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ANNUAL LONG-TERM MONITORING REPORT – 2008
MAIN INSTALLATION

Defense Depot Memphis, Tennessee



Defense Logistics Agency

HDR | e2M



Air Force Center for Engineering and the Environment
Contract No. FA8903-04-D-8722
Task Order No. 0043

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Prepared for:

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Prepared by:

HDR|e²M
184 Creekside Park
Suite 100
Spring Branch, Texas 78070

TABLE OF CONTENTS

Page

1.0 INTRODUCTION 1-1
1.1 SITE LOCATION AND DESCRIPTION 1-1
1.2 GEOLOGY AND HYDROGEOLOGY 1-2
1.3 REMEDIAL ACTION OBJECTIVES 1-3
1.4 PREVIOUS GROUNDWATER MONITORING 1-3
2.0 LTM ACTIVITIES 2-1
2.1 GROUNDWATER MONITORING 2-1
2.1.1 January 2008 2-2
2.1.2 April 2008 2-2
2.1.3 October 2008 2-3
2.2 WASTE DISPOSAL 2-3
3.0 SUMMARY OF MONITORING RESULTS 3-1
3.1 HYDROGEOLOGY 3-1
3.2 DATA QUALITY EVALUATION 3-1
3.3 ANALYTICAL RESULTS 3-2
3.3.1 January 2008 3-2
3.3.2 April 2008 3-3
3.3.3 October 2008 3-4
4.0 CONCLUSIONS AND RECOMMENDATIONS 4-1
4.1 WELL CLASSIFICATION REVIEW 4-1
4.1.1 Background Wells 4-2
4.1.2 Boundary Wells 4-2
4.1.3 Sentinel Wells 4-2
4.1.4 Performance Wells 4-3
4.2 ESTIMATED CVOC MASS IN GROUNDWATER 4-5
4.3 TREND ANALYSIS 4-6
4.4 RECOMMENDATIONS 4-8
5.0 REFERENCES 5-1

LIST OF APPENDICES

Appendices

A Complete Analytical Results
B Data Quality Evaluation
C Historical CVOC Results
D CVOC Time-Trend Plots

LIST OF TABLES

Tables

1 LTM Sample Schedule
2 Water Level Measurements
3 Well Stabilization Summary, January 2008
4 Well Stabilization Summary, April 2008
5 Well Stabilization Summary, October 2008
6 Analytical Results Summary, January 2008
7 Analytical Results Summary, April 2008
8 Analytical Results Summary, October 2008
9 Mann-Kendall Trend Analysis – PCE
10 Mann-Kendall Trend Analysis – TCE
11 Mann-Kendall Trend Analysis – cDCE
12 Mann-Kendall Trend Analysis – CT
13 Mann-Kendall Trend Analysis – CF

LIST OF FIGURES

Figures

1 Site Location Map
2 Well Location Map
3 Potentiometric Surface Map, January 2008
4 Potentiometric Surface Map, April 2008
5 Potentiometric Surface Map, October 2008
6 PCE/TCE Analytical Results, January 2008
7 PCE Isopleth Map, April 2008
8 TCE Isopleth Map, April 2008
9 PCE Isopleth Map, October 2008
10 TCE Isopleth Map, October 2008
11 Estimated CVOC Mass in Groundwater

LIST OF ACRONYMS AND ABBREVIATIONS

AFCEE	Air Force Center for Engineering and the Environment
bgs	Below Ground Surface
cDCE	cis-1,2-Dichloroethene
CF	chloroform or confidence factor
COV	coefficient of variation
CT	carbon tetrachloride
CVOC	Chlorinated Volatile Organic Compound
DDMT	Defense Depot Memphis, Tennessee
DQO	Data Quality Objective
DRI	Design-related Investigation
e^2M	engineering-environmental Management, Inc.
EBT	Enhanced Bioremediation Treatment
IDW	Investigation-derived Waste
LCS	Laboratory Calibration Standard
LTM	Long-term Monitoring
LTOA	Long-Term Operational Area
MACTEC	MACTEC Engineering and Consulting, Inc.
MAROS	Monitoring and Remediation Optimization System
MCL	Maximum Contaminant Level
µg/L	Micrograms per Liter
MI	Main Installation
MS/MSD	Matrix Spike/Matrix Spike Duplicate
msl	Mean Sea Level
MW	Monitoring Well
NTU	Nephelometric Turbidity Units
PCE	Tetrachloroethene
RA	Remedial Action
RAO	Remedial Action Objective
RA SAP	Remedial Action Sampling and Analysis Plan
RAWP	Remedial Action Work Plan
RD	Remedial Design
RI	Remedial Investigation

1015 16

LIST OF ACRONYMS AND ABBREVIATIONS

(Continued)

RL	Reporting Limit
ROD	Record of Decision
S	Mann- Kendall Statistic
TCA	1,1,1-Trichloroethane
TCE	Trichloroethene
TCL	Target Compound List
TSVE	Soil Vapor Extraction
USEPA	U.S. Environmental Protection Agency
VC	Vinyl Chloride
VOC	Volatile Organic Compound

1.0 INTRODUCTION

HDR|e^{2}M has prepared this 2008 Annual Long-term Monitoring (LTM) Report for the Main Installation (MI) at Defense Depot Memphis, Tennessee (DDMT) under Contract FA8903-04-D-8722, Task Order 0043 to the Air Force Center for Engineering and the Environment (AFCEE). MI LTM is performed to document changes in plume concentrations and to detect potential plume migration to off-site areas or into deeper aquifers. This report documents the groundwater monitoring activities on the MI during 2008. The MI LTM was performed in accordance with the LTM Plan in Appendix B of the *Main Installation Final Remedial Design, Rev.1* (RD) (CH2M HILL, 2004) and the *Remedial Action Work Plan, Main Installation Rev. 1* (RAWP) (MACTEC, 2005a).

1.1 SITE LOCATION AND DESCRIPTION

DDMT is located in southeastern Memphis, Shelby County, Tennessee approximately 5 miles east of the Mississippi River and just northeast of Interstate 240 (Figure 1). DDMT originated as a military facility in the early 1940s; it received, warehoused, and distributed supplies common to all U.S. military services and some civil agencies located primarily in the southeastern United States, Puerto Rico, and Panama. Stocked items included food; clothing; petroleum products; construction materials; and industrial, medical, and general supplies. In 1995, DDMT was placed on the list of the Department of Defense facilities to be closed under Base Realignment and Closure. Storage and distribution of material continued until the facility closed in September 1997.

The property consists of approximately 642 acres and includes the MI and Dunn Field. The MI contains approximately 578 acres with open storage areas, warehouses, former military family housing, and outdoor recreational areas. Dunn Field, which is located across Dunn Avenue from the north-northwest portion of the MI, contains approximately 64 acres and includes former mineral storage and waste disposal areas.

In 1992, DDMT was added to the National Priorities List (57 Federal Register 47180 No. 199). The lead agency for the environmental restoration activities at DDMT is the Defense Logistics Agency. The regulatory oversight agencies are U.S. Environmental Protection Agency (USEPA) Region 4 and the Tennessee Department of Environment and Conservation. DDMT's USEPA Identification Number is TN4210020570.

1016 .8

1.2 GEOLOGY AND HYDROGEOLOGY

The geologic units of interest at Dunn Field are (from youngest to oldest): loess, including surface soil; fluvial deposits; Jackson formation/Upper Claiborne group; and Memphis Sand.

The loess consists of wind-blown and deposited brown to reddish-brown, low-plasticity clayey silt to silty clay. The loess deposits are about 20 to 30 feet thick and are continuous throughout the DDMT area.

The fluvial (terrace) deposits consist of two general layers. The upper layer is a silty, sandy clay that transitions to a clayey sand and ranges from about 10 to 40 feet thick. The lower layer is composed of interlayered sand, sandy gravel, and gravelly sand, and has an average thickness of approximately 40 feet. The uppermost aquifer is the unconfined fluvial aquifer, which consists of saturated sands and gravelly sands in the lower portion of the fluvial deposits. Recharge to this unit is mainly from rainfall infiltration; discharge is to underlying units or laterally into adjacent stream channels. The saturated thickness ranges from 0 feet (dry) to approximately 60 feet, and is controlled by the uppermost clay configuration in the Jackson formation/Upper Claiborne group. Groundwater flow in the fluvial aquifer is toward the gap in the uppermost clay in the northwest area of the MI. The flow is toward the low point on the gap's southeast side, and the fluvial aquifer is dewatered (or "pinches out") elsewhere on the gap's perimeter. Water level elevations in the fluvial aquifer at the MI range from a high of approximately 240 feet mean sea level (msl) in the northeast to a low of approximately 195 feet msl in the central area.

The intermediate aquifer is locally developed in Jackson formation/Upper Claiborne group deposits, which contain laterally extensive, thick clay deposits. The uppermost clay unit appears to be continuous, except for a large gap in the MI's northwestern area and Dunn Field's southwestern area. There are other possible gaps in the clay off-site, west and northwest of Dunn Field. Where present, these gaps create connections to the underlying intermediate aquifer from the fluvial deposits. Water level elevations in the intermediate aquifer, away from areas of recharge from the fluvial aquifer, are approximately 160 feet msl with a general westward flow.

The Memphis Sand primarily consists of thick-bedded, white to brown or gray, very fine-grained to gravelly, partly argillaceous and micaceous sand. The Memphis Sand ranges from 500 to 890 feet in thickness and begins at a depth below ground surface (bgs) of approximately 120 to 300 feet. The top of the Memphis Sand was identified at 255 feet bgs (elevation of 21 feet above msl) in MW-67, the only monitoring well completed in the Memphis Sand at DDMT. The Memphis aquifer is confined by overlying clays and silts in the Cook Mountain formation (part of the Jackson/Upper Claiborne group)

and contains groundwater under strong artesian (confined) conditions regionally. The City of Memphis obtains the majority of its drinking water from this unit. The Allen Well Field, which is operated by Memphis Light, Gas and Water, is located approximately 2 miles west of DDMT. The top of the Memphis aquifer potentiometric surface at MW-67 is approximately 160 feet msl.

1.3 REMEDIAL ACTION OBJECTIVES

Remedial Action Objectives (RAOs) for the MI were established in the *Main Installation Record of Decision* (ROD) (CH2MHILL, 2001). The groundwater RAOs are:

- to prevent human ingestion of water contaminated with volatile organic compounds (VOCs) in excess of maximum contaminant levels (MCLs) from potential future onsite wells;
- to reduce concentrations of chemicals of concern to MCLs or lower; and
- to prevent horizontal and vertical offsite migration of groundwater contaminants in excess of MCLs.

The groundwater remedy selected in the ROD was enhanced bioremediation treatment (EBT) with LTM and land use controls. EBT was conducted in the most contaminated part of the plume within the MI and untreated parts of the plume were allowed to degrade under natural attenuation processes. Land use controls were implemented through deed and lease restrictions, zoning and a recorded Notice of Land Use Restrictions.

1.4 PREVIOUS GROUNDWATER MONITORING

Historical groundwater monitoring results described in the MI RD were mainly associated with focused investigations; MWs had not been sampled consistently over extended periods. The LTM Plan summarized results for three groundwater sampling programs: Remedial Investigation (RI) sampling events conducted from January 1996 to November 1998, the long-term operational area (LTOA) investigation from September through December 2001, and a baseline sampling event conducted in March 2002. The RI identified six VOCs as commonly detected at the MI: tetrachloroethene (PCE); trichloroethene (TCE); total 1,2-dichloroethene; carbon tetrachloride (CT); chloroform (CF) and 1,1,1-trichloroethane (TCA). PCE and TCE were the most frequently detected VOCs during the RI and at that time had maximum concentrations of 120 and 58 micrograms per liter (µg/L), respectively. The LTOA and baseline sampling events were considered contemporaneous for the purpose of reviewing the analytical results. The review confirmed the presence of the VOCs identified in the RI, except TCA.

1016 .10

The LTM Plan presented a decision tree for determining well sampling frequency based on the *Final Long-term Monitoring Optimization Guide, Version 1.1* (AFCEE, 1997). LTM wells were classified in four categories:

- Background – wells screened in the fluvial aquifer located along or outside the MI boundary; wells upgradient of or at a distance from groundwater plumes on the MI and Dunn Field; and wells with no, or low, previous detections of site constituents.
- Boundary – wells screened in the fluvial aquifer located along or outside the MI boundary to monitor constituent migration from off-site sources.
- Sentinel – wells screened within either the fluvial or intermediate aquifer adjacent to or within the window to the intermediate aquifer.
- Performance – wells screened in the fluvial aquifer and within the limits of known groundwater plumes.

The LTM plan also established an initial sampling frequency (biennial, annual, semiannual, or quarterly) for the 47 existing wells and piezometers.

The LTM program was initiated by MACTEC Engineering and Consulting, Inc. (MACTEC) in 2004 to provide updated baseline groundwater data at the MI; water level measurements and groundwater samples were collected over four sampling events: March–June 2004, November 2004, February 2005, and May 2005. The monitoring results for these sample events were summarized in *Annual Long-Term Monitoring Report, Main Installation Rev.1* (MACTEC, 2006).

The initial phase of the LTM program was a Design-Related Investigation (DRI) to aid in completion of the RD and the RAWP. The DRI was conducted from March through June 2004 and consisted of multiple phases of groundwater sampling and monitoring well installation. Twenty-four monitoring wells were installed and 82 groundwater samples were collected from new and existing wells, with some wells sampled twice. The DRI provided additional information on the hydrogeologic conditions on the MI, and determined the extent of contamination and the aquifer thickness in the EBT target treatment areas, TTA-1 and TTA-2.

Upon completion of the DRI, there were 71 wells and piezometers in the LTM program. During the following sample events, groundwater samples were collected from 42 wells and piezometers in November 2004, 57 wells and piezometers in February 2005, and 43 wells and piezometers in May 2005. In addition to well installation and sampling activities, 10 monitoring wells (MWs), 7 piezometers, and 1 pump test well were abandoned on the MI and Dunn Field in February 2005.

During the initial year of LTM, MCLs for PCE and TCE were exceeded in samples collected at wells located throughout the MI. The wells exceeding MCLs were grouped into six plumes in the fluvial aquifer. Sentinel wells in the intermediate aquifer and the transition zone between the fluvial and intermediate aquifers are listed separately.

Plume	**Primary CVOCs**
TTA-1 North	PCE
TTA-1 South	PCE, TCE
TTA-2	PCE, CT, CF
West Central	PCE
Building 835	TCE
North Central	TCE
Sentinel	PCE

The initial annual LTM report (MACTEC, 2006) included recommendations for additional MWs at six locations to further delineate plumes outside the EBT treatment areas and to provide suitable compliance well networks. The report also recommended changes in the monitoring frequency at specific wells and, based on the consistency of the field measurements and laboratory analyses for indicators of anaerobic degradation, recommended that laboratory analysis of LTM samples be limited to VOCs.

Further MI LTM was postponed until the MI Remedial Action (RA) was initiated by HDR|e²M in August 2006. LTM activities in 2006 and 2007 consisted of phased installation and development of 36 new monitoring wells, abandonment of 24 monitoring wells and quarterly monitoring of designated LTM wells during five sampling events in October 2006, January 2007, April 2007, July 2007, and October 2007. The LTM activities and findings were documented in *Annual Long-Term Monitoring Report - 2007, Main Installation Rev.1* (HDR|e²M, 2010). The monitoring wells installed in 2006 and 2007 provided additional information on the top of clay and groundwater flow directions on the MI and the groundwater samples improved the delineation of the groundwater plumes. No changes were recommended for the 2008 LTM events.

2.0 LTM ACTIVITIES

LTM activities during 2008 consisted of water level measurements and groundwater sampling of designated wells in January, April and October. The activities were performed in accordance with the *Remedial Action Sampling and Analysis Plan* (RA SAP) (MACTEC, 2005b). The LTM wells and 2008 sample frequency are listed on Table 1. The well locations are shown on Figure 2.

2.1 GROUNDWATER MONITORING

Groundwater levels were measured in all LTM wells prior to sampling during each LTM sample event. Measurements were made using Solinist Model 101 water level meters with electronic sensors and tapes graduated in 0.01-foot increments. The water level measurements are shown on Table 2.

LTM wells have been classified as boundary, background, performance or sentinel wells and assigned quarterly, semiannual, annual or biennial sampling frequencies. All new wells are sampled during four consecutive quarterly events and then assigned a well classification and new sample interval. The current well classification, sample frequency, and sample events for each LTM well during this reporting period are shown on Table 1.

Groundwater samples were collected from most monitoring wells using low-flow purging methods. Dedicated PVC and stainless steel bladder pumps were installed in most LTM wells to facilitate sampling. Other wells were sampled with stainless steel portable pumps. Teflon® bladders and Teflon®-lined polyethylene tubing were used for each well. The pumping rate at each well was monitored in order that the water levels would not decline more than 1.2 inches (0.1 foot). Following sampling, the bladders and tubing for each well without a dedicated pump were placed in separate, sealed plastic bags and stored for future sampling events. Piezometers and certain monitoring wells were sampled with bailers. Pumps could not be used in these wells due to the small diameter casing in the piezometers and the slow recharge and thin saturated layer in the wells.

Water quality parameters were measured at approximately 5 to 10 minute intervals during purging using a flow-through cell with a Horiba U-22XD. The units were calibrated each morning prior to sampling, and if abnormal readings were observed during the day, the instruments were recalibrated in the field. All measurements were recorded on the field sampling forms.

Purging continued at each well for up to two hours in order to meet the stabilization criteria: three successive readings within 0.1 for pH, 10 milliVolts for oxygen reduction potential, 3 percent for specific

conductance, 10 percent for dissolved oxygen and <20 nephelometric turbidity units (NTU) for turbidity. Temperature was also measured and recorded but was not used as a stabilization parameter. Samples were collected when stabilization criteria were met or the field team leader approved the variance from the criteria. The final stabilization measurements for each event are shown on Tables 3, 4 and 5.

Samples were sent to Microbac Laboratories (formerly Kemron Environmental Services) in Marietta, Ohio, for laboratory analysis. The samples were analyzed for VOCs by method 8260B. The activities during each sampling event are summarized in the following sections.

2.1.1 January 2008

Quarterly groundwater sampling was conducted with samples collected from 27 of 28 designated wells. One well (MW-213) was dry at the time of sampling. Groundwater samples were collected 8 and 9 January 2008. Water levels were measured in all LTM wells on 7 January 2008.

Groundwater samples were collected from 26 wells using low-flow purging methods. One well, MW-212, was sampled with a bailer due to thin saturated layer and slow recharge. The final stabilization measurements are shown on Table 3. The samples were collected according to the procedures described above with the following exceptions:

- Samples were collected by bailer from MW-212 with an out-of-range turbidity after the well had three well volumes bailed.

2.1.2 April 2008

Semiannual groundwater sampling was conducted with samples collected from 61 of 65 designated wells. One well (MW-213) was dry, as it has been since installation. Monitoring wells MW-211, MW-216, and MW-229 were mistakenly not sampled; they were most recently sampled during the January 2008 event. An additional well, MW-107, was mistakenly sampled during this semiannual event, although it is assigned an annual sample frequency. Samples were collected from the top (MW-107T) and bottom (MW-107B) well screens. Groundwater samples were collected 7 to 9 April 2008. Water levels were measured in all LTM wells on 4 April 2008.

Groundwater samples were collected from 60 wells using low-flow purging methods. Two wells, MW-62 and MW-212, were sampled with bailers due to thin saturated layer and slow recharge. The final stabilization measurements are shown on Table 4. The samples were collected according to the procedures described above with the following exceptions:

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- Samples were collected by bailer from MW-62 and MW-212 with turbidity of 1,866 NTUs and 97.9 NTUs, respectively. MW-62 and MW-212 were bailed for three well volumes and then sampled.
- Samples were collected from MW-210A with turbidity of 41.9 NTUs after pumping for 2 hours.

2.1.3 October 2008

Biennial groundwater sampling was conducted with samples collected from 95 of 97 designated LTM wells. Well MW-213 was dry and a sample could not be collected. The casing for piezometer PZ-07 is blocked by an obstruction and a sample could not be collected. Groundwater samples were collected 6 to 14 October 2008; well MW-214B had to be re-sampled on 21 October because the laboratory broke the sample containers. Water levels were measured in all LTM wells on 2 October 2008.

Groundwater samples were collected from 91 wells using low-flow purging methods. Two wells, MW-62 and MW-212, were sampled with bailers due to thin saturated layer and slow recharge. Piezometers PZ-03 and PZ-06, which were constructed with 0.75 inch diameter PVC casing, were sampled using a Waterra inertial pump with dedicated polyethylene tubing. The final stabilization measurements are shown on Table 5. The samples were collected according to the procedures described above with the following exceptions:

- Samples were collected from MW-62 and MW-212 with turbidity values of 215 NTU and 486 NTU, respectively. MW-62 and MW-212 were bailed for three well volumes and then sampled.
- Samples were collected from PZ-03 and PZ-06 with turbidity values of 1,372 NTU and 79 NTU, respectively. Both piezometers were purged for three well volumes and then sampled.
- Samples were collected from five wells (MW-89, MW-99, MW-102B, MW-104, and IW-06) turbidity values of 31 to 79 NTUs. These wells were purged for two hours and then sampled.

2.2 WASTE DISPOSAL

The waste generated during groundwater sampling in 2008 was classified as either non-investigative waste or investigation-derived waste (IDW). Non-investigative waste, such as packaging materials, personal protective equipment, disposable sampling supplies, and other inert refuse, was collected, containerized, and transported to a designated collection bin for disposal at a municipal landfill. The IDW consisted of wastewater from equipment decontamination and groundwater from purging prior to sampling.

Purge water and wastewater generated during sampling in January and April 2008 was stored in a 550-gallon polyethylene tank. A grab sample was collected on 9 April 2008 when the tank neared capacity. The sample was collected from the midpoint of the tank using a disposable Teflon® bailer and submitted to Microbac for analysis of Target Compound List (TCL) VOCs, TCL semi-volatile organic compounds and Target Analyte List metals in accordance with City of Memphis Industrial Wastewater Discharge Permit No. S-NN3097. The analytical data was provided to the City of Memphis with a request for one-time discharge. The discharge was approved and the wastewater was discharged to the sewer system via the discharge port at Dunn Field on 30 April 2008.

Purge water and wastewater generated during sampling in October 2008 was collected in five gallon buckets with lids and transported to the thermal soil vapor extraction (TSVE) water treatment system at Dunn Field. The IDW water was added to the TSVE wastewater, which was treated by activated carbon prior to disposal to the sanitary sewer as approved by the City of Memphis.

3.0 SUMMARY OF MONITORING RESULTS

3.1 HYDROGEOLOGY

Water level measurements for the three LTM events are shown on Table 2. Groundwater contour maps for each event are shown on Figures 3, 4 and 5. The groundwater elevation contour maps are similar. Groundwater flow near TTA-1 is to the east and northeast, with an approximate gradient of 0.003 (MW-199B to MW-22). The groundwater flow near TTA-2 is to the west-southwest, with an approximate gradient of 0.009 (MW-92 to MW-26). The gradient in the 'window' is approximately 0.03 (MW-38 to MW-140).

3.2 DATA QUALITY EVALUATION

VOC data collected during the three 2008 LTM events were reviewed based on guidelines in the RA SAP. The review process was completed by an independent data validation contractor, Diane Short and Associates, Inc and summarized by HDR|e²M. Based on the review and project data quality objectives (DQOs), the VOC data are acceptable and usable except for those results flagged as rejected. Data flagged as rejected (R) are unusable. Data flagged as estimated (J) or having estimated reporting limits (RLs) (UJ) are acceptable and usable with an understanding of the data limitations. The complete analytical results with data quality evaluation flags are presented in Appendix A (A-1 through A-3).

One analytical results was rejected and flagged R:

- Vinyl acetate result was rejected in sample DR1-8-SB-8 collected in October 2008 due to the extremely low matrix spike/matrix spike duplicate (MS/MSD) recovery.

VOC data were flagged as estimated J with the following primary causes:

- Method blank contamination resulted in several B qualifications in the April and October events. The detections in associated samples were less than 10x the method blank (corrected for dilution), therefore the results were qualified as UB and are usable as non-detects.
- Several analytes in eight samples in October were qualified J due to the associated internal standard being out of limits. None of these analytes were contaminants of concern.
- Three analytes were qualified J in one sample in October based on calibration drift.
- Several samples had elevated associated laboratory calibration standard (LCS) recoveries observed, and a few had low LCS recoveries. When a high recovery is associated with a non-detect in samples,

no qualifier is added since the indicated bias is high. When the target is detected, the result is qualified as estimated J. Detected data could be biased high or low proportional to the LCS %R.

- PCE was qualified as estimated J in one sample (MW-204A) in October based on MS/MSD recovery. The result could be biased low approximately proportional to the recovery.
- Several samples had surrogate recoveries out of limits. When the recovery is high, only detections are qualified since the potential bias is high. When the recovery is low, all analytes are qualified since the potential bias is low. These data are qualified estimated J. The limits are relatively narrow, and most recoveries observed are not suggestive of significant bias. Although the analytes in the associated samples are qualified, the use of the data is not expected to be adversely effected.
- Any result reported below the RL but above the method detection limit was flagged "J" and considered an estimated result (unless overridden by other QC flags).

Overall, the VOC data from the three LTM events met project DQOs and were determined to be sufficient and valid for supporting decisions regarding the groundwater RA at the MI. Detailed evaluations of data quality for 2008 LTM sampling events are provided in Appendix B.

3.3 ANALYTICAL RESULTS

The results for each sampling event are discussed in the following sections based on concentrations detected above the RL for the primary chlorinated volatile organic compounds (CVOCs): PCE, TCE, cis-1,2-Dichloroethene (cDCE), CT and CF. Results for vinyl chloride (VC) are also discussed when detected above RLs. The analytical results were compared to the MCLs: 5 µg/L for PCE, TCE, and CT; 70 µg/L for cDCE, and 2 µg/L for VC. The MCL for total trihalomethanes, which includes CF, is 80 µg/L.

3.3.1 January 2008

Groundwater samples were collected from 27 LTM wells for the quarterly event in January 2008. Table 6 lists the analytical results for all constituents detected above the RL in one or more samples. Nine VOCs were detected above RLs. The analytical results for the primary CVOCs are summarized below:

PCE was reported in 21 wells with a maximum concentration of 198 µg/L in MW-208A. The MCL (5 µg/L) was exceeded in 19 wells.

TCE was reported in 23 wells with a maximum concentration of 109 µg/L in MW-207B. The MCL (5 µg/L) was exceeded in 16 wells.

cDCE was reported in five wells with a maximum concentration of 58.6 µg/L in MW-203B. The MCL (70 µg/L) was not exceeded.

CT was reported in three wells with a maximum concentration of 57.3 µg/L in MW-217. The MCL (5 µg/L) was exceeded in two wells.

CF was reported in eight wells with a maximum concentration of 10.6 µg/L in MW-207A. The MCL (80 µg/L for total trihalomethanes) was not exceeded.

Analytical results for PCE and TCE in the January 2008 LTM samples are shown on Figure 6.

3.3.2 April 2008

Groundwater samples were collected from 62 LTM wells for the semiannual event in April 2008. Well MW-107 has two screened intervals, and groundwater samples were collected from both intervals. Table 7 lists the analytical results for all constituents detected above the RL in one or more samples. Fifteen VOCs were detected above RLs. The analytical results for the primary CVOCs are summarized below:

PCE was reported in 51 wells with a maximum concentration of 234 µg/L in MW-39A. The MCL (5 µg/L) was exceeded in 46 wells.

TCE was reported in 58 wells with a maximum concentration of 152 µg/L in MW-62. The MCL (5 µg/L) was exceeded in 31 wells.

cDCE was reported in 21 wells with a maximum concentration of 115 µg/L in MW-86. The MCL (70 µg/L) was exceeded in two wells.

CT was reported in 12 wells with a maximum concentration of 75.1 µg/L in MW-113. The MCL (5 µg/L) was exceeded in six wells.

CF was reported in 27 wells with a maximum concentration of 30.9 µg/L in MW-113. The MCL (80 µg/L for total trihalomethanes) was not exceeded.

VC was reported in MW-100B Duplicate with a concentration of 1.08 µg/L. The MCL (2 µg/L) was not exceeded.

Isoconcentration maps for PCE and TCE for the April 2008 LTM samples are shown on Figures 7 and 8, respectively.

3.3.3 October 2008

Groundwater samples were collected from 95 LTM wells for the biennial event in October 2008. Well MW-107 has two screened intervals, and groundwater samples were collected from both intervals. Table 8 lists the analytical results for all constituents detected above the RL in one or more samples. Twenty VOCs were detected above RLs. The analytical results for the primary CVOCs are summarized below:

PCE was reported in 59 wells with a maximum concentration of 182 µg/L in MW-208A. The MCL (5 µg/L) was exceeded in 43 wells.

TCE was reported in 73 wells with a maximum concentration of 283 µg/L in IW-06. The MCL (5 µg/L) was exceeded in 36 wells.

cDCE was reported in 27 wells with a maximum concentration of 158 µg/L in MW-100B. The MCL (70 µg/L) was exceeded in three wells.

CT was reported in 13 wells with a maximum concentration of 110 µg/L in MW-113. The MCL (5 µg/L) was exceeded in six wells.

CF was reported in 33 wells with a maximum concentration of 45.3 µg/L in MW-113. The MCL (80 µg/L for total trihalomethanes) was not exceeded.

Isoconcentration maps for PCE and TCE for the October 2008 LTM samples are shown on Figures 9 and 10, respectively.

1010 20

4.0 CONCLUSIONS AND RECOMMENDATIONS

PCE and TCE concentrations and isopleths are shown on Figures 7 and 8 for the semiannual sample event in April 2008 and on Figures 9 and 10 for the biennial sample event in October 2008. The isopleths, indicating plume extent, were based on reported PCE or TCE concentrations in adjacent wells with limited consideration of groundwater gradient. Concentrations in adjacent wells were generally assumed to have the same source even with distances of a few hundred feet between the wells. In particular, the PCE and TCE isopleths for TTA-2 in the southeast MI indicate the plume has migrated west-northwest when the groundwater gradient is west-southwest. This interpretation is considered reasonable based on the reported concentrations and the limited groundwater elevation measurements in the eastern half of the MI, except in the immediate area of TTA-2. Additional wells to improve groundwater gradient data are not warranted based on the low concentrations and the trend in concentrations.

Historical analytical results for the primary CVOCs in all LTM wells are provided in Appendix C. Time trend plots for primary CVOCs detected above MCLs in LTM wells are provided by area in Appendix D.

4.1 WELL CLASSIFICATION REVIEW

Currently, 97 wells are included in the MI LTM. The current well classifications are shown on Table 1; no classifications were changed in 2008. There are 7 background wells, 7 boundary wells, 64 performance wells and 19 sentinel wells.

Sample frequency for the 27 wells installed in March-April 2007 was determined following the fourth quarterly monitoring event January 2008 in accordance with the LTM Plan (Section 5.2). Based on the well locations and past analytical results, 24 of the 28 wells were selected for semiannual sampling based on CVOC concentrations at or above MCLs. CVOCs have not been detected above RLs in MW-211, MW-216 and MW-229 and annual sampling was selected at those wells. Although only two samples have been collected at MW-229, the results are similar to those at MW-36, which this well replaced. No sample frequency was selected at MW-213 since it has been dry since installation; it will be checked during each LTM event and sampled when sufficient water is present. For the 96 LTM wells excluding MW-213, 64 wells are sampled semiannually, 22 wells are sampled annually and 10 wells are sampled biennially.

Analytical results for the individual well classifications in the 2008 LTM events are summarized in the following sections.

4.1.1 Background Wells

There are seven LTM background wells screened in the fluvial aquifer located along or outside the MI boundary; wells upgradient of or at a distance from groundwater plumes on the MI and Dunn Field; and wells with no, or low, previous detections of site constituents. The background wells are MW-16, MW-19, MW-53, MW-55, MW-66A, MW-99, and MW-143.

Primary CVOCs were not detected above RLs in four background wells (MW-16, MW-19, MW-55 and MW-99). Wells MW-53, MW-66A and MW-143 each had low concentrations of one CVOC. PCE was reported at 2.26 µg/L and 1.79 µg/L in MW-53 and MW-66A, respectively. TCE was reported at 1.19 µg/L in MW-143. No change in background well classification is proposed.

4.1.2 Boundary Wells

There are seven LTM boundary wells screened in the fluvial aquifer located along or outside the MI boundary to monitor constituent migration from off-site sources. The boundary wells are MW-22, MW-23, MW-24, MW-50, MW-93, MW-102B, and MW-219.

Primary CVOCs were not detected above RLs in five boundary wells (MW-22, MW-23, MW-24, MW-93, and MW-102B). Wells MW-50, located on the eastern MI boundary and upgradient of TTA-2, contained TCE at 1.12 µg/L and CF at 0.469 µg/L. Well MW-219 installed in April 2007 on the western MI boundary and immediately upgradient of TTA-1 North, contained several CVOCs in 2008 LTM samples; PCE was detected at the highest concentration, up to 48 µg/L. These results indicate the potential for off-site plume migration on the MI at MW-219.

4.1.3 Sentinel Wells

There are 19 LTM sentinel wells screened within either the fluvial or intermediate aquifer adjacent to or within the window to the intermediate aquifer. The sentinel wells are MW-34, MW-38, MW-63A/B, MW-89, MW-90, MW-107, MW-108, MW-140, MW-141, MW-199A, MW202A/B, MW-207A/B, MW-209A, MW-210A, MW-211 and MW-229.

Primary CVOCs were not detected above RLs in five sentinel wells (MW-34, MW-38, MW-199A, MW-209A and MW-229). The remaining sentinel wells consistently had CVOCs detected above the RLs and seven wells (MW-90, MW-108, MW-141, MW-202B, MW-207A/B and MW-210A) had PCE and/or TCE at concentrations above the MCL.

1016 22

4.1.4 Performance Wells

There are 60 LTM performance wells, including three piezometers, screened in the fluvial aquifer and within the limits of designated groundwater plumes: TTA-1 North (MW-21 Area), TTA-1 South (MW-101 Area), TTA-2, West Central, Building 835 and North Central. The plume identifications are based on location rather than specific source area(s). The designated plumes, primary CVOCs and associated LTM wells are listed below.

Plume	CVOC	LTM Wells
TTA-1 North	PCE	DR1-2, DR1-7, DR1-8, MW-100B, MW-125, IW-06
TTA-1 South	PCE, TCE	DR1-1, DR1-1A, DR1-4, DR1-5, DR1-5A, DR1-6, DR1-6A
TTA-2	PCE, CT, CF	DR2-2, DR2-3, DR2-4, DR2-6, MW-26, MW-64, MW-86, MW-88, MW-92, MW-96, MW-113, MW-217, MW-218, PZ-07
West-Central	PCE	MW-39/39A, MW-94A, MW-98, MW-197A/B, MW-200, MW-203A/B, MW-204A/B, MW-205A/B, MW-206A/B, MW-208A/B, MW-210B, MW-214A/B, MW-215A/B, PZ-03
Bldg 835	TCE	MW-62, MW-142, MW-198, MW199B, MW-209B, MW-212, MW-213 (dry)
North-Central	TCE	MW-103, MW-104, PZ-06

There are four isolated LTM performance wells outside the designated plumes (MW-25A, MW-52, MW-97 and MW-216) with CVOC concentrations above MCLs in 2008 LTM samples. Further delineation of CVOC extent at these locations is not considered necessary.

4.1.4.1 TTA-1 North

The TTA-1 North plume is located near the central section of Building 1089 and north of former Buildings 1084 and 1085. The depth of water is approximately 90 feet bgs and the average saturated thickness is 26 feet.

Six LTM performance wells are associated with the TTA-1 North plume: MW-100B, MW-125, DR1-2, DR1-7, DR1-8, and IW-06. Two former LTM wells (MW-21 and MW-115) are sampled for EBT performance monitoring. The maximum concentration of PCE in the October 2008 LTM event was 11 µg/L (MW-125).

4.1.4.2 TTA-1 South

The TTA-1 South plume is located a few hundred feet southeast of TTA-1 North, on the west side of Building 1088 and the southern section of Building 972. Based on the distribution of PCE and TCE in the plume, there appear to be two source areas. Wells in the southern area have high TCE concentrations and moderate PCE concentrations while those in the northern area have high PCE concentrations and low TCE concentrations. The depth of water is approximately 90 feet bgs and the average saturated thickness is 36 feet.

Seven LTM performance wells are associated with the TTA-1 South plume: DR1-1, DR1-1A, DR1-4, DR1-5, DR1-5A, DR1-6 and DR1-6A. Two former LTM wells (MW-101 and DR1-3) are sampled for EBT performance monitoring. The maximum concentrations of PCE and TCE in the October 2008 LTM event were 122 µg/L (DR1-6) and 142 µg/L (DR1-6A), respectively.

4.1.4.3 TTA-2

The TTA-2 plume is an irregularly shaped area with elevated concentrations of PCE, TCE, CT and CF. The distribution of PCE and CT in TTA-2 suggest two or more source areas. While PCE concentrations are elevated throughout most of the plume area, CT concentrations are primarily in the northwestern plume area (near Buildings 260, 261 and 263). The depth of water is approximately 93 feet bgs and the average saturated thickness is 9 feet.

Fourteen LTM performance wells are associated with the TTA-2 plume: MW-26, MW-64, MW-86, MW-88, MW-92, MW-96, MW-113, MW-217, MW-218, DR2-2, DR2-3, DR2-4, DR2-6 and PZ-07. Four former LTM wells (MW-85, DR2-1, DR2-5 and IW-01) are sampled for EBT performance monitoring. The maximum PCE, CT and CF concentrations in the October 2008 LTM event were 120 µg/L (DR2-2), 110 µg/L (MW-113) and 45.3 µg/L (MW-113), respectively.

4.1.4.4 West Central

The West-Central plume is a broad area of elevated PCE concentrations in groundwater approximately 1500 feet northeast of TTA-1. The eastern end of the plume is at the former location of Buildings 873 and 875 and the central area is near Building 770. The depth of water is approximately 100 feet bgs and the saturated thickness ranges from 7 to 94 feet with an average of 48 feet.

Twenty-three LTM performance wells are associated with the West Central plume: MW-39, MW-39A, MW-94A, MW-98, MW-197A/B, MW-200, MW-203A/B, MW-204A/B, MW-205A/B, MW-206A/B,

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MW-208A/B, MW-210B, MW-214A/B, MW-215A/B and PZ-03. The maximum PCE concentration in the October 2008 LTM event was 182 µg/L in MW-208A.

4.1.4.5 Building 835

The Building 835 plume located in the western portion of the MI contains elevated concentrations of TCE. The plume is orientated along the southern edge of the elevated clay plateau that is present in the northwest corner of the MI. The depth of water is approximately 94 feet bgs and the average saturated thickness is 6 feet.

Seven LTM performance wells are associated with the Building 835 plume: MW-62, MW-142, MW-198, MW-199B, MW-209B, MW-212 and MW-213 (dry). The maximum TCE concentration in the October 2008 LTM event was 157 µg/L in MW-62.

4.1.4.6 North Central

The North-central plume is located in the northeastern portion of the MI contains and contains slightly elevated concentrations of TCE. Additional plume delineation was not considered necessary because of the low concentrations. The depth of water is approximately 66 feet bgs and the average saturated thickness is 23 feet.

Three LTM performance wells are associated with the North Central (formerly SS-37) plume along the northern boundary of the MI: MW-103, MW-104, and PZ-06. The maximum TCE concentration in the October 2008 LTM event was 12.6 µg/L in MW-104.

4.2 ESTIMATED CVOC MASS IN GROUNDWATER

The dissolved CVOC mass within each plume was estimated based on the ground water results from the October 2008 LTM event and the December 2008 EBT performance monitoring event. Total CVOCs were estimated for each well as the sum of the PCE, TCE, cDCE, CT and CF concentrations and the results were contoured to provide concentrations throughout the area of each plume. Contour maps for groundwater elevation and top of clay were used to determine the saturated thickness throughout each plume. The dissolved CVOC mass was estimated for each 10 by 10-foot cell within each plume based on the estimated total CVOC concentration, volume of water for the saturated thickness at each cell and an assumed porosity of 30%. The total CVOC concentration contours, the total area used in the mass

calculation and the estimated dissolved mass in each plume are shown on Figure 11. The total dissolved CVOC mass in all the plumes is estimated at 173 pounds.

4.3 TREND ANALYSIS

Concentration trends were assessed for the available groundwater analytical results for the LTM wells from January 2004 through October 2008 using the Mann-Kendall test. The Mann-Kendall test does not require any assumptions as to the statistical distribution of the data and can be used with data sets which include irregular sampling intervals and missing data. The analysis was performed using the Mann-Kendall module within the Monitoring and Remediation Optimization System (MAROS) software version 2.2 developed by AFCEE. The Mann-Kendall trend evaluation using MAROS relies on three statistical metrics: the Mann-Kendall statistic (S), the coefficient of variation (COV) and the confidence factor (CF).

The Mann-Kendall S measures the trend in the data. Positive values indicate an increase in constituent concentrations over time, whereas negative values indicate a decrease in constituent concentrations over time. The strength of the trend is proportional to the magnitude of the Mann-Kendall Statistic (i.e., large magnitudes indicate a strong trend). Typically, the Mann-Kendall test results in No Trend, Increasing or Decreasing designations for the dataset. MAROS uses the CF to provide a finer resolution of outcomes.

The COV is a statistical measure of how the individual data points vary about the mean value; it is defined as the standard deviation divided by the average. Values less than or near 1.00 indicate that the data form a relatively close group about the mean value. Values larger than 1.00 indicate that the data show a greater degree of scatter about the mean. The Confidence in Trend is the statistical probability that the constituent concentration is increasing (S>0) or decreasing (S<0).

The Concentration Trend for each well is determined according to the following rules:

Mann-Kendall Statistic	Confidence in Trend	Concentration Trend
S > 0	> 95%	Increasing
S > 0	90 - 95%	Probably Increasing
S > 0	< 90%	No Trend
S ≤ 0	< 90% and COV ≥ 1	No Trend
S ≤ 0	< 90% and COV < 1	Stable
S < 0	90 - 95%	Probably Decreasing
S < 0	95%	Decreasing

101620

The Mann-Kendall analysis was run for PCE, TCE and cDCE on analytical results for all 97 LTM wells. Both screened intervals in MW-107 were included, but MW-213 was excluded as the well has been dry since installation. The analysis was limited to samples collected since January 2004 to provide a more consistent comparison between wells; many of the LTM performance wells were installed from 2004 to 2007 and regular groundwater monitoring was not performed before 2004. The historical analytical results for primary CVOCs in LTM wells are provided in Appendix C. Concentration trend plots for primary CVOCs detected above MCLs in LTM wells are provided in Appendix D.

The results of the Mann-Kendall analysis are shown on Tables 9 through 13. The tables present the statistical metrics for each well, the concentration trend, the number of sample rounds and the number of samples with detects. In addition, the maximum and minimum analytical results for the review period are shown. The results are summarized below.

	Total Locations	**Insufficient Data**	**Increasing/ Probably Increasing**	**Stable/ No Trend**	**Decreasing/ Probably Decreasing**
PCE	97	23	15	44	15
TCE	97	21	22	42	12
cDCE	97	36	13	39	9

The analysis indicates that most wells show no clear trend or are stable for these CVOCs. Roughly equal numbers of wells have increasing or decreasing trends for PCE. More wells have increasing trends than decreasing trends for TCE and cDCE. The wells with an increasing trend for TCE are generally in the West-Central plume or nearby Sentinel wells, while those with an increasing trend for cDCE are generally in the West-Central or TTA-2 plumes. The cDCE trends are likely affected by EBT in TTA-1 and TTA-2.

Trends for the parent/primary CVOCs in each plume are summarized below.

Plume	**Analyte**	**Total Locations**	**Insufficient Data**	**Increasing/ Probably Increasing**	**Stable/ No Trend**	**Decreasing/ Probably Decreasing**
TTA-1 North	PCE	6	2	0	2	2
TTA-1 South	PCE	9	1	3	4	1
TTA-1 South	TCE	9	0	2	6	1
TTA-2	PCE	16	1	5	6	4
TTA-2	CT	16	2	3	7	4
TTA-2	CF	16	1	3	9	3
West-Central	PCE	24	0	2	16	6
Sentinel	PCE	20	4	4	10	2
Bldg 835	TCE	5	0	0	5	0
North-Central	TCE	3	1	1	1	0

As with the overall trend analysis, most wells in the plumes show no clear trend or are stable for the primary CVOCs. There are roughly equal numbers of wells with increasing or decreasing trends, with some variation between plumes.

The trend analysis of LTM results does not provide a clear indication of EBT effectiveness in TTA-1 and TTA-2 as the LTM wells are located around the perimeter of the treatment areas. Results of performance monitoring in the treatment areas is provided in *Main Installation Enhanced Bioremediation Treatment, Year Two Remedial Action Operations Report, Rev.0* (HDR|e²M, 2009a).

4.4 RECOMMENDATIONS

No changes to the MI LTM program were recommended for 2009.

A source area investigation was performed under a separate task order to identify areas of soil contamination impacting shallow groundwater and resulting in the observed groundwater plumes on the MI. Groundwater modeling was performed to evaluate the impact of the shallow groundwater plumes on the deeper Memphis aquifer, and trend analysis of historical groundwater results was performed to evaluate plume stability in the central area of the MI. The results were presented in *Main Installation Source Area Investigation, Rev.0* (HDR|e²M, 2009b).

While the source area investigation identified potential sources for each of the groundwater plumes, the concentrations of CVOCs in the soil were low and did not warrant RA. In addition, groundwater modeling and trend analysis did not support the need for active groundwater treatment. Three additional monitoring wells in the upper portion of the Memphis Sand aquifer were recommended to support the groundwater model results. The wells are to be installed in late 2009 and will be incorporated into the LTM program. Following installation of the new wells and completion of 2009 LTM, changes to optimize the MI LTM program will be considered with recommendations provided in the 2009 annual LTM report.

1016128

5.0 REFERENCES

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TABLES

TABLE 1
LTM SAMPLE SCHEDULE
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Well ID	Well Type	Current Sample Frequency	QTR Jan-2008	SA Apr-2008	Biennial Oct-2008
MW16	Background	Biennially	-	-	X
MW19	Background	Biennially	-	-	X
MW22	Boundary	Biennially	-	-	X
MW23	Boundary	Biennially	-	-	X
MW24	Boundary	Biennially	-	-	X
MW25A	Performance	Semiannually	-	X	X
MW26	Performance	Semiannually	-	X	X
MW34	Sentinel	Annually	-	-	X
MW38	Sentinel	Annually	-	-	X
MW39	Performance	Semiannually	-	X	X
MW39A	Performance	Semiannually	-	X	X
MW50	Boundary	Biennially	-	-	X
MW52	Performance	Semiannually	-	X	X
MW53	Background	Biennially	-	-	X
MW55	Background	Biennially	-	-	X
MW62	Performance	Semiannually	-	X	X
MW63A	Sentinel	Annually	-	-	X
MW63B	Sentinel	Annually	-	-	X
MW64	Performance	Semiannually	-	X	X
MW66A	Background	Biennially	-	-	X
MW86	Performance	Semiannually	-	X	X
MW88	Performance	Semiannually	-	X	X
MW89	Sentinel	Annually	-	-	X
MW90	Sentinel	Semiannually	-	X	X
MW92	Performance	Semiannually	-	X	X
MW93	Boundary	Annually	-	-	X
MW94A	Performance	Semiannually	-	X	X
MW96	Performance	Semiannually	-	X	X
MW97	Performance	Semiannually	-	X	X
MW98	Performance	Semiannually	-	X	X
MW99	Background	Annually	-	-	X
MW100B	Performance	Semiannually	-	X	X
MW102B	Boundary	Annually	-	-	X
MW103	Performance	Annually	-	-	X
MW104	Performance	Semiannually	-	X	X
MW107B [1]	Sentinel	Annually	-	X	X
MW107T [1]	Sentinel	Annually	-	X	X
MW108	Sentinel	Semiannually	-	X	X
MW113	Performance	Semiannually	-	X	X
MW125	Performance	Semiannually	-	X	X
MW140	Sentinel	Annually	-	-	X
MW141	Sentinel	Semiannually	-	X	X
MW142	Performance	Annually	-	-	X
MW143	Background	Biennially	-	-	X
MW-197A	Performance	Semiannually	-	X	X
MW-197B	Performance	Semiannually	-	X	X
MW-198	Performance	Semiannually	-	X	X
MW-199A	Sentinel	Annually	-	-	X
MW-199B	Performance	Semiannually	-	X	X
MW-200	Performance	Semiannually	-	X	X
MW-202A	Sentinel	Semiannually	-	X	X
MW-202B	Sentinel	Semiannually	-	X	X
MW-203A	Performance	Semiannually	X	X	X
MW-203B	Performance	Semiannually	X	X	X
MW-204A	Performance	Semiannually	X	X	X
MW-204B	Performance	Semiannually	X	X	X

TABLE 1
LTM SAMPLE SCHEDULE
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Well ID	Well Type	Current Sample Frequency	QTR Jan-2008	SA Apr-2008	Biennial Oct-2008
MW-205A	Performance	Semiannually	X	X	X
MW-205B	Performance	Semiannually	X	X	X
MW-206A	Performance	Semiannually	X	X	X
MW-206B	Performance	Semiannually	X	X	X
MW-207A	Sentinel	Semiannually	X	X	X
MW-207B	Sentinel	Semiannually	X	X	X
MW-208A	Performance	Semiannually	X	X	X
MW-208B	Performance	Semiannually	X	X	X
MW-209A	Sentinel	Semiannually	X	X	X
MW-209B	Performance	Semiannually	X	X	X
MW-210A	Sentinel	Semiannually	X	X	X
MW-210B	Performance	Semiannually	X	X	X
MW-211	Sentinel	Semiannually	X	NS	X
MW-212	Performance	Semiannually	X	X	X
MW-213	Performance	Semiannually	NS	NS	NS
MW-214A	Performance	Semiannually	X	X	X
MW-214B	Performance	Semiannually	X	X	X
MW-215A	Performance	Semiannually	X	X	X
MW-215B	Performance	Semiannually	X	X	X
MW-216	Performance	Semiannually	X	NS	X
MW-217	Performance	Semiannually	X	X	X
MW-218	Performance	Semiannually	X	X	X
MW-219	Boundary	Semiannually	X	X	X
MW-229	Sentinel	Semiannually	X	NS	X
DR1-1	Performance	Annually	-	-	X
DR1-1A	Performance	Semiannually	-	X	X
DR1-2	Performance	Annually	-	-	X
DR1-4	Performance	Semiannually	-	X	X
DR1-5	Performance	Semiannually	-	X	X
DR1-5A	Performance	Semiannually	-	X	X
DR1-6	Performance	Semiannually	-	X	X
DR1-6A	Performance	Semiannually	-	X	X
DR1-7	Performance	Annually	-	-	X
DR1-8	Performance	Annually	-	-	X
DR2-2	Performance	Semiannually	-	X	X
DR2-3	Performance	Semiannually	-	X	X
DR2-4	Performance	Annually	-	-	X
DR2-6	Performance	Semiannually	-	X	X
IW-06	Performance	Annually	-	-	X
PZ-03	Performance	Annually	-	-	X
PZ-06	Performance	Annually	-	-	X
PZ-07 [(2)]	Performance	Annually	-	-	NS

Notes:
1) MW-107 has three screened intervals, with samples collected from the top and bottom intervals.
2) PZ-07 casing blocked by sample tubing in October 2007; it cannot be
X: Sample collected
P: Sample planned
-: Sample not planned or collected
EBT: Well included in EBT sampling program, not sampled for LTM
NS: Sample planned but not collected

TABLE 2
WATER LEVEL MEASUREMENTS
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Well ID	Aquifer	Top of Casing Elevation (ft, msl)	Top of Screen Elevation (ft, msl)	7-Jan-2008 Depth to Water (ft, btoc)	7-Jan-2008 Groundwater Elevation (ft, msl)	4-Apr-2008 Depth to Water (ft, btoc)	4-Apr-2008 Groundwater Elevation (ft, msl)	2-Oct-2008 Depth to Water (ft, btoc)	2-Oct-2008 Groundwater Elevation (ft, msl)
MW-16	Fluvial	299.86	242.26	58.80	241.06	58.45	241.41	58.15	241.71
MW-19	Fluvial	290.57	207.47	86.92	203.65	87.02	203.55	87.39	203.18
MW-21	Fluvial	295.00	202.90	NM	–	NM	–	92.70	202.30
MW-22	Fluvial	298.04	202.64	95.34	202.70	95.35	202.69	95.53	202.51
MW-23	Fluvial	298.99	197.79	97.63	201.36	97.68	201.31	97.81	201.18
MW-24	Fluvial	299.51	202.21	104.65	194.86	104.35	195.16	104.75	194.76
MW-25A	Fluvial	269.88	196.88	71.54	198.34	71.26	198.62	71.51	198.37
MW-26	Fluvial	303.69	206.09	99.50	204.19	99.61	204.08	99.40	204.29
MW-34	Intermediate	299.97	163.37	135.62	164.35	132.29	167.68	137.73	162.24
MW-38	Intermediate	307.45	167.55	132.20	175.25	129.61	177.84	132.30	175.15
MW-39	Fluvial	296.28	200.78	102.44	193.84	102.16	194.12	102.59	193.69
MW-39A	Fluvial	298.45	150.53	102.65	195.80	102.25	196.20	102.99	195.46
MW-50	Fluvial	298.82	183.82	85.73	213.09	85.51	213.31	85.68	213.14
MW-52	Fluvial	279.26	185.26	79.53	199.73	79.19	200.07	79.28	199.98
MW-53	Fluvial	306.38	233.88	74.11	232.27	73.94	232.44	73.62	232.76
MW-55	Fluvial	292.08	228.08	71.74	220.34	70.61	221.47	70.46	221.62
MW-62	Fluvial	293.65	207.65	94.04	199.61	93.93	199.72	93.93	199.72
MW-63A	Fluvial/Intermediate	305.96	165.96	105.79	200.17	105.38	200.58	105.51	200.45
MW-63B	Fluvial/Intermediate	305.78	190.78	105.72	200.06	105.32	200.46	105.46	200.32
MW-64	Fluvial	304.21	202.21	107.12	197.09	106.92	197.29	107.25	196.96
MW-66A	Fluvial	284.22	209.60	78.42	205.80	78.60	205.62	78.62	205.60
MW-85	Fluvial	304.13	208.23	NM	–	98.89	205.24	98.74	205.39
MW-86	Fluvial	304.35	206.85	96.39	207.96	96.43	207.92	96.17	208.18
MW-88	Fluvial	305.15	223.15	79.99	225.16	79.69	225.46	79.46	225.69
MW-89	Intermediate	303.98	156.98	115.69	188.29	114.15	189.83	116.01	187.97
MW-90	Intermediate	304.19	189.19	116.00	188.19	115.15	189.04	116.28	187.91
MW-92	Fluvial	304.41	211.41	95.16	209.25	95.20	209.21	95.01	209.40
MW-93	Fluvial	294.08	202.08	100.29	193.79	99.98	194.10	100.30	193.78
MW-94A	Fluvial	303.00	193.38	107.65	195.35	107.40	195.60	107.98	195.02
MW-96	Fluvial	289.02	213.52	81.88	207.14	95.84	193.18	81.77	207.25
MW-97	Fluvial	297.44	199.94	97.83	199.61	97.75	199.69	98.11	199.33
MW-98	Fluvial	294.43	157.43	98.20	196.23	98.92	195.51	98.35	196.08
MW-99	Fluvial	285.33	193.83	86.18	199.15	86.18	199.15	86.69	198.64
MW-100B	Fluvial	291.06	183.56	89.85	201.21	89.76	201.30	89.97	201.09
MW-101T	Fluvial	291.70	202.70	NM	–	91.22	200.48	90.57	201.13
MW-102B	Fluvial	311.40	190.90	NM	–	108.09	203.31	108.19	203.21
MW-103	Fluvial	301.35	231.35	69.71	231.64	69.52	231.83	69.32	232.03
MW-104	Fluvial	295.76	225.26	63.27	232.49	63.10	232.66	62.90	232.86

1015 32

TABLE 2
WATER LEVEL MEASUREMENTS
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

				7-Jan-2008		4-Apr-2008		2-Oct-2008	
Well ID	Aquifer	Top of Casing Elevation (ft, msl)	Top of Screen Elevation (ft, msl)	Depth to Water (ft, btoc)	Groundwater Elevation (ft, msl)	Depth to Water (ft, btoc)	Groundwater Elevation (ft, msl)	Depth to Water (ft, btoc)	Groundwater Elevation (ft, msl)
MW-107T	Fluvial/Intermediate	304.92	176.92	110.38	194.54	109.69	195.23	110.21	194.71
MW-108	Fluvial/Intermediate	303.07	143.07	108.80	194.27	108.47	194.60	109.10	193.97
MW-113	Fluvial	304.81	208.81	97.13	207.68	97.20	207.61	96.92	207.89
MW-115	Fluvial	291.67	202.17	NM	--	90.16	201.51	90.48	201.19
MW-125	Fluvial	291.35	197.35	89.96	201.39	89.89	201.46	90.22	201.13
MW-140	Intermediate	298.12	73.52	138.81	159.31	NM	--	143.39	154.73
MW-141	Intermediate	303.71	155.01	113.66	190.05	112.72	190.99	113.86	189.85
MW-142	Fluvial	291.18	206.18	92.79	198.39	92.64	198.54	93.16	198.02
MW-143	Fluvial	290.56	212.06	NM	--	90.00	200.56	90.46	200.10
MW-197A	Fluvial	291.26	129.30	94.29	196.97	94.10	197.16	94.63	196.63
MW-197B	Fluvial	291.03	196.88	94.20	196.83	94.00	197.03	94.54	196.49
MW-198	Fluvial	291.50	201.47	94.99	196.51	94.70	196.80	95.32	196.18
MW-199A	Intermediate	301.53	155.45	110.28	191.25	109.43	192.10	110.46	191.07
MW-199B	Fluvial	301.73	197.12	106.04	195.69	105.66	196.07	106.29	195.44
MW-200	Fluvial	300.18	196.98	104.73	195.45	104.53	195.65	105.10	195.08
MW-202A	Intermediate	299.23	122.73	123.90	175.33	121.68	177.55	125.14	174.09
MW-202B	Intermediate	299.51	180.42	123.40	176.11	121.75	177.76	123.32	176.19
MW-203A	Fluvial	290.59	147.65	92.80	197.79	92.66	197.93	93.14	197.45
MW-203B	Fluvial	290.51	197.68	92.73	197.78	92.59	197.92	93.07	197.44
MW-204A	Fluvial	292.21	158.95	95.40	196.81	95.15	197.06	95.72	196.49
MW-204B	Fluvial	292.32	197.83	95.40	196.92	95.15	197.17	95.72	196.60
MW-205A	Fluvial	291.93	150.96	95.71	196.22	95.35	196.58	96.09	195.84
MW-205B	Fluvial	291.82	194.82	95.50	196.32	95.42	196.40	95.85	195.97
MW-206A	Fluvial	299.92	172.58	104.60	195.32	104.40	195.52	105.02	194.90
MW-206B	Fluvial	299.90	203.18	104.59	195.31	104.34	195.56	104.98	194.92
MW-207A	Fluvial	303.78	154.13	109.41	194.37	108.91	194.87	109.69	194.09
MW-207B	Fluvial	303.83	195.58	109.02	194.81	108.61	195.22	109.32	194.51
MW-208A	Fluvial	301.50	118.05	106.50	195.00	NM	--	106.97	194.53
MW-208B	Fluvial	301.79	195.13	106.55	195.24	NM	--	106.97	194.82
MW-209A	Fluvial	298.05	109.07	104.82	193.23	104.17	193.88	105.40	192.65
MW-209B	Fluvial	298.49	196.17	102.75	195.74	102.35	196.14	103.07	195.42
MW-210A	Intermediate	289.66	112.60	99.29	190.37	98.22	191.44	100.42	189.24
MW-210B	Fluvial	289.29	192.33	92.62	196.67	92.42	196.87	93.00	196.29
MW-211	Intermediate	303.74	137.48	110.81	192.93	110.10	193.64	110.93	192.81
MW-212	Fluvial	295.34	209.69	98.79	196.55	98.70	196.64	98.96	196.38
MW-213	Fluvial	293.83	216.92	Dry	--	Dry	--	Dry	--
MW-214A	Fluvial	303.61	184.53	104.45	199.16	104.10	199.51	104.39	199.22
MW-214B	Fluvial	303.70	202.13	104.13	199.57	104.00	199.70	103.85	199.85

1016 33

TABLE 2
WATER LEVEL MEASUREMENTS
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Well ID	Aquifer	Top of Casing Elevation (ft, msl)	Top of Screen Elevation (ft, msl)	7-Jan-2008 Depth to Water (ft, btoc)	7-Jan-2008 Groundwater Elevation (ft, msl)	4-Apr-2008 Depth to Water (ft, btoc)	4-Apr-2008 Groundwater Elevation (ft, msl)	2-Oct-2008 Depth to Water (ft, btoc)	2-Oct-2008 Groundwater Elevation (ft, msl)
MW-215A	Fluvial	304.50	175.75	109.14	195.36	109.29	195.21	109.89	194.61
MW-215B	Fluvial	304.56	199.15	109.76	194.80	109.35	195.21	109.98	194.58
MW-216	Fluvial	297.34	197.41	97.48	199.86	97.47	199.87	97.70	199.64
MW-217	Fluvial	304.18	202.39	107.12	197.06	107.01	197.17	107.22	196.96
MW-218	Fluvial	305.60	206.69	103.55	202.05	102.69	202.91	103.54	202.06
MW-219	Fluvial	294.90	197.16	91.96	202.94	91.89	203.01	92.21	202.69
MW-229	Intermediate	311.77	123.34	152.02	159.75	146.69	165.08	156.24	155.53
DR1-1	Fluvial	293.09	171.42	91.75	201.34	91.69	201.40	91.96	201.13
DR1-1A	Fluvial	293.13	203.79	91.67	201.46	91.61	201.52	91.88	201.25
DR1-2	Fluvial	290.08	192.28	89.85	200.23	91.68	198.40	90.17	199.91
DR1-3	Fluvial	290.93	181.26	NM	–	91.49	199.44	92.01	198.92
DR1-4	Fluvial	292.78	186.50	91.93	200.85	91.80	200.98	92.19	200.59
DR1-5	Fluvial	294.50	169.28	92.91	201.59	92.84	201.66	93.09	201.41
DR1-5A	Fluvial	294.61	204.88	92.99	201.62	92.95	201.66	93.21	201.40
DR1-6	Fluvial	292.98	177.14	91.66	201.32	91.52	201.46	91.87	201.11
DR1-6A	Fluvial	293.14	202.32	91.74	201.40	91.61	201.53	91.97	201.17
DR1-7	Fluvial	289.15	180.86	90.26	198.89	90.00	199.15	90.60	198.55
DR1-8	Fluvial	290.02	197.37	88.99	201.03	88.90	201.12	89.29	200.73
DR2-1	Fluvial	304.90	231.00	NM	–	88.17	216.73	87.69	217.21
DR2-2	Fluvial	304.37	225.37	81.71	222.66	81.90	222.47	81.74	222.63
DR2-3	Fluvial	303.44	210.44	97.24	206.20	97.17	206.27	97.15	206.29
DR2-4	Fluvial	303.47	215.47	94.43	209.04	94.36	209.11	94.37	209.10
DR2-5	Fluvial	305.44	220.44	NM	–	96.42	209.02	95.88	209.56
DR2-6	Fluvial	304.70	210.10	101.38	203.32	NM	–	101.34	203.36
IW-01	Fluvial	304.03	215.03	NM	–	95.64	208.39	95.23	208.80
IW-06	Fluvial	291.94	192.94	90.40	201.54	90.46	201.48	90.43	201.51
PZ-03	Fluvial	298.51	189.61	102.94	195.57	102.60	195.91	103.20	195.31
PZ-06	Fluvial	302.74	213.34	78.10	224.64	77.43	225.31	76.20	226.54

Notes:
NM: not measured

1016 34

TABLE 3
WELL STABILIZATION SUMMARY, JANUARY 2008
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Well ID	Sample Date	Sample Method	Sample Time	Sample Pump Depth ft (btoc)	Water Depth ft (btoc)	Purge Rate mL/min	Volume Purged Liters	pH	Temp °C	Specific Conductivity mS/cm	Dissolved Oxygen mg/L	Oxidation Reduction Potential mV	Turbidity NTUs
MW-203A	1/8/2008	DP	8:30	150.5	92.65	280	6.2	6.1	18.0	0.32	1.89	96	-0.1
MW-203B	1/8/2008	DP	12:25	100.3	92.58	100	3.5	6.4	19.9	0.52	3.29	93	17.0
MW-204A	1/8/2008	DP	10:40	139.0	95.25	240	6.6	6.2	18.6	0.43	7.61	158	-1.8
MW-204B	1/8/2008	DP	8:50	100.5	95.36	120	4.3	6.0	18.8	0.39	5.00	141	19.2
MW-205A	1/8/2008	DP	13:43	147.0	95.46	400	18.2	6.2	18.7	0.35	6.63	2	-3.5
MW-205B	1/8/2008	DP	10:45	103.1	95.41	60	3.0	6.0	19.7	0.34	6.28	204	10.6
MW-206A	1/8/2008	DP	12:30	134.8	104.46	400	8.0	6.1	18.6	0.32	8.60	160	-2.4
MW-206B	1/9/2008	DP	8:15	107.9	104.92	200	4.4	6.0	17.2	0.29	6.50	177	0.0
MW-207A	1/9/2008	DP	11:03	157.2	109.69	400	16.3	5.8	5.8	0.55	2.68	4	-3.4
MW-207B	1/9/2008	DP	12:05	115.6	109.31	200	3.6	5.9	18.1	0.16	6.92	210	0.0
MW-208A	1/8/2008	DP	11:20	191.0	106.4	280	7.8	6.1	18.8	0.32	9.48	150	3.9
MW-208B	1/9/2008	DP	9:00	114.2	106.9	160	3.2	6.1	16.4	0.20	7.98	183	4.4
MW-209A	1/9/2008	DP	9:38	195.3	104.96	115	9.2	5.9	17.2	0.23	9.62	123	-2.2
MW-209B	1/8/2008	DP	14:15	108.3	102.45	80	3.0	5.7	20.4	0.10	8.06	232	2.4
MW-210A	1/8/2008	DP	9:33	184.5	99.15	200	8.0	6.3	18.2	0.31	15.79	167	1.6
MW-210B	1/8/2008	DP	13:15	104.5	92.45	45	3.1	5.9	18.9	0.23	6.97	202	11.5
MW-211	1/9/2008	DP	12:23	174.0	110.93	132	8.6	5.9	18.7	0.42	4.16	75	12.1
MW-212	1/9/2008	BA	14:11	N/A	98.86	N/A	3.9	6.5	17.9	0.12	9.14	106	OR
MW-213	1/9/2008	N/A	13:22	Dry	92.11	–	–	–	–	–	–	–	–
MW-214A	1/9/2008	DP	13:12	126.6	104.55	228	6.8	5.8	19.1	0.31	5.09	99	4.1
MW-214B	1/9/2008	DP	11:25	109.6	104.51	200	3.1	5.9	18.8	0.30	4.63	182	0.0
MW-215A	1/9/2008	DP	14:02	136.3	109.75	230	4.6	5.8	19.4	0.32	5.02	125	-3.0
MW-215B	1/9/2008	DP	14:36	114.4	109.82	320	8.0	5.9	19.2	0.33	6.47	135	12.0
MW-216	1/8/2008	DP	9:35	107.4	97.39	120	3.3	6.1	18.7	0.50	7.68	193	16.6
MW-217	1/9/2008	DP	9:40	111.0	107.32	200	3.7	5.8	18.1	0.19	5.36	220	10.6
MW-218	1/9/2008	DP	10:35	108.2	103.75	160	3.4	6.0	18.4	0.23	4.81	157	0.0
MW-219	1/9/2008	DP	13:15	105.2	92.02	200	3.7	6.1	18.1	0.27	4.59	220	0.0
MW-229	1/9/2008	DP	8:28	199.0	151.51	280	10.9	6.8	17.5	0.30	1.25	-122	1.2

Notes:
–: No Data
BA: Bailer
DP: Dedicated bladder pump
N/A: Not Applicable
OR: Out of Range

1016 35

TABLE 4
WELL STABILIZATION SUMMARY, APRIL 2008
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Well ID	Sample Date	Sample Method	Sample Time	Sample Pump Depth ft (btoc)	Water Depth ft (btoc)	Purge Rate mL/min	Volume Purged Liters	pH	Temp °C	Specific Conductivity mS/cm	Dissolved Oxygen mg/L	Oxidation Reduction Potential mV	Turbidity NTUs
MW-25A	4/8/2008	DP	15:25	70.3	71.30	200	5.1	6.0	18.3	0.58	5.34	3	1.9
MW-26	4/7/2008	DP	11:00	104.1	99.63	120	3.1	5.5	20.0	0.29	6.10	164	0.0
MW-39	4/9/2008	DP	10:40	110.1	102.27	120	3.0	6.3	18.2	0.73	6.21	253	3.9
MW-39A	4/7/2008	DP	8:22	161.3	102.55	240	6.0	6.0	18.3	0.32	11.96	162	-2.2
MW-52	4/8/2008	DP	14:15	97.4	79.43	260	7.2	6.1	18.0	0.90	2.88	3	2.7
MW-62	4/9/2008	BA	13:25	96.4	94.00	N/A	3.3	6.8	18.0	0.13	16.41	128	1866.0
MW-64	4/7/2008	DP	14:50	110.4	106.90	160	3.4	5.5	20.4	0.25	4.48	169	0.0
MW-86	4/7/2008	DP	13:05	108.1	96.60	260	7.6	5.8	22.2	0.40	1.89	51	1.4
MW-88	4/7/2008	DP	12:00	87.0	79.98	100	3.4	5.4	22.0	0.27	4.46	169	1.2
MW-90	4/7/2008	DP	13:15	130.6	115.39	340	7.6	5.6	19.1	0.63	6.62	143	0.3
MW-92	4/8/2008	DP	16:20	102.1	95.35	160	5.8	6.5	21.9	0.56	1.49	-46	0.4
MW-94A	4/8/2008	DP	9:00	117.5	107.40	180	3.5	6.1	18.9	0.35	7.14	167	0.0
MW-96	4/7/2008	DP	15:54	89.2	81.97	140	4.8	5.9	19.5	0.17	1.68	154	9.4
MW-97	4/8/2008	DP	8:07	109.2	97.99	300	8.0	6.0	18.4	0.12	7.25	158	12.7
MW-98	4/7/2008	DP	15:18	142.6	98.02	215	9.7	5.7	19.8	0.42	3.76	-14	14.1
MW-100B	4/7/2008	DP	9:05	118.5	89.92	300	10.3	5.8	18.9	0.42	3.80	61	0.6
MW-104	4/8/2008	DP	13:36	77.2	63.40	120	13.7	5.7	20.6	0.73	3.24	168	19.2
MW-107B	4/9/2008	PP	10:34	162.0	110.14	380	17.2	5.8	18.3	0.20	14.94	200	18.2
MW-107T	4/9/2008	PP	9:18	135.5	110.14	400	8.0	5.8	17.7	0.20	13.63	191	-1.9
MW-108	4/7/2008	DP	14:10	167.9	108.60	220	6.7	5.7	19.1	0.49	5.23	146	16.1
MW-113	4/7/2008	DP	13:50	103.2	97.20	200	5.6	5.6	22.1	0.16	3.89	141	0.4
MW-125	4/7/2008	DP	10:00	102.3	90.09	120	3.2	5.6	19.4	0.22	2.40	128	0.0
MW-141	4/8/2008	DP	9:25	161.0	112.93	240	7.7	5.9	18.1	0.84	0.94	294	0.0
MW-197A	4/8/2008	DP	8:42	170.4	94.22	400	8.0	6.2	17.8	0.33	11.78	160	18.2
MW-197B	4/8/2008	DP	8:05	102.6	94.12	220	4.6	6.3	17.7	0.40	6.61	150	-0.7
MW-198	4/9/2008	DP	8:40	100.5	95.13	120	3.6	6.2	18.9	0.18	11.98	150	19.2
MW-199B	4/8/2008	DP	10:07	113.3	105.80	160	3.1	5.9	19.2	0.12	7.63	164	0.0
MW-200	4/8/2008	DP	9:33	112.0	104.55	300	5.8	6.0	18.5	0.34	6.48	167	0.0
MW-202A	4/7/2008	DP	16:02	185.0	121.85	400	8.0	5.8	19.0	0.23	7.77	82	0.2
MW-202B	4/9/2008	DP	9:35	129.9	121.95	260	12.0	6.1	18.1	0.90	0.00	136	19.9
MW-203A	4/8/2008	DP	9:25	150.5	92.79	240	4.9	6.1	18.3	0.30	6.83	140	-0.8
MW-203B	4/8/2008	DP	10:25	100.3	92.74	160	5.5	6.6	18.8	0.47	3.67	95	-1.6
DR1-1A	4/8/2008	DP	13:15	101.3	91.79	200	3.3	6.3	20.0	0.43	8.41	300	0.0
DR1-4	4/7/2008	DP	15:55	117.6	91.98	280	8.8	6.5	18.4	0.52	0.00	-80	0.0
DR1-5	4/7/2008	DP	10:20	136.3	93.08	300	7.8	5.8	18.8	0.29	11.17	153	0.3
DR1-5A	4/8/2008	DP	12:30	102.3	93.11	300	4.2	6.0	19.5	0.19	10.11	296	0.5
DR1-6	4/8/2008	DP	10:25	126.6	91.69	300	5.7	6.3	19.4	0.61	6.26	270	6.0
DR1-6A	4/8/2008	DP	11:15	102.8	91.75	280	11.9	6.0	19.4	0.17	5.71	285	0.0
DR2-2	4/8/2008	DP	15:30	88.6	81.75	80	3.0	5.8	21.2	0.20	5.83	165	2.2
DR2-3	4/8/2008	DP	16:20	102.6	97.21	140	3.1	5.7	21.4	0.39	5.67	174	2.7
DR2-6	4/8/2008	DP	14:35	109.6	101.49	140	4.3	6.1	20.7	0.25	1.89	152	1.0
MW-204A	4/7/2008	DP	11:10	139.0	95.41	168	3.4	6.1	19.3	0.40	12.26	116	-3.8
MW-204B	4/9/2008	DP	11:40	100.5	95.54	100	3.1	6.3	18.6	0.65	7.24	260	6.9

1016 36

TABLE 4
WELL STABILIZATION SUMMARY, APRIL 2008
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Well ID	Sample Date	Sample Method	Sample Time	Sample Pump Depth ft (btoc)	Water Depth ft (btoc)	Purge Rate mL/min	Volume Purged Liters	pH	Temp °C	Specific Conductivity mS/cm	Dissolved Oxygen mg/L	Oxidation Reduction Potential mV	Turbidity NTUs
MW-205A	4/7/2008	DP	12:14	147.0	95.69	300	6.0	6.1	19.2	0.32	8.93	118	1.1
MW-205B	4/9/2008	DP	13:45	103.1	95.52	100	3.2	6.3	21.8	0.75	2.92	247	1.0
MW-206A	4/9/2008	DP	13:13	134.8	104.65	420	8.6	6.1	19.1	0.29	11.09	158	-0.7
MW-206B	4/9/2008	DP	14:45	107.9	104.49	100	5.6	6.2	19.5	0.57	7.15	181	0.0
MW-207A	4/9/2008	DP	14:08	157.2	109.28	300	8.8	5.9	20.2	0.46	5.43	102	0.7
MW-207B	4/9/2008	DP	12:25	115.6	109.01	280	3.9	6.0	19.7	0.24	8.87	276	0.0
MW-208A	4/8/2008	DP	15:18	191.0	106.39	280	10.0	6.2	18.8	0.31	4.79	97	8.5
MW-208B	4/8/2008	DP	15:57	114.2	106.47	260	5.1	6.0	19.1	0.19	10.56	151	-0.9
MW-209A	4/9/2008	DP	12:16	195.3	104.50	260	9.3	6.0	19.4	0.21	16.90	182	-1.7
MW-209B	4/9/2008	DP	11:36	108.3	102.71	70	3.2	6.1	19.6	0.10	10.56	153	7.6
MW-210A	4/8/2008	DP	13:30	184.5	98.36	250	30.0	6.3	18.7	0.30	10.13	156	41.9
MW-210B	4/8/2008	DP	14:10	104.5	92.70	240	4.7	6.1	6.1	0.24	9.78	175	-0.6
MW-212	4/8/2008	BA	8:00	100.9	98.70	N/A	3140.0	7.0	17.5	0.15	8.28	114	97.9
MW-213	4/7/2008	N/A	--	--	--	--	--	--	--	--	--	--	--
MW-214A	4/7/2008	DP	12:50	126.6	104.39	220	3.4	6.0	21.0	0.38	4.00	310	16.9
MW-214B	4/7/2008	DP	14:30	109.6	104.81	120	4.1	6.0	22.4	0.41	3.60	251	19.3
MW-215A	4/9/2008	DP	14:50	136.3	109.45	200	4.0	5.9	21.2	0.29	8.77	147	1.3
MW-215B	4/9/2008	DP	13:00	114.4	109.56	180	3.2	6.2	22.8	0.33	12.27	154	6.2
MW-217	4/7/2008	DP	11:15	111.0	107.06	240	7.4	6.0	19.6	0.24	3.46	240	9.4
MW-218	4/7/2008	DP	10:10	108.2	103.74	120	4.4	6.0	21.0	0.29	2.96	257	0.0
MW-219	4/7/2008	DP	8:41	105.2	92.22	200	5.3	6.2	17.4	0.34	2.95	318	0.0

--: No Data
BA: Bailer
DP: Dedicated bladder pump
N/A: Not Applicable
PP: Portable bladder pump

