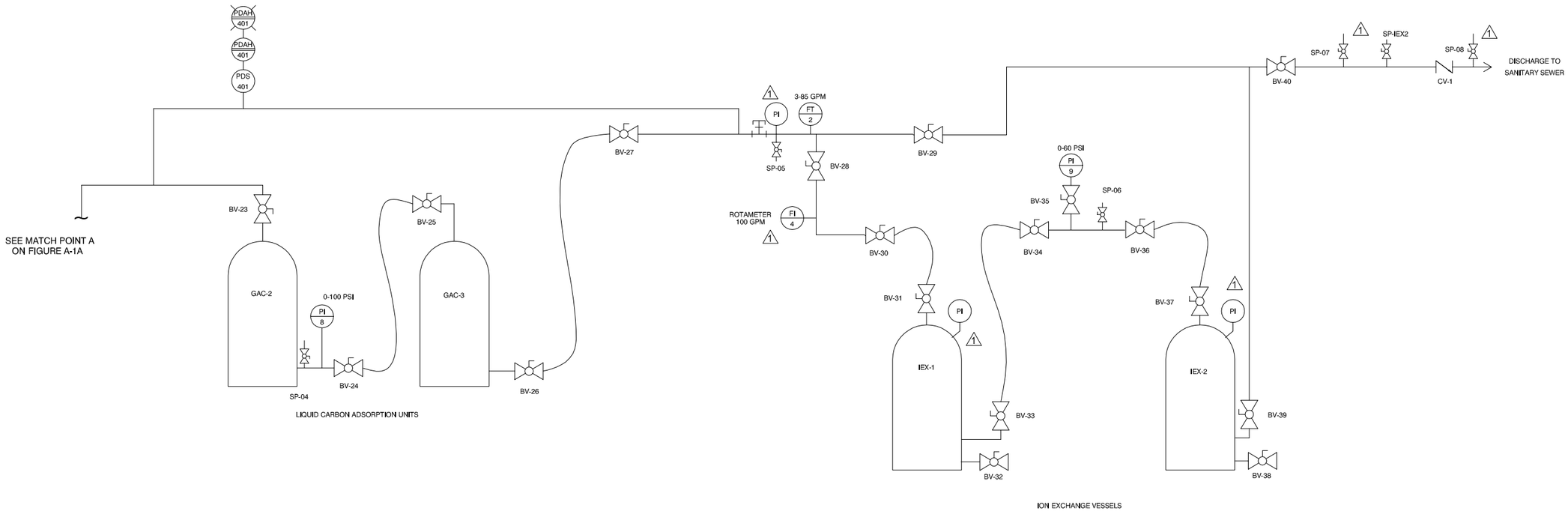

LEGEND:

AS	AIR STRIPPER
B	BLOWER
BV	BALL VALVE
CV	CHECK VALVE
ET	EQUALIZATION TANK
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IL	ELECTRICAL CURRENT LOW
IS	ELECTRICAL CURRENT SWITCH
KS	TIME SWITCH
LAHH	LEVEL ALARM HIGH HIGH
LH	LEVEL HIGH
LL	LEVEL LOW
LS	LEVEL SWITCHES
M	MOTOR
P	PUMP
PDAH	PRESSURE DIFFERENTIAL ALARM HIGH
PDS	PRESSURE DIFFERENTIAL SWITCHES
PE	PRESSURE ELEMENT
PI	PRESSURE INDICATOR
SP	SAMPLE PORT
T	TANKS

INSTRAMENTATION SYBOLS

- LOCALLY MOUNTED INSTRUMENT
- PANEL MOUNTED INSTRUMENT
- PANEL MOUNTED LIGHT
- BALL VALVE
- SAMPLE PORT
- CHECK VALVE

REFERENCES
TITLE

NOTE: REFERENCE
DESIGN BY
DIVERSIFIED REMEDIATION AND CONTROLS, INC.
ORIGINAL DRAWING REFERENCED FROM
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APPROVED BY:		

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MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

GROUNDWATER TREATMENT P&ID

JOB NO.
PROJECT
SHEET NO. 1-2

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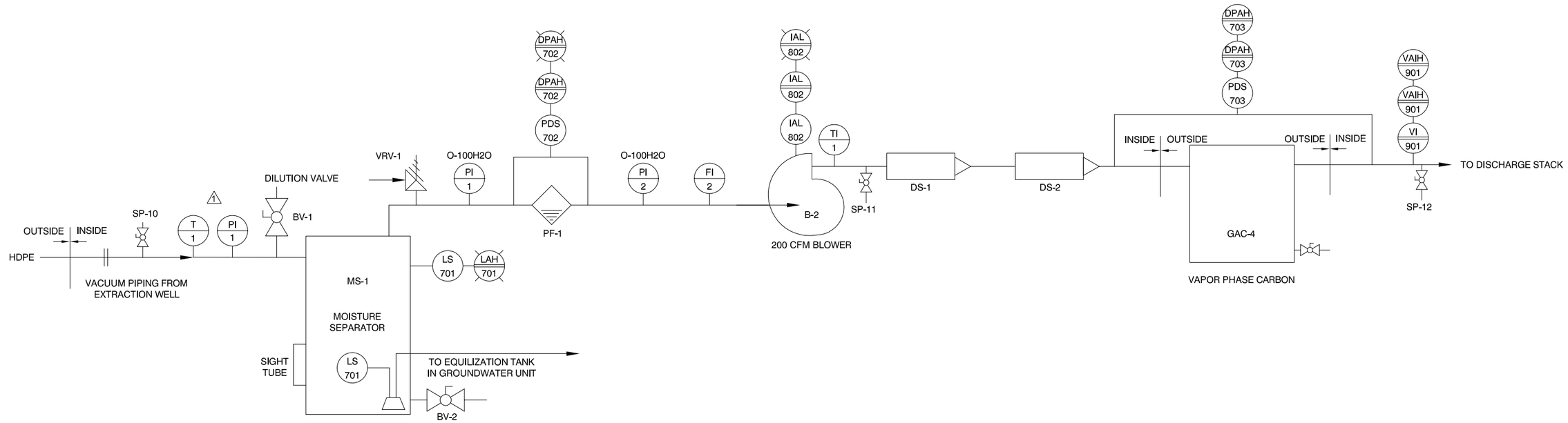

KEY

A ALARM, ACTIVATED
B BALL, BLOWER
C CARBON, CONTROL
D DISCHARGE, DIFFERENTIAL
F FILTER, FLOW
G GRANULAR
E ELECTRIC CURRENT,
I INDICATOR
L LEVEL, LIGHTING, LOW
M MOTOR, MOISTURE
P PANEL, PARTICULATE, PORT, POWER, PRESSURE R RELIEF
S SAMPLING, SENSOR, SEPARATOR, SILENCER, SWITCH
T TEMPERATURE, TRANSFORMER
V VALVE, VACUUM, VOLATILE ORGANIC COMPOUND

REFERENCES
TITLE

NOTE: REFERENCE
DESIGN BY
DIVERSIFIED REMEDIATION AND CONTROLS, INC.
ORIGINAL DRAWING REFERENCED FROM
MONTGOMERY WATSON HARZA

NOTES:
1. ALL VACUUM PROCESS PIPING IS 4" Ø SCH80 PVC
2. DISCHARGE STACK IS 8" Ø SCH80 PVC

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		DATE
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MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

SOIL VAPOR EXTRACTION P&ID

JOB NO.
PROJECT
SHEET NO. **1-3**

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DRAWING: T:\current–work files\Modesto\drawings\
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Appendix B
Laboratory Analytical Data Tables

Table B1	**Site Contaminants of Concern**
Table B2	**Sample Cross Reference**
Table B3	**Results Summary, First Quarter 2010, Modesto Superfund Site**
Table B4	**Laboratory Control Sample Recovery Outliers Summary**
Table B5	**Matrix Spike and Matrix Spike Duplicate Recovery Outliers Summary**
Table B6	**Completeness Summary**

TABLE B1

SITE CONTAMINANTS OF CONCERN
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Contaminant of Concern	Discharge Limit
Tetrachloroethene (PCE)	0.5 μg/L
Toluene	15 μg/L
Uranium, total	20 pCi/L
pH	5-12

Notes:
μg/L - micrograms per liter
pCi/L - picoCuries per liter

TABLE B2

SAMPLE CROSS REFERENCE
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Analytical Method
01/27/10	EFF-012710	1001033-01	N	E524.2
01/27/10	EFF-012710	1001033-01	N	E160.1
01/27/10	EW-1-012710	1001033-02	MS	E524.2
01/27/10	EW-1-012710	1001033-02	N	E524.2
01/27/10	EW-1-012710	1001033-02	SD	E524.2
01/27/10	MW-301-35Q	1001033-03	TB	E524.2
01/27/10	GWT Pre GAC-012710	1001034-01	N	TO15
01/27/10	GWT Stack-012710	1001034-02	LR	TO15
01/27/10	GWT Stack-012710	1001034-02	N	TO15
01/27/10	SVE Pre GAC-012710	1001034-03	N	TO15
01/27/10	SVE Stack-012710	1001034-04	N	TO15
01/28/10	Blank	B0A0129-BLK1	LB	E160.1
01/28/10	LCS	B0A0129-BS1	BS	E160.1
01/28/10	Blank	B0A0132-BLK1	LB	TO15
01/28/10	LCS	B0A0132-BS1	BS	TO15
01/29/10	Blank	B0A0133-BLK1	LB	E524.2
01/29/10	LCS	B0A0133-BS1	BS	E524.2
02/25/10	EFF-022510	1002030-01	N	524.2
02/25/10	EFF-022510	1002030-01	N	160.1
02/25/10	EW-1-022510	1002030-02	N	524.2
02/25/10	MW-302-35Q	1002030-03	TB	524.2
02/25/10	GWT PreGAC-022510	1002031-01	N	TO-15
02/25/10	GWT Stack-022510	1002031-02	N	TO-15
02/25/10	SVE PreGAC-022510	1002031-03	N	TO-15
02/25/10	SVE Stack-022510	1002031-04	N	TO-15
02/25/10	MW-302-35QMS	B0B0138-MS1	MS	524.2
02/25/10	MW-302-35QMS	B0B0138-MSD1	SD	524.2
02/25/10	GWT Stack-022510DUP	B0C0001-DUP1	FD	TO-15
02/25/10	EFF-022510DUP	B0C0007-DUP1	FD	160.1
03/08/10	MW-7A-1Q10	1003040-05	N	524.2
03/08/10	MW-15A-1Q10	1003040-21	N	524.2
03/09/10	MW-302-1Q10	1003039-15	TB	524.2
03/09/10	MW-402-1Q10	1003039-19	FB	524.2
03/09/10	MW-9B-1Q10	1003040-04	N	524.2
03/09/10	MW-5A-1Q10	1003040-08	N	524.2
03/09/10	MW-11A-1Q10	1003040-09	N	524.2
03/09/10	MW-13A-1Q10	1003040-16	N	524.2
03/09/10	MW-6A-1Q10	1003040-17	N	524.2
03/09/10	MW-10A-1Q10	1003040-18	N	524.2
03/09/10	MW-2A-1Q10	1003040-19	N	524.2
03/09/10	MW-14A-1Q10	1003040-20	N	524.2
03/09/10	MW-5A-1Q10MS	B0C0158-MS1	MS	524.2
03/09/10	MW-5A-1Q10MSD	B0C0158-MSD1	MSD	524.2

TABLE B2

SAMPLE CROSS REFERENCE
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Analytical Method
03/10/10	MW-303-1Q10	1003039-16	TB	524.2
03/10/10	MW-403-1Q10	1003039-20	FB	524.2
03/10/10	MW-8A-1Q10	1003040-01	N	524.2
03/10/10	MW-18A-1Q10	1003040-02	FD	524.2
03/10/10	MW-4A-1Q10	1003040-03	N	524.2
03/10/10	MW-1A-1Q10	1003040-06	N	524.2
03/10/10	MW-12A-1Q10	1003040-07	N	524.2
03/10/10	MW-17A-1Q10	1003040-10	N	524.2
03/10/10	MW-16A-1Q10	1003040-11	N	524.2
03/10/10	MW-16B-1Q10	1003040-12	N	524.2
03/10/10	MW-17C-1Q10	1003040-13	N	524.2
03/10/10	MW-16C-1Q10	1003040-14	N	524.2
03/10/10	MW-17B-1Q10	1003040-15	N	524.2
03/10/10	DP-1B-1Q10	1003041-01	N	TO-15
03/10/10	DP-6A-1Q10	1003041-02	N	TO-15
03/10/10	SVE-WEST-1Q10	1003041-03	N	TO-15
03/10/10	SVE-EAST-1Q10	1003041-04	N	TO-15
03/10/10	DP-5B-1Q10	1003041-05	N	TO-15
03/10/10	DP-95B-1Q10	1003041-06	FD	TO-15
03/10/10	SVE-2-1Q10	1003041-07	N	TO-15
03/10/10	SVE-1-1Q10	1003041-08	N	TO-15
03/10/10	SVE-3-1Q10	1003041-11	N	TO-15
03/10/10	DP-1A-1Q10	1003041-12	N	TO-15
03/10/10	DP-6B-1Q10	1003041-15	N	TO-15
03/10/10	DP-5A-1Q10	1003041-16	N	TO-15
03/10/10	SVE-4-1Q10	1003041-17	N	TO-15
03/10/10	DP-6A-1Q10 DUP	B0C0100-DUP1	DUP	TO-15
03/11/10	MW-405-1Q10	249290001	FB	ASTM D 5174
03/11/10	EW-1-0302	249290002	N	ASTM D 5174
03/11/10	Pre IEX-0302	249290003	N	ASTM D 5174
03/11/10	IEX Mid-0302	249290004	N	ASTM D 5174
03/11/10	EFF-0302	249290005	N	ASTM D 5174
03/11/10	MW-107-0302	249290006	FD	ASTM D 5174
03/11/10	EW-1-0302	1003038-01	N	524.2
03/11/10	CRB-INF-0302	1003038-02	N	524.2
03/11/10	CRB-MID-0302	1003038-03	N	524.2
03/11/10	CRB-EFF-0302	1003038-04	N	524.2
03/11/10	EFF-0302	1003038-05	N	524.2
03/11/10	EFF-0302	1003038-05	N	SM 2540
03/11/10	MW-107-0302	1003038-06	FD	SM 2540
03/11/10	MW-305-1Q10	1003038-07	TB	524.2
03/11/10	MW-405-1Q10	1003038-08	FB	524.2
03/11/10	MW-405-1Q10	1003038-08	FB	SM 2540

TABLE B2

SAMPLE CROSS REFERENCE
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Analytical Method
03/11/10	MW-20A-1Q10	1003039-01	N	524.2
03/11/10	MW-80A-1Q10	1003039-02	FD	524.2
03/11/10	MW-20B-1Q10	1003039-03	N	524.2
03/11/10	MW-20C-1Q10	1003039-04	N	524.2
03/11/10	MW-19B-1Q10	1003039-05	N	524.2
03/11/10	MW-4C-1Q10	1003039-06	N	524.2
03/11/10	MW-19A-1Q10	1003039-07	N	524.2
03/11/10	MW-3A-1Q10	1003039-08	N	524.2
03/11/10	MW-10B-1Q10	1003039-09	N	524.2
03/11/10	MW-4B-1Q10	1003039-10	N	524.2
03/11/10	MW-96B-1Q10	1003039-11	FD	524.2
03/11/10	MW-10C-1Q10	1003039-12	N	524.2
03/11/10	MW-90C-1Q10	1003039-13	FD	524.2
03/11/10	MW-304-1Q10	1003039-17	TB	524.2
03/11/10	MW-404-1Q10	1003039-21	FB	524.2
03/11/10	GWTP Pr GAC-0302	1003041-09	N	TO-15
03/11/10	SVE Stack-0302	1003041-10	N	TO-15
03/11/10	GWTP Stack-0302	1003041-13	N	TO-15
03/11/10	SVE Pre GAC-0302	1003041-14	N	TO-15
03/11/10	EW-1-0302MS	B0C0096-MS1	MS	524.2
03/11/10	EW-1-0302MSD	B0C0096-MSD1	MSD	524.2
03/11/10	EFF-0302DUP	B0C0108-DUP1	DUP	SM 2540
03/11/10	MW-304-1Q10MS	B0C0110-MS1	MS	524.2
03/11/10	MW-304-1Q10MSD	B0C0110-MSD1	MSD	524.2
03/23/10	MB	1202071422	LB	ASTM D 5174
03/23/10	MB	1202071422	LB	ASTM D 5174
03/23/10	LCS	1202071425	BS	ASTM D 5174
03/23/10	LCS	1202071425	BS	ASTM D 5174
03/23/10	LCS	1202071426	BS	ASTM D 5174
03/23/10	LCS	1202071426	BS	ASTM D 5174

1Q10 = first quarter, 2010
BS = blank spike
DUP = duplicate
EFF = effluent
EW = extraction well
FB = field blank
FD = field duplicate
GWT = groundwater treatment
LB = laboratory blank
LCS = laboratory control sample
LR = laboratory replicate
MB = method blank

TABLE B2

SAMPLE CROSS REFERENCE
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Analytical Method

MS = matrix spike
MSD = matrix spike duplicate
MW = monitoring well
N = normal sample
SD = spike duplicate
SVE = soil vapor extraction
TB = trip blank

TABLE B3. RESULTS SUMMARY
FIRST QUARTER 2010, MODESTO SUPERFUND SITE

Location	Field Sample Identification	Matrix	Method	Sample Type	Date Sampled	Analyte	Result	Reporting Limit	Units	Qualified Result
FIELDQC	MW-301-35Q	WQ	E524.2	TB	1/27/2010	No Analytes Detected				
0000BLANK	MW-301-1Q10	WQ	E524.2	TB	3/8/2010	Methylene Chloride	0.300	0.500	µg/L	J
	MW-302-1Q10				3/9/2010	No Analytes Detected				
	MW-302-35Q				2/25/2010	No Analytes Detected				
	MW-303-1Q10				3/10/2010	Methylene Chloride	0.200	0.500	µg/L	J
	MW-304-1Q10				3/11/2010	Methylene Chloride	0.300	0.500	µg/L	J
	MW-305-1Q10					No Analytes Detected				
	MW-401-1Q10	WQ	E524.2	FB	3/8/2010	No Analytes Detected				
	MW-402-1Q10				3/9/2010	No Analytes Detected				
	MW-403-1Q10				3/10/2010	Acetone	3.60	4	µg/L	J
	MW-404-1Q10				3/11/2010	No Analytes Detected				
	MW-405-1Q10					No Analytes Detected				
	MW-405-1Q10	WQ	ASTM D 5174	FB	3/11/2010	No Analytes Detected				
	MW-405-1Q10	WQ	SM 2540	FB	3/11/2010	No Analytes Detected				
DP-1A	DP-1A-1Q10	GS	TO15	N	3/10/2010	Benzene	1.60	3.10	ppbv	J
						Tetrachloroethene	56	3.10	ppbv	
DP-1B	DP-1B-1Q10	GS	TO15	N	3/10/2010	Chloroform	2.90	3.40	ppbv	J
						Tetrachloroethene	180	9.20	ppbv	
DP-5A	DP-5A-1Q10	GS	TO15	N	3/10/2010	Tetrachloroethene	1.20	2.30	ppbv	J
DP-5B	DP-5B-1Q10	GS	TO15	N	3/10/2010	Chloroform	15	2.20	ppbv	
						Methylene Chloride	1.10	2.20	ppbv	J
						Tetrachloroethene	21	2.20	ppbv	
	DP-95B-1Q10	GS	TO15	FD	3/10/2010	Chloroform	15	2.40	ppbv	
						Methylene Chloride	1.30	2.40	ppbv	J
						Tetrachloroethene	21	2.40	ppbv	
DP-6A	DP-6A-1Q10	GS	TO15	N	3/10/2010	Benzene	1.90	3.10	ppbv	J
						Tetrachloroethene	59	3.10	ppbv	
						Toluene	2.50	3.10	ppbv	J
DP-6B	DP-6B-1Q10	GS	TO15	N	3/10/2010	Benzene	3.90	2.30	ppbv	

TABLE B3 (Continued)

Location	Field Sample Identification	Matrix	Method	Sample Type	Date Sampled	Analyte	Result	Reporting Limit	Units	Qualified Result
DP-6B continued . . .										
						m,p-Xylenes	2.70	4.60	ppbv	J
						Tetrachloroethene	5.80	2.30	ppbv	
						Toluene	4.40	2.30	ppbv	
HALFORD-EAST	SVE-EAST-1Q10	GS	TO15	N	3/10/2010	m,p-Xylenes	2.60	4.80	ppbv	J
						Tetrachloroethene	530	93	ppbv	
HALFORD-WEST	SVE-WEST-1Q10	GS	TO15	N	3/10/2010	Tetrachloroethene	130	13	ppbv	
MW-01A	MW-1A-1Q10	WG	E524.2	N	3/10/2010	Tetrachloroethene	1.90	0.500	µg/L	
MW-02A	MW-2A-1Q10	WG	E524.2	N	3/9/2010	Chloroform	2.50	0.500	µg/L	
						Tetrachloroethene	5.80	0.500	µg/L	
MW-03A	MW-3A-1Q10	WG	E524.2	N	3/11/2010	Chloroform	1.30	0.500	µg/L	
						Tetrachloroethene	42	2.50	µg/L	
MW-04A	MW-4A-1Q10	WG	E524.2	N	3/10/2010	Chloroform	0.400	0.500	µg/L	J
						cis-1,2-Dichloroethene	0.300	0.500	µg/L	J
						Tetrachloroethene	510	25	µg/L	
						Trichloroethylene	0.400	0.500	µg/L	J
MW-04B	MW-4B-1Q10	WG	E524.2	N	3/11/2010	1,2,4-Trimethylbenzene	1.80	0.500	µg/L	
						1,3,5-Trimethylbenzene	0.500	0.500	µg/L	
						Benzene	5.60	0.500	µg/L	
						Ethylbenzene	0.500	0.500	µg/L	
						m,p-Xylenes	6.70	1	µg/L	
						Naphthalene	0.300	0.500	µg/L	J
						o-Xylene	3.20	0.500	µg/L	
						Tetrachloroethene	5.20	0.500	µg/L	
						Toluene	1.10	0.500	µg/L	
	MW-96B-1Q10	WG	E524.2	FD	3/11/2010	1,2,4-Trimethylbenzene	1.70	0.500	µg/L	
						1,3,5-Trimethylbenzene	0.400	0.500	µg/L	J
						Benzene	5.20	0.500	µg/L	
						Chloroform	0.200	0.500	µg/L	J
						Ethylbenzene	0.500	0.500	µg/L	

TABLE B3 (Continued)

Location	Field Sample Identification	Matrix	Method	Sample Type	Date Sampled	Analyte	Result	Reporting Limit	Units	Qualified Result
MW-04B continued . . .										
						m,p-Xylenes	6.20	1	µg/L	
						Naphthalene	0.300	0.500	µg/L	J
						o-Xylene	3	0.500	µg/L	
						Tetrachloroethene	5.20	0.500	µg/L	
						Toluene	1	0.500	µg/L	
MW-04C	MW-4C-1Q10	WG	E524.2	N	3/11/2010	1,2,4-Trimethylbenzene	2.20	0.500	µg/L	
						1,3,5-Trimethylbenzene	0.500	0.500	µg/L	
						Benzene	6.50	0.500	µg/L	
						Ethylbenzene	0.600	0.500	µg/L	
						m,p-Xylenes	7.70	1	µg/L	
						Naphthalene	0.400	0.500	µg/L	J
						o-Xylene	3.60	0.500	µg/L	
						Tetrachloroethene	0.400	0.500	µg/L	J
						Toluene	1.20	0.500	µg/L	
MW-05A	MW-5A-1Q10	WG	E524.2	N	3/9/2010	Tetrachloroethene	210	5	µg/L	
MW-06A	MW-6A-1Q10	WG	E524.2	N	3/9/2010	Bromodichloromethane	0.300	0.500	µg/L	J
						Chloroform	7.60	0.500	µg/L	
						Tetrachloroethene	48	2.50	µg/L	
MW-07A	MW-7A-1Q10	WG	E524.2	N	3/8/2010	Acetone	3	4	µg/L	J
						Chloroform	0.700	0.500	µg/L	
						Tetrachloroethene	0.300	0.500	µg/L	J
MW-08A	MW-8A-1Q10	WG	E524.2	N	3/9/2010	Chloroform	2.80	0.500	µg/L	
						Tetrachloroethene	46	2.50	µg/L	
MW-09B	MW-9B-1Q10	WG	E524.2	N	3/9/2010	Tetrachloroethene	1	0.500	µg/L	
MW-10A	MW-10A-1Q10	WG	E524.2	N	3/9/2010	Chloroform	2.50	0.500	µg/L	
						Tetrachloroethene	210	5	µg/L	
MW-10B	MW-10B-1Q10	WG	E524.2	N	3/11/2010	1,2,4-Trimethylbenzene	2.30	0.500	µg/L	
						1,3,5-Trimethylbenzene	0.600	0.500	µg/L	
						Benzene	7.30	0.500	µg/L	

TABLE B3 (Continued)

Location	Field Sample Identification	Matrix	Method	Sample Type	Date Sampled	Analyte	Result	Reporting Limit	Units	Qualified Result
MW-10B continued . . .										
						Ethylbenzene	0.500	0.500	µg/L	
						m,p-Xylenes	8.10	1	µg/L	
						Naphthalene	0.300	0.500	µg/L	J
						o-Xylene	3.70	0.500	µg/L	
						Tetrachloroethene	18	0.500	µg/L	
						Toluene	1.20	0.500	µg/L	
MW-10C	MW-10C-1Q10	WG	E524.2	N	3/11/2010	1,2,4-Trimethylbenzene	1.60	0.500	µg/L	
						1,3,5-Trimethylbenzene	0.400	0.500	µg/L	J
						Benzene	6.70	0.500	µg/L	
						Ethylbenzene	0.500	0.500	µg/L	
						m,p-Xylenes	6.60	1	µg/L	
						Naphthalene	0.200	0.500	µg/L	J
						o-Xylene	3.20	0.500	µg/L	
						Tetrachloroethene	0.300	0.500	µg/L	J
						Toluene	1.20	0.500	µg/L	
	MW-90C-1Q10	WG	E524.2	FD	3/11/2010	1,2,4-Trimethylbenzene	2.10	0.500	µg/L	
						1,3,5-Trimethylbenzene	0.500	0.500	µg/L	
						Benzene	8.20	0.500	µg/L	
						Ethylbenzene	0.600	0.500	µg/L	
						m,p-Xylenes	8.40	1	µg/L	
						Naphthalene	0.300	0.500	µg/L	J
						o-Xylene	4	0.500	µg/L	
						Tetrachloroethene	0.400	0.500	µg/L	J
						Toluene	1.40	0.500	µg/L	
MW-11A	MW-11A-1Q10	WG	E524.2	N	3/9/2010	Chloroform	4.80	0.500	µg/L	
						Tetrachloroethene	1.30	0.500	µg/L	
MW-12A	MW-12A-1Q10	WG	E524.2	N	3/10/2010	Chloroform	3.40	0.500	µg/L	
						Tetrachloroethene	20	0.500	µg/L	
						Trichlorofluoromethane	0.400	0.500	µg/L	J

TABLE B3 (Continued)

Location	Field Sample Identification	Matrix	Method	Sample Type	Date Sampled	Analyte	Result	Reporting Limit	Units	Qualified Result
MW-13A	MW-13A-1Q10	WG	E524.2	N	3/9/2010	Chloroform	1.20	0.500	µg/L	
						Methylene Chloride	0.300	0.500	µg/L	J
						Tetrachloroethene	16	0.500	µg/L	
MW-14A	MW-14A-1Q10	WG	E524.2	N	3/9/2010	Chloroform	0.300	0.500	µg/L	J
						Methylene Chloride	0.200	0.500	µg/L	J
						Tetrachloroethene	17	0.500	µg/L	
MW-15A	MW-15A-1Q10	WG	E524.2	N	3/8/2010	Chloroform	0.400	0.500	µg/L	J
MW-16A	MW-16A-1Q10	WG	E524.2	N	3/10/2010	1,2,4-Trimethylbenzene	5.10	0.500	µg/L	
						1,2-Dichloroethane	1	0.500	µg/L	
						1,3,5-Trimethylbenzene	1.20	0.500	µg/L	
						Benzene	25	0.500	µg/L	
						Chloroform	1	0.500	µg/L	
						Ethylbenzene	1.20	0.500	µg/L	
						m,p-Xylenes	20	1	µg/L	
						Naphthalene	0.600	0.500	µg/L	J
						o-Xylene	9.50	0.500	µg/L	
						Toluene	3.20	0.500	µg/L	
MW-16B	MW-16B-1Q10	WG	E524.2	N	3/10/2010	1,2,4-Trimethylbenzene	1.60	0.500	µg/L	
						1,3,5-Trimethylbenzene	0.400	0.500	µg/L	J
						Acetone	2.20	4	µg/L	J
						Benzene	5.20	0.500	µg/L	
						Chloroform	0.500	0.500	µg/L	
						Ethylbenzene	3.90	0.500	µg/L	
						m,p-Xylenes	12	1	µg/L	
						o-Xylene	3.60	0.500	µg/L	
						Tetrachloroethene	4.90	0.500	µg/L	
						Toluene	4.10	0.500	µg/L	
MW-16C	MW-16C-1Q10	WG	E524.2	N	3/10/2010	1,2,4-Trimethylbenzene	2.40	0.500	µg/L	
						1,3,5-Trimethylbenzene	0.600	0.500	µg/L	

TABLE B3 (Continued)

Location	Field Sample Identification	Matrix	Method	Sample Type	Date Sampled	Analyte	Result	Reporting Limit	Units	Qualified Result
MW-16C continued . . .										
						Benzene	9.90	0.500	µg/L	
						Ethylbenzene	0.700	0.500	µg/L	
						m,p-Xylenes	10	1	µg/L	
						Naphthalene	0.300	0.500	µg/L	J
						o-Xylene	4.60	0.500	µg/L	
						Toluene	1.70	0.500	µg/L	
MW-17A	MW-17A-1Q10	WG	E524.2	N	3/10/2010	Bromodichloromethane	0.500	0.500	µg/L	
						Chloroform	8.80	0.500	µg/L	
						Tetrachloroethene	0.300	0.500	µg/L	J
MW-17B	MW-17B-1Q10	WG	E524.2	N	3/10/2010	1,2,4-Trimethylbenzene	1.50	0.500	µg/L	
						1,3,5-Trimethylbenzene	0.400	0.500	µg/L	J
						Benzene	4.20	0.500	µg/L	
						Chloroform	0.400	0.500	µg/L	J
						Ethylbenzene	0.500	0.500	µg/L	
						m,p-Xylenes	5.40	1	µg/L	
						Naphthalene	0.200	0.500	µg/L	J
						o-Xylene	2.30	0.500	µg/L	
						Tetrachloroethene	63	2.50	µg/L	
						Toluene	1	0.500	µg/L	
MW-17C	MW-17C-1Q10	WG	E524.2	N	3/10/2010	1,2,4-Trimethylbenzene	1.60	0.500	µg/L	
						1,3,5-Trimethylbenzene	0.300	0.500	µg/L	J
						Benzene	5.80	0.500	µg/L	
						Ethylbenzene	0.500	0.500	µg/L	
						m,p-Xylenes	6.50	1	µg/L	
						o-Xylene	3	0.500	µg/L	
						Toluene	1.20	0.500	µg/L	
MW-18A	MW-18A-1Q10	WG	E524.2	N	3/10/2010	Chloroform	3.70	0.500	µg/L	
						Tetrachloroethene	4	0.500	µg/L	
MW-19A	MW-19A-1Q10	WG	E524.2	N	3/11/2010	1,2,4-Trimethylbenzene	0.700	0.500	µg/L	

TABLE B3 (Continued)

Location	Field Sample Identification	Matrix	Method	Sample Type	Date Sampled	Analyte	Result	Reporting Limit	Units	Qualified Result
MW-19A continued . . .										
						1,3,5-Trimethylbenzene	0.200	0.500	µg/L	J
						Benzene	2.80	0.500	µg/L	
						Chloroform	1.30	0.500	µg/L	
						Ethylbenzene	2.10	0.500	µg/L	
						m,p-Xylenes	6.50	1	µg/L	
						o-Xylene	2.30	0.500	µg/L	
						Tetrachloroethene	0.800	0.500	µg/L	
						Toluene	2.50	0.500	µg/L	
MW-20A	MW-20A-1Q10	WG	E524.2	N	3/11/2010	1,2,4-Trimethylbenzene	2.30	0.500	µg/L	
						1,3,5-Trimethylbenzene	0.500	0.500	µg/L	
						Benzene	9.20	0.500	µg/L	
						Bromodichloromethane	0.400	0.500	µg/L	J
						Chloroform	6.90	0.500	µg/L	
						Dichlorodifluoromethane	4.20	0.500	µg/L	
						Ethylbenzene	6.20	0.500	µg/L	
						m,p-Xylenes	17	1	µg/L	
						Naphthalene	0.400	0.500	µg/L	J
						n-Propylbenzene	0.200	0.500	µg/L	J
						o-Xylene	5.60	0.500	µg/L	
						Tetrachloroethene	120	5	µg/L	
						Toluene	6.80	0.500	µg/L	
	MW-80A-1Q10	WG	E524.2	FD	3/11/2010	1,2,4-Trimethylbenzene	2.60	0.500	µg/L	
						1,3,5-Trimethylbenzene	0.600	0.500	µg/L	
						Benzene	10	0.500	µg/L	
						Bromodichloromethane	0.300	0.500	µg/L	J
						Chloroform	6.80	0.500	µg/L	
						Dichlorodifluoromethane	4	0.500	µg/L	J
						Ethylbenzene	7.10	0.500	µg/L	
						m,p-Xylenes	19	1	µg/L	

TABLE B3 (Continued)

Location	Field Sample Identification	Matrix	Method	Sample Type	Date Sampled	Analyte	Result	Reporting Limit	Units	Qualified Result
MW-20A continued . . .										
						Naphthalene	0.400	0.500	µg/L	J
						n-Propylbenzene	0.300	0.500	µg/L	J
						o-Xylene	6.20	0.500	µg/L	
						Tetrachloroethene	130	5	µg/L	
						Toluene	7.70	0.500	µg/L	
MW-20B	MW-20B-1Q10	WG	E524.2	N	3/11/2010	1,2,4-Trimethylbenzene	2.90	0.500	µg/L	
						1,3,5-Trimethylbenzene	0.900	0.500	µg/L	
						Benzene	8.60	0.500	µg/L	
						Chloroform	1	0.500	µg/L	
						Ethylbenzene	6.50	0.500	µg/L	
						Isopropylbenzene	0.200	0.500	µg/L	J
						m,p-Xylenes	20	1	µg/L	
						Naphthalene	0.500	0.500	µg/L	J
						n-Propylbenzene	0.400	0.500	µg/L	J
						o-Xylene	6.80	0.500	µg/L	
						Tetrachloroethene	73	5	µg/L	
						Toluene	6.60	0.500	µg/L	
MW-20C	MW-20C-1Q10	WG	E524.2	N	3/11/2010	1,2,4-Trimethylbenzene	0.900	0.500	µg/L	
						1,3,5-Trimethylbenzene	0.200	0.500	µg/L	J
						Benzene	2.80	0.500	µg/L	
						Ethylbenzene	1.80	0.500	µg/L	
						m,p-Xylenes	5.60	1	µg/L	
						o-Xylene	2.40	0.500	µg/L	
						Toluene	4	0.500	µg/L	
MW-19B1	MW-19B-1Q10	WG	E524.2	N	3/11/2010	1,2,4-Trimethylbenzene	6.20	0.500	µg/L	
						1,3,5-Trimethylbenzene	1.80	0.500	µg/L	
						Benzene	26	1	µg/L	
						Ethylbenzene	15	0.500	µg/L	
						Isopropylbenzene	0.500	0.500	µg/L	

TABLE B3 (Continued)

Location	Field Sample Identification	Matrix	Method	Sample Type	Date Sampled	Analyte	Result	Reporting Limit	Units	Qualified Result
MW-19B1 continued . . .										
						m,p-Xylenes	46	1	µg/L	
						Naphthalene	0.900	0.500	µg/L	J
						n-Propylbenzene	0.800	0.500	µg/L	
						o-Xylene	16	0.500	µg/L	
						Tetrachloroethene	0.300	0.500	µg/L	J
						Toluene	19	0.500	µg/L	
SP-01	EW-1-012710	WG	E524.2	N	1/27/2010	Chloroform	3	0.500	µg/L	
						Tetrachloroethene	160	10	µg/L	
	EW-1-022510				2/25/2010	Chloroform	3.30	0.500	µg/L	
						Tetrachloroethene	160	5	µg/L	
	EW-1-0302				3/11/2010	Chloroform	3.10	0.500	µg/L	
						Tetrachloroethene	180	10	µg/L	
	EW-1-0302	WG	ASTM D 5174	N	3/11/2010	Uranium	54.9	1	pci/L	
SP-03	CRB-INF-0302	WG	E524.2	N	3/11/2010	Tetrachloroethene	0.400	0.500	µg/L	J
SP-04	CRB-MID-0302	WG	E524.2	N	3/11/2010	Acetone	3.60	4	µg/L	J
SP-05	CRB-EFF-0302	WG	E524.2	N	3/11/2010	No Analytes Detected				
	Pre IEX-0302	WG	ASTM D 5174	N	3/11/2010	Uranium	54.6	1	pci/L	
SP-06	IEX Mid-0302	WG	ASTM D 5174	N	3/11/2010	Uranium	5.90	1	pci/L	
SP-07	EFF-012710	WG	E524.2	N	1/27/2010	No Analytes Detected				
	EFF-012710	WG	E160.1	N	1/27/2010	Total dissolved solids	640	20	mg/L	
	EFF-022510	WG	E524.2	N	2/25/2010	No Analytes Detected				
	EFF-022510	WG	160.1	N	2/25/2010	Total dissolved solids	640	20	mg/L	
	EFF-022510DUP	WG	160.1	FD	2/25/2010	Total dissolved solids	650	20	mg/L	
	EFF-0302	WG	E524.2	N	3/11/2010	No Analytes Detected				
	EFF-0302	WG	SM 2540	N	3/11/2010	Total dissolved solids	640	20	mg/L	
	EFF-0302	WG	ASTM D 5174	N	3/11/2010	Uranium	19.7	1	pci/L	
	MW-107-0302	WG	SM 2540	FD	3/11/2010	Total dissolved solids	640	20	mg/L	
	MW-107-0302	WG	ASTM D	FD	3/11/2010	Uranium	19.1	1	pci/L	
SP-08	GWT Pre GAC-012710	GS	TO15	N	1/27/2010	Chloroform	9.20	2.30	ppbv	

TABLE B3 (Continued)

Location	Field Sample Identification	Matrix	Method	Sample Type	Date Sampled	Analyte	Result	Reporting Limit	Units	Qualified Result
SP-08 continued . . .										
						Tetrachloroethene	330	23	ppbv	
	GWT PreGAC-022510	AA			2/25/2010	Tetrachloroethene	29	2.30	ppbv	
	GWTP Pr GAC-0302	GS			3/11/2010	Chloroform	6.50	4.10	ppbv	
						Tetrachloroethene	280	41	ppbv	
SP-09	GWT Stack-012710	GS	TO15	N	1/27/2010	Chloroform	8.70	2.20	ppbv	
						Tetrachloroethene	380	22	ppbv	
	GWT Stack-022510	AA			2/25/2010	Chloroform	8.10	2.30	ppbv	
						m,p-Xylenes	2.30	4.70	ppbv	
						Tetrachloroethene	440	23	ppbv	
						Toluene	3.30	2.30	ppbv	
	GWT Stack-022510DUP	AA	TO15	FD	2/25/2010	Chloroform	8.15	2.30	ppbv	
						Tetrachloroethene	246	2.30	ppbv	
						Toluene	3.33	2.30	ppbv	
	GWTP Stack-0302	GS	TO15	N	3/11/2010	Chloroform	6.60	2.40	ppbv	
						Tetrachloroethene	340	24	ppbv	
SP-11	SVE Pre GAC-012710	GS	TO15	N	1/27/2010	Chloroform	32	2.30	ppbv	
						cis-1,2-Dichloroethene	1.50	2.30	ppbv	
						Dichlorodifluoromethane	1.60	2.30	ppbv	
						Tetrachloroethene	700	460	ppbv	
						Trichloroethylene	3.10	2.30	ppbv	
	SVE Pre GAC-0302				3/11/2010	Chloroform	1.20	2.20	ppbv	J
						Tetrachloroethene	12	2.20	ppbv	
	SVE PreGAC-022510	AA			2/25/2010	Chloroform	32	2.30	ppbv	
						cis-1,2-Dichloroethene	1.20	2.30	ppbv	
						Dichlorodifluoromethane	1.90	2.30	ppbv	
						Tetrachloroethene	470	23	ppbv	
						Trichloroethylene	2	2.30	ppbv	
SP-12	SVE Stack-012710	GS	TO15	N	1/27/2010	Chloroform	29	2.20	ppbv	
						cis-1,2-Dichloroethene	3.20	2.20	ppbv	

TABLE B3 (Continued)

Location	Field Sample Identification	Matrix	Method	Sample Type	Date Sampled	Analyte	Result	Reporting Limit	Units	Qualified Result
SP-12 continued . . .										
						Dichlorodifluoromethane	1.30	2.20	ppbv	
						Tetrachloroethene	6	2.20	ppbv	
	SVE Stack-022510	AA			2/25/2010	Chloroform	37	2.30	ppbv	
						cis-1,2-Dichloroethene	4.80	2.30	ppbv	
						Dichlorodifluoromethane	1.40	2.30	ppbv	
						Tetrachloroethene	38	2.30	ppbv	
						Trichloroethylene	2.70	2.30	ppbv	
	SVE Stack-0302	GS			3/11/2010	Chloroform	30	3.20	ppbv	
						cis-1,2-Dichloroethene	3.90	3.20	ppbv	
						Tetrachloroethene	51	3.20	ppbv	
						Trichloroethylene	2.60	3.20	ppbv	J
SVE-01	SVE-1-1Q10	GS	TO15	N	3/10/2010	Tetrachloroethene	13	2.40	ppbv	
SVE-02	SVE-2-1Q10	GS	TO15	N	3/10/2010	Tetrachloroethene	290	36	ppbv	
SVE-03	SVE-3-1Q10	GS	TO15	N	3/10/2010	Tetrachloroethene	88	4.70	ppbv	
SVE-04	SVE-4-1Q10	GS	TO15	N	3/10/2010	Chloroform	28	2.90	ppbv	
						Tetrachloroethene	57	2.90	ppbv	

Note: January and February data were provided by the previous contractor and are not validated.

Matrix
AA = ambient air
GS = soil gas
WG = groundwater
WQ = water quality

Sample Type
FD = Field Duplicate
FB = Field Blank
N = Normal Sample
TB = Trip Blank

TABLE B3 (Continued)

Location	Field Sample Identification	Matrix	Method	Sample Type	Date Sampled	Analyte	Result	Reporting Limit	Units	Qualified Result

Units
mg/L = milligrams/Liter
ppbv = parts per billion volume
pci/L = picoCuries/Liter
µg/L = micrograms/Liter

Qualified Results
J = Analyte concentration considered an estimated value because one or more quality control specifications were not met.

TABLE B4

LABORATORY CONTROL SAMPLE RECOVERY OUTLIERS SUMMARY
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Analytical Method	Laboratory Batch	Analyte	Expected Concentration	LCS Recovery (%)	Control Limits	Accuracy Acceptance
TO-15	B0C0100	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	100	74	81.8-126	no

Notes:
% - Percent
LCS - Laboratory Control Sample

TABLE B5

MATRIX SPIKE AND MATRIX SPIKE DUPLICATE RECOVERY OUTLIERS SUMMARY
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Analytical Method	Laboratory Batch	Field Sample Identification	Analyte	MS Recovery (%)	MSD Recovery (%)	Control Limits (%)	Accuracy Acceptance	RPD (%)	RPD Control Limits (%)	Precision Acceptance
E524.2	B0C0096	EW-1-0302	2,2-Dichloropropane	50	31	25-150	yes	47.0	20	no
E524.2	B0C0096	EW-1-0302	Styrene	90	74	70-130	yes	25.0	20	no

Notes:
% - Percent
MS - Matrix Spike
MSD - Matrix Spike Duplicate
RPD - Relative Percent Difference

TABLE B6

COMPLETENESS SUMMARY
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Analytical Method	Analyte	Possible Results	Analytical Completeness Qualified Results	Analytical Completeness Percent (%)	Technical Completeness Rejected Results	Technical Completeness Percent (%)
Water						
D5174						
	Uranium, total	4	0	100.0%	0	100.0%
	Total:	4	0	100.0%	0	100.0%

Appendix C
Laboratory Data Validation Report

Laboratory Data Consultants'
Quality Control Summary Report (QCSR)
Modesto Superfund Site
Analytical Data for Samples Collected by
URS Corporation
During the Period of
March 8, 2010 to March 11, 2010

Prepared for:

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LIST OF ACRONYMS

ADR	**Automated Data Review**
CA	**California**
˚C	**Degrees Celsius**
EPA	**Environmental Protection Agency**
LCS	**Laboratory Control Sample**
LDC	**Laboratory Data Consultants, Inc.**
MDL	**Method Detection Limit**
MS	**Matrix Spike**
MSD	**Matrix Spike Duplicate**
QC	**Quality Control**
QCSR	**Quality Control Summary Report**
RL	**Reporting Limit**
RPD	**Relative Percent Difference**
SAP	**Sampling and Analysis Plan**
SDG	**Sample Delivery Group**
SEDD	**Staged Electronic Data Deliverables**
SM	**Standard Methods**
SOP	**Standard Operating Procedure**
TDS	**Total Dissolved Solids**
URS	**URS Corporation**
USEPA	**United States Environmental Protection Agency**
VOCs	**Volatile Organic Compounds**

EXECUTIVE SUMMARY

This Quality Control Summary Report (QCSR) has been prepared by Laboratory Data Consultants, Inc. (LDC) for URS Corporation (URS) for the Modesto Superfund Site in Modesto, California (CA). The purpose of this report is to provide the data user with an independent evaluation of the results generated by the laboratory. The data reviewed in this report were analyzed by US Environmental Protection Agency (EPA) Region 9 Laboratory located in Richmond, CA. The laboratory is certified in the State of California by the Department of Health Services. URS Corporation located in Sacramento, CA, collected the samples analyzed for this report.

The data validation was performed in accordance with the EPA Region 9 Laboratory's internal control limits specified in the EPA Region 9 Laboratory's Standard Operating Procedures (SOPs), "Sampling and Analysis Plan, Modesto Superfund Site, Modesto, California", June 2008, the US Army Corps. of Engineers, and URS.

Fifty-two field samples, six field duplicates, and 11 field Quality Control (QC) samples were reported in four EPA Region 9 Laboratory's sample delivery groups (SDGs) for the Quarterly and Monthly March 2010 sampling effort.

The laboratory provided electronic data in Staged Electronic Data Deliverable (SEDD) files. The SEDD files were processed through the automated data review (ADR) program in order to produce SEDD and ADR formats, as requested by URS. The SEDD files were used for data review and resulting data validation qualifiers have been appended to the SEDD and ADR files.

Data review was primarily based on the EPA Region 9 Laboratory's internal control limits specified in the EPA Region 9 Laboratory's Standard Operating Procedures (SOPs) and the "Sampling and Analysis Plan, Modesto Superfund Site, Modesto, California" (SAP), June 2008. If there were cases where no QC acceptance criteria were specified for an analysis, data were evaluated against the appropriate method references and Standard Methods. Where additional guidance was needed, data were evaluated against quality control (QC) and data validation criteria provided in the "National Functional Guidelines for Inorganic Data Review" (USEPA 2004), and "National Functional Guidelines for Organic Data Review" (USEPA 2008). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

For this review, approximately ten percent of project data were subject to USEPA Level IV equivalent validation with raw data recalculations, and the remaining 90 percent were validated to USEPA Level III equivalent. All analytical results from the sampling period were subjected to automated and manual review through an evaluation of Quality Control (QC) results, sample holding times, cooler temperatures, sample preservation, initial and continuing calibration, surrogate recoveries, matrix spikes/matrix spike duplicates, laboratory duplicates, laboratory control samples, method blanks, and reporting limits. Level IV equivalent validation was designated to the following: SDG 10071D (four samples for volatile organic compounds (VOCs) by EPA 524.2); 10071D (one sample for total dissolved solids (TDS) by Standard Methods (SM)

2540); and 10071H (two samples for VOCs by EPA TO-15). There were no significant findings in the Level IV equivalent validation and no data were qualified based upon the raw data review.

The following items were evaluated by ADR:

- Holding Times
- Cooler Temperatures
- Blanks
- Surrogates
- Matrix Spike/Matrix Spike Duplicates (MS/MSD)
- Laboratory Control Samples (LCS)
- Reporting Limits (RL)
- Field QC Samples

The evaluation of the associated initial and continuing instrument calibrations and Level IV recalculations from the raw data packages were performed by manual review.

The ADR was performed using bias indicators for data qualification. Appendix A contains a summary of data qualifications and the reasons for qualified results. The results of the ADR are included in Appendix B of this report, along with manual validation worksheets.

Data Qualifier Definitions

Through the data review process, the data were assigned qualifiers. The qualifiers assigned by LDC are based on a technical assessment of the data and represent outliers from each of the data review components (blank contamination, holding time, etc.). The following are definitions of the data qualifiers that may appear in this report:

Data Qualifier	Definition
U	Indicates the compound or analyte was analyzed for, but not detected at or above the reported sample quantitation limit. The result is considered nondetected (ND) at the reported value. This qualifier is added before any additional qualifiers for all ND results.
UJ	Indicates the compound or analyte was analyzed for, but not detected. The sample detection limit is an estimated value due to QC failure or data limitations.
J	Indicates the compound or analyte is positively identified, but the reported concentration is an estimate due to QC failure or data limitations.
J+	Indicates the compound or analyte is positively identified, but the reported concentration is an estimate due to QC failure or data limitations. A high quantitative bias exists in the data.
J-	Indicates the compound or analyte is positively identified, but the reported concentration is an estimate due to QC failure or data limitations. A low quantitative bias exists in the data.

Data Qualifier	Definition
R	Quality control indicates the data is not usable. The presence or absence of the compound or analyte cannot be verified or the reported result is compromised as to be unusable.

Data qualified with the "R" qualifier are considered unusable or rejected. Data qualified with the "J" qualifier are considered as estimated. The data user must determine the appropriate use of estimated data.

The data quality assessment is summarized by reporting analytical completeness. The following equations were used to calculate completeness.

%Analytical Completeness = (Number of unqualified results/Number of reported results) X 100

The analytical completeness, which included all QC parameters, attained for the field samples in the sampling effort is presented in Table 5.

%Contract Compliance Completeness = (Number of contract compliant results/Number of reported results) X 100

The contract compliance completeness, which included all QC parameters, attained for the field samples in the sampling effort is presented in Table 6.

%Technical Completeness = (Number of results not rejected/Number of reported results) X 100

The technical completeness, which included all QC parameters, attained for the field samples in the sampling effort is presented in Table 7.

Based on review of the analytical data and associated QC results, the sample data were assessed to be valid with minor qualifications. A summary of the overall quality of data is as follows:

2.0 Quarterly Sampling Event

Based on review of the analytical data and associated QC results, the overall analytical completeness (number of unqualified results divided by the number of reported results) for the first quarter 2010 sampling effort was 93.4%.

- VOCs by EPA Method 524.2 had a completeness of 92.9%,
- VOCs by EPA Method TO-15 had a completeness of 96.0%,

If data qualifiers due to trace values were excluded from this calculation, the analytical completeness would be 94.7% for VOCs by EPA Method 524.2 and 97.8% for VOCs by EPA Method TO-15.

The overall contract compliance completeness (number of contract compliant results divided by the number of reported results) for the sampling effort was 93.4%.

- VOCs by EPA Method 524.2 had a completeness of 92.9%,
- VOCs by EPA Method TO-15 had a completeness of 96.0%,

If data qualifiers due to trace values were excluded from this calculation, the contract completeness would be 94.7% for VOCs by EPA Method 524.2 and 97.8% for VOCs by EPA Method TO-15.

No analytical results for this sampling effort were rejected. The technical completeness (number of non-rejected results divided by the number of reported results) for the sampling effort was 100%.

The analytical, contract compliance and technical completeness reports are in Tables 5, 6, and 7. Appendix A presents a detailed description of the qualified results by analytical method. The overall quality of data by analytical method is summarized below:

Volatile Organics by EPA 524.2 (EPA Region 9 SOP 354, revision 9)

The analytical completeness for Volatile Organics by EPA 524.2 was 95.7%. Forty-six of the 2,646 reported results were qualified as estimated due to trace values reported between the method detection limit (MDL) and the reporting limit (RL). One hundred thirty-four of the reported results were qualified as estimated due to initial and continuing calibration outside of criteria. Six of the reported results were qualified due to trip blank contamination. One of the reported results was qualified due to method blank contamination. Table 8 lists specific samples and reasons for all qualified results.

Volatile Organics by EPA TO-15 (EPA Region 9 SOP 311, revision 1)

The analytical completeness for Volatile Organics by EPA TO-15 was 96.9%. Nine of the 494 reported results were qualified as estimated due to trace values reported between the MDL and the RL. Eleven of the 494 reported results were qualified as estimated due to laboratory control sample (LCS) recoveries below the lower control limit. Table 8 lists specific samples and reasons for all qualified results.

Field Duplicates

The analysis of field duplicate samples is a measure of both field and analytical precision. Imprecision in the results of the analysis of the field duplicate pair may be attributed to the sample matrix, method defects, poor sampling or laboratory technique.

Field duplicate samples were submitted to the laboratory "blind" in this sampling event. The field duplicates were evaluated by the criteria specified in Table 2-17 "Field Duplicate Sample Results Comparison Criteria" in the SAP.

For this sampling event, one air and four water samples were analyzed as field duplicates. Tetrachloroethene associated with samples MW-8A-1Q10 and MW-18A-1Q10 had a greater than 3X difference and is considered as a "major disagreement".

3.0 Monthly Sampling Event

Based on review of the analytical data and associated QC results, the overall analytical completeness (number of unqualified results divided by the number of reported results) for the first quarter 2010 sampling effort was 94.1%.

- VOCs by EPA Method 524.2 had a completeness of 93.2%,
- VOCs by EPA Method TO-15 had a completeness of 96.7%,
- Total Dissolved Solids by SM 2450C had a completeness of 100%,

If data qualifiers due to trace values were excluded from this calculation, the analytical completeness would be 93.6% for VOCs by EPA Method 524.2 and 98.0% for VOCs by EPA Method TO-15.

The overall contract compliance completeness (number of contract compliant results divided by the number of reported results) for the sampling effort was 94.5%.

- VOCs by EPA Method 524.2 had a completeness of 93.7%,
- VOCs by EPA Method TO-15 had a completeness of 96.7%,
- Total Dissolved Solids by SM 2450C had a completeness of 100%,

If data qualifiers due to trace values were excluded from this calculation, the contract completeness would be 94.1% for VOCs by EPA Method 524.2 and 98.0% for VOCs by EPA Method TO-15.

No analytical results for this sampling effort were rejected. The technical completeness (number of non-rejected results divided by the number of reported results) for the sampling effort was 100%.

The analytical, contract compliance and technical completeness reports are in Tables 5, 6, and 7. Appendix A presents a detailed description of the qualified results by analytical method. The overall quality of data by analytical method is summarized below:

Volatile Organics by EPA 524.2 (EPA Region 9 SOP 354, revision 9)

The analytical completeness for Volatile Organics by EPA 524.2 was 93.2%. Two of the 441 reported results were qualified as estimated due to trace values reported between the MDL and the RL. Twenty-seven of the reported results were qualified as estimated due to initial calibration non-conformances. Two of the reported results were qualified as estimated due to matrix spike (MS) and matrix spike duplicate (MSD) relative percent differences (RPDs) above the control limit. Table 8 lists specific samples and reasons for all qualified results.

Volatile Organics by EPA TO-15 (EPA Region 9 SOP 311, revision 1)

The analytical completeness for Volatile Organics by EPA TO-15 was 96.7%. Two of the 152 reported results were qualified as estimated due to trace values reported between the MDL and the RL. Three of the reported results were qualified as estimated due to LCS recoveries below the lower control limit. Table 8 lists specific samples and reasons for all qualified results.

Total Dissolved Solids by SM 2540C (EPA Region 9 SOP 461, revision 6)

The analytical completeness for Total Dissolved Solids by SM 2540C was 100%.

Field Duplicates

The analysis of field duplicate samples is a measure of both field and analytical precision. Imprecision in the results of the analysis of the field duplicate pair may be attributed to the sample matrix, method defects, poor sampling or laboratory technique.

Field duplicate samples were submitted to the laboratory "blind" in this sampling event. The field duplicates were evaluated by the criteria specified in Table 2-17 "Field Duplicate Sample Results Comparison Criteria" in the SAP.

For this sampling event, one water sample was analyzed as a field duplicate. The sample results were within the criteria in Table 2-17.

Table 1

Sample ID Cross Reference

(Quarterly Sampling Event)

Table 1: Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
08-Mar-2010	MW-301-1Q10	1003039-14	TB	5030B	524.2	3
08-Mar-2010	MW-15A-1Q10	1003040-21	N	5030B	524.2	3
08-Mar-2010	MW-7A-1Q10	1003040-05	N	5030B	524.2	3
08-Mar-2010	MW-401-1Q10	1003039-18	FB	5030B	524.2	3
09-Mar-2010	MW-302-1Q10	1003039-15	TB	5030B	524.2	3
09-Mar-2010	MW-2A-1Q10	1003040-19	N	5030B	524.2	3
09-Mar-2010	MW-14A-1Q10	1003040-20	N	5030B	524.2	3
09-Mar-2010	MW-11A-1Q10	1003040-09	N	5030B	524.2	3
09-Mar-2010	MW-5A-1Q10	1003040-08	N	5030B	524.2	3
09-Mar-2010	MW-5A-1Q10MS	B0C0158-MS1	MS	5030B	524.2	3
09-Mar-2010	MW-5A-1Q10MSD	B0C0158-MSD1	MSD	5030B	524.2	3
09-Mar-2010	MW-13A-1Q10	1003040-16	N	5030B	524.2	3
09-Mar-2010	MW-6A-1Q10	1003040-17	N	5030B	524.2	3
09-Mar-2010	MW-9B-1Q10	1003040-04	N	5030B	524.2	4
09-Mar-2010	MW-10A-1Q10	1003040-18	N	5030B	524.2	3
09-Mar-2010	MW-402-1Q10	1003039-19	FB	5030B	524.2	3
10-Mar-2010	MW-303-1Q10	1003039-16	TB	5030B	524.2	3
10-Mar-2010	SVE-2-1Q10 can 1115	1003041-07	N	5030B	TO-15	3
10-Mar-2010	SVE-4-1Q10 can 636	1003041-17	N	5030B	TO-15	3
10-Mar-2010	SVE-3-1Q10 can 1071	1003041-11	N	5030B	TO-15	3
10-Mar-2010	MW-12A-1Q10	1003040-07	N	5030B	524.2	3
10-Mar-2010	DP-5A-1Q10 can 1062	1003041-16	N	5030B	TO-15	3
10-Mar-2010	DP-95B-1Q10 can 854	1003041-06	FD	5030B	TO-15	3
10-Mar-2010	DP-5B-1Q10 can 856	1003041-05	N	5030B	TO-15	3
10-Mar-2010	MW-4A-1Q10	1003040-03	N	5030B	524.2	4
10-Mar-2010	MW-16A-1Q10	1003040-11	N	5030B	524.2	3

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Table 1: Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
10-Mar-2010	SVE-1-1Q10 can 1095	1003041-08	N	5030B	TO-15	3
10-Mar-2010	MW-16C-1Q10	1003040-14	N	5030B	524.2	3
10-Mar-2010	MW-1A-1Q10	1003040-06	N	5030B	524.2	3
10-Mar-2010	DP-1A-1Q10 can 1087	1003041-12	N	5030B	TO-15	3
10-Mar-2010	DP-1B-1Q10 can 896	1003041-01	N	5030B	TO-15	4
10-Mar-2010	MW-16B-1Q10	1003040-12	N	5030B	524.2	3
10-Mar-2010	SVE-WEST-1Q10 can 1978	1003041-03	N	5030B	TO-15	3
10-Mar-2010	SVE-EAST-1Q10 can 1059	1003041-04	N	5030B	TO-15	3
10-Mar-2010	MW-18A-1Q10	1003040-02	FD	5030B	524.2	4
10-Mar-2010	MW-403-1Q10	1003039-20	FB	5030B	524.2	3
10-Mar-2010	MW-17C-1Q10	1003040-13	N	5030B	524.2	3
10-Mar-2010	MW-8A-1Q10	1003040-01	N	5030B	524.2	4
10-Mar-2010	DP-6A-1Q10 can 635	1003041-02	N	5030B	TO-15	4
10-Mar-2010	DP-6A-1Q10 can 635DUP	B0C0100-DUP1	DUP	5030B	TO-15	4
10-Mar-2010	DP-6B-1Q10 can 1979	1003041-15	N	5030B	TO-15	3
10-Mar-2010	MW-17B-1Q10	1003040-15	N	5030B	524.2	3
10-Mar-2010	MW-17A-1Q10	1003040-10	N	5030B	524.2	3
11-Mar-2010	MW-304-1Q10	1003039-17	TB	5030B	524.2	3
11-Mar-2010	MW-304-1Q10MS	B0C0110-MS1	MS	5030B	524.2	3
11-Mar-2010	MW-304-1Q10MSD	B0C0110-MSD1	MSD	5030B	524.2	3
11-Mar-2010	MW-96B-1Q10	1003039-11	FD	5030B	524.2	3
11-Mar-2010	MW-10C-1Q10	1003039-12	N	5030B	524.2	3
11-Mar-2010	MW-19B-1Q10	1003039-05	N	5030B	524.2	3
11-Mar-2010	MW-404-1Q10	1003039-21	FB	5030B	524.2	3
11-Mar-2010	MW-10B-1Q10	1003039-09	N	5030B	524.2	3
11-Mar-2010	MW-80A-1Q10	1003039-02	FD	5030B	524.2	3

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Table 1: Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
11-Mar-2010	MW-4C-1Q10	1003039-06	N	5030B	524.2	3
11-Mar-2010	MW-19A-1Q10	1003039-07	N	5030B	524.2	3
11-Mar-2010	MW-90C-1Q10	1003039-13	FD	5030B	524.2	3
11-Mar-2010	MW-4B-1Q10	1003039-10	N	5030B	524.2	3
11-Mar-2010	MW-20A-1Q10	1003039-01	N	5030B	524.2	3
11-Mar-2010	MW-20B-1Q10	1003039-03	N	5030B	524.2	3
11-Mar-2010	MW-20C-1Q10	1003039-04	N	5030B	524.2	3
11-Mar-2010	MW-3A-1Q10	1003039-08	N	5030B	524.2	3

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Table 2

Primary and Field QC Samples by Method

(Quarterly Sampling Event)

Table 2: Primary and Field QC Samples by Method

Analytical Method	Matrix	Primary Samples	Field Duplicates	Trip Blanks	Equipment Blanks	Field Blanks
524.2	Water	30	4	4	None	4
TO-15	Air	12	1	None	None	None

Table 3

Detected Target Analytes
(Quarterly Sampling Event)

Table 3: Detected Target Analytes

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Units
SDG: 10071E								
524.2	MW-10B-1Q10	Water	N					
				1,2,4-TRIMETHYLBENZENE	0.5	2.3		ug/L
				1,3,5-TRIMETHYLBENZENE	0.5	0.6		ug/L
				BENZENE	0.5	7.3		ug/L
				ETHYLBENZENE	0.5	0.5		ug/L
				m&p-Xylene	1.0	8.1		ug/L
				NAPHTHALENE	0.5	0.3J		ug/L
				O-XYLENE	0.5	3.7		ug/L
				TETRACHLOROETHENE	0.5	18		ug/L
				TOLUENE	0.5	1.2		ug/L
524.2	MW-10C-1Q10	Water	N					
				1,2,4-TRIMETHYLBENZENE	0.5	1.6		ug/L
				1,3,5-TRIMETHYLBENZENE	0.5	0.4J		ug/L
				BENZENE	0.5	6.7		ug/L
				ETHYLBENZENE	0.5	0.5		ug/L
				m&p-Xylene	1.0	6.6		ug/L
				NAPHTHALENE	0.5	0.2J		ug/L
				O-XYLENE	0.5	3.2		ug/L
				TETRACHLOROETHENE	0.5	0.3J		ug/L
				TOLUENE	0.5	1.2		ug/L
524.2	MW-19A-1Q10	Water	N					
				1,2,4-TRIMETHYLBENZENE	0.5	0.7		ug/L
				1,3,5-TRIMETHYLBENZENE	0.5	0.2J		ug/L
				BENZENE	0.5	2.8		ug/L
				CHLOROFORM	0.5	1.3		ug/L
				ETHYLBENZENE	0.5	2.1		ug/L
				m&p-Xylene	1.0	6.5		ug/L
				O-XYLENE	0.5	2.3		ug/L
				TETRACHLOROETHENE	0.5	0.8		ug/L
				TOLUENE	0.5	2.5		ug/L
524.2	MW-19B-1Q10	Water	N					
				1,2,4-TRIMETHYLBENZENE	0.5	6.2		ug/L
				1,3,5-TRIMETHYLBENZENE	0.5	1.8		ug/L
				BENZENE	1.0	26		ug/L
				ETHYLBENZENE	0.5	15		ug/L
				ISOPROPYLBENZENE	0.5	0.5		ug/L
				m&p-Xylene	1.0	46		ug/L
				NAPHTHALENE	0.5	0.9J		ug/L
				N-PROPYLBENZENE	0.5	0.8		ug/L
				O-XYLENE	0.5	16		ug/L
				TETRACHLOROETHENE	0.5	0.3J		ug/L
				TOLUENE	0.5	19		ug/L

**Note: This report excludes laboratory detects that were qualified as ND due to Blank Contamination*

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Table 3: Detected Target Analytes

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Units
SDG: 10071E								
524.2	MW-20A-1Q10	Water	N					
				1,2,4-TRIMETHYLBENZENE	0.5	2.3		ug/L
				1,3,5-TRIMETHYLBENZENE	0.5	0.5		ug/L
				BENZENE	0.5	9.2		ug/L
				BROMODICHLOROMETHANE	0.5	0.4J		ug/L
				CHLOROFORM	0.5	6.9		ug/L
				DICHLORODIFLUOROMETHANE	0.5	4.2		ug/L
				ETHYLBENZENE	0.5	6.2		ug/L
				m&p-Xylene	1.0	17		ug/L
				NAPHTHALENE	0.5	0.4J		ug/L
				N-PROPYLBENZENE	0.5	0.2J		ug/L
				O-XYLENE	0.5	5.6		ug/L
				TETRACHLOROETHENE	5.0	120		ug/L
				TOLUENE	0.5	6.8		ug/L
524.2	MW-20B-1Q10	Water	N					
				1,2,4-TRIMETHYLBENZENE	0.5	2.9		ug/L
				1,3,5-TRIMETHYLBENZENE	0.5	0.9		ug/L
				BENZENE	0.5	8.6		ug/L
				CHLOROFORM	0.5	1.0		ug/L
				ETHYLBENZENE	0.5	6.5		ug/L
				ISOPROPYLBENZENE	0.5	0.2J		ug/L
				m&p-Xylene	1.0	20		ug/L
				NAPHTHALENE	0.5	0.5J		ug/L
				N-PROPYLBENZENE	0.5	0.4J		ug/L
				O-XYLENE	0.5	6.8		ug/L
				TETRACHLOROETHENE	5.0	73		ug/L
				TOLUENE	0.5	6.6		ug/L
524.2	MW-20C-1Q10	Water	N					
				1,2,4-TRIMETHYLBENZENE	0.5	0.9		ug/L
				1,3,5-TRIMETHYLBENZENE	0.5	0.2J		ug/L
				BENZENE	0.5	2.8		ug/L
				ETHYLBENZENE	0.5	1.8		ug/L
				m&p-Xylene	1.0	5.6		ug/L
				O-XYLENE	0.5	2.4		ug/L
				TOLUENE	0.5	4.0		ug/L
524.2	MW-301-1Q10	Water	TB					
				METHYLENE CHLORIDE	0.5	0.3J		ug/L
524.2	MW-303-1Q10	Water	TB					
				METHYLENE CHLORIDE	0.5	0.2J		ug/L
524.2	MW-304-1Q10	Water	TB					
				METHYLENE CHLORIDE	0.5	0.3J		ug/L
524.2	MW-3A-1Q10	Water	N					
				CHLOROFORM	0.5	1.3		ug/L
				TETRACHLOROETHENE	2.5	42		ug/L

**Note: This report excludes laboratory detects that were qualified as ND due to Blank Contamination*

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Table 3: Detected Target Analytes

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Units
SDG: 10071E								
524.2	MW-403-1Q10	Water	FB					
				ACETONE	4.0	3.6J		ug/L
524.2	MW-4B-1Q10	Water	N					
				1,2,4-TRIMETHYLBENZENE	0.5	1.8		ug/L
				1,3,5-TRIMETHYLBENZENE	0.5	0.5		ug/L
				BENZENE	0.5	5.6		ug/L
				ETHYLBENZENE	0.5	0.5		ug/L
				m&p-Xylene	1.0	6.7		ug/L
				NAPHTHALENE	0.5	0.3J		ug/L
				O-XYLENE	0.5	3.2		ug/L
				TETRACHLOROETHENE	0.5	5.2		ug/L
				TOLUENE	0.5	1.1		ug/L
524.2	MW-4C-1Q10	Water	N					
				1,2,4-TRIMETHYLBENZENE	0.5	2.2		ug/L
				1,3,5-TRIMETHYLBENZENE	0.5	0.5		ug/L
				BENZENE	0.5	6.5		ug/L
				ETHYLBENZENE	0.5	0.6		ug/L
				m&p-Xylene	1.0	7.7		ug/L
				NAPHTHALENE	0.5	0.4J		ug/L
				O-XYLENE	0.5	3.6		ug/L
				TETRACHLOROETHENE	0.5	0.4J		ug/L
				TOLUENE	0.5	1.2		ug/L
524.2	MW-80A-1Q10	Water	FD					
				1,2,4-TRIMETHYLBENZENE	0.5	2.6		ug/L
				1,3,5-TRIMETHYLBENZENE	0.5	0.6		ug/L
				BENZENE	0.5	10		ug/L
				BROMODICHLOROMETHANE	0.5	0.3J		ug/L
				CHLOROFORM	0.5	6.8		ug/L
				DICHLORODIFLUOROMETHANE	0.5	4.0J		ug/L
				ETHYLBENZENE	0.5	7.1		ug/L
				m&p-Xylene	1.0	19		ug/L
				NAPHTHALENE	0.5	0.4J		ug/L
				N-PROPYLBENZENE	0.5	0.3J		ug/L
				O-XYLENE	0.5	6.2		ug/L
				TETRACHLOROETHENE	5.0	130		ug/L
				TOLUENE	0.5	7.7		ug/L

**Note: This report excludes laboratory detects that were qualified as ND due to Blank Contamination*

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Table 3: Detected Target Analytes

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Units
SDG: 10071E								
524.2	MW-90C-1Q10	Water	FD					
				1,2,4-TRIMETHYLBENZENE	0.5	2.1		ug/L
				1,3,5-TRIMETHYLBENZENE	0.5	0.5		ug/L
				BENZENE	0.5	8.2		ug/L
				ETHYLBENZENE	0.5	0.6		ug/L
				m&p-Xylene	1.0	8.4		ug/L
				NAPHTHALENE	0.5	0.3J		ug/L
				O-XYLENE	0.5	4.0		ug/L
				TETRACHLOROETHENE	0.5	0.4J		ug/L
				TOLUENE	0.5	1.4		ug/L
524.2	MW-96B-1Q10	Water	FD					
				1,2,4-TRIMETHYLBENZENE	0.5	1.7		ug/L
				1,3,5-TRIMETHYLBENZENE	0.5	0.4J		ug/L
				BENZENE	0.5	5.2		ug/L
				CHLOROFORM	0.5	0.2J		ug/L
				ETHYLBENZENE	0.5	0.5		ug/L
				m&p-Xylene	1.0	6.2		ug/L
				NAPHTHALENE	0.5	0.3J		ug/L
				O-XYLENE	0.5	3.0		ug/L
				TETRACHLOROETHENE	0.5	5.2		ug/L
				TOLUENE	0.5	1.0		ug/L

**Note: This report excludes laboratory detects that were qualified as ND due to Blank Contamination*

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Table 3: Detected Target Analytes

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Units
SDG: 10071G								
524.2	MW-10A-1Q10	Water	N					
				CHLOROFORM	0.5	2.5		ug/L
				TETRACHLOROETHENE	5.0	210		ug/L
524.2	MW-11A-1Q10	Water	N					
				CHLOROFORM	0.5	4.8		ug/L
				TETRACHLOROETHENE	0.5	1.3		ug/L
524.2	MW-12A-1Q10	Water	N					
				CHLOROFORM	0.5	3.4		ug/L
				TETRACHLOROETHENE	0.5	20		ug/L
				TRICHLOROFLUOROMETHANE	0.5	0.4J		ug/L
524.2	MW-13A-1Q10	Water	N					
				CHLOROFORM	0.5	1.2		ug/L
				METHYLENE CHLORIDE	0.5	0.3J		ug/L
				TETRACHLOROETHENE	0.5	16		ug/L
524.2	MW-14A-1Q10	Water	N					
				CHLOROFORM	0.5	0.3J		ug/L
				METHYLENE CHLORIDE	0.5	0.2J		ug/L
				TETRACHLOROETHENE	0.5	17		ug/L
524.2	MW-15A-1Q10	Water	N					
				CHLOROFORM	0.5	0.4J		ug/L
524.2	MW-16A-1Q10	Water	N					
				1,2,4-TRIMETHYLBENZENE	0.5	5.1		ug/L
				1,2-DICHLOROETHANE	0.5	1.0		ug/L
				1,3,5-TRIMETHYLBENZENE	0.5	1.2		ug/L
				BENZENE	0.5	25		ug/L
				CHLOROFORM	0.5	1.0		ug/L
				ETHYLBENZENE	0.5	1.2		ug/L
				m&p-Xylene	1.0	20		ug/L
				NAPHTHALENE	0.5	0.6J		ug/L
				O-XYLENE	0.5	9.5		ug/L
				TOLUENE	0.5	3.2		ug/L
524.2	MW-16B-1Q10	Water	N					
				1,2,4-TRIMETHYLBENZENE	0.5	1.6		ug/L
				1,3,5-TRIMETHYLBENZENE	0.5	0.4J		ug/L
				ACETONE	4.0	2.2J		ug/L
				BENZENE	0.5	5.2		ug/L
				CHLOROFORM	0.5	0.5		ug/L
				ETHYLBENZENE	0.5	3.9		ug/L
				m&p-Xylene	1.0	12		ug/L
				O-XYLENE	0.5	3.6		ug/L
				TETRACHLOROETHENE	0.5	4.9		ug/L
				TOLUENE	0.5	4.1		ug/L

**Note: This report excludes laboratory detects that were qualified as ND due to Blank Contamination*

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Table 3: Detected Target Analytes

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Units
SDG: 10071G								
524.2	MW-16C-1Q10	Water	N					
				1,2,4-TRIMETHYLBENZENE	0.5	2.4		ug/L
				1,3,5-TRIMETHYLBENZENE	0.5	0.6		ug/L
				BENZENE	0.5	9.9		ug/L
				ETHYLBENZENE	0.5	0.7		ug/L
				m&p-Xylene	1.0	10		ug/L
				NAPHTHALENE	0.5	0.3J		ug/L
				O-XYLENE	0.5	4.6		ug/L
				TOLUENE	0.5	1.7		ug/L
524.2	MW-17A-1Q10	Water	N					
				BROMODICHLOROMETHANE	0.5	0.5		ug/L
				CHLOROFORM	0.5	8.8		ug/L
				TETRACHLOROETHENE	0.5	0.3J		ug/L
524.2	MW-17B-1Q10	Water	N					
				1,2,4-TRIMETHYLBENZENE	0.5	1.5		ug/L
				1,3,5-TRIMETHYLBENZENE	0.5	0.4J		ug/L
				BENZENE	0.5	4.2		ug/L
				CHLOROFORM	0.5	0.4J		ug/L
				ETHYLBENZENE	0.5	0.5		ug/L
				m&p-Xylene	1.0	5.4		ug/L
				NAPHTHALENE	0.5	0.2J		ug/L
				O-XYLENE	0.5	2.3		ug/L
				TETRACHLOROETHENE	2.5	63		ug/L
				TOLUENE	0.5	1.0		ug/L
524.2	MW-17C-1Q10	Water	N					
				1,2,4-TRIMETHYLBENZENE	0.5	1.6		ug/L
				1,3,5-TRIMETHYLBENZENE	0.5	0.3J		ug/L
				BENZENE	0.5	5.8		ug/L
				ETHYLBENZENE	0.5	0.5		ug/L
				m&p-Xylene	1.0	6.5		ug/L
				O-XYLENE	0.5	3.0		ug/L
				TOLUENE	0.5	1.2		ug/L
524.2	MW-18A-1Q10	Water	FD					
				CHLOROFORM	0.5	3.7		ug/L
				TETRACHLOROETHENE	0.5	4.0		ug/L
524.2	MW-1A-1Q10	Water	N					
				TETRACHLOROETHENE	0.5	1.9		ug/L
524.2	MW-2A-1Q10	Water	N					
				CHLOROFORM	0.5	2.5		ug/L
				TETRACHLOROETHENE	0.5	5.8		ug/L

**Note: This report excludes laboratory detects that were qualified as ND due to Blank Contamination*

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Table 3: Detected Target Analytes

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Units
SDG: 10071G								
524.2	MW-4A-1Q10	Water	N					
				CHLOROFORM	0.5	0.4J		ug/L
				CIS-1,2-DICHLOROETHENE	0.5	0.3J		ug/L
				TETRACHLOROETHENE	25	510		ug/L
				TRICHLOROETHENE	0.5	0.4J		ug/L
524.2	MW-5A-1Q10	Water	N					
				TETRACHLOROETHENE	5.0	210		ug/L
524.2	MW-6A-1Q10	Water	N					
				BROMODICHLOROMETHANE	0.5	0.3J		ug/L
				CHLOROFORM	0.5	7.6		ug/L
				TETRACHLOROETHENE	2.5	48		ug/L
524.2	MW-7A-1Q10	Water	N					
				ACETONE	4.0	3.0J		ug/L
				CHLOROFORM	0.5	0.7		ug/L
				TETRACHLOROETHENE	0.5	0.3J		ug/L
524.2	MW-8A-1Q10	Water	N					
				CHLOROFORM	0.5	2.8		ug/L
				TETRACHLOROETHENE	2.5	46		ug/L
524.2	MW-9B-1Q10	Water	N					
				TETRACHLOROETHENE	0.5	1.0		ug/L

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Table 3: Detected Target Analytes

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Units
SDG: 10071H								
TO-15	DP-1A-1Q10 can 1087	Air	N					
				BENZENE	3.1	1.6J		ppbv
				TETRACHLOROETHENE	3.1	56		ppbv
TO-15	DP-1B-1Q10 can 896	Air	N					
				CHLOROFORM	3.4	2.9J		ppbv
				TETRACHLOROETHENE	9.2	180		ppbv
TO-15	DP-5A-1Q10 can 1062	Air	N					
				TETRACHLOROETHENE	2.3	1.2J		ppbv
TO-15	DP-5B-1Q10 can 856	Air	N					
				CHLOROFORM	2.2	15		ppbv
				METHYLENE CHLORIDE	2.2	1.1J		ppbv
				TETRACHLOROETHENE	2.2	21		ppbv
TO-15	DP-6A-1Q10 can 635	Air	N					
				BENZENE	3.1	1.9J		ppbv
				TETRACHLOROETHENE	3.1	59		ppbv
				TOLUENE	3.1	2.5J		ppbv
TO-15	DP-6B-1Q10 can 1979	Air	N					
				BENZENE	2.3	3.9		ppbv
				m&p-Xylene	4.6	2.7J		ppbv
				TETRACHLOROETHENE	2.3	5.8		ppbv
				TOLUENE	2.3	4.4		ppbv
TO-15	DP-95B-1Q10 can 854	Air	FD					
				CHLOROFORM	2.4	15		ppbv
				METHYLENE CHLORIDE	2.4	1.3J		ppbv
				TETRACHLOROETHENE	2.4	21		ppbv
TO-15	SVE-1-1Q10 can 1095	Air	N					
				TETRACHLOROETHENE	2.4	13		ppbv
TO-15	SVE-2-1Q10 can 1115	Air	N					
				TETRACHLOROETHENE	36	290		ppbv
TO-15	SVE-3-1Q10 can 1071	Air	N					
				TETRACHLOROETHENE	4.7	88		ppbv
TO-15	SVE-4-1Q10 can 636	Air	N					
				CHLOROFORM	2.9	28		ppbv
				TETRACHLOROETHENE	2.9	57		ppbv
TO-15	SVE-EAST-1Q10 can 105	Air	N					
				m&p-Xylene	4.8	2.6J		ppbv
				TETRACHLOROETHENE	93	530		ppbv
TO-15	SVE-WEST-1Q10 can 197	Air	N					
				TETRACHLOROETHENE	13	130		ppbv

**Note: This report excludes laboratory detects that were qualified as ND due to Blank Contamination*

N = Normal Sample *TB = Trip Blank*
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Table 4

Overall Qualified Results
(Quarterly Sampling Event)

Table 4: Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 10071E										
524.2	MW-10B-1Q10	Water	N							
				ACETONE	4.0	4.0J,U		UJ	ug/L	
				BROMOMETHANE	0.5	0.5J,U		UJ	ug/L	
				CHLOROMETHANE	0.5	0.5U		UJ	ug/L	
				METHYLENE CHLORIDE	0.5	0.2J		UJ	ug/L	
				NAPHTHALENE	0.5	0.3J		J	ug/L	
524.2	MW-10C-1Q10	Water	N							
				1,3,5-TRIMETHYLBENZENE	0.5	0.4J		J	ug/L	
				ACETONE	4.0	4.0J,U		UJ	ug/L	
				BROMOMETHANE	0.5	0.5J,U		UJ	ug/L	
				CHLOROMETHANE	0.5	0.5U		UJ	ug/L	
				NAPHTHALENE	0.5	0.2J		J	ug/L	
				TETRACHLOROETHENE	0.5	0.3J		J	ug/L	
524.2	MW-19A-1Q10	Water	N							
				1,3,5-TRIMETHYLBENZENE	0.5	0.2J		J	ug/L	
				ACETONE	4.0	4.0J,U		UJ	ug/L	
				BROMOMETHANE	0.5	0.5J,U		UJ	ug/L	
				CHLOROMETHANE	0.5	0.5U		UJ	ug/L	
524.2	MW-19B-1Q10	Water	N							
				ACETONE	4.0	4.0J,U		UJ	ug/L	
				BROMOMETHANE	0.5	0.5J,U		UJ	ug/L	
				CHLOROMETHANE	0.5	0.5U		UJ	ug/L	
				TETRACHLOROETHENE	0.5	0.3J		J	ug/L	
524.2	MW-20A-1Q10	Water	N							
				ACETONE	4.0	4.0J,U		UJ	ug/L	
				BROMODICHLOROMETHANE	0.5	0.4J		J	ug/L	
				BROMOMETHANE	0.5	0.5J,U		UJ	ug/L	
				CHLOROMETHANE	0.5	0.5U		UJ	ug/L	
				NAPHTHALENE	0.5	0.4J		J	ug/L	
				N-PROPYLBENZENE	0.5	0.2J		J	ug/L	

