URS

November 15, 2011

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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, Third Quarter 2011

Dear Mr. Mackenzie:

Enclosed is the Quarterly Operations and Monitoring Report, Third Quarter 2011. Appendices are provided on a compact disk included at the end of the report. Note that nine new monitoring wells were installed in September 2011. Groundwater samples will be collected from the new wells in 4Q11, with sample results provided in the 4Q11 report.

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

Sincerely,

Rich Beyak, PE
Project Manager

RB/gng

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QUARTERLY OPERATIONS AND MONITORING REPORT
GROUNDWATER TREATMENT AND SOIL VAPOR EXTRACTION REMEDIATION SYSTEMS
THIRD QUARTER 2011

MODESTO GROUNDWATER SUPERFUND SITE
MODESTO, CALIFORNIA

November 2011

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
THIRD QUARTER 2011

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
CLP	Contract Laboratory Program
CPT	cone penetrometer test
DQO	data quality objectives
EPA	U.S. Environmental Protection Agency
GAC	granular activated carbon
gpm	gallons per minute
GWT	groundwater treatment
lb/day	pound per day
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
pCi/L	picoCuries per liter
PDB	passive diffusion bag
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
TDS	total dissolved solid
TSS	total suspended solid

LIST OF ACRONYMS AND ABBREVIATIONS (Continued)

UCL	upper confidence limit
URS	URS Group, Inc.
VOC	volatile organic compound
µg/L	micrograms per liter
°C	degrees Celsius
3Q11	third quarter 2011

1.0 INTRODUCTION

This is the third quarter 2011 (3Q11) Quarterly Operations and Monitoring (O&M) Report for the Modesto Groundwater Superfund Site. The reporting period is from July 1 through September 30, 2011. 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 at the corner of Magnolia and Mensinger Avenues (Figure 1-2). 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 (pCi/L).

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 began being sampled from 1992 to 1998. Based on the data obtained, the EPA selected the technology for treatment and removal of the contamination. The selected treatment technologies for the Modesto Groundwater Superfund Site include a soil vapor extraction (SVE) system and a groundwater treatment (GWT) system. The objectives of the SVE and GWT systems are 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, 2008a] 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 new 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 off-line and has been used as a monitoring point since.

The groundwater monitoring well network also was expanded in 2008. Sixteen 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).

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).

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; the appendices 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:

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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). Nine of these wells were installed in September 2011. Well construction details are provided in Appendix G1.

2.2 Soil Vapor Extraction System

The SVE system includes three on-line (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. During 1Q11 and 2Q11, the two soil vapor monitoring wells (DP-04A and DP-04B) were sampled instead of DP-05A and DP-05B to determine soil gas concentrations in the vadose zone near MW-4A, at which the highest concentrations of PCE in groundwater monitoring wells are reported. Beginning in 3Q11, DP-05A and DP-05B were sampled instead of DP-04A and DP-04B. 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 3Q11, 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 31 groundwater monitoring wells and one groundwater extraction well for analysis by EPA Method E524.2. Sampling and water level measurements at the nine new wells installed in September 2011 will begin in 4Q11. Site sampling to monitor the vadose zone includes collecting vapor samples from the three operating SVE wells, three off-line SVE wells, and six vapor monitoring locations for analysis by EPA Method TO15. Sampling of groundwater and vapor wells during 3Q11 is described in Subsections 3.1.1 and 3.1.2, respectively.

3.1.1 Groundwater Sampling and Monitoring

Depth-to-water measurements and groundwater samples were collected from 31 groundwater monitoring wells during the quarter to evaluate the GWT system's influence 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.

Based on historical data and previous quarterly data results, groundwater samples were collected starting with the least contaminated groundwater monitoring well and continuing in order to the most contaminated groundwater monitoring well. Groundwater samples were collected using low-flow purge methods in 14 monitoring wells and using three-volume purge-and-sample methods in MW-3A and the 16 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. At the end of the sampling event, water purged from the groundwater monitoring wells was transferred into the equalization tank located inside the GWT system.

URS measured depths to groundwater on September 12 and 13, 2011, and collected groundwater samples from September 6 through 8, 2011.

3.1.2 Soil Vapor Sampling and Monitoring

Soil vapor samples were collected from SVE and vapor monitoring points on September 8 and 9, 2011, using 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 performance of the remedial systems.

3.2.1 Groundwater System Sampling and Monitoring

Compliance monitoring samples for the GWT system, as identified by the City, are collected monthly from the extraction well and system effluent during periods when the system is operating. Performance monitoring samples are collected 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. 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). Figures 1-1 and 1-2 in Appendix A illustrate the locations of the sampling ports for the GWT system.

A compliance sample of the system effluent collected April 14, 2011, had a total uranium concentration of 25.4 pCi/L, exceeding the permit GW 98-3 discharge limit of 20.0 pCi/L. As required by permit Attachment A, Section B, Part 4, increased frequency monitoring for total uranium began on May 10, 2011. Effluent samples were collected for analysis of total uranium on May 10, 19, and 26, and on June 2, 2011. Results of those weekly samples show concentrations of 11.7, 10.3, 11.6, and 13.0 pCi/L, respectively, all less than the permit GW 98-3 discharge limit. Following collection of four weekly samples, two monthly samples were collected, first on July 14. 2011, and second on August 11, 2011, with total uranium results of 12.1 and 13.7 pCi/L, respectively. No results of the accelerated monitoring exceeded the 20 pCi/L discharge limit; therefore, quarterly sampling for total uranium analysis resumed.

3.2.2 Soil Vapor System Sampling and Monitoring

The SVE system performance 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 locations of the sampling ports for the SVE system.

4.0 PERFORMANCE EVALUATION

Site and system performance evaluations are based on current and historical sampling results. The site performance evaluation estimates the extent of contamination. System sampling helps evaluate the remedial progress of the GWT and SVE systems. Both of these evaluations are based on analytical laboratory results and subsequent data evaluations. 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 3Q11.

4.1 Site Performance

This section provides results of the groundwater and soil vapor well sampling events for 3Q11 (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 September 12 and 13, 2011, groundwater elevations ranged from 46.38 feet mean sea level (msl) (MW-16A) to 49.98 feet msl (MW-11A) in the A zone; 46.23 feet msl (MW-19B) to 47.87 feet msl (MW-9B) in the B zone; and 42.62 feet msl (MW-16C) to 46.46 feet msl (MW-17C) in the C zone. Comparing 3Q11 and 2Q11 water levels, water elevations decreased an average of 0.6 foot in A zone wells across the site; water elevations decreased an average of 1.5 feet in B zone wells across the site; water elevations in C zone wells decreased an average of approximately 4 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 in 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 (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 3Q11. The average hydraulic gradient parallel to the direction of regional groundwater flow in the A zone was approximately 0.0014, or approximately 7.6 feet per mile. Groundwater in the B zone was flowing east-southeast (Figure 4-3), and its horizontal gradient was approximately 0.0013, or 7.1 feet per mile. Groundwater in the C zone was flowing southwest (Figure 4-4) with a horizontal gradient of approximately 0.0034, or 17.7 feet per mile.

The flow direction in the A zone has been consistently southeast; however, the flow direction was slightly more easterly in 3Q11 than in 2Q11. The B and C zone flow directions have been variable. The flow direction in the B zone had been east-southeast during 3Q10. It had shifted to the southeast in 4Q10 through 2Q11 and was east-southeast again during 3Q11. The 3Q11 flow direction in the C zone was southwest, shifting from the south-southeast direction observed in 4Q10 through 2Q11. During 4Q08 and 1Q09, the flow direction in the C zone was southeast. It shifted to the west during 2Q09, southwest during 3Q09, and southeast in 4Q09 and 1Q10. In 2Q10, groundwater in the C zone flowed south-southwest in the northern portion of the site and southeast in the southern portion of the site, and in 3Q10 it flowed south-southwest. In general, the direction of groundwater flow in the C zone has been observed to be more westerly during the third quarters, more easterly during the fourth and first quarters, and variable during the second quarters. As discussed in previous reports, 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).

4.1.1.1 PCE

In 3Q11, PCE was detected at concentrations exceeding the MCL of 5 µg/L at the extraction well and 15 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 concentrations at C zone wells are less than MCLs. 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(ae) (Appendix G-4) show PCE time series plots for each monitoring well for the period from February 1992 through 3Q11. They indicate that 3Q11 PCE data for most wells are consistent with previously established trends and are decreasing or close to asymptotic.

A Zone

A groundwater CPT investigation was performed during May and June 2011 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-4A (URS, 2011a). Concentrations of PCE at MW-04A have been as high as 3,000 µg/L and only decreased to less than 1,000 twice since 2Q05. Groundwater analytical results from the hydropunch groundwater samples collected during the cone penetrometer (CPT) investigation are posted on Figure 4-2 and have been used along with the monitoring well data to contour PCE concentrations in the A zone.

As depicted on Figure 4-2, the portion of the PCE plume greater than 50 µg/L and less than 1,000 µg/L has a long axis that parallels the southeast direction of the groundwater gradients in the A zone; however, the portions of the plume between 5 µg/L and 50 µg/L and greater than 1,000 µg/L do not have the long-axis orientation paralleling groundwater gradient. The shape and extent of the 5 to 50 µg/L portion of the plume is consistent with previous quarters. 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 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 Superfund Site, Technical Memorandum* (URS, 2011b). The 1,000 µg/L PCE isoconcentration contour extends approximately 600 feet cross-gradient and less than 200 feet downgradient; however, there are concentrations greater than 100 µg/L extending downgradient from the CPT investigation locations to MW-20A. The concentration of PCE at MW-20A was 280 µg/L in 3Q11 (Figure G-4ac).

The 1,000 µg/L PCE isoconcentration contour may be bounded to the west by the concentration at MW-06A (6.7 µg/L in 3Q11 and less than 100 µg/L since 1Q04) and to the east by the concentration at MW-12A (23 µg/L in 3Q11 and less than 50 µg/L since 3Q01); however, MW-6A has a 30-foot screened interval (60 to 90 feet bgs), and samples from this well may be diluted by lower concentration groundwater in the long well screen and not representative of higher concentration intervals within the well screen such as the interval sampled at Location CPT6 (6,300 µg/L from 81 to 83 feet bgs).

Concentrations at MW-13A and MW-14A (the western plume wells) have fluctuated seasonally (Figures G-4[q and r]) to just above and below the PCE MCL, resulting in changes in the shape of the A zone plume several times annually. 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 14 or 17 (Figure 1-2). Municipal Well 14, however, has been offline since September 2006 (MWH, 2010b). Municipal Well 17, which has remained in consistent operation, could have hydraulic influence on the plume because it has a 4-foot-long perforated 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 existing extraction well (EW-01R) during 3Q11 was 130 µg/L (slightly higher than the concentration of 120 µg/L in 2Q11).

Three A zone wells (MW-21A through MW-23A) were installed in September 2011 to provide additional data with which to define plume boundaries in the south and west directions and to evaluate the potential that the Halford's plume is commingling with the Elwood's plume to the south (wells shown on Figure 4-2). These wells will be sampled in 4Q11 and results will be documented in the 4Q11 quarterly report.

B Zone

Figure 4-3 depicts the B zone PCE plume and potentiometric surface contours. PCE was detected above the MCL at six of the B zone wells (as opposed to only three in 1Q11 and 2Q11). Concentrations increased in 3Q11 to exceed the MCL at the two northern plume wells (MW-4B and MW-9B) and the southeastern well (MW-16B). MW-19B, located on the west side of the plume, was the only B zone well in 3Q11 at which PCE did not exceed the MCL. The PCE plume in the B zone is undefined in the western, southwestern, and southern directions (Figure 4-3).

The concentration of PCE at MW-17B, which had an increasing trend from 1Q09 to 3Q10, decreased from 90 µg/L in 3Q10 to 32 µg/L in 4Q10; however, PCE concentrations have been increasing at that well again to 51 µg/L in 1Q11, 58 µg/L in 2Q11, and 61 µg/L in 3Q11 (see time series plot Figure G-4[x]). The migration of PCE to MW-17B is likely to be the result of pumping at Municipal Well 7, located 1,000 feet southwest; the fluctuating concentrations at MW-17B may be due to fluctuations in horizontal gradients caused by the intermittent pumping at Municipal Well 7. The City provided historical flow and water quality data for this municipal supply well through August 2009 (MWH, 2010b). The perforated interval for this well is from about 160 to 210 feet bgs (-70 to -120 feet msl); the well is screened across the lower portion of the B zone sands and through the B/C aquitard. The well is in continuous use by the City and has been sampled regularly since 1986 with an annual or biannual frequency. The City's records show that PCE has never been detected in Municipal Well 7, and MWH confirmed with the City that there is not a carbon treatment unit on this well (MWH, 2010a).

To evaluate influences on the B zone plume between MW-20B and MW-17B, an additional well (MW-24B) was installed in September 2011 in this location (Figure 4-3). At the same time, five B zone wells (MW-25A through MW-29A) were installed to provide additional data with which to define the plume boundaries and to evaluate the potential that the Halford's plume is commingling with the Elwood's plume to the south (wells shown on Figure 4-3). These wells will be sampled in 4Q11 and results will be documented in the 4Q11 quarterly report.

C Zone

Groundwater elevation contours for the C zone and PCE concentration data are shown on Figure 4-4. There were two detections of PCE in 3Q11 among the samples from the five wells screened in the C zone. Concentrations of 0.9 and 0.6 µg/L, which are only slightly above the reporting limit and less than the MCL, were reported at MW-04C and MW-16C, respectively. Consequently, no PCE plume is shown on Figure 4-4. The last reported and only detection from the C zone wells that ever exceeded the MCL was 8.7 µg/L at MW-4C in 4Q08.

4.1.1.2 Other VOCs

Benzene concentrations exceeding the MCL of 1 µg/L were reported during the 1Q10 sampling event for the first time since well sampling began. There were no detections during the 2Q10 or 4Q10 events. However, benzene concentrations exceeded the California MCL (1.0 µg/L) during the 3Q10, 1Q11, 2Q11, and 3Q11 sampling events. In 3Q11, benzene concentrations exceeding the California MCL were reported in samples from four wells at concentrations ranging from 2.5 to 9.7 µg/L.

Other VOCs that exceeded their MCLs during the 3Q11 sampling event were 1,2-dichloroethane reported at MW-15A at 0.6 µg/L and carbon tetrachloride reported at MW-16C at 3.3 µg/L (both of these VOCs have MCLs of 0.5 µg/L). MW-15A is upgradient of the Halford's Modesto plume; therefore, it is unlikely that the Halford plume is the source of the 1,2- dichloroethane in groundwater.

Halford's also is not likely to be the source of the carbon tetrachloride or benzene concentrations in groundwater because carbon tetrachloride has not been detected at any of the Modesto site wells previously and 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 Sample Results

Samples were collected from the three operating SVE wells on September 8, 2011. Analytical results listed in Appendix G, Tables G-5(a) and G-5(b) are summarized below and posted on Figure 4-5:

- SVE-02 (screened interval 7 to 12 bgs): PCE concentration increased from 320 ppbv in 2Q11 to 580 ppbv in 3Q11.
- SVE-03 (screened interval 13 to 23 bgs): PCE concentration increased from 82 ppbv in 2Q11 to 410 ppbv in 3Q11.
- SVE-04 (screened interval 28 to 38 bgs): PCE concentration increased slightly from 23 ppbv in 2Q11 to 32 in 3Q11.

Comparison of 3Q11 to 2Q11 sample results generally shows an increase in PCE concentrations at all soil vapor monitoring wells and five monitoring wells. The monitoring wells screened deeper than 16 feet had no PCE concentrations higher than 110 ppbv detected at DP-01A, west of the operating extraction wells. The highest concentration detected in a monitoring well was 680 ppbv at OSV-10, a 5-foot-deep well located within the building footprint of Halfords' Cleaners (Figure 4-5).

4.1.3 Analysis of Vertical Groundwater Gradients

Vertical gradients were calculated using 3Q11 data at 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 an upward gradient at only one well pair between the A and B zones (from MW-16B to MW-16A). The remaining well pairs (six between the A and B zones and five between the B and C zones) indicated a potential for a downward gradient. Similarly, vertical gradients were all downward during 3Q10. The directions of vertical gradients for some of these well pairs are shown by arrows on Figure 4-7.

4.1.4 Extraction Well EW-01R Capture Zone Analysis

Estimates of groundwater plume capture from extraction well EW-01R are shown on Figures 4-6 and 4-7. Two lines of evidence (groundwater elevation contours developed based on 3Q11 data and particle tracks developed with the site's groundwater model [MWH, 2010b]) were used to estimate the extent of capture presented on Figure 4-6 and projected onto Figure 4-7.

Groundwater elevations from water levels measured at A, B, and C zone wells during 3Q11 were contoured using the Natural Neighbor function in ArcGIS 9.3.1 and augmented with 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 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 4-6. 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 4-6 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 3Q11 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 150 feet of MW-04A (Figure 4-6).

An estimate of the vertical extent of capture by EW-01R is illustrated on Figure 4-7. The downgradient extent of capture depicted in profile view (downgradient from MW-4A) 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 3Q11 groundwater elevation data from wells near EW-1R (MW-4A, MW-4B well pair [Figure 4-7] and MW-8A, MW-9B well pair [not shown on figure]) were downward from the A to the B zone. These downward gradients conflict with the model's prediction of upward vertical capture of groundwater at EW-01R. Therefore, the estimated capture zone has been drawn to just at the bottom of the screened interval of EW-01R, and not deeper into the B zone sands.

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 3Q11, the GWT system operated for approximately 2,140 hours (out of 2,208 hours possible during the quarter), which represents an uptime of approximately 97 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 6.55 million gallons of water and removed approximately 7.8 pounds of PCE during this reporting period. To date (since August 2001), the system has treated approximately 178 million gallons of water and removed approximately 492 pounds of PCE. Figure 4-8 illustrates the cumulative PCE mass removed.

The influent PCE concentrations ranged from 130 µg/L to 160 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 3Q11, the SVE system operated for approximately 2,208 hours (out of 2,208 hours possible during the quarter), which represents 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 125 scfm and removed approximately 1.51 pounds of VOCs during this quarter. The total cumulative VOC mass removed through September 13, 2011, is approximately 3,460 pounds. Figure 4-9 illustrates the cumulative PCE mass removed.

The influent PCE concentrations ranged from 140 ppbv to 160 ppbv during the reporting period. Monthly SVE system samples were collected in SUMMA canisters and 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

Figures 4-6 and 4-7 show that the PCE plume is only partially captured in the A zone. Based on 3Q11 data, the plume is approximately 1,500 feet wide and 1,875 feet long in the A zone (Figure 4-2) and approximately 1,750 feet wide and 1,900 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, 2011a). 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 600 feet from east to west) from the consistent southeast gradient in the A zone. A study to determine an optimal location for an A zone extraction well and results from the May/June investigation were reported in the *Modesto Groundwater Superfund Site Interim Extraction Well Installation Work Plan* (URS, 2011c).

Because the vertical and horizontal extents of the PCE concentrations exceeding 1,000 µg/L were not identified in the A zone, additional investigations are planned. To evaluate the potential for vertical stratification in groundwater at wells with screen lengths greater than 10 feet long, passive diffusion bags (PDBs) will be installed every 5 feet within the screened interval of each. Nine wells (including MW-06A, which is located at the southwestern boundary of the currently estimated 1,000 µg/L isopleth) have screens longer than 10 feet. The results of this evaluation will be reported in the 4Q11 quarterly report. In addition, groundwater samples will be collected from locations to the west, southwest, east, and south from the CPT locations pushed in the May/June 2011 investigation. These new CPT locations and sampling depths will be identified in a forthcoming addendum to the *Modesto Groundwater Superfund Site Interim Extraction Well Installation Work Plan*. Results from these samples will help evaluate the vertical and horizontal extent of the PCE concentrations exceeding 1000 µg/L.

Data collected in 3Q11 and previous quarters indicate that PCE concentrations are defined in the A zone except to the south between MW-16A and MW-17A and, during some quarters, to the west beyond MW-13A and MW-14A. Data from previous quarters indicate that PCE concentrations at MW-13A and MW-14A fluctuate seasonally, usually increasing to above the MCL and peaking annually in the first or second quarter. To address these data gaps and as stated in Section 4.0, three A zone wells (MW-21A through MW-23A) were installed in September 2011 to provide additional data with which to define the southern and western plume boundaries and to evaluate the potential that the Halford's plume is commingling with the Elwood's plume to the south (wells shown on Figure 4-2). These wells will be sampled in 4Q11 and results will be documented in the 4Q11 quarterly report.

Concentrations in the B zone are undefined to the south, southwest, and west. Until 4Q10, PCE concentrations at MW-17B had been increasing since 1Q09. The PCE concentration at MW-17B decreased from 90 µg/L in 3Q10 to 32 µg/L in 4Q10; however, PCE concentrations have been increasing since then to 61 µg/L in 3Q11. Based on groundwater gradients measured since MW-17B was installed in 2008, the well was located cross-gradient from the center of the plume at MW-20B. The concentrations at

MW-17B may indicate a preferential pathway exists that allows the plume to migrate in a direction approximately 90 degrees from the apparent horizontal gradient. The southern portion of the B zone plume is potentially under the influence of pumping of municipal supply wells, most likely Municipal Well 7.

To address these data gaps and as stated in Section 4.0, an additional well (MW-24B) was installed in September 2011 to evaluate influences on the B zone plume between MW-20B and MW-17B. At the same time, five B zone wells (MW-25A through MW-29A) were installed to provide additional data with which to define the plume boundaries in the western, southwestern, and southern directions and groundwater flow directions (Figure 4-3). These wells will also provide data to evaluate the potential that the Halford's plume is commingling with the Elwood's plume to the south. These wells will be sampled in 4Q11 and results will be documented in the 4Q11 quarterly report.

PCE was detected at only two wells screened in the C zone in 3Q11, both at concentrations less than the MCL. 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 seen in the C zone and the increase in PCE concentrations at MW-17B, which is cross-gradient from the direction of the horizontal gradient indicated by the potentiometric surface for the B zone, 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 levels 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 determine if operations of one or more of the municipal wells are causing the changes in flow directions and thereby spreading PCE in groundwater. Water quality data from Municipal Well 7 should be closely monitored in the future, and an evaluation should be performed to determine its impact on the increasing concentrations at MW-17B.

5.2 Soil Vapor Extraction – Summary Observations and Recommendations

The SVE treatment system's 3Q11 average influent sample concentrations were higher than the 2Q11 average. Monthly samples at the treatment system had PCE concentrations of 160, 150, and 140 ppbv in July, August, and September, respectively. The concentration at operating extraction well SVE-02 was higher in 3Q11 (580 ppbv) than in 2Q11 (320 ppbv). The overall PCE mass removed was up from 0.39 pound in 2Q11 to 1.51 pounds in 3Q11.

Based on current concentrations of PCE being removed from SVE-02 (580 ppbv), SVE-03 (410 ppbv), and SVE-04 (32 ppbv), and total mass removed for 3Q11 (1.51 lbs), a rebound study should be conducted of the SVE system wells. Concentrations from the wells have also stagnated (Table G-5(b) and mass removal from the system has plateaued (Figure 4-9) indicating that minimal mass is being removed from the site.

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 July 2011 through September 2011 at the Modesto Groundwater Superfund Site, Modesto, California. Sampling activity protocols are provided in the SAP (URS, 2010b). Based on this evaluation, 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 July 14 and September 13, 2011, 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
- TSS by SM2540D: three normal samples
- BOD by SM5210B: three normal samples
- VOCs in water by EPA Method 524.2: 39 normal samples, four field duplicates, four trip blanks, two field blanks, and four matrix spike/matrix spike duplicates (MS/MSD)
- Total uranium by ASTM D5174: Five normal samples, one field duplicate, two MS/duplicates
- 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 data. 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. 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:

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

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:

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

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 (94.7 percent) exceeded the project goal of 90 percent. Overall technical completeness for this data set (100 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. All data are considered usable as qualified for the intended purposes.

7.0 REFERENCES

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TABLES

Table 4-1 Vertical Gradients, Third Quarter 2011

Well No.	Monitoring Zone	Groundwater Elevation (feet msl)	Vertical Gradient
MW-4A	A	48.19	-0.0085
MW-4B	B	47.63	
MW-8A	A	48.46	-0.008
MW-9B	B	47.87	
MW-10A	A	48.17	-0.0074
MW-10B	B	47.55	
MW-16A	A	46.38	0.0002
MW-16B	B	46.39	
MW-17A	A	47.83	-0.0087
MW-17B	B	47.38	
MW-19A	A	47.15	-0.0199
MW-19B	B	46.23	
MW-20A	A	47.35	-0.0084
MW-20B	B	46.71	
MW-4B	B	47.63	-0.0426
MW-4C	C	44.1	
MW-10B	B	47.55	-0.0605
MW-10C	C	43.51	
MW-16B	B	46.39	-0.0388
MW-16C	C	42.62	
MW-17B	B	47.38	-0.0099
MW-17C	C	46.46	
MW-20B	B	46.71	-0.0472
MW-20C	C	43.27	

msl = mean sea level

positive gradient = upward

negative gradient = downward

Table 4-2. GWT System Sample Results: July - September 2011

Sample Port	Location	Sample Date	Sample Code	pH	PCE (µg/L)
SP-01	Extraction Well 1R	7/14/2011	N	7.35	140
		8/11/2011	N	7.41	160
		9/13/2011	N	7.40	130
SP-03	Carbon Influent	7/14/2011	N	8.37	< 0.5
SP-04	Carbon Mid Bed	7/14/2011	N	8.37	0.3 J
		7/14/2011	FD	8.37	0.3 J
SP-05	Post Carbon Pre-Ion Exchange	7/14/2011	N	8.32	0.3 J
SP-07	GWT Effluent	7/14/2011	N	8.34	0.3 J
		8/11/2011	N	8.26	0.4 J
		9/13/2011	N	8.42	0.4 J

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: July - September 2011

Sample Port	Location	Sample Date	Sample Code	PCE (ppbv)
SP-11	SVE Pre-GAC	7/14/2011	N	160
		8/11/2011	N	150
		9/13/2011	N	140
SP-12	SVE Stack	7/14/2011	N	2.9
		8/11/2011	N	2.1 J
		9/13/2011	N	1.5 J

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

FIGURES

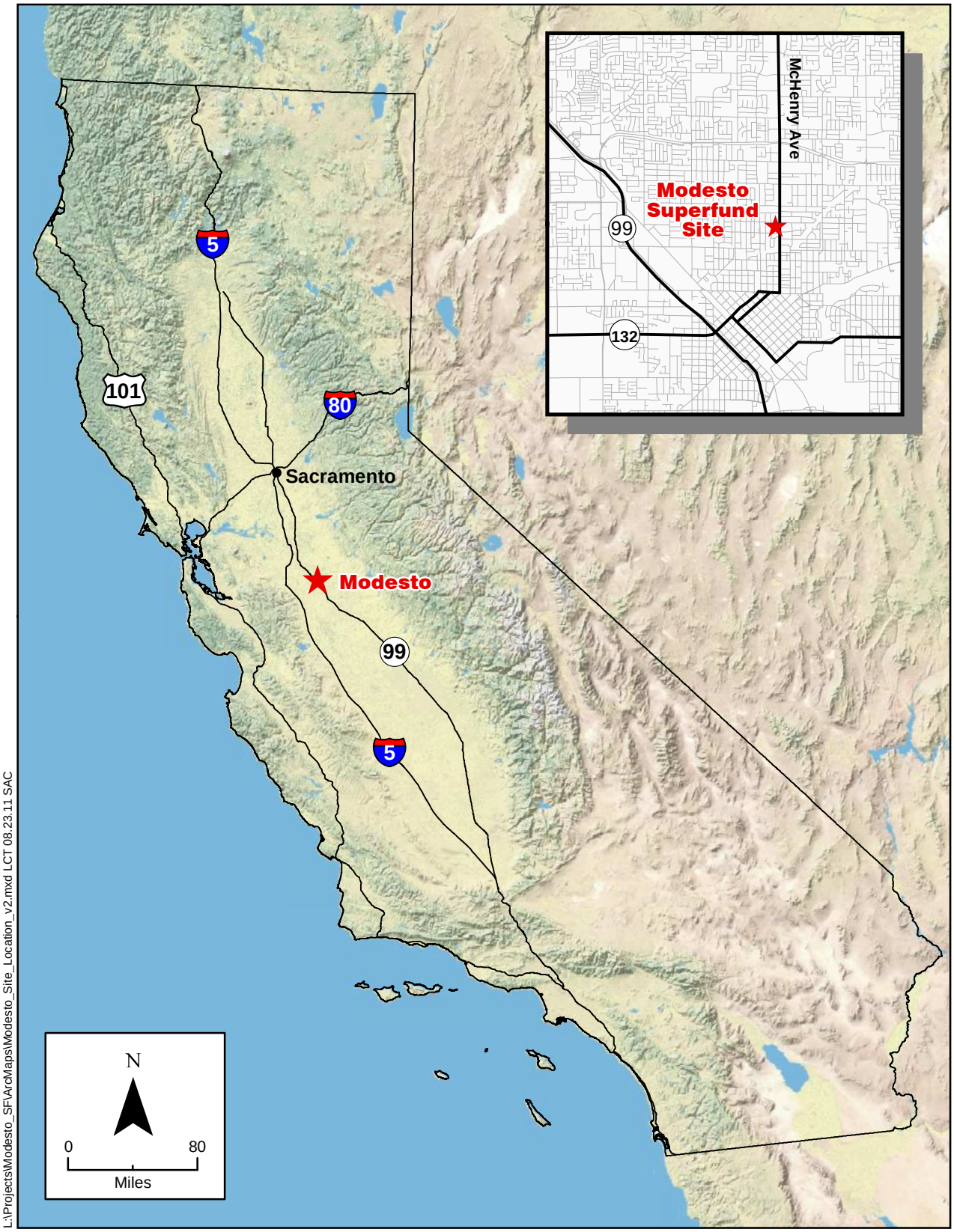

Figure 1-1. Site Location, Modesto Groundwater Superfund Site, Modesto, California

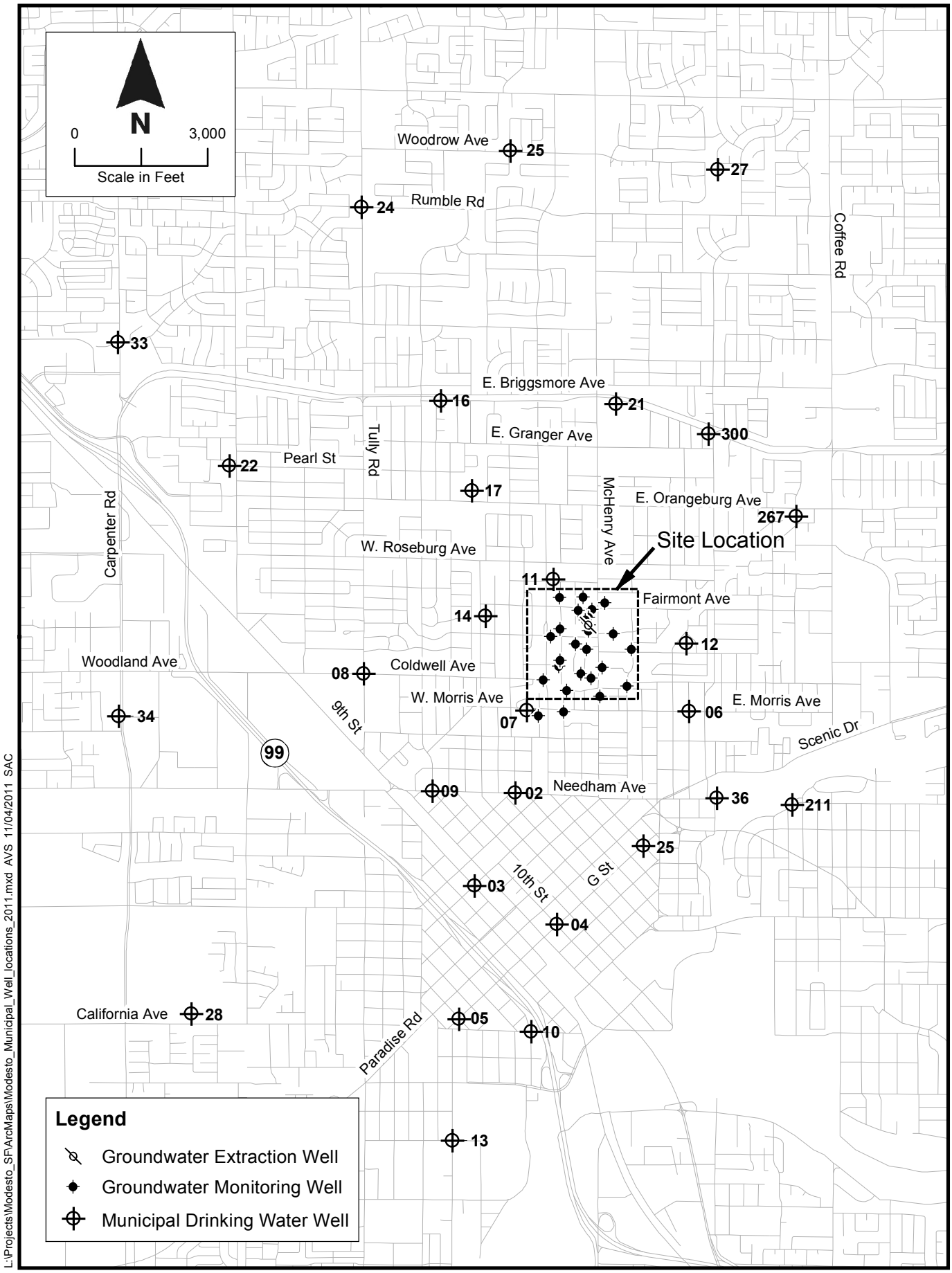

Figure 1-2 Municipal Well Locations, Modesto Groundwater Superfund Site

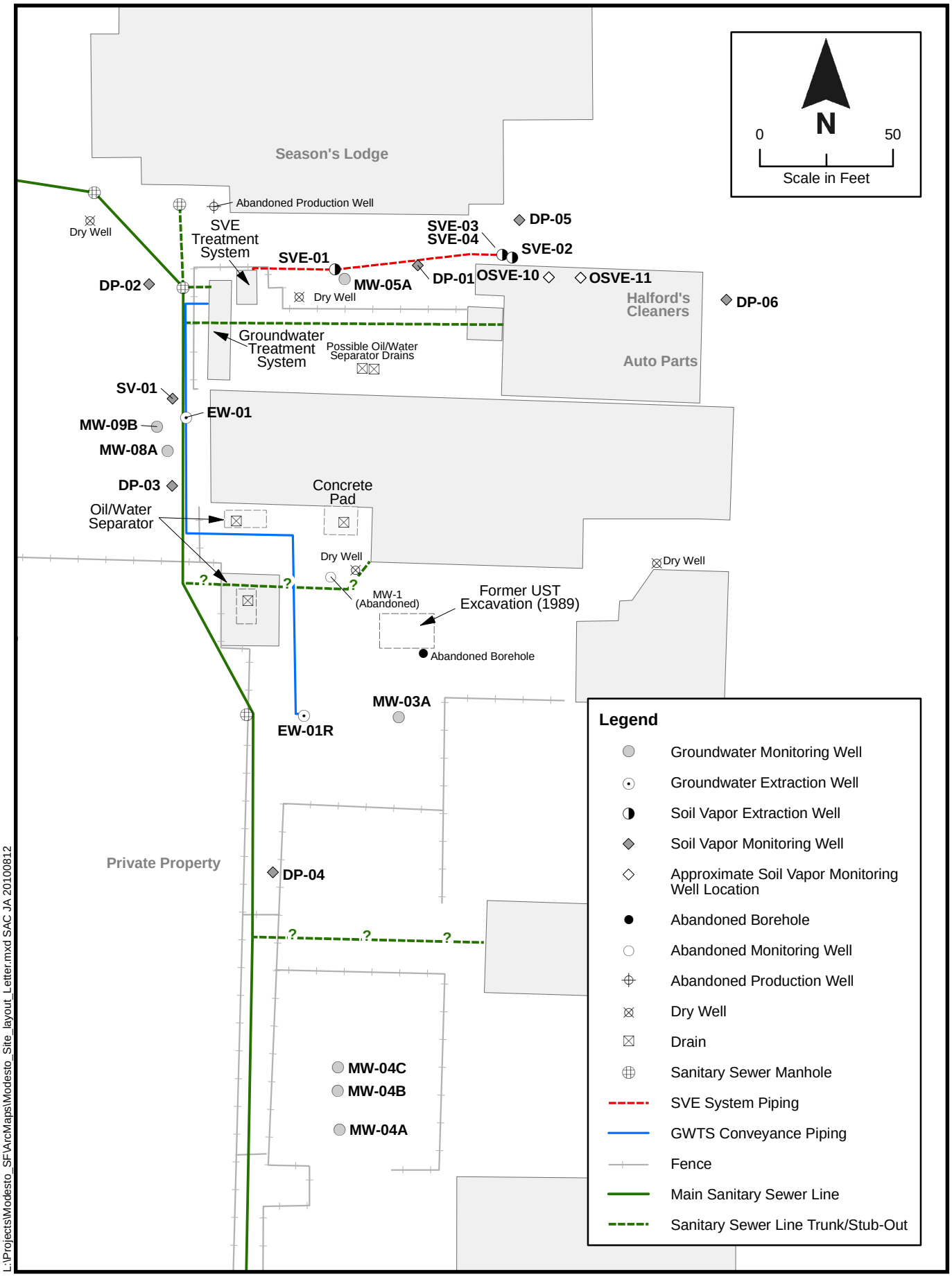

Figure 2-1. Site Layout
Modesto Groundwater Superfund Site

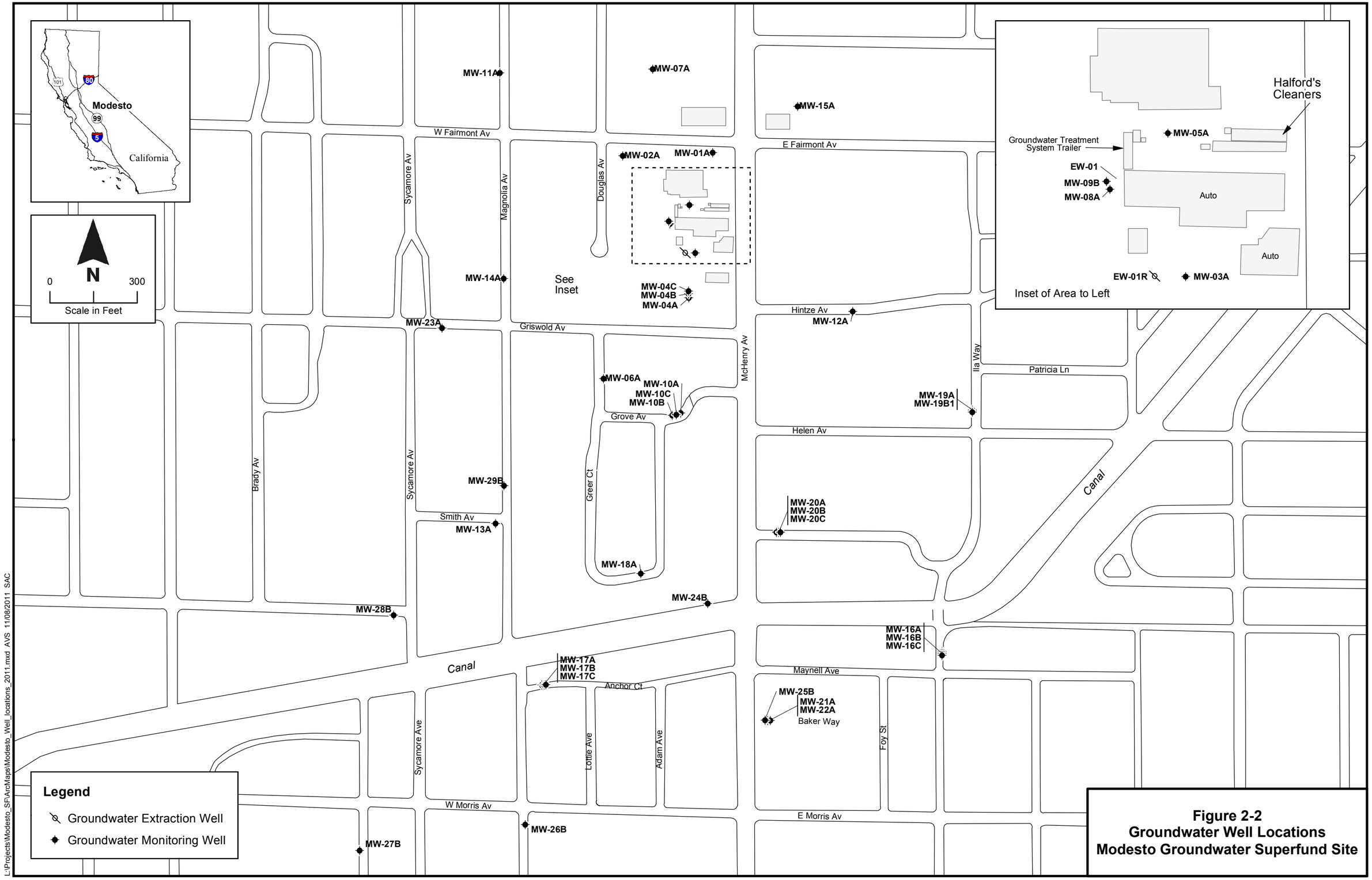

Figure 2-2
Groundwater Well Locations
Modesto Groundwater Superfund Site

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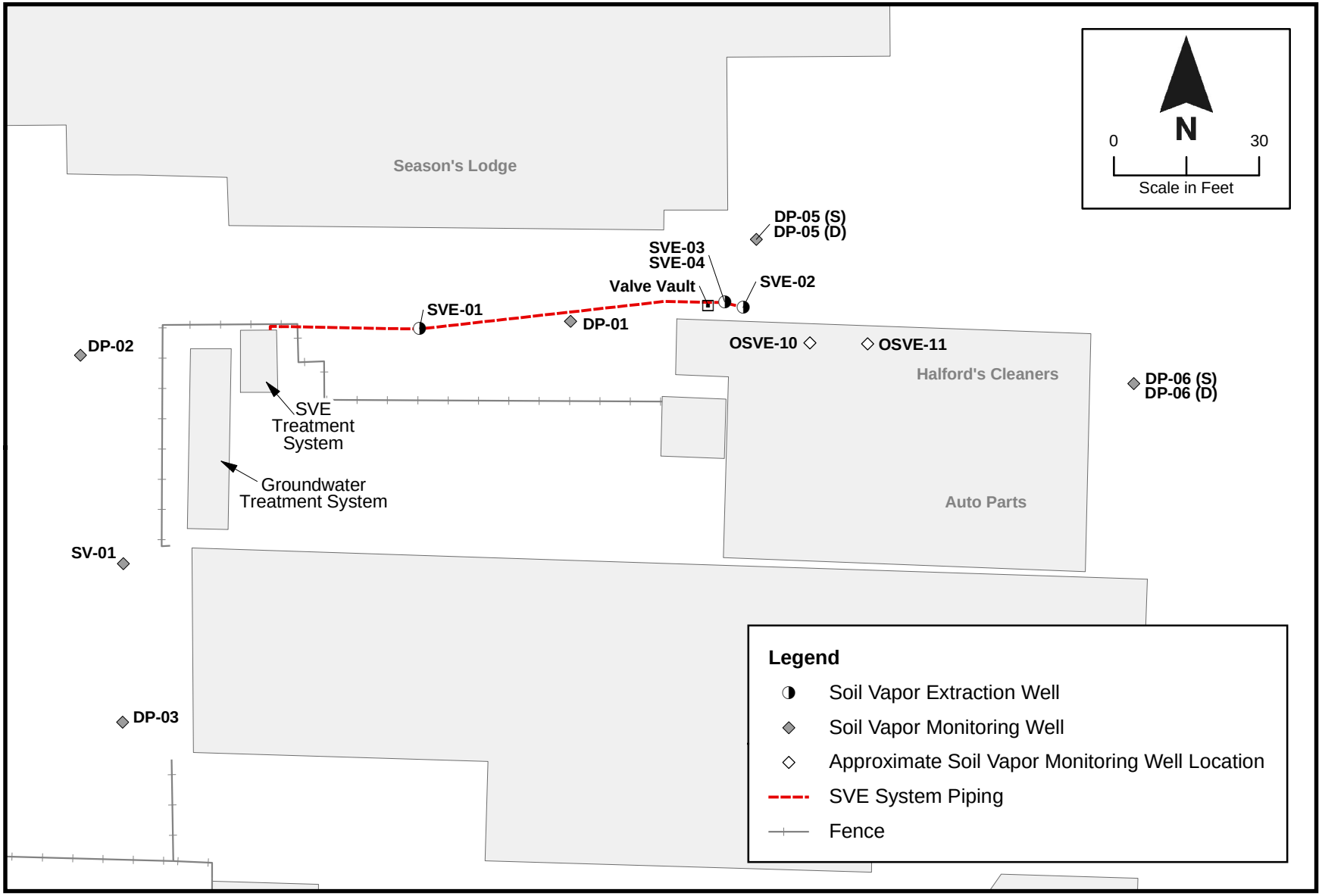
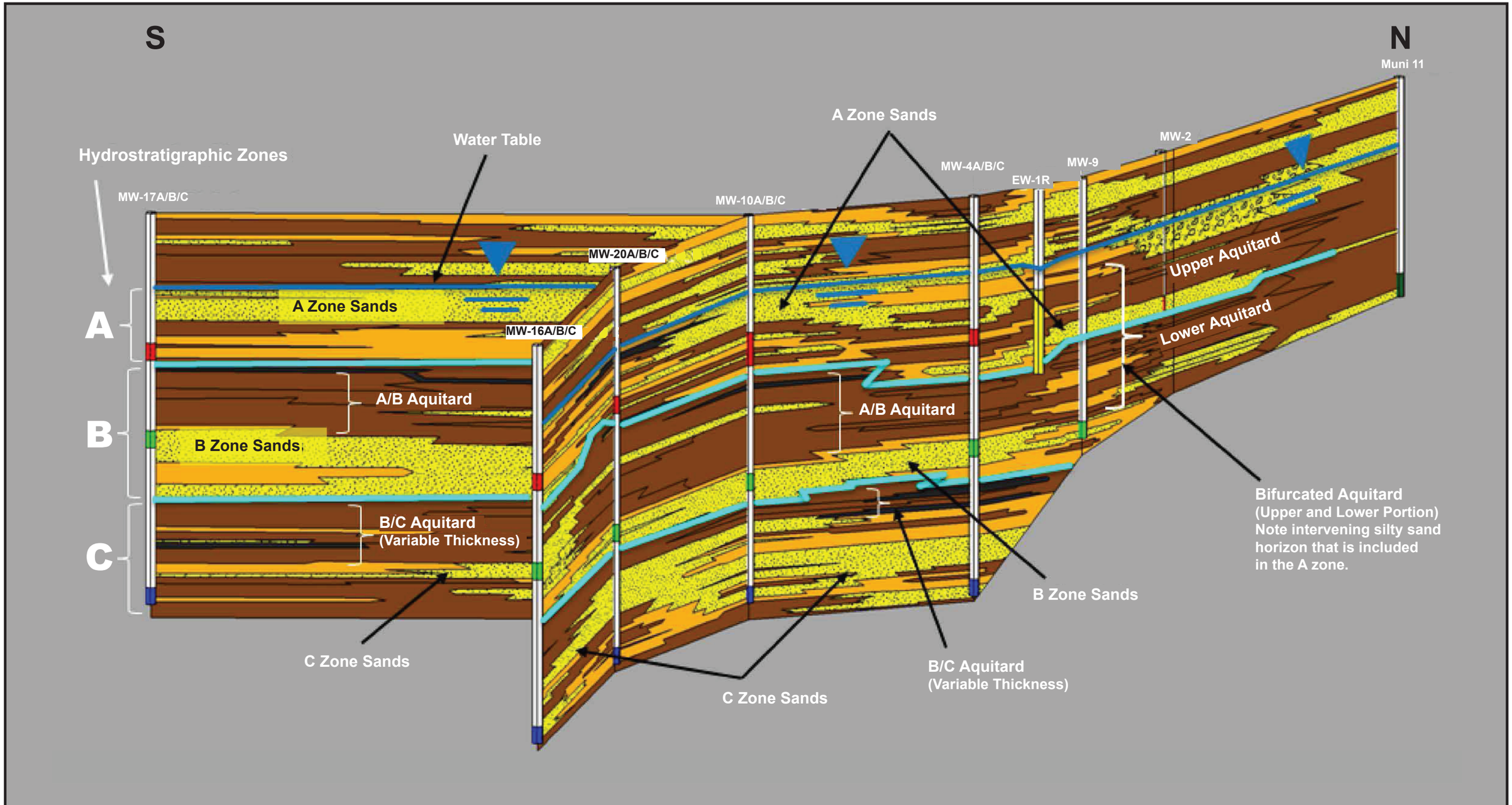
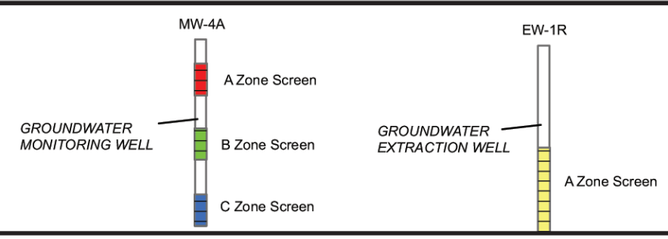


Figure 2-3. Soil Vapor Well Locations, Halford's Cleaners Area, Modesto Groundwater Superfund Site



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

H:\Graphics\Modesto GW\08-10-Modesto-GW-QtrlyStratigraphic-Model.indd - VMG 08/10/10 SAC

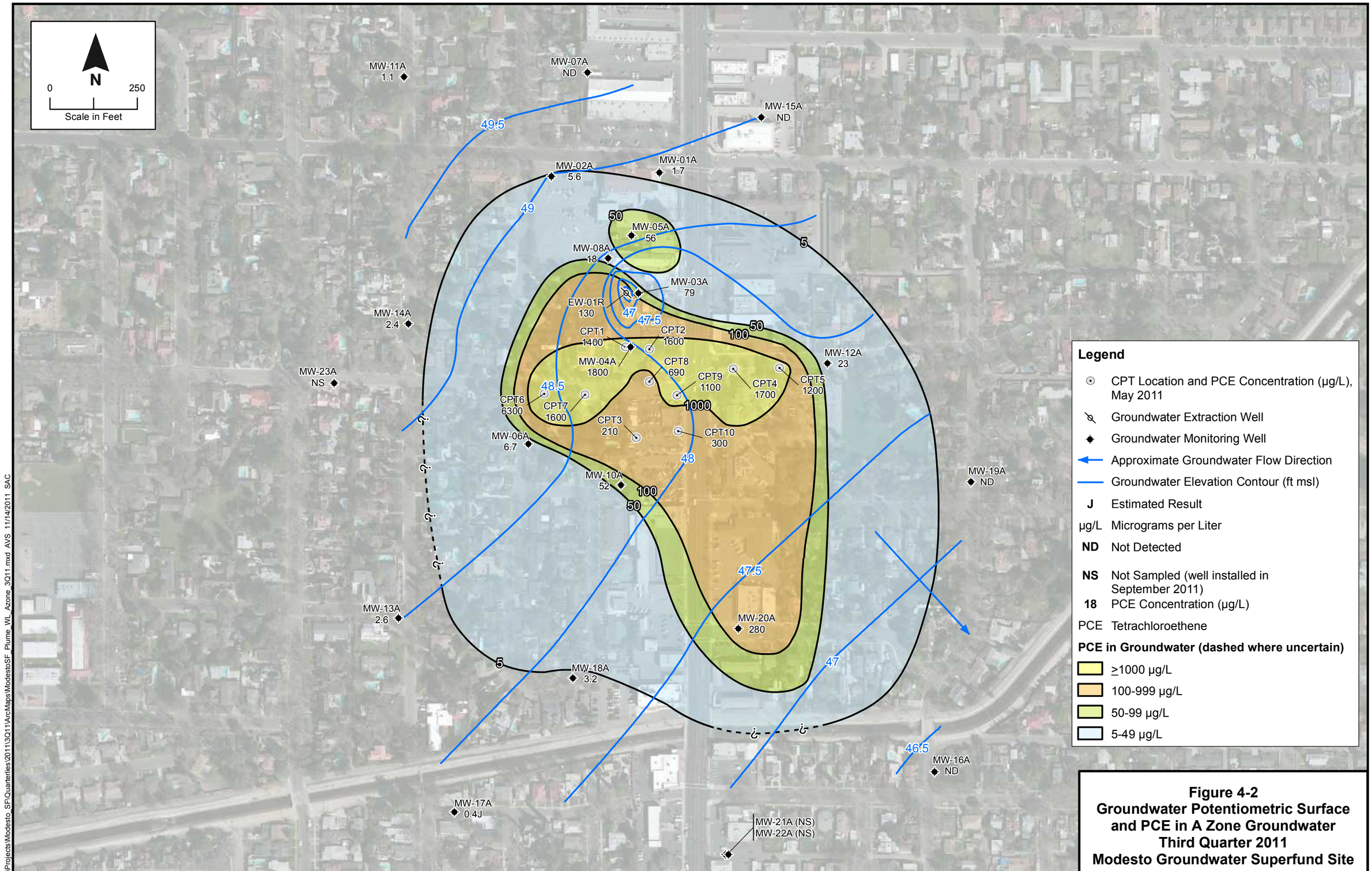


Figure 4-2
Groundwater Potentiometric Surface and PCE in A Zone Groundwater
Third Quarter 2011
Modesto Groundwater Superfund Site

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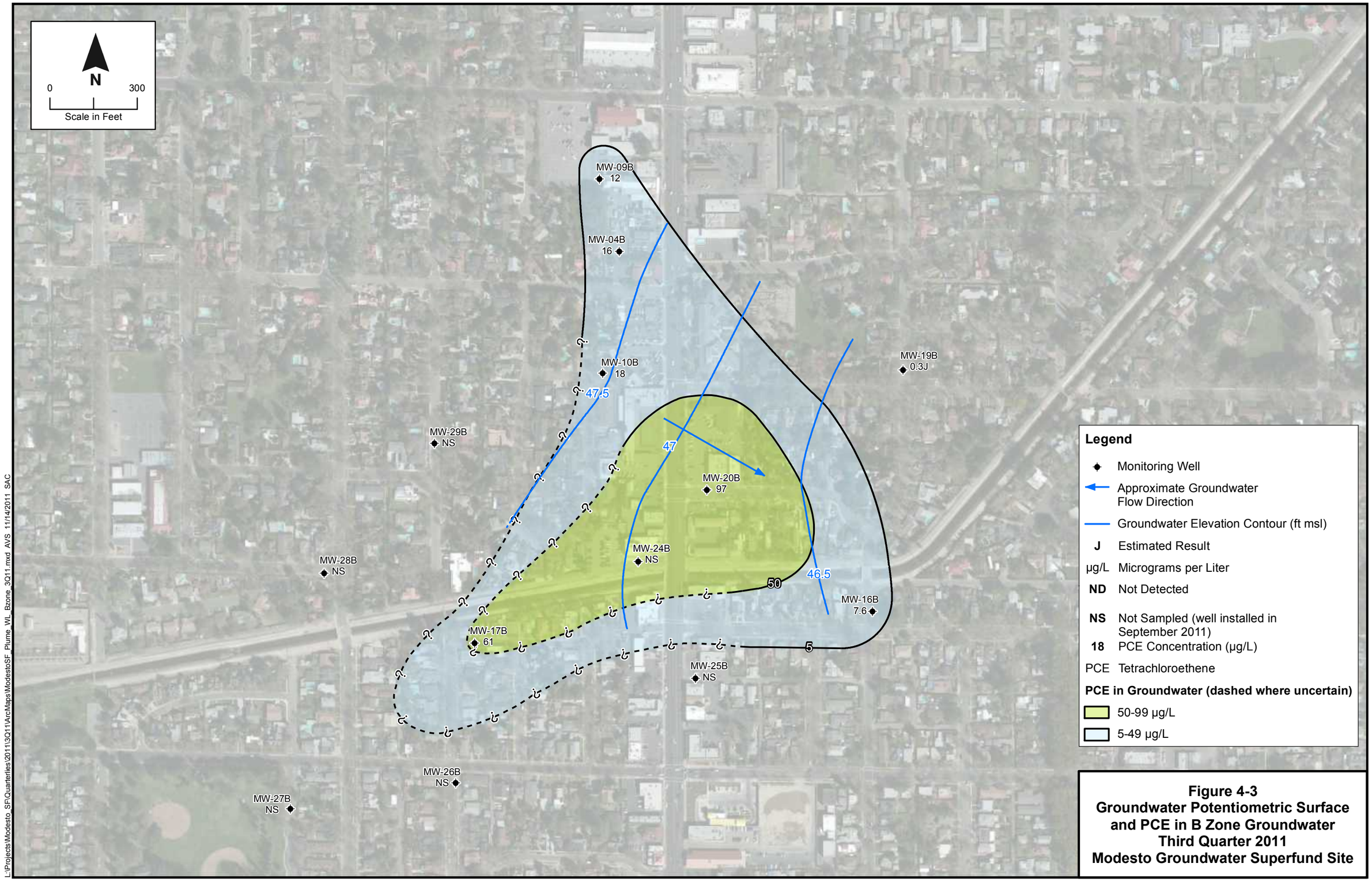

Figure 4-3
Groundwater Potentiometric Surface and PCE in B Zone Groundwater
Third Quarter 2011
Modesto Groundwater Superfund Site

L:\Projects\Modesto_SF\Quarterlies\2011\3Q11\ArcMaps\ModestoSF_Plume_WL_Bzone_3Q11.mxd AVS 11/14/2011 SAC

Figure 4-4
Groundwater Potentiometric Surface and PCE in C Zone Groundwater
Third Quarter 2011
Modesto Groundwater Superfund Site

L:\Projects\Modesto_SF\Quarterlies\2011\3Q11\ArcMaps\ModestoSF_Plume_WL_Czone_3Q11.mxd AVS 11/14/2011 SAC

L:\Projects\Modesto_SF\Quarterlies\2011\3Q11\ArcMaps\Modesto_Soil_Vapor_results_3Q11.mxd AVS 11/14/2011 SAC

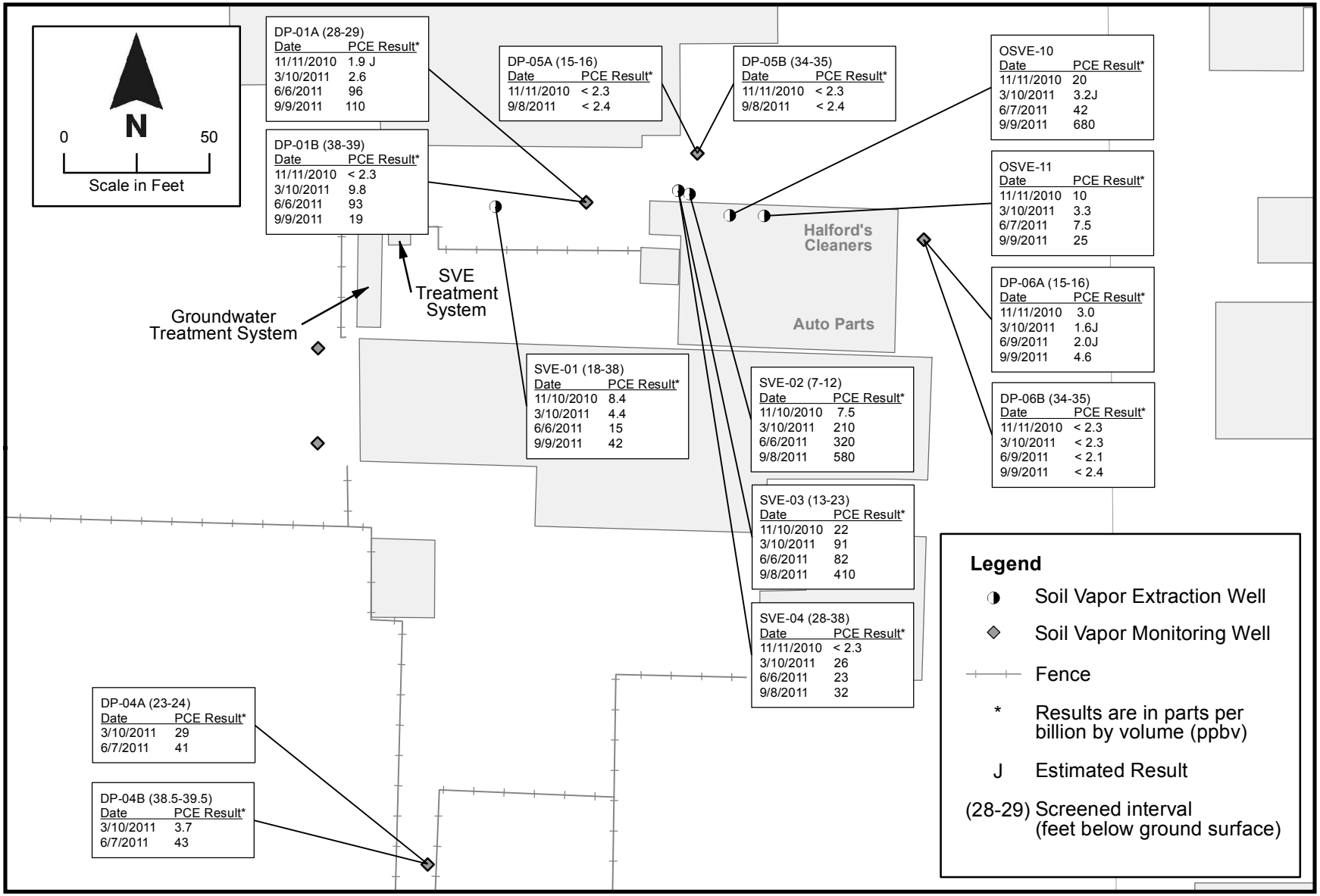

Figure 4-5. Soil Vapor Analytical Results, Fourth Quarter 2010 through Third Quarter 2011 Modesto Groundwater Superfund Site

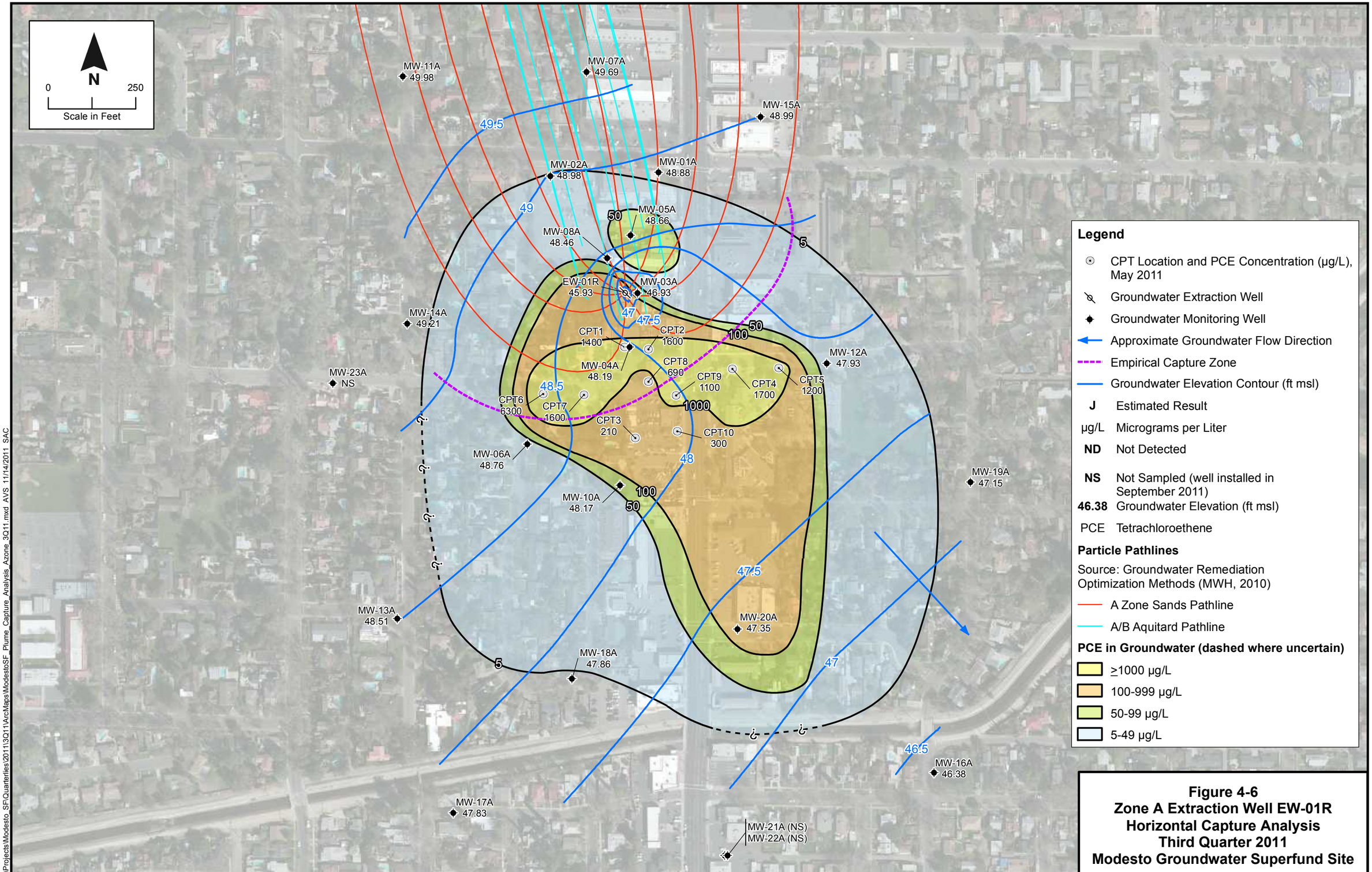

Figure 4-6
Zone A Extraction Well EW-01R
Horizontal Capture Analysis
Third Quarter 2011
Modesto Groundwater Superfund Site

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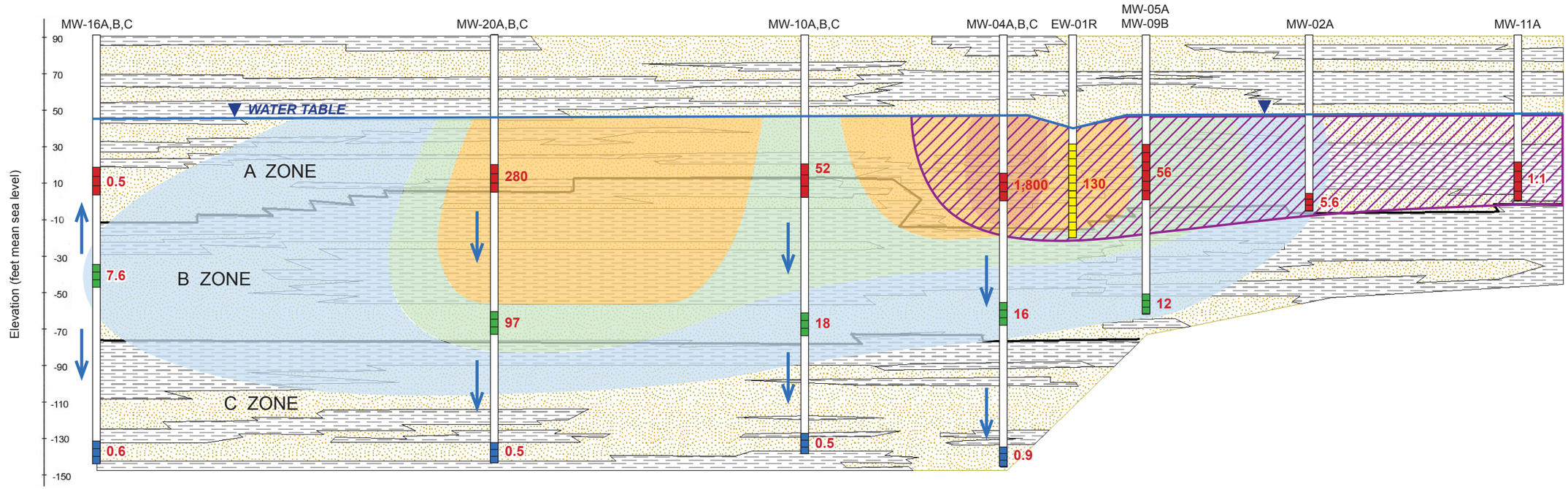


Legend

Water Table Surface

µ/L Micrograms per Liter

Sand and Silty Sand

Cemented Very Fine Grained Sand, Silt, or Clay

EW-1R Interpreted Capture Zone

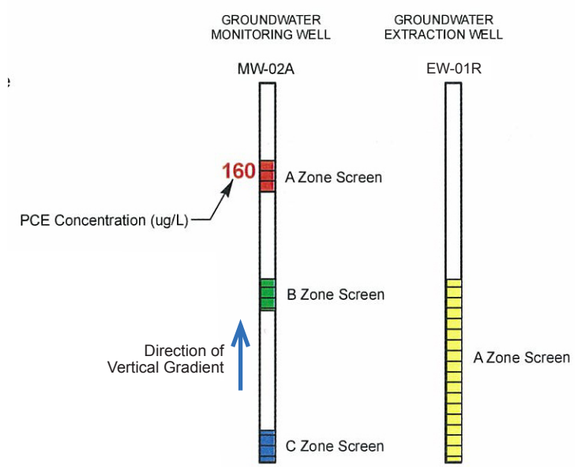
PCE Plume Concentration

5.0-49 µg/L

50-99 µg/L

100-999 µg/L

≥ 1,000 µg/L



0 200
SCALE IN FEET

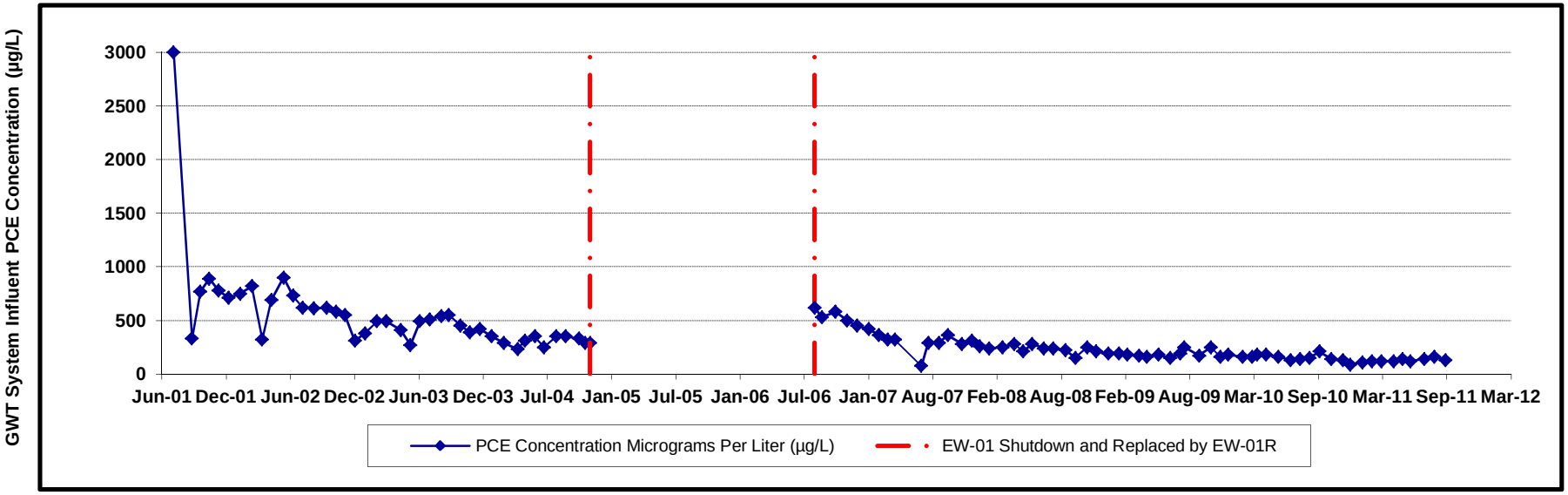
URS

Adapted from:
MWH source file

Figure 4-7
Extraction Well EW-1R
Estimated Capture Zone
Third Quarter 2011
Modesto Groundwater Superfund Site

H:\Graphics\Modesto GW\Qtrly\11-11-Modesto-GW-3Q11-Capture-Zone-Xsec.indd - VMG 11/07/11 SAC

FIGURE 4-8
CUMULATIVE PCE MASS REMOVED BY THE GROUNDWATER TREATMENT SYSTEM
MODESTO GROUNDWATER SUPERFUND SITE



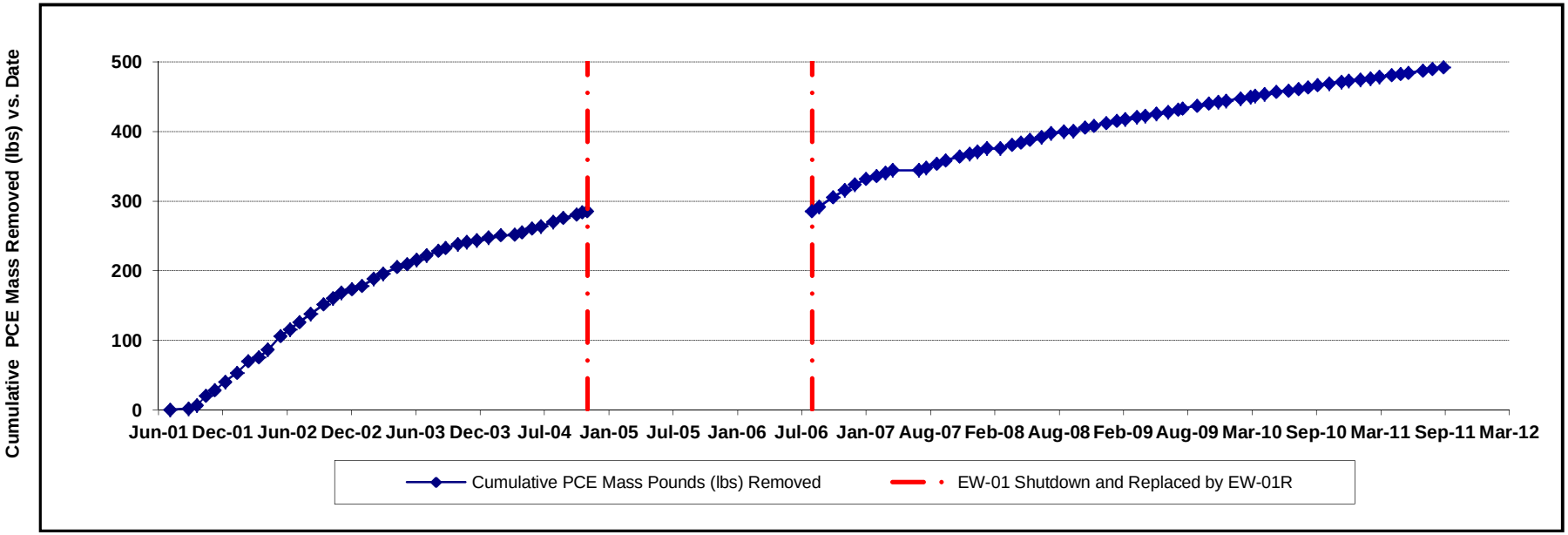
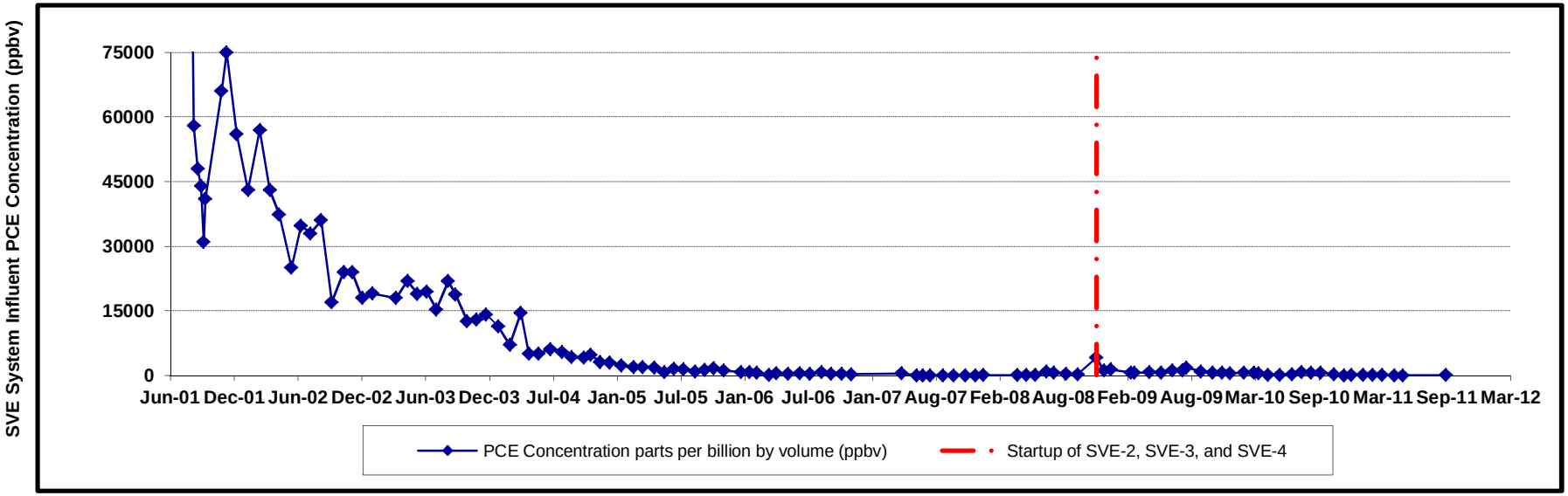
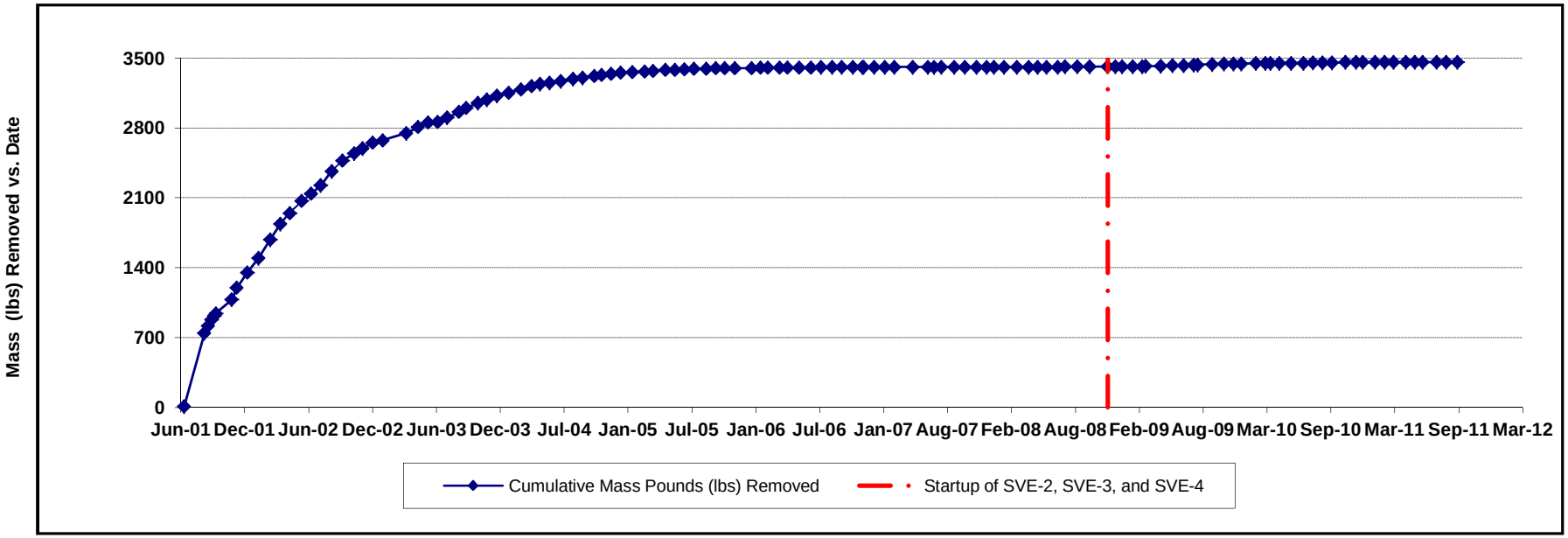