1015137

TABLE 5
WELL STABILIZATION SUMMARY, OCTOBER 2008
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Well ID	Sample Date	Sample Method	Sample Time	Sample Pump Depth ft (btoc)	Water Depth ft (btoc)	Purge Rate mL/min	Volume Purged Liters	pH	Temp °C	Specific Conductivity mS/cm	Dissolved Oxygen mg/L	Oxidation Reduction Potential mV	Turbidity NTUs
MW-16	10/10/2008	PP	11:45	64.0	57.33	100	7.1	6.1	20.6	0.46	1.3	136.2	0.1
MW-19	10/9/2008	PP	13:50	87.0	87.24	100	6.3	6.9	20.5	0.19	6.9	194.0	13.5
MW-22	10/9/2008	PP	10:00	101.0	95.90	120	8.6	6.3	19.1	0.39	7.6	199.7	19.7
MW-23	10/14/2008	PP	9:08	107.0	97.92	140	9.9	6.6	20.2	0.59	6.5	129.8	0.0
MW-24	10/14/2008	PP	9:50	108.0	108.80	160	14.2	6.0	21.0	0.22	8.5	231.5	19.3
MW-25A	10/10/2008	DP	14:40	79.0	71.40	120	3.7	5.7	19.4	0.42	5.3	227.6	1.1
MW-26	10/8/2008	DP	13:18	104.1	99.40	200	3.7	5.9	20.0	0.31	5.7	213.9	0.0
MW-34	10/13/2008	DP	14:20	148.9	138.10	80	3.1	5.8	20.9	0.19	5.9	256.3	0.0
MW-38	10/8/2008	DP	10:18	147.0	131.75	250	5.1	7.1	19.1	0.18	3.2	175.4	0.0
MW-39	10/9/2008	DP	11:10	110.1	102.71	300	10.8	6.2	20.4	0.39	4.3	206.1	0.0
MW-39A	10/9/2008	DP	11:45	161.6	103.11	340	7.8	6.2	19.6	0.37	4.6	217.8	0.9
MW-50	10/13/2008	PP	12:45	121.0	85.67	160	5.0	5.8	22.6	0.76	5.4	246.4	17.1
MW-52	10/10/2008	DP	13:45	97.4	3.60	140	3.6	5.8	21.0	1.06	4.5	219.3	0.0
MW-53	10/13/2008	PP	15:25	78.0	73.59	150	3.7	5.9	21.0	0.47	3.4	244.1	0.0
MW-55	10/13/2008	PP	13:21	72.0	70.51	140	3.7	6.2	21.2	0.16	5.2	214.6	7.7
MW-62	10/14/2008	BA	13:00	na	93.95	na	2.9	6.5	20.7	0.13	9.3	210.3	215.0
MW-63A	10/8/2008	DP	9:33	136.1	105.42	300	12.0	5.9	19.7	0.22	0.2	256.4	0.0
MW-63B	10/7/2008	DP	15:10	120.8	105.28	400	8.0	5.4	20.3	0.65	0.0	256.1	0.0
MW-64	10/8/2008	DP	11:20	110.4	107.16	156	3.2	6.0	20.2	0.28	4.8	171.1	0.0
MW-66A	10/10/2008	PP	9:50	78.6	78.57	180	9.6	5.9	20.0	0.28	5.6	188.8	7.1
MW-86	10/8/2008	DP	15:45	108.1	96.12	240	8.4	6.4	22.0	0.65	0.6	-46.2	0.0
MW-88	10/6/2008	DP	16:15	87.0	79.36	100	4.7	5.9	26.0	0.30	4.8	261.4	0.0
MW-89	10/6/2008	DP	10:38	164.3	116.50	240	13.3	5.8	22.0	0.23	6.0	243.6	30.9
MW-90	10/6/2008	DP	8:20	130.6	116.34	296	7.8	5.8	19.2	0.61	5.8	232.7	0.0
MW-92	10/8/2008	DP	15:57	102.1	94.91	100	3.2	6.6	23.0	2.01	1.1	-80.2	7.7
MW-93	10/13/2008	PP	8:27	103.0	100.30	100	3.1	5.9	20.3	0.23	7.3	218.1	9.4
MW-94A	10/13/2008	DP	11:13	117.5	108.10	200	6.0	6.1	21.0	0.36	6.6	235.5	15.9
MW-96	10/10/2008	DP	15:40	89.2	81.69	150	5.5	5.9	20.2	0.44	1.2	215.9	0.0
MW-97	10/13/2008	DP	9:38	109.2	98.17	250	7.0	5.8	19.6	0.14	7.4	237.9	12.1
MW-98	10/10/2008	DP	16:03	142.6	98.48	320	11.5	6.0	20.7	0.34	2.3	41.1	0.0
MW-99	10/9/2008	PP	12:20	102.0	86.65	280	15.4	5.9	21.1	0.25	8.4	226.0	60.2
MW-100B	10/8/2008	DP	8:25	118.5	89.85	150	5.8	6.4	20.2	1.22	0.8	-40.2	0.0
MW-102B	10/13/2008	PP	16:13	131.0	108.22	100	11.0	6.2	20.7	0.46	1.9	208.0	49.8
MW-103	10/6/2008	DP	12:40	80.0	69.30	140	11.6	5.7	23.8	0.78	1.1	251.0	19.9
MW-104	10/6/2008	DP	15:02	77.2	62.85	124	11.5	5.7	23.7	0.68	1.6	264.4	33.0
MW-107B	10/10/2008	PP	13:43	153.0	110.32	381	15.2	5.9	19.2	0.26	8.0	229.5	19.6
MW-107T	10/10/2008	PP	12:49	136.0	110.31	320	8.5	5.9	21.1	0.25	8.1	214.7	0.0
MW-108	10/10/2008	DP	11:55	167.9	109.23	340	6.1	5.8	19.6	0.54	3.1	217.7	0.0
MW-113	10/8/2008	DP	14:55	103.2	96.85	220	4.5	5.9	22.1	0.17	3.8	231.2	0.0
MW-125	10/7/2008	DP	13:57	102.3	89.98	130	7.4	6.3	20.9	0.46	0.6	-4.6	0.0
MW-140	10/9/2008	DP	16:34	238.5	144.13	100	7.0	5.9	20.3	0.29	1.5	139.8	0.0
MW-141	10/10/2008	DP	11:15	161.0	114.10	360	8.1	5.8	19.6	0.55	1.6	224.2	0.0
MW-142	10/8/2008	DP	11:15	96.9	93.09	280	7.0	6.0	19.6	0.00	3.5	246.7	0.0

1015138

TABLE 5
WELL STABILIZATION SUMMARY, OCTOBER 2008
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Well ID	Sample Date	Sample Method	Sample Time	Sample Pump Depth ft (btoc)	Water Depth ft (btoc)	Purge Rate mL/min	Volume Purged Liters	pH	Temp °C	Specific Conductivity mS/cm	Dissolved Oxygen mg/L	Oxidation Reduction Potential mV	Turbidity NTUs
MW-143	10/13/2008	PP	8:27	94.0	90.55	320	6.4	6.0	20.1	0.22	12.6	227.1	0.0
MW-197A	10/6/2008	DP	10:12	170.4	94.69	320	8.0	5.8	19.5	0.31	4.3	207.7	0.0
MW-197B	10/6/2008	DP	10:53	102.6	94.59	200	4.7	6.0	20.7	0.39	0.0	182.5	0.0
MW-198	10/8/2008	DP	15:30	100.5	95.24	100	3.1	6.0	21.5	0.06	1.5	239.9	0.0
MW-199A	10/9/2008	DP	14:40	154.6	110.60	310	6.8	6.0	20.0	0.25	2.2	198.2	3.9
MW-199B	10/9/2008	DP	13:58	113.3	106.35	380	10.3	6.0	19.7	0.14	4.2	241.5	0.0
MW-200	10/6/2008	DP	13:28	112.0	105.11	300	9.5	5.8	20.3	0.29	2.4	213.6	0.0
MW-202A	10/7/2008	DP	14:30	185.0	125.03	300	8.0	5.5	19.7	0.22	0.0	229.2	0.0
MW-202B	10/7/2008	DP	13:53	129.9	123.92	300	9.0	5.5	22.4	0.47	0.0	225.3	0.0
MW-203A	10/6/2008	DP	9:30	150.5	93.20	250	16.5	5.7	18.8	0.29	2.6	181.2	0.0
MW-203B	10/6/2008	DP	8:25	100.3	93.11	320	8.0	6.2	19.0	0.43	0.7	160.1	0.0
MW-204A	10/6/2008	DP	16:10	139.0	95.68	350	7.3	5.9	20.2	0.38	0.0	209.0	0.0
MW-204B	10/6/2008	DP	15:30	100.5	95.65	160	9.6	5.9	22.5	0.36	0.1	209.9	0.0
MW-205A	10/9/2008	DP	8:38	147.0	96.17	230	7.6	6.2	19.0	0.36	4.2	105.5	0.0
MW-205B	10/9/2008	DP	9:35	103.1	95.94	160	5.5	6.3	19.2	0.44	1.4	210.9	0.0
MW-206A	10/13/2008	DP	9:22	134.8	105.24	360	7.4	6.1	19.0	0.32	7.4	227.5	0.0
MW-206B	10/13/2008	DP	10:00	107.9	105.19	260	5.2	6.1	19.6	0.32	5.1	216.4	0.0
MW-207A	10/7/2008	DP	12:27	157.2	109.63	340	6.9	5.4	20.1	0.43	0.0	179.6	0.0
MW-207B	10/7/2008	DP	11:58	115.6	109.24	340	7.4	5.5	19.9	0.17	0.8	251.0	0.0
MW-208A	10/13/2008	DP	10:50	191.0	107.20	300	7.6	6.1	19.5	0.33	5.7	192.6	0.0
MW-208B	10/13/2008	DP	11:33	114.2	107.15	200	6.0	5.9	19.9	0.20	6.1	239.6	0.0
MW-209A	10/9/2008	DP	12:30	195.3	105.58	280	5.2	6.0	20.8	0.25	5.2	229.7	1.7
MW-209B	10/9/2008	DP	13:15	108.3	103.16	130	3.6	5.9	21.8	0.10	5.2	240.8	8.8
MW-210A	10/6/2008	DP	12:14	184.5	100.36	240	5.3	5.8	20.7	0.27	3.6	214.0	0.0
MW-210B	10/6/2008	DP	11:38	104.5	93.09	160	3.4	5.7	21.5	0.22	4.8	228.0	0.0
MW-211	10/10/2008	DP	14:53	174.0	111.01	380	10.1	5.9	20.4	0.65	3.0	200.9	0.0
MW-212	10/8/2008	BA	16:03	N/A	99.00	N/A	3.9	6.3	18.9	0.04	1.5	211.7	486.0
MW-213	10/8/2008	N/A		Dry	–	–	–	–	–	–	–	–	–
MW-214A	10/7/2008	DP	11:10	126.6	104.30	360	5.3	5.5	20.6	0.27	0.4	246.4	0.0
MW-214B	10/7/2008	DP	10:30	109.6	103.92	200	3.4	5.6	21.1	0.28	0.6	234.1	0.0
MW-214B	10/21/2008	DP	10:20	109.6	103.95	120	14.5	6.8	22.2	0.40	11.0	222.3	19.4
MW-215A	10/7/2008	DP	9:40	136.3	109.87	200	3.9	5.5	21.4	0.27	0.8	250.4	0.0
MW-215B	10/7/2008	DP	8:51	114.4	109.93	360	6.9	5.7	20.8	0.28	1.2	243.3	0.0
MW-216	10/6/2008	DP	14:11	107.4	97.68	160	3.6	5.9	22.7	0.47	1.4	211.1	0.0
MW-217	10/8/2008	DP	14:36	111.0	107.23	100	3.0	6.0	20.2	0.07	1.0	239.6	0.0
MW-218	10/8/2008	DP	13:47	108.2	103.58	70	4.2	6.1	27.7	0.09	1.1	206.1	14.2
MW-219	10/10/2008	DP	8:20	105.2	92.12	190	3.2	5.9	18.1	0.28	5.6	193.8	0.0
MW-229	10/8/2008	DP	8:25	200.0	156.27	300	8.8	7.0	18.4	0.10	0.0	-66.9	0.0
DR1-1	10/8/2008	DP	10:25	133.8	91.75	130	3.3	6.2	21.1	0.34	5.5	150.1	0.0
DR1-1A	10/8/2008	DP	9:35	101.3	91.66	130	4.3	6.2	20.3	0.31	7.1	130.3	0.0
DR1-2	10/7/2008	DP	11:45	109.1	89.89	230	5.0	6.1	20.2	0.34	5.8	234.7	0.0
DR1-4	10/7/2008	DP	9:35	117.6	91.98	300	9.2	6.5	19.2	0.49	0.6	-46.0	0.0
DR1-5	10/9/2008	DP	8:32	136.3	93.05	230	4.9	5.9	19.3	0.29	6.0	199.0	0.0

TABLE 5
WELL STABILIZATION SUMMARY, OCTOBER 2008
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Well ID	Sample Date	Sample Method	Sample Time	Sample Pump Depth ft (btoc)	Water Depth ft (btoc)	Purge Rate mL/min	Volume Purged Liters	pH	Temp °C	Specific Conductivity mS/cm	Dissolved Oxygen mg/L	Oxidation Reduction Potential mV	Turbidity NTUs
DR1-5A	10/9/2008	DP	8:00	102.3	93.13	200	3.2	5.8	19.3	0.14	8.9	182.6	0.0
DR1-6	10/7/2008	DP	11:08	126.6	91.61	200	3.7	6.1	21.1	0.40	5.6	220.8	0.0
DR1-6A	10/7/2008	DP	10:30	102.8	91.74	210	10.3	5.9	20.8	0.13	2.3	201.9	0.0
DR1-7	10/7/2008	DP	8:50	120.3	90.36	260	4.8	6.1	19.3	0.31	5.7	218.2	5.7
DR1-8	10/7/2008	DP	12:40	103.5	89.05	150	3.1	6.0	21.2	0.26	7.5	249.9	0.0
DR2-2	10/9/2008	DP	14:57	88.6	81.45	80	3.2	5.8	22.9	0.18	6.3	224.3	0.1
DR2-3	10/10/2008	DP	12:47	102.6	97.05	160	3.0	5.7	22.4	0.38	5.5	208.8	3.1
DR2-4	10/8/2008	DP	14:15	102.0	94.23	140	3.5	5.9	20.1	0.32	5.3	230.0	1.3
DR2-6	10/8/2008	DP	12:30	109.2	101.30	200	7.8	6.2	20.0	0.22	1.5	170.2	0.0
PZ-03	10/14/2008	W	11:50	N/A	103.50	N/A	7.2	6.2	20.5	0.34	4.8	224.6	1372.0
PZ-06	10/14/2008	W	13:35	N/A	76.10	N/A	8.0	7.2	24.1	0.25	9.2	194.1	78.6
IW-06	10/7/2008	DP	16:15	105.6	90.45	80	10.2	5.5	20.6	25.14	1.7	-141.8	78.7

Notes:
–: No Data
BA: Bailer
DP: Dedicated bladder pump
N/A: Not Applicable
PP: Portable bladder pump
W: Weetarra

1016 40

TABLE 6
ANALYTICAL RESULTS SUMMARY, JANUARY 2008
ANNUAL LONG-TERM MONITORING REPORT – 2008
Main Installation - Defense Depot Memphis, Tennessee

	Well ID Lab Sample ID Date Collected	Maximum Contaminant Levels	MW-203A L08010178-08 1/8/2008	MW-203B L08010178-01 1/8/2008	MW-204A L08010178-09 1/8/2008	MW-204B L08010178-02 1/8/2008	MW-205A L08010178-10 1/8/2008	MW-205B L08010178-03 1/8/2008	MW-206A L08010178-11 1/8/2008	MW-206B L08010208-01 1/9/2008
Primary VOCs	**units**									
Carbon tetrachloride	ug/L	5	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	ug/L	80	0.172 J	<0.3	<0.3	<0.3	0.165 J	0.146 J	0.174 J	0.147 J
cis-1,2-Dichloroethene	ug/L	70	0.972 J	**58.6**	0.922 J	**2.3**	**3.12**	**26.4**	0.717 J	0.688 J
Tetrachloroethene	ug/L	5	**108**	**9.39**	**42.7**	**24.5**	**153**	**82.3**	**114**	**69.5**
trans-1,2-Dichloroethene	ug/L	100	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	5	**1.93**	**6.31**	**1.12**	**3.2**	**6.14**	**9.75**	**12**	**11.7**
Vinyl chloride	ug/L	2	<1	<1	<1	<1	<1	<1	<1	<1
Additional VOCs										
1,1,2,2-Tetrachloroethane	ug/L	--	<0.5	<0.5	<0.5	**0.734**	<0.5	<0.5	<0.5	<0.5
1,2,3-Trichloropropane	ug/L	--	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon disulfide	ug/L	--	**1.77**	<1	<1	<1	<1	<1	<1	<1

Notes:
VOC samples analyzed using method 8260B
ug/L : micrograms per liter
<: Not detected at sample reporting limit
Results detected at or above reporting limits shown in bold
DQE FLAGS:
J: Estimated, based on QC data or reported below RL
B: Estimated, possibly biased high or false positive based on blank data

1016 41

TABLE 6
ANALYTICAL RESULTS SUMMARY, JANUARY 2008
ANNUAL LONG-TERM MONITORING REPORT – 2008
Main Installation - Defense Depot Memphis, Tennessee

	Well ID	Maximum	MW-207A	MW-207B DUP	MW-208A	MW-208B	MW-209A	MW-209B	MW-210A	MW-210B
	Lab Sample ID	Contaminant	L08010208-13	L08010208-11	L08010178-12	L08010208-03	L08010208-14	L08010178-04	L08010178-13	L08010178-05
	Date Collected	Levels	1/9/2008	1/9/2008	1/8/2008	1/9/2008	1/9/2008	1/8/2008	1/8/2008	1/8/2008
Primary VOCs	units									
Carbon tetrachloride	ug/L	5	0.44 J	**1.13**	<1	<1	<1	0.474 J	<1	<1
Chloroform	ug/L	80	**10.6**	**1.26**	0.221 J	<0.3	0.131 J	0.198 J	0.149 J –	0 14 J
cis-1,2-Dichloroethene	ug/L	70	0.382 J	<1	0.56 J	0.932 J	<1	<1	0.757 J	0 529 J
Tetrachloroethene	ug/L	5	**10.5**	**13**	**198**	**1.68**	<1	0.357 J	**23.3**	**19.8**
trans-1,2-Dichloroethene	ug/L	100	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	5	**24.3**	**109**	**8.45**	**13.2**	0.467 J	**11.7**	**5.55**	**8.46**
Vinyl chloride	ug/L	2	<1	<1	<1	<1	<1	<1	<1	<1
Additional VOCs										
1,1,2,2-Tetrachloroethane	ug/L	--	<0.5	<0.5	<0.5	0.395 J	<0.5	<0.5	<0.5	<0 5
1,2,3-Trichloropropane	ug/L	--	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0 5	<0.5	<0.5
Carbon disulfide	ug/L	–	<1	<1	<1	<1	<1	<1	<1	<1

Notes:
VOC samples analyzed using method 8260B
ug/L : micrograms per liter
<: Not detected at sample reporting limit
Results detected at or above reporting limits shown in bold
DQE FLAGS:
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TABLE 6
ANALYTICAL RESULTS SUMMARY, JANUARY 2008
ANNUAL LONG-TERM MONITORING REPORT – 2008
Main Installation - Defense Depot Memphis, Tennessee

	Well ID Lab Sample ID Date Collected	Maximum Contaminant Levels	MW-211 L08010208-15 1/9/2008	MW-212 L08010208-06 1/9/2008	MW-214A L08010208-16 1/9/2008	MW-214B L08010208-07 1/9/2008	MW-215A L08010208-17 1/9/2008	MW-215B L08010208-18 1/9/2008	MW-216 L08010178-06 1/8/2008	MW-217 L08010208-08 1/9/2008
Primary VOCs	**units**									
Carbon tetrachloride	ug/L	5	<1	0.635 J	0.575 J	0 959 J	0.552 J	0.856 J	<1	**57.3**
Chloroform	ug/L	80	0 214 J	<0.3	**2.02**	**1.44**	**1.68**	**0.61**	<0.3	**7.43**
cis-1,2-Dichloroethene	ug/L	70	<1	<1	<1	<1	<1	<1	<1	**2.43**
Tetrachloroethene	ug/L	5	0.502 J	<1	**7.29**	**5.44**	**7.01**	**4.71**	<1	**31.7**
trans-1,2-Dichloroethene	ug/L	100	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	5	0.602 J	**43.9**	**3.65**	**2.88**	**10.2**	**1.36**	<1	**35.9**
Vinyl chloride	ug/L	2	<1	<1	<1	<1	<1	<1	<1	<1
Additional VOCs										
1,1,2,2-Tetrachloroethane	ug/L	--	<0.5	<0.5	0.279 J	0.392 J	0.223 J	0.172 J	<0.5	**0.625**
1,2,3-Trichloropropane	ug/L	--	<1	<1	<1	<1	<1	<1	<1	**2.2**
1,2-Dichloroethane	ug/L	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.303 J
Carbon disulfide	ug/L	--	<1	<1	<1	<1	<1	<1	<1	<1

Notes:
VOC samples analyzed using method 8260B
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1016 43

TABLE 6
ANALYTICAL RESULTS SUMMARY, JANUARY 2008
ANNUAL LONG-TERM MONITORING REPORT – 2008
Main Installation - Defense Depot Memphis, Tennessee

	Well ID Lab Sample ID Date Collected	Maximum Contaminant Levels	MW-218 L08010208-09 1/9/2008	MW-219 L08010208-10 1/9/2008	MW-229 L08010208-19 1/9/2008
Primary VOCs	**units**				
Carbon tetrachloride	ug/L	5	**15**	<1	<1
Chloroform	ug/L	80	**2.58**	<0.3	<0.3
cis-1,2-Dichloroethene	ug/L	70	0.352 J	0 875 J	<1
Tetrachloroethene	ug/L	5	17.2	48	<1
trans-1,2-Dichloroethene	ug/L	100	<1	<1	<1
Trichloroethene	ug/L	5	**42.5**	**3.74**	<1
Vinyl chloride	ug/L	2	<1	<1	<1
Additional VOCs					
1,1,2,2-Tetrachloroethane	ug/L	--	**1.61**	<0.5	<0.5
1,2,3-Trichloropropane	ug/L	--	<1	<1	<1
1,2-Dichloroethane	ug/L	5	**0.565**	**1.06**	<0.5
Carbon disulfide	ug/L	--	<1	<1	<1

Notes:
VOC samples analyzed using method 8260B
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TABLE 7
ANALYTICAL RESULTS SUMMARY, APRIL 2008
ANNUAL LONG-TERM MONITORING REPORT – 2008
Main Installation - Defense Depot Memphis, Tennessee

	Well ID Lab Sample ID Date Collected	Maximum Contaminant Levels	DR1-1A L08040258-09 4/8/2008	DR1-4 L08040249-01 4/7/2008	DR1-5A L08040258-10 4/8/2008	DR1-5 L08040249-23 4/7/2008	DR1-6A L08040258-13 4/8/2008	DR1-6 L08040258-11 4/8/2008	DR2-2 L08040258-19 4/8/2008	DR2-3 L08040258-20 4/8/2008
Primary VOCs	**units**									
Carbon tetrachloride	ug/L	5	<1	<1	<1	<1	<1	<1	**13.4**	**4.72**
Chloroform	ug/L	80	0.274 J	<0.3	0.187 J	0 165 J	0.215 J	<0 3	**3.65**	**0.933**
cis-1,2-Dichloroethene	ug/L	70	0.273 J	0.582 J	**1.82**	<1	**2.99**	**1.09**	**7.04**	0.683 J
Tetrachloroethene	ug/L	5	0.776 J	**2.74**	**34.9**	**95.8**	**30.8**	**195**	**124**	**28.3**
trans-1,2-Dichloroethene	ug/L	100	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	5	**3.21**	0.573 J	**58.7**	<1	110	1 27	4.25	2.15
Vinyl chloride	ug/L	2	<1	<1	<1	<1	<1	<1	<1	<1
Additional VOCs										
1,1-Dichloroethene	ug/L	7	<1	<1	0.655 J	<1	0.781 J	<1	<1	<1
1,1,2,2-Tetrachloroethane	ug/L	–	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	ug/L	–	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	ug/L	--	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	5	<0.5	<0.5	<0 5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	ug/L	5	<1	<1	<1	<1	0.237 J	<1	<1	<1
1,3-Dichloropropane	ug/L	–	<0.4	<0 4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
MEK (2-Butanone)	ug/L	--	<10	<10	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	ug/L	–	<5	<5	**21.4**	<5	<5	<5	<5	<5

Notes:
VOC samples analyzed using method 8260B
ug/L : micrograms per liter
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1016 45

TABLE 7
ANALYTICAL RESULTS SUMMARY, APRIL 2008
ANNUAL LONG-TERM MONITORING REPORT – 2008
Main Installation - Defense Depot Memphis, Tennessee

	Well ID Lab Sample ID Date Collected	Maximum Contaminant Levels	DR2-6 L08040258-21 4/8/2008	MW-25A L08040258-01 4/8/2008	MW-26 L08040249-08 4/7/2008	MW-39A L08040249-18 4/7/2008	MW-39 L08040307-13 4/9/2008	MW-52 L08040258-02 4/8/2008	MW-62 L08040307-09 4/9/2008	MW-64 L08040249-09 4/7/2008
Primary VOCs	**units**									
Carbon tetrachloride	ug/L	5	**29.2**	**2.15**	**4.38**	<1	<1	<1	0.525 J	**3.68**
Chloroform	ug/L	80	**16.3**	**0.399**	**0.976**	0.257 J	0.161 J	**0.861**	**0.416**	**1.16**
cis-1,2-Dichloroethene	ug/L	70	**36**	<1	<1	0.499 J	0.525 J	0.805 J	<1	0.401 J
Tetrachloroethene	ug/L	5	**48.3**	**6.64**	**13.7**	**234**	**100**	**9.4**	0.413 J	**22.5**
trans-1,2-Dichloroethene	ug/L	100	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	5	7.55	0.352 J	**1.3**	**4.63**	**9.3**	**1.16**	**152**	**35.7**
Vinyl chloride	ug/L	2	<1	<1	<1	<1	<1	<1	<1	<1
Additional VOCs										
1,1-Dichloroethene	ug/L	7	<1	<1	<1	<1	<1	<1	0.72 J	0.934 J
1,1,2,2-Tetrachloroethane	ug/L	–	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**1.33**
1,1-Dichloroethane	ug/L	--	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	ug/L	--	**32.8**	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	5	**0.961**	<0.5	<0.5	<0 5	<0.5	<0.5	<0.5	**1.19**
1,2-Dichloropropane	ug/L	5	0 27 J	<1	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	ug/L	–	<0.4	<0.4	<0 4	<0.4	<0.4	<0.4	<0 4	<0.4
MEK (2-Butanone)	ug/L	–	<10	<10	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	ug/L	--	<5	<5	<5	<5	<5	<5	<5	<5

Notes:
VOC samples analyzed using method 8260B
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1016 46

TABLE 7
ANALYTICAL RESULTS SUMMARY, APRIL 2008
ANNUAL LONG-TERM MONITORING REPORT – 2008
Main Installation - Defense Depot Memphis, Tennessee

	Well ID Lab Sample ID Date Collected	Maximum Contaminant Levels	MW-86 L08040249-10 4/7/2008	MW-88 L08040249-11 4/7/2008	MW-90 L08040249-19 4/7/2008	MW-92 L08040258-05 4/8/2008	MW-94A L08040258-14 4/8/2008	MW-96 L08040249-12 4/7/2008	MW-97 L08040258-15 4/8/2008	MW-98 L08040249-20 4/7/2008
Primary VOCs	units									
Carbon tetrachloride	ug/L	5	0.436 J	**2.66**	<1	**6.3**	<1	**1**	<1	<1
Chloroform	ug/L	80	**0.477**	**0.406**	**4.66**	**8.91**	0.138 J	**0.337**	0.164 J	<0.3
cis-1,2-Dichloroethene	ug/L	70	**115**	0 325 J	0 484 J	**66.2**	0.42 J	<1	<1	<1
Tetrachloroethene	ug/L	5	**7.7**	**16.6**	**77.7**	**65.9**	**27.3**	**2.38**	<1	**34.8**
trans-1,2-Dichloroethene	ug/L	100	<1	<1	<1	0.727 J	<1	<1	<1	<1
Trichloroethene	ug/L	5	**1.72**	**3.11**	**5.9**	**4.22**	**9.49**	<1	**21.8**	**1.93**
Vinyl chloride	ug/L	2	0 491 J	<1	<1	<1	<1	<1	<1	<1
Additional VOCs										
1,1-Dichloroethene	ug/L	7	<1	<1	**1.3**	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	ug/L	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0 5	<0.5
1,1-Dichloroethane	ug/L	--	<1	<1	**1.12**	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	ug/L	--	**1.96**	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	5	**0.955**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	ug/L	5	**1.36**	<1	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	ug/L	--	**0.955**	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
MEK (2-Butanone)	ug/L	--	<10	<10	<10	<10	<10	<10	<10	**21.6**
Methyl t-butyl ether (MTBE)	ug/L	--	<5	<5	<5	<5	<5	<5	<5	<5

Notes:
VOC samples analyzed using method 8260B
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1016147

TABLE 7
ANALYTICAL RESULTS SUMMARY, APRIL 2008
ANNUAL LONG-TERM MONITORING REPORT – 2008
Main Installation - Defense Depot Memphis, Tennessee

	Well ID Lab Sample ID Date Collected	Maximum Contaminant Levels	MW-100B L08040249-13 4/7/2008	MW-104 L08040258-16 4/8/2008	MW-107B L08040307-02 4/9/2008	MW-107T L08040307-01 4/9/2008	MW-108 L08040249-21 4/7/2008	MW-113 L08040249-14 4/7/2008	MW-125 L08040249-15 4/7/2008	MW-141 L08040258-06 4/8/2008
Primary VOCs	**units**									
Carbon tetrachloride	ug/L	5	<1	<1	0.574 J	0.616 J	0.477 J	**75.1**	<1	0.418 J
Chloroform	ug/L	80	<0.3	**13.6**	0.262 J	**0.324**	**11.7**	**30.9**	<0.3	**2.31**
cis-1,2-Dichloroethene	ug/L	70	**89.3**	0.63 J	0.265 J	0.283 J	0 647 J	**37.8**	**16.3**	<1
Tetrachloroethene	ug/L	5	**64.2**	<1	0.291 J	0.411 J	**3.93**	**170**	**39.3**	**16.9**
trans-1,2-Dichloroethene	ug/L	100	0.92 J	<1	<1	<1	<1	0.354 J	<1	<1
Trichloroethene	ug/L	5	**31.4**	**18.2**	**1.56**	**1.67**	**32.7**	**20.2**	**11.8**	**2.47**
Vinyl chloride	ug/L	2	0.836 J	<1	<1	<1	<1	<1	<1	<1
Additional VOCs										
1,1-Dichloroethene	ug/L	7	0.746 J	**2.57**	<1	<1	**1.1**	<1	<1	<1
1,1,2,2-Tetrachloroethane	ug/L	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	ug/L	--	<1	**1.09**	<1	<1	0.252 J	<1	<1	<1
1,2,3-Trichloropropane	ug/L	--	<1	<1	<1	<1	<1	**11.8**	<1	<1
1,2-Dichloroethane	ug/L	5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.589**	0.306 J	<0.5
1,2-Dichloropropane	ug/L	5	<1	<1	<1	<1	<1	0 398 J	<1	<1
1,3-Dichloropropane	ug/L	--	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
MEK (2-Butanone)	ug/L	--	<10	<10	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	ug/L	--	**46.9**	<5	<5	<5	<5	<5	**23.2**	<5

Notes:
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TABLE 7
ANALYTICAL RESULTS SUMMARY, APRIL 2008
ANNUAL LONG-TERM MONITORING REPORT – 2008
Main Installation - Defense Depot Memphis, Tennessee

	Well ID Lab Sample ID Date Collected	Maximum Contaminant Levels	MW-197A L08040258-22 4/8/2008	MW-197B L08040258-23 4/8/2008	MW-198 L08040307-10 4/9/2008	MW-199B L08040258-17 4/8/2008	MW-200 L08040258-18 4/8/2008	MW-202A L08040249-22 4/7/2008	MW-202B L08040307-14 4/9/2008	MW-203A L08040258-24 4/8/2008
Primary VOCs	**units**									
Carbon tetrachloride	ug/L	5	<1	<1	0.326 J	0.6 J	<1	0.695 J	0.263 J	<1
Chloroform	ug/L	80	0.185 J	<0.3	<0.3	0.177 J	0.206 J	0.225 J	**1.46**	0.206 J
cis-1,2-Dichloroethene	ug/L	70	**1.48**	**47.6**	<1	<1	0.345 J	<1	<1	**1.14**
Tetrachloroethene	ug/L	5	**82.8**	**38.6**	<1	**23.4**	**132**	0.443 J	**16.3**	**144**
trans-1,2-Dichloroethene	ug/L	100	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	5	**2.42**	**9.01**	**8.36**	**56.5**	**4.13**	**1.77**	**2.21**	**2.03**
Vinyl chloride	ug/L	2	<1	<1	<1	<1	<1	<1	<1	<1
Additional VOCs										
1,1-Dichloroethene	ug/L	7	<1	<1	0 679 J	0 773 J	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	ug/L	–	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	ug/L	–	<1	<1	<1	<1	<1	<1	0.27 J	<1
1,2,3-Trichloropropane	ug/L	–	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	ug/L	5	<1	<1	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	ug/L	–	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0 4	<0.4
MEK (2-Butanone)	ug/L	–	<10	<10	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	ug/L	–	<5	<5	<5	<5	<5	<5	<5	<5

Notes:
VOC samples analyzed using method 8260B
ug/L : micrograms per liter
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1016 49

TABLE 7
ANALYTICAL RESULTS SUMMARY, APRIL 2008
ANNUAL LONG-TERM MONITORING REPORT – 2008
Main Installation - Defense Depot Memphis, Tennessee

	Well ID Lab Sample ID Date Collected	Maximum Contaminant Levels	MW-203B L08040258-25 4/8/2008	MW-204A L08040249-24 4/7/2008	MW-204B L08040307-15 4/9/2008	MW-205A L08040249-27 4/7/2008	MW-205B L08040307-16 4/9/2008	MW-206A L08040307-03 4/9/2008	MW-206B L08040307-17 4/9/2008	MW-207A L08040307-04 4/9/2008
Primary VOCs	**units**									
Carbon tetrachloride	ug/L	5	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	ug/L	80	<0.3	<0.3	0.13 J	0.212 J	<0.3	0.173 J	0.136 J	**9.12**
cis-1,2-Dichloroethene	ug/L	70	**59.7**	**1.05**	**1.39**	**1.14**	**22.4**	0 78 J	**2.51**	0.475 J
Tetrachloroethene	ug/L	5	**10.8**	44.6 J	**20.2**	**141**	**31.2**	**96.5**	**69.1**	**12.1**
trans-1,2-Dichloroethene	ug/L	100	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	5	**6.25**	**1.04**	**4.27**	**6.02**	**5.15**	**13.9**	**11.5**	**24.2**
Vinyl chloride	ug/L	2	<1	<1	<1	<1	<1	<1	<1	<1
Additional VOCs										
1,1-Dichloroethene	ug/L	7	<1	<1	<1	<1	<1	<1	<1	0.867 J
1,1,2,2-Tetrachloroethane	ug/L	–	<0.5	<0.5	**1.27**	<0.5	<0.5	<0 5	<0.5	<0.5
1,1-Dichloroethane	ug/L	--	<1	<1	<1	<1	<1	<1	<1	0.23 J
1,2,3-Trichloropropane	ug/L	--	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	ug/L	5	<1	<1	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	ug/L	--	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
MEK (2-Butanone)	ug/L	--	<10	<10	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	ug/L	--	<5	<5	<5	<5	<5	<5	<5	<5

Notes:
VOC samples analyzed using method 8260B
ug/L : micrograms per liter
<: Not detected at sample reporting limit
Results detected at or above reporting limits shown in bold
DQE FLAGS:
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TABLE 7
ANALYTICAL RESULTS SUMMARY, APRIL 2008
ANNUAL LONG-TERM MONITORING REPORT – 2008
Main Installation - Defense Depot Memphis, Tennessee

	Well ID Lab Sample ID Date Collected	Maximum Contaminant Levels	MW-207B L08040307-18 4/9/2008	MW-208A L08040258-26 4/8/2008	MW-208B L08040258-27 4/8/2008	MW-209A L08040307-05 4/9/2008	MW-209B L08040307-11 4/9/2008	MW-210A L08040258-28 4/8/2008	MW-210B L08040258-29 4/8/2008	MW-212 L08040258-12 4/8/2008
Primary VOCs	units									
Carbon tetrachloride	ug/L	5	**1.22**	<1	<1	<1	0.681 J	<1	<1	0 519 J
Chloroform	ug/L	80	**1.27**	0.217 J	<0.3	0.159 J	0.22 J	0.183 J	0.155 J	<0.3
cis-1,2-Dichloroethene	ug/L	70	<1	0.538 J	**1.51**	<1	<1	0.887 J	0 613 J	<1
Tetrachloroethene	ug/L	5	**13.1**	**189**	**2.22**	<1	<1	**28.2**	**20**	0.477 J
trans-1,2-Dichloroethene	ug/L	100	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	5	**96.2**	**7.64**	**17.1**	0 523 J	**13**	**6.2**	**7.84**	**45.1**
Vinyl chloride	ug/L	2	<1	<1	<1	<1	<1	<1	<1	<1
Additional VOCs										
1,1-Dichloroethene	ug/L	7	0.935 J	<1	<1	<1	<1	<1	<1	0.761 J
1,1,2,2-Tetrachloroethane	ug/L	–	<0.5	<0 5	0.613	<0 5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	ug/L	--	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	ug/L	--	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	ug/L	5	<1	<1	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	ug/L	–	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
MEK (2-Butanone)	ug/L	–	<10	<10	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	ug/L	--	<5	<5	<5	1.64 J	<5	<5	<5	<5

Notes:
VOC samples analyzed using method 8260B
ug/L : micrograms per liter
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1016 51

TABLE 7
ANALYTICAL RESULTS SUMMARY, APRIL 2008
ANNUAL LONG-TERM MONITORING REPORT – 2008
Main Installation - Defense Depot Memphis, Tennessee

	Well ID Lab Sample ID Date Collected	Maximum Contaminant Levels	MW-214A L08040249-02 4/7/2008	MW-214B L08040249-03 4/7/2008	MW-215A L08040307-06 4/9/2008	MW-215B L08040307-12 4/9/2008	MW-217 L08040249-04 4/7/2008	MW-218 L08040249-05 4/7/2008	MW-219 L08040249-06 4/7/2008
Primary VOCs	units								
Carbon tetrachloride	ug/L	5	0.709 J	0.843 J	0.651 J	0.988 J	**72.1**	**17.7**	<1
Chloroform	ug/L	80	**2.06**	**1.22**	**1.66**	**0.663**	**8.56**	**2.62**	<0.3
cis-1,2-Dichloroethene	ug/L	70	<1	<1	<1	<1	**2.88**	0.392 J	0.928 J
Tetrachloroethene	ug/L	5	**6.22**	**4.55**	**6.27**	**4.7**	**34.7**	**17.4**	**41.4**
trans-1,2-Dichloroethene	ug/L	100	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	5	**3.02**	**2.36**	**8.96**	**1.46**	**34.4**	**40.7**	**3.26**
Vinyl chloride	ug/L	2	<1	<1	<1	<1	<1	<1	<1
Additional VOCs									
1,1-Dichloroethene	ug/L	7	<1	<1	<1	<1	0.736 J	0.886 J	<1
1,1,2,2-Tetrachloroethane	ug/L	–	0.35 J	0.344 J	0.201 J	0.197 J	**0.52**	**1.35**	<0 5
1,1-Dichloroethane	ug/L	--	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	ug/L	--	<1	<1	<1	<1	**2.36**	<1	<1
1,2-Dichloroethane	ug/L	5	<0.5	<0.5	<0.5	<0.5	0.304 J	**0.501**	**1.14**
1,2-Dichloropropane	ug/L	5	<1	<1	<1	<1	<1	0.341 J	<1
1,3-Dichloropropane	ug/L	–	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
MEK (2-Butanone)	ug/L	–	<10	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	ug/L	--	1.22 J	0.761 J	1.52 J	<5	<5	<5	<5

Notes:
VOC samples analyzed using method 8260B
ug/L : micrograms per liter
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TABLE 8
ANALYTICAL RESULTS SUMMARY, OCTOBER 2008
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

	Well ID Lab Sample ID Date Collected	Maximum Contaminant Levels	DR1-1A L08100313-21 10/8/2008	DR1-1 L08100313-20 10/8/2008	DR1-2 L08100241-03 10/7/2008	DR1-4 L08100241-04 10/7/2008	DR1-5A L08100361-22 10/9/2008	DR1-5 L08100361-21 10/9/2008	DR1-6A L08100241-06 10/7/2008	DR1-6 L08100241-05 10/7/2008
Primary VOCs	units									
Carbon tetrachloride	ug/L	5	<1	<1	<1 J	<1	<1	<1	<1	<1
Chloroform	ug/L	80	**0.372 J**	0.126 J	0.131 J	<0.3	**0.343 J**	0.181 J	0.238 J	<0.3
cis-1,2-Dichloroethene	ug/L	70	0.262 J	<1	0.595 J	0.987 J	**4.75 J**	0.295 J	**3.81**	**1.38**
Tetrachloroethene	ug/L	5	0.747 J	**2.69**	**1.5 J**	**1.22**	**59.7 J**	**69.2 J**	**39.6**	**122**
trans-1,2-Dichloroethene	ug/L	100	<1	<1	<1 J	<1	<1	<1	<1	<1
Trichloroethene	ug/L	5	**3.03 J**	0.399 J	**1.83 J**	**1.69**	**114 J**	**4.28 J**	**142**	**4.61**
Vinyl chloride	ug/L	2	<1	<1	<1 J	<1	<1	<1	<1	<1
Additional VOCs										
1,1,2,2-Tetrachloroethane	ug/L	--	<0.5	<0.5	<0.5 J	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	ug/L	--	<1	<1	<1 J	<1	0.2 J	<1	0.197 J	<1
1,2,3-Trichloropropane	ug/L	--	<1	<1	<1 J	<1	<1	<1	<1	<1
1,1-Dichloroethene	ug/L	7	<1	<1	<1 J	<1	**1.09 J**	<1	1.08	<1
1,2-Dichloroethane	ug/L	5	<0 5	<0.5	<0.5 J	<0.5	<0.5	0.308 J	<0.5	<0.5
1,2-Dichloropropane	ug/L	5	<1	<1	<1 J	<1	0.545 J	<1	0.393 J	<1
1,3-Dichloropropane	ug/L	--	<0.4	<0.4	<0.4 J	<0.4	<0.4	<0.4	<0.4	<0.4
2-Hexanone	ug/L	--	<10	<10	<10 J	<10	<10	<10	<10	<10
Acetone	ug/L	--	<10	<10	<10 J	<10	<10	<10	<10	2.85 B
Bromomethane	ug/L	--	<1	<1	<1 J	<1	**2.94 B**	**3.05 B**	<1	<1
Carbon disulfide	ug/L	--	<1	<1	<1 J	**1.83**	<1	<1	<1	<1
Chloromethane	ug/L	--	<1	<1	<1 J	<1	<1	0.318 J	<1	<1
MEK (2-Butanone)	ug/L	--	<10	<10	<10 J	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	ug/L	--	<5	<5	<5 J	<5	**14.7 J**	**1.2 J**	<5	<5
Toluene	ug/L	1000	<1	<1	<1 J	<1	<1	<1	<1	<1
Trichlorofluoromethane	ug/L	--	<1	<1	<1 J	<1	<1	<1	<1	<1

Notes:
VOC samples analyzed using method 8260B
ug/L : micrograms per liter
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DQE FLAGS:
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TABLE 8
ANALYTICAL RESULTS SUMMARY, OCTOBER 2008
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

	Well ID Lab Sample ID Date Collected	Maximum Contaminant Levels	DR1-7 L08100241-07 10/7/2008	DR1-8 L08100241-08 10/7/2008	DR2-2 L08100361-17 10/9/2008	DR2-3 L08100368-17 10/10/2008	DR2-4 L08100313-13 10/8/2008	DR2-6 L08100313-14 10/8/2008	IW-6 L08100241-01 10/7/2008	MW-16 L08100368-07 10/10/2008
Primary VOCs	**units**									
Carbon tetrachloride	ug/L	5	<1	<1	**13.8**	**4.97 J**	**3.55**	**39.6**	<100 J	<1
Chloroform	ug/L	80	0.163 J	<0.3	**3.87**	**0.978 J**	**0.715**	**18.4**	<30 J	<0.3
cis-1,2-Dichloroethene	ug/L	70	0.787 J	<1	**6.86**	0.594 J	0.304 J	**33**	<100 J	<1
Tetrachloroethene	ug/L	5	**4.35**	<1	**120**	**22.1 J**	**14.5**	**70.5**	<100 J	<1
trans-1,2-Dichloroethene	ug/L	100	<1	<1	<1	<1	<1	0.552 J	<100 J	<1
Trichloroethene	ug/L	5	**1.6**	**1.03**	**3.96**	**2.03 J**	**1.74**	**12.4**	**283 J**	<1
Vinyl chloride	ug/L	2	<1	<1	<1	<1	<1	<1	<100 J	<1
Additional VOCs										
1,1,2,2-Tetrachloroethane	ug/L	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<50 J	<0.5
1,1-Dichloroethane	ug/L	--	<1	<1	<1	<1	<1	<1	<100 J	<1
1,2,3-Trichloropropane	ug/L	--	<1	<1	<1	<1	<1	**20.3**	<100 J	<1
1,1-Dichloroethene	ug/L	7	<1	<1	<1	<1	<1	0.862 J	<100 J	<1
1,2-Dichloroethane	ug/L	5	<0.5	<0 5	<0.5	<0.5	<0.5	**0.694**	<50 J	<0.5
1,2-Dichloropropane	ug/L	5	<1	<1	<1	<1	<1	0.309 J	<100 J	<1
1,3-Dichloropropane	ug/L	--	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<40 J	<0.4
2-Hexanone	ug/L	--	<10	<10	<10	<10	<10	<10	**284 J**	<10
Acetone	ug/L	--	<10	<10	<10	<10	<10	<10	**293 B**	<10
Bromomethane	ug/L	--	<1	<1	**2.84 B**	**2.8 B**	**2.69 B**	**2.68 B**	**271 B**	**3.09 B**
Carbon disulfide	ug/L	--	<1	<1	<1	<1	<1	<1	<100 J	<1
Chloromethane	ug/L	--	<1	<1	0.27 J	<1	<1	<1	**28.3 J**	<1
MEK (2-Butanone)	ug/L	--	<10	<10	<10	<10	<10	<10	**2630 J**	<10
Methyl t-butyl ether (MTBE)	ug/L	--	<5	<5	<5	<5	<5	<5	<500 J	<5
Toluene	ug/L	1000	<1	<1	<1	<1	<1	<1	<100 J	<1
Trichlorofluoromethane	ug/L	--	<1	<1	**1.17**	<1	<1	<1	<100 J	<1

Notes:
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1016 54

TABLE 8
ANALYTICAL RESULTS SUMMARY, OCTOBER 2008
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

	Well ID Lab Sample ID Date Collected	Maximum Contaminant Levels	MW-19 L08100361-15 10/9/2008	MW-22 L08100361-16 10/9/2008	MW-23 L08100442-01 10/14/2008	MW-24 L08100442-04 10/14/2008	MW-25A L08100368-08 10/10/2008	MW-26 L08100313-12 10/8/2008	MW-34 L08100421-10 10/13/2008	MW-38 L08100313-01 10/8/2008
Primary VOCs	units									
Carbon tetrachloride	ug/L	5	<1	<1	<1	<1	**1.67**	**5.31**	0.826 J	<1
Chloroform	ug/L	80	<0.3	<0.3	<0.3	0.181 J	**0.377**	**1.14**	**0.345 J**	<0.3
cis-1,2-Dichloroethene	ug/L	70	<1	<1	<1	<1	<1	0.295 J	<1 J	<1
Tetrachloroethene	ug/L	5	<1	<1	<1	<1	**4.91**	**21.1**	0.451 J	<1
trans-1,2-Dichloroethene	ug/L	100	<1	<1	<1	<1	<1	<1	<1 J	<1
Trichloroethene	ug/L	5	<1	0.329 J	<1	<1	0.45 J	**1.54**	0.885 J	<1
Vinyl chloride	ug/L	2	<1	<1	<1	<1	<1	<1	<1 J	<1
Additional VOCs										
1,1,2,2-Tetrachloroethane	ug/L	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 J	<0.5
1,1-Dichloroethane	ug/L	--	<1	<1	<1	<1	<1	<1	<1 J	<1
1,2,3-Trichloropropane	ug/L	--	<1	<1	<1	<1	<1	<1	<1 J	<1
1,1-Dichloroethene	ug/L	7	<1	<1	<1	<1	<1	<1	<1 J	<1
1,2-Dichloroethane	ug/L	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 J	<0.5
1,2-Dichloropropane	ug/L	5	<1	<1	<1	<1	<1	<1	<1 J	<1
1,3-Dichloropropane	ug/L	--	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4 J	<0.4
2-Hexanone	ug/L	--	<10	<10	<10	<10	<10	<10	<10 J	<10
Acetone	ug/L	--	<10	<10	<10	<10	<10	<10	<10 J	<10
Bromomethane	ug/L	--	**2.8 B**	**2.83 B**	**2.96 B**	**2.86 B**	**2.98 B**	**2.72 B**	<1 J	<1
Carbon disulfide	ug/L	--	<1	<1	<1	<1	<1	<1	<1 J	<1
Chloromethane	ug/L	--	0.307 J	<1	0.255 B	<1	<1	<1	<1 J	<1
MEK (2-Butanone)	ug/L	--	<10	<10	<10	<10	<10	<10	<10 J	<10
Methyl t-butyl ether (MTBE)	ug/L	--	<5	<5	<5	<5	0.547 J	<5	<5 J	<5
Toluene	ug/L	1000	<1	<1	<1	<1	<1	<1	<1 J	<1
Trichlorofluoromethane	ug/L	--	<1	<1	<1	<1	**1.27**	<1	<1 J	<1

Notes:
VOC samples analyzed using method 8260B
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1016155

TABLE 8
ANALYTICAL RESULTS SUMMARY, OCTOBER 2008
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

	Well ID Lab Sample ID Date Collected	Maximum Contaminant Levels	MW-39A L08100361-05 10/9/2008	MW-39 L08100361-03 10/9/2008	MW-50 L08100421-15 10/13/2008	MW-52 L08100368-11 10/10/2008	MW-53 L08100421-16 10/13/2008	MW-55 L08100421-03 10/13/2008	MW-62 L08100442-07 10/14/2008	MW-63A L08100313-03 10/8/2008
Primary VOCs	**units**									
Carbon tetrachloride	ug/L	5	<1	<1	<1	<1	<1	<1 J	0.634 J	<1
Chloroform	ug/L	80	0.16 J	0.237 J	**0.469**	**1.12 J**	<0.3	<0.3 J	**0.394 J**	**0.471 J**
cis-1,2-Dichloroethene	ug/L	70	**12.2**	**1.26 J**	0.321 J	0.866 J	<1	<1 J	<1	<1
Tetrachloroethene	ug/L	5	**95.7**	**158 J**	0.335 J	**6.86 J**	**2.25**	<1 J	0.39 J	<1
trans-1,2-Dichloroethene	ug/L	100	<1	<1	<1	<1	<1	<1 J	<1	<1
Trichloroethene	ug/L	5	**11.8**	**6.15 J**	**1.12**	**1.17 J**	<1	<1 J	**157 J**	**1.66 J**
Vinyl chloride	ug/L	2	<1	<1	<1	<1	<1	<1 J	<1	<1
Additional VOCs										
1,1,2,2-Tetrachloroethane	ug/L	--	<0.5	<0.5	<0.5	<0 5	<0.5	<0.5 J	<0.5	<0.5 J
1,1-Dichloroethane	ug/L	--	<1	<1	<1	<1	<1	<1 J	<1	0.285 J
1,2,3-Trichloropropane	ug/L	--	<1	<1	<1	<1	<1	<1 J	<1	<1 J
1,1-Dichloroethene	ug/L	7	0.866 J	<1	<1	<1	<1	<1 J	**1.02 J**	<1
1,2-Dichloroethane	ug/L	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 J	<0 5	<0.5
1,2-Dichloropropane	ug/L	5	<1	<1	<1	<1	<1	<1 J	<1	<1
1,3-Dichloropropane	ug/L	--	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4 J	<0.4	<0.4
2-Hexanone	ug/L	--	<10	<10	<10	<10	<10	<10 J	<10	<10
Acetone	ug/L	--	<10	<10	<10	<10	<10	<10 J	<10	<10
Bromomethane	ug/L	--	**2.8 B**	**2.81 B**	**2.72 B**	**2.91 B**	<1	**2.85 B**	**2.92 B**	<1
Carbon disulfide	ug/L	--	<1	<1	<1	<1	<1	<1 J	<1	<1
Chloromethane	ug/L	--	<1	<1	0.322 J	<1	<1	<1 J	0.279 B	<1
MEK (2-Butanone)	ug/L	--	<10	<10	<10	<10	<10	<10 J	<10	<10
Methyl t-butyl ether (MTBE)	ug/L	--	<5	<5	2.61 J	<5	1.73 J	<5 J	<5	<5
Toluene	ug/L	1000	<1	<1	<1	<1	<1	<1 J	<1	<1
Trichlorofluoromethane	ug/L	--	<1	<1	**1.19**	<1	<1	<1 J	<1	<1

Notes:
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ANALYTICAL RESULTS SUMMARY, OCTOBER 2008
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

	Well ID Lab Sample ID Date Collected	Maximum Contaminant Levels	MW-63B L08100241-13 10/7/2008	MW-64 L08100313-16 10/8/2008	MW-66A L08100368-12 10/10/2008	MW-86 L08100313-17 10/8/2008	MW-88 L08100198-14 10/6/2008	MW-89 L08100198-15 10/6/2008	MW-90 L08100198-16 10/6/2008	MW-92 L08100361-19 10/9/2008
Primary VOCs	units									
Carbon tetrachloride	ug/L	5	<1	**3.3**	<1	<1	**3.69**	0.252 J	0.288 J	<1
Chloroform	ug/L	80	**2.9**	**0.989**	<0.3	**0.705**	**0.878**	0.156 J	**4.65**	<0.3
cis-1,2-Dichloroethene	ug/L	70	0.401 J	0.439 J	<1	**110**	**1.21**	<1	0.335 J	**119**
Tetrachloroethene	ug/L	5	**4.6**	**22.3**	**1.78**	**12.2**	**32.8**	<1	**79.3**	0.499 J
trans-1,2-Dichloroethene	ug/L	100	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	5	**4.56**	**36.4**	<1	**2.87**	**3.65**	**1.1**	**6.08**	<1
Vinyl chloride	ug/L	2	<1	<1	<1	**1.07**	<1	<1	<1	<1
Additional VOCs										
1,1,2,2-Tetrachloroethane	ug/L	--	<0.5	**1.22**	<0.5	<0.5	<0.5	<0.5	<0.5	<0 5
1,1-Dichloroethane	ug/L	--	**1.13**	<1	<1	<1	<1	<1	0.979 J	<1
1,2,3-Trichloropropane	ug/L	--	<1	<1	<1	**1.43**	<1	<1	<1	<1
1,1-Dichloroethene	ug/L	7	**1.45**	**1.22**	<1	0.867 J	<1	<1	0.605 J	0.984 J
1,2-Dichloroethane	ug/L	5	<0.5	**1.93**	**1.22**	**0.89**	<0 5	<0.5	<0.5	<0.5
1,2-Dichloropropane	ug/L	5	<1	<1	<1	**1.16**	<1	<1	<1	<1
1,3-Dichloropropane	ug/L	--	<0.4	<0.4	<0.4	**0.663**	<0.4	<0.4	<0.4	<0.4
2-Hexanone	ug/L	--	<10	<10	<10	<10	<10	<10	<10	<10
Acetone	ug/L	--	<10	<10	<10	<10	<10	<10	<10	**37.2**
Bromomethane	ug/L	--	**3.15 B**	**2.75 B**	**2.8 B**	<1	<1	<1	<1	**3.66 B**
Carbon disulfide	ug/L	--	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane	ug/L	--	<1	<1	<1	<1	<1	<1	<1	0.456 J
MEK (2-Butanone)	ug/L	--	<10	<10	<10	<10	<10	<10	<10	**48**
Methyl t-butyl ether (MTBE)	ug/L	--	<5	<5	<5	<5	<5	<5	<5	<5
Toluene	ug/L	1000	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	ug/L	--	<1	**1.16**	<1	<1	<1	<1	<1	<1

Notes:
VOC samples analyzed using method 8260B
ug/L : micrograms per liter
<: Not detected at sample reporting limit
Results detected at or above reporting limits shown in bold
DQE FLAGS:
J: Estimated, based on QC data or reported below RL
B: Estimated, possibly biased high or false positive based on blank data

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TABLE 8
ANALYTICAL RESULTS SUMMARY, OCTOBER 2008
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

	Well ID Lab Sample ID Date Collected	Maximum Contaminant Levels	MW-93 L08100421-17 10/13/2008	MW-94A L08100421-18 10/13/2008	MW-96 L08100368-13 10/10/2008	MW-97 L08100421-19 10/13/2008	MW-98 L08100368-01 10/10/2008	MW-99 L08100361-20 10/9/2008	MW-100B L08100313-18 10/8/2008	MW-102B L08100421-04 10/13/2008
Primary VOCs	units									
Carbon tetrachloride	ug/L	5	<1 J	<1	**1.03 J**	<1	<1	<1	<1	<1 J
Chloroform	ug/L	80	<0.3 J	0.147 J	**0.663 J**	0.267 J	<0.3	0.265 J	<0.3	<0.3 J
cis-1,2-Dichloroethene	ug/L	70	<1 J	**1.93**	<1	<1	**8.6 J**	<1	**158**	<1 J
Tetrachloroethene	ug/L	5	<1 J	**32.8**	**1.46 J**	<1	**25.5 J**	<1	0.706 J	<1 J
trans-1,2-Dichloroethene	ug/L	100	<1 J	<1	<1	<1	<1	<1	0.783 J	<1 J
Trichloroethene	ug/L	5	<1 J	**6.89**	<1	**29.6**	**2.34 J**	<1	0.309 J	<1 J
Vinyl chloride	ug/L	2	<1 J	<1	<1	<1	<1	<1	**1.75**	<1 J
Additional VOCs										
1,1,2,2-Tetrachloroethane	ug/L	--	<0.5 J	0.195 J	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 J
1,1-Dichloroethane	ug/L	--	<1 J	<1	<1	<1	<1	<1	<1	<1 J
1,2,3-Trichloropropane	ug/L	--	<1 J	<1	<1	<1	<1	<1	<1	<1 J
1,1-Dichloroethene	ug/L	7	<1 J	<1	<1	<1	<1	<1	0.973 J	<1 J
1,2-Dichloroethane	ug/L	5	<0.5 J	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 J
1,2-Dichloropropane	ug/L	5	<1 J	<1	<1	<1	<1	<1	<1	<1 J
1,3-Dichloropropane	ug/L	--	<0.4 J	<0.4	<0.4	<0.4	<0 4	<0.4	<0.4	<0.4 J
2-Hexanone	ug/L	--	<10 J	<10	<10	<10	<10	<10	<10	<10 J
Acetone	ug/L	--	<10 J	<10	<10	<10	2.57 B	<10	7.68 J	<10 J
Bromomethane	ug/L	--	<1 J	<1	**2.99 B**	<1	**2.87 B**	**3.2 B**	<1	**2.89 B**
Carbon disulfide	ug/L	--	<1 J	<1	<1	<1	0.698 J	<1	<1	<1 J
Chloromethane	ug/L	--	<1 J	<1	<1	<1	<1	0.25 J	<1	0.283 J
MEK (2-Butanone)	ug/L	--	<10 J	<10	<10	<10	<10	<10	6.55 J	<10 J
Methyl t-butyl ether (MTBE)	ug/L	--	<5 J	<5	<5	<5	<5	<5	**61**	<5 J
Toluene	ug/L	1000	<1 J	<1	<1	<1	<1	<1	**1.1**	<1 J
Trichlorofluoromethane	ug/L	--	<1 J	<1	**1.26 J**	<1	<1	<1	<1	<1 J

Notes:
VOC samples analyzed using method 8260B
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TABLE 8
ANALYTICAL RESULTS SUMMARY, OCTOBER 2008
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

	Well ID Lab Sample ID Date Collected	Maximum Contaminant Levels	MW-103 L08100198-17 10/6/2008	MW-104 L08100198-18 10/6/2008	MW-107B L08100368-03 10/10/2008	MW-107T L08100368-02 10/10/2008	MW-108 L08100368-04 10/10/2008	MW-113 L08100313-19 10/8/2008	MW-125 L08100241-02 10/7/2008	MW-140 L08100361-06 10/9/2008
Primary VOCs	units									
Carbon tetrachloride	ug/L	5	<1	<1	<1	<1	0.272 J	**110**	<1	<1
Chloroform	ug/L	80	**11.1**	**11.2**	**0.32 J**	0.287 J	**12.3 J**	**45.3**	<0.3	0.259 J
cis-1,2-Dichloroethene	ug/L	70	<1	0.305 J	0.449 J	0.385 J	0.598 J	**59.6**	**54.4**	<1
Tetrachloroethene	ug/L	5	<1	<1	0.965 J	**1.93**	**3.72 J**	**156 J**	**11**	0.933 J
trans-1,2-Dichloroethene	ug/L	100	<1	<1	<1	<1	<1	<1	0.274 J	<1
Trichloroethene	ug/L	5	**5.27**	**12.6**	**1.8 J**	**2.11**	**28.5 J**	**28.9**	**5.58**	**1.41**
Vinyl chloride	ug/L	2	<1	<1	<1	<1	<1	<1	0.289	<1
Additional VOCs										
1,1,2,2-Tetrachloroethane	ug/L	–	<0.5 J	<0.5 J	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	ug/L	–	**2.2**	0.872 J	<1	<1	0.239 J	<1	<1	<1
1,2,3-Trichloropropane	ug/L	--	<1 J	<1 J	<1	<1	<1	**13.2**	<1	<1
1,1-Dichloroethene	ug/L	7	**1.18**	**1.24**	<1	<1	**1.13 J**	0.892 J	0.872 J	<1
1,2-Dichloroethane	ug/L	5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.792**	0.278 J	<0.5
1,2-Dichloropropane	ug/L	5	<1	<1	<1	<1	<1	0.696 J	<1	<1
1,3-Dichloropropane	ug/L	–	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
2-Hexanone	ug/L	–	<10	<10	<10	<10	<10	<10	<10	<10
Acetone	ug/L	--	<10	<10	3.18 B	<10	3.5 B	<10	<10	<10
Bromomethane	ug/L	--	<1	<1	**2.77 B**	**2.79 B**	**2.81 B**	<1	**2.69 B**	**2.71 B**
Carbon disulfide	ug/L	–	<1	<1	<1	<1	<1	0.587 J	**2.47**	<1
Chloromethane	ug/L	--	<1	<1	<1	<1	<1	<1	<1	<1
MEK (2-Butanone)	ug/L	--	<10	<10	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	ug/L	–	<5	<5	<5	<5	<5	<5	**25.3**	<5
Toluene	ug/L	1000	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	ug/L	--	<1	<1	<1	<1	<1	<1	<1	<1

Notes:
VOC samples analyzed using method 8260B
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TABLE 8
ANALYTICAL RESULTS SUMMARY, OCTOBER 2008
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

	Well ID Lab Sample ID Date Collected	Maximum Contaminant Levels	MW-141 L08100368-05 10/10/2008	MW-142 L08100313-06 10/8/2008	MW-143 L08100421-05 10/13/2008	MW-197A L08100198-01 10/6/2008	MW-197B L08100198-02 10/6/2008	MW-198 L08100313-07 10/8/2008	MW-199A L08100361-07 10/9/2008	MW-199B L08100361-10 10/9/2008
Primary VOCs	**units**									
Carbon tetrachloride	ug/L	5	<1	<1	<1 J	<1	<1	<1	<1	<1
Chloroform	ug/L	80	**2.48 J**	<0.3	<0.3 J	0.174 J	<0.3	0 171 J	0.137 J	0.24 J
cis-1,2-Dichloroethene	ug/L	70	<1	<1	<1 J	**3.13**	**48.7**	<1	<1	<1
Tetrachloroethene	ug/L	5	**19.7 J**	<1	<1 J	**54.8**	**16.7**	<1	<1	0.612 J
trans-1,2-Dichloroethene	ug/L	100	<1	<1	<1 J	<1	<1	<1	<1	<1
Trichloroethene	ug/L	5	**3.24 J**	**1.61**	**1.19 J**	**2.4**	**9.77**	**10.4 J**	<1	**124**
Vinyl chloride	ug/L	2	<1	<1	<1 J	<1	<1	<1	<1	<1
Additional VOCs										
1,1,2,2-Tetrachloroethane	ug/L	--	<0.5	<0.5	<0.5 J	<0.5	<0.5	<0.5 J	<0.5	<0.5
1,1-Dichloroethane	ug/L	--	<1	<1	<1 J	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	ug/L	--	<1	<1	<1 J	<1	<1	<1 J	<1	<1
1,1-Dichloroethene	ug/L	7	<1	<1	<1 J	<1	<1	0.524 J	<1	0.996 J
1,2-Dichloroethane	ug/L	5	<0.5	<0.5	<0.5 J	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	ug/L	5	<1	<1	<1 J	<1	<1	<1	<1	<1
1,3-Dichloropropane	ug/L	--	<0.4	<0.4	<0.4 J	<0.4	<0.4	<0.4	<0.4	<0 4
2-Hexanone	ug/L	--	<10	<10	<10 J	<10	<10	<10	<10	<10
Acetone	ug/L	--	<10	<10	<10 J	<10	<10	<10	<10	<10
Bromomethane	ug/L	--	**2.77 B**	<1	**2.85 B**	<1	<1	<1	**2.75 B**	2.73 B
Carbon disulfide	ug/L	--	<1	<1	<1 J	<1	<1	<1	<1	<1
Chloromethane	ug/L	--	<1	<1	0.25 J	<1	<1 J	<1	<1	<1
MEK (2-Butanone)	ug/L	--	<10	<10	<10 J	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	ug/L	--	<5	3.4 J	3.93 J	<5	<5	<5	2 12 J	<5
Toluene	ug/L	1000	<1	<1	<1 J	<1	<1	<1	<1	<1
Trichlorofluoromethane	ug/L	--	<1	<1	<1 J	<1	<1	<1	<1	<1

Notes:
VOC samples analyzed using method 8260B
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ANALYTICAL RESULTS SUMMARY, OCTOBER 2008
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

	Well ID Lab Sample ID Date Collected	Maximum Contaminant Levels	MW-200 L08100198-03 10/6/2008	MW-202A L08100241-14 10/7/2008	MW-202B L08100241-15 10/7/2008	MW-203A L08100198-04 10/6/2008	MW-203B L08100198-05 10/6/2008	MW-204A L08100198-06 10/6/2008	MW-204B L08100198-07 10/6/2008	MW-205A L08100361-11 10/9/2008
Primary VOCs	units									
Carbon tetrachloride	ug/L	5	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	ug/L	80	0.175 J	0.17 J	**1.92**	0.201 J	<0.3	<0.3	<0.3	0.223 J
cis-1,2-Dichloroethene	ug/L	70	0 531 J	<1	<1	**1.2**	**39.2**	0.769 J	**1.26**	**9.58 J**
Tetrachloroethene	ug/L	5	**125**	0.262 J	**21.3**	**143**	**19**	**42**	**29.4**	**126 J**
trans-1,2-Dichloroethene	ug/L	100	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	5	**3.42**	**1.21**	**2.57**	**2.11**	**11.3**	0.852 J	**2.53**	**7.56 J**
Vinyl chloride	ug/L	2	<1	<1	<1	<1	0.358 J	<1	<1	<1
Additional VOCs										
1,1,2,2-Tetrachloroethane	ug/L	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.625**	<0 5
1,1-Dichloroethane	ug/L	--	<1	<1	0.496 J	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	ug/L	--	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	ug/L	7	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	ug/L	5	<1	<1	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	ug/L	--	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
2-Hexanone	ug/L	--	<10	<10	<10	<10	<10	<10	<10	<10
Acetone	ug/L	--	<10	<10	<10	<10	<10	<10	<10	<10
Bromomethane	ug/L	--	<1	<1	<1	<1	<1	<1	<1	**2.77 B**
Carbon disulfide	ug/L	--	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane	ug/L	--	<1 J	<1	<1	<1 J	<1 J	<1 J	<1 J	<1
MEK (2-Butanone)	ug/L	--	<10	<10	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	ug/L	--	<5	<5	<5	<5	<5	<5	<5	<5
Toluene	ug/L	1000	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	ug/L	--	<1	<1	<1	<1	<1	<1	<1	<1

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TABLE 8
ANALYTICAL RESULTS SUMMARY, OCTOBER 2008
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

	Well ID Lab Sample ID Date Collected	Maximum Contaminant Levels	MW-205B L08100361-12 10/9/2008	MW-206A L08100421-06 10/13/2008	MW-206B L08100421-07 10/13/2008	MW-207A L08100241-16 10/7/2008	MW-207B L08100241-17 10/7/2008	MW-208A L08100421-08 10/13/2008	MW-208B L08100421-09 10/13/2008	MW-209A L08100361-13 10/9/2008
Primary VOCs	units									
Carbon tetrachloride	ug/L	5	<1	<1	<1	<1	0.916 J	<1	<1	<1
Chloroform	ug/L	80	<0 3	0 134 J	<0.3	**9.13**	**1.41**	0.21 J	<0.3	0.175 J
cis-1,2-Dichloroethene	ug/L	70	**43**	**5.2**	**7.85**	0.476 J	<1	0.517 J	**1.4**	<1
Tetrachloroethene	ug/L	5	**24.9**	**80.5**	**36.4**	**13.7**	**18**	**182**	**2.94**	<1
trans-1,2-Dichloroethene	ug/L	100	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	5	**8.48**	**13.2**	**9.91**	**26.9**	**75.3**	**9.8**	**21.3**	0.611 J
Vinyl chloride	ug/L	2	<1	<1	<1	<1	<1	<1	<1	<1
Additional VOCs										
1,1,2,2-Tetrachloroethane	ug/L	–	<0.5	<0.5	<0.5	<0.5	<0.5 J	<0.5	**0.565**	<0.5
1,1-Dichloroethane	ug/L	–	<1	<1	<1	0.258 J	<1	<1	<1	<1
1,2,3-Trichloropropane	ug/L	–	<1	<1	<1	<1	<1 J	<1	<1	<1
1,1-Dichloroethene	ug/L	7	0.891 J	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	5	<0.5	<0.5	<0 5	<0.5	<0.5	<0.5	<0.5	<0 5
1,2-Dichloropropane	ug/L	5	<1	<1	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	ug/L	–	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
2-Hexanone	ug/L	–	<10	<10	<10	<10	<10	<10	<10	<10
Acetone	ug/L	–	<10	<10	<10	<10	<10	<10	<10	<10
Bromomethane	ug/L	–	**2.87 B**	**2.81 B**	**2.79 B**	<1	<1	**2.8 B**	**2.75 B**	**2.9 B**
Carbon disulfide	ug/L	–	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane	ug/L	–	0 312 J	<1	0.252 J	<1	<1	<1	0.293 J	0.305 J
MEK (2-Butanone)	ug/L	–	<10	<10	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	ug/L	–	<5	<5	<5	<5	<5	<5	<5	2.27 J
Toluene	ug/L	1000	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	ug/L	–	<1	<1	<1	<1	<1	<1	<1	<1

Notes:
VOC samples analyzed using method 8260B
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ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

	Well ID Lab Sample ID Date Collected	Maximum Contaminant Levels	MW-209B L08100361-14 10/9/2008	MW-210A L08100198-08 10/6/2008	MW-210B L08100198-09 10/6/2008	MW-211 L08100368-06 10/10/2008	MW-212 L08100313-08 10/8/2008	MW-214A L08100241-18 10/7/2008	MW-214B L08100651-01 10/21/2008	MW-215A L08100241-20 10/7/2008
Primary VOCs	**units**									
Carbon tetrachloride	ug/L	5	0.611 J	<1	<1	<1	<1	0.647 J	0.772 J	0.382 J
Chloroform	ug/L	80	0.183 J	<0.3	<0.3	**2.24 J**	<0.3	**1.58**	**1.27**	**1.44**
cis-1,2-Dichloroethene	ug/L	70	<1 J	**1.02**	0.462 J	<1	<1	<1	<1	<1
Tetrachloroethene	ug/L	5	0 33 J	**19.4**	**12.6**	0.431 J	<1	**4.81**	**4.39**	**5.85**
trans-1,2-Dichloroethene	ug/L	100	<1 J	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	5	**20 J**	**6.09**	**7.49**	**1.18 J**	**37.9 J**	**1.95**	**2.28**	**7.99**
Vinyl chloride	ug/L	2	<1 J	<1	<1	<1	<1	<1	<1	<1
Additional VOCs										
1,1,2,2-Tetrachloroethane	ug/L	–	<0.5 J	<0.5	<0.5	<0.5	<0.5 J	**0.51 B**	0.341 J	<0 5
1,1-Dichloroethane	ug/L	–	<1 J	<1	<1	0.418 J	<1	<1	<1	<1
1,2,3-Trichloropropane	ug/L	–	<1 J	<1	<1	<1	<1 J	<1	<1	<1
1,1-Dichloroethene	ug/L	7	<1 J	<1	<1	0.995 J	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	5	<0.5 J	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	ug/L	5	<1 J	<1	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	ug/L	–	<0 4 J	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
2-Hexanone	ug/L	–	<10 J	<10	<10	<10	<10	<10	<10	<10
Acetone	ug/L	–	<10 J	<10	<10	<10	<10	<10	<10	<10
Bromomethane	ug/L	–	**2.79 B**	<1	<1	**2.73 B**	<1	<1	<1	<1
Carbon disulfide	ug/L	–	<1 J	<1	<1	<1	<1	<1	<1	<1
Chloromethane	ug/L	–	0.287 J	<1 J	<1	<1	<1	<1	<1	<1
MEK (2-Butanone)	ug/L	–	<10 J	<10	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	ug/L	–	<5 J	<5	<5	<5	<5	0 815 J	0.963 J	1.49 J
Toluene	ug/L	1000	<1 J	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	ug/L	–	<1 J	<1	<1	<1	<1	<1	<1	<1

Notes:
VOC samples analyzed using method 8260B
ug/L : micrograms per liter
< Not detected at sample reporting limit
Results detected at or above reporting limits shown in bold
DQE FLAGS:
J: Estimated, based on QC data or reported below RL
B: Estimated, possibly biased high or false positive based on blank data

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TABLE 8
ANALYTICAL RESULTS SUMMARY, OCTOBER 2008
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

	Well ID Lab Sample ID Date Collected	Maximum Contaminant Levels	MW-215B L08100241-21 10/7/2008	MW-216 L08100198-10 10/6/2008	MW-217 L08100313-09 10/8/2008	MW-218 L08100313-10 10/8/2008	MW-219 L08100368-16 10/10/2008	MW-229 L08100313-11 10/8/2008	PZ-03 L08100442-02 10/14/2008	PZ-06 L08100442-05 10/14/2008
Primary VOCs	units									
Carbon tetrachloride	ug/L	5	0.271 J	<1	**96.3 J**	**15.6 J**	<1	<1	<1	<1
Chloroform	ug/L	80	**0.474**	<0.3	**13.4 J**	**2.78 J**	<0.3	<0.3	0 29 J	<0.3
cis-1,2-Dichloroethene	ug/L	70	<1	0.288 J	**4.8 J**	0.373 J	**1.14 J**	<1	<1	<1
Tetrachloroethene	ug/L	5	**2.1**	**34.2**	**26.5 J**	**12.2 J**	**47 J**	<1	**4.38**	<1
trans-1,2-Dichloroethene	ug/L	100	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	5	**1.25**	**1.5**	**25.6 J**	**35.9 J**	**3.53 J**	<1	**1.07**	<1
Vinyl chloride	ug/L	2	<1	<1	<1	<1	<1	<1	<1	<1
Additional VOCs										
1,1,2,2-Tetrachloroethane	ug/L	--	<0.5	<0.5	**0.561 J**	**1.39 J**	<0.5	<0.5	<0.5	<0 5
1,1-Dichloroethane	ug/L	--	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	ug/L	--	<1	<1	**3.35 J**	<1 J	<1	<1	<1	<1
1,1-Dichloroethene	ug/L	7	<1	<1	<1	0.691 J	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	5	<0.5	<0 5	0.377 J	**0.56 J**	**1.37 J**	<0.5	<0 5	<0.5
1,2-Dichloropropane	ug/L	5	<1	<1	<1	0 387 J	<1	<1	<1	<1
1,3-Dichloropropane	ug/L	--	<0.4	<0.4	<0 4	<0.4	<0.4	<0 4	<0.4	<0.4
2-Hexanone	ug/L	--	<10	<10	<10	<10	<10	<10	<10	<10
Acetone	ug/L	--	<10	<10	<10	<10	<10	<10	<10	3.35 J
Bromomethane	ug/L	--	<1	<1	<1	<1	**2.88 B**	**2.87 B**	**2.97 B**	**2.8 B**
Carbon disulfide	ug/L	--	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane	ug/L	--	<1	<1	<1	<1	<1	<1	0.301 B	0.527 B
MEK (2-Butanone)	ug/L	--	<10	<10	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	ug/L	--	<5	<5	<5	<5	<5	<5	<5	<5
Toluene	ug/L	1000	<1	<1	<1	<1	<1	<1	<1	0.754 J
Trichlorofluoromethane	ug/L	--	<1	<1	<1	0.705 J	<1	<1	**1.39**	<1