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Table 4: Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 10071E										
524.2	MW-20B-1Q10	Water	N							
				ACETONE	4.0	4.0J,U		UJ	ug/L	
				BROMOMETHANE	0.5	0.5J,U		UJ	ug/L	
				CHLOROMETHANE	0.5	0.5U		UJ	ug/L	
				ISOPROPYLBENZENE	0.5	0.2J		J	ug/L	
				N-PROPYLBENZENE	0.5	0.4J		J	ug/L	
524.2	MW-20C-1Q10	Water	N							
				1,3,5-TRIMETHYLBENZENE	0.5	0.2J		J	ug/L	
				ACETONE	4.0	4.0J,U		UJ	ug/L	
				BROMOMETHANE	0.5	0.5J,U		UJ	ug/L	
				CHLOROMETHANE	0.5	0.5U		UJ	ug/L	
524.2	MW-301-1Q10	Water	TB							
				ACETONE	4.0	4.0J,U		UJ	ug/L	
				BROMOMETHANE	0.5	0.5J,U		UJ	ug/L	
				CHLOROMETHANE	0.5	0.5U		UJ	ug/L	
				METHYLENE CHLORIDE	0.5	0.3J		J	ug/L	
524.2	MW-302-1Q10	Water	TB							
				ACETONE	4.0	4.0J,U		UJ	ug/L	
				BROMOMETHANE	0.5	0.5J,U		UJ	ug/L	
				CHLOROMETHANE	0.5	0.5U		UJ	ug/L	
524.2	MW-303-1Q10	Water	TB							
				ACETONE	4.0	4.0J,U		UJ	ug/L	
				BROMOMETHANE	0.5	0.5J,U		UJ	ug/L	
				CHLOROMETHANE	0.5	0.5U		UJ	ug/L	
				METHYLENE CHLORIDE	0.5	0.2J		J	ug/L	
524.2	MW-304-1Q10	Water	TB							
				ACETONE	4.0	4.0J,U		UJ	ug/L	
				BROMOMETHANE	0.5	0.5J,U		UJ	ug/L	
				CHLOROMETHANE	0.5	0.5U		UJ	ug/L	
				METHYLENE CHLORIDE	0.5	0.3J		J	ug/L	

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Table 4: Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 10071E										
524.2	MW-3A-1Q10	Water	N							
				ACETONE	4.0	4.0J,U		UJ	ug/L	
				BROMOMETHANE	0.5	0.5J,U		UJ	ug/L	
				CHLOROMETHANE	0.5	0.5U		UJ	ug/L	
524.2	MW-401-1Q10	Water	FB							
				ACETONE	4.0	4.0J,U		UJ	ug/L	
				BROMOMETHANE	0.5	0.5J,U		UJ	ug/L	
				CHLOROMETHANE	0.5	0.5U		UJ	ug/L	
524.2	MW-402-1Q10	Water	FB							
				ACETONE	4.0	4.0J,U		UJ	ug/L	
				BROMOMETHANE	0.5	0.5J,U		UJ	ug/L	
				CHLOROMETHANE	0.5	0.5U		UJ	ug/L	
524.2	MW-403-1Q10	Water	FB							
				ACETONE	4.0	3.6J		J	ug/L	
				BROMOMETHANE	0.5	0.5J,U		UJ	ug/L	
				CHLOROMETHANE	0.5	0.5U		UJ	ug/L	
				METHYLENE CHLORIDE	0.5	0.6		U	ug/L	
524.2	MW-404-1Q10	Water	FB							
				ACETONE	4.0	4.0J,U		UJ	ug/L	
				BROMOMETHANE	0.5	0.5J,U		UJ	ug/L	
				CHLOROMETHANE	0.5	0.5U		UJ	ug/L	
				METHYLENE CHLORIDE	0.5	0.2J		UJ	ug/L	
524.2	MW-4B-1Q10	Water	N							
				ACETONE	4.0	4.0J,U		UJ	ug/L	
				BROMOMETHANE	0.5	0.5J,U		UJ	ug/L	
				CHLOROMETHANE	0.5	0.5U		UJ	ug/L	
				NAPHTHALENE	0.5	0.3J		J	ug/L	

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Table 4: Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 10071E										
524.2	MW-4C-1Q10	Water	N							
				ACETONE	4.0	4.0J,U		UJ	ug/L	
				BROMOMETHANE	0.5	0.5J,U		UJ	ug/L	
				CHLOROMETHANE	0.5	0.5U		UJ	ug/L	
				NAPHTHALENE	0.5	0.4J		J	ug/L	
				TETRACHLOROETHENE	0.5	0.4J		J	ug/L	
524.2	MW-80A-1Q10	Water	FD							
				ACETONE	4.0	4.0J,U		UJ	ug/L	
				BROMODICHLOROMETHANE	0.5	0.3J		J	ug/L	
				BROMOMETHANE	0.5	0.5J,U		UJ	ug/L	
				CHLOROMETHANE	0.5	0.5U		UJ	ug/L	
				DICHLORODIFLUOROMETHANE	0.5	4.0J		J+	ug/L	
				NAPHTHALENE	0.5	0.4J		J	ug/L	
				N-PROPYLBENZENE	0.5	0.3J		J	ug/L	
524.2	MW-90C-1Q10	Water	FD							
				ACETONE	4.0	4.0J,U		UJ	ug/L	
				BROMOMETHANE	0.5	0.5J,U		UJ	ug/L	
				CHLOROMETHANE	0.5	0.5U		UJ	ug/L	
				NAPHTHALENE	0.5	0.3J		J	ug/L	
				TETRACHLOROETHENE	0.5	0.4J		J	ug/L	
524.2	MW-96B-1Q10	Water	FD							
				1,3,5-TRIMETHYLBENZENE	0.5	0.4J		J	ug/L	
				ACETONE	4.0	4.0J,U		UJ	ug/L	
				BROMOMETHANE	0.5	0.5J,U		UJ	ug/L	
				CHLOROFORM	0.5	0.2J		J	ug/L	
				CHLOROMETHANE	0.5	0.5U		UJ	ug/L	
				NAPHTHALENE	0.5	0.3J		J	ug/L	

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Table 4: Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 10071G										
524.2	MW-10A-1Q10	Water	N							
				1,2-DIBROMO-3-CHLOROPROPANE	2.0	2.0J,U		UJ	ug/L	
				2,2-DICHLOROPROPANE	0.5	0.5J,U		UJ	ug/L	
				ACETONE	4.0	4.0J,U		UJ	ug/L	
				BROMOFORM	0.5	0.5J,U		UJ	ug/L	
				DICHLORODIFLUOROMETHANE	0.5	0.5J,U		UJ	ug/L	
524.2	MW-11A-1Q10	Water	N							
				ACETONE	4.0	4.0J,U		UJ	ug/L	
				BROMOMETHANE	0.5	0.5J,U		UJ	ug/L	
				CHLOROMETHANE	0.5	0.5U		UJ	ug/L	
524.2	MW-12A-1Q10	Water	N							
				ACETONE	4.0	4.0J,U		UJ	ug/L	
				BROMOMETHANE	0.5	0.5J,U		UJ	ug/L	
				CHLOROMETHANE	0.5	0.5U		UJ	ug/L	
				TRICHLOROFLUOROMETHANE	0.5	0.4J		J	ug/L	
524.2	MW-13A-1Q10	Water	N							
				1,2-DIBROMO-3-CHLOROPROPANE	2.0	2.0J,U		UJ	ug/L	
				2,2-DICHLOROPROPANE	0.5	0.5J,U		UJ	ug/L	
				ACETONE	4.0	4.0J,U		UJ	ug/L	
				BROMOFORM	0.5	0.5J,U		UJ	ug/L	
				DICHLORODIFLUOROMETHANE	0.5	0.5J,U		UJ	ug/L	
				METHYLENE CHLORIDE	0.5	0.3J		J	ug/L	
524.2	MW-14A-1Q10	Water	N							
				ACETONE	4.0	4.0J,U		UJ	ug/L	
				BROMOMETHANE	0.5	0.5J,U		UJ	ug/L	
				CHLOROFORM	0.5	0.3J		J	ug/L	
				CHLOROMETHANE	0.5	0.5U		UJ	ug/L	
				METHYLENE CHLORIDE	0.5	0.2J		J	ug/L	

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Table 4: Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 10071G										
524.2	MW-15A-1Q10	Water	N							
				1,2-DIBROMO-3-CHLOROPROPANE	2.0	2.0J,U		UJ	ug/L	
				2,2-DICHLOROPROPANE	0.5	0.5J,U		UJ	ug/L	
				ACETONE	4.0	4.0J,U		UJ	ug/L	
				BROMOFORM	0.5	0.5J,U		UJ	ug/L	
				CHLOROFORM	0.5	0.4J		J	ug/L	
				DICHLORODIFLUOROMETHANE	0.5	0.5J,U		UJ	ug/L	
524.2	MW-16A-1Q10	Water	N							
				ACETONE	4.0	4.0J,U		UJ	ug/L	
				BROMOMETHANE	0.5	0.5J,U		UJ	ug/L	
				CHLOROMETHANE	0.5	0.5U		UJ	ug/L	
524.2	MW-16B-1Q10	Water	N							
				1,3,5-TRIMETHYLBENZENE	0.5	0.4J		J	ug/L	
				ACETONE	4.0	2.2J		J	ug/L	
				BROMOMETHANE	0.5	0.5J,U		UJ	ug/L	
				CHLOROMETHANE	0.5	0.5U		UJ	ug/L	
524.2	MW-16C-1Q10	Water	N							
				ACETONE	4.0	4.0J,U		UJ	ug/L	
				BROMOMETHANE	0.5	0.5J,U		UJ	ug/L	
				CHLOROMETHANE	0.5	0.5U		UJ	ug/L	
				NAPHTHALENE	0.5	0.3J		J	ug/L	
524.2	MW-17A-1Q10	Water	N							
				ACETONE	4.0	4.0J,U		UJ	ug/L	
				BROMOMETHANE	0.5	0.5J,U		UJ	ug/L	
				CHLOROMETHANE	0.5	0.5U		UJ	ug/L	
				METHYLENE CHLORIDE	0.5	0.3J		UJ	ug/L	
				TETRACHLOROETHENE	0.5	0.3J		J	ug/L	

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Table 4: Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 10071G										
524.2	MW-17B-1Q10	Water	N							
				1,2-DIBROMO-3-CHLOROPROPANE	2.0	2.0J,U		UJ	ug/L	
				1,3,5-TRIMETHYLBENZENE	0.5	0.4J		J	ug/L	
				2,2-DICHLOROPROPANE	0.5	0.5J,U		UJ	ug/L	
				ACETONE	4.0	4.0J,U		UJ	ug/L	
				BROMOFORM	0.5	0.5J,U		UJ	ug/L	
				CHLOROFORM	0.5	0.4J		J	ug/L	
				DICHLORODIFLUOROMETHANE	0.5	0.5J,U		UJ	ug/L	
				NAPHTHALENE	0.5	0.2J		J	ug/L	
524.2	MW-17C-1Q10	Water	N							
				1,3,5-TRIMETHYLBENZENE	0.5	0.3J		J	ug/L	
				ACETONE	4.0	4.0J,U		UJ	ug/L	
				BROMOMETHANE	0.5	0.5J,U		UJ	ug/L	
				CHLOROMETHANE	0.5	0.5U		UJ	ug/L	
524.2	MW-18A-1Q10	Water	FD							
				ACETONE	4.0	4.0J,U		UJ	ug/L	
				BROMOMETHANE	0.5	0.5J,U		UJ	ug/L	
				CHLOROMETHANE	0.5	0.5U		UJ	ug/L	
524.2	MW-1A-1Q10	Water	N							
				ACETONE	4.0	4.0J,U		UJ	ug/L	
				BROMOMETHANE	0.5	0.5J,U		UJ	ug/L	
				CHLOROMETHANE	0.5	0.5U		UJ	ug/L	
524.2	MW-2A-1Q10	Water	N							
				ACETONE	4.0	4.0J,U		UJ	ug/L	
				BROMOMETHANE	0.5	0.5J,U		UJ	ug/L	
				CHLOROMETHANE	0.5	0.5U		UJ	ug/L	

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Table 4: Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 10071G										
524.2	MW-4A-1Q10	Water	N							
				ACETONE	4.0	4.0J,U		UJ	ug/L	
				BROMOMETHANE	0.5	0.5J,U		UJ	ug/L	
				CHLOROFORM	0.5	0.4J		J	ug/L	
				CHLOROMETHANE	0.5	0.5U		UJ	ug/L	
				CIS-1,2-DICHLOROETHENE	0.5	0.3J		J	ug/L	
				METHYLENE CHLORIDE	0.5	0.2J		UJ	ug/L	
				TRICHLOROETHENE	0.5	0.4J		J	ug/L	
524.2	MW-5A-1Q10	Water	N							
				1,2-DIBROMO-3-CHLOROPROPANE	2.0	2.0J,U		UJ	ug/L	
				2,2-DICHLOROPROPANE	0.5	0.5J,U		UJ	ug/L	
				ACETONE	4.0	4.0J,U		UJ	ug/L	
				BROMOFORM	0.5	0.5J,U		UJ	ug/L	
				DICHLORODIFLUOROMETHANE	0.5	0.5J,U		UJ	ug/L	
524.2	MW-6A-1Q10	Water	N							
				ACETONE	4.0	4.0J,U		UJ	ug/L	
				BROMODICHLOROMETHANE	0.5	0.3J		J	ug/L	
				BROMOMETHANE	0.5	0.5J,U		UJ	ug/L	
				CHLOROMETHANE	0.5	0.5U		UJ	ug/L	
524.2	MW-7A-1Q10	Water	N							
				ACETONE	4.0	3.0J		J	ug/L	
				BROMOMETHANE	0.5	0.5J,U		UJ	ug/L	
				CHLOROMETHANE	0.5	0.5U		UJ	ug/L	
				METHYLENE CHLORIDE	0.5	0.3J		UJ	ug/L	
				TETRACHLOROETHENE	0.5	0.3J		J	ug/L	
524.2	MW-8A-1Q10	Water	N							
				ACETONE	4.0	4.0J,U		UJ	ug/L	
				BROMOMETHANE	0.5	0.5J,U		UJ	ug/L	
				CHLOROMETHANE	0.5	0.5U		UJ	ug/L	
				METHYLENE CHLORIDE	0.5	0.4J		UJ	ug/L	

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Table 4: Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 10071G										
524.2	MW-9B-1Q10	Water	N							
				ACETONE	4.0	4.0J,U		UJ	ug/L	
				BROMOMETHANE	0.5	0.5J,U		UJ	ug/L	
				CHLOROMETHANE	0.5	0.5U		UJ	ug/L	

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Table 4: Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 10071H										
TO-15	DP-1A-1Q10 can 1087	Air	N							
				1,1,2-Trichloro-1,2,2-trifluoroethane(Freon 113)	3.1	3.1J,U		UJ	ppbv	
				BENZENE	3.1	1.6J		J	ppbv	
TO-15	DP-1B-1Q10 can 896	Air	N							
				CHLOROFORM	3.4	2.9J		J	ppbv	
TO-15	DP-5A-1Q10 can 1062	Air	N							
				1,1,2-Trichloro-1,2,2-trifluoroethane(Freon 113)	2.3	2.3J,U		UJ	ppbv	
				TETRACHLOROETHENE	2.3	1.2J		J	ppbv	
TO-15	DP-5B-1Q10 can 856	Air	N							
				1,1,2-Trichloro-1,2,2-trifluoroethane(Freon 113)	2.2	2.2J,U		UJ	ppbv	
				METHYLENE CHLORIDE	2.2	1.1J		J	ppbv	
TO-15	DP-6A-1Q10 can 635	Air	N							
				1,1,2-Trichloro-1,2,2-trifluoroethane(Freon 113)	3.1	3.1J,U		UJ	ppbv	
				BENZENE	3.1	1.9J		J	ppbv	
				TOLUENE	3.1	2.5J		J	ppbv	
TO-15	DP-6B-1Q10 can 1979	Air	N							
				1,1,2-Trichloro-1,2,2-trifluoroethane(Freon 113)	2.3	2.3J,U		UJ	ppbv	
				m&p-Xylene	4.6	2.7J		J	ppbv	
TO-15	DP-95B-1Q10 can 854	Air	FD							
				1,1,2-Trichloro-1,2,2-trifluoroethane(Freon 113)	2.4	2.4J,U		UJ	ppbv	
				METHYLENE CHLORIDE	2.4	1.3J		J	ppbv	
TO-15	SVE-1-1Q10 can 1095	Air	N							
				1,1,2-Trichloro-1,2,2-trifluoroethane(Freon 113)	2.4	2.4J,U		UJ	ppbv	
TO-15	SVE-3-1Q10 can 1071	Air	N							
				1,1,2-Trichloro-1,2,2-trifluoroethane(Freon 113)	4.7	4.7J,U		UJ	ppbv	

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Table 4: Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 10071H										
TO-15	SVE-4-1Q10 can 636	Air	N							
				1,1,2-Trichloro-1,2,2-trifluoroethane(Freon 113)	2.9	2.9J,U		UJ	ppbv	
TO-15	SVE-EAST-1Q10 can 1059	Air	N							
				1,1,2-Trichloro-1,2,2-trifluoroethane(Freon 113)	2.4	2.4J,U		UJ	ppbv	
				m&p-Xylene	4.8	2.6J		J	ppbv	
TO-15	SVE-WEST-1Q10 can 1978	Air	N							
				1,1,2-Trichloro-1,2,2-trifluoroethane(Freon 113)	5.9	5.9J,U		UJ	ppbv	

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Table 5

Analytical Completeness
(Quarterly Sampling Event)

Analytical Completeness Report

Project No. / Name : *R10S42 / Modesto GW Treatment System Winter 2010 Sampling ; R10S61 / Modesto Groundwater March 2010 Qtrly Monitoring*

Analytical Method	Total Number of Analytes	Number of Qualified	Percent Completeness
524.2	2646	187	92.9
TO-15	494	20	96.0
Total	***3140***	***207***	***93.4***

Note:

$$\text{Percent Completeness} = \frac{\text{Number of Unqualified Results}}{\text{Number of Reported Results}} * 100\ \%$$

Table 6

Contract Compliance Completeness

(Quarterly Sampling Event)

Contract Compliance Completeness Report

Project No. / Name : *R10S42 / Modesto GW Treatment System Winter 2010 Sampling ; R10S61 / Modesto Groundwater March 2010 Qtrly Monitoring*

Analytical Method	Total Number of Analytes	Number of Qualified	Percent Completeness
524.2	2646	187	92.9
TO-15	494	20	96.0
Total	***3140***	***207***	***93.4***

Table 7

Technical Completeness
(Quarterly Sampling Event)

Technical Completeness Report

Project No. / Name : *R10S42 / Modesto GW Treatment System Winter 2010 Sampling ; R10S61 / Modesto Groundwater March 2010 Qtrly Monitoring*

Analytical Method	Total Number of Analytes	Number of Rejects	Percent Completeness
524.2	2646	0	100.0
TO-15	494	0	100.0
Total	***3140***	***0***	***100.0***

Note:

$$\text{Percent Completeness} = \frac{\text{Number of Useable Results}}{\text{Number of Reported Results}} * 100\ \%$$

[Useable results are qualified but not Rejected data]

Table 8

Reasons for Qualified Results

(Quarterly Sampling Event)

Modesto Superfund Site

Reason for Qualified Results

SDG Nos. : 10071E,10071G,10071H

Sample Del Group (SDG)	Sample ID	Test Method	CAS No.	Detected Qualifier	Non Detected Qualifier	Analyte Name	Reason
10071E	MW-10B-1Q10	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
10071E	MW-10B-1Q10	524.2	74-83-9		J	BROMOMETHANE	Initial calibration %RSD
10071E	MW-10B-1Q10	524.2	74-87-3		J	CHLOROMETHANE	Initial calibration %RSD
10071E	MW-10B-1Q10	524.2	75-09-2	U		METHYLENE CHLORIDE	Present in method and trip blanks
10071E	MW-10C-1Q10	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
10071E	MW-10C-1Q10	524.2	74-83-9		J	BROMOMETHANE	Initial calibration %RSD
10071E	MW-10C-1Q10	524.2	74-87-3		J	CHLOROMETHANE	Initial calibration %RSD
10071E	MW-19A-1Q10	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
10071E	MW-19A-1Q10	524.2	74-83-9		J	BROMOMETHANE	Initial calibration %RSD
10071E	MW-19A-1Q10	524.2	74-87-3		J	CHLOROMETHANE	Initial calibration %RSD
10071E	MW-19B-1Q10	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
10071E	MW-19B-1Q10	524.2	74-83-9		J	BROMOMETHANE	Initial calibration %RSD
10071E	MW-19B-1Q10	524.2	74-87-3		J	CHLOROMETHANE	Initial calibration %RSD
10071E	MW-20A-1Q10	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
10071E	MW-20A-1Q10	524.2	74-83-9		J	BROMOMETHANE	Initial calibration %RSD
10071E	MW-20A-1Q10	524.2	74-87-3		J	CHLOROMETHANE	Initial calibration %RSD
10071E	MW-20B-1Q10	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
10071E	MW-20B-1Q10	524.2	74-83-9		J	BROMOMETHANE	Initial calibration %RSD
10071E	MW-20B-1Q10	524.2	74-87-3		J	CHLOROMETHANE	Initial calibration %RSD
10071E	MW-20C-1Q10	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
10071E	MW-20C-1Q10	524.2	74-83-9		J	BROMOMETHANE	Initial calibration %RSD
10071E	MW-20C-1Q10	524.2	74-87-3		J	CHLOROMETHANE	Initial calibration %RSD
10071E	MW-301-1Q10	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
10071E	MW-301-1Q10	524.2	74-83-9		J	BROMOMETHANE	Initial calibration %RSD
10071E	MW-301-1Q10	524.2	74-87-3		J	CHLOROMETHANE	Initial calibration %RSD
10071E	MW-302-1Q10	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
10071E	MW-302-1Q10	524.2	74-83-9		J	BROMOMETHANE	Initial calibration %RSD
10071E	MW-302-1Q10	524.2	74-87-3		J	CHLOROMETHANE	Initial calibration %RSD
10071E	MW-303-1Q10	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
10071E	MW-303-1Q10	524.2	74-83-9		J	BROMOMETHANE	Initial calibration %RSD
10071E	MW-303-1Q10	524.2	74-87-3		J	CHLOROMETHANE	Initial calibration %RSD
10071E	MW-304-1Q10	524.2	67-64-1		J	ACETONE	Initial calibration %RSD

Modesto Superfund Site

Reason for Qualified Results

SDG Nos. : 10071E,10071G,10071H

Sample Del Group (SDG)	Sample ID	Test Method	CAS No.	Detected Qualifier	Non Detected Qualifier	Analyte Name	Reason
10071E	MW-304-1Q10	524.2	74-83-9		J	BROMOMETHANE	Initial calibration %RSD
10071E	MW-304-1Q10	524.2	74-87-3		J	CHLOROMETHANE	Initial calibration %RSD
10071E	MW-3A-1Q10	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
10071E	MW-3A-1Q10	524.2	74-83-9		J	BROMOMETHANE	Initial calibration %RSD
10071E	MW-3A-1Q10	524.2	74-87-3		J	CHLOROMETHANE	Initial calibration %RSD
10071E	MW-401-1Q10	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
10071E	MW-401-1Q10	524.2	74-83-9		J	BROMOMETHANE	Initial calibration %RSD
10071E	MW-401-1Q10	524.2	74-87-3		J	CHLOROMETHANE	Initial calibration %RSD
10071E	MW-402-1Q10	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
10071E	MW-402-1Q10	524.2	74-83-9		J	BROMOMETHANE	Initial calibration %RSD
10071E	MW-402-1Q10	524.2	74-87-3		J	CHLOROMETHANE	Initial calibration %RSD
10071E	MW-403-1Q10	524.2	67-64-1	J		ACETONE	Initial calibration %RSD
10071E	MW-403-1Q10	524.2	74-83-9		J	BROMOMETHANE	Initial calibration %RSD
10071E	MW-403-1Q10	524.2	74-87-3		J	CHLOROMETHANE	Initial calibration %RSD
10071E	MW-403-1Q10	524.2	75-09-2	U		METHYLENE CHLORIDE	Present in trip blank
10071E	MW-404-1Q10	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
10071E	MW-404-1Q10	524.2	74-83-9		J	BROMOMETHANE	Initial calibration %RSD
10071E	MW-404-1Q10	524.2	74-87-3		J	CHLOROMETHANE	Initial calibration %RSD
10071E	MW-404-1Q10	524.2	75-09-2	U		METHYLENE CHLORIDE	Present in trip blank
10071E	MW-4B-1Q10	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
10071E	MW-4B-1Q10	524.2	74-83-9		J	BROMOMETHANE	Initial calibration %RSD
10071E	MW-4B-1Q10	524.2	74-87-3		J	CHLOROMETHANE	Initial calibration %RSD
10071E	MW-4C-1Q10	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
10071E	MW-4C-1Q10	524.2	74-83-9		J	BROMOMETHANE	Initial calibration %RSD
10071E	MW-4C-1Q10	524.2	74-87-3		J	CHLOROMETHANE	Initial calibration %RSD
10071E	MW-80A-1Q10	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
10071E	MW-80A-1Q10	524.2	74-83-9		J	BROMOMETHANE	Initial calibration %RSD
10071E	MW-80A-1Q10	524.2	74-87-3		J	CHLOROMETHANE	Initial calibration %RSD
10071E	MW-90C-1Q10	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
10071E	MW-90C-1Q10	524.2	74-83-9		J	BROMOMETHANE	Initial calibration %RSD
10071E	MW-90C-1Q10	524.2	74-87-3		J	CHLOROMETHANE	Initial calibration %RSD
10071E	MW-96B-1Q10	524.2	67-64-1		J	ACETONE	Initial calibration %RSD

Modesto Superfund Site

Reason for Qualified Results

SDG Nos. : 10071E,10071G,10071H

Sample Del Group (SDG)	Sample ID	Test Method	CAS No.	Detected Qualifier	Non Detected Qualifier	Analyte Name	Reason
10071E	MW-96B-1Q10	524.2	74-83-9		J	BROMOMETHANE	Initial calibration %RSD
10071E	MW-96B-1Q10	524.2	74-87-3		J	CHLOROMETHANE	Initial calibration %RSD
10071G	MW-10A-1Q10	524.2	96-12-8		J	1,2-DIBROMO-3-CHLOROPROPANE	Initial calibration %RSD
10071G	MW-10A-1Q10	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
10071G	MW-10A-1Q10	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
10071G	MW-10A-1Q10	524.2	75-25-2		J	BROMOFORM	Initial calibration %RSD
10071G	MW-10A-1Q10	524.2	75-71-8		J	DICHLORODIFLUOROMETHANE	Continuing calibration percent difference
10071G	MW-11A-1Q10	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
10071G	MW-11A-1Q10	524.2	74-83-9		J	BROMOMETHANE	Initial calibration %RSD
10071G	MW-11A-1Q10	524.2	74-87-3		J	CHLOROMETHANE	Initial calibration %RSD
10071G	MW-12A-1Q10	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
10071G	MW-12A-1Q10	524.2	74-83-9		J	BROMOMETHANE	Initial calibration %RSD
10071G	MW-12A-1Q10	524.2	74-87-3		J	CHLOROMETHANE	Initial calibration %RSD
10071G	MW-13A-1Q10	524.2	96-12-8		J	1,2-DIBROMO-3-CHLOROPROPANE	Initial calibration %RSD
10071G	MW-13A-1Q10	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
10071G	MW-13A-1Q10	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
10071G	MW-13A-1Q10	524.2	75-25-2		J	BROMOFORM	Initial calibration %RSD
10071G	MW-13A-1Q10	524.2	75-71-8		J	DICHLORODIFLUOROMETHANE	Continuing calibration percent difference
10071G	MW-14A-1Q10	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
10071G	MW-14A-1Q10	524.2	74-83-9		J	BROMOMETHANE	Initial calibration %RSD
10071G	MW-14A-1Q10	524.2	74-87-3		J	CHLOROMETHANE	Initial calibration %RSD
10071G	MW-15A-1Q10	524.2	96-12-8		J	1,2-DIBROMO-3-CHLOROPROPANE	Initial calibration %RSD
10071G	MW-15A-1Q10	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
10071G	MW-15A-1Q10	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
10071G	MW-15A-1Q10	524.2	75-25-2		J	BROMOFORM	Initial calibration %RSD
10071G	MW-15A-1Q10	524.2	75-71-8		J	DICHLORODIFLUOROMETHANE	Continuing calibration percent difference
10071G	MW-16A-1Q10	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
10071G	MW-16A-1Q10	524.2	74-83-9		J	BROMOMETHANE	Initial calibration %RSD
10071G	MW-16A-1Q10	524.2	74-87-3		J	CHLOROMETHANE	Initial calibration %RSD
10071G	MW-16B-1Q10	524.2	67-64-1	J		ACETONE	Initial calibration %RSD
10071G	MW-16B-1Q10	524.2	74-83-9		J	BROMOMETHANE	Initial calibration %RSD
10071G	MW-16B-1Q10	524.2	74-87-3		J	CHLOROMETHANE	Initial calibration %RSD

Modesto Superfund Site

Reason for Qualified Results

SDG Nos. : 10071E,10071G,10071H

Sample Del Group (SDG)	Sample ID	Test Method	CAS No.	Detected Qualifier	Non Detected Qualifier	Analyte Name	Reason
10071G	MW-16C-1Q10	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
10071G	MW-16C-1Q10	524.2	74-83-9		J	BROMOMETHANE	Initial calibration %RSD
10071G	MW-16C-1Q10	524.2	74-87-3		J	CHLOROMETHANE	Initial calibration %RSD
10071G	MW-17A-1Q10	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
10071G	MW-17A-1Q10	524.2	74-83-9		J	BROMOMETHANE	Initial calibration %RSD
10071G	MW-17A-1Q10	524.2	74-87-3		J	CHLOROMETHANE	Initial calibration %RSD
10071G	MW-17A-1Q10	524.2	75-09-2	U		METHYLENE CHLORIDE	Present in trip blank
10071G	MW-17B-1Q10	524.2	96-12-8		J	1,2-DIBROMO-3-CHLOROPROPANE	Initial calibration %RSD
10071G	MW-17B-1Q10	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
10071G	MW-17B-1Q10	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
10071G	MW-17B-1Q10	524.2	75-25-2		J	BROMOFORM	Initial calibration %RSD
10071G	MW-17B-1Q10	524.2	75-71-8		J	DICHLORODIFLUOROMETHANE	Continuing calibration percent difference
10071G	MW-17C-1Q10	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
10071G	MW-17C-1Q10	524.2	74-83-9		J	BROMOMETHANE	Initial calibration %RSD
10071G	MW-17C-1Q10	524.2	74-87-3		J	CHLOROMETHANE	Initial calibration %RSD
10071G	MW-18A-1Q10	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
10071G	MW-18A-1Q10	524.2	74-83-9		J	BROMOMETHANE	Initial calibration %RSD
10071G	MW-18A-1Q10	524.2	74-87-3		J	CHLOROMETHANE	Initial calibration %RSD
10071G	MW-1A-1Q10	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
10071G	MW-1A-1Q10	524.2	74-83-9		J	BROMOMETHANE	Initial calibration %RSD
10071G	MW-1A-1Q10	524.2	74-87-3		J	CHLOROMETHANE	Initial calibration %RSD
10071G	MW-2A-1Q10	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
10071G	MW-2A-1Q10	524.2	74-83-9		J	BROMOMETHANE	Initial calibration %RSD
10071G	MW-2A-1Q10	524.2	74-87-3		J	CHLOROMETHANE	Initial calibration %RSD
10071G	MW-4A-1Q10	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
10071G	MW-4A-1Q10	524.2	74-83-9		J	BROMOMETHANE	Initial calibration %RSD
10071G	MW-4A-1Q10	524.2	74-87-3		J	CHLOROMETHANE	Initial calibration %RSD
10071G	MW-4A-1Q10	524.2	75-09-2	U		METHYLENE CHLORIDE	Present in trip blank
10071G	MW-5A-1Q10	524.2	96-12-8		J	1,2-DIBROMO-3-CHLOROPROPANE	Initial calibration %RSD
10071G	MW-5A-1Q10	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
10071G	MW-5A-1Q10	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
10071G	MW-5A-1Q10	524.2	75-25-2		J	BROMOFORM	Initial calibration %RSD

Modesto Superfund Site

Reason for Qualified Results

SDG Nos. : 10071E,10071G,10071H

Sample Del Group (SDG)	Sample ID	Test Method	CAS No.	Detected Qualifier	Non Detected Qualifier	Analyte Name	Reason
10071G	MW-5A-1Q10	524.2	75-71-8		J	DICHLORODIFLUOROMETHANE	Continuing calibration percent difference
10071G	MW-6A-1Q10	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
10071G	MW-6A-1Q10	524.2	74-83-9		J	BROMOMETHANE	Initial calibration %RSD
10071G	MW-6A-1Q10	524.2	74-87-3		J	CHLOROMETHANE	Initial calibration %RSD
10071G	MW-7A-1Q10	524.2	67-64-1	J		ACETONE	Initial calibration %RSD
10071G	MW-7A-1Q10	524.2	74-83-9		J	BROMOMETHANE	Initial calibration %RSD
10071G	MW-7A-1Q10	524.2	74-87-3		J	CHLOROMETHANE	Initial calibration %RSD
10071G	MW-7A-1Q10	524.2	75-09-2	U		METHYLENE CHLORIDE	Present in trip blank
10071G	MW-8A-1Q10	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
10071G	MW-8A-1Q10	524.2	74-83-9		J	BROMOMETHANE	Initial calibration %RSD
10071G	MW-8A-1Q10	524.2	74-87-3		J	CHLOROMETHANE	Initial calibration %RSD
10071G	MW-8A-1Q10	524.2	75-09-2	U		METHYLENE CHLORIDE	Present in trip blank
10071G	MW-9B-1Q10	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
10071G	MW-9B-1Q10	524.2	74-83-9		J	BROMOMETHANE	Initial calibration %RSD
10071G	MW-9B-1Q10	524.2	74-87-3		J	CHLOROMETHANE	Initial calibration %RSD
10071H	DP-1A-1Q10 can 1087	TO-15	76-13-1		J	1,1,2-Trichloro-1,2,2-trifluoroethane(Freon 113)	LCS spike recovery
10071H	DP-5A-1Q10 can 1062	TO-15	76-13-1		J	1,1,2-Trichloro-1,2,2-trifluoroethane(Freon 113)	LCS spike recovery
10071H	DP-5B-1Q10 can 856	TO-15	76-13-1		J	1,1,2-Trichloro-1,2,2-trifluoroethane(Freon 113)	LCS spike recovery
10071H	DP-6A-1Q10 can 635	TO-15	76-13-1		J	1,1,2-Trichloro-1,2,2-trifluoroethane(Freon 113)	LCS spike recovery
10071H	DP-6B-1Q10 can 1979	TO-15	76-13-1		J	1,1,2-Trichloro-1,2,2-trifluoroethane(Freon 113)	LCS spike recovery
10071H	DP-95B-1Q10 can 854	TO-15	76-13-1		J	1,1,2-Trichloro-1,2,2-trifluoroethane(Freon 113)	LCS spike recovery
10071H	SVE-1-1Q10 can 1095	TO-15	76-13-1		J	1,1,2-Trichloro-1,2,2-trifluoroethane(Freon 113)	LCS spike recovery
10071H	SVE-3-1Q10 can 1071	TO-15	76-13-1		J	1,1,2-Trichloro-1,2,2-trifluoroethane(Freon 113)	LCS spike recovery
10071H	SVE-4-1Q10 can 636	TO-15	76-13-1		J	1,1,2-Trichloro-1,2,2-trifluoroethane(Freon 113)	LCS spike recovery
10071H	SVE-EAST-1Q10 can 1059	TO-15	76-13-1		J	1,1,2-Trichloro-1,2,2-trifluoroethane(Freon 113)	LCS spike recovery

Modesto Superfund Site

Reason for Qualified Results

SDG Nos. : 10071E,10071G,10071H

Sample Del Group (SDG)	Sample ID	Test Method	CAS No.	Detected Qualifier	Non Detected Qualifier	Analyte Name	Reason
10071H	SVE-WEST-1Q10 can 1978	TO-15	76-13-1		J	1,1,2-Trichloro-1,2,2-trifluoroethane(Freon 113)	LCS spike recovery

Attachment A

Data Qualification Report
(Quarterly Sampling Event)

Data Qualification Report
(All Qualified Data)

Client Sample ID : *DP-1A-1Q10 can 1087* **Sample Matrix :** *Air* **Validated By :**

Sample Date : *03/10/2010 11:59* **Approved By :** **Validation Date :**

Lab Sample ID : *1003041-12* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *TO-15*																					
1,1,2-Trichloro-1,2,2-trifluoroethane(Freo	3.1			ppbv	J,U	Yes	***UJ***				UJ										
BENZENE	1.6			ppbv	J	Yes	***J***								J						

Data Qualification Report
(All Qualified Data)

Client Sample ID : *DP-1B-1Q10 can 896* **Sample Matrix :** *Air* **Validated By :**

Sample Date : *03/10/2010 12:13* **Approved By :** **Validation Date :**

Lab Sample ID : *1003041-01* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *TO-15*																					
CHLOROFORM	2.9			ppbv	J	Yes	***J***								J						

Data Qualification Report
(All Qualified Data)

Client Sample ID : *DP-5A-1Q10 can 1062* **Sample Matrix :** *Air* **Validated By :**

Sample Date : *03/10/2010 10:26* **Approved By :** **Validation Date :**

Lab Sample ID : *1003041-16* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *TO-15*																					
1,1,2-Trichloro-1,2,2-trifluoroethane(Freo	2.3			ppbv	J,U	Yes	***UJ***				UJ										
TETRACHLOROETHENE	1.2			ppbv	J	Yes	***J***								J						

Data Qualification Report
(All Qualified Data)

Client Sample ID : *DP-5B-1Q10 can 856* **Sample Matrix :** *Air* **Validated By :**

Sample Date : *03/10/2010 10:39* **Approved By :** **Validation Date :**

Lab Sample ID : *1003041-05* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *TO-15*																					
1,1,2-Trichloro-1,2,2-trifluoroethane(Freo	2.2			ppbv	J,U	Yes	***UJ***				UJ										
METHYLENE CHLORIDE	1.1			ppbv	J	Yes	***J***								J						

Data Qualification Report
(All Qualified Data)

Client Sample ID : *DP-6A-1Q10 can 635* **Sample Matrix :** *Air* **Validated By :**

Sample Date : *03/10/2010 14:14* **Approved By :** **Validation Date :**

Lab Sample ID : *1003041-02* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *TO-15*																					
1,1,2-Trichloro-1,2,2-trifluoroethane(Freo	3.1			ppbv	J,U	Yes	***UJ***				UJ										
BENZENE	1.9			ppbv	J	Yes	***J***								J						
TOLUENE	2.5			ppbv	J	Yes	***J***								J						

Data Qualification Report
(All Qualified Data)

Client Sample ID : *DP-6B-1Q10 can 1979* **Sample Matrix :** *Air* **Validated By :**
Sample Date : *03/10/2010 14:23* **Approved By :** **Validation Date :**
Lab Sample ID : *1003041-15* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *TO-15*																					
1,1,2-Trichloro-1,2,2-trifluoroethane(Freo	2.3			ppbv	J,U	Yes	***UJ***				UJ										
m&p-Xylene	2.7			ppbv	J	Yes	***J***								J						

Data Qualification Report
(All Qualified Data)

Client Sample ID : *DP-95B-1Q10 can 854* **Sample Matrix :** *Air* **Validated By :**

Sample Date : *03/10/2010 10:29* **Approved By :** **Validation Date :**

Lab Sample ID : *1003041-06* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *TO-15*																					
1,1,2-Trichloro-1,2,2-trifluoroethane(Freo	2.4			ppbv	J,U	Yes	***UJ***				UJ										
METHYLENE CHLORIDE	1.3			ppbv	J	Yes	***J***								J						

Data Qualification Report
(All Qualified Data)

Client Sample ID : *MW-10A-1Q10* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/09/2010 14:10* **Approved By :** **Validation Date :**

Lab Sample ID : *1003040-18* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
1,2-DIBROMO-3-CHLOROPROPANE	2.0			ug/L	J,U	Yes	***UJ***											UJ			
2,2-DICHLOROPROPANE	0.5			ug/L	J,U	Yes	***UJ***											UJ			
ACETONE	4.0			ug/L	J,U	Yes	***UJ***											UJ			
BROMOFORM	0.5			ug/L	J,U	Yes	***UJ***											UJ			
DICHLORODIFLUOROMETHANE	0.5			ug/L	J,U	Yes	***UJ***													UJ	

Data Qualification Report
(All Qualified Data)

Client Sample ID : *MW-10B-1Q10* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/11/2010 11:00* **Approved By :** **Validation Date :**

Lab Sample ID : *1003039-09* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
ACETONE	4.0			ug/L	J,U	Yes	***UJ***											UJ			
BROMOMETHANE	0.5			ug/L	J,U	Yes	***UJ***											UJ			
CHLOROMETHANE	0.5			ug/L	U	Yes	***UJ***											UJ			
METHYLENE CHLORIDE	0.2	0.5		ug/L	J	Yes	***UJ***			U					J	U					
NAPHTHALENE	0.3			ug/L	J	Yes	***J***								J						

Data Qualification Report
(All Qualified Data)

Client Sample ID : *MW-10C-1Q10* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/11/2010 10:15* **Approved By :** **Validation Date :**

Lab Sample ID : *1003039-12* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
1,3,5-TRIMETHYLBENZENE	0.4			ug/L	J	Yes	***J***								J						
ACETONE	4.0			ug/L	J,U	Yes	***UJ***											UJ			
BROMOMETHANE	0.5			ug/L	J,U	Yes	***UJ***											UJ			
CHLOROMETHANE	0.5			ug/L	U	Yes	***UJ***											UJ			
NAPHTHALENE	0.2			ug/L	J	Yes	***J***								J						
TETRACHLOROETHENE	0.3			ug/L	J	Yes	***J***								J						

Data Qualification Report
(All Qualified Data)

Client Sample ID : *MW-11A-1Q10* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/09/2010 11:40* **Approved By :** **Validation Date :**

Lab Sample ID : *1003040-09* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
ACETONE	4.0			ug/L	J,U	Yes	***UJ***											UJ			
BROMOMETHANE	0.5			ug/L	J,U	Yes	***UJ***											UJ			
CHLOROMETHANE	0.5			ug/L	U	Yes	***UJ***											UJ			

Data Qualification Report
(All Qualified Data)

Client Sample ID : *MW-12A-1Q10* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/10/2010 10:14* **Approved By :** **Validation Date :**

Lab Sample ID : *1003040-07* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
ACETONE	4.0			ug/L	J,U	Yes	***UJ***											UJ			
BROMOMETHANE	0.5			ug/L	J,U	Yes	***UJ***											UJ			
CHLOROMETHANE	0.5			ug/L	U	Yes	***UJ***											UJ			
TRICHLOROFLUOROMETHANE	0.4			ug/L	J	Yes	***J***								J						

Data Qualification Report
(All Qualified Data)

Client Sample ID : *MW-13A-1Q10* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/09/2010 12:40* **Approved By :** **Validation Date :**

Lab Sample ID : *1003040-16* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
1,2-DIBROMO-3-CHLOROPROPANE	2.0			ug/L	J,U	Yes	***UJ***											UJ			
2,2-DICHLOROPROPANE	0.5			ug/L	J,U	Yes	***UJ***											UJ			
ACETONE	4.0			ug/L	J,U	Yes	***UJ***											UJ			
BROMOFORM	0.5			ug/L	J,U	Yes	***UJ***											UJ			
DICHLORODIFLUOROMETHANE	0.5			ug/L	J,U	Yes	***UJ***													UJ	
METHYLENE CHLORIDE	0.3			ug/L	J	Yes	***J***								J						

Data Qualification Report
(All Qualified Data)

Client Sample ID : *MW-14A-1Q10* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/09/2010 11:20* **Approved By :** **Validation Date :**

Lab Sample ID : *1003040-20* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
ACETONE	4.0			ug/L	J,U	Yes	***UJ***											UJ			
BROMOMETHANE	0.5			ug/L	J,U	Yes	***UJ***											UJ			
CHLOROFORM	0.3			ug/L	J	Yes	***J***								J						
CHLOROMETHANE	0.5			ug/L	U	Yes	***UJ***											UJ			
METHYLENE CHLORIDE	0.2			ug/L	J	Yes	***J***								J						

Data Qualification Report
(All Qualified Data)

Client Sample ID : *MW-15A-1Q10* **Sample Matrix :** *Water* **Validated By :**
Sample Date : *03/08/2010 14:40* **Approved By :** **Validation Date :**
Lab Sample ID : *1003040-21* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
1,2-DIBROMO-3-CHLOROPROPANE	2.0			ug/L	J,U	Yes	***UJ***											UJ			
2,2-DICHLOROPROPANE	0.5			ug/L	J,U	Yes	***UJ***											UJ			
ACETONE	4.0			ug/L	J,U	Yes	***UJ***											UJ			
BROMOFORM	0.5			ug/L	J,U	Yes	***UJ***											UJ			
CHLOROFORM	0.4			ug/L	J	Yes	***J***								J						
DICHLORODIFLUOROMETHANE	0.5			ug/L	J,U	Yes	***UJ***													UJ	

Data Qualification Report
(All Qualified Data)

Client Sample ID : *MW-16A-1Q10* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/10/2010 11:25* **Approved By :** **Validation Date :**

Lab Sample ID : *1003040-11* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
ACETONE	4.0			ug/L	J,U	Yes	***UJ***											UJ			
BROMOMETHANE	0.5			ug/L	J,U	Yes	***UJ***											UJ			
CHLOROMETHANE	0.5			ug/L	U	Yes	***UJ***											UJ			

Data Qualification Report
(All Qualified Data)

Client Sample ID : *MW-16B-1Q10* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/10/2010 12:20* **Approved By :** **Validation Date :**

Lab Sample ID : *1003040-12* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
1,3,5-TRIMETHYLBENZENE	0.4			ug/L	J	Yes	***J***								J						
ACETONE	2.2			ug/L	J	Yes	***J***								J			J			
BROMOMETHANE	0.5			ug/L	J,U	Yes	***UJ***											UJ			
CHLOROMETHANE	0.5			ug/L	U	Yes	***UJ***											UJ			

Data Qualification Report
(All Qualified Data)

Client Sample ID : *MW-16C-1Q10* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/10/2010 11:40* **Approved By :** **Validation Date :**

Lab Sample ID : *1003040-14* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
ACETONE	4.0			ug/L	J,U	Yes	***UJ***											UJ			
BROMOMETHANE	0.5			ug/L	J,U	Yes	***UJ***											UJ			
CHLOROMETHANE	0.5			ug/L	U	Yes	***UJ***											UJ			
NAPHTHALENE	0.3			ug/L	J	Yes	***J***								J						

Data Qualification Report
(All Qualified Data)

Client Sample ID : *MW-17A-1Q10* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/10/2010 14:45* **Approved By :** **Validation Date :**

Lab Sample ID : *1003040-10* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
ACETONE	4.0			ug/L	J,U	Yes	***UJ***											UJ			
BROMOMETHANE	0.5			ug/L	J,U	Yes	***UJ***											UJ			
CHLOROMETHANE	0.5			ug/L	U	Yes	***UJ***											UJ			
METHYLENE CHLORIDE	0.3	0.5		ug/L	J	Yes	***UJ***								J	U					
TETRACHLOROETHENE	0.3			ug/L	J	Yes	***J***								J						

Data Qualification Report
(All Qualified Data)

Client Sample ID : *MW-17B-1Q10* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/10/2010 14:40* **Approved By :** **Validation Date :**

Lab Sample ID : *1003040-15* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
1,2-DIBROMO-3-CHLOROPROPANE	2.0			ug/L	J,U	Yes	***UJ***											UJ			
1,3,5-TRIMETHYLBENZENE	0.4			ug/L	J	Yes	***J***								J						
2,2-DICHLOROPROPANE	0.5			ug/L	J,U	Yes	***UJ***											UJ			
ACETONE	4.0			ug/L	J,U	Yes	***UJ***											UJ			
BROMOFORM	0.5			ug/L	J,U	Yes	***UJ***											UJ			
CHLOROFORM	0.4			ug/L	J	Yes	***J***								J						
DICHLORODIFLUOROMETHANE	0.5			ug/L	J,U	Yes	***UJ***													UJ	
NAPHTHALENE	0.2			ug/L	J	Yes	***J***								J						

Data Qualification Report
(All Qualified Data)

Client Sample ID : *MW-17C-1Q10* **Sample Matrix :** *Water* **Validated By :**
Sample Date : *03/10/2010 14:05* **Approved By :** **Validation Date :**
Lab Sample ID : *1003040-13* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
1,3,5-TRIMETHYLBENZENE	0.3			ug/L	J	Yes	***J***								J						
ACETONE	4.0			ug/L	J,U	Yes	***UJ***											UJ			
BROMOMETHANE	0.5			ug/L	J,U	Yes	***UJ***											UJ			
CHLOROMETHANE	0.5			ug/L	U	Yes	***UJ***											UJ			

Data Qualification Report
(All Qualified Data)

Client Sample ID : *MW-18A-1Q10* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/10/2010 13:40* **Approved By :** **Validation Date :**

Lab Sample ID : *1003040-02* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
ACETONE	4.0			ug/L	J,U	Yes	***UJ***											UJ			
BROMOMETHANE	0.5			ug/L	J,U	Yes	***UJ***											UJ			
CHLOROMETHANE	0.5			ug/L	U	Yes	***UJ***											UJ			

Data Qualification Report
(All Qualified Data)

Client Sample ID : *MW-19A-1Q10* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/11/2010 12:34* **Approved By :** **Validation Date :**

Lab Sample ID : *1003039-07* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
1,3,5-TRIMETHYLBENZENE	0.2			ug/L	J	Yes	***J***								J						
ACETONE	4.0			ug/L	J,U	Yes	***UJ***											UJ			
BROMOMETHANE	0.5			ug/L	J,U	Yes	***UJ***											UJ			
CHLOROMETHANE	0.5			ug/L	U	Yes	***UJ***											UJ			

Data Qualification Report
(All Qualified Data)

Client Sample ID : *MW-19B-1Q10* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/11/2010 10:35* **Approved By :** **Validation Date :**

Lab Sample ID : *1003039-05* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
ACETONE	4.0			ug/L	J,U	Yes	***UJ***											UJ			
BROMOMETHANE	0.5			ug/L	J,U	Yes	***UJ***											UJ			
CHLOROMETHANE	0.5			ug/L	U	Yes	***UJ***											UJ			
TETRACHLOROETHENE	0.3			ug/L	J	Yes	***J***								J						

Data Qualification Report
(All Qualified Data)

Client Sample ID : *MW-1A-1Q10* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/10/2010 11:51* **Approved By :** **Validation Date :**

Lab Sample ID : *1003040-06* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
ACETONE	4.0			ug/L	J,U	Yes	***UJ***											UJ			
BROMOMETHANE	0.5			ug/L	J,U	Yes	***UJ***											UJ			
CHLOROMETHANE	0.5			ug/L	U	Yes	***UJ***											UJ			

Data Qualification Report
(All Qualified Data)

Client Sample ID : *MW-20A-1Q10* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/11/2010 14:11* **Approved By :** **Validation Date :**

Lab Sample ID : *1003039-01* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
ACETONE	4.0			ug/L	J,U	Yes	***UJ***											UJ			
BROMODICHLOROMETHANE	0.4			ug/L	J	Yes	***J***								J						
BROMOMETHANE	0.5			ug/L	J,U	Yes	***UJ***											UJ			
CHLOROMETHANE	0.5			ug/L	U	Yes	***UJ***											UJ			
NAPHTHALENE	0.4			ug/L	J	Yes	***J***								J						
N-PROPYLBENZENE	0.2			ug/L	J	Yes	***J***								J						

Data Qualification Report
(All Qualified Data)

Client Sample ID : *MW-20B-1Q10* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/11/2010 15:10* **Approved By :** **Validation Date :**

Lab Sample ID : *1003039-03* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
ACETONE	4.0			ug/L	J,U	Yes	***UJ***											UJ			
BROMOMETHANE	0.5			ug/L	J,U	Yes	***UJ***											UJ			
CHLOROMETHANE	0.5			ug/L	U	Yes	***UJ***											UJ			
ISOPROPYLBENZENE	0.2			ug/L	J	Yes	***J***								J						
N-PROPYLBENZENE	0.4			ug/L	J	Yes	***J***								J						

Data Qualification Report
(All Qualified Data)

Client Sample ID : *MW-20C-1Q10* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/11/2010 15:59* **Approved By :** **Validation Date :**

Lab Sample ID : *1003039-04* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
1,3,5-TRIMETHYLBENZENE	0.2			ug/L	J	Yes	***J***								J						
ACETONE	4.0			ug/L	J,U	Yes	***UJ***											UJ			
BROMOMETHANE	0.5			ug/L	J,U	Yes	***UJ***											UJ			
CHLOROMETHANE	0.5			ug/L	U	Yes	***UJ***											UJ			

Data Qualification Report
(All Qualified Data)

Client Sample ID : *MW-2A-1Q10* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/09/2010 10:20* **Approved By :** **Validation Date :**

Lab Sample ID : *1003040-19* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
ACETONE	4.0			ug/L	J,U	Yes	***UJ***											UJ			
BROMOMETHANE	0.5			ug/L	J,U	Yes	***UJ***											UJ			
CHLOROMETHANE	0.5			ug/L	U	Yes	***UJ***											UJ			

Data Qualification Report
(All Qualified Data)

Client Sample ID : *MW-301-1Q10* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/08/2010 11:45* **Approved By :** **Validation Date :**

Lab Sample ID : *1003039-14* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
ACETONE	4.0			ug/L	J,U	Yes	***UJ***											UJ			
BROMOMETHANE	0.5			ug/L	J,U	Yes	***UJ***											UJ			
CHLOROMETHANE	0.5			ug/L	U	Yes	***UJ***											UJ			
METHYLENE CHLORIDE	0.3			ug/L	J	Yes	***J***								J						

Data Qualification Report
(All Qualified Data)

Client Sample ID : *MW-302-1Q10* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/09/2010 10:00* **Approved By :** **Validation Date :**

Lab Sample ID : *1003039-15* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
ACETONE	4.0			ug/L	J,U	Yes	***UJ***											UJ			
BROMOMETHANE	0.5			ug/L	J,U	Yes	***UJ***											UJ			
CHLOROMETHANE	0.5			ug/L	U	Yes	***UJ***											UJ			

Data Qualification Report
(All Qualified Data)

Client Sample ID : *MW-303-1Q10* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/10/2010 7:30* **Approved By :** **Validation Date :**

Lab Sample ID : *1003039-16* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
ACETONE	4.0			ug/L	J,U	Yes	***UJ***											UJ			
BROMOMETHANE	0.5			ug/L	J,U	Yes	***UJ***											UJ			
CHLOROMETHANE	0.5			ug/L	U	Yes	***UJ***											UJ			
METHYLENE CHLORIDE	0.2			ug/L	J	Yes	***J***								J						

Data Qualification Report
(All Qualified Data)

Client Sample ID : *MW-304-1Q10* **Sample Matrix :** *Water* **Validated By :**
Sample Date : *03/11/2010 6:00* **Approved By :** **Validation Date :**
Lab Sample ID : *1003039-17* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
ACETONE	4.0			ug/L	J,U	Yes	***UJ***											UJ			
BROMOMETHANE	0.5			ug/L	J,U	Yes	***UJ***											UJ			
CHLOROMETHANE	0.5			ug/L	U	Yes	***UJ***											UJ			
METHYLENE CHLORIDE	0.3			ug/L	J	Yes	***J***								J						

Data Qualification Report
(All Qualified Data)

Client Sample ID : *MW-3A-1Q10* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/11/2010 16:15* **Approved By :** **Validation Date :**

Lab Sample ID : *1003039-08* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
ACETONE	4.0			ug/L	J,U	Yes	***UJ***											UJ			
BROMOMETHANE	0.5			ug/L	J,U	Yes	***UJ***											UJ			
CHLOROMETHANE	0.5			ug/L	U	Yes	***UJ***											UJ			

Data Qualification Report
(All Qualified Data)

Client Sample ID : *MW-401-1Q10* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/08/2010 15:20* **Approved By :** **Validation Date :**

Lab Sample ID : *1003039-18* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
ACETONE	4.0			ug/L	J,U	Yes	***UJ***											UJ			
BROMOMETHANE	0.5			ug/L	J,U	Yes	***UJ***											UJ			
CHLOROMETHANE	0.5			ug/L	U	Yes	***UJ***											UJ			

Data Qualification Report
(All Qualified Data)

Client Sample ID : *MW-402-1Q10* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/09/2010 14:15* **Approved By :** **Validation Date :**

Lab Sample ID : *1003039-19* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
ACETONE	4.0			ug/L	J,U	Yes	***UJ***											UJ			
BROMOMETHANE	0.5			ug/L	J,U	Yes	***UJ***											UJ			
CHLOROMETHANE	0.5			ug/L	U	Yes	***UJ***											UJ			

Data Qualification Report
(All Qualified Data)

Client Sample ID : *MW-403-1Q10* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/10/2010 13:41* **Approved By :** **Validation Date :**

Lab Sample ID : *1003039-20* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
ACETONE	3.6			ug/L	J	Yes	***J***								J			J			
BROMOMETHANE	0.5			ug/L	J,U	Yes	***UJ***											UJ			
CHLOROMETHANE	0.5			ug/L	U	Yes	***UJ***											UJ			
METHYLENE CHLORIDE	0.6	0.6		ug/L		Yes	***U***									U					

Data Qualification Report
(All Qualified Data)

Client Sample ID : *MW-404-1Q10* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/11/2010 10:50* **Approved By :** **Validation Date :**

Lab Sample ID : *1003039-21* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
ACETONE	4.0			ug/L	J,U	Yes	***UJ***											UJ			
BROMOMETHANE	0.5			ug/L	J,U	Yes	***UJ***											UJ			
CHLOROMETHANE	0.5			ug/L	U	Yes	***UJ***											UJ			
METHYLENE CHLORIDE	0.2	0.5		ug/L	J	Yes	***UJ***								J	U					

Data Qualification Report
(All Qualified Data)

Client Sample ID : *MW-4A-1Q10* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/10/2010 11:19* **Approved By :** **Validation Date :**

Lab Sample ID : *1003040-03* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
ACETONE	4.0			ug/L	J,U	Yes	***UJ***											UJ			
BROMOMETHANE	0.5			ug/L	J,U	Yes	***UJ***											UJ			
CHLOROFORM	0.4			ug/L	J	Yes	***J***								J						
CHLOROMETHANE	0.5			ug/L	U	Yes	***UJ***											UJ			
CIS-1,2-DICHLOROETHENE	0.3			ug/L	J	Yes	***J***								J						
METHYLENE CHLORIDE	0.2	0.5		ug/L	J	Yes	***UJ***								J	U					
TRICHLOROETHENE	0.4			ug/L	J	Yes	***J***								J						

Data Qualification Report
(All Qualified Data)

Client Sample ID : *MW-4B-1Q10* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/11/2010 13:25* **Approved By :** **Validation Date :**

Lab Sample ID : *1003039-10* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
ACETONE	4.0			ug/L	J,U	Yes	***UJ***											UJ			
BROMOMETHANE	0.5			ug/L	J,U	Yes	***UJ***											UJ			
CHLOROMETHANE	0.5			ug/L	U	Yes	***UJ***											UJ			
NAPHTHALENE	0.3			ug/L	J	Yes	***J***								J						

Data Qualification Report
(All Qualified Data)

Client Sample ID : *MW-4C-1Q10* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/11/2010 12:30* **Approved By :** **Validation Date :**

Lab Sample ID : *1003039-06* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
ACETONE	4.0			ug/L	J,U	Yes	***UJ***											UJ			
BROMOMETHANE	0.5			ug/L	J,U	Yes	***UJ***											UJ			
CHLOROMETHANE	0.5			ug/L	U	Yes	***UJ***											UJ			
NAPHTHALENE	0.4			ug/L	J	Yes	***J***								J						
TETRACHLOROETHENE	0.4			ug/L	J	Yes	***J***								J						

Data Qualification Report
(All Qualified Data)

Client Sample ID : *MW-5A-1Q10* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/09/2010 12:20* **Approved By :** **Validation Date :**

Lab Sample ID : *1003040-08* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
1,2-DIBROMO-3-CHLOROPROPANE	2.0			ug/L	J,U	Yes	***UJ***											UJ			
2,2-DICHLOROPROPANE	0.5			ug/L	J,U	Yes	***UJ***											UJ			
ACETONE	4.0			ug/L	J,U	Yes	***UJ***											UJ			
BROMOFORM	0.5			ug/L	J,U	Yes	***UJ***											UJ			
DICHLORODIFLUOROMETHANE	0.5			ug/L	J,U	Yes	***UJ***													UJ	

Data Qualification Report
(All Qualified Data)

Client Sample ID : *MW-6A-1Q10* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/09/2010 13:29* **Approved By :** **Validation Date :**

Lab Sample ID : *1003040-17* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
ACETONE	4.0			ug/L	J,U	Yes	***UJ***											UJ			
BROMODICHLOROMETHANE	0.3			ug/L	J	Yes	***J***								J						
BROMOMETHANE	0.5			ug/L	J,U	Yes	***UJ***											UJ			
CHLOROMETHANE	0.5			ug/L	U	Yes	***UJ***											UJ			

Data Qualification Report
(All Qualified Data)

Client Sample ID : *MW-7A-1Q10* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/08/2010 15:00* **Approved By :** **Validation Date :**

Lab Sample ID : *1003040-05* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
ACETONE	3.0			ug/L	J	Yes	***J***								J			J			
BROMOMETHANE	0.5			ug/L	J,U	Yes	***UJ***											UJ			
CHLOROMETHANE	0.5			ug/L	U	Yes	***UJ***											UJ			
METHYLENE CHLORIDE	0.3	0.5		ug/L	J	Yes	***UJ***								J	U					
TETRACHLOROETHENE	0.3			ug/L	J	Yes	***J***								J						

Data Qualification Report
(All Qualified Data)

Client Sample ID : *MW-80A-1Q10* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/11/2010 12:00* **Approved By :** **Validation Date :**

Lab Sample ID : *1003039-02* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
ACETONE	4.0			ug/L	J,U	Yes	***UJ***											UJ			
BROMODICHLOROMETHANE	0.3			ug/L	J	Yes	***J***								J						
BROMOMETHANE	0.5			ug/L	J,U	Yes	***UJ***											UJ			
CHLOROMETHANE	0.5			ug/L	U	Yes	***UJ***											UJ			
DICHLORODIFLUOROMETHANE	4.0			ug/L	J	Yes	***J+***														
NAPHTHALENE	0.4			ug/L	J	Yes	***J***								J						
N-PROPYLBENZENE	0.3			ug/L	J	Yes	***J***								J						

Data Qualification Report
(All Qualified Data)

Client Sample ID : *MW-8A-1Q10* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/10/2010 14:12* **Approved By :** **Validation Date :**

Lab Sample ID : *1003040-01* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
ACETONE	4.0			ug/L	J,U	Yes	***UJ***											UJ			
BROMOMETHANE	0.5			ug/L	J,U	Yes	***UJ***											UJ			
CHLOROMETHANE	0.5			ug/L	U	Yes	***UJ***											UJ			
METHYLENE CHLORIDE	0.4	0.5		ug/L	J	Yes	***UJ***								J	U					

Data Qualification Report
(All Qualified Data)

Client Sample ID : *MW-90C-1Q10* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/11/2010 13:00* **Approved By :** **Validation Date :**

Lab Sample ID : *1003039-13* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
ACETONE	4.0			ug/L	J,U	Yes	***UJ***											UJ			
BROMOMETHANE	0.5			ug/L	J,U	Yes	***UJ***											UJ			
CHLOROMETHANE	0.5			ug/L	U	Yes	***UJ***											UJ			
NAPHTHALENE	0.3			ug/L	J	Yes	***J***								J						
TETRACHLOROETHENE	0.4			ug/L	J	Yes	***J***								J						

Data Qualification Report
(All Qualified Data)

Client Sample ID : *MW-96B-1Q10* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/11/2010 9:00* **Approved By :** **Validation Date :**

Lab Sample ID : *1003039-11* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
1,3,5-TRIMETHYLBENZENE	0.4			ug/L	J	Yes	***J***								J						
ACETONE	4.0			ug/L	J,U	Yes	***UJ***											UJ			
BROMOMETHANE	0.5			ug/L	J,U	Yes	***UJ***											UJ			
CHLOROFORM	0.2			ug/L	J	Yes	***J***								J						
CHLOROMETHANE	0.5			ug/L	U	Yes	***UJ***											UJ			
NAPHTHALENE	0.3			ug/L	J	Yes	***J***								J						

Data Qualification Report
(All Qualified Data)

Client Sample ID : *MW-9B-1Q10* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/09/2010 13:40* **Approved By :** **Validation Date :**

Lab Sample ID : *1003040-04* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
ACETONE	4.0			ug/L	J,U	Yes	***UJ***											UJ			
BROMOMETHANE	0.5			ug/L	J,U	Yes	***UJ***											UJ			
CHLOROMETHANE	0.5			ug/L	U	Yes	***UJ***											UJ			

Data Qualification Report
(All Qualified Data)

Client Sample ID : *SVE-1-1Q10 can 1095* **Sample Matrix :** *Air* **Validated By :**

Sample Date : *03/10/2010 11:25* **Approved By :** **Validation Date :**

Lab Sample ID : *1003041-08* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *TO-15*																					
1,1,2-Trichloro-1,2,2-trifluoroethane(Freo	2.4			ppbv	J,U	Yes	***UJ***				UJ										

Data Qualification Report
(All Qualified Data)

Client Sample ID : *SVE-3-1Q10 can 1071* **Sample Matrix :** *Air* **Validated By :**

Sample Date : *03/10/2010 10:08* **Approved By :** **Validation Date :**

Lab Sample ID : *1003041-11* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *TO-15*																					
1,1,2-Trichloro-1,2,2-trifluoroethane(Freo	4.7			ppbv	J,U	Yes	***UJ***				UJ										

Data Qualification Report
(All Qualified Data)

Client Sample ID : *SVE-4-1Q10 can 636* **Sample Matrix :** *Air* **Validated By :**

Sample Date : *03/10/2010 9:57* **Approved By :** **Validation Date :**

Lab Sample ID : *1003041-17* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *TO-15*																					
1,1,2-Trichloro-1,2,2-trifluoroethane(Freo	2.9			ppbv	J,U	Yes	***UJ***				UJ										

Data Qualification Report
(All Qualified Data)

Client Sample ID : *SVE-EAST-1Q10 can 1059* **Sample Matrix :** *Air* **Validated By :**

Sample Date : *03/10/2010 13:05* **Approved By :** **Validation Date :**

Lab Sample ID : *1003041-04* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *TO-15*																					
1,1,2-Trichloro-1,2,2-trifluoroethane(Freo	2.4			ppbv	J,U	Yes	***UJ***				UJ										
m&p-Xylene	2.6			ppbv	J	Yes	***J***								J						

Data Qualification Report
(All Qualified Data)

Client Sample ID : *SVE-WEST-1Q10 can 1978* **Sample Matrix :** *Air* **Validated By :**

Sample Date : *03/10/2010 12:53* **Approved By :** **Validation Date :**

Lab Sample ID : *1003041-03* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *TO-15*																					
1,1,2-Trichloro-1,2,2-trifluoroethane(Freo	5.9			ppbv	J,U	Yes	***UJ***				UJ										

Attachment B

Manual Validation Level III and IV Worksheets

(Quarterly Sampling Event)

SDG 10071E

LDC #: 1004-01B
SDG #: 10071E
Laboratory: EPA Region 9

VALIDATION COMPLETENESS WORKSHEET
Level III

Date: 4/15/10
Page: 1 of 1
Reviewer: AM
2nd Reviewer: CT

METHOD: GC/MS Volatiles (EPA Method 524.2)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates:
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	SW	
IV.	Continuing calibration/ICV	SW	
V.	Blanks	SW	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	
VIII.	Laboratory control samples	A	
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	N	
XII.	Compound quantitation/CRQLs	N	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	N	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	SW	D1= 1/2; D2 = 10/11; D3 = 12/13
XVII.	Field blanks	SW	TB = 14-17; FB = 18-21

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:

1	MW-20A-1Q10	11	MW-96B-1Q10	21	MW-404-1Q10	31	
2	MW-80A-1Q10	12	MW-10C-1Q10	22	MW-304-1Q10MS	32	
3	MW-20B-1Q10	13	MW-90C-1Q10	23	MW-304-1Q10 MSD	33	
4	MW-20C-1Q10	14	MW-301-1Q10	24		34	
5	MW-19B-1Q10	15	MW-302-1Q10	25		35	
6	MW-4C-1Q10	16	MW-303-1Q10	26		36	
7	MW-19A-1Q10	17	MW-304-1Q10	27		37	
8	MW-3A-1Q10	18	MW-401-1Q10	28		38	
9	MW-10B-1Q10	19	MW-402-1Q10	29		39	
10	MW-4B-1Q10	20	MW-403-1Q10	30		40	

LDC #: 1004-01B
SDG #: 10071E

VALIDATION FINDINGS WORKSHEET
Initial Calibration

Page: 1 of 1
Reviewer: Am
2nd Reviewer: CT

METHOD: GC/MS VOA (EPA Method 524.2)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Did the laboratory perform a 5 point calibration prior to sample analysis?
Y N N/A Were all %RSDs within the validation criteria of ≤20 %RSD? **70-130%R for ICV**

#	Date	Standard ID	Compound	Finding %RSD (Limit: ≤20.0%)	Associated Samples	Qualifications
	3/14/10	031410HIC	Chloromethane	21.71	All	J/UJ
	HP5973H		Bromomethane	37.74		J/UJ
			Acetone	25.99		J/UJ

LDC #: 1004-01B
SDG #: 10071E

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Page: 1 of 1
Reviewer: AM
2nd Reviewer: CT

METHOD: GC/MS VOA (EPA Method 524.2)
Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".
Y N N/A Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?
Y N N/A Were all percent differences (%D) ≤ 30% ?

#	Date	Standard ID	Compound	Finding %D (Limit: ≤30.0%)	Associated Samples	Qualifications
	3/16/10	0030065-CCV1	Dichlorodifluoromethane	58.9	1,3,& 8 (tetrachlorethene only),	J+ Detects
			Chloromethane	34.6	14-21	J+ Detects (all ND)
	3/17/10	0030071-CCV1	Dichlorodifluoromethane	61.1	2, 13	J+ Detects
			Bromomethane	48.9		J+ Detects (all ND)
			2,2-Dichloropropane	35.1		J+ Detects (all ND)
	3/18/10	0030072-CCV1	Dichlorodifluoromethane	47.9	2 (tetrachlorethene only)	None

LDC #: 1004-01B

SDG #: 10071E

VALIDATION FINDING WORKSHEET

Field Duplicates

Reviewer: AM

2nd reviewer: CT

METHOD: GC/MS Volatiles (EPA 524.2)

Y N NA Were field duplicate pairs identified in this SDG?

Y N NA Were target analytes detected in the field duplicate pairs?

Compound	Concentration (ug/L)		RPD	Qualifications
	MW-20A-1Q10	MW-80A-1Q10		
Dichlordifluoromethane	4.2	4.0	5	
Chloroform	6.9	6.8	1	
Benzene	9.2	10.0	8	
Bromodichloromethane	0.40	0.30	29	Comment
Toluene	6.8	7.7	12	
Tetrachloroethene	120	130	8	
Ethylbenzene	6.2	7.1	14	
m&p-Xylene	17	19	11	
o-Xylene	5.6	6.2	10	
Propylbenzene	0.20	0.30	40	Comment
1,3,5-Trimethylbenzene	0.50	0.60	18	
1,2,4-Trimethylbenzene	2.3	2.6	12	
Naphthalene	0.40	0.40	0	

no qualifications: less than 2X difference

LDC #: 1004-01B

SDG #: 10071E

VALIDATION FINDING WORKSHEET

Field Duplicates

Reviewer: AM

2nd reviewer: CT

METHOD: GC/MS Volatiles (EPA 524.2)

Y N NA Were field duplicate pairs identified in this SDG?

Y N NA Were target analytes detected in the field duplicate pairs?

Compound	Concentration (ug/L)		RPD	Qualifications
	MW-4B-1Q10	MW-96B-1Q10		
Chloroform	ND	0.20	N.C.	
Benzene	5.6	5.2	7	
Toluene	1.1	1.0	10	
Tetrachloroethene	5.2	5.2	0	
Ethylbenzene	0.50	0.50	0	
m&p-Xylene	6.7	6.2	8	
o-Xylene	3.2	3.0	6	
1,3,5-Trimethylbenzene	0.50	0.40	22	Comment
1,2,4-Trimethylbenzene	1.8	1.7	6	
Naphthalene	0.30	0.30	0	

no qualifications: less than 2X difference.

LDC #: 1004-01B

SDG #: 10071E

VALIDATION FINDING WORKSHEET

Field Duplicates

Reviewer: AM

2nd reviewer: CT

METHOD: GC/MS Volatiles (EPA 524.2)

Y N NA Were field duplicate pairs identified in this SDG?

Y N NA Were target analytes detected in the field duplicate pairs?

Compound	Concentration (ug/L)		RPD	Qualifications
	MW-10C-1Q10	MW-90C-1Q10		
Benzene	6.7	8.2	20	Comment
Toluene	1.2	1.4	15	
Tetrachloroethene	0.30	0.40	29	Comment
Ethylbenzene	0.50	0.60	18	
m&p-Xylene	6.6	8.4	24	Comment
o-Xylene	3.2	4.0	22	Comment
1,3,5-Trimethylbenzene	0.40	0.50	22	Comment
1,2,4-Trimethylbenzene	1.6	2.1	27	Comment
Naphthalene	0.20	0.30	40	Comment

no qualifications: less than 2x difference

SDG 10071G

LDC #: 1004-01C
SDG #: 10071G
Laboratory: EPA Region 9

VALIDATION COMPLETENESS WORKSHEET
Level III/IV

Date: 7/19/10
Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC/MS Volatiles (EPA Method 524.2)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates:
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	SW	
IV.	Continuing calibration/ICV	SW	
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	SW	
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/CRQLs	A	
XIII.	Tentatively identified compounds (TICs)	A	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	SW	D1 = 1/2
XVII.	Field blanks	SW	TB & FB in SDG 10071E

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:

1	MW-8A-1Q10*	11	MW-16A-1Q10	21	MW-15A-1Q10	31	
2	MW-18A-1Q10*	12	MW-16B-1Q10	22		32	
3	MW-4A-1Q10*	13	MW-17C-1Q10	23		33	
4	MW-9B-1Q10*	14	MW-16C-1Q10	24		34	
5	MW-7A-1Q10	15	MW-17B-1Q10	25		35	
6	MW-1A-1Q10	16	MW-13A-1Q10	26		36	
7	MW-12A-1Q10	17	MW-6A-1Q10	27		37	
8	MW-5A-1Q10	18	MW-10A-1Q10	28		38	
9	MW-11A-1Q10	19	MW-2A-1Q10	29		39	
10	MW-17A-1Q10	20	MW-14A-1Q10	30		40	

Note: Samples with * were reviewed to level V validation guidelines

LDC #: 1004-01C
SDG #: 10071G

VALIDATION FINDINGS CHECKLIST

Reviewer: [illegible]
2nd Reviewer: [illegible]

Method: Volatiles (EPA Method 524.2)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	X			
Cooler temperature criteria was met.	X			
II. GC/MS Instrument performance check				
Were the BFB performance results reviewed and found to be within the specified criteria?	X			
Were all samples analyzed within the 12 hour clock criteria?	X			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	X			
Were all percent relative standard deviations (%RSD) ≤ 20% for all target compounds ?		X		
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	X			
Were all percent differences (%D) ≤~~25~~ 30% for all target compounds ?		X		
V. Blanks				
Was a method blank associated with every sample in this SDG?	X			
Was a method blank analyzed at least once every 12 hours for each matrix and concentration?	X			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		X		
VI. Surrogate spikes				
Were all surrogate %R within QC limits?	X			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			X	
VII. Matrix spike/Matrix spike duplicates				
Was a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for this SDG?	X			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	X			
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	X			
Was an LCS analyzed per analytical batch?	X			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	X			

LDC #: 1004-01C
SDG #: 10071G

VALIDATION FINDINGS CHECKLIST

Reviewer: [illegible]
2nd Reviewer: [illegible]

Validation Area	Yes	No	NA	Findings/Comments
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		X		
Were the performance evaluation (PE) samples within the acceptance limits?			X	
X. Internal standards				
Were internal standard area counts within +/-40% from the associated calibration standard?	X			
Were retention times within - 30% of the last continuing calibration or +/- 50% of the initial calibration?	X			
XI. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?	X			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	X			
Were chromatogram peaks verified and accounted for?	X			
XII. Compound quantitation/CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	X			
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	X			
XIII. Tentatively identified compounds (TICs)				
Were the major ions (> 25 percent relative intensity) in the reference spectrum evaluated in sample spectrum?	X			
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?	X			
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?	X			
XIV. System performance				
System performance was found to be acceptable.	X			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	X			
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.	X			D1 = 1/2
Target compounds were detected in the field duplicates.	X			
XVII. Field blanks				
Field blanks were identified in this SDG.	X			See SDG 10071E
Target compounds were detected in the field blanks.	X			

LDC #: 1004-01C
SDG #: 10071G

VALIDATION FINDINGS WORKSHEET
Initial Calibration

Page: 1 of 1
Reviewer: AM
2nd Reviewer: CT

METHOD: GC/MS VOA (EPA Method 524.2)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Did the laboratory perform a 5 point calibration prior to sample analysis?
Y N N/A Were all %RSDs within the validation criteria of ≤20 %RSD? **70-130%R for ICV**

#	Date	Standard ID	Compound	Finding %RSD (Limit: <20.0%)	Associated Samples	Qualifications
	3/12/10	031210J1C	Acetone	23.18	8, 15, 16, 18, 21	J/UJ
	HP5973J		2,2-Dichloropropane	25.38		J/UJ
			Bromoform	34.74		J/UJ
			1,2-Dibromo-3-chloropropane	36.08		J/UJ
	3/14/10	031410HIC	Chloromethane	21.71	1-7, 9-14, 17, 19, 20	J/UJ
	HP5973H		Bromomethane	37.74		J/UJ
			Acetone	25.99		J/UJ

LDC #: 1004-01C
SDG #: 100716

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: AM
2nd Reviewer: CT

METHOD: GC/MS Volatiles (EPA SW 846 Method 524.2)

The relative response factors (RRF) and relative standard deviation (%RSD) were calculated for the compounds identified below using the following calculations:

RRF = (Std Resp * IStd Conc) / (Std Conc * IS Resp)
%RSD = 100 * (S/X)

Where:
S = Standard deviation of calibration factors
X = Mean of calibration factors

Calibration Date	Inst	Compound	Standard	Standard Concentration (ppb)	Standard Response (A/H)	Internal Standard Concentration (ppb)	Internal Standard Response (A/H)	Recalculated Calibration Factor (CF)	Recalculated %RSD	Reported Calibration Factor (CF)	Reported %RSD
3/14/2010	HP5973H	Vinyl Chloride	Point 1	0.5	36300	5	91826	3.953		3.953	
			Point 2	1	64870	5	95181	3.408		3.408	
			Point 3	2	120270	5	96423	3.118		3.118	
			Point 4	5	276649	5	99065	2.793		2.793	
			Point 5	10	660616	5	101765	3.246		3.246	
			Point 6	25	1564094	5	110517	2.831		2.831	
			Mean calibration factor					3.225	13.29	3.225	13.29
3/14/2010	HP5973H	Trichloroethene	Point 1	0.5	24528	5	631095	0.389		0.389	
			Point 2	1	46050	5	654878	0.352		0.352	
			Point 3	2	86438	5	670883	0.322		0.322	
			Point 4	5	213969	5	698986	0.306		0.306	
			Point 5	10	540205	5	746578	0.362		0.362	
			Point 6	25	1454192	5	814041	0.357		0.357	
			Mean calibration factor					0.348	8.49	0.348	8.49
3/14/2010	HP5973H	Ethylbenzene	Point 1	0.5	99863	5	363765	2.745		2.745	
			Point 2	1	206153	5	387191	2.662		2.662	
			Point 3	2	416220	5	404633	2.572		2.572	
			Point 4	5	1072190	5	428199	2.504		2.504	
			Point 5	10	2662299	5	459973	2.894		2.894	
			Point 6	25	6860781	5	507753	2.702		2.702	
			Mean calibration factor					2.680	5.11	2.680	5.11

LDC #: 1004-01C
SDG #: 10071G

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Page: 1 of 1
Reviewer: AM
2nd Reviewer: CT

METHOD: GC/MS VOA (EPA Method 524.2)
Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".
Y N N/A Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?
Y N N/A Were all percent differences (%D) ≤ 30% ?

