URS

May 22, 2012

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SUBJECT: Contract No. W91238-07-D-0006, Task Order 0004, Modesto Groundwater Superfund Site, Modesto, California
Quarterly Operations and Monitoring Report, First Quarter 2012

Dear Mr. Mackenzie:

Enclosed is the Quarterly Operations and Monitoring Report, First Quarter 2012. Text and appendices are provided on a compact disk included at the end of the report.

If you have any questions or comments, please call me at (916) 679-2279.

Sincerely,

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QUARTERLY OPERATIONS AND MONITORING REPORT
GROUNDWATER TREATMENT AND SOIL VAPOR EXTRACTION REMEDIATION SYSTEMS
FIRST QUARTER 2012

MODESTO GROUNDWATER SUPERFUND SITE
MODESTO, CALIFORNIA

May 2012

Contract W91238-07-D-0006
Delivery Order No. 0004

Prepared for:
U.S. Army Corps of Engineers
Sacramento District

Prepared by:

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MODESTO GROUNDWATER SUPERFUND SITE
QUARTERLY OPERATIONS AND MONITORING REPORT
GROUNDWATER TREATMENT AND SOIL VAPOR
EXTRACTION REMEDIATION SYSTEMS
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This report was prepared by URS staff under our supervision. Interpretations, conclusions, and recommendations in the report are based on background information, design basis, and other data furnished to URS by the U.S. Environmental Protection Agency, U.S. Army Corps of Engineers, and/or third parties. URS has relied on this information as furnished and is neither responsible for nor has confirmed the accuracy of this information. Our experience and professional judgment governed the data interpretation, conclusions, and recommendations presented in the report.

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LIST OF ACRONYMS AND ABBREVIATIONS

ASTM	American Society for Testing and Materials
bgs	below ground surface
BOD	biochemical oxygen demand
City	City of Modesto
CPT	cone penetrometer test
DCE	dichloroethene
DQO	data quality objectives
EPA	U.S. Environmental Protection Agency
GAC	granular activated carbon
gpm	gallons per minute
GWT	groundwater treatment
LCS	laboratory control sample
LDC	Laboratory Data Consultants
MCL	maximum contaminant level
MDL	method detection limit
msl	mean sea level
MS/MSD	matrix spike/matrix spike duplicate
MWH	MHW Americas, Inc.
O&M	operation and maintenance
PARCC	precision, accuracy, representativeness, completeness, and comparability
PCE	tetrachloroethene
ppbv	parts per billion by volume
PQL	practical quantitation limit
P&ID	process and instrumentation diagram
QA	quality assurance
QC	quality control
RPD	relative percent difference
SAP	sampling and analysis plan
scfm	standard cubic feet per minute
SM	standard method
SVE	soil vapor extraction
TCE	trichloroethene
TDS	total dissolved solid
TSS	total suspended solid

LIST OF ACRONYMS AND ABBREVIATIONS (Continued)

URS	URS Group, Inc.
VOC	volatile organic compound
µg/L	micrograms per liter
1Q12	first quarter 2012

1.0 INTRODUCTION

This is the first quarter 2012 (1Q12) Quarterly Operation and Monitoring (O&M) Report for the Modesto Groundwater Superfund Site. The reporting period is from January 1 through March 31, 2012. This report describes the monitoring and sampling program, summarizes the performance of the systems, and provides results of routine system operations. This section provides an overview of the site history and report organization.

1.1 Site History

The City of Modesto (City) is located approximately 80 miles southeast of Sacramento, in Stanislaus County, California (Figure 1-1). The Modesto Groundwater Superfund Site is located in a commercial area on McHenry Avenue, south of Orangeburg Avenue, behind Halford's Cleaners (941 McHenry Avenue).

In 1984, through routine sampling of water supply wells, the City discovered contamination in Municipal Well 11 (Figure 1-2) at the corner of Magnolia and Mensinger Avenues. Laboratory analysis of the Municipal Well 11 sample collected in 1984 indicated tetrachloroethene (PCE) in excess of the federal and state maximum contaminant level (MCL) of 5 micrograms per liter (µg/L). PCE is an industrial solvent commonly used in dry cleaning and was found to have originated at Halford's Cleaners, approximately 1,000 feet away from Municipal Well 11.

Municipal Well 11 was taken out of service by the City in 1984 and reactivated in April 1987 when levels of PCE and other chlorinated solvents were not detected at concentrations above MCLs. In February 1989, Municipal Well 11 was again taken out of service after PCE concentrations exceeded the MCL a second time. The well remained out of service until the City installed a wellhead granular activated carbon (GAC) treatment system in May 1991. The GAC system reduced the PCE concentration to below the MCL before the water entered the public supply system. Municipal Well 11 was returned to service in June 1991 and operated until October 1995, when the City indefinitely deactivated the well because naturally occurring uranium was detected above the MCL of 20 picoCuries per liter.

The Modesto Groundwater Superfund Site was placed on the U.S. Environmental Protection Agency's (EPA's) National Priorities List on March 31, 1989. In December 1989, the EPA's Emergency Response Section collected soil and soil vapor samples in the vicinity of Halford's Cleaners. Fifteen monitoring wells were installed and were sampled from 1992 to 1998. Based on the data obtained, the EPA selected the technology for treatment and removal of the contamination. A soil vapor extraction (SVE) system and a groundwater treatment (GWT) system were installed to remediate the source area and contain the groundwater contamination plume. Installation of the SVE and GWT systems was completed on May 16, 2000, and June 12, 2000, respectively.

Results from a site investigation conducted in 2007 and from a soil vapor rebound test conducted from late November 2006 through January 2007 identified significant vapor mass at the northwestern corner of the Halford's Cleaners building and possibly extending underneath the building (see *Soil Vapor Extraction System Optimization and Enhancement Methods, Modesto Groundwater Superfund Site* [MWH Americas, Inc. (MWH), 2008] for summary results). Initial sub-slab vapor sampling in buildings at and near the source area in February 2008 confirmed that high concentrations of PCE in vapor (up to 20,000 parts per billion by volume [ppbv]) were present under the concrete slab foundation of the Halford's Cleaners building (MWH, 2010a). An SVE optimization plan was implemented in November 2008, which included stopping extraction from SVE-01 and continued monitoring of PCE concentrations. Three additional SVE wells (SVE-02, SVE-03, and SVE-04) were installed within what is considered to

be the source area and connected to the SVE system for extraction, and the existing SVE well (SVE-01) was taken offline and has been used as a monitoring point since.

The groundwater monitoring well network also was expanded in 2008 and in 2011. In 2008, 16 additional groundwater monitoring wells were installed to evaluate the lateral and vertical extents of the groundwater plume. Section 2.3 of the *Quarterly Operations and Monitoring Report, Fourth Quarter 2008* (MWH, 2009) describes a dense non-aqueous-phase liquid investigation (none was reported). Nine additional wells were installed in 2011 to help delineate the lateral and horizontal extent of the PCE concentrations in groundwater that exceed the MCL. These installations are described and the well construction and boring logs are provided in the letter report *Groundwater Monitoring Well Installations, Modesto Groundwater Superfund Site* (URS, 2011a).

Two other PCE groundwater plumes, herein referred to as the Elwood's and McHenry Village plumes, have been identified within 1 mile of the Halford's Cleaners Site. The Elwood's plume is the more significant because of a close proximity to the Halford's plume and the potential for commingling of the groundwater plumes. The source area of the Elwood's plume is about 2,100 feet (0.4 mile) south of Halford's Cleaners near the intersection of Morris and McHenry Avenues. PCE has been detected at concentrations as high as 11,000 µg/L in samples from nine shallow monitoring wells at this location. The wells were originally installed to monitor a fuels release from a nearby 7-11 convenience store, which has subsequently been closed with regard to fuels cleanup. Elwood's Dry Cleaners was identified as a responsible party for PCE contamination discovered in groundwater samples from the fuels site. The wells were last sampled in the fall of 2005 and several have subsequently been destroyed. PCE was detected in the southern-most well at 8,100 µg/L in September 2005. In efforts to characterize downgradient portions of the plume, grab groundwater samples were also collected from exploratory direct-push borings installed in 2002 or 2003. The borings were located at distances up to approximately 2,100 feet (0.4 mile) from Elwood's plume (MWH, 2010b). Three wells were installed between the Halford's plume (Modesto Groundwater Superfund Site) and the Elwood's plume in 2011. The two A zone wells indicate that the Halford's plume is defined to the south in the A zone; however, the concentrations at the B zone well exceeded the PCE MCL indicating that there may be commingling of the Halford's and Elwood's plumes in the B zone.

The McHenry Village PCE plume is about 4,650 feet (0.9 mile) north of Halford's Cleaners, at the intersection of McHenry and Briggsmore Avenues. PCE from the McHenry Village site has impacted nearby Municipal Well 21. PCE is being actively remediated at this site and has been monitored in groundwater since about 1998 in several monitoring wells, including more recently in seven deeper wells screened in the equivalent to the B zone hydrostratigraphic interval. The most recent groundwater monitoring data from September 2008 show that PCE is present at concentrations as high as 64 µg/L in the deepest monitoring wells screened about 120 feet below ground surface (bgs). Thus, the vertical extent of the McHenry Village plume is not defined. Water levels from shallow monitoring wells at other cleanup sites in the region confirm the overall southeastern flow direction observed in the A and B zones at Halford's Cleaners. As such, it appears unlikely that PCE from the McHenry Village plume is affecting areas of the aquifer impacted by the Halford's release a mile south (MWH, 2010b).

1.2 Report Organization

This report is organized as follows:

Section 1.0 provides a brief history of the Modesto Groundwater Superfund Site.

Section 2.0 describes the remedial systems.

Section 3.0 describes the sampling programs.

Section 4.0 provides performance evaluations for the GWT and SVE systems, including a groundwater capture zone analysis.

Section 5.0 summarizes results and provides recommendations for the GWT and SVE system O&M programs.

Section 6.0 provides an analytical data quality review.

Section 7.0 lists reference information for documents cited in this report.

Tables and figures are provided at the end of the report. The report is supported with the following appendices, which are provided on a compact disc at the end of the report:

Appendix A provides process and instrumentation diagrams (P&IDs) for the GWT and SVE systems.

Appendix B provides laboratory analytical data tables.

Appendix C provides a laboratory data validation report.

Appendix D provides system uptime logs.

Appendix E provides O&M process logs.

Appendix F provides operational history, including a brief discussion of the routine and non-routine O&M performed on the GWT and SVE systems.

Appendix G provides historical data, as follows:

G-1 Well Construction Details
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G-3 Groundwater Monitoring Well Analytical Summary Results
G-4 Historical PCE Concentration Trends in Groundwater Monitoring Wells
G-5 Soil Vapor Extraction and Soil Vapor Monitoring Well Analytical Summary Results
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G-8 PCE Mass Removed by the Groundwater Treatment System
G-9 PCE Mass Removed by the Soil Vapor Extraction System

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2.0 DESCRIPTION OF REMEDIAL SYSTEM

The Modesto Groundwater Superfund Site GWT and SVE systems are located behind Halford's Cleaners and between an auto repair shop and Season's Lodge (Figure 2-1). All SVE and GWT process equipment is contained within two metal storage containers in a fenced and locked compound in the parking lot behind Season's Lodge.

2.1 Groundwater Treatment System

The GWT system includes a single operating extraction well (EW-01 failed in 2004 and was replaced with EW-01R in 2006), an equalization tank, particulate filters, an air stripper, two liquid-phase GAC vessels, one vapor-phase GAC vessel, and two ion exchange units, as well as piping and control systems. The GWT system P&ID is included in Appendix A.

The liquid-phase GAC vessels act as polishing vessels treating the water from the air stripper. The vapor-phase GAC vessel treats the air stream from the air stripper. The ion exchange units are installed in series after the polishing carbon vessels and treat a slip stream of the total system flow to remove low levels of naturally occurring uranium from the groundwater before discharge to the City of Modesto sewer collection system. The design flow rate of the system is 50 gallons per minute (gpm).

The aboveground components of the system except the vapor GAC vessel are contained in an 8.5- by 8.5- by 20-foot metal storage container. The vapor GAC vessel is located next to the container within the fenced compound. A secondary containment unit is located underneath the storage container. If a leak occurs, water from the sump is pumped to the equalization tank and treated before it is discharged to the sewer. Additional information about the GWT system can be found in the *Groundwater Treatment System and Soil Vapor Extraction System Operation and Maintenance Manual, Modesto Groundwater Superfund Site* (O&M Manual) (URS Group, Inc. [URS], 2010a), which includes details on the operating equipment (manufacturers, models, standard settings, inspection frequency, troubleshooting, etc.).

The groundwater monitoring network consists of 40 wells located throughout the site in residential and business communities (Figure 2-2). Well construction details are provided in Table G-1 of Appendix G1.

2.2 Soil Vapor Extraction System

The SVE system includes three online (SVE-02, SVE-03, and SVE-04) extraction wells, a blower, a condensate collection drum, filters, silencers, one 2,000-pound GAC vessel used for vapor treatment, piping, control systems, and an air conditioning unit. The SVE system P&ID is included in Appendix A.

The SVE system is operated by the local programmable logic controller on site. Its design flow rate is 180 standard cubic feet per minute (scfm). Liquid that accumulates in the condensate collection drum is pumped to the equalization tank in the GWT system for treatment before discharge to the sewer.

The aboveground system except the vapor GAC vessel components are contained in an 8- by 8.5- by 12.75-foot metal storage container. The vapor GAC vessel is located next to the container within the fenced compound. Additional information about the SVE system can be found in the O&M Manual (URS, 2010a), which includes details on the operating equipment in the SVE trailer (manufacturers, models, standard settings, inspection frequency, troubleshooting, etc.).

The three extraction wells currently in operation (SVE-02, SVE-03, and SVE-04) are located approximately 3 to 5 feet from the northwestern corner of Halford's Cleaners in the alley north of the building, within what is considered to be the source area. Nine monitoring points surrounding the SVE

wells (including three offline SVE wells) are sampled quarterly. Figure 2-3 shows the locations of the SVE wells, the vapor monitoring wells, and the conveyance piping configuration.

3.0 SAMPLING AND MONITORING PROGRAM

Sampling and monitoring at the Modesto Groundwater Superfund Site is performed in accordance with the *Sampling and Analysis Plan, Modesto Groundwater Superfund Site* (SAP) (URS, 2010b). Appendix B provides the schedule for samples collected during 1Q12, including sample locations and associated analytical test methods, phase (water, vapor, etc.), frequency, and date of sampling activity.

The quarterly sampling program consists of two types of sampling: site sampling and system sampling.

3.1 Site Sampling and Monitoring

Site sampling to monitor groundwater includes collecting groundwater samples from the network of 40 groundwater monitoring wells and one groundwater extraction well for analysis by EPA Method E524.2. Site sampling to monitor the vadose zone includes collecting vapor samples from the three operating SVE wells, three offline SVE wells, and six vapor monitoring locations for analysis by EPA Method TO15. Sampling of groundwater and vapor wells during 1Q12 is described in Subsections 3.1.1 and 3.1.2, respectively.

3.1.1 Groundwater Sampling and Monitoring

URS measured depths to groundwater on January 30 and 31, 2012, and collected groundwater samples between January 30 and February 3, 2012. Depth-to-water measurements and groundwater samples were collected from 40 groundwater monitoring wells during the quarter to evaluate the influence of groundwater extraction on the PCE plume and estimate the extent of contamination, horizontal flow directions, and groundwater capture (groundwater that flows into the extraction well). Groundwater elevations are also used to evaluate potential vertical groundwater flow directions and to develop groundwater elevation contour maps. Depth to groundwater was measured from the top of casing using an electronic water level meter.

Groundwater samples were collected starting with the least contaminated groundwater monitoring well and continuing in order to the most contaminated groundwater monitoring well; the order of sampling is determined from previous quarterly analytical results. Groundwater samples were collected using low-flow purge methods in 14 monitoring wells and using three-volume purge-and-sample methods in MW-03A and the 25 most recently installed monitoring wells. Samples from the extraction well were collected from sample port number 1 (SP-01) at the GWT system influent. The samples were analyzed for volatile organic compounds (VOCs) using EPA Method E524.2.

The SAP describes the sampling procedure. Water purged from the groundwater monitoring wells was transferred through a bag filter into the equalization tank located inside the GWT system.

3.1.2 Soil Vapor Sampling and Monitoring

Soil vapor samples were collected from SVE and vapor monitoring points on February 2, 2012, using 400 milliliter Summa canisters. Samples were analyzed using EPA Method TO15.

3.2 System Sampling and Monitoring

Sampling and monitoring of the GWT and SVE systems at the Modesto Groundwater Superfund Site were performed in accordance with the City of Modesto Conditional and Revocable Groundwater Discharge Permit Number GW 98-3 (City of Modesto, 2010) and the SAP (URS, 2010b). Generally, two categories of samples are collected from the remedial systems: compliance monitoring and performance

monitoring. Compliance monitoring samples are collected to satisfy regulatory requirements; performance monitoring samples are collected to assess the contaminant removal process of the remedial systems.

3.2.1 Groundwater System Sampling and Monitoring

Compliance monitoring samples for the GWT system are collected monthly from the extraction well and system effluent during periods when the system is operating. System effluent samples are analyzed for VOCs monthly (Method 524.2), total dissolved solids (TDS) monthly (Method 2540C), total suspended solids (TSS) monthly (Method 2540D), biochemical oxygen demand (BOD) monthly (Method 5210B), and total uranium quarterly (Method D5174). Performance monitoring samples are collected quarterly from the various treatment system units to monitor the performance and efficiency of the individual units. The GWT system performance monitoring samples are collected from the carbon influent, carbon mid-bed, post carbon/pre-ion exchange, and ion exchange mid-bed and analyzed for VOCs (Method 524.2). Figures 1-1 and 1-2 in Appendix A illustrate the locations of the sampling ports for the GWT system. Analytical data tables are presented in Appendix B.

3.2.2 Soil Vapor System Sampling and Monitoring

Only system performance samples are collected at the SVE system. These samples are collected at the pre-GAC and stack sample ports. Influent and effluent samples are collected monthly for analysis by EPA Method TO15. Figure 1-3 in Appendix A illustrates the sampling port locations for the SVE system.

4.0 PERFORMANCE EVALUATION

Site and system performance evaluations are based on current and historical analytical results and are discussed in Sections 4.1 and 4.2, respectively. The site performance evaluation estimates the extent of contamination. System sampling helps evaluate the remedial progress of the GWT and SVE systems.

A complete set of validated analytical data for groundwater and soil vapor samples collected during this reporting period is provided in Appendix B. Appendix C is the laboratory data validation report for this reporting period's analytical data. Section 6.0 provides a summary of the quality assurance (QA) and quality control (QC) results for the samples collected during 1Q12.

4.1 Site Performance

This section provides results of the groundwater and soil vapor well sampling events for 1Q12 (Sections 4.1.1 and 4.1.2, respectively). A stratigraphic conceptual model is shown on Figure 4-1. An analysis of vertical gradients is presented in Section 4.1.3, and a capture zone analysis is provided in Section 4.1.4.

4.1.1 Groundwater Monitoring and Sampling Results

Based on water levels measured on January 30 and 31, 2012, groundwater elevations ranged from 47.13 feet mean sea level (msl) at MW-21A to 50.28 feet msl at MW-11A in the A zone; 47.51 feet msl at MW-25B to 49.02 feet msl at MW-29B in the B zone; and 47.52 feet msl at MW-16C to 49.31feet msl at MW-04C in the C zone. Comparing 1Q12 and 4Q11 water levels, water elevations increased an average of 0.25 foot in A zone wells across the site; water elevations increased an average of 1.01 feet in B zone wells across the site; water elevations in C zone wells increased an average of approximately 2.04 feet across the site. A complete list of historical (starting in 2000) and current water level measurements is presented in Appendix G, Tables G-2(a) and G-2(b).

Potentiometric surface data, groundwater flow directions, and PCE concentration data for the A, B, and C zones are shown on Figures 4-2, 4-3, and 4-4, respectively. Potentiometric contours indicate that groundwater in the A and B zones flows southeast across most of the site and then turns toward the south-southeast in the southern portion of the A zone based on water levels from the new A zone wells MW-21A and MW-22A (Figures 4-2 and 4-3). The A zone contours show a cone of depression induced by pumping of EW-01R, which was operating at an average of approximately 46 gpm during 1Q12. The average hydraulic gradient parallel to the direction of regional groundwater flow in the A zone was approximately 0.0012, or approximately 6.2 feet per mile. The average horizontal gradient in the B zone was approximately 0.0011, or 5.9 feet per mile. Groundwater in the C zone was flowing south-southeast (Figure 4-4) with a horizontal gradient of approximately 0.0006, or 3.4 feet per mile.

The flow direction in the A zone across most of the site has been consistently southeast and very similar to the flow direction in 1Q12. The B and C zone flow directions have been variable. The flow direction in the B zone was southeast in 4Q10 through 2Q11 and in 4Q11 and east-southeast during 3Q10 and 3Q11. The more easterly flows during the third quarters of 2010 and 2011 may be due to increased pumping at municipal wells during the dryer months of the year.

The 1Q12 flow direction in the C zone was southeast. In general, the direction of groundwater flow in the C zone has been observed to be more westerly during the third quarters (either southwest or south-southwest) and more easterly during the fourth and first quarters (southeast or south-southeast). Flow in the C zone has been variable during the second quarters: west in 2Q09, south-southwest in the northern site and southeast in the southern site in 2Q10, and south-southeast in 2Q11. As discussed in previous

groundwater reports for the site, the gradients in this deeper zone are strongly influenced by regional supply well pumping that increases during the spring and summer months (MWH, 2010a). Pumping histories from January 2000 through August 2009 for City supply wells surrounding the site are compiled in *Groundwater Remediation Optimization Methods*, *Modesto Groundwater Superfund Sites* (MWH, 2010b, Appendix B).

To evaluate the potential hydraulic influence by operation of City of Modesto Municipal Water Supply Wells No. 6 and No. 7 on distribution of the PCE plumes, URS installed transducers in six A zone, five B zone, and three C zone monitoring wells from June 28 through December 7, 2011. Results of the evaluation indicated that municipal well pumping has a greater effect on C zone water levels than on A or B zone levels and municipal well pumping increases the prevailing downward gradient between the A zone and B zone and between the B zone and the C zone. This increase in the localized downward gradient could be influencing downward migration of PCE contamination.

Southern portions of the plume are most likely to be influenced by supply well pumping because Municipal Wells 6 and 7 are along the southern boundary of the plume. Municipal Well 7 is more likely to be impacted by PCE contamination because it operates at approximately twice the pumping rate of Municipal Well 6. Additional details on this evaluation are provided in *the Interpretation of Local Groundwater Level Changes and Influences from City of Modesto Municipal Water Supply Wells Nos. 6 and 7 Technical Memorandum* (URS, 2012a).

4.1.1.1 PCE

In 1Q12, PCE was detected at concentrations exceeding the MCL of 5 µg/L at the extraction well and 18 monitoring wells. The distribution of PCE concentrations in groundwater is illustrated with isoconcentration contour lines (lines of equal concentration) on Figures 4-2 and 4-3 for the A and B zones, respectively. There are no PCE isoconcentration contours in the C zone on Figure 4-4 because there were no detections at the C zone wells. The distribution of PCE concentrations is also illustrated on generalized geologic cross-sections through the site from northwest to southeast (Figure 4-5) and west to east (Figure 4-6), Appendix G, Tables G-3(a) and G-3(b), includes historical and current quarterly groundwater monitoring well analytical results and pH levels from water samples. Figures G-4(a) through G-4(an) (Appendix G-4) show PCE time series plots for each monitoring well for the period from February 1992 through 1Q12.

A Zone

As depicted on Figure 4-2[1], the PCE MCL plume is approximately 1,900 feet wide in a cross-gradient direction and 1,750 feet long along the direction of flow. The MCL plume is defined in all directions except the west. The PCE concentration at MW-23A, installed in 2011 as the furthest western monitoring well in the PCE plume, exceeded the MCL at 25 µg/L. PCE concentrations at MW-21A (1 µg/L) and MW-22 A (no detection) indicate that the A zone plume is bounded to the south.

[1] Groundwater analytical results from the HydroPunch groundwater samples collected during the cone penetrometer (CPT) investigation of May 2011 are posted on Figure 4-2 and have been used along with the monitoring well data to contour PCE concentrations in the A zone. The CPT investigation was performed to identify the optimal location for an A zone extraction well near the highest PCE concentrations that had been known historically on site at MW-04A (URS, 2011b). Concentrations of PCE at MW-04A have been as high as 3,000 µg/L and only decreased to less than 1,000 three times since 2Q05.

Concentrations of PCE at wells other than at MW-04A are consistent with previous quarters. Results from MW-04A are anomalous. The concentration of PCE at MW-04A decreased from 2,200 µg/L in 4Q11 to 130 µg/L in 1Q12, and for the first time, both trichloroethene (TCE) and cis-1,2-dichloroethene (DCE) were detected at concentrations exceeding their MCLs (5 µg/L and 6 µg/L, respectively). cis-1,2-DCE was reported at 73 µg/L, an increase from 1 µg/L in 4Q11; and TCE was reported at 7.2 µg/L, an increase from 1.3 µg/L in 4Q11. The well was sampled again in 2Q12, and results will be evaluated when available to determine if the 1Q12 results can be confirmed.

The portions of the plume between 5 and 50 µg/L and greater than 1,000 µg/L do not have the long-axis orientation paralleling the groundwater gradient direction. The shape and extent of the 5 to 50 µg/L portion of the plume extends further west than depicted in previous quarters because of the 25 µg/L concentration in the sample from the recently installed well MW-23A. The portion of the plume that had HydroPunch sample concentrations greater than 1,000 µg/L has a long axis that is east-west, not parallel to the downgradient direction (Figure 4-2). The east-west orientation of high concentrations and concentrations less than 50 µg/L may be the result of three potentially interacting components: hydrostratigraphy, influences of municipal well hydraulic gradients, and/or a secondary source of PCE. These components are described in greater detail in the *Implications of Results from the Cone Penetrometer Testing (CPT)/HydroPunch Investigation, Modesto Groundwater Superfund Site, Technical Memorandum* (URS, 2011c). The 1,000 µg/L PCE isoconcentration contour encloses an area that is approximately 750 feet in the cross-gradient direction and less than 200 feet in the downgradient direction; however, there are concentrations greater than 100 µg/L downgradient from the CPT investigation locations beyond the location of MW-20A where the concentration of PCE at MW-20A was 270 µg/L in 1Q12 (Figure G-4ac).

The 1,000 µg/L PCE isoconcentration contour is bounded to the southwest by the concentration at MW-06A (5.8 µg/L in 1Q12 and less than 100 µg/L since 1Q04) and to the east by the concentration at MW-12A (16 µg/L in 1Q12 and less than 50 µg/L since 3Q01). However, the 6,300 µg/L PCE concentration at 81 to 83 feet bgs at location CPT6 indicates that the extent of the 1,000 µg/L PCE concentrations may be farther west (Figure 4-2). An additional CPT investigation is planned to confirm the result at CPT6 and to define the PCE concentrations exceeding 1,000 µg/L in the A zone.

The PCE concentrations at MW-13A and MW-14A (the western plume wells) have fluctuated seasonally (Figures G-4[q and r]) from just above to below the PCE MCL, resulting in changes in the shape of the A zone plume several times annually. In 1Q12, PCE concentrations were 4.5 µg/L at MW-13A (just below the MCL) and 23 µg/L at MW-14A (above the MCL). In previous reports (e.g., MWH, 2010a), concentration fluctuations at these wells were attributed to potential influences from pumping of municipal supply wells to the west or northwest, perhaps from Municipal Well 8, 14, or 17 (Figure 1-2). Municipal Well pumping may be the cause of the PCE concentration at MW-23A (25 µg/L). PCE was detected in Municipal Wells 14 and 8, located 2,375 feet (0.45 mile) west and 5,320 feet (1.0 mile) west-southwest of Halford's. Municipal Well 14 has been offline since September 2006 (MWH, 2010b); however, the plume may have been drawn toward Municipal Wells 8 or 14 (before its shutdown). Municipal Well 17, which has remained in consistent operation, could have hydraulic influence on the plume because it has a 4-foot-long screened interval about 25 feet lower than the screened zones of MW-13A and MW-14A, but it is located more than 3,500 feet northwest of the monitoring wells and data are insufficient to determine whether the hydraulic influence of pumping at Municipal Well 17 is affecting the PCE plume. Municipal Well 7, on the other hand, is located closer to the plume than Municipal Wells 14 and 17 and is operating consistently; pumping at Municipal Well 7 may be affecting the A zone plume even though it is screened below the A zone.

The PCE concentration at the operating extraction well (EW-01R) during 1Q12 was 150 µg/L (7 percent higher than the concentration of 140 µg/L in 4Q11).

B Zone

Figure 4-3 depicts the B zone PCE plume and potentiometric surface contours. The shape of the plume was changed for the 4Q11 report based on sample results from six B zone wells installed in September 2011; the change resulted in an MCL plume orientation more closely aligned with the hydraulic gradient direction towards the southeast. In 1Q12, PCE was detected above the MCL at eight of the B zone wells. The redrawn plume is approximately 2,300 feet long parallel to the gradient direction (northwest/southeast) and 1,500 feet wide. Concentrations decreased in 1Q12 to less than the MCL at the northern well (MW-09B). The PCE plume in the B zone is undefined in the western, northwestern, and southeastern directions (Figure 4-3).

Data from the new B zone wells indicate that the axis of the 50 to 99 µg/L plume trends northwest to southeast. The highest concentration of PCE in the B zone (110 µg/L) was reported at the newly installed well MW-25B; however, the concentration at MW-20B, located between MW-29B (at 100 µg/L) and MW-25B, decreased to 68 µg/L from 100 µg/L in 4Q11. Therefore, the areas exceeding 100 µg/L have been drawn as two plumes.

The 1Q12 concentration of 110 µg/L PCE at MW-25B indicates that the plume remains undefined in the south direction, and there is still the possibility that the plume is commingled with the Elwood's plume in the B zone.

C Zone

Groundwater elevation contours for the C zone and PCE concentration data are shown on Figure 4-4. There were no detections of PCE in 1Q12 among the samples from the five wells screened in the C zone. Consequently, no PCE plume is shown on Figure 4-4. The last reported and only detection from the C zone wells that exceeded the MCL was 8.7 µg/L at MW-4C in 4Q08.

4.1.1.2 Other VOCs

Benzene was reported in samples from seven wells in 1Q12; however, it exceeded the MCL at only one well (MW-10B) with a concentration of 1.9 µg/L. Benzene concentrations exceeding the MCL of 1 µg/L were reported at 14 wells, including MW-10B during the 1Q10 sampling event for the first time since well sampling began. There were no detections in any wells during the 2Q10, 4Q10, or 4Q11 events. Benzene concentrations exceeded the MCL during the 3Q10, 1Q11, 2Q11, and 3Q11 sampling events.

Excluding PCE and benzene, VOCs that exceeded their MCLs during the 1Q12 sampling event were cis-1,2-DCE and TCE reported at MW-04A at 73 µg/L and 7.2 µg/L, respectively. These VOC results are discussed above with the discussion of the anomalous PCE results at MW-04A in the A zone.

Halford's is not likely to be the source of the benzene concentrations in groundwater because benzene has not been detected at MW-01A, MW-08A, or EW-01R, the three wells located nearest to Halford's Cleaners. For that reason, no further speculation about the sources of these VOCs in the monitoring wells at this site is provided, as this report is an evaluation of the contamination from Halford's Cleaners.

4.1.2 Soil Vapor Sampling Results

Samples were collected from the three operating SVE wells on February 2, 2012. Analytical results listed in Appendix G, Tables G-5(a) and G-5(b) are summarized below and posted on Figure 4-7:

- SVE-02 (screened interval 7 to 12 bgs): PCE concentration decreased from 280 ppbv in 4Q11 to 180 ppbv in 1Q12.
- SVE-03 (screened interval 13 to 23 bgs): PCE concentration increased from 120 ppbv in 4Q11 to 140 ppbv in 1Q12.
- SVE-04 (screened interval 28 to 38 bgs): PCE concentration decreased from 29 ppbv in 4Q11 to 17 ppbv in 1Q12.

Comparison of 1Q12 to 4Q11 soil vapor monitoring well PCE sample results shows a decrease at four wells, an increase at three wells, and samples from two wells continue to have concentrations less than the detection limit. The highest concentration detected in a soil vapor monitoring well was 89 ppbv at OSVE-10, a 5-foot-deep well located within the building footprint of Halfords' Cleaners (Figure 4-7). PCE concentrations detected at soil vapor monitoring wells screened deeper than 16 feet were less than 7 ppbv (DP-01A, DP-01B, DP-05B and SVE-01).

4.1.3 Analysis of Vertical Groundwater Gradients

Vertical gradients were calculated using 1Q12 data at one well pair within the A zone, seven well pairs between the A and B zones, and at five well pairs between the B and C zones (Table 4-1). There was a potential for a downward gradient within the A zone between MW-21A and MW-22A. Five of the seven well pairs screened between the A and B zones and four of the five well pairs screened between the B and C zones indicated a potential for an upward gradient. The remaining well pairs indicated a potential for a downward gradient. In 1Q11, four of the seven well pairs between the A and B zones and four of the five well pairs between the B and C zones indicated potential for upward gradients. The directions of vertical gradients for some of these well pairs are shown by arrows on Figure 4-5.

4.1.4 Extraction Well EW-01R Capture Zone Analysis

Estimates of groundwater plume capture from extraction well EW-01R are shown on Figures 4-5 and 4-8. Two lines of evidence (groundwater elevation contours developed based on 1Q12 data and particle tracks developed with the site's groundwater model [MWH, 2010b]) were used to estimate the extent of capture presented on Figure 4-5 and projected onto Figure 4-8.

Groundwater elevations calculated from water levels measured at A, B, and C zone wells during 1Q12 were contoured using the Natural Neighbor function in ArcGIS 10 and adjusted using professional hydrogeologic judgment. Groundwater stagnation points based on the potentiometric contours were identified based on A zone data; each stagnation point represents a divide at which groundwater on either side of the divide is interpreted to be moving either toward or away from a pumping well. A curved line consisting of the estimated stagnation points is the empirical capture zone illustrated in purple on Figure 4-8. A new and expanded transient groundwater flow model for the site and surrounding region was developed to support the *Groundwater Remediation Optimization Methods, Modesto Groundwater Superfund Site* (MWH, 2010b, Appendix B). The A zone capture zone estimated with the model's simulation of EW-01R pumping at 50 gpm is illustrated on Figure 4-8 as the sweep of groundwater flow lines toward the well based on backward particle tracking (i.e., particles released at the well and modeled backwards to determine their starting points). The actual average operating flow rate at this well in 1Q12 was 46 gpm. The average operating flow rate is calculated by dividing the volume pumped from the well during the quarter by the operating time.

The horizontal estimates of capture for EW-01R based on the two lines of evidence are in good agreement. The downgradient extent of capture is interpreted to be within 100 feet of MW-04A (Figure 4-8).

An estimate of the vertical extent of capture by EW-01R is illustrated on Figure 4-5. The downgradient extent of capture depicted in profile view (downgradient from MW-04A) is based on the empirical and modeled lines of evidence. The vertical capture zone extent below the screen of EW-01R is an estimate based on water level data, modeling, and vertical gradients. The groundwater model results suggest (1) there is an upward vertical gradient beneath the extraction well and (2) groundwater entering the bottom portions of the well's screen may originate from the B zone sands (MWH, 2010a). Vertical gradients calculated using 1Q12 groundwater elevation data from wells near EW-01R (MW-04A, MW-04B well pair [Figure 4-5] and MW-08A, MW-09B well pair [not shown on figure]) were upward from the B to the A zone. There was also an upward gradient between MW-4B and MW-4C. These upward gradients corroborate the model's prediction of upward vertical groundwater captured at EW-1R.

4.2 System Performance

System compliance and performance samples were collected to evaluate the effectiveness of the remedial systems. Water, vapor, and media samples were collected according to requirements in the SAP (URS, 2010b) and the City of Modesto Conditional and Revocable Groundwater Discharge Permit (Permit Number GW98 3) (City of Modesto, 2010). Treatment system effluent samples collected during the reporting period for vapor emissions and sewer discharge were below maximum allowable discharge limits.

4.2.1 Groundwater Treatment System Results

During 1Q12, the GWT system operated for approximately 2,078 hours (out of 2,184 hours possible during the quarter), which represents an uptime of approximately 95 percent. System uptime logs and graphical representation of the GWT system operation time are presented in Appendix D, Figures D-1 through D-3.

The GWT system treated a total of approximately 5.88 million gallons of water and removed approximately 6.72 pounds of PCE during this reporting period. To date (since August 2001), the system has treated approximately 189 million gallons of water and removed approximately 505 pounds of PCE. Figure 4-9 illustrates the cumulative PCE mass removed.

The influent PCE concentrations ranged from 120 to 150 µg/L during the quarter. Samples were also analyzed for uranium. A summary of treatment system analytical results is provided in Appendix G-6, Tables G-6(a) and G-6(b); PCE results for this reporting period are summarized in Table 4-2.

4.2.2 Soil Vapor Extraction System Results

During 1Q12, the SVE system operated for 2,184 hours (out of 2,184 hours possible during the quarter), which demonstrates an uptime of 100 percent. Monthly system uptime logs and graphical representation of the SVE system operation time are presented in Appendix D, Figures D-4 through D-6.

The SVE system operated at an average flow rate of 128 scfm and removed approximately 0.24 pound of VOCs during this quarter. The total cumulative VOC mass removed through March 8, 2012, is approximately 3,461 pounds. Figure 4-10 illustrates the cumulative PCE mass removed.

The influent PCE concentrations ranged from 9.3 to 39 ppbv during the reporting period. Monthly SVE system samples collected in SUMMA canisters were sent to the EPA Region 9 laboratory in Richmond, California, for VOC analysis. A summary of SVE treatment system analytical results is provided in Appendix G-7, Tables G-7(a) and G-7(b); PCE results for this reporting period are summarized in Table 4-3.

5.0 RECOMMENDATIONS

A summary of observations and recommendations for the GWT and SVE systems are provided in this section.

5.1 GWT System – Summary Observations and Recommendations

The PCE MCL plume is only partially captured in the A zone (Figures 4-5 and 4-8). Based on 1Q12 data, the known extent of the plume is approximately 1,900 feet wide and 1,750 feet long in the A zone (Figure 4-2) and approximately 1,500 feet wide and 2,300 feet long in the B zone (Figure 4-3).

The current GWT system (extraction well EW-01R) was designed as an interim measure with an objective of source control and mass removal within the northern portion of the groundwater plume where PCE concentrations in shallow zones have historically been the highest (MWH, 2010b). Concentrations of PCE in groundwater have migrated from the source horizontally and downward into the A, B, and C zones. A groundwater investigation was performed during May and June 2011 to identify the optimal location for an A zone extraction well near the highest PCE concentrations identified on site at MW-04A (URS, 2011b). Groundwater analytical results from the HydroPunch groundwater samples collected during the May/June 2011 CPT investigation indicate that the 1,000 µg/L PCE plume is larger than depicted in previous quarterly reports, and its long axis trends cross-gradient (approximately 750 feet from east to west) from the consistent southeast gradient direction in the A zone (URS, 2011d). Because the vertical and horizontal extents of the PCE concentrations exceeding 1,000 µg/L in the A zone were not defined with the data from the May/June 2011 CPT investigation, additional groundwater samples will be collected from locations to the west, southwest, east, and south using CPT technology. These new CPT locations and sampling depths are identified in the *Final Letter Work Plan Addendum, Additional HydroPunch/CPT Investigation, Modesto Groundwater Superfund Site* (URS, 2012). Results from these samples will be used to evaluate the vertical and horizontal extent of the PCE concentrations exceeding 1,000 µg/L.

Data collected in 1Q12 and previous quarters indicate that PCE concentrations are defined in the A zone except west of MW-14A and the recently installed well MW-23A. In addition, concentrations at MW-13A, also located at the western portion of the plume, fluctuate above and below the MCL from quarter to quarter (Figure G-4q) (the PCE concentration in 1Q12 was 4.5 µg/L). Concentrations at MW-14A and MW-23A exceeded the PCE MCL in 1Q12. Two additional wells are recommended to the northwest and west of MW-14A and MW-23A to address these data gaps.

The PCE MCL plume in the B zone was undefined to the northwest, west, and southeast. Concentrations at MW-25B (south portion of the plume) and MW28B and MW-29B (west portion of the plume) all exceeded the PCE MCL in 1Q12, and the PCE concentration at MW-09B (located in the northern portion of the plume) fluctuates quarterly from just above to just below the MCL (4.1 µg/L in 1Q12); therefore, additional monitoring wells are recommended: one or two wells to the south and two or three wells to the north, northwest, and west to define the extent of concentrations exceeding the MCL in these directions.

There were no detections of PCE in wells screened in the C zone in 1Q12, and concentrations have been less than the MCL since 1Q09. Therefore, no additional wells are recommended in the C zone.

Because of the changes in groundwater flow directions between quarterly measurements in the C zone and the concentrations of PCE exceeding 1,000 µg/L in the A zone and 150 µg/L in the B zones at CPT locations and wells located west and cross-gradient from the direction of the horizontal gradient indicated by the potentiometric surfaces, the effect of municipal well operations on plume migration will continue to be evaluated. Water level transducers have been installed in plume perimeter wells to monitor water

level changes between quarterly measurements. If changes in horizontal and vertical gradients are identified that are similar to the times that municipal wells are pumped, it may be possible to establish that operations of one or more of the municipal wells are causing the changes in flow directions and thereby spreading PCE in groundwater.

5.2 Soil Vapor Extraction – Summary Observations and Recommendations

The SVE treatment system's 1Q12 average influent sample concentrations were lower than the 4Q11 average. Monthly samples entering the treatment system had PCE concentrations of 9.3, 39, and 30 ppbv in January, February, and March, respectively. Concentrations at two of the three operating extraction wells were lower in 1Q12 than in 4Q11. The total PCE mass removed was down from 0.66 pound in 4Q11 to 0.24 pound in 1Q12, and has become asymptotic (Figure 4-10).

Soil vapor concentrations and mass removal rates for the SVE system have become asymptotic. The system has become inefficient (removing less than 0.25 pound of PCE from the vadose zone during 1Q12). Good engineering practice dictates that shut down of extraction wells is warranted; however, the system has been operated principally to reduce the risk to building occupants that could be posed by PCE vapor intrusion from the vadose zone. If well shutdown and rebound soil vapor monitoring are implemented, monitoring of indoor air concentrations should also be undertaken to assure indoor air risk does not reach unacceptable levels.

6.0 QUALITY CONTROL SUMMARY REPORT

6.1 Introduction

This section summarizes QA and QC results for the samples collected and data generated during the period of January through March 2012 at the Modesto Groundwater Superfund Site, Modesto, California. Sampling activity protocols are provided in the SAP (URS, 2010b). Based on the data review, all data collected during this period are of known and acceptable quality in relation to the data quality objectives (DQOs) of this project. All data are considered usable as qualified for the intended purposes.

Between January 12 and March 15, 2012, field samples, field duplicates, and field QC samples were collected for groundwater and air samples. Water samples were collected from the GWT system and existing monitoring wells. Air samples were collected from the GWT and SVE systems. Contaminants of concern at the Modesto Groundwater Superfund Site are indicated in Table B-1 of Appendix B. Samples were submitted for chemical analyses as presented in Table B-2 of Appendix B. Analyses performed include the following:

- **TDS by Standard Method (SM) 2540C:** three normal samples and one field duplicate
- **TSS by SM2540D:** three normal samples and one field duplicate
- **BOD by SM5210B:** three normal samples and one field duplicate
- **VOCs in water by EPA Method 524.2:** 49 normal samples, five field duplicates, four trip blanks, two field blanks, and six matrix spike/matrix spike duplicates (MS/MSD)
- **Total uranium by ASTM D5174:** Seven normal samples, one field duplicate, two MS/duplicates, and one field blank
- **VOCs in air by EPA Method TO15:** 24 normal samples and three field duplicates

Analytical chemistry services for groundwater and air samples are provided by the EPA Region 9 laboratory in Richmond, California. Analytical chemistry services for uranium analysis were provided by GEL Laboratories, LLC, in South Carolina. All laboratories are certified by the California Department of Health Services through the Environmental Laboratory Accreditation Program to perform hazardous waste analyses. Sample results are summarized in Appendix B, Table B-3.

The URS project chemist reviewed ASTM Method D5174. Laboratory Data Consultants (LDC) performed data validation of all other sample results using the criteria established in the SAP, analytical methods, and EPA Region 9 laboratory standard operating procedures as wells as the National Functional Guidelines for Superfund Organic Methods Data Review (2008). The sample results validated by LDC were validated electronically. Data validation reports and qualified data tables are provided in Appendix C. Several data validation flags were used in the validation process. The definitions of these qualifier flags are as follows:

U Indicates the compound or analyte was analyzed for but not detected at or above the reported quantitation limit.

UJ Indicates the compound or analyte was analyzed for but not detected at or above the stated limit. The sample detection limit is an estimated value.

J Indicates the analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.

R Quality control indicates that the result 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.

6.2 Data Quality Objectives

DQOs are qualitative and quantitative statements that specify the quality of the data required to meet the goals of site investigations and support decisions made in remedial response activities. Data quality was assessed in terms of its precision, accuracy, representativeness, completeness, and comparability (PARCC). These criteria are briefly defined in the following sections. The results of the field and laboratory QC checks are evaluated against the DQOs, and the quality of the data is assessed according to the PARCC parameters. QC sample results that fall outside of these criteria serve to signal the production of unacceptable or biased data that could result in the implementation of corrective action or the qualification of data.

6.2.1 Precision

Precision is a measurement of mutual agreement among individual measurements of the same property, usually under prescribed conditions. Data evaluated to assess precision consist of results from the analysis of field duplicate pairs and MS/MSD samples. The precision measurement is established using the relative percent difference (RPD) between the duplicate sample results, and is expressed as follows:

$$\mathrm{RPD} = \frac{\left[X_1 - X_2\right]}{\left[\left(X_1 + X_2 / 2\right)\right]} \times 100$$

where:

X1 and X2 represent the individual concentrations of the target analyte in the two replicate analyses.

6.2.2 Accuracy

Accuracy is defined as the proximity of the mean of a set of results to the true value. Accuracy is assessed through the evaluation of initial and continuing calibration data, as well as laboratory control sample (LCS) recoveries, surrogate standard recoveries, and MS recoveries, which are expressed as a percent recovery according to the following equation:

$$\text{percentrecovery} = \frac{(\text{spiked sample conc.} - \text{sample conc.})}{\text{known conc. of spike}} \times 100$$

6.2.3 Representativeness

Representativeness is defined as the degree to which sample data accurately and precisely represent the characteristics of the site, parameter variations at a sampling point, or environmental conditions. Representativeness, in terms of sample integrity for this investigation, was qualitatively evaluated based on the analysis of trip blanks, field blanks, and method blank samples. In addition, sample collection and handling methods and the cooler receipt forms were reviewed to confirm that samples were received under proper storage conditions.

6.2.4 Completeness

Two types of completeness have been evaluated for this project. Analytical completeness is the number of unqualified results related to the total number of results reported, expressed as a percentage. The analytical completeness goal is 90 percent. Technical completeness is the number of valid results related to the total number of results reported, expressed as a percentage. The technical completeness goal for this project is 95 percent.

6.2.5 Comparability

Data comparability is achieved by using standard analytical methods and reporting limits, and by using standard units of measurements, as specified in the methods. Comparability is a qualitative parameter.

6.3 Quality Control Results

The following sections summarize the data review process and results in terms of PARCC criteria, as defined in Section 2.2.5 of the SAP. Qualified data based on this review process are provided in Appendix C.

6.3.1 Precision and Accuracy

Precision and accuracy were evaluated based on the results of QC samples collected by the field team and QC samples that originated in the laboratory. The calculated RPD for MS/MSDs and field duplicate pairs provided information on the precision of sampling and analytical procedures. MS/MSD analyses were associated with all samples for this sampling event. All data were reviewed for accuracy based on the surrogate spike, MS/MSD, and LCS percent recoveries. In addition, initial and continuing calibration data were reviewed for analytical accuracy. The criteria used for the evaluation are provided in the quality assurance project plan in the SAP (URS, 2010b). Data validation findings are provided in Appendix C. Field duplicate results are included in the results summary table (Table B-3 in Appendix B); LCS recovery outliers are summarized in Table B-4 and MS/MSD recovery and RPD outliers are summarized in Table B-5.

6.3.2 Representativeness

Representativeness was evaluated through the analysis of field blank, trip blank, and method blank samples. Additionally, sample collection and handling methods and the cooler receipt forms were reviewed. All sample bottles were received in good condition and the chain-of-custody documents agreed with the sample labels.

Trip blanks are required to accompany each cooler of aqueous samples sent to the laboratory for analysis of VOCs. One trip blank accompanied each cooler for each of the sampling dates. Trip blank detections can be found in Table B-3 (Appendix B).

Field blanks are used to determine if potential sample contamination has occurred during the sample collection process. Field blanks are analyzed using the same analytical procedures as the associated samples. Field blank detections are provided in Table B-3 (Appendix B).

Method blanks are processed through the same analytical procedures as the associated samples. Method blanks are analyzed with each batch of samples to provide information on contamination originating in the analytical process. Method blank detections are indicated in the data validation report in Appendix C.

6.3.3 Completeness

Completeness of data was evaluated by assuring that all analytical requests were met, samples were received in proper condition, and all analyses were performed within the appropriate holding times. Overall analytical completeness (92 percent) exceeded the project goal of 90 percent. Overall technical completeness for this data set (98.7 percent) exceeded the project goal of 95 percent. Refer to Appendix C for a breakdown of completeness by method and analyte for all methods except ASTM D5174. Table B-6 (Appendix B) provides a breakdown of completeness for ASTM D5174.

6.3.4 Comparability

Comparability was evaluated for this sampling event by analyzing all samples according to the specified EPA analytical methods, which use standard units of measurement. Necessary sample dilutions, due to the presence of elevated target compound concentrations, did not affect data usability and comparability. Results for some analytes are reported below the practical quantitation limit (PQL) but above the method detection limit (MDL). The "J" flag has been applied to results reported between the MDL and the PQL.

6.4 Summary of Data Reliability

Based on this evaluation, all data collected during this period are of known and acceptable quality in relation to the DQOs of this project. Non-detected results for sample EW-01-0102 were qualified as unusable (R) due to preservation and holding time issues. All other data are considered usable as qualified for the intended purposes.

7.0 REFERENCES

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TABLES

Table 4-1 Vertical Gradients, First Quarter 2012

Well No.	Monitoring Zone	Groundwater Elevation (feet msl)	Vertical Gradient
MW-21A	A	47.13	-0.009
MW-22A	A	47.49	
MW-04A	A	48.39	0.0042
MW-04B	B	48.67	
MW-08A	A	48.64	0.0034
MW-09B	B	48.89	
MW-10A	A	48.33	0.0019
MW-10B	B	48.49	
MW-16A	A	47.6	-0.0004
MW-16B	B	47.58	
MW-17A	A	47.89	0.0019
MW-17B	B	47.99	
MW-19A	A	48.04	-0.0089
MW-19B	B	47.63	
MW-20A	A	47.86	0.0013
MW-20B	B	47.96	
MW-4B	B	48.67	0.0077
MW-4C	C	49.31	
MW-10B	B	48.49	0.0054
MW-10C	C	48.85	
MW-16B	B	47.58	-0.0006
MW-16C	C	47.52	
MW-17B	B	47.99	0.0018
MW-17C	C	48.16	
MW-20B	B	47.96	0.0048
MW-20C	C	48.31	

msl = mean sea level

positive gradient = upward

negative gradient = downward

Table 4-2. GWT System Sample Results: January - March 2012

Sample Port	Location	Sample Date	Sample Code	pH	PCE (µg/L)
SP-01	Extraction Well 1R	1/12/2012	N	7.49	140
		2/9/2012	N	7.26	150
		3/8/2012	N	7.57	120
SP-03	Carbon Influent	1/12/2012	N	8.53	0.4 J
		1/12/2012	FD	8.53	0.3 J
SP-04	Carbon Mid Bed	1/12/2012	N	8.41	<0.5
SP-05	Post Carbon Pre-Ion Exchange	1/12/2012	N	8.45	<0.5
SP-07	GWT Effluent	1/12/2012	N	8.46	<0.5
		2/9/2012	N	8.34	<0.5
		3/8/2012	N	8.27	<0.5

FD = field duplicate
GWT = groundwater treatment system
J = estimated value
N = normal sample
PCE = tetrachloroethene
µg/L = micrograms per liter

Table 4-3. SVE System Sample Results: January - March 2012

Sample Port	Location	Sample Date	Sample Code	PCE (ppbv)
SP-11	SVE Pre-GAC	1/12/2012	N	9.3
		2/9/2012	N	30
		3/8/2012	N	39
SP-12	SVE Stack	1/12/2012	N	6.1
		2/9/2012	N	2.9
		3/8/2012	N	2.4

GAC = granular activated carbon
N = normal sample
PCE = tetrachloroethene
ppbv = parts per billion by volume
SVE = soil vapor extraction

FIGURES

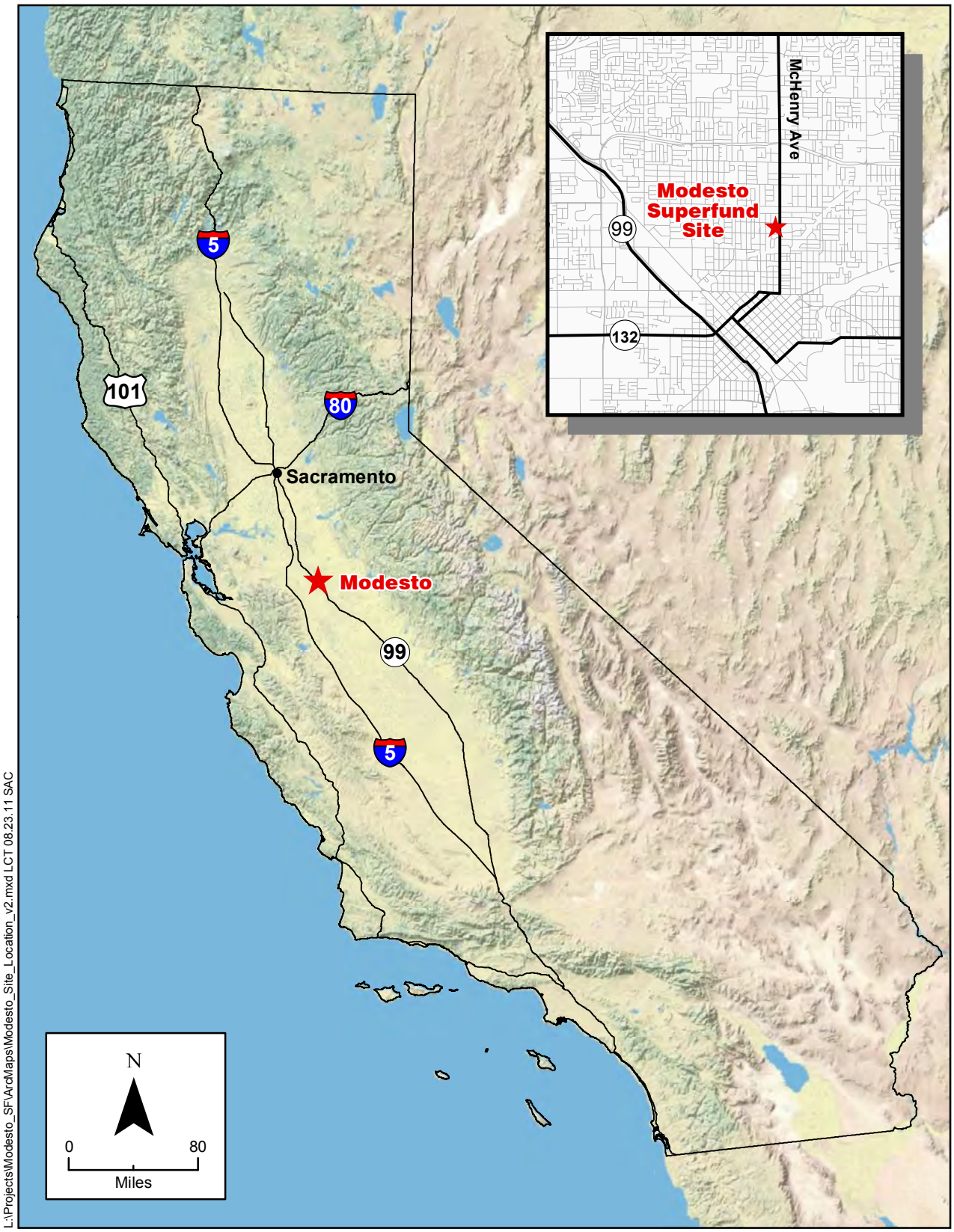
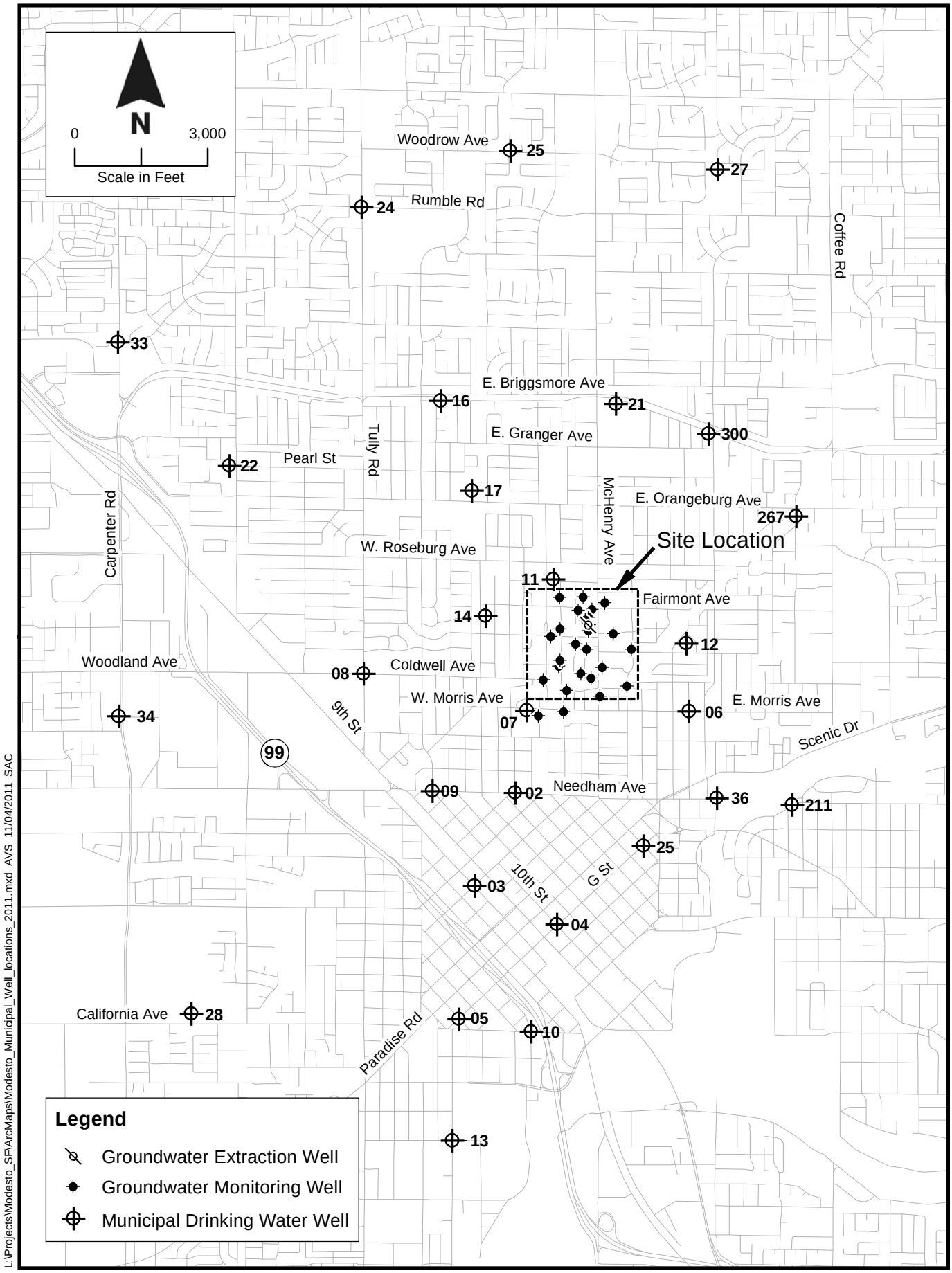
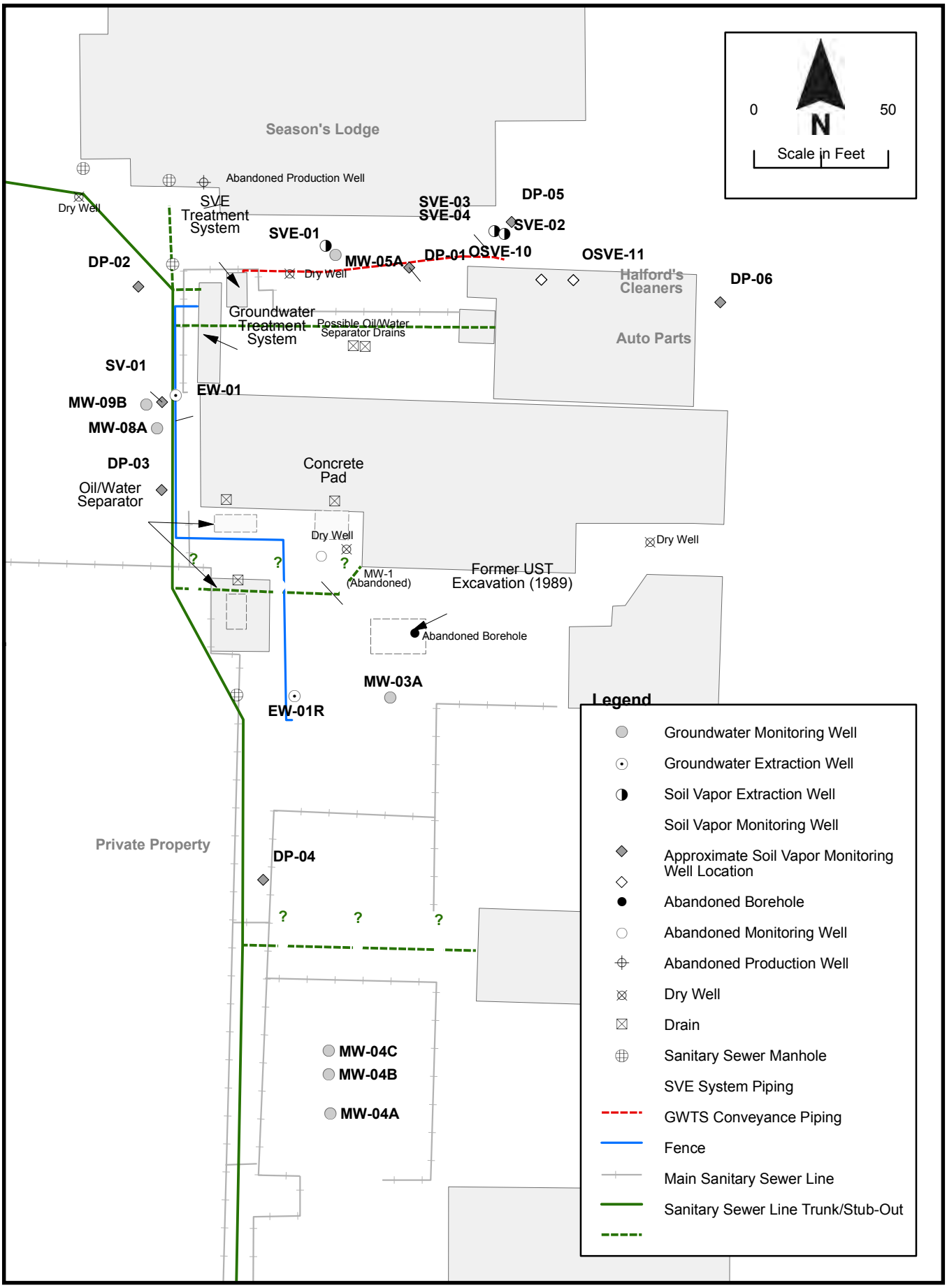


Figure 1-1. Site Location, Modesto Groundwater Superfund Site, Modesto, California



L:\Projects\Modesto_SF\ArcMaps\Modesto_Municipal_Well_locations_2011.mxd AVS 11/04/2011 SAC

Figure 1-2 Municipal Well Locations, Modesto Groundwater Superfund Site


Season's Lodge
Abandoned Production Well
Dry Well
SVE Treatment System
SVE-01
SVE-03
SVE-04
DP-05
SVE-02
DP-02
MW-05A
DP-01
OSVE-10
OSVE-11
Dry Well
Halford's Cleaners
DP-06
Groundwater Treatment System
Possible Oil/Water Separator Drains
Auto Parts
SV-01
EW-01
MW-09B
MW-08A
DP-03
Oil/Water Separator
Concrete Pad
Dry Well
Dry Well
MW-1 (Abandoned)
Former UST Excavation (1989)
Abandoned Borehole
MW-03A
EW-01R
Private Property
DP-04
MW-04C
MW-04B
MW-04A
0
50
N
Scale in Feet
Legend
Groundwater Monitoring Well
Groundwater Extraction Well
Soil Vapor Extraction Well
Soil Vapor Monitoring Well
Approximate Soil Vapor Monitoring Well Location
Abandoned Borehole
Abandoned Monitoring Well
Abandoned Production Well
Dry Well
Drain
Sanitary Sewer Manhole
SVE System Piping
GWTS Conveyance Piping
Fence
Main Sanitary Sewer Line
Sanitary Sewer Line Trunk/Stub-Out

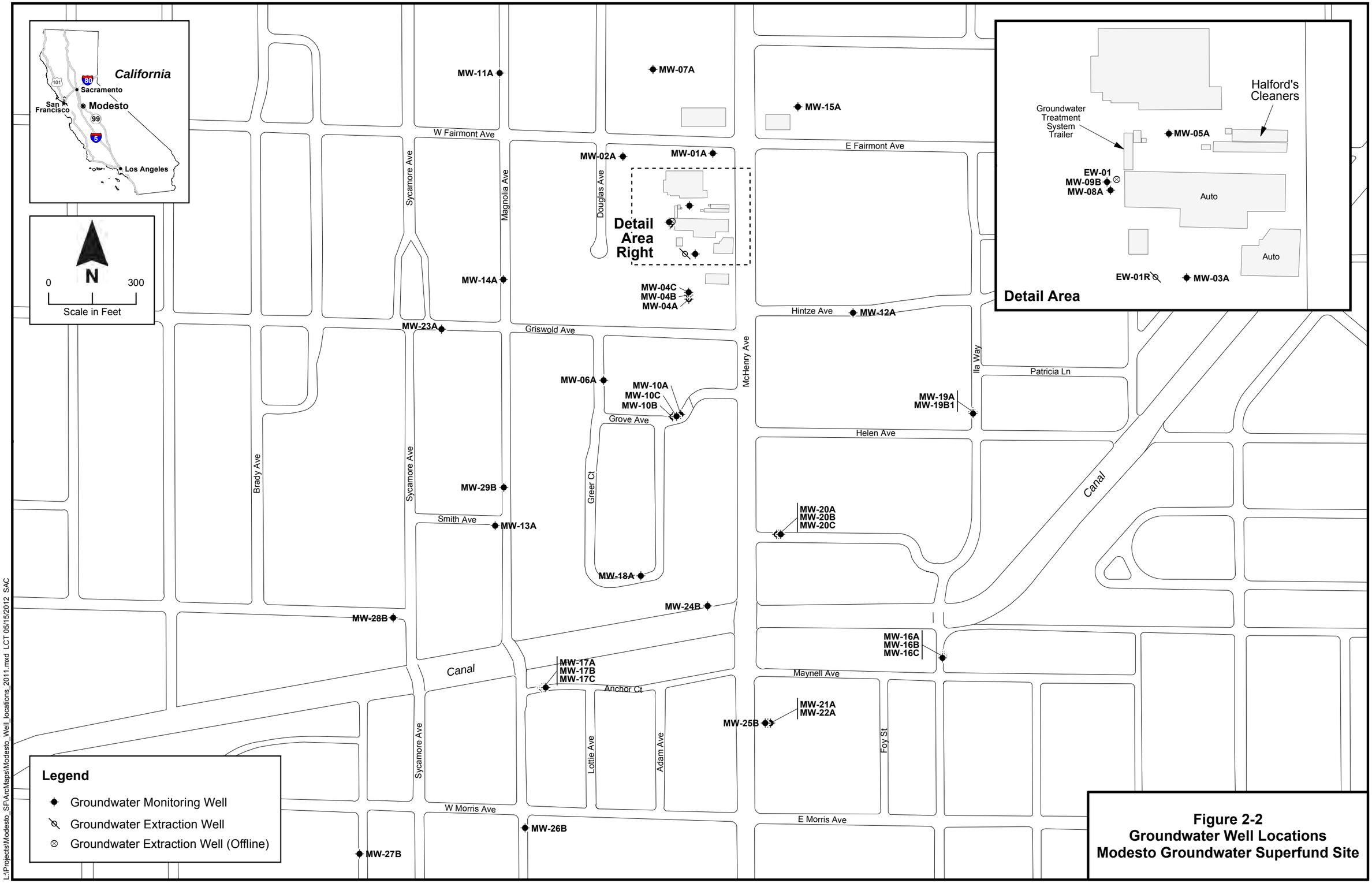


Figure 2-2
Groundwater Well Locations
Modesto Groundwater Superfund Site

L:\Projects\Modesto_SF\ArcMaps\Modesto_Soil_Vapor_Well_locations.mxd MS 5/17/2012 SAC

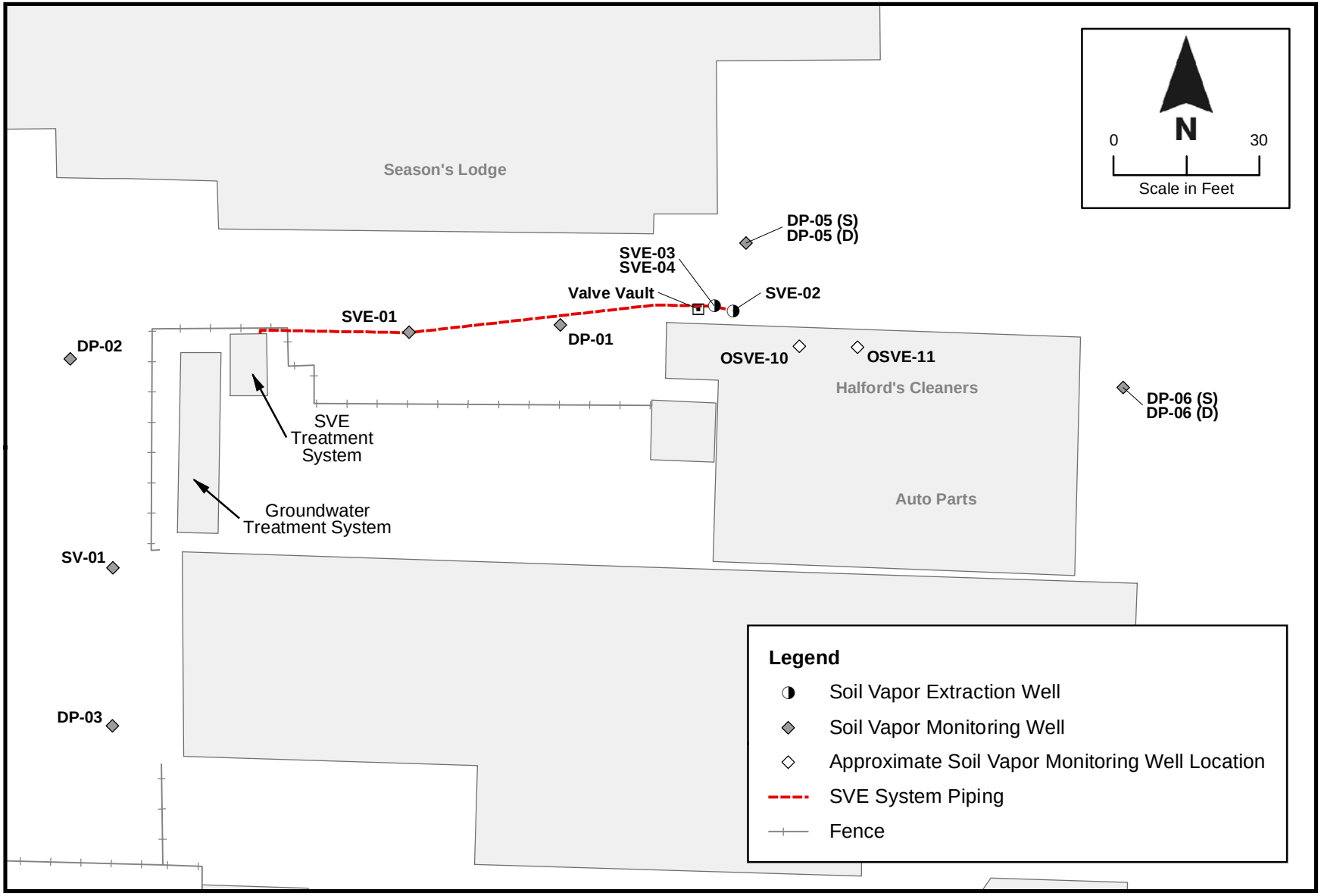
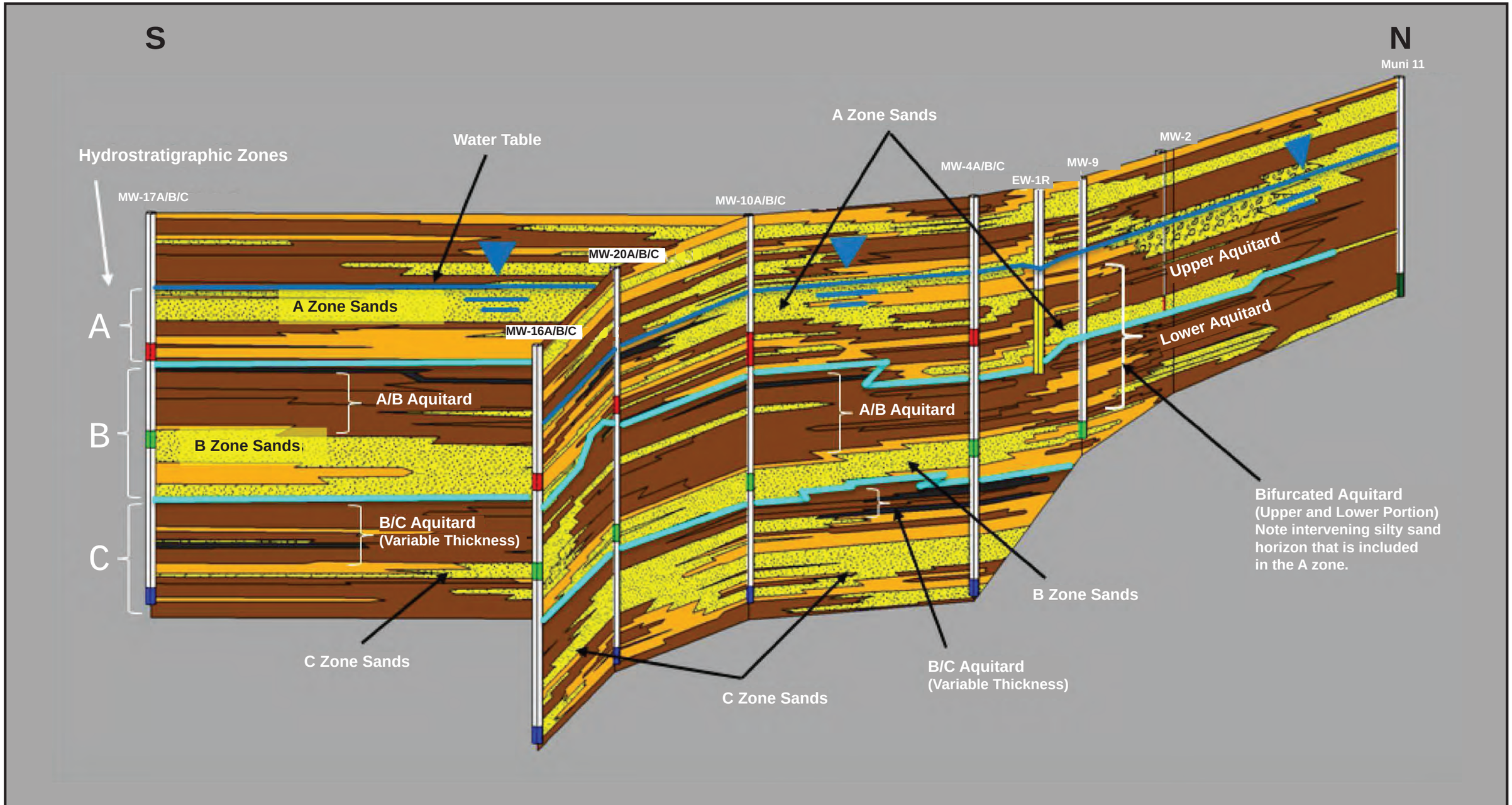
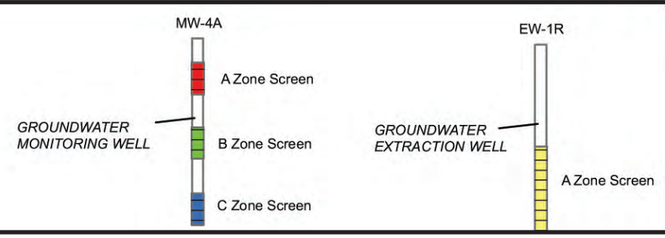


Figure 2-3. Soil Vapor Well Locations, Halford's Cleaners Area, Modesto Groundwater Superfund Site



LEGEND:

- SAND
- SILTY SAND
- SILT
- CLAY
- WATER TABLE SURFACE (A Zone)



URS

Adapted from:
MWH source file

Figure 4-1
Stratigraphic Conceptual Model
Modesto Groundwater Superfund Site

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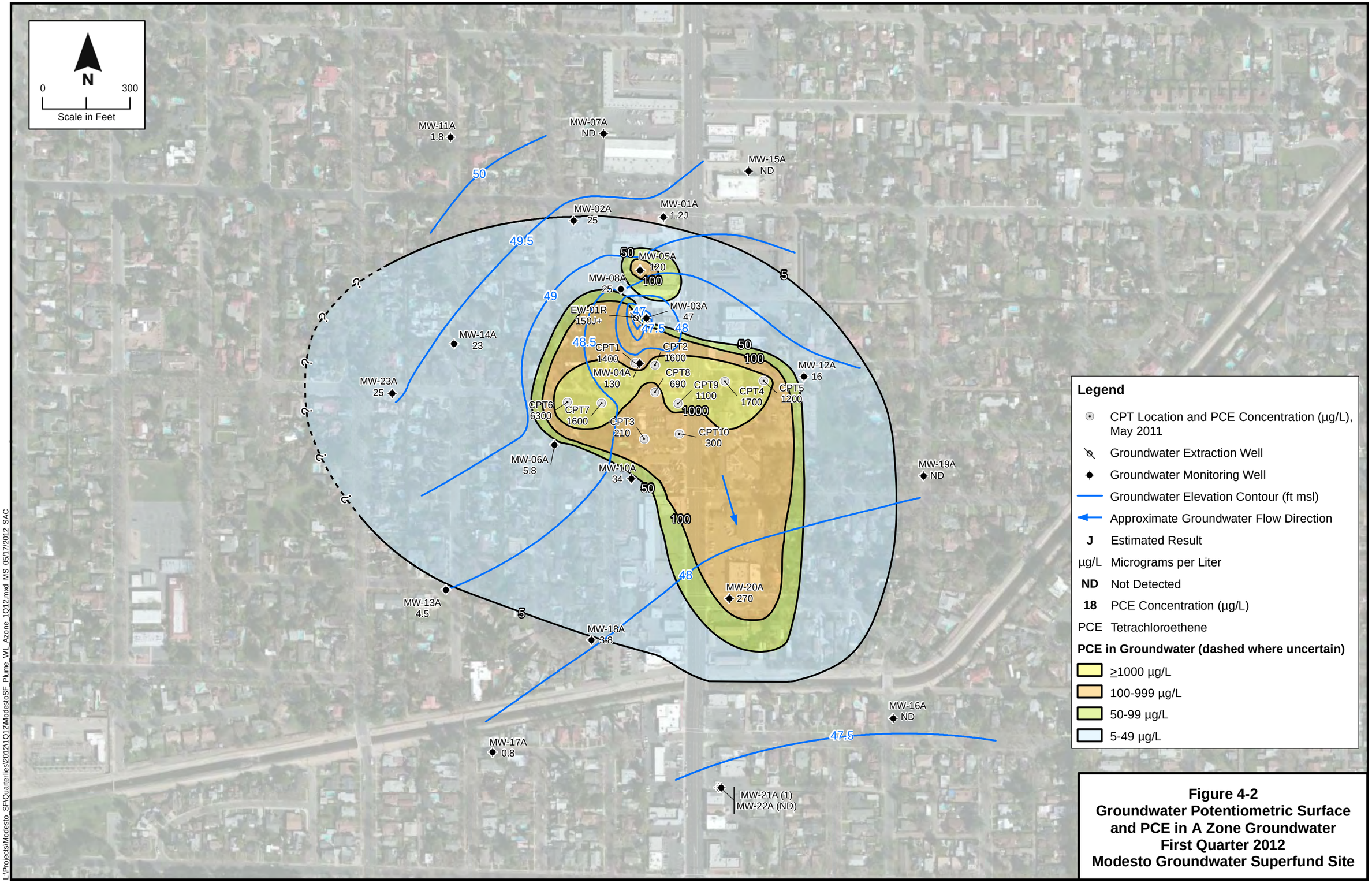

Figure 4-2
Groundwater Potentiometric Surface and PCE in A Zone Groundwater
First Quarter 2012
Modesto Groundwater Superfund Site

L:\Projects\Modesto_SF\Quarterlies\2012\1Q12\ModestoSF_Plume_WL_Azone_1Q12.mxd MS 05/17/2012 SAC

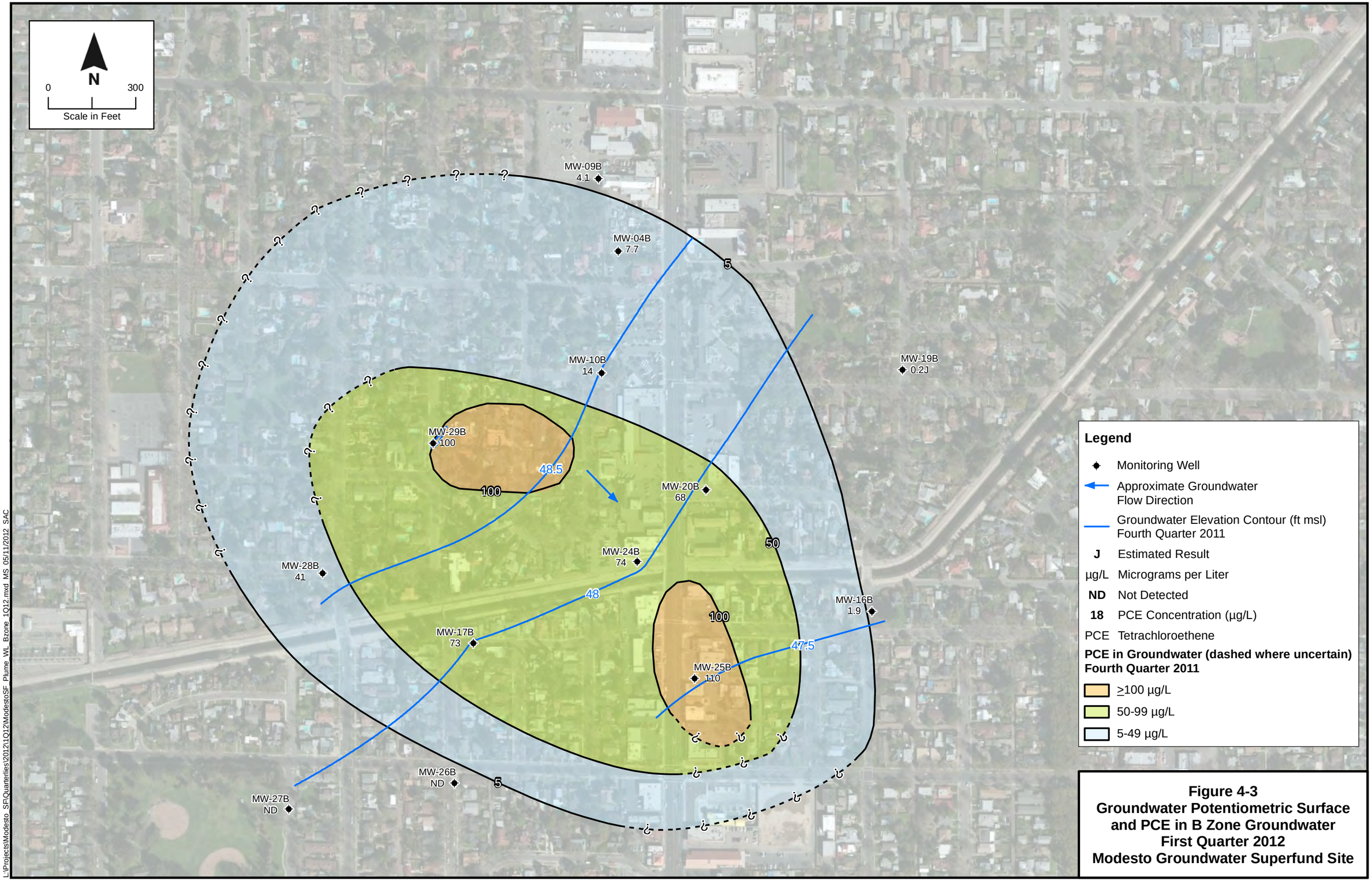

Figure 4-3
Groundwater Potentiometric Surface and PCE in B Zone Groundwater
First Quarter 2012
Modesto Groundwater Superfund Site

L:\Projects\Modesto_SF\Quarterlies\2012\1Q12\ModestoSF_Plume_WL_Bzone_1Q12.mxd MS 05/11/2012 SAC

Figure 4-4
Groundwater Potentiometric Surface and PCE in C Zone Groundwater
First Quarter 2012
Modesto Groundwater Superfund Site

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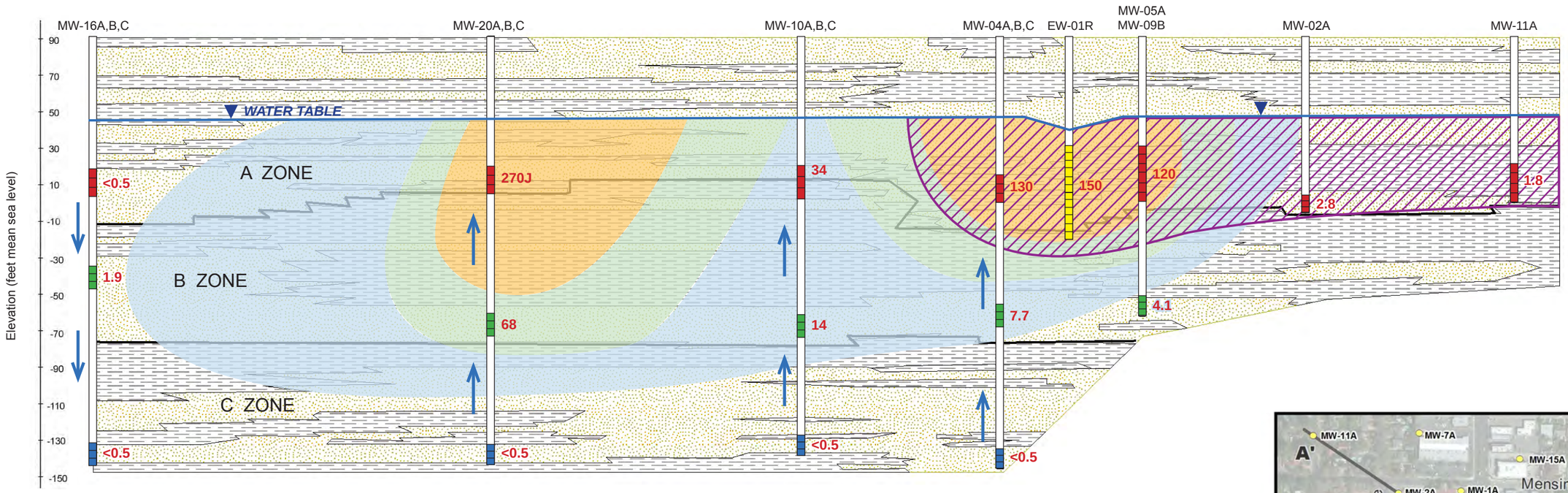
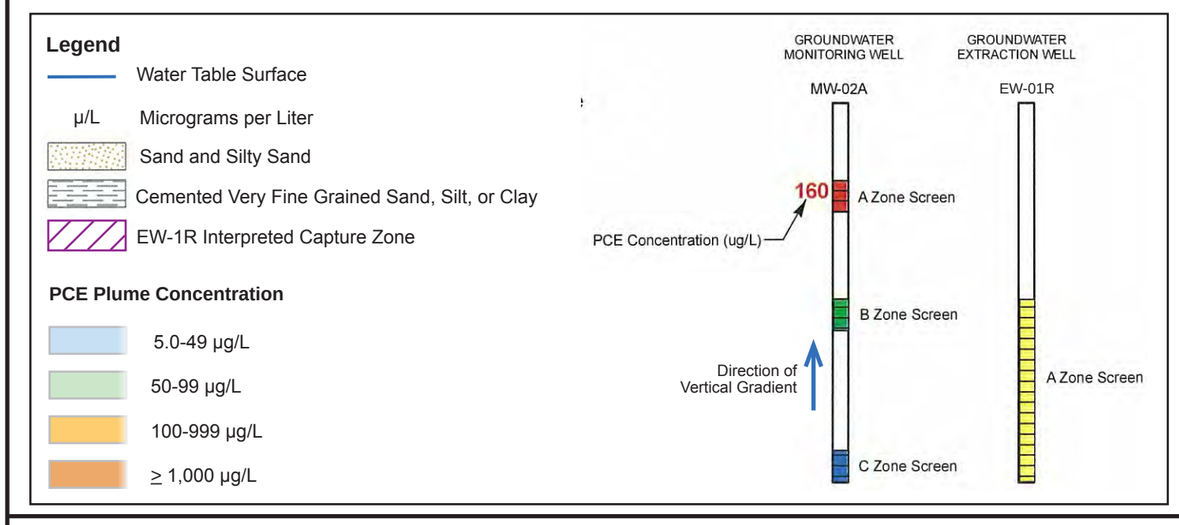
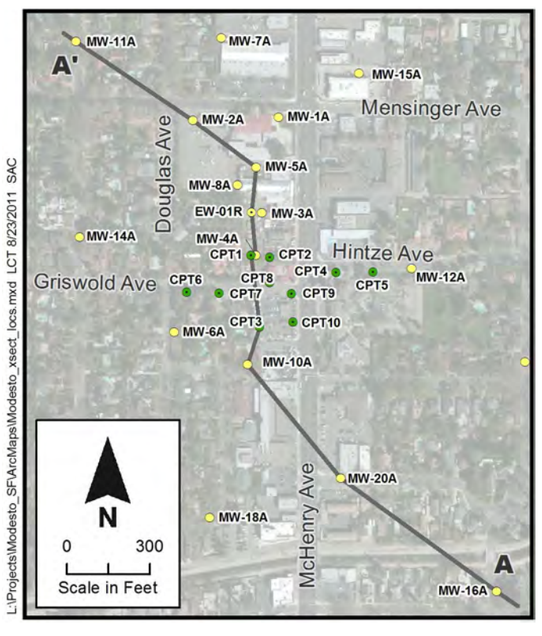






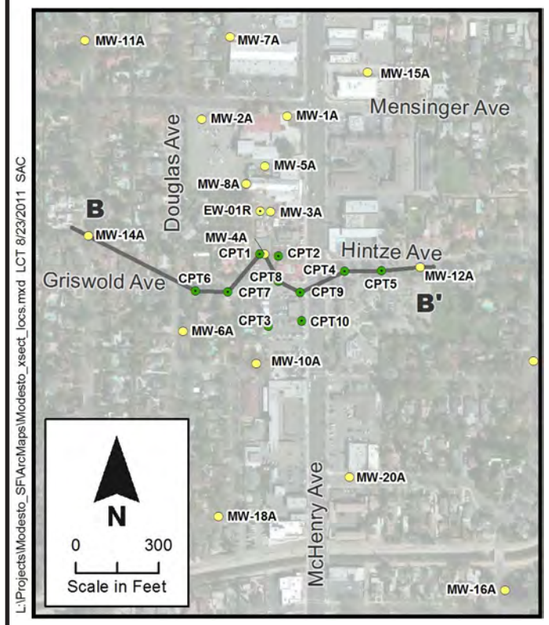
0 200
SCALE IN FEET

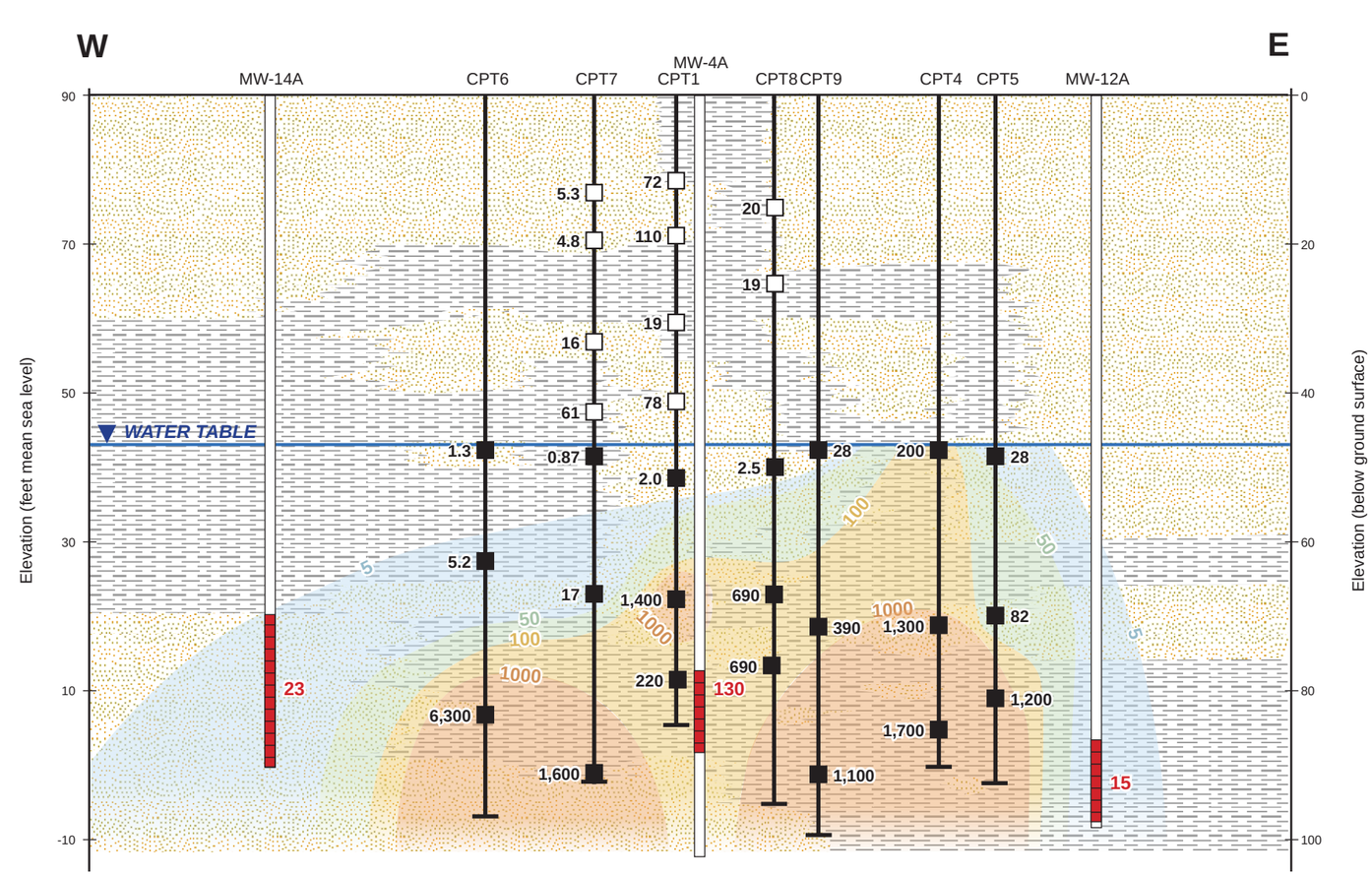
URS

Adapted from:
MWH source file

Figure 4-5
Cross-Section A-A'
Extraction Well EW-1R
Estimated Capture Zone
First Quarter 2012
Modesto Groundwater Superfund Site

H:\Graphics\Modesto GW\Qtrly\05-12-Modesto-GW-1Q12-Capture-Zone-Xsec.indd - VMG 05/21/12 SAC





Legend

- Water Table Surface
- µ/L — Micrograms per Liter
- 5.3 □ — Soil Vapor Sample PCE Concentration (ppbv) (May/June 2011)
- 5.2 ■ — Hydropunch Groundwater Sample PCE Concentration (µg/L) (May/June 2011)
- 23 — Well Screen, PCE Concentration (µg/L) (June 2011)
- Sand and Silty Sand
- Cemented Very Fine Grained Sand, Silt, or Clay

PCE Concentration

- 5.0-49 µg/L
- 50-99 µg/L
- 100-999 µg/L
- >1,000 µg/L

0 250
SCALE IN FEET

URS

Figure 4-6
Cross-Section B-B'
First Quarter 2012
Modesto Groundwater Superfund Site

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L:\Projects\Modesto_SF\Quarterlies\2012\1Q12\Modesto_Soil_Vapor_results_1Q12.mxd MS 05/18/2012 SAC

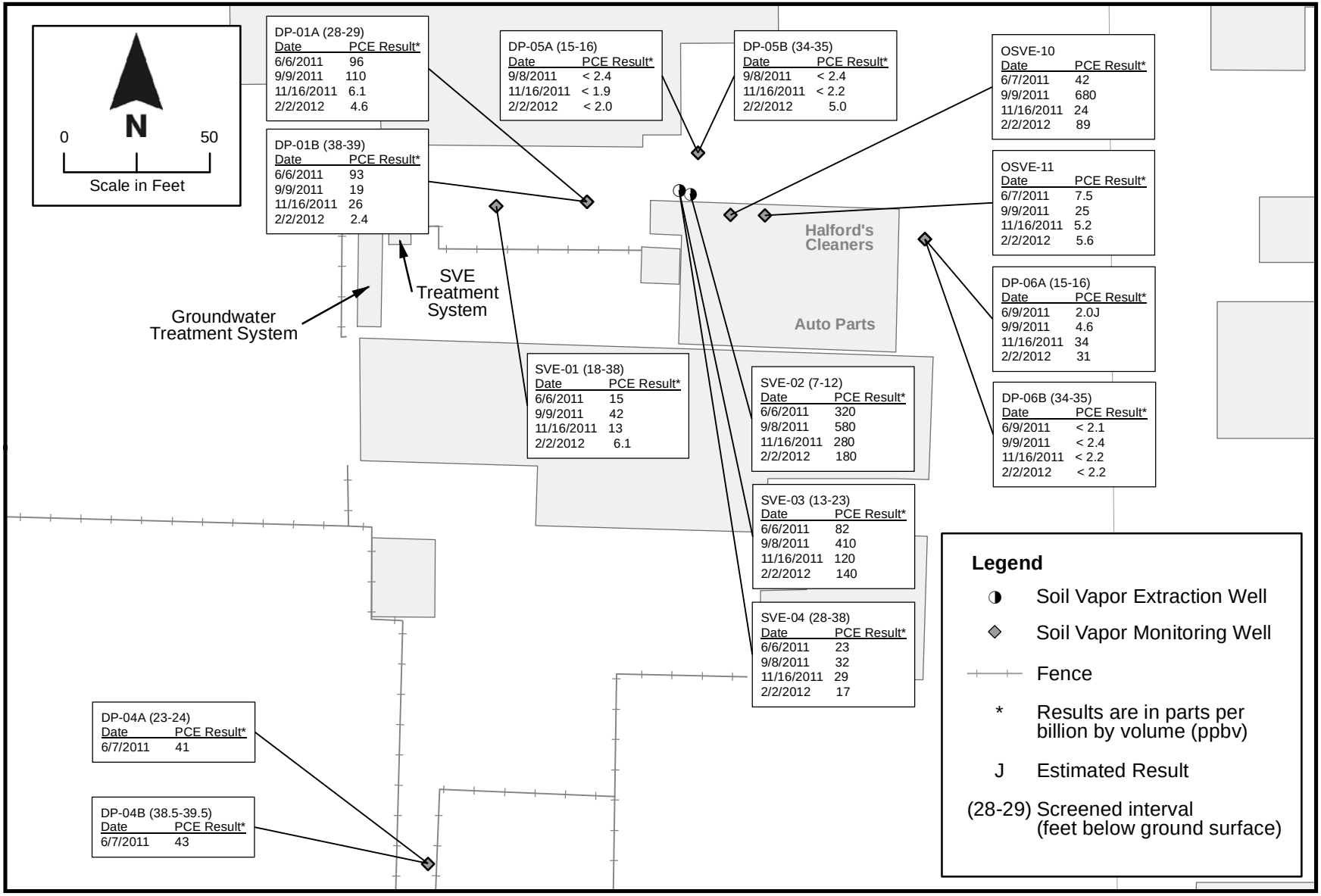


Figure 4-7. Soil Vapor Analytical Results, Second Quarter 2011 through First Quarter 2012 Modesto Groundwater Superfund Site