Notes:
VOC samples analyzed using method 8260B
ug/L : micrograms per liter
<: Not detected at sample reporting limit
Results detected at or above reporting limits shown in bold
DQE FLAGS:
J: Estimated, based on QC data or reported below RL
B: Estimated, possibly biased high or false positive based on blank data

TABLE 9
MANN-KENDALL TREND ANALYSIS - PCE
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Well	Plume	COC	Coefficient of Variation	MK (S)	Confidence Factor (CF)	Concentration Trend	Number of Sample Rounds	Detects	Max	Min
MW-16	Background	PCE	0.0000	0	0 0%	N/A	3	0		
MW-19	Background	PCE	0.0000	0	0.0%	N/A	3	0		
MW-22	Boundary	PCE	0.0000	0	0 0%	N/A	3	1	0.79	0.79
MW-23	Boundary	PCE	0.0000	0	0.0%	N/A	3	0		
MW-24	Boundary	PCE	0.0000	0	0.0%	N/A	3	0		
MW-25A	NA	PCE	0.2250	-7	80.9%	S	7	7	10.3	4.91
MW-26	TTA-2	PCE	0.3424	-16	94.0%	PD	11	11	42	13.7
MW-34	Sentinel	PCE	0.2931	-8	80.1%	S	15	8	0.753	0.336
MW-38	Sentinel	PCE	0.0000	0	0.0%	N/A	4	1	0.446	0.446
MW-39	West Central	PCE	0.2078	5	63.6%	NT	11	11	158	79
MW-39A	West Central	PCE	0.2317	6	69.4%	NT	10	10	234	95.7
MW-50	Boundary	PCE	0.0000	0	0.0%	N/A	3	2	0.335	0.263
MW-52	NA	PCE	0.2808	3	61.4%	NT	7	7	10.8	4.7
MW-53	Background	PCE	0.0000	0	0.0%	N/A	3	3	2.26	0.59
MW-55	Background	PCE	0.0000	0	0 0%	N/A	3	0		
MW-62	Building 835	PCE	0.6085	2	54.0%	NT	12	8	1.1	0.318
MW-63A	Sentinel	PCE	0.5307	4	83.3%	NT	5	4	1.24	0.32
MW-63B	Sentinel	PCE	0.2745	8	95.8%	I	5	5	4.6	2.3
MW-64	TTA-2	PCE	0.1334	11	93.2%	PI	7	7	22.5	16
MW-66A	Background	PCE	0.0992	-3	64.0%	S	6	6	2.2	1.7
MW-86	TTA-2	PCE	0.7456	9	93.2%	PI	11	6	12.2	0.388
MW-88	TTA-2	PCE	0.2481	-1	50.0%	S	10	10	32.8	14
MW-89	Sentinel	PCE	0.4166	4	83.3%	NT	5	4	0.644	0.29
MW-90	Sentinel	PCE	0.6239	19	99.9%	I	7	7	79.3	19
MW-92	TTA-2	PCE	0.5381	-20	97.8%	D	11	11	200	0.499
MW-93	Boundary	PCE	0.1308	-3	72.9%	S	4	1	0.16	0.16
MW-94A	West Central	PCE	0.1973	-6	69.4%	S	11	11	53	27.3
MW-96	TTA-2	PCE	1.3680	-22	98.8%	D	10	10	63	1.46
MW-97	NA	PCE	0.0000	0	0.0%	N/A	7	0		
MW-98	West Central	PCE	0.2035	14	91.0%	PI	9	9	36.9	17
MW-99	Background	PCE	0.0000	0	0.0%	N/A	4	0		
MW-100B	TTA-1 North	PCE	1.0204	-1	50.0%	NT	12	10	101	0.706
MW-102B	Boundary	PCE	0.0000	0	0.0%	N/A	4	1	0.308	0.308
MW-103	North Central	PCE	0.0000	0	0.0%	N/A	5	0		
MW-104	North Central	PCE	0.0000	0	0 0%	N/A	7	0		
MW-107B	Sentinel	PCE	0.5718	2	62.5%	NT	4	4	0.965	0.291
MW-107T	Sentinel	PCE	0.0000	0	0.0%	N/A	3	3	1.93	0.411
MW-108	Sentinel	PCE	0.2492	2	55.7%	NT	7	7	6.03	3.3
MW-113	TTA-2	PCE	0.2603	21	98.3%	I	11	11	182	64
MW-125	TTA-1 North	PCE	0.3447	-10	82.1%	S	11	11	54	11
MW-140	Sentinel	PCE	0.4009	14	99.6%	I	8	6	0.933	0.38
MW-141	Sentinel	PCE	0.3545	-2	54.0%	S	10	9	31	5.9
MW-142	Building 835	PCE	0.0000	0	0.0%	N/A	9	1	0	0
MW-143	Background	PCE	0.0000	0	0.0%	N/A	8	0		
MW-197A	West Central	PCE	0.2680	-21	100.0%	D	8	8	130	54.8
MW-197B	West Central	PCE	0.5585	-21	100.0%	D	7	7	179	16.7
MW-198	Building 835	PCE	0.0000	0	40.8%	S	7	0		
MW-199A	Sentinel	PCE	0.5863	1	50.0%	NT	6	1	0.361	0.361
MW-199B	Building 835	PCE	2.2577	1	50.0%	NT	7	7	23.4	0.393
MW-200	West Central	PCE	0.3185	7	80.9%	NT	7	7	132	62.9
MW-202A	Sentinel	PCE	0.3822	7	80.9%	NT	7	7	0.672	0.257
MW-202B	Sentinel	PCE	0.6048	9	88.1%	NT	7	7	21.3	3.82
MW-203A	West Central	PCE	0.3484	13	99.2%	I	6	6	144	62.6
MW-203B	West Central	PCE	0.5690	-7	86.4%	S	7	7	38.4	9.39
MW-204A	West Central	PCE	0.0840	7	86.4%	NT	6	6	44.6	36.2
MW-204B	West Central	PCE	0.2072	5	76.5%	NT	6	6	29.4	17.2
MW-205A	West Central	PCE	0.1858	-3	64.0%	S	7	7	180	102
MW-205B	West Central	PCE	0.5870	-13	99.2%	D	6	6	149	24.9
MW-206A	West Central	PCE	0.1679	1	50.0%	NT	6	6	114	76.4
MW-206B	West Central	PCE	0.2302	-3	64.0%	S	6	6	77.5	36.4
MW-207A	Sentinel	PCE	0.2103	15	99.9%	I	6	6	13.7	7.92

TABLE 9
MANN-KENDALL TREND ANALYSIS - PCE
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Well	Plume	COC	Coefficient of Variation	MK (S)	Confidence Factor (CF)	Concentration Trend	Number of Sample Rounds	Detects	Max	Min
MW-207B	Sentinel	PCE	0.4343	-9	93.2%	PD	7	7	35.7	13
MW-208A	West Central	PCE	0.0709	1	50.0%	NT	6	6	198	163
MW-208B	West Central	PCE	0.2334	-5	76.5%	S	6	6	3.42	
MW-209A	Sentinel	PCE	0.0000	0	0.0%	N/A	6	0		
MW-209B	West Central	PCE	0.5652	5	82.1%	NT	6	2	0.357	0.33
MW-210A	Sentinel	PCE	0 2503	-13	99.2%	D	7	7	38.2	19.4
MW-210B	West Central	PCE	0 2998	-13	99.2%	D	6	6	32.4	12.6
MW-211	Sentinel	PCE	0.7214	5	82.1%	NT	5	2	0.502	0.431
MW-212	Building 835	PCE	0.6921	3	72.9%	NT	6	2	0.516	0.477
MW-214A	West Central	PCE	0.1932	-9	93.2%	PD	6	6	8.83	4.81
MW-214B	West Central	PCE	0 1533	-13	99.2%	D	6	6	6.4	4.39
MW-215A	West Central	PCE	0.0979	3	64.0%	NT	6	6	7.01	5.58
MW-215B	West Central	PCE	0.2432	3	64.0%	NT	6	6	4.71	2.1
MW-216	NA	PCE	1.9711	3	72.9%	NT	5	1	34.2	34.2
MW-217	TTA-2	PCE	0.2086	9	93.2%	PI	6	6	34.7	18.4
MW-218	TTA-2	PCE	0.1351	-5	76.5%	S	6	6	18.5	12.2
MW-219	Boundary	PCE	0.3453	11	97.2%	I	7	7	48	16.3
MW-229	Sentinel	PCE	0.0000	0	0.0%	N/A	3	0		
DR1-1	TTA-1 South	PCE	0.1224	-8	84 5%	S	7	7	3.3	2.46
DR1-1A	TTA-1 South	PCE	0.3542	-29	100.0%	D	9	9	1.8	0.747
DR1-2	TTA-1 North	PCE	0.1972	-13	96.5%	D	7	7	2.5	1.5
DR1-4	TTA-1 South	PCE	0.8541	-9	79.2%	S	9	7	12.4	1.22
DR1-5	TTA-1 South	PCE	0.7396	29	100.0%	I	9	9	95.8	4.3
DR1-5A	TTA-1 South	PCE	0.2296	6	69.4%	NT	11	11	59.7	24
DR1-6	TTA-1 South	PCE	0.7942	24	99.4%	I	9	9	195	13
DR1-6A	TTA-1 South	PCE	0.3592	30	100.0%	I	11	11	39.6	1.1
DR1-7	TTA-1 North	PCE	0.6746	-16	99.0%	D	7	7	30	4.35
DR1-8	TTA-1 North	PCE	0.0000	0	0.0%	N/A	7	0		
DR2-2	TTA-2	PCE	0.7775	28	99.9%	I	9	9	124	10
DR2-3	TTA-2	PCE	0.3178	-26	99.7%	D	10	10	47	20.6
DR2-4	TTA-2	PCE	0.2332	-4	66.7%	S	7	7	14.5	7.15
DR2-6	TTA-2	PCE	0.3508	10	82 1%	NT	10	10	115	36
IW-06	TTA-1 North	PCE	0.0000	0	0.0%	N/A	2	0		
PZ-03	West Central	PCE	0.4907	-4	75.8%	S	5	5	5	0.523
PZ-06	North Central	PCE	0.0000	0	0 0%	N/A	5	0		
PZ-07	TTA-2	PCE	0.0000	0	0 0%	N/A	5	0		

TABLE 10
MANN-KENDALL TREND ANALYSIS - TCE
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Well	Plume	COC	Coefficient of Variation	MK (S)	Confidence Factor (CF)	Concentration Trend	Number of Sample Rounds	Detects	Max	Min
MW-16	Background	TCE	0.0000	0	0.0%	N/A	3	0		
MW-19	Background	TCE	0.0000	0	0.0%	N/A	3	0		
MW-22	Boundary	TCE	0.0000	0	0.0%	N/A	3	2	0.531	0.329
MW-23	Boundary	TCE	0.0000	0	0.0%	N/A	3	0		
MW-24	Boundary	TCE	0.0000	0	0.0%	N/A	3	0		
MW-25A	NA	TCE	0.2125	-10	90.7%	PD	7	7	0.6	0.352
MW-26	TTA-2	TCE	0.2065	-22	98.8%	D	11	11	2.5	1.3
MW-34	Sentinel	TCE	0.4873	27	99.2%	I	15	13	1.39	0.29
MW-38	Sentinel	TCE	0.0000	0	0.0%	N/A	4	2	4.63	4.37
MW-39	West Central	TCE	0.1599	-8	72.9%	S	11	11	11	6.15
MW-39A	West Central	TCE	0.3933	-6	69.4%	S	10	10	11.8	4.04
MW-50	Boundary	TCE	0.0000	0	0.0%	N/A	3	3	1.5	1.1
MW-52	NA	TCE	0.3653	12	94.9%	PI	7	7	1.4	0.34
MW-53	Background	TCE	0.0000	0	0.0%	N/A	3	0		
MW-55	Background	TCE	0.0000	0	0.0%	N/A	3	0		
MW-62	Building 835	TCE	0.2824	7	70.0%	NT	12	12	184	77.7
MW-63A	Sentinel	TCE	0.4433	8	95.8%	I	5	5	1.66	0.63
MW-63B	Sentinel	TCE	0.7782	10	99 2%	I	5	5	4.56	0.92
MW-64	TTA-2	TCE	0.1117	1	50.0%	NT	7	7	39	28.9
MW-66A	Background	TCE	0.0000	0	0.0%	N/A	6	0		
MW-86	TTA-2	TCE	0 6096	5	76.5%	NT	11	5	2.87	0.989
MW-88	TTA-2	TCE	0.1694	-10	82.1%	S	10	10	4.8	2.7
MW-89	Sentinel	TCE	0.2500	-4	75.8%	S	5	5	2.13	1.1
MW-90	Sentinel	TCE	0.4049	1	50.0%	NT	7	7	7.2	2.4
MW-92	TTA-2	TCE	0.1869	-12	91.1%	PD	11	10	6.14	3.12
MW-93	Boundary	TCE	0.0000	0	0.0%	N/A	4	0		
MW-94A	West Central	TCE	0.2326	22	98.8%	I	11	11	9.49	4.2
MW-96	TTA-2	TCE	2.1113	-3	67.5%	NT	10	3	19	0.22
MW-97	NA	TCE	0.5954	19	99.9%	I	7	7	29.6	2.2
MW-98	West Central	TCE	0.2058	12	87.0%	NT	9	9	2.69	1.2
MW-99	Background	TCE	0.0000	0	0.0%	N/A	4	1	0.28	0.28
MW-100B	TTA-1 North	TCE	0.9213	-1	50.0%	S	12	10	43.1	0.309
MW-102B	Boundary	TCE	0 0000	0	0.0%	N/A	4	0		
MW-103	North Central	TCE	0.1990	8	95 8%	I	5	5	6.63	4
MW-104	North Central	TCE	0.1870	9	88.1%	NT	7	7	18.2	11
MW-107B	Sentinel	TCE	0.4545	6	95.8%	I	4	4	1.8	0.585
MW-107T	Sentinel	TCE	0.0000	0	0.0%	N/A	3	3	2.11	0.999
MW-108	Sentinel	TCE	0.2475	9	88.1%	NT	7	7	38.4	15
MW-113	TTA-2	TCE	0.2988	28	99.9%	I	11	11	28.9	8.8
MW-125	TTA-1 North	TCE	0.4514	-20	97.8%	D	11	11	28	5.58
MW-140	Sentinel	TCE	0.2615	6	76.4%	NT	8	7	1.49	0.54
MW-141	Sentinel	TCE	0.2730	18	96.2%	I	10	9	3.56	1.2
MW-142	Building 835	TCE	0.6750	7	80.9%	NT	9	7	1.61	0.3
MW-143	Background	TCE	0.0000	0	0.0%	N/A	8	3	1.19	0.31
MW-197A	West Central	TCE	0.0755	16	99.0%	I	8	8	2.47	2.04
MW-197B	West Central	TCE	0.0757	11	93.2%	PI	7	7	10.3	8.51
MW-198	Building 835	TCE	0.6249	-3	61.4%	S	7	7	25.8	3.28
MW-199A	Sentinel	TCE	0.0000	0	42.3%	S	6	0		
MW-199B	Building 835	TCE	0.2673	0	43.7%	S	7	7	136	56.5
MW-200	West Central	TCE	0.2752	-6	76.4%	S	7	7	7.49	3.42
MW-202A	Sentinel	TCE	0.1776	-5	71.9%	S	7	7	2.22	1.21
MW-202B	Sentinel	TCE	0.3738	17	99.5%	I	7	7	2.57	0.811
MW-203A	West Central	TCE	0.1912	15	99.9%	I	6	6	2.11	1.27
MW-203B	West Central	TCE	0.2349	-3	64.0%	S	7	7	11.3	6.18
MW-204A	West Central	TCE	0.1146	-13	99.2%	D	6	6	1.19	0.852
MW-204B	West Central	TCE	0 3018	-3	64.0%	S	6	6	4.88	2.37
MW-205A	West Central	TCE	0.2115	9	93.2%	PI	7	7	7.56	3.69
MW-205B	West Central	TCE	0.2072	-1	50.0%	S	6	6	9.75	5.15
MW-206A	West Central	TCE	0.1384	11	97.2%	I	6	6	13.9	9.81
MW-206B	West Central	TCE	0.0986	4	70.3%	NT	6	6	11.7	8.94
MW-207A	Sentinel	TCE	0.1270	11	97.2%	I	6	6	26.9	18.6

TABLE 10
MANN-KENDALL TREND ANALYSIS - TCE
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Well	Plume	COC	Coefficient of Variation	MK (S)	Confidence Factor (CF)	Concentration Trend	Number of Sample Rounds	Detects	Max	Min
MW-207B	Sentinel	TCE	0.6472	9	93 2%	PI	7	7	109	12.1
MW-208A	West Central	TCE	0.0857	7	86.4%	NT	6	6	9.8	7.64
MW-208B	West Central	TCE	0.1692	1	50.0%	NT	6	6	21.3	13.2
MW-209A	Sentinel	TCE	0.1472	3	64.0%	NT	6	6	0.611	0.467
MW-209B	West Central	TCE	0.4139	11	97.2%	I	6	6	20	6.4
MW-210A	Sentinel	TCE	0.0395	3	64.0%	NT	7	7	6.2	5.55
MW-210B	West Central	TCE	0.1479	-1	50.0%	S	6	6	10.7	7.29
MW-211	Sentinel	TCE	0.4417	6	88.3%	NT	5	5	1.18	0.436
MW-212	Building 835	TCE	0.1184	1	50.0%	NT	6	6	47.9	34 4
MW-214A	West Central	TCE	0.3292	-15	99.9%	D	6	6	5.59	1.95
MW-214B	West Central	TCE	0.2534	-15	99.9%	D	6	6	4.24	2.28
MW-215A	West Central	TCE	0.1115	3	64.0%	NT	6	6	10.2	7.79
MW-215B	West Central	TCE	0.0752	-11	97.2%	D	6	6	1.53	1.25
MW-216	NA	TCE	1.4667	3	72.9%	NT	5	1	1.5	1.5
MW-217	TTA-2	TCE	0.1688	-7	86.4%	S	6	6	40.6	25.6
MW-218	TTA-2	TCE	0.0919	-13	99.2%	D	6	6	47.6	35.9
MW-219	Boundary	TCE	0.2388	9	93.2%	PI	7	7	3.74	1.72
MW-229	Sentinel	TCE	0.0000	0	0.0%	N/A	3	0		
DR1-1	TTA-1 South	TCE	0.3203	-2	57 0%	S	7	5	0.399	0.255
DR1-1A	TTA-1 South	TCE	0.3087	-14	91.0%	PD	9	9	6.9	3 03
DR1-2	TTA-1 North	TCE	0.0000	0	0.0%	N/A	7	1	1.83	1.83
DR1-4	TTA-1 South	TCE	0 6117	0	46.0%	S	9	7	1.69	0.573
DR1-5	TTA-1 South	TCE	1.7852	3	72.9%	NT	9	1	4.28	4.28
DR1-5A	TTA-1 South	TCE	0.2745	-6	69.4%	S	11	11	120	47
DR1-6	TTA-1 South	TCE	0.4546	-10	82.1%	S	9	9	4.61	1.27
DR1-6A	TTA-1 South	TCE	0.2743	18	96 2%	I	11	11	142	9.1
DR1-7	TTA-1 North	TCE	0.3618	-4	66 7%	S	7	7	2.2	0.76
DR1-8	TTA-1 North	TCE	0.0000	0	0.0%	N/A	7	2	1.03	0.341
DR2-2	TTA-2	TCE	0.1685	16	94.0%	PI	9	9	4.25	2.6
DR2-3	TTA-2	TCE	0.1079	-15	92.5%	PD	10	10	2.7	2
DR2-4	TTA-2	TCE	0.1238	-12	94.9%	PD	7	7	2.2	1.54
DR2-6	TTA-2	TCE	0.4149	9	79.2%	NT	10	10	19.7	2.2
IW-06	TTA-1 North	TCE	0.0000	0	0.0%	N/A	2	2	283	1.38
PZ-03	West Central	TCE	0.3918	4	75.8%	NT	5	5	1.07	0.321
PZ-06	North Central	TCE	0.0000	0	0.0%	N/A	5	0		
PZ-07	TTA-2	TCE	0.0000	0	0.0%	N/A	5	2	0.42	0.35

TABLE 11
MANN-KENDALL TREND ANALYSIS - cDCE
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Well	Plume	COC	Coefficient of Variation	MK (S)	Confidence Factor (CF)	Concentration Trend	Number of Sample Rounds	Detects	Max	Min
MW-16	Background	cDCE	0.0000	0	0.0%	N/A	3	0		
MW-19	Background	cDCE	0 0000	0	0.0%	N/A	3	0		
MW-22	Boundary	cDCE	0 0000	0	0.0%	N/A	3	1	0 527	0.527
MW-23	Boundary	cDCE	0.0000	0	0 0%	N/A	3	0		
MW-24	Boundary	cDCE	0.0000	0	0.0%	N/A	3	0		
MW-25A	NA	cDCE	0.0000	0	0.0%	N/A	7	0		
MW-26	TTA-2	cDCE	0.3373	-24	99.9%	D	11	10	0.76	0.295
MW-34	Sentinel	cDCE	0.0000	0	0.0%	N/A	15	0		
MW-38	Sentinel	cDCE	0.0000	0	0.0%	N/A	4	0		
MW-39	West Central	cDCE	0.4430	1	50.0%	NT	11	7	1.26	0.435
MW-39A	West Central	cDCE	2.0734	-3	61.4%	NT	10	7	12.2	0.362
MW-50	Boundary	cDCE	0.0000	0	0.0%	N/A	3	3	0.52	0.321
MW-52	NA	cDCE	0.2176	13	96.5%	I	7	7	0.993	0.58
MW-53	Background	cDCE	0.0000	0	0.0%	N/A	3	0		
MW-55	Background	cDCE	0.0000	0	0.0%	N/A	3	0		
MW-62	Building 835	cDCE	0.8472	1	50.0%	NT	12	6	1.4	0.26
MW-63A	Sentinel	cDCE	0 0000	0	0.0%	N/A	5	0		
MW-63B	Sentinel	cDCE	0.0000	0	0.0%	N/A	5	1	0.401	0.401
MW-64	TTA-2	cDCE	0.1151	7	80 9%	NT	7	7	0.439	0.31
MW-66A	Background	cDCE	0.0000	0	0.0%	N/A	6	0		
MW-86	TTA-2	cDCE	0.2185	-25	99.6%	D	11	11	200	110
MW-88	TTA-2	cDCE	0.4306	-18	96.2%	D	10	10	1.8	0.325
MW-89	Sentinel	cDCE	0.2011	2	62.5%	NT	5	4	0.404	0.27
MW-90	Sentinel	cDCE	0.2056	16	99.0%	I	7	7	0.484	0.29
MW-92	TTA-2	cDCE	1.1382	11	84.6%	NT	11	11	119	7.32
MW-93	Boundary	cDCE	0.0000	0	0.0%	N/A	4	0		
MW-94A	West Central	cDCE	0.6086	-2	54.0%	S	11	11	1.93	0.42
MW-96	TTA-2	cDCE	1.7438	5	71.9%	NT	10	8	19	0.34
MW-97	NA	cDCE	0.0000	0	0.0%	N/A	7	0		
MW-98	West Central	cDCE	2.0198	1	50.0%	NT	9	3	8.6	0.22
MW-99	Background	cDCE	0.0000	0	0.0%	N/A	4	0		
MW-100B	TTA-1 North	cDCE	0.1990	-6	69.4%	S	12	12	160	89.3
MW-102B	Boundary	cDCE	0.0000	0	0.0%	N/A	4	0		
MW-103	North Central	cDCE	0.1516	-4	83.3%	S	5	4	0.44	0.322
MW-104	North Central	cDCE	0.2695	7	80.9%	NT	7	7	0.63	0.305
MW-107B	Sentinel	cDCE	0.6372	5	89.6%	NT	4	2	0.449	0.265
MW-107T	Sentinel	cDCE	0.0000	0	0.0%	N/A	3	2	0.385	0.283
MW-108	Sentinel	cDCE	0.2493	3	61.4%	NT	7	7	0.75	0.33
MW-113	TTA-2	cDCE	0.3727	-24	99.4%	D	11	11	110	37.8
MW-125	TTA-1 North	cDCE	0.5345	-11	84.6%	S	11	11	62	10.3
MW-140	Sentinel	cDCE	0.3484	-8	95.8%	D	8	3	0.28	0.22
MW-141	Sentinel	cDCE	0.0000	0	0.0%	N/A	10	0		
MW-142	Building 835	cDCE	0.0000	0	0.0%	N/A	9	0		
MW-143	Background	cDCE	0.0000	0	0.0%	N/A	8	0		
MW-197A	West Central	cDCE	1.0846	11	93.2%	PI	8	8	3.13	0.345
MW-197B	West Central	cDCE	1.3520	19	99.9%	I	7	7	48.7	0.484
MW-198	Building 835	cDCE	0.0000	0	40.8%	S	7	0		
MW-199A	Sentinel	cDCE	0.0000	0	42.3%	S	6	0		
MW-199B	Building 835	cDCE	0.0000	0	42.3%	S	7	0		
MW-200	West Central	cDCE	0.2150	1	50.0%	NT	7	7	0.543	0.303
MW-202A	Sentinel	cDCE	0.3752	2	59.2%	NT	7	1	0.251	0.251
MW-202B	Sentinel	cDCE	0.0000	0	40.8%	S	7	0		
MW-203A	West Central	cDCE	0.8007	14	99.6%	I	6	4	1.2	0.294
MW-203B	West Central	cDCE	0.1578	-3	64.0%	S	7	7	63.5	39.2
MW-204A	West Central	cDCE	0.1315	7	86.4%	NT	6	6	1.05	0.763
MW-204B	West Central	cDCE	0.4022	9	93.2%	PI	6	6	2.3	0.906
MW-205A	West Central	cDCE	1.4323	13	99.2%	I	7	7	9.58	0.337
MW-205B	West Central	cDCE	1.0629	13	99.2%	I	6	6	43	0.546
MW-206A	West Central	cDCE	1.2417	9	93.2%	PI	6	6	5.2	0.607
MW-206B	West Central	cDCE	1.3223	9	93.2%	PI	6	6	7.85	0.582
MW-207A	Sentinel	cDCE	0.1049	3	64.0%	NT	6	6	0.479	0.382

TABLE 11
MANN-KENDALL TREND ANALYSIS - cDCE
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Well	Plume	COC	Coefficient of Variation	MK (S)	Confidence Factor (CF)	Concentration Trend	Number of Sample Rounds	Detects	Max	Min
MW-207B	Sentinel	cDCE	0.0000	0	0.0%	N/A	7	0		
MW-208A	West Central	cDCE	0.0296	-5	76.5%	S	6	6	0.56	0.517
MW-208B	West Central	cDCE	0.1773	3	64.0%	NT	6	6	1.51	0.932
MW-209A	Sentinel	cDCE	0.0000	0	0.0%	N/A	6	0		
MW-209B	West Central	cDCE	0.0000	0	37.5%	S	6	0		
MW-210A	Sentinel	cDCE	0.4239	5	76.5%	NT	7	7	1.02	0.757
MW-210B	West Central	cDCE	0.1545	-5	76.5%	S	6	6	0.646	0.433
MW-211	Sentinel	cDCE	0.0000	0	0.0%	N/A	5	0		
MW-212	Building 835	cDCE	0.0000	0	0 0%	N/A	6	0		
MW-214A	West Central	cDCE	0.0000	0	0.0%	N/A	6	0		
MW-214B	West Central	cDCE	0.0000	0	0.0%	N/A	6	0		
MW-215A	West Central	cDCE	0.0000	0	0.0%	N/A	6	0		
MW-215B	West Central	cDCE	0.0000	0	0.0%	N/A	6	0		
MW-216	NA	cDCE	0.4917	3	72.9%	NT	5	1	0.288	0.288
MW-217	TTA-2	cDCE	0.5212	15	99.9%	I	6	6	4.8	1.34
MW-218	TTA-2	cDCE	0.1450	-5	76.5%	S	6	6	0.508	0.352
MW-219	Boundary	cDCE	0.1864	5	76.5%	NT	7	7	1.14	0.643
MW-229	Sentinel	cDCE	0.0000	0	0.0%	N/A	3	0		
DR1-1	TTA-1 South	cDCE	0.1322	-1	50.0%	S	7	6	1.2	0.8
DR1-1A	TTA-1 South	cDCE	0.4704	-28	99.9%	D	9	9	1	0.262
DR1-2	TTA-1 North	cDCE	0.1539	-13	96.5%	D	7	7	0.77	0.48
DR1-4	TTA-1 South	cDCE	1.1647	0	40 8%	NT	9	4	8.09	0.582
DR1-5	TTA-1 South	cDCE	0 5075	3	72.9%	NT	9	1	0.295	0.295
DR1-5A	TTA-1 South	cDCE	0.3421	-8	76.2%	S	11	11	5.2	1.7
DR1-6	TTA-1 South	cDCE	0.6233	-26	99.7%	D	9	9	6.2	1.09
DR1-6A	TTA-1 South	cDCE	0.3201	10	82.1%	NT	11	11	5.98	0.95
DR1-7	TTA-1 North	cDCE	0.3004	-3	61.4%	S	7	7	0.787	0.344
DR1-8	TTA-1 North	cDCE	0.0000	0	0 0%	N/A	7	0		
DR2-2	TTA-2	cDCE	0.5207	14	94.6%	PI	9	8	7.04	1.9
DR2-3	TTA-2	cDCE	0.4912	-22	98.8%	D	10	10	1.8	0.549
DR2-4	TTA-2	cDCE	0.3494	-3	64.0%	S	7	4	0.304	0.22
DR2-6	TTA-2	cDCE	0.7006	24	99.4%	I	10	10	36	0.69
IW-06	TTA-1 North	cDCE	0.0000	0	0.0%	N/A	2	1	2.16	2 16
PZ-03	West Central	cDCE	0.0000	0	0.0%	N/A	5	1	0.26	0.26
PZ-06	North Central	cDCE	0 0000	0	0.0%	N/A	5	0		
PZ-07	TTA-2	cDCE	0.0000	0	0.0%	N/A	5	0		

TABLE 12
MANN-KENDALL TREND ANALYSIS - CT
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

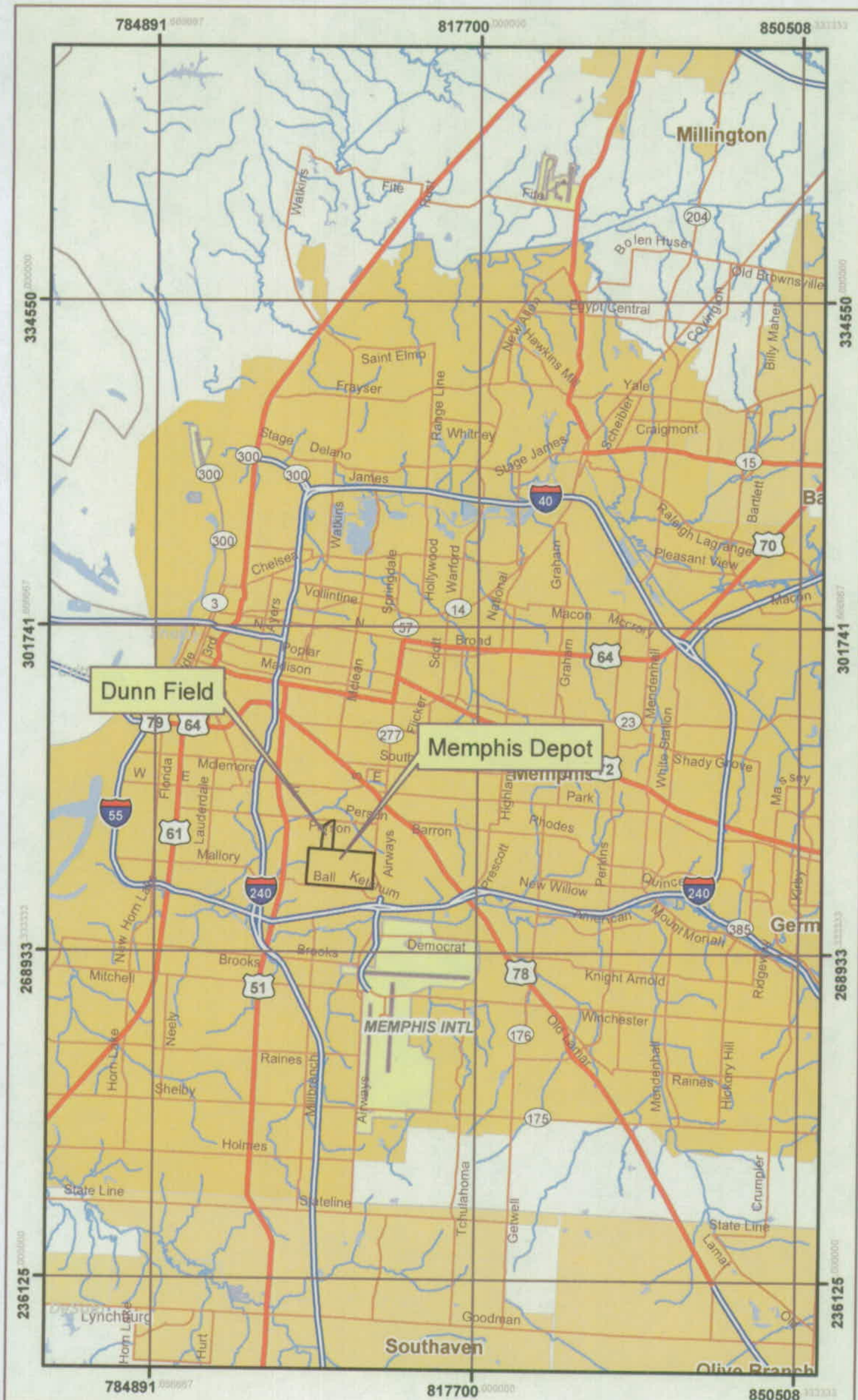
Well	Plume	COC	Coefficient of Variation	MK (S)	Confidence Factor (CF)	Concentration Trend	Number of Sample Rounds	Detects	Max	Min
MW-25A	NA	CT	0.1401	-9	88.1%	S	7	7	2.66	1.67
MW-26	TTA-2	CT	0.1759	-14	91.0%	PD	11	11	7.5	4.38
MW-52	NA	CT	0 0000	0	0.0%	N/A	7	0		
MW-64	TTA-2	CT	0.0931	2	55.7%	NT	7	7	3.68	2.82
MW-86	TTA-2	CT	0.7670	3	72 9%	NT	11	1	0.436	0.436
MW-88	TTA-2	CT	0.3898	-16	94.0%	PD	10	10	8.59	2.66
MW-92	TTA-2	CT	0.5118	-20	99.3%	D	11	10	27.2	6.3
MW-96	TTA-2	CT	2.2666	-14	91 0%	PD	10	10	150	1
MW-113	TTA-2	CT	0.4071	28	99.9%	I	11	11	110	20
MW-217	TTA-2	CT	0.3737	15	99.9%	I	6	6	96.3	34.8
MW-218	TTA-2	CT	0.1073	5	76.5%	NT	6	6	17.7	13.3
DR2-2	TTA-2	CT	0.6095	26	99.7%	I	9	9	13.8	1.8
DR2-3	TTA-2	CT	0.1176	0	46.0%	S	10	10	6.1	4.1
DR2-4	TTA-2	CT	0.1757	3	61.4%	NT	7	7	4.06	2.2
DR2-6	TTA-2	CT	0.5241	8	76.2%	NT	10	10	92	7.2
PZ-07	TTA-2	CT	0.0000	0	0.0%	N/A	5	0		

TABLE 13
MANN-KENDALL TREND ANALYSIS - CF
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Well	Plume	COC	Coefficient of Variation	MK (S)	Confidence Factor (CF)	Concentration Trend	Number of Sample Rounds	Detects	Max	Min
MW-25A	NA	CF	0.1785	-13	96.5%	D	7	7	0.608	0.377
MW-26	TTA-2	CF	0.2338	-10	82.1%	S	11	11	1.8	0.935
MW-52	NA	CF	0.1682	11	93.2%	PI	7	7	1.12	0.68
MW-64	TTA-2	CF	0.1209	7	80.9%	NT	7	7	1.16	0.818
MW-86	TTA-2	CF	1.7537	5	76.5%	NT	11	5	5.7	0.212
MW-88	TTA-2	CF	0.5290	-22	98.8%	D	10	10	2.5	0.404
MW-92	TTA-2	CF	0.2121	4	64.0%	NT	11	10	13.2	6.6
MW-96	TTA-2	CF	2.1806	-6	69.4%	NT	10	10	33	0.337
MW-113	TTA-2	CF	0.1417	11	84.6%	NT	11	11	45.3	27
MW-217	TTA-2	CF	0.4306	13	99.2%	I	6	6	13.4	5.05
MW-218	TTA-2	CF	0.0891	-3	64.0%	S	6	6	3.15	2.45
DR2-2	TTA-2	CF	0.5829	25	99.6%	I	9	9	3.87	0.64
DR2-3	TTA-2	CF	0.3530	-22	98.8%	D	10	10	1.9	0.76
DR2-4	TTA-2	CF	0.1415	-7	80.9%	S	7	7	1.06	0.715
DR2-6	TTA-2	CF	0.5125	10	82.1%	NT	10	10	43.1	1.5
PZ-07	TTA-2	CF	0.0000	0	0.0%	N/A	5	0		

FIGURES

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Figure 1

SITE LOCATION MAP

ANNUAL LONG-TERM MONITORING REPORT – 2008

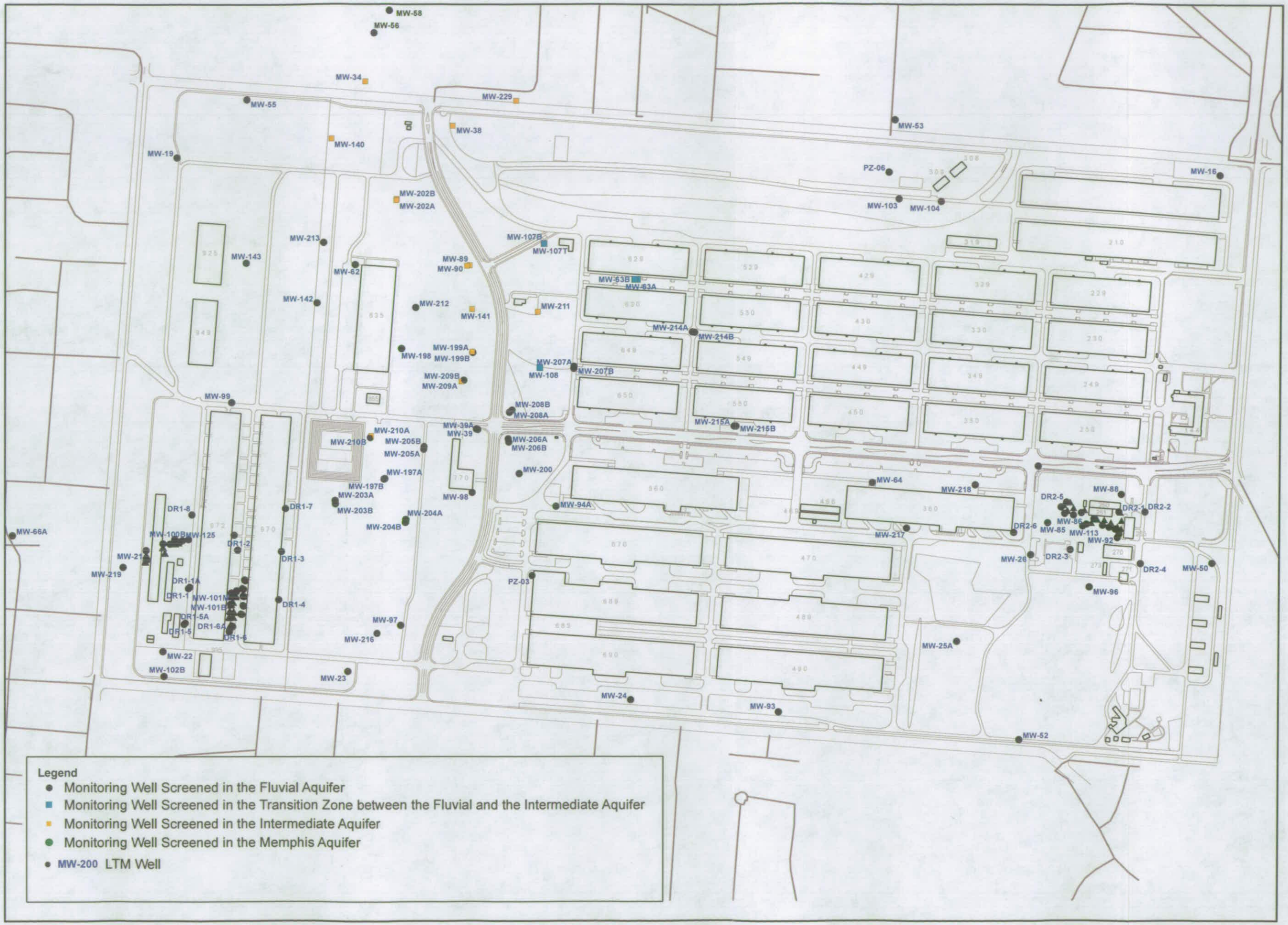
MAIN INSTALLATION DEFENSE DEPOT MEMPHIS, TENNESSEE

Projection: NAD 1927 StatePlane Tennessee
Units: Feet

0 0.6 1.2 1.8 2.4 3 Miles

Date: January 2010
Edition: Rev 1

HDR | eM



Legend

- Monitoring Well Screened in the Fluvial Aquifer
- Monitoring Well Screened in the Transition Zone between the Fluvial and the Intermediate Aquifer
- Monitoring Well Screened in the Intermediate Aquifer
- Monitoring Well Screened in the Memphis Aquifer
- MW-200 LTM Well

G:\3202\016\LTM\2008 Annual Report\GIS

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Figure 2

WELL LOCATION MAP

ANNUAL LONG-TERM
MONITORING REPORT – 2008

MAIN INSTALLATION
DEFENSE DEPOT
MEMPHIS, TENNESSEE

Projection: NAD 1927 StatePlane Tennessee
Units: Feet

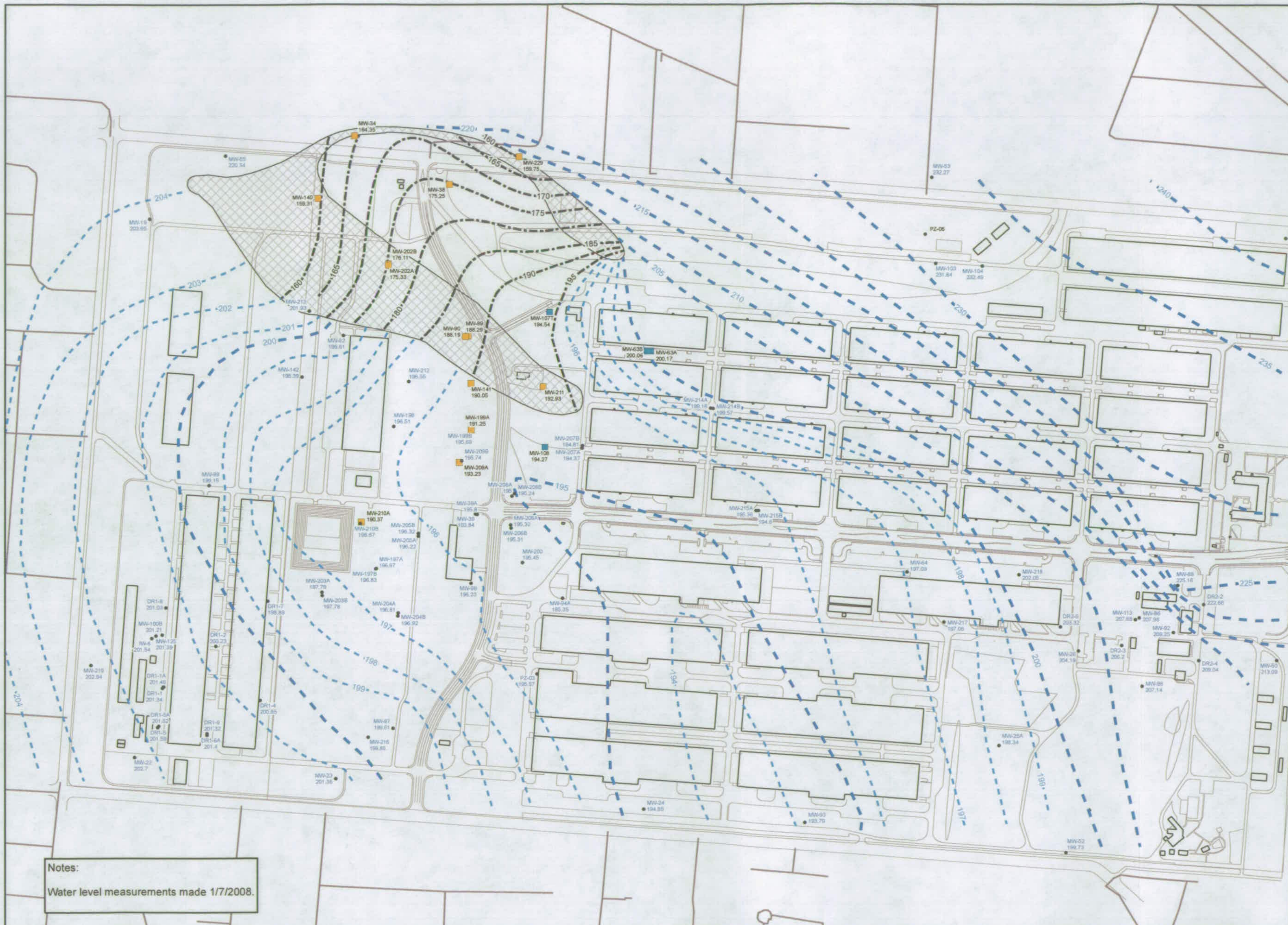
0 250 500 1,000
Feet

Installation Location
Memphis, Tennessee



Date: January 2010
Edition: Rev 1

HDR | eM



Notes:

Water level measurements made 1/7/2008.

Figure 3

POTENTIOMETRIC SURFACE MAP, JANUARY 2008

ANNUAL LONG-TERM MONITORING REPORT – 2008

MAIN INSTALLATION
DEFENSE DEPOT
MEMPHIS, TENNESSEE

Legend

- Monitoring Well Screened in the Fluvial Aquifer
- Monitoring Well Screened in the Intermediate Aquifer
- Monitoring Well Screened in the Transition Zone
- Potentiometric surface of the Fluvial Aquifer 1-ft. contour
- Potentiometric surface of the Fluvial Aquifer 5-ft. contour
- Potentiometric surface of the Intermediate Aquifer 5-ft. contour
- ClayArea *Clay Elevation Exceeds Groundwater Elevation*
- MW-03 100.12 Blue: value used for Fluvial Aquifer groundwater contours
- MW-237 100.15 Black: value used for Intermediate Aquifer groundwater contours

Projection: NAD 1927 StatePlane Tennessee
Units: Feet

0 250 500 1,000
Feet

Installation Location
Memphis, Tennessee



Date: February 2010
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Figure 4

POTENTIOMETRIC SURFACE MAP, APRIL 2008

ANNUAL LONG-TERM MONITORING REPORT – 2008

MAIN INSTALLATION
DEFENSE DEPOT
MEMPHIS, TENNESSEE

DUNN AVENUE

MEMPHIS DEPOT PARKWAY

BALL ROAD

Notes:

1. Water level measurements made 4/4/2008.
2. Groundwater elevation estimated at MW-140.

Legend

- Monitoring Well Screened in the Fluvial Aquifer
- Monitoring Well Screened in the Intermediate Aquifer
- Monitoring Well Screened in the Transition Zone
- Potentiometric surface of the Fluvial Aquifer 1-ft. contour
- Potentiometric surface of the Fluvial Aquifer 5-ft. contour
- Potentiometric surface of the Intermediate Aquifer 5-ft. contour
- ClayArea *Clay Elevation Exceeds Groundwater Elevation*

MW-03 100.12 Blue: value used for Fluvial Aquifer groundwater contours

MW-237 100.15 Black: value used for Intermediate Aquifer groundwater contours

Projection: NAD 1927 StatePlane Tennessee
Units: Feet

0 250 500 1,000
Feet

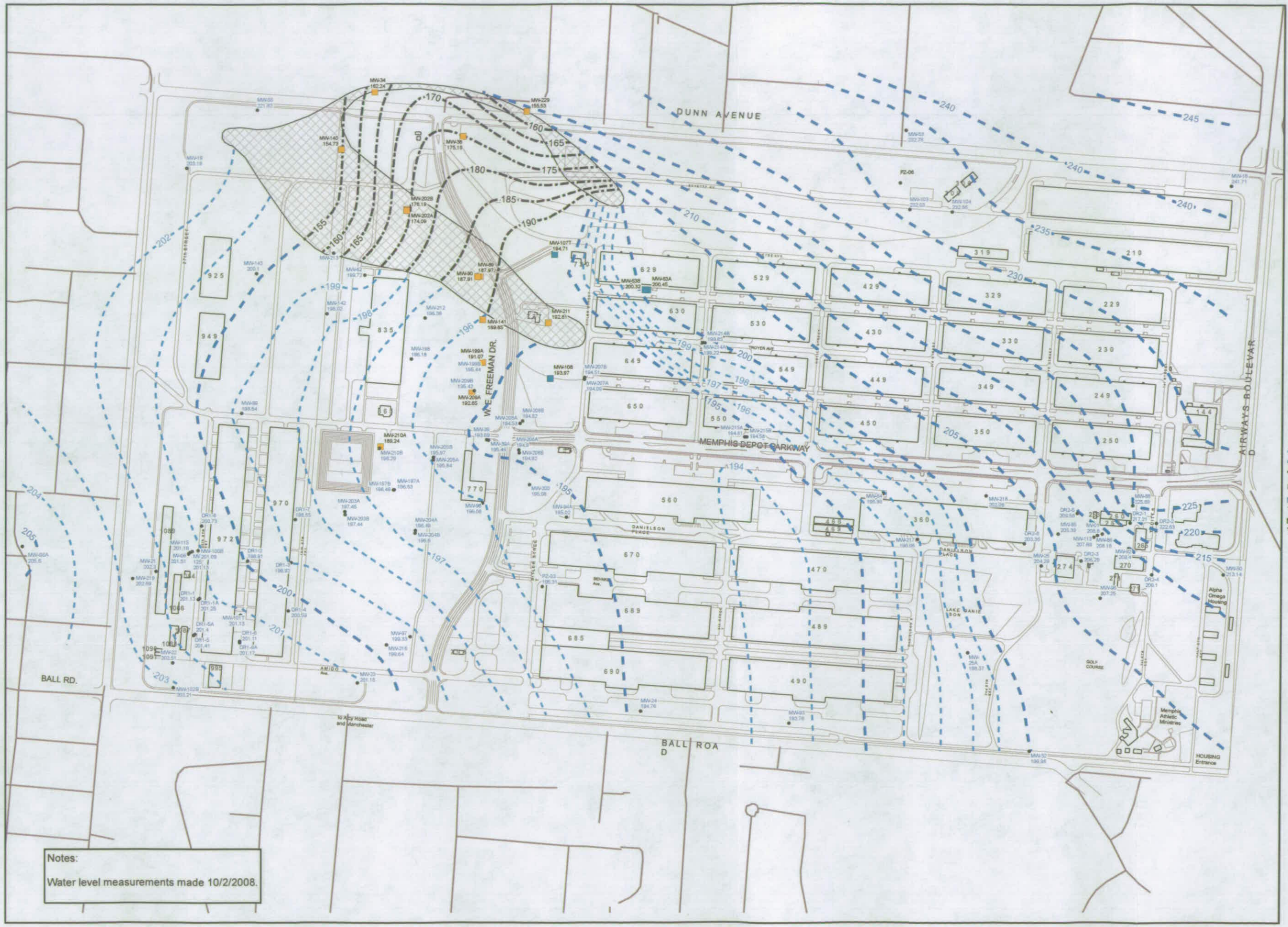
Installation Location
Memphis, Tennessee

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Date: February 2010
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Figure 5

POTENTIOMETRIC SURFACE MAP, OCTOBER 2008

ANNUAL LONG-TERM MONITORING REPORT – 2008

MAIN INSTALLATION
DEFENSE DEPOT
MEMPHIS, TENNESSEE

Legend

- Monitoring Well Screened in the Fluvial Aquifer
- Monitoring Well Screened in the Intermediate Aquifer
- Monitoring Well Screened in the Transition Zone
- Potentiometric surface of the Fluvial Aquifer 1-ft. contour
- Potentiometric surface of the Fluvial Aquifer 5-ft. contour
- Potentiometric surface of the Intermediate Aquifer 5-ft. contour

ClayArea *Clay Elevation Exceeds Groundwater Elevation*

MW-03 100.12 Blue: value used for Fluvial Aquifer groundwater contours

MW-237 100.15 Black: value used for Intermediate Aquifer groundwater contours

Projection: NAD 1927 StatePlane Tennessee
Units: Feet

0 250 500 1,000
Feet

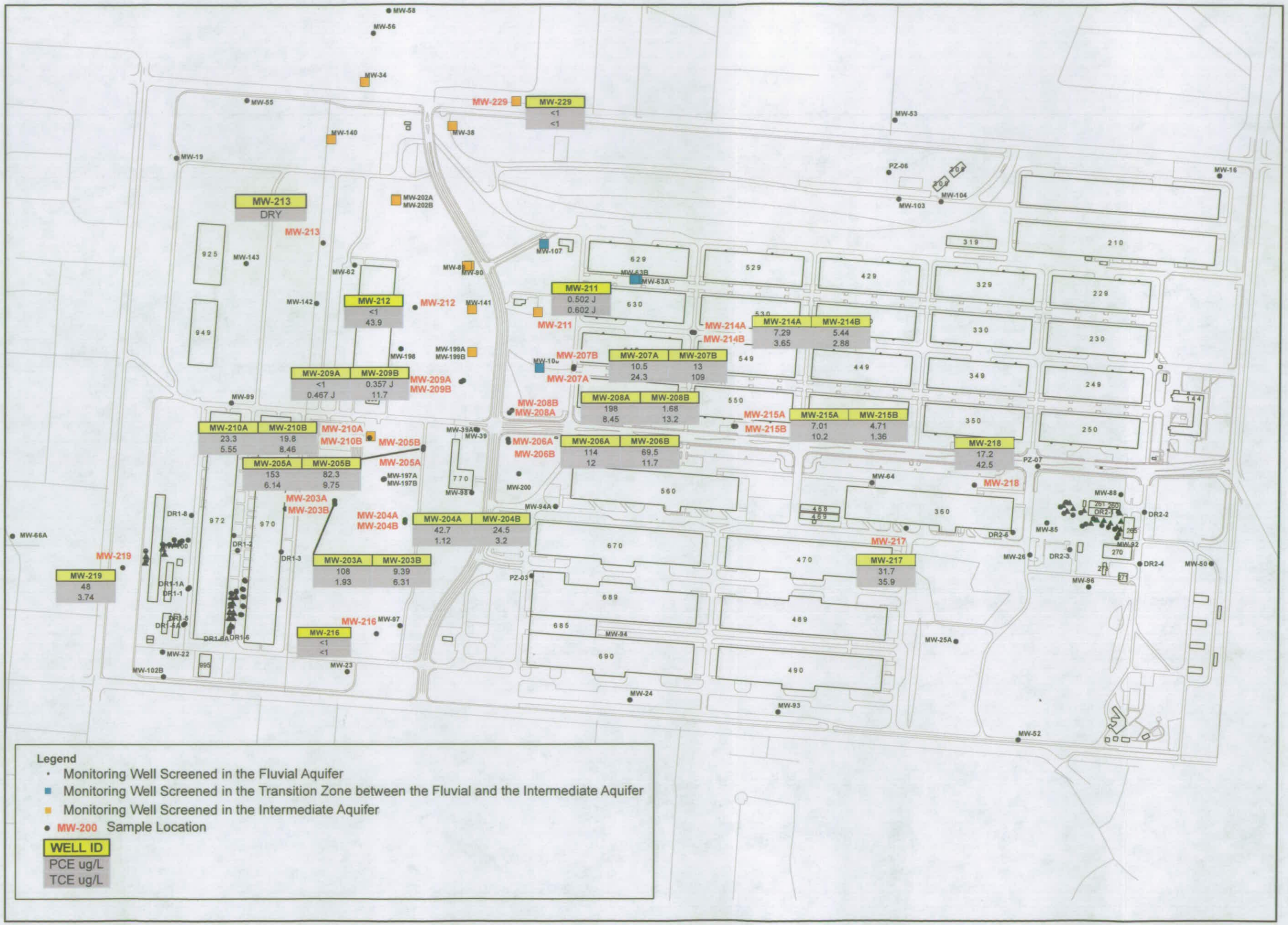
Installation Location
Memphis, Tennessee



Date: February 2010
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Legend

- Monitoring Well Screened in the Fluvial Aquifer
- Monitoring Well Screened in the Transition Zone between the Fluvial and the Intermediate Aquifer
- Monitoring Well Screened in the Intermediate Aquifer
- MW-200 Sample Location

WELL ID
PCE ug/L
TCE ug/L

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Figure 6

PCE/TCE ANALYTICAL RESULTS, JANUARY 2008

ANNUAL LONG-TERM MONITORING REPORT – 2008

MAIN INSTALLATION
DEFENSE DEPOT
MEMPHIS, TENNESSEE

Projection: NAD 1927 StatePlane Tennessee
Units: Feet

0 250 500 1,000
Feet

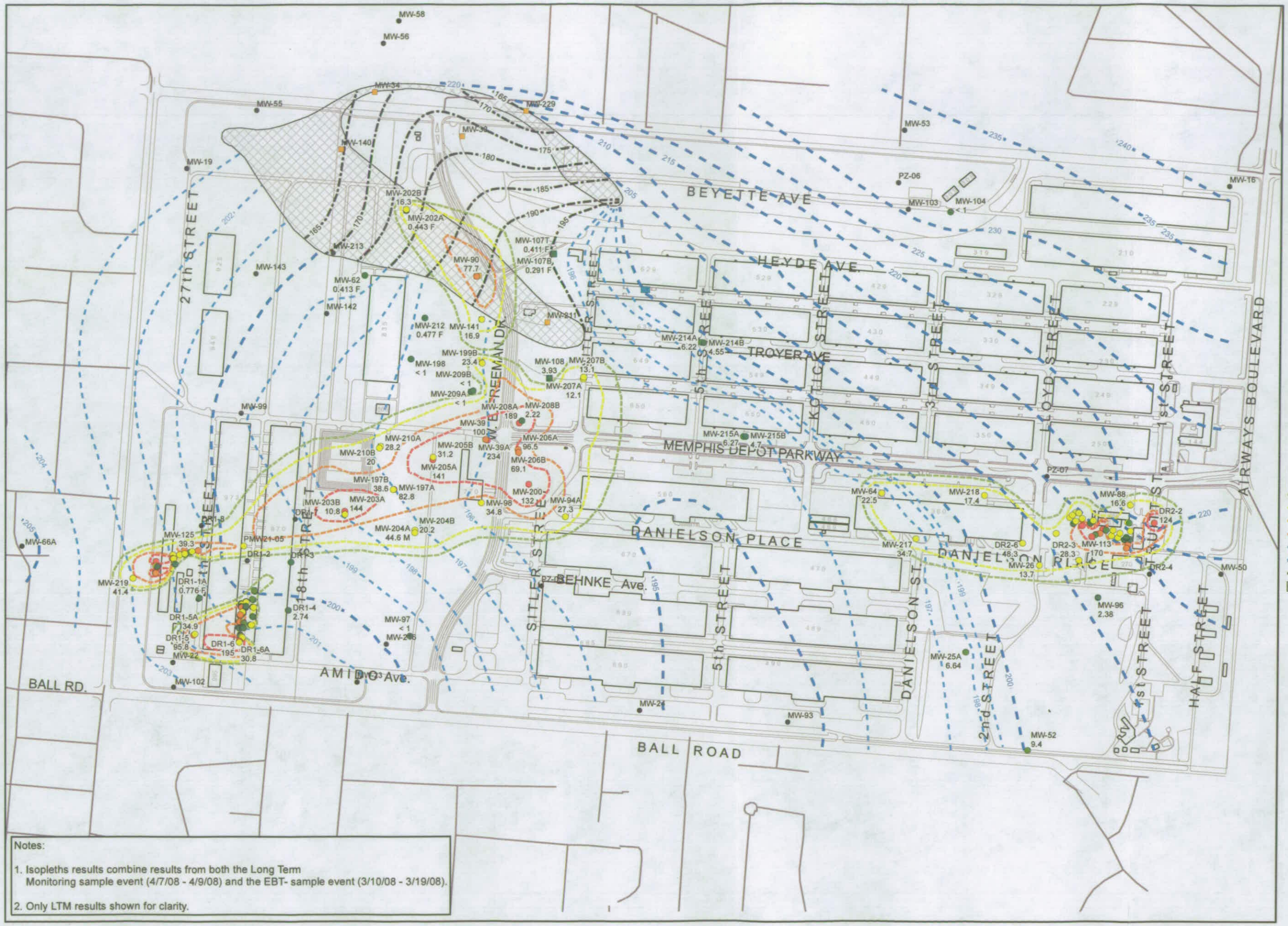
Installation Location
Memphis, Tennessee



Date: January 2010
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Notes:

1. Isopleths results combine results from both the Long Term Monitoring sample event (4/7/08 - 4/9/08) and the EBT- sample event (3/10/08 - 3/19/08).
2. Only LTM results shown for clarity.

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Figure 7

PCE ISOPLETH MAP, APRIL 2008

ANNUAL LONG-TERM MONITORING REPORT – 2008

MAIN INSTALLATION
DEFENSE DEPOT
MEMPHIS, TENNESSEE

Legend

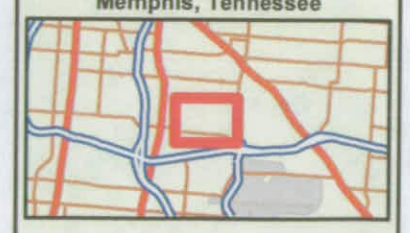
PCE Ranges ug/L
- 0 - 5
- 5 - 10
- 10 - 50
- 50 - 100
- 100 - 300

PCE Isopleth ug/L
- 5
- 10
- 50
- 100
- Potentiometric surface of the Fluvial Aquifer 1-ft. contour
- Potentiometric surface of the Fluvial Aquifer 5-ft. contour
- Potentiometric surface of the Intermediate Aquifer 5-ft. contour
- Clay Elevation Exceeds Groundwater Elevation

Projection: NAD 1927 StatePlane Tennessee
Units: Feet

0 200 400 800
Feet

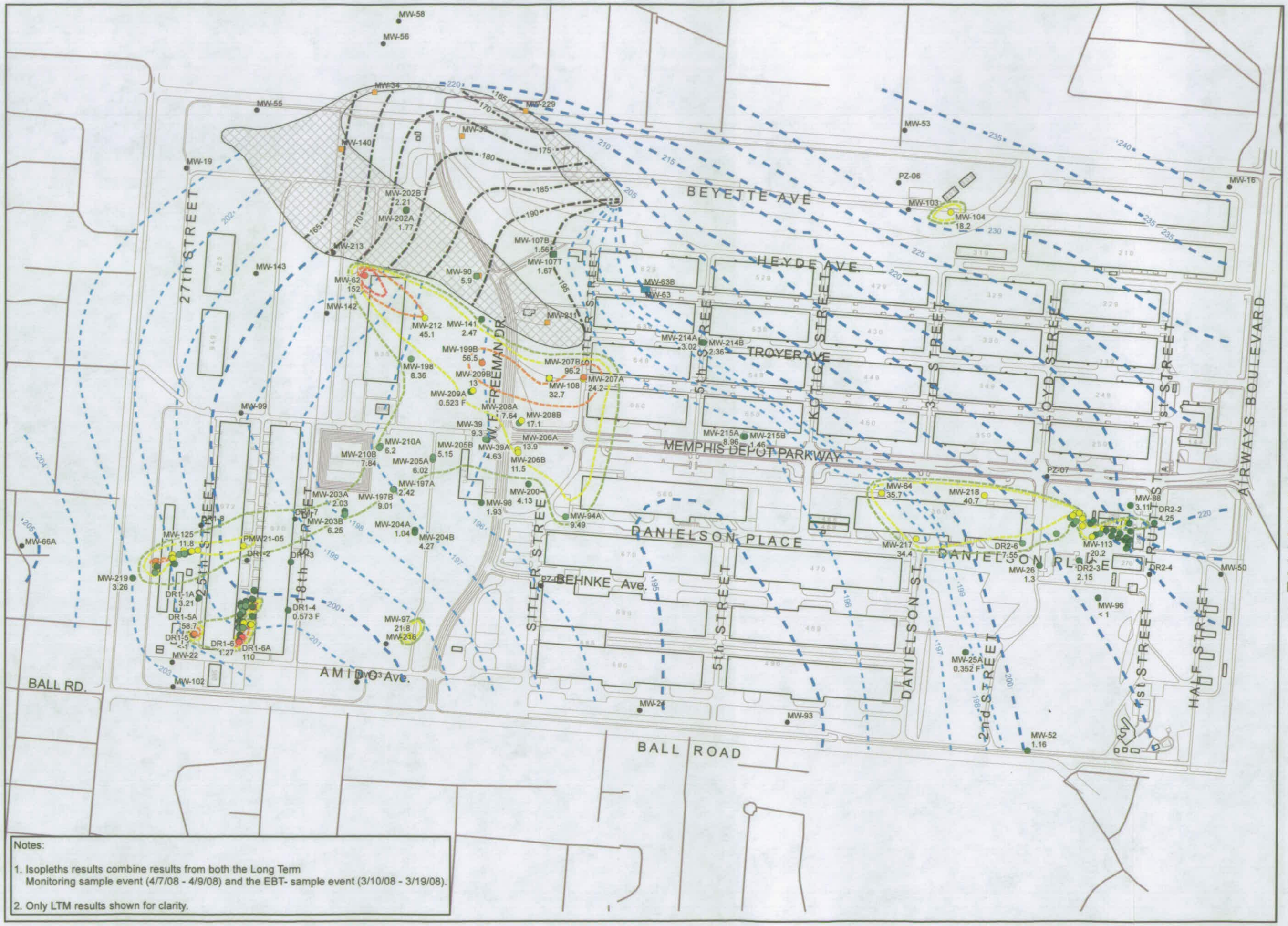
Installation Location
Memphis, Tennessee



Date: February 2010
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Notes:

1. Isopleths results combine results from both the Long Term Monitoring sample event (4/7/08 - 4/9/08) and the EBT- sample event (3/10/08 - 3/19/08).
2. Only LTM results shown for clarity.

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Figure 8

TCE ISOPLETH MAP, APRIL 2008

ANNUAL LONG-TERM MONITORING REPORT – 2008

MAIN INSTALLATION
DEFENSE DEPOT
MEMPHIS, TENNESSEE

Legend

TCE Ranges
ug/L
- 0 - 5
- 5 - 10
- 10 - 50
- 50 - 100
- 100 - 300

TCE Isopleth
ug/L
- 5
- 10
- 50
- 100
- Potentiometric surface of the Fluvial Aquifer 1-ft. contour
- Potentiometric surface of the Fluvial Aquifer 5-ft. contour
- Potentiometric surface of the Intermediate Aquifer 5-ft. contour
- Clay Elevation Exceeds Groundwater Elevation

Projection: NAD 1927 StatePlane Tennessee
Units: Feet

0 200 400 800
Feet

Installation Location
Memphis, Tennessee



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Notes:

1. Isopleths combine results from the LTM sample event (10/6/08 - 10/21/08) and the EBT sample event (12/8/08 - 12/17/08).

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Figure 9

PCE ISOPLETH MAP, OCTOBER 2008

ANNUAL LONG-TERM MONITORING REPORT – 2008

MAIN INSTALLATION
DEFENSE DEPOT
MEMPHIS, TENNESSEE

Legend

PCE Ranges
ug/L
- 0 - 5
- 5 - 10
- 10 - 50
- 50 - 100
- 100 - 300

PCE Isopleth
ug/L
- 5
- 10
- 50
- 100
- Potentiometric surface of the Fluvial Aquifer 1-ft. contour
- Potentiometric surface of the Fluvial Aquifer 5-ft. contour
- Potentiometric surface of the Intermediate Aquifer 5-ft. contour
- Clay Elevation Exceeds Groundwater Elevation

Projection: NAD 1927 StatePlane Tennessee
Units: Feet

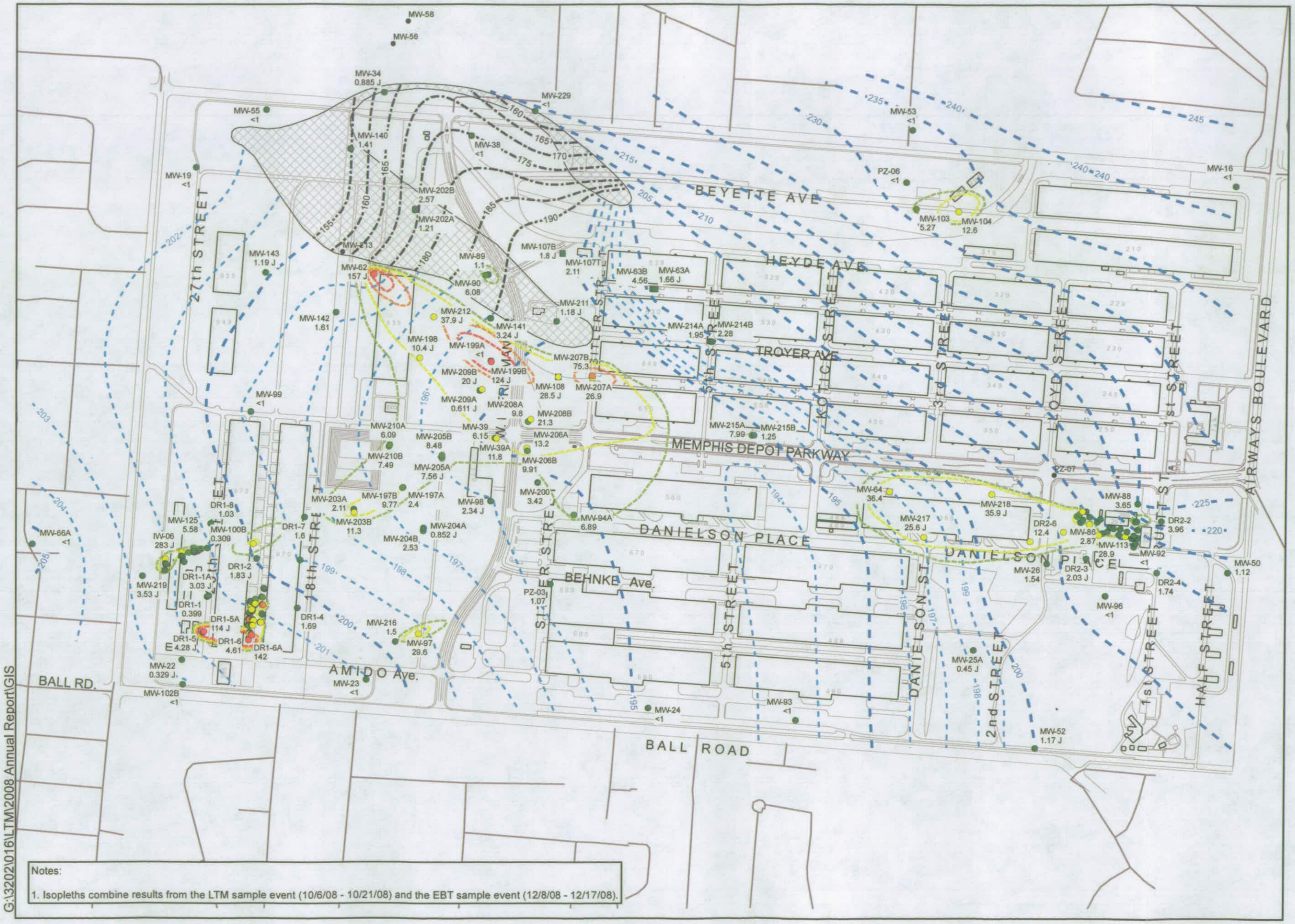
0 200 400 800
Feet

Installation Location
Memphis, Tennessee



Date: February 2010
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Notes:

1. Isopleths combine results from the LTM sample event (10/6/08 - 10/21/08) and the EBT sample event (12/8/08 - 12/17/08).