FIGURE 4-9
CUMULATIVE MASS REMOVED BY THE SOIL VAPOR EXTRACTION SYSTEM
MODESTO GROUNDWATER SUPERFUND SITE

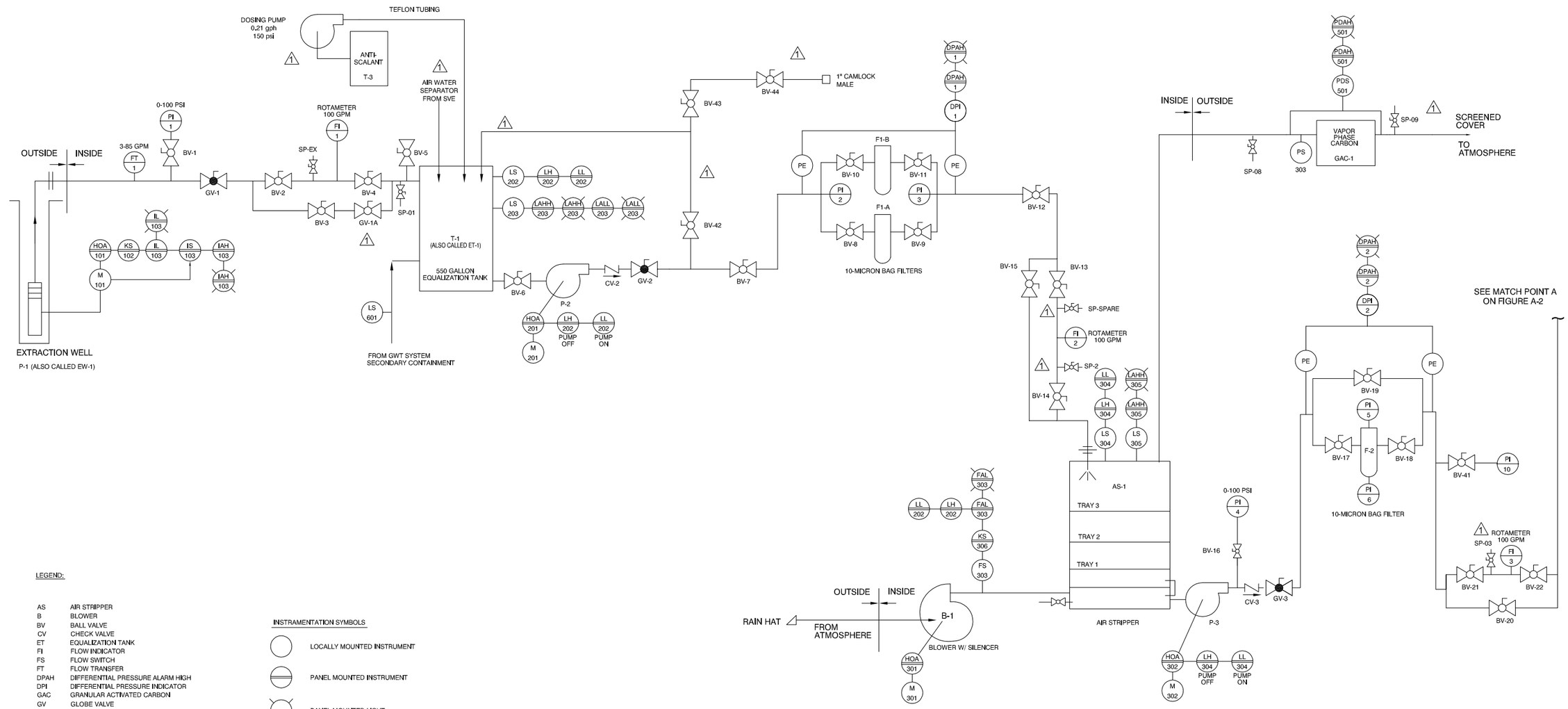




APPENDICES

(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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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**

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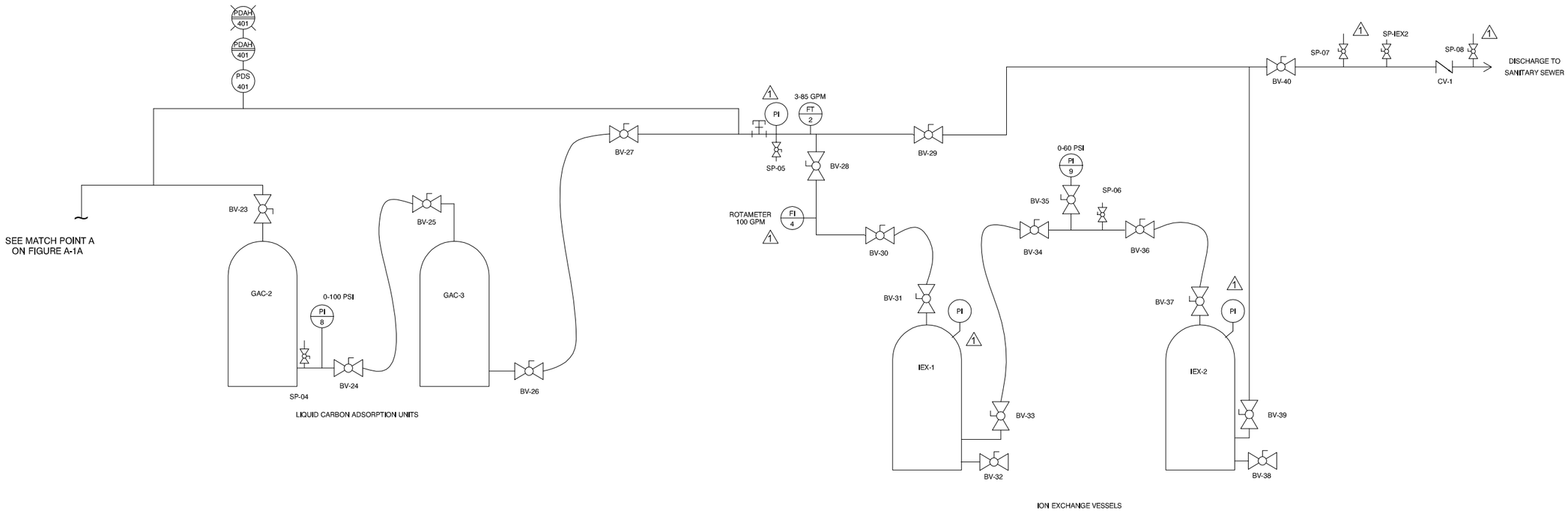

LEGEND:

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

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

MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

GROUNDWATER TREATMENT P&ID

JOB NO.
PROJECT
SHEET NO. 1-2

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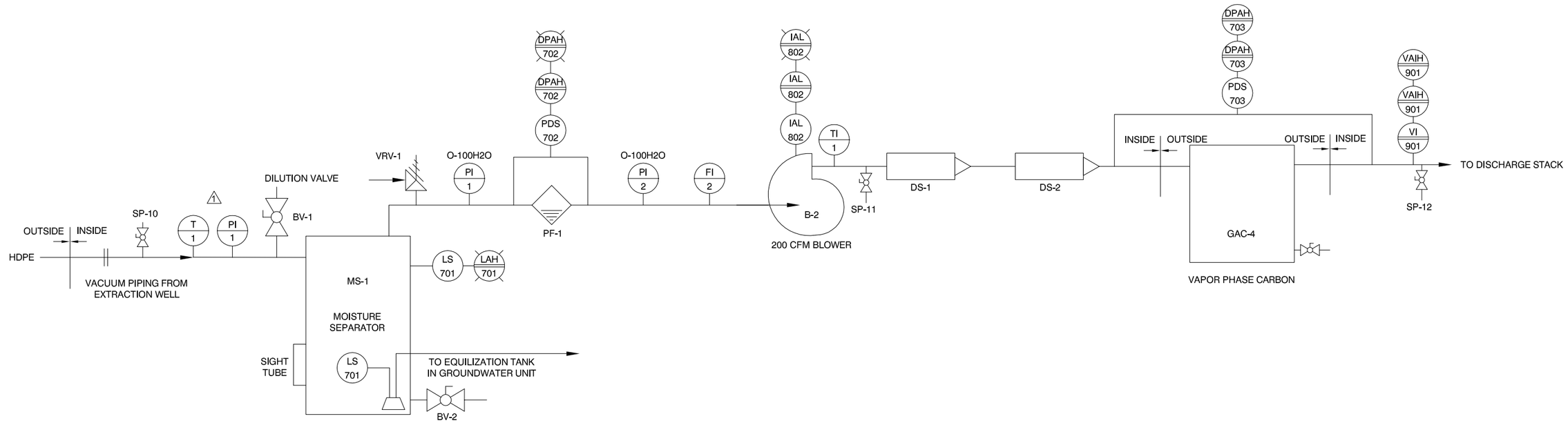

KEY

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
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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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DRAWING: T:\current–work files\Modesto\drawings\
DRAWING: 031910–Modesto_1–3.dwg

Appendix B
Laboratory Analytical Data Tables

Table B1	**Site Contaminants of Concern**
Table B2	**Sample Cross Reference**
Table B3	**Results Summary, Second Quarter 2011, 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
07/14/11	EFF-0703	282133001	N	ASTM D 5174
07/14/11	EW-1-0703	282133002	N	ASTM D 5174
07/14/11	IEX Mid-0703	282133003	N	ASTM D 5174
07/14/11	MW-107-0703	282133004	FD	ASTM D 5174
07/14/11	Pre-IEX-0703	282133005	N	ASTM D 5174
07/14/11	EFF-0703	1202442144	DUP	ASTM D 5174
07/14/11	EFF-0703	1202442145	MS	ASTM D 5174
07/14/11	CRB EFF-0703	1107031-01	N	524.2
07/14/11	CRB INF-0703	1107031-02	N	524.2
07/14/11	CRB Mid-0703	1107031-03	N	524.2
07/14/11	EFF-0703	1107031-04	N	524.2
07/14/11	EFF-0703	1107031-04	N	2540C
07/14/11	EFF-0703	1107031-04	N	2540D
07/14/11	EFF-0703	1107031-04	N	5210B
07/14/11	EW-1-0703	1107031-05	N	524.2
07/14/11	MW-104-0703	1107031-06	FD	524.2
07/14/11	MW-301-3Q11	1107031-07	TB	524.2
07/14/11	MW-401-3Q11	1107031-08	FB	524.2
07/14/11	GWTP Pr GAC-0703	1107032-01	N	TO-15
07/14/11	GWTP Stack-0703	1107032-02	N	TO-15
07/14/11	SVE Pre GAC-0703	1107032-03	N	TO-15
07/14/11	SVE Stack-0703	1107032-04	N	TO-15
07/14/11	MW-401-3Q11MS	B1G0076-MS1	MS	524.2
07/14/11	MW-401-3Q11MSD	B1G0076-MSD1	MSD	524.2
07/14/11	EFF-0703DUP	B1G0077-DUP1	DUP	2540C
07/14/11	EFF-0703DUP	B1G0077-DUP2	DUP	2540D
07/14/11	GWTP Stack-0703DUP	B1G0094-DUP1	DUP	TO-15
07/14/11	SVE Pre GAC-0703DUP	B1G0094-DUP2	DUP	TO-15
08/11/11	EFF-0802	283932001	N	ASTM D 5174
08/11/11	EFF-0802	1202463790	DUP	ASTM D 5174
08/11/11	EFF-0802	1202463791	MS	ASTM D 5174
08/11/11	EFF-0802	1108035-01	N	524.2
08/11/11	EFF-0802	1108035-01	N	2540C
08/11/11	EFF-0802	1108035-01	N	2540D
08/11/11	EFF-0802	1108035-01	N	5210B
08/11/11	EW-1-0802	1108035-02	N	524.2
08/11/11	MW-302-3Q11	1108035-03	TB	524.2
08/11/11	GWTP Pr GAC-0802	1108036-01	N	TO-15
08/11/11	GWTP Stack-0802	1108036-02	N	TO-15
08/11/11	SVE Pre GAC-0802	1108036-03	N	TO-15
08/11/11	SVE Stack-0802	1108036-04	N	TO-15
08/11/11	GWTP Pre GAC-0802DUP	B1H0045-DUP1	DUP	TO-15
08/11/11	GWTP Stack-0802DUP	B1H0045-DUP2	DUP	TO-15
08/11/11	EFF-0802DUP	B1H0059-DUP1	DUP	5210B
08/11/11	EFF-0802DUP	B1H0061-DUP1	DUP	2540C
08/11/11	EFF-0802DUP	B1H0061-DUP2	DUP	2540D
09/06/11	MW-4A-3Q11	1109022-02	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
09/06/11	MW-6A-3Q11	1109022-06	N	524.2
09/06/11	MW-7A-3Q11	1109022-07	N	524.2
09/06/11	MW-81A-3Q11	1109022-08	FD	524.2
09/06/11	MW-86A-3Q11	1109022-09	FD	524.2
09/06/11	MW-19A-3Q11	1109022-16	N	524.2
09/06/11	MW-10A-3Q11	1109024-01	N	524.2
09/06/11	MW-11A-3Q11	1109024-04	N	524.2
09/06/11	MW-13A-3Q11	1109024-06	N	524.2
09/06/11	MW-14A-3Q11	1109024-07	N	524.2
09/06/11	MW-15A-3Q11	1109024-08	N	524.2
09/06/11	MW-6A-3Q11MS	B1I0033-MS1	MS	524.2
09/06/11	MW-6A-3Q11MSD	B1I0033-MSD1	MSD	524.2
09/07/11	MW-3A-3Q11	1109022-01	N	524.2
09/07/11	MW-4B-3Q11	1109022-03	N	524.2
09/07/11	MW-4C-3Q11	1109022-04	N	524.2
09/07/11	MW-5A-3Q11	1109022-05	N	524.2
09/07/11	MW-8A-3Q11	1109022-10	N	524.2
09/07/11	MW-96B-3Q11	1109022-11	FD	524.2
09/07/11	MW-18A-3Q11	1109022-15	N	524.2
09/07/11	MW-19B-3Q11	1109022-17	N	524.2
09/07/11	MW-1A-3Q11	1109022-18	N	524.2
09/07/11	MW-2A-3Q11	1109022-19	N	524.2
09/07/11	MW-9B-3Q11	1109022-20	N	524.2
09/07/11	MW-12A-3Q11	1109024-05	N	524.2
09/07/11	MW-16A-3Q11	1109024-09	N	524.2
09/07/11	MW-16B-3Q11	1109024-10	N	524.2
09/07/11	MW-16C-3Q11	1109024-11	N	524.2
09/07/11	MW-303-3Q11	1109024-12	TB	524.2
09/07/11	MW-16C-3Q11MS	B1I0040-MS1	MS	524.2
09/07/11	MW-16C-3Q11MSD	B1I0040-MSD1	MSD	524.2
09/08/11	MW-17A-3Q11	1109022-12	N	524.2
09/08/11	MW-17B-3Q11	1109022-13	N	524.2
09/08/11	MW-17C-3Q11	1109022-14	N	524.2
09/08/11	MW-10B-3Q11	1109024-02	N	524.2
09/08/11	MW-10C-3Q11	1109024-03	N	524.2
09/08/11	MW-402-3Q11	1109024-13	FB	524.2
09/08/11	DP-5A-3Q11	1109035-03	N	TO-15
09/08/11	DP-5B-3Q11	1109035-04	N	TO-15
09/08/11	SVE-2-3Q11	1109035-11	N	TO-15
09/08/11	SVE-3-3Q11	1109035-12	N	TO-15
09/08/11	SVE-4-3Q11	1109035-13	N	TO-15
09/08/11	SVE-96-3Q11	1109035-14	FD	TO-15
09/08/11	SVE-3-3Q11DUP	B1I0125-DUP2	DUP	TO-15
09/09/11	DP-1A-3Q11	1109035-01	N	TO-15
09/09/11	DP-1B-3Q11	1109035-02	N	TO-15
09/09/11	DP-6A-3Q11	1109035-05	N	TO-15
09/09/11	DP-6B-3Q11	1109035-06	N	TO-15
09/09/11	OSVE-10-3Q11	1109035-07	N	TO-15

TABLE B2

SAMPLE CROSS REFERENCE
MODESTO GROUNDWATER SUPERFUND SITE
MODESTO, CALIFORNIA

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Analytical Method
09/09/11	OSVE-11-3Q11	1109035-08	N	TO-15
09/09/11	OSVE-89-3Q11	1109035-09	FD	TO-15
09/09/11	SVE-1-3Q11	1109035-10	N	TO-15
09/13/11	MW-20A-3Q11	1109031-01	N	524.2
09/13/11	MW-20B-3Q11	1109031-02	N	524.2
09/13/11	MW-20C-3Q11	1109031-03	N	524.2
09/13/11	EFF-0902	1109033-01	N	524.2
09/13/11	EFF-0902	1109033-01	N	2540C
09/13/11	EFF-0902	1109033-01	N	2540D
09/13/11	EFF-0902	1109033-01	N	5210B
09/13/11	EW-1-0902	1109033-02	N	524.2
09/13/11	MW-304-3Q11	1109033-03	TB	524.2
09/13/11	GWTP Pr GAC-0902	1109036-01	N	TO-15
09/13/11	GWTP Stack-0902	1109036-02	N	TO-15
09/13/11	SVE Pre GAC-0902	1109036-03	N	TO-15
09/13/11	SVE Stack-0902	1109036-04	N	TO-15
09/13/11	MW-108-0902	1109036-05	FD	TO-15
09/13/11	EFF-0902DUP	B1I0049-DUP1	DUP	2540C
09/13/11	EFF-0902DUP	B1I0049-DUP2	DUP	2540D
09/13/11	EW-1-0902MS	B1I0052-MS1	MS	524.2
09/13/11	EW-1-0902MSD	B1I0052-MSD1	MSD	524.2
09/13/11	GWTP Pr GAC-0902DUP	B1I0090-DUP1	DUP	TO-15
09/13/11	GWTP Stack-0902DUP	B1I0090-DUP2	DUP	TO-15

3Q11 = third quarter, 2011
DUP = laboratory duplicate
EFF = effluent
EW = extraction well
FB = field blank
FD = field duplicate
GWT = groundwater treatment
MS = matrix spike
MSD = matrix spike duplicate
MW = monitoring well
N = normal sample
SVE = soil vapor extraction
TB = trip blank

TABLE B3. RESULTS SUMMARY
THIRD QUARTER 2011, MODESTO GROUNDWATER SUPERFUND SITE

Location	Field Sample Identification	Matrix	Method	Sample Type	Date Sampled	Analyte	Result	Reporting Limit	Units	Qualified Result
0000BLANK	MW-301-3Q11	WQ	E524.2	TB	7/14/2011	No Analytes Detected				
	MW-302-3Q11				8/11/2011	Methylene Chloride	0.300	0.500	µg/L	J
						Toluene	0.400	0.500	µg/L	J
	MW-303-3Q11				9/7/2011	Acetone	28	4	µg/L	
						Chloroform	3	0.500	µg/L	
	MW-304-3Q11				9/13/2011	No Analytes Detected				
	MW-401-3Q11	WQ	E524.2	FB	7/14/2011	No Analytes Detected				
DP-1A	DP-1A-3Q11	GS	TO15	N	9/9/2011	Tetrachloroethene	110	24	ppbv	
DP-1B	DP-1B-3Q11	GS	TO15	N	9/9/2011	Tetrachloroethene	19	2.40	ppbv	
DP-5A	DP-5A-3Q11	GS	TO15	N	9/8/2011	No Analytes Detected				
DP-5B	DP-5B-3Q11	GS	TO15	N	9/8/2011	No Analytes Detected				
DP-6A	DP-6A-3Q11	GS	TO15	N	9/9/2011	Tetrachloroethene	4.60	2.20	ppbv	
DP-6B	DP-6B-3Q11	GS	TO15	N	9/9/2011	Benzene	1.30	2.40	ppbv	J
MW-01A	MW-1A-3Q11	WG	E524.2	N	9/7/2011	Tetrachloroethene	1.70	0.500	µg/L	
MW-02A	MW-2A-3Q11	WG	E524.2	N	9/7/2011	1,1,2-Trichloroethane	0.300	0.500	µg/L	J
						Tetrachloroethene	5.60	0.500	µg/L	
MW-03A	MW-3A-3Q11	WG	E524.2	N	9/7/2011	1,1,2-Trichloroethane	3.10	0.500	µg/L	
						Tetrachloroethene	79	2.50	µg/L	
MW-04A	MW-4A-3Q11	WG	E524.2	N	9/6/2011	1,1,1,2-Tetrachloroethane	0.800	0.500	µg/L	
						cis-1,2-Dichloroethene	1.10	0.500	µg/L	
						Tetrachloroethene	1800	120	µg/L	
						Trichloroethylene	1.70	0.500	µg/L	
MW-04B	MW-4B-3Q11	WG	E524.2	N	9/7/2011	1,1,2-Trichloroethane	0.600	0.500	µg/L	
						Benzene	2.50	0.500	µg/L	
						Ethylbenzene	0.300	0.500	µg/L	J
						m,p-Xylenes	0.800	1	µg/L	J
						o-Xylene	0.200	0.500	µg/L	J
						Tetrachloroethene	16	0.500	µg/L	
						Toluene	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-04B continued . . .										
	MW-96B-3Q11	WG	E524.2	FD	9/7/2011	1,1,2-Trichloroethane	0.600	0.500	µg/L	
						1,2,4-Trimethylbenzene	0.300	0.500	µg/L	J
						1,2-Dichloroethane	0.400	0.500	µg/L	J
						Benzene	9.70	0.500	µg/L	
						Ethylbenzene	1	0.500	µg/L	
						m,p-Xylenes	2.70	1	µg/L	
						o-Xylene	0.900	0.500	µg/L	
						Tetrachloroethene	14	0.500	µg/L	
						Toluene	1.20	0.500	µg/L	
MW-04C	MW-4C-3Q11	WG	E524.2	N	9/7/2011	Tetrachloroethene	0.900	0.500	µg/L	
MW-05A	MW-5A-3Q11	WG	E524.2	N	9/7/2011	1,1,2-Trichloroethane	2.20	0.500	µg/L	
						Tetrachloroethene	56	2.50	µg/L	
MW-06A	MW-6A-3Q11	WG	E524.2	N	9/6/2011	Bromodichloromethane	0.400	0.500	µg/L	J
						Tetrachloroethene	6.70	0.500	µg/L	
MW-07A	MW-7A-3Q11	WG	E524.2	N	9/6/2011	No Analytes Detected				
MW-08A	MW-8A-3Q11	WG	E524.2	N	9/7/2011	1,1,2-Trichloroethane	0.800	0.500	µg/L	
						Bromodichloromethane	0.500	0.500	µg/L	
						Tetrachloroethene	18	0.500	µg/L	
MW-09B	MW-9B-3Q11	WG	E524.2	N	9/7/2011	1,1,2-Trichloroethane	0.600	0.500	µg/L	
						Tetrachloroethene	12	0.500	µg/L	
MW-10A	MW-10A-3Q11	WG	E524.2	N	9/6/2011	1,1,2-Trichloroethane	4.50	0.500	µg/L	
						Bromodichloromethane	0.300	0.500	µg/L	J
						Tetrachloroethene	52	5	µg/L	
MW-10B	MW-10B-3Q11	WG	E524.2	N	9/8/2011	Tetrachloroethene	18	0.500	µg/L	
	MW-402-3Q11	WQ	E524.2	FB	9/8/2011	2-Butanone (MEK)	2.30	4	µg/L	J
MW-10C	MW-10C-3Q11	WG	E524.2	N	9/8/2011	No Analytes Detected				
MW-11A	MW-11A-3Q11	WG	E524.2	N	9/6/2011	Tetrachloroethene	1.10	0.500	µg/L	
MW-12A	MW-12A-3Q11	WG	E524.2	N	9/7/2011	Bromodichloromethane	0.300	0.500	µg/L	J
						Tetrachloroethene	23	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-12A continued . . .										
						Trichlorofluoromethane	0.400	0.500	µg/L	J
MW-13A	MW-13A-3Q11	WG	E524.2	N	9/6/2011	Tetrachloroethene	2.60	0.500	µg/L	
MW-14A	MW-14A-3Q11	WG	E524.2	N	9/6/2011	Tetrachloroethene	2.40	0.500	µg/L	
	MW-86A-3Q11	WG	E524.2	FD	9/6/2011	Tetrachloroethene	2.30	0.500	µg/L	
MW-15A	MW-15A-3Q11	WG	E524.2	N	9/6/2011	1,2-Dichloroethane	0.600	0.500	µg/L	
MW-16A	MW-16A-3Q11	WG	E524.2	N	9/7/2011	No Analytes Detected				
MW-16B	MW-16B-3Q11	WG	E524.2	N	9/7/2011	1,2,4-Trimethylbenzene	0.800	0.500	µg/L	
						1,3,5-Trimethylbenzene	0.200	0.500	µg/L	J
						Benzene	5.70	0.500	µg/L	
						Ethylbenzene	1.30	0.500	µg/L	
						m,p-Xylenes	4.50	1	µg/L	
						o-Xylene	1.30	0.500	µg/L	
						Tetrachloroethene	7.60	0.500	µg/L	
						Toluene	1.10	0.500	µg/L	
MW-16C	MW-16C-3Q11	WG	E524.2	N	9/7/2011	1,2,4-Trimethylbenzene	0.300	0.500	µg/L	J
						1,2-Dichloropropane	0.300	0.500	µg/L	J
						Benzene	4.80	0.500	µg/L	
						Carbon tetrachloride	3.30	0.500	µg/L	J
						Ethylbenzene	0.600	0.500	µg/L	
						m,p-Xylenes	2.50	1	µg/L	
						o-Xylene	1.20	0.500	µg/L	
						Tetrachloroethene	0.600	0.500	µg/L	
						Toluene	2.10	0.500	µg/L	
MW-17A	MW-17A-3Q11	WG	E524.2	N	9/8/2011	Bromodichloromethane	0.300	0.500	µg/L	J
						Tetrachloroethene	0.400	0.500	µg/L	J
MW-17B	MW-17B-3Q11	WG	E524.2	N	9/8/2011	1,1,2-Trichloroethane	2.30	0.500	µg/L	
						Tetrachloroethene	61	2.50	µg/L	
MW-17C	MW-17C-3Q11	WG	E524.2	N	9/8/2011	No Analytes Detected				
MW-18A	MW-18A-3Q11	WG	E524.2	N	9/7/2011	Benzene	2.50	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-18A continued . . .										
						Ethylbenzene	0.300	0.500	µg/L	J
						m,p-Xylenes	1.10	1	µg/L	
						o-Xylene	0.300	0.500	µg/L	J
						Tetrachloroethene	3.20	0.500	µg/L	
						Toluene	0.400	0.500	µg/L	J
MW-19A	MW-19A-3Q11	WG	E524.2	N	9/6/2011	No Analytes Detected				
	MW-81A-3Q11	WG	E524.2	FD	9/6/2011	No Analytes Detected				
MW-19B1	MW-19B-3Q11	WG	E524.2	N	9/7/2011	Tetrachloroethene	0.300	0.500	µg/L	J
MW-20A	MW-20A-3Q11	WG	E524.2	N	9/13/2011	Bromodichloromethane	0.300	0.500	µg/L	J
						Chloroform	7	0.500	µg/L	
						Dichlorodifluoromethane	5.20	0.500	µg/L	
						Tetrachloroethene	280	25	µg/L	
						Trichloroethylene	0.300	0.500	µg/L	J
MW-20B	MW-20B-3Q11	WG	E524.2	N	9/13/2011	Dibromochloromethane	0.200	0.500	µg/L	J
						Tetrachloroethene	97	5	µg/L	
MW-20C	MW-20C-3Q11	WG	E524.2	N	9/13/2011	No Analytes Detected				
OSVE-10	OSVE-10-3Q11	GS	TO15	N	9/9/2011	cis-1,2-Dichloroethene	1.90	2.30	ppbv	J
						Tetrachloroethene	680	77	ppbv	
OSVE-11	OSVE-11-3Q11	GS	TO15	N	9/9/2011	Tetrachloroethene	25	2.30	ppbv	
	OSVE-89-3Q11	GS	TO15	FD	9/9/2011	Tetrachloroethene	17	2.20	ppbv	
SP-01	EW-1-0703	WG	E524.2	N	7/14/2011	Tetrachloroethene	140	5	µg/L	
	EW-1-0703	WG	ASTM D 5174	N	7/14/2011	Uranium	50.7	1	pci/L	
	EW-1-0802	WG	E524.2	N	8/11/2011	Chloroform	3.40	0.500	µg/L	
						Tetrachloroethene	160	5	µg/L	
	EW-1-0902				9/13/2011	Chloroform	3.10	0.500	µg/L	
						Tetrachloroethene	130	5	µg/L	
SP-03	CRB INF-0703	WG	E524.2	N	7/14/2011	No Analytes Detected				
SP-04	CRB Mid-0703	WG	E524.2	N	7/14/2011	Tetrachloroethene	0.300	0.500	µg/L	J
	MW-104-0703	WG	E524.2	FD	7/14/2011	Tetrachloroethene	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
SP-05	CRB EFF-0703	WG	E524.2	N	7/14/2011	Tetrachloroethene	0.300	0.500	µg/L	J
	Pre-IEX-0703	WG	ASTM D 5174	N	7/14/2011	Uranium	52.2	1	pci/L	
SP-06	IEX Mid-0703	WG	ASTM D 5174	N	7/14/2011	Uranium	36.7	1	pci/L	
SP-07	EFF-0703	WG	5210B	N	7/14/2011	Biochemical Oxygen Demand	2	2	mg/L	
	EFF-0703	WG	2540D	N	7/14/2011	No Analytes Detected				
	EFF-0703	WG	E524.2	N	7/14/2011	Tetrachloroethene	0.300	0.500	µg/L	J
	EFF-0703	WG	2540C	N	7/14/2011	Total dissolved solids	660	20	mg/L	
	EFF-0703	WG	ASTM D 5174	N	7/14/2011	Uranium	12.1	1	pci/L	
	EFF-0802	WG	5210B	N	8/11/2011	Biochemical Oxygen Demand	2	2	mg/L	J-
	EFF-0802	WG	2540D	N	8/11/2011	No Analytes Detected				
	EFF-0802	WG	E524.2	N	8/11/2011	Tetrachloroethene	0.400	0.500	µg/L	J
	EFF-0802	WG	2540C	N	8/11/2011	Total dissolved solids	650	20	mg/L	
	EFF-0802	WG	ASTM D 5174	N	8/11/2011	Uranium	13.7	1	pci/L	
	EFF-0902	WG	5210B	N	9/13/2011	Biochemical Oxygen Demand	2	2	mg/L	J-
	EFF-0902	WG	2540D	N	9/13/2011	No Analytes Detected				
	EFF-0902	WG	E524.2	N	9/13/2011	Tetrachloroethene	0.400	0.500	µg/L	J
	EFF-0902	WG	2540C	N	9/13/2011	Total dissolved solids	660	20	mg/L	
	MW-107-0703	WG	ASTM D 5174	FD	7/14/2011	Uranium	12	1	pci/L	
SP-08	GWTP Pr GAC-0703	GS	TO15	N	7/14/2011	Chloroform	5.60	2	ppbv	
						Tetrachloroethene	200	20	ppbv	
	GWTP Pr GAC-0802				8/11/2011	Chloroform	6.20	2.40	ppbv	
						Tetrachloroethene	250	24	ppbv	
	GWTP Pr GAC-0902				9/13/2011	Chloroform	7	2.10	ppbv	
						cis-1,2-Dichloroethene	1.40	2.10	ppbv	J
						Tetrachloroethene	200	21	ppbv	J
	MW-108-0902	WQ	TO15	FD	9/13/2011	Chloroform	5.40	2.30	ppbv	
						Tetrachloroethene	150	23	ppbv	

TABLE B3 (Continued)

Location	Field Sample Identification	Matrix	Method	Sample Type	Date Sampled	Analyte	Result	Reporting Limit	Units	Qualified Result
SP-09	GWTP Stack-0703	GS	TO15	N	7/14/2011	Chloroform	6.10	2.20	ppbv	
						Tetrachloroethene	55	22	ppbv	
	GWTP Stack-0802				8/11/2011	Benzene	1.20	2.40	ppbv	J
						Chloroform	5.60	2.40	ppbv	
						Tetrachloroethene	55	24	ppbv	
	GWTP Stack-0902				9/13/2011	Chloroform	6.90	2.30	ppbv	
						Tetrachloroethene	53	23	ppbv	J
SP-11	SVE Pre GAC-0703	GS	TO15	N	7/14/2011	Chloroform	7.20	2.20	ppbv	
						Tetrachloroethene	160	22	ppbv	
	SVE Pre GAC-0802				8/11/2011	Chloroform	4.90	2.20	ppbv	
						Tetrachloroethene	150	22	ppbv	
	SVE Pre GAC-0902				9/13/2011	Chloroform	4.90	2.20	ppbv	
						cis-1,2-Dichloroethene	2.80	2.20	ppbv	
						Tetrachloroethene	140	22	ppbv	
						Trichloroethylene	1.10	2.20	ppbv	J
SP-12	SVE Stack-0703	GS	TO15	N	7/14/2011	Chloroform	1.80	2.20	ppbv	J
						Tetrachloroethene	2.90	2.20	ppbv	
	SVE Stack-0802				8/11/2011	Chloroform	2.80	2.40	ppbv	
						Tetrachloroethene	2.10	2.40	ppbv	J
	SVE Stack-0902				9/13/2011	Chloroform	3.30	2.10	ppbv	
						Tetrachloroethene	1.50	2.10	ppbv	J
SVE-01	SVE-1-3Q11	GS	TO15	N	9/9/2011	Tetrachloroethene	42	2.30	ppbv	
SVE-02	SVE-2-3Q11	GS	TO15	N	9/8/2011	cis-1,2-Dichloroethene	5.30	2.30	ppbv	
						Tetrachloroethene	580	69	ppbv	
						Trichloroethylene	4.10	2.30	ppbv	
SVE-03	SVE-3-3Q11	GS	TO15	N	9/8/2011	Tetrachloroethene	410	33	ppbv	
						Trichloroethylene	2.80	3.30	ppbv	J
SVE-04	SVE-4-3Q11	GS	TO15	N	9/8/2011	1,2-Dichlorobenzene	6.20	2.40	ppbv	
						1,4-Dichlorobenzene	1.30	2.40	ppbv	J

TABLE B3 (Continued)

Location	Field Sample Identification	Matrix	Method	Sample Type	Date Sampled	Analyte	Result	Reporting Limit	Units	Qualified Result
SVE-04 continued . . .										
						Benzene	1.60	2.40	ppbv	J
						Chloroform	26	2.40	ppbv	
						Tetrachloroethene	32	2.40	ppbv	
						Trichloroethylene	2.10	2.40	ppbv	J
	SVE-96-3Q11	GS	TO15	FD	9/8/2011	1,2-Dichlorobenzene	5	2.40	ppbv	
						Benzene	1.60	2.40	ppbv	J
						Chloroform	26	2.40	ppbv	
						Tetrachloroethene	31	2.40	ppbv	
						Trichloroethylene	2.20	2.40	ppbv	J

Matrix
GS = soil gas
WG = groundwater
WQ = water quality

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

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 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	B1G0094	1,1-Dichloroethane	100	78	82-123	no
		cis-1,2-Dichoroethene	100	81	83-126	no
5210B	B1H0059	Biological Oxygen Demand	100	78	81.5-118.5	no
5210B	B1I0056	Biological Oxygen Demand	100	79	81.5-118.5	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	B1G0076	MW-401-3Q11	1,1,2-Trichloroethane	72	84	74-131	no	16	20	yes
			1,2,3-Trichlorobenzene	62	75	64-130	no	18	20	yes
			1,2,4-Trichlorobenzene	61	70	66-130	no	14	20	yes
			1,2-Dichlorobenzene	68	76	69-130	no	11	20	yes
			1,3-Dichlorobenzene	68	77	77-120	no	12	20	yes
			1,4-Dichlorobenzene	69	76	76-120	no	10	20	yes
			2-Chlorotoluene	72	82	76-130	no	13	20	yes
			4-Chlorotoluene	70	81	77-130	no	13	20	yes
			Bromobenzene	74	83	77-120	no	10	20	yes
			Bromodichloromethane	79	89	87-130	no	12	20	yes
			Chlorobenzene	74	82	75-120	no	10	20	yes
			Dibromomethane	75	83	77-120	no	10	20	yes
			Napthalene	62	79	52-160	yes	24	20	no

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

TABLE B6

COMPLETENESS SUMMARY
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

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

Appendix C
Laboratory Data Validation Report

LABORATORY DATA CONSULTANTS, 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

October 28, 2011

SUBJECT: Modesto Superfund Site Quality Control Summary Report (QCSR) 3rd Quarter for Quarterly and Monthly Sampling Events, Staged Electronic Data Deliverables (SEDD) and Automated Data Review (ADR) deliverables

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 ten EPA Region 9 Laboratory's sample delivery groups (SDG) listed below. The SDGs are associated with the sampling period of July 14 to September 13, 2011. Not all of the analytical methods may have been required in each of the laboratory SDGs.

LDC Project #: 22732	
SDG #	**Analytical Methods**
11196A 11196B 11224B 11224C 11252B 11252C 11257C 11257D 11257F 11257G	EPA Method 524.2 (EPA Region 9 SOP 354, revison 9) EPA TO-15 (EPA Region 9 SOP 311, revison 1) SM 2540C (EPA Region 9 SOP 461, revison 6) SM 2540D (EPA Region 9 SOP 462, revison 6) SM 5210B (EPA Region 9 SOP 1133, revison 4)

The data validation was performed in accordance with the criteria specified in the EPA Region 9 Standard Operating Procedures (SOP). 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
July 14 to September 13, 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: October 28, 2011

Kendra DeSantolo

Kendra DeSantolo, Senior Chemist
Laboratory Data Consultants, Inc.

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APPENDICES

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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**
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).

Sixty-seven field samples, seven field duplicates, and six field Quality Control (QC) samples were reported in ten EPA Region 9 Laboratory's sample delivery groups (SDGs) for the R11S84 Modesto Groundwater (GW) Treatment System Summer 2011 Monthly Sampling and the R11SA1 October 2011 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.

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 11252C (four samples for volatile organic compounds (VOCs) by EPA 524.2) and 11257F (three samples for VOCs by TO-15). 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 94.7%.

- VOCs by EPA Method 524.2 had analytical completeness of 94.4%,
- VOCs by EPA Method TO-15 had analytical completeness of 95.7%,
- Total Dissolved Solids by Standard Methods (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 33.3%

If data qualifiers due to trace values were excluded from this calculation, the analytical completeness would be 95.3% for VOCs by EPA Method 524.2 and 95.7% 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 95.0%.

- VOCs by EPA Method 524.2 had contract completeness of 94.8%,
- VOCs by EPA Method TO-15 had contract completeness of 95.8%,
- 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 33.3%

If data qualifiers due to trace values were excluded from this calculation, the contract completeness would be 95.7% for VOCs by EPA Method 524.2 and 96.1% 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 100.0%.

- VOCs by EPA Method 524.2 had technical completeness of 100.0%,
- 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 94.4%. Thirty-three of the 3150 sample results were qualified as estimated due to trace values reported between the method detection limit (MDL) and the RL. Eighty-two of the reported results were qualified as estimated due to initial calibration non-conformances, and nineteen were qualified as estimated due to continuing calibration non-conformances. Thirteen of the reported results were qualified as estimated due to matrix spike/matrix spike duplicate (MS/MSD) recovery below the control limit and relative percent difference (RPD) above the control limit; however, all of the qualified results were on the field blank sample. Twenty-nine of the reported results were qualified as non-detected (U) due to acetone and/or chloroform contamination in trip blanks MW-301-3Q11 and MW-303-3Q11 and field blank MW-401-3Q11. Trip blank sample MW-302-3Q11 had trace or low level methylene chloride and toluene contamination; however, since the associated samples were non-detected for these analytes, no results were qualified. Trip blank sample MW-302-3Q11 was also noted to have large air bubbles present upon receipt at the laboratory. Field blank sample MW-402-3Q11 had acetone, 2-butanone, and chloroform contamination; however, since the associated sample was non-detected for these analytes, no results were qualified. 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.).

The MS/MSD analysis for SDG 11196A was performed on field blank sample MW-401-3Q11. The sample was not designated for matrix QC but was assigned by the lab. The field blank was qualified as estimated (J) for several compounds due to low MS/MSD recoveries. No other samples were qualified based upon this nonconformance. The field blank matrix is not representative of environmental sample matrices for the project.

The MS/MSD analysis for SDG 11224B was performed on designated QC sample EW-1-0802. The initial analysis of the MS/MSD was not reported due to system malfunction, resulting in

variable volumes analyzed. The MS showed low recoveries (approximately 60%), while the MSD recoveries were acceptable. Upon re-analysis, the MS again showed low recoveries (approx. 50%) while the MSD recoveries were acceptable. The LCS recoveries met criteria and the system was determined to be operating properly. The MS/MSD recoveries were not reported, and no results were qualified based upon this nonconformance.

Additional MS/MSD analysis was performed on designated QC samples MW-6A-3Q11 (SDG 11252B), MW-16C-3Q11 (SDG 11252C), and EW-1-0902 (SDG 11257D) , which met criteria.

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-104-0703 was identified as a field duplicate of sample CRB Mid-0703 (SDG 11196A). Trace detections of tetrachloroethene were reported for both samples. 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.

Sample MW-81A-3Q11 was identified as a field duplicate of sample MW-19A-3Q11 (SDG 11252B). Positive detections for chloroform were reported for both samples. 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.

Sample MW-86A-3Q11 (SDG 11252B) was identified as a field duplicate of sample MW-14A-3Q11 (SDG 11252C). Positive detections for tetrachloroethene and chloroform were reported for both samples. 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.

Sample MW-96B-3Q11 (SDG 11252B) was identified as a field duplicate of sample MW-4B-3Q11 (SDG 11252B). Positive detections for benzene were reported for both samples, with major disagreement as demonstrated by a factor of 3.9 difference between the two results. Trace levels of 1,2,4-trimethylbenzene and 1,2-dichloroethane was reported in MW-96B-1Q11, but were non-detected in the parent sample sample. Positive or trace detections of 1,1,2-trichloroethane, acetone, ethylbenzene, m,p-xylene, o-xylene, tetrachloroethene, and toluene were reported in both samples. 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.

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

The analytical completeness for Volatile Organics by EPA TO-15 was 95.7%. Eight of the 1012 sample results were qualified as estimated due to trace values reported between the MDL and the RL. Fourteen of the reported results were qualified as estimated due to initial calibration non-conformances. Seventeen of the reported results were qualified as estimated due to continuing calibration non-conformances. Eight of the reported results were qualified as estimated due to LCS recoveries below the control limit. Two of the reported results were qualified as estimated due to lab duplicate RPD above 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 MW-108-0902 was identified as a field duplicate of sample GWTP Pr GAC-0902 (SDG 11257G). Positive detections of chloroform and tetrachloroethene were reported for both samples. A trace level of cis-1,2-dichloroethene was reported in GWTP Pr GAC-0902, but was non-detected in the field duplicate sample. 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.

Sample SVE-96-3Q11 was identified as a field duplicate of sample SVE-4-3Q11 (SDG 11257F). Positive detections of trichloroethene, chloroform, benzene, tetrachloroethaene, and 1,2-dichlorobenzene were reported for both samples. A trace level of 1,4-dichlorobenzene was reported in SVE-4-3Q11, but was non-detected in the field duplicate sample. 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.

Sample OSVE-89-3Q11 was identified as a field duplicate of sample OSVE-11-3Q11 (SDG 11257F). Positive detections of tetrachloroethene were reported for both samples. 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 were labeled as "RE1" 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 6)

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

Total Suspended Solids by SM 2540D (EPA Region 9 SOP 462, revision 6)

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

Biochemical Oxygen Demand by SM 5210B (EPA Region 9 SOP 1133, revision 4)

The analytical completeness for Biochemical Oxygen Demand by SM 5210B was 33.3%. Two sample results were qualified as estimated due to the LCS recovery below the lower control limit. Table 8 lists specific samples and reasons for the qualified results.

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
14-Jul-2011	MW-301-3Q11	1107031-07	TB	5030B	524.2	III
14-Jul-2011	MW-401-3Q11	1107031-08	FB	5030B	524.2	III
14-Jul-2011	MW-401-3Q11MS	B1G0076-MS1	MS	5030B	524.2	III
14-Jul-2011	MW-401-3Q11MSD	B1G0076-MSD1	MSD	5030B	524.2	III
14-Jul-2011	EFF-0703	1107031-04	N	5030B	524.2	III
14-Jul-2011	EFF-0703	1107031-04	N	None	2540C	III
14-Jul-2011	EFF-0703	1107031-04	N	None	2540D	III
14-Jul-2011	EFF-0703	1107031-04	N	None	5210B	III
14-Jul-2011	EFF-0703DUP	B1G0077-DUP1	DUP	None	2540C	III
14-Jul-2011	EFF-0703DUP	B1G0077-DUP2	DUP	None	2540D	III
14-Jul-2011	CRB EFF-0703	1107031-01	N	5030B	524.2	III
14-Jul-2011	CRB Mid-0703	1107031-03	N	5030B	524.2	III
14-Jul-2011	MW-104-0703	1107031-06	FD	5030B	524.2	III
14-Jul-2011	CRB INF-0703	1107031-02	N	5030B	524.2	III
14-Jul-2011	EW-1-0703	1107031-05	N	5030B	524.2	III
14-Jul-2011	GWTP Stack-0703	1107032-02	N	None	TO-15	III
14-Jul-2011	GWTP Stack-0703DUP	B1G0094-DUP1	DUP	None	TO-15	III
14-Jul-2011	GWTP Pre GAC-0703	1107032-01	N	None	TO-15	III
14-Jul-2011	SVE Stack-0703	1107032-04	N	None	TO-15	III
14-Jul-2011	SVE Pre GAC-0703	1107032-03	N	None	TO-15	III
14-Jul-2011	SVE Pre GAC-0703DUP	B1G0094-DUP2	DUP	None	TO-15	III
11-Aug-2011	MW-302-3Q11	1108035-03	TB	5030B	524.2	III
11-Aug-2011	EFF-0802	1108035-01	N	5030B	524.2	III
11-Aug-2011	EFF-0802	1108035-01	N	None	2540C	III
11-Aug-2011	EFF-0802	1108035-01	N	None	2540D	III
11-Aug-2011	EFF-0802	1108035-01	N	None	5210B	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
11-Aug-2011	EFF-0802DUP	B1H0059-DUP1	DUP	None	5210B	III
11-Aug-2011	EFF-0802DUP	B1H0061-DUP1	DUP	None	2540C	III
11-Aug-2011	EFF-0802DUP	B1H0061-DUP2	DUP	None	2540D	III
11-Aug-2011	EW-1-0802	1108035-02	N	5030B	524.2	III
11-Aug-2011	GWTP Stack-0802	1108036-02	N	None	TO-15	III
11-Aug-2011	GWTP Stack-0802DUP	B1H0045-DUP2	DUP	None	TO-15	III
11-Aug-2011	GWTP Pre GAC-0802	1108036-01	N	None	TO-15	III
11-Aug-2011	GWTP Pre GAC-0802DUP	B1H0045-DUP1	DUP	None	TO-15	III
11-Aug-2011	SVE Stack-0802	1108036-04	N	None	TO-15	III
11-Aug-2011	SVE Pre GAC-0802	1108036-03	N	None	TO-15	III
06-Sep-2011	MW-4A-3Q11	1109022-02	N	5030B	524.2	III
06-Sep-2011	MW-15A-3Q11	1109024-08	N	5030B	524.2	III
06-Sep-2011	MW-7A-3Q11	1109022-07	N	5030B	524.2	III
06-Sep-2011	MW-11A-3Q11	1109024-04	N	5030B	524.2	III
06-Sep-2011	MW-14A-3Q11	1109024-07	N	5030B	524.2	IV
06-Sep-2011	MW-86A-3Q11	1109022-09	FD	5030B	524.2	III
06-Sep-2011	MW-13A-3Q11	1109024-06	N	5030B	524.2	IV
06-Sep-2011	MW-10A-3Q11	1109024-01	N	5030B	524.2	III
06-Sep-2011	MW-6A-3Q11	1109022-06	N	5030B	524.2	III
06-Sep-2011	MW-6A-3Q11MS	B1I0033-MS1	MS	5030B	524.2	III
06-Sep-2011	MW-6A-3Q11MSD	B1I0033-MSD1	MSD	5030B	524.2	III
06-Sep-2011	MW-81A-3Q11	1109022-08	FD	5030B	524.2	III
06-Sep-2011	MW-19A-3Q11	1109022-16	N	5030B	524.2	III
07-Sep-2011	MW-303-3Q11	1109024-12	TB	5030B	524.2	III
07-Sep-2011	MW-3A-3Q11	1109022-01	N	5030B	524.2	III
07-Sep-2011	MW-12A-3Q11	1109024-05	N	5030B	524.2	IV

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
07-Sep-2011	MW-19B-3Q11	1109022-17	N	5030B	524.2	III
07-Sep-2011	MW-2A-3Q11	1109022-19	N	5030B	524.2	III
07-Sep-2011	MW-5A-3Q11	1109022-05	N	5030B	524.2	III
07-Sep-2011	MW-4C-3Q11	1109022-04	N	5030B	524.2	III
07-Sep-2011	MW-4B-3Q11	1109022-03	N	5030B	524.2	III
07-Sep-2011	MW-8A-3Q11	1109022-10	N	5030B	524.2	III
07-Sep-2011	MW-9B-3Q11	1109022-20	N	5030B	524.2	III
07-Sep-2011	MW-96B-3Q11	1109022-11	FD	5030B	524.2	III
07-Sep-2011	MW-1A-3Q11	1109022-18	N	5030B	524.2	III
07-Sep-2011	MW-18A-3Q11	1109022-15	N	5030B	524.2	III
07-Sep-2011	MW-16A-3Q11	1109024-09	N	5030B	524.2	III
07-Sep-2011	MW-16C-3Q11	1109024-11	N	5030B	524.2	III
07-Sep-2011	MW-16C-3Q11MS	B1I0040-MS1	MS	5030B	524.2	III
07-Sep-2011	MW-16C-3Q11MSD	B1I0040-MSD1	MSD	5030B	524.2	III
07-Sep-2011	MW-16B-3Q11	1109024-10	N	5030B	524.2	III
08-Sep-2011	MW-10C-3Q11	1109024-03	N	5030B	524.2	III
08-Sep-2011	MW-402-3Q11	1109024-13	FB	5030B	524.2	III
08-Sep-2011	MW-10B-3Q11	1109024-02	N	5030B	524.2	IV
08-Sep-2011	MW-17A-3Q11	1109022-12	N	5030B	524.2	III
08-Sep-2011	SVE-4-3Q11	1109035-13	N	None	TO-15	III
08-Sep-2011	SVE-96-3Q11	1109035-14	FD	None	TO-15	III
08-Sep-2011	SVE-3-3Q11	1109035-12	N	None	TO-15	III
08-Sep-2011	SVE-3-3Q11DUP	B1I0125-DUP2	DUP	None	TO-15	III
08-Sep-2011	SVE-2-3Q11	1109035-11	N	None	TO-15	III
08-Sep-2011	MW-17C-3Q11	1109022-14	N	5030B	524.2	III
08-Sep-2011	DP-5A-3Q11	1109035-03	N	None	TO-15	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
08-Sep-2011	MW-17B-3Q11	1109022-13	N	5030B	524.2	III
08-Sep-2011	DP-5B-3Q11	1109035-04	N	None	TO-15	III
09-Sep-2011	SVE-1-3Q11	1109035-10	N	None	TO-15	IV
09-Sep-2011	OSVE-11-3Q11	1109035-08	N	None	TO-15	III
09-Sep-2011	OSVE-89-3Q11	1109035-09	FD	None	TO-15	III
09-Sep-2011	OSVE-10-3Q11	1109035-07	N	None	TO-15	III
09-Sep-2011	DP-1A-3Q11	1109035-01	N	None	TO-15	III
09-Sep-2011	DP-1B-3Q11	1109035-02	N	None	TO-15	IV
09-Sep-2011	DP-6A-3Q11	1109035-05	N	None	TO-15	IV
09-Sep-2011	DP-6B-3Q11	1109035-06	N	None	TO-15	III
13-Sep-2011	MW-304-3Q11	1109033-03	TB	5030B	524.2	III
13-Sep-2011	MW-20C-3Q11	1109031-03	N	5030B	524.2	III
13-Sep-2011	EFF-0902	1109033-01	N	5030B	524.2	III
13-Sep-2011	EFF-0902	1109033-01	N	None	2540C	III
13-Sep-2011	EFF-0902	1109033-01	N	None	2540D	III
13-Sep-2011	EFF-0902	1109033-01	N	None	5210B	III
13-Sep-2011	EFF-0902DUP	B1I0049-DUP1	DUP	None	2540C	III
13-Sep-2011	EFF-0902DUP	B1I0049-DUP2	DUP	None	2540D	III
13-Sep-2011	MW-20A-3Q11	1109031-01	N	5030B	524.2	III
13-Sep-2011	EW-1-0902	1109033-02	N	5030B	524.2	III
13-Sep-2011	EW-1-0902MS	B1I0052-MS1	MS	5030B	524.2	III
13-Sep-2011	EW-1-0902MSD	B1I0052-MSD1	MSD	5030B	524.2	III
13-Sep-2011	GWTP Pr GAC-0902	1109036-01	N	None	TO-15	III
13-Sep-2011	GWTP Pr GAC-0902DUP	B1I0090-DUP1	DUP	None	TO-15	III
13-Sep-2011	MW-108-0902	1109036-05	FD	None	TO-15	III
13-Sep-2011	GWTP Stack-0902	1109036-02	N	None	TO-15	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
13-Sep-2011	GWTP Stack-0902DUP	B1I0090-DUP2	DUP	None	TO-15	III
13-Sep-2011	MW-20B-3Q11	1109031-02	N	5030B	524.2	III
13-Sep-2011	SVE Stack-0902	1109036-04	N	None	TO-15	III
13-Sep-2011	SVE Pre GAC-0902	1109036-03	N	None	TO-15	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 2

Primary and Field QC Samples by Method

Primary and Field QC Samples by Method

Analytical Method	Matrix	Primary Samples	Field Duplicates	Trip Blanks	Equipment Blanks	Field Blanks
2540C	Water	3	None	None	None	None
2540D	Water	3	None	None	None	None
5210B	Water	3	None	None	None	None
524.2	Water	40	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: 11196A								
2540C	EFF-0703	Water	N					
				TOTAL DISSOLVED SOLIDS	20	660		mg/L
5210B	EFF-0703	Water	N					
				Biochemical Oxygen Demand	2.0	2.0		mg/L
524.2	CRB EFF-0703	Water	N					
				TETRACHLOROETHENE	0.5	0.3J		ug/L
524.2	CRB Mid-0703	Water	N					
				TETRACHLOROETHENE	0.5	0.3J		ug/L
524.2	EFF-0703	Water	N					
				TETRACHLOROETHENE	0.5	0.3J		ug/L
524.2	EW-1-0703	Water	N					
				TETRACHLOROETHENE	5.0	140		ug/L
524.2	MW-104-0703	Water	FD					
				TETRACHLOROETHENE	0.5	0.3J		ug/L
SDG: 11196B								
TO-15	GWTP Pre GAC-0703	Air	N					
				CHLOROFORM	2.0	5.6		ppbv
				TETRACHLOROETHENE	20	200		ppbv
TO-15	GWTP Stack-0703	Air	N					
				CHLOROFORM	2.2	6.1		ppbv
				TETRACHLOROETHENE	22	55		ppbv
TO-15	SVE Pre GAC-0703	Air	N					
				CHLOROFORM	2.2	7.2		ppbv
				TETRACHLOROETHENE	22	160		ppbv
TO-15	SVE Stack-0703	Air	N					
				CHLOROFORM	2.2	1.8J		ppbv
				TETRACHLOROETHENE	2.2	2.9		ppbv
SDG: 11224B								
2540C	EFF-0802	Water	N					
				TOTAL DISSOLVED SOLIDS	20	650		mg/L
5210B	EFF-0802	Water	N					
				Biochemical Oxygen Demand	2.0	2.0J-		mg/L
524.2	EFF-0802	Water	N					
				TETRACHLOROETHENE	0.5	0.4J		ug/L
524.2	EW-1-0802	Water	N					
				CHLOROFORM	0.5	3.4		ug/L
				TETRACHLOROETHENE	5.0	160		ug/L
524.2	MW-302-3Q11	Water	TB					
				METHYLENE CHLORIDE	0.5	0.3J		ug/L
				TOLUENE	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: 11224C								
TO-15	GWTP Pre GAC-0802	Air	N					
				CHLOROFORM	2.4	6.2		ppbv
				TETRACHLOROETHENE	24	250		ppbv
TO-15	GWTP Stack-0802	Air	N					
				BENZENE	2.4	1.2J		ppbv
				CHLOROFORM	2.4	5.6		ppbv
				TETRACHLOROETHENE	24	55		ppbv
TO-15	SVE Pre GAC-0802	Air	N					
				CHLOROFORM	2.2	4.9		ppbv
				TETRACHLOROETHENE	22	150		ppbv
TO-15	SVE Stack-0802	Air	N					
				CHLOROFORM	2.4	2.8		ppbv
				TETRACHLOROETHENE	2.4	2.1J		ppbv

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

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

Table 3: Detected Target Analytes

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Units
SDG: 11252B								
524.2	MW-17A-3Q11	Water	N					
				BROMODICHLOROMETHANE	0.5	0.3J		ug/L
				TETRACHLOROETHENE	0.5	0.4J		ug/L
524.2	MW-17B-3Q11	Water	N					
				1,1,2-TRICHLOROETHANE	0.5	2.3		ug/L
				TETRACHLOROETHENE	2.5	61		ug/L
524.2	MW-18A-3Q11	Water	N					
				BENZENE	0.5	2.5		ug/L
				ETHYLBENZENE	0.5	0.3J		ug/L
				m&p-Xylene	1.0	1.1		ug/L
				O-XYLENE	0.5	0.3J		ug/L
				TETRACHLOROETHENE	0.5	3.2		ug/L
				TOLUENE	0.5	0.4J		ug/L
524.2	MW-19B-3Q11	Water	N					
				TETRACHLOROETHENE	0.5	0.3J		ug/L
524.2	MW-1A-3Q11	Water	N					
				TETRACHLOROETHENE	0.5	1.7		ug/L
524.2	MW-2A-3Q11	Water	N					
				1,1,2-TRICHLOROETHANE	0.5	0.3J		ug/L
				TETRACHLOROETHENE	0.5	5.6		ug/L
524.2	MW-3A-3Q11	Water	N					
				1,1,2-TRICHLOROETHANE	0.5	3.1		ug/L
				TETRACHLOROETHENE	2.5	79		ug/L
524.2	MW-4A-3Q11	Water	N					
				1,1,1,2-TETRACHLOROETHANE	0.5	0.8		ug/L
				CIS-1,2-DICHLOROETHENE	0.5	1.1		ug/L
				TETRACHLOROETHENE	120	1800		ug/L
				TRICHLOROETHENE	0.5	1.7		ug/L
524.2	MW-4B-3Q11	Water	N					
				1,1,2-TRICHLOROETHANE	0.5	0.6		ug/L
				BENZENE	0.5	2.5		ug/L
				ETHYLBENZENE	0.5	0.3J		ug/L
				m&p-Xylene	1.0	0.8J		ug/L
				O-XYLENE	0.5	0.2J		ug/L
				TETRACHLOROETHENE	0.5	16		ug/L
				TOLUENE	0.5	0.3J		ug/L
524.2	MW-4C-3Q11	Water	N					
				TETRACHLOROETHENE	0.5	0.9		ug/L
524.2	MW-5A-3Q11	Water	N					
				1,1,2-TRICHLOROETHANE	0.5	2.2		ug/L
				TETRACHLOROETHENE	2.5	56		ug/L

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

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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: 11252B								
524.2	MW-6A-3Q11	Water	N					
				BROMODICHLOROMETHANE	0.5	0.4J		ug/L
				TETRACHLOROETHENE	0.5	6.7		ug/L
524.2	MW-86A-3Q11	Water	FD					
				TETRACHLOROETHENE	0.5	2.3		ug/L
524.2	MW-8A-3Q11	Water	N					
				1,1,2-TRICHLOROETHANE	0.5	0.8		ug/L
				BROMODICHLOROMETHANE	0.5	0.5		ug/L
				TETRACHLOROETHENE	0.5	18		ug/L
524.2	MW-96B-3Q11	Water	FD					
				1,1,2-TRICHLOROETHANE	0.5	0.6		ug/L
				1,2,4-TRIMETHYLBENZENE	0.5	0.3J		ug/L
				1,2-DICHLOROETHANE	0.5	0.4J		ug/L
				BENZENE	0.5	9.7		ug/L
				ETHYLBENZENE	0.5	1.0		ug/L
				m&p-Xylene	1.0	2.7		ug/L
				O-XYLENE	0.5	0.9		ug/L
				TETRACHLOROETHENE	0.5	14		ug/L
				TOLUENE	0.5	1.2		ug/L
524.2	MW-9B-3Q11	Water	N					
				1,1,2-TRICHLOROETHANE	0.5	0.6		ug/L
				TETRACHLOROETHENE	0.5	12		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: 11252C								
524.2	MW-10A-3Q11	Water	N					
				1,1,2-TRICHLOROETHANE	0.5	4.5		ug/L
				BROMODICHLOROMETHANE	0.5	0.3J		ug/L
				TETRACHLOROETHENE	5.0	52		ug/L
524.2	MW-10B-3Q11	Water	N					
				TETRACHLOROETHENE	0.5	18		ug/L
524.2	MW-11A-3Q11	Water	N					
				TETRACHLOROETHENE	0.5	1.1		ug/L
524.2	MW-12A-3Q11	Water	N					
				BROMODICHLOROMETHANE	0.5	0.3J		ug/L
				TETRACHLOROETHENE	0.5	23		ug/L
				TRICHLOROFLUOROMETHANE	0.5	0.4J		ug/L
524.2	MW-13A-3Q11	Water	N					
				TETRACHLOROETHENE	0.5	2.6		ug/L
524.2	MW-14A-3Q11	Water	N					
				TETRACHLOROETHENE	0.5	2.4		ug/L
524.2	MW-15A-3Q11	Water	N					
				1,2-DICHLOROETHANE	0.5	0.6		ug/L
524.2	MW-16B-3Q11	Water	N					
				1,2,4-TRIMETHYLBENZENE	0.5	0.8		ug/L
				1,3,5-TRIMETHYLBENZENE	0.5	0.2J		ug/L
				BENZENE	0.5	5.7		ug/L
				ETHYLBENZENE	0.5	1.3		ug/L
				m&p-Xylene	1.0	4.5		ug/L
				O-XYLENE	0.5	1.3		ug/L
				TETRACHLOROETHENE	0.5	7.6		ug/L
				TOLUENE	0.5	1.1		ug/L
524.2	MW-16C-3Q11	Water	N					
				1,2,4-TRIMETHYLBENZENE	0.5	0.3J		ug/L
				1,2-DICHLOROPROPANE	0.5	0.3J		ug/L
				BENZENE	0.5	4.8		ug/L
				CARBON TETRACHLORIDE	0.5	3.3J		ug/L
				ETHYLBENZENE	0.5	0.6		ug/L
				m&p-Xylene	1.0	2.5		ug/L
				O-XYLENE	0.5	1.2		ug/L
				TETRACHLOROETHENE	0.5	0.6		ug/L
				TOLUENE	0.5	2.1		ug/L
524.2	MW-303-3Q11	Water	TB					
				ACETONE	4.0	28J		ug/L
				CHLOROFORM	0.5	3.0		ug/L
524.2	MW-402-3Q11	Water	FB					
				2-BUTANONE	4.0	2.3J		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: 11257C								
524.2	MW-20A-3Q11	Water	N					
				BROMODICHLOROMETHANE	0.5	0.3J		ug/L
				CHLOROFORM	0.5	7.0		ug/L
				DICHLORODIFLUOROMETHANE	0.5	5.2		ug/L
				TETRACHLOROETHENE	25	280		ug/L
				TRICHLOROETHENE	0.5	0.3J		ug/L
524.2	MW-20B-3Q11	Water	N					
				DIBROMOCHLOROMETHANE	0.5	0.2J		ug/L
				TETRACHLOROETHENE	5.0	97		ug/L
SDG: 11257D								
2540C	EFF-0902	Water	N					
				TOTAL DISSOLVED SOLIDS	20	660		mg/L
5210B	EFF-0902	Water	N					
				Biochemical Oxygen Demand	2.0	2.0J-		mg/L
524.2	EFF-0902	Water	N					
				TETRACHLOROETHENE	0.5	0.4J		ug/L
524.2	EW-1-0902	Water	N					
				CHLOROFORM	0.5	3.1		ug/L
				TETRACHLOROETHENE	5.0	130		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: 11257F								
TO-15	DP-1A-3Q11	Air	N					
				TETRACHLOROETHENE	24	110		ppbv
TO-15	DP-1B-3Q11	Air	N					
				TETRACHLOROETHENE	2.4	19		ppbv
TO-15	DP-6A-3Q11	Air	N					
				TETRACHLOROETHENE	2.2	4.6		ppbv
TO-15	DP-6B-3Q11	Air	N					
				BENZENE	2.4	1.3J		ppbv
TO-15	OSVE-10-3Q11	Air	N					
				CIS-1,2-DICHLOROETHENE	2.3	1.9J		ppbv
				TETRACHLOROETHENE	77	680		ppbv
TO-15	OSVE-11-3Q11	Air	N					
				TETRACHLOROETHENE	2.3	25		ppbv
TO-15	OSVE-89-3Q11	Air	FD					
				TETRACHLOROETHENE	2.2	17		ppbv
TO-15	SVE-1-3Q11	Air	N					
				TETRACHLOROETHENE	2.3	42		ppbv
TO-15	SVE-2-3Q11	Air	N					
				CIS-1,2-DICHLOROETHENE	2.3	5.3		ppbv
				TETRACHLOROETHENE	69	580		ppbv
				TRICHLOROETHENE	2.3	4.1		ppbv
TO-15	SVE-3-3Q11	Air	N					
				TETRACHLOROETHENE	33	410		ppbv
				TRICHLOROETHENE	3.3	2.8J		ppbv
TO-15	SVE-4-3Q11	Air	N					
				1,2-DICHLOROBENZENE	2.4	6.2		ppbv
				1,4-DICHLOROBENZENE	2.4	1.3J		ppbv
				BENZENE	2.4	1.6J		ppbv
				CHLOROFORM	2.4	26		ppbv
				TETRACHLOROETHENE	2.4	32		ppbv
				TRICHLOROETHENE	2.4	2.1J		ppbv
TO-15	SVE-96-3Q11	Air	FD					
				1,2-DICHLOROBENZENE	2.4	5.0		ppbv
				BENZENE	2.4	1.6J		ppbv
				CHLOROFORM	2.4	26		ppbv
				TETRACHLOROETHENE	2.4	31		ppbv
				TRICHLOROETHENE	2.4	2.2J		ppbv

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

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

Table 3: Detected Target Analytes

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Units
SDG: 11257G								
TO-15	GWTP Pr GAC-0902	Air	N					
				CHLOROFORM	2.1	7.0		ppbv
				CIS-1,2-DICHLOROETHENE	2.1	1.4J		ppbv
				TETRACHLOROETHENE	21	200J		ppbv
TO-15	GWTP Stack-0902	Air	N					
				CHLOROFORM	2.3	6.9		ppbv
				TETRACHLOROETHENE	23	53J		ppbv
TO-15	MW-108-0902	Air	FD					
				CHLOROFORM	2.3	5.4		ppbv
				TETRACHLOROETHENE	23	150		ppbv
TO-15	SVE Pre GAC-0902	Air	N					
				CHLOROFORM	2.2	4.9		ppbv
				CIS-1,2-DICHLOROETHENE	2.2	2.8		ppbv
				TETRACHLOROETHENE	22	140		ppbv
				TRICHLOROETHENE	2.2	1.1J		ppbv
TO-15	SVE Stack-0902	Air	N					
				CHLOROFORM	2.1	3.3		ppbv
				TETRACHLOROETHENE	2.1	1.5J		ppbv

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

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

Table 4

Overall Qualified Results

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: 11196A										
524.2	CRB EFF-0703	Water	N							
				TETRACHLOROETHENE	0.5	0.3J,C1		J	ug/L	Rl
524.2	CRB Mid-0703	Water	N							
				TETRACHLOROETHENE	0.5	0.3J,C1		J	ug/L	Rl
524.2	EFF-0703	Water	N							
				TETRACHLOROETHENE	0.5	0.3J,C1		J	ug/L	Rl
524.2	EW-1-0703	Water	N							
				CHLOROFORM	0.5	3.3		U	ug/L	Tb, Fb
524.2	MW-104-0703	Water	FD							
				TETRACHLOROETHENE	0.5	0.3J,C1		J	ug/L	Rl
524.2	MW-301-3Q11	Water	TB							
				CHLOROFORM	0.5	3.7		U	ug/L	Fb

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: 11196A										
524.2	MW-401-3Q11	Water	FB							
				1,1,2-TRICHLOROETHANE	0.5	0.5J,U,Q 4		UJ	ug/L	Ms
				1,2,3-TRICHLOROBENZENE	0.5	0.5J,U,Q 4		UJ	ug/L	Ms
				1,2,4-TRICHLOROBENZENE	0.5	0.5J,U,Q 4		UJ	ug/L	Ms
				1,2-DICHLOROBENZENE	0.5	0.5J,U,Q 4		UJ	ug/L	Ms
				1,3-DICHLOROBENZENE	0.5	0.5U		UJ	ug/L	Ms
				1,4-DICHLOROBENZENE	0.5	0.5J,U,Q 4		UJ	ug/L	Ms
				2-CHLOROTOLUENE	0.5	0.5J,U,Q 4		UJ	ug/L	Ms
				4-CHLOROTOLUENE	0.5	0.5J,U,Q 4		UJ	ug/L	Ms
				BROMOBENZENE	0.5	0.5J,U,Q 4		UJ	ug/L	Ms
				BROMODICHLOROMETHANE	0.5	0.5J,U,Q 4		UJ	ug/L	Ms
				CHLOROBENZENE	0.5	0.5J,U,Q 4		UJ	ug/L	Ms
				CHLOROFORM	0.5	3.6		U	ug/L	Tb
				DIBROMOMETHANE	0.5	0.5J,U,Q 4		UJ	ug/L	Ms
				NAPHTHALENE	0.5	0.5J,U,Q 6		UJ	ug/L	Ms

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: 11196B										
TO-15	GWTP Pre GAC-0703	Air	N							
				1,1-DICHLOROETHANE	2.0	2.0J,U,Q2		UJ	ppbv	Lcs
				CIS-1,2-DICHLOROETHENE	2.0	2.0J,U,Q2		UJ	ppbv	Lcs
TO-15	GWTP Stack-0703	Air	N							
				1,1-DICHLOROETHANE	2.2	2.2J,U,Q2		UJ	ppbv	Lcs
				CIS-1,2-DICHLOROETHENE	2.2	2.2J,U,Q2		UJ	ppbv	Lcs
TO-15	SVE Pre GAC-0703	Air	N							
				1,1-DICHLOROETHANE	2.2	2.2J,U,Q2		UJ	ppbv	Lcs
				CIS-1,2-DICHLOROETHENE	2.2	2.2J,U,Q2		UJ	ppbv	Lcs
TO-15	SVE Stack-0703	Air	N							
				1,1-DICHLOROETHANE	2.2	2.2J,U,Q2		UJ	ppbv	Lcs
				CHLOROFORM	2.2	1.8J,C1		J	ppbv	Rl
				CIS-1,2-DICHLOROETHENE	2.2	2.2J,U,Q2		UJ	ppbv	Lcs