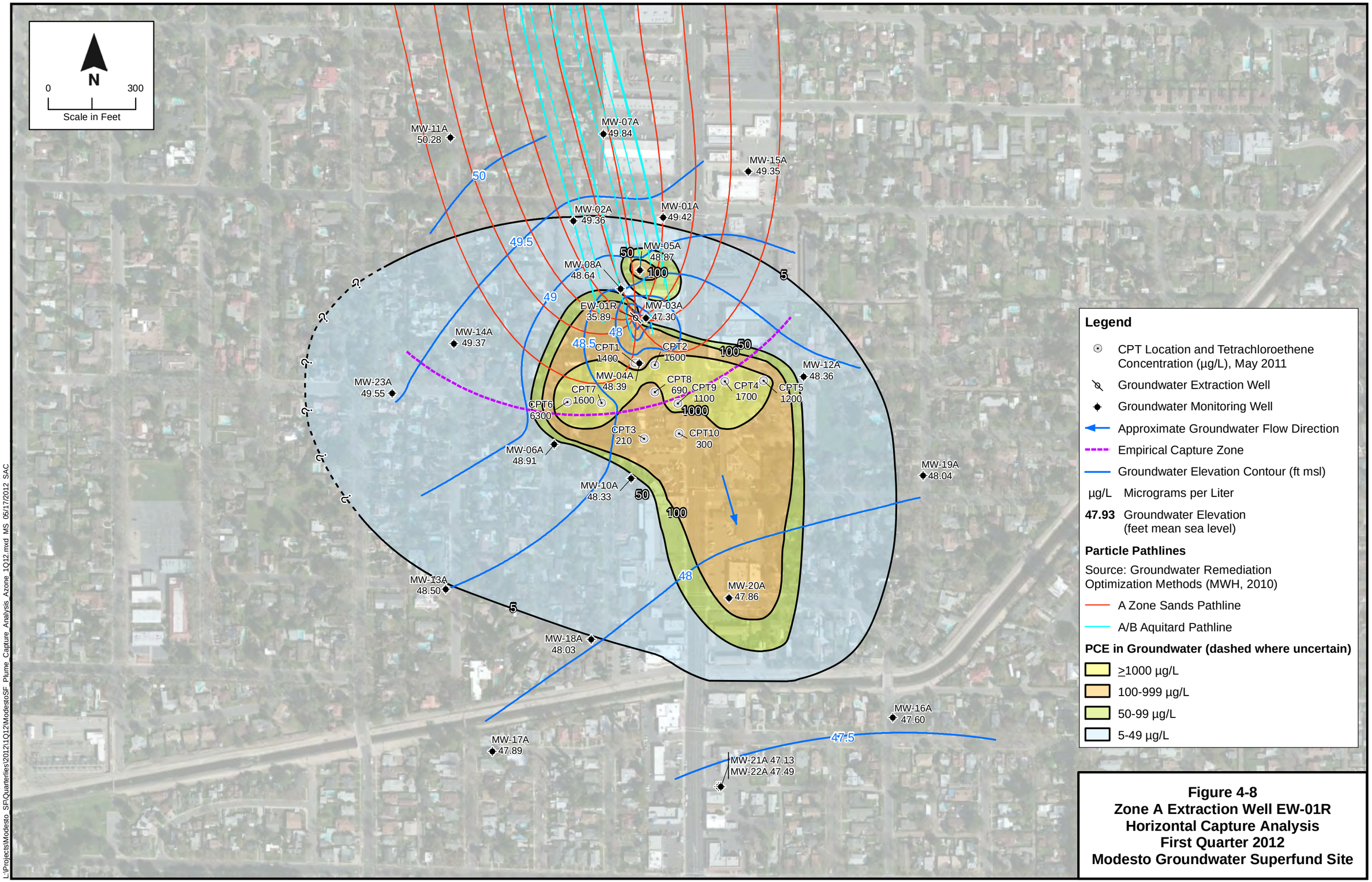
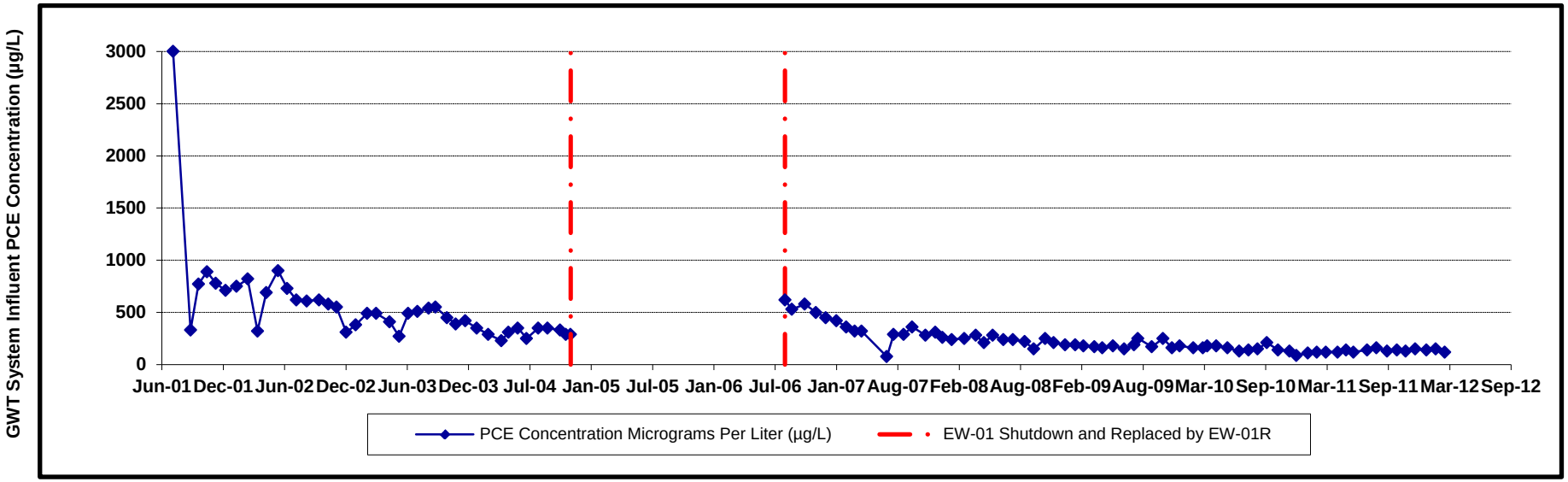


Figure 4-8
Zone A Extraction Well EW-01R
Horizontal Capture Analysis
First Quarter 2012
Modesto Groundwater Superfund Site

L:\Projects\Modesto_SF\Quarterlies\2012\1Q12\ModestoSF_Plume_Capture_Analysis_Azone_1Q12.mxd MS 05/17/2012 SAC

FIGURE 4-9
CUMULATIVE PCE MASS REMOVED BY THE GROUNDWATER TREATMENT SYSTEM
MODESTO GROUNDWATER SUPERFUND SITE



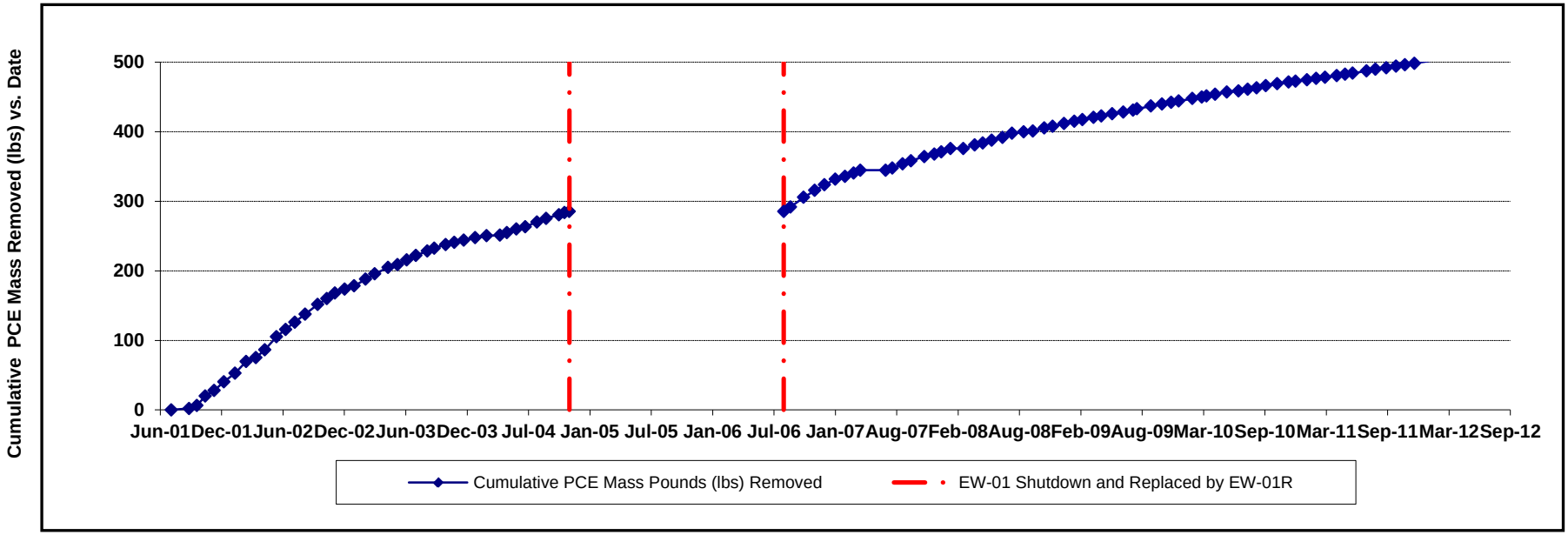
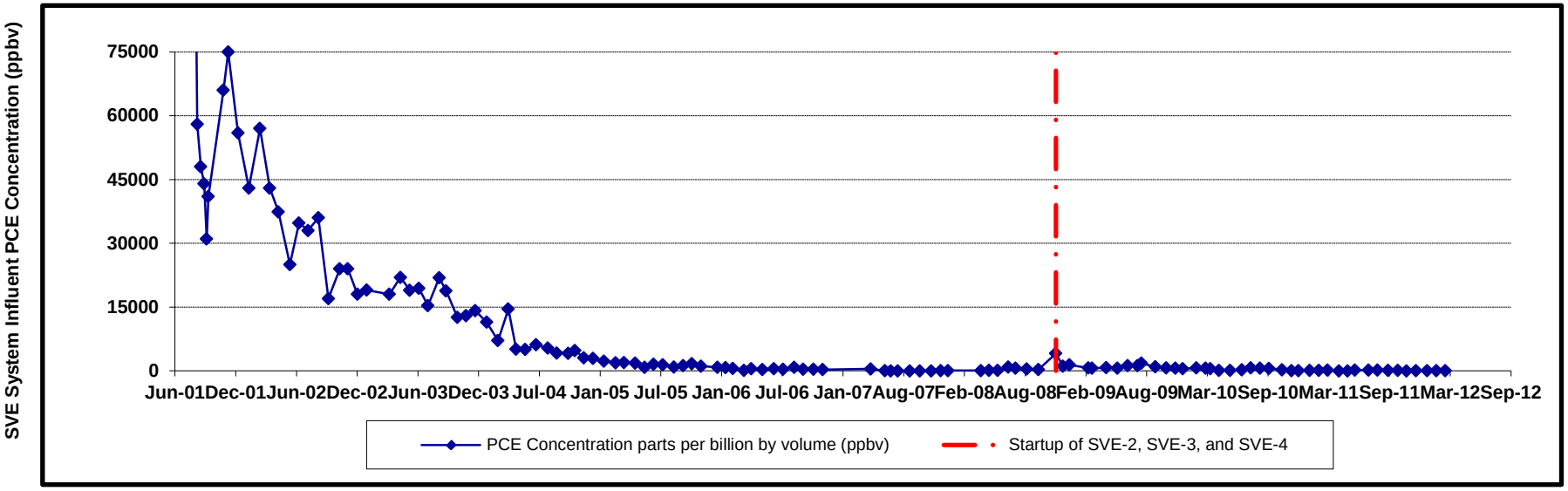
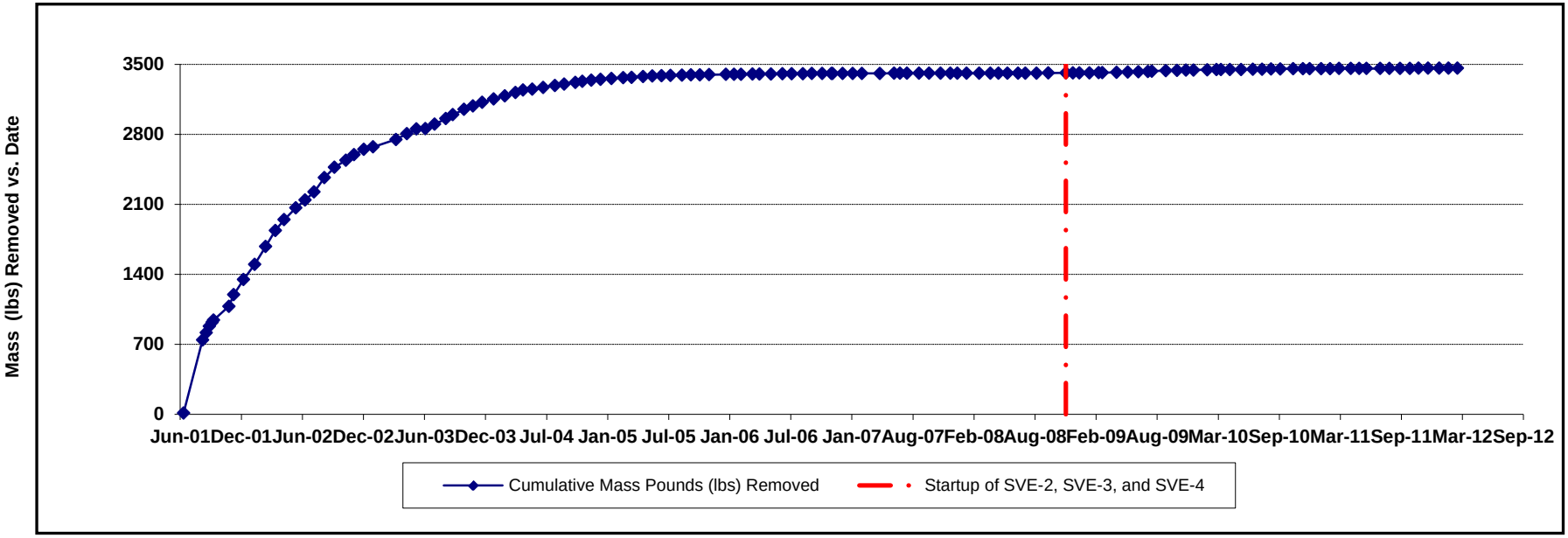


FIGURE 4-10
CUMULATIVE MASS REMOVED BY THE SOIL VAPOR EXTRACTION SYSTEM
MODESTO GROUNDWATER SUPERFUND SITE

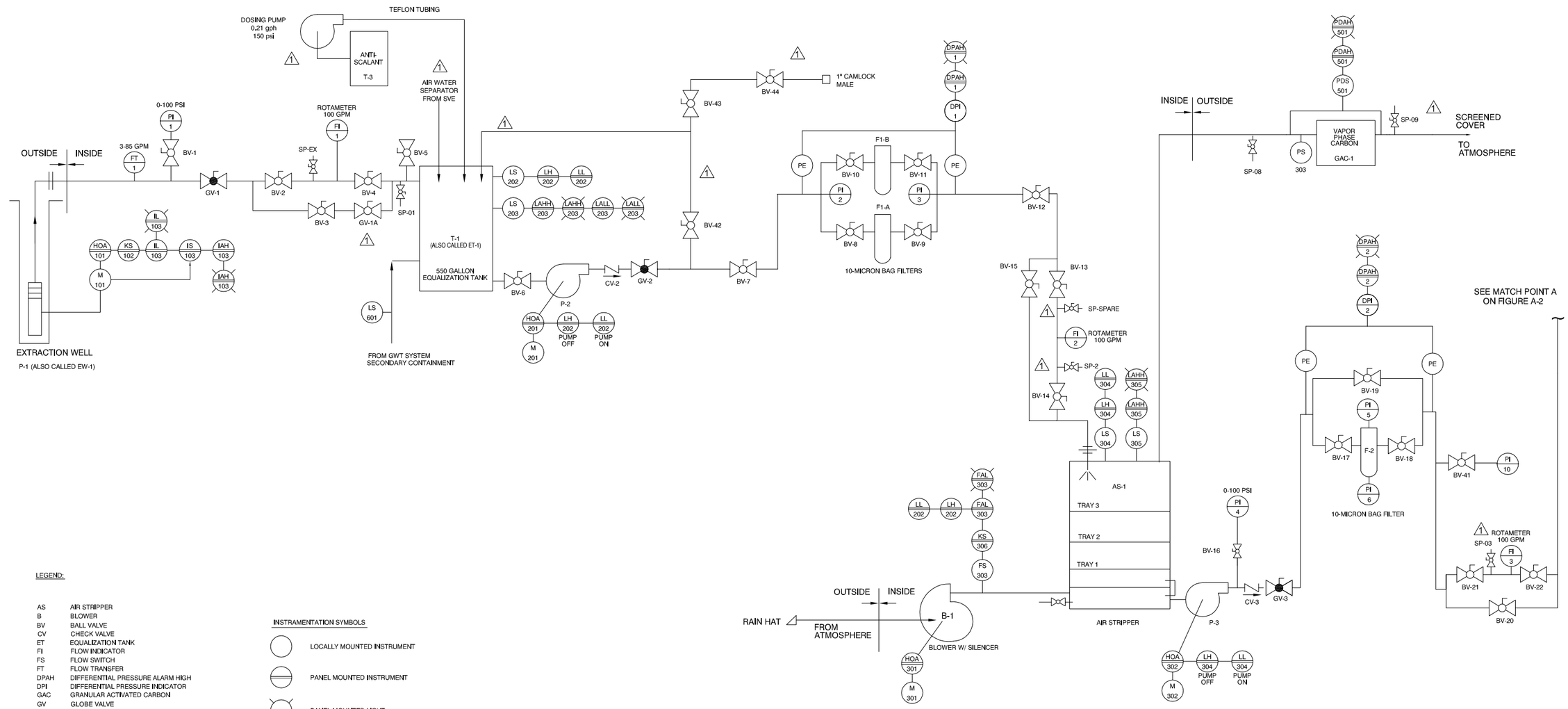




APPENDICES

(provided on CD)

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
MONTGOMERY WATSON HARZA

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2870 Gateway Oaks Drive, Ste. 150
Sacramento, CA 95833-3200
TEL: (916) 679-2000
FAX: (916) 679-2900

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
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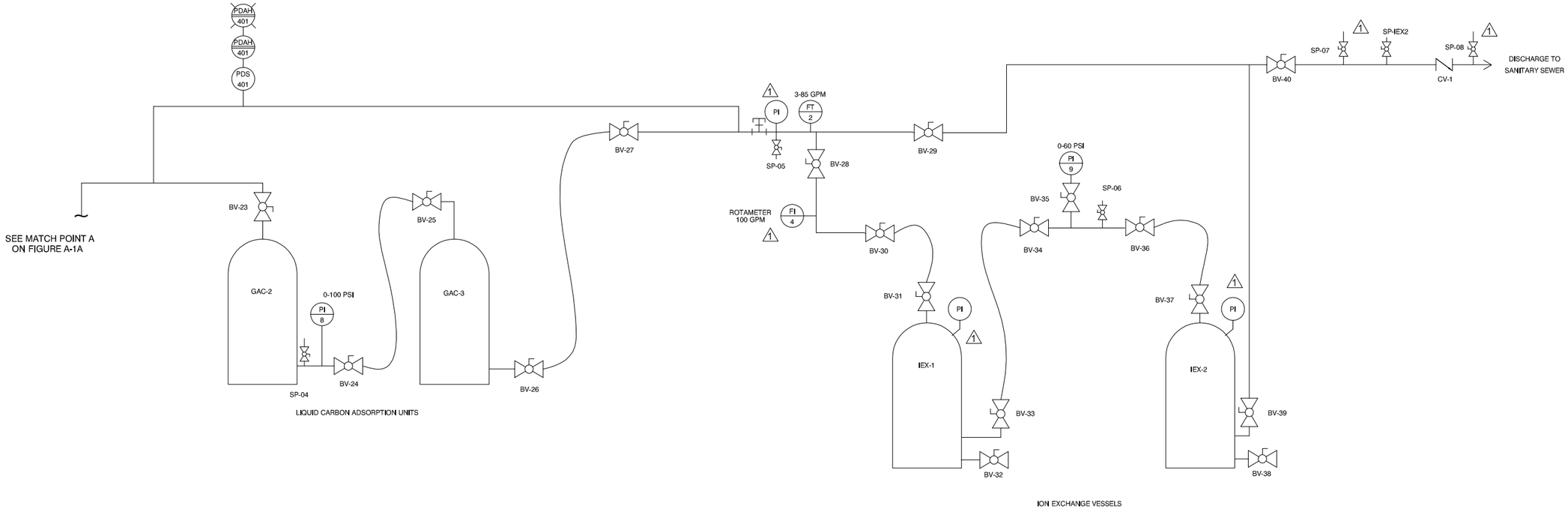

LEGEND:

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 SYBOLS

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

REFERENCES
TITLE

NOTE: REFERENCE
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Sacramento, CA 95833-3200
TEL: (916) 679-2000
FAX: (916) 679-2900

MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

GROUNDWATER TREATMENT P&ID

JOB NO.
PROJECT
SHEET NO. **1-2**

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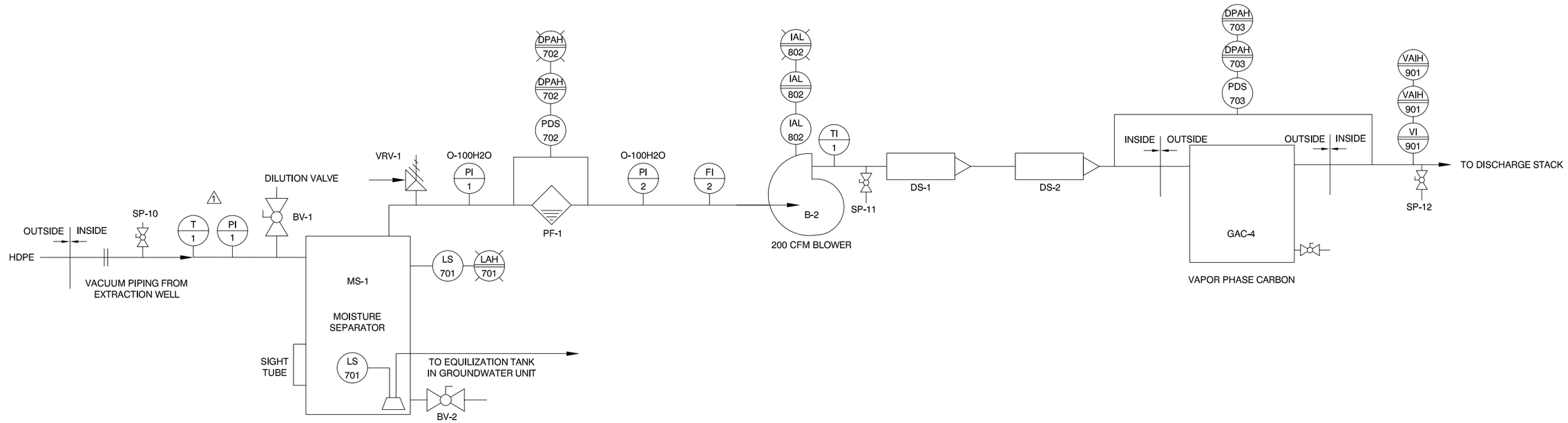

KEY

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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Sacramento, CA 95833-3200
TEL: (916) 679-2000
FAX: (916) 679-2900

MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

SOIL VAPOR EXTRACTION P&ID

JOB NO.
PROJECT
SHEET NO. 1-3

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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 2012, 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 GROUNDWATER SUPERFUND SITE
MODESTO, CALIFORNIA

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Analytical Method
01/12/12	EFF-0102	294076001	N	ASTM D 5174
01/12/12	EW-1-0102	294076002	N	ASTM D 5174
01/12/12	IEX Mid-0102	294076003	N	ASTM D 5174
01/12/12	MW-104-0102	294076004	FD	ASTM D 5174
01/12/12	Pre IEX-0102	294076005	N	ASTM D 5174
01/12/12	MW-401-1Q12	294077001	FB	ASTM D 5174
01/12/12	EFF-0102	1202579006	DUP	ASTM D 5174
01/12/12	EFF-0102	1202579007	MS	ASTM D 5174
01/12/12	CRB EFF-0102	1201017-01	N	524.2
01/12/12	CRB INF-0102	1201017-02	N	524.2
01/12/12	CRB Mid-0102	1201017-03	N	524.2
01/12/12	EFF-0102	1201017-04	N	524.2
01/12/12	EFF-0102	1201017-04	N	2540C
01/12/12	EFF-0102	1201017-04	N	2540D
01/12/12	EFF-0102	1201017-04	N	5210B
01/12/12	EW-1-0102	1201017-05	N	524.2
01/12/12	MW-103-0102	1201017-06	FD	524.2
01/12/12	MW-301-1Q12	1201017-07	TB	524.2
01/12/12	MW-401-1Q12	1201017-08	FB	524.2
01/12/12	GWTP Pr GAC-0102	1201018-01	N	TO-15
01/12/12	GWTP Stack-0102	1201018-02	N	TO-15
01/12/12	SVE Pre GAC-0102	1201018-03	N	TO-15
01/12/12	SVE Stack-0102	1201018-04	N	TO-15
01/12/12	EFF-0102DUP	B2A0028-DUP1	DUP	2540C
01/12/12	EFF-0102DUP	B2A0028-DUP2	DUP	2540D
01/12/12	GWTP Stack-0102DUP	B2A0035-DUP2	DUP	TO-15
01/12/12	MW-401-1Q12MS	B2A0038-MS1	MS	524.2
01/12/12	MW-401-1Q12MSD	B2A0038-MSD1	MSD	524.2
01/30/12	MW-19A-1Q12	1202010-01	N	524.2
01/30/12	MW-19B-1Q12	1202010-02	N	524.2
01/30/12	MW-10B-1Q12	1202010-06	N	524.2
01/31/12	MW-26B-1Q12	1202009-05	N	524.2
01/31/12	MW-27B-1Q12	1202009-06	N	524.2
01/31/12	MW-2A-1Q12	1202009-08	N	524.2
01/31/12	MW-5A-1Q12	1202009-10	N	524.2
01/31/12	MW-88A-1Q12	1202009-14	FD	524.2
01/31/12	MW-8A-1Q12	1202009-15	N	524.2
01/31/12	MW-9B-1Q12	1202009-17	N	524.2
01/31/12	MW-1A-1Q12	1202010-03	N	524.2
01/31/12	MW-10C-1Q12	1202010-07	N	524.2
01/31/12	MW-11A-1Q12	1202010-08	N	524.2
01/31/12	MW-12A-1Q12	1202010-09	N	524.2
01/31/12	MW-14A-1Q12	1202010-11	N	524.2
01/31/12	MW-16A-1Q12	1202010-13	N	524.2
01/31/12	MW-16B-1Q12	1202010-14	N	524.2
01/31/12	MW-16C-1Q12	1202010-15	N	524.2

TABLE B2

SAMPLE CROSS REFERENCE
MODESTO GROUNDWATER SUPERFUND SITE
MODESTO, CALIFORNIA

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Analytical Method
01/31/12	MW-302-1Q12	1202010-16	TB	524.2
01/31/12	MW-1A-1Q12MS	B2B0052-MS2	MS	524.2
01/31/12	MW-1A-1Q12MSD	B2B0052-MSD2	MSD	524.2
02/01/12	MW-22A-1Q12	1202009-01	N	524.2
02/01/12	MW-23A-1Q12	1202009-02	N	524.2
02/01/12	MW-25B-1Q12	1202009-04	N	524.2
02/01/12	MW-28B-1Q12	1202009-07	N	524.2
02/01/12	MW-4A-1Q12	1202009-09	N	524.2
02/01/12	MW-6A-1Q12	1202009-11	N	524.2
02/01/12	MW-7A-1Q12	1202009-12	N	524.2
02/01/12	MW-96A-1Q12	1202009-16	FD	524.2
02/01/12	MW-17A-1Q12	1202009-18	N	524.2
02/01/12	MW-17B-1Q12	1202009-19	N	524.2
02/01/12	MW-17C-1Q12	1202009-20	N	524.2
02/01/12	MW-21A-1Q12	1202010-04	N	524.2
02/01/12	MW-10A-1Q12	1202010-05	N	524.2
02/01/12	MW-13A-1Q12	1202010-10	N	524.2
02/01/12	MW-15A-1Q12	1202010-12	N	524.2
02/01/12	MW-402-1Q12	1202010-17	FB	524.2
02/01/12	MW-17C-1Q12MS	B2B0062-MS1	MS	524.2
02/01/12	MW-17C-1Q12MSD	B2B0062-MSD1	MSD	524.2
02/02/12	MW-24B-1Q12	1202009-03	N	524.2
02/02/12	DP-1A-1Q12	1202016-01	N	TO-15
02/02/12	DP-1B-1Q12	1202016-02	N	TO-15
02/02/12	DP-5A-1Q12	1202016-03	N	TO-15
02/02/12	DP-5B-1Q12	1202016-04	N	TO-15
02/02/12	DP-6A-1Q12	1202016-05	N	TO-15
02/02/12	DP-6B-1Q12	1202016-06	N	TO-15
02/02/12	DP-94A-1Q12	1202016-07	FD	TO-15
02/02/12	OSVE-10-1Q12	1202016-08	N	TO-15
02/02/12	OSVE-11-1Q12	1202016-09	N	TO-15
02/02/12	SVE-1-1Q12	1202016-10	N	TO-15
02/02/12	SVE-2-1Q12	1202016-11	N	TO-15
02/02/12	SVE-3-1Q12	1202016-12	N	TO-15
02/02/12	SVE-4-1Q12	1202016-13	N	TO-15
02/02/12	SVE-97-1Q12	1202016-14	FD	TO-15
02/02/12	MW-29B-1Q12	1202019-01	N	524.2
02/02/12	MW-4B-1Q12	1202019-03	N	524.2
02/02/12	MW-4C-1Q12	1202019-04	N	524.2
02/02/12	MW-71B-1Q12	1202019-05	FD	524.2
02/02/12	MW-18A-1Q12	1202019-06	N	524.2
02/02/12	SVE-97-1Q12DUP	B2B0028-DUP1	DUP	TO-15
02/03/12	MW-3A-1Q12	1202019-02	N	524.2
02/03/12	MW-20A-1Q12	1202019-07	N	524.2
02/03/12	MW-20B-1Q12	1202019-08	N	524.2
02/03/12	MW-20C-1Q12	1202019-09	N	524.2
02/03/12	MW-20A-1Q12MS	B2B0078-MS1	MS	524.2
02/03/12	MW-20A-1Q12MSD	B2B0078-MSD1	MSD	524.2

TABLE B2

SAMPLE CROSS REFERENCE
MODESTO GROUNDWATER SUPERFUND SITE
MODESTO, CALIFORNIA

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Analytical Method
02/06/12	EFF-0202	295460001	N	ASTM D 5174
02/06/12	IEX MID-0202	295460002	N	ASTM D 5174
02/06/12	PRE IEX-0202	295460003	N	ASTM D 5174
02/06/12	EFF-0202	1202594505	DUP	ASTM D 5174
02/06/12	EFF-0202	1202594506	MS	ASTM D 5174
02/09/12	EFF-0202	1202029-01	N	524.2
02/09/12	EFF-0202	1202029-01	N	2540C
02/09/12	EFF-0202	1202029-01	N	2540D
02/09/12	EFF-0202	1202029-01	N	5210B
02/09/12	EW-1-0202	1202029-02	N	524.2
02/09/12	MW-303-1Q12	1202029-03	TB	524.2
02/09/12	GWTP Stack-0202	1202032-01	N	TO-15
02/09/12	SVE Pre GAC-0202	1202032-02	N	TO-15
02/09/12	SVE Stack-0202	1202032-03	N	TO-15
02/09/12	EFF-0202DUP	B2B0055-DUP1	DUP	2540C
02/09/12	EFF-0202DUP	B2B0055-DUP2	DUP	2540D
02/09/12	EW-1-0202MS	B2B0074-MS2	MS	524.2
02/09/12	EW-1-0202MSD	B2B0074-MSD2	MSD	524.2
02/09/12	GWTP Stack-0202DUP	B2B0082-DUP1	DUP	TO-15
02/16/12	GWTP Pr GAC-0203	1202048-01	N	TO-15
02/16/12	GWT Pr GAC-0203DUP	B2C0005-DUP1	DUP	TO-15
03/08/12	EFF-0302	1203025-01	N	524.2
03/08/12	EFF-0302	1203025-01	N	2540C
03/08/12	EW-1-0302	1203025-02	N	524.2
03/08/12	MW-107-0302	1203025-03	FD	2540C
03/08/12	MW-304-1Q12	1203025-04	TB	524.2
03/08/12	GWTP Pr GAC-0302	1203026-01	N	TO-15
03/08/12	GWTP Stack-0302	1203026-02	N	TO-15
03/08/12	MW-108-0302	1203026-03	FD	TO-15
03/08/12	SVE Pre GAC-0302	1203026-04	N	TO-15
03/08/12	SVE Stack-0302	1203026-05	N	TO-15
03/08/12	EFF-0302MS	B2C0053-MS1	MS	524.2
03/08/12	EFF-0302MSD	B2C0053-MSD1	MSD	524.2
03/08/12	EFF-0302DUP	B2C0054-DUP1	DUP	2540C
03/08/12	GWTP Pr GAC-0302DUP	B2C0075-DUP1	DUP	TO-15
03/15/12	EFF-0302	1203041-01	N	2540D
03/15/12	EFF-0302	1203041-01	N	5210B
03/15/12	MW-107-0302	1203041-02	FD	2540D
03/15/12	MW-107-0302	1203041-02	FD	5210B
03/15/12	EFF-0302DUP	B2C0080-DUP1	DUP	2540D

1Q12 = first quarter, 2012
DUP = laboratory duplicate
EFF = effluent
EW = extraction well
FB = field blank
FD = field duplicate
GWT = groundwater treatment

TABLE B2

SAMPLE CROSS REFERENCE
MODESTO GROUNDWATER 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			
SVE	= soil vapor extraction			
TB	= trip blank			

TABLE B3. RESULTS SUMMARY
FIRST QUARTER 2012, MODESTO GROUNDWATER SUPERFUND SITE

Location	Field Sample Identification	Matrix	Method	Sample Type	Date Sampled	Analyte	Result	Reporting Limit	Units	Qualified Result
0000BLANK	MW-301-1Q12	WQ	E524.2	TB	1/12/2012	No Analytes Detected				
	MW-302-1Q12	WQ	E524.2		1/31/2012	No Analytes Detected				
	MW-303-1Q12	WQ	E524.2		2/9/2012	No Analytes Detected				
	MW-304-1Q12	WQ	E524.2		3/8/2012	No Analytes Detected				
	MW-401-1Q12	WQ	E524.2	FB	1/12/2012	Chloromethane	0.300	0.500	µg/L	J
			ASTM D 5174	FB	1/12/2012	Uranium	0.0855	1	pci/L	
	MW-402-1Q12	WQ	E524.2	FB	2/1/2012	No Analytes Detected				
DP-1A	DP-1A-1Q12	GS	TO15	N	2/2/2012	Tetrachloroethene	4.60	2.20	ppbv	
						Toluene	1.20	2.20	ppbv	J
DP-1B	DP-1B-1Q12	GS	TO15	N	2/2/2012	Tetrachloroethene	2.40	2.20	ppbv	
DP-5A	DP-5A-1Q12	GS	TO15	N	2/2/2012	Chloromethane	1.80	2	ppbv	J
DP-5B	DP-5B-1Q12	GS	TO15	N	2/2/2012	Chloroform	13	2.10	ppbv	
						Methylene Chloride	1.50	2.10	ppbv	J
						Tetrachloroethene	5	2.10	ppbv	
DP-6A	DP-6A-1Q12	GS	TO15	N	2/2/2012	Tetrachloroethene	29	2.10	ppbv	
	DP-94A-1Q12	GS	TO15	FD	2/2/2012	Tetrachloroethene	31	2.20	ppbv	
DP-6B	DP-6B-1Q12	GS	TO15	N	2/2/2012	No Analytes Detected				
MW-01A	MW-1A-1Q12	WG	E524.2	N	1/31/2012	Chloroform	0.200	0.500	µg/L	J
						Tetrachloroethene	1.20	0.500	µg/L	J
MW-02A	MW-2A-1Q12	WG	E524.2	N	1/31/2012	Chloroform	2.10	0.500	µg/L	
						Tetrachloroethene	3.80	0.500	µg/L	
MW-03A	MW-3A-1Q12	WG	E524.2	N	2/3/2012	Chloroform	1.90	0.500	µg/L	
						Tetrachloroethene	47	5	µg/L	
MW-04A	MW-4A-1Q12	WG	E524.2	N	2/1/2012	cis-1,2-Dichloroethene	73	5	µg/L	
						Tetrachloroethene	130	5	µg/L	
						Trichloroethylene	7.20	0.500	µg/L	
	MW-96A-1Q12	WG	E524.2	FD	2/1/2012	cis-1,2-Dichloroethene	60	10	µg/L	
						Tetrachloroethene	95	10	µg/L	
						Trichloroethylene	6.70	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	MW-4B-1Q12	WG	E524.2	N	2/2/2012	Tetrachloroethene	7.70	0.500	µg/L	
MW-04C	MW-4C-1Q12	WG	E524.2	N	2/2/2012	No Analytes Detected				
MW-05A	MW-5A-1Q12	WG	E524.2	N	1/31/2012	Tetrachloroethene	120	2.50	µg/L	
MW-06A	MW-6A-1Q12	WG	E524.2	N	2/1/2012	Bromodichloromethane	0.300	0.500	µg/L	J
						Chloroform	6.40	0.500	µg/L	
						Tetrachloroethene	5.80	0.500	µg/L	
MW-07A	MW-7A-1Q12	WG	E524.2	N	2/1/2012	Chloroform	1.20	0.500	µg/L	
MW-08A	MW-8A-1Q12	WG	E524.2	N	1/31/2012	Bromodichloromethane	0.200	0.500	µg/L	J
						Chloroform	5.30	0.500	µg/L	
						Tetrachloroethene	25	1	µg/L	
MW-09B	MW-9B-1Q12	WG	E524.2	N	1/31/2012	Tetrachloroethene	4.10	0.500	µg/L	
MW-10A	MW-10A-1Q12	WG	E524.2	N	2/1/2012	Bromodichloromethane	0.200	0.500	µg/L	J
						Chloroform	5.10	0.500	µg/L	
						Tetrachloroethene	34	2.50	µg/L	
MW-10B	MW-10B-1Q12	WG	E524.2	N	1/30/2012	1,2,4-Trimethylbenzene	0.300	0.500	µg/L	J
						Benzene	1.90	0.500	µg/L	
						Carbon tetrachloride	0.400	0.500	µg/L	J
						Ethylbenzene	0.600	0.500	µg/L	
						m,p-Xylenes	1.30	1	µg/L	
						o-Xylene	0.400	0.500	µg/L	J
						Tetrachloroethene	14	0.500	µg/L	
						Toluene	0.300	0.500	µg/L	J
MW-10C	MW-10C-1Q12	WG	E524.2	N	1/31/2012	No Analytes Detected				
MW-11A	MW-11A-1Q12	WG	E524.2	N	1/31/2012	Chloroform	4.90	0.500	µg/L	
						Tetrachloroethene	1.80	0.500	µg/L	
MW-12A	MW-12A-1Q12	WG	E524.2	N	1/31/2012	Bromodichloromethane	0.400	0.500	µg/L	J
						Chloroform	7.70	0.500	µg/L	
						Tetrachloroethene	16	0.500	µg/L	
						Trichlorofluoromethane	0.300	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-12A continued . . .										
	MW-88A-1Q12	WG	E524.2	FD	1/31/2012	Bromodichloromethane	0.300	0.500	µg/L	J
						Chloroform	6.60	0.500	µg/L	
						Tetrachloroethene	15	0.500	µg/L	
						Trichlorofluoromethane	0.300	0.500	µg/L	J
MW-13A	MW-13A-1Q12	WG	E524.2	N	2/1/2012	Chloroform	3.50	0.500	µg/L	
						Tetrachloroethene	4.50	0.500	µg/L	
MW-14A	MW-14A-1Q12	WG	E524.2	N	1/31/2012	Chloroform	0.400	0.500	µg/L	J
						Tetrachloroethene	23	0.500	µg/L	
MW-15A	MW-15A-1Q12	WG	E524.2	N	2/1/2012	Chloroform	0.300	0.500	µg/L	J
MW-16A	MW-16A-1Q12	WG	E524.2	N	1/31/2012	Benzene	0.500	0.500	µg/L	
						Chloroform	0.800	0.500	µg/L	
						Ethylbenzene	0.200	0.500	µg/L	J
MW-16B	MW-16B-1Q12	WG	E524.2	N	1/31/2012	Chloroform	1.60	0.500	µg/L	
						Tetrachloroethene	1.90	0.500	µg/L	
MW-16C	MW-16C-1Q12	WG	E524.2	N	1/31/2012	Benzene	0.300	0.500	µg/L	J
MW-17A	MW-17A-1Q12	WG	E524.2	N	2/1/2012	Benzene	0.200	0.500	µg/L	J
						Bromodichloromethane	0.300	0.500	µg/L	J
						Chloroform	5.30	0.500	µg/L	
						Tetrachloroethene	0.800	0.500	µg/L	
MW-17B	MW-17B-1Q12	WG	E524.2	N	2/1/2012	Chloroform	0.200	0.500	µg/L	J
						Tetrachloroethene	73	5	µg/L	
MW-17C	MW-17C-1Q12	WG	E524.2	N	2/1/2012	No Analytes Detected				
MW-18A	MW-18A-1Q12	WG	E524.2	N	2/2/2012	Chloroform	4.30	0.500	µg/L	
						Tetrachloroethene	3.80	0.500	µg/L	
MW-19A	MW-19A-1Q12	WG	E524.2	N	1/30/2012	Chloroform	1.50	0.500	µg/L	
MW-19B1	MW-19B-1Q12	WG	E524.2	N	1/30/2012	1,2,4-Trimethylbenzene	0.200	0.500	µg/L	J
						Benzene	0.700	0.500	µg/L	
						Ethylbenzene	0.400	0.500	µg/L	J
						m,p-Xylenes	0.800	1	µg/L	J

TABLE B3 (Continued)

Location	Field Sample Identification	Matrix	Method	Sample Type	Date Sampled	Analyte	Result	Reporting Limit	Units	Qualified Result
MW-19B1 continued . . .										
						o-Xylene	0.200	0.500	µg/L	J
						Tetrachloroethene	0.200	0.500	µg/L	J
						Toluene	0.200	0.500	µg/L	J
MW-20A	MW-20A-1Q12	WG	E524.2	N	2/3/2012	Bromodichloromethane	0.200	0.500	µg/L	J
						Chloroform	7.40	0.500	µg/L	
						Dichlorodifluoromethane	7.70	0.500	µg/L	J+
						Tetrachloroethene	270	10	µg/L	J
						Trichloroethylene	0.200	0.500	µg/L	J
MW-20B	MW-20B-1Q12	WG	E524.2	N	2/3/2012	Tetrachloroethene	68	5	µg/L	
MW-20C	MW-20C-1Q12	WG	E524.2	N	2/3/2012	No Analytes Detected				
MW-21A	MW-21A-1Q12	WG	E524.2	N	2/1/2012	Benzene	0.200	0.500	µg/L	J
						Chloroform	5	0.500	µg/L	
						Tetrachloroethene	1	0.500	µg/L	
MW-22A	MW-22A-1Q12	WG	E524.2	N	2/1/2012	Bromodichloromethane	0.200	0.500	µg/L	J
						Chloroform	5.70	0.500	µg/L	
MW-23A	MW-23A-1Q12	WG	E524.2	N	2/1/2012	Chloroform	3.10	0.500	µg/L	
						Tetrachloroethene	25	2.50	µg/L	
MW-24B	MW-24B-1Q12	WG	E524.2	N	2/2/2012	Tetrachloroethene	74	5	µg/L	
MW-25B	MW-25B-1Q12	WG	E524.2	N	2/1/2012	Tetrachloroethene	110	5	µg/L	
MW-26B	MW-26B-1Q12	WG	E524.2	N	1/31/2012	Chloroform	0.300	0.500	µg/L	J
MW-27B	MW-27B-1Q12	WG	E524.2	N	1/31/2012	No Analytes Detected				
MW-28B	MW-28B-1Q12	WG	E524.2	N	2/1/2012	Tetrachloroethene	41	2.50	µg/L	
MW-29B	MW-29B-1Q12	WG	E524.2	N	2/2/2012	Tetrachloroethene	100	5	µg/L	
	MW-71B-1Q12	WG	E524.2	FD	2/2/2012	Tetrachloroethene	79	5	µg/L	
OSVE-10	OSVE-10-1Q12	GS	TO15	N	2/2/2012	Tetrachloroethene	89	22	ppbv	
						Toluene	2	2.20	ppbv	J
OSVE-11	OSVE-11-1Q12	GS	TO15	N	2/2/2012	Tetrachloroethene	5.60	2.20	ppbv	
SP-01	EW-1-0102	WG	E524.2	N	1/12/2012	Chloroform	3.50	0.500	µg/L	J-
						Tetrachloroethene	140	5	µg/L	J-

TABLE B3 (Continued)

Location	Field Sample Identification	Matrix	Method	Sample Type	Date Sampled	Analyte	Result	Reporting Limit	Units	Qualified Result
SP-01 continued . . .										
			ASTM D 5174	N	1/12/2012	Uranium	49.3	1	pci/L	
	EW-1-0202	WG	E524.2	N	2/9/2012	Chloroform	3	0.500	µg/L	
						Tetrachloroethene	150	5	µg/L	J+
	EW-1-0302	WG	E524.2		3/8/2012	Chloroform	2.90	0.500	µg/L	
						Tetrachloroethene	120	5	µg/L	
SP-03	CRB INF-0102	WG	E524.2	N	1/12/2012	Tetrachloroethene	0.400	0.500	µg/L	J
	MW-103-0102	WG	E524.2	FD	1/12/2012	Tetrachloroethene	0.300	0.500	µg/L	J
SP-04	CRB Mid-0102	WG	E524.2	N	1/12/2012	No Analytes Detected				
SP-05	CRB EFF-0102	WG	E524.2	N	1/12/2012	No Analytes Detected				
	Pre IEX-0102	WG	ASTM D 5174	N	1/12/2012	Uranium	55	1	pci/L	
	PRE IEX-0202	WG	ASTM D 5174		2/6/2012	Uranium	43.5	1	pci/L	
SP-06	IEX Mid-0102	WG	ASTM D 5174	N	1/12/2012	Uranium	305	1	pci/L	
	IEX MID-0202	WG	ASTM D 5174		2/6/2012	Uranium	297	1	pci/L	
	MW-104-0102	WG	ASTM D 5174	FD	1/12/2012	Uranium	285	1	pci/L	
SP-07	EFF-0102	WG	E524.2	N	1/12/2012	No Analytes Detected				
			2540D	N	1/12/2012	No Analytes Detected				
			5210B	N	1/12/2012	No Analytes Detected				
			2540C	N	1/12/2012	Total dissolved solids	646	20	mg/L	
			ASTM D 5174	N	1/12/2012	Uranium	16.3	1	pci/L	
	EFF-0202	WG	ASTM D 5174		2/6/2012	Uranium	12.5	1	pci/L	
			E524.2	N	2/9/2012	No Analytes Detected				
			5210B	N	2/9/2012	No Analytes Detected				
			2540D	N	2/9/2012	No Analytes Detected				
			2540C	N	2/9/2012	Total dissolved solids	660	20	mg/L	
	EFF-0302	WG	E524.2	N	3/8/2012	No Analytes Detected				
			2540C	N	3/8/2012	Total dissolved solids	640	20	mg/L	
			5210B	N	3/15/2012	Biochemical Oxygen Demand	2.40	2	mg/L	
			2540D	N	3/15/2012	No Analytes Detected				

TABLE B3 (Continued)

Location	Field Sample Identification	Matrix	Method	Sample Type	Date Sampled	Analyte	Result	Reporting Limit	Units	Qualified Result
SP-07 continued . . .										
	MW-107-0302	WG	2540C	FD	3/8/2012	Total dissolved solids	650	20	mg/L	
			5210B	FD	3/15/2012	Biochemical Oxygen Demand	2.40	2	mg/L	
			2540D	FD	3/15/2012	No Analytes Detected				
SP-08	GWTP Pr GAC-0102	GS	TO15	N	1/12/2012	Chloroform	7.80	2.20	ppbv	
						Tetrachloroethene	270	22	ppbv	
	GWTP Pr GAC-0203	GS	TO15		2/16/2012	Chloroform	7	2.20	ppbv	
						Tetrachloroethene	290	22	ppbv	
	GWTP Pr GAC-0302	GS	TO15		3/8/2012	Chloroform	7.20	2	ppbv	
						Tetrachloroethene	270	20	ppbv	
	MW-108-0302	GS	TO15	FD	3/8/2012	Chloroform	7.70	2.20	ppbv	
						Tetrachloroethene	220	22	ppbv	
SP-09	GWTP Stack-0102	GS	TO15	N	1/12/2012	Benzene	1.70	2.20	ppbv	J
						Chloroform	6.70	2.20	ppbv	
						Chloromethane	1.50	2.20	ppbv	J
						Tetrachloroethene	220	22	ppbv	
	GWTP Stack-0202	GS	TO15		2/9/2012	Benzene	2	2.30	ppbv	J
						Chloroform	6.20	2.30	ppbv	
						Tetrachloroethene	260	23	ppbv	
	GWTP Stack-0302	GS	TO15		3/8/2012	Benzene	4.80	2.20	ppbv	
						Chloroform	6	2.20	ppbv	
						Tetrachloroethene	240	22	ppbv	
SP-11	SVE Pre GAC-0102	GS	TO15	N	1/12/2012	Chloroform	1.20	2.20	ppbv	J
						Tetrachloroethene	9.30	2.20	ppbv	
	SVE Pre GAC-0202	GS	TO15		2/9/2012	Chloroform	3.60	2.20	ppbv	
						Methylene Chloride	1.10	2.20	ppbv	J
						Tetrachloroethene	30	2.20	ppbv	
	SVE Pre GAC-0302	GS	TO15		3/8/2012	Chloroform	3.90	2.20	ppbv	
						Chloromethane	1.30	2.20	ppbv	J

TABLE B3 (Continued)

Location	Field Sample Identification	Matrix	Method	Sample Type	Date Sampled	Analyte	Result	Reporting Limit	Units	Qualified Result
SP-11 continued . . .										
						Tetrachloroethene	39	2.20	ppbv	
SP-12	SVE Stack-0102	GS	TO15	N	1/12/2012	Chloroform	20	2.20	ppbv	
						cis-1,2-Dichloroethene	1.40	2.20	ppbv	J
						Tetrachloroethene	6.10	2.20	ppbv	
	SVE Stack-0202	GS	TO15		2/9/2012	Chloroform	19	2.30	ppbv	
						cis-1,2-Dichloroethene	1.20	2.30	ppbv	J
						Tetrachloroethene	2.90	2.30	ppbv	
	SVE Stack-0302	GS	TO15		3/8/2012	Chloroform	18	2.10	ppbv	
						cis-1,2-Dichloroethene	1.20	2.10	ppbv	J
						Tetrachloroethene	2.40	2.10	ppbv	
SVE-01	SVE-1-1Q12	GS	TO15	N	2/2/2012	1,2-Dichlorobenzene	3.40	2.20	ppbv	
						Tetrachloroethene	6.10	2.20	ppbv	
SVE-02	SVE-2-1Q12	GS	TO15	N	2/2/2012	Tetrachloroethene	180	21	ppbv	
						Trichloroethylene	1.30	2.10	ppbv	J
SVE-03	SVE-3-1Q12	GS	TO15	N	2/2/2012	Tetrachloroethene	140	20	ppbv	
	SVE-97-1Q12	GS	TO15	FD	2/2/2012	Tetrachloroethene	130	20	ppbv	
SVE-04	SVE-4-1Q12	GS	TO15	N	2/2/2012	Chloroform	25	2	ppbv	
						Tetrachloroethene	17	2	ppbv	

Matrix
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.
J+ = Analyte concentration considered an estimated value because one or more quality control specifications were not met, potential high bias.
J- = Analyte concentration considered an estimated value because one or more quality control specifications were not met, potential low bias.

TABLE B4

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

Analytical Method	Laboratory Batch	Analyte	Expected Concentration	LCS Recovery (%)	Control Limits	Accuracy Acceptance
TO-15	B2B0039	Toluene	100	127	79-126	no
E524.2	B2B0054	1,2,4-Trimethylbenzene	100	85	86-120	no
	B2B0078	Dibromomethane	100	79	80-120	no
		t-1,3-Dichloropropene	100	75	80-140	no
		c-1,3-Dichloropropene	100	77	81-130	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	B2B0062	MW-17C-1Q12	Bromodichloromethane	84	85	87-130	no	1	20	yes
	B2B0074	EW-1-0202	Bromomethane	141	175	38-160	no	21	20	no
			Naphthalene	91	113	52-160	yes	21	20	no
			Tetrachloroethene	770	548	41-150	no	5	20	yes
	B2B0078	MW-20A-1Q12	Dichlorodifluoromethane	134	141	25-135	no	2	20	yes
			Dibromomethane	86	76	77-120	no	12	20	yes
			Tetrachloroethene	NR	450	41-150	no	10	20	yes
			Bromodichloromethane	94	83	87-130	no	12	20	yes

Notes:

The twenty-six RPDs (ranging from 21-26) not meeting criteria for MS/MSD associated with sample MW-1A-1Q12 are not included in this table. See Appendix C for further information.

% - Percent

MS - Matrix Spike

MSD - Matrix Spike Duplicate

NR - Not Reported due to high native sample concentration

RPD - Relative Percent Difference

TABLE B6

COMPLETENESS SUMMARY
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

			Analytical Completeness		Technical Completeness	
Analytical Method	**Analyte**	**Possible Results**	**Qualified Results**	**Percent (%)**	**Rejected Results**	**Percent (%)**
Water						
D5174						
	Uranium, total	7	0	100.0%	0	100.0%
	Total:	7	0	100.0%	0	100.0%

Appendix C
Laboratory Data Validation Report

LABORATORY DATA CONSULTANTS, INC.
601 University Ave., Suite 105, Sacramento, CA 95825 Bus: 916/649-8740 Fax: 916/649-0508

URS Corporation
2870 Gateway Oaks Drive, Suite 300
Sacramento, CA 95833
ATTN: Ms. Debbie Casagrande

May 6, 2012

SUBJECT: Modesto Superfund Site Quality Control Summary Report (QCSR) for Quarterly and Monthly Sampling Events, Staged Electronic Data Deliverables (SEDD) and Automated Data Review (ADR) deliverables - 1st Quarter 2012

Dear Ms. Casagrande,

Enclosed are the Quality Control Summary Report (QCSR), validation worksheets, Staged Electronic Data Deliverables (SEDD) and Automated Data Review (ADR) electronic deliverables for the twelve EPA Region 9 Laboratory's sample delivery groups (SDG) listed below. The SDGs are associated with the sampling period of January 12 to March 8, 2012. Not all of the analytical methods may have been required in each of the laboratory SDGs.

LDC Project #: 22732		
SDG #		**Analytical Methods**
12013A	12013B	EPA Method 524.2 (EPA Region 9 SOP 354, revison 9)
12034A	12034B	EPA Method TO-15 (EPA Region 9 SOP 311, revison 1)
12038B	12038E	SM 2540C (EPA Region 9 SOP 461, revison 6)
12041C	12041C	SM 2540D (EPA Region 9 SOP 462, revison 6)
12048A	12069A	SM 5210B (EPA Region 9 SOP 1133, revison 4)
12069B	12076A	

The data validation was performed in accordance with the criteria specified in the EPA Region 9 Standard Operating Procedures (SOP), as well as the National Functional Guidelines for Superfund Organics Methods Data Review (2008). Where specific guidance was not available, the data have been evaluated in a conservative manner consistent with industry standards using professional experience.

The following QCSR deliverables and supporting documents are contained in this report:

- Sample ID Cross Reference and Data Review Level
- Primary and Field QC Samples by Method
- Detected Target Analytes
- Overall Qualified Results Summary
- Completeness Reports
- Reasons for Qualified Results
- Data Qualification Summary Reports
- Manual Data Validation Review Worksheets and ADR reports

Please feel free to contact us at (916) 649-8740, if you have any questions.

Sincerely,

Kendra DeSantolo

Kendra DeSantolo
Senior Chemist

Laboratory Data Consultants'
Quality Control Summary Report (QCSR)
Modesto Superfund Site
Quarterly and Monthly Sampling Events
Analytical Data for Samples Collected by URS
During the Period of
January 12 to March 8, 2011

Prepared for:

URS Corporation
Crown Corporate Center
2870 Gateway Oaks Drive
Suite 300
Sacramento, CA 95833

Prepared by:

Laboratory Data Consultants, Inc. (LDC)
601 University Avenue, Suite 105
Sacramento, CA 95825

Reported: May 6, 2012

Kendra DeSantolo

Kendra DeSantolo, Senior Chemist
Laboratory Data Consultants, Inc.

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APPENDICES

Appendix A DATA QUALIFICATION SUMMARY REPORTS
Appendix B MANUAL VALIDATION LEVEL III & IV WORKSHEETS AND ADR REPORTS

LIST OF ACRONYMS

ADR	**Automated Data Review**
CA	**California**
DU	**Sample Duplicate**
EPA	**US Environmental Protection Agency**
GW	**Groundwater**
GW	**Groundwater Monitoring Program**
LCS	**Laboratory Control Sample**
LDC	**Laboratory Data Consultants, Inc.**
MDL	**Method Detection Limit**
MS	**Matrix Spike**
MSD	**Matrix Spike Duplicate**
NFG	**National Functional Guidelines**
RL	**Reporting Limit**
ND	**Non-detected**
PCE	**Tetrachloroethene**
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**
SVE	**Soil Vapor Extraction**
URS	**URS Corporation**
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 U.S. Environmental Protection Agency (EPA) Region 9 Laboratory located in Richmond, CA. The Region 9 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 Groundwater Superfund Site, Modesto, California" (SAP), (June 2010, U.S. Army Corps of Engineers, Sacramento District, and URS), as well as the "National Functional Guidelines (NFG) for Superfund Organic Methods Data Review" (EPA 2008) and the "National Functional Guidelines for Inorganic Data Review" (USEPA 2004).

Ninety field samples, ten field duplicates, and six field Quality Control (QC) samples were reported in twelve EPA Region 9 Laboratory's sample delivery groups (SDGs) for the R12S36 Modesto Groundwater (GW) Treatment System Winter 2012 Monthly Sampling and the R11S42 January-February 2012 Quarterly Groundwater Monitoring and Soil Vapor Extraction (SVE) sampling efforts.

The laboratory provided electronic data in Staged Electronic Data Deliverables (SEDD) files. The SEDD deliverable was processed through the Automated Data Review (ADR) program in order to produce SEDD and ADR deliverable formats, as requested by URS. Any resulting data validation qualifiers from ADR have been appended to the SEDD and ADR files.

The laboratory SEDD file provided for SDG 12034A was missing analytical results for field duplicate sample MW-83B-1Q12. Reissued SEDD files for this SDG had other technical issues, which could not be resolved by the laboratory at the time of this report. Therefore, this report addresses sample MW-83B-1Q12 in hardcopy only.

Data review was based primarily on the EPA Region 9 Laboratory's internal control limits specified in the EPA Region 9 Laboratory's SOPs and the "Modesto Groundwater Superfund Site SAP" (June 2010) as well as the NFG for Superfund Organics Methods Data Review (USEPA 2008), using biased qualifiers. In the case where no QC acceptance criteria were specified for this analysis, data were evaluated against the appropriate method references and Standard Methods. Where additional guidance was needed, data were evaluated against QC and data validation criteria provided in the "National Functional Guidelines for Inorganic Data Review" (USEPA 2004), using biased qualifiers. 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 subjected to USEPA Level IV equivalent validation with raw data recalculations, and the remaining 90 percent were subjected to USEPA Level III equivalent validation. All sample results from the sampling period were subjected to automated and manual review through an evaluation of 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 12034B (five samples for volatile organic compounds (VOCs) by EPA 524.2), SDG 12038B (three samples for VOCs by TO-15), and SDG 12041A (one sample for Biochemical Oxygen Demand by SM 5210B, Total Dissolved Solids by Standard Methods (SM) 2450C, and Total Suspended Solids by SM 2450D). There were no significant findings in the Level IV equivalent validation. However, some sample data were qualified based upon the review of the instrument calibration data.

The following items were evaluated by automated review:

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

The evaluation of the associated initial and continuing instrument calibrations, internal standards, sample preservation, field duplicate evaluations, and Level IV recalculations and data verifications from the raw data packages were performed by manual review.

The ADR was performed using bias indicators and reason codes for data qualification, where applicable. 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 validation 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 non-detected (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.
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 and Monthly Sampling Events

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 sampling effort was 92.3%.

- VOCs by EPA Method 524.2 had analytical completeness of 91.4%,
- VOCs by EPA Method TO-15 had analytical completeness of 95.6%,
- Total Dissolved Solids by SM 2450C had analytical completeness of 100.0%,
- Total Suspended Solids by SM 2450D had analytical completeness of 100.0%,
- Biochemical Oxygen Demand by SM 5210B had analytical completeness of 100.0%

If data qualifiers due to trace values were excluded from this calculation, the analytical completeness would be 92.2% for VOCs by EPA Method 524.2 and 96.9% 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 93.0%.

- VOCs by EPA Method 524.2 had contract completeness of 92.3%,
- VOCs by EPA Method TO-15 had contract completeness of 95.6%,
- Total Dissolved Solids by SM 2450C had contract completeness of 100.0%,
- Total Suspended Solids by SM 2450D had contract completeness of 100.0%,
- Biochemical Oxygen Demand by SM 5210B had contract completeness of 100.0%

If data qualifiers due to trace values were excluded from this calculation, the contract completeness would be 93.1% for VOCs by EPA Method 524.2 and 96.9% for VOCs by EPA Method TO-15.

The overall technical completeness (number of non-rejected results divided by the number of reported results) for the sampling effort was 98.7%.

- VOCs by EPA Method 524.2 had technical completeness of 98.4%,
- VOCs by EPA Method TO-15 had technical completeness of 100.0%,
- Total Dissolved Solids by SM 2450C had technical completeness of 100.0%,
- Total Suspended Solids by SM 2450D had technical completeness of 100.0%,
- Biochemical Oxygen Demand by SM 5210B had technical completeness of 100.0%

The analytical, contract compliance and technical completeness reports are in Tables 5, 6, and 7. Appendix A presents a detailed description of the qualified sample 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 91.4%. Thirty of the 3177 sample results were qualified as estimated due to trace values reported between the method detection limit (MDL) and the RL. Sixty-three results for one sample were qualified as rejected due to preservation and holding time non-conformances. One hundred and fifty-six of the reported results were qualified as estimated due to initial calibration non-conformances, and forty were qualified as estimated due to continuing calibration non-conformances. Thirty-four of the reported results were qualified as estimated due to matrix spike/matrix spike duplicate (MS/MSD) recovery outside the control limit and relative percent difference (RPD) above the control limit. Eighteen of the reported results were qualified as estimated due to laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recovery or RPD outside of control limits. Three of the reported results were qualified as non-detected (U) due to acetone and/or chloromethane contamination in trip blank MW-301-1Q12 and field blank MW-401-1Q12. Table 8 lists specific samples and reasons for all qualified results with the exception of results that are not assessed by ADR (internal standards, professional judgment, etc.).

Non-detected results for sample EW-1-0102 were qualified as unusable (R) due to preservation and holding time. The sample had a pH of 4 as measured by the laboratory, and samples with a pH > 2 must be analyzed within seven days. Sample EW-1-0102 was analyzed eight days following collection; therefore, detected results were qualified as estimated (J-) and non-detected results were qualified as unuseable (R).

The MS/MSD analysis for SDG 12013A was performed on field blank sample MW-401-1Q12. The sample was not designated for matrix QC but was assigned by the lab. The MS/MSD showed high recoveries of 1,1,2-trichloro-1,2,2-trifluoroethane and dichlorodifluoromethane; however, the field blank was non-detected for those analytes. No samples were qualified based upon this nonconformance. The field blank matrix is not representative of environmental sample matrices for the project.

The MS/MSD performed on sample EW-1-0202 (SDG 12041A) had sixteen analytes outside of recovery or RPD criteria due to possible spiking issues. The lab noted that pressurized vials may have contributed to the non-conformance.

Additional MS/MSD analyses were performed on designated QC samples EFF-0302 (SDG 12069A), MW-1A-1Q12 (SDG 12034B), and MW-20A-1Q12 (SDG 12038E), which met criteria.

Sample EFF-0102 (SDG 12013A) was listed on the COC with a collection time of 0935 but was labeled with a collection time of 0915.

Several samples were diluted due to high analyte concentrations above the calibration range. Reporting limits for the affected analytes were increased to reflect the dilution factor.

Sample MW-103-0102 was identified as a field duplicate of sample CRB INF-0102 (SDG 12013A). Sample MW-96A-1Q12 was identified as a field duplicate of sample MW-4A-1Q12, sample MW-88A-1Q12 was identified as a field duplicate of sample MW-12A-1Q12, and sample MW-83B-1Q12 was identified as a field duplicate of sample MW-17B-1Q12 (SDGs 12034A and 12034B). Sample MW-71B-1Q12 was identified as a field duplicate of sample MW-29B-1Q12 (SDG 12038E).

No data were qualified based upon field duplicate results, and the differences between the results were within the criteria in Table 2-10 of the SAP.

Volatile Organics by EPA TO-15 (EPA Region 9 SOP 311, revision 2)

The analytical completeness for Volatile Organics by EPA TO-15 was 95.6%. Fourteen of the 1012 sample results were qualified as estimated due to trace values reported between the MDL and the RL. Five of the reported results were qualified as estimated due to initial calibration non-conformances. Twenty-six of the reported results were qualified as estimated due to continuing calibration non-conformances. One of the reported results was qualified as estimated due to LCS recoveries outside of the control limit. Table 8 lists specific samples and reasons for all qualified results.

Several samples were diluted due to high analyte concentrations above the calibration range. Reporting limits for affected analytes were increased to reflect the dilution factor.

Sample SVE-97-1Q12 was identified as a field duplicate of sample SVE-3-1Q12, and sample DP-94A-1Q12 was identified as a field duplicate of sample DP-6A-1Q12 (SDG 12038B). Sample MW-108-0302 was identified as a field duplicate of sample GWTP Pr GAC-0902 (SDG 12069B).

No results were qualified based upon the field duplicate precision. The differences between the results were within the criteria in Table 2-10 of the SAP.

It was noted that the Region 9 laboratory analyzed certain samples with historically high concentrations of tetrachloroethene (PCE) at a higher dilution prior to the undiluted (or less diluted) run. These diluted analytical results may have been labeled as "RE" in the laboratory's summary report. However, in raw data and electronic deliverables, the diluted results were labeled as "initial" results due to the earlier date/time sequence, and the later undiluted results were labeled as reinjections. Reported results were verified to be correct.

Total Dissolved Solids by SM 2540C (EPA Region 9 SOP 461, revision 7)

The analytical completeness for Total Dissolved Solids by SM 2540C was 100.0%.

Sample MW-107-0302 was identified as a field duplicate of sample EFF-0302 (SDG 12069A). No data were qualified based upon the field duplicate result. The differences between the results were within the criteria in Table 2-10 of the SAP.

Total Suspended Solids by SM 2540D (EPA Region 9 SOP 462, revision 7)

The analytical completeness for Total Suspended Solids by SM 2540D was 100.0%.

Sample MW-107-0302 was identified as a field duplicate of sample EFF-0302 (SDG 12076A). No data were qualified based upon the field duplicate result. The differences between the results were within the criteria in Table 2-10 of the SAP.

Biochemical Oxygen Demand by SM 5210B (EPA Region 9 SOP 1133, revision 6)

The analytical completeness for Biochemical Oxygen Demand by SM 5210B was 100.0%.

Sample MW-107-0302 was identified as a field duplicate of sample EFF-0302 (SDG 12076A). No data were qualified based upon the field duplicate result. The differences between the results were within the criteria in Table 2-10 of the SAP.

The cd that has been sent to you contains the following EDD files for the Modesto Superfund Site Q1-2012 Sampling report:

SDG# or File Name	Format	Description
1) Readme_URS Modesto_EDDs_050612.doc	MS Word 2007	A "Readme" file (this document).
2) 12013A	SEDD & ADR	ADR & SEDD Stage 2a file(s) with data validation qualifiers
3) 12013B	SEDD & ADR	ADR & SEDD Stage 2a file(s) with data validation qualifiers
4) 12034A	SEDD & ADR	ADR & SEDD Stage 2a file(s) with data validation qualifiers
5) 12034B	SEDD & ADR	ADR & SEDD Stage 2a file(s) with data validation qualifiers
6) 12038B	SEDD & ADR	ADR & SEDD Stage 2a file(s) with data validation qualifiers
7) 12038E	SEDD & ADR	ADR & SEDD Stage 2a file(s) with data validation qualifiers
8) 12041A	SEDD & ADR	ADR & SEDD Stage 2a file(s) with data validation qualifiers
9) 12041C	SEDD & ADR	ADR & SEDD Stage 2a file(s) with data validation qualifiers
10) 12048A	SEDD & ADR	ADR & SEDD Stage 2a file(s) with data validation qualifiers
11) 12069A	SEDD & ADR	ADR & SEDD Stage 2a file(s) with data validation qualifiers
12) 12069B	SEDD & ADR	ADR & SEDD Stage 2a file(s) with data validation qualifiers
13) 12076A	SEDD & ADR	ADR & SEDD Stage 2a file(s) with data validation qualifiers
14) GENERAL_Reviewed_2a_1.dtd	SEDD dtd file	SEDD dtd file (reviewed)

LDC observed the following characteristics or discrepancies when reviewing hardcopy data packages and the electronic data deliverables:

SDG	**Analytical Method**	**Discrepancy or Finding**	**LDC's approach to the discrepancy or finding**
12013A 12013B1 12069A 12076A	SM2540C SM2540D SM5210B	Standard_Reference_Material – this QC type will not be recognized by ADR as a laboratory control sample.	Changed QC type from "Standard_Reference_Material" to Laboratory_Control_Sample.
12013B 12038B 12041A 12041C 12048A 12069A 12069B 12076A	SM2540C SM2540D TO-15	Where DUP sample and parent sample are both non-detected for an analyte and the RPD field is empty, ADR will generate an error.	Any empty RPD fields were populated with "0".

Please contact Kendra DeSantolo at (916) 649-8740 if you have any questions regarding this electronic data submittal.

Table 1

Sample ID Cross Reference

Table 1: Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
12-Jan-2012	MW-401-1Q12	1201017-08	FB	5030B	524.2	III
12-Jan-2012	MW-401-1Q12MS	B2A0038-MS1	MS	5030B	524.2	III
12-Jan-2012	MW-401-1Q12MSD	B2A0038-MSD1	MSD	5030B	524.2	III
12-Jan-2012	MW-301-1Q12	1201017-07	TB	5030B	524.2	III
12-Jan-2012	EFF-0102	1201017-04	N	5030B	524.2	III
12-Jan-2012	EFF-0102	1201017-04	N	None	2540C	III
12-Jan-2012	EFF-0102	1201017-04	N	None	2540D	III
12-Jan-2012	EFF-0102	1201017-04	N	None	5210B	III
12-Jan-2012	EFF-0102DUP	B2A0028-DUP1	DUP	None	2540C	III
12-Jan-2012	EFF-0102DUP	B2A0028-DUP2	DUP	None	2540D	III
12-Jan-2012	CRB EFF-0102	1201017-01	N	5030B	524.2	III
12-Jan-2012	CRB Mid-0102	1201017-03	N	5030B	524.2	III
12-Jan-2012	CRB INF-0102	1201017-02	N	5030B	524.2	III
12-Jan-2012	MW-103-0102	1201017-06	FD	5030B	524.2	III
12-Jan-2012	EW-1-0102	1201017-05	N	5030B	524.2	III
12-Jan-2012	GWTP Stack-0102	1201018-02	N	None	TO-15	III
12-Jan-2012	GWTP Stack-0102DUP	B2A0035-DUP2	DUP	None	TO-15	III
12-Jan-2012	GWTP Pr GAC-0102	1201018-01	N	None	TO-15	III
12-Jan-2012	SVE Stack-0102	1201018-04	N	None	TO-15	III
12-Jan-2012	SVE Pre GAC-0102	1201018-03	N	None	TO-15	III
30-Jan-2012	MW-19A-1Q12	1202010-01	N	5030B	524.2	III
30-Jan-2012	MW-19B-1Q12	1202010-02	N	5030B	524.2	III
30-Jan-2012	MW-10B-1Q12	1202010-06	N	5030B	524.2	III
31-Jan-2012	MW-302-1Q12	1202010-16	TB	5030B	524.2	III
31-Jan-2012	MW-10C-1Q12	1202010-07	N	5030B	524.2	III
31-Jan-2012	MW-8A-1Q12	1202009-15	N	5030B	524.2	III

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
31-Jan-2012	MW-27B-1Q12	1202009-06	N	5030B	524.2	III
31-Jan-2012	MW-9B-1Q12	1202009-17	N	5030B	524.2	III
31-Jan-2012	MW-26B-1Q12	1202009-05	N	5030B	524.2	III
31-Jan-2012	MW-1A-1Q12	1202010-03	N	5030B	524.2	IV
31-Jan-2012	MW-1A-1Q12MS	B2B0052-MS2	MS	5030B	524.2	III
31-Jan-2012	MW-1A-1Q12MSD	B2B0052-MSD2	MSD	5030B	524.2	III
31-Jan-2012	MW-88A-1Q12	1202009-14	FD	5030B	524.2	III
31-Jan-2012	MW-2A-1Q12	1202009-08	N	5030B	524.2	III
31-Jan-2012	MW-5A-1Q12	1202009-10	N	5030B	524.2	III
31-Jan-2012	MW-16A-1Q12	1202010-13	N	5030B	524.2	III
31-Jan-2012	MW-11A-1Q12	1202010-08	N	5030B	524.2	IV
31-Jan-2012	MW-16C-1Q12	1202010-15	N	5030B	524.2	III
31-Jan-2012	MW-14A-1Q12	1202010-11	N	5030B	524.2	IV
31-Jan-2012	MW-16B-1Q12	1202010-14	N	5030B	524.2	IV
31-Jan-2012	MW-12A-1Q12	1202010-09	N	5030B	524.2	IV
01-Feb-2012	MW-13A-1Q12	1202010-10	N	5030B	524.2	III
01-Feb-2012	MW-23A-1Q12	1202009-02	N	5030B	524.2	III
01-Feb-2012	MW-15A-1Q12	1202010-12	N	5030B	524.2	III
01-Feb-2012	MW-7A-1Q12	1202009-12	N	5030B	524.2	III
01-Feb-2012	MW-28B-1Q12	1202009-07	N	5030B	524.2	III
01-Feb-2012	MW-4A-1Q12	1202009-09	N	5030B	524.2	III
01-Feb-2012	MW-17A-1Q12	1202009-18	N	5030B	524.2	III
01-Feb-2012	MW-96A-1Q12	1202009-16	FD	5030B	524.2	III
01-Feb-2012	MW-10A-1Q12	1202010-05	N	5030B	524.2	III
01-Feb-2012	MW-17C-1Q12	1202009-20	N	5030B	524.2	III
01-Feb-2012	MW-17C-1Q12MS	B2B0062-MS1	MS	5030B	524.2	III

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
01-Feb-2012	MW-17C-1Q12MSD	B2B0062-MSD1	MSD	5030B	524.2	III
01-Feb-2012	MW-6A-1Q12	1202009-11	N	5030B	524.2	III
01-Feb-2012	MW-17B-1Q12	1202009-19	N	5030B	524.2	III
01-Feb-2012	MW-25B-1Q12	1202009-04	N	5030B	524.2	III
01-Feb-2012	MW-21A-1Q12	1202010-04	N	5030B	524.2	III
01-Feb-2012	MW-402-1Q12	1202010-17	FB	5030B	524.2	III
01-Feb-2012	MW-22A-1Q12	1202009-01	N	5030B	524.2	III
02-Feb-2012	SVE-1-1Q12	1202016-10	N	None	TO-15	IV
02-Feb-2012	MW-24B-1Q12	1202009-03	N	5030B	524.2	III
02-Feb-2012	DP-1A-1Q12	1202016-01	N	None	TO-15	III
02-Feb-2012	DP-1B-1Q12	1202016-02	N	None	TO-15	III
02-Feb-2012	SVE-2-1Q12	1202016-11	N	None	TO-15	III
02-Feb-2012	SVE-3-1Q12	1202016-12	N	None	TO-15	III
02-Feb-2012	SVE-4-1Q12	1202016-13	N	None	TO-15	IV
02-Feb-2012	DP-5A-1Q12	1202016-03	N	None	TO-15	III
02-Feb-2012	DP-5B-1Q12	1202016-04	N	None	TO-15	III
02-Feb-2012	DP-94A-1Q12	1202016-07	FD	None	TO-15	III
02-Feb-2012	SVE-97-1Q12	1202016-14	FD	None	TO-15	III
02-Feb-2012	SVE-97-1Q12DUP	B2B0028-DUP1	DUP	None	TO-15	III
02-Feb-2012	DP-6A-1Q12	1202016-05	N	None	TO-15	III
02-Feb-2012	DP-6B-1Q12	1202016-06	N	None	TO-15	III
02-Feb-2012	MW-18A-1Q12	1202019-06	N	5030B	524.2	III
02-Feb-2012	MW-29B-1Q12	1202019-01	N	5030B	524.2	III
02-Feb-2012	MW-71B-1Q12	1202019-05	FD	5030B	524.2	III
02-Feb-2012	OSVE-11-1Q12	1202016-09	N	None	TO-15	IV
02-Feb-2012	OSVE-10-1Q12	1202016-08	N	None	TO-15	III

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Table 1: Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
02-Feb-2012	MW-4C-1Q12	1202019-04	N	5030B	524.2	III
02-Feb-2012	MW-4B-1Q12	1202019-03	N	5030B	524.2	III
03-Feb-2012	MW-20C-1Q12	1202019-09	N	5030B	524.2	III
03-Feb-2012	MW-20B-1Q12	1202019-08	N	5030B	524.2	III
03-Feb-2012	MW-20A-1Q12	1202019-07	N	5030B	524.2	III
03-Feb-2012	MW-20A-1Q12MS	B2B0078-MS1	MS	5030B	524.2	III
03-Feb-2012	MW-20A-1Q12MSD	B2B0078-MSD1	MSD	5030B	524.2	III
03-Feb-2012	MW-3A-1Q12	1202019-02	N	5030B	524.2	III
09-Feb-2012	MW-303-1Q12	1202029-03	TB	5030B	524.2	III
09-Feb-2012	EFF-0202	1202029-01	N	5030B	524.2	III
09-Feb-2012	EFF-0202	1202029-01	N	None	2540C	IV
09-Feb-2012	EFF-0202	1202029-01	N	None	2540D	IV
09-Feb-2012	EFF-0202	1202029-01	N	None	5210B	IV
09-Feb-2012	EFF-0202DUP	B2B0055-DUP1	DUP	None	2540C	III
09-Feb-2012	EFF-0202DUP	B2B0055-DUP2	DUP	None	2540D	III
09-Feb-2012	EW-1-0202	1202029-02	N	5030B	524.2	III
09-Feb-2012	EW-1-0202MS	B2B0074-MS2	MS	5030B	524.2	III
09-Feb-2012	EW-1-0202MSD	B2B0074-MSD2	MSD	5030B	524.2	III
09-Feb-2012	GWTP Stack-0202	1202032-01	N	None	TO-15	III
09-Feb-2012	GWTP Stack-0202DUP	B2B0082-DUP1	DUP	None	TO-15	III
09-Feb-2012	SVE Stack-0202	1202032-03	N	None	TO-15	III
09-Feb-2012	SVE Pre GAC-0202	1202032-02	N	None	TO-15	III
16-Feb-2012	GWTPPrGWC-0203	1202048-01	N	None	TO-15	III
16-Feb-2012	GWTPPrGWC-0203DUP	B2C0005-DUP1	DUP	None	TO-15	III
08-Mar-2012	MW-304-1Q12	1203025-04	TB	5030B	524.2	III
08-Mar-2012	EFF-0302	1203025-01	N	5030B	524.2	III

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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
08-Mar-2012	EFF-0302	1203025-01	N	None	2540C	III
08-Mar-2012	EFF-0302MS	B2C0053-MS1	MS	5030B	524.2	III
08-Mar-2012	EFF-0302MSD	B2C0053-MSD1	MSD	5030B	524.2	III
08-Mar-2012	EFF-0302DUP	B2C0054-DUP1	DUP	None	2540C	III
08-Mar-2012	MW-107-0302	1203025-03	FD	None	2540C	III
08-Mar-2012	EW-1-0302	1203025-02	N	5030B	524.2	III
08-Mar-2012	GWTP Pr GAC-0302	1203026-01	N	None	TO-15	III
08-Mar-2012	GWTP Pr GAC-0302DUP	B2C0075-DUP1	DUP	None	TO-15	III
08-Mar-2012	MW-108-0302	1203026-03	FD	None	TO-15	III
08-Mar-2012	GWTP Stack-0302	1203026-02	N	None	TO-15	III
08-Mar-2012	SVE Pre GAC-0302	1203026-04	N	None	TO-15	III
08-Mar-2012	SVE Stack-0302	1203026-05	N	None	TO-15	III
15-Mar-2012	EFF-0302	1203041-01	N	None	2540D	III
15-Mar-2012	EFF-0302	1203041-01	N	None	5210B	III
15-Mar-2012	EFF-0302DUP	B2C0080-DUP1	DUP	None	2540D	III
15-Mar-2012	MW-107-0302	1203041-02	FD	None	2540D	III
15-Mar-2012	MW-107-0302	1203041-02	FD	None	5210B	III

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Table 2

Primary and Field QC Samples by Method

Table 2: Primary and Field QC Samples by Method

Analytical Method	Matrix	Primary Samples	Field Duplicates	Trip Blanks	Equipment Blanks	Field Blanks
2540C	Water	3	1	None	None	None
2540D	Water	3	1	None	None	None
5210B	Water	3	1	None	None	None
524.2	Water	49	4	4	None	2
TO-15	Air	24	3	None	None	None

Table 3

Detected Target Analytes

Table 3: Detected Target Analytes

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Units
SDG: 12013A								
2540C	EFF-0102	Water	N					
				TOTAL DISSOLVED SOLIDS	20	646		mg/L
5210B	EFF-0102	Water	N					
				Biochemical Oxygen Demand	2.0	2.0		mg/L
524.2	CRB INF-0102	Water	N					
				TETRACHLOROETHENE	0.5	0.4J		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: 12013A								
524.2	EW-1-0102	Water	N					
				1,1,1,2-TETRACHLOROETHANE	0.5	0.5R		ug/L
				1,1,1-TRICHLOROETHANE	0.5	0.5R		ug/L
				1,1,2,2-TETRACHLOROETHANE	0.5	0.5R		ug/L
				1,1,2-TRICHLORO-1,2,2-TRIFLUOROET	0.5	0.5R		ug/L
				1,1,2-TRICHLOROETHANE	0.5	0.5R		ug/L
				1,1-DICHLOROETHANE	0.5	0.5R		ug/L
				1,1-DICHLOROETHENE	0.5	0.5R		ug/L
				1,1-DICHLOROPROPENE	0.5	0.5R		ug/L
				1,2,3-TRICHLOROBENZENE	0.5	0.5R		ug/L
				1,2,3-TRICHLOROPROPANE	0.5	0.5R		ug/L
				1,2,4-TRICHLOROBENZENE	0.5	0.5R		ug/L
				1,2,4-TRIMETHYLBENZENE	0.5	0.5R		ug/L
				1,2-DIBROMO-3-CHLOROPROPANE	2.0	2.0R		ug/L
				1,2-DIBROMOETHANE	0.5	0.5R		ug/L
				1,2-DICHLOROBENZENE	0.5	0.5R		ug/L
				1,2-DICHLOROETHANE	0.5	0.5R		ug/L
				1,2-DICHLOROPROPANE	0.5	0.5R		ug/L
				1,3,5-TRIMETHYLBENZENE	0.5	0.5R		ug/L
				1,3-DICHLOROBENZENE	0.5	0.5R		ug/L
				1,3-DICHLOROPROPANE	0.5	0.5R		ug/L
				1,4-DICHLOROBENZENE	0.5	0.5R		ug/L
				2,2-DICHLOROPROPANE	0.5	0.5R		ug/L
				2-BUTANONE	4.0	4.0R		ug/L
				2-CHLOROTOLUENE	0.5	0.5R		ug/L
				4-CHLOROTOLUENE	0.5	0.5R		ug/L
				ACETONE	4.0	4.0R		ug/L
				BENZENE	0.5	0.5R		ug/L
				BROMOBENZENE	0.5	0.5R		ug/L
				BROMOCHLOROMETHANE	0.5	0.5R		ug/L
				BROMODICHLOROMETHANE	0.5	0.5R		ug/L
				BROMOFORM	0.5	0.5R		ug/L
				BROMOMETHANE	0.5	0.5R		ug/L
				CARBON TETRACHLORIDE	0.5	0.5R		ug/L
				CHLOROBENZENE	0.5	0.5R		ug/L
				CHLOROETHANE	0.5	0.5R		ug/L
				CHLOROFORM	0.5	3.5J-		ug/L
				CHLOROMETHANE	0.5	0.5R		ug/L
				CIS-1,2-DICHLOROETHENE	0.5	0.5R		ug/L
				CIS-1,3-DICHLOROPROPENE	0.5	0.5R		ug/L
				DIBROMOCHLOROMETHANE	0.5	0.5R		ug/L
				DIBROMOMETHANE	0.5	0.5R		ug/L
				DICHLORODIFLUOROMETHANE	0.5	0.5R		ug/L
				ETHYLBENZENE	0.5	0.5R		ug/L
				HEXACHLOROBUTADIENE	0.5	0.5R		ug/L

**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 3: Detected Target Analytes

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Units
SDG: 12013A								
				ISOPROPYLBENZENE	0.5	0.5R		ug/L
				m&p-Xylene	1.0	1.0R		ug/L
				METHYL TERT-BUTYL ETHER	2.0	2.0R		ug/L
				METHYLENE CHLORIDE	0.5	0.5R		ug/L
				NAPHTHALENE	0.5	0.5R		ug/L
				N-BUTYLBENZENE	0.5	0.5R		ug/L
				N-PROPYLBENZENE	0.5	0.5R		ug/L
				O-XYLENE	0.5	0.5R		ug/L
				P-ISOPROPYLTOLUENE	0.5	0.5R		ug/L
				SEC-BUTYLBENZENE	0.5	0.5R		ug/L
				STYRENE	0.5	0.5R		ug/L
				TERT-BUTYLBENZENE	0.5	0.5R		ug/L
				TETRACHLOROETHENE	5.0	140J-		ug/L
				TOLUENE	0.5	0.5R		ug/L
				TRANS-1,2-DICHLOROETHENE	0.5	0.5R		ug/L
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5R		ug/L
				TRICHLOROETHENE	0.5	0.5R		ug/L
				TRICHLOROFLUOROMETHANE	0.5	0.5R		ug/L
				VINYL CHLORIDE	0.5	0.5R		ug/L
524.2	MW-103-0102	Water	FD					
				TETRACHLOROETHENE	0.5	0.3J		ug/L
524.2	MW-401-1Q12	Water	FB					
				CHLOROMETHANE	0.5	0.3J		ug/L
SDG: 12013B								
TO-15	GWTP Pr GAC-0102	Air	N					
				CHLOROFORM	2.2	7.8		ppbv
				TETRACHLOROETHENE	22	270		ppbv
TO-15	GWTP Stack-0102	Air	N					
				BENZENE	2.2	1.7J		ppbv
				CHLOROFORM	2.2	6.7		ppbv
				CHLOROMETHANE	2.2	1.5J		ppbv
				TETRACHLOROETHENE	22	220		ppbv
TO-15	SVE Pre GAC-0102	Air	N					
				CHLOROFORM	2.2	1.2J		ppbv
				TETRACHLOROETHENE	2.2	9.3		ppbv
TO-15	SVE Stack-0102	Air	N					
				CHLOROFORM	2.2	20		ppbv
				CIS-1,2-DICHLOROETHENE	2.2	1.4J		ppbv
				TETRACHLOROETHENE	2.2	6.1		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 3: Detected Target Analytes

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Units
SDG: 12034A								
524.2	MW-17A-1Q12	Water	N					
				BENZENE	0.5	0.2J		ug/L
				BROMODICHLOROMETHANE	0.5	0.3J		ug/L
				CHLOROFORM	0.5	5.3		ug/L
				TETRACHLOROETHENE	0.5	0.8		ug/L
524.2	MW-17B-1Q12	Water	N					
				CHLOROFORM	0.5	0.2J		ug/L
				TETRACHLOROETHENE	5.0	73		ug/L
524.2	MW-22A-1Q12	Water	N					
				BROMODICHLOROMETHANE	0.5	0.2J		ug/L
				CHLOROFORM	0.5	5.7		ug/L
524.2	MW-23A-1Q12	Water	N					
				CHLOROFORM	0.5	3.1		ug/L
				TETRACHLOROETHENE	2.5	25		ug/L
524.2	MW-24B-1Q12	Water	N					
				TETRACHLOROETHENE	5.0	74		ug/L
524.2	MW-25B-1Q12	Water	N					
				TETRACHLOROETHENE	5.0	110		ug/L
524.2	MW-26B-1Q12	Water	N					
				CHLOROFORM	0.5	0.3J		ug/L
524.2	MW-28B-1Q12	Water	N					
				TETRACHLOROETHENE	2.5	41		ug/L
524.2	MW-2A-1Q12	Water	N					
				CHLOROFORM	0.5	2.1		ug/L
				TETRACHLOROETHENE	0.5	3.8		ug/L
524.2	MW-4A-1Q12	Water	N					
				CIS-1,2-DICHLOROETHENE	5.0	73		ug/L
				TETRACHLOROETHENE	5.0	130		ug/L
				TRICHLOROETHENE	0.5	7.2		ug/L
524.2	MW-5A-1Q12	Water	N					
				TETRACHLOROETHENE	2.5	120		ug/L
524.2	MW-6A-1Q12	Water	N					
				BROMODICHLOROMETHANE	0.5	0.3J		ug/L
				CHLOROFORM	0.5	6.4		ug/L
				TETRACHLOROETHENE	0.5	5.8		ug/L
524.2	MW-7A-1Q12	Water	N					
				CHLOROFORM	0.5	1.2		ug/L
524.2	MW-88A-1Q12	Water	FD					
				BROMODICHLOROMETHANE	0.5	0.3J		ug/L
				CHLOROFORM	0.5	6.6		ug/L
				TETRACHLOROETHENE	0.5	15		ug/L
				TRICHLOROFLUOROMETHANE	0.5	0.3J		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: 12034A								
524.2	MW-8A-1Q12	Water	N					
				BROMODICHLOROMETHANE	0.5	0.2J		ug/L
				CHLOROFORM	0.5	5.3		ug/L
				TETRACHLOROETHENE	1.0	25		ug/L
524.2	MW-96A-1Q12	Water	FD					
				CIS-1,2-DICHLOROETHENE	10	60		ug/L
				TETRACHLOROETHENE	10	95		ug/L
				TRICHLOROETHENE	0.5	6.7		ug/L
524.2	MW-9B-1Q12	Water	N					
				TETRACHLOROETHENE	0.5	4.1		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: 12034B								
524.2	MW-10A-1Q12	Water	N					
				BROMODICHLOROMETHANE	0.5	0.2J		ug/L
				CHLOROFORM	0.5	5.1		ug/L
				TETRACHLOROETHENE	2.5	34		ug/L
524.2	MW-10B-1Q12	Water	N					
				1,2,4-TRIMETHYLBENZENE	0.5	0.3J		ug/L
				BENZENE	0.5	1.9		ug/L
				CARBON TETRACHLORIDE	0.5	0.4J		ug/L
				ETHYLBENZENE	0.5	0.6		ug/L
				m&p-Xylene	1.0	1.3		ug/L
				O-XYLENE	0.5	0.4J		ug/L
				TETRACHLOROETHENE	0.5	14		ug/L
				TOLUENE	0.5	0.3J		ug/L
524.2	MW-11A-1Q12	Water	N					
				CHLOROFORM	0.5	4.9		ug/L
				TETRACHLOROETHENE	0.5	1.8		ug/L
524.2	MW-12A-1Q12	Water	N					
				BROMODICHLOROMETHANE	0.5	0.4J		ug/L
				CHLOROFORM	0.5	7.7		ug/L
				TETRACHLOROETHENE	0.5	16		ug/L
				TRICHLOROFLUOROMETHANE	0.5	0.3J		ug/L
524.2	MW-13A-1Q12	Water	N					
				CHLOROFORM	0.5	3.5		ug/L
				TETRACHLOROETHENE	0.5	4.5		ug/L
524.2	MW-14A-1Q12	Water	N					
				CHLOROFORM	0.5	0.4J		ug/L
				TETRACHLOROETHENE	0.5	23		ug/L
524.2	MW-15A-1Q12	Water	N					
				CHLOROFORM	0.5	0.3J		ug/L
524.2	MW-16A-1Q12	Water	N					
				BENZENE	0.5	0.5		ug/L
				CHLOROFORM	0.5	0.8		ug/L
				ETHYLBENZENE	0.5	0.2J		ug/L
524.2	MW-16B-1Q12	Water	N					
				CHLOROFORM	0.5	1.6		ug/L
				TETRACHLOROETHENE	0.5	1.9		ug/L
524.2	MW-16C-1Q12	Water	N					
				BENZENE	0.5	0.3J		ug/L
524.2	MW-19A-1Q12	Water	N					
				CHLOROFORM	0.5	1.5		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: 12034B								
524.2	MW-19B-1Q12	Water	N					
				1,2,4-TRIMETHYLBENZENE	0.5	0.2J		ug/L
				BENZENE	0.5	0.7		ug/L
				ETHYLBENZENE	0.5	0.4J		ug/L
				m&p-Xylene	1.0	0.8J		ug/L
				O-XYLENE	0.5	0.2J		ug/L
				TETRACHLOROETHENE	0.5	0.2J		ug/L
				TOLUENE	0.5	0.2J		ug/L
524.2	MW-1A-1Q12	Water	N					
				CHLOROFORM	0.5	0.2J		ug/L
				TETRACHLOROETHENE	0.5	1.2J		ug/L
524.2	MW-21A-1Q12	Water	N					
				BENZENE	0.5	0.2J		ug/L
				CHLOROFORM	0.5	5.0		ug/L
				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: 12038B								
TO-15	DP-1A-1Q12	Air	N					
				TETRACHLOROETHENE	2.2	4.6		ppbv
				TOLUENE	2.2	1.2J		ppbv
TO-15	DP-1B-1Q12	Air	N					
				TETRACHLOROETHENE	2.2	2.4		ppbv
TO-15	DP-5A-1Q12	Air	N					
				CHLOROMETHANE	2.0	1.8J		ppbv
TO-15	DP-5B-1Q12	Air	N					
				CHLOROFORM	2.1	13		ppbv
				METHYLENE CHLORIDE	2.1	1.5J		ppbv
				TETRACHLOROETHENE	2.1	5.0		ppbv
TO-15	DP-6A-1Q12	Air	N					
				TETRACHLOROETHENE	2.1	29		ppbv
TO-15	DP-94A-1Q12	Air	FD					
				TETRACHLOROETHENE	2.2	31		ppbv
TO-15	OSVE-10-1Q12	Air	N					
				TETRACHLOROETHENE	22	89		ppbv
				TOLUENE	2.2	2.0J		ppbv
TO-15	OSVE-11-1Q12	Air	N					
				TETRACHLOROETHENE	2.2	5.6		ppbv
TO-15	SVE-1-1Q12	Air	N					
				1,2-DICHLOROBENZENE	2.2	3.4		ppbv
				TETRACHLOROETHENE	2.2	6.1		ppbv
TO-15	SVE-2-1Q12	Air	N					
				TETRACHLOROETHENE	21	180		ppbv
				TRICHLOROETHENE	2.1	1.3J		ppbv
TO-15	SVE-3-1Q12	Air	N					
				TETRACHLOROETHENE	20	140		ppbv
TO-15	SVE-4-1Q12	Air	N					
				CHLOROFORM	2.0	25		ppbv
				TETRACHLOROETHENE	2.0	17		ppbv
TO-15	SVE-97-1Q12	Air	FD					
				TETRACHLOROETHENE	20	130		ppbv

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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: 12038E								
524.2	MW-18A-1Q12	Water	N					
				CHLOROFORM	0.5	4.3		ug/L
				TETRACHLOROETHENE	0.5	3.8		ug/L
524.2	MW-20A-1Q12	Water	N					
				BROMODICHLOROMETHANE	0.5	0.2J		ug/L
				CHLOROFORM	0.5	7.4		ug/L
				DICHLORODIFLUOROMETHANE	0.5	7.7J+		ug/L
				TETRACHLOROETHENE	10	270J		ug/L
				TRICHLOROETHENE	0.5	0.2J		ug/L
524.2	MW-20B-1Q12	Water	N					
				TETRACHLOROETHENE	5.0	68		ug/L
524.2	MW-29B-1Q12	Water	N					
				TETRACHLOROETHENE	5.0	100		ug/L
524.2	MW-3A-1Q12	Water	N					
				CHLOROFORM	0.5	1.9		ug/L
				TETRACHLOROETHENE	5.0	47		ug/L
524.2	MW-4B-1Q12	Water	N					
				TETRACHLOROETHENE	0.5	7.7		ug/L
524.2	MW-71B-1Q12	Water	FD					
				TETRACHLOROETHENE	5.0	79		ug/L
SDG: 12041A								
2540C	EFF-0202	Water	N					
				TOTAL DISSOLVED SOLIDS	20	660		mg/L
5210B	EFF-0202	Water	N					
				Biochemical Oxygen Demand	2.0	2.0		mg/L
524.2	EW-1-0202	Water	N					
				CHLOROFORM	0.5	3.0		ug/L
				TETRACHLOROETHENE	5.0	150J+		ug/L
SDG: 12041C								
TO-15	GWTP Stack-0202	Air	N					
				BENZENE	2.3	2.0J		ppbv
				CHLOROFORM	2.3	6.2		ppbv
				TETRACHLOROETHENE	23	260		ppbv
TO-15	SVE Pre GAC-0202	Air	N					
				CHLOROFORM	2.2	3.6		ppbv
				METHYLENE CHLORIDE	2.2	1.1J		ppbv
				TETRACHLOROETHENE	2.2	30		ppbv
TO-15	SVE Stack-0202	Air	N					
				CHLOROFORM	2.3	19		ppbv
				CIS-1,2-DICHLOROETHENE	2.3	1.2J		ppbv
				TETRACHLOROETHENE	2.3	2.9		ppbv