#	Date	Standard ID	Compound	Finding %D (Limit: ≤30.0%)	Associated Samples	Qualifications
	3/17/10	0030071-CCV1	Dichlorodifluoromethane	61.1	3-6, 9-14	J+ Detects (all ND)
	HP5973H		Bromomethane	48.9		J+ Detects (all ND)
			2,2-Dichloropropane	35.1		J+ Detects (all ND)
	3/18/10	0030072-CCV1	Dichlorodifluoromethane	47.9	20	J+ Detects (all ND)
	HP5973J					
	3/22/10	0030080-CCV1	Dichlorodifluoromethane	-31.7	8, 15, 16, 18, 21	J/UJ
	HP5973J		1,1-Dichloroethene	45.2		J+ Detects (all ND)
			1,1,2-Trichloro-1,2,2-trifluoroethane	47.2		J+ Detects (all ND)
			Carbon tetrachloride	37.4		J+ Detects (all ND)
			Bromoform	36.2		J+ Detects (all ND)

LDC #: 1004-01C
SDG #: 10071G

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Calculation Verification

Reviewer: AM
2nd Reviewer: CJ

METHOD: GC/MS Volatiles (EPA 524.2)

The relative response factors (RRF) and percent difference (%D) were calculated for the compounds listed below using the following calculations:

RRF = (Std Resp * IStd Conc) / (Std Conc * IS Resp)
%D = 100 * (CC-IC)/(IC)

Where:
CC = Continuing calibration RRF
IC = Initial calibration RRF

Calibration Date	Compound	Standard Concentration (ppb)	Standard Response (A/H)	Internal Standard Concentration (ppb)	Internal Standard Response (A/H)	Recalculated (RRF)	Reported (RRF)	Initial Calibration (RRF)	Recalculated %D	Reported %D
3/17/2010 HP5973H	Bromomethane	5.0	80664	5.0	83054	0.971	0.971	0.652	49.0	48.9
	Trichloroethene	5.0	216320	5.0	615432	0.351	0.351	0.348	1.0	0.9
	Bromoform	5.0	42613	5.0	367690	0.116	0.116	0.120	-3.4	-3.3

Calibration Date	Compound	Standard Concentration (ppb)	Standard Response (A/H)	Internal Standard Concentration (ppb)	Internal Standard Response (A/H)	Recalculated (RRF)	Reported (RRF)	Initial Calibration (RRF)	Recalculated %D	Reported %D
3/19/2010 HP5973H	Bromomethane	5.0	70277	5.0	98041	0.717	0.717	0.652	9.9	10.0
	Trichloroethene	5.0	262361	5.0	733089	0.358	0.358	0.348	2.8	2.9
	Bromoform	5.0	57906	5.0	455075	0.127	0.127	0.120	6.0	5.8

Calibration Date	Compound	Standard Concentration (ppb)	Standard Response (A/H)	Internal Standard Concentration (ppb)	Internal Standard Response (A/H)	Recalculated (RRF)	Reported (RRF)	Initial Calibration (RRF)	Recalculated %D	Reported %D
3/22/2010 HP5973J	Bromomethane	5.0	105016	5.0	74623	1.407	1.407	1.225	14.9	14.9
	Trichloroethene	5.0	247811	5.0	737135	0.336	0.336	0.328	2.5	2.4
	Bromoform	5.0	37883	5.0	482377	0.079	0.079	0.058	35.4	36.2

LDC #: 1004-01C
SDG #: 100716

VALIDATION FINDINGS WORKSHEET
Surrogate Compounds
Results Verification

Page: 1 of 1
Reviewer: Am
2nd Reviewer: CT

METHOD: GC/MS Volatile Organic Compounds (EPA Method 524.2)

The percent recoveries (%R) of surrogate compounds were recalculated for the compounds identified below using the following calculation:

%Recovery: SURRF/SURRS * 100

Where: SURRF = Surrogate Found
SURRS = Surrogate Spiked

Sample ID: MW-18A-1Q10

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
1,2-Dichloroethane-d4	5	6.05	121	121	0
Toluene-d8	5	4.70	94	94	0
4-Bromofluorobenzene	5	3.89	78	78	0
1,2-Dichlorobenzene-d4	5	4.73	95	95	0

Sample ID: MW-9B-1Q10

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
1,2-Dichloroethane-d4	5	5.66	113	113	0
Toluene-d8	5	4.75	95	95	0
4-Bromofluorobenzene	5	4.00	80	80	0
1,2-Dichlorobenzene-d4	5	4.51	90	90	0

LDC #: 1004-01C
SDG #: 10071G

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Result Verification

Page: 1 of 1
Reviewer: AM
2nd Reviewer: CT

METHOD: GC/MS Volatiles (EPA Method 524.2)

The percent recoveries (%R) and relative percent differences (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA

Where: SSC = Spiked concentration SC = Sample concentration
SA = Spike added

RPD = | MS - MSD | * 2/(MS + MSD)

MS = Matrix spike recovery MSD = Matrix spike duplicate recovery

MS/MSD samples: MW-5A1Q10 MS/MW-5A1Q10 MSD

Compound	Spike Added (ug/L)		Sample Concentration (ug/L)	Spiked Sample Concentration (ug/L)		MS Percent Recovery		MSD Percent Recovery		MS/MSD RPD	
	MS	MSD		MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
1,1-Dichloroethene	5.0	5.0	0.0	2.85	2.83	57	57	57	57	0.8	0.0
Benzene	5.0	5.0	0.0	3.97	3.88	79	79	78	78	2	1
Trichloroethene	5.0	5.0	0.0	3.76	3.62	75	75	72	72	4	4
Toluene	5.0	5.0	0.0	4.04	3.99	81	81	80	80	1	1
Chlorobenzene	5.0	5.0	0.0	4.33	4.30	87	87	86	86	~~1~~ 0.7	1
										0.6	

LDC #: 1004-01C
SDG #: 100716

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Result Verification

Reviewer: AM
2nd Reviewer: CT

METHOD: GC/MS Volatiles (EPA SW 846 Method 524.2)

The percent recoveries (%R) of the laboratory control sample were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA

SSC = Spiked concentration
SA = Spike added

SC = Sample concentration

LCS = Laboratory control spike recovery

LCS Batch: B0C011-BS1 CT

Compound	Spike Added (ug/L)	Sample Concentration (ug/L)	Spiked Sample Concentration (ug/L)	LCS Percent Recovery	
	LCS		LCS	Reported	Recalc.
1,1-Dichloroethene	5.0	0.0	5.7	114	114
Chloroform	5.0	0.0	5.2	103	104
Benzene	5.0	0.0	5.1	101	102
c-1,2-Dichloroethene	5.0	0.0	5.3	107	106
Ethylbenzene	5.0	0.0	5.4	109	108
Bromobenzene	5.0	0.0	5.0	100	100
Tetrachloroethene	5.0	0.0	5.0	100	100
Toluene	5.0	0.0	5.1	102	102
Trichlorofluoromethane	5.0	0.0	6.1	122	122
Carbon tetrachloride	5.0	0.0	5.6	112	112

LDC #: 1004-01C
SDG #: 1004-16

VALIDATION FINDINGS WORKSHEET

Sample Calculation Verification

Reviewer: AW
2nd Reviewer: CT

METHOD: GC/MS Volatiles (EPA Method 524.2)

Compound results for all Level IV samples reported with a positive detect were recalculated and verified using the following equation:

$$\text{Concentration} = \frac{(Ax)(Df)(Ci)}{(CF)(Vo)(Ai)(\%S)}$$

Where:

Ax = Area or height of the peak for the compound to be measured
DF = Dilution factor
Ci = Concentration of internal standard
CF = Calibration factor from continuing calibration curve
Vo = Volume or weight of sample extracted in milliters (mL) or grams (g)
Ai = Area or height of internal standard

#	Sample I.D.	Compound		Response (A/H)	Dilution Factor	Int. Std. (ug/L)	CF	Sample wt/vol (g)		Int. Std. (A/H)	Reported Concentration (ug/L)	Calculated Concentration (ug/L)	% Diff	Accept? (Y/N)
1	MW-8A-1Q10	Dichloromethane		15678	1	5.0	2.076	1		90634	0.40	0.42	4.2	Y
		Chloroform		225402	1	5.0	4.431	1		90634	2.8	2.8	0.2	Y
		Tetrachloroethene		407920	5	5.0	0.481	1		462273	46.0	45.9	-0.3	Y

LDC #: 1004-01C
SDG #: 10071G

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: AM
2nd Reviewer: CT

METHOD: GC/MS Volatiles (EPA Method 524.2)

Compound results for all Level IV samples reported with a positive detect were recalculated and verified using the following equation:

$$\text{Concentration} = \frac{(Ax)(Df)(Ci)}{(CF)(Vo)(Ai)(\%S)}$$

Where:

Ax = Area or height of the peak for the compound to be measured
DF = Dilution factor
Ci = Concentration of internal standard
CF = Calibration factor from continuing calibration curve
Vo = Volume or weight of sample extracted in milliters (mL) or grams (g)
Ai = Area or height of internal standard

#	Sample I.D.	Compound		Response (A/H)	Dilution Factor	Int. Std. (ug/L)	CF	Sample wt/vol (g)		Int. Std. (A/H)	Reported Concentration (ug/L)	Calculated Concentration (ug/L)	% Diff	Accept? (Y/N)
2	MW-18A-1Q10	Chloroform		285718	1	5.0	4.431	1		87513	3.7	3.7	-0.4	Y
		Tetrachloroethene		154401	1	5.0	0.578	1		330231	4.0	4.0	1.1	Y

LDC #: 1004-01 C
SDG #: 10071G

VALIDATION FINDINGS WORKSHEET

Sample Calculation Verification

Reviewer: AM
2nd Reviewer: CJ

METHOD: GC/MS Volatiles (EPA Method 524.2)

Compound results for all Level IV samples reported with a positive detect were recalculated and verified using the following equation:

$$\text{Concentration} = \frac{(Ax)(Df)(Ci)}{(CF)(Vo)(Ai)(\%S)}$$

Where:

Ax = Area or height of the peak for the compound to be measured
DF = Dilution factor
Ci = Concentration of internal standard
CF = Calibration factor from continuing calibration curve
Vo = Volume or weight of sample extracted in milliters (mL) or grams (g)
Ai = Area or height of internal standard

#	Sample I.D.	Compound		Response (A/H)	Dilution Factor	Int. Std. (ug/L)	CF	Sample wt/vol (g)		Int. Std. (A/H)	Reported Concentration (ug/L)	Calculated Concentration (ug/L)	% Diff	Accept? (Y/N)
3	MW-4A-1Q10	Dichloromethane		8004	1	5.0	2.076	1		81656	0.2	0.24	18.0	N
		c-1,2-Dichloroethene		9580	1	5.0	2.340	1		81656	0.3	0.25	-16.4	N
		Chloroform		31023	1	5.0	4.431	1		81656	0.4	0.4	7.2	Y
		Trichloroethene		15232	1	5.0	0.348	1		517189	0.4	0.4	5.8	Y
		Tetrachloroethene		347193	50	5.0	0.578	1		296277	510	507	-0.6	Y

LDC #: 1004-01C
SDG #: 10071G

VALIDATION FINDINGS WORKSHEET

Sample Calculation Verification

Reviewer: Am
2nd Reviewer: CT

METHOD: GC/MS Volatiles (EPA Method 524.2)

Compound results for all Level IV samples reported with a positive detect were recalculated and verified using the following equation:

$$\text{Concentration} = \frac{(Ax)(Df)(Ci)}{(CF)(Vo)(Ai)(\%S)}$$

Where:

Ax = Area or height of the peak for the compound to be measured
DF = Dilution factor
Ci = Concentration of internal standard
CF = Calibration factor from continuing calibration curve
Vo = Volume or weight of sample extracted in milliters (mL) or grams (g)
Ai = Area or height of internal standard

#	Sample I.D.	Compound		Response (A/H)	Dilution Factor	Int. Std. (ug/L)	CF	Sample wt/vol (g)		Int. Std. (A/H)	Reported Concentration (ug/L)	Calculated Concentration (ug/L)	% Diff	Accept? (Y/N)
4	MW-9B-1Q10	Tetrachloroethene		33275	1	5.0	0.578	1		297966	1.0	1.0	-3.4	Y

LDC #: 1004-01C

SDG #: 10071G

VALIDATION FINDING WORKSHEET

Field Duplicates

Reviewer: AM

2nd reviewer: CZ

METHOD: GC/MS Volatiles (EPA 524.2)

Y N NA Were field duplicate pairs identified in this SDG?

Y N NA Were target analytes detected in the field duplicate pairs?

Compound	Concentration (ug/L)		RPD	Qualifications
	MW-8A-1Q10	MW-18A-1Q10		
Dichloromethane	0.40	ND	NA	
Chloroform	2.80	3.70	28	Comment
Tetrachloroethene	46	4.0	168	Comment

no qualifications: less than 2X difference - dichloromethane and chloroform

major disagreement: tetrachloroethene.

SDG 10071H

LDC #: 1004-01D48a

SDG #: 10071H

Laboratory: EPA Region 9

VALIDATION COMPLETENESS WORKSHEET

X Level IV

Date: 4/15/2010

Page: 1 of 1

Reviewer: CT

2nd Reviewer: Am

METHOD: GC/MS VOA (EPA TO-15)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/10-11/2010
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	
IV.	Continuing calibration	A	
V.	Blanks	A	
VI.	Surrogate spikes	N	
VII.	Sample duplicates	N	non-client samples used as lab dups
VIII.	Laboratory control samples	SW	
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/CRQLs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	SW	FD = 5/6
XVII.	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet

ND = No compounds detected
R = Rinsate
FB = Field blank

D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:

1	DP-1B-1Q10 can 896	11	SVE-3-1Q10 can 1071	21		31	
2	DP-6A-1Q10 can 635	12	DP-1A-1Q10 can 1087	22		32	
3	SVE-WEST-1Q10 can 1978	13	GWTP Stack-0302 can 0599	23		33	
4	SVE-EAST-1Q10 can 1059	14	SVE Pre GAC-0302 can 1111	24		34	
5	DP-5B-1Q10 can 856	15	DP-6B-1Q10 can 1979	25		35	
6	DP-95B-1Q10 can 854	16	DP-5A-1Q10 can 1062	26		36	
7	SVE-2-1Q10 can 1115	17	SVE-4-1Q10 can 636	27		37	
8	SVE-1-1Q10 can 1095	18		28		38	
9	GWTP Pr GAC-0302 can 863	19		29		39	
10	SVE Stack-0302 can 869	20		30		40	

LDC #: 1004-01D48a
SDG #: 10071H

VALIDATION FINDINGS WORKSHEET
Technical Holding Times

Reviewer: CT
2nd Reviewer: AM

All circled dates have exceeded the technical holding times.

METHOD : GC/MS VOA (EPA TO-15)

Sample ID	Matrix	Preserved	Sampling Date	Extraction date	Analysis date	Total # of Days	Qualifier
DP-1B-1Q10 can 896	Air	NA	03/10/2010	NA	03/16/2010	6	None
DP-6A-1Q10 can 635	Air	NA	03/10/2010	NA	03/16/2010	6	None
SVE-WEST-1Q10 can 1978	Air	NA	03/10/2010	NA	03/16/2010	6	None
SVE-EAST-1Q10 can 1059	Air	NA	03/10/2010	NA	03/16/2010	6	None
DP-5B-1Q10 can 856	Air	NA	03/10/2010	NA	03/15/2010	5	None
DP-95B-1Q10 can 854	Air	NA	03/10/2010	NA	03/16/2010	6	None
SVE-2-1Q10 can 1115	Air	NA	03/10/2010	NA	03/16/2010	6	None
SVE-1-1Q10 can 1095	Air	NA	03/10/2010	NA	03/16/2010	6	None
GWTP Pr GAC-0302 can 863	Air	NA	03/11/2010	NA	03/16/2010	6	None
SVE Stack-0302 can 869	Air	NA	03/11/2010	NA	03/15/2010	5	None
SVE-3-1Q10 can 1071	Air	NA	03/10/2010	NA	03/15/2010	5	None
DP-1A-1Q10 can 1087	Air	NA	03/10/2010	NA	03/15/2010	5	None
GWTP Stack-0302 can 0599	Air	NA	03/11/2010	NA	03/15/2010	5	None
SVE Pre GAC-0302 can 1111	Air	NA	03/11/2010	NA	03/15/2010	5	None
DP-6B-1Q10 can 1979	Air	NA	03/10/2010	NA	03/15/2010	5	None
DP-5A-1Q10 can 1062	Air	NA	03/10/2010	NA	03/15/2010	5	None
SVE-4-1Q10 can 636	Air	NA	03/10/2010	NA	03/15/2010	5	None

TECHNICAL HOLDING TIME CRITERIA

Canister: 30 days
Tedlar Bag: 72 hours

LDC #: 10071-01D48a
SDG #: 10071H

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: CT
2nd Reviewer: AM

METHOD: GC/MS Volatile Organics (EPA Method TO-15)

The calibration factors (CF) and relative standard deviation (%RSD) were calculated for the compounds listed below using the following calculations:

CF = (Std Resp * IStd Conc) / (Std Conc * IS Resp) %RSD = 100 * (S/X)

Where:
S = Standard deviation of calibration factors
X = Mean of calibration factors

Calibration Date		Compound	Standard	Standard Concentration (ppb)	Standard Response (A/H)	Internal Standard Concentration (ppb)	Internal Standard Response (A/H)	Recalculated Calibration Factor (CF)	Recalculated %RSD	Reported Calibration Factor (CF)	Reported %RSD
3/4/2010		Methylene chloride	Point 1	0.99	41707	20.2	627401	1.356		1.356	
			Point 2	1.98	63314	20.2	629892	1.025		1.025	
			Point 3	4.95	115089	20.2	623711	0.753		0.753	
			Point 4	9.90	254690	20.2	593906	0.875		0.875	
			Point 5	14.85	383870	20.2	586380	0.890		0.890	
			Point 6	19.80	517099	20.2	587584	0.898		0.898	
			Mean calibration factor					0.966	21.70	0.966	21.70
3/4/2010		Trichloroethene	Point 1	1.01	69994	20.6	3563102	0.401		0.401	
			Point 2	2.02	120652	20.6	3579146	0.344		0.344	
			Point 3	5.05	245576	20.6	3476137	0.288		0.288	
			Point 4	10.10	581732	20.6	3393023	0.350		0.350	
			Point 5	15.15	881251	20.6	3360210	0.357		0.357	
			Point 6	20.20	1202749	20.6	3402998	0.360		0.360	
			Mean calibration factor					0.350	10.37	0.350	10.37
3/4/2010		Toluene	Point 1	1.01	161743	21.6	3270088	1.058		1.058	
			Point 2	2.02	283174	21.6	3293716	0.919		0.919	
			Point 3	5.05	580194	21.6	3202792	0.775		0.775	
			Point 4	10.10	1351014	21.6	3068324	0.942		0.942	
			Point 5	15.15	2067304	21.6	3061982	0.963		0.963	
			Point 6	20.20	2808947	21.6	3081435	0.975		0.975	
			Mean calibration factor					0.938	9.91	0.938	9.91

LDC #: 1004-01 D48a
SDG #: 10071H

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Calculation Verification

Reviewer: CJ
2nd Reviewer: AM

METHOD: GC/MS Volatiles (EPA TO-15)

The relative response factors (RRF) and percent difference (%D) were calculated for the compounds listed below using the following calculations:

RRF = (Std Resp * IStd Conc) / (Std Conc * IS Resp)
%D = 100 * (CC-IC)/(IC)

Where:
CC = Continuing calibration RRF
IC = Initial calibration RRF

Calibration Date	Compound	Standard Concentration (ppb)	Standard Response (A/H)	Internal Standard Concentration (ppb)	Internal Standard Response (A/H)	Recalculated (RRF)	Reported (RRF)	Initial Calibration (RRF)	Recalculated %D	Reported %D
3/15/2010 (11:08)	Methylene Chloride	9.9	269164	20.2	622125	0.883	0.883	0.966	8.6	8.6
	Trichloroethene	10.1	479711	20.6	2844610	0.344	0.344	0.350	1.7	1.7
	Toluene	10.1	1176384	21.6	2629116	0.957	0.957	0.938	-2.0	-2.0

Calibration Date	Compound	Standard Concentration (ppb)	Standard Response (A/H)	Internal Standard Concentration (ppb)	Internal Standard Response (A/H)	Recalculated (RRF)	Reported (RRF)	Initial Calibration (RRF)	Recalculated %D	Reported %D
3/16/2010 (11:53)	Methylene Chloride	9.9	241658	20.2	560262	0.880	0.880	0.966	8.9	8.9
	Trichloroethene	10.1	427049	20.6	2509249	0.347	0.347	0.350	0.9	0.9
	Toluene	10.1	1040222	21.6	2383623	0.933	0.933	0.938	0.5	0.5

LDC #: 10041D48a
SDG #: 1007114

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Page: 1 of 1
Reviewer: CJ
2nd Reviewer: AM

METHOD: GC/MS VOA (EPA Method TO-15)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a LCS required?
Y N N/A Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?

LEVEL IV ONLY:

Y N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	Date	LCS ID	Matrix Analyte	%R (limits)	Associated Samples	Qualifications
1	3/15/2010	B0C0100-BS1	Freon 113	74 (81.8 - 126)	2 - 6, 8, 10-17	UJ/J
2	3/19/2010	B0C0112-BS1	1,2-DCA	144 (90 - 138)	1, 7, 9	J detects

Comments:

LDC #: 10071D48G
SDG #: 100T114

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample Result Verification

Reviewer: CJ
2nd Reviewer: AM

METHOD: GC/MS Volatile Organics (EPA Method TO-15)

The percent recoveries (%R) and percent differences (%D) of the laboratory control sample and recalculated laboratory control sample were recalculated for the compounds indentified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA

Where: SSC = Spiked concentration SC = Sample concentration
SA = Spike added

%D = | LCS - LCS recalc | *100/(LCS)

LCS = Laboratory control spike recovery LCS recalc = Laboratory control spike recovery recalculated

LCS sample: B0C0100-BS1

Compound	Spike Added (ppbv)	Sample Concentration (ppbv)	Spiked Sample Concentration (ppbv)	LCS Percent Recovery		LCS %D
	LCS	---	LCS	Reported	Recalc.	Calculated
Vinyl chloride	11.00	0	10.36	94	94	0.2
Carbon tetrachloride	10.90	0	9.75	89	89	0.5
1,2-Dichloroethane	10.80	0	13.94	129	129	0.1
Trichloroethene	10.90	0	11.50	106	106	0.5
1,2-Dichloropropane	10.80	0	13.68	127	127	0.3
1,1,2-Trichloroethane	10.80	0	11.78	109	109	0.1
1,2-Dibromoethane	11.00	0	11.60	105	105	0.4
1,1,2,2-Tetrachloroethane	10.70	0	12.12	113	113	0.2
Hexachlorobutadiene	10.60	0	6.99	66	66	0.1

LDC #: 10071-01D4B9
SDG #: 10071H

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample Result Verification

Reviewer: CJ
2nd Reviewer: AM

METHOD: GC/MS Volatile Organics (EPA Method TO-15)

The percent recoveries (%R) and percent differences (%D) of the laboratory control sample and recalculated laboratory control sample were recalculated for the compounds indentified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA

Where: SSC = Spiked concentration SC = Sample concentration
SA = Spike added

%D = | LCS - LCS recalc | *100/(LCS)

LCS = Laboratory control spike recovery LCS recalc = Laboratory control spike recovery recalculated

LCS sample: B0C0112-BS1

Compound	Spike Added (ppbv)	Sample Concentration (ppbv)	Spiked Sample Concentration (ppbv)	LCS Percent Recovery		LCS %D
	LCS	---	LCS	Reported	Recalc.	Calculated
Vinyl chloride	11.00	0	10.22	93	93	0.1
Carbon tetrachloride	10.90	0	10.75	99	99	0.4
1,2-Dichloroethane	10.80	0	15.56	144	144	0.1
Trichloroethene	10.90	0	11.52	106	106	0.3
1,2-Dichloropropane	10.80	0	13.51	125	125	0.1
1,1,2-Trichloroethane	10.80	0	11.23	104	104	0.0
1,2-Dibromoethane	11.00	0	11.16	101	101	0.5
1,1,2,2-Tetrachloroethane	10.70	0	11.84	111	111	0.3
Hexachlorobutadiene	10.60	0	7.53	71	71	0.1

LDC #: 100401D48a
SDG #: 10071H

VALIDATION FINDINGS WORKSHEET

Sample Calculation Verification

Reviewer: CJ
2nd Reviewer: AW

METHOD: GC/MS Volatile Organics (EPA Method TO-15)

Compound results for the Level 4 samples reported with a positive detect were recalculated and verified using the following equation:

$$\text{Concentration} = \frac{(Ax)(Vt)(Df)(Ci)}{(CF)(Vo)(Ai)}$$

Where:
- Ax = Area or height of the peak for the compound to be measured
- Vt = Volume injected in milliliters (mL)
- DF = Dilution factor
- Ci = Concentration of internal standard
- CF = Mean calibration factor from initial calibration curve
- Vo = Volume of sample in milliliters (mL)
- Ai = Area or height of internal standard

#	Sample I.D.	Compound		Response (A/H)	Volume Injected (mL)	Dilution Factor	Int. Std. (ppbv)	CF	Sample volume (mL)	Int. Std. (A/H)	Reported Concentration (ppbv)	Calculated Concentration (ppbv)	% Diff	Accept? (Y/N)
1	1	Chloroform		45931	200	3.44	20.2	2.231	200	489700	2.9	2.9	0.7	Y
		Tetrachloroethene		1098075	200	2.31	21.6	0.594	50	2076922	180	178	-1.3	Y
2	2	Benzene		41514	200	2.34	20.6	0.61	150	2262504	1.9	1.9	1.8	Y
		Toluene		73330	200	2.34	21.6	0.938	150	2082961	2.5	2.5	1.2	Y
		Tetrachloroethene		1091019	200	2.34	21.6	0.594	150	2082961	59	59	0.7	Y

LDC #: 1004-01D48a **VALIDATION FINDING WORKSHEET** Page: 1 of 1

SDG #: 10071A **Field Duplicates** Reviewer: CJ

2nd Reviewer: Ann

METHOD: GC/MS Volatile Organics (EPA Method TO-15)

Y N NA Were field duplicate pairs identified in this SDG?

Y N NA Were target analytes detected in the field duplicate pairs?

Analyte	Concentration (ppbv)		RPD	Difference (Limits)	Qualifications
	DP-5B-1Q10	DP-95B-1Q10			
Dichloromethane	1.1	1.3	NA	*	None
Chloroform	15	15	0	*	None
Tetrachloroethane	21	21	0	*	None

* = See Table 2-17 of SAP

Relative percent differences (RPDs) are not calculated when an analyte is nondetected in one field duplicate sample or is detected below the CRQL in one or both field duplicate samples

Table 1

Sample ID Cross Reference

(Monthly Sampling Event)

Table 1: Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
11-Mar-2010	MW-305-1Q10	1003038-07	TB	5030B	524.2	3
11-Mar-2010	MW-405-1Q10	1003038-08	FB	5030B	524.2	3
11-Mar-2010	MW-405-1Q10	1003038-08	FB	None	SM 2540	3
11-Mar-2010	EFF-0302	1003038-05	N	5030B	524.2	3
11-Mar-2010	EFF-0302	1003038-05	N	None	SM 2540	4
11-Mar-2010	EFF-0302DUP	B0C0108-DUP1	DUP	None	SM 2540	3
11-Mar-2010	MW-107-0302	1003038-06	FD	None	SM 2540	3
11-Mar-2010	CRB-EFF-0302	1003038-04	N	5030B	524.2	3
11-Mar-2010	CRB-MID-0302	1003038-03	N	5030B	524.2	3
11-Mar-2010	CRB-INF-0302	1003038-02	N	5030B	524.2	3
11-Mar-2010	EW-1-0302	1003038-01	N	5030B	524.2	3
11-Mar-2010	EW-1-0302MS	B0C0096-MS1	MS	5030B	524.2	3
11-Mar-2010	EW-1-0302MSD	B0C0096-MSD1	MSD	5030B	524.2	3
11-Mar-2010	GWTP Stack-0302 can 0599	1003041-13	N	5030B	TO-15	3
11-Mar-2010	SVE Stack-0302 can 869	1003041-10	N	5030B	TO-15	3
11-Mar-2010	SVE Pre GAC-0302 can 1111	1003041-14	N	5030B	TO-15	3
11-Mar-2010	GWTP Pr GAC-0302 can 863	1003041-09	N	5030B	TO-15	3

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Table 2

Primary and Field QC Samples by Method

(Monthly Sampling Event)

Table 2: Primary and Field QC Samples by Method

Analytical Method	Matrix	Primary Samples	Field Duplicates	Trip Blanks	Equipment Blanks	Field Blanks
524.2	Water	5	None	1	None	1
SM 2540	Water	1	1	None	None	1
TO-15	Air	4	None	None	None	None

Table 3

Detected Target Analytes
(Monthly Sampling Event)

Table 3: Detected Target Analytes

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Units
SDG: 10071D								
524.2	CRB-INF-0302	Water	N					
				TETRACHLOROETHENE	0.5	0.4J		ug/L
524.2	CRB-MID-0302	Water	N					
				ACETONE	4.0	3.6J		ug/L
524.2	EW-1-0302	Water	N					
				CHLOROFORM	0.5	3.1		ug/L
				TETRACHLOROETHENE	10	180		ug/L
SM 2540	EFF-0302	Water	N					
				TOTAL DISSOLVED SOLIDS	20	640		mg/L
SM 2540	MW-107-0302	Water	FD					
				TOTAL DISSOLVED SOLIDS	20	640		mg/L
SDG: 10071H								
TO-15	GWTP Pr GAC-0302 can 8	Air	N					
				CHLOROFORM	4.1	6.5		ppbv
				TETRACHLOROETHENE	41	280		ppbv
TO-15	GWTP Stack-0302 can 05	Air	N					
				CHLOROFORM	2.4	6.6		ppbv
				TETRACHLOROETHENE	24	340		ppbv
TO-15	SVE Pre GAC-0302 can 1	Air	N					
				CHLOROFORM	2.2	1.2J		ppbv
				TETRACHLOROETHENE	2.2	12		ppbv
TO-15	SVE Stack-0302 can 869	Air	N					
				CHLOROFORM	3.2	30		ppbv
				CIS-1,2-DICHLOROETHENE	3.2	3.9		ppbv
				TETRACHLOROETHENE	3.2	51		ppbv
				TRICHLOROETHENE	3.2	2.6J		ppbv

**Note: This report excludes laboratory detects that were qualified as ND due to Blank Contamination*

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Table 4

Overall Qualified Results
(Monthly Sampling Event)

Table 4: Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 10071D										
524.2	CRB-EFF-0302	Water	N							
				1,2-DIBROMO-3-CHLOROPROPANE	2.0	2.0U		UJ	ug/L	
				2,2-DICHLOROPROPANE	0.5	0.5U		UJ	ug/L	
				ACETONE	4.0	4.0U		UJ	ug/L	
				BROMOFORM	0.5	0.5U		UJ	ug/L	
524.2	CRB-INF-0302	Water	N							
				1,2-DIBROMO-3-CHLOROPROPANE	2.0	2.0U		UJ	ug/L	
				2,2-DICHLOROPROPANE	0.5	0.5U		UJ	ug/L	
				ACETONE	4.0	4.0U		UJ	ug/L	
				BROMOFORM	0.5	0.5U		UJ	ug/L	
				TETRACHLOROETHENE	0.5	0.4		J	ug/L	
524.2	CRB-MID-0302	Water	N							
				1,2-DIBROMO-3-CHLOROPROPANE	2.0	2.0U		UJ	ug/L	
				2,2-DICHLOROPROPANE	0.5	0.5U		UJ	ug/L	
				ACETONE	4.0	3.6		J	ug/L	
				BROMOFORM	0.5	0.5U		UJ	ug/L	
524.2	EFF-0302	Water	N							
				1,2-DIBROMO-3-CHLOROPROPANE	2.0	2.0U		UJ	ug/L	
				2,2-DICHLOROPROPANE	0.5	0.5U		UJ	ug/L	
				ACETONE	4.0	4.0U		UJ	ug/L	
				BROMOFORM	0.5	0.5U		UJ	ug/L	
524.2	EW-1-0302	Water	N							
				1,2-DIBROMO-3-CHLOROPROPANE	2.0	2.0U		UJ	ug/L	
				2,2-DICHLOROPROPANE	0.5	0.5U		UJ	ug/L	
				ACETONE	4.0	4.0U		UJ	ug/L	
				BROMOFORM	0.5	0.5U		UJ	ug/L	
				STYRENE	0.5	0.5U		UJ	ug/L	
524.2	MW-305-1Q10	Water	TB							
				1,2-DIBROMO-3-CHLOROPROPANE	2.0	2.0U		UJ	ug/L	
				2,2-DICHLOROPROPANE	0.5	0.5U		UJ	ug/L	
				ACETONE	4.0	4.0U		UJ	ug/L	
				BROMOFORM	0.5	0.5U		UJ	ug/L	

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Table 4: Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 10071D										
524.2	MW-405-1Q10	Water	FB							
				1,2-DIBROMO-3-CHLOROPROPANE	2.0	2.0U		UJ	ug/L	
				2,2-DICHLOROPROPANE	0.5	0.5U		UJ	ug/L	
				ACETONE	4.0	4.0U		UJ	ug/L	
				BROMOFORM	0.5	0.5U		UJ	ug/L	
SDG: 10071H										
TO-15	GWTP Stack-0302 can 0599	Air	N							
				1,1,2-Trichloro-1,2,2-trifluoroethane(Freon 113)	2.4	2.4J,U		UJ	ppbv	
TO-15	SVE Pre GAC-0302 can 1111	Air	N							
				1,1,2-Trichloro-1,2,2-trifluoroethane(Freon 113)	2.2	2.2J,U		UJ	ppbv	
				CHLOROFORM	2.2	1.2J		J	ppbv	
TO-15	SVE Stack-0302 can 869	Air	N							
				1,1,2-Trichloro-1,2,2-trifluoroethane(Freon 113)	3.2	3.2J,U		UJ	ppbv	
				TRICHLOROETHENE	3.2	2.6J		J	ppbv	

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Table 5

Analytical Completeness
(Monthly Sampling Event)

Analytical Completeness Report

Project No. / Name : *R10S42 / Modesto GW Treatment System Winter 2010 Sampling ; R10S42 / MWWC*

Analytical Method	Total Number of Analytes	Number of Qualified	Percent Completeness
524.2	441	30	93.2
SM 2540	3	0	100.0
TO-15	152	5	96.7
Total	***596***	***35***	***94.1***

Note:

$$\text{Percent Completeness} = \frac{\text{Number of Unqualified Results}}{\text{Number of Reported Results}} * 100\ \%$$

Table 6

Contract Compliance Completeness

(Monthly Sampling Event)

Contract Compliance Completeness Report

Project No. / Name : *R10S42 / Modesto GW Treatment System Winter 2010 Sampling ; R10S42 / MWWC*

Analytical Method	Total Number of Analytes	Number of Qualified	Percent Completeness
524.2	441	28	93.7
SM 2540	3	0	100.0
TO-15	152	5	96.7
Total	***596***	***33***	***94.5***

Table 7

Technical Completeness
(Monthly Sampling Event)

Technical Completeness Report

Project No. / Name : *R10S42 / Modesto GW Treatment System Winter 2010 Sampling ; R10S42 / MWWC*

Analytical Method	Total Number of Analytes	Number of Rejects	Percent Completeness
524.2	441	0	100.0
SM 2540	3	0	100.0
TO-15	152	0	100.0
Total	***596***	***0***	***100.0***

Note:

$$\text{Percent Completeness} = \frac{\text{Number of Useable Results}}{\text{Number of Reported Results}} * 100\ \%$$

[Useable results are qualified but not Rejected data]

Table 8

Reasons for Qualified Results

(Monthly Sampling Event)

Modesto Superfund Site

Reason for Qualified Results

SDG Nos. : 10071D,10071H

Sample Del Group (SDG)	Sample ID	Test Method	CAS No.	Detected Qualifier	Non Detected Qualifier	Analyte Name	Reason
10071D	CRB-EFF-0302	524.2	96-12-8		J	1,2-DIBROMO-3-CHLOROPROPANE	Initial calibration %RSD
10071D	CRB-EFF-0302	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
10071D	CRB-EFF-0302	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
10071D	CRB-EFF-0302	524.2	75-25-2		J	BROMOFORM	Initial calibration %RSD
10071D	CRB-INF-0302	524.2	96-12-8		J	1,2-DIBROMO-3-CHLOROPROPANE	Initial calibration %RSD
10071D	CRB-INF-0302	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
10071D	CRB-INF-0302	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
10071D	CRB-INF-0302	524.2	75-25-2		J	BROMOFORM	Initial calibration %RSD
10071D	CRB-MID-0302	524.2	96-12-8		J	1,2-DIBROMO-3-CHLOROPROPANE	Initial calibration %RSD
10071D	CRB-MID-0302	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
10071D	CRB-MID-0302	524.2	67-64-1	J		ACETONE	Initial calibration %RSD
10071D	CRB-MID-0302	524.2	75-25-2		J	BROMOFORM	Initial calibration %RSD
10071D	EFF-0302	524.2	96-12-8		J	1,2-DIBROMO-3-CHLOROPROPANE	Initial calibration %RSD
10071D	EFF-0302	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
10071D	EFF-0302	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
10071D	EFF-0302	524.2	75-25-2		J	BROMOFORM	Initial calibration %RSD
10071D	EW-1-0302	524.2	96-12-8		J	1,2-DIBROMO-3-CHLOROPROPANE	Initial calibration %RSD
10071D	EW-1-0302	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
10071D	EW-1-0302	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Matrix spike RPD
10071D	EW-1-0302	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
10071D	EW-1-0302	524.2	75-25-2		J	BROMOFORM	Initial calibration %RSD
10071D	EW-1-0302	524.2	100-42-5		J	STYRENE	Matrix spike RPD
10071D	MW-305-1Q10	524.2	96-12-8		J	1,2-DIBROMO-3-CHLOROPROPANE	Initial calibration %RSD
10071D	MW-305-1Q10	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
10071D	MW-305-1Q10	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
10071D	MW-305-1Q10	524.2	75-25-2		J	BROMOFORM	Initial calibration %RSD
10071D	MW-405-1Q10	524.2	96-12-8		J	1,2-DIBROMO-3-CHLOROPROPANE	Initial calibration %RSD
10071D	MW-405-1Q10	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
10071D	MW-405-1Q10	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
10071D	MW-405-1Q10	524.2	75-25-2		J	BROMOFORM	Initial calibration %RSD
10071H	GWTP Stack-0302 can 0599	TO-15	76-13-1		J	1,1,2-Trichloro-1,2,2-trifluoroethane(Freon 113)	LCS spike recovery

Modesto Superfund Site

Reason for Qualified Results

SDG Nos. : 10071D,10071H

Sample Del Group (SDG)	Sample ID	Test Method	CAS No.	Detected Qualifier	Non Detected Qualifier	Analyte Name	Reason
10071H	SVE Pre GAC-0302 can 1111	TO-15	76-13-1		J	1,1,2-Trichloro-1,2,2-trifluoroethane(Freon 113)	LCS spike recovery
10071H	SVE Stack-0302 can 869	TO-15	76-13-1		J	1,1,2-Trichloro-1,2,2-trifluoroethane(Freon 113)	LCS spike recovery

Attachment A

Data Qualification Report
(Monthly Sampling Event)

Data Qualification Report
(All Qualified Data)

Client Sample ID : *CRB-EFF-0302* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/11/2010 11:36* **Approved By :** **Validation Date :**

Lab Sample ID : *1003038-04* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
1,2-DIBROMO-3-CHLOROPROPANE	2.0			ug/L	U	Yes	***UJ***											UJ			
2,2-DICHLOROPROPANE	0.5			ug/L	U	Yes	***UJ***											UJ			
ACETONE	4.0			ug/L	U	Yes	***UJ***											UJ			
BROMOFORM	0.5			ug/L	U	Yes	***UJ***											UJ			

Data Qualification Report
(All Qualified Data)

Client Sample ID : *CRB-INF-0302* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/11/2010 11:55* **Approved By :** **Validation Date :**

Lab Sample ID : *1003038-02* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
1,2-DIBROMO-3-CHLOROPROPANE	2.0			ug/L	U	Yes	***UJ***											UJ			
2,2-DICHLOROPROPANE	0.5			ug/L	U	Yes	***UJ***											UJ			
ACETONE	4.0			ug/L	U	Yes	***UJ***											UJ			
BROMOFORM	0.5			ug/L	U	Yes	***UJ***											UJ			
TETRACHLOROETHENE	0.4			ug/L		Yes	***J***								J						

Data Qualification Report
(All Qualified Data)

Client Sample ID : *CRB-MID-0302* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/11/2010 11:44* **Approved By :** **Validation Date :**

Lab Sample ID : *1003038-03* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
1,2-DIBROMO-3-CHLOROPROPANE	2.0			ug/L	U	Yes	***UJ***											UJ			
2,2-DICHLOROPROPANE	0.5			ug/L	U	Yes	***UJ***											UJ			
ACETONE	3.6			ug/L		Yes	***J***								J			J			
BROMOFORM	0.5			ug/L	U	Yes	***UJ***											UJ			

Data Qualification Report
(All Qualified Data)

Client Sample ID : *EFF-0302* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/11/2010 10:58* **Approved By :** **Validation Date :**

Lab Sample ID : *1003038-05* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
1,2-DIBROMO-3-CHLOROPROPANE	2.0			ug/L	U	Yes	***UJ***											UJ			
2,2-DICHLOROPROPANE	0.5			ug/L	U	Yes	***UJ***											UJ			
ACETONE	4.0			ug/L	U	Yes	***UJ***											UJ			
BROMOFORM	0.5			ug/L	U	Yes	***UJ***											UJ			

Data Qualification Report
(All Qualified Data)

Client Sample ID : *EW-1-0302* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/11/2010 12:13* **Approved By :** **Validation Date :**

Lab Sample ID : *1003038-01* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
1,2-DIBROMO-3-CHLOROPROPANE	2.0			ug/L	U	Yes	***UJ***											UJ			
2,2-DICHLOROPROPANE	0.5			ug/L	U	Yes	***UJ***					UJ						UJ			
ACETONE	4.0			ug/L	U	Yes	***UJ***											UJ			
BROMOFORM	0.5			ug/L	U	Yes	***UJ***											UJ			
STYRENE	0.5			ug/L	U	Yes	***UJ***					UJ									

Data Qualification Report
(All Qualified Data)

Client Sample ID : *GWTP Stack-0302 can 0599* **Sample Matrix :** *Air* **Validated By :**

Sample Date : *03/11/2010 13:08* **Approved By :** **Validation Date :**

Lab Sample ID : *1003041-13* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *TO-15*																					
1,1,2-Trichloro-1,2,2-trifluoroethane(Freo	2.4			ppbv	J,U	Yes	***UJ***				UJ										

Data Qualification Report
(All Qualified Data)

Client Sample ID : *MW-305-1Q10* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/11/2010 10:25* **Approved By :** **Validation Date :**

Lab Sample ID : *1003038-07* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
1,2-DIBROMO-3-CHLOROPROPANE	2.0			ug/L	U	Yes	***UJ***											UJ			
2,2-DICHLOROPROPANE	0.5			ug/L	U	Yes	***UJ***											UJ			
ACETONE	4.0			ug/L	U	Yes	***UJ***											UJ			
BROMOFORM	0.5			ug/L	U	Yes	***UJ***											UJ			

Data Qualification Report
(All Qualified Data)

Client Sample ID : *MW-405-1Q10* **Sample Matrix :** *Water* **Validated By :**

Sample Date : *03/11/2010 10:31* **Approved By :** **Validation Date :**

Lab Sample ID : *1003038-08* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *524.2*																					
1,2-DIBROMO-3-CHLOROPROPANE	2.0			ug/L	U	Yes	***UJ***											UJ			
2,2-DICHLOROPROPANE	0.5			ug/L	U	Yes	***UJ***											UJ			
ACETONE	4.0			ug/L	U	Yes	***UJ***											UJ			
BROMOFORM	0.5			ug/L	U	Yes	***UJ***											UJ			

Data Qualification Report
(All Qualified Data)

Client Sample ID : *SVE Pre GAC-0302 can 1111* **Sample Matrix :** *Air* **Validated By :**

Sample Date : *03/11/2010 13:40* **Approved By :** **Validation Date :**

Lab Sample ID : *1003041-14* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *TO-15*																					
1,1,2-Trichloro-1,2,2-trifluoroethane(Freo	2.2			ppbv	J,U	Yes	***UJ***				UJ										
CHLOROFORM	1.2			ppbv	J	Yes	***J***								J						

Data Qualification Report
(All Qualified Data)

Client Sample ID : *SVE Stack-0302 can 869* **Sample Matrix :** *Air* **Validated By :**

Sample Date : *03/11/2010 13:27* **Approved By :** **Validation Date :**

Lab Sample ID : *1003041-10* **Approval Date :**

Analyte Name	Lab Result	Mod Conc	Unc / Error	Result Units	Lab Qual	Rep Res	Overall Qual	Tem	HT	MB	LCS	MS	Lab Dup	Surr	Rep Limit	FQC	IPC	IC	ICV	CCV	Reason Code
Lab Method ID : *TO-15*																					
1,1,2-Trichloro-1,2,2-trifluoroethane(Freo	3.2			ppbv	J,U	Yes	***UJ***				UJ										
TRICHLOROETHENE	2.6			ppbv	J	Yes	***J***								J						

Attachment B

Manual Validation Level III and IV Worksheets

(Monthly Sampling Event)

SDG 10071D

LDC #: 1004-01A
SDG #: 10071D
Laboratory: EPA Region 9

VALIDATION COMPLETENESS WORKSHEET
Level III

Date: 4/15/10
Page: 1 of 1
Reviewer: AM
2nd Reviewer: CJ

METHOD: GC/MS Volatiles (EPA Method 524.2)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates:
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	SW	
IV.	Continuing calibration/ICV	SW	
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	~~N~~ A AM	
VIII.	Laboratory control samples	A	
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	N	
XII.	Compound quantitation/CRQLs	N	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	N	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	A	TB=8; FB =9

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:

1	EW-1-0302	11		21		31	
2	EW-1-0302MS	12		22		32	
3	EW-1-0302MSD	13		23		33	
4	CRB-INF-0302	14		24		34	
5	CRB-MID-0302	15		25		35	
6	CRB-EFF-0302	16		26		36	
7	EFF-0302	17		27		37	
8	MW-305-1Q10	18		28		38	
9	MW-405-1Q10	19		29		39	
10		20		30		40	

LDC #: 1004-01A
SDG #: 10071D

VALIDATION FINDINGS WORKSHEET
Initial Calibration

Page: 1 of 1
Reviewer: AM
2nd Reviewer: CJ

METHOD: GC/MS VOA (EPA Method 524.2)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Did the laboratory perform a 5 point calibration prior to sample analysis?
Y N N/A Were all %RSDs within the validation criteria of ≤20 %RSD? **70-130%R for ICV**

#	Date	Standard ID	Compound	Finding %RSD (Limit: ≤20.0%)	Associated Samples	Qualifications
	3/12/10	031210J1C	Acetone	23.18	All	J/UJ
	HP5973J		2,2-Dichloropropane	25.38		J/UJ
			Bromoform	34.74		J/UJ
			1,2-Dibromo-3-chloropropane	36.08		J/UJ

LDC #: 1004-01A
SDG #: 10071D

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Page: 1 of 1
Reviewer: Am
2nd Reviewer: CT

METHOD: GC/MS VOA (EPA Method 524.2)
Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".
Y N N/A Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?
Y N N/A Were all percent differences (%D) ≤ 30% ?

#	Date	Standard ID	Compound	Finding %D (Limit: ≤30.0%)	Associated Samples	Qualifications
	3/14/10	0030057-CCV1	Bromomethane	41.0	All	J+ Detects

CONCAL_524.wpd

LDC #: 1004-01A6
SDG #: 10071D
Laboratory: EPA Region 9

VALIDATION COMPLETENESS WORKSHEET
EPA Level IV

Date: 04/12/10
Page: 1 of 1
Reviewer: CJ
2nd Reviewer: AM

METHOD: Total Dissolved Solids by SM 2540C

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 03/11/2010
II.	Calibration verification	A	
III.	Blanks	A	
IV	Matrix Spike/(Matrix Spike) Duplicates	N	
V.	Duplicates	A/SW	Dup = 1,2
VI	Laboratory control samples	A	
VII.	Sample result verification	A	
VIII.	Overall assessment of data	A	
IX.	Field duplicates	A/SW	FD: 1,3
X.	Field blanks	A/ND	FB: 4

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:

1	EFF-0302	11		21		31	
2	EFF-0302 DUP	12		22		32	
3	MW-107-0302	13		23		33	
4	MW-405-1Q10	14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 1004-01A6
SDG #: 10071D

VALIDATION FINDINGS CHECKLIST

Reviewer: CJ
2nd Reviewer: Am

Method: Total Dissolved Solids (Standard Method 2540C)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	X			
Cooler temperature criteria was met.	X			2 °C
II. Calibration				
Were all instruments calibrated daily, each set-up time?	X			
Were the proper number of standards used?			X	
Were all initial calibration correlation coefficients ≥ 0.995?			X	
Were all initial and continuing calibration verification %Rs within the 95-105% QC limits?			X	
Were titrant checks performed as required? (Level IV only)			X	
Were balance checks performed as required? (Level IV only)	X			
III. Blanks				
Was a method blank associated with every sample in this SDG?	X			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		X		
IV. Matrix spike/Matrix spike duplicates and Duplicates				
Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.	X			Lab Dup
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 85-115 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.			X	
Were the MS/MSD or duplicate relative percent differences (RPD) ≤ 5% for waters?	X			
V. Laboratory control samples				
Was an LCS anaylzed for this SDG?	X			
Was an LCS analyzed per extraction batch?	X			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 85-115% QC limits?	X			
VI. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		X		
Were the performance evaluation (PE) samples within the acceptance limits?			X	

LDC #: 1004-01A6
SDG #: 10071D

VALIDATION FINDINGS CHECKLIST

Reviewer: CJ
2nd Reviewer: AM

Validation Area	Yes	No	NA	Findings/Comments
VII. Sample Result Verification				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	X			
Were detection limits < RL?	X			
VIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	X			
IX. Field duplicates				
Field duplicate pairs were identified in this SDG.	X			
Target analytes were detected in the field duplicates.	X			
X. Field blanks				
Field blanks were identified in this SDG.	X			
Target analytes were detected in the field blanks.		X		

LDC #: 1004-01A6
SDG #: 10071D

VALIDATION FINDINGS WORKSHEET
Technical Holding Times

Reviewer: CT
2nd reviewer: AM

All circled dates have exceeded the technical holding time.
Y N N/A Were all samples preserved as applicable to each method ?
Y N N/A Were all cooler temperatures within validation criteria? 2 °C

Method:		SM 2540C					
Parameters:		TDS					
Technical holding time:		7 days					
Sample ID	**Sampling date**	**Analysis date**	**Analysis date**	**Analysis date**	**Analysis date**	**Analysis date**	**Qualifier**
EFF-0302	03/11/2010	03/15/2010					
MW-107-0302	03/11/2010	03/15/2010					
MW-405-1Q10	03/11/2010	03/15/2010					

LDC #: 1004-01A6

SDG #: 10071D

VALIDATION FINDING WORKSHEET

Laboratory Duplicates

Reviewer: CT

2nd reviewer: AM

METHOD: Total Dissolved Solids (Standard Method 2540C)

Y N NA Were laboratory duplicates analyzed in this SDG?

Y N NA Were target analytes detected in the duplicate pairs?

Compound	Concentration (mg/L)		RPD	Qualifications
	EFF-0302	EFF-0302 Dup		
TDS	640	640	0.0	

Compound	Concentration (mg/L)		RPD	Qualifications

Compound	Concentration (mg/L)		RPD	Qualifications

LDC #: 100401A6
SDG #: 10071D

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: CZ
2nd Reviewer: AM

METHOD: Total Dissolved Solids (Standard Method 2540C)

Results for 10% of all level IV samples reported with a positive detect were recalculated and verified using the following equation:

$$\text{Concentration} = \frac{(\text{Final Weight}) - (\text{Tare Weight})}{\text{Volume}}$$

Sample: EFF-0302

Analyte	Tare Weight (g)	Final Weight (g)	Volume (ml)	Reported (mg/L)	Recalculated (mg/L)
TDS	79.2192	79.2833	100	640	641

Sample:

Analyte	Tare Weight (g)	Final Weight (g)	Volume (ml)	Reported (mg/L)	Recalculated (mg/L)

LDC #: 1004-01A6

SDG #: 10071D

VALIDATION FINDING WORKSHEET

Field Duplicates

Reviewer: CJ

2nd reviewer: AM

METHOD: Total Dissolved Solids (Standard Method 2540C)

Y N NA Were field duplicate pairs identified in this SDG?

Y N NA Were target analytes detected in the field duplicate pairs?

Compound	Concentration (mg/L)		RPD	Qualifications
	EFF-0302	MW-107-0302		
TDS	640	640	0.0	

no qualifications: less than 2x difference

SDG 10071H

LDC #: 1004-01D48a

SDG #: 10071H

Laboratory: EPA Region 9

VALIDATION COMPLETENESS WORKSHEET

X Level IV

Date: 4/15/2010

Page: 1 of 1

Reviewer: CT

2nd Reviewer: Am

METHOD: GC/MS VOA (EPA TO-15)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/10-11/2010
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	
IV.	Continuing calibration	A	
V.	Blanks	A	
VI.	Surrogate spikes	N	
VII.	Sample duplicates	N	non-client samples used as lab dups
VIII.	Laboratory control samples	SW	
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/CRQLs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	SW	FD = 5/6
XVII.	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet

ND = No compounds detected
R = Rinsate
FB = Field blank

D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:

1	DP-1B-1Q10 can 896	11	SVE-3-1Q10 can 1071	21		31	
2	DP-6A-1Q10 can 635	12	DP-1A-1Q10 can 1087	22		32	
3	SVE-WEST-1Q10 can 1978	13	GWTP Stack-0302 can 0599	23		33	
4	SVE-EAST-1Q10 can 1059	14	SVE Pre GAC-0302 can 1111	24		34	
5	DP-5B-1Q10 can 856	15	DP-6B-1Q10 can 1979	25		35	
6	DP-95B-1Q10 can 854	16	DP-5A-1Q10 can 1062	26		36	
7	SVE-2-1Q10 can 1115	17	SVE-4-1Q10 can 636	27		37	
8	SVE-1-1Q10 can 1095	18		28		38	
9	GWTP Pr GAC-0302 can 863	19		29		39	
10	SVE Stack-0302 can 869	20		30		40	

LDC #: 1004-01D48a
SDG #: 10071H

VALIDATION FINDINGS WORKSHEET
Technical Holding Times

Reviewer: CT
2nd Reviewer: AM

All circled dates have exceeded the technical holding times.

METHOD : GC/MS VOA (EPA TO-15)

Sample ID	Matrix	Preserved	Sampling Date	Extraction date	Analysis date	Total # of Days	Qualifier
DP-1B-1Q10 can 896	Air	NA	03/10/2010	NA	03/16/2010	6	None
DP-6A-1Q10 can 635	Air	NA	03/10/2010	NA	03/16/2010	6	None
SVE-WEST-1Q10 can 1978	Air	NA	03/10/2010	NA	03/16/2010	6	None
SVE-EAST-1Q10 can 1059	Air	NA	03/10/2010	NA	03/16/2010	6	None
DP-5B-1Q10 can 856	Air	NA	03/10/2010	NA	03/15/2010	5	None
DP-95B-1Q10 can 854	Air	NA	03/10/2010	NA	03/16/2010	6	None
SVE-2-1Q10 can 1115	Air	NA	03/10/2010	NA	03/16/2010	6	None
SVE-1-1Q10 can 1095	Air	NA	03/10/2010	NA	03/16/2010	6	None
GWTP Pr GAC-0302 can 863	Air	NA	03/11/2010	NA	03/16/2010	6	None
SVE Stack-0302 can 869	Air	NA	03/11/2010	NA	03/15/2010	5	None
SVE-3-1Q10 can 1071	Air	NA	03/10/2010	NA	03/15/2010	5	None
DP-1A-1Q10 can 1087	Air	NA	03/10/2010	NA	03/15/2010	5	None
GWTP Stack-0302 can 0599	Air	NA	03/11/2010	NA	03/15/2010	5	None
SVE Pre GAC-0302 can 1111	Air	NA	03/11/2010	NA	03/15/2010	5	None
DP-6B-1Q10 can 1979	Air	NA	03/10/2010	NA	03/15/2010	5	None
DP-5A-1Q10 can 1062	Air	NA	03/10/2010	NA	03/15/2010	5	None
SVE-4-1Q10 can 636	Air	NA	03/10/2010	NA	03/15/2010	5	None

TECHNICAL HOLDING TIME CRITERIA

Canister: 30 days
Tedlar Bag: 72 hours

LDC #: 10071-01D48a
SDG #: 10071H

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: CT
2nd Reviewer: AM

METHOD: GC/MS Volatile Organics (EPA Method TO-15)

The calibration factors (CF) and relative standard deviation (%RSD) were calculated for the compounds listed below using the following calculations:

CF = (Std Resp * IStd Conc) / (Std Conc * IS Resp) %RSD = 100 * (S/X)

Where:
S = Standard deviation of calibration factors
X = Mean of calibration factors

Calibration Date		Compound	Standard	Standard Concentration (ppb)	Standard Response (A/H)	Internal Standard Concentration (ppb)	Internal Standard Response (A/H)	Recalculated Calibration Factor (CF)	Recalculated %RSD	Reported Calibration Factor (CF)	Reported %RSD
3/4/2010		Methylene chloride	Point 1	0.99	41707	20.2	627401	1.356		1.356	
			Point 2	1.98	63314	20.2	629892	1.025		1.025	
			Point 3	4.95	115089	20.2	623711	0.753		0.753	
			Point 4	9.90	254690	20.2	593906	0.875		0.875	
			Point 5	14.85	383870	20.2	586380	0.890		0.890	
			Point 6	19.80	517099	20.2	587584	0.898		0.898	
			Mean calibration factor					0.966	21.70	0.966	21.70
3/4/2010		Trichloroethene	Point 1	1.01	69994	20.6	3563102	0.401		0.401	
			Point 2	2.02	120652	20.6	3579146	0.344		0.344	
			Point 3	5.05	245576	20.6	3476137	0.288		0.288	
			Point 4	10.10	581732	20.6	3393023	0.350		0.350	
			Point 5	15.15	881251	20.6	3360210	0.357		0.357	
			Point 6	20.20	1202749	20.6	3402998	0.360		0.360	
			Mean calibration factor					0.350	10.37	0.350	10.37
3/4/2010		Toluene	Point 1	1.01	161743	21.6	3270088	1.058		1.058	
			Point 2	2.02	283174	21.6	3293716	0.919		0.919	
			Point 3	5.05	580194	21.6	3202792	0.775		0.775	
			Point 4	10.10	1351014	21.6	3068324	0.942		0.942	
			Point 5	15.15	2067304	21.6	3061982	0.963		0.963	
			Point 6	20.20	2808947	21.6	3081435	0.975		0.975	
			Mean calibration factor					0.938	9.91	0.938	9.91

LDC #: 1004-01 D48a
SDG #: 10071H

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Calculation Verification

Reviewer: CJ
2nd Reviewer: AM

METHOD: GC/MS Volatiles (EPA TO-15)

The relative response factors (RRF) and percent difference (%D) were calculated for the compounds listed below using the following calculations:

RRF = (Std Resp * IStd Conc) / (Std Conc * IS Resp)
%D = 100 * (CC-IC)/(IC)

Where:
CC = Continuing calibration RRF
IC = Initial calibration RRF

Calibration Date	Compound	Standard Concentration (ppb)	Standard Response (A/H)	Internal Standard Concentration (ppb)	Internal Standard Response (A/H)	Recalculated (RRF)	Reported (RRF)	Initial Calibration (RRF)	Recalculated %D	Reported %D
3/15/2010 (11:08)	Methylene Chloride	9.9	269164	20.2	622125	0.883	0.883	0.966	8.6	8.6
	Trichloroethene	10.1	479711	20.6	2844610	0.344	0.344	0.350	1.7	1.7
	Toluene	10.1	1176384	21.6	2629116	0.957	0.957	0.938	-2.0	-2.0

Calibration Date	Compound	Standard Concentration (ppb)	Standard Response (A/H)	Internal Standard Concentration (ppb)	Internal Standard Response (A/H)	Recalculated (RRF)	Reported (RRF)	Initial Calibration (RRF)	Recalculated %D	Reported %D
3/16/2010 (11:53)	Methylene Chloride	9.9	241658	20.2	560262	0.880	0.880	0.966	8.9	8.9
	Trichloroethene	10.1	427049	20.6	2509249	0.347	0.347	0.350	0.9	0.9
	Toluene	10.1	1040222	21.6	2383623	0.933	0.933	0.938	0.5	0.5

LDC #: 10041D48a
SDG #: 1007114

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Page: 1 of 1
Reviewer: CJ
2nd Reviewer: AM

METHOD: GC/MS VOA (EPA Method TO-15)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a LCS required?
Y N N/A Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?

LEVEL IV ONLY:

Y N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	Date	LCS ID	Matrix Analyte	%R (limits)	Associated Samples	Qualifications
1	3/15/2010	B0C0100-BS1	Freon 113	74 (81.8 - 126)	2 - 6, 8, 10-17	UJ/J
2	3/19/2010	B0C0112-BS1	1,2-DCA	144 (90 - 138)	1, 7, 9	J detects

Comments:

LDC #: 10071D48G
SDG #: 100T114

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample Result Verification

Reviewer: CJ
2nd Reviewer: AM

METHOD: GC/MS Volatile Organics (EPA Method TO-15)

The percent recoveries (%R) and percent differences (%D) of the laboratory control sample and recalculated laboratory control sample were recalculated for the compounds indentified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA

Where: SSC = Spiked concentration SC = Sample concentration
SA = Spike added

%D = | LCS - LCS recalc | *100/(LCS)

LCS = Laboratory control spike recovery LCS recalc = Laboratory control spike recovery recalculated

LCS sample: B0C0100-BS1

Compound	Spike Added (ppbv)	Sample Concentration (ppbv)	Spiked Sample Concentration (ppbv)	LCS Percent Recovery		LCS %D
	LCS	---	LCS	Reported	Recalc.	Calculated
Vinyl chloride	11.00	0	10.36	94	94	0.2
Carbon tetrachloride	10.90	0	9.75	89	89	0.5
1,2-Dichloroethane	10.80	0	13.94	129	129	0.1
Trichloroethene	10.90	0	11.50	106	106	0.5
1,2-Dichloropropane	10.80	0	13.68	127	127	0.3
1,1,2-Trichloroethane	10.80	0	11.78	109	109	0.1
1,2-Dibromoethane	11.00	0	11.60	105	105	0.4
1,1,2,2-Tetrachloroethane	10.70	0	12.12	113	113	0.2
Hexachlorobutadiene	10.60	0	6.99	66	66	0.1

LDC #: 10071-01D4B9
SDG #: 10071H

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample Result Verification

Reviewer: CJ
2nd Reviewer: AM

METHOD: GC/MS Volatile Organics (EPA Method TO-15)

The percent recoveries (%R) and percent differences (%D) of the laboratory control sample and recalculated laboratory control sample were recalculated for the compounds indentified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA

Where: SSC = Spiked concentration SC = Sample concentration
SA = Spike added

%D = | LCS - LCS recalc | *100/(LCS)

LCS = Laboratory control spike recovery LCS recalc = Laboratory control spike recovery recalculated

LCS sample: B0C0112-BS1

Compound	Spike Added (ppbv)	Sample Concentration (ppbv)	Spiked Sample Concentration (ppbv)	LCS Percent Recovery		LCS %D
	LCS	---	LCS	Reported	Recalc.	Calculated
Vinyl chloride	11.00	0	10.22	93	93	0.1
Carbon tetrachloride	10.90	0	10.75	99	99	0.4
1,2-Dichloroethane	10.80	0	15.56	144	144	0.1
Trichloroethene	10.90	0	11.52	106	106	0.3
1,2-Dichloropropane	10.80	0	13.51	125	125	0.1
1,1,2-Trichloroethane	10.80	0	11.23	104	104	0.0
1,2-Dibromoethane	11.00	0	11.16	101	101	0.5
1,1,2,2-Tetrachloroethane	10.70	0	11.84	111	111	0.3
Hexachlorobutadiene	10.60	0	7.53	71	71	0.1

LDC #: 100401D48a
SDG #: 10071H

VALIDATION FINDINGS WORKSHEET

Sample Calculation Verification

Reviewer: CJ
2nd Reviewer: AW

METHOD: GC/MS Volatile Organics (EPA Method TO-15)

Compound results for the Level 4 samples reported with a positive detect were recalculated and verified using the following equation:

$$\text{Concentration} = \frac{(Ax)(Vt)(Df)(Ci)}{(CF)(Vo)(Ai)}$$

Where:
- Ax = Area or height of the peak for the compound to be measured
- Vt = Volume injected in milliliters (mL)
- DF = Dilution factor
- Ci = Concentration of internal standard
- CF = Mean calibration factor from initial calibration curve
- Vo = Volume of sample in milliliters (mL)
- Ai = Area or height of internal standard

#	Sample I.D.	Compound		Response (A/H)	Volume Injected (mL)	Dilution Factor	Int. Std. (ppbv)	CF	Sample volume (mL)	Int. Std. (A/H)	Reported Concentration (ppbv)	Calculated Concentration (ppbv)	% Diff	Accept? (Y/N)
1	1	Chloroform		45931	200	3.44	20.2	2.231	200	489700	2.9	2.9	0.7	Y
		Tetrachloroethene		1098075	200	2.31	21.6	0.594	50	2076922	180	178	-1.3	Y
2	2	Benzene		41514	200	2.34	20.6	0.61	150	2262504	1.9	1.9	1.8	Y
		Toluene		73330	200	2.34	21.6	0.938	150	2082961	2.5	2.5	1.2	Y
		Tetrachloroethene		1091019	200	2.34	21.6	0.594	150	2082961	59	59	0.7	Y

LDC #: 1004-01D48a **VALIDATION FINDING WORKSHEET** Page: 1 of 1

SDG #: 10071A **Field Duplicates** Reviewer: CJ

2nd Reviewer: Ann

METHOD: GC/MS Volatile Organics (EPA Method TO-15)

Y N NA Were field duplicate pairs identified in this SDG?

Y N NA Were target analytes detected in the field duplicate pairs?

Analyte	Concentration (ppbv)		RPD	Difference (Limits)	Qualifications
	DP-5B-1Q10	DP-95B-1Q10			
Dichloromethane	1.1	1.3	NA	*	None
Chloroform	15	15	0	*	None
Tetrachloroethane	21	21	0	*	None

* = See Table 2-17 of SAP

Relative percent differences (RPDs) are not calculated when an analyte is nondetected in one field duplicate sample or is detected below the CRQL in one or both field duplicate samples

Appendix D
System Uptime Logs

APPENDIX D
SYSTEM UPTIME LOGS

This section presents quantitative results on operational time for the groundwater treatment (GWT) and soil vapor extraction (SVE) systems. Operation time and percentage of uptime for this reporting period (01 January through 31 March 2010) are as follows:

Remedial System	Total Operation Hours	Percentage of Operation
Groundwater Treatment	2,130	98.61%
Soil Vapor Extraction	2,160	100%

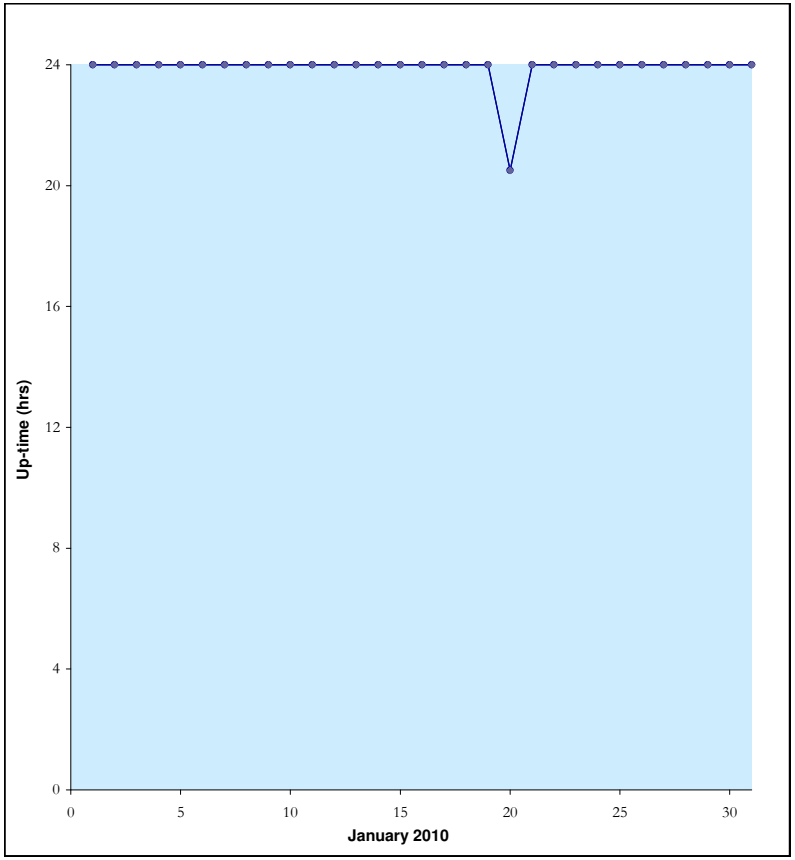
Monthly graphical representations of the GWT system operation time can be found in Figures D-1, D-2, and D-3 for January, February, and March 2010, respectively.

Monthly graphical representations of the SVE system operation time can be found in Figures D-4, D-5, and D-6 for January, February, and March 2010, respectively.

FIGURE D-1

UPTIME LOG
GROUNDWATER TREATMENT SYSTEM
MODESTO SUPERFUND SITE

Month	Day	Uptime (hrs)	Description of Activity Performed
January	1	**24**	
	2	**24**	
	3	**24**	
	4	**24**	
	5	**24**	
	6	**24**	
	7	**24**	
	8	**24**	
	9	**24**	
	10	**24**	
	11	**24**	
	12	**24**	
	13	**24**	
	14	**24**	
	15	**24**	
	16	**24**	
	17	**24**	
	18	**24**	
	19	**24**	
	20	**20.5**	System shutdown due to a false high containment level alarm.
	21	**24**	
	22	**24**	
	23	**24**	
	24	**24**	
	25	**24**	
	26	**24**	
	27	**24**	
	28	**24**	
	29	**24**	
	30	**24**	
	31	**24**	



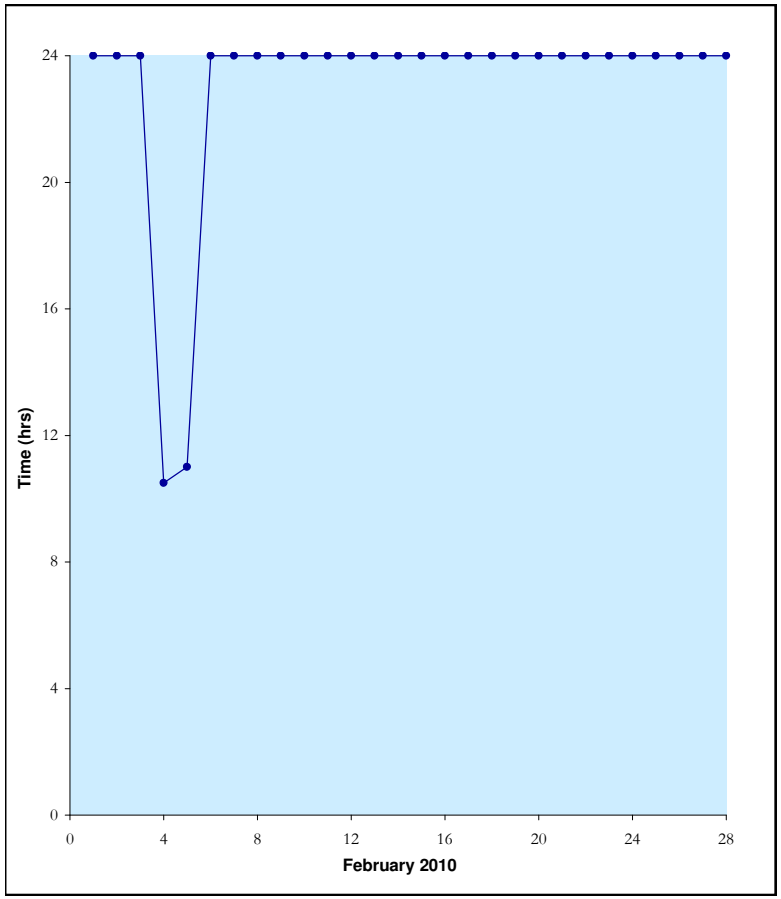
Uptime hours:	**740.5**
Uptime %:	**99.5%**

Notes:

FIGURE D-2

UPTIME LOG
GROUNDWATER TREATMENT SYSTEM
MODESTO SUPERFUND SITE

Month	Day	Uptime (hrs)	Description of Activity Performed
February	1	**24**	
	2	**24**	
	3	**24**	
	4	**10.5**	System was shutdown due to a leak at process piping.
	5	**11**	
	6	**24**	
	7	**24**	
	8	**24**	
	9	**24**	
	10	**24**	
	11	**24**	
	12	**24**	
	13	**24**	
	14	**24**	
	15	**24**	
	16	**24**	
	17	**24**	
	18	**24**	
	19	**24**	
	20	**24**	
	21	**24**	
	22	**24**	
	23	**24**	
	24	**24**	
	25	**24**	
	26	**24**	
	27	**24**	
	28	**24**	



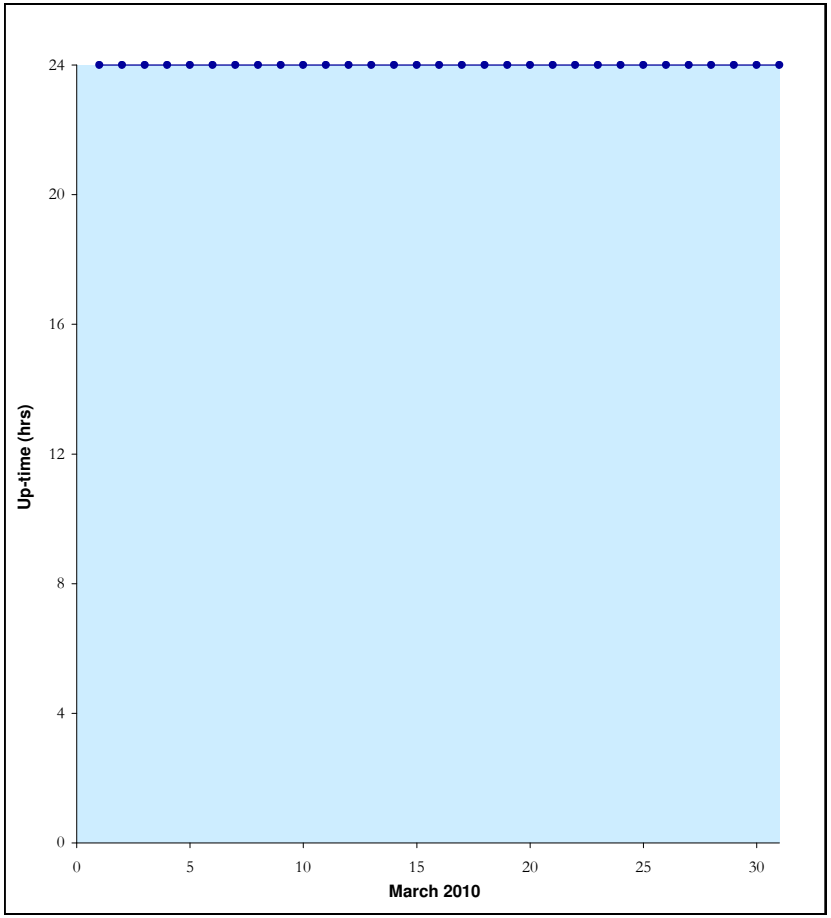
Uptime hours:	**645.5**
Uptime %:	**96.1%**

Notes:

FIGURE D-3

UPTIME LOG
GROUNDWATER TREATMENT SYSTEM
MODESTO SUPERFUND SITE

Month	Day	Uptime (hrs)	Description of Activity Performed
March	1	**24**	
	2	**24**	
	3	**24**	
	4	**24**	
	5	**24**	
	6	**24**	
	7	**24**	
	8	**24**	
	9	**24**	
	10	**24**	
	11	**24**	
	12	**24**	
	13	**24**	
	14	**24**	
	15	**24**	
	16	**24**	
	17	**24**	
	18	**24**	
	19	**24**	
	20	**24**	
	21	**24**	
	22	**24**	
	23	**24**	
	24	**24**	
	25	**24**	
	26	**24**	
	27	**24**	
	28	**24**	
	29	**24**	
	30	**24**	
	31	**24**	



Uptime hours:	**744**
Uptime %:	**100.0%**

Notes:

FIGURE D-4

UPTIME LOG
SVE TREATMENT SYSTEM
MODESTO SUPERFUND SITE

Month	Day	Uptime (hrs)	Description of Activity Performed
January	1	24	
	2	24	
	3	24	
	4	24	
	5	24	
	6	24	
	7	24	
	8	24	
	9	24	
	10	24	
	11	24	
	12	24	
	13	24	
	14	24	
	15	24	
	16	24	
	17	24	
	18	24	
	19	24	
	20	24	
	21	24	
	22	24	
	23	24	
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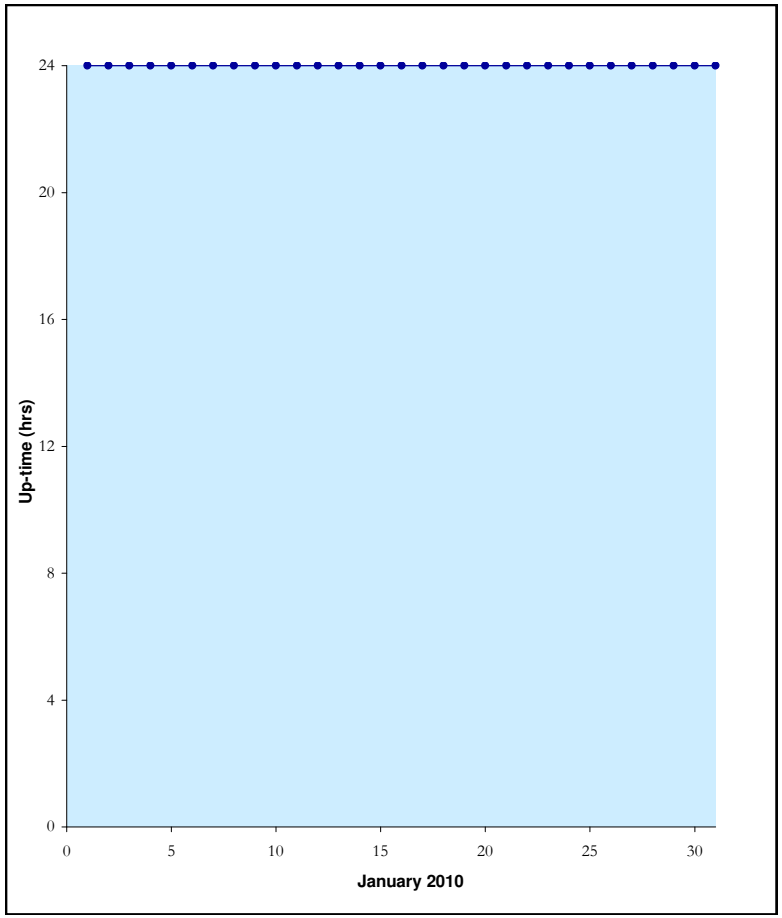
	25	24	
	26	24	
	27	24	
	28	24	
	29	24	
	30	24	
	31	24	



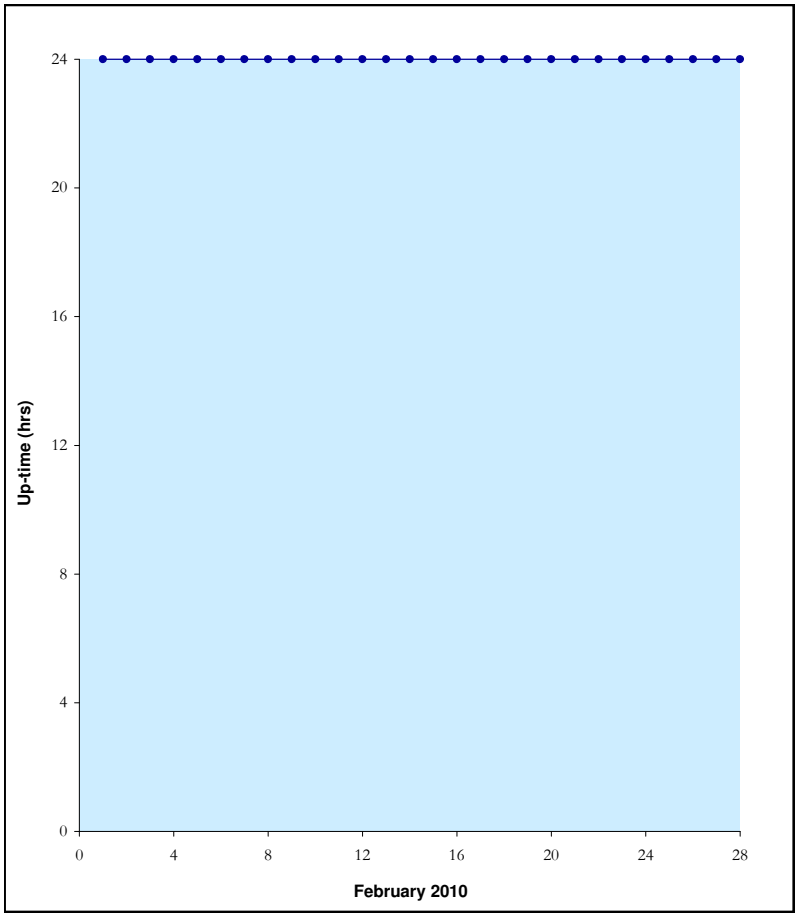
Uptime hours:	744
Uptime %:	100.0%

Notes:

FIGURE D-5

UPTIME LOG
SVE TREATMENT SYSTEM
MODESTO SUPERFUND SITE

Month	Day	Uptime (hrs)	Description of Activity Performed
November	1	**24**	
	2	**24**	
	3	**24**	
	4	**24**	
	5	**24**	
	6	**24**	
	7	**24**	
	8	**24**	
	9	**24**	
	10	**24**	
	11	**24**	
	12	**24**	
	13	**24**	
	14	**24**	
	15	**24**	
	16	**24**	
	17	**24**	
	18	**24**	
	19	**24**	
	20	**24**	
	21	**24**	
	22	**24**	
	23	**24**	
	24	**24**	
	25	**24**	
	26	**24**	
	27	**24**	
	28	**24**	



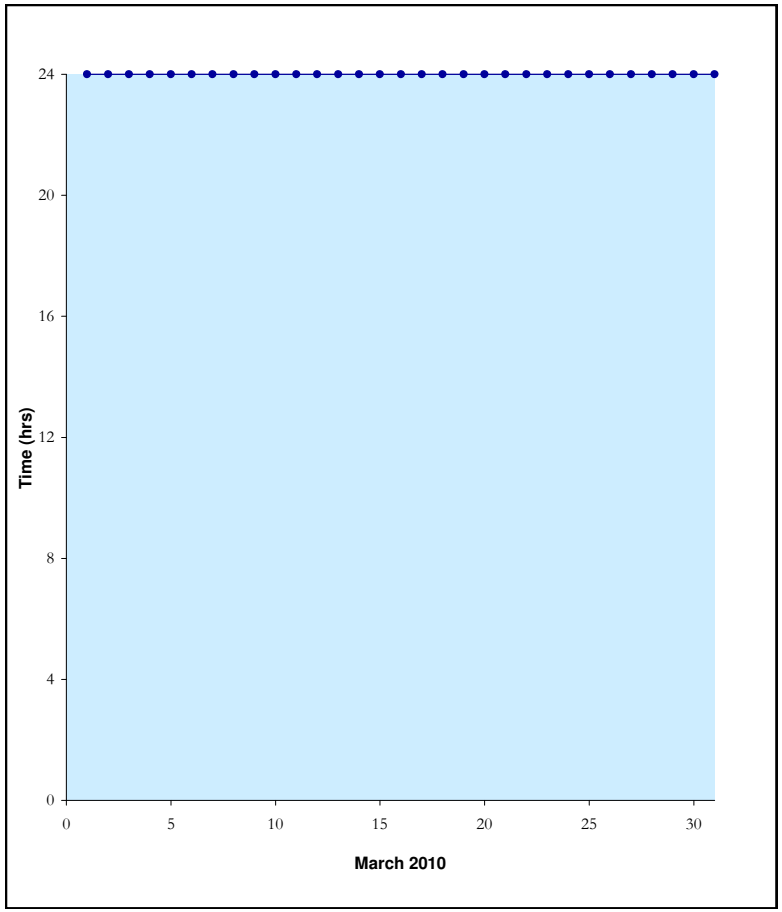
Uptime hours:	**672**
Uptime %:	**100.0%**

Notes:

FIGURE D-6

UPTIME LOG
SVE TREATMENT SYSTEM
MODESTO SUPERFUND SITE

Month	Day	Uptime (hrs)	Description of Activity Performed
December	1	24	
	2	24	
	3	24	
	4	24	
	5	24	
	6	24	
	7	24	
	8	24	
	9	24	
	10	24	
	11	24	
	12	24	
	13	24	
	14	24	
	15	24	
	16	24	
	17	24	
	18	24	
	19	24	
	20	24	
	21	24	
	22	24	
	23	24	
	24	24	
	25	24	
	26	24	
	27	24	
	28	24	
	29	24	
	30	24	
	31	24	



Uptime hours:	744
Uptime %:	100.0%

Notes:

Appendix E
Operation and Maintenance Process Logs

APPENDIX E
PROCESS AND MONITORING LOGS

This section presents process and monitoring logs recorded during monthly routine and non-routine visits during this reporting period (01 January through 31 March 2010) for both soil vapor extraction (SVE) and groundwater treatment (GWT) systems. Process readings, (flow rates, pressures, and vapor concentrations) pertaining to individual treatment units (air stripper, liquid granular activated carbon (GAC), and ion exchange) are recorded to document trends in each treatment process and establish typical operating ranges. These process and monitoring logs are working documents that will be updated as necessary to accommodate changes and modifications to the treatment systems.