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: 11224B										
5210B	EFF-0802	Water	N							
				Biochemical Oxygen Demand	2.0	2.0<,Q2		J-	mg/L	Lcs
524.2	EFF-0802	Water	N							
				NAPHTHALENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TETRACHLOROETHENE	0.5	0.4J		J	ug/L	Rl
524.2	EW-1-0802	Water	N							
				NAPHTHALENE	0.5	0.5J,U,A-0		UJ	ug/L	IcRsd
524.2	MW-302-3Q11	Water	TB							
				METHYLENE CHLORIDE	0.5	0.3J,C1,Q3		J	ug/L	Rl
				NAPHTHALENE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TOLUENE	0.5	0.4J,C1		J	ug/L	Rl
SDG: 11224C										
TO-15	GWTP Stack-0802	Air	N							
				BENZENE	2.4	1.2J,C1		J	ppbv	Rl
TO-15	SVE Stack-0802	Air	N							
				TETRACHLOROETHENE	2.4	2.1J,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: 11252B										
524.2	MW-17A-3Q11	Water	N							
				ACETONE	4.0	4.0J,U,C3		UJ	ug/L	IcRsd
				BROMODICHLOROMETHANE	0.5	0.3J,C1		J	ug/L	Rl
				CARBON TETRACHLORIDE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				CHLOROFORM	0.5	5.7		U	ug/L	Tb
				TETRACHLOROETHENE	0.5	0.4J,C1		J	ug/L	Rl
524.2	MW-17B-3Q11	Water	N							
				2,2-DICHLOROPROPANE	0.5	0.5J,U,Q3		UJ	ug/L	Ccv
				ACETONE	4.0	4.0J,U,C3		UJ	ug/L	IcRsd
				BROMOMETHANE	0.5	0.5J,U,Q3		UJ	ug/L	Ccv
				CARBON TETRACHLORIDE	0.5	0.5J,U,C3,		UJ	ug/L	IcRsd, Ccv
524.2	MW-17C-3Q11	Water	N							
				ACETONE	4.0	2.1J,C1,C3		UJ	ug/L	Mb, Tb, Rl,
				CARBON TETRACHLORIDE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
524.2	MW-18A-3Q11	Water	N							
				ACETONE	4.0	4.0J,U,C3		UJ	ug/L	IcRsd
				CARBON TETRACHLORIDE	0.5	0.5J,U,C3,		UJ	ug/L	IcRsd, Ccv
				CHLOROFORM	0.5	4.3		U	ug/L	Tb
				ETHYLBENZENE	0.5	0.3J,C1		J	ug/L	Rl
				O-XYLENE	0.5	0.3J,C1		J	ug/L	Rl
				TOLUENE	0.5	0.4J,C1		J	ug/L	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: 11252B										
524.2	MW-19A-3Q11	Water	N							
				ACETONE	4.0	4.0J,U,C3		UJ	ug/L	IcRsd
				CARBON TETRACHLORIDE	0.5	0.5J,U,Q3,		UJ	ug/L	IcRsd, Ccv
				CHLOROFORM	0.5	1.3		U	ug/L	Tb
524.2	MW-19B-3Q11	Water	N							
				ACETONE	4.0	4.0J,U,C3		UJ	ug/L	IcRsd
				CARBON TETRACHLORIDE	0.5	0.5J,U,C3,		UJ	ug/L	IcRsd, Ccv
				TETRACHLOROETHENE	0.5	0.3J,C1		J	ug/L	Rl
524.2	MW-1A-3Q11	Water	N							
				ACETONE	4.0	4.0J,U,C3		UJ	ug/L	IcRsd
				CARBON TETRACHLORIDE	0.5	0.5J,U,C3,		UJ	ug/L	IcRsd, Ccv
524.2	MW-2A-3Q11	Water	N							
				1,1,2-TRICHLOROETHANE	0.5	0.3J,C1		J	ug/L	Rl
				ACETONE	4.0	4.0J,U,C3		UJ	ug/L	IcRsd
				CARBON TETRACHLORIDE	0.5	0.5J,U,C3,		UJ	ug/L	IcRsd, Ccv
				CHLOROFORM	0.5	2.3		U	ug/L	Tb
524.2	MW-3A-3Q11	Water	N							
				ACETONE	4.0	4.0J,U,C3		UJ	ug/L	IcRsd
				CARBON TETRACHLORIDE	0.5	0.5J,U,C3,		UJ	ug/L	IcRsd, Ccv
				CHLOROFORM	0.5	2.1		U	ug/L	Tb

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: 11252B										
524.2	MW-4A-3Q11	Water	N							
				2,2-DICHLOROPROPANE	0.5	0.5J,U,Q3		UJ	ug/L	Ccv
				ACETONE	4.0	4.0J,U,C3		UJ	ug/L	IcRsd
				BROMOMETHANE	0.5	0.5J,U,Q3		UJ	ug/L	Ccv
				CARBON TETRACHLORIDE	0.5	0.5J,U,C3,		UJ	ug/L	IcRsd, Ccv
				CHLOROFORM	0.5	1.8		U	ug/L	Tb
524.2	MW-4B-3Q11	Water	N							
				ACETONE	4.0	4.0J,U,C3		UJ	ug/L	IcRsd
				CARBON TETRACHLORIDE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				ETHYLBENZENE	0.5	0.3J,C1		J	ug/L	Rl
				m&p-Xylene	1.0	0.8J,C1		J	ug/L	Rl
				O-XYLENE	0.5	0.2J,C1		J	ug/L	Rl
				TOLUENE	0.5	0.3J,C1		J	ug/L	Rl
524.2	MW-4C-3Q11	Water	N							
				ACETONE	4.0	4.0J,U,C3		UJ	ug/L	IcRsd
				CARBON TETRACHLORIDE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
524.2	MW-5A-3Q11	Water	N							
				2,2-DICHLOROPROPANE	0.5	0.5J,U,Q3		UJ	ug/L	Ccv
				ACETONE	4.0	2.2J,C1, C3		UJ	ug/L	Tb, Rl, IcR
				BROMOMETHANE	0.5	0.5J,U,Q3		UJ	ug/L	Ccv
				CARBON TETRACHLORIDE	0.5	0.5J,U,C3,		UJ	ug/L	IcRsd, Ccv
				CHLOROFORM	0.5	1.9		U	ug/L	Tb

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: 11252B										
524.2	MW-6A-3Q11	Water	N							
				ACETONE	4.0	4.0J,U,C3		UJ	ug/L	IcRsd
				BROMODICHLOROMETHANE	0.5	0.4J,C1		J	ug/L	Rl
				CARBON TETRACHLORIDE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				CHLOROFORM	0.5	9.4		U	ug/L	Tb
524.2	MW-7A-3Q11	Water	N							
				ACETONE	4.0	4.0J,U,C3		UJ	ug/L	IcRsd
				CARBON TETRACHLORIDE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				CHLOROFORM	0.5	1.4		U	ug/L	Tb
524.2	MW-81A-3Q11	Water	FD							
				ACETONE	4.0	4.0J,U,C3		UJ	ug/L	IcRsd
				CARBON TETRACHLORIDE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				CHLOROFORM	0.5	1.4		U	ug/L	Tb
524.2	MW-86A-3Q11	Water	FD							
				ACETONE	4.0	4.0J,U,C3		UJ	ug/L	IcRsd
				CARBON TETRACHLORIDE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				CHLOROFORM	0.5	2.7		U	ug/L	Tb
524.2	MW-8A-3Q11	Water	N							
				ACETONE	4.0	4.0J,U,C3		UJ	ug/L	IcRsd
				CARBON TETRACHLORIDE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd, Ccv
				CHLOROFORM	0.5	11		U	ug/L	Tb

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: 11252B										
524.2	MW-96B-3Q11	Water	FD							
				1,2,4-TRIMETHYLBENZENE	0.5	0.3J,C1		J	ug/L	Rl
				1,2-DICHLOROETHANE	0.5	0.4J,C1		J	ug/L	Rl
				ACETONE	4.0	2.2J,C1, C3		UJ	ug/L	Tb, Rl, IcR
				CARBON TETRACHLORIDE	0.5	0.5J,U,C 3,		UJ	ug/L	IcRsd
524.2	MW-9B-3Q11	Water	N							
				ACETONE	4.0	4.0J,U,C 3		UJ	ug/L	IcRsd
				CARBON TETRACHLORIDE	0.5	0.5J,U,C 3,		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: 11252C										
524.2	MW-10A-3Q11	Water	N							
				ACETONE	4.0	4.0J,U,C3		UJ	ug/L	IcRsd
				BROMODICHLOROMETHANE	0.5	0.3J,C1		J	ug/L	Rl
				BROMOFORM	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				CARBON TETRACHLORIDE	0.5	0.5U		UJ	ug/L	IcRsd
				CHLOROFORM	0.5	5.9		U	ug/L	Tb
524.2	MW-10B-3Q11	Water	N							
				ACETONE	4.0	4.0J,U,C3		UJ	ug/L	IcRsd
				BROMOFORM	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				CARBON TETRACHLORIDE	0.5	0.5U		UJ	ug/L	IcRsd
524.2	MW-10C-3Q11	Water	N							
				ACETONE	4.0	4.0J,U,C3		UJ	ug/L	IcRsd
				BROMOFORM	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				CARBON TETRACHLORIDE	0.5	0.5U		UJ	ug/L	IcRsd
524.2	MW-11A-3Q11	Water	N							
				ACETONE	4.0	4.0J,U,C3		UJ	ug/L	IcRsd
				BROMOFORM	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				CARBON TETRACHLORIDE	0.5	0.5U		UJ	ug/L	IcRsd
				CHLOROFORM	0.5	5.6		U	ug/L	Tb

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: 11252C										
524.2	MW-12A-3Q11	Water	N							
				ACETONE	4.0	4.0J,U,C3		UJ	ug/L	IcRsd
				BROMODICHLOROMETHANE	0.5	0.3J,C1		J	ug/L	Rl
				BROMOFORM	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				CARBON TETRACHLORIDE	0.5	0.5U		UJ	ug/L	IcRsd
				CHLOROFORM	0.5	5.9		U	ug/L	Tb
				TRICHLOROFLUOROMETHANE	0.5	0.4J,C1		J	ug/L	Rl
524.2	MW-13A-3Q11	Water	N							
				ACETONE	4.0	4.0J,U,C3		UJ	ug/L	IcRsd
				BROMOFORM	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				CARBON TETRACHLORIDE	0.5	0.5U		UJ	ug/L	IcRsd
				CHLOROFORM	0.5	4.3		U	ug/L	Tb
524.2	MW-14A-3Q11	Water	N							
				ACETONE	4.0	4.0J,U,C3		UJ	ug/L	IcRsd
				BROMOFORM	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				CARBON TETRACHLORIDE	0.5	0.5U		UJ	ug/L	IcRsd
				CHLOROFORM	0.5	1.9		U	ug/L	Tb
524.2	MW-15A-3Q11	Water	N							
				ACETONE	4.0	4.0J,U,C3		UJ	ug/L	IcRsd
				BROMOFORM	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				CARBON TETRACHLORIDE	0.5	0.5U		UJ	ug/L	IcRsd
				CHLOROFORM	0.5	1.4		U	ug/L	Tb

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: 11252C										
524.2	MW-16A-3Q11	Water	N							
				ACETONE	4.0	4.0J,U,C3		UJ	ug/L	IcRsd
				BROMOFORM	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				CARBON TETRACHLORIDE	0.5	0.5U		UJ	ug/L	IcRsd
				CHLOROFORM	0.5	0.7		U	ug/L	Tb
524.2	MW-16B-3Q11	Water	N							
				1,3,5-TRIMETHYLBENZENE	0.5	0.2J,C1		J	ug/L	Rl
				ACETONE	4.0	4.6J,C3		UJ	ug/L	Tb, IcRsd
				BROMOFORM	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				CARBON TETRACHLORIDE	0.5	0.5U		UJ	ug/L	IcRsd
				CHLOROFORM	0.5	0.6		U	ug/L	Tb
524.2	MW-16C-3Q11	Water	N							
				1,2,4-TRIMETHYLBENZENE	0.5	0.3J,C1		J	ug/L	Rl
				1,2-DICHLOROPROPANE	0.5	0.3J,C1		J	ug/L	Rl
				ACETONE	4.0	4.0J,U,C3		UJ	ug/L	IcRsd
				BROMOFORM	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				CARBON TETRACHLORIDE	0.5	3.3		J	ug/L	IcRsd
				CHLOROFORM	0.5	0.3J,C1		UJ	ug/L	Tb, Rl
524.2	MW-303-3Q11	Water	TB							
				ACETONE	4.0	28J,C3		J	ug/L	IcRsd
				BROMOFORM	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				CARBON TETRACHLORIDE	0.5	0.5U		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: 11252C										
524.2	MW-402-3Q11	Water	FB							
				2-BUTANONE	4.0	2.3J,C1		J	ug/L	Rl
				ACETONE	4.0	34J,C3		UJ	ug/L	Tb, IcRsd
				BROMOFORM	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				CARBON TETRACHLORIDE	0.5	0.5U		UJ	ug/L	IcRsd
				CHLOROFORM	0.5	3.5		U	ug/L	Tb
SDG: 11257C										
524.2	MW-20A-3Q11	Water	N							
				ACETONE	4.0	2.1J,C1,C3		UJ	ug/L	Mb, Rl, IcR
				BROMODICHLOROMETHANE	0.5	0.3J,C1		J	ug/L	Rl
				CARBON TETRACHLORIDE	0.5	0.5J,U,C3		UJ	ug/L	IcRsd
				TRICHLOROETHENE	0.5	0.3J,C1,Q5		J	ug/L	Rl
524.2	MW-20B-3Q11	Water	N							
				ACETONE	4.0	2.4J,C3		UJ	ug/L	Mb, Rl, IcR
				CARBON TETRACHLORIDE	0.5	0.5J,U,C3,		UJ	ug/L	IcRsd
				DIBROMOCHLOROMETHANE	0.5	0.2J,C1		J	ug/L	Rl
524.2	MW-20C-3Q11	Water	N							
				ACETONE	4.0	4.0J,U,C3		UJ	ug/L	IcRsd
				CARBON TETRACHLORIDE	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: 11257D										
5210B	EFF-0902	Water	N							
				Biochemical Oxygen Demand	2.0	2.0<		J-	mg/L	Lcs
524.2	EFF-0902	Water	N							
				2,2-DICHLOROPROPANE	0.5	0.5J,U,Q3		UJ	ug/L	ProfJudg
				ACETONE	4.0	4.0J,U,C3		UJ	ug/L	IcRsd
				BROMOMETHANE	0.5	0.5J,U,Q3		UJ	ug/L	ProfJudg
				CARBON TETRACHLORIDE	0.5	0.5J,U,C3,		UJ	ug/L	IcRsd, Prof
				TETRACHLOROETHENE	0.5	0.4J,C1		J	ug/L	Rl
524.2	EW-1-0902	Water	N							
				2,2-DICHLOROPROPANE	0.5	0.5J,U,Q3		UJ	ug/L	ProfJudg
				ACETONE	4.0	4.0J,U,C3		UJ	ug/L	IcRsd
				BROMOMETHANE	0.5	0.5J,U,Q3		UJ	ug/L	ProfJudg
				CARBON TETRACHLORIDE	0.5	0.5J,U,C3,		UJ	ug/L	IcRsd, Prof
524.2	MW-304-3Q11	Water	TB							
				2,2-DICHLOROPROPANE	0.5	0.5J,U,Q3		UJ	ug/L	ProfJudg
				ACETONE	4.0	4.0J,U,C3		UJ	ug/L	IcRsd
				BROMOMETHANE	0.5	0.5J,U,Q3		UJ	ug/L	ProfJudg
				CARBON TETRACHLORIDE	0.5	0.5J,U,C3,		UJ	ug/L	IcRsd, Prof

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: 11257F										
TO-15	DP-1A-3Q11	Air	N							
				1,2,4-TRICHLOROBENZENE	2.4	2.4J,U,C4		UJ	ppbv	Ccv
				HEXACHLOROBUTADIENE	2.4	2.4J,U,C4		UJ	ppbv	IcRsd, Ccv
TO-15	DP-1B-3Q11	Air	N							
				HEXACHLOROBUTADIENE	2.4	2.4J,U,C4		UJ	ppbv	IcRsd
TO-15	DP-5A-3Q11	Air	N							
				HEXACHLOROBUTADIENE	2.4	2.4J,U,C4		UJ	ppbv	IcRsd
TO-15	DP-5B-3Q11	Air	N							
				HEXACHLOROBUTADIENE	2.4	2.4J,U,C4		UJ	ppbv	IcRsd
TO-15	DP-6A-3Q11	Air	N							
				1,2,4-TRICHLOROBENZENE	2.2	2.2J,U,C4		UJ	ppbv	Ccv
				HEXACHLOROBUTADIENE	2.2	2.2J,U,C4		UJ	ppbv	IcRsd, Ccv
TO-15	DP-6B-3Q11	Air	N							
				1,2,4-TRICHLOROBENZENE	2.4	2.4J,U,C4		UJ	ppbv	Ccv
				BENZENE	2.4	1.3J,C1		J	ppbv	RI
				HEXACHLOROBUTADIENE	2.4	2.4J,U,C4		UJ	ppbv	IcRsd, Ccv
TO-15	OSVE-10-3Q11	Air	N							
				CIS-1,2-DICHLOROETHENE	2.3	1.9J,C1		J	ppbv	RI
				HEXACHLOROBUTADIENE	2.3	2.3U		UJ	ppbv	IcRsd, Ccv
TO-15	OSVE-11-3Q11	Air	N							
				HEXACHLOROBUTADIENE	2.3	2.3U		UJ	ppbv	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: 11257F										
TO-15	OSVE-89-3Q11	Air	FD							
				1,2,4-TRICHLOROBENZENE	2.2	2.2J,U,C4		UJ	ppbv	Ccv
				HEXACHLOROBUTADIENE	2.2	2.2J,U,C4		UJ	ppbv	IcRsd, Ccv
TO-15	SVE-1-3Q11	Air	N							
				1,2,4-TRICHLOROBENZENE	2.3	2.3J,U,C4		UJ	ppbv	Ccv
				HEXACHLOROBUTADIENE	2.3	2.3J,U,C4		UJ	ppbv	IcRsd, Ccv
TO-15	SVE-2-3Q11	Air	N							
				HEXACHLOROBUTADIENE	2.3	2.3U		UJ	ppbv	IcRsd, Ccv
TO-15	SVE-3-3Q11	Air	N							
				HEXACHLOROBUTADIENE	3.3	3.3U		UJ	ppbv	IcRsd, Ccv
				TRICHLOROETHENE	3.3	2.8J,C1		J	ppbv	Rl
TO-15	SVE-4-3Q11	Air	N							
				1,2,4-TRICHLOROBENZENE	2.4	2.4J,U,C4		UJ	ppbv	Ccv
				1,4-DICHLOROBENZENE	2.4	1.3J,C1		J	ppbv	Rl
				BENZENE	2.4	1.6J,C1		J	ppbv	Rl
				HEXACHLOROBUTADIENE	2.4	2.4J,U,C4		UJ	ppbv	IcRsd, Ccv
				TRICHLOROETHENE	2.4	2.1J,C1		J	ppbv	Rl
TO-15	SVE-96-3Q11	Air	FD							
				BENZENE	2.4	1.6J,C1		J	ppbv	Rl
				HEXACHLOROBUTADIENE	2.4	2.4U		UJ	ppbv	IcRsd, Ccv
				TRICHLOROETHENE	2.4	2.2J,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: 11257G										
TO-15	GWTP Pr GAC-0902	Air	N							
				CIS-1,2-DICHLOROETHENE	2.1	1.4J,C1		J	ppbv	Rl
				TETRACHLOROETHENE	21	200J,Q5		J	ppbv	Ld
TO-15	GWTP Stack-0902	Air	N							
				TETRACHLOROETHENE	23	53J,Q5		J	ppbv	Ld
TO-15	SVE Pre GAC-0902	Air	N							
				TRICHLOROETHENE	2.2	1.1J,C1		J	ppbv	Rl
TO-15	SVE Stack-0902	Air	N							
				TETRACHLOROETHENE	2.1	1.5J,C1		J	ppbv	Rl

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

Table 5

Analytical Completeness

Analytical Completeness Report

Project No. / Name : *R11S84 / Modesto GW Treatment System Summer 2011 Sampling ; R11SA1 / Modesto Groundwater Sept 2011 Qtrly Monitoring*

Analytical Method	Total Number of Analytes	Number of Qualified	Percent Completeness
2540C	3	0	100.0
2540D	3	0	100.0
5210B	3	2	33.3
524.2	3150	176	94.4
TO-15	1012	44	95.7
Total	***4171***	***222***	***94.7***

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 : *R11S84 / Modesto GW Treatment System Summer 2011 Sampling ; R11SA1 / Modesto Groundwater Sept 2011 Qtrly Monitoring*

Analytical Method	Total Number of Analytes	Number of Qualified	Percent Completeness
2540C	3	0	100.0
2540D	3	0	100.0
5210B	3	2	33.3
524.2	3150	163	94.8
TO-15	1012	42	95.8
Total	***4171***	***207***	***95.0***

Table 7

Technical Completeness

Technical Completeness Report

Project No. / Name : *R11S84 / Modesto GW Treatment System Summer 2011 Sampling ; R11SA1 / Modesto Groundwater Sept 2011 Qtrly Monitoring*

Analytical Method	Total Number of Analytes	Number of Rejects	Percent Completeness
2540C	3	0	100.0
2540D	3	0	100.0
5210B	3	0	100.0
524.2	3150	0	100.0
TO-15	1012	0	100.0
Total	***4171***	***0***	***100.0***

Note:

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

[Useable results are qualified but not Rejected data]

Table 8

Reasons for Qualified Results

URS, Inc.

Reason for Qualified Results

SDG Nos. : 11196A,11196B,11224B,11224C,11252B,11252C,11257C,11257D,11257F,11257G

Sample Del Group (SDG)	Sample ID	Test Method	CAS No.	Detected Qualifier	Non Detected Qualifier	Analyte Name	Reason
11196A	EW-1-0703	524.2	67-66-3	U		CHLOROFORM	Present in field and trip blanks
11196A	MW-301-3Q11	524.2	67-66-3	U		CHLOROFORM	Present in field blank
11196A	MW-401-3Q11	524.2	79-00-5		J	1,1,2-TRICHLOROETHANE	Matrix spike recovery
11196A	MW-401-3Q11	524.2	87-61-6		J	1,2,3-TRICHLOROBENZENE	Matrix spike recovery
11196A	MW-401-3Q11	524.2	120-82-1		J	1,2,4-TRICHLOROBENZENE	Matrix spike recovery
11196A	MW-401-3Q11	524.2	95-50-1		J	1,2-DICHLOROBENZENE	Matrix spike recovery
11196A	MW-401-3Q11	524.2	541-73-1		J	1,3-DICHLOROBENZENE	Matrix spike recovery
11196A	MW-401-3Q11	524.2	106-46-7		J	1,4-DICHLOROBENZENE	Matrix spike recovery
11196A	MW-401-3Q11	524.2	95-49-8		J	2-CHLOROTOLUENE	Matrix spike recovery
11196A	MW-401-3Q11	524.2	106-43-4		J	4-CHLOROTOLUENE	Matrix spike recovery
11196A	MW-401-3Q11	524.2	108-86-1		J	BROMOBENZENE	Matrix spike recovery
11196A	MW-401-3Q11	524.2	75-27-4		J	BROMODICHLOROMETHANE	Matrix spike recovery
11196A	MW-401-3Q11	524.2	108-90-7		J	CHLOROBENZENE	Matrix spike recovery
11196A	MW-401-3Q11	524.2	67-66-3	U		CHLOROFORM	Present in trip blank
11196A	MW-401-3Q11	524.2	74-95-3		J	DIBROMOMETHANE	Matrix spike recovery
11196A	MW-401-3Q11	524.2	91-20-3		J	NAPHTHALENE	Matrix spike RPD
11196B	GWTP Pre GAC-0703	TO-15	75-34-3		J	1,1-DICHLOROETHANE	LCS spike recovery
11196B	GWTP Pre GAC-0703	TO-15	156-59-2		J	CIS-1,2-DICHLOROETHENE	LCS spike recovery
11196B	GWTP Stack-0703	TO-15	75-34-3		J	1,1-DICHLOROETHANE	LCS spike recovery
11196B	GWTP Stack-0703	TO-15	156-59-2		J	CIS-1,2-DICHLOROETHENE	LCS spike recovery
11196B	SVE Pre GAC-0703	TO-15	75-34-3		J	1,1-DICHLOROETHANE	LCS spike recovery
11196B	SVE Pre GAC-0703	TO-15	156-59-2		J	CIS-1,2-DICHLOROETHENE	LCS spike recovery
11196B	SVE Stack-0703	TO-15	75-34-3		J	1,1-DICHLOROETHANE	LCS spike recovery
11196B	SVE Stack-0703	TO-15	156-59-2		J	CIS-1,2-DICHLOROETHENE	LCS spike recovery
11224B	EFF-0802	5210B	BOD	J-		Biochemical Oxygen Demand	LCS spike recovery
11224B	EFF-0802	524.2	91-20-3		J	NAPHTHALENE	Initial calibration %RSD
11224B	EW-1-0802	524.2	91-20-3		J	NAPHTHALENE	Initial calibration %RSD
11224B	MW-302-3Q11	524.2	91-20-3		J	NAPHTHALENE	Initial calibration %RSD
11252B	MW-17A-3Q11	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
11252B	MW-17A-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Initial calibration %RSD

URS, Inc.

Reason for Qualified Results

SDG Nos. : 11196A,11196B,11224B,11224C,11252B,11252C,11257C,11257D,11257F,11257G

Sample Del Group (SDG)	Sample ID	Test Method	CAS No.	Detected Qualifier	Non Detected Qualifier	Analyte Name	Reason
11252B	MW-17A-3Q11	524.2	67-66-3	U		CHLOROFORM	Present in trip blank
11252B	MW-17B-3Q11	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Continuing calibration percent difference
11252B	MW-17B-3Q11	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
11252B	MW-17B-3Q11	524.2	74-83-9		J	BROMOMETHANE	Continuing calibration percent difference
11252B	MW-17B-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Continuing calibration percent difference
11252B	MW-17B-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Initial calibration %RSD
11252B	MW-17C-3Q11	524.2	67-64-1	J		ACETONE	Initial calibration %RSD
11252B	MW-17C-3Q11	524.2	67-64-1	U		ACETONE	Present in method and trip blanks
11252B	MW-17C-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Initial calibration %RSD
11252B	MW-18A-3Q11	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
11252B	MW-18A-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Continuing calibration percent difference
11252B	MW-18A-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Initial calibration %RSD
11252B	MW-18A-3Q11	524.2	67-66-3	U		CHLOROFORM	Present in trip blank
11252B	MW-19A-3Q11	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
11252B	MW-19A-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Continuing calibration percent difference
11252B	MW-19A-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Initial calibration %RSD
11252B	MW-19A-3Q11	524.2	67-66-3	U		CHLOROFORM	Present in trip blank
11252B	MW-19B-3Q11	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
11252B	MW-19B-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Continuing calibration percent difference
11252B	MW-19B-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Initial calibration %RSD
11252B	MW-1A-3Q11	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
11252B	MW-1A-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Continuing calibration percent difference
11252B	MW-1A-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Initial calibration %RSD
11252B	MW-2A-3Q11	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
11252B	MW-2A-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Continuing calibration percent difference
11252B	MW-2A-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Initial calibration %RSD
11252B	MW-2A-3Q11	524.2	67-66-3	U		CHLOROFORM	Present in trip blank
11252B	MW-3A-3Q11	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
11252B	MW-3A-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Continuing calibration percent difference
11252B	MW-3A-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Initial calibration %RSD

URS, Inc.

Reason for Qualified Results

SDG Nos. : 11196A,11196B,11224B,11224C,11252B,11252C,11257C,11257D,11257F,11257G

Sample Del Group (SDG)	Sample ID	Test Method	CAS No.	Detected Qualifier	Non Detected Qualifier	Analyte Name	Reason
11252B	MW-3A-3Q11	524.2	67-66-3	U		CHLOROFORM	Present in trip blank
11252B	MW-4A-3Q11	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Continuing calibration percent difference
11252B	MW-4A-3Q11	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
11252B	MW-4A-3Q11	524.2	74-83-9		J	BROMOMETHANE	Continuing calibration percent difference
11252B	MW-4A-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Continuing calibration percent difference
11252B	MW-4A-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Initial calibration %RSD
11252B	MW-4A-3Q11	524.2	67-66-3	U		CHLOROFORM	Present in trip blank
11252B	MW-4B-3Q11	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
11252B	MW-4B-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Initial calibration %RSD
11252B	MW-4C-3Q11	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
11252B	MW-4C-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Initial calibration %RSD
11252B	MW-5A-3Q11	524.2	594-20-7		J	2,2-DICHLOROPROPANE	Continuing calibration percent difference
11252B	MW-5A-3Q11	524.2	67-64-1	J		ACETONE	Initial calibration %RSD
11252B	MW-5A-3Q11	524.2	67-64-1	U		ACETONE	Present in trip blank
11252B	MW-5A-3Q11	524.2	74-83-9		J	BROMOMETHANE	Continuing calibration percent difference
11252B	MW-5A-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Continuing calibration percent difference
11252B	MW-5A-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Initial calibration %RSD
11252B	MW-5A-3Q11	524.2	67-66-3	U		CHLOROFORM	Present in trip blank
11252B	MW-6A-3Q11	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
11252B	MW-6A-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Initial calibration %RSD
11252B	MW-6A-3Q11	524.2	67-66-3	U		CHLOROFORM	Present in trip blank
11252B	MW-7A-3Q11	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
11252B	MW-7A-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Initial calibration %RSD
11252B	MW-7A-3Q11	524.2	67-66-3	U		CHLOROFORM	Present in trip blank
11252B	MW-81A-3Q11	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
11252B	MW-81A-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Initial calibration %RSD
11252B	MW-81A-3Q11	524.2	67-66-3	U		CHLOROFORM	Present in trip blank
11252B	MW-86A-3Q11	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
11252B	MW-86A-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Initial calibration %RSD
11252B	MW-86A-3Q11	524.2	67-66-3	U		CHLOROFORM	Present in trip blank

URS, Inc.

Reason for Qualified Results

SDG Nos. : 11196A,11196B,11224B,11224C,11252B,11252C,11257C,11257D,11257F,11257G

Sample Del Group (SDG)	Sample ID	Test Method	CAS No.	Detected Qualifier	Non Detected Qualifier	Analyte Name	Reason
11252B	MW-8A-3Q11	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
11252B	MW-8A-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Continuing calibration percent difference
11252B	MW-8A-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Initial calibration %RSD
11252B	MW-8A-3Q11	524.2	67-66-3	U		CHLOROFORM	Present in trip blank
11252B	MW-96B-3Q11	524.2	67-64-1	J		ACETONE	Initial calibration %RSD
11252B	MW-96B-3Q11	524.2	67-64-1	U		ACETONE	Present in trip blank
11252B	MW-96B-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Initial calibration %RSD
11252B	MW-9B-3Q11	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
11252B	MW-9B-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Continuing calibration percent difference
11252B	MW-9B-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Initial calibration %RSD
11252C	MW-10A-3Q11	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
11252C	MW-10A-3Q11	524.2	75-25-2		J	BROMOFORM	Initial calibration %RSD
11252C	MW-10A-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Initial calibration %RSD
11252C	MW-10A-3Q11	524.2	67-66-3	U		CHLOROFORM	Present in trip blank
11252C	MW-10B-3Q11	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
11252C	MW-10B-3Q11	524.2	75-25-2		J	BROMOFORM	Initial calibration %RSD
11252C	MW-10B-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Initial calibration %RSD
11252C	MW-10C-3Q11	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
11252C	MW-10C-3Q11	524.2	75-25-2		J	BROMOFORM	Initial calibration %RSD
11252C	MW-10C-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Initial calibration %RSD
11252C	MW-11A-3Q11	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
11252C	MW-11A-3Q11	524.2	75-25-2		J	BROMOFORM	Initial calibration %RSD
11252C	MW-11A-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Initial calibration %RSD
11252C	MW-11A-3Q11	524.2	67-66-3	U		CHLOROFORM	Present in trip blank
11252C	MW-12A-3Q11	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
11252C	MW-12A-3Q11	524.2	75-25-2		J	BROMOFORM	Initial calibration %RSD
11252C	MW-12A-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Initial calibration %RSD
11252C	MW-12A-3Q11	524.2	67-66-3	U		CHLOROFORM	Present in trip blank
11252C	MW-13A-3Q11	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
11252C	MW-13A-3Q11	524.2	75-25-2		J	BROMOFORM	Initial calibration %RSD

URS, Inc.

Reason for Qualified Results

SDG Nos. : 11196A,11196B,11224B,11224C,11252B,11252C,11257C,11257D,11257F,11257G

Sample Del Group (SDG)	Sample ID	Test Method	CAS No.	Detected Qualifier	Non Detected Qualifier	Analyte Name	Reason
11252C	MW-13A-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Initial calibration %RSD
11252C	MW-13A-3Q11	524.2	67-66-3	U		CHLOROFORM	Present in trip blank
11252C	MW-14A-3Q11	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
11252C	MW-14A-3Q11	524.2	75-25-2		J	BROMOFORM	Initial calibration %RSD
11252C	MW-14A-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Initial calibration %RSD
11252C	MW-14A-3Q11	524.2	67-66-3	U		CHLOROFORM	Present in trip blank
11252C	MW-15A-3Q11	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
11252C	MW-15A-3Q11	524.2	75-25-2		J	BROMOFORM	Initial calibration %RSD
11252C	MW-15A-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Initial calibration %RSD
11252C	MW-15A-3Q11	524.2	67-66-3	U		CHLOROFORM	Present in trip blank
11252C	MW-16A-3Q11	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
11252C	MW-16A-3Q11	524.2	75-25-2		J	BROMOFORM	Initial calibration %RSD
11252C	MW-16A-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Initial calibration %RSD
11252C	MW-16A-3Q11	524.2	67-66-3	U		CHLOROFORM	Present in trip blank
11252C	MW-16B-3Q11	524.2	67-64-1	J		ACETONE	Initial calibration %RSD
11252C	MW-16B-3Q11	524.2	67-64-1	U		ACETONE	Present in trip blank
11252C	MW-16B-3Q11	524.2	75-25-2		J	BROMOFORM	Initial calibration %RSD
11252C	MW-16B-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Initial calibration %RSD
11252C	MW-16B-3Q11	524.2	67-66-3	U		CHLOROFORM	Present in trip blank
11252C	MW-16C-3Q11	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
11252C	MW-16C-3Q11	524.2	75-25-2		J	BROMOFORM	Initial calibration %RSD
11252C	MW-16C-3Q11	524.2	56-23-5	J		CARBON TETRACHLORIDE	Initial calibration %RSD
11252C	MW-16C-3Q11	524.2	67-66-3	U		CHLOROFORM	Present in trip blank
11252C	MW-303-3Q11	524.2	67-64-1	J		ACETONE	Initial calibration %RSD
11252C	MW-303-3Q11	524.2	75-25-2		J	BROMOFORM	Initial calibration %RSD
11252C	MW-303-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Initial calibration %RSD
11252C	MW-402-3Q11	524.2	67-64-1	J		ACETONE	Initial calibration %RSD
11252C	MW-402-3Q11	524.2	67-64-1	U		ACETONE	Present in trip blank
11252C	MW-402-3Q11	524.2	75-25-2		J	BROMOFORM	Initial calibration %RSD
11252C	MW-402-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Initial calibration %RSD

URS, Inc.

Reason for Qualified Results

SDG Nos. : 11196A,11196B,11224B,11224C,11252B,11252C,11257C,11257D,11257F,11257G

Sample Del Group (SDG)	Sample ID	Test Method	CAS No.	Detected Qualifier	Non Detected Qualifier	Analyte Name	Reason
11252C	MW-402-3Q11	524.2	67-66-3	U		CHLOROFORM	Present in trip blank
11257C	MW-20A-3Q11	524.2	67-64-1	J		ACETONE	Initial calibration %RSD
11257C	MW-20A-3Q11	524.2	67-64-1	U		ACETONE	Present in method blank
11257C	MW-20A-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Initial calibration %RSD
11257C	MW-20B-3Q11	524.2	67-64-1	J		ACETONE	Initial calibration %RSD
11257C	MW-20B-3Q11	524.2	67-64-1	U		ACETONE	Present in method blank
11257C	MW-20B-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Initial calibration %RSD
11257C	MW-20C-3Q11	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
11257C	MW-20C-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Continuing calibration percent difference
11257C	MW-20C-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Initial calibration %RSD
11257D	EFF-0902	5210B	BOD	J-		Biochemical Oxygen Demand	LCS spike recovery
11257D	EFF-0902	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
11257D	EFF-0902	524.2	56-23-5		J	CARBON TETRACHLORIDE	Initial calibration %RSD
11257D	EW-1-0902	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
11257D	EW-1-0902	524.2	56-23-5		J	CARBON TETRACHLORIDE	Initial calibration %RSD
11257D	MW-304-3Q11	524.2	67-64-1		J	ACETONE	Initial calibration %RSD
11257D	MW-304-3Q11	524.2	56-23-5		J	CARBON TETRACHLORIDE	Initial calibration %RSD
11257F	DP-1A-3Q11	TO-15	120-82-1		J	1,2,4-TRICHLOROBENZENE	Continuing calibration percent difference
11257F	DP-1A-3Q11	TO-15	87-68-3		J	HEXACHLOROBUTADIENE	Continuing calibration percent difference
11257F	DP-1A-3Q11	TO-15	87-68-3		J	HEXACHLOROBUTADIENE	Initial calibration %RSD
11257F	DP-1B-3Q11	TO-15	87-68-3		J	HEXACHLOROBUTADIENE	Initial calibration %RSD
11257F	DP-5A-3Q11	TO-15	87-68-3		J	HEXACHLOROBUTADIENE	Initial calibration %RSD
11257F	DP-5B-3Q11	TO-15	87-68-3		J	HEXACHLOROBUTADIENE	Initial calibration %RSD
11257F	DP-6A-3Q11	TO-15	120-82-1		J	1,2,4-TRICHLOROBENZENE	Continuing calibration percent difference
11257F	DP-6A-3Q11	TO-15	87-68-3		J	HEXACHLOROBUTADIENE	Continuing calibration percent difference
11257F	DP-6A-3Q11	TO-15	87-68-3		J	HEXACHLOROBUTADIENE	Initial calibration %RSD
11257F	DP-6B-3Q11	TO-15	120-82-1		J	1,2,4-TRICHLOROBENZENE	Continuing calibration percent difference
11257F	DP-6B-3Q11	TO-15	87-68-3		J	HEXACHLOROBUTADIENE	Continuing calibration percent difference
11257F	DP-6B-3Q11	TO-15	87-68-3		J	HEXACHLOROBUTADIENE	Initial calibration %RSD
11257F	OSVE-10-3Q11	TO-15	87-68-3		J	HEXACHLOROBUTADIENE	Continuing calibration percent difference

URS, Inc.

Reason for Qualified Results

SDG Nos. : 11196A,11196B,11224B,11224C,11252B,11252C,11257C,11257D,11257F,11257G

Sample Del Group (SDG)	Sample ID	Test Method	CAS No.	Detected Qualifier	Non Detected Qualifier	Analyte Name	Reason
11257F	OSVE-10-3Q11	TO-15	87-68-3		J	HEXACHLOROBUTADIENE	Initial calibration %RSD
11257F	OSVE-11-3Q11	TO-15	87-68-3		J	HEXACHLOROBUTADIENE	Continuing calibration percent difference
11257F	OSVE-11-3Q11	TO-15	87-68-3		J	HEXACHLOROBUTADIENE	Initial calibration %RSD
11257F	OSVE-89-3Q11	TO-15	120-82-1		J	1,2,4-TRICHLOROBENZENE	Continuing calibration percent difference
11257F	OSVE-89-3Q11	TO-15	87-68-3		J	HEXACHLOROBUTADIENE	Continuing calibration percent difference
11257F	OSVE-89-3Q11	TO-15	87-68-3		J	HEXACHLOROBUTADIENE	Initial calibration %RSD
11257F	SVE-1-3Q11	TO-15	120-82-1		J	1,2,4-TRICHLOROBENZENE	Continuing calibration percent difference
11257F	SVE-1-3Q11	TO-15	87-68-3		J	HEXACHLOROBUTADIENE	Continuing calibration percent difference
11257F	SVE-1-3Q11	TO-15	87-68-3		J	HEXACHLOROBUTADIENE	Initial calibration %RSD
11257F	SVE-2-3Q11	TO-15	87-68-3		J	HEXACHLOROBUTADIENE	Continuing calibration percent difference
11257F	SVE-2-3Q11	TO-15	87-68-3		J	HEXACHLOROBUTADIENE	Initial calibration %RSD
11257F	SVE-3-3Q11	TO-15	87-68-3		J	HEXACHLOROBUTADIENE	Continuing calibration percent difference
11257F	SVE-3-3Q11	TO-15	87-68-3		J	HEXACHLOROBUTADIENE	Initial calibration %RSD
11257F	SVE-4-3Q11	TO-15	120-82-1		J	1,2,4-TRICHLOROBENZENE	Continuing calibration percent difference
11257F	SVE-4-3Q11	TO-15	87-68-3		J	HEXACHLOROBUTADIENE	Continuing calibration percent difference
11257F	SVE-4-3Q11	TO-15	87-68-3		J	HEXACHLOROBUTADIENE	Initial calibration %RSD
11257F	SVE-96-3Q11	TO-15	87-68-3		J	HEXACHLOROBUTADIENE	Continuing calibration percent difference
11257F	SVE-96-3Q11	TO-15	87-68-3		J	HEXACHLOROBUTADIENE	Initial calibration %RSD
11257G	GWTP Pr GAC-0902	TO-15	127-18-4	J		TETRACHLOROETHENE	Lab Duplicate RPD
11257G	GWTP Pr GAC-0902DUP	TO-15	127-18-4	J		TETRACHLOROETHENE	Lab Duplicate RPD
11257G	GWTP Stack-0902	TO-15	127-18-4	J		TETRACHLOROETHENE	Lab Duplicate RPD
11257G	GWTP Stack-0902DUP	TO-15	127-18-4	J		TETRACHLOROETHENE	Lab Duplicate RPD

Appendix A

Data Qualification Summary Report

SDG 11196A

Data Qualifier Summary

Lab Reporting Batch ID: 11196A **Laboratory: R9LAB**

EDD Filename: 11196A_VOC_1107031 FINAL_edited_rev1 **eQAPP Name: Modesto_Site_090711**

Method Category: **VOA**

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

Sample ID: **CRB EFF-0703** ***Collected:*** **7/14/2011 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
TETRACHLOROETHENE	0.3	J,C1	0.2	MDL	0.5	MRL	ug/L	J	Rl

Sample ID: **CRB Mid-0703** ***Collected:*** **7/14/2011 9:45:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TETRACHLOROETHENE	0.3	J,C1	0.2	MDL	0.5	MRL	ug/L	J	Rl

Sample ID: **EFF-0703** ***Collected:*** **7/14/2011 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
TETRACHLOROETHENE	0.3	J,C1	0.2	MDL	0.5	MRL	ug/L	J	Rl

Sample ID: **EW-1-0703** ***Collected:*** **7/14/2011 10:10:00** ***Analysis Type:*** **Reinjection-01** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHLOROFORM	3.3		0.2	MDL	0.5	MRL	ug/L	U	Tb, Fb

Sample ID: **MW-104-0703** ***Collected:*** **7/14/2011 9:50:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TETRACHLOROETHENE	0.3	J,C1	0.2	MDL	0.5	MRL	ug/L	J	Rl

Sample ID: **MW-301-3Q11** ***Collected:*** **7/14/2011 8:45:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHLOROFORM	3.7		0.2	MDL	0.5	MRL	ug/L	U	Fb

Sample ID: **MW-401-3Q11** ***Collected:*** **7/14/2011 8:50:00** ***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-TRICHLOROETHANE	0.5	J,U,Q4	0.2	MDL	0.5	MRL	ug/L	UJ	Ms
1,2,3-TRICHLOROBENZENE	0.5	J,U,Q4	0.2	MDL	0.5	MRL	ug/L	UJ	Ms
1,2,4-TRICHLOROBENZENE	0.5	J,U,Q4	0.2	MDL	0.5	MRL	ug/L	UJ	Ms
1,2-DICHLOROBENZENE	0.5	J,U,Q4	0.2	MDL	0.5	MRL	ug/L	UJ	Ms
1,3-DICHLOROBENZENE	0.5	U	0.2	MDL	0.5	MRL	ug/L	UJ	Ms

* denotes a non-reportable result

Project Name and Number: R11S84 - Modesto GW Treatment System Summer 2011 Sampling

Data Qualifier Summary

Lab Reporting Batch ID: 11196A **Laboratory: R9LAB**

EDD Filename: 11196A_VOC_1107031 FINAL_edited_rev1 **eQAPP Name: Modesto_Site_090711**

Method Category: **VOA**

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

Sample ID: **MW-401-3Q11** ***Collected:*** **7/14/2011 8:50:00** ***Analysis Type:*** **Initial-** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,4-DICHLOROBENZENE	0.5	J,U,Q4	0.2	MDL	0.5	MRL	ug/L	UJ	Ms
2-CHLOROTOLUENE	0.5	J,U,Q4	0.2	MDL	0.5	MRL	ug/L	UJ	Ms
4-CHLOROTOLUENE	0.5	J,U,Q4	0.2	MDL	0.5	MRL	ug/L	UJ	Ms
BROMOBENZENE	0.5	J,U,Q4	0.2	MDL	0.5	MRL	ug/L	UJ	Ms
BROMODICHLOROMETHANE	0.5	J,U,Q4	0.2	MDL	0.5	MRL	ug/L	UJ	Ms
CHLOROBENZENE	0.5	J,U,Q4	0.2	MDL	0.5	MRL	ug/L	UJ	Ms
CHLOROFORM	3.6		0.2	MDL	0.5	MRL	ug/L	U	Tb
DIBROMOMETHANE	0.5	J,U,Q4	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

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 11196A **Laboratory: R9LAB**

EDD Filename: 11196A_VOC_1107031 FINAL_edited_rev1 **eQAPP Name: Modesto_Site_090711**

Reason Code Legend

Reason Code	Description
Cb	Calibration Blank Contamination
Ccv	Continuing Calibration Verification Percent Difference Lower Estimation
Ccv	Continuing Calibration Verification Percent Difference Lower Rejection
Ccv	Continuing Calibration Verification Percent Difference Upper Estimation
Ccv	Continuing Calibration Verification Percent Difference Upper Rejection
Ccv	Continuing Calibration Verification Percent Recovery Lower Estimation
Ccv	Continuing Calibration Verification Percent Recovery Lower Rejection
Ccv	Continuing Calibration Verification Percent Recovery Upper Estimation
Ccv	Continuing Calibration Verification Percent Recovery Upper Rejection
CcvCC	Continuing Calibration Verification Correlation Coefficient
CcvRrf	Continuing Calibration Verification Relative Response Factor
ContTune	Continuing Tune
Dup=0	Duplicate Sample Count = 0
Dup>1	Duplicate Sample Count > 1
Eb	Equipment Blank Contamination
EtoA	Extraction to Analysis Estimation
EtoA	Extraction to Analysis Rejection
Fb	Field Blank Contamination
Fd	Field Duplicate Precision
Ft	Field Triplicate Precision
IcCC	Initial Calibration Correlation Coefficient
IcRrf	Initial Calibration Relative Response Factor
IcRsd	Initial Calibration Percent Relative Standard Deviation
Icv	Initial Calibration Verification Percent Difference Lower Estimation
Icv	Initial Calibration Verification Percent Difference Lower Rejection
Icv	Initial Calibration Verification Percent Difference Upper Estimation
Icv	Initial Calibration Verification Percent Difference Upper Rejection
Icv	Initial Calibration Verification Percent Recovery Lower Estimation
Icv	Initial Calibration Verification Percent Recovery Lower Rejection

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 11196A **Laboratory: R9LAB**

EDD Filename: 11196A_VOC_1107031 FINAL_edited_rev1 **eQAPP Name: Modesto_Site_090711**

Icv	Initial Calibration Verification Percent Recovery Upper Estimation
Icv	Initial Calibration Verification Percent Recovery Upper Rejection
IcvCC	Initial Calibration Verification Correlation Coefficient
IcvRrf	Initial Calibration Verification Relative Response Factor
IllogicalFraction	Illogical Fraction
InitTune	Initial Tune
Is	Internal Standard Estimation
Is	Internal Standard Rejection
Lcs	Laboratory Control Precision
Lcs	Laboratory Control Spike Lower Estimation
Lcs	Laboratory Control Spike Lower Rejection
Lcs	Laboratory Control Spike Upper Estimation
Lcs	Laboratory Control Spike Upper Rejection
Lcs=0	Laboratory Control Sample Count = 0
Lcs>1	Laboratory Control Sample Count > 1
Ld	Laboratory Duplicate Precision
Lt	Laboratory Triplicate Precision
Mb	Method Blank Contamination
Mb=0	Method Blank Sample Count = 0
Mb>1	Method Blank Sample Count > 1
Moist	Percent Moisture
Ms	Matrix Spike Lower Estimation
Ms	Matrix Spike Lower Rejection
Ms	Matrix Spike Precision
Ms	Matrix Spike Upper Estimation
Ms	Matrix Spike Upper Rejection
Ms=0	Matrix Spike Sample Count = 0
Ms>1	Matrix Spike Sample Count > 1
PEM	Performance Evaluation Mixture
Preservation	Preservation
ProfJudg	Professional Judgment
REM	Resolution Check Mixture

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 11196A **Laboratory: R9LAB**

EDD Filename: 11196A_VOC_1107031 FINAL_edited_rev1 **eQAPP Name: Modesto_Site_090711**

Rl	Reporting Limit
Rl	Reporting Limit > Project Maximum Contamination Limit
Rl	Reporting Limit Trace Value
StoA	Sampling to Analysis Estimation
StoA	Sampling to Analysis Rejection
StoE	Sampling to Extraction Estimation
StoE	Sampling to Extraction Rejection
StoL	Sampling to Leaching Estimation
StoL	Sampling to Leaching Rejection
Surr	Surrogate/Tracer Recovery Lower Estimation
Surr	Surrogate/Tracer Recovery Lower Rejection
Surr	Surrogate/Tracer Recovery Upper Estimation
Surr	Surrogate/Tracer Recovery Upper Rejection
Tb	Trip Blank Contamination
TempEst	Temperature Estimation
TempRej	Temperature Rejection

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 11196A **Laboratory: R9LAB**

EDD Filename: 11196a_bod_SEDD_2aREV_LCS **eQAPP Name: Modesto_Site_070810s**

No Data Review Qualifiers Applied.

Data Qualifier Summary

Lab Reporting Batch ID: 11196A **Laboratory: R9LAB**

EDD Filename: 11196a_solids_sedd_2a_RPD_LCS **eQAPP Name: Modesto_Site_070810s**

No Data Review Qualifiers Applied.

SDG 11196B

Data Qualifier Summary

Lab Reporting Batch ID: 11196B **Laboratory: R9LAB**

EDD Filename: 11196B_TO-15_1107032 FINAL_edited_rev **eQAPP Name: Modesto_Site_090711**

Method Category: **VOA**

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

Sample ID: **GWTP Pre GAC-0703** ***Collected:*** **7/14/2011 11:25:00** ***Analysis Type:*** **Reinjection-01** ***Dilution:*** **2.04**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,1-DICHLOROETHANE	2.0	J,U,Q2	1.0	MDL	2.0	MRL	ppbv	UJ	Lcs
CIS-1,2-DICHLOROETHENE	2.0	J,U,Q2	1.0	MDL	2.0	MRL	ppbv	UJ	Lcs

Sample ID: **GWTP Stack-0703** ***Collected:*** **7/14/2011 11:15:00** ***Analysis Type:*** **Reinjection-01** ***Dilution:*** **2.25**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,1-DICHLOROETHANE	2.2	J,U,Q2	1.1	MDL	2.2	MRL	ppbv	UJ	Lcs
CIS-1,2-DICHLOROETHENE	2.2	J,U,Q2	1.1	MDL	2.2	MRL	ppbv	UJ	Lcs

Sample ID: **SVE Pre GAC-0703** ***Collected:*** **7/14/2011 11:55:00** ***Analysis Type:*** **Reinjection-01** ***Dilution:*** **2.23**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,1-DICHLOROETHANE	2.2	J,U,Q2	1.1	MDL	2.2	MRL	ppbv	UJ	Lcs
CIS-1,2-DICHLOROETHENE	2.2	J,U,Q2	1.1	MDL	2.2	MRL	ppbv	UJ	Lcs

Sample ID: **SVE Stack-0703** ***Collected:*** **7/14/2011 11:50:00** ***Analysis Type:*** **Initial** ***Dilution:*** **2.21**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,1-DICHLOROETHANE	2.2	J,U,Q2	1.1	MDL	2.2	MRL	ppbv	UJ	Lcs
CHLOROFORM	1.8	J,C1	1.1	MDL	2.2	MRL	ppbv	J	Rl
CIS-1,2-DICHLOROETHENE	2.2	J,U,Q2	1.1	MDL	2.2	MRL	ppbv	UJ	Lcs

* denotes a non-reportable result

Project Name and Number: R11S84 - Modesto GW Treatment System Summer 2011 Sampling

Data Qualifier Summary

Lab Reporting Batch ID: 11196B **Laboratory: R9LAB**

EDD Filename: 11196B_TO-15_1107032 FINAL_edited_rev **eQAPP Name: Modesto_Site_090711**

Reason Code Legend

Reason Code	*Description*
Cb	Calibration Blank Contamination
Ccv	Continuing Calibration Verification Percent Difference Lower Estimation
Ccv	Continuing Calibration Verification Percent Difference Lower Rejection
Ccv	Continuing Calibration Verification Percent Difference Upper Estimation
Ccv	Continuing Calibration Verification Percent Difference Upper Rejection
Ccv	Continuing Calibration Verification Percent Recovery Lower Estimation
Ccv	Continuing Calibration Verification Percent Recovery Lower Rejection
Ccv	Continuing Calibration Verification Percent Recovery Upper Estimation
Ccv	Continuing Calibration Verification Percent Recovery Upper Rejection
CcvCC	Continuing Calibration Verification Correlation Coefficient
CcvRrf	Continuing Calibration Verification Relative Response Factor
ContTune	Continuing Tune
Dup=0	Duplicate Sample Count = 0
Dup>1	Duplicate Sample Count > 1
Eb	Equipment Blank Contamination
EtoA	Extraction to Analysis Estimation
EtoA	Extraction to Analysis Rejection
Fb	Field Blank Contamination
Fd	Field Duplicate Precision
Ft	Field Triplicate Precision
IcCC	Initial Calibration Correlation Coefficient
IcRrf	Initial Calibration Relative Response Factor
IcRsd	Initial Calibration Percent Relative Standard Deviation
Icv	Initial Calibration Verification Percent Difference Lower Estimation
Icv	Initial Calibration Verification Percent Difference Lower Rejection
Icv	Initial Calibration Verification Percent Difference Upper Estimation
Icv	Initial Calibration Verification Percent Difference Upper Rejection
Icv	Initial Calibration Verification Percent Recovery Lower Estimation
Icv	Initial Calibration Verification Percent Recovery Lower Rejection

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 11196B **Laboratory: R9LAB**

EDD Filename: 11196B_TO-15_1107032 FINAL_edited_rev **eQAPP Name: Modesto_Site_090711**

Icv	Initial Calibration Verification Percent Recovery Upper Estimation
Icv	Initial Calibration Verification Percent Recovery Upper Rejection
IcvCC	Initial Calibration Verification Correlation Coefficient
IcvRrf	Initial Calibration Verification Relative Response Factor
IllogicalFraction	Illogical Fraction
InitTune	Initial Tune
Is	Internal Standard Estimation
Is	Internal Standard Rejection
Lcs	Laboratory Control Precision
Lcs	Laboratory Control Spike Lower Estimation
Lcs	Laboratory Control Spike Lower Rejection
Lcs	Laboratory Control Spike Upper Estimation
Lcs	Laboratory Control Spike Upper Rejection
Lcs=0	Laboratory Control Sample Count = 0
Lcs>1	Laboratory Control Sample Count > 1
Ld	Laboratory Duplicate Precision
Lt	Laboratory Triplicate Precision
Mb	Method Blank Contamination
Mb=0	Method Blank Sample Count = 0
Mb>1	Method Blank Sample Count > 1
Moist	Percent Moisture
Ms	Matrix Spike Lower Estimation
Ms	Matrix Spike Lower Rejection
Ms	Matrix Spike Precision
Ms	Matrix Spike Upper Estimation
Ms	Matrix Spike Upper Rejection
Ms=0	Matrix Spike Sample Count = 0
Ms>1	Matrix Spike Sample Count > 1
PEM	Performance Evaluation Mixture
Preservation	Preservation
ProfJudg	Professional Judgment
REM	Resolution Check Mixture

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 11196B **Laboratory: R9LAB**

EDD Filename: 11196B_TO-15_1107032 FINAL_edited_rev **eQAPP Name: Modesto_Site_090711**

Rl	Reporting Limit
Rl	Reporting Limit > Project Maximum Contamination Limit
Rl	Reporting Limit Trace Value
StoA	Sampling to Analysis Estimation
StoA	Sampling to Analysis Rejection
StoE	Sampling to Extraction Estimation
StoE	Sampling to Extraction Rejection
StoL	Sampling to Leaching Estimation
StoL	Sampling to Leaching Rejection
Surr	Surrogate/Tracer Recovery Lower Estimation
Surr	Surrogate/Tracer Recovery Lower Rejection
Surr	Surrogate/Tracer Recovery Upper Estimation
Surr	Surrogate/Tracer Recovery Upper Rejection
Tb	Trip Blank Contamination
TempEst	Temperature Estimation
TempRej	Temperature Rejection

* denotes a non-reportable result

SDG 11224B

Data Qualifier Summary

Lab Reporting Batch ID: 11224B **Laboratory: R9LAB**

EDD Filename: 11224B_VOC_1108035 FINAL_rev090911_rev3 **eQAPP Name: Modesto_Site_090711**

Reason Code Legend

Reason Code	Description
Cb	Calibration Blank Contamination
Ccv	Continuing Calibration Verification Percent Difference Lower Estimation
Ccv	Continuing Calibration Verification Percent Difference Lower Rejection
Ccv	Continuing Calibration Verification Percent Difference Upper Estimation
Ccv	Continuing Calibration Verification Percent Difference Upper Rejection
Ccv	Continuing Calibration Verification Percent Recovery Lower Estimation
Ccv	Continuing Calibration Verification Percent Recovery Lower Rejection
Ccv	Continuing Calibration Verification Percent Recovery Upper Estimation
Ccv	Continuing Calibration Verification Percent Recovery Upper Rejection
CcvCC	Continuing Calibration Verification Correlation Coefficient
CcvRrf	Continuing Calibration Verification Relative Response Factor
ContTune	Continuing Tune
Dup=0	Duplicate Sample Count = 0
Dup>1	Duplicate Sample Count > 1
Eb	Equipment Blank Contamination
EtoA	Extraction to Analysis Estimation
EtoA	Extraction to Analysis Rejection
Fb	Field Blank Contamination
Fd	Field Duplicate Precision
Ft	Field Triplicate Precision
IcCC	Initial Calibration Correlation Coefficient
IcRrf	Initial Calibration Relative Response Factor
IcRsd	Initial Calibration Percent Relative Standard Deviation
Icv	Initial Calibration Verification Percent Difference Lower Estimation
Icv	Initial Calibration Verification Percent Difference Lower Rejection
Icv	Initial Calibration Verification Percent Difference Upper Estimation
Icv	Initial Calibration Verification Percent Difference Upper Rejection
Icv	Initial Calibration Verification Percent Recovery Lower Estimation
Icv	Initial Calibration Verification Percent Recovery Lower Rejection

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 11224B **Laboratory: R9LAB**

EDD Filename: 11224B_VOC_1108035 FINAL_rev090911_rev3 **eQAPP Name: Modesto_Site_090711**

Icv	Initial Calibration Verification Percent Recovery Upper Estimation
Icv	Initial Calibration Verification Percent Recovery Upper Rejection
IcvCC	Initial Calibration Verification Correlation Coefficient
IcvRrf	Initial Calibration Verification Relative Response Factor
IllogicalFraction	Illogical Fraction
InitTune	Initial Tune
Is	Internal Standard Estimation
Is	Internal Standard Rejection
Lcs	Laboratory Control Precision
Lcs	Laboratory Control Spike Lower Estimation
Lcs	Laboratory Control Spike Lower Rejection
Lcs	Laboratory Control Spike Upper Estimation
Lcs	Laboratory Control Spike Upper Rejection
Lcs=0	Laboratory Control Sample Count = 0
Lcs>1	Laboratory Control Sample Count > 1
Ld	Laboratory Duplicate Precision
Lt	Laboratory Triplicate Precision
Mb	Method Blank Contamination
Mb=0	Method Blank Sample Count = 0
Mb>1	Method Blank Sample Count > 1
Moist	Percent Moisture
Ms	Matrix Spike Lower Estimation
Ms	Matrix Spike Lower Rejection
Ms	Matrix Spike Precision
Ms	Matrix Spike Upper Estimation
Ms	Matrix Spike Upper Rejection
Ms=0	Matrix Spike Sample Count = 0
Ms>1	Matrix Spike Sample Count > 1
PEM	Performance Evaluation Mixture
Preservation	Preservation
ProfJudg	Professional Judgment
REM	Resolution Check Mixture

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 11224B **Laboratory: R9LAB**

EDD Filename: 11224B_VOC_1108035 FINAL_rev090911_rev3 **eQAPP Name: Modesto_Site_090711**

Rl	Reporting Limit
Rl	Reporting Limit > Project Maximum Contamination Limit
Rl	Reporting Limit Trace Value
StoA	Sampling to Analysis Estimation
StoA	Sampling to Analysis Rejection
StoE	Sampling to Extraction Estimation
StoE	Sampling to Extraction Rejection
StoL	Sampling to Leaching Estimation
StoL	Sampling to Leaching Rejection
Surr	Surrogate/Tracer Recovery Lower Estimation
Surr	Surrogate/Tracer Recovery Lower Rejection
Surr	Surrogate/Tracer Recovery Upper Estimation
Surr	Surrogate/Tracer Recovery Upper Rejection
Tb	Trip Blank Contamination
TempEst	Temperature Estimation
TempRej	Temperature Rejection

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 11224B **Laboratory: R9LAB**

EDD Filename: 11224B_VOC_1108035 FINAL_rev090911_rev3 **eQAPP Name: Modesto_Site_090711**

Method Category: **VOA**

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

Sample ID: **EFF-0802** ***Collected:*** **8/11/2011 10:35:00** ***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
TETRACHLOROETHENE	0.4	J	0.2	MDL	0.5	MRL	ug/L	J	Rl

Sample ID: **EW-1-0802** ***Collected:*** **8/11/2011 11:05:00** ***Analysis Type:*** **Reinjection-01-** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NAPHTHALENE	0.5	J,U,A-01,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

Sample ID: **MW-302-3Q11** ***Collected:*** **8/11/2011 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
METHYLENE CHLORIDE	0.3	J,C1,Q3	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
TOLUENE	0.4	J,C1	0.2	MDL	0.5	MRL	ug/L	J	Rl

* denotes a non-reportable result

Project Name and Number: R11S84 - Modesto GW Treatment System Summer 2011 Sampling

Data Qualifier Summary

Lab Reporting Batch ID: 11224B **Laboratory: R9LAB**

EDD Filename: 11224B_tds_tss_RPD_LCS **eQAPP Name: Modesto_Site_070810s**

No Data Review Qualifiers Applied.

Data Qualifier Summary

Lab Reporting Batch ID: 11224B **Laboratory: R9LAB**

EDD Filename: 11124B_BOD_1108035 FINAL_LCS **eQAPP Name: Modesto_Site_070810s**

Method Category: **GENCHEM**

Method: **5210B** ***Matrix:*** **Water**

Sample ID: **EFF-0802** ***Collected:*** **8/11/2011 10:35:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Biochemical Oxygen Demand	2.0	<,Q2	2.0	MDL	2.0	MRL	mg/L	J-	Lcs

* denotes a non-reportable result

Project Name and Number: R11S84 - Modesto GW Treatment System Summer 2011 Sampling

Data Qualifier Summary

Lab Reporting Batch ID: 11224B **Laboratory: R9LAB**

EDD Filename: 11124B_BOD_1108035 FINAL_LCS **eQAPP Name: Modesto_Site_070810s**

Reason Code Legend

Reason Code	Description
Cb	Calibration Blank Contamination
Ccv	Continuing Calibration Verification Percent Difference Lower Estimation
Ccv	Continuing Calibration Verification Percent Difference Lower Rejection
Ccv	Continuing Calibration Verification Percent Difference Upper Estimation
Ccv	Continuing Calibration Verification Percent Difference Upper Rejection
Ccv	Continuing Calibration Verification Percent Recovery Lower Estimation
Ccv	Continuing Calibration Verification Percent Recovery Lower Rejection
Ccv	Continuing Calibration Verification Percent Recovery Upper Estimation
Ccv	Continuing Calibration Verification Percent Recovery Upper Rejection
CcvCC	Continuing Calibration Verification Correlation Coefficient
CcvRrf	Continuing Calibration Verification Relative Response Factor
ContTune	Continuing Tune
Dup=0	Duplicate Sample Count = 0
Dup>1	Duplicate Sample Count > 1
Eb	Equipment Blank Contamination
EtoA	Extraction to Analysis Estimation
EtoA	Extraction to Analysis Rejection
Fb	Field Blank Contamination
Fd	Field Duplicate Precision
IcCC	Initial Calibration Correlation Coefficient
IcRrf	Initial Calibration Relative Response Factor
IcRsd	Initial Calibration Percent Relative Standard Deviation
Icv	Initial Calibration Verification Percent Difference Lower Estimation
Icv	Initial Calibration Verification Percent Difference Lower Rejection
Icv	Initial Calibration Verification Percent Difference Upper Estimation
Icv	Initial Calibration Verification Percent Difference Upper Rejection
Icv	Initial Calibration Verification Percent Recovery Lower Estimation
Icv	Initial Calibration Verification Percent Recovery Lower Rejection
Icv	Initial Calibration Verification Percent Recovery Upper Estimation
Icv	Initial Calibration Verification Percent Recovery Upper Rejection

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 11224B **Laboratory: R9LAB**

EDD Filename: 11124B_BOD_1108035 FINAL_LCS **eQAPP Name: Modesto_Site_070810s**

IcvCC	Initial Calibration Verification Correlation Coefficient
IcvRrf	Initial Calibration Verification Relative Response Factor
IllogicalFraction	Illogical Fraction
InitTune	Initial Tune
Is	Internal Standard Estimation
Is	Internal Standard Rejection
Lcs	Laboratory Control Precision
Lcs	Laboratory Control Spike Lower Estimation
Lcs	Laboratory Control Spike Lower Rejection
Lcs	Laboratory Control Spike Upper Estimation
Lcs	Laboratory Control Spike Upper Rejection
Lcs=0	Laboratory Control Sample Count = 0
Lcs>1	Laboratory Control Sample Count > 1
Ld	Laboratory Duplicate Precision
Mb	Method Blank Contamination
Mb=0	Method Blank Sample Count = 0
Mb>1	Method Blank Sample Count > 1
Moist	Percent Moisture
Ms	Matrix Spike Lower Estimation
Ms	Matrix Spike Lower Rejection
Ms	Matrix Spike Precision
Ms	Matrix Spike Upper Estimation
Ms	Matrix Spike Upper Rejection
Ms=0	Matrix Spike Sample Count = 0
Ms>1	Matrix Spike Sample Count > 1
PEM	Performance Evaluation Mixture
Preservation	Preservation
ProfJudg	Professional Judgment
REM	Resolution Check Mixture
RI	Reporting Limit
RI	Reporting Limit > Project Maximum Contamination Limit
RI	Reporting Limit Trace Value

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 11224B **Laboratory: R9LAB**

EDD Filename: 11124B_BOD_1108035 FINAL_LCS **eQAPP Name: Modesto_Site_070810s**

StoA	Sampling to Analysis Estimation
StoA	Sampling to Analysis Rejection
StoE	Sampling to Extraction Estimation
StoE	Sampling to Extraction Rejection
StoL	Sampling to Leaching Estimation
StoL	Sampling to Leaching Rejection
Surr	Surrogate/Tracer Recovery Lower Estimation
Surr	Surrogate/Tracer Recovery Lower Rejection
Surr	Surrogate/Tracer Recovery Upper Estimation
Surr	Surrogate/Tracer Recovery Upper Rejection
Tb	Trip Blank Contamination
TempEst	Temperature Estimation
TempRej	Temperature Rejection

* denotes a non-reportable result

SDG 11224C

Data Qualifier Summary

Lab Reporting Batch ID: 11224C **Laboratory: R9LAB**

EDD Filename: 11124C_TO-15_1108036 FINAL_edited **eQAPP Name: Modesto_Site_090711**

Method Category: **VOA**

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

Sample ID: **GWTP Stack-0802** ***Collected:*** **8/11/2011 11:50:00** ***Analysis Type:*** **Reinjection-01** ***Dilution:*** **2.35**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZENE	1.2	J,C1	1.2	MDL	2.4	MRL	ppbv	J	RI

Sample ID: **SVE Stack-0802** ***Collected:*** **8/11/2011 12:15:00** ***Analysis Type:*** **Initial** ***Dilution:*** **2.38**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TETRACHLOROETHENE	2.1	J,C1	1.2	MDL	2.4	MRL	ppbv	J	RI

* denotes a non-reportable result

Project Name and Number: R11S84 - Modesto GW Treatment System Summer 2011 Sampling

Data Qualifier Summary

Lab Reporting Batch ID: 11224C **Laboratory: R9LAB**

EDD Filename: 11124C_TO-15_1108036 FINAL_edited **eQAPP Name: Modesto_Site_090711**

Reason Code Legend

Reason Code	Description
Cb	Calibration Blank Contamination
Ccv	Continuing Calibration Verification Percent Difference Lower Estimation
Ccv	Continuing Calibration Verification Percent Difference Lower Rejection
Ccv	Continuing Calibration Verification Percent Difference Upper Estimation
Ccv	Continuing Calibration Verification Percent Difference Upper Rejection
Ccv	Continuing Calibration Verification Percent Recovery Lower Estimation
Ccv	Continuing Calibration Verification Percent Recovery Lower Rejection
Ccv	Continuing Calibration Verification Percent Recovery Upper Estimation
Ccv	Continuing Calibration Verification Percent Recovery Upper Rejection
CcvCC	Continuing Calibration Verification Correlation Coefficient
CcvRrf	Continuing Calibration Verification Relative Response Factor
ContTune	Continuing Tune
Dup=0	Duplicate Sample Count = 0
Dup>1	Duplicate Sample Count > 1
Eb	Equipment Blank Contamination
EtoA	Extraction to Analysis Estimation
EtoA	Extraction to Analysis Rejection
Fb	Field Blank Contamination
Fd	Field Duplicate Precision
Ft	Field Triplicate Precision
IcCC	Initial Calibration Correlation Coefficient
IcRrf	Initial Calibration Relative Response Factor
IcRsd	Initial Calibration Percent Relative Standard Deviation
Icv	Initial Calibration Verification Percent Difference Lower Estimation
Icv	Initial Calibration Verification Percent Difference Lower Rejection
Icv	Initial Calibration Verification Percent Difference Upper Estimation
Icv	Initial Calibration Verification Percent Difference Upper Rejection
Icv	Initial Calibration Verification Percent Recovery Lower Estimation
Icv	Initial Calibration Verification Percent Recovery Lower Rejection
Icv	Initial Calibration Verification Percent Recovery Upper Estimation

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 11224C **Laboratory: R9LAB**

EDD Filename: 11124C_TO-15_1108036 FINAL_edited **eQAPP Name: Modesto_Site_090711**

Icv	Initial Calibration Verification Percent Recovery Upper Rejection
IcvCC	Initial Calibration Verification Correlation Coefficient
IcvRrf	Initial Calibration Verification Relative Response Factor
IllogicalFraction	Illogical Fraction
InitTune	Initial Tune
Is	Internal Standard Estimation
Is	Internal Standard Rejection
Lcs	Laboratory Control Precision
Lcs	Laboratory Control Spike Lower Estimation
Lcs	Laboratory Control Spike Lower Rejection
Lcs	Laboratory Control Spike Upper Estimation
Lcs	Laboratory Control Spike Upper Rejection
Lcs=0	Laboratory Control Sample Count = 0
Lcs>1	Laboratory Control Sample Count > 1
Ld	Laboratory Duplicate Precision
Lt	Laboratory Triplicate Precision
Mb	Method Blank Contamination
Mb=0	Method Blank Sample Count = 0
Mb>1	Method Blank Sample Count > 1
Moist	Percent Moisture
Ms	Matrix Spike Lower Estimation
Ms	Matrix Spike Lower Rejection
Ms	Matrix Spike Precision
Ms	Matrix Spike Upper Estimation
Ms	Matrix Spike Upper Rejection
Ms=0	Matrix Spike Sample Count = 0
Ms>1	Matrix Spike Sample Count > 1
PEM	Performance Evaluation Mixture
Preservation	Preservation
ProfJudg	Professional Judgment
REM	Resolution Check Mixture
Rl	Reporting Limit

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 11224C **Laboratory: R9LAB**

EDD Filename: 11124C_TO-15_1108036 FINAL_edited **eQAPP Name: Modesto_Site_090711**

Rl	Reporting Limit > Project Maximum Contamination Limit
Rl	Reporting Limit Trace Value
StoA	Sampling to Analysis Estimation
StoA	Sampling to Analysis Rejection
StoE	Sampling to Extraction Estimation
StoE	Sampling to Extraction Rejection
StoL	Sampling to Leaching Estimation
StoL	Sampling to Leaching Rejection
Surr	Surrogate/Tracer Recovery Lower Estimation
Surr	Surrogate/Tracer Recovery Lower Rejection
Surr	Surrogate/Tracer Recovery Upper Estimation
Surr	Surrogate/Tracer Recovery Upper Rejection
Tb	Trip Blank Contamination
TempEst	Temperature Estimation
TempRej	Temperature Rejection

* denotes a non-reportable result

SDG 11252B

Data Qualifier Summary

Lab Reporting Batch ID: 11252B **Laboratory: R9LAB**

EDD Filename: 11252B_voc_1109022_rev1 **eQAPP Name: Modesto_Site_090711**

Method Category: **VOA**

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

Sample ID: **MW-17A-3Q11** ***Collected:*** **9/8/2011 10:38:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	4.0	J,U,C3	2.0	MDL	4.0	MRL	ug/L	UJ	IcRsd
BROMODICHLOROMETHANE	0.3	J,C1	0.2	MDL	0.5	MRL	ug/L	J	RI
CARBON TETRACHLORIDE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
CHLOROFORM	5.7		0.2	MDL	0.5	MRL	ug/L	U	Tb
TETRACHLOROETHENE	0.4	J,C1	0.2	MDL	0.5	MRL	ug/L	J	RI

Sample ID: **MW-17B-3Q11** ***Collected:*** **9/8/2011 12:15:00** ***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,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	Ccv
ACETONE	4.0	J,U,C3	2.0	MDL	4.0	MRL	ug/L	UJ	IcRsd
BROMOMETHANE	0.5	J,U,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	Ccv
CARBON TETRACHLORIDE	0.5	J,U,C3,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd, Ccv

Sample ID: **MW-17C-3Q11** ***Collected:*** **9/8/2011 11:25:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	2.1	J,C1,C3	2.0	MDL	4.0	MRL	ug/L	UJ	Mb, IcRsd, Tb
CARBON TETRACHLORIDE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

Sample ID: **MW-18A-3Q11** ***Collected:*** **9/7/2011 12:25:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	4.0	J,U,C3	2.0	MDL	4.0	MRL	ug/L	UJ	IcRsd
CARBON TETRACHLORIDE	0.5	J,U,C3,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd, Ccv
CHLOROFORM	4.3		0.2	MDL	0.5	MRL	ug/L	U	Tb
ETHYLBENZENE	0.3	J,C1	0.2	MDL	0.5	MRL	ug/L	J	RI
O-XYLENE	0.3	J,C1	0.2	MDL	0.5	MRL	ug/L	J	RI
TOLUENE	0.4	J,C1	0.2	MDL	0.5	MRL	ug/L	J	RI

Sample ID: **MW-19A-3Q11** ***Collected:*** **9/6/2011 2:10:00 PM** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	4.0	J,U,C3	2.0	MDL	4.0	MRL	ug/L	UJ	IcRsd
CARBON TETRACHLORIDE	0.5	J,U,Q3,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd, Ccv

* denotes a non-reportable result

Project Name and Number: R11SA1 - Modesto Groundwater Sept 2011 Qtrly Monitoring

Data Qualifier Summary

Lab Reporting Batch ID: 11252B **Laboratory: R9LAB**

EDD Filename: 11252B_voc_1109022_rev1 **eQAPP Name: Modesto_Site_090711**

Method Category: **VOA**

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

Sample ID: **MW-19A-3Q11** ***Collected:*** **9/6/2011 2:10:00 PM** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHLOROFORM	1.3		0.2	MDL	0.5	MRL	ug/L	U	Tb

Sample ID: **MW-19B-3Q11** ***Collected:*** **9/7/2011 8:33:00 AM** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	4.0	J,U,C3	2.0	MDL	4.0	MRL	ug/L	UJ	IcRsd
CARBON TETRACHLORIDE	0.5	J,U,C3,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd, Ccv
TETRACHLOROETHENE	0.3	J,C1	0.2	MDL	0.5	MRL	ug/L	J	Rl

Sample ID: **MW-1A-3Q11** ***Collected:*** **9/7/2011 12:20:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	4.0	J,U,C3	2.0	MDL	4.0	MRL	ug/L	UJ	IcRsd
CARBON TETRACHLORIDE	0.5	J,U,C3,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd, Ccv

Sample ID: **MW-2A-3Q11** ***Collected:*** **9/7/2011 9:21:00 AM** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,1,2-TRICHLOROETHANE	0.3	J,C1	0.2	MDL	0.5	MRL	ug/L	J	Rl
ACETONE	4.0	J,U,C3	2.0	MDL	4.0	MRL	ug/L	UJ	IcRsd
CARBON TETRACHLORIDE	0.5	J,U,C3,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd, Ccv
CHLOROFORM	2.3		0.2	MDL	0.5	MRL	ug/L	U	Tb