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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: 12048A								
TO-15	GWTPPrGWC-0203	Air	N					
				CHLOROFORM	2.2	7.0		ppbv
				TETRACHLOROETHENE	22	290		ppbv
SDG: 12069A								
2540C	EFF-0302	Water	N					
				TOTAL DISSOLVED SOLIDS	20	640		mg/L
2540C	MW-107-0302	Water	FD					
				TOTAL DISSOLVED SOLIDS	20	650		mg/L
524.2	EW-1-0302	Water	N					
				CHLOROFORM	0.5	2.9		ug/L
				TETRACHLOROETHENE	5.0	120		ug/L
SDG: 12069B								
TO-15	GWTP Pr GAC-0302	Air	N					
				CHLOROFORM	2.0	7.2		ppbv
				TETRACHLOROETHENE	20	270		ppbv
TO-15	GWTP Stack-0302	Air	N					
				BENZENE	2.2	4.8		ppbv
				CHLOROFORM	2.2	6.0		ppbv
				TETRACHLOROETHENE	22	240		ppbv
TO-15	MW-108-0302	Air	FD					
				CHLOROFORM	2.2	7.7		ppbv
				TETRACHLOROETHENE	22	220		ppbv
TO-15	SVE Pre GAC-0302	Air	N					
				CHLOROFORM	2.2	3.9		ppbv
				CHLOROMETHANE	2.2	1.3J		ppbv
				TETRACHLOROETHENE	2.2	39		ppbv
TO-15	SVE Stack-0302	Air	N					
				CHLOROFORM	2.1	18		ppbv
				CIS-1,2-DICHLOROETHENE	2.1	1.2J		ppbv
				TETRACHLOROETHENE	2.1	2.4		ppbv
SDG: 12076A								
5210B	EFF-0302	Water	N					
				Biochemical Oxygen Demand	2.0	2.4		mg/L
5210B	MW-107-0302	Water	FD					
				Biochemical Oxygen Demand	2.0	2.4		mg/L

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Table 4

Overall Qualified Results

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: 12013A										
524.2	CRB EFF-0102	Water	N							
				BROMOFORM	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				CHLOROMETHANE	0.5	0.5		U	ug/L	Fb
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
524.2	CRB INF-0102	Water	N							
				BROMOFORM	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TETRACHLOROETHENE	0.5	0.4J,C1		J	ug/L	Rl
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
524.2	CRB Mid-0102	Water	N							
				BROMOFORM	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
524.2	EFF-0102	Water	N							
				BROMOFORM	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd

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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: 12013A										
524.2	EW-1-0102	Water	N							
				1,1,1,2-TETRACHLOROETHANE	0.5	0.5U		R	ug/L	Preservati
				1,1,1-TRICHLOROETHANE	0.5	0.5U		R	ug/L	Preservati
				1,1,2,2-TETRACHLOROETHANE	0.5	0.5U		R	ug/L	Preservati
				1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	0.5	0.5U		R	ug/L	Preservati
				1,1,2-TRICHLOROETHANE	0.5	0.5U		R	ug/L	Preservati
				1,1-DICHLOROETHANE	0.5	0.5U		R	ug/L	Preservati
				1,1-DICHLOROETHENE	0.5	0.5U		R	ug/L	Preservati
				1,1-DICHLOROPROPENE	0.5	0.5U		R	ug/L	Preservati
				1,2,3-TRICHLOROBENZENE	0.5	0.5U		R	ug/L	Preservati
				1,2,3-TRICHLOROPROPANE	0.5	0.5U		R	ug/L	Preservati
				1,2,4-TRICHLOROBENZENE	0.5	0.5U		R	ug/L	Preservati
				1,2,4-TRIMETHYLBENZENE	0.5	0.5U		R	ug/L	Preservati
				1,2-DIBROMO-3-CHLOROPROPANE	2.0	2.0U		R	ug/L	Preservati
				1,2-DIBROMOETHANE	0.5	0.5U		R	ug/L	Preservati
				1,2-DICHLOROBENZENE	0.5	0.5U		R	ug/L	Preservati
				1,2-DICHLOROETHANE	0.5	0.5U		R	ug/L	Preservati
				1,2-DICHLOROPROPANE	0.5	0.5U		R	ug/L	Preservati
				1,3,5-TRIMETHYLBENZENE	0.5	0.5U		R	ug/L	Preservati
				1,3-DICHLOROBENZENE	0.5	0.5U		R	ug/L	Preservati
				1,3-DICHLOROPROPANE	0.5	0.5U		R	ug/L	Preservati
				1,4-DICHLOROBENZENE	0.5	0.5U		R	ug/L	Preservati
				2,2-DICHLOROPROPANE	0.5	0.5U		R	ug/L	Preservati
				2-BUTANONE	4.0	4.0U		R	ug/L	Preservati
				2-CHLOROTOLUENE	0.5	0.5U		R	ug/L	Preservati
				4-CHLOROTOLUENE	0.5	0.5U		R	ug/L	Preservati
				ACETONE	4.0	4.0U		R	ug/L	Preservati
				BENZENE	0.5	0.5U		R	ug/L	Preservati
				BROMOBENZENE	0.5	0.5U		R	ug/L	Preservati
				BROMOCHLOROMETHANE	0.5	0.5U		R	ug/L	Preservati
				BROMODICHLOROMETHANE	0.5	0.5U		R	ug/L	Preservati

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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: 12013A										
				BROMOFORM	0.5	0.5J,U,C3		R	ug/L	Preservati
				BROMOMETHANE	0.5	0.5U		R	ug/L	Preservati
				CARBON TETRACHLORIDE	0.5	0.5U		R	ug/L	Preservati
				CHLOROBENZENE	0.5	0.5U		R	ug/L	Preservati
				CHLOROETHANE	0.5	0.5U		R	ug/L	Preservati
				CHLOROFORM	0.5	3.5		J-	ug/L	Preservati
				CHLOROMETHANE	0.5	0.5U		R	ug/L	Preservati
				CIS-1,2-DICHLOROETHENE	0.5	0.5U		R	ug/L	Preservati
				CIS-1,3-DICHLOROPROPENE	0.5	0.5U		R	ug/L	Preservati
				DIBROMOCHLOROMETHANE	0.5	0.5U		R	ug/L	Preservati
				DIBROMOMETHANE	0.5	0.5U		R	ug/L	Preservati
				DICHLORODIFLUOROMETHANE	0.5	0.5U		R	ug/L	Preservati
				ETHYLBENZENE	0.5	0.5U		R	ug/L	Preservati
				HEXACHLOROBUTADIENE	0.5	0.5U		R	ug/L	Preservati
				ISOPROPYLBENZENE	0.5	0.5U		R	ug/L	Preservati
				m&p-Xylene	1.0	1.0U		R	ug/L	Preservati
				METHYL TERT-BUTYL ETHER	2.0	2.0U		R	ug/L	Preservati
				METHYLENE CHLORIDE	0.5	0.5U		R	ug/L	Preservati
				NAPHTHALENE	0.5	0.5U		R	ug/L	Preservati
				N-BUTYLBENZENE	0.5	0.5U		R	ug/L	Preservati
				N-PROPYLBENZENE	0.5	0.5U		R	ug/L	Preservati
				O-XYLENE	0.5	0.5U		R	ug/L	Preservati
				P-ISOPROPYLTOLUENE	0.5	0.5U		R	ug/L	Preservati
				SEC-BUTYLBENZENE	0.5	0.5U		R	ug/L	Preservati
				STYRENE	0.5	0.5U		R	ug/L	Preservati
				TERT-BUTYLBENZENE	0.5	0.5U		R	ug/L	Preservati
				TETRACHLOROETHENE	5.0	140		J-	ug/L	Preservati
				TOLUENE	0.5	0.5U		R	ug/L	Preservati
				TRANS-1,2-DICHLOROETHENE	0.5	0.5U		R	ug/L	Preservati
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		R	ug/L	Preservati
				TRICHLOROETHENE	0.5	0.5U		R	ug/L	Preservati
				TRICHLOROFLUOROMETHANE	0.5	0.5U		R	ug/L	Preservati

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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: 12013A										
				VINYL CHLORIDE	0.5	0.5U		R	ug/L	Preservati
524.2	MW-103-0102	Water	FD							
				BROMOFORM	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TETRACHLOROETHENE	0.5	0.3J,C1		J	ug/L	Rl
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
524.2	MW-301-1Q12	Water	TB							
				ACETONE	4.0	2.9J,C1		U	ug/L	Fb
				BROMOFORM	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
524.2	MW-401-1Q12	Water	FB							
				ACETONE	4.0	3.4J,C1		U	ug/L	Tb
				BROMOFORM	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				CHLOROMETHANE	0.5	0.3J,C1		J	ug/L	Rl
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
SDG: 12013B										
TO-15	GWTP Stack-0102	Air	N							
				BENZENE	2.2	1.7J,C1		J	ppbv	Rl
				CHLOROMETHANE	2.2	1.5J,C1		J	ppbv	Rl
TO-15	SVE Pre GAC-0102	Air	N							
				CHLOROFORM	2.2	1.2J,C1		J	ppbv	Rl
TO-15	SVE Stack-0102	Air	N							
				CIS-1,2-DICHLOROETHENE	2.2	1.4J,C1		J	ppbv	Rl

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: 12034A										
524.2	MW-17A-1Q12	Water	N							
				1,2,4-TRIMETHYLBENZENE	0.5	0.5J,U,Q2		UJ	ug/L	Lcs
				2,2-DICHLOROPROPANE	0.5	0.5J,U,Q3,		UJ	ug/L	IcRsd
				BENZENE	0.5	0.2J,C1		J	ug/L	Rl
				BROMODICHLOROMETHANE	0.5	0.3J,C1		J	ug/L	Rl
				NAPHTHALENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
524.2	MW-17B-1Q12	Water	N							
				2,2-DICHLOROPROPANE	0.5	0.5J,U,C3,		UJ	ug/L	IcRsd, Ccv
				BROMOMETHANE	0.5	0.5U		UJ	ug/L	Ccv
				CHLOROFORM	0.5	0.2J,C1		J	ug/L	Rl
				NAPHTHALENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd, Ccv
524.2	MW-17C-1Q12	Water	N							
				2,2-DICHLOROPROPANE	0.5	0.5J,U,C3,		UJ	ug/L	IcRsd, Ccv
				BROMODICHLOROMETHANE	0.5	0.5J,U,Q4		UJ	ug/L	Ms
				BROMOMETHANE	0.5	0.5U		UJ	ug/L	Ccv
				NAPHTHALENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd, Ccv

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: 12034A										
524.2	MW-22A-1Q12	Water	N							
				1,1-DICHLOROETHANE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				1,2-DIBROMO-3-CHLOROPROPANE	2.0	2.0J,U,C3		UJ	ug/L	IcRsd
				2,2-DICHLOROPROPANE	0.5	0.5J,U,C4,		UJ	ug/L	Ccv, Ccv
				BROMODICHLOROMETHANE	0.5	0.2J,C1,C3		J	ug/L	Rl, IcRsd
				BROMOFORM	0.5	0.5J,U,C3,		UJ	ug/L	IcRsd, Ccv
				BROMOMETHANE	0.5	0.5J,U,C4,		UJ	ug/L	Ccv, Ccv
				DIBROMOCHLOROMETHANE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,Q3		UJ	ug/L	Ccv
524.2	MW-23A-1Q12	Water	N							
				2,2-DICHLOROPROPANE	0.5	0.5J,U,C3,		UJ	ug/L	IcRsd, Ccv
				BROMOMETHANE	0.5	0.5U		UJ	ug/L	Ccv
				NAPHTHALENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd, Ccv
524.2	MW-24B-1Q12	Water	N							
				2,2-DICHLOROPROPANE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				DICHLORODIFLUOROMETHANE	0.5	0.5J,U,C4,		UJ	ug/L	Ccv, Ccv
				NAPHTHALENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd

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: 12034A										
524.2	MW-25B-1Q12	Water	N							
				2,2-DICHLOROPROPANE	0.5	0.5J,U,C3,		UJ	ug/L	Icv, Ccv
				BROMOMETHANE	0.5	0.5U		UJ	ug/L	Ccv
				NAPHTHALENE	0.5	0.5J,U,C3		UJ	ug/L	Icv
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	Icv, Ccv
524.2	MW-26B-1Q12	Water	N							
				2,2-DICHLOROPROPANE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				CHLOROFORM	0.5	0.3J,C1		J	ug/L	Rl
				NAPHTHALENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
524.2	MW-27B-1Q12	Water	N							
				2,2-DICHLOROPROPANE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				NAPHTHALENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
524.2	MW-28B-1Q12	Water	N							
				2,2-DICHLOROPROPANE	0.5	0.5J,U,C3,		UJ	ug/L	IcRsd, Ccv
				BROMOMETHANE	0.5	0.5U		UJ	ug/L	Ccv
				NAPHTHALENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd, Ccv

N = Normal Sample *TB = Trip Blank*
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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: 12034A										
524.2	MW-2A-1Q12	Water	N							
				2,2-DICHLOROPROPANE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				NAPHTHALENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
524.2	MW-4A-1Q12	Water	N							
				2,2-DICHLOROPROPANE	0.5	0.5J,U,Q3,		UJ	ug/L	IcRsd, Ccv
				BROMOMETHANE	0.5	0.5U		UJ	ug/L	Ccv
				NAPHTHALENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd, Ccv
524.2	MW-5A-1Q12	Water	N							
				1,2,4-TRIMETHYLBENZENE	0.5	0.5J,U,Q2		UJ	ug/L	Lcs
				2,2-DICHLOROPROPANE	0.5	0.5J,U,Q3,		UJ	ug/L	IcRsd
				NAPHTHALENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
524.2	MW-6A-1Q12	Water	N							
				1,2,4-TRIMETHYLBENZENE	0.5	0.5J,U,Q2		UJ	ug/L	Lcs
				2,2-DICHLOROPROPANE	0.5	0.5J,U,C3,		UJ	ug/L	IcRsd
				BROMODICHLOROMETHANE	0.5	0.3J,C1		J	ug/L	Rl
				NAPHTHALENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd

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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: 12034A										
524.2	MW-7A-1Q12	Water	N							
				1,2,4-TRIMETHYLBENZENE	0.5	0.5J,U,Q2		UJ	ug/L	Lcs
				2,2-DICHLOROPROPANE	0.5	0.5J,U,C3,		UJ	ug/L	IcRsd
				NAPHTHALENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
524.2	MW-88A-1Q12	Water	FD							
				1,2,4-TRIMETHYLBENZENE	0.5	0.5J,U,Q2		UJ	ug/L	Lcs
				2,2-DICHLOROPROPANE	0.5	0.5J,U,C3,		UJ	ug/L	IcRsd
				BROMODICHLOROMETHANE	0.5	0.3J,C1		J	ug/L	Rl
				NAPHTHALENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRICHLOROFLUOROMETHANE	0.5	0.3J,C1		J	ug/L	Rl
524.2	MW-8A-1Q12	Water	N							
				2,2-DICHLOROPROPANE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				BROMODICHLOROMETHANE	0.5	0.2J,C1		J	ug/L	Rl
				NAPHTHALENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
524.2	MW-96A-1Q12	Water	FD							
				1,2,4-TRIMETHYLBENZENE	0.5	0.5J,U,Q2		UJ	ug/L	Lcs
				2,2-DICHLOROPROPANE	0.5	0.5J,U,C3,		UJ	ug/L	IcRsd
				NAPHTHALENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd

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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: 12034A										
524.2	MW-9B-1Q12	Water	N							
				2,2-DICHLOROPROPANE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				NAPHTHALENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd

N = Normal Sample *TB = Trip Blank*
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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: 12034B										
524.2	MW-10A-1Q12	Water	N							
				1,2,4-TRIMETHYLBENZENE	0.5	0.5J,U,Q2		UJ	ug/L	Lcs
				2,2-DICHLOROPROPANE	0.5	0.5J,U,C3,		UJ	ug/L	IcRsd, Ccv
				BROMODICHLOROMETHANE	0.5	0.2J,C1		J	ug/L	Rl
				NAPHTHALENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
524.2	MW-10B-1Q12	Water	N							
				1,2,4-TRIMETHYLBENZENE	0.5	0.3J,C1		J	ug/L	Rl
				2,2-DICHLOROPROPANE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				CARBON TETRACHLORIDE	0.5	0.4J,C1		J	ug/L	Rl
				NAPHTHALENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				O-XYLENE	0.5	0.4J,C1		J	ug/L	Rl
				TOLUENE	0.5	0.3J,C1		J	ug/L	Rl
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
524.2	MW-10C-1Q12	Water	N							
				2,2-DICHLOROPROPANE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				NAPHTHALENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
524.2	MW-11A-1Q12	Water	N							
				2,2-DICHLOROPROPANE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				NAPHTHALENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd

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: 12034B										
524.2	MW-12A-1Q12	Water	N							
				2,2-DICHLOROPROPANE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				BROMODICHLOROMETHANE	0.5	0.4J,C1		J	ug/L	Rl
				NAPHTHALENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRICHLOROFLUOROMETHANE	0.5	0.3J,C1		J	ug/L	Rl
524.2	MW-13A-1Q12	Water	N							
				1,2,4-TRIMETHYLBENZENE	0.5	0.5J,U,Q2		UJ	ug/L	Lcs
				2,2-DICHLOROPROPANE	0.5	0.5J,U,C3,		UJ	ug/L	IcRsd, Ccv
				NAPHTHALENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
524.2	MW-14A-1Q12	Water	N							
				2,2-DICHLOROPROPANE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				CHLOROFORM	0.5	0.4J,C1		J	ug/L	Rl
				NAPHTHALENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
524.2	MW-15A-1Q12	Water	N							
				1,2,4-TRIMETHYLBENZENE	0.5	0.5J,U,Q2		UJ	ug/L	Lcs
				2,2-DICHLOROPROPANE	0.5	0.5J,U,C3,		UJ	ug/L	IcRsd, Ccv
				CHLOROFORM	0.5	0.3J,C1		J	ug/L	Rl
				NAPHTHALENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd

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: 12034B										
524.2	MW-16A-1Q12	Water	N							
				2,2-DICHLOROPROPANE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				ETHYLBENZENE	0.5	0.2J,C1		J	ug/L	Rl
				NAPHTHALENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
524.2	MW-16B-1Q12	Water	N							
				2,2-DICHLOROPROPANE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				NAPHTHALENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
524.2	MW-16C-1Q12	Water	N							
				2,2-DICHLOROPROPANE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				BENZENE	0.5	0.3J,C1		J	ug/L	Rl
				NAPHTHALENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
524.2	MW-19A-1Q12	Water	N							
				2,2-DICHLOROPROPANE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				NAPHTHALENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd

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: 12034B										
524.2	MW-19B-1Q12	Water	N							
				1,2,4-TRIMETHYLBENZENE	0.5	0.2J,C1		J	ug/L	Rl
				2,2-DICHLOROPROPANE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				ETHYLBENZENE	0.5	0.4J,C1		J	ug/L	Rl
				m&p-Xylene	1.0	0.8J,C1		J	ug/L	Rl
				NAPHTHALENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				O-XYLENE	0.5	0.2J,C1		J	ug/L	Rl
				TETRACHLOROETHENE	0.5	0.2J,C1		J	ug/L	Rl
				TOLUENE	0.5	0.2J,C1		J	ug/L	Rl
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd

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: 12034B										
524.2	MW-1A-1Q12	Water	N							
				1,1,2,2-TETRACHLOROETHANE	0.5	0.5J,U,Q6		UJ	ug/L	Ms
				1,1,2-TRICHLOROETHANE	0.5	0.5J,U,Q6		UJ	ug/L	Ms
				1,2,3-TRICHLOROPROPANE	0.5	0.5J,U,Q6		UJ	ug/L	Ms
				1,2-DIBROMO-3-CHLOROPROPANE	2.0	2.0J,U,Q6		UJ	ug/L	Ms
				1,2-DICHLOROBENZENE	0.5	0.5J,U,Q6		UJ	ug/L	Ms
				1,2-DICHLOROETHANE	0.5	0.5J,U,Q6		UJ	ug/L	Ms
				1,2-DICHLOROPROPANE	0.5	0.5J,U,Q6		UJ	ug/L	Ms
				1,3-DICHLOROBENZENE	0.5	0.5J,U,Q6		UJ	ug/L	Ms
				1,3-DICHLOROPROPANE	0.5	0.5J,U,Q6		UJ	ug/L	Ms
				1,4-DICHLOROBENZENE	0.5	0.5J,U,Q6		UJ	ug/L	Ms
				2,2-DICHLOROPROPANE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				2-BUTANONE	4.0	4.0J,U,Q6		UJ	ug/L	Ms
				4-CHLOROTOLUENE	0.5	0.5J,U,Q6		UJ	ug/L	Ms
				BROMOCHLOROMETHANE	0.5	0.5J,U,Q6		UJ	ug/L	Ms
				BROMODICHLOROMETHANE	0.5	0.5J,U,Q6		UJ	ug/L	Ms
				BROMOFORM	0.5	0.5J,U,Q6		UJ	ug/L	Ms
				CHLOROBENZENE	0.5	0.5J,U,Q6		UJ	ug/L	Ms
				CHLOROETHANE	0.5	0.5J,U,Q6		UJ	ug/L	Ms
				CHLOROFORM	0.5	0.2J,C1,Q6		J	ug/L	Ms, Rl

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: 12034B										
				CIS-1,2-DICHLOROETHENE	0.5	0.5J,U,Q6		UJ	ug/L	Ms
				DIBROMOCHLOROMETHANE	0.5	0.5J,U,Q6		UJ	ug/L	Ms
				DIBROMOMETHANE	0.5	0.5J,U,Q6		UJ	ug/L	Ms
				DICHLORODIFLUOROMETHANE	0.5	0.5J,U,Q6		UJ	ug/L	Ms
				NAPHTHALENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				STYRENE	0.5	0.5J,U,Q6		UJ	ug/L	Ms
				TETRACHLOROETHENE	0.5	1.2J,Q6		J	ug/L	Ms
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRICHLOROFLUOROMETHANE	0.5	0.5J,U,Q6		UJ	ug/L	Ms
				VINYL CHLORIDE	0.5	0.5J,U,Q6		UJ	ug/L	Ms
524.2	MW-21A-1Q12	Water	N							
				1,2,4-TRIMETHYLBENZENE	0.5	0.5J,U,Q2		UJ	ug/L	Lcs
				2,2-DICHLOROPROPANE	0.5	0.5J,U,C3,		UJ	ug/L	IcRsd, Ccv
				BENZENE	0.5	0.2J,C1		J	ug/L	Rl
				NAPHTHALENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
524.2	MW-302-1Q12	Water	TB							
				1,2,4-TRIMETHYLBENZENE	0.5	0.5J,U,Q2		UJ	ug/L	Lcs
				2,2-DICHLOROPROPANE	0.5	0.5J,U,C3,		UJ	ug/L	IcRsd, Ccv
				NAPHTHALENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd

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: 12034B										
524.2	MW-402-1Q12	Water	FB							
				1,2,4-TRIMETHYLBENZENE	0.5	0.5J,U,Q2		UJ	ug/L	Lcs
				2,2-DICHLOROPROPANE	0.5	0.5J,U,C3,		UJ	ug/L	IcRsd, Ccv
				NAPHTHALENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd

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: 12038B										
TO-15	DP-1A-1Q12	Air	N							
				1,2,4-TRICHLOROBENZENE	2.2	2.2J,U,C4		UJ	ppbv	Ccv
				1,2,4-TRIMETHYLBENZENE	2.2	2.2J,U,Q3		UJ	ppbv	Ccv
				1,3,5-TRIMETHYLBENZENE	2.2	2.2J,U,Q3		UJ	ppbv	Ccv
				HEXACHLOROBUTADIENE	2.2	2.2J,U,C4		UJ	ppbv	Ccv
				TOLUENE	2.2	1.2J,C1		J	ppbv	RI
TO-15	DP-1B-1Q12	Air	N							
				1,2,4-TRICHLOROBENZENE	2.2	2.2J,U,C4		UJ	ppbv	Ccv
				1,2,4-TRIMETHYLBENZENE	2.2	2.2J,U,Q3		UJ	ppbv	Ccv
				1,3,5-TRIMETHYLBENZENE	2.2	2.2J,U,Q3		UJ	ppbv	Ccv
				HEXACHLOROBUTADIENE	2.2	2.2J,U,C4		UJ	ppbv	Ccv
TO-15	DP-5A-1Q12	Air	N							
				1,2,4-TRICHLOROBENZENE	2.0	2.0J,U,C4		UJ	ppbv	Ccv
				1,2,4-TRIMETHYLBENZENE	2.0	2.0J,U,Q3		UJ	ppbv	Ccv
				1,3,5-TRIMETHYLBENZENE	2.0	2.0J,U,Q3		UJ	ppbv	Ccv
				CHLOROMETHANE	2.0	1.8J,C1		J	ppbv	RI
				HEXACHLOROBUTADIENE	2.0	2.0J,U,C4		UJ	ppbv	Ccv

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: 12038B										
TO-15	DP-5B-1Q12	Air	N							
				1,2,4-TRICHLOROBENZENE	2.1	2.1J,U,C4		UJ	ppbv	Ccv
				1,2,4-TRIMETHYLBENZENE	2.1	2.1J,U,Q3		UJ	ppbv	Ccv
				1,3,5-TRIMETHYLBENZENE	2.1	2.1J,U,Q3		UJ	ppbv	Ccv
				HEXACHLOROBUTADIENE	2.1	2.1J,U,C4		UJ	ppbv	Ccv
				METHYLENE CHLORIDE	2.1	1.5J,C1		J	ppbv	Rl
TO-15	DP-6A-1Q12	Air	N							
				1,2,4-TRICHLOROBENZENE	2.1	2.1J,U,C4		UJ	ppbv	Ccv
				1,2,4-TRIMETHYLBENZENE	2.1	2.1J,U,Q3		UJ	ppbv	Ccv
				1,3,5-TRIMETHYLBENZENE	2.1	2.1J,U,Q3		UJ	ppbv	Ccv
				HEXACHLOROBUTADIENE	2.1	2.1J,U,C4		UJ	ppbv	Ccv
TO-15	OSVE-10-1Q12	Air	N							
				TOLUENE	2.2	2.0J,C1		J	ppbv	Lcs, Rl
TO-15	SVE-2-1Q12	Air	N							
				TRICHLOROETHENE	2.1	1.3J,C1		J	ppbv	Rl

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: 12038E										
524.2	MW-18A-1Q12	Water	N							
				BROMOFORM	0.5	0.5J,U,C3,		UJ	ug/L	IcRsd, Ccv
				CIS-1,3-DICHLOROPROPENE	0.5	0.5J,U,Q2		UJ	ug/L	Lcs
				DIBROMOMETHANE	0.5	0.5J,U,Q2		UJ	ug/L	Lcs
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,Q2,		UJ	ug/L	Lcs, Ccv
524.2	MW-20A-1Q12	Water	N							
				BROMODICHLOROMETHANE	0.5	0.2J,C1,Q4		J	ug/L	Ms, Rl
				BROMOFORM	0.5	0.5J,U,C3,		UJ	ug/L	IcRsd, Ccv
				CIS-1,3-DICHLOROPROPENE	0.5	0.5J,U,Q2		UJ	ug/L	Lcs
				DIBROMOMETHANE	0.5	0.5J,U,Q2,		UJ	ug/L	Ms, Lcs
				DICHLORODIFLUOROMETHANE	0.5	7.7J,Q4		J+	ug/L	Ms
				TETRACHLOROETHENE	10	270		J	ug/L	Ms, Ms
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,Q3,		UJ	ug/L	Lcs, Ccv
				TRICHLOROETHENE	0.5	0.2J,C1		J	ug/L	Rl
524.2	MW-20B-1Q12	Water	N							
				2,2-DICHLOROPROPANE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				DICHLORODIFLUOROMETHANE	0.5	0.5J,U,C4,		UJ	ug/L	Ccv, Ccv
				NAPHTHALENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd

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: 12038E										
524.2	MW-20C-1Q12	Water	N							
				2,2-DICHLOROPROPANE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				DICHLORODIFLUOROMETHANE	0.5	0.5J,U,C4,		UJ	ug/L	Ccv, Ccv
				NAPHTHALENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
524.2	MW-29B-1Q12	Water	N							
				2,2-DICHLOROPROPANE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				DICHLORODIFLUOROMETHANE	0.5	0.5J,U,C4,		UJ	ug/L	Ccv, Ccv
				NAPHTHALENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
524.2	MW-3A-1Q12	Water	N							
				2,2-DICHLOROPROPANE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				DICHLORODIFLUOROMETHANE	0.5	0.5J,U,C4,		UJ	ug/L	Ccv, Ccv
				NAPHTHALENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
524.2	MW-4B-1Q12	Water	N							
				2,2-DICHLOROPROPANE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				DICHLORODIFLUOROMETHANE	0.5	0.5J,U,C4,		UJ	ug/L	Ccv, Ccv
				NAPHTHALENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd

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: 12038E										
524.2	MW-4C-1Q12	Water	N							
				2,2-DICHLOROPROPANE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				DICHLORODIFLUOROMETHANE	0.5	0.5J,U,C4,		UJ	ug/L	Ccv, Ccv
				NAPHTHALENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
524.2	MW-71B-1Q12	Water	FD							
				2,2-DICHLOROPROPANE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				DICHLORODIFLUOROMETHANE	0.5	0.5J,U,C4,		UJ	ug/L	Ccv, Ccv
				NAPHTHALENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRANS-1,3-DICHLOROPROPENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
SDG: 12041A										
524.2	EFF-0202	Water	N							
				BROMOFORM	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
524.2	EW-1-0202	Water	N							
				BROMOFORM	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				BROMOMETHANE	0.5	0.5J,U,Q4,		UJ	ug/L	Ms
				NAPHTHALENE	0.5	0.5J,U,Q6		UJ	ug/L	Ms
				TETRACHLOROETHENE	5.0	150		J+	ug/L	Ms
524.2	MW-303-1Q12	Water	TB							
				BROMOFORM	0.5	0.5J,U,C3		UJ	ug/L	IcRsd

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: 12041C										
TO-15	GWTP Stack-0202	Air	N							
				BENZENE	2.3	2.0J,C1		J	ppbv	RI
TO-15	SVE Pre GAC-0202	Air	N							
				METHYLENE CHLORIDE	2.2	1.1J,C1		J	ppbv	RI
TO-15	SVE Stack-0202	Air	N							
				CIS-1,2-DICHLOROETHENE	2.3	1.2J,C1		J	ppbv	RI
SDG: 12048A										
TO-15	GWTPPrGWC-0203	Air	N							
				1,2,4-TRICHLOROBENZENE	2.2	2.2J,U,C4		UJ	ppbv	Ccv
				HEXACHLOROBUTADIENE	2.2	2.2J,U,C4		UJ	ppbv	Ccv
SDG: 12069A										
524.2	EFF-0302	Water	N							
				2,2-DICHLOROPROPANE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				BROMOMETHANE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
524.2	EW-1-0302	Water	N							
				2,2-DICHLOROPROPANE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				BROMOMETHANE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
524.2	MW-304-1Q12	Water	TB							
				2,2-DICHLOROPROPANE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				BROMOMETHANE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd

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: 12069B										
TO-15	GWTP Pr GAC-0302	Air	N							
				1,2,4-TRICHLOROBENZENE	2.0	2.0J,U,C4		UJ	ppbv	Ccv
				HEXACHLOROBUTADIENE	2.0	2.0J,U,C3		UJ	ppbv	IcRsd
TO-15	GWTP Stack-0302	Air	N							
				HEXACHLOROBUTADIENE	2.2	2.2J,U,C3		UJ	ppbv	IcRsd
TO-15	MW-108-0302	Air	FD							
				1,2,4-TRICHLOROBENZENE	2.2	2.2J,U,C4		UJ	ppbv	Ccv
				HEXACHLOROBUTADIENE	2.2	2.2J,U,C3		UJ	ppbv	IcRsd
TO-15	SVE Pre GAC-0302	Air	N							
				1,2,4-TRICHLOROBENZENE	2.2	2.2J,U,C4		UJ	ppbv	Ccv
				CHLOROMETHANE	2.2	1.3J,C1		J	ppbv	Rl
				HEXACHLOROBUTADIENE	2.2	2.2J,U,C3		UJ	ppbv	IcRsd
TO-15	SVE Stack-0302	Air	N							
				1,2,4-TRICHLOROBENZENE	2.1	2.1J,U,C4		UJ	ppbv	Ccv
				CIS-1,2-DICHLOROETHENE	2.1	1.2J,C1		J	ppbv	Rl
				HEXACHLOROBUTADIENE	2.1	2.1J,U,C3		UJ	ppbv	IcRsd

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

Table 5

Analytical Completeness

Analytical Completeness Report

Project No. / Name : *R12S36 / Modesto GW Treatment System Winter 2012 Sampling ; R12S42 / Modesto Groundwater Jan/Feb 2012 Qtrly Monitoring*

Analytical Method	Total Number of Analytes	Number of Qualified	Percent Completeness
2540C	4	0	100.0
2540D	4	0	100.0
5210B	4	0	100.0
524.2	3717	320	91.4
TO-15	1012	45	95.6
Total	***4741***	***365***	***92.3***

Note:

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

Table 6

Contract Compliance Completeness

Contract Compliance Completeness Report

Project No. / Name : *R12S36 / Modesto GW Treatment System Winter 2012 Sampling ; R12S42 / Modesto Groundwater Jan/Feb 2012 Qtrly Monitoring*

Analytical Method	Total Number of Analytes	Number of Qualified	Percent Completeness
2540C	4	0	100.0
2540D	4	0	100.0
5210B	4	0	100.0
524.2	3717	287	92.3
TO-15	1012	45	95.6
Total	***4741***	***332***	***93.0***

Table 7

Technical Completeness

Technical Completeness Report

Project No. / Name : *R12S36 / Modesto GW Treatment System Winter 2012 Sampling ; R12S42 / Modesto Groundwater Jan/Feb 2012 Qtrly Monitoring*

Analytical Method	Total Number of Analytes	Number of Rejects	Percent Completeness
2540C	4	0	100.0
2540D	4	0	100.0
5210B	4	0	100.0
524.2	3717	61	98.4
TO-15	1012	0	100.0
Total	***4741***	***61***	***98.7***

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

URS, Inc.

Reason for Qualified Results

SDG Nos. : 12013A,12013B,12034A,12034B,12038B,12038E,12041A,12041C,12048A,12069A,12069B,12076A

Sample Del Group (SDG)	Sample ID	Test Method	CAS No.	Detected Qualifier	Non Detected Qualifier	Analyte Name	Reason
12013A	CRB EFF-0102	524.2	75-25-2		J	BROMOFORM	Initial calibration %RSD
12013A	CRB EFF-0102	524.2	74-87-3	U		CHLOROMETHANE	Present in field blank
12013A	CRB EFF-0102	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12013A	CRB INF-0102	524.2	75-25-2		J	BROMOFORM	Initial calibration %RSD
12013A	CRB INF-0102	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12013A	CRB Mid-0102	524.2	75-25-2		J	BROMOFORM	Initial calibration %RSD
12013A	CRB Mid-0102	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12013A	EFF-0102	524.2	75-25-2		J	BROMOFORM	Initial calibration %RSD
12013A	EFF-0102	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12013A	EW-1-0102	524.2	630-20-6		R	1,1,1,2-TETRACHLOROETHANE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	71-55-6		R	1,1,1-TRICHLOROETHANE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	79-34-5		R	1,1,2,2-TETRACHLOROETHANE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	76-13-1		R	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	79-00-5		R	1,1,2-TRICHLOROETHANE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	75-34-3		R	1,1-DICHLOROETHANE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	75-35-4		R	1,1-DICHLOROETHENE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	563-58-6		R	1,1-DICHLOROPROPENE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	87-61-6		R	1,2,3-TRICHLOROBENZENE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	96-18-4		R	1,2,3-TRICHLOROPROPANE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	120-82-1		R	1,2,4-TRICHLOROBENZENE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	95-63-6		R	1,2,4-TRIMETHYLBENZENE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	96-12-8		R	1,2-DIBROMO-3-CHLOROPROPANE	Holding time exceeded from collection to analysis

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Reason for Qualified Results

SDG Nos. : 12013A,12013B,12034A,12034B,12038B,12038E,12041A,12041C,12048A,12069A,12069B,12076A

Sample Del Group (SDG)	Sample ID	Test Method	CAS No.	Detected Qualifier	Non Detected Qualifier	Analyte Name	Reason
12013A	EW-1-0102	524.2	106-93-4		R	1,2-DIBROMOETHANE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	95-50-1		R	1,2-DICHLOROBENZENE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	107-06-2		R	1,2-DICHLOROETHANE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	78-87-5		R	1,2-DICHLOROPROPANE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	108-67-8		R	1,3,5-TRIMETHYLBENZENE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	541-73-1		R	1,3-DICHLOROBENZENE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	142-28-9		R	1,3-DICHLOROPROPANE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	106-46-7		R	1,4-DICHLOROBENZENE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	594-20-7		R	2,2-DICHLOROPROPANE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	78-93-3		R	2-BUTANONE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	95-49-8		R	2-CHLOROTOLUENE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	106-43-4		R	4-CHLOROTOLUENE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	67-64-1		R	ACETONE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	71-43-2		R	BENZENE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	108-86-1		R	BROMOBENZENE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	74-97-5		R	BROMOCHLOROMETHANE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	75-27-4		R	BROMODICHLOROMETHANE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	75-25-2		R	BROMOFORM	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	75-25-2		J	BROMOFORM	Initial calibration %RSD

URS, Inc.

Reason for Qualified Results

SDG Nos. : 12013A,12013B,12034A,12034B,12038B,12038E,12041A,12041C,12048A,12069A,12069B,12076A

Sample Del Group (SDG)	Sample ID	Test Method	CAS No.	Detected Qualifier	Non Detected Qualifier	Analyte Name	Reason
12013A	EW-1-0102	524.2	74-83-9		R	BROMOMETHANE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	56-23-5		R	CARBON TETRACHLORIDE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	108-90-7		R	CHLOROBENZENE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	75-00-3		R	CHLOROETHANE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	67-66-3	J-		CHLOROFORM	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	74-87-3		R	CHLOROMETHANE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	156-59-2		R	CIS-1,2-DICHLOROETHENE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	10061-01-5		R	CIS-1,3-DICHLOROPROPENE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	124-48-1		R	DIBROMOCHLOROMETHANE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	74-95-3		R	DIBROMOMETHANE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	75-71-8		R	DICHLORODIFLUOROMETHANE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	100-41-4		R	ETHYLBENZENE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	87-68-3		R	HEXACHLOROBUTADIENE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	98-82-8		R	ISOPROPYLBENZENE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	179601-23-1		R	m&p-Xylene	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	1634-04-4		R	METHYL TERT-BUTYL ETHER	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	75-09-2		R	METHYLENE CHLORIDE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	91-20-3		R	NAPHTHALENE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	104-51-8		R	N-BUTYLBENZENE	Holding time exceeded from collection to analysis

URS, Inc.

Reason for Qualified Results

SDG Nos. : 12013A,12013B,12034A,12034B,12038B,12038E,12041A,12041C,12048A,12069A,12069B,12076A

Sample Del Group (SDG)	Sample ID	Test Method	CAS No.	Detected Qualifier	Non Detected Qualifier	Analyte Name	Reason
12013A	EW-1-0102	524.2	103-65-1		R	N-PROPYLBENZENE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	95-47-6		R	O-XYLENE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	99-87-6		R	P-ISOPROPYLTOLUENE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	135-98-8		R	SEC-BUTYLBENZENE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	100-42-5		R	STYRENE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	98-06-6		R	TERT-BUTYLBENZENE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	127-18-4	J-		TETRACHLOROETHENE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	108-88-3		R	TOLUENE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	156-60-5		R	TRANS-1,2-DICHLOROETHENE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	10061-02-6		R	TRANS-1,3-DICHLOROPROPENE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12013A	EW-1-0102	524.2	79-01-6		R	TRICHLOROETHENE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	75-69-4		R	TRICHLOROFLUOROMETHANE	Holding time exceeded from collection to analysis
12013A	EW-1-0102	524.2	75-01-4		R	VINYL CHLORIDE	Holding time exceeded from collection to analysis
12013A	MW-103-0102	524.2	75-25-2		J	BROMOFORM	Initial calibration %RSD
12013A	MW-103-0102	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12013A	MW-301-1Q12	524.2	67-64-1	U		ACETONE	Present in field blank
12013A	MW-301-1Q12	524.2	75-25-2		J	BROMOFORM	Initial calibration %RSD
12013A	MW-301-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12013A	MW-401-1Q12	524.2	67-64-1	U		ACETONE	Present in trip blank
12013A	MW-401-1Q12	524.2	75-25-2		J	BROMOFORM	Initial calibration %RSD
12013A	MW-401-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD

URS, Inc.

Reason for Qualified Results

SDG Nos. : 12013A,12013B,12034A,12034B,12038B,12038E,12041A,12041C,12048A,12069A,12069B,12076A

Sample Del Group (SDG)	Sample ID	Test Method	CAS No.	Detected Qualifier	Non Detected Qualifier	Analyte Name	Reason
12034A	MW-17A-1Q12	524.2	95-63-6		J	1,2,4-TRIMETHYLBENZENE	LCS spike recovery
12034A	MW-17A-1Q12	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
12034A	MW-17A-1Q12	524.2	91-20-3		J	NAPHTHALENE	Initial calibration %RSD
12034A	MW-17A-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12034A	MW-17B-1Q12	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
12034A	MW-17B-1Q12	524.2	91-20-3		J	NAPHTHALENE	Initial calibration %RSD
12034A	MW-17B-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12034A	MW-17C-1Q12	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
12034A	MW-17C-1Q12	524.2	75-27-4		J	BROMODICHLOROMETHANE	Matrix spike recovery
12034A	MW-17C-1Q12	524.2	91-20-3		J	NAPHTHALENE	Initial calibration %RSD
12034A	MW-17C-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12034A	MW-22A-1Q12	524.2	75-34-3		J	1,1-DICHLOROETHANE	Initial calibration %RSD
12034A	MW-22A-1Q12	524.2	96-12-8		J	1,2-DIBROMO-3-CHLOROPROPANE	Initial calibration %RSD
12034A	MW-22A-1Q12	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Continuing calibration percent difference
12034A	MW-22A-1Q12	524.2	75-27-4	J		BROMODICHLOROMETHANE	Initial calibration %RSD
12034A	MW-22A-1Q12	524.2	75-25-2		J	BROMOFORM	Initial calibration %RSD
12034A	MW-22A-1Q12	524.2	74-83-9		J	BROMOMETHANE	Continuing calibration percent difference
12034A	MW-22A-1Q12	524.2	124-48-1		J	DIBROMOCHLOROMETHANE	Initial calibration %RSD
12034A	MW-23A-1Q12	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
12034A	MW-23A-1Q12	524.2	91-20-3		J	NAPHTHALENE	Initial calibration %RSD
12034A	MW-23A-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12034A	MW-24B-1Q12	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
12034A	MW-24B-1Q12	524.2	75-71-8		J	DICHLORODIFLUOROMETHANE	Continuing calibration percent difference
12034A	MW-24B-1Q12	524.2	91-20-3		J	NAPHTHALENE	Initial calibration %RSD
12034A	MW-24B-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12034A	MW-25B-1Q12	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration verification percent difference
12034A	MW-25B-1Q12	524.2	91-20-3		J	NAPHTHALENE	Initial calibration verification percent difference
12034A	MW-25B-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration verification percent difference

URS, Inc.

Reason for Qualified Results

SDG Nos. : 12013A,12013B,12034A,12034B,12038B,12038E,12041A,12041C,12048A,12069A,12069B,12076A

Sample Del Group (SDG)	Sample ID	Test Method	CAS No.	Detected Qualifier	Non Detected Qualifier	Analyte Name	Reason
12034A	MW-26B-1Q12	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
12034A	MW-26B-1Q12	524.2	91-20-3		J	NAPHTHALENE	Initial calibration %RSD
12034A	MW-26B-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12034A	MW-27B-1Q12	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
12034A	MW-27B-1Q12	524.2	91-20-3		J	NAPHTHALENE	Initial calibration %RSD
12034A	MW-27B-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12034A	MW-28B-1Q12	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
12034A	MW-28B-1Q12	524.2	91-20-3		J	NAPHTHALENE	Initial calibration %RSD
12034A	MW-28B-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12034A	MW-2A-1Q12	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
12034A	MW-2A-1Q12	524.2	91-20-3		J	NAPHTHALENE	Initial calibration %RSD
12034A	MW-2A-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12034A	MW-4A-1Q12	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
12034A	MW-4A-1Q12	524.2	91-20-3		J	NAPHTHALENE	Initial calibration %RSD
12034A	MW-4A-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12034A	MW-5A-1Q12	524.2	95-63-6		J	1,2,4-TRIMETHYLBENZENE	LCS spike recovery
12034A	MW-5A-1Q12	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
12034A	MW-5A-1Q12	524.2	91-20-3		J	NAPHTHALENE	Initial calibration %RSD
12034A	MW-5A-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12034A	MW-6A-1Q12	524.2	95-63-6		J	1,2,4-TRIMETHYLBENZENE	LCS spike recovery
12034A	MW-6A-1Q12	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
12034A	MW-6A-1Q12	524.2	91-20-3		J	NAPHTHALENE	Initial calibration %RSD
12034A	MW-6A-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12034A	MW-7A-1Q12	524.2	95-63-6		J	1,2,4-TRIMETHYLBENZENE	LCS spike recovery
12034A	MW-7A-1Q12	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
12034A	MW-7A-1Q12	524.2	91-20-3		J	NAPHTHALENE	Initial calibration %RSD
12034A	MW-7A-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12034A	MW-88A-1Q12	524.2	95-63-6		J	1,2,4-TRIMETHYLBENZENE	LCS spike recovery
12034A	MW-88A-1Q12	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
12034A	MW-88A-1Q12	524.2	91-20-3		J	NAPHTHALENE	Initial calibration %RSD

URS, Inc.

Reason for Qualified Results

SDG Nos. : 12013A,12013B,12034A,12034B,12038B,12038E,12041A,12041C,12048A,12069A,12069B,12076A

Sample Del Group (SDG)	Sample ID	Test Method	CAS No.	Detected Qualifier	Non Detected Qualifier	Analyte Name	Reason
12034A	MW-88A-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12034A	MW-8A-1Q12	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
12034A	MW-8A-1Q12	524.2	91-20-3		J	NAPHTHALENE	Initial calibration %RSD
12034A	MW-8A-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12034A	MW-96A-1Q12	524.2	95-63-6		J	1,2,4-TRIMETHYLBENZENE	LCS spike recovery
12034A	MW-96A-1Q12	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
12034A	MW-96A-1Q12	524.2	91-20-3		J	NAPHTHALENE	Initial calibration %RSD
12034A	MW-96A-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12034A	MW-9B-1Q12	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
12034A	MW-9B-1Q12	524.2	91-20-3		J	NAPHTHALENE	Initial calibration %RSD
12034A	MW-9B-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12034B	MW-10A-1Q12	524.2	95-63-6		J	1,2,4-TRIMETHYLBENZENE	LCS spike recovery
12034B	MW-10A-1Q12	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
12034B	MW-10A-1Q12	524.2	91-20-3		J	NAPHTHALENE	Initial calibration %RSD
12034B	MW-10A-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12034B	MW-10B-1Q12	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
12034B	MW-10B-1Q12	524.2	91-20-3		J	NAPHTHALENE	Initial calibration %RSD
12034B	MW-10B-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12034B	MW-10C-1Q12	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
12034B	MW-10C-1Q12	524.2	91-20-3		J	NAPHTHALENE	Initial calibration %RSD
12034B	MW-10C-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12034B	MW-11A-1Q12	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
12034B	MW-11A-1Q12	524.2	91-20-3		J	NAPHTHALENE	Initial calibration %RSD
12034B	MW-11A-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12034B	MW-12A-1Q12	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
12034B	MW-12A-1Q12	524.2	91-20-3		J	NAPHTHALENE	Initial calibration %RSD
12034B	MW-12A-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12034B	MW-13A-1Q12	524.2	95-63-6		J	1,2,4-TRIMETHYLBENZENE	LCS spike recovery
12034B	MW-13A-1Q12	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
12034B	MW-13A-1Q12	524.2	91-20-3		J	NAPHTHALENE	Initial calibration %RSD

URS, Inc.

Reason for Qualified Results

SDG Nos. : 12013A,12013B,12034A,12034B,12038B,12038E,12041A,12041C,12048A,12069A,12069B,12076A

Sample Del Group (SDG)	Sample ID	Test Method	CAS No.	Detected Qualifier	Non Detected Qualifier	Analyte Name	Reason
12034B	MW-13A-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12034B	MW-14A-1Q12	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
12034B	MW-14A-1Q12	524.2	91-20-3		J	NAPHTHALENE	Initial calibration %RSD
12034B	MW-14A-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12034B	MW-15A-1Q12	524.2	95-63-6		J	1,2,4-TRIMETHYLBENZENE	LCS spike recovery
12034B	MW-15A-1Q12	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
12034B	MW-15A-1Q12	524.2	91-20-3		J	NAPHTHALENE	Initial calibration %RSD
12034B	MW-15A-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12034B	MW-16A-1Q12	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
12034B	MW-16A-1Q12	524.2	91-20-3		J	NAPHTHALENE	Initial calibration %RSD
12034B	MW-16A-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12034B	MW-16B-1Q12	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
12034B	MW-16B-1Q12	524.2	91-20-3		J	NAPHTHALENE	Initial calibration %RSD
12034B	MW-16B-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12034B	MW-16C-1Q12	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
12034B	MW-16C-1Q12	524.2	91-20-3		J	NAPHTHALENE	Initial calibration %RSD
12034B	MW-16C-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12034B	MW-19A-1Q12	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
12034B	MW-19A-1Q12	524.2	91-20-3		J	NAPHTHALENE	Initial calibration %RSD
12034B	MW-19A-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12034B	MW-19B-1Q12	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
12034B	MW-19B-1Q12	524.2	91-20-3		J	NAPHTHALENE	Initial calibration %RSD
12034B	MW-19B-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12034B	MW-1A-1Q12	524.2	79-34-5		J	1,1,2,2-TETRACHLOROETHANE	Matrix spike RPD
12034B	MW-1A-1Q12	524.2	79-00-5		J	1,1,2-TRICHLOROETHANE	Matrix spike RPD
12034B	MW-1A-1Q12	524.2	96-18-4		J	1,2,3-TRICHLOROPROPANE	Matrix spike RPD
12034B	MW-1A-1Q12	524.2	96-12-8		J	1,2-DIBROMO-3-CHLOROPROPANE	Matrix spike RPD
12034B	MW-1A-1Q12	524.2	95-50-1		J	1,2-DICHLOROBENZENE	Matrix spike RPD
12034B	MW-1A-1Q12	524.2	107-06-2		J	1,2-DICHLOROETHANE	Matrix spike RPD
12034B	MW-1A-1Q12	524.2	78-87-5		J	1,2-DICHLOROPROPANE	Matrix spike RPD

URS, Inc.

Reason for Qualified Results

SDG Nos. : 12013A,12013B,12034A,12034B,12038B,12038E,12041A,12041C,12048A,12069A,12069B,12076A

Sample Del Group (SDG)	Sample ID	Test Method	CAS No.	Detected Qualifier	Non Detected Qualifier	Analyte Name	Reason
12034B	MW-1A-1Q12	524.2	541-73-1		J	1,3-DICHLOROBENZENE	Matrix spike RPD
12034B	MW-1A-1Q12	524.2	142-28-9		J	1,3-DICHLOROPROPANE	Matrix spike RPD
12034B	MW-1A-1Q12	524.2	106-46-7		J	1,4-DICHLOROBENZENE	Matrix spike RPD
12034B	MW-1A-1Q12	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
12034B	MW-1A-1Q12	524.2	78-93-3		J	2-BUTANONE	Matrix spike RPD
12034B	MW-1A-1Q12	524.2	106-43-4		J	4-CHLOROTOLUENE	Matrix spike RPD
12034B	MW-1A-1Q12	524.2	74-97-5		J	BROMOCHLOROMETHANE	Matrix spike RPD
12034B	MW-1A-1Q12	524.2	75-27-4		J	BROMODICHLOROMETHANE	Matrix spike RPD
12034B	MW-1A-1Q12	524.2	75-25-2		J	BROMOFORM	Matrix spike RPD
12034B	MW-1A-1Q12	524.2	108-90-7		J	CHLOROBENZENE	Matrix spike RPD
12034B	MW-1A-1Q12	524.2	75-00-3		J	CHLOROETHANE	Matrix spike RPD
12034B	MW-1A-1Q12	524.2	67-66-3	J		CHLOROFORM	Matrix spike RPD
12034B	MW-1A-1Q12	524.2	156-59-2		J	CIS-1,2-DICHLOROETHENE	Matrix spike RPD
12034B	MW-1A-1Q12	524.2	124-48-1		J	DIBROMOCHLOROMETHANE	Matrix spike RPD
12034B	MW-1A-1Q12	524.2	74-95-3		J	DIBROMOMETHANE	Matrix spike RPD
12034B	MW-1A-1Q12	524.2	75-71-8		J	DICHLORODIFLUOROMETHANE	Matrix spike RPD
12034B	MW-1A-1Q12	524.2	91-20-3		J	NAPHTHALENE	Initial calibration %RSD
12034B	MW-1A-1Q12	524.2	100-42-5		J	STYRENE	Matrix spike RPD
12034B	MW-1A-1Q12	524.2	127-18-4	J		TETRACHLOROETHENE	Matrix spike RPD
12034B	MW-1A-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12034B	MW-1A-1Q12	524.2	75-69-4		J	TRICHLOROFLUOROMETHANE	Matrix spike RPD
12034B	MW-1A-1Q12	524.2	75-01-4		J	VINYL CHLORIDE	Matrix spike RPD
12034B	MW-21A-1Q12	524.2	95-63-6		J	1,2,4-TRIMETHYLBENZENE	LCS spike recovery
12034B	MW-21A-1Q12	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
12034B	MW-21A-1Q12	524.2	91-20-3		J	NAPHTHALENE	Initial calibration %RSD
12034B	MW-21A-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12034B	MW-302-1Q12	524.2	95-63-6		J	1,2,4-TRIMETHYLBENZENE	LCS spike recovery
12034B	MW-302-1Q12	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
12034B	MW-302-1Q12	524.2	91-20-3		J	NAPHTHALENE	Initial calibration %RSD
12034B	MW-302-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD

URS, Inc.

Reason for Qualified Results

SDG Nos. : 12013A,12013B,12034A,12034B,12038B,12038E,12041A,12041C,12048A,12069A,12069B,12076A

Sample Del Group (SDG)	Sample ID	Test Method	CAS No.	Detected Qualifier	Non Detected Qualifier	Analyte Name	Reason
12034B	MW-402-1Q12	524.2	95-63-6		J	1,2,4-TRIMETHYLBENZENE	LCS spike recovery
12034B	MW-402-1Q12	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
12034B	MW-402-1Q12	524.2	91-20-3		J	NAPHTHALENE	Initial calibration %RSD
12034B	MW-402-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12038B	DP-1A-1Q12	TO-15	120-82-1		J	1,2,4-TRICHLOROBENZENE	Continuing calibration percent difference
12038B	DP-1A-1Q12	TO-15	87-68-3		J	HEXACHLOROBUTADIENE	Continuing calibration percent difference
12038B	DP-1B-1Q12	TO-15	120-82-1		J	1,2,4-TRICHLOROBENZENE	Continuing calibration percent difference
12038B	DP-1B-1Q12	TO-15	87-68-3		J	HEXACHLOROBUTADIENE	Continuing calibration percent difference
12038B	DP-5A-1Q12	TO-15	120-82-1		J	1,2,4-TRICHLOROBENZENE	Continuing calibration percent difference
12038B	DP-5A-1Q12	TO-15	87-68-3		J	HEXACHLOROBUTADIENE	Continuing calibration percent difference
12038B	DP-5B-1Q12	TO-15	120-82-1		J	1,2,4-TRICHLOROBENZENE	Continuing calibration percent difference
12038B	DP-5B-1Q12	TO-15	87-68-3		J	HEXACHLOROBUTADIENE	Continuing calibration percent difference
12038B	DP-6A-1Q12	TO-15	120-82-1		J	1,2,4-TRICHLOROBENZENE	Continuing calibration percent difference
12038B	DP-6A-1Q12	TO-15	87-68-3		J	HEXACHLOROBUTADIENE	Continuing calibration percent difference
12038B	OSVE-10-1Q12	TO-15	108-88-3	J+		TOLUENE	LCS spike recovery
12038E	MW-18A-1Q12	524.2	75-25-2		J	BROMOFORM	Initial calibration %RSD
12038E	MW-18A-1Q12	524.2	10061-01-5		J	CIS-1,3-DICHLOROPROPENE	LCS spike recovery
12038E	MW-18A-1Q12	524.2	74-95-3		J	DIBROMOMETHANE	LCS spike recovery
12038E	MW-18A-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	LCS spike recovery
12038E	MW-20A-1Q12	524.2	75-27-4	J-		BROMODICHLOROMETHANE	Matrix spike recovery
12038E	MW-20A-1Q12	524.2	75-25-2		J	BROMOFORM	Initial calibration %RSD
12038E	MW-20A-1Q12	524.2	10061-01-5		J	CIS-1,3-DICHLOROPROPENE	LCS spike recovery
12038E	MW-20A-1Q12	524.2	74-95-3		J	DIBROMOMETHANE	LCS spike recovery
12038E	MW-20A-1Q12	524.2	74-95-3		J	DIBROMOMETHANE	Matrix spike recovery
12038E	MW-20A-1Q12	524.2	75-71-8	J+		DICHLORODIFLUOROMETHANE	Matrix spike recovery
12038E	MW-20A-1Q12	524.2	127-18-4	J		TETRACHLOROETHENE	Matrix spike recovery
12038E	MW-20A-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	LCS spike recovery
12038E	MW-20B-1Q12	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
12038E	MW-20B-1Q12	524.2	75-71-8		J	DICHLORODIFLUOROMETHANE	Continuing calibration percent difference
12038E	MW-20B-1Q12	524.2	91-20-3		J	NAPHTHALENE	Initial calibration %RSD

URS, Inc.

Reason for Qualified Results

SDG Nos. : 12013A,12013B,12034A,12034B,12038B,12038E,12041A,12041C,12048A,12069A,12069B,12076A

Sample Del Group (SDG)	Sample ID	Test Method	CAS No.	Detected Qualifier	Non Detected Qualifier	Analyte Name	Reason
12038E	MW-20B-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12038E	MW-20C-1Q12	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
12038E	MW-20C-1Q12	524.2	75-71-8		J	DICHLORODIFLUOROMETHANE	Continuing calibration percent difference
12038E	MW-20C-1Q12	524.2	91-20-3		J	NAPHTHALENE	Initial calibration %RSD
12038E	MW-20C-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12038E	MW-29B-1Q12	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
12038E	MW-29B-1Q12	524.2	75-71-8		J	DICHLORODIFLUOROMETHANE	Continuing calibration percent difference
12038E	MW-29B-1Q12	524.2	91-20-3		J	NAPHTHALENE	Initial calibration %RSD
12038E	MW-29B-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12038E	MW-3A-1Q12	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
12038E	MW-3A-1Q12	524.2	75-71-8		J	DICHLORODIFLUOROMETHANE	Continuing calibration percent difference
12038E	MW-3A-1Q12	524.2	91-20-3		J	NAPHTHALENE	Initial calibration %RSD
12038E	MW-3A-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12038E	MW-4B-1Q12	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
12038E	MW-4B-1Q12	524.2	75-71-8		J	DICHLORODIFLUOROMETHANE	Continuing calibration percent difference
12038E	MW-4B-1Q12	524.2	91-20-3		J	NAPHTHALENE	Initial calibration %RSD
12038E	MW-4B-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12038E	MW-4C-1Q12	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
12038E	MW-4C-1Q12	524.2	75-71-8		J	DICHLORODIFLUOROMETHANE	Continuing calibration percent difference
12038E	MW-4C-1Q12	524.2	91-20-3		J	NAPHTHALENE	Initial calibration %RSD
12038E	MW-4C-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12038E	MW-71B-1Q12	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
12038E	MW-71B-1Q12	524.2	75-71-8		J	DICHLORODIFLUOROMETHANE	Continuing calibration percent difference
12038E	MW-71B-1Q12	524.2	91-20-3		J	NAPHTHALENE	Initial calibration %RSD
12038E	MW-71B-1Q12	524.2	10061-02-6		J	TRANS-1,3-DICHLOROPROPENE	Initial calibration %RSD
12041A	EFF-0202	524.2	75-25-2		J	BROMOFORM	Initial calibration %RSD
12041A	EW-1-0202	524.2	75-25-2		J	BROMOFORM	Initial calibration %RSD
12041A	EW-1-0202	524.2	74-83-9		J	BROMOMETHANE	Matrix spike RPD
12041A	EW-1-0202	524.2	91-20-3		J	NAPHTHALENE	Matrix spike RPD
12041A	EW-1-0202	524.2	127-18-4	J+		TETRACHLOROETHENE	Matrix spike recovery

URS, Inc.

Reason for Qualified Results

SDG Nos. : 12013A,12013B,12034A,12034B,12038B,12038E,12041A,12041C,12048A,12069A,12069B,12076A

Sample Del Group (SDG)	Sample ID	Test Method	CAS No.	Detected Qualifier	Non Detected Qualifier	Analyte Name	Reason
12041A	MW-303-1Q12	524.2	75-25-2		J	BROMOFORM	Initial calibration %RSD
12048A	GWTPPrGWC-0203	TO-15	120-82-1		J	1,2,4-TRICHLOROBENZENE	Continuing calibration percent difference
12048A	GWTPPrGWC-0203	TO-15	87-68-3		J	HEXACHLOROBUTADIENE	Continuing calibration percent difference
12069A	EFF-0302	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
12069A	EFF-0302	524.2	74-83-9		J	BROMOMETHANE	Initial calibration %RSD
12069A	EW-1-0302	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
12069A	EW-1-0302	524.2	74-83-9		J	BROMOMETHANE	Initial calibration %RSD
12069A	MW-304-1Q12	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Initial calibration %RSD
12069A	MW-304-1Q12	524.2	74-83-9		J	BROMOMETHANE	Initial calibration %RSD
12069B	GWTP Pr GAC-0302	TO-15	120-82-1		J	1,2,4-TRICHLOROBENZENE	Continuing calibration percent difference
12069B	GWTP Pr GAC-0302	TO-15	87-68-3		J	HEXACHLOROBUTADIENE	Initial calibration %RSD
12069B	GWTP Stack-0302	TO-15	87-68-3		J	HEXACHLOROBUTADIENE	Initial calibration %RSD
12069B	MW-108-0302	TO-15	120-82-1		J	1,2,4-TRICHLOROBENZENE	Continuing calibration percent difference
12069B	MW-108-0302	TO-15	87-68-3		J	HEXACHLOROBUTADIENE	Initial calibration %RSD
12069B	SVE Pre GAC-0302	TO-15	120-82-1		J	1,2,4-TRICHLOROBENZENE	Continuing calibration percent difference
12069B	SVE Pre GAC-0302	TO-15	87-68-3		J	HEXACHLOROBUTADIENE	Initial calibration %RSD
12069B	SVE Stack-0302	TO-15	120-82-1		J	1,2,4-TRICHLOROBENZENE	Continuing calibration percent difference
12069B	SVE Stack-0302	TO-15	87-68-3		J	HEXACHLOROBUTADIENE	Initial calibration %RSD

Appendix A

Data Qualification Summary Report

SDG 12013A

Data Qualifier Summary

Lab Reporting Batch ID: 12013A **Laboratory: R9LAB**

EDD Filename: 12013A_VOC_FINAL_rev **eQAPP Name: Modesto_Site_113011**

Method Category: **VOA**

Method: **524.2** ***Matrix:*** **Water**

Sample ID: **CRB EFF-0102** ***Collected:*** **1/12/2012 9:55:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BROMOFORM	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
CHLOROMETHANE	0.5		0.2	MDL	0.5	MRL	ug/L	U	Fb
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

Sample ID: **CRB INF-0102** ***Collected:*** **1/12/2012 10:10:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BROMOFORM	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TETRACHLOROETHENE	0.4	J,C1	0.2	MDL	0.5	MRL	ug/L	J	Rl
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

Sample ID: **CRB Mid-0102** ***Collected:*** **1/12/2012 10:00:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BROMOFORM	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

Sample ID: **EFF-0102** ***Collected:*** **1/12/2012 9:35:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BROMOFORM	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

Sample ID: **EW-1-0102** ***Collected:*** **1/12/2012 10:20:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TETRACHLOROETHENE	140		2.5	MDL	5.0	MRL	ug/L	J-	StoA, Preservation

Sample ID: **EW-1-0102** ***Collected:*** **1/12/2012 10:20:00** ***Analysis Type:*** **Reinjection-01** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,1,1,2-TETRACHLOROETHANE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	StoA, Preservation
1,1,1-TRICHLOROETHANE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	StoA, Preservation
1,1,2,2-TETRACHLOROETHANE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	StoA, Preservation

* denotes a non-reportable result

Project Name and Number: R12S36 - Modesto GW Treatment System Winter 2012 Sampling

Data Qualifier Summary

Lab Reporting Batch ID: 12013A **Laboratory: R9LAB**

EDD Filename: 12013A_VOC_FINAL_rev **eQAPP Name: Modesto_Site_113011**

Method Category: **VOA**

Method: **524.2** ***Matrix:*** **Water**

Sample ID: **EW-1-0102** ***Collected:*** **1/12/2012 10:20:00** ***Analysis Type:*** **Reinjection-01** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	StoA, Preservation
1,1,2-TRICHLOROETHANE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	StoA, Preservation
1,1-DICHLOROETHANE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	StoA, Preservation
1,1-DICHLOROETHENE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	StoA, Preservation
1,1-DICHLOROPROPENE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	StoA, Preservation
1,2,3-TRICHLOROBENZENE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	Preservation, StoA
1,2,3-TRICHLOROPROPANE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	StoA, Preservation
1,2,4-TRICHLOROBENZENE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	Preservation, StoA
1,2,4-TRIMETHYLBENZENE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	Preservation, StoA
1,2-DIBROMO-3-CHLOROPROPANE	2.0	U	1.0	MDL	2.0	MRL	ug/L	R	StoA, Preservation
1,2-DIBROMOETHANE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	StoA, Preservation
1,2-DICHLOROBENZENE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	Preservation, StoA
1,2-DICHLOROETHANE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	StoA, Preservation
1,2-DICHLOROPROPANE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	StoA, Preservation
1,3,5-TRIMETHYLBENZENE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	Preservation, StoA
1,3-DICHLOROBENZENE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	Preservation, StoA
1,3-DICHLOROPROPANE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	StoA, Preservation
1,4-DICHLOROBENZENE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	Preservation, StoA
2,2-DICHLOROPROPANE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	StoA, Preservation
2-BUTANONE	4.0	U	2.0	MDL	4.0	MRL	ug/L	R	StoA, Preservation
2-CHLOROTOLUENE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	Preservation, StoA
4-CHLOROTOLUENE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	Preservation, StoA
ACETONE	4.0	U	2.0	MDL	4.0	MRL	ug/L	R	StoA, Preservation
BENZENE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	Preservation, StoA
BROMOBENZENE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	Preservation, StoA
BROMOCHLOROMETHANE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	StoA, Preservation
BROMODICHLOROMETHANE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	StoA, Preservation

* denotes a non-reportable result

Project Name and Number: R12S36 - Modesto GW Treatment System Winter 2012 Sampling

Data Qualifier Summary

Lab Reporting Batch ID: 12013A **Laboratory: R9LAB**

EDD Filename: 12013A_VOC_FINAL_rev **eQAPP Name: Modesto_Site_113011**

Method Category: **VOA**

Method: **524.2** ***Matrix:*** **Water**

Sample ID: **EW-1-0102** ***Collected:*** **1/12/2012 10:20:00** ***Analysis Type:*** **Reinjection-01** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BROMOFORM	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	R	IcRsd, StoA, Preservation
BROMOMETHANE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	StoA, Preservation
CARBON TETRACHLORIDE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	StoA, Preservation
CHLOROBENZENE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	Preservation, StoA
CHLOROETHANE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	StoA, Preservation
CHLOROFORM	3.5		0.2	MDL	0.5	MRL	ug/L	J-	StoA, Preservation
CHLOROMETHANE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	StoA, Preservation
CIS-1,2-DICHLOROETHENE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	StoA, Preservation
CIS-1,3-DICHLOROPROPENE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	StoA, Preservation
DIBROMOCHLOROMETHANE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	StoA, Preservation
DIBROMOMETHANE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	StoA, Preservation
DICHLORODIFLUOROMETHANE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	StoA, Preservation
ETHYLBENZENE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	Preservation, StoA
HEXACHLOROBUTADIENE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	StoA, Preservation
ISOPROPYLBENZENE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	Preservation, StoA
m&p-Xylene	1.0	U	0.5	MDL	1.0	MRL	ug/L	R	Preservation, StoA
METHYL TERT-BUTYL ETHER	2.0	U	1.0	MDL	2.0	MRL	ug/L	R	StoA, Preservation
METHYLENE CHLORIDE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	StoA, Preservation
NAPHTHALENE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	Preservation, StoA
N-BUTYLBENZENE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	Preservation, StoA
N-PROPYLBENZENE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	Preservation, StoA
O-XYLENE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	Preservation, StoA
P-ISOPROPYLTOLUENE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	Preservation, StoA
SEC-BUTYLBENZENE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	Preservation, StoA
STYRENE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	Preservation, StoA
TERT-BUTYLBENZENE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	Preservation, StoA
TOLUENE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	Preservation, StoA

* denotes a non-reportable result

Project Name and Number: R12S36 - Modesto GW Treatment System Winter 2012 Sampling

Data Qualifier Summary

Lab Reporting Batch ID: 12013A **Laboratory: R9LAB**

EDD Filename: 12013A_VOC_FINAL_rev **eQAPP Name: Modesto_Site_113011**

Method Category: **VOA**

Method: **524.2** ***Matrix:*** **Water**

Sample ID: **EW-1-0102** ***Collected:*** **1/12/2012 10:20:00** ***Analysis Type:*** **Reinjection-01** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TRANS-1,2-DICHLOROETHENE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	StoA, Preservation
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	R	IcRsd, StoA, Preservation
TRICHLOROETHENE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	StoA, Preservation
TRICHLOROFLUOROMETHANE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	StoA, Preservation
VINYL CHLORIDE	0.5	U	0.2	MDL	0.5	MRL	ug/L	R	StoA, Preservation

Sample ID: **MW-103-0102** ***Collected:*** **1/12/2012 10:15:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BROMOFORM	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TETRACHLOROETHENE	0.3	J,C1	0.2	MDL	0.5	MRL	ug/L	J	RI
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

Sample ID: **MW-301-1Q12** ***Collected:*** **1/12/2012 9:05:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	2.9	J,C1	2.0	MDL	4.0	MRL	ug/L	U	Fb
BROMOFORM	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

Sample ID: **MW-401-1Q12** ***Collected:*** **1/12/2012 9:00:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	3.4	J,C1	2.0	MDL	4.0	MRL	ug/L	U	Tb
BROMOFORM	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
CHLOROMETHANE	0.3	J,C1	0.2	MDL	0.5	MRL	ug/L	J	RI
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 12013A **Laboratory: R9LAB**

EDD Filename: 12013A_VOC_FINAL_rev **eQAPP Name: Modesto_Site_113011**

Reason Code Legend

Reason Code	*Description*
Fb	Field Blank Contamination
IcRsd	Initial Calibration Percent Relative Standard Deviation
Ms	Matrix Spike Upper Estimation
Preservation	Preservation
Rl	Reporting Limit Trace Value
StoA	Sampling to Analysis Rejection
Tb	Trip Blank Contamination

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 12013A **Laboratory: R9LAB**

EDD Filename: 12013A_BOD_1201017 FINAL **eQAPP Name: Modesto_Site_113011**

No Data Review Qualifiers Applied.

Data Qualifier Summary

Lab Reporting Batch ID: 12013A **Laboratory: R9LAB**

EDD Filename: 12013A_TDS_TSS_edited RPD **eQAPP Name: Modesto_Site_113011**

No Data Review Qualifiers Applied.

SDG 12013B

Data Qualifier Summary

Lab Reporting Batch ID: 12013B **Laboratory: R9LAB**

EDD Filename: 12013B_TO15_FINAL_edit RPD_rev **eQAPP Name: Modesto_Site_113011**

Method Category: **VOA**

Method: **TO-15** ***Matrix:*** **Air**

Sample ID: **GWTP Stack-0102** ***Collected:*** **1/12/2012 10:40:00** ***Analysis Type:*** **Reinjection-01** ***Dilution:*** **2.17**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZENE	1.7	J,C1	1.1	MDL	2.2	MRL	ppbv	J	RI
CHLOROMETHANE	1.5	J,C1	1.1	MDL	2.2	MRL	ppbv	J	RI

Sample ID: **SVE Pre GAC-0102** ***Collected:*** **1/12/2012 11:10:00** ***Analysis Type:*** **Initial** ***Dilution:*** **2.2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHLOROFORM	1.2	J,C1	1.1	MDL	2.2	MRL	ppbv	J	RI

Sample ID: **SVE Stack-0102** ***Collected:*** **1/12/2012 11:00:00** ***Analysis Type:*** **Initial** ***Dilution:*** **2.21**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CIS-1,2-DICHLOROETHENE	1.4	J,C1	1.1	MDL	2.2	MRL	ppbv	J	RI

* denotes a non-reportable result

Project Name and Number: R12S36 - Modesto GW Treatment System Winter 2012 Sampling

Data Qualifier Summary

Lab Reporting Batch ID: 12013B **Laboratory: R9LAB**

EDD Filename: 12013B_TO15_FINAL_edit RPD_rev **eQAPP Name: Modesto_Site_113011**

Reason Code Legend

Reason Code	*Description*
RI	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: R12S36 - Modesto GW Treatment System Winter 2012 Sampling

SDG 12034A

Data Qualifier Summary

Lab Reporting Batch ID: 12034A **Laboratory: R9LAB**

EDD Filename: 12034A_524_1202009 FINAL **eQAPP Name: Modesto_Site_113011**

Method Category: **VOA**

Method: **524.2** ***Matrix:*** **Water**

Sample ID: **MW-17A-1Q12** ***Collected:*** **2/1/2012 11:38:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,4-TRIMETHYLBENZENE	0.5	J,U,Q2	0.2	MDL	0.5	MRL	ug/L	UJ	Lcs
2,2-DICHLOROPROPANE	0.5	J,U,Q3,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
BENZENE	0.2	J,C1	0.2	MDL	0.5	MRL	ug/L	J	Rl
BROMODICHLOROMETHANE	0.3	J,C1	0.2	MDL	0.5	MRL	ug/L	J	Rl
NAPHTHALENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

Sample ID: **MW-17B-1Q12** ***Collected:*** **2/1/2012 1:10:00 PM** ***Analysis Type:*** **Reanalysis-011** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,2-DICHLOROPROPANE	0.5	J,U,C3,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd, Ccv
BROMOMETHANE	0.5	U	0.2	MDL	0.5	MRL	ug/L	UJ	Ccv
CHLOROFORM	0.2	J,C1	0.2	MDL	0.5	MRL	ug/L	J	Rl
NAPHTHALENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd, Ccv

Sample ID: **MW-17C-1Q12** ***Collected:*** **2/1/2012 12:30:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,2-DICHLOROPROPANE	0.5	J,U,C3,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd, Ccv
BROMODICHLOROMETHANE	0.5	J,U,Q4	0.2	MDL	0.5	MRL	ug/L	UJ	Ms
BROMOMETHANE	0.5	U	0.2	MDL	0.5	MRL	ug/L	UJ	Ccv
NAPHTHALENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd, Ccv

Sample ID: **MW-22A-1Q12** ***Collected:*** **2/1/2012 4:15:00 PM** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,1-DICHLOROETHANE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
1,2-DIBROMO-3-CHLOROPROPANE	2.0	J,U,C3	1.0	MDL	2.0	MRL	ug/L	UJ	IcRsd
2,2-DICHLOROPROPANE	0.5	J,U,C4,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	Ccv, Ccv
BROMODICHLOROMETHANE	0.2	J,C1,C3	0.2	MDL	0.5	MRL	ug/L	J	Rl, IcRsd
BROMOFORM	0.5	J,U,C3,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd, Ccv
BROMOMETHANE	0.5	J,U,C4,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	Ccv, Ccv
DIBROMOCHLOROMETHANE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

* denotes a non-reportable result

Project Name and Number: R12S42 - Modesto Groundwater Jan/Feb 2012 Qtrly Monitoring

Data Qualifier Summary

Lab Reporting Batch ID: 12034A **Laboratory: R9LAB**

EDD Filename: 12034A_524_1202009 FINAL **eQAPP Name: Modesto_Site_113011**

Method Category: **VOA**

Method: **524.2** ***Matrix:*** **Water**

Sample ID: **MW-22A-1Q12** ***Collected:*** **2/1/2012 4:15:00 PM** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	Ccv

Sample ID: **MW-23A-1Q12** ***Collected:*** **2/1/2012 9:05:00 AM** ***Analysis Type:*** **Reinjection-01** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,2-DICHLOROPROPANE	0.5	J,U,C3,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd, Ccv
BROMOMETHANE	0.5	U	0.2	MDL	0.5	MRL	ug/L	UJ	Ccv
NAPHTHALENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd, Ccv

Sample ID: **MW-24B-1Q12** ***Collected:*** **2/2/2012 8:40:00 AM** ***Analysis Type:*** **Reanalysis-012** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,2-DICHLOROPROPANE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
DICHLORODIFLUOROMETHANE	0.5	J,U,C4,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	Ccv, Ccv
NAPHTHALENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

Sample ID: **MW-25B-1Q12** ***Collected:*** **2/1/2012 2:55:00 PM** ***Analysis Type:*** **Reanalysis-012** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,2-DICHLOROPROPANE	0.5	J,U,C3,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	Ccv, Icv
BROMOMETHANE	0.5	U	0.2	MDL	0.5	MRL	ug/L	UJ	Ccv
NAPHTHALENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	Icv
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	Ccv, Icv

Sample ID: **MW-26B-1Q12** ***Collected:*** **1/31/2012 10:50:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,2-DICHLOROPROPANE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
CHLOROFORM	0.3	J,C1	0.2	MDL	0.5	MRL	ug/L	J	RI
NAPHTHALENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

* denotes a non-reportable result

Project Name and Number: R12S42 - Modesto Groundwater Jan/Feb 2012 Qtrly Monitoring

Data Qualifier Summary

Lab Reporting Batch ID: 12034A **Laboratory: R9LAB**

EDD Filename: 12034A_524_1202009 FINAL **eQAPP Name: Modesto_Site_113011**

Method Category: **VOA**

Method: **524.2** ***Matrix:*** **Water**

Sample ID: **MW-27B-1Q12** ***Collected:*** **1/31/2012 10:10:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,2-DICHLOROPROPANE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
NAPHTHALENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

Sample ID: **MW-28B-1Q12** ***Collected:*** **2/1/2012 10:45:00** ***Analysis Type:*** **Reinjection-01** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,2-DICHLOROPROPANE	0.5	J,U,C3,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd, Ccv
BROMOMETHANE	0.5	U	0.2	MDL	0.5	MRL	ug/L	UJ	Ccv
NAPHTHALENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd, Ccv

Sample ID: **MW-2A-1Q12** ***Collected:*** **1/31/2012 12:07:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,2-DICHLOROPROPANE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
NAPHTHALENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

Sample ID: **MW-4A-1Q12** ***Collected:*** **2/1/2012 10:47:00** ***Analysis Type:*** **Initial1** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,2-DICHLOROPROPANE	0.5	J,U,Q3,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd, Ccv
BROMOMETHANE	0.5	U	0.2	MDL	0.5	MRL	ug/L	UJ	Ccv
NAPHTHALENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd, Ccv

Sample ID: **MW-5A-1Q12** ***Collected:*** **1/31/2012 12:40:00** ***Analysis Type:*** **Reanalysis-012** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,4-TRIMETHYLBENZENE	0.5	J,U,Q2	0.2	MDL	0.5	MRL	ug/L	UJ	Lcs
2,2-DICHLOROPROPANE	0.5	J,U,Q3,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
NAPHTHALENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 12034A **Laboratory: R9LAB**

EDD Filename: 12034A_524_1202009 FINAL **eQAPP Name: Modesto_Site_113011**

Method Category: **VOA**

Method: **524.2** ***Matrix:*** **Water**

Sample ID: **MW-6A-1Q12** ***Collected:*** **2/1/2012 12:52:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,4-TRIMETHYLBENZENE	0.5	J,U,Q2	0.2	MDL	0.5	MRL	ug/L	UJ	Lcs
2,2-DICHLOROPROPANE	0.5	J,U,C3,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
BROMODICHLOROMETHANE	0.3	J,C1	0.2	MDL	0.5	MRL	ug/L	J	Rl
NAPHTHALENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

Sample ID: **MW-7A-1Q12** ***Collected:*** **2/1/2012 9:52:00 AM** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,4-TRIMETHYLBENZENE	0.5	J,U,Q2	0.2	MDL	0.5	MRL	ug/L	UJ	Lcs
2,2-DICHLOROPROPANE	0.5	J,U,C3,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
NAPHTHALENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

Sample ID: **MW-88A-1Q12** ***Collected:*** **1/31/2012 12:00:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,4-TRIMETHYLBENZENE	0.5	J,U,Q2	0.2	MDL	0.5	MRL	ug/L	UJ	Lcs
2,2-DICHLOROPROPANE	0.5	J,U,C3,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
BROMODICHLOROMETHANE	0.3	J,C1	0.2	MDL	0.5	MRL	ug/L	J	Rl
NAPHTHALENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TRICHLOROFLUOROMETHANE	0.3	J,C1	0.2	MDL	0.5	MRL	ug/L	J	Rl

Sample ID: **MW-8A-1Q12** ***Collected:*** **1/31/2012 9:34:00** ***Analysis Type:*** **Reinjection-01** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,2-DICHLOROPROPANE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
BROMODICHLOROMETHANE	0.2	J,C1	0.2	MDL	0.5	MRL	ug/L	J	Rl
NAPHTHALENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 12034A **Laboratory: R9LAB**

EDD Filename: 12034A_524_1202009 FINAL **eQAPP Name: Modesto_Site_113011**

Method Category: **VOA**

Method: **524.2** ***Matrix:*** **Water**

Sample ID: **MW-96A-1Q12** ***Collected:*** **2/1/2012 12:00:00** ***Analysis Type:*** **Initial2** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,4-TRIMETHYLBENZENE	0.5	J,U,Q2	0.2	MDL	0.5	MRL	ug/L	UJ	Lcs
2,2-DICHLOROPROPANE	0.5	J,U,C3,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
NAPHTHALENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

Sample ID: **MW-9B-1Q12** ***Collected:*** **1/31/2012 10:16:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,2-DICHLOROPROPANE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
NAPHTHALENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 12034A **Laboratory: R9LAB**

EDD Filename: 12034A_524_1202009 FINAL **eQAPP Name: Modesto_Site_113011**

Reason Code Legend

Reason Code	*Description*
Ccv	Continuing Calibration Verification Percent Difference Lower Estimation
Ccv	Continuing Calibration Verification Percent Recovery Lower Estimation
IcRsd	Initial Calibration Percent Relative Standard Deviation
Icv	Initial Calibration Verification Percent Difference Lower Estimation
Lcs	Laboratory Control Spike Lower Estimation
Ms	Matrix Spike Lower Estimation
Rl	Reporting Limit Trace Value

* denotes a non-reportable result

SDG 12034B

Data Qualifier Summary

Lab Reporting Batch ID: 12034B **Laboratory: R9LAB**

EDD Filename: 12034B_524_FINAL_rev **eQAPP Name: Modesto_Site_113011**

Method Category: **VOA**

Method: **524.2** ***Matrix:*** **Water**

Sample ID: **MW-10A-1Q12** ***Collected:*** **2/1/2012 12:17:00** ***Analysis Type:*** **Initial1** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,4-TRIMETHYLBENZENE	0.5	J,U,Q2	0.2	MDL	0.5	MRL	ug/L	UJ	Lcs
2,2-DICHLOROPROPANE	0.5	J,U,C3,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd, Ccv
BROMODICHLOROMETHANE	0.2	J,C1	0.2	MDL	0.5	MRL	ug/L	J	Rl
NAPHTHALENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

Sample ID: **MW-10B-1Q12** ***Collected:*** **1/30/2012 3:15:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,4-TRIMETHYLBENZENE	0.3	J,C1	0.2	MDL	0.5	MRL	ug/L	J	Rl
2,2-DICHLOROPROPANE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
CARBON TETRACHLORIDE	0.4	J,C1	0.2	MDL	0.5	MRL	ug/L	J	Rl
NAPHTHALENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
O-XYLENE	0.4	J,C1	0.2	MDL	0.5	MRL	ug/L	J	Rl
TOLUENE	0.3	J,C1	0.2	MDL	0.5	MRL	ug/L	J	Rl
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

Sample ID: **MW-10C-1Q12** ***Collected:*** **1/31/2012 9:05:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,2-DICHLOROPROPANE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
NAPHTHALENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

Sample ID: **MW-11A-1Q12** ***Collected:*** **1/31/2012 1:29:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,2-DICHLOROPROPANE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
NAPHTHALENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

Sample ID: **MW-12A-1Q12** ***Collected:*** **1/31/2012 3:08:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,2-DICHLOROPROPANE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

* denotes a non-reportable result

Project Name and Number: R12S42 - Modesto Groundwater Jan/Feb 2012 Qtrly Monitoring

Data Qualifier Summary

Lab Reporting Batch ID: 12034B **Laboratory: R9LAB**

EDD Filename: 12034B_524_FINAL_rev **eQAPP Name: Modesto_Site_113011**

Method Category: **VOA**

Method: **524.2** ***Matrix:*** **Water**

Sample ID: **MW-12A-1Q12** ***Collected:*** **1/31/2012 3:08:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BROMODICHLOROMETHANE	0.4	J,C1	0.2	MDL	0.5	MRL	ug/L	J	Rl
NAPHTHALENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TRICHLOROFLUOROMETHANE	0.3	J,C1	0.2	MDL	0.5	MRL	ug/L	J	Rl

Sample ID: **MW-13A-1Q12** ***Collected:*** **2/1/2012 8:35:00 AM** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,4-TRIMETHYLBENZENE	0.5	J,U,Q2	0.2	MDL	0.5	MRL	ug/L	UJ	Lcs
2,2-DICHLOROPROPANE	0.5	J,U,C3,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd, Ccv
NAPHTHALENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

Sample ID: **MW-14A-1Q12** ***Collected:*** **1/31/2012 2:07:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,2-DICHLOROPROPANE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
CHLOROFORM	0.4	J,C1	0.2	MDL	0.5	MRL	ug/L	J	Rl
NAPHTHALENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

Sample ID: **MW-15A-1Q12** ***Collected:*** **2/1/2012 9:19:00 AM** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,4-TRIMETHYLBENZENE	0.5	J,U,Q2	0.2	MDL	0.5	MRL	ug/L	UJ	Lcs
2,2-DICHLOROPROPANE	0.5	J,U,C3,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd, Ccv
CHLOROFORM	0.3	J,C1	0.2	MDL	0.5	MRL	ug/L	J	Rl
NAPHTHALENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

Sample ID: **MW-16A-1Q12** ***Collected:*** **1/31/2012 1:00:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,2-DICHLOROPROPANE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
ETHYLBENZENE	0.2	J,C1	0.2	MDL	0.5	MRL	ug/L	J	Rl

* denotes a non-reportable result

Project Name and Number: R12S42 - Modesto Groundwater Jan/Feb 2012 Qtrly Monitoring

Data Qualifier Summary

Lab Reporting Batch ID: 12034B **Laboratory: R9LAB**

EDD Filename: 12034B_524_FINAL_rev **eQAPP Name: Modesto_Site_113011**

Method Category: **VOA**

Method: **524.2** ***Matrix:*** **Water**

Sample ID: **MW-16A-1Q12** ***Collected:*** **1/31/2012 1:00:00** ***Analysis Type:*** **Initial-** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NAPHTHALENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

Sample ID: **MW-16B-1Q12** ***Collected:*** **1/31/2012 2:35:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,2-DICHLOROPROPANE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
NAPHTHALENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

Sample ID: **MW-16C-1Q12** ***Collected:*** **1/31/2012 1:48:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,2-DICHLOROPROPANE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
BENZENE	0.3	J,C1	0.2	MDL	0.5	MRL	ug/L	J	RI
NAPHTHALENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

Sample ID: **MW-19A-1Q12** ***Collected:*** **1/30/2012 12:35:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,2-DICHLOROPROPANE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
NAPHTHALENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

Sample ID: **MW-19B-1Q12** ***Collected:*** **1/30/2012 1:25:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,4-TRIMETHYLBENZENE	0.2	J,C1	0.2	MDL	0.5	MRL	ug/L	J	RI
2,2-DICHLOROPROPANE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
ETHYLBENZENE	0.4	J,C1	0.2	MDL	0.5	MRL	ug/L	J	RI
m&p-Xylene	0.8	J,C1	0.5	MDL	1.0	MRL	ug/L	J	RI
NAPHTHALENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
O-XYLENE	0.2	J,C1	0.2	MDL	0.5	MRL	ug/L	J	RI
TETRACHLOROETHENE	0.2	J,C1	0.2	MDL	0.5	MRL	ug/L	J	RI

* denotes a non-reportable result

Project Name and Number: R12S42 - Modesto Groundwater Jan/Feb 2012 Qtrly Monitoring

Data Qualifier Summary

Lab Reporting Batch ID: 12034B **Laboratory: R9LAB**

EDD Filename: 12034B_524_FINAL_rev **eQAPP Name: Modesto_Site_113011**

Method Category: **VOA**

Method: **524.2** ***Matrix:*** **Water**

Sample ID: **MW-19B-1Q12** ***Collected:*** **1/30/2012 1:25:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TOLUENE	0.2	J,C1	0.2	MDL	0.5	MRL	ug/L	J	Rl
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

Sample ID: **MW-1A-1Q12** ***Collected:*** **1/31/2012 10:54:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,1,2,2-TETRACHLOROETHANE	0.5	J,U,Q6	0.2	MDL	0.5	MRL	ug/L	UJ	Ms
1,1,2-TRICHLOROETHANE	0.5	J,U,Q6	0.2	MDL	0.5	MRL	ug/L	UJ	Ms
1,2,3-TRICHLOROPROPANE	0.5	J,U,Q6	0.2	MDL	0.5	MRL	ug/L	UJ	Ms
1,2-DIBROMO-3-CHLOROPROPANE	2.0	J,U,Q6	1.0	MDL	2.0	MRL	ug/L	UJ	Ms
1,2-DICHLOROBENZENE	0.5	J,U,Q6	0.2	MDL	0.5	MRL	ug/L	UJ	Ms
1,2-DICHLOROETHANE	0.5	J,U,Q6	0.2	MDL	0.5	MRL	ug/L	UJ	Ms
1,2-DICHLOROPROPANE	0.5	J,U,Q6	0.2	MDL	0.5	MRL	ug/L	UJ	Ms
1,3-DICHLOROBENZENE	0.5	J,U,Q6	0.2	MDL	0.5	MRL	ug/L	UJ	Ms
1,3-DICHLOROPROPANE	0.5	J,U,Q6	0.2	MDL	0.5	MRL	ug/L	UJ	Ms
1,4-DICHLOROBENZENE	0.5	J,U,Q6	0.2	MDL	0.5	MRL	ug/L	UJ	Ms
2,2-DICHLOROPROPANE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
2-BUTANONE	4.0	J,U,Q6	2.0	MDL	4.0	MRL	ug/L	UJ	Ms
4-CHLOROTOLUENE	0.5	J,U,Q6	0.2	MDL	0.5	MRL	ug/L	UJ	Ms
BROMOCHLOROMETHANE	0.5	J,U,Q6	0.2	MDL	0.5	MRL	ug/L	UJ	Ms
BROMODICHLOROMETHANE	0.5	J,U,Q6	0.2	MDL	0.5	MRL	ug/L	UJ	Ms
BROMOFORM	0.5	J,U,Q6	0.2	MDL	0.5	MRL	ug/L	UJ	Ms
CHLOROBENZENE	0.5	J,U,Q6	0.2	MDL	0.5	MRL	ug/L	UJ	Ms
CHLOROETHANE	0.5	J,U,Q6	0.2	MDL	0.5	MRL	ug/L	UJ	Ms
CHLOROFORM	0.2	J,C1,Q6	0.2	MDL	0.5	MRL	ug/L	J	Rl, Ms
CIS-1,2-DICHLOROETHENE	0.5	J,U,Q6	0.2	MDL	0.5	MRL	ug/L	UJ	Ms
DIBROMOCHLOROMETHANE	0.5	J,U,Q6	0.2	MDL	0.5	MRL	ug/L	UJ	Ms
DIBROMOMETHANE	0.5	J,U,Q6	0.2	MDL	0.5	MRL	ug/L	UJ	Ms
DICHLORODIFLUOROMETHANE	0.5	J,U,Q6	0.2	MDL	0.5	MRL	ug/L	UJ	Ms
NAPHTHALENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
STYRENE	0.5	J,U,Q6	0.2	MDL	0.5	MRL	ug/L	UJ	Ms
TETRACHLOROETHENE	1.2	J,Q6	0.2	MDL	0.5	MRL	ug/L	J	Ms
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TRICHLOROFLUOROMETHANE	0.5	J,U,Q6	0.2	MDL	0.5	MRL	ug/L	UJ	Ms

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 12034B **Laboratory: R9LAB**

EDD Filename: 12034B_524_FINAL_rev **eQAPP Name: Modesto_Site_113011**

Method Category: **VOA**

Method: **524.2** ***Matrix:*** **Water**

Sample ID: **MW-1A-1Q12** ***Collected:*** **1/31/2012 10:54:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VINYL CHLORIDE	0.5	J,U,Q6	0.2	MDL	0.5	MRL	ug/L	UJ	Ms

Sample ID: **MW-21A-1Q12** ***Collected:*** **2/1/2012 4:00:00 PM** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,4-TRIMETHYLBENZENE	0.5	J,U,Q2	0.2	MDL	0.5	MRL	ug/L	UJ	Lcs
2,2-DICHLOROPROPANE	0.5	J,U,C3,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd, Ccv
BENZENE	0.2	J,C1	0.2	MDL	0.5	MRL	ug/L	J	Rl
NAPHTHALENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

Sample ID: **MW-302-1Q12** ***Collected:*** **1/31/2012 7:00:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,4-TRIMETHYLBENZENE	0.5	J,U,Q2	0.2	MDL	0.5	MRL	ug/L	UJ	Lcs
2,2-DICHLOROPROPANE	0.5	J,U,C3,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd, Ccv
NAPHTHALENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

Sample ID: **MW-402-1Q12** ***Collected:*** **2/1/2012 4:02:00 PM** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,4-TRIMETHYLBENZENE	0.5	J,U,Q2	0.2	MDL	0.5	MRL	ug/L	UJ	Lcs
2,2-DICHLOROPROPANE	0.5	J,U,C3,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd, Ccv
NAPHTHALENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 12034B **Laboratory: R9LAB**

EDD Filename: 12034B_524_FINAL_rev **eQAPP Name: Modesto_Site_113011**

Reason Code Legend

Reason Code	*Description*
Ccv	Continuing Calibration Verification Percent Recovery Lower Estimation
IcRsd	Initial Calibration Percent Relative Standard Deviation
Lcs	Laboratory Control Spike Lower Estimation
Ms	Matrix Spike Precision
Rl	Reporting Limit Trace Value

* denotes a non-reportable result

SDG 12038B

Data Qualifier Summary

Lab Reporting Batch ID: 12038B **Laboratory: R9LAB**

EDD Filename: 12038B_TO15_1202016 FINAL_edited RPD **eQAPP Name: Modesto_Site_113011**

Method Category: **VOA**

Method: **TO-15** ***Matrix:*** **Air**

Sample ID: **DP-1A-1Q12** ***Collected:*** **2/2/2012 8:55:00 AM** ***Analysis Type:*** **Initial-** ***Dilution:*** **2.21**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,4-TRICHLOROBENZENE	2.2	J,U,C4	1.1	MDL	2.2	MRL	ppbv	UJ	Ccv
1,2,4-TRIMETHYLBENZENE	2.2	J,U,Q3	1.1	MDL	2.2	MRL	ppbv	UJ	Ccv
1,3,5-TRIMETHYLBENZENE	2.2	J,U,Q3	1.1	MDL	2.2	MRL	ppbv	UJ	Ccv
HEXACHLOROBUTADIENE	2.2	J,U,C4	1.1	MDL	2.2	MRL	ppbv	UJ	Ccv
TOLUENE	1.2	J,C1	1.1	MDL	2.2	MRL	ppbv	J	Rl

Sample ID: **DP-1B-1Q12** ***Collected:*** **2/2/2012 9:10:00 AM** ***Analysis Type:*** **Initial-** ***Dilution:*** **2.23**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,4-TRICHLOROBENZENE	2.2	J,U,C4	1.1	MDL	2.2	MRL	ppbv	UJ	Ccv
1,2,4-TRIMETHYLBENZENE	2.2	J,U,Q3	1.1	MDL	2.2	MRL	ppbv	UJ	Ccv
1,3,5-TRIMETHYLBENZENE	2.2	J,U,Q3	1.1	MDL	2.2	MRL	ppbv	UJ	Ccv
HEXACHLOROBUTADIENE	2.2	J,U,C4	1.1	MDL	2.2	MRL	ppbv	UJ	Ccv

Sample ID: **DP-5A-1Q12** ***Collected:*** **2/2/2012 11:20:00** ***Analysis Type:*** **Initial-** ***Dilution:*** **2.04**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,4-TRICHLOROBENZENE	2.0	J,U,C4	1.0	MDL	2.0	MRL	ppbv	UJ	Ccv
1,2,4-TRIMETHYLBENZENE	2.0	J,U,Q3	1.0	MDL	2.0	MRL	ppbv	UJ	Ccv
1,3,5-TRIMETHYLBENZENE	2.0	J,U,Q3	1.0	MDL	2.0	MRL	ppbv	UJ	Ccv
CHLOROMETHANE	1.8	J,C1	1.0	MDL	2.0	MRL	ppbv	J	Rl
HEXACHLOROBUTADIENE	2.0	J,U,C4	1.0	MDL	2.0	MRL	ppbv	UJ	Ccv

Sample ID: **DP-5B-1Q12** ***Collected:*** **2/2/2012 11:35:00** ***Analysis Type:*** **Initial-** ***Dilution:*** **2.08**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,4-TRICHLOROBENZENE	2.1	J,U,C4	1.0	MDL	2.1	MRL	ppbv	UJ	Ccv
1,2,4-TRIMETHYLBENZENE	2.1	J,U,Q3	1.0	MDL	2.1	MRL	ppbv	UJ	Ccv
1,3,5-TRIMETHYLBENZENE	2.1	J,U,Q3	1.0	MDL	2.1	MRL	ppbv	UJ	Ccv
HEXACHLOROBUTADIENE	2.1	J,U,C4	1.0	MDL	2.1	MRL	ppbv	UJ	Ccv
METHYLENE CHLORIDE	1.5	J,C1	1.0	MDL	2.1	MRL	ppbv	J	Rl

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 12038B **Laboratory: R9LAB**

EDD Filename: 12038B_TO15_1202016 FINAL_edited RPD **eQAPP Name: Modesto_Site_113011**

Method Category: **VOA**

Method: **TO-15** ***Matrix:*** **Air**

Sample ID: **DP-6A-1Q12** ***Collected:*** **2/2/2012 12:55:00** ***Analysis Type:*** **Initial-** ***Dilution:*** **2.09**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,4-TRICHLOROBENZENE	2.1	J,U,C4	1.0	MDL	2.1	MRL	ppbv	UJ	Ccv
1,2,4-TRIMETHYLBENZENE	2.1	J,U,Q3	1.0	MDL	2.1	MRL	ppbv	UJ	Ccv
1,3,5-TRIMETHYLBENZENE	2.1	J,U,Q3	1.0	MDL	2.1	MRL	ppbv	UJ	Ccv
HEXACHLOROBUTADIENE	2.1	J,U,C4	1.0	MDL	2.1	MRL	ppbv	UJ	Ccv

Sample ID: **OSVE-10-1Q12** ***Collected:*** **2/2/2012 2:33:00 PM** ***Analysis Type:*** **Reanalysis-011** ***Dilution:*** **2.24**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TOLUENE	2.0	J,C1	1.1	MDL	2.2	MRL	ppbv	J	Rl, Lcs

Sample ID: **SVE-2-1Q12** ***Collected:*** **2/2/2012 9:42:00 AM** ***Analysis Type:*** **Reanalysis-011** ***Dilution:*** **2.06**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TRICHLOROETHENE	1.3	J,C1	1.0	MDL	2.1	MRL	ppbv	J	Rl

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 12038B **Laboratory: R9LAB**

EDD Filename: 12038B_TO15_1202016 FINAL_edited RPD **eQAPP Name: Modesto_Site_113011**

Reason Code Legend

Reason Code	*Description*
Ccv	Continuing Calibration Verification Percent Difference Lower Estimation
Ccv	Continuing Calibration Verification Percent Recovery Lower Estimation
Ccv	Continuing Calibration Verification Percent Recovery Upper Estimation
Lcs	Laboratory Control Spike Upper Estimation
Rl	Reporting Limit Trace Value

* denotes a non-reportable result

SDG 12038E

Data Qualifier Summary

Lab Reporting Batch ID: 12038E **Laboratory: R9LAB**

EDD Filename: 12038E_VOC_1202019 FINAL **eQAPP Name: Modesto_Site_113011**

Method Category: **VOA**

Method: **524.2** ***Matrix:*** **Water**

Sample ID: **MW-18A-1Q12** ***Collected:*** **2/2/2012 1:10:00 PM** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BROMOFORM	0.5	J,U,C3,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd, Ccv
CIS-1,3-DICHLOROPROPENE	0.5	J,U,Q2	0.2	MDL	0.5	MRL	ug/L	UJ	Lcs
DIBROMOMETHANE	0.5	J,U,Q2	0.2	MDL	0.5	MRL	ug/L	UJ	Lcs
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,Q2,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	Lcs, Ccv

Sample ID: **MW-20A-1Q12** ***Collected:*** **2/3/2012 10:00:00** ***Analysis Type:*** **Initial2** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TETRACHLOROETHENE	270		5.0	MDL	10	MRL	ug/L	J	Ms, Ms

Sample ID: **MW-20A-1Q12** ***Collected:*** **2/3/2012 10:00:00** ***Analysis Type:*** **Reanalysis-011** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BROMODICHLOROMETHANE	0.2	J,C1,Q4	0.2	MDL	0.5	MRL	ug/L	J	Rl, Ms
BROMOFORM	0.5	J,U,C3,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd, Ccv
CIS-1,3-DICHLOROPROPENE	0.5	J,U,Q2	0.2	MDL	0.5	MRL	ug/L	UJ	Lcs
DIBROMOMETHANE	0.5	J,U,Q2,Q4	0.2	MDL	0.5	MRL	ug/L	UJ	Ms, Lcs
DICHLORODIFLUOROMETHANE	7.7	J,Q4	0.2	MDL	0.5	MRL	ug/L	J+	Ms
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,Q3,Q2	0.2	MDL	0.5	MRL	ug/L	UJ	Lcs, Ccv
TRICHLOROETHENE	0.2	J,C1	0.2	MDL	0.5	MRL	ug/L	J	Rl

Sample ID: **MW-20B-1Q12** ***Collected:*** **2/3/2012 9:20:00 AM** ***Analysis Type:*** **Reinjection-01** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,2-DICHLOROPROPANE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
DICHLORODIFLUOROMETHANE	0.5	J,U,C4,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	Ccv, Ccv
NAPHTHALENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

Sample ID: **MW-20C-1Q12** ***Collected:*** **2/3/2012 8:42:00 AM** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,2-DICHLOROPROPANE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
DICHLORODIFLUOROMETHANE	0.5	J,U,C4,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	Ccv, Ccv
NAPHTHALENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

* denotes a non-reportable result

Project Name and Number: R12S42 - Modesto Groundwater Jan/Feb 2012 Qtrly Monitoring

Data Qualifier Summary

Lab Reporting Batch ID: 12038E **Laboratory: R9LAB**

EDD Filename: 12038E_VOC_1202019 FINAL **eQAPP Name: Modesto_Site_113011**

Method Category: **VOA**

Method: **524.2** ***Matrix:*** **Water**

Sample ID: **MW-20C-1Q12** ***Collected:*** **2/3/2012 8:42:00 AM** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

Sample ID: **MW-29B-1Q12** ***Collected:*** **2/2/2012 2:05:00 PM** ***Analysis Type:*** **Reinjection-01** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,2-DICHLOROPROPANE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
DICHLORODIFLUOROMETHANE	0.5	J,U,C4,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	Ccv, Ccv
NAPHTHALENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

Sample ID: **MW-3A-1Q12** ***Collected:*** **2/3/2012 10:25:00** ***Analysis Type:*** **Reinjection-01** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,2-DICHLOROPROPANE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
DICHLORODIFLUOROMETHANE	0.5	J,U,C4,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	Ccv, Ccv
NAPHTHALENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

Sample ID: **MW-4B-1Q12** ***Collected:*** **2/2/2012 3:55:00 PM** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,2-DICHLOROPROPANE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
DICHLORODIFLUOROMETHANE	0.5	J,U,C4,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	Ccv, Ccv
NAPHTHALENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

Sample ID: **MW-4C-1Q12** ***Collected:*** **2/2/2012 3:10:00 PM** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,2-DICHLOROPROPANE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
DICHLORODIFLUOROMETHANE	0.5	J,U,C4,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	Ccv, Ccv
NAPHTHALENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 12038E **Laboratory: R9LAB**

EDD Filename: 12038E_VOC_1202019 FINAL **eQAPP Name: Modesto_Site_113011**

Method Category: **VOA**

Method: **524.2** ***Matrix:*** **Water**

Sample ID: **MW-71B-1Q12** ***Collected:*** **2/2/2012 2:08:00 PM** ***Analysis Type:*** **Reinjection-01** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,2-DICHLOROPROPANE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
DICHLORODIFLUOROMETHANE	0.5	J,U,C4,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	Ccv, Ccv
NAPHTHALENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TRANS-1,3-DICHLOROPROPENE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 12038E **Laboratory: R9LAB**

EDD Filename: 12038E_VOC_1202019 FINAL **eQAPP Name: Modesto_Site_113011**

Reason Code Legend

Reason Code	*Description*
Ccv	Continuing Calibration Verification Percent Difference Lower Estimation
Ccv	Continuing Calibration Verification Percent Recovery Lower Estimation
IcRsd	Initial Calibration Percent Relative Standard Deviation
Lcs	Laboratory Control Spike Lower Estimation
Ms	Matrix Spike Lower Estimation
Ms	Matrix Spike Lower Rejection
Ms	Matrix Spike Upper Estimation
Rl	Reporting Limit Trace Value

* denotes a non-reportable result

SDG 12041A

Data Qualifier Summary

Lab Reporting Batch ID: 12041A **Laboratory: R9LAB**

EDD Filename: 12041A_voc_FINAL_rev **eQAPP Name: Modesto_Site_113011**

Method Category: **VOA**

Method: **524.2** ***Matrix:*** **Water**

Sample ID: **EFF-0202** ***Collected:*** **2/9/2012 10:05:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BROMOFORM	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

Sample ID: **EW-1-0202** ***Collected:*** **2/9/2012 10:25:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TETRACHLOROETHENE	150		2.5	MDL	5.0	MRL	ug/L	J+	Ms

Sample ID: **EW-1-0202** ***Collected:*** **2/9/2012 10:25:00** ***Analysis Type:*** **Reinjection-01** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BROMOFORM	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
BROMOMETHANE	0.5	J,U,Q4,Q6	0.2	MDL	0.5	MRL	ug/L	UJ	Ms
NAPHTHALENE	0.5	J,U,Q6	0.2	MDL	0.5	MRL	ug/L	UJ	Ms

Sample ID: **MW-303-1Q12** ***Collected:*** **2/9/2012 9:40:00 AM** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BROMOFORM	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

* denotes a non-reportable result

Project Name and Number: R12S36 - Modesto GW Treatment System Winter 2012 Sampling

Data Qualifier Summary

Lab Reporting Batch ID: 12041A **Laboratory: R9LAB**

EDD Filename: 12041A_voc_FINAL_rev **eQAPP Name: Modesto_Site_113011**

Reason Code Legend

Reason Code	*Description*
IcRsd	Initial Calibration Percent Relative Standard Deviation
Ms	Matrix Spike Precision
Ms	Matrix Spike Upper Estimation

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 12041A **Laboratory: R9LAB**

EDD Filename: 12041A_BOD_1202029 FINAL_edited LCS **eQAPP Name: Modesto_Site_113011**

No Data Review Qualifiers Applied.