Modesto Superfund Site
Treatment System
Process / Monitoring Logs

	kW	kWh
Utility power	21.658	83826

Operator M. Aguirre
Date 01/15/10

Groundwater Treatment System

EW-1 DTW (ft from TOC)	NC
AS Hour Meter	31586.1

Time 15:30

WEATHER	
62	TEMP
Skys	
	CLR
X	PC
X	OC
	RAIN
Wind	
X	NONE
	BREEZY
	WINDY
	THNDR

System Inlet

Totalizer (gallons)	4439900
Pressure (psi)	45
Flow (gpm)	50
PH	8.2

Filter (F-2)

Press. Pre-filter (psi)	65
Press. Post-filter (psi)	62
Flow (gpm)	54

Filter (F-1)

Duty (1a / 1b)	Both
Press. Pre-filter (psi)	45
Press. Post-filter (psi)	41
Disch Flow (gpm)	60

LGAC

Inlet pressure (psi)	66
Midbed press (psi)	54
Disc, press (psi)	47

Air Stripper Vapor

sump press.("wc)	16
Disc. press.("wc)	4
Disc. Flow velocicalc(scfm)	675
Temperature (deg F)	NC

ION Exchange

Inlet pressure (psi)	12
Midbed press (psi)	11
Flow (gpm)	45

Health & Safety

X	Fire Ext
X	First Aid Kit
X	Eye Wash

PID Read

Gac inlet (ppm)	12.9
Gac discharge (ppm)	12.6

Effluent

Sewer Disc.Flow (gpm)	52
Sewer Disc.total (gallons)	3217400
PH	8.1

Radiation Meter

Outside GWTS
0.01 mR/hr peak
Inside GWTS
0.01 mR/hr peak

Air Stripper Water

Pump P-3 Disc.Press(psi)	84

Chemical

Gallons	15

Soil Vapor Treatment System

Time 16:20

System Inlet

Pressure ("wc)	54
Flow velocicalc (scfm)	162
Temperature (deg F)	75
Dilution air (yes/no)	No

Blower

Hour Meter	25025.4
Discharge Pressure ("wc)	8
Outlet temp (deg F)	110
Flow erdco (scfm)	NC

Radiation Meter

Outside SVE
0.01 mR/hr peak
Inside SVE
0.01 mR/hr peak

Filter

Press. Pre-filter ("wc)	-69
Press. Post-filter ("wc)	-71

VGAC Stack

Flow velocicalc (scfm)	168
Temperature (deg F)	110

Health & Safety

X	Fire Ext
X	First Aid Kit

Hand held MiniRae PID

Gac inlet (ppm)	N/A
Gac discharge (ppm)	17.6

ModuRae PID

Gac inlet (ppm)	-10.2
Gac discharge (ppm)	-10.2

Notes

Modesto Superfund Site
Treatment System
Process / Monitoring Logs

	kW	kWh
Utility power	21.658	85702

Operator M. Aguirre
Date 01/20/10

Groundwater Treatment System

EW-1 DTW (ft from TOC)	NC
AS Hour Meter	31679.7

Time 13:00

WEATHER	
48	TEMP
Skys	
	CLR
x	PC
x	OC
x	RAIN
Wind	
	NONE
	BREEZY
	WINDY
	THNDR

System Inlet

Totalizer (gallons)	488400
Pressure (psi)	38
Flow (gpm)	48
PH	7.6

Filter (F-2)

Press. Pre-filter (psi)	69
Press. Post-filter (psi)	67
Flow (gpm)	50

Filter (F-1)

Duty (1a / 1b)	Both
Press. Pre-filter (psi)	38
Press. Post-filter (psi)	48
Disch Flow (gpm)	7.6

LGAC

Inlet pressure (psi)	69
Midbed press (psi)	54
Disc, press (psi)	46

Air Stripper Vapor

sump press.("wc)	16
Disc. press.("wc)	4
Disc. Flow velocicalc(scfm)	585
Temperature (deg F)	NC

ION Exchange

Inlet pressure (psi)	11
Midbed press (psi)	10
Flow (gpm)	51

Health & Safety

	Fire Ext
	First Aid Kit
	Eye Wash

PID Read

Gac inlet (ppm)	8
Gac discharge (ppm)	6.4

Effluent

Sewer Disc.Flow (gpm)	45
Sewer Disc.total (gallons)	347800
PH	8

Radiation Meter

Outside GWTS
mR/hr peak
Inside GWTS
mR/hr peak

Air Stripper Water

Pump P-3 Disc.Press(psi)	72

Chemical

Gallons	15

Soil Vapor Treatment System

Time NC

System Inlet

Pressure ("wc)	53
Flow velocicalc (scfm)	145
Temperature (deg F)	85
Dilution air (yes/no)	No

Blower

Hour Meter	25122.8
Discharge Pressure ("wc)	NC
Outlet temp (deg F)	117
Flow erdco (scfm)	NC

Radiation Meter

Outside SVE
0 mR/hr peak
Inside SVE
0 mR/hr peak

Filter

Press. Pre-filter ("wc)	-61
Press. Post-filter ("wc)	-72

VGAC Stack

Flow velocicalc (scfm)	148
Temperature (deg F)	117

Health & Safety

X	Fire Ext
X	First Aid Kit

Hand held MiniRae PID

Gac inlet (ppm)	0.1
Gac discharge (ppm)	0

ModuRae PID

Gac inlet (ppm)	.5.5
Gac discharge (ppm)	-10

Notes System Alarm at 09:00 1/20/10 (High/High secondary containment). Inspected containment and found no water. Inspected control panel and repaired a loose wire. System re-started at 12:30.

Modesto Superfund Site
Treatment System
Process / Monitoring Logs

	kW	kWh
Utility power	21.658	N/A

Operator M. Aguirre
Date 01/27/10

Groundwater Treatment System

EW-1 DTW (ft from TOC) NC
AS Hour Meter 31847.5

Time 13:40

WEATHER	
68	TEMP
Skys	
	CLR
X	PC
	OC
	RAIN
Wind	
X	NONE
	BREEZY
	WINDY
	THNDR

System Inlet

Totalizer (gallons)	5123000
Pressure (psi)	41
Flow (gpm)	47
PH	8.1

Filter (F-2)

Press. Pre-filter (psi)	61
Press. Post-filter (psi)	60
Flow (gpm)	49

Filter (F-1)

Duty (1a / 1b)	Both
Press. Pre-filter (psi)	44
Press. Post-filter (psi)	39
Disch Flow (gpm)	62

LGAC

Inlet pressure (psi)	70
Midbed press (psi)	49
Disc, press (psi)	36

Air Stripper Vapor

sump press.("wc)	16
Disc. press.("wc)	4
Disc. Flow velocicalc(scfm)	652
Temperature (deg F)	NC

ION Exchange

Inlet pressure (psi)	13
Midbed press (psi)	4
Flow (gpm)	44

Health & Safety

X	Fire Ext
X	First Aid Kit
X	Eye Wash

PID Read

Gac inlet (ppm)	7
Gac discharge (ppm)	6.2

Effluent

Sewer Disc.Flow (gpm)	49
Sewer Disc.total (gallons)	3927800
PH	NC

Radiation Meter

Outside GWTS
0.01 mR/hr peak
Inside GWTS
0.01 mR/hr peak

Air Stripper Water

Pump P-3 Disc.Press(psi)	68

Chemical

Gallons	18

Soil Vapor Treatment System

Time NC

System Inlet

Pressure ("wc)	68
Flow velocicalc (scfm)	152
Temperature (deg F)	109
Dilution air (yes/no)	No

Blower

Hour Meter	25126.8
Discharge Pressure ("wc)	NC
Outlet temp (deg F)	112
Flow erdco (scfm)	NC

Radiation Meter

Outside SVE
0.01 mR/hr peak
Inside SVE
0.01 mR/hr peak

Filter

Press. Pre-filter ("wc)	-63
Press. Post-filter ("wc)	-72

VGAC Stack

Flow velocicalc (scfm)	151
Temperature (deg F)	117

Health & Safety

X	Fire Ext
X	First Aid Kit

Hand held MiniRae PID

Gac inlet (ppm)	0.2
Gac discharge (ppm)	0.4

ModuRae PID

Gac inlet (ppm)	-11
Gac discharge (ppm)	-7.2

Notes

Modesto Superfund Site
Treatment System
Process / Monitoring Logs

	kW	kWh
Utility power	21.658	91010

Operator R. Foster
Date 02/03/10

Groundwater Treatment System

EW-1 DTW (ft from TOC) NC
AS Hour Meter 32013.6

Time 10:50

WEATHER	
55	TEMP
Skys	
X	CLR
	PC
	OC
	RAIN
Wind	
X	NONE
	BREEZY
	WINDY
	THNDR

System Inlet

Totalizer (gallons)	5554200
Pressure (psi)	37
Flow (gpm)	46
PH	7.1

Filter (F-2)

Press. Pre-filter (psi)	66
Press. Post-filter (psi)	63
Flow (gpm)	50

Filter (F-1)

Duty (1a / 1b)	Both
Press. Pre-filter (psi)	47
Press. Post-filter (psi)	44
Disch Flow (gpm)	52

LGAC

Inlet pressure (psi)	66
Midbed press (psi)	51
Disc, press (psi)	42

Air Stripper Vapor

sump press.("wc)	17
Disc. press.("wc)	5
Disc. Flow velocicalc(scfm)	NC
Temperature (deg F)	NC

ION Exchange

Inlet pressure (psi)	2
Midbed press (psi)	9
Flow (gpm)	35

Health & Safety

X	Fire Ext
X	First Aid Kit
X	Eye Wash

PID Read

Gac inlet (ppm)	0.4
Gac discharge (ppm)	0.6

Effluent

Sewer Disc.Flow (gpm)	50
Sewer Disc.total (gallons)	4370800
PH	7.9

Radiation Meter

Outside GWTS
0.01 mR/hr peak
Inside GWTS
0.01 mR/hr peak

Air Stripper Water

Pump P-3 Disc.Press(psi)	NC

Chemical

Gallons	18

Soil Vapor Treatment System

Time 10:30

System Inlet

Pressure ("wc)	50
Flow velocicalc (scfm)	NC
Temperature (deg F)	65
Dilution air (yes/no)	No

Blower

Hour Meter	25292.0
Discharge Pressure ("wc)	4
Outlet temp (deg F)	110
Flow erdco (scfm)	NC

Radiation Meter

Outside SVE
0.01 mR/hr peak
Inside SVE
0.01 mR/hr peak

Filter

Press. Pre-filter ("wc)	57
Press. Post-filter ("wc)	59

VGAC Stack

Flow velocicalc (scfm)	NC
Temperature (deg F)	11

Health & Safety

X	Fire Ext
X	First Aid Kit

Hand held MiniRae PID

Gac inlet (ppm)	0.6
Gac discharge (ppm)	0

ModuRae PID

Gac inlet (ppm)	-50
Gac discharge (ppm)	-50

Notes EW-1R Cycles often. Influent tank full.

Modesto Superfund Site
Treatment System
Process / Monitoring Logs

	kW	kWh
Utility power	21.658	9447

Operator M. Aguirre
Date 02/11/10

Groundwater Treatment System

EW-1 DTW (ft from TOC)	NC
AS Hour Meter	321773

Time 8:00

WEATHER	
57	**TEMP**
Skys	
X	CLR
	PC
	OC
	RAIN
Wind	
X	NONE
	BREEZY
	WINDY
	THNDR

System Inlet

Totalizer (gallons)	5987500
Pressure (psi)	37
Flow (gpm)	46
PH	7.1

Filter (F-2)

Press. Pre-filter (psi)	66
Press. Post-filter (psi)	63
Flow (gpm)	50

Filter (F-1)

Duty (1a / 1b)	Both
Press. Pre-filter (psi)	47
Press. Post-filter (psi)	44
Disch Flow (gpm)	52

LGAC

Inlet pressure (psi)	66
Midbed press (psi)	51
Disc, press (psi)	42

Air Stripper Vapor

sump press.("wc)	17
Disc. press.("wc)	2
Disc. Flow velocicalc(scfm)	NC
Temperature (deg F)	NC

ION Exchange

Inlet pressure (psi)	2
Midbed press (psi)	9
Flow (gpm)	35

Health & Safety

X	Fire Ext
X	First Aid Kit
X	Eye Wash

PID Read

Gac inlet (ppm)	0.4
Gac discharge (ppm)	0.6

Effluent

Sewer Disc.Flow (gpm)	50
Sewer Disc.total (gallons)	4811600
PH	7.9

Radiation Meter

Outside GWTS
0 mR/hr peak
Inside GWTS
0.02 mR/hr peak

Air Stripper Water

Pump P-3 Disc.Press(psi)	72

Chemical

Gallons	30

Soil Vapor Treatment System

Time 8:50

System Inlet

Pressure ("wc)	50
Flow velocicalc (scfm)	161
Temperature (deg F)	65
Dilution air (yes/no)	No

Blower

Hour Meter	25493.7
Discharge Pressure ("wc)	4
Outlet temp (deg F)	110
Flow erdco (scfm)	NC

Radiation Meter

Outside SVE
0 mR/hr peak
Inside SVE
0.02 mR/hr peak

Filter

Press. Pre-filter ("wc)	57
Press. Post-filter ("wc)	59

VGAC Stack

Flow velocicalc (scfm)	NC
Temperature (deg F)	110

Health & Safety

X	Fire Ext
X	First Aid Kit

Hand held MiniRae PID

Gac inlet (ppm)	0.6
Gac discharge (ppm)	0

ModuRae PID

Gac inlet (ppm)	-50
Gac discharge (ppm)	-50

Notes

Modesto Superfund Site
Treatment System
Process / Monitoring Logs

	kW	kWh
Utility power	21.658	97805

Operator R. Foster
Date 02/18/10

Groundwater Treatment System

EW-1 DTW (ft from TOC)	NC
AS Hour Meter	32345.1

Time 8:00

WEATHER	
65	TEMP
Skys	
X	CLR
	PC
	OC
	RAIN
Wind	
X	NONE
	BREEZY
	WINDY
	THNDR

System Inlet

Totalizer (gallons)	6432601
Pressure (psi)	38
Flow (gpm)	47
PH	8.1

Filter (F-2)

Press. Pre-filter (psi)	65
Press. Post-filter (psi)	65
Flow (gpm)	48

Filter (F-1)

Duty (1a / 1b)	Both
Press. Pre-filter (psi)	45
Press. Post-filter (psi)	42
Disch Flow (gpm)	60

LGAC

Inlet pressure (psi)	70
Midbed press (psi)	52
Disc, press (psi)	45

Air Stripper Vapor

sump press.("wc)	15
Disc. press.("wc)	4
Disc. Flow velocicalc(scfm)	NC
Temperature (deg F)	NC

ION Exchange

Inlet pressure (psi)	0
Midbed press (psi)	0.2
Flow (gpm)	37

Health & Safety

X	Fire Ext
X	First Aid Kit
X	Eye Wash

PID Read

Gac inlet (ppm)	0.4
Gac discharge (ppm)	0.2

Effluent

Sewer Disc.Flow (gpm)	41
Sewer Disc.total (gallons)	5266800
PH	8.1

Radiation Meter

Outside GWTS
0.01 mR/hr peak
Inside GWTS
0.01 mR/hr peak

Air Stripper Water

Pump P-3 Disc.Press(psi)	75

Chemical

Gallons	30

Soil Vapor Treatment System

Time 9:00

System Inlet

Pressure ("wc)	50
Flow velocicalc (scfm)	NC
Temperature (deg F)	65
Dilution air (yes/no)	No

Blower

Hour Meter	25652.1
Discharge Pressure ("wc)	4
Outlet temp (deg F)	100
Flow erdco (scfm)	NC

Radiation Meter

Outside SVE
0.01 mR/hr peak
Inside SVE
0.01 mR/hr peak

Filter

Press. Pre-filter ("wc)	58
Press. Post-filter ("wc)	59

VGAC Stack

Flow velocicalc (scfm)	NC
Temperature (deg F)	100

Health & Safety

X	Fire Ext
X	First Aid Kit

Hand held MiniRae PID

Gac inlet (ppm)	0.6
Gac discharge (ppm)	0

ModuRae PID

Gac inlet (ppm)	-50
Gac discharge (ppm)	-50

Notes

Modesto Superfund Site
Treatment System
Process / Monitoring Logs

	kW	kWh
Utility power	21.658	1063

Operator M. Aguirre
Date 02/23/10

Groundwater Treatment System

EW-1 DTW (ft from TOC) NC
AS Hour Meter 32513

Time 10:00

WEATHER	
62	TEMP
Skys	
	CLR
X	PC
X	OC
	RAIN
Wind	
X	NONE
	BREEZY
	WINDY
	THNDR

System Inlet

Totalizer (gallons)	6855400
Pressure (psi)	38
Flow (gpm)	48
PH	8

Filter (F-2)

Press. Pre-filter (psi)	70
Press. Post-filter (psi)	68
Flow (gpm)	54

Filter (F-1)

Duty (1a / 1b)	Both
Press. Pre-filter (psi)	44
Press. Post-filter (psi)	41
Disch Flow (gpm)	59

LGAC

Inlet pressure (psi)	70
Midbed press (psi)	50
Disc, press (psi)	40

Air Stripper Vapor

sump press.("wc)	16
Disc. press.("wc)	4
Disc. Flow velocicalc(scfm)	645
Temperature (deg F)	NC

ION Exchange

Inlet pressure (psi)	0.1
Midbed press (psi)	5
Flow (gpm)	36

Health & Safety

X	Fire Ext
X	First Aid Kit
X	Eye Wash

PID Read

Gac inlet (ppm)	6.4
Gac discharge (ppm)	1.3

Effluent

Sewer Disc.Flow (gpm)	36
Sewer Disc.total (gallons)	5699600
PH	8.4

Radiation Meter

Outside GWTS
0 mR/hr peak
Inside GWTS
0 mR/hr peak

Air Stripper Water

Pump P-3 Disc.Press(psi)	75

Chemical

Gallons	26

Soil Vapor Treatment System

Time 10:45

System Inlet

Pressure ("wc)	50
Flow velocicalc (scfm)	145
Temperature (deg F)	85
Dilution air (yes/no)	No

Blower

Hour Meter	25819.1
Discharge Pressure ("wc)	3
Outlet temp (deg F)	110
Flow erdco (scfm)	NC

Radiation Meter

Outside SVE
0 mR/hr peak
Inside SVE
0 mR/hr peak

Filter

Press. Pre-filter ("wc)	52
Press. Post-filter ("wc)	52

VGAC Stack

Flow velocicalc (scfm)	NC
Temperature (deg F)	110

Health & Safety

X	Fire Ext
X	First Aid Kit

Hand held MiniRae PID

Gac inlet (ppm)	10.5
Gac discharge (ppm)	0

ModuRae PID

Gac inlet (ppm)	-50
Gac discharge (ppm)	-50

Notes Met with George Bradshaw from URS Corp. for site transition.

Modesto Superfund Site
Treatment System
Process / Monitoring Logs

	kW	kWh
Utility power	21.658	3037

Operator G. Bradshaw
Date 03/01/10

Groundwater Treatment System

EW-1 DTW (ft from TOC)	NC
AS Hour Meter	32610.1

Time 10:15

WEATHER	
55	**TEMP**
Skys	
	CLR
X	PC
	OC
	RAIN
Wind	
	NONE
X	BREEZY
	WINDY
	THNDR

System Inlet

Totalizer (gallons)	7097700
Pressure (psi)	44
Flow (gpm)	42
PH	7.9

Filter (F-2)

Press. Pre-filter (psi)	68
Press. Post-filter (psi)	66
Flow (gpm)	54

Filter (F-1)

Duty (1a / 1b)	Both
Press. Pre-filter (psi)	44
Press. Post-filter (psi)	41
Disch Flow (gpm)	58

LGAC

Inlet pressure (psi)	69
Midbed press (psi)	48
Disc, press (psi)	38

Air Stripper Vapor

sump press.("wc)	16.5
Disc. press.("wc)	NC
Disc. Flow velocicalc(scfm)	NC
Temperature (deg F)	NC

ION Exchange

Inlet pressure (psi)	1
Midbed press (psi)	5
Flow (gpm)	32

Health & Safety

X	Fire Ext
X	First Aid Kit
X	Eye Wash

PID Read

Gac inlet (ppm)	NC
Gac discharge (ppm)	NC

Effluent

Sewer Disc.Flow (gpm)	50
Sewer Disc.total (gallons)	5943700
PH	8.2

Radiation Meter

Outside GWTS
0 mR/hr peak
Inside GWTS
0 mR/hr peak

Air Stripper Water

Pump P-3 Disc.Press(psi)	74

Chemical

Gallons	23

Soil Vapor Treatment System

Time 11:00

System Inlet

Pressure ("wc)	-60
Flow velocicalc (scfm)	NC
Temperature (deg F)	NC
Dilution air (yes/no)	No

Blower

Hour Meter	25916.2
Discharge Pressure ("wc)	NC
Outlet temp (deg F)	105
Flow erdco (scfm)	NC

Radiation Meter

Outside SVE
0 mR/hr peak
Inside SVE
0 mR/hr peak

Filter

Press. Pre-filter ("wc)	-60
Press. Post-filter ("wc)	-60

VGAC Stack

Flow velocicalc (scfm)	NC
Temperature (deg F)	105

Health & Safety

X	Fire Ext
X	First Aid Kit

Hand held MiniRae PID

Gac inlet (ppm)	NC
Gac discharge (ppm)	NC

ModuRae PID

Gac inlet (ppm)	NC
Gac discharge (ppm)	NC

Notes

Modesto Superfund Site
Treatment System
Process / Monitoring Logs

	kW	kWh
Utility power	21.761	7939

Operator G. Bradshaw
Date 03/11/10

Groundwater Treatment System

EW-1 DTW (ft from TOC) NC
AS Hour Meter 32848.7

Time 9:36

WEATHER	
58	TEMP
Skys	
X	CLR
	PC
	OC
	RAIN
Wind	
X	NONE
	BREEZY
	WINDY
	THNDR

System Inlet

Totalizer (gallons)	7734400
Pressure (psi)	32
Flow (gpm)	48
PH	7.56

Filter (F-2)

Press. Pre-filter (psi)	70
Press. Post-filter (psi)	68
Flow (gpm)	53

Filter (F-1)

Duty (1a / 1b)	Both
Press. Pre-filter (psi)	43
Press. Post-filter (psi)	40
Disch Flow (gpm)	58

LGAC

Inlet pressure (psi)	70
Midbed press (psi)	50
Disc, press (psi)	40

Air Stripper Vapor

sump press.("wc)	NC
Disc. press.("wc)	NC
Disc. Flow velocicalc(scfm)	650
Temperature (deg F)	69.5

ION Exchange

Inlet pressure (psi)	1
Midbed press (psi)	5
Flow (gpm)	32

Health & Safety

X	Fire Ext
X	First Aid Kit
X	Eye Wash

PID Read

Gac inlet (ppm)	0
Gac discharge (ppm)	0

Effluent

Sewer Disc.Flow (gpm)	51
Sewer Disc.total (gallons)	6582200
PH	8.4

Radiation Meter

Outside GWTS
0 mR/hr peak
Inside GWTS
0 mR/hr peak

Air Stripper Water

Pump P-3 Disc.Press(psi)	70

Chemical

Gallons	17

Soil Vapor Treatment System

Time 11:00

System Inlet

Pressure ("wc)	-50
Flow velocicalc (scfm)	120
Temperature (deg F)	63.2
Dilution air (yes/no)	No

Blower

Hour Meter	26154.4
Discharge Pressure ("wc)	3
Outlet temp (deg F)	100
Flow erdco (scfm)	NC

Radiation Meter

Outside SVE
0 mR/hr peak
Inside SVE
0 mR/hr peak

Filter

Press. Pre-filter ("wc)	-56
Press. Post-filter ("wc)	-56

VGAC Stack

Flow velocicalc (scfm)	150
Temperature (deg F)	100

Health & Safety

X	Fire Ext
X	First Aid Kit

Hand held MiniRae PID

Gac inlet (ppm)	NC
Gac discharge (ppm)	0

ModuRae PID

Gac inlet (ppm)	NC
Gac discharge (ppm)	NC

Notes Drained condensate from GWTS VGAC.

Modesto Superfund Site
Treatment System
Process / Monitoring Logs

	kW	kWh
Utility power	21.815	11426

Operator G. Bradshaw
Date 03/18/10

Groundwater Treatment System

EW-1 DTW (ft from TOC)	NC
AS Hour Meter	33015.2

Time 8:35

WEATHER	
62	**TEMP**
Skys	
X	CLR
	PC
	OC
	RAIN
Wind	
X	NONE
	BREEZY
	WINDY
	THNDR

System Inlet

Totalizer (gallons)	8181800
Pressure (psi)	42
Flow (gpm)	44
PH	7.52

Filter (F-2)

Press. Pre-filter (psi)	70
Press. Post-filter (psi)	68
Flow (gpm)	52

Filter (F-1)

Duty (1a / 1b)	Both
Press. Pre-filter (psi)	37
Press. Post-filter (psi)	34
Disch Flow (gpm)	57

LGAC

Inlet pressure (psi)	70
Midbed press (psi)	50
Disc, press (psi)	40

Air Stripper Vapor

sump press.("wc)	NC
Disc. press.("wc)	NC
Disc. Flow velocicalc(scfm)	600
Temperature (deg F)	69.1

ION Exchange

Inlet pressure (psi)	1
Midbed press (psi)	4
Flow (gpm)	32

Health & Safety

X	Fire Ext
X	First Aid Kit
X	Eye Wash

PID Read

Gac inlet (ppm)	0.8
Gac discharge (ppm)	2.3

Effluent

Sewer Disc.Flow (gpm)	50
Sewer Disc.total (gallons)	7034200
PH	8.45

Radiation Meter

Outside GWTS
0 mR/hr peak
Inside GWTS
0 mR/hr peak

Air Stripper Water

Pump P-3 Disc.Press(psi)	75

Chemical

Gallons	13

Soil Vapor Treatment System

Time 10:30

System Inlet

Pressure ("wc)	-50
Flow velocicalc (scfm)	135
Temperature (deg F)	67.2
Dilution air (yes/no)	No

Blower

Hour Meter	26322.1
Discharge Pressure ("wc)	3
Outlet temp (deg F)	99
Flow erdco (scfm)	135

Radiation Meter

Outside SVE
0 mR/hr peak
Inside SVE
0 mR/hr peak

Filter

Press. Pre-filter ("wc)	-54
Press. Post-filter ("wc)	-57

VGAC Stack

Flow velocicalc (scfm)	185
Temperature (deg F)	99

Health & Safety

X	Fire Ext
X	First Aid Kit

Hand held MiniRae PID

Gac inlet (ppm)	NC
Gac discharge (ppm)	6

ModuRae PID

Gac inlet (ppm)	NC
Gac discharge (ppm)	NC

Notes Installed a 1 inch vacuum break anti syphon valve at the Ion Exchange system influent.

Teste interlocks controls and auto-dialer on SVE system.

Modesto Superfund Site
Treatment System
Process / Monitoring Logs

	kW	kWh
Utility power	21.975	14857

Operator G. Bradshaw
Date 03/25/10

Groundwater Treatment System

EW-1 DTW (ft from TOC)	NC
AS Hour Meter	33182.8

Time 8:02

WEATHER	
63	**TEMP**
Skys	
	CLR
X	PC
	OC
	RAIN
Wind	
	NONE
X	BREEZY
	WINDY
	THNDR

System Inlet

Totalizer (gallons)	8612800
Pressure (psi)	40
Flow (gpm)	44
PH	7.39

Filter (F-2)

Press. Pre-filter (psi)	70
Press. Post-filter (psi)	68
Flow (gpm)	54

Filter (F-1)

Duty (1a / 1b)	Both
Press. Pre-filter (psi)	40
Press. Post-filter (psi)	37
Disch Flow (gpm)	60

LGAC

Inlet pressure (psi)	70
Midbed press (psi)	51
Disc, press (psi)	40

Air Stripper Vapor

sump press.("wc)	17
Disc. press.("wc)	17
Disc. Flow velocicalc(scfm)	590
Temperature (deg F)	68.5

ION Exchange

Inlet pressure (psi)	1
Midbed press (psi)	5
Flow (gpm)	32

Health & Safety

X	Fire Ext
X	First Aid Kit
X	Eye Wash

PID Read

Gac inlet (ppm)	6.1
Gac discharge (ppm)	0.5

Effluent

Sewer Disc.Flow (gpm)	52
Sewer Disc.total (gallons)	7479100
PH	8.31

Radiation Meter

Outside GWTS
0 mR/hr peak
Inside GWTS
0 mR/hr peak

Air Stripper Water

Pump P-3 Disc.Press(psi)	76

Chemical

Gallons	8.5

Soil Vapor Treatment System

Time 8:52

System Inlet

Pressure ("wc)	-59
Flow velocicalc (scfm)	130
Temperature (deg F)	66.6
Dilution air (yes/no)	No

Blower

Hour Meter	26488.1
Discharge Pressure ("wc)	3
Outlet temp (deg F)	96
Flow erdco (scfm)	NC

Radiation Meter

Outside SVE
0 mR/hr peak
Inside SVE
0 mR/hr peak

Filter

Press. Pre-filter ("wc)	-62
Press. Post-filter ("wc)	-59

VGAC Stack

Flow velocicalc (scfm)	132
Temperature (deg F)	96

Health & Safety

X	Fire Ext
X	First Aid Kit

Hand held MiniRae PID

Gac inlet (ppm)	1.5
Gac discharge (ppm)	2.6

ModuRae PID

Gac inlet (ppm)	NC
Gac discharge (ppm)	NC

Notes Well Flows:

SVE-2	31.0 cfm
SVE-3	39.3 cfm
SVE-4	54.0 cfm

Appendix F
Operational History

APPENDIX F
OPERATIONAL HISTORY

This section presents a summary of routine and non-routine operation and maintenance events performed on the remedial treatment systems 01 July 2001 through 31 March 2010. Table F-1 lists the event, start and end dates and the type of maintenance (Routine, Nonroutine, Reimbursable, or Optimization) that was performed.

Beginning 01 July 2005, MWH managed a cost-plus-fixed-fee (CPFF) contract that includes funding for routine operation and maintenance of the groundwater and soil vapor extraction systems, as well as reimbursable costs for both systems.

Through 31 February 2010, approximately $797,500 and $310,500 in costs have been accrued on that CPFF contract on the groundwater and soil vapor remedial systems, respectively. In addition to direct field costs, these amounts included a percentage of document generation costs, project management costs, and fee allocated to operation of these remedial systems.

Beginning 1 March 2010, URS Corporation (URS) was contracted to perform Environmental Remediation Services, at the Modesto Superfund Site. The Firm Fixed Price (FFP) contract funds routine operations, maintenance, monitoring, and reporting at the Modesto site. To date the FFP contract has accrued approximately $797,500 and $310,500 in cost on the groundwater and soil vapor remedial systems, respectively.

TABLE F-1

OPERATIONAL HISTORY
GROUNDWATER TREATMENT AND SOIL VAPOR EXTRACTION SYSTEM
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

No.	Event	Start Date	End Date	Type of Maintenance
1	Start up of groundwater treatment and soil vapor extraction system	05-Jul-01		Routine
2	Replaced motor starter in 7.5 horsepower transfer pump	07-Jul-01	16-Jul-01	Reimbursable
3	Installed hour meter in SVE system	17-Jul-01	17-Jul-01	Reimbursable
4	Replaced equalization tank float assembly	26-Jul-01	31-Jul-01	Reimbursable
5	Moved vacuum breaker to location after ion exchange vessels	31-Jul-01	31-Jul-01	Reimbursable
6	Repaired faulty pipe joint in SVE system	08-Aug-01	09-Aug-01	Reimbursable
7	Installed duplex bag filters	11-Aug-01	27-Aug-01	Reimbursable
8	Switched 5.0 horsepower and 7.5 horsepower transfer pump	11-Aug-01	27-Aug-01	Reimbursable
9	Replaced ruptured 1/4 inch hose on the liquid GAC vessels	29-Aug-01	30-Aug-01	Reimbursable
10	Programmed duplex bag filters into PLC logic	06-Sep-01	06-Sep-01	Reimbursable
11	Backflushed lead ion exchange vessel	11-Sep-01	11-Sep-01	Routine
12	Carbon change out for SVE vapor GAC	18-Sep-01	27-Sep-01	Routine
13	Bypassed lead ion exchange vessel	20-Sep-01	20-Sep-01	Routine
14	Water chemistry data collected from GWT system	25-Sep-01	25-Sep-01	Reimbursable
15	Repair of PID meter in SVE system	09-Oct-01	26-Oct-01	Reimbursable
16	Cabon change out for GWT vapor GAC	23-Oct-01	23-Oct-01	Routine
17	Replaced anti-scalant with Redux-300	02-Nov-01	02-Nov-01	Routine
18	Installed pulsation damper after filter #2	07-Nov-01	07-Nov-01	Reimbursable
19	Carbon change out for SVE vapor GAC	05-Dec-01	19-Dec-01	Routine
20	Installed polishing ion exchange vessel using virgin resin. Sixty (60) percent of flow through ion exchange and 40 percent bypassed.	13-Dec-01	13-Dec-01	Routine
21	Cabon change out for GWT vapor GAC	19-Dec-01	19-Dec-01	Routine
22	SVE Vapor Carbon Changeout	06-Feb-02	06-Feb-02	Routine
23	Air Stripper Annual Inspection. No abnormal conditions were reported	28-Mar-02	28-Mar-02	Routine
24	Installed air conditioning unit inside SVE treatment system trailer.	04-Jun-02	04-Jun-02	Optimization
25	Optimization of GWT system 1) Switched location of vapor GAC and liquid GAC vessel. 2) Replace filter unit with 10-micron bag filter after air stripper. 3) Insulated vapor GAC vessel. 4) Added two additional phone lines. 5) Addition of floor drains. 6) Installed cooling/air conditioning unit in GWT and SVE control panel.	11-Jun-02	14-Jun-02	Optimization
26	Carbon change out for GWT vapor GAC	14-Jun-02	14-Jun-02	Routine
27	Removed and replaced leaking hoses in GWT system. Bag Filter 2 to GAC-2 manifold and GAC-3 to effluent manifold.	26-Jun-02	26-Jun-02	Reimbursable
29	SVE Vapor Carbon Changeout	17-Jul-02	17-Jul-02	Routine
30	GWT Liquid Carbon Changeouts (Lead and Lag Vessels)	12-Oct-02	12-Oct-02	Routine
31	SVE Vapor Carbon Changeout	13-Dec-02	13-Dec-02	Routine
32	Cabon Changeout for GWT Vapor GAC	23-Apr-03	23-Apr-03	Routine
33	GWT Ion Exchange Changeout	23-Apr-03	23-Apr-03	Routine
34	Replaced P-2 Motor Starter. Fixed EQ Tank Level Indicators	07-May-03	07-May-03	Non Routine
35	Calibrated pH meter and repaired MiniRAE PID	07-Jul-03	07-Jul-03	Non Routine
36	Emptied and cleaned chemical dry tank, and cleaned CMI pump.	17-Jul-03	17-Jul-03	Non Routine

TABLE F-1

OPERATIONAL HISTORY
GROUNDWATER TREATMENT AND SOIL VAPOR EXTRACTION SYSTEM
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

No.	Event	Start Date	End Date	Type of Maintenance
37	SVE Vapor Carbon changeout.	13-Aug-03	13-Aug-03	Routine
38	Exhaust fan not working. Fan was removed and replaced.	04-Sep-03	25-Sep-03	Non Routine
39	Disassembled, inspected and cleaned P-2.	11-Sep-03	11-Sep-03	Non Routine
40	Redeveloped EW-1 and replaced the EW-1 submersible pump	17-Mar-04	06-Apr-04	Non Routine
41	Replaced influent and effluent totalizers.	07-Apr-04	07-Apr-04	Non Routine
42	Replaced broken lead GAC vessel camlock fitting	16-May-04	17-May-04	Non Routine
43	Removed lag GAC vessel from service due to leak in vessel	17-May-04	17-May-04	Non Routine
44	GWT Liquid Carbon Changeouts (Lead Vessel)	03-Jun-04	03-Jun-04	Routine
45	GWT Ion Exchange Changeout (Lead Vessel)	18-Jun-04	18-Jun-04	Routine
46	Installed refurbished lag GAC vessel with fresh carbon	08-Oct-04	08-Oct-04	Non Routine
47	GWT system shutdown because of a high current alarm. The system was left off line and not repaired as requested by USACE	04-Nov-04	04-Nov-04	Non Routine
48	Replaced GWT system effluent flow meter (new baseline - 870 gallons), calibrated digital display meter.	09-Jun-05	09-Jun-05	Non Routine
49	Repaired air conditioning unit in SVE trailer	02-Jun-05	28-Jun-05	Non Routine
50	Repaired vent fan unit in GWTS trailer.	21-Jul-05	28-Jul-05	Non Routine
51	SVE System GAC changeout.	03-Nov-05	03-Nov-05	Routine
52	Drill and developed extraction well EW-1R, located adjacent to MW-3. This well replaces failed extraction well EW-1	21-Jun-06	28-Jun-06	Non Routine
53	Start up of groundwater treatment system with replacement well EW-1R	24-Aug-06	24-Aug-06	Non Routine
54	Installed new digital display for effluent flow totalizer on GWTS.	22-Sep-06	22-Sep-06	Non Routine
55	Replaced effluent sample port on the GWTS.	20-Oct-06	20-Oct-06	Non Routine
56	Replaced Filters F1 and F2 on the GWTS.	24-Oct-06	24-Oct-06	Routine
57	Replaced bag filters on GWTS	13-Jan-07	13-Jan-07	Routine
58	Replaced hoses mid-GAC on GWTS	22-Jan-07	22-Jan-07	Non Routine
59	Replaced piping on SVE (post-stack)	12-Mar-07	16-Apr-07	Non Routine
60	Changed ion exchange resin filters on GWTS	25-Jun-07	02-Jul-07	Non Routine
61	Repaired SVE control system	19-Jul-07	31-Jul-07	Non Routine
62	Replaced hour meter	27-Aug-07	27-Aug-07	Non Routine
63	Replaced detective float switch	05-Sep-07	05-Sep-07	Non Routine
64	Replaced Influent bag filters for GWTS	22-Oct-07	22-Oct-07	Routine
65	Pressure sensors cleaned and replaced on GWTS	23-Oct-07	23-Oct-07	Non Routine
66	GWTS Carbon change out (water and vapor phase)	19-Nov-07	19-Nov-07	Routine
67	Replaced filter socks on 3 filter vessels	14-Mar-08	14-Mar-08	Routine
68	Replaced the broken effluent valve	05-Apr-08	07-Apr-08	Non Routine
69	Replaced gasket on GAC vessel #1	16-Aug-08	16-Aug-08	Routine
70	Replaced gasket on GAC vessel #1	21-Aug-08	21-Aug-08	Routine
71	SVE System Carbon change-out	05-Oct-08	5-Oct-08	Routine
72	Replaced filter bags in 3 canisters on the GWTS.	24-Feb-09	24-Feb-09	Routine
73	Replaced air stripper sump pump flow meter on GWTS.	13-Mar-09	13-Mar-09	Non-routine
74	Replace PVC pipe with iron pipe on SVE effluent/blower.	19-Mar-09	19-Mar-09	Non-routine
75	Changed out carbon in the GAC filter vessels (GWTS).	25-Jun-09	26-Jun-09	Routine
76	Replace 2" ball valve at groundwater treatment system (GWTS).	25-Sep-09	02-Oct-09	Non-routine

TABLE F-1

OPERATIONAL HISTORY
GROUNDWATER TREATMENT AND SOIL VAPOR EXTRACTION SYSTEM
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

No.	Event	Start Date	End Date	Type of Maintenance
77	Replace broken 2" ball valve, re-piped effluent piping system, added piping reinforcement (GWTS).	15-Oct-09	16-Oct-09	Non-routine
78	Replace broken one-way ball check valve (GWTS).	17-Nov-09	19-Nov-09	Non-routine
79	Repaired a loose wire at the GWTS secondary containment alarm system.	20-Jan-10	20-Jan-10	Non-routine
80	Drained condensate from GWTS VGAC vessel	11-Mar-10	11-Mar-10	Routine
81	Installed a 1 inch vacuum break anti syphon valve at the influent to the Ion Exchange system.	18-Mar-10	18-Mar-10	Non-routine
82	Performed tests of the SVE system interlock controls and auto-dialer.	18-Mar-10	18-Mar-10	Routine

Notes:

GAC - Granular Activate Carbon

GWTS - Groundwater Treatment System

PID - Photoionization Detector

PLC - Programmable Logic Controller

SVE - Soil Vapor Extraction

Appendix G
Historical Well Construction, Analytical, and Mass Removed Data

Appendix G-1
Well Construction Details

Table G-1. Well Construction Details				
Well No.	Casing Diameter (inches)	Boring Depth (ft bgs)	Screen Interval (ft bgs)	Top of Casing Elevation[a] (ft msl)
Groundwater Monitoring Wells				
MW-1A	4	101	91-101	91.61
MW-2A	4	96	86-96	90.88[b]
MW-3A	4	94	84-94	91.49[b]
MW-4A	4	89	78-88	91.13
MW-4B	2	154	144-154	91.11
MW-4C	2	237	227-237	91.25
MW-5A	2	90	60-90	90.74
MW-6A	2	90	60-90	89.72[b]
MW-7A	2	90	60-90	91.24
MW-8A	2	90	60-90	91.44
MW-9A	2	155	144-154	91.20[b]
MW-10A	2	91	60-89	90.48
MW-10B	2	160	153-163	90.21
MW-10C	2	230	220-230	90.5
MW-11A	2	92	70-90	89.91
MW-12A	2	99	87-97	91.15[b]
MW-13A	2	99	77-97	89.27
MW-14A	2	92	70-90	89.79
MW-15A	2	102	80-100	91.76
MW-16A	2	86	76-86	91.89
MW-16B	2	139	129-139	91.82
MW-16C	2	236	226-236	91.64
MW-17A	2	88	77-87	89.64
MW-17B	2	140	129-139	89.69
MW-17C	2	232	222-232	89.76
MW-18	2	66	56-66	90.14
MW-19A	2	101	91-101	91.22
MW-19B	2	147	137-147	91.08
MW-20A	2	86	76-86	90.7
MW-20B		162	152-162	90.65
MW-20C		235	225-235	90.79
EW-1	5	115	65-95	89.542
EW-1R	6	120	59-109	90.65[b]
Soil Vapor Wells				
SVE-1	2	40	18-38	89.84
SVE-2	2	13	7-12	91.36
SVE-3	2	39	13-23	91.38
SVE-4	2	39	28-38	91.38
DP-1				91.44
DP-1A	1	40	28-29	—
DP-1B	1	40	38-39	—
DP-2				91.27
DP-2A	1	40	15-16	—
DP-2B	1	40	34-35	—
DP-3				91.86
DP-3A	1	40	19-20	—
DP-3B	1	40	29-30	—

Table G-1. (Continued)				
Well No.	Casing Diameter (inches)	Boring Depth (ft bgs)	Screen Interval (ft bgs)	Top of Casing Elevation[a] (ft msl)
Soil Vapor Wells (cont'd)				
DP-4				91.92
DP-4A	1	40	23-24	—
DP-4B	1	40	38.5-39.5	—
DP-5				91.27
DP-5A	2	37	15-16	—
DP-5B	2	37	34-35	—
DP-6				91.69
DP-6A	2	36	15-16	—
DP-6B	2	36	34-35	—

[a] Wells resurveyed in February 2003.
[b] Wells resurveyed in September 2006.

bgs = below ground surface
ft = feet
msl = mean sea level

Appendix G-2
Groundwater Monitoring Well Water Table Elevation

APPENDIX G-2

GROUNDWATER MONITORING WELL WATER TABLE ELEVATION
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Monitoring Well Number	Well Depth (ft bgs)	Screened Interval (ft bgs)	Top of Casing Elevation (ft bgs)	Date	Depth to Water (feet from TOC)	Water Table Elevation (feet above MSL)
MW-1A	101	91 - 101	89.14	Apr-00[a]	NA	50.62
			89.14	Aug-00[a]	NA	50.34
			89.14	Nov-00[a]	NA	48.92
			89.14	Feb-01[a]	NA	50.28
			89.14	Aug-01	42.71	46.43
			89.14	Oct-01	44.55	44.59
			89.14	Nov-01	44.41	44.73
			89.14	Feb-02	43.17	45.97
			89.14	May-02	42.44	46.70
			89.14	Aug-02	45.60	43.54
			89.14	Nov-02	46.00	43.14
			89.14	Feb-03	44.95	44.19
			91.611	May-03	44.15	47.46
			91.61	Aug-03	45.55	46.06
			91.61	Nov-03	46.15	45.46
			91.61	Feb-04	44.70	46.91
			91.61	May-04	43.95	47.66
			91.61	Aug-04	46.20	45.41
			91.61	Nov-04	45.70	45.91
			91.61	Feb-05	44.30	47.31
			91.61	May-05	42.60	49.01
			91.61	Aug-05	43.40	48.21
			91.61	Nov-05	44.40	47.21
			91.61	Feb-06	43.04	48.57
			91.61	May-06	41.65	49.96
			91.61	Aug-06	42.53	49.08
			91.61	Aug-06[b]	43.07	48.54
			91.61	Nov-06	43.66	47.95
			91.61	Feb-07	42.34	49.27
			91.61	May-07	40.94	50.67
			91.61	Aug-07	43.25	48.36
			91.61	Nov-07	43.85	47.76
			91.61	Feb-08	42.73	48.88
			91.61	May-08	42.10	49.51
			91.61	Aug-08	43.45	48.16
			91.61	Dec-08	44.28	47.33
			91.61	Feb-09	43.71	47.90
			91.61	Jun-09	43.88	47.73
			91.61	Aug-09	49.45	42.16
			91.61	Nov-09	46.45	45.16
			91.61	Mar-10	44.81	46.80
MW-2A	96	86 - 96	88.63	Apr-00[a]	NA	50.48
			88.63	Aug-00[a]	NA	50.19
			88.63	Nov-00[a]	NA	48.80
			88.63	Feb-01[a]	NA	50.32
			88.63	Aug-01	42.00	46.63
			88.63	Oct-01	44.30	44.33
			88.63	Nov-01	44.20	44.43
			88.63	Feb-02	42.77	45.86
			88.63	May-02	42.10	46.53
			88.63	Aug-02	45.50	43.13
			88.63	Nov-02	45.70	42.93
			88.63	Feb-03	44.60	44.03
			90.911	May-03	43.75	47.16
			90.91	Aug-03	45.10	45.81
			90.91	Nov-03	45.65	45.26

APPENDIX G-2

GROUNDWATER MONITORING WELL WATER TABLE ELEVATION
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Monitoring Well Number	Well Depth (ft bgs)	Screened Interval (ft bgs)	Top of Casing Elevation (ft bgs)	Date	Depth to Water (feet from TOC)	Water Table Elevation (feet above MSL)
			90.91	Feb-04	44.13	46.78
			90.91	May-04	43.10	47.81
			90.91	Aug-04	45.81	45.10
			90.91	Nov-04	45.14	45.77
			90.91	Feb-05	43.43	47.48
			90.91	May-05	41.93	48.98
			90.91	Aug-05	42.90	48.01
			90.91	Nov-05	43.75	47.16
			90.91	Feb-06	42.25	48.66
			90.91	May-06	40.97	49.94
			90.882	Aug-06	41.52	49.36
			90.88	Aug-06[b]	44.20	46.68
			90.88	Nov-06	42.90	47.98
			90.88	Feb-07	41.61	49.27
			90.88	May-07	40.20	50.68
			90.88	Aug-07	42.52	48.36
			90.88	Nov-07	43.10	47.78
			90.88	Feb-08	42.01	48.87
			90.88	May-08	41.35	49.53
			90.88	Aug-08	42.65	48.23
			90.88	Dec-08	43.48	47.40
			90.88	Feb-09	42.94	47.94
			90.88	Jun-09	43.25	47.63
			90.88	Aug-09	44.63	46.25
			90.88	Nov-09	45.57	45.31
			90.88	Mar-10	44.02	46.86
MW-3A	94	84 - 94	89.42	Apr-00[a]	NA	50.75
			88.42	Aug-00[a]	NA	50.12
			89.42	Nov-00[a]	NA	48.62
			88.42	Feb-01[a]	NA	50.22
			89.42	Aug-01	43.00	46.42
			88.42	Oct-01	45.35	44.07
			89.42	Nov-01	44.09	45.33
			88.42	Feb-02	43.98	45.44
			89.42	May-02	43.14	46.28
			88.42	Aug-02	46.55	42.87
			89.42	Nov-02	46.70	42.72
			88.42	Feb-03	45.80	43.62
			91.591	May-03	44.10	47.49
			91.59	Aug-03	46.25	45.34
			91.59	Nov-03	47.95	43.64
			91.59	Feb-04	45.25	46.34
			91.59	May-04	44.35	47.24
			91.59	Aug-04	47.05	44.54
			91.59	Nov-04	46.52	45.07
			91.59	Feb-05	44.85	46.74
			91.59	May-05	43.20	48.39
			91.59	Aug-05	44.27	47.32
			91.59	Nov-05	46.25	45.34
			91.59	Feb-06	44.65	46.94
			91.59	May-06	43.25	48.34
			91.492	Aug-06	43.82	47.67
			91.49	Aug-06[b]	45.64	45.85
			91.49	Nov-06	46.61	44.88
			91.49	Feb-07	45.91	45.58
			91.49	May-07	41.19	50.30
			91.49	Aug-07	46.53	44.96
			91.49	Nov-07	47.2	44.29
			91.49	Feb-08	46.1	45.39

APPENDIX G-2

GROUNDWATER MONITORING WELL WATER TABLE ELEVATION
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Monitoring Well Number	Well Depth (ft bgs)	Screened Interval (ft bgs)	Top of Casing Elevation (ft bgs)	Date	Depth to Water (feet from TOC)	Water Table Elevation (feet above MSL)
			91.49	May-08	45.25	46.24
			91.49	Aug-08	46.6	44.89
			91.49	Dec-08	46.36	45.13
			91.49	Feb-09	46.18	45.31
			91.49	Jun-09	46.28	45.21
			91.49	Aug-09	47.73	43.76
			91.49	Nov-09	48.5	42.99
			91.49	Mar-10	46.77	44.72
MW-4A	89	78 - 88	88.66	Apr-00[a]	NA	50.15
			88.66	Aug-00[a]	NA	50.01
			88.66	Nov-00[a]	NA	48.11
			88.66	Feb-01[a]	NA	49.74
			88.66	Aug-01	43.50	45.16
			88.66	Oct-01	44.11	44.55
			88.66	Nov-01	44.46	44.20
			88.66	Feb-02	43.21	45.45
			88.66	May-02	42.13	46.53
			88.66	Aug-02	44.80	43.86
			88.66	Nov-02	45.50	43.16
			88.66	Feb-03	44.35	44.31
			91.131	May-03	44.05	47.08
			91.13	Aug-03	45.10	46.03
			91.13	Nov-03	46.25	44.88
			91.13	Feb-04	44.85	46.28
			91.13	May-04	44.25	46.88
			91.13	Aug-04	45.90	45.23
			91.13	Nov-04	46.32	44.81
			91.13	Feb-05	44.68	46.45
			91.13	May-05	42.90	48.23
			91.13	Aug-05	43.75	47.38
			91.13	Nov-05	44.80	46.33
			91.13	Feb-06	43.36	47.77
			91.13	May-06	41.80	49.33
			91.13	Aug-06	42.34	48.79
			91.13	Aug-06[b]	43.17	47.96
			91.13	Nov-06	44.05	47.08
			91.13	Feb-07	43.03	48.10
			91.13	May-07	40.83	50.30
			91.13	Aug-07	43.53	47.60
			91.13	Nov-07	44.39	46.74
			91.13	Feb-08	43.30	47.83
			91.13	May-08	42.36	48.77
			91.13	Aug-08	43.64	47.49
			91.13	Dec-08	44.79	46.34
			91.13	Feb-09	44.21	46.92
			91.13	Jun-09	44.18	46.95
			91.13	Aug-09	45.62	45.51
			91.13	Nov-09	46.89	44.24
MW-4B	154	144-154	91.11	Dec-08	44.73	46.38
			91.11	Feb-09	43.78	47.33
			91.11	Jun-09	44.80	46.31
			91.11	Aug-09	46.72	44.39
			91.11	Nov-09	46.73	44.38
			91.11	Mar-10	45.39	45.72
MW-4C	237	227-237	91.25	Dec-08	44.35	46.90

APPENDIX G-2

GROUNDWATER MONITORING WELL WATER TABLE ELEVATION
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Monitoring Well Number	Well Depth (ft bgs)	Screened Interval (ft bgs)	Top of Casing Elevation (ft bgs)	Date	Depth to Water (feet from TOC)	Water Table Elevation (feet above MSL)
			91.25	Feb-09	42.76	48.49
			91.25	Jun-09	49.75	41.50
			91.25	Aug-09	53.94	37.31
			91.25	Nov-09	46.00	45.25
			91.25	Mar-10	43.15	48.10
MW-5A	90	60 - 90	90.61	Apr-00[a]	NA	50.39
			90.61	Aug-00[a]	NA	50.45
			90.61	Nov-00[a]	NA	48.41
			90.61	Feb-01[a]	NA	50.11
			90.61	Aug-01	42.44	48.17
			90.61	Oct-01	43.75	46.86
			90.61	Nov-01	43.86	46.75
			90.61	Feb-02	42.65	47.96
			90.61	May-02	41.62	48.99
			90.61	Aug-02	44.60	46.01
			90.61	Nov-02	45.60	45.01
			90.61	Feb-03	44.35	46.26
			90.741	May-03	43.30	47.44
			90.74	Aug-03	44.45	46.29
			90.74	Nov-03	45.55	45.19
			90.74	Feb-04	44.13	46.61
			90.74	May-04	43.10	47.64
			90.74	Aug-04	45.12	45.62
			90.74	Nov-04	45.25	45.49
			90.74	Feb-05	43.55	47.19
			90.74	May-05	41.93	48.81
			90.74	Aug-05	42.70	48.04
			90.74	Nov-05	43.75	46.99
			90.74	Feb-06	42.36	48.38
			90.74	May-06	40.90	49.84
			90.74	Aug-06	41.47	49.27
			90.74	Aug-06[b]	42.07	48.67
			90.74	Nov-06	43.15	47.59
			90.74	Feb-07	41.95	48.79
			90.74	May-07	40.21	50.53
			90.74	Aug-07	42.55	48.19
			90.74	Nov-07	43.35	47.39
			90.74	Feb-08	42.34	48.40
			90.74	May-08	41.50	49.24
			90.74	Aug-08	42.68	48.06
			90.74	Dec-08	43.81	46.93
			90.74	Feb-09	43.33	47.41
			90.74	Jun-09	43.19	47.55
			90.74	Aug-09	44.68	46.06
			90.74	Nov-09	45.97	44.77
			90.74	Mar-10	44.43	46.31
MW-6A	90	60 - 90	89.98	Apr-00[a]	NA	50.23
			89.98	Aug-00[a]	NA	50.21
			89.98	Nov-00[a]	NA	47.96
			89.98	Feb-01[a]	NA	49.78
			89.98	Aug-01	41.30	48.68
			89.98	Oct-01	42.90	47.08
			89.98	Nov-01	43.48	46.50
			89.98	Feb-02	41.98	48.00
			89.98	May-02	40.87	49.11

APPENDIX G-2

GROUNDWATER MONITORING WELL WATER TABLE ELEVATION
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Monitoring Well Number	Well Depth (ft bgs)	Screened Interval (ft bgs)	Top of Casing Elevation (ft bgs)	Date	Depth to Water (feet from TOC)	Water Table Elevation (feet above MSL)
			89.98	Aug-02	44.20	45.78
			89.98	Nov-02	44.50	45.48
			89.98	Feb-03	43.65	46.33
			89.481	May-03	42.60	46.88
			89.48	Aug-03	44.10	45.38
			89.48	Nov-03	45.22	44.26
			89.48	Feb-04	43.45	46.03
			89.48	May-04	42.85	46.63
			89.48	Aug-04	44.62	44.86
			89.48	Nov-04	45.25	44.23
			89.48	Feb-05	43.60	45.88
			89.48	May-05	41.81	47.67
			89.48	Aug-05	42.65	46.83
			89.48	Nov-05	43.78	45.70
			89.48	Feb-06	42.35	47.13
			89.48	May-06	40.71	48.77
			89.722	Aug-06	40.86	48.86
			89.72	Aug-06[b]	41.16	48.56
			89.72	Nov-06	42.20	47.52
			89.72	Feb-07	40.94	48.78
			89.72	May-07	39.52	50.20
			89.72	Aug-07	41.61	48.11
			89.72	Nov-07	42.56	47.16
			89.72	Feb-08	41.42	48.30
			89.72	May-08	40.44	49.28
			89.72	Aug-08	41.75	47.97
			89.72	Dec-08	42.98	46.74
			89.72	Feb-09	42.32	47.40
			89.72	Jun-09	42.23	47.49
			89.72	Aug-09	43.61	46.11
			89.72	Nov-09	44.89	44.83
			89.72	Mar-10	43.49	46.23
MW-7A	90	60 - 90	91.23	Apr-00[a]	NA	50.86
			91.23	Aug-00[a]	NA	51.06
			91.23	Nov-00[a]	NA	49.24
			91.23	Feb-01[a]	NA	50.73
			91.23	Aug-01	41.33	49.90
			91.23	Oct-01	42.72	48.51
			91.23	Nov-01	43.07	48.16
			91.23	Feb-02	41.96	49.27
			91.23	May-02	40.67	50.56
			91.23	Aug-02	43.70	47.53
			91.23	Nov-02	44.60	46.63
			91.23	Feb-03	43.60	47.63
			91.241	May-03	42.65	48.59
			91.24	Aug-03	43.85	47.39
			91.24	Nov-03	45.05	46.19
			91.24	Feb-04	43.70	47.54
			91.24	May-04	42.80	48.44
			91.24	Aug-04	44.30	46.94
			91.24	Nov-04	44.98	46.26
			91.24	Feb-05	43.38	47.86
			91.24	May-05	41.82	49.42
			91.24	Aug-05	42.35	48.89
			91.24	Nov-05	43.40	47.84
			91.24	Feb-06	42.17	49.07

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GROUNDWATER MONITORING WELL WATER TABLE ELEVATION
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Monitoring Well Number	Well Depth (ft bgs)	Screened Interval (ft bgs)	Top of Casing Elevation (ft bgs)	Date	Depth to Water (feet from TOC)	Water Table Elevation (feet above MSL)
			91.24	May-06	40.82	50.42
			91.24	Aug-06	41.31	49.93
			91.24	Aug-06[b]	41.50	49.74
			91.24	Nov-06	42.53	48.71
			91.24	Feb-07	41.46	49.78
			91.24	May-07	40.21	51.03
			91.24	Aug-07	41.77	49.47
			91.24	Nov-07	42.63	48.61
			91.24	Feb-08	41.82	49.42
			91.24	May-08	40.96	50.28
			91.24	Aug-08	41.98	49.26
			91.24	Dec-08	43.15	48.09
			91.24	Feb-09	NA	NA
			91.24	Jun-09	42.65	48.59
			91.24	Aug-09	43.92	47.32
			91.24	Nov-09	45.29	45.95
			91.24	Mar-10	43.89	47.35
MW-8A	90	60 - 90	91.53	Apr-00	NA	50.52
			91.53	Aug-00	NA	50.42
			91.53	Nov-00	NA	48.54
			91.53	Feb-01	NA	50.25
			91.53	Aug-01	42.41	49.12
			91.53	Oct-01	45.60	45.93
			91.53	Nov-01	45.68	45.85
			91.53	Feb-02	44.36	47.17
			91.53	May-02	43.31	48.22
			91.53	Aug-02	46.20	45.33
			91.53	Nov-02	47.50	44.03
			91.53	Feb-03	45.65	45.88
			91.441	May-03	44.40	47.04
			91.44	Aug-03	45.40	46.04
			91.44	Nov-03	46.57	44.87
			91.44	Feb-04	45.22	46.22
			91.44	May-04	43.85	47.59
			91.44	Aug-04	46.15	45.29
			91.44	Nov-04	45.97	45.47
			91.44	Feb-05	44.35	47.09
			91.44	May-05	42.75	48.69
			91.44	Aug-05	43.39	48.05
			91.44	Nov-05	44.47	46.97
			91.44	Feb-06	43.14	48.30
			91.44	May-06	41.61	49.83
			91.44	Aug-06	42.21	49.23
			91.44	Aug-06	42.94	48.50
			91.44	Nov-06	44.03	47.41
			91.44	Feb-07	42.88	48.56
			91.44	May-07	40.96	50.48
			91.44	Aug-07	43.43	48.01
			91.44	Nov-07	44.28	47.16
			91.44	Feb-08	43.32	48.12
			91.44	May-08	42.41	49.03
			91.44	Aug-08	43.53	47.91
			91.44	Dec-08	44.73	46.71
			91.44	Feb-09	44.28	47.16
			91.44	Jun-09	44.08	47.36
			91.44	Aug-09	45.55	45.89

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GROUNDWATER MONITORING WELL WATER TABLE ELEVATION
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Monitoring Well Number	Well Depth (ft bgs)	Screened Interval (ft bgs)	Top of Casing Elevation (ft bgs)	Date	Depth to Water (feet from TOC)	Water Table Elevation (feet above MSL)
			91.44	Nov-09	46.91	44.53
			91.44	Mar-10	45.39	46.05
MW-9B	155	144 - 154	91.19	Apr-00[a]	NA	50.24
			91.19	Aug-00[a]	NA	48.38
			91.19	Nov-00[a]	NA	47.72
			91.19	Feb-01[a]	NA	50.05
			91.19	Aug-01	44.04	47.15
			91.19	Oct-01	45.17	46.02
			91.19	Nov-01	44.76	46.43
			91.19	Feb-02	42.64	48.55
			91.19	May-02	42.72	48.47
			91.19	Aug-02	47.05	44.14
			91.19	Nov-02	45.90	45.29
			91.19	Feb-03	44.45	46.74
			91.181	May-03	44.20	46.98
			91.18	Aug-03	47.00	44.18
			91.18	Nov-03	46.55	44.63
			91.18	Feb-04	44.37	46.81
			91.18	May-04	44.55	46.63
			91.18	Aug-04	47.25	43.93
			91.18	Nov-04	46.42	44.76
			91.18	Feb-05	44.45	46.73
			91.18	May-05	43.15	48.03
			91.18	Aug-05	45.25	45.93
			91.18	Nov-05	45.40	45.78
			91.18	Feb-06	43.31	47.87
			91.18	May-06	42.30	48.88
			91.202	Aug-06	43.51	47.69
			91.2	Aug-06[b]	43.98	47.22
			91.20	Nov-06	43.80	47.40
			91.20	Feb-07	42.14	49.06
			91.20	May-07	40.52	50.68
			91.20	Aug-07	44.37	46.83
			91.20	Nov-07	44.05	47.15
			91.20	Feb-08	42.45	48.75
			91.20	May-08	42.54	48.66
			91.20	Aug-08	44.50	46.70
			91.20	Dec-08	44.47	46.73
			91.20	Feb-09	43.62	47.58
			91.20	Jun-09	44.52	46.68
			91.20	Aug-09	46.54	44.66
			91.20	Nov-09	46.52	44.68
			91.20	Mar-10	44.47	46.73
MW-10A	91	60 - 89	90.47	Apr-00[a]	NA	49.66
			90.47	Aug-00[a]	NA	50.67
			90.47	Nov-00[a]	NA	46.94
			90.47	Feb-01[a]	NA	49.03
			90.47	Aug-01	42.54	47.93
			90.47	Oct-01	44.19	46.28
			90.47	Nov-01	44.51	45.96
			90.47	Feb-02	42.93	47.54
			90.47	May-02	41.86	48.61
			90.47	Aug-02	45.20	45.27
			90.47	Nov-02	46.00	44.47
			90.47	Feb-03	44.70	45.77

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GROUNDWATER MONITORING WELL WATER TABLE ELEVATION
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Monitoring Well Number	Well Depth (ft bgs)	Screened Interval (ft bgs)	Top of Casing Elevation (ft bgs)	Date	Depth to Water (feet from TOC)	Water Table Elevation (feet above MSL)
			90.481	May-03	43.55	46.93
			90.48	Aug-03	45.20	45.28
			90.48	Nov-03	46.35	44.13
			90.48	Feb-04	44.70	45.78
			90.48	May-04	43.85	46.63
			90.48	Aug-04	45.81	44.67
			90.48	Nov-04	46.48	44.00
			90.48	Feb-05	44.74	45.74
			90.48	May-05	42.87	47.61
			90.48	Aug-05	43.90	46.58
			90.48	Nov-05	45.07	45.41
			90.48	Feb-06	43.45	47.03
			90.48	May-06	41.70	48.78
			90.48	Aug-06	42.33	48.15
			90.48	Aug-06[b]	42.59	47.89
			90.48	Nov-06	43.51	46.97
			90.48	Feb-07	42.21	48.27
			90.48	May-07	40.81	49.67
			90.48	Aug-07	43.03	47.45
			90.48	Nov-07	43.96	46.52
			90.48	Feb-08	42.70	47.78
			90.48	May-08	41.77	48.71
			90.48	Aug-08	43.24	47.24
			90.48	Dec-08	44.40	46.08
			90.48	Feb-09	43.69	46.79
			90.48	Jun-09	43.55	46.93
			90.48	Aug-09	45.02	45.46
			90.48	Nov-09	46.34	44.14
			90.48	Mar-10	44.68	45.80
MW-10B	163	153-163	90.21	Dec-08	44.12	46.09
			90.21	Feb-09	43.18	47.03
			90.21	Jun-09	43.90	46.31
			90.21	Aug-09	45.81	44.40
			90.21	Nov-09	46.07	44.14
			90.21	Mar-10	44.01	46.20
MW-10C	230	220-230	90.5	Dec-08	44.13	46.37
			90.5	Feb-09	42.50	48.00
			90.5	Jun-09	48.50	42.00
			90.5	Aug-09	53.44	37.06
			90.5	Nov-09	45.75	44.75
			90.5	Mar-10	42.87	47.63
MW-11A	92	70 - 90	89.91	Apr-00[a]	NA	50.83
			89.91	Aug-00[a]	NA	50.64
			89.91	Nov-00[a]	NA	49.38
			89.91	Feb-01[a]	NA	50.93
			89.91	Aug-01	40.32	49.59
			89.91	Oct-01	41.50	48.41
			89.91	Nov-01	43.12	46.79
			89.91	Feb-02	40.15	49.76
			89.91	May-02	39.56	50.35
			89.91	Aug-02	42.60	47.31
			89.91	Nov-02	43.90	46.01
			89.91	Feb-03	41.90	48.01

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GROUNDWATER MONITORING WELL WATER TABLE ELEVATION
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Monitoring Well Number	Well Depth (ft bgs)	Screened Interval (ft bgs)	Top of Casing Elevation (ft bgs)	Date	Depth to Water (feet from TOC)	Water Table Elevation (feet above MSL)
			89.911	May-03	41.15	48.76
			89.91	Aug-03	42.65	47.26
			89.91	Nov-03	43.52	46.39
			89.91	Feb-04	42.00	47.91
			89.91	May-04	41.35	48.56
			89.91	Aug-04	42.86	47.05
			89.91	Nov-04	43.35	46.56
			89.91	Feb-05	41.75	48.16
			89.91	May-05	40.22	49.69
			89.91	Aug-05	40.85	49.06
			89.91	Nov-05	41.80	48.11
			89.91	Feb-06	40.53	49.38
			89.91	May-06	39.27	50.64
			89.91	Aug-06	39.86	50.05
			89.91	Aug-06[b]	40.05	49.86
			89.91	Nov-06	40.90	49.01
			89.91	Feb-07	39.79	50.12
			89.91	May-07	38.74	51.17
			89.91	Aug-07	40.34	49.57
			89.91	Nov-07	41.07	48.84
			89.91	Feb-08	40.11	49.80
			89.91	May-08	39.38	50.53
			89.91	Aug-08	40.47	49.44
			89.91	Dec-08	41.47	48.44
			89.91	Feb-09	41.01	48.90
			89.91	Jun-09	41.12	48.79
			89.91	Aug-09	42.44	47.47
			89.91	Nov-09	43.52	46.39
			89.91	Mar-10	42.15	47.76
MW-12A	99	87 - 97	91.17	Apr-00[a]	NA	50.01
			91.17	Aug-00[a]	NA	49.45
			91.17	Nov-00[a]	NA	47.28
			91.17	Feb-01[a]	NA	49.51
			91.17	Aug-01	43.18	47.99
			91.17	Oct-01	44.63	46.54
			91.17	Nov-01	44.86	46.31
			91.17	Feb-02	43.21	47.96
			91.17	May-02	42.04	49.13
			91.17	Aug-02	46.10	45.07
			91.17	Nov-02	46.30	44.87
			91.17	Feb-03	45.05	46.12
			91.151	May-03	44.50	46.65
			91.15	Aug-03	46.20	44.95
			91.15	Nov-03	46.88	44.27
			91.15	Feb-04	44.95	46.20
			91.15	May-04	44.50	46.65
			91.15	Aug-04	46.75	44.40
			91.15	Nov-04	47.02	44.13
			91.15	Feb-05	45.10	46.05
			91.15	May-05	43.52	47.63
			91.15	Aug-05	44.95	46.20
			91.15	Nov-05	45.80	45.35
			91.15	Feb-06	44.01	47.14
			91.15	May-06	42.41	48.74
			91.152	Aug-06	43.22	47.93
			91.15	Aug-06[b]	43.51	47.64

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GROUNDWATER MONITORING WELL WATER TABLE ELEVATION
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Monitoring Well Number	Well Depth (ft bgs)	Screened Interval (ft bgs)	Top of Casing Elevation (ft bgs)	Date	Depth to Water (feet from TOC)	Water Table Elevation (feet above MSL)
			91.15	Nov-06	44.05	47.10
			91.15	Feb-07	42.61	48.54
			91.15	May-07	41.44	49.71
			91.15	Aug-07	43.91	47.24
			91.15	Nov-07	44.43	46.72
			91.15	Feb-08	43.02	48.13
			91.15	May-08	42.45	48.70
			91.15	Aug-08	44.15	47.00
			91.15	Dec-08	44.90	46.25
			91.15	Feb-09	44.14	47.01
			91.15	Jun-09	44.27	46.88
			91.15	Aug-09	46.04	45.11
			91.15	Nov-09	47.02	44.13
			91.15	Mar-10	45.17	45.98
MW-13A	99	77 - 97	89.33	Apr-00[a]	NA	49.21
			89.33	Aug-00[a]	NA	49.30
			89.33	Nov-00[a]	NA	46.88
			89.33	Feb-01[a]	NA	48.67
			89.33	Aug-01	41.68	47.65
			89.33	Oct-01	43.23	46.10
			89.33	Nov-01	43.64	45.69
			89.33	Feb-02	41.99	47.34
			89.33	May-02	40.82	48.51
			89.33	Aug-02	44.10	45.23
			89.33	Nov-02	44.70	44.63
			89.33	Feb-03	43.60	45.73
			89.271	May-03	42.35	46.92
			89.27	Aug-03	43.80	45.47
			89.27	Nov-03	45.25	44.02
			89.27	Feb-04	43.72	45.55
			89.27	May-04	42.65	46.62
			89.27	Aug-04	42.65	46.62
			89.27	Nov-04	45.30	43.97
			89.27	Feb-05	43.63	45.64
			89.27	May-05	41.75	47.52
			89.27	Aug-05	42.45	46.82
			89.27	Nov-05	43.70	45.57
			89.27	Feb-06	42.31	46.96
			89.27	May-06	40.52	48.75
			89.27	Aug-06	40.92	48.35
			89.27	Aug-06[b]	41.08	48.19
			89.27	Nov-06	42.15	47.12
			89.27	Feb-07	40.99	48.28
			89.27	May-07	39.68	49.59
			89.27	Aug-07	41.80	47.47
			89.27	Nov-07	42.64	46.63
			89.27	Feb-08	41.48	47.79
			89.27	May-08	40.38	48.89
			89.27	Aug-08	41.66	47.61
			89.27	Dec-08	43.01	46.26
			89.27	Feb-09	42.40	46.87
			89.27	Jun-09	42.25	47.02
			89.27	Aug-09	43.40	45.87
			89.27	Nov-09	44.84	44.43
			89.27	Mar-10	43.44	45.83

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GROUNDWATER MONITORING WELL WATER TABLE ELEVATION
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Monitoring Well Number	Well Depth (ft bgs)	Screened Interval (ft bgs)	Top of Casing Elevation (ft bgs)	Date	Depth to Water (feet from TOC)	Water Table Elevation (feet above MSL)
MW-14A	92	70 - 90	89.81	Apr-00[a]	NA	50.19
			89.81	Aug-00[a]	NA	49.93
			89.81	Nov-00[a]	NA	48.39
			89.81	Feb-01[a]	NA	49.95
			89.81	Aug-01	41.21	48.60
			89.81	Oct-01	42.57	47.24
			89.81	Nov-01	42.89	46.92
			89.81	Feb-02	41.35	48.46
			89.81	May-02	40.60	49.21
			89.81	Aug-02	43.80	46.01
			89.81	Nov-02	44.00	45.81
			89.81	Feb-03	43.10	46.71
			89.791	May-03	42.15	47.64
			89.79	Aug-03	43.30	46.49
			89.79	Nov-03	44.60	45.19
			89.79	Feb-04	43.03	46.76
			89.79	May-04	42.33	47.46
			89.79	Aug-04	43.85	45.94
			89.79	Nov-04	44.40	45.39
			89.79	Feb-05	42.87	46.92
			89.79	May-05	41.20	48.59
			89.79	Aug-05	41.85	47.94
			89.79	Nov-05	42.90	46.89
			89.79	Feb-06	41.60	48.19
			89.79	May-06	40.15	49.64
			89.79	Aug-06	40.49	49.30
			89.79	Aug-06[b]	40.72	49.07
			89.79	Nov-06	41.72	48.07
			89.79	Feb-07	40.60	49.19
			89.79	May-07	39.31	50.48
			89.79	Aug-07	41.18	48.61
			89.79	Nov-07	42.03	47.76
			89.79	Feb-08	41.05	48.74
			89.79	May-08	40.15	49.64
			89.79	Aug-08	41.35	48.44
			89.79	Dec-08	42.45	47.34
			89.79	Feb-09	41.92	47.87
			89.79	Jun-09	41.95	47.84
			89.79	Aug-09	43.18	46.61
			89.79	Nov-09	44.40	45.39
			89.79	Mar-10	43.04	46.75
MW-15A	102	80 - 100	91.75	Apr-00[a]	NA	50.80
			91.75	Aug-00[a]	NA	50.40
			91.75	Nov-00[a]	NA	48.76
			91.75	Feb-01[a]	NA	50.55
			91.75	Aug-01	42.48	49.27
			91.75	Oct-01	43.88	47.87
			91.75	Nov-01	44.05	47.70
			91.75	Feb-02	42.73	49.02
			91.75	May-02	41.92	49.83
			91.75	Aug-02	45.10	46.65
			91.75	Nov-02	45.60	46.15
			91.75	Feb-03	44.45	47.30
			91.761	May-03	44.05	47.71
			91.76	Aug-03	45.25	46.51
			91.76	Nov-03	46.05	45.71
			91.76	Feb-04	44.46	47.30

APPENDIX G-2

GROUNDWATER MONITORING WELL WATER TABLE ELEVATION
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Monitoring Well Number	Well Depth (ft bgs)	Screened Interval (ft bgs)	Top of Casing Elevation (ft bgs)	Date	Depth to Water (feet from TOC)	Water Table Elevation (feet above MSL)
			91.76	May-04	43.85	47.91
			91.76	Aug-04	45.82	45.94
			91.76	Nov-04	46.05	45.71
			91.76	Feb-05	44.30	47.46
			91.76	May-05	42.85	48.91
			91.76	Aug-05	43.95	47.81
			91.76	Nov-05	44.80	46.96
			91.76	Feb-06	43.26	48.50
			91.76	May-06	41.92	49.84
			91.76	Aug-06	42.66	49.10
			91.76	Aug-06[b]	42.90	48.86
			91.76	Nov-06	43.55	48.21
			91.76	Feb-07	42.30	49.46
			91.76	May-07	41.09	50.67
			91.76	Aug-07	43.20	48.56
			91.76	Nov-07	43.80	47.96
			91.76	Feb-08	42.65	49.11
			91.76	May-08	42.05	49.71
			91.76	Aug-08	43.40	48.36
			91.76	Dec-08	44.25	47.51
			91.76	Feb-09	43.68	48.08
			91.76	Jun-09	43.86	47.90
			91.76	Aug-09	45.47	46.29
			91.76	Nov-09	46.46	45.30
			91.76	Mar-10	44.82	46.94
MW-16A	86	76-86	91.89	Dec-08	47.01	44.88
			91.89	Feb-09	45.81	46.08
			91.89	Jun-09	46.43	45.46
			91.89	Aug-09	48.65	43.24
			91.89	Nov-09	48.95	42.94
			91.89	Mar-10	46.55	45.34
MW-16B	139	129-139	91.82	Dec-08	46.98	44.84
			91.82	Feb-09	45.75	46.07
			91.82	Jun-09	46.40	45.42
			91.82	Aug-09	48.67	43.15
			91.82	Nov-09	48.90	42.92
			91.82	Mar-10	46.48	45.34
MW-16C	236	226-236	91.64	Dec-08	46.70	44.94
			91.64	Feb-09	45.01	46.63
			91.64	Jun-09	50.05	41.59
			91.64	Aug-09	54.46	37.18
			91.64	Nov-09	48.52	43.12
			91.64	Mar-10	45.51	46.13
MW-17A	88	77-87	89.64	Dec-08	44.20	45.44
			89.64	Feb-09	43.45	46.19
			89.64	Jun-09	43.25	46.39
			89.64	Aug-09	44.43	45.21
			89.64	Nov-09	46.03	43.61
			89.64	Mar-10	44.36	45.28
MW-17B	140	129-139	89.69	Dec-08	44.39	45.30
			89.69	Feb-09	43.41	46.28
			89.69	Jun-09	43.60	46.09
			89.69	Aug-09	45.29	44.40
			89.69	Nov-09	46.20	43.49

APPENDIX G-2

GROUNDWATER MONITORING WELL WATER TABLE ELEVATION
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Monitoring Well Number	Well Depth (ft bgs)	Screened Interval (ft bgs)	Top of Casing Elevation (ft bgs)	Date	Depth to Water (feet from TOC)	Water Table Elevation (feet above MSL)
			89.69	Mar-10	44.21	45.48
MW-17C	232	222-232	89.76	Dec-08	44.33	45.43
			89.76	Feb-09	42.55	47.21
			89.76	Jun-09	48.68	41.08
			89.76	Aug-09	52.98	36.78
			89.76	Nov-09	45.91	43.85
			89.76	Mar-10	43.06	46.70
MW-18A	66	56-66	90.14	Dec-08	44.47	45.67
			90.14	Feb-09	43.70	46.44
			90.14	Jun-09	43.57	46.57
			90.14	Aug-09	45.03	45.11
			90.14	Nov-09	46.35	43.79
			90.14	Mar-10	44.58	45.56
MW-19A	101	91-101	91.22	Dec-08	45.51	45.71
			91.22	Feb-09	44.55	46.67
			91.22	Jun-09	45.45	45.77
			91.22	Aug-09	47.14	44.08
			91.22	Nov-09	47.50	43.72
			91.22	Mar-10	45.43	45.79
MW-19B	147	137-147	91.08	Dec-08	45.89	45.19
			91.08	Feb-09	44.76	46.32
			91.08	Jun-09	46.07	45.01
			91.08	Aug-09	48.26	42.82
			91.08	Nov-09	47.92	43.16
			91.08	Mar-10	45.55	45.53
MW-20A	86	76-86	90.70	Dec-08	45.27	45.43
			90.70	Feb-09	44.31	46.39
			90.70	Jun-09	44.56	46.14
			90.70	Aug-09	47.12	43.58
			90.70	Nov-09	47.26	43.44
			90.70	Mar-10	45.28	45.42
MW-20B	162	152-162	90.65	Dec-08	45.45	45.20
			90.65	Feb-09	44.36	46.29
			90.65	Jun-09	45.08	45.57
			90.65	Aug-09	48.22	42.43
			90.65	Nov-09	47.40	43.25
			90.65	Mar-10	45.19	45.46
MW-20C	235	225-235	90.79	Dec-08	45.01	45.78
			90.79	Feb-09	43.53	47.26
			90.79	Jun-09	48.60	42.19
			90.79	Aug-09	53.44	37.35
			90.79	Nov-09	46.73	44.06
			90.79	Mar-10	43.84	46.95
EW-1			89.54	Nov-06	43.40	46.14
			89.54	Feb-07	42.21	47.33
			89.54	May-07	40.28	49.26
			89.54	Aug-07	42.90	46.64
			89.54	Feb-08	42.48	47.06
			89.54	May-08	41.75	47.79
			89.54	Aug-08	42.99	47.66
			89.54	Feb-09	43.55	45.99
			89.54	Jun-09	43.34	46.20
			89.54	Aug-09	44.99	44.55

APPENDIX G-2

GROUNDWATER MONITORING WELL WATER TABLE ELEVATION
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Monitoring Well Number	Well Depth (ft bgs)	Screened Interval (ft bgs)	Top of Casing Elevation (ft bgs)	Date	Depth to Water (feet from TOC)	Water Table Elevation (feet above MSL)
			89.54	Nov-09	46.16	43.38
EW-1R[3]	114	59-109	90.65	Aug-06	41.80	48.85
			90.65	Aug-06[b]	48.70	41.95
			90.65	Nov-06	49.40	41.25
			90.65	Feb-07	48.24	42.41
			90.65	May-07	40.33	50.32
			90.65	Aug-07	48.60	42.05
			90.65	Nov-07	49.50	41.15
			90.65	Feb-08	49.98	40.67
			90.65	May-08	49.50	41.15
			90.65	Aug-08	51.51	39.14
			90.65	Dec-08	52.16	38.49
			90.65	Feb-09	53.88	36.77
			90.65	Jun-09	52.04	38.61
			90.65	Aug-09	54.86	35.79
			90.65	Nov-09	55.82	34.83
			90.65	Mar-10	54.23	36.42

Notes:
[1]Wells re-surveyed in May 2003.
[2]Wells re-surveyed in September 2006

[3]EW-1R is the replacement extraction well. It was installed in August 2006 and started on August 24, 2006.
[a]Historical data from Ecology and Environment
[b]Second round of Aug. 2006 water levels recorded after the start of EW-1R

ft bgs - feet below ground surface
MSL - Mean Sea Level
MW- Monitoring Well
NA - Not Applicable
TOC - Top of Casing