Sample ID: **MW-3A-3Q11** ***Collected:*** **9/7/2011 7:20:00 AM** ***Analysis Type:*** **Reinjection-01** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	4.0	J,U,C3	2.0	MDL	4.0	MRL	ug/L	UJ	IcRsd
CARBON TETRACHLORIDE	0.5	J,U,C3,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd, Ccv
CHLOROFORM	2.1		0.2	MDL	0.5	MRL	ug/L	U	Tb

Sample ID: **MW-4A-3Q11** ***Collected:*** **9/6/2011 8:39:00 AM** ***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,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	Ccv
ACETONE	4.0	J,U,C3	2.0	MDL	4.0	MRL	ug/L	UJ	IcRsd

* denotes a non-reportable result

Project Name and Number: R11SA1 - Modesto Groundwater Sept 2011 Qtrly Monitoring

Data Qualifier Summary

Lab Reporting Batch ID: 11252B **Laboratory: R9LAB**

EDD Filename: 11252B_voc_1109022_rev1 **eQAPP Name: Modesto_Site_090711**

Method Category: **VOA**

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

Sample ID: **MW-4A-3Q11** ***Collected:*** **9/6/2011 8:39:00 AM** ***Analysis Type:*** **Reanalysis-011** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BROMOMETHANE	0.5	J,U,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	Ccv
CARBON TETRACHLORIDE	0.5	J,U,C3,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd, Ccv
CHLOROFORM	1.8		0.2	MDL	0.5	MRL	ug/L	U	Tb

Sample ID: **MW-4B-3Q11** ***Collected:*** **9/7/2011 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
ACETONE	4.0	J,U,C3	2.0	MDL	4.0	MRL	ug/L	UJ	IcRsd
CARBON TETRACHLORIDE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
ETHYLBENZENE	0.3	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
O-XYLENE	0.2	J,C1	0.2	MDL	0.5	MRL	ug/L	J	RI
TOLUENE	0.3	J,C1	0.2	MDL	0.5	MRL	ug/L	J	RI

Sample ID: **MW-4C-3Q11** ***Collected:*** **9/7/2011 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
ACETONE	4.0	J,U,C3	2.0	MDL	4.0	MRL	ug/L	UJ	IcRsd
CARBON TETRACHLORIDE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

Sample ID: **MW-5A-3Q11** ***Collected:*** **9/7/2011 9:53:00 AM** ***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,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	Ccv
ACETONE	2.2	J,C1,C3	2.0	MDL	4.0	MRL	ug/L	UJ	IcRsd, Tb
BROMOMETHANE	0.5	J,U,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	Ccv
CARBON TETRACHLORIDE	0.5	J,U,C3,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd, Ccv
CHLOROFORM	1.9		0.2	MDL	0.5	MRL	ug/L	U	Tb

Sample ID: **MW-6A-3Q11** ***Collected:*** **9/6/2011 1:47:00 PM** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	4.0	J,U,C3	2.0	MDL	4.0	MRL	ug/L	UJ	IcRsd
BROMODICHLOROMETHANE	0.4	J,C1	0.2	MDL	0.5	MRL	ug/L	J	RI
CARBON TETRACHLORIDE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

* denotes a non-reportable result

Project Name and Number: R11SA1 - Modesto Groundwater Sept 2011 Qtrly Monitoring

Data Qualifier Summary

Lab Reporting Batch ID: 11252B **Laboratory: R9LAB**

EDD Filename: 11252B_voc_1109022_rev1 **eQAPP Name: Modesto_Site_090711**

Method Category: **VOA**

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

Sample ID: **MW-6A-3Q11** ***Collected:*** **9/6/2011 1:47:00 PM** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHLOROFORM	9.4		0.2	MDL	0.5	MRL	ug/L	U	Tb

Sample ID: **MW-7A-3Q11** ***Collected:*** **9/6/2011 10:26:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	4.0	J,U,C3	2.0	MDL	4.0	MRL	ug/L	UJ	IcRsd
CARBON TETRACHLORIDE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
CHLOROFORM	1.4		0.2	MDL	0.5	MRL	ug/L	U	Tb

Sample ID: **MW-81A-3Q11** ***Collected:*** **9/6/2011 2:10:00 PM** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	4.0	J,U,C3	2.0	MDL	4.0	MRL	ug/L	UJ	IcRsd
CARBON TETRACHLORIDE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
CHLOROFORM	1.4		0.2	MDL	0.5	MRL	ug/L	U	Tb

Sample ID: **MW-86A-3Q11** ***Collected:*** **9/6/2011 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
ACETONE	4.0	J,U,C3	2.0	MDL	4.0	MRL	ug/L	UJ	IcRsd
CARBON TETRACHLORIDE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
CHLOROFORM	2.7		0.2	MDL	0.5	MRL	ug/L	U	Tb

Sample ID: **MW-8A-3Q11** ***Collected:*** **9/7/2011 10:48:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	4.0	J,U,C3	2.0	MDL	4.0	MRL	ug/L	UJ	IcRsd
CARBON TETRACHLORIDE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd, Ccv
CHLOROFORM	11		0.2	MDL	0.5	MRL	ug/L	U	Tb

Sample ID: **MW-96B-3Q11** ***Collected:*** **9/7/2011 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	0.3	J,C1	0.2	MDL	0.5	MRL	ug/L	J	RI
1,2-DICHLOROETHANE	0.4	J,C1	0.2	MDL	0.5	MRL	ug/L	J	RI

* denotes a non-reportable result

Project Name and Number: R11SA1 - Modesto Groundwater Sept 2011 Qtrly Monitoring

Data Qualifier Summary

Lab Reporting Batch ID: 11252B **Laboratory: R9LAB**

EDD Filename: 11252B_voc_1109022_rev1 **eQAPP Name: Modesto_Site_090711**

Method Category: **VOA**

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

Sample ID: **MW-96B-3Q11** ***Collected:*** **9/7/2011 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
ACETONE	2.2	J,C1,C3	2.0	MDL	4.0	MRL	ug/L	UJ	IcRsd, Tb
CARBON TETRACHLORIDE	0.5	J,U,C3,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

Sample ID: **MW-9B-3Q11** ***Collected:*** **9/7/2011 11:35:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	4.0	J,U,C3	2.0	MDL	4.0	MRL	ug/L	UJ	IcRsd
CARBON TETRACHLORIDE	0.5	J,U,C3,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd, Ccv

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 11252B **Laboratory: R9LAB**

EDD Filename: 11252B_voc_1109022_rev1 **eQAPP Name: Modesto_Site_090711**

Reason Code Legend

Reason Code	Description
Cb	Calibration Blank Contamination
Ccv	Continuing Calibration Verification Percent Difference Lower Estimation
Ccv	Continuing Calibration Verification Percent Difference Lower Rejection
Ccv	Continuing Calibration Verification Percent Difference Upper Estimation
Ccv	Continuing Calibration Verification Percent Difference Upper Rejection
Ccv	Continuing Calibration Verification Percent Recovery Lower Estimation
Ccv	Continuing Calibration Verification Percent Recovery Lower Rejection
Ccv	Continuing Calibration Verification Percent Recovery Upper Estimation
Ccv	Continuing Calibration Verification Percent Recovery Upper Rejection
CcvCC	Continuing Calibration Verification Correlation Coefficient
CcvRrf	Continuing Calibration Verification Relative Response Factor
ContTune	Continuing Tune
Dup=0	Duplicate Sample Count = 0
Dup>1	Duplicate Sample Count > 1
Eb	Equipment Blank Contamination
EtoA	Extraction to Analysis Estimation
EtoA	Extraction to Analysis Rejection
Fb	Field Blank Contamination
Fd	Field Duplicate Precision
Ft	Field Triplicate Precision
IcCC	Initial Calibration Correlation Coefficient
IcRrf	Initial Calibration Relative Response Factor
IcRsd	Initial Calibration Percent Relative Standard Deviation
Icv	Initial Calibration Verification Percent Difference Lower Estimation
Icv	Initial Calibration Verification Percent Difference Lower Rejection
Icv	Initial Calibration Verification Percent Difference Upper Estimation
Icv	Initial Calibration Verification Percent Difference Upper Rejection
Icv	Initial Calibration Verification Percent Recovery Lower Estimation
Icv	Initial Calibration Verification Percent Recovery Lower Rejection
Icv	Initial Calibration Verification Percent Recovery Upper Estimation

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 11252B **Laboratory: R9LAB**

EDD Filename: 11252B_voc_1109022_rev1 **eQAPP Name: Modesto_Site_090711**

Icv	Initial Calibration Verification Percent Recovery Upper Rejection
IcvCC	Initial Calibration Verification Correlation Coefficient
IcvRrf	Initial Calibration Verification Relative Response Factor
IllogicalFraction	Illogical Fraction
InitTune	Initial Tune
Is	Internal Standard Estimation
Is	Internal Standard Rejection
Lcs	Laboratory Control Precision
Lcs	Laboratory Control Spike Lower Estimation
Lcs	Laboratory Control Spike Lower Rejection
Lcs	Laboratory Control Spike Upper Estimation
Lcs	Laboratory Control Spike Upper Rejection
Lcs=0	Laboratory Control Sample Count = 0
Lcs>1	Laboratory Control Sample Count > 1
Ld	Laboratory Duplicate Precision
Lt	Laboratory Triplicate Precision
Mb	Method Blank Contamination
Mb=0	Method Blank Sample Count = 0
Mb>1	Method Blank Sample Count > 1
Moist	Percent Moisture
Ms	Matrix Spike Lower Estimation
Ms	Matrix Spike Lower Rejection
Ms	Matrix Spike Precision
Ms	Matrix Spike Upper Estimation
Ms	Matrix Spike Upper Rejection
Ms=0	Matrix Spike Sample Count = 0
Ms>1	Matrix Spike Sample Count > 1
PEM	Performance Evaluation Mixture
Preservation	Preservation
ProfJudg	Professional Judgment
REM	Resolution Check Mixture
Rl	Reporting Limit

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 11252B **Laboratory: R9LAB**

EDD Filename: 11252B_voc_1109022_rev1 **eQAPP Name: Modesto_Site_090711**

Rl	Reporting Limit > Project Maximum Contamination Limit
Rl	Reporting Limit Trace Value
StoA	Sampling to Analysis Estimation
StoA	Sampling to Analysis Rejection
StoE	Sampling to Extraction Estimation
StoE	Sampling to Extraction Rejection
StoL	Sampling to Leaching Estimation
StoL	Sampling to Leaching Rejection
Surr	Surrogate/Tracer Recovery Lower Estimation
Surr	Surrogate/Tracer Recovery Lower Rejection
Surr	Surrogate/Tracer Recovery Upper Estimation
Surr	Surrogate/Tracer Recovery Upper Rejection
Tb	Trip Blank Contamination
TempEst	Temperature Estimation
TempRej	Temperature Rejection

* denotes a non-reportable result

SDG 11252C

Data Qualifier Summary

Lab Reporting Batch ID: 11252C **Laboratory: R9LAB**

EDD Filename: 11252C_VOC_1109024 FINAL_rev2 **eQAPP Name: Modesto_Site_090711**

Method Category: **VOA**

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

Sample ID: **MW-10A-3Q11** ***Collected:*** **9/6/2011 1:15:00 PM** ***Analysis Type:*** **Reinjection-01** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	4.0	J,U,C3	2.0	MDL	4.0	MRL	ug/L	UJ	IcRsd
BROMODICHLOROMETHANE	0.3	J,C1	0.2	MDL	0.5	MRL	ug/L	J	RI
BROMOFORM	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
CARBON TETRACHLORIDE	0.5	U	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
CHLOROFORM	5.9		0.2	MDL	0.5	MRL	ug/L	U	Tb

Sample ID: **MW-10B-3Q11** ***Collected:*** **9/8/2011 9:30:00 AM** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	4.0	J,U,C3	2.0	MDL	4.0	MRL	ug/L	UJ	IcRsd
BROMOFORM	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
CARBON TETRACHLORIDE	0.5	U	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

Sample ID: **MW-10C-3Q11** ***Collected:*** **9/8/2011 8:40:00 AM** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	4.0	J,U,C3	2.0	MDL	4.0	MRL	ug/L	UJ	IcRsd
BROMOFORM	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
CARBON TETRACHLORIDE	0.5	U	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

Sample ID: **MW-11A-3Q11** ***Collected:*** **9/6/2011 11:00:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	4.0	J,U,C3	2.0	MDL	4.0	MRL	ug/L	UJ	IcRsd
BROMOFORM	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
CARBON TETRACHLORIDE	0.5	U	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
CHLOROFORM	5.6		0.2	MDL	0.5	MRL	ug/L	U	Tb

Sample ID: **MW-12A-3Q11** ***Collected:*** **9/7/2011 8:05:00 AM** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	4.0	J,U,C3	2.0	MDL	4.0	MRL	ug/L	UJ	IcRsd
BROMODICHLOROMETHANE	0.3	J,C1	0.2	MDL	0.5	MRL	ug/L	J	RI
BROMOFORM	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
CARBON TETRACHLORIDE	0.5	U	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

* denotes a non-reportable result

Project Name and Number: R11SA1 - Modesto Groundwater Sept 2011 Qtrly Monitoring

Data Qualifier Summary

Lab Reporting Batch ID: 11252C **Laboratory: R9LAB**

EDD Filename: 11252C_VOC_1109024 FINAL_rev2 **eQAPP Name: Modesto_Site_090711**

Method Category: **VOA**

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

Sample ID: **MW-12A-3Q11** ***Collected:*** **9/7/2011 8:05:00 AM** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHLOROFORM	5.9		0.2	MDL	0.5	MRL	ug/L	U	Tb
TRICHLOROFLUOROMETHANE	0.4	J,C1	0.2	MDL	0.5	MRL	ug/L	J	Rl

Sample ID: **MW-13A-3Q11** ***Collected:*** **9/6/2011 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
ACETONE	4.0	J,U,C3	2.0	MDL	4.0	MRL	ug/L	UJ	IcRsd
BROMOFORM	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
CARBON TETRACHLORIDE	0.5	U	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
CHLOROFORM	4.3		0.2	MDL	0.5	MRL	ug/L	U	Tb

Sample ID: **MW-14A-3Q11** ***Collected:*** **9/6/2011 11:39:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	4.0	J,U,C3	2.0	MDL	4.0	MRL	ug/L	UJ	IcRsd
BROMOFORM	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
CARBON TETRACHLORIDE	0.5	U	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
CHLOROFORM	1.9		0.2	MDL	0.5	MRL	ug/L	U	Tb

Sample ID: **MW-15A-3Q11** ***Collected:*** **9/6/2011 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
ACETONE	4.0	J,U,C3	2.0	MDL	4.0	MRL	ug/L	UJ	IcRsd
BROMOFORM	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
CARBON TETRACHLORIDE	0.5	U	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
CHLOROFORM	1.4		0.2	MDL	0.5	MRL	ug/L	U	Tb

Sample ID: **MW-16A-3Q11** ***Collected:*** **9/7/2011 1:20:00 PM** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	4.0	J,U,C3	2.0	MDL	4.0	MRL	ug/L	UJ	IcRsd
BROMOFORM	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
CARBON TETRACHLORIDE	0.5	U	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
CHLOROFORM	0.7		0.2	MDL	0.5	MRL	ug/L	U	Tb

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 11252C **Laboratory: R9LAB**

EDD Filename: 11252C_VOC_1109024 FINAL_rev2 **eQAPP Name: Modesto_Site_090711**

Method Category: **VOA**

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

Sample ID: **MW-16B-3Q11** ***Collected:*** **9/7/2011 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
1,3,5-TRIMETHYLBENZENE	0.2	J,C1	0.2	MDL	0.5	MRL	ug/L	J	Rl
ACETONE	4.6	J,C3	2.0	MDL	4.0	MRL	ug/L	UJ	IcRsd, Tb
BROMOFORM	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
CARBON TETRACHLORIDE	0.5	U	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
CHLOROFORM	0.6		0.2	MDL	0.5	MRL	ug/L	U	Tb

Sample ID: **MW-16C-3Q11** ***Collected:*** **9/7/2011 2:15:00 PM** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,4-TRIMETHYLBENZENE	0.3	J,C1	0.2	MDL	0.5	MRL	ug/L	J	Rl
1,2-DICHLOROPROPANE	0.3	J,C1	0.2	MDL	0.5	MRL	ug/L	J	Rl
ACETONE	4.0	J,U,C3	2.0	MDL	4.0	MRL	ug/L	UJ	IcRsd
BROMOFORM	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
CARBON TETRACHLORIDE	3.3		0.2	MDL	0.5	MRL	ug/L	J	IcRsd
CHLOROFORM	0.3	J,C1	0.2	MDL	0.5	MRL	ug/L	U	Tb

Sample ID: **MW-303-3Q11** ***Collected:*** **9/7/2011 7:00:00 AM** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	28	J,C3	2.0	MDL	4.0	MRL	ug/L	J	IcRsd
BROMOFORM	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
CARBON TETRACHLORIDE	0.5	U	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd

Sample ID: **MW-402-3Q11** ***Collected:*** **9/8/2011 9:25:00 AM** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-BUTANONE	2.3	J,C1	2.0	MDL	4.0	MRL	ug/L	J	Rl
ACETONE	34	J,C3	2.0	MDL	4.0	MRL	ug/L	UJ	IcRsd, Tb
BROMOFORM	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
CARBON TETRACHLORIDE	0.5	U	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
CHLOROFORM	3.5		0.2	MDL	0.5	MRL	ug/L	U	Tb

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 11252C **Laboratory: R9LAB**

EDD Filename: 11252C_VOC_1109024 FINAL_rev2 **eQAPP Name: Modesto_Site_090711**

Reason Code Legend

Reason Code	Description
Cb	Calibration Blank Contamination
Ccv	Continuing Calibration Verification Percent Difference Lower Estimation
Ccv	Continuing Calibration Verification Percent Difference Lower Rejection
Ccv	Continuing Calibration Verification Percent Difference Upper Estimation
Ccv	Continuing Calibration Verification Percent Difference Upper Rejection
Ccv	Continuing Calibration Verification Percent Recovery Lower Estimation
Ccv	Continuing Calibration Verification Percent Recovery Lower Rejection
Ccv	Continuing Calibration Verification Percent Recovery Upper Estimation
Ccv	Continuing Calibration Verification Percent Recovery Upper Rejection
CcvCC	Continuing Calibration Verification Correlation Coefficient
CcvRrf	Continuing Calibration Verification Relative Response Factor
ContTune	Continuing Tune
Dup=0	Duplicate Sample Count = 0
Dup>1	Duplicate Sample Count > 1
Eb	Equipment Blank Contamination
EtoA	Extraction to Analysis Estimation
EtoA	Extraction to Analysis Rejection
Fb	Field Blank Contamination
Fd	Field Duplicate Precision
Ft	Field Triplicate Precision
IcCC	Initial Calibration Correlation Coefficient
IcRrf	Initial Calibration Relative Response Factor
IcRsd	Initial Calibration Percent Relative Standard Deviation
Icv	Initial Calibration Verification Percent Difference Lower Estimation
Icv	Initial Calibration Verification Percent Difference Lower Rejection
Icv	Initial Calibration Verification Percent Difference Upper Estimation
Icv	Initial Calibration Verification Percent Difference Upper Rejection
Icv	Initial Calibration Verification Percent Recovery Lower Estimation
Icv	Initial Calibration Verification Percent Recovery Lower Rejection
Icv	Initial Calibration Verification Percent Recovery Upper Estimation

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 11252C **Laboratory: R9LAB**

EDD Filename: 11252C_VOC_1109024 FINAL_rev2 **eQAPP Name: Modesto_Site_090711**

Icv	Initial Calibration Verification Percent Recovery Upper Rejection
IcvCC	Initial Calibration Verification Correlation Coefficient
IcvRrf	Initial Calibration Verification Relative Response Factor
IllogicalFraction	Illogical Fraction
InitTune	Initial Tune
Is	Internal Standard Estimation
Is	Internal Standard Rejection
Lcs	Laboratory Control Precision
Lcs	Laboratory Control Spike Lower Estimation
Lcs	Laboratory Control Spike Lower Rejection
Lcs	Laboratory Control Spike Upper Estimation
Lcs	Laboratory Control Spike Upper Rejection
Lcs=0	Laboratory Control Sample Count = 0
Lcs>1	Laboratory Control Sample Count > 1
Ld	Laboratory Duplicate Precision
Lt	Laboratory Triplicate Precision
Mb	Method Blank Contamination
Mb=0	Method Blank Sample Count = 0
Mb>1	Method Blank Sample Count > 1
Moist	Percent Moisture
Ms	Matrix Spike Lower Estimation
Ms	Matrix Spike Lower Rejection
Ms	Matrix Spike Precision
Ms	Matrix Spike Upper Estimation
Ms	Matrix Spike Upper Rejection
Ms=0	Matrix Spike Sample Count = 0
Ms>1	Matrix Spike Sample Count > 1
PEM	Performance Evaluation Mixture
Preservation	Preservation
ProfJudg	Professional Judgment
REM	Resolution Check Mixture
Rl	Reporting Limit

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 11252C **Laboratory: R9LAB**

EDD Filename: 11252C_VOC_1109024 FINAL_rev2 **eQAPP Name: Modesto_Site_090711**

Rl	Reporting Limit > Project Maximum Contamination Limit
Rl	Reporting Limit Trace Value
StoA	Sampling to Analysis Estimation
StoA	Sampling to Analysis Rejection
StoE	Sampling to Extraction Estimation
StoE	Sampling to Extraction Rejection
StoL	Sampling to Leaching Estimation
StoL	Sampling to Leaching Rejection
Surr	Surrogate/Tracer Recovery Lower Estimation
Surr	Surrogate/Tracer Recovery Lower Rejection
Surr	Surrogate/Tracer Recovery Upper Estimation
Surr	Surrogate/Tracer Recovery Upper Rejection
Tb	Trip Blank Contamination
TempEst	Temperature Estimation
TempRej	Temperature Rejection

* denotes a non-reportable result

SDG 11257C

Data Qualifier Summary

Lab Reporting Batch ID: 11257C **Laboratory: R9LAB**

EDD Filename: 11257C_VOC_1109031 FINAL_rev **eQAPP Name: Modesto_Site_090711**

Method Category: **VOA**

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

Sample ID: **MW-20A-3Q11** ***Collected:*** **9/13/2011 8:30:00** ***Analysis Type:*** **Reanalysis-012** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	2.1	J,C1,C3	2.0	MDL	4.0	MRL	ug/L	UJ	Mb, IcRsd
BROMODICHLOROMETHANE	0.3	J,C1	0.2	MDL	0.5	MRL	ug/L	J	RI
CARBON TETRACHLORIDE	0.5	J,U,C3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
TRICHLOROETHENE	0.3	J,C1,Q5	0.2	MDL	0.5	MRL	ug/L	J	RI

Sample ID: **MW-20B-3Q11** ***Collected:*** **9/13/2011 9:15:00** ***Analysis Type:*** **Reanalysis-01** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	2.4	J,C3	2.0	MDL	4.0	MRL	ug/L	UJ	Mb, IcRsd, Ccv
CARBON TETRACHLORIDE	0.5	J,U,C3,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd
DIBROMOCHLOROMETHANE	0.2	J,C1	0.2	MDL	0.5	MRL	ug/L	J	RI

Sample ID: **MW-20C-3Q11** ***Collected:*** **9/13/2011 7:59:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	4.0	J,U,C3	2.0	MDL	4.0	MRL	ug/L	UJ	IcRsd
CARBON TETRACHLORIDE	0.5	J,U,C3,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd, Ccv

* denotes a non-reportable result

Project Name and Number: R11SA1 - Modesto Groundwater Sept 2011 Qtrly Monitoring

Data Qualifier Summary

Lab Reporting Batch ID: 11257C **Laboratory: R9LAB**

EDD Filename: 11257C_VOC_1109031 FINAL_rev **eQAPP Name: Modesto_Site_090711**

Reason Code Legend

Reason Code	Description
Cb	Calibration Blank Contamination
Ccv	Continuing Calibration Verification Percent Difference Lower Estimation
Ccv	Continuing Calibration Verification Percent Difference Lower Rejection
Ccv	Continuing Calibration Verification Percent Difference Upper Estimation
Ccv	Continuing Calibration Verification Percent Difference Upper Rejection
Ccv	Continuing Calibration Verification Percent Recovery Lower Estimation
Ccv	Continuing Calibration Verification Percent Recovery Lower Rejection
Ccv	Continuing Calibration Verification Percent Recovery Upper Estimation
Ccv	Continuing Calibration Verification Percent Recovery Upper Rejection
CcvCC	Continuing Calibration Verification Correlation Coefficient
CcvRrf	Continuing Calibration Verification Relative Response Factor
ContTune	Continuing Tune
Dup=0	Duplicate Sample Count = 0
Dup>1	Duplicate Sample Count > 1
Eb	Equipment Blank Contamination
EtoA	Extraction to Analysis Estimation
EtoA	Extraction to Analysis Rejection
Fb	Field Blank Contamination
Fd	Field Duplicate Precision
Ft	Field Triplicate Precision
IcCC	Initial Calibration Correlation Coefficient
IcRrf	Initial Calibration Relative Response Factor
IcRsd	Initial Calibration Percent Relative Standard Deviation
Icv	Initial Calibration Verification Percent Difference Lower Estimation
Icv	Initial Calibration Verification Percent Difference Lower Rejection
Icv	Initial Calibration Verification Percent Difference Upper Estimation
Icv	Initial Calibration Verification Percent Difference Upper Rejection
Icv	Initial Calibration Verification Percent Recovery Lower Estimation
Icv	Initial Calibration Verification Percent Recovery Lower Rejection
Icv	Initial Calibration Verification Percent Recovery Upper Estimation

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 11257C **Laboratory: R9LAB**

EDD Filename: 11257C_VOC_1109031 FINAL_rev **eQAPP Name: Modesto_Site_090711**

Icv	Initial Calibration Verification Percent Recovery Upper Rejection
IcvCC	Initial Calibration Verification Correlation Coefficient
IcvRrf	Initial Calibration Verification Relative Response Factor
IllogicalFraction	Illogical Fraction
InitTune	Initial Tune
Is	Internal Standard Estimation
Is	Internal Standard Rejection
Lcs	Laboratory Control Precision
Lcs	Laboratory Control Spike Lower Estimation
Lcs	Laboratory Control Spike Lower Rejection
Lcs	Laboratory Control Spike Upper Estimation
Lcs	Laboratory Control Spike Upper Rejection
Lcs=0	Laboratory Control Sample Count = 0
Lcs>1	Laboratory Control Sample Count > 1
Ld	Laboratory Duplicate Precision
Lt	Laboratory Triplicate Precision
Mb	Method Blank Contamination
Mb=0	Method Blank Sample Count = 0
Mb>1	Method Blank Sample Count > 1
Moist	Percent Moisture
Ms	Matrix Spike Lower Estimation
Ms	Matrix Spike Lower Rejection
Ms	Matrix Spike Precision
Ms	Matrix Spike Upper Estimation
Ms	Matrix Spike Upper Rejection
Ms=0	Matrix Spike Sample Count = 0
Ms>1	Matrix Spike Sample Count > 1
PEM	Performance Evaluation Mixture
Preservation	Preservation
ProfJudg	Professional Judgment
REM	Resolution Check Mixture
Rl	Reporting Limit

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 11257C **Laboratory: R9LAB**

EDD Filename: 11257C_VOC_1109031 FINAL_rev **eQAPP Name: Modesto_Site_090711**

Rl	Reporting Limit > Project Maximum Contamination Limit
Rl	Reporting Limit Trace Value
StoA	Sampling to Analysis Estimation
StoA	Sampling to Analysis Rejection
StoE	Sampling to Extraction Estimation
StoE	Sampling to Extraction Rejection
StoL	Sampling to Leaching Estimation
StoL	Sampling to Leaching Rejection
Surr	Surrogate/Tracer Recovery Lower Estimation
Surr	Surrogate/Tracer Recovery Lower Rejection
Surr	Surrogate/Tracer Recovery Upper Estimation
Surr	Surrogate/Tracer Recovery Upper Rejection
Tb	Trip Blank Contamination
TempEst	Temperature Estimation
TempRej	Temperature Rejection

* denotes a non-reportable result

SDG 11257D

Data Qualifier Summary

Lab Reporting Batch ID: 11257D **Laboratory: R9LAB**

EDD Filename: 111257D_VOC_1109033 FINAL_rev **eQAPP Name: Modesto_Site_090711**

Method Category: **VOA**

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

Sample ID: **EFF-0902** ***Collected:*** **9/13/2011 8:20:00** ***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,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	ProfJudg
ACETONE	4.0	J,U,C3	2.0	MDL	4.0	MRL	ug/L	UJ	IcRsd
BROMOMETHANE	0.5	J,U,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	ProfJudg
CARBON TETRACHLORIDE	0.5	J,U,C3,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd, ProfJudg
TETRACHLOROETHENE	0.4	J,C1	0.2	MDL	0.5	MRL	ug/L	J	RI

Sample ID: **EW-1-0902** ***Collected:*** **9/13/2011 8:30:00** ***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,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	ProfJudg
ACETONE	4.0	J,U,C3	2.0	MDL	4.0	MRL	ug/L	UJ	IcRsd
BROMOMETHANE	0.5	J,U,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	ProfJudg
CARBON TETRACHLORIDE	0.5	J,U,C3,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd, ProfJudg

Sample ID: **MW-304-3Q11** ***Collected:*** **9/13/2011 7:30:00** ***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,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	ProfJudg
ACETONE	4.0	J,U,C3	2.0	MDL	4.0	MRL	ug/L	UJ	IcRsd
BROMOMETHANE	0.5	J,U,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	ProfJudg
CARBON TETRACHLORIDE	0.5	J,U,C3,Q3	0.2	MDL	0.5	MRL	ug/L	UJ	IcRsd, ProfJudg

* denotes a non-reportable result

Project Name and Number: R11S84 - Modesto GW Treatment System Summer 2011 Sampling

Data Qualifier Summary

Lab Reporting Batch ID: 11257D **Laboratory: R9LAB**

EDD Filename: 111257D_VOC_1109033 FINAL_rev **eQAPP Name: Modesto_Site_090711**

Reason Code Legend

Reason Code	Description
Cb	Calibration Blank Contamination
Ccv	Continuing Calibration Verification Percent Difference Lower Estimation
Ccv	Continuing Calibration Verification Percent Difference Lower Rejection
Ccv	Continuing Calibration Verification Percent Difference Upper Estimation
Ccv	Continuing Calibration Verification Percent Difference Upper Rejection
Ccv	Continuing Calibration Verification Percent Recovery Lower Estimation
Ccv	Continuing Calibration Verification Percent Recovery Lower Rejection
Ccv	Continuing Calibration Verification Percent Recovery Upper Estimation
Ccv	Continuing Calibration Verification Percent Recovery Upper Rejection
CcvCC	Continuing Calibration Verification Correlation Coefficient
CcvRrf	Continuing Calibration Verification Relative Response Factor
ContTune	Continuing Tune
Dup=0	Duplicate Sample Count = 0
Dup>1	Duplicate Sample Count > 1
Eb	Equipment Blank Contamination
EtoA	Extraction to Analysis Estimation
EtoA	Extraction to Analysis Rejection
Fb	Field Blank Contamination
Fd	Field Duplicate Precision
Ft	Field Triplicate Precision
IcCC	Initial Calibration Correlation Coefficient
IcRrf	Initial Calibration Relative Response Factor
IcRsd	Initial Calibration Percent Relative Standard Deviation
Icv	Initial Calibration Verification Percent Difference Lower Estimation
Icv	Initial Calibration Verification Percent Difference Lower Rejection
Icv	Initial Calibration Verification Percent Difference Upper Estimation
Icv	Initial Calibration Verification Percent Difference Upper Rejection
Icv	Initial Calibration Verification Percent Recovery Lower Estimation
Icv	Initial Calibration Verification Percent Recovery Lower Rejection
Icv	Initial Calibration Verification Percent Recovery Upper Estimation

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 11257D **Laboratory: R9LAB**

EDD Filename: 111257D_VOC_1109033 FINAL_rev **eQAPP Name: Modesto_Site_090711**

Icv	Initial Calibration Verification Percent Recovery Upper Rejection
IcvCC	Initial Calibration Verification Correlation Coefficient
IcvRrf	Initial Calibration Verification Relative Response Factor
IllogicalFraction	Illogical Fraction
InitTune	Initial Tune
Is	Internal Standard Estimation
Is	Internal Standard Rejection
Lcs	Laboratory Control Precision
Lcs	Laboratory Control Spike Lower Estimation
Lcs	Laboratory Control Spike Lower Rejection
Lcs	Laboratory Control Spike Upper Estimation
Lcs	Laboratory Control Spike Upper Rejection
Lcs=0	Laboratory Control Sample Count = 0
Lcs>1	Laboratory Control Sample Count > 1
Ld	Laboratory Duplicate Precision
Lt	Laboratory Triplicate Precision
Mb	Method Blank Contamination
Mb=0	Method Blank Sample Count = 0
Mb>1	Method Blank Sample Count > 1
Moist	Percent Moisture
Ms	Matrix Spike Lower Estimation
Ms	Matrix Spike Lower Rejection
Ms	Matrix Spike Precision
Ms	Matrix Spike Upper Estimation
Ms	Matrix Spike Upper Rejection
Ms=0	Matrix Spike Sample Count = 0
Ms>1	Matrix Spike Sample Count > 1
PEM	Performance Evaluation Mixture
Preservation	Preservation
ProfJudg	Professional Judgment
REM	Resolution Check Mixture
Rl	Reporting Limit

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 11257D **Laboratory: R9LAB**

EDD Filename: 111257D_VOC_1109033 FINAL_rev **eQAPP Name: Modesto_Site_090711**

Rl	Reporting Limit > Project Maximum Contamination Limit
Rl	Reporting Limit Trace Value
StoA	Sampling to Analysis Estimation
StoA	Sampling to Analysis Rejection
StoE	Sampling to Extraction Estimation
StoE	Sampling to Extraction Rejection
StoL	Sampling to Leaching Estimation
StoL	Sampling to Leaching Rejection
Surr	Surrogate/Tracer Recovery Lower Estimation
Surr	Surrogate/Tracer Recovery Lower Rejection
Surr	Surrogate/Tracer Recovery Upper Estimation
Surr	Surrogate/Tracer Recovery Upper Rejection
Tb	Trip Blank Contamination
TempEst	Temperature Estimation
TempRej	Temperature Rejection

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 11257D **Laboratory: R9LAB**

EDD Filename: 111257D_BOD_1109033 FINAL_edited LCS **eQAPP Name: Modesto_Site_090711**

Method Category: **GENCHEM**

Method: **5210B** ***Matrix:*** **Water**

Sample ID: **EFF-0902** ***Collected:*** **9/13/2011 8:20:00** ***Analysis Type:*** **Initial** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Biochemical Oxygen Demand	2.0	<	2.0	MDL	2.0	MRL	mg/L	J-	Lcs

* denotes a non-reportable result

Project Name and Number: R11S84 - Modesto GW Treatment System Summer 2011 Sampling

Data Qualifier Summary

Lab Reporting Batch ID: 11257D **Laboratory: R9LAB**

EDD Filename: 111257D_BOD_1109033 FINAL_edited LCS **eQAPP Name: Modesto_Site_090711**

Reason Code Legend

Reason Code	*Description*
Cb	Calibration Blank Contamination
Ccv	Continuing Calibration Verification Percent Difference Lower Estimation
Ccv	Continuing Calibration Verification Percent Difference Lower Rejection
Ccv	Continuing Calibration Verification Percent Difference Upper Estimation
Ccv	Continuing Calibration Verification Percent Difference Upper Rejection
Ccv	Continuing Calibration Verification Percent Recovery Lower Estimation
Ccv	Continuing Calibration Verification Percent Recovery Lower Rejection
Ccv	Continuing Calibration Verification Percent Recovery Upper Estimation
Ccv	Continuing Calibration Verification Percent Recovery Upper Rejection
CcvCC	Continuing Calibration Verification Correlation Coefficient
CcvRrf	Continuing Calibration Verification Relative Response Factor
ContTune	Continuing Tune
Dup=0	Duplicate Sample Count = 0
Dup>1	Duplicate Sample Count > 1
Eb	Equipment Blank Contamination
EtoA	Extraction to Analysis Estimation
EtoA	Extraction to Analysis Rejection
Fb	Field Blank Contamination
Fd	Field Duplicate Precision
Ft	Field Triplicate Precision
IcCC	Initial Calibration Correlation Coefficient
IcRrf	Initial Calibration Relative Response Factor
IcRsd	Initial Calibration Percent Relative Standard Deviation
Icv	Initial Calibration Verification Percent Difference Lower Estimation
Icv	Initial Calibration Verification Percent Difference Lower Rejection
Icv	Initial Calibration Verification Percent Difference Upper Estimation
Icv	Initial Calibration Verification Percent Difference Upper Rejection
Icv	Initial Calibration Verification Percent Recovery Lower Estimation

* denotes a non-reportable result

Project Name and Number: R11S84 - Modesto GW Treatment System Summer 2011 Sampling

Data Qualifier Summary

Lab Reporting Batch ID: 11257D **Laboratory: R9LAB**

EDD Filename: 111257D_BOD_1109033 FINAL_edited **eQAPP Name: Modesto_Site_090711**

LCS

Icv	Initial Calibration Verification Percent Recovery Lower Rejection
Icv	Initial Calibration Verification Percent Recovery Upper Estimation
Icv	Initial Calibration Verification Percent Recovery Upper Rejection
IcvCC	Initial Calibration Verification Correlation Coefficient
IcvRrf	Initial Calibration Verification Relative Response Factor
IllogicalFraction	Illogical Fraction
InitTune	Initial Tune
Is	Internal Standard Estimation
Is	Internal Standard Rejection
Lcs	Laboratory Control Precision
Lcs	Laboratory Control Spike Lower Estimation
Lcs	Laboratory Control Spike Lower Rejection
Lcs	Laboratory Control Spike Upper Estimation
Lcs	Laboratory Control Spike Upper Rejection
Lcs=0	Laboratory Control Sample Count = 0
Lcs>1	Laboratory Control Sample Count > 1
Ld	Laboratory Duplicate Precision
Lt	Laboratory Triplicate Precision
Mb	Method Blank Contamination
Mb=0	Method Blank Sample Count = 0
Mb>1	Method Blank Sample Count > 1
Moist	Percent Moisture
Ms	Matrix Spike Lower Estimation
Ms	Matrix Spike Lower Rejection
Ms	Matrix Spike Precision
Ms	Matrix Spike Upper Estimation
Ms	Matrix Spike Upper Rejection
Ms=0	Matrix Spike Sample Count = 0
Ms>1	Matrix Spike Sample Count > 1
PEM	Performance Evaluation Mixture

* denotes a non-reportable result

Project Name and Number: R11S84 - Modesto GW Treatment System Summer 2011 Sampling

Data Qualifier Summary

Lab Reporting Batch ID: 11257D **Laboratory: R9LAB**

EDD Filename: 111257D_BOD_1109033 FINAL_edited **eQAPP Name: Modesto_Site_090711**

LCS

Preservation	Preservation
ProfJudg	Professional Judgment
REM	Resolution Check Mixture
RI	Reporting Limit
RI	Reporting Limit > Project Maximum Contamination Limit
RI	Reporting Limit Trace Value
StoA	Sampling to Analysis Estimation
StoA	Sampling to Analysis Rejection
StoE	Sampling to Extraction Estimation
StoE	Sampling to Extraction Rejection
StoL	Sampling to Leaching Estimation
StoL	Sampling to Leaching Rejection
Surr	Surrogate/Tracer Recovery Lower Estimation
Surr	Surrogate/Tracer Recovery Lower Rejection
Surr	Surrogate/Tracer Recovery Upper Estimation
Surr	Surrogate/Tracer Recovery Upper Rejection
Tb	Trip Blank Contamination
TempEst	Temperature Estimation
TempRej	Temperature Rejection

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 11257D

Laboratory: R9LAB

EDD Filename: 11257D TDSTSS 1109033 FINAL_edited LCS RPD

eQAPP Name: Modesto_Site_090711

No Data Review Qualifiers Applied.

SDG 11257F

Data Qualifier Summary

Lab Reporting Batch ID: 11257F **Laboratory: R9LAB**

EDD Filename: 11257F_TO15_1109035 FINAL_edited RPD **eQAPP Name: Modesto_Site_090711**

Method Category: **VOA**

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

Sample ID: **DP-1A-3Q11** ***Collected:*** **9/9/2011 9:08:00 AM** ***Analysis Type:*** **Initial-** ***Dilution:*** **2.37**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,4-TRICHLOROBENZENE	2.4	J,U,C4	1.2	MDL	2.4	MRL	ppbv	UJ	Ccv
HEXACHLOROBUTADIENE	2.4	J,U,C4	1.2	MDL	2.4	MRL	ppbv	UJ	IcRsd, Ccv

Sample ID: **DP-1B-3Q11** ***Collected:*** **9/9/2011 9:27:00 AM** ***Analysis Type:*** **Initial-** ***Dilution:*** **2.37**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXACHLOROBUTADIENE	2.4	J,U,C4	1.2	MDL	2.4	MRL	ppbv	UJ	IcRsd

Sample ID: **DP-5A-3Q11** ***Collected:*** **9/8/2011 12:04:00** ***Analysis Type:*** **Initial-** ***Dilution:*** **2.36**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXACHLOROBUTADIENE	2.4	J,U,C4	1.2	MDL	2.4	MRL	ppbv	UJ	IcRsd

Sample ID: **DP-5B-3Q11** ***Collected:*** **9/8/2011 12:19:00** ***Analysis Type:*** **Initial-** ***Dilution:*** **2.36**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXACHLOROBUTADIENE	2.4	J,U,C4	1.2	MDL	2.4	MRL	ppbv	UJ	IcRsd

Sample ID: **DP-6A-3Q11** ***Collected:*** **9/9/2011 9:43:00 AM** ***Analysis Type:*** **Initial-** ***Dilution:*** **2.19**

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	IcRsd, Ccv

Sample ID: **DP-6B-3Q11** ***Collected:*** **9/9/2011 9:55:00 AM** ***Analysis Type:*** **Initial-** ***Dilution:*** **2.36**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,4-TRICHLOROBENZENE	2.4	J,U,C4	1.2	MDL	2.4	MRL	ppbv	UJ	Ccv
BENZENE	1.3	J,C1	1.2	MDL	2.4	MRL	ppbv	J	Rl
HEXACHLOROBUTADIENE	2.4	J,U,C4	1.2	MDL	2.4	MRL	ppbv	UJ	IcRsd, Ccv

Sample ID: **OSVE-10-3Q11** ***Collected:*** **9/9/2011 8:38:00 AM** ***Analysis Type:*** **Initial** ***Dilution:*** **2.33**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CIS-1,2-DICHLOROETHENE	1.9	J,C1	1.2	MDL	2.3	MRL	ppbv	J	Rl

* denotes a non-reportable result

Project Name and Number: R11SA1 - Modesto Groundwater Sept 2011 Qtrly Monitoring

Data Qualifier Summary

Lab Reporting Batch ID: 11257F **Laboratory: R9LAB**

EDD Filename: 11257F_TO15_1109035 FINAL_edited RPD **eQAPP Name: Modesto_Site_090711**

Method Category: **VOA**

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

Sample ID: **OSVE-10-3Q11** ***Collected:*** **9/9/2011 8:38:00 AM** ***Analysis Type:*** **Initial-** ***Dilution:*** **2.33**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXACHLOROBUTADIENE	2.3	U	1.2	MDL	2.3	MRL	ppbv	UJ	IcRsd, Ccv

Sample ID: **OSVE-11-3Q11** ***Collected:*** **9/9/2011 8:28:00 AM** ***Analysis Type:*** **Initial-** ***Dilution:*** **2.34**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXACHLOROBUTADIENE	2.3	U	1.2	MDL	2.3	MRL	ppbv	UJ	IcRsd, Ccv

Sample ID: **OSVE-89-3Q11** ***Collected:*** **9/9/2011 8:28:00 AM** ***Analysis Type:*** **Initial-** ***Dilution:*** **2.19**

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	IcRsd, Ccv

Sample ID: **SVE-1-3Q11** ***Collected:*** **9/9/2011 7:58:00 AM** ***Analysis Type:*** **Initial-** ***Dilution:*** **2.34**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,4-TRICHLOROBENZENE	2.3	J,U,C4	1.2	MDL	2.3	MRL	ppbv	UJ	Ccv
HEXACHLOROBUTADIENE	2.3	J,U,C4	1.2	MDL	2.3	MRL	ppbv	UJ	IcRsd, Ccv

Sample ID: **SVE-2-3Q11** ***Collected:*** **9/8/2011 10:56:00** ***Analysis Type:*** **Initial-** ***Dilution:*** **2.34**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXACHLOROBUTADIENE	2.3	U	1.2	MDL	2.3	MRL	ppbv	UJ	IcRsd, Ccv

Sample ID: **SVE-3-3Q11** ***Collected:*** **9/8/2011 10:49:00** ***Analysis Type:*** **Reinjection-01-** ***Dilution:*** **3.29**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXACHLOROBUTADIENE	3.3	U	1.6	MDL	3.3	MRL	ppbv	UJ	IcRsd, Ccv
TRICHLOROETHENE	2.8	J,C1	1.6	MDL	3.3	MRL	ppbv	J	Rl

Sample ID: **SVE-4-3Q11** ***Collected:*** **9/8/2011 10:41:00** ***Analysis Type:*** **Initial-** ***Dilution:*** **2.35**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,4-TRICHLOROBENZENE	2.4	J,U,C4	1.2	MDL	2.4	MRL	ppbv	UJ	Ccv
1,4-DICHLOROBENZENE	1.3	J,C1	1.2	MDL	2.4	MRL	ppbv	J	Rl

* denotes a non-reportable result

Project Name and Number: R11SA1 - Modesto Groundwater Sept 2011 Qtrly Monitoring

Data Qualifier Summary

Lab Reporting Batch ID: 11257F **Laboratory: R9LAB**

EDD Filename: 11257F_TO15_1109035 FINAL_edited RPD **eQAPP Name: Modesto_Site_090711**

Method Category: **VOA**

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

Sample ID: **SVE-4-3Q11** ***Collected:*** **9/8/2011 10:41:00** ***Analysis Type:*** **Initial** ***Dilution:*** **2.35**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZENE	1.6	J,C1	1.2	MDL	2.4	MRL	ppbv	J	RI
HEXACHLOROBUTADIENE	2.4	J,U,C4	1.2	MDL	2.4	MRL	ppbv	UJ	IcRsd, Ccv
TRICHLOROETHENE	2.1	J,C1	1.2	MDL	2.4	MRL	ppbv	J	RI

Sample ID: **SVE-96-3Q11** ***Collected:*** **9/8/2011 10:43:00** ***Analysis Type:*** **Initial** ***Dilution:*** **2.38**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZENE	1.6	J,C1	1.2	MDL	2.4	MRL	ppbv	J	RI
HEXACHLOROBUTADIENE	2.4	U	1.2	MDL	2.4	MRL	ppbv	UJ	Ccv, IcRsd
TRICHLOROETHENE	2.2	J,C1	1.2	MDL	2.4	MRL	ppbv	J	RI

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 11257F **Laboratory: R9LAB**

EDD Filename: 11257F_TO15_1109035 FINAL_edited RPD **eQAPP Name: Modesto_Site_090711**

Reason Code Legend

Reason Code	*Description*
Cb	Calibration Blank Contamination
Ccv	Continuing Calibration Verification Percent Difference Lower Estimation
Ccv	Continuing Calibration Verification Percent Difference Lower Rejection
Ccv	Continuing Calibration Verification Percent Difference Upper Estimation
Ccv	Continuing Calibration Verification Percent Difference Upper Rejection
Ccv	Continuing Calibration Verification Percent Recovery Lower Estimation
Ccv	Continuing Calibration Verification Percent Recovery Lower Rejection
Ccv	Continuing Calibration Verification Percent Recovery Upper Estimation
Ccv	Continuing Calibration Verification Percent Recovery Upper Rejection
CcvCC	Continuing Calibration Verification Correlation Coefficient
CcvRrf	Continuing Calibration Verification Relative Response Factor
ContTune	Continuing Tune
Dup=0	Duplicate Sample Count = 0
Dup>1	Duplicate Sample Count > 1
Eb	Equipment Blank Contamination
EtoA	Extraction to Analysis Estimation
EtoA	Extraction to Analysis Rejection
Fb	Field Blank Contamination
Fd	Field Duplicate Precision
Ft	Field Triplicate Precision
IcCC	Initial Calibration Correlation Coefficient
IcRrf	Initial Calibration Relative Response Factor
IcRsd	Initial Calibration Percent Relative Standard Deviation
Icv	Initial Calibration Verification Percent Difference Lower Estimation
Icv	Initial Calibration Verification Percent Difference Lower Rejection
Icv	Initial Calibration Verification Percent Difference Upper Estimation
Icv	Initial Calibration Verification Percent Difference Upper Rejection
Icv	Initial Calibration Verification Percent Recovery Lower Estimation
Icv	Initial Calibration Verification Percent Recovery Lower Rejection

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 11257F **Laboratory: R9LAB**

EDD Filename: 11257F_TO15_1109035 FINAL_edited **eQAPP Name: Modesto_Site_090711**

RPD

Icv	Initial Calibration Verification Percent Recovery Upper Estimation
Icv	Initial Calibration Verification Percent Recovery Upper Rejection
IcvCC	Initial Calibration Verification Correlation Coefficient
IcvRrf	Initial Calibration Verification Relative Response Factor
IllogicalFraction	Illogical Fraction
InitTune	Initial Tune
Is	Internal Standard Estimation
Is	Internal Standard Rejection
Lcs	Laboratory Control Precision
Lcs	Laboratory Control Spike Lower Estimation
Lcs	Laboratory Control Spike Lower Rejection
Lcs	Laboratory Control Spike Upper Estimation
Lcs	Laboratory Control Spike Upper Rejection
Lcs=0	Laboratory Control Sample Count = 0
Lcs>1	Laboratory Control Sample Count > 1
Ld	Laboratory Duplicate Precision
Lt	Laboratory Triplicate Precision
Mb	Method Blank Contamination
Mb=0	Method Blank Sample Count = 0
Mb>1	Method Blank Sample Count > 1
Moist	Percent Moisture
Ms	Matrix Spike Lower Estimation
Ms	Matrix Spike Lower Rejection
Ms	Matrix Spike Precision
Ms	Matrix Spike Upper Estimation
Ms	Matrix Spike Upper Rejection
Ms=0	Matrix Spike Sample Count = 0
Ms>1	Matrix Spike Sample Count > 1
PEM	Performance Evaluation Mixture
Preservation	Preservation
ProfJudg	Professional Judgment
REM	Resolution Check Mixture

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 11257F **Laboratory: R9LAB**

EDD Filename: 11257F_TO15_1109035 FINAL_edited **eQAPP Name: Modesto_Site_090711**

RPD

Rl	Reporting Limit
Rl	Reporting Limit > Project Maximum Contamination Limit
Rl	Reporting Limit Trace Value
StoA	Sampling to Analysis Estimation
StoA	Sampling to Analysis Rejection
StoE	Sampling to Extraction Estimation
StoE	Sampling to Extraction Rejection
StoL	Sampling to Leaching Estimation
StoL	Sampling to Leaching Rejection
Surr	Surrogate/Tracer Recovery Lower Estimation
Surr	Surrogate/Tracer Recovery Lower Rejection
Surr	Surrogate/Tracer Recovery Upper Estimation
Surr	Surrogate/Tracer Recovery Upper Rejection
Tb	Trip Blank Contamination
TempEst	Temperature Estimation
TempRej	Temperature Rejection

* denotes a non-reportable result

SDG 11257G

Data Qualifier Summary

Lab Reporting Batch ID: 11257G **Laboratory: R9LAB**

EDD Filename: 11257G_TO15_1109036 FINAL_edited RPD_rev **eQAPP Name: Modesto_Site_090711**

Method Category: **VOA**

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

Sample ID: **GWTP Pr GAC-0902** ***Collected:*** **9/13/2011 8:46:00** ***Analysis Type:*** **Initial** ***Dilution:*** **2.12**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TETRACHLOROETHENE	200	J,Q5	11	MDL	21	MRL	ppbv	J	Ld

Sample ID: **GWTP Pr GAC-0902** ***Collected:*** **9/13/2011 8:46:00** ***Analysis Type:*** **Reinjection-01** ***Dilution:*** **2.12**

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	2.1	MRL	ppbv	J	Rl

Sample ID: **GWTP Stack-0902** ***Collected:*** **9/13/2011 8:58:00** ***Analysis Type:*** **Initial** ***Dilution:*** **2.28**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TETRACHLOROETHENE	53	J,Q5	11	MDL	23	MRL	ppbv	J	Ld

Sample ID: **SVE Pre GAC-0902** ***Collected:*** **9/13/2011 9:30:00** ***Analysis Type:*** **Reinjection-01** ***Dilution:*** **2.15**

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

Sample ID: **SVE Stack-0902** ***Collected:*** **9/13/2011 9:25:00** ***Analysis Type:*** **Initial** ***Dilution:*** **2.13**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TETRACHLOROETHENE	1.5	J,C1	1.1	MDL	2.1	MRL	ppbv	J	Rl

* denotes a non-reportable result

Project Name and Number: R11S84 - Modesto GW Treatment System Summer 2011 Sampling

Data Qualifier Summary

Lab Reporting Batch ID: 11257G **Laboratory: R9LAB**

EDD Filename: 11257G_TO15_1109036 FINAL_edited RPD_rev **eQAPP Name: Modesto_Site_090711**

Reason Code Legend

Reason Code	Description
Cb	Calibration Blank Contamination
Ccv	Continuing Calibration Verification Percent Difference Lower Estimation
Ccv	Continuing Calibration Verification Percent Difference Lower Rejection
Ccv	Continuing Calibration Verification Percent Difference Upper Estimation
Ccv	Continuing Calibration Verification Percent Difference Upper Rejection
Ccv	Continuing Calibration Verification Percent Recovery Lower Estimation
Ccv	Continuing Calibration Verification Percent Recovery Lower Rejection
Ccv	Continuing Calibration Verification Percent Recovery Upper Estimation
Ccv	Continuing Calibration Verification Percent Recovery Upper Rejection
CcvCC	Continuing Calibration Verification Correlation Coefficient
CcvRrf	Continuing Calibration Verification Relative Response Factor
ContTune	Continuing Tune
Dup=0	Duplicate Sample Count = 0
Dup>1	Duplicate Sample Count > 1
Eb	Equipment Blank Contamination
EtoA	Extraction to Analysis Estimation
EtoA	Extraction to Analysis Rejection
Fb	Field Blank Contamination
Fd	Field Duplicate Precision
Ft	Field Triplicate Precision
IcCC	Initial Calibration Correlation Coefficient
IcRrf	Initial Calibration Relative Response Factor
IcRsd	Initial Calibration Percent Relative Standard Deviation
Icv	Initial Calibration Verification Percent Difference Lower Estimation
Icv	Initial Calibration Verification Percent Difference Lower Rejection
Icv	Initial Calibration Verification Percent Difference Upper Estimation
Icv	Initial Calibration Verification Percent Difference Upper Rejection
Icv	Initial Calibration Verification Percent Recovery Lower Estimation
Icv	Initial Calibration Verification Percent Recovery Lower Rejection

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 11257G **Laboratory: R9LAB**

EDD Filename: 11257G_TO15_1109036 FINAL_edited RPD_rev **eQAPP Name: Modesto_Site_090711**

Icv	Initial Calibration Verification Percent Recovery Upper Estimation
Icv	Initial Calibration Verification Percent Recovery Upper Rejection
IcvCC	Initial Calibration Verification Correlation Coefficient
IcvRrf	Initial Calibration Verification Relative Response Factor
IllogicalFraction	Illogical Fraction
InitTune	Initial Tune
Is	Internal Standard Estimation
Is	Internal Standard Rejection
Lcs	Laboratory Control Precision
Lcs	Laboratory Control Spike Lower Estimation
Lcs	Laboratory Control Spike Lower Rejection
Lcs	Laboratory Control Spike Upper Estimation
Lcs	Laboratory Control Spike Upper Rejection
Lcs=0	Laboratory Control Sample Count = 0
Lcs>1	Laboratory Control Sample Count > 1
Ld	Laboratory Duplicate Precision
Lt	Laboratory Triplicate Precision
Mb	Method Blank Contamination
Mb=0	Method Blank Sample Count = 0
Mb>1	Method Blank Sample Count > 1
Moist	Percent Moisture
Ms	Matrix Spike Lower Estimation
Ms	Matrix Spike Lower Rejection
Ms	Matrix Spike Precision
Ms	Matrix Spike Upper Estimation
Ms	Matrix Spike Upper Rejection
Ms=0	Matrix Spike Sample Count = 0
Ms>1	Matrix Spike Sample Count > 1
PEM	Performance Evaluation Mixture
Preservation	Preservation
ProfJudg	Professional Judgment
REM	Resolution Check Mixture

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 11257G **Laboratory: R9LAB**

EDD Filename: 11257G_TO15_1109036 FINAL_edited RPD_rev **eQAPP Name: Modesto_Site_090711**

Rl	Reporting Limit
Rl	Reporting Limit > Project Maximum Contamination Limit
Rl	Reporting Limit Trace Value
StoA	Sampling to Analysis Estimation
StoA	Sampling to Analysis Rejection
StoE	Sampling to Extraction Estimation
StoE	Sampling to Extraction Rejection
StoL	Sampling to Leaching Estimation
StoL	Sampling to Leaching Rejection
Surr	Surrogate/Tracer Recovery Lower Estimation
Surr	Surrogate/Tracer Recovery Lower Rejection
Surr	Surrogate/Tracer Recovery Upper Estimation
Surr	Surrogate/Tracer Recovery Upper Rejection
Tb	Trip Blank Contamination
TempEst	Temperature Estimation
TempRej	Temperature Rejection

* denotes a non-reportable result

Appendix B

Manual Validation Level III and IV Worksheets
and
ADR Reports

SDG 11196A

LDC #: 1108-01A1
SDG #: 11196A
Laboratory: EPA Region 9

VALIDATION COMPLETENESS WORKSHEET
Level III

Date: 09/12/11
Page: ___ of ___
Reviewer: KM
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: 07/14/2011
II.	GC/MS Instrument performance check	A	
III.	Initial calibration/ICV	A ~~SW~~ / A	≤ 20.0%D per R9 SOP ±30% SCV ~~RRF > 0.05 / > 0.01 (NEG Table 3)~~ KM
IV.	Continuing calibration	A ~~SW~~ / A	≤ 30% per R9 SOP354
V.	Blanks	SW/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 run on field QC, several recoveries out, insufficient volume to rerun.
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	A	FD = 3 / 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-0703	11		21		31	
2	CRB INF-0703	12		22		32	
3	CRB Mid-0703	13		23		33	
4	EFF-0703	14		24		34	
5	EW-1-0703	15		25		35	
6	MW-104-0703	16		26		36	
7	MW-301-3Q11	17		27		37	
8	MW-401-3Q11	18		28		38	
9	MW-401-3Q11-MS	19		29		39	
10	MW-401-3Q11-MSD	20		30		40	

LDC #: 1108-01A1
SDG #: 11196A

VALIDATION FINDINGS WORKSHEET
Initial Calibration

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	7/15/11	071511JVW	DBCP	0.026 (0.050)	All	~~J/UJ~~ KTP refer to QLS criteria
	HP5973J					

LDC #: 1108-01A1
SDG #: 11196A

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Reviewer: KID
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% ?

#	Date	Standard ID	Compound	Finding %D (Limit: ≤30.0%)	Associated Samples	Qualifications
1	7/15/11	071511JC01.D	DBCP	0.027 (0.050)	All	~~J UJ~~ defer to QCS

Method Blank Outlier Report

Lab Reporting Batch ID: 11196A **Laboratory: R9LAB**

EDD Filename: 11196A_VOC_1107031 FINAL_edited **eQAPP Name: Modesto_Site_090711**

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
B1G0076-BLK1	7/15/2011 2:25:00 PM	METHYLENE CHLORIDE	0.4 ug/L	CRB EFF-0703 CRB INF-0703 CRB Mid-0703 EFF-0703 EW-1-0703 MW-104-0703 MW-301-3Q11 MW-401-3Q11

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: 11196A **Laboratory: R9LAB**

EDD Filename: 11196A_VOC_1107031 FINAL_edited **eQAPP Name: Modesto_Site_090711**

Method: **524.2**

Matrix: **Water**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
MW-401-3Q11MS (MW-401-3Q11)	NAPHTHALENE	-	-	52.00-160.00	24 (20.00)	NAPHTHALENE	J (all detects) UJ (all non-detects)
MW-401-3Q11MS (MW-401-3Q11)	1,1,2-TRICHLOROETHANE	72	-	74.00-131.00	-	1,1,2-TRICHLOROETHANE	J-(all detects) UJ(all non-detects)
	1,2,3-TRICHLOROBENZENE	62	-	64.00-130.00	-	1,2,3-TRICHLOROBENZENE	
	1,2,4-TRICHLOROBENZENE	61	-	66.00-130.00	-	1,2,4-TRICHLOROBENZENE	
	1,2-DICHLOROBENZENE	68	-	69.00-130.00	-	1,2-DICHLOROBENZENE	
	1,3-DICHLOROBENZENE	68	-	77.00-120.00	-	1,3-DICHLOROBENZENE	
	1,4-DICHLOROBENZENE	69	-	76.00-120.00	-	1,4-DICHLOROBENZENE	
	2-CHLOROTOLUENE	72	-	76.00-130.00	-	2-CHLOROTOLUENE	
	4-CHLOROTOLUENE	70	-	77.00-130.00	-	4-CHLOROTOLUENE	
	BROMOBENZENE	74	-	77.00-120.00	-	BROMOBENZENE	
	BROMODICHLOROMETHANE	79	-	87.00-130.00	-	BROMODICHLOROMETHANE	
	CHLOROBENZENE	74	-	75.00-120.00	-	CHLOROBENZENE	
	DIBROMOMETHANE	75	-	77.00-120.00	-	DIBROMOMETHANE	

Project Name and Number: R11S84 - Modesto GW Treatment System Summer 2011 Sampling

WORK ORDER NOTES - 1107031

1107031 - California Site Cleanup Section 2
Modesto GW Treatment System Summer 2011

Edit Done

VOC: Due to insufficient amount of samples MS/MSD will not be rerun to confirm low recoveries. YNB 07/19/11

Lab used FB for MS QC
No explanation of low recoveries.

Reporting Limit Outliers

Lab Reporting Batch ID: 11196A **Laboratory: R9LAB**

EDD Filename: 11196A_VOC_1107031 FINAL_edited **eQAPP Name: Modesto_Site_090711**

Method: **524.2**

Matrix: **Water**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
CRB EFF-0703	TETRACHLOROETHENE	J,C1	0.3	0.5	MRL	ug/L	J (all detects)
CRB Mid-0703	TETRACHLOROETHENE	J,C1	0.3	0.5	MRL	ug/L	J (all detects)
EFF-0703	TETRACHLOROETHENE	J,C1	0.3	0.5	MRL	ug/L	J (all detects)
MW-104-0703	TETRACHLOROETHENE	J,C1	0.3	0.5	MRL	ug/L	J (all detects)

Field QC Assignments and Associated Samples

EDD File Name: 11196A
eQapp Name: Modesto_Site_090711

	Associated Samples	Sample Collection Date
Field QC Sample: MW-104-0703 **QC Type:** Field_Duplicate		
	CRB Mid-0703	7/14/2011 9:45:00 AM
Field QC Sample: MW-301-3Q11 **QC Type:** Trip_Blank		
	CRB Mid-0703	7/14/2011 9:45:00 AM
	EW-1-0703	7/14/2011 10:10:00 AM
	MW-401-3Q11	7/14/2011 8:50:00 AM
	CRB INF-0703	7/14/2011 10:00:00 AM
	MW-104-0703	7/14/2011 9:50:00 AM
	EFF-0703	7/14/2011 9:00:00 AM
	CRB EFF-0703	7/14/2011 9:35:00 AM
Field QC Sample: MW-401-3Q11 **QC Type:** Field_Blank		
	CRB Mid-0703	7/14/2011 9:45:00 AM
	EW-1-0703	7/14/2011 10:10:00 AM
	MW-301-3Q11	7/14/2011 8:45:00 AM
	CRB INF-0703	7/14/2011 10:00:00 AM
	MW-104-0703	7/14/2011 9:50:00 AM
	EFF-0703	7/14/2011 9:00:00 AM
	CRB EFF-0703	7/14/2011 9:35:00 AM

LDC #: 1108-01A

SDG #: _11196A_____

VALIDATION FINDING WORKSHEET

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?

Analyte	Concentration (ug/L)		Difference	Difference (Limits)	Qualifications
	CRB-Mid-0703	MW-~~401~~ 104 KTD -0703			
Tetrachloroethene	0.3	0.3	1.0	*	None

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

* = See Table 2-17 of SAP

Field Duplicate RPD Report

Lab Reporting Batch ID: 11196A **Laboratory: R9LAB**

EDD Filename: 11196A_VOC_1107031 FINAL_edited **eQAPP Name: Modesto_Site_090711**

Method: 524.2
Matrix: Water

Analyte	Concentration (ug/L)		Sample RPD	eQAPP RPD	Flag
	CRB Mid-0703	MW-104-0703			
TETRACHLOROETHENE	0.3	0.3	0	1.00	No Qualifiers Applied

Project Name and Number: R11S84 - Modesto GW Treatment System Summer 2011 Sampling

Trip Blank Outlier Report

Lab Reporting Batch ID: 11196A **Laboratory: R9LAB**

EDD Filename: 11196A_VOC_1107031 FINAL_edited **eQAPP Name: Modesto_Site_090711**

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

Trip Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
MW-301-3Q11(Initial)	7/14/2011 8:45:00 AM	CHLOROFORM	3.7 ug/L	CRB EFF-0703 CRB INF-0703 CRB Mid-0703 EFF-0703 EW-1-0703 MW-104-0703 MW-401-3Q11

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
EW-1-0703(Reinjection-01)	CHLOROFORM	3.3 ug/L	3.3U ug/L
MW-401-3Q11(Initial)	CHLOROFORM	3.6 ug/L	3.6U ug/L

Field Blank Outlier Report

Lab Reporting Batch ID: 11196A **Laboratory: R9LAB**

EDD Filename: 11196A_VOC_1107031 FINAL_edited **eQAPP Name: Modesto_Site_090711**

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

Field Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
MW-401-3Q11(Initial)	7/14/2011 8:50:00 AM	CHLOROFORM	3.6 ug/L	CRB EFF-0703 CRB INF-0703 CRB Mid-0703 EFF-0703 EW-1-0703 MW-104-0703 MW-301-3Q11

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
EW-1-0703(Reinjection-01)	CHLOROFORM	3.3 ug/L	3.3U ug/L
MW-301-3Q11(Initial)	CHLOROFORM	3.7 ug/L	3.7U ug/L

Project Name and Number: R11S84 - Modesto GW Treatment System Summer 2011 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-0703								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative		UJ	10/6/2011 11:00
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration		UJ	10/6/2011 11:12
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011 23:31
Reason for change: defer to QLS criteria								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration	UJ		10/27/2011 23:33
Reason for change: defer to QLS criteria								
Field Sample ID: CRB INF-0703								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative		UJ	10/6/2011 11:00
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration		UJ	10/6/2011 11:12
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011 23:31
Reason for change: defer to QLS criteria								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration	UJ		10/27/2011 23:33
Reason for change: defer to QLS criteria								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: CRB Mid-0703									
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative		UJ	10/6/2011	11:00
Reason for change: RRF < 0.05									
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration		UJ	10/6/2011	11:12
Reason for change: RRF < 0.05									
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011	23:31
Reason for change: defer to QLS criteria									
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration	UJ		10/27/2011	23:33
Reason for change: defer to QLS criteria									
Field Sample ID: EFF-0703									
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative		UJ	10/6/2011	11:00
Reason for change: RRF < 0.05									
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration		UJ	10/6/2011	11:12
Reason for change: RRF < 0.05									
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011	23:31
Reason for change: defer to QLS criteria									
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration	UJ		10/27/2011	23:33
Reason for change: defer to QLS criteria									
Field Sample ID: EW-1-0703									
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Reinjection-	2.0	ug/L	Initial Calibration Relative		UJ	10/6/2011	11:01
Reason for change: RRF < 0.05									
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Reinjection-	2.0	ug/L	Continuing Calibration		UJ	10/6/2011	11:11
Reason for change: RRF < 0.05									

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: EW-1-0703								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Reinjection-	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011 23:31
Reason for change: defer to QLS criteria								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Reinjection-	2.0	ug/L	Continuing Calibration	UJ		10/27/2011 23:32
Reason for change: defer to QLS criteria								
Field Sample ID: MW-104-0703								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative		UJ	10/6/2011 11:01
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration		UJ	10/6/2011 11:11
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011 23:31
Reason for change: defer to QLS criteria								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration	UJ		10/27/2011 23:32
Reason for change: defer to QLS criteria								
Field Sample ID: MW-301-3Q11								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative		UJ	10/6/2011 11:01
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration		UJ	10/6/2011 11:11
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011 23:32
Reason for change: defer to QLS criteria								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration	UJ		10/27/2011 23:32
Reason for change: defer to QLS criteria								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: MW-401-3Q11									
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative		UJ	10/6/2011	11:01
Reason for change: RRF < 0.05									
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration		UJ	10/6/2011	11:11
Reason for change: RRF < 0.05									
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011	23:32
Reason for change: defer to QLS criteria									
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration	UJ		10/27/2011	23:32
Reason for change: defer to QLS criteria									

LDC #: 1108-01A6
SDG #: 11196A
Laboratory: EPA Region 9

VALIDATION COMPLETENESS WORKSHEET
EPA Level III

Date: 09/12/11
Page: 1 of 1
Reviewer: KJ
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: 07/14/2011
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 = 2 RPD≤ 5%
VI	Laboratory control samples	SW	TDS/TSS SRM/LCS 85-115% BOD SRM/LCS 81.5-118.5%
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-0703	11		21		31	
2	EFF-0703 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 11196B

LDC #: 1108-01B
SDG #: 11196B
Laboratory: EPA Region 9

VALIDATION COMPLETENESS WORKSHEET
Level III

Date: 09/09/11
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: 02/10/2011
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	SW	≤ 30% RSD SCV %D ≤ 30% Note: SCV "not used"
IV.	Continuing calibration	A	≤ 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	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: ** Indicates sample underwent Level IV validation

1	GWTP Pre GAC-0703	11		21		31	
2	GWTP Stack-0703	12		22		32	
3	SVE Pre GAC-0703	13		23		33	
4	SVE Stack-0703	14		24		34	
5	GWTP Stack-0703 Dup	15		25		35	
6	SVE Pre GAC-0703 Dup	16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

LDC #: 1108-01B
SDG #: 11196B

VALIDATION FINDINGS WORKSHEET
Initial Calibration

Page: 1 of 1
Reviewer: 19
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	7/21/11	SCV3	124 TTrichlorobenzene	62% (70-130)	---	All samples in the SDG	None specified

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: 11196B **Laboratory: R9LAB**

EDD Filename: 11196B_TO-15_1107032 FINAL_edited **eQAPP Name: Modesto_Site_090711**

Method: **TO-15**

Matrix: **Air**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
B1G0094-BS1 (GWTP Pre GAC-0703 GWTP Stack-0703 SVE Pre GAC-0703 SVE Stack-0703)	1,1-DICHLOROETHANE CIS-1,2-DICHLOROETHENE	78 81	- -	82.00-123.00 83.00-126.00	- -	1,1-DICHLOROETHANE CIS-1,2-DICHLOROETHENE	J- (all detects) UJ (all non-detects)

Reporting Limit Outliers

Lab Reporting Batch ID: 11196B **Laboratory: R9LAB**

EDD Filename: 11196B_TO-15_1107032 FINAL_edited **eQAPP Name: Modesto_Site_090711**

Method: **TO-15**

Matrix: **Air**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SVE Stack-0703	CHLOROFORM	J,C1	1.8	2.2	MRL	ppbv	J (all detects)

SDG 11224B

LDC #: 1108-01C1
SDG #: 11224B
Laboratory: EPA Region 9

VALIDATION COMPLETENESS WORKSHEET
Level III

Date: 09/12/11
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: 08/11/2011
II.	GC/MS Instrument performance check	A	
III.	Initial calibration/ICV	SW	≤ 20.0%D per R9 SOP ±30% SCV RRF ~~>0.05/ >0.01 (NFG Table 3)~~ KGD
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	N/ ~~SW~~	Sample 2 for MS/MSD, MS/SD was rerun on 8/15/11 but was not reported.
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	2 of 5 vials for EW-1-0802 were not labeled. System error on 8/12/11 run.
XVI.	Field duplicates	N	
XVII.	Field blanks	SW	TB = 3 Trip Blank was noted on COC to have large air bubbles.

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-0802	11		21		31	
2	EW-1-0802	12		22		32	
3	EW-1-0802MS	13		23		33	
4	EW-1-0802MSD	14		24		34	
5	MW-302-3Q11	15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

LDC #: 1108-01C1
SDG #: 11224B

VALIDATION FINDINGS WORKSHEET
Initial Calibration

Page: 1 of 1
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** ~~RRF > 0.05~~ KTD

#	Date	Standard ID	Compound	Finding %RSD (Limit: ≤20.0%)	Associated Samples	Qualifications
1	7/22/11	072211JVW	Naphthalene	21.06 (20.0)	All	J/UJ
	HP5973J		DBCP	0.027 (0.050)	All	~~J/UJ~~ KTD defer to QLS criteria

LDC #: 1108-01C1
SDG #: 11224B

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Page: 1 of 1
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% ? RRF > 0.05

#	Date	Standard ID	Compound	Finding %D (Limit: ≤30.0%)	Associated Samples	Qualifications
1	8/12/11	081211JC01.D	DBCP	0.028 (0.050)	All	~~JUJ~~ KTD refer to OLS criteria

1108035 - California Site Cleanup Section 2
Modesto GW Treatment System Summer 2011

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Sample EW-1-0802 2 of 5 vials not labeled. sample MW-302-3Q11 large air bubbles (~300 uL) present. AJC

VOC: On 8/12/11 system was malfunctioned during sample analysis. Variable volumes ware analyzed, that made some data unusable. YNB 08/24/11

VOC: The samples were initially analyzed on 8/12/11. Low recoveries (~60%) were noted for the MS sample and acceptable recoveries were noted for the MSD sample. The MS/MSD analyses were repeated on 8/15/11. Low recoveries (~50%) were noted for the MS sample and acceptable recoveries were noted for the MSD sample. It was originally suspected that the autosampler had malfunctioned and delivered varying amounts of sample. The system was checked and it was determined that the system was operating properly. Although the matter is currently under investigation, it is believed that pressure was building inside the 40 mL VOA vials containing the samples and causing a back flash around the needle during the MS/MSD spiking process which would explain why the MS/MSDs were the only QCs effected since CCV, LCV, and BS were not affected. Samples 1108035-01 and -03 were reanalyzed on 8/22/11. Results for the reanalysis of the two sample matched original analysis. No sample was left to reanalyze sample 1108035-02. ZAR 08/24/11

Reporting Limit Outliers

Lab Reporting Batch ID: 11224B **Laboratory: R9LAB**

EDD Filename: 1108035 FINAL_rev090911 **eQAPP Name: Modesto_Site_090711**

Method: **524.2**

Matrix: **Water**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EFF-0802	TETRACHLOROETHENE	J	0.4	0.5	MRL	ug/L	J (all detects)
MW-302-3Q11	METHYLENE CHLORIDE TOLUENE	J,C1,Q3 J,C1	0.3 0.4	0.5 0.5	MRL MRL	ug/L ug/L	J (all detects)

Field QC Assignments and Associated Samples

EDD File Name: 11224B
eQapp Name: Modesto_Site_090711

	Associated Samples	Sample Collection Date
Field QC Sample: MW-302-3Q11 **QC Type:** Trip_Blank		
	EW-1-0802	8/11/2011 11:05:00 AM
	EFF-0802	8/11/2011 10:35:00 AM

LDC #: 1108-01C6
SDG #: 11224B
Laboratory: EPA Region 9

VALIDATION COMPLETENESS WORKSHEET
EPA Level III

Date: 09/12/11
Page: 1 of 1
Reviewer: KMD
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: 08/11/2011
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 = 2 RPD< 5%
VI	Laboratory control samples	SW	TDS/TSS SRM/LCS 85-115% BOD SRM/LCS 81.5-118.5%
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-0802	11		21		31	
2	EFF-0802 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:

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: 11224B **Laboratory: R9LAB**

EDD Filename: 11124B_BOD_1108035 FINAL_LCS **eQAPP Name: Modesto_Site_070810s**

Method: **5210B**

Matrix: **Water**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
B1H0059-SRM1 (EFF-0802)	Biochemical Oxygen Demand	78	-	81.50-118.50	-	Biochemical Oxygen Demand	J- (all detects) UJ (all non-detects)

SDG 11224C

LDC #: 1108-01D
SDG #: 11224C
Laboratory: EPA Region 9

VALIDATION COMPLETENESS WORKSHEET
Level III

Date: 09/09/11
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: 08/11/2011
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 & 2
VIII.	Laboratory control samples	A	per R9 SOP 311rev1
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: ** Indicates sample underwent Level IV validation

1	GWTP Pre GAC-0802	11		21		31	
2	GWTP Stack-0802	12		22		32	
3	SVE Pre GAC-0802	13		23		33	
4	SVE Stack-0802	14		24		34	
5	GWTP Pre GAC-0802 Dup	15		25		35	
6	GWTP Stack-0802 Dup	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: 11224C

Laboratory: R9LAB

EDD Filename: 11124C_TO-15_1108036 FINAL_edited

eQAPP Name: Modesto_Site_090711

Method: TO-15

Matrix: Air

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
GWTP Stack-0802	BENZENE	J,C1	1.2	2.4	MRL	ppbv	J (all detects)
SVE Stack-0802	TETRACHLOROETHENE	J,C1	2.1	2.4	MRL	ppbv	J (all detects)

SDG 11252B

LDC #: 1110-02A1
SDG #: 11252B
Laboratory: EPA Region 9

VALIDATION COMPLETENESS WORKSHEET
Level III

Date: 10/26/11
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	A	Sampling dates: 09/06-08/2011
II.	GC/MS Instrument performance check	A	
III.	Initial calibration/ICV	SW	≤ 20.0%D per R9 SOP ±30% SCV ~~RRF >0.05~~ KD
IV.	Continuing calibration	SW	≤ 30% per R9 SOP354 QLS 60-140%R
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	A	
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	FDs 8 & 16; 3 & 11, 9 and MW-14A-3Q11 (SDG 11252C)
XVII.	Field blanks	SW	TB = MW-303-3Q11 (See 11252C)

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-3A-3Q11	11	MW-96B-3Q11	21	MW-6A-3Q11-MS	31	
2	MW-4A-3Q11	12	MW-17A-3Q11	22	MW-6A-3Q11-MSD	32	
3	MW-4B-3Q11	13	MW-17B-3Q11	23		33	
4	MW-4C-3Q11	14	MW-17C-3Q11	24		34	
5	MW-5A-3Q11	15	MW-18A-3Q11	25		35	
6	MW-6A-3Q11	16	MW-19A-3Q11	26		36	
7	MW-7A-3Q11	17	MW-19B-3Q11	27		37	
8	MW-81A-3Q11	18	MW-1A-3Q11	28		38	
9	MW-86A-3Q11	19	MW-2A-3Q11	29		39	
10	MW-8A-3Q11	20	MW-9B-3Q11	30		40	

LDC #: 1110-02A1
SDG #: 11252B

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	9/12/11	091211HVW	Acetone	27.78 (20.0)	All	J / UJ
	HP5973H		Carbon tetrachloride	33.81 (20.0)		J / UJ
			DBCP	0.030 (0.050)	All	~~J/UJ~~ defer to ALS criteria

LDC #: 1110-02A1
SDG #: 11252B

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% ? RRF > 0.05? QLS 60-140%R?