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Figure 10

TCE ISOPLETH MAP, OCTOBER 2008

ANNUAL LONG-TERM MONITORING REPORT – 2008

MAIN INSTALLATION
DEFENSE DEPOT
MEMPHIS, TENNESSEE

Legend

TCE Ranges
ug/L
- 0 - 5
- 5 - 10
- 10 - 50
- 50 - 100
- 100 - 300

TCE Isopleth
ug/L
- 5
- 10
- 50
- 100
- Potentiometric surface of the Fluvial Aquifer 1-ft. contour
- Potentiometric surface of the Fluvial Aquifer 5-ft. contour
- Potentiometric surface of the Intermediate Aquifer 5-ft. contour
- Clay Elevation Exceeds Groundwater Elevation

Projection: NAD 1927 StatePlane Tennessee
Units: Feet

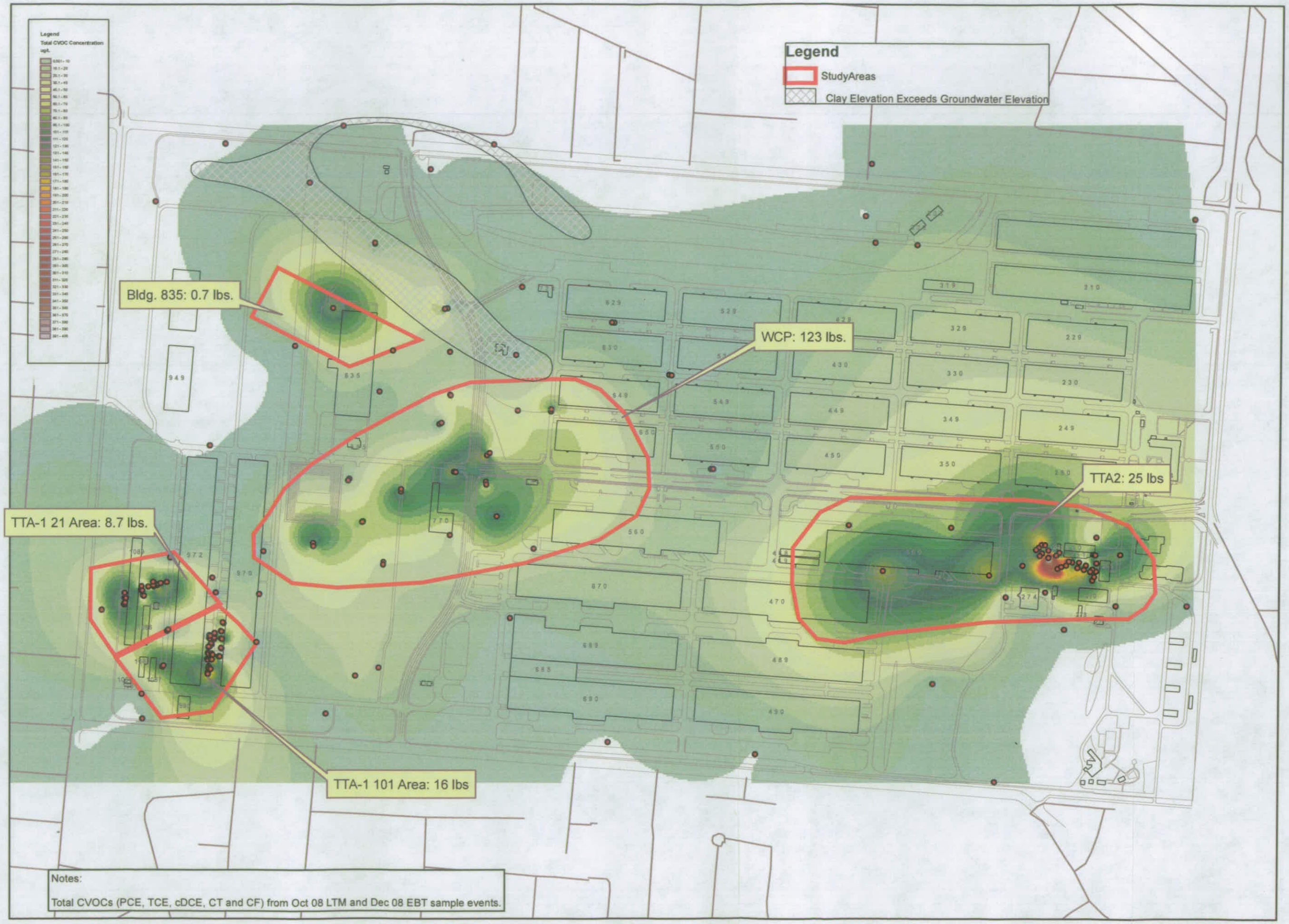
0 200 400 800
Feet

Installation Location
Memphis, Tennessee



Date: February 2010
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Figure 11

ESTIMATED CVOC MASS IN GROUNDWATER

ANNUAL LONG-TERM MONITORING REPORT – 2008

MAIN INSTALLATION
DEFENSE DEPOT
MEMPHIS, TENNESSEE

Projection: NAD 1927 StatePlane Tennessee
Units: Feet

0 250 500 1,000
Feet

Installation Location
Memphis, Tennessee



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APPENDIX A

COMPLETE ANALYTICAL RESULTS

TABLE A-1
ANALYTICAL RESULTS , VOCs - JANUARY 2008
ANNUAL LONG-TERM MONITORING REPORT – 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Well ID / Lab ID / Date	Units	MW-203A L08010178-08 1/8/2008	MW-203A DUP L08010178-16 1/8/2008	MW-203B L08010178-01 1/8/2008	MW-204A L08010178-09 1/8/2008	MW-204B L08010178-02 1/8/2008	MW-205A L08010178-10 1/8/2008
1,1,1,2-Tetrachloroethane		ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane		ug/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane		ug/L	<0 5	<0.5	<0 5	<0.5	0.734	<0 5
1,1,2-Trichloroethane		ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane		ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene		ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene		ug/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene		ug/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane		ug/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene		ug/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene		ug/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane		ug/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane		ug/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene		ug/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane		ug/L	<0.5	<0.5	<0 5	<0.5	<0.5	<0.5
1,2-Dichloropropane		ug/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene		ug/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene		ug/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane		ug/L	<0 4	<0.4	<0 4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene		ug/L	<0 5	<0 5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane		ug/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane		ug/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene		ug/L	<1	<1	<1	<1	<1	<1
2-Hexanone		ug/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene		ug/L	<1	<1	<1	<1	<1	<1
Acetone		ug/L	<10	<10	<10	<10	<10	<10
Benzene		ug/L	<0 4	<0.4	<0 4	<0.4	<0.4	<0.4
Bromobenzene		ug/L	<1	<1	<1	<1	<1	<1
Bromochloromethane		ug/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane		ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform		ug/L	<1	<1	<1	<1	<1	<1
Bromomethane		ug/L	<1	<1	<1	<1	<1	<1
Carbon disulfide		ug/L	1.77	<1	<1	<1	<1	<1
Carbon tetrachloride		ug/L	<1	<1	<1	<1	<1	<1
Chlorobenzene		ug/L	<0 5	<0.5	<0 5	<0.5	<0.5	<0 5
Chloroethane		ug/L	<1	<1	<1	<1	<1	<1
Chloroform		ug/L	0 172 J	0.158 J	<0.3	<0 3	<0.3	0.165 J
Chloromethane		ug/L	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene		ug/L	0.972 J	0 978 J	58.6	0.922 J	2.3	3.12
cis-1,3-Dichloropropene		ug/L	<0.5	<0.5	<0.5	<0 5	<0.5	<0.5
Dibromochloromethane		ug/L	<0.5	<0.5	<0.5	<0 5	<0.5	<0.5
Dibromomethane		ug/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane		ug/L	<1	<1	<1	<1	<1	<1
Ethylbenzene		ug/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene		ug/L	<0 6	<0 6	<0 6	<0.6	<0.6	<0 6
Isopropylbenzene		ug/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene		ug/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)		ug/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)		ug/L	<5	<5	<5	<5	<5	<5
Methylene chloride		ug/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)		ug/L	<10	<10	<10	<10	<10	<10
Naphthalene		ug/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene		ug/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene		ug/L	<1	<1	<1	<1	<1	<1
o-Xylene		ug/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene		ug/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene		ug/L	<1	<1	<1	<1	<1	<1
Styrene		ug/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene		ug/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene		ug/L	108	109	9 39	42.7	24.5	153
Toluene		ug/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene		ug/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene		ug/L	<1	<1	<1	<1	<1	<1
Trichloroethene		ug/L	1 93	1.93	6.31	1.12	3 2	6.14
Trichlorofluoromethane		ug/L	<1	<1	<1	<1	<1	<1
Vinyl acetate		ug/L	<5	<5	<5	<5	<5	<5
Vinyl chloride		ug/L	<1	<1	<1	<1	<1	<1

<: Not detected above Reporting Limit (RL)
J Estimated result based on QC data or reported below RL
B: Estimated result possibly biased high or false positive based on blank data

TABLE A-1
ANALYTICAL RESULTS , VOCs - JANUARY 2008
ANNUAL LONG-TERM MONITORING REPORT – 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Well ID / Lab ID / Date / Units	MW-205B L08010178-03 1/8/2008	MW-206A L08010178-11 1/8/2008	MW-206B L08010208-01 1/9/2008	MW-207A L08010208-13 1/9/2008	MW-207B L08010208-02 1/9/2008	MW-207B DUP L08010208-11 1/9/2008
1,1,1,2-Tetrachloroethane	ug/L	<0.5	<0 5	<0 5	<0 5	<0.5	<0.5
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	ug/L	<0 5	<0 5	<0.5	<0.5	<0 5	<0.5
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	ug/L	<1	<1	<1	0 303 J	<1	<1
1,1-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	ug/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	ug/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	<0.5	<0 5	<0 5	<0.5	<0 5	<0.5
1,2-Dichloropropane	ug/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	ug/L	<0.4	<0.4	<0.4	<0 4	<0.4	<0 4
1,4-Dichlorobenzene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	ug/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	ug/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	ug/L	<1	<1	<1	<1	<1	<1
2-Hexanone	ug/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	ug/L	<1	<1	<1	<1	<1	<1
Acetone	ug/L	<10	<10	<10	<10	<10	<10
Benzene	ug/L	<0 4	<0 4	<0.4	<0 4	<0 4	<0 4
Bromobenzene	ug/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<0 5	<0 5	<0.5	<0.5	<0 5	<0.5
Bromoform	ug/L	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1	<1	<1	<1
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	0.44 J	1 16	1 13
Chlorobenzene	ug/L	<0 5	<0.5	<0 5	<0 5	<0.5	<0.5
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1
Chloroform	ug/L	0.146 J	0.174 J	0.147 J	10 6	1.26	1 26
Chloromethane	ug/L	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	ug/L	26.4	0 717 J	0 688 J	0.382 J	<1	<1
cis-1,3-Dichloropropene	ug/L	<0.5	<0 5	<0.5	<0 5	<0.5	<0.5
Dibromochloromethane	ug/L	<0.5	<0 5	<0.5	<0 5	<0.5	<0.5
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	ug/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	ug/L	<0 6	<0 6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	ug/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	ug/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	ug/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	ug/L	<5	<5	<5	<5	<5	<5
Methylene chloride	ug/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	ug/L	<10	<10	<10	<10	<10	<10
Naphthalene	ug/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene	ug/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	ug/L	<1	<1	<1	<1	<1	<1
o-Xylene	ug/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	ug/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Styrene	ug/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	ug/L	82 3	114	69 5	10.5	12 9	13
Toluene	ug/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	9.75	12	11.7	24 3	112	109
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	<1	<1
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1

<: Not detected above Reporting Limit (RL)
J: Estimated result based on QC data or reported below RL
B. Estimated result possibly biased high or false positive based on blank data

TABLE A-1
ANALYTICAL RESULTS , VOCs - JANUARY 2008
ANNUAL LONG-TERM MONITORING REPORT – 2008
Main Installation - Defense Depot Memphis, Tennessee

	Well ID	MW-208A	MW-208B	MW-209A	MW-209B	MW-210A	MW-210B
	Lab ID	L08010178-12	L08010208-03	L08010208-14	L08010178-04	L08010178-13	L08010178-05
	Date	1/8/2008	1/9/2008	1/9/2008	1/8/2008	1/8/2008	1/8/2008
Analyte	Units						
1,1,1,2-Tetrachloroethane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	ug/L	<0.5	0.395 J	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	ug/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	ug/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	<0.5	<0.5	<0 5	<0.5	<0 5	<0.5
1,2-Dichloropropane	ug/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	ug/L	<0 4	<0.4	<0 4	<0.4	<0.4	<0 4
1,4-Dichlorobenzene	ug/L	<0.5	<0.5	<0.5	<0 5	<0.5	<0.5
1-Chlorohexane	ug/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	ug/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	ug/L	<1	<1	<1	<1	<1	<1
2-Hexanone	ug/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	ug/L	<1	<1	<1	<1	<1	<1
Acetone	ug/L	<10	<10	<10	<10	<10	<10
Benzene	ug/L	<0.4	<0 4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	ug/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<0.5	<0.5	<0.5	<0 5	<0.5	<0.5
Bromoform	ug/L	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1	<1	<1	<1
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	0 474 J	<1	<1
Chlorobenzene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1
Chloroform	ug/L	0 221 J	<0.3	0.131 J	0 198 J	0 149 J	0.14 J
Chloromethane	ug/L	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	ug/L	0.56 J	0.932 J	<1	<1	0.757 J	0.529 J
cis-1,3-Dichloropropene	ug/L	<0.5	<0 5	<0.5	<0 5	<0 5	<0.5
Dibromochloromethane	ug/L	<0 5	<0 5	<0 5	<0.5	<0.5	<0 5
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	ug/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	ug/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	ug/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	ug/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	ug/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	ug/L	<5	<5	1 46 J	<5	<5	<5
Methylene chloride	ug/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	ug/L	<10	<10	<10	<10	<10	<10
Naphthalene	ug/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene	ug/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	ug/L	<1	<1	<1	<1	<1	<1
o-Xylene	ug/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	ug/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Styrene	ug/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	ug/L	198	1 68	<1	0.357 J	23.3	19.8
Toluene	ug/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	8 45	13.2	0.467 J	11.7	5.55	8.46
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	<1	<1
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1

<: Not detected above Reporting Limit (RL)
J: Estimated result based on QC data or reported below RL
B: Estimated result possibly biased high or false positive based on blank data

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TABLE A-1
ANALYTICAL RESULTS , VOCs - JANUARY 2008
ANNUAL LONG-TERM MONITORING REPORT – 2008
Main Installation - Defense Depot Memphis, Tennessee

	Well ID	MW-211	MW-212	MW-214A	MW-214B	MW-215A	MW-215B
	Lab ID	L08010208-15	L08010208-06	L08010208-16	L08010208-07	L08010208-17	L08010208-18
	Date	1/9/2008	1/9/2008	1/9/2008	1/9/2008	1/9/2008	1/9/2008
Analyte	Units						
1,1,1,2-Tetrachloroethane	ug/L	<0.5	<0.5	<0 5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	ug/L	<0.5	<0.5	0.279 J	0.392 J	0 223 J	0.172 J
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	ug/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	ug/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	<0 5	<0.5	<0 5	<0.5	<0.5	<0 5
1,2-Dichloropropane	ug/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	ug/L	<0 4	<0.4	<0.4	<0 4	<0.4	<0.4
1,4-Dichlorobenzene	ug/L	<0.5	<0.5	<0 5	<0.5	<0.5	<0 5
1-Chlorohexane	ug/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	ug/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	ug/L	<1	<1	<1	<1	<1	<1
2-Hexanone	ug/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	ug/L	<1	<1	<1	<1	<1	<1
Acetone	ug/L	<10	<10	<10	<10	<10	<10
Benzene	ug/L	<0 4	<0.4	<0 4	<0 4	<0.4	<0.4
Bromobenzene	ug/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	ug/L	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1	<1	<1	<1
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	0 635 J	0 575 J	0.959 J	0.552 J	0 856 J
Chlorobenzene	ug/L	<0 5	<0 5	<0.5	<0.5	<0 5	<0 5
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1
Chloroform	ug/L	0.214 J	<0 3	2.02	1.44	1 68	0 61
Chloromethane	ug/L	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1
cis-1,3-Dichloropropene	ug/L	<0.5	<0 5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	ug/L	<0.5	<0.5	<0 5	<0.5	<0.5	<0.5
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	ug/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	ug/L	<0.6	<0.6	<0.6	<0.6	<0 6	<0 6
Isopropylbenzene	ug/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	ug/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	ug/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	ug/L	0.663 J	<5	1 5 J	0 843 J	1.81 J	<5
Methylene chloride	ug/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	ug/L	<10	<10	<10	<10	<10	<10
Naphthalene	ug/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene	ug/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	ug/L	<1	<1	<1	<1	<1	<1
o-Xylene	ug/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	ug/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Styrene	ug/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	ug/L	0 502 J	<1	7.29	5.44	7 01	4.71
Toluene	ug/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	0 602 J	43.9	3.65	2.88	10.2	1.36
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	<1	<1
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1

<: Not detected above Reporting Limit (RL)
J: Estimated result based on QC data or reported below RL
B Estimated result possibly biased high or false positive based on blank data

TABLE A-1
ANALYTICAL RESULTS , VOCs - JANUARY 2008
ANNUAL LONG-TERM MONITORING REPORT – 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Well ID Lab ID Date Units	MW-216 L08010178-06 1/8/2008 ug/L	MW-217 L08010208-08 1/9/2008 ug/L	MW-218 L08010208-09 1/9/2008 ug/L	MW-219 L08010208-10 1/9/2008 ug/L	MW-229 L08010208-19 1/9/2008 ug/L	MW-229 DUP L08010208-20 1/9/2008 ug/L
1,1,1,2-Tetrachloroethane		<0.5	<0 5	<0.5	<0.5	<0 5	<0.5
1,1,1-Trichloroethane		<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane		<0.5	0 625	1.61	<0.5	<0 5	<0 5
1,1,2-Trichloroethane		<1	<1	<1	<1	<1	<1
1,1-Dichloroethane		<1	<1	<1	<1	<1	<1
1,1-Dichloroethene		<1	<1	<1	<1	<1	<1
1,1-Dichloropropane		<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene		<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane		<1	2.2	<1	<1	<1	<1
1,2,4-Trichlorobenzene		<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene		<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane		<2	<2	<2	<2	<2	<2
1,2-Dibromoethane		<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene		<1	<1	<1	<1	<1	<1
1,2-Dichloroethane		<0 5	0 303 J	0.565	1.06	<0.5	<0.5
1,2-Dichloropropane		<1	<1	0.393 J	<1	<1	<1
1,3,5-Trimethylbenzene		<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene		<1	<1	<1	<1	<1	<1
1,3-Dichloropropane		<0.4	<0.4	<0 4	<0 4	<0.4	<0.4
1,4-Dichlorobenzene		<0.5	<0.5	<0.5	<0.5	0.169 J	0.175 J
1-Chlorohexane		<1	<1	<1	<1	<1	<1
2,2-Dichloropropane		<1	<1	<1	<1	<1	<1
2-Chlorotoluene		<1	<1	<1	<1	<1	<1
2-Hexanone		<10	<10	<10	<10	<10	<10
4-Chlorotoluene		<1	<1	<1	<1	<1	<1
Acetone		<10	<10	<10	<10	<10	<10
Benzene		<0.4	<0.4	<0 4	<0 4	<0.4	<0 4
Bromobenzene		<1	<1	<1	<1	<1	<1
Bromochloromethane		<1	<1	<1	<1	<1	<1
Bromodichloromethane		<0 5	<0 5	<0 5	<0.5	<0.5	<0.5
Bromoform		<1	<1	<1	<1	<1	<1
Bromomethane		<1	<1	<1	<1	<1	<1
Carbon disulfide		<1	<1	<1	<1	<1	<1
Carbon tetrachloride		<1	57 3	15	<1	<1	<1
Chlorobenzene		<0 5	<0.5	<0 5	<0.5	<0.5	<0.5
Chloroethane		<1	<1	<1	<1	<1	<1
Chloroform		<0 3	7 43	2 58	<0.3	<0 3	<0 3
Chloromethane		<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene		<1	2.43	0.352 J	0.875 J	<1	<1
cis-1,3-Dichloropropene		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane		<0 5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane		<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane		<1	<1	<1	<1	<1	<1
Ethylbenzene		<1	<1	<1	<1	<1	<1
Hexachlorobutadiene		<0.6	<0 6	<0 6	<0 6	<0 6	<0.6
Isopropylbenzene		<1	<1	<1	<1	<1	<1
m-,p-Xylene		<2	<2	<2	<2	<2	<2
MEK (2-Butanone)		<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)		<5	<5	<5	<5	<5	<5
Methylene chloride		<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)		<10	<10	<10	<10	<10	<10
Naphthalene		<1	<1	<1	<1	<1	<1
n-Butylbenzene		<1	<1	<1	<1	<1	<1
n-Propylbenzene		<1	<1	<1	<1	<1	<1
o-Xylene		<1	<1	<1	<1	<1	<1
p-Isopropyltoluene		<1	<1	<1	<1	<1	<1
sec-Butylbenzene		<1	<1	<1	<1	<1	<1
Styrene		<1	<1	<1	<1	<1	<1
tert-Butylbenzene		<1	<1	<1	<1	<1	<1
Tetrachloroethene		<1	31 7	17.2	48	<1	<1
Toluene		<1	<1	<1	<1	0.852 J	0.836 J
trans-1,2-Dichloroethene		<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene		<1	<1	<1	<1	<1	<1
Trichloroethene		<1	35.9	42 5	3.74	<1	<1
Trichlorofluoromethane		<1	<1	0.641 J	<1	<1	<1
Vinyl acetate		<5	<5	<5	<5	<5	<5
Vinyl chloride		<1	<1	<1	<1	<1	<1

<: Not detected above Reporting Limit (RL)
J. Estimated result based on QC data or reported below RL
B: Estimated result possibly biased high or false positive based on blank data

TABLE A-2
ANALYTICAL RESULTS , VOCs - APRIL 2008
ANNUAL LONG-TERM MONITORING REPORT – 2008
Main Installation - Defense Depot Memphis, Tennessee

	Well ID	DR1-1A	DR1-4	DR1-5A	DR1-5	DR1-6A	DR1-6
	Lab ID	L08040258-09	L08040249-01	L08040258-10	L08040249-23	L08040258-13	L08040258-11
	Date	4/8/2008	4/7/2008	4/8/2008	4/7/2008	4/8/2008	4/8/2008
Analyte	Units						
1,1,1,2-Tetrachloroethane	ug/L	<0.5	<0 5	<0.5	<0.5	<0 5	<0.5
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	ug/L	<0 5	<0.5	<0 5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	ug/L	<1	<1	0.655 J	<1	0.781 J	<1
1,1-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	ug/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	ug/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	<0.5	<0 5	<0.5	<0.5	<0.5	<0 5
1,2-Dichloropropane	ug/L	<1	<1	<1	<1	0.237 J	<1
1,3,5-Trimethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	ug/L	<0.4	<0.4	<0 4	<0.4	<0 4	<0.4
1,4-Dichlorobenzene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	ug/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	ug/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	ug/L	<1	<1	<1	<1	<1	<1
2-Hexanone	ug/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	ug/L	<1	<1	<1	<1	<1	<1
Acetone	ug/L	<10	<10	<10	<10	2 53 B	<10
Benzene	ug/L	<0.4	<0.4	<0 4	<0.4	<0 4	<0.4
Bromobenzene	ug/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	ug/L	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1	<1	<1	<1
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1
Chlorobenzene	ug/L	<0 5	<0.5	<0.5	<0 5	<0.5	<0.5
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1
Chloroform	ug/L	0.274 J	<0.3	0.187 J	0.165 J	0 215 J	<0 3
Chloromethane	ug/L	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	ug/L	0.273 J	0.582 J	1.82	<1	2.99	1.09
cis-1,3-Dichloropropene	ug/L	<0.5	<0.5	<0 5	<0.5	<0.5	<0.5
Dibromochloromethane	ug/L	<0.5	<0.5	<0 5	<0.5	<0.5	<0.5
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	ug/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	ug/L	<0.6	<0.6	<0.6	<0.6	<0 6	<0.6
Isopropylbenzene	ug/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	ug/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	ug/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	ug/L	<5	<5	21.4	<5	<5	<5
Methylene chloride	ug/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	ug/L	<10	<10	<10	<10	<10	<10
Naphthalene	ug/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene	ug/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	ug/L	<1	<1	<1	<1	<1	<1
o-Xylene	ug/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	ug/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Styrene	ug/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	ug/L	0.776 J	2 74	34.9	95.8	30 8	195
Toluene	ug/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	3.21	0.573 J	58.7	<1	110	1.27
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	<1	<1
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1

<: Not detected above Reporting Limit (RL)
J: Estimated result based on QC data or reported below RL
B: Estimated result possibly biased high or false positive based on blank data

TABLE A-2
ANALYTICAL RESULTS , VOCs - APRIL 2008
ANNUAL LONG-TERM MONITORING REPORT – 2008
Main Installation - Defense Depot Memphis, Tennessee

	Well ID	DR2-2	DR2-3	DR2-6	MW-25A	MW-26	MW-39A
	Lab ID	L08040258-19	L08040258-20	L08040258-21	L08040258-01	L08040249-08	L08040249-18
	Date	4/8/2008	4/8/2008	4/8/2008	4/8/2008	4/7/2008	4/7/2008
Analyte	Units						
1,1,1,2-Tetrachloroethane	ug/L	<0.5	<0.5	<0.5	<0.5	<0 5	<0.5
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	ug/L	<0 5	<0.5	<0.5	<0.5	<0.5	<0 5
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	ug/L	<1	<1	32 8	<1	<1	<1
1,2,4-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	ug/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	<0.5	<0.5	0.961	<0.5	<0 5	<0.5
1,2-Dichloropropane	ug/L	<1	<1	0 27 J	<1	<1	<1
1,3,5-Trimethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	ug/L	<0.4	<0 4	<0.4	<0 4	<0.4	<0 4
1,4-Dichlorobenzene	ug/L	<0.5	<0.5	<0.5	<0.5	<0 5	<0.5
1-Chlorohexane	ug/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	ug/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	ug/L	<1	<1	<1	<1	<1	<1
2-Hexanone	ug/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	ug/L	<1	<1	<1	<1	<1	<1
Acetone	ug/L	<10	<10	<10	2.76 B	3.03 B	2.71 B
Benzene	ug/L	<0 4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	ug/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<0.5	<0.5	<0 5	<0.5	<0 5	<0.5
Bromoform	ug/L	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1	<1	<1	<1
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	13 4	4.72	29.2	2.15	4.38	<1
Chlorobenzene	ug/L	<0.5	<0.5	<0.5	<0 5	<0.5	<0.5
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1
Chloroform	ug/L	3.65	0 933	16.3	0.399	0.976	0 257 J
Chloromethane	ug/L	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	ug/L	7.04	0.683 J	36	<1	<1	0 499 J
cis-1,3-Dichloropropene	ug/L	<0.5	<0 5	<0.5	<0 5	<0.5	<0.5
Dibromochloromethane	ug/L	<0.5	<0 5	<0 5	<0.5	<0.5	<0.5
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	ug/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	ug/L	<0 6	<0.6	<0 6	<0.6	<0 6	<0 6
Isopropylbenzene	ug/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	ug/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	ug/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	ug/L	<5	<5	<5	<5	<5	<5
Methylene chloride	ug/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	ug/L	<10	<10	<10	<10	<10	<10
Naphthalene	ug/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene	ug/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	ug/L	<1	<1	<1	<1	<1	<1
o-Xylene	ug/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	ug/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Styrene	ug/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	ug/L	124	28.3	48.3	6.64	13 7	234
Toluene	ug/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	4.25	2.15	7 55	0.352 J	1 3	4.63
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	<1	<1
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1

<: Not detected above Reporting Limit (RL)
J. Estimated result based on QC data or reported below RL
B: Estimated result possibly biased high or false positive based on blank data

TABLE A-2
ANALYTICAL RESULTS , VOCs - APRIL 2008
ANNUAL LONG-TERM MONITORING REPORT – 2008
Main Installation - Defense Depot Memphis, Tennessee

	Well ID	MW-39	MW-52	MW-62	MW-64	MW-86	MW-88
	Lab ID	L08040307-13	L08040258-02	L08040307-09	L08040249-09	L08040249-10	L08040249-11
	Date	4/9/2008	4/8/2008	4/9/2008	4/7/2008	4/7/2008	4/7/2008
Analyte	Units						
1,1,1,2-Tetrachloroethane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0 5
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	ug/L	<0 5	<0.5	<0.5	1.33	<0.5	<0.5
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	ug/L	<1	<1	0 72 J	0.934 J	<1	<1
1,1-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	ug/L	<1	<1	<1	<1	1.96	<1
1,2,4-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	ug/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	ug/L	<1	<1	<1	<1	0 153 J	<1
1,2-Dichloroethane	ug/L	<0 5	<0.5	<0 5	1.19	0 955	<0 5
1,2-Dichloropropane	ug/L	<1	<1	<1	<1	1.36	<1
1,3,5-Trimethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	ug/L	<0.4	<0 4	<0.4	<0.4	0.955	<0.4
1,4-Dichlorobenzene	ug/L	<0.5	<0 5	<0.5	<0 5	<0.5	<0.5
1-Chlorohexane	ug/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	ug/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	ug/L	<1	<1	<1	<1	<1	<1
2-Hexanone	ug/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	ug/L	<1	<1	<1	<1	<1	<1
Acetone	ug/L	3 32 B	<10	<10	<10	5 46 B	4.61 B
Benzene	ug/L	<0.4	<0 4	<0.4	<0 4	<0.4	<0 4
Bromobenzene	ug/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<0.5	<0.5	<0 5	<0.5	<0.5	<0.5
Bromoform	ug/L	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1	<1	<1	<1
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	0.525 J	3 68	0 436 J	2.66
Chlorobenzene	ug/L	<0.5	<0 5	<0.5	<0.5	0.127 J	<0.5
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1
Chloroform	ug/L	0.161 J	0.861	0 416	1.16	0.477	0 406
Chloromethane	ug/L	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	ug/L	0.525 J	0.805 J	<1	0.401 J	115	0.325 J
cis-1,3-Dichloropropene	ug/L	<0.5	<0.5	<0 5	<0.5	<0.5	<0.5
Dibromochloromethane	ug/L	<0.5	<0 5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	ug/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	ug/L	<0.6	<0.6	<0 6	<0 6	<0.6	<0.6
Isopropylbenzene	ug/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	ug/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	ug/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	ug/L	<5	<5	<5	<5	<5	<5
Methylene chloride	ug/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	ug/L	<10	<10	<10	<10	<10	<10
Naphthalene	ug/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene	ug/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	ug/L	<1	<1	<1	<1	<1	<1
o-Xylene	ug/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	ug/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Styrene	ug/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	ug/L	100	9.4	0.413 J	22.5	7 7	16.6
Toluene	ug/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	9.3	1.16	152	35.7	1.72	3 11
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	<1	<1
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1	<1	0 491 J	<1

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ANALYTICAL RESULTS , VOCs - APRIL 2008
ANNUAL LONG-TERM MONITORING REPORT – 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Well ID / Lab ID / Date	Units	MW-88 DUP L08040249-16 4/7/2008	MW-90 L08040249-19 4/7/2008	MW-92 L08040258-05 4/8/2008	MW-94A L08040258-14 4/8/2008	MW-96 L08040249-12 4/7/2008	MW-97 L08040258-15 4/8/2008
1,1,1,2-Tetrachloroethane		ug/L	<0.5	<0 5	<0.5	<0 5	<0.5	<0 5
1,1,1-Trichloroethane		ug/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane		ug/L	<0.5	<0.5	<0 5	<0.5	<0.5	<0 5
1,1,2-Trichloroethane		ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane		ug/L	<1	1 12	<1	<1	<1	<1
1,1-Dichloroethene		ug/L	0 754 J	1.3	<1	<1	<1	<1
1,1-Dichloropropene		ug/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene		ug/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane		ug/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene		ug/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene		ug/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane		ug/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane		ug/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene		ug/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane		ug/L	<0 5	<0.5	<0.5	<0.5	<0 5	<0.5
1,2-Dichloropropane		ug/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene		ug/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene		ug/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane		ug/L	<0 4	<0.4	<0.4	<0.4	<0 4	<0 4
1,4-Dichlorobenzene		ug/L	<0.5	<0 5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane		ug/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane		ug/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene		ug/L	<1	<1	<1	<1	<1	<1
2-Hexanone		ug/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene		ug/L	<1	<1	<1	<1	<1	<1
Acetone		ug/L	2.57 B	<10	3 07 B	3 87 B	2.99 J	<10
Benzene		ug/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene		ug/L	<1	<1	<1	<1	<1	<1
Bromochloromethane		ug/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane		ug/L	<0.5	<0 5	<0.5	<0 5	<0.5	<0 5
Bromoform		ug/L	<1	<1	<1	<1	<1	<1
Bromomethane		ug/L	<1	<1	<1	<1	<1	<1
Carbon disulfide		ug/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride		ug/L	2 78	<1	6 3	<1	1	<1
Chlorobenzene		ug/L	<0.5	<0 5	<0.5	<0 5	<0 5	<0 5
Chloroethane		ug/L	<1	<1	<1	<1	<1	<1
Chloroform		ug/L	0.404	4.66	8 91	0.138 J	0 337	0.164 J
Chloromethane		ug/L	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene		ug/L	0.4 J	0 484 J	66.2	0.42 J	<1	<1
cis-1,3-Dichloropropene		ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane		ug/L	<0 5	<0 5	<0.5	<0.5	<0 5	<0.5
Dibromomethane		ug/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane		ug/L	<1	<1	<1	<1	<1	<1
Ethylbenzene		ug/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene		ug/L	<0 6	<0.6	<0.6	<0 6	<0.6	<0 6
Isopropylbenzene		ug/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene		ug/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)		ug/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)		ug/L	<5	<5	<5	<5	<5	<5
Methylene chloride		ug/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)		ug/L	<10	<10	<10	<10	<10	<10
Naphthalene		ug/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene		ug/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene		ug/L	<1	<1	<1	<1	<1	<1
o-Xylene		ug/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene		ug/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene		ug/L	<1	<1	<1	<1	<1	<1
Styrene		ug/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene		ug/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene		ug/L	19.5	77.7	65 9	27.3	2 38	<1
Toluene		ug/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene		ug/L	<1	<1	0 727 J	<1	<1	<1
trans-1,3-Dichloropropene		ug/L	<1	<1	<1	<1	<1	<1
Trichloroethene		ug/L	3.37	5.9	4 22	9 49	<1	21.8
Trichlorofluoromethane		ug/L	<1	<1	<1	<1	<1	<1
Vinyl acetate		ug/L	<5	<5	<5	<5	<5	<5
Vinyl chloride		ug/L	<1	<1	<1	<1	<1	<1

<: Not detected above Reporting Limit (RL)
J: Estimated result based on QC data or reported below RL
B Estimated result possibly biased high or false positive based on blank data

TABLE A-2
ANALYTICAL RESULTS , VOCs - APRIL 2008
ANNUAL LONG-TERM MONITORING REPORT – 2008
Main Installation - Defense Depot Memphis, Tennessee

	Well ID	MW-98	MW-100B	MW-100B DUP	MW-104	MW-107B	MW-107T
	Lab ID	L08040249-20	L08040249-13	L08040249-17	L08040258-16	L08040307-02	L08040307-01
	Date	4/7/2008	4/7/2008	4/7/2008	4/8/2008	4/9/2008	4/9/2008
Analyte	Units						
1,1,1,2-Tetrachloroethane	ug/L	<0 5	<0.5	<0 5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	ug/L	<0.5	<0 5	<0.5	<0 5	<0 5	<0.5
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	ug/L	<1	<1	<1	1.09	<1	<1
1,1-Dichloroethene	ug/L	<1	0 746 J	0.943 J	2.57	<1	<1
1,1-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	ug/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	ug/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	<0.5	<0 5	<0.5	<0 5	<0.5	<0 5
1,2-Dichloropropane	ug/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	ug/L	<0 4	<0.4	<0 4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	ug/L	<0 5	<0.5	<0 5	<0.5	<0.5	<0.5
1-Chlorohexane	ug/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	ug/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	ug/L	<1	<1	<1	<1	<1	<1
2-Hexanone	ug/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	ug/L	<1	<1	<1	<1	<1	<1
Acetone	ug/L	8.65 B	<10	<10	<10	<10	2.98 B
Benzene	ug/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	ug/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<0 5	<0.5	<0.5	<0 5	<0.5	<0 5
Bromoform	ug/L	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1	<1	<1	<1
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	0.574 J	0.616 J
Chlorobenzene	ug/L	<0.5	<0 5	<0.5	<0.5	<0 5	<0.5
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1
Chloroform	ug/L	<0.3	<0.3	<0.3	13.6	0.262 J	0.324
Chloromethane	ug/L	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	ug/L	<1	89.3	107	0 63 J	0.265 J	0.283 J
cis-1,3-Dichloropropene	ug/L	<0.5	<0.5	<0 5	<0.5	<0.5	<0.5
Dibromochloromethane	ug/L	<0.5	<0 5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	ug/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	ug/L	<0.6	<0.6	<0 6	<0 6	<0.6	<0.6
Isopropylbenzene	ug/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	ug/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	ug/L	21 6	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	ug/L	<5	46.9	51.3	<5	<5	<5
Methylene chloride	ug/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	ug/L	<10	<10	<10	<10	<10	<10
Naphthalene	ug/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene	ug/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	ug/L	<1	<1	<1	<1	<1	<1
o-Xylene	ug/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	ug/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Styrene	ug/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	ug/L	34.8	64.2	78.5	<1	0.291 J	0.411 J
Toluene	ug/L	<1	0.264 B	0 534 J	<1	<1	<1
trans-1,2-Dichloroethene	ug/L	<1	0 92 J	0.551 J	<1	<1	<1
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	1.93	31.4	36.3	18 2	1.56	1.67
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	<1	<1
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1	0 836 J	1.08	<1	<1	<1

<: Not detected above Reporting Limit (RL)
J. Estimated result based on QC data or reported below RL
B: Estimated result possibly biased high or false positive based on blank data

TABLE A-2
ANALYTICAL RESULTS , VOCs - APRIL 2008
ANNUAL LONG-TERM MONITORING REPORT – 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Well ID / Lab ID / Date / Units	MW-108 L08040249-21 4/7/2008	MW-113 L08040249-14 4/7/2008	MW-125 L08040249-15 4/7/2008	MW-141 L08040258-06 4/8/2008	MW-197A L08040258-22 4/8/2008	MW-197A DUP L08040258-30 4/8/2008
1,1,1,2-Tetrachloroethane	ug/L	<0 5	<0.5	<0 5	<0.5	<0.5	<0 5
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	ug/L	<0 5	<0 5	<0.5	<0 5	<0.5	<0.5
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	ug/L	0.252 J	<1	<1	<1	<1	<1
1,1-Dichloroethene	ug/L	1.1	<1	<1	<1	<1	<1
1,1-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	ug/L	<1	11.8	<1	<1	<1	<1
1,2,4-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	ug/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	<0.5	0.589	0.306 J	<0.5	<0.5	<0.5
1,2-Dichloropropane	ug/L	<1	0 398 J	<1	<1	<1	<1
1,3,5-Trimethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	ug/L	<0 4	<0.4	<0 4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	ug/L	<0.5	<0 5	<0.5	<0 5	<0.5	<0.5
1-Chlorohexane	ug/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	ug/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	ug/L	<1	<1	<1	<1	<1	<1
2-Hexanone	ug/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	ug/L	<1	<1	<1	<1	<1	<1
Acetone	ug/L	<10	<10	<10	<10	<10	<10
Benzene	ug/L	<0.4	<0.4	<0 4	<0 4	<0.4	<0 4
Bromobenzene	ug/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	ug/L	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1	<1	<1	<1
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	0 477 J	75 1	<1	0.418 J	<1	<1
Chlorobenzene	ug/L	<0.5	<0 5	<0.5	<0 5	<0.5	<0 5
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1
Chloroform	ug/L	11 7	30.9	<0 3	2.31	0 185 J	0.207 J
Chloromethane	ug/L	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	ug/L	0.647 J	37.8	16.3	<1	1.48	1.47
cis-1,3-Dichloropropene	ug/L	<0.5	<0.5	<0 5	<0.5	<0 5	<0.5
Dibromochloromethane	ug/L	<0.5	<0.5	<0 5	<0.5	<0 5	<0.5
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	ug/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	ug/L	<0.6	<0 6	<0.6	<0 6	<0.6	<0 6
Isopropylbenzene	ug/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	ug/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	ug/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	ug/L	<5	<5	23.2	<5	<5	<5
Methylene chloride	ug/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	ug/L	<10	<10	<10	<10	<10	<10
Naphthalene	ug/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene	ug/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	ug/L	<1	<1	<1	<1	<1	<1
o-Xylene	ug/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	ug/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Styrene	ug/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	ug/L	3 93	170	39.3	16.9	82.8	81
Toluene	ug/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	ug/L	<1	0 354 J	<1	<1	<1	<1
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	32.7	20 2	11.8	2.47	2.42	2 47
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	<1	<1
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1

<: Not detected above Reporting Limit (RL)
J: Estimated result based on QC data or reported below RL
B: Estimated result possibly biased high or false positive based on blank data

TABLE A-2
ANALYTICAL RESULTS , VOCs - APRIL 2008
ANNUAL LONG-TERM MONITORING REPORT – 2008
Main Installation - Defense Depot Memphis, Tennessee

	Well ID	MW-197B	MW-198	MW-199B	MW-200	MW-202A	MW-202B
	Lab ID	L08040258-23	L08040307-10	L08040258-17	L08040258-18	L08040249-22	L08040307-14
	Date	4/8/2008	4/9/2008	4/8/2008	4/8/2008	4/7/2008	4/9/2008
Analyte	Units						
1,1,1,2-Tetrachloroethane	ug/L	<0.5	<0 5	<0.5	<0 5	<0 5	<0.5
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	ug/L	<0.5	<0 5	<0.5	<0 5	<0 5	<0.5
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	ug/L	<1	<1	<1	<1	<1	0 27 J
1,1-Dichloroethene	ug/L	<1	0 679 J	0 773 J	<1	<1	<1
1,1-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	ug/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	ug/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	<0.5	<0.5	<0.5	<0 5	<0.5	<0 5
1,2-Dichloropropane	ug/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	ug/L	<0.4	<0.4	<0.4	<0.4	<0 4	<0 4
1,4-Dichlorobenzene	ug/L	<0.5	<0 5	<0 5	<0.5	<0.5	<0.5
1-Chlorohexane	ug/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	ug/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	ug/L	<1	<1	<1	<1	<1	<1
2-Hexanone	ug/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	ug/L	<1	<1	<1	<1	<1	<1
Acetone	ug/L	<10	<10	<10	<10	<10	<10
Benzene	ug/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	ug/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<0.5	<0.5	<0 5	<0.5	<0.5	<0.5
Bromoform	ug/L	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1	<1	<1	<1
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	0.326 J	0.6 J	<1	0 695 J	0 263 J
Chlorobenzene	ug/L	<0 5	<0.5	<0.5	<0 5	<0.5	<0.5
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1
Chloroform	ug/L	<0.3	<0.3	0.177 J	0.206 J	0 225 J	1.46
Chloromethane	ug/L	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	ug/L	47 6	<1	<1	0 345 J	<1	<1
cis-1,3-Dichloropropene	ug/L	<0 5	<0.5	<0.5	<0 5	<0.5	<0.5
Dibromochloromethane	ug/L	<0.5	<0.5	<0.5	<0 5	<0.5	<0.5
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	ug/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	ug/L	<0.6	<0 6	<0.6	<0.6	<0 6	<0 6
Isopropylbenzene	ug/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	ug/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	ug/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	ug/L	<5	<5	<5	<5	<5	<5
Methylene chloride	ug/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	ug/L	<10	<10	<10	<10	<10	<10
Naphthalene	ug/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene	ug/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	ug/L	<1	<1	<1	<1	<1	<1
o-Xylene	ug/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	ug/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Styrene	ug/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	ug/L	38.6	<1	23.4	132	0 443 J	16 3
Toluene	ug/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	9.01	8.36	56.5	4.13	1 77	2.21
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	<1	<1
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1

< Not detected above Reporting Limit (RL)
J: Estimated result based on QC data or reported below RL
B Estimated result possibly biased high or false positive based on blank data

TABLE A-2
ANALYTICAL RESULTS , VOCs - APRIL 2008
ANNUAL LONG-TERM MONITORING REPORT – 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Well ID Lab ID Date Units	MW-203A L08040258-24 4/8/2008	MW-203B L08040258-25 4/8/2008	MW-203B DUP L08040258-31 4/8/2008	MW-204A L08040249-24 4/7/2008	MW-204B L08040307-15 4/9/2008	MW-205A L08040249-27 4/7/2008
1,1,1,2-Tetrachloroethane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	ug/L	<0 5	<0.5	<0.5	<0 5	1.27	<0.5
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	ug/L	<1	<1	<1	<1	0.154	<1
1,2,3-Trichloropropane	ug/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	ug/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	<0 5	<0 5	<0 5	<0.5	<0.5	<0.5
1,2-Dichloropropane	ug/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	ug/L	<0 4	<0 4	<0 4	<0 4	<0 4	<0 4
1,4-Dichlorobenzene	ug/L	<0.5	<0 5	<0 5	<0 5	<0 5	<0 5
1-Chlorohexane	ug/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	ug/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	ug/L	<1	<1	<1	<1	<1	<1
2-Hexanone	ug/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	ug/L	<1	<1	<1	<1	<1	<1
Acetone	ug/L	<10	<10	<10	<10	<10	3 02 B
Benzene	ug/L	<0 4	<0 4	<0 4	<0 4	<0 4	<0.4
Bromobenzene	ug/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<0.5	<0.5	<0 5	<0.5	<0 5	<0.5
Bromoform	ug/L	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1	<1	<1	<1
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1
Chlorobenzene	ug/L	<0 5	<0.5	<0.5	<0 5	<0 5	<0 5
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1
Chloroform	ug/L	0.206 J	<0.3	<0.3	<0 3	0.13 J	0.212 J
Chloromethane	ug/L	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	ug/L	1.14	59.7	56.7	1 05	1.39	1.14
cis-1,3-Dichloropropene	ug/L	<0 5	<0 5	<0 5	<0.5	<0.5	<0.5
Dibromochloromethane	ug/L	<0.5	<0.5	<0 5	<0 5	<0.5	<0.5
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	ug/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	ug/L	<0 6	<0 6	<0 6	<0.6	<0.6	<0 6
Isopropylbenzene	ug/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	ug/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	ug/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	ug/L	<5	<5	<5	<5	<5	<5
Methylene chloride	ug/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	ug/L	<10	<10	<10	<10	<10	<10
Naphthalene	ug/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene	ug/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	ug/L	<1	<1	<1	<1	<1	<1
o-Xylene	ug/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	ug/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Styrene	ug/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	ug/L	144	10 8	10 5	44.6 J	20 2	141
Toluene	ug/L	<1	<1	<1	0 253 J	<1	<1
trans-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	2.03	6 25	6.18	1.04	4.27	6.02
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	<1	<1
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1

<: Not detected above Reporting Limit (RL)
J: Estimated result based on QC data or reported below RL
B. Estimated result possibly biased high or false positive based on blank data

TABLE A-2
ANALYTICAL RESULTS , VOCs - APRIL 2008
ANNUAL LONG-TERM MONITORING REPORT – 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Units	Well ID: MW-205A DUP Lab ID: L08040249-28 Date: 4/7/2008	MW-205B L08040307-16 4/9/2008	MW-206A L08040307-03 4/9/2008	MW-206B L08040307-17 4/9/2008	MW-207A L08040307-04 4/9/2008	MW-207B L08040307-18 4/9/2008
1,1,1,2-Tetrachloroethane	ug/L	<0.5	<0 5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	ug/L	<0.5	<0.5	<0.5	<0 5	<0 5	<0.5
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	ug/L	<1	<1	<1	<1	0 23 J	<1
1,1-Dichloroethene	ug/L	<1	<1	<1	<1	0.867 J	0 935 J
1,1-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	ug/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	ug/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	ug/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	ug/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	ug/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	ug/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	ug/L	<1	<1	<1	<1	<1	<1
2-Hexanone	ug/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	ug/L	<1	<1	<1	<1	<1	<1
Acetone	ug/L	2 67 B	<10	<10	<10	<10	<10
Benzene	ug/L	<0 4	<0.4	<0 4	<0.4	<0.4	<0 4
Bromobenzene	ug/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<0 5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	ug/L	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1	<1	<1	<1
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	1.22
Chlorobenzene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0 5
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1
Chloroform	ug/L	0.2 J	<0.3	0.173 J	0 136 J	9 12	1 27
Chloromethane	ug/L	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	ug/L	1 03	22 4	0.78 J	2.51	0.475 J	<1
cis-1,3-Dichloropropene	ug/L	<0 5	<0 5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	ug/L	<0 5	<0 5	<0.5	<0.5	<0 5	<0.5
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	ug/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	ug/L	<0.6	<0 6	<0 6	<0.6	<0 6	<0.6
Isopropylbenzene	ug/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	ug/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	ug/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	ug/L	<5	<5	<5	<5	<5	<5
Methylene chloride	ug/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	ug/L	<10	<10	<10	<10	<10	<10
Naphthalene	ug/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene	ug/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	ug/L	<1	<1	<1	<1	<1	<1
o-Xylene	ug/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	ug/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Styrene	ug/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	ug/L	138	31 2	96.5	69.1	12.1	13 1
Toluene	ug/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	6 08	5.15	13.9	11.5	24.2	96.2
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	<1	<1
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1

<: Not detected above Reporting Limit (RL)
J: Estimated result based on QC data or reported below RL
B Estimated result possibly biased high or false positive based on blank data

TABLE A-2
ANALYTICAL RESULTS , VOCs - APRIL 2008
ANNUAL LONG-TERM MONITORING REPORT – 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Well ID Lab ID Date Units	MW-208A L08040258-26 4/8/2008	MW-208B L08040258-27 4/8/2008	MW-209A L08040307-05 4/9/2008	MW-209B L08040307-11 4/9/2008	MW-210A L08040258-28 4/8/2008	MW-210A DUP L08040258-32 4/8/2008
1,1,1,2-Tetrachloroethane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0 5
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	ug/L	<0.5	0.613	<0 5	<0 5	<0.5	<0 5
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	ug/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	ug/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	<0.5	<0 5	<0 5	<0.5	<0.5	<0 5
1,2-Dichloropropane	ug/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	ug/L	<0.4	<0.4	<0.4	<0 4	<0.4	<0.4
1,4-Dichlorobenzene	ug/L	<0.5	<0.5	<0.5	<0 5	<0.5	<0 5
1-Chlorohexane	ug/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	ug/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	ug/L	<1	<1	<1	<1	<1	<1
2-Hexanone	ug/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	ug/L	<1	<1	<1	<1	<1	<1
Acetone	ug/L	<10	<10	<10	<10	<10	<10
Benzene	ug/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	ug/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0 5
Bromoform	ug/L	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1	<1	<1	<1
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	0 681 J	<1	<1
Chlorobenzene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0 5
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1
Chloroform	ug/L	0.217 J	<0 3	0 159 J	0.22 J	0 183 J	0 151 J
Chloromethane	ug/L	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	ug/L	0.538 J	1.51	<1	<1	0.887 J	0 789 J
cis-1,3-Dichloropropene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	ug/L	<0.5	<0 5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	ug/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	ug/L	<0 6	<0 6	<0 6	<0 6	<0 6	<0 6
Isopropylbenzene	ug/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	ug/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	ug/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	ug/L	<5	<5	1.64 J	<5	<5	<5
Methylene chloride	ug/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	ug/L	<10	<10	<10	<10	<10	<10
Naphthalene	ug/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene	ug/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	ug/L	<1	<1	<1	<1	<1	<1
o-Xylene	ug/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	ug/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Styrene	ug/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	ug/L	189	2 22	<1	<1	28.2	27
Toluene	ug/L	<1	<1	<1	<1	0 285 J	0.273 J
trans-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	7.64	17 1	0 523 J	13	6 2	5 87
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	<1	<1
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1

<: Not detected above Reporting Limit (RL)
J: Estimated result based on QC data or reported below RL
B: Estimated result possibly biased high or false positive based on blank data

TABLE A-2
ANALYTICAL RESULTS , VOCs - APRIL 2008
ANNUAL LONG-TERM MONITORING REPORT – 2008
Main Installation - Defense Depot Memphis, Tennessee

	Well ID	MW-210B	MW-212	MW-214A	MW-214B	MW-215A	MW-215B
	Lab ID	L08040258-29	L08040258-12	L08040249-02	L08040249-03	L08040307-06	L08040307-12
	Date	4/8/2008	4/8/2008	4/7/2008	4/7/2008	4/9/2008	4/9/2008
Analyte	Units						
1,1,1,2-Tetrachloroethane	ug/L	<0 5	<0.5	<0.5	<0.5	<0.5	<0 5
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	ug/L	<0 5	<0.5	0 35 J	0.344 J	0.201 J	0.197 J
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	ug/L	<1	0.761 J	<1	<1	<1	<1
1,1-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	ug/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	ug/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0 5
1,2-Dichloropropane	ug/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	ug/L	<0 4	<0 4	<0 4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	ug/L	<0.5	<0 5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	ug/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	ug/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	ug/L	<1	<1	<1	<1	<1	<1
2-Hexanone	ug/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	ug/L	<1	<1	<1	<1	<1	<1
Acetone	ug/L	<10	<10	<10	<10	<10	<10
Benzene	ug/L	<0 4	<0 4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	ug/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<0 5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	ug/L	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1	<1	<1	<1
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	0.519 J	0.709 J	0.843 J	0.651 J	0.988 J
Chlorobenzene	ug/L	<0 5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1
Chloroform	ug/L	0.155 J	<0.3	2.06	1.22	1 66	0 663
Chloromethane	ug/L	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	ug/L	0 613 J	<1	<1	<1	<1	<1
cis-1,3-Dichloropropene	ug/L	<0 5	<0.5	<0.5	<0.5	<0.5	<0 5
Dibromochloromethane	ug/L	<0 5	<0.5	<0.5	<0.5	<0.5	<0 5
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	ug/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	ug/L	<0 6	<0.6	<0.6	<0 6	<0 6	<0.6
Isopropylbenzene	ug/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	ug/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	ug/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	ug/L	<5	<5	1 22 J	0.761 J	1.52 J	<5
Methylene chloride	ug/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	ug/L	<10	<10	<10	<10	<10	<10
Naphthalene	ug/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene	ug/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	ug/L	<1	<1	<1	<1	<1	<1
o-Xylene	ug/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	ug/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Styrene	ug/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	ug/L	20	0.477 J	6.22	4 55	6.27	4.7
Toluene	ug/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	7.84	45.1	3 02	2 36	8.96	1.46
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	<1	<1
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1

<: Not detected above Reporting Limit (RL)
J: Estimated result based on QC data or reported below RL
B: Estimated result possibly biased high or false positive based on blank data

TABLE A-2
ANALYTICAL RESULTS , VOCs - APRIL 2008
ANNUAL LONG-TERM MONITORING REPORT – 2008
Main Installation - Defense Depot Memphis, Tennessee

	Well ID	MW-217	MW-218	MW-219	MW-219 DUP
	Lab ID	L08040249-04	L08040249-05	L08040249-06	L08040249-07
	Date	4/7/2008	4/7/2008	4/7/2008	4/7/2008
Analyte	Units				
1,1,1,2-Tetrachloroethane	ug/L	<0 5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	ug/L	0 52	1 35	<0.5	<0.5
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1
1,1-Dichloroethane	ug/L	<1	<1	<1	<1
1,1-Dichloroethene	ug/L	0.736 J	0.886 J	<1	<1
1,1-Dichloropropene	ug/L	<1	<1	<1	<1
1,2,3-Trichlorobenzene	ug/L	<1	<1	<1	<1
1,2,3-Trichloropropane	ug/L	2 36	<1	<1	<1
1,2,4-Trichlorobenzene	ug/L	<1	<1	<1	<1
1,2,4-Trimethylbenzene	ug/L	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	ug/L	<2	<2	<2	<2
1,2-Dibromoethane	ug/L	<1	<1	<1	<1
1,2-Dichlorobenzene	ug/L	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	0.304 J	0 501	1.14	1.12
1,2-Dichloropropane	ug/L	<1	0.341 J	<1	<1
1,3,5-Trimethylbenzene	ug/L	<1	<1	<1	<1
1,3-Dichlorobenzene	ug/L	<1	<1	<1	<1
1,3-Dichloropropane	ug/L	<0 4	<0 4	<0.4	<0.4
1,4-Dichlorobenzene	ug/L	<0 5	<0.5	<0.5	<0 5
1-Chlorohexane	ug/L	<1	<1	<1	<1
2,2-Dichloropropane	ug/L	<1	<1	<1	<1
2-Chlorotoluene	ug/L	<1	<1	<1	<1
2-Hexanone	ug/L	<10	<10	<10	<10
4-Chlorotoluene	ug/L	<1	<1	<1	<1
Acetone	ug/L	<10	<10	<10	<10
Benzene	ug/L	<0 4	<0 4	<0 4	<0 4
Bromobenzene	ug/L	<1	<1	<1	<1
Bromochloromethane	ug/L	<1	<1	<1	<1
Bromodichloromethane	ug/L	<0.5	<0.5	<0.5	<0.5
Bromoform	ug/L	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1	<1
Carbon disulfide	ug/L	<1	<1	<1	<1
Carbon tetrachloride	ug/L	72.1	17.7	<1	<1
Chlorobenzene	ug/L	<0 5	<0 5	<0 5	<0.5
Chloroethane	ug/L	<1	<1	<1	<1
Chloroform	ug/L	8.56	2 62	<0.3	<0.3
Chloromethane	ug/L	<1	<1	<1	<1
cis-1,2-Dichloroethene	ug/L	2.88	0.392 J	0.928 J	0 88 J
cis-1,3-Dichloropropene	ug/L	<0 5	<0 5	<0 5	<0 5
Dibromochloromethane	ug/L	<0.5	<0 5	<0 5	<0.5
Dibromomethane	ug/L	<1	<1	<1	<1
Dichlorodifluoromethane	ug/L	<1	<1	<1	<1
Ethylbenzene	ug/L	<1	<1	<1	<1
Hexachlorobutadiene	ug/L	<0.6	<0 6	<0 6	<0 6
Isopropylbenzene	ug/L	<1	<1	<1	<1
m-,p-Xylene	ug/L	<2	<2	<2	<2
MEK (2-Butanone)	ug/L	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	ug/L	<5	<5	<5	<5
Methylene chloride	ug/L	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	ug/L	<10	<10	<10	<10
Naphthalene	ug/L	<1	<1	<1	<1
n-Butylbenzene	ug/L	<1	<1	<1	<1
n-Propylbenzene	ug/L	<1	<1	<1	<1
o-Xylene	ug/L	<1	<1	<1	<1
p-Isopropyltoluene	ug/L	<1	<1	<1	<1
sec-Butylbenzene	ug/L	<1	<1	<1	<1
Styrene	ug/L	<1	<1	<1	<1
tert-Butylbenzene	ug/L	<1	<1	<1	<1
Tetrachloroethene	ug/L	34.7	17.4	41.4	42.7
Toluene	ug/L	<1	<1	<1	<1
trans-1,2-Dichloroethene	ug/L	<1	<1	<1	<1
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1
Trichloroethene	ug/L	34.4	40 7	3 26	3 17
Trichlorofluoromethane	ug/L	0.271 J	0 5 J	<1	<1
Vinyl acetate	ug/L	<5	<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1	<1

<: Not detected above Reporting Limit (RL)
J: Estimated result based on QC data or reported below RL
B. Estimated result possibly biased high or false positive based on blank data

TABLE A-3
ANALYTICAL RESULTS, VOCs - GROUNDWATER SAMPLES
ANNUAL LONG TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Well ID / Lab ID / Date	Units	DR1-1A-LB-8 L08100313-21 10/8/2008	DR1-1-LB-8 L08100313-20 10/8/2008	DR1-2-LB-8 L08100241-03 10/7/2008	DR1-4-LB-8 L08100241-04 10/7/2008	DR1-5A-LB-8 L08100361-22 10/9/2008	DR1-5-LB-8 L08100361-21 10/9/2008
1,1,1,2-Tetrachloroethane		ug/L	<0.5	<0.5	<0.5 J	<0.5	<0.5	<0.5
1,1,1-Trichloroethane		ug/L	<1	<1	<1 J	<1	<1	<1
1,1,2,2-Tetrachloroethane		ug/L	<0.5	<0.5	<0.5 J	<0.5	<0.5	<0.5
1,1,2-Trichloroethane		ug/L	<1	<1	<1 J	<1	<1	<1
1,1-Dichloroethane		ug/L	<1	<1	<1 J	<1	0.2 J	<1
1,1-Dichloroethene		ug/L	<1	<1	<1 J	<1	1.09 J	<1
1,1-Dichloropropene		ug/L	<1	<1	<1 J	<1	<1	<1
1,2,3-Trichlorobenzene		ug/L	<1	<1	<1 J	<1	<1	<1
1,2,3-Trichloropropane		ug/L	<1	<1	<1 J	<1	<1	<1
1,2,4-Trichlorobenzene		ug/L	<1	<1	<1 J	<1	<1	<1
1,2,4-Trimethylbenzene		ug/L	<1	<1	<1 J	<1	<1	<1
1,2-Dibromo-3-chloropropane		ug/L	<2	<2	<2 J	<2	<2	<2
1,2-Dibromoethane		ug/L	<1	<1	<1 J	<1	<1	<1
1,2-Dichlorobenzene		ug/L	<1	<1	<1 J	<1	<1	<1
1,2-Dichloroethane		ug/L	<0.5	<0.5	<0.5 J	<0.5	<0.5	0.308 J
1,2-Dichloropropane		ug/L	<1	<1	<1 J	<1	0.545 J	<1
1,3,5-Trimethylbenzene		ug/L	<1	<1	<1 J	<1	<1	<1
1,3-Dichlorobenzene		ug/L	<1	<1	<1 J	<1	<1	<1
1,3-Dichloropropane		ug/L	<0.4	<0.4	<0.4 J	<0.4	<0.4	<0.4
1,4-Dichlorobenzene		ug/L	<0.5	<0.5	<0.5 J	<0.5	<0.5	<0.5
1-Chlorohexane		ug/L	<1	<1	<1 J	<1	<1	<1
2,2-Dichloropropane		ug/L	<1	<1	<1 J	<1	<1	<1
2-Chlorotoluene		ug/L	<1	<1	<1 J	<1	<1	<1
2-Hexanone		ug/L	<10	<10	<10 J	<10	<10	<10
4-Chlorotoluene		ug/L	<1	<1	<1 J	<1	<1	<1
Acetone		ug/L	<10	<10	<10 J	<10	<10	<10
Benzene		ug/L	<0.4	<0.4	<0.4 J	<0.4	0.132 J	<0.4
Bromobenzene		ug/L	<1	<1	<1 J	<1	<1	<1
Bromochloromethane		ug/L	<1	<1	<1 J	<1	<1	<1
Bromodichloromethane		ug/L	<0.5	<0.5	<0.5 J	<0.5	<0.5	<0.5
Bromoform		ug/L	<1	<1	<1 J	<1	<1	<1
Bromomethane		ug/L	<1	<1	<1 J	<1	2.94 B	3.05 B
Carbon disulfide		ug/L	<1	<1	<1 J	1.83	<1	<1
Carbon tetrachloride		ug/L	<1	<1	<1 J	<1	<1	<1
Chlorobenzene		ug/L	<0.5	<0.5	<0.5 J	<0.5	<0.5	<0.5
Chloroethane		ug/L	<1	<1	<1 J	<1	<1	<1
Chloroform		ug/L	0.372 J	0.126 J	0.131 J	<0.3	0.343 J	0.181 J
Chloromethane		ug/L	<1	<1	<1 J	<1	<1	0.318 J
cis-1,2-Dichloroethene		ug/L	0.262 J	<1	0.595 J	0.987 J	4.75 J	0.295 J
cis-1,3-Dichloropropene		ug/L	<0.5	<0.5	<0.5 J	<0.5	<0.5	<0.5
Dibromochloromethane		ug/L	<0.5	<0.5	<0.5 J	<0.5	<0.5	<0.5
Dibromomethane		ug/L	<1	<1	<1 J	<1	<1	<1
Dichlorodifluoromethane		ug/L	<1	<1	<1 J	<1	<1	<1
Ethylbenzene		ug/L	<1	<1	<1 J	<1	<1	<1
Hexachlorobutadiene		ug/L	<0.6	<0.6	<0.6 J	<0.6	<0.6	<0.6
Isopropylbenzene		ug/L	<1	<1	<1 J	<1	<1	<1
m-,p-Xylene		ug/L	<2	<2	<2 J	<2	<2	<2
MEK (2-Butanone)		ug/L	<10	<10	<10 J	<10	<10	<10
Methyl t-butyl ether (MTBE)		ug/L	<5	<5	<5 J	<5	14.7 J	1.2 J
Methylene chloride		ug/L	<1	<1	<1 J	<1	<1	<1
MIBK (methyl isobutyl ketone)		ug/L	<10	<10	<10 J	<10	<10	<10
Naphthalene		ug/L	<1	<1	<1 J	<1	<1	<1
n-Butylbenzene		ug/L	<1	<1	<1 J	<1	<1	<1
n-Propylbenzene		ug/L	<1	<1	<1 J	<1	<1	<1
o-Xylene		ug/L	<1	<1	<1 J	<1	<1	<1
p-Isopropyltoluene		ug/L	<1	<1	<1 J	<1	<1	<1
sec-Butylbenzene		ug/L	<1	<1	<1 J	<1	<1	<1
Styrene		ug/L	<1	<1	<1 J	<1	<1	<1
tert-Butylbenzene		ug/L	<1	<1	<1 J	<1	<1	<1
Tetrachloroethene		ug/L	0.747 J	2.69	1.5 J	1.22	59.7 J	69.2 J
Toluene		ug/L	<1	<1	<1 J	<1	<1	<1
trans-1,2-Dichloroethene		ug/L	<1	<1	<1 J	<1	<1	<1
trans-1,3-Dichloropropene		ug/L	<1	<1	<1 J	<1	<1	<1
Trichloroethene		ug/L	3.03 J	0.399 J	1.83 J	1.69	114 J	4.28 J
Trichlorofluoromethane		ug/L	<1	<1	<1 J	<1	<1	<1
Vinyl acetate		ug/L	<5	<5	<5 J	<5	<5	<5
Vinyl chloride		ug/L	<1	<1	<1 J	<1	<1	<1

<: Not detected above Reporting Limit (RL)
J: Estimated result based on QC data or reported below RL
B: Estimated result possibly biased high or false positive based on blank data

TABLE A-3
ANALYTICAL RESULTS, VOCs - GROUNDWATER SAMPLES
ANNUAL LONG TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Well ID / Lab ID / Date	Units	DR1-6A-LB-8 L08100241-06 10/7/2008	DR1-6-LB-8 L08100241-05 10/7/2008	DR1-7-LB-8 L08100241-07 10/7/2008	DR1-8-LB-8 L08100241-08 10/7/2008	DR2-2-LB-8 L08100361-17 10/9/2008	DR2-3-LB-8 L08100368-17 10/10/2008
1,1,1,2-Tetrachloroethane		ug/L	<0.5	<0 5	<0 5	<0 5	<0.5	<0 5
1,1,1-Trichloroethane		ug/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane		ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane		ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane		ug/L	0.197 J	<1	<1	<1	<1	<1
1,1-Dichloroethene		ug/L	1 08	<1	<1	<1	<1	<1
1,1-Dichloropropene		ug/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene		ug/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane		ug/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene		ug/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene		ug/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane		ug/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane		ug/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene		ug/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane		ug/L	<0.5	<0 5	<0 5	<0 5	<0.5	<0 5
1,2-Dichloropropane		ug/L	0 393 J	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene		ug/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene		ug/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane		ug/L	<0.4	<0 4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene		ug/L	<0.5	<0 5	<0 5	<0 5	<0.5	<0.5
1-Chlorohexane		ug/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane		ug/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene		ug/L	<1	<1	<1	<1	<1	<1
2-Hexanone		ug/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene		ug/L	<1	<1	<1	<1	<1	<1
Acetone		ug/L	<10	2.85 B	<10	<10	<10	<10
Benzene		ug/L	0.167 J	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene		ug/L	<1	<1	<1	<1	<1	<1
Bromochloromethane		ug/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane		ug/L	<0.5	<0 5	<0.5	<0.5	<0.5	<0.5
Bromoform		ug/L	<1	<1	<1	<1	<1	<1
Bromomethane		ug/L	<1	<1	<1	<1	2.84 B	2.8 B
Carbon disulfide		ug/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride		ug/L	<1	<1	<1	<1	13.8	4.97 J
Chlorobenzene		ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane		ug/L	<1	<1	<1	<1	<1	<1
Chloroform		ug/L	0.238 J	<0.3	0 163 J	<0.3	3.87	0.978 J
Chloromethane		ug/L	<1	<1	<1	<1	0.27 J	<1
cis-1,2-Dichloroethene		ug/L	3.81	1.38	0.787 J	<1	6.86	0.594 J
cis-1,3-Dichloropropene		ug/L	<0.5	<0.5	<0.5	<0.5	<0 5	<0 5
Dibromochloromethane		ug/L	<0.5	<0.5	<0.5	<0.5	<0 5	<0 5
Dibromomethane		ug/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane		ug/L	<1	<1	<1	<1	<1	<1
Ethylbenzene		ug/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene		ug/L	<0.6	<0.6	<0.6	<0.6	<0 6	<0.6
Isopropylbenzene		ug/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene		ug/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)		ug/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)		ug/L	<5	<5	<5	<5	<5	<5
Methylene chloride		ug/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)		ug/L	<10	<10	<10	<10	<10	<10
Naphthalene		ug/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene		ug/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene		ug/L	<1	<1	<1	<1	<1	<1
o-Xylene		ug/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene		ug/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene		ug/L	<1	<1	<1	<1	<1	<1
Styrene		ug/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene		ug/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene		ug/L	39 6	122	4.35	<1	120	22.1 J
Toluene		ug/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene		ug/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene		ug/L	<1	<1	<1	<1	<1	<1
Trichloroethene		ug/L	142	4.61	1.6	1 03	3.96	2.03 J
Trichlorofluoromethane		ug/L	<1	<1	<1	<1	1.17	<1
Vinyl acetate		ug/L	<5	<5	<5	<5 R	<5	<5
Vinyl chloride		ug/L	<1	<1	<1	<1	<1	<1

<: Not detected above Reporting Limit (RL)
J: Estimated result based on QC data or reported below RL
B. Estimated result possibly biased high or false positive based on blank data

TABLE A-3
ANALYTICAL RESULTS, VOCs - GROUNDWATER SAMPLES
ANNUAL LONG TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Well ID / Lab ID / Date	Units	DR2-4-LB-8 L08100313-13 10/8/2008	DR2-6-LB-8 L08100313-14 10/8/2008	DR2-6 DUP10-LB-8 L08100313-15 10/8/2008	IW-6-LB-8 L08100241-01 10/7/2008	MW-16-LB-8 L08100368-07 10/10/2008	MW-19-LB-8 L08100361-15 10/9/2008
1,1,1,2-Tetrachloroethane		ug/L	<0 5	<0.5	<0.5	<50 J	<0 5	<0.5
1,1,1-Trichloroethane		ug/L	<1	<1	<1	<100 J	<1	<1
1,1,2,2-Tetrachloroethane		ug/L	<0 5	<0.5	<0.5	<50 J	<0.5	<0 5
1,1,2-Trichloroethane		ug/L	<1	<1	<1	<100 J	<1	<1
1,1-Dichloroethane		ug/L	<1	<1	<1	<100 J	<1	<1
1,1-Dichloroethene		ug/L	<1	0.862 J	0.859 J	<100 J	<1	<1
1,1-Dichloropropene		ug/L	<1	<1	<1	<100 J	<1	<1
1,2,3-Trichlorobenzene		ug/L	<1	<1	<1	<100 J	<1	<1
1,2,3-Trichloropropane		ug/L	<1	20.3	21.8	<100 J	<1	<1
1,2,4-Trichlorobenzene		ug/L	<1	<1	<1	<100 J	<1	<1
1,2,4-Trimethylbenzene		ug/L	<1	<1	<1	<100 J	<1	<1
1,2-Dibromo-3-chloropropane		ug/L	<2	<2	<2	<200 J	<2	<2
1,2-Dibromoethane		ug/L	<1	<1	<1	<100 J	<1	<1
1,2-Dichlorobenzene		ug/L	<1	<1	<1	<100 J	<1	<1
1,2-Dichloroethane		ug/L	<0 5	0 694	0.757	<50 J	<0.5	<0.5
1,2-Dichloropropane		ug/L	<1	0 309 J	0.345 J	<100 J	<1	<1
1,3,5-Trimethylbenzene		ug/L	<1	<1	<1	<100 J	<1	<1
1,3-Dichlorobenzene		ug/L	<1	<1	<1	<100 J	<1	<1
1,3-Dichloropropane		ug/L	<0 4	<0 4	<0 4	<40 J	<0 4	<0.4
1,4-Dichlorobenzene		ug/L	<0.5	<0 5	<0 5	<50 J	0 149 B	<0.5
1-Chlorohexane		ug/L	<1	<1	<1	<100 J	<1	<1
2,2-Dichloropropane		ug/L	<1	<1	<1	<100 J	<1	<1
2-Chlorotoluene		ug/L	<1	<1	<1	<100 J	<1	<1
2-Hexanone		ug/L	<10	<10	<10	284 J	<10	<10
4-Chlorotoluene		ug/L	<1	<1	<1	<100 J	<1	<1
Acetone		ug/L	<10	<10	<10	293 B	<10	<10
Benzene		ug/L	<0.4	<0 4	<0.4	<40 J	<0.4	<0.4
Bromobenzene		ug/L	<1	<1	<1	<100 J	<1	<1
Bromochloromethane		ug/L	<1	<1	<1	<100 J	<1	<1
Bromodichloromethane		ug/L	<0.5	<0.5	<0.5	<50 J	<0.5	<0.5
Bromoform		ug/L	<1	<1	<1	<100 J	<1	<1
Bromomethane		ug/L	2 69 B	2.68 B	2.68 B	271 B	3.09 B	2.8 B
Carbon disulfide		ug/L	<1	<1	<1	<100 J	<1	<1
Carbon tetrachloride		ug/L	3.55	39 6	41.8	<100 J	<1	<1
Chlorobenzene		ug/L	<0.5	<0 5	<0 5	<50 J	<0 5	<0 5
Chloroethane		ug/L	<1	<1	<1	<100 J	<1	<1
Chloroform		ug/L	0.715	18 4	19.1	<30 J	<0 3	<0 3
Chloromethane		ug/L	<1	<1	<1	28.3 J	<1	0.307 J
cis-1,2-Dichloroethene		ug/L	0.304 J	33	34.1	<100 J	<1	<1
cis-1,3-Dichloropropene		ug/L	<0 5	<0.5	<0.5	<50 J	<0 5	<0 5
Dibromochloromethane		ug/L	<0.5	<0.5	<0 5	<50 J	<0 5	<0.5
Dibromomethane		ug/L	<1	<1	<1	<100 J	<1	<1
Dichlorodifluoromethane		ug/L	<1	<1	<1	<100 J	<1	<1
Ethylbenzene		ug/L	<1	<1	<1	<100 J	<1	<1
Hexachlorobutadiene		ug/L	<0.6	<0 6	<0 6	<60 J	<0.6	<0 6
Isopropylbenzene		ug/L	<1	<1	<1	<100 J	<1	<1
m-,p-Xylene		ug/L	<2	<2	<2	<200 J	<2	<2
MEK (2-Butanone)		ug/L	<10	<10	<10	2630 J	<10	<10
Methyl t-butyl ether (MTBE)		ug/L	<5	<5	<5	<500 J	<5	<5
Methylene chloride		ug/L	<1	<1	<1	<100 J	<1	<1
MIBK (methyl isobutyl ketone)		ug/L	<10	<10	<10	<1000 J	<10	<10
Naphthalene		ug/L	<1	<1	<1	<100 J	<1	<1
n-Butylbenzene		ug/L	<1	<1	<1	<100 J	<1	<1
n-Propylbenzene		ug/L	<1	<1	<1	<100 J	<1	<1
o-Xylene		ug/L	<1	<1	<1	<100 J	<1	<1
p-Isopropyltoluene		ug/L	<1	<1	<1	<100 J	<1	<1
sec-Butylbenzene		ug/L	<1	<1	<1	<100 J	<1	<1
Styrene		ug/L	<1	<1	<1	<100 J	<1	<1
tert-Butylbenzene		ug/L	<1	<1	<1	<100 J	<1	<1
Tetrachloroethene		ug/L	14.5	70 5	73.2	<100 J	<1	<1
Toluene		ug/L	<1	<1	<1	<100 J	<1	<1
trans-1,2-Dichloroethene		ug/L	<1	0.552 J	0.599 J	<100 J	<1	<1
trans-1,3-Dichloropropene		ug/L	<1	<1	<1	<100 J	<1	<1
Trichloroethene		ug/L	1.74	12.4	13.2	283 J	<1	<1
Trichlorofluoromethane		ug/L	<1	<1	<1	<100 J	<1	<1
Vinyl acetate		ug/L	<5	<5	<5	<500 J	<5	<5
Vinyl chloride		ug/L	<1	<1	<1	<100 J	<1	<1

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J: Estimated result based on QC data or reported below RL
B. Estimated result possibly biased high or false positive based on blank data

TABLE A-3
ANALYTICAL RESULTS, VOCs - GROUNDWATER SAMPLES
ANNUAL LONG TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Well ID / Lab ID / Date / Units	MW-22-LB-8 L08100361-16 10/9/2008	MW-23-LB-8 L08100442-01 10/14/2008	MW-23 DUP1-LB-8 L08100442-03 10/14/2008	MW-24-LB-8 L08100442-04 10/14/2008	MW-25A-LB-8 L08100368-08 10/10/2008	MW-26-LB-8 L08100313-12 10/8/2008
1,1,1,2-Tetrachloroethane	ug/L	<0.5	<0.5	<0.5	<0 5	<0.5	<0 5
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	ug/L	<0.5	<0.5	<0.5	<0 5	<0.5	<0 5
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	ug/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	ug/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	ug/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	ug/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0 4
1,4-Dichlorobenzene	ug/L	<0.5	<0.5	<0.5	0.154 B	<0.5	<0.5
1-Chlorohexane	ug/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	ug/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	ug/L	<1	<1	<1	<1	<1	<1
2-Hexanone	ug/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	ug/L	<1	<1	<1	<1	<1	<1
Acetone	ug/L	<10	<10	<10	<10	<10	<10
Benzene	ug/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	ug/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<0.5	<0 5	<0 5	<0.5	<0 5	<0.5
Bromoform	ug/L	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	2.83 B	2.96 B	2.97 B	2.86 B	2.98 B	2.72 B
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	1 67	5.31
Chlorobenzene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1
Chloroform	ug/L	<0.3	<0.3	<0.3	0.181 J	0.377	1.14
Chloromethane	ug/L	<1	0 255 B	<1	<1	<1	<1
cis-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	0.295 J
cis-1,3-Dichloropropene	ug/L	<0.5	<0.5	<0.5	<0 5	<0.5	<0.5
Dibromochloromethane	ug/L	<0 5	<0.5	<0.5	<0 5	<0.5	<0 5
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	ug/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	ug/L	<0 6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	ug/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	ug/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	ug/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	ug/L	<5	<5	<5	<5	0.547 J	<5
Methylene chloride	ug/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	ug/L	<10	<10	<10	<10	<10	<10
Naphthalene	ug/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene	ug/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	ug/L	<1	<1	<1	<1	<1	<1
o-Xylene	ug/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	ug/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Styrene	ug/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	ug/L	<1	<1	<1	<1	4 91	21.1
Toluene	ug/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	0.329 J	<1	<1	<1	0.45 J	1.54
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	1.27	<1
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1

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TABLE A-3
ANALYTICAL RESULTS, VOCs - GROUNDWATER SAMPLES
ANNUAL LONG TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