Appendix G-3
Groundwater Monitoring Well Analytical Summary Results

APPENDIX G-3

GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY RESULTS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Well Identification	Date	pH	PCE (µg/L)	TCE (µg/L)	1,2 - Dichloroethene (µg/L)	Chloroform (µg/L)	Comments:
MW-1A	8/21/2001	7.60	**5.0**	< 5.0	< 5.0	< 5.0	
	11/15/2001	7.60	**9.0**	< 5.0	< 5.0	< 5.0	
	2/18/2002	7.20	**9.0**	< 5.0	< 5.0	< 5.0	
	5/23/2002	7.10	**8.0**	< 5.0	< 5.0	< 5.0	
	8/19/2002	7.60	**11.0**	< 5.0	< 5.0	< 5.0	
	11/19/2002	8.20	**25.0**	< 5.0	< 5.0	< 5.0	Napthalene (1 BJ)
	2/18/2003	8.20	**16.0**	< 5.0	< 5.0	< 5.0	
	5/28/2003	7.30	**10.0**	< 5.0	< 5.0	< 5.0	
	8/26/2003	7.50	**11.0**	< 5.0	< 5.0	< 5.0	
	11/19/2003	7.40	**8.0**	<5.0	<5.0	<5.0	
	2/5/2004	7.50	**9.4**	< 5.0	< 5.0	< 5.0	
	5/18/2004	7.40	**8.3**	<5.0	<5.0	<5.0	
	8/24/2004	7.00	**14.0**	< 5.0	< 5.0	< 5.0	
	11/16/2004	7.10	**13.0**	<5.0	<5.0	<5.0	
	3/1/2005	7.40	**12.0**	< 5.0	< 5.0	< 5.0	
	5/24/2005	7.40	**8.3**	< 5.0	< 5.0	< 5.0	
	8/23/2005	7.60	**6.7**	< 5.0	< 5.0	< 5.0	
	11/15/2005	7.50	**5.2**	< 5.0	< 5.0	< 5.0	
	2/21/2006	7.50	**7.0**	< 5.0	< 5.0	< 5.0	
	5/23/2006	7.40	**4.1 J**	< 5.0	< 5.0	< 5.0	
	8/22/2006	7.30	**3.8**	< 5.0	< 5.0	< 5.0	
	11/15/2006	7.30	**3.8 J+**	<0.5	< 0.5[a]	**0.4**	
	2/13/2007	7.20	**3.3**	<0.5	< 0.5[a]	**0.4 J**	
	5/22/2007	7.70	**3.1**	<0.5	< 0.5[a]	**0.4**	
	8/21/2007	7.40	**3.4**	<0.5	< 0.5[a]	**0.4 J**	
	11/27/2007	7.16	**2.5**	<0.5	< 0.5[a]	**0.4 J**	
	2/27/2008	7.30	**2.2**	<0.5	< 0.5[a]	**0.3 J**	
	5/20/2008	7.32	**2.1**	<0.5	< 0.5[a]	**0.3 UJ**	
	8/19/2008	7.40	**3.0**	<0.5	< 0.5[a]	**0.3 J**	
	12/10/2008	6.30	**2 J+**	<0.5	< 0.5[a]	<0.5	
	2/17/2009	7.20	**2.3**	<0.5	< 0.5[a]	<0.5	
	6/3/2009	7.39	**2.3**	< 0.5	< 0.5[a]	**0.5**	
	8/11/2009	7.15	**1.4**	< 0.5	< 0.5[a]	< 0.5	
	11/11/2009	7.57	**1.7**	< 0.5	< 0.5[a]	**0.2**	
	3/10/2010	7.53	**1.9**	< 0.5	NA	< 0.5	
MW-2A	8/21/2001	7.70	**12.0**	< 5.0	< 5.0	< 5.0	
	11/12/2010	7.50	**10.0**	< 5.0	< 5.0	< 5.0	
	2/18/2002	7.20	**13.0**	< 5.0	< 5.0	< 5.0	
	5/23/2002	7.00	**14.0**	< 5.0	< 5.0	< 5.0	
	8/19/2002	7.80	**2.0 J**	< 5.0	< 5.0	< 5.0	
	11/19/2002	7.80	**12.0**	< 5.0	< 5.0	< 5.0	
	2/18/2003	7.80	**12.0**	< 5.0	< 5.0	< 5.0	
	5/28/2003	7.60	**10.0**	< 5.0	< 5.0	< 5.0	
	8/26/2003	8.00	**11.0**	< 5.0	< 5.0	**1.0J**	
	11/19/2003	7.40	**10.0**	<5.0	<5.0	**2.0J**	
	2/5/2004	7.50	**9.2**	< 5.0	< 5.0	< 5.0	
	5/18/2004	7.40	**8.2**	<5.0	<5.0	<5.0	
	8/24/2004	7.10	**9.1**	< 5.0	< 5.0	< 5.0	
	11/16/2004	7.10	**6.9**	<5.0	<5.0	**2.7 J**	
	3/1/2005	7.50	**8.4**	< 5.0	< 5.0	**2.8 J**	
	5/24/2005	7.50	**8.6**	< 5.0	< 5.0	< 5.0	
	8/23/2005	7.60	**11.0**	< 5.0	< 5.0	< 5.0	
	11/15/2005	7.50	**9.8**	< 5.0	< 5.0	< 5.0	
	2/21/2006	7.60	**13.0**	< 5.0	< 5.0	< 5.0	
	5/23/2006	7.40	**10.0**	< 5.0	< 5.0	< 5.0	
	8/22/2006	7.40	**10.0**	< 5.0	< 5.0	**1.3**	
	11/15/2006	7.50	**8.1**	<0.5	< 0.5[a]	**2.6**	
	2/13/2007	7.40	**8.7**	<0.5	< 0.5[a]	**3.0**	

APPENDIX G-3

GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY RESULTS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Well Identification	Date	pH	PCE (µg/L)	TCE (µg/L)	1,2 - Dichloroethene (µg/L)	Chloroform (µg/L)	Comments:
	5/22/2007	7.70	**8.3**	<0.5	< 0.5[a]	**2.7**	
	8/21/2007	7.60	**9.0**	<0.5	< 0.5[a]	**3.2**	
	11/27/2007	7.31	**9.2**	<0.5	< 0.5[a]	**2.6**	
	2/27/2008	7.41	**6.1**	<0.5	< 0.5[a]	**3.0**	
	5/20/2008	7.45	**6.9**	<0.5	< 0.5[a]	**2.2**	
	8/19/2008	7.45	**7.4**	<0.5	< 0.5[a]	**3.0**	
	12/10/2008	7.80	**5.8**	<0.5	< 0.5[a]	**2.7**	
	2/18/2009	7.47	**5.3**	<0.5	< 0.5[a]	**3.0**	
	6/3/2009	7.42	**5.7**	< 0.5	< 0.5[a]	**3.1**	
	8/12/2009	7.30	**4.8**	< 0.5	< 0.5[a]	**2.5**	
	11/11/2009	7.47	**5.9**	< 0.5	< 0.5[a]	**2.7**	
	3/9/2010	7.13	**5.8**	< 5.0	NA	**2.5**	
MW-3A	8/22/2001	7.50	**3,100 D**	**9.0**	**2.0 J**	< 5.0	
	11/15/2001	7.40	**3,500 D**	**7.0**	**2.0 J**	< 5.0	
	2/19/2002	7.50	**4,300 D**	**8.0**	< 5.0	< 5.0	cis - 1,2 - Dichloroethane (3J)
	5/23/2002	7.30	**1,500 D**	< 5.0	< 5.0	< 5.0	
	8/19/2002	8.00	**1,700 D**	< 5.0	< 5.0	**2.0 J**	
	11/19/2002	7.70	**980 D**	< 5.0	< 5.0	**1.0 J**	
	2/18/2003	7.70	**580 D**	< 50.0	< 50.0	< 50.0	Methylene Chloride (7 J)
	5/29/2003	7.50	**690 D**	**2.0 J**	< 5.0	**1.0 J**	
	8/26/2003	7.80	**900D**	<5.0	<5.0	**2.0 J**	
	11/20/2003	7.40	**600D**	**2.0 J**	<5.0	**2.0J**	
	2/6/2004	7.40	**870 D**	**2.9 J**	<5.0	<5.0	
	5/19/2004	7.40	**520 D**	< 5.0	< 5.0	< 5.0	
	8/25/2004	7.20	**1,000 D**	**3.2 J**	<5.0	<5.0	
	11/16/2004	7.30	**780 D**	**3.2 J**	< 5.0	< 5.0	
	3/1/2005	7.60	**1,100 D**	**4.6 J**	<5.0	<5.0	
	5/24/2005	7.50	**810 J**	**4.4 J**	< 5.0	< 5.0	
	8/23/2005	8.60	**910 J**	**4.9 J**	<5.0	<5.0	
	11/15/2005	7.60	**880**	**5.0**	< 5.0	< 5.0	
	2/21/2006	7.50	**1,300 J**	**5.6**	<5.0	<5.0	
	5/23/2006	7.60	**1,100 E**	**5.3**	<5.0	<5.0	
	8/22/2006	7.48	**1,200**	**5.0**	**0.7**	**0.9**	
	11/15/2006	7.60	**690 J+**	**1.8**	< 0.5[a]	**0.8 J**	
	2/13/2007	7.30	**610**	**1.4**	< 0.5[a]	**0.8**	
	5/22/2007	7.60	**230**	**0.7**	< 0.5[a]	**0.6**	
	8/21/2007	7.60	**270**	**0.7**	< 0.5[a]	**1**	
	11/27/2007	7.22	**280**	**0.5**	< 0.5[a]	**0.7**	
	2/27/2008	7.42	**230**	**0.5**	< 0.5[a]	**0.6**	
	5/20/2008	7.56	**180**	**0.4 J**	< 0.5[a]	**0.8 U**	
	8/19/2008	7.60	**130**	**0.5**	< 0.5[a]	**1.6**	
	12/10/2008	7.70	**87**	< 0.5 U	< 0.5[a] U	**1.7**	
	2/19/2009	7.56	**57**	<0.5	< 0.5[a]	**1.3**	
	6/10/2009	7.34	**75**	< 0.5	< 0.5[a]	**1.3**	
	8/14/2009	7.72	**45**	< 0.5	< 0.5[a]	**1.1**	
	11/12/2009	7.31	**40**	< 0.5	< 0.5[a]	**1.4**	
	3/11/2010	7.06	**42**	< 0.5	NA	**1.3**	
MW-4A	8/22/2001	7.40	**1,200 D**	< 5.0	< 5.0	< 5.0	
	11/13/2001	7.40	**8**	< 5.0	< 5.0	< 5.0	
	12/13/01[a]	7.20	**900 D**	**3.0 DJ**	< 10.0	< 10.0	
	2/19/2002	7.30	**1,200 D**	**37 DJ**	< 5.0	< 5.0	
	5/23/2002	7.30	**700 D**	< 5.0	< 5.0	< 5.0	
	8/19/2002	7.60	**1,000 D**	< 5.0	< 5.0	< 5.0	

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Well Identification	Date	pH	PCE (µg/L)	TCE (µg/L)	1,2 - Dichloroethene (µg/L)	Chloroform (µg/L)	Comments:
	11/19/2002	7.50	**880 D**	**2.0 J**	< 5.0	**2.0 J**	cis-1,2-Dichloroethene (1 J) Napthalene (1 BJ) 1,2,3-Trichlorobenzene (1 J)
	2/18/2003	7.50	**710**	< 50.0	< 50.0	< 50.0	Methylene Chloride (9 J)
	5/29/2003	7.50	**880 D**	**1.0 J**	< 5.0	**3.0 J**	
	8/26/2003	8.40	**1,300 D**	**1.0 J**	<5.0	**3.0 J**	
	11/20/2003	7.40	**770 D**	**0.7J**	<5.0	**4.0J**	
	2/6/2004	7.40	**560 D**	<5.0	<5.0	**3.5 J**	
	5/19/2004	7.30	**580 D**	< 5.0	< 5.0	**3.3 J**	
	8/25/2004	7.10	**690 D**	<5.0	<5.0	**4.1 J**	
	11/17/2004	7.10	**800 D**	< 5.0	< 5.0	**4.7 J**	
	3/2/2005	7.40	**830 D**	<5.0	<5.0	**4.5 J**	
	5/25/2005	7.40	**1,100 J**	< 5.0	< 5.0	**3.6 J**	
	8/24/2005	7.60	**1,900 J**	<5.0	<5.0	**3.3 J**	
	11/16/2005	7.40	**1,200 J**	< 5.0 UJ	< 5.0 UJ	**2.9 UJ**	
	2/22/2006	7.40	**2,100**	**3.0**	<5.0	**3.0 J**	
	5/24/2006	7.40	**2,000 E**	<5.0	<5.0	**2.5 J**	
	8/23/2006	7.30	**1,500**	**0.9**	<5.0	**1.2**	1,1,1,2-Tetrachloroethane (0.5)
	11/16/2006	7.40	**1,600**	**1.3**	< 0.5[a]	**1.6 U**	
	2/14/2007	7.20	**2,400**	**1.6**	< 0.5[a]	**2.9**	
	5/23/2007	7.70	**1,700**	**1.0**	**0.7**	**1.7**	1,1,1,2-Tetrachloroethane (0.6)
	8/22/2007	7.30	**2,400**	**1.7**	**1.0[a]**	**2.4**	1,1,1,2-Tetrachloroethane (0.8)
	11/28/2007	7.14	**2,300**	**1.5**	**0.9**	**2.1**	
	2/27/2008	7.32	**1,700**	<2.5	<2.5[s]	**1.9**	
	5/21/2008	7.37	**2,200**	**1.7**	< 0.5[a]	**2**	cis-1,2-Dichloroethene (1.4 J) 1,1,1,2-Tetrachloroethane (1) Dichloro- difluoromethane (0.6 J+)
	8/20/2008	7.37	**1,100**	**1.9**	<2.5[s]	**2.1**	
	12/9/2008	7.80	**2,200**	**1.6**	< 0.5[a]	**1.8 U**	
	2/18/2009	7.36	**1,100**	**1.5**	< 0.5[a]	**1.5**	cis-1,2-Dichloroethene (1.4 J) 1,1,1,2-Tetrachloroethane (0.7)
	6/3/2009	7.34	**3,000**	**1.8**	< 0.5[a]	**1.9**	cis-1,2-Dichloroethene (1.8) 1,1,1,2-Tetrachloroethane (1.0)
	8/12/2009	7.18	**1,300**	**1.5**	< 0.5[a]	**1.6**	cis-1,2-Dichloroethene (1.4) 1,1,1,2-Tetrachloroethane (0.8)
	11/10/2009	7.52	**1,900**	**1.7**	< 0.5[a]	**1.8**	cis-1,2-Dichloroethene (2) 1,1,1,2-Tetrachloroethane (0.9)
	3/10/2010	7.82	**510**	**0.4 J**	NA	**0.4 J**	Dichloromethane (0.2) cis-1,2-Dichloroethene (0.3)
MW-4B	12/9/2008	7.56	**9.6 J-**	<0.5	< 0.5[a]	<0.5	
	2/20/2009	7.68	**4.4**	<0.5	< 0.5[a]	**0.3**	
	6/10/2009	7.64	**7.2 J-**	< 0.5	< 0.5[a]	**0.4 J**	
	8/13/2009	7.46	**19**	< 0.5	**0.5[a]**	< 0.5	
	11/12/2009	7.51	**24**	< 0.5	< 0.5[a]	< 0.5	
	3/11/2010	7.41	**5.2**	< 0.5	NA	< 0.5	Benzene (5.6) Toluene (1.1) m&p-Xylene (6.7)
MW-4C	12/9/2008	7.96	**8.7**	<0.5	< 0.5[a]	**0.9**	
	2/20/2009	8.03	**1.4**	<0.5	< 0.5[a]	**0.4**	
	6/10/2009	7.96	**0.5**	< 0.5	< 0.5[a]	**0.3 J**	
	8/13/2009	7.82	< 0.5	< 0.5	< 0.5[a]	< 0.5	
	11/12/2009	7.89	**0.9**	< 0.5	< 0.5[a]	< 0.5	
	3/11/2010	7.68	**0.4 J**	< 0.5	NA	< 0.5	Benzene (6.5) Toluene (1.2) m&p-Xylene (7.7)
MW-5A	8/22/2001	7.30	**960 D**	< 5.0	< 5.0	< 5.0	
	11/15/2001	7.40	**930**	< 5.0	< 5.0	< 5.0	
	2/19/2002	7.20	**740 D**	**5 DJ**	< 5.0	< 5.0	
	5/23/2002	7.10	**580 D**	< 5.0	< 5.0	< 5.0	
	8/19/2002	7.40	**580 D**	< 5.0	< 5.0	< 5.0	Naphthalene (4 BJ)
	11/19/2002	7.20	**390 D**	< 5.0	< 5.0	< 5.0	Napthalene (1 BJ)

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Well Identification	Date	pH	PCE (µg/L)	TCE (µg/L)	1,2 - Dichloroethene (µg/L)	Chloroform (µg/L)	Comments:
	2/18/2003	7.20	**220**	< 25.0	< 25.0	< 25.0	Methylene Chloride (6 J)
	5/29/2003	7.30	**170 D**	< 5.0	< 5.0	< 5.0	
	8/26/2003	7.60	**320D**	<5.0	<5.0	<5.0	
	11/20/2003	7.40	**250**	< 5.0	< 5.0	< 5.0	
	2/6/2004	7.40	**300 D**	<5.0	<5.0	<5.0	
	5/19/2004	7.40	**380 D**	< 5.0	< 5.0	< 5.0	
	8/25/2004	7.10	**170 D**	<5.0	<5.0	<5.0	
	11/17/2004	7.10	**780 D**	< 5.0	< 5.0	< 5.0	
	3/2/2005	7.60	**330 D**	<5.0	<5.0	<5.0	
	5/25/2005	7.60	**330 J**	< 5.0	< 5.0	< 5.0	
	8/24/2005	7.50	**310 J**	<5.0	<5.0	<5.0	
	11/16/2005	7.40	**220 J**	< 5.0	< 5.0	**2.1 UJ**	
	2/22/2006	7.60	**560**	<5.0	<5.0	<5.0	
	5/24/2006	7.30	**300 E**	< 5.0	< 5.0	< 5.0	
	8/23/2006	7.20	**440**	<5.0	<5.0	**1.5**	
	11/16/2006	7.20	**270**	**0.2**	< 0.5[a]	**1.6 U**	
	2/14/2007	7.20	**430**	**0.2**	< 0.5[a]	**0.6**	
	5/23/2007	7.60	**280**	<0.5	< 0.5[a]	**0.4 J**	
	8/21/2007	7.30	**310**	<5.0	< 0.5[a]	**0.5**	
	11/28/2007	6.86	**190**	<0.5	< 0.5[a]	**0.8**	
	2/27/2008	7.39	**400**	<2.5	<2.5	<2.5	
	5/20/2008	7.16	**210**	<0.5	< 0.5[a]	**0.5 U**	
	8/20/2008	7.30	**190**	<0.5	< 0.5[a]	**0.6**	
	12/2/2008	6.86	**97**	< 0.5 U	< 0.5[a] U	**2.5 U**	
	2/18/2009	7.35	**260**	<0.5	< 0.5[a]	**0.3**	
	6/2/2009	7.21	**120**	< 0.5	< 0.5[a]	**1**	
	8/12/2009	7.20	**79**	< 0.5	< 0.5[a]	**0.6**	
	11/10/2009	7.59	**300**	< 0.5	< 0.5[a]	< 0.5	
	3/9/2010	7.60	**210**	< 0.5	NA	< 0.5	
MW-6A	8/22/2001	7.70	**280 D**	**5.0 DJ**	< 5.0	< 5.0	
	11/13/2001	7.20	**300 D**	< 5.0	< 5.0	< 5.0	
	2/19/2002	7.30	**450 D**	< 5.0	< 5.0	< 5.0	
	5/23/2002	6.90	**180 D**	< 5.0	< 5.0	< 5.0	
	8/19/2002	7.40	**140**	< 5.0	< 5.0	< 5.0	
	11/19/2002	7.30	**290 D**	**1.0 J**	< 5.0	< 5.0	cis-1,2-Dichloroethene (1 J) Napthalene (1 BJ)
	2/18/2003	7.30	**190**	< 25.0	< 25.0	< 25.0	Methylene Chloride (5 J)
	5/29/2003	7.20	**170 D**	< 5.0	< 5.0	**1.0 J**	
	8/26/2003	7.50	**210 D**	< 5.0	< 5.0	**1.0 J**	
	11/20/2003	7.40	**150**	< 5.0	< 5.0	**3.0J**	
	2/6/2004	7.40	**110 D**	< 5.0	< 5.0	**3.2 J**	
	5/19/2004	7.40	**67**	< 5.0	< 5.0	**5.9**	
	8/24/2004	7.40	**70**	< 5.0	< 5.0	**6**	
	11/17/2004	7.10	**42**	< 5.0	< 5.0	**6.7**	
	3/1/2005	7.40	**92**	< 5.0	< 5.0	**5.5**	
	5/25/2005	7.80	**19**	< 5.0	< 5.0	**6.5**	
	8/23/2005	7.60	**25**	< 5.0	< 5.0	**7.5**	
	11/15/2005	7.50	**15**	< 5.0	< 5.0	**7.3**	
	2/21/2006	7.60	**40**	< 5.0	< 5.0	**8.3**	
	5/24/2006	7.60	**11**	< 5.0	< 5.0	**11**	
	8/23/2006	7.80	**12**	< 5.0	< 5.0	**9.7**	
	11/16/2006	7.80	**10**	<0.5	< 0.5[a]	**13**	
	2/14/2007	7.30	**42**	<0.5	< 0.5[a]	**9.5**	
	5/23/2007	7.90	**8.9**	<0.5	< 0.5[a]	**11**	Bromodichloromethane (0.5)
	8/22/2007	7.50	**14**	<0.5	< 0.5[a]	**13**	Bromodichloromethane (0.5 J)
	11/27/2007	7.36	**8.5**	<0.5	< 0.5[a]	**15**	Bromodichloromethane (0.6)
	2/27/2008	-	**28**	<0.5	< 0.5	**9.6**	
	5/20/2008	7.68	**5.7**	<0.5	< 0.5[a]	**11**	Bromodichloromethane (0.4 J)
	8/19/2008	7.56	**11**	<0.5	< 0.5[a]	**12**	
	12/10/2008	7.10	**5.4 J+**	< 0.5 U	< 0.5[a] U	**12**	
	2/17/2009	7.48	**5.3**	<0.5	< 0.5[a]	**11**	Bromodichloromethane (0.4 J)
	6/2/2009	7.61	**3.8**	< 0.5	< 0.5[a]	**12**	Bromodichloromethane (0.4 J)
	8/11/2009	7.40	**4.2**	< 0.5	< 0.5[a]	**9.5**	Bromodichloromethane (0.4 J)
	11/11/2009	7.59	**6.4**	< 0.5	< 0.5[a]	**11**	Bromodichloromethane (0.4 J)

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Well Identification	Date	pH	PCE (µg/L)	TCE (µg/L)	1,2 - Dichloroethene (µg/L)	Chloroform (µg/L)	Comments:
	3/9/2010	7.21	**48**	< 0.5	NA	**7.6**	Bromodichloromethane (0.3 J)
MW-7A	8/20/2001	7.10	**1.0 J**	< 5.0	< 5.0	< 5.0	
	11/13/2001	7.10	< 5.0	< 5.0	< 5.0	< 5.0	
	2/19/2002	7.10	< 5.0	< 5.0	< 5.0	< 5.0	
	5/23/2002	7.20	< 5.0	< 5.0	< 5.0	< 5.0	
	8/19/2002	7.10	**4.0 J**	< 5.0	< 5.0	**5.0 J**	
	11/19/2002	7.20	**2.0 J**	< 5.0	< 5.0	< 5.0	Napthalene (2 BJ)
	2/18/2003	7.20	< 5.0	< 5.0	< 5.0	< 5.0	Napthalene (1 BJ)
	5/28/2003	7.10	< 5.0	< 5.0	< 5.0	< 5.0	Napthalene (4 BJ)
	8/26/2003	7.80	< 5.0	< 5.0	< 5.0	< 5.0	
	11/19/2003	7.40	< 5.0	< 5.0	< 5.0	< 5.0	
	2/5/2004	7.40	< 5.0	< 5.0	< 5.0	< 5.0	
	5/18/2004	7.50	< 5.0	< 5.0	< 5.0	< 5.0	
	8/24/2004	6.90	< 5.0	< 5.0	< 5.0	< 5.0	
	11/16/2004	6.90	< 5.0	< 5.0	< 5.0	< 5.0	
	3/1/2005	7.20	< 5.0	< 5.0	< 5.0	< 5.0	
	5/24/2005	7.30	< 5.0	< 5.0	< 5.0	< 5.0	
	8/23/2005	7.40	< 5.0 UJ	< 5.0	< 5.0	< 5.0	
	11/15/2005	7.30	< 5.0	< 5.0	< 5.0	< 5.0	
	2/21/2006	7.20	< 5.0	< 5.0	< 5.0	< 5.0	
	5/23/2006	7.20	< 5.0	< 5.0	< 5.0	< 5.0	
	8/22/2006	7.10	**0.4 J**	< 5.0	< 5.0	< 5.0	
	11/15/2006	7.20	**0.4 J+**	<0.5	< 0.5[a]	**0.2**	
	2/13/2007	7.00	<0.5	<0.5	< 0.5[a]	**0.2**	
	5/22/2007	7.56	<0.5	<0.5	< 0.5[a]	< 0.5	
	8/21/2007	7.20	<0.5	<0.5	< 0.5[a]	**0.3 J**	
	11/27/2007	6.96	<0.5	<0.5	< 0.5[a]	**0.4**	
	2/27/2008	7.12	<0.5	<0.5	< 0.5[a]	**0.5**	
	5/20/2008	7.15	<0.5	<0.5	< 0.5[a]	**0.4 UJ**	
	8/19/2008	7.20	<0.5	<0.5	< 0.5[a]	**0.5**	
	12/2/2008	7.00	<0.5	<0.5	< 0.5[a]	**0.7 U**	
	2/18/2009	7.14	**0.4**	<0.5	< 0.5[a]	**0.7**	Dichloromethane (8.8)
	6/2/2009	7.29	< 0.5	< 0.5	< 0.5[a]	**0.7 J**	
	8/11/2009	7.11	< 0.5	< 0.5	< 0.5[a]	**0.5**	
	11/10/2009	7.43	< 0.5	< 0.5	< 0.5[a]	**0.7**	
	3/9/2010	6.91	**0.3 J**	< 0.5	NA	**0.7**	Dichloromethane (0.3) Acetone (3.0 J)
MW-8A	8/22/2001	7.40	**2,300 D**	**4.0 J**	**2.0 J**	**1.0 J**	
	11/15/2001	7.40	**1,900**	< 5.0	< 5.0	< 5.0	
	2/19/2002	7.50	**1,500 D**	< 5.0	**2.0 J**	**1.0 J**	
	5/23/2002	7.10	**1,700 D**	< 5.0	< 5.0	< 5.0	
	8/19/2002	7.40	**2,100 D**	< 5.0	< 5.0	**3.0 J**	
	11/19/2002	7.40	**1,700 D**	**2.0 J**	< 5.0	**3.0 J**	cis-1,2-Dichloroethene (1 J) Napthalene (1 BJ)
	2/18/2003	7.40	**1,300 D**	< 50.0	< 50.0	< 50.0	Methylene Chloride (7 J)
	5/29/2003	7.20	**1,900 D**	**1.0 J**	< 5.0	**3.0 J**	cis-1,2-Dichloroethene (1 J)
	8/26/2003	8.30	**1,700 D**	<5.0	<5.0	**2**	
	11/20/2003	7.40	**400 D**	< 5.0	< 5.0	**1.0J**	
	2/6/2004	7.30	**320 D**	<5.0	<5.0	<5.0	
	5/18/2004	7.30	**230 D**	< 5.0	< 5.0	< 5.0	
	8/25/2004	7.10	**480 D**	<5.0	<5.0	**3.1 J**	
	11/17/2004	7.10	**280 D**	< 5.0	< 5.0	< 5.0	
	3/2/2005	7.40	**210 D**	<5.0	<5.0	< 5.0	
	5/25/2005	7.50	**200 J**	< 5.0	< 5.0	< 5.0	
	8/24/2005	7.50	**61**	<5.0	<5.0	< 5.0	
	11/16/2005	7.40	**81**	< 5.0	< 5.0	**9.5 U**	
	2/22/2006	7.50	**140**	<5.0	<5.0	**3.1 J**	
	5/24/2006	7.40	**74**	< 5.0	< 5.0	**7.1**	
	8/23/2006	7.20	**33**	<5.0	<5.0	**6.0**	
	11/16/2006	7.30	**25**	<0.5	< 0.5[a]	**7.2**	
	2/14/2007	7.20	**44**	<0.5	< 0.5[a]	**10**	
	5/23/2007	7.60	**38**	<0.5	< 0.5[a]	**8.5**	Bromodichloromethane (0.4)
	8/22/2007	7.40	**24**	<0.5	< 0.5[a]	**11**	Bromodichloromethane (0.6)
	11/28/2007	7.05	**23**	<0.5	< 0.5[a]	**11**	Bromodichloromethane (0.6J)

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Well Identification	Date	pH	PCE (µg/L)	TCE (µg/L)	1,2 - Dichloroethene (µg/L)	Chloroform (µg/L)	Comments:
	2/27/2008	7.20	**37**	<0.5	< 0.5	**7.8**	Bromodichloromethane (0.3J); 1,2,3-Trichlorobenzene(0.3J)
	5/21/2008	7.23	**23**	<0.5	< 0.5[a]	**9.4**	Bromodichloromethane (0.5)
	8/20/2008	7.28	**17**	<0.5	< 0.5[a]	**11**	Bromodichloromethane (0.6)
	12/2/2008	6.91	**14 J-**	<0.5	<0.5[a]J	**9.8 J-**	
	2/18/2009	7.20	**34**	<0.5	< 0.5[a]	**5.3**	
	6/3/2009	7.19	**14**	< 0.5	< 0.5[a]	**11**	Bromodichloromethane (0.6)
	8/12/2009	7.21	**9.8 J-**	< 0.5	< 0.5[a]	**10**	Bromodichloromethane (0.5)
	11/11/2009	7.25	**15**	< 0.5	< 0.5[a]	**8.1**	Bromodichloromethane (0.3J)
	3/9/2010	6.72	**46**	< 0.5	NA	**2.8**	
MW-9B	8/22/2001	7.50	**39.0**	< 5.0	< 5.0	< 5.0	
	11/15/2001	7.30	< 5.0	< 5.0	< 5.0	< 5.0	
	2/18/2002	7.50	**10.0**	< 5.0	< 5.0	< 5.0	
	5/23/2002	7.40	**5.0**	< 5.0	< 5.0	< 5.0	
	8/19/2002	7.60	**8.0**	< 5.0	< 5.0	< 5.0	
	11/19/2002	8.00	**12.0**	< 5.0	< 5.0	< 5.0	Napthalene (1BJ)
	2/18/2003	8.00	**6.0**	< 5.0	< 5.0	< 5.0	
	5/28/2003	8.20	**3.0 J**	< 5.0	< 5.0	< 5.0	
	8/26/2003	7.60	**55.0**	< 5.0	< 5.0	< 5.0	
	11/19/2003	7.90	**33.0**	< 5.0	< 5.0	< 5.0	
	2/5/2004	7.90	**4.0 J**	< 5.0	< 5.0	< 5.0	
	5/18/2004	7.80	**37**	< 5.0	< 5.0	< 5.0	
	8/24/2004	7.30	**68**	< 5.0	< 5.0	< 5.0	
	11/17/2004	7.50	**89**	< 5.0	< 5.0	< 5.0	
	3/1/2005	7.80	**51**	< 5.0	< 5.0	< 5.0	
	5/24/2005	7.80	**61**	< 5.0	< 5.0	< 5.0	
	8/24/2005	8.10	**44**	< 5.0	< 5.0	< 5.0	
	11/16/2005	7.90	**30**	< 5.0	< 5.0	< 5.0	
	2/22/2006	7.80	**18**	< 5.0	< 5.0	< 5.0	
	5/23/2006	7.80	**20**	< 5.0	< 5.0	< 5.0	
	8/22/2006	7.70	**24**	< 5.0	< 5.0	< 5.0	
	11/15/2006	7.90	**5.2**	<0.5	< 0.5[a]	<0.5	
	2/13/2007	7.70	**2.7**	<0.5	< 0.5[a]	<0.5	
	5/22/2007	NS	NS	NS	NS	NS	Broken Pump
	8/21/2007	7.70	**14**	<0.5	< 0.5[a]	<0.5	Chloromethane (4.0), Acetone (4.9)
	11/27/2007	7.65	**6.5**	<0.5	< 0.5[a]	<0.5	
	2/27/2008	7.80	**0.7**	<0.5	< 0.5	<0.5	
	5/21/2008	7.98	**16**	<0.5	< 0.5[a]	<0.5	
	8/20/2008	7.77	**26**	<0.5	< 0.5[a]	<0.5	
	12/2/2008	7.34	**5.2**	<0.5	< 0.5[a]	<0.5	
	2/18/2009	7.19	**8.5**	<0.5	< 0.5[a]	<0.5	
	6/3/2009	7.66	**19**	< 0.5	< 0.5[a]	< 0.5	
	8/12/2009	7.67	**17**	< 0.5	< 0.5[a]	< 0.5	
	11/11/2009	7.86	**3.7**	< 0.5	< 0.5[a]	< 0.5	
	3/9/2010	6.96	**1.0**	< 0.5	< 0.5[a]	< 0.5	
MW-10A	8/20/2001	7.40	**91.0**	< 5.0	< 5.0	**8.0**	
	11/12/2001	7.50	**45.0**	< 5.0	< 5.0	**10.0**	
	2/19/2002	7.70	**27.0**	< 5.0	< 5.0	**25.0**	
	5/23/2002	7.20	**260 D**	< 5.0	< 5.0	**8.0**	
	8/19/2002	7.40	**300 D**	< 5.0	< 5.0	**7.0**	
	11/20/2002	7.40	**200**	< 5.0	< 5.0	**16.0**	Methylene Chloride (2BJ) Naphthalene (3 BJ)
	2/18/2003	7.40	**200**	< 25.0	< 25.0	**17 J**	Methylene Chloride (4 J)
	5/29/2003	7.40	**340 D**	**1.0 J**	< 5.0	**5.0**	
	8/26/2003	7.70	**820 D**	<5.0	< 5.0	<5.0	
	11/20/2003	7.30	**500 D**	**0.9 J**	<5.0	**7.0**	
	2/6/2004	7.40	**510 D**	<5.0	< 5.0	**7.8**	
	5/19/2004	7.10	**390 D**	< 5.0	< 5.0	**3.8 J**	
	8/25/2004	7.10	**460 D**	<5.0	< 5.0	**2.7 J**	
	11/17/2004	7.10	**890 D**	< 5.0	< 5.0	**4.7 J**	
	3/2/2005	7.40	**910 D**	<5.0	< 5.0	**5.1**	
	5/25/2005	7.50	**820 J**	< 5.0	< 5.0	**3.9 J**	
	8/24/2005	7.40	**490 J**	<5.0	< 5.0		

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Well Identification	Date	pH	PCE (µg/L)	TCE (µg/L)	1,2 - Dichloroethene (µg/L)	Chloroform (µg/L)	Comments:
	11/16/2005	7.40	**940 J**	< 5.0	< 5.0	**3.2 UJ**	
	2/22/2006	7.40	**970**	<5.0	< 5.0	**3.8 J**	
	5/24/2006	7.20	**560 E**	< 5.0	< 5.0	**3.1 J**	
	8/23/2006	7.20	**410**	**0.5**	< 5.0	**1.8**	tert-Butyl methyl ether (MTBE) (1.5)
	11/16/2006	7.30	**320**	**0.5**	< 0.5[a]	**1.3 U**	
	2/14/2007	7.10	**550**	**0.7**	< 0.5[a]	**3.3**	
	5/23/2007	7.50	**350**	**0.5**	**0.3[a]**	**2.0**	
	8/22/2007	7.10	**480**	**0.7**	**0.3 J[a]**	**2.3**	
	11/28/2007	7.89	**330**	**0.4**	< 0.5[a]	**4.2**	
	2/27/2008	7.17	**430**	<2.5	<2.5[a]	**2.4**	
	5/21/2008	7.17	**280**	**0.4 J**	< 0.5[a]	**2.1**	
	8/20/2008	7.25	**220**	**0.4 J**	<0.5[a]	**2.9**	
	12/2/2008	6.84	**240**	<0.5	< 0.5[a]	**4.6**	
	2/17/2009	7.15	**210**	**0.3**	<0.5[a]	**3.8**	
	6/2/2009	7.30	**120**	< 0.5	< 0.5[a]	**5.1**	
	8/11/2009	6.90	**140**	< 0.5	<0.5[a]	**2.8**	
	11/10/2009	7.42	**110**	< 0.5	< 0.5[a]	**4.7**	
	3/9/2010	7.05	**210**	< 0.5	NA	**2.5**	
MW-10B	12/3/2008	7.54	**25 J-**	<0.5,J	<0.5[a]J	**0.4 U,J-**	
	2/23/2009	7.70	**13**	<0.5	< 0.5[a]	**4.6**	
	6/10/2009	7.72	**12**	< 0.5	<0.5[a]	**0.3**	
	8/13/2009	7.64	**13**	< 0.5	< 0.5[a]	< 0.5	
	11/10/2009	7.65	**21**	< 0.5	<0.5[a]	< 0.5	
	3/11/2010	7.48	**18**	< 0.5	NA	< 0.5	Benzene (7.3) Toluene (1.2) m&p-Xylene (8.1)
MW-10C	12/3/2008	7.81	<0.5	<0.5	< 0.5[a]	**1 U**	
	2/17/2009	8.06	**0.4**	<0.5	< 0.5[a]	**0.3 J**	
	6/8/2009	7.89	< 0.5	< 0.5	< 0.5[a]	< 0.5	
	8/11/2009	7.72	< 0.5	< 0.5	< 0.5[a]	< 0.5	
	11/10/2009	7.94	**1.0**	< 0.5	< 0.5[a]	< 0.5	
	3/11/2010	7.72	**0.3 J**	< 0.5	NA	< 0.5	Benzene (6.7) Toluene (1.2) m&p-Xylene (6.6)
MW-11A	8/20/2001	7.20	**3.0 J**	< 5.0	< 5.0	**4.0 J**	
	11/13/2001	7.10	< 5.0	< 5.0	< 5.0	**5.0 J**	
	2/19/2002	7.20	**2.0 J**	< 5.0	< 5.0	**5.0 J**	
	5/23/2002	7.00	< 5.0	< 5.0	< 5.0	**2.0 J**	
	8/19/2002	7.10	**3.0 J**	< 5.0	< 5.0	**7**	
	11/20/2002	7.30	< 5.0	< 5.0	< 5.0	**6.0**	Methylene Chloride (1 BJ) Napthalene (2 BJ)
	2/18/2003	7.30	**3.0 J**	< 5.0	< 5.0	**5**	Napthalene (2 BJ) 1,2,3-Trichlorobenzene (1 J)
	5/28/2003	7.30	**5.0**	< 5.0	< 5.0	**2.0 JB**	Napthalene (7 B)
	8/26/2003	7.60	**2.0 J**	< 5.0	< 5.0	<5.0	
	11/19/2003	7.40	**3.0J**	< 5.0	< 5.0	**3.0 J**	
	2/5/2004	7.20	<5.0	< 5.0	< 5.0	**3.7 J**	
	5/18/2004	7.40	**3.7 J**	< 5.0	< 5.0	<5.0	
	8/24/2004	7.00	**3.1 J**	< 5.0	< 5.0	**4.8 J**	
	11/16/2004	7.10	**3.5 J**	< 5.0	< 5.0	<5.0	
	3/1/2005	7.30	**3.8 J**	< 5.0	< 5.0	**3.1 J**	
	5/24/2005	7.40	**6.0**	< 5.0	< 5.0	<5.0	
	8/23/2005	7.40	<5.0	< 5.0	< 5.0	<5.0	
	11/15/2005	7.40	<5.0	< 5.0	< 5.0	<5.0	
	2/21/2006	7.40	**2.7 J**	< 5.0	< 5.0	<5.0	
	5/23/2006	7.20	<5.0	< 5.0	< 5.0	<5.0	
	8/22/2006	7.20	**1.6**	< 5.0	< 5.0	**1.5**	
	11/15/2006	7.20	**2.4 J+**	<0.5	< 0.5[a]	**2.4 J+**	
	2/13/2007	7.10	**1.7**	<0.5	< 0.5[a]	**2.0**	
	5/22/2007	7.50	**1.7**	<0.5	< 0.5[a]	**2.9**	
	8/21/2007	7.30	**1.5**	<0.5	< 0.5[a]	**3.0**	

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Well Identification	Date	pH	PCE (µg/L)	TCE (µg/L)	1,2 - Dichloroethene (µg/L)	Chloroform (µg/L)	Comments:
	11/27/2007	6.97	**2.2**	<0.5	< 0.5[a]	**2.3**	
	2/27/2008	7.17	**1.3**	<0.5	< 0.5[a]	**2.2**	
	5/20/2008	7.19	**1.6**	<0.5	< 0.5[a]	**2.1**	
	8/19/2008	7.17	**1.4**	<0.5	< 0.5[a]	**3.7**	
	12/2/2008	6.94	**1.8**	<0.5	< 0.5[a]	**2.6**	
	2/17/2009	7.18	**1.3**	<0.5	< 0.5[a]	**3.2**	
	6/2/2009	7.33	**1.4 J-**	< 0.5	< 0.5[a]	**3.3**	
	8/11/2009	7.10	**0.6**	< 0.5	< 0.5[a]	**5.3**	
	11/10/2009	7.46	**1.2**	< 0.5	< 0.5[a]	**4**	
	3/9/2010	7.33	**1.3**	< 0.5	NA	**4.8**	
MW-12A	8/21/2001	7.60	**26**	< 5.0	< 5.0	< 5.0	
	11/13/2001	7.30	**23**	< 5.0	< 5.0	< 5.0	
	2/18/2002	7.20	**17**	< 5.0	< 5.0	< 5.0	
	5/23/2002	7.10	**23**	< 5.0	< 5.0	< 5.0	
	8/19/2002	7.60	**22**	< 5.0	< 5.0	< 5.0	
	11/20/2002	7.50	**17**	< 5.0	< 5.0	< 5.0	Methylene Chloride (1 BJ) Napthalene (2 BJ)
	2/18/2003	7.50	**15**	< 5.0	< 5.0	< 5.0	
	5/28/2003	7.50	**17**	< 5.0	< 5.0	< 5.0	
	8/26/2003	7.60	**31**	< 5.0	< 5.0	< 5.0	
	11/19/2003	7.50	**28**	< 5.0	< 5.0	< 5.0	
	2/5/2004	7.40	**21**	< 5.0	< 5.0	< 5.0	
	5/18/2004	7.40	**21**	< 5.0	< 5.0	< 5.0	
	8/24/2004	7.10	**25**	< 5.0	< 5.0	< 5.0	
	11/16/2004	7.20	**26**	< 5.0	< 5.0	< 5.0	
	3/1/2005	7.50	**23**	< 5.0	< 5.0	< 5.0	
	5/24/2005	7.50	**17**	< 5.0	< 5.0	< 5.0	
	8/23/2005	7.50	**26**	< 5.0	< 5.0	< 5.0	
	11/15/2005	7.50	**23**	< 5.0	< 5.0	< 5.0	
	2/21/2006	7.60	**30**	< 5.0	< 5.0	< 5.0	
	5/23/2006	7.40	**28**	< 5.0	< 5.0	< 5.0	
	8/22/2006	7.60	**31**	< 5.0	< 5.0	< 5.0	
	11/15/2006	7.50	**28**	<0.5	< 0.5[a]	**0.4 J**	
	2/13/2007	7.40	**23**	<0.5	< 0.5[a]	**0.6**	
	5/23/2007	7.50	**24**	<0.5	< 0.5[a]	**0.4 J**	Trichlorofluoromethane (0.5)
	8/21/2007	7.50	**38**	<0.5	< 0.5[a]	**0.5**	Trichlorofluoromethane (0.6)
	11/28/2007	7.19	**33**	<0.5	< 0.5[a]	**1.0**	Trichlorofluoromethane (0.8)
	2/27/2008	7.43	**26**	<0.5	< 0.5[a]	**0.4**	Trichlorofluoromethane (0.4)
	5/21/2008	7.49	**30**	<0.5	< 0.5[a]	**0.9 U**	Trichlorofluoromethane (0.6) Acetone (3.6 UJ)
	8/19/2008	7.56	**32**	<0.5	< 0.5[a]	**1.2**	
	12/2/2008	7.10	**29**	<0.5	< 0.5[a]	**1.8 U**	
	2/17/2009	7.37	**24**	<0.5	< 0.5[a]	**1.9**	Trichlorofluoromethane (0.4)
	6/2/2009	7.52	**28**	< 0.5	< 0.5[a]	**2.1**	Trichlorofluoromethane (0.4)
	8/12/2009	7.02	**23**	< 0.5	< 0.5[a]	**2**	Trichlorofluoromethane (0.3)
	11/10/2009	7.68	**26**	< 0.5	< 0.5[a]	**2.8**	Trichlorofluoromethane (0.4)
	3/10/2010	7.67	**20**	< 0.5	NA	**3.4**	Trichlorofluoromethane (0.4 J)
MW-13A	8/21/2001	7.50	**6.0**	< 5.0	< 5.0	< 5.0	
	11/12/2001	7.40	< 5.0	< 5.0	< 5.0	< 5.0	
	2/18/2002	7.00	**12.0**	< 5.0	< 5.0	< 5.0	
	5/23/2002	7.10	**4.0 J**	< 5.0	< 5.0	< 5.0	
	8/19/2002	7.60	**6.0**	< 5.0	< 5.0	< 5.0	
	11/20/2002	7.30	**5.0**	< 5.0	< 5.0	< 5.0	Methylene Chloride (2 BJ) Napthalene (2 BJ)
	2/18/2003	7.30	**11.0**	< 5.0	< 5.0	< 5.0	
	5/28/2003	7.30	**4.0**	< 5.0	< 5.0	< 5.0	
	8/26/2003	7.70	**3.0 J**	< 5.0	< 5.0	< 5.0	
	11/19/2003	7.40	**3.0 J**	< 5.0	< 5.0	**3.0 J**	
	2/5/2004	7.40	**9.3**	< 5.0	< 5.0	< 5.0	
	5/18/2004	7.30	**3.7 J**	< 5.0	< 5.0	< 5.0	

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Well Identification	Date	pH	PCE (µg/L)	TCE (µg/L)	1,2 - Dichloroethene (µg/L)	Chloroform (µg/L)	Comments:
	8/24/2004	7.00	**3.8 J**	< 5.0	< 5.0	**3.1 J**	
	11/16/2004	7.10	**6.2**	< 5.0	< 5.0	**3.0 J**	
	3/1/2005	7.30	**20.0**	< 5.0	< 5.0	< 5.0	
	5/24/2005	7.20	**16.0**	< 5.0	< 5.0	< 5.0	
	8/23/2005	7.40	**7.3 J**	< 5.0	< 5.0	**3.8**	
	11/15/2005	7.30	**7.2 J**	< 5.0 UJ	< 5.0 UJ	**3.8 J**	
	2/21/2006	7.40	**28.0**	< 5.0	< 5.0	< 5.0	
	5/23/2006	7.20	**14.0**	< 5.0	< 5.0	**3.0 J**	
	8/22/2006	7.30	**8.4**	< 5.0	< 5.0	**3.5**	
	11/15/2006	7.30	**8.2**	<0.5	< 0.5[a]	**5.5**	
	2/13/2007	7.10	**19**	<0.5	< 0.5[a]	**2.0**	
	5/23/2007	7.60	**8.8**	<0.5	< 0.5[a]	**3.7**	
	8/22/2007	7.20	**7.9**	<0.5	< 0.5[a]	**5.7**	Bromodichloromethane (0.3 J)
	11/27/2007	7.09	**7.8**	<0.5	< 0.5[a]	**6.7**	Bromodichloromethane (0.3 J)
	2/27/2008	7.21	**17**	<0.5	< 0.5[a]	**1.7**	
	5/20/2008	7.27	**7.1**	<0.5	< 0.5[a]	**4.4**	
	8/19/2008	7.30	**5.5**	<0.5	< 0.5[a]	**5.2**	
	12/2/2008	6.92	**4.6**	<0.5	< 0.5[a]	**5.5**	
	2/17/2009	7.18	**12**	<0.5	< 0.5[a]	**2.3**	
	6/2/2009	7.37	**3.7**	< 0.5	< 0.5[a]	**4.5**	Bromodichloromethane (0.3 J)
	8/11/2009	7.10	**2.1**	< 0.5	< 0.5[a]	**3.2**	
	11/11/2009	7.29	**2.5**	< 0.5	< 0.5[a]	**3.3**	
	3/9/2010	7.02	**16**	< 0.5	NA	**1.2**	Dichloromethane (0.3 J)
MW-14A	8/20/2001	7.10	**2.0 J**	< 5.0	< 5.0	< 5.0	
	11/13/2001	7.00	< 5.0	< 5.0	< 5.0	< 5.0	
	2/18/2002	6.90	< 5.0	< 5.0	< 5.0	< 5.0	
	5/23/2002	7.00	< 5.0	< 5.0	< 5.0	< 5.0	
	8/19/2002	7.10	**1.0 J**	< 5.0	< 5.0	< 5.0	
	11/20/2002	7.30	< 5.0	< 5.0	< 5.0	< 5.0	Methylene Chloride (1BJ)
	2/18/2003	7.30	**8**	< 5.0	< 5.0	**1.0 J**	1,2,4-Trichlorobenzene (1 J) 1,2,3-Trichlorobenzene (2 J) Napthalene (3 BJ)
	5/28/2003	7.10	< 5.0	< 5.0	< 5.0	< 5.0	Napthalene (9 B)
	8/26/2003	7.90	< 5.0	< 5.0	< 5.0	< 5.0	
	11/19/2003	7.60	< 5.0	< 5.0	< 5.0	< 5.0	
	2/5/2004	7.30	< 5.0	< 5.0	< 5.0	< 5.0	
	5/18/2004	7.30	< 5.0	< 5.0	< 5.0	< 5.0	
	8/24/2004	6.80	< 5.0	< 5.0	< 5.0	< 5.0	
	11/16/2004	6.90	< 5.0	< 5.0	< 5.0	< 5.0	
	3/1/2005	7.30	**16**	< 5.0	< 5.0	< 5.0	
	5/24/2005	7.10	< 5.0	< 5.0	< 5.0	< 5.0	
	8/23/2005	7.30	< 5.0	< 5.0	< 5.0	< 5.0	
	11/15/2005	7.30	< 5.0 UJ	< 5.0 UJ	< 5.0 UJ	< 5.0 UJ	
	2/21/2006	7.20	< 5.0	< 5.0	< 5.0	< 5.0	
	5/23/2006	7.10	< 5.0	< 5.0	< 5.0	< 5.0	
	8/22/2006	7.10	**1.2**	< 5.0	< 5.0	**0.5**	
	11/15/2006	7.20	**1.6 J+**	<0.5	< 0.5[a]	**0.7 J+**	
	2/13/2007	7.10	**11**	<0.5	< 0.5[a]	**0.4**	
	5/22/2007	7.60	**1.8**	<0.5	< 0.5[a]	**0.6**	
	8/21/2007	7.30	**2.0**	<0.5	< 0.5[a]	**0.6**	
	11/27/2007	6.90	**1.7**	<0.5	< 0.5[a]	**0.4**	
	2/27/2008	7.26	**11**	<0.5	< 0.5	**0.4**	
	5/20/2008	7.11	**1.8**	<0.5	< 0.5[a]	**0.5 U**	
	8/19/2008	7.18	**2**	<0.5	< 0.5[a]	**0.7**	
	12/2/2008	6.80	**1.6**	<0.5	< 0.5[a]	**0.5 U**	
	2/17/2009	7.18	**12**	<0.5	< 0.5[a]	**0.3**	
	6/2/2009	7.25	**1.9**	< 0.5	< 0.5[a]	**1.3**	
	8/11/2009	7.00	**1.3**	< 0.5	< 0.5[a]	**1**	
	11/11/2009	7.23	**2.8**	< 0.5	< 0.5[a]	**0.4**	
	3/9/2010	7.11	**17**	< 0.5	NA	**0.3 J**	Dichloromethane (0.2)

APPENDIX G-3

GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY RESULTS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Well Identification	Date	pH	PCE (µg/L)	TCE (µg/L)	1,2 - Dichloroethene (µg/L)	Chloroform (µg/L)	Comments:
MW-15A	8/21/2001	7.60	< 5.0	< 5.0	< 5.0	< 5.0	
	11/15/2001	7.40	< 5.0	< 5.0	< 5.0	< 5.0	
	2/18/2002	7.20	< 5.0	< 5.0	< 5.0	< 5.0	
	5/23/2002	7.00	< 5.0	< 5.0	< 5.0	< 5.0	
	8/19/2002	7.60	< 5.0	< 5.0	< 5.0	< 5.0	
	11/20/2002	7.50	< 5.0	< 5.0	< 5.0	< 5.0	Methylene Chloride (2 BJ)
	2/18/2003	7.50	**0.9 J**	< 5.0	< 5.0	< 5.0	1,2,4-Trichlorobenzene (1 J) 1,2,3-Trichlorobenzene (1 J) Napthalene (3 BJ)
	5/28/2003	7.50	< 5.0	< 5.0	< 5.0	< 5.0	
	8/26/2003	7.60	< 5.0	< 5.0	< 5.0	< 5.0	
	11/19/2003	7.50	< 5.0	< 5.0	< 5.0	< 5.0	
	2/5/2004	7.40	< 5.0	< 5.0	< 5.0	< 5.0	
	5/18/2004	7.80	< 5.0	< 5.0	< 5.0	< 5.0	
	8/24/2004	7.10	< 5.0	< 5.0	< 5.0	< 5.0	
	11/16/2004	7.10	< 5.0	< 5.0	< 5.0	< 5.0	
	3/1/2005	7.40	< 5.0	< 5.0	< 5.0	< 5.0	
	5/24/2005	7.50	< 5.0	< 5.0	< 5.0	< 5.0	
	8/23/2005	7.50	< 5.0	< 5.0	< 5.0	< 5.0	
	11/15/2005	7.30	< 5.0	< 5.0	< 5.0	< 5.0	
	2/21/2006	7.40	< 5.0	< 5.0	< 5.0	< 5.0	
	5/23/2006	7.40	< 5.0	< 5.0	< 5.0	< 5.0	
	8/22/2006	7.19	**0.4 J**	< 5.0	< 5.0	**0.7**	
	11/15/2006	7.40	**0.4 J**	<0.5	< 0.5[a]	**1.3**	
	2/13/2007	7.20	**0.3 J**	<0.5	< 0.5[a]	**0.4**	
	5/22/2007	7.70	**0.3 J**	<0.5	< 0.5[a]	**1.5**	
	8/21/2007	7.30	**0.5 J**	<0.5	< 0.5[a]	**1.9**	1,2-Dichloroethane (0.4 J)
	11/27/2007	7.09	**0.5 J**	<0.5	< 0.5[a]	**2.2**	1,2-Dichloroethane (0.6 J)
	2/27/2008	7.28	**0.5**	< 0.5	< 0.5[a]	**0.5**	
	5/20/2008	7.30	**0.3 J**	<0.5	< 0.5[a]	**1.6**	1,2-Dichloroethane (0.5)
	8/19/2008	7.31	**0.3 J-**	< 0.5	< 0.5[a]	**2.3 J+**	
	12/2/2008	7.01	<0.5	<0.5	**1.0[a]**	**2.1 U**	
	2/17/2009	7.15	< 0.5	< 0.5	< 0.5[a]	**0.5**	
	6/2/2009	7.37	< 0.5	< 0.5	< 0.5[a]	**1.8**	1,2-Dichloroethane (0.7 J)
	8/11/2009	7.15	< 0.5	< 0.5	< 0.5[a]	**1.6**	1,2-Dichloroethane (0.9)
	11/10/2009	7.44	< 0.5	< 0.5	< 0.5[a]	**1.5**	1,2-Dichloroethane (0.6)
	3/8/2010	6.98	< 0.5	< 0.5	NA	**0.4 J**	
MW-16A	12/4/2008	7.12	<0.5	<0.5	< 0.5[a]	**0.6 U**	
	2/18/2009	7.13	**0.5**	<0.5	< 0.5[a]	**0.6**	
	6/9/2009	7.10	**0.2 J**	< 0.5	< 0.5[a]	**0.5**	
	8/12/2009	7.03	< 0.5	< 0.5	< 0.5[a]	**0.3**	
	11/11/2009	7.08	**1.6**	< 0.5	< 0.5[a]	**0.3 J**	
	3/10/2010	**6.99**	< 0.5	**< 0.5**	NA	**1.0**	Benzene (25) 1,2,4-Trimethylbenzene (15.1) m&p-Xylene (20) o-Xylene (9.5)
MW-16B	12/4/2008	7.15	**2.3**	<0.5	< 0.5[a]	**0.5 U**	
	2/18/2009	7.41	**3.8**	<0.5	< 0.5[a]	**0.6**	
	6/9/2009	7.13	**0.5**	< 0.5	< 0.5[a]	**1.3**	
	8/13/2009	7.25	**1.2**	< 0.5	< 0.5[a]	**0.4**	
	11/11/2009	7.32	**13**	< 0.5	< 0.5[a]	**0.8**	
	3/10/2010	7.30	**4.9**	< 0.5	NA	**0.5**	Acetone (2.2 J) Benzene (5.2) Toluene (4.1) m&p-Xylene (12)
MW-16C	12/4/2008	7.73	<0.5	<0.5	< 0.5[a]	<0.5	
	2/18/2009	7.93	**4.9**	<0.5	< 0.5[a]	**0.3**	
	6/9/2009	7.90	< 0.5	< 0.5	< 0.5[a]	**0.3 J**	
	8/12/2009	7.76	< 0.5	< 0.5	< 0.5[a]	< 0.5	
	11/11/2009	7.86	**0.8**	< 0.5	< 0.5[a]	< 0.5	

APPENDIX G-3

GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY RESULTS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Well Identification	Date	pH	PCE (µg/L)	TCE (µg/L)	1,2 - Dichloroethene (µg/L)	Chloroform (µg/L)	Comments:
	3/10/2010	7.71	< 0.5	< 0.5	NA	< 0.5	Benzene (9.9) Toluene (1.7) o-Xylene (4.6) 1,2,4-Trimethylbenzene (2.4)
MW-17A	12/4/2008	6.99	**0.3 J**	<0.5	< 0.5[a]	**5.8**	
	2/19/2009	8.14	**2.9**	<0.5	< 0.5[a]	**11**	
	6/10/2009	7.05	**1.0**	< 0.5	< 0.5[a]	**8.4**	Bromodichloromethane (0.5 J)
	8/13/2009	7.02	**0.3**	< 0.5	< 0.5[a]	**3.6**	
	11/12/2009	6.96	**4.0**	< 0.5	< 0.5[a]	**4.4**	
	3/10/2010	7.50	**0.3 J**	< 0.5	NA	**8.8**	Dichloromethane (0.3 J) Bromodichloromethane (0.5)
MW-17B	12/4/2008	7.34	**40**	<0.5	< 0.5[a]	**0.6 U**	
	2/23/2009	7.45	**31**	<0.5	< 0.5[a]	**11**	
	6/10/2009	7.38	**41**	< 0.5	< 0.5[a]	**0.5**	
	8/14/2009	7.35	**40**	< 0.5	< 0.5[a]	< 0.5	
	11/9/2009	7.32	**51**	< 0.5	< 0.5[a]	< 0.5	
	3/10/2010	7.30	**63**	< 0.5	NA	**0.4 J**	Benzene (4.2) Toluene (1.0) m&p-Xylene (5.4) o-Xylene (2.3)
MW-17C	12/4/2008	7.93	**0.3 J**	<0.5	< 0.5[a]	**1.7 U**	
	2/19/2009	8.14	**1.8**	<0.5	< 0.5[a]	**0.5**	
	6/10/2009	7.97	**0.5**	< 0.5	< 0.5[a]	**0.3 J**	
	8/13/2009	7.66	< 0.5	< 0.5	< 0.5[a]	< 0.5	
	11/12/2009	7.89	**1.6**	<0.5	< 0.5[a]	<0.5	
	3/10/2010	7.66	< 0.5	< 0.5	NA	< 0.5	Benzene (5.8) Toluene (1.2) m&p-Xylene (6.5) o-Xylene (3.0)
MW-18A	12/3/2008	6.91	**4.6**	<0.5	< 0.5[a]	**4.9**	
	2/18/2009	7.06	**3.6**	<0.5	< 0.5[a]	**4.1**	
	6/9/2009	7.02	**3.3**	< 0.5	< 0.5[a]	**4.1**	
	8/13/2009	7.20	**2.4**	< 0.5	< 0.5[a]	**3.2**	
	11/11/2009	7.36	**4.8**	< 0.5	< 0.5[a]	**3.3**	
	3/10/2010	7.50	**4.0**	< 0.5	NA	**3.7**	
MW-19A	12/8/2008	7.36	<0.5	<0.5	< 0.5[a]	**1.4**	
	2/17/2009	7.31	**0.4**	<0.5	< 0.5[a]	**1.2**	
	6/8/2009	7.24	< 0.5	< 0.5	< 0.5[a]	**0.9**	
	8/11/2009	7.17	< 0.5	< 0.5	< 0.5[a]	**0.7**	
	11/10/2009	7.27	**3.3**	< 0.5	< 0.5[a]	**1.2**	
	3/11/2010	7.56	**0.8**	< 0.5	NA	**1.3**	Benzene (2.8) Toluene (2.5) m&p-Xylene (6.5)
MW-19B	12/8/2008	7.52	<0.5	<0.5	< 0.5[a]	**0.5**	
	2/17/2009	7.56	**0.5**	<0.5	< 0.5[a]	**1.2**	
	6/8/2009	7.57	**0.4 J**	< 0.5	< 0.5[a]	< 0.5	
	8/11/2009	7.43	< 0.5	< 0.5	< 0.5[a]	< 0.5	
	11/10/2009	7.47	**2.2**	< 0.5	< 0.5[a]	< 0.5	
	3/11/2010	7.62	**0.3 J**	< 0.5	NA	< 0.5	Benzene (26) Toluene (19) m&p-Xylene (46) o-Xylene (16)
MW-20A	12/8/2008	7.24	**120**	<0.5	< 0.5[a]	**11**	
	2/24/2009	7.34	**180**	<0.5	< 0.5[a]	**11**	Dichlorofluoromethane (17) Bromodichloromethane (0.6)
	6/11/2009	7.25	**170**	< 0.5	< 0.5[a]	**11**	Dichlorofluoromethane (11 J-) Bromodichloromethane (0.5)

APPENDIX G-3

GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY RESULTS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Well Identification	Date	pH	PCE (µg/L)	TCE (µg/L)	1,2 - Dichloroethene (µg/L)	Chloroform (µg/L)	Comments:
	8/14/2009	7.21	**130**	< 0.5	< 0.5[a]	**7.5**	Dichlorofluoromethane (12 J-) Bromodichloromethane (0.4 J-)
	11/9/2009	7.21	**180**	< 0.5	< 0.5[a]	**8.6**	Dichlorofluoromethane (8.1 J) Bromodichloromethane (0.5)
	3/11/2010	7.40	**120**	< 0.5	NA	**6.9**	Dichlorofluoromethane (4.2) Bromodichloromethane (0.4 J) Benzene (9.2) Toluene (6.8) m&p-Xylene (17)
MW-20B	12/9/2008	7.78	**160**	<0.5	< 0.5[a]	**0.4 J**	
	2/24/2009	7.78	**140**	<0.5	< 0.5[a]	<0.5	
	6/11/2009	7.70	**150**	< 0.5	< 0.5[a]	< 0.5	
	8/14/2009	7.69	**150**	< 0.5	< 0.5[a]	< 0.5	
	11/9/2009	7.69	**160**	< 0.5	< 0.5[a]	< 0.5	
	3/11/2010	7.80	**73**		NA	**1.0**	Benzene (8.6) Toluene (6.6) m&p-Xylene (20)
MW-20C	12/8/2008	7.90	**<0.5**	<0.5	< 0.5[a]	**<0.5**	
	2/17/2009	8.00	**0.3**	<0.5	< 0.5[a]	**<0.5**	
	6/8/2009	7.86	< 0.5	< 0.5	< 0.5[a]	< 0.5	
	8/12/2009	7.28	< 0.5	< 0.5	< 0.5[a]	< 0.5	
	11/10/2009	7.96	**1.3**	< 0.5	< 0.5[a]	< 0.5	
	3/11/2010	8.04	< 0.5	< 0.5	NA	< 0.5	Benzene (2.8) Toluene (4.0) m&p-Xylene (5.6)

Notes:
[a] 1,2-Dichloroethene was not analyzed for in the 524.2 analysis. The value shown is the additive of cis-1,2-Dichloroethene and trans-1,2-Dichloroethene.

µg/L - micrograms per liter
D - Diluted reanalysis
E - The reported value exceeds linear range
J - Estimated value
J+ - Estimated value, High Bias
J- - Estimated value, Low Bias
MW - Monitoring Well
PCE - Tetrachloroethene
TCE - Trichloroethene
UJ - The analyte was analyzed for, but not detected. The sample detection limit is an estimated value.
NA - Not analyzed

Appendix G-4
Historical PCE Concentration Trends in Groundwater Monitoring Wells

FIGURE G-4(a)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

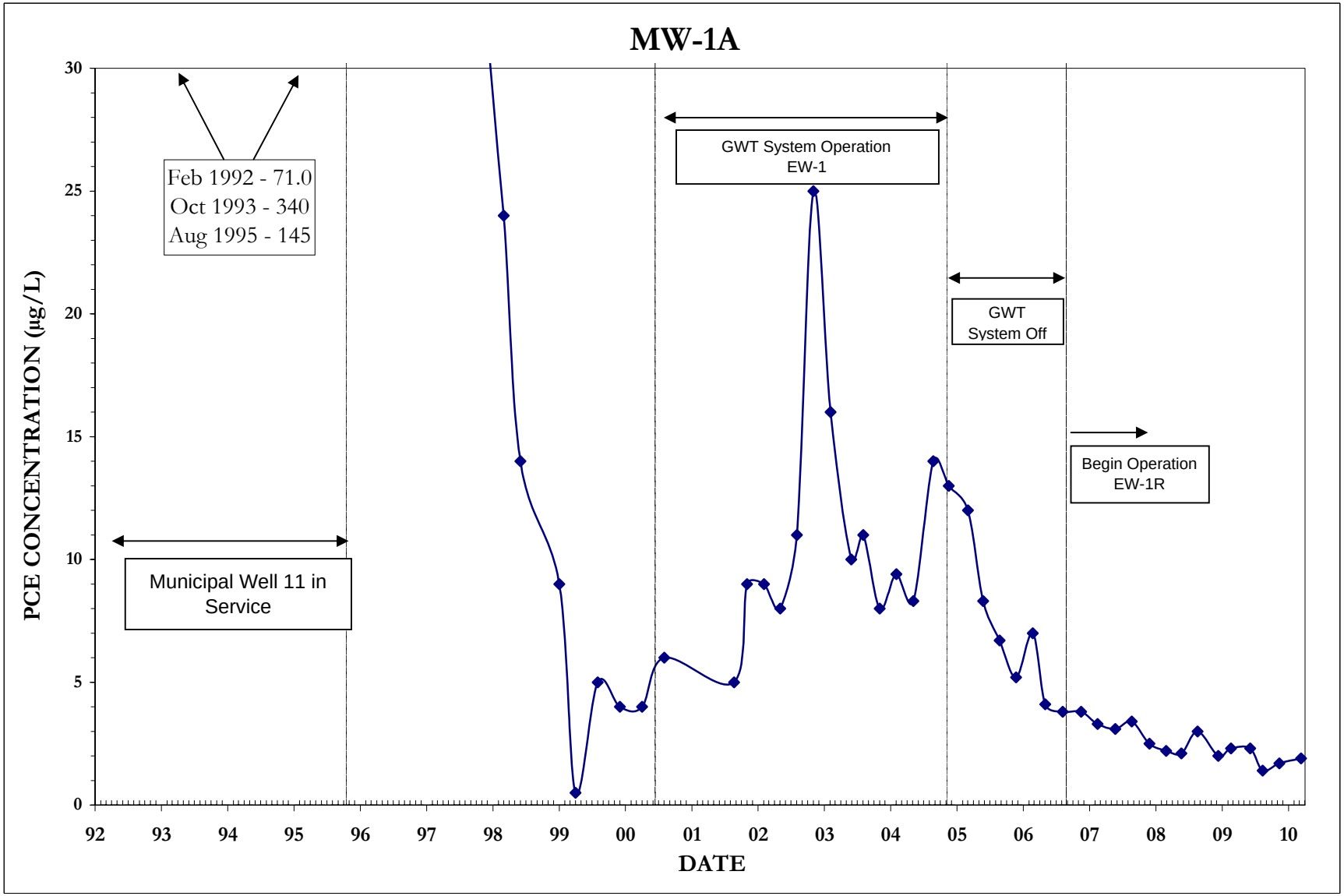


FIGURE G-4(b)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

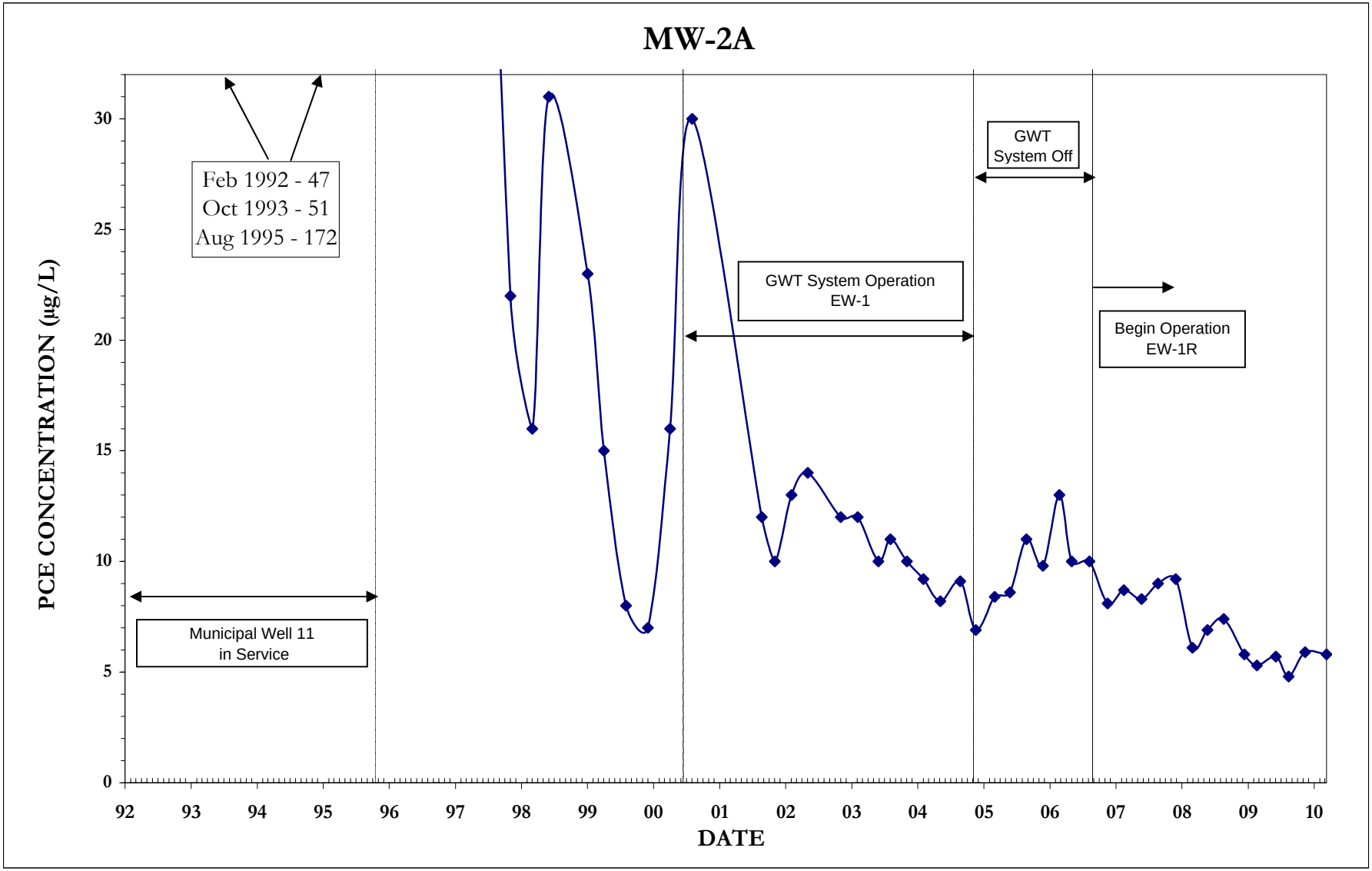


FIGURE G-4(c)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

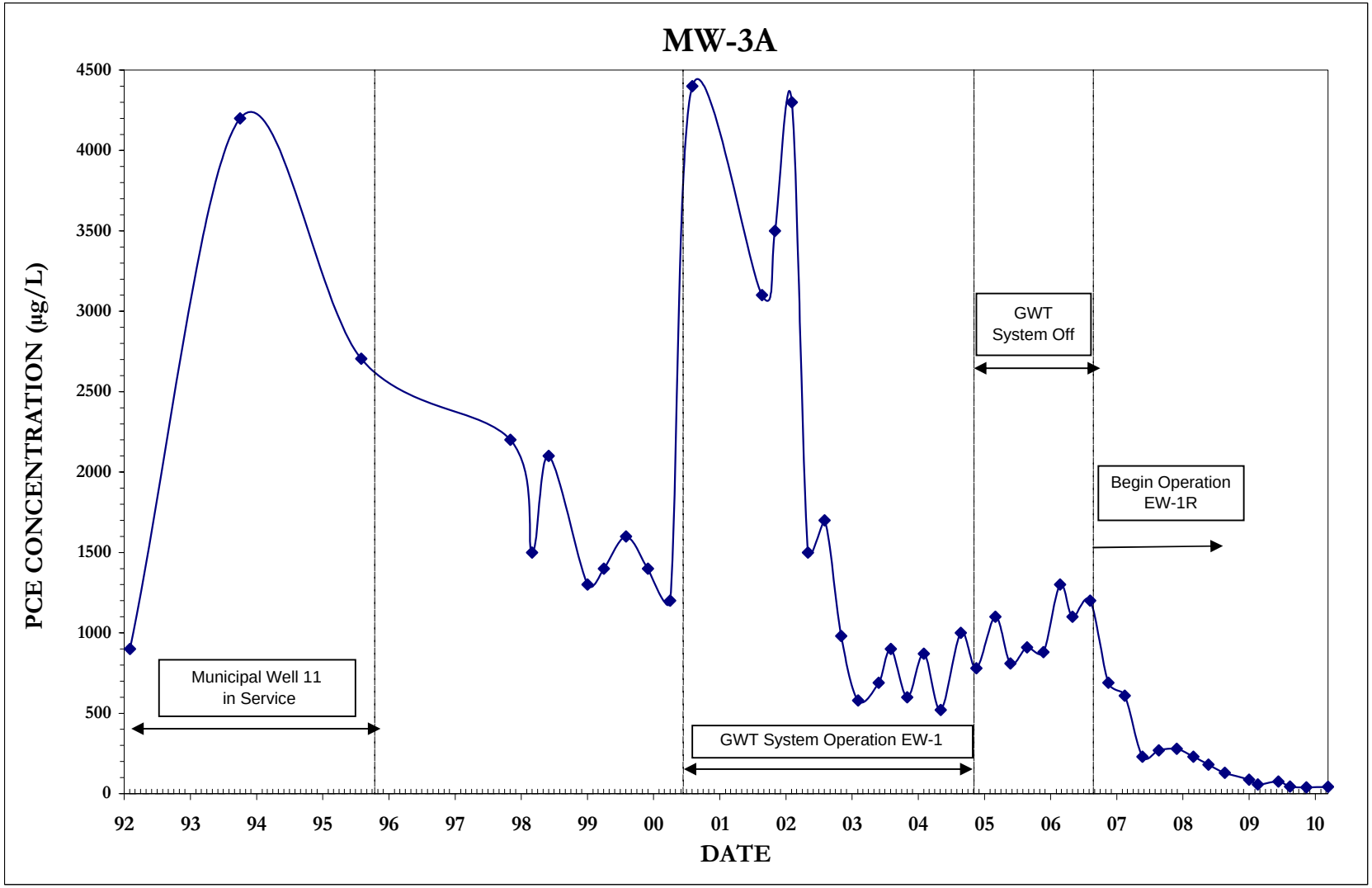


FIGURE G-4(d)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

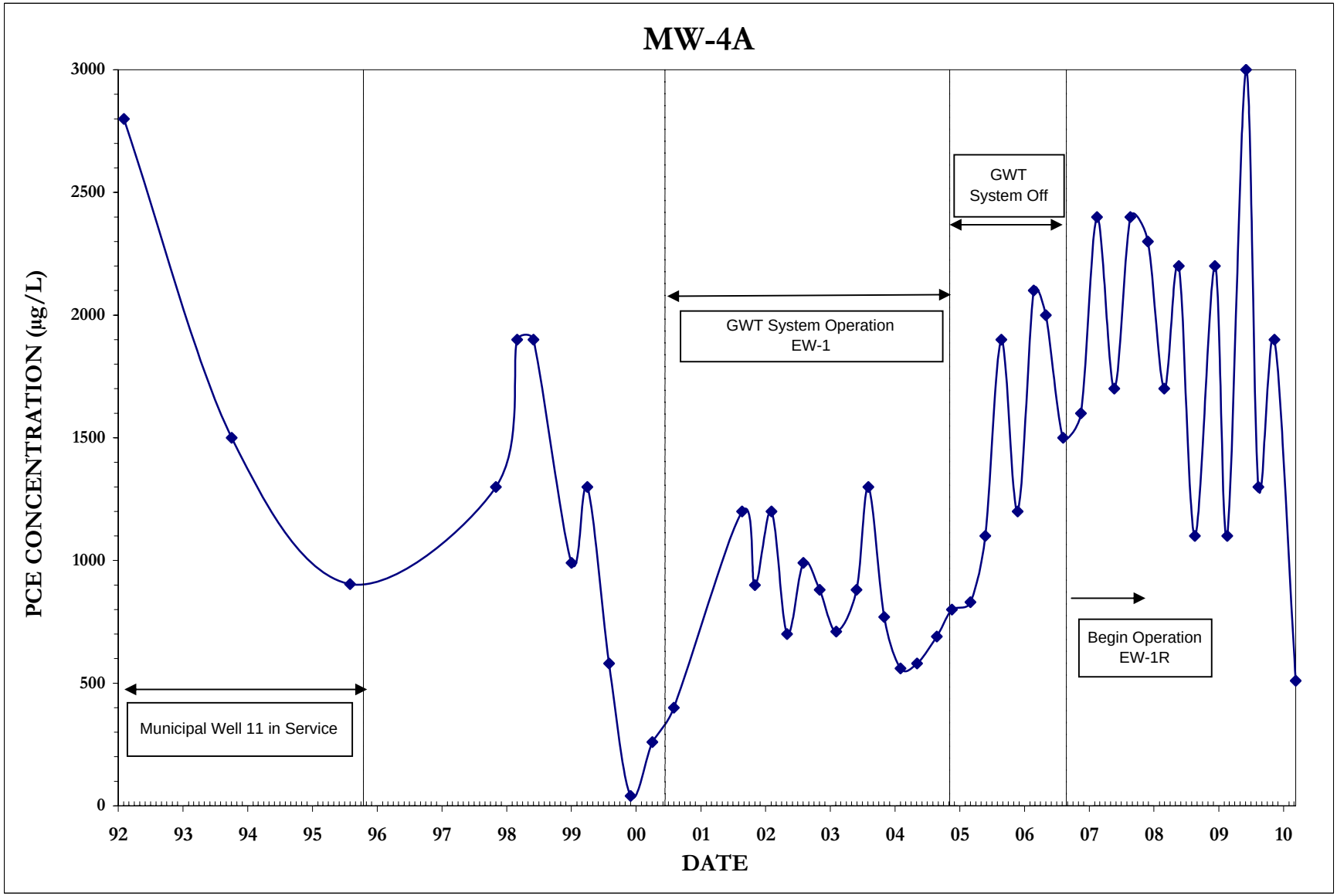


FIGURE G-4(e)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

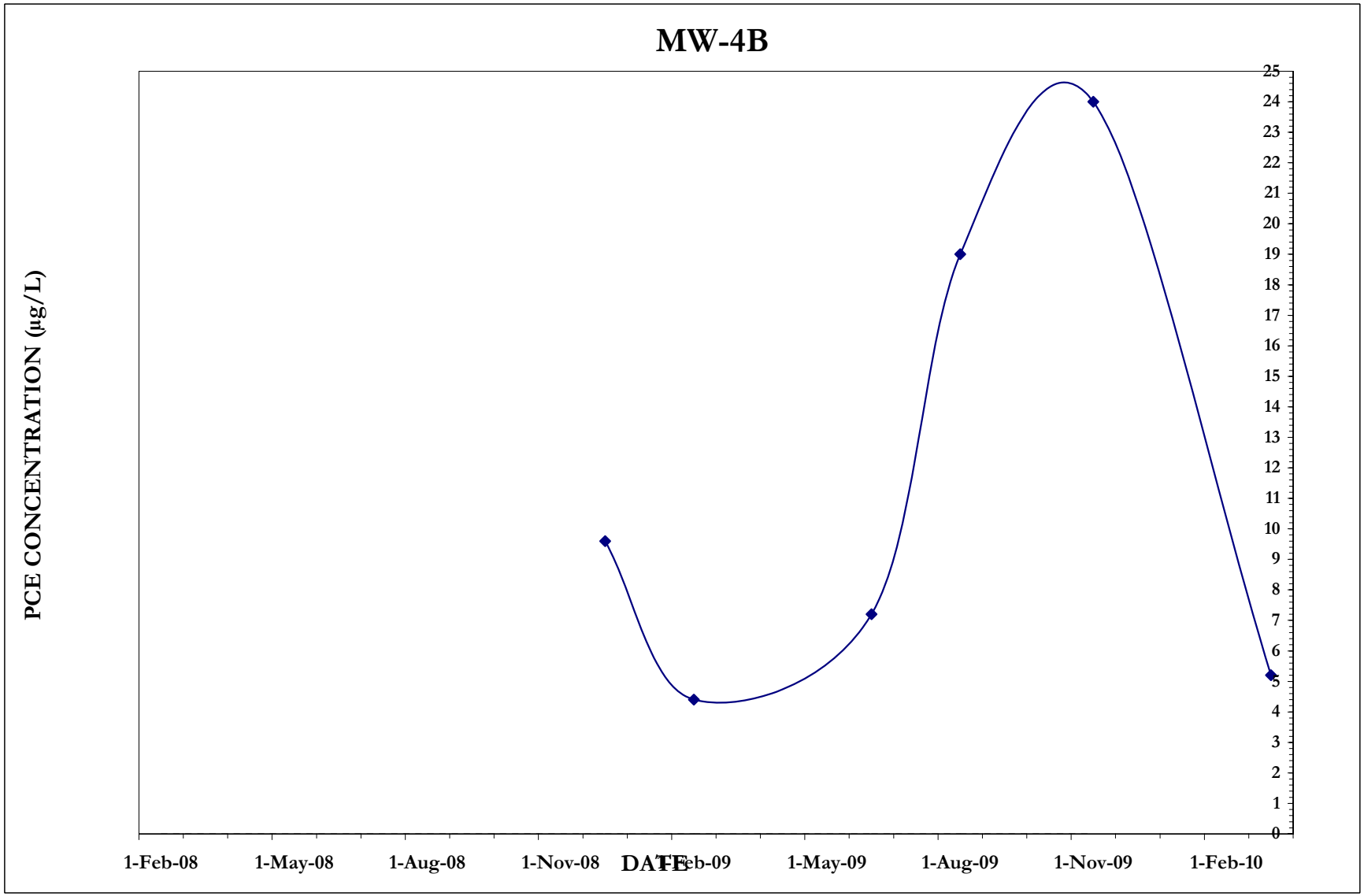


FIGURE G-4(f)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

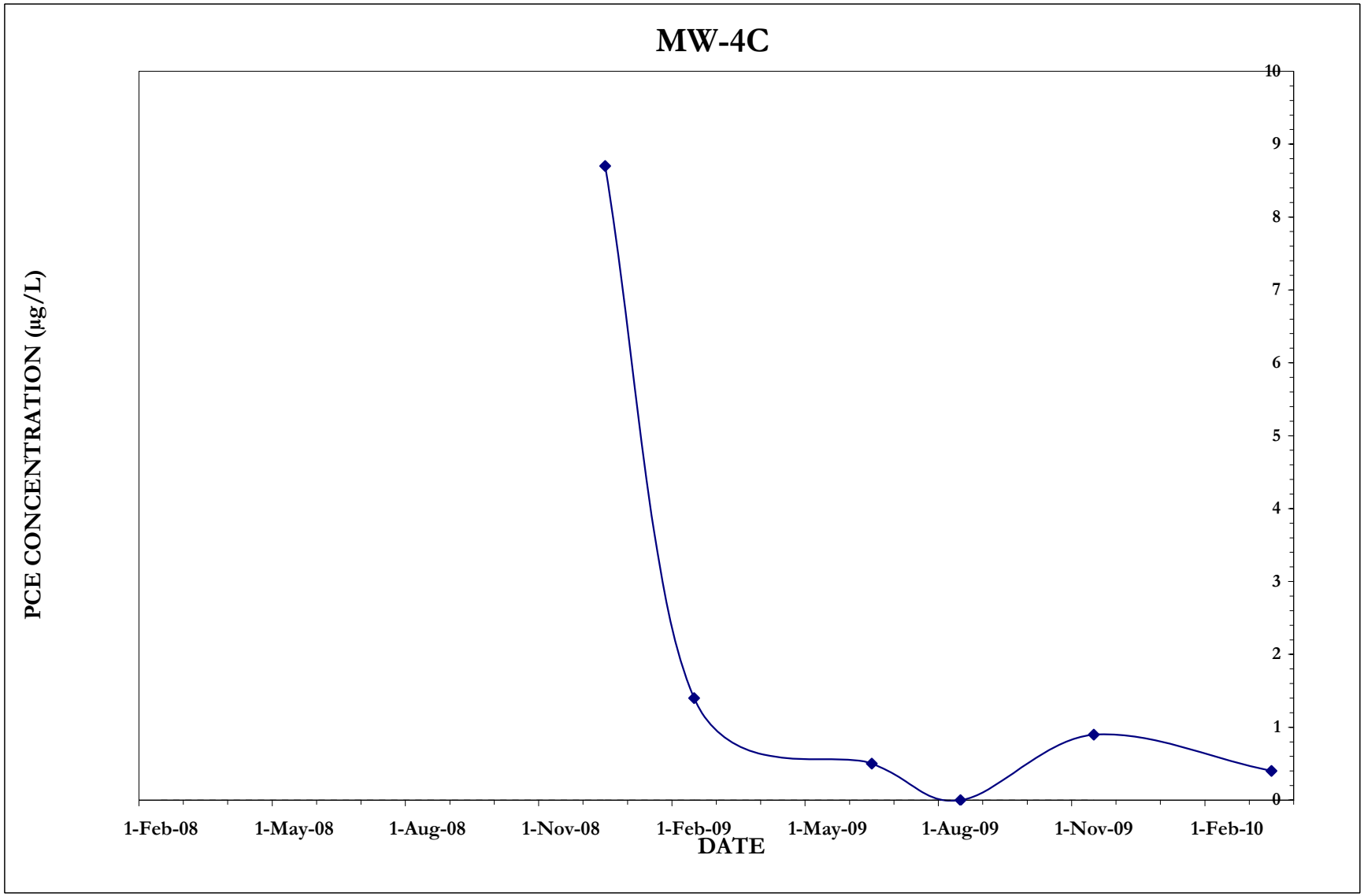


FIGURE G-4(g)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

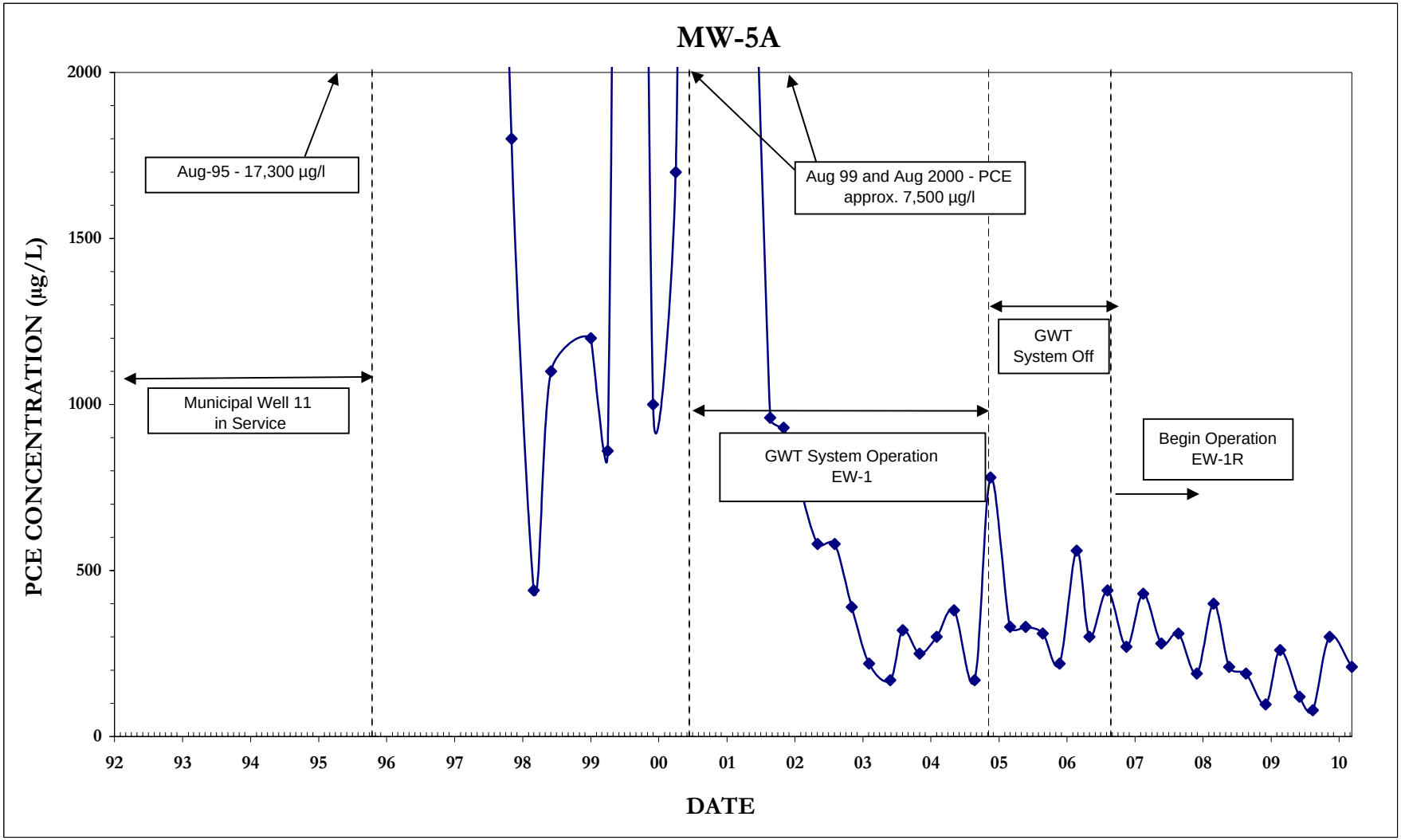


FIGURE G-4(h)