Data Qualifier Summary

Lab Reporting Batch ID: 12041A

Laboratory: R9LAB

EDD Filename: 12041A_TDSTSS_1202029 FINAL_edited RPD_LCS

eQAPP Name: Modesto_Site_113011

No Data Review Qualifiers Applied.

SDG 12041C

Data Qualifier Summary

Lab Reporting Batch ID: 12041C **Laboratory: R9LAB**

EDD Filename: 12041C_VOC_FINAL_RPD **eQAPP Name: Modesto_Site_113011**

Method Category: **VOA**

Method: **TO-15** ***Matrix:*** **Air**

Sample ID: **GWTP Stack-0202** ***Collected:*** **2/9/2012 10:40:00** ***Analysis Type:*** **Reinjection-01** ***Dilution:*** **2.26**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZENE	2.0	J,C1	1.1	MDL	2.3	MRL	ppbv	J	RI

Sample ID: **SVE Pre GAC-0202** ***Collected:*** **2/9/2012 11:20:00** ***Analysis Type:*** **Initial** ***Dilution:*** **2.25**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	1.1	J,C1	1.1	MDL	2.2	MRL	ppbv	J	RI

Sample ID: **SVE Stack-0202** ***Collected:*** **2/9/2012 11:10:00** ***Analysis Type:*** **Initial** ***Dilution:*** **2.26**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CIS-1,2-DICHLOROETHENE	1.2	J,C1	1.1	MDL	2.3	MRL	ppbv	J	RI

* denotes a non-reportable result

Project Name and Number: R12S36 - Modesto GW Treatment System Winter 2012 Sampling

Data Qualifier Summary

Lab Reporting Batch ID: 12041C **Laboratory: R9LAB**

EDD Filename: 12041C_VOC_FINAL_RPD **eQAPP Name: Modesto_Site_113011**

Reason Code Legend

Reason Code	*Description*
RI	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: R12S36 - Modesto GW Treatment System Winter 2012 Sampling

SDG 12048A

Data Qualifier Summary

Lab Reporting Batch ID: 12048A **Laboratory: R9LAB**

EDD Filename: 12048A_TO-15_FINAL_edited RPD **eQAPP Name: Modesto_Site_113011**

Method Category: **VOA**

Method: **TO-15** ***Matrix:*** **Air**

Sample ID: **GWTPPrGWC-0203** ***Collected:*** **2/16/2012 11:05:00** ***Analysis Type:*** **Reinjection-01-** ***Dilution:*** **2.25**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,4-TRICHLOROBENZENE	2.2	J,U,C4	1.1	MDL	2.2	MRL	ppbv	UJ	Ccv
HEXACHLOROBUTADIENE	2.2	J,U,C4	1.1	MDL	2.2	MRL	ppbv	UJ	Ccv

* denotes a non-reportable result

Project Name and Number: R12S36 - Modesto GW Treatment System Winter 2012 Sampling

Data Qualifier Summary

Lab Reporting Batch ID: 12048A **Laboratory: R9LAB**

EDD Filename: 12048A_TO-15_FINAL_edited RPD **eQAPP Name: Modesto_Site_113011**

Reason Code Legend

Reason Code	*Description*
Ccv	Continuing Calibration Verification Percent Difference Lower Estimation

* denotes a non-reportable result

SDG 12069A

Data Qualifier Summary

Lab Reporting Batch ID: 12069A **Laboratory: R9LAB**

EDD Filename: 12069A_voc_1203025 FINAL **eQAPP Name: Modesto_Site_113011**

Method Category: **VOA**

Method: **524.2** ***Matrix:*** **Water**

Sample ID: **EFF-0302** ***Collected:*** **3/8/2012 10:20:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,2-DICHLOROPROPANE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
BROMOMETHANE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

Sample ID: **EW-1-0302** ***Collected:*** **3/8/2012 10:40:00** ***Analysis Type:*** **Reinjection-01** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,2-DICHLOROPROPANE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
BROMOMETHANE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

Sample ID: **MW-304-1Q12** ***Collected:*** **3/8/2012 10:00:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,2-DICHLOROPROPANE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
BROMOMETHANE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 12069A **Laboratory: R9LAB**

EDD Filename: 12069A_voc_1203025 FINAL **eQAPP Name: Modesto_Site_113011**

Reason Code Legend

Reason Code	*Description*
IcRsd	Initial Calibration Percent Relative Standard Deviation

* denotes a non-reportable result

Project Name and Number: R12S36 - Modesto GW Treatment System Winter 2012 Sampling

Data Qualifier Summary

Lab Reporting Batch ID: 12069A **Laboratory: R9LAB**

EDD Filename: 12069A_TDS_FINAL_LCS_rev **eQAPP Name: Modesto_Site_113011**

No Data Review Qualifiers Applied.

SDG 12069B

Data Qualifier Summary

Lab Reporting Batch ID: 12069B **Laboratory: R9LAB**

EDD Filename: 12069B_TO15_ FINAL_RPD **eQAPP Name: Modesto_Site_113011**

Method Category: **VOA**

Method: **TO-15** ***Matrix:*** **Air**

Sample ID: **GWTP Pr GAC-0302** ***Collected:*** **3/8/2012 11:45:00** ***Analysis Type:*** **Reinjection-01-** ***Dilution:*** **2.01**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,4-TRICHLOROBENZENE	2.0	J,U,C4	1.0	MDL	2.0	MRL	ppbv	UJ	Ccv
HEXACHLOROBUTADIENE	2.0	J,U,C3	1.0	MDL	2.0	MRL	ppbv	UJ	IcRsd

Sample ID: **GWTP Stack-0302** ***Collected:*** **3/8/2012 12:00:00** ***Analysis Type:*** **Reanalysis-012-** ***Dilution:*** **2.2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXACHLOROBUTADIENE	2.2	J,U,C3	1.1	MDL	2.2	MRL	ppbv	UJ	IcRsd

Sample ID: **MW-108-0302** ***Collected:*** **3/8/2012 11:50:00** ***Analysis Type:*** **Initial2-** ***Dilution:*** **2.2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,4-TRICHLOROBENZENE	2.2	J,U,C4	1.1	MDL	2.2	MRL	ppbv	UJ	Ccv
HEXACHLOROBUTADIENE	2.2	J,U,C3	1.1	MDL	2.2	MRL	ppbv	UJ	IcRsd

Sample ID: **SVE Pre GAC-0302** ***Collected:*** **3/8/2012 12:10:00** ***Analysis Type:*** **Initial-** ***Dilution:*** **2.2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,4-TRICHLOROBENZENE	2.2	J,U,C4	1.1	MDL	2.2	MRL	ppbv	UJ	Ccv
CHLOROMETHANE	1.3	J,C1	1.1	MDL	2.2	MRL	ppbv	J	RI
HEXACHLOROBUTADIENE	2.2	J,U,C3	1.1	MDL	2.2	MRL	ppbv	UJ	IcRsd

Sample ID: **SVE Stack-0302** ***Collected:*** **3/8/2012 12:20:00** ***Analysis Type:*** **Initial-** ***Dilution:*** **2.08**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,4-TRICHLOROBENZENE	2.1	J,U,C4	1.0	MDL	2.1	MRL	ppbv	UJ	Ccv
CIS-1,2-DICHLOROETHENE	1.2	J,C1	1.0	MDL	2.1	MRL	ppbv	J	RI
HEXACHLOROBUTADIENE	2.1	J,U,C3	1.0	MDL	2.1	MRL	ppbv	UJ	IcRsd

* denotes a non-reportable result

Project Name and Number: R12S36 - Modesto GW Treatment System Winter 2012 Sampling

Data Qualifier Summary

Lab Reporting Batch ID: 12069B **Laboratory: R9LAB**

EDD Filename: 12069B_TO15_ FINAL_RPD **eQAPP Name: Modesto_Site_113011**

Reason Code Legend

Reason Code	*Description*
Ccv	Continuing Calibration Verification Percent Difference Lower Estimation
IcRsd	Initial Calibration Percent Relative Standard Deviation
Rl	Reporting Limit Trace Value

* denotes a non-reportable result

SDG 12076A

Data Qualifier Summary

Lab Reporting Batch ID: 12076A **Laboratory: R9LAB**

EDD Filename: 12076A_BOD FINAL_LCS **eQAPP Name: Modesto_Site_113011**

No Data Review Qualifiers Applied.

Data Qualifier Summary

Lab Reporting Batch ID: 12076A

Laboratory: R9LAB

EDD Filename: 12076A_TSS_ FINAL_LCS_edited RPD_rev

eQAPP Name: Modesto_Site_113011

No Data Review Qualifiers Applied.

Appendix B

Manual Validation Level III and IV Worksheets
and
ADR Reports

SDG 12013A

LDC #: 1201-02A1
SDG #: 12013A
Laboratory: EPA Region 9

VALIDATION COMPLETENESS WORKSHEET
Level III

Date: 2/08/11
Page: 1 of 1
Reviewer: KD
2nd Reviewer: ✓

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	SW	Sampling dates: 1/12/2012 EW-1-0102 had pH = 4
II.	GC/MS Instrument performance check	A	
III.	Initial calibration/ICV	SW	≤ 20.0%D per R9 SOP ±30% SCV For RRFcriteria see QLS %R
IV.	Continuing calibration	A	≤ 30% per R9 SOP354
V.	Blanks	A	< ½ QL per SOP Storage Blank < ½ QL
VI.	Surrogate spikes	A	criteria per R9 SOP 354
VII.	Matrix spike/Matrix spike duplicates	SW	****** MS/MSD on sample 8 (field blank)*******
VIII.	Laboratory control samples	A	per R9 SOP354 criteria
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	30% of CC (drift ≤ 30 sec of IC)
XI.	Target compound identification	N	Not reviewed for Level III validation.
XII.	Compound quantitation/CRQLs	N	Not reviewed for Level III validation.
XIII.	Tentatively identified compounds (TICs)	N	Not reviewed for Level III validation.
XIV.	System performance	N	Not reviewed for Level III validation.
XV.	Overall assessment of data	A	****** time collected on EFF-0102 0935 on COC 0915 on label *******
XVI.	Field duplicates	SW	samples 2 & 6
XVII.	Field blanks	SW	TB = 7 FB = 8

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	CRB EFF-0102	11		21		31	
2	CRB INF-0102	12		22		32	
3	CRB Mid-0102	13		23		33	
4	EFF-0102	14		24		34	
5	EW-1-0102	15		25		35	
6	MW-103-0102	16		26		36	
7	MW-301-1Q12	17		27		37	
8	MW-401-1Q12	18		28		38	
9	MW-401-1Q12-MS	19		29		39	
10	MW-401-1Q12-MSD	20		30		40	

LDC# 1201-02A
SDG# 12013A

VALIDATION FINDINGS WORKSHEET
Technical Holding Times

Page: 1 of 1
Reviewer: KD
2nd Reviewer: —

METHOD: GC/MS Volatile Organics (EPA Method 524.2)

#	Sample ID	Matrix	Preserved	Sampling Date	Extraction date	Analysis date	Total # of Days	Temp.	Qualifier
1	CRB EFF-0102	Water	Y	1/12/2012	NA	1/20/2012	8	1.0	None
2	CRB INF-0102	Water	Y	1/12/2012	NA	1/20/2012	8	1.0	None
3	CRB Mid-0102	Water	Y	1/12/2012	NA	1/20/2012	8	1.0	None
4	EFF-0102	Water	Y	1/12/2012	NA	1/20/2012	8	1.0	None
5	EW-1-0102	Water	pH = 4	1/12/2012	NA	1/20/2012	8	1.0	~~J-/UJ~~ J-/R per NFG
6	MW-103-0102	Water	Y	1/12/2012	NA	1/20/2012	8	1.0	None
7	MW-301-1Q12	Water	Y	1/12/2012	NA	1/20/2012	8	1.0	None
8	MW-401-1Q12	Water	Y	1/12/2012	NA	1/20/2012	8	1.0	None

NR = Not Reported

WORK ORDER NOTES - 1201017

1201017 - California Site Cleanup-Section 2
Modesto GW Treatment System Winter 2012

Edit Done

Sample 04 (EFF-0102) - COC says collection time = 0935, labs say 0915.

VOC: Sample 1201017-05 has PH=4. YNB 01/23/12

LDC #: 1201-02A1
SDG #: 12013A

VALIDATION FINDINGS WORKSHEET
Initial Calibration

Page: 1 of 1
Reviewer: KT
2nd Reviewer: ✓

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
1	1-19-12	011912JVWQ	trans-1,3-Dichloropropene	24.47 (20.0)	All samples	J / UJ
	HP5973J	ICAL	Bromoform	22.48 (20.0)		J / UJ

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: 12013A **Laboratory: R9LAB**

EDD Filename: 12013A_VOC_1201017 FINAL **eQAPP Name: Modesto_Site_113011**

Method: **524.2**

Matrix: **Water**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
MW-401-1Q12MS	1,1,2-TRICHLORO-1,2,2-TRIFLU	162	161	38.00-140.00	-	1,1,2-TRICHLORO-1,2,2-TRIFL	J+ (all detects)
(MW-401-1Q12)	DICHLORODIFLUOROMETHAN	153	149	25.00-135.00	-	DICHLORODIFLUOROMETHA	

Project Name and Number: R12S36 - Modesto GW Treatment System Winter 2012 Sampling

Reporting Limit Outliers

Lab Reporting Batch ID: 12013A **Laboratory: R9LAB**

EDD Filename: 12013A_VOC_1201017 FINAL **eQAPP Name: Modesto_Site_113011**

Method: **524.2**

Matrix: **Water**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
CRB INF-0102	TETRACHLOROETHENE	J,C1	0.4	0.5	MRL	ug/L	J (all detects)
MW-103-0102	TETRACHLOROETHENE	J,C1	0.3	0.5	MRL	ug/L	J (all detects)
MW-301-1Q12	ACETONE	J,C1	2.9	4.0	MRL	ug/L	J (all detects)
MW-401-1Q12	ACETONE CHLOROMETHANE	J,C1 J,C1	3.4 0.3	4.0 0.5	MRL MRL	ug/L ug/L	J (all detects)

Project Name and Number: R12S36 - Modesto GW Treatment System Winter 2012 Sampling

Field QC Assignments and Associated Samples

EDD File Name: 12013A
eQapp Name: Modesto_Site_113011

	Associated Samples	Sample Collection Date
Field QC Sample: MW-103-0102 **QC Type:** Field_Duplicate		
	CRB INF-0102	1/12/2012 10:10:00 AM
Field QC Sample: MW-301-1Q12 **QC Type:** Trip_Blank		
	MW-401-1Q12	1/12/2012 9:00:00 AM
	EW-1-0102	1/12/2012 10:20:00 AM
	CRB Mid-0102	1/12/2012 10:00:00 AM
	EFF-0102	1/12/2012 9:35:00 AM
	CRB EFF-0102	1/12/2012 9:55:00 AM
	CRB INF-0102	1/12/2012 10:10:00 AM
	MW-103-0102	1/12/2012 10:15:00 AM
Field QC Sample: MW-401-1Q12 **QC Type:** Field_Blank		
	EW-1-0102	1/12/2012 10:20:00 AM
	CRB Mid-0102	1/12/2012 10:00:00 AM
	EFF-0102	1/12/2012 9:35:00 AM
	CRB EFF-0102	1/12/2012 9:55:00 AM
	CRB INF-0102	1/12/2012 10:10:00 AM
	MW-103-0102	1/12/2012 10:15:00 AM
	MW-301-1Q12	1/12/2012 9:05:00 AM

Field Duplicate RPD Report

Lab Reporting Batch ID: 12013A **Laboratory: R9LAB**

EDD Filename: 12013A_VOC_1201017 FINAL **eQAPP Name: Modesto_Site_113011**

Method: 524.2
Matrix: Water

Analyte	Concentration (ug/L)		Sample RPD	eQAPP RPD	Flag
	CRB INF-0102	MW-103-0102			
TETRACHLOROETHENE	0.4	0.3	29	1.00	No Qualifiers Applied

Project Name and Number: R12S36 - Modesto GW Treatment System Winter 2012 Sampling

Trip Blank Outlier Report

Lab Reporting Batch ID: 12013A **Laboratory: R9LAB**

EDD Filename: 12013A_VOC_1201017 FINAL **eQAPP Name: Modesto_Site_113011**

Method: **524.2**
Matrix: **Water**

Trip Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
MW-301-1Q12(Initial)	1/12/2012 9:05:00 AM	ACETONE	2.9 ug/L	CRB EFF-0102 CRB INF-0102 CRB Mid-0102 EFF-0102 EW-1-0102 MW-103-0102 MW-401-1Q12

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
MW-401-1Q12(Initial)	ACETONE	3.4 ug/L	4.0U ug/L

Project Name and Number: R12S36 - Modesto GW Treatment System Winter 2012 Sampling

Field Blank Outlier Report

Lab Reporting Batch ID: 12013A **Laboratory: R9LAB**

EDD Filename: 12013A_VOC_1201017 FINAL **eQAPP Name: Modesto_Site_113011**

Method: **524.2**
Matrix: **Water**

Field Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
MW-401-1Q12(Initial)	1/12/2012 9:00:00 AM	ACETONE CHLOROMETHANE	3.4 ug/L 0.3 ug/L	CRB EFF-0102 CRB INF-0102 CRB Mid-0102 EFF-0102 EW-1-0102 MW-103-0102 MW-301-1Q12

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
CRB EFF-0102(Initial)	CHLOROMETHANE	0.5 ug/L	0.5U ug/L
MW-301-1Q12(Initial)	ACETONE	2.9 ug/L	4.0U ug/L

Project Name and Number: R12S36 - Modesto GW Treatment System Winter 2012 Sampling

History of Manual Changes to Automated Data Review Qualifiers

Changed by:

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: CRB EFF-0102									
BROMOFORM	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	2/8/2012	16:35
Reason for change: %RSD > 20.0									
TRANS-1,3-DICHLOROPROPENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	2/8/2012	16:36
Reason for change: %RSD > 20.0									
TRICHLOROETHENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	2/8/2012	16:36
Reason for change: %RSD > 20.0									
TRICHLOROETHENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent	UJ		2/8/2012	16:36
Reason for change: remove qualifier									
Field Sample ID: CRB INF-0102									
BROMOFORM	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	2/8/2012	16:37
Reason for change: %RSD > 20.0									
TRANS-1,3-DICHLOROPROPENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	2/8/2012	16:37
Reason for change: %RSD > 20.0									
Field Sample ID: CRB Mid-0102									
BROMOFORM	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	2/8/2012	16:37
Reason for change: %RSD > 20.0									
TRANS-1,3-DICHLOROPROPENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	2/8/2012	16:37
Reason for change: %RSD > 20.0									

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: EFF-0102									
BROMOFORM	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	2/8/2012	16:38
Reason for change:	%RSD > 20.0								
TRANS-1,3-DICHLOROPROPENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	2/8/2012	16:38
Reason for change:	%RSD > 20.0								
Field Sample ID: EW-1-0102									
1,1,1,2-TETRACHLOROETHANE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
1,1,1,2-TETRACHLOROETHANE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	4/12/2012	16:07
Reason for change:	pH=4 exceeds pH<2 preservation requirements and sample was analyzed outside 7 day HT for unpreserved waters.								
1,1,1-TRICHLOROETHANE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
1,1,1-TRICHLOROETHANE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	4/12/2012	16:09
Reason for change:	pH=4 exceeds pH<2 preservation requirements and sample was analyzed outside 7 day HT for unpreserved waters.								
1,1,2,2-TETRACHLOROETHANE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
1,1,2,2-TETRACHLOROETHANE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	4/12/2012	16:07
Reason for change:	pH=4 exceeds pH<2 preservation requirements and sample was analyzed outside 7 day HT for unpreserved waters.								
1,1,2-TRICHLORO-1,2,2-	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
1,1,2-TRICHLORO-1,2,2-	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	4/12/2012	16:10
Reason for change:	pH=4 exceeds pH<2 preservation requirements and sample was analyzed outside 7 day HT for unpreserved waters.								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: EW-1-0102									
1,1,2-TRICHLOROETHANE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
1,1,2-TRICHLOROETHANE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	4/12/2012	16:08
Reason for change:	pH=4 exceeds pH<2 preservation requirements and sample was analyzed outside 7 day HT for unpreserved waters.								
1,1-DICHLOROETHANE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
1,1-DICHLOROETHANE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	4/12/2012	16:09
Reason for change:	pH=4 exceeds pH<2 preservation requirements and sample was analyzed outside 7 day HT for unpreserved waters.								
1,1-DICHLOROETHENE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
1,1-DICHLOROETHENE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	4/12/2012	16:10
Reason for change:	pH=4 exceeds pH<2 preservation requirements and sample was analyzed outside 7 day HT for unpreserved waters.								
1,1-DICHLOROPROPENE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
1,1-DICHLOROPROPENE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	4/12/2012	16:09
Reason for change:	pH=4 exceeds pH<2 preservation requirements and sample was analyzed outside 7 day HT for unpreserved waters.								
1,2,3-TRICHLOROBENZENE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	2/8/2012	16:22
Reason for change:	ph = 4 exceeds pH<2 preservation requirement and sample was analyzed outside 7 day HT for unpreserved waters.								
1,2,3-TRICHLOROBENZENE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
1,2,3-TRICHLOROPROPANE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: EW-1-0102									
1,2,3-TRICHLOROPROPANE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	4/12/2012	16:07
Reason for change:	pH=4 exceeds pH<2 preservation requirements and sample was analyzed outside 7 day HT for unpreserved waters.								
1,2,4-TRICHLOROBENZENE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	2/8/2012	16:21
Reason for change:	ph = 4 exceeds pH<2 preservation requirement and sample was analyzed outside 7 day HT for unpreserved waters.								
1,2,4-TRICHLOROBENZENE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
1,2,4-TRIMETHYLBENZENE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	2/8/2012	16:20
Reason for change:	ph = 4 exceeds pH<2 preservation requirement and sample was analyzed outside 7 day HT for unpreserved waters.								
1,2,4-TRIMETHYLBENZENE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Reinjection-	2.0	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Reinjection-	2.0	ug/L	Preservation		UJ	4/12/2012	16:06
Reason for change:	pH=4 sample								
1,2-DIBROMOETHANE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
1,2-DIBROMOETHANE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	4/12/2012	16:07
Reason for change:	pH=4 exceeds pH<2 preservation requirements and sample was analyzed outside 7 day HT for unpreserved waters.								
1,2-DICHLOROBENZENE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	2/8/2012	16:21
Reason for change:	ph = 4 exceeds pH<2 preservation requirement and sample was analyzed outside 7 day HT for unpreserved waters.								
1,2-DICHLOROBENZENE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: EW-1-0102									
1,2-DICHLOROETHANE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
1,2-DICHLOROETHANE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	4/12/2012	16:09
Reason for change:	pH=4 exceeds pH<2 preservation requirements and sample was analyzed outside 7 day HT for unpreserved waters.								
1,2-DICHLOROPROPANE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
1,2-DICHLOROPROPANE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	4/12/2012	16:09
Reason for change:	pH=4 exceeds pH<2 preservation requirements and sample was analyzed outside 7 day HT for unpreserved waters.								
1,3,5-TRIMETHYLBENZENE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	2/8/2012	16:20
Reason for change:	ph = 4 exceeds pH<2 preservation requirement and sample was analyzed outside 7 day HT for unpreserved waters.								
1,3,5-TRIMETHYLBENZENE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
1,3-DICHLOROBENZENE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	2/8/2012	16:20
Reason for change:	ph = 4 exceeds pH<2 preservation requirement and sample was analyzed outside 7 day HT for unpreserved waters.								
1,3-DICHLOROBENZENE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
1,3-DICHLOROPROPANE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
1,3-DICHLOROPROPANE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	4/12/2012	16:08
Reason for change:	pH=4 exceeds pH<2 preservation requirements and sample was analyzed outside 7 day HT for unpreserved waters.								
1,4-DICHLOROBENZENE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	2/8/2012	16:21
Reason for change:	ph = 4 exceeds pH<2 preservation requirement and sample was analyzed outside 7 day HT for unpreserved waters.								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: EW-1-0102									
1,4-DICHLOROBENZENE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
2,2-DICHLOROPROPANE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
2,2-DICHLOROPROPANE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	4/12/2012	16:09
Reason for change:	pH=4 exceeds pH<2 preservation requirements and sample was analyzed outside 7 day HT for unpreserved waters.								
2-BUTANONE	524.2	Reinjection-	4.0	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
2-BUTANONE	524.2	Reinjection-	4.0	ug/L	Preservation		UJ	4/12/2012	16:09
Reason for change:	pH=4 exceeds pH<2 preservation requirements and sample was analyzed outside 7 day HT for unpreserved waters.								
2-CHLOROTOLUENE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	2/8/2012	16:20
Reason for change:	ph = 4 exceeds pH<2 preservation requirement and sample was analyzed outside 7 day HT for unpreserved waters.								
2-CHLOROTOLUENE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
4-CHLOROTOLUENE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	2/8/2012	16:20
Reason for change:	ph = 4 exceeds pH<2 preservation requirement and sample was analyzed outside 7 day HT for unpreserved waters.								
4-CHLOROTOLUENE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
ACETONE	524.2	Reinjection-	4.0	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
ACETONE	524.2	Reinjection-	4.0	ug/L	Preservation		UJ	4/12/2012	16:10
Reason for change:	pH=4 exceeds pH<2 preservation requirements and sample was analyzed outside 7 day HT for unpreserved waters.								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: EW-1-0102									
BENZENE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	2/8/2012	15:28
Reason for change:	pH = 4 exceeded pH<2 requirement. Sample was not analyzed within 7 day HT for non-preserved waters.								
BENZENE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
BROMOBENZENE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	2/8/2012	16:19
Reason for change:	ph = 4 exceeds pH<2 preservation requirement and sample was analyzed outside 7 day HT for unpreserved waters.								
BROMOBENZENE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
BROMOCHLOROMETHANE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
BROMOCHLOROMETHANE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	4/12/2012	16:09
Reason for change:	pH=4 exceeds pH<2 preservation requirements and sample was analyzed outside 7 day HT for unpreserved waters.								
BROMODICHLOROMETHANE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
BROMODICHLOROMETHANE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	4/12/2012	16:08
Reason for change:	pH=4 exceeds pH<2 preservation requirements and sample was analyzed outside 7 day HT for unpreserved waters.								
BROMOFORM	524.2	Reinjection-	0.5	ug/L	Initial Calibration Percent		UJ	2/8/2012	16:38
Reason for change:	%RSD > 20.0								
BROMOFORM	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
BROMOFORM	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	4/12/2012	16:07
Reason for change:	pH=4 exceeds pH<2 preservation requirements and sample was analyzed outside 7 day HT for unpreserved waters.								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: EW-1-0102									
BROMOMETHANE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
BROMOMETHANE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	4/12/2012	16:10
Reason for change:	pH=4 exceeds pH<2 preservation requirements and sample was analyzed outside 7 day HT for unpreserved waters.								
CARBON TETRACHLORIDE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
CARBON TETRACHLORIDE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	4/12/2012	16:09
Reason for change:	pH=4 exceeds pH<2 preservation requirements and sample was analyzed outside 7 day HT for unpreserved waters.								
CHLOROBENZENE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	2/8/2012	16:16
Reason for change:	ph = 4 exceeds pH<2 preservation requirement and sample was analyzed outside 7 day HT for unpreserved waters.								
CHLOROBENZENE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
CHLOROETHANE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
CHLOROETHANE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	4/12/2012	16:10
Reason for change:	pH=4 exceeds pH<2 preservation requirements and sample was analyzed outside 7 day HT for unpreserved waters.								
CHLOROFORM	524.2	Reinjection-	3.5	ug/L	Sampling to Analysis Rejection		J-	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
CHLOROFORM	524.2	Reinjection-	3.5	ug/L	Preservation		J-	4/12/2012	16:09
Reason for change:	pH=4 exceeds pH<2 preservation requirements and sample was analyzed outside 7 day HT for unpreserved waters.								
CHLOROMETHANE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: EW-1-0102									
CHLOROMETHANE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	4/12/2012	16:10
Reason for change:	pH=4 exceeds pH<2 preservation requirements and sample was analyzed outside 7 day HT for unpreserved waters.								
CIS-1,2-DICHLOROETHENE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
CIS-1,2-DICHLOROETHENE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	4/12/2012	16:09
Reason for change:	pH=4 exceeds pH<2 preservation requirements and sample was analyzed outside 7 day HT for unpreserved waters.								
CIS-1,3-DICHLOROPROPENE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
CIS-1,3-DICHLOROPROPENE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	4/12/2012	16:08
Reason for change:	pH=4 exceeds pH<2 preservation requirements and sample was analyzed outside 7 day HT for unpreserved waters.								
DIBROMOCHLOROMETHANE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
DIBROMOCHLOROMETHANE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	4/12/2012	16:07
Reason for change:	pH=4 exceeds pH<2 preservation requirements and sample was analyzed outside 7 day HT for unpreserved waters.								
DIBROMOMETHANE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
DIBROMOMETHANE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	4/12/2012	16:08
Reason for change:	pH=4 exceeds pH<2 preservation requirements and sample was analyzed outside 7 day HT for unpreserved waters.								
DICHLORODIFLUOROMETHANE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
DICHLORODIFLUOROMETHANE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	4/12/2012	16:10
Reason for change:	pH=4 exceeds pH<2 preservation requirements and sample was analyzed outside 7 day HT for unpreserved waters.								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: EW-1-0102									
ETHYLBENZENE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	2/8/2012	16:16
Reason for change:	ph = 4 exceeds pH<2 preservation requirement and sample was analyzed outside 7 day HT for unpreserved waters.								
ETHYLBENZENE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
HEXACHLOROBUTADIENE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
HEXACHLOROBUTADIENE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	4/12/2012	16:05
Reason for change:	pH=4 sample								
ISOPROPYLBENZENE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	2/8/2012	16:17
Reason for change:	ph = 4 exceeds pH<2 preservation requirement and sample was analyzed outside 7 day HT for unpreserved waters.								
ISOPROPYLBENZENE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
m&p-Xylene	524.2	Reinjection-	1.0	ug/L	Preservation		UJ	2/8/2012	16:17
Reason for change:	ph = 4 exceeds pH<2 preservation requirement and sample was analyzed outside 7 day HT for unpreserved waters.								
m&p-Xylene	524.2	Reinjection-	1.0	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
METHYL TERT-BUTYL ETHER	524.2	Reinjection-	2.0	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
METHYL TERT-BUTYL ETHER	524.2	Reinjection-	2.0	ug/L	Preservation		UJ	4/12/2012	16:09
Reason for change:	pH=4 exceeds pH<2 preservation requirements and sample was analyzed outside 7 day HT for unpreserved waters.								
METHYLENE CHLORIDE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: EW-1-0102									
METHYLENE CHLORIDE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	4/12/2012	16:10
Reason for change:	pH=4 exceeds pH<2 preservation requirements and sample was analyzed outside 7 day HT for unpreserved waters.								
NAPHTHALENE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	2/8/2012	16:21
Reason for change:	ph = 4 exceeds pH<2 preservation requirement and sample was analyzed outside 7 day HT for unpreserved waters.								
NAPHTHALENE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
N-BUTYLBENZENE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	2/8/2012	16:21
Reason for change:	ph = 4 exceeds pH<2 preservation requirement and sample was analyzed outside 7 day HT for unpreserved waters.								
N-BUTYLBENZENE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
N-PROPYLBENZENE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	2/8/2012	16:19
Reason for change:	ph = 4 exceeds pH<2 preservation requirement and sample was analyzed outside 7 day HT for unpreserved waters.								
N-PROPYLBENZENE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
O-XYLENE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	2/8/2012	16:17
Reason for change:	ph = 4 exceeds pH<2 preservation requirement and sample was analyzed outside 7 day HT for unpreserved waters.								
O-XYLENE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
P-ISOPROPYLTOLUENE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	2/8/2012	16:20
Reason for change:	ph = 4 exceeds pH<2 preservation requirement and sample was analyzed outside 7 day HT for unpreserved waters.								
P-ISOPROPYLTOLUENE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: EW-1-0102									
SEC-BUTYLBENZENE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	2/8/2012	16:20
Reason for change:	ph = 4 exceeds pH<2 preservation requirement and sample was analyzed outside 7 day HT for unpreserved waters.								
SEC-BUTYLBENZENE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
STYRENE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	2/8/2012	16:19
Reason for change:	ph = 4 exceeds pH<2 preservation requirement and sample was analyzed outside 7 day HT for unpreserved waters.								
STYRENE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
TERT-BUTYLBENZENE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	2/8/2012	16:20
Reason for change:	ph = 4 exceeds pH<2 preservation requirement and sample was analyzed outside 7 day HT for unpreserved waters.								
TERT-BUTYLBENZENE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
TETRACHLOROETHENE	524.2	Initial	140	ug/L	Sampling to Analysis Rejection		J-	4/12/2012	15:55
Reason for change:	pH=4 sample analyzed > 7 days < 14 days per NFG								
TETRACHLOROETHENE	524.2	Initial	140	ug/L	Preservation		J-	4/12/2012	16:05
Reason for change:	pH=4 sample analyzed > 7 days								
TOLUENE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	2/8/2012	16:16
Reason for change:	ph = 4 exceeds pH<2 preservation requirement and sample was analyzed outside 7 day HT for unpreserved waters.								
TOLUENE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
TRANS-1,2-DICHLOROETHENE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: EW-1-0102									
TRANS-1,2-DICHLOROETHENE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	4/12/2012	16:09
Reason for change:	pH=4 exceeds pH<2 preservation requirements and sample was analyzed outside 7 day HT for unpreserved waters.								
TRANS-1,3-DICHLOROPROPENE	524.2	Reinjection-	0.5	ug/L	Initial Calibration Percent		UJ	2/8/2012	16:39
Reason for change:	%RSD > 20.0								
TRANS-1,3-DICHLOROPROPENE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
TRANS-1,3-DICHLOROPROPENE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	4/12/2012	16:08
Reason for change:	pH=4 exceeds pH<2 preservation requirements and sample was analyzed outside 7 day HT for unpreserved waters.								
TRICHLOROETHENE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
TRICHLOROETHENE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	4/12/2012	16:09
Reason for change:	pH=4 exceeds pH<2 preservation requirements and sample was analyzed outside 7 day HT for unpreserved waters.								
TRICHLOROFLUOROMETHANE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
TRICHLOROFLUOROMETHANE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	4/12/2012	16:10
Reason for change:	pH=4 exceeds pH<2 preservation requirements and sample was analyzed outside 7 day HT for unpreserved waters.								
VINYL CHLORIDE	524.2	Reinjection-	0.5	ug/L	Sampling to Analysis Rejection		R	4/12/2012	15:56
Reason for change:	pH=4 sample analyzed > 7 days per NFG								
VINYL CHLORIDE	524.2	Reinjection-	0.5	ug/L	Preservation		UJ	4/12/2012	16:10
Reason for change:	pH=4 exceeds pH<2 preservation requirements and sample was analyzed outside 7 day HT for unpreserved waters.								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: MW-103-0102									
BROMOFORM	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	2/8/2012	16:40
Reason for change: %RSD > 20.0									
TRANS-1,3-DICHLOROPROPENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	2/8/2012	16:40
Reason for change: %RSD > 20.0									
Field Sample ID: MW-301-1Q12									
BROMOFORM	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	2/8/2012	16:40
Reason for change: %RSD > 20.0									
TRANS-1,3-DICHLOROPROPENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	2/8/2012	16:40
Reason for change: %RSD > 20.0									
Field Sample ID: MW-401-1Q12									
BROMOFORM	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	2/8/2012	16:40
Reason for change: %RSD > 20.0									
TRANS-1,3-DICHLOROPROPENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	2/8/2012	16:41
Reason for change: %RSD > 20.0									

LDC #: 1201-02A6
SDG #: 12013A
Laboratory: EPA Region 9

VALIDATION COMPLETENESS WORKSHEET
EPA Level III

Date: 2/06/12
Page: 1 of 1
Reviewer: KD
2nd Reviewer: —

METHOD: Total Dissolved Solids by SM2540C, Total suspended Solids by SM2540D, And Biochemical Oxygen Demand by SM5210B

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: 1/12/2012
II.	Calibration verification	A	Gen chem ICAL 0.995 ICV 95-105%
III.	Blanks	A	
IV	Matrix Spike/(Matrix Spike) Duplicates	N	BOD MS/SD 85-115%
V.	Duplicates	A	Dup of sample 1 RPD≤ 5%
VI	Laboratory control samples	A	TDS/TSS SRM/LCS 85-115% BOD SRM/LCS 70.5-129%
VII.	Sample result verification	N	Not reviewed for Level III validation.
VIII.	Overall assessment of data	A	
IX.	Field duplicates	N	
X.	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	EFF-0102	11		21		31	
2	EFF-0102 DUP	12		22		32	
3		13		23		33	
4		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:

SDG 12013B

LDC #: 1201-02B
SDG #: 12013B
Laboratory: EPA Region 9

VALIDATION COMPLETENESS WORKSHEET
Level III

Date: 2/06/12
Page: 1 of 1
Reviewer: GD
2nd Reviewer: —

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: 1/12/2012
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	≤ 30% RSD SCV %D ≤ 30%
IV.	Continuing calibration	A	≤ 30% %D QLS 60-140%
V.	Blanks		< ½ QL
VI.	Surrogate spikes	N	
VII.	Sample duplicates		DUP of sample 2/RE
VIII.	Laboratory control samples		per R9 SOP 311r1
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	area ± 40% of IC RT drift ± 0.33 minutes of CCV (20 sec.)
XI.	Target compound identification	N	Not reviewed for Level III validation samples.
XII.	Compound quantitation/CRQLs	N	Not reviewed for Level III validation samples.
XIII.	Tentatively identified compounds (TICs)	N	Not reviewed for Level III validation samples.
XIV.	System performance	N	Not reviewed for Level III validation samples.
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
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: ** Indicates sample underwent Level IV validation

1	GWTP Pr GAC-0102	11		21		31	
2	GWTP Stack-0102	12		22		32	
3	SVE Pre GAC-0102	13		23		33	
4	SVE Stack-0102	14		24		34	
5	GWTP Stack-0102 Dup	15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Reporting Limit Outliers

Lab Reporting Batch ID: 12013B **Laboratory: R9LAB**

EDD Filename: 12013B_TO15_1201018 FINAL_edit RPD **eQAPP Name: Modesto_Site_113011**

Method: **TO-15**

Matrix: **Air**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
GWTP Stack-0102	BENZENE CHLOROMETHANE	J,C1 J,C1	1.7 1.5	2.2 2.2	MRL MRL	ppbv ppbv	J (all detects)
SVE Pre GAC-0102	CHLOROFORM	J,C1	1.2	2.2	MRL	ppbv	J (all detects)
SVE Stack-0102	CIS-1,2-DICHLOROETHENE	J,C1	1.4	2.2	MRL	ppbv	J (all detects)

SDG 12034A

LDC #: 1203-01A1
SDG #: 12034A
Laboratory: EPA Region 9

VALIDATION COMPLETENESS WORKSHEET
Level III

Date: 5/03/12
Page: 1 of 1
Reviewer: KTD
2nd Reviewer: —

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: 1/30/2012-2/01/2012
II.	GC/MS Instrument performance check	A	
III.	Initial calibration/ICV	SW	≤ 20.0%D per R9 SOP ±30% SCV For RRFcriteria see QLS %R
IV.	Continuing calibration	SW	≤ 30% per R9 SOP354
V.	Blanks	A	< ½ QL per SOP Storage Blank < ½ QL
VI.	Surrogate spikes	A	criteria per R9 SOP 354
VII.	Matrix spike/Matrix spike duplicates	SW	
VIII.	Laboratory control samples	SW	per R9 SOP354 criteria
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	30% of CC (drift ≤ 30 sec of IC)
XI.	Target compound identification	N	Not reviewed for Level III validation.
XII.	Compound quantitation/CRQLs	N	Not reviewed for Level III validation.
XIII.	Tentatively identified compounds (TICs)	N	Not reviewed for Level III validation.
XIV.	System performance	N	Not reviewed for Level III validation.
XV.	Overall assessment of data	A	sample 13 no result on EDD - hard copy only (included)
XVI.	Field duplicates	SW / A	samples 9 & 16, 13 & 19 and 14 & MW-12A-1Q12 from SDG 12034B
XVII.	Field blanks	SW	TB = 16 FB = 17

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-22A-1Q12	11	MW-6A-1Q12	21		31	
2	MW-23A-1Q12	12	MW-7A-1Q12	22		32	
3	MW-24B-1Q12	13	MW-83B-1Q12	23		33	
4	MW-25B-1Q12	14	MW-88A-1Q12	24		34	
5	MW-26B-1Q12	15	MW-8A-1Q12	25		35	
6	MW-27B-1Q12	16	MW-96A-1Q12	26		36	
7	MW-28B-1Q12	17	MW-9B-1Q12	27		37	
8	MW-2A-1Q12	18	MW-17A-1Q12	28		38	
9	MW-4A-1Q12	19	MW-17B-1Q12	29		39	
10	MW-5A-1Q12	20	MW-17C-1Q12	30		40	

LDC #: 1201-01-A1/-AA1
SDG #: 12034A/12034B

VALIDATION FINDINGS WORKSHEET
Initial Calibration

Page: 1 of 1
Reviewer: KCN
2nd Reviewer:

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
1	2-03-12	020312FVW.M	1,1-Dichloroethane	24.30 (20.0)	1202009-01	J / UJ
	HP5973F	ICAL	Bromodichloromethane	22.42 (20.0)		J / UJ
			Chlorodibromomethane	32.24 (20.0)		J / UJ
			Bromoform	42.66 (20.0)		J / UJ
			DBCP	37.83 (20.0)		J / UJ
2	2/10/12	021012JVW.M	2,2-Dichloropropane	27.17 (20.0)	1202009-05, -06, -08 (undiluted all)	J / UJ
	HP5973J	ICAL	trans-1,3-dichloropropene	21.70 (20.0)	1202009-10, 11re1, 12re1, 14re2,	J / UJ
			Naphthalene	23.77 (20.0)	1202009-10re1(DIL)	J / UJ
					1202009 -15re1/-15re2 (DIL),16-18	
					1202009-02 /-02re1(5x), -04,	
					1202009-07 / -07re1, -09, -13re1,	
					1202009-16re1 (20x), 19, 20	
					1202010-01 to -17, -05re1	
					1202009-03re2, -09re3	
3	2/13/12	021312FVW.M	Bromoform	26.06 (20.0)	1202009-03re1, 04re1	J / UJ
	HP5973F	ICAL			1202009 -13re2, -19re1	

LDC #: 1203-01A1/-01AA1
SDG #: 12034A/12034B

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Reviewer: KTD
2nd Reviewer:

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% ? QLS 60-140%R?

#	Date	Standard ID	Compound	Finding %D (Limit: ≤30.0%)	Associated Samples	Qualifications
1	2/06/12 09:36	020612F001.D CCV	Bromomethane	-48.3 (30.0)	1202009-01	J-/UJ
	HP5973F		2,2-Dichloropropane	-33.3 (30.0)		J-/UJ
			Bromoform	0.032 (0.050)		None, see QLS
			DBCP	0.009 (0.050)		None, see QLS
2	2/06/12	020612F004.D	Bromomethane	30 (60 - 140%)	1202009-01	J-/UJ if < 5x RL
		QLS	2,2-Dichloropropane	55 (60 - 140%)		J-/UJ if < 5x RL
			trans-1,3-dichloropropene	58 (60 - 140%)		J-/UJ if < 5x RL
			Bromoform	37 (60 - 140%)		J-/UJ if < 5x RL
3	2/12/12 11:46	0212612J002.D CCV	DBCP	0.024 (0.050)	1202009-10re1(DIL)	None, see QLS
	HP5973J				1202009 -15re1/-15re2 (DIL),17	
4	2/12/12	021212J004.D QLS	All passed		1202010-03, 07-09, 11, 13-15	None
5	2/13/12 11:14	0212612J004.D CCV2	Trichlorofluoromethane	-30.3 (30.0)	1202009-10, 11re1, 12re1, 14re2,	ok per R9 review
	HP5973J				1202009-16, 18	
6	2/13/12 13:00	021312J007.D QLS	2,2-Dichloropropane	48.3 (60 - 140%)	1202010-04, 05, 10, 12, 16, 17	J-/UJ if < 5x RL
7	2/14/12 12:44	021412J005.D QLS	Bromomethane	53.7 (60 - 140%)	1202009-02 /-02re1(5x), -04,	J-/UJ if < 5x RL
	HP5793J		2,2-Dichloropropane	53.9 (60 - 140%)	1202009-07 / -07re1, -09, -13re1,	J-/UJ if < 5x RL
			trans-1,3-dichloropropene	59.5 (60 - 140%)	1202009-16re1 (20x), 19, 20	J-/UJ if < 5x RL
					1202010-05re1	
8	2/14/12 14:17	021412F01.D CCV	DBCP	0.016 (0.050)	1202009-03re1, 04re1	None, see QLS
	HP5973F				1202009 -13re2, -19re1	
	2/14/12 15:28	021412F03.D QLS	All passed			None
9	2/15/12 11:17	021512J002.D CCV	Dichlorodifluoromethane	-41.1 (30.0)	1202009-03re2, -09re3	J-/UJ
	HP5793J		DBCP	0.009 (0.050)		None, see QLS
	2/15/12 12:28	021512J005.D QLS	Dichlorodifluoromethane	54.5 (60-140%)		J-/UJ if < 5x RL

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: 12034A **Laboratory: R9LAB**

EDD Filename: 12034A_524_1202009 FINAL **eQAPP Name: Modesto_Site_113011**

Method: **524.2**

Matrix: **Water**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
MW-17C-1Q12MS (MW-17C-1Q12)	BROMODICHLOROMETHANE	84	85	87.00-130.00	-	BROMODICHLOROMETHANE	J- (all detects) UJ (all non-detects)

Project Name and Number: R12S42 - Modesto Groundwater Jan/Feb 2012 Qtrly Monitoring

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: 12034A **Laboratory: R9LAB**

EDD Filename: 12034A_524_1202009 FINAL **eQAPP Name: Modesto_Site_113011**

Method: **524.2**

Matrix: **Water**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
B2B0054-BS1 (MW-17A-1Q12 MW-5A-1Q12 MW-6A-1Q12 MW-7A-1Q12 MW-88A-1Q12 MW-96A-1Q12)	1,2,4-TRIMETHYLBENZENE	85	-	86.00-120.00	-	1,2,4-TRIMETHYLBENZENE	J- (all detects) UJ (all non-detects)

Project Name and Number: R12S42 - Modesto Groundwater Jan/Feb 2012 Qtrly Monitoring

Reporting Limit Outliers

Lab Reporting Batch ID: 12034A **Laboratory: R9LAB**

EDD Filename: 12034A_524_1202009 FINAL **eQAPP Name: Modesto_Site_113011**

Method: **524.2**

Matrix: **Water**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
MW-17A-1Q12	BENZENE BROMODICHLOROMETHANE	J,C1 J,C1	0.2 0.3	0.5 0.5	MRL MRL	ug/L ug/L	J (all detects)
MW-17B-1Q12	CHLOROFORM	J,C1	0.2	0.5	MRL	ug/L	J (all detects)
MW-22A-1Q12	BROMODICHLOROMETHANE	J,C1,C3	0.2	0.5	MRL	ug/L	J (all detects)
MW-26B-1Q12	CHLOROFORM	J,C1	0.3	0.5	MRL	ug/L	J (all detects)
MW-6A-1Q12	BROMODICHLOROMETHANE	J,C1	0.3	0.5	MRL	ug/L	J (all detects)
MW-88A-1Q12	BROMODICHLOROMETHANE TRICHLOROFLUOROMETHANE	J,C1 J,C1	0.3 0.3	0.5 0.5	MRL MRL	ug/L ug/L	J (all detects)
MW-8A-1Q12	BROMODICHLOROMETHANE	J,C1	0.2	0.5	MRL	ug/L	J (all detects)

Field QC Assignments and Associated Samples

EDD File Name: 12034A
eQapp Name: Modesto_Site_113011

	Associated Samples	Sample Collection Date
Field QC Sample: MW-302-1Q12 **QC Type:** Trip_Blank		
	MW-5A-1Q12	1/31/2012 12:40:00 PM
	MW-24B-1Q12	2/2/2012 8:40:00 AM
	MW-25B-1Q12	2/1/2012 2:55:00 PM
	MW-9B-1Q12	1/31/2012 10:16:00 AM
	MW-8A-1Q12	1/31/2012 9:34:00 AM
	MW-23A-1Q12	2/1/2012 9:05:00 AM
	MW-17C-1Q12	2/1/2012 12:30:00 PM
	MW-28B-1Q12	2/1/2012 10:45:00 AM
	MW-17A-1Q12	2/1/2012 11:38:00 AM
	MW-26B-1Q12	1/31/2012 10:50:00 AM
	MW-4A-1Q12	2/1/2012 10:47:00 AM
	MW-2A-1Q12	1/31/2012 12:07:00 PM
	MW-88A-1Q12	1/31/2012 12:00:00 PM
	MW-17B-1Q12	2/1/2012 1:10:00 PM
	MW-96A-1Q12	2/1/2012 12:00:00 PM
	MW-6A-1Q12	2/1/2012 12:52:00 PM
	MW-22A-1Q12	2/1/2012 4:15:00 PM
	MW-7A-1Q12	2/1/2012 9:52:00 AM
	MW-27B-1Q12	1/31/2012 10:10:00 AM
	MW-402-1Q12	2/1/2012 4:02:00 PM
Field QC Sample: MW-402-1Q12 **QC Type:** Field_Blank		
	MW-5A-1Q12	1/31/2012 12:40:00 PM
	MW-24B-1Q12	2/2/2012 8:40:00 AM
	MW-25B-1Q12	2/1/2012 2:55:00 PM
	MW-9B-1Q12	1/31/2012 10:16:00 AM
	MW-8A-1Q12	1/31/2012 9:34:00 AM
	MW-23A-1Q12	2/1/2012 9:05:00 AM
	MW-17C-1Q12	2/1/2012 12:30:00 PM
	MW-28B-1Q12	2/1/2012 10:45:00 AM
	MW-17A-1Q12	2/1/2012 11:38:00 AM
	MW-26B-1Q12	1/31/2012 10:50:00 AM
	MW-4A-1Q12	2/1/2012 10:47:00 AM

Associated Samples	Sample Collection Date
MW-2A-1Q12	1/31/2012 12:07:00 PM
MW-88A-1Q12	1/31/2012 12:00:00 PM
MW-17B-1Q12	2/1/2012 1:10:00 PM
MW-96A-1Q12	2/1/2012 12:00:00 PM
MW-6A-1Q12	2/1/2012 12:52:00 PM
MW-22A-1Q12	2/1/2012 4:15:00 PM
MW-7A-1Q12	2/1/2012 9:52:00 AM
MW-27B-1Q12	1/31/2012 10:10:00 AM

Field QC Sample: MW-96A-1Q12
QC Type: Field_Duplicate

MW-4A-1Q12	2/1/2012 10:47:00 AM

LDC #: 1203-01A1____ **VALIDATION FINDING WORKSHEET** Page:__1__of__1__

SDG #: _12034A___ **Field Duplicates** Reviewer: KD

2nd Reviewer:_____

METHOD: GC/MS Volatile Organics (EPA Method 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?

Analyte	Concentration (ug/L)		Factor Difference *	RPD	Qualifications
	MW-17B-1Q12	MW-83B-1Q12			
Chloroform	0.2	0.2	1.00	0	None
Tetrachloroethene	73	57	1.28	25	None

Analyte	Concentration (ug/L)		Factor Difference	Difference (Limits)	Qualifications
	MW-4A-1Q12	MW-96A-1Q12			
cis-1,2-Dichloroethene	73	60	1.22	20	None
Trichloroethene	7.2	6.7	1.07	7	None
Tetrachloroethene	130	95	1.37	31	None

Analyte	Concentration (ug/L)		Factor Difference *	RPD	Qualifications
	MW-12A-1Q12	MW-88A-1Q12			
Trichlorofluoromethane	0.3	0.3	1.00	0	None
Chloroform	7.7	6.6	1.17	15	None
Bromodichloromethane	0.4	0.3	1.33	29	None
Tetrachloroethene	16	15	1.07	6	None

* = See Table 2-17 of SAP

Field Duplicate RPD Report

Lab Reporting Batch ID: 12034A **Laboratory: R9LAB**

EDD Filename: 12034A_524_1202009 FINAL **eQAPP Name: Modesto_Site_113011**

Method: 524.2
Matrix: Water

Analyte	Concentration (ug/L)		Sample RPD	eQAPP RPD	Flag
	MW-4A-1Q12	MW-96A-1Q12			
CIS-1,2-DICHLOROETHENE	73	60	20	1.00	No Qualifiers Applied
TETRACHLOROETHENE	130	95	31	1.00	
TRICHLOROETHENE	7.2	6.7	7	1.00	

Project Name and Number: R12S42 - Modesto Groundwater Jan/Feb 2012 Qtrly Monitoring

History of Manual Changes to Automated Data Review Qualifiers

Changed by:

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: MW-17A-1Q12									
2,2-DICHLOROPROPANE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:27
Reason for change:	%RSD > 20.0								
NAPHTHALENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:28
Reason for change:	%RSD > 20.0								
TRANS-1,3-DICHLOROPROPENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:28
Reason for change:	%RSD > 20.0								
Field Sample ID: MW-17B-1Q12									
2,2-DICHLOROPROPANE	524.2	Reanalysis-	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:28
Reason for change:	%RSD > 20.0								
2,2-DICHLOROPROPANE	524.2	Reanalysis-	0.5	ug/L	Continuing Calibration		UJ	5/3/2012	16:12
Reason for change:	QLS < 60-140%								
BROMOMETHANE	524.2	Reanalysis-	0.5	ug/L	Continuing Calibration		UJ	5/3/2012	16:11
Reason for change:	QLS < 60-140%								
NAPHTHALENE	524.2	Reanalysis-	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:28
Reason for change:	%RSD > 20.0								
TRANS-1,3-DICHLOROPROPENE	524.2	Reanalysis-	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:28
Reason for change:	%RSD > 20.0								
TRANS-1,3-DICHLOROPROPENE	524.2	Reanalysis-	0.5	ug/L	Continuing Calibration		UJ	5/3/2012	16:12
Reason for change:	QLS < 60-140%								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: MW-17C-1Q12									
2,2-DICHLOROPROPANE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:29
Reason for change:	%RSD > 20.0								
2,2-DICHLOROPROPANE	524.2	Initial	0.5	ug/L	Continuing Calibration		UJ	5/3/2012	16:12
Reason for change:	QLS < 60-140%								
BROMOMETHANE	524.2	Initial	0.5	ug/L	Continuing Calibration		UJ	5/3/2012	16:12
Reason for change:	QLS < 60-140%								
NAPHTHALENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:29
Reason for change:	%RSD > 20.0								
TRANS-1,3-DICHLOROPROPENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:29
Reason for change:	%RSD > 20.0								
TRANS-1,3-DICHLOROPROPENE	524.2	Initial	0.5	ug/L	Continuing Calibration		UJ	5/3/2012	16:12
Reason for change:	QLS < 60-140%								
Field Sample ID: MW-22A-1Q12									
1,1-DICHLOROETHANE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	16:00
Reason for change:	%RSD > 20.0								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:58
Reason for change:	%RSD > 20.0								
2,2-DICHLOROPROPANE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:29
Reason for change:	%RSD > 20.0								
2,2-DICHLOROPROPANE	524.2	Initial	0.5	ug/L	Initial Calibration Percent	UJ		5/3/2012	15:56
Reason for change:	remove qualifier								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: MW-22A-1Q12									
2,2-DICHLOROPROPANE	524.2	Initial	0.5	ug/L	Continuing Calibration		UJ	5/3/2012	16:01
Reason for change:	%D > 30.0 (low bias)								
2,2-DICHLOROPROPANE	524.2	Initial	0.5	ug/L	Continuing Calibration		UJ	5/3/2012	16:04
Reason for change:	QLS < 60-140%								
BROMODICHLOROMETHANE	524.2	Initial	0.2	ug/L	Initial Calibration Percent		J	5/3/2012	16:00
Reason for change:	%RSD > 20.0								
BROMOFORM	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:59
Reason for change:	%RSD > 20.0								
BROMOFORM	524.2	Initial	0.5	ug/L	Continuing Calibration		UJ	5/3/2012	16:02
Reason for change:	%D > 30.0 (low bias)								
BROMOFORM	524.2	Initial	0.5	ug/L	Continuing Calibration	UJ		5/3/2012	16:02
Reason for change:	remove qualifier								
BROMOFORM	524.2	Initial	0.5	ug/L	Continuing Calibration		UJ	5/3/2012	16:05
Reason for change:	QLS < 60-140%								
BROMOMETHANE	524.2	Initial	0.5	ug/L	Continuing Calibration		UJ	5/3/2012	16:01
Reason for change:	%D > 30.0 (low bias)								
BROMOMETHANE	524.2	Initial	0.5	ug/L	Continuing Calibration		UJ	5/3/2012	16:04
Reason for change:	QLS < 60-140%								
DIBROMOCHLOROMETHANE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:59
Reason for change:	%RSD > 20.0								
NAPHTHALENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:30
Reason for change:	%RSD > 20.0								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: MW-22A-1Q12									
NAPHTHALENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent	UJ		5/3/2012	15:57
Reason for change:	remove qualifier								
TRANS-1,3-DICHLOROPROPENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:29
Reason for change:	%RSD > 20.0								
TRANS-1,3-DICHLOROPROPENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent	UJ		5/3/2012	15:56
Reason for change:	remove qualifier								
TRANS-1,3-DICHLOROPROPENE	524.2	Initial	0.5	ug/L	Continuing Calibration		UJ	5/3/2012	16:04
Reason for change:	QLS < 60-140%								
Field Sample ID: MW-23A-1Q12									
2,2-DICHLOROPROPANE	524.2	Reinjection-	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:30
Reason for change:	%RSD > 20.0								
2,2-DICHLOROPROPANE	524.2	Reinjection-	0.5	ug/L	Continuing Calibration		UJ	5/3/2012	16:06
Reason for change:	QLS < 60-140%								
BROMOMETHANE	524.2	Reinjection-	0.5	ug/L	Continuing Calibration		UJ	5/3/2012	16:06
Reason for change:	QLS < 60-140%								
NAPHTHALENE	524.2	Reinjection-	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:30
Reason for change:	%RSD > 20.0								
TRANS-1,3-DICHLOROPROPENE	524.2	Reinjection-	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:30
Reason for change:	%RSD > 20.0								
TRANS-1,3-DICHLOROPROPENE	524.2	Reinjection-	0.5	ug/L	Continuing Calibration		UJ	5/3/2012	16:06
Reason for change:	QLS < 60-140%								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: MW-24B-1Q12									
2,2-DICHLOROPROPANE	524.2	Reanalysis-	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:31
Reason for change:	%RSD > 20.0								
DICHLORODIFLUOROMETHANE	524.2	Reanalysis-	0.5	ug/L	Continuing Calibration		UJ	5/3/2012	16:24
Reason for change:	%D > 30.0 (low bias)								
DICHLORODIFLUOROMETHANE	524.2	Reanalysis-	0.5	ug/L	Continuing Calibration		UJ	5/3/2012	16:24
Reason for change:	QLS < 60-140%								
NAPHTHALENE	524.2	Reanalysis-	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:31
Reason for change:	%RSD > 20.0								
TRANS-1,3-DICHLOROPROPENE	524.2	Reanalysis-	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:31
Reason for change:	%RSD > 20.0								
Field Sample ID: MW-25B-1Q12									
2,2-DICHLOROPROPANE	524.2	Reanalysis-	0.5	ug/L	Continuing Calibration		UJ	5/3/2012	16:07
Reason for change:	QLS < 60-140%								
2,2-DICHLOROPROPANE	524.2	Reanalysis-	0.5	ug/L	Initial Calibration Verification		UJ	5/3/2012	16:40
Reason for change:	%D > 30.0 (low bias)								
BROMOMETHANE	524.2	Reanalysis-	0.5	ug/L	Continuing Calibration		UJ	5/3/2012	16:07
Reason for change:	QLS < 60-140%								
NAPHTHALENE	524.2	Reanalysis-	0.5	ug/L	Initial Calibration Verification		UJ	5/3/2012	16:40
Reason for change:	%D > 30.0 (low bias)								
TRANS-1,3-DICHLOROPROPENE	524.2	Reanalysis-	0.5	ug/L	Continuing Calibration		UJ	5/3/2012	16:08
Reason for change:	QLS < 60-140%								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: MW-25B-1Q12									
TRANS-1,3-DICHLOROPROPENE	524.2	Reanalysis-	0.5	ug/L	Initial Calibration Verification		UJ	5/3/2012	16:40
Reason for change: %D > 30.0 (low bias)									
Field Sample ID: MW-26B-1Q12									
2,2-DICHLOROPROPANE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:32
Reason for change: %RSD > 20.0									
NAPHTHALENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:32
Reason for change: %RSD > 20.0									
TRANS-1,3-DICHLOROPROPENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:32
Reason for change: %RSD > 20.0									
Field Sample ID: MW-27B-1Q12									
2,2-DICHLOROPROPANE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:32
Reason for change: %RSD > 20.0									
NAPHTHALENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:33
Reason for change: %RSD > 20.0									
TRANS-1,3-DICHLOROPROPENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:32
Reason for change: %RSD > 20.0									
Field Sample ID: MW-28B-1Q12									
2,2-DICHLOROPROPANE	524.2	Reinjection-	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:33
Reason for change: %RSD > 20.0									
2,2-DICHLOROPROPANE	524.2	Reinjection-	0.5	ug/L	Continuing Calibration		UJ	5/3/2012	16:09
Reason for change: QLS < 60-140%									

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: MW-28B-1Q12									
BROMOMETHANE	524.2	Reinjection-	0.5	ug/L	Continuing Calibration		UJ	5/3/2012	16:09
Reason for change:	QLS < 60-140%								
NAPHTHALENE	524.2	Reinjection-	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:33
Reason for change:	%RSD > 20.0								
TRANS-1,3-DICHLOROPROPENE	524.2	Reinjection-	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:33
Reason for change:	%RSD > 20.0								
TRANS-1,3-DICHLOROPROPENE	524.2	Reinjection-	0.5	ug/L	Continuing Calibration		UJ	5/3/2012	16:10
Reason for change:	QLS < 60-140%								
Field Sample ID: MW-2A-1Q12									
2,2-DICHLOROPROPANE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:34
Reason for change:	%RSD > 20.0								
NAPHTHALENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:34
Reason for change:	%RSD > 20.0								
TRANS-1,3-DICHLOROPROPENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:34
Reason for change:	%RSD > 20.0								
Field Sample ID: MW-4A-1Q12									
2,2-DICHLOROPROPANE	524.2	Initial1	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:35
Reason for change:	%RSD > 20.0								
2,2-DICHLOROPROPANE	524.2	Initial1	0.5	ug/L	Continuing Calibration		UJ	5/3/2012	16:10
Reason for change:	QLS < 60-140%								
BROMOMETHANE	524.2	Initial1	0.5	ug/L	Continuing Calibration		UJ	5/3/2012	16:10
Reason for change:	QLS < 60-140%								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: MW-4A-1Q12									
NAPHTHALENE	524.2	Initial1	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:35
Reason for change: %RSD > 20.0									
TRANS-1,3-DICHLOROPROPENE	524.2	Initial1	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:35
Reason for change: %RSD > 20.0									
TRANS-1,3-DICHLOROPROPENE	524.2	Initial1	0.5	ug/L	Continuing Calibration		UJ	5/3/2012	16:11
Reason for change: QLS < 60-140%									
Field Sample ID: MW-5A-1Q12									
2,2-DICHLOROPROPANE	524.2	Reanalysis-	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:36
Reason for change: %RSD > 20.0									
NAPHTHALENE	524.2	Reanalysis-	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:36
Reason for change: %RSD > 20.0									
TRANS-1,3-DICHLOROPROPENE	524.2	Reanalysis-	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:36
Reason for change: %RSD > 20.0									
Field Sample ID: MW-6A-1Q12									
2,2-DICHLOROPROPANE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:36
Reason for change: %RSD > 20.0									
NAPHTHALENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:37
Reason for change: %RSD > 20.0									
TRANS-1,3-DICHLOROPROPENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:36
Reason for change: %RSD > 20.0									

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: MW-7A-1Q12									
2,2-DICHLOROPROPANE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:37
Reason for change: %RSD > 20.0									
NAPHTHALENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:37
Reason for change: %RSD > 20.0									
TRANS-1,3-DICHLOROPROPENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:37
Reason for change: %RSD > 20.0									
Field Sample ID: MW-88A-1Q12									
2,2-DICHLOROPROPANE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:37
Reason for change: %RSD > 20.0									
NAPHTHALENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:38
Reason for change: %RSD > 20.0									
TRANS-1,3-DICHLOROPROPENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:38
Reason for change: %RSD > 20.0									
Field Sample ID: MW-8A-1Q12									
2,2-DICHLOROPROPANE	524.2	Reinjection-	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:38
Reason for change: %RSD > 20.0									
NAPHTHALENE	524.2	Reinjection-	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:38
Reason for change: %RSD > 20.0									
TRANS-1,3-DICHLOROPROPENE	524.2	Reinjection-	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:38
Reason for change: %RSD > 20.0									

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: MW-96A-1Q12									
2,2-DICHLOROPROPANE	524.2	Initial2	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:39
Reason for change: %RSD > 20.0									
NAPHTHALENE	524.2	Initial2	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:39
Reason for change: %RSD > 20.0									
TRANS-1,3-DICHLOROPROPENE	524.2	Initial2	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:39
Reason for change: %RSD > 20.0									
Field Sample ID: MW-9B-1Q12									
2,2-DICHLOROPROPANE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:39
Reason for change: %RSD > 20.0									
NAPHTHALENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:39
Reason for change: %RSD > 20.0									
TRANS-1,3-DICHLOROPROPENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	5/3/2012	15:39
Reason for change: %RSD > 20.0									

SDG 12034B

LDC #: 1203-01AA1
SDG #: 12034B
Laboratory: EPA Region 9

VALIDATION COMPLETENESS WORKSHEET
Level III / IV

Date: 4/11/12
Page: 1 of 1
Reviewer: KJD
2nd Reviewer:

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: 1/30/2012-2/01/2012
II.	GC/MS Instrument performance check	A	
III.	Initial calibration/ICV	SW	≤ 20.0%D per R9 SOP ±30% SCV For RRFcriteria see QLS %R
IV.	Continuing calibration	SW	≤ 30% per R9 SOP354
V.	Blanks	A	< ½ QL per SOP Storage Blank < ½ QL
VI.	Surrogate spikes	A	criteria per R9 SOP 354
VII.	Matrix spike/Matrix spike duplicates	SW	
VIII.	Laboratory control samples	SW	per R9 SOP354 criteria
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	30% of CC (drift ≤ 30 sec of IC)
XI.	Target compound identification	N	Not reviewed for Level III validation.
XII.	Compound quantitation/CRQLs	N	Not reviewed for Level III validation.
XIII.	Tentatively identified compounds (TICs)	N	Not reviewed for Level III validation.
XIV.	System performance	N	Not reviewed for Level III validation.
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	see 12034A
XVII.	Field blanks	A	TB = 16 FB = 17

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: Samples ** were validated as Level IV

1	MW-19A-1Q12	11	MW-14A-1Q12 **	21		31	
2	MW-19B-1Q12	12	MW-15A-1Q12	22		32	
3	MW-1A-1Q12 **	13	MW-16A-1Q12	23		33	
4	MW-21A-1Q12	14	MW-16B-1Q12 **	24		34	
5	MW-10A-1Q12	15	MW-16C-1Q12	25		35	
6	MW-10B-1Q12	16	MW-302-1Q12	26		36	
7	MW-10C-1Q12	17	MW-402-1Q12	27		37	
8	MW-11A-1Q12 **	18		28		38	
9	MW-12A-1Q12 **	19		29		39	
10	MW-13A-1Q12	20		30		40	

LDC #: 1203-01AA1
SDG #: 12034B

VALIDATION FINDINGS CHECKLIST

Reviewer: KD
2nd Reviewer: —

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 ? RRF > 0.05?		X		In lieu of RRF see QLS criteria
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	X			
Were all percent differences (%D) ≤30% for all target compounds ? RRF > 0.05?		X		In lieu of RRF see QLS criteria
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 #: 1203-01AA1
SDG #: 12034B

VALIDATION FINDINGS CHECKLIST

Reviewer: KTP
2nd Reviewer:

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 retention times within +/- 30% of the last continuing calibration or +/- 50% of the initial calibration?	X			
Were retention times (RTs) within ± 30 seconds of RT of the associated calibration standard?	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			
Target compounds were detected in the field duplicates.	X			
XVII. Field blanks				
Field blanks were identified in this SDG.	X			
Target compounds were detected in the field blanks.		X		

LDC #: 1201-01-A1/-AA1
SDG #: 12034A/12034B

VALIDATION FINDINGS WORKSHEET
Initial Calibration

Page: 1 of 1
Reviewer: KTP
2nd Reviewer: —

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
1	2-03-12	020312FVW.M	1,1-Dichloroethane	24.30 (20.0)	1202009-01	J / UJ
	HP5973F	ICAL	Bromodichloromethane	22.42 (20.0)		J / UJ
			Chlorodibromomethane	32.24 (20.0)		J / UJ
			Bromoform	42.66 (20.0)		J / UJ
			DBCP	37.83 (20.0)		J / UJ
2	2/10/12	021012JVW.M	2,2-Dichloropropane	27.17 (20.0)	1202009-05, -06, -08 (undiluted all)	J / UJ
	HP5973J	ICAL	trans-1,3-dichloropropene	21.70 (20.0)	1202009-10, 11re1, 12re1, 14re2,	J / UJ
			Naphthalene	23.77 (20.0)	1202009-10re1(DIL)	J / UJ
					1202009 -15re1/-15re2 (DIL),16-18	
					1202009-02 /-02re1(5x), -04,	
					1202009-07 / -07re1, -09, -13re1,	
					1202009-16re1 (20x), 19,	
					1202010-01 to -17, -05re1	
					1202009-03re2, -09re3	
3	2/13/12	021312FVW.M	Bromoform	26.06 (20.0)	1202009-03re1, 04re1	J / UJ
	HP5973F	ICAL			1202009 -13re2, -19re1	

LDC #: 12030M1
SDG #: 12034B

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: KTD
2nd Reviewer: _____

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
2/3/2012	HP5973J	Chloroform (vs Dichloromethane-d2)	Point 1	0.50	48746	5.00	82274	5.925		5.925	
			Point 2	1.00	92767	5.00	79721	5.818		5.818	
			Point 3	2.00	186817	5.00	75954	6.149		6.149	
			Point 4	5.00	493035	5.00	76270	6.464		6.464	
			Point 5	10.00	1017025	5.00	74142	6.859		6.859	
			Point 6	25.00	2511598	5.00	75041	6.694		6.694	
			Mean calibration factor					6.318	6.67	6.318	6.67
2/3/2012	HP5973J	Trichloroethene (vs Fluorobenzene)	Point 1	0.50	38691	5.00	1673110	0.231		0.231	
			Point 2	1.00	70960	5.00	1572425	0.226		0.226	
			Point 3	2.00	144980	5.00	1485891	0.244		0.244	
			Point 4	5.00	372854	5.00	1483779	0.251		0.251	
			Point 5	10.00	753712	5.00	1438890	0.262		0.262	
			Point 6	25.00	1884966	5.00	1509474	0.250		0.250	
			Mean calibration factor					0.244	5.52	0.244	5.52
2/3/2012	HP5973J	Tetrachloroethene (vs Chlorobenzene-d5)	Point 1	0.50	44381	5.00	1021949	0.434		0.434	
			Point 2	1.00	78069	5.00	962323	0.406		0.406	
			Point 3	2.00	157581	5.00	931604	0.423		0.423	
			Point 4	5.00	413812	5.00	924656	0.448		0.448	
			Point 5	10.00	815169	5.00	885306	0.460		0.460	
			Point 6	25.00	1976603	5.00	929849	0.425		0.425	
			Mean calibration factor					0.433	4.48	0.433	4.48

LDC #: 1203-01A1/-01AA1
SDG #: 12034A/12034B

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Reviewer: KD
2nd Reviewer: —

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% ? QLS 60-140%R?

#	Date	Standard ID	Compound	Finding %D (Limit: ≤30.0%)	Associated Samples	Qualifications
1	2/06/12 09:36	020612F001.D CCV	Bromomethane	-48.3 (30.0)	1202009-01	J-/UJ
	HP5973F		2,2-Dichloropropane	-33.3 (30.0)		J-/UJ
			Bromoform	0.032 (0.050)		None, see QLS
			DBCP	0.009 (0.050)		None, see QLS
2	2/06/12	020612F004.D	Bromomethane	30 (60 - 140%)	1202009-01	J-/UJ if < 5x RL
		QLS	2,2-Dichloropropane	55 (60 - 140%)		J-/UJ if < 5x RL
			trans-1,3-dichloropropene	58 (60 - 140%)		J-/UJ if < 5x RL
			Bromoform	37 (60 - 140%)		J-/UJ if < 5x RL
3	2/12/12 11:46	0212612J002.D CCV	DBCP	0.024 (0.050)	1202009-10re1(DIL)	None, see QLS
	HP5973J				1202009 -15re1/-15re2 (DIL),17	
4	2/12/12	021212J004.D QLS	All passed		1202010-03, 07-09, 11, 13-15	None
5	2/13/12 11:14	0212612J004.D CCV2	Trichlorofluoromethane	-30.3 (30.0)	1202009-10, 11re1, 12re1, 14re2,	ok per R9 review
	HP5973J				1202009-16, 18	
6	2/13/12 13:00	021312J007.D QLS	2,2-Dichloropropane	48.3 (60 - 140%)	1202010-04, 05, 10, 12, 16, 17	J-/UJ if < 5x RL
7	2/14/12 12:44	021412J005.D QLS	Bromomethane	53.7 (60 - 140%)	1202009-02 /-02re1(5x), -04,	J-/UJ if < 5x RL
	HP5793J		2,2-Dichloropropane	53.9 (60 - 140%)	1202009-07 / -07re1, -09, -13re1,	J-/UJ if < 5x RL
			trans-1,3-dichloropropene	59.5 (60 - 140%)	1202009-16re1 (20x), 19, 20	J-/UJ if < 5x RL
					1202010-05re1	
8	2/14/12 14:17	021412F01.D CCV	DBCP	0.016 (0.050)	1202009-03re1, 04re1	None, see QLS
	HP5973F				1202009 -13re2, -19re1	
	2/14/12 15:28	021412F03.D QLS	All passed			None
9	2/15/12 11:17	021512J002.D CCV	Dichlorodifluoromethane	-41.1 (30.0)	1202009-03re2, -09re3	J-/UJ
	HP5793J		DBCP	0.009 (0.050)		None, see QLS
	2/15/12 12:28	021512J005.D QLS	Dichlorodifluoromethane	54.5 (60-140%)		J-/UJ if < 5x RL

LDC #: 1203-01MH1
SDG #: 12034B

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Calculation Verification

Page: 1 of 1
Reviewer: KTD
2nd Reviewer: _____

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
2/12/2012	Chloroform	5.0	496563	5.0	67036	7.407	7.407	7.526	-1.6	-1.6
11:46	Trichloroethene	5.0	322738	5.0	958633	0.337	0.337	0.346	-2.7	-2.6
HP5973J	Tetrachloroethene	5.0	310829	5.0	605113	0.514	0.514	0.544	-5.6	-5.5

LDC #: 1263-01AA1
SDG #: 12034B

VALIDATION FINDINGS WORKSHEET
Surrogate Compounds
Results Verification

Reviewer: KD
2nd Reviewer: _____

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-1A-1Q12

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
1,2-Dichloroethane-d4	5	5.315	106.2	106	0
Toluene-d8	5	4.829	96.6	97	0
4-Bromofluorobenzene	5	4.546	91.0	91	0
1,2-Dichlorobenzene-d4	5	4.658	93.2	93	0

Sample ID: MW-11A-1Q12

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
1,2-Dichloroethane-d4	5	5.473	109.4	109	0
Toluene-d8	5	4.881	97.6	98	0
4-Bromofluorobenzene	5	4.507	90.2	90	0
1,2-Dichlorobenzene-d4	5	4.663	93.2	93	0

Sample ID: MW-12A-1Q12

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
1,2-Dichloroethane-d4	5	5.433	108.6	109	0
Toluene-d8	5	4.834	96.6	97	0
4-Bromofluorobenzene	5	4.524	90.4	90	0
1,2-Dichlorobenzene-d4	5	4.641	92.8	93	0

Sample ID: MW-14A-1Q12

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
1,2-Dichloroethane-d4	5	5.402	108	108	0
Toluene-d8	5	4.813	96.2	96	0
4-Bromofluorobenzene	5	4.544	90.8	91	0
1,2-Dichlorobenzene-d4	5	4.583	91.6	92	0

Sample ID: MW-16B-1Q12

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
1,2-Dichloroethane-d4	5	5.286	105.8	106	0
Toluene-d8	5	4.912	98.2	98	0
4-Bromofluorobenzene	5	4.642	92.8	93	0
1,2-Dichlorobenzene-d4	5	4.771	95.4	95	0

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: 12034B **Laboratory: R9LAB**

EDD Filename: 12034B_524_1202010 FINAL **eQAPP Name: Modesto_Site_113011**

Method: **524.2**

Matrix: **Water**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
MW-1A-1Q12MS (MW-1A-1Q12)	1,1,2,2-TETRACHLOROETHANE	-	-	70.00-130.00	24 (20.00)	1,1,2,2-TETRACHLOROETHAN	J (all detects) UJ (all non-detects)
	1,1,2-TRICHLOROETHANE	-	-	74.00-131.00	21 (20.00)	1,1,2-TRICHLOROETHANE	
	1,2,3-TRICHLOROPROPANE	-	-	63.00-140.00	23 (20.00)	1,2,3-TRICHLOROPROPANE	
	1,2-DIBROMO-3-CHLOROPROP	-	-	54.00-143.00	26 (20.00)	1,2-DIBROMO-3-CHLOROPRO	
	1,2-DICHLOROBENZENE	-	-	69.00-130.00	21 (20.00)	1,2-DICHLOROBENZENE	
	1,2-DICHLOROETHANE	-	-	69.00-140.00	23 (20.00)	1,2-DICHLOROETHANE	
	1,2-DICHLOROPROPANE	-	-	30.00-190.00	21 (20.00)	1,2-DICHLOROPROPANE	
	1,3-DICHLOROBENZENE	-	-	77.00-120.00	21 (20.00)	1,3-DICHLOROBENZENE	
	1,3-DICHLOROPROPANE	-	-	67.00-130.00	23 (20.00)	1,3-DICHLOROPROPANE	
	1,4-DICHLOROBENZENE	-	-	76.00-120.00	22 (20.00)	1,4-DICHLOROBENZENE	
	2-BUTANONE	-	-	43.00-150.00	21 (20.00)	2-BUTANONE	
	4-CHLOROTOLUENE	-	-	77.00-130.00	21 (20.00)	4-CHLOROTOLUENE	
	BROMOCHLOROMETHANE	-	-	56.00-140.00	22 (20.00)	BROMOCHLOROMETHANE	
	BROMODICHLOROMETHANE	-	-	87.00-130.00	23 (20.00)	BROMODICHLOROMETHANE	
	BROMOFORM	-	-	43.00-160.00	25 (20.00)	BROMOFORM	
	CHLOROBENZENE	-	-	75.00-120.00	21 (20.00)	CHLOROBENZENE	
	CHLOROETHANE	-	-	59.00-140.00	22 (20.00)	CHLOROETHANE	
	CHLOROFORM	-	-	30.00-170.00	22 (20.00)	CHLOROFORM	
	CIS-1,2-DICHLOROETHENE	-	-	55.00-140.00	22 (20.00)	CIS-1,2-DICHLOROETHENE	
	DIBROMOCHLOROMETHANE	-	-	62.00-140.00	22 (20.00)	DIBROMOCHLOROMETHANE	
	DIBROMOMETHANE	-	-	77.00-120.00	26 (20.00)	DIBROMOMETHANE	
	DICHLORODIFLUOROMETHAN	-	-	25.00-135.00	21 (20.00)	DICHLORODIFLUOROMETHA	
	STYRENE	-	-	20.00-170.00	22 (20.00)	STYRENE	
	TETRACHLOROETHENE	-	-	41.00-150.00	21 (20.00)	TETRACHLOROETHENE	
	TRICHLOROFLUOROMETHANE	-	-	44.00-170.00	21 (20.00)	TRICHLOROFLUOROMETHAN	
	VINYL CHLORIDE	-	-	43.00-150.00	21 (20.00)	VINYL CHLORIDE	

LDC #: 1203-01AA1
SDG #: 12034B

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Result Verification

Page: 1 of 1
Reviewer: KD
2nd Reviewer: _____

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-1A-1Q12 MS/MW-1A-1Q12 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	5.00	5.00	0.00	5.39	4.47	108	108	93	89	19.0	18.7
Benzene	5.00	5.00	0.00	5.62	4.60	112	112	92	92	20.0	20.0
Trichloroethene	5.00	5.00	0.00	5.80	4.74	116	116	95	95	20.0	20.1
Toluene	5.00	5.00	0.00	5.86	4.79	117	117	96	96	20.0	20.1
Chlorobenzene	5.00	5.00	0.00	5.75	4.65	115	115	93	93	21.0	21.2

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: 12034B **Laboratory: R9LAB**

EDD Filename: 12034B_524_1202010 FINAL **eQAPP Name: Modesto_Site_113011**

Method: **524.2**

Matrix: **Water**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
B2B0054-BS1 (MW-10A-1Q12 MW-13A-1Q12 MW-15A-1Q12 MW-21A-1Q12 MW-302-1Q12 MW-402-1Q12)	1,2,4-TRIMETHYLBENZENE	85	-	86.00-120.00	-	1,2,4-TRIMETHYLBENZENE	J- (all detects) UJ (all non-detects)

Project Name and Number: R12S42 - Modesto Groundwater Jan/Feb 2012 Qtrly Monitoring

LDC #: 1203-01AA1
SDG #: 12034B

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample
Result Verification

Reviewer: KD
2nd Reviewer: _____

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 Batch: B2B0052-BS1

Compound	Spike Added (ug/L)	Sample Concentration (ug/L)	Spiked Sample Concentration (ug/L)	LCS Percent Recovery	
	LCS		LCS	Reported	Recalc.
Chloroform	5.0	0.0	4.72	94	94
Trichloroethene	5.0	0.0	4.46	89	89
Tetrachloroethene	5.0	0.0	4.23	85	85

Reporting Limit Outliers

Lab Reporting Batch ID: 12034B **Laboratory: R9LAB**

EDD Filename: 12034B_524_1202010 FINAL_rev_needs MQ **eQAPP Name: Modesto_Site_113011**

Method: **524.2**

Matrix: **Water**

SampleID	*Analyte*	*Lab Qual*	*Result*	*Reporting Limit*	*RL Type*	*Units*	*Flag*
MW-10A-1Q12	BROMODICHLOROMETHANE	J,C1	0.2	0.5	MRL	ug/L	J (all detects)
MW-10B-1Q12	1,2,4-TRIMETHYLBENZENE CARBON TETRACHLORIDE O-XYLENE TOLUENE	J,C1 J,C1 J,C1 J,C1	0.3 0.4 0.4 0.3	0.5 0.5 0.5 0.5	MRL MRL MRL MRL	ug/L ug/L ug/L ug/L	J (all detects)
MW-12A-1Q12	BROMODICHLOROMETHANE TRICHLOROFLUOROMETHANE	J,C1 J,C1	0.4 0.3	0.5 0.5	MRL MRL	ug/L ug/L	J (all detects)
MW-14A-1Q12	CHLOROFORM	J,C1	0.4	0.5	MRL	ug/L	J (all detects)
MW-15A-1Q12	CHLOROFORM	J,C1	0.3	0.5	MRL	ug/L	J (all detects)
MW-16A-1Q12	ETHYLBENZENE	J,C1	0.2	0.5	MRL	ug/L	J (all detects)
MW-16C-1Q12	BENZENE	J,C1	0.3	0.5	MRL	ug/L	J (all detects)
MW-19B-1Q12	1,2,4-TRIMETHYLBENZENE ETHYLBENZENE m&p-Xylene O-XYLENE TETRACHLOROETHENE TOLUENE	J,C1 J,C1 J,C1 J,C1 J,C1 J,C1	0.2 0.4 0.8 0.2 0.2 0.2	0.5 0.5 1.0 0.5 0.5 0.5	MRL MRL MRL MRL MRL MRL	ug/L ug/L ug/L ug/L ug/L ug/L	J (all detects)
MW-1A-1Q12	CHLOROFORM	J,C1,Q6	0.2	0.5	MRL	ug/L	J (all detects)
MW-21A-1Q12	BENZENE	J,C1	0.2	0.5	MRL	ug/L	J (all detects)

LDC #: 1203-01AA1
SDG #: 12034B

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: KTD
2nd Reviewer: —

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-1A-1Q12	Chloroform		20700	1	5.0	7.526	1		67194	0.2	0.2	2.3	Y
		Tetrachloroethene		78669	1	5.0	0.544	1		615600	1.2	1.2	-2.1	Y
2	MW-11A-1Q12	Chloroform		416036	1	5.0	7.526	1		56202	4.9	4.9	0.4	Y
		Tetrachloroethene		99908	1	5.0	0.544	1		503372	1.8	2	1.3	Y
3	MW-12A-1Q12	Trichlorofluoromethane		35603	1	5.0	1.000	1		64492	0.3	0.3	0.0	Y
		Chloroform		745913	1	5.0	7.526	1		64492	7.7	7.7	-0.2	Y
		Bromodichloromethane		18587	1	5.0	0.308	1		846274	0.40	0.36	-10.9	N
		Tetrachloroethene		959433	1	5.0	0.544	1		567538	16	15.5	-2.9	Y
4	MW-14A-1Q12	Chloroform		40138	1	5.0	7.526	1		62542	0.4	0.4	6.6	Y
		Tetrachloroethene		1396607	1	5.0	0.544	1		553499	23	23.2	0.8	Y
5	MW-16B-1Q12	Chloroform		151256	1	5.0	7.526	1		61804	1.6	1.6	1.6	Y
		Tetrachloroethene		115599	1	5.0	0.544	1		559172	1.9	1.9	0.0	Y

Field QC Assignments and Associated Samples

EDD File Name: 12034B
eQapp Name: Modesto_Site_113011

	Associated Samples	Sample Collection Date
Field QC Sample: MW-302-1Q12 **QC Type:** Trip_Blank		
	MW-19A-1Q12	1/30/2012 12:35:00 PM
	MW-10A-1Q12	2/1/2012 12:17:00 PM
	MW-16B-1Q12	1/31/2012 2:35:00 PM
	MW-14A-1Q12	1/31/2012 2:07:00 PM
	MW-11A-1Q12	1/31/2012 1:29:00 PM
	MW-1A-1Q12	1/31/2012 10:54:00 AM
	MW-15A-1Q12	2/1/2012 9:19:00 AM
	MW-13A-1Q12	2/1/2012 8:35:00 AM
	MW-12A-1Q12	1/31/2012 3:08:00 PM
	MW-10C-1Q12	1/31/2012 9:05:00 AM
	MW-10B-1Q12	1/30/2012 3:15:00 PM
	MW-19B-1Q12	1/30/2012 1:25:00 PM
	MW-16C-1Q12	1/31/2012 1:48:00 PM
	MW-402-1Q12	2/1/2012 4:02:00 PM
	MW-21A-1Q12	2/1/2012 4:00:00 PM
	MW-16A-1Q12	1/31/2012 1:00:00 PM
Field QC Sample: MW-402-1Q12 **QC Type:** Field_Blank		
	MW-19A-1Q12	1/30/2012 12:35:00 PM
	MW-10A-1Q12	2/1/2012 12:17:00 PM
	MW-16B-1Q12	1/31/2012 2:35:00 PM
	MW-14A-1Q12	1/31/2012 2:07:00 PM
	MW-11A-1Q12	1/31/2012 1:29:00 PM
	MW-1A-1Q12	1/31/2012 10:54:00 AM
	MW-15A-1Q12	2/1/2012 9:19:00 AM
	MW-13A-1Q12	2/1/2012 8:35:00 AM
	MW-12A-1Q12	1/31/2012 3:08:00 PM
	MW-10C-1Q12	1/31/2012 9:05:00 AM
	MW-10B-1Q12	1/30/2012 3:15:00 PM
	MW-19B-1Q12	1/30/2012 1:25:00 PM
	MW-16C-1Q12	1/31/2012 1:48:00 PM
	MW-21A-1Q12	2/1/2012 4:00:00 PM
	MW-16A-1Q12	1/31/2012 1:00:00 PM

LDC #: 1203-01AA1____ **VALIDATION FINDING WORKSHEET** Page:__1__of__1__

SDG #: _12034B___ **Field Duplicates** Reviewer: KTD

2nd Reviewer: —

METHOD: GC/MS Volatile Organics (EPA Method 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?

from SDG 12034A

Analyte	Concentration (ug/L)		Factor Difference *	RPD	Qualifications
	MW-12A-1Q12	MW-88A-1Q12			
Trichlorofluoromethane	0.3	0.3	1.00	0	None
Chloroform	7.7	6.6	1.17	15	
Bromodichloromethane	0.4	0.3	1.33	29	
Tetrachloroethene	16.0	15.0	1.07	6	

Analyte	Concentration (ug/L)		Factor Difference	Difference (Limits)	Qualifications

* = See Table 2-17 of SAP

United States Environmental Protection Agency
Region 9 Laboratory
1337 S. 46th Street, Building 201, Richmond, CA 94804
Phone:(510) 412-2300 Fax:(510) 412-2302

Project Manager: Marie Lacey	**California Site Cleanup Section 2**	**SDG:** 12034B
Project Number: R12S42	**75 Hawthorne Street**	**Reported:** 02/24/12 10:03
Project: Modesto Groundwater Jan/Feb 2012 Qtrly Monitoring	**San Francisco CA, 94105**	

Sample Results

Lab ID: 1202010-13 — **Water - Sampled: 01/31/12 13:00**

Sample ID: MW-16A-1Q12

DVQ's

Volatile Organic Compounds by EPA Method 524.2

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Dichlorodifluoromethane		ND	U	0.5	ug/L	B2B0052	02/12/12	02/12/12	524.2/SOP354
Chloromethane		ND	U	0.5	"	"	"	"	524.2/SOP354
Vinyl chloride		ND	U	0.5	"	"	"	"	524.2/SOP354
Bromomethane		ND	U	0.5	"	"	"	"	524.2/SOP354
Chloroethane		ND	U	0.5	"	"	"	"	524.2/SOP354
Trichlorofluoromethane		ND	U	0.5	"	"	"	"	524.2/SOP354
1,1-Dichloroethene		ND	U	0.5	"	"	"	"	524.2/SOP354
1,1,2-Trichloro-1,2,2-trifluoroethane		ND	U	0.5	"	"	"	"	524.2/SOP354
Acetone		ND	U	4	"	"	"	"	524.2/SOP354
Dichloromethane		ND	U	0.5	"	"	"	"	524.2/SOP354
trans-1,2-Dichloroethene		ND	U	0.5	"	"	"	"	524.2/SOP354
tert-Butyl methyl ether (MTBE)		ND	U	2	"	"	"	"	524.2/SOP354
1,1-Dichloroethane		ND	U	0.5	"	"	"	"	524.2/SOP354
2,2-Dichloropropane		ND	C3, J, U U5	0.5	"	"	"	"	524.2/SOP354
cis-1,2-Dichloroethene		ND	U	0.5	"	"	"	"	524.2/SOP354
2-Butanone (MEK)		ND	U	4	"	"	"	"	524.2/SOP354
Bromochloromethane		ND	U	0.5	"	"	"	"	524.2/SOP354
Chloroform		0.8		0.5	"	"	"	"	524.2/SOP354
1,1,1-Trichloroethane		ND	U	0.5	"	"	"	"	524.2/SOP354
Carbon tetrachloride		ND	U	0.5	"	"	"	"	524.2/SOP354
1,1-Dichloropropene		ND	U	0.5	"	"	"	"	524.2/SOP354
Benzene		0.5		0.5	"	"	"	"	524.2/SOP354
1,2-Dichloroethane		ND	U	0.5	"	"	"	"	524.2/SOP354
Trichloroethene		ND	U	0.5	"	"	"	"	524.2/SOP354
1,2-Dichloropropane		ND	U	0.5	"	"	"	"	524.2/SOP354
Dibromomethane		ND	U	0.5	"	"	"	"	524.2/SOP354
Bromodichloromethane		ND	U	0.5	"	"	"	"	524.2/SOP354
cis-1,3-Dichloropropene		ND	U	0.5	"	"	"	"	524.2/SOP354
Toluene		ND	U	0.5	"	"	"	"	524.2/SOP354
trans-1,3-Dichloropropene		ND	C3, J, U U5	0.5	"	"	"	"	524.2/SOP354
1,1,2-Trichloroethane		ND	U	0.5	"	"	"	"	524.2/SOP354
Tetrachloroethene		ND	U	0.5	"	"	"	"	524.2/SOP354
1,3-Dichloropropane		ND	U	0.5	"	"	"	"	524.2/SOP354
Chlorodibromomethane		ND	U	0.5	"	"	"	"	524.2/SOP354
1,2-Dibromoethane (EDB)		ND	U	0.5	"	"	"	"	524.2/SOP354
Chlorobenzene		ND	U	0.5	"	"	"	"	524.2/SOP354
1,1,1,2-Tetrachloroethane		ND	U	0.5	"	"	"	"	524.2/SOP354