#	Date	Standard ID	Compound	Finding %D (Limit: ≤30.0%)	Associated Samples	Qualifications
1	9/13/11 09:35	091311HC01.D CCV	DBCP	0.031 (0.050)	1RE 2RE 3, 4, 6 - 10, 12, 14	~~J/UJ~~ KTD defer to QLS criteria
2	9/14/11 11:03	091411HC01.d CCV	DBCP	0.031 (0.050)	1, 1RE, 2RE1, 5RE1, 13RE1	~~J/UJ~~ KTD defer to QLS
					11, 15 - 20	
3	9/14/11 13:01	091411HC03 QLS	Carbon Tetrachloride	51% (60-140)	1, 1RE, 2RE1, 5RE1, 13RE1	J- / UJ
					11, 15 - 20	
4	9/15/11 09:02	091511HC01.d CCV	DBCP	0.029 (0.050)	2, 5, 13	~~J/UJ~~ KTD defer to QLS
			TBA	37.0 (20.0)		None, N.R.
5	9/15/11 11:00	091511HC03 QLS	TBA	57% (60-140)	2, 5, 13	None, N.R.
			Bromomethane	55% (60-140)		J- / UJ low values/ND
			Carbon tetrachloride	46% (60-140)		J- / UJ low values/ND
			2,2-Dichloropropane	54% (60-140)		J- / UJ low values/ND
6	9/20/11 08:09	0920HC01.d	DBCP	0.032 (0.050)	1 RE2 2RE2	~~J/UJ~~ defer to QLS
			TBA	40.7 (20.0)		None, N.R.
7	9/20/11 10:07	092011HC03 QLS	TBA	54% (60-140)	1 RE2 2RE2	None, N.R.

Method Blank Outlier Report

Lab Reporting Batch ID: 11252B **Laboratory: R9LAB**

EDD Filename: 11252B_voc_1109022 **eQAPP Name: Modesto_Site_090711**

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
B1I0033-BLK1	9/13/2011 12:12:00 PM	ACETONE	2.1 ug/L	MW-17A-3Q11 MW-17C-3Q11 MW-4B-3Q11 MW-4C-3Q11 MW-6A-3Q11 MW-7A-3Q11 MW-81A-3Q11 MW-86A-3Q11 MW-8A-3Q11
B1I0076-BLK1	9/20/2011 10:46:00 AM	ACETONE	2.1 ug/L	

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-17C-3Q11(Initial)	ACETONE	2.1 ug/L	4.0U ug/L

Project Name and Number: R11SA1 - Modesto Groundwater Sept 2011 Qtrly Monitoring

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: 11252B **Laboratory: R9LAB**

EDD Filename: 11252B_voc_1109022 **eQAPP Name: Modesto_Site_090711**

Method: **524.2**

Matrix: **Water**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
B1I0047-BS1 (MW-17B-3Q11 MW-18A-3Q11 MW-19A-3Q11 MW-19B-3Q11 MW-1A-3Q11 MW-2A-3Q11 MW-3A-3Q11 MW-4A-3Q11 MW-5A-3Q11 MW-96B-3Q11 MW-9B-3Q11)	CARBON TETRACHLORIDE	133	-	70.00-130.00	-	CARBON TETRACHLORIDE	J+ (all detects)

Project Name and Number: R11SA1 - Modesto Groundwater Sept 2011 Qtrly Monitoring

Reporting Limit Outliers

Lab Reporting Batch ID: 11252B **Laboratory: R9LAB**

EDD Filename: 11252B_voc_1109022 **eQAPP Name: Modesto_Site_090711**

Method: **524.2**

Matrix: **Water**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
MW-17A-3Q11	BROMODICHLOROMETHANE TETRACHLOROETHENE	J,C1 J,C1	0.3 0.4	0.5 0.5	MRL MRL	ug/L ug/L	J (all detects)
MW-17C-3Q11	ACETONE	J,C1,C3	2.1	4.0	MRL	ug/L	J (all detects)
MW-18A-3Q11	ETHYLBENZENE O-XYLENE TOLUENE	J,C1 J,C1 J,C1	0.3 0.3 0.4	0.5 0.5 0.5	MRL MRL MRL	ug/L ug/L ug/L	J (all detects)
MW-19B-3Q11	TETRACHLOROETHENE	J,C1	0.3	0.5	MRL	ug/L	J (all detects)
MW-2A-3Q11	1,1,2-TRICHLOROETHANE	J,C1	0.3	0.5	MRL	ug/L	J (all detects)
MW-4B-3Q11	ETHYLBENZENE m&p-Xylene O-XYLENE TOLUENE	J,C1 J,C1 J,C1 J,C1	0.3 0.8 0.2 0.3	0.5 1.0 0.5 0.5	MRL MRL MRL MRL	ug/L ug/L ug/L ug/L	J (all detects)
MW-5A-3Q11	ACETONE	J,C1,C3	2.2	4.0	MRL	ug/L	J (all detects)
MW-6A-3Q11	BROMODICHLOROMETHANE	J,C1	0.4	0.5	MRL	ug/L	J (all detects)
MW-96B-3Q11	1,2,4-TRIMETHYLBENZENE 1,2-DICHLOROETHANE ACETONE	J,C1 J,C1 J,C1,C3	0.3 0.4 2.2	0.5 0.5 4.0	MRL MRL MRL	ug/L ug/L ug/L	J (all detects)

Project Name and Number: R11SA1 - Modesto Groundwater Sept 2011 Qtrly Monitoring

Field QC Assignments and Associated Samples

EDD File Name: 11252B
eQapp Name: Modesto_Site_090711

	Associated Samples	Sample Collection Date
Field QC Sample: MW-303-3Q11 **QC Type:** Trip_Blank		
	MW-3A-3Q11	9/7/2011 7:20:00 AM
	MW-8A-3Q11	9/7/2011 10:48:00 AM
	MW-17A-3Q11	9/8/2011 10:38:00 AM
	MW-17B-3Q11	9/8/2011 12:15:00 PM
	MW-81A-3Q11	9/6/2011 2:10:00 PM
	MW-19A-3Q11	9/6/2011 2:10:00 PM
	MW-6A-3Q11	9/6/2011 1:47:00 PM
	MW-19B-3Q11	9/7/2011 8:33:00 AM
	MW-5A-3Q11	9/7/2011 9:53:00 AM
	MW-1A-3Q11	9/7/2011 12:20:00 PM
	MW-7A-3Q11	9/6/2011 10:26:00 AM
	MW-96B-3Q11	9/7/2011 12:00:00 PM
	MW-18A-3Q11	9/7/2011 12:25:00 PM
	MW-4B-3Q11	9/7/2011 10:20:00 AM
	MW-86A-3Q11	9/6/2011 12:00:00 PM
	MW-2A-3Q11	9/7/2011 9:21:00 AM
	MW-17C-3Q11	9/8/2011 11:25:00 AM
	MW-4A-3Q11	9/6/2011 8:39:00 AM
	MW-9B-3Q11	9/7/2011 11:35:00 AM
	MW-4C-3Q11	9/7/2011 10:10:00 AM
Field QC Sample: MW-81A-3Q11 **QC Type:** Field_Duplicate		
	MW-19A-3Q11	9/6/2011 2:10:00 PM
Field QC Sample: MW-96B-3Q11 **QC Type:** Field_Duplicate		
	MW-4B-3Q11	9/7/2011 10:20:00 AM

Field Duplicate RPD Report

Lab Reporting Batch ID: 11252B **Laboratory: R9LAB**

EDD Filename: 11252B_voc_1109022 **eQAPP Name: Modesto_Site_090711**

Method: 524.2
Matrix: Water

Analyte	Concentration (ug/L)		Sample RPD	eQAPP RPD	Flag
	MW-4B-3Q11	MW-96B-3Q11			
1,1,2-TRICHLOROETHANE	0.6	0.6	0	1.00	No Qualifiers Applied
1,2,4-TRIMETHYLBENZENE	0.5 U	0.3	200	1.00	
1,2-DICHLOROETHANE	0.5 U	0.4	200	1.00	
ACETONE	4.0	2.2	200	1.00	
BENZENE	2.5	9.7	118	1.00	
ETHYLBENZENE	0.3	1.0	108	1.00	
m&p-Xylene	0.8	2.7	109	1.00	
O-XYLENE	0.2	0.9	127	1.00	
TETRACHLOROETHENE	16	14	13	1.00	
TOLUENE	0.3	1.2	120	1.00	

Analyte	Concentration (ug/L)		Sample RPD	eQAPP RPD	Flag
	MW-19A-3Q11	MW-81A-3Q11			
CHLOROFORM	1.3	1.4	7	1.00	No Qualifiers Applied

Project Name and Number: R11SA1 - Modesto Groundwater Sept 2011 Qtrly Monitoring

LDC #: 1110-02A____ **VALIDATION FINDING WORKSHEET** Page:__1__of__1__

SDG #: _11252B___ **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-19A-1Q11	MW-81A-1Q11			
Chloroform	1.3	1.4	0.93	7	None

Analyte	Concentration (ug/L)		Factor Difference *	Difference (Limits)	Qualifications
	MW-4B-1Q11	MW-96B-1Q11			
1,1,2-TCA	0.6	0.6	1.00	0	None
1,2,4-Trimethylbenzene	< 0.5	0.3	NC	NC	None
1,2-Dichloroethane	< 0.5	0.4	NC	NC	None
Acetone	4.0	2.2	1.82	58	None
Benzene	2.5	9.7	3.88	118	**Major disagreement**
Ethylbenzene	0.3	1.0	3.33	108	None; trace
m, p-Xylene	0.8	2.7	3.38	109	None; 1-5x RL
o-xylene	0.2	0.9	4.50	127	None; trace
Tetrachloroethene	16.0	14.0	1.14	13	None
Toluene	0.3	1.2	4.00	120	None; trace

* = See Table 2-17 of SAP

Trip Blank Outlier Report

Lab Reporting Batch ID: 11252B **Laboratory: R9LAB**

EDD Filename: 11252B_voc_1109022 **eQAPP Name: Modesto_Site_090711**

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

Trip Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
MW-303-3Q11(Initial)	9/7/2011 7:00:00 AM	ACETONE CHLOROFORM	28 ug/L 3 ug/L	MW-17A-3Q11 MW-17B-3Q11 MW-17C-3Q11 MW-18A-3Q11 MW-19A-3Q11 MW-19B-3Q11 MW-1A-3Q11 MW-2A-3Q11 MW-3A-3Q11 MW-4A-3Q11 MW-4B-3Q11 MW-4C-3Q11 MW-5A-3Q11 MW-6A-3Q11 MW-7A-3Q11 MW-81A-3Q11 MW-86A-3Q11 MW-8A-3Q11 MW-96B-3Q11 MW-9B-3Q11

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-17A-3Q11(Initial)	CHLOROFORM	5.7 ug/L	5.7U ug/L
MW-17C-3Q11(Initial)	ACETONE	2.1 ug/L	4.0U ug/L
MW-18A-3Q11(Initial)	CHLOROFORM	4.3 ug/L	4.3U ug/L
MW-19A-3Q11(Initial)	CHLOROFORM	1.3 ug/L	1.3U ug/L
MW-2A-3Q11(Initial)	CHLOROFORM	2.3 ug/L	2.3U ug/L
MW-3A-3Q11(Reinjection-01)	CHLOROFORM	2.1 ug/L	2.1U ug/L
MW-4A-3Q11(Reanalysis-011)	CHLOROFORM	1.8 ug/L	1.8U ug/L
MW-5A-3Q11(Reanalysis-011)	ACETONE	2.2 ug/L	4.0U ug/L
MW-5A-3Q11(Reanalysis-011)	CHLOROFORM	1.9 ug/L	1.9U ug/L
MW-6A-3Q11(Initial)	CHLOROFORM	9.4 ug/L	9.4U ug/L
MW-7A-3Q11(Initial)	CHLOROFORM	1.4 ug/L	1.4U ug/L
MW-81A-3Q11(Initial)	CHLOROFORM	1.4 ug/L	1.4U ug/L
MW-86A-3Q11(Initial)	CHLOROFORM	2.7 ug/L	2.7U ug/L
MW-8A-3Q11(Initial)	CHLOROFORM	11 ug/L	11U ug/L
MW-96B-3Q11(Initial)	ACETONE	2.2 ug/L	4.0U ug/L

Project Name and Number: R11SA1 - Modesto Groundwater Sept 2011 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-3Q11								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative		UJ	10/26/2011 21:14
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration		UJ	10/26/2011 23:28
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011 22:48
Reason for change: defer to QLS criteria								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration	UJ		10/27/2011 22:57
Reason for change: defer to QLS criteria								
ACETONE	524.2	Initial	4.0	ug/L	Initial Calibration Percent		UJ	10/26/2011 21:15
Reason for change: %RSD > 20.0								
CARBON TETRACHLORIDE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 21:15
Reason for change: %RSD > 20.0								
Field Sample ID: MW-17B-3Q11								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Reanalysis-	2.0	ug/L	Initial Calibration Relative		UJ	10/26/2011 21:22
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Reanalysis-	2.0	ug/L	Continuing Calibration		UJ	10/26/2011 23:28
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Reanalysis-	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011 22:49
Reason for change: defer to QLS criteria								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: MW-17B-3Q11								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Reanalysis-	2.0	ug/L	Continuing Calibration	UJ		10/27/2011 22:56
Reason for change: defer to QLS criteria								
2,2-DICHLOROPROPANE	524.2	Reanalysis-	0.5	ug/L	Continuing Calibration		UJ	10/26/2011 23:35
Reason for change: QLS < 60%								
ACETONE	524.2	Reanalysis-	4.0	ug/L	Initial Calibration Percent		UJ	10/26/2011 21:22
Reason for change: %RSD > 20.0								
BROMOMETHANE	524.2	Reanalysis-	0.5	ug/L	Continuing Calibration		UJ	10/26/2011 23:35
Reason for change: QLS < 60%								
CARBON TETRACHLORIDE	524.2	Reanalysis-	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 21:22
Reason for change: %RSD > 20.0								
CARBON TETRACHLORIDE	524.2	Reanalysis-	0.5	ug/L	Continuing Calibration		UJ	10/26/2011 23:31
Reason for change: QLS < 60%								
Field Sample ID: MW-17C-3Q11								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative		UJ	10/26/2011 21:23
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration		UJ	10/26/2011 23:27
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011 22:49
Reason for change: defer to QLS criteria								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration	UJ		10/27/2011 22:56
Reason for change: defer to QLS criteria								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: MW-17C-3Q11								
ACETONE	524.2	Initial	2.1	ug/L	Initial Calibration Percent		J	10/26/2011 21:22
Reason for change: %RSD > 20.0								
CARBON TETRACHLORIDE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 21:22
Reason for change: %RSD > 20.0								
Field Sample ID: MW-18A-3Q11								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative		UJ	10/26/2011 21:25
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration		UJ	10/26/2011 23:27
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011 22:49
Reason for change: defer to QLS criteria								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration	UJ		10/27/2011 22:56
Reason for change: defer to QLS criteria								
ACETONE	524.2	Initial	4.0	ug/L	Initial Calibration Percent		UJ	10/26/2011 21:23
Reason for change: %RSD > 20.0								
CARBON TETRACHLORIDE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 21:24
Reason for change: %RSD > 20.0								
CARBON TETRACHLORIDE	524.2	Initial	0.5	ug/L	Continuing Calibration		UJ	10/26/2011 23:29
Reason for change: QLS < 60%								
Field Sample ID: MW-19A-3Q11								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative		UJ	10/26/2011 21:29
Reason for change: RRF < 0.05								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: MW-19A-3Q11								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration		UJ	10/26/2011 23:27
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011 22:49
Reason for change: defer to QLS criteria								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration	UJ		10/27/2011 22:56
Reason for change: defer to QLS criteria								
ACETONE	524.2	Initial	4.0	ug/L	Initial Calibration Percent		UJ	10/26/2011 21:29
Reason for change: %RSD > 20.0								
CARBON TETRACHLORIDE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 21:29
Reason for change: %RSD > 20.0								
CARBON TETRACHLORIDE	524.2	Initial	0.5	ug/L	Continuing Calibration		UJ	10/26/2011 23:29
Reason for change: QLS < 60%								
Field Sample ID: MW-19B-3Q11								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative		UJ	10/26/2011 21:30
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration		UJ	10/26/2011 23:27
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011 22:49
Reason for change: defer to QLS criteria								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration	UJ		10/27/2011 22:56
Reason for change: defer to QLS criteria								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: MW-19B-3Q11								
ACETONE	524.2	Initial	4.0	ug/L	Initial Calibration Percent		UJ	10/26/2011 21:29
Reason for change: %RSD > 20.0								
CARBON TETRACHLORIDE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 21:30
Reason for change: %RSD > 20.0								
CARBON TETRACHLORIDE	524.2	Initial	0.5	ug/L	Continuing Calibration		UJ	10/26/2011 23:29
Reason for change: QLS < 60%								
Field Sample ID: MW-1A-3Q11								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative		UJ	10/26/2011 21:30
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration		UJ	10/26/2011 23:27
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011 22:49
Reason for change: defer to QLS criteria								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration	UJ		10/27/2011 22:55
Reason for change: defer to QLS criteria								
ACETONE	524.2	Initial	4.0	ug/L	Initial Calibration Percent		UJ	10/26/2011 21:30
Reason for change: %RSD > 20.0								
CARBON TETRACHLORIDE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 21:30
Reason for change: %RSD > 20.0								
CARBON TETRACHLORIDE	524.2	Initial	0.5	ug/L	Continuing Calibration		UJ	10/26/2011 23:29
Reason for change: QLS < 60%								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: MW-2A-3Q11								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative		UJ	10/26/2011 21:31
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration		UJ	10/26/2011 23:27
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011 22:50
Reason for change: defer to QLS criteria								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration	UJ		10/27/2011 22:55
Reason for change: defer to QLS criteria								
ACETONE	524.2	Initial	4.0	ug/L	Initial Calibration Percent		UJ	10/26/2011 21:31
Reason for change: %RSD > 20.0								
CARBON TETRACHLORIDE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 21:31
Reason for change: %RSD > 20.0								
CARBON TETRACHLORIDE	524.2	Initial	0.5	ug/L	Continuing Calibration		UJ	10/26/2011 23:30
Reason for change: QLS < 60%								
Field Sample ID: MW-3A-3Q11								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Reinjection-	2.0	ug/L	Initial Calibration Relative		UJ	10/26/2011 21:32
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Reinjection-	2.0	ug/L	Continuing Calibration		UJ	10/26/2011 23:26
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Reinjection-	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011 22:50
Reason for change: defer to QLS criteria								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: MW-3A-3Q11								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Reinjection-	2.0	ug/L	Continuing Calibration	UJ		10/27/2011 22:55
Reason for change: defer to QLS criteria								
ACETONE	524.2	Reinjection-	4.0	ug/L	Initial Calibration Percent		UJ	10/26/2011 21:31
Reason for change: %RSD > 20.0								
CARBON TETRACHLORIDE	524.2	Reinjection-	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 21:31
Reason for change: %RSD > 20.0								
CARBON TETRACHLORIDE	524.2	Reinjection-	0.5	ug/L	Continuing Calibration		UJ	10/26/2011 23:32
Reason for change: QLS < 60%								
Field Sample ID: MW-4A-3Q11								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Reanalysis-	2.0	ug/L	Initial Calibration Relative		UJ	10/26/2011 21:33
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Reanalysis-	2.0	ug/L	Continuing Calibration		UJ	10/26/2011 23:26
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Reanalysis-	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011 22:50
Reason for change: defer to QLS criteria								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Reanalysis-	2.0	ug/L	Continuing Calibration	UJ		10/27/2011 22:55
Reason for change: defer to QLS criteria								
2,2-DICHLOROPROPANE	524.2	Reanalysis-	0.5	ug/L	Continuing Calibration		UJ	10/26/2011 23:34
Reason for change: QLS < 60%								
ACETONE	524.2	Reanalysis-	4.0	ug/L	Initial Calibration Percent		UJ	10/26/2011 21:32
Reason for change: %RSD > 20.0								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: MW-4A-3Q11								
BROMOMETHANE	524.2	Reanalysis-	0.5	ug/L	Continuing Calibration		UJ	10/26/2011 23:34
Reason for change: QLS < 60%								
CARBON TETRACHLORIDE	524.2	Reanalysis-	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 21:32
Reason for change: %RSD > 20.0								
CARBON TETRACHLORIDE	524.2	Reanalysis-	0.5	ug/L	Continuing Calibration		UJ	10/26/2011 23:32
Reason for change: QLS < 60%								
Field Sample ID: MW-4B-3Q11								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative		UJ	10/26/2011 21:34
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration		UJ	10/26/2011 23:26
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011 22:50
Reason for change: defer to QLS criteria								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration	UJ		10/27/2011 22:54
Reason for change: defer to QLS criteria								
ACETONE	524.2	Initial	4.0	ug/L	Initial Calibration Percent		UJ	10/26/2011 21:33
Reason for change: %RSD > 20.0								
CARBON TETRACHLORIDE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 21:33
Reason for change: %RSD > 20.0								
Field Sample ID: MW-4C-3Q11								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative		UJ	10/26/2011 21:35
Reason for change: RRF < 0.05								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: MW-4C-3Q11								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration		UJ	10/26/2011 23:26
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011 22:50
Reason for change: defer to QLS criteria								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration	UJ		10/27/2011 22:54
Reason for change: defer to QLS criteria								
ACETONE	524.2	Initial	4.0	ug/L	Initial Calibration Percent		UJ	10/26/2011 21:34
Reason for change: %RSD > 20.0								
CARBON TETRACHLORIDE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 21:34
Reason for change: %RSD > 20.0								
Field Sample ID: MW-5A-3Q11								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Reanalysis-	2.0	ug/L	Initial Calibration Relative		UJ	10/26/2011 21:36
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Reanalysis-	2.0	ug/L	Continuing Calibration		UJ	10/26/2011 23:26
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Reanalysis-	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011 22:51
Reason for change: defer to QLS criteria								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Reanalysis-	2.0	ug/L	Continuing Calibration	UJ		10/27/2011 22:54
Reason for change: defer to QLS criteria								
2,2-DICHLOROPROPANE	524.2	Reanalysis-	0.5	ug/L	Continuing Calibration		UJ	10/26/2011 23:35
Reason for change: QLS < 60%								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: MW-5A-3Q11								
ACETONE	524.2	Reanalysis-	2.2	ug/L	Initial Calibration Percent		J	10/26/2011 21:35
Reason for change: %RSD > 20.0								
BROMOMETHANE	524.2	Reanalysis-	0.5	ug/L	Continuing Calibration		UJ	10/26/2011 23:35
Reason for change: QLS < 60%								
CARBON TETRACHLORIDE	524.2	Reanalysis-	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 21:35
Reason for change: %RSD > 20.0								
CARBON TETRACHLORIDE	524.2	Reanalysis-	0.5	ug/L	Continuing Calibration		UJ	10/26/2011 23:31
Reason for change: QLS < 60%								
Field Sample ID: MW-6A-3Q11								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative		UJ	10/26/2011 21:36
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration		UJ	10/26/2011 23:26
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011 22:51
Reason for change: defer to QLS criteria								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration	UJ		10/27/2011 22:54
Reason for change: defer to QLS criteria								
ACETONE	524.2	Initial	4.0	ug/L	Initial Calibration Percent		UJ	10/26/2011 21:36
Reason for change: %RSD > 20.0								
CARBON TETRACHLORIDE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 21:36
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-3Q11								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative		UJ	10/26/2011 21:37
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration		UJ	10/26/2011 23:25
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011 22:52
Reason for change: defer to QLS criteria								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration	UJ		10/27/2011 22:54
Reason for change: defer to QLS criteria								
ACETONE	524.2	Initial	4.0	ug/L	Initial Calibration Percent		UJ	10/26/2011 21:37
Reason for change: %RSD > 20.0								
CARBON TETRACHLORIDE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 21:37
Reason for change: %RSD > 20.0								
Field Sample ID: MW-81A-3Q11								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative		UJ	10/26/2011 21:38
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration		UJ	10/26/2011 23:25
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011 22:52
Reason for change: defer to QLS criteria								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration	UJ		10/27/2011 22:54
Reason for change: defer to QLS criteria								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: MW-81A-3Q11								
ACETONE	524.2	Initial	4.0	ug/L	Initial Calibration Percent		UJ	10/26/2011 21:37
Reason for change: %RSD > 20.0								
CARBON TETRACHLORIDE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 21:37
Reason for change: %RSD > 20.0								
Field Sample ID: MW-86A-3Q11								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative		UJ	10/26/2011 21:38
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration		UJ	10/26/2011 23:22
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011 22:52
Reason for change: defer to QLS criteria								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration	UJ		10/27/2011 22:53
Reason for change: defer to QLS criteria								
ACETONE	524.2	Initial	4.0	ug/L	Initial Calibration Percent		UJ	10/26/2011 21:38
Reason for change: %RSD > 20.0								
CARBON TETRACHLORIDE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 21:38
Reason for change: %RSD > 20.0								
Field Sample ID: MW-8A-3Q11								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative		UJ	10/26/2011 21:39
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration		UJ	10/26/2011 23:22
Reason for change: RRF < 0.05								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: MW-8A-3Q11								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011 22:52
Reason for change:	defer to QLS criteria							
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration	UJ		10/27/2011 22:53
Reason for change:	defer to QLS criteria							
ACETONE	524.2	Initial	4.0	ug/L	Initial Calibration Percent		UJ	10/26/2011 21:39
Reason for change:	%RSD > 20.0							
CARBON TETRACHLORIDE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 21:39
Reason for change:	%RSD > 20.0							
CARBON TETRACHLORIDE	524.2	Initial	0.5	ug/L	Continuing Calibration		UJ	10/26/2011 23:31
Reason for change:	QLS < 60%							
Field Sample ID: MW-96B-3Q11								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative		UJ	10/26/2011 21:39
Reason for change:	RRF < 0.05							
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration		UJ	10/26/2011 23:22
Reason for change:	RRF < 0.05							
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011 22:52
Reason for change:	defer to QLS criteria							
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration	UJ		10/27/2011 22:53
Reason for change:	defer to QLS criteria							
ACETONE	524.2	Initial	2.2	ug/L	Initial Calibration Percent		J	10/26/2011 21:39
Reason for change:	%RSD > 20.0							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: MW-96B-3Q11								
CARBON TETRACHLORIDE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 21:39
Reason for change: %RSD > 20.0								
Field Sample ID: MW-9B-3Q11								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative		UJ	10/26/2011 21:40
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration		UJ	10/26/2011 23:21
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011 22:52
Reason for change: defer to QLS criteria								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration	UJ		10/27/2011 22:53
Reason for change: defer to QLS criteria								
ACETONE	524.2	Initial	4.0	ug/L	Initial Calibration Percent		UJ	10/26/2011 21:40
Reason for change: %RSD > 20.0								
CARBON TETRACHLORIDE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 21:40
Reason for change: %RSD > 20.0								
CARBON TETRACHLORIDE	524.2	Initial	0.5	ug/L	Continuing Calibration		UJ	10/26/2011 23:30
Reason for change: QLS < 60%								

SDG 11252C

LDC #: 1110-01A1
SDG #: 11252C
Laboratory: EPA Region 9

VALIDATION COMPLETENESS WORKSHEET
Level III / IV

Date: 10/06/11
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	A	Sampling dates: 09/06-08/2011 SA 8 had air bubbles noted upon rec'pt
II.	GC/MS Instrument performance check	A	
III.	Initial calibration/ICV	SW	≤ 20.0%D per R9 SOP ±30% SCV ~~RRF >0.05~~ RSD dpn to QLS criteria
IV.	Continuing calibration	SW	≤ 30% per R9 SOP354
V.	Blanks	SW	< ½ QL per SOP Storage Blank < ½ QL
VI.	Surrogate spikes	A	criteria per R9 SOP 354
VII.	Matrix spike/Matrix spike duplicates	A	
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	A	Not reviewed for Level III validation.
XII.	Compound quantitation/CRQLs	A	Not reviewed for Level III validation.
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	Not reviewed for Level III validation.
XV.	Overall assessment of data	A	
XVI.	Field duplicates	SW	Sample 7 and MW-86A-3Q11 (11252B)
XVII.	Field blanks	SW	TB = 12 FB = 13

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	MW-10A-3Q11	11	MW-16C-3Q11	21		31	
2	MW-10B-3Q11 ***	12	MW-303-3Q11	22		32	
3	MW-10C-3Q11	13	MW-402-3Q11	23		33	
4	MW-11A-3Q11	14	MW-16C-3Q11-MS	24		34	
5	MW-12A-3Q11 ***	15	MW-16C-3Q11-MSD	25		35	
6	MW-13A-3Q11 ***	16		26		36	
7	MW-14A-3Q11 ***	17		27		37	
8	MW-15A-3Q11	18		28		38	
9	MW-16A-3Q11	19		29		39	
10	MW-16B-3Q11	20		30		40	

LDC #: 1110-01A
SDG #: 11252C

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
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			MW-15A-3Q11 noted to have air bubbles
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?~~ defer to GLS criteria KD		X		
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	X			
Were all percent differences (%D) <30% for all target compounds ? RRF > 0.05?	~~X~~ KD	X		
V. Blanks				
Was a method blank associated with every sample in this SDG?	X			
Was a method blank analyzed at least once every 12 hours for each matrix and concentration?	X			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	X			
VI. Surrogate spikes				
Were all surrogate %R within QC limits?	X			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			X	
VII. Matrix spike/Matrix spike duplicates				
Was a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for this SDG?	X			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	X			
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	X			
Was an LCS analyzed per analytical batch?	X			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	X			

LDC #: 1110-01A
SDG #: 11252C

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 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 #: 1110-01A1
SDG #: 11252C

VALIDATION FINDINGS WORKSHEET
Initial Calibration

Page: 1 of 1
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	9/13/11	091311FVW	Acetone	24.52 (20.0)	All	J / UJ
	HP5973F		Carbon tetrachloride	22.02 (20.0)	All	J / UJ
			Bromoform	22.94 (20.0)	All	J / UJ
			DBCP	RRF 0.017 (0.050)	All	~~J/UJ~~ defer to QLS. KD

LDC #: 1110-01A
SDG #: 11252C

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
9/14/2011	HP5973F	Chloroform (vs Dichloromethane-d2)	Point 1	0.50	84726	5.00	177925	4.762		4.762	
			Point 2	1.00	142889	5.00	154765	4.616		4.616	
			Point 3	2.00	291229	5.00	150456	4.839		4.839	
			Point 4	5.00	739687	5.00	150722	4.908		4.908	
			Point 5	10.00	1573951	5.00	158586	4.962		4.962	
			Point 6	25.00	4272689	5.00	167083	5.114		5.114	
			Mean calibration factor					4.867	3.52	4.867	3.52
9/14/2011	HP5973F	Trichloroethene (vs Fluorobenzene)	Point 1	0.50	55109	5.00	2140024	0.258		0.258	
			Point 2	1.00	92560	5.00	1965455	0.235		0.235	
			Point 3	2.00	198367	5.00	1959104	0.253		0.253	
			Point 4	5.00	511474	5.00	1973368	0.259		0.259	
			Point 5	10.00	1102782	5.00	2031475	0.271		0.271	
			Point 6	25.00	3007698	5.00	2135101	0.282		0.282	
			Mean calibration factor					0.260	6.11	0.260	6.11
9/14/2011	HP5973F	Tetrachloroethene (vs Chlorobenzene-d5)	Point 1	0.50	55571	5.00	1269003	0.438		0.438	
			Point 2	1.00	90381	5.00	1182601	0.382		0.382	
			Point 3	2.00	202123	5.00	1168894	0.432		0.432	
			Point 4	5.00	503650	5.00	1198617	0.420		0.420	
			Point 5	10.00	1096396	5.00	1239003	0.442		0.442	
			Point 6	25.00	3046229	5.00	1316246	0.463		0.463	
			Mean calibration factor					0.430	6.32	0.430	5.32

LDC #: 1110-01A1
SDG #: 11252C

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Page: 1 of 1
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% ? RRF > 0.05? QLS 60-140%R?

#	Date	Standard ID	Compound	Finding %D (Limit: ≤30.0%)	Associated Samples	Qualifications
1	9/14/11 16:39	091411FC01.D CCV	DBCP	0.018 (0.050)	3, 4, 8 - 13	~~J+UJ~~ defer to QLS
2	9/14/11 18:39	091411FC04 QLS	Dichloromethane	143% (60-140)	3, 4, 8 - 13	J+ detects
3	9/15/11 13:59	091411FC01.D CCV	DBCP	0.017 (0.050)	1, 2, 5 - 7	~~J+UJ~~ defer to QLS
4	9/15/11 15:52	091411FC04 QLS	Dichloromethane	141% (60-140)	1, 2, 5 - 7	J+ detects

LDC #: 1110-01A
SDG #: 11252C

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Calculation Verification

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
9/14/2011	Chloroform	5.0	765887	5.0	152808	5.012	5.012	4.867	3.0	3.0
16:39	Trichloroethene	5.0	529058	5.0	2009267	0.263	0.263	0.260	1.3	1.2
HP5973F	Tetrachloroethene	5.0	526629	5.0	1207080	0.436	0.436	0.430	1.5	1.4

Method Blank Outlier Report

Lab Reporting Batch ID: 11252C **Laboratory: R9LAB**

EDD Filename: 11252C_VOC_1109024 FINAL **eQAPP Name: Modesto_Site_090711**

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
B1I0057-BLK1	9/15/2011 5:07:00 PM	METHYLENE CHLORIDE	0.2 ug/L	MW-10A-3Q11 MW-10B-3Q11 MW-12A-3Q11 MW-13A-3Q11 MW-14A-3Q11

LDC #: 1110-01A
SDG #: 11252C

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-10B-3Q11

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
1,2-Dichloroethane-d4	5	5.140	103	103	0
Toluene-d8	5	5.019	100	100	0
4-Bromofluorobenzene	5	4.692	94	94	0
1,2-Dichlorobenzene-d4	5	4.519	90	90	0

Sample ID: MW-12A-1Q11

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
1,2-Dichloroethane-d4	5	5.132	103	103	0
Toluene-d8	5	4.952	99	99	0
4-Bromofluorobenzene	5	4.647	93	93	0
1,2-Dichlorobenzene-d4	5	4.598	92	92	0

Sample ID: MW-13A-1Q11

LDC #: 1110-01A
SDG #: 11252C

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: B110040-BS1

Compound	Spike Added (ug/L)	Sample Concentration (ug/L)	Spiked Sample Concentration (ug/L)	LCS Percent Recovery	
	LCS		LCS	Reported	Recalc.
Carbon tetrachloride	5.0	0.0	5.02	100	100
Chloroform	5.0	0.0	5.17	103	103
1,2-Dichloroethane	5.0	0.0	4.91	98	98
Trichloroethene	5.0	0.0	4.95	99	99
1,2-Dichloropropane	5.0	0.0	5.05	101	101
1,1,2-Trichloroethane	5.0	0.0	4.97	99	99
Tetrachloroethene	5.0	0.0	4.81	96	96
1,1,2,2-Tetrachloroethane	5.0	0.0	5.20	104	104
Hexachlorobutadiene	5.0	0.0	4.97	99	99

LDC #: 1110-01A
SDG #: 11252C

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Result Verification

Reviewer: KTD
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-16C-3Q11 MS/MW-16C-3Q11 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	5.16	5.34	103	103	107	107	3.0	3.4
Benzene	5.00	5.00	4.76	9.96	10.50	104	104	115	115	5.0	5.3
Trichloroethene	5.00	5.00	0.00	5.26	5.33	105	105	107	107	1.0	1.3
Toluene	5.00	5.00	2.10	7.17	7.51	101	101	108	108	5.0	4.6
Chlorobenzene	5.00	5.00	0.00	4.93	4.97	99	99	99	99	0.8	0.8

LDC #: 1110-01A
SDG #: 11252A
KD

VALIDATION FINDINGS WORKSHEET

Sample Calculation Verification

Page: 1 of 1
Reviewer: KD
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-10B-3Q11	Tetrachloroethene		1676967	1	5.0	0.430	1		1074385	18	18.1	0.8	Y
2	MW-12A-3Q11	Trichlorofluoromethane		70367	1	5.0	5.567	1		163247	0.4	0.4	-3.2	Y
		Chloroform		943291	1	5.0	4.867	1		163247	5.9	5.9	0.6	Y
		Bromodichloromethane		21641	1	5.0	0.202	1		1637515	0.3	0.3	9.0	Y
		Tetrachloroethene		1983208	1	5.0	0.43	1		999630	23	23	0.3	Y
3	MW-13A-3Q11	Chloroform		715425	1	5.0	4.867	1		171687	4.3	4.3	-0.4	Y
		Tetrachloroethene		239453	1	5.0	0.430	1		1061214	2.6	2.6	0.9	Y
4	MW-14A-3Q11	Chloroform		302057	1	5.0	4.867	1		1571131	1.9	0.2	-89.6	N
		Tetrachloroethene		193936	1	5.0	0.430	1		960112	2.4	2.3	-2.1	Y

Reporting Limit Outliers

Lab Reporting Batch ID: 11252C **Laboratory: R9LAB**

EDD Filename: 11252C_VOC_1109024 FINAL **eQAPP Name: Modesto_Site_090711**

Method: **524.2**

Matrix: **Water**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
MW-10A-3Q11	BROMODICHLOROMETHANE	J,C1	0.3	0.5	MRL	ug/L	J (all detects)
MW-12A-3Q11	BROMODICHLOROMETHANE TRICHLOROFLUOROMETHANE	J,C1 J,C1	0.3 0.4	0.5 0.5	MRL MRL	ug/L ug/L	J (all detects)
MW-16B-3Q11	1,3,5-TRIMETHYLBENZENE	J,C1	0.2	0.5	MRL	ug/L	J (all detects)
MW-16C-3Q11	1,2,4-TRIMETHYLBENZENE 1,2-DICHLOROPROPANE CHLOROFORM	J,C1 J,C1 J,C1	0.3 0.3 0.3	0.5 0.5 0.5	MRL MRL MRL	ug/L ug/L ug/L	J (all detects)
MW-402-3Q11	2-BUTANONE	J,C1	2.3	4.0	MRL	ug/L	J (all detects)

LDC #: 1110-01A____ **VALIDATION FINDING WORKSHEET** Page:__1__of__1__

SDG #: _11252C___ **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?

Analyte	Concentration (ug/L)		Factor Difference *	RPD	Qualifications
	MW-14A-1Q11	MW-86A-1Q11			
		(11252B)			
Chloroform	1.9	2.7	0.70	35	None
Tetrachloroethene	2.4	2.3	1.04	4	None

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

* = See Table 2-17 of SAP

Field Duplicate RPD Report

Lab Reporting Batch ID: 11252C **Laboratory: R9LAB**

EDD Filename: 11252C_VOC_1109024 FINAL_rev **eQAPP Name: Modesto_Site_090711**

Method: 524.2
Matrix: Water

Analyte	Concentration (ug/L)		Sample RPD	eQAPP RPD	Flag
	MW-14A-3Q11	MW-86A-3Q11			
CHLOROFORM	1.9	2.700000000	35	1.00	No Qualifiers Applied
TETRACHLOROETHENE	2.4	2.300000000	4	1.00	

Project Name and Number: R11SA1 - Modesto Groundwater Sept 2011 Qtrly Monitoring

Trip Blank Outlier Report

Lab Reporting Batch ID: 11252C **Laboratory: R9LAB**

EDD Filename: 11252C_VOC_1109024 FINAL_rev2 **eQAPP Name: Modesto_Site_090711**

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

Trip Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
MW-303-3Q11(Initial)	9/7/2011 7:00:00 AM	ACETONE CHLOROFORM	28 ug/L 3 ug/L	MW-10A-3Q11 MW-10B-3Q11 MW-10C-3Q11 MW-11A-3Q11 MW-12A-3Q11 MW-13A-3Q11 MW-14A-3Q11 MW-15A-3Q11 MW-16A-3Q11 MW-16B-3Q11 MW-16C-3Q11 MW-402-3Q11

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-10A-3Q11(Reinjection-01)	CHLOROFORM	5.9 ug/L	5.9U ug/L
MW-11A-3Q11(Initial)	CHLOROFORM	5.6 ug/L	5.6U ug/L
MW-12A-3Q11(Initial)	CHLOROFORM	5.9 ug/L	5.9U ug/L
MW-13A-3Q11(Initial)	CHLOROFORM	4.3 ug/L	4.3U ug/L
MW-14A-3Q11(Initial)	CHLOROFORM	1.9 ug/L	1.9U ug/L
MW-15A-3Q11(Initial)	CHLOROFORM	1.4 ug/L	1.4U ug/L
MW-16A-3Q11(Initial)	CHLOROFORM	0.7 ug/L	0.7U ug/L
MW-16B-3Q11(Initial)	ACETONE	4.6 ug/L	4.6U ug/L
MW-16B-3Q11(Initial)	CHLOROFORM	0.6 ug/L	0.6U ug/L
MW-16C-3Q11(Initial)	CHLOROFORM	0.3 ug/L	0.5U ug/L
MW-402-3Q11(Initial)	ACETONE	34 ug/L	34U ug/L
MW-402-3Q11(Initial)	CHLOROFORM	3.5 ug/L	3.5U ug/L

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-3Q11								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Reinjection-	2.0	ug/L	Initial Calibration Relative		UJ	10/26/2011 19:09
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Reinjection-	2.0	ug/L	Continuing Calibration		UJ	10/26/2011 19:23
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Reinjection-	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011 15:46
Reason for change: defer to QLS criteria								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Reinjection-	2.0	ug/L	Continuing Calibration	UJ		10/27/2011 15:51
Reason for change: defer to QLS criteria								
ACETONE	524.2	Reinjection-	4.0	ug/L	Initial Calibration Percent		UJ	10/26/2011 19:21
Reason for change: %RSD > 20.0								
BROMOFORM	524.2	Reinjection-	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 19:21
Reason for change: %RSD > 20.0								
CARBON TETRACHLORIDE	524.2	Reinjection-	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 19:21
Reason for change: %RSD > 20.0								
Field Sample ID: MW-10B-3Q11								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative		UJ	10/26/2011 19:09
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration		UJ	10/26/2011 19:33
Reason for change: RRF < 0.05								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: MW-10B-3Q11								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011 15:46
Reason for change: defer to QLS criteria								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration	UJ		10/27/2011 15:50
Reason for change: defer to QLS criteria								
ACETONE	524.2	Initial	4.0	ug/L	Initial Calibration Percent		UJ	10/26/2011 19:20
Reason for change: %RSD > 20.0								
BROMOFORM	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 19:21
Reason for change: %RSD > 20.0								
CARBON TETRACHLORIDE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 19:21
Reason for change: %RSD > 20.0								
Field Sample ID: MW-10C-3Q11								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative		UJ	10/26/2011 19:09
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration		UJ	10/26/2011 19:36
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011 15:46
Reason for change: defer to QLS criteria								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration	UJ		10/27/2011 15:50
Reason for change: defer to QLS criteria								
ACETONE	524.2	Initial	4.0	ug/L	Initial Calibration Percent		UJ	10/26/2011 19:20
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-3Q11								
BROMOFORM	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 19:20
Reason for change: %RSD > 20.0								
CARBON TETRACHLORIDE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 19:20
Reason for change: %RSD > 20.0								
Field Sample ID: MW-11A-3Q11								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative		UJ	10/26/2011 19:10
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration		UJ	10/26/2011 19:37
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011 15:46
Reason for change: defer to QLS criteria								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration	UJ		10/27/2011 15:50
Reason for change: defer to QLS criteria								
ACETONE	524.2	Initial	4.0	ug/L	Initial Calibration Percent		UJ	10/26/2011 19:20
Reason for change: %RSD > 20.0								
BROMOFORM	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 19:20
Reason for change: %RSD > 20.0								
CARBON TETRACHLORIDE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 19:20
Reason for change: %RSD > 20.0								
Field Sample ID: MW-12A-3Q11								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative		UJ	10/26/2011 19:10
Reason for change: RRF < 0.05								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: MW-12A-3Q11								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration		UJ	10/26/2011 19:37
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011 15:46
Reason for change: defer to QLS criteria								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration	UJ		10/27/2011 15:50
Reason for change: defer to QLS criteria								
ACETONE	524.2	Initial	4.0	ug/L	Initial Calibration Percent		UJ	10/26/2011 19:19
Reason for change: %RSD > 20.0								
BROMOFORM	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 19:19
Reason for change: %RSD > 20.0								
CARBON TETRACHLORIDE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 19:19
Reason for change: %RSD > 20.0								
Field Sample ID: MW-13A-3Q11								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative		UJ	10/26/2011 19:11
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration		UJ	10/26/2011 19:37
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011 15:47
Reason for change: defer to QLS criteria								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration	UJ		10/27/2011 15:50
Reason for change: defer to QLS criteria								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: MW-13A-3Q11								
ACETONE	524.2	Initial	4.0	ug/L	Initial Calibration Percent		UJ	10/26/2011 19:18
Reason for change:	%RSD > 20.0							
BROMOFORM	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 19:19
Reason for change:	%RSD > 20.0							
CARBON TETRACHLORIDE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 19:18
Reason for change:	%RSD > 20.0							
Field Sample ID: MW-14A-3Q11								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative		UJ	10/26/2011 19:11
Reason for change:	RRF < 0.05							
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration		UJ	10/26/2011 19:38
Reason for change:	RRF < 0.05							
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011 15:47
Reason for change:	defer to QLS criteria							
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration	UJ		10/27/2011 15:50
Reason for change:	defer to QLS criteria							
ACETONE	524.2	Initial	4.0	ug/L	Initial Calibration Percent		UJ	10/26/2011 19:18
Reason for change:	%RSD > 20.0							
BROMOFORM	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 19:18
Reason for change:	%RSD > 20.0							
CARBON TETRACHLORIDE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 19:18
Reason for change:	%RSD > 20.0							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: MW-15A-3Q11								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative		UJ	10/26/2011 19:12
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration		UJ	10/26/2011 19:38
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011 15:47
Reason for change: defer to QLS criteria								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration	UJ		10/27/2011 15:49
Reason for change: defer to QLS criteria								
ACETONE	524.2	Initial	4.0	ug/L	Initial Calibration Percent		UJ	10/26/2011 19:17
Reason for change: %RSD > 20.0								
BROMOFORM	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 19:18
Reason for change: %RSD > 20.0								
CARBON TETRACHLORIDE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 19:17
Reason for change: %RSD > 20.0								
Field Sample ID: MW-16A-3Q11								
1,1,2-TRICHLORO-1,2,2-	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 19:17
Reason for change: %RSD > 20.0								
1,1,2-TRICHLORO-1,2,2-	524.2	Initial	0.5	ug/L	Initial Calibration Percent	UJ		10/26/2011 19:44
Reason for change: RRF met criteria								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative		UJ	10/26/2011 19:13
Reason for change: RRF < 0.05								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: MW-16A-3Q11								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration		UJ	10/26/2011 19:39
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011 15:47
Reason for change: defer to QLS criteria								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration	UJ		10/27/2011 15:49
Reason for change: defer to QLS criteria								
ACETONE	524.2	Initial	4.0	ug/L	Initial Calibration Percent		UJ	10/26/2011 19:45
Reason for change: %RSD > 20.0								
BROMOFORM	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 19:17
Reason for change: %RSD > 20.0								
CARBON TETRACHLORIDE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 19:17
Reason for change: %RSD > 20.0								
Field Sample ID: MW-16B-3Q11								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative		UJ	10/26/2011 19:13
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration		UJ	10/26/2011 19:39
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011 15:47
Reason for change: defer to QLS criteria								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration	UJ		10/27/2011 15:49
Reason for change: defer to QLS criteria								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: MW-16B-3Q11								
ACETONE	524.2	Initial	4.6	ug/L	Initial Calibration Percent		J	10/26/2011 19:16
Reason for change: %RSD > 20.0								
BROMOFORM	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 19:17
Reason for change: %RSD > 20.0								
CARBON TETRACHLORIDE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 19:16
Reason for change: %RSD > 20.0								
Field Sample ID: MW-16C-3Q11								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative		UJ	10/26/2011 19:13
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration		UJ	10/26/2011 19:39
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011 15:48
Reason for change: defer to QLS criteria								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration	UJ		10/27/2011 15:49
Reason for change: defer to QLS criteria								
ACETONE	524.2	Initial	4.0	ug/L	Initial Calibration Percent		UJ	10/26/2011 19:16
Reason for change: %RSD > 20.0								
BROMOFORM	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 19:16
Reason for change: %RSD > 20.0								
CARBON TETRACHLORIDE	524.2	Initial	3.3	ug/L	Initial Calibration Percent		J	10/26/2011 19:16
Reason for change: %RSD > 20.0								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: MW-303-3Q11								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative		UJ	10/26/2011 19:13
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration		UJ	10/26/2011 19:39
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011 15:48
Reason for change: defer to QLS criteria								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration	UJ		10/27/2011 15:49
Reason for change: defer to QLS criteria								
ACETONE	524.2	Initial	28	ug/L	Initial Calibration Percent		J	10/26/2011 19:15
Reason for change: %RSD > 20.0								
BROMOFORM	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 19:16
Reason for change: %RSD > 20.0								
CARBON TETRACHLORIDE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 19:15
Reason for change: %RSD > 20.0								
Field Sample ID: MW-402-3Q11								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative		UJ	10/26/2011 19:13
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration		UJ	10/26/2011 19:39
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011 15:48
Reason for change: defer to QLS criteria								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: MW-402-3Q11								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration	UJ		10/27/2011 15:49
Reason for change:	defer to QLS criteria							
ACETONE	524.2	Initial	34	ug/L	Initial Calibration Percent		J	10/26/2011 19:14
Reason for change:	%RSD > 20.0							
BROMOFORM	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 19:15
Reason for change:	%RSD > 20.0							
CARBON TETRACHLORIDE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 19:15
Reason for change:	%RSD > 20.0							

SDG 11257C

LDC #: 1110-01B1
SDG #: 11257C
Laboratory: EPA Region 9

VALIDATION COMPLETENESS WORKSHEET
Level III

Date: 10/26/11
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	A	Sampling dates: 09/13/2011
II.	GC/MS Instrument performance check	A	
III.	Initial calibration/ICV	SW	≤ 20.0%D per R9 SOP ±30% SCV RRF ~~>0.05~~ KD defer to QLS criteria
IV.	Continuing calibration	SW	≤ 30% per R9 SOP354 QLS 60-140%R
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	N ~~A~~	
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	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-20A-3Q11	11		21		31	
2	MW-20B-3Q11	12		22		32	
3	MW-20C-3Q11	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	

WORK ORDER NOTES - 1109031

1109031 - California Site Cleanup Section 2
Modesto Groundwater Sept 2011 Qtrly Monitoring

Save Cancel

VOC Analysis: A matrix spike/Matrix spike duplicate were prepared on 09-16-11 from sample 1109031-01 but due to Archon autosampler hardware issue, the spikes were not analyzed. The vials were analyzed the following day but low recoveries were noted for several analytes and a high surrogate 1 was also noted for the spikes. A duplicate was analyzed from sample 1109031-02 but high surrogate 1 was also noted. A duplicate was analyzed from sample 1109031-01 again on 9-20-11 but since the vial had headspace, low recoveries were noted for most of the hits. We believe that the MS/MSD and duplicate data are not usable and will not be reported. ZAR 09-30-11

LCS %R met criteria all cpds.

LDC #: 1110-01B1
SDG #: 11257C

VALIDATION FINDINGS WORKSHEET
Initial Calibration

Page: 1 of 1
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** RRF > 0.05

#	Date	Standard ID	Compound	Finding %RSD (Limit: ≤20.0%)	Associated Samples	Qualifications
1	9/12/11	091211HVW	Acetone	27.78 (20.0)	All	J / UJ
	HP5973H		Carbon tetrachloride	33.81 (20.0)		J / UJ
			DBCP	0.030 (0.050)	All	~~UJ~~ defer to QLS criteria KTD

LDC #: 1110-01B1
SDG #: 11257C

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Page: 1 of 1
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% ? RRF > 0.05? QLS 60-140%R?

#	Date	Standard ID	Compound	Finding %D (Limit: ≤30.0%)	Associated Samples	Qualifications
1	9/16/11 07:39	091611HC01.D CCV	DBCP	0.029 (0.050)	1RE 2RE 3	~~J+UJ~~ defer to QLS KTD
			TBA	42.6 (20.0)		None, N.R.
2	9/16/11 08:18	091611HC03 QLS	Carbon tetrachloride	46% (60-140)	1RE 2RE 3	UJ non-detects
						1RE/2REare PCE only; sample 3 ND
3	9/17/11 09:53	091711HC01.d	DBCP	0.030 (0.050)	1 (not used) 2	J ~~+UJ~~ ~~J~~ defer to QLS KTD
			TBA	44.4 (20.0)		None, N.R.
4	9/17/11 11:50	091711HC03 QLS	TBA	55% (60-140)	1 (not used) 2	None, N.R.
			Acetone	141% (60-140)		J+ detects
5	9/20/11 08:09	0920HC01.d	DBCP	0.032 (0.050)	1 (not used) 2	~~J+UJ~~ defer to QLS
			TBA	40.7 (20.0)		None, N.R.
6	9/20/11 10:07	092011HC03 QLS	TBA	54% (60-140)	1-RE2	None, N.R.

Method Blank Outlier Report

Lab Reporting Batch ID: 11257C **Laboratory: R9LAB**

EDD Filename: 11257C_VOC_1109031 FINAL **eQAPP Name: Modesto_Site_090711**

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
B1I0059-BLK2	9/17/2011 12:30:00 PM	ACETONE	2.1 ug/L	MW-20A-3Q11 MW-20B-3Q11 MW-20C-3Q11
B1I0076-BLK1	9/20/2011 10:46:00 AM	ACETONE	2.1 ug/L	MW-20A-3Q11

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-20A-3Q11(Reanalysis-012)	ACETONE	2.1 ug/L	4.0U ug/L
MW-20B-3Q11(Reanalysis-01)	ACETONE	2.4 ug/L	4.0U ug/L

Reporting Limit Outliers

Lab Reporting Batch ID: 11257C **Laboratory: R9LAB**

EDD Filename: 11257C_VOC_1109031 FINAL **eQAPP Name: Modesto_Site_090711**

Method: **524.2**

Matrix: **Water**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
MW-20A-3Q11	ACETONE	J,C1,C3	2.1	4.0	MRL	ug/L	J (all detects)
	BROMODICHLOROMETHANE	J,C1	0.3	0.5	MRL	ug/L	
	TRICHLOROETHENE	J,C1,Q5	0.3	0.5	MRL	ug/L	
MW-20B-3Q11	ACETONE	J,C3	2.4	4.0	MRL	ug/L	J (all detects)
	DIBROMOCHLOROMETHANE	J,C1	0.2	0.5	MRL	ug/L	

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-20A-3Q11								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Reanalysis-	2.0	ug/L	Initial Calibration Relative		UJ	10/26/2011 14:17
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Reanalysis-	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011 16:10
Reason for change: defer to QLS criteria								
ACETONE	524.2	Reanalysis-	2.1	ug/L	Initial Calibration Percent		J	10/26/2011 14:17
Reason for change: %RSD > 20.0								
CARBON TETRACHLORIDE	524.2	Reanalysis-	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 14:18
Reason for change: %RSD > 20.0								
Field Sample ID: MW-20B-3Q11								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Reanalysis-	2.0	ug/L	Initial Calibration Relative		UJ	10/26/2011 14:18
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Reanalysis-	2.0	ug/L	Continuing Calibration		UJ	10/26/2011 14:31
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Reanalysis-	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011 16:11
Reason for change: defer to QLS criteria								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Reanalysis-	2.0	ug/L	Continuing Calibration	UJ		10/27/2011 16:11
Reason for change: defer to QLS criteria								
ACETONE	524.2	Reanalysis-	2.4	ug/L	Initial Calibration Percent		J	10/26/2011 14:19
Reason for change: %RSD > 20.0								

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: MW-20B-3Q11								
ACETONE	524.2	Reanalysis-	2.4	ug/L	Continuing Calibration		J+	10/26/2011 14:31
Reason for change: QLS > 140%								
CARBON TETRACHLORIDE	524.2	Reanalysis-	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 14:19
Reason for change: %RSD < 20.0								
Field Sample ID: MW-20C-3Q11								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative		UJ	10/26/2011 14:20
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration		UJ	10/26/2011 14:28
Reason for change: RRF < 0.05								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011 16:11
Reason for change: defer to QLS criteria								
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration	UJ		10/27/2011 16:11
Reason for change: defer to QLS criteria								
ACETONE	524.2	Initial	4.0	ug/L	Initial Calibration Percent		UJ	10/26/2011 14:20
Reason for change: %RSD < 20.0								
CARBON TETRACHLORIDE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	10/26/2011 14:20
Reason for change: %RSD < 20.0								
CARBON TETRACHLORIDE	524.2	Initial	0.5	ug/L	Continuing Calibration		UJ	10/26/2011 14:30
Reason for change: QLS < 60%R								

SDG 11257D

LDC #: 1110-01C1
SDG #: 11257D
Laboratory: EPA Region 9

VALIDATION COMPLETENESS WORKSHEET
Level III

Date: 10/03/11
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	A	Sampling dates: 09/13/2011 Sa 2 had 2/5 unpres'd vials but analyz'd <7days
II.	GC/MS Instrument performance check	A	
III.	Initial calibration/ICV	SW	≤ 20.0%D per R9 SOP ±30% SCV ~~RRF >0.05~~ RD defer to QLS criteria
IV.	Continuing calibration	SW	≤ 30% per R9 SOP354 QLS 60-140%R
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	A	
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	A	
XVII.	Field blanks	A	TB = 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-0902	11		21		31	
2	EW-1-0902	12		22		32	
3	MW-304-3Q11	13		23		33	
4	EW-1-0902-MS	14		24		34	
5	EW-1-0902-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 #: 1110-01B1 (KTD)
SDG #: 11257D

VALIDATION FINDINGS WORKSHEET
Initial Calibration

Page: 1 of 1
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	9/12/11	091211HVW	Acetone	27.78 (20.0)	All	J / UJ
	HP5973H		Carbon tetrachloride	33.81 (20.0)		J / UJ
			DBCP	0.030 (0.050)	All	~~J/UJ~~ refer to QLS criteria KTD

LDC #: 1110-01B1
SDG #: 11257D

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

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 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% ? RRF > 0.05 QLS 60-140%

#	Date	Standard ID	Compound	Finding %D (Limit: ≤30.0%)	Associated Samples	Qualifications
1	9/15/11 09:02	091511HC01.D CCV	DBCP	0.030 (0.050)	All	J / UJ
2	9/15/11 11:00	091511HC03 QLS	Bromomethane	55% (60-140)	All	UJ non-detects
			2,2-Dichloropropane	54% (60-140)		samples were all ND
			Carbon tetrachloride	46% (60-140)		

Reporting Limit Outliers

Lab Reporting Batch ID: 11257D **Laboratory: R9LAB**

EDD Filename: 111257D_VOC_1109033 FINAL **eQAPP Name: Modesto_Site_090711**

Method: **524.2**

Matrix: **Water**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EFF-0902	TETRACHLOROETHENE	J,C1	0.4	0.5	MRL	ug/L	J (all detects)

Field QC Assignments and Associated Samples

EDD File Name: 11257D
eQapp Name: Modesto_Site_090711

	Associated Samples	Sample Collection Date
Field QC Sample: MW-304-3Q11 **QC Type:** Trip_Blank		
	EW-1-0902	9/13/2011 8:30:00 AM
	EFF-0902	9/13/2011 8:20:00 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-0902									
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative		UJ	10/5/2011	15:07
Reason for change: RRF < 0.05									
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration		UJ	10/5/2011	15:09
Reason for change: RRF < 0.05									
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011	16:57
Reason for change: defer to QLS criteria									
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration	UJ		10/27/2011	16:58
Reason for change: defer to QLS criteria									
2,2-DICHLOROPROPANE	524.2	Initial	0.5	ug/L	Professional Judgment		UJ	10/5/2011	15:21
Reason for change: QLS < 60% R									
ACETONE	524.2	Initial	4.0	ug/L	Initial Calibration Percent		UJ	10/5/2011	15:14
Reason for change: %RSD > 20									
BROMOMETHANE	524.2	Initial	0.5	ug/L	Professional Judgment		UJ	10/5/2011	15:21
Reason for change: QLS < 60% R									
CARBON TETRACHLORIDE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	10/5/2011	15:14
Reason for change: %RSD > 20									
CARBON TETRACHLORIDE	524.2	Initial	0.5	ug/L	Professional Judgment		UJ	10/5/2011	15:20
Reason for change: QLS < 60% R									

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: EW-1-0902									
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Reinjection-	2.0	ug/L	Initial Calibration Relative		UJ	10/5/2011	15:07
Reason for change: RRF < 0.05									
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Reinjection-	2.0	ug/L	Continuing Calibration		UJ	10/5/2011	15:10
Reason for change: RRF < 0.05									
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Reinjection-	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011	16:57
Reason for change: defer to QLS criteria									
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Reinjection-	2.0	ug/L	Continuing Calibration	UJ		10/27/2011	16:58
Reason for change: defer to QLS criteria									
2,2-DICHLOROPROPANE	524.2	Reinjection-	0.5	ug/L	Professional Judgment		UJ	10/5/2011	15:22
Reason for change: QLS < 60% R									
ACETONE	524.2	Reinjection-	4.0	ug/L	Initial Calibration Percent		UJ	10/5/2011	15:11
Reason for change: %RSD > 20									
BROMOMETHANE	524.2	Reinjection-	0.5	ug/L	Professional Judgment		UJ	10/5/2011	15:21
Reason for change: QLS < 60% R									
CARBON TETRACHLORIDE	524.2	Reinjection-	0.5	ug/L	Initial Calibration Percent		UJ	10/5/2011	15:12
Reason for change: %RSD > 20									
CARBON TETRACHLORIDE	524.2	Reinjection-	0.5	ug/L	Professional Judgment		UJ	10/5/2011	15:22
Reason for change: QLS < 60% R									
Field Sample ID: MW-304-3Q11									
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative		UJ	10/5/2011	15:08
Reason for change: RRF < 0.05									

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time	
Field Sample ID: MW-304-3Q11									
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration		UJ	10/5/2011	15:10
Reason for change: RRF < 0.05									
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Initial Calibration Relative	UJ		10/27/2011	16:57
Reason for change: defer to QLS criteria									
1,2-DIBROMO-3-CHLOROPROPANE	524.2	Initial	2.0	ug/L	Continuing Calibration	UJ		10/27/2011	16:58
Reason for change: defer to QLS criteria									
2,2-DICHLOROPROPANE	524.2	Initial	0.5	ug/L	Professional Judgment		UJ	10/5/2011	15:25
Reason for change: QLS < 60% R									
ACETONE	524.2	Initial	4.0	ug/L	Initial Calibration Percent		UJ	10/5/2011	15:11
Reason for change: %RSD > 20									
BROMOMETHANE	524.2	Initial	0.5	ug/L	Professional Judgment		UJ	10/5/2011	15:25
Reason for change: QLS < 60% R									
CARBON TETRACHLORIDE	524.2	Initial	0.5	ug/L	Initial Calibration Percent		UJ	10/5/2011	15:11
Reason for change: %RSD > 20									
CARBON TETRACHLORIDE	524.2	Initial	0.5	ug/L	Professional Judgment		UJ	10/5/2011	15:25
Reason for change: QLS < 60% R									

LDC #: 1110-01B6

SDG #: 11257D

Laboratory: EPA Region 9

VALIDATION COMPLETENESS WORKSHEET

EPA Level III

Date: 10/03/11

Reviewer:

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: 09/13/2011
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 = 2 RPD≤ 5%
VI	Laboratory control samples	SW	TDS/TSS SRM/LCS 85-115% BOD SRM/LCS 81.5-118.5%
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-0902	11		21		31	
2	EFF-0902 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:

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: 11257D **Laboratory: R9LAB**

EDD Filename: 111257D_BOD_1109033 FINAL_edited LCS **eQAPP Name: Modesto_Site_090711**

Method: **5210B**

Matrix: **Water**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
B1I0056-SRM1 (EFF-0902)	Biochemical Oxygen Demand	79	-	81.50-118.50	-	Biochemical Oxygen Demand	J- (all detects) UJ (all non-detects)

SDG 11257F

LDC #: 1110-02B
SDG #: 11257F
Laboratory: EPA Region 9

VALIDATION COMPLETENESS WORKSHEET

Level III / IV

Date: 10/19/11
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	SW / A	Sampling dates: 09/08-09/2011
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	SW	≤ 30% RSD SCV %D ≤ 30% Note: SCV "not used"
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	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	~~N~~ NA	per SAP Table 2-17 FD=8 & 9 13 & 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-3Q11	11	SVE-2-3Q11	21		31	
2	DP-1B-3Q11 **	12	SVE-3-3Q11	22		32	
3	DP-5A-3Q11	13	SVE-4-3Q11	23		33	
4	DP-5B-3Q11	14	SVE-96-3Q11	24		34	
5	DP-6A-3Q11 **	15	SVE-3-3Q11 Dup	25		35	
6	DP-6B-3Q11	16		26		36	
7	OSVE-10-3Q11	17		27		37	
8	OSVE-11-3Q11	18		28		38	
9	OSVE-89-3Q11	19		29		39	
10	SVE-1-3Q11 **	20		30		40	

QC Outlier Report: HoldingTimes

Lab Reporting Batch ID: 11257F **Laboratory: R9LAB**
EDD Filename: 11257F_TO15_1109035 FINAL_edited RPD **eQAPP Name: Modesto_Site_090711**

Method: TO-15 **Preparation Method: None**
Matrix: Air

Sample ID	Type	Actual	Criteria	Units	Flag
DP-1A-3Q11 (Initial)	Sampling To Analysis	18.00		DAYS	J- (all detects)
DP-1A-3Q11 (Reinjection-01)		19.00		DAYS	UJ (all non-detects)
DP-1B-3Q11 (Initial)		18.00		DAYS	
DP-5A-3Q11 (Initial)		19.00		DAYS	
DP-5B-3Q11 (Initial)		19.00		DAYS	
DP-6A-3Q11 (Initial)		19.00		DAYS	
DP-6B-3Q11 (Initial)		20.00		DAYS	
OSVE-10-3Q11 (Initial)		21.00		DAYS	
OSVE-10-3Q11 (Dilution-01)		21.00		DAYS	
OSVE-11-3Q11 (Initial)		21.00		DAYS	
OSVE-89-3Q11 (Initial)		20.00		DAYS	
SVE-1-3Q11 (Initial)		19.00		DAYS	
SVE-2-3Q11 (Initial)		21.00		DAYS	
SVE-2-3Q11 (Dilution-01)		22.00		DAYS	
SVE-3-3Q11 (Initial)		22.00		DAYS	
SVE-3-3Q11 (Reinjection-01)		22.00		DAYS	
SVE-3-3Q11DUP (Initial)		22.00		DAYS	
SVE-4-3Q11 (Initial)		20.00		DAYS	
SVE-96-3Q11 (Initial)		22.00		DAYS	

14 days per method
30 days per SOP R9 -
criteria = 30 days

Project Name and Number: R11SA1 - Modesto

LDC #: 1110-02B
SDG #: 11257F

VALIDATION FINDINGS WORKSHEET
Initial 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 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	9/29/11	092311KAA.M	Hexachlorobutadiene	30.17 (30.0)	---	All samples in the SDG	J / UJ
	18:29						

LDC #: 1110-023
SDG #: 11257F

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

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
9/23/2011	AG5973K	Vinyl chloride (vs Bromochloromethane)	Point 1	1.01	42332	21.00	1011899	0.870		0.870	
			Point 2	2.02	75594	21.00	1060021	0.741		0.741	
			Point 3	5.05	153646	21.00	1087976	0.587		0.587	
			Point 4	10.10	372509	21.00	1052880	0.736		0.736	
			Point 5	15.15	530870	21.00	1071705	0.687		0.687	
			Point 6	20.20	739774	21.00	1102571	0.698		0.698	
			Mean calibration factor					0.720	12.79	0.720	12.79
9/23/2011	HP5973K	Trichloroethene (vs 1,4-Difluorobenzene)	Point 1	1.02	46621	21.60	2672724	0.369		0.369	
			Point 2	2.04	86038	21.60	2792223	0.326		0.326	
			Point 3	5.10	174999	21.60	2807888	0.264		0.264	
			Point 4	10.20	374745	21.60	2646187	0.300		0.300	
			Point 5	15.30	586717	21.60	2699907	0.307		0.307	
			Point 6	20.40	806381	21.60	2785319	0.307		0.307	
			Mean calibration factor					0.312	11.11	0.312	11.11
9/23/2011	HP5973K	Tetrachloroethene (vs Chlorobenzene-d5)	Point 1	1.02	62822	22.00	2518285	0.538		0.538	
			Point 2	2.04	119885	22.00	2627402	0.492		0.492	
			Point 3	5.10	241968	22.00	2673049	0.390		0.390	
			Point 4	10.20	526485	22.00	2568210	0.442		0.442	
			Point 5	15.30	831564	22.00	2630040	0.455		0.455	
			Point 6	20.40	1195434	22.00	2744330	0.470		0.470	
			Mean calibration factor					0.465	10.67	0.465	10.67

LDC #: 1110-02B
SDG #: 11257F

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~~ 24 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	9/27/11	092711KC01	1,2,4-Trichlorobenzene	32.1 (30.0)	1, 5, 10, 13	J-/UJ detects
	1:14pm		Hexachlorobutadiene	36.1 (30.0)		J-/UJ detects
2	9/27/11	QLS 092711KC03	1,2,4-Trichlorobenzene	187 (60-140%)	1, 5, 10, 13	J+ detects (all ND)
			Hexachlorobutadiene	214 (60-140%)		↓
3	9/28/11	092811KC01	1,2,4-Trichlorobenzene	32.7 (30.0)	6, 9	J-/UJ detects
	2:35pm		Hexachlorobutadiene	35.5 (30.0)		J-/UJ detects
	9/27/11	092911KC01	Hexachlorobutadiene	30.4 (30.0)	7, 8, 11, 12, 14	J-/UJ detects
	2:48pm					

LDC #: 1110-02B
SDG #: 11275F

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Calculation Verification

Reviewer: KTP
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
6/15/2011 (14:21)	Chloroform	10.00	689320	21.00	1048375	1.381	1.381	1.424	3.0	3.0
	Trichloroethene	10.20	392419	21.60	2813426	0.295	0.295	0.312	5.4	5.4
	Tetrachloroethene	10.20	522240	22.00	2553438	0.441	0.441	0.465	5.2	5.2

LDC #: 1110-02B
SDG #: 11257F

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample Result Verification

Page: 1 of 1
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: BIF0122-BS1

Compound	Spike Added (ppbv)	Sample Concentration (ppbv)	Spiked Sample Concentration (ppbv)	LCS Percent Recovery		LCS %D
	LCS	---	LCS	Reported	Recalc.	Calculated
Vinyl chloride	12.00	0.0	10.33	86	86	0.1
Chloroform	11.00	0.0	11.14	101	101	0.3
1,2-Dichloroethane	11.00	0.0	10.15	92	92	0.3
Trichloroethene	11.00	0.0	11.43	104	104	0.1
1,2-Dichloropropane	11.00	0.0	11.49	104	104	0.4
1,1,2-Trichloroethane	11.00	0.0	11.76	107	107	0.1
Tetrachloroethene	11.00	0.0	11.83	108	108	0.4
1,1,2,2-Tetrachloroethane	11.00	0.0	10.20	93	93	0.3
Hexachlorobutadiene	9.40	0.0	7.86	84	84	0.5

LDC #: _1110-02B VALIDATION FINDING WORKSHEET Page: 1 of 1

SDG #: _11257F__ **Laboratory Duplicates** Reviewer: GD

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-3-3Q11	SVE-3-3Q11 dup (10x)		
Trichloroethene	2.8	< 33	NC	NC
Tetrachloroethene (RE)	410	350.0	15	16

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 #: 1110-028
SDG #: 11257F

VALIDATION FINDINGS WORKSHEET

Sample Calculation Verification

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	DP-1B-3Q11	Tetrachloroethene		353958	200	2.37	22.00	0.465	200	2099874	19	18.9	-0.5	Y
2	DP-6A-3Q11	Tetrachloroethene		85224	200	2.19	22.00	0.465	200	1942012	4.6	5	-1.2	Y
3	SVE-1-3Q11	Tetrachloroethene		743073	200	2.34	22.00	0.465	200	1939212	42	42.422	1.0	Y

Reporting Limit Outliers

Lab Reporting Batch ID: 11257F **Laboratory: R9LAB**

EDD Filename: 11257F_TO15_1109035 FINAL_edited RPD **eQAPP Name: Modesto_Site_090711**

Method: **TO-15**

Matrix: **Air**

SampleID	*Analyte*	*Lab Qual*	*Result*	*Reporting Limit*	*RL Type*	*Units*	*Flag*
DP-6B-3Q11	BENZENE	J,C1	1.3	2.4	MRL	ppbv	J (all detects)
OSVE-10-3Q11	CIS-1,2-DICHLOROETHENE	J,C1	1.9	2.3	MRL	ppbv	J (all detects)
SVE-3-3Q11	TRICHLOROETHENE	J,C1	2.8	3.3	MRL	ppbv	J (all detects)
SVE-4-3Q11	1,4-DICHLOROBENZENE BENZENE TRICHLOROETHENE	J,C1 J,C1 J,C1	1.3 1.6 2.1	2.4 2.4 2.4	MRL MRL MRL	ppbv ppbv ppbv	J (all detects)
SVE-96-3Q11	BENZENE TRICHLOROETHENE	J,C1 J,C1	1.6 2.2	2.4 2.4	MRL MRL	ppbv ppbv	J (all detects)

Field QC Assignments and Associated Samples

EDD File Name: 11257F
eQapp Name: Modesto_Site_090711

	Associated Samples	Sample Collection Date
Field QC Sample: OSVE-89-3Q11 **QC Type:** Field_Duplicate		
	OSVE-11-3Q11	9/9/2011 8:28:00 AM
Field QC Sample: SVE-96-3Q11 **QC Type:** Field_Duplicate		
	SVE-4-3Q11	9/8/2011 10:41:00 AM