HISTORICAL PCE CONCENTRATION IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

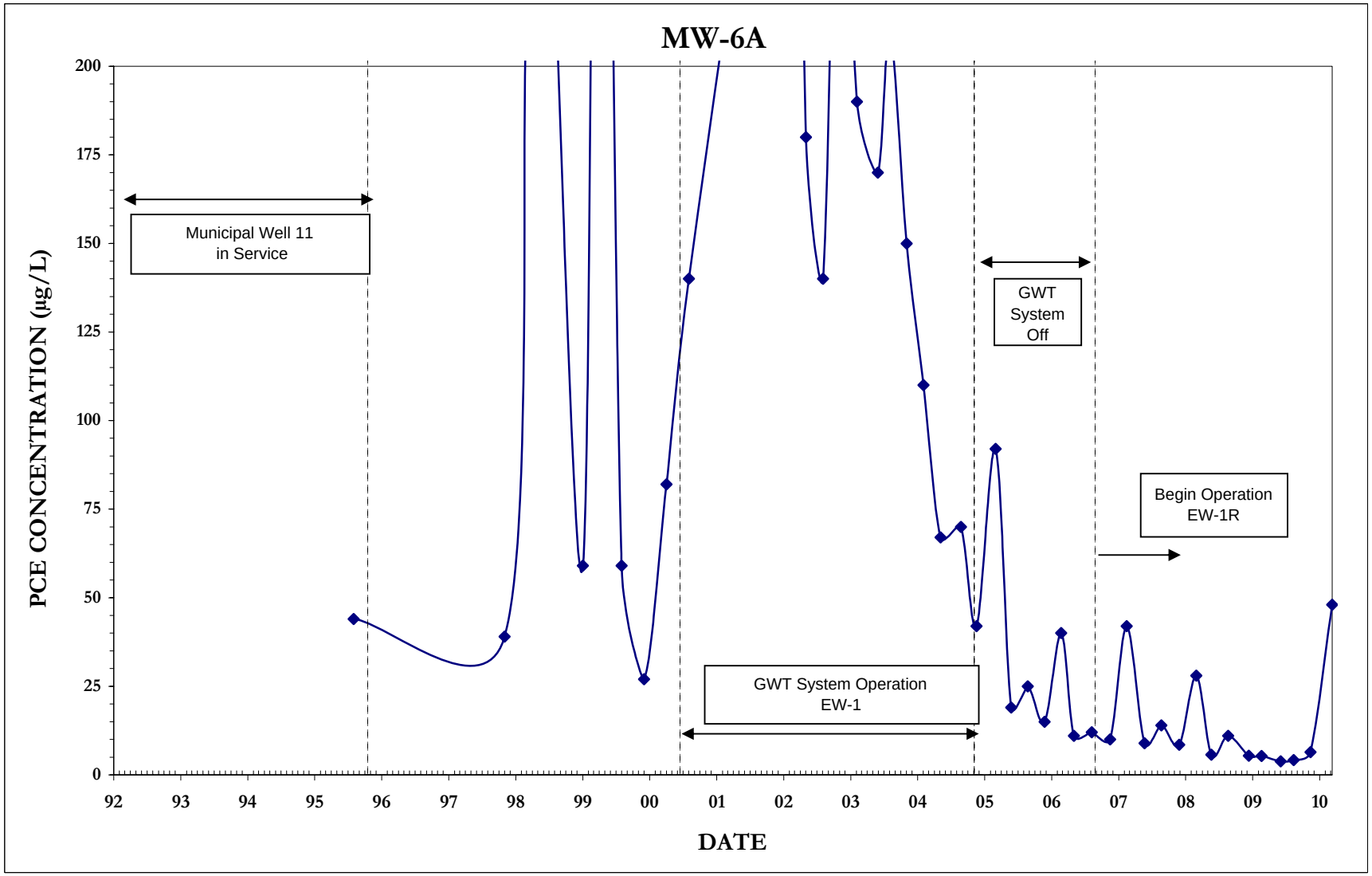


FIGURE G-4(i)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

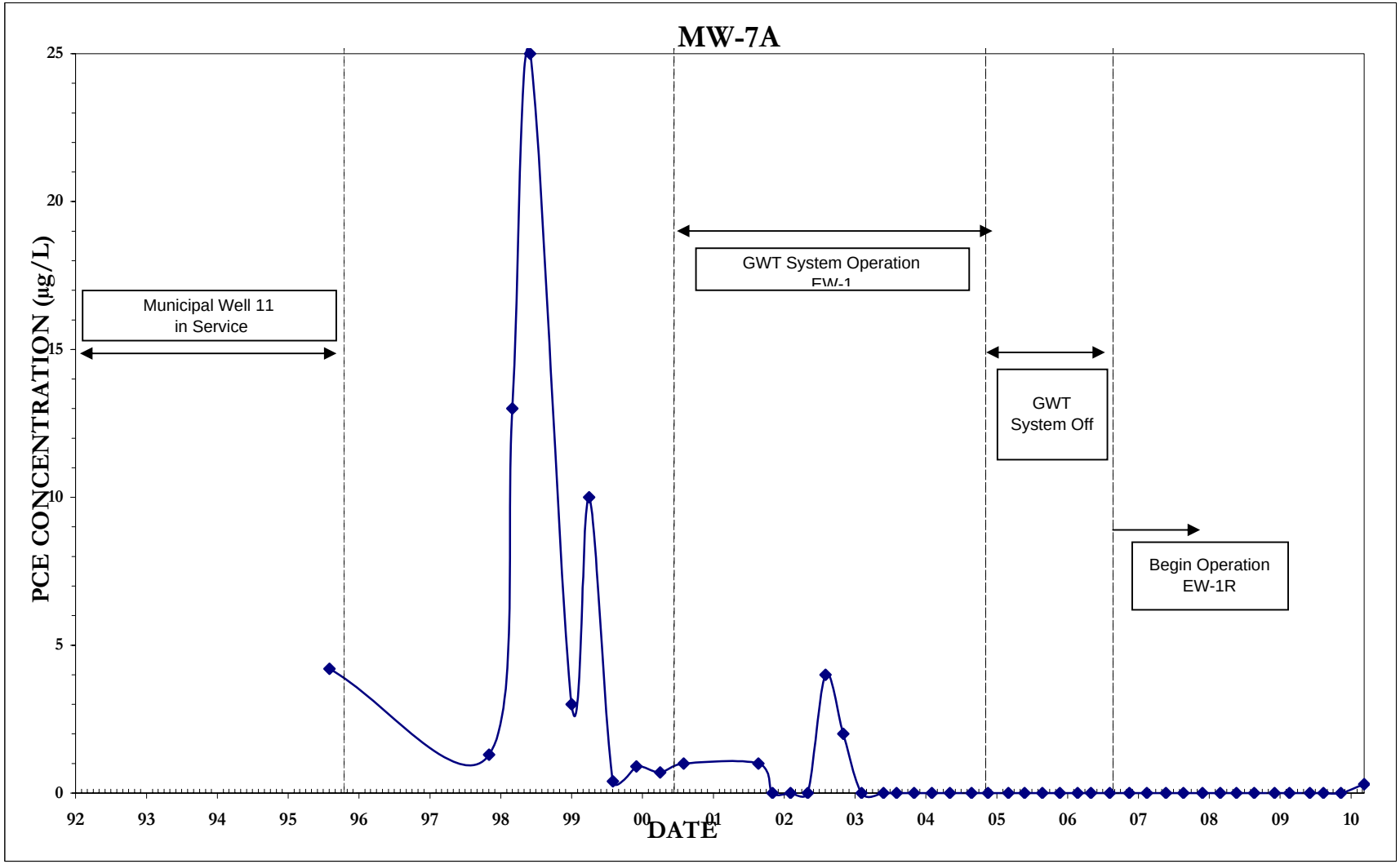


FIGURE G-4(j)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

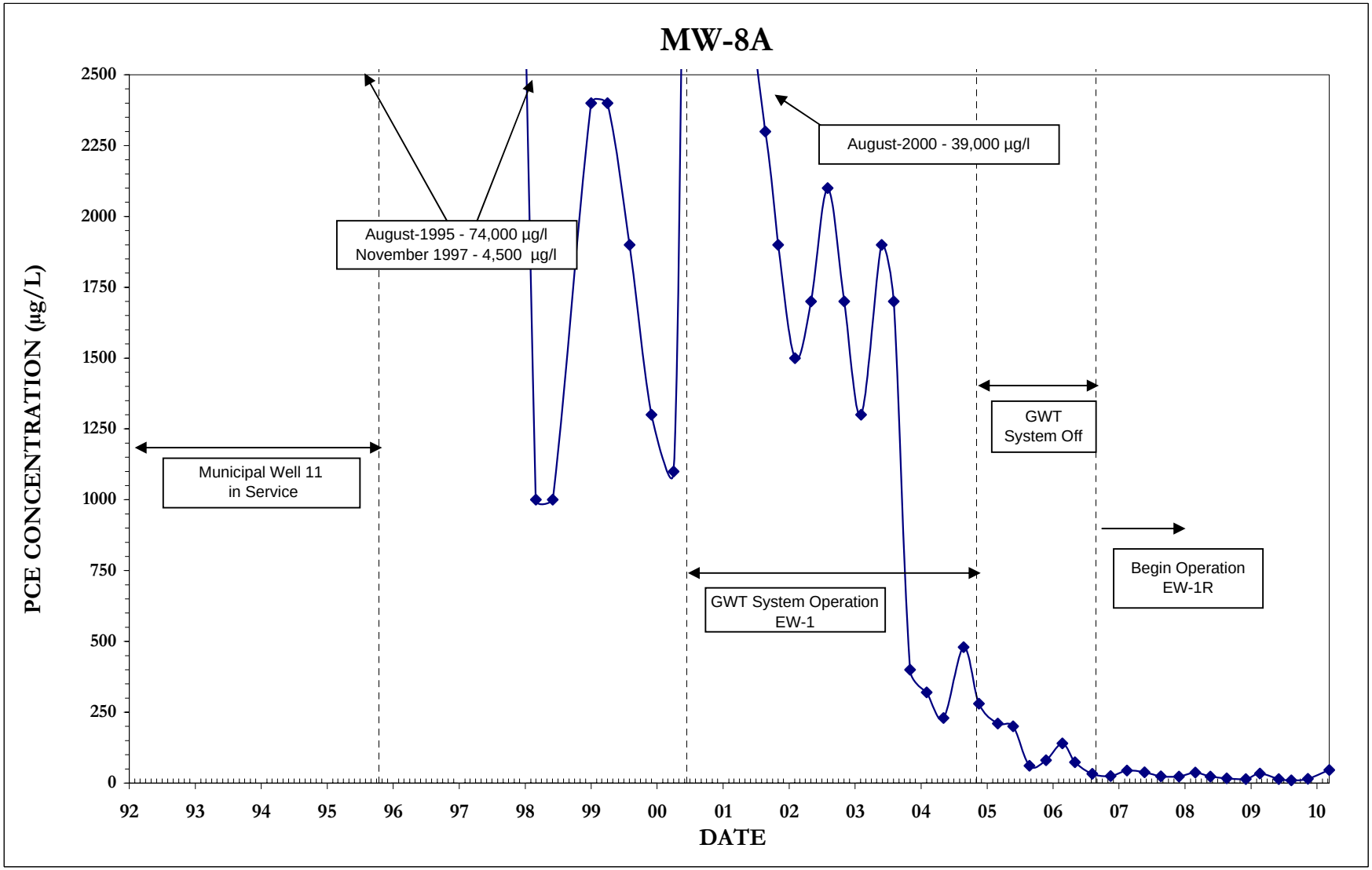


FIGURE G-4(k)