	Well ID	MW-34-LB-8	MW-38-LB-8	MW-39A-LB-8	MW-39-LB-8	MW-50-LB-8	MW-52-LB-8
	Lab ID	L08100421-10	L08100313-01	L08100361-05	L08100361-03	L08100421-15	L08100368-11
	Date	10/13/2008	10/8/2008	10/9/2008	10/9/2008	10/13/2008	10/10/2008
Analyte	Units						
1,1,1,2-Tetrachloroethane	ug/L	<0.5 J	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	ug/L	<1 J	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	ug/L	<0.5 J	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	ug/L	<1 J	<1	<1	<1	<1	<1
1,1-Dichloroethane	ug/L	<1 J	<1	<1	<1	<1	<1
1,1-Dichloroethene	ug/L	<1 J	<1	0.866 J	<1	<1	<1
1,1-Dichloropropene	ug/L	<1 J	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	ug/L	<1 J	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	ug/L	<1 J	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	ug/L	<1 J	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	ug/L	<1 J	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	ug/L	<2 J	<2	<2	<2	<2	<2
1,2-Dibromoethane	ug/L	<1 J	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	ug/L	<1 J	<1	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	<0 5 J	<0.5	<0 5	<0.5	<0 5	<0.5
1,2-Dichloropropane	ug/L	<1 J	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	ug/L	<1 J	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	ug/L	<1 J	<1	<1	<1	<1	<1
1,3-Dichloropropane	ug/L	<0 4 J	<0.4	<0 4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	ug/L	<0 5 J	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	ug/L	<1 J	<1	<1	<1	<1	<1
2,2-Dichloropropane	ug/L	<1 J	<1	<1	<1	<1	<1
2-Chlorotoluene	ug/L	<1 J	<1	<1	<1	<1	<1
2-Hexanone	ug/L	<10 J	<10	<10	<10	<10	<10
4-Chlorotoluene	ug/L	<1 J	<1	<1	<1	<1	<1
Acetone	ug/L	<10 J	<10	<10	<10	<10	<10
Benzene	ug/L	<0.4 J	<0 4	<0 4	<0.4	<0.4	<0.4
Bromobenzene	ug/L	<1 J	<1	<1	<1	<1	<1
Bromochloromethane	ug/L	<1 J	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<0.5 J	<0.5	<0.5	<0 5	<0.5	<0.5
Bromoform	ug/L	<1 J	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1 J	<1	2.8 B	2.81 B	2 72 B	2 91 B
Carbon disulfide	ug/L	<1 J	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	0 826 J	<1	<1	<1	<1	<1
Chlorobenzene	ug/L	<0.5 J	<0 5	<0.5	<0.5	<0.5	<0.5
Chloroethane	ug/L	<1 J	<1	<1	<1	<1	<1
Chloroform	ug/L	0 345 J	<0 3	0.16 J	0.237 J	0 469	1.12 J
Chloromethane	ug/L	<1 J	<1	<1	<1	0.322 J	<1
cis-1,2-Dichloroethene	ug/L	<1 J	<1	12 2	1.26 J	0.321 J	0.866 J
cis-1,3-Dichloropropene	ug/L	<0 5 J	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	ug/L	<0 5 J	<0.5	<0 5	<0.5	<0.5	<0.5
Dibromomethane	ug/L	<1 J	<1	<1	<1	<1	<1
Dichlorodifluoromethane	ug/L	<1 J	<1	<1	<1	<1	<1
Ethylbenzene	ug/L	<1 J	<1	<1	<1	<1	<1
Hexachlorobutadiene	ug/L	<0 6 J	<0.6	<0 6	<0.6	<0 6	<0.6
Isopropylbenzene	ug/L	<1 J	<1	<1	<1	<1	<1
m-,p-Xylene	ug/L	<2 J	<2	<2	<2	<2	<2
MEK (2-Butanone)	ug/L	<10 J	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	ug/L	<5 J	<5	<5	<5	2.61 J	<5
Methylene chloride	ug/L	<1 J	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	ug/L	<10 J	<10	<10	<10	<10	<10
Naphthalene	ug/L	<1 J	<1	<1	<1	<1	<1
n-Butylbenzene	ug/L	<1 J	<1	<1	<1	<1	<1
n-Propylbenzene	ug/L	<1 J	<1	<1	<1	<1	<1
o-Xylene	ug/L	<1 J	<1	<1	<1	<1	<1
p-Isopropyltoluene	ug/L	<1 J	<1	<1	<1	<1	<1
sec-Butylbenzene	ug/L	<1 J	<1	<1	<1	<1	<1
Styrene	ug/L	<1 J	<1	<1	<1	<1	<1
tert-Butylbenzene	ug/L	<1 J	<1	<1	<1	<1	<1
Tetrachloroethene	ug/L	0.451 J	<1	95.7	158 J	0.335 J	6 86 J
Toluene	ug/L	<1 J	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	ug/L	<1 J	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	ug/L	<1 J	<1	<1	<1	<1	<1
Trichloroethene	ug/L	0 885 J	<1	11 8	6 15 J	1.12	1 17 J
Trichlorofluoromethane	ug/L	<1 J	<1	<1	<1	1.19	<1
Vinyl acetate	ug/L	<5 J	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1 J	<1	<1	<1	<1	<1

<. Not detected above Reporting Limit (RL)
J: Estimated result based on QC data or reported below RL
B. Estimated result possibly biased high or false positive based on blank data

TABLE A-3
ANALYTICAL RESULTS, VOCs - GROUNDWATER SAMPLES
ANNUAL LONG TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Well ID / Lab ID / Date	Units	MW-53-LB-8 L08100421-16 10/13/2008	MW-53 DUP2-LB-8 L08100421-14 10/13/2008	MW-55-LB-8 L08100421-03 10/13/2008	MW-62-LB-8 L08100442-07 10/14/2008	MW-63A-LB-8 L08100313-03 10/8/2008	MW-63B-LB-8 L08100241-13 10/7/2008
1,1,1,2-Tetrachloroethane		ug/L	<0.5	<0.5	<0.5 J	<0.5	<0.5	<0.5
1,1,1-Trichloroethane		ug/L	<1	<1	<1 J	<1	<1	<1
1,1,2,2-Tetrachloroethane		ug/L	<0.5	<0.5	<0 5 J	<0 5	<0 5 J	<0.5
1,1,2-Trichloroethane		ug/L	<1	<1	<1 J	<1	<1	<1
1,1-Dichloroethane		ug/L	<1	<1'	<1 J	<1	0.285 J	1.13
1,1-Dichloroethene		ug/L	<1	<1	<1 J	1 02 J	<1	1.45
1,1-Dichloropropene		ug/L	<1	<1	<1 J	<1	<1	<1
1,2,3-Trichlorobenzene		ug/L	<1	<1	<1 J	<1	<1 J	<1
1,2,3-Trichloropropane		ug/L	<1	<1	<1 J	<1	<1 J	<1
1,2,4-Trichlorobenzene		ug/L	<1	<1	<1 J	<1	<1 J	<1
1,2,4-Trimethylbenzene		ug/L	<1	<1	<1 J	<1	<1 J	<1
1,2-Dibromo-3-chloropropane		ug/L	<2	<2	<2 J	<2	<2	<2
1,2-Dibromoethane		ug/L	<1	<1	<1 J	<1	<1	<1
1,2-Dichlorobenzene		ug/L	<1	<1	<1 J	<1	<1 J	<1
1,2-Dichloroethane		ug/L	<0.5	<0.5	<0 5 J	<0 5	<0.5	<0 5
1,2-Dichloropropane		ug/L	<1	<1	<1 J	<1	<1	<1
1,3,5-Trimethylbenzene		ug/L	<1	<1	<1 J	<1	<1 J	<1
1,3-Dichlorobenzene		ug/L	<1	<1	<1 J	<1	<1 J	<1
1,3-Dichloropropane		ug/L	<0.4	<0.4	<0 4 J	<0 4	<0 4	<0 4
1,4-Dichlorobenzene		ug/L	0.166 J	0.192 J	<0 5 J	0 149 B	<0 5 J	<0 5
1-Chlorohexane		ug/L	<1	<1	<1 J	<1	<1	<1
2,2-Dichloropropane		ug/L	<1	<1	<1 J	<1	<1	<1
2-Chlorotoluene		ug/L	<1	<1	<1 J	<1	<1 J	<1
2-Hexanone		ug/L	<10	<10	<10 J	<10	<10	<10
4-Chlorotoluene		ug/L	<1	<1	<1 J	<1	<1 J	<1
Acetone		ug/L	<10	<10	<10 J	<10	<10	<10
Benzene		ug/L	<0.4	<0.4	<0 4 J	<0 4	<0 4	<0.4
Bromobenzene		ug/L	<1	<1	<1 J	<1	<1 J	<1
Bromochloromethane		ug/L	<1	<1	<1 J	<1	<1	<1
Bromodichloromethane		ug/L	<0.5	<0.5	<0.5 J	<0 5	<0.5	<0 5
Bromoform		ug/L	<1	<1	<1 J	<1	<1	<1
Bromomethane		ug/L	<1	<1	2.85 B	2.92 B	<1	3.15 B
Carbon disulfide		ug/L	<1	<1	<1 J	<1	<1	<1
Carbon tetrachloride		ug/L	<1	<1	<1 J	0 634 J	<1	<1
Chlorobenzene		ug/L	<0.5	<0.5	<0.5 J	<0 5	<0.5	<0 5
Chloroethane		ug/L	<1	<1	<1 J	<1	<1	<1
Chloroform		ug/L	<0.3	<0.3	<0.3 J	0.394 J	0 471 J	2.9
Chloromethane		ug/L	<1	0.33 J	<1 J	0.279 B	<1	<1
cis-1,2-Dichloroethene		ug/L	<1	<1	<1 J	<1	<1	0.401 J
cis-1,3-Dichloropropene		ug/L	<0.5	<0.5	<0 5 J	<0 5	<0.5	<0.5
Dibromochloromethane		ug/L	<0.5	<0.5	<0 5 J	<0 5	<0.5	<0.5
Dibromomethane		ug/L	<1	<1	<1 J	<1	<1	<1
Dichlorodifluoromethane		ug/L	<1	<1	<1 J	<1	<1	<1
Ethylbenzene		ug/L	<1	<1	<1 J	<1	<1	<1
Hexachlorobutadiene		ug/L	<0.6	<0 6	<0 6 J	<0 6	<0.6 J	<0.6
Isopropylbenzene		ug/L	<1	<1	<1 J	<1	<1	<1
m-,p-Xylene		ug/L	<2	<2	<2 J	<2	<2	<2
MEK (2-Butanone)		ug/L	<10	<10	<10 J	<10	<10	<10
Methyl t-butyl ether (MTBE)		ug/L	1.73 J	1 85 J	<5 J	<5	<5	<5
Methylene chloride		ug/L	<1	<1	<1 J	<1	<1	<1
MIBK (methyl isobutyl ketone)		ug/L	<10	<10	<10 J	<10	<10	<10
Naphthalene		ug/L	<1	<1	<1 J	<1	<1 J	<1
n-Butylbenzene		ug/L	<1	<1	<1 J	<1	<1 J	<1
n-Propylbenzene		ug/L	<1	<1	<1 J	<1	<1 J	<1
o-Xylene		ug/L	<1	<1	<1 J	<1	<1	<1
p-Isopropyltoluene		ug/L	<1	<1	<1 J	<1	<1 J	<1
sec-Butylbenzene		ug/L	<1	<1	<1 J	<1	<1 J	<1
Styrene		ug/L	<1	<1	<1 J	<1	<1	<1
tert-Butylbenzene		ug/L	<1	<1	<1 J	<1	<1 J	<1
Tetrachloroethene		ug/L	2.25	2 53	<1 J	0 39 J	<1	4.6
Toluene		ug/L	<1	<1	<1 J	<1	<1	<1
trans-1,2-Dichloroethene		ug/L	<1	<1	<1 J	<1	<1	<1
trans-1,3-Dichloropropene		ug/L	<1	<1	<1 J	<1	<1	<1
Trichloroethene		ug/L	<1	<1	<1 J	157 J	1 66 J	4.56
Trichlorofluoromethane		ug/L	<1	<1	<1 J	<1	<1	<1
Vinyl acetate		ug/L	<5	<5	<5 J	<5	<5	<5
Vinyl chloride		ug/L	<1	<1	<1 J	<1	<1	<1

<: Not detected above Reporting Limit (RL)
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TABLE A-3
ANALYTICAL RESULTS, VOCs - GROUNDWATER SAMPLES
ANNUAL LONG TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

	Well ID	MW-64-LB-8	MW-66A-LB-8	MW-86-LB-8	MW-88-LB-8	MW-88 DUP3-LB-8	MW-89-LB-8
	Lab ID	L08100313-16	L08100368-12	L08100313-17	L08100198-14	L08100198-11	L08100198-15
	Date	10/8/2008	10/10/2008	10/8/2008	10/6/2008	10/6/2008	10/6/2008
Analyte	Units						
1,1,1,2-Tetrachloroethane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5 J	<0.5
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1	<1 J	<1
1,1,2,2-Tetrachloroethane	ug/L	1.22	<0.5	<0.5	<0.5	<0.5 J	<0.5
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1	<1 J	<1
1,1-Dichloroethane	ug/L	<1	<1	<1	<1	<1 J	<1
1,1-Dichloroethene	ug/L	1.22	<1	<0.887 J	<1	<1 J	<1
1,1-Dichloropropene	ug/L	<1	<1	<1	<1	<1 J	<1
1,2,3-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1 J	<1
1,2,3-Trichloropropane	ug/L	<1	<1	1.43	<1	<1 J	<1
1,2,4-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1 J	<1
1,2,4-Trimethylbenzene	ug/L	<1	<1	<1	<1	<1 J	<1
1,2-Dibromo-3-chloropropane	ug/L	<2	<2	<2	<2	<2 J	<2
1,2-Dibromoethane	ug/L	<1	<1	<1	<1	<1 J	<1
1,2-Dichlorobenzene	ug/L	<1	<1	0.177 J	<1	<1 J	<1
1,2-Dichloroethane	ug/L	1.93	1.22	0.89	<0.5	<0.5 J	<0.5
1,2-Dichloropropane	ug/L	<1	<1	1.16	<1	<1 J	<1
1,3,5-Trimethylbenzene	ug/L	<1	<1	<1	<1	<1 J	<1
1,3-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1 J	<1
1,3-Dichloropropane	ug/L	<0.4	<0.4	0.663	<0.4	<0.4 J	<0.4
1,4-Dichlorobenzene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5 J	<0.5
1-Chlorohexane	ug/L	<1	<1	<1	<1	<1 J	<1
2,2-Dichloropropane	ug/L	<1	<1	<1	<1	<1 J	<1
2-Chlorotoluene	ug/L	<1	<1	<1	<1	<1 J	<1
2-Hexanone	ug/L	<10	<10	<10	<10	<10 J	<10
4-Chlorotoluene	ug/L	<1	<1	<1	<1	<1 J	<1
Acetone	ug/L	<10	<10	<10	<10	<10 J	<10
Benzene	ug/L	<0.4	<0.4	<0.4	<0.4	<0.4 J	<0.4
Bromobenzene	ug/L	<1	<1	<1	<1	<1 J	<1
Bromochloromethane	ug/L	<1	<1	<1	<1	<1 J	<1
Bromodichloromethane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5 J	<0.5
Bromoform	ug/L	<1	<1	<1	<1	<1 J	<1
Bromomethane	ug/L	2.75 B	2.8 B	<1	<1	<1 J	<1
Carbon disulfide	ug/L	<1	<1	<1	<1	<1 J	<1
Carbon tetrachloride	ug/L	3.3	<1	<1	3.69	3.83 J	0.252 J
Chlorobenzene	ug/L	<0.5	<0.5	0.127 J	<0.5	<0.5 J	<0.5
Chloroethane	ug/L	<1	<1	<1	<1	<1 J	<1
Chloroform	ug/L	0.989	<0.3	0.705	0.878	0.878 J	0.156 J
Chloromethane	ug/L	<1	<1	<1	<1	<1 J	<1
cis-1,2-Dichloroethene	ug/L	0.439 J	<1	110	1.21	1.32 J	<1
cis-1,3-Dichloropropene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5 J	<0.5
Dibromochloromethane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5 J	<0.5
Dibromomethane	ug/L	<1	<1	<1	<1	<1 J	<1
Dichlorodifluoromethane	ug/L	<1	<1	<1	<1	<1 J	<1
Ethylbenzene	ug/L	<1	<1	<1	<1	<1 J	<1
Hexachlorobutadiene	ug/L	<0.6	<0.6	<0.6	<0.6	<0.6 J	<0.6
Isopropylbenzene	ug/L	<1	<1	<1	<1	<1 J	<1
m-,p-Xylene	ug/L	<2	<2	<2	<2	<2 J	<2
MEK (2-Butanone)	ug/L	<10	<10	<10	<10	<10 J	<10
Methyl t-butyl ether (MTBE)	ug/L	<5	<5	<5	<5	<5 J	<5
Methylene chloride	ug/L	<1	<1	<1	<1	<1 J	<1
MIBK (methyl isobutyl ketone)	ug/L	<10	<10	<10	<10	<10 J	<10
Naphthalene	ug/L	<1	<1	<1	<1	<1 J	<1
n-Butylbenzene	ug/L	<1	<1	<1	<1	<1 J	<1
n-Propylbenzene	ug/L	<1	<1	<1	<1	<1 J	<1
o-Xylene	ug/L	<1	<1	<1	<1	<1 J	<1
p-Isopropyltoluene	ug/L	<1	<1	<1	<1	<1 J	<1
sec-Butylbenzene	ug/L	<1	<1	<1	<1	<1 J	<1
Styrene	ug/L	<1	<1	<1	<1	<1 J	<1
tert-Butylbenzene	ug/L	<1	<1	<1	<1	<1 J	<1
Tetrachloroethene	ug/L	22.3	1.78	12.2	32.8	32 J	<1
Toluene	ug/L	<1	<1	<1	<1	<1 J	<1
trans-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1 J	<1
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1 J	<1
Trichloroethene	ug/L	36.4	<1	2.87	3.65	3.94 J	1.1
Trichlorofluoromethane	ug/L	1.16	<1	<1	<1	<1 J	<1
Vinyl acetate	ug/L	<5	<5	<5	<5	<5 J	<5
Vinyl chloride	ug/L	<1	<1	1.07	<1	<1 J	<1

<: Not detected above Reporting Limit (RL)
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TABLE A-3
ANALYTICAL RESULTS, VOCs - GROUNDWATER SAMPLES
ANNUAL LONG TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

	Well ID	MW-90-LB-8	MW-92-LB-8	MW-93-LB-8	MW-94A-LB-8	MW-96-LB-8	MW-97-LB-8
	Lab ID	L08100198-16	L08100361-19	L08100421-17	L08100421-18	L08100368-13	L08100421-19
	Date	10/6/2008	10/9/2008	10/13/2008	10/13/2008	10/10/2008	10/13/2008
Analyte	Units						
1,1,1,2-Tetrachloroethane	ug/L	<0.5	<0.5	<0.5 J	<0 5	<0 5	<0 5
1,1,1-Trichloroethane	ug/L	<1	<1	<1 J	<1	<1	<1
1,1,2,2-Tetrachloroethane	ug/L	<0 5	<0 5	<0.5 J	0.195 J	<0.5	<0 5
1,1,2-Trichloroethane	ug/L	<1	<1	<1 J	<1	<1	<1
1,1-Dichloroethane	ug/L	0.979 J	<1	<1 J	<1	<1	<1
1,1-Dichloroethene	ug/L	0 605 J	0 984 J	<1 J	<1	<1	<1
1,1-Dichloropropene	ug/L	<1	<1	<1 J	<1	<1	<1
1,2,3-Trichlorobenzene	ug/L	<1	0.279 J	<1 J	<1	<1	<1
1,2,3-Trichloropropane	ug/L	<1	<1	<1 J	<1	<1	<1
1,2,4-Trichlorobenzene	ug/L	<1	0 234 J	<1 J	<1	<1	<1
1,2,4-Trimethylbenzene	ug/L	<1	<1	<1 J	<1	<1	<1
1,2-Dibromo-3-chloropropane	ug/L	<2	<2	<2 J	<2	<2	<2
1,2-Dibromoethane	ug/L	<1	<1	<1 J	<1	<1	<1
1,2-Dichlorobenzene	ug/L	<1	<1	<1 J	<1	<1	<1
1,2-Dichloroethane	ug/L	<0 5	<0 5	<0.5 J	<0.5	<0.5	<0.5
1,2-Dichloropropane	ug/L	<1	<1	<1 J	<1	<1	<1
1,3,5-Trimethylbenzene	ug/L	<1	<1	<1 J	<1	<1	<1
1,3-Dichlorobenzene	ug/L	<1	<1	<1 J	<1	<1	<1
1,3-Dichloropropane	ug/L	<0.4	<0.4	<0.4 J	<0 4	<0.4	<0 4
1,4-Dichlorobenzene	ug/L	<0 5	<0 5	0.15 J	<0.5	<0.5	<0.5
1-Chlorohexane	ug/L	<1	<1	<1 J	<1	<1	<1
2,2-Dichloropropane	ug/L	<1	<1	<1 J	<1	<1	<1
2-Chlorotoluene	ug/L	<1	<1	<1 J	<1	<1	<1
2-Hexanone	ug/L	<10	<10	<10 J	<10	<10	<10
4-Chlorotoluene	ug/L	<1	<1	<1 J	<1	<1	<1
Acetone	ug/L	<10	37.2	<10 J	<10	<10	<10
Benzene	ug/L	<0 4	<0 4	<0.4 J	<0.4	<0.4	<0.4
Bromobenzene	ug/L	<1	<1	<1 J	<1	<1	<1
Bromochloromethane	ug/L	<1	<1	<1 J	<1	<1	<1
Bromodichloromethane	ug/L	<0.5	<0.5	<0.5 J	<0 5	<0.5	<0.5
Bromoform	ug/L	<1	<1	<1 J	<1	<1	<1
Bromomethane	ug/L	<1	3.66 B	<1 J	<1	2.99 B	<1
Carbon disulfide	ug/L	<1	<1	<1 J	<1	<1	<1
Carbon tetrachloride	ug/L	0.288 J	<1	<1 J	<1	1.03 J	<1
Chlorobenzene	ug/L	<0.5	<0.5	<0.5 J	<0 5	<0.5	<0.5
Chloroethane	ug/L	<1	<1	<1 J	<1	<1	<1
Chloroform	ug/L	4 65	<0.3	<0.3 J	0 147 J	0 663 J	0.267 J
Chloromethane	ug/L	<1	0.456 J	<1 J	<1	<1	<1
cis-1,2-Dichloroethene	ug/L	0.335 J	119	<1 J	1.93	<1	<1
cis-1,3-Dichloropropene	ug/L	<0.5	<0.5	<0 5 J	<0.5	<0.5	<0 5
Dibromochloromethane	ug/L	<0.5	<0.5	<0 5 J	<0.5	<0.5	<0 5
Dibromomethane	ug/L	<1	<1	<1 J	<1	<1	<1
Dichlorodifluoromethane	ug/L	<1	<1	<1 J	<1	<1	<1
Ethylbenzene	ug/L	<1	<1	<1 J	<1	<1	<1
Hexachlorobutadiene	ug/L	<0 6	<0.6	<0 6 J	<0 6	<0.6	<0 6
Isopropylbenzene	ug/L	<1	<1	<1 J	<1	<1	<1
m-,p-Xylene	ug/L	<2	<2	<2 J	<2	<2	<2
MEK (2-Butanone)	ug/L	<10	48	<10 J	<10	<10	<10
Methyl t-butyl ether (MTBE)	ug/L	<5	<5	<5 J	<5	<5	<5
Methylene chloride	ug/L	<1	<1	<1 J	<1	<1	<1
MIBK (methyl isobutyl ketone)	ug/L	<10	<10	<10 J	<10	<10	<10
Naphthalene	ug/L	<1	0 748 J	<1 J	<1	<1	<1
n-Butylbenzene	ug/L	<1	<1	<1 J	<1	<1	<1
n-Propylbenzene	ug/L	<1	<1	<1 J	<1	<1	<1
o-Xylene	ug/L	<1	<1	<1 J	<1	<1	<1
p-Isopropyltoluene	ug/L	<1	<1	<1 J	<1	<1	<1
sec-Butylbenzene	ug/L	<1	<1	<1 J	<1	<1	<1
Styrene	ug/L	<1	<1	<1 J	<1	<1	<1
tert-Butylbenzene	ug/L	<1	<1	<1 J	<1	<1	<1
Tetrachloroethene	ug/L	79 3	0.499 J	<1 J	32 8	1 46 J	<1
Toluene	ug/L	<1	<1	<1 J	<1	<1	<1
trans-1,2-Dichloroethene	ug/L	<1	<1	<1 J	<1	<1	<1
trans-1,3-Dichloropropene	ug/L	<1	<1	<1 J	<1	<1	<1
Trichloroethene	ug/L	6.08	<1	<1 J	6 89	<1	29 6
Trichlorofluoromethane	ug/L	<1	<1	<1 J	<1	1 26 J	<1
Vinyl acetate	ug/L	<5	<5	<5 J	<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1 J	<1	<1	<1

<: Not detected above Reporting Limit (RL)
J Estimated result based on QC data or reported below RL
B: Estimated result possibly biased high or false positive based on blank data

TABLE A-3
ANALYTICAL RESULTS, VOCs - GROUNDWATER SAMPLES
ANNUAL LONG TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

	Well ID	MW-98-LB-8	MW-99-LB-8	MW-100B-LB-8	MW-102B-LB-8	MW-103-LB-8	MW-103 DUP4-LB-8
	Lab ID	L08100368-01	L08100361-20	L08100313-18	L08100421-04	L08100198-17	L08100198-12
	Date	10/10/2008	10/9/2008	10/8/2008	10/13/2008	10/6/2008	10/6/2008
Analyte	Units						
1,1,1,2-Tetrachloroethane	ug/L	<0.5	<0 5	<0 5	<0.5 J	<0 5	<0.5
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1 J	<1	<1
1,1,2,2-Tetrachloroethane	ug/L	<0 5	<0.5	<0.5	<0 5 J	<0.5 J	<0 5
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1 J	<1	<1
1,1-Dichloroethane	ug/L	<1	<1	<1	<1 J	2.2	2.06
1,1-Dichloroethene	ug/L	<1	<1	0.973 J	<1 J	1.18	1.51
1,1-Dichloropropene	ug/L	<1	<1	<1	<1 J	<1	<1
1,2,3-Trichlorobenzene	ug/L	<1	<1	<1	<1 J	<1 J	<1
1,2,3-Trichloropropane	ug/L	<1	<1	<1	<1 J	<1 J	<1
1,2,4-Trichlorobenzene	ug/L	<1	<1	<1	<1 J	<1 J	<1
1,2,4-Trimethylbenzene	ug/L	<1	<1	<1	<1 J	<1 J	<1
1,2-Dibromo-3-chloropropane	ug/L	<2	<2	<2	<2 J	<2	<2
1,2-Dibromoethane	ug/L	<1	<1	<1	<1 J	<1	<1
1,2-Dichlorobenzene	ug/L	<1	<1	<1	<1 J	<1 J	<1
1,2-Dichloroethane	ug/L	<0.5	<0.5	<0.5	<0.5 J	<0.5	<0.5
1,2-Dichloropropane	ug/L	<1	<1	<1	<1 J	<1	<1
1,3,5-Trimethylbenzene	ug/L	<1	<1	<1	<1 J	<1 J	<1
1,3-Dichlorobenzene	ug/L	<1	<1	<1	<1 J	<1 J	<1
1,3-Dichloropropane	ug/L	<0.4	<0.4	<0.4	<0.4 J	<0.4	<0.4
1,4-Dichlorobenzene	ug/L	<0 5	0.183 J	<0.5	<0 5 J	<0.5 J	<0.5
1-Chlorohexane	ug/L	<1	<1	<1	<1 J	<1	<1
2,2-Dichloropropane	ug/L	<1	<1	<1	<1 J	<1	<1
2-Chlorotoluene	ug/L	<1	<1	<1	<1 J	<1 J	<1
2-Hexanone	ug/L	<10	<10	<10	<10 J	<10	<10
4-Chlorotoluene	ug/L	<1	<1	<1	<1 J	<1 J	<1
Acetone	ug/L	2 57 B	<10	7 68 J	<10 J	<10	<10
Benzene	ug/L	<0 4	<0 4	<0.4	<0.4 J	<0 4	<0.4
Bromobenzene	ug/L	<1	<1	<1	<1 J	<1 J	<1
Bromochloromethane	ug/L	<1	<1	<1	<1 J	<1	<1
Bromodichloromethane	ug/L	<0.5	<0.5	<0.5	<0 5 J	<0.5	<0.5
Bromoform	ug/L	<1	<1	<1	<1 J	<1	<1
Bromomethane	ug/L	2 87 B	3 2 B	<1	2.89 B	<1	<1
Carbon disulfide	ug/L	0 698 J	<1	<1	<1 J	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1 J	<1	<1
Chlorobenzene	ug/L	<0.5	<0.5	<0.5	<0.5 J	<0 5	<0.5
Chloroethane	ug/L	<1	<1	<1	<1 J	<1	<1
Chloroform	ug/L	<0 3	0 265 J	<0.3	<0.3 J	11.1	10.4
Chloromethane	ug/L	<1	0.25 J	<1	0 283 J	<1	<1
cis-1,2-Dichloroethene	ug/L	8.6 J	<1	158	<1 J	<1	0.328 J
cis-1,3-Dichloropropene	ug/L	<0 5	<0.5	<0 5	<0.5 J	<0 5	<0.5
Dibromochloromethane	ug/L	<0.5	<0.5	<0.5	<0 5 J	<0 5	<0.5
Dibromomethane	ug/L	<1	<1	<1	<1 J	<1	<1
Dichlorodifluoromethane	ug/L	<1	<1	<1	<1 J	<1	<1
Ethylbenzene	ug/L	<1	<1	<1	<1 J	<1	<1
Hexachlorobutadiene	ug/L	<0.6	<0.6	<0.6	<0.6 J	<0.6 J	<0.6
Isopropylbenzene	ug/L	<1	<1	<1	<1 J	<1	<1
m-,p-Xylene	ug/L	<2	<2	<2	<2 J	<2	<2
MEK (2-Butanone)	ug/L	<10	<10	6.55 J	<10 J	<10	<10
Methyl t-butyl ether (MTBE)	ug/L	<5	<5	61	<5 J	<5	<5
Methylene chloride	ug/L	<1	<1	<1	<1 J	<1	<1
MIBK (methyl isobutyl ketone)	ug/L	<10	<10	<10	<10 J	<10	<10
Naphthalene	ug/L	<1	<1	<1	<1 J	<1 J	<1
n-Butylbenzene	ug/L	<1	<1	<1	<1 J	<1 J	<1
n-Propylbenzene	ug/L	<1	<1	<1	<1 J	<1 J	<1
o-Xylene	ug/L	<1	<1	<1	<1 J	<1	<1
p-Isopropyltoluene	ug/L	<1	<1	<1	<1 J	<1 J	<1
sec-Butylbenzene	ug/L	<1	<1	<1	<1 J	<1 J	<1
Styrene	ug/L	<1	<1	<1	<1 J	<1	<1
tert-Butylbenzene	ug/L	<1	<1	<1	<1 J	<1 J	<1
Tetrachloroethene	ug/L	25 5 J	<1	0.706 J	<1 J	<1	<1
Toluene	ug/L	<1	<1	1.1	<1 J	<1	<1
trans-1,2-Dichloroethene	ug/L	<1	<1	0.783 J	<1 J	<1	<1
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1 J	<1	<1
Trichloroethene	ug/L	2.34 J	<1	0.309 J	<1 J	5.27	6.93
Trichlorofluoromethane	ug/L	<1	<1	<1	<1 J	<1	<1
Vinyl acetate	ug/L	<5	<5	<5	<5 J	<5	<5
Vinyl chloride	ug/L	<1	<1	1.75	<1 J	<1	<1

<: Not detected above Reporting Limit (RL)
J: Estimated result based on QC data or reported below RL
B: Estimated result possibly biased high or false positive based on blank data

TABLE A-3
ANALYTICAL RESULTS, VOCs - GROUNDWATER SAMPLES
ANNUAL LONG TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Well ID / Lab ID / Date	Units	MW-104-LB-8 L08100198-18 10/6/2008	MW-107B-LB-8 L08100368-03 10/10/2008	MW-107T-LB-8 L08100368-02 10/10/2008	MW-108-LB-8 L08100368-04 10/10/2008	MW-113-LB-8 L08100313-19 10/8/2008	MW-125-LB-8 L08100241-02 10/7/2008
1,1,1,2-Tetrachloroethane		ug/L	<0 5	<0.5	<0.5	<0 5	<0.5	<0.5
1,1,1-Trichloroethane		ug/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane		ug/L	<0 5 J	<0 5	<0 5	<0.5	<0 5	<0.5
1,1,2-Trichloroethane		ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane		ug/L	0 872 J	<1	<1	0 239 J	<1	<1
1,1-Dichloroethene		ug/L	1 24	<1	<1	1.13 J	0 892 J	0.872 J
1,1-Dichloropropene		ug/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene		ug/L	<1 J	<1	<1	<1	<1	<1
1,2,3-Trichloropropane		ug/L	<1 J	<1	<1	<1	13.2	<1
1,2,4-Trichlorobenzene		ug/L	<1 J	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene		ug/L	<1 J	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane		ug/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane		ug/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene		ug/L	<1 J	<1	<1	<1	0.155 J	<1
1,2-Dichloroethane		ug/L	<0.5	<0.5	<0.5	<0 5	0 792	0.278 J
1,2-Dichloropropane		ug/L	<1	<1	<1	<1	0 696 J	<1
1,3,5-Trimethylbenzene		ug/L	<1 J	<1	<1	<1	<1	<1
1,3-Dichlorobenzene		ug/L	<1 J	<1	<1	<1	<1	<1
1,3-Dichloropropane		ug/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0 4
1,4-Dichlorobenzene		ug/L	<0 5 J	0 13 B	<0.5	<0.5	<0.5	<0 5
1-Chlorohexane		ug/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane		ug/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene		ug/L	<1 J	<1	<1	<1	<1	<1
2-Hexanone		ug/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene		ug/L	<1 J	<1	<1	<1	<1	<1
Acetone		ug/L	<10	3.18 B	<10	3 5 B	<10	<10
Benzene		ug/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene		ug/L	<1 J	<1	<1	<1	<1	<1
Bromochloromethane		ug/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane		ug/L	<0.5	<0.5	<0.5	<0 5	<0.5	<0.5
Bromoform		ug/L	<1	<1	<1	<1	<1	<1
Bromomethane		ug/L	<1	2.77 B	2.79 B	2.81 B	<1	2.69 B
Carbon disulfide		ug/L	<1	<1	<1	<1	0.587 J	2 47
Carbon tetrachloride		ug/L	<1	<1	<1	0.272 J	110	<1
Chlorobenzene		ug/L	<0.5	<0.5	<0.5	<0.5	0 128 J	<0 5
Chloroethane		ug/L	<1	<1	<1	<1	<1	<1
Chloroform		ug/L	11 2	0 32 J	0 287 J	12.3 J	45.3	<0 3
Chloromethane		ug/L	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene		ug/L	0 305 J	0.449 J	0 385 J	0.598 J	59.6	54.4
cis-1,3-Dichloropropene		ug/L	<0 5	<0 5	<0 5	<0 5	<0.5	<0.5
Dibromochloromethane		ug/L	<0 5	<0 5	<0 5	<0 5	<0 5	<0.5
Dibromomethane		ug/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane		ug/L	<1	<1	<1	<1	<1	<1
Ethylbenzene		ug/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene		ug/L	<0 6 J	<0 6	<0 6	<0 6	<0 6	<0.6
Isopropylbenzene		ug/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene		ug/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)		ug/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)		ug/L	<5	<5	<5	<5	<5	25.3
Methylene chloride		ug/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)		ug/L	<10	<10	<10	<10	<10	<10
Naphthalene		ug/L	<1 J	<1	<1	<1	<1	<1
n-Butylbenzene		ug/L	<1 J	<1	<1	<1	<1	<1
n-Propylbenzene		ug/L	<1 J	<1	<1	<1	<1	<1
o-Xylene		ug/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene		ug/L	<1 J	<1	<1	<1	<1	<1
sec-Butylbenzene		ug/L	<1 J	<1	<1	<1	<1	<1
Styrene		ug/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene		ug/L	<1 J	<1	<1	<1	<1	<1
Tetrachloroethene		ug/L	<1	0.965 J	1.93	3.72 J	156 J	11
Toluene		ug/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene		ug/L	<1	<1	<1	<1	<1	0.274 J
trans-1,3-Dichloropropene		ug/L	<1	<1	<1	<1	<1	<1
Trichloroethene		ug/L	12.6	1.8 J	2.11	28.5 J	28 9	5 58
Trichlorofluoromethane		ug/L	<1	<1	<1	<1	<1	<1
Vinyl acetate		ug/L	<5	<5	<5	<5	<5	<5
Vinyl chloride		ug/L	<1	<1	<1	<1	<1	0.289

<: Not detected above Reporting Limit (RL)
J: Estimated result based on QC data or reported below RL
B: Estimated result possibly biased high or false positive based on blank data

TABLE A-3
ANALYTICAL RESULTS, VOCs - GROUNDWATER SAMPLES
ANNUAL LONG TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

	Well ID	MW-140-LB-8	MW-140 DUP5-LB-8	MW-141-LB-8	MW-142-LB-8	MW-143-LB-8	MW-197A-LB-8
	Lab ID	L08100361-06	L08100361-01	L08100368-05	L08100313-06	L08100421-05	L08100198-01
	Date	10/9/2008	10/9/2008	10/10/2008	10/8/2008	10/13/2008	10/6/2008
Analyte	Units						
1,1,1,2-Tetrachloroethane	ug/L	<0 5	<0 5	<0.5	<0.5	<0.5 J	<0 5
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1	<1 J	<1
1,1,2,2-Tetrachloroethane	ug/L	<0 5	<0 5	<0.5	<0 5	<0.5 J	<0.5
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1	<1 J	<1
1,1-Dichloroethane	ug/L	<1	<1	<1	<1	<1 J	<1
1,1-Dichloroethene	ug/L	<1	<1	<1	<1	<1 J	<1
1,1-Dichloropropene	ug/L	<1	<1	<1	<1	<1 J	<1
1,2,3-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1 J	<1
1,2,3-Trichloropropane	ug/L	<1	<1	<1	<1	<1 J	<1
1,2,4-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1 J	<1
1,2,4-Trimethylbenzene	ug/L	<1	<1	<1	<1	<1 J	<1
1,2-Dibromo-3-chloropropane	ug/L	<2	<2	<2	<2	<2 J	<2
1,2-Dibromoethane	ug/L	<1	<1	<1	<1	<1 J	<1
1,2-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1 J	<1
1,2-Dichloroethane	ug/L	<0 5	<0 5	<0 5	<0 5	<0.5 J	<0.5
1,2-Dichloropropane	ug/L	<1	<1	<1	<1	<1 J	<1
1,3,5-Trimethylbenzene	ug/L	<1	<1	<1	<1	<1 J	<1
1,3-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1 J	<1
1,3-Dichloropropane	ug/L	<0 4	<0 4	<0 4	<0.4	<0 4 J	<0 4
1,4-Dichlorobenzene	ug/L	<0 5	<0.5	<0.5	<0 5	<0.5 J	<0.5
1-Chlorohexane	ug/L	<1	<1	<1	<1	<1 J	<1
2,2-Dichloropropane	ug/L	<1	<1	<1	<1	<1 J	<1
2-Chlorotoluene	ug/L	<1	<1	<1	<1	<1 J	<1
2-Hexanone	ug/L	<10	<10	<10	<10	<10 J	<10
4-Chlorotoluene	ug/L	<1	<1	<1	<1	<1 J	<1
Acetone	ug/L	<10	<10	<10	<10	<10 J	<10
Benzene	ug/L	<0.4	<0.4	<0.4	<0.4	<0.4 J	<0.4
Bromobenzene	ug/L	<1	<1	<1	<1	<1 J	<1
Bromochloromethane	ug/L	<1	<1	<1	<1	<1 J	<1
Bromodichloromethane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5 J	<0.5
Bromoform	ug/L	<1	<1	<1	<1	<1 J	<1
Bromomethane	ug/L	2.71 B	2 86 B	2 77 B	<1	2 85 B	<1
Carbon disulfide	ug/L	<1	<1	<1	<1	<1 J	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1 J	<1
Chlorobenzene	ug/L	<0 5	<0.5	<0.5	<0 5	<0 5 J	<0 5
Chloroethane	ug/L	<1	<1	<1	<1	<1 J	<1
Chloroform	ug/L	0.259 J	0.252 J	2.48 J	<0 3	<0 3 J	0.174 J
Chloromethane	ug/L	<1	<1	<1	<1	0.25 J	<1
cis-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1 J	3.13
cis-1,3-Dichloropropene	ug/L	<0.5	<0 5	<0.5	<0.5	<0.5 J	<0 5
Dibromochloromethane	ug/L	<0.5	<0 5	<0.5	<0.5	<0.5 J	<0 5
Dibromomethane	ug/L	<1	<1	<1	<1	<1 J	<1
Dichlorodifluoromethane	ug/L	<1	<1	<1	<1	<1 J	<1
Ethylbenzene	ug/L	<1	<1	<1	<1	<1 J	<1
Hexachlorobutadiene	ug/L	<0.6	<0.6	<0.6	<0.6	<0 6 J	<0.6
Isopropylbenzene	ug/L	<1	<1	<1	<1	<1 J	<1
m-,p-Xylene	ug/L	<2	<2	<2	<2	<2 J	<2
MEK (2-Butanone)	ug/L	<10	<10	<10	<10	<10 J	<10
Methyl t-butyl ether (MTBE)	ug/L	<5	<5	<5	3 4 J	3.93 J	<5
Methylene chloride	ug/L	<1	<1	<1	<1	<1 J	<1
MIBK (methyl isobutyl ketone)	ug/L	<10	<10	<10	<10	<10 J	<10
Naphthalene	ug/L	<1	<1	<1	<1	<1 J	<1
n-Butylbenzene	ug/L	<1	<1	<1	<1	<1 J	<1
n-Propylbenzene	ug/L	<1	<1	<1	<1	<1 J	<1
o-Xylene	ug/L	<1	<1	<1	<1	<1 J	<1
p-Isopropyltoluene	ug/L	<1	<1	<1	<1	<1 J	<1
sec-Butylbenzene	ug/L	<1	<1	<1	<1	<1 J	<1
Styrene	ug/L	<1	<1	<1	<1	<1 J	<1
tert-Butylbenzene	ug/L	<1	<1	<1	<1	<1 J	<1
Tetrachloroethene	ug/L	0.933 J	0.717 J	19.7 J	<1	<1 J	54.8
Toluene	ug/L	<1	<1	<1	<1	<1 J	<1
trans-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1 J	<1
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1 J	<1
Trichloroethene	ug/L	1.41	1.57	3.24 J	1.61	1.19 J	2.4
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	<1 J	<1
Vinyl acetate	ug/L	<5	<5	<5	<5	<5 J	<5
Vinyl chloride	ug/L	<1	<1	<1	<1	<1 J	<1

<: Not detected above Reporting Limit (RL)
J: Estimated result based on QC data or reported below RL
B: Estimated result possibly biased high or false positive based on blank data

TABLE A-3
ANALYTICAL RESULTS, VOCs - GROUNDWATER SAMPLES
ANNUAL LONG TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Well ID / Lab ID / Date	MW-197B-LB-8 L08100198-02 10/6/2008	MW-198-LB-8 L08100313-07 10/8/2008	MW-199A-LB-8 L08100361-07 10/9/2008	MW-199B-LB-8 L08100361-10 10/9/2008	MW-200-LB-8 L08100198-03 10/6/2008	MW-202A-LB-8 L08100241-14 10/7/2008
	Units						
1,1,1,2-Tetrachloroethane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	ug/L	<0.5	<0 5 J	<0.5	<0 5	<0 5	<0.5
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	ug/L	<1	0.524 J	<1	0.996 J	<1	<1
1,1-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	ug/L	<1	<1 J	<1	<1	<1	<1
1,2,3-Trichloropropane	ug/L	<1	<1 J	<1	<1	<1	<1
1,2,4-Trichlorobenzene	ug/L	<1	<1 J	<1	<1	<1	<1
1,2,4-Trimethylbenzene	ug/L	<1	<1 J	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	ug/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	ug/L	<1	<1 J	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	<0 5	<0 5	<0 5	<0 5	<0.5	<0 5
1,2-Dichloropropane	ug/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	ug/L	<1	<1 J	<1	<1	<1	<1
1,3-Dichlorobenzene	ug/L	<1	<1 J	<1	<1	<1	<1
1,3-Dichloropropane	ug/L	<0 4	<0 4	<0 4	<0.4	<0 4	<0 4
1,4-Dichlorobenzene	ug/L	<0.5	<0.5 J	<0 5	<0 5	<0 5	<0.5
1-Chlorohexane	ug/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	ug/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	ug/L	<1	<1 J	<1	<1	<1	<1
2-Hexanone	ug/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	ug/L	<1	<1 J	<1	<1	<1	<1
Acetone	ug/L	<10	<10	<10	<10	<10	<10
Benzene	ug/L	<0 4	<0 4	<0 4	<0 4	<0 4	<0 4
Bromobenzene	ug/L	<1	<1 J	<1	<1	<1	<1
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	ug/L	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	2.75 B	2.73 B	<1	<1
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1
Chlorobenzene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1
Chloroform	ug/L	<0 3	0.171 J	0.137 J	0.24 J	0.175 J	0.17 J
Chloromethane	ug/L	<1 J	<1	<1	<1	<1 J	<1
cis-1,2-Dichloroethene	ug/L	48.7	<1	<1	<1	0 531 J	<1
cis-1,3-Dichloropropene	ug/L	<0 5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0 5
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	ug/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	ug/L	<0.6	<0.6 J	<0 6	<0 6	<0 6	<0.6
Isopropylbenzene	ug/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	ug/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	ug/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	ug/L	<5	<5	2 12 J	<5	<5	<5
Methylene chloride	ug/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	ug/L	<10	<10	<10	<10	<10	<10
Naphthalene	ug/L	<1	<1 J	<1	<1	<1	<1
n-Butylbenzene	ug/L	<1	<1 J	<1	<1	<1	<1
n-Propylbenzene	ug/L	<1	<1 J	<1	<1	<1	<1
o-Xylene	ug/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	ug/L	<1	<1 J	<1	<1	<1	<1
sec-Butylbenzene	ug/L	<1	<1 J	<1	<1	<1	<1
Styrene	ug/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	ug/L	<1	<1 J	<1	<1	<1	<1
Tetrachloroethene	ug/L	16.7	<1	<1	0.612 J	125	0 262 J
Toluene	ug/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	9.77	10 4 J	<1	124	3.42	1.21
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	<1	<1
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1

<: Not detected above Reporting Limit (RL)
J: Estimated result based on QC data or reported below RL
B: Estimated result possibly biased high or false positive based on blank data

TABLE A-3
ANALYTICAL RESULTS, VOCs - GROUNDWATER SAMPLES
ANNUAL LONG TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Well ID / Lab ID / Date	Units	MW-202B-LB-8 L08100241-15 10/7/2008	MW-202B DUP6-LB-8 L08100241-11 10/7/2008	MW-203A-LB-8 L08100198-04 10/6/2008	MW-203B-LB-8 L08100198-05 10/6/2008	MW-204A-LB-8 L08100198-06 10/6/2008	MW-204B-LB-8 L08100198-07 10/6/2008
1,1,1,2-Tetrachloroethane		ug/L	<0 5	<0.5	<0.5	<0.5	<0.5	<0 5
1,1,1-Trichloroethane		ug/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane		ug/L	<0.5	<0 5	<0.5	<0 5	<0.5	0.625
1,1,2-Trichloroethane		ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane		ug/L	0 496 J	0.514 J	<1	<1	<1	<1
1,1-Dichloroethene		ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene		ug/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene		ug/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane		ug/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene		ug/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene		ug/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane		ug/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane		ug/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene		ug/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane		ug/L	<0.5	<0.5	<0.5	<0 5	<0.5	<0.5
1,2-Dichloropropane		ug/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene		ug/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene		ug/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane		ug/L	<0.4	<0 4	<0.4	<0 4	<0.4	<0.4
1,4-Dichlorobenzene		ug/L	<0.5	<0 5	<0.5	<0.5	<0.5	<0 5
1-Chlorohexane		ug/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane		ug/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene		ug/L	<1	<1	<1	<1	<1	<1
2-Hexanone		ug/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene		ug/L	<1	<1	<1	<1	<1	<1
Acetone		ug/L	<10	<10	<10	<10	<10	<10
Benzene		ug/L	<0.4	<0.4	<0.4	<0 4	<0.4	<0 4
Bromobenzene		ug/L	<1	<1	<1	<1	<1	<1
Bromochloromethane		ug/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane		ug/L	<0.5	<0 5	<0 5	<0.5	<0 5	<0.5
Bromoform		ug/L	<1	<1	<1	<1	<1	<1
Bromomethane		ug/L	<1	<1	<1	<1	<1	<1
Carbon disulfide		ug/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride		ug/L	<1	<1	<1	<1	<1	<1
Chlorobenzene		ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane		ug/L	<1	<1	<1	<1	<1	<1
Chloroform		ug/L	1 92	1.74	0.201 J	<0.3	<0.3	<0.3
Chloromethane		ug/L	<1	<1	<1 J	<1 J	<1 J	<1 J
cis-1,2-Dichloroethene		ug/L	<1	<1	1 2	39 2	0.769 J	1.26
cis-1,3-Dichloropropene		ug/L	<0.5	<0 5	<0 5	<0.5	<0.5	<0.5
Dibromochloromethane		ug/L	<0.5	<0 5	<0 5	<0.5	<0.5	<0 5
Dibromomethane		ug/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane		ug/L	<1	<1	<1	<1	<1	<1
Ethylbenzene		ug/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene		ug/L	<0.6	<0.6	<0.6	<0.6	<0 6	<0 6
Isopropylbenzene		ug/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene		ug/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)		ug/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)		ug/L	<5	<5	<5	<5	<5	<5
Methylene chloride		ug/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)		ug/L	<10	<10	<10	<10	<10	<10
Naphthalene		ug/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene		ug/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene		ug/L	<1	<1	<1	<1	<1	<1
o-Xylene		ug/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene		ug/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene		ug/L	<1	<1	<1	<1	<1	<1
Styrene		ug/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene		ug/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene		ug/L	21.3	22.2	143	19	42	29.4
Toluene		ug/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene		ug/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene		ug/L	<1	<1	<1	<1	<1	<1
Trichloroethene		ug/L	2.57	2 6	2 11	11.3	0 852 J	2.53
Trichlorofluoromethane		ug/L	<1	<1	<1	<1	<1	<1
Vinyl acetate		ug/L	<5	<5	<5	<5	<5	<5
Vinyl chloride		ug/L	<1	<1	<1	0.358 J	<1	<1

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B: Estimated result possibly biased high or false positive based on blank data

TABLE A-3
ANALYTICAL RESULTS, VOCs - GROUNDWATER SAMPLES
ANNUAL LONG TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Well ID / Lab ID / Date	Units	MW-205A-LB-8 L08100361-11 10/9/2008	MW-205A DUP7-LB-8 L08100361-02 10/9/2008	MW-205B-LB-8 L08100361-12 10/9/2008	MW-206A-LB-8 L08100421-06 10/13/2008	MW-206B-LB-8 L08100421-07 10/13/2008	MW-207A-LB-8 L08100241-16 10/7/2008
1,1,1,2-Tetrachloroethane		ug/L	<0.5	<0.5	<0.5	<0 5	<0.5	<0 5
1,1,1-Trichloroethane		ug/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane		ug/L	<0 5	<0.5	<0.5	<0.5	<0.5	<0 5
1,1,2-Trichloroethane		ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane		ug/L	<1	<1	<1	<1	<1	0.258 J
1,1-Dichloroethene		ug/L	<1	<1	0.891 J	<1	<1	<1
1,1-Dichloropropene		ug/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene		ug/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane		ug/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene		ug/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene		ug/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane		ug/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane		ug/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene		ug/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane		ug/L	<0 5	<0 5	<0.5	<0 5	<0.5	<0 5
1,2-Dichloropropane		ug/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene		ug/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene		ug/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane		ug/L	<0 4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene		ug/L	<0.5	<0.5	<0.5	<0.5	<0 5	<0.5
1-Chlorohexane		ug/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane		ug/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene		ug/L	<1	<1	<1	<1	<1	<1
2-Hexanone		ug/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene		ug/L	<1	<1	<1	<1	<1	<1
Acetone		ug/L	<10	<10	<10	<10	<10	<10
Benzene		ug/L	<0.4	<0.4	<0 4	<0.4	<0 4	<0.4
Bromobenzene		ug/L	<1	<1	<1	<1	<1	<1
Bromochloromethane		ug/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane		ug/L	<0.5	<0.5	<0.5	<0 5	<0.5	<0 5
Bromoform		ug/L	<1	<1	<1	<1	<1	<1
Bromomethane		ug/L	2.77 B	2.84 B	2.87 B	2 81 B	2.79 B	<1
Carbon disulfide		ug/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride		ug/L	<1	<1	<1	<1	<1	<1
Chlorobenzene		ug/L	<0.5	<0 5	<0.5	<0.5	<0.5	<0.5
Chloroethane		ug/L	<1	<1	<1	<1	<1	<1
Chloroform		ug/L	0.223 J	0.202 J	<0 3	0.134 J	<0 3	9.13
Chloromethane		ug/L	<1	<1	0.312 J	<1	0 252 J	<1
cis-1,2-Dichloroethene		ug/L	9.58 J	8 89	43	5.2	7.85	0 476 J
cis-1,3-Dichloropropene		ug/L	<0.5	<0 5	<0.5	<0 5	<0.5	<0 5
Dibromochloromethane		ug/L	<0.5	<0 5	<0.5	<0.5	<0 5	<0.5
Dibromomethane		ug/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane		ug/L	<1	<1	<1	<1	<1	<1
Ethylbenzene		ug/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene		ug/L	<0 6	<0 6	<0.6	<0.6	<0 6	<0 6
Isopropylbenzene		ug/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene		ug/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)		ug/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)		ug/L	<5	<5	<5	<5	<5	<5
Methylene chloride		ug/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)		ug/L	<10	<10	<10	<10	<10	<10
Naphthalene		ug/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene		ug/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene		ug/L	<1	<1	<1	<1	<1	<1
o-Xylene		ug/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene		ug/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene		ug/L	<1	<1	<1	<1	<1	<1
Styrene		ug/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene		ug/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene		ug/L	126 J	126	24.9	80.5	36 4	13.7
Toluene		ug/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene		ug/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene		ug/L	<1	<1	<1	<1	<1	<1
Trichloroethene		ug/L	7.56 J	7.43	8 48	13.2	9.91	26.9
Trichlorofluoromethane		ug/L	<1	<1	<1	<1	<1	<1
Vinyl acetate		ug/L	<5	<5	<5	<5	<5	<5
Vinyl chloride		ug/L	<1	<1	<1	<1	<1	<1

<: Not detected above Reporting Limit (RL)
J: Estimated result based on QC data or reported below RL
B. Estimated result possibly biased high or false positive based on blank data

TABLE A-3
ANALYTICAL RESULTS, VOCs - GROUNDWATER SAMPLES
ANNUAL LONG TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Well ID / Lab ID / Date	Units	MW-207B-LB-8 L08100241-17 10/7/2008	MW-208A-LB-8 L08100421-08 10/13/2008	MW-208B-LB-8 L08100421-09 10/13/2008	MW-208B DUP8-LB-8 L08100421-01 10/13/2008	MW-209A-LB-8 L08100361-13 10/9/2008	MW-209B-LB-8 L08100361-14 10/9/2008
1,1,1,2-Tetrachloroethane		ug/L	<0.5	<0.5	<0 5	<0.5	<0.5	<0.5 J
1,1,1-Trichloroethane		ug/L	<1	<1	<1	<1	<1	<1 J
1,1,2,2-Tetrachloroethane		ug/L	<0.5 J	<0 5	0 565	0.559	<0.5	<0.5 J
1,1,2-Trichloroethane		ug/L	<1	<1	<1	<1	<1	<1 J
1,1-Dichloroethane		ug/L	<1	<1	<1	<1	<1	<1 J
1,1-Dichloroethene		ug/L	<1	<1	<1	<1	<1	<1 J
1,1-Dichloropropene		ug/L	<1	<1	<1	<1	<1	<1 J
1,2,3-Trichlorobenzene		ug/L	<1 J	<1	<1	<1	<1	<1 J
1,2,3-Trichloropropane		ug/L	<1 J	<1	<1	<1	<1	<1 J
1,2,4-Trichlorobenzene		ug/L	<1 J	<1	<1	<1	<1	<1 J
1,2,4-Trimethylbenzene		ug/L	<1 J	<1	<1	<1	<1	<1 J
1,2-Dibromo-3-chloropropane		ug/L	<2	<2	<2	<2	<2	<2 J
1,2-Dibromoethane		ug/L	<1	<1	<1	<1	<1	<1 J
1,2-Dichlorobenzene		ug/L	<1 J	<1	<1	<1	<1	<1 J
1,2-Dichloroethane		ug/L	<0.5	<0.5	<0 5	<0.5	<0.5	<0.5 J
1,2-Dichloropropane		ug/L	<1	<1	<1	<1	<1	<1 J
1,3,5-Trimethylbenzene		ug/L	<1 J	<1	<1	<1	<1	<1 J
1,3-Dichlorobenzene		ug/L	<1 J	<1	<1	<1	<1	<1 J
1,3-Dichloropropane		ug/L	<0 4	<0.4	<0 4	<0.4	<0.4	<0.4 J
1,4-Dichlorobenzene		ug/L	<0 5 J	<0.5	<0.5	<0.5	<0.5	<0.5 J
1-Chlorohexane		ug/L	<1	<1	<1	<1	<1	<1 J
2,2-Dichloropropane		ug/L	<1	<1	<1	<1	<1	<1 J
2-Chlorotoluene		ug/L	<1 J	<1	<1	<1	<1	<1 J
2-Hexanone		ug/L	<10	<10	<10	<10	<10	<10 J
4-Chlorotoluene		ug/L	<1 J	<1	<1	<1	<1	<1 J
Acetone		ug/L	<10	<10	<10	<10	<10	<10 J
Benzene		ug/L	<0 4	<0.4	<0.4	<0.4	<0.4	<0.4 J
Bromobenzene		ug/L	<1 J	<1	<1	<1	<1	<1 J
Bromochloromethane		ug/L	<1	<1	<1	<1	<1	<1 J
Bromodichloromethane		ug/L	<0.5	<0 5	<0.5	<0 5	<0.5	<0.5 J
Bromoform		ug/L	<1	<1	<1	<1	<1	<1 J
Bromomethane		ug/L	<1	2.8 B	2 75 B	3.01 B	2 9 B	2.79 B
Carbon disulfide		ug/L	<1	<1	<1	<1	<1	<1 J
Carbon tetrachlonde		ug/L	0 916 J	<1	<1	<1	<1	0.611 J
Chlorobenzene		ug/L	<0.5	<0.5	<0 5	<0.5	<0 5	<0.5 J
Chloroethane		ug/L	<1	<1	<1	<1	<1	<1 J
Chloroform		ug/L	1.41	0.21 J	<0.3	0.131 J	0.175 J	0 183 J
Chloromethane		ug/L	<1	<1	0.293 J	<1	0 305 J	0.287 J
cis-1,2-Dichloroethene		ug/L	<1	0.517 J	1.4	1.63	<1	<1 J
cis-1,3-Dichloropropene		ug/L	<0 5	<0.5	<0 5	<0.5	<0 5	<0.5 J
Dibromochloromethane		ug/L	<0 5	<0.5	<0 5	<0.5	<0.5	<0.5 J
Dibromomethane		ug/L	<1	<1	<1	<1	<1	<1 J
Dichlorodifluoromethane		ug/L	<1	<1	<1	<1	<1	<1 J
Ethylbenzene		ug/L	<1	<1	<1	<1	<1	<1 J
Hexachlorobutadiene		ug/L	<0 6 J	<0.6	<0.6	<0 6	<0 6	<0.6 J
Isopropylbenzene		ug/L	<1	<1	<1	<1	<1	<1 J
m-,p-Xylene		ug/L	<2	<2	<2	<2	<2	<2 J
MEK (2-Butanone)		ug/L	<10	<10	<10	<10	<10	<10 J
Methyl t-butyl ether (MTBE)		ug/L	<5	<5	<5	<5	2.27 J	<5 J
Methylene chloride		ug/L	<1	<1	<1	<1	<1	<1 J
MIBK (methyl isobutyl ketone)		ug/L	<10	<10	<10	<10	<10	<10 J
Naphthalene		ug/L	<1 J	<1	<1	<1	<1	<1 J
n-Butylbenzene		ug/L	<1 J	<1	<1	<1	<1	<1 J
n-Propylbenzene		ug/L	<1 J	<1	<1	<1	<1	<1 J
o-Xylene		ug/L	<1	<1	<1	<1	<1	<1 J
p-Isopropyltoluene		ug/L	<1 J	<1	<1	<1	<1	<1 J
sec-Butylbenzene		ug/L	<1 J	<1	<1	<1	<1	<1 J
Styrene		ug/L	<1	<1	<1	<1	<1	<1 J
tert-Butylbenzene		ug/L	<1 J	<1	<1	<1	<1	<1 J
Tetrachloroethene		ug/L	18	182	2.94	2 72	<1	0.33 J
Toluene		ug/L	<1	<1	<1	<1	<1	<1 J
trans-1,2-Dichloroethene		ug/L	<1	<1	<1	<1	<1	<1 J
trans-1,3-Dichloropropene		ug/L	<1	<1	<1	<1	<1	<1 J
Trichloroethene		ug/L	75.3	9.8	21 3	22 5	0.611 J	20 J
Trichlorofluoromethane		ug/L	<1	<1	<1	<1	<1	<1 J
Vinyl acetate		ug/L	<5	<5	<5	<5	<5	<5 J
Vinyl chloride		ug/L	<1	<1	<1	<1	<1	<1 J

<: Not detected above Reporting Limit (RL)
J: Estimated result based on QC data or reported below RL
B Estimated result possibly biased high or false positive based on blank data

TABLE A-3
ANALYTICAL RESULTS, VOCs - GROUNDWATER SAMPLES
ANNUAL LONG TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Well ID / Lab ID / Date / Units	MW-210A-LB-8 L08100198-08 10/6/2008	MW-210B-LB-8 L08100198-09 10/6/2008	MW-211-LB-8 L08100368-06 10/10/2008	MW-212-LB-8 L08100313-08 10/8/2008	MW-214A-LB-8 L08100241-18 10/7/2008	MW-214B-LB-8 L08100651-01 10/21/2008
1,1,1,2-Tetrachloroethane	ug/L	<0.5	<0 5	<0.5	<0 5	<0.5	<0.5
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	ug/L	<0.5	<0.5	<0 5	<0.5 J	0 51 B	0 341 J
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	ug/L	<1	<1	0.418 J	<1	<1	<1
1,1-Dichloroethene	ug/L	<1	<1	0 995 J	<1	<1	<1
1,1-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	ug/L	<1	<1	<1	<1 J	<1	<1
1,2,3-Trichloropropane	ug/L	<1	<1	<1	<1 J	<1	<1
1,2,4-Trichlorobenzene	ug/L	<1	<1	<1	<1 J	<1	<1
1,2,4-Trimethylbenzene	ug/L	<1	<1	<1	<1 J	<1	<1
1,2-Dibromo-3-chloropropane	ug/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	ug/L	<1	<1	<1	<1 J	<1	<1
1,2-Dichloroethane	ug/L	<0.5	<0 5	<0.5	<0.5	<0 5	<0.5
1,2-Dichloropropane	ug/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	ug/L	<1	<1	<1	<1 J	<1	<1
1,3-Dichlorobenzene	ug/L	<1	<1	<1	<1 J	<1	<1
1,3-Dichloropropane	ug/L	<0.4	<0 4	<0.4	<0.4	<0 4	<0.4
1,4-Dichlorobenzene	ug/L	<0.5	<0 5	<0.5	<0.5 J	<0 5	<0.5
1-Chlorohexane	ug/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	ug/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	ug/L	<1	<1	<1	<1 J	<1	<1
2-Hexanone	ug/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	ug/L	<1	<1	<1	<1 J	<1	<1
Acetone	ug/L	<10	<10	<10	<10	<10	<10
Benzene	ug/L	0 243 J	<0 4	<0.4	<0 4	<0.4	<0 4
Bromobenzene	ug/L	<1	<1	<1	<1 J	<1	<1
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<0 5	<0.5	<0 5	<0.5	<0.5	<0 5
Bromoform	ug/L	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	2 73 B	<1	<1	<1
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	0.647 J	0 772 J
Chlorobenzene	ug/L	<0.5	<0.5	<0 5	<0.5	<0 5	<0 5
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1
Chloroform	ug/L	<0 3	<0.3	2 24 J	<0.3	1 58	1.27
Chloromethane	ug/L	<1 J	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	ug/L	1 02	0.462 J	<1	<1	<1	<1
cis-1,3-Dichloropropene	ug/L	<0.5	<0 5	<0.5	<0 5	<0.5	<0.5
Dibromochloromethane	ug/L	<0.5	<0 5	<0.5	<0 5	<0 5	<0.5
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	ug/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	ug/L	<0 6	<0.6	<0.6	<0.6 J	<0 6	<0.6
Isopropylbenzene	ug/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	ug/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	ug/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	ug/L	<5	<5	<5	<5	0.815 J	0 963 J
Methylene chloride	ug/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	ug/L	<10	<10	<10	<10	<10	<10
Naphthalene	ug/L	<1	<1	<1	<1 J	<1	<1
n-Butylbenzene	ug/L	<1	<1	<1	<1 J	<1	<1
n-Propylbenzene	ug/L	<1	<1	<1	<1 J	<1	<1
o-Xylene	ug/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	ug/L	<1	<1	<1	<1 J	<1	<1
sec-Butylbenzene	ug/L	<1	<1	<1	<1 J	<1	<1
Styrene	ug/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	ug/L	<1	<1	<1	<1 J	<1	<1
Tetrachloroethene	ug/L	19.4	12.6	0.431 J	<1	4 81	4.39
Toluene	ug/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	6 09	7 49	1.18 J	37.9 J	1.95	2.28
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	<1	<1
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1

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B Estimated result possibly biased high or false positive based on blank data

TABLE A-3
ANALYTICAL RESULTS, VOCs - GROUNDWATER SAMPLES
ANNUAL LONG TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Well ID / Lab ID / Date	MW-215A-LB-8 L08100241-20 10/7/2008	MW-215B-LB-8 L08100241-21 10/7/2008	MW-216-LB-8 L08100198-10 10/6/2008	MW-217-LB-8 L08100313-09 10/8/2008	MW-218-LB-8 L08100313-10 10/8/2008	MW-219-LB-8 L08100368-16 10/10/2008
	Units						
1,1,1,2-Tetrachloroethane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	ug/L	<0.5	<0.5	<0.5	0.561 J	1.39 J	<0.5
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	ug/L	<1	<1	<1	<1	0.691 J	<1
1,1-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	ug/L	<1	<1	<1	<1 J	<1 J	<1
1,2,3-Trichloropropane	ug/L	<1	<1	<1	3.35 J	<1 J	<1
1,2,4-Trichlorobenzene	ug/L	<1	<1	<1	<1 J	<1 J	<1
1,2,4-Trimethylbenzene	ug/L	<1	<1	<1	<1 J	<1 J	<1
1,2-Dibromo-3-chloropropane	ug/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	ug/L	<1	<1	<1	<1 J	<1 J	<1
1,2-Dichloroethane	ug/L	<0.5	<0.5	<0.5	0.377 J	0.56 J	1.37 J
1,2-Dichloropropane	ug/L	<1	<1	<1	<1	0.387 J	<1
1,3,5-Trimethylbenzene	ug/L	<1	<1	<1	<1 J	<1 J	<1
1,3-Dichlorobenzene	ug/L	<1	<1	<1	<1 J	<1 J	<1
1,3-Dichloropropane	ug/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	ug/L	<0.5	<0.5	<0.5	<0.5 J	<0.5 J	<0.5
1-Chlorohexane	ug/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	ug/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	ug/L	<1	<1	<1	<1 J	<1 J	<1
2-Hexanone	ug/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	ug/L	<1	<1	<1	<1 J	<1 J	<1
Acetone	ug/L	<10	<10	<10	<10	<10	<10
Benzene	ug/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	ug/L	<1	<1	<1	<1 J	<1 J	<1
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	ug/L	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1	<1	<1	2.88 B
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	0.382 J	0.271 J	<1	96.3 J	15.6 J	<1
Chlorobenzene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1
Chloroform	ug/L	1.44	0.474	<0.3	13.4 J	2.78 J	<0.3
Chloromethane	ug/L	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	ug/L	<1	<1	0.288 J	4.8 J	0.373 J	1.14 J
cis-1,3-Dichloropropene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	ug/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	ug/L	<0.6	<0.6	<0.6	<0.6 J	<0.6 J	<0.6
Isopropylbenzene	ug/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	ug/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	ug/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	ug/L	1.49 J	<5	<5	<5	<5	<5
Methylene chloride	ug/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	ug/L	<10	<10	<10	<10	<10	<10
Naphthalene	ug/L	<1	<1	<1	<1 J	<1 J	<1
n-Butylbenzene	ug/L	<1	<1	<1	<1 J	<1 J	<1
n-Propylbenzene	ug/L	<1	<1	<1	<1 J	<1 J	<1
o-Xylene	ug/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	ug/L	<1	<1	<1	<1 J	<1 J	<1
sec-Butylbenzene	ug/L	<1	<1	<1	<1 J	<1 J	<1
Styrene	ug/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	ug/L	<1	<1	<1	<1 J	<1 J	<1
Tetrachloroethene	ug/L	5.85	2.1	34.2	26.5 J	12.2 J	47 J
Toluene	ug/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	7.99	1.25	1.5	25.8 J	35.9 J	3.53 J
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	0.705 J	<1
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1

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TABLE A-3
ANALYTICAL RESULTS, VOCs - GROUNDWATER SAMPLES
ANNUAL LONG TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Well ID / Lab ID / Date / Units	MW-219 DUP9-LB-8 L08100368-09 10/10/2008	MW-229-LB-8 L08100313-11 10/8/2008	PZ-03-LB-8 L08100442-02 10/14/2008	PZ-06-LB-8 L08100442-05 10/14/2008
1,1,1,2-Tetrachloroethane	ug/L	<0.5	<0 5	<0.5	<0 5
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	ug/L	<0 5	<0.5	<0 5	<0.5
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1
1,1-Dichloroethane	ug/L	<1	<1	<1	<1
1,1-Dichloroethene	ug/L	<1	<1	<1	<1
1,1-Dichloropropene	ug/L	<1	<1	<1	<1
1,2,3-Trichlorobenzene	ug/L	<1	<1	<1	<1
1,2,3-Trichloropropane	ug/L	<1	<1	<1	<1
1,2,4-Trichlorobenzene	ug/L	<1	<1	<1	<1
1,2,4-Trimethylbenzene	ug/L	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	ug/L	<2	<2	<2	<2
1,2-Dibromoethane	ug/L	<1	<1	<1	<1
1,2-Dichlorobenzene	ug/L	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	1 08	<0 5	<0 5	<0 5
1,2-Dichloropropane	ug/L	<1	<1	<1	<1
1,3,5-Trimethylbenzene	ug/L	<1	<1	<1	<1
1,3-Dichlorobenzene	ug/L	<1	0.37 J	<1	<1
1,3-Dichloropropane	ug/L	<0.4	<0 4	<0.4	<0.4
1,4-Dichlorobenzene	ug/L	<0 5	<0.5	<0.5	0.169 B
1-Chlorohexane	ug/L	<1	<1	<1	<1
2,2-Dichloropropane	ug/L	<1	<1	<1	<1
2-Chlorotoluene	ug/L	<1	<1	<1	<1
2-Hexanone	ug/L	<10	<10	<10	<10
4-Chlorotoluene	ug/L	<1	<1	<1	<1
Acetone	ug/L	<10	<10	<10	3.35 J
Benzene	ug/L	<0.4	<0 4	<0.4	<0.4
Bromobenzene	ug/L	<1	<1	<1	<1
Bromochloromethane	ug/L	<1	<1	<1	<1
Bromodichloromethane	ug/L	<0.5	<0.5	<0 5	<0.5
Bromoform	ug/L	<1	<1	<1	<1
Bromomethane	ug/L	2 95 B	2.87 B	2 97 B	2 8 B
Carbon disulfide	ug/L	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1
Chlorobenzene	ug/L	<0 5	<0.5	<0.5	<0.5
Chloroethane	ug/L	<1	<1	<1	<1
Chloroform	ug/L	<0 3	<0.3	0.29 J	<0.3
Chloromethane	ug/L	<1	<1	0 301 B	0.527 B
cis-1,2-Dichloroethene	ug/L	1.03	<1	<1	<1
cis-1,3-Dichloropropene	ug/L	<0.5	<0.5	<0.5	<0 5
Dibromochloromethane	ug/L	<0.5	<0 5	<0 5	<0.5
Dibromomethane	ug/L	<1	<1	<1	<1
Dichlorodifluoromethane	ug/L	<1	<1	<1	<1
Ethylbenzene	ug/L	<1	<1	<1	<1
Hexachlorobutadiene	ug/L	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	ug/L	<1	<1	<1	<1
m-,p-Xylene	ug/L	<2	<2	<2	<2
MEK (2-Butanone)	ug/L	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	ug/L	<5	<5	<5	<5
Methylene chloride	ug/L	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	ug/L	<10	<10	<10	<10
Naphthalene	ug/L	<1	<1	<1	<1
n-Butylbenzene	ug/L	<1	<1	<1	<1
n-Propylbenzene	ug/L	<1	<1	<1	<1
o-Xylene	ug/L	<1	<1	<1	<1
p-Isopropyltoluene	ug/L	<1	<1	<1	<1
sec-Butylbenzene	ug/L	<1	<1	<1	<1
Styrene	ug/L	<1	<1	<1	<1
tert-Butylbenzene	ug/L	<1	<1	<1	<1
Tetrachloroethene	ug/L	50.5	<1	4.38	<1
Toluene	ug/L	<1	<1	<1	0.754 J
trans-1,2-Dichloroethene	ug/L	<1	<1	<1	<1
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1
Trichloroethene	ug/L	3 56	<1	1 07	<1
Trichlorofluoromethane	ug/L	<1	<1	1 39	<1
Vinyl acetate	ug/L	<5	<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1	<1

<: Not detected above Reporting Limit (RL)
J. Estimated result based on QC data or reported below RL
B· Estimated result possibly biased high or false positive based on blank data

TABLE A-4
ANALYTICAL RESULTS, VOCs - QA SAMPLES
ANNUAL LONG TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

	Sample	TB-010808-LQ-6	TB-010908-LQ-6	TB-040708-LS-7	TB-040807-LS-7	TB-040908-LS-7	LTM-RB1-LS-7
	Lab ID	L08010178-07	L08010208-12	L08040249-29	L08040258-33	L08040307-08	L08040307-07
	Date	1/8/2008	1/9/2008	4/7/2008	4/8/2008	4/9/2008	4/9/2008
	Event	LQ-6	LQ-6	LS-7	LS-7	LS-7	LS-7
Analyte	Units						
1,1,1,2-Tetrachloroethane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	ug/L	<0.5	<0 5	<0.5	<0 5	<0.5	<0.5
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	ug/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	ug/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0 5
1,2-Dichloropropane	ug/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	ug/L	<0.4	<0 4	<0.4	<0 4	<0.4	<0.4
1,4-Dichlorobenzene	ug/L	0 25 J	<0 5	<0.5	<0 5	<0.5	2.16
1-Chlorohexane	ug/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	ug/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	ug/L	<1	<1	<1	<1	<1	<1
2-Hexanone	ug/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	ug/L	<1	<1	<1	<1	<1	<1
Acetone	ug/L	<10	<10	3 38 J	3 89 J	2 61 J	<10
Benzene	ug/L	<0.4	<0.4	<0.4	<0.4	<0 4	0.321 J
Bromobenzene	ug/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<0 5	<0 5	<0.5	<0 5	<0 5	<0.5
Bromoform	ug/L	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1	<1	<1	<1
Carbon disulfide	ug/L	<1	<1	<1	0 535 J	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1
Chlorobenzene	ug/L	<0 5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1
Chloroform	ug/L	<0.3	<0 3	<0.3	<0.3	<0 3	<0.3
Chloromethane	ug/L	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1
cis-1,3-Dichloropropene	ug/L	<0 5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	ug/L	<0 5	<0.5	<0.5	0.5	<0.5	<0.5
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	ug/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	ug/L	<0.6	<0.6	<0 6	<0 6	<0 6	<0 6
Isopropylbenzene	ug/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	ug/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	ug/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	ug/L	<5	<5	<5	<5	<5	<5
Methylene chloride	ug/L	<1	<1	3 29	5 4	4 07	<1
MIBK (methyl isobutyl ketone)	ug/L	<10	<10	<10	<10	<10	<10
Naphthalene	ug/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene	ug/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	ug/L	<1	<1	<1	<1	<1	<1
o-Xylene	ug/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	ug/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Styrene	ug/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	ug/L	<1	<1	<1	<1	<1	<1
Toluene	ug/L	<1	<1	<1	<1	<1	1.14
trans-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	<1	<1
Trichloroethene	ug/L	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	<1	<1
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1

<: Not detected above Reporting Limit (RL)
J: Estimated result based on QC data or reported below RL
B: Estimated result possibly biased high or false positive based on blank data

TABLE A-4
ANALYTICAL RESULTS, VOCs - QA SAMPLES
ANNUAL LONG TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

	Sample	TB-100608-LB-8	TB-100708-LB-8	TB-100808-LB-8	TB-100908-LB-8	TB-101008-LB-8	TB-101308-LB-8
	Lab ID	L08100198-13	L08100241-12	L08100313-02	L08100361-04	L08100368-10	L08100421-02
	Date	10/6/2008	10/7/2008	10/8/2008	10/9/2008	10/10/2008	10/13/2008
	Event	LB-8	LB-8	LB-8	LB-8	LB-8	LB-8
Analyte	Units						
1,1,1,2-Tetrachloroethane	ug/L	<0 5	<0.5	<0 5	<0.5J	<0.5J	<0 5
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1J	<1J	<1
1,1,2,2-Tetrachloroethane	ug/L	<0 5	<0 5	<0.5	<0 5J	<0 5J	<0.5
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1J	<1J	<1
1,1-Dichloroethane	ug/L	<1	<1	<1	<1J	<1J	<1
1,1-Dichloroethene	ug/L	<1	<1	<1	<1J	<1J	<1
1,1-Dichloropropene	ug/L	<1	<1	<1	<1J	<1J	<1
1,2,3-Trichlorobenzene	ug/L	<1	<1	<1	<1J	<1J	<1
1,2,3-Trichloropropane	ug/L	<1	<1	<1	<1J	<1J	<1
1,2,4-Trichlorobenzene	ug/L	<1	<1	<1	<1J	<1J	<1
1,2,4-Trimethylbenzene	ug/L	<1	<1	<1	<1J	<1J	<1
1,2-Dibromo-3-chloropropane	ug/L	<2	<2	<2	<2J	<2J	<2
1,2-Dibromoethane	ug/L	<1	<1	<1	<1J	<1J	<1
1,2-Dichlorobenzene	ug/L	<1	<1	<1	<1J	<1J	<1
1,2-Dichloroethane	ug/L	<0.5	<0.5	<0.5	<0.5J	<0.5J	<0 5
1,2-Dichloropropane	ug/L	<1	<1	<1	<1J	<1J	<1
1,3,5-Trimethylbenzene	ug/L	<1	<1	<1	<1J	<1J	<1
1,3-Dichlorobenzene	ug/L	<1	<1	<1	<1J	<1J	<1
1,3-Dichloropropane	ug/L	<0.4	<0.4	<0 4	<0.4J	<0 4J	<0.4
1,4-Dichlorobenzene	ug/L	0.13 J	<0 5	0.233 J	<0 5J	0.135 J	<0 5
1-Chlorohexane	ug/L	<1	<1	<1	<1J	<1J	<1
2,2-Dichloropropane	ug/L	<1	<1	<1	<1J	<1J	<1
2-Chlorotoluene	ug/L	<1	<1	<1	<1J	<1J	<1
2-Hexanone	ug/L	<10	<10	<10	<10J	<10J	<10
4-Chlorotoluene	ug/L	<1	<1	<1	<1J	<1J	<1
Acetone	ug/L	4 24 J	3.81 J	<10	<10J	2.62 J	<10
Benzene	ug/L	<0 4	<0 4	<0 4	<0.4J	<0 4J	<0 4
Bromobenzene	ug/L	<1	<1	<1	<1J	<1J	<1
Bromochloromethane	ug/L	<1	<1	<1	<1J	<1J	<1
Bromodichloromethane	ug/L	<0.5	<0.5	<0.5	<0.5J	<0.5J	<0 5
Bromoform	ug/L	<1	<1	<1	<1J	<1J	<1
Bromomethane	ug/L	<1	<1	<1	3 07 B	3 27 B	3.09 B
Carbon disulfide	ug/L	<1	<1	<1	<1J	<1J	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1J	<1J	<1
Chlorobenzene	ug/L	<0.5	<0.5	<0.5	<0.5J	<0 5J	<0.5
Chloroethane	ug/L	<1	<1	<1	<1J	<1J	<1
Chloroform	ug/L	<0.3	<0 3	<0.3	<0 3J	<0.3J	<0.3
Chloromethane	ug/L	<1	<1	<1	<1J	0.592 J	<1
cis-1,2-Dichloroethene	ug/L	<1	<1	<1	<1J	<1J	<1
cis-1,3-Dichloropropene	ug/L	<0 5	<0 5	<0.5	<0 5J	<0.5J	<0.5
Dibromochloromethane	ug/L	<0.5	<0.5	<0.5	<0.5J	<0.5J	<0.5
Dibromomethane	ug/L	<1	<1	<1	<1J	<1J	<1
Dichlorodifluoromethane	ug/L	<1	<1	<1	<1J	<1J	<1
Ethylbenzene	ug/L	<1	<1	<1	<1J	<1J	<1
Hexachlorobutadiene	ug/L	<0.6	<0.6	<0 6	<0.6J	<0 6J	<0.6
Isopropylbenzene	ug/L	<1	<1	<1	<1J	<1J	<1
m-,p-Xylene	ug/L	<2	<2	<2	<2J	<2J	<2
MEK (2-Butanone)	ug/L	<10	<10	<10	<10J	<10J	<10
Methyl t-butyl ether (MTBE)	ug/L	<5	<5	<5	<5J	<5J	<5
Methylene chloride	ug/L	<1	0.349 B	<1	<1J	<1J	<1
MIBK (methyl isobutyl ketone)	ug/L	<10	<10	<10	<10J	<10J	<10
Naphthalene	ug/L	<1	<1	<1	<1J	<1J	<1
n-Butylbenzene	ug/L	<1	<1	<1	<1J	<1J	<1
n-Propylbenzene	ug/L	<1	<1	<1	<1J	<1J	<1
o-Xylene	ug/L	<1	<1	<1	<1J	<1J	<1
p-Isopropyltoluene	ug/L	<1	<1	<1	<1J	<1J	<1
sec-Butylbenzene	ug/L	<1	<1	<1	<1J	<1J	<1
Styrene	ug/L	<1	<1	<1	<1J	<1J	<1
tert-Butylbenzene	ug/L	<1	<1	<1	<1J	<1J	<1
Tetrachloroethene	ug/L	<1	<1	<1	<1J	<1J	<1
Toluene	ug/L	<1	<1	<1	<1J	<1J	<1
trans-1,2-Dichloroethene	ug/L	<1	<1	<1	<1J	<1J	<1
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1J	<1J	<1
Trichloroethene	ug/L	<1	<1	<1	<1J	<1J	<1
Trichlorofluoromethane	ug/L	<1	<1	<1	<1J	<1J	<1
Vinyl acetate	ug/L	<5	<5	<5	<5J	<5J	<5
Vinyl chloride	ug/L	<1	<1	<1	<1J	<1J	<1

<: Not detected above Reporting Limit (RL)
J: Estimated result based on QC data or reported below RL
B Estimated result possibly biased high or false positive based on blank data

TABLE A-4
ANALYTICAL RESULTS, VOCs - QA SAMPLES
ANNUAL LONG TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

	Sample	TB-101708-LB-8	LTM-RB1-LB-8	LTM-RB2-LB-8
	Lab ID	L08100442-06	L08100361-18	L08100421-13
	Date	10/14/2008	10/9/2008	10/13/2008
	Event	LB-8	LB-8	LB-8
Analyte	Units			
1,1,1,2-Tetrachloroethane	ug/L	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	ug/L	<1	<1	<1
1,1,2,2-Tetrachloroethane	ug/L	<0 5	<0 5	<0.5
1,1,2-Trichloroethane	ug/L	<1	<1	<1
1,1-Dichloroethane	ug/L	<1	<1	<1
1,1-Dichloroethene	ug/L	<1	<1	<1
1,1-Dichloropropene	ug/L	<1	<1	<1
1,2,3-Trichlorobenzene	ug/L	<1	<1	<1
1,2,3-Trichloropropane	ug/L	<1	<1	<1
1,2,4-Trichlorobenzene	ug/L	<1	<1	<1
1,2,4-Trimethylbenzene	ug/L	<1	<1	<1
1,2-Dibromo-3-chloropropane	ug/L	<2	<2	<2
1,2-Dibromoethane	ug/L	<1	<1	<1
1,2-Dichlorobenzene	ug/L	<1	<1	<1
1,2-Dichloroethane	ug/L	<0.5	<0.5	<0.5
1,2-Dichloropropane	ug/L	<1	<1	<1
1,3,5-Trimethylbenzene	ug/L	<1	<1	<1
1,3-Dichlorobenzene	ug/L	<1	<1	<1
1,3-Dichloropropane	ug/L	<0 4	<0.4	<0 4
1,4-Dichlorobenzene	ug/L	0.145 J	2 J	1 11
1-Chlorohexane	ug/L	<1	<1	<1
2,2-Dichloropropane	ug/L	<1	<1	<1
2-Chlorotoluene	ug/L	<1	<1	<1
2-Hexanone	ug/L	<10	<10	<10
4-Chlorotoluene	ug/L	<1	<1	<1
Acetone	ug/L	<10	11.8 J	7.27 J
Benzene	ug/L	<0 4	0 187 J	0.154 J
Bromobenzene	ug/L	<1	<1	<1
Bromochloromethane	ug/L	<1	<1	<1
Bromodichloromethane	ug/L	<0 5	<0.5	<0 5
Bromoform	ug/L	<1	<1	<1
Bromomethane	ug/L	<1	2 88 B	<1
Carbon disulfide	ug/L	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1
Chlorobenzene	ug/L	<0 5	<0 5	<0 5
Chloroethane	ug/L	<1	<1	<1
Chloroform	ug/L	<0.3	<0.3	<0.3
Chloromethane	ug/L	<1	<1	0 299 J
cis-1,2-Dichloroethene	ug/L	<1	<1	<1
cis-1,3-Dichloropropene	ug/L	<0.5	<0 5	<0 5
Dibromochloromethane	ug/L	<0.5	<0 5	<0 5
Dibromomethane	ug/L	<1	<1	<1
Dichlorodifluoromethane	ug/L	<1	<1	<1
Ethylbenzene	ug/L	<1	<1	<1
Hexachlorobutadiene	ug/L	<0 6	<0.6	<0.6
Isopropylbenzene	ug/L	<1	<1	<1
m-,p-Xylene	ug/L	<2	<2	<2
MEK (2-Butanone)	ug/L	<10	<10	<10
Methyl t-butyl ether (MTBE)	ug/L	<5	<5	<5
Methylene chloride	ug/L	<1	<1	<1
MIBK (methyl isobutyl ketone)	ug/L	<10	<10	<10
Naphthalene	ug/L	<1	<1	<1
n-Butylbenzene	ug/L	<1	<1	<1
n-Propylbenzene	ug/L	<1	<1	<1
o-Xylene	ug/L	<1	<1	<1
p-Isopropyltoluene	ug/L	<1	<1	<1
sec-Butylbenzene	ug/L	<1	<1	<1
Styrene	ug/L	<1	<1	<1
tert-Butylbenzene	ug/L	<1	<1	<1
Tetrachloroethene	ug/L	<1	<1	<1
Toluene	ug/L	<1	0.36 J	0.333 J
trans-1,2-Dichloroethene	ug/L	<1	<1	<1
trans-1,3-Dichloropropene	ug/L	<1	<1	<1
Trichloroethene	ug/L	<1	<1	<1
Trichlorofluoromethane	ug/L	<1	<1	<1
Vinyl acetate	ug/L	<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1

<: Not detected above Reporting Limit (RL)
J: Estimated result based on QC data or reported below RL
B: Estimated result possibly biased high or false positive based on blank data

APPENDIX B

DATA QUALITY EVALUATION

DATA QUALITY EVALUATION

Long-Term Monitoring (LTM) at the Main Installation was conducted by HDR|e^{2}M during three quarterly events in 2008. Wells were selected for sampling in accordance with the LTM Plan in Appendix B of the *Main Installation Final Remedial Design, Rev.1* (RD) (CH2M HILL, 2004). Groundwater samples were submitted to Microbac Laboratories (formerly Kemron Environmental Services) in Marietta, Ohio for analysis. The field and laboratory procedures were performed in accordance with the *Remedial Action Sampling and Analysis Plan, Rev. 0* (RA SAP) (MACTEC, 2005).