Field Duplicate RPD Report

Lab Reporting Batch ID: 11257F **Laboratory: R9LAB**

EDD Filename: 11257F_TO15_1109035 **eQAPP Name: Modesto_Site_090711**

FINAL_edited RPD

Method: TO-15

Matrix: Air

Analyte	Concentration (ppbv)		Sample RPD	eQAPP RPD	Flag
	SVE-4-3Q11	SVE-96-3Q11			
1,2-DICHLOROBENZENE	6.2	5.0	21	1.00	No Qualifiers Applied
1,4-DICHLOROBENZENE	1.3	2.4 U	200	1.00	
BENZENE	1.6	1.6	0	1.00	
CHLOROFORM	26	26	0	1.00	
TETRACHLOROETHENE	32	31	3	1.00	
TRICHLOROETHENE	2.1	2.2	5	1.00	

Analyte	Concentration (ppbv)		Sample RPD	eQAPP RPD	Flag
	OSVE-11-3Q11	OSVE-89-3Q11			
TETRACHLOROETHENE	25	17	38	1.00	No Qualifiers Applied

Project Name and Number: R11SA1 - Modesto Groundwater Sept 2011 Qtrly Monitoring

LDC #: _1110-02B VALIDATION FINDING WORKSHEET Page: 1 of 1

SDG #: _11257F__ **Field Duplicates** Reviewer: KTP

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

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

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

Analyte	Concentration (ppbv)		Multiplier	Recalculated RPD
	SVE-4-3Q11	SVE-96-3Q11		
Trichloroethene	2.1	2.2	1.0	5
Chloroform	26.0	26.0	1.0	0
Benzene	1.6	1.6	1.0	0
1,2-Dichlorobenzene	6.2	5.0	0.8	21
Tetrachloroethene	32	31	1.0	3
1,4-Dichlorobenzene	1.3	< 2.4	NC	NC

Analyte	Concentration (ppbv)		Multiplier	Recalculated RPD
	OSVE-11-3Q11	OSVE-89-3Q11		
Tetrachloroethene	25	17	0.7	38

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

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-3Q11								
1,1,1-TRICHLOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1,2,2-TETRACHLOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1,2-TRICHLORO-1,2,2-	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1,2-TRICHLOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1-DICHLOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1-DICHLOROETHENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2,4-TRICHLOROBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2,4-TRICHLOROBENZENE	TO-15	Initial	2.4	ppbv	Continuing Calibration		UJ	10/25/2011 22:07
Reason for change:	%D > 30.0 negative bias							
1,2,4-TRIMETHYLBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DIBROMOETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: DP-1A-3Q11								
1,2-DICHLOROBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROPROPANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROTETRAFLUOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,3,5-TRIMETHYLBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,3-DICHLOROBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,4-DICHLOROBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
BENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
BROMOMETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
CARBON TETRACHLORIDE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: DP-1A-3Q11								
CHLOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROFORM	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROMETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
CIS-1,2-DICHLOROETHENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
CIS-1,3-DICHLOROPROPENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
ETHYLBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
HEXACHLOROBUTADIENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
HEXACHLOROBUTADIENE	TO-15	Initial	2.4	ppbv	Initial Calibration Relative		UJ	10/25/2011 21:54
Reason for change:	%RSD > 30.0							
HEXACHLOROBUTADIENE	TO-15	Initial	2.4	ppbv	Initial Calibration Percent		UJ	10/25/2011 21:55
Reason for change:	%RSD > 30.0							
HEXACHLOROBUTADIENE	TO-15	Initial	2.4	ppbv	Initial Calibration Relative	UJ		10/25/2011 21:55
Reason for change:	RRF acceptable							
HEXACHLOROBUTADIENE	TO-15	Initial	2.4	ppbv	Continuing Calibration		UJ	10/25/2011 22:07
Reason for change:	%D > 30.0 negative bias							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: DP-1A-3Q11								
m&p-Xylene	TO-15	Initial	4.7	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
METHYLENE CHLORIDE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
O-XYLENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
STYRENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
TETRACHLOROETHENE	TO-15	Reinjection-	110	ppbv	Sampling to Analysis Estimation	J-		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
TOLUENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
TRANS-1,3-DICHLOROPROPENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
TRICHLOROETHENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
TRICHLOROFLUOROMETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
VINYL CHLORIDE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: DP-1B-3Q11								
1,1,1-TRICHLOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1,2,2-TETRACHLOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1,2-TRICHLORO-1,2,2-	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1,2-TRICHLOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1-DICHLOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1-DICHLOROETHENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2,4-TRICHLOROBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2,4-TRIMETHYLBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DIBROMOETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: DP-1B-3Q11								
1,2-DICHLOROPROPANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROTETRAFLUOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,3,5-TRIMETHYLBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,3-DICHLOROBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,4-DICHLOROBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
BENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
BROMOMETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
CARBON TETRACHLORIDE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROFORM	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: DP-1B-3Q11								
CHLOROMETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
CIS-1,2-DICHLOROETHENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
CIS-1,3-DICHLOROPROPENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
ETHYLBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
HEXACHLOROBUTADIENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
HEXACHLOROBUTADIENE	TO-15	Initial	2.4	ppbv	Initial Calibration Percent		UJ	10/25/2011 21:55
Reason for change:	%RSD > 30.0							
m&p-Xylene	TO-15	Initial	4.7	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
METHYLENE CHLORIDE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
O-XYLENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
STYRENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
TETRACHLOROETHENE	TO-15	Initial	19	ppbv	Sampling to Analysis Estimation	J-		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: DP-1B-3Q11								
TOLUENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
TRANS-1,3-DICHLOROPROPENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
TRICHLOROETHENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
TRICHLOROFLUOROMETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
VINYL CHLORIDE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:50
Reason for change:	HT = 30 days for cannister per R9 SOP							
Field Sample ID: DP-5A-3Q11								
1,1,1-TRICHLOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1,2,2-TETRACHLOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1,2-TRICHLORO-1,2,2-	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1,2-TRICHLOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1-DICHLOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: DP-5A-3Q11								
1,1-DICHLOROETHENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2,4-TRICHLOROBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2,4-TRIMETHYLBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DIBROMOETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROPROPANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROTETRAFLUOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,3,5-TRIMETHYLBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,3-DICHLOROBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,4-DICHLOROBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: DP-5A-3Q11								
BENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
BROMOMETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
CARBON TETRACHLORIDE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROFORM	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROMETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
CIS-1,2-DICHLOROETHENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
CIS-1,3-DICHLOROPROPENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
ETHYLBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
HEXACHLOROBUTADIENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: DP-5A-3Q11								
HEXACHLOROBUTADIENE	TO-15	Initial	2.4	ppbv	Initial Calibration Percent		UJ	10/25/2011 21:56
Reason for change:	%RSD > 30.0							
m&p-Xylene	TO-15	Initial	4.7	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
METHYLENE CHLORIDE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
O-XYLENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
STYRENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
TETRACHLOROETHENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
TOLUENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
TRANS-1,3-DICHLOROPROPENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
TRICHLOROETHENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
TRICHLOROFLUOROMETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
VINYL CHLORIDE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: DP-5B-3Q11								
1,1,1-TRICHLOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1,2,2-TETRACHLOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1,2-TRICHLORO-1,2,2-	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1,2-TRICHLOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1-DICHLOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1-DICHLOROETHENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2,4-TRICHLOROBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2,4-TRICHLOROBENZENE	TO-15	Initial	2.4	ppbv	Continuing Calibration		UJ	10/25/2011 22:05
Reason for change:	%D > 30.0 negative bias							
1,2,4-TRICHLOROBENZENE	TO-15	Initial	2.4	ppbv	Continuing Calibration	UJ		10/25/2011 22:06
Reason for change:	ICAL qualified only							
1,2,4-TRIMETHYLBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DIBROMOETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: DP-5B-3Q11								
1,2-DICHLOROBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROPROPANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROTETRAFLUOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,3,5-TRIMETHYLBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,3-DICHLOROBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,4-DICHLOROBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
BENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
BROMOMETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
CARBON TETRACHLORIDE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: DP-5B-3Q11								
CHLOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROFORM	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROMETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
CIS-1,2-DICHLOROETHENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
CIS-1,3-DICHLOROPROPENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
ETHYLBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
HEXACHLOROBUTADIENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
HEXACHLOROBUTADIENE	TO-15	Initial	2.4	ppbv	Initial Calibration Percent		UJ	10/25/2011 21:56
Reason for change:	%RSD > 30.0							
HEXACHLOROBUTADIENE	TO-15	Initial	2.4	ppbv	Continuing Calibration		UJ	10/25/2011 22:05
Reason for change:	%D > 30.0 negative bias							
HEXACHLOROBUTADIENE	TO-15	Initial	2.4	ppbv	Continuing Calibration	UJ		10/25/2011 22:06
Reason for change:	ICAL qualified only							
m&p-Xylene	TO-15	Initial	4.7	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: DP-5B-3Q11								
METHYLENE CHLORIDE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
O-XYLENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
STYRENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
TETRACHLOROETHENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
TOLUENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
TRANS-1,3-DICHLOROPROPENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
TRICHLOROETHENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
TRICHLOROFLUOROMETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
VINYL CHLORIDE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
Field Sample ID: DP-6A-3Q11								
1,1,1-TRICHLOROETHANE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: DP-6A-3Q11								
1,1,2,2-TETRACHLOROETHANE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1,2-TRICHLORO-1,2,2-	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1,2-TRICHLOROETHANE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1-DICHLOROETHANE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1-DICHLOROETHENE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2,4-TRICHLOROBENZENE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2,4-TRICHLOROBENZENE	TO-15	Initial	2.2	ppbv	Continuing Calibration		UJ	10/25/2011 22:04
Reason for change:	%D > 30.0 negative bias							
1,2,4-TRIMETHYLBENZENE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DIBROMOETHANE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROBENZENE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROETHANE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: DP-6A-3Q11								
1,2-DICHLOROPROPANE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROTETRAFLUOROETHANE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,3,5-TRIMETHYLBENZENE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,3-DICHLOROBENZENE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,4-DICHLOROBENZENE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
BENZENE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
BROMOMETHANE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
CARBON TETRACHLORIDE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROBENZENE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROETHANE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROFORM	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: DP-6A-3Q11								
CHLOROMETHANE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
CIS-1,2-DICHLOROETHENE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
CIS-1,3-DICHLOROPROPENE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
ETHYLBENZENE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
HEXACHLOROBUTADIENE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
HEXACHLOROBUTADIENE	TO-15	Initial	2.2	ppbv	Initial Calibration Percent		UJ	10/25/2011 21:56
Reason for change:	%RSD > 30.0							
HEXACHLOROBUTADIENE	TO-15	Initial	2.2	ppbv	Continuing Calibration		UJ	10/25/2011 22:05
Reason for change:	%D > 30.0 negative bias							
m&p-Xylene	TO-15	Initial	4.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
METHYLENE CHLORIDE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
O-XYLENE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
STYRENE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: DP-6A-3Q11								
TETRACHLOROETHENE	TO-15	Initial	4.6	ppbv	Sampling to Analysis Estimation	J-		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
TOLUENE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
TRANS-1,3-DICHLOROPROPENE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
TRICHLOROETHENE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
TRICHLOROFLUOROMETHANE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
VINYL CHLORIDE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
Field Sample ID: DP-6B-3Q11								
1,1,1-TRICHLOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1,2,2-TETRACHLOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1,2-TRICHLORO-1,2,2-	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1,2-TRICHLOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: DP-6B-3Q11								
1,1-DICHLOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1-DICHLOROETHENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2,4-TRICHLOROBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2,4-TRICHLOROBENZENE	TO-15	Initial	2.4	ppbv	Continuing Calibration		UJ	10/25/2011 22:04
Reason for change:	%D > 30.0 negative bias							
1,2,4-TRIMETHYLBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DIBROMOETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROPROPANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROTETRAFLUOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,3,5-TRIMETHYLBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: DP-6B-3Q11								
1,3-DICHLOROBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,4-DICHLOROBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
BENZENE	TO-15	Initial	1.3	ppbv	Sampling to Analysis Estimation	J-		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
BROMOMETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
CARBON TETRACHLORIDE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROFORM	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROMETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
CIS-1,2-DICHLOROETHENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
CIS-1,3-DICHLOROPROPENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: DP-6B-3Q11								
ETHYLBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
HEXACHLOROBUTADIENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
HEXACHLOROBUTADIENE	TO-15	Initial	2.4	ppbv	Initial Calibration Percent		UJ	10/25/2011 21:56
Reason for change:	%RSD > 30.0							
HEXACHLOROBUTADIENE	TO-15	Initial	2.4	ppbv	Continuing Calibration		UJ	10/25/2011 22:04
Reason for change:	%D > 30.0 negative bias							
m&p-Xylene	TO-15	Initial	4.7	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
METHYLENE CHLORIDE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
O-XYLENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
STYRENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
TETRACHLOROETHENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
TOLUENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
TRANS-1,3-DICHLOROPROPENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: DP-6B-3Q11								
TRICHLOROETHENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
TRICHLOROFLUOROMETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
VINYL CHLORIDE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
Field Sample ID: OSVE-10-3Q11								
1,1,1-TRICHLOROETHANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1,2,2-TETRACHLOROETHANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1,2-TRICHLORO-1,2,2-	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1,2-TRICHLOROETHANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1-DICHLOROETHANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1-DICHLOROETHENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2,4-TRICHLOROBENZENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: OSVE-10-3Q11								
1,2,4-TRIMETHYLBENZENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DIBROMOETHANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROBENZENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROETHANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROPROPANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROTETRAFLUOROETHANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,3,5-TRIMETHYLBENZENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,3-DICHLOROBENZENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,4-DICHLOROBENZENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
BENZENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
BROMOMETHANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: OSVE-10-3Q11								
CARBON TETRACHLORIDE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROBENZENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROETHANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROFORM	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROMETHANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
CIS-1,2-DICHLOROETHENE	TO-15	Initial	1.9	ppbv	Sampling to Analysis Estimation	J-		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
CIS-1,3-DICHLOROPROPENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
ETHYLBENZENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
HEXACHLOROBUTADIENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
HEXACHLOROBUTADIENE	TO-15	Initial	2.3	ppbv	Initial Calibration Percent		UJ	10/25/2011 21:56
Reason for change:	%RSD > 30.0							
HEXACHLOROBUTADIENE	TO-15	Initial	2.3	ppbv	Continuing Calibration		UJ	10/25/2011 22:04
Reason for change:	%D > 30.0 negative bias							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: OSVE-10-3Q11								
m&p-Xylene	TO-15	Initial	4.7	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
METHYLENE CHLORIDE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
O-XYLENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
STYRENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
TETRACHLOROETHENE	TO-15	Dilution-01	680	ppbv	Sampling to Analysis Estimation	J-		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
TOLUENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
TRANS-1,3-DICHLOROPROPENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
TRICHLOROETHENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
TRICHLOROFLUOROMETHANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							
VINYL CHLORIDE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:51
Reason for change:	HT = 30 days for cannister per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: OSVE-11-3Q11								
1,1,1-TRICHLOROETHANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1,2,2-TETRACHLOROETHANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1,2-TRICHLORO-1,2,2-	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1,2-TRICHLOROETHANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1-DICHLOROETHANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1-DICHLOROETHENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2,4-TRICHLOROBENZENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2,4-TRIMETHYLBENZENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DIBROMOETHANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROBENZENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROETHANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: OSVE-11-3Q11								
1,2-DICHLOROPROPANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROTETRAFLUOROETHANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,3,5-TRIMETHYLBENZENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,3-DICHLOROBENZENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,4-DICHLOROBENZENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
BENZENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
BROMOMETHANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
CARBON TETRACHLORIDE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROBENZENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROETHANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROFORM	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: OSVE-11-3Q11								
CHLOROMETHANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
CIS-1,2-DICHLOROETHENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
CIS-1,3-DICHLOROPROPENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
ETHYLBENZENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
HEXACHLOROBUTADIENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
HEXACHLOROBUTADIENE	TO-15	Initial	2.3	ppbv	Initial Calibration Percent		UJ	10/25/2011 21:56
Reason for change:	%RSD > 30.0							
HEXACHLOROBUTADIENE	TO-15	Initial	2.3	ppbv	Continuing Calibration		UJ	10/25/2011 22:03
Reason for change:	%D > 30.0 negative bias							
m&p-Xylene	TO-15	Initial	4.7	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
METHYLENE CHLORIDE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
O-XYLENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
STYRENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: OSVE-11-3Q11								
TETRACHLOROETHENE	TO-15	Initial	25	ppbv	Sampling to Analysis Estimation	J-		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
TOLUENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
TRANS-1,3-DICHLOROPROPENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
TRICHLOROETHENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
TRICHLOROFLUOROMETHANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
VINYL CHLORIDE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
Field Sample ID: OSVE-89-3Q11								
1,1,1-TRICHLOROETHANE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1,2,2-TETRACHLOROETHANE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1,2-TRICHLORO-1,2,2-	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1,2-TRICHLOROETHANE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: OSVE-89-3Q11								
1,1-DICHLOROETHANE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1-DICHLOROETHENE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2,4-TRICHLOROBENZENE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2,4-TRICHLOROBENZENE	TO-15	Initial	2.2	ppbv	Continuing Calibration		UJ	10/25/2011 22:02
Reason for change:	%D > 30.0 negative bias							
1,2,4-TRIMETHYLBENZENE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DIBROMOETHANE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROBENZENE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROETHANE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROPROPANE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROTETRAFLUOROETHANE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,3,5-TRIMETHYLBENZENE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: OSVE-89-3Q11								
1,3-DICHLOROBENZENE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,4-DICHLOROBENZENE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
BENZENE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
BROMOMETHANE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
CARBON TETRACHLORIDE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROBENZENE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROETHANE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROFORM	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROMETHANE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
CIS-1,2-DICHLOROETHENE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
CIS-1,3-DICHLOROPROPENE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: OSVE-89-3Q11								
ETHYLBENZENE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
HEXACHLOROBUTADIENE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
HEXACHLOROBUTADIENE	TO-15	Initial	2.2	ppbv	Initial Calibration Percent		UJ	10/25/2011 21:57
Reason for change:	%RSD > 30.0							
HEXACHLOROBUTADIENE	TO-15	Initial	2.2	ppbv	Continuing Calibration		UJ	10/25/2011 22:02
Reason for change:	%D > 30.0 negative bias							
m&p-Xylene	TO-15	Initial	4.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
METHYLENE CHLORIDE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
O-XYLENE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
STYRENE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
TETRACHLOROETHENE	TO-15	Initial	17	ppbv	Sampling to Analysis Estimation	J-		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
TOLUENE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
TRANS-1,3-DICHLOROPROPENE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: OSVE-89-3Q11								
TRICHLOROETHENE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
TRICHLOROFLUOROMETHANE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
VINYL CHLORIDE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
Field Sample ID: SVE-1-3Q11								
1,1,1-TRICHLOROETHANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1,2,2-TETRACHLOROETHANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1,2-TRICHLORO-1,2,2-	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1,2-TRICHLOROETHANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1-DICHLOROETHANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1-DICHLOROETHENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2,4-TRICHLOROBENZENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: SVE-1-3Q11								
1,2,4-TRICHLOROBENZENE	TO-15	Initial	2.3	ppbv	Continuing Calibration		UJ	10/25/2011 22:02
Reason for change:	%D > 30.0 negative bias							
1,2,4-TRIMETHYLBENZENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DIBROMOETHANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROBENZENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROETHANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROPROPANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROTETRAFLUOROETHANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,3,5-TRIMETHYLBENZENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,3-DICHLOROBENZENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,4-DICHLOROBENZENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
BENZENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: SVE-1-3Q11								
BROMOMETHANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
CARBON TETRACHLORIDE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROBENZENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROETHANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROFORM	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROMETHANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
CIS-1,2-DICHLOROETHENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
CIS-1,3-DICHLOROPROPENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
ETHYLBENZENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
HEXACHLOROBUTADIENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
HEXACHLOROBUTADIENE	TO-15	Initial	2.3	ppbv	Initial Calibration Percent		UJ	10/25/2011 21:57
Reason for change:	%RSD > 30.0							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: SVE-1-3Q11								
HEXACHLOROBUTADIENE	TO-15	Initial	2.3	ppbv	Continuing Calibration		UJ	10/25/2011 22:01
Reason for change:	%D > 30.0 negative bias							
m&p-Xylene	TO-15	Initial	4.7	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
METHYLENE CHLORIDE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
O-XYLENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
STYRENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
TETRACHLOROETHENE	TO-15	Initial	42	ppbv	Sampling to Analysis Estimation	J-		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
TOLUENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
TRANS-1,3-DICHLOROPROPENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
TRICHLOROETHENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
TRICHLOROFLUOROMETHANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
VINYL CHLORIDE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: SVE-2-3Q11								
1,1,1-TRICHLOROETHANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1,2,2-TETRACHLOROETHANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1,2-TRICHLORO-1,2,2-	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1,2-TRICHLOROETHANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1-DICHLOROETHANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1-DICHLOROETHENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2,4-TRICHLOROBENZENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2,4-TRIMETHYLBENZENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DIBROMOETHANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROBENZENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROETHANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: SVE-2-3Q11								
1,2-DICHLOROPROPANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROTETRAFLUOROETHANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,3,5-TRIMETHYLBENZENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,3-DICHLOROBENZENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,4-DICHLOROBENZENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
BENZENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
BROMOMETHANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
CARBON TETRACHLORIDE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROBENZENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROETHANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROFORM	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: SVE-2-3Q11								
CHLOROMETHANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
CIS-1,2-DICHLOROETHENE	TO-15	Initial	5.3	ppbv	Sampling to Analysis Estimation	J-		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
CIS-1,3-DICHLOROPROPENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
ETHYLBENZENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
HEXACHLOROBUTADIENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
HEXACHLOROBUTADIENE	TO-15	Initial	2.3	ppbv	Initial Calibration Percent		UJ	10/25/2011 21:57
Reason for change:	%RSD > 30.0							
HEXACHLOROBUTADIENE	TO-15	Initial	2.3	ppbv	Continuing Calibration		UJ	10/25/2011 22:01
Reason for change:	%D > 30.0 negative bias							
m&p-Xylene	TO-15	Initial	4.7	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
METHYLENE CHLORIDE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
O-XYLENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
STYRENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: SVE-2-3Q11								
TETRACHLOROETHENE	TO-15	Dilution-01	580	ppbv	Sampling to Analysis Estimation	J-		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
TOLUENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
TRANS-1,3-DICHLOROPROPENE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
TRICHLOROETHENE	TO-15	Initial	4.1	ppbv	Sampling to Analysis Estimation	J-		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
TRICHLOROFLUOROMETHANE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
VINYL CHLORIDE	TO-15	Initial	2.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
Field Sample ID: SVE-3-3Q11								
1,1,1-TRICHLOROETHANE	TO-15	Reinjection-	3.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1,2,2-TETRACHLOROETHANE	TO-15	Reinjection-	3.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1,2-TRICHLORO-1,2,2-	TO-15	Reinjection-	3.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1,2-TRICHLOROETHANE	TO-15	Reinjection-	3.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: SVE-3-3Q11								
1,1-DICHLOROETHANE	TO-15	Reinjection-	3.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1-DICHLOROETHENE	TO-15	Reinjection-	3.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2,4-TRICHLOROBENZENE	TO-15	Reinjection-	3.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2,4-TRIMETHYLBENZENE	TO-15	Reinjection-	3.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DIBROMOETHANE	TO-15	Reinjection-	3.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROBENZENE	TO-15	Reinjection-	3.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROETHANE	TO-15	Reinjection-	3.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROPROPANE	TO-15	Reinjection-	3.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROTETRAFLUOROETHANE	TO-15	Reinjection-	3.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,3,5-TRIMETHYLBENZENE	TO-15	Reinjection-	3.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,3-DICHLOROBENZENE	TO-15	Reinjection-	3.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: SVE-3-3Q11								
1,4-DICHLOROBENZENE	TO-15	Reinjection-	3.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
BENZENE	TO-15	Reinjection-	3.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
BROMOMETHANE	TO-15	Reinjection-	3.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
CARBON TETRACHLORIDE	TO-15	Reinjection-	3.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROBENZENE	TO-15	Reinjection-	3.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROETHANE	TO-15	Reinjection-	3.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROFORM	TO-15	Reinjection-	3.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROMETHANE	TO-15	Reinjection-	3.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
CIS-1,2-DICHLOROETHENE	TO-15	Reinjection-	3.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
CIS-1,3-DICHLOROPROPENE	TO-15	Reinjection-	3.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
ETHYLBENZENE	TO-15	Reinjection-	3.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: SVE-3-3Q11								
HEXACHLOROBUTADIENE	TO-15	Reinjection-	3.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
HEXACHLOROBUTADIENE	TO-15	Reinjection-	3.3	ppbv	Initial Calibration Percent		UJ	10/25/2011 21:57
Reason for change:	%RSD > 30.0							
HEXACHLOROBUTADIENE	TO-15	Reinjection-	3.3	ppbv	Continuing Calibration		UJ	10/25/2011 22:00
Reason for change:	%D > 30.0 negative bias							
m&p-Xylene	TO-15	Reinjection-	6.6	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
METHYLENE CHLORIDE	TO-15	Reinjection-	3.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
O-XYLENE	TO-15	Reinjection-	3.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
STYRENE	TO-15	Reinjection-	3.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
TETRACHLOROETHENE	TO-15	Initial	410	ppbv	Sampling to Analysis Estimation	J-		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
TOLUENE	TO-15	Reinjection-	3.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
TRANS-1,3-DICHLOROPROPENE	TO-15	Reinjection-	3.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
TRICHLOROETHENE	TO-15	Reinjection-	2.8	ppbv	Sampling to Analysis Estimation	J-		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: SVE-3-3Q11								
TRICHLOROFLUOROMETHANE	TO-15	Reinjection-	3.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
VINYL CHLORIDE	TO-15	Reinjection-	3.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:52
Reason for change:	HT = 30 days for cannister per R9 SOP							
Field Sample ID: SVE-4-3Q11								
1,1,1-TRICHLOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1,2,2-TETRACHLOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1,2-TRICHLORO-1,2,2-	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1,2-TRICHLOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1-DICHLOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1-DICHLOROETHENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2,4-TRICHLOROBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2,4-TRICHLOROBENZENE	TO-15	Initial	2.4	ppbv	Continuing Calibration		UJ	10/25/2011 22:00
Reason for change:	%D > 30.0 negative bias							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: SVE-4-3Q11								
1,2,4-TRIMETHYLBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DIBROMOETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROBENZENE	TO-15	Initial	6.2	ppbv	Sampling to Analysis Estimation	J-		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROPROPANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROTETRAFLUOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,3,5-TRIMETHYLBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,3-DICHLOROBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,4-DICHLOROBENZENE	TO-15	Initial	1.3	ppbv	Sampling to Analysis Estimation	J-		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
BENZENE	TO-15	Initial	1.6	ppbv	Sampling to Analysis Estimation	J-		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
BROMOMETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: SVE-4-3Q11								
CARBON TETRACHLORIDE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROFORM	TO-15	Initial	26	ppbv	Sampling to Analysis Estimation	J-		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROMETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
CIS-1,2-DICHLOROETHENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
CIS-1,3-DICHLOROPROPENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
ETHYLBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
HEXACHLOROBUTADIENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
HEXACHLOROBUTADIENE	TO-15	Initial	2.4	ppbv	Initial Calibration Percent		UJ	10/25/2011 21:58
Reason for change:	%RSD > 30.0							
HEXACHLOROBUTADIENE	TO-15	Initial	2.4	ppbv	Continuing Calibration		UJ	10/25/2011 22:00
Reason for change:	%D > 30.0 negative bias							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: SVE-4-3Q11								
m&p-Xylene	TO-15	Initial	4.7	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
METHYLENE CHLORIDE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
O-XYLENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
STYRENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
TETRACHLOROETHENE	TO-15	Initial	32	ppbv	Sampling to Analysis Estimation	J-		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
TOLUENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
TRANS-1,3-DICHLOROPROPENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
TRICHLOROETHENE	TO-15	Initial	2.1	ppbv	Sampling to Analysis Estimation	J-		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
TRICHLOROFLUOROMETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
VINYL CHLORIDE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: SVE-96-3Q11								
1,1,1-TRICHLOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1,2,2-TETRACHLOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1,2-TRICHLORO-1,2,2-	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1,2-TRICHLOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1-DICHLOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,1-DICHLOROETHENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2,4-TRICHLOROBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2,4-TRICHLOROBENZENE	TO-15	Initial	2.4	ppbv	Initial Calibration Percent		UJ	10/25/2011 21:58
Reason for change:	%RSD > 30.0							
1,2,4-TRICHLOROBENZENE	TO-15	Initial	2.4	ppbv	Continuing Calibration		UJ	10/25/2011 21:59
Reason for change:	%D > 30.0 negative bias							
1,2,4-TRICHLOROBENZENE	TO-15	Initial	2.4	ppbv	Continuing Calibration	UJ		10/25/2011 21:59
Reason for change:	HCB qualified only							
1,2,4-TRICHLOROBENZENE	TO-15	Initial	2.4	ppbv	Initial Calibration Percent	UJ		10/25/2011 22:12
Reason for change:	HCB qualified only							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: SVE-96-3Q11								
1,2,4-TRIMETHYLBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DIBROMOETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROBENZENE	TO-15	Initial	5.0	ppbv	Sampling to Analysis Estimation	J-		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROPROPANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,2-DICHLOROTETRAFLUOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,3,5-TRIMETHYLBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,3-DICHLOROBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
1,4-DICHLOROBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
BENZENE	TO-15	Initial	1.6	ppbv	Sampling to Analysis Estimation	J-		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
BROMOMETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: SVE-96-3Q11								
CARBON TETRACHLORIDE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROFORM	TO-15	Initial	26	ppbv	Sampling to Analysis Estimation	J-		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
CHLOROMETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
CIS-1,2-DICHLOROETHENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
CIS-1,3-DICHLOROPROPENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
ETHYLBENZENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
HEXACHLOROBUTADIENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
HEXACHLOROBUTADIENE	TO-15	Initial	2.4	ppbv	Continuing Calibration		UJ	10/25/2011 21:59
Reason for change:	%D > 30.0 negative bias							
HEXACHLOROBUTADIENE	TO-15	Initial	2.4	ppbv	Initial Calibration Percent		UJ	10/25/2011 22:13
Reason for change:	%RSD > 30.0							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: SVE-96-3Q11								
m&p-Xylene	TO-15	Initial	4.8	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
METHYLENE CHLORIDE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
O-XYLENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
STYRENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
TETRACHLOROETHENE	TO-15	Initial	31	ppbv	Sampling to Analysis Estimation	J-		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
TOLUENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
TRANS-1,3-DICHLOROPROPENE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
TRICHLOROETHENE	TO-15	Initial	2.2	ppbv	Sampling to Analysis Estimation	J-		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
TRICHLOROFLUOROMETHANE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							
VINYL CHLORIDE	TO-15	Initial	2.4	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 21:53
Reason for change:	HT = 30 days for cannister per R9 SOP							

SDG 11257G

LDC #: 1110-01D
SDG #: 11257G
Laboratory: EPA Region 9

VALIDATION COMPLETENESS WORKSHEET
Level III

Date: 10/24/11
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: 09/13/2011
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	SW / A	≤ 30% RSD SCV%D ≤ 30%
IV.	Continuing calibration	A	≤ 30%
V.	Blanks	A	
VI.	Surrogate spikes	N	
VII.	Sample duplicates	SW	
VIII.	Laboratory control samples	A	per R9 SOP 311r1
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
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	
XIV.	System performance	N	Not reviewed for Level III validation samples.
XV.	Overall assessment of data	A	
XVI.	Field duplicates	SW / A	FD: 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: ** Indicates sample underwent Level IV validation

1	GWTP-Pr GAC-0902	11		21		31	
2	GWTP Stack-0902	12		22		32	
3	SVE Pre GAC-0902	13		23		33	
4	SVE Stack-0902	14		24		34	
5	MW-108-0902	15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

QC Outlier Report: HoldingTimes

Lab Reporting Batch ID: 11257G **Laboratory: R9LAB**

EDD Filename: 11257G_TO15_1109036 FINAL_edited RPD **eQAPP Name: Modesto_Site_090711**

Method: TO-15 **Preparation Method: None**

Matrix: Air

Sample ID	Type	Actual	Criteria	Units	Flag
SVE Pre GAC-0902 (Initial)	Sampling To Analysis	15.00		DAYS	J- (all detects)
SVE Pre GAC-0902 (Reinjection-01)		15.00		DAYS	UJ (all non-detects)

30 days HT per SOP
KD

Project Name and Number: R11S84 - Modesto GW

LDC #: 1110-01D
SDG #: 11257G

VALIDATION FINDINGS WORKSHEET
Initial Calibration

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 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	9/23/11	092311NC13.D	Vinyl acetate	58 (70-130%)	---	All samples in the SDG	None, N.R.
	11:24						
	SCV						

Lab Duplicate Outlier Report

Lab Reporting Batch ID: 11257G **Laboratory: R9LAB**

EDD Filename: 11257G_TO15_1109036 **eQAPP Name: Modesto_Site_090711**
FINAL_edited RPD

Method: TO-15
Matrix: Air

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
GWTP Stack-0902DUP (GWTP Pr GAC-0902 GWTP Stack-0902 MW-108-0902 SVE Pre GAC-0902 SVE Stack-0902)	TETRACHLOROETHENE	26	20.00	J (all detects) UJ (all non-detects)
GWTP Pr GAC-0902DUP (GWTP Pr GAC-0902 GWTP Stack-0902 MW-108-0902 SVE Pre GAC-0902 SVE Stack-0902)	TETRACHLOROETHENE	25	20.00	J(all detects) UJ(all non-detects)

Reporting Limit Outliers

Lab Reporting Batch ID: 11257G **Laboratory: R9LAB**

EDD Filename: 11257G_TO15_1109036 FINAL_edited RPD **eQAPP Name: Modesto_Site_090711**

Method: **TO-15**

Matrix: **Air**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
GWTP Pr GAC-0902	CIS-1,2-DICHLOROETHENE	J,C1	1.4	2.1	MRL	ppbv	J (all detects)
SVE Pre GAC-0902	TRICHLOROETHENE	J,C1	1.1	2.2	MRL	ppbv	J (all detects)
SVE Stack-0902	TETRACHLOROETHENE	J,C1	1.5	2.1	MRL	ppbv	J (all detects)

Field QC Assignments and Associated Samples

EDD File Name: 11257G
eQapp Name: Modesto_Site_090711

	Associated Samples	Sample Collection Date
Field QC Sample: MW-108-0902 **QC Type:** Field_Duplicate		
	GWTP Pr GAC-0902	9/13/2011 8:46:00 AM

Field Duplicate RPD Report

Lab Reporting Batch ID: 11257G **Laboratory: R9LAB**

EDD Filename: 11257G_TO15_1109036 **eQAPP Name: Modesto_Site_090711**
FINAL_edited RPD

Method: TO-15
Matrix: Air

Analyte	Concentration (ppbv)		Sample RPD	eQAPP RPD	Flag
	GWTP Pr GAC-0902	MW-108-0902			
CHLOROFORM	7.0	5.4	26	1.00	
CIS-1,2-DICHLOROETHENE	1.4	2.3 U	200	1.00	No Qualifiers Applied
TETRACHLOROETHENE	200	150	29	1.00	

Project Name and Number: R11S84 - Modesto GW Treatment System Summer 2011 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: SVE Pre GAC-0902								
1,1,1-TRICHLOROETHANE	TO-15	Reinjection-	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 19:48
Reason for change:	30 day HT for cannisters per R9 SOP							
1,1,2,2-TETRACHLOROETHANE	TO-15	Reinjection-	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 19:48
Reason for change:	30 day HT for cannisters per R9 SOP							
1,1,2-TRICHLORO-1,2,2-	TO-15	Reinjection-	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 19:48
Reason for change:	30 day HT for cannisters per R9 SOP							
1,1,2-TRICHLOROETHANE	TO-15	Reinjection-	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 19:48
Reason for change:	30 day HT for cannisters per R9 SOP							
1,1-DICHLOROETHANE	TO-15	Reinjection-	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 19:48
Reason for change:	30 day HT for cannisters per R9 SOP							
1,1-DICHLOROETHENE	TO-15	Reinjection-	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 19:48
Reason for change:	30 day HT for cannisters per R9 SOP							
1,2,4-TRICHLOROBENZENE	TO-15	Reinjection-	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 19:48
Reason for change:	30 day HT for cannisters per R9 SOP							
1,2,4-TRIMETHYLBENZENE	TO-15	Reinjection-	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 19:48
Reason for change:	30 day HT for cannisters per R9 SOP							
1,2-DIBROMOETHANE	TO-15	Reinjection-	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 19:48
Reason for change:	30 day HT for cannisters per R9 SOP							
1,2-DICHLOROBENZENE	TO-15	Reinjection-	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 19:48
Reason for change:	30 day HT for cannisters per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: SVE Pre GAC-0902								
1,2-DICHLOROETHANE	TO-15	Reinjection-	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 19:48
Reason for change:	30 day HT for cannisters per R9 SOP							
1,2-DICHLOROPROPANE	TO-15	Reinjection-	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 19:48
Reason for change:	30 day HT for cannisters per R9 SOP							
1,2-DICHLOROTETRAFLUOROETHANE	TO-15	Reinjection-	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 19:48
Reason for change:	30 day HT for cannisters per R9 SOP							
1,3,5-TRIMETHYLBENZENE	TO-15	Reinjection-	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 19:48
Reason for change:	30 day HT for cannisters per R9 SOP							
1,3-DICHLOROBENZENE	TO-15	Reinjection-	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 19:48
Reason for change:	30 day HT for cannisters per R9 SOP							
1,4-DICHLOROBENZENE	TO-15	Reinjection-	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 19:48
Reason for change:	30 day HT for cannisters per R9 SOP							
BENZENE	TO-15	Reinjection-	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 19:48
Reason for change:	30 day HT for cannisters per R9 SOP							
BROMOMETHANE	TO-15	Reinjection-	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 19:48
Reason for change:	30 day HT for cannisters per R9 SOP							
CARBON TETRACHLORIDE	TO-15	Reinjection-	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 19:48
Reason for change:	30 day HT for cannisters per R9 SOP							
CHLOROBENZENE	TO-15	Reinjection-	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 19:48
Reason for change:	30 day HT for cannisters per R9 SOP							
CHLOROETHANE	TO-15	Reinjection-	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 19:48
Reason for change:	30 day HT for cannisters per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: SVE Pre GAC-0902								
CHLOROFORM	TO-15	Reinjection-	4.9	ppbv	Sampling to Analysis Estimation	J-		10/25/2011 19:48
Reason for change:	30 day HT for cannisters per R9 SOP							
CHLOROMETHANE	TO-15	Reinjection-	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 19:48
Reason for change:	30 day HT for cannisters per R9 SOP							
CIS-1,2-DICHLOROETHENE	TO-15	Reinjection-	2.8	ppbv	Sampling to Analysis Estimation	J-		10/25/2011 19:48
Reason for change:	30 day HT for cannisters per R9 SOP							
CIS-1,3-DICHLOROPROPENE	TO-15	Reinjection-	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 19:48
Reason for change:	30 day HT for cannisters per R9 SOP							
DICHLORODIFLUOROMETHANE	TO-15	Reinjection-	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 19:48
Reason for change:	30 day HT for cannisters per R9 SOP							
ETHYLBENZENE	TO-15	Reinjection-	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 19:48
Reason for change:	30 day HT for cannisters per R9 SOP							
HEXACHLOROBUTADIENE	TO-15	Reinjection-	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 19:48
Reason for change:	30 day HT for cannisters per R9 SOP							
m&p-Xylene	TO-15	Reinjection-	4.3	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 19:48
Reason for change:	30 day HT for cannisters per R9 SOP							
METHYLENE CHLORIDE	TO-15	Reinjection-	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 19:48
Reason for change:	30 day HT for cannisters per R9 SOP							
O-XYLENE	TO-15	Reinjection-	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 19:48
Reason for change:	30 day HT for cannisters per R9 SOP							
STYRENE	TO-15	Reinjection-	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 19:48
Reason for change:	30 day HT for cannisters per R9 SOP							

Analyte	Method	Analysis Type	Result	Unit	Reason Code	Original Value	New Value	Edit Time
Field Sample ID: SVE Pre GAC-0902								
TETRACHLOROETHENE	TO-15	Initial	140	ppbv	Sampling to Analysis Estimation	J-		10/25/2011 19:48
Reason for change:	30 day HT for cannisters per R9 SOP							
TOLUENE	TO-15	Reinjection-	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 19:48
Reason for change:	30 day HT for cannisters per R9 SOP							
TRANS-1,3-DICHLOROPROPENE	TO-15	Reinjection-	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 19:48
Reason for change:	30 day HT for cannisters per R9 SOP							
TRICHLOROETHENE	TO-15	Reinjection-	1.1	ppbv	Sampling to Analysis Estimation	J-		10/25/2011 19:48
Reason for change:	30 day HT for cannisters per R9 SOP							
TRICHLOROFLUOROMETHANE	TO-15	Reinjection-	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 19:48
Reason for change:	30 day HT for cannisters per R9 SOP							
VINYL CHLORIDE	TO-15	Reinjection-	2.2	ppbv	Sampling to Analysis Estimation	UJ		10/25/2011 19:48
Reason for change:	30 day HT for cannisters per R9 SOP							

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 July through 30 September 2011) are as follows:

Remedial System	Total Operation Hours	Percentage of Operation
Groundwater Treatment	2,140	97%
Soil Vapor Extraction	2,208	100%

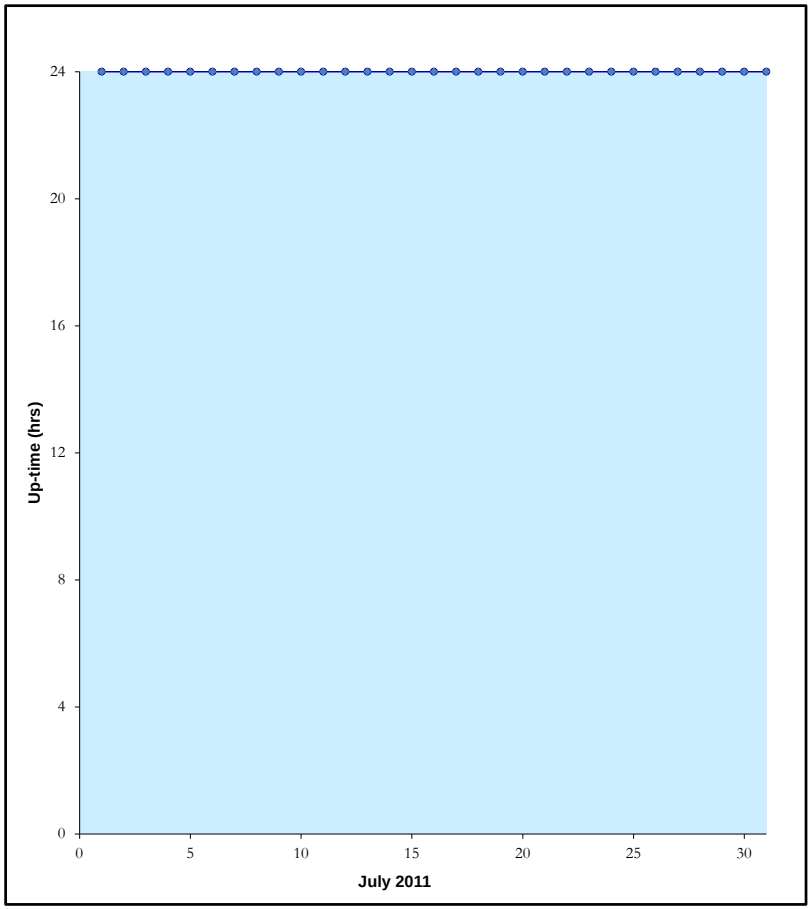
Monthly graphical representations of the GWT system operation time can be found in Figures D-1, D-2, and D-3 for July, August, and September 2011, respectively.

Monthly graphical representations of the SVE system operation time can be found in Figures D-4, D-5, and D-6 for July, August, and September 2011, respectively.

FIGURE D-1

UPTIME LOG
GROUNDWATER TREATMENT SYSTEM
MODESTO SUPERFUND SITE

Month	Day	Uptime (hrs)	Description of Activity Performed
July	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	



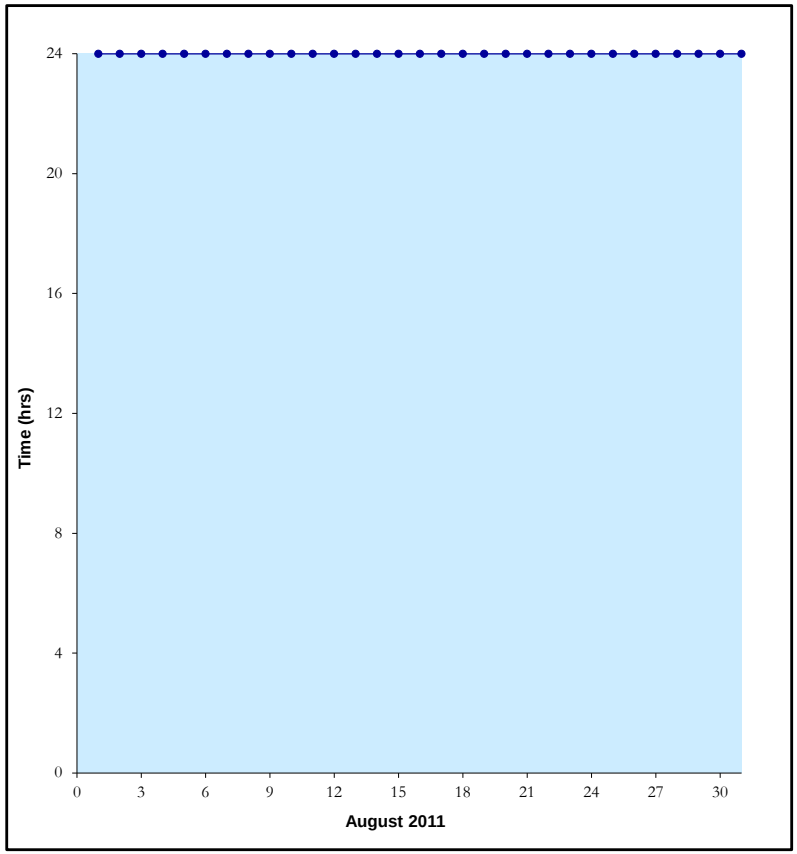
Uptime hours:	**744**
Uptime %:	**100.0%**

Notes:

FIGURE D-2

UPTIME LOG
GROUNDWATER TREATMENT SYSTEM
MODESTO SUPERFUND SITE

Month	Day	Uptime (hrs)	Description of Activity Performed
August	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**	



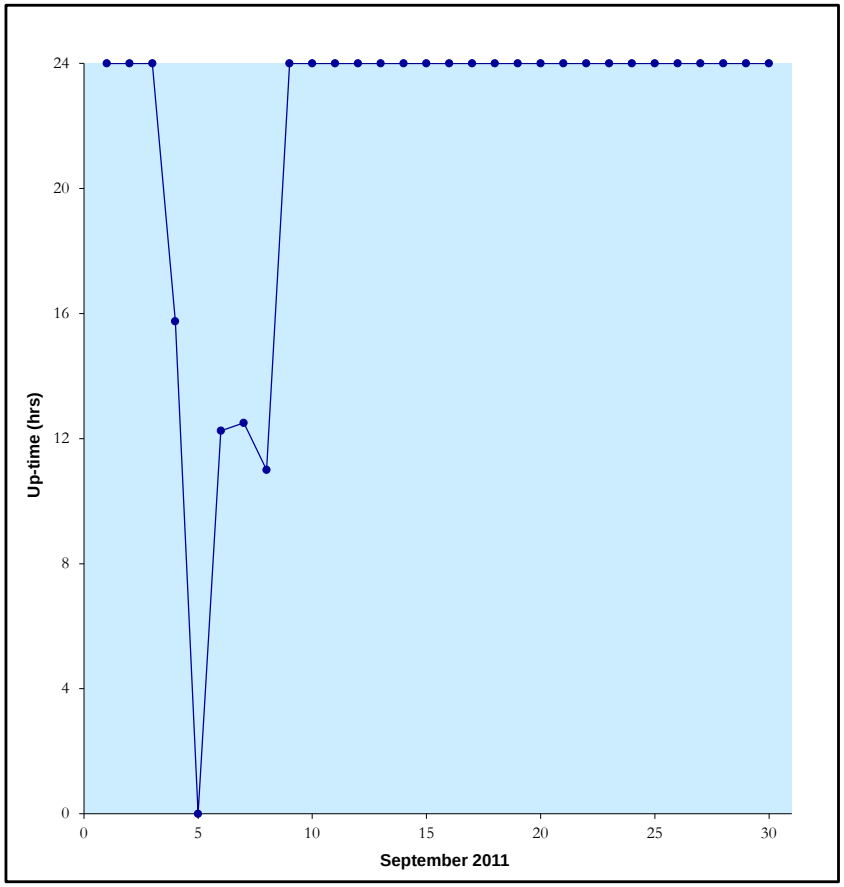
Uptime hours:	**744**
Uptime %:	**100.0%**

Notes:

FIGURE D-3

UPTIME LOG
GROUNDWATER TREATMENT SYSTEM
MODESTO SUPERFUND SITE

Month	Day	Uptime (hrs)	Description of Activity Performed
September	1	**24**	
	2	**24**	
	3	**24**	
	4	**15.75**	Sequestrant pump failure
	5	**0**	Sequestrant pump failure
	6	**12.25**	Sequestrant pump failure
	7	**12.5**	Sequestrant pump blockage
	8	**11**	
	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**	



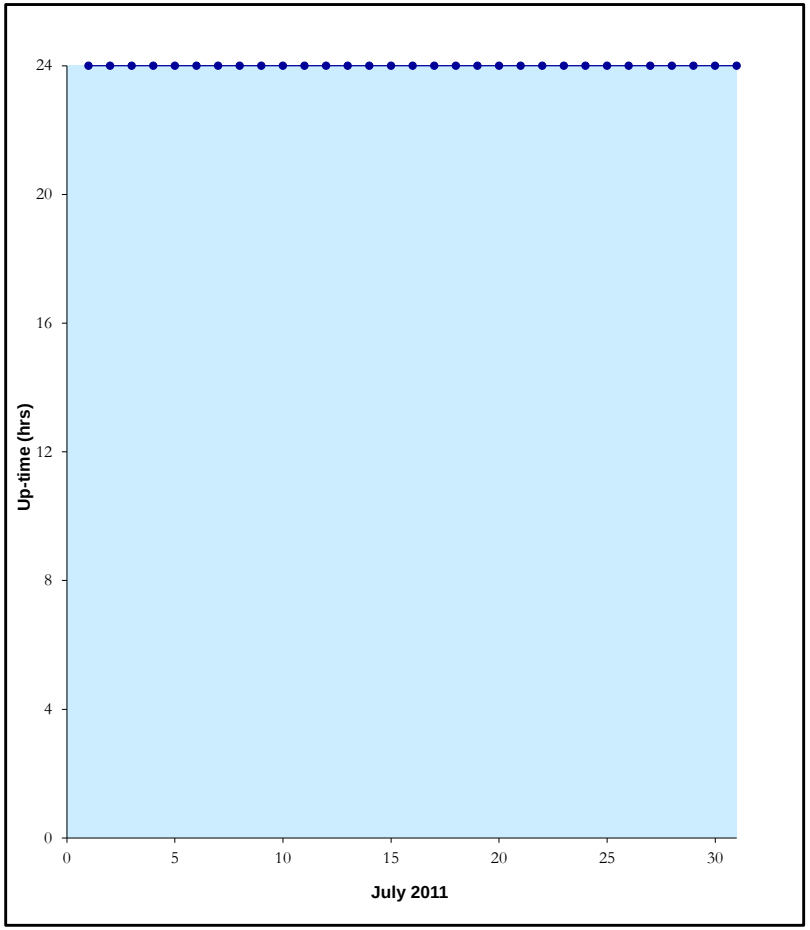
Uptime hours:	**651.5**
Uptime %:	**90.5%**

Notes:

FIGURE D-4

UPTIME LOG
SVE TREATMENT SYSTEM
MODESTO SUPERFUND SITE

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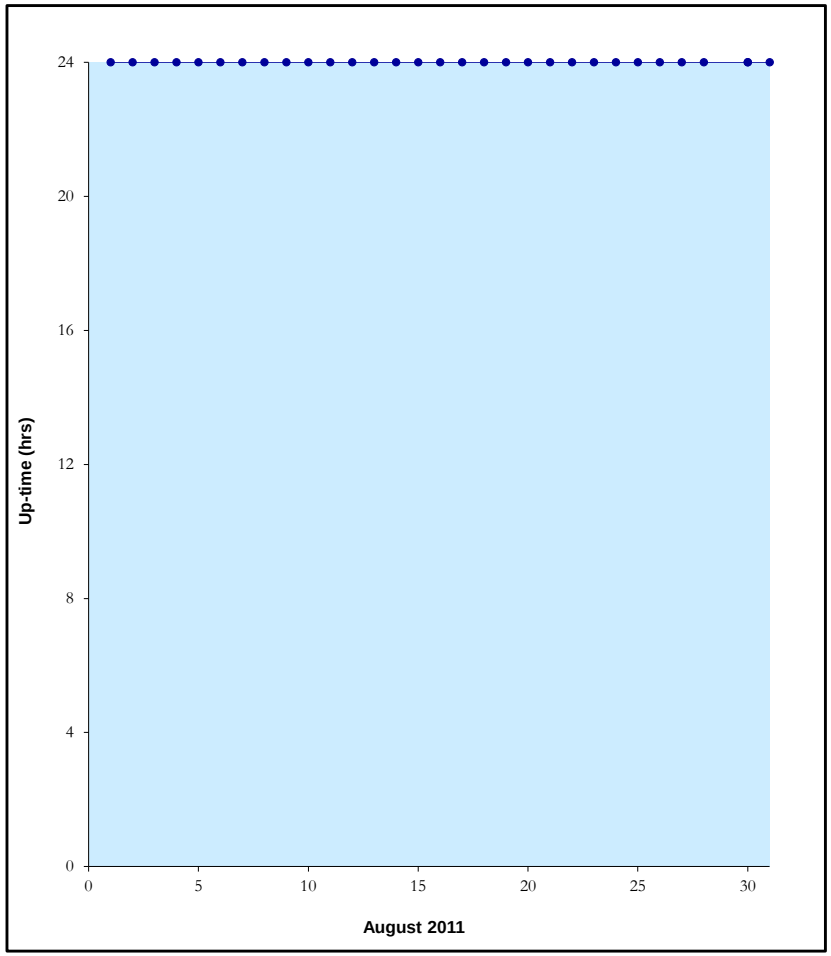
	25	24	
	26	24	
	27	24	
	28	24	
	30	24	
	30	24	
	31	24	



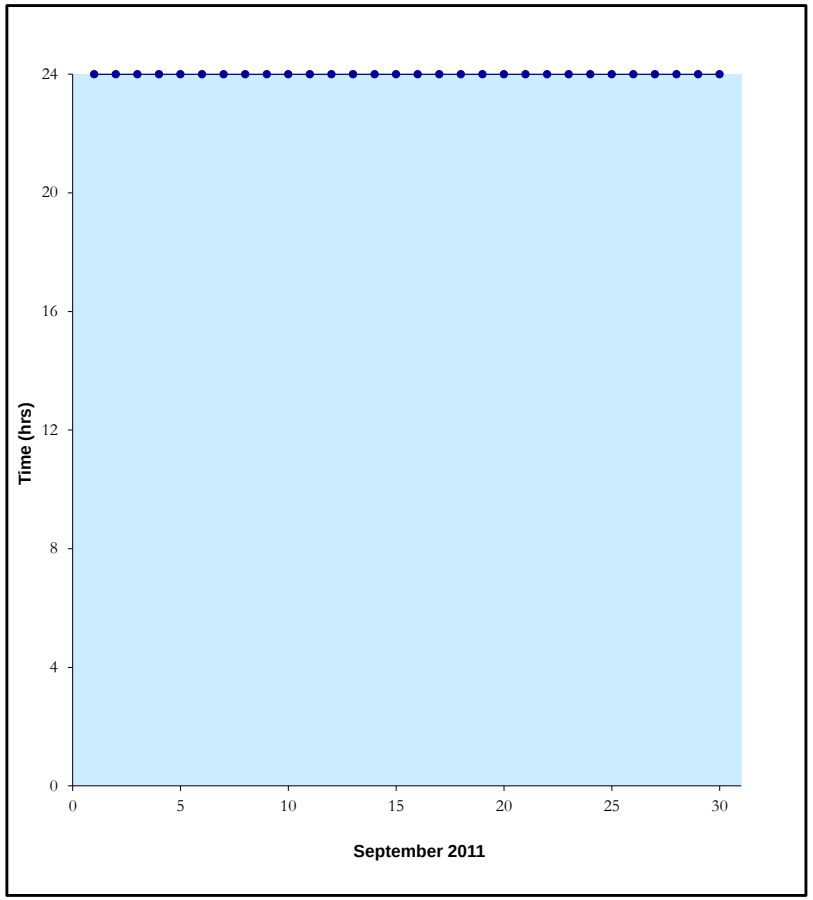
Uptime hours:	744
Uptime %:	100.0%

Notes:

FIGURE D-6

UPTIME LOG
SVE TREATMENT SYSTEM
MODESTO SUPERFUND SITE

Month	Day	Uptime (hrs)	Description of Activity Performed
September	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**	



Uptime hours:	**720**
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 July through 30 September 2011) 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	*added to 37.5 gal. Air Stripper Water					
						Flow	Pressure	Total Flow	pH		Influent Pressure	Effluent 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	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	7-7-11	0845	443835	22.68	41727	48	33.5	88607	7.25	30	33	32	68	35	42	42	68
GB	7-14-11	0806	44551	22.681	45162	46	35.0	93170	7.39	25	33	32	68	38	44	42	66
GB	7/21/11	0855	44720	22.681	48606	46	34.5	97745	7.33	19.5*	34	32	66	38.5	44	42	66
GB	7/28/11	0950	44889	22.681	52061	46	34.0	02320	7.26	27.0	32.5	33.5	68	34.0	44	42	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 H2O	pH	Effluent Total Flow	Outside GWTS	Inside GWTS
Air Stripper Trays in. H2O	Air Stripper Trays in. H2O	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
16	16	Ø	Ø	71.0	700	33.5	29	21	12	10	40	51	16.0	8.10	74300	Ø	Ø
16	16	Ø	Ø	69.9	695	33.5	28.5	21	12	10	40	52	17.5	8.29	78868	Ø	Ø
16	16	0	0	70.7	700	34.0	28.5	21	12	10	40	52	16.5	8.22	83470	0	0
16	16	0	0	70.8	705	34.0	28.5	21	12.5	10	40	52	15.5	8.30	88061	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	VGAC Vessel ppm	Stack °F	Stack CFM	mR/hr Peak	mR/hr Peak
7-7-11	0900	-63	79	153	NO	31870	3.0	199	154	-68	-72	Ø	Ø	199	154	Ø	Ø
7-14-11	1130	-62	82.7	143	No	3358	3.0	204	159	-67	-70	0	0	204	159	0	0
7-21-11	0940	-62	85.2	140	No	3524	3.0	203	149	-67	-70	0	0	203	149	0	0
7-28-11	1012	-62	85.9	149	No	3692	3.0	205	150	-67	-70	0	0	205	150	0	0
		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: [illegible] Date: 8/4/11

URS Group
Preventative and Corrective Maintenance Log
Modesto Superfund Site

Site Name: Modesto S/F
Period: 7/1/11 to 7/31/11
(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.)
7/14	GB	3358	Installed new A/C in SVE	Y / N			Y / N		
7/21	GB	44720	Changed Bag Filters GWTP	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 S/F

Shutdown Date: _____ Startup Date: _____
Shutdown Time: _____ Startup Time: _____
Shutdown Purpose or Cause: No Shutdowns in July (SVE & GWTP)
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: [signature] Date: 8/4/11

URS Corporation
Modesto Superfund Site
Site Inspections

Task Description	7/7/11	7/14/11	7/21/11	7/28/11	/ /
WEEKLY	Task Performed (Technician Initials or Value)				
Groundwater TreatmentSystem					
Record Process Logs	✓	GB	GB	GB	
Check Blowers and motors for heat, noise, and vibration	✓	GB	GB	GB	
Check Air Stripper Feed pump/motor (P-2) for heat, noise, and vibration.	✓	GB	GB	GB	
Inspect all process piping for leaks	✓	GB	GB	GB	
Inspect all process hoses/fittings for leaks	✓	GB	GB	GB	
Check Air Stripper Effluent pump/motor (P-3) for heat, noise, and vibration.	✓	GB	GB	GB	
Inspect Sump (Pump as Necessary).	✓	GB	GB	GB	
Check Air Stripper sump level site glass. Clean as necessary	✓	GB	GB	GB	
Inspect IX system influent vacuum break for leaks	✓	GB	GB	GB	
Clean up compound area	✓	GB	GB	GB	
Drain VGAC condensate	✓	GB	GB	GB	
Perform autodialer operational check	✓	GB	GB	GB	
Autodialer battery check	✓	GB	GB	GB	
Perform inspection of EW-1R pipeline	✓	GB	GB	GB	
Inspection of Spill Response Kit	✓	GB	GB	GB	
Inspection of Emergency Response Plan/MSDS Binder'	✓	GB	GB	GB	
Soil Vapor Extraction System					
Record Process Logs	✓	GB	GB	GB	
Check Blowers and motors for heat, noise, and vibration	✓	GB	GB	GB	
Inspect all process piping for leaks	✓	GB	GB	GB	
Clean up compound area	✓	GB	GB	GB	
Drain VGAC condensate	✓	GB	GB	GB	
Perform autodialer operational check	✓	GB	GB	GB	
Inspection of Spill Response Kit	✓	GB	GB	GB	
Inspection of Emergency Response Plan/MSDS Binder	✓	GB	GB	GB	

Task Description	Performed		
MONTHLY	Date	Initials	Reading
Check fire extinguisher	7/14/11	GB	
Inspect EW-1R vault	7/21/11	GB	
Inspect VI Mitigation operations - "Part House"	7/21/11	GB	
Replace Auto Dialer Batteries (if necessary)	OK	GB	
Quarterly			
Interlock Checks Groundwater			
Interlock Checks SVE			
Collect Well Flow read at SVE-02			
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)	June	GB	

Notes:

Reviewed by: [signature] Date: 8/4/11

Date: 7/14/11
Weather: Sunny, Clear, Cool
Sampler: George Bradshaw

SAMPLE COLLECTION RECORD
MODESTO SUPERFUND SITE

Date	Description	Totalizer Reading (gallons)	Flow (gpm)
7/14/11	GWTS Effluent	7886800	52

Time	Sample Location, Item Method	Sample Description	LOCID	No. of Containers	Container Type	Preservative	pH	Cond.	Temp.
0900	EFF-0703 E524.2	Effluent-NS	SP-07	3	40 ml VOA	HCL	8.34	1010	20.4
0900	EFF-0703 SM2540C	Effluent-NS	SP-07	1	250 ml Poly	None	8.34	1010	20.4
0900	EFF-0703 SM5210B	Effluent-NS	SP-07	1	500 ml Poly	None	8.42	980	4.0
0900	EFF-0703 SM2540D	Effluent-NS	SP-07	1	500 ml Poly	None	8.42	980	4.0
0900	EFF-0703 D5174	Effluent-NS	SP-07	1	1 L Poly	HNO3	8.34	~~980~~ 1010	20.4
0925	IEX Mid-0703 D5174	Ion Exchange Mid-NS	SP-06	1	1 L Poly	HNO3	8.31	1010	20.8
0935	Pre IEX-0703 D5174	Ion Exchange Pre-NS	SP-05	1	1 L Poly	HNO3	8.32	1010	20.8
0910	MW-107-0703	Field Duplicate	SP-07	1	1 L Poly	HNO3	8.34	1010	20.4
0935	CRB-EFF-0703	LGAC Effluent-NS	SP-05	3	40 ml VOA	HCL	8.32	1010	20.8
1000 ~~0945~~	CRB-INF-0703	LGAC ~~Mid~~ INF-NS	SP-03	3	40 ml VOA	HCL	8.37 ~~8.37~~	1000 ~~1000~~	21.6 ~~20.8~~
0945	CRB-MID-0703	LGAC ~~Influent~~ MID-NS	SP-04	3	40 ml VOA	HCL	8.37	1000	20.8
0950 ~~0945~~	MW-104-0703 E524.2	Field Duplicate MID	SP-04	3	40 ml VOA	HCL	8.37	1000	20.8
1010	EW-1-0703 E524.2	Influent-NS	SP-01	3	40 ml VOA	HCL	7.35	1060	22.0
1010	EW-I-0703 D5174	Influent-NS	SP-01	1	1 L Poly	HNO3	7.35	1060	22.0
1115	GWTP Stack-0703 TO15	GWTP VGAC Effluent-NS	SP-09	1	400ml Summa	None	Start -30	End -5	#872
1125	GWTP Pre GAC-0703 TO15	GWTP VGAC Influent-NS	SP-08	1	400ml Summa	None	Start -30	End -5	#896
1150	SVE Stack-0703 TO15	SVE VGAC Effluenty-NS	SP-12	1	400ml Summa	None	Start -30	End -5	#1099
1155	SVE Pre GAC-0703 TO15	SVE VGAC Influent-NS	SP-11	1	400ml Summa	None	Start -30	End -5.5	#1100
0845	MW-301-3Q11 E524.2	Trip Blank	Blank	3	40 ml VOA	HCL	—	—	—
0850	MW-401-3Q11 E524.2	Field Blank	Blank	3	40 ml VOA	HCL	—	—	—

Sampler Signature	Date
[signature]	7/14/11

Notes:

FD = Field Duplicate
FB = Field Blank (ambient)
NS = Normal Sample
TB = Trip Blank

Fax COCs to:
URS Attn: Kevin Ford (916) 923-0114

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	Efffluent 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	pH	Gallons	PSI	PSI	GPM	PSI	PSI	PSI	GPM
GB	8/4/11	0904	45056	22.681	55498	46	34.5	06841	7.42	22	32.5	33.5	68	39	44.5	42.5	67
GB	8/11/11	000	45225	22.681	59000	46	34.0	11401	7.41	16.5	33.0	34.0	68	39	45	43	67
GB	8/19/11	0845	45416	22.681	62909	46	34.0	16560	7.26	24	33.0	32.0	67	38	45	43	67
GB	8/25/11	0956	45561	22.681	65702	46	34.0	20488	7.44	28	34.5	31.0	66	38.5	45	43	67
GB	9/2/11	0820	45751	22.681	69824	46	34.0	25638	7.43	22	32.0	33.0	68	40.0	46	44	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 H2O	pH	Gallons	mR/hr Peak	mR/hr Peak
	16	16	0.3	0	70.4	695	34.5	28.5	21.0	12.0	9.5	40	51	15.5	8.26	92608	0	0
	16	16	0	0	71.1	695	34.5	28.5	21.0	12.0	10.0	40	52	19.5	8.26	97205	0	0
①	16	16	0.2	0.1	70.3	690	34.5	28.5	21.0	12.0	9.5	40	52	15.5	8.30	02397	0	0
	16	16	0.1	0	70.8	695	34.5	28.0	22.0	12.0	9.5	40	51	18.5	8.26	06359	0	0
	16	16	0.1	0	70.4	680	35.5	29.0	21.0	12.0	9.0	39	51	17.5	8.30	11555	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
												VGAC Vessel		Stack			
Date	Time	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	8/4/11	-63	84.2	142	No	3860	3.0	202.6	162	-68	-71	0.1	0	202.6	162	0	0
GB	8/11/11	-62	86.8	145	No	4030	3.0	209.6	158	-67	-70	0	0	209.6	158	0	0
GB	8/19/11	-64	83.5	145	No	4220	3.0	202.7	159	-67	-72	0.1	0	202.7	159	0	0
1156 GB	8/25/11	-62	86.3	149	No	4366	3.0	209.2	156	-67	-70	0.2	0	209.2	156	0	0
	9/2/11	0910 -62	83.9	148	No	4555	3.0	201.8	157	-67.5	-71	0.1	0	201.8	157	0	0
		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: _____

GWPT Effluent Air Flow: ① 4.0" H_2O 8/19
4.0" H_2O 8/25

URS Group
Preventative and Corrective Maintenance Log
Modesto Superfund Site

Site Name: Modesto SF
Period: 8/1/11 (month/day/year) to 8/31/11 (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: _____ Startup Time: _____
Shutdown Purpose or Cause:
No Shutdowns in August
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: [signature] Date: 9/14/11

URS Corporation
Modesto Superfund Site
Site Inspections

Task Description	8/4/11	8/11/11	8/19/11	8/25/11	/ /
WEEKLY	Task Performed (Technician Initials or Value)				
Groundwater TreatmentSystem					
Record Process Logs	GB	GB	GB	GB	
Check Blowers and motors for heat, noise, and vibration	GB	GB	GB	GB	
Check Air Stripper Feed pump/motor (P-2) for heat, noise, and vibration.	GB	GB	GB	GB	
Inspect all process piping for leaks	GB	GB	GB	GB	
Inspect all process hoses/fittings for leaks	GB	GB	GB	GB	
Check Air Stripper Effluent pump/motor (P-3) for heat, noise, and vibration.	GB	GB	GB	GB	
Inspect Sump (Pump as Necessary).	GB	GB	GB	GB	
Check Air Stripper sump level site glass. Clean as necessary	GB	GB	GB	GB	
Inspect IX system influent vacuum break for leaks	GB	GB	GB	GB	
Clean up compound area	GB	GB	GB	GB	
Drain VGAC condensate	GB	GB	GB	GB	
Perform autodialer operational check	GB	GB	GB	GB	
Autodialer battery check	GB	GB	GB	GB	
Perform inspection of EW-1R pipeline	GB	GB	GB	GB	
Inspection of Spill Response Kit	GB	GB	GB	GB	
Inspection of Emergency Response Plan/MSDS Binder	GB	GB	GB	GB	
Soil Vapor Extraction System					
Record Process Logs	GB	GB	GB	GB	
Check Blowers and motors for heat, noise, and vibration	GB	GB	GB	GB	
Inspect all process piping for leaks	GB	GB	GB	GB	
Clean up compound area	GB	GB	GB	GB	
Drain VGAC condensate	GB	GB	GB	GB	
Perform autodialer operational check	GB	GB	GB	GB	
Inspection of Spill Response Kit	GB	GB	GB	GB	
Inspection of Emergency Response Plan/MSDS Binder	GB	GB	GB	GB	

Task Description	Performed		
MONTHLY	Date	Initials	Reading
Check fire extinguisher	8/25/11	GB	
Inspect EW-1R vault			
Inspect VI Mitigation operations - "Part House"			
Replace Auto Dialer Batteries (if necessary)			
Quarterly			
Interlock Checks Groundwater			
Interlock Checks SVE			
Collect Well Flow read at SVE-02			
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)	6/9/11	GB	

Notes:

Reviewed by:_____ Date:_____

Date: 8/11/11
Weather: Clear Sunny
Sampler: George Bradshaw

SAMPLE COLLECTION RECORD
MODESTO SUPERFUND SITE

Time	Description	Totalizer Reading (gallons)	Flow (gpm)
1000	GWTS Effluent	9720500	52

Time	Sample Location - Test Method	Sample Description	LOCID	No. of Containers	Container Type	Preservative	pH	Cond	Temp
1035	EFF-0802 E524.2	Effluent-NS	SP-07	3	40 ml VOA	HCL	8.26	1050	21.6
1035	EFF-0802 SM2540C	Effluent-NS	SP-07	1	250 ml Poly	None	8.26	1050	21.6
1040	EFF-0802 SM5210B	Effluent-NS	SP-07	1	500 ml Poly	None	8.47	1040	6.6
1040	EFF-0802 SM2540D	Effluent-NS	SP-07	1	500 ml Poly	None	8.47	1040	6.6
1035	EFF-0802 D5174	Effluent-NS	SP-07	1	1 L Poly	HNO3	8.26	1050	21.6
1105	EW-1-0802 E524.2	Influent-NS	SP-01	3	40 ml VOA	HCL	7.41	1030	19.4
1150	GWTP Stack-0802 TO15	GWTP VGAC Effluent-NS	SP-09	1	400ml Summa	None	#651	Start -30	End -5
1155	GWTP Pre GAC-0802 TO15	GWTP VGAC Influent-NS	SP-08	1	400ml Summa	None	#627	-30	-5
1215	SVE Stack-0802 TO15	SVE VGAC Effluenty-NS	SP-12	1	400ml Summa	None	#652	-30	-5
1220	SVE Pre GAC-0802 TO15	SVE VGAC Influent-NS	SP-11	1	400ml Summa	None	#859	-30	-5.5
1000	MW-302-3Q11 E524.2	Trip Blank	Blank	3	40 ml VOA	HCL	—	—	—

Sampler Signature: [signature] Date: 8/11/11

Notes:

FD = Field Duplicate
FB = Field Blank (ambient)
NS = Normal Sample
TB = Trip Blank

Scan COCs to:
URS Attn: Debbie Casagrande (916) 679-2040

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	Efffluent 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	GPM	Pump P-3 PSI	Bag Filter F-2 PSI	Bag Filter F-2 PSI	GPM
GB	9/4/11	0820	45751	22.681	69824	46	34.0	25638	7.43	22	32.0	33.0	68	40.0	46	44	67
GB	9/13/11	0737	45947	22.681	74473	46	34.0	30902	7.49	31.5	34.0	35.0	70	42.0	50.0	46	57
GB	9/22/11	0830	46164	22.681	78985	46	34.0	36758	7.47	23.5	36.0	37.0	67	42.0	48.0	46	56
GB	9/28/11	0840	46308	22.681	81976	46	34.0	40642	7.62	28.0	36.0	37.0	67	42.5	50.0	46	57
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	Air Stripper Trays in. H2O	VGAC Vessel ppm	VGAC Vessel ppm	Stack °F	Stack CFM	PSI	PSI	PSI	PSI	PSI	GPM	Gpm	PSI 4.0	pH	Gallons x100	mR/hr Peak	mR/hr Peak
16	16	0.1	0	70.4	680	35.5	29.0	21.0	12.0	9.0	39	51	17.5	8.30	11555	0	0
16	16	0.1	0.1	69.5	690	37.5	30.0	22.5	12.0	10.0	40	52	21.0	8.26	16869	0	0
16	16	0.1	0	70.8	690	37.5	29.0	22.0	12.5	10.0	40	51.5	18.0	8.26	22753	0	0
16	16	0	0	70.4	670	38.0	30.0	22.0	12.5	10.0	39	52.0	21.1	8.38	26675	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	VGAC Vessel ppm	Stack °F	Stack CFM	mR/hr Peak	mR/hr Peak
9/2/11	0910	-62	83.9	148	No	4555	3.0	201.8	157	-67.5	-71	0.1	0	201.8	157	0	0
9/13/11	0900	-62	81.7	146	No	4819	3.0	199.4	155	-67	-71	0.1	0.1	199.4	155	0	0
9/22/11	0950	-62	82.6	151	No	5036	3.0	201.5	154	-66.5	-70	0	0	201.5	154	0	0
9/28/11	0930	-62	80.6	148	No		3.0	198.3	157	-67	-70	0	0	198.3	157	0	0
		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: _____