HISTORICAL PCE CONCENTRATIONS IN GROUDNWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

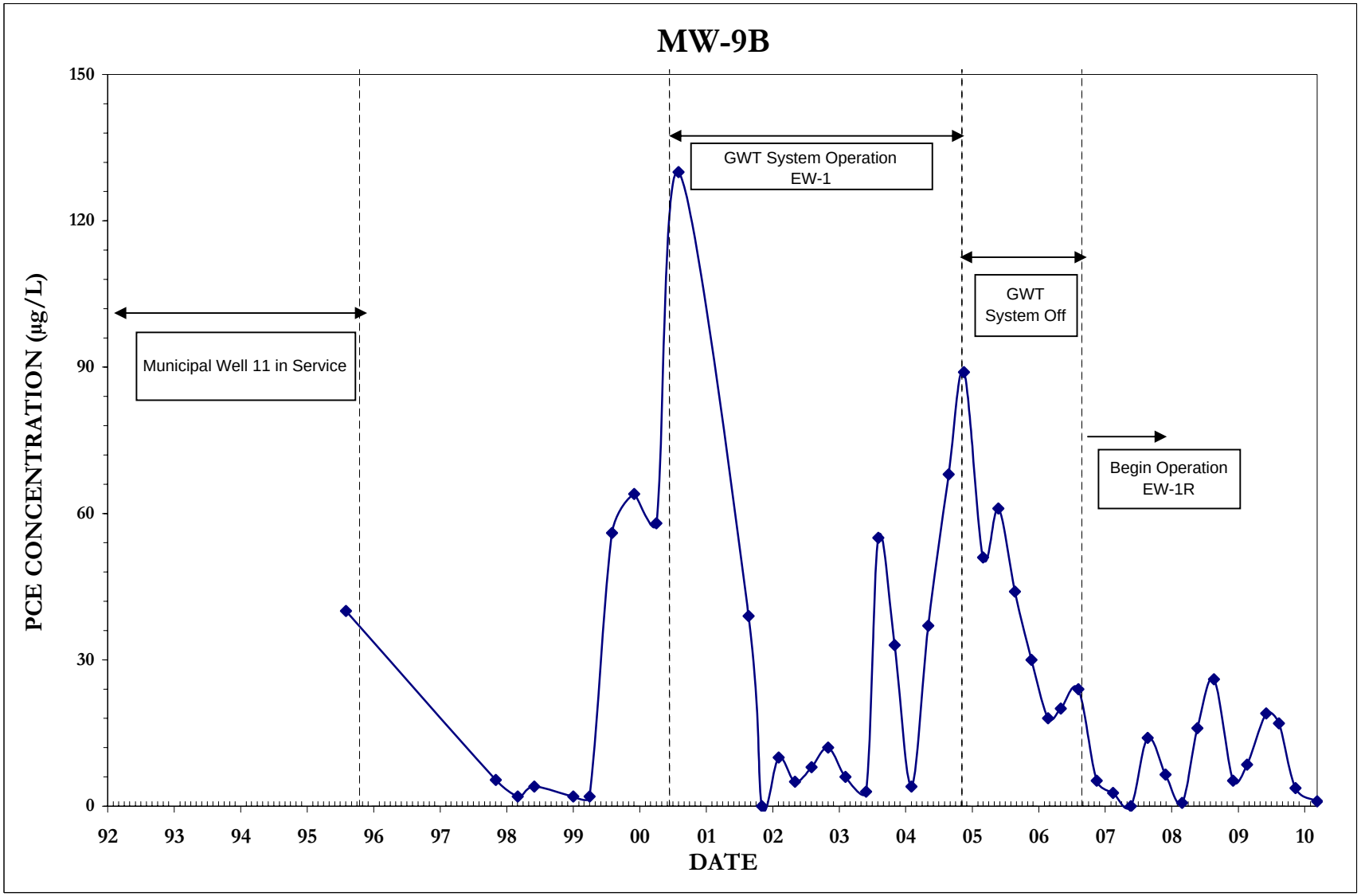


FIGURE G-4(l)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

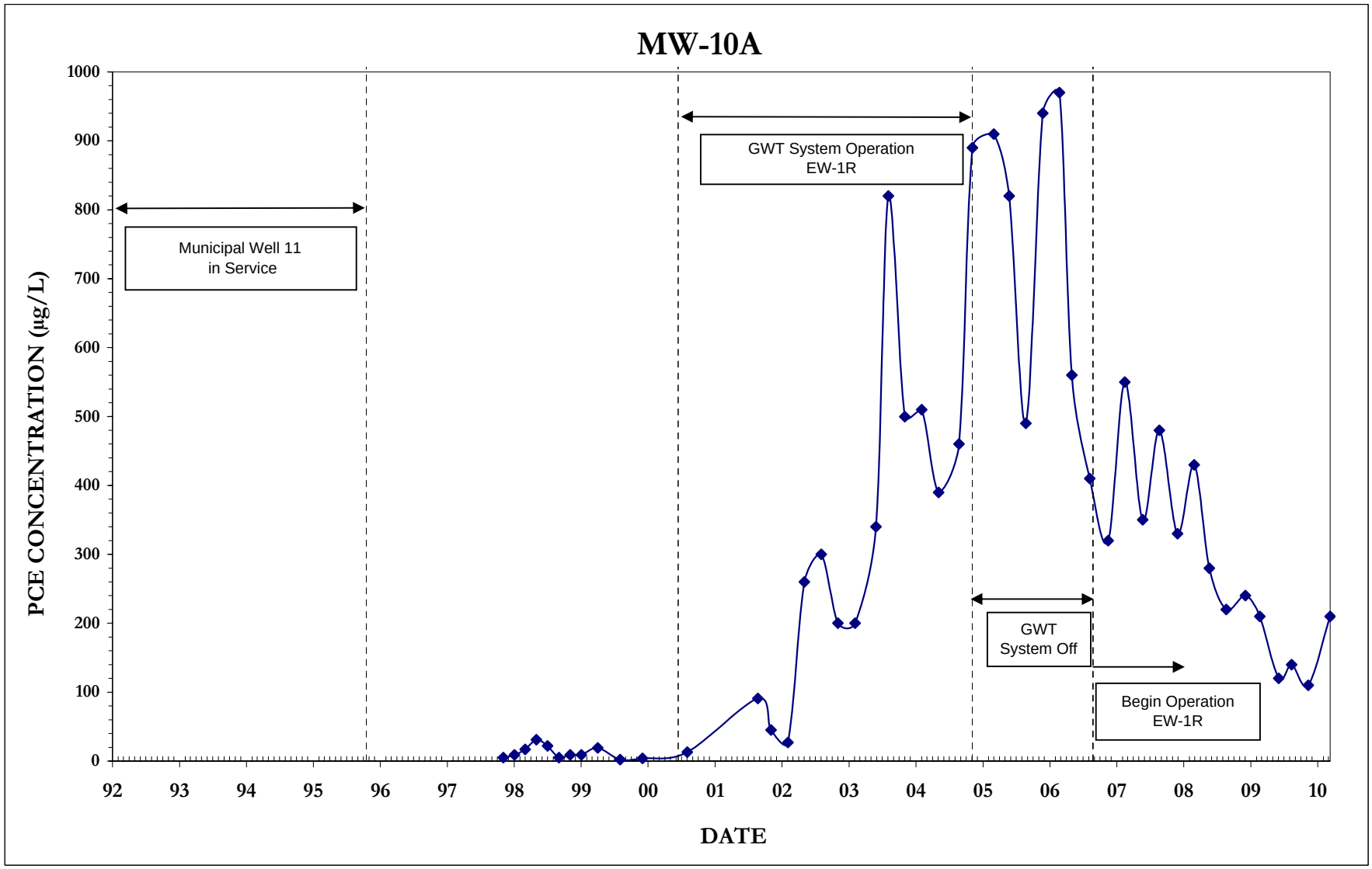


FIGURE G-4(m)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

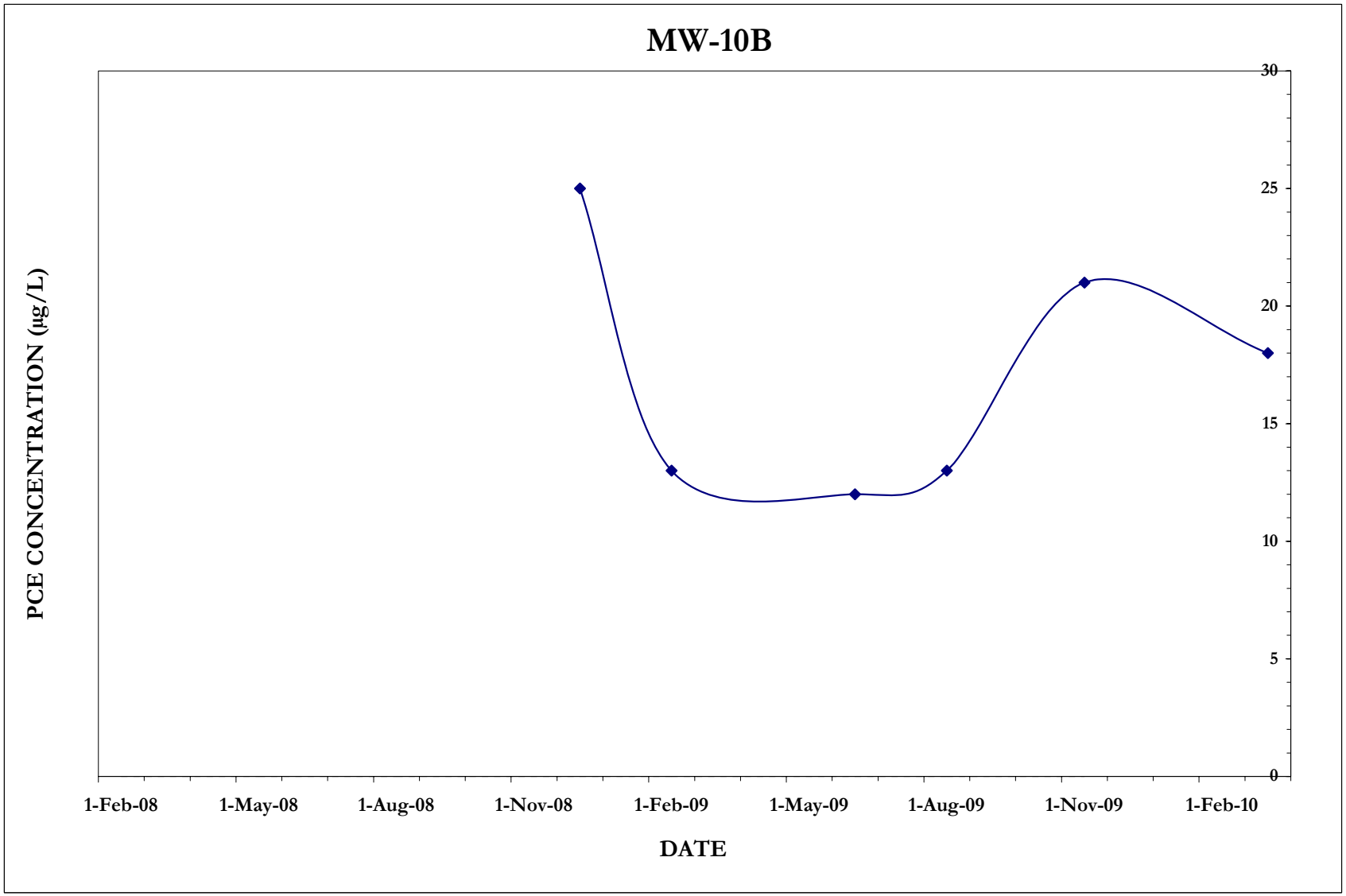


FIGURE G-4(n)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

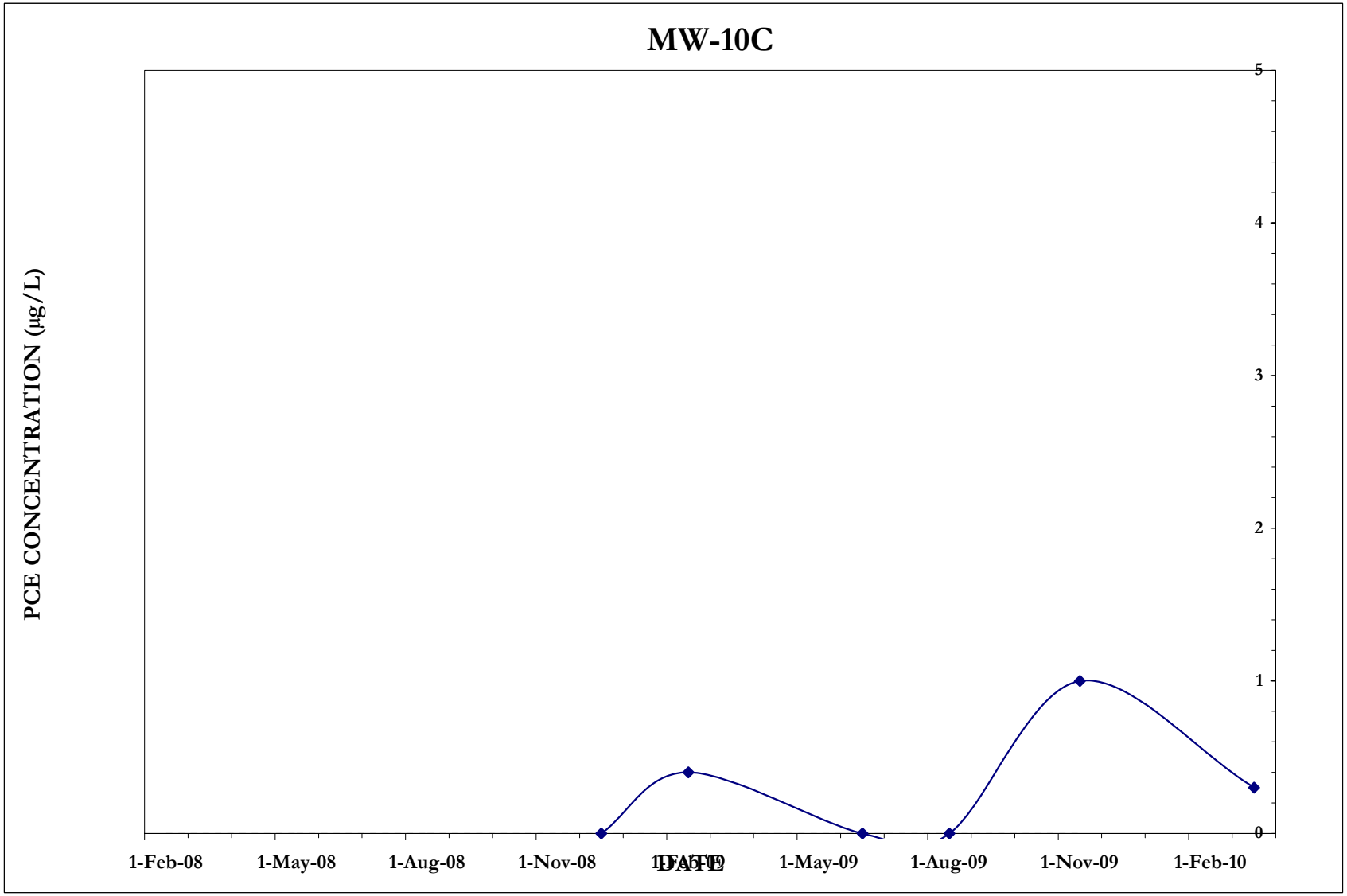


FIGURE G-4(o)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

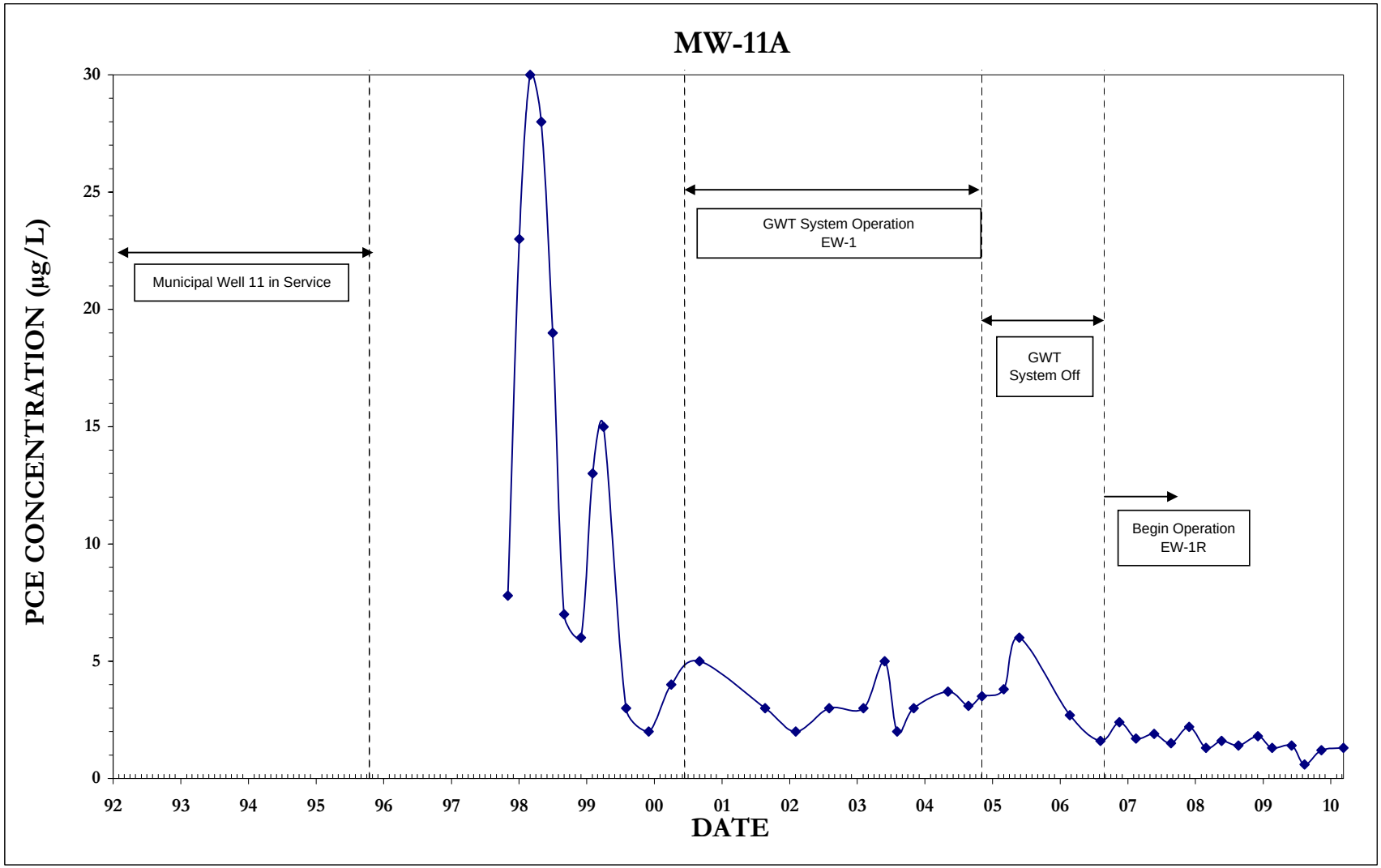


FIGURE G-4(p)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

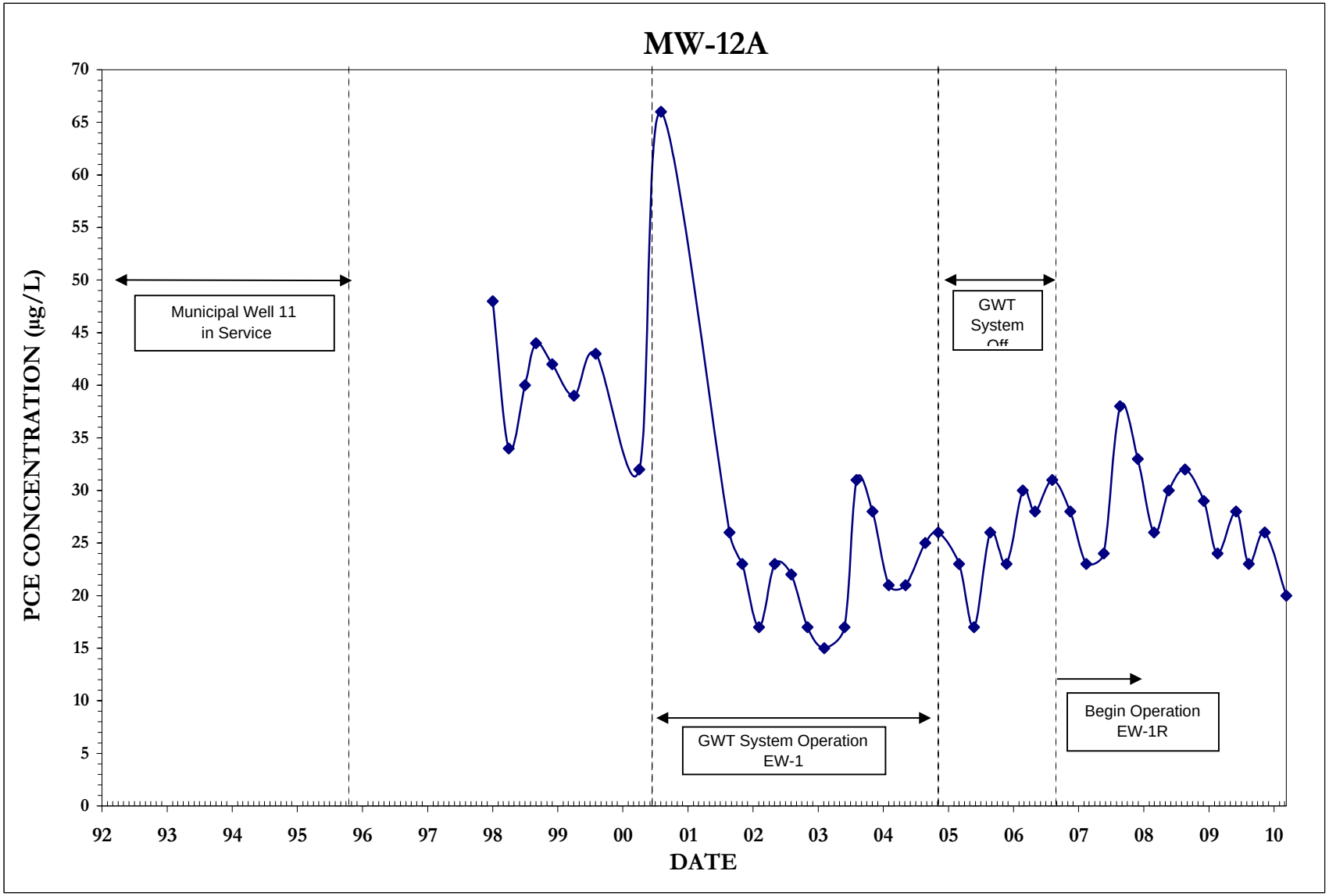


FIGURE G-4(q)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

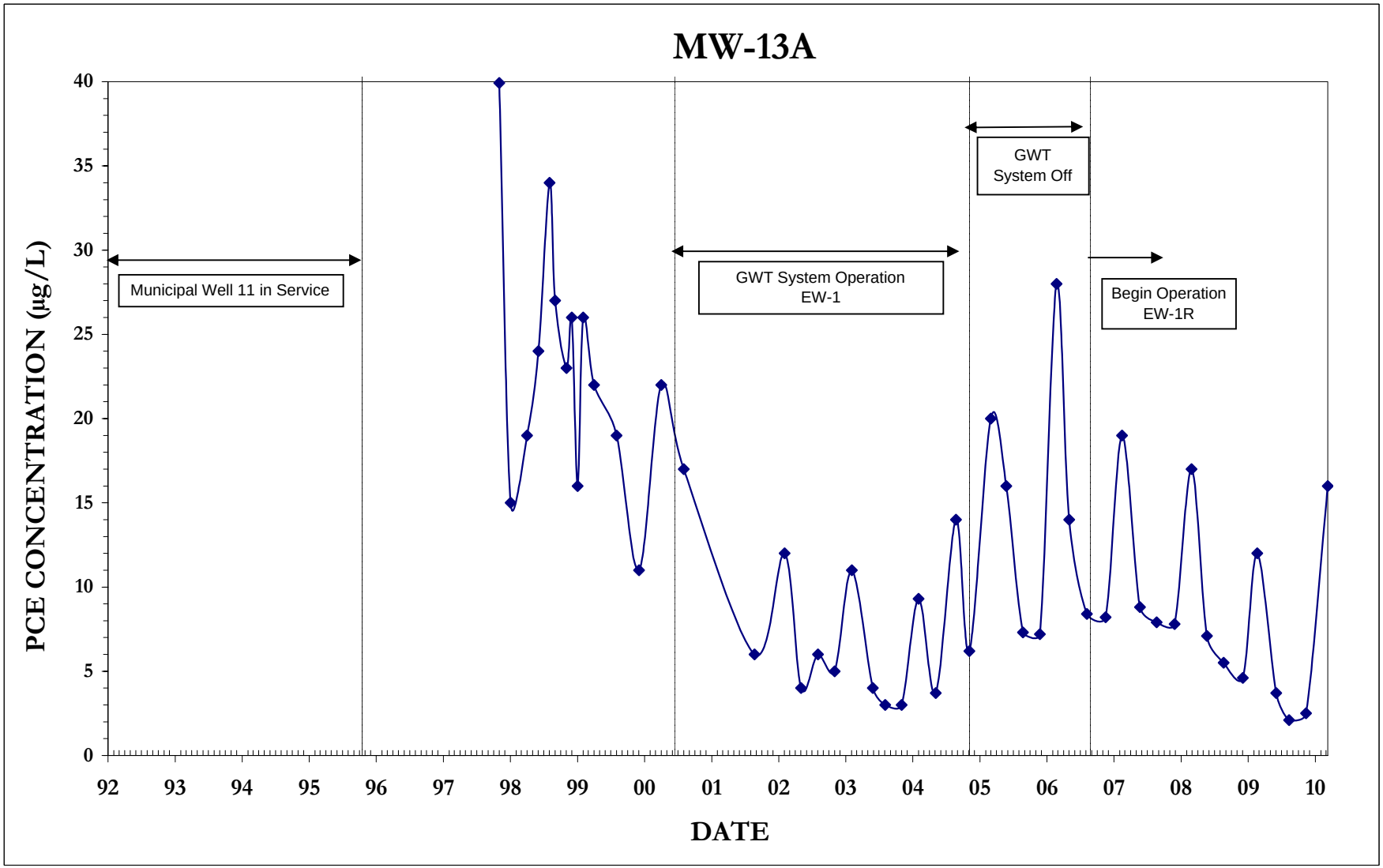


FIGURE G-4(r)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

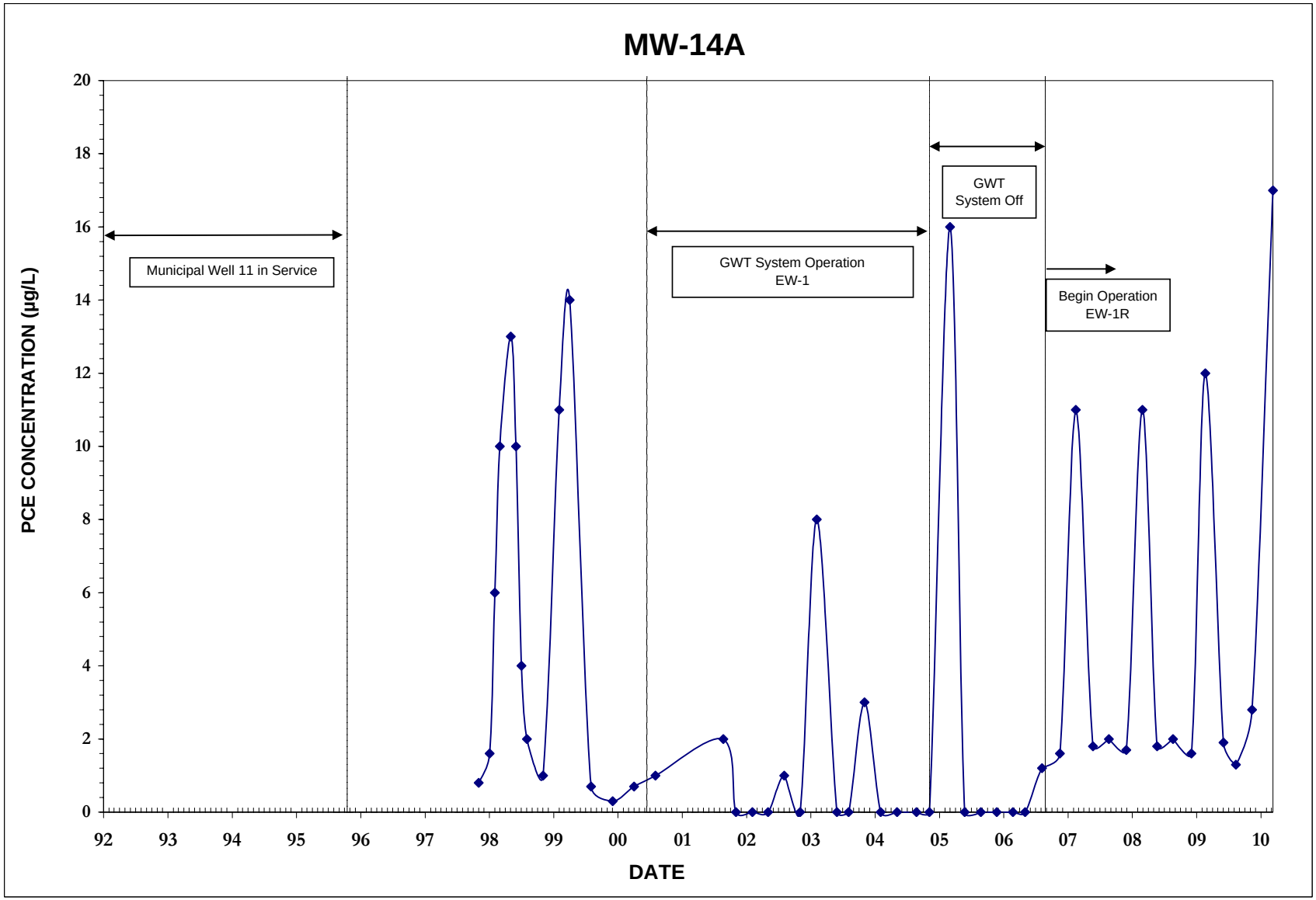


FIGURE G-4(s)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

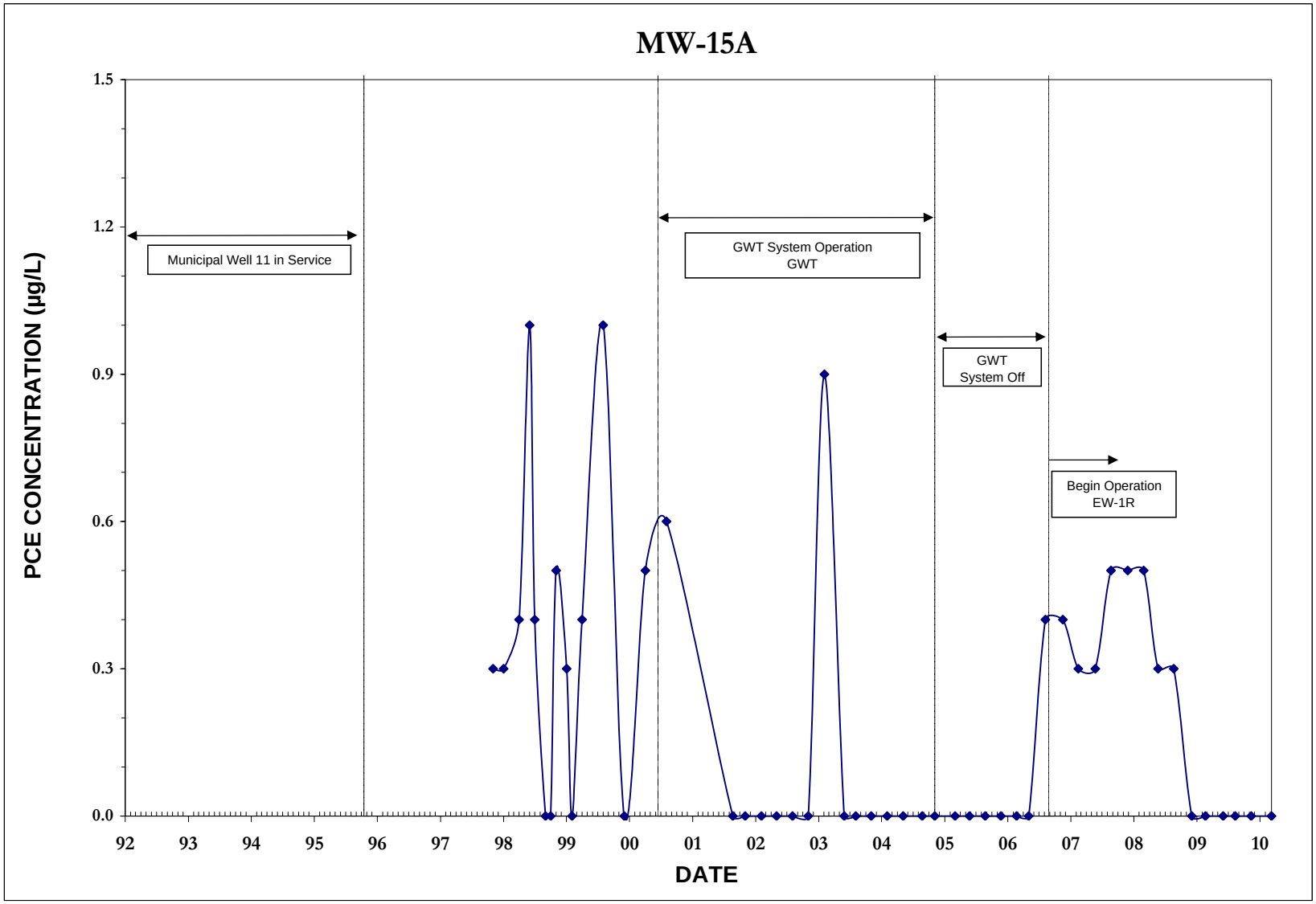


FIGURE G-4(t)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

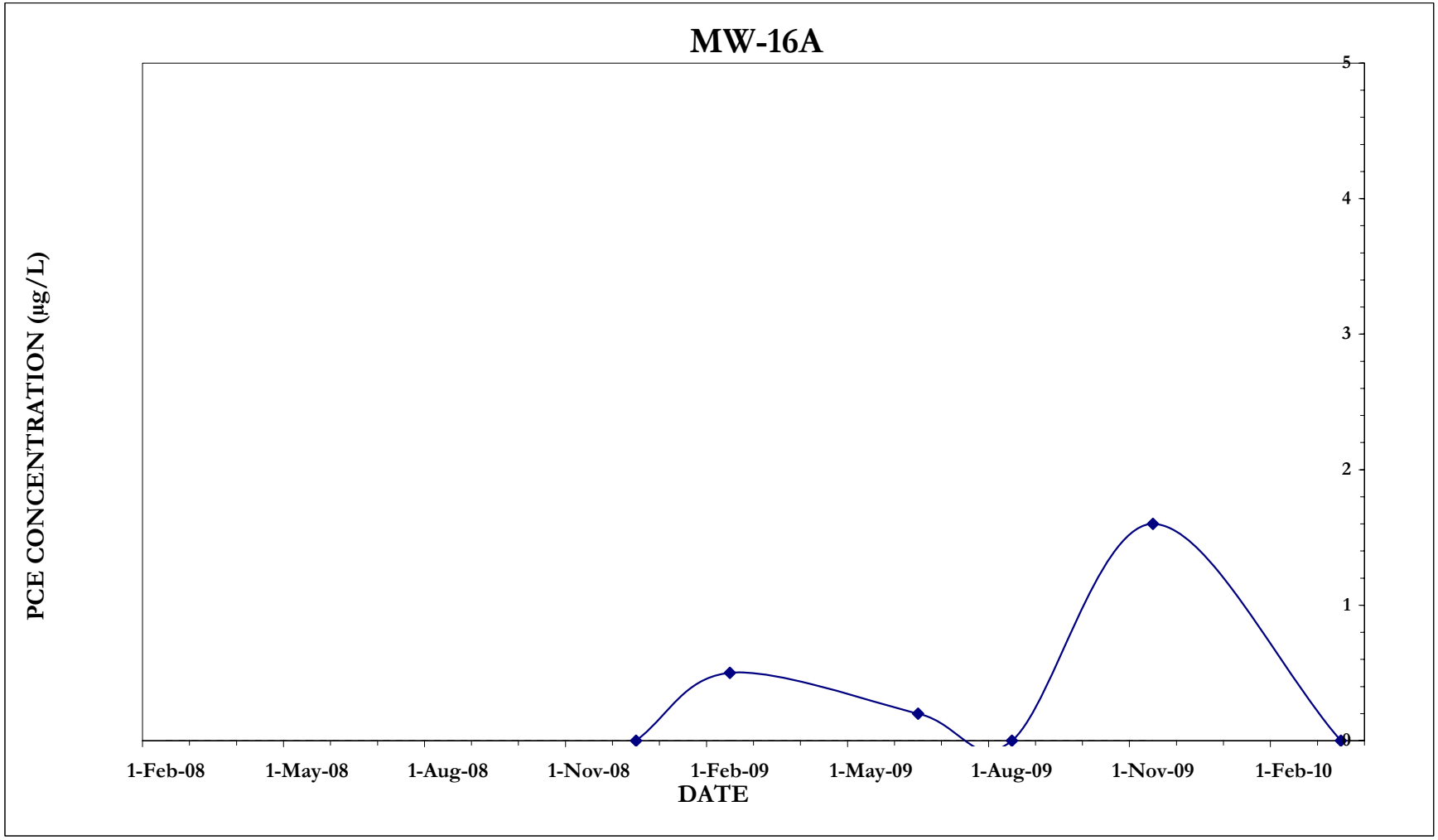


FIGURE G-4(u)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

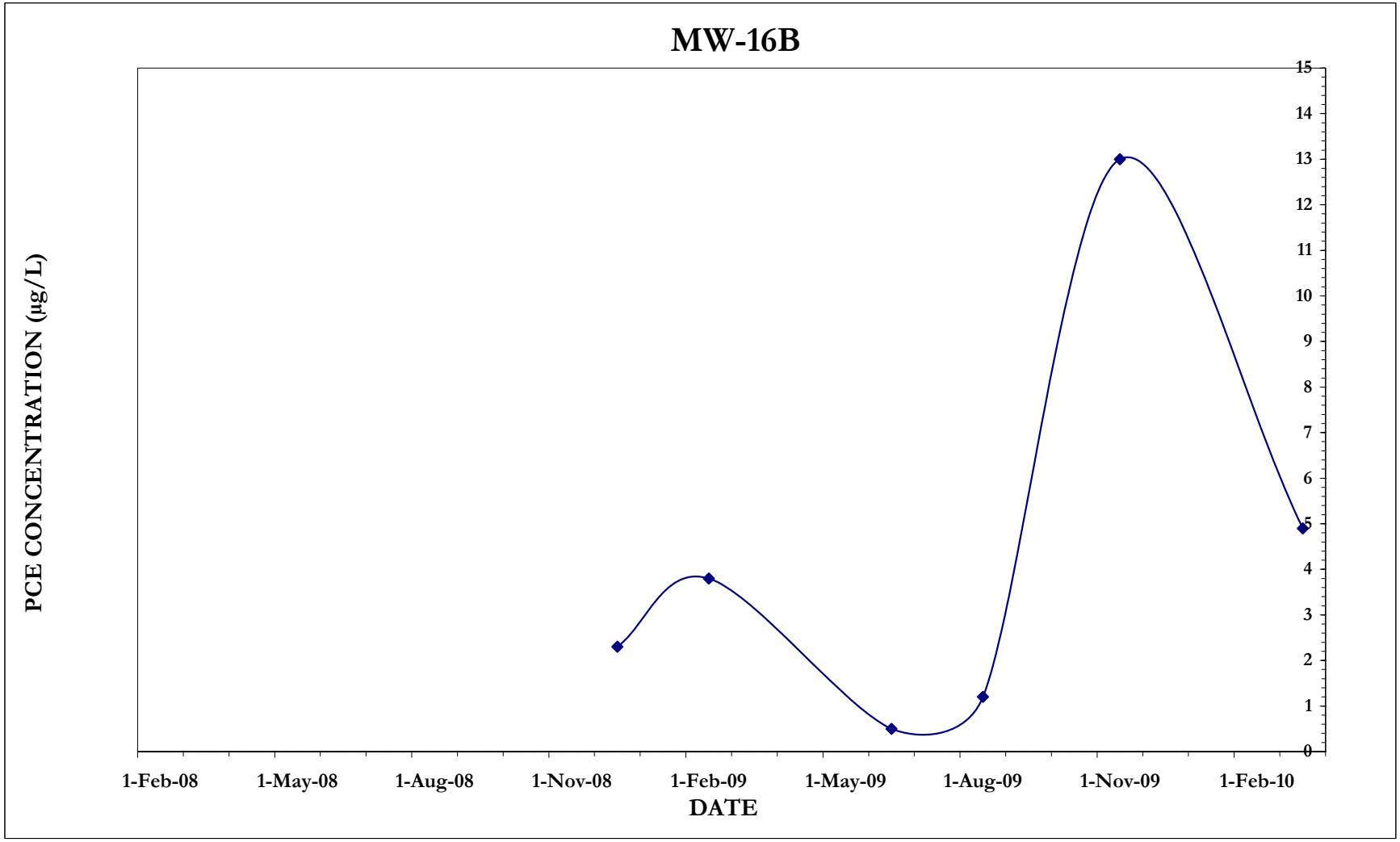


FIGURE G-4(v)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

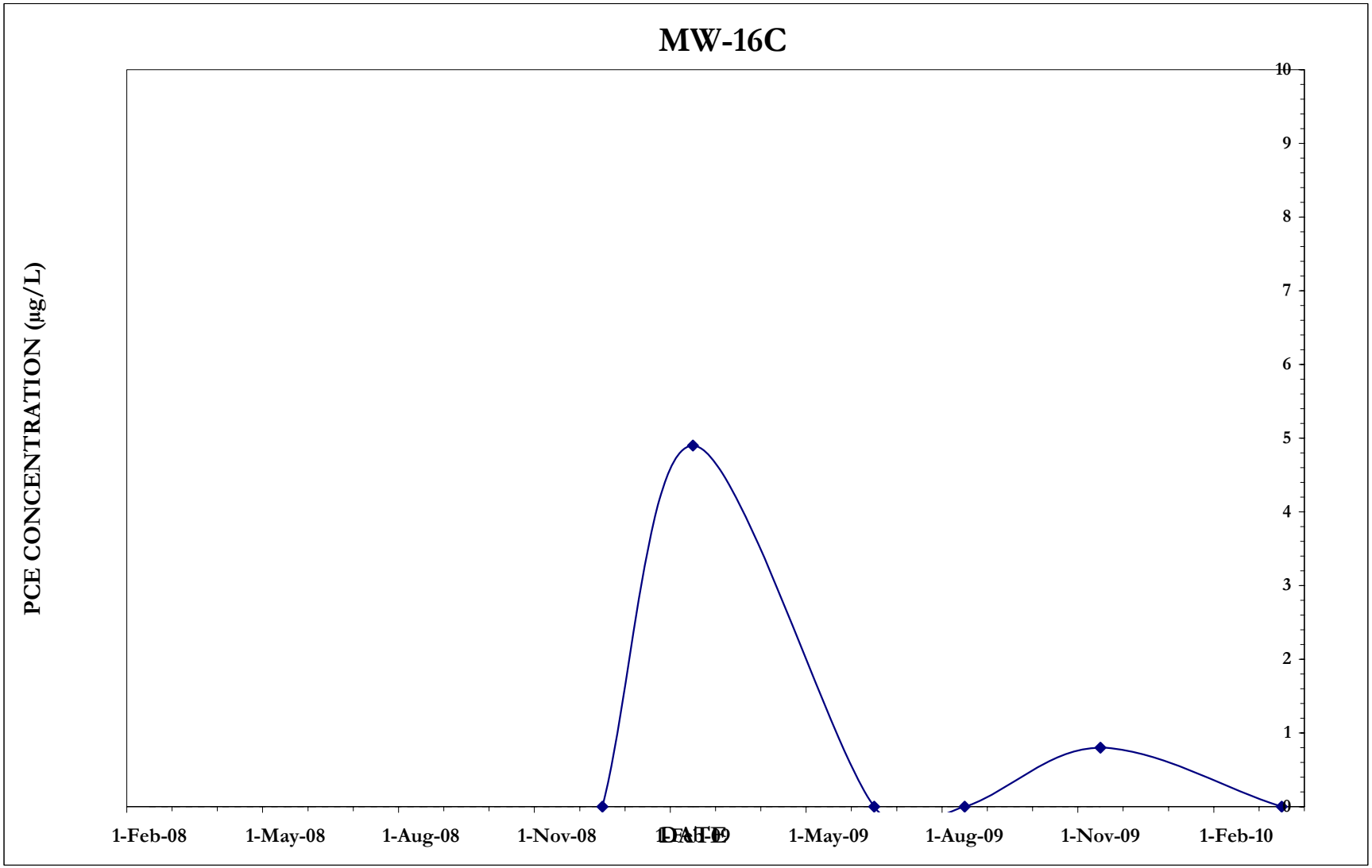


FIGURE G-4(w)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

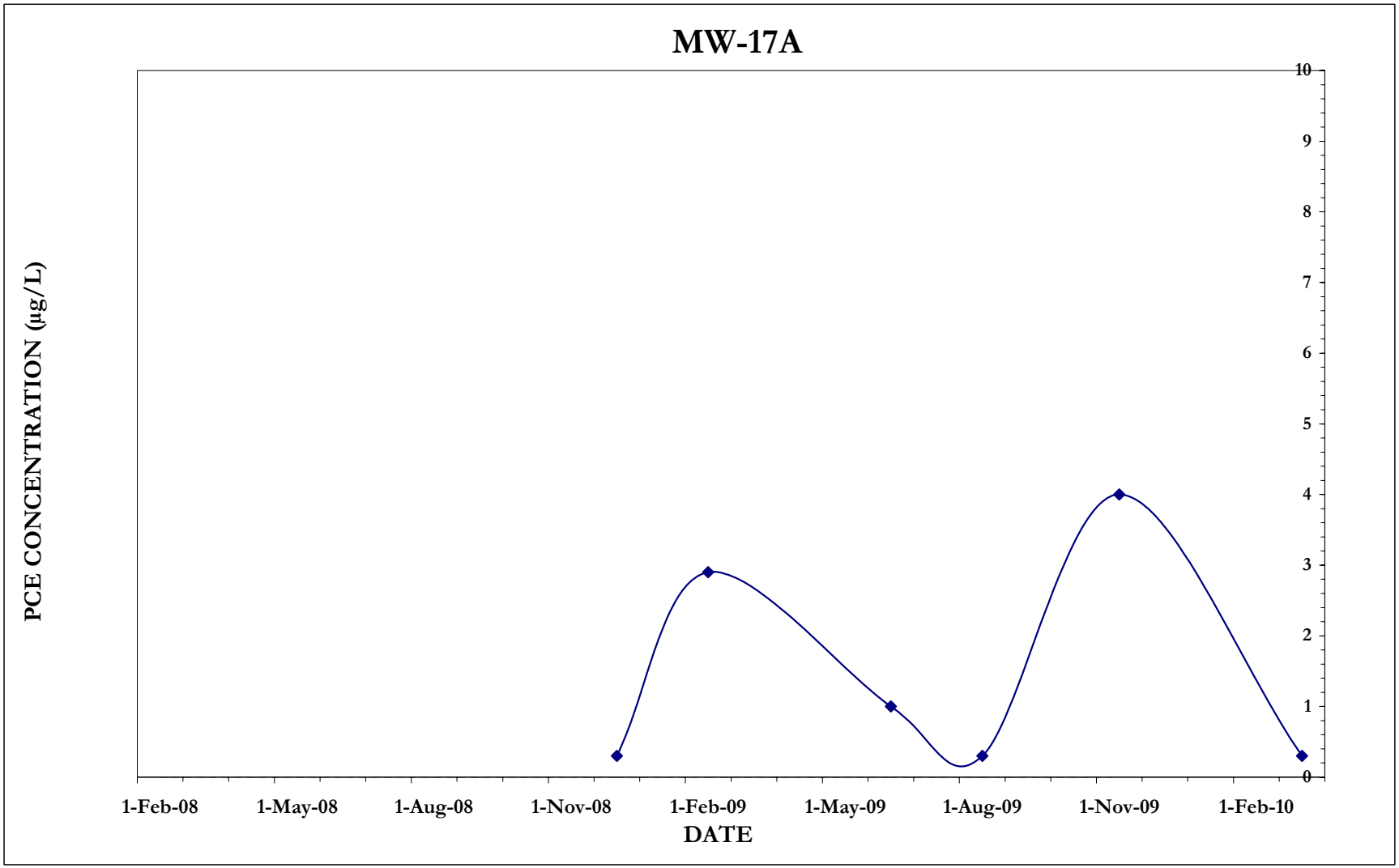


FIGURE G-4(x)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

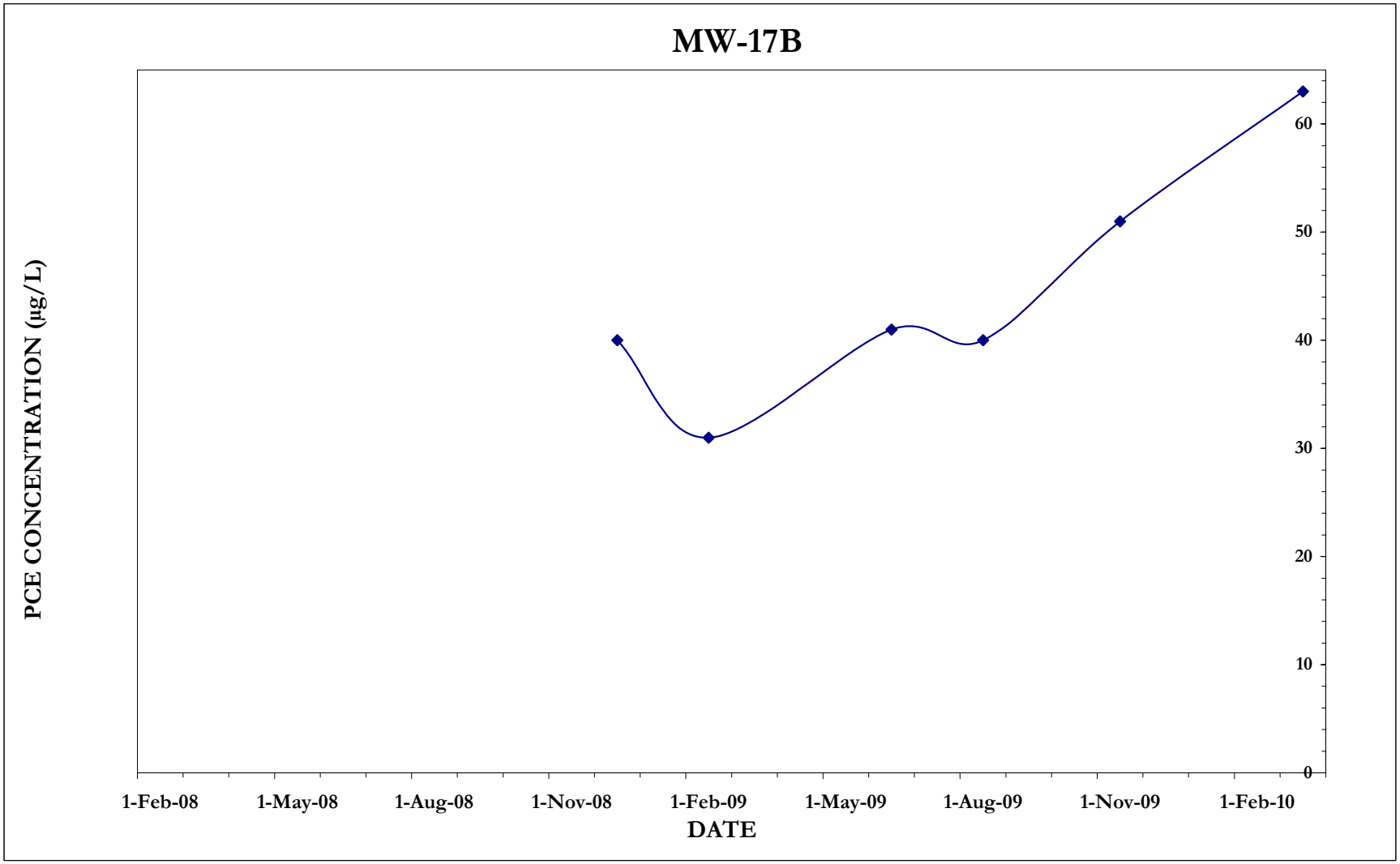


FIGURE G-4(y)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

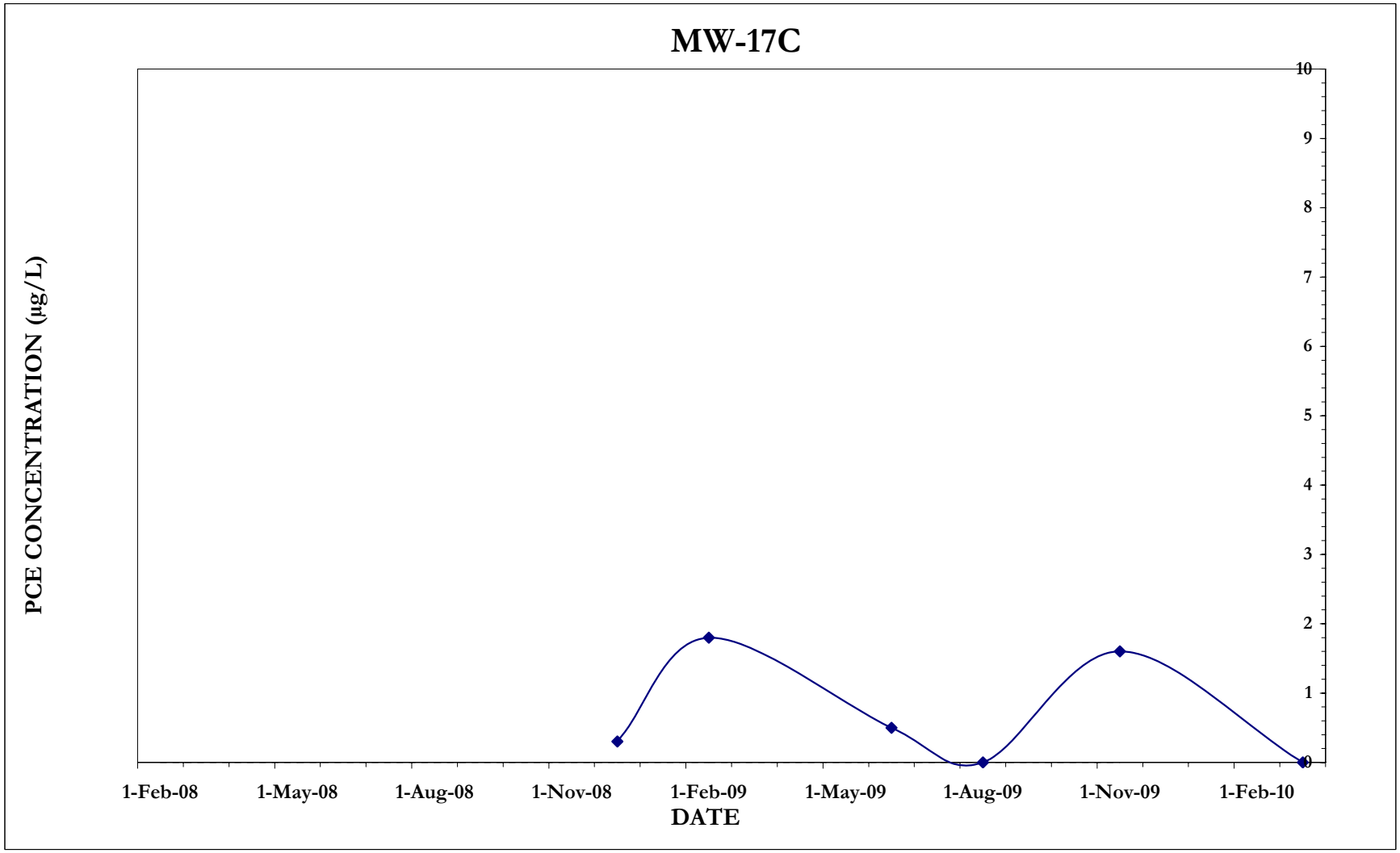


FIGURE G-4(z)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

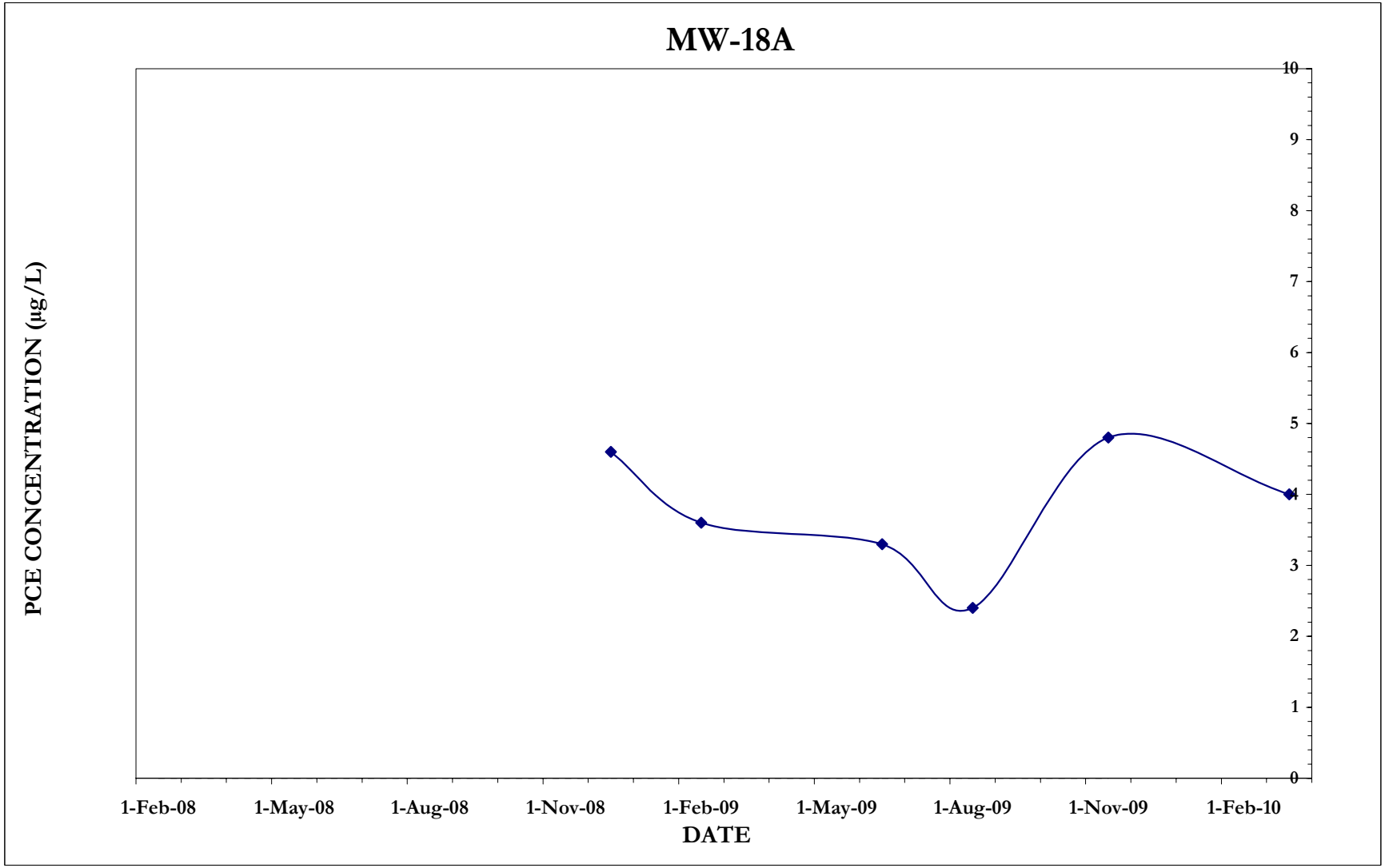


FIGURE G-4(aa)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

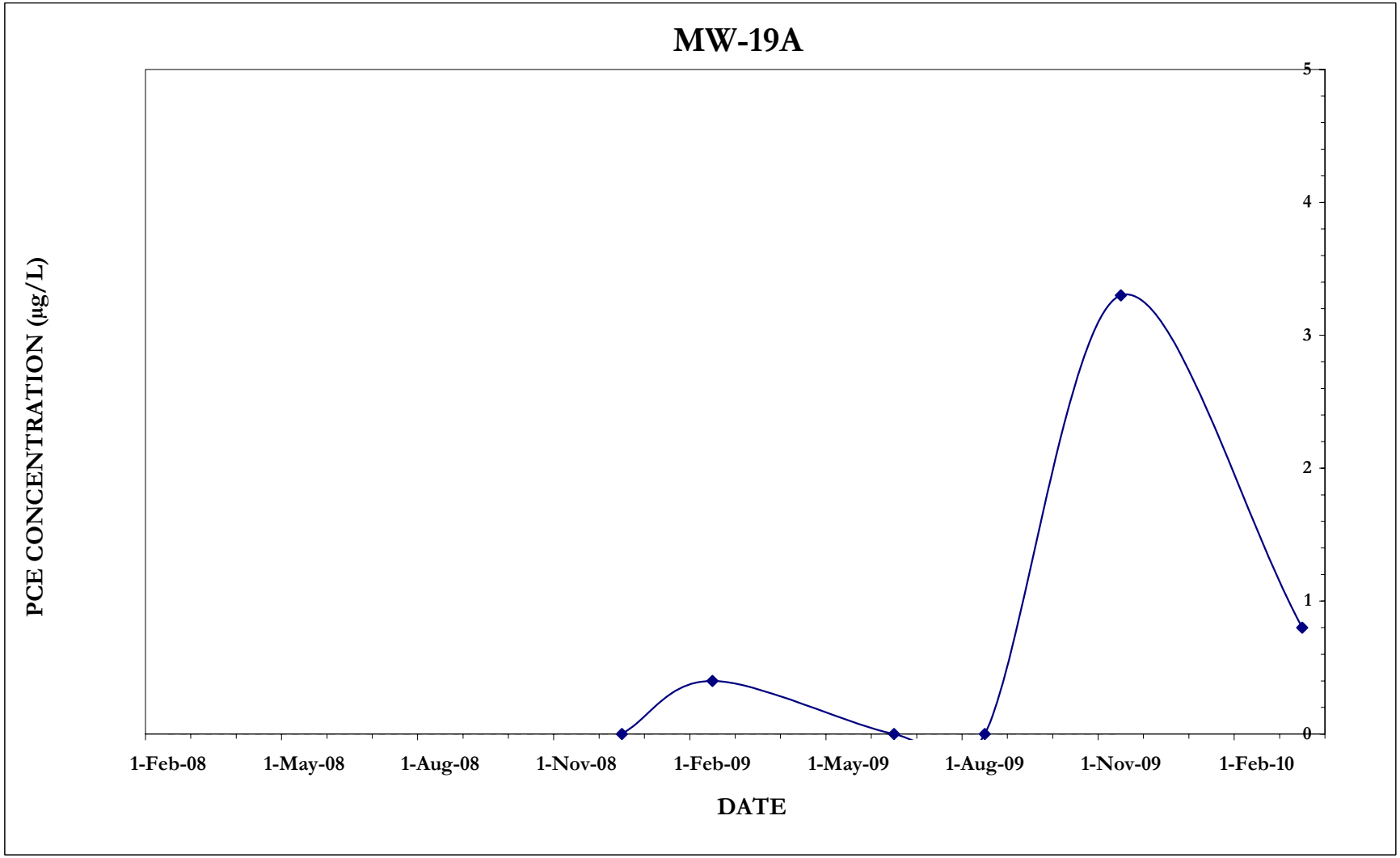


FIGURE G-4(ab)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

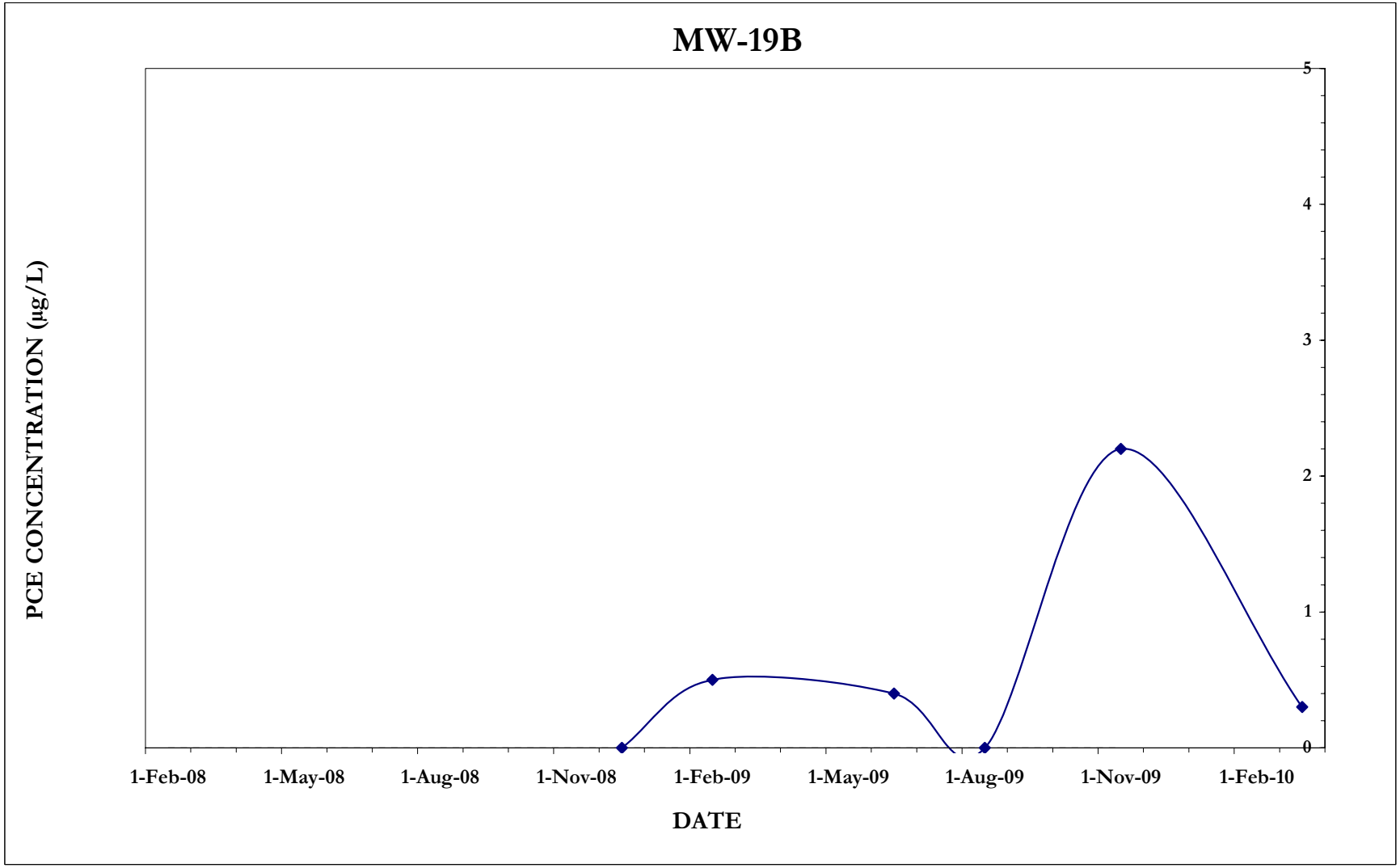


FIGURE G-4(ac)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

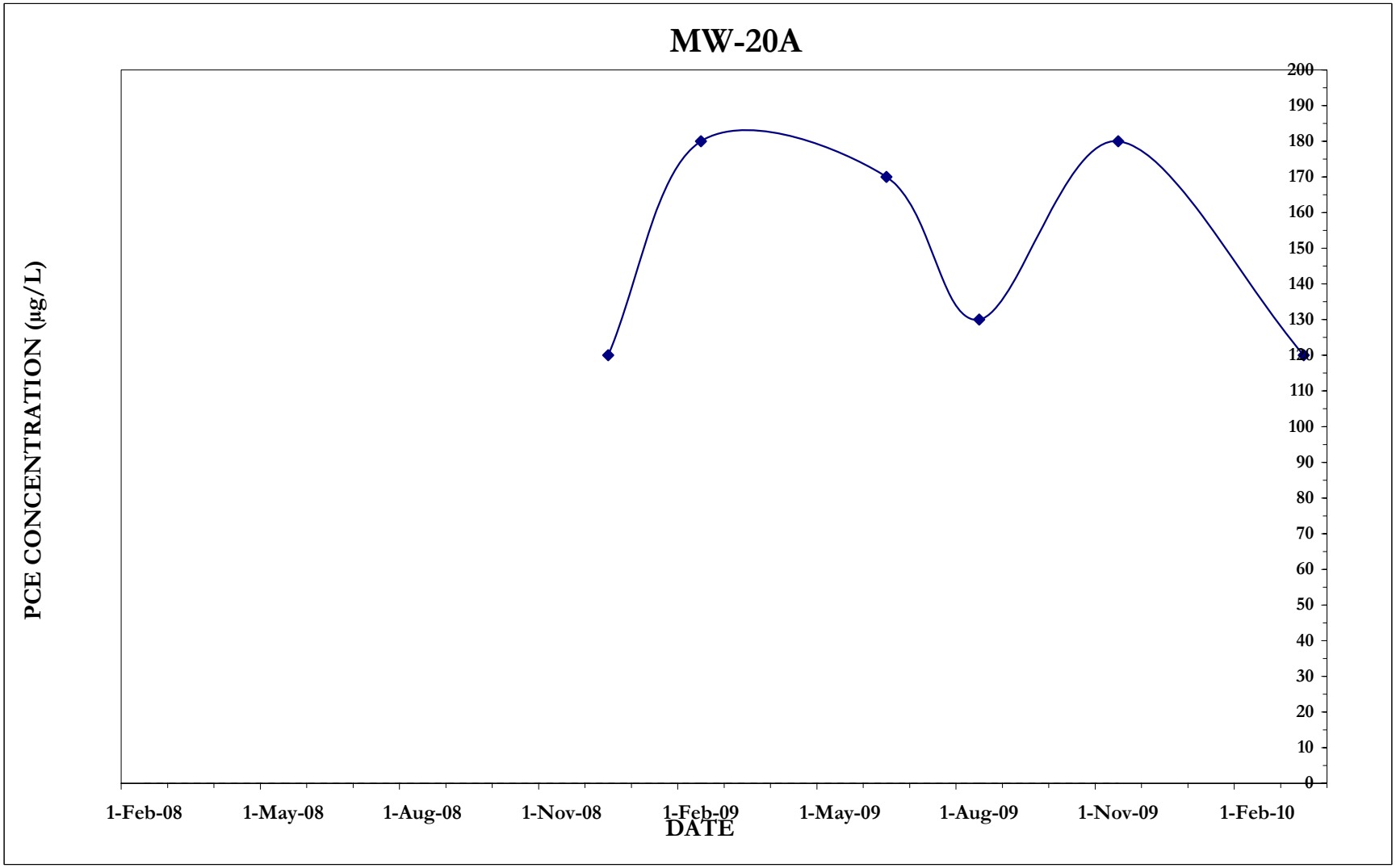


FIGURE G-4(ad)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

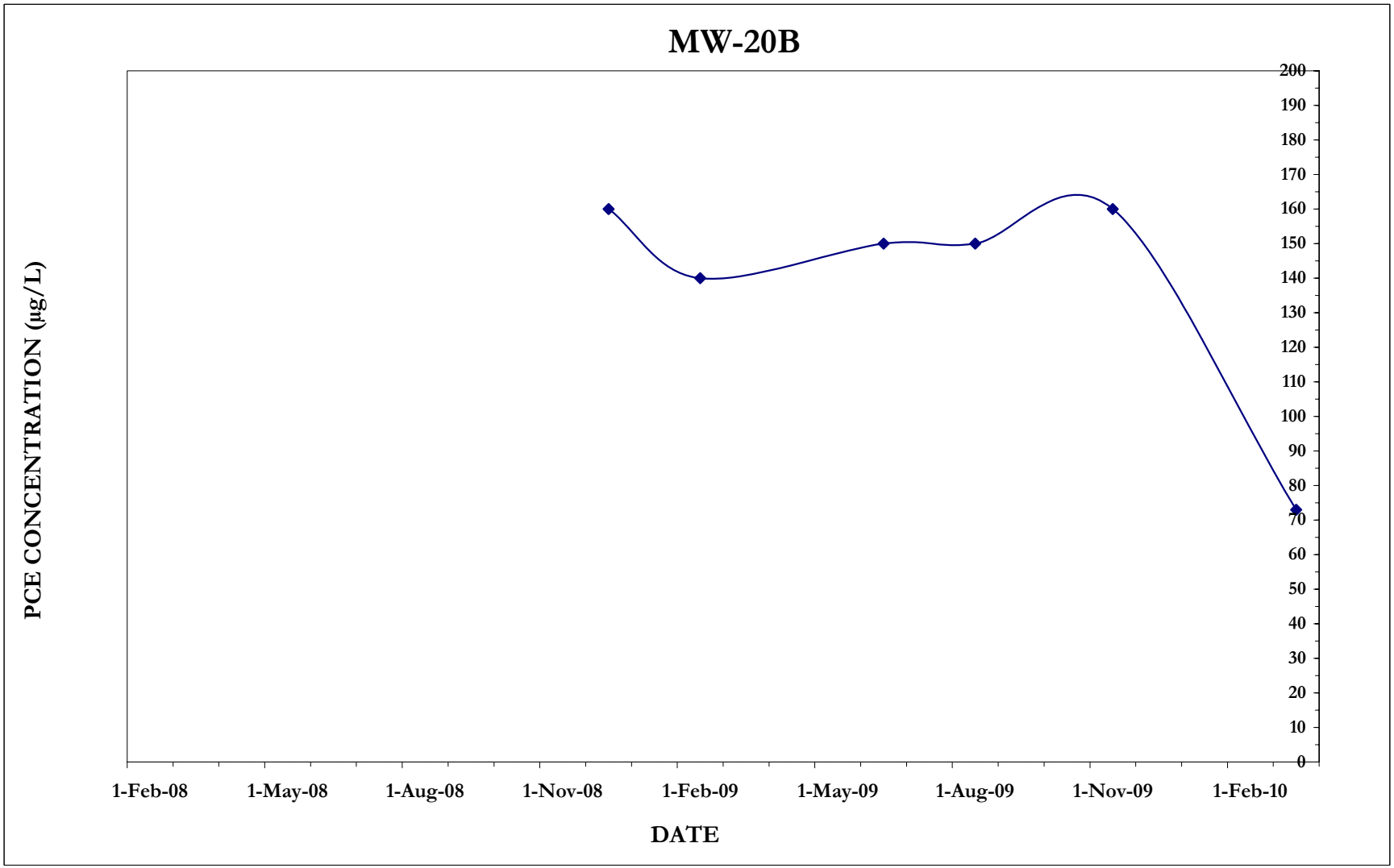
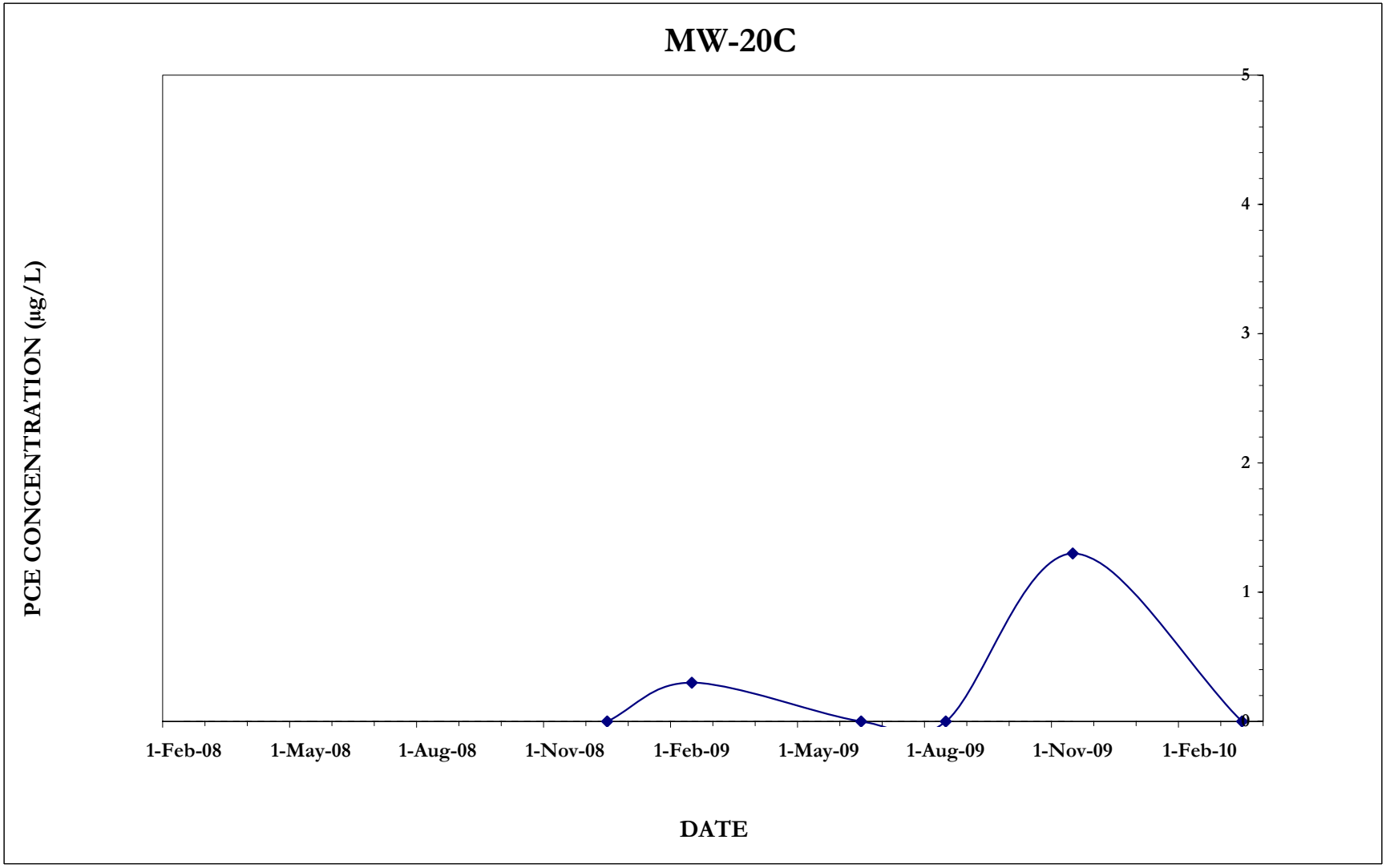


FIGURE G-4(ae)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA



Appendix G-5
Soil Vapor Extraction and Soil Vapor Monitoring Well Analytical Summary Results

APPENDIX G-5

SOIL VAPOR EXTRACTION AND SOIL VAPOR MONITORING WELL
ANALYTICAL SUMMARY RESULTS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Sample Identification	Date	PCE (ppbv) Laboratory	PCE (ppbv) GC Unit
SVE-1[A]	6/11/2001	**520,000**	**-**
	8/9/2001	**58,000**	**-**
	8/20/2001	**48,000**	**-**
	8/30/2001	**44,000**	**-**
	9/7/2001	**31,000**	**-**
	9/12/2001	**41,000**	**-**
	10/29/2001	**66,000**	**-**
	11/13/2001	**75,000**	**-**
	12/13/2001	**56,000**	**-**
	1/16/2002	**43,000**	**-**
	2/19/2002	**57,000**	**-**
	3/21/2002	**43,000**	**-**
	4/17/2002	**37,400**	**-**
	5/23/2002	**25,000**	**-**
	6/20/2002	**34,800**	**-**
	7/18/2002	**33,000**	**-**
	8/19/2002	**36,000**	**-**
	9/26/2002	**17,000**	**-**
	10/24/2002	**24,000**	**-**
	11/18/2002	**24,000**	**-**
	12/18/2002	**18,000**	**-**
	1/9/2003	**-**	**28,434**
	1/16/2003	**19,000**	**-**
	3/27/2003	**18,000**	**22,838**
	4/24/2003	**-**	**21,970**
	5/29/2003	**-**	**18,968**
	6/26/2003	**-**	**19,428**
	7/24/2003	**13,000**	**15,313**
	8/29/2003	-	**21,885**
	9/18/2003	-	**18,819**
	10/25/2003	-	**12,600**
	11/21/2003	-	**12,980**
	12/19/2003	-	**14,127**
	1/22/2004	-	**11,454**
	2/26/2004	**7,100**	-
	3/29/2004	-	**14,527**
	4/18/2004	-	**5,077**
	5/20/2004	-	**5,017**
	6/23/2004	-	**6,118**
	7/31/2004	-	**5,370**
	8/26/2004	**4,200**	**3,661**
	9/30/2004	-	**4,091**
	10/21/2004	-	**4,784**
	11/18/2004	-	**3,062**
	12/16/2004	-	**2,954**
	1/19/2005	-	**2,260**
	2/24/2005	**1,900**	**2,319**
	3/22/2005	-	**1,956**
	4/24/2005	-	**1,810**
	5/22/2005	-	**812**
	6/24/2005	-	**1,553**
	7/26/2005	-	**1,449**
	8/24/2005	**860**	**940**
	9/21/2005	-	**1,246**
	10/18/2005	-	**1,691**
	11/16/2005	-	**1,099**
	1/6/2006*	**800**	**-**
	1/31/2006*	**760**	-
	2/22/2006*	**590**	**-**
	3/29/2006*	**100**	**-**
	4/20/2006*	**490**	**-**
	5/25/2006*	**310**	**-**
	6/29/2006*	**530**	-
	7/28/2006	**400**	-
	8/31/2006	**810**	-
	9/28/2006	**360**	-

APPENDIX G-5

SOIL VAPOR EXTRACTION AND SOIL VAPOR MONITORING WELL
ANALYTICAL SUMMARY RESULTS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Sample Identification	Date	PCE (ppbv) Laboratory	PCE (ppbv) GC Unit
	11/15/2006	**300**	-
	12/18/2006	NS	-
	1/22/2007	NS	-
	2/13/2007	NS	-
	3/20/2007	NS	-
	4/25/2007	-	**635**
	6/8/2007[1]	**7**	-
	6/26/2007	-	ND
	7/31/2007	ND	-
	8/24/2007	ND	-
	9/24/2007	**4**	-
	10/29/2007	**5**	-
	11/28/2007	**15**	-
	12/20/2007	**54**	-
	1/17/2008	<1.7	-
	2/25/2008	NS	-
	3/31/2008	**51**	-
	4/25/2008	**94**	-
	6/24/2008	**900**	-
	7/24/2008	**630**	-
	8/20/2008	**430**	-
	9/25/2008	**270**	-
	11/11/2008	**-**	**101**
	3/10/2010	**13**	-
SVE-2	11/11/2008	**-**	**14,000**
	11/18/2008	**13,000**	-
	12/10/2008	**3,200**	-
	12/30/2008	**4,100**	-
	1/30/2009	**4,700**	-
	3/10/2009	**980**	-
	5/28/2009	**1,500**	-
	8/10/2009	**5,700**	-
	11/23/2009	**110**	-
	3/10/2010	**290**	-
SVE-3	11/11/2008	**-**	**981**
	11/18/2008	**-**	ND
	12/10/2008	**810**	-
	12/30/2008	**1,600**	-
	1/30/2009	**980**	-
	3/10/2009	**30**	-
	5/28/2009	**620**	-
	8/10/2009	**88**	-
	11/23/2009	**2.6**	-
	3/10/2010	**88**	-
SVE-4	11/11/2008	**-**	**429**
	11/18/2008	**890**	-
	12/10/2008	**350**	-
	12/30/2008	**390**	-
	1/30/2009	**330**	-
	3/10/2009	**290**	-
	5/28/2009	**180**	-
	8/10/2009	**140**	-
	11/23/2009	**90**	-
	3/10/2010	**57**	-
DP-1S	11/11/2008	**-**	**3570[b]**
	12/10/2008	**-**	-
	3/10/2009	**570**	-
	3/10/2010	**56**	-
DP-1D	11/11/2008	**-**	**9113[b]**
	12/10/2008	**-**	-
	3/10/2009	**190**	-

APPENDIX G-5

SOIL VAPOR EXTRACTION AND SOIL VAPOR MONITORING WELL
ANALYTICAL SUMMARY RESULTS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Sample Identification	Date	PCE (ppbv) Laboratory	PCE (ppbv) GC Unit
	3/10/2010	**180**	-

APPENDIX G-5

SOIL VAPOR EXTRACTION AND SOIL VAPOR MONITORING WELL
ANALYTICAL SUMMARY RESULTS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Sample Identification	Date	PCE (ppbv) Laboratory	PCE (ppbv) GC Unit
DP-5S	11/11/2008	**-**	**661**
	12/10/2008	**-**	-
	3/10/2009	**3.7**	-
	3/10/2010	**1.2**	-
DP-5D	11/11/2008	**-**	**179**
	12/10/2008	**-**	-
	3/10/2009	**60**	-
	3/10/2010	**21**	-
DP-6S	11/11/2008	**870**	**712**
	12/10/2008	**-**	-
	3/10/2009	**160**	-
	3/10/2010	**59**	-
DP-6D	11/11/2008	**-**	**1,110**
	12/10/2008	**-**	-
	3/10/2009	**730**	-
	3/10/2010	**5.8**	-
OSVE-11	3/10/2009	**27,000**	-
	3/10/2010	**530**	-
OSVE-10	3/10/2009	**450**	-
	3/10/2010	**130**	-

Notes:

[A] = SVE-Pre GAC opperational from 6/11/01 has been renamed as SVE-1

[b] = Note: PCE value used in contouring at the location of DP-1 is the average value from upper and lower screens (6341 ppbv) as both screens are in the "deep" zone

NS - Not Sampled (system off for rebound test)

GAC - Granular activated carbon

GC Unit - Gas chromotagraph unit (the unit has been off-line since Nov. 2005, repair pending)

PCE - Tetrachloroethlene

ppbv - parts per billion volume

SVE - Soil vapor extraction

* The GC Unit was shut down due to malfunction starting in late November. Since then, samples have been analyzed by the laboratory only. Repair of the unit is pending.

[1] May sample re-collected on June 8, 2007 due to low vacuum readings in the Summa cannisters during the May sampling event.

Appendix G-6
Groundwater Treatment System Analytical Summary Results

APPENDIX G-6

GROUNDWATER TREATMENT SYSTEM
ANALYTICAL SUMMARY RESULTS
MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

Sample Identification	Date	pH	TDS (mg/L)	U-234 (pCi/L)	U-235 (pCi/L)	U-238 (pCi/L)	Total U (pCi/L)	PCE (mg/L)	Toluene (mg/L)	TCE (mg/L)	Bioassay
Maximum Allowable Discharge Limit		**5 - 12**	**NA**	**20**	**20**	**20**	**20**	**0.0005**	**0.150**	**NA**	**NA**
COMPLIANCE MONITORING											
Extraction Well -1 [1]	6/11/01[a]	NS	NS	**23.7**	**0.562**	**19.9**	NS	**3.0**	< 0.1	< 0.1	-
	8/28/2001	**7.4**	NS	**18.1**	**0.423**	**13.3**	NS	**0.330 J**	< 0.05	< 0.05	-
	9/21/2001	**7.3**	NS	NS	NS	NS	NS	**0.770**	< 0.05	< 0.05	-
	10/17/2001	**7.3**	NS	NS	NS	NS	NS	**0.890**	<0.05	<0.05	-
	11/13/2001	**7.4**	**528**	**21.1**	**0.519**	**15.2**	NS	**0.780**	< 0.005	< 0.005	-
	12/13/2001	**7.3**	NS	NS	NS	NS	NS	**0.710**	< 0.005	**0.031**	-
	1/16/2002	**7.3**	NS	NS	NS	NS	NS	**0.750**	< 0.005	**0.008**	-
	2/19/2002	**7.3**	NS	**20.4**	**0.615**	**14.9**	NS	**0.820**	< 0.005	< 0.005	-
	3/21/2002	**7.3**	NS	NS	NS	NS	NS	**0.003 J**	< 0.005	< 0.005	-
	3/21/02 [b]	**7.3**	NS	NS	NS	NS	NS	**0.321 R**	< 0.005	< 0.005	-
	4/17/2002	**7.4**	NS	NS	NS	NS	NS	**0.690**	< 0.005	< 0.005	-
	5/23/2002	**7.1**	NS	**22.8**	**0.715**	**18.1**	NS	**0.900 D**	< 0.005	< 0.005	-
	6/20/2002	**7.1**	NS	NS	NS	NS	NS	**0.730 D**	< 0.005	< 0.005	-
	7/18/2002	**6.8**	NS	NS	NS	NS	NS	**0.620 D**	< 0.005	< 0.005	-
	8/19/2002	**7.4**	NS	**23.0**	**0.880**	**16.9**	NS	**0.610**	< 0.005	< 0.005	-
	9/26/2002	**7.4**	NS	NS	NS	NS	NS	**0.620 D**	< 0.005	< 0.005	-
	10/24/2002	**7.4**	NS	NS	NS	NS	NS	**0.580 D**	< 0.005	< 0.005	-
	11/18/2002	**7.4**	NS	**25.6**	**0.829**	**18.7**	NS	**0.550 D**	< 0.005	< 0.005	-
	12/18/2002	**7.3**	NS	NS	NS	NS	NS	**0.310**	< 0.010	< 0.010	-
	1/16/2003	**7.2**	NS	NS	NS	NS	NS	**0.380**	< 0.025	< 0.025	-
	2/20/2003	**7.3**	NS	**21.2**	**1.82**	**13.9**	NS	**0.490**	< 0.005	< 0.005	-
	3/20/2003	**7.4**	NS	NS	NS	NS	NS	**0.490**	< 0.005	< 0.005	-
	4/30/2003	**7.4**	NS	NS	NS	NS	NS	**0.410**	< 0.005	< 0.005	-
	5/29/2003	**7.4**	NS	**26.5**	**1.60**	**15.6**	NS	**0.270**	< 0.005	< 0.005	-
	6/26/2003	**7.3**	NS	NS	NS	NS	NS	**0.490**	< 0.005	< 0.005	-
	7/24/2003	**7.6**	NS	NS	NS	NS	NS	**0.510**	<0.005	<0.005	-
	8/28/2003	**7.5**	NS	**24.3**	**1.81**	**16.3**	NS	**0.540**	< 0.005	< 0.005	-
	9/18/2003	**7.5**	NS	NS	NS	NS	NS	**0.550**	<0.005	<0.005	-
	10/23/2003	**7.4**	NS	NS	NS	NS	NS	**0.450**	< 0.005	< 0.005	-
	11/19/2003	**7.4**	NS	**31.6**	**0.975**	**21.8**	NS	**0.390**	<0.005	<0.005	-
	12/18/2003	**7.1**	NS	NS	NS	NS	NS	**0.420**	< 0.005	< 0.005	-
	1/22/2004	**7.2**	NS	NS	NS	NS	NS	**0.350**	<0.001	<0.005	-
	2/26/2004	**7.5**	NS	NS	NS	NS	**43.8**	**0.290**	< 0.005	< 0.005	-
	4/8/2004	**7.0**	NS	NS	NS	NS	NS	**0.230**	<0.005	<0.005	-
	4/22/2004	**7.4**	NS	NS	NS	NS	NS	**0.310 D**	< 0.005	< 0.005	-
	5/20/2004	**7.4**	NS	**25.1**	**1.2**	**19.5**	NS	**0.350**	< 0.005	< 0.005	-
	6/23/2004	**7.1**	NS	NS	NS	NS	NS	**0.250**	< 0.005	< 0.005	-
	7/29/2004	**7.4**	NS	NS	NS	NS	NS	**0.350**	< 0.005	< 0.005	-
	8/26/2004	**7.4**	NS	NS	NS	NS	**57.2**	**0.350**	< 0.005	< 0.005	-

APPENDIX G-6

GROUNDWATER TREATMENT SYSTEM
ANALYTICAL SUMMARY RESULTS
MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

Sample Identification	Date	pH	TDS (mg/L)	U-234 (pCi/L)	U-235 (pCi/L)	U-238 (pCi/L)	Total U (pCi/L)	PCE (mg/L)	Toluene (mg/L)	TCE (mg/L)	Bioassay
Maximum Allowable Discharge Limit		**5 - 12**	**NA**	**20**	**20**	**20**	**20**	**0.0005**	**0.150**	**NA**	**NA**
	10/4/2004	**7.3**	NS	NS	NS	NS	NS	**0.330**	< 0.005	< 0.005	-
	10/21/2004	**7.2**	NS	NS	NS	NS	NS	**0.290**	< 0.005	< 0.005	-
	8/24/2006*	**7.3**	NS	NS	NS	NS	**76.2**	**0.620**	< 0.005	< 0.005	-
	8/31/2006*	NS	NS	NS	NS	NS	NS	NS	NS	NS	-
	9/7/2006*	NS	NS	NS	NS	NS	NS	NS	NS	NS	-
	9/14/2006*	**7.2**	NS	NS	NS	NS	NS	**0.530**	< 0.005	< 0.005	-
	10/24/2006	**7.2**	NS	NS	NS	NS	NS	**0.43 J**	< 0.005	**0.0004 J**	-
	11/15/2006	**7.4**	NS	NS	NS	NS	**63.9**	**0.500**	< 0.005	**0.0003 J**	-
	12/18/2006	**7.3**	NS	NS	NS	NS	NS	**0.450**	< 0.005	**0.0003 J**	-
	1/22/2007	**7.4**	NS	NS	NS	NS	NS	**0.420**	< 0.005	< 0.005	-
	2/13/2007	**7.2**	NS	NS	NS	NS	**63.4**	**0.360**	< 0.005	< 0.005	-
	3/20/2007	**7.3**	NS	NS	NS	NS	NS	**0.320 J-**	< 0.005	< 0.005	-
	4/16/07 [(c)]	NS	NS	NS	NS	NS	NS	NS	NS	NS	-
	7/2/2007**	**7.4**	NS	NS	NS	NS	NS	**0.076**	< 0.0005	< 0.0005	-
	7/23/2007**	**7.5**	NS	NS	NS	NS	NS	**0.290**	< 0.005	< 0.005	-
	8/23/2007**	**7.5**	NS	NS	NS	NS	NS	**0.290**	< 0.005	**0.0002 J**	-
	8/29/2007**	**7.4**	NS	NS	NS	NS	**58.1**	NS	NS	NS	-
	9/18/2007	**7.6**	NS	NS	NS	NS	NS	**0.360**	< 0.0005	< 0.0005	-
	10/29/2007	**7.6**	NS	NS	NS	NS	NS	**0.280**	<0.005	<0.005	-
Start-up VOC sample	11/29/2007	**7.5**	NS	NS	NS	NS	**54.7**	**0.310**	<0.0005	<0.0005	-
Start-up VOC sample	12/6/2007	**7.2**	NS	NS	NS	NS	NS	**0.260**	<0.0005	<0.0005	-
Start-up VOC sample	12/13/2007	**7.4**	NS	NS	NS	NS	NS	**0.290**	<0.0005	<0.0005	-
Start-up VOC sample	12/20/2007	**6.9**	NS	NS	NS	NS	NS	**0.260**	<0.0005	<0.0005	-
	1/17/2008	**7.2**	NS	NS	NS	NS	NS	**0.240**	<0.0005	<0.0005	-
	2/25/2008	**8.3**	NS	NS	NS	NS	**59.2**	**0.250**	<0.0005	<0.0005	-
	3/31/2008	**8.2**	NS	NS	NS	NS	NS	**0.280**	<0.0005	<0.0005	-
	4/25/2008	**7.3**	NS	NS	NS	NS	NS	**0.210**	<0.0005	<0.0005	-
	5/22/2008	**7.3**	NS	NS	NS	NS	**58.1**	**0.280**	<0.0005	<0.0005	-
	6/18/2008	**7.2**	NS	NS	NS	NS	NS	**0.240**	<0.0005	<0.0005	-
	7/16/2008	**7.7**	NS	NS	NS	NS	NS	**0.240**	<0.0005	<0.0005	-
	8/20/2008	**8.0**	NS	NS	NS	NS	**83.2**	**0.220**	<0.0005	<0.0005	-
	9/25/2008	**8.1**	NS	NS	NS	NS	NS	**0.150**	<0.0005	<0.0005	-
	10/30/2008	**8.0**	NS	NS	NS	NS	NS	**0.250**	<0.0005	<0.0005	-
	11/25/2008	**7.2**	NS	NS	NS	NS	**62.2**	**0.210**	<0.0005	<0.0005	-
	12/30/2008	**7.2**	NS	NS	NS	NS	NS	**0.190**	<0.0005	<0.0005	-
	1/30/2009	**7.2**	NS	NS	NS	NS	NS	**0.190**	<0.0005	<0.0005	-
	2/27/2009	**7.4**	NS	NS	NS	NS	**58.1**	**0.180**	<0.0005	<0.0005	-
	3/30/2009	**7.8**	NS	NS	NS	NS	NS	**0.170**	<0.0005	<0.0005	-
	4/23/2009	**8.0**	NS	NS	NS	NS	NS	**0.160**	<0.0005	<0.0005	-
	5/26/2009	**7.6**	NS	NS	NS	NS	**60.4**	**0.180**	<0.0005	<0.0005	-
	6/29/2009	**7.5**	NS	NS	NS	NS	NS	**0.150**	< 0.0005	< 0.0005	-
	7/29/2009	**7.7**	NS	NS	NS	NS	NS	**0.190**	<0.0005	<0.0005	-

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GROUNDWATER TREATMENT SYSTEM
ANALYTICAL SUMMARY RESULTS
MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

Sample Identification	Date	pH	TDS (mg/L)	U-234 (pCi/L)	U-235 (pCi/L)	U-238 (pCi/L)	Total U (pCi/L)	PCE (mg/L)	Toluene (mg/L)	TCE (mg/L)	Bioassay
Maximum Allowable Discharge Limit		**5 - 12**	**NA**	**20**	**20**	**20**	**20**	**0.0005**	**0.150**	**NA**	**NA**
	8/10/2009	**7.6**	NS	NS	NS	NS	NS	**0.250**	<0.0005	<0.0005	-
	9/22/2009	**7.5**	NS	NS	NS	NS	NS	**0.170**	<0.0005	<0.0005	-
	10/26/2009	**8.6**	NS	NS	NS	NS	NS	**0.250**	< 0.0005	< 0.0005	-
	11/23/2009	**8.1**	NS	NS	NS	NS	**56.0**	**0.160**	< 0.0005	< 0.0005	-
	12/16/2009	**7.8**	NS	NS	NS	NS	NS	**0.180**	< 0.0005	< 0.0005	-
	1/27/2010	**8.10**	NS	NS	NS	NS	NS	**0.180**	< 0.0005	< 0.0005	-
	2/25/2010	**8.60**	NS	NS	NS	NS	NS	**0.160**	<0.0005	<0.0005	-
	3/11/2010	**7.20**	NS	NS	NS	NS	**53.6**	**0.180**	<0.0005	<0.0005	-
GWT Effluent[2,3,4]	6/11/01[a]	NS	**531**	**0.01040**	< 0.0884	< 0.0884	NS	**0.003**	< 0.0005	< 0.0005	-
	6/25/01[a]	NS	NS	NS	NS	NS	NS	< 0.0005	< 0.0005	< 0.0005	-
	7/12/2001	**8.1**	NS	**0.01180**	**0.00784**	**0.00784**	NS	< 0.0005	< 0.0005	< 0.0005	-
	7/19/2001	**7.9**	NS	NS	NS	NS	NS	< 0.0005	< 0.0005	< 0.0005	-
	7/26/2001	**8.0**	NS	NS	NS	NS	NS	< 0.0005	< 0.0005	< 0.0005	-
	8/28/2001	**7.7**	**525**	**0.00825**	**0.00825**	**0.00825**	NS	< 0.0005	< 0.0005	< 0.0005	-
	9/6/2001	**7.8**	NS	< 0.190	< 0.157	**0.01960**	NS	< 0.0005	**0.0008**	< 0.0005	-
	9/21/2001	**8.4**	**520**	**0.09470**	< 0.227	**0.03150**	NS	< 0.0005	< 0.0005	< 0.0005	-
	10/3/2001	**7.7**	NS	**0.05250**	**0.00657**	< 0.0356	NS	< 0.0005	< 0.0005	< 0.0005	-
	10/17/2001	**8.1**	**514**	**0.05340**	**0.01670**	< 0.0800	NS	< 0.0005	< 0.0005	< 0.0005	-
	11/14/2001	**7.8**	**531**	**5.94**	**0.230**	**5.88**	NS	< 0.0005	< 0.0005	< 0.0005	-
	12/13/2001	**8.1**	**529**	**0.0270**	< 0.109	< 0.242	NS	< 0.0005	< 0.0005	< 0.0005	-
	1/16/2002	**8.2**	**537**	NS	NS	NS	NS	< 0.0005	< 0.0005	< 0.0005	-
	2/19/2002	**8.1**	**536**	**2.30**	**0.043**	**1.82**	NS	< 0.0005	< 0.0005	< 0.0005	-
	3/21/2002	**8.3**	**541**	NS	NS	NS	NS	< 0.0005	< 0.0005	< 0.0005	-
	4/17/2002	**8.2**	**563**	NS	NS	NS	NS	< 0.0005	< 0.0005	< 0.0005	-
	5/23/2002	**8.0**	**605**	**9.47**	**0.348**	**6.58**	NS	< 0.0005	< 0.0005	< 0.0005	-
	6/20/2002	**8.0**	**571**	NS	NS	NS	NS	< 0.0005	< 0.0005	< 0.0005	-
	7/18/2002	**7.6**	**563**	NS	NS	NS	NS	< 0.0005	< 0.0005	< 0.0005	-
	8/19/2002	**8.3**	**592**	**10.8**	**0.381**	**7.4**	NS	< 0.0005	< 0.0005	< 0.0005	-
	9/16/2002	**8.4**	NS	NS	NS	NS	NS	NS	NS	NS	-
	9/26/2002	**8.3**	NS	NS	NS	NS	NS	**0.0003 J**	< 0.0005	< 0.0005	-
	10/3/2002	**8.4**	NS	NS	NS	NS	NS	**0.0003 J**	< 0.0005	< 0.0005	-
	10/24/2002	**8.3**	**595**	NS	NS	NS	NS	< 0.0005	< 0.0005	< 0.0005	-
	11/18/2002	**8.2**	**576**	**5.96**	**0.197**	**5.02**	NS	< 0.0005	< 0.0005	< 0.0005	-
	12/18/2002	**8.2**	**576**	NS	NS	NS	NS	< 0.0005	< 0.0005	< 0.0005	-
	1/16/2003	**8.0**	**581**	NS	NS	NS	NS	< 0.0005	< 0.0005	< 0.0005	-
	2/20/2003	**8.3**	**589**	**13.10**	**0.464**	**11.10**	NS	< 0.0005	< 0.0005	< 0.0005	-
	3/20/2003	**8.3**	**592**	NS	NS	NS	NS	< 0.0005	< 0.0005	< 0.0005	-
	4/30/2003	**8.2**	**600**	NS	NS	NS	NS	< 0.0005	< 0.0005	< 0.0005	-
	5/29/2003	**8.5**	**595**	**9.92**	**0.495**	**7.41**	NS	< 0.0005	< 0.0005	< 0.0005	-
	6/26/2003	**8.4**	**602**	NS	NS	NS	NS	< 0.0005	< 0.0005	< 0.0005	-

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GROUNDWATER TREATMENT SYSTEM
ANALYTICAL SUMMARY RESULTS
MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

Sample Identification	Date	pH	TDS (mg/L)	U-234 (pCi/L)	U-235 (pCi/L)	U-238 (pCi/L)	Total U (pCi/L)	PCE (mg/L)	Toluene (mg/L)	TCE (mg/L)	Bioassay
Maximum Allowable Discharge Limit		**5 - 12**	**NA**	**20**	**20**	**20**	**20**	**0.0005**	**0.150**	**NA**	**NA**
	7/24/2003	**8.5**	**593**	NS	NS	NS	NS	< 0.0005	< 0.0005	< 0.0005	-
	8/28/2003	**8.4**	**622**	**8.69**	**0.423**	**7.00**	NS	< 0.0005	< 0.0005	< 0.0005	-
	9/18/2003	**8.3**	**602**	NS	NS	NS	NS	< 0.0005	< 0.0005	< 0.0005	-
	10/23/2003	**8.3**	**645**	NS	NS	NS	NS	< 0.0005	< 0.0005	< 0.0005	-
	11/19/2003	**8.2**	**602**	**12.0**	**0.481**	**8.60**	NS	< 0.0005	< 0.0005	< 0.0005	-
	12/18/2003	**8.1**	**597**	NS	NS	NS	NS	< 0.0005	< 0.0005	< 0.0005	-
	1/22/2004	**8.0**	**594**	NS	NS	NS	NS	< 0.0005	< 0.0005	< 0.0005	-
	2/26/2004	**8.4**	**582**	NS	NS	NS	**10.80**	< 0.0005	< 0.0005	< 0.0005	-
	4/8/2004	**8.0**	**631**	**8.29**	**0.203**	**6.18**	NS	< 0.0005	< 0.0005	< 0.0005	-
	4/15/2004	**8.4**	NS	**9.52**	**0.230**	**7.35**	NS	NS	NS	NS	-
	4/22/2004	**8.3**	**589**	**9.32**	**0.269**	**6.69**	NS	< 0.0005	< 0.0005	< 0.0005	-
	4/28/2004	**8.3**	**NS**	**9.32**	**0.300**	**6.37**	NS	NS	NS	NS	-
	5/20/2004	**8.4**	**609**	**9.80**	**0.289**	**6.83**	NS	**0.00042 J**	< 0.0005	< 0.0005	-
	6/23/2004	**8.3**	**602**	**7.88**	**0.238**	**5.91**	NS	< 0.0005	< 0.0005	< 0.0005	-
	7/29/2004	**8.2**	**602**	NS	NS	NS	NS	< 0.0005	< 0.0005	< 0.0005	-
	8/26/2004	**8.4**	**620**	NS	NS	NS	**15.1**	< 0.0005	< 0.0005	< 0.0005	-
	10/4/2004	**8.4**	**622**	NS	NS	NS	NS	< 0.0005	< 0.0005	< 0.0005	-
	10/21/2004	**8.2**	**624**	NS	NS	NS	NS	< 0.0005	< 0.0005	< 0.0005	-
	8/24/2006*	**8.4**	**680**	NS	NS	NS	**12.2**	< 0.0005	< 0.0005	< 0.0005	-
	8/31/2006*	**8.4**	NS	NS	NS	NS	NS	< 0.0005	< 0.0005	< 0.0005	-
	9/7/2006*	**8.4**	NS	NS	NS	NS	**1.76**	< 0.0005	< 0.0005	< 0.0005	-
	9/14/2006*	**8.4**	NS	NS	NS	NS	**1.87**	< 0.0005	< 0.0005	< 0.0005	-
	10/24/2006	**8.2**	**660**	NS	NS	NS	**12.3**	< 0.0005	< 0.0005	< 0.0005	-
	11/15/2006	**8.1**	**660**	NS	NS	NS	**14.4**	< 0.0005	< 0.0005	< 0.0005	-
	12/18/2006	**8.3**	**670**	NS	NS	NS	NS	< 0.0005	< 0.0005	< 0.0005	-
	1/22/2007	**8.2**	**670**	NS	NS	NS	NS	< 0.0005	< 0.0005	< 0.0005	-
	2/13/2007	**8.0**	**660**	NS	NS	NS	**32.9**	< 0.0005	< 0.0005	< 0.0005	-
	3/20/2007	**8.0**	**660**	NS	NS	NS	**26.9**	< 0.0005	< 0.0005	< 0.0005	-
	4/16/07 [(c)]	NS	NS	NS	NS	NS	NS	NS	NS	NS	-
	7/2/2007**	**7.9**	**640**	NS	NS	NS	**0.070**	< 0.0005	< 0.0005	< 0.0005	-
	7/9/2007**	**7.7**	NS	NS	NS	NS	**0.036**	< 0.0005	< 0.0005	< 0.0005	-
	7/16/2007**	**7.9**	NS	NS	NS	NS	**0.007**	< 0.0005	< 0.0005	< 0.0005	-
	7/23/2007**	**8.0**	**690**	NS	NS	NS	**0.005**	< 0.0005	< 0.0005	< 0.0005	-
	8/23/2007**	**7.6**	**720**	NS	NS	NS	NS	**0.0003**	< 0.0005	< 0.0005	-
	8/29/2007	**7.8**	NS	NS	NS	NS	**15.4**	NS	NS	NS	-
	9/18/2007**	**7.6**	**680**	NS	NS	NS	NS	**0.0004**	< 0.0005	< 0.0005	-
	10/29/2007	**8.0**	**660**	NS	NS	NS	NS	**0.0006**	<0.005	<0.005	-
Start-up VOC sample	11/28/2007	**8.6**	**630**	NS	NS	NS	**14.8**	<0.0005	<0.0005	<0.0005	-
Start-up VOC sample	12/6/2007	**8.1**	NS	NS	NS	NS	NS	<0.0005	<0.0005	<0.0005	-
Start-up VOC sample	12/13/2007	**7.9**	NS	NS	NS	NS	NS	<0.0005	<0.0005	<0.0005	-
Start-up VOC sample	12/20/2007	**8.0**	NS	NS	NS	NS	NS	<0.0005	<0.0005	<0.0005	-
	1/17/2008	**7.8**	**680**	NS	NS	NS	NS	< 0.0005	< 0.0005	< 0.0005	-

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GROUNDWATER TREATMENT SYSTEM
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Sample Identification	Date	pH	TDS (mg/L)	U-234 (pCi/L)	U-235 (pCi/L)	U-238 (pCi/L)	Total U (pCi/L)	PCE (mg/L)	Toluene (mg/L)	TCE (mg/L)	Bioassay
Maximum Allowable Discharge Limit		**5 - 12**	**NA**	**20**	**20**	**20**	**20**	**0.0005**	**0.150**	**NA**	**NA**
	2/25/2008	**8.4**	**660**	NS	NS	NS	**17.5**	<0.0005	<0.0005	<0.0005	-
	3/31/2008	**8.2**	**660**	NS	NS	NS	NS	<0.0005	<0.0005	<0.0005	-
	4/25/2008	**8.3**	**660**	NS	NS	NS	NS	<0.0005	<0.0005	<0.0005	-
	5/22/2008	NA	**650**	NS	NS	NS	**9.82**	<0.0005	<0.0005	<0.0005	-
	6/18/2008	**7.8**	**660**	NS	NS	NS	NS	<0.0005	<0.0005	<0.0005	-
	7/16/2008	**7.7**	**660**	NS	NS	NS	NS	<0.0005	<0.0005	<0.0005	-
	8/20/2008	NA	**680**	NS	NS	NS	**4.49**	<0.0005	<0.0005	<0.0005	-
	9/25/2008	**7.8**	**680**	NS	NS	NS	NS	<0.0005	<0.0005	<0.0005	-
	10/30/2008	**8.4**	**680**	NS	NS	NS	NS	<0.0005	<0.0005	<0.0005	-
	11/25/2008	**7.7**	**680**	NS	NS	NS	**13.2**	<0.0005	<0.0005	<0.0005	-
	12/30/2008	**7.8**	**660**	NS	NS	NS	NS	<0.0005	<0.0005	<0.0005	-
	1/30/2009	**8.4**	**670**	NS	NS	NS	NS	<0.0005	<0.0005	<0.0005	-
	2/27/2009	**7.5**	**660**	NS	NS	NS	**9.0**	<0.0005	<0.0005	<0.0005	-
	3/30/2009	**7.5**	**660**	NS	NS	NS	NS	0.0002	<0.0005	<0.0005	-
	4/23/2009	**8.0**	**660**	NS	NS	NS	NS	0.0003	<0.0005	<0.0005	-
	5/26/2009	**7.5**	**670**	NS	NS	NS	**22.3**	0.0003J	<0.0005	<0.0005	-
	6/29/2009	**8.0**	**660**	NS	NS	NS	**18.3**[d]	0.0003J-	< 0.0005	< 0.0005	-
	7/29/2009	**8.4**	**660**	NS	NS	NS	**17.9**	<0.0005	<0.0005	<0.0005	-
	8/10/2009	**8.3**	**650**	NS	NS	NS	NS	<0.0005	<0.0005	<0.0005	-
	9/22/2009	**8.0**	**650**	NS	NS	NS	NS	<0.0005	<0.0005	<0.0005	-
	10/26/2009	**8.9**	**590**	NS	NS	NS	NS	< 0.0005	0.0005	< 0.0005	-
	11/23/2009	**9.2**	**620**	NS	NS	NS	**35.8**	< 0.0005	< 0.0005	< 0.0005	-
	12/16/2009	**9.1**	**640**	NS	NS	NS	**15.2**	<0.0005	<0.0005	<0.0005	-
	1/27/2010	**8.3**	**640**	NS	NS	NS	**NS**	< 0.0005	< 0.0005	< 0.0005	-
	2/25/2010	**8.79**	**640**	NS	NS	NS	NS	<0.0005	<0.0005	<0.0005	-
	3/11/2010	**8.40**	**640**	NS	NS	NS	**19.2**	<0.0005	<0.0005	<0.0005	-

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Sample Identification	Date	pH	TDS (mg/L)	U-234 (pCi/L)	U-235 (pCi/L)	U-238 (pCi/L)	Total U (pCi/L)	PCE (mg/L)	Toluene (mg/L)	TCE (mg/L)	Bioassay
Maximum Allowable Discharge Limit		**5 - 12**	**NA**	**20**	**20**	**20**	**20**	**0.0005**	**0.150**	**NA**	**NA**
PERFORMANCE MONITORING											
Pre-Air Stripper[2]	6/25/01[a]	NS	NS	NS	NS	NS	NS	**2.9**	< 0.0005	**0.002 J**	-
Carbon Influent[2]	6/25/01[a]	NS	NS	NS	NS	NS	NS	**0.007**	< 0.0005	< 0.0005	-
	8/28/2001	NS	NS	NS	NS	NS	NS	< 0.0005	< 0.0005	< 0.0005	-
	11/13/2001	**8.4**	NS	NS	NS	NS	NS	< 0.0005	< 0.0005	< 0.0005	-
	2/19/2002	**8.1**	NS	NS	NS	NS	NS	**0.006**	< 0.0005	< 0.0005	-
	5/23/2002	**7.1**	NS	NS	NS	NS	NS	< 0.0005	< 0.0005	< 0.0005	-
	8/19/2002	**8.3**	NS	NS	NS	NS	NS	**0.0005**	< 0.0005	< 0.0005	-
	11/18/2002	**8.3**	NS	NS	NS	NS	NS	**0.0010**	< 0.0005	< 0.0005	-
	2/20/2003	**8.4**	NS	NS	NS	NS	NS	**0.0008**	< 0.0005	< 0.0005	-
	5/29/2003	**8.3**	NS	NS	NS	NS	NS	**0.0009**	< 0.0005	< 0.0005	-
	8/28/2003	**8.5**	NS	NS	NS	NS	NS	**0.0088**	< 0.0005	< 0.0005	-
	11/19/2003	**8.3**	NS	NS	NS	NS	NS	**0.0077**	< 0.0005	< 0.0005	-
	2/26/2004	**8.5**	NS	NS	NS	NS	NS	**0.00045 J**	< 0.0005	< 0.0005	-
	5/20/2004	**8.5**	NS	NS	NS	NS	NS	< 0.0005	< 0.0005	< 0.0005	-
	8/26/2004	**8.3**	NS	NS	NS	NS	NS	**0.0018**	< 0.0005	< 0.0005	-
	11/15/2006	**8.3**	NS	NS	NS	NS	NS	**0.0017**	< 0.0005	< 0.0005	-
	2/13/2007	**8.4**	NS	NS	NS	NS	NS	**0.410**	< 0.0005	**0.0002**	-
	4/16/07 [c]	NS	NS	NS	NS	NS	NS	NS	NS	NS	-
	8/23/2007	**7.6**	NS	NS	NS	NS	NS	**0.0008**	< 0.0005	< 0.0005	-
	11/28/2007	**8.5**	NS	NS	NS	NS	NS	<0.0005	<0.0005	<0.0005	-
	2/25/2008	NA	NS	NS	NS	NS	NS	<0.0005	<0.0005	<0.0005	-
	5/22/2008	NA	NS	NS	NS	NS	NS	**0.0003J**	<0.0005	<0.0005	-
	8/20/2008	NA	NS	NS	NS	NS	NS	**0.001**	<0.0005	<0.0005	-
	11/25/2008	NA	NS	NS	NS	NS	NS	**0.0005**	<0.0005	<0.0005	-
	2/27/2009	NA	NS	NS	NS	NS	NS	**0.0007**	<0.0005	<0.0005	-
	5/26/2009	**7.5**	NS	NS	NS	NS	NS	**0.0004J-**	<0.0005	<0.0005	-
	8/10/2009	NA	NS	NS	NS	NS	NS	<0.0005	<0.0005	<0.0005	-
	11/23/2009	**8.5**	NS	NS	NS	NS	NS	**0.0003 J**	< 0.0005	< 0.0005	-
	3/11/2010	**8.7**	NS	NS	NS	NS	NS	**0.0004**	< 0.0005	< 0.0005	-

APPENDIX G-6

GROUNDWATER TREATMENT SYSTEM
ANALYTICAL SUMMARY RESULTS
MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

Sample Identification	Date	pH	TDS (mg/L)	U-234 (pCi/L)	U-235 (pCi/L)	U-238 (pCi/L)	Total U (pCi/L)	PCE (mg/L)	Toluene (mg/L)	TCE (mg/L)	Bioassay
Maximum Allowable Discharge Limit		**5 - 12**	**NA**	**20**	**20**	**20**	**20**	**0.0005**	**0.150**	**NA**	**NA**
Carbon Mid Bed[2]	6/25/01[a]	NS	NS	NS	NS	NS	NS	< 0.0005	< 0.0005	< 0.0005	-
	8/28/2001	NS	NS	NS	NS	NS	NS	< 0.0005	< 0.0005	< 0.0005	-
	9/21/2001	**8.3**	NS	NS	NS	NS	NS	< 0.0005	< 0.0005	< 0.0005	-
	10/17/2001	**8.4**	NS	NS	NS	NS	NS	< 0.0005	< 0.0005	< 0.0005	-
	11/13/2001	**8.2**	NS	NS	NS	NS	NS	< 0.0005	< 0.0005	< 0.0005	-
	12/13/2001	**8.0**	NS	NS	NS	NS	NS	< 0.0005	< 0.0005	< 0.0005	-
	10/3/2002	**8.1**	NS	NS	NS	NS	NS	**0.0005 J**	< 0.0005	< 0.0005	-
	11/18/2002	**8.2**	NS	NS	NS	NS	NS	< 0.0005	< 0.0005	< 0.0005	-
	2/20/2003	**8.3**	NS	NS	NS	NS	NS	< 0.0005	< 0.0005	< 0.0005	-
	5/29/2003	**8.3**	NS	NS	NS	NS	NS	< 0.0005	< 0.0005	< 0.0005	-
	8/28/2003	**8.5**	NS	NS	NS	NS	NS	< 0.0005	< 0.0005	< 0.0005	-
	11/19/2003	**8.4**	NS	NS	NS	NS	NS	< 0.0005	< 0.0005	< 0.0005	-
	2/26/2004	**8.4**	NS	NS	NS	NS	NS	< 0.0005	< 0.0005	< 0.0005	-
	8/26/2004	NS	NS	NS	NS	NS	NS	NS	NS	NS	-
	8/24/2006*	**8.4**	NS	NS	NS	NS	NS	< 0.0005	< 0.0005	< 0.0005	-
	11/15/2006	**8.3**	NS	NS	NS	NS	NS	**0.0003 J**	< 0.0005	< 0.0005	-
	2/13/2007	**8.3**	NS	NS	NS	NS	NS	**0.0009**	< 0.0005	< 0.0005	-
	4/16/2007 [c]	NS	NS	NS	NS	NS	NS	NS	NS	NS	-
	8/23/2007	**7.6**	NS	NS	NS	NS	NS	**0.0009**	< 0.0005	< 0.0005	-
	11/28/2007	**8.5**	NS	NS	NS	NS	NS	<0.0005	<0.0005	<0.0005	-
	2/25/2008	NA	NS	NS	NS	NS	NS	<0.0005	<0.0005	<0.0005	-
	5/22/2008	NA	NS	NS	NS	NS	NS	<0.0005	<0.0005	<0.0005	-
	8/20/2008	NA	NS	NS	NS	NS	NS	**0.0011**	<0.0005	<0.0005	-
	11/25/2008	NA	NS	NS	NS	NS	NS	<0.0005	<0.0005	<0.0005	-
	2/27/2009	NA	NS	NS	NS	NS	NS	**0.0004**	<0.0005	<0.0005	-
	5/26/2009	**7.5**	NS	NS	NS	NS	NS	**0.0006J-**	<0.0005	<0.0005	-
	8/10/2009	NA	NS	NS	NS	NS	NS	<0.0005	<0.0005	<0.0005	-
	11/23/2009	**8.51**	NS	NS	NS	NS	NS	< 0.0005	< 0.0005	< 0.0005	-
	3/11/2010	**8.36**	NS	NS	NS	NS	NS	<0.0005	<0.0005	<0.0005	-

APPENDIX G-6

GROUNDWATER TREATMENT SYSTEM
ANALYTICAL SUMMARY RESULTS
MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

Sample Identification	Date	pH	TDS (mg/L)	U-234 (pCi/L)	U-235 (pCi/L)	U-238 (pCi/L)	Total U (pCi/L)	PCE (mg/L)	Toluene (mg/L)	TCE (mg/L)	Bioassay
Maximum Allowable Discharge Limit		**5 - 12**	**NA**	**20**	**20**	**20**	**20**	**0.0005**	**0.150**	**NA**	**NA**
Pre Ion Exchange[2]	8/28/2001	NS	NS	**18.9**	**0.404**	**14.0**	NS	< 0.0005	< 0.0005	< 0.0005	-
	11/14/2001	**7.8**	NS	**19.1**	**0.515**	**12.6**	NS	< 0.0005	< 0.0005	< 0.0005	-
	2/19/2002	**8.1**	NS	**19.5**	**0.506**	**14.3**	NS	< 0.0005	< 0.0005	< 0.0005	-
	5/23/2002	**8.0**	NS	**20.0**	**0.412**	**15.6**	NS	< 0.0005	< 0.0005	< 0.0005	-
	8/19/2002	**8.3**	NS	**25.7**	**0.621**	**17.7**	NS	< 0.0005	< 0.0005	< 0.0005	-
	11/18/2002	**8.2**	NS	**22.4**	**0.523**	**17.2**	NS	< 0.0005	< 0.0005	< 0.0005	-
	2/20/2003	**8.3**	NS	**27.3**	**1.550**	**21.2**	NS	< 0.0005	< 0.0005	< 0.0005	-
	5/29/2003	**8.3**	NS	**25.7**	**1.650**	**17.9**	NS	< 0.0005	< 0.0005	< 0.0005	-
	8/28/2003	**8.4**	NS	**26.8**	**1.390**	**19.3**	NS	< 0.0005	< 0.0005	< 0.0005	-
	11/19/2003	**8.1**	NS	**26.9**	**0.725**	**23.4**	NS	< 0.0005	< 0.0005	< 0.0005	-
	2/26/2004	**8.4**	NS	NS	NS	NS	**411.0**	< 0.0005	< 0.0005	< 0.0005	-
	5/20/2004	**8.5**	NS	**23.8**	**0.621**	**18.3**	NS	< 0.0005	< 0.0005	< 0.0005	-
	8/26/2004*	**8.4**	NS	NS	NS	NS	**68.4**	< 0.0005	< 0.0005	< 0.0005	-
	11/15/2006	**8.2**	NS	NS	NS	NS	**46.8**	**0.0003 J**	< 0.0005	< 0.0005	-
	2/13/2007	**8.3**	NS	NS	NS	NS	**24.5 J-**	< 0.0005	< 0.0005	< 0.0005	-
	4/16/2007 [c]	NS	NS	NS	NS	NS	NS	NS	NS	NS	-
	8/23/2007	**7.6**	NS	NS	NS	NS	NS	**0.0002**	< 0.0005	< 0.0005	-
	8/29/2007	**7.6**	NS	NS	NS	NS	**54.2**	NS	NS	NS	-
	11/28/2007	**8.5**	NS	NS	NS	NS	**53.4**	<0.0005	<0.0005	<0.0005	-
	2/25/2008	NA	NS	NS	NS	NS	**56.5**	<0.0005	<0.0005	<0.0005	-
	5/22/2008	NA	NS	NS	NS	NS	**58.9**	<0.0005	<0.0005	<0.0005	-
	8/20/2008	NA	NS	NS	NS	NS	**79.9**	<0.0005	<0.0005	<0.0005	-
	11/25/2008	NA	NS	NS	NS	NS	**56.7**	<0.0005	<0.0005	<0.0005	-
	2/27/2009	NA	NS	NS	NS	NS	**62.3**	<0.0005	<0.0005	<0.0005	-
	5/26/2009	**7.50**	NS	NS	NS	NS	**54.0**	0.0004J-	<0.0005	<0.0005	-
	8/10/2009	NA	NS	NS	NS	NS	NS	<0.0005	<0.0005	<0.0005	-
	11/23/2009	**8.47**	NS	NS	NS	NS	**53.0**	< 0.0005	< 0.0005	< 0.0005	-
	3/11/2010	**8.29**	NS	NS	NS	NS	**54.6**	NS	NS	NS	-

APPENDIX G-6

GROUNDWATER TREATMENT SYSTEM
ANALYTICAL SUMMARY RESULTS
MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

Sample Identification	Date	pH	TDS (mg/L)	U-234 (pCi/L)	U-235 (pCi/L)	U-238 (pCi/L)	Total U (pCi/L)	PCE (mg/L)	Toluene (mg/L)	TCE (mg/L)	Bioassay
Maximum Allowable Discharge Limit		**5 - 12**	**NA**	**20**	**20**	**20**	**20**	**0.0005**	**0.150**	**NA**	**NA**
Ion Exchange Mid Bed[3]	8/28/2001	NS	NS	**0.00826**	**0.00826**	**0.02480**	NS	NS	NS	NS	-
	2/19/2002	**8.1**	NS	**0.232**	< 0.0434	**0.304**	NS	NS	NS	NS	-
	5/23/2002	**8.0**	NS	**3.31**	**0.142**	**2.15**	NS	NS	NS	NS	-
	8/19/2002	**8.3**	NS	**8.01**	**0.288**	**5.72**	NS	NS		NS	-
	11/18/2002	**8.2**	NS	**6.84**	**0.225**	**4.71**	NS	NS	NS	NS	-
	2/20/2003	**8.3**	NS	**13.60**	**0.498**	**9.24**	NS	NS	NS	NS	-
	5/29/2003	**8.2**	NS	**16.3**	**0.849**	**12.0**	NS	NS	NS	NS	-
	8/28/2003	**8.4**	NS	**8.7**	**0.423**	**7.0**	NS	NS	NS	NS	-
	11/19/2003	**8.1**	NS	**18.3**	**0.871**	**15.1**	NS	NS	NS	NS	-
	2/26/2004	**8.4**	NS	NS	NS	NS	**24.5**	NS	NS	NS	-
	5/20/2004	**8.5**	NS	**18.9**	**0.590**	**14.0**	NS	NS	NS	NS	-
	8/26/2004	**8.4**	NS	NS	NS	NS	**19.8**	NS	NS	NS	-
	8/26/2004*	**8.3**	NS	NS	NS	NS	**6.05**	NS	NS	NS	-
	11/15/2006	**8.2**	NS	NS	NS	NS	**35.5**	NS	NS	NS	-
	2/13/2007	**8.4**	NS	NS	NS	NS	**42.7 J-**	NS	NS	NS	-
	4/16/2007 [c]	NS	NS	NS	NS	NS	NS	NS	NS	NS	-
	8/29/2007	**7.9**	NS	NS	NS	NS	**3.29**	NS	NS	NS	-
	11/28/2007	**8.4**	NS	NS	NS	NS	**4.07**	NS	NS	NS	-
	2/25/2008	NA	NS	NS	NS	NS	**15.50**	NS	NS	NS	-
	8/20/2008	NA	NS	NS	NS	NS	**42.6**	NS	NS	NS	-
	11/25/2008	NA	NS	NS	NS	NS	**35.7**	NS	NS	NS	-
	2/27/2009	NA	NS	NS	NS	NS	**42.7**	NS	NS	NS	-
	5/26/2009	NA	NS	NS	NS	NS	**47.0**	NS	NS	NS	-
	8/10/2009	NS	NS	NS	NS	NS	NS	NS	NS	NS	-
	11/23/2009	NS	NS	NS	NS	NS	**53.0**	NS	NS	NS	-
	12/22/2009	NS	NS	NS	NS	NS	**0.893**	NS	NS	NS	-
	3/11/2010	**8.1**	NS	NS	NS	NS	**5.900**	NS	NS	NS	-

Notes:
(1) Analyzed for VOCs using USEPA Method 8260
(2) Analyzed for VOCs using USEPA Method 524.2
(3) Analyzed for uranium using USEPA Method 908.0
(4) Analyzed for TDS using USEPA Method 160.1
GWT effluent sampled for acute aquatic 96-hour toxicity test on September 16, 2001. No significant mortalities reporte
GWT effluent sampled for acute aquatic 96-hour toxicity test on July 19, 2001. No significant mortalities reported.
GWT effluent sampled for acute aquatic 96-hour toxicity test on October 17, 2001. No significant mortalities reported.
GWT effluent sampled for semi-volatiles using USEPA Method 525 on 12 July 2001. No detections revealed.

(a) Was not discharged to City of Modesto Sanitary Sewer System
(b) Sample was analyzed out of holding time
(c) No sample collected 2Q07. System down for ion-exchange change-out.
(d) Total U sample collected on 6/17/2009.
* - System Start-up with new extraction well EW-1R
** - July 2007 System Start-up Samples/

GWT - Groundwater Treatment
PCE - Tetrachloroethene
TCE - Trichloroethene
TDS - Total Dissolved Solids
mg/L - milligrams per liter
B - Analyte Detected in trip blank or method blank
J - Estimated Value (J- = low bias)
NA - Not Applicable
NS - Not Sampled
NSM - Not Significant Mortalitites
R - Rejected

APPENDIX G-6

GROUNDWATER TREATMENT SYSTEM
ANALYTICAL SUMMARY RESULTS
MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

Sample Identification	Date	pH	TDS (mg/L)	U-234 (pCi/L)	U-235 (pCi/L)	U-238 (pCi/L)	Total U (pCi/L)	PCE (mg/L)	Toluene (mg/L)	TCE (mg/L)	Bioassay
Maximum Allowable Discharge Limit		**5 - 12**	**NA**	**20**	**20**	**20**	**20**	**0.0005**	**0.150**	**NA**	**NA**

U - Uranium
VOCs - Volatile organic compounds
pCi/L - picoCuries per liter

Appendix G-7
SVE and Groundwater Treatment Vapor Analytical Summary Results

APPENDIX G-7

SVE AND GROUNDWATER TREATMENT VAPOR ANALYTICAL SUMMARY RESULTS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Sample ID:	SVE PRE GAC-060807	SVE Pre GAC-073107	SVE Pre GAC-082407	SVE Pre GAC-092407	SVE Pre GAC-102907	SVE Pre GAC-112807	SVE Pre GAC-122007	SVE Pre GAC-011708	SVE Pre GAC-033108	SVE Pre GAC-042508	SVE Pre GAC-052208	SVE Pre GAC-062408
Sample Date:	06/08/07	07/31/07	08/24/07	09/24/07	10/29/07	11/28/07	12/20/07	01/17/08	03/31/08	04/25/08	05/22/08	06/24/08
Units:	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV
Tetrachloroethylene (PCE)	**7**	< 2.2000	< 2.3000	**4.4**	**4.8**	**15**	**54**	< 1.7000	**51**	**94**	**7700**	**900**
Trichloroethylene (TCE)	< 2.2000	< 2.2000	< 2.3000	< 2.3000	< 2.3000	< 2.0000	< 24.0000	< 1.7000	< 1.0000	< 2.5000	**27**	**11**
cis-1,2-Dichloroethylene	< 2.2000	< 2.2000	< 2.3000	< 2.3000	< 2.3000	< 2.0000	< 24.0000	< 1.7000	< 1.0000	< 2.5000	**19**	**13**
Dichlorodifluoromethane	< 2.2000	< 2.2000	< 2.3000	< 2.3000	< 2.3000	< 2.0000	< 24.0000	< 1.7000	< 1.0000	< 2.5000	**2**	< 20.0000
Chloroform	< 2.2000	< 2.2000	< 2.3000	< 2.3000	< 2.3000	< 2.0000	< 24.0000	< 1.7000	< 1.0000	< 2.5000	**16**	**34**
1,1,1-Trichloroethane	< 2.2000	< 2.2000	< 2.3000	< 2.3000	< 2.3000	< 2.0000	< 24.0000	< 1.7000	< 1.0000	< 2.5000	< 2.3000	< 20.0000
1,1,2,2-Tetrachloroethane	< 2.2000	< 2.2000	< 2.3000	< 2.3000	< 2.3000	< 2.0000	< 24.0000	< 1.7000	< 1.0000	< 2.5000	< 2.3000	< 20.0000
1,1,2-Trichloro-1,2,2-trifluoroethane	< 2.2000	< 2.2000	< 2.3000	< 2.3000	< 2.3000	< 2.0000	< 24.0000	< 1.7000	< 1.0000	< 2.5000	< 2.3000	< 20.0000
1,1,2-Trichloroethane	< 2.2000	< 2.2000	< 2.3000	< 2.3000	< 2.3000	< 2.0000	< 24.0000	< 1.7000	< 1.0000	< 2.5000	< 2.3000	< 20.0000
1,1-Dichloroethane	< 2.2000	< 2.2000	< 2.3000	< 2.3000	< 2.3000	< 2.0000	< 24.0000	< 1.7000	< 1.0000	< 2.5000	< 2.3000	< 20.0000
1,1-Dichloroethene	< 2.2000	< 2.2000	< 2.3000	< 2.3000	< 2.3000	< 2.0000	< 24.0000	< 1.7000	< 1.0000	< 2.5000	< 2.3000	< 20.0000
1,2,4-Trichlorobenzene	**2.8**	< 2.2000	< 2.3000	< 2.3000	< 2.3000	< 2.0000	< 24.0000	< 1.7000	< 1.0000	< 2.5000	< 2.3000	< 20.0000
1,2,4-Trimethylbenzene	< 2.2000	< 2.2000	< 2.3000	< 2.3000	< 2.3000	< 2.0000	< 24.0000	< 1.7000	< 1.0000	< 2.5000	< 2.3000	< 20.0000
1,2-Dibromoethane (Ethylene dibromide)	< 2.2000	< 2.2000	< 2.3000	< 2.3000	< 2.3000	< 2.0000	< 24.0000	< 1.7000	< 1.0000	< 2.5000	< 2.3000	< 20.0000
1,2-Dichloro-1,1,2,2-trifluoroethane	< 2.2000	< 2.2000	< 2.3000	< 2.3000	< 2.3000	< 2.0000	< 24.0000	< 1.7000	< 1.0000	< 2.5000	< 2.3000	< 20.0000
1,2-Dichlorobenzene	< 2.2000	< 2.2000	< 2.3000	< 2.3000	< 2.3000	< 2.0000	< 24.0000	< 1.7000	< 1.0000	< 2.5000	< 2.3000	< 20.0000
1,2-Dichloroethane	< 2.2000	< 2.2000	< 2.3000	< 2.3000	< 2.3000	< 2.0000	< 24.0000	< 1.7000	< 1.0000	< 2.5000	< 2.3000	< 20.0000
1,2-Dichloropropane	< 2.2000	< 2.2000	< 2.3000	< 2.3000	< 2.3000	< 2.0000	< 24.0000	< 1.7000	< 1.0000	< 2.5000	< 2.3000	< 20.0000
1,3,5-Trimethylbenzene	< 2.2000	< 2.2000	< 2.3000	< 2.3000	< 2.3000	< 2.0000	< 24.0000	< 1.7000	< 1.0000	< 2.5000	< 2.3000	< 20.0000
1,3-Dichlorobenzene	< 2.2000	< 2.2000	< 2.3000	< 2.3000	< 2.3000	< 2.0000	< 24.0000	< 1.7000	< 1.0000	< 2.5000	< 2.3000	< 20.0000
1,4-Dichlorobenzene	< 2.2000	< 2.2000	< 2.3000	< 2.3000	< 2.3000	< 2.0000	< 24.0000	< 1.7000	< 1.0000	< 2.5000	< 2.3000	< 20.0000
2-Butanone (MEK)		< 2.2000	< 2.3000	< 2.3000	< 2.3000	< 2.0000	< 24.0000	< 1.7000				
4-Ethyltoluene		< 2.2000	< 2.3000	< 2.3000	< 2.3000	< 2.0000	< 24.0000	< 1.7000				
Acetone	**5.6**	**1.1**	**10**	**11**	**10**	**7.3**	< 24.0000	**7.2**				
Benzene	< 2.2000	< 2.2000	< 2.3000	< 2.3000	< 2.3000	< 2.0000	< 24.0000	< 1.7000	< 1.0000	< 2.5000	< 2.3000	< 20.0000
Bromomethane	< 2.2000	< 2.2000	< 2.3000	< 2.3000	< 2.3000	< 2.0000	< 24.0000	< 1.7000	< 1.0000	< 2.5000	< 2.3000	< 20.0000
Carbon disulfide		< 2.2000	< 2.3000	< 2.3000	< 2.3000	< 2.0000	< 24.0000	< 1.7000				
Carbon tetrachloride	< 2.2000	< 2.2000	< 2.3000	< 2.3000	< 2.3000	< 2.0000	< 24.0000	< 1.7000	< 1.0000	< 2.5000	< 2.3000	< 20.0000
Chlorobenzene	< 2.2000	< 2.2000	< 2.3000	< 2.3000	< 2.3000	< 2.0000	< 24.0000	< 1.7000	< 1.0000	< 2.5000	< 2.3000	< 20.0000
Chloroethane	< 2.2000	< 2.2000	< 2.3000	< 2.3000	< 2.3000	< 2.0000	< 24.0000	< 1.7000	< 1.0000	< 2.5000	< 2.3000	< 20.0000
Chloromethane	< 2.2000	< 2.2000	< 2.3000	< 2.3000	< 2.3000	< 2.0000	< 24.0000	< 1.7000	**0.5**	< 2.5000	< 2.3000	< 20.0000
cis-1,3-Dichloropropene	< 2.2000	< 2.2000	< 2.3000	< 2.3000	< 2.3000	< 2.0000	< 24.0000	< 1.7000	< 1.0000	< 2.5000	< 2.3000	< 20.0000
Ethylbenzene	< 2.2000	< 2.2000	< 2.3000	< 2.3000	< 2.3000	< 2.0000	< 24.0000	< 1.7000	< 1.0000	< 2.5000	< 2.3000	< 20.0000
Hexachlorobutadiene	**3.7**	< 2.2000	< 2.3000	< 2.3000	< 2.3000	< 2.0000	< 24.0000	< 1.7000	< 1.0000	< 2.5000	< 2.3000	< 20.0000
m,p-Xylene	< 4.4000	< 4.4000	< 4.6000	< 4.7000	< 4.7000	< 4.1000	< 47.0000	< 3.4000	**1.1**	< 4.9000	< 4.6000	< 40.0000
Methylene chloride	< 2.2000	< 2.2000	< 2.3000	< 2.3000	< 2.3000	< 2.0000	< 24.0000	< 1.7000	< 1.0000	< 2.5000	< 2.3000	< 20.0000
o-Xylene	< 2.2000	< 2.2000	< 2.3000	< 2.3000	< 2.3000	< 2.0000	< 24.0000	< 1.7000	< 1.0000	< 2.5000	< 2.3000	< 20.0000
Styrene	< 2.2000	< 2.2000	< 2.3000	< 2.3000	< 2.3000	< 2.0000	< 24.0000	< 1.7000	< 1.0000	< 2.5000	< 2.3000	< 20.0000
Toluene	< 2.2000	< 2.2000	< 2.3000	**10**	**2**	< 2.0000	< 24.0000	**1**	**8.6**	**1.4**	< 2.3000	< 20.0000
trans-1,2-Dichloroethene		< 2.2000	< 2.3000	< 2.3000	< 2.3000	< 2.0000	< 24.0000	< 1.7000				
trans-1,3-Dichloropropene	< 2.2000	< 2.2000	< 2.3000	< 2.3000	< 2.3000	< 2.0000	< 24.0000	< 1.7000	< 1.0000	< 2.5000	< 2.3000	< 20.0000
Trichlorofluoromethane	< 2.2000	< 2.2000	< 2.3000	< 2.3000	< 2.3000	< 2.0000	< 24.0000	< 1.7000	< 1.0000	**4.2**	< 2.3000	< 20.0000
Vinyl chloride	< 2.2000	< 2.2000	< 2.3000	< 2.3000	< 2.3000	< 2.0000	< 24.0000	< 1.7000	< 1.0000	< 2.5000	< 2.3000	< 20.0000
1,2-DICHLOROTETRAFLUOROETHANE												

APPENDIX G-7

SVE AND GROUNDWATER TREATMENT VAPOR ANALYTICAL SUMMARY RESULTS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Sample ID:	SVE Pre GAC-072408	SVE Pre GAC-082002	SVE Pre Gac-092508	SVE Pre GAC-111808 (RE)	SVE Pre GAC-121008 (RE)	SVE Pre GAC-123008	SVE Pre GAC-013009	SVE Pre GAC-022709	SVE Pre GAC-031009	SVE Pre GAC-042309	SVE Pre GAC-052809	SVE Pre GAC-062909
Sample Date:	07/24/08	08/20/08	09/25/08	11/18/08	12/10/08	12/30/08	01/30/09	02/27/09	03/10/09	04/23/09	05/28/09	06/29/09
Units:	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV
Tetrachloroethylene (PCE)	**630**	**430**	**270**	**4100**	**1100**	**1400**	**2.1**	**670**	**610**	**750**	**610**	**1200**
Trichloroethylene (TCE)	**8.7**	**9.4**	**6**	**19**	**6.1**		< 2.1000	**2.6**	**2.6 J**	**4.3**	**7.7**	**15**
cis-1,2-Dichloroethylene	**10**	**8.1**	**5.6**	**29**	**8**		< 2.1000	**2.7**	**2.7 J**	**5.4**	**10**	**12**
Dichlorodifluoromethane	**2.5**	**1.9**	**1.8**	< 22.0000	**2.9**		< 2.1000	**2.7**	**2.6 J**	**1.9**	**3 J**	**2.2 J**
Chloroform	**37**	**33**	**29**	**62**	**45**		< 2.1000	**45**	**40**	**30**	**30**	**32**
1,1,1-Trichloroethane	< 2.0000	< 2.1000	< 1.9000	< 22.0000	< 3.9000		< 2.1000	< 2.2000	< 4.3000	< 1.9000	< 4.6000	< 2.7000
1,1,2,2-Tetrachloroethane	< 2.0000	< 2.1000	< 1.9000	< 22.0000	< 3.9000		< 2.1000	< 2.2000	< 4.3000	< 1.9000	< 4.6000	< 2.7000
1,1,2-Trichloro-1,2,2-trifluoroethane	< 2.0000	< 2.1000	< 1.9000	< 22.0000	< 3.9000		< 2.1000	< 2.2000	< 4.3000	< 1.9000	< 4.6000	< 2.7000
1,1,2-Trichloroethane	< 2.0000	< 2.1000	< 1.9000	< 22.0000	< 3.9000		< 2.1000	< 2.2000	< 4.3000	< 1.9000	< 4.6000	< 2.7000
1,1-Dichloroethane	< 2.0000	< 2.1000	< 1.9000	< 22.0000	< 3.9000		< 2.1000	< 2.2000	< 4.3000	< 1.9000	< 4.6000	< 2.7000
1,1-Dichloroethene	< 2.0000	< 2.1000	< 1.9000	< 22.0000	< 3.9000		< 2.1000	< 2.2000	< 4.3000	< 1.9000	< 4.6000	< 2.7000
1,2,4-Trichlorobenzene	< 2.0000	< 2.1000	< 1.9000	< 22.0000	< 3.9000		< 2.1000	< 2.2000	< 4.3000 UJ	< 1.9000	< 4.6000	< 2.7000
1,2,4-Trimethylbenzene	< 2.0000	< 2.1000	< 1.9000	< 22.0000	**25**		**1.4 J**	< 2.2000	< 4.3000	< 1.9000	< 4.6000	**6.9**
1,2-Dibromoethane (Ethylene dibromide)	< 2.0000	< 2.1000	< 1.9000	< 22.0000	**3**		< 2.1000	< 2.2000	< 4.3000	< 1.9000	< 4.6000	< 2.7000
1,2-Dichloro-1,1,2,2-trifluoroethane	< 2.0000	< 2.1000	< 1.9000	< 22.0000	< 3.9000		< 2.1000	< 2.2000	< 4.3000	< 1.9000	< 4.6000	< 2.7000
1,2-Dichlorobenzene	< 2.0000	< 2.1000	< 1.9000	< 22.0000	< 3.9000		< 2.1000	< 2.2000	< 4.3000	< 1.9000	< 4.6000	< 2.7000
1,2-Dichloroethane	< 2.0000	< 2.1000	< 1.9000	< 22.0000	< 3.9000		< 2.1000	< 2.2000	< 4.3000	< 1.9000	< 4.6000	< 2.7000
1,2-Dichloropropane	< 2.0000	< 2.1000	< 1.9000	< 22.0000	< 3.9000		< 2.1000	< 2.2000	< 4.3000	< 1.9000	< 4.6000	< 2.7000
1,3,5-Trimethylbenzene	< 2.0000	< 2.1000	< 1.9000	< 22.0000	**13**		**1.1 J**	< 2.2000	< 4.3000	< 1.9000	< 4.6000	**4.4**
1,3-Dichlorobenzene	< 2.0000	< 2.1000	< 1.9000	< 22.0000	< 3.9000		< 2.1000	< 2.2000	< 4.3000	< 1.9000	< 4.6000	< 2.7000
1,4-Dichlorobenzene	< 2.0000	< 2.1000	< 1.9000	< 22.0000	< 3.9000		< 2.1000	< 2.2000	< 4.3000	< 1.9000	< 4.6000	< 2.7000
2-Butanone (MEK)												
4-Ethyltoluene												
Acetone												
Benzene	< 2.0000	< 2.1000	< 1.9000	< 22.0000	**3.3**		< 2.1000	< 2.2000	< 4.3000	< 1.9000	< 4.6000	< 2.7000
Bromomethane	< 2.0000	< 2.1000	< 1.9000	< 22.0000	< 3.9000		< 2.1000	< 2.2000	< 4.3000	< 1.9000	< 4.6000	< 2.7000
Carbon disulfide												
Carbon tetrachloride	< 2.0000	< 2.1000	< 1.9000	< 22.0000	< 3.9000		< 2.1000	< 2.2000	< 4.3000	< 1.9000	< 4.6000	< 2.7000
Chlorobenzene	< 2.0000	< 2.1000	< 1.9000	< 22.0000	< 3.9000		< 2.1000	< 2.2000	< 4.3000	< 1.9000	< 4.6000	< 2.7000
Chloroethane	< 2.0000	< 2.1000	< 1.9000	< 22.0000	< 3.9000		< 2.1000	< 2.2000	< 4.3000	< 1.9000	< 4.6000	< 2.7000
Chloromethane	< 2.0000	< 2.1000	< 1.9000	< 22.0000	< 3.9000		< 2.1000	< 2.2000	< 4.3000	< 1.9000	< 4.6000	< 2.7000
cis-1,3-Dichloropropene	< 2.0000	< 2.1000	< 1.9000	< 22.0000	< 3.9000		< 2.1000	< 2.2000	< 4.3000	**2.1**	< 4.6000	< 2.7000
Ethylbenzene	< 2.0000	< 2.1000	< 1.9000	< 22.0000	**19**		< 2.1000	< 2.2000	< 4.3000	< 1.9000	< 4.6000	< 2.7000
Hexachlorobutadiene	< 2.0000	< 2.1000	< 1.9000	< 22.0000	< 3.9000		< 2.1000	< 2.2000	< 4.3000 UJ	< 1.9000	< 4.6000	< 2.7000 UJ
m,p-Xylene	< 4.0000	< 4.3000	**2.3**	< 45.0000	**210**		< 4.2000	< 4.3000	< 8.6000	< 3.7000	< 9.2000	**11**
Methylene chloride	< 2.0000	< 2.1000	< 1.9000	< 22.0000	< 3.9000		< 2.1000	< 2.2000	< 4.3000	< 1.9000	< 4.6000	**1.5**
o-Xylene	< 2.0000	< 2.1000	< 1.9000	< 22.0000	**63**		< 2.1000	< 2.2000	< 4.3000	< 1.9000	< 4.6000	**5.6**
Styrene	< 2.0000	< 2.1000	< 1.9000	< 22.0000	< 3.9000		< 2.1000 UJ	< 2.2000	< 4.3000	< 1.9000 UJ	< 4.6000 UJ	< 2.7000 UJ
Toluene	< 2.0000	< 2.1000	**2.4**	< 22.0000	**140**		**1.8 J**	< 2.2000	< 4.3000	< 1.9000	< 4.6000	**2 J**
trans-1,2-Dichloroethene												
trans-1,3-Dichloropropene	< 2.0000	< 2.1000	< 1.9000	< 22.0000	< 3.9000		< 2.1000	< 2.2000	< 4.3000	< 1.9000	< 4.6000	< 2.7000
Trichlorofluoromethane	< 2.0000	< 2.1000	< 1.9000	< 22.0000	< 3.9000		< 2.1000	< 2.2000	< 4.3000	< 1.9000	< 4.6000	< 2.7000
Vinyl chloride	< 2.0000	< 2.1000	< 1.9000	< 22.0000	< 3.9000		< 2.1000	< 2.2000	< 4.3000	< 1.9000	< 4.6000	< 2.7000
1,2-DICHLOROTETRAFLUOROETHA												