United States Environmental Protection Agency
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Project Manager: Marie Lacey	**California Site Cleanup Section 2**	**SDG:** 12034B
Project Number: R12S42	**75 Hawthorne Street**	**Reported:** 02/24/12 10:03
Project: Modesto Groundwater Jan/Feb 2012 Qtrly Monitoring	**San Francisco CA, 94105**	

Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 1202010-13			DVQ						**Water - Sampled: 01/31/12 13:00**
Sample ID: MW-16A-1Q12									**Volatile Organic Compounds by EPA Method 524.2**
Ethylbenzene		0.2	C1, J	0.5	ug/L	B2B0052	02/12/12	02/12/12	524.2/SOP354
m&p-Xylene		ND	U	1	"	"	"	"	524.2/SOP354
o-Xylene		ND	U	0.5	"	"	"	"	524.2/SOP354
Styrene		ND	U	0.5	"	"	"	"	524.2/SOP354
Bromoform		ND	U	0.5	"	"	"	"	524.2/SOP354
Isopropylbenzene		ND	U	0.5	"	"	"	"	524.2/SOP354
Bromobenzene		ND	U	0.5	"	"	"	"	524.2/SOP354
1,1,2,2-Tetrachloroethane		ND	U	0.5	"	"	"	"	524.2/SOP354
1,2,3-Trichloropropane		ND	U	0.5	"	"	"	"	524.2/SOP354
Propylbenzene		ND	U	0.5	"	"	"	"	524.2/SOP354
2-Chlorotoluene		ND	U	0.5	"	"	"	"	524.2/SOP354
4-Chlorotoluene		ND	U	0.5	"	"	"	"	524.2/SOP354
1,3,5-Trimethylbenzene		ND	U	0.5	"	"	"	"	524.2/SOP354
tert-Butylbenzene		ND	U	0.5	"	"	"	"	524.2/SOP354
1,2,4-Trimethylbenzene		ND	U	0.5	"	"	"	"	524.2/SOP354
sec-Butylbenzene		ND	U	0.5	"	"	"	"	524.2/SOP354
1,3-Dichlorobenzene		ND	U	0.5	"	"	"	"	524.2/SOP354
p-Isopropyltoluene		ND	U	0.5	"	"	"	"	524.2/SOP354
1,4-Dichlorobenzene		ND	U	0.5	"	"	"	"	524.2/SOP354
1,2-Dichlorobenzene		ND	U	0.5	"	"	"	"	524.2/SOP354
Butylbenzene		ND	U	0.5	"	"	"	"	524.2/SOP354
1,2-Dibromo-3-chloropropane		ND	U	2	"	"	"	"	524.2/SOP354
1,2,4-Trichlorobenzene		ND	U	0.5	"	"	"	"	524.2/SOP354
Hexachlorobutadiene		ND	U	0.5	"	"	"	"	524.2/SOP354
Naphthalene		ND	C3, J, U UJ	0.5	"	"	"	"	524.2/SOP354
1,2,3-Trichlorobenzene		ND	U	0.5	"	"	"	"	524.2/SOP354
Surrogate: 1,2-Dichloroethane-d4			108 %	*76-130%*		"	"	"	
Surrogate: Toluene-d8			99 %	*83-120%*		"	"	"	
Surrogate: 4-Bromofluorobenzene			94 %	*74-110%*		"	"	"	
Surrogate: 1,2-Dichlorobenzene-d4			96 %	*69-120%*		"	"	"	

History of Manual Changes to Automated Data Review Qualifiers

Changed by:

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: MW-10A-1Q12									
2,2-DICHLOROPROPANE	524.2	Initial1	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:18
Reason for change:	%RSD > 20.0								
2,2-DICHLOROPROPANE	524.2	Initial1	0.5	ug/L	Continuing Calibration		UJ	4/12/2012	13:54
Reason for change:	QLS < 60-140%R								
NAPHTHALENE	524.2	Initial1	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:19
Reason for change:	%RSD > 20.0								
TRANS-1,3-DICHLOROPROPENE	524.2	Initial1	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:19
Reason for change:	%RSD > 20.0								
Field Sample ID: MW-10B-1Q12									
2,2-DICHLOROPROPANE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:20
Reason for change:	%RSD > 20.0								
NAPHTHALENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:20
Reason for change:	%RSD > 20.0								
TRANS-1,3-DICHLOROPROPENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:20
Reason for change:	%RSD > 20.0								
Field Sample ID: MW-10C-1Q12									
2,2-DICHLOROPROPANE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:21
Reason for change:	%RSD > 20.0								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: MW-10C-1Q12									
NAPHTHALENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:21
Reason for change: %RSD > 20.0									
TRANS-1,3-DICHLOROPROPENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:21
Reason for change: %RSD > 20.0									
Field Sample ID: MW-11A-1Q12									
2,2-DICHLOROPROPANE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:22
Reason for change: %RSD > 20.0									
NAPHTHALENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:22
Reason for change: %RSD > 20.0									
TRANS-1,3-DICHLOROPROPENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:22
Reason for change: %RSD > 20.0									
Field Sample ID: MW-12A-1Q12									
2,2-DICHLOROPROPANE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:24
Reason for change: %RSD > 20.0									
NAPHTHALENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:24
Reason for change: %RSD > 20.0									
TRANS-1,3-DICHLOROPROPENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:24
Reason for change: %RSD > 20.0									
Field Sample ID: MW-13A-1Q12									
2,2-DICHLOROPROPANE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:25
Reason for change: %RSD > 20.0									

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: MW-13A-1Q12									
2,2-DICHLOROPROPANE	524.2	Initial	0.5	ug/L	Continuing Calibration		UJ	4/12/2012	13:54
Reason for change:	QLS < 60-140%R								
NAPHTHALENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:25
Reason for change:	%RSD > 20.0								
TRANS-1,3-DICHLOROPROPENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:25
Reason for change:	%RSD > 20.0								
Field Sample ID: MW-14A-1Q12									
2,2-DICHLOROPROPANE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:25
Reason for change:	%RSD > 20.0								
NAPHTHALENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:26
Reason for change:	%RSD > 20.0								
TRANS-1,3-DICHLOROPROPENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:26
Reason for change:	%RSD > 20.0								
Field Sample ID: MW-15A-1Q12									
2,2-DICHLOROPROPANE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:26
Reason for change:	%RSD > 20.0								
2,2-DICHLOROPROPANE	524.2	Initial	0.5	ug/L	Continuing Calibration		UJ	4/12/2012	13:55
Reason for change:	QLS < 60-140%R								
NAPHTHALENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:27
Reason for change:	%RSD > 20.0								
TRANS-1,3-DICHLOROPROPENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:26
Reason for change:	%RSD > 20.0								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: MW-16A-1Q12									
2,2-DICHLOROPROPANE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:27
Reason for change: %RSD > 20.0									
NAPHTHALENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:27
Reason for change: %RSD > 20.0									
TRANS-1,3-DICHLOROPROPENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:27
Reason for change: %RSD > 20.0									
Field Sample ID: MW-16B-1Q12									
2,2-DICHLOROPROPANE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:28
Reason for change: %RSD > 20.0									
NAPHTHALENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:28
Reason for change: %RSD > 20.0									
TRANS-1,3-DICHLOROPROPENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:28
Reason for change: %RSD > 20.0									
Field Sample ID: MW-16C-1Q12									
2,2-DICHLOROPROPANE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:28
Reason for change: %RSD > 20.0									
NAPHTHALENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:29
Reason for change: %RSD > 20.0									
TRANS-1,3-DICHLOROPROPENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:28
Reason for change: %RSD > 20.0									

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: MW-19A-1Q12									
2,2-DICHLOROPROPANE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:29
Reason for change: %RSD > 20.0									
NAPHTHALENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:29
Reason for change: %RSD > 20.0									
TRANS-1,3-DICHLOROPROPENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:29
Reason for change: %RSD > 20.0									
Field Sample ID: MW-19B-1Q12									
2,2-DICHLOROPROPANE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:30
Reason for change: %RSD > 20.0									
NAPHTHALENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:30
Reason for change: %RSD > 20.0									
TRANS-1,3-DICHLOROPROPENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:30
Reason for change: %RSD > 20.0									
Field Sample ID: MW-1A-1Q12									
2,2-DICHLOROPROPANE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:31
Reason for change: %RSD > 20.0									
NAPHTHALENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:32
Reason for change: %RSD > 20.0									
TRANS-1,3-DICHLOROPROPENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:31
Reason for change: %RSD > 20.0									

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: MW-21A-1Q12									
2,2-DICHLOROPROPANE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:43
Reason for change:	%RSD > 20.0								
2,2-DICHLOROPROPANE	524.2	Initial	0.5	ug/L	Continuing Calibration		UJ	4/12/2012	13:54
Reason for change:	QLS < 60-140%R								
NAPHTHALENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:44
Reason for change:	%RSD > 20.0								
TRANS-1,3-DICHLOROPROPENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:44
Reason for change:	%RSD > 20.0								
Field Sample ID: MW-302-1Q12									
1,2,3-TRICHLOROBENZENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:45
Reason for change:	%RSD > 20.0								
1,2,3-TRICHLOROBENZENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent	UJ		4/12/2012	13:45
Reason for change:	remove qualifier								
2,2-DICHLOROPROPANE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:45
Reason for change:	%RSD > 20.0								
2,2-DICHLOROPROPANE	524.2	Initial	0.5	ug/L	Continuing Calibration		UJ	4/12/2012	13:55
Reason for change:	QLS < 60-140%R								
NAPHTHALENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:45
Reason for change:	%RSD > 20.0								
TRANS-1,3-DICHLOROPROPENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:45
Reason for change:	%RSD > 20.0								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: MW-402-1Q12									
2,2-DICHLOROPROPANE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:46
Reason for change:	%RSD > 20.0								
2,2-DICHLOROPROPANE	524.2	Initial	0.5	ug/L	Continuing Calibration		UJ	4/12/2012	13:55
Reason for change:	QLS < 60-140%R								
NAPHTHALENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:46
Reason for change:	%RSD > 20.0								
TRANS-1,3-DICHLOROPROPENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/12/2012	13:46
Reason for change:	%RSD > 20.0								

SDG 12038B

LDC #: 1203-01B

SDG #: 12038B

Laboratory: EPA Region 9

VALIDATION COMPLETENESS WORKSHEET

Level III / IV

Date: 4/12/12

Page: 1 of 1

Reviewer: KTD

2nd Reviewer: —

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: 02/02/2012
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	SW	≤ 30% RSD SCV %D ≤ 30%
IV.	Continuing calibration	SW	≤ 30% %D
V.	Blanks	A	< ½ QL
VI.	Surrogate spikes	N	
VII.	Sample duplicates	A	
VIII.	Laboratory control samples	SW	per R9 SOP 311r1
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	area ± 40% of IC RT drift ± 0.33 minutes of CCV (20 sec.)
XI.	Target compound identification	A	Not reviewed for Level III validation samples.
XII.	Compound quantitation/CRQLs	A	Not reviewed for Level III validation samples.
XIII.	Tentatively identified compounds (TICs)	N	Not reviewed for Level III validation samples.
XIV.	System performance	A	Not reviewed for Level III validation samples.
XV.	Overall assessment of data	A	
XVI.	Field duplicates	A	per SAP Table 2-17 Samples 5 & 7 and samples 12 & 14
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: ** Indicates sample underwent Level IV validation

1	DP-1A-1Q12	11	SVE-2-1Q12	21		31	
2	DP-1B-1Q12	12	SVE-3-1Q12	22		32	
3	DP-5A-1Q12	13	SVE-4-1Q12 **	23		33	
4	DP-5B-1Q12	14	SVE-97-1Q12	24		34	
5	DP-6A-1Q12	15	SVE-97-1Q12 Dup	25		35	
6	DP-6B-1Q12	16		26		36	
7	DP-94A-1Q12	17		27		37	
8	OSVE-10-1Q12	18		28		38	
9	OSVE-11-1Q12 **	19		29		39	
10	SVE-1-1Q12 **	20		30		40	

LDC #: 1203-01B
SDG #: 12038B

VALIDATION FINDINGS CHECKLIST

Reviewer: ICD
2nd Reviewer: –

Method: Volatiles (EPA Method TO-15)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	X			
Canister pressure 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 24 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) ≤ 30% and relative response factors (RRF) ≥ 0.05? (QLS 60-140%)	X			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 24 hours for each instrument?	X			
Were all percent differences (%D) ≤ 30% and relative response factors (RRF) ≥ 0.05? (QLS 60-140%)		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. Sample Duplicate				
Was a sample duplicate analyzed for this SDG?	X			
Were the relative percent differences (RPD) within the QC limits (≤20%)?	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 #: 1203-01B
SDG #: 12038B

VALIDATION FINDINGS CHECKLIST

Reviewer: KD
2nd Reviewer: —

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 +/- 20.0 seconds from the associated calibration standard?	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 (> 10 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			
Target compounds were detected in the field duplicates.	X			
XVII. Field blanks				
Field blanks were identified in this SDG.		X		
Target compounds were detected in the field blanks.			X	

LDC #: 1203-01B
SDG #: 12038B

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: KD
2nd Reviewer: _____

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
1/20/2012	AG5973K	Vinyl chloride (vs Bromochloromethane)	Point 1	1.01	47254	21.00	1219448	0.806		0.782	
			Point 2	2.02	88689	21.00	1210349	0.762		0.740	
			Point 3	5.05	183238	21.00	1188133	0.641		0.623	
			Point 4	10.10	458524	21.00	1200508	0.794		0.771	
			Point 5	15.15	691859	21.00	1231003	0.779		0.756	
			Point 6	20.20	933562	21.00	1238070	0.784		0.761	
			Mean calibration factor					0.761	7.94	0.739	7.94
1/20/2012	AG5973K	Trichloroethene (vs 1,4-Difluorobenzene)	Point 1	1.02	69603	21.60	4819530	0.306		0.309	
			Point 2	2.04	132436	21.60	4707309	0.298		0.301	
			Point 3	5.10	281272	21.60	4610362	0.258		0.261	
			Point 4	10.20	762184	21.60	4625483	0.349		0.352	
			Point 5	15.30	1164228	21.60	4648153	0.354		0.357	
			Point 6	20.40	1621137	21.60	4696395	0.365		0.369	
			Mean calibration factor					0.322	12.82	0.325	12.83
1/20/2012	AG5973K	Tetrachloroethene (vs Chlorobenzene-d5)	Point 1	1.02	124694	22.00	4677324	0.575		0.575	
			Point 2	2.04	234506	22.00	4581546	0.552		0.552	
			Point 3	5.10	494238	22.00	4496432	0.474		0.474	
			Point 4	10.20	1248989	22.00	4433738	0.608		0.607	
			Point 5	15.30	1889627	22.00	4442945	0.612		0.611	
			Point 6	20.40	2645075	22.00	4511390	0.632		0.632	
			Mean calibration factor					0.575	9.95	0.575	9.95

LDC #: 1203-01B
SDG #: 12038B

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Page: 1 of 1
Reviewer: KTD
2nd Reviewer: —

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 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
1	2/07/12 18:56pm	02071203.D CCV	1,2,4-Trichlorobenzene	31.8 (30.0)	1 - 5 (1x) and 1RE-14RE (10x all)	J-/UJ detects
			Hexachlorobutadiene	30.5 (30.0)		J-/UJ detects
2	2/07/12	02071205.D QLS	1,3,5-Trimethyl benzene	59 (60-140%)	1 - 5 (1x) and 1 - 14 (10x all)	J-/ UJ <5x RL
			1,2,4-Trimethylbenzene	59 (60-140%)		J-/ UJ <5x RL

LDC #: 1203-01B
SDG #: 12038B

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Calculation Verification

Page: 1 of 1
Reviewer: KTD
2nd Reviewer: —

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
2/7/2012 (18:56)	Chloroform	10.00	1026530	21.00	1141481	1.889	1.888	2.084	9.4	9.4
	Trichloroethene	10.20	629571	21.60	3862386	0.345	0.349	0.325	-7.4	-7.4
	Tetrachloroethene	10.20	972029	22.00	3530770	0.594	0.594	0.575	-3.3	-3.3

LDC #: _1203-1B VALIDATION FINDING WORKSHEET Page: 1 of 1

SDG #: _12038B__ **Laboratory Duplicates** Reviewer: KTD

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

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

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

Analyte	Concentration (ppbv)		Reported RPD	Recalculated RPD
	SVE-97-1Q12 (20x)	SVE-97-1Q12 Du (20x)		
Tetrachloroethene	125	112	11	11

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

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: 12038B **Laboratory: R9LAB**

EDD Filename: 12038B_TO15_1202016 FINAL_edited RPD **eQAPP Name: Modesto_Site_113011**

Method: **TO-15**

Matrix: **Air**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
B2B0039-BS1 (DP-6B-1Q12 DP-94A-1Q12 OSVE-10-1Q12 OSVE-11-1Q12 SVE-1-1Q12 SVE-2-1Q12 SVE-3-1Q12 SVE-4-1Q12 SVE-97-1Q12)	TOLUENE	127	-	79.00-126.00	-	TOLUENE	J+ (all detects)

LDC #: 12038-01B
SDG #: _____

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample Result Verification

Reviewer: KTD
2nd Reviewer: —

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
SA = Spike added
SC = Sample concentration

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

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

LCS sample: B2B0028-BS1

Compound	Spike Added (ppbv)	Sample Concentration (ppbv)	Spiked Sample Concentration (ppbv)	LCS Percent Recovery		LCS %D
	LCS	---	LCS	Reported	Recalc.	Calculated
Chloroform	10.00	0.0	9.02	90	90	0.2
Trichloroethene	10.10	0.0	11.06	110	110	0.5
Tetrachloroethene	10.20	0.0	10.69	105	105	0.2

LDC #: 1203-01B
SDG #: _____

VALIDATION FINDINGS WORKSHEET

Sample Calculation Verification

Page: 1 of 1
Reviewer: KTD
2nd Reviewer: —

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	OSVE-10-1Q12	Tetrachloroethene		192464	200	2.24	22.00	0.575	200	2944712	5.6	5.6	0.0	Y
	2/8/2012													
2	SVE-1-1Q12	Tetrachloroethene		172658	200	2.21	22.00	0.575	200	2380924	6.1	6.13	0.5	Y
	2/8/2012	1,2-Dichlorobenzene		161354	200	2.21	22.00	0.969	200	2380924	3.4	3.4	0.0	Y
3	SVE-4-1Q12	Chloroform		1052688	200	2.05	21.00	2.084	200	878832	25	24.744	-1.0	Y
	2/8/2012	Tetrachloroethene		686463	200	2.05	22.00	0.575	200	3118400	17	17.266	1.6	Y

Reporting Limit Outliers

Lab Reporting Batch ID: 12038B **Laboratory: R9LAB**

EDD Filename: 12038B_TO15_1202016 FINAL_edited RPD **eQAPP Name: Modesto_Site_113011**

Method: **TO-15**

Matrix: **Air**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DP-1A-1Q12	TOLUENE	J,C1	1.2	2.2	MRL	ppbv	J (all detects)
DP-5A-1Q12	CHLOROMETHANE	J,C1	1.8	2.0	MRL	ppbv	J (all detects)
DP-5B-1Q12	METHYLENE CHLORIDE	J,C1	1.5	2.1	MRL	ppbv	J (all detects)
OSVE-10-1Q12	TOLUENE	J,C1	2.0	2.2	MRL	ppbv	J (all detects)
SVE-2-1Q12	TRICHLOROETHENE	J,C1	1.3	2.1	MRL	ppbv	J (all detects)

Field QC Assignments and Associated Samples

EDD File Name: 12038B
eQapp Name: Modesto_Site_113011

	Associated Samples	Sample Collection Date
Field QC Sample: DP-94A-1Q12 **QC Type:** Field_Duplicate		
	DP-6A-1Q12	2/2/2012 12:55:00 PM
Field QC Sample: SVE-97-1Q12 **QC Type:** Field_Duplicate		
	SVE-3-1Q12	2/2/2012 10:03:00 AM

Field Duplicate RPD Report

Lab Reporting Batch ID: 12038B **Laboratory: R9LAB**

EDD Filename: 12038B_TO15_1202016 **eQAPP Name: Modesto_Site_113011**
FINAL_edited RPD

Method: TO-15
Matrix: Air

Analyte	Concentration (ppbv)		Sample RPD	eQAPP RPD	Flag
	SVE-3-1Q12	SVE-97-1Q12			
TETRACHLOROETHENE	140	130	7	1.00	No Qualifiers Applied

Analyte	Concentration (ppbv)		Sample RPD	eQAPP RPD	Flag
	DP-6A-1Q12	DP-94A-1Q12			
TETRACHLOROETHENE	29	31	7	1.00	No Qualifiers Applied

Project Name and Number: R12S42 - Modesto Groundwater Jan/Feb 2012 Qtrly Monitoring

LDC #: 1203-01B____ **VALIDATION FINDING WORKSHEET** Page:__1__of__1__

SDG #: _12038B___ **Field Duplicates** Reviewer:__KD__

2nd Reviewer:_____

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 (ug/L)		Factor Difference *	RPD	Qualifications
	SVE-3-1Q12	SVE-97-1Q12			
Tetrachloroethene	140	130	1.08	7	None

Analyte	Concentration (ug/L)		Factor Difference	Difference (Limits)	Qualifications
	DP-6A-1Q12	DP-94A-1Q12			
Tetrachloroethene	29	31	0.94	7	None

* = See Table 2-17 of SAP

History of Manual Changes to Automated Data Review Qualifiers

Changed by:

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: DP-1A-1Q12									
1,2,4-TRICHLOROBENZENE	TO-15	Initial	2.2	ppbv	Continuing Calibration		UJ	4/12/2012	21:04
Reason for change:	%D > 30.0 (low bias)								
1,2,4-TRIMETHYLBENZENE	TO-15	Initial	2.2	ppbv	Continuing Calibration		UJ	4/12/2012	21:09
Reason for change:	QLS %R < 60-140%								
1,3,5-TRIMETHYLBENZENE	TO-15	Initial	2.2	ppbv	Continuing Calibration		UJ	4/12/2012	21:09
Reason for change:	QLS %R < 60-140%								
HEXACHLOROBUTADIENE	TO-15	Initial	2.2	ppbv	Continuing Calibration		UJ	4/12/2012	21:04
Reason for change:	%D > 30.0 (low bias)								
Field Sample ID: DP-1B-1Q12									
1,2,4-TRICHLOROBENZENE	TO-15	Initial	2.2	ppbv	Continuing Calibration		UJ	4/12/2012	21:04
Reason for change:	%D > 30.0 (low bias)								
1,2,4-TRIMETHYLBENZENE	TO-15	Initial	2.2	ppbv	Continuing Calibration		UJ	4/12/2012	21:08
Reason for change:	QLS %R < 60-140%								
1,3,5-TRIMETHYLBENZENE	TO-15	Initial	2.2	ppbv	Continuing Calibration		UJ	4/12/2012	21:08
Reason for change:	QLS %R < 60-140%								
HEXACHLOROBUTADIENE	TO-15	Initial	2.2	ppbv	Continuing Calibration		UJ	4/12/2012	21:04
Reason for change:	%D > 30.0 (low bias)								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: DP-5A-1Q12									
1,2,4-TRICHLOROBENZENE	TO-15	Initial	2.0	ppbv	Continuing Calibration		UJ	4/12/2012	21:04
Reason for change:	%D > 30.0 (low bias)								
1,2,4-TRIMETHYLBENZENE	TO-15	Initial	2.0	ppbv	Continuing Calibration		UJ	4/12/2012	21:08
Reason for change:	QLS %R < 60-140%								
1,3,5-TRIMETHYLBENZENE	TO-15	Initial	2.0	ppbv	Continuing Calibration		UJ	4/12/2012	21:08
Reason for change:	QLS %R < 60-140%								
HEXACHLOROBUTADIENE	TO-15	Initial	2.0	ppbv	Continuing Calibration		UJ	4/12/2012	21:05
Reason for change:	%D > 30.0 (low bias)								
Field Sample ID: DP-5B-1Q12									
1,2,4-TRICHLOROBENZENE	TO-15	Initial	2.1	ppbv	Continuing Calibration		UJ	4/12/2012	21:05
Reason for change:	%D > 30.0 (low bias)								
1,2,4-TRIMETHYLBENZENE	TO-15	Initial	2.1	ppbv	Continuing Calibration		UJ	4/12/2012	21:08
Reason for change:	QLS %R < 60-140%								
1,3,5-TRIMETHYLBENZENE	TO-15	Initial	2.1	ppbv	Continuing Calibration		UJ	4/12/2012	21:08
Reason for change:	QLS %R < 60-140%								
HEXACHLOROBUTADIENE	TO-15	Initial	2.1	ppbv	Continuing Calibration		UJ	4/12/2012	21:05
Reason for change:	%D > 30.0 (low bias)								
Field Sample ID: DP-6A-1Q12									
1,2,4-TRICHLOROBENZENE	TO-15	Initial	2.1	ppbv	Continuing Calibration		UJ	4/12/2012	21:05
Reason for change:	%D > 30.0 (low bias)								
1,2,4-TRIMETHYLBENZENE	TO-15	Initial	2.1	ppbv	Continuing Calibration		UJ	4/12/2012	21:07
Reason for change:	QLS %R < 60-140%								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: DP-6A-1Q12									
1,3,5-TRIMETHYLBENZENE	TO-15	Initial	2.1	ppbv	Continuing Calibration		UJ	4/12/2012	21:07
Reason for change:	QLS %R < 60-140%								
HEXACHLOROBUTADIENE	TO-15	Initial	2.1	ppbv	Continuing Calibration		UJ	4/12/2012	21:05
Reason for change:	%D > 30.0 (low bias)								

SDG 12038E

LDC #: 1203-01C1
SDG #: 12038E
Laboratory: EPA Region 9

VALIDATION COMPLETENESS WORKSHEET
Level III

Date: 4/14/12
Page: 1 of 1
Reviewer: KD
2nd Reviewer: —

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	SW	Sampling dates: 2/03/2012
II.	GC/MS Instrument performance check	A	
III.	Initial calibration/ICV	SW	≤ 20.0%D per R9 SOP ±30% SCV For RRFcriteria see QLS %R
IV.	Continuing calibration	SW	≤ 30% per R9 SOP354
V.	Blanks	A	< ½ QL per SOP Storage Blank < ½ QL
VI.	Surrogate spikes	A	criteria per R9 SOP 354
VII.	Matrix spike/Matrix spike duplicates	SW	sample 7
VIII.	Laboratory control samples	SW	per R9 SOP354 criteria
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	30% of CC (drift ≤ 30 sec of IC)
XI.	Target compound identification	N	Not reviewed for Level III validation.
XII.	Compound quantitation/CRQLs	N	Not reviewed for Level III validation.
XIII.	Tentatively identified compounds (TICs)	N	Not reviewed for Level III validation.
XIV.	System performance	N	Not reviewed for Level III validation.
XV.	Overall assessment of data	A	
XVI.	Field duplicates	SW / A	samples 1 & 5
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	MW-29B-1Q12	11	MW-20A-1Q12-MSD	21		31	
2	MW-3A-1Q12	12		22		32	
3	MW-4B-1Q12	13		23		33	
4	MW-4C-1Q12	14		24		34	
5	MW-71B-1Q12	15		25		35	
6	MW-18A-1Q12	16		26		36	
7	MW-20A-1Q12	17		27		37	
8	MW-20B-1Q12	18		28		38	
9	MW-20C-1Q12	19		29		39	
10	MW-20A-1Q12-MS	20		30		40	

LDC #: 1203-01C1
SDG #: 12038E

VALIDATION FINDINGS WORKSHEET
Initial Calibration

Reviewer: KD
2nd Reviewer: —

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
1	2/10/12	021012JVW.M	2,2-Dichloropropane	27.17 (20.0)	1 - 5, 8, 9	J / UJ
	HP5973J	ICAL	trans-1,3-dichloropropene	21.70 (20.0)		J / UJ
			Naphthalene	23.77 (20.0)		J / UJ
			DBCP	0.024 (0.050)		None see QLS
2	2/13/12	021312FVW.M	Bromoform	26.06 (20.0)	6, 7	J / UJ
	HP5973F	ICAL				

LDC #: 1203-01C1
SDG #: 12038E

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Reviewer: KP
2nd Reviewer: —

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% ? QLS 60-140%R?

#	Date	Standard ID	Compound	Finding %D (Limit: ≤30.0%)	Associated Samples	Qualifications
1	2/15/12 11:17	021512J002.D CCV	Dichlorodifluoromethane	-41.1 (30.0)	1 - 5, 8, 9	J-/UJ
	HP5973J		Trichlorofluoromethane	-30.1 (30.0)		ok per R9 stds
			DBCP	0.027 (0.050)		None, see QLS
2	2/15/12 13:03	021512J005.D	Dichlorodifluoromethane	54.5 (60 - 140%)		J-/UJ if < 5x RL
3	2/16/12 11:01	021612F002.D CCV2	Acetone	31.9 (30.0)	6, 7	J+ detects
	HP5973F					
4	2/12/12 13:22	021612F004.D QLS2	Trichlorofluoromethane	153 (60 - 140%)	6, 7	J+ detects
			112-Trichloro-122-trifluoroethane	162 (60 - 140%)		J+ detects
			Acetone	221 (60 - 140%)		J+ detects
			trans-1,3-dichloropropene	54 (60 - 140%)		J-/UJ if < 5x RL
			Bromoform	57 (60 - 140%)		J-/UJ if < 5x RL

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: 12038E **Laboratory: R9LAB**

EDD Filename: 12038E_VOC_1202019 FINAL **eQAPP Name: Modesto_Site_113011**

Method: **524.2**

Matrix: **Water**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
MW-20A-1Q12MS (MW-20A-1Q12)	TETRACHLOROETHENE	-143	450	41.00-150.00	-	TETRACHLOROETHENE	J (all detects) R (all non-detects)
MW-20A-1Q12MS (MW-20A-1Q12)	BROMODICHLOROMETHANE DIBROMOMETHANE	- -	83 76	87.00-130.00 77.00-120.00	- -	BROMODICHLOROMETHANE DIBROMOMETHANE	J-(all detects) UJ(all non-detects)
MW-20A-1Q12MS (MW-20A-1Q12)	1,1,2-TRICHLORO-1,2,2-TRIFLU DICHLORODIFLUOROMETHAN TRANS-1,2-DICHLOROETHENE	163 - 139	149 141 -	38.00-140.00 25.00-135.00 59.00-130.00	- - -	1,1,2-TRICHLORO-1,2,2-TRIFL DICHLORODIFLUOROMETHA TRANS-1,2-DICHLOROETHEN	J+(all detects)

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: 12038E **Laboratory: R9LAB**

EDD Filename: 12038E_VOC_1202019 FINAL **eQAPP Name: Modesto_Site_113011**

Method: **524.2**

Matrix: **Water**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
B2B0078-BS1	CIS-1,3-DICHLOROPROPENE	77	-	81.00-130.00	-	CIS-1,3-DICHLOROPROPENE	J- (all detects)
(MW-18A-1Q12	DIBROMOMETHANE	79	-	80.00-120.00	-	DIBROMOMETHANE	UJ (all non-detects)
MW-20A-1Q12)	TRANS-1,3-DICHLOROPROPEN	75	-	80.00-140.00	-	TRANS-1,3-DICHLOROPROPE	

Project Name and Number: R12S42 - Modesto Groundwater Jan/Feb 2012 Qtrly Monitoring

Reporting Limit Outliers

Lab Reporting Batch ID: 12038E **Laboratory: R9LAB**

EDD Filename: 12038E_VOC_1202019 FINAL **eQAPP Name: Modesto_Site_113011**

Method: **524.2**

Matrix: **Water**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
MW-20A-1Q12	BROMODICHLOROMETHANE TRICHLOROETHENE	J,C1,Q4 J,C1	0.2 0.2	0.5 0.5	MRL MRL	ug/L ug/L	J (all detects)

Field QC Assignments and Associated Samples

EDD File Name: 12038E
eQapp Name: Modesto_Site_113011

	Associated Samples	Sample Collection Date
Field QC Sample: MW-71B-1Q12 **QC Type:** Field_Duplicate		
	MW-29B-1Q12	2/2/2012 2:05:00 PM

Field Duplicate RPD Report

Lab Reporting Batch ID: 12038E **Laboratory: R9LAB**

EDD Filename: 12038E_VOC_1202019 FINAL **eQAPP Name: Modesto_Site_113011**

Method: 524.2
Matrix: Water

Analyte	Concentration (ug/L)		Sample RPD	eQAPP RPD	Flag
	MW-29B-1Q12	MW-71B-1Q12			
TETRACHLOROETHENE	100	79	23	1.00	No Qualifiers Applied

Project Name and Number: R12S42 - Modesto Groundwater Jan/Feb 2012 Qtrly Monitoring

History of Manual Changes to Automated Data Review Qualifiers

Changed by:

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: MW-18A-1Q12									
BROMOFORM	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/14/2012	22:15
Reason for change:	%RSD > 30.0								
BROMOFORM	524.2	Initial	0.5	ug/L	Continuing Calibration		UJ	4/14/2012	22:26
Reason for change:	QLS %R < 60-140% (low bias)								
TRANS-1,3-DICHLOROPROPENE	524.2	Initial	0.5	ug/L	Continuing Calibration		UJ	4/14/2012	22:26
Reason for change:	QLS %R < 60-140% (low bias)								
Field Sample ID: MW-20A-1Q12									
BROMOFORM	524.2	Reanalysis-	0.5	ug/L	Initial Calibration Percent		UJ	4/14/2012	22:16
Reason for change:	%RSD > 30.0								
BROMOFORM	524.2	Reanalysis-	0.5	ug/L	Continuing Calibration		UJ	4/14/2012	22:27
Reason for change:	QLS %R < 60-140% (low bias)								
TRANS-1,3-DICHLOROPROPENE	524.2	Reanalysis-	0.5	ug/L	Continuing Calibration		UJ	4/14/2012	22:27
Reason for change:	QLS %R < 60-140% (low bias)								
Field Sample ID: MW-20B-1Q12									
1,3-DICHLOROPROPANE	524.2	Reinjection-	0.5	ug/L	Initial Calibration Percent		UJ	4/14/2012	22:17
Reason for change:	%RSD > 30.0								
1,3-DICHLOROPROPANE	524.2	Reinjection-	0.5	ug/L	Initial Calibration Percent	UJ		4/14/2012	22:17
Reason for change:	remove qualifier								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: MW-20B-1Q12									
2,2-DICHLOROPROPANE	524.2	Reinjection-	0.5	ug/L	Initial Calibration Percent		UJ	4/14/2012	22:16
Reason for change:	%RSD > 30.0								
DICHLORODIFLUOROMETHANE	524.2	Reinjection-	0.5	ug/L	Continuing Calibration		UJ	4/14/2012	22:28
Reason for change:	QLS %R < 60-140% (low bias)								
DICHLORODIFLUOROMETHANE	524.2	Reinjection-	0.5	ug/L	Continuing Calibration		UJ	4/14/2012	22:31
Reason for change:	CCV %D > 30.0 (low bias)								
NAPHTHALENE	524.2	Reinjection-	0.5	ug/L	Initial Calibration Percent		UJ	4/14/2012	22:18
Reason for change:	%RSD > 30.0								
TRANS-1,3-DICHLOROPROPENE	524.2	Reinjection-	0.5	ug/L	Initial Calibration Percent		UJ	4/14/2012	22:17
Reason for change:	%RSD > 30.0								
Field Sample ID: MW-20C-1Q12									
2,2-DICHLOROPROPANE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/14/2012	22:18
Reason for change:	%RSD > 30.0								
DICHLORODIFLUOROMETHANE	524.2	Initial	0.5	ug/L	Continuing Calibration		UJ	4/14/2012	22:28
Reason for change:	QLS %R < 60-140% (low bias)								
DICHLORODIFLUOROMETHANE	524.2	Initial	0.5	ug/L	Continuing Calibration		UJ	4/14/2012	22:31
Reason for change:	CCV %D > 30.0 (low bias)								
NAPHTHALENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/14/2012	22:19
Reason for change:	%RSD > 30.0								
TRANS-1,3-DICHLOROPROPENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/14/2012	22:18
Reason for change:	%RSD > 30.0								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: MW-29B-1Q12									
2,2-DICHLOROPROPANE	524.2	Reinjection-	0.5	ug/L	Initial Calibration Percent		UJ	4/14/2012	22:19
Reason for change:	%RSD > 30.0								
DICHLORODIFLUOROMETHANE	524.2	Reinjection-	0.5	ug/L	Continuing Calibration		UJ	4/14/2012	22:28
Reason for change:	QLS %R < 60-140% (low bias)								
DICHLORODIFLUOROMETHANE	524.2	Reinjection-	0.5	ug/L	Continuing Calibration		UJ	4/14/2012	22:31
Reason for change:	CCV %D > 30.0 (low bias)								
NAPHTHALENE	524.2	Reinjection-	0.5	ug/L	Initial Calibration Percent		UJ	4/14/2012	22:19
Reason for change:	%RSD > 30.0								
TRANS-1,3-DICHLOROPROPENE	524.2	Reinjection-	0.5	ug/L	Initial Calibration Percent		UJ	4/14/2012	22:19
Reason for change:	%RSD > 30.0								
Field Sample ID: MW-3A-1Q12									
2,2-DICHLOROPROPANE	524.2	Reinjection-	0.5	ug/L	Initial Calibration Percent		UJ	4/14/2012	22:20
Reason for change:	%RSD > 30.0								
DICHLORODIFLUOROMETHANE	524.2	Reinjection-	0.5	ug/L	Continuing Calibration		UJ	4/14/2012	22:28
Reason for change:	QLS %R < 60-140% (low bias)								
DICHLORODIFLUOROMETHANE	524.2	Reinjection-	0.5	ug/L	Continuing Calibration		UJ	4/14/2012	22:32
Reason for change:	CCV %D > 30.0 (low bias)								
NAPHTHALENE	524.2	Reinjection-	0.5	ug/L	Initial Calibration Percent		UJ	4/14/2012	22:20
Reason for change:	%RSD > 30.0								
TRANS-1,3-DICHLOROPROPENE	524.2	Reinjection-	0.5	ug/L	Initial Calibration Percent		UJ	4/14/2012	22:20
Reason for change:	%RSD > 30.0								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: MW-4B-1Q12									
2,2-DICHLOROPROPANE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/14/2012	22:20
Reason for change:	%RSD > 30.0								
DICHLORODIFLUOROMETHANE	524.2	Initial	0.5	ug/L	Continuing Calibration		UJ	4/14/2012	22:28
Reason for change:	QLS %R < 60-140% (low bias)								
DICHLORODIFLUOROMETHANE	524.2	Initial	0.5	ug/L	Continuing Calibration		UJ	4/14/2012	22:32
Reason for change:	CCV %D > 30.0 (low bias)								
NAPHTHALENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/14/2012	22:20
Reason for change:	%RSD > 30.0								
TRANS-1,3-DICHLOROPROPENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/14/2012	22:20
Reason for change:	%RSD > 30.0								
Field Sample ID: MW-4C-1Q12									
2,2-DICHLOROPROPANE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/14/2012	22:21
Reason for change:	%RSD > 30.0								
DICHLORODIFLUOROMETHANE	524.2	Initial	0.5	ug/L	Continuing Calibration		UJ	4/14/2012	22:28
Reason for change:	QLS %R < 60-140% (low bias)								
DICHLORODIFLUOROMETHANE	524.2	Initial	0.5	ug/L	Continuing Calibration		UJ	4/14/2012	22:32
Reason for change:	CCV %D > 30.0 (low bias)								
NAPHTHALENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/14/2012	22:21
Reason for change:	%RSD > 30.0								
TRANS-1,3-DICHLOROPROPENE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/14/2012	22:21
Reason for change:	%RSD > 30.0								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: MW-71B-1Q12									
2,2-DICHLOROPROPANE	524.2	Reinjection-	0.5	ug/L	Initial Calibration Percent		UJ	4/14/2012	22:21
Reason for change:	%RSD > 30.0								
DICHLORODIFLUOROMETHANE	524.2	Reinjection-	0.5	ug/L	Continuing Calibration		UJ	4/14/2012	22:28
Reason for change:	QLS %R < 60-140% (low bias)								
DICHLORODIFLUOROMETHANE	524.2	Reinjection-	0.5	ug/L	Continuing Calibration		UJ	4/14/2012	22:32
Reason for change:	CCV %D > 30.0 (low bias)								
NAPHTHALENE	524.2	Reinjection-	0.5	ug/L	Initial Calibration Percent		UJ	4/14/2012	22:21
Reason for change:	%RSD > 30.0								
TRANS-1,3-DICHLOROPROPENE	524.2	Reinjection-	0.5	ug/L	Initial Calibration Percent		UJ	4/14/2012	22:21
Reason for change:	%RSD > 30.0								

SDG 12041A

LDC #: 1203-01D1
SDG #: 12041A
Laboratory: EPA Region 9

VALIDATION COMPLETENESS WORKSHEET
Level III

Date: 4/16/12
Page: 1 of 1
Reviewer: KGD
2nd Reviewer: —

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: 2/09/2012
II.	GC/MS Instrument performance check	A	
III.	Initial calibration/ICV	SW	≤ 20.0%D per R9 SOP ±30% SCV For RRFcriteria see QLS %R
IV.	Continuing calibration	A	≤ 30% per R9 SOP354
V.	Blanks	A	< ½ QL per SOP Storage Blank < ½ QL
VI.	Surrogate spikes	A	criteria per R9 SOP 354
VII.	Matrix spike/Matrix spike duplicates	SW	sample 2
VIII.	Laboratory control samples	A	per R9 SOP354 criteria
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	30% of CC (drift ≤ 30 sec of IC)
XI.	Target compound identification	N	Not reviewed for Level III validation.
XII.	Compound quantitation/CRQLs	N	Not reviewed for Level III validation.
XIII.	Tentatively identified compounds (TICs)	N	Not reviewed for Level III validation.
XIV.	System performance	N	Not reviewed for Level III validation.
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	A	sample 3

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-0202	11		21		31	
2	EW-1-0202	12		22		32	
3	MW-303-1Q12	13		23		33	
4		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	

LDC #: 1203-01D1
SDG #: 12041A

VALIDATION FINDINGS WORKSHEET
Initial Calibration

Reviewer: KTD
2nd Reviewer: —

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
1	2/13/12	021312FVW.M	Bromoform	26.06 (20.0)	All	J / UJ
	HP5973F	ICAL				
			DBCP	0.018 (0.050)		None see QLS

General Project Management and ESAT Contractor Oversight Review

Project Number: R12S36 SDG: 12041A

Analysis: VOCs Number of Pages: 289

Reviewer: Eloy I Balderas

- ☑ Review project notes and requirements (including TDF) and verify that correct analytical procedures and any special instructions were followed. Note any significant deviations or omissions in report narrative or return to contractor for correction.
- ☑ Review project memo field for each work order and include information pertinent to data users in report narrative. (Information important only to chemist reviewing the raw data package should be included in data package, but not in the report narrative).
- ☑ Review chain of custody documentation and verify that information in report corresponds correctly. Verify that any sample shipping or handling issues are properly documented and reported.
- ☑ Review analytical report and QC report and verify that qualifier flags for holding times, sample handling, surrogates, blanks, blank spikes, matrix QC, and calibration range have been appropriately applied.
- ☑ Review LIMS Data Entry table for unaddressed outliers.
- ☑ Verify that all major sections of data package are present.

Comments: A matrix spike pair was re-run two times, once with sample 1202029-02, and the second time with 1202029-03. It was re-run because it was ~~assu~~ possible that sample spiking issues were causing inconsistent results. Samples are arriving in vials that are pressurized, and that causes spiking issues. Only one matrix QC pair was reported since the re-run ~~re~~ yielded similar QC results.

Reviewer Signature EIB Date 2/27/12

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Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: 12041A **Laboratory: R9LAB**

EDD Filename: 12041A_voc_1202029 FINAL **eQAPP Name: Modesto_Site_113011**

Method: **524.2**

Matrix: **Water**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
EW-1-0202MS (EW-1-0202)	BROMOMETHANE	-	175	38.00-160.00	21 (20.00)	BROMOMETHANE	J (all detects)
	NAPHTHALENE	-	-	52.00-160.00	21 (20.00)	NAPHTHALENE	UJ (all non-detects)
EW-1-0202MS (EW-1-0202)	1,1,2-TRICHLORO-1,2,2-TRIFLU	168	179	38.00-140.00	-	1,1,2-TRICHLORO-1,2,2-TRIFL	J+(all detects)
	1,1-DICHLOROETHENE	-	170	33.00-160.00	-	1,1-DICHLOROETHENE	
	1,3-DICHLOROBENZENE	-	122	77.00-120.00	-	1,3-DICHLOROBENZENE	
	BENZENE	-	124	74.00-122.00	-	BENZENE	
	BROMOBENZENE	-	122	77.00-120.00	-	BROMOBENZENE	
	CHLOROBENZENE	-	121	75.00-120.00	-	CHLOROBENZENE	
	CHLOROETHANE	-	152	59.00-140.00	-	CHLOROETHANE	
	DICHLORODIFLUOROMETHAN	166	171	25.00-135.00	-	DICHLORODIFLUOROMETHA	
	METHYLENE CHLORIDE	-	126	56.00-120.00	-	METHYLENE CHLORIDE	
	TETRACHLOROETHENE	770	548	41.00-150.00	-	TETRACHLOROETHENE	
	TOLUENE	-	127	68.00-120.00	-	TOLUENE	
	TRANS-1,2-DICHLOROETHENE	-	133	59.00-130.00	-	TRANS-1,2-DICHLOROETHEN	
	TRICHLOROFLUOROMETHANE	-	195	44.00-170.00	-	TRICHLOROFLUOROMETHAN	
	VINYL CHLORIDE	-	161	43.00-150.00	-	VINYL CHLORIDE	

Project Name and Number: R12S36 - Modesto GW Treatment System Winter 2012 Sampling

Field QC Assignments and Associated Samples

EDD File Name: 12041A
eQapp Name: Modesto_Site_113011

	Associated Samples	Sample Collection Date
Field QC Sample: MW-303-1Q12 **QC Type:** Trip_Blank		
	EW-1-0202	2/9/2012 10:25:00 AM
	EFF-0202	2/9/2012 10:05:00 AM

History of Manual Changes to Automated Data Review Qualifiers

Changed by:

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: EFF-0202									
BROMOFORM	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/16/2012	20:33
Reason for change: %RSD > 20.0									
Field Sample ID: EW-1-0202									
BROMOFORM	524.2	Reinjection-	0.5	ug/L	Initial Calibration Percent		UJ	4/16/2012	20:33
Reason for change: %RSD > 20.0									
Field Sample ID: MW-303-1Q12									
BROMOFORM	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/16/2012	20:34
Reason for change: %RSD > 20.0									

LDC #: 1203-01D6
SDG #: 12041A
Laboratory: EPA Region 9

VALIDATION COMPLETENESS WORKSHEET
EPA Level IV

Date: 04/16/12

Reviewer: KD
2nd Reviewer:

METHOD: Total Dissolved Solids by SM2540C, Total suspended Solids by SM2540D, And Biochemical Oxygen Demand by SM5210B

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: 02/09/2012
II.	Calibration verification	A	
III.	Blanks	A	
IV	Matrix Spike/(Matrix Spike) Duplicates	N	
V.	Duplicates	A	Dup = 2 (TDS, TSS)
VI	Laboratory control samples	A	
VII.	Sample result verification	A	
VIII.	Overall assessment of data	A	
IX.	Field duplicates	N	
X.	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: ** Indicates sample underwent Level IV validation

1	EFF-0202 **	11		21		31	
2	EFF-0202 DUP	12		22		32	
3		13		23		33	
4		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 #: 1203-01D6
SDG #: 12041A

VALIDATION FINDINGS CHECKLIST

Reviewer: KD
2nd Reviewer:

Method: TDS, TSS, & BOD (Standard Method 2540C, 2540D and SM5210B)

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. 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			Reference sample
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 #: 1203-01D6
SDG #: 12041A

VALIDATION FINDINGS CHECKLIST

Reviewer: KD
2nd Reviewer:

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			BOD Raw data reviewed for proper transcription of results.
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 #: ~~1201-03D~~ 1203-01 1ND

SDG #: _____

VALIDATION FINDING WORKSHEET

Laboratory Duplicates

Page: 1 of 1

Reviewer: 1ND

METHOD: Total Suspended Solids (Standard Method 2540D)

(Y) N NA Were laboratory duplicate pairs identified in this SDG?

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

Analyte	Concentration (mg/L)		Reported RPD	Recalculated RPD
	EFF-0202	EFF-0202 DUP		
Total Suspended Solids	ND	ND	NR	NC

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

LDC #: 1203-01D

SDG #: _____

VALIDATION FINDING WORKSHEET

Laboratory Duplicates

Reviewer: KTD

METHOD: Total Dissolved Solids (Standard Method 2540C)

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

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

Analyte	Concentration (mg/L)		Reported RPD	Recalculated RPD
	EFF-0202	EFF-0202 DUP		
Total Dissolved Solids	664	661	0.5	0.5

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

LDC #: 1203-01D
SDG #: _____

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: CPD
2nd Reviewer: _____

METHOD: Total Suspended Solids (Standard Method 2540D)

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: QL

Analyte	Tare Weight (g)	Final Weight (g)	Volume (ml)	Reported (mg/L)	Recalculated (mg/L)
TSS	0.1187	0.1197	100	10	10

Sample:

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

LDC #: 1203-01D
SDG #: _____

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: KM
2nd Reviewer: _____

METHOD: Total Dissolved Solids (SM2540C)

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

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

728 618

Sample: EFF-0202

Analyte	Tare Weight (g)	Final Weight (g)	Volume (ml)	Reported (mg/L)	Recalculated (mg/L)
TDS	82.3072	82.3737	100	664	665

Sample:

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

Sample:

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

SDG 12041C

LDC #: 1203-01E
SDG #: 12041C
Laboratory: EPA Region 9

VALIDATION COMPLETENESS WORKSHEET
Level III

Date: 4/17/12
Page: 1 of 1
Reviewer: KJD
2nd Reviewer:

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: 02/09/2012
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	≤ 30% RSD SCV %D ≤ 30%
IV.	Continuing calibration	A	≤ 30% %D
V.	Blanks	A	< ½ QL
VI.	Surrogate spikes	N	
VII.	Sample duplicates	A	sample 1
VIII.	Laboratory control samples	A	per R9 SOP 311r1
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	area ± 40% of IC RT drift ± 0.33 minutes of CCV (20 sec.)
XI.	Target compound identification	N	Not reviewed for Level III validation samples.
XII.	Compound quantitation/CRQLs	N	Not reviewed for Level III validation samples.
XIII.	Tentatively identified compounds (TICs)	N	Not reviewed for Level III validation samples.
XIV.	System performance	N	Not reviewed for Level III validation samples.
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	per SAP Table 2-17
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	GWTP Stack-0202	11		21		31	
2	SVE Pre GAC-0202	12		22		32	
3	SVE Stack-0202	13		23		33	
4	GWTP Stack-0202 DUP	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	

Reporting Limit Outliers

Lab Reporting Batch ID: 12041C **Laboratory: R9LAB**

EDD Filename: 12041C_VOC_FINAL_RPD **eQAPP Name: Modesto_Site_113011**

Method: **TO-15**

Matrix: **Air**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
GWTP Stack-0202	BENZENE	J,C1	2.0	2.3	MRL	ppbv	J (all detects)
SVE Pre GAC-0202	METHYLENE CHLORIDE	J,C1	1.1	2.2	MRL	ppbv	J (all detects)
SVE Stack-0202	CIS-1,2-DICHLOROETHENE	J,C1	1.2	2.3	MRL	ppbv	J (all detects)

SDG 12048A

LDC #: 1203-17
SDG #: 12048B
Laboratory: EPA Region 9

VALIDATION COMPLETENESS WORKSHEET
Level III

Date: 4/12/12
Page: 1 of 1
Reviewer: KD
2nd Reviewer: —

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: 02/16/2012
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	≤ 30% RSD SCV %D ≤ 30%
IV.	Continuing calibration	SW	≤ 30% %D
V.	Blanks	A	< ½ QL
VI.	Surrogate spikes	N	
VII.	Sample duplicates	A	
VIII.	Laboratory control samples	A	per R9 SOP 311r1
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	area ± 40% of IC RT drift ± 0.33 minutes of CCV (20 sec.)
XI.	Target compound identification	N	Not reviewed for Level III validation samples.
XII.	Compound quantitation/CRQLs	N	Not reviewed for Level III validation samples.
XIII.	Tentatively identified compounds (TICs)	N	Not reviewed for Level III validation samples.
XIV.	System performance	N	Not reviewed for Level III validation samples.
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	per SAP Table 2-17
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	GWTPPrGWC-0203	11		21		31	
2		12		22		32	
3		13		23		33	
4		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	

LDC #: 1203-01B
SDG #: 12048B

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Page: 1 of 1
Reviewer: KD
2nd Reviewer: —

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 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
1	3/01/12 13:36pm	03011202.D CCV	1,2,4-Trichlorobenzene	32.4 (30.0)	1	J-/UJ detects
			Hexachlorobutadiene	39.9 (30.0)		J-/UJ detects

History of Manual Changes to Automated Data Review Qualifiers

Changed by:

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: GWTPPrGWC-0203									
1,2,4-TRICHLOROBENZENE	TO-15	Reinjection-	2.2	ppbv	Continuing Calibration		UJ	4/12/2012	22:33
Reason for change:	%D > 30.0 (low bias)								
HEXACHLOROBUTADIENE	TO-15	Reinjection-	2.2	ppbv	Continuing Calibration		UJ	4/12/2012	22:33
Reason for change:	%D > 30.0 (low bias)								

SDG 12069A

LDC #: 1203-18A1
SDG #: 12069A
Laboratory: EPA Region 9

VALIDATION COMPLETENESS WORKSHEET
Level III

Date: 4/17/12
Page: 1 of 1
Reviewer: KD
2nd Reviewer: —

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: 3/08/2012
II.	GC/MS Instrument performance check	A	
III.	Initial calibration/ICV	SW	≤ 20.0%D per R9 SOP ±30% SCV For RRFcriteria see QLS %R
IV.	Continuing calibration	A	≤ 30% per R9 SOP354
V.	Blanks	A	< ½ QL per SOP Storage Blank < ½ QL
VI.	Surrogate spikes	A	criteria per R9 SOP 354
VII.	Matrix spike/Matrix spike duplicates	SW	sample 1
VIII.	Laboratory control samples	A	per R9 SOP354 criteria
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	30% of CC (drift ≤ 30 sec of IC)
XI.	Target compound identification	N	Not reviewed for Level III validation.
XII.	Compound quantitation/CRQLs	N	Not reviewed for Level III validation.
XIII.	Tentatively identified compounds (TICs)	N	Not reviewed for Level III validation.
XIV.	System performance	N	Not reviewed for Level III validation.
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	A	sample 3

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	EW-1-0302	12		22		32	
3	MW-304-1Q12	13		23		33	
4	EFF-0302-MS	14		24		34	
5	EFF-0302-MSD	15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

LDC #: 1203-018A1
SDG #: 12069A

VALIDATION FINDINGS WORKSHEET
Initial Calibration

Page: 1 of 1
Reviewer: KM
2nd Reviewer: —

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
1	2/10/12	030712HVW.M	Bromomethane	24.14 (20.0)	All	J / UJ
	HP5973H	ICAL	2,2-Dichloropropane	21.68 (20.0)		J / UJ
			DBCP	0.026 (0.050)		None see QLS

Field QC Assignments and Associated Samples

EDD File Name: 12069A
eQapp Name: Modesto_Site_113011

	Associated Samples	Sample Collection Date
Field QC Sample: MW-304-1Q12 **QC Type:** Trip_Blank		
	EW-1-0302	3/8/2012 10:40:00 AM
	EFF-0302	3/8/2012 10:20:00 AM

History of Manual Changes to Automated Data Review Qualifiers

Changed by:

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: EFF-0302									
2,2-DICHLOROPROPANE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/17/2012	13:56
Reason for change:	%RSD > 20.0								
BROMOMETHANE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/17/2012	13:56
Reason for change:	%RSD > 20.0								
Field Sample ID: EW-1-0302									
2,2-DICHLOROPROPANE	524.2	Reinjection-	0.5	ug/L	Initial Calibration Percent		UJ	4/17/2012	13:56
Reason for change:	%RSD > 20.0								
BROMOMETHANE	524.2	Reinjection-	0.5	ug/L	Initial Calibration Percent		UJ	4/17/2012	13:56
Reason for change:	%RSD > 20.0								
Field Sample ID: MW-304-1Q12									
2,2-DICHLOROPROPANE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/17/2012	13:57
Reason for change:	%RSD > 20.0								
BROMOMETHANE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	4/17/2012	13:57
Reason for change:	%RSD > 20.0								

LDC #: 1201-18A6
SDG #: 12069A
Laboratory: EPA Region 9

VALIDATION COMPLETENESS WORKSHEET
EPA Level III

Date: 4/17/12
Page: 1 of 1
Reviewer: GD
2nd Reviewer:

METHOD: Total Dissolved Solids by SM2540C, Total suspended Solids by SM2540D, And Biochemical Oxygen Demand by SM5210B

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: 4/08/2012
II.	Calibration verification	A	Gen chem ICAL 0.995 ICV 95-105%
III.	Blanks	A	
IV	Matrix Spike/(Matrix Spike) Duplicates	N	BOD MS/SD 85-115%
V.	Duplicates	A	Dup of sample 1 RPD< 5%
VI	Laboratory control samples	A	TDS/TSS SRM/LCS 85-115% BOD SRM/LCS 70.5-129%
VII.	Sample result verification	N	Not reviewed for Level III validation.
VIII.	Overall assessment of data	A	
IX.	Field duplicates	N	
X.	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	EFF-0302	11		21		31	
2	EFF-0302 DUP	12		22		32	
3		13		23		33	
4		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:

Field QC Assignments and Associated Samples

EDD File Name: 12069A
eQapp Name: Modesto_Site_113011

	Associated Samples	Sample Collection Date
Field QC Sample: MW-107-0302 **QC Type:** Field_Duplicate		
	EFF-0302	3/8/2012 10:20:00 AM

Field Duplicate RPD Report

Lab Reporting Batch ID: 12069A **Laboratory: R9LAB**

EDD Filename: 12069A_TDS_FINAL_LCS_rev **eQAPP Name: Modesto_Site_113011**

Method: 2540C
Matrix: Water

Analyte	Concentration (mg/L)		Sample RPD	eQAPP RPD	Flag
	EFF-0302	MW-107-0302			
TOTAL DISSOLVED SOLIDS	640	650	2	1.00	No Qualifiers Applied

Project Name and Number: R12S36 - Modesto GW Treatment System Winter 2012 Sampling

SDG 12069B

LDC #: 1203-18B
SDG #: 12069B
Laboratory: EPA Region 9

VALIDATION COMPLETENESS WORKSHEET
Level III

Date: 4/17/12
Page: 1 of 1
Reviewer: KTD
2nd Reviewer:

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: 03/08/2012
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	SW	≤ 30% RSD SCV %D ≤ 30%
IV.	Continuing calibration	SW	≤ 30% %D
V.	Blanks	A	< ½ QL
VI.	Surrogate spikes	N	
VII.	Sample duplicates	A	
VIII.	Laboratory control samples	A	per R9 SOP 311r1
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	area ± 40% of IC RT drift ± 0.33 minutes of CCV (20 sec.)
XI.	Target compound identification	N	Not reviewed for Level III validation samples.
XII.	Compound quantitation/CRQLs	N	Not reviewed for Level III validation samples.
XIII.	Tentatively identified compounds (TICs)	N	Not reviewed for Level III validation samples.
XIV.	System performance	N	Not reviewed for Level III validation samples.
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	per SAP Table 2-17
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	GWTP Pr GAC-0302	11		21		31	
2	GWTP Stack-0302	12		22		32	
3	MW-108-0302	13		23		33	
4	SVE Pre GAC-0302	14		24		34	
5	SVE Stack-0302	15		25		35	
6	GWTP Pr GAC-0302 DUP	16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

LDC #: 1203-18B
SDG #: 12069B

VALIDATION FINDINGS WORKSHEET
Initial Calibration

Reviewer: KTD
2nd Reviewer: —

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 Did the laboratory perform a 5 point calibration prior to sample analysis?

Y N N/A Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) ≥ 0.05?

#	Date	Standard ID	Compound	Finding %RSD (Limit: ≤30.0%)	Finding RRF (Limit: ≥0.05)	Associated Samples	Qualifications
1	3/02/12	030212KAA.M SCV	Hexachlorobutadiene	35.35 (30.0)		All samples in the SDG ~~[illegible]~~	J / UJ
	11:20					1,2,3-5 KTD	

LDC #: 1203-18B
SDG #: 12069B

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Reviewer: KM
2nd Reviewer: —

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 continuing calibration standard analyzed at least once every 12 hours for each instrument?
Y N N/A Were all percent differences (%D) ≤ 30% ? QLS 60-140

#	Date	Standard ID	Compound	Finding %D (Limit: ≤30.0%)	Associated Samples	Qualifications
1	3/15/12 11:37	03151202.D CCV	1,2,4-Trichlorobenzene	31.5 (30.0)	All except 2	J-/UJ detects
					1, 3-5	
2	3/15/12 13:14	03151202.D QLS	Hexachlorobutadiene	146% (60-140)	All except 2	J + detects
					1, 3-5	

Reporting Limit Outliers

Lab Reporting Batch ID: 12069B **Laboratory: R9LAB**

EDD Filename: 12069B_TO15_ FINAL_RPD **eQAPP Name: Modesto_Site_113011**

Method: **TO-15**

Matrix: **Air**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SVE Pre GAC-0302	CHLOROMETHANE	J,C1	1.3	2.2	MRL	ppbv	J (all detects)
SVE Stack-0302	CIS-1,2-DICHLOROETHENE	J,C1	1.2	2.1	MRL	ppbv	J (all detects)

History of Manual Changes to Automated Data Review Qualifiers

Changed by:

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: GWTP Pr GAC-0302									
1,2,4-TRICHLOROBENZENE	TO-15	Reinjection-	2.0	ppbv	Continuing Calibration		UJ	4/17/2012	16:09
Reason for change:	%D > 30.0 (low bias)								
HEXACHLOROBUTADIENE	TO-15	Reinjection-	2.0	ppbv	Initial Calibration Percent		UJ	4/17/2012	16:06
Reason for change:	%RSD > 30.0								
Field Sample ID: GWTP Stack-0302									
HEXACHLOROBUTADIENE	TO-15	Reanalysis-	2.2	ppbv	Initial Calibration Percent		UJ	4/17/2012	16:07
Reason for change:	%RSD > 30.0								
Field Sample ID: MW-108-0302									
1,2,4-TRICHLOROBENZENE	TO-15	Initial2	2.2	ppbv	Continuing Calibration		UJ	4/17/2012	16:09
Reason for change:	%D > 30.0 (low bias)								
HEXACHLOROBUTADIENE	TO-15	Initial2	2.2	ppbv	Initial Calibration Percent		UJ	4/17/2012	16:07
Reason for change:	%RSD > 30.0								
HEXACHLOROBUTADIENE	TO-15	Initial2	2.2	ppbv	Continuing Calibration		UJ	4/17/2012	16:09
Reason for change:	%D > 30.0 (low bias)								
HEXACHLOROBUTADIENE	TO-15	Initial2	2.2	ppbv	Continuing Calibration	UJ		4/17/2012	16:10
Reason for change:	remove qualifier								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: SVE Pre GAC-0302									
1,2,4-TRICHLOROBENZENE	TO-15	Initial	2.2	ppbv	Continuing Calibration		UJ	4/17/2012	16:09
Reason for change:	%D > 30.0 (low bias)								
HEXACHLOROBUTADIENE	TO-15	Initial	2.2	ppbv	Initial Calibration Percent		UJ	4/17/2012	16:07
Reason for change:	%RSD > 30.0								
Field Sample ID: SVE Stack-0302									
1,2,4-TRICHLOROBENZENE	TO-15	Initial	2.1	ppbv	Continuing Calibration		UJ	4/17/2012	16:10
Reason for change:	%D > 30.0 (low bias)								
HEXACHLOROBUTADIENE	TO-15	Initial	2.1	ppbv	Initial Calibration Percent		UJ	4/17/2012	16:07
Reason for change:	%RSD > 30.0								

SDG 12076A

LDC #: 1201-18C6
SDG #: 12076A
Laboratory: EPA Region 9

VALIDATION COMPLETENESS WORKSHEET
EPA Level III

Date: 4/17/12
Page: 1 of 1
Reviewer: KD
2nd Reviewer:

METHOD: Total suspended Solids by SM2540D, and Biochemical Oxygen Demand by SM5210B

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: 3/15/2012
II.	Calibration verification	A	Gen chem ICAL 0.995 ICV 95-105%
III.	Blanks	A	
IV	Matrix Spike/(Matrix Spike) Duplicates	N	BOD MS/SD 85-115%
V.	Duplicates	A	Dup of sample 1 RPD< 5%
VI	Laboratory control samples	A	TDS/TSS SRM/LCS 85-115% BOD SRM/LCS 70.5-129%
VII.	Sample result verification	N	Not reviewed for Level III validation.
VIII.	Overall assessment of data	A	
IX.	Field duplicates	A	samples 1 & 2
X.	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	EFF-0302	11		21		31	
2	MW-107-0302	12		22		32	
3	EFF-0302 DUP	13		23		33	
4		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:

Field QC Assignments and Associated Samples

EDD File Name: 12076A
eQapp Name: Modesto_Site_113011

	Associated Samples	Sample Collection Date
Field QC Sample: MW-107-0302 **QC Type:** Field_Duplicate		
	EFF-0302	3/15/2012 8:30:00 AM

Field Duplicate RPD Report

Lab Reporting Batch ID: 12076A **Laboratory: R9LAB**

EDD Filename: 12076A_BOD FINAL_LCS_rev **eQAPP Name: Modesto_Site_113011**

Method: 5210B
Matrix: Water

Analyte	Concentration (mg/L)		Sample RPD	eQAPP RPD	Flag
	EFF-0302	MW-107-0302			
Biochemical Oxygen Demand	2.4	2.4	0	1.00	No Qualifiers Applied

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 2012) are as follows:

Remedial System	Total Operation Hours	Percentage of Operation
Groundwater Treatment	2,078	95%
Soil Vapor Extraction	2,184	100%

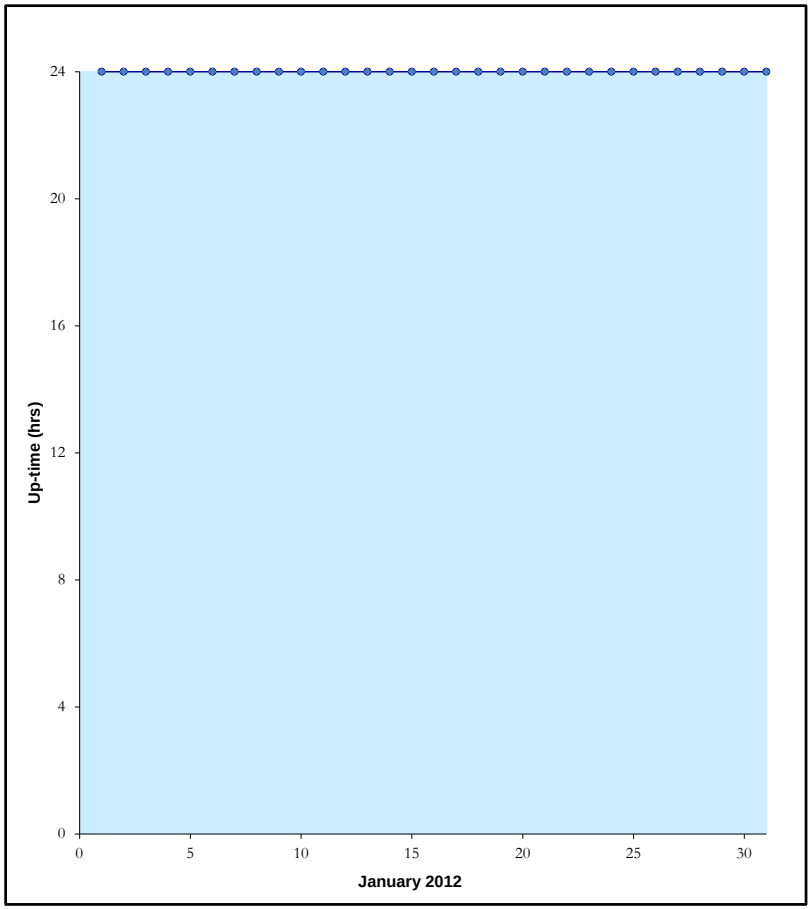
Monthly graphical representations of the GWT system operation time can be found in Figures D-1, D-2, and D-3 for January, February, and March 2012, respectively.

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 2012, 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	24	
	21	24	
	22	24	
	23	24	
	24	24	
	25	24	
	26	24	
	27	24	
	28	24	
	29	24	
	30	24	
	31	24	



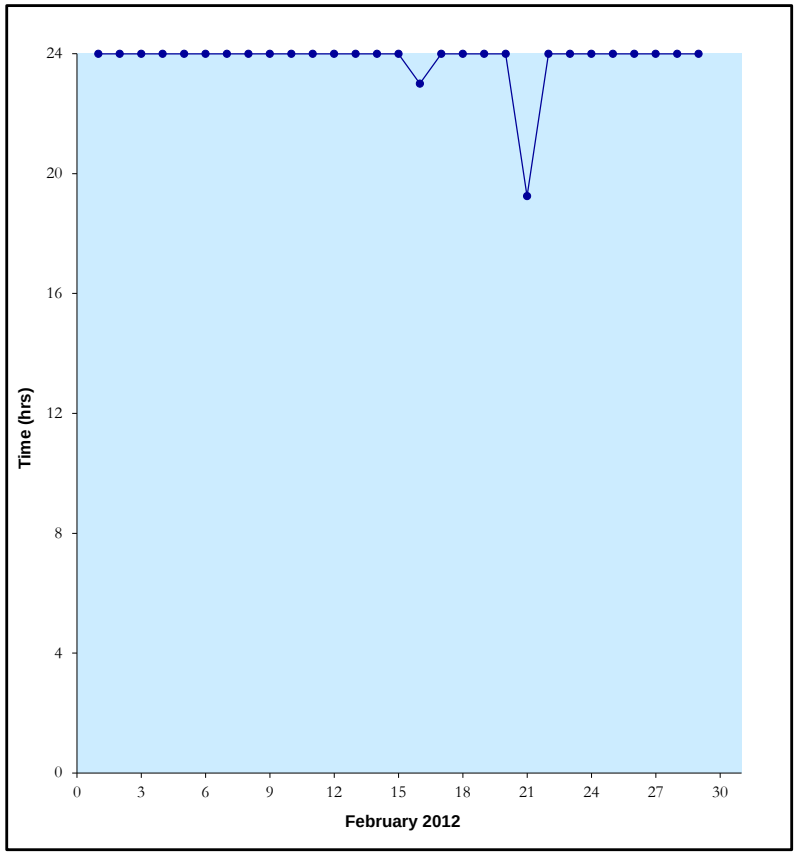
Uptime hours:	**744**
Uptime %:	**100.0%**

Notes:

FIGURE D-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	**24**	
	5	**24**	
	6	**24**	
	7	**24**	
	8	**24**	
	9	**24**	
	10	**24**	
	11	**24**	
	12	**24**	
	13	**24**	
	14	**24**	
	15	**24**	
	16	**23**	Inspect resin and replace gaskets
	17	**24**	
	18	**24**	
	19	**24**	
	20	**24**	
	21	**19.25**	EQ tank high due to stuck float switch. Cleaned and verified operation
	22	**24**	
	23	**24**	
	24	**24**	
	25	**24**	
	26	**24**	
	27	**24**	
	28	**24**	
	29	**24**	



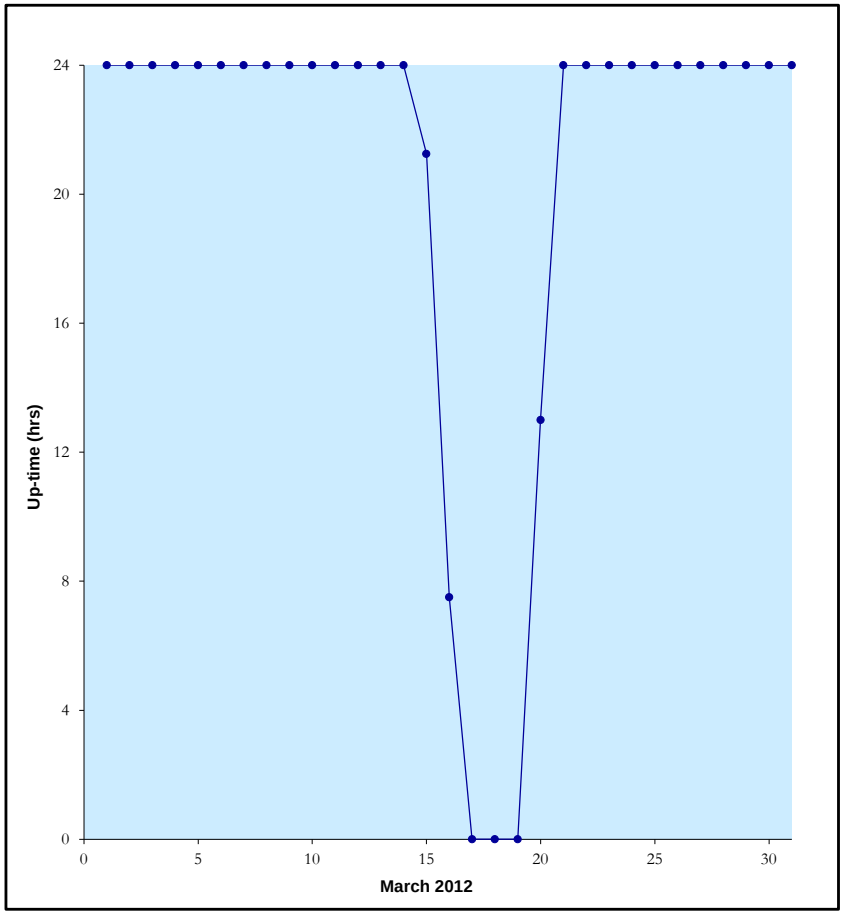
Uptime hours:	**690.25**
Uptime %:	**99.2%**

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	**21.25**	Collect lead vessel resin samples.
	16	**7.5**	System shutdown due to bad floats.
	17	**0**	System shutdown due to bad floats.
	18	**0**	System shutdown due to bad floats.
	19	**0**	System shutdown due to bad floats.
	20	**13**	Replaced floats.
	21	**24**	
	22	**24**	
	23	**24**	
	24	**24**	
	25	**24**	
	26	**24**	
	27	**24**	
	28	**24**	
	29	**24**	
	30	**24**	
	31	**24**	



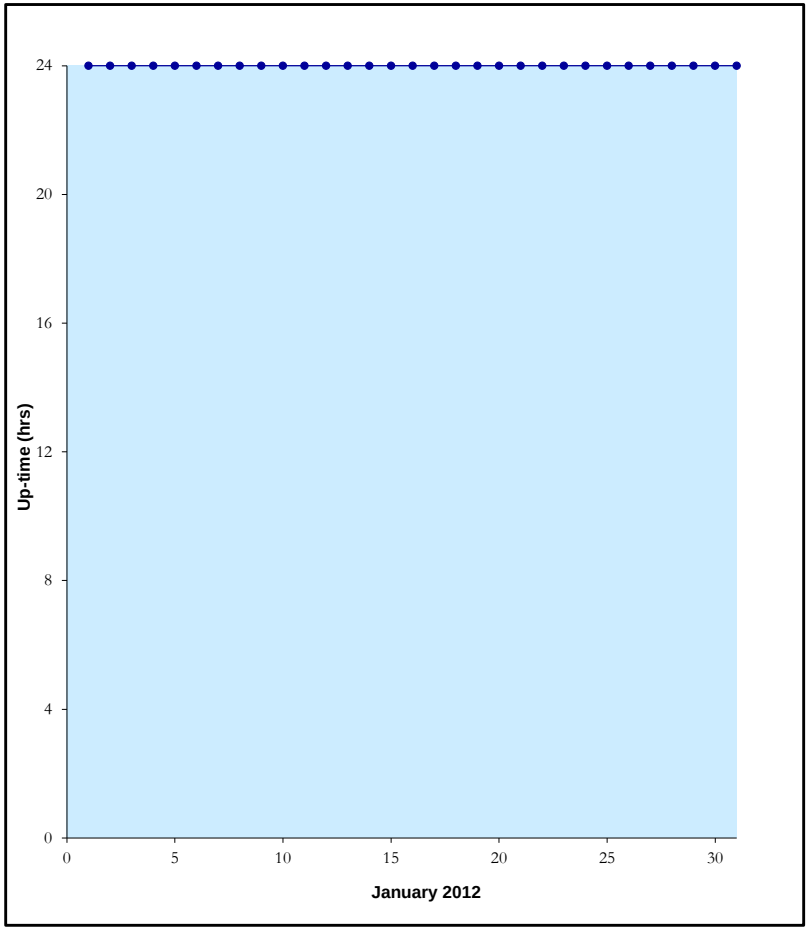
Uptime hours:	**641.75**
Uptime %:	**86.3%**

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**	
	24	**24**	
	25	**24**	
	26	**24**	
	27	**24**	
	28	**24**	
	29	**24**	
	30	**24**	
	31	**24**	



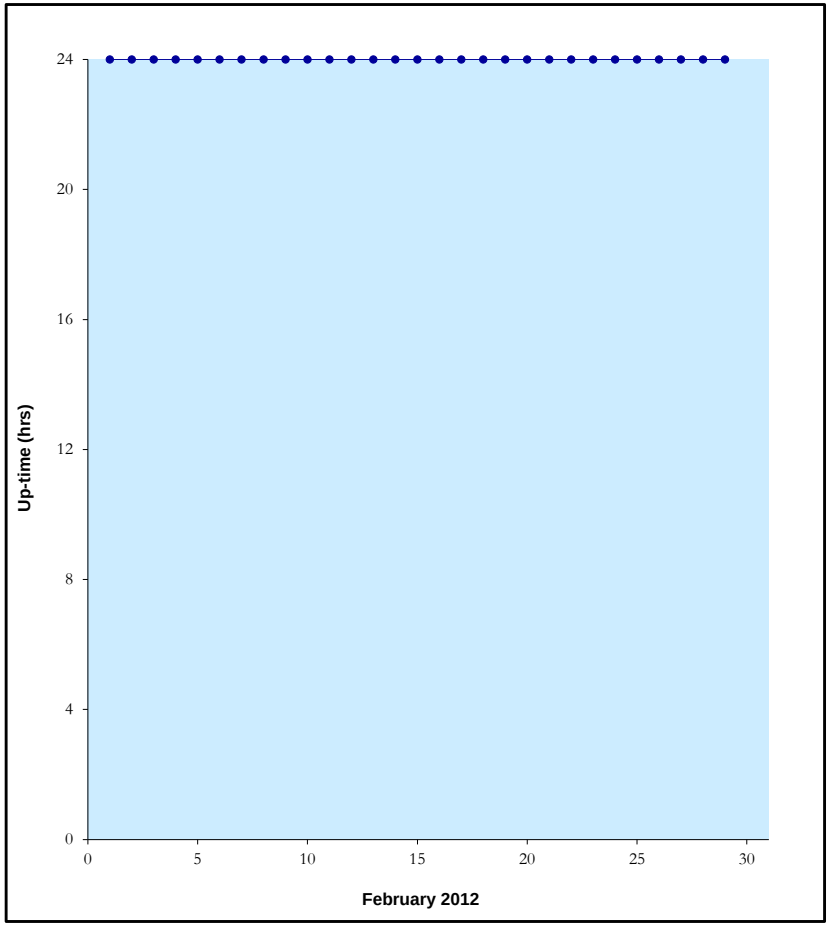
Uptime hours:	**744**
Uptime %:	**100.0%**

Notes:

FIGURE D-5

UPTIME LOG
SVE TREATMENT SYSTEM
MODESTO SUPERFUND SITE

Month	Day	Uptime (hrs)	Description of Activity Performed
February	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	



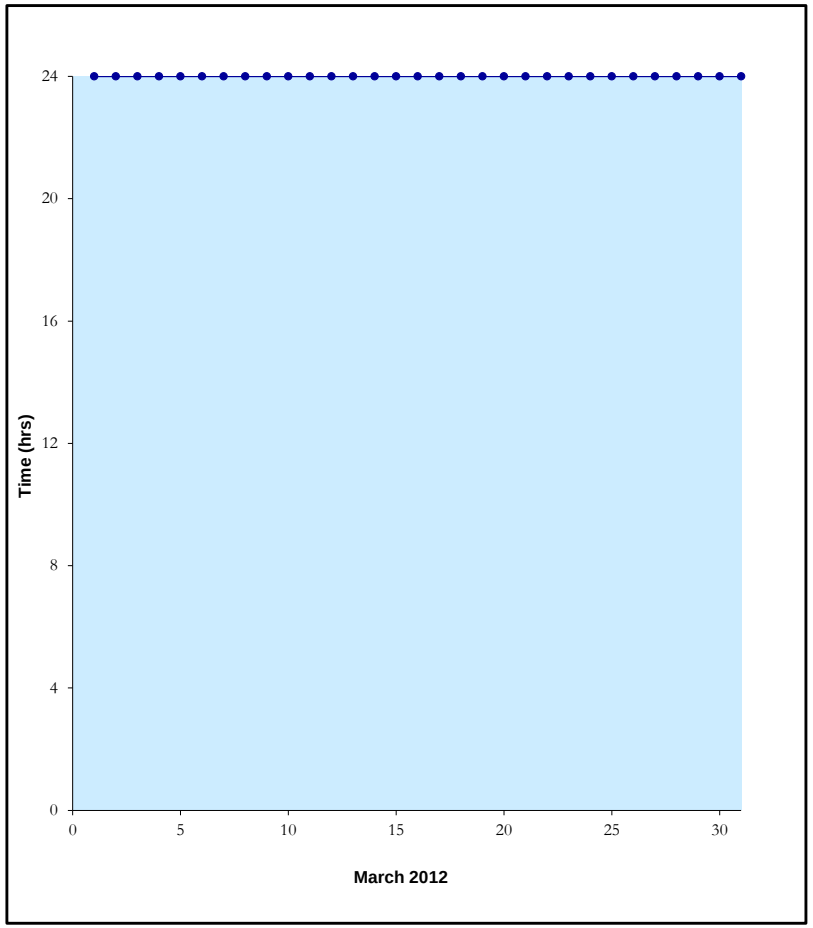
Uptime hours:	**696**
Uptime %:	**100.0%**

Notes:

FIGURE D-6

UPTIME LOG
SVE 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:

Appendix E
Operation and Maintenance Process Logs

APPENDIX E
PROCESS AND MONITORING LOGS

This section presents process and monitoring logs recorded during weekly routine and non-routine visits during this reporting period (01 January through 31 March 2012) 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.

URS Corporation
Modesto, Superfund Site
Process Data Sheet

Groundwater Treatment System

			Hour Meter	Utility Power		System Influent				Anti-Scalent Sequestrant	Air Stripper Water						
						Flow	Pressure	Total Flow	pH		Influent Pressure	Efffluent Pressure	Flow	Pressure	Influent Pressure	Effluent Pressure	Flow
Initials	Date	Time	Hrs.	kW	kWh	GPM	PSI	Gallons x100	pH	T-3 Gallons	Bag Filter F-1 PSI	PSI	GPM	Pump P-3 PSI	Bag Filter F-2 PSI	PSI	GPM
GB	1/5/12	10:11	48625	22.681	29263	46	36	3339	7.46	20	35	33	66	52	47	44	62
GB	1/12/12	08:40	48792	22.681	32627	46	36	7864	7.49	28	35	33	65	52	48	45	62
GB	1/19/12	09:50	48961	22.681	36016	46	36	12465	7.51	23	35	33	66	50	46	46	60
GB	1/26/12	0900	49124	22.681	39376	46	34	17012	7.49	18	~~32~~ 36	33	66	51	~~56~~ 45	47	62
Design Range or Target Value				10.0-30	N/A	3.0-85	30-50	n/a	5.0-12.0	3.0-25	30-50	30-50	40-70	30-50	30-50	30-50	40-70

GroundWater Treatment System

Air Stripper Vapor						Liquid Carbon			Ion Exchange			System Effluent				Radiation Meter	
Sump Pressure	Effluent Pressure	Influent P.I.D.	Effluent P.I.D.	Temp	Flow	Influent Pressure	Mid-Bed Pressure	Effluent Pressure	Influent Pressure	Mid-Bed Pressure	Flow	Flow	Pressure	pH	Effluent Total Flow	Outside GWTS	Inside GWTS
Air Stripper Trays in. H2O	in. H20	VGAC Vessel ppm	ppm	Stack °F	CFM	PSI	PSI	PSI	PSI	PSI	GPM	Gpm	~~PSI~~ 420	pH	Gallons x100	mR/hr Peak	mR/hr Peak
—	—	0	0.1	70	675	37	32	27	12	9	40	53	16.0	8.35	89712	0	0
—	—	0	0	68.5	645	37.5	33	28.5	15	9.5	41	50	18.0	8.46	94231	0	0
—	—	0	0.2	68.5	655	36	32	27	14	9	40	49	15.5	8.36	98792	0	0
—	—	0	0	69.2	670	37	33	28	15	9	40	50	16.0	8.41	3292	0	0
5.0-25	5.0-25	0-100	0-10	65-75	550-650	25-70	25-60	25-50	1.0-10	1.0-10	3.0-60	3.0-50	1.0-5	5.0-12	N/A	0-1	0-1

Soil Vapor Extraction System

		SVE Influent				Blower				Filter		Vapor				Radiation Meter	
		Pressure	Temp	Flow	Dilution	Hour Meter	Effluent Pressure	Temp	Flow	Influent Pressure	Effluent Pressure	Influent P.I.D.	Effluent P.I.D.	Temp	Flow	Outside SVE	Inside SVE
Date	Time	In. H2O	°F	CFM	Yes/No	Hrs.	in. H2O	°F	CFM	in. H2O	in. H2O	VGAC Vessel ppm	ppm	Stack °F	CFM	mR/hr Peak	mR/hr Peak
1/5/12	11:11	-61	62.5	164	No	7514	3.0	180.0	164	-65	-69	0	0	180.0	164	0	0
1/12/12	10:45	-60	61.2	156	No	7681	3.0	179.2	155	-65	-69	0	0	179.2	155	0	0
1/19/12	10:40	-60	60.1	156	No	7849	3.0	181.8	148	-65	-69	0	0.1	181.8	148	0	0
1-26-12	0940	-59	61.6	154	NO	8016	3.0	183.8	160	66	67	0	0	183.8	160		
		25-70	65-75	100-200	NO	N/A	2.0-10	65-75	100-200	N/A	N/A	0-100	0-10	65-75	100-200	0-1	0-1

Note: For pressures measured relative to atmospheric (barometric) pressure, use (-) for vacuum.

Reviewed By: _____ Date: _____

URS Group
Preventative and Corrective Maintenance Log
Modesto Superfund Site

Site Name: Modesto SF
Period: 1/1/12 to 1/31/12
(month/day/year) (month\day\year)

Date	Initials	Hour Meter	Maintenance Performed	LOTO Required	LOTO Description (Where?Why?)	LOCK ON (Date/Time)	Zero Energy Check	LOCK OFF (Date/Time)	LOCK ID (Lock No.)
			None	Y / N			Y / N		
				Y / N			Y / N		
				Y / N			Y / N		
				Y / N			Y / N		
				Y / N			Y / N		
				Y / N			Y / N		

URS Group
Preventative and Corrective Maintenance Log
Modesto Superfund Site

Site Name: Modesto SF

Shutdown Date: _____ Startup Date: _____
Shutdown Time: _____ None Startup Time: _____
Shutdown Purpose or Cause:

Corrective Actions Taken (if shutdown was unplanned):

Performed By: _____

Shutdown Date: _____ Startup Date: _____
Shutdown Time: _____ Startup Time: _____
Shutdown Purpose or Cause:

Corrective Actions Taken (if shutdown was unplanned):

Performed By: _____

Shutdown Date: _____ Startup Date: _____
Shutdown Time: _____ Startup Time: _____
Shutdown Purpose or Cause:

Corrective Actions Taken (if shutdown was unplanned):

Performed By: _____

Shutdown Date: _____ Startup Date: _____
Shutdown Time: _____ Startup Time: _____
Shutdown Purpose or Cause:

Corrective Actions Taken (if shutdown was unplanned):

Performed By: _____

Reviewed by: _____ Date: _____

URS Corporation
Modesto Superfund Site
Site Inspections

Task Description	1/5/12	1/12/12	1/19/12	1/26/12	/ /
WEEKLY	Task Performed (Technician Initials or Value)				
Groundwater TreatmentSystem					
Record Process Logs	✓	✓	✓	✓	
Check Blowers and motors for heat, noise, and vibration	✓	✓	✓	✓	
Check Air Stripper Feed pump/motor (P-2) for heat, noise, and vibration.	✓	✓	✓	✓	
Inspect all process piping for leaks	✓	✓	✓	✓	
Inspect all process hoses/fittings for leaks	✓	✓	✓	✓	
Check Air Stripper Effluent pump/motor (P-3) for heat, noise, and vibration.	✓	✓	✓	✓	
Inspect Sump (Pump as Necessary).	✓	✓	✓	✓	
Check Air Stripper sump level site glass. Clean as necessary	✓	✓	✓	✓	
Inspect IX system influent vacuum break for leaks	✓	✓	✓	✓	
Clean up compound area	✓	✓	✓	✓	
Drain VGAC condensate	✓	✓	✓	✓	
Perform autodialer operational check	✓	✓	✓	✓	
Autodialer battery check	✓	✓	✓	✓	
Perform inspection of EW-1R pipeline	✓	✓	✓	✓	
Inspection of Spill Response Kit	✓	✓	✓	✓	
Inspection of Emergency Response Plan/MSDS Binder	✓	✓	✓	✓	
Soil Vapor Extraction System					
Record Process Logs	✓	✓	✓	✓	
Check Blowers and motors for heat, noise, and vibration	✓	✓	✓	✓	
Inspect all process piping for leaks	✓	✓	✓	✓	
Clean up compound area	✓	✓	✓	✓	
Drain VGAC condensate	✓	✓	✓	✓	
Perform autodialer operational check	✓	✓	✓	✓	
Inspection of Spill Response Kit	✓	✓	✓	✓	
Inspection of Emergency Response Plan/MSDS Binder	✓	✓	✓	✓	

Task Description	Performed		
MONTHLY	Date	Initials	Reading
Check fire extinguisher	1/26/12	GB	
Inspect EW-1R vault	1/26/12	GB	
Inspect VI Mitigation operations - "Part House"	1/26/12	GB	
Replace Auto Dialer Batteries (if necessary)	1/26/12	GB	
Quarterly			
Interlock Checks Groundwater	1/9/12	GB	
Interlock Checks SVE	1/9/12	GB	
Collect Well Flow read at SVE-02		Not Required	
Collect Well Flow read at SVE-03			
Collect Well Flow read at SVE-04			
ANNUAL			
Collect Amp radings			
Instrument Calibration			
System Effluent Flow Meter (Performed in June and December)			

Notes:

Reviewed by:_____ Date:_____

URS Corporation
Modesto, Superfund Site
Process Data Sheet

Groundwater Treatment System

Initials	Date	Time	Hour Meter	Utility Power		System Influent				Anti-Scalent Sequestrant	Air Stripper Water						
						Flow	Pressure	Total Flow	pH		Influent Pressure	Effluent Pressure	Flow	Pressure	Influent Pressure	Effluent Pressure	Flow
										T-3	Bag Filter F-1			Pump P-3	Bag Filter F-2		
			Hrs.	kW	kWh	GPM	PSI	Gallons x100	pH	Gallons	PSI	PSI	GPM	PSI	PSI	PSI	GPM
GB	2/8/12	0945	49275	22.681	42784	46	35	21568	7.23	27	35	36	66	50	55	52	64
GB	2/6/12	1045	49392	22.681	44718	46	35	24194	7.05	24	33	36	66	48	43	45	66
JP	2/9/12	0945	49463	22.681	46147	46	34	26128	7.26	22	32	35	66	47	42	43	66
JP	2-16-12	1020	49631	22.681	49570	46	34	30733	7.02	22	32	35	66	46	43	43	66
JP	2-21-12	1345	49748	22.681	51971	46	36	33940	7.03	36	33	36	67	46	42	45	67
Design Range or Target Value				10.0-30	N/A	3.0-85	30-50	n/a	5.0-12.0	3.0-25	30-50	30-50	40-70	30-50	30-50	30-50	40-70

GroundWater Treatment System

Air Stripper Vapor						Liquid Carbon			Ion Exchange			System Effluent				Radiation Meter	
Sump Pressure	Effluent Pressure	Influent P.I.D.	Effluent P.I.D.	Temp	Flow	Influent Pressure	Mid-Bed Pressure	Effluent Pressure	Influent Pressure	Mid-Bed Pressure	Flow	Flow	Pressure	pH	Effluent Total Flow	Outside GWTS	Inside GWTS
Air Stripper Trays		VGAC Vessel		Stack													
In. H2O	In. H2O	ppm	ppm	°F	CFM	PSI	PSI	PSI	PSI	PSI	GPM	Gpm	~~PSI~~ 420	pH	~~Gallons~~ x100	mR/hr Peak	mR/hr Peak
—	—	Ø	Ø	69.0	640	38	34	28	15	10	42	51	16	8.27	7817	Ø	Ø
—	—	Ø	Ø	69.2	635	39	34	30	15	10	42	52	17	8.08	10424	Ø	Ø
—	—	Ø	Ø	69.2	640	39	34	30	17	10	42	53	17	7.94	12350	Ø	Ø
		Ø	Ø	69.2	650	38	33	29	15	10	42	52	17	8.00	16939	Ø	Ø
		Ø	Ø	70.1	745	37	32		15	9	41	51	17	8.11	20097		
5.0-25	5.0-25	0-100	0-10	65-75	560-650	25-70	25-60	25-50	1.0-10	1.0-10	3.0-60	3.0-50	1.0-5	5.0-12	N/A	0-1	0-1

Soil Vapor Extraction System

Date	Time	SVE Influent				Blower				Filter		Vapor				Radiation Meter	
		Pressure	Temp	Flow	Dilution	Hour Meter	Effluent Pressure	Temp	Flow	Influent Pressure	Effluent Pressure	Influent P.I.D.	Effluent P.I.D.	Temp	Flow	Outside SVE	Inside SVE
												VGAC Vessel		Stack			
		In. H2O	°F	CFM	Yes/No	Hrs.	In. H2O	°F	CFM	In. H2O	In. H2O	ppm	ppm	°F	CFM	mR/hr Peak	mR/hr Peak
GB	2/2/12	-56	62.4	146	No	8185	3.0	184.7	155	-60	-64	Ø	Ø	184.7	155	Ø	Ø
JP	2-9-12	-56	62.9	159	NO	8351	3.0	182.3	152	-60	-64	Ø	Ø	182.3	152	Ø	Ø
2/16/12	1045	-55	61.6	152	NO	8520	3.0	182.0	156	58	62	Ø	Ø	182.0	156	Ø	Ø
2/21-12	1340	-55	63.1	155	NO		3.0	185	155	-58	-62	Ø	Ø	185	155	Ø	Ø
		25-70	65-75	100-200	NO	N/A	2.0-10	65-75	100-200	N/A	N/A	0-100	0-10	65-75	100-200	0-1	0-1

Note: For pressures measured relative to atmospheric (barometric) pressure, use (-) for vacuum.