The data quality evaluation (DQE) process involves assessment of all field and laboratory procedures, including independent data validation completed by Diane Short and Associates, Inc (DSA) in accordance with the RA SAP. The data validation forms are included in this appendix. This assessment is designed to evaluate problems with the quality assurance (QA)/quality control (QC) associated with the laboratory data and potential impact to the data quality objectives (DQOs). The DQE findings are summarized in the following sections.

FIELD ACTIVITIES AND FIELD QUALITY CONTROL

The field effort included the collection of groundwater samples from designated wells and piezometers during three LTM events in January, April and October 2008. The LTM well locations are shown on Figure 2 of the report. Field QC samples were collected at selected wells to evaluate sampling technique and decontamination procedures. These samples included field duplicates, trip blanks, and field equipment (rinsate) blanks. Additional samples were collected at selected locations for matrix spike/matrix spike duplicate (MS/MSD) analyses in the laboratory. Documentation of the sampling was performed in the field to ensure that the sample collected, labeling, chain-of-custody, and request for analysis were in agreement. Sample bottles met EPA requirements for environmentally clean containers. Sample labels were pre-printed and chain-of-custody forms were created by scanning the labels electronically (using a personal data assistant or PDA) to facilitate sample tracking from the field through the laboratory to the final laboratory report. Where necessary, COC forms were filled out manually. Custody seals were placed on each sample cooler prior to shipment by common carrier.

ANALYTICAL METHODS

The groundwater samples were analyzed for Target Compound List (TCL) volatile organic compounds (VOCs) by method SW 8260B.

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LABORATORY QUALITY CONTROL

The laboratory QC program, including sample handling, laboratory control, and reporting, is documented in the RA SAP. Sample handling includes documentation of sample receipt, placement in storage, laboratory personnel using the sample, and disposal. The laboratory control consists of instrument calibration and maintenance, laboratory control samples (LCS), method blanks and matrix spikes. Reporting of the laboratory control data was planned prior to the collection of the data, allowing the laboratory to place the appropriate information into the data package so that the DQE could be performed in a timely manner.

DQE SUMMARY

DQE was completed on the data reported for the 2008 LTM sampling events. The objective was to review the chemical data reports submitted by the laboratory and to assess the data in relation to the DQOs stated in the RA SAP. The DQE consisted of review of laboratory QC data and field QC parameters, and flagging of the data as usable, usable with qualification, or unusable in accordance with the DQE standard operating procedures (SOPs) using the criteria stated in the RA SAP for each analytical method performed. The following information was reviewed:

- Sample Integrity (Deliverables)
- Sample Completeness
- Sample Holding Times
- Laboratory Methods for Extraction and Analysis (Calibration, Internal Standards)
- Method Accuracy and Precision (Surrogates, Matrix Spike/Matrix Spike Duplicate, LCS Recoveries)
- Laboratory Performance Criteria (Blanks, Instrument Performance Check)

Field QC parameters were evaluated through field duplicates, field blanks, field documentation, and shipping criteria.

The DQE was summarized by use of flags that indicate to the reviewer that the data being considered has been qualified using the established criteria. Sample delivery group (SDG) narratives detailing the evaluation of the laboratory data by DSA are included in this Appendix. The SDGs and associated groundwater samples are listed on Table B-1.

The following sections provide summary discussions of the required data qualifications for each sampling event. A Level III DQE was performed and the data quality indicators (DQIs), expressed in terms of precision, accuracy, representativeness, comparability, completeness, and sensitivity, were assessed. This included the evaluation of sample integrity, holding times, trip blanks, field blanks, method blanks, internal standards, surrogate recoveries, matrix spike/matrix spike duplicate (MS/MSD) recoveries, LCSs, and field duplicate precision. The results of the DQI assessment are provided below.

Precision

Field duplicates were collected to assess sampling precision. They consisted of replicate grab samples collected concurrently with the associated field samples. Precision is best expressed in terms of relative percent difference (RPD). Field precision goals were met for the duplicate sample pairs collected during the three LTM events. Laboratory precision is discussed in detail in the attached narratives.

Accuracy

Accuracy or bias was measured through the analyses of LCSs and MS/MSDs. Sample specific accuracy is measured through surrogate recovery. Accuracy is expressed as percent recovery (%R).

Although there were a number of elevated LCS recoveries observed and a few low recoveries in the October event, all associated data were qualified J and as such were valid. Accuracy goals based upon LCS were met. Complete discussion of the LCS and MS/MSD recoveries is provided in the attached DQE narratives.

Representativeness

Representativeness refers to the degree sample data accurately and precisely describes the population of samples at a sampling point or under certain environmental conditions. Samples that are not properly preserved or are analyzed beyond holding times may not be considered representative. Review of sampling procedures, laboratory preparation, analysis holding times, trip blank and field blank analysis help in providing this assessment.

Sampling procedures followed the RA SAP and were considered representative of the matrices collected. Laboratory preparation and analysis followed method guidelines.

Comparability

The selection of standardized methods and consistent laboratory practices facilitates the comparison of data between LTM events. Past LTM data are comparable to recent events. Consistent methodology has been maintained throughout the LTM sampling events.

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Completeness

Completeness is determined for both field and analytical objectives. Field completeness is calculated from the number of samples proposed verses the actual number of samples collected. Analytical completeness is expressed in terms of usable data. The project completeness goal for DDMT is 90% as stated in the RA SAP. Data from the three LTM events from January 2008 through October 2008 exceeded 99% completeness and therefore met the completeness DQO.

Sensitivity

Analytical sensitivity is the concentration at which the measurement system can quantitate target analytes in the environmental matrices of concern. Analytical sensitivity is expressed in terms of the reporting limit (RL), which is provided by the respective laboratories as their reasonable and defensible quantitation limit for environmental samples above the method detection limit (MDL), which is established by each laboratory using pure water or clean matrix. Any result reported below the reporting limit (RL) but above the method detection limit (MDL) was flagged "J" and considered an estimated result (unless overridden by other QC flags). The analytical method RLs and MDLs were compared to groundwater protection standards and were determined to meet the overall project objectives.

The following sections discuss only those deficiencies encountered during the evaluation that resulted in qualified and/or unusable data.

Quarterly Event – January 2008

A total of 36 groundwater samples including 27 field samples and 9 QA/QC samples (duplicates, MS/MSD, trip blanks, rinsate blanks) were collected from 27 LTM wells in January 2008. Samples were analyzed for TCL VOCs The data are usable with no qualifications necessary.

Semi-Annual Event – April 2008

A total of 80 groundwater samples including 63 field samples and 17 QA/QC samples (duplicates, MS/MSD, trip blanks, rinsate blanks) were collected from 62 LTM wells in April 2007. Samples were collected from two screened intervals in MW107. Samples were analyzed for TCL VOCs. The data are usable with qualifications as described below:

- PCE has been qualified as estimated J in one sample (MW-204A) based on MS/MSD recovery. The result could be biased low approximately proportional to the recovery.

- Toluene was observed in one method blank, below the reporting limit.

Biennial Event – October 2008

A total of 126 groundwater samples including 96 field samples and 30 QA/QC samples (duplicates, MS/MSD, trip blanks, rinsate blanks) were collected from 95 LTM wells in October 2008. Samples were collected from two screened intervals in MW107. Samples were analyzed for TCL VOCs. The data are usable with qualifications as described below:

- The bottoms of all 3 vials of MW-214B collected on October 9 came off leaving no volume for analysis. The well was re-sampled and sent to Microbac on October 21.
- Several COC discrepancies were reviewed and determined not to have impacted data quality
- There is one sample, in which vinyl acetate is not recovered. This analyte result is rejected R in sample DR1-8-SB-8 due to the extremely low MS/MSD recovery.
- In SDG L08100361, a number of samples were analyzed 1 day past holding time. Although these sample data were qualified estimated J originally, the flags were removed in the database since, based on professional judgment, degradation in such a short time is unlikely.
- PCE in one sample (MW113) in SDG L08100313 was analyzed significantly out of holding time (13 days) due to dilution so was qualified estimated J for potential low bias.
- Analytes were was observed in some method blanks and resulted in B qualifications for associated data. Whenever methylene chloride or acetone is detected in associated samples at a level less than 10x the method blank (corrected for dilution), the result is qualified as UB. Such results are usable as non-detects. For other targets, the factor used is 5x.
- Three analytes, 1,2,3-trichlorobenzene, 1,2,4-trichlorobenzene, and naphthalene were qualified J in one sample (MW-92) based on calibration drift.
- Several analytes in 8 samples (MW-103, MW-104, MW 198, MW207B, MW-212, MW-217, MW-218, and MW-63A) were qualified J due to the associated internal standard out of limits. None of these analytes were contaminants of concern.
- Several samples have a number of elevated associated LCS recoveries observed, and a few low recoveries. When a high recovery is associated with a non-detect in samples, no qualifier is added

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since the indicated bias is high. When the target is detected, the result is qualified as estimated J. Detected data could be biased high or low proportional to the LCS %R.

- 29 samples have surrogate recoveries out of limits. When the recovery is high, only detections are qualified since the potential bias is high. When the recovery is low, all analytes are qualified since the potential bias is low. These data are qualified estimated J. The limits are relatively narrow, and most recoveries observed are not suggestive of severe bias. Although the analytes in the associated samples are qualified, the use of the data is not expected to be adversely effected.

SUMMARY

The sample data collected from January 2008 thorough October 2008 LTM sampling at the Main Installation met the data quality objectives and are of sufficient quality to support the evaluation of remedial actions.

TABLE B-1
SDG SUMMARY TABLE
ANNUAL LONG-TERM MONITORING REPORT - 2008
Defense Depot Memphis, Tennessee

SDG	Groundwater Samples			Quality Control Samples
Quarterly Sampling Event - January 2008				
L08010178	MW-203A-LQ-6	MW-205A-LQ-6	MW-209B-LQ-6	DUP-1-LQ-6
	MW-203B-LQ-6	MW-205B-LQ-6	MW-210A-LQ-6	MW-210A-LQ-6-MS
	MW-204A-LQ-6	MW-206A-LQ-6	MW-210B-LQ-6	MW-210A-LQ-6-MSD
	MW-204B-LQ-6	MW-208A-LQ-6	MW-216-LQ-6	TB-010808-LQ-6
L08010208	MW-206B-LQ-6	MW-211-LQ-6	MW-214B-LQ-6	DUP-2-LQ-6
	MW-207A-LQ-6	MW-212-LQ-6	MW-217-LQ-6	DUP-3-LQ-6
	MW-207B-LQ-6	MW-214A-LQ-6	MW-218-LQ-6	MW-208B-LQ-6/MS
	MW-208B-LQ-6	MW-215A-LQ-6	MW-219-LQ-6	MW-208B-LQ-6/MSD
	MW-209A-LQ-6	MW-215B-LQ-6	MW-229-LQ-6	TB-010908-LQ-6
Semi-Annual Sampling Event - April 2008				
L08040249	DR1-4-LS-7	MW-96-LS-7	MW-204A-LS-7	DUP1-LS-7
	DR1-5-LS-7	MW-98-LS-7	MW-205A-LS-7	DUP2-LS-7
	MW-26-LS-7	MW-100B-LS-7	MW-214A-LS-7	DUP5-LS-7
	MW-39A-LS-7	MW-108-LS-7	MW-214B-LS-7	DUP7-LS-7
	MW-64-LS-7	MW-113-LS-7	MW-217-LS-7	MW-204A-LS-7/MS
	MW-86-LS-7	MW-125-LS-7	MW-218-LS-7	MW-204A-LS-7/MSD
	MW-88-LS-7	MW-202A-LS-7	MW-219-LS-7	TB-040708-LS-7
	MW-90-LS-7			
L08040258	DR1-1A-LS-73	MW-92-LS-7	MW-200-LS-7	DUP3-LS-7
	DR1-5A-LS-7	MW-94A-LS-7	MW-203A-LS-7	DUP4-LS-7
	DR1-6-LS-7	MW-97-LS-7	MW-203B-LS-7	DUP6-LS-7
	DR1-6A-LS-7	MW-104-LS-7	MW-208A-LS-7	MW-52-LS-7/MS
	DR2-2-LS-7	MW-141-LS-7	MW-208B-LS-7	MW-52-LS-7/MSD
	DR2-3-LS-7	MW-197A-LS-7	MW-210A-LS-7	MW-141-LS-7/MS
	DR2-6-LS-7	MW-197B-LS-7	MW-210B-LS-7	MW-141-LS-7/MSD
	MW-25A-LS-7	MW-199B-LS-7	MW-212-LS-7	TB-040807-LS-7
	MW-52-LS-7			
L08040307	MW-39-LS-7	MW-204B-LS-7	MW-207B-LS-7	TB-040908-LS-7
	MW-62-LS-7	MW-205B-LS-7	MW-209A-LS-7	LTM-RB1-LS-7
	MW-107T-LS-7	MW-206A-LS-7	MW-209B-LS-7	
	MW-107B-LS-7	MW-206B-LS-7	MW-215A-LS-7	
	MW-198-LS-7	MW-207A-LS-7	MW-215B-LS-7	
	MW-202B-LS-7			

TABLE B-1
SDG SUMMARY TABLE
ANNUAL LONG-TERM MONITORING REPORT - 2008
Defense Depot Memphis, Tennessee

SDG	Groundwater Samples			Quality Control Samples
Biennial Sampling Event - October 2008				
L08100198	MW88-LB-8	MW197A-LB-8	MW204A-LB-8	DUP3-LB-8
	MW89-LB-8	MW197B-LB-8	MW204B-LB-8	DUP4-LB-8
	MW90-LB-8	MW200-LB-8	MW210A-LB-8	TB-100608-LB-8
	MW103-LB-8	MW203A-LB-8	MW210B-LB-8	
	MW104-LB-8	MW203B-LB-8	MW216-LB-8	
L08100241	IW-6-LB-8	DR1-8-LB-8	MW207B-LB-8	DUP6-LB-8
	DR1-2-LB-8	MW63B-LB-8	MW207B-LB-8	DR1-8-LB-8-MS
	DR1-4-LB-8	MW-125-LB-8	MW214A-LB-8	DR1-8-LB-8-MSD
	DR1-6-LB-8	MW202A-LB-8	MW215A-LB-8	TB-100708-LB-8
	DR1-6A-LB-8	MW202B-LB-8	MW215B-LB-8	
	DR1-7-LB-8	MW207A-LB-8		
L08100313	DR1-1-LB-8	MW64-LB-8	MW198-LB-8	DR2-6-LB-8
	DR1-1A-LB-8	MW86-LB-8	MW212-LB-8	DUP10-LB-8
	DR2-4-LB-8	MW100B-LB-8	MW217-LB-8	MW63A-LB-8-MS
	MW26-LB-8	MW113-LB-8	MW218-LB-8	MW63A-LB-8-MSD
	MW38-LB-8	MW142-LB-8	MW229-LB-8	TB-100808-LB-8
	MW63A-LB-8			
L08100361	DR1-5-LB-8	MW39A-LB-8	MW199B-LB-8	DUP5-LB-8
	DR1-5A-LB-8	MW92-LB-8	MW205A-LB-8	DUP7-LB-8
	DR2-2-LB-8	MW99-LB-8	MW205B-LB-8	MW199A-LB-8-MS
	MW19-LB-8	MW140-LB-8	MW209A-LB-8	MW199A-LB-8-MSD
	MW22-LB-8	MW199A-LB-8	MW209B-LB-8	TB-100908-LB-8
	MW39-LB-8			LTM-RB1-LB-8
L08100368	DR2-3-LB-8	MW96-LB-8	MW108-LB-8	DUP9-LB-8
	MW16-LB-8	MW98-LB-8	MW141-LB-8	MW96-LB-8-MS
	MW25A-LB-8	MW107T-LB-8	MW211-LB-8	MW96-LB-8-MSD
	MW52-LB-8	MW107B-LB-8	MW219-LB-8	TB-101008-LB-8
	MW66A-LB-8			
L08100421	MW34-LB-8	MW94A-LB-8	MW206A-LB-8	DUP2-LB-8
	MW50-LB-8	MW97-LB-8	MW206B-LB-8	DUP8-LB-8
	MW53-LB-8	MW102B-LB-8	MW208A-LB-8	MW34-LB-8-MS
	MW55-LB-8	MW143-LB-8	MW208B-LB-8	MW34-LB-8-MSD
	MW93-LB-8			TB-101308-LB-8
				LTM-RB2-LB-8
L08100442	PZ-06-LB-8	MW23-LB-8	MW62-LB-8	DUP1-LB-8
	PZ-03-LB-8	MW24-LB-8		TB-101708-LB-8
L08100651	MW-214B-LB-8			

ORGANIC DATA QUALITY REVIEW REPORT
VOLATILE ORGANICS SW-846 METHOD 8260B/5030B

8260B/5030B
SDG: L08010208, L08010178

PROJECT: Memphis Defense Depot, LQ-6 Long Term Monitoring
LABORATORY: Kemron Environmental Services, Marietta, OH

SAMPLE MATRIX: Water

SAMPLING DATE (Month/Year): January, 2007

NO. OF SAMPLES: 8260B/5030B (Waters) – 34 samples including 1 Trip Blanks

ANALYSES REQUESTED: SW-846 8260B

SAMPLE NO.: See attached result forms and associated edd

DATA REVIEWER: Sammy Huntington and John Huntington (Gateway Enterprises)

QA REVIEWER: Diane Short and Associates Inc. INITIALS/DATE: _____

Telephone Logs included Yes____ No _X__

Contractual Violations Yes____ No _X___

The EPA Contract Laboratory Program National Functional Guidelines for Organic Review (NFG), 2001/ 2007, and the SW-846 Method 8260B has been referenced by the reviewer to perform this data validation review. The EPA qualifiers have been expanded to include a descriptor code and value to define QC violations and their values, per the approval of the Project Manager. Per the Scope of Work, the review of these samples includes Level III validation of all chains of custody, calibrations and QC forms referencing the QC limits in the above documents.

I. DELIVERABLES

A. All deliverables were present as specified in the Statement of Work (SOW), SW-846, or in the project contract.
Yes __X_ No _____

This is a Level III Report. Raw data are not reviewed, nor required.

B. Chain of Custody Documentation was complete and accurate.
Yes _____ No __X__

The project manager is informed of the following.

No samples have been qualified due to COC issues. Comments made in previous reports regarding the COCs used on this project still apply.

C. Samples were received at the required temperature, preservation and intact with no bubbles.
Yes __X___ No _____
SDG L0801078 had "NA" checked on the sample receiving checklist for the "correct preservatives used "item. SDG L08010208 checklist had this item checked as "yes."

SDG L0801078: The Sample Receipt form states that there were bubbles in 2 bottles of MW-210A, 1 bottle of MW210A, and 1 bottle of MW210A MSD. Since there are three containers per sample, the laboratory was able to analyze the ones without headspace.

All of the SDGs stated NA on the Sample Receiving Checklist to whether the samples were pH tested and of acceptable range. This is normal, since the laboratory cannot check the pH of VOA samples on receipt. Any such checks are normally conducted at the bench after the samples have been analyzed.

II. ANALYTICAL REPORT FORMS

A. The Analytical Report or Data Sheets are present and complete for all requested analyses.
Yes _X_ No ____

B. Holding Times
1. The contract holding times were met for all analyses (Time of sample receipt to time of analysis (VOA) or extraction and from extraction to analysis).
Yes __X___ No_____
Assuming that all samples were properly preserved with HCl.

2. The Clean Water Act (40 CFR 136) or method holding times were met for all analyses (14 days from time of sample collection to analysis or extraction, assuming acid preservation).
Yes _X__ No____
Assuming that all samples were properly preserved with HCl.

III. INSTRUMENT CALIBRATION – GC/MS

A. Initial Calibration
1. The Response (RF) and Relative Response Factors (RRF) and average RRF for all compounds for all analyses met the contract criteria of >0.01.
Yes __X__ No ____ NA____
Per the project manager, the 2001 EPA CLP validation guidance has been applied to the common "poor responders". Acetone, 2-butanone, and 4-methyl-2-pentanone are the compounds for which any calibration response factors below 0.05 have been observed. The validation guidance used for this project allows for a response of 0.01 for these compounds if spectral integrity can be verified at low concentrations. These spectra

are not commonly provided and are not part of the deliverable for these data sets. The laboratory has been tasked with providing to the client verification that the 0.01 RF is valid. Given the spectral verification is available, the data are not qualified for response >0.01 < 0.05. No data have been qualified.

2a.The relative standard deviation (RSD) for the five point calibration was within the 30% limit for the CCCs.
Yes __X__ No____ NA____
This is a method requirement and indicates that the analytical system is in control.

2b.The relative standard deviation (RSD) for the five point calibration was within the 30% limit for all other compounds or a linear curve was used. Note the 2007 CLP guidance allows for 40% for the low responders.
Yes __X___ No _____ NA____

3. The 12 hour system Performance Check was performed as required in SW-846.
Yes _X__ No_____ NA____

B. Continuing Calibrations
1. The midpoint standard was analyzed for each analysis at the required frequency and the QC criteria of > 0.05 (.01 for CLP 2001) were met.
Yes __X___ No ____ NA____
The CCVs were analyzed at the proper frequency. The same compounds showed low responses in the continuing calibration as were observed in the initial calibrations. Qualifiers are not added for these outliers since none were below the lower limit of 0.01.

2. The percent difference (%D) limits of ± 25% were met (40% for poor responders, for closing CCV: 50% poor responders per 2007 NFG).
Yes ___ No __X__ NA___
There is one CCV in which vinyl acetate had a %D outside the 25% validation limit. Since the analyte is not detected in associated samples, no qualifiers are added.

SDG	CCV	Batch	Instrument #	Analyte	%RSD	RRF OUT	Qualifiers Added
L08010208	1/17/08 8:49	WG260850		Vinyl Acetate	28.1		None

IV. GC/MS INSTRUMENT PERFORMANCE CHECK

The BFB (VOA) performance check was injected once at the beginning of each 12-hour period and relative abundance criteria for the ions were met.
Yes __X___ No ____ NA____

V. INTERNAL STANDARDS

The Internal Standards met the 100% upper and -50% lower limits criteria and the Retention times were within the required windows.
Yes __X___ No ____ NA____

VI. SURROGATE

Surrogate spikes were analyzed with every sample.
Yes _X___ No____

And met the recovery limits defined in the current contract, which are the current laboratory limits.
Yes ___X___ No ____

VII. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A. Matrix spike (MS) and matrix spike duplicates (MSD) were analyzed for every analysis performed and for every 20 samples or for every matrix whichever is more frequent.
Yes __X__ No _____
There are 3 MS/MSDs which does meet the 1:20 ratio.

Method	SDG	Client Sample ID	Lab Sample ID
8260B\5030B	L08010208	MW-208B-LQ-6	3
	L08010178	MW-210A-LQ-6	13

B. The MS and MSD percent recoveries were within the limits defined in the contract, which are the current laboratory control chart limits.
Yes __X___ No _____NA___

C. The MSD relative percent differences (RPD) were within the defined contract limits.
Yes __X___ No ___NA____

D. The MS/MSD were client samples.
Yes __X_ No ____NA____

VIII. LABORATORY CONTROL SAMPLE

A. Laboratory Control Samples (LCS) was analyzed for every analysis performed and for every 20 samples.
Yes _X___ No ____

B. The LCS percent recoveries were within the limits defined in the contract (the MS limits are used as a reference or laboratory-specific limits for this matrix are defined).
Yes _____ No __X___
The full target list has been spiked. Only one target is out of limits in one LCS on the high side. It is not detected in associated samples and no qualifier has been added.

SDG	Lab Sample #	Batch	Targets Detected	LCS/LCSD/RPD	Qualifiers
L08010208		WG260850	4-chlorotoluene	129	None, ND

IX. BLANKS

A. Method Blanks were analyzed at the required frequency and for each matrix and analysis.
Yes _X___ No____

B. No blank contamination was found in the Method Blank.
Yes__ X_____ No ___

C. If Field Blanks were identified, no blank contamination was found.
Yes __X__ No ____
There are two trip blanks, both in control.

X. FIELD QC

If Field duplicates were identified, they met guidance RPD of < 35% for water or < 50% for soils. For values reported at < 5 x the reporting limit (RL), a difference of 2 x RL is used as guidance (4 x RL for soils). Data are not qualified for field duplicates as these are evaluated for the total project by the client.
Yes __X___ No ____ NA____

There are 3 field duplicates, shown in the table below. All are in control.

SDG	Sample ID	Field DUP	
L08010178	MW-203A-LQ-6	DUP-1	in control
L08010208	MW-207B-LQ-6	DUP-2	in control
L08010208	MW-229-LQ-6	DUP-3	in control

XI. SYSTEM PERFORMANCE

A. The RICs, chromatograms, tunes and general system performance were acceptable for all instruments and analytical systems.

Yes ____ No____ NA__X__

Not part of this review level

B. The suggested EQLs for the sample matrices in this set were met.

Yes _X__ No____ NA____

EQLs are typical for this method.

XII. TCL COMPOUNDS

A. The identification is accurate and all retention times, library spectra and reconstructed ion chromatograms (RIC) were evaluated for all detected compounds.

Yes ____ No____ NA __X__

Not part of this review level

B. Quantitation was checked to determine the accuracy of calculations for representative compounds in each internal standards quantitation set.

Yes ____ No____ NA__X__

Not part of this review level

XIII. TENTATIVELY IDENTIFIED COMPOUNDS

TICs were properly identified and met the library identification criteria.

Yes____ No____ NA__X___

Not part of this review level

XIV. OVERALL ASSESSMENT OF THE CASE

The laboratory has complied with the requested method. Data are fully usable and no qualifiers have been added.

The following is noted:

Chain of Custody/Deliverables:

The project manager is informed of the following.

No samples have been qualified due to COC issues. Comments made in previous reports regarding the COCs used on this project still apply.

Sample Condition:

SDG L0801078 had "NA" checked on the sample receiving checklist for the "correct preservatives used "item. SDG L08010208 checklist had this item checked as "yes."

SDG L0801078: The Sample Receipt form states that there were bubbles in 2 bottles of MW-210A, 1 bottle of MW210A, and 1 bottle of MW210A MSD. Since there are three containers per sample, the laboratory was able to analyze the ones without headspace.

All of the SDGs stated NA on the Sample Receiving Checklist to whether the samples were pH tested and of acceptable range. This is normal, since the laboratory cannot check the pH of VOA samples on receipt. Any such checks are normally conducted at the bench after the samples have been analyzed.

Continuing Calibrations:
There is one CCV in which vinyl acetate had a %D outside the 25% validation limit. Since the analyte is not detected in associated samples, no qualifiers are added.

Matrix Spikes:
There are three MS/MSD pairs, all in control.

LCS Recoveries:
The full target list has been spiked. Only one target is out of limits in one LCS on the high side. It is not detected in associated samples and no qualifier has been added.

Method Blanks:
Method blanks are in control.

Field Blanks:
There are two trip blanks, in control.

Field QC:
There are 3 field duplicates, shown in the table within the body of this report. All are in control.

ORGANIC DATA QUALITY REVIEW REPORT
VOLATILE ORGANICS SW-846 METHOD 8260B/5030B

8260B/5030B
SDG: L080: 040307, 040258, 040249

PROJECT: Memphis Defense Depot, LS-7 Long Term Monitoring

LABORATORY: Microbac Laboratories (formerly Kemron Environmental Services), Marietta, OH

SAMPLE MATRIX: Water

SAMPLING DATE (Month/Year): April, 2008

NO. OF SAMPLES: 8260B/5030B (Waters) – 74 samples including 3 Trip Blanks and 1 rinsate blank.

ANALYSES REQUESTED: SW-846 8260B

SAMPLE NO.: See attached result forms and associated edd

DATA REVIEWER: Sammy Huntington and John Huntington (Gateway Enterprises)

QA REVIEWER: Diane Short and Associates Inc. INITIALS/DATE: _____

Telephone Logs included Yes____ No _X__

Contractual Violations Yes____ No _X___

The EPA Contract Laboratory Program National Functional Guidelines for Organic Review, 2001, and the SW-846 Method 8260B has been referenced by the reviewer to perform this data validation review. The EPA qualifiers have been expanded to include a descriptor code and value to define QC violations and their values, per the approval of the Project Manager. Per the Scope of Work, the review of these samples includes Level III validation of all chains of custody, calibrations and QC forms referencing the QC limits in the above documents.

I. DELIVERABLES

A. All deliverables were present as specified in the Statement of Work (SOW), SW-846, or in the project contract.

Yes _X_ No _____

This is a Level III Report. No raw data review is required, nor supplied by the laboratory.

B. Chain of Custody Documentation was complete and accurate.

Yes _X_ No ___

C. Samples were received at the required temperature, preservation and intact with no bubbles.

Yes _X_ No _____

The most recent EPA regulations (See Federal Register, March 12, 2007, 40CFR Part 122) require only that the temperature of samples delivered to the laboratory be less than 6° C. In these SDGs the sample receipt conditions are fully compliant with applicable regulations.

II. ANALYTICAL REPORT FORMS

A. The Analytical Report or Data Sheets are present and complete for all requested analyses.

Yes _X_ No ____

B. Holding Times

1. The contract holding times were met for all analyses (Time of sample receipt to time of analysis (VOA) or extraction and from extraction to analysis).

Yes ___X___ No_____

2. The Clean Water Act (40 CFR 136) or method holding times were met for all analyses (14 days from time of sample collection to analysis or extraction).

Yes _X___ No____

III. INSTRUMENT CALIBRATION – GC/MS

A. Initial Calibration

1. The Response (RF) and Relative Response Factors (RRF) and average RRF for all compounds for all analyses met the contract criteria of >0.01.

Yes _X__ No ____ NA____

Per the project manager, the 2001 EPA CLP validation guidance has been applied to the common "poor responders". Acetone, 2-butanone, and 4-methyl-2-pentanone are the compounds for which any calibration response factors below 0.05 have been observed. The validation guidance used for this project allows for a response of 0.01 for these compounds if spectral integrity can be verified at low concentrations. These spectra are not commonly provided and are not part of the deliverable for these data sets. The laboratory has been tasked with providing to the client verification that the 0.01 RF is valid. Given the spectral verification is available, the data are not qualified for response >0.01 < 0.05. No data have been qualified.

The low-responding compounds are highly water-soluble and capable of hydrogen bonding with water. This decreases their purge efficiency and results in the relatively low response. The implication of this low purge efficiency is that a relatively low absolute recovery of such compounds is achieved in the purge step of the analysis. If this recovery is consistent, reasonable accuracy and precision can be achieved in a given matrix, which is indicated for the lab matrix by acceptable recoveries in LCS and calibration checks. However, this causes these targets to be more sensitive to matrix variations that impact purge efficiency (such as ionic strength or the presence of varying levels of soluble non-target organic material) than are the more hydrophobic compounds typically analyzed by this method, and as a result they are more likely to exhibit matrix bias. Any evidence of such bias in this case would be noted in the matrix spike portion of this report.

2a.The relative standard deviation (RSD) for the five point calibration was within the 30% limit for the CCCs.

Yes _X__ No____ NA____
This is a method requirement and indicates that the analytical system is in control.

2b.The relative standard deviation (RSD) for the five point calibration was within the 30% limit for all other compounds or a linear curve was used.
Yes __X___ No ____ NA____

3. The 12 hour system Performance Check was performed as required in SW-846.
Yes __X__ No_____ NA____

B. Continuing Calibrations
1. The midpoint standard was analyzed for each analysis at the required frequency and the QC criteria of > 0.05 (.01 for CLP 2001) were met.
Yes __X___ No ___ NA____

2. The percent difference (%D) limits of ± 25% were met.
Yes ____ No __X__ NA___
Vinyl acetate gave continuing calibration %D values that were outside the 25% validation limit in some cases. No qualifiers have been added since detections of this compound were not observed.

SDG	CCV Date	Lab Sample #	Analyte	%D	Qualifiers Added
L08040249	4/12/08 18:59	1-14	Vinyl acetate	42.0	None, ND
	4/15/08 10:00	16,17,18RE,19-24,27-29	Vinyl acetate	39.8	None, ND

IV. GC/MS INSTRUMENT PERFORMANCE CHECK
The BFB (VOA) or DFTPP (SVOA) performance check was injected once at the beginning of each 12-hour period and relative abundance criteria for the ions were met.
Yes ____ No ____ NA_X__
Not part of this review level.

V. INTERNAL STANDARDS
The Internal Standards met the 100% upper and -50% lower limits criteria and the Retention times were within the required windows.
Yes _____ No ____ NA__ X __
Not part of this review level.

VI. SURROGATE
Surrogate spikes were analyzed with every sample.
Yes _ X ___ No____

And met the recovery limits defined in the current contract, which are the current laboratory limits.
Yes ___X___ No ____

VII. MATRIX SPIKE/MATRIX SPIKE DUPLICATE
A. Matrix spike (MS) and matrix spike duplicates (MSD) were analyzed for every analysis performed and for every 20 samples or for every matrix whichever is more frequent.
Yes ___X__ No _____
There are three MS/MSDs which does not meet the 1:20 ratio.

SDG	Client Sample ID	Lab Sample ID
L08040249	MW-204A-LS-7	L08040249-25

SDG	Client Sample ID	Lab Sample ID
L08040258	MW-141-LS-7	L08040258-07
	MW-52-LS-7	L08040258-03

B. The MS and MSD percent recoveries were within the limits defined in the contract, which are the current laboratory control chart limits.
Yes _____ No __X___NA___
The full target list has been spiked. Most MS/MSD recoveries and RPDs are in control. Instances where spike recoveries are out of limits are shown in the table below. In one instance the associated parent result has been qualified as JS#, where # is the recovery. The result could be biased low approximately proportional to the recovery.

SDG	Client Sample ID	Lab Sample ID	Analyte	MS/MSD/RPD	Qualifier
L08040258	MW-52-LS-7	L08040258-02	OK		
	MW-141-LS-7	L08040258-06	Vinyl chloride	139/OK/OK	None, ND in parent
L08040249	MW-204A-LS-7	L08040249-24	Tetrachloroethene	57.8/42.1/OK	JS42 parent detection
	MW-204A-LS-7	L08040249-24	Vinyl chloride	139/OK/OK	None, ND in parent

C. The MSD relative percent differences (RPD) were within the defined contract limits.
Yes __X___ No ___NA____

D. The MS/MSD were client samples.
Yes __X_ No ____NA____

VIII. LABORATORY CONTROL SAMPLE

A. Laboratory Control Samples (LCS) was analyzed for every analysis performed and for every 20 samples.
Yes _X___ No ____

B. The LCS percent recoveries were within the limits defined in the contract (the MS limits are used as a reference or laboratory-specific limits for this matrix are defined).
Yes _____ No __X___
The full target list has been spiked. MTBE and vinyl chloride exhibited elevated recoveries, but none of the associated samples had detections of these compounds. No qualifiers have been added.

SDG	Lab Sample #	Batch	Targets Detected	LCS/LCSD/RPD	Qualifiers
L08040307	15-18	WG268886	Vinyl chloride	144	None, samples ND
L08040258	6,16-26	WG268483	Vinyl chloride	138	None, samples ND
	27-32	WG268563	Methyl-t-butyl ether	126/OK/OK	None, samples ND
			Vinyl chloride	146/149/OK	None, samples ND
L08040249	15,18	WG268483	Vinyl chloride	138	None, samples ND

IX. BLANKS

A. Method Blanks were analyzed at the required frequency and for each matrix and analysis.
Yes _X___ No____

B. No blank contamination was found in the Method Blank.
Yes____ No _X___

Contamination with toluene was observed in one method blank indicated in the table, below the reporting limit. One sample in the batch has a detection of toluene at a similar level and is qualified as UB.29. The result is usable as a non-detect.

SDG	Lab Sample #	Batch	Analyte	Results	Qualifiers Added
L08040249	1-14	WG268170	Toluene	.289	UB.29 detection

C. If Field Blanks were identified, no blank contamination was found.
Yes____ No __X__

There are three trip blanks and one rinse blank. There are detections observed below the reporting limit as shown in the table. Some of these are qualified UB due to detections in the associated method blank, thus are not used for qualifying associated samples. When analytes are present in both the field blank and the associated samples, the results in the samples are qualified in the same manner as for method blanks. For clarity, the qualifiers used in this case are UTB# for trip blanks and URB# for rinse blanks.

SDG	Sample ID	Lab Sample ID	Analyte	Results	Qualifiers
L08040307	LTM-RB1-LS-7	7	1,4-Dichlorobenzene	2.16	None, ND in samples
			Benzene	.321	None, ND in samples
			Toluene	1.14	None, ND in samples
	TB-040908-LS-7	8	Acetone	2.61	UTB2.6 detections
			Methylene chloride	4.07	None, ND in samples
L08040258	TB-040807-LS-7	33	Acetone	3.89	UTB3.9 detections
			Carbon disulfide	.535	None, ND in samples
			Dibromochloromethane	.500	None, ND in samples
			Methylene chloride	5.40	None, ND in samples
L08040249	TB-040708-LS-7	29	Acetone	3.38	UTB3.4 detections
			Methylene chloride	3.29	None, ND in samples

X. FIELD QC

If Field duplicates were identified, they met guidance RPD of < 35% for water or < 50% for soils. For values reported at < 5 x the reporting limit (RL), a difference of 2 x RL is used as guidance (4 x RL for soils). Data are not qualified for field duplicates as these are evaluated for the total project by the client.
Yes __X___ No ____ NA____
There are 7 identified field duplicates. Observations are summarized in the table. Agreement is generally very good between the field duplicate and the parent sample.

SDG	Field Duplicate	Parent Sample	Observations
L08040249	DUP1-LS-7	MW-88-LS-7	In control
L08040249	DUP2-LS-7	MW-100B-LS-7	In control
L08040258	DUP3-LS-7	MW-197A-LS-7	In control
L08040258	DUP4-LS-7	MW-203B-LS-7	In control
L08040249	DUP5-LS-7	MW-205A-LS-7	In control
L08040258	DUP6-LS-7	MW-210A-LS-7	In control
L08040249	DUP7-LS-7	MW-219-LS-7	In control

XI. SYSTEM PERFORMANCE

A. The RICs, chromatograms, tunes and general system performance were acceptable for all instruments and analytical systems.
Yes ____ No____ NA__X__
Not part of this review level

B. The suggested EQLs for the sample matrices in this set were met.
Yes __X_ No____ NA____

XII. TCL COMPOUNDS

A. The identification is accurate and all retention times, library spectra and reconstructed ion chromatograms (RIC) were evaluated for all detected compounds.
Yes ____ No____ NA __X__
Not part of this review level

B. Quantitation was checked to determine the accuracy of calculations for representative compounds in each internal standards quantitation set.
Yes ____ No____ NA__X__
Not part of this review level

XIII. TENTATIVELY IDENTIFIED COMPOUNDS

TICs were properly identified and met the library identification criteria.
Yes____ No____ NA__X___
Not part of this review level

XIV. OVERALL ASSESSMENT OF THE CASE

The laboratory has complied with the requested method. Data are fully usable after consideration of qualifiers.
The following is noted:

Continuing Calibrations:
Vinyl acetate gave continuing calibration %D values that were outside the 25% validation limit in some cases. No qualifiers have been added since detections of this compound were not observed.

LCS Recoveries:
Vinyl chloride and MTBE were elevated in several LCS runs. Detections were not observed in associated samples and no qualifiers are added.

Matrix Spikes:
There are three MS/MSDs meets the 1:20 ratio. The full target list has been spiked. Most MS/MSD recoveries and RPDs are in control. In one instance the associated parent result for tetrachloroethene has been qualified as JS#, where # is the recovery. The result could be biased low approximately proportional to the recovery.

Method Blanks:
Contamination with toluene was observed in one method blank, below the reporting limit. One sample in the batch has a detection of toluene at a similar level and is qualified as UB.29. The result is usable as a non-detect.

Field Blanks:
There are three trip blanks and one rinse blank. There are detections observed below the reporting limit for a number of targets. Acetone was qualified as UTB# in a number of instances where the level of acetone in the sample was less than 10x the field blank level, and # is the field blank level. Such results are usable as nondetects.

Field QC:
There are 7 identified field duplicates. All are in control.

ORGANIC DATA QUALITY REVIEW REPORT
VOLATILE ORGANICS SW-846 METHOD 8260B/5030B

8260B/5030B
SDG: L08100: 651, 361, 421, 442, 241, 313, 368, 198

PROJECT: Memphis Defense Depot, LB-8 for e2m, Texas

LABORATORY: Microbac Laboratories, Inc., Marietta, OH

SAMPLE MATRIX: Water

SAMPLING DATE (Month/Year): October 2008

NO. OF SAMPLES: 115 8260B/5030B (Waters) including 7 trip blanks

ANALYSES REQUESTED: SW-846 8260B

SAMPLE NO.: See attached result forms and associated EDD

DATA REVIEWER: Sammy Huntington and John Huntington

QA REVIEWER: Diane Short and Associates Inc. INITIALS/DATE: _____

Telephone Logs included Yes____ No _X__

Contractual Violations Yes____ No _X___

The EPA Contract Laboratory Program National Functional Guidelines for Organic Review, 2001, and the SW-846 Method 8260B has been referenced by the reviewer to perform this data validation review. The EPA qualifiers have been expanded to include a descriptor code and value to define QC violations and their values, per the approval of the Project Manager. Per the Scope of Work, the review of these samples includes Level III validation of all chains of custody, calibrations and QC forms referencing the QC limits in the above documents.

I. DELIVERABLES

A. All deliverables were present as specified in the Statement of Work (SOW), SW-846, or in the project contract.
Yes _X_ No _____
This report has been requested to include the following review: Holding times and sample integrity (chains of custody, sample log in), Calibrations, Summary QC.
Note: The instrument initial calibration forms for instrument #14 did not print to hardcopy in any of the data packages. The PDF supplied by the laboratory contained this form for all packages and was used to conduct the review for this instrument.

B. Chain of Custody Documentation was complete and accurate.
Yes _X_ No ___
No qualifiers have been added for chain of custody issues. The chain of custody on use has been discussed in detail in previous reports, and those general comments apply. All chain of custody documents in this set were properly signed and dated.

There is a gap between relinquished and received for all SDGs, but the carrier # is on the sample receipt form which is fully acceptable.

C. Samples were received at the required temperature, preservation and intact with no bubbles.
Yes _____ No _X___
New EPA regulations (See Federal Register, March 12, 2007, 40CFR Part 122) require only that the temperature of samples delivered to the laboratory be equal to or less than 6° C. The sample receipt conditions are fully compliant with applicable regulations.

The log-in forms are inconsistent. A few of the SDGs checked NA on the sample receipt form to either or both, "were correct preservatives used? (water only)" and "were pH ranges acceptable? (VOA excluded). The rest of the SDGs said YES to those questions. The pH for volatiles is routinely taken at the time of analysis as the vials are to remain sealed until analysis. This would be checked only if raw data were submitted for the sample preparation.

SDG L08100241: Narrative states that the bottoms of all 3 vials of ID MW-214B-LB-9 came off leaving no volume for analysis. The client was notified and the sample was recollected and logged as L08100651.

II. ANALYTICAL REPORT FORMS

A. The Analytical Report or Data Sheets are present and complete for all requested analyses.
Yes _X_ No ____

B. Holding Times
1. The contract holding times were met for all analyses (Time of sample receipt to time of analysis (VOA) or extraction and from extraction to analysis).
Yes _____ No ___X___
In SDG L08100313, one sample was analyzed at a dilution to achieve a quantification of tetrachloroethene at 13 days past holding time. The result for this analyte is qualified as JH13 to indicate a potential bias due to degradation.

2. The Clean Water Act (40 CFR 136) or method holding times were met for all analyses (14 days from time of sample collection to analysis or extraction).
Yes ___ No __X__
In SDG L08100361, a number of samples (see the table below) were analyzed 1 day past holding time. These are qualified as JH1 to indicate the possibility of bias due to degradation. However, for analyses that are

conducted at 15 days from sampling on preserved samples it is not likely that significant degradation has occurred.

The laboratory notes a number of other cases in which holding times were exceeded by a few hours. However, the general policy of EPA is that for samples having holding time requirements expressed in days, the holding time calculation is to be made to the nearest day. In all these other instances, when calculated in that manner, the samples are in hold and no qualifiers are added.
See the above section for results that are out of CWA and contract holding time.

SDG	Client Sample ID	Lab Sample ID	HT	Qualifiers
L08100313	MW113-LB-8	L08100313-19	27 (dilution run for one analyte)	JH13 tetrachloroethene
L08100361	DR1-5A-LB-8	L08100361-22	15	JH1 all targets
L08100361	DR1-5-LB-8	L08100361-21	15	JH1 all targets
L08100361	DR2-2-LB-8	L08100361-17	15	JH1 all targets
L08100361	LTM-RB1-LB-8	L08100361-18	15	JH1 all targets
L08100361	MW19-LB-8	L08100361-15	15	JH1 all targets
L08100361	MW205B-LB-8	L08100361-12	15	JH1 all targets
L08100361	MW209A-LB-8	L08100361-13	15	JH1 all targets
L08100361	MW209B-LB-8	L08100361-14	15	JH1 all targets
L08100361	MW22-LB-8	L08100361-16	15	JH1 all targets
L08100361	MW39-LB-8	L08100361-03	15 (dilution run for one analyte)	JH1 tetrachloroethene
L08100361	MW92-LB-8	L08100361-19	15	JH1 all targets
L08100361	MW99-LB-8	L08100361-20	15	JH1 all targets

III. INSTRUMENT CALIBRATION – GC/MS

A. Initial Calibration

1. The Response (RF) and Relative Response Factors (RRF) and average RRF for all compounds for all analyses met the contract criteria of >0.01.

Yes __X__ No ____ NA____

Per the project manager, the 2001 EPA CLP validation guidance has been applied to the common "poor responders". The validation guidance used for this project allows for a response of 0.01 for the "poor responders" if spectral integrity can be verified at low concentrations. These spectra are not commonly provided and are not part of the deliverable for these data sets. The laboratory has been tasked with providing to the client verification that the 0.01 RF is valid. Given the spectral verification is available, the data are not qualified for response >0.01 < 0.05. No data have been qualified.

The low-responding compounds are highly water-soluble and capable of hydrogen bonding with water. This decreases their purge efficiency and results in the relatively low response. The implication of this low purge efficiency is that a relatively low absolute recovery of such compounds is achieved in the purge step of the analysis. If this recovery is consistent, reasonable accuracy and precision can be achieved in a given matrix, which is indicated for the lab matrix by acceptable recoveries in LCS and calibration checks. However, this causes these targets to be more sensitive to matrix variations that impact purge efficiency (such as ionic strength or the presence of varying levels of soluble non-target organic material) than are the more hydrophobic compounds typically analyzed by this method, and as a result they are more likely to exhibit matrix bias. The likelihood of matrix bias for these compounds in this site matrix is assessed in the MS/MSD section of this report.

2a.The relative standard deviation (RSD) for the five point calibration was within the 30% limit for the CCCs.

Yes _X__ No____ NA____

This is a method requirement and indicates that the analytical system is in control.

2b.The relative standard deviation (RSD) for the five point calibration was within the 30% limit for all other compounds or a linear curve was used.
Yes __X___ No ____ NA____

SDG	ICAL Date	Workgroup	Analyte	RSD	Qualifiers Added
L08100241	9/24/08 17:30	WG283044	Vinyl Acetate	49.1	None, analyte not detected

3. The 12 hour system Performance Check was performed as required in SW-846.
Yes __X__ No_____ NA____

B. Continuing Calibrations
1. The midpoint standard was analyzed for each analysis at the required frequency and the QC criteria of > 0.05 (.01 for CLP 2001) were met.
Yes ___X__ No ____ NA____
The CCVs were analyzed at the proper frequency. The same compounds showed low responses in the continuing calibration as were observed in the initial calibrations. Qualifiers are not added for these outliers since none were below the lower limit of 0.01. No data have been qualified from the response factors and RRFs are not noted since they are essentially the same as the ICAL.

2. The percent difference (%D) limits of ± 25% were met.
Yes _____ No __X__ NA___
See the table below. When there are no detections, unless the %D is biased low and so large as to indicate a significant probability of false negatives, no qualifiers are added for %D outliers when targets are not detected or for a high recovery for undetected compounds. Data are qualified JC#, where # is the %D. There could be a variability to the data as there is a variability to the response.

SDG	CCV Date	Workgroup	Analyte	%D outliers	Bias	Qualifiers Added
L08100651	11/1/08 12:15	WG286692	2-Hexanone	35.4	high	None, ND
			Acetone	25.6	high	None, ND
			2-Butanone	37.7	high	None, ND
L08100361	10/23/08 11:33	WG285765	1,2,3-Trichlorobenzene	31.1	high	None, ND
			1,2,4-Trichlorobenzene	34.2	high	None, ND
			1,2,4-Trimethlbenzene	30.0	high	None, ND
			1,3,5-Trimethlbenzene	26.9	high	None, ND
			Hexachlorobutadiene	26.3	high	None, ND
			n-Butylbenzene	41.5	high	None, ND
			Naphthalene	40.8	high	None, ND
			p-Isopropyltoluene	28.4	high	None, ND
			Vinyl Acetate	35.7	high	None, ND
	10/23/08 23:54	WG285882	1,2,4-Trichlorobenzene	29.6	high	JC30 detect
			1,2,4-Trichlorobenzene	32.1	high	JC32 detect
			1,2,4-Trimethlbenzene	28.3	high	None, ND
			n-Butylbenzene	36.3	high	None, ND
			Naphthalene	38.4	high	JC38 detect
L08100421	10/25/08 9:21	WG286033	1,2,3-Trichlorobenzene	25.2	high	None, ND
			1,2,4-Trichlorobenzene	27.6	high	None, ND
			n-Butylbenzene	28.7	high	None, ND
			Naphthalene	37.4	high	None, ND
	10/26/08 8:21	WG286054	Hexachlorobutadiene	32.0	high	None, ND
			n-Butylbenzene	35.4	high	None, ND
			p-Isopropyltoluene	27.2	high	None, ND

SDG	CCV Date	Workgroup	Analyte	%D outliers	Bias	Qualifiers Added
L08100442	10/27/08 10:06	WG286103	1,2,3-Trichlorobenzene	26.3	high	None, ND
			1,2,4-Trichlorobenzene	29.6	high	None, ND
			1,2,4-Trimethlbenzene	26.7	high	None, ND
			Hexachlorobutadiene	25.4	high	None, ND
			n-Butylbenzene	38.1	high	None, ND
			Naphthalene	35.9	high	None, ND
			p-Isopropyltoluene	27.3	high	None, ND
			Vinyl Acetate	50.3	high	None, ND
L08100313	10/21/08 10:12	WG285508	1,1,2,2-Tetrchloroethane	42.5	high	None, ND
			1,2,4-Trimethlbenzene	25.9	high	None, ND
			1,2-Dibromo-3-Chloropropane	39.7	high	None, ND
			2-Hexanone	31.3	high	None, ND
			2-Chlorotoluene	25.6	high	None, ND
			Acetone	27.5	high	None, ND
			Chloroethane	42.4	high	None, ND
			2-Butanone	29.6	high	None, ND
			n-Butylbenzene	34.0	high	None, ND
			n-Propylbenzene	35.1	high	None, ND
			Naphthalene	27.1	high	None, ND
			p-Isopropyltoluene	25.7	high	None, ND
			sec-Butylbenzene	37.7	high	None, ND
			Vinyl Acetate	32.7	high	None, ND
	10/21/08 23:08	WG285606	1,2,3-Trichlorobenzene	24.6	high	None, ND
			1,2,4-Trichlorobenzene	30.2	high	None, ND
			1,2,4-Trimethlbenzene	29.6	high	None, ND
			1,3,5-Trimethlbenzene	25.9	high	None, ND
			n-Butylbenzene	39.6	high	None, ND
			Naphthalene	31.0	high	None, ND
			p-Isopropyltoluene	26.7	high	None, ND
			Vinyl Acetate	44.2	high	None, ND
	10/21/08 22:09	WG285608	1,2,4-Trimethlbenzene	27.0	high	None, ND
			2-Chlorotoluene	31.9	high	None, ND
			Chloroethane	40.2	high	None, ND
			n-Butylbenzene	34.5	high	None, ND
			n-Propylbenzene	36.3	high	None, ND
			p-Isopropyltoluene	26.3	high	None, ND
			sec-Butylbenzene	29.9	high	None, ND
			Vinyl Acetate	33.3	high	None, ND
	10/22/08 11:15	WG285667	Vinyl Acetate	40.1	high	None, ND
L08100241	10/18/08 22:07	WG285364	1,2,3-Trichlorobenzene	30.8	high	None, ND
			1,2,4-Trichlorobenzene	34.5	high	None, ND
			n-Butylbenzene	31.7	high	None, ND
			Naphthalene	45.6	high	None, ND
	10/19/08 11:21	WG285370	1,1,2,2-Tetrchloroethane	39.2	high	None, UB from MB
			Chloromethane	28.6	low	None, ND
			1-Chlorohexane	27.2	high	None, ND
			2.Hexanone	30.9	high	None, ND
			Bromomethane	35.5	low	None, ND
			Vinyl Acetate	76.2	high	None, ND
	10/20/08 17:57	WG285491	2-Chlorotoluene	25.9	high	None, ND
			Bromomethane	29.3	high	None, ND
			Vinyl Acetate	30.0	high	None, ND
	10/21/08 11:34	WG285505	Vinyl Acetate	46.7	high	None, ND
L08100368	10/23/08 23:54	WG285882	1,2,3-Trichlorobenzene	29.6	high	JC30 detect
			1,2,4-Trichlorobenzene	32.1	high	JC32 detect
			1,2,4-Trimethlbenzene	28.3	high	None, ND

SDG	CCV Date	Workgroup	Analyte	%D outliers	Bias	Qualifiers Added
			n-Butylbenzene	36.3	high	None, ND
			Naphthalene	38.4	high	None, ND
	10/24/08 13:56	WG285976	1,2,3-Trichlorobenzene	27.4	high	None, ND
			1,2,4-Trichlorobenzene	28.1	high	None, ND
			1,2,4-Trimethlbenzene	27.2	high	None, ND
			Hexachlorobutadiene	32.4	high	None, ND
			n-Butylbenzene	44.1	high	None, ND
			Naphthalene	31.4	high	None, ND
			p-Isopropyltoluene	31.5	high	None, ND
L08100198	10/17/08 19:29	WG285333	Chloromethane	28.7	low	None, ND
			Dichlorodifluoromethane	27.9	low	None, ND
		WG285360	1,1,2,2-Tetrchloroethane	27.6	high	None, ND
			1-Chlorohexane	35.3	high	None, ND
			Bromomethane	31.3	low	None, ND
		WG285374	Vinyl Acetate	48.2	high	None, ND

IV. GC/MS INSTRUMENT PERFORMANCE CHECK

The BFB (VOA) performance check was injected once at the beginning of each 12-hour period and relative abundance criteria for the ions were met.

Yes __X___ No ____ NA____

V. INTERNAL STANDARDS

The Internal Standards met the 100% upper and -50% lower limits criteria and the Retention times were within the required windows.

Yes _____ No __X__ NA____

The third internal standard was out of limits in a number of samples. The laboratory has indicated this in the narrative. We were unable to find a discussion of possible reasons for the outliers or any discussion of any reanalysis conducted. Associated targets in impacted samples are qualified as JI#, where # is the % recovery of the internal standard. Such results may be biased either high or low depending on the relative behavior of the internal standard and the specific target compound.

SDG	Workgroup	Client Sample ID	Internal Std	Qualifier
L08100198	WG285360	MW103-LB-8	1,4-dichlorobenzene-d4	JI49
		MW104-LB-8		JI49
L08100241	WG285370	MW207B-LB-8		JI49
L08100313	WG285608	MW198-LB-8		JI46
		MW212-LB-8		JI45
		MW217-LB-8		JI44
		MW218-LB-8		JI44
		MW63A-LB-8		JI48

VI. SURROGATE

Surrogate spikes were analyzed with every sample.

Yes __X__ No ____

And met the recovery limits defined in the current contract, which are the current laboratory limits.

Yes _____ No __X__

There are numerous samples having surrogate recoveries out of limits. When the recovery is high, only detection data are qualified since the potential bias is high. When the recovery is low, all detected and non-detected analytes are qualified since the potential bias is low. The qualifier added is JS#, where # is the

recovery observed. Only in one instance is a reanalysis present, and in that case the reanalysis had recoveries in control. The recoveries do not appear to be out of limits due to matrix, since the trip blanks are frequently impacted.

The limits are relatively narrow, and most recoveries observed are not suggestive of a severe bias. Thus although the samples are qualified as per SOP, there are few cases where the potential bias is likely to be significant.

Method	SDG	Lab Sample ID	Client Sample ID	Surrogate	Recovery	Qualifiers
8260B\5030B	L08100198	-11	DUP3-LB-8	1,2-Dichloroethane-d4	71.3*	JS71
	L08100241	-03	DR1-2-LB-8	Dibromofluoromethane	77.5*	JS78
		-01	IW-6-LB-8	Dibromofluoromethane	79.1*	JS79
	L08100313	-21	DR1-1A-LB-8	1,2-Dichloroethane-d4	120*	JS120 detects
		-19	MW113-LB-8	1,2-Dichloroethane-d4	122*	JS122 detect (reanalysis OK)
		-07	MW198-LB-8	4-Bromofluorobenzene	126*	JS126 detects
		-08	MW212-LB-8	1,2-Dichloroethane-d4	120*	From BFB
				4-Bromofluorobenzene	128*	JS128 detect
		-09	MW217-LB-8	1,2-Dichloroethane-d4	123*	From BFB
				4-Bromofluorobenzene	128*	JS128 detects
		-10	MW218-LB-8	1,2-Dichloroethane-d4	122*	From BFB
				4-Bromofluorobenzene	128*	JS128 detects
		-03	MW63A-LB-8	4-Bromofluorobenzene	126*	JS126 detects
		-02	TB-100808-LB-8	4-Bromofluorobenzene	129*	JS129 detect
		04	MW63A-LB-8 MS	4-Bromofluorobenzene	128*	None, MS
		05	MW63A-LB-8 MSD	4-Bromofluorobenzene	127*	None, MSD
	L08100361	-22	DR1-5A-LB-8	1,2-Dichloroethane-d4	124*	JS124 detects
		-21	DR1-5-LB-8	1,2-Dichloroethane-d4	122*	JS122 detects
		-18	LTM-RB1-LB-8	1,2-Dichloroethane-d4	130*	JS130 detects
		-11	MW205A-LB-8	1,2-Dichloroethane-d4	128*	JS128 detects
		-14	MW209B-LB-8	Dibromofluoromethane	84.7*	JS84.7
		-03	MW39-LB-8	1,2-Dichloroethane-d4	128*	JS128 detects
		-04	TB-100908-LB-8	Dibromofluoromethane	84.7*	JS84.7
	L08100368	-17	DR2-3-LB-8	1,2-Dichloroethane-d4	126*	JS126 detects
		-03	MW107B-LB-8	1,2-Dichloroethane-d4	129*	JS129 detects
		-04	MW108-LB-8	1,2-Dichloroethane-d4	133*	JS133 detects
		-05	MW141-LB-8	1,2-Dichloroethane-d4	133*	JS133 detects
		-07	MW16-LB-8	1,2-Dichloroethane-d4	120*	JS120 detects
		-06	MW211-LB-8	1,2-Dichloroethane-d4	123*	JS123 detects
		-16	MW219-LB-8	1,2-Dichloroethane-d4	130*	JS130 detects
		-11	MW52-LB-8	1,2-Dichloroethane-d4	125*	JS125 detects
		-12	MW66A-LB-8	1,2-Dichloroethane-d4	127*	JS127 detects
		-13	MW96-LB-8	1,2-Dichloroethane-d4	124*	JS124 detects
		-01	MW98-LB-8	1,2-Dichloroethane-d4	126*	JS126 detects
		-10	TB-101008-LB-8	Dibromofluoromethane	80*	JS80
	L08100421	-04	MW102B-LB-8	Dibromofluoromethane	82*	JS82

Method	SDG	Lab Sample ID	Client Sample ID	Surrogate	Recovery	Qualifiers
		-05	MW143-LB-8	Dibromofluoromethane	81.1*	JS81
		-10	MW34-LB-8	Dibromofluoromethane	71.3*	JS71
		-03	MW55-LB-8	Dibromofluoromethane	80.9*	JS81
		-17	MW93-LB-8	Dibromofluoromethane	81.7*	JS82
	L08100442	-03	DUP1-LB-8	1,2-Dichloroethane-d4	126*	JS126 detects
		-04	MW24-LB-8	1,2-Dichloroethane-d4	123*	JS123 detects
		-07	MW62-LB-8	1,2-Dichloroethane-d4	123*	JS123 detects
		-06	TB-101708-LB-8	4-Bromofluorobenzene	124*	JS124 detects

VII. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A. Matrix spike (MS) and matrix spike duplicates (MSD) were analyzed for every analysis performed and for every 20 samples or for every matrix whichever is more frequent.

Yes ___X__ No _____

There are 5 MS/MSDs which meets the 1:20 ratio specification.

Method	SDG	Client Sample ID	Lab Sample ID
8260B	L08100241	DR1-8-LB-8	L08100241-09
	L08100313	MW63A-LB-8	L08100313-04
	L08100361	MW199A-LB-8	L08100361-08
	L08100368	MW96-LB-8	L08100368-14
	L08100421	MW34-LB-8	L08100421-11

B. The MS and MSD percent recoveries were within the limits defined in the contract, which are the current laboratory control chart limits.

Yes _____ No __X___NA____

The full target list has been spiked.

There are a number of MS/MSD outliers on the high side. All but one of these are associated with non-detected analytes in the parent sample, so no qualifiers are added for the apparent high matrix bias in such cases. There is one low recovery, in which vinyl acetate is not recovered. This analyte result is rejected in the parent sample due to the extreme low recovery. Only the MS/MSD results producing qualifiers are shown in the table below. The qualifier added to only the parent sample is JS#, where # is the recovery observed.

Method	SDG	Client Sample ID	Lab Sample ID	WorkGroup	Analyte	MS Qualifier
8260B	L08100241	DR1-8-LB-8	L08100241-08	WG285364	Vinyl acetate	RMS0
8260B	L08100368	MW96-LB-8	L08100368-13	WG285976	Chloroform	JS135

C. The MSD relative percent differences (RPD) were within the defined contract limits.

Yes ____ No __X__NA____

A few RPDs were above the laboratory upper limit. Qualifiers are added only when the MS or MSD recovery is also out of limits. Data would be qualified JD#, where # is the RPD. As the RPD increases, the matrix precision decreases. In this data set no qualifiers are added for RPD outliers as matrix spikes were within limits.

D. The MS/MSD were client samples.
Yes _X_ No ____NA____

VIII. LABORATORY CONTROL SAMPLE

A. Laboratory Control Samples (LCS) was analyzed for every analysis performed and for every 20 samples.
Yes _X___ No ____

B. The LCS percent recoveries were within the limits defined in the contract (the MS limits are used as a reference or laboratory-specific limits for this matrix are defined).
Yes _____ No __X ____
The full target list has been spiked. There are a number of elevated recoveries observed, and a few low recoveries. Qualifiers added are shown in the table below. When a high recovery is associated with a non-detect in samples, no qualifier is added since the indicated bias is high. When the target is detected, the result is qualified as JL#, where # is the elevated recovery. Data could be biased high or low proportional to the LCS %R.

Method	SDG	Client Sample ID	Lab Sample ID	WorkGroup	Analyte	LCS Qualifier
8260B	L08100198	MW197B-LB-8	L08100198-02	WG285333	Chloromethane	JL47
		MW203B-LB-8	L08100198-05		Chloromethane	JL47
		MW204B-LB-8	L08100198-07		Chloromethane	JL47
		MW200-LB-8	L08100198-03		Chloromethane	JL47
		MW203A-LB-8	L08100198-04		Chloromethane	JL47
		MW204A-LB-8	L08100198-06		Chloromethane	JL47
		MW210A-LB-8	L08100198-08		Chloromethane	JL47
	L08100361	DR1-5-LB-8	L08100361-21	WG285882	1,2-Dichloroethane	JL133
	L08100313	MW217-LB-8	L08100313-09	WG285608	1,1,2,2-Tetrachloroethane	JL144
	L08100361	MW92-LB-8	L08100361-19	WG285882	Naphthalene	JL143
	L08100313	MW218-LB-8	L08100313-10	WG285608	1,1,2,2-Tetrachloroethane	JL144
		MW217-LB-8	L08100313-09		1,2,3-Trichloropropane	JL129

IX. BLANKS

A. Method Blanks were analyzed at the required frequency and for each matrix and analysis.
Yes _X___ No____

B. No blank contamination was found in the Method Blank.
Yes____ No _X___
Contamination was observed in some method blanks and resulted in qualifiers as shown in the table below. Whenever methylene chloride or acetone is detected in associated samples at a level less than 10x the method blank (corrected for dilution), the result is qualified as UB#, where # is the corrected method blank level. Such results are usable as nondetects. Qualifiers added are summarized in the table below. For other targets, the factor used is 5x.