GWTP Eff Air Pressure
9/2/11 4.1" H_2O
9/13/11 4.0" H_2O

URS Corporation
Modesto Superfund Site
Site Inspections

Task Description	9/2/11	9/8/11	9/13/11	9/22/11	9/28/11
WEEKLY	Task Performed (Technician Initials or Value)				
Groundwater Treatment System					
Record Process Logs	GB	(NO)	GB	GB	GB
Check Blowers and motors for heat, noise, and vibration	GB	GB	GB	GB	GB
Check Air Stripper Feed pump/motor (P-2) for heat, noise, and vibration.	GB	GB	GB	GB	GB
Inspect all process piping for leaks	GB	GB	GB	GB	GB
Inspect all process hoses/fittings for leaks	GB	GB	GB	GB	GB
Check Air Stripper Effluent pump/motor (P-3) for heat, noise, and vibration.	GB	GB	GB	GB	GB
Inspect Sump (Pump as Necessary).	GB	GB	GB	GB	GB
Check Air Stripper sump level site glass. Clean as necessary	GB	GB	GB	GB	GB
Inspect IX system influent vacuum break for leaks	GB	GB	GB	GB	GB
Clean up compound area	GB	GB	GB	GB	GB
Drain VGAC condensate	GB	GB	GB	GB	GB
Perform autodialer operational check	GB	GB	GB	GB	GB
Autodialer battery check	GB	GB	GB	GB	GB
Perform inspection of EW-1R pipeline	GB	GB	GB	GB	GB
Inspection of Spill Response Kit	GB	GB	GB	GB	GB
Inspection of Emergency Response Plan/MSDS Binder	GB	GB	GB	GB	GB
Soil Vapor Extraction System					
Record Process Logs	GB	GB	GB	GB	GB
Check Blowers and motors for heat, noise, and vibration	GB	GB	GB	GB	GB
Inspect all process piping for leaks	GB	GB	GB	GB	GB
Clean up compound area	GB	GB	GB	GB	GB
Drain VGAC condensate	GB	GB	GB	GB	GB
Perform autodialer operational check	GB	GB	GB	GB	GB
Inspection of Spill Response Kit	GB	GB	GB	GB	GB
Inspection of Emergency Response Plan/MSDS Binder	GB	GB	GB	GB	GB

Task Description	Performed		
MONTHLY	Date	Initials	Reading
Check fire extinguisher	9/2/11	GB	
Inspect EW-1R vault	↓	↓	
Inspect VI Mitigation operations - "Part House"			
Replace Auto Dialer Batteries (if necessary)			
Quarterly			
Interlock Checks Groundwater	9/2/11	GB	
Interlock Checks SVE	9/2/11	GB	
Collect Well Flow read at SVE-02 9/2	-46 "H2O	77.8°	36.3 CFM
Collect Well Flow read at SVE-03 9/2	-46	74.9°	35.8
Collect Well Flow read at SVE-04 9/2	-46	71.3°	55.5
ANNUAL			
Collect Amp radings			
Instrument Calibration			
System Effluent Flow Meter (Performed in June and December)	6/9/11	GB	

Notes:

Reviewed by:_____ Date:_____

URS Group
Preventative and Corrective Maintenance Log
Modesto Superfund Site

Site Name: Modesto SF
Period: 9/1/11 (month/day/year) to 9/30/11 (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.)
9/8/11	GB	45832	Replaced Seq. Tubing	Y (N)			Y / N		
9/8/11	GB	45832	Cleaned Out Seq. Tank & Pump	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: 9/4/11 Startup Date: 9/6/11
Shutdown Time: 1545 Startup Time: 1115
Shutdown Purpose or Cause:
Sequestrant Pump Failure. Runtime Hour Meter 45807.1 @ 1140 on 9/6/11
Corrective Actions Taken (if shutdown was unplanned):
Removed power relay and cleaned out sequestrant pump.
Performed By: GB

Shutdown Date: 9/7/11 Startup Date: 9/8/11
Shutdown Time: 1230 Startup Time: 1300
Shutdown Purpose or Cause:
Sequestrant Pump Blockages. Run Time Hours 45832.0 @ 1320 on 9/8/11
Corrective Actions Taken (if shutdown was unplanned):
Replaced all tubing, disassembled pump & rebuilt. Cleaned out seq. tank, filtered sequestrant
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:

Date: 9/13/11
Weather: Sunny Clear
Sampler: George Bradshaw

SAMPLE COLLECTION RECORD
MODESTO SUPERFUND SITE

Time	Description	Totalizer Reading (gallons)	Flow (gpm)
0737	GWTS Effluent	1,686,900	52

Time	Sample Location - Test Method	Sample Description	LOCID	No. of Containers	Container Type	Preservative	pH	Cond	Temp	
0820	EFF-0902 E524.2	Effluent-NS	SP-07	3	40 ml VOA	HCL	8.33	1020	21.0	
0820	EFF-0902 SM2540C	Effluent-NS	SP-07	1	250 ml Poly	None	8.33	1020	21.0	
0825	EFF-0902 SM5210B	Effluent-NS	SP-07	1	500 ml Poly	None	8.42	1010	4.0	
0825	EFF-0902 SM2540D	Effluent-NS	SP-07	1	500 ml Poly	None	8.42	1010	4.0	
0830	EW-1-0902 E524.2	Influent-NS	SP-01	5	40 ml VOA	HCL	7.40	1030	21.0	
0~~845~~ 0855	GWTP Stack-0902 TO15	GWTP VGAC Effluent-NS	SP-09	1	400ml Summa	None	—	—	—	#669
0846	GWTP Pre GAC-0902 TO15	GWTP VGAC Influent-NS	SP-08	1	400ml Summa	None	—	—	—	#656
0925	SVE Stack-0902 TO15	SVE VGAC Effluent-NS	SP-12	1	400ml Summa	None	—	—	—	#670
0930	SVE Pre GAC-0902 TO15	SVE VGAC Influent-NS	SP-11	1	400ml Summa	None	—	—	—	#636
0852	MW-108-0902 TO15	GWTP VGAC Influent-FD	SP-08	1	400ml Summa	None	—	—	—	#634
0730	MW-304-3Q11 E524.2	Trip Blank	Blank	3	40 ml VOA	HCL	n/a	n/a	n/a	

Sampler Signature	Date
[signature]	9/13/11

Notes: Shipped EPA Reg 9 Lab
FedEx: 4032 0533 4580
4032 0533 4390

FD = Field Duplicate
FB = Field Blank (ambient)
NS = Normal Sample
TB = Trip Blank

Scan COCs to:
URS Attn: Debbie Casagrande (916) 679-2040

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 30 September 2011. 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 HISTORY
GROUNDWATER TREATMENT AND SOIL VAPOR EXTRACTION SYSTEM
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

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

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
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
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
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
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

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-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
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
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
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
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

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-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
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
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
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
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

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-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
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
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
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
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

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
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
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
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
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

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-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
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
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
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
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

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-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

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)

GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY RESULTS
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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)

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:
	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	

TABLE G-3(a)

GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY RESULTS
MODESTO SUPERFUND SITE
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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)

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Well Identification	Date	pH	PCE (µg/L)	TCE (µg/L)	1,2 - Dichloroethene (µg/L)	Chloroform (µg/L)	Comments:
	2/27/2008	7.20	**37**	<0.5	< 0.5	**7.8**	Bromodichloromethane (0.3J); 1,2,3-Trichlorobenzene(0.3J)
	5/21/2008	7.23	**23**	<0.5	< 0.5[a]	**9.4**	Bromodichloromethane (0.5)
	8/20/2008	7.28	**17**	<0.5	< 0.5[a]	**11**	Bromodichloromethane (0.6)
	12/2/2008	6.91	**14 J-**	<0.5	<0.5[a]J	**9.8 J-**	
	2/18/2009	7.20	**34**	<0.5	< 0.5[a]	**5.3**	
	6/3/2009	7.19	**14**	< 0.5	< 0.5[a]	**11**	Bromodichloromethane (0.6)
	8/12/2009	7.21	**9.8 J-**	< 0.5	< 0.5[a]	**10**	Bromodichloromethane (0.5)
	11/11/2009	7.25	**15**	< 0.5	< 0.5[a]	**8.1**	Bromodichloromethane (0.3J)
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
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Well Identification	Date	pH	PCE (µg/L)	TCE (µg/L)	1,2 - Dichloroethene (µg/L)	Chloroform (µg/L)	Comments:
	11/16/2005	7.40	**940 J**	< 5.0	< 5.0	**3.2 UJ**	
	2/22/2006	7.40	**970**	<5.0	< 5.0	**3.8 J**	
	5/24/2006	7.20	**560 E**	< 5.0	< 5.0	**3.1 J**	
	8/23/2006	7.20	**410**	**0.5**	< 5.0	**1.8**	tert-Butyl methyl ether (MTBE) (1.5)
	11/16/2006	7.30	**320**	**0.5**	< 0.5[a]	**1.3 U**	
	2/14/2007	7.10	**550**	**0.7**	< 0.5[a]	**3.3**	
	5/23/2007	7.50	**350**	**0.5**	**0.3[a]**	**2.0**	
	8/22/2007	7.10	**480**	**0.7**	**0.3 J[a]**	**2.3**	
	11/28/2007	7.89	**330**	**0.4**	< 0.5[a]	**4.2**	
	2/27/2008	7.17	**430**	<2.5	<2.5[a]	**2.4**	
	5/21/2008	7.17	**280**	**0.4 J**	< 0.5[a]	**2.1**	
	8/20/2008	7.25	**220**	**0.4 J**	<0.5[a]	**2.9**	
	12/2/2008	6.84	**240**	<0.5	< 0.5[a]	**4.6**	
	2/17/2009	7.15	**210**	**0.3**	<0.5[a]	**3.8**	
	6/2/2009	7.30	**120**	< 0.5	< 0.5[a]	**5.1**	
	8/11/2009	6.90	**140**	< 0.5	<0.5[a]	**2.8**	
	11/10/2009	7.42	**110**	< 0.5	< 0.5[a]	**4.7**	
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)

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Well Identification	Date	pH	PCE (µg/L)	TCE (µg/L)	1,2 - Dichloroethene (µg/L)	Chloroform (µg/L)	Comments:
	11/27/2007	6.97	**2.2**	<0.5	< 0.5[a]	**2.3**	
	2/27/2008	7.17	**1.3**	<0.5	< 0.5[a]	**2.2**	
	5/20/2008	7.19	**1.6**	<0.5	< 0.5[a]	**2.1**	
	8/19/2008	7.17	**1.4**	<0.5	< 0.5[a]	**3.7**	
	12/2/2008	6.94	**1.8**	<0.5	< 0.5[a]	**2.6**	
	2/17/2009	7.18	**1.3**	<0.5	< 0.5[a]	**3.2**	
	6/2/2009	7.33	**1.4 J-**	< 0.5	< 0.5[a]	**3.3**	
	8/11/2009	7.10	**0.6**	< 0.5	< 0.5[a]	**5.3**	
	11/10/2009	7.46	**1.2**	< 0.5	< 0.5[a]	**4**	
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)

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Well Identification	Date	pH	PCE (µg/L)	TCE (µg/L)	1,2 - Dichloroethene (µg/L)	Chloroform (µg/L)	Comments:
	8/24/2004	7.00	**3.8 J**	< 5.0	< 5.0	**3.1 J**	
	11/16/2004	7.10	**6.2**	< 5.0	< 5.0	**3.0 J**	
	3/1/2005	7.30	**20.0**	< 5.0	< 5.0	< 5.0	
	5/24/2005	7.20	**16.0**	< 5.0	< 5.0	< 5.0	
	8/23/2005	7.40	**7.3 J**	< 5.0	< 5.0	**3.8**	
	11/15/2005	7.30	**7.2 J**	< 5.0 UJ	< 5.0 UJ	**3.8 J**	
	2/21/2006	7.40	**28.0**	< 5.0	< 5.0	< 5.0	
	5/23/2006	7.20	**14.0**	< 5.0	< 5.0	**3.0 J**	
	8/22/2006	7.30	**8.4**	< 5.0	< 5.0	**3.5**	
	11/15/2006	7.30	**8.2**	<0.5	< 0.5[a]	**5.5**	
	2/13/2007	7.10	**19**	<0.5	< 0.5[a]	**2.0**	
	5/23/2007	7.60	**8.8**	<0.5	< 0.5[a]	**3.7**	
	8/22/2007	7.20	**7.9**	<0.5	< 0.5[a]	**5.7**	Bromodichloromethane (0.3 J)
	11/27/2007	7.09	**7.8**	<0.5	< 0.5[a]	**6.7**	Bromodichloromethane (0.3 J)
	2/27/2008	7.21	**17**	<0.5	< 0.5[a]	**1.7**	
	5/20/2008	7.27	**7.1**	<0.5	< 0.5[a]	**4.4**	
	8/19/2008	7.30	**5.5**	<0.5	< 0.5[a]	**5.2**	
	12/2/2008	6.92	**4.6**	<0.5	< 0.5[a]	**5.5**	
	2/17/2009	7.18	**12**	<0.5	< 0.5[a]	**2.3**	
	6/2/2009	7.37	**3.7**	< 0.5	< 0.5[a]	**4.5**	Bromodichloromethane (0.3 J)
	8/11/2009	7.10	**2.1**	< 0.5	< 0.5[a]	**3.2**	
	11/11/2009	7.29	**2.5**	< 0.5	< 0.5[a]	**3.3**	
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)

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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	Date	Sample Code	pH	PCE (µg/L)	TCE (µg/L)
MW-01A	03/10/2010	N	7.53	1.9	0.5 U
	05/18/2010	N	6.9	2.6	0.5 U
	08/24/2010	N	6.92	2.2	0.5 U
	11/09/2010	N	7.14	2.0	0.5 U
	03/08/2011	N	7.01	2.0	0.5 U
	06/07/2011	N	7.1	1.6	0.5 U
	09/07/2011	N	7.03	1.7	0.5 U
MW-02A	03/09/2010	N	7.13	5.8	0.5 U
	05/18/2010	N	7.05	4.6	0.5 U
	08/24/2010	N	7.22	5.2	0.5 U
	11/09/2010	N	7.24	4.6	0.5 U
	03/08/2011	FD	--	4.9 J	0.5 U
	03/08/2011	N	7.06	4.8	0.5 U
	06/07/2011	N	7.1	5.4	0.5 U
	06/07/2011	FD	--	5.3	0.5 U
	09/07/2011	N	7.05	5.6	0.5 U
MW-03A	03/11/2010	N	7.06	42	0.5 U
	05/19/2010	N	7	42	0.5 U
	08/26/2010	FD	--	120	0.5 U
	08/26/2010	N	6.58	150	0.5 U
	11/11/2010	N	7.07	37	0.5 U
	03/11/2011	N	6.83	39	0.5 U
	06/09/2011	N	6.94	52	0.5 U
	09/07/2011	N	6.84	79	0.5 U
MW-04A	03/10/2010	N	7.82	510	0.4 J
	05/19/2010	N	6.85	1900	10 U
	08/25/2010	N	6.96	2100	12 U
	11/10/2010	N	7.2	1500	2.5 U
	03/09/2011	N	7.11	860	5.0 U
	06/08/2011	N	7.24	300	1.0
	09/06/2011	N	7.1	1800	1.7
MW-04B	03/11/2010	FD	--	5.2	0.5 U
	03/11/2010	N	7.41	5.2	0.5 U
	05/19/2010	N	7.31	6.5	0.5 U
	08/25/2010	N	7.65	4.5	0.5 U
	11/09/2010	N	7.26	14	0.5 U
	03/09/2011	N	6.96	2.0	0.5 U
	06/07/2011	N	7.25	2.8	0.5 U
	09/07/2011	N	7.19	16	0.5 U
	09/07/2011	FD	--	14	0.5 U
MW-04C	03/11/2010	N	7.68	0.4 J	0.5 U
	05/18/2010	N	7.66	0.5 U	0.5 U
	08/24/2010	N	7.76	0.5 U	0.5 U

TABLE G-3(b)

GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY RESULTS
MODESTO GROUNDWATER SUPERFUND SITE
MODESTO, CALIFORNIA

Well Identification	Date	Sample Code	pH	PCE (µg/L)	TCE (µg/L)
	11/09/2010	N	7.3	0.5 U	0.5 U
	03/09/2011	N	7.07	0.5 U	0.5 U
	06/07/2011	N	7.5	0.5 U	0.5 U
	09/07/2011	N	7.45	0.9	0.5 U
MW-05A	03/09/2010	N	7.6	210	0.5 U
	05/18/2010	N	7.14	150	0.5 U
	08/25/2010	N	6.68	110	0.5 U
	11/10/2010	N	7.22	150	0.5 U
	03/09/2011	N	7.07	110	0.5 U
	06/08/2011	N	7.13	110	0.5 U
	09/07/2011	N	6.95	56	0.5 U
MW-06A	03/09/2010	N	7.21	48	0.5 U
	05/18/2010	N	7.31	7.9	0.5 U
	08/24/2010	N	7.35	6.0	0.5 U
	11/10/2010	N	7.35	6.5	0.5 U
	11/10/2010	FD	--	6.5	0.5 U
	03/08/2011	N	7.17	42	0.5 U
	06/08/2011	N	7.21	5.6	0.5 U
	09/06/2011	N	7.19	6.7	0.5 U
MW-07A	03/08/2010	N	6.91	0.3 J	0.5 U
	05/17/2010	N	6.95	0.5 U	0.5 U
	08/24/2010	N	6.66	0.5 U	0.5 U
	11/09/2010	N	7.01	0.5 U	0.5 U
	03/08/2011	N	6.87	0.6	0.5 U
	06/07/2011	N	6.99	0.5 U	0.5 U
	09/06/2011	N	6.99	0.5 U	0.5 U
MW-08A	03/09/2010	N	6.72	46	0.5 U
	05/18/2010	N	7.08	39	0.5 U
	05/18/2010	FD	--	36	0.5 U
	08/25/2010	N	6.7	20	0.5 U
	11/10/2010	N	7.14	29	0.5 U
	03/09/2011	N	7.06	40	0.5 U
	06/07/2011	N	7.09	43	0.5 U
	09/07/2011	N	7.02	18	0.5 U
MW-09B	03/09/2010	N	6.96	1.0	0.5 U
	05/17/2010	N	7.41	3.6	0.5 U
	08/24/2010	FD	--	17	0.5 U
	08/24/2010	N	7.42	17	0.5 U
	11/10/2010	N	7.51	4.4	0.5 U
	03/08/2011	N	7.52	1.7	0.5 U
	06/07/2011	N	7.58	2.3	0.5 U
	09/07/2011	N	7.21	12	0.5 U
MW-10A	03/09/2010	N	7.05	210	0.5 U

TABLE G-3(b)

GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY RESULTS
MODESTO GROUNDWATER SUPERFUND SITE
MODESTO, CALIFORNIA

Well Identification	Date	Sample Code	pH	PCE (µg/L)	TCE (µg/L)
	05/19/2010	N	6.54	110	0.5 U
	08/25/2010	N	6.69	130	0.5 U
	11/10/2010	N	7.1	44	0.5 U
	03/09/2011	N	6.96	130	0.2 J
	06/08/2011	N	7.05	63	0.5 U
	09/06/2011	N	7.03	52	0.5 U
MW-10B	03/11/2010	N	7.48	18	0.5 U
	05/19/2010	N	7.38	18	0.5 U
	08/25/2010	N	7.63	9.4	0.5 U
	11/11/2010	N	7.26	25	0.5 U
	03/09/2011	FD	--	16	0.5 U
	03/09/2011	N	7.02	16	0.5 U
	06/08/2011	N	7.17	14	0.5 U
	06/08/2011	FD	--	15	0.5 U
	09/08/2011	FB	--	0.5 U	0.5 U
	09/08/2011	N	7.17	18	0.5 U
MW-10C	03/11/2010	N	7.72	0.3 J	0.5 U
	03/11/2010	FD	--	0.4 J	0.5 U
	05/18/2010	N	7.72	0.5 U	0.5 U
	08/24/2010	N	7.79	0.5 U	0.5 U
	11/12/2010	N	7.56	0.5 U	0.5 U
	11/12/2010	FD	--	0.5 U	0.5 U
	03/09/2011	N	7.2	0.5 U	0.5 U
	06/08/2011	N	7.47	0.5 U	0.5 U
	09/08/2011	N	7.44	0.5 U	0.5 U
MW-11A	03/09/2010	N	7.33	1.3	0.5 U
	05/18/2010	N	6.67	2.3	0.5 U
	08/24/2010	N	6.85	1.2	0.5 U
	11/09/2010	N	7.1	1.3	0.5 U
	03/08/2011	N	6.94	2.7	0.5 U
	06/07/2011	N	7.05	3.4	0.5 U
	09/06/2011	N	7.06	1.1	0.5 U
MW-12A	03/10/2010	N	7.67	20	0.5 U
	05/18/2010	N	7.24	18	0.5 U
	08/25/2010	N	6.68	24	0.5 U
	11/10/2010	N	7.32	23	0.5 U
	03/09/2011	N	7.11	21	0.5 U
	06/07/2011	N	7.19	17	0.5 U
	09/07/2011	N	7.2	23	0.5 U
MW-13A	03/09/2010	N	7.02	16	0.5 U
	05/18/2010	N	6.91	18	0.5 U
	05/18/2010	FD	--	16	0.5 U
	08/25/2010	N	6.75	2.9	0.5 U

TABLE G-3(b)

GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY RESULTS
MODESTO GROUNDWATER SUPERFUND SITE
MODESTO, CALIFORNIA

Well Identification	Date	Sample Code	pH	PCE (µg/L)	TCE (µg/L)
	11/09/2010	N	7.13	2.8	0.5 U
	03/08/2011	N	6.97	16	0.5 U
	06/07/2011	N	7.04	11	0.5 U
	09/06/2011	N	7.08	2.6	0.5 U
MW-14A	03/09/2010	N	7.11	17	0.5 U
	05/18/2010	N	6.99	16	0.5 U
	08/24/2010	N	6.84	2.0	0.5 U
	11/09/2010	N	7.02	9.1	0.5 U
	03/08/2011	N	7.01	24	0.5 U
	06/08/2011	N	7.16	21	0.5 U
	09/06/2011	N	7	2.4	0.5 U
	09/06/2011	FD	--	2.3	0.5 U
MW-15A	03/08/2010	N	6.98	0.5 U	0.5 U
	05/17/2010	N	6.92	0.5 U	0.5 U
	08/24/2010	N	6.65	0.2 J	0.5 U
	11/08/2010	N	6.96	0.5 U	0.5 U
	03/07/2011	N	6.99	0.5 U	0.5 U
	06/06/2011	N	7.06	0.25 J	0.5 U
	09/06/2011	N	7.07	0.5 U	0.5 U
MW-16A	03/10/2010	N	6.99	0.5 U	0.5 U
	05/17/2010	N	6.85	0.5 U	0.5 U
	08/26/2010	N	6.6	0.5 U	0.5 U
	11/10/2010	N	6.66	0.5 U	0.5 U
	03/08/2011	N	6.95	0.5 U	0.5 U
	06/08/2011	N	6.68	0.5 U	0.5 U
	09/07/2011	N	6.78	0.5 U	0.5 U
MW-16B	03/10/2010	N	7.3	4.9	0.5 U
	05/19/2010	N	6.94	1.4	0.5 U
	08/26/2010	N	6.78	1.8	0.5 U
	11/10/2010	N	6.85	4.7	0.5 U
	03/08/2011	N	7.14	3.3	0.5 U
	06/08/2011	N	6.91	3.5	0.5 U
	09/07/2011	N	6.96	7.6	0.5 U
MW-16C	03/10/2010	N	7.71	0.5 U	0.5 U
	05/17/2010	N	7.62	0.5 U	0.5 U
	08/26/2010	N	7.37	0.5 U	0.5 U
	11/10/2010	N	7.18	0.5 U	0.5 U
	03/08/2011	N	7.64	0.5 U	0.5 U
	06/08/2011	N	7.33	0.6	0.5 U
	09/07/2011	N	7.41	0.6	0.5 U
MW-17A	03/10/2010	N	7.5	0.3 J	0.5 U
	05/18/2010	N	6.73	0.3 J	0.5 U
	08/24/2010	N	6.81	0.5 U	0.5 U

TABLE G-3(b)

GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY RESULTS
MODESTO GROUNDWATER SUPERFUND SITE
MODESTO, CALIFORNIA

Well Identification	Date	Sample Code	pH	PCE (µg/L)	TCE (µg/L)
	11/10/2010	N	6.63	0.5 U	0.5 U
	03/09/2011	N	6.73	0.6	0.5 U
	06/09/2011	N	6.74	0.43 J	0.5 U
	09/08/2011	N	6.75	0.4 J	0.5 U
MW-17B	03/10/2010	N	7.3	63	0.5 U
	05/19/2010	N	7.21	72	0.5 UJ
	08/24/2010	N	7.13	90	0.5 U
	11/12/2010	N	6.79	32 J	0.5 UJ
	03/10/2011	N	6.77	51	0.5 U
	06/09/2011	N	6.95	43	0.5 U
	09/08/2011	N	6.96	61	0.5 U
MW-17C	03/10/2010	N	7.66	0.5 U	0.5 U
	05/18/2010	N	7.54	0.5 U	0.5 U
	08/24/2010	FD	--	0.5 U	0.5 U
	08/24/2010	N	7.59	0.5 U	0.5 U
	11/10/2010	N	7.16	0.5 U	0.5 U
	03/10/2011	N	7.01	0.5 U	0.5 U
	06/09/2011	N	7.44	0.5 U	0.5 U
	09/08/2011	N	7.47	0.5 U	0.5 U
MW-18A	03/10/2010	N	7.5	4.0	0.5 U
	05/19/2010	N	6.69	2.9	0.5 U
	08/25/2010	N	7.27	3.4	0.5 U
	11/10/2010	N	6.74	3.3	0.5 U
	03/11/2011	N	6.57	3.4 J+	0.5 U
	06/07/2011	N	6.72	2.9	0.5 U
	09/07/2011	N	6.72	3.2	0.5 U
MW-19A	03/11/2010	N	7.56	0.8	0.5 U
	05/18/2010	N	7	0.5 U	0.5 U
	08/25/2010	N	7.03	21	0.5 U
	11/11/2010	N	7.05	0.5	0.5 U
	03/08/2011	N	7.05	0.2 J	0.5 U
	06/07/2011	N	6.93	0.5 U	0.5 U
	09/06/2011	N	6.91	0.5 U	0.5 U
	09/06/2011	FD	--	0.5 U	0.5 U
MW-19B1	03/11/2010	N	7.62	0.3 J	0.5 U
	05/18/2010	N	7.24	0.2 J	0.5 U
	05/18/2010	FD	--	0.6	0.5 U
	08/25/2010	N	7.29	0.4 J	0.5 U
	11/09/2010	FD	--	0.5 U	0.5 U
	11/09/2010	N	7.22	0.5 U	0.5 U
	03/08/2011	N	7.23	0.3 J	0.5 U
	06/07/2011	N	7.12	0.26 J	0.5 U
	09/07/2011	N	7.1	0.3 J	0.5 U

TABLE G-3(b)

GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY RESULTS
MODESTO GROUNDWATER SUPERFUND SITE
MODESTO, CALIFORNIA

Well Identification	Date	Sample Code	pH	PCE (µg/L)	TCE (µg/L)
MW-20A	03/11/2010	FD	--	130	0.5 U
	03/11/2010	N	7.4	120	0.5 U
	05/19/2010	N	7.09	310 J	0.5 U
	08/26/2010	N	6.74	28	0.5 U
	11/11/2010	N	7.13	180 J	0.5 UJ
	03/10/2011	N	6.74	260	1.0 U
	06/10/2011	N	6.89	330	0.24 J
	09/13/2011	N	6.88	280	0.3 J
MW-20B	03/11/2010	N	7.8	73	0.5 U
	05/19/2010	N	7.53	120 J+	0.5 U
	08/26/2010	N	7.38	0.5 U	0.5 U
	11/11/2010	N	7.4	96	0.5 U
	03/10/2011	N	7.1	100	1.0 U
	06/09/2011	N	7.31	110	0.5 U
	09/13/2011	N	7.27	97	0.5 U
MW-20C	03/11/2010	N	8.04	0.5 U	0.5 U
	05/18/2010	N	7.56	0.5 U	0.5 U
	08/25/2010	N	7.51	140	0.5 U
	11/09/2010	N	7.38	0.5 UJ	0.5 R
	03/10/2011	N	7.27	0.5 U	0.5 U
	03/10/2011	FD	--	0.5 U	0.5 U
	06/09/2011	FD	--	0.5 U	0.5 U
	06/09/2011	N	7.5	0.5 U	0.5 U
	09/13/2011	N	7.26	0.5 U	0.5 U

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

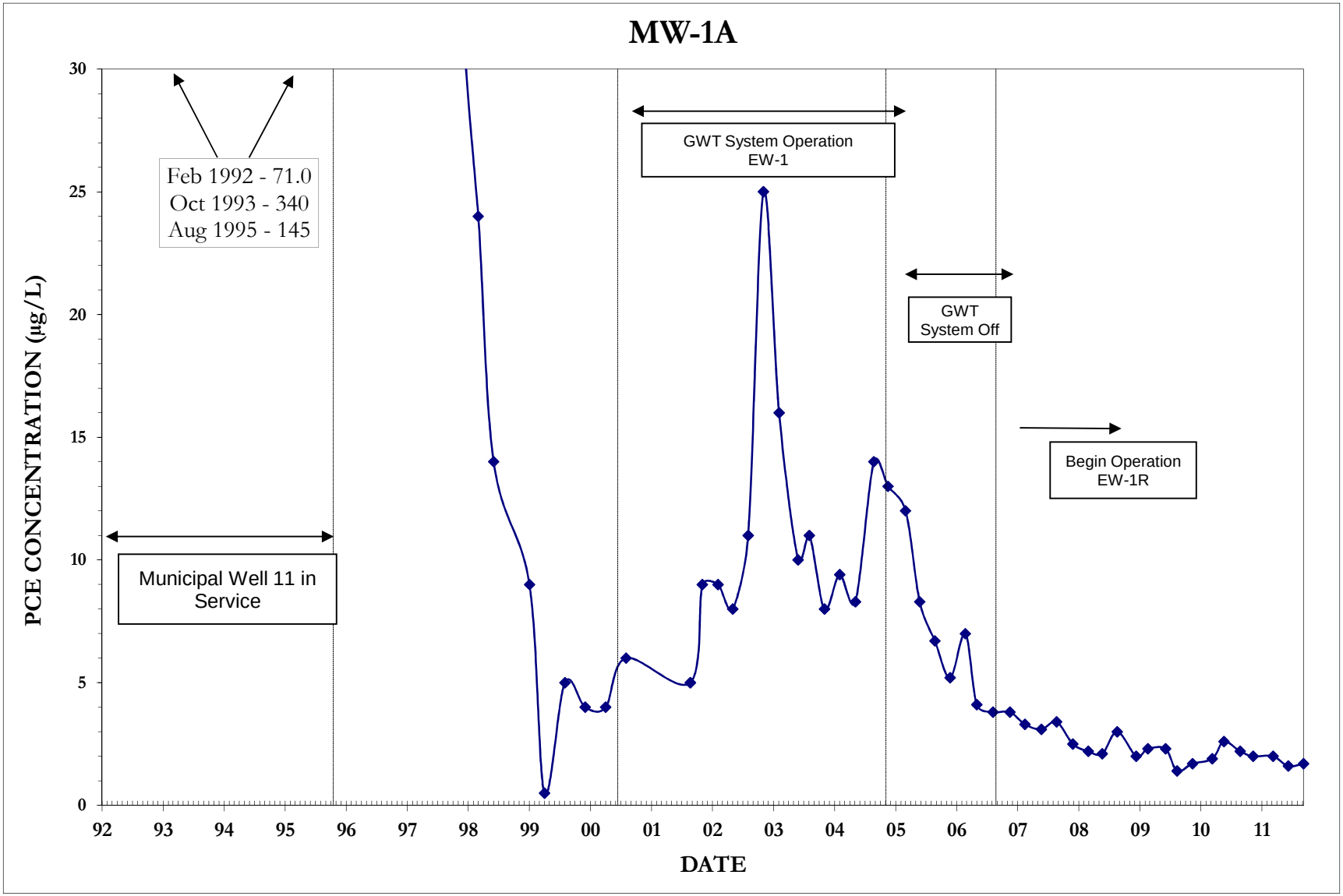

FIGURE G-4(b)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

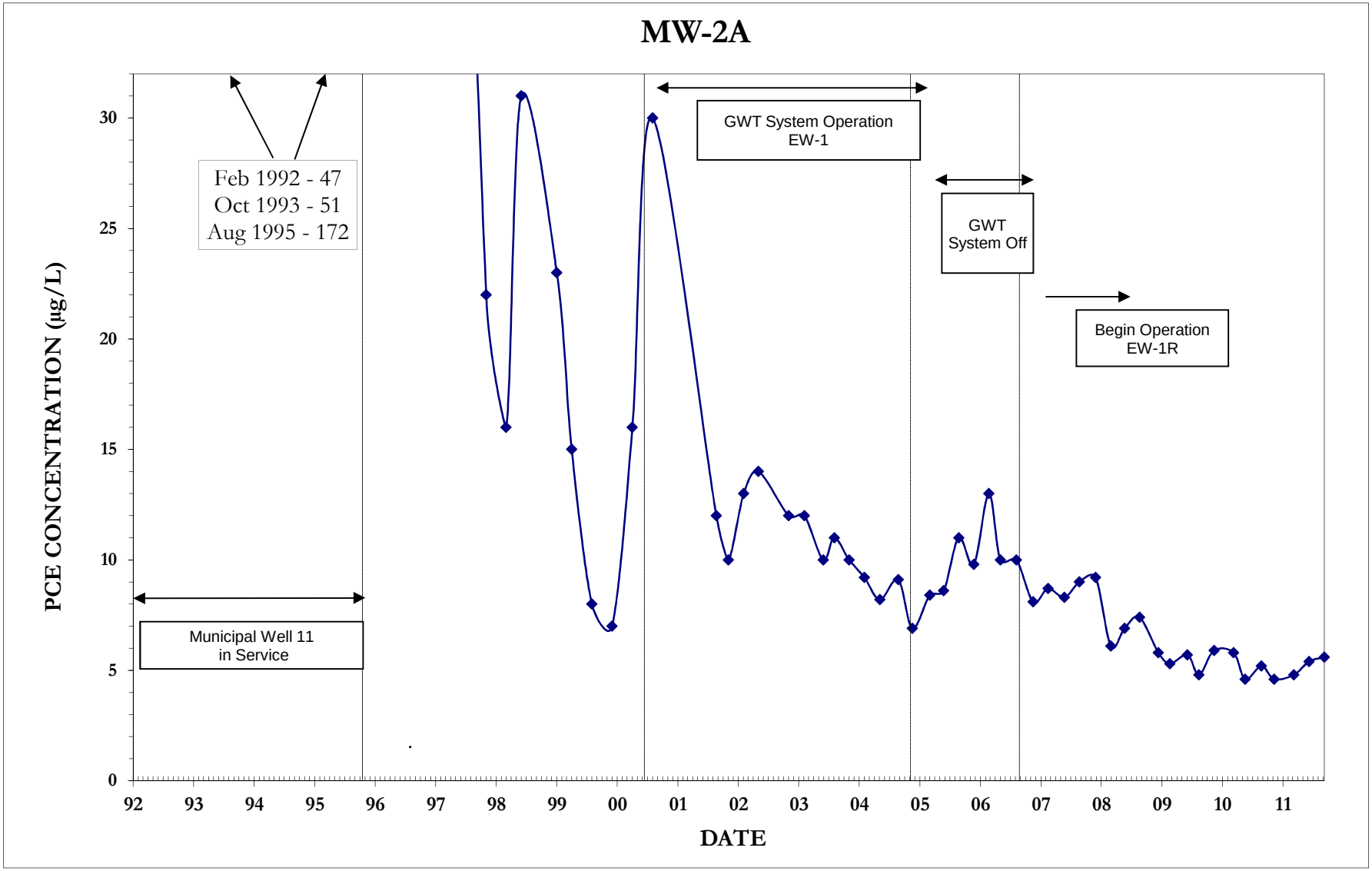

FIGURE G-4(c)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

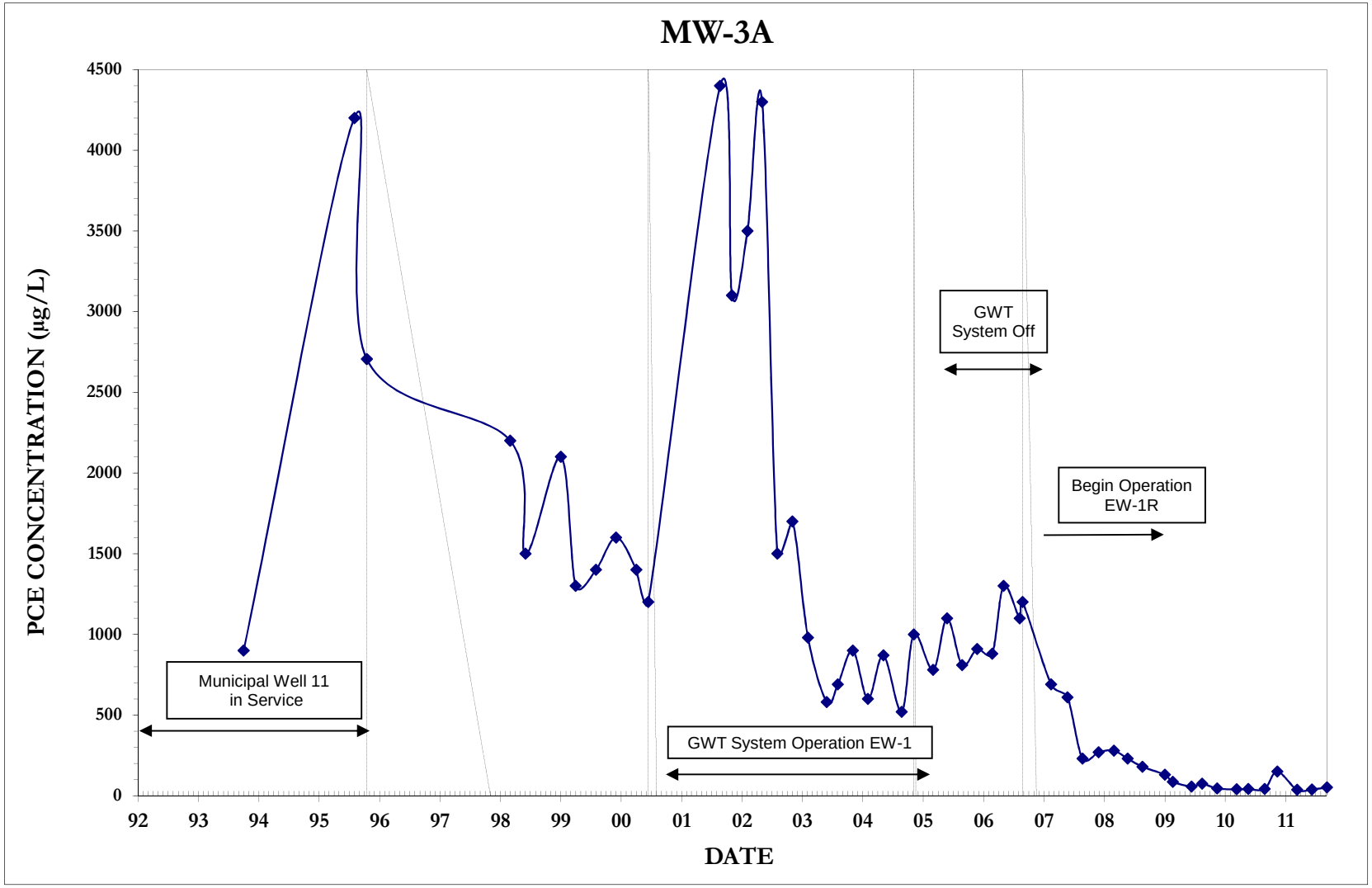

FIGURE G-4(d)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

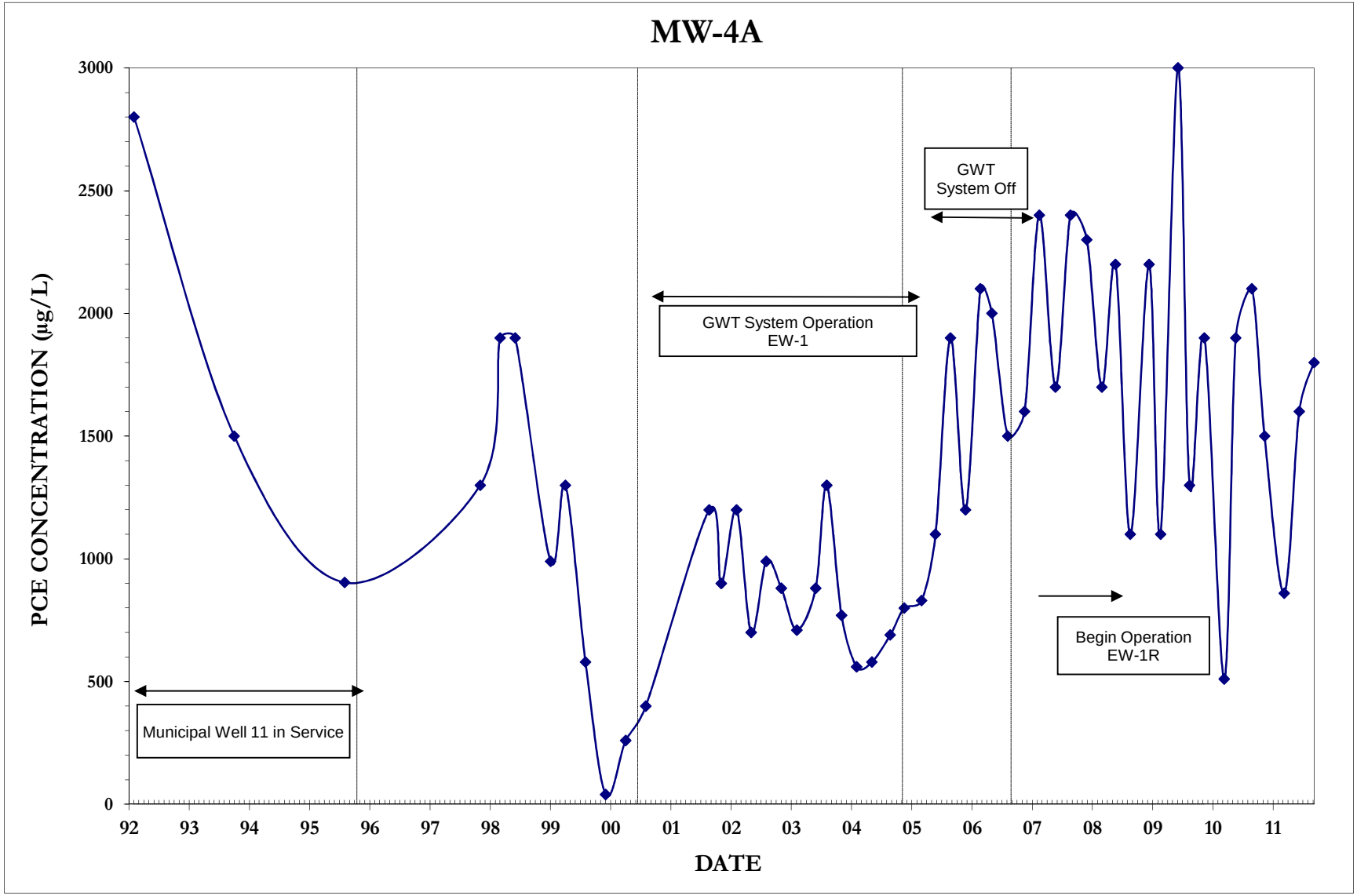

FIGURE G-4(e)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

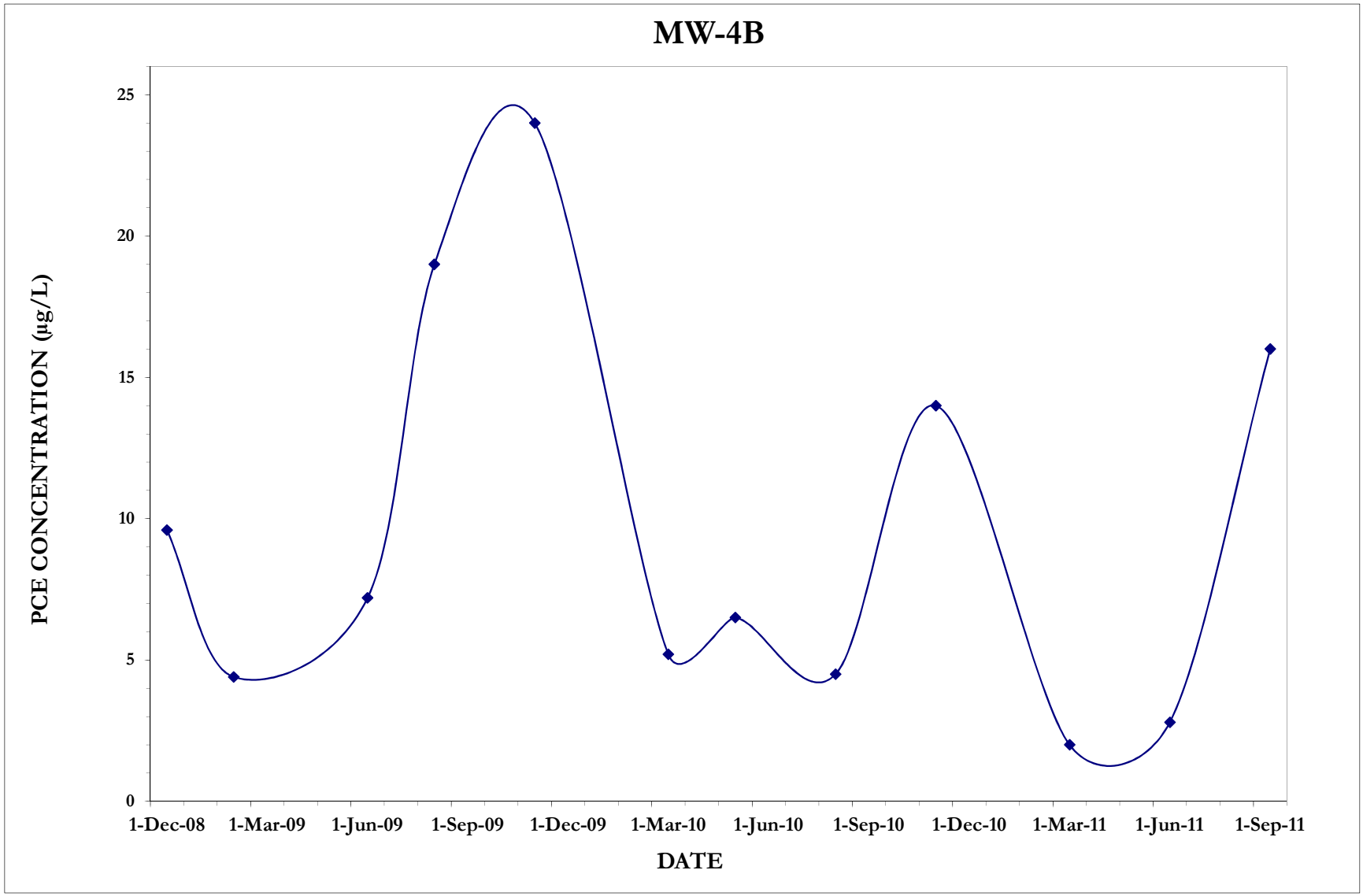

FIGURE G-4(f)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

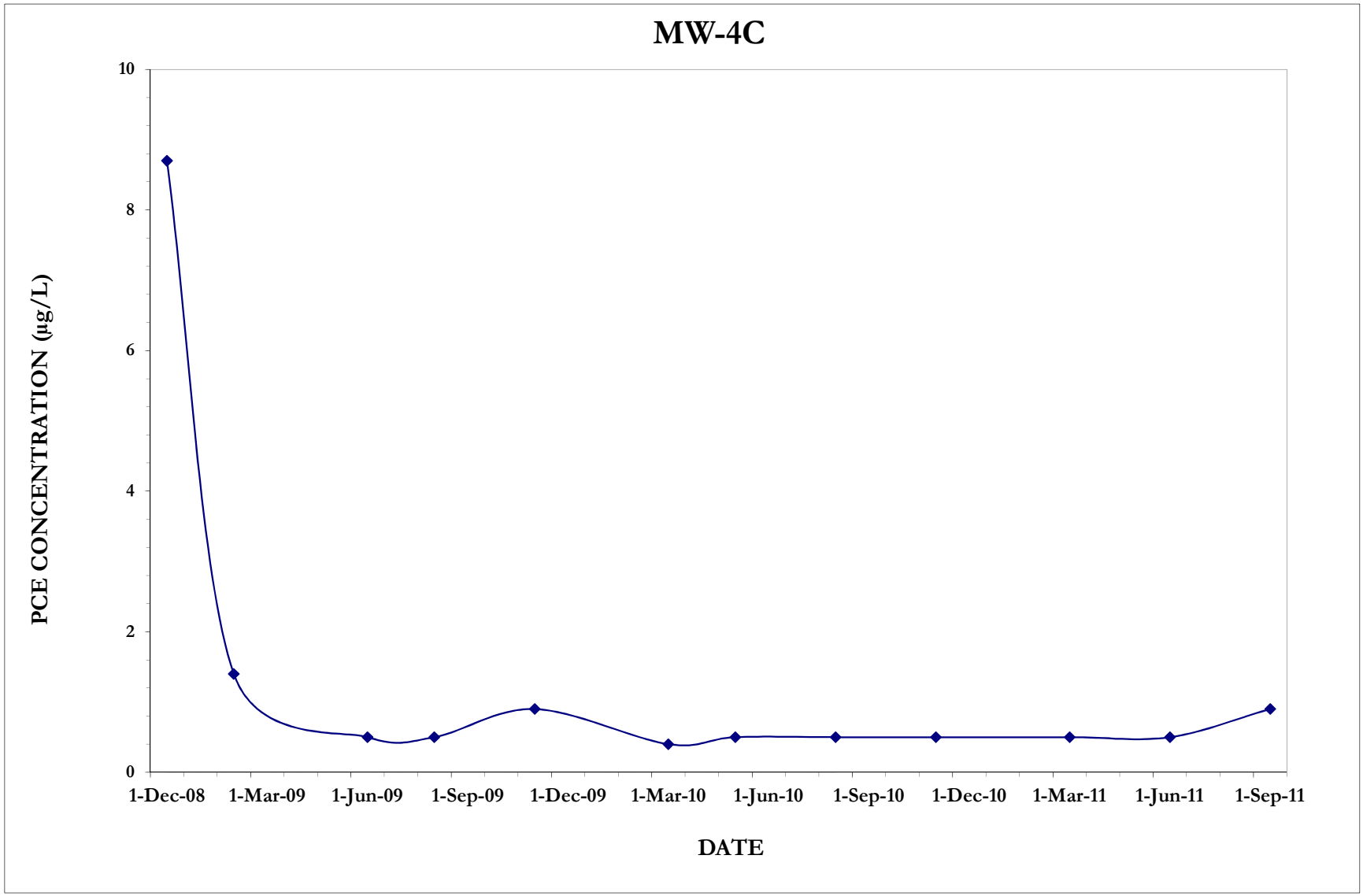

FIGURE G-4(g)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

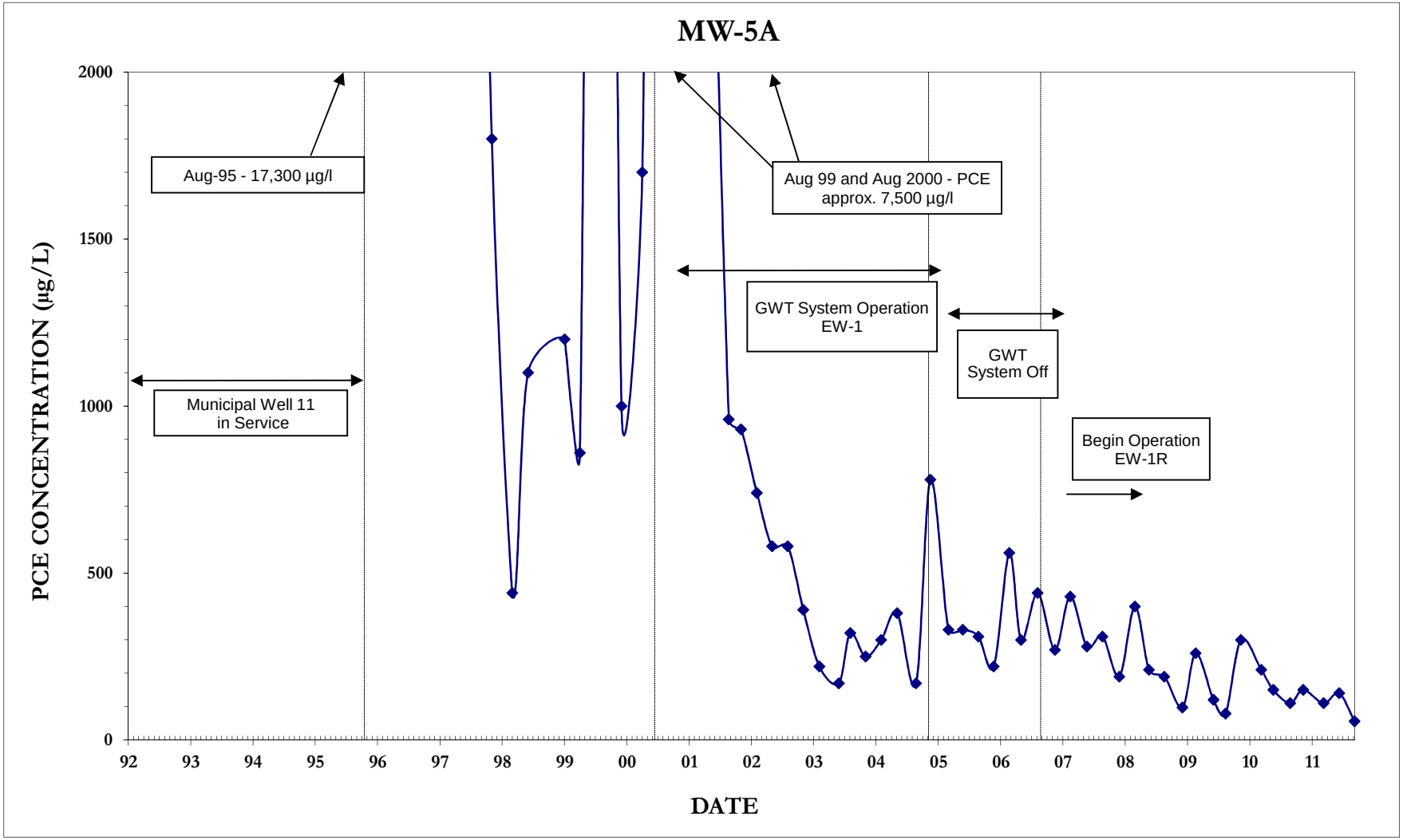

FIGURE G-4(h)

HISTORICAL PCE CONCENTRATION IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

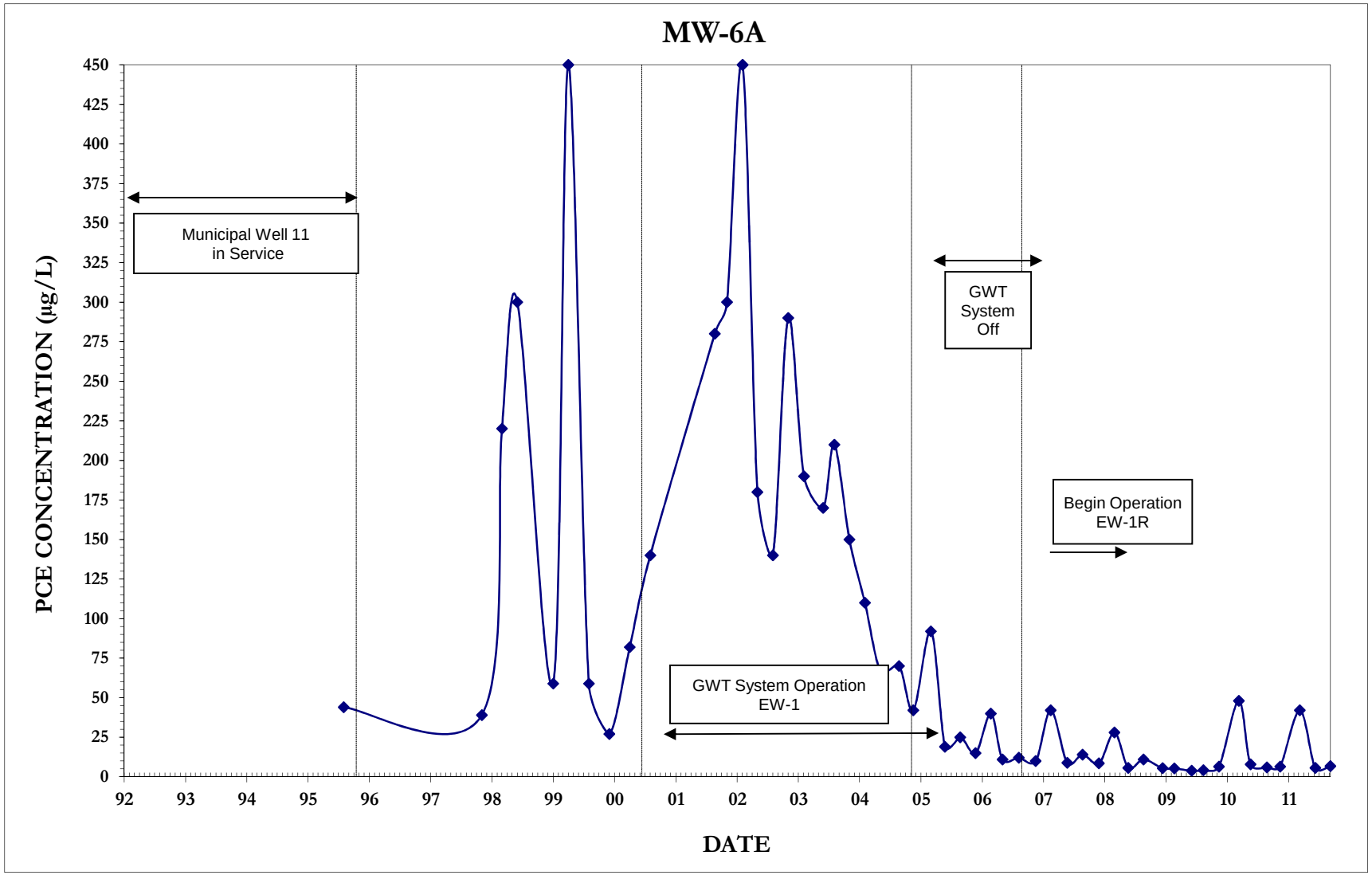

FIGURE G-4(i)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

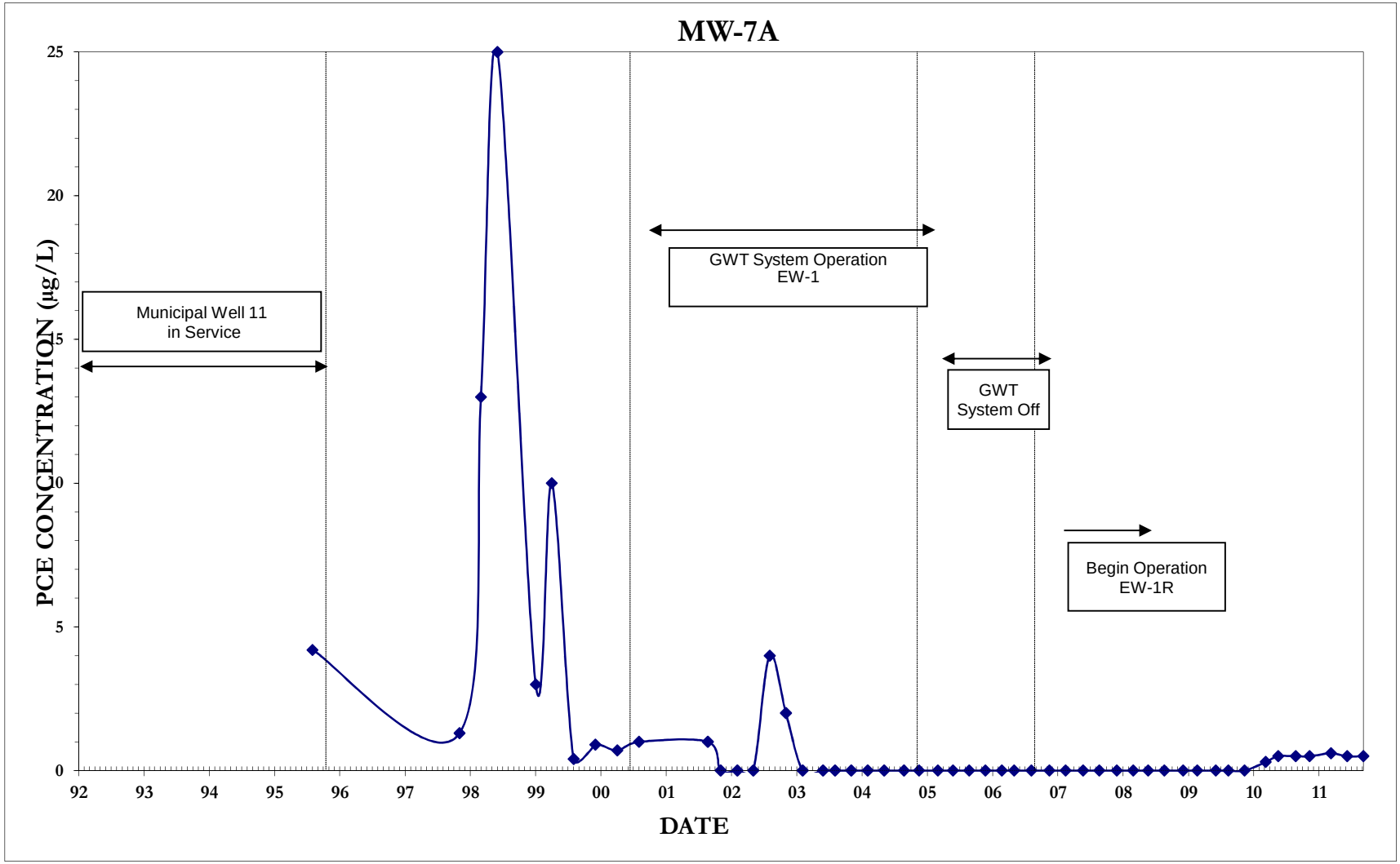

FIGURE G-4(j)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

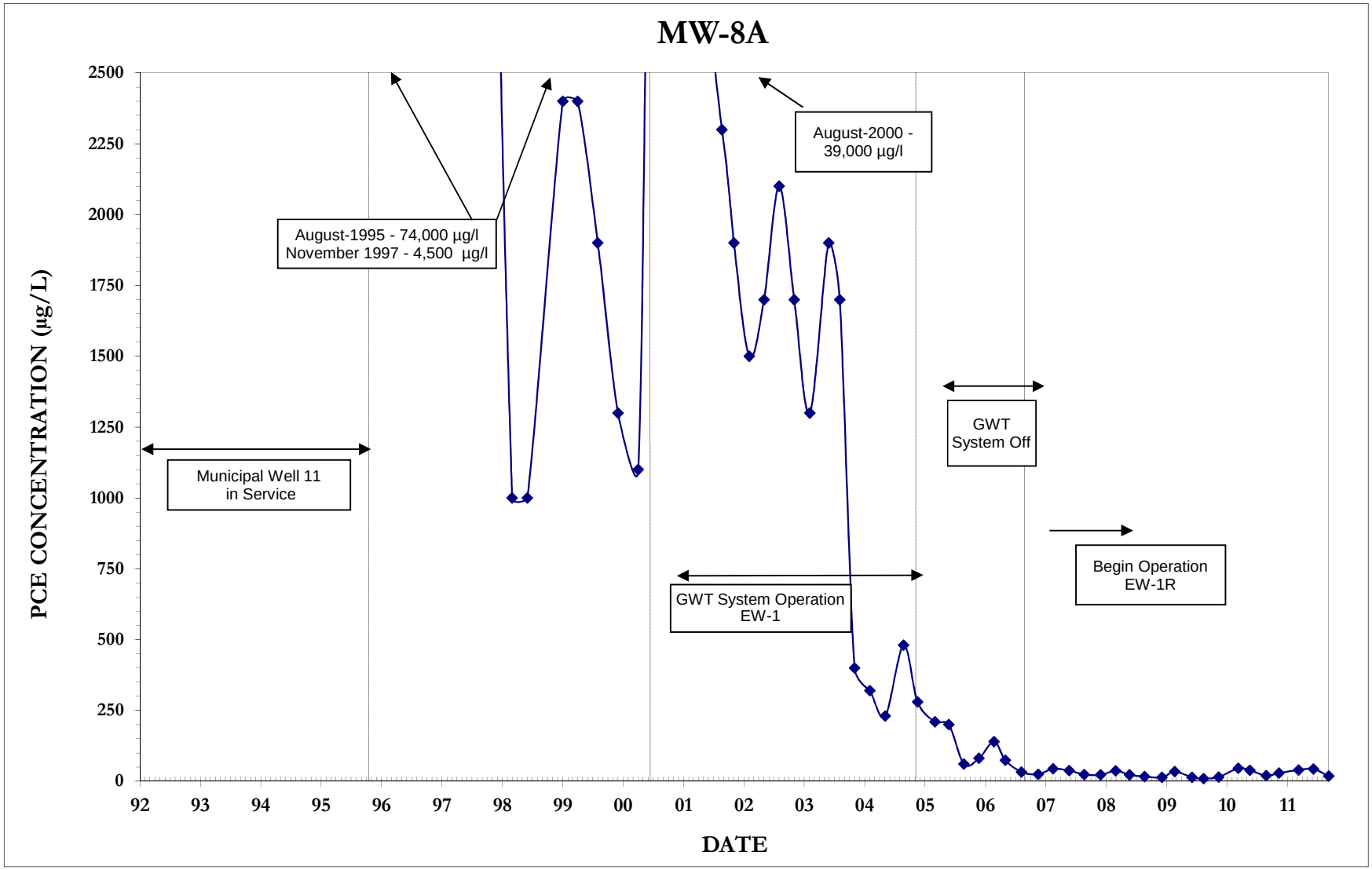

FIGURE G-4(k)