Reviewed By: _____ Date: _____

URS Group
Preventative and Corrective Maintenance Log
Modesto Superfund Site

Site Name: Modesto SF
Period: 2/1/12 (month/day/year) to 2/29/12 (month/day/year)

Date	Initials	Hour Meter	Maintenance Performed	LOTO Required	LOTO Description (Where?Why?)	LOCK ON (Date/Time)	Zero Energy Check	LOCK OFF (Date/Time)	LOCK ID (Lock No.)
2-16	JP		10K INSPECT + NEW GASKET	Y / (N)			(Y) / N		
				Y / N			Y / N		
				Y / N			Y / N		
				Y / N			Y / N		
				Y / N			Y / N		
				Y / N			Y / N		

URS Group
Preventative and Corrective Maintenance Log
Modesto Superfund Site

Site Name: Modesto SF

Shutdown Date: 2-16 Startup Date: 2-16
Shutdown Time: 1115 Startup Time: 1215
Shutdown Purpose or Cause: INSPECT RESIN AND REPLACE GASKETS
Corrective Actions Taken (if shutdown was unplanned):
RESTART SYSTEM
Performed By: JP

Shutdown Date: 2-21-12 Startup Date: 2-21-12
Shutdown Time: 0825 Startup Time: 1320
Shutdown Purpose or Cause: GW SYSTEM SHUTDOWN - EQ TANK HIGH
Corrective Actions Taken (if shutdown was unplanned): FLOAT SWITCH WAS STUCK - CLEAN & VERIFY OPERATION. RESTART SYSTEM
Performed By: JP

Shutdown Date: Startup Date:
Shutdown Time: Startup Time:
Shutdown Purpose or Cause:
Corrective Actions Taken (if shutdown was unplanned):
Performed By:

Shutdown Date: Startup Date:
Shutdown Time: Startup Time:
Shutdown Purpose or Cause:
Corrective Actions Taken (if shutdown was unplanned):
Performed By:

Reviewed by:_____ Date: _____

URS Corporation
Modesto Superfund Site
Site Inspections

Task Description	2/2/12	2/8/12	2/16/12	2/22/12	/ /
WEEKLY	Task Performed (Technician Initials or Value)				
Groundwater TreatmentSystem					
Record Process Logs	✓	✓	✓	✓	
Check Blowers and motors for heat, noise, and vibration	✓	✓	✓	✓	
Check Air Stripper Feed pump/motor (P-2) for heat, noise, and vibration.	✓	✓	✓	✓	
Inspect all process piping for leaks	✓	✓	✓	✓	
Inspect all process hoses/fittings for leaks	✓	✓	✓	✓	
Check Air Stripper Effluent pump/motor (P-3) for heat, noise, and vibration.	✓	✓	✓	✓	
Inspect Sump (Pump as Necessary).	✓	✓	✓	✓	
Check Air Stripper sump level site glass. Clean as necessary	✓	✓	✓	✓	
Inspect IX system influent vacuum break for leaks	✓	✓	✓	✓	
Clean up compound area	✓	✓	✓	✓	
Drain VGAC condensate	✓	✓	✓	✓	
Perform autodialer operational check	✓	✓	✓	✓	
Autodialer battery check	✓	✓	✓	✓	
Perform inspection of EW-1R pipeline	✓	✓	✓	✓	
Inspection of Spill Response Kit	✓	✓	✓	✓	
Inspection of Emergency Response Plan/MSDS Binder	✓	✓	✓	✓	
Soil Vapor Extraction System					
Record Process Logs	✓	✓	✓	✓	
Check Blowers and motors for heat, noise, and vibration	✓	✓	✓	✓	
Inspect all process piping for leaks	✓	✓	✓	✓	
Clean up compound area	✓	✓	✓	✓	
Drain VGAC condensate	✓	✓	✓	✓	
Perform autodialer operational check	✓	✓	✓	✓	
Inspection of Spill Response Kit	✓	✓	✓	✓	
Inspection of Emergency Response Plan/MSDS Binder	✓	✓	✓	✓	

Task Description	Performed		
MONTHLY	Date	Initials	Reading
Check fire extinguisher	2-16-12	JP	
Inspect EW-1R vault	2-16-12	JP	
Inspect VI Mitigation operations - "Part House"	2-16-12	JP	
Replace Auto Dialer Batteries (if necessary)			
Quarterly			
Interlock Checks Groundwater	1/9/12	GB	
Interlock Checks SVE	1/9/12	GB	
Collect Well Flow read at SVE-02		Not Required	
Collect Well Flow read at SVE-03			
Collect Well Flow read at SVE-04			
ANNUAL			
Collect Amp radings			
Instrument Calibration			
System Effluent Flow Meter (Performed in June and December)			

Notes:

Reviewed by:_____ Date:_____

URS Corporation
Modesto, Superfund Site
Process Data Sheet

Groundwater Treatment System

						System Influent					Air Stripper Water						
			Hour Meter	Utility Power		Flow	Pressure	Total Flow X100	pH	Anti-Scalent Sequestrant	Influent Pressure	Effluent Pressure	Flow	Pressure	Influent Pressure	Effluent Pressure	Flow
Initials	Date	Time	Hrs.	kW	kWh	GPM	PSI	Gallons	pH	T-3 Gallons	Bag Filter F-1 PSI	Bag Filter F-1 PSI	Bag Filter F-1 GPM	Pump P-3 PSI	Bag Filter F-2 PSI	Bag Filter F-2 PSI	Bag Filter F-2 GPM
JP	3-1-12	1230	49964	22.681	56351	47	35	39813	7.12	23	33	36	66	47	44	42	66
JP	3-8-12	0955	50129	22.681	59699	46	36	44329	7.05	31	33	36	66	47	44	43	66
JP	3-15-12	0830	50295			46	36	48850	7.44	26	32	36	65	46	44	43	65
JP	3-20-12	1115	50316	22.681	64339	46	36	49421	7.18	24	32	33	62	44	44	40	62
JP	3-27-12	0910	508	22.681	67671	47	34	54000	7.29	30	35	33	62	46	43	41	65
Design Range or Target Value			50481	10.0-30	N/A	3.0-85	30-50	n/a	5.0-12.0	3.0-25	30-50	30-50	40-70	30-50	30-50	30-50	40-70

GroundWater Treatment System

Air Stripper Vapor						Liquid Carbon			Ion Exchange			System Effluent				Radiation Meter	
Sump Pressure	Effluent Pressure	Influent P.I.D.	Effluent P.I.D.	Temp	Flow	Influent Pressure	Mid-Bed Pressure	Effluent Pressure	Influent Pressure	Mid-Bed Pressure	Flow	Flow	Pressure	pH	Effluent Total Flow	Outside GWTS	Inside GWTS
Air Stripper Trays in. H2O	Air Stripper Trays in. H20	VGAC Vessel ppm	VGAC Vessel ppm	Stack °F	Stack CFM	PSI	PSI	PSI	PSI	PSI	GPM	Gpm	PSI	pH	Gallons X100	mR/hr Peak	mR/hr Peak
N/A	N/A	Ø	Ø	70.8	720	39	34	29	15	9	42	55	17	8.15	25826	Ø	Ø
N/A	N/A	Ø	Ø	70.1	690	39	34	30	15	10	42	52	17	8.22	30297	Ø	Ø
N/A	N/A	Ø	Ø	69.4	650	38	33	29	15	9	42	52	N/A	8.36	34749	Ø	Ø
N/A	N/A	Ø	Ø	70.0	663	37	31	27	14	10	42	52	N/A	8.25	35316	Ø	Ø
N/A	N/A	Ø	Ø	69.5	660	38	33	~~N/A~~ 28	14	10	44	52	N/A	8.30	39838	Ø	Ø
5.0-25	5.0-25	0-100	0-10	65-75	550-650	25-70	25-60	25-50	1.0-10	1.0-10	3.0-60	3.0-50	1.0-5	5.0-12	N/A	0-1	0-1

Soil Vapor Extraction System

		SVE Influent				Blower				Filter		Vapor				Radiation Meter	
		Pressure	Temp	Flow	Dilution	Hour Meter	Effluent Pressure	Temp	Flow	Influent Pressure	Effluent Pressure	Influent P.I.D.	Effluent P.I.D.	Temp	Flow	Outside SVE	Inside SVE
Date	Time	In. H2O	°F	CFM	Yes/No	Hrs.	in. H2O	°F	CFM	in. H2O	in. H2O	VGAC Vessel ppm	VGAC Vessel ppm	Stack °F	Stack CFM	mR/hr Peak	mR/hr Peak
3-1-12	1245	-55	61.4	152	NO	8857	3.0	182.5	153	-58	-62	Ø	Ø	1825	153	Ø	Ø
3-8-12	1010	-55	64.4	148	NO	9022	3.0	182.6	152	-58	-62	Ø	Ø	182.6	152	Ø	Ø
3-15-12	1115	-55	64.6	155	NO	9190	3.0	183.3	171	-70	-66	Ø	Ø	183.3	171	Ø	Ø
3-20-12	1140	-55	65.0	151	NO	9310	3.0	182.5	160	-70	-66	Ø	Ø	182.5	160	Ø	Ø
3-27	1005	-55	64.8	155	NO	9476	3.0	183.5	160	-70	-66	Ø	Ø	183.5	160	Ø	Ø
		25-70	65-75	100-200	NO	N/A	2.0-10	65-75	100-200	N/A	N/A	0-100	0-10	65-75	100-200	0-1	0-1

Note: For pressures measured relative to atmospheric (barometric) pressure, use (-) for vacuum.

Reviewed By: _____ Date: _____

URS Group
Preventative and Corrective Maintenance Log
Modesto Superfund Site

Site Name: MODESTO SUPERFUND
Period: 3/1/12 (month/day/year) to 3/31/12 (month/day/year)

Date	Initials	Hour Meter	Maintenance Performed	LOTO Required	LOTO Description (Where?Why?)	LOCK ON (Date/Time)	Zero Energy Check	LOCK OFF (Date/Time)	LOCK ID (Lock No.)
3/8	JP	50129	(PRE A/S) CHANGE BAG FILTERS	Y / N			Y / N		
3/15	JP	50295	COLLECT RESIN SAMPLES	Y / N			Y / N		
3/15	JP	50295	(POST A/S) CHANGE BAG FILTERS	Y / N			Y / N		
				Y / N			Y / N		
				Y / N			Y / N		
				Y / N			Y / N		

URS Group
Preventative and Corrective Maintenance Log
Modesto Superfund Site

Site Name: MODESTO GWTP

Shutdown Date: 3/15/12 Startup Date: 3/15/12
Shutdown Time: 0845 Startup Time: 1100
Shutdown Purpose or Cause: COLLECT LEAD VESSEL RESIN SAMPLES
Corrective Actions Taken (if shutdown was unplanned):
NONE
Performed By: JP/GB

Shutdown Date: 3/16/12 Startup Date: 3/30/12
Shutdown Time: ~~0730~~ ~~1330~~ 0730 Startup Time: 1100
Shutdown Purpose or Cause:
SYSTEM SHUTDOWN DUE TO BAD FLOATS. REPLACED ON 3/30/12
Corrective Actions Taken (if shutdown was unplanned):
REPLACED FLOATS
Performed By:

Shutdown Date: Startup Date:
Shutdown Time: Startup Time:
Shutdown Purpose or Cause:
Corrective Actions Taken (if shutdown was unplanned):
Performed By:

Shutdown Date: Startup Date:
Shutdown Time: Startup Time:
Shutdown Purpose or Cause:
Corrective Actions Taken (if shutdown was unplanned):
Performed By:

Reviewed by: _____ Date: _____

URS Corporation
Modesto Superfund Site
Site Inspections

Task Description	3/1/12	3/8/12	3/15/12	3/20/12	3/27/12
WEEKLY	Task Performed (Technician Initials or Value)				
Groundwater Treatment System					
Record Process Logs	JP	JP	JP	JP	JP
Check Blowers and motors for heat, noise, and vibration	↓	↓	↓	↓	↓
Check Air Stripper Feed pump/motor (P-2) for heat, noise, and vibration.	↓	↓	↓	↓	↓
Inspect all process piping for leaks	↓	↓	↓	↓	↓
Inspect all process hoses/fittings for leaks	↓	↓	↓	↓	↓
Check Air Stripper Effluent pump/motor (P-3) for heat, noise, and vibration.	↓	↓	↓	↓	↓
Inspect Sump (Pump as Necessary).	↓	↓	↓	↓	↓
Check Air Stripper sump level site glass. Clean as necessary	↓	↓	↓	↓	↓
Inspect IX system influent vacuum break for leaks	↓	↓	↓	↓	↓
Clean up compound area	↓	↓	↓	↓	↓
Drain VGAC condensate	↓	↓	↓	↓	↓
Perform autodialer operational check	↓	↓	↓	↓	↓
Autodialer battery check	↓	↓	↓	↓	↓
Perform inspection of EW-1R pipeline	↓	↓	↓	↓	↓
Inspection of Spill Response Kit	↓	↓	↓	↓	↓
Inspection of Emergency Response Plan/MSDS Binder	↓	↓	↓	↓	↓
Soil Vapor Extraction System					
Record Process Logs	JP	JP	JP	JP	JP
Check Blowers and motors for heat, noise, and vibration	↓	↓	↓	↓	↓
Inspect all process piping for leaks	↓	↓	↓	↓	↓
Clean up compound area	↓	↓	↓	↓	↓
Drain VGAC condensate	↓	↓	↓	↓	↓
Perform autodialer operational check	↓	↓	↓	↓	↓
Inspection of Spill Response Kit	↓	↓	↓	↓	↓
Inspection of Emergency Response Plan/MSDS Binder	↓	↓	↓	↓	↓

Task Description	Performed		
MONTHLY	Date	Initials	Reading
Check fire extinguisher	3/8/12	JP	
Inspect EW-1R vault	3/8/12	JP	
Inspect VI Mitigation operations - "Part House"	3/1/12	JP	
Replace Auto Dialer Batteries (if necessary)			
Quarterly			
Interlock Checks Groundwater	1/9/12	GD	
Interlock Checks SVE	1/9/12	GD	
Collect Well Flow read at SVE-02	~~1/9/12~~	~~GD~~	
Collect Well Flow read at SVE-03	X	Not Required	
Collect Well Flow read at SVE-04			
ANNUAL			
Collect Amp radings			
Instrument Calibration			
System Effluent Flow Meter (Performed in June and December)			

Notes:

Reviewed by:_____ Date:_____

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 2012. Tables F-1 (a) and F-1(b) lists the event, start and end dates and the type of maintenance (Routine, Nonroutine, Reimbursable, or Optimization) that was performed.

TABLE F-1(a)

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(a)

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(a)

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

Notes:

GAC - Granular Activate Carbon

GWTS - Groundwater Treatment System

PID - Photoionization Detector

PLC - Programmable Logic Controller

SVE - Soil Vapor Extraction

TABLE F-1(b)OPERATIONAL HISTORYGROUNDWATER TREATMENT AND SOIL VAPOR EXTRACTION SYSTEMMODESTO SUPERFUND SITEMODESTO, CALIFORNIA(Page 1 of 1)

No.	Event	Start Date	End Date	Type of Maintenance
1	URS Corporation Inc. begins operation and maintenance activities	01-Mar-10		
2	Reprogrammed Emergency call-out system with URS contact information	01-Mar-10	01-Mar-10	Routine
3	Installed a vacuum break anti-syphon valve at effluent of the LGAC vessels.	18-Mar-10	18-Mar-10	Routine
4	Performed a backwash of the primary LGAC vessel	01-Apr-10	01-Apr-10	Routine
5	Performed a backwash of the secondary LGAC vessel	29-Apr-10	29-Apr-10	Routine
6	Replaced a dry disconnect coupling at the effluent of the primary IX vessel.	27-May-10	27-May-10	Routine
7	Calibrated and certified the sewer outfall flow meter	09-Jun-10	09-Jun-10	Reimbursable
8	Installed a automatic composite sampler at GWTS effluent.	20-Jul-10	20-Jul-10	Reimbursable
9	Performed a change-out of the GWTS Air Stripper and SVE system VGAC.	19-Aug-10	19-Aug-10	Routine
10	Performed a backwash of the primary LGAC vessel	21-Oct-10	21-Oct-10	Routine
11	Tested GWTS interlock controls.	03-Nov-10	03-Nov-10	Routine
12	Tested SVE system interlock controls	03-Nov-10	03-Nov-10	Routine
13	Performed a change-out of the resin in the primary IX system vessel.	09-Dec-10	09-Dec-10	Routine
14	Calibrated and certified the sewer outfall flow meter	09-Dec-10	09-Dec-10	Reimbursable
15	Performed a change-out of the resin in the primary and secondary IX system vessel.	24-Feb-11	24-Feb-11	Routine
16	Calibrated the pressure sensors on the groundwater treatment system bag filters.	24-Feb-11	24-Feb-11	Routine
17	Performed a backwash of the primary LGAC vessel	26-May-11	26-May-11	Routine
18	Calibrated and certified the sewer outfall flow meter	04-Jun-11	04-Jun-11	Reimbursable
19	Replaced sequestrant relay and cleared chemical blockage in pump and tubing	06-Sep-11	06-Sep-11	Routine
20	Replaced all tubing on sequestrant delivery system. Disassembled chemical dosing pump. Cleaned out pump and tank and ressembled. Filtered existing sequestrant product for reuse.	08-Sep-11	08-Sep-11	Routine
21	Replaced gasket on primay LGAC.	28-Nov-11	28-Nov-11	Routine
22	Performed a change-out of the resin in the primary IX system vessel.	15-Dec-11	15-Dec-11	Routine
23	Calibrated and certified the sewer outfall flow meter	21-Dec-11	21-Dec-11	Routine
24	Inspected IX resin vessels and installed new lid gaskets.	16-Feb-12	16-Feb-12	Routine
25	New stainless steel float switches installed in influent equalization tank.	16-Mar-12	20-Mar-12	Routine

Notes:

LGAC - Liquid Phase Granular Activated Carbon

VGAC - Vapor Phase Granular Activated Carbon

SVE - Soil Vapor Extraction

GWTS - Groundwater Treatment System

IX - Ion Exchange

Appendix G
Historical Well Construction, Analytical, and Mass Removed Data

Table G-1. Well Construction Details

Well No.	Casing Diameter (inches)	Boring Depth (ft bgs)	Screen Interval (ft bgs)	Top of Casing Elevation (ft msl)[a]
Groundwater Monitoring Wells				
MW-01A	4	101	91-101	91.61
MW-02A	4	96	86-96	90.88[b]
MW-03A	4	94	84-94	91.49[b]
MW-04A	4	89	78-88	91.13
MW-04B	2	154	144-154	91.11
MW-04C	2	237	227-237	91.25
MW-05A	2	90	60-90	90.74
MW-06A	2	90	60-90	89.72[b]
MW-07A	2	90	60-90	91.24
MW-08A	2	90	60-90	91.44
MW-09A	2	155	144-154	91.20[b]
MW-09B		155	144-154	91.19
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-18A	2	66	56-66	90.14
MW-19A	2	101	91-101	91.22
MW-19B1	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
MW-21A	2	102	90-100	91.75[c]
MW-22A	2	62	50-60	91.69[c]
MW-23A	2	102	89-99	90.26[c]
MW-24B	2	157	145-155	92.93[c]
MW-25B	2	157	145-155	91.78[c]
MW-26B	2	157	145-155	89.71[c]
MW-27B	2	157	145-155	89.34[c]
MW-28B	2	157	145-155	89.21[c]
MW-29B	2	157	145-155	89.74[c]
EW-01	5	115	65-95	89.54
EW-01R	6	120	59-109	90.65[b]

Table G-1. (Continued)

Well No.	Casing Diameter (inches)	Boring Depth (ft bgs)	Screen Interval (ft bgs)	Top of Casing Elevation (ft msl)[a]
Soil Vapor Wells				
SVE-01	2	40	18-38	89.84
SVE-02	2	13	7-12	91.36
SVE-03	2	39	13-23	91.38
SVE-04	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	--
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.

[c] Wells installed and surveyed in September 2011.

bgs = below ground surface

ft = feet

msl = mean sea level

TABLE G-2(a)

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
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
			90.91	Feb-04	44.13	46.78

TABLE G-2(a)

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	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
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
			91.49	May-08	45.25	46.24
			91.49	Aug-08	46.6	44.89

TABLE G-2(a)

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	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
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
MW-4C	237	227-237	91.25	Dec-08	44.35	46.90
			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

TABLE G-2(a)

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-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
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
			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

TABLE G-2(a)

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)
			89.48	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
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
			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

TABLE G-2(a)

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	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
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
			91.44	Nov-09	46.91	44.53
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

TABLE G-2(a)

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)
			91.19	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
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
			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

TABLE G-2(a)

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)
			90.48	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
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
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
			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

TABLE G-2(a)

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)
			89.91	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
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
			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

TABLE G-2(a)

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-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
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

TABLE G-2(a)

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)
			89.79	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
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
			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

TABLE G-2(a)

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-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
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
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
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
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
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
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
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
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
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

TABLE G-2(a)

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-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
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
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
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
			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

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,

[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

TABLE G-2(b)

GROUNDWATER MONITORING WELL WATER TABLE ELEVATION
MODESTO GROUNDWATER 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-01A	101.00	91 - 101	91.61	Mar-10	44.81	46.80
				May-10	43.78	47.83
				Aug-10	44.41	47.20
				Nov-10	44.98	46.63
				Mar-11	43.11	48.50
				Jun-11	42.20	49.41
				Sep-11	42.73	48.88
				Nov-11	42.97	48.64
				Jan-12	42.19	49.42
MW-02A	96.00	86 - 96	90.88	Mar-10	44.02	46.86
				May-10	43.03	47.85
				Aug-10	43.52	47.36
				Nov-10	44.21	46.67
				Mar-11	42.38	48.50
				Jun-11	41.44	49.44
				Sep-11	41.90	48.98
				Nov-11	42.12	48.76
				Jan-12	41.52	49.36
MW-03A	94.00	84 - 94	91.49	Mar-10	46.77	44.72
				May-10	45.76	45.73
				Aug-10	46.38	45.11
				Nov-10	46.89	44.60
				Mar-11	44.95	46.54
				Jun-11	44.00	47.49
				Sep-11	44.56	46.93
				Nov-11	44.89	46.60
				Jan-12	44.19	47.30
MW-04A	89.00	78 - 88	91.13	Mar-10	45.39	45.74
				May-10	44.23	46.90
				Aug-10	44.58	46.55
				Nov-10	45.47	45.66
				Mar-11	43.51	47.62
				Jun-11	42.47	48.66
				Sep-11	42.94	48.19
				Nov-11	43.33	47.80
				Jan-12	42.74	48.39

TABLE G-2(b)

GROUNDWATER MONITORING WELL WATER TABLE ELEVATION
MODESTO GROUNDWATER 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-04B	154.00	144 - 154	91.11	Mar-10	44.70	46.41
				May-10	43.82	47.29
				Aug-10	45.31	45.80
				Nov-10	45.24	45.87
				Mar-11	43.08	48.03
				Jun-11	42.18	48.93
				Sep-11	43.48	47.63
				Nov-11	43.38	47.73
				Jan-12	42.44	48.67
MW-04C	237.00	227 - 237	91.25	Mar-10	43.15	48.10
				May-10	44.64	46.61
				Aug-10	50.22	41.03
				Nov-10	45.22	46.03
				Mar-11	42.86	48.39
				Jun-11	42.75	48.50
				Sep-11	47.15	44.10
				Nov-11	43.69	47.56
				Jan-12	41.94	49.31
MW-05A	90.00	60 - 90	90.74	Mar-10	44.43	46.31
				May-10	43.39	47.35
				Aug-10	43.72	47.02
				Nov-10	44.60	46.14
				Mar-11	42.71	48.03
				Jun-11	41.75	48.99
				Sep-11	42.08	48.66
				Nov-11	42.48	48.26
				Jan-12	41.87	48.87
MW-06A	90.00	60 - 90	89.72	Mar-10	43.49	46.23
				May-10	42.24	47.48
				Aug-10	42.53	47.19
				Nov-10	43.54	46.18
				Mar-11	41.66	48.06
				Jun-11	40.50	49.22
				Sep-11	40.96	48.76
				Nov-11	41.40	48.32
				Jan-12	40.81	48.91

TABLE G-2(b)

GROUNDWATER MONITORING WELL WATER TABLE ELEVATION
MODESTO GROUNDWATER 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-07A	90.00	60 - 90	91.24	Mar-10	43.89	47.35
				May-10	42.89	48.35
				Aug-10	43.00	48.24
				Nov-10	43.97	47.27
				Mar-11	42.30	48.94
				Jun-11	41.36	49.88
				Sep-11	41.55	49.69
				Nov-11	41.85	49.39
				Jan-12	41.40	49.84
MW-08A	90.00	60 - 90	91.44	Mar-10	45.39	46.05
				May-10	44.33	47.11
				Aug-10	44.64	46.80
				Nov-10	45.53	45.91
				Mar-11	43.69	47.75
				Jun-11	42.66	48.78
				Sep-11	42.98	48.46
				Nov-11	43.38	48.06
				Jan-12	42.80	48.64
MW-09B	155.00	144 - 154	91.2	Mar-10	44.47	46.73
				May-10	43.68	47.52
				Aug-10	45.13	46.07
				Nov-10	45.16	46.04
				Mar-11	42.91	48.29
				Jun-11	42.07	49.13
				Sep-11	43.33	47.87
				Nov-11	43.18	48.02
				Jan-12	42.31	48.89
MW-10A	91.00	60 - 89	90.48	Mar-10	44.68	45.80
				May-10	43.52	46.96
				Aug-10	43.94	46.54
				Nov-10	44.93	45.55
				Mar-11	42.85	47.63
				Jun-11	41.77	48.71
				Sep-11	42.31	48.17
				Nov-11	42.82	47.66
				Jan-12	42.15	48.33

TABLE G-2(b)

GROUNDWATER MONITORING WELL WATER TABLE ELEVATION
MODESTO GROUNDWATER 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-10B	160.00	153 - 163	90.21	Mar-10	44.01	46.20
				May-10	43.08	47.13
				Aug-10	44.44	45.77
				Nov-10	44.55	45.66
				Mar-11	42.37	47.84
				Jun-11	41.37	48.84
				Sep-11	42.66	47.55
				Nov-11	42.66	47.55
				Jan-12	41.72	48.49
MW-10C	230.00	220 - 230	90.5	Mar-10	42.87	47.63
				May-10	44.22	46.28
				Aug-10	49.92	40.58
				Nov-10	44.88	45.62
				Mar-11	42.47	48.03
				Jun-11	42.20	48.30
				Sep-11	46.99	43.51
				Nov-11	43.51	46.99
				Jan-12	41.65	48.85
MW-11A	92.00	70 - 90	89.91	Mar-10	42.15	47.76
				May-10	41.12	48.79
				Aug-10	41.42	48.49
				Nov-10	42.19	47.72
				Mar-11	40.57	49.34
				Jun-11	39.65	50.26
				Sep-11	39.93	49.98
				Nov-11	40.08	49.83
				Jan-12	39.63	50.28
MW-12A	99.00	87 - 97	91.15	Mar-10	45.17	45.98
				May-10	44.07	47.08
				Aug-10	44.86	46.29
				Nov-10	45.56	45.59
				Mar-11	43.31	47.84
				Jun-11	42.40	48.75
				Sep-11	43.22	47.93
				Nov-11	43.54	47.61
				Jan-12	42.79	48.36

TABLE G-2(b)

GROUNDWATER MONITORING WELL WATER TABLE ELEVATION
MODESTO GROUNDWATER 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-13A	99.00	77 - 97	89.27	Mar-10	43.44	45.83
				May-10	42.17	47.10
				Aug-10	42.35	46.92
				Nov-10	43.44	45.83
				Mar-11	41.67	47.60
				Jun-11	40.46	48.81
				Sep-11	40.76	48.51
				Nov-11	41.32	47.95
				Jan-12	40.77	48.50
MW-14A	92.00	70 - 90	89.79	Mar-10	43.04	46.75
				May-10	41.93	47.86
				Aug-10	42.17	47.62
				Nov-10	43.00	46.79
				Mar-11	41.35	48.44
				Jun-11	40.34	49.45
				Sep-11	40.58	49.21
				Nov-11	40.91	48.88
				Jan-12	40.42	49.37
MW-15A	102.00	80 - 100	91.76	Mar-10	44.82	46.94
				May-10	43.80	47.96
				Aug-10	44.40	47.36
				Nov-10	45.03	46.73
				Mar-11	43.11	48.65
				Jun-11	42.23	49.53
				Sep-11	42.77	48.99
				Nov-11	43.02	48.74
				Jan-12	42.41	49.35
MW-16A	86.00	76 - 86	91.89	Mar-10	46.55	45.34
				May-10	45.41	46.48
				Aug-10	47.34	44.55
				Nov-10	47.40	44.49
				Mar-11	44.62	47.27
				Jun-11	43.58	48.31
				Sep-11	45.51	46.38
				Nov-11	45.53	46.36
				Jan-12	44.29	47.60

TABLE G-2(b)

GROUNDWATER MONITORING WELL WATER TABLE ELEVATION
MODESTO GROUNDWATER 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-16B	139.00	129 - 139	91.82	Mar-10	46.48	45.34
				May-10	45.33	46.49
				Aug-10	47.32	44.50
				Nov-10	47.34	44.48
				Mar-11	44.60	47.22
				Jun-11	43.53	48.29
				Sep-11	45.43	46.39
				Nov-11	45.46	46.36
				Jan-12	44.24	47.58
MW-16C	236.00	226 - 236	91.64	Mar-10	45.51	46.13
				May-10	46.22	45.42
				Aug-10	52.77	38.87
				Nov-10	47.40	44.24
				Mar-11	44.73	46.91
				Jun-11	44.07	47.57
				Sep-11	49.02	42.62
				Nov-11	45.99	45.65
				Jan-12	44.12	47.52
MW-17A	88.00	77 - 87	89.64	Mar-10	44.36	45.28
				May-10	43.01	46.63
				Aug-10	43.42	46.22
				Nov-10	44.48	45.16
				Mar-11	42.51	47.13
				Jun-11	41.15	48.49
				Sep-11	41.81	47.83
				Nov-11	42.48	47.16
				Jan-12	41.75	47.89
MW-17B	140.00	129 - 139	89.69	Mar-10	44.21	45.48
				May-10	43.02	46.67
				Aug-10	43.98	45.71
				Nov-10	44.60	45.09
				Mar-11	42.42	47.27
				Jun-11	41.17	48.52
				Sep-11	42.31	47.38
				Nov-11	42.68	47.01
				Jan-12	41.70	47.99

TABLE G-2(b)

GROUNDWATER MONITORING WELL WATER TABLE ELEVATION
MODESTO GROUNDWATER 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-17C	232.00	222 - 232	89.76	Mar-10	43.06	46.70
				May-10	44.10	45.66
				Aug-10	51.62	38.14
				Nov-10	45.08	44.68
				Mar-11	42.36	47.40
				Jun-11	41.85	47.91
				Sep-11	43.30	46.46
				Nov-11	44.07	45.69
				Jan-12	41.60	48.16
MW-18A	66.00	56 - 66	90.14	Mar-10	44.58	45.56
				May-10	43.39	46.75
				Aug-10	43.89	46.25
				Nov-10	44.00	46.14
				Mar-11	42.77	47.37
				Jun-11	41.56	48.58
				Sep-11	42.28	47.86
				Nov-11	42.83	47.31
				Jan-12	42.11	48.03
MW-19A	101.00	91 - 101	91.22	Mar-10	45.43	45.79
				May-10	44.37	46.85
				Aug-10	45.83	45.39
				Nov-10	46.02	45.20
				Mar-11	43.65	47.57
				Jun-11	42.63	48.59
				Sep-11	44.07	47.15
				Nov-11	44.14	47.08
				Jan-12	43.18	48.04
MW-19B1	147.00	137 - 147	91.08	Mar-10	45.55	45.53
				May-10	44.68	46.40
				Aug-10	46.78	44.30
				Nov-10	46.42	44.66
				Mar-11	43.84	47.24
				Jun-11	42.93	48.15
				Sep-11	44.85	46.23
				Nov-11	44.59	46.49
				Jan-12	43.45	47.63

TABLE G-2(b)

GROUNDWATER MONITORING WELL WATER TABLE ELEVATION
MODESTO GROUNDWATER 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-20A	86.00	76 - 86	90.7	Mar-10	45.28	45.42
				May-10	44.08	46.62
				Aug-10	44.97	45.73
				Nov-10	45.79	44.91
				Mar-11	43.40	47.30
				Jun-11	42.28	48.42
				Sep-11	43.35	47.35
				Nov-11	43.74	46.96
				Jan-12	42.84	47.86
MW-20B	162.00	152 - 162	90.65	Mar-10	45.19	45.46
				May-10	44.11	46.54
				Aug-10	45.74	44.91
				Nov-10	45.96	44.69
				Mar-11	43.38	47.27
				Jun-11	42.34	48.31
				Sep-11	43.94	46.71
				Nov-11	44.00	46.65
				Jan-12	42.69	47.96
MW-20C	235.00	225 - 235	90.79	Mar-10	43.84	46.95
				May-10	44.42	46.37
				Aug-10	50.67	40.12
				Nov-10	45.78	45.01
				Mar-11	43.14	47.65
				Jun-11	42.65	48.14
				Sep-11	47.52	43.27
				Nov-11	44.74	46.05
				Jan-12	42.48	48.31
MW-21A	102.00	90 - 100	91.75	Nov-11	45.34	46.41
				Jan-12	44.62	47.13
MW-22A	62.00	50 - 60	91.69	Nov-11	45.36	46.33
				Jan-12	44.20	47.49
MW-23A	102.00	89 - 99	90.26	Nov-11	40.85	49.41
				Jan-12	40.71	49.55
MW-24B	157.00	145 - 155	92.93	Nov-11	45.94	46.99
				Jan-12	44.89	48.04

TABLE G-2(b)

GROUNDWATER MONITORING WELL WATER TABLE ELEVATION
MODESTO GROUNDWATER 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-25B	157.00	145 - 155	91.78	Nov-11	45.40	46.38
				Jan-12	44.27	47.51
MW-26B	157.00	145 - 155	89.71	Nov-11	43.03	46.68
				Jan-12	41.95	47.76
MW-27B	157.00	145 - 155	89.34	Nov-11	42.36	46.98
				Jan-12	41.40	47.94
MW-28B	157.00	145 - 155	89.21	Nov-11	41.40	47.81
				Jan-12	40.62	48.59
MW-29B	157.00	145 - 155	89.74	Nov-11	41.45	48.29
				Jan-12	40.72	49.02

ft bgs - feet below ground surface
MSL - Mean Sea Level
MW - Monitoring Well
NA - Not Applicable
TOC - Top of Casing

TABLE G-3(a)

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**	
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**	

TABLE G-3(a)

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**	
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**	
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	

TABLE G-3(a)

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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)
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	
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	
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	
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)
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	

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Well Identification	Date	pH	PCE (µg/L)	TCE (µg/L)	1,2 - Dichloroethene (µg/L)	Chloroform (µg/L)	Comments:
	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**	
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)

TABLE G-3(a)

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:
	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)
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	
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		

TABLE G-3(a)

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:
	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**	
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	
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	
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**	

TABLE G-3(a)

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:
	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**	
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)
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	

TABLE G-3(a)

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:
	8/24/2004	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**	
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**	

TABLE G-3(a)

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)
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**	
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**	
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	
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**	
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**	

TABLE G-3(a)

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	7.35	**40**	< 0.5	< 0.5[a]	< 0.5	
	11/9/2009	7.32	**51**	< 0.5	< 0.5[a]	< 0.5	
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	
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**	
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**	
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	
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)
	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)
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	
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	

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

TABLE G-3(b)

GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY RESULTS
MODESTO GROUNDWATER SUPERFUND SITE
MODESTO, CALIFORNIA

Well Identification	Sample ID	Date	Sample Code	pH	PCE (µg/L)	TCE (µg/L)
MW-01A	MW-1A-1Q10	03/10/2010	N	7.53	1.9	0.5 U
	MW-1A-2Q10	05/18/2010	N	6.9	2.6	0.5 U
	MW-1A-3Q10	08/24/2010	N	6.92	2.2	0.5 U
	MW-1A-4Q10	11/09/2010	N	7.14	2.0	0.5 U
	MW-1A-1Q11	03/08/2011	N	7.01	2.0	0.5 U
	MW-1A-2Q11	06/07/2011	N	7.1	1.6	0.5 U
	MW-1A-3Q11	09/07/2011	N	7.03	1.7	0.5 U
	MW-1A-4Q11	11/15/2011	N	6.73	1.5	0.5 U
	MW-1A-1Q12	01/31/2012	N	6.76	1.2 J	0.5 U
MW-02A	MW-2A-1Q10	03/09/2010	N	7.13	5.8	0.5 U
	MW-2A-2Q10	05/18/2010	N	7.05	4.6	0.5 U
	MW-2A-3Q10	08/24/2010	N	7.22	5.2	0.5 U
	MW-2A-4Q10	11/09/2010	N	7.24	4.6	0.5 U
	MW-98A-1Q11	03/08/2011	FD	--	4.9 J	0.5 U
	MW-2A-1Q11	03/08/2011	N	7.06	4.8	0.5 U
	MW-2A-2Q11	06/07/2011	N	7.1	5.4	0.5 U
	MW-98A-2Q11	06/07/2011	FD	--	5.3	0.5 U
	MW-2A-3Q11	09/07/2011	N	7.05	5.6	0.5 U
	MW-2A-4Q11	11/15/2011	N	6.76	5.5	0.5 U
	MW-2A-1Q12	01/31/2012	N	6.77	3.8	0.5 U
MW-03A	MW-3A-1Q10	03/11/2010	N	7.06	42	0.5 U
	MW-3A-2Q10	05/19/2010	N	7	42	0.5 U
	MW-97A-3Q10	08/26/2010	FD	--	120	0.5 U
	MW-3A-3Q10	08/26/2010	N	6.58	150	0.5 U
	MW-3A-4Q10	11/11/2010	N	7.07	37	0.5 U
	MW-3A-1Q11	03/11/2011	N	6.83	39	0.5 U
	MW-3A-2Q11	06/09/2011	N	6.94	52	0.5 U
	MW-3A-3Q11	09/07/2011	N	6.84	79	0.5 U
	MW-3A-4Q11	11/17/2011	N	7.21	61 J+	0.5 U
	MW-3A-1Q12	02/03/2012	N	7.21	47	0.5 U
MW-04A	MW-4A-1Q10	03/10/2010	N	7.82	510	0.4 J
	MW-4A-2Q10	05/19/2010	N	6.85	1900	10 U
	MW-4A-3Q10	08/25/2010	N	6.96	2100	12 U
	MW-4A-4Q10	11/10/2010	N	7.2	1500	2.5 U
	MW-4A-1Q11	03/09/2011	N	7.11	860	5.0 U
	MW-4A-2Q11	06/08/2011	N	7.24	300	1.0
	MW-4A-3Q11	09/06/2011	N	7.1	1800	1.7
	MW-4A-4Q11	11/15/2011	N	6.79	2200	1.3
	MW-4A-1Q12	02/01/2012	N	7.09	130	7.2
	MW-96A-1Q12	02/01/2012	FD	--	95	6.7
MW-04B	MW-96B-1Q10	03/11/2010	FD	--	5.2	0.5 U
	MW-4B-1Q10	03/11/2010	N	7.41	5.2	0.5 U
	MW-4B-2Q10	05/19/2010	N	7.31	6.5	0.5 U
	MW-4B-3Q10	08/25/2010	N	7.65	4.5	0.5 U
	MW-4B-4Q10	11/09/2010	N	7.26	14	0.5 U
	MW-4B-1Q11	03/09/2011	N	6.96	2.0	0.5 U
	MW-4B-2Q11	06/07/2011	N	7.25	2.8	0.5 U

TABLE G-3(b)

GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY RESULTS
MODESTO GROUNDWATER SUPERFUND SITE
MODESTO, CALIFORNIA

Well Identification	Sample ID	Date	Sample Code	pH	PCE (µg/L)	TCE (µg/L)
	MW-4B-3Q11	09/07/2011	N	7.19	16	0.5 U
	MW-96B-3Q11	09/07/2011	FD	--	14	0.5 U
	MW-4B-4Q11	11/16/2011	N	7.56	24	0.5 U
	MW-4B-1Q12	02/02/2012	N	7.58	7.7	0.5 U
MW-04C	MW-4C-1Q10	03/11/2010	N	7.68	0.4 J	0.5 U
	MW-4C-2Q10	05/18/2010	N	7.66	0.5 U	0.5 U
	MW-4C-3Q10	08/24/2010	N	7.76	0.5 U	0.5 U
	MW-4C-4Q10	11/09/2010	N	7.3	0.5 U	0.5 U
	MW-4C-1Q11	03/09/2011	N	7.07	0.5 U	0.5 U
	MW-4C-2Q11	06/07/2011	N	7.5	0.5 U	0.5 U
	MW-4C-3Q11	09/07/2011	N	7.45	0.9	0.5 U
	MW-4C-4Q11	11/16/2011	N	7.998	0.5 U	0.5 U
	MW-4C-1Q12	02/02/2012	N	8.03	0.5 U	0.5 U
MW-05A	MW-5A-1Q10	03/09/2010	N	7.6	210	0.5 U
	MW-5A-2Q10	05/18/2010	N	7.14	150	0.5 U
	MW-5A-3Q10	08/25/2010	N	6.68	110	0.5 U
	MW-5A-4Q10	11/10/2010	N	7.22	150	0.5 U
	MW-5A-1Q11	03/09/2011	N	7.07	110	0.5 U
	MW-5A-2Q11	06/08/2011	N	7.13	110	0.5 U
	MW-5A-3Q11	09/07/2011	N	6.95	56	0.5 U
	MW-5A-4Q11	11/14/2011	N	7.08	87	4.2 U
	MW-5A-4Q11-60	12/05/2011	N	--	100	6.3 U
	MW-5A-4Q11-65	12/05/2011	N	--	120	8.3 U
	MW-5A-4Q11-70	12/05/2011	N	--	160	0.50 U
	MW-5A-4Q11-75	12/05/2011	N	--	130	8.3 U
	MW-5A-4Q11-80	12/05/2011	N	--	120	8.3 U
	MW-5A-4Q11-85	12/05/2011	N	--	180	13 U
	MW-5A-1Q12	01/31/2012	N	6.87	120	0.5 U
MW-06A	MW-6A-1Q10	03/09/2010	N	7.21	48	0.5 U
	MW-6A-2Q10	05/18/2010	N	7.31	7.9	0.5 U
	MW-6A-3Q10	08/24/2010	N	7.35	6.0	0.5 U
	MW-6A-4Q10	11/10/2010	N	7.35	6.5	0.5 U
	MW-94A-4Q10	11/10/2010	FD	--	6.5	0.5 U
	MW-6A-1Q11	03/08/2011	N	7.17	42	0.5 U
	MW-6A-2Q11	06/08/2011	N	7.21	5.6	0.5 U
	MW-6A-3Q11	09/06/2011	N	7.19	6.7	0.5 U
	MW-6A-4Q11	11/15/2011	N	6.89	6.8	0.50 U
	MW-6A-4Q11-59	12/05/2011	N	--	8.5	0.50 U
	MW-6A-4Q11-64	12/05/2011	N	--	7.2	0.50 U
	MW-6A-4Q11-69	12/05/2011	N	--	7.3	0.50 U
	MW-94A-4Q11-69	12/05/2011	FD	--	6.8	0.50 U
	MW-6A-4Q11-74	12/05/2011	N	--	7.5	0.50 U
	MW-6A-1Q12	02/01/2012	N	7	5.8	0.5 U
MW-07A	MW-7A-1Q10	03/08/2010	N	6.91	0.3 J	0.5 U
	MW-7A-2Q10	05/17/2010	N	6.95	0.5 U	0.5 U
	MW-7A-3Q10	08/24/2010	N	6.66	0.5 U	0.5 U
	MW-7A-4Q10	11/09/2010	N	7.01	0.5 U	0.5 U

TABLE G-3(b)

GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY RESULTS
MODESTO GROUNDWATER SUPERFUND SITE
MODESTO, CALIFORNIA

Well Identification	Sample ID	Date	Sample Code	pH	PCE (µg/L)	TCE (µg/L)
	MW-7A-1Q11	03/08/2011	N	6.87	0.6	0.5 U
	MW-7A-2Q11	06/07/2011	N	6.99	0.5 U	0.5 U
	MW-7A-3Q11	09/06/2011	N	6.99	0.5 U	0.5 U
	MW-7A-4Q11	11/14/2011	N	7.01	0.14 J	0.50 U
	MW-7A-4Q11-60	12/05/2011	N	--	0.11 J	0.50 U
	MW-7A-4Q11-65	12/05/2011	N	--	0.095 J	0.50 U
	MW-7A-4Q11-70	12/05/2011	N	--	0.50 U	0.50 U
	MW-7A-4Q11-75	12/05/2011	N	--	0.50 U	0.50 U
	MW-7A-4Q11-80	12/05/2011	N	--	0.11 J	0.50 U
	MW-7A-4Q11-85	12/05/2011	N	--	0.14 J	0.50 U
	MW-7A-1Q12	02/01/2012	N	6.81	0.5 U	0.5 U
MW-08A	MW-8A-1Q10	03/09/2010	N	6.72	46	0.5 U
	MW-8A-2Q10	05/18/2010	N	7.08	39	0.5 U
	MW-92A-2Q10	05/18/2010	FD	--	36	0.5 U
	MW-8A-3Q10	08/25/2010	N	6.7	20	0.5 U
	MW-8A-4Q10	11/10/2010	N	7.14	29	0.5 U
	MW-8A-1Q11	03/09/2011	N	7.06	40	0.5 U
	MW-8A-2Q11	06/07/2011	N	7.09	43	0.5 U
	MW-8A-3Q11	09/07/2011	N	7.02	18	0.5 U
	MW-8A-4Q11	11/14/2011	N	7.06	23	1.0 U
	MW-92A-4Q11	11/14/2011	FD	--	20	0.50 U
	MW-8A-4Q11-60	12/06/2011	N	--	26	1.3 U
	MW-8A-4Q11-65	12/06/2011	N	--	25	1.3 U
	MW-8A-4Q11-70	12/06/2011	N	--	30	1.6 U
	MW-8A-4Q11-75	12/06/2011	N	--	30	1.6 U
	MW-8A-4Q11-80	12/06/2011	N	--	27	0.50 U
	MW-92A-4Q11-80	12/06/2011	FD	--	28	0.50 U
	MW-8A-4Q11-85	12/06/2011	N	--	21	0.50 U
	MW-8A-1Q12	01/31/2012	N	6.75	25	0.5 U
MW-09B	MW-9B-1Q10	03/09/2010	N	6.96	1.0	0.5 U
	MW-9B-2Q10	05/17/2010	N	7.41	3.6	0.5 U
	MW-91B-3Q10	08/24/2010	FD	--	17	0.5 U
	MW-9B-3Q10	08/24/2010	N	7.42	17	0.5 U
	MW-9B-4Q10	11/10/2010	N	7.51	4.4	0.5 U
	MW-9B-1Q11	03/08/2011	N	7.52	1.7	0.5 U
	MW-9B-2Q11	06/07/2011	N	7.58	2.3	0.5 U
	MW-9B-3Q11	09/07/2011	N	7.21	12	0.5 U
	MW-9B-4Q11	11/15/2011	N	7.1	6.1	0.5 U
	MW-91B-4Q11	11/15/2011	FD	--	6.4	0.5 U
	MW-9B-1Q12	01/31/2012	N	7.15	4.1	0.5 U
MW-10A	MW-10A-1Q10	03/09/2010	N	7.05	210	0.5 U
	MW-10A-2Q10	05/19/2010	N	6.54	110	0.5 U
	MW-10A-3Q10	08/25/2010	N	6.69	130	0.5 U
	MW-10A-4Q10	11/10/2010	N	7.1	44	0.5 U
	MW-10A-1Q11	03/09/2011	N	6.96	130	0.2 J
	MW-10A-2Q11	06/08/2011	N	7.05	63	0.5 U
	MW-10A-3Q11	09/06/2011	N	7.03	52	0.5 U

TABLE G-3(b)

GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY RESULTS
MODESTO GROUNDWATER SUPERFUND SITE
MODESTO, CALIFORNIA

Well Identification	Sample ID	Date	Sample Code	pH	PCE (µg/L)	TCE (µg/L)
	MW-10A-4Q11	11/15/2011	N	6.71	36	0.50 U
	MW-10A-4Q11-59	12/05/2011	N	--	8.9	0.50 U
	MW-90A-4Q11-59	12/05/2011	FD	--	9.3	0.50 U
	MW-10A-4Q11-64	12/05/2011	N	--	9.9	0.50 U
	MW-10A-4Q11-69	12/05/2011	N	--	15	0.50 U
	MW-10A-4Q11-74	12/05/2011	N	--	25	0.50 U
	MW-10A-4Q11-79	12/05/2011	N	--	57	0.50 U
	MW-10A-4Q11-84	12/05/2011	N	--	99	6.3 U
	MW-10A-1Q12	02/01/2012	N	6.79	34	0.5 U
MW-10B	MW-10B-1Q10	03/11/2010	N	7.48	18	0.5 U
	MW-10B-2Q10	05/19/2010	N	7.38	18	0.5 U
	MW-10B-3Q10	08/25/2010	N	7.63	9.4	0.5 U
	MW-10B-4Q10	11/11/2010	N	7.26	25	0.5 U
	MW-90B-1Q11	03/09/2011	FD	--	16	0.5 U
	MW-10B-1Q11	03/09/2011	N	7.02	16	0.5 U
	MW-10B-2Q11	06/08/2011	N	7.17	14	0.5 U
	MW-90B-2Q11	06/08/2011	FD	--	15	0.5 U
	MW-402-3Q11	09/08/2011	FB	--	0.5 U	0.5 U
	MW-10B-3Q11	09/08/2011	N	7.17	18	0.5 U
	MW-10B-4Q11	11/14/2011	N	7.6	17	0.5 U
	MW-10B-1Q12	01/30/2012	N	7.43	14	0.5 U
MW-10C	MW-10C-1Q10	03/11/2010	N	7.72	0.3 J	0.5 U
	MW-90C-1Q10	03/11/2010	FD	--	0.4 J	0.5 U
	MW-10C-2Q10	05/18/2010	N	7.72	0.5 U	0.5 U
	MW-10C-3Q10	08/24/2010	N	7.79	0.5 U	0.5 U
	MW-10C-4Q10	11/12/2010	N	7.56	0.5 U	0.5 U
	MW-90C-4Q10	11/12/2010	FD	--	0.5 U	0.5 U
	MW-10C-1Q11	03/09/2011	N	7.2	0.5 U	0.5 U
	MW-10C-2Q11	06/08/2011	N	7.47	0.5 U	0.5 U
	MW-10C-3Q11	09/08/2011	N	7.44	0.5 U	0.5 U
	MW-10C-4Q11	11/14/2011	N	7.92	0.5 U	0.5 U
	MW-10C-1Q12	01/31/2012	N	8.06	0.5 U	0.5 U
MW-11A	MW-11A-1Q10	03/09/2010	N	7.33	1.3	0.5 U
	MW-11A-2Q10	05/18/2010	N	6.67	2.3	0.5 U
	MW-11A-3Q10	08/24/2010	N	6.85	1.2	0.5 U
	MW-11A-4Q10	11/09/2010	N	7.1	1.3	0.5 U
	MW-11A-1Q11	03/08/2011	N	6.94	2.7	0.5 U
	MW-11A-2Q11	06/07/2011	N	7.05	3.4	0.5 U
	MW-11A-3Q11	09/06/2011	N	7.06	1.1	0.5 U
	MW-11A-4Q11	11/14/2011	N	7.04	1.3	0.50 U
	MW-11A-4Q11-70	12/05/2011	N	--	2.5	0.50 U
	MW-11A-4Q11-75	12/05/2011	N	--	0.90	0.50 U
	MW-11A-4Q11-80	12/05/2011	N	--	0.89	0.50 U
	MW-11A-4Q11-85	12/05/2011	N	--	0.91	0.50 U
	MW-11A-1Q12	01/31/2012	N	6.75	1.8	0.5 U
MW-12A	MW-12A-1Q10	03/10/2010	N	7.67	20	0.5 U
	MW-12A-2Q10	05/18/2010	N	7.24	18	0.5 U

TABLE G-3(b)

GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY RESULTS
MODESTO GROUNDWATER SUPERFUND SITE
MODESTO, CALIFORNIA

Well Identification	Sample ID	Date	Sample Code	pH	PCE (µg/L)	TCE (µg/L)
	MW-12A-3Q10	08/25/2010	N	6.68	24	0.5 U
	MW-12A-4Q10	11/10/2010	N	7.32	23	0.5 U
	MW-12A-1Q11	03/09/2011	N	7.11	21	0.5 U
	MW-12A-2Q11	06/07/2011	N	7.19	17	0.5 U
	MW-12A-3Q11	09/07/2011	N	7.2	23	0.5 U
	MW-12A-4Q11	11/15/2011	N	6.89	23	0.5 U
	MW-88A-1Q12	01/31/2012	FD	--	15	0.5 U
	MW-12A-1Q12	01/31/2012	N	6.87	16	0.5 U
MW-13A	MW-13A-1Q10	03/09/2010	N	7.02	16	0.5 U
	MW-13A-2Q10	05/18/2010	N	6.91	18	0.5 U
	MW-87A-2Q10	05/18/2010	FD	--	16	0.5 U
	MW-13A-3Q10	08/25/2010	N	6.75	2.9	0.5 U
	MW-13A-4Q10	11/09/2010	N	7.13	2.8	0.5 U
	MW-13A-1Q11	03/08/2011	N	6.97	16	0.5 U
	MW-13A-2Q11	06/07/2011	N	7.04	11	0.5 U
	MW-13A-3Q11	09/06/2011	N	7.08	2.6	0.5 U
	MW-13A-4Q11	11/15/2011	N	6.7	2.3	0.50 U
	MW-13A-4Q11-77	12/05/2011	N	--	1.3	0.50 U
	MW-13A-4Q11-82	12/05/2011	N	--	1.4	0.50 U
	MW-13A-4Q11-87	12/05/2011	N	--	2.1	0.50 U
	MW-13A-4Q11-92	12/05/2011	N	--	1.9	0.50 U
	MW-13A-1Q12	02/01/2012	N	6.75	4.5	0.5 U
MW-14A	MW-14A-1Q10	03/09/2010	N	7.11	17	0.5 U
	MW-14A-2Q10	05/18/2010	N	6.99	16	0.5 U
	MW-14A-3Q10	08/24/2010	N	6.84	2.0	0.5 U
	MW-14A-4Q10	11/09/2010	N	7.02	9.1	0.5 U
	MW-14A-1Q11	03/08/2011	N	7.01	24	0.5 U
	MW-14A-2Q11	06/08/2011	N	7.16	21	0.5 U
	MW-14A-3Q11	09/06/2011	N	7	2.4	0.5 U
	MW-86A-3Q11	09/06/2011	FD	--	2.3	0.5 U
	MW-14A-4Q11	11/14/2011	N	7.01	6.6	0.50 U
	MW-14A-4Q11-69	12/06/2011	N	--	17	0.84 U
	MW-14A-4Q11-74	12/06/2011	N	--	18	0.84 U
	MW-14A-4Q11-79	12/06/2011	N	--	19	0.50 U
	MW-86A-4Q11-79	12/06/2011	FD	--	20	0.50 U
	MW-14A-4Q11-84	12/06/2011	N	--	22	0.50 U
	MW-14A-1Q12	01/31/2012	N	6.75	23	0.5 U
MW-15A	MW-15A-1Q10	03/08/2010	N	6.98	0.5 U	0.5 U
	MW-15A-2Q10	05/17/2010	N	6.92	0.5 U	0.5 U
	MW-15A-3Q10	08/24/2010	N	6.65	0.2 J	0.5 U
	MW-15A-4Q10	11/08/2010	N	6.96	0.5 U	0.5 U
	MW-15A-1Q11	03/07/2011	N	6.99	0.5 U	0.5 U
	MW-15A-2Q11	06/06/2011	N	7.06	0.25 J	0.5 U
	MW-15A-3Q11	09/06/2011	N	7.07	0.5 U	0.5 U
	MW-15A-4Q11	11/14/2011	N	7.02	0.23 J	0.50 U
	MW-15A-4Q11-80	12/05/2011	N	--	0.50 U	0.50 U
	MW-15A-4Q11-85	12/05/2011	N	--	0.50 U	0.50 U

TABLE G-3(b)

GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY RESULTS
MODESTO GROUNDWATER SUPERFUND SITE
MODESTO, CALIFORNIA

Well Identification	Sample ID	Date	Sample Code	pH	PCE (µg/L)	TCE (µg/L)
	MW-15A-4Q11-90	12/05/2011	N	--	0.50 U	0.50 U
	MW-15A-4Q11-95	12/05/2011	N	--	0.50 U	0.50 U
	MW-15A-1Q12	02/01/2012	N	6.82	0.5 U	0.5 U
MW-16A	MW-16A-1Q10	03/10/2010	N	6.99	0.5 U	0.5 U
	MW-16A-2Q10	05/17/2010	N	6.85	0.5 U	0.5 U
	MW-16A-3Q10	08/26/2010	N	6.6	0.5 U	0.5 U
	MW-16A-4Q10	11/10/2010	N	6.66	0.5 U	0.5 U
	MW-16A-1Q11	03/08/2011	N	6.95	0.5 U	0.5 U
	MW-16A-2Q11	06/08/2011	N	6.68	0.5 U	0.5 U
	MW-16A-3Q11	09/07/2011	N	6.78	0.5 U	0.5 U
	MW-16A-4Q11	11/15/2011	N	7.09	0.5 U	0.5 U
	MW-16A-1Q12	01/31/2012	N	7.15	0.5 U	0.5 U
MW-16B	MW-16B-1Q10	03/10/2010	N	7.3	4.9	0.5 U
	MW-16B-2Q10	05/19/2010	N	6.94	1.4	0.5 U
	MW-16B-3Q10	08/26/2010	N	6.78	1.8	0.5 U
	MW-16B-4Q10	11/10/2010	N	6.85	4.7	0.5 U
	MW-16B-1Q11	03/08/2011	N	7.14	3.3	0.5 U
	MW-16B-2Q11	06/08/2011	N	6.91	3.5	0.5 U
	MW-16B-3Q11	09/07/2011	N	6.96	7.6	0.5 U
	MW-16B-4Q11	11/15/2011	N	7.18	2.8	0.5 U
	MW-16B-1Q12	01/31/2012	N	730	1.9	0.5 U
MW-16C	MW-16C-1Q10	03/10/2010	N	7.71	0.5 U	0.5 U
	MW-16C-2Q10	05/17/2010	N	7.62	0.5 U	0.5 U
	MW-16C-3Q10	08/26/2010	N	7.37	0.5 U	0.5 U
	MW-16C-4Q10	11/10/2010	N	7.18	0.5 U	0.5 U
	MW-16C-1Q11	03/08/2011	N	7.64	0.5 U	0.5 U
	MW-16C-2Q11	06/08/2011	N	7.33	0.6	0.5 U
	MW-16C-3Q11	09/07/2011	N	7.41	0.6	0.5 U
	MW-16C-4Q11	11/15/2011	N	7.79	0.9	0.5 U
	MW-16C-1Q12	01/31/2012	N	7.95	0.5 U	0.5 U
MW-17A	MW-17A-1Q10	03/10/2010	N	7.5	0.3 J	0.5 U
	MW-17A-2Q10	05/18/2010	N	6.73	0.3 J	0.5 U
	MW-17A-3Q10	08/24/2010	N	6.81	0.5 U	0.5 U
	MW-17A-4Q10	11/10/2010	N	6.63	0.5 U	0.5 U
	MW-17A-1Q11	03/09/2011	N	6.73	0.6	0.5 U
	MW-17A-2Q11	06/09/2011	N	6.74	0.43 J	0.5 U
	MW-17A-3Q11	09/08/2011	N	6.75	0.4 J	0.5 U
	MW-17A-4Q11	11/15/2011	N	7.07	0.5	0.5 U
	MW-83A-4Q11	11/15/2011	FD	--	0.3 J	0.5 U
	MW-17A-1Q12	02/01/2012	N	7.14	0.8	0.5 U
MW-17B	MW-17B-1Q10	03/10/2010	N	7.3	63	0.5 U
	MW-17B-2Q10	05/19/2010	N	7.21	72	0.5 UJ
	MW-17B-3Q10	08/24/2010	N	7.13	90	0.5 U
	MW-17B-4Q10	11/12/2010	N	6.79	32 J	0.5 UJ
	MW-17B-1Q11	03/10/2011	N	6.77	51	0.5 U
	MW-17B-2Q11	06/09/2011	N	6.95	43	0.5 U
	MW-17B-3Q11	09/08/2011	N	6.96	61	0.5 U

TABLE G-3(b)

GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY RESULTS
MODESTO GROUNDWATER SUPERFUND SITE
MODESTO, CALIFORNIA

Well Identification	Sample ID	Date	Sample Code	pH	PCE (µg/L)	TCE (µg/L)
	MW-17B-4Q11	11/15/2011	N	7.34	84	0.5 U
	MW-17B-1Q12	02/01/2012	N	7.44	73	0.5 U
MW-17C	MW-17C-1Q10	03/10/2010	N	7.66	0.5 U	0.5 U
	MW-17C-2Q10	05/18/2010	N	7.54	0.5 U	0.5 U
	MW-83C-3Q10	08/24/2010	FD	--	0.5 U	0.5 U
	MW-17C-3Q10	08/24/2010	N	7.59	0.5 U	0.5 U
	MW-17C-4Q10	11/10/2010	N	7.16	0.5 U	0.5 U
	MW-17C-1Q11	03/10/2011	N	7.01	0.5 U	0.5 U
	MW-17C-2Q11	06/09/2011	N	7.44	0.5 U	0.5 U
	MW-17C-3Q11	09/08/2011	N	7.47	0.5 U	0.5 U
	MW-17C-4Q11	11/15/2011	N	7.95	0.5 U	0.5 U
	MW-17C-1Q12	02/01/2012	N	8.06	0.5 U	0.5 U
MW-18A	MW-18A-1Q10	03/10/2010	N	7.5	4.0	0.5 U
	MW-18A-2Q10	05/19/2010	N	6.69	2.9	0.5 U
	MW-18A-3Q10	08/25/2010	N	7.27	3.4	0.5 U
	MW-18A-4Q10	11/10/2010	N	6.74	3.3	0.5 U
	MW-18A-1Q11	03/11/2011	N	6.57	3.4 J+	0.5 U
	MW-18A-2Q11	06/07/2011	N	6.72	2.9	0.5 U
	MW-18A-3Q11	09/07/2011	N	6.72	3.2	0.5 U
	MW-18A-4Q11	11/15/2011	N	7	3.5	0.5 U
	MW-18A-1Q12	02/02/2012	N	6.94	3.8	0.5 U
MW-19A	MW-19A-1Q10	03/11/2010	N	7.56	0.8	0.5 U
	MW-19A-2Q10	05/18/2010	N	7	0.5 U	0.5 U
	MW-19A-3Q10	08/25/2010	N	7.03	21	0.5 U
	MW-19A-4Q10	11/11/2010	N	7.05	0.5	0.5 U
	MW-19A-1Q11	03/08/2011	N	7.05	0.2 J	0.5 U
	MW-19A-2Q11	06/07/2011	N	6.93	0.5 U	0.5 U
	MW-81A-3Q11	09/06/2011	FD	--	0.5 U	0.5 U
	MW-19A-3Q11	09/06/2011	N	6.91	0.5 U	0.5 U
	MW-19A-4Q11	11/14/2011	N	7.24	0.5 U	0.5 U
	MW-19A-1Q12	01/30/2012	N	7.07	0.5 U	0.5 U
MW-19B1	MW-19B-1Q10	03/11/2010	N	7.62	0.3 J	0.5 U
	MW-19B-2Q10	05/18/2010	N	7.24	0.2 J	0.5 U
	MW-81B-2Q10	05/18/2010	FD	--	0.6	0.5 U
	MW-19B-3Q10	08/25/2010	N	7.29	0.4 J	0.5 U
	MW-81B-4Q10	11/09/2010	FD	--	0.5 U	0.5 U
	MW-19B-4Q10	11/09/2010	N	7.22	0.5 U	0.5 U
	MW-19B-1Q11	03/08/2011	N	7.23	0.3 J	0.5 U
	MW-19B-2Q11	06/07/2011	N	7.12	0.26 J	0.5 U
	MW-19B-3Q11	09/07/2011	N	7.1	0.3 J	0.5 U
	MW-19B-4Q11	11/14/2011	N	7.42	0.3 J	0.5 U
	MW-19B-1Q12	01/30/2012	N	7.18	0.2 J	0.5 U
MW-20A	MW-80A-1Q10	03/11/2010	FD	--	130	0.5 U
	MW-20A-1Q10	03/11/2010	N	7.4	120	0.5 U
	MW-20A-2Q10	05/19/2010	N	7.09	310 J	0.5 U
	MW-20A-3Q10	08/26/2010	N	6.74	28	0.5 U
	MW-20A-4Q10	11/11/2010	N	7.13	180 J	0.5 UJ

TABLE G-3(b)

GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY RESULTS
MODESTO GROUNDWATER SUPERFUND SITE
MODESTO, CALIFORNIA

Well Identification	Sample ID	Date	Sample Code	pH	PCE (µg/L)	TCE (µg/L)
	MW-20A-1Q11	03/10/2011	N	6.74	260	1.0 U
	MW-20A-2Q11	06/10/2011	N	6.89	330	0.24 J
	MW-20A-3Q11	09/13/2011	N	6.88	280	0.3 J
	MW-20A-4Q11	11/17/2011	N	734	290	0.2 J
	MW-20A-1Q12	02/03/2012	N	7.39	270 J	0.2 J
MW-20B	MW-20B-1Q10	03/11/2010	N	7.8	73	0.5 U
	MW-20B-2Q10	05/19/2010	N	7.53	120 J+	0.5 U
	MW-20B-3Q10	08/26/2010	N	7.38	0.5 U	0.5 U
	MW-20B-4Q10	11/11/2010	N	7.4	96	0.5 U
	MW-20B-1Q11	03/10/2011	N	7.1	100	1.0 U
	MW-20B-2Q11	06/09/2011	N	7.31	110	0.5 U
	MW-20B-3Q11	09/13/2011	N	7.27	97	0.5 U
	MW-20B-4Q11	11/16/2011	N	7.77	100	0.5 U
	MW-20B-1Q12	02/03/2012	N	7.8	68	0.5 U
MW-20C	MW-20C-1Q10	03/11/2010	N	8.04	0.5 U	0.5 U
	MW-20C-2Q10	05/18/2010	N	7.56	0.5 U	0.5 U
	MW-20C-3Q10	08/25/2010	N	7.51	140	0.5 U
	MW-20C-4Q10	11/09/2010	N	7.38	0.5 UJ	0.5 R
	MW-20C-1Q11	03/10/2011	N	7.27	0.5 U	0.5 U
	MW-80C-1Q11	03/10/2011	FD	--	0.5 U	0.5 U
	MW-20C-2Q11	06/09/2011	N	7.5	0.5 U	0.5 U
	MW-80C-2Q11	06/09/2011	FD	--	0.5 U	0.5 U
	MW-20C-3Q11	09/13/2011	N	7.26	0.5 U	0.5 U
	MW-20C-4Q11	11/16/2011	N	8.02	0.5 U	0.5 U
	MW-20C-1Q12	02/03/2012	N	7.93	0.5 U	0.5 U
MW-21A	MW-21A-4Q11	11/18/2011	N	7.49	0.8	0.5 U
	MW-21A-1Q12	02/01/2012	N	7.38	1.0	0.5 U
MW-22A	MW-78A-4Q11	11/18/2011	FD	--	0.5 U	0.5 U
	MW-22A-4Q11	11/18/2011	N	7.45	0.5 U	0.5 U
	MW-22A-1Q12	02/01/2012	N	7.45	0.5 U	0.5 U
MW-23A	MW-23A-4Q11	11/17/2011	N	7.43	36	0.5 U
	MW-23A-1Q12	02/01/2012	N	7.33	25	0.5 U
MW-24B	MW-24B-4Q11	11/18/2011	N	7.71	73	0.5 UJ
	MW-24B-1Q12	02/02/2012	N	7.69	74	0.5 U
MW-25B	MW-25B-4Q11	11/18/2011	N	7.71	110	0.5 U
	MW-25B-1Q12	02/01/2012	N	7.8	110	0.5 U
MW-26B	MW-26B-4Q11	11/17/2011	N	7.86	0.2 J	0.5 U
	MW-26B-1Q12	01/31/2012	N	7.87	0.5 U	0.5 U
MW-27B	MW-27B-4Q11	11/17/2011	N	7.9	0.5 U	0.5 U
	MW-27B-1Q12	01/31/2012	N	7.84	0.5 U	0.5 U
MW-28B	MW-28B-4Q11	11/17/2011	N	7.67	49	0.5 U
	MW-28B-1Q12	02/01/2012	N	7.66	41	0.5 U
MW-29B	MW-29B-4Q11	11/17/2011	N	7.71	150	0.5 U
	MW-29B-1Q12	02/02/2012	N	7.65	100	0.5 U
	MW-71B-1Q12	02/02/2012	FD	--	79	0.5 U

TABLE G-3(b)

GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY RESULTS
MODESTO GROUNDWATER SUPERFUND SITE
MODESTO, CALIFORNIA

Well Identification	Sample ID	Date	Sample Code	pH	PCE (µg/L)	TCE (µg/L)

FD	-	field duplicate
N	-	normal sample
J	-	Estimated value
J+	-	Estimated value, high bias
PCE	-	Tetrachloroethlene
R	-	rejected value
TCE	-	Trichloroehtene
U	-	not detected above the method detection limit
UJ	-	estimated reporting limit
µg/L	=	micrograms per liter

FIGURE G-4(a)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

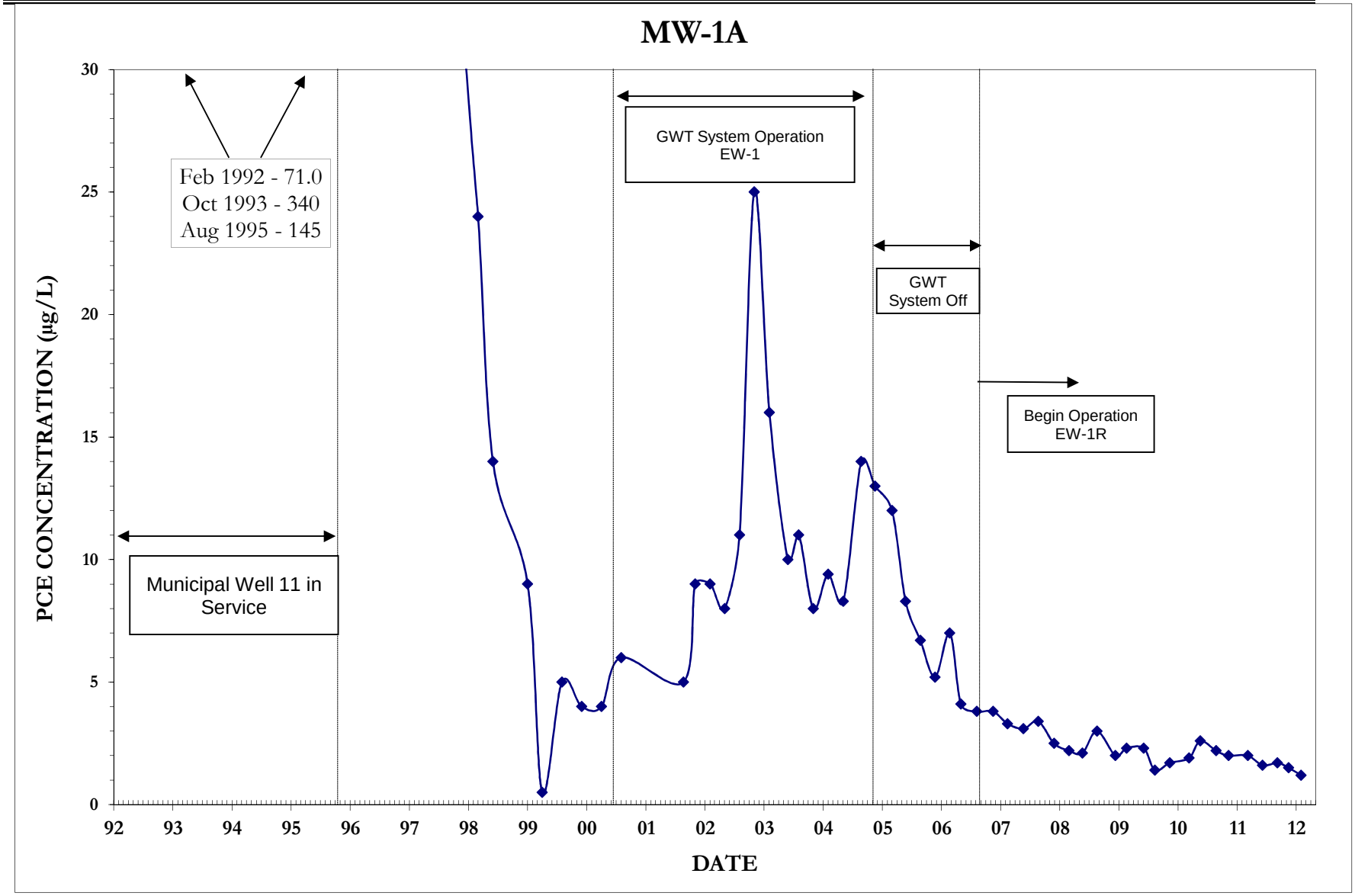

FIGURE G-4(b)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

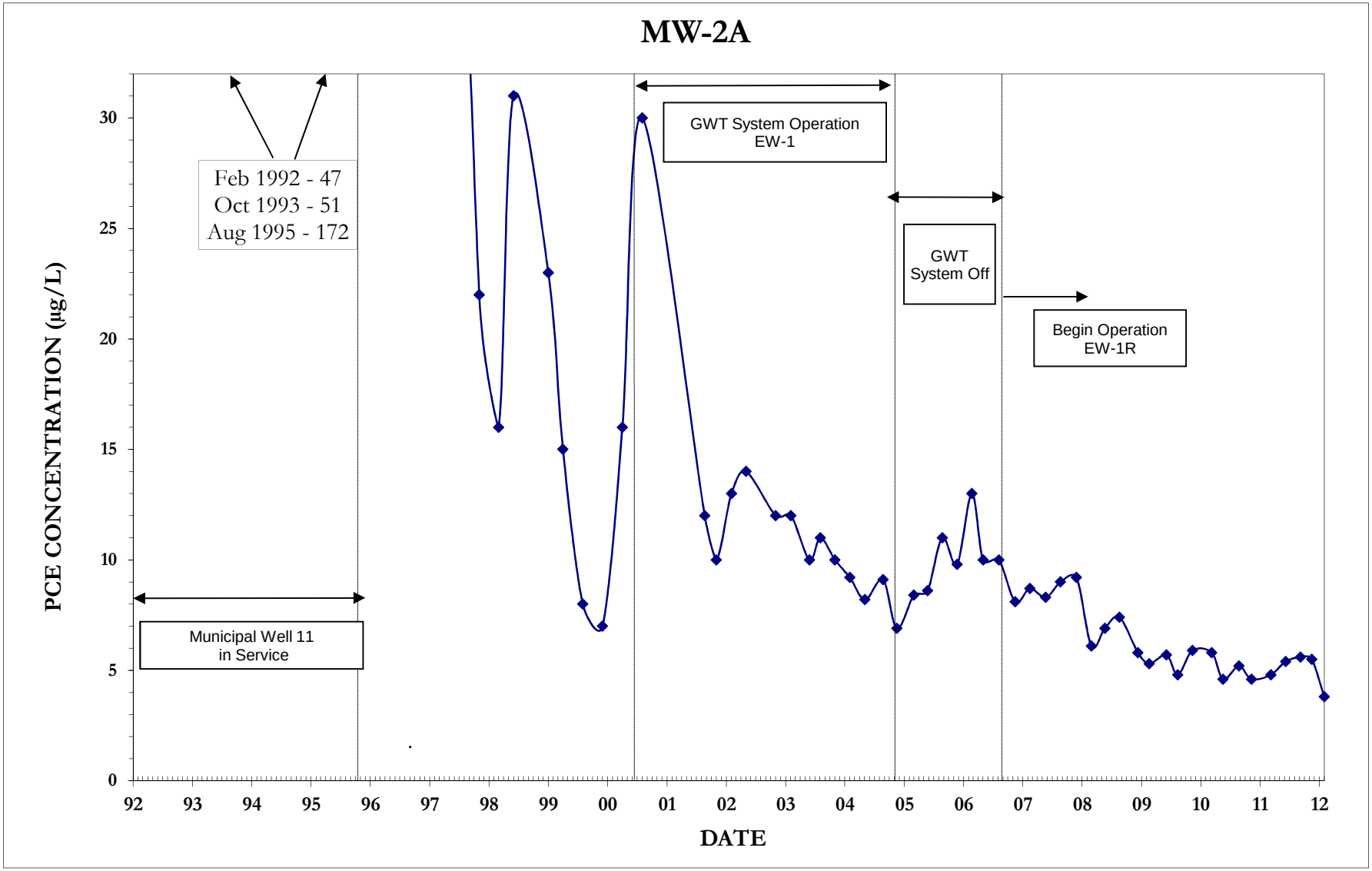

FIGURE G-4(c)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

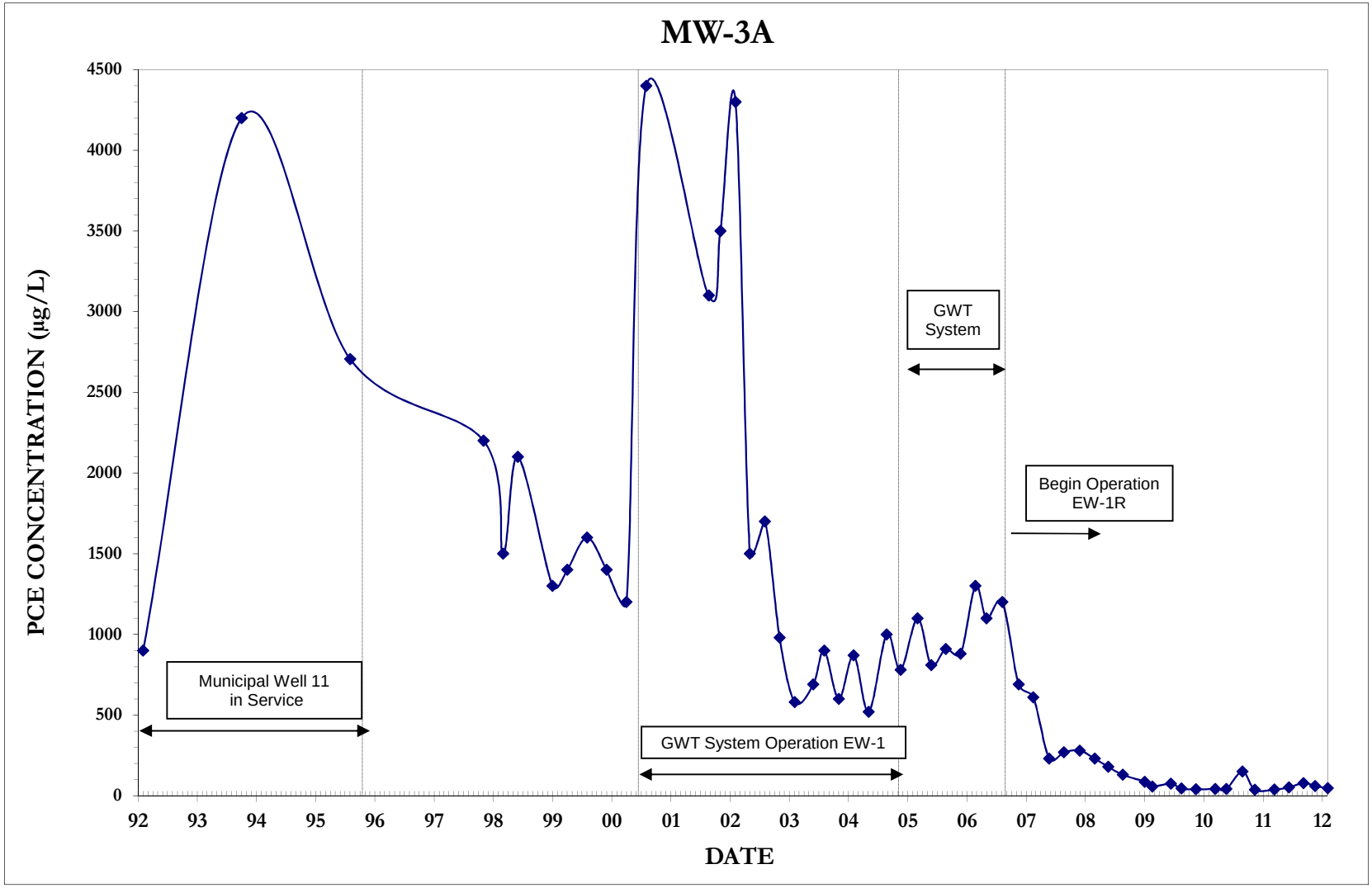

FIGURE G-4(d)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

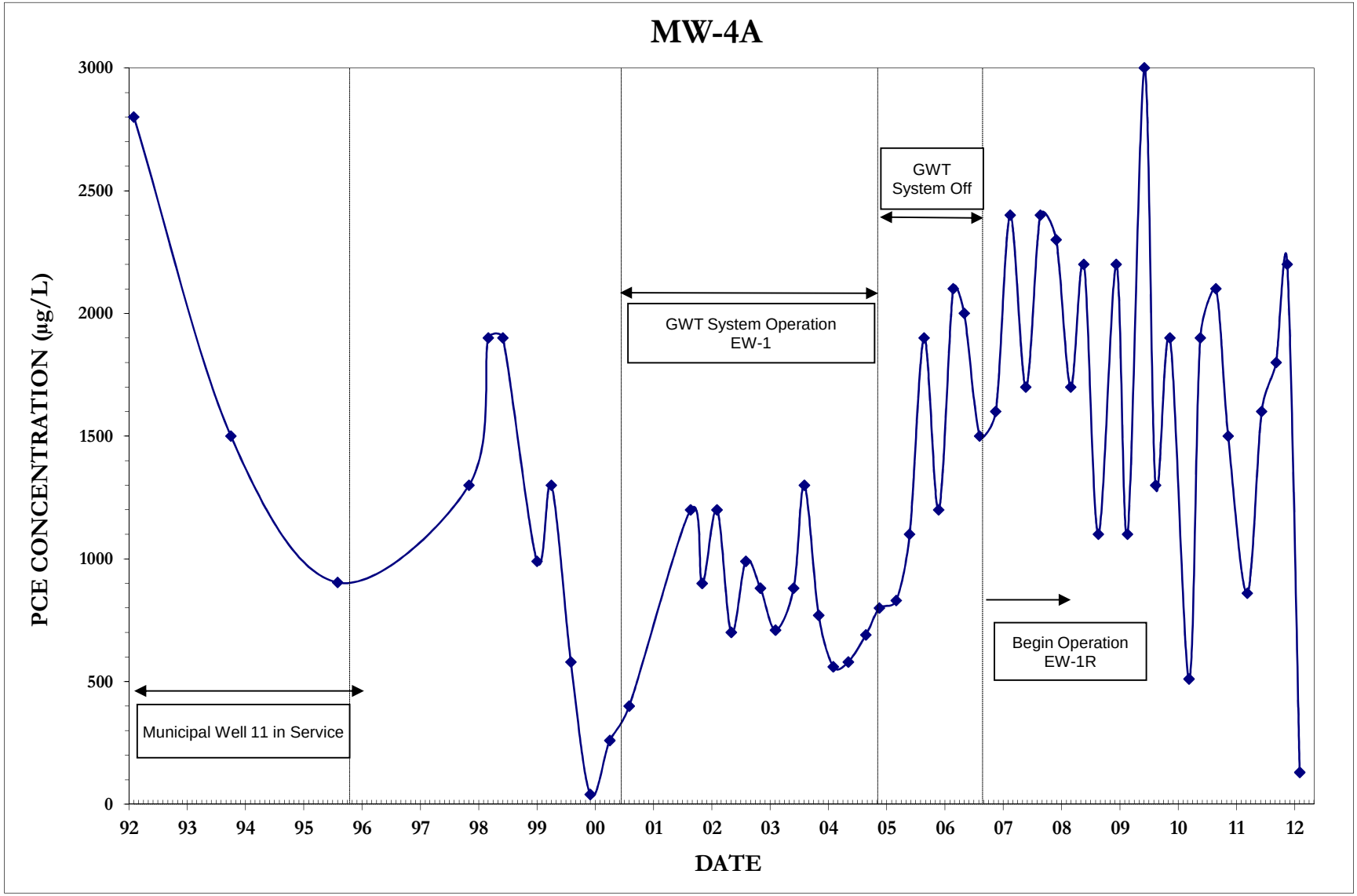

FIGURE G-4(e)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

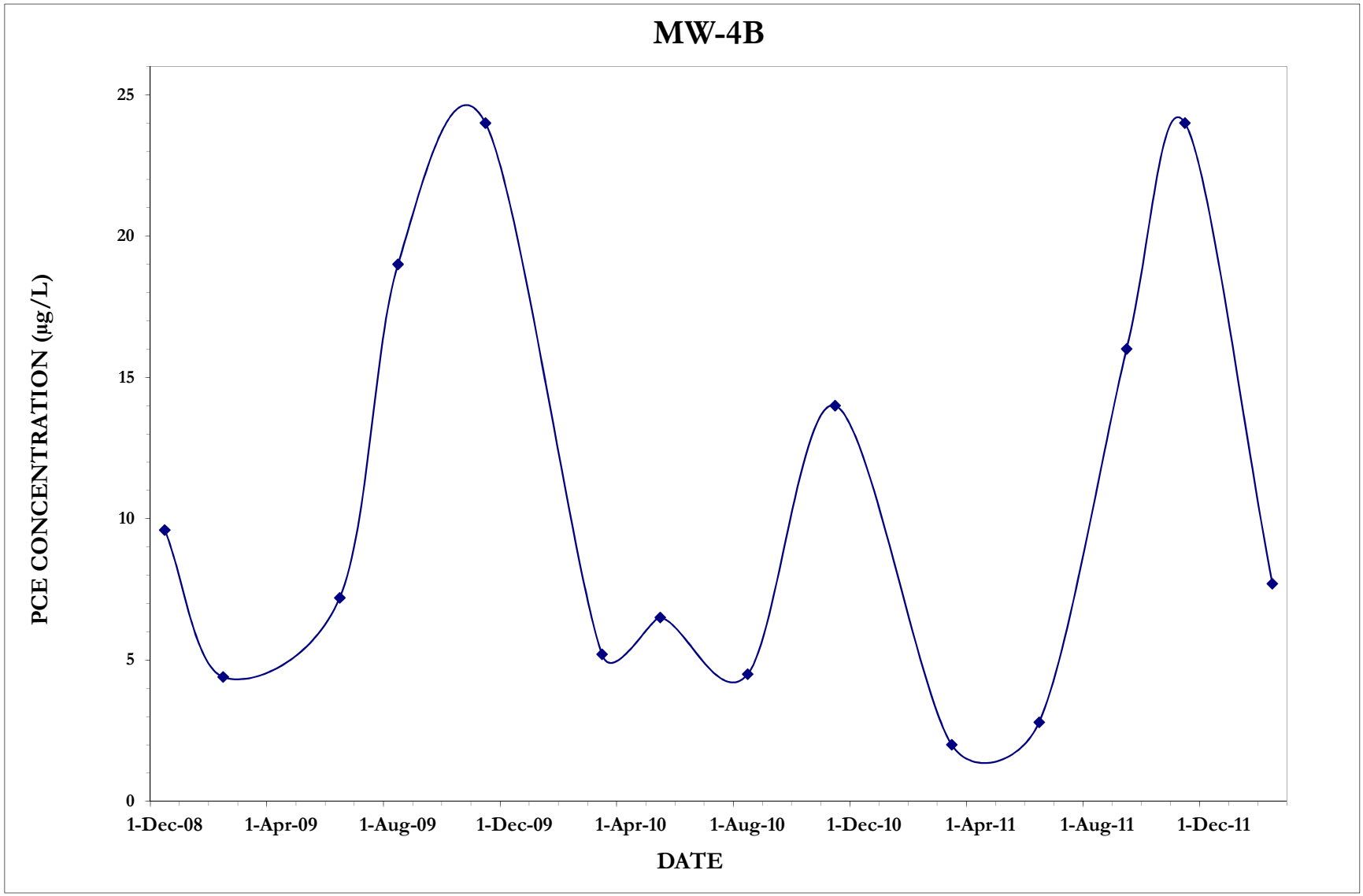

FIGURE G-4(f)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

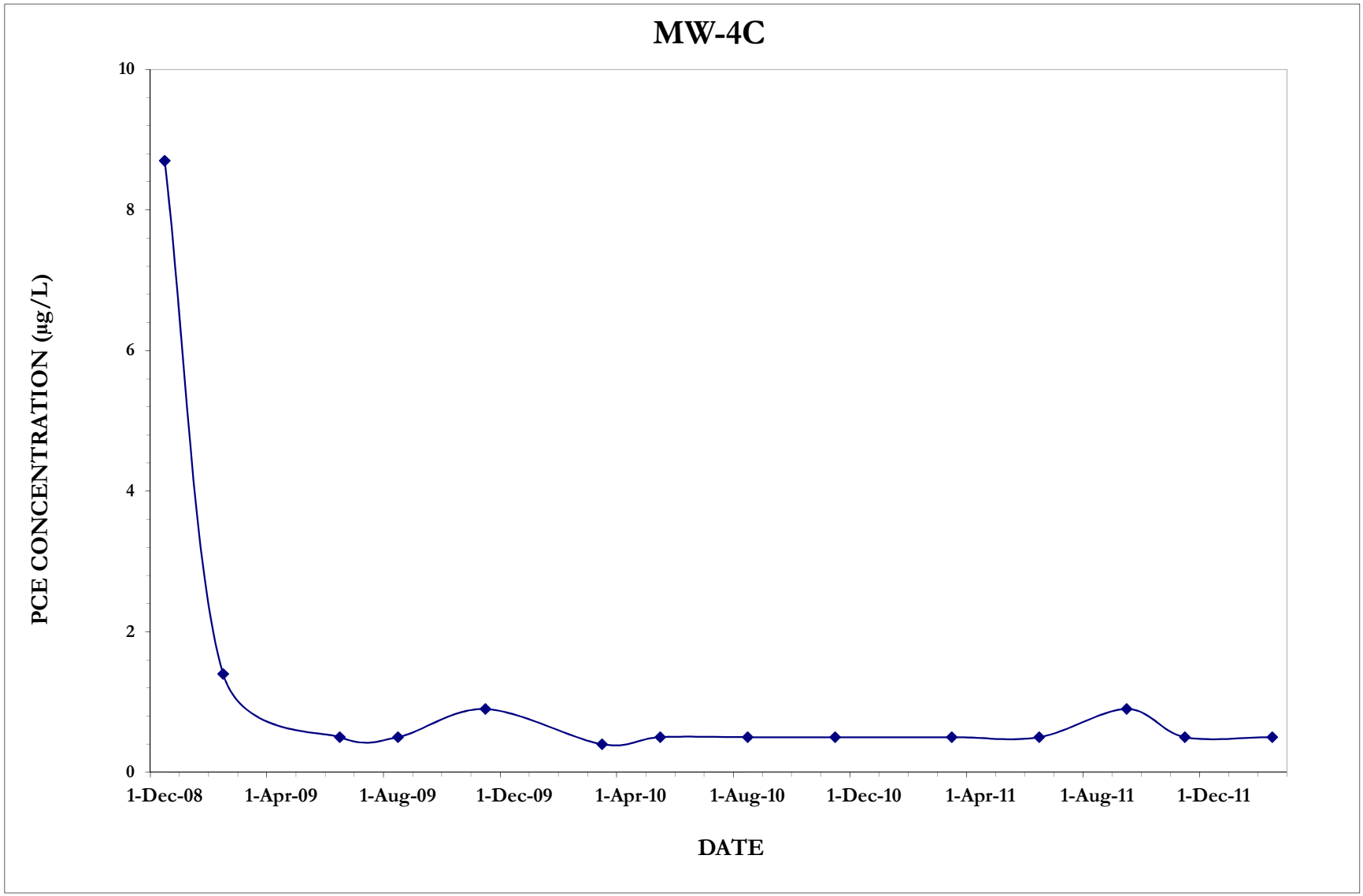

FIGURE G-4(g)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

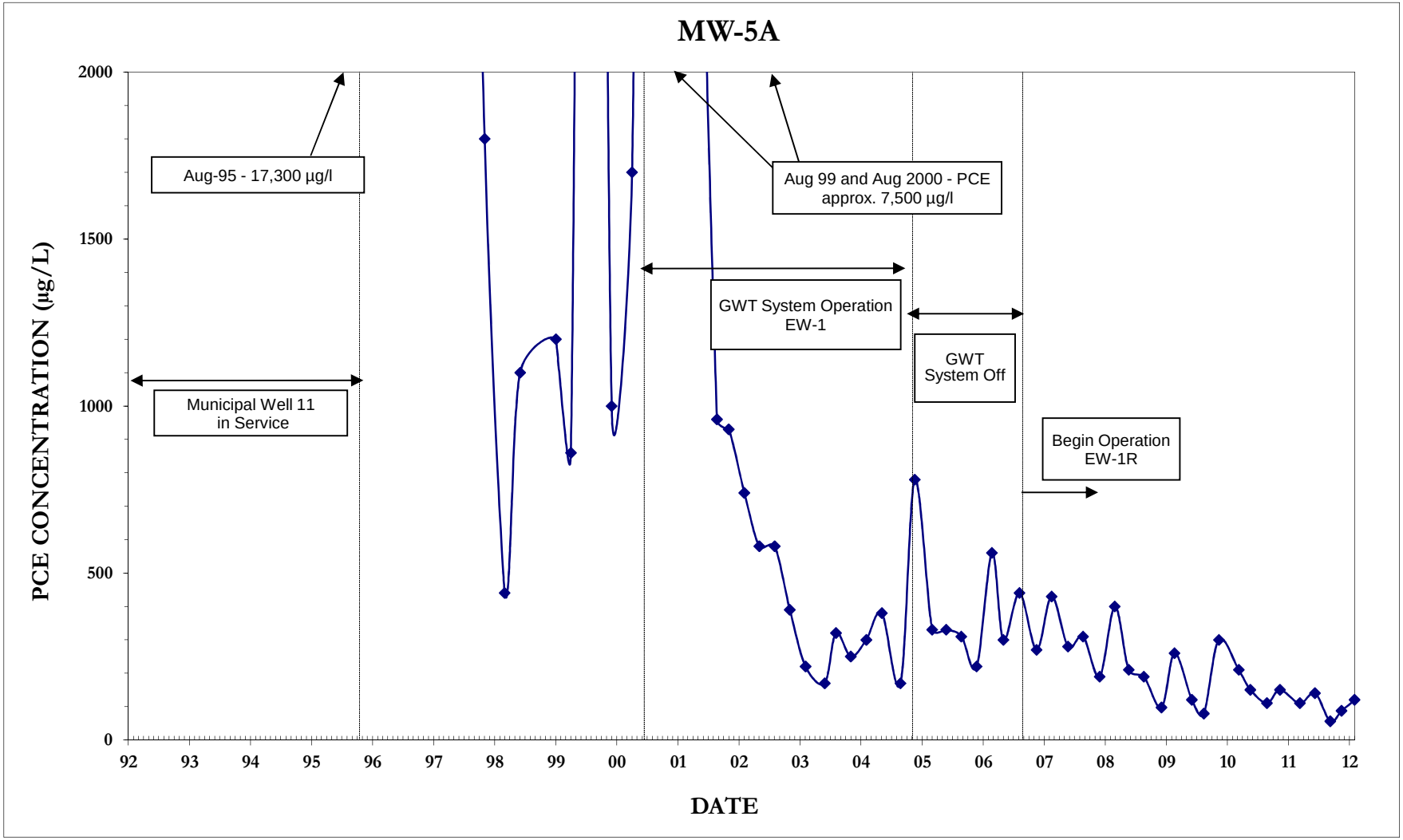

FIGURE G-4(h)

HISTORICAL PCE CONCENTRATION IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

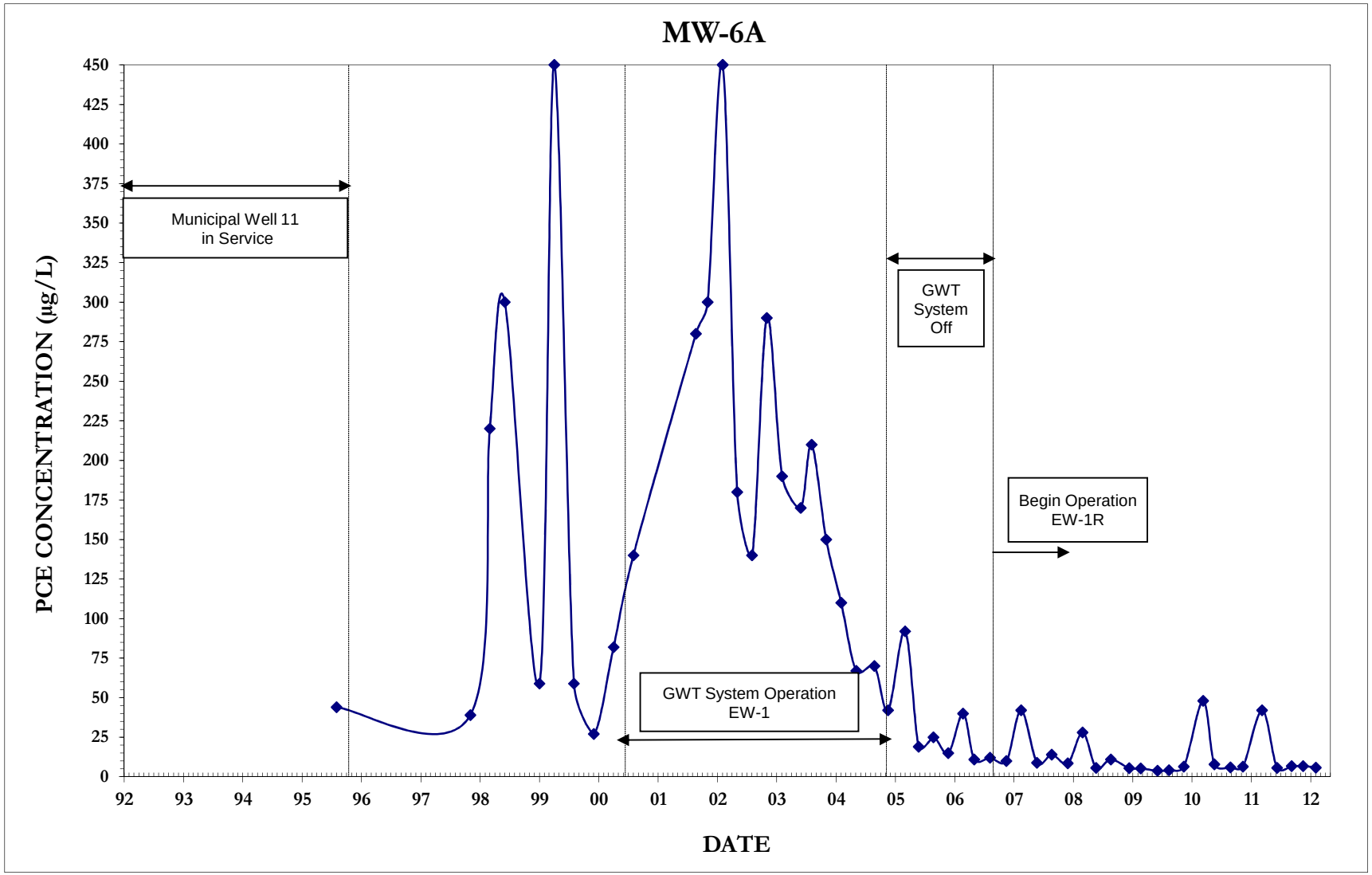

FIGURE G-4(i)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

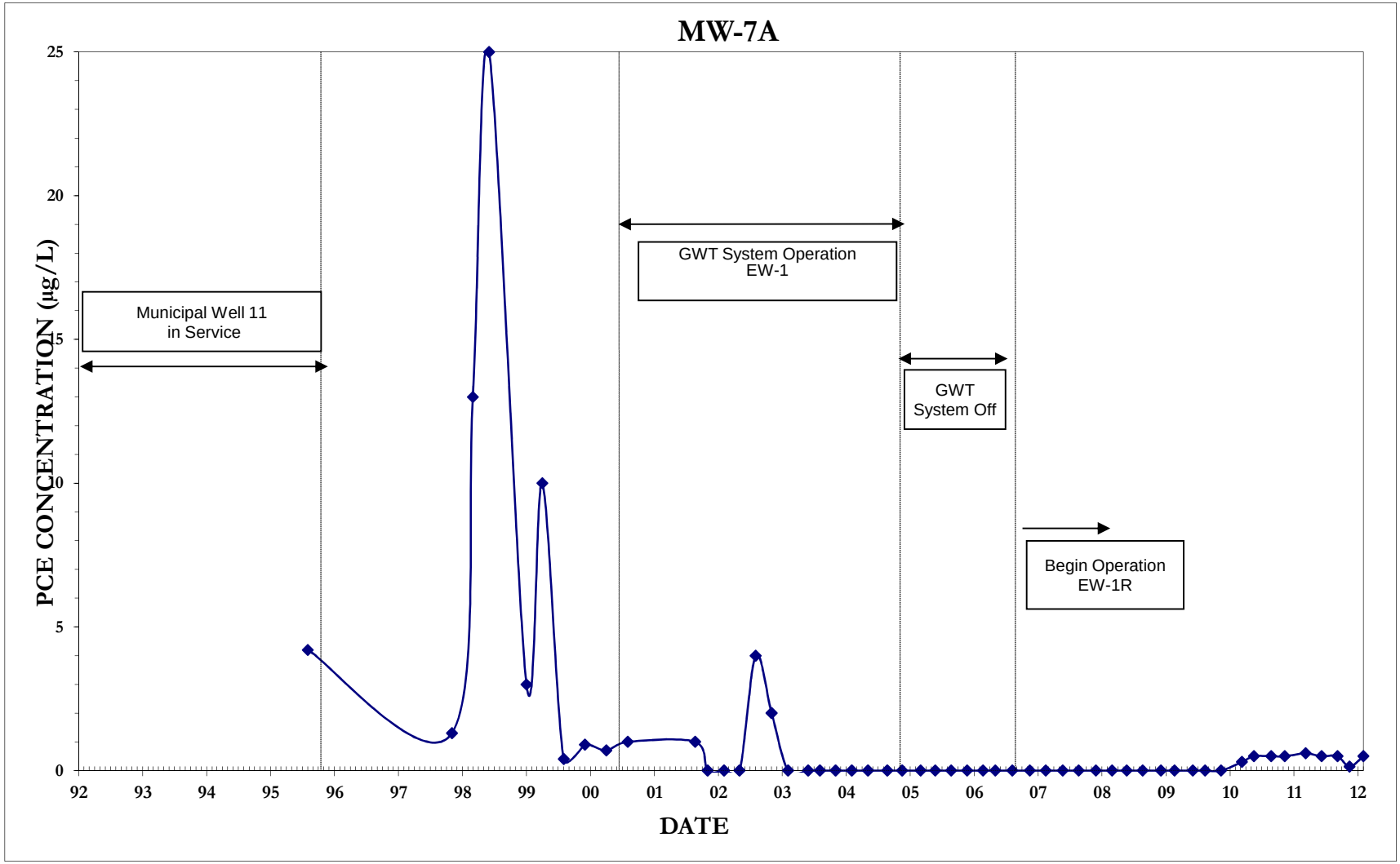

FIGURE G-4(j)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

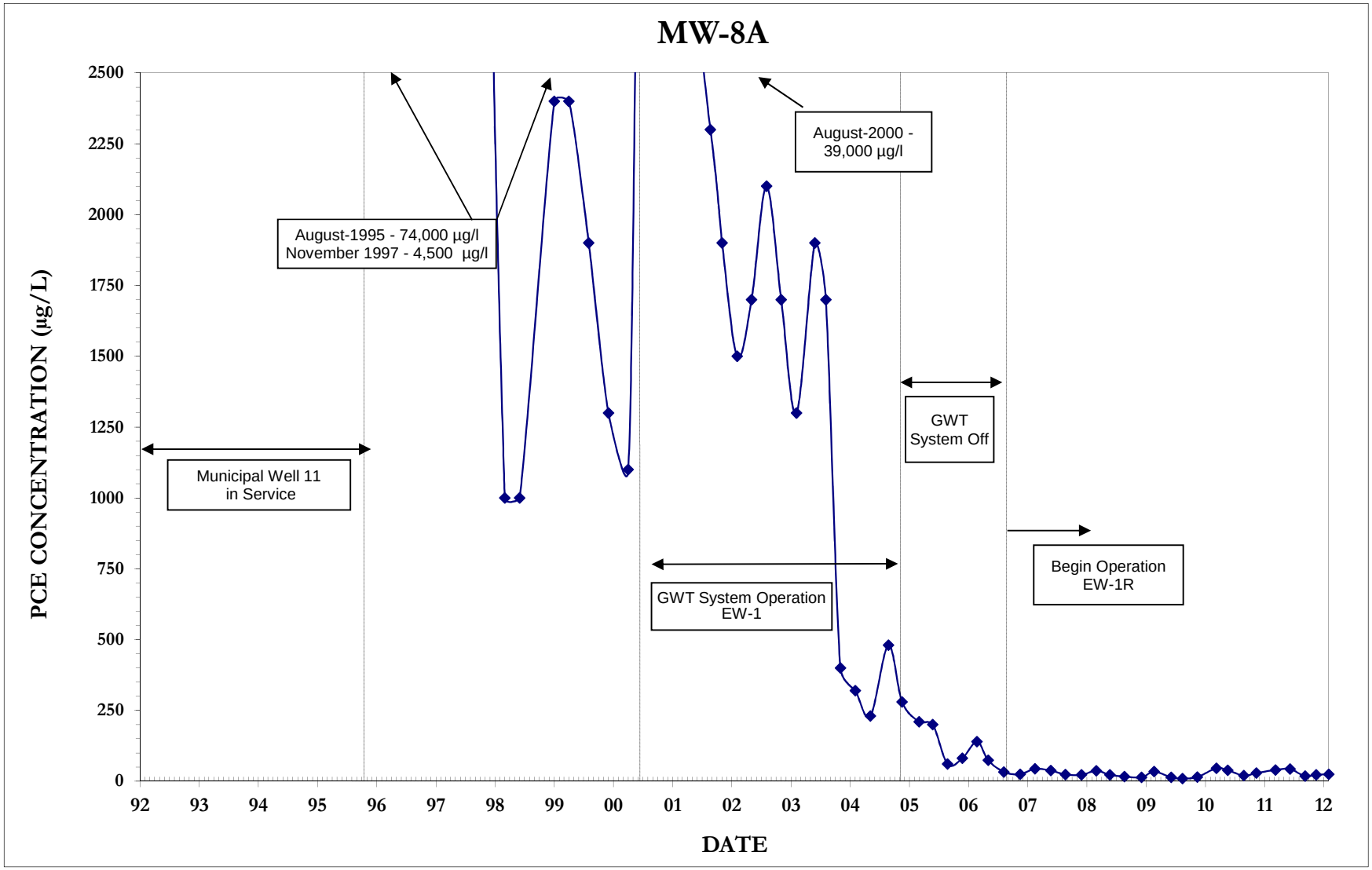

FIGURE G-4(k)