Method	SDG	Client Sample ID	Lab Sample ID	Batch	Analyte	Qualifier
8260B	L08100241	IW-6-LB-8	L08100241-01	WG285364	Bromomethane	UB330
8260B	L08100241	MW-125-LB-8	L08100241-02	WG285364	Bromomethane	UB3.3
8260B	L08100241	MW214A-LB-8	L08100241-18	WG285370	1,1,2,2-Tetrachloroethane	UB.34
8260B	L08100241	MW63B-LB-8	L08100241-13	WG285364	Bromomethane	UB3.3
8260B	L08100241	TB-100708-LB-8	L08100241-12	WG285370	Methylene chloride	UB.42
8260B	L08100313	DR2-4-LB-8	L08100313-13	WG285606	Bromomethane	UB3.3
8260B	L08100313	DR2-6-LB-8	L08100313-14	WG285606	Bromomethane	UB3.3
8260B	L08100313	DUP10-LB-8	L08100313-15	WG285606	Bromomethane	UB3.3

Method	SDG	Client Sample ID	Lab Sample ID	Batch	Analyte	Qualifier
8260B	L08100313	MW229-LB-8	L08100313-11	WG285606	Bromomethane	UB3.3
8260B	L08100313	MW26-LB-8	L08100313-12	WG285606	Bromomethane	UB3.3
8260B	L08100313	MW64-LB-8	L08100313-16	WG285606	Bromomethane	UB3.3
8260B	L08100361	DR1-5A-LB-8	L08100361-22	WG285882	Bromomethane	UB3.2
8260B	L08100361	DR1-5-LB-8	L08100361-21	WG285882	Bromomethane	UB3.2
8260B	L08100361	DR2-2-LB-8	L08100361-17	WG285882	Bromomethane	UB3.2
8260B	L08100361	DUP5-LB-8	L08100361-01	WG285765	Bromomethane	UB3.1
8260B	L08100361	DUP7-LB-8	L08100361-02	WG285765	Bromomethane	UB3.1
8260B	L08100361	LTM-RB1-LB-8	L08100361-18	WG285882	Bromomethane	UB3.2
8260B	L08100361	MW140-LB-8	L08100361-06	WG285765	Bromomethane	UB3.1
8260B	L08100361	MW199A-LB-8	L08100361-07	WG285765	Bromomethane	UB3.1
8260B	L08100361	MW199B-LB-8	L08100361-10	WG285765	Bromomethane	UB3.1
8260B	L08100361	MW19-LB-8	L08100361-15	WG285882	Bromomethane	UB3.2
8260B	L08100361	MW205A-LB-8	L08100361-11	WG285765	Bromomethane	UB3.1
8260B	L08100361	MW205B-LB-8	L08100361-12	WG285882	Bromomethane	UB3.2
8260B	L08100361	MW209A-LB-8	L08100361-13	WG285882	Bromomethane	UB3.2
8260B	L08100361	MW209B-LB-8	L08100361-14	WG285882	Bromomethane	UB3.2
8260B	L08100361	MW22-LB-8	L08100361-16	WG285882	Bromomethane	UB3.2
8260B	L08100361	MW39A-LB-8	L08100361-05	WG285765	Bromomethane	UB3.1
8260B	L08100361	MW39-LB-8	L08100361-03	WG285765	Bromomethane	UB3.1
8260B	L08100361	MW92-LB-8	L08100361-19	WG285882	Bromomethane	UB3.2
8260B	L08100361	MW99-LB-8	L08100361-20	WG285882	Bromomethane	UB3.2
8260B	L08100361	TB-100908-LB-8	L08100361-04	WG285765	Bromomethane	UB3.1
8260B	L08100368	DR2-3-LB-8	L08100368-17	WG285976	Bromomethane	UB3.2
8260B	L08100368	DUP9-LB-8	L08100368-09	WG285976	Bromomethane	UB3.2
8260B	L08100368	MW107B-LB-8	L08100368-03	WG285882	Bromomethane	UB3.2
8260B	L08100368	MW107T-LB-8	L08100368-02	WG285882	Bromomethane	UB3.2
8260B	L08100368	MW108-LB-8	L08100368-04	WG285882	Bromomethane	UB3.2
8260B	L08100368	MW141-LB-8	L08100368-05	WG285882	Bromomethane	UB3.2
8260B	L08100368	MW16-LB-8	L08100368-07	WG285976	Bromomethane	UB3.2
8260B	L08100368	MW211-LB-8	L08100368-06	WG285882	Bromomethane	UB3.2
8260B	L08100368	MW219-LB-8	L08100368-16	WG285976	Bromomethane	UB3.2
8260B	L08100368	MW25A-LB-8	L08100368-08	WG285976	Bromomethane	UB3.2
8260B	L08100368	MW52-LB-8	L08100368-11	WG285976	Bromomethane	UB3.2
8260B	L08100368	MW66A-LB-8	L08100368-12	WG285976	Bromomethane	UB3.2
8260B	L08100368	MW96-LB-8	L08100368-13	WG285976	Bromomethane	UB3.2
8260B	L08100368	MW98-LB-8	L08100368-01	WG285882	Bromomethane	UB3.2
8260B	L08100368	TB-101008-LB-8	L08100368-10	WG285976	Bromomethane	UB3.2
8260B	L08100421	DUP8-LB-8	L08100421-01	WG286033	Bromomethane	UB3.2
8260B	L08100421	MW102B-LB-8	L08100421-04	WG286033	Bromomethane	UB3.2
8260B	L08100421	MW143-LB-8	L08100421-05	WG286033	Bromomethane	UB3.2
8260B	L08100421	MW206A-LB-8	L08100421-06	WG286033	Bromomethane	UB3.2
8260B	L08100421	MW206B-LB-8	L08100421-07	WG286033	Bromomethane	UB3.2
8260B	L08100421	MW208A-LB-8	L08100421-08	WG286033	Bromomethane	UB3.2
8260B	L08100421	MW208B-LB-8	L08100421-09	WG286033	Bromomethane	UB3.2
8260B	L08100421	MW50-LB-8	L08100421-15	WG286033	Bromomethane	UB3.2
8260B	L08100421	MW55-LB-8	L08100421-03	WG286033	Bromomethane	UB3.2
8260B	L08100421	TB-101308-LB-8	L08100421-02	WG286033	Bromomethane	UB3.2
8260B	L08100442	DUP1-LB-8	L08100442-03	WG286103	Bromomethane	UB3.1
8260B	L08100442	MW23-LB-8	L08100442-01	WG286103	Bromomethane	UB3.1
8260B	L08100442	MW23-LB-8	L08100442-01	WG286103	Chloromethane	UB.37
8260B	L08100442	MW24-LB-8	L08100442-04	WG286103	Bromomethane	UB3.1

Method	SDG	Client Sample ID	Lab Sample ID	Batch	Analyte	Qualifier
8260B	L08100442	MW62-LB-8	L08100442-07	WG286103	Chloromethane	UB.37
8260B	L08100442	MW62-LB-8	L08100442-07	WG286103	Bromomethane	UB3.1
8260B	L08100442	PZ-03-LB-8	L08100442-02	WG286103	Bromomethane	UB3.1
8260B	L08100442	PZ-03-LB-8	L08100442-02	WG286103	Chloromethane	UB.37
8260B	L08100442	PZ-06-LB-8	L08100442-05	WG286103	Chloromethane	UB.37
8260B	L08100442	PZ-06-LB-8	L08100442-05	WG286103	Bromomethane	UB3.1

C. If Field Blanks were identified, no blank contamination was found.
Yes____ No __X__
There are 7 trip blanks. There are detections observed below the reporting limit in the field and trip blanks. When analytes are present in both the field blank and the associated samples, the results in the samples are qualified in the same manner as for method blanks. For clarity, the qualifiers used in this case are UTB# for trip blanks and UFB# for rinse blanks, where # is the associated blank value. Qualifiers added are shown in the table below. Results so qualified are usable as non-detects.

The table below reflects qualifiers added to samples due to trip blank outliers. It does not show the trip blank results. A second table after this contains this information, and it is also present in the EDD.

Method	SDG	Sample ID
8260B\5030B	L08100198	TB-100608-LB-8
	L08100241	TB-100708-LB-8
	L08100313	TB-100808-LB-8
	L08100361	TB-100908-LB-8
	L08100368	TB-101008-LB-8
	L08100421	TB-101308-LB-8
	L08100442	TB-101708-LB-8

Qualifiers added for trip blanks:

Method	SDG	Client Sample ID	Lab Sample ID	Batch	Analyte	Qualifier
8260B\5030B	L08100241	DR1-6-LB-8	L08100241-05	WG285364	Acetone	UTB3.8
8260B\5030B	L08100241	IW-6-LB-8	L08100241-01	WG285364	Acetone	UTB380
8260B\5030B	L08100368	MW107B-LB-8	L08100368-03	WG285882	Acetone	UTB2.6
8260B\5030B	L08100368	MW107B-LB-8	L08100368-03	WG285882	1,4-Dichlorobenzene	UTB.14
8260B\5030B	L08100368	MW108-LB-8	L08100368-04	WG285882	Acetone	UTB2.6
8260B\5030B	L08100368	MW16-LB-8	L08100368-07	WG285976	1,4-Dichlorobenzene	UTB.14
8260B\5030B	L08100368	MW98-LB-8	L08100368-01	WG285882	Acetone	UTB2.6
8260B\5030B	L08100442	MW24-LB-8	L08100442-04	WG286103	1,4-Dichlorobenzene	UTB.15
8260B\5030B	L08100442	MW62-LB-8	L08100442-07	WG286103	1,4-Dichlorobenzene	UTB.15
8260B\5030B	L08100442	PZ-06-LB-8	L08100442-05	WG286103	1,4-Dichlorobenzene	UTB.15

Trip blank outliers:

Method	SDG	Sample ID	Sample Dat	Analyte	Result	Qualifier
8260B	L08100198	TB-100608-LB-8	10/6/2008	1,4-Dichlorobenzene	0.13F	None, ND in samples
				Acetone	4.24F	None, ND in samples
	L08100241	TB-100708-LB-8	10/7/2008	Acetone	3.81F	UTB# detects
				Methylene chloride	0.349F	None, UB from MB
	L08100313	TB-100808-LB-8	10/8/2008	1,4-Dichlorobenzene	0.233F	None, ND in samples

Method	SDG	Sample ID	Sample Dat	Analyte	Result	Qualifier
	L08100361	TB-100908-LB-8	10/9/2008	Bromomethane	3.07J	None, UB from MB
	L08100368	TB-101008-LB-8	10/10/2008	1,4-Dichlorobenzene	0.135F	UTB# detects
8260B				Acetone	2.62F	UTB# detects
				Bromomethane	3.27J	None, UB from MB
				Chloromethane	0.592F	None, ND in samples
	L08100421	TB-101308-LB-8	10/13/2008	Bromomethane	3.09B	None, UB from MB
	L08100442	TB-101708-LB-8	10/14/2008	1,4-Dichlorobenzene	0.145F	UTB# detects

X. FIELD QC

If Field duplicates were identified, they met guidance RPD of < 35% for water or < 50% for soils. For values reported at < 5 x the reporting limit (RL), a difference of 2 x RL is used as guidance (4 x RL for soils). Data are not qualified for field duplicates as these are evaluated for the total project by the client.

Yes _____ No _X__ NA____

There are 10 identified field duplicates. All meet criteria.

Method	SDG	Field Duplicate	Parent Sample	Observations
8260B	L08100198	DUP3-LB-8	MW88 -LB-8	OK
8260B	L08100198	DUP4-LB-8	MW103 -LB-8	OK
8260B	L08100241	DUP6-LB-8	MW-202B-LB-8	OK
8260B	L08100313	DUP10-LB-8	DR2-6 -LB-8	OK
8260B	L08100361	DUP5-LB-8	MW140 -LB-8	OK
8260B	L08100361	DUP7-LB-8	MW-205A-LB-8	OK
8260B	L08100368	DUP9-LB-8	MW-219-LB-8	OK
8260B	L08100421	DUP2-LB-8	MW53 -LB-8	OK
8260B	L08100421	DUP8-LB-8	MW-208B-LB-8	OK
8260B	L08100442	DUP1-LB-8	MW23 -LB-8	OK

XI. SYSTEM PERFORMANCE

A. The RICs, chromatograms, tunes and general system performance were acceptable for all instruments and analytical systems.

Yes ____ No____ NA__X__

Not part of this review level

B. The suggested EQLs for the sample matrices in this set were met.

Yes __X__ No____ NA____

XII. TCL COMPOUNDS

A. The identification is accurate and all retention times, library spectra and reconstructed ion chromatograms (RIC) were evaluated for all detected compounds.

Yes ____ No____ NA __X__

Not part of this review level

B. Quantitation was checked to determine the accuracy of calculations for representative compounds in each internal standards quantitation set.

Yes ____ No____ NA__X__

Not part of this review level

XIII. TENTATIVELY IDENTIFIED COMPOUNDS

TICs were properly identified and met the library identification criteria.

Yes____ No____ NA__X___

Not part of this review level, and TICS are not requested or reported.

XIV. OVERALL ASSESSMENT OF THE CASE

The laboratory has complied with the requested method. Data are fully usable after consideration of qualifiers.
The following is noted:

Sample Condition:
New EPA regulations (See Federal Register, March 12, 2007, 40CFR Part 122) require only that the temperature of samples delivered to the laboratory be equal to or less than 6° C. The sample receipt conditions are fully compliant with applicable regulations.

The log-in forms are inconsistent. A few of the SDGs checked NA on the sample receipt form to either or both, "were correct preservatives used? (water only)" and "were pH ranges acceptable? (VOA excluded). The rest of the SDGs said YES to those questions. The pH for volatiles is routinely taken at the time of analysis as the vials are to remain sealed until analysis. This would be checked only if raw data were submitted for the sample preparation.

SDG L08100241: Narrative states that the bottoms of all 3 vials of ID MW-214B-LB-9 came off leaving no volume for analysis. The client was notified and the sample was recollected and logged as L08100651.

Holding Times:
In SDG L08100313, one sample was analyzed at a dilution to achieve a quantification of tetrachloroethene at 13 days past holding time. The result for this analyte is qualified as JH13 to indicate a potential bias due to degradation. In SDG L08100361, a number of samples (see the table below) were analyzed 1 day past holding time. These are qualified as JH1 to indicate the possibility of bias due to degradation. However, for analyses that are conducted at 15 days from sampling on preserved samples it is not likely that significant degradation has occurred.
The laboratory notes a number of other cases in which holding times were exceeded by a few hours. However, the general policy of EPA is that for samples having holding time requirements expressed in days, the holding time calculation is to be made to the nearest day. In all these other instances, when calculated in that manner, the samples are in hold and no qualifiers are added.

Continuing Calibrations:
The CCVs were analyzed at the proper frequency. The same compounds showed low responses in the continuing calibration as were observed in the initial calibrations. Qualifiers are not added for these outliers since none were below the lower limit of 0.01. No data have been qualified from the response factors and RRFs are not noted since they are essentially the same as the ICAL.

See the table in the text. When there are no detections, unless the %D is biased low and so large as to indicate a significant probability of false negatives, no qualifiers are added for %D outliers when targets are not detected or for a high recovery for undetected compounds. Data are qualified JC#, where # is the %D. There could be a variability to the data as there is a variability to the response.

LCS Recoveries:
The full target list has been spiked. There are a number of elevated recoveries observed, and a few low recoveries. Qualifiers added are shown in the table in the body of this report. When a high recovery is associated with a non-detect in samples, no qualifier is added since the indicated bias is high. When the target is detected, the result is qualified as JL#, where # is the elevated recovery. Data could be biased high or low proportional to the LCS %R.

Matrix Spikes:
There are 5 MS/MSDs which meets the 1:20 ratio specification. The full target list has been spiked.

There are a number of MS/MSD outliers on the high side. All but one of these are associated with non-detected analytes in the parent sample, so no qualifiers are added for the apparent high matrix bias in such cases. There is one low recovery, in which vinyl acetate is not recovered. This analyte result is rejected in the parent sample due to the extreme low recovery. Only the MS/MSD results producing qualifiers are shown in the table within the body of this report.

A few RPDs were above the laboratory upper limit. In this data set no qualifiers are added for RPD outliers as matrix spikes were within limits.

Internal Standards:
The third internal standard was out of limits in a number of samples. The laboratory has indicated this in the narrative. We were unable to find a discussion of possible reasons for the outliers or any discussion of any reanalysis conducted. Associated targets in impacted samples are qualified as JS#, where # is the % recovery of the internal standard. Such results may be biased either high or low depending on the relative behavior of the internal standard and the specific target compound.

Surrogates:
There are numerous samples having surrogate recoveries out of limits. When the recovery is high, only detections are qualified since the potential bias is high. When the recovery is low, all analytes are qualified since the potential bias is low. The qualifier added is JS#, where # is the recovery observed. Only in one instance is a reanalysis present, and in that case the reanalysis had recoveries in control. The recoveries do not appear to be out of limits due to matrix, since the trip blanks are frequently impacted.

The limits are relatively narrow, and most recoveries observed are not suggestive of a severe bias. Thus although the samples are qualified as per SOP, there are few cases where the potential bias is likely to be significant.

Method Blanks:
Contamination was observed in some method blanks and resulted in qualifiers as shown in the table within the body of this report. Whenever methylene chloride or acetone is detected in associated samples at a level less than 10x the method blank (corrected for dilution), the result is qualified as UB#, where # is the corrected method blank level. Such results are usable as nondetects. Qualifiers added are summarized in the table below. For other targets, the factor used is 5x.

Field Blanks:
There are 7 trip blanks. There are detections observed below the reporting limit in the field and trip blanks. When analytes are present in both the field blank and the associated samples, the results in the samples are qualified in the same manner as for method blanks. For clarity, the qualifiers used in this case are UTB# for trip blanks and UFB# for rinse blanks, where # is the associated blank value. Qualifiers added are shown in the table within the body of this report. Results so qualified are usable as non-detects.

Field QC:
There are 10 identified field duplicates. All meet criteria.

APPENDIX C

HISTORICAL CVOC RESULTS

DR1-1

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	DR1-1 5/21/2004	DR1-1 11/12/2004	DR1-1 2/17/2005	DR1-1 5/18/2005	DR1-1-LB-1 10/23/2006	DR1-1-LA-5 10/1/2007	DR1-1-LB-8 10/8/2008
	UNIT							
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethene (Total)	µg/L	0.8J	--	--	--	--		
Carbon tetrachloride	µg/L	<1J	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0 24J	<1	<1	<1	<0.3	<0 3	0.126 J
cis-1,2-Dichloroethene	µg/L	0.8J	1 2	1	1 1	1 02	0.969 J	<1
Tetrachloroethene	µg/L	2.8	3.3	3.3J	3	2 46	2.49	2.69
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	0.3J	0.29J	0 3J	0 255 J	<1	0.399 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

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HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	DR1 CLUSTER A 5/27/04	DR1-1A 11/13/04	DR1-1A 2/16/05	DR1-1A 5/18/05	DR1-1A-LB-1 10/2/06	DR1-1A-LS-3 4/13/07	DR1-1A-LA-5 10/1/2007	DR1-1A-LS-7 4/8/2008	DR1-1A-LB-8 10/8/2008
	UNIT									
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethene (Total)	µg/L	0.72J	--	--	--	--	--	--	--	--
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.66J	0 18J	0.21B	0.16B	0.324	0.313	0.307	0.274 J	0.372 J
cis-1,2-Dichloroethene	µg/L	0.72J	0 85J	1	0.75J	0.634	0.416 J	0.312 J	0.273 J	0.262 J
Tetrachloroethene	µg/L	1.5	1 8	1.8	1 6	1.18	0.959 J	0.813 J	0.776 J	0.747 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	3 5	4	6.9	5.2	6 28	4.57	3 61	3 21	3.03 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

DR1-2

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name	DR1-2	DR1-2	DR1-2	DR1-2	DR1-2-LB-1	DR1-2-LA-5	DR1-2-LB-8
	Sample Date	5/17/2004	11/11/2004	2/16/2005	5/19/2005	10/24/2006	10/1/2007	10/7/2008
	UNIT							
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1 J
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1 J
1,2-Dichloroethene (Total)	µg/L	0.68J	--	--	--	--	--	
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1 J
Chloroform	µg/L	<1	<1	<1	<1	0.163	<0 3	0 131 J
cis-1,2-Dichloroethene	µg/L	0 68J	0 77J	0.67J	0.75J	0.602	0.48 J	0.595 J
Tetrachloroethene	µg/L	1.8	2.5J	2.3	2.1	1.82	1.52	1.5 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1 J
Trichloroethene	µg/L	<1	<1	<1	<1	<1	<1	1.83 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1 J

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

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HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	DR1-4 5/21/2004	DR1-4 11/11/2004	DR1-4 2/15/2005	DR1-4 5/17/2005	DR1-4 10/25/2006	DR1-4 4/13/2007	DR1-4 10/1/2007	DR1-4 4/7/2008	DR1-4 10/7/2008
	UNIT									
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethene (Total)	µg/L	<2	--	--	--	--	--	--	--	--
Carbon tetrachloride	µg/L	<1J	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	<1	<1	<1	<0.3	<0.3	<0.3	<0 3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	8.09	5.29	0.582 J	0.987 J
Tetrachloroethene	µg/L	4.8	8.3J	9 3	8.9	12.4	<1	<1	2.74	1 22
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.72J	1 1	1.1	1	1.33	<1	<1	0 573 J	1.69
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

DR1-5

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name	DR1-5	DR1-5	DR1-5	DR1-5	DR1-5-LB-1	DR1-5-LS-3	DR1-5-LA-5	DR1-5	DR1-5
	Sample Date	5/22/2004	11/12/2004	2/18/2005	5/19/2005	10/24/2006	4/16/2007	10/1/2007	4/7/2008	10/9/2008
	UNIT									
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1J	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethene (Total)	µg/L	<2	--	--	--	--	--	--		
Carbon tetrachloride	µg/L	<1J	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	<1	<1	<1	0.129	<0.3	0.148 J	0.165 J	0.181 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	0.295 J
Tetrachloroethene	µg/L	4.3	11	17	15	57	69.2	69.9	95.8	69.2 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	4.28 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

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HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name	DR1 CLUSTER B	DR1-5A	DR1-5A	DR1-5A	DR1-5A-LB-1	DR1-5A-LS-3	DR1-5A-LA-5	DR1-5A	DR1-5A
	Sample Date	5/27/2004	11/12/2004	2/21/2005	5/19/2005	10/23/2006	4/13/2007	10/1/2007	4/8/2008	10/9/2008
	UNIT									
1,1,1-Trichloroethane	µg/L	<1.7	<5	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1.7	<5	0.25J	0.19J	<1	<1	<1	0 655 J	1.09 J
1,2-Dichloroethene (Total)	µg/L	1 7J	--	--	--	--	--	--	--	--
Carbon tetrachloride	µg/L	<1.7	<5	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.71J	<5	0.4B	0.29B	0.306	0.274 J	0 252 J	0 187 J	0.343 J
cis-1,2-Dichloroethene	µg/L	1 7	5.2	4.6	4 1	3.46	3.19	3.16	1 82	4 75 J
Tetrachloroethene	µg/L	24	47	55	47	50 9	49 6	46.8	34.9	59.7 J
trans-1,2-Dichloroethene	µg/L	<1 7	<5	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	47	110	110	100	98 1	84	78 6	58.7	114 J
Vinyl chloride	µg/L	<1.7	<5	<1	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	DR1-6 6/26/2004	DR1-6 11/10/2004	DR1-6 2/17/2005	DR1-6 5/18/2005	DR1-6-LB-1 10/24/2006	DR1-6-LS-3 4/13/2007	DR1-6-LA-5 10/1/2007	DR1-6 4/8/2008	DR1-6 10/7/2008
	UNIT									
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethene (Total)	µg/L	3.3	--	--	--	--	--	--	--	--
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	<1	<1	<1	<0 3	<0 3	<0.3	<0.3	<0 3
cis-1,2-Dichloroethene	µg/L	3 3	6.2	4.1	3.8	1.59	1 91	1.42	1.09	1.38
Tetrachloroethene	µg/L	13	21	20	26	184	173	191 J	195	122
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.6	2 4	2.2	2.1	1.85	1.83	1.58	1.27	4.61
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

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HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	UNIT	DR1-6A 6/26/2004	DR1-6A 11/10/2004	DR1-6A 2/17/2005	DR1-6A 5/18/2005	DR1-6A-LB-1 10/24/2006	DR1-6A-LS-3 4/13/2007	DR1-6A-LA-5 10/1/2007	DR1-6A 4/8/2008	DR1-6A 10/7/2008
1,1,1-Trichloroethane		µg/L	<3.3	<3 3	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene		µg/L	0 32B	<3 3	0.4J	0 21J	<1	<1	<1	0.781 J	1.08
1,2-Dichloroethene (Total)		µg/L	<6.7	--	--	--	--	--	--	--	--
Carbon tetrachloride		µg/L	<1	<3.3	<1	<1	<1	<1	<1	<1	<1
Chloroform		µg/L	<1	<3.3	0 17 J	<1	0.18	0 236 J	0.183 J	0 215 J	0.238 J
cis-1,2-Dichloroethene		µg/L	--	3J	4.1	3.5	4 81	5.98	4.24	2.99	3 81
Tetrachloroethene		µg/L	--	17	28	21	28 4	34.4	30 2	30.8	39.6
trans-1,2-Dichloroethene		µg/L	--	<3 3	<1	<1	<1	<1	<1	<1	<1
Trichloroethene		µg/L	9 1	88	140	97	118	139	107	110	142
Vinyl chloride		µg/L	--	<3 3	<1	<2	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

DR1-7

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	DR1-7 6/24/2004	DR1-7 11/12/2004	DR1-7 2/21/2005	DR1-7 5/17/2005	DR1-7-LB-1 10/25/2006	DR1-7-LA-5 10/1/2007	DR1-7 10/7/2008
	UNIT							
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethene (Total)	µg/L	0.46 J	--	--	--	--	--	
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0 18 J	0 19 J	<1	<1	<0.3	<0 3	0 163 J
cis-1,2-Dichloroethene	µg/L	0.46 J	0.58 J	0 45 J	0 48 J	0.374 J	0.344 J	0.787 J
Tetrachloroethene	µg/L	30	26	27	27	5.68	5.15	4.35
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1 6	1 8	2 2	2	0.76 J	0.812 J	1.6
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

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HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	DR1-8 6/24/2004	DR1-8 11/11/2004	DR1-8 2/18/2005	DR1-8 5/19/2005	DR1-8-LB-1 10/18/2006	DR1-8-LA-5 10/1/2007	DR1-8 10/7/2008
	UNIT							
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethene (Total)	µg/L	<2	--	--	--	--	--	--
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	<1	<1	<1	<0.3	<0 3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1J	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1	0.341 J	1.03
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

DR2-2

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	UNIT	DR2-2 6/9/2004	DR2-2 11/13/2004	DR2-2 2/23/2005	DR2-2 5/19/2005	DR2-2-LB-1 10/3/2006	DR2-2-LS-3 4/13/2007	DR2-2-LA-5 10/1/2007	DR2-2 4/8/2008	DR2-2 10/9/2008
1,1,1-Trichloroethane		µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethene (Total)		µg/L	<2	--	--	--	--	--	--	--	--
Carbon tetrachloride		µg/L	1.8	5	4 2	4.7	4 19	6.78	10 8	13.4	13.8
Chloroform		µg/L	0 64J	1.5	1.5	1.2B	1.05	1.76	2.86	3.65	3.87
cis-1,2-Dichloroethene		µg/L	<1	2 7	2.5	2 4	1.9	3.47	5 7	7 04	6 86
Tetrachloroethene		µg/L	10	36	16	40	23.2	49.2	76.7	124	120
trans-1,2-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene		µg/L	2.6	4.1	2 8	3.8	3 13	3.49	4.04	4.25	3.96
Vinyl chloride		µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

1015170

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	UNIT	DR2-3 5/23/2004	DR2-3 11/14/2004	DR2-3 2/24/2005	DR2-3 5/20/2005	DR2-3-LB-1 10/3/2006	DR2-3-LS-3 4/15/2007	DR2-3-LA-5 10/1/2007	DR2-3 4/8/2008	DR2-3 10/10/2008
1,1,1-Trichloroethane		µg/L	<1.7	<1.4	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene		µg/L	<1.7	<1.4	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethene (Total)		µg/L	1.4J	--	--	--	--	--	--	--	--
Carbon tetrachloride		µg/L	4 1J	5 6	6.1	4.7	4.2	4.29	4.12	4 72	4.97 J
Chloroform		µg/L	1.8	1.9	1.8B	1 2B	0.939	0 913	0.76	0 933	0.978 J
cis-1,2-Dichloroethene		µg/L	1 4J	1.8	1.8	1.2	0.601 J	0.673 J	0.549 J	0.683 J	0.594 J
Tetrachloroethene		µg/L	47	43	33	33	22.8	23.9	20.6	28 3	22.1 J
trans-1,2-Dichloroethene		µg/L	<1.7	<1 4	<1	<1	<1	<1	<1	<1	<1
Trichloroethene		µg/L	2	2 7	2.7	2 6	2.47	2.28	2.15	2.15	2.03 J
Vinyl chloride		µg/L	<1 7	<1.4	<1	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

10161171

DR2-4

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	DR2-4 5/24/2004	DR2-4 11/14/2004	DR2-4 2/22/2005	DR2-4 5/20/2005	DR2-4-LB-1 10/5/2006	DR2-4-LA-5 10/1/2007	DR2-4 10/8/2008
	UNIT							
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethene (Total)	µg/L	<2	--	--	--	--	--	--
Carbon tetrachloride	µg/L	2 2	3.8	3.7	3 6	4 06	3.96	3 55
Chloroform	µg/L	1	0.94J	0.84J	0.77B	1 06	0.973	0 715
cis-1,2-Dichloroethene	µg/L	<1	0.27J	0.22J	0 22J	<1	<1	0 304 J
Tetrachloroethene	µg/L	12	14	12	10	7.15	9 28	14.5
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.9	2 2	1.9	1.7	1.61	1.54	1.74
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

AR301172

10151773

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	DR2-6 6/22/2004	DR2-6 11/13/2004	DR2-6 2/24/2005	DR2-6 5/23/2005	DR2-6-LB-1 10/17/2006	DR2-6-LS-3 4/15/2007	DR2-6-LA-5 10/1/2007	DR2-6 4/8/2008	DR2-6 10/8/2008
	UNIT									
1,1,1-Trichloroethane	µg/L	<1 7	<2	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1 7	<2	<1	<1	<1	<1	<1	<1	0.862 J
1,2-Dichloroethene (Total)	µg/L	7.3	--	--	--	--	--	--	--	--
Carbon tetrachloride	µg/L	34	66	7.2	68	82.7	92	82.8	29 2	39.6
Chloroform	µg/L	16	25	1.5B	29	27.3	33 1	43 1	16.3	18.4
cis-1,2-Dichloroethene	µg/L	7 3	13	0.69J	16	9.97	14 1	31.6	36	33
Tetrachloroethene	µg/L	44	75	36	78	77.2	90 8	115	48 3	70.5
trans-1,2-Dichloroethene	µg/L	<1 7	<2	<1	<1	<1	<1	<1	<1	0 552 J
Trichloroethene	µg/L	11	13	2 2	16	15 5	16.4	19.7	7.55	12.4
Vinyl chloride	µg/L	<1.7	<2	<1	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

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R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

IW-06

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name	IW6-EBT-B-101-106	IW6-EBT-TS7-101-106	IW6-EBT-TS7-OIL	IW-6	IW-6	IW-6	IW-6	IW-6-LB-1
	Sample Date	5/21/2002	1/20/2003	1/23/2003	5/27/2004	11/13/2004	2/23/2005	5/23/2005	10/18/2006
	UNIT								
1,1,1-Trichloroethane	µg/L	<0.25	<0.25	<0U	<2.5	<10	<2.8	<1	<1
1,1-Dichloroethene	µg/L	<0 5	<0.5	<0U	<2.5	<10	<2.8	<1	<1
1,2-Dichloroethene (Total)	µg/L	--	--	<0U	<5	--	--	--	--
Carbon tetrachloride	µg/L	<0 25	<0 25	<0U	<2 5	<10	<2 8	<1	<1
Chloroform	µg/L	<0.125	<0.125	<0U	<2.5	<10	<2 8	<1	<0.3
cis-1,2-Dichloroethene	µg/L	0.67J	<0 25	<0U	<2 5	<10	<2 8	0.48J	0.835 J
Tetrachloroethene	µg/L	17	<0.25	<0U	<2.5	<10	<2.8	0.29J	<1
trans-1,2-Dichloroethene	µg/L	<0 25	<0.25	<0U	<2.5	<10	<2.8	<1	<1
Trichloroethene	µg/L	34	<0 25	<0U	<2.5	<10	<2.8	<1	0.581 J
Vinyl chloride	µg/L	<0.25	<0.25	<0U	<2 5	<10	<2.8	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

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R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

1016174

1019175

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

	Sample Name	IW-6-LA-5	IW-6
Analyte	**Sample Date**	10/2/2007	10/7/2008
	UNIT		
1,1,1-Trichloroethane	µg/L	<1	<100 J
1,1-Dichloroethene	µg/L	<1	<100 J
1,2-Dichloroethene (Total)	µg/L	--	--
Carbon tetrachloride	µg/L	<1	<100 J
Chloroform	µg/L	<0.3	<30 J
cis-1,2-Dichloroethene	µg/L	2.16	<100 J
Tetrachloroethene	µg/L	<1	<100 J
trans-1,2-Dichloroethene	µg/L	<1	<100 J
Trichloroethene	µg/L	1 38	283 J
Vinyl chloride	µg/L	<1	<100 J

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

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HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name	MW162	MW163	MW164	MW364	MW165	MW16-63-68BL	MW-16	MW-16-LB-1	MW-16
	Sample Date	6/19/1997	9/23/1997	3/24/1998	3/24/1998	10/16/1998	3/20/2002	5/18/2004	10/16/2006	10/10/2008
	UNIT									
1,1,1-Trichloroethane	µg/L	<10	<10	<10	<10	<10	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<10	<10	<10	<10	<10	<1	<1	<1	<1
1,2-Dichloroethene (Total)	µg/L	<10	<10	<10	<10	<10	--	<2	--	
Carbon tetrachloride	µg/L	<10	<10	<10	<10	<10	<1	<1J	<1	<1
Chloroform	µg/L	<10	<10	<10	<10	<10	<1	<1	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	--	--	--	--	--	<1	<1	<1	<1
Tetrachloroethene	µg/L	<10	<10	<10	<10	<10	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	--	--	--	--	--	<1	<1	<1	<1
Trichloroethene	µg/L	<10	<10	<10	<10	<10	<1	<1	<1	<1
Vinyl chloride	µg/L	<10	<10	<10	<10	<10	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

1019177

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name	MW192	MW193	MW194	MW195	MW19-90-92BL	MW-19	MW-19-LB-1	MW-19
	Sample Date	6/18/1997	9/24/1997	3/26/1998	10/17/1998	3/18/2002	5/5/2004	10/17/2006	10/9/2008
	UNIT								
1,1,1-Trichloroethane	µg/L	<10	<10	<10	<10	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<10	<10	<10	<10	<1	<1	<1	<1
1,2-Dichloroethene (Total)	µg/L	<10	<10	<10	<10	--	<2	--	--
Carbon tetrachloride	µg/L	<10	<10	<10	<10	<1	<1	<1	<1
Chloroform	µg/L	<10	<10	<10	<10	<1	<1	<0 3	<0.3
cis-1,2-Dichloroethene	µg/L	--	--	--	--	<1	<1	<1	<1
Tetrachloroethene	µg/L	<10	<10	<10	<10	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	--	--	--	--	<1	<1J	<1	<1
Trichloroethene	µg/L	<10	<10	<10	<10	<1	<1	<1	<1
Vinyl chloride	µg/L	<10	<10	<10	<10	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

MW-22

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	UNIT	MW222 6/19/1997	MW223 9/25/1997	MW224 3/28/1998	MW225 10/19/1998	MW22NA 3/23/2000	MW22-99-104BL 3/18/2002	MW-022 3/30/2004	MW-22-LB-1 10/18/2006	MW-22 10/9/2008
1,1,1-Trichloroethane		µg/L	<10	<10	<10	<10	<1	<1	<1	<1	<1
1,1-Dichloroethene		µg/L	<10	<10	<10	<10	<1	<1	<1	<1	<1
1,2-Dichloroethene (Total)		µg/L	<10	<10	<10	<10	--	--	<2	--	
Carbon tetrachloride		µg/L	<10	<10	<10	<10	<1	<1	<1	<1	<1
Chloroform		µg/L	<10	<10	<10	<10	<1	<1	<1	<0 3	<0.3
cis-1,2-Dichloroethene		µg/L	--	--	--	--	0.5J	<1	<1	0.527 J	<1
Tetrachloroethene		µg/L	<10	2J	<10	<10	0 9J	0.27J	<1	0.79 J	<1
trans-1,2-Dichloroethene		µg/L	--	--	--	--	<1	<1	<1	<1	<1
Trichloroethene		µg/L	2J	4J	1J	<10	1	<1	<1	0.531 J	0.329 J
Vinyl chloride		µg/L	<10	<10	<10	<10	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

1061178

1015179

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

	Sample Name	MW232	MW233	MW234	MW235	MW23NA	MW23-95-100BL	MW-23	MW-23-LB-1	MW-23
Analyte	**Sample Date**	6/18/1997	9/26/1997	3/26/1998	10/19/1998	3/23/2000	3/18/2002	5/19/2004	10/18/2006	10/14/2008
	UNIT									
1,1,1-Trichloroethane	µg/L	<10	<10	<10	<10	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<10	<10	<10	<10	<1	<1	<1	<1	<1
1,2-Dichloroethene (Total)	µg/L	<10	<10	<10	<10	--	--	<2	--	--
Carbon tetrachloride	µg/L	<10	<10	<10	<10	<1	<1	<1	<1	<1
Chloroform	µg/L	<10	<10	<10	<10	<1	<1	<1	<0 3	<0.3
cis-1,2-Dichloroethene	µg/L	--	--	--	--	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<10	<10	<10	<10	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	--	--	--	--	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<10	<10	<10	<10	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<10	<10	<10	<10	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

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R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	UNIT	MW242 6/19/1997	MW243 9/24/1997	MW244 4/2/1998	MW245 10/19/1998	MW24NA 3/22/2000	MW24-109-111BL 3/18/2002	MW-24 5/19/2004	MW-24-LB-1 10/18/2006	MW-24 10/14/2008
1,1,1-Trichloroethane		µg/L	<10	<10	<10	<10	<1	<1	<1	<1	<1
1,1-Dichloroethene		µg/L	<10	<10	<10	<10	<1	<1	<1	<1	<1
1,2-Dichloroethene (Total)		µg/L	<10	<10	<10	<10	--	--	<2	--	--
Carbon tetrachloride		µg/L	<10	<10	<10	<10	<1	<1	<1	<1	<1
Chloroform		µg/L	<10	<10	<10	<10	<1	<1	<1	<0.3	0 181 J
cis-1,2-Dichloroethene		µg/L	--	--	--	--	<1	<1	<1	<1	<1
Tetrachloroethene		µg/L	<10	<10	<10	<10	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene		µg/L	--	--	--	--	<1	<1	<1	<1	<1
Trichloroethene		µg/L	<10	<10	<10	<10	<1	<1	<1	<1	<1
Vinyl chloride		µg/L	<10	<10	<10	<10	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

10191810

1101181

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	MW25A-111102 11/11/2002	MW-25A 5/12/2004	MW-25A 2/21/2005	MW-25A-LB-1 10/2/2006	MW-25A-LS-3 4/13/2007	MW-25A-LA-5 10/3/2007	MW-25A 4/8/2008	MW-25A 10/10/2008
	UNIT								
1,1,1-Trichloroethane	µg/L	<0 25	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<0.5	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethene (Total)	µg/L	--	<2	--	--	--	--	--	--
Carbon tetrachloride	µg/L	2.01	2.3	2.4	2.66	2.54	2 38	2.15	1.67
Chloroform	µg/L	0.517J	0 57J	0 59B	0.608	0.507	0.531	0.399	0 377
cis-1,2-Dichloroethene	µg/L	<0 25	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	5.64	8	9 3	8 61	10.3	9 24	6.64	4.91
trans-1,2-Dichloroethene	µg/L	<0 25	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.453J	0.6J	0 57J	0.352 J	0.525 J	0 433 J	0.352 J	0 45 J
Vinyl chloride	µg/L	<0 25	<1	<1	<1	<1	<1	<1	<1

NOTES.

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	UNIT	MW262 6/20/1997	MW263 9/26/1997	MW264 3/28/1998	MW265 10/20/1998	MW-26-106-BL 3/21/2002	MW26-EBT-TS13 7/24/2003	MW26-EBT-TS14 8/18/2003	MW-26 4/2/2004
1,1,1-Trichloroethane		µg/L	<10	<10	<10	<10	<5	<0.25	<0.25	<2.5
1,1-Dichloroethene		µg/L	<10	<10	<10	<10	<5	<0.5	<0.5	<2.5
1,2-Dichloroethene (Total)		µg/L	<10	<10	<10	<10	--	--	--	<5
Carbon tetrachloride		µg/L	4J	4J	4J	4J	3.7J	3.29	5.17J	5.3
Chloroform		µg/L	1J	<10	2J	1J	<1	1.11	1.28	1.4B
cis-1,2-Dichloroethene		µg/L	--	--	--	--	<5	<0.25	<0.25	0.76J
Tetrachloroethene		µg/L	12	11	14	16	8 1	7.92	13.8	25
trans-1,2-Dichloroethene		µg/L	--	--	--	--	<5	<0.25	<0.25	<2.5
Trichloroethene		µg/L	2J	2J	2J	2J	1 6J	1.72	1.9	2.1J
Vinyl chloride		µg/L	<10	<10	<10	<10	<10	<0.25	<0.25	<2 5

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS:

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10151182

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	UNIT	MW-26 11/13/2004	MW-26 2/22/2005	MW-26 5/24/2005	MW-26-LB-1 10/2/2006	MW-26-LS-3 4/16/2007	MW-26-LA-5 10/1/2007	MW-26 4/7/2008	MW-26 10/8/2008
1,1,1-Trichloroethane		µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethene (Total)		µg/L	--	--	--	--	--	--	--	--
Carbon tetrachloride		µg/L	7.2	7.5	7.2	5.24	5 23	6.52	4.38	5.31
Chloroform		µg/L	1.6	1 7	1.8B	0.935	1 05	1.29	0.976	1.14
cis-1,2-Dichloroethene		µg/L	0.64J	0.71J	0.57J	0.45 J	0.313 J	0.41 J	<1	0.295 J
Tetrachloroethene		µg/L	40	40	35	25.5	20.1	29	13.7	21 1
trans-1,2-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene		µg/L	2 3	2.2	2 5	1 77	1.56	1.75	1.3	1.54
Vinyl chloride		µg/L	<1	<1	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS:

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10161183

MW-34

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name	MW342	MW343	MW344	MW-34-Y1Q1	MW-34-Y1Q2	MW-34-Y1Q3	MW-34-Y1Q4	MW-34-Y2Q1	MW-34
	Sample Date	6/19/1997	9/26/1997	3/27/1998	2/4/1999	5/25/1999	8/27/1999	11/3/1999	2/16/2000	5/18/2000
	UNIT									
1,1,1-Trichloroethane	µg/L	<10	<10	<10	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<10	<10	<10	<1	<1	<1	<1	<1	<1
1,2-Dichloroethene (Total)	µg/L	<10	<10	<10	--	--	--	--	--	--
Carbon tetrachloride	µg/L	<10	<10	<10	1.01	1.23	0.51J	<1	1.04	1.03
Chloroform	µg/L	2J	1J	<10	4 34	<1	0 66J	<1	1.98	3.49
cis-1,2-Dichloroethene	µg/L	--	--	--	1 03	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<10	<10	<10	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	--	--	--	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<10	<10	<10	4 39	<1	0.64J	<1	0.85J	2.15
Vinyl chloride	µg/L	<10	<10	<10	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

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1016184

10151185

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	UNIT	MW-34-Y2Q3 8/24/2000	MW-34-Y2Q4 11/7/2000	MW-34 2/20/2001	MW-34-Y3S2-A 10/3/2001	MW-34-Y3S2-B 10/3/2001	MW-34-Y3S2-C 10/3/2001	MW34-147-152BL 3/18/2002	MW-34-3_020410 4/10/2002	MW-34-2_020410 4/10/2002
1,1,1-Trichloroethane		µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethene (Total)		µg/L	--	--	--	--	--	--	--	--	--
Carbon tetrachloride		µg/L	0 86J	<1	0.82J	<1	<1	0.96J	0 7J	<1	<1
Chloroform		µg/L	<1	<1	4 24	1.46	<1	<1	3	<1	7.78
cis-1,2-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene		µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene		µg/L	2.55	1 43	1.62	<1	1.48	2	0 93J	0.9J	0.97J
Vinyl chloride		µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

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HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name	MW-34-1_020410	MW-34-3_021001	MW-34-1_021001	MW-34-2_021001	MW-34-3	MW-34-2	MW-34-1	MW34-EBT-TS13	MW-34-1
	Sample Date	4/10/2002	10/1/2002	10/1/2002	10/1/2002	4/8/2003	4/8/2003	4/8/2003	7/24/2003	10/28/2003
	UNIT									
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<0.25	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<0.5	<1
1,2-Dichloroethene (Total)	µg/L	--	--	--	--	--	--	--	--	--
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	1 08	<0.25	<1
Chloroform	µg/L	10 5	<1	2.56	1.26	4 45	7.66	13 9	<0.125	3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<0 25	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<0 25	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<0.25	<1
Trichloroethene	µg/L	1.16	<1	<1	<1	0.74	120	1.75	0.476J	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<0.25	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

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1016186

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HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	UNIT	MW-34-2 10/28/2003	MW-34-3 10/28/2003	MW-34,152 4/28/2004	MW-34,147 4/28/2004	MW-34,142 4/28/2004	MW-34,138 4/28/2004	MW-34 5/23/2004	MW34,152 10/20/2004	MW34,147.3 10/20/2004
1,1,1-Trichloroethane		µg/L	<1	<1	<1	<1	<4	<4	<1	<1J	<1J
1,1-Dichloroethene		µg/L	<1	<1	<1	<1	<4	<4	<1	<1	<1
1,2-Dichloroethene (Total)		µg/L	--	--	--	--	--	--	<2	--	--
Carbon tetrachloride		µg/L	<1	<1	<1	0.19J	<4	<4	0.4J	0 35J	0.64J
Chloroform		µg/L	<1	<1	1 2	1.2	1.2J	1 1J	0.29J	1.7	2.4
cis-1,2-Dichloroethene		µg/L	<1	<1	<1	<1	<4	<4	<1	<1	<1
Tetrachloroethene		µg/L	<1	<1	<1	<1	<4	<4	0.55J	<1	<1
trans-1,2-Dichloroethene		µg/L	<1	<1	<1J	<1J	<4J	<4J	<1	<1	<1
Trichloroethene		µg/L	<1	<1	0.29J	0 39J	<4	<4	0.5J	0.54J	0.83J
Vinyl chloride		µg/L	<1	<1	<1	<1	<4	<4	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

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MW-34

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name	MW34,142 3	MW-34	MW-34	MW-34	MW-34-LB-1	MW-34	MW-34	MW-34
	Sample Date	10/20/2004	11/11/2004	2/23/2005	5/23/2005	10/16/2006	10/1/2007	11/7/2007	10/13/2008
	UNIT								
1,1,1-Trichloroethane	µg/L	<1J	<1	<1	<1	<1	<1	<1	<1 J
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1 J
1,2-Dichloroethene (Total)	µg/L	--	--	--	--	--	--	--	--
Carbon tetrachloride	µg/L	0 62J	0.55J	0 41J	0.44J	0.381 J	1.05	0.479	0 826 J
Chloroform	µg/L	3.8	0.51B	1.1	0 31B	0.531	0 434	0.371	0 345 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1 J
Tetrachloroethene	µg/L	<1	0.52J	0.37J	0.46J	0.336 J	0.753 J	0 34	0.451 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1 J
Trichloroethene	µg/L	0.98J	0.49J	0.4J	0 67J	1 06	1.38	1 39	0.885 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1 J

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DOE FLAGS

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10151188

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HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name	MW382	MW383	MW384	MW385	MW38-145-150BL	MW-38	MW-38-LB-1	MW-38-LA-5	MW-38
	Sample Date	6/19/1997	9/25/1997	3/26/1998	10/17/1998	3/18/2002	5/20/2004	10/17/2006	10/1/2007	10/8/2008
	UNIT									
1,1,1-Trichloroethane	µg/L	<10	<10	<10	<10	<1	<9.1	<1	<1	<1
1,1-Dichloroethene	µg/L	<10	<10	<10	<10	<1	<9.1	<1	<1	<1
1,2-Dichloroethene (Total)	µg/L	<10	<10	<10	<10	--	<18	--	--	
Carbon tetrachloride	µg/L	<10	<10	<10	<10	<1	<9.1	1.24	1.37	<1
Chloroform	µg/L	<10	<10	<10	<10	<1	<9.1	0 513	0 646	<0.3
cis-1,2-Dichloroethene	µg/L	--	--	--	--	<1	<9 1	<1	<1	<1
Tetrachloroethene	µg/L	<10	<10	<10	<10	<1	<9.1	<1	0 446 J	<1
trans-1,2-Dichloroethene	µg/L	--	--	--	--	<1	<9 1	<1	<1	<1
Trichloroethene	µg/L	<10	1J	1J	<10	<1	<9 1	4 63	4.37	<1
Vinyl chloride	µg/L	<10	<10	<10	<10	<1	<9 1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS.

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HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	MW392 6/20/1997	MW393 9/26/1997	MW394 3/27/1998	MW395 10/19/1998	MW39NA 3/23/2000	MW39-107-112BL 3/18/2002	MW-39 4/1/2004	MW-39 5/23/2004
	UNIT								
1,1,1-Trichloroethane	µg/L	<10	<10	<10	<10	<1	<1	<3.3	<2.5
1,1-Dichloroethene	µg/L	<10	<10	<10	<10	<1	<1	<3.3	<2.5
1,2-Dichloroethene (Total)	µg/L	<10	<10	<10	<10	--	--	<6.7	<5
Carbon tetrachloride	µg/L	<10	<10	<10	<10	<1	<1	<3.3	<2.5
Chloroform	µg/L	<10	<10	<10	<10	<1	0.18J	<3.3	<2 5
cis-1,2-Dichloroethene	µg/L	--	--	--	--	0.4J	0 48J	<3.3	<2 5
Tetrachloroethene	µg/L	6J	9J	8J	8J	12	8.2	120	95
trans-1,2-Dichloroethene	µg/L	--	--	--	--	<1	<1	<3.3	<2.5
Trichloroethene	µg/L	5J	8J	7J	7J	5	3.8	10	7 2
Vinyl chloride	µg/L	<10	<10	<10	<10	<1	<1	<3.3	<2.5

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

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10/19/0

1019191

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name	MW-39	MW-39	MW-39	MW-39-LB-1	MW-39-LS-3	MW-39-LA-5	MW-39	MW-39
	Sample Date	11/9/2004	2/15/2005	5/16/2005	10/17/2006	4/13/2007	10/1/2007	4/9/2008	10/9/2008
	UNIT								
1,1,1-Trichloroethane	µg/L	<4	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<4	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethene (Total)	µg/L	--	--	--	--	--	--		
Carbon tetrachloride	µg/L	<4	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<4	0 17J	0.17B	<0.3	0.155 J	0 225 J	0.161 J	0 237 J
cis-1,2-Dichloroethene	µg/L	<4	0.52J	0.68J	0.622 J	0.462 J	0.435 J	0.525 J	1.26 J
Tetrachloroethene	µg/L	130	79	110	149	106	111	100	158 J
trans-1,2-Dichloroethene	µg/L	<4	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	10	7 6	11	8 94	8.17	8 81	9.3	6.15 J
Vinyl chloride	µg/L	<4	<1	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

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MW-39A

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name	MW-39A	MW-39A	MW-39A	MW-39A	MW-39A-LB-1	MW-39A-LS-3	MW-39A-LA-5	MW-39A	MW-39A
	Sample Date	5/23/2004	11/9/2004	2/15/2005	5/16/2005	10/17/2006	4/13/2007	10/2/2007	4/7/2008	10/9/2008
	UNIT									
1,1,1-Trichloroethane	µg/L	<5	<6 7	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<5	<6.7	<1	<1	<1	<1	<1	<1	0 866 J
1,2-Dichloroethene (Total)	µg/L	<10	--	--	--	--	--	--	--	--
Carbon tetrachloride	µg/L	<5J	<6 7	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<5	<6.7	0.22J	0 23B	0.251 J	0 215 J	0.215 J	0 257 J	0.16 J
cis-1,2-Dichloroethene	µg/L	<5	<6.7	0 59J	0 51J	0.418 J	0.4 J	0 362 J	0.499 J	12 2
Tetrachloroethene	µg/L	140	150	190	150	196	176	162	234	95.7
trans-1,2-Dichloroethene	µg/L	<5	<6.7	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5 8	8 3	8 7	7.9	4.68	4.04	4.4	4.63	11 8
Vinyl chloride	µg/L	<5	<6 7	<1	<1	<1	<1	<1	<1	<1

NOTES:

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

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10151192

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HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	UNIT	MW502 6/19/1997	MW503 9/24/1997	MW504 3/25/1998	MW505 10/16/1998	MW50-117.5-122.5BL 3/19/2002	MW-50 5/17/2004	MW-50-LB-1 10/18/2006	MW-50 10/13/2008
1,1,1-Trichloroethane		µg/L	<10	<10	<10	<10	<1	<1J	<1	<1
1,1-Dichloroethene		µg/L	<10	<10	<10	<10	<1	<1	<1	<1
1,2-Dichloroethene (Total)		µg/L	<10	<10	<10	<10	--	0 52J	--	--
Carbon tetrachloride		µg/L	<10	<10	<10	<10	<1	<1	<1	<1
Chloroform		µg/L	<10	<10	<10	<10	0.25 J	0.23 J	0.746	0.469
cis-1,2-Dichloroethene		µg/L	--	--	--	--	0.48 J	0 52 J	0 483 J	0 321 J
Tetrachloroethene		µg/L	<10	<10	<10	<10	<1	<1	0 263 J	0.335 J
trans-1,2-Dichloroethene		µg/L	--	--	--	--	<1	<1	<1	<1
Trichloroethene		µg/L	<10	<10	<10	<10	1.2	1 1	1.5	1.12
Vinyl chloride		µg/L	<10	<10	<10	<10	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

MW-52

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	UNIT	MW522 6/18/1997	MW523 9/24/1997	MW524 3/25/1998	MW525 10/16/1998	MW52-96.5-101 5BL 3/19/2002	MW-52 5/6/2004	MW-52 2/21/2005	MW-52-LB-1 10/2/2006
1,1,1-Trichloroethane		µg/L	<10	<10	<10	<10	<1	<1	<1	<1
1,1-Dichloroethene		µg/L	<10	<10	<10	<10	<1	<1	<1	<1
1,2-Dichloroethene (Total)		µg/L	1 J	<10	1 J	<10	--	0.58 J	--	--
Carbon tetrachloride		µg/L	<10	<10	<10	<10	<1	<1	<1	<1
Chloroform		µg/L	<10	<10	<10	<10	0 35 J	0 68 J	0.77B	0 899
cis-1,2-Dichloroethene		µg/L	--	--	--	--	0.53 J	0.58 J	0 6 J	0 639 J
Tetrachloroethene		µg/L	4 J	2 J	4 J	<10	6.4	4.7	6.2	10.2
trans-1,2-Dichloroethene		µg/L	--	--	--	--	<1	<1 J	<1	<1
Trichloroethene		µg/L	<10	<10	1 J	<10	0.59 J	0 34 J	0.67 J	1 04
Vinyl chloride		µg/L	<10	<10	<10	<10	<1	<1 J	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

1015194

1016195

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name	MW-52-LS-3	MW-52-LA-5	MW-52	MW-52
	Sample Date	4/16/2007	10/3/2007	4/8/2008	10/10/2008
	UNIT				
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1
1,2-Dichloroethene (Total)	µg/L	--	--	--	--
Carbon tetrachloride	µg/L	<1	<1	<1	<1
Chloroform	µg/L	0.828	0 75	0 861	1 12 J
cis-1,2-Dichloroethene	µg/L	0 938 J	0.993 J	0 805 J	0 866 J
Tetrachloroethene	µg/L	10.8	9.62	9 4	6.86 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Trichloroethene	µg/L	1 4	1.17	1 16	1 17 J
Vinyl chloride	µg/L	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name	MW532	MW533	MW534	MW535	MW53-75-80BL	MW-53	MW-53-LB-1	MW-53
	Sample Date	6/19/1997	9/26/1997	3/26/1998	10/19/1998	3/18/2002	5/10/2004	10/17/2006	10/13/2008
	UNIT								
1,1,1-Trichloroethane	µg/L	<10	<10	<10	<10	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<10	<10	<10	<10	<1	<1	<1	<1
1,2-Dichloroethene (Total)	µg/L	<10	<10	<10	<10	--	<2	--	--
Carbon tetrachloride	µg/L	<10	<10	<10	<10	<1	<1	<1	<1
Chloroform	µg/L	<10	<10	<10	<10	<1	<1	<0.3	<0 3
cis-1,2-Dichloroethene	µg/L	--	--	--	--	<1	<1	<1	<1
Tetrachloroethene	µg/L	<10	<10	<10	<10	0 6 J	0.59 J	2 26	2 25
trans-1,2-Dichloroethene	µg/L	--	--	--	--	<1	<1	<1	<1
Trichloroethene	µg/L	<10	<10	<10	<10	<1	<1	<1	<1
Vinyl chloride	µg/L	<10	<10	<10	<10	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

10151961

1016197

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	UNIT	MW552 6/18/1997	MW553 9/26/1997	MW554 3/25/1998	MW555 10/16/1998	MW55-71-73BL 3/18/2002	MW-55 5/20/2004	MW-55-LB-1 10/16/2006	MW-55 10/13/2008
1,1,1-Trichloroethane		µg/L	<10	<10	<10	<10	<1	<1	<1	<1 J
1,1-Dichloroethene		µg/L	<10	<10	<10	<10	<1	<1	<1	<1 J
1,2-Dichloroethene (Total)		µg/L	<10	<10	<10	<10	--	<2	--	--
Carbon tetrachloride		µg/L	<10	<10	<10	<10	<1	<1	<1	<1 J
Chloroform		µg/L	<10	<10	<10	<10	<1	<1	<0.3	<0 3 J
cis-1,2-Dichloroethene		µg/L	--	--	--	--	<1	<1	<1	<1 J
Tetrachloroethene		µg/L	<10	<10	<10	<10	<1	<1	<1	<1 J
trans-1,2-Dichloroethene		µg/L	--	--	--	--	<1	<1	<1	<1 J
Trichloroethene		µg/L	<10	<10	<10	<10	<1	<1	<1	<1 J
Vinyl chloride		µg/L	<10	<10	<10	<10	<1	<1	<1	<1 J

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

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R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	UNIT	MW625 10/26/1998	MW62NA 3/23/2000	MW62-94-95BL 3/18/2002	MW62 2/4/2004	MW62 4/7/2004	MW-62 5/11/2004	MW-62 2/18/2005	MW-62 5/16/2005
1,1,1-Trichloroethane		µg/L	<10	<1	<1	<0.25	<0.25	<3.3	<1	<1
1,1-Dichloroethene		µg/L	<10	<1	1.3	<0.5	<0.5	<3.3	0.23J	0.35J
1,2-Dichloroethene (Total)		µg/L	<10	--	--	--	--	<6.7	--	--
Carbon tetrachloride		µg/L	<10	<1	<1	1.38	1.19	<3.3	0 56J	0.84J
Chloroform		µg/L	<10	0 2J	0.18J	0.368J	0.431J	<3.3	0 46J	0 23B
cis-1,2-Dichloroethene		µg/L	--	<1	190	0.418J	<0.25	<3.3	<1	1.3
Tetrachloroethene		µg/L	<10	<1	<1	0.318J	0.853	<3.3	1.1	0.34J
trans-1,2-Dichloroethene		µg/L	--	<1	<1	<0 25	<0.25	<3 3	<1	<1
Trichloroethene		µg/L	37	32	6.5	134	183	100	150	92
Vinyl chloride		µg/L	<10	<1	28	1 27	<0 25	<3 3	<1	1 2J

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS.

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

101519

1016199

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	MW-62-LB-1 10/4/2006	MW-62-LS-3 4/17/2007	MW-62-LA-5 10/3/2007	MW-62 4/9/2008	MW-62 10/14/2008
	UNIT					
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	0.72 J	1.02 J
1,2-Dichloroethene (Total)	µg/L	--	--	--	--	--
Carbon tetrachloride	µg/L	0 279 J	0.703 J	0 744 J	0.525 J	0 634 J
Chloroform	µg/L	0.25 J	0.311	0 476	0.416	0 394 J
cis-1,2-Dichloroethene	µg/L	0.26 J	1.16	0 33 J	<1	<1
Tetrachloroethene	µg/L	<1	0 362 J	0.8 J	0.413 J	0 39 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	77 7 J	102	184	152	157 J
Vinyl chloride	µg/L	<1	2 71	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

MW-63A

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	MW63A 11/11/2002	MW-63A 5/7/2004	MW-63A 2/22/2005	MW-63A-LB-1 10/23/2006	MW-63A-LA-5 10/2/2007	MW-63A 10/8/2008
	UNIT						
1,1,1-Trichloroethane	µg/L	<0 25	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<0 5	<1	<1	<1	<1	<1
1,2-Dichloroethene (Total)	µg/L	--	<2	--	--	--	--
Carbon tetrachloride	µg/L	<0.25	<1	<1	<1	<1	<1
Chloroform	µg/L	5 03	<1	<1	<0.3	<0.3	0 471 J
cis-1,2-Dichloroethene	µg/L	0.42J	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.466J	0.32J	0.64J	1.24	1.23	<1
trans-1,2-Dichloroethene	µg/L	<0.25	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.67	0.68J	0.63J	0.765 J	1.09	1.66 J
Vinyl chloride	µg/L	<0.25	<1	<1	<1	<1	<1

NOTES:

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

1016200

1016201

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	MW63B 11/11/2002	MW63B 5/7/2004	MW63B 2/22/2005	MW-63B-LB-1 10/23/2006	MW-63B-LA-5 10/2/2007	MW-63B 10/7/2008
	UNIT						
1,1,1-Trichloroethane	µg/L	<0.25	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	0 709J	<1	<1	<1	<1	1.45
1,2-Dichloroethene (Total)	µg/L	--	<2	--	--	--	
Carbon tetrachloride	µg/L	<0.25	<1	<1	<1	<1	<1
Chloroform	µg/L	11.1	1 8	1.5	0 604	1.44	2 9
cis-1,2-Dichloroethene	µg/L	<0 25	<1	<1	<1	<1	0.401 J
Tetrachloroethene	µg/L	6.78	2 3	2.8	3 71	2.95	4 6
trans-1,2-Dichloroethene	µg/L	<0 25	<1	<1	<1	<1	<1
Trichloroethene	µg/L	7 9	0.92J	1 1	1.12	2 1	4.56
Vinyl chloride	µg/L	<0.25	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

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R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name	MW645	MW64-108-110BL	MW-64	MW-64	MW-64-LB-1	MW-64-LS-3	MW-64-LA-5	MW-64	MW-64
	Sample Date	10/25/1998	3/18/2002	4/1/2004	2/21/2005	10/23/2006	4/17/2007	10/3/2007	4/7/2008	10/8/2008
	UNIT									
1,1,1-Trichloroethane	µg/L	<10	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<10	<1	0.55 J	0.35 J	<1	<1	<1	0.934 J	1.22
1,2-Dichloroethene (Total)	µg/L	<10	--	<2	--	--	--	--	--	--
Carbon tetrachloride	µg/L	2 J	3.3	3.3	3	2.9	3.26	2.82	3.68	3 3
Chloroform	µg/L	1 J	0 85 J	0 86 B	0 92 B	1 01	0.818	0.891	1.16	0.989
cis-1,2-Dichloroethene	µg/L	--	0.45 J	0.41 J	0.31 J	0.397	0 345 J	0.363 J	0.401 J	0.439 J
Tetrachloroethene	µg/L	10	10	16	18	18.2	18 1	17.1	22.5	22 3
trans-1,2-Dichloroethene	µg/L	--	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	28	45	39	34	28.9	30 6	30 2	35.7	36 4
Vinyl chloride	µg/L	<10	<1	<1	<1	<1	<1	<1	<1	<1

NOTES.

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

2029101

1015203

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	UNIT	MW-66A 6/23/2004	MW-66A 11/13/2004	MW-66A 2/22/2005	MW-66A 5/23/2005	MW-66A-LB-1 10/18/2006	MW-66A 10/10/2008
1,1,1-Trichloroethane		µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethene (Total)		µg/L	<2	--	--	--	--	--
Carbon tetrachloride		µg/L	<1	<1	<1	<1	<1	<1
Chloroform		µg/L	<1	<1	<1	<1	<0.3	<0 3
cis-1,2-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene		µg/L	1.7	2.2	1.8	2	1.79	1 78
trans-1,2-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene		µg/L	<1	<1	<1	<1	<1	<1
Vinyl chloride		µg/L	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

MW-86

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name	MW-86-1	MW-86-2	MW-86-3	MW-86-4	MW-86-5	MW-86-6	MW-86-7	MW-86-8
	Sample Date	11/30/2001	11/30/2001	11/30/2001	11/30/2001	11/30/2001	11/30/2001	11/30/2001	11/30/2001
	UNIT								
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethene (Total)	µg/L	--	--	--	--	--	--	--	--
Carbon tetrachloride	µg/L	26	79	94	95	93	89	90	89
Chloroform	µg/L	34	73	84	81	80	80	78	83
cis-1,2-Dichloroethene	µg/L	18	47	58	59	57	55	53	56
Tetrachloroethene	µg/L	18	190	280	280	280	230	240	200
trans-1,2-Dichloroethene	µg/L	0.28 J	0 39 J	0.92 J	1 7	1	1 1	0.69 J	0.63 J
Trichloroethene	µg/L	5.2	21	25	25	25	23	24	24
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS:

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

1015204

01016205

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name	MW-86-9	MW86-EBT-TS1-100-105	MW86-EBT-TS2-100-105	MW86-EBT-TS3-100-105	MW86-EBT-TS4-100-105	MW86-EBT-TS5-100-105	MW86-EBT-TS6-100-105	MW86-EBT-TS7-100-105
	Sample Date	11/30/2001	7/8/2002	7/29/2002	9/3/2002	10/7/2002	11/11/2002	12/16/2002	1/20/2003
	UNIT								
1,1,1-Trichloroethane	µg/L	<1	<0.25	<0 25	<0.25	<0 25	<0.25	<0 25	<0.25
1,1-Dichloroethene	µg/L	<1	<0 5	<0.5	<0 5	<0 5	<0 5	<0.5	<0.5
1,2-Dichloroethene (Total)	µg/L	--	--	--	--	--	--	--	--
Carbon tetrachloride	µg/L	37	65	1.74	<0.25	<0.25	<0 25	<0.25	<0.25
Chloroform	µg/L	98	57	88.1	94.4	85	70.1	46.8	19.7
cis-1,2-Dichloroethene	µg/L	76	27	29	33.1	29.3	63 3	201	196
Tetrachloroethene	µg/L	60	160	182	197	205	180	21.4	5.06
trans-1,2-Dichloroethene	µg/L	<1	<0.25	<0.25	<0.25	<0 25	<0.25	<0 25	<0.25
Trichloroethene	µg/L	12	18	21.1	22 7	20.7	25	10.2	3 25
Vinyl chloride	µg/L	<1	<0.25	<0 25	<0.25	<0.25	<0.25	<0 25	<0 25

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	MW86-EBT-TS9-100-105 3/24/2003	MW86-EBT-TS10-100-105 4/21/2003	MW86-EBT-TS11-100-105 5/19/2003	MW86-EBT-TS12-100-105 6/23/2003	MW86-EBT-TS13-100-105 7/21/2003	MW86-EBT-TS14-100-105 8/18/2003	MW-86 4/1/2004	MW-86 11/13/2004
	UNIT								
1,1,1-Trichloroethane	µg/L	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<5 7	<5.7
1,1-Dichloroethene	µg/L	0.6 J	0.567 J	<0 5	<0 5	<0.5	<0 5	<5.7	<5 7
1,2-Dichloroethene (Total)	µg/L	--	--	--	--	--	--	170	--
Carbon tetrachloride	µg/L	<0 25	<0 25	<0.25	<0.25	<0.25	<0.25	<5.7	<5 7
Chloroform	µg/L	13.1	17.1	11.9	6.72	11	12.1	5.7B	<5.7
cis-1,2-Dichloroethene	µg/L	177	173	144	127	137 J	120	170	180
Tetrachloroethene	µg/L	2 99	14 4	28.9	60 4	73.4	89.8	6.2	<5.7
trans-1,2-Dichloroethene	µg/L	<0 25	<0.25	<0.25	<0.25	<0.25	<0.25	<5.7	<5.7
Trichloroethene	µg/L	2.37	7.63	16 7	25.8	28.7	26 7	2.7 J	<5.7
Vinyl chloride	µg/L	<0.25	<0.25	<0 25	<0.25	<0 25	<0.25	<5 7	<5.7

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS:

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

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R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

101206

1015207

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

	Sample Name	MW-86	MW-86	MW-86-LB-1	MW-86-LS-3	MW-86-LA-5	MW-86	MW-86
Analyte	**Sample Date**	2/23/2005	5/20/2005	10/25/2006	4/16/2007	10/4/2007	4/7/2008	10/8/2008
	UNIT							
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	0.867 J
1,2-Dichloroethene (Total)	µg/L	--	--	--	--	--	--	--
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	0.436 J	<1
Chloroform	µg/L	<1	<1	<0 3	0 212 J	0.341	0.477	0.705
cis-1,2-Dichloroethene	µg/L	170 J	130	180	119	117	115	110
Tetrachloroethene	µg/L	<1	<1	0.388 J	2.11	5 14	7.7	12.2
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	0.989 J	1.79	1.72	2.87
Vinyl chloride	µg/L	0.59 J	0.38J	0 976 J	<1	<1	0.491 J	1 07

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

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R Unusable

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MW-88

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	MW-88-1 11/30/2001	MW-88-2 11/30/2001	MW-88-3 11/30/2001	MW-88-4 11/30/2001	MW-88-5 11/30/2001	MW-88-6 11/30/2001	MW-88-7 11/30/2001	MW-88-8 11/30/2001
	UNIT								
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethene (Total)	µg/L	--	--	--	--	--	--	--	--
Carbon tetrachloride	µg/L	3 2	2.9	1 8	1.3	1	3.1	5.2	5.6
Chloroform	µg/L	1.1	1	0.64 J	0.51 J	0.42 J	1 2	1.9	1.9
cis-1,2-Dichloroethene	µg/L	2.1	1.8	1.1	0.81 J	0.63 J	0.94 J	1.4	1 5
Tetrachloroethene	µg/L	8 1	5.3	2.5	2.3	2.2	8.8	29	27
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.1	0.97 J	0.71 J	0.58 J	0.52 J	3 8	5.6	6.1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS.

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

1015208

1016209

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	UNIT	MW-88 7/8/2002	MW-88 7/29/2002	MW-88 9/3/2002	MW-88 10/7/2002	MW-88 11/11/2002	MW-88 12/16/2002	MW-88 1/20/2003	MW-88 3/24/2003
1,1,1-Trichloroethane		µg/L	<0 25	<0.25	<0.25	<0 25	<0.25	<0.25	<0.25	<0.25
1,1-Dichloroethene		µg/L	<0 5	<0.5	<0.5	<0.5	<0 5	<0.5	<0.5	<0.5
1,2-Dichloroethene (Total)		µg/L	--	--	--	--	--	--	--	--
Carbon tetrachloride		µg/L	4.7	5.54	6.61	5 3	5.79	6.76 J	6 98	4.63
Chloroform		µg/L	1 9	2 1	1.86	1.81	1.89	1.88	1 64	1 23
cis-1,2-Dichloroethene		µg/L	1.5	1.37	0 93 J	1.23	1.66	1 22	0 99 J	0.793 J
Tetrachloroethene		µg/L	17	17.2	21.8	16.1	23.8	22.2	19 8	13.4
trans-1,2-Dichloroethene		µg/L	<0 25	<0.25	<0 25	<0.25	<0.25	<0 25	<0 25	<0.25
Trichloroethene		µg/L	7 1	7.55	7.72	6 9	7.66	7.41	7 24	6 49
Vinyl chloride		µg/L	<0 25	<0 25	<0.25	<0 25	<0 25	<0.25	<0.25	<0 25

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

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R Unusable

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MW-88

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	UNIT	MW-88 4/21/2003	MW-88 5/19/2003	MW-88 6/23/2003	MW-88 7/21/2003	MW-88 8/18/2003	MW-88 4/1/2004	MW-88 11/13/2004	MW-88 2/22/2005
1,1,1-Trichloroethane		µg/L	<0 25	<0 25	<0.25	<0.25	<0 25	<1	<1	<1
1,1-Dichloroethene		µg/L	<0 5	<0.5	<0.5	<0 5	<0.5	<1	<1	<1
1,2-Dichloroethene (Total)		µg/L	--	--	--	--	--	1.5 J	--	--
Carbon tetrachloride		µg/L	5 61 J	5.08	6.17 J	8 17	7 3	7.9	6	6.2
Chloroform		µg/L	1.43	1.71	1.93	2 08	1.51	1.9 B	2 5	1.6
cis-1,2-Dichloroethene		µg/L	0 869 J	1 1	1.32	1.41 J	1 34	1.5	1 8	1.2
Tetrachloroethene		µg/L	18.2	14.5	19.9	21.8	21	22	22	20
trans-1,2-Dichloroethene		µg/L	<0.25	<0.25	<0.25	<0.25	<0 25	<1	<1	<1
Trichloroethene		µg/L	6.65	5 34	5.98	6.26	5 37	4.8	3.6	3 8
Vinyl chloride		µg/L	<0.25	<0.25	<0.25	<0.25	<0.25	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS:

J Estimated results based on QC data or reported below RL

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R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

1016210

1015211

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	MW-088 5/23/2005	MW-88-LB-1 10/3/2006	MW-88-LS-3 4/13/2007	MW-88-LA-5 10/4/2007	MW-88 4/7/2008	MW-88 10/6/2008
	UNIT						
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethene (Total)	µg/L	--	--	--	--	--	--
Carbon tetrachloride	µg/L	3.5	8.59	3 88	4.83	2.66	3.69
Chloroform	µg/L	1.1 B	1 78	0.671	0 827	0.406	0 878
cis-1,2-Dichloroethene	µg/L	0 87 J	1.3	0.588 J	0.751 J	0.325 J	1 21
Tetrachloroethene	µg/L	14	26.4	18.5	21.3	16.6	32 8
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	2.7	3.5	2.94	3.42	3.11	3.65
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

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HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	UNIT	MW-89 3/19/2002	MW-89 3/19/2002	MW-89 5/22/2004	MW-89 2/16/2005	MW-89-LB-1 10/24/2006	MW-89-LA-5 10/1/2007	MW-89 10/6/2008
1,1,1-Trichloroethane		µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethene (Total)		µg/L	--	--	<2	--	--	--	--
Carbon tetrachloride		µg/L	<1	<1	0 49 J	0.44 J	0.7 J	0.56 J	0.252 J
Chloroform		µg/L	<1	<1	0 32 J	0 3B	0.348	0.224 J	0.156 J
cis-1,2-Dichloroethene		µg/L	<1	<1	0.27 J	0.37 J	0.404 J	0 279 J	<1
Tetrachloroethene		µg/L	<1	<1	0.3 J	0.29 J	0.363 J	0.644 J	<1
trans-1,2-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene		µg/L	0.89 J	<1	2	2 1	2 13	1.55	1 1
Vinyl chloride		µg/L	<1	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

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10152121

10152213

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name	--	--	MW-90	MW-90	MW-90-LB-1	MW-90-LS-3	MW-90-LA-5	MW-90	MW-90
	Sample Date	3/19/2002	3/19/2002	5/22/2004	2/16/2005	10/24/2006	4/16/2007	10/1/2007	4/7/2008	10/6/2008
	UNIT									
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	0 49 J	0.46 J	<1	0 526 J	0.579 J	1.3	0 605 J
1,2-Dichloroethene (Total)	µg/L	--	--	<2	--	--	--	--	--	--
Carbon tetrachloride	µg/L	0 65 J	0.32 J	0.3 J	0.33 J	0.466 J	0 401 J	0.462 J	<1	0 288 J
Chloroform	µg/L	8 9	3.5	7.4	6.1	3.11	3.18	3 64	4.66	4 65
cis-1,2-Dichloroethene	µg/L	0.44 J	<1	0.29 J	0.29 J	0.294 J	0.313 J	0 36 J	0 484 J	0.335 J
Tetrachloroethene	µg/L	58	8.8	19	19	26.7	26.7	50 7	77 7	79 3
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	10	2.7	7 2	4.3	2.53	2 4	3.69	5 9	6 08
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

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R Unusable

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MW-92

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name	MW-92	MW-92	MW-92	MW-92	MW-92	MW-92	MW-92	MW-92
	Sample Date	11/30/2001	11/30/2001	11/30/2001	11/30/2001	11/30/2001	11/30/2001	4/1/2004	11/14/2004
	UNIT								
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<5	<6 7
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<5	<6.7
1,2-Dichloroethene (Total)	µg/L	--	--	--	--	--	--	12	--
Carbon tetrachloride	µg/L	18	19	18	20	20	18	24	23
Chloroform	µg/L	6 2	6.5	6.1	6.7	6.9	7.7	9 B	9 4
cis-1,2-Dichloroethene	µg/L	6.1	6.6	6.2	7	7	3.2	12	12
Tetrachloroethene	µg/L	130	160	150	160	150	110	170	180
trans-1,2-Dichloroethene	µg/L	0.21 J	0.19 J	<1	<1	<1	<1	<5	<6.7
Trichloroethene	µg/L	4.3	4.5	4.2	4 5	4.5	3	5 2	5.7 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<5	<6.7

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

1015214

1101215

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	UNIT	MW-92 2/24/2005	MW-92 5/20/2005	MW-92-LB-1 10/5/2006	MW-92-LS-3 4/16/2007	MW-92-LA-5 10/4/2007	MW-92 4/8/2008	MW-92 10/9/2008
1,1,1-Trichloroethane		µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1	0.984 J
1,2-Dichloroethene (Total)		µg/L	--	--	--	--	--	--	--
Carbon tetrachloride		µg/L	25	21	27.2	7 67	6 45	6.3	<1
Chloroform		µg/L	8 6	7.6	8.02	13.2	11	8 91	<0.3
cis-1,2-Dichloroethene		µg/L	11	11	10.8	7.32	67.5	66.2	119
Tetrachloroethene		µg/L	140	160	193	159	55	65.9	0 499 J
trans-1,2-Dichloroethene		µg/L	<1	<1	<1	<1	<1	0.727 J	<1
Trichloroethene		µg/L	5.8	5.5	6 14	5.01	3 12	4.22	<1
Vinyl chloride		µg/L	<1	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

MW-93

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	MW-93 11/30/2001	MW-93 11/30/2001	MW-93 11/30/2001	MW-93 11/30/2001	MW-93 11/30/2001	MW-93 11/30/2001	MW-93 11/30/2001	MW-93 5/7/2004
	UNIT								
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethene (Total)	µg/L	--	--	--	--	--	--	--	<2
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.69 J	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	2.4	7	7.5	7.1	7.3	0.16 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	0.19 J	0.64 J	0.84 J	0.77 J	0.86 J	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS:

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

1015216

1016217

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name	MW-93-LB-1	MW-93	MW-93
	Sample Date	10/18/2006	10/4/2007	10/13/2008
	UNIT			
1,1,1-Trichloroethane	µg/L	<1	<1	<1 J
1,1-Dichloroethene	µg/L	<1	<1	<1 J
1,2-Dichloroethene (Total)	µg/L	--	--	--
Carbon tetrachloride	µg/L	<1	<1	<1 J
Chloroform	µg/L	<0.3	<0.3	<0.3 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1 J
Tetrachloroethene	µg/L	<1	<1	<1 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1 J
Trichloroethene	µg/L	<1	<1	<1 J
Vinyl chloride	µg/L	<1	<1	<1 J

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

MW-94A

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name	MW-94A	MW-94A	MW-94A	MW-94A	MW-94A-LB-1	MW-94A-LS-3	MW-94A-LA-5	MW-94A	MW-94A
	Sample Date	5/23/2004	11/10/2004	2/20/2005	5/17/2005	10/24/2006	4/16/2007	10/4/2007	4/8/2008	10/13/2008
	UNIT									
1,1,1-Trichloroethane	µg/L	<1.4	<2	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1.4	<2	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethene (Total)	µg/L	<2.9	--	--	--	--	--	--	--	--
Carbon tetrachloride	µg/L	<1 4 J	<2	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<1.4	<2	0.19 J	<1	0.139 J	0 196 J	0 129 J	0.138 J	0 147 J
cis-1,2-Dichloroethene	µg/L	0.52 J	0.71 J	0.82 J	0.68 J	0 624 J	0.532 J	0.61 J	0.42 J	1.93
Tetrachloroethene	µg/L	37	47	42	47	52.2	48	43 5	27 3	32.8
trans-1,2-Dichloroethene	µg/L	<1.4	<2	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	4.2	6	6 5	5.8	5.58	6.08	7.44	9.49	6 89
Vinyl chloride	µg/L	<1.4	<2	<1	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

1016218

1016219

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	MW-96-1 11/30/2001	MW-96-2 11/30/2001	MW-96-3 11/30/2001	MW-96-4 11/30/2001	MW-96-5 11/30/2001	MW-96-6 11/30/2001	MW-96 3/31/2004	MW-96 11/15/2004
	UNIT								
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethene (Total)	µg/L	--	--	--	--	--	--	0 67 J	--
Carbon tetrachloride	µg/L	1.8	<1	<1	<1	<1	<1	3 6	2.9
Chloroform	µg/L	2	2.7	3 8	5 6	6.3	5 9	0.69 B	0.6 J
cis-1,2-Dichloroethene	µg/L	0.23 J	<1	<1	<1	<1	<1	0 67 J	0 52 J
Tetrachloroethene	µg/L	19	0.88 J	0.21 J	0.3 J	0 13 J	0.14 J	8.9	6.1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0 19 J	<1	<1	<1	<1	<1	0.22 J	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS:

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

MW-96

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	MW-96 2/21/2005	MW-96 5/20/2005	MW-96 5/20/2005	MW-96-LS-3 4/16/2007	MW-96-LA-5 10/4/2007	MW-96 10/10/2008
	UNIT						
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethene (Total)	µg/L	--	--	--	--	--	--
Carbon tetrachloride	µg/L	1 5	3 4	3.4	3.47	3 4	1.03 J
Chloroform	µg/L	0.5 B	0 64 B	0.64 B	0.901	0.739	0 663 J
cis-1,2-Dichloroethene	µg/L	0.34 J	19	0.6 J	0 814 J	0.836 J	<1
Tetrachloroethene	µg/L	3.4	6.5	6.5	4.35	4.33	1.46 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	0 419 J	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

1015220

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	MW-97 11/30/2001	MW-97 11/30/2001	MW-97 11/30/2001	MW-97 11/30/2001	MW-97 11/30/2001	MW-97 11/30/2001	MW-97 11/30/2001	MW-97 11/30/2001
	UNIT								
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethene (Total)	µg/L	--	--	--	--	--	--	--	--
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	0.14 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	MW-97 3/31/2004	MW-97 2/21/2005	MW-97-LB-1 10/25/2006	MW-97-LS-3 4/16/2007	MW-97-LA-5 10/2/2007	MW-97 4/8/2008	MW-97 10/13/2008
	UNIT							
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethene (Total)	µg/L	<2	--	--	--	--	--	--
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	0.16 B	0 228 J	0 292 J	0.255 J	0.164 J	0.267 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	2.2	5.8	14.7	18.8	25.7	21 8	29.6
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

– not analyzed

ug/L micrograms per liter

DOE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

10162222

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	UNIT	MW-98 11/30/2001	MW-98 11/30/2001	MW-98 11/30/2001	MW-98 11/30/2001	MW-98 11/30/2001	MW-98 4/1/2004	MW-98 11/10/2004	MW-98 2/16/2005
1,1,1-Trichloroethane		µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethene (Total)		µg/L	--	--	--	--	--	<2	--	--
Carbon tetrachloride		µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform		µg/L	0.23 J	0.26 J	0.24 J	0.26 J	0.24 J	<1	0.17 B	<1
cis-1,2-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1	0.22 J	<1
Tetrachloroethene		µg/L	1 5	3.7	7.7	5.5	4.4	17	31	33
trans-1,2-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene		µg/L	0.46 J	0.9 J	0.88 J	0.89 J	0.83 J	1.2	2 2	2.1
Vinyl chloride		µg/L	<1	<1	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS.