HISTORICAL PCE CONCENTRATIONS IN GROUDNWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

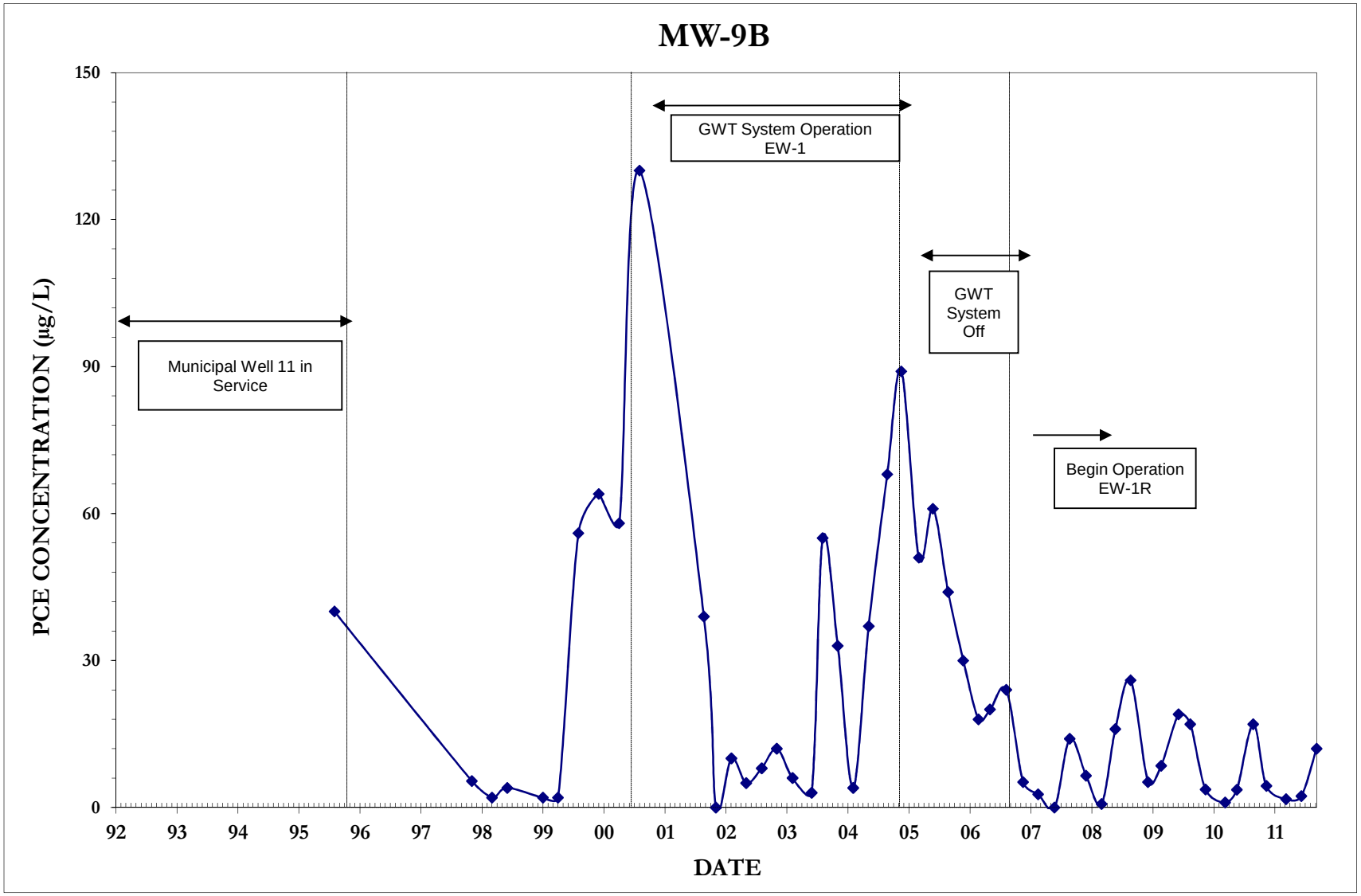

FIGURE G-4(l)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

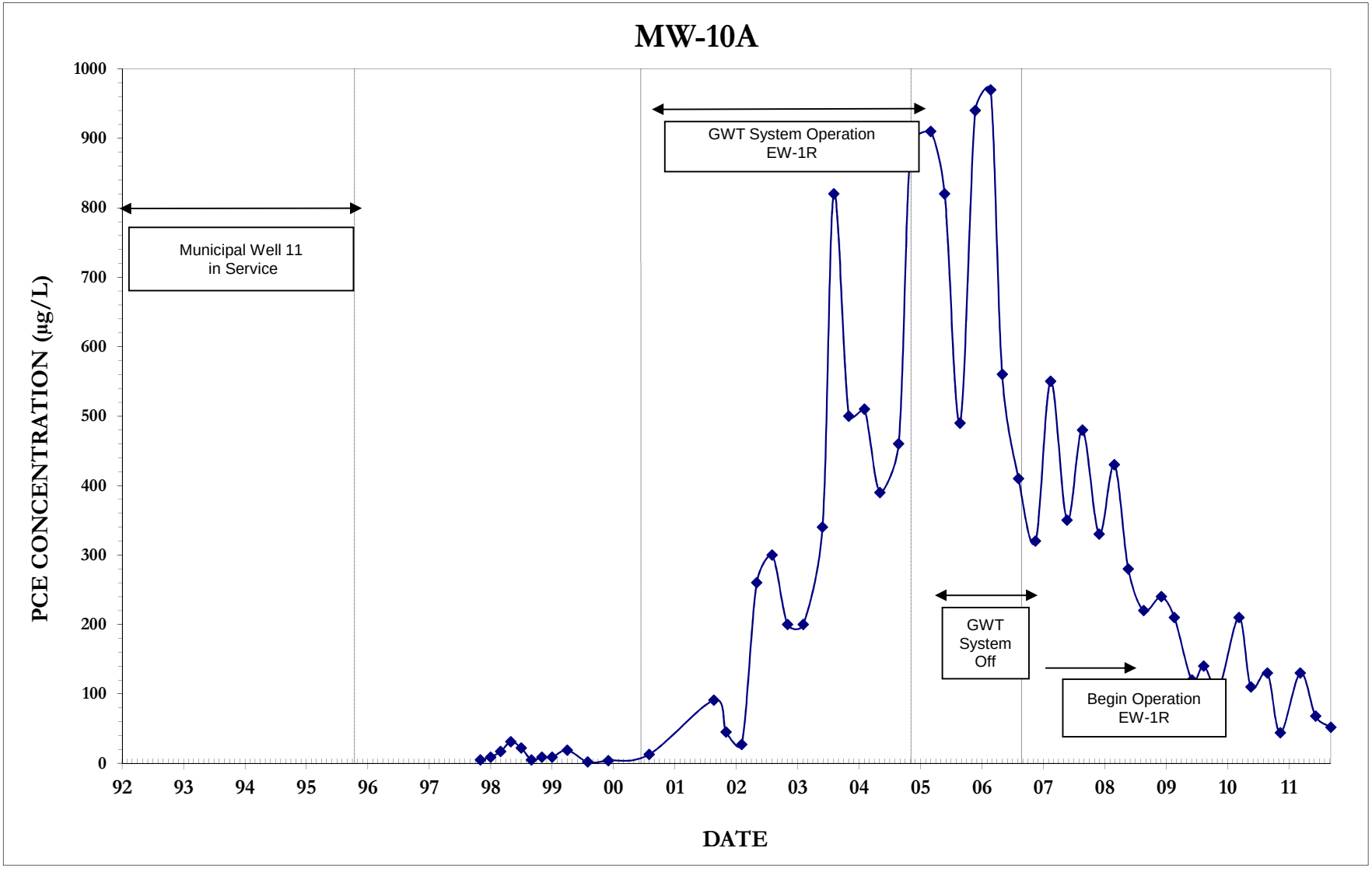

FIGURE G-4(m)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

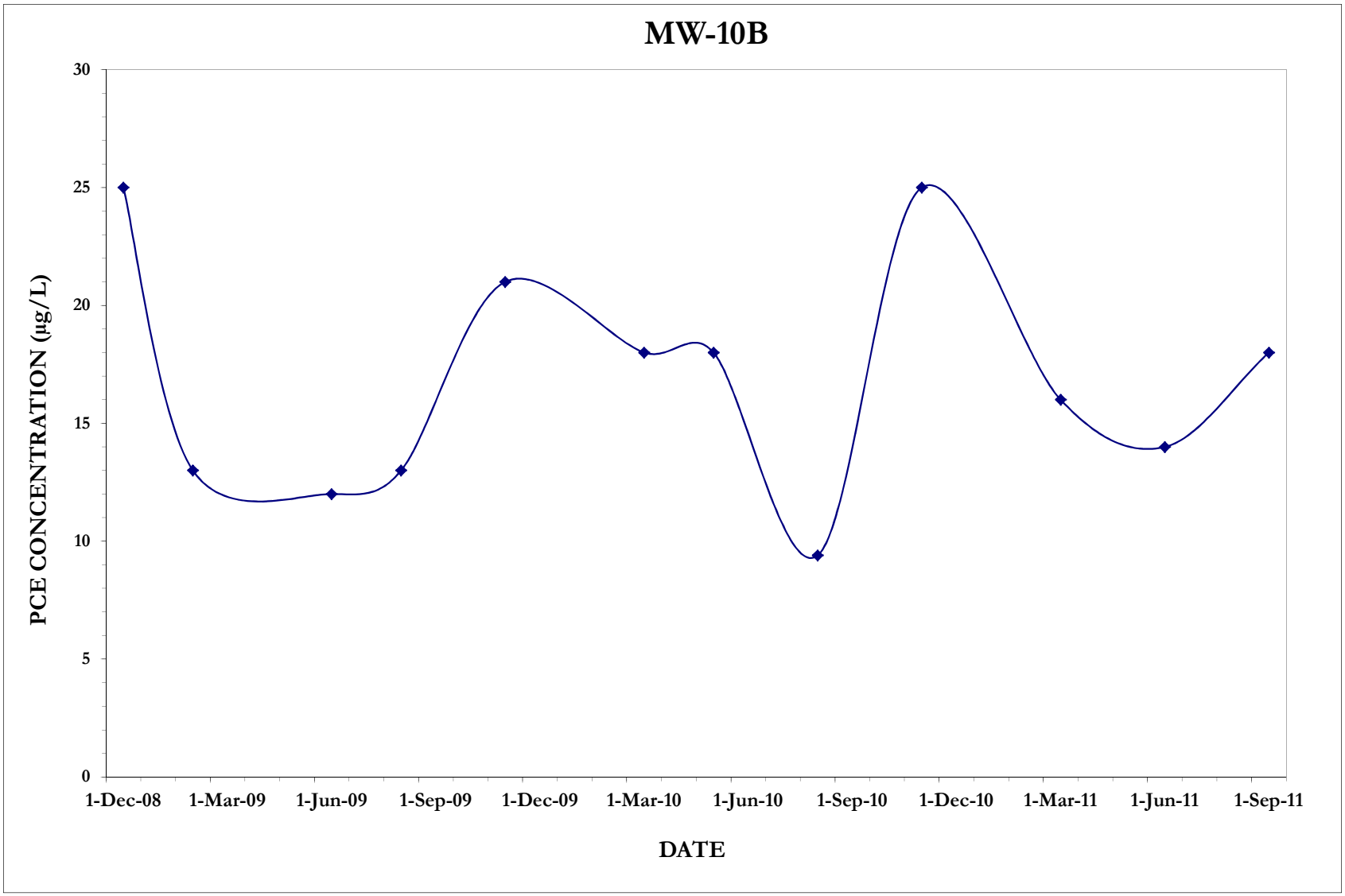

FIGURE G-4(n)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

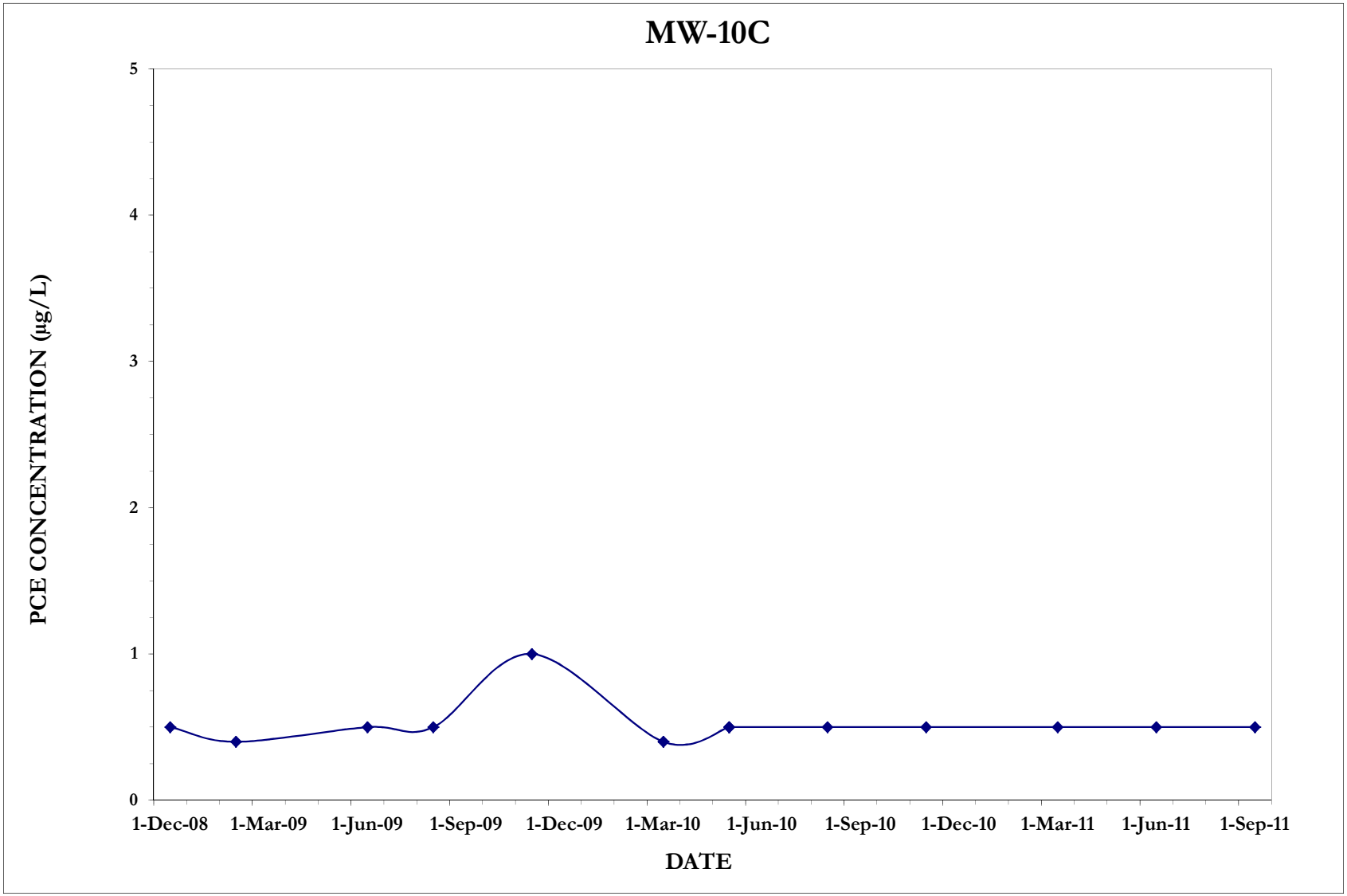

FIGURE G-4(o)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

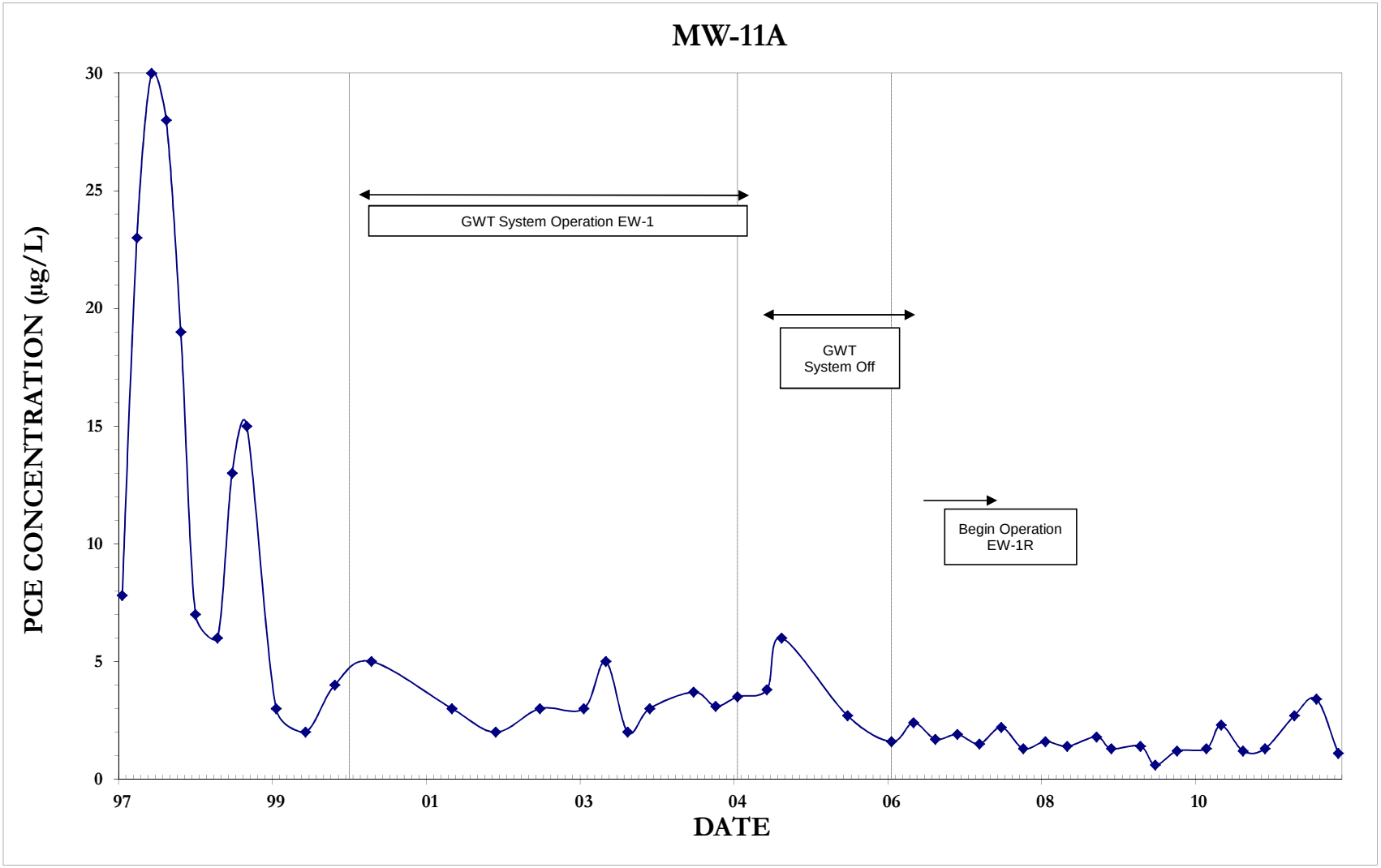

FIGURE G-4(p)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

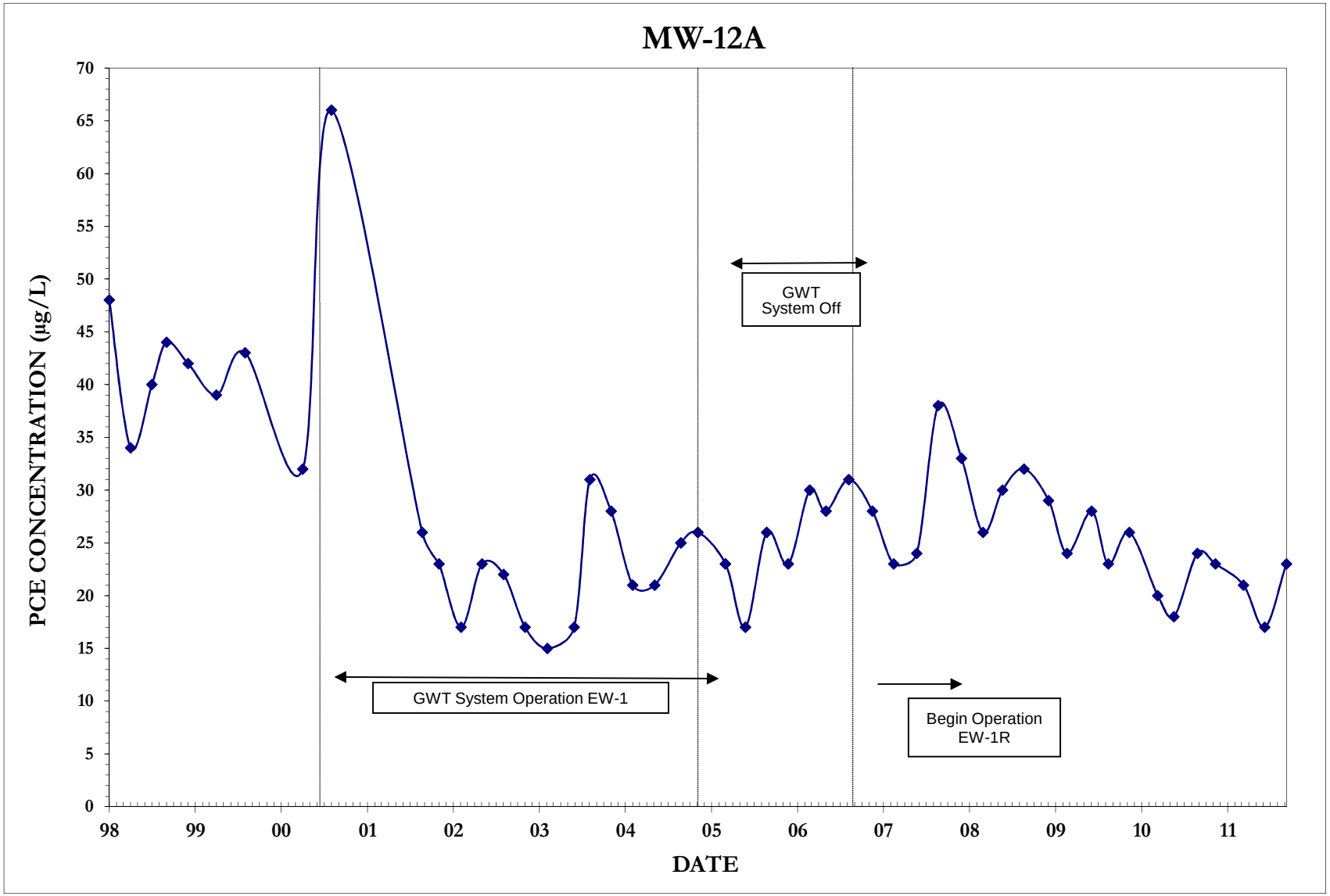

FIGURE G-4(q)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

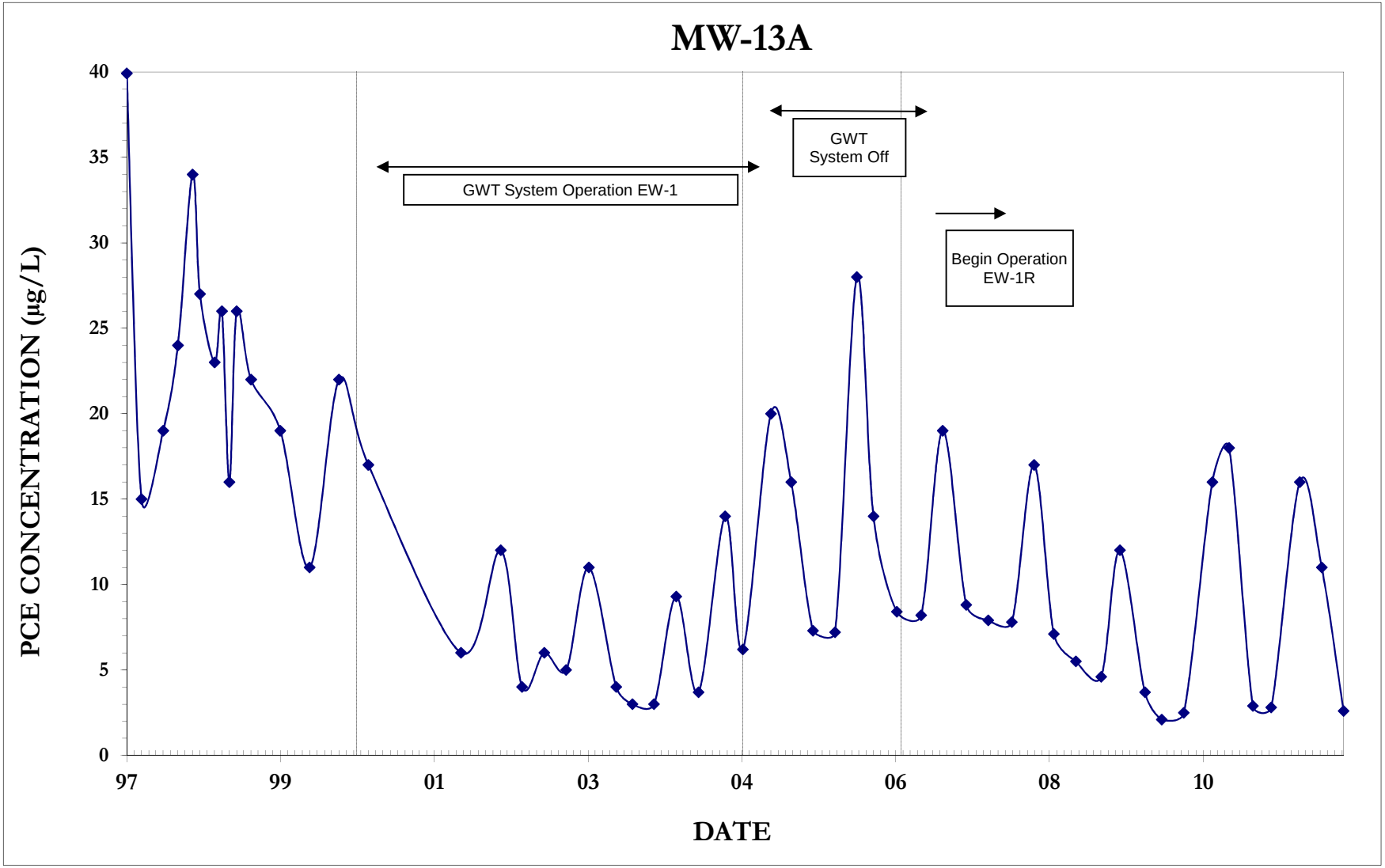

FIGURE G-4(r)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

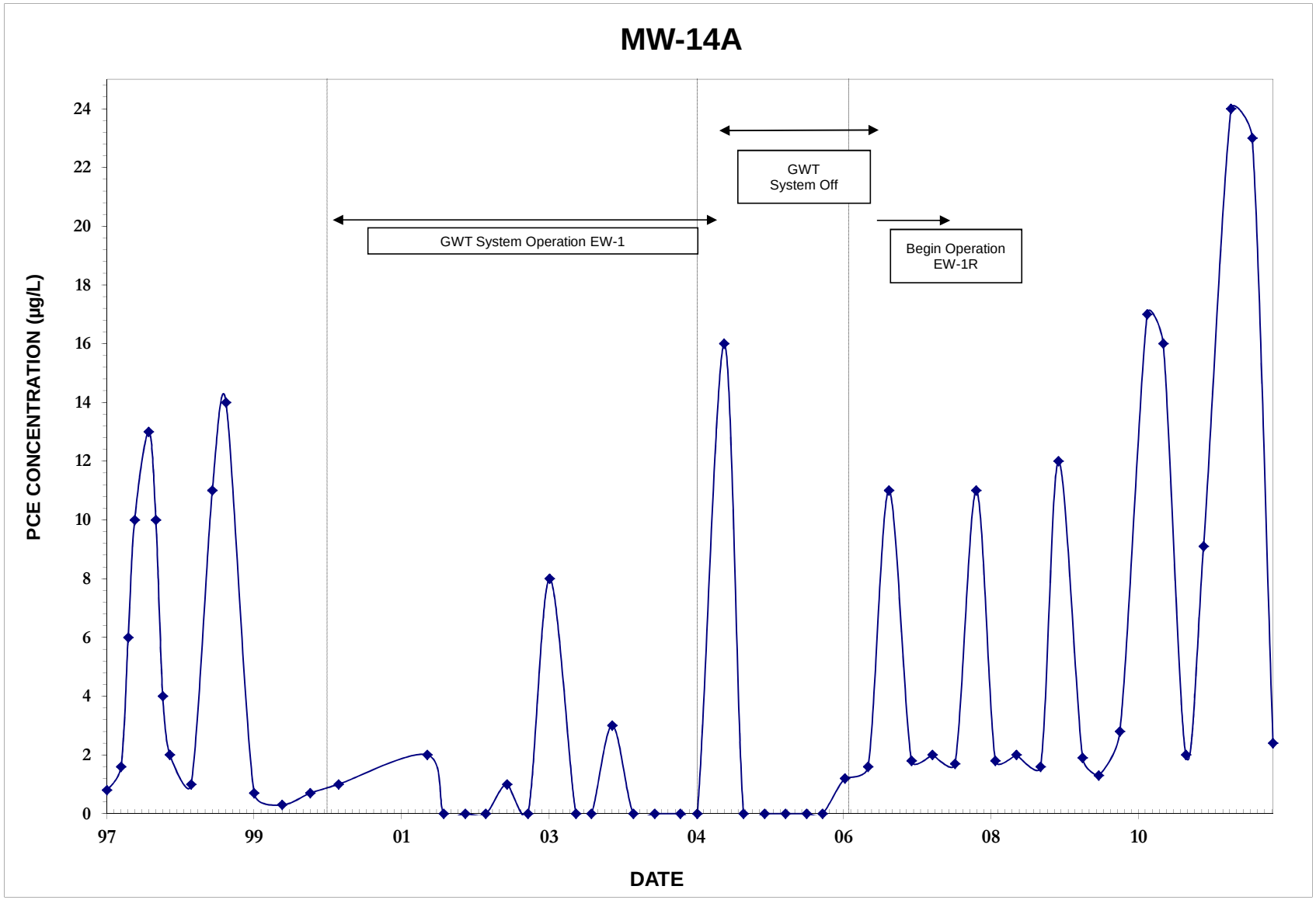

FIGURE G-4(s)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

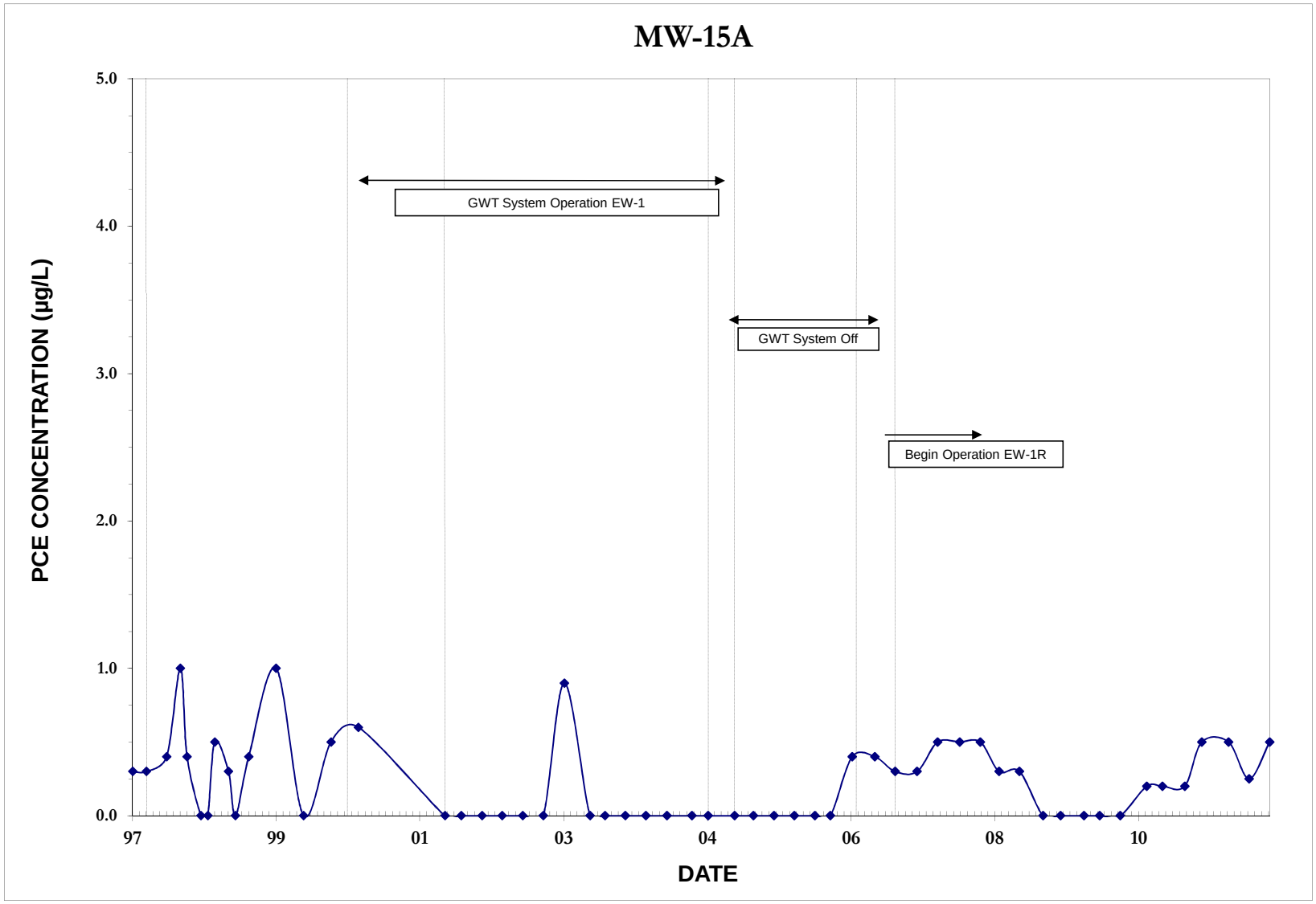

FIGURE G-4(t)

HISTORICAL PCE CONCENTRATIONS IN GROUNDWATER MONITORING WELLS MODESTO SUPERFUND SITE MODESTO, CALIFORNIA

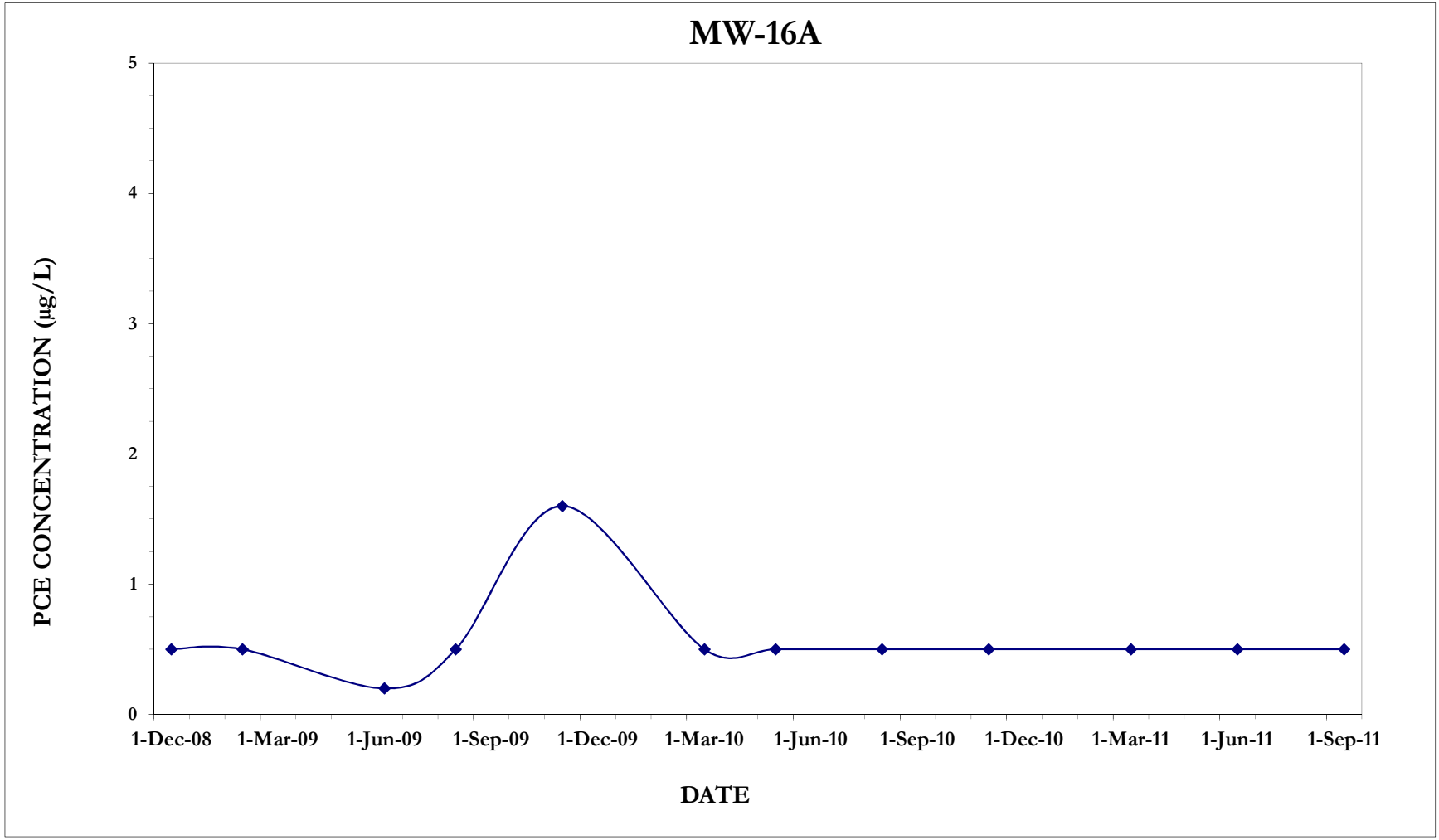

FIGURE G-4(u)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

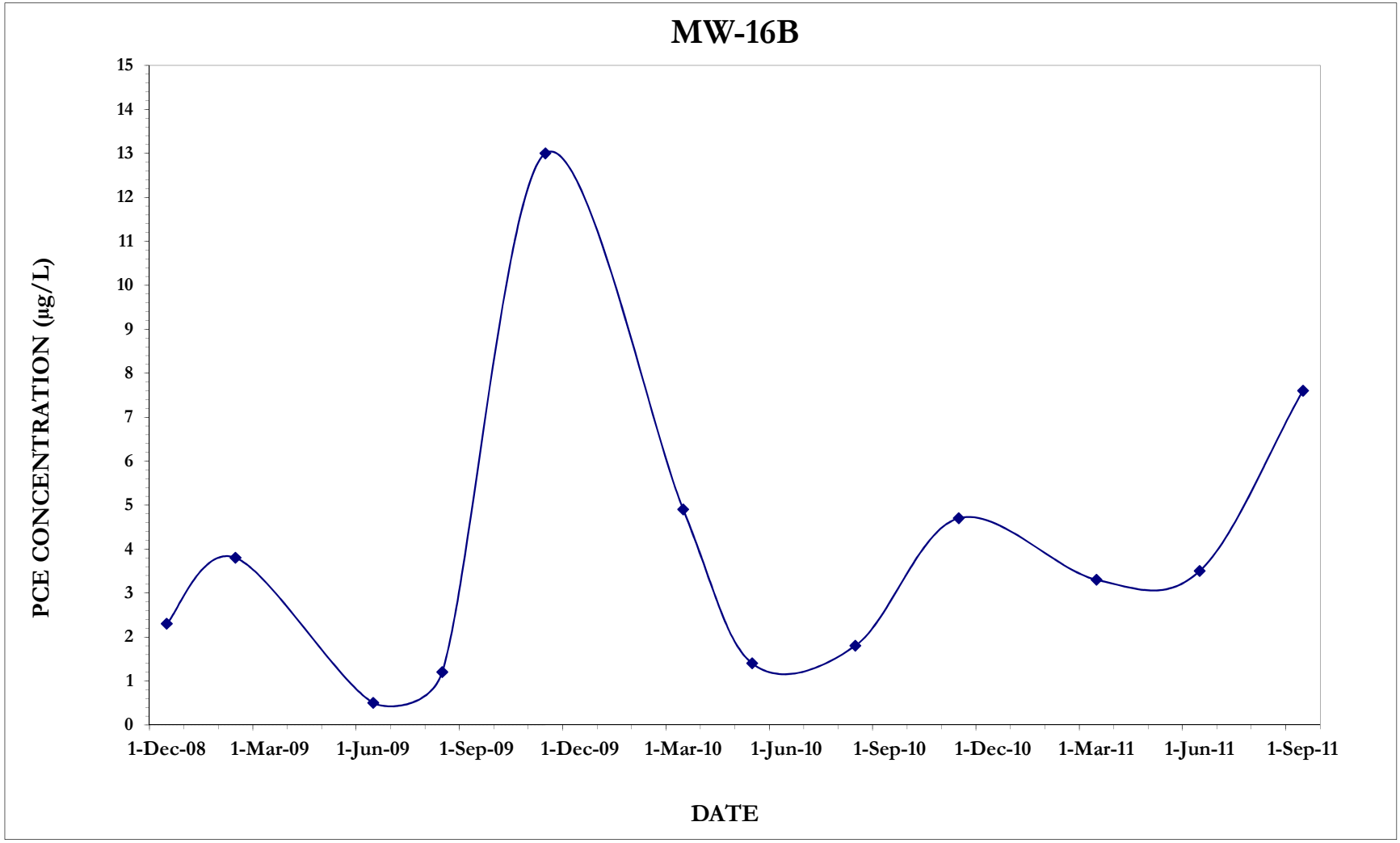

FIGURE G-4(v)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

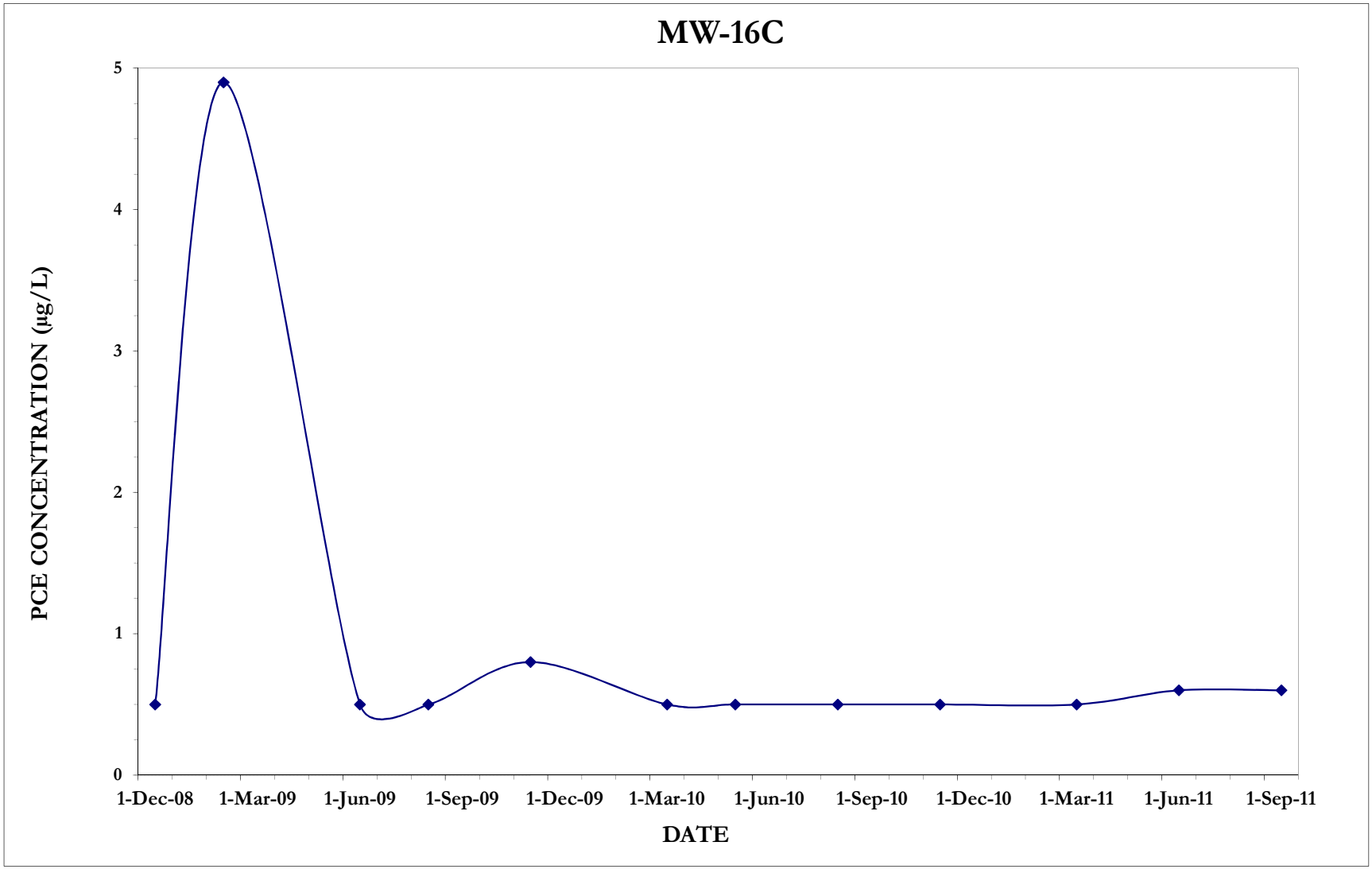

FIGURE G-4(w)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

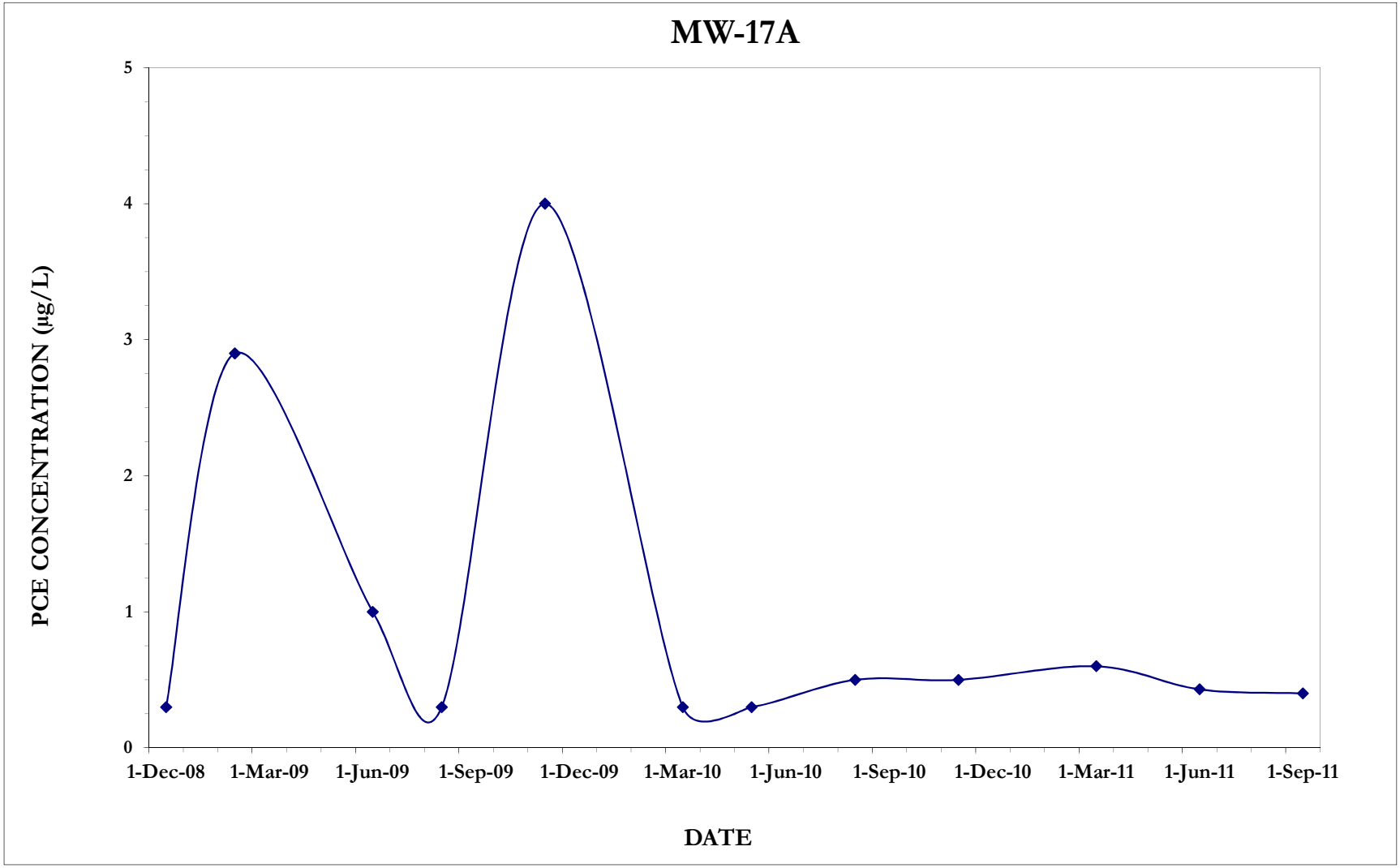

FIGURE G-4(x)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

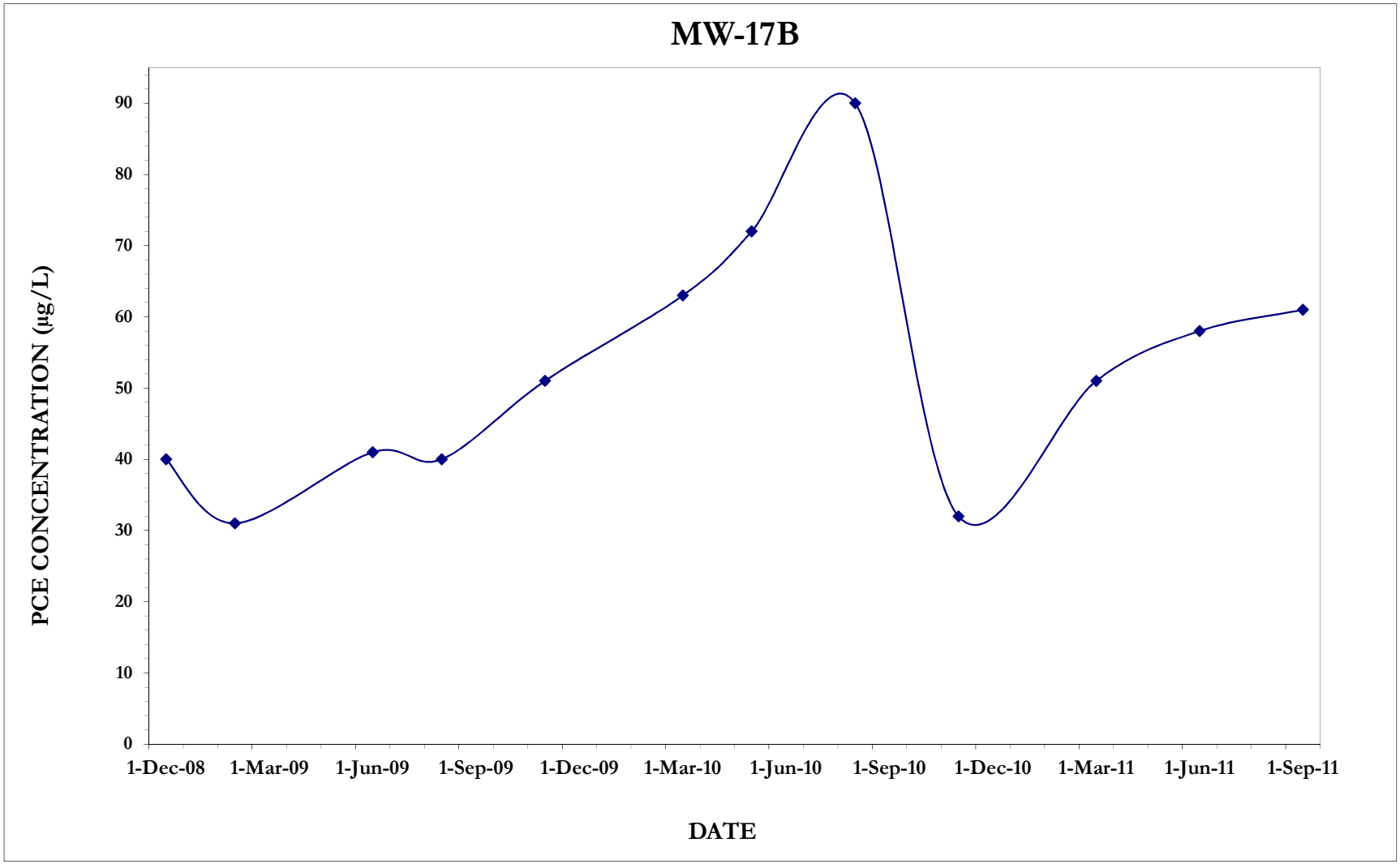

FIGURE G-4(y)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

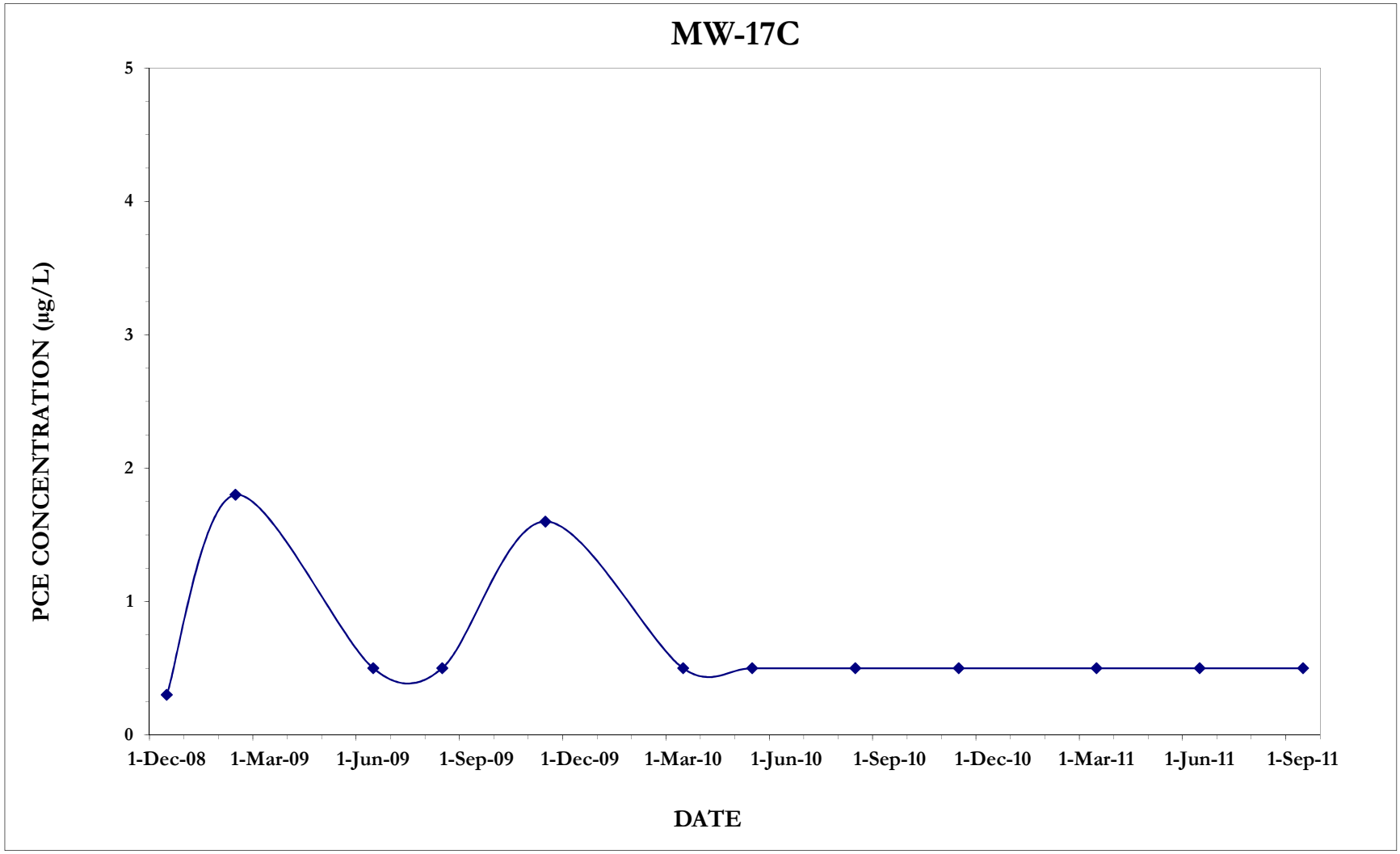

FIGURE G-4(z)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

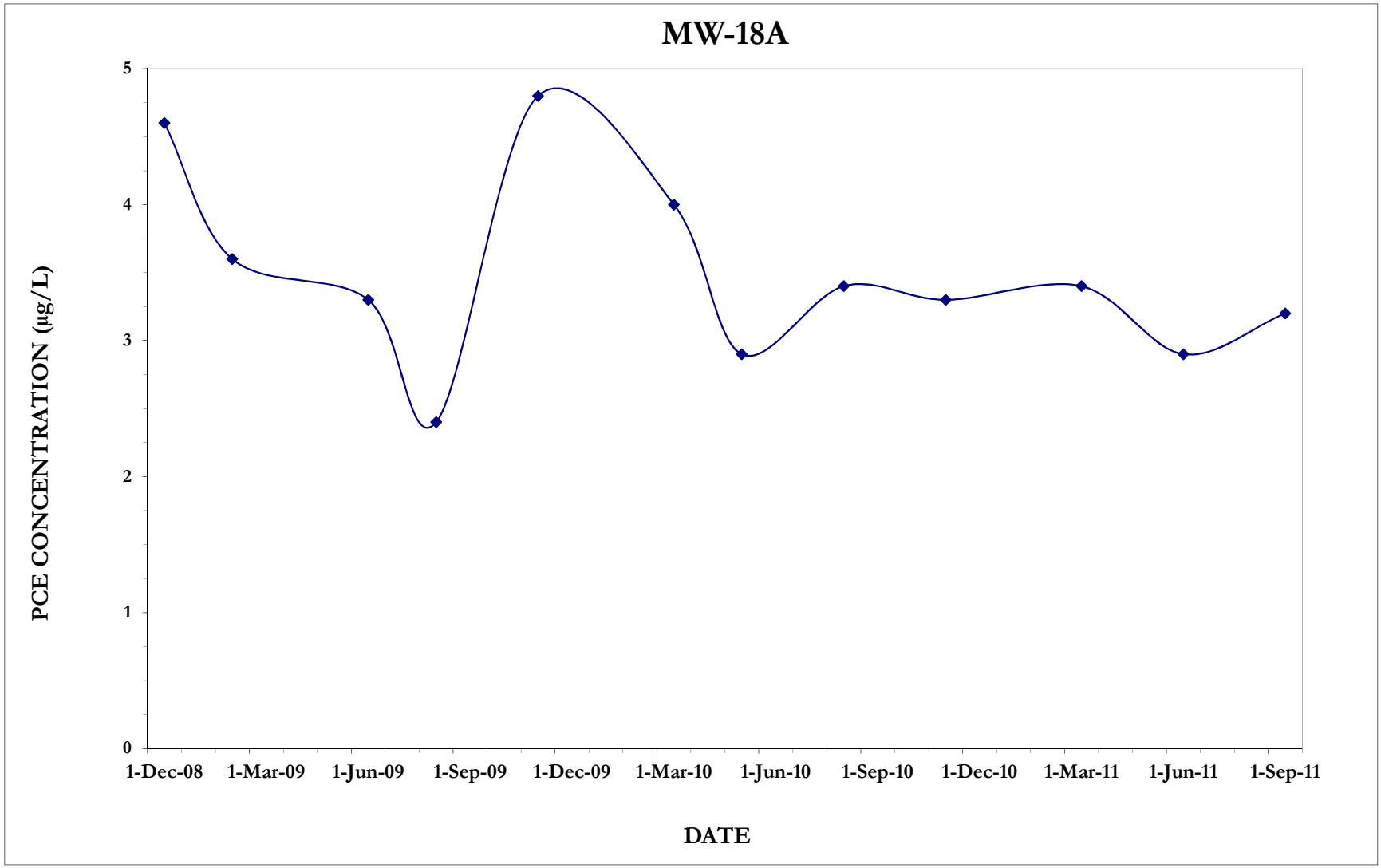

FIGURE G-4(aa)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

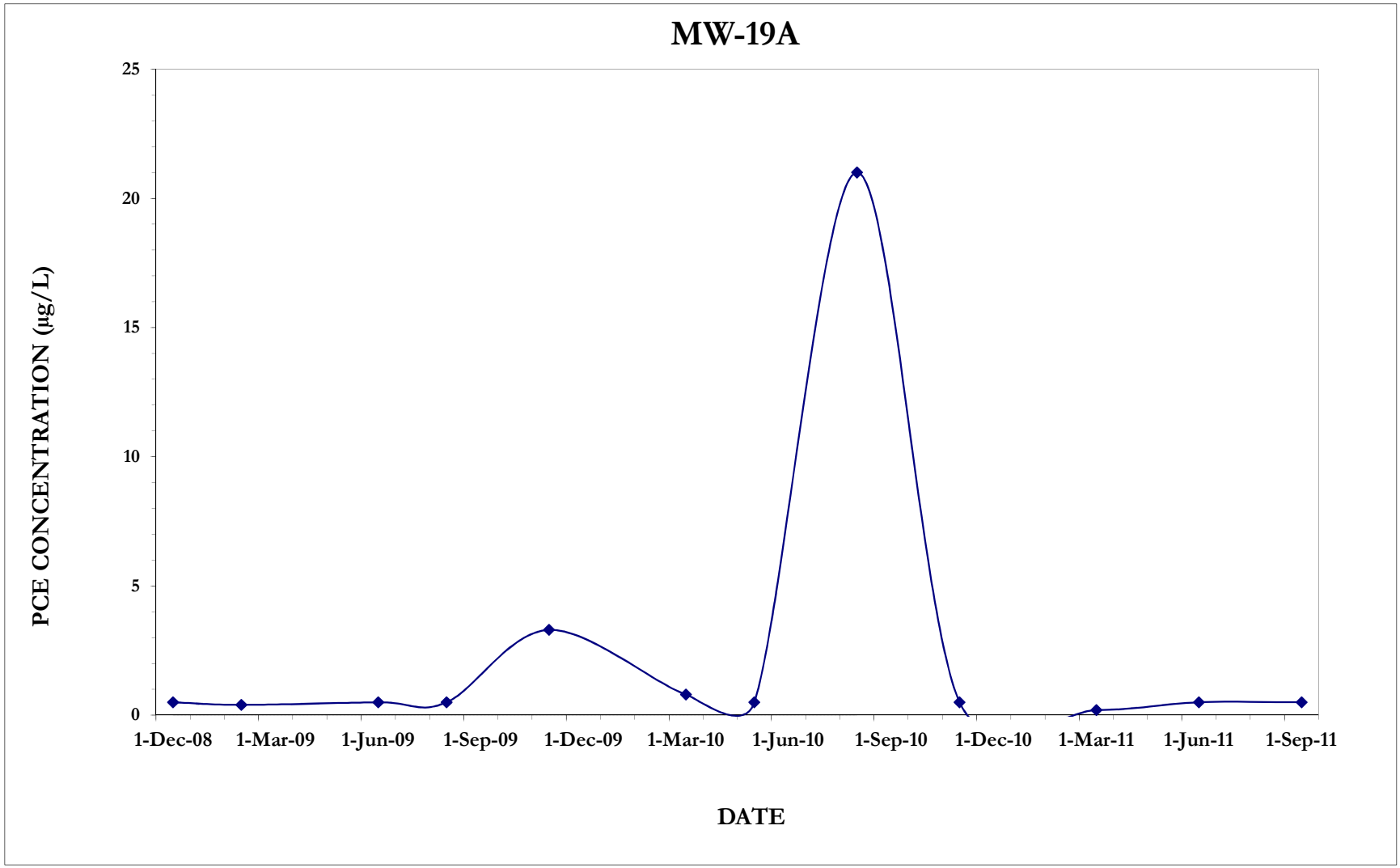

FIGURE G-4(ab)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

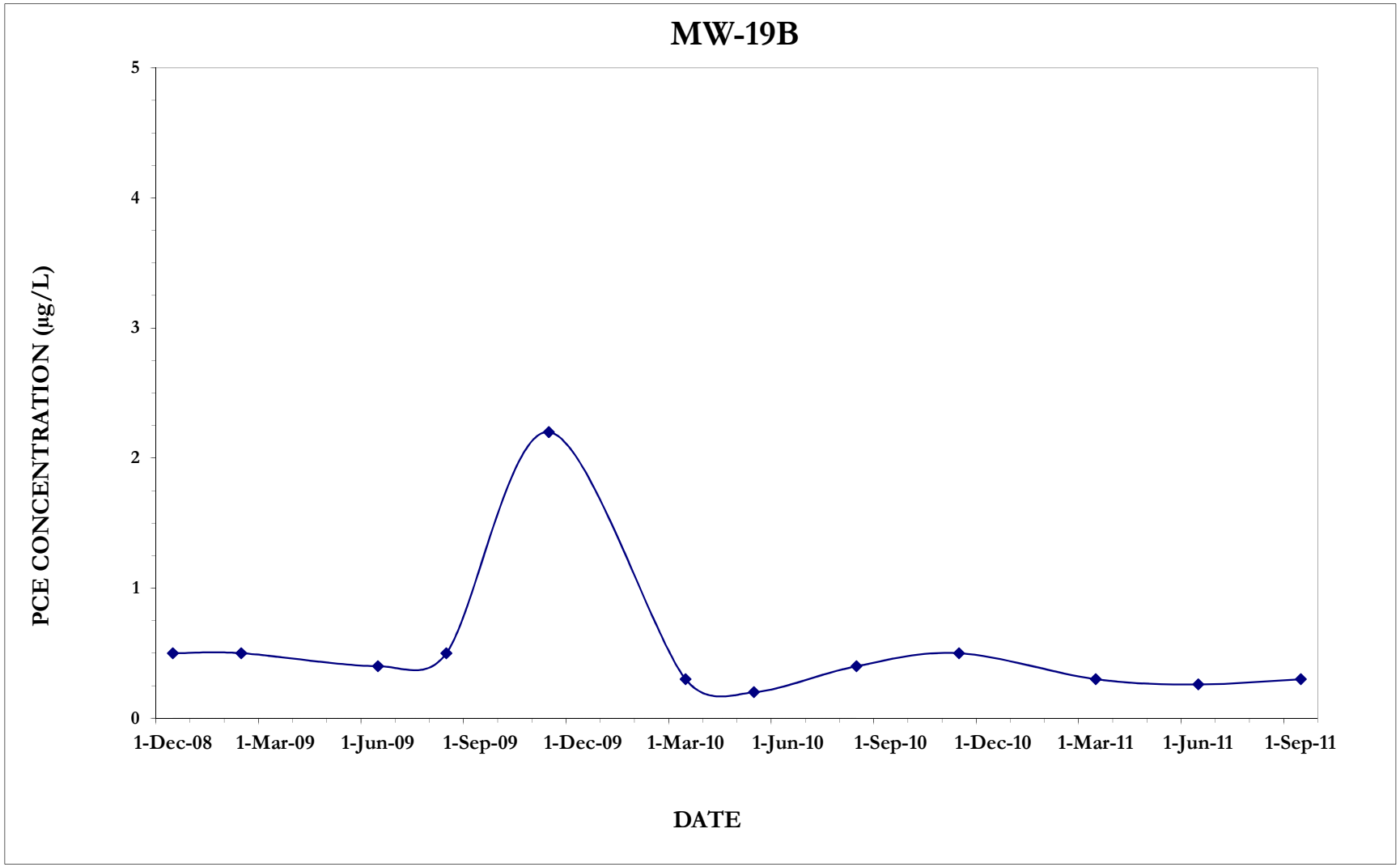

FIGURE G-4(ac)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

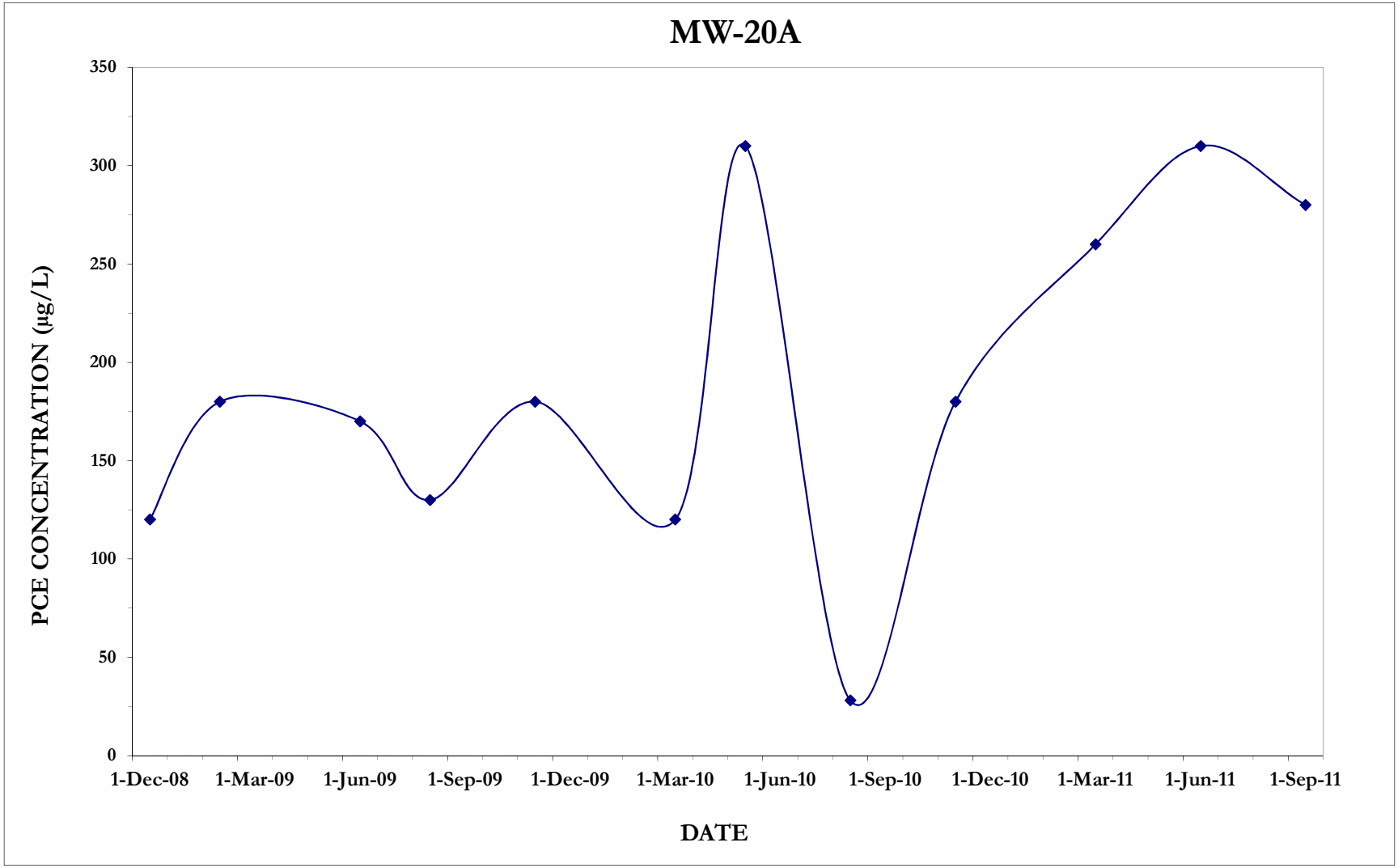

FIGURE G-4(ad)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

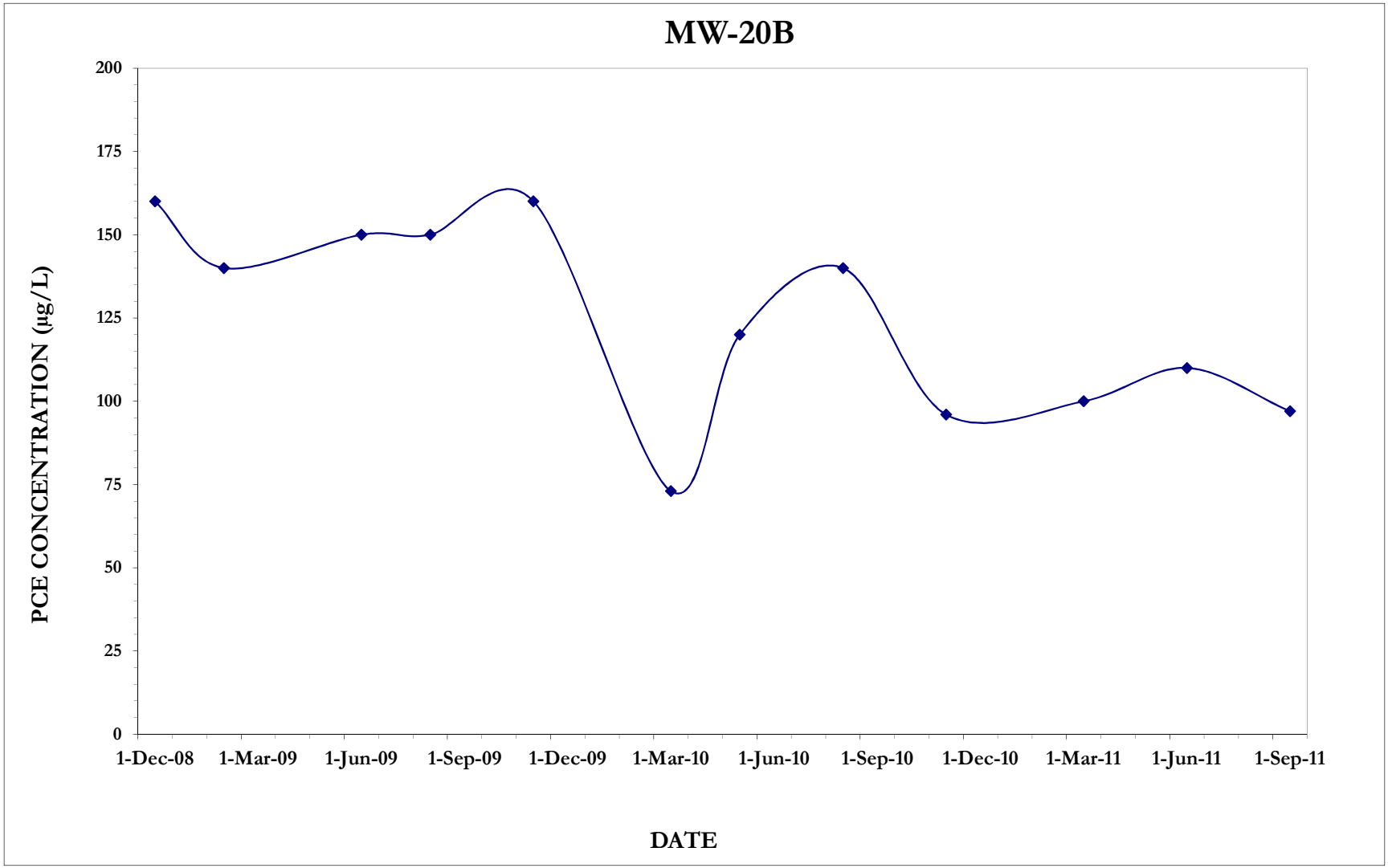

FIGURE G-4(ae)

HISTORICAL PCE CONCENTRATIONS IN
GROUNDWATER MONITORING WELLS
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

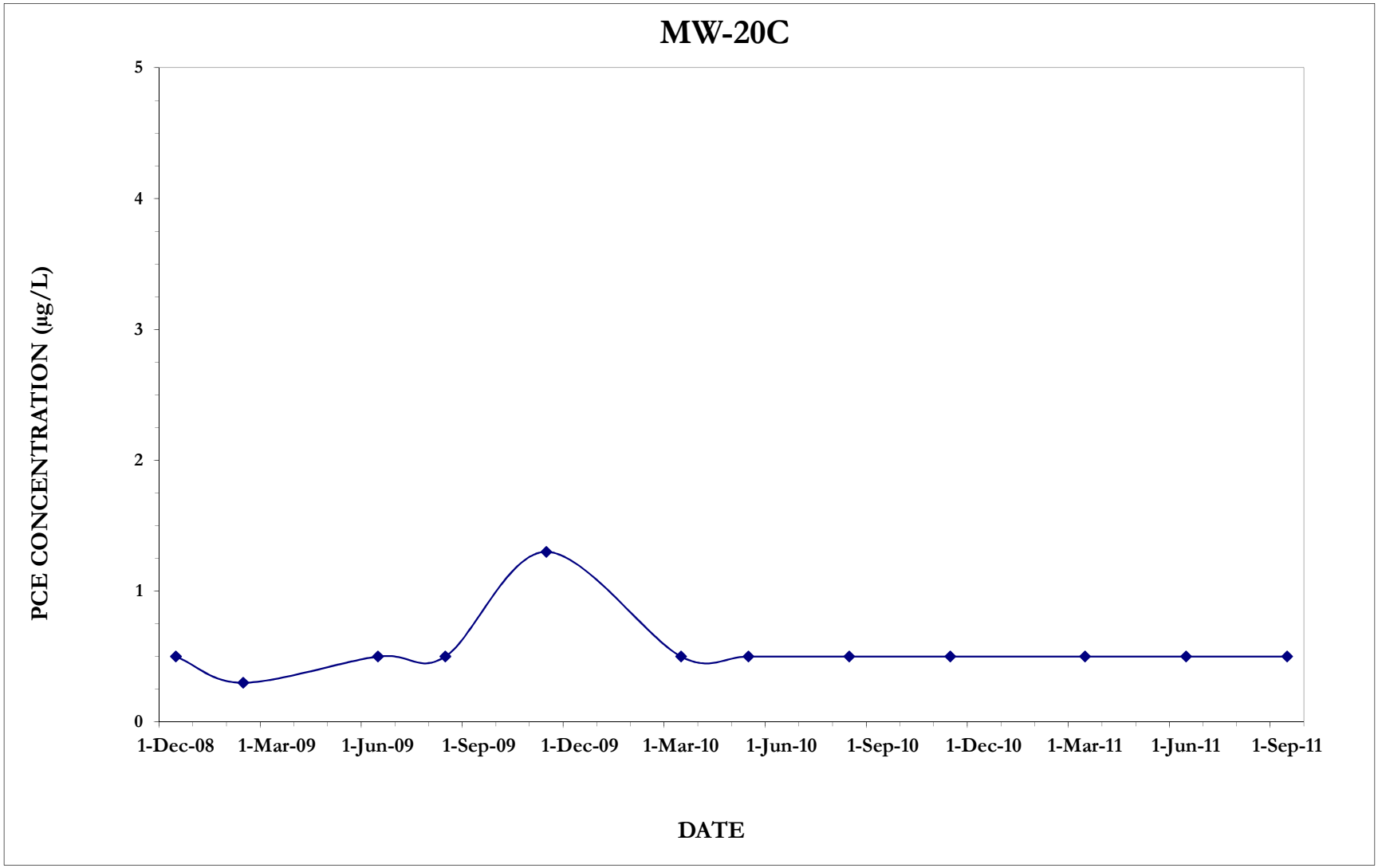

TABLE G-5(a)

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	
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	
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
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
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	
DP-6B	03/10/2010	N	5.8	

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)	
	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
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	
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	
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	
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	
SVE-03	03/10/2010	N	88	
	05/19/2010	N	53	
	08/26/2010	N	8.1	

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)	
	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	
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	

FD - field duplicate
J - estimated value
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
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

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	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
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
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			

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)
	07/14/2011	N					52.2			
	07/14/2011	N	8.32					0.3 J	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 J		0.5 U	0.5 U	0.5 U
	06/17/2010	FD	8.2	670						
	07/15/2010	N					9.95			
	07/15/2010	N	7.89	650	10 U	2.0 J		0.5 U	0.5 U	0.5 U
	08/12/2010	N	8.21	640	10 U	2.0 J		0.5 U	0.5 U	0.5 U
	09/09/2010	N	8.5	660	10 U	2.0 J		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 J-		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 J-		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 J		0.3 J	0.5 U	0.5 U
	03/09/2011	N	7.95	640	10 U	2.0 J		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			

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)
	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 J-		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 J-		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			
	08/11/2011	N	8.26	650	10 U	2.0 J-		0.4 J	0.5 U	0.5 U
	09/13/2011	N	8.42	660	10 U	2.0 J-		0.4 J	0.5 U	0.5 U

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	
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

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
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

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)

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 SYSTEM
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Sampe Date	Volume of Water Treated Since Previuos sample (gallons)	Total Volume of Water Treated (gallons)	Influent PCE concentration (µg/L)	Mass of PCE Removed Since Previuos sample (lbs)	Cumulative Mass of PCE Removed (lbs)
28-Aug-01	701,200	701,200	330	1.93	1.93
21-Sep-01	673,100	1,374,300	770	4.33	6.26
17-Oct-01	1,842,900	3,217,200	890	13.69	19.95
13-Nov-01	1,208,800	4,426,000	780	7.87	27.81
13-Dec-01	2,126,600	6,552,600	710	12.60	40.42
16-Jan-02	1,992,550	8,545,150	750	12.47	52.89
19-Feb-02	2,435,550	10,980,700	820	16.67	69.56
21-Mar-02	2,144,100	13,124,800	321	5.74	75.30
17-Apr-02	1,908,400	15,033,200	690	10.99	86.29
23-May-02	2,543,200	17,576,400	900	19.10	105.39
20-Jun-02	1,699,600	19,276,000	730	10.35	115.75
18-Jul-02	1,989,500	21,265,500	620	10.29	126.04
19-Aug-02	2,289,500	23,555,000	610	11.66	137.70
26-Sep-02	2,659,200	26,214,200	620	13.76	151.46
24-Oct-02	1,769,600	27,983,800	580	8.57	160.02
18-Nov-02	1,764,700	29,748,500	550	8.10	168.12
18-Dec-02	2,086,100	31,834,600	310	5.40	173.52
16-Jan-03	1,503,500	33,338,100	380	4.77	178.29
20-Feb-03	2,377,800	35,715,900	490	9.72	188.01
20-Mar-03	1,877,700	37,593,600	490	7.68	195.69
30-Apr-03	2,701,900	40,295,500	410	9.25	204.94
29-May-03	1,794,800	42,090,300	270	4.04	208.98
26-Jun-03	1,679,200	43,769,500	490	6.87	215.85
24-Jul-03	1,470,800	45,240,300	510	6.26	222.11
28-Aug-03	1,402,800	46,643,100	540	6.32	228.43
18-Sep-03	902,600	47,545,700	550	4.14	232.58
23-Oct-03	1,420,900	48,966,600	450	5.34	237.91
19-Nov-03	962,500	49,929,100	390	3.13	241.05
18-Dec-03	870,100	50,799,200	420	3.05	244.10
22-Jan-04	1,210,000	52,009,200	350	3.53	247.63
26-Feb-04	1,191,800	53,201,000	290	2.88	250.51
8-Apr-04	431,700	53,632,700	230	0.83	251.34
22-Apr-04	1,369,164	55,001,864	310	3.54	254.89
20-May-04	1,844,450	56,846,313	350	5.39	260.27
23-Jun-04	1,502,110	58,348,423	250	3.13	263.41
29-Jul-04	2,355,600	60,704,023	350	6.88	270.29
26-Aug-04	1,767,150	62,471,173	350	5.16	275.45
4-Oct-04	1,931,540	64,402,713	330	5.32	280.77
21-Oct-04	1,168,970	65,571,683	290	2.83	283.60
24-Aug-06	0	0	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 SYSTEM
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Sampe Date	Volume of Water Treated Since Previuos sample (gallons)	Total Volume of Water Treated (gallons)	Influent PCE concentration (µg/L)	Mass of PCE Removed Since Previuos sample (lbs)	Cumulative Mass of PCE Removed (lbs)
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	1,730,400	171,443,233	120.0	1.52	484.25
14-Jul-11	2,373,000	174,196,633	140.0	3.22	487.46

TABLE G-8

PCE MASS REMOVED BY GROUNDWATER TREATMENT SYSTEM
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Sampe Date	Volume of Water Treated Since Previuos sample (gallons)	Total Volume of Water Treated (gallons)	Influent PCE concentration (µg/L)	Mass of PCE Removed Since Previuos sample (lbs)	Cumulative Mass of PCE Removed (lbs)
11-Aug-11	1,730,400	176,030,333	160.0	2.45	489.91
13-Sep-11	1,516,100	177,996,733	130.0	2.13	492.04

Notes:
µg/L - micrograms per liter
lbs - pounds
PCE - Tetrachloroethene

TABLE G-9

PCE MASS REMOVED BY SOIL VAPOR EXTRACTION SYSTEM
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Date Sampled	Cumulative Hours of Operation	Cumulative Days of Operation	Mass Extraction Rate (lbs/day)	Cumulative Mass Extracted (a) (lbs)
6/11/2001	5.8	0.2	53.0	12.70
8/9/2001	590.8	24.6	7.0	744.00
8/20/2001	854.8	35.6	6.4	817.63
8/30/2001	1,094.8	45.6	6.2	880.30
9/7/2001	1,286.8	53.6	3.9	920.57
9/12/2001	1,406.8	58.6	4.9	942.62
10/29/2001	1,920.0	80.0	7.9	1,079.84
11/13/2001	2,272.0	94.7	8.1	1,197.56
12/13/2001	2,787.8	116.2	6.0	1,348.99
1/16/2002	3,469.3	144.6	4.6	1,498.66
2/19/2002	4,283.8	178.5	6.1	1,679.54
3/21/2002	5,003.8	208.5	4.6	1,839.44
4/17/2002	5,603.8	233.5	4.0	1,946.39
5/23/2002	6,467.8	269.5	2.7	2,066.49
6/20/2002	7,039.0	293.3	3.7	2,142.61
7/18/2002	7,526.0	313.6	4.3	2,223.90
8/19/2002	8,294.0	345.6	4.7	2,367.84
9/19/2002	9,037.0	376.5	2.0	2,471.06
10/24/2002	9,839.6	410.0	2.3	2,542.57
11/18/2002	10,441.0	435.0	2.0	2,596.51
12/18/2002	11,167.0	465.3	1.6	2,650.80
1/16/2003	11,519.0	480.0	1.8	2,675.27
3/27/2003	12,578.0	524.1	1.6	2,748.88
4/30/2003	13,390.1	557.9	1.8	2,806.77
5/29/2003	14,037.2	584.9	1.7	2,854.55
6/26/2003	14,067.7	586.2	1.7	2,856.70
7/24/2003	14,737.8	614.1	1.5	2,901.48
8/28/2003	15,502.0	645.9	2.0	2,958.25
9/18/2003	15,980.8	665.9	1.9	2,997.31

TABLE G-9

PCE MASS REMOVED BY SOIL VAPOR EXTRACTION SYSTEM
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Date Sampled	Cumulative Hours of Operation	Cumulative Days of Operation	Mass Extraction Rate (lbs/day)	Cumulative Mass Extracted (a) (lbs)
10/23/2003	16,797.6	699.9	1.3	3,050.65
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 SYSTEM
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Date Sampled	Cumulative Hours of Operation	Cumulative Days of Operation	Mass Extraction Rate (lbs/day)	Cumulative Mass Extracted (a) (lbs)
3/29/2006	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 SYSTEM
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Date Sampled	Cumulative Hours of Operation	Cumulative Days of Operation	Mass Extraction Rate (lbs/day)	Cumulative Mass Extracted (a) (lbs)
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 SYSTEM
MODESTO SUPERFUND SITE
MODESTO, CALIFORNIA

Date Sampled	Cumulative Hours of Operation	Cumulative Days of Operation	Mass Extraction Rate (lbs/day)	Cumulative Mass Extracted (a) (lbs)
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
TOTAL	**80,108.5**	**3,337.9**		**3,460.41**

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