HISTORICAL PCE CONCENTRATIONS IN GROUDNWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

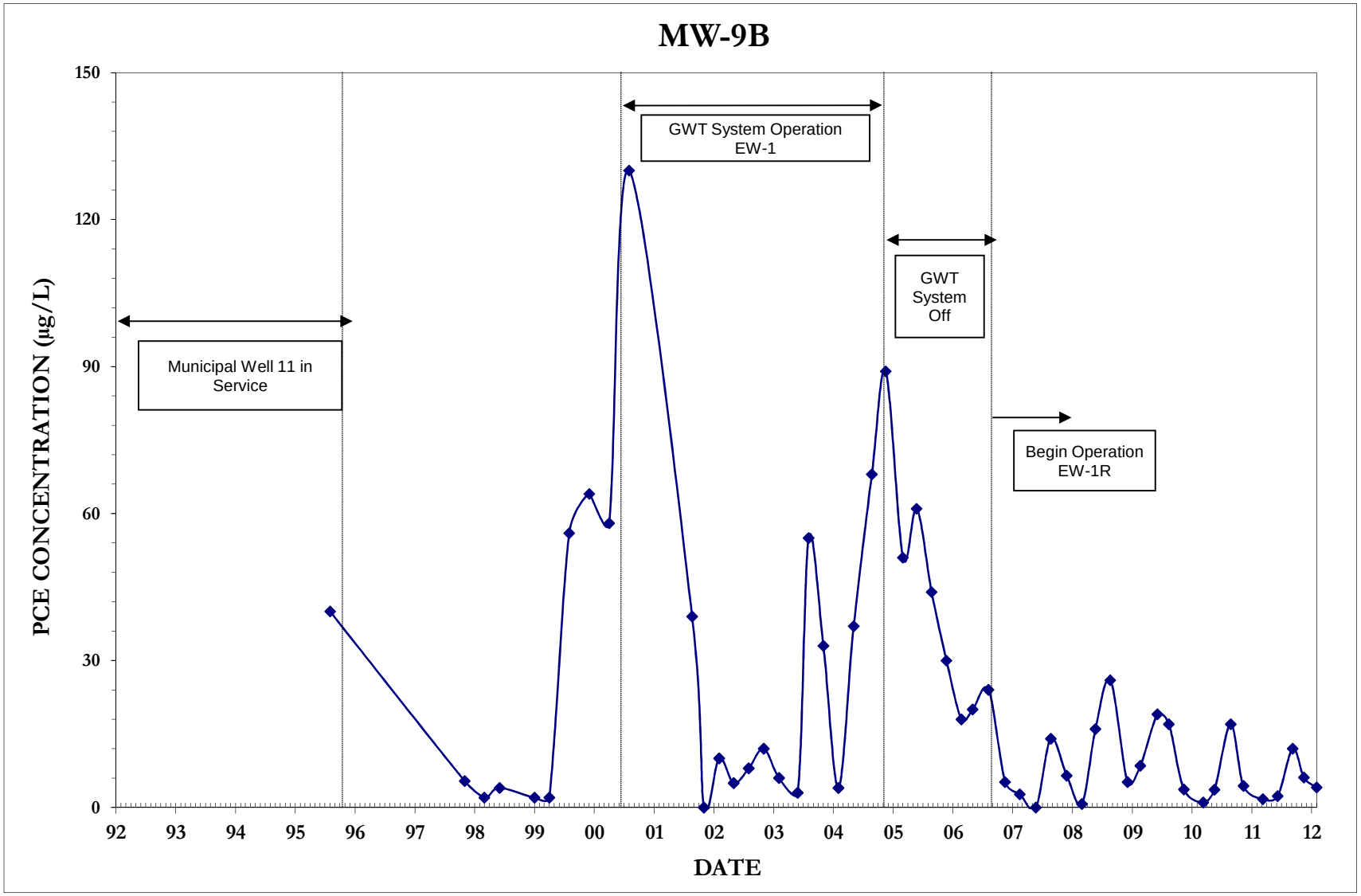

FIGURE G-4(I)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

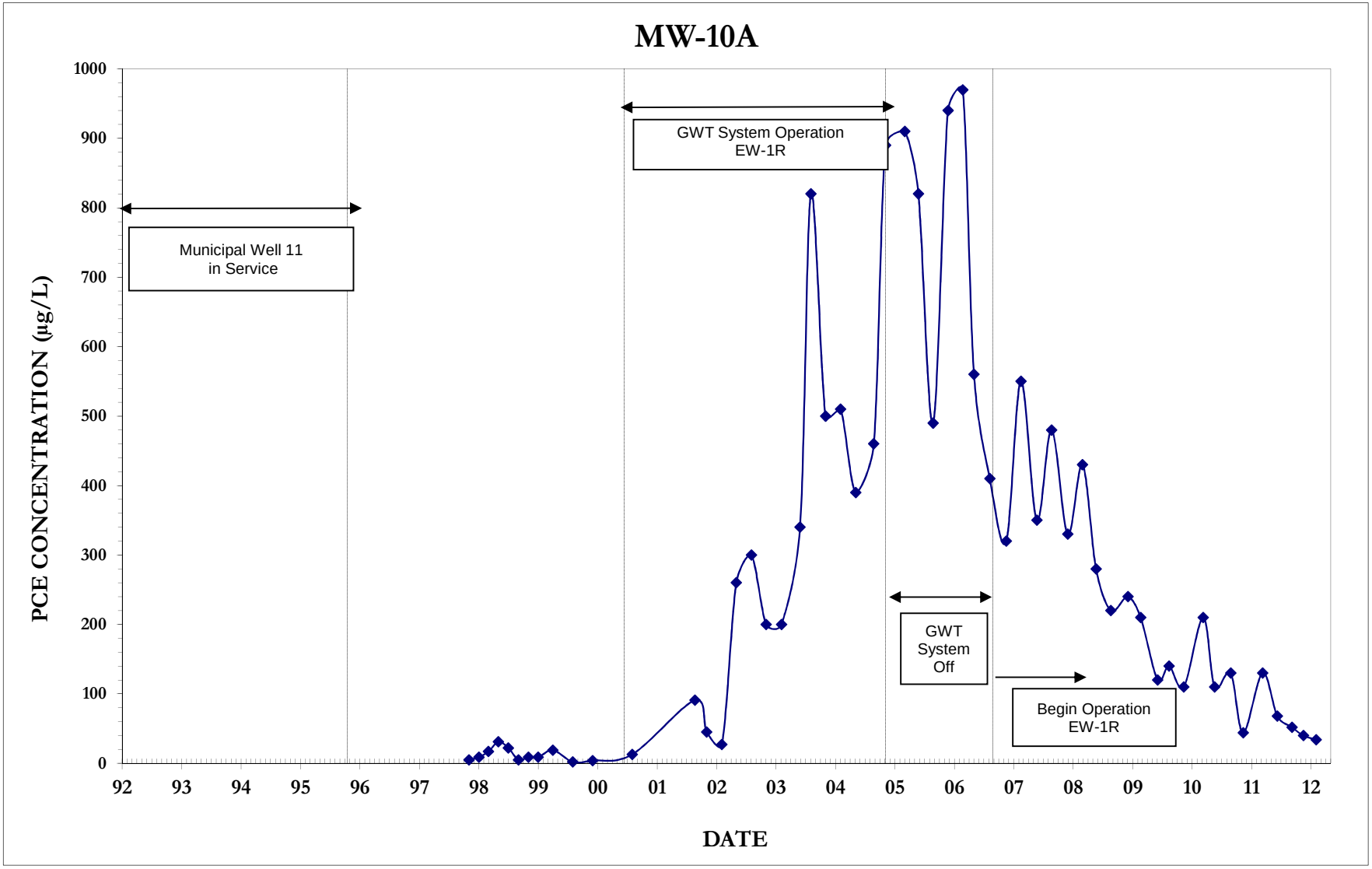

FIGURE G-4(m)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

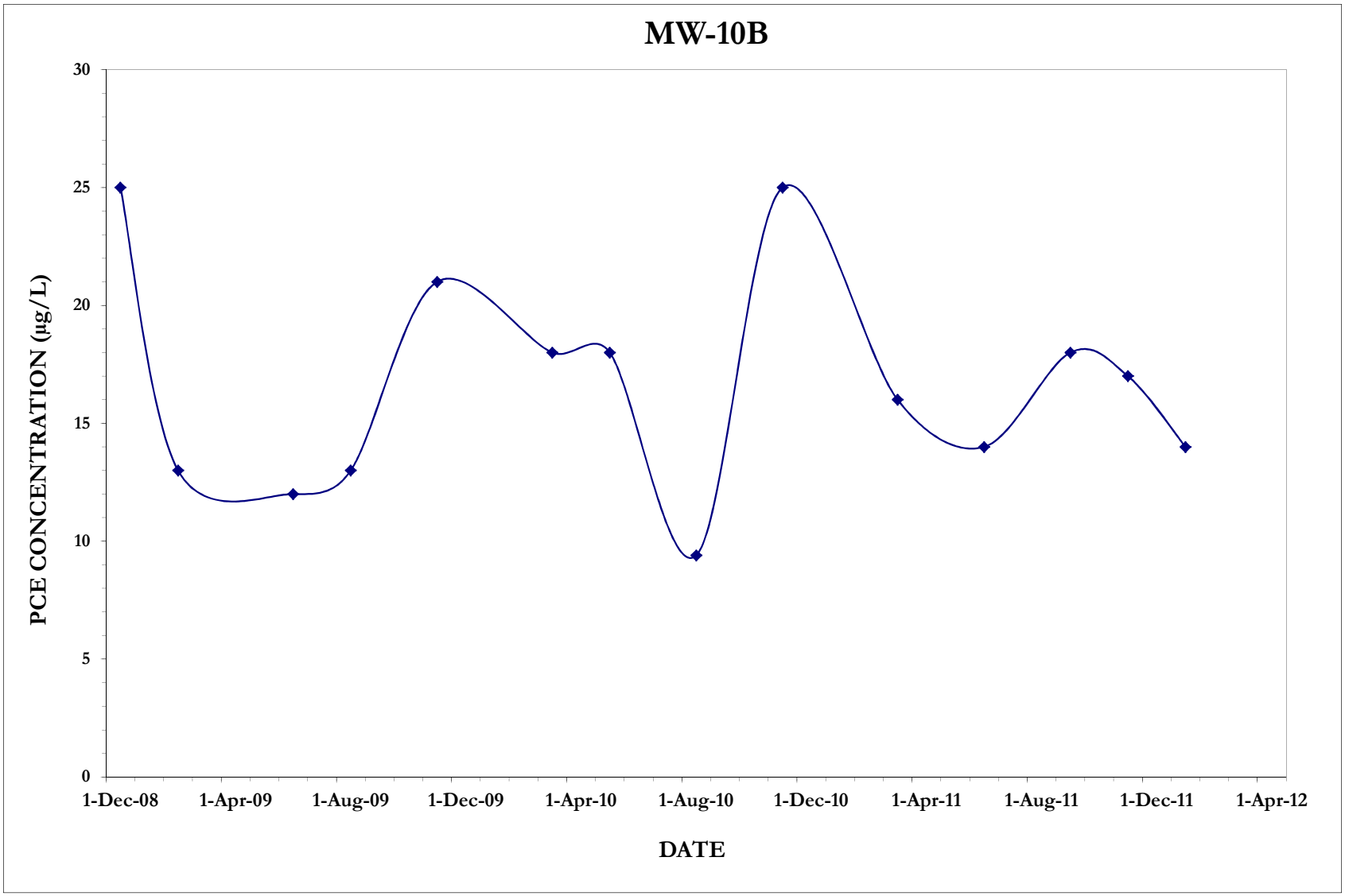

FIGURE G-4(n)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

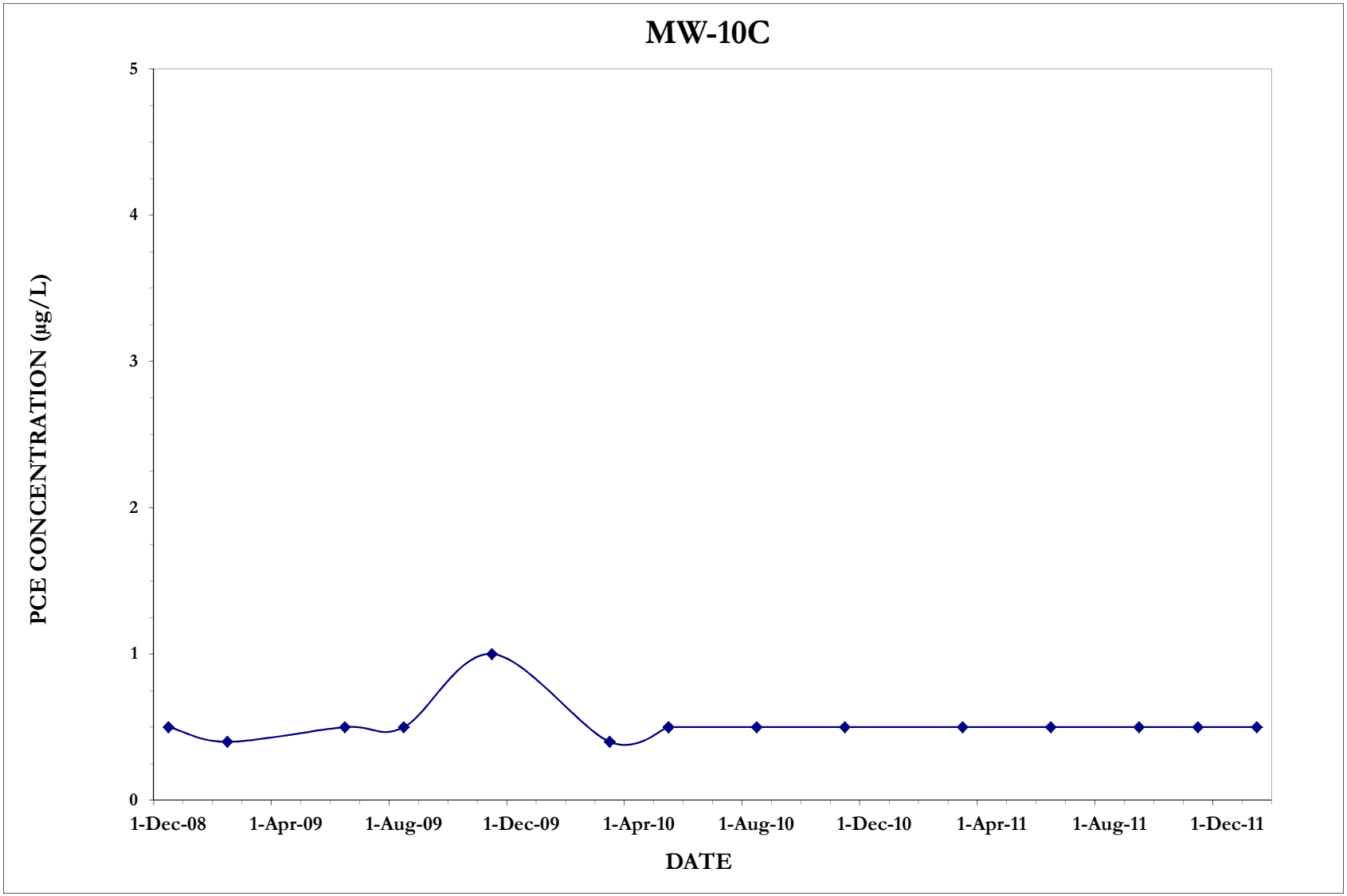

FIGURE G-4(o)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

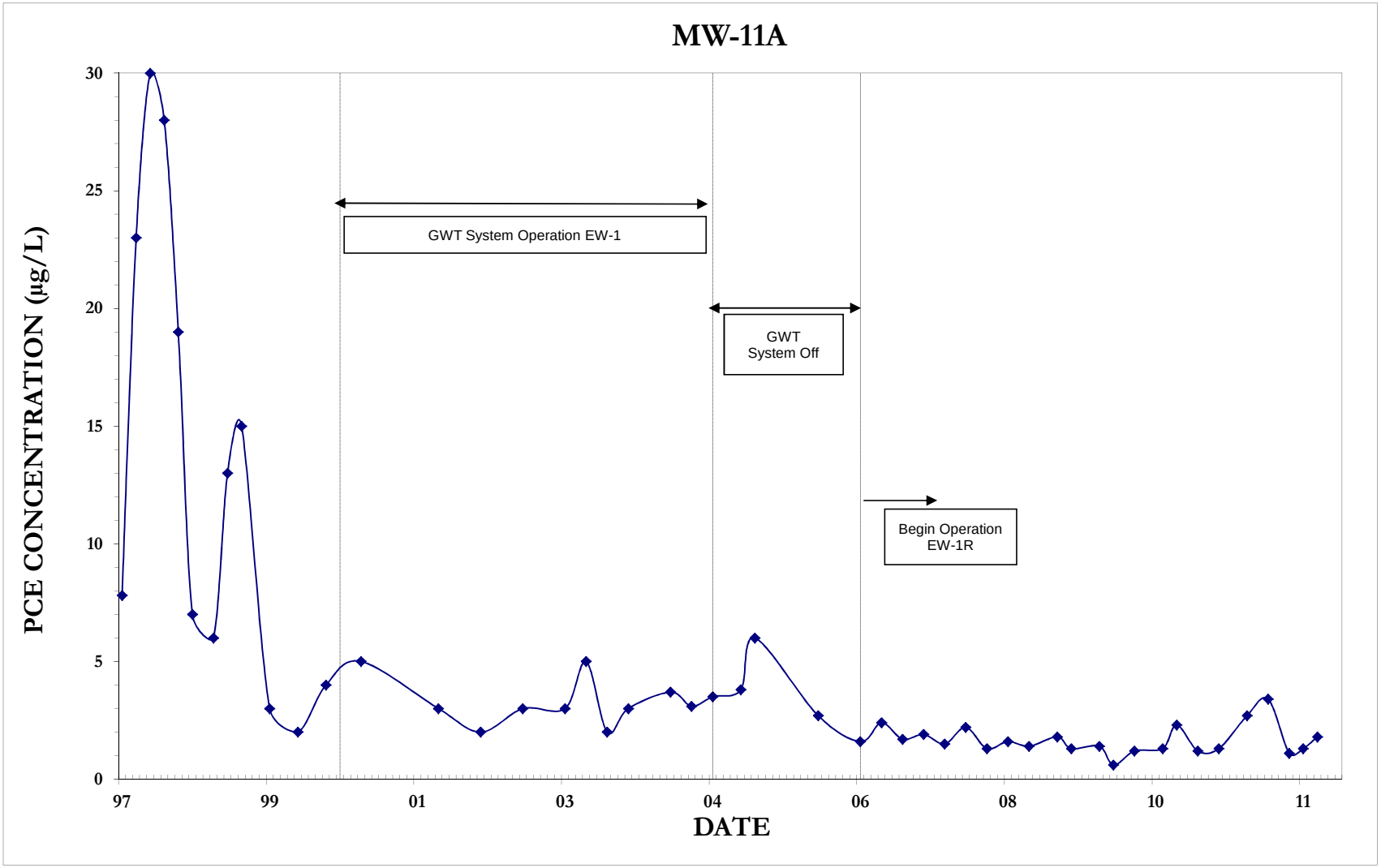

FIGURE G-4(p)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

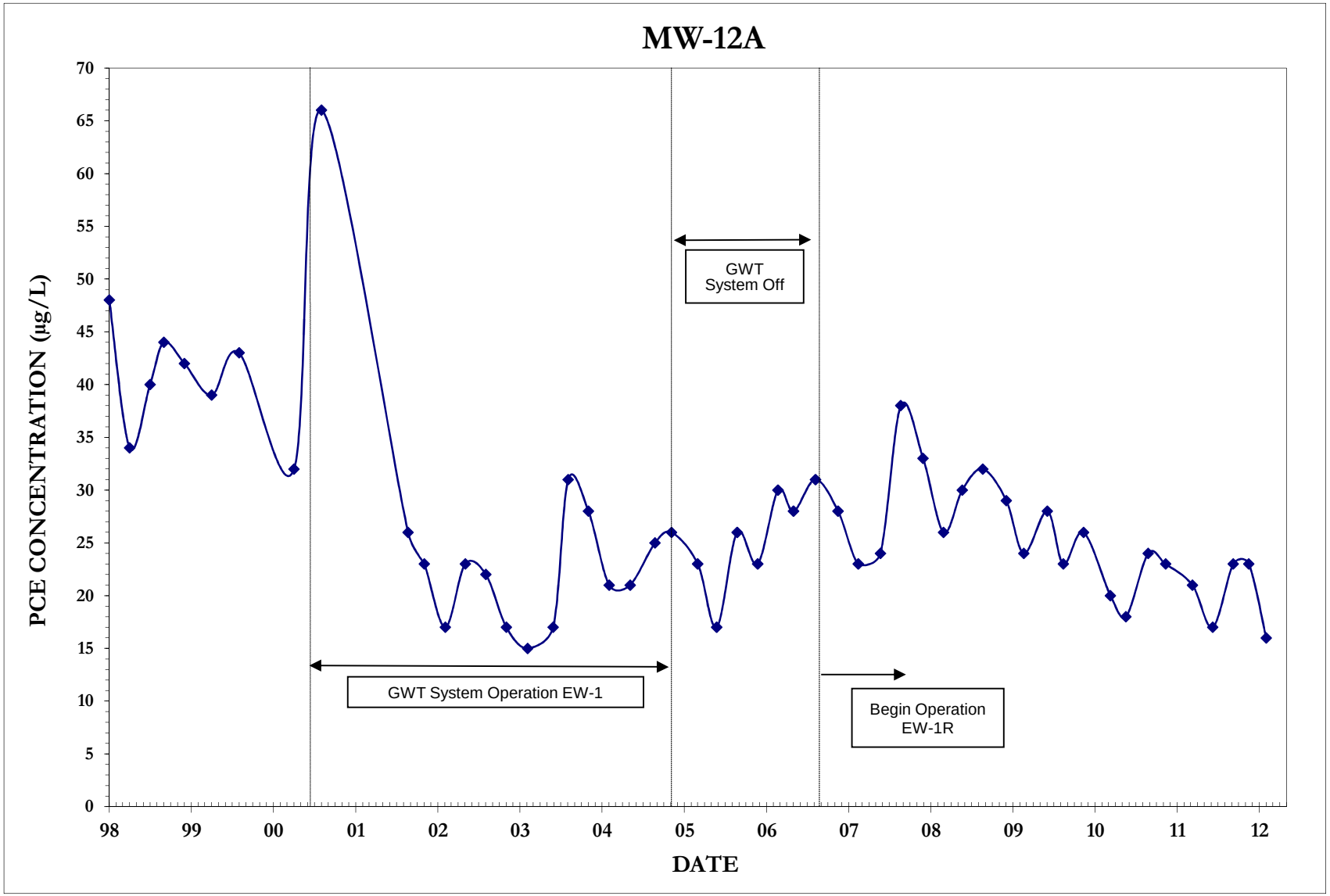

FIGURE G-4(q)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

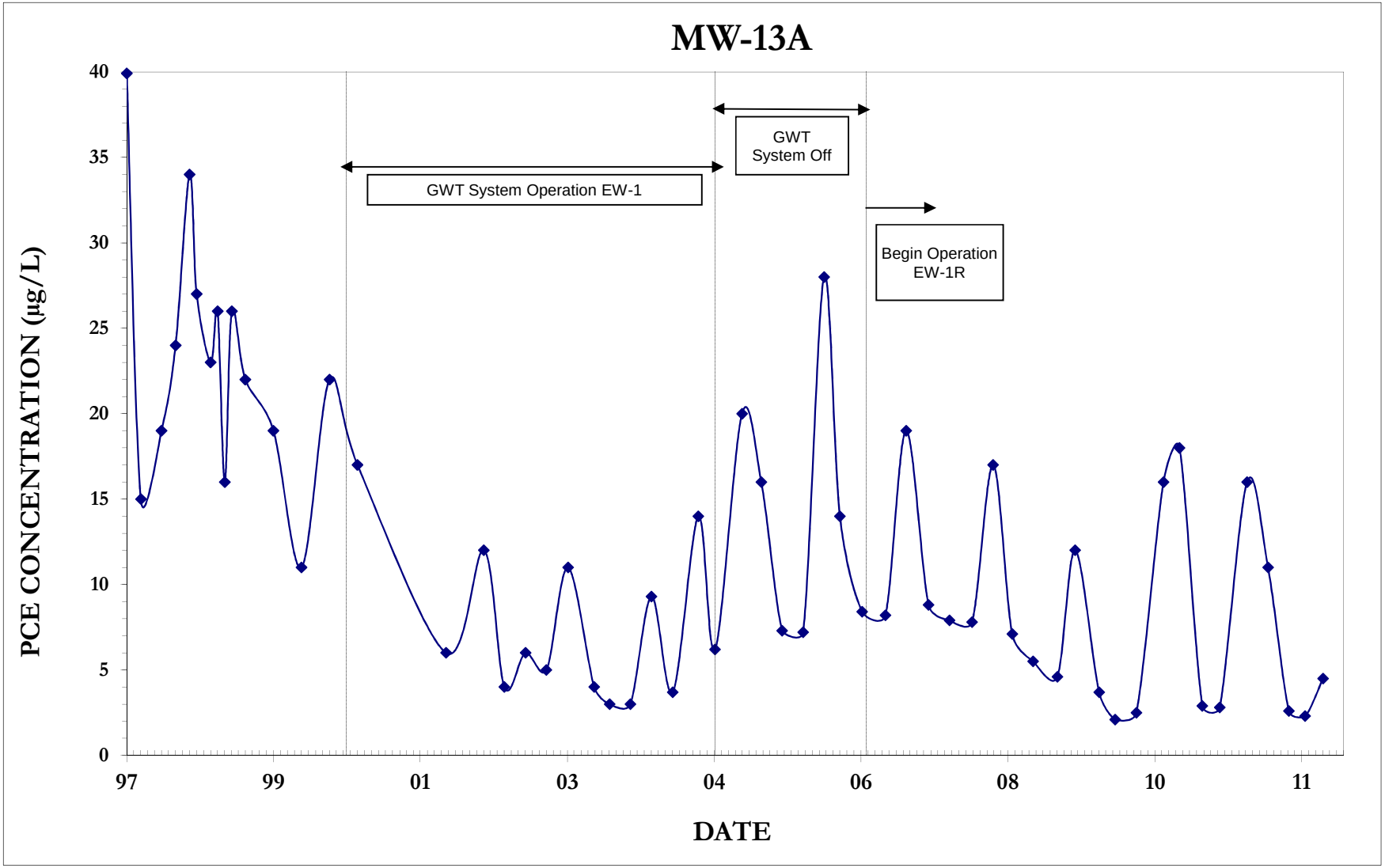

FIGURE G-4(r)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

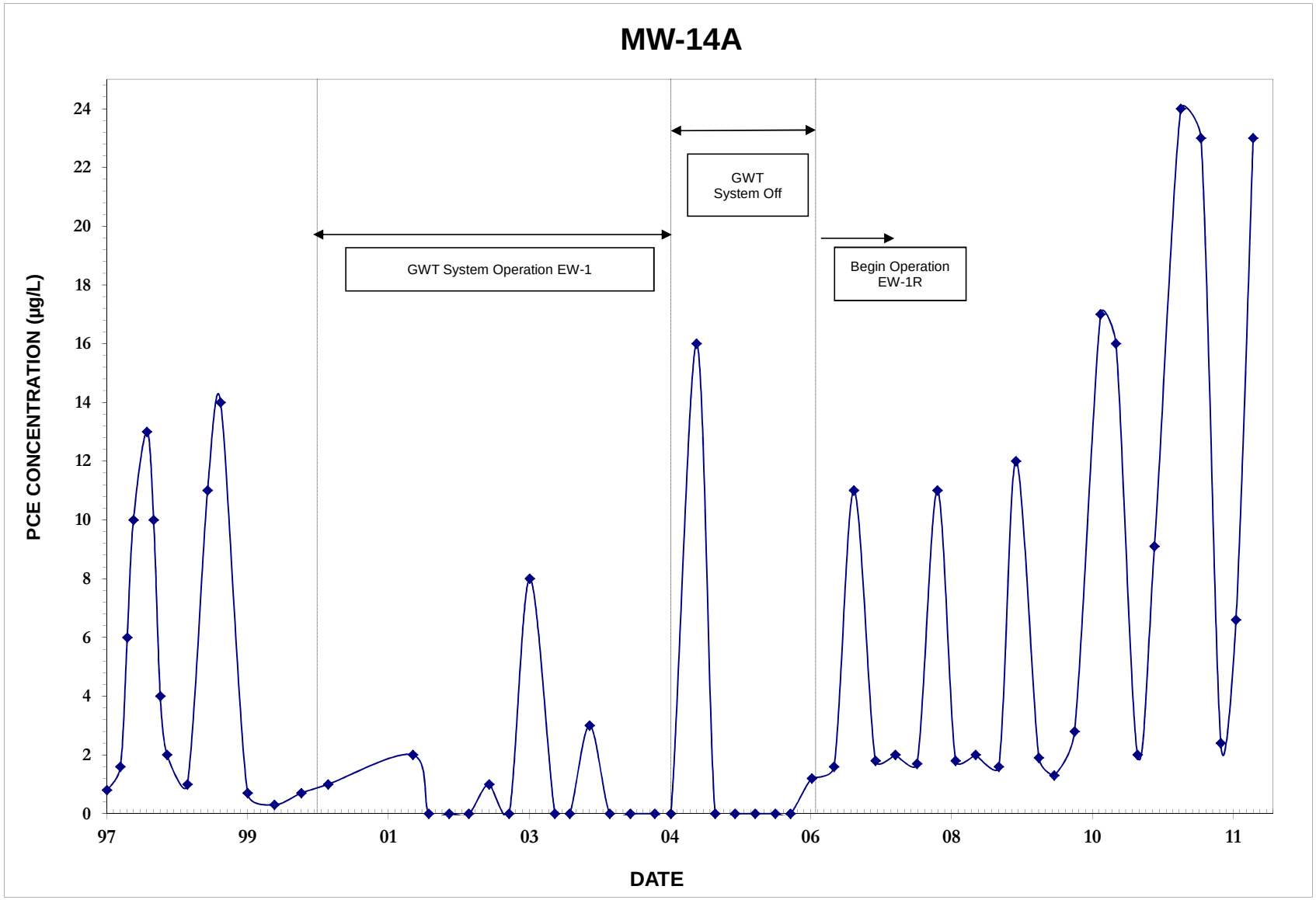

FIGURE G-4(s)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

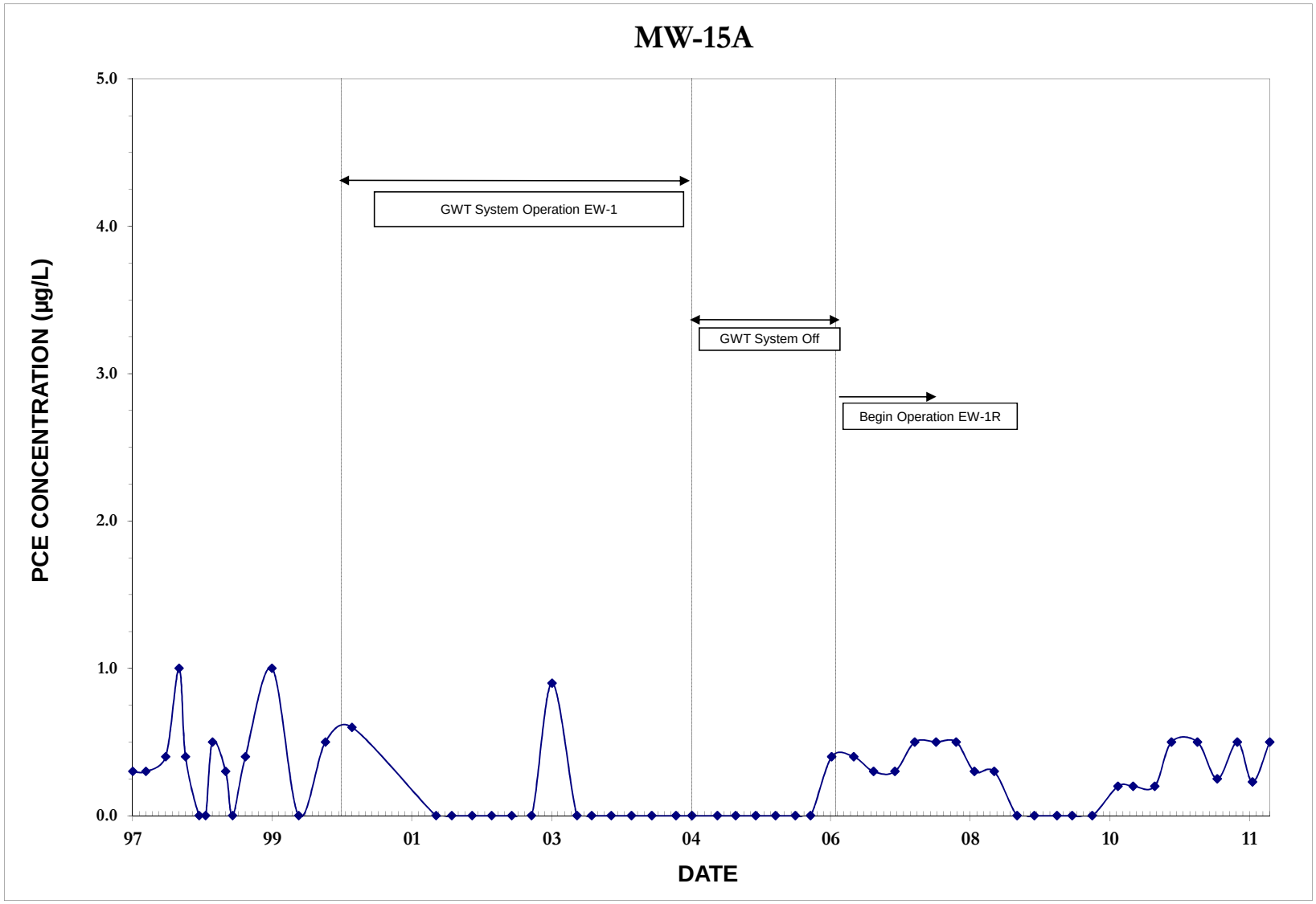

FIGURE G-4(t)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

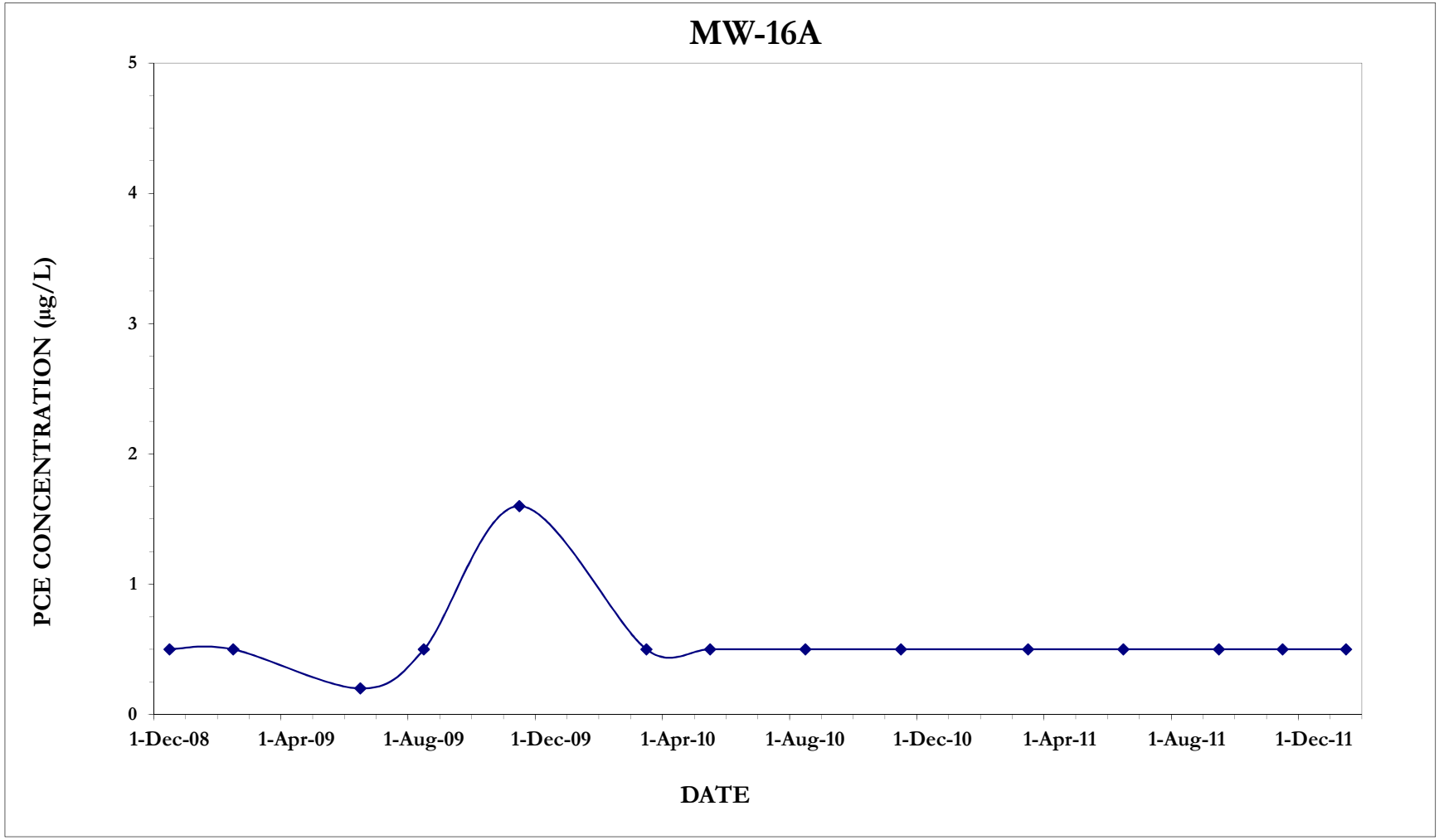

FIGURE G-4(u)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

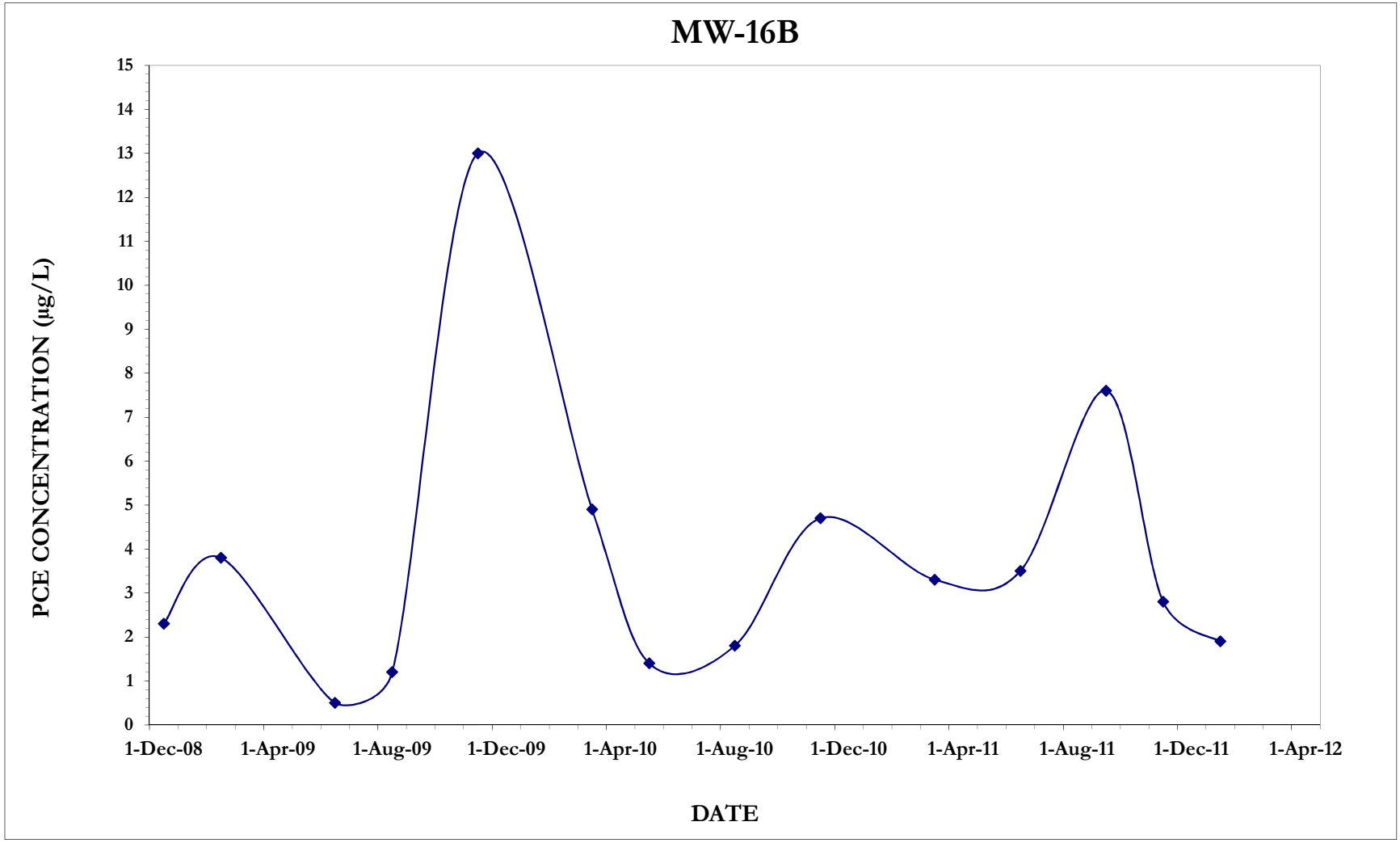

FIGURE G-4(v)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

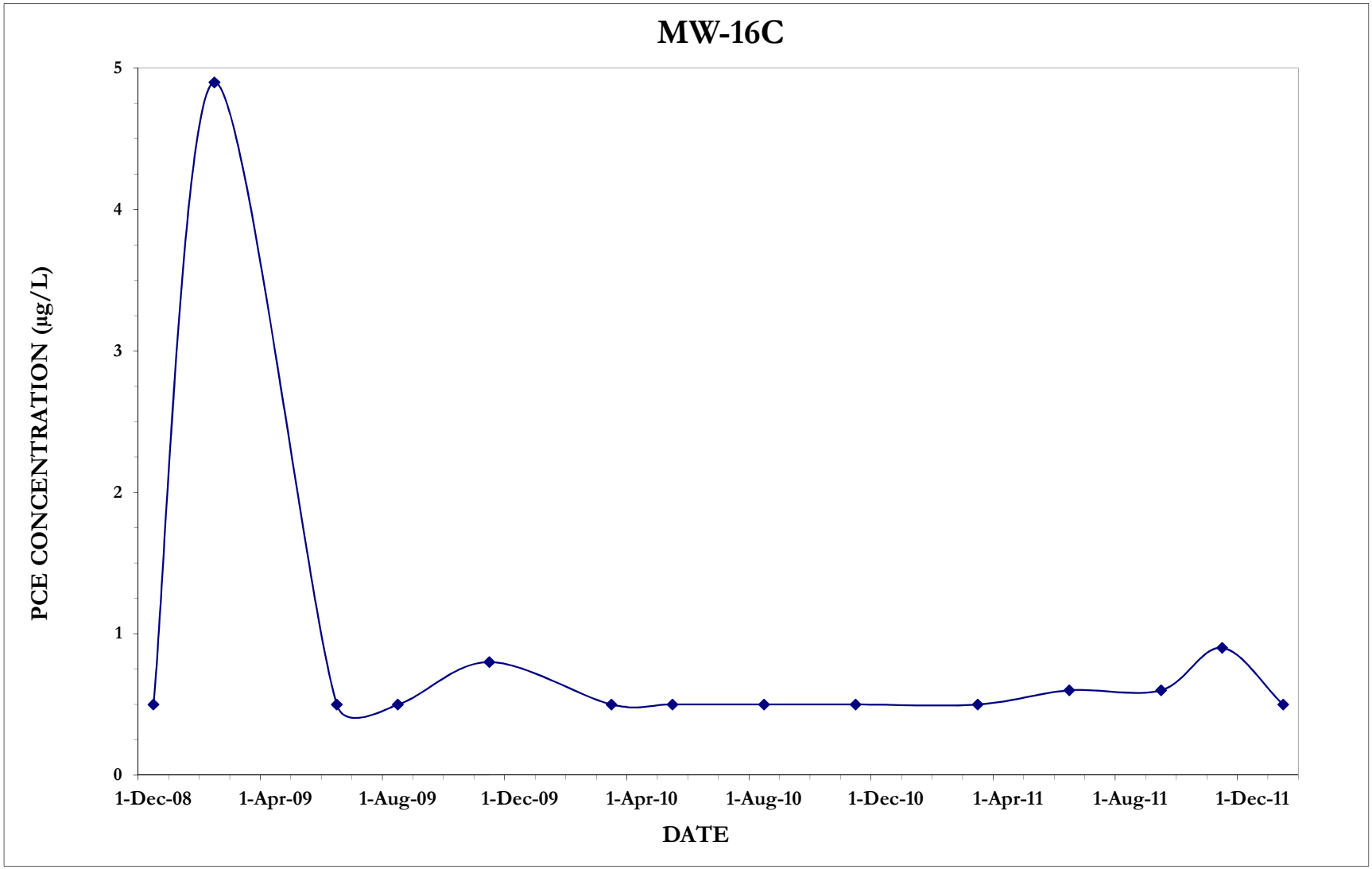

FIGURE G-4(w)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

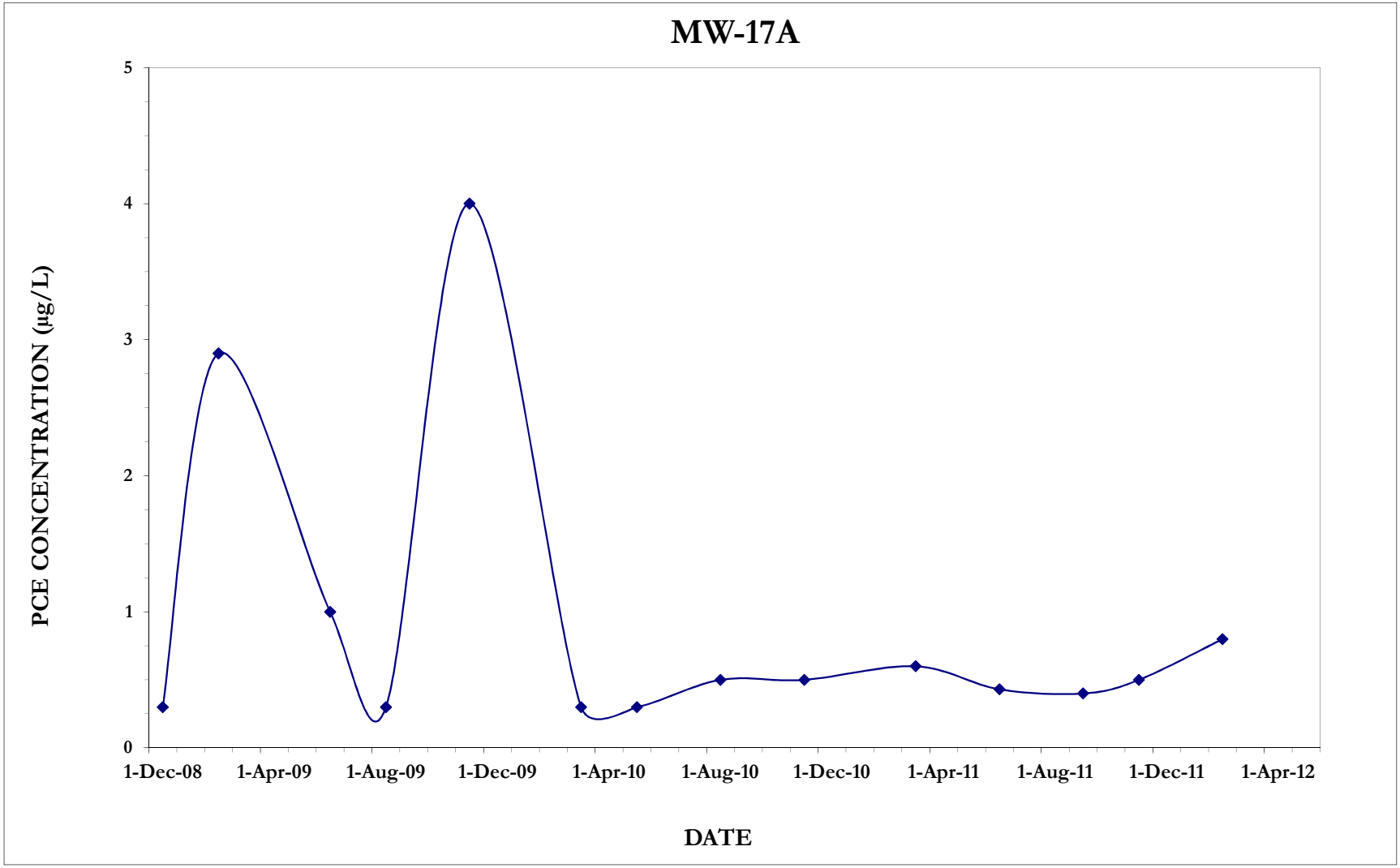

FIGURE G-4(x)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

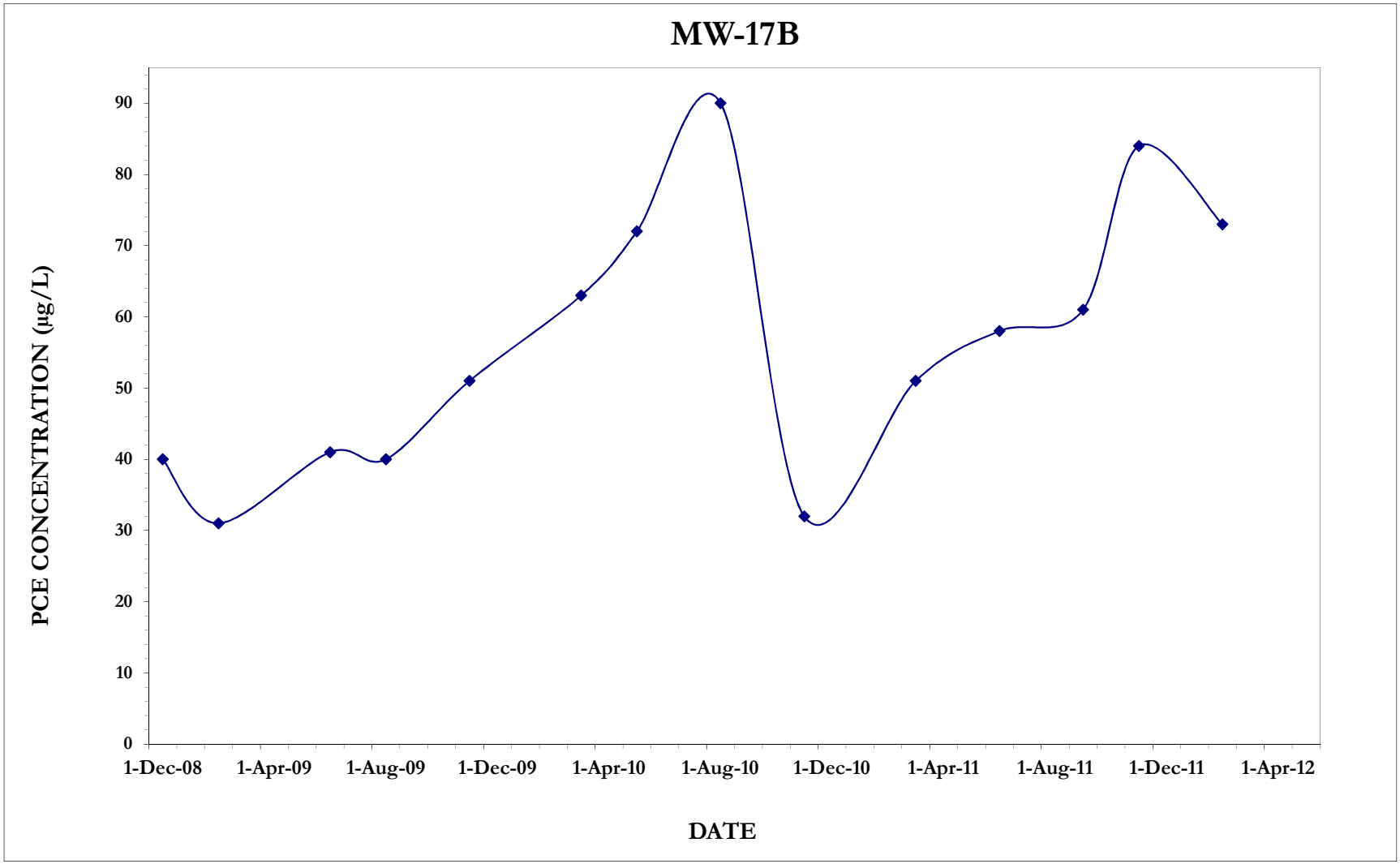

FIGURE G-4(y)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

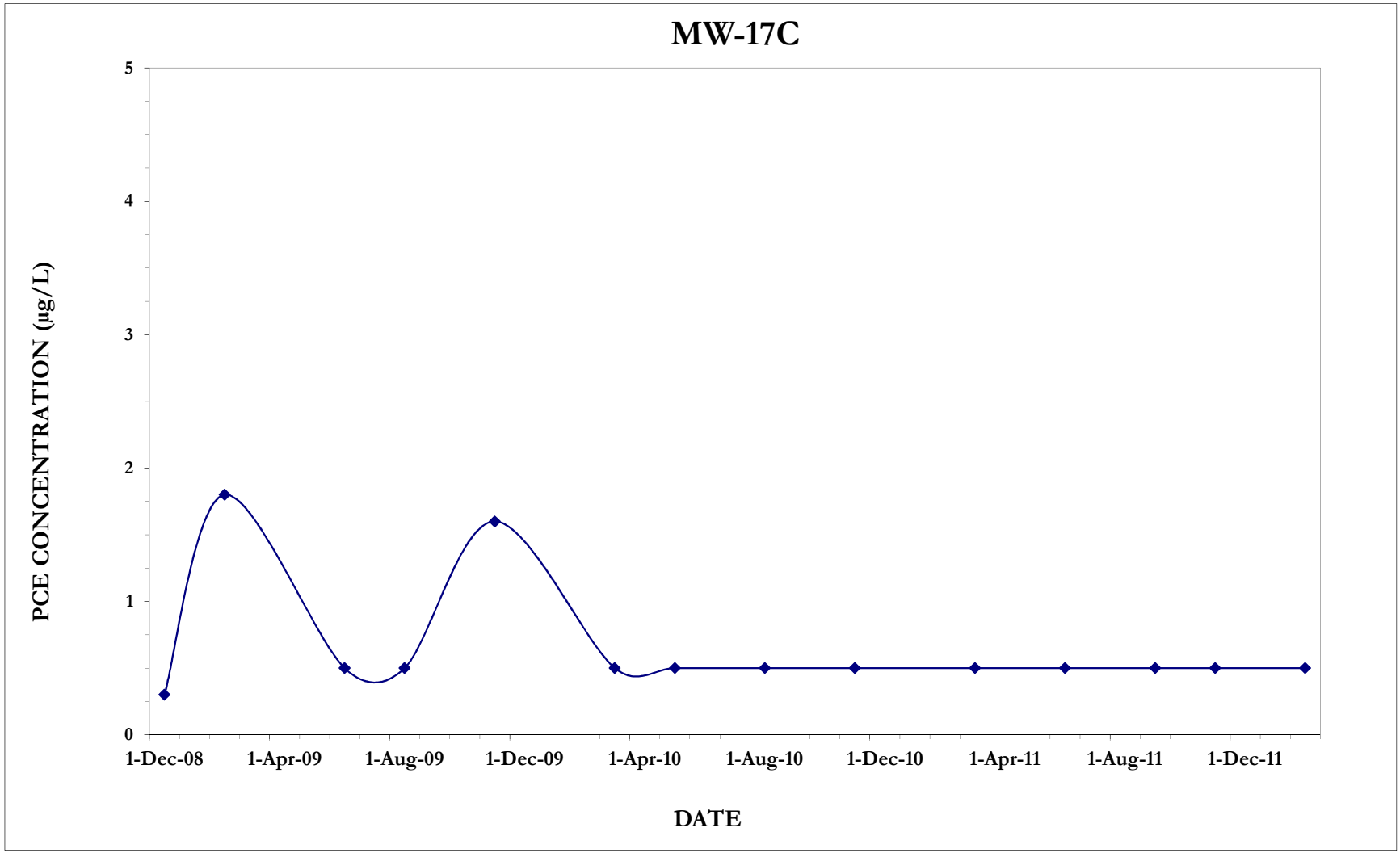

FIGURE G-4(z)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

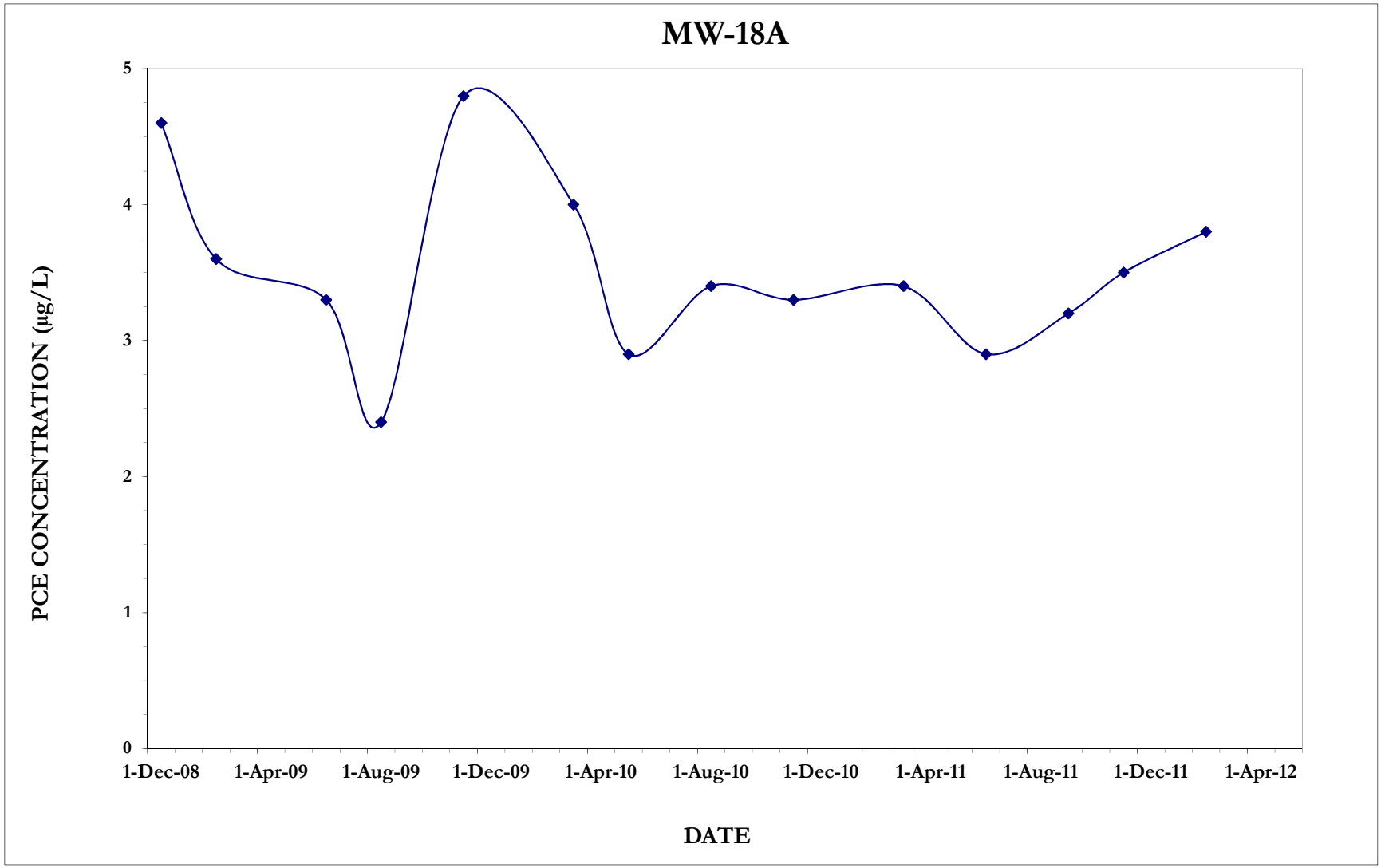

FIGURE G-4(aa)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

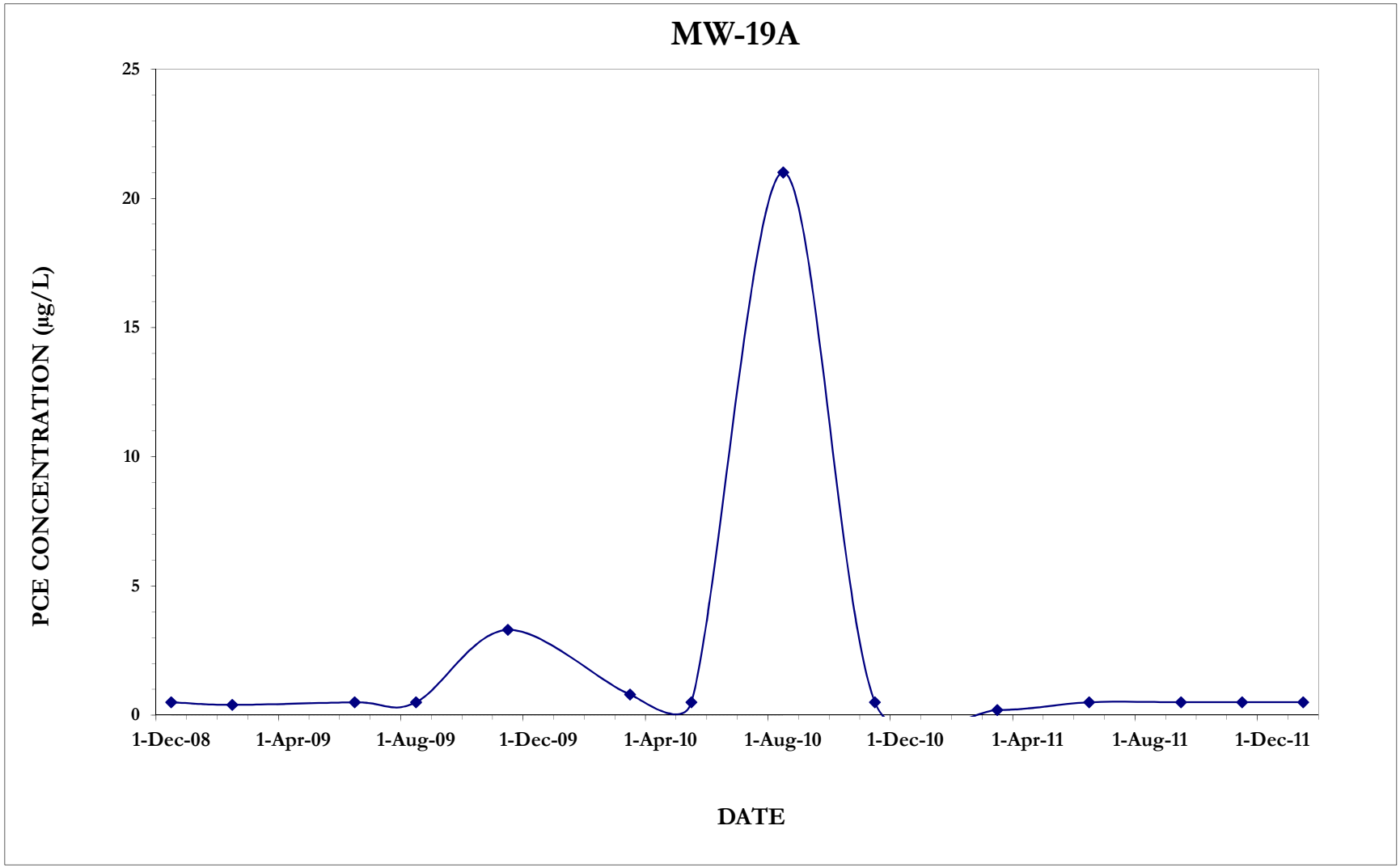

FIGURE G-4(ab)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

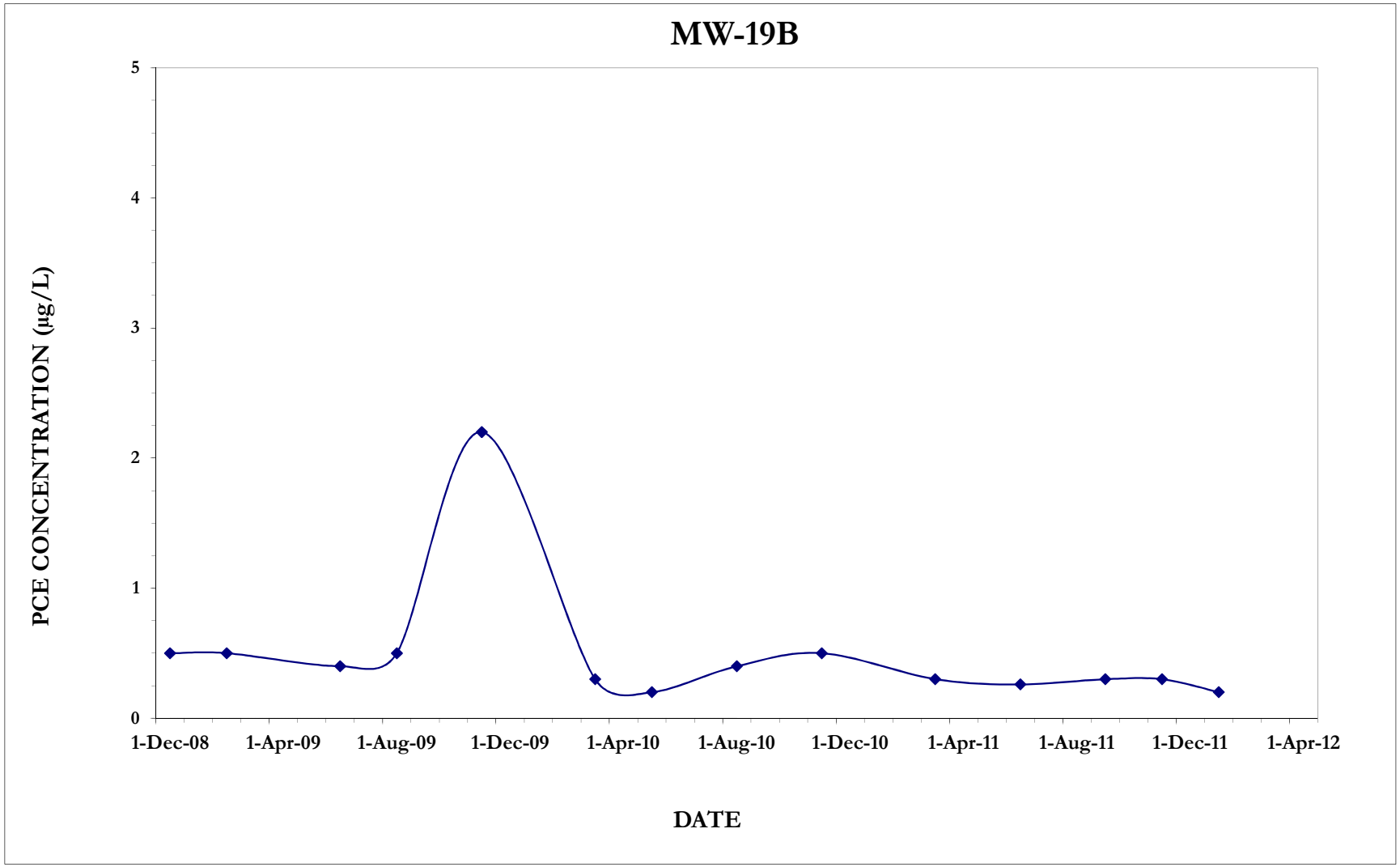

FIGURE G-4(ac)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

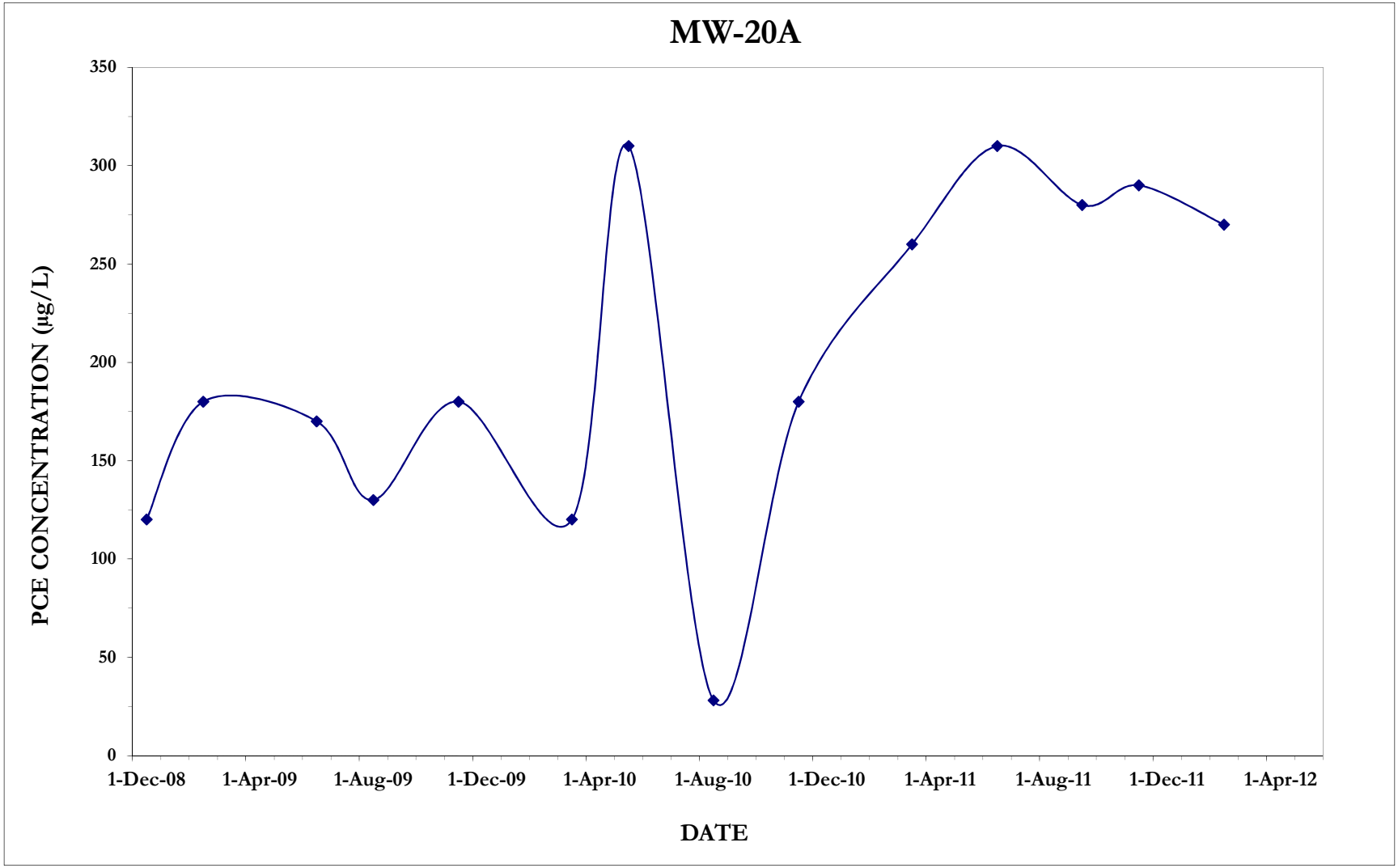

FIGURE G-4(ad)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

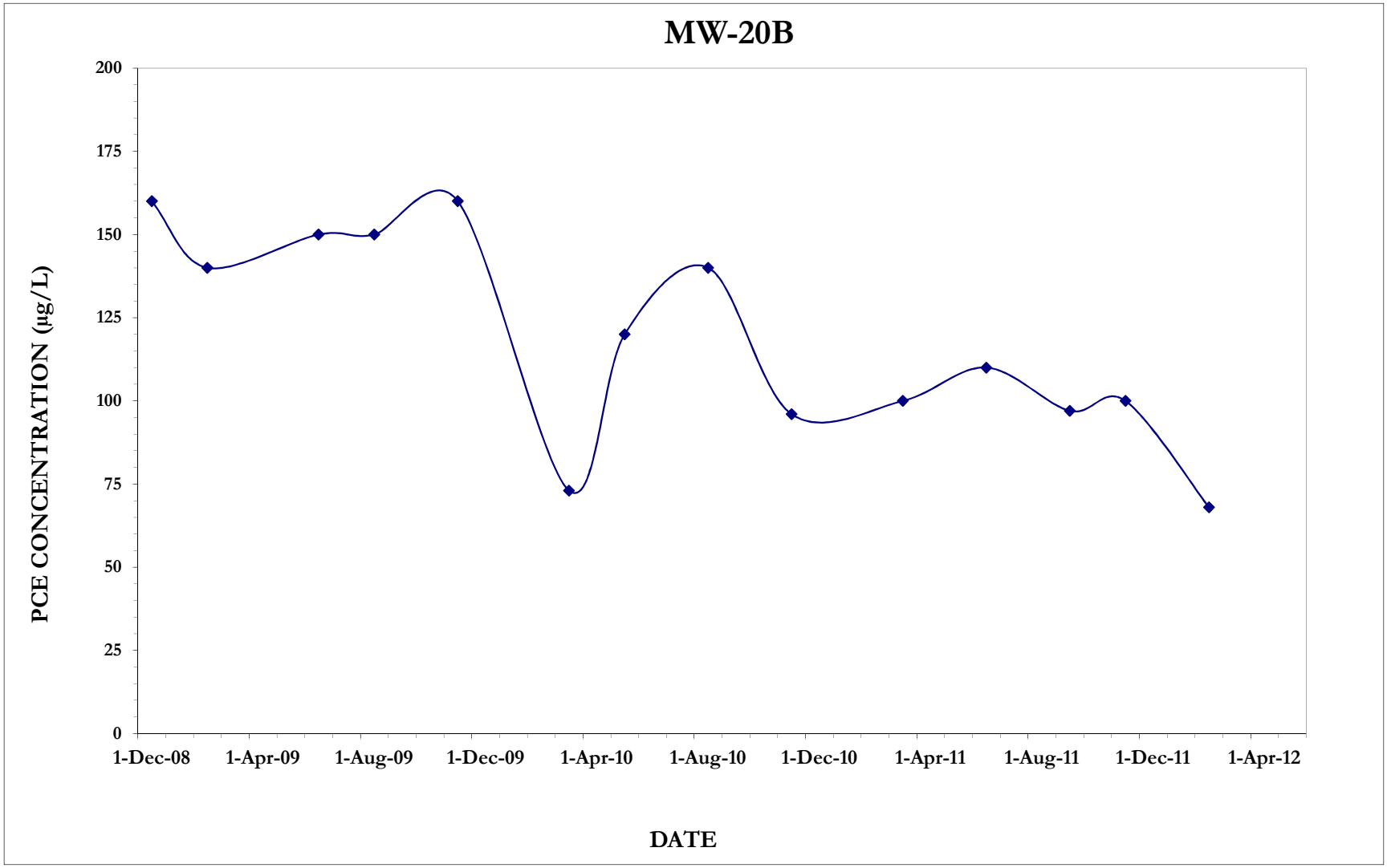

FIGURE G-4(ae)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

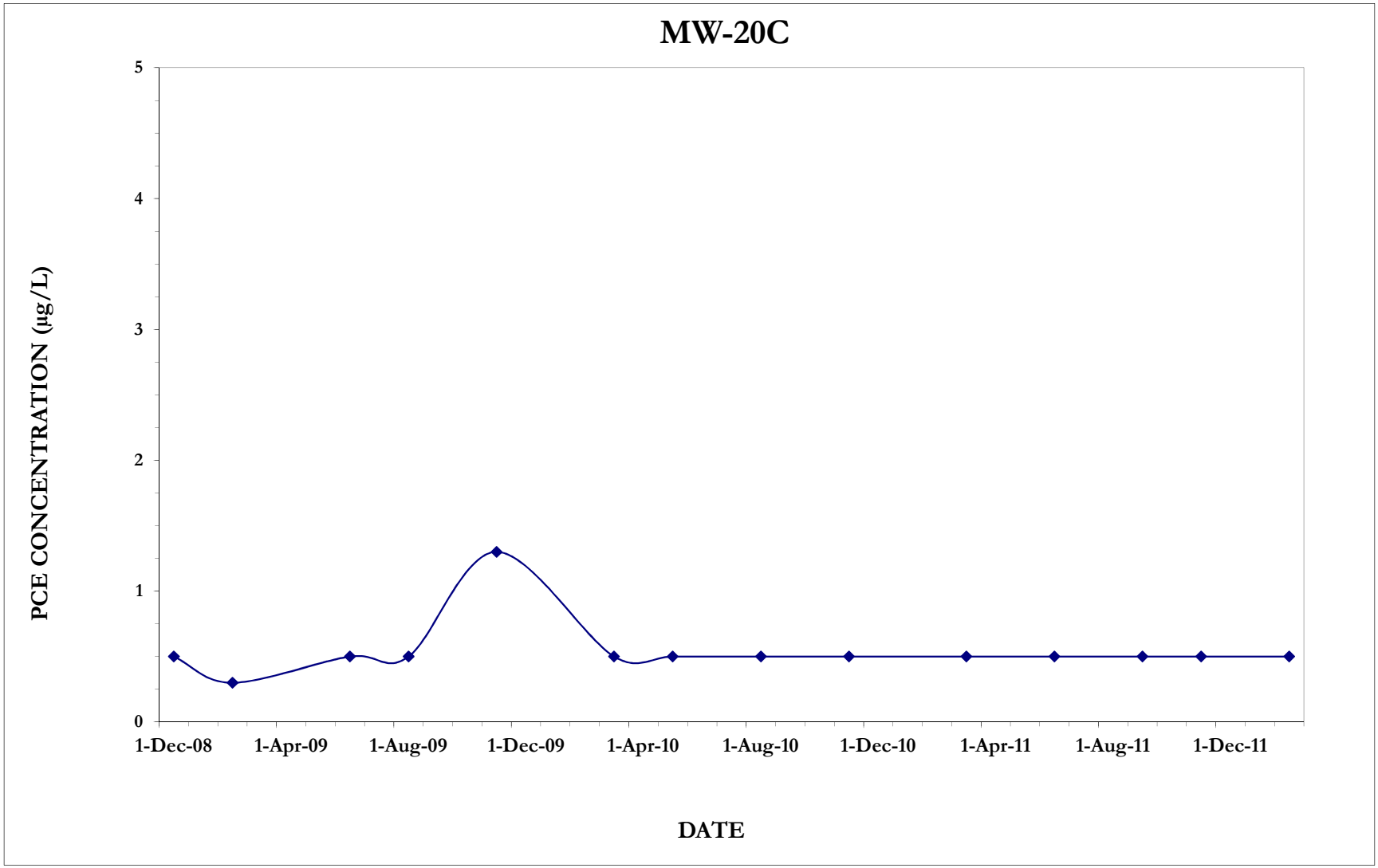

FIGURE G-4(af)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

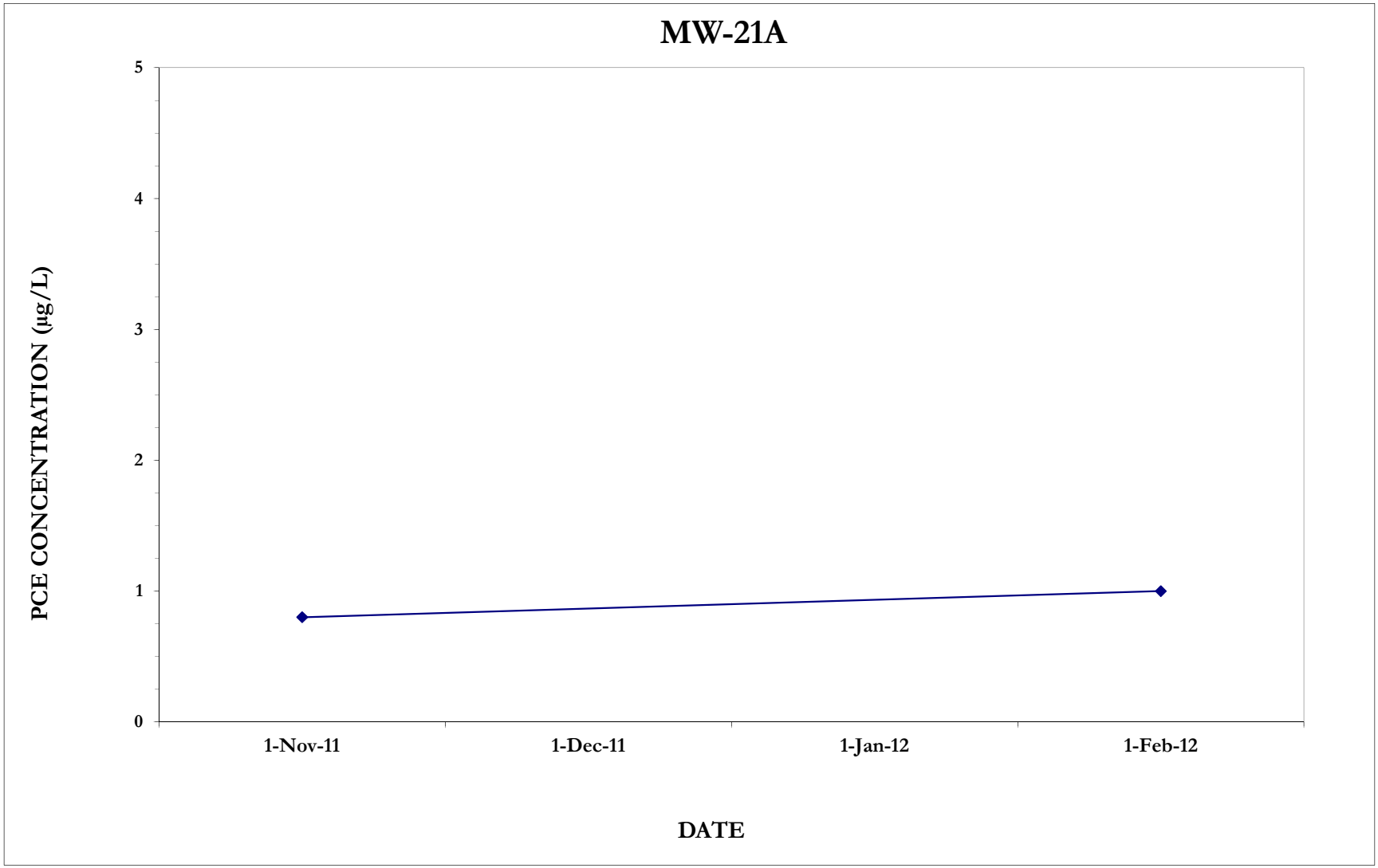

FIGURE G-4(ag)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

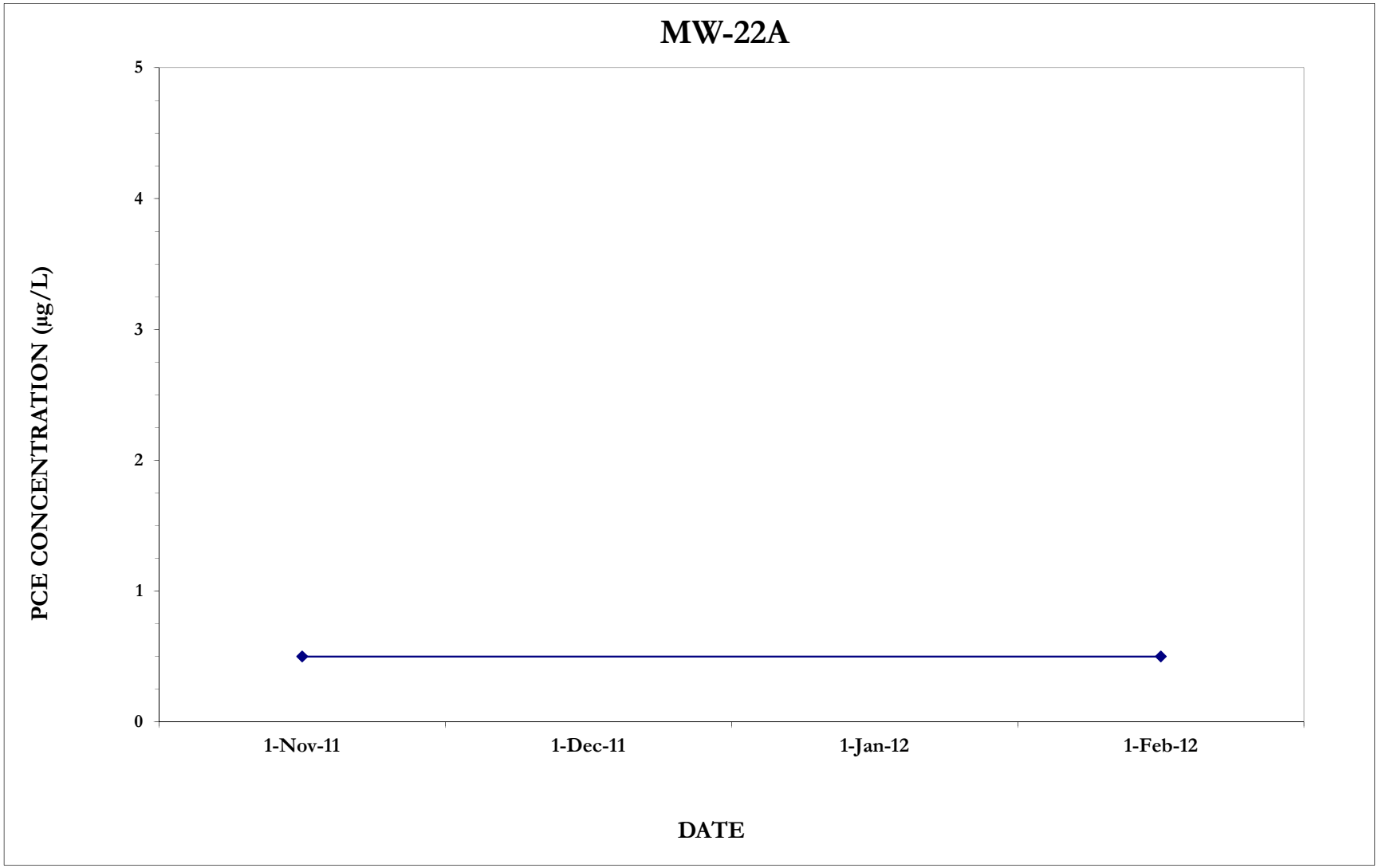

FIGURE G-4(ah)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

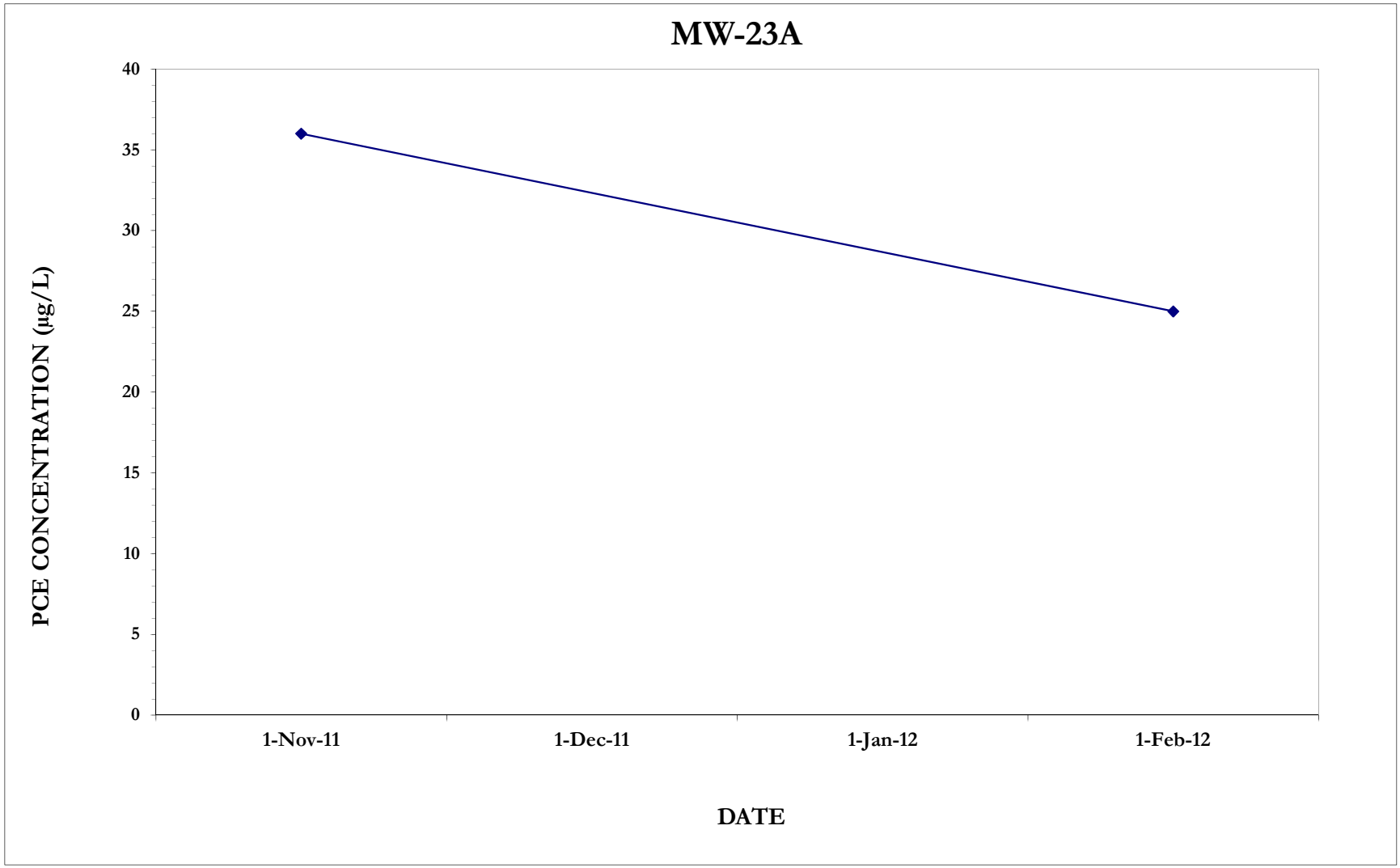

FIGURE G-4(ai)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

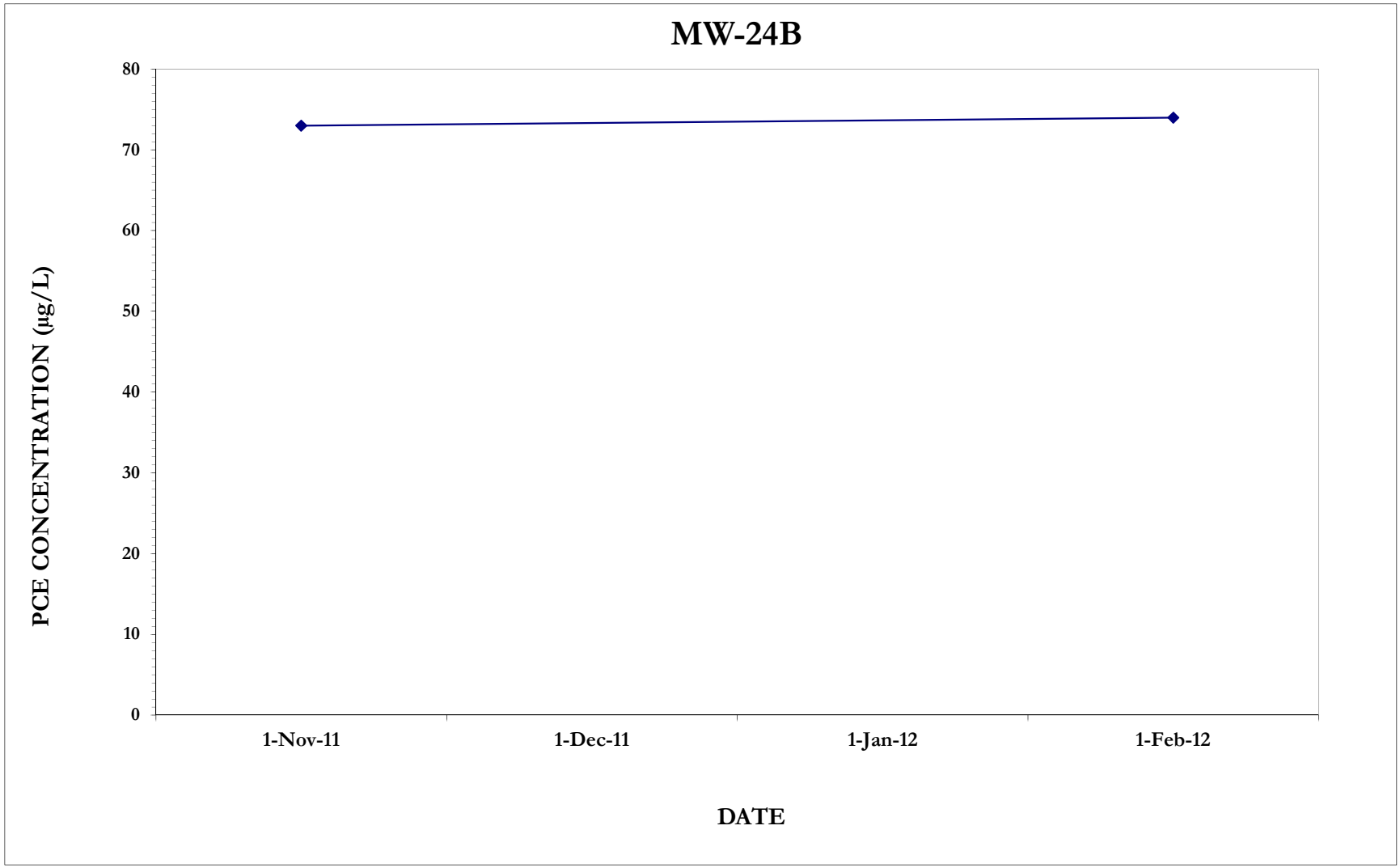

FIGURE G-4(aj)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

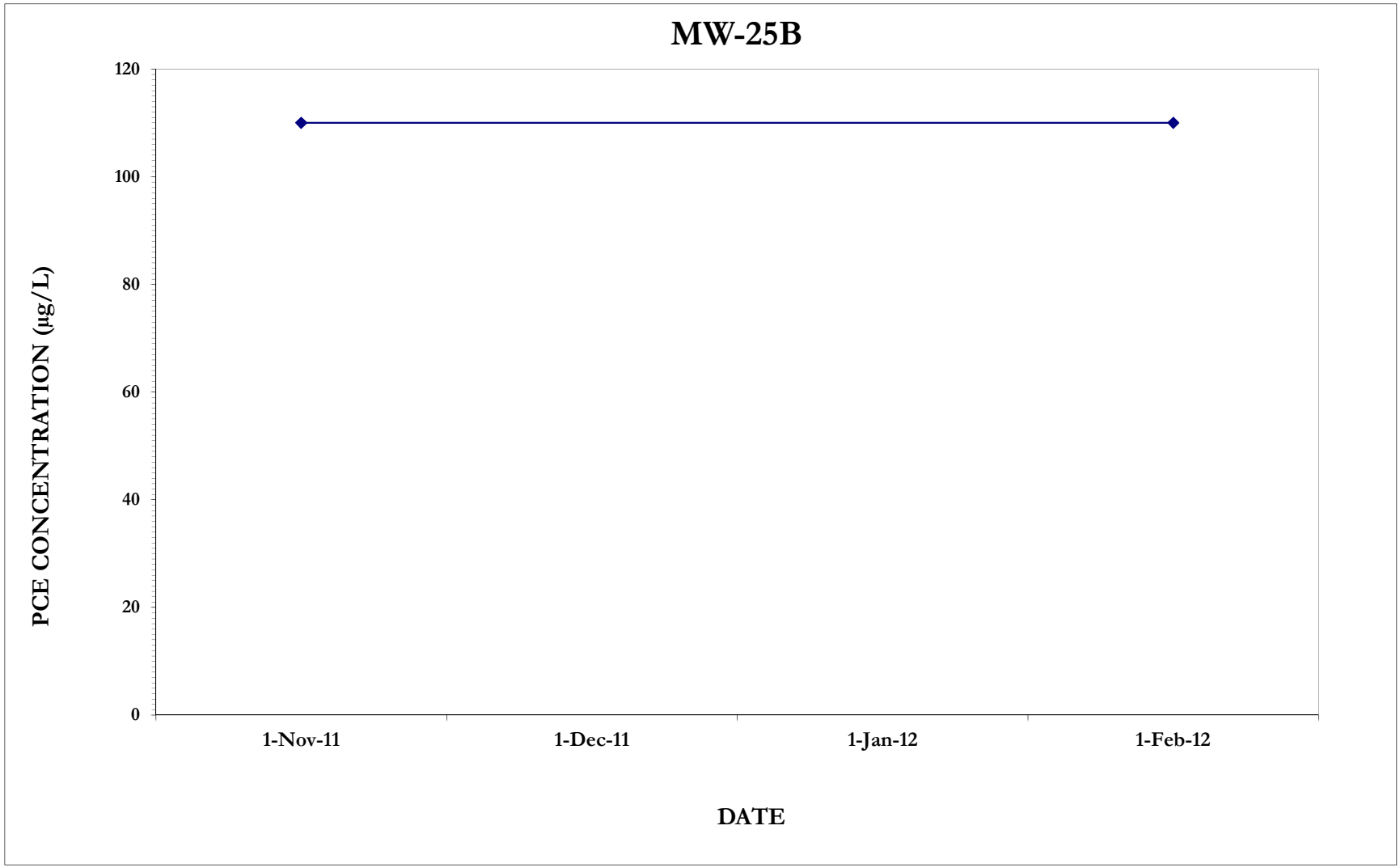

FIGURE G-4(ak)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

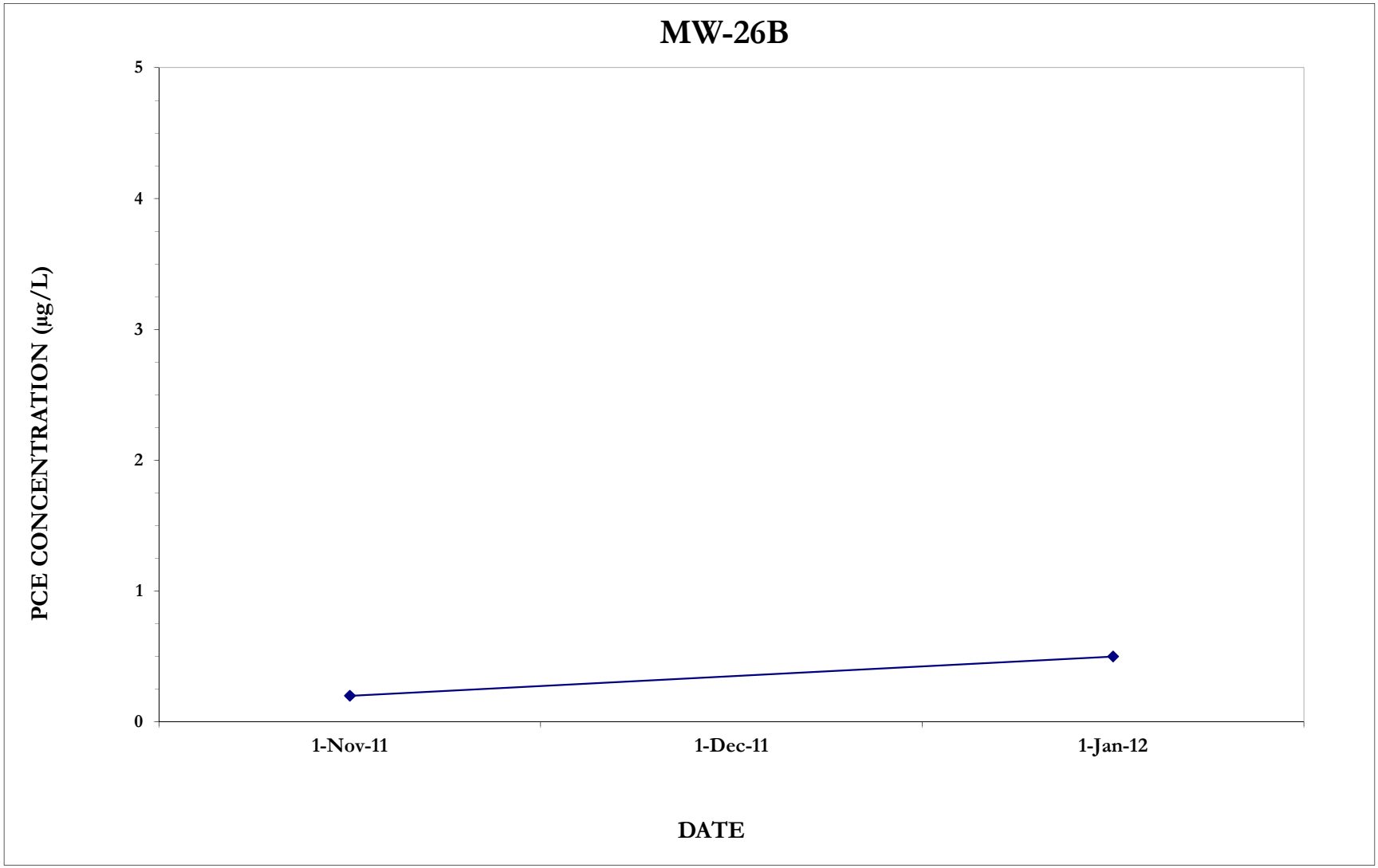

FIGURE G-4(al)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

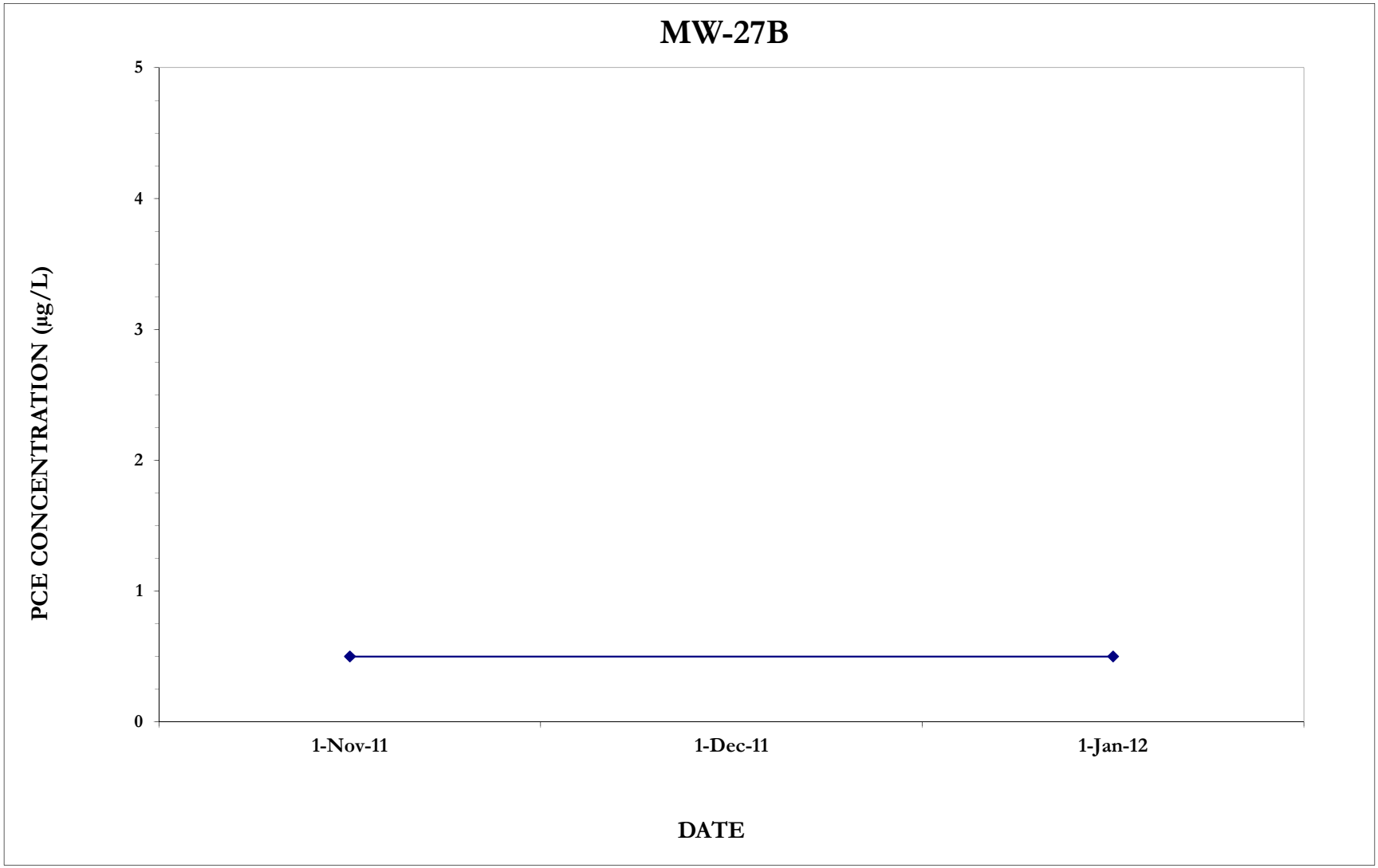

FIGURE G-4(am)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

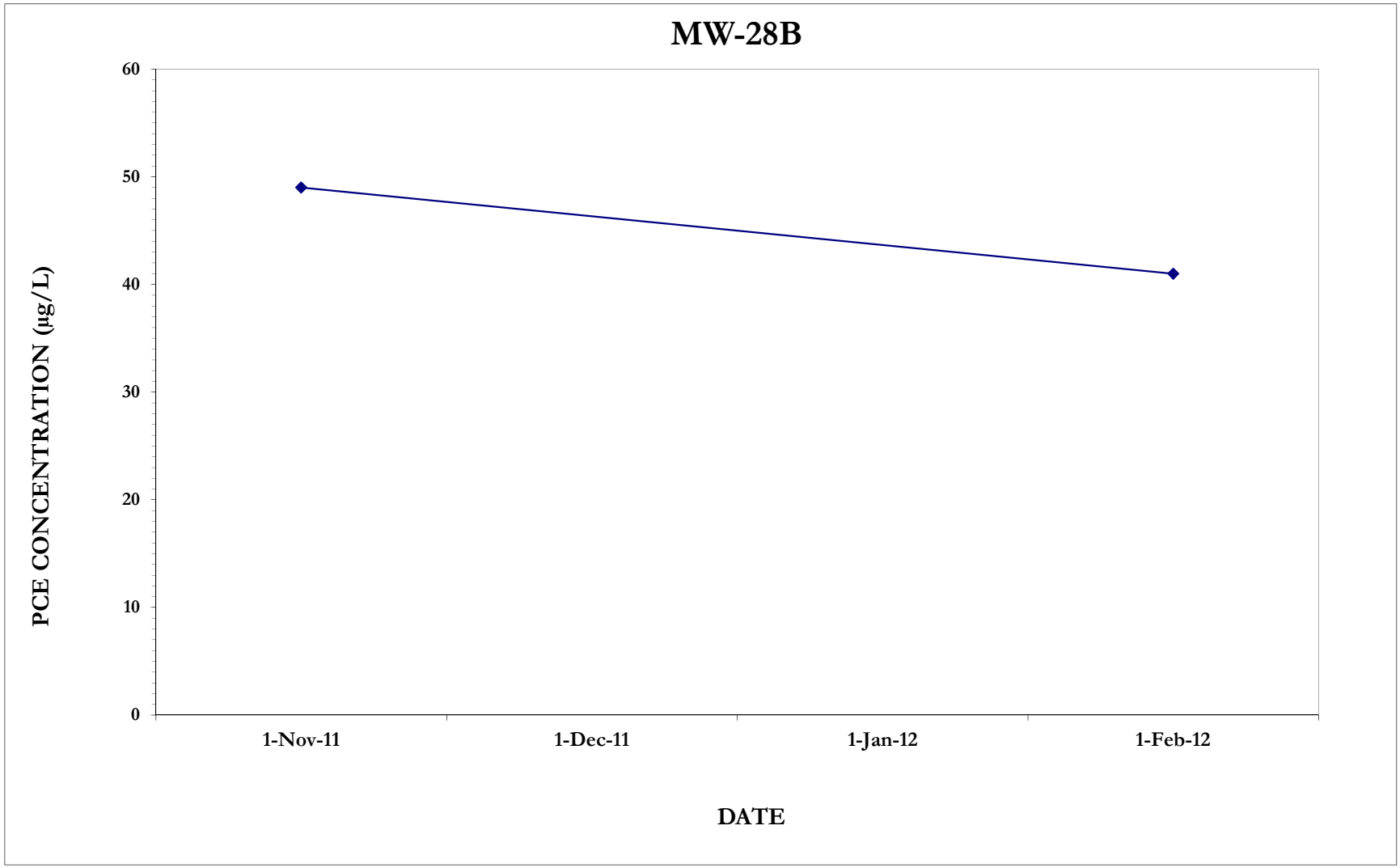

FIGURE G-4(an)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

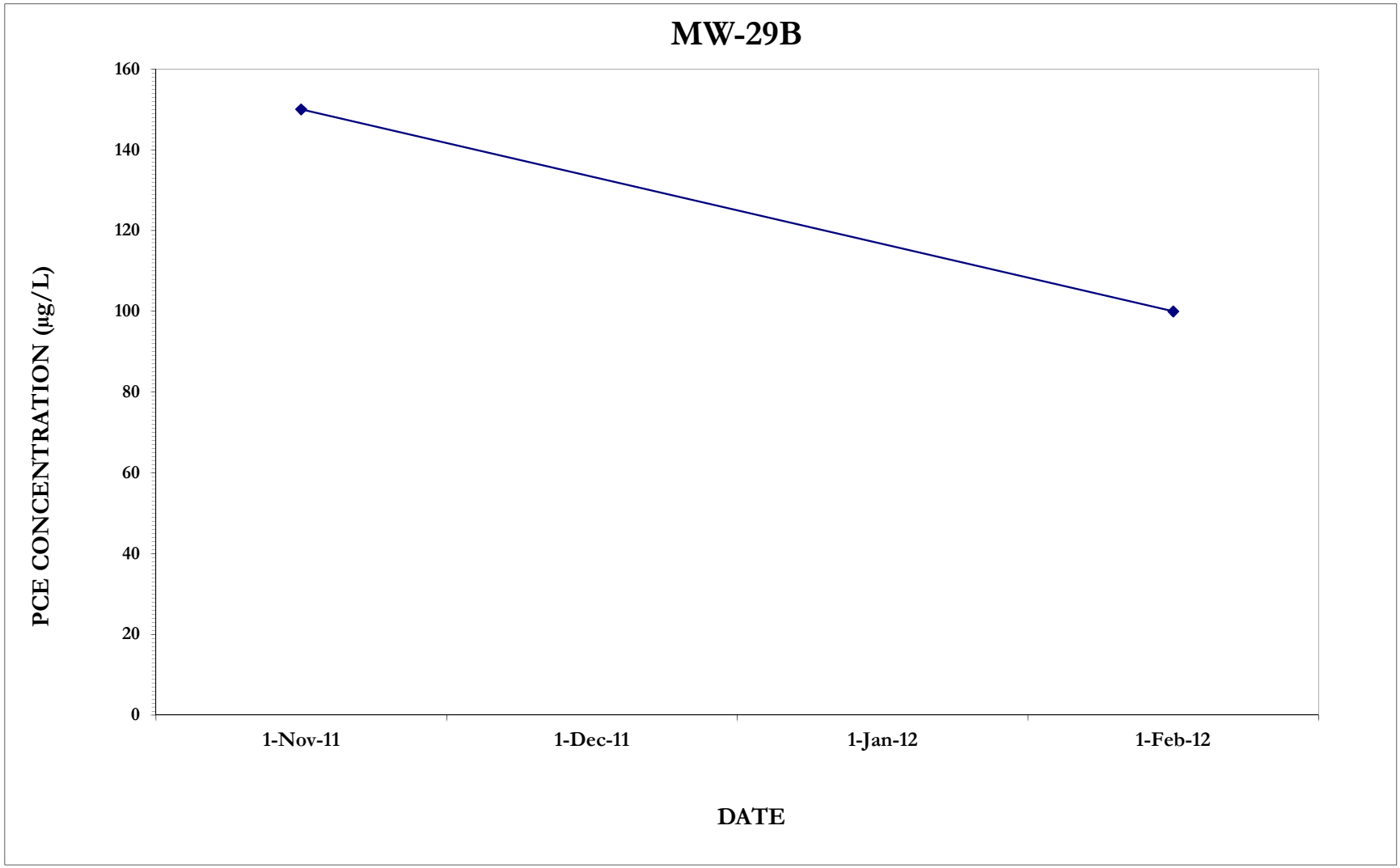

TABLE G-5(a)

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**

TABLE G-5(a)

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
	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**	-
	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	-

TABLE G-5(a)

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
	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**
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**	-
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**	-
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**	-
DP-1S	11/11/2008	**-**	**3570**[b]
	12/10/2008	**-**	-
	3/10/2009	**570**	-

TABLE G-5(a)

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-1D	11/11/2008	**-**	**9113[b]**
	12/10/2008	**-**	-
	3/10/2009	**190**	-
DP-5S	11/11/2008	**-**	**661**
	12/10/2008	**-**	-
	3/10/2009	**3.7**	-
DP-5D	11/11/2008	**-**	**179**
	12/10/2008	**-**	-
	3/10/2009	**60**	-
DP-6S	11/11/2008	**870**	**712**
	12/10/2008	**-**	-
	3/10/2009	**160**	-
DP-6D	11/11/2008	**-**	**1,110**
	12/10/2008	**-**	-
	3/10/2009	**730**	-
OSVE-11	3/10/2009	**27,000**	-
OSVE-10	3/10/2009	**450**	-

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.

TABLE G-5(b)

SOIL VAPOR EXTRACTION AND SOIL VAPOR MONITORING WELL ANALYTICAL SUMMARY RESULTS MODESTO GROUNDWATER SUPERFUND SITE MODESTO, CALIFORNIA

Location	Date	Sample Code	PCE (ppbv)	
DP-1A	03/10/2010	N	56	
	05/19/2010	N	24	
	05/19/2010	FD	23	
	08/26/2010	N	2.7	
	11/11/2010	N	1.9	J
	03/10/2011	N	2.6	
	06/06/2011	N	96	
	09/09/2011	N	110	
	11/16/2011	N	6.1	
	02/02/2012	N	4.6	
DP-1B	03/10/2010	N	180	
	05/19/2010	N	74	
	08/26/2010	N	4.5	U
	11/11/2010	N	2.3	U
	11/11/2010	FD	2.3	U
	03/10/2011	N	9.8	
	06/06/2011	N	93	
	09/09/2011	N	19	
	11/16/2011	N	26	
	02/02/2012	N	2.4	
DP-4A	03/10/2011	N	29	
	06/07/2011	N	41	
DP-4B	03/10/2011	N	3.7	
	06/07/2011	N	43	
	06/07/2011	FD	43	
DP-5A	03/10/2010	N	1.2	J
	05/19/2010	N	6.6	
	08/26/2010	N	2.4	U
	08/26/2010	FD	2.4	U
	11/11/2010	N	2.3	U
	09/08/2011	N	2.4	U
	11/16/2011	FD	1.9	U
	11/16/2011	N	1.9	U
	02/02/2012	N	2.0	U
DP-5B	03/10/2010	FD	21	
	03/10/2010	N	21	
	05/19/2010	N	6.6	
	08/26/2010	N	2.4	U
	11/11/2010	N	2.3	U
	09/08/2011	N	2.4	U
	11/16/2011	N	2.2	U

TABLE G-5(b)

SOIL VAPOR EXTRACTION AND SOIL VAPOR MONITORING WELL ANALYTICAL SUMMARY RESULTS MODESTO GROUNDWATER SUPERFUND SITE MODESTO, CALIFORNIA

Location	Date	Sample Code	PCE (ppbv)
	02/02/2012	N	5.0
DP-6A	03/10/2010	N	59
	05/19/2010	N	130
	08/26/2010	N	130
	11/11/2010	N	3.0
	03/10/2011	N	1.6 J
	06/09/2011	N	2.0 J
	09/09/2011	N	4.6
	11/16/2011	N	34
	02/02/2012	FD	31
	02/02/2012	N	29
DP-6B	03/10/2010	N	5.8
	05/19/2010	N	87
	05/19/2010	FD	90
	08/26/2010	N	2.4 U
	11/11/2010	N	2.3 U
	03/10/2011	N	2.3 U
	06/09/2011	N	2.1 U
	09/09/2011	N	2.4 U
	11/16/2011	N	2.2 U
	02/02/2012	N	2.2 U
OSVE-10	03/10/2010	N	530
	05/19/2010	N	320
	08/26/2010	N	610
	11/11/2010	N	20
	11/11/2010	FD	20
	03/10/2011	N	3.2 J
	06/07/2011	N	42
	09/09/2011	N	680
	11/16/2011	N	24
	02/02/2012	N	89
OSVE-11	03/10/2010	N	130
	05/19/2010	N	190
	08/26/2010	N	80
	11/11/2010	N	10
	03/10/2011	N	3.3
	06/07/2011	N	7.5
	09/09/2011	FD	17
	09/09/2011	N	25
	11/16/2011	N	5.2
	02/02/2012	N	5.6

TABLE G-5(b)

SOIL VAPOR EXTRACTION AND SOIL VAPOR MONITORING WELL ANALYTICAL SUMMARY RESULTS MODESTO GROUNDWATER SUPERFUND SITE MODESTO, CALIFORNIA

Location	Date	Sample Code	PCE (ppbv)	
SVE-01	03/10/2010	N	13	
	05/19/2010	N	22	
	08/26/2010	N	39	
	11/10/2010	N	8.4	
	03/10/2011	N	4.4	
	06/06/2011	N	15	
	09/09/2011	N	42	
	11/16/2011	N	13	
	02/02/2012	N	6.1	
SVE-02	03/10/2010	N	290	
	05/19/2010	N	420	
	08/26/2010	N	130	
	11/10/2010	N	7.5	
	03/09/2011	N	210	
	06/06/2011	N	320	
	06/06/2011	FD	200	
	09/08/2011	N	580	
	11/16/2011	FD	290	J+
	11/16/2011	N	280	
	02/02/2012	N	180	
SVE-03	03/10/2010	N	88	
	05/19/2010	N	53	
	08/26/2010	N	8.1	
	08/26/2010	FD	8.0	
	11/10/2010	N	22	
	03/09/2011	N	91	
	03/09/2011	FD	97	
	06/06/2011	N	82	
	09/08/2011	N	410	
	11/16/2011	N	120	
	02/02/2012	N	140	
	02/02/2012	FD	130	
SVE-04	03/10/2010	N	57	
	05/19/2010	N	40	
	08/26/2010	N	2.4	U
	11/10/2010	N	2.3	U
	03/09/2011	N	26	
	06/06/2011	N	23	
	09/08/2011	N	32	
	09/08/2011	FD	31	
	11/16/2011	N	29	
	02/02/2012	N	17	

TABLE G-5(b)

SOIL VAPOR EXTRACTION AND SOIL VAPOR MONITORING WELL ANALYTICAL SUMMARY RESULTS MODESTO GROUNDWATER SUPERFUND SITE MODESTO, CALIFORNIA

Location	Date	Sample Code	PCE (ppbv)

FD	-	field duplicate
J	-	estimated value
J+	-	estimated value, potential high bias
N	-	normal sample
PCE	-	Tetrachloroethlene
ppbv	-	parts per billion volume
SVE	-	Soil vapor extraction
U	-	not detected above the method detection limit

TABLE G-6(a)

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	-

TABLE G-6(a)

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**
	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	-
	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	-

TABLE G-6(a)

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**
	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	-
	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	-
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	-

TABLE G-6(a)

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**
	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	-
	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	-

TABLE G-6(a)

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**
	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	-
	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	-
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	-

TABLE G-6(a)

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**
	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	-
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	-

TABLE G-6(a)

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**
	8/23/2007	**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	-
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	-

TABLE G-6(a)

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	-

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
(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
U - Uranium
VOCs - Volatile organic compounds
pCi/L - picoCuries per liter

TABLE G-6(b)

GROUNDWATER TREATMENT SYSTEM ANALYTICAL SUMMARY RESULTS
MODESTO GROUNDWATER SUPERFUND SITE
MODESTO, CALIFORNIA

Sample Port	Date	Sample Code	pH	TDS (mg/L)	TSS (mg/L)	BOD (mg/L)	Total Uranium (PCI/L)	PCE (µg/L)	Toluene (µg/L)	TCE (µg/L)
SP-01 Extraction Well 1R	03/11/2010	N	7.2					180	0.5 U	0.5 U
	04/07/2010	N	7.63					180	0.5 U	0.5 U
	05/12/2010	N	7.15					160	0.5 U	0.5 U
	06/17/2010	N	6.96					130	0.5 U	0.5 U
	06/17/2010	FD	6.96					120	0.5 U	0.5 U
	07/15/2010	N					55.6			
	07/15/2010	N	6.98					140	0.5 U	0.5 U
	08/12/2010	N	7.7					150	0.5 U	0.5 U
	09/09/2010	N	7.27					210	0.5 U	0.5 U
	10/14/2010	N					54.4			
	10/14/2010	N	7.2					140	0.5 U	0.5 U
	10/14/2010	FD	7.2					140	0.5 U	0.5 U
	11/18/2010	N	6.85					130	0.5 U	0.5 U
	12/09/2010	N	7.32					88	0.5 U	0.5 U
	01/13/2011	N					49.0			
	01/13/2011	N	7.28					110	0.5 U	0.5 U
	02/10/2011	N	7.11					120	0.5 U	0.5 U
	03/09/2011	N	7.11					120	0.5 U	0.5 U
	04/14/2011	N					50.4			
	04/14/2011	N	7.25					120	0.5 U	0.5 U
	05/26/2011	N					55.3			
	06/02/2011	N	7.18					120	0.5 U	0.5 U
	07/14/2011	N					50.7			
	07/14/2011	N	7.35					140	0.5 U	0.5 U
	08/11/2011	N	7.41					160	0.5 U	0.5 U
	09/13/2011	N	7.4					130	0.5 U	0.5 U
	10/13/2011	N	7.46					140	0.5 U	0.5 U
	11/09/2011	N	7.37					130 J-	0.5 U	0.5 U

TABLE G-6(b)

GROUNDWATER TREATMENT SYSTEM ANALYTICAL SUMMARY RESULTS
MODESTO GROUNDWATER SUPERFUND SITE
MODESTO, CALIFORNIA

Sample Port	Date	Sample Code	pH	TDS (mg/L)	TSS (mg/L)	BOD (mg/L)	Total Uranium (PCI/L)	PCE (µg/L)	Toluene (µg/L)	TCE (µg/L)
	12/08/2011	N	7.38					150	0.5 U	0.5 U
	01/12/2012	N	7.49					140 J-	0.5 R	0.5 R
	02/09/2012	N	7.26					150 J+	0.5 U	0.5 U
	03/08/2012	N	7.57					120	0.5 U	0.5 U
SP-03 Carbon Influent	03/11/2010	N	8.66					0.4 J	0.5 U	0.5 U
	05/12/2010	N	8.39					0.4 J	0.5 U	0.5 U
	07/15/2010	N	8.13					0.4 J	0.5 U	0.5 U
	10/14/2010	N	8.25					0.5 U	0.5 U	0.5 U
	01/13/2011	N	8.25					0.5 U	0.5 U	0.5 U
	04/14/2011	FD	8.21					0.5 U	0.5 U	0.5 U
	04/14/2011	N	966					0.5 U	0.5 U	0.5 U
	05/26/2011	N					53.2			
	07/14/2011	N	8.37					0.5 U	0.5 U	0.5 U
	10/13/2011	N	8.51					0.2 J	0.5 U	0.5 U
	10/13/2011	FD	8.51					0.5 U	0.5 U	0.5 U
	01/12/2012	N	8.53					0.4 J	0.5 U	0.5 U
	01/12/2012	FD	8.53					0.3 J	0.5 U	0.5 U
SP-04 Carbon Mid Bed	03/11/2010	N	8.36					0.5 U	0.5 U	0.5 U
	05/12/2010	N	8.3					0.5 U	0.5 U	0.5 U
	07/15/2010	N	8.11					0.3 J	0.5 U	0.5 U
	10/14/2010	N	8.19					0.2 J	0.5 U	0.5 U
	01/13/2011	N	8.2					0.2 J	0.5 U	0.5 U
	04/14/2011	N	8.17					0.5 J	0.5 U	0.5 U
	05/26/2011	N					50.6			
	07/14/2011	N	8.37					0.3 J	0.5 U	0.5 U
	07/14/2011	FD	8.37					0.3 J	0.5 U	0.5 U
	10/13/2011	N	8.46					0.3 J	0.5 U	0.5 U
	01/12/2012	N	8.41					0.5 U	0.5 U	0.5 U

TABLE G-6(b)

GROUNDWATER TREATMENT SYSTEM ANALYTICAL SUMMARY RESULTS
MODESTO GROUNDWATER SUPERFUND SITE
MODESTO, CALIFORNIA

Sample Port	Date	Sample Code	pH	TDS (mg/L)	TSS (mg/L)	BOD (mg/L)	Total Uranium (PCI/L)	PCE (µg/L)	Toluene (µg/L)	TCE (µg/L)
SP-05 Post Carbon Pre Ion E	03/11/2010	N	8.29					0.5 U	0.5 U	0.5 U
	05/12/2010	N	8.38					0.5 U	0.5 U	0.5 U
	07/15/2010	FD					57.0			
	07/15/2010	N					58.1			
	07/15/2010	N	7.94					0.5 U	0.5 U	0.5 U
	10/14/2010	N					58.3			
	10/14/2010	N	8.15					0.2 J	0.5 U	0.5 U
	01/13/2011	N					69.9			
	01/13/2011	N	8.15					0.5 U	0.5 U	0.5 U
	04/14/2011	N					74.5			
	04/14/2011	N	8.13					0.5 J	0.5 U	0.5 U
	05/26/2011	N					57.9			
	07/14/2011	N					52.2			
	07/14/2011	N	8.32					0.3 J	0.5 U	0.5 U
	10/13/2011	N	8.41					0.4 J	0.5 U	0.5 U
	01/12/2012	N	8.45					0.5 U	0.5 U	0.5 U
SP-06 Ion Exchange Mid Bed	07/15/2010	N					8.04			
	10/14/2010	N					21.3			
	01/13/2011	N					40.0			
	04/14/2011	N					18.6			
	07/14/2011	N					36.7			
SP-07 GWT Effluent	03/11/2010	N	8.4	640				0.5 U	0.5 U	0.5 U
	04/07/2010	N	8.28	650				0.5 U	0.5 U	0.5 U
	05/12/2010	N	8.1	640				0.5 U	0.5 U	0.5 U
	06/17/2010	N	8.2	660	10 U	2.0 UJ		0.5 U	0.5 U	0.5 U
	06/17/2010	FD	8.2	670						
	07/15/2010	N					9.95			

TABLE G-6(b)

GROUNDWATER TREATMENT SYSTEM ANALYTICAL SUMMARY RESULTS
MODESTO GROUNDWATER SUPERFUND SITE
MODESTO, CALIFORNIA

Sample Port	Date	Sample Code	pH	TDS (mg/L)	TSS (mg/L)	BOD (mg/L)	Total Uranium (PCI/L)	PCE (µg/L)	Toluene (µg/L)	TCE (µg/L)
	07/15/2010	N	7.89	650	10 U	2.0 UJ		0.5 U	0.5 U	0.5 U
	08/12/2010	N	8.21	640	10 U	2.0 UJ		0.5 U	0.5 U	0.5 U
	09/09/2010	N	8.5	660	10 U	2.0 UJ		0.5 U	0.5 U	0.5 U
	09/09/2010	FD	8.5	660						
	10/14/2010	N					9.86			
	10/14/2010	N	8.11	650	10 U	2.0 UJ		0.2 J	0.5 U	0.5 U
	11/18/2010	N	7.57	660	10 U	2.0		0.2 J	0.5 U	0.5 U
	12/09/2010	N	8.21	660	3 U	2.0 UJ		0.5 U	0.5 U	0.5 U
	01/13/2011	N					8.73			
	01/13/2011	N	8.16	650	10 U	2.0		0.5 U	0.5 U	0.5 U
	02/10/2011	N	8.28	650	10 U	2.0 UJ		0.3 J	0.5 U	0.5 U
	03/09/2011	N	7.95	640	10 U	2.0 UJ		0.2 J	0.5 U	0.5 U
	03/09/2011	FD	7.82					0.2 J	0.5 U	0.5 U
	04/14/2011	FD					24.6			
	04/14/2011	N					25.4			
	04/14/2011	TB	7.83	660	10 U	2.0		0.3 J	0.5 U	0.5 U
	05/10/2011	N					11.7			
	05/10/2011	N	8.11	640	10 U	2.0 UJ		0.3 J	0.5 U	0.5 U
	05/10/2011	FD	8.11	640	10 U					
	05/19/2011	N					10.3			
	05/26/2011	N					11.6			
	06/02/2011	N					13.0			
	06/02/2011	N	8.21	640	10 U	2.0 UJ		0.3 J	0.5 U	0.5 U
	06/02/2011	FD	8.21					0.4 J	0.5 U	0.5 U
	07/14/2011	FD					12.0			
	07/14/2011	N					12.1			
	07/14/2011	N	8.34	660	10 U	2.0		0.3 J	0.5 U	0.5 U
	08/11/2011	N					13.7			

TABLE G-6(b)

GROUNDWATER TREATMENT SYSTEM ANALYTICAL SUMMARY RESULTS
MODESTO GROUNDWATER SUPERFUND SITE
MODESTO, CALIFORNIA

Sample Port	Date	Sample Code	pH	TDS (mg/L)	TSS (mg/L)	BOD (mg/L)	Total Uranium (PCI/L)	PCE (µg/L)	Toluene (µg/L)	TCE (µg/L)
	08/11/2011	N	8.26	650	10 U	2.0 UJ		0.4 J	0.5 U	0.5 U
	09/13/2011	N	8.42	660	10 U	2.0 UJ		0.4 J	0.5 U	0.5 U
	10/13/2011	N	8.41	660	10 U	2.0 U		0.4 J	0.5 U	0.5 U
	11/09/2011	N	8.22	650	10 U	2.0 U		0.4 J	0.5 U	0.5 U
	12/08/2011	N	8.21	670	10 U	2.0 U		0.3 J	0.5 U	0.5 U
	12/08/2011	FD	8.21	660	10 U	2.0 U				
	01/12/2012	N	8.46	646	10 U	2.0 U		0.5 U	0.5 U	0.5 U
	02/09/2012	N	8.34	660	10 U	2.0 U		0.5 U	0.5 U	0.5 U
	03/08/2012	N	8.27	640				0.5 U	0.5 U	0.5 U
	03/15/2012	N			10 U	2.4				
	03/15/2012	FD			10 U	2.4				

BOD - biochemical oxygen demand
FD - field duplicate
J - Estimated value
J- - estimated value, potential low bias
mg/L - milligrams per liter
PCE - Tetrachloroethlene
PCI/L - pico curies per Liter
TCE - Trichloroethene
TDS - total dissolved solids
TSS - total suspended solids
U - not detected above the method detection limit
µg/L - micrograms per liter

TABLE G-7(a)

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												

TABLE G-7(a)

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												

TABLE G-7(a)

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 Stack-060807**	**SVE Stack-073107**	**SVE Stack-082407**	**SVE Stack-092407**	**SVE Stack-102907**	**SVE Stack-112807**
Sample Date:	07/29/09	08/10/09	09/22/09	10/26/09	11/23/09	12/16/09	06/08/07	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)	**1200**	**1800**	**940**	**630**	**500**	**420**	< 2.4000	**4.5**	< 2.3000	**4.3**	< 2.3000	< 2.0000
Trichloroethylene (TCE)	**19**	**20**	**7.3**	**4.4**	**3**	**2.2**	< 2.4000	< 2.1000	< 2.3000	**4.6**	< 2.3000	< 2.0000
cis-1,2-Dichloroethylene	**10**	**11**	**3.3**	**1.8 J**	**1.4 J**	< 2.1000	< 2.4000	< 2.1000	< 2.3000	**5**	< 2.3000	< 2.0000
Dichlorodifluoromethane	**2.1 J**	**2.2 J**	< 2.3000	**1.6 J**	**1.3 J**	**1.5 J**	< 2.4000	< 2.1000	< 2.3000	**5**	< 2.3000	< 2.0000
Chloroform	**10**	**44**	**34**	**39**	**26**	**29**	< 2.4000	< 2.1000	< 2.3000	**5.8**	< 2.3000	< 2.0000
1,1,1-Trichloroethane	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.4000	< 2.1000	< 2.3000	**6.7**	< 2.3000	< 2.0000
1,1,2,2-Tetrachloroethane	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.4000	< 2.1000	< 2.3000	**1.9**	< 2.3000	< 2.0000
1,1,2-Trichloro-1,2,2-trifluoroethane	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.4000	< 2.1000	< 2.3000	**6.1**	< 2.3000	< 2.0000
1,1,2-Trichloroethane	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.4000	< 2.1000	< 2.3000	**4.1**	< 2.3000	< 2.0000
1,1-Dichloroethane	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.4000	< 2.1000	< 2.3000	**5.5**	< 2.3000	< 2.0000
1,1-Dichloroethene	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.4000	< 2.1000	< 2.3000	**6.3**	< 2.3000	< 2.0000
1,2,4-Trichlorobenzene	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.4000	< 2.1000	< 2.3000	**1.7**	< 2.3000	< 2.0000
1,2,4-Trimethylbenzene	**2.7**	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.4000	< 2.1000	< 2.3000	**1.9**	< 2.3000	< 2.0000
1,2-Dibromoethane (Ethylene dibromide)	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.4000	< 2.1000	< 2.3000	**2.6**	< 2.3000	< 2.0000
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	< 2.0000
1,2-Dichlorobenzene	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.4000	< 2.1000	< 2.3000	**1.5**	< 2.3000	< 2.0000
1,2-Dichloroethane	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.4000	< 2.1000	< 2.3000	**6.6**	< 2.3000	< 2.0000
1,2-Dichloropropane	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.4000	< 2.1000	< 2.3000	**5.1**	< 2.3000	< 2.0000
1,3,5-Trimethylbenzene	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.4000	< 2.1000	< 2.3000	**2**	< 2.3000	< 2.0000
1,3-Dichlorobenzene	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.4000	< 2.1000	< 2.3000	**1.6**	< 2.3000	< 2.0000
1,4-Dichlorobenzene	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.4000	< 2.1000	< 2.3000	**1.5**	< 2.3000	< 2.0000
2-Butanone (MEK)								< 2.1000	< 2.3000	**2**	< 2.3000	< 2.0000
4-Ethyltoluene								< 2.1000	< 2.3000	< 1.0000	< 2.3000	< 2.0000
Acetone							**1.3**	**10**	4.8	**5.6**	**14**	**2.2**
Benzene	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	**2.3**	< 2.4000	< 2.1000	< 2.3000	**5.4**	< 2.3000	< 2.0000
Bromomethane	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.4000	< 2.1000	< 2.3000	**5.2**	< 2.3000	< 2.0000
Carbon disulfide								< 2.1000	< 2.3000	< 1.0000	< 2.3000	< 2.0000
Carbon tetrachloride	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.4000	< 2.1000	< 2.3000	**6.7**	< 2.3000	< 2.0000
Chlorobenzene	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.4000	< 2.1000	< 2.3000	**2.7**	< 2.3000	< 2.0000
Chloroethane	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.4000	< 2.1000	< 2.3000	**6.4**	< 2.3000	< 2.0000
Chloromethane	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.4000	< 2.1000	< 2.3000	**7.7**	< 2.3000	< 2.0000
cis-1,3-Dichloropropene	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.4000	< 2.1000	< 2.3000	**3.9**	< 2.3000	< 2.0000
Ethylbenzene	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.4000	< 2.1000	< 2.3000	**3.7**	< 2.3000	< 2.0000
Hexachlorobutadiene	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.4000	< 2.1000	< 2.3000	**2.6**	< 2.3000	< 2.0000
m,p-Xylene	**4.5 J**	< 5.7000	< 4.6000	< 4.5000	< 4.6000	< 4.1000	< 4.8000	< 4.1000	< 4.7000	**8**	< 4.5000	< 4.0000
Methylene chloride	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.4000	< 2.1000	< 2.3000	**6**	< 2.3000	< 2.0000
o-Xylene	**2.7**	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.4000	< 2.1000	< 2.3000	**3.1**	< 2.3000	< 2.0000
Styrene	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.4000	< 2.1000	< 2.3000	**2**	< 2.3000	< 2.0000
Toluene	**5**	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.4000	< 2.1000	< 2.3000	**15**	< 2.3000	< 2.0000
trans-1,2-Dichloroethene								< 2.1000	< 2.3000	< 1.0000	< 2.3000	< 2.0000
trans-1,3-Dichloropropene	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.4000	< 2.1000	< 2.3000	**3.2**	< 2.3000	< 2.0000
Trichlorofluoromethane	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.4000	< 2.1000	< 2.3000	**7.8**	< 2.3000	< 2.0000
Vinyl chloride	< 2.4000	< 2.9000	< 2.3000	< 2.3000	< 2.3000	< 2.1000	< 2.4000	< 2.1000	< 2.3000	**6.2**	< 2.3000	< 2.0000
1,2-DICHLOROTETRAFLUOROETHA												

TABLE G-7(a)

SVE AND GROUNDWATER TREATMENT VAPOR ANALYTICAL SUMMARY RESULTS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Sample ID:	**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**	**SVE Stack-121008**
Sample Date:	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	12/10/08
Units:	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV
Tetrachloroethylene (PCE)	**17**	< 1.7000	< 2.5000	**0.7**	< 2.2000	< 2.3000	**3**	< 1.9000	**6.9**	**2.6**	< 2.4000	< 1.9000
Trichloroethylene (TCE)	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000	< 1.9000
cis-1,2-Dichloroethylene	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000	< 1.9000
Dichlorodifluoromethane	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	**1.6**	**1.5**	1.5	**1.3**	< 2.4000	**1.3**
Chloroform	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	**1.4**	< 2.4000	< 1.9000
1,1,1-Trichloroethane	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000	< 1.9000
1,1,2,2-Tetrachloroethane	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000	< 1.9000
1,1,2-Trichloro-1,2,2-trifluoroethane	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000	< 1.9000
1,1,2-Trichloroethane	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000	< 1.9000
1,1-Dichloroethane	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000	< 1.9000
1,1-Dichloroethene	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000	< 1.9000
1,2,4-Trichlorobenzene	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	**1.6**	< 2.4000	< 1.9000
1,2,4-Trimethylbenzene	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000	**38**
1,2-Dibromoethane (Ethylene dibromide)	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000	**9**
1,2-Dichloro-1,1,2,2-trifluoroethane	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000	< 1.9000
1,2-Dichlorobenzene	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000	< 1.9000
1,2-Dichloroethane	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000	< 1.9000
1,2-Dichloropropane	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000	< 1.9000
1,3,5-Trimethylbenzene	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000	**21**
1,3-Dichlorobenzene	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000	< 1.9000
1,4-Dichlorobenzene	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000	< 1.9000
2-Butanone (MEK)	< 2.3000	< 1.7000										
4-Ethyltoluene	< 2.3000	< 1.7000										
Acetone	< 2.3000	< 1.7000										
Benzene	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000	**9.4**
Bromomethane	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000	< 1.9000
Carbon disulfide	< 2.3000	< 1.7000										
Carbon tetrachloride	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000	< 1.9000
Chlorobenzene	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000	< 1.9000
Chloroethane	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000	< 1.9000
Chloromethane	< 2.3000	< 1.7000	< 2.5000	**0.5**	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000	< 1.9000
cis-1,3-Dichloropropene	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000	< 1.9000
Ethylbenzene	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000	**41**
Hexachlorobutadiene	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000	< 1.9000
m,p-Xylene	< 4.6000	< 3.5000	< 4.9000	**1.2**	< 4.3000	< 4.6000	< 4.1000	< 3.8000	< 4.2000	< 4.0000	< 4.7000	**420**
Methylene chloride	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000	< 1.9000
o-Xylene	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000	**110**
Styrene	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000	< 1.9000
Toluene	< 2.3000	< 1.7000	< 2.5000	**5.2**	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000	**210**
trans-1,2-Dichloroethene	< 2.3000	< 1.7000										
trans-1,3-Dichloropropene	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000	< 1.9000
Trichlorofluoromethane	< 2.3000	< 1.7000	< 2.5000	< 1.0000	**4.5**	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000	< 1.9000
Vinyl chloride	< 2.3000	< 1.7000	< 2.5000	< 1.0000	< 2.2000	< 2.3000	< 2.0000	< 1.9000	< 2.1000	< 2.0000	< 2.4000	< 1.9000
1,2-DICHLOROTETRAFLUOROETHA												

TABLE G-7(a)

SVE AND GROUNDWATER TREATMENT VAPOR ANALYTICAL SUMMARY RESULTS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Sample ID:	**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**	**SVE Stack-112309**
Sample Date:	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	11/23/09
Units:	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV
Tetrachloroethylene (PCE)	< 1.9000	**2.7**	**2.4**	**4.4**	**11**	< 2.4000	< 3.0000	**2.3**	**3**	< 2.1000	**6.2**	**4**
Trichloroethylene (TCE)	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000	< 2.3000
cis-1,2-Dichloroethylene	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000	**3.3**
Dichlorodifluoromethane	< 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**	**1.4 J**
Chloroform	< 1.9000	< 2.0000	< 2.2000	**2.7**	< 1.8000	< 2.4000	< 3.0000	**1.5**	**3.9**	**5.5**	**31**	**83**
1,1,1-Trichloroethane	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000	< 2.3000
1,1,2,2-Tetrachloroethane	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000	< 2.3000
1,1,2-Trichloro-1,2,2-trifluoroethane	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000	< 2.3000
1,1,2-Trichloroethane	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000	< 2.3000
1,1-Dichloroethane	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000	< 2.3000
1,1-Dichloroethene	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000	< 2.3000
1,2,4-Trichlorobenzene	< 1.9000	< 2.0000 UJ	< 2.2000	< 2.2000 UJ	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000	< 2.3000
1,2,4-Trimethylbenzene	**2**	**2**	< 2.2000	< 2.2000	< 1.8000	**4.5**	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000	< 2.3000
1,2-Dibromoethane (Ethylene dibromide)	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000	< 2.3000
1,2-Dichloro-1,1,2,2-trifluoroethane	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000	< 2.3000
1,2-Dichlorobenzene	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000	< 2.3000
1,2-Dichloroethane	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000	< 2.3000
1,2-Dichloropropane	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000	< 2.3000
1,3,5-Trimethylbenzene	**2.6**	**1.8 J**	< 2.2000	< 2.2000	< 1.8000	**2.6**	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000	< 2.3000
1,3-Dichlorobenzene	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000	< 2.3000
1,4-Dichlorobenzene	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000	< 2.3000
2-Butanone (MEK)												
4-Ethyltoluene												
Acetone												
Benzene	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000	< 2.3000
Bromomethane	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000	< 2.3000
Carbon disulfide												
Carbon tetrachloride	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000	< 2.3000
Chlorobenzene	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000	< 2.3000
Chloroethane	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000	< 2.3000
Chloromethane	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000	< 2.3000
cis-1,3-Dichloropropene	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000	< 2.3000
Ethylbenzene	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000 UJ	< 2.2000	< 2.6000	< 2.1000	< 2.3000	< 2.3000
Hexachlorobutadiene	< 1.9000	< 2.0000 UJ	< 2.2000	< 2.2000 UJ	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000	< 2.3000
m,p-Xylene	**6.6**	< 3.9000	< 4.3000	< 4.4000	< 3.5000	**8.3**	< 5.9000	< 4.5000	< 5.1000	< 4.3000	< 4.6000	< 4.6000
Methylene chloride	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	**3.1**	**1.3 J**	< 2.1000	< 2.3000	< 2.3000
o-Xylene	**3.3**	< 2.0000	< 2.2000	< 2.2000	< 1.8000	**3.8**	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000	< 2.3000
Styrene	< 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	< 2.3000
Toluene	< 1.9000	**3.1**	< 2.2000	< 2.2000	**2.7**	**1.8 J**	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000	< 2.3000
trans-1,2-Dichloroethene												
trans-1,3-Dichloropropene	< 3.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000	< 2.3000
Trichlorofluoromethane	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	**1.2 J**	< 2.3000	< 2.3000
Vinyl chloride	< 1.9000	< 2.0000	< 2.2000	< 2.2000	< 1.8000	< 2.4000	< 3.0000	< 2.2000	< 2.6000	< 2.1000	< 2.3000	< 2.3000
1,2-DICHLOROTETRAFLUOROETHA												

TABLE G-7(a)

SVE AND GROUNDWATER TREATMENT VAPOR ANALYTICAL SUMMARY RESULTS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Sample ID:	SVE Stack-121609	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	GWT Pre GAC-062408	GWT Pre GAC-072408
Sample Date:	12/16/09	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	06/24/08	07/24/08
Units:	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV
Tetrachloroethylene (PCE)	**17**	**550**	**450**	< 2.0000	**390**	**420**	**200**	**22**	**360**	**110**	**65**	**450**
Trichloroethylene (TCE)	< 2.1000	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000	< 2.0000	< 1.9000
cis-1,2-Dichloroethylene	**6.6**	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000	< 2.0000	< 1.9000
Dichlorodifluoromethane	**1.1 J**	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000	< 2.0000	< 1.9000
Chloroform	**62**	**8.8**	**13**	< 2.0000	< 21.0000	**9.5**	**4.7**	< 1.7000	**9.5**	**11**	**10**	**12**
1,1,1-Trichloroethane	< 2.1000	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000	< 2.0000	< 1.9000
1,1,2,2-Tetrachloroethane	< 2.1000	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000	< 2.0000	< 1.9000
1,1,2-Trichloro-1,2,2-trifluoroethane	< 2.1000	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000	< 2.0000	< 1.9000
1,1,2-Trichloroethane	< 2.1000	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000	< 2.0000	< 1.9000
1,1-Dichloroethane	< 2.1000	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000	< 2.0000	< 1.9000
1,1-Dichloroethene	< 2.1000	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000	< 2.0000	< 1.9000
1,2,4-Trichlorobenzene	< 2.1000	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000	< 2.0000	< 1.9000
1,2,4-Trimethylbenzene	< 2.1000	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	**2.2**	< 1.7000	< 2.6000	< 2.3000	< 2.0000	< 1.9000
1,2-Dibromoethane (Ethylene dibromide)	< 2.1000	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000	< 2.0000	< 1.9000
1,2-Dichloro-1,1,2,2-trifluoroethane	< 2.1000	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000	< 2.0000	< 1.9000
1,2-Dichlorobenzene	< 2.1000	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000	< 2.0000	< 1.9000
1,2-Dichloroethane	< 2.1000	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000	< 2.0000	< 1.9000
1,2-Dichloropropane	< 2.1000	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000	< 2.0000	< 1.9000
1,3,5-Trimethylbenzene	< 2.1000	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000	< 2.0000	< 1.9000
1,3-Dichlorobenzene	< 2.1000	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000	< 2.0000	< 1.9000
1,4-Dichlorobenzene	< 2.1000	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000	< 2.0000	< 1.9000
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	**1.4**	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	**6.2**	< 1.7000	< 2.6000	< 2.3000	< 2.0000	< 1.9000
Bromomethane	< 2.1000	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000	< 2.0000	< 1.9000
Carbon disulfide		< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000						
Carbon tetrachloride	< 2.1000	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000	< 2.0000	< 1.9000
Chlorobenzene	< 2.1000	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000	< 2.0000	< 1.9000
Chloroethane	< 2.1000	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000	< 2.0000	< 1.9000
Chloromethane	< 2.1000	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000	< 2.0000	< 1.9000
cis-1,3-Dichloropropene	< 2.1000	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000	< 2.0000	< 1.9000
Ethylbenzene	< 2.1000	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	**2.8**	< 1.7000	< 2.6000	< 2.3000	< 2.0000	< 1.9000
Hexachlorobutadiene	< 2.1000	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000	< 2.0000	< 1.9000
m,p-Xylene	< 4.1000	< 4.8000	< 4.4000	< 4.0000	< 42.0000	< 32.0000	**10**	< 3.5000	< 5.3000	< 4.7000	< 3.9000	< 3.8000
Methylene chloride	< 2.1000	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000	< 2.0000	< 1.9000
o-Xylene	< 2.1000	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	**3**	< 1.7000	< 2.6000	< 2.3000	< 2.0000	< 1.9000
Styrene	< 2.1000	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000	< 2.0000	< 1.9000
Toluene	< 2.1000	**8.2**	**1.2**	**6.2**	< 21.0000	< 16.0000	**21**	< 1.7000	< 2.6000	< 2.3000	< 2.0000	< 1.9000
trans-1,2-Dichloroethene		< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000						
trans-1,3-Dichloropropene	< 2.1000	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000	< 2.0000	< 1.9000
Trichlorofluoromethane	< 2.1000	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000	< 2.0000	< 1.9000
Vinyl chloride	< 2.1000	< 2.4000	< 2.2000	< 2.0000	< 21.0000	< 16.0000	< 1.9000	< 1.7000	< 2.6000	< 2.3000	< 2.0000	< 1.9000
1,2-DICHLOROTETRAFLUOROETHA												

TABLE G-7(a)

SVE AND GROUNDWATER TREATMENT VAPOR ANALYTICAL SUMMARY RESULTS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Sample ID:	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	GWT Pre GAC-072909	GWT Pre GAC-081009
Sample Date:	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	07/29/09	08/10/09
Units:	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV
Tetrachloroethylene (PCE)	**370**	**160**	**450**	**390**	**380**	**300**	**460**	**560**	**35**	**390**	**490**	**480**
Trichloroethylene (TCE)	< 2.1000	< 2.0000	**1.6**	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000	< 2.7000	< 2.4000
cis-1,2-Dichloroethylene	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000	< 2.7000	< 2.4000
Dichlorodifluoromethane	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000	< 2.7000	< 2.4000
Chloroform	**12**	**12**	**12**	**9.9**	**10**	**11**	**10**	**10**	< 2.4000	**7.2**	**9.7**	**11**
1,1,1-Trichloroethane	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000	< 2.7000	< 2.4000
1,1,2,2-Tetrachloroethane	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000	< 2.7000	< 2.4000
1,1,2-Trichloro-1,2,2-trifluoroethane	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000	< 2.7000	< 2.4000
1,1,2-Trichloroethane	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000	< 2.7000	< 2.4000
1,1-Dichloroethane	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000	< 2.7000	< 2.4000
1,1-Dichloroethene	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000	< 2.7000	< 2.4000
1,2,4-Trichlorobenzene	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000 UJ	< 1.8000	< 2.4000	< 2.6000	< 2.7000	< 2.4000
1,2,4-Trimethylbenzene	< 2.1000	< 2.0000	< 2.2000	< 1.8000	**3.1**	< 2.2000	< 2.1000	< 1.8000	**2.8**	< 2.6000	< 2.7000	< 2.4000
1,2-Dibromoethane (Ethylene dibromide)	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000	< 2.7000	< 2.4000
1,2-Dichloro-1,1,2,2-trifluoroethane	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000	< 2.7000	< 2.4000
1,2-Dichlorobenzene	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000	< 2.7000	< 2.4000
1,2-Dichloroethane	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000	< 2.7000	< 2.4000
1,2-Dichloropropane	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000	< 2.7000	< 2.4000
1,3,5-Trimethylbenzene	< 2.1000	< 2.0000	< 2.2000	< 1.8000	**3.1**	< 2.2000	< 2.1000	< 1.8000	**1.7 J**	< 2.6000	< 2.7000	< 2.4000
1,3-Dichlorobenzene	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000	< 2.7000	< 2.4000
1,4-Dichlorobenzene	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000	< 2.7000	< 2.4000
2-Butanone (MEK)												
4-Ethyltoluene												
Acetone												
Benzene	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000	< 2.7000	< 2.4000
Bromomethane	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000	< 2.7000	< 2.4000
Carbon disulfide												
Carbon tetrachloride	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000	< 2.7000	< 2.4000
Chlorobenzene	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000	< 2.7000	< 2.4000
Chloroethane	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000	< 2.7000	< 2.4000
Chloromethane	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000	< 2.7000	< 2.4000
cis-1,3-Dichloropropene	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000	< 2.7000	< 2.4000
Ethylbenzene	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000	< 2.7000	< 2.4000
Hexachlorobutadiene	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000 UJ	< 1.8000	< 2.4000	< 2.6000 UJ	< 2.7000	< 2.4000
m,p-Xylene	< 4.2000	< 3.9000	< 4.5000	< 3.6000	< 3.7000	< 4.3000	< 4.3000	< 3.5000	**4.2 J**	< 5.3000	< 5.3000	< 4.9000
Methylene chloride	< 2.1000	< 2.0000	< 2.2000	**1.3**	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000	< 2.7000	< 2.4000
o-Xylene	< 2.1000	< 2.0000	< 2.2000	< 1.8000	**1 J**	< 2.2000	< 2.1000	< 1.8000	**2.1 J**	< 2.6000	< 2.7000	< 2.4000
Styrene	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000 UJ	< 2.2000	< 2.1000	< 1.8000 UJ	< 2.4000 UJ	< 2.6000 UJ	< 2.7000	< 2.4000
Toluene	< 2.1000	< 2.0000	**2.9**	**0.9**	**1.9**	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000	< 2.7000	< 2.4000