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

MW-98

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name	MW-98	MW-98-LB-1	MW-98-LS-3	MW-98-LA-5	MW-98	MW-98
	Sample Date	5/19/2005	10/25/2006	4/13/2007	10/3/2007	4/7/2008	10/10/2008
	UNIT						
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethene (Total)	µg/L	--	--	--	--	--	--
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	0.133 J	0.147 J	<0.3	<0 3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	0.252 J	<1	<1	<1	8.6 J
Tetrachloroethene	µg/L	28	33.1	35.2	36.9	34.8	25.5 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	2	2 37	2.63	2.69	1 93	2.34 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

1015224

1015225

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	MW-99 11/30/2001	MW-99 11/30/2001	MW-99 11/30/2001	MW-99 11/30/2001	MW-99 11/30/2001	MW-99 11/30/2001	MW-99 11/30/2001	MW-99 11/30/2001
	UNIT								
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethene (Total)	µg/L	--	--	--	--	--	--	--	--
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.14 J	0.14 J	0.13 J	0.15 J	<1	0.15 J	0 13 J	<1
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1	0.14 J	<1	0.28 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	MW-99 11/30/2001	MW-99 11/30/2001	MW-99 5/18/2004	MW-99-LB-1 10/18/2006	MW-99-LA-5 10/3/2007	MW-99 10/9/2008
	UNIT						
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethene (Total)	µg/L	--	--	<2	--	--	--
Carbon tetrachloride	µg/L	<1	<1	<1 J	<1	<1	<1
Chloroform	µg/L	<1	<1	<1	0 22 J	0.2 J	0.265 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.38 J	0.58 J	0.28 J	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

NOTES.

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

10162226

S1016227

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name	MW100B-EBT-TS1-110-115	MW100B-EBT-TS2-110-115	MW100B-EBT-TS3-110-115	MW100B-EBT-TS4-110-115	MW100B-EBT-TS5-110-115	MW100B-EBT-TS6-100-115	MW100B-EBT-TS7
	Sample Date	7/8/2002	7/29/2002	9/3/2002	10/7/2002	11/11/2002	12/16/2002	1/20/2003
	UNIT							
1,1,1-Trichloroethane	µg/L	<0 25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
1,1-Dichloroethene	µg/L	<0 5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethene (Total)	µg/L	--	--	--	--	--	--	--
Carbon tetrachloride	µg/L	<0 25	<0.25	<0.25	<0 25	<0.25	<0.25	<0.25
Chloroform	µg/L	0 19 J	<0.125	<0 125	<0.125	<0.125	<0 125	<0.125
cis-1,2-Dichloroethene	µg/L	1.3	0 509 J	17.7	33.4	31 4	24.1	26.4
Tetrachloroethene	µg/L	49	1.56	25.3	14 5	1.77	2.35	0.395 J
trans-1,2-Dichloroethene	µg/L	<0.25	<0 25	<0.25	0 269 J	<0 25	0.321 J	<0 25
Trichloroethene	µg/L	72	22 8	33.1	11 6	2.27	2 06	0.4 J
Vinyl chloride	µg/L	<0.25	<0.25	<0 25	<0.25	<0 25	<0 25	2 57

NOTES.

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS:

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

MW-100B

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	MW100B-EBT-TS8-110-115 2/24/2003	MW100B-EBT-TS9-100-115 3/24/2003	MW100B-EBT-TS10-110-115 4/21/2003	MW100B-EBT-TS11-110-115 5/19/2003	MW100B-EBT-TS12-110-115 6/23/2003	MW100B-EBT-TS13-110-115 7/21/2003	MW-100B 3/30/2004
	UNIT							
1,1,1-Trichloroethane	µg/L	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<5
1,1-Dichloroethene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
1,2-Dichloroethene (Total)	µg/L	--	--	--	--	--	--	140
Carbon tetrachloride	µg/L	<0.25	<0.25	<0.25	<0 25	<0.25	<0.25	<5
Chloroform	µg/L	<0 125	<0.125	<0 125	<0.125	<0.125	<0.125	<5
cis-1,2-Dichloroethene	µg/L	28.7	59.4	61.3	75.2	88 2	89	140
Tetrachloroethene	µg/L	0.53	0.341 J	<0 25	<0 25	<0.25	<0.25	<5
trans-1,2-Dichloroethene	µg/L	<0 25	0 274 J	0 323 J	0 333 J	0.356 J	0.312 J	<5
Trichloroethene	µg/L	0 407 J	<0 25	<0 25	<0 25	<0.25	<0.25	<5
Vinyl chloride	µg/L	0.436 J	0.968 J	0 797 J	0 819 J	0.646 J	0.66 J	<5

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

01016228

1016229

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	UNIT	MW-100B 11/12/2004	MW-100B 2/18/2005	MW-100B 5/18/2005	MW-100B-LB-1 10/23/2006	MW-100B-LS-3 4/13/2007	MW-100B-LA-5 10/2/2007	MW-100B 4/7/2008	MW-100B 10/8/2008
1,1,1-Trichloroethane		µg/L	<5	<1	<3.3	<1	<1	<1	<1	<1
1,1-Dichloroethene		µg/L	<5	0.41 J	0.3 J	<1	<1	<1	0.746 J	0.973 J
1,2-Dichloroethene (Total)		µg/L	--	--	--	--	--	--	--	--
Carbon tetrachloride		µg/L	<5	<1	<1	<1	<1	<1	<1	<1
Chloroform		µg/L	<5	<1	<1	<0.3	<0 3	<0.3	<0.3	<0 3
cis-1,2-Dichloroethene		µg/L	160	120	100	112	94.4	143	89 3	158
Tetrachloroethene		µg/L	<5	2 8	5.8	101	98.9	29.6	64.2	0.706 J
trans-1,2-Dichloroethene		µg/L	<5	<1	<1	0.39 J	0.432 J	0.605 J	0.92 J	0.783 J
Trichloroethene		µg/L	<5	3.4	6 2	43.1	39.4	12.6	31.4	0.309 J
Vinyl chloride		µg/L	<5	<1	0.29 J	0 716 J	0.595 J	1.02	0.836 J	1.75

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

MW-102B

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	UNIT	MW-102B 5/8/2004	MW-102B-LB-1 10/19/2006	MW-102B-LA-5 10/3/2007	MW-102B 10/13/2008
1,1,1-Trichloroethane		µg/L	<1	<1	<1	<1 J
1,1-Dichloroethene		µg/L	<1	<1	<1	<1 J
1,2-Dichloroethene (Total)		µg/L	<2	--	--	--
Carbon tetrachloride		µg/L	<1	<1	<1	<1 J
Chloroform		µg/L	<1	<0 3	<0 3	<0.3 J
cis-1,2-Dichloroethene		µg/L	<1	<1	<1	<1 J
Tetrachloroethene		µg/L	<1	<1	0.308 J	<1 J
trans-1,2-Dichloroethene		µg/L	<1	<1	<1	<1 J
Trichloroethene		µg/L	<1	<1	<1	<1 J
Vinyl chloride		µg/L	<1	<1	<1	<1 J

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

1016230

10152231

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	UNIT	MW-103-10 11/30/2001	MW-103-9 11/30/2001	MW-103-8 11/30/2001	MW-103-7 11/30/2001	MW-103-6 11/30/2001	MW-103-5 11/30/2001	MW-103-4 11/30/2001	MW-103-3 11/30/2001
1,1,1-Trichloroethane		µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene		µg/L	1 1	1.1	1.2	1.4	1.2	1.5	1.1	1.4
1,2-Dichloroethene (Total)		µg/L	--	--	--	--	--	--	--	--
Carbon tetrachloride		µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform		µg/L	16	17	16	17	16	15	14	16
cis-1,2-Dichloroethene		µg/L	0.39 J	0 37 J	0.36 J	0.39 J	0.36 J	0 34 J	0.33 J	0.39 J
Tetrachloroethene		µg/L	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene		µg/L	5.8	5.6	4 9	4 9	4 6	4.4	3 9	4.8
Vinyl chloride		µg/L	<1	<1	<1	<1	<1	<1	<1	<1

NOTES.

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	MW-103-2 11/30/2001	MW-103-1 11/30/2001	MW-103 5/11/2004	MW-103 2/20/2005	MW-103-LB-1 10/3/2006	MW-103-LA-5 10/4/2007	MW-103 10/6/2008
	UNIT							
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	1.3	1.6	1.7	1 94	1 18
1,2-Dichloroethene (Total)	µg/L	--	--	0 44 J	--	--	--	--
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	4.3	1.9	12	13	12.2	11.7	11.1
cis-1,2-Dichloroethene	µg/L	<1	<1	0.44 J	0.43 J	0.322 J	0.35 J	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.69 J	0.3 J	4	4 4	5 04	6 63	5.27
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

1016232

1015233

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name	MW-104-10	MW-104-9	MW-104-8	MW-104-7	MW-104-6	MW-104-5	MW-104-4	MW-104-3	MW-104-2
	Sample Date	11/30/2001	11/30/2001	11/30/2001	11/30/2001	11/30/2001	11/30/2001	11/30/2001	11/30/2001	11/30/2001
	UNIT									
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	1.3	1.3	1.2	1 4	1 1	0.48 J	<1	<1	<1
1,2-Dichloroethene (Total)	µg/L	--	--	--	--	--	--	--	--	--
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	20	19	14	18	17	10	5	4.8	4 6
cis-1,2-Dichloroethene	µg/L	0.46 J	0.45 J	0 36 J	0.47 J	0 4 J	0.22 J	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	24	20	19	19	16	6.4	1 3	1.1	1 1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

MW-104

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name	MW-104-1	MW-104	MW-104	MW-104-LB-1	MW-104-LS-3	MW-104-LA-5	MW-104	MW-104
	Sample Date	11/30/2001	5/11/2004	2/21/2005	10/3/2006	4/13/2007	10/4/2007	4/8/2008	10/6/2008
	UNIT								
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	1.3	1 6	1 68	1 83	1.98	2 57	1.24
1,2-Dichloroethene (Total)	µg/L	--	<2	--	--	--	--	--	--
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	4	13	16	15.9	13.7	12.8	13.6	11.2
cis-1,2-Dichloroethene	µg/L	<1	0.36 J	0 38 J	0.446 J	0 589 J	0.554 J	0.63 J	0.305 J
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.89 J	11	14	17 6	17	17.8	18.2	12 6
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

1016234

1015235

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	UNIT	MW-107-147 12/21/2001	MW-107-125B 12/21/2001	MW-107 5/26/2004	MW-107,153 2/20/2005	MW-107,135 5 2/20/2005	MW-107T-LB-1 10/17/2006	MW-107B-LB-1 10/17/2006
1,1,1-Trichloroethane		µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethene (Total)		µg/L	--	--	<2	--	--	--	--
Carbon tetrachloride		µg/L	0.6 J	0.52 J	0.28 J	0.31 J	0.34 J	<1	<1
Chloroform		µg/L	0.16 J	0.14 J	<1	<1	<1	<0 3	<0.3
cis-1,2-Dichloroethene		µg/L	0 29 J	0.34 J	0.25 J	<1	<1	<1	<1
Tetrachloroethene		µg/L	0.67 J	0.95 J	<1	0.21 J	0.32 J	0 564 J	0.377 J
trans-1,2-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene		µg/L	2 6	2.8	0 7 J	0 57 J	0 63 J	0.999 J	0 585 J
Vinyl chloride		µg/L	<1	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

MW-107

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name	MW-107B-LA-5	MW-107T	MW-107B	MW-107T	MW-107B
	Sample Date	10/2/2007	4/9/2008	4/9/2008	10/10/2008	10/10/2008
	UNIT		4/9/2008	4/9/2008	10/10/2008	10/10/2008
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1
1,2-Dichloroethene (Total)	µg/L	--	--	--	--	
Carbon tetrachloride	µg/L	0.415 J	0.616 J	0.574 J	<1	<1
Chloroform	µg/L	<0.3	0 324	0.262 J	0 287 J	0.32 J
cis-1,2-Dichloroethene	µg/L	<1	0.283 J	0.265 J	0.385 J	0 449 J
Tetrachloroethene	µg/L	0 476 J	0 411 J	0.291 J	1.93	0 965 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.95 J	1.67	1.56	2.11	1 8 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

1016236

1016237

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	MW-108 12/21/2001	MW-108 5/25/2004	MW-108 2/22/2005	MW-108-LB-1 10/24/2006	MW-108-LS-3 4/16/2007	MW-108-LA-5 10/1/2007	MW-108 4/7/2008	MW-108 10/10/2008
	UNIT								
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	0.19 J	0 618 J	0.553 J	0.657 J	1.1	1.13 J
1,2-Dichloroethene (Total)	µg/L	--	0.46 J	--	--	--	--	--	--
Carbon tetrachloride	µg/L	<1	0.19 J	0.26 J	<1	<1	0.461 J	0.477 J	0.272 J
Chloroform	µg/L	6 4	8.2	6.9	11 7	10.8	12 1	11.7	12 3 J
cis-1,2-Dichloroethene	µg/L	0.18 J	0 46 J	0.33 J	0.75 J	0.634 J	0.71 J	0 647 J	0 598 J
Tetrachloroethene	µg/L	2 6	3 3	3.3	5 41	6.03	5 03	3.93	3 72 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	6 4	15	28	32	33.5	38.4 J	32 7	28.5 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

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R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name	MW-113-EBT-B-99.5-104 5	MW113-EBT-TS1-99 5-104 5	MW113-EBT-TS2-99 5-104.5	MW113-EBT-TS3-99 5-104.5	MW113-EBT-TS4-99 5-104.5	MW113-EBT-TS5-99.5-104.5	MW113-EBT-TS6-99.5-104 5
	Sample Date	5/20/2002	7/8/2002	7/29/2002	9/3/2002	10/7/2002	11/11/2002	12/16/2002
	UNIT							
1,1,1-Trichloroethane	µg/L	<0.25	<0.25	<0 25	<0 25	<0 25	<0.25	<0.25
1,1-Dichloroethene	µg/L	<0.5	<0 5	<0 5	<0.5	<0 5	<0.5	<0.5
1,2-Dichloroethene (Total)	µg/L	--	--	--	--	--	--	--
Carbon tetrachloride	µg/L	30	50	69 1	60 7	64.5	59	69.6 J
Chloroform	µg/L	76	79	98	90.6	83.2	78.2	87.6
cis-1,2-Dichloroethene	µg/L	44	48	55.5	59.9	92.4	77 3	83.4
Tetrachloroethene	µg/L	30	45	59.3	112	80 4	97	96 9
trans-1,2-Dichloroethene	µg/L	<0.25	<0 25	<0 25	<0.25	<0.25	<0.25	<0.25
Trichloroethene	µg/L	15	20	26.7	29.4	28	31.6	32 7
Vinyl chloride	µg/L	<0.25	<0.25	<0.25	<0.25	<0.25	<0 25	<0 25

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

– not analyzed

ug/L micrograms per liter

DQE FLAGS:

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

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R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

1016238

1016239

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name	MW113-EBT-TS7-99 5-104.5	MW113-EBT-TS9-99.5-104.5	MW113-EBT-TS10-99.5-	MW113-EBT-TS11-99.5-	MW113-EBT-TS12-99.5-	MW113-EBT-TS13-99.5-	MW113-EBT-TS14-99.5-	MW-113
	Sample Date	1/20/2003	3/24/2003	4/21/2003	5/19/2003	6/23/2003	7/21/2003	8/18/2003	5/24/2004
	UNIT								
1,1,1-Trichloroethane	µg/L	<0.25	<0.25	<0.25	<0.25	<0.25	<0 25	<0.25	<5
1,1-Dichloroethene	µg/L	<0 5	<0 5	<0.5	<0 5	<0.5	<0.5	<0.5	<5
1,2-Dichloroethene (Total)	µg/L	--	--	--	--	--	--	--	100
Carbon tetrachloride	µg/L	71.6	50.8	53 2 J	26	43 6 J	38	42 7	20
Chloroform	µg/L	93.8	70.8	81	84 4	89.8	89 7	80 4	27
cis-1,2-Dichloroethene	µg/L	94.1	69.7	71 2	71 6	93.9	102 J	109	100
Tetrachloroethene	µg/L	91.1	48 7	49.4	27 5	54.5	56 1	63.6	64
trans-1,2-Dichloroethene	µg/L	<0 25	<0.25	0.266 J	<0 25	<0.25	<0.25	<0.25	<5
Trichloroethene	µg/L	30 4	23.3	21 1	15 3	19.7	19.3	18.5	8.8
Vinyl chloride	µg/L	<0.25	<0 25	<0.25	<0.25	<0 25	<0.25	<0 25	<5

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

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B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

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UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	UNIT	MW-113 11/14/2004	MW-113 2/24/2005	MW-113 5/20/2005	MW-113-LB-1 10/23/2006	MW-113-LS-3 4/16/2007	MW-113-LA-5 10/4/2007	MW-113 4/7/2008	MW-113 10/8/2008
1,1,1-Trichloroethane		µg/L	<5	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene		µg/L	<5	<1 J	<1	<1	<1	<1	<1	0.892 J
1,2-Dichloroethene (Total)		µg/L	--	--	--	--	--	--	--	--
Carbon tetrachloride		µg/L	44	49	47	75 6	89.1	96.9	75 1	110
Chloroform		µg/L	34	39	36	33 8	35.9	36.4	30.9	45.3
cis-1,2-Dichloroethene		µg/L	110	87	78	54 9	46.3	50.2	37.8	59.6
Tetrachloroethene		µg/L	100	130	130	182	163	151	170	156 J
trans-1,2-Dichloroethene		µg/L	<5	<1	<1	<1	<1	<1	0 354 J	<1
Trichloroethene		µg/L	15	21	22	25 9	24 1	26	20.2	28.9
Vinyl chloride		µg/L	<5	<1	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

1016240

10016241

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	UNIT	MW125-EBT-B-99-104 5/21/2002	MW125-EBT-TS1-99-104 7/8/2002	MW125-EBT-TS2-99-104 7/29/2002	MW125-EBT-TS3-99-104 9/3/2002	MW125-EBT-TS4-99-104 10/7/2002	MW125-EBT-TS5-99-104 11/11/2002	MW125-EBT-TS6-99-104 12/16/2002	MW125-EBT-TS7-99-104 1/20/2003
1,1,1-Trichloroethane		µg/L	<0 25	<0.25	<0 25	<0.25	<0.25	<0.25	<0.25	<0 25
1,1-Dichloroethene		µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0 5	<0.5
1,2-Dichloroethene (Total)		µg/L	--	--	--	--	--	--	--	--
Carbon tetrachloride		µg/L	<0.25	<0.25	<0.25	<0.25	<0.25	<0 25	<0 25	<0.25
Chloroform		µg/L	0.5 J	<0.125	<0.125	<0.125	<0.125	<0 125	<0.125	<0 125
cis-1,2-Dichloroethene		µg/L	<0.25	<0 25	<0.25	<0.25	<0 25	0.399 J	8 99	40 8
Tetrachloroethene		µg/L	8.9	8.1	<0.25	1 32	2.01	3.65	7 07	6.57
trans-1,2-Dichloroethene		µg/L	<0 25	<0 25	<0.25	<0 25	<0.25	<0 25	<0.25	<0.25
Trichloroethene		µg/L	75	40	43.2	36 7	20.8	19.4	17.5	12.4
Vinyl chloride		µg/L	<0.25	<0 25	<0.25	<0 25	<0 25	<0.25	<0.25	<0.25

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

MW-125

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	MW125-EBT-TS8-99-104 2/24/2003	MW125-EBT-TS9-99-104 3/24/2003	MW125-EBT-TS10-99-104 4/21/2003	MW125-EBT-TS11-99-104 5/19/2003	MW125-EBT-TS12-99-104 6/23/2003	MW125-EBT-TS13-99-104 7/21/2003	MW-125 5/21/2004	MW-125 11/12/2004
	UNIT								
1,1,1-Trichloroethane	µg/L	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<1.7	<3.3
1,1-Dichloroethene	µg/L	<0 5	<0.5	<0.5	<0 5	<0 5	<0.5	<1.7	<3 3
1,2-Dichloroethene (Total)	µg/L	--	--	--	--	--	--	62	--
Carbon tetrachlonde	µg/L	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<1.7	<3 3
Chloroform	µg/L	<0.125	<0.125	<0.125	<0.125	<0.125	<0.125	<1.7	<3 3
cis-1,2-Dichloroethene	µg/L	19.7	15 4	34.9	8.1	15	1 99	62	38
Tetrachloroethene	µg/L	7.17	5.68	7 79	3.24	8.85	6 55	28	52 J
trans-1,2-Dichloroethene	µg/L	<0.25	<0 25	<0.25	<0.25	<0 25	<0 25	<1 7	<3.3
Trichloroethene	µg/L	17	19	16.5	8.49	13.9	5.53	18	26 J
Vinyl chloride	µg/L	<0 25	<0.25	<0.25	<0.25	<0.25	<0.25	<1.7	<3 3

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS.

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

1016242

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HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	UNIT	MW-125 2/18/2005	MW-125 5/18/2005	MW-125-LB-1 10/2/2006	MW-125-LS-3 4/13/2007	MW-125-LA-5 10/2/2007	MW-125 4/7/2008	MW-125 10/7/2008
1,1,1-Trichloroethane		µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene		µg/L	0.19 J	<1	<1	<1	<1	<1	0 872 J
1,2-Dichloroethene (Total)		µg/L	--	--	--	--	--	--	--
Carbon tetrachloride		µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform		µg/L	<1	<1	0.168 J	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene		µg/L	34	47	16.3	10.3	26.3	16.3	54.4
Tetrachloroethene		µg/L	44	48	35 6	33.1	48.3	39 3	11
trans-1,2-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1	0.274 J
Trichloroethene		µg/L	24	26	13.3	9.27	16	11.8	5 58
Vinyl chloride		µg/L	<1	<1	<1	<1	<1	<1	0.289

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	UNIT	MW-140 5/27/2004	MW-140 11/10/2004	MW-140 2/17/2005	MW-140 5/17/2005	MW-140-LB-1 10/23/2006	MW-140-LA-5 10/2/2007	MW-140 10/9/2008
1,1,1-Trichloroethane		µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethene (Total)		µg/L	<2	--	--	--	--	--	
Carbon tetrachloride		µg/L	<1	0.48 J	0.44 J	0.92 J	0.313 J	<1	<1
Chloroform		µg/L	0.42 J	0.21 B	0.18 J	0.16 B	0.162 J	0.16 J	0.259 J
cis-1,2-Dichloroethene		µg/L	<1	0.28 J	0 22 J	0.22 J	<1	<1	<1
Tetrachloroethene		µg/L	<1	0.38 J	0.42 J	0.42 J	0.424 J	0 59 J	0 933 J
trans-1,2-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene		µg/L	0 54 J	1.4	1.4	1.3	1.49	1.19	1.41
Vinyl chloride		µg/L	<1	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

1016244

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HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	UNIT	MW-141 6/24/2004	MW-141 11/9/2004	MW-141 2/15/2005	MW-141 5/17/2005	MW-141-LB-1 10/23/2006	MW-141-LS-3 4/17/2007	MW-141-LA-5 10/2/2007	MW-141 4/8/2008	MW-141 10/10/2008
1,1,1-Trichloroethane		µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethene (Total)		µg/L	<2	--	--	--	--	--	--		
Carbon tetrachloride		µg/L	<1	<1	<1	0.82 J	<1	<1	<1	0.418 J	<1
Chloroform		µg/L	1 4	1.5 B	1 8	2 B	2 37	2.46	2.09	2.31	2.48 J
cis-1,2-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene		µg/L	5.9	19	26	31	27.6	21.3	18	16.9	19.7 J
trans-1,2-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene		µg/L	1 2	2 1	2.2	2 8	3.56	3.02	2.52	2.47	3 24 J
Vinyl chloride		µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

MW-142

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	UNIT	MW 142 5/26/2004	MW-142 11/9/2004	MW-142 2/16/2005	MW-142 5/17/2005	MW-142-LB-1 10/2/2006	MW-142-LA-5 10/3/2007	MW-142 10/8/2008
1,1,1-Trichloroethane		µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene		µg/L	<1	0.3 J	<1	<1	<1	<1	<1
1,2-Dichloroethene (Total)		µg/L	<2	--	--	--	--	--	--
Carbon tetrachloride		µg/L	<1	0.36 J	<1	0.77 J	<1	<1	<1
Chloroform		µg/L	<1	0 25 B	0 17 B	<1	<0.3	<0 3	<0 3
cis-1,2-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene		µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene		µg/L	0.3 J	1 4	0.65 J	0.39 J	0.371 J	0.709 J	1 61
Vinyl chloride		µg/L	<1	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

1016246

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HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	UNIT	MW-143 5/5/2004	MW-143 11/11/2004	MW-143 2/17/2005	MW-143 5/17/2005	MW-143-LB-1 10/19/2006	MW-143 10/13/2008
1,1,1-Trichloroethane		µg/L	<1	<1	<1	<1	<1	<1 J
1,1-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1 J
1,2-Dichloroethene (Total)		µg/L	<2	--	--	--	--	--
Carbon tetrachloride		µg/L	<1	<1	<1	<1	<1	<1 J
Chloroform		µg/L	<1	<1	<1	<1	<0.3	<0.3 J
cis-1,2-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1 J
Tetrachloroethene		µg/L	<1	<1 J	<1	<1	<1	<1 J
trans-1,2-Dichloroethene		µg/L	<1 J	<1	<1	<1	<1	<1 J
Trichloroethene		µg/L	<1	<1	<1	0.31 J	0.7 J	1.19 J
Vinyl chloride		µg/L	<1	<1	<1	<1	<1	<1 J

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

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R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

MW-197A

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name	MW-197A-LB-1	MW-197A-RW-2	MW-197A-LS-3	MW-197A-LQ-4	MW-197A-LA-5	MW-197A	MW-197A
	Sample Date	10/24/2006	1/24/2007	4/13/2007	7/9/2007	10/3/2007	4/8/2008	10/6/2008
	UNIT							
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.237 J	0.226 J	0.212 J	0.208 J	0 179 J	0 185 J	0.174 J
cis-1,2-Dichloroethene	µg/L	0 447 J	0.345 J	0.432 J	0.419 J	0 445 J	1.48	3.13
Tetrachloroethene	µg/L	130	125	114	103	87.3	82.8	54.8
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	2.04	2.04	2.28	2 31	2.42	2.42	2.4
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

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R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

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HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

	Sample Name	MW-197B-LB-1	MW-197B-RW-2	MW-197B-LS-3	MW-197B-LQ-4	MW-197B-LA-5	MW-197B	MW-197B
Analyte	**Sample Date**	10/2/2006	1/24/2007	4/13/2007	7/9/2007	10/3/2007	4/8/2008	10/6/2008
	UNIT							
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0 3	0.227 J	0.208 J	<0.3	0 166 J	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	0.625 J	0.484 J	0.792 J	5.29	10 7	47.6	48 7
Tetrachloroethene	µg/L	179	166	138	134	105 J	38.6	16.7
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	8.51	8 76	9.11	10.2	10 3	9.01	9 77
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

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UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	MW-198-LB-1 10/2/2006	MW-198-RW-2 1/24/2007	MW-198-LS-3 4/15/2007	MW-198-LQ-4 7/10/2007	MW-198-LA-5 10/2/2007	MW-198 4/9/2008	MW-198 10/8/2008
	UNIT							
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	0 657 J	<1	<1	<1	0.679 J	0 524 J
Carbon tetrachloride	µg/L	<1	0 915 J	0.32 J	0.267 J	0.438 J	0.326 J	<1
Chloroform	µg/L	<0.3	0.2 J	0.146 J	<0.3	<0.3	<0.3	0.171 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	3.28	25.8	20 2	15 1	6.53	8.36	10.4 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

1016250

10162251

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

	Sample Name	MW-199A-LB-1	MW-199A-RW-2	MW-199A-LS-3	MW-199A-LQ-4	MW-199A-LA-5	MW-199A
Analyte	Sample Date	10/23/2006	1/24/2007	4/13/2007	7/12/2007	10/2/2007	10/9/2008
	UNIT						
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.126 J	<0.3	<0.3	0.132 J	<0.3	0 137 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	0.361 J	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

MW-199B

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	UNIT	MW-199B-LB-1 10/23/2006	MW-199B-RW-2 1/24/2007	MW-199B-LS-3 4/13/2007	MW-199B-LQ-4 7/11/2007	MW-199B-LA-5 10/2/2007	MW-199B 4/8/2008	MW-199B 10/9/2008
1,1,1-Trichloroethane		µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene		µg/L	<1	<1	<1	0 581 J	<1	0.773 J	0.996 J
Carbon tetrachloride		µg/L	0.719 J	0.949 J	0.555 J	1 05	0.376 J	0.6 J	<1
Chloroform		µg/L	0.197 J	0.179 J	0.232 J	0 279 J	0.146 J	0.177 J	0.24 J
cis-1,2-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene		µg/L	0.632 J	0.497 J	0.715 J	0.517 J	0.393 J	23 4	0 612 J
trans-1,2-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene		µg/L	99 2 J	115	115	136	78 6	56 5	124
Vinyl chloride		µg/L	<1	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

1016252

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HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	MW-200A-LB-1 10/25/2006	MW-200-RW-2 1/24/2007	MW-200-LS-3 4/15/2007	MW-200-LQ-4 7/10/2007	MW-200-LA-5 10/3/2007	MW-200-LQ-6 4/8/2008	MW-200-LB-8 10/6/2008
	UNIT							
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	0.146 J	<0 3	<0.3	0.206 J	0.175 J
cis-1,2-Dichloroethene	µg/L	0.466 J	0.303 J	0.532 J	0 543 J	0 419 J	0.345 J	0.531 J
Tetrachloroethene	µg/L	72	81 9	70 2	62.9	73.9	132	125
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5.47	5.94	7 49	7.49	6.88	4.13	3.42
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS.

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

MW-202A

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name	MW-202A-LB-1	MW-202A-RW-2	MW-202A-LS-3	MW-202A-LQ-4	MW-202A-LA-5	MW-202A	MW-202A
	Sample Date	10/23/2006	1/24/2007	4/16/2007	7/11/2007	10/1/2007	4/7/2008	10/7/2008
	UNIT							
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	0.365 J	0 749 J	0.382 J	0.904 J	0.552 J	0.695 J	<1
Chloroform	µg/L	0.232 J	0.198 J	0.213 J	0.249 J	0.238 J	0.225 J	0.17 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	0.251 J	<1	<1	<1
Tetrachloroethene	µg/L	0 257 J	0.326 J	0.316 J	0 371 J	0 672 J	0 443 J	0 262 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.85	1 59	1.88	2.22	1 66	1 77	1 21
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS:

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

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HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

	Sample Name	MW-202B-LB-1	MW-202B-RW-2	MW-202B-LS-3	MW-202B-LQ-4	MW-202B-LA-5	MW-202B	MW-202B
Analyte	**Sample Date**	10/24/2006	1/24/2007	4/16/2007	7/11/2007	10/2/2007	4/9/2008	10/7/2008
	UNIT							
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	0.263 J	<1
Chloroform	µg/L	0 778	0.857	0 752	1.05	0 907	1.46	1.92
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	5.51	8 42	8.6	8.16	3.82	16 3	21 3
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0 811 J	1.27	1 46	2.2	1 36	2.21	2 57
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name	MW-203A	MW-203A-LQ-4	MW-203A-LA-5	MW-203A-LQ-6	MW-203A	MW-203A
	Sample Date	4/17/2007	7/9/2007	10/3/2007	1/8/2008	4/8/2008	10/6/2008
	UNIT						
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1 J	<1	<1	<1	<1
Chloroform	µg/L	<0 3	<0.3	0.128 J	0.172 J	0 206 J	0.201 J
cis-1,2-Dichloroethene	µg/L	<1	<1	0.294 J	0.972 J	1.14	1.2
Tetrachloroethene	µg/L	62 6	69.1 J	86.8	108	144	143
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.27	1 46	1.69	1.93	2.03	2 11
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

1015256

1015257

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	UNIT	MW-203B 4/27/2007	MW-203B-LQ-4 7/9/2007	MW-203B-LA-5 10/3/2007	MW-203B-LQ-6 1/8/2008	MW-203B 4/8/2008	MW-203B 10/6/2008
1,1,1-Trichloroethane		µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride		µg/L	<1 J	<1	<1	<1	<1	<1
Chloroform		µg/L	<0.3	<0.3	<0 3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene		µg/L	50.1	63.5	55	58.6	59 7	39.2
Tetrachloroethene		µg/L	38 4	21.1	13.9	9.39	10.8	19
trans-1,2-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene		µg/L	8.97	7 68	7 92	6.31	6 25	11 3
Vinyl chloride		µg/L	<1	<1	<1	<1	<1	0 358 J

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS.

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

MW-204A

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

	Sample Name	MW-204A	MW-204A-LQ-4	MW-204A-LA-5	MW-204A-LQ-6	MW-204A	MW-204A
Analyte	Sample Date	4/23/2007	7/10/2007	10/2/2007	1/8/2008	4/7/2008	10/6/2008
	UNIT						
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0 3	<0.3	<0.3	<0 3
cis-1,2-Dichloroethene	µg/L	0.763 J	0.785 J	0 846 J	0 922 J	1.05	0.769 J
Tetrachloroethene	µg/L	38.8	36.2	37	42.7	44 6 J	42
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.19	1.17	1.06	1.12	1.04	0.852 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DOE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

1016258

1016259

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	UNIT	MW-204B 4/23/2007	MW-204B-LQ-4 7/11/2007	MW-204B-LA-5 10/2/2007	MW-204B-LQ-6 1/8/2008	MW-204B 4/9/2008	MW-204B 10/6/2008
1,1,1-Trichloroethane		µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride		µg/L	<1	<1	<1	<1	<1	<1
Chloroform		µg/L	<0.3	0.125 J	<0.3	<0.3	0.13	<0.3
cis-1,2-Dichloroethene		µg/L	0.906 J	0.916 J	1 05	2.3	1 39	1.26
Tetrachloroethene		µg/L	26.3	17 2	19	24.5	20.2	29 4
trans-1,2-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene		µg/L	2.37	4.88	4 7	3.2	4.27	2.53
Vinyl chloride		µg/L	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

MW-205A

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	MW-205A 4/23/2007	MW-205A-LQ-4 7/10/2007	MW-205A-LA-5 10/3/2007	MW-205A-LQ-6 1/8/2008	MW-205A 4/7/2008	MW-205A 10/9/2008
	UNIT						
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.238 J	0 222 J	0.185 J	0 165 J	0.212 J	0.223 J
cis-1,2-Dichloroethene	µg/L	0.337 J	0.465 J	0.538 J	3.12	1.14	9.58 J
Tetrachloroethene	µg/L	102	180	145	153	141	126 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	3 69	5.84	6.25	6.14	6 02	7 56 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

1016260

1015261

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	MW-205B 4/23/2007	MW-205B-LQ-4 7/10/2007	MW-205B-LA-5 10/4/2007	MW-205B-LQ-6 1/8/2008	MW-205B 4/9/2008	MW-205B 10/9/2008
	UNIT						
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	0.891 J
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.206 J	<0 3	0.15 J	0.146 J	<0.3	<0 3
cis-1,2-Dichloroethene	µg/L	0.546 J	0.616 J	4.41	26 4	22.4	43
Tetrachloroethene	µg/L	129	149	100	82.3	31 2	24.9
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	7.2	9.22	8.74	9 75	5 15	8.48
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS.

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	UNIT	MW-206A 4/15/2007	MW-206A-LQ-4 7/11/2007	MW-206A-LA-5 10/3/2007	MW-206A-LQ-6 1/8/2008	MW-206A 4/9/2008	MW-206A 10/13/2008
1,1,1-Trichloroethane		µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride		µg/L	<1	<1	<1	<1	<1	<1
Chloroform		µg/L	0.155 J	<0.3	0 166 J	0 174 J	0 173 J	0 134 J
cis-1,2-Dichloroethene		µg/L	0 607 J	0.765 J	0.762 J	0.717 J	0.78 J	5.2
Tetrachloroethene		µg/L	76.6	99.2	76.4	114	96.5	80.5
trans-1,2-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene		µg/L	9.81	10.1	12 4	12	13.9	13 2
Vinyl chloride		µg/L	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS:

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

1015262

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	UNIT	MW-206B 4/15/2007	MW-206B-LQ-4 7/11/2007	MW-206B-LA-5 10/3/2007	MW-206B-LQ-6 1/9/2008	MW-206B 4/9/2008	MW-206B 10/13/2008
1,1,1-Trichloroethane		µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride		µg/L	<1	<1	<1	<1	<1	<1
Chloroform		µg/L	0 139 J	0.14 J	0.148 J	0 147 J	0 136 J	<0.3
cis-1,2-Dichloroethene		µg/L	0 582 J	0.722 J	0.698 J	0.688 J	2.51	7 85
Tetrachloroethene		µg/L	57.2	77.5	64 9	69.5	69.1	36.4
trans-1,2-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene		µg/L	8.94	11	11	11.7	11.5	9 91
Vinyl chloride		µg/L	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS:

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

1016263

MW-207A

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

	Sample Name	MW-207A	MW-207A-LQ-4	MW-207A-LA-5	MW-207A-LQ-6	MW-207A	MW-207A
Analyte	Sample Date	4/16/2007	7/10/2007	10/3/2007	1/9/2008	4/9/2008	10/7/2008
	UNIT						
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	0.867 J	<1
Carbon tetrachloride	µg/L	<1	<1	<1	0.44 J	<1	<1
Chloroform	µg/L	5.86	9.99	8.28	10.6	9.12	9.13
cis-1,2-Dichloroethene	µg/L	0.468 J	0.387 J	0 479 J	0 382 J	0.475 J	0 476 J
Tetrachloroethene	µg/L	7.92	8.32	10.3	10.5	12.1	13.7
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	21.4	18.6	21.6	24.3	24.2	26 9
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

NOTES:

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

1015264

1015265

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	MW-207B 4/16/2007	MW-207B-LQ-4 7/11/2007	MW-207B-LA-5 10/3/2007	MW-207B-LQ-6 1/9/2008	MW-207B 4/9/2008	MW-207B 10/7/2008
	UNIT						
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	0.935 J	<1
Carbon tetrachloride	µg/L	1.36	1 91	1.37	1.13	1.22	0.916 J
Chloroform	µg/L	3.09	2.54	1.9	1.26	1 27	1.41
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	35.7	32 5	23.7	13	13.1	18
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	12.1	17.6	62	109	96.2	75 3
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

MW-208A

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name	MW-208A	MW-208A-LQ-4	MW-208A-LA-5	MW-208A-LQ-6	MW-208A	MW-208A
	Sample Date	4/16/2007	7/10/2007	10/4/2007	1/8/2008	4/8/2008	10/13/2008
	UNIT						
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachlonde	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0 216 J	0.228 J	0.214 J	0.221 J	0.217 J	0.21 J
cis-1,2-Dichloroethene	µg/L	0.554 J	0.541 J	0 557 J	0.56 J	0 538 J	0.517 J
Tetrachloroethene	µg/L	174 J	193	163	198	189	182
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	8 12	8.26	8.44	8.45	7.64	9.8
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

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1016267

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name	MW-208B	MW-208B-LQ-4	MW-208B-LA-5	MW-208B-LQ-6	MW-208B	MW-208B
	Sample Date	4/16/2007	7/11/2007	10/4/2007	1/9/2008	4/8/2008	10/13/2008
	UNIT						
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0 3	0.131 J	<0.3	<0 3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	1.12	1.3	1 08	0.932 J	1.51	1.4
Tetrachloroethene	µg/L	3.42	2 8	3.02	1 68	2.22	2 94
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	18.4	15 7	15	13 2	17.1	21.3
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

MW-209A

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

	Sample Name	MW-209A	MW-209A-LQ-4	MW-209A-LA-5	MW-209A-LQ-6	MW-209A	MW-209A
Analyte	Sample Date	4/23/2007	7/10/2007	10/4/2007	1/9/2008	4/9/2008	10/9/2008
	UNIT						
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	0 165 J	0.136 J	0.131 J	0.159 J	0 175 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0 326 J	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.576 J	0.487 J	0.404 J	0.467 J	0.523 J	0 611 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

1015268

10.15269

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name	MW-209B	MW-209B-LQ-4	MW-209B-LA-5	MW-209B-LQ-6	MW-209B	MW-209B
	Sample Date	4/23/2007	7/11/2007	10/5/2007	1/8/2008	4/9/2008	10/9/2008
	UNIT						
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1 J
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1 J
Carbon tetrachloride	µg/L	0.327 J	0.962 J	1.86	0.474 J	0.681 J	0.611 J
Chloroform	µg/L	0.251 J	0 56	0.215 J	0 198 J	0.22 J	0.183 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1 J
Tetrachloroethene	µg/L	<1	<1	<1	0 357 J	<1	0.33 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1 J
Trichloroethene	µg/L	6.4	7 2	14.8	11.7	13	20 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1 J

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

MW-210A

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name	MW-210A	MW-210A-LQ-4	MW-210A-LA-5	MW-210A-LQ-6	MW-210A	MW-210A
	Sample Date	4/27/2007	7/9/2007	10/4/2007	1/8/2008	4/8/2008	10/6/2008
	UNIT						
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1 J	<1	<1	<1	<1	<1
Chloroform	µg/L	0.201 J	0.199 J	<0.3	0 149 J	0.183 J	<0.3
cis-1,2-Dichloroethene	µg/L	0.828 J	0.813 J	0.727 J	0.757 J	0 887 J	1.02
Tetrachloroethene	µg/L	38.2	36 1	28 8	23.3	28.2	19.4
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5.85	6 05	5 63	5.55	6.2	6.09
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

1015270

1015271

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	UNIT	MW-210B 4/27/2007	MW-210B-LQ-4 7/9/2007	MW-210B-LA-5 10/5/2007	MW-210B-LQ-6 1/8/2008	MW-210B 4/8/2008	MW-210B 10/6/2008
1,1,1-Trichloroethane		µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride		µg/L	<1 J	<1	<1	<1	<1	<1
Chloroform		µg/L	0.15 J	<0 3	0.143 J	0.14 J	0.155 J	<0.3
cis-1,2-Dichloroethene		µg/L	0 646 J	0 57 J	0.433 J	0.529 J	0.613 J	0 462 J
Tetrachloroethene		µg/L	32.4	24.4	21	19.8	20	12.6
trans-1,2-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene		µg/L	7.29	8.42	10.7	8.46	7 84	7.49
Vinyl chloride		µg/L	<1	<1	<1	<1	<1	<1

NOTES:

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

MW-211

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	MW-211 4/16/2007	MW-211-LQ-4 7/10/2007	MW-211-LA-5 10/2/2007	MW-211-LQ-6 1/9/2008	MW-211 10/10/2008
	UNIT					
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	0.995 J
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	0.139 J	<0.3	<0 3	0.214 J	2.24 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	0.502 J	0.431 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.536 J	0 576 J	0 436 J	0.602 J	1 18 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS.

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

1016272

1016273

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	UNIT	MW-212 4/27/2007	MW-212-LQ-4 7/9/2007	MW-212-LA-5 10/3/2007	MW-212-LQ-6 1/9/2008	MW-212 4/8/2008	MW-212 10/8/2008
1,1,1-Trichloroethane		µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene		µg/L	<1	<1	<1	<1	0.761 J	<1
Carbon tetrachloride		µg/L	0.257 J	0.479 J	0.568 J	0.635 J	0.519 J	<1
Chloroform		µg/L	0 289 J	0.135 J	0.13 J	<0.3	<0 3	<0 3
cis-1,2-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene		µg/L	<1	<1	0.516 J	<1	0 477 J	<1
trans-1,2-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene		µg/L	34.4	47.9	41 7	43.9	45 1	37.9 J
Vinyl chloride		µg/L	<1	<1	<1	<1	<1	<1

NOTES.

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

MW-214A

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	MW-214A 4/16/2007	MW-214A-LQ-4 7/10/2007	MW-214A-LA-5 10/3/2007	MW-214A-LQ-6 1/9/2008	MW-214A 4/7/2008	MW-214A 10/7/2008
	UNIT						
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	0.601 J	0.476 J	0.725 J	0 575 J	0.709 J	0.647 J
Chloroform	µg/L	2.63	2.32	2.26	2.02	2.06	1 58
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	8.83	6.81	6.99	7.29	6.22	4.81
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5 59	4 49	4.11	3.65	3 02	1 95
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DOE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

1016274

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HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name	MW-214B	MW-214B-LQ-4	MW-214B-LA-5	MW-214B-LQ-6	MW-214B	MW-214B
	Sample Date	4/17/2007	7/11/2007	10/3/2007	1/9/2008	4/7/2008	10/21/2008
	UNIT						
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachlonde	µg/L	0.645 J	1.05	0.76 J	0.959 J	0.843 J	0 772 J
Chloroform	µg/L	2.06	1.85	1 47	1.44	1.22	1 27
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	6.4	6	4 89	5.44	4 55	4 39
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	4 24	3 83	3.06	2.88	2.36	2.28
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

MW-215A

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name	MW-215A	MW-215A-LQ-4	MW-215A-LA-5	MW-215A-LQ-6	MW-215A	MW-215A
	Sample Date	4/16/2007	7/10/2007	10/4/2007	1/9/2008	4/9/2008	10/7/2008
	UNIT						
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	0.679 J	0.538 J	0 671 J	0.552 J	0 651 J	0.382 J
Chloroform	µg/L	1.66	1 67	1 76	1.68	1.66	1.44
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	5 81	5 58	6.95	7 01	6 27	5.85
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	7.82	8 12	7.79	10.2	8.96	7.99
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

1016276

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HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	UNIT	MW-215B 4/16/2007	MW-215B-LQ-4 7/9/2007	MW-215B-LA-5 10/4/2007	MW-215B-LQ-6 1/9/2008	MW-215B 4/9/2008	MW-215B 10/7/2008
1,1,1-Trichloroethane		µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride		µg/L	0 956 J	1.01	0.894 J	0 856 J	0.988 J	0.271 J
Chloroform		µg/L	0.68	0.71	0 651	0.61	0.663	0 474
cis-1,2-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene		µg/L	4.36	4 39	4.49	4 71	4.7	2 1
trans-1,2-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene		µg/L	1.52	1 53	1.47	1 36	1.46	1.25
Vinyl chloride		µg/L	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name	MW-216	MW-216-LQ-4	MW-216-LA-5	MW-216-LQ-6	MW-216
	Sample Date	4/27/2007	7/10/2007	10/2/2007	1/8/2008	10/6/2008
	UNIT					
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Carbon tetrachlonde	µg/L	<1 J	<1	<1	<1	<1
Chloroform	µg/L	<0 3	0.169 J	0.183 J	<0 3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	0.288 J
Tetrachloroethene	µg/L	<1	<1	<1	<1	34 2
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	1 5
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

NOTES.

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

10162781

10162279

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	MW-217 4/27/2007	MW-217-LQ-4 7/9/2007	MW-217-LA-5 10/2/2007	MW-217-LQ-6 1/9/2008	MW-217 4/7/2008	MW-217 10/8/2008
	UNIT						
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	0.736 J	<1
Carbon tetrachloride	µg/L	34.8	42.3 J	53 4	57 3	72.1	96.3 J
Chloroform	µg/L	5.05	5.33	5.18	7 43	8 56	13 4 J
cis-1,2-Dichloroethene	µg/L	1 34	1 45	1.89	2.43	2 88	4 8 J
Tetrachloroethene	µg/L	18 4	25.4 J	31.3	31 7	34 7	26.5 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	29 5	40.6 J	39 4	35 9	34 4	25.6 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS.

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	UNIT	MW-218 4/17/2007	MW-218-LQ-4 7/9/2007	MW-218-LA-5 10/2/2007	MW-218-LQ-6 1/9/2008	MW-218 4/7/2008	MW-218 10/8/2008
1,1,1-Trichloroethane		µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene		µg/L	0.626 J	0.652 J	0.651 J	<1	0.886 J	0 691 J
Carbon tetrachloride		µg/L	15.1	13.3	17.6	15	17.7	15 6 J
Chloroform		µg/L	3.15	2.79	2.45	2.58	2.62	2.78 J
cis-1,2-Dichloroethene		µg/L	0.459 J	0.468 J	0.508 J	0.352 J	0.392 J	0.373 J
Tetrachloroethene		µg/L	17.7	16 7	18 5	17.2	17 4	12.2 J
trans-1,2-Dichloroethene		µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene		µg/L	44 2	47 6	42 8	42 5	40 7	35.9 J
Vinyl chloride		µg/L	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

0801628

1015281

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name	MW-219	MW-219-LQ-4	MW-219-LA-5	MW-219-LQ-6	MW-219	MW-219
	Sample Date	4/27/2007	7/10/2007	10/3/2007	1/9/2008	4/7/2008	10/10/2008
	UNIT						
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0 3	<0.3	<0.3	<0 3
cis-1,2-Dichloroethene	µg/L	0.643 J	1.06	1.01	0 875 J	0 928 J	1.14 J
Tetrachloroethene	µg/L	16.3	27.6	33.9	48	41.4	47 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.72	2.79	3.37	3.74	3.26	3.53 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

MW-229

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name	MW-229	MW-229	MW-229
	Sample Date	10/5/2007	1/9/2008	10/8/2008
	UNIT			
1,1,1-Trichloroethane	µg/L	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0 3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

1016282

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HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	PZ-03 3/20/2002	PZ03 5/26/2004	PZ-03 2/23/2005	PZ-03-LB-1 10/5/2006	PZ-03-LA-5 10/5/2007	PZ-03 10/14/2008
	UNIT						
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethene (Total)	µg/L	--	<2	--	--	--	--
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	<1	0.2J	0.198 J	0.139 J	0 29 J
cis-1,2-Dichloroethene	µg/L	0 55J	<1	0.26J	<1	<1	<1
Tetrachloroethene	µg/L	7 1	4.4	5	3.89	0.523 J	4 38
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0 86J	0.6J	0.85J	0.917 J	0.321 J	1.07
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

NOTES.

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL GROUNDWATER ANALYTICAL RESULTS, VOCs
ANNUAL LONG-TERM MONITORING REPORT - 2008
Main Installation - Defense Depot Memphis, Tennessee

Analyte	Sample Name / Sample Date	PZ-06 3/20/2002	PZ-06 5/12/2004	PZ-06 2/22/2005	PZ-06-LB-1 10/4/2006	PZ-06-LA-5 10/5/2007	PZ-06 10/14/2008
	UNIT						
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethene (Total)	µg/L	--	<2	--	--	--	--
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	<1	<1	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

NOTES

VOC samples analyzed using methods SW8010/8020, SW8240, SW8260, SW8260A, SW8260B, or CV3990

-- not analyzed

ug/L micrograms per liter

DQE FLAGS

J Estimated results based on QC data or reported below RL

B Estimated results possibly biased high or false positive based on blank data

< Not detected at sample reporting limit

R Unusable

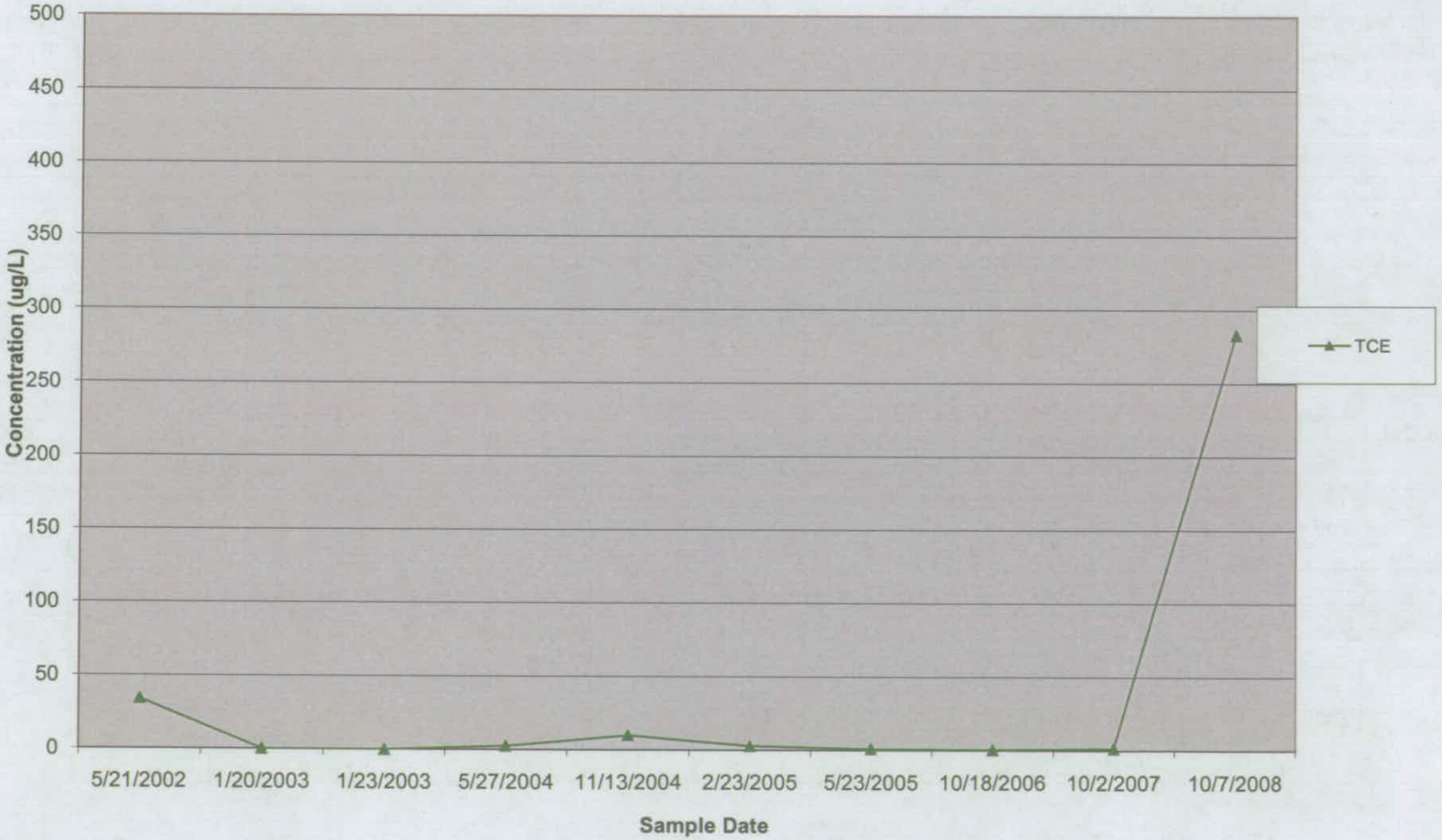
UJ Undetected, reporting limit is inaccurate or imprecise

1015284

APPENDIX D

CVOC TIME-TREND PLOTS

IW-06
TTA-1 NORTH



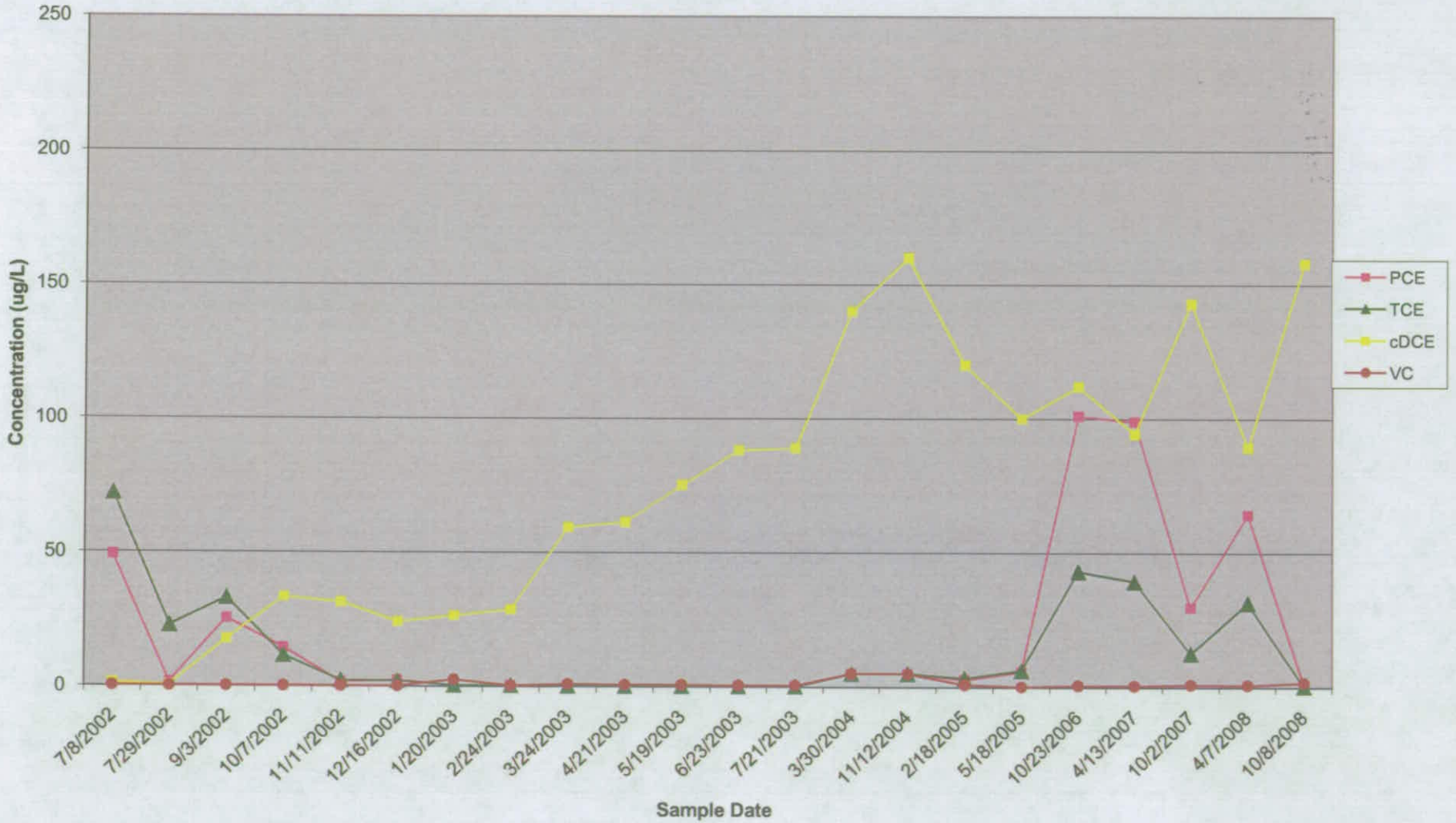
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1016287

DR1-7
TTA-1 NORTH



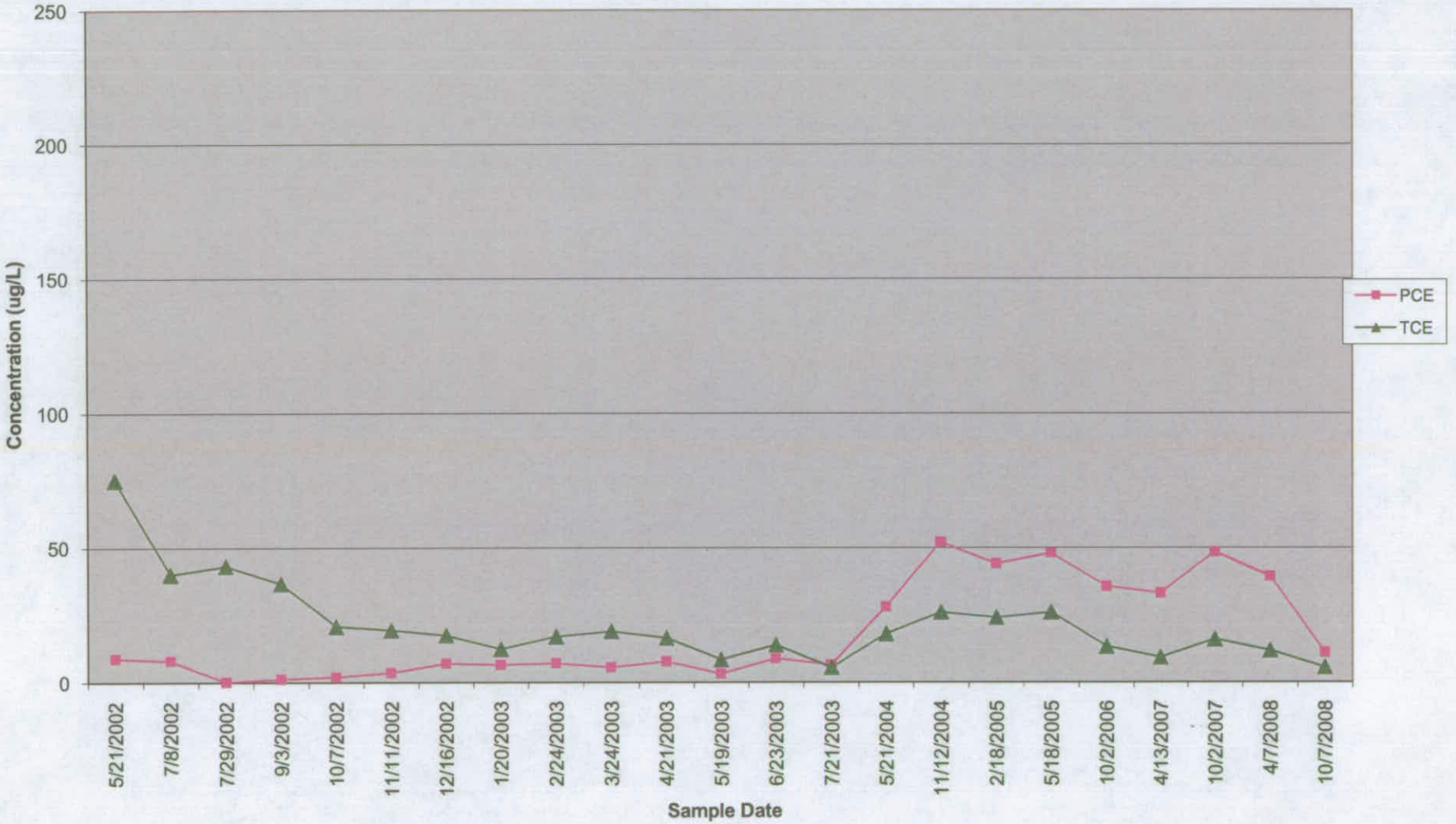
MW-100B
TTA-1 NORTH



10162888

1016289

MW-125
TTA-1 NORTH



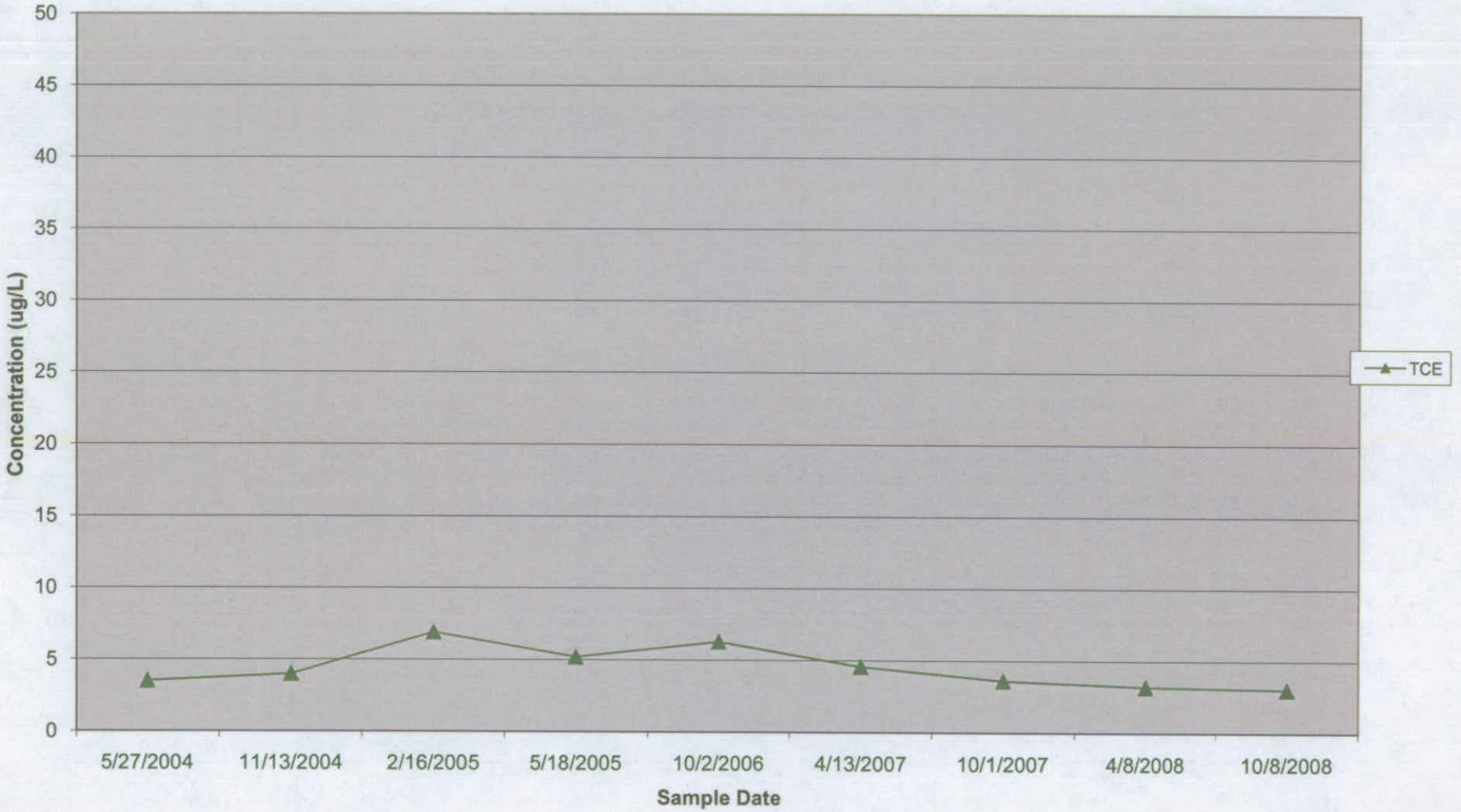
MW-219
TTA-1 NORTH



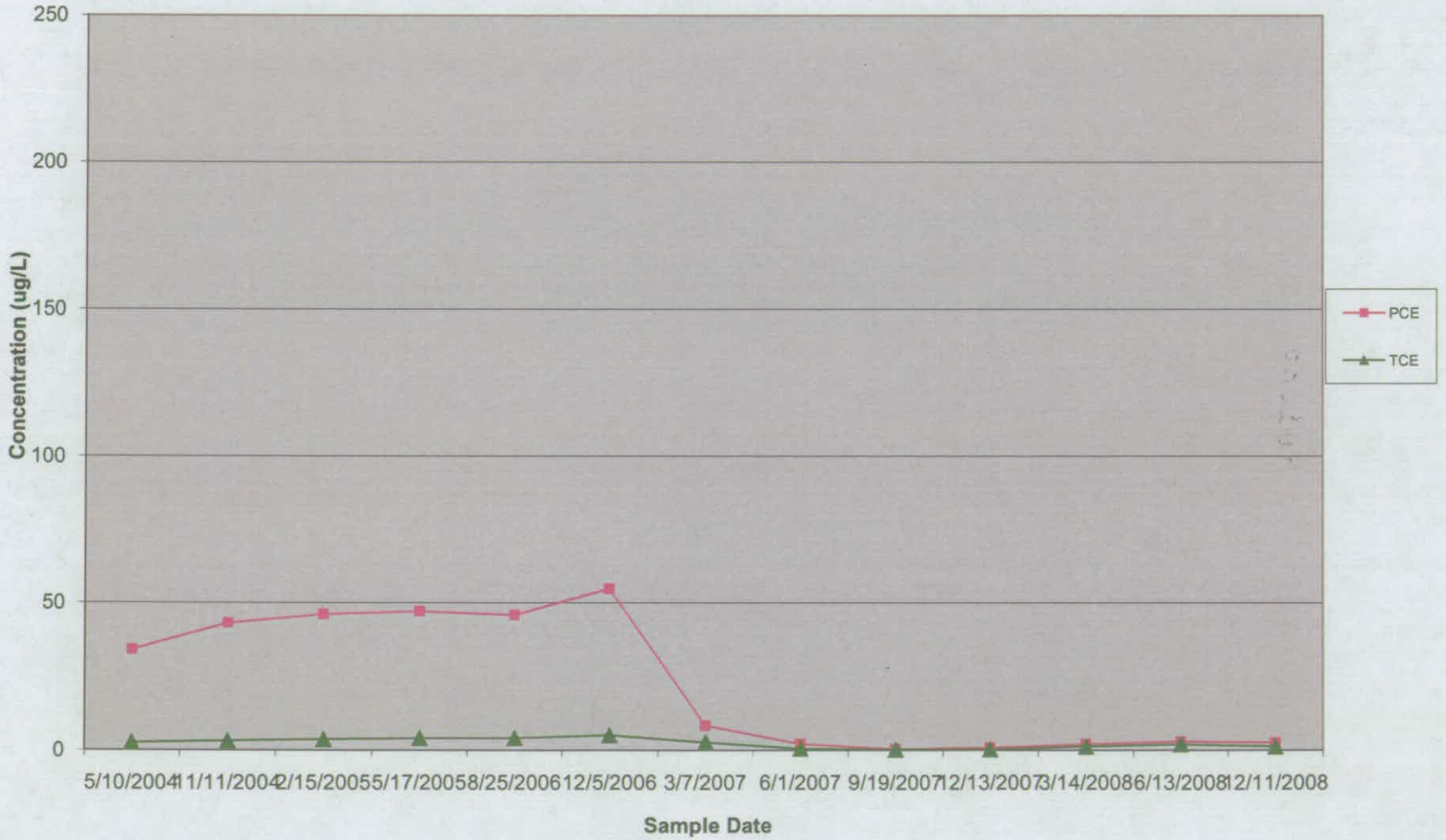
10162900

1015291

DR1-1A
TTA-1 SOUTH



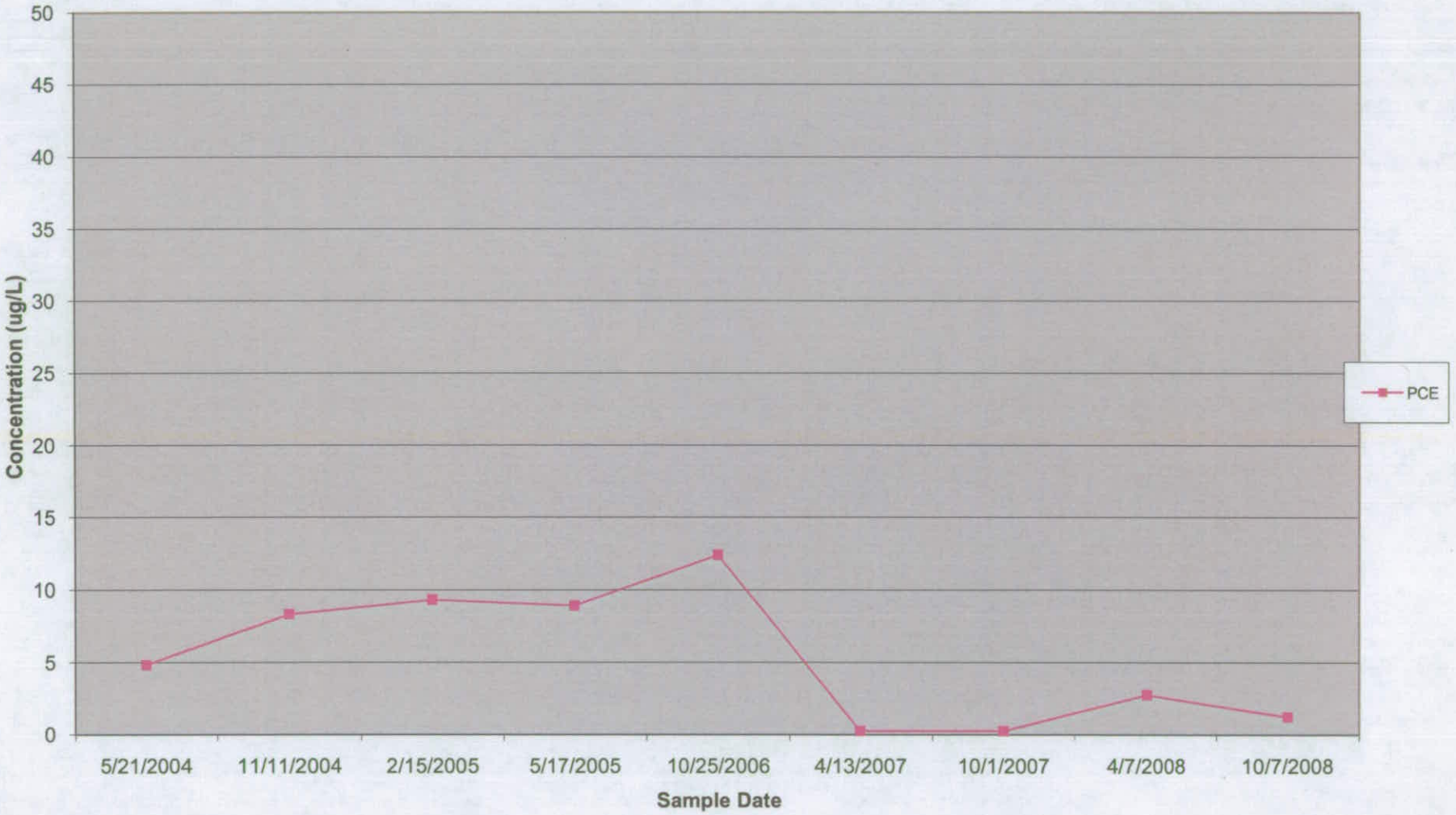
DR1-3
TTA-1 SOUTH