APPENDIX G-7

SVE AND GROUNDWATER TREATMENT VAPOR ANALYTICAL SUMMARY RESULTS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Sample ID:	SVE Pre GAC-072909	SVE Pre GAC-081009	SVE Pre GAC-092209	SVE Pre GAC-102609	SVE Pre GAC-112309	SVE Pre GAC-121609	SVE Pre GAC-0302	SVE Stack-060807	SVE Stack-073107	SVE Stack-082407	SVE Stack-092407	SVE Stack-102907
Sample Date:	07/29/09	08/10/09	09/22/09	10/26/09	11/23/09	12/16/09	03/11/10	06/08/07	07/31/07	08/24/07	09/24/07	10/29/07
Units:	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV
Tetrachloroethylene (PCE)	**1200**	**1800**	**940**	**630**	**500**	**420**	**12**	< 2.4000	**4.5**	< 2.3000	**4.3**	< 2.3000
Trichloroethylene (TCE)	**19**	**20**	**7.3**	**4.4**	**3**	**2.2**	< 2.2	< 2.4000	< 2.1000	< 2.3000	**4.6**	< 2.3000
cis-1,2-Dichloroethylene	**10**	**11**	**3.3**	**1.8 J**	**1.4 J**	< 2.1000	< 2.2	< 2.4000	< 2.1000	< 2.3000	**5**	< 2.3000
Dichlorodifluoromethane	**2.1 J**	**2.2 J**	< 2.3000	**1.6 J**	**1.3 J**	**1.5 J**	< 2.2	< 2.4000	< 2.1000	< 2.3000	**5**	< 2.3000
Chloroform	**10**	**44**	**34**	**39**	**26**	**29**	**1.2**	< 2.4000	< 2.1000	< 2.3000	**5.8**	< 2.3000
1,1,1-Trichloroethane	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.2	< 2.4000	< 2.1000	< 2.3000	**6.7**	< 2.3000
1,1,2,2-Tetrachloroethane	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.2	< 2.4000	< 2.1000	< 2.3000	**1.9**	< 2.3000
1,1,2-Trichloro-1,2,2-trifluoroethane	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.2	< 2.4000	< 2.1000	< 2.3000	**6.1**	< 2.3000
1,1,2-Trichloroethane	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.2	< 2.4000	< 2.1000	< 2.3000	**4.1**	< 2.3000
1,1-Dichloroethane	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.2	< 2.4000	< 2.1000	< 2.3000	**5.5**	< 2.3000
1,1-Dichloroethene	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.2	< 2.4000	< 2.1000	< 2.3000	**6.3**	< 2.3000
1,2,4-Trichlorobenzene	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.2	< 2.4000	< 2.1000	< 2.3000	**1.7**	< 2.3000
1,2,4-Trimethylbenzene	**2.7**	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.2	< 2.4000	< 2.1000	< 2.3000	**1.9**	< 2.3000
1,2-Dibromoethane (Ethylene dibromide)	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.2	< 2.4000	< 2.1000	< 2.3000	**2.6**	< 2.3000
1,2-Dichloro-1,1,2,2-trifluoroethane	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000		< 2.4000	< 2.1000	< 2.3000	**4.4**	< 2.3000
1,2-Dichlorobenzene	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.2	< 2.4000	< 2.1000	< 2.3000	**1.5**	< 2.3000
1,2-Dichloroethane	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.2	< 2.4000	< 2.1000	< 2.3000	**6.6**	< 2.3000
1,2-Dichloropropane	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.2	< 2.4000	< 2.1000	< 2.3000	**5.1**	< 2.3000
1,3,5-Trimethylbenzene	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.2	< 2.4000	< 2.1000	< 2.3000	**2**	< 2.3000
1,3-Dichlorobenzene	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.2	< 2.4000	< 2.1000	< 2.3000	**1.6**	< 2.3000
1,4-Dichlorobenzene	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.2	< 2.4000	< 2.1000	< 2.3000	**1.5**	< 2.3000
2-Butanone (MEK)									< 2.1000	< 2.3000	**2**	< 2.3000
4-Ethyltoluene									< 2.1000	< 2.3000	< 1.0000	< 2.3000
Acetone								**1.3**	**10**	4.8	**5.6**	**14**
Benzene	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	**2.3**	< 2.2	< 2.4000	< 2.1000	< 2.3000	**5.4**	< 2.3000
Bromomethane	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.2	< 2.4000	< 2.1000	< 2.3000	**5.2**	< 2.3000
Carbon disulfide									< 2.1000	< 2.3000	< 1.0000	< 2.3000
Carbon tetrachloride	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.2	< 2.4000	< 2.1000	< 2.3000	**6.7**	< 2.3000
Chlorobenzene	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.2	< 2.4000	< 2.1000	< 2.3000	**2.7**	< 2.3000
Chloroethane	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.2	< 2.4000	< 2.1000	< 2.3000	**6.4**	< 2.3000
Chloromethane	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.2	< 2.4000	< 2.1000	< 2.3000	**7.7**	< 2.3000
cis-1,3-Dichloropropene	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.2	< 2.4000	< 2.1000	< 2.3000	**3.9**	< 2.3000
Ethylbenzene	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.2	< 2.4000	< 2.1000	< 2.3000	**3.7**	< 2.3000
Hexachlorobutadiene	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.2	< 2.4000	< 2.1000	< 2.3000	**2.6**	< 2.3000
m,p-Xylene	**4.5 J**	< 5.7000	< 4.6000	< 4.5000	< 4.6000	< 4.1000	< 4.3	< 4.8000	< 4.1000	< 4.7000	**8**	< 4.5000
Methylene chloride	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.2	< 2.4000	< 2.1000	< 2.3000	**6**	< 2.3000
o-Xylene	**2.7**	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.2	< 2.4000	< 2.1000	< 2.3000	**3.1**	< 2.3000
Styrene	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.2	< 2.4000	< 2.1000	< 2.3000	**2**	< 2.3000
Toluene	**5**	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.2	< 2.4000	< 2.1000	< 2.3000	**15**	< 2.3000
trans-1,2-Dichloroethene									< 2.1000	< 2.3000	< 1.0000	< 2.3000
trans-1,3-Dichloropropene	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.2	< 2.4000	< 2.1000	< 2.3000	**3.2**	< 2.3000
Trichlorofluoromethane	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.2	< 2.4000	< 2.1000	< 2.3000	**7.8**	< 2.3000
Vinyl chloride	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.2	< 2.4000	< 2.1000	< 2.3000	**6.2**	< 2.3000
1,2-DICHLOROTETRAFLUOROETHA							< 2.2					

APPENDIX G-7

SVE AND GROUNDWATER TREATMENT VAPOR ANALYTICAL SUMMARY RESULTS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Sample ID:	SVE Stack-112807	SVE Stack-122007	SVE Stack-011708	SVE Stack-032008	SVE Stack-033108	SVE Stack-042508	SVE Stack-052208	SVE Stack-062408	SVE Stack-072408	SVE Stack-082002	SVE Stack-092508	SVE Stack-111808
Sample Date:	11/28/07	12/20/07	01/17/08	03/20/08	03/31/08	04/25/08	05/22/08	06/24/08	07/24/08	08/20/08	09/25/08	11/18/08
Units:	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV
Tetrachloroethylene (PCE)	< 2.0000	**17**	< 1.7000	< 2.5000	**0.7**	< 2.2000	< 2.3000	**3**	< 1.9000	**6.9**	**2.6**	< 2.4000
Trichloroethylene (TCE)	< 2.0000	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000
cis-1,2-Dichloroethylene	< 2.0000	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000
Dichlorodifluoromethane	< 2.0000	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	**1.6**	**1.5**	1.5	**1.3**	< 2.4000
Chloroform	< 2.0000	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	**1.4**	< 2.4000
1,1,1-Trichloroethane	< 2.0000	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000
1,1,2,2-Tetrachloroethane	< 2.0000	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000
1,1,2-Trichloro-1,2,2-trifluoroethane	< 2.0000	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000
1,1,2-Trichloroethane	< 2.0000	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000
1,1-Dichloroethane	< 2.0000	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000
1,1-Dichloroethene	< 2.0000	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000
1,2,4-Trichlorobenzene	< 2.0000	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	**1.6**	< 2.4000
1,2,4-Trimethylbenzene	< 2.0000	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000
1,2-Dibromoethane (Ethylene dibromide)	< 2.0000	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000
1,2-Dichloro-1,1,2,2-trifluoroethane	< 2.0000	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000
1,2-Dichlorobenzene	< 2.0000	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000
1,2-Dichloroethane	< 2.0000	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000
1,2-Dichloropropane	< 2.0000	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000
1,3,5-Trimethylbenzene	< 2.0000	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000
1,3-Dichlorobenzene	< 2.0000	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000
1,4-Dichlorobenzene	< 2.0000	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000
2-Butanone (MEK)	< 2.0000	< 2.3000	< 1.7000									
4-Ethyltoluene	< 2.0000	< 2.3000	< 1.7000									
Acetone	**2.2**	< 2.3000	< 1.7000									
Benzene	< 2.0000	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000
Bromomethane	< 2.0000	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000
Carbon disulfide	< 2.0000	< 2.3000	< 1.7000									
Carbon tetrachloride	< 2.0000	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000
Chlorobenzene	< 2.0000	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000
Chloroethane	< 2.0000	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000
Chloromethane	< 2.0000	< 2.3000	< 1.7000	< 2.5000	**0.5**	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000
cis-1,3-Dichloropropene	< 2.0000	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000
Ethylbenzene	< 2.0000	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000
Hexachlorobutadiene	< 2.0000	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000
m,p-Xylene	< 4.0000	< 4.6000	< 3.5000	< 4.9000	**1.2**	< 4.3000	< 4.6000	< 4.1000	< 3.8000	< 4.2000	< 4.0000	< 4.7000
Methylene chloride	< 2.0000	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000
o-Xylene	< 2.0000	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000
Styrene	< 2.0000	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000
Toluene	< 2.0000	< 2.3000	< 1.7000	< 2.5000	**5.2**	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000
trans-1,2-Dichloroethene	< 2.0000	< 2.3000	< 1.7000									
trans-1,3-Dichloropropene	< 2.0000	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000
Trichlorofluoromethane	< 2.0000	< 2.3000	< 1.7000	< 2.5000	< 1.0000	**4.5**	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000
Vinyl chloride	< 2.0000	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000
1,2-DICHLOROTETRAFLUOROETHA												

APPENDIX G-7

SVE AND GROUNDWATER TREATMENT VAPOR ANALYTICAL SUMMARY RESULTS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Sample ID:	SVE Stack-121008	SVE Stack-123008	SVE Stack-013009	SVE Stack-022709	SVE Stack-031009	SVE Stack-042309	SVE Stack-052809	SVE Stack-062909	SVE Stack-072909	SVE Stack-081009	SVE Stack-092209	SVE Stack-102609
Sample Date:	12/10/08	12/30/08	01/30/09	02/27/09	03/10/09	04/23/09	05/28/09	06/29/09	07/29/09	08/10/09	09/22/09	10/26/09
Units:	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV
Tetrachloroethylene (PCE)	< 1.9000	< 1.9000	**2.7**	**2.4**	**4.4**	**11**	< 2.4000	< 3.0000	**2.3**	**3**	< 2.1000	**6.2**
Trichloroethylene (TCE)	< 1.9000	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000
cis-1,2-Dichloroethylene	< 1.9000	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000
Dichlorodifluoromethane	**1.3**	< 1.9000	< 2.0000	**1.6 J**	**2.6**	**1.6 J**	**1.8 J**	< 3.0000	**2 J**	**2.2 J**	**1.8 J**	**1.5 J**
Chloroform	< 1.9000	< 1.9000	< 2.0000	< 2.2000	**2.7**	< 1.8000	< 2.4000	< 3.0000	**1.5**	**3.9**	**5.5**	**31**
1,1,1-Trichloroethane	< 1.9000	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000
1,1,2,2-Tetrachloroethane	< 1.9000	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000
1,1,2-Trichloro-1,2,2-trifluoroethane	< 1.9000	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000
1,1,2-Trichloroethane	< 1.9000	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000
1,1-Dichloroethane	< 1.9000	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000
1,1-Dichloroethene	< 1.9000	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000
1,2,4-Trichlorobenzene	< 1.9000	< 1.9000	< 2.0000 UJ	< 2.2000	< 2.2000 UJ	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000
1,2,4-Trimethylbenzene	**38**	**2**	**2**	< 2.2000	< 2.2000	< 1.8000	**4.5**	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000
1,2-Dibromoethane (Ethylene dibromide)	**9**	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000
1,2-Dichloro-1,1,2,2-trifluoroethane	< 1.9000	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000
1,2-Dichlorobenzene	< 1.9000	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000
1,2-Dichloroethane	< 1.9000	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000
1,2-Dichloropropane	< 1.9000	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000
1,3,5-Trimethylbenzene	**21**	**2.6**	**1.8 J**	< 2.2000	< 2.2000	< 1.8000	**2.6**	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000
1,3-Dichlorobenzene	< 1.9000	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000
1,4-Dichlorobenzene	< 1.9000	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000
2-Butanone (MEK)												
4-Ethyltoluene												
Acetone												
Benzene	**9.4**	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000
Bromomethane	< 1.9000	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000
Carbon disulfide												
Carbon tetrachloride	< 1.9000	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000
Chlorobenzene	< 1.9000	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000
Chloroethane	< 1.9000	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000
Chloromethane	< 1.9000	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000
cis-1,3-Dichloropropene	< 1.9000	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000
Ethylbenzene	**41**	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000 UJ	< 2.2000	< 2.6000	< 2.1000	< 2.3000
Hexachlorobutadiene	< 1.9000	< 1.9000	< 2.0000 UJ	< 2.2000	< 2.2000 UJ	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000
m,p-Xylene	**420**	**6.6**	< 3.9000	< 4.3000	< 4.4000	< 3.5000	**8.3**	< 5.9000	< 4.5000	< 5.1000	< 4.3000	< 4.6000
Methylene chloride	< 1.9000	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	**3.1**	**1.3 J**	< 2.1000	< 2.3000
o-Xylene	**110**	**3.3**	< 2.0000	< 2.2000	< 2.2000	< 1.8000	**3.8**	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000
Styrene	< 1.9000	< 1.9000	< 2.0000 UJ	< 2.2000	< 2.2000	< 1.8000 UJ	< 2.4000 UJ	< 3.0000 UJ	< 2.2000	< 2.6000	< 2.1000	< 2.3000
Toluene	**210**	< 1.9000	**3.1**	< 2.2000	< 2.2000	**2.7**	**1.8 J**	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000
trans-1,2-Dichloroethene												
trans-1,3-Dichloropropene	< 1.9000	< 3.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000
Trichlorofluoromethane	< 1.9000	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	**1.2 J**	< 2.3000
Vinyl chloride	< 1.9000	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000
1,2-DICHLOROTETRAFLUOROETHA												

APPENDIX G-7

SVE AND GROUNDWATER TREATMENT VAPOR ANALYTICAL SUMMARY RESULTS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Sample ID:	SVE Stack-112309	SVE Stack-121609	SVE Stack-0302	GWT Pre GAC-092407	GWT Pre GAC-102907	GWT Pre GAC-120607	GWT Pre GAC-122007	GWT Pre GAC-011708	GWT Pre GAC-022508	GWT Pre GAC-033108	GWT Pre GAC-042508	GWT Pre GAC-052208
Sample Date:	11/23/09	12/16/09	03/11/10	09/24/07	10/29/07	12/06/07	12/20/07	01/17/08	02/25/08	03/31/08	04/25/08	05/22/08
Units:	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV
Tetrachloroethylene (PCE)	**4**	**17**	**51**	**550**	**450**	< 2.0000	**390**	**420**	**200**	**22**	**360**	**110**
Trichloroethylene (TCE)	< 2.3000	< 2.1000	**2.6**	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000
cis-1,2-Dichloroethylene	**3.3**	**6.6**	**3.9**	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000
Dichlorodifluoromethane	**1.4 J**	**1.1 J**	< 3.2	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000
Chloroform	**83**	**62**	**30**	**8.8**	**13**	< 2.0000	< 21.0000	**9.5**	**4.7**	< 1.7000	**9.5**	**11**
1,1,1-Trichloroethane	< 2.3000	< 2.1000	< 3.2	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000
1,1,2,2-Tetrachloroethane	< 2.3000	< 2.1000	< 3.2	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000
1,1,2-Trichloro-1,2,2-trifluoroethane	< 2.3000	< 2.1000	< 3.2	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000
1,1,2-Trichloroethane	< 2.3000	< 2.1000	< 3.2	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000
1,1-Dichloroethane	< 2.3000	< 2.1000	< 3.2	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000
1,1-Dichloroethene	< 2.3000	< 2.1000	< 3.2	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000
1,2,4-Trichlorobenzene	< 2.3000	< 2.1000	< 3.2	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000
1,2,4-Trimethylbenzene	< 2.3000	< 2.1000	< 3.2	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	**2.2**	< 1.7000	< 2.6000	< 2.3000
1,2-Dibromoethane (Ethylene dibromide)	< 2.3000	< 2.1000	< 3.2	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000
1,2-Dichloro-1,1,2,2-trifluoroethane	< 2.3000	< 2.1000		< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000
1,2-Dichlorobenzene	< 2.3000	< 2.1000	< 3.2	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000
1,2-Dichloroethane	< 2.3000	< 2.1000	< 3.2	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000
1,2-Dichloropropane	< 2.3000	< 2.1000	< 3.2	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000
1,3,5-Trimethylbenzene	< 2.3000	< 2.1000	< 3.2	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000
1,3-Dichlorobenzene	< 2.3000	< 2.1000	< 3.2	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000
1,4-Dichlorobenzene	< 2.3000	< 2.1000	< 3.2	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000
2-Butanone (MEK)				**1.9**	< 2.2000	< 2.0000	< 21.0000	**13**				
4-Ethyltoluene				< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000				
Acetone				**5.9**	**1.9**	**4**	< 21.0000	< 16.0000				
Benzene	< 2.3000	**1.4**	< 3.2	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	**6.2**	< 1.7000	< 2.6000	< 2.3000
Bromomethane	< 2.3000	< 2.1000	< 3.2	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000
Carbon disulfide				< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000				
Carbon tetrachloride	< 2.3000	< 2.1000	< 3.2	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000
Chlorobenzene	< 2.3000	< 2.1000	< 3.2	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000
Chloroethane	< 2.3000	< 2.1000	< 3.2	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000
Chloromethane	< 2.3000	< 2.1000	< 3.2	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000
cis-1,3-Dichloropropene	< 2.3000	< 2.1000	< 3.2	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000
Ethylbenzene	< 2.3000	< 2.1000	< 3.2	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	**2.8**	< 1.7000	< 2.6000	< 2.3000
Hexachlorobutadiene	< 2.3000	< 2.1000	< 3.2	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000
m,p-Xylene	< 4.6000	< 4.1000	< 6.3	< 4.8000	< 4.4000	< 4.0000	< 42.0000	< 32.0000	**10**	< 3.5000	< 5.3000	< 4.7000
Methylene chloride	< 2.3000	< 2.1000	< 3.2	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000
o-Xylene	< 2.3000	< 2.1000	< 3.2	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	**3**	< 1.7000	< 2.6000	< 2.3000
Styrene	< 2.3000	< 2.1000	< 3.2	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000
Toluene	< 2.3000	< 2.1000	< 3.2	**8.2**	**1.2**	**6.2**	< 21.0000	< 16.0000	**21**	< 1.7000	< 2.6000	< 2.3000
trans-1,2-Dichloroethene				< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000				
trans-1,3-Dichloropropene	< 2.3000	< 2.1000	< 3.2	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000
Trichlorofluoromethane	< 2.3000	< 2.1000	< 3.2	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000
Vinyl chloride	< 2.3000	< 2.1000	< 3.2	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000
1,2-DICHLOROTETRAFLUOROETHA			< 3.2									

APPENDIX G-7

SVE AND GROUNDWATER TREATMENT VAPOR ANALYTICAL SUMMARY RESULTS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Sample ID:	GWT Pre GAC-062408	GWT Pre GAC-072408	GWT Pre GAC-082008	GWT Pre GAC-092508	GWT Pre GAC-103008	GWT Pre GAC-112508	GWT Pre GAC-013009	GWT Pre GAC-022709	GWT Pre GAC-031009	GWT Pre GAC-042309	GWT Pre GAC-052609	GWT Pre GAC-062909
Sample Date:	06/24/08	07/24/08	08/20/08	09/25/08	10/30/08	11/25/08	01/30/09	02/27/09	03/10/09	04/23/09	05/26/09	06/29/09
Units:	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV
Tetrachloroethylene (PCE)	**65**	**450**	**370**	**160**	**450**	**390**	**380**	**300**	**460**	**560**	**35**	**390**
Trichloroethylene (TCE)	< 2.0000	< 1.9000	< 2.1000	< 2.0000	**1.6**	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000
cis-1,2-Dichloroethylene	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000
Dichlorodifluoromethane	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000
Chloroform	**10**	**12**	**12**	**12**	**12**	**9.9**	**10**	**11**	**10**	**10**	< 2.4000	**7.2**
1,1,1-Trichloroethane	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000
1,1,2,2-Tetrachloroethane	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000
1,1,2-Trichloro-1,2,2-trifluoroethane	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000
1,1,2-Trichloroethane	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000
1,1-Dichloroethane	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000
1,1-Dichloroethene	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000
1,2,4-Trichlorobenzene	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000 UJ	< 1.8000	< 2.4000	< 2.6000
1,2,4-Trimethylbenzene	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.2000	< 1.8000	**3.1**	< 2.2000	< 2.1000	< 1.8000	**2.8**	< 2.6000
1,2-Dibromoethane (Ethylene dibromide)	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000
1,2-Dichloro-1,1,2,2-trifluoroethane	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000
1,2-Dichlorobenzene	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000
1,2-Dichloroethane	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000
1,2-Dichloropropane	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000
1,3,5-Trimethylbenzene	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.2000	< 1.8000	**3.1**	< 2.2000	< 2.1000	< 1.8000	**1.7 J**	< 2.6000
1,3-Dichlorobenzene	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000
1,4-Dichlorobenzene	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000
2-Butanone (MEK)												
4-Ethyltoluene												
Acetone												
Benzene	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000
Bromomethane	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000
Carbon disulfide												
Carbon tetrachloride	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000
Chlorobenzene	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000
Chloroethane	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000
Chloromethane	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000
cis-1,3-Dichloropropene	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000
Ethylbenzene	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000
Hexachlorobutadiene	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000 UJ	< 1.8000	< 2.4000	< 2.6000 UJ
m,p-Xylene	< 3.9000	< 3.8000	< 4.2000	< 3.9000	< 4.5000	< 3.6000	< 3.7000	< 4.3000	< 4.3000	< 3.5000	**4.2 J**	< 5.3000
Methylene chloride	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.2000	**1.3**	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000
o-Xylene	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.2000	< 1.8000	**1 J**	< 2.2000	< 2.1000	< 1.8000	**2.1 J**	< 2.6000
Styrene	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000 UJ	< 2.2000	< 2.1000	< 1.8000 UJ	< 2.4000 UJ	< 2.6000 UJ
Toluene	< 2.0000	< 1.9000	< 2.1000	< 2.0000	**2.9**	**0.9**	**1.9**	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000
trans-1,2-Dichloroethene												
trans-1,3-Dichloropropene	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000
Trichlorofluoromethane	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000
Vinyl chloride	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000
1,2-DICHLOROTETRAFLUOROETHA												

APPENDIX G-7

SVE AND GROUNDWATER TREATMENT VAPOR ANALYTICAL SUMMARY RESULTS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Sample ID:	GWT Pre GAC-072909	GWT Pre GAC-081009	GWT Pre GAC-092209	GWT Pre GAC-102609	GWT Pre GAC-112309	GWT Pre GAC-121609	GWTP Pr GAC 0302	GWT Stack-073107	GWT Stack-082407	GWT Stack-092407	GWT Stack-102907	GWT Stack-112807
Sample Date:	07/29/09	08/10/09	09/22/09	10/26/09	11/23/09	12/16/09	03/11/10	07/31/07	08/24/07	09/24/07	10/29/07	11/28/07
Units:	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV
Tetrachloroethylene (PCE)	**490**	**480**	**280**	**300**	**180**	**350**	**280**	**400**	< 2.3000	**510**	**460**	**8**
Trichloroethylene (TCE)	< 2.7000	< 2.4000	< 2.2000	< 2.3000	< 2.2000	**1.5 J**	< 4.1	< 4.8000	< 2.3000	< 2.4000	< 2.2000	**3.6**
cis-1,2-Dichloroethylene	< 2.7000	< 2.4000	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.1	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000
Dichlorodifluoromethane	< 2.7000	< 2.4000	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.1	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000
Chloroform	**9.7**	**11**	**11**	**9.9**	**7.8**	**9.6**	**6.5**	**8.9**	< 2.3000	**12**	**12**	< 2.0000
1,1,1-Trichloroethane	< 2.7000	< 2.4000	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.1	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000
1,1,2,2-Tetrachloroethane	< 2.7000	< 2.4000	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.1	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000
1,1,2-Trichloro-1,2,2-trifluoroethane	< 2.7000	< 2.4000	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.1	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000
1,1,2-Trichloroethane	< 2.7000	< 2.4000	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.1	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000
1,1-Dichloroethane	< 2.7000	< 2.4000	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.1	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000
1,1-Dichloroethene	< 2.7000	< 2.4000	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.1	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000
1,2,4-Trichlorobenzene	< 2.7000	< 2.4000	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.1	< 4.8000	< 2.3000	**2.4**	< 2.2000	< 2.0000
1,2,4-Trimethylbenzene	< 2.7000	< 2.4000	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.1	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000
1,2-Dibromoethane (Ethylene dibromide)	< 2.7000	< 2.4000	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.1	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000
1,2-Dichloro-1,1,2,2-trifluoroethane	< 2.7000	< 2.4000	< 2.2000	< 2.3000	< 2.2000	< 2.1000		< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000
1,2-Dichlorobenzene	< 2.7000	< 2.4000	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.1	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000
1,2-Dichloroethane	< 2.7000	< 2.4000	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.1	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000
1,2-Dichloropropane	< 2.7000	< 2.4000	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.1	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000
1,3,5-Trimethylbenzene	< 2.7000	< 2.4000	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.1	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000
1,3-Dichlorobenzene	< 2.7000	< 2.4000	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.1	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000
1,4-Dichlorobenzene	< 2.7000	< 2.4000	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.1	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000
2-Butanone (MEK)								< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000
4-Ethyltoluene								< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000
Acetone								**7.6**	**7.9**	**1.2**	**10**	**4.2**
Benzene	< 2.7000	< 2.4000	< 2.2000	< 2.3000	< 2.2000	**4.4**	< 4.1	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000
Bromomethane	< 2.7000	< 2.4000	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.1	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000
Carbon disulfide								< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000
Carbon tetrachloride	< 2.7000	< 2.4000	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.1	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000
Chlorobenzene	< 2.7000	< 2.4000	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.1	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000
Chloroethane	< 2.7000	< 2.4000	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.1	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000
Chloromethane	< 2.7000	< 2.4000	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.1	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000
cis-1,3-Dichloropropene	< 2.7000	< 2.4000	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.1	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000
Ethylbenzene	< 2.7000	< 2.4000	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.1	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000
Hexachlorobutadiene	< 2.7000	< 2.4000	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.1	< 4.8000	< 2.3000	**2.8**	< 2.2000	< 2.0000
m,p-Xylene	< 5.3000	< 4.9000	< 4.3000	< 4.6000	< 4.5000	< 4.1000	< 8.2	< 9.6000	< 4.7000	< 4.7000	< 4.3000	< 4.0000
Methylene chloride	< 2.7000	< 2.4000	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.1	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000
o-Xylene	< 2.7000	< 2.4000	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.1	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000
Styrene	< 2.7000	< 2.4000	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.1	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000
Toluene	< 2.7000	< 2.4000	< 2.2000	< 2.3000	**2.8**	< 2.1000	< 4.1	< 4.8000	< 2.3000	< 2.4000	**1.1**	< 2.0000
trans-1,2-Dichloroethene								< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000
trans-1,3-Dichloropropene	< 2.7000	< 2.4000	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.1	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000
Trichlorofluoromethane	< 2.7000	< 2.4000	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.1	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000
Vinyl chloride	< 2.7000	< 2.4000	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.1	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000
1,2-DICHLOROTETRAFLUOROETHA							< 4.1					

APPENDIX G-7

SVE AND GROUNDWATER TREATMENT VAPOR ANALYTICAL SUMMARY RESULTS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Sample ID:	GWT Stack-120607	GWT Stack-122007	GWT Stack-011708	GWT Stack-022508	GWT Stack-033108	GWT Stack-042508	GWT Stack-052208	GWT Stack-062408	GWT Stack-072408	GWT Stack-082002	GWT Stack-092508	GWT Stack-103008
Sample Date:	12/06/07	12/20/07	01/17/08	02/25/08	03/31/08	04/25/08	05/22/08	06/24/08	07/24/08	08/20/08	09/25/08	10/30/08
Units:	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV
Tetrachloroethylene (PCE)	< 2.1000	**3**	**1.7**	**12**	**27**	**73**	**330**	**460**	**34**	**32**	**27**	**43**
Trichloroethylene (TCE)	< 2.1000	< 2.2000	< 1.6000	**3.5**	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000
cis-1,2-Dichloroethylene	< 2.1000	< 2.2000	< 1.6000	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000
Dichlorodifluoromethane	< 2.1000	< 2.2000	< 1.6000	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000
Chloroform	< 2.1000	**3.6**	**9.3**	**9.6**	**9.7**	**10**	**8.8**	**11**	**13**	**14**	**13**	**7.2**
1,1,1-Trichloroethane	< 2.1000	< 2.2000	< 1.6000	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000
1,1,2,2-Tetrachloroethane	< 2.1000	< 2.2000	< 1.6000	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000
1,1,2-Trichloro-1,2,2-trifluoroethane	< 2.1000	< 2.2000	< 1.6000	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000
1,1,2-Trichloroethane	< 2.1000	< 2.2000	< 1.6000	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000
1,1-Dichloroethane	< 2.1000	< 2.2000	< 1.6000	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000
1,1-Dichloroethene	< 2.1000	< 2.2000	< 1.6000	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000
1,2,4-Trichlorobenzene	< 2.1000	< 2.2000	< 1.6000	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000
1,2,4-Trimethylbenzene	< 2.1000	**1.1**	< 1.6000	**1**	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000
1,2-Dibromoethane (Ethylene dibromide)	< 2.1000	< 2.2000	< 1.6000	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000
1,2-Dichloro-1,1,2,2-trifluoroethane	< 2.1000	< 2.2000	< 1.6000	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000
1,2-Dichlorobenzene	< 2.1000	< 2.2000	< 1.6000	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000
1,2-Dichloroethane	< 2.1000	< 2.2000	< 1.6000	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000
1,2-Dichloropropane	< 2.1000	< 2.2000	< 1.6000	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000
1,3,5-Trimethylbenzene	< 2.1000	< 2.2000	< 1.6000	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000
1,3-Dichlorobenzene	< 2.1000	< 2.2000	< 1.6000	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000
1,4-Dichlorobenzene	< 2.1000	< 2.2000	< 1.6000	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000
2-Butanone (MEK)	< 2.1000	< 2.2000	**4.2**									
4-Ethyltoluene	< 2.1000	< 2.2000	< 1.6000									
Acetone	**4.9**	**2.4**	**2.6**									
Benzene	< 2.1000	**1.2**	< 1.6000	**1.5**	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000
Bromomethane	< 2.1000	< 2.2000	< 1.6000	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000
Carbon disulfide	< 2.1000	< 2.2000	< 1.6000									
Carbon tetrachloride	< 2.1000	< 2.2000	< 1.6000	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000
Chlorobenzene	< 2.1000	< 2.2000	< 1.6000	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000
Chloroethane	< 2.1000	< 2.2000	< 1.6000	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000
Chloromethane	< 2.1000	< 2.2000	< 1.6000	< 1.8000	**0.6**	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000
cis-1,3-Dichloropropene	< 2.1000	< 2.2000	< 1.6000	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000
Ethylbenzene	< 2.1000	< 2.2000	< 1.6000	**1.1**	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000
Hexachlorobutadiene	< 2.1000	< 2.2000	< 1.6000	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000
m,p-Xylene	< 4.2000	< 4.4000	< 3.1000	**4.5**	< 2.0000	< 4.2000	< 4.8000	< 40.0000	< 3.8000	< 4.2000	< 3.8000	< 3.9000
Methylene chloride	< 2.1000	< 2.2000	< 1.6000	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000
o-Xylene	< 2.1000	< 2.2000	< 1.6000	**1.1**	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000
Styrene	< 2.1000	< 2.2000	< 1.6000	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000
Toluene	**6.6**	< 2.2000	**1.1**	**8.1**	**1.3**	< 2.1000	< 2.4000	< 20.0000	< 1.9000	**1.9**	**2.3**	**1.2**
trans-1,2-Dichloroethene	< 2.1000	< 2.2000	< 1.6000									
trans-1,3-Dichloropropene	< 2.1000	< 2.2000	< 1.6000	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000
Trichlorofluoromethane	< 2.1000	< 2.2000	< 1.6000	< 1.8000	< 1.0000	**25**	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000
Vinyl chloride	< 2.1000	< 2.2000	< 1.6000	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000
1,2-DICHLOROTETRAFLUOROETHA												

APPENDIX G-7

SVE AND GROUNDWATER TREATMENT VAPOR ANALYTICAL SUMMARY RESULTS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Sample ID:	GWT Stack-112508	GWT Stack-013009	GWT Stack-022709	GWT Stack-031009	GWT Stack-042309	GWT Stack-052609	GWT Stack-062909	GWT Stack-072909	GWT Stack-081009	GWT Stack-092209	GWT Stack-102609	GWT Stack-112309
Sample Date:	11/25/08	01/30/09	02/27/09	03/10/09	04/23/09	05/26/09	06/29/09	07/29/09	08/10/09	09/22/09	10/26/09	11/23/09
Units:	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV
Tetrachloroethylene (PCE)	**98**	**560**	**310**	**430**	**410**	**480**	**280**	**310**	**370**	**210**	**450**	**230**
Trichloroethylene (TCE)	< 2.1000	< 2.2000	< 2.1000	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000
cis-1,2-Dichloroethylene	< 2.1000	< 2.2000	< 2.1000	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000
Dichlorodifluoromethane	< 2.1000	< 2.2000	< 2.1000	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000
Chloroform	**9.5**	**11**	**11**	**11**	**7.7**	**7.5**	**7.2**	**8.9**	**9**	**7.6**	**10**	**8.6**
1,1,1-Trichloroethane	< 2.1000	< 2.2000	< 2.1000	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000
1,1,2,2-Tetrachloroethane	< 2.1000	< 2.2000	< 2.1000	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000
1,1,2-Trichloro-1,2,2-trifluoroethane	< 2.1000	< 2.2000	< 2.1000	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000
1,1,2-Trichloroethane	< 2.1000	< 2.2000	< 2.1000	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000
1,1-Dichloroethane	< 2.1000	< 2.2000	< 2.1000	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000
1,1-Dichloroethene	< 2.1000	< 2.2000	< 2.1000	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000
1,2,4-Trichlorobenzene	< 2.1000	< 2.2000 UJ	< 2.1000	< 2.2000 UJ	< 2.3000	**1.3 J**	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000
1,2,4-Trimethylbenzene	< 2.1000	**1.6 J**	< 2.1000	< 2.2000	< 2.3000	**10**	**1.4 J**	< 2.9000	< 2.9000	**1.2 J**	< 2.3000	< 2.4000
1,2-Dibromoethane (Ethylene dibromide)	< 2.1000	< 2.2000	< 2.1000	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000
1,2-Dichloro-1,1,2,2-trifluoroethane	< 2.1000	< 2.2000	< 2.1000	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000
1,2-Dichlorobenzene	< 2.1000	< 2.2000	< 2.1000	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000
1,2-Dichloroethane	< 2.1000	< 2.2000	< 2.1000	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000
1,2-Dichloropropane	< 2.1000	< 2.2000	< 2.1000	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000
1,3,5-Trimethylbenzene	< 2.1000	**1.8 J**	< 2.1000	< 2.2000	< 2.3000	**6.3**	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000
1,3-Dichlorobenzene	< 2.1000	< 2.2000	< 2.1000	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000
1,4-Dichlorobenzene	< 2.1000	< 2.2000	< 2.1000	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000
2-Butanone (MEK)												
4-Ethyltoluene												
Acetone												
Benzene	< 2.1000	< 2.2000	< 2.1000	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	**1.2 J**
Bromomethane	< 2.1000	< 2.2000	< 2.1000	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.2000
Carbon disulfide												
Carbon tetrachloride	< 2.1000	< 2.2000	< 2.1000	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000
Chlorobenzene	< 2.1000	< 2.2000	< 2.1000	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000
Chloroethane	< 2.1000	< 2.2000	< 2.1000	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000
Chloromethane	< 2.1000	< 2.2000	< 2.1000	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000
cis-1,3-Dichloropropene	< 2.1000	< 2.2000	< 2.1000	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000
Ethylbenzene	< 2.1000	< 2.2000	< 2.1000	< 2.2000	< 2.3000	**2.4 J**	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000
Hexachlorobutadiene	< 2.1000	< 2.2000 UJ	< 2.1000	< 2.2000 UJ	< 2.3000	**1.6 J**	< 2.8000 UJ	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000
m,p-Xylene	< 4.1000	< 4.4000	< 4.2000	< 4.3000	**2.4 J**	**19**	< 5.5000	< 5.8000	< 5.8000	< 4.3000	< 4.6000	**6.1**
Methylene chloride	**2.6**	< 2.2000	< 2.1000	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000
o-Xylene	< 2.1000	< 2.2000	< 2.1000	< 2.2000	< 2.3000	**8.6**	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	**1.7 J**
Styrene	< 2.1000	< 2.2000 UJ	< 2.1000	< 2.2000	< 2.3000 UJ	< 2.5000 UJ	< 2.8000 UJ	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000
Toluene	< 2.1000	< 2.2000	< 2.1000	< 2.2000	**3.1**	**3.5**	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	**11**
trans-1,2-Dichloroethene												
trans-1,3-Dichloropropene	< 2.1000	< 2.2000	< 2.1000	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000
Trichlorofluoromethane	< 2.1000	< 2.2000	< 2.1000	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000
Vinyl chloride	< 2.1000	< 2.2000	< 2.1000	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000
1,2-DICHLOROTETRAFLUOROETHA												

APPENDIX G-7

SVE AND GROUNDWATER TREATMENT VAPOR ANALYTICAL SUMMARY RESULTS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Sample ID:	GWT Stack-121609	GWTP Stack-0302	DP-1D-031009	DP-1D-1Q10	DP-1S-031009	DP-1S-1Q10	DP-5D-031009	DP-5D-1Q10	DP-5S-031009	DP-5S-1Q10	DP-6D-031009	DP-6D-1Q10	DP-6S-111108
Sample Date:	12/16/09	03/11/10	03/10/09	03/10/10	03/10/09	03/10/10	03/10/09	03/10/10	03/10/09	03/10/10	03/10/09	03/10/10	11/11/08
Units:	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV
Tetrachloroethylene (PCE)	**390**	**340**	**190**	**180**	**570**	**56**	**60**	**21**	**730**	**1.2**	**160**	**5.8**	**870**
Trichloroethylene (TCE)	**1.1 J**	< 2.4	< 2.2000	< 3.4	**2.1 J**	< 3.1	< 2.4000	< 2.2	< 2.1000	< 2.3	**6.5**	< 2.3	**3.9**
cis-1,2-Dichloroethylene	< 2.0000	< 2.4	< 2.2000	< 3.4	< 2.2000	< 3.1	< 2.4000	< 2.2	< 2.1000	< 2.3	< 2.1000	< 2.3	< 1.9000
Dichlorodifluoromethane	< 2.0000	< 2.4	< 2.2000	< 3.4	< 2.2000	< 3.1	< 2.4000	< 2.2	< 2.1000	< 2.3	**2.2**	< 2.3	**1.1 J+**
Chloroform	**10**	**6.6**	< 2.2000	**2.9**	< 2.2000	< 3.1	**53**	**15**	< 2.1000	< 2.3	**43**	< 2.3	**10**
1,1,1-Trichloroethane	< 2.0000	< 2.4	< 2.2000	< 3.4	< 2.2000	< 3.1	< 2.4000	< 2.2	< 2.1000	< 2.3	< 2.1000	< 2.3	< 1.9000
1,1,2,2-Tetrachloroethane	< 2.0000	< 2.4	< 2.2000	< 3.4	< 2.2000	< 3.1	< 2.4000	< 2.2	< 2.1000	< 2.3	< 2.1000	< 2.3	< 1.9000
1,1,2-Trichloro-1,2,2-trifluoroethane	< 2.0000	< 2.4	< 2.2000	< 3.4	< 2.2000	< 3.1	< 2.4000	< 2.2	< 2.1000	< 2.3	< 2.1000	< 2.3	< 1.9000
1,1,2-Trichloroethane	< 2.0000	< 2.4	< 2.2000	< 3.4	< 2.2000	< 3.1	< 2.4000	< 2.2	< 2.1000	< 2.3	< 2.1000	< 2.3	< 1.9000
1,1-Dichloroethane	< 2.0000	< 2.4	< 2.2000	< 3.4	< 2.2000	< 3.1	< 2.4000	< 2.2	< 2.1000	< 2.3	< 2.1000	< 2.3	< 1.9000
1,1-Dichloroethene	< 2.0000	< 2.4	< 2.2000	< 3.4	< 2.2000	< 3.1	< 2.4000	< 2.2	< 2.1000	< 2.3	< 2.1000	< 2.3	< 1.9000
1,2,4-Trichlorobenzene	< 2.0000	< 2.4	< 2.2000	< 3.4	< 2.2000	< 3.1	< 2.4000	< 2.2	< 2.1000	< 2.3	< 2.1000	< 2.3	< 1.9000
1,2,4-Trimethylbenzene	< 2.0000	< 2.4	< 2.2000	< 3.4	< 2.2000	< 3.1	< 2.4000	< 2.2	< 2.1000	< 2.3	< 2.1000	< 2.3	< 1.9000
1,2-Dibromoethane (Ethylene dibromide)	< 2.0000	< 2.4	< 2.2000	< 3.4	< 2.2000	< 3.1	< 2.4000	< 2.2	< 2.1000	< 2.3	< 2.1000	< 2.3	< 1.9000
1,2-Dichloro-1,1,2,2-trifluoroethane	< 2.0000		< 2.2000		< 2.2000		< 2.4000		< 2.1000		< 2.1000		< 1.9000
1,2-Dichlorobenzene	< 2.0000	< 2.4	< 2.2000	< 3.4	< 2.2000	< 3.1	< 2.4000	< 2.2	< 2.1000	< 2.3	< 2.1000	< 2.3	< 1.9000
1,2-Dichloroethane	< 2.0000	< 2.4	< 2.2000	< 3.4	< 2.2000	< 3.1	< 2.4000	< 2.2	< 2.1000	< 2.3	< 2.1000	< 2.3	< 1.9000
1,2-Dichloropropane	< 2.0000	< 2.4	< 2.2000	< 3.4	< 2.2000	< 3.1	< 2.4000	< 2.2	< 2.1000	< 2.3	< 2.1000	< 2.3	< 1.9000
1,3,5-Trimethylbenzene	< 2.0000	< 2.4	< 2.2000	< 3.4	< 2.2000	< 3.1	< 2.4000	< 2.2	< 2.1000	< 2.3	< 2.1000	< 2.3	< 1.9000
1,3-Dichlorobenzene	< 2.0000	< 2.4	< 2.2000	< 3.4	< 2.2000	< 3.1	< 2.4000	< 2.2	< 2.1000	< 2.3	< 2.1000	< 2.3	< 1.9000
1,4-Dichlorobenzene	< 2.0000	< 2.4	< 2.2000	< 3.4	< 2.2000	< 3.1	< 2.4000	< 2.2	< 2.1000	< 2.3	< 2.1000	< 2.3	< 1.9000
2-Butanone (MEK)													
4-Ethyltoluene													
Acetone													
Benzene	**2.8**	< 2.4	< 2.2000	< 3.4	< 2.2000	**1.6**	< 2.4000	< 2.2	< 2.1000	< 2.3	< 2.1000	**3.9**	< 1.9000
Bromomethane	< 2.0000	< 2.4	< 2.2000	< 3.4	< 2.2000	< 3.1	< 2.4000	< 2.2	< 2.1000	< 2.3	< 2.1000	< 2.3	< 1.9000
Carbon disulfide													
Carbon tetrachloride	< 2.0000	< 2.4	< 2.2000	< 3.4	< 2.2000	< 3.1	< 2.4000	< 2.2	< 2.1000	< 2.3	< 2.1000	< 2.3	< 1.9000
Chlorobenzene	< 2.0000	< 2.4	< 2.2000	< 3.4	< 2.2000	< 3.1	< 2.4000	< 2.2	< 2.1000	< 2.3	< 2.1000	< 2.3	< 1.9000
Chloroethane	< 2.0000	< 2.4	< 2.2000	< 3.4	< 2.2000	< 3.1	< 2.4000	< 2.2	< 2.1000	< 2.3	< 2.1000	< 2.3	< 1.9000
Chloromethane	< 2.0000	< 2.4	< 2.2000	< 3.4	< 2.2000	< 3.1	< 2.4000	< 2.2	< 2.1000	< 2.3	< 2.1000	< 2.3	< 1.9000
cis-1,3-Dichloropropene	< 2.0000	< 2.4	< 2.2000	< 3.4	< 2.2000	< 3.1	< 2.4000	< 2.2	< 2.1000	< 2.3	< 2.1000	< 2.3	< 1.9000
Ethylbenzene	< 2.0000	< 2.4	< 2.2000	< 3.4	< 2.2000	< 3.1	< 2.4000	< 2.2	< 2.1000	< 2.3	< 2.1000	< 2.3	< 1.9000
Hexachlorobutadiene	< 2.0000	< 2.4	< 2.2000	< 3.4	< 2.2000	< 3.1	< 2.4000	< 2.2	< 2.1000	< 2.3	< 2.1000	< 2.3	< 1.9000
m,p-Xylene	< 4.1000	< 4.8	< 4.4000	< 6.9	< 4.4000	< 6.2	< 4.8000	< 4.3	< 4.1000	< 4.7	< 4.2000	**2.7**	< 3.8000
Methylene chloride	< 2.0000	< 2.4	< 2.2000	< 3.4	< 2.2000	< 3.1	< 2.4000	**1.1**	< 2.1000	< 2.3	< 2.1000	< 2.3	< 1.9000
o-Xylene	< 2.0000	< 2.4	< 2.2000	< 3.4	< 2.2000	< 3.1	< 2.4000	< 2.2	< 2.1000	< 2.3	< 2.1000	< 2.3	< 1.9000
Styrene	< 2.0000	< 2.4	< 2.2000	< 3.4	< 2.2000	< 3.1	< 2.4000	< 2.2	< 2.1000	< 2.3	< 2.1000	< 2.3	< 1.9000
Toluene	< 2.0000	< 2.4	< 2.2000	< 3.4	< 2.2000	< 3.1	< 2.4000	< 2.2	< 2.1000	< 2.3	< 2.1000	**4.4**	**1.1 J**
trans-1,2-Dichloroethene													
trans-1,3-Dichloropropene	< 2.0000	< 2.4	< 2.2000	< 3.4	< 2.2000	< 3.1	< 2.4000	< 2.2	< 2.1000	< 2.3	< 2.1000	< 2.3	< 1.9000
Trichlorofluoromethane	< 2.0000	< 2.4	< 2.2000	< 3.4	< 2.2000	< 3.1	< 2.4000	< 2.2	< 2.1000	< 2.3	< 2.1000	< 2.3	< 1.9000
Vinyl chloride	< 2.0000	< 2.4	< 2.2000	< 3.4	< 2.2000	< 3.1	< 2.4000	< 2.2	< 2.1000	< 2.3	< 2.1000	< 2.3	< 1.9000
1,2-DICHLOROTETRAFLUOROETHA		< 2.4		< 3.4		< 3.1		< 2.2		< 2.3		< 2.3	

APPENDIX G-7

SVE AND GROUNDWATER TREATMENT VAPOR ANALYTICAL SUMMARY RESULTS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Sample ID:	DP-6S-031009	DP-6S-1Q10	SVE-1-1Q10	SVE-2-111108	SVE-2-111808	SVE-2-121008	SVE-2-123008	SVE-2-013009	SVE-2-031009	SVE-2-052809	SVE-2-081009	SVE-2-112309
Sample Date:	03/10/09	03/10/10	03/10/10	11/11/08	11/18/08	12/10/08	12/30/08	01/30/09	03/10/09	05/28/09	08/10/09	11/23/09
Units:	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV
Tetrachloroethylene (PCE)		**59**	**13**	**14000**	**13000**	**3200**	**4100**	**4700**	**980**	**1500**	**5700**	**110**
Trichloroethylene (TCE)	< 2.1000	< 3.1	< 2.4	**210**	**55 J+**	**16**	**10**	**23**	**9.6**	**17**	**62**	**1.3 J**
cis-1,2-Dichloroethylene	< 2.1000	< 3.1	< 2.4	**270**	**110**	**31**	**38**	**24**	**15**	**30**	**36**	<2.3000
Dichlorodifluoromethane	< 2.1000	< 3.1	< 2.4	**1.1 J+**	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000	< 13.0000	<2.3000
Chloroform	< 2.1000	< 3.1	< 2.4	**3.7**	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000	< 13.0000	<2.3000
1,1,1-Trichloroethane	< 2.1000	< 3.1	< 2.4	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000	< 13.0000	<2.3000
1,1,2,2-Tetrachloroethane	< 2.1000	< 3.1	< 2.4	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000	< 13.0000	<2.3000
1,1,2-Trichloro-1,2,2-trifluoroethane	< 2.1000	< 3.1	< 2.4	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000	< 13.0000	<2.3000
1,1,2-Trichloroethane	< 2.1000	< 3.1	< 2.4	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000	< 13.0000	<2.3000
1,1-Dichloroethane	< 2.1000	< 3.1	< 2.4	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000	< 13.0000	<2.3000
1,1-Dichloroethene	< 2.1000	< 3.1	< 2.4	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000	< 13.0000	<2.3000
1,2,4-Trichlorobenzene	< 2.1000	< 3.1	< 2.4	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000	< 13.0000	<2.3000
1,2,4-Trimethylbenzene	< 2.1000	< 3.1	< 2.4	< 1.9000	< 21.0000	**14**	< 7.2000	< 13.0000	< 2.1000	< 11.0000	< 13.0000	<2.3000
1,2-Dibromoethane (Ethylene dibromide)	< 2.1000	< 3.1	< 2.4	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000	< 13.0000	<2.3000
1,2-Dichloro-1,1,2,2-trifluoroethane	< 2.1000			< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000	< 13.0000	<2.3000
1,2-Dichlorobenzene	< 2.1000	< 3.1	< 2.4	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000	< 13.0000	<2.3000
1,2-Dichloroethane	< 2.1000	< 3.1	< 2.4	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000	< 13.0000	<2.3000
1,2-Dichloropropane	< 2.1000	< 3.1	< 2.4	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000	< 13.0000	<2.3000
1,3,5-Trimethylbenzene	< 2.1000	< 3.1	< 2.4	< 1.9000	< 21.0000	**6.6**	< 7.2000	< 13.0000	< 2.1000	< 11.0000	< 13.0000	<2.3000
1,3-Dichlorobenzene	< 2.1000	< 3.1	< 2.4	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000	< 13.0000	<2.3000
1,4-Dichlorobenzene	< 2.1000	< 3.1	< 2.4	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000	< 13.0000	<2.3000
2-Butanone (MEK)												
4-Ethyltoluene												
Acetone												
Benzene	< 2.1000	**1.9**	< 2.4	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000	< 13.0000	<2.3000
Bromomethane	< 2.1000	< 3.1	< 2.4	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000	< 13.0000	<2.3000
Carbon disulfide												
Carbon tetrachloride	< 2.1000	< 3.1	< 2.4	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000	< 13.0000	<2.3000
Chlorobenzene	< 2.1000	< 3.1	< 2.4	**1.4 J**	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000	< 13.0000	<2.3000
Chloroethane	< 2.1000	< 3.1	< 2.4	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000	< 13.0000	<2.3000
Chloromethane	< 2.1000	< 3.1	< 2.4	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000	< 13.0000	<2.3000
cis-1,3-Dichloropropene	< 2.1000	< 3.1	< 2.4	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000	< 13.0000	<2.3000
Ethylbenzene	< 2.1000	< 3.1	< 2.4	< 1.9000	< 21.0000	5.1	< 7.2000	< 13.0000	< 2.1000	< 11.0000	< 13.0000	<2.3000
Hexachlorobutadiene	< 2.1000	< 3.1	< 2.4	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000	< 13.0000	<2.3000
m,p-Xylene	< 4.2000	< 6.2	< 4.7	< 3.8000	< 43.0000	57	< 14.0000	< 27.0000	< 4.3000	< 23.0000	< 25.0000	<4.5000
Methylene chloride	< 2.1000	< 3.1	< 2.4	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000	< 13.0000	<2.3000
o-Xylene	< 2.1000	< 3.1	< 2.4	< 1.9000	< 21.0000	19	< 7.2000	< 13.0000	< 2.1000	< 11.0000	< 13.0000	<2.3000
Styrene	< 2.1000	< 3.1	< 2.4	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000 UJ	< 13.0000	<2.3000
Toluene	< 2.1000	**2.5**	< 2.4	1	< 21.0000	20	< 7.2000	< 13.0000	< 2.1000	< 11.0000	< 13.0000	<2.3000
trans-1,2-Dichloroethene												
trans-1,3-Dichloropropene	< 2.1000	< 3.1	< 2.4	< 1.9000	< 21.0000	< 7.7000	< 14.0000	< 13.0000	< 2.1000	< 11.0000	< 13.0000	<2.3000
Trichlorofluoromethane	< 2.1000	< 3.1	< 2.4	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000	< 13.0000	<2.3000
Vinyl chloride	< 2.1000	< 3.1	< 2.4	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000	< 13.0000	<2.3000
1,2-DICHLOROTETRAFLUOROETHA		< 3.1	< 2.4									

APPENDIX G-7

SVE AND GROUNDWATER TREATMENT VAPOR ANALYTICAL SUMMARY RESULTS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Sample ID:	SVE-2-1Q10	SVE-3-121008	SVE-3-123008	SVE-3-013009	SVE-3-031009	SVE-3-052809	SVE-3-081009	SVE-3-112309	SVE-3-1Q10	SVE-4-111808	SVE-4-121008	SVE-4-123008
Sample Date:	03/10/10	12/10/08	12/30/08	01/30/09	03/10/09	05/28/09	08/10/09	11/23/09	03/10/10	11/18/08	12/10/08	12/30/08
Units:	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV
Tetrachloroethylene (PCE)	**290**	**810**	**1600**	**980**	**30**	**620**	**88**	**2.6**	**88**	**890**	**350**	**390**
Trichloroethylene (TCE)	< 3.6	**6.5 J**	**4.3 J**	**3.5**	< 2.1000	**7.4**	< 2.5000	< 2.5000	< 4.7	< 8.6000	**1.1 J**	< 1.8000
cis-1,2-Dichloroethylene	< 3.6	< 7.7000	< 7.2000	**2**	< 2.1000	**2.7 J**	< 2.5000	< 2.5000	< 4.7	< 8.6000	< 2.0000	< 1.8000
Dichlorodifluoromethane	< 3.6	< 7.7000	< 7.2000	< 2.0000	< 2.1000	**2.9 J**	< 2.5000	< 2.5000	< 4.7	**6 J**	**4.4**	**4**
Chloroform	< 3.6	**5.7 J**	**6.4 J**	**2.1**	< 2.1000	**2.8 J**	< 2.5000	< 2.5000	< 4.7	**140**	**130**	**110**
1,1,1-Trichloroethane	< 3.6	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 4.7	< 8.6000	< 2.0000	< 1.8000
1,1,2,2-Tetrachloroethane	< 3.6	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 4.7	< 8.6000	< 2.0000	< 1.8000
1,1,2-Trichloro-1,2,2-trifluoroethane	< 3.6	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 4.7	< 8.6000	< 2.0000	< 1.8000
1,1,2-Trichloroethane	< 3.6	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 4.7	< 8.6000	< 2.0000	< 1.8000
1,1-Dichloroethane	< 3.6	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 4.7	< 8.6000	< 2.0000	< 1.8000
1,1-Dichloroethene	< 3.6	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 4.7	< 8.6000	< 2.0000	< 1.8000
1,2,4-Trichlorobenzene	< 3.6	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 4.7	< 8.6000	< 2.0000	< 1.8000
1,2,4-Trimethylbenzene	< 3.6	**40**	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 4.7	< 8.6000	**17**	< 1.8000
1,2-Dibromoethane (Ethylene dibromide)	< 3.6	**4.2 J**	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 4.7	< 8.6000	**1.2 J**	< 1.8000
1,2-Dichloro-1,1,2,2-trifluoroethane		< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000		< 8.6000	< 2.0000	< 1.8000
1,2-Dichlorobenzene	< 3.6	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 4.7	< 8.6000	< 2.0000	< 1.8000
1,2-Dichloroethane	< 3.6	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 4.7	< 8.6000	< 2.0000	< 1.8000
1,2-Dichloropropane	< 3.6	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 4.7	< 8.6000	< 2.0000	< 1.8000
1,3,5-Trimethylbenzene	< 3.6	**21**	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 4.7	< 8.6000	**8.2**	< 1.8000
1,3-Dichlorobenzene	< 3.6	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 4.7	< 8.6000	< 2.0000	< 1.8000
1,4-Dichlorobenzene	< 3.6	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 4.7	< 8.6000	< 2.0000	< 1.8000
2-Butanone (MEK)												
4-Ethyltoluene												
Acetone												
Benzene	< 3.6	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 4.7	< 8.6000	< 2.0000	< 1.8000
Bromomethane	< 3.6	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 4.7	< 8.6000	< 2.0000	< 1.8000
Carbon disulfide												
Carbon tetrachloride	< 3.6	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 4.7	< 8.6000	< 2.0000	< 1.8000
Chlorobenzene	< 3.6	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 4.7	< 8.6000	< 2.0000	< 1.8000
Chloroethane	< 3.6	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 4.7	< 8.6000	< 2.0000	< 1.8000
Chloromethane	< 3.6	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 4.7	< 8.6000	< 2.0000	< 1.8000
cis-1,3-Dichloropropene	< 3.6	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 4.7	< 8.6000	< 2.0000	< 1.8000
Ethylbenzene	< 3.6	31	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 4.7	< 8.6000	**9.6**	< 1.8000
Hexachlorobutadiene	< 3.6	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 4.7	< 8.6000	< 2.0000	< 1.8000
m,p-Xylene	< 7.2	120	< 14.0000	< 4.0000	< 4.3000	< 9.2000	< 5.0000	< 5.0000	< 9.4	< 17.0000	**67**	< 3.6000
Methylene chloride	< 3.6	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 4.7	< 8.6000	< 2.0000	< 1.8000
o-Xylene	< 3.6	98	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 4.7	< 8.6000	**31**	< 1.8000
Styrene	< 3.6	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000 UJ	< 2.5000	< 2.5000	< 4.7	< 8.6000	< 2.0000	< 1.8000
Toluene	< 3.6	93	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 4.7	< 8.6000	**52**	< 1.8000
trans-1,2-Dichloroethene												
trans-1,3-Dichloropropene	< 3.6	< 7.7000	< 14.0000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 4.7	< 8.6000	< 2.0000	< 3.6000
Trichlorofluoromethane	< 3.6	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 4.7	< 8.6000	< 2.0000	< 1.8000
Vinyl chloride	< 3.6	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 4.7	< 8.6000	< 2.0000	< 1.8000
1,2-DICHLOROTETRAFLUOROETHA	< 3.6								< 4.7			

APPENDIX G-7

SVE AND GROUNDWATER TREATMENT VAPOR ANALYTICAL SUMMARY RESULTS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Sample ID:	SVE-4-013009	SVE-4-031009	SVE-4-052809	SVE-4-081009	SVE-4-112309	SVE-4-1Q10	OSVE-10-031009	OSVE-10-1Q10	OSVE-11-031009	OSVE-11-1Q10
Sample Date:	01/30/09	03/10/09	05/28/09	08/10/09	11/23/09	03/10/10	03/10/09	03/10/10	03/10/09	03/10/10
Units:	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV
Tetrachloroethylene (PCE)	**330**	**290**	**180**	**140**	**90**	**57**	**450**	**130**	**27,000**	**530**
Trichloroethylene (TCE)	**2.7**	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.9	< 2.1000	< 5.9	< 21.0000	< 2.4
cis-1,2-Dichloroethylene	**3.8**	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.9	< 2.1000	< 5.9	< 21.0000	< 2.4
Dichlorodifluoromethane	**3.4**	**4.8**	**4.9**	**2.7**	**2.1 J**	< 2.9	< 2.1000	< 5.9	< 21.0000	< 2.4
Chloroform	**87**	**95**	**80**	**67**	**51**	**28**	< 2.1000	< 5.9	< 21.0000	< 2.4
1,1,1-Trichloroethane	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.9	< 2.1000	< 5.9	< 21.0000	< 2.4
1,1,2,2-Tetrachloroethane	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.9	< 2.1000	< 5.9	< 21.0000	< 2.4
1,1,2-Trichloro-1,2,2-trifluoroethane	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.9	< 2.1000	< 5.9	< 21.0000	< 2.4
1,1,2-Trichloroethane	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.9	< 2.1000	< 5.9	< 21.0000	< 2.4
1,1-Dichloroethane	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.9	< 2.1000	< 5.9	< 21.0000	< 2.4
1,1-Dichloroethene	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.9	< 2.1000	< 5.9	< 21.0000	< 2.4
1,2,4-Trichlorobenzene	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.9	< 2.1000	< 5.9	< 21.0000	< 2.4
1,2,4-Trimethylbenzene	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.9	< 2.1000	< 5.9	< 21.0000	< 2.4
1,2-Dibromoethane (Ethylene dibromide)	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.9	< 2.1000	< 5.9	< 21.0000	< 2.4
1,2-Dichloro-1,1,2,2-trifluoroethane	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000		< 2.1000		< 21.0000	
1,2-Dichlorobenzene	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.9	< 2.1000	< 5.9	< 21.0000	< 2.4
1,2-Dichloroethane	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.9	< 2.1000	< 5.9	< 21.0000	< 2.4
1,2-Dichloropropane	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.9	< 2.1000	< 5.9	< 21.0000	< 2.4
1,3,5-Trimethylbenzene	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.9	< 2.1000	< 5.9	< 21.0000	< 2.4
1,3-Dichlorobenzene	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.9	< 2.1000	< 5.9	< 21.0000	< 2.4
1,4-Dichlorobenzene	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.9	< 2.1000	< 5.9	< 21.0000	< 2.4
2-Butanone (MEK)										
4-Ethyltoluene										
Acetone										
Benzene	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.9	< 2.1000	< 5.9	< 21.0000	< 2.4
Bromomethane	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.9	< 2.1000	< 5.9	< 21.0000	< 2.4
Carbon disulfide										
Carbon tetrachloride	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.9	< 2.1000	< 5.9	< 21.0000	< 2.4
Chlorobenzene	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.9	< 2.1000	< 5.9	< 21.0000	< 2.4
Chloroethane	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.9	< 2.1000	< 5.9	< 21.0000	< 2.4
Chloromethane	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.9	< 2.1000	< 5.9	< 21.0000	< 2.4
cis-1,3-Dichloropropene	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.9	< 2.1000	< 5.9	< 21.0000	< 2.4
Ethylbenzene	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.9	< 2.1000	< 5.9	< 21.0000	< 2.4
Hexachlorobutadiene	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.9	< 2.1000	< 5.9	< 21.0000	< 2.4
m,p-Xylene	< 4.0000	< 4.2000	< 4.6000	< 5.1000	< 4.6000	< 5.8	< 4.2000	< 12	< 42.0000	2.6
Methylene chloride	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.9	< 2.1000	< 5.9	< 21.0000	< 2.4
o-Xylene	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.9	< 2.1000	< 5.9	< 21.0000	< 2.4
Styrene	< 2.0000	< 2.1000	< 2.3000 UJ	< 2.6000	< 2.3000	< 2.9	< 2.1000	< 5.9	< 21.0000	< 2.4
Toluene	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.9	**1.3 J**	**< 5.9**	< 21.0000	< 2.4
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.9	< 2.1000	< 5.9	< 21.0000	< 2.4
Trichlorofluoromethane	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.9	< 2.1000	< 5.9	< 21.0000	< 2.4
Vinyl chloride	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.9	< 2.1000	< 5.9	< 21.0000	< 2.4
1,2-DICHLOROTETRAFLUOROETHA						< 2.9		< 5.9		< 2.4

Appendix G-8
PCE Mass Removed by Groundwater Treatment System

APPENDIX G-8

PCE MASS REMOVED BY GROUNDWATER TREATMENT SYSTEM
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Sampe Date	Volume of Water Treated Since Previuos sample (gallons)	Total Volume of Water Treated (gallons)	Influent PCE concentration (µg/L)	Mass of PCE Removed Since Previuos sample (lbs)	Cumulative Mass of PCE Removed (lbs)
28-Aug-01	701,200	701,200	330	1.93	1.93
21-Sep-01	673,100	1,374,300	770	4.33	6.26
17-Oct-01	1,842,900	3,217,200	890	13.69	19.95
13-Nov-01	1,208,800	4,426,000	780	7.87	27.81
13-Dec-01	2,126,600	6,552,600	710	12.60	40.42
16-Jan-02	1,992,550	8,545,150	750	12.47	52.89
19-Feb-02	2,435,550	10,980,700	820	16.67	69.56
21-Mar-02	2,144,100	13,124,800	321	5.74	75.30
17-Apr-02	1,908,400	15,033,200	690	10.99	86.29
23-May-02	2,543,200	17,576,400	900	19.10	105.39
20-Jun-02	1,699,600	19,276,000	730	10.35	115.75
18-Jul-02	1,989,500	21,265,500	620	10.29	126.04
19-Aug-02	2,289,500	23,555,000	610	11.66	137.70
26-Sep-02	2,659,200	26,214,200	620	13.76	151.46
24-Oct-02	1,769,600	27,983,800	580	8.57	160.02
18-Nov-02	1,764,700	29,748,500	550	8.10	168.12
18-Dec-02	2,086,100	31,834,600	310	5.40	173.52
16-Jan-03	1,503,500	33,338,100	380	4.77	178.29
20-Feb-03	2,377,800	35,715,900	490	9.72	188.01
20-Mar-03	1,877,700	37,593,600	490	7.68	195.69
30-Apr-03	2,701,900	40,295,500	410	9.25	204.94
29-May-03	1,794,800	42,090,300	270	4.04	208.98
26-Jun-03	1,679,200	43,769,500	490	6.87	215.85
24-Jul-03	1,470,800	45,240,300	510	6.26	222.11
28-Aug-03	1,402,800	46,643,100	540	6.32	228.43
18-Sep-03	902,600	47,545,700	550	4.14	232.58
23-Oct-03	1,420,900	48,966,600	450	5.34	237.91
19-Nov-03	962,500	49,929,100	390	3.13	241.05
18-Dec-03	870,100	50,799,200	420	3.05	244.10
22-Jan-04	1,210,000	52,009,200	350	3.53	247.63
26-Feb-04	1,191,800	53,201,000	290	2.88	250.51
8-Apr-04	431,700	53,632,700	230	0.83	251.34
22-Apr-04	1,369,164	55,001,864	310	3.54	254.89
20-May-04	1,844,450	56,846,313	350	5.39	260.27
23-Jun-04	1,502,110	58,348,423	250	3.13	263.41
29-Jul-04	2,355,600	60,704,023	350	6.88	270.29
26-Aug-04	1,767,150	62,471,173	350	5.16	275.45
4-Oct-04	1,931,540	64,402,713	330	5.32	280.77
21-Oct-04	1,168,970	65,571,683	290	2.83	283.60
24-Aug-06	0	0	290.00	0.00	285.42
28-Sep-06	1,460,060	67,784,613	0	6.46	291.88
24-Oct-06	2,861,570	70,646,183	620	13.85	305.73
15-Nov-06	2,370,250	73,016,433	530	9.89	315.62
27-Dec-06	2,139,250	75,155,683	580	8.03	323.66
29-Jan-07	2,365,450	77,521,133	500.0	8.29	331.95
28-Feb-07	1,240,000	78,761,133	450.0	3.73	335.67

APPENDIX G-8

PCE MASS REMOVED BY GROUNDWATER TREATMENT SYSTEM
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

(Page 2 of 2)

Sampe Date	Volume of Water Treated Since Previuos sample (gallons)	Total Volume of Water Treated (gallons)	Influent PCE concentration (µg/L)	Mass of PCE Removed Since Previuos sample (lbs)	Cumulative Mass of PCE Removed (lbs)
26-Mar-07	1,847,900	80,609,033	420.0	4.94	340.61
16-Apr-07	1,521,900	82,130,933	360.0	4.06	344.67
2-Jul-07	0	82,130,933	320.0	0.00	344.67
23-Jul-07	1,281,000	83,411,933	320.0	3.10	347.77
23-Aug-07	2,451,700	85,863,633	76.0	5.93	353.71
18-Sep-07	1,554,100	87,417,733	290.0	4.67	358.38
29-Oct-07	2,562,300	89,980,033	290.0	5.99	364.36
28-Nov-07	1,285,700	91,265,733	360.0	3.33	367.69
20-Dec-07	1,538,400	92,804,133	280.0	3.34	371.03
17-Jan-08	2,473,700	95,277,833	310.0	4.95	375.98
25-Feb-08	2,249,000	97,526,833	260.0	4.69	375.72
31-Mar-08	2,318,700	99,845,533	240.0	5.42	381.14
25-Apr-08	1,569,600	101,415,133	250.0	2.75	383.89
22-May-08	1,761,600	103,176,733	280.0	4.12	388.01
24-Jun-08	2,024,600	105,201,333	210.0	4.06	392.06
23-Jul-08	2,905,200	108,106,533	280.0	5.82	397.88
28-Aug-08	1,045,500	109,152,033	240.0	1.92	399.80
25-Sep-08	1,148,600	110,300,633	240.0	1.44	401.24
30-Oct-08	2,067,400	112,368,033	220.0	4.31	405.55
25-Nov-08	1,437,600	113,805,633	150.0	2.52	408.07
30-Dec-08	2,350,906	116,156,539	250.0	3.73	411.80
30-Jan-09	2,004,294	118,160,833	210.0	3.18	414.98
24-Feb-09	1,677,300	119,838,133	190.0	2.52	417.50
30-Mar-09	2,266,700	122,104,833	190.0	3.22	420.72
23-Apr-09	1,565,200	123,670,033	180.0	2.09	422.81
26-May-09	2,045,500	125,715,533	170.0	3.07	425.88
29-Jun-09	1,844,200	127,559,733	160.0	2.31	428.19
29-Jul-09	1,952,600	129,512,333	180.0	3.10	431.28
10-Aug-09	793,600	130,305,933	150.0	1.66	432.94
22-Sep-09	2,874,700	133,180,633	190.0	4.08	437.02
26-Oct-09	1,407,400	134,588,033	250.0	2.94	439.95
23-Nov-09	1,712,600	136,300,633	170.0	2.29	442.24
16-Dec-09	1,351,400	137,652,033	250.0	2.03	444.27
27-Jan-10	2,585,600	140,237,633	160.0	3.45	447.72
25-Feb-10	1,771,800	142,009,433	180.0	2.37	450.09
11-Mar-10	882,600	142,892,033	160.0	1.33	451.42

Notes:
µg/L - micrograms per liter
lbs - pounds
PCE - Tetrachloroethene

Appendix G-9
PCE Mass Removed by Soil Vapor Extraction System

APPENDIX G-9

PCE MASS REMOVED BY SOIL VAPOR EXTRACTION SYSTEM
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Date Sampled	Cumulative Hours of Operation	Cumulative Days of Operation	Mass Extraction Rate (lbs/day)	Cumulative Mass Extracted (a) (lbs)
6/11/2001	5.8	0.2	53.0	12.70
8/9/2001	590.8	24.6	7.0	744.00
8/20/2001	854.8	35.6	6.4	817.63
8/30/2001	1,094.8	45.6	6.2	880.30
9/7/2001	1,286.8	53.6	3.9	920.57
9/12/2001	1,406.8	58.6	4.9	942.62
10/29/2001	1,920.0	80.0	7.9	1,079.84
11/13/2001	2,272.0	94.7	8.1	1,197.56
12/13/2001	2,787.8	116.2	6.0	1,348.99
1/16/2002	3,469.3	144.6	4.6	1,498.66
2/19/2002	4,283.8	178.5	6.1	1,679.54
3/21/2002	5,003.8	208.5	4.6	1,839.44
4/17/2002	5,603.8	233.5	4.0	1,946.39
5/23/2002	6,467.8	269.5	2.7	2,066.49
6/20/2002	7,039.0	293.3	3.7	2,142.61
7/18/2002	7,526.0	313.6	4.3	2,223.90
8/19/2002	8,294.0	345.6	4.7	2,367.84
9/19/2002	9,037.0	376.5	2.0	2,471.06
10/24/2002	9,839.6	410.0	2.3	2,542.57
11/18/2002	10,441.0	435.0	2.0	2,596.51
12/18/2002	11,167.0	465.3	1.6	2,650.80
1/16/2003	11,519.0	480.0	1.8	2,675.27
3/27/2003	12,578.0	524.1	1.6	2,748.88
4/30/2003	13,390.1	557.9	1.8	2,806.77
5/29/2003	14,037.2	584.9	1.7	2,854.55
6/26/2003	14,067.7	586.2	1.7	2,856.70
7/24/2003	14,737.8	614.1	1.5	2,901.48
8/28/2003	15,502.0	645.9	2.0	2,958.25
9/18/2003	15,980.8	665.9	1.9	2,997.31
10/23/2003	16,797.6	699.9	1.3	3,050.65

APPENDIX G-9

PCE MASS REMOVED BY SOIL VAPOR EXTRACTION SYSTEM
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Date Sampled	Cumulative Hours of Operation	Cumulative Days of Operation	Mass Extraction Rate (lbs/day)	Cumulative Mass Extracted (a) (lbs)
11/19/2003	17,448.4	727.0	1.3	3,085.25
12/18/2003	18,092.9	753.9	1.4	3,121.56
1/22/2004	18,688.3	778.7	1.1	3,153.22
2/26/2004	19,529.0	813.7	0.7	3,185.64
3/29/2004	20,245.3	843.6	1.4	3,217.84
4/22/2004	20,872.0	869.7	0.5	3,242.93
5/20/2004	21,408.8	892.0	0.5	3,253.44
6/23/2004	22,174.7	923.9	0.6	3,269.99
7/29/2004	22,976.8	957.4	0.6	3,289.24
8/26/2004	23,644.1	985.2	0.5	3,303.77
9/30/2004	24,481.0	1020.0	0.4	3,319.59
10/21/2004	24,988.4	1041.2	0.5	3,329.59
11/18/2004	25,653.5	1068.9	0.3	3,341.19
12/16/2004	26,349.7	1097.9	0.3	3,350.62
1/19/2005	27,140.5	1130.9	0.2	3,359.30
2/24/2005	28,011.5	1167.1	0.2	3,366.49
3/22/2005	28,628.3	1192.8	0.2	3,371.23
4/26/2005	29,759.6	1240.0	0.2	3,379.36
5/25/2005	30,455.6	1269.0	0.07	3,382.64
6/22/2005	31,175.6	1299.0	0.13	3,385.63
7/20/2005	31,847.6	1327.0	0.13	3,389.39
8/24/2005	32,663.6	1361.0	0.07	3,392.81
9/21/2005	33,335.6	1389.0	0.09	3,394.98
10/18/2005	33,672.0	1403.0	0.13	3,396.49
11/16/2005	33,985.0	1416.0	0.08	3,397.84
1/6/2006	34,992.1	1458.0	0.06	3,399.62
1/31/2006	35,760.1	1490.0	0.06	3,401.52
2/22/2006	36,288.1	1512.0	0.04	3,402.03
3/29/2006	37,128.1	1547.0	0.01	3,402.92
4/20/2006	37,703.0	1571.0	0.04	3,403.50

APPENDIX G-9

PCE MASS REMOVED BY SOIL VAPOR EXTRACTION SYSTEM
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Date Sampled	Cumulative Hours of Operation	Cumulative Days of Operation	Mass Extraction Rate (lbs/day)	Cumulative Mass Extracted (a) (lbs)
5/25/2006	38,543.6	1606.0	0.02	3,404.62
6/29/2006	39,260.2	1635.8	0.05	3,405.63
7/28/2006	39,954.0	1664.8	0.03	3,406.78
8/31/2006	40,099.3	1670.8	0.06	3,407.06
9/28/2006	40,602.1	1691.8	0.03	3,407.94
10/30/2006	41,216.9	1717.4	0.02	3,408.57
11/27/2006	41,986.1	1749.4	0.04	3,409.58
4/25/2007	41,998.1	1749.9	0.05	3,409.60
6/8/2007	43,030.1	1792.9	0.003	3,410.65
6/26/2007	43,460.5	1810.9	0.00	3,410.68
7/18/2007	43,988.5	1832.9	0.00	3,410.68
8/24/2007	44,540.5	1855.9	0.00	3,410.68
9/24/2007	45,308.5	1887.9	0.00	3,410.69
10/29/2007	46,148.5	1922.9	0.001	3,410.71
11/28/2007	46,868.5	1952.9	0.000	3,410.73
12/20/2007	47,396.5	1974.9	0.001	3,410.75
1/17/2008	48,068.5	2002.9	0.000	3,410.76
2/25/2008	49,004.5	2041.9	0.000	3,410.76
3/31/2008	49,844.5	2076.9	0.001	3,410.77
4/25/2008	50,444.5	2101.9	0.001	3,410.80
5/22/2008	51,092.5	2128.9	0.001	3,410.82
6/24/2008	51,884.5	2161.9	0.012	3,411.03
7/16/2008	52,412.5	2183.9	0.047	3,411.67
8/20/2008	53,252.5	2218.9	0.032	3,413.06
9/25/2008	54,116.5	2254.9	0.019	3,413.98
11/18/2008	55,412.5	2308.9	0.038	3,415.50
12/10/2008	55,940.5	2330.9	0.012	3,416.04
12/30/2008	56,420.5	2350.9	0.001	3,416.16
1/30/2009	57,164.5	2381.9	0.000	3,416.18
2/27/2009	57,836.5	2409.9	0.050	3,416.89

APPENDIX G-9

PCE MASS REMOVED BY SOIL VAPOR EXTRACTION SYSTEM
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Date Sampled	Cumulative Hours of Operation	Cumulative Days of Operation	Mass Extraction Rate (lbs/day)	Cumulative Mass Extracted (a) (lbs)
3/10/2009	58,100.5	2420.9	0.057	3,417.48
4/23/2009	59,156.5	2464.9	0.088	3,420.68
5/28/2009	59,996.5	2499.9	0.067	3,423.39
6/29/2009	60,764.5	2531.9	0.122	3,426.40
7/29/2009	61,484.5	2561.9	0.122	3,430.06
8/10/2009	61,772.5	2573.9	0.184	3,431.90
9/22/2009	62,804.5	2616.9	0.097	3,437.94
10/26/2009	63,620.5	2650.9	0.071	3,440.79
11/23/2009	64,292.5	2678.9	0.063	3,442.66
12/16/2009	64,844.5	2701.9	0.051	3,443.97
1/27/2010	65,852.5	2743.9	0.077	3,446.66
2/25/2010	66,548.5	2772.9	0.060	3,448.65
3/11/2010	66,884.5	2786.9	0.001	3,449.08
TOTAL	**66,884.5**	**2,786.9**		**3,449.08**

Notes:

* System shut down Feb 08, 2008, back on Mar 03, 2008.
extracted was determined

lbs - pounds

lbs/day - pounds per day