trans-1,2-Dichloroethene												
trans-1,3-Dichloropropene	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000	< 2.7000	< 2.4000
Trichlorofluoromethane	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000	< 2.7000	< 2.4000
Vinyl chloride	< 2.1000	< 2.0000	< 2.2000	< 1.8000	< 1.8000	< 2.2000	< 2.1000	< 1.8000	< 2.4000	< 2.6000	< 2.7000	< 2.4000
1,2-DICHLOROTETRAFLUOROETHA												

TABLE G-7(a)

SVE AND GROUNDWATER TREATMENT VAPOR ANALYTICAL SUMMARY RESULTS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Sample ID:	GWT Pre GAC-092209	GWT Pre GAC-102609	GWT Pre GAC-112309	GWT Pre GAC-121609	GWT Stack-073107	GWT Stack-082407	GWT Stack-092407	GWT Stack-102907	GWT Stack-112807	GWT Stack-120607	GWT Stack-122007	GWT Stack-011708
Sample Date:	09/22/09	10/26/09	11/23/09	12/16/09	07/31/07	08/24/07	09/24/07	10/29/07	11/28/07	12/06/07	12/20/07	01/17/08
Units:	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV
Tetrachloroethylene (PCE)	**280**	**300**	**180**	**350**	**400**	< 2.3000	**510**	**460**	**8**	< 2.1000	**3**	**1.7**
Trichloroethylene (TCE)	< 2.2000	< 2.3000	< 2.2000	**1.5 J**	< 4.8000	< 2.3000	< 2.4000	< 2.2000	**3.6**	< 2.1000	< 2.2000	< 1.6000
cis-1,2-Dichloroethylene	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000	< 2.1000	< 2.2000	< 1.6000
Dichlorodifluoromethane	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000	< 2.1000	< 2.2000	< 1.6000
Chloroform	**11**	**9.9**	**7.8**	**9.6**	**8.9**	< 2.3000	**12**	**12**	< 2.0000	< 2.1000	**3.6**	**9.3**
1,1,1-Trichloroethane	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000	< 2.1000	< 2.2000	< 1.6000
1,1,2,2-Tetrachloroethane	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000	< 2.1000	< 2.2000	< 1.6000
1,1,2-Trichloro-1,2,2-trifluoroethane	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000	< 2.1000	< 2.2000	< 1.6000
1,1,2-Trichloroethane	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000	< 2.1000	< 2.2000	< 1.6000
1,1-Dichloroethane	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000	< 2.1000	< 2.2000	< 1.6000
1,1-Dichloroethene	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000	< 2.1000	< 2.2000	< 1.6000
1,2,4-Trichlorobenzene	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.8000	< 2.3000	**2.4**	< 2.2000	< 2.0000	< 2.1000	< 2.2000	< 1.6000
1,2,4-Trimethylbenzene	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000	< 2.1000	**1.1**	< 1.6000
1,2-Dibromoethane (Ethylene dibromide)	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000	< 2.1000	< 2.2000	< 1.6000
1,2-Dichloro-1,1,2,2-trifluoroethane	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000	< 2.1000	< 2.2000	< 1.6000
1,2-Dichlorobenzene	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000	< 2.1000	< 2.2000	< 1.6000
1,2-Dichloroethane	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000	< 2.1000	< 2.2000	< 1.6000
1,2-Dichloropropane	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000	< 2.1000	< 2.2000	< 1.6000
1,3,5-Trimethylbenzene	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000	< 2.1000	< 2.2000	< 1.6000
1,3-Dichlorobenzene	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000	< 2.1000	< 2.2000	< 1.6000
1,4-Dichlorobenzene	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000	< 2.1000	< 2.2000	< 1.6000
2-Butanone (MEK)					< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000	< 2.1000	< 2.2000	**4.2**
4-Ethyltoluene					< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000	< 2.1000	< 2.2000	< 1.6000
Acetone					**7.6**	**7.9**	**1.2**	**10**	**4.2**	**4.9**	**2.4**	**2.6**
Benzene	< 2.2000	< 2.3000	< 2.2000	**4.4**	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000	< 2.1000	**1.2**	< 1.6000
Bromomethane	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000	< 2.1000	< 2.2000	< 1.6000
Carbon disulfide					< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000	< 2.1000	< 2.2000	< 1.6000
Carbon tetrachloride	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000	< 2.1000	< 2.2000	< 1.6000
Chlorobenzene	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000	< 2.1000	< 2.2000	< 1.6000
Chloroethane	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000	< 2.1000	< 2.2000	< 1.6000
Chloromethane	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000	< 2.1000	< 2.2000	< 1.6000
cis-1,3-Dichloropropene	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000	< 2.1000	< 2.2000	< 1.6000
Ethylbenzene	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000	< 2.1000	< 2.2000	< 1.6000
Hexachlorobutadiene	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.8000	< 2.3000	**2.8**	< 2.2000	< 2.0000	< 2.1000	< 2.2000	< 1.6000
m,p-Xylene	< 4.3000	< 4.6000	< 4.5000	< 4.1000	< 9.6000	< 4.7000	< 4.7000	< 4.3000	< 4.0000	< 4.2000	< 4.4000	< 3.1000
Methylene chloride	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000	< 2.1000	< 2.2000	< 1.6000
o-Xylene	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000	< 2.1000	< 2.2000	< 1.6000
Styrene	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000	< 2.1000	< 2.2000	< 1.6000
Toluene	< 2.2000	< 2.3000	**2.8**	< 2.1000	< 4.8000	< 2.3000	< 2.4000	**1.1**	< 2.0000	**6.6**	< 2.2000	**1.1**
trans-1,2-Dichloroethene					< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000	< 2.1000	< 2.2000	< 1.6000
trans-1,3-Dichloropropene	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000	< 2.1000	< 2.2000	< 1.6000
Trichlorofluoromethane	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000	< 2.1000	< 2.2000	< 1.6000
Vinyl chloride	< 2.2000	< 2.3000	< 2.2000	< 2.1000	< 4.8000	< 2.3000	< 2.4000	< 2.2000	< 2.0000	< 2.1000	< 2.2000	< 1.6000
1,2-DICHLOROTETRAFLUOROETHA												

TABLE G-7(a)

SVE AND GROUNDWATER TREATMENT VAPOR ANALYTICAL SUMMARY RESULTS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Sample ID:	**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**	**GWT Stack-112508**	**GWT Stack-013009**	**GWT Stack-022709**
Sample Date:	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	11/25/08	01/30/09	02/27/09
Units:	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV
Tetrachloroethylene (PCE)	**12**	**27**	**73**	**330**	**460**	**34**	**32**	**27**	**43**	**98**	**560**	**310**
Trichloroethylene (TCE)	**3.5**	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000	< 2.1000	< 2.2000	< 2.1000
cis-1,2-Dichloroethylene	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000	< 2.1000	< 2.2000	< 2.1000
Dichlorodifluoromethane	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000	< 2.1000	< 2.2000	< 2.1000
Chloroform	**9.6**	**9.7**	**10**	**8.8**	**11**	**13**	**14**	**13**	**7.2**	**9.5**	**11**	**11**
1,1,1-Trichloroethane	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000	< 2.1000	< 2.2000	< 2.1000
1,1,2,2-Tetrachloroethane	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000	< 2.1000	< 2.2000	< 2.1000
1,1,2-Trichloro-1,2,2-trifluoroethane	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000	< 2.1000	< 2.2000	< 2.1000
1,1,2-Trichloroethane	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000	< 2.1000	< 2.2000	< 2.1000
1,1-Dichloroethane	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000	< 2.1000	< 2.2000	< 2.1000
1,1-Dichloroethene	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000	< 2.1000	< 2.2000	< 2.1000
1,2,4-Trichlorobenzene	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000	< 2.1000	< 2.2000 UJ	< 2.1000
1,2,4-Trimethylbenzene	**1**	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000	< 2.1000	**1.6 J**	< 2.1000
1,2-Dibromoethane (Ethylene dibromide)	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000	< 2.1000	< 2.2000	< 2.1000
1,2-Dichloro-1,1,2,2-trifluoroethane	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000	< 2.1000	< 2.2000	< 2.1000
1,2-Dichlorobenzene	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000	< 2.1000	< 2.2000	< 2.1000
1,2-Dichloroethane	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000	< 2.1000	< 2.2000	< 2.1000
1,2-Dichloropropane	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000	< 2.1000	< 2.2000	< 2.1000
1,3,5-Trimethylbenzene	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000	< 2.1000	**1.8 J**	< 2.1000
1,3-Dichlorobenzene	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000	< 2.1000	< 2.2000	< 2.1000
1,4-Dichlorobenzene	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000	< 2.1000	< 2.2000	< 2.1000
2-Butanone (MEK)												
4-Ethyltoluene												
Acetone												
Benzene	**1.5**	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000	< 2.1000	< 2.2000	< 2.1000
Bromomethane	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000	< 2.1000	< 2.2000	< 2.1000
Carbon disulfide												
Carbon tetrachloride	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000	< 2.1000	< 2.2000	< 2.1000
Chlorobenzene	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000	< 2.1000	< 2.2000	< 2.1000
Chloroethane	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000	< 2.1000	< 2.2000	< 2.1000
Chloromethane	< 1.8000	**0.6**	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000	< 2.1000	< 2.2000	< 2.1000
cis-1,3-Dichloropropene	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000	< 2.1000	< 2.2000	< 2.1000
Ethylbenzene	**1.1**	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000	< 2.1000	< 2.2000	< 2.1000
Hexachlorobutadiene	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000	< 2.1000	< 2.2000 UJ	< 2.1000
m,p-Xylene	**4.5**	< 2.0000	< 4.2000	< 4.8000	< 40.0000	< 3.8000	< 4.2000	< 3.8000	< 3.9000	< 4.1000	< 4.4000	< 4.2000
Methylene chloride	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000	**2.6**	< 2.2000	< 2.1000
o-Xylene	**1.1**	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000	< 2.1000	< 2.2000	< 2.1000
Styrene	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000	< 2.1000	< 2.2000 UJ	< 2.1000
Toluene	**8.1**	**1.3**	< 2.1000	< 2.4000	< 20.0000	< 1.9000	**1.9**	**2.3**	**1.2**	< 2.1000	< 2.2000	< 2.1000
trans-1,2-Dichloroethene												
trans-1,3-Dichloropropene	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000	< 2.1000	< 2.2000	< 2.1000
Trichlorofluoromethane	< 1.8000	< 1.0000	**25**	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000	< 2.1000	< 2.2000	< 2.1000
Vinyl chloride	< 1.8000	< 1.0000	< 2.1000	< 2.4000	< 20.0000	< 1.9000	< 2.1000	< 1.9000	< 2.0000	< 2.1000	< 2.2000	< 2.1000
1,2-DICHLOROTETRAFLUOROETHA												

TABLE G-7(a)

SVE AND GROUNDWATER TREATMENT VAPOR ANALYTICAL SUMMARY RESULTS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Sample ID:	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	GWT Stack-121609	DP-1D-031009	DP-1S-031009
Sample Date:	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	12/16/09	03/10/09	03/10/09
Units:	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV
Tetrachloroethylene (PCE)	**430**	**410**	**480**	**280**	**310**	**370**	**210**	**450**	**230**	**390**	**190**	**570**
Trichloroethylene (TCE)	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000	**1.1 J**	< 2.2000	**2.1 J**
cis-1,2-Dichloroethylene	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000	< 2.0000	< 2.2000	< 2.2000
Dichlorodifluoromethane	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000	< 2.0000	< 2.2000	< 2.2000
Chloroform	**11**	**7.7**	**7.5**	**7.2**	**8.9**	**9**	**7.6**	**10**	**8.6**	**10**	< 2.2000	< 2.2000
1,1,1-Trichloroethane	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000	< 2.0000	< 2.2000	< 2.2000
1,1,2,2-Tetrachloroethane	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000	< 2.0000	< 2.2000	< 2.2000
1,1,2-Trichloro-1,2,2-trifluoroethane	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000	< 2.0000	< 2.2000	< 2.2000
1,1,2-Trichloroethane	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000	< 2.0000	< 2.2000	< 2.2000
1,1-Dichloroethane	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000	< 2.0000	< 2.2000	< 2.2000
1,1-Dichloroethene	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000	< 2.0000	< 2.2000	< 2.2000
1,2,4-Trichlorobenzene	< 2.2000 UJ	< 2.3000	**1.3 J**	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000	< 2.0000	< 2.2000	< 2.2000
1,2,4-Trimethylbenzene	< 2.2000	< 2.3000	**10**	**1.4 J**	< 2.9000	< 2.9000	**1.2 J**	< 2.3000	< 2.4000	< 2.0000	< 2.2000	< 2.2000
1,2-Dibromoethane (Ethylene dibromide)	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000	< 2.0000	< 2.2000	< 2.2000
1,2-Dichloro-1,1,2,2-trifluoroethane	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000	< 2.0000	< 2.2000	< 2.2000
1,2-Dichlorobenzene	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000	< 2.0000	< 2.2000	< 2.2000
1,2-Dichloroethane	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000	< 2.0000	< 2.2000	< 2.2000
1,2-Dichloropropane	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000	< 2.0000	< 2.2000	< 2.2000
1,3,5-Trimethylbenzene	< 2.2000	< 2.3000	**6.3**	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000	< 2.0000	< 2.2000	< 2.2000
1,3-Dichlorobenzene	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000	< 2.0000	< 2.2000	< 2.2000
1,4-Dichlorobenzene	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000	< 2.0000	< 2.2000	< 2.2000
2-Butanone (MEK)												
4-Ethyltoluene												
Acetone												
Benzene	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	**1.2 J**	**2.8**	< 2.2000	< 2.2000
Bromomethane	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.2000	< 2.0000	< 2.2000	< 2.2000
Carbon disulfide												
Carbon tetrachloride	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000	< 2.0000	< 2.2000	< 2.2000
Chlorobenzene	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000	< 2.0000	< 2.2000	< 2.2000
Chloroethane	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000	< 2.0000	< 2.2000	< 2.2000
Chloromethane	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000	< 2.0000	< 2.2000	< 2.2000
cis-1,3-Dichloropropene	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000	< 2.0000	< 2.2000	< 2.2000
Ethylbenzene	< 2.2000	< 2.3000	**2.4 J**	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000	< 2.0000	< 2.2000	< 2.2000
Hexachlorobutadiene	< 2.2000 UJ	< 2.3000	**1.6 J**	< 2.8000 UJ	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000	< 2.0000	< 2.2000	< 2.2000
m,p-Xylene	< 4.3000	**2.4 J**	**19**	< 5.5000	< 5.8000	< 5.8000	< 4.3000	< 4.6000	**6.1**	< 4.1000	< 4.4000	< 4.4000
Methylene chloride	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000	< 2.0000	< 2.2000	< 2.2000
o-Xylene	< 2.2000	< 2.3000	**8.6**	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	**1.7 J**	< 2.0000	< 2.2000	< 2.2000
Styrene	< 2.2000	< 2.3000 UJ	< 2.5000 UJ	< 2.8000 UJ	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000	< 2.0000	< 2.2000	< 2.2000
Toluene	< 2.2000	**3.1**	**3.5**	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	**11**	< 2.0000	< 2.2000	< 2.2000
trans-1,2-Dichloroethene												
trans-1,3-Dichloropropene	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000	< 2.0000	< 2.2000	< 2.2000
Trichlorofluoromethane	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000	< 2.0000	< 2.2000	< 2.2000
Vinyl chloride	< 2.2000	< 2.3000	< 2.5000	< 2.8000	< 2.9000	< 2.9000	< 2.2000	< 2.3000	< 2.4000	< 2.0000	< 2.2000	< 2.2000
1,2-DICHLOROTETRAFLUOROETHA												

TABLE G-7(a)

SVE AND GROUNDWATER TREATMENT VAPOR ANALYTICAL SUMMARY RESULTS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Sample ID:	DP-5D-031009	DP-5S-031009	DP-6D-031009	DP-6S-111108	DP-6S-031009	SVE-2-111108	SVE-2-111808	SVE-2-121008	SVE-2-123008	SVE-2-013009	SVE-2-031009	SVE-2-052809
Sample Date:	03/10/09	03/10/09	03/10/09	11/11/08	03/10/09	11/11/08	11/18/08	12/10/08	12/30/08	01/30/09	03/10/09	05/28/09
Units:	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV
Tetrachloroethylene (PCE)	**60**	**730**	**160**	**870**		**14000**	**13000**	**3200**	**4100**	**4700**	**980**	**1500**
Trichloroethylene (TCE)	< 2.4000	< 2.1000	**6.5**	**3.9**	< 2.1000	**210**	**55 J+**	**16**	**10**	**23**	**9.6**	**17**
cis-1,2-Dichloroethylene	< 2.4000	< 2.1000	< 2.1000	< 1.9000	< 2.1000	**270**	**110**	**31**	**38**	**24**	**15**	**30**
Dichlorodifluoromethane	< 2.4000	< 2.1000	**2.2**	**1.1 J+**	< 2.1000	**1.1 J+**	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000
Chloroform	**53**	< 2.1000	**43**	**10**	< 2.1000	**3.7**	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000
1,1,1-Trichloroethane	< 2.4000	< 2.1000	< 2.1000	< 1.9000	< 2.1000	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000
1,1,2,2-Tetrachloroethane	< 2.4000	< 2.1000	< 2.1000	< 1.9000	< 2.1000	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000
1,1,2-Trichloro-1,2,2-trifluoroethane	< 2.4000	< 2.1000	< 2.1000	< 1.9000	< 2.1000	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000
1,1,2-Trichloroethane	< 2.4000	< 2.1000	< 2.1000	< 1.9000	< 2.1000	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000
1,1-Dichloroethane	< 2.4000	< 2.1000	< 2.1000	< 1.9000	< 2.1000	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000
1,1-Dichloroethene	< 2.4000	< 2.1000	< 2.1000	< 1.9000	< 2.1000	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000
1,2,4-Trichlorobenzene	< 2.4000	< 2.1000	< 2.1000	< 1.9000	< 2.1000	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000
1,2,4-Trimethylbenzene	< 2.4000	< 2.1000	< 2.1000	< 1.9000	< 2.1000	< 1.9000	< 21.0000	**14**	< 7.2000	< 13.0000	< 2.1000	< 11.0000
1,2-Dibromoethane (Ethylene dibromide)	< 2.4000	< 2.1000	< 2.1000	< 1.9000	< 2.1000	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000
1,2-Dichloro-1,1,2,2-trifluoroethane	< 2.4000	< 2.1000	< 2.1000	< 1.9000	< 2.1000	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000
1,2-Dichlorobenzene	< 2.4000	< 2.1000	< 2.1000	< 1.9000	< 2.1000	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000
1,2-Dichloroethane	< 2.4000	< 2.1000	< 2.1000	< 1.9000	< 2.1000	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000
1,2-Dichloropropane	< 2.4000	< 2.1000	< 2.1000	< 1.9000	< 2.1000	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000
1,3,5-Trimethylbenzene	< 2.4000	< 2.1000	< 2.1000	< 1.9000	< 2.1000	< 1.9000	< 21.0000	**6.6**	< 7.2000	< 13.0000	< 2.1000	< 11.0000
1,3-Dichlorobenzene	< 2.4000	< 2.1000	< 2.1000	< 1.9000	< 2.1000	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000
1,4-Dichlorobenzene	< 2.4000	< 2.1000	< 2.1000	< 1.9000	< 2.1000	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000
2-Butanone (MEK)												
4-Ethyltoluene												
Acetone												
Benzene	< 2.4000	< 2.1000	< 2.1000	< 1.9000	< 2.1000	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000
Bromomethane	< 2.4000	< 2.1000	< 2.1000	< 1.9000	< 2.1000	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000
Carbon disulfide												
Carbon tetrachloride	< 2.4000	< 2.1000	< 2.1000	< 1.9000	< 2.1000	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000
Chlorobenzene	< 2.4000	< 2.1000	< 2.1000	< 1.9000	< 2.1000	**1.4 J**	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000
Chloroethane	< 2.4000	< 2.1000	< 2.1000	< 1.9000	< 2.1000	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000
Chloromethane	< 2.4000	< 2.1000	< 2.1000	< 1.9000	< 2.1000	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000
cis-1,3-Dichloropropene	< 2.4000	< 2.1000	< 2.1000	< 1.9000	< 2.1000	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000
Ethylbenzene	< 2.4000	< 2.1000	< 2.1000	< 1.9000	< 2.1000	< 1.9000	< 21.0000	5.1	< 7.2000	< 13.0000	< 2.1000	< 11.0000
Hexachlorobutadiene	< 2.4000	< 2.1000	< 2.1000	< 1.9000	< 2.1000	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000
m,p-Xylene	< 4.8000	< 4.1000	< 4.2000	< 3.8000	< 4.2000	< 3.8000	< 43.0000	57	< 14.0000	< 27.0000	< 4.3000	< 23.0000
Methylene chloride	< 2.4000	< 2.1000	< 2.1000	< 1.9000	< 2.1000	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000
o-Xylene	< 2.4000	< 2.1000	< 2.1000	< 1.9000	< 2.1000	< 1.9000	< 21.0000	19	< 7.2000	< 13.0000	< 2.1000	< 11.0000
Styrene	< 2.4000	< 2.1000	< 2.1000	< 1.9000	< 2.1000	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000 UJ
Toluene	< 2.4000	< 2.1000	< 2.1000	**1.1 J**	< 2.1000	1	< 21.0000	20	< 7.2000	< 13.0000	< 2.1000	< 11.0000
trans-1,2-Dichloroethene												
trans-1,3-Dichloropropene	< 2.4000	< 2.1000	< 2.1000	< 1.9000	< 2.1000	< 1.9000	< 21.0000	< 7.7000	< 14.0000	< 13.0000	< 2.1000	< 11.0000
Trichlorofluoromethane	< 2.4000	< 2.1000	< 2.1000	< 1.9000	< 2.1000	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000
Vinyl chloride	< 2.4000	< 2.1000	< 2.1000	< 1.9000	< 2.1000	< 1.9000	< 21.0000	< 7.7000	< 7.2000	< 13.0000	< 2.1000	< 11.0000
1,2-DICHLOROTETRAFLUOROETHA												

TABLE G-7(a)

SVE AND GROUNDWATER TREATMENT VAPOR ANALYTICAL SUMMARY RESULTS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Sample ID:	SVE-2-081009	SVE-2-112309	SVE-3-121008	SVE-3-123008	SVE-3-013009	SVE-3-031009	SVE-3-052809	SVE-3-081009	SVE-3-112309	SVE-4-111808	SVE-4-121008	SVE-4-123008
Sample Date:	08/10/09	11/23/09	12/10/08	12/30/08	01/30/09	03/10/09	05/28/09	08/10/09	11/23/09	11/18/08	12/10/08	12/30/08
Units:	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV
Tetrachloroethylene (PCE)	**5700**	**110**	**810**	**1600**	**980**	**30**	**620**	**88**	**2.6**	**890**	**350**	**390**
Trichloroethylene (TCE)	**62**	**1.3 J**	**6.5 J**	**4.3 J**	**3.5**	< 2.1000	**7.4**	< 2.5000	< 2.5000	< 8.6000	**1.1 J**	< 1.8000
cis-1,2-Dichloroethylene	**36**	<2.3000	< 7.7000	< 7.2000	**2**	< 2.1000	**2.7 J**	< 2.5000	< 2.5000	< 8.6000	< 2.0000	< 1.8000
Dichlorodifluoromethane	< 13.0000	<2.3000	< 7.7000	< 7.2000	< 2.0000	< 2.1000	**2.9 J**	< 2.5000	< 2.5000	**6 J**	**4.4**	**4**
Chloroform	< 13.0000	<2.3000	**5.7 J**	**6.4 J**	**2.1**	< 2.1000	**2.8 J**	< 2.5000	< 2.5000	**140**	**130**	**110**
1,1,1-Trichloroethane	< 13.0000	<2.3000	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 8.6000	< 2.0000	< 1.8000
1,1,2,2-Tetrachloroethane	< 13.0000	<2.3000	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 8.6000	< 2.0000	< 1.8000
1,1,2-Trichloro-1,2,2-trifluoroethane	< 13.0000	<2.3000	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 8.6000	< 2.0000	< 1.8000
1,1,2-Trichloroethane	< 13.0000	<2.3000	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 8.6000	< 2.0000	< 1.8000
1,1-Dichloroethane	< 13.0000	<2.3000	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 8.6000	< 2.0000	< 1.8000
1,1-Dichloroethene	< 13.0000	<2.3000	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 8.6000	< 2.0000	< 1.8000
1,2,4-Trichlorobenzene	< 13.0000	<2.3000	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 8.6000	< 2.0000	< 1.8000
1,2,4-Trimethylbenzene	< 13.0000	<2.3000	**40**	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 8.6000	**17**	< 1.8000
1,2-Dibromoethane (Ethylene dibromide)	< 13.0000	<2.3000	**4.2 J**	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 8.6000	**1.2 J**	< 1.8000
1,2-Dichloro-1,1,2,2-trifluoroethane	< 13.0000	<2.3000	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 8.6000	< 2.0000	< 1.8000
1,2-Dichlorobenzene	< 13.0000	<2.3000	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 8.6000	< 2.0000	< 1.8000
1,2-Dichloroethane	< 13.0000	<2.3000	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 8.6000	< 2.0000	< 1.8000
1,2-Dichloropropane	< 13.0000	<2.3000	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 8.6000	< 2.0000	< 1.8000
1,3,5-Trimethylbenzene	< 13.0000	<2.3000	**21**	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 8.6000	**8.2**	< 1.8000
1,3-Dichlorobenzene	< 13.0000	<2.3000	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 8.6000	< 2.0000	< 1.8000
1,4-Dichlorobenzene	< 13.0000	<2.3000	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 8.6000	< 2.0000	< 1.8000
2-Butanone (MEK)												
4-Ethyltoluene												
Acetone												
Benzene	< 13.0000	<2.3000	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 8.6000	< 2.0000	< 1.8000
Bromomethane	< 13.0000	<2.3000	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 8.6000	< 2.0000	< 1.8000
Carbon disulfide												
Carbon tetrachloride	< 13.0000	<2.3000	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 8.6000	< 2.0000	< 1.8000
Chlorobenzene	< 13.0000	<2.3000	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 8.6000	< 2.0000	< 1.8000
Chloroethane	< 13.0000	<2.3000	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 8.6000	< 2.0000	< 1.8000
Chloromethane	< 13.0000	<2.3000	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 8.6000	< 2.0000	< 1.8000
cis-1,3-Dichloropropene	< 13.0000	<2.3000	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 8.6000	< 2.0000	< 1.8000
Ethylbenzene	< 13.0000	<2.3000	31	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 8.6000	**9.6**	< 1.8000
Hexachlorobutadiene	< 13.0000	<2.3000	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 8.6000	< 2.0000	< 1.8000
m,p-Xylene	< 25.0000	<4.5000	120	< 14.0000	< 4.0000	< 4.3000	< 9.2000	< 5.0000	< 5.0000	< 17.0000	**67**	< 3.6000
Methylene chloride	< 13.0000	<2.3000	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 8.6000	< 2.0000	< 1.8000
o-Xylene	< 13.0000	<2.3000	98	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 8.6000	**31**	< 1.8000
Styrene	< 13.0000	<2.3000	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000 UJ	< 2.5000	< 2.5000	< 8.6000	< 2.0000	< 1.8000
Toluene	< 13.0000	<2.3000	93	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 8.6000	**52**	< 1.8000
trans-1,2-Dichloroethene												
trans-1,3-Dichloropropene	< 13.0000	<2.3000	< 7.7000	< 14.0000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 8.6000	< 2.0000	< 3.6000
Trichlorofluoromethane	< 13.0000	<2.3000	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 8.6000	< 2.0000	< 1.8000
Vinyl chloride	< 13.0000	<2.3000	< 7.7000	< 7.2000	< 2.0000	< 2.1000	< 4.6000	< 2.5000	< 2.5000	< 8.6000	< 2.0000	< 1.8000
1,2-DICHLOROTETRAFLUOROETHA												

TABLE G-7(a)

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**	**OSVE-10-031009**	**OSVE-11-031009**
Sample Date:	01/30/09	03/10/09	05/28/09	08/10/09	11/23/09	03/10/09	03/10/09
Units:	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV	PPBV
Tetrachloroethylene (PCE)	**330**	**290**	**180**	**140**	**90**	**450**	**27,000**
Trichloroethylene (TCE)	**2.7**	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.1000	< 21.0000
cis-1,2-Dichloroethylene	**3.8**	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.1000	< 21.0000
Dichlorodifluoromethane	**3.4**	**4.8**	**4.9**	**2.7**	**2.1 J**	< 2.1000	< 21.0000
Chloroform	**87**	**95**	**80**	**67**	**51**	< 2.1000	< 21.0000
1,1,1-Trichloroethane	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.1000	< 21.0000
1,1,2,2-Tetrachloroethane	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.1000	< 21.0000
1,1,2-Trichloro-1,2,2-trifluoroethane	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.1000	< 21.0000
1,1,2-Trichloroethane	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.1000	< 21.0000
1,1-Dichloroethane	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.1000	< 21.0000
1,1-Dichloroethene	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.1000	< 21.0000
1,2,4-Trichlorobenzene	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.1000	< 21.0000
1,2,4-Trimethylbenzene	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.1000	< 21.0000
1,2-Dibromoethane (Ethylene dibromide)	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.1000	< 21.0000
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	< 2.1000	< 21.0000
1,2-Dichloroethane	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.1000	< 21.0000
1,2-Dichloropropane	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.1000	< 21.0000
1,3,5-Trimethylbenzene	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.1000	< 21.0000
1,3-Dichlorobenzene	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.1000	< 21.0000
1,4-Dichlorobenzene	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.1000	< 21.0000
2-Butanone (MEK)							
4-Ethyltoluene							
Acetone							
Benzene	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.1000	< 21.0000
Bromomethane	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.1000	< 21.0000
Carbon disulfide							
Carbon tetrachloride	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.1000	< 21.0000
Chlorobenzene	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.1000	< 21.0000
Chloroethane	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.1000	< 21.0000
Chloromethane	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.1000	< 21.0000
cis-1,3-Dichloropropene	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.1000	< 21.0000
Ethylbenzene	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.1000	< 21.0000
Hexachlorobutadiene	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.1000	< 21.0000
m,p-Xylene	< 4.0000	< 4.2000	< 4.6000	< 5.1000	< 4.6000	< 4.2000	< 42.0000
Methylene chloride	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.1000	< 21.0000
o-Xylene	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.1000	< 21.0000
Styrene	< 2.0000	< 2.1000	< 2.3000 UJ	< 2.6000	< 2.3000	< 2.1000	< 21.0000
Toluene	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	**1.3 J**	< 21.0000
trans-1,2-Dichloroethene							
trans-1,3-Dichloropropene	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.1000	< 21.0000
Trichlorofluoromethane	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.1000	< 21.0000
Vinyl chloride	< 2.0000	< 2.1000	< 2.3000	< 2.6000	< 2.3000	< 2.1000	< 21.0000
1,2-DICHLOROTETRAFLUOROETHA							

TABLE G-7(b)

SOIL VAPOR EXTRACTION AND SOIL VAPOR MONITORING WELL ANALYTICAL SUMMARY RESULTS MODESTO GROUNDWATER SUPERFUND SITE MODESTO, CALIFORNIA

Location		Date	Sample Code	PCE (ppbv)	
SP-08	GWTP Pre GAC	03/11/2010	N	280	
		04/07/2010	N	330	
		05/12/2010	N	320	
		06/17/2010	N	340	
		07/15/2010	N	300	
		08/12/2010	N	230	
		09/09/2010	N	240	
		10/14/2010	N	280	
		11/18/2010	N	220	
		12/09/2010	N	240	
		01/13/2011	N	250	
		02/10/2011	N	280	J
		03/09/2011	N	62	J
		04/14/2011	N	260	
		05/10/2011	N	260	J
		06/09/2011	N	300	
		06/09/2011	FD	300	
		07/14/2011	N	200	
		08/11/2011	N	250	
		09/13/2011	N	200	J
		09/13/2011	FD	150	
		01/12/2012	N	270	
		02/16/2012	N	290	
		03/08/2012	N	270	
		03/08/2012	FD	220	

TABLE G-7(b)

SOIL VAPOR EXTRACTION AND SOIL VAPOR MONITORING WELL ANALYTICAL SUMMARY RESULTS MODESTO GROUNDWATER SUPERFUND SITE MODESTO, CALIFORNIA

Location		Date	Sample Code	PCE (ppbv)	
SP-09	GWTP Stack	03/11/2010	N	340	
		04/07/2010	N	390	
		05/12/2010	N	340	
		06/17/2010	N	210	
		07/15/2010	N	270	
		08/12/2010	N	220	
		09/09/2010	N	23	
		10/14/2010	N	7.3	
		11/18/2010	N	2.1	U
		12/09/2010	N	1.2	J
		01/13/2011	N	8.7	
		02/10/2011	N	22	
		03/09/2011	N	60	
		04/14/2011	N	94	
		05/10/2011	N	85	
		06/09/2011	N	120	
		07/14/2011	N	55	
		08/11/2011	N	55	
		09/13/2011	N	53	J
		10/13/2011	N	96	
		11/09/2011	N	140	
		12/13/2011	N	160	
		01/12/2012	N	220	
		02/09/2012	N	260	
		03/08/2012	N	240	

TABLE G-7(b)

SOIL VAPOR EXTRACTION AND SOIL VAPOR MONITORING WELL ANALYTICAL SUMMARY RESULTS MODESTO GROUNDWATER SUPERFUND SITE MODESTO, CALIFORNIA

Location		Date	Sample Code	PCE (ppbv)
SP-11	SVE Pre GAC	03/11/2010	N	12
		04/07/2010	N	130
		05/12/2010	N	120
		05/12/2010	FD	97
		06/17/2010	N	220
		07/15/2010	N	720
		08/12/2010	N	620
		09/09/2010	N	590
		10/14/2010	N	240
		11/18/2010	N	42
		12/09/2010	FD	1.6 J
		12/09/2010	N	66
		01/13/2011	N	73
		02/10/2011	N	92
		03/09/2011	N	140
		04/14/2011	N	2.7
		05/10/2011	N	1.6 J
		06/09/2011	N	80
		07/14/2011	N	160
		08/11/2011	N	150
		09/13/2011	N	140
		10/13/2011	N	130
		11/09/2011	N	2.5
		12/13/2011	N	11
		12/13/2011	FD	3.1
		01/12/2012	N	9.3
		02/09/2012	N	30
		03/08/2012	N	39

TABLE G-7(b)

SOIL VAPOR EXTRACTION AND SOIL VAPOR MONITORING WELL ANALYTICAL SUMMARY RESULTS MODESTO GROUNDWATER SUPERFUND SITE MODESTO, CALIFORNIA

Location		Date	Sample Code	PCE (ppbv)
SP-12	SVE Stack	03/11/2010	N	51
		04/07/2010	N	63
		05/12/2010	N	130
		06/17/2010	N	2.6
		07/15/2010	N	23
		08/12/2010	FD	7.2 J
		08/12/2010	N	2.2 J
		09/09/2010	N	2.4
		10/14/2010	N	2.6
		11/18/2010	N	2.2 J
		12/09/2010	N	2.2 U
		01/13/2011	N	2.1 J
		02/10/2011	N	4.9
		03/09/2011	N	2.2 U
		04/14/2011	N	5.6
		05/10/2011	N	2.3 U
		06/09/2011	N	3.0
		07/14/2011	N	2.9
		08/11/2011	N	2.1 J
		09/13/2011	N	1.5 J
		10/13/2011	N	5.3
		11/09/2011	N	7.4
		12/13/2011	N	3.9
		01/12/2012	N	6.1
		02/09/2012	N	2.9
		03/08/2012	N	2.4

FD - field duplicate
J - Estimated value
PCE - Tetrachloroethlene
ppbv - parts per billion volume
U - not detected above the method detection limit

TABLE G-8 PCE MASS REMOVED BY GROUNDWATER TREATMENT SYSTEMMODESTO SUPERFUND SITEMODESTO, CALIFORNIA(Page 1 of 3)

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	620.00	0.00	285.42
28-Sep-06	1,460,060	67,784,613	530.00	6.46	291.88
24-Oct-06	2,861,570	70,646,183	580	13.85	305.73
15-Nov-06	2,370,250	73,016,433	500	9.89	315.62
27-Dec-06	2,139,250	75,155,683	450	8.03	323.66
29-Jan-07	2,365,450	77,521,133	420.0	8.29	331.95
28-Feb-07	1,240,000	78,761,133	360.0	3.73	335.67
26-Mar-07	1,847,900	80,609,033	320.0	4.94	340.61

TABLE G-8 PCE MASS REMOVED BY GROUNDWATER TREATMENT SYSTEMMODESTO SUPERFUND SITEMODESTO, CALIFORNIA(Page 2 of 3)

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)
16-Apr-07	1,521,900	82,130,933	320.0	4.06	344.67
2-Jul-07	0	82,130,933	76.0	0.00	344.67
23-Jul-07	1,281,000	83,411,933	290.0	3.10	347.77
23-Aug-07	2,451,700	85,863,633	290.0	5.93	353.71
18-Sep-07	1,554,100	87,417,733	360.0	4.67	358.38
29-Oct-07	2,562,300	89,980,033	280.0	5.99	364.36
28-Nov-07	1,285,700	91,265,733	310.0	3.33	367.69
20-Dec-07	1,538,400	92,804,133	260.0	3.34	371.03
17-Jan-08	2,473,700	95,277,833	240.0	4.95	375.98
25-Feb-08	2,249,000	97,526,833	250.0	4.69	375.72
31-Mar-08	2,318,700	99,845,533	280.0	5.42	381.14
25-Apr-08	1,569,600	101,415,133	210.0	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	240.0	4.06	392.06
23-Jul-08	2,905,200	108,106,533	240.0	5.82	397.88
28-Aug-08	1,045,500	109,152,033	220.0	1.92	399.80
25-Sep-08	1,148,600	110,300,633	150.0	1.44	401.24
30-Oct-08	2,067,400	112,368,033	250.0	4.31	405.55
25-Nov-08	1,437,600	113,805,633	210.0	2.52	408.07
30-Dec-08	2,350,906	116,156,539	190.0	3.73	411.80
30-Jan-09	2,004,294	118,160,833	190.0	3.18	414.98
24-Feb-09	1,677,300	119,838,133	180.0	2.52	417.50
30-Mar-09	2,266,700	122,104,833	170.0	3.22	420.72
23-Apr-09	1,565,200	123,670,033	160.0	2.09	422.81
26-May-09	2,045,500	125,715,533	180.0	3.07	425.88
29-Jun-09	1,844,200	127,559,733	150.0	2.31	428.19
29-Jul-09	1,952,600	129,512,333	190.0	3.10	431.28
10-Aug-09	793,600	130,305,933	250.0	1.66	432.94
22-Sep-09	2,874,700	133,180,633	170.0	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	160.0	2.29	442.24
16-Dec-09	1,351,400	137,652,033	180.0	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	160.0	2.37	450.09
11-Mar-10	882,600	142,892,033	180.0	1.33	451.42
7-Apr-10	1,743,300	144,635,333	180.0	2.62	454.03
12-May-10	2,337,600	146,972,933	160.0	3.12	457.16
17-Jun-10	1,527,400	148,500,333	130.0	1.66	458.81
15-Jul-10	1,846,600	150,346,933	140.0	2.16	460.97
12-Aug-10	1,846,600	152,193,533	150.0	2.31	463.28
9-Sep-10	1,832,100	154,025,633	210.0	3.21	466.49
14-Oct-10	2,295,600	156,321,233	140.0	2.68	469.18
18-Nov-10	2,268,500	158,589,733	130.0	2.46	471.64
9-Dec-10	1,365,000	159,954,733	88.0	1.00	472.64
13-Jan-11	2,271,000	162,225,733	110.0	2.08	474.72
10-Feb-11	1,850,600	164,076,333	120.0	1.85	476.58
9-Mar-11	1,747,400	165,823,733	120.0	1.75	478.33
14-Apr-11	2,373,000	168,196,733	120.0	2.38	480.70
10-May-11	1,730,400	169,927,133	140.0	2.02	482.73
2-Jun-11	1,516,100	171,443,233	120.0	1.52	484.25
14-Jul-11	2,753,400	174,196,633	140.0	3.22	487.46
11-Aug-11	1,833,700	176,030,333	160.0	2.45	489.91

TABLE G-8 PCE MASS REMOVED BY GROUNDWATER TREATMENT SYSTEMMODESTO SUPERFUND SITEMODESTO, CALIFORNIA(Page 3 of 3)

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)
13-Sep-11	1,966,400	177,996,733	130.0	2.13	492.04
13-Oct-11	1,960,000	179,956,733	140.0	2.29	494.33
9-Nov-11	1,761,100	181,717,833	130.0	1.91	496.25
8-Dec-11	1,745,200	183,463,033	150.0	2.18	498.43
12-Jan-12	2,269,900	185,732,933	140.0	2.65	501.08
9-Feb-12	1,811,900	187,544,833	150.0	2.27	503.35
8-Mar-12	1,794,700	189,339,533	120.0	1.80	505.15

Notes:
µg/L - micrograms per liter
lbs - pounds
PCE - Tetrachloroethene

TABLE G-9 PCE MASS REMOVED BY SOIL VAPOR EXTRACTION SYSTEMMODESTO SUPERFUND SITEMODESTO, CALIFORNIA(Page 1 of 5)

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

TABLE G-9 PCE MASS REMOVED BY SOIL VAPOR EXTRACTION SYSTEMMODESTO SUPERFUND SITEMODESTO, CALIFORNIA(Page 2 of 5)

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

TABLE G-9 PCE MASS REMOVED BY SOIL VAPOR EXTRACTION SYSTEMMODESTO SUPERFUND SITEMODESTO, CALIFORNIA(Page 3 of 5)

Date Sampled	Cumulative Hours of Operation	Cumulative Days of Operation	Mass Extraction Rate (lbs/day)	Cumulative Mass Extracted (a) (lbs)
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
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
12/1/2006	41,986.1	1749.4	0.00	3,409.58
1/1/2007	41,986.1	1749.4	0.00	3,409.58
2/1/2007	41,986.1	1749.4	0.00	3,409.58
3/1/2007	41,986.1	1749.4	0.00	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

TABLE G-9 PCE MASS REMOVED BY SOIL VAPOR EXTRACTION SYSTEMMODESTO SUPERFUND SITEMODESTO, CALIFORNIA(Page 4 of 5)

Date Sampled	Cumulative Hours of Operation	Cumulative Days of Operation	Mass Extraction Rate (lbs/day)	Cumulative Mass Extracted (a) (lbs)
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
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
4/7/2010	67,532.5	2813.9	0.012	3,449.27
5/12/2010	68,372.5	2848.9	0.012	3,449.70
6/17/2010	69,236.5	2884.9	0.024	3,450.35
7/15/2010	69,908.5	2912.9	0.076	3,451.76
8/12/2010	70,580.5	2940.9	0.059	3,453.65
9/9/2010	71,252.5	2968.9	0.063	3,455.36
10/19/2010	72,212.5	3008.9	0.024	3,457.11
11/18/2010	72,932.5	3038.9	0.004	3,457.54
12/9/2010	73,436.5	3059.9	0.007	3,457.66

TABLE G-9 PCE MASS REMOVED BY SOIL VAPOR EXTRACTION SYSTEMMODESTO SUPERFUND SITEMODESTO, CALIFORNIA(Page 5 of 5)

Date Sampled	Cumulative Hours of Operation	Cumulative Days of Operation	Mass Extraction Rate (lbs/day)	Cumulative Mass Extracted (a) (lbs)
1/13/2011	74,276.5	3094.9	0.008	3,457.93
2/10/2011	74,948.5	3122.9	0.010	3,458.17
3/9/2011	75,596.5	3149.9	0.016	3,458.51
4/14/2011	76,460.5	3185.9	0.0003	3,458.79
5/10/2011	77,084.5	3211.9	0.0002	3,458.80
6/2/2011	77,636.5	3234.9	0.009	3,458.90
7/14/2011	78,644.5	3276.9	0.017	3,459.44
8/11/2011	79,316.5	3304.9	0.016	3,459.90
9/13/2011	80,108.5	3337.9	0.015	3,460.41
10/13/2011	80,828.5	3367.9	0.014	3,460.84
11/9/2011	81,476.5	3394.9	0.0003	3,461.04
12/8/2011	82,128.7	3422.0	0.003	3,461.07
1/12/2012	82,968.7	3457.0	0.001	3,461.14
2/9/2012	83,640.7	3485.0	0.003	3,461.20
3/8/2012	84,312.7	3513.0	0.004	3,461.31
TOTAL	**82,128.7**	**3,422.0**		**3,461.31**

Notes:

(a) Cumulative mass extracted was determined by multiplying the average mass extraction rate times the days of operation.

lbs - pounds

lbs/day - pounds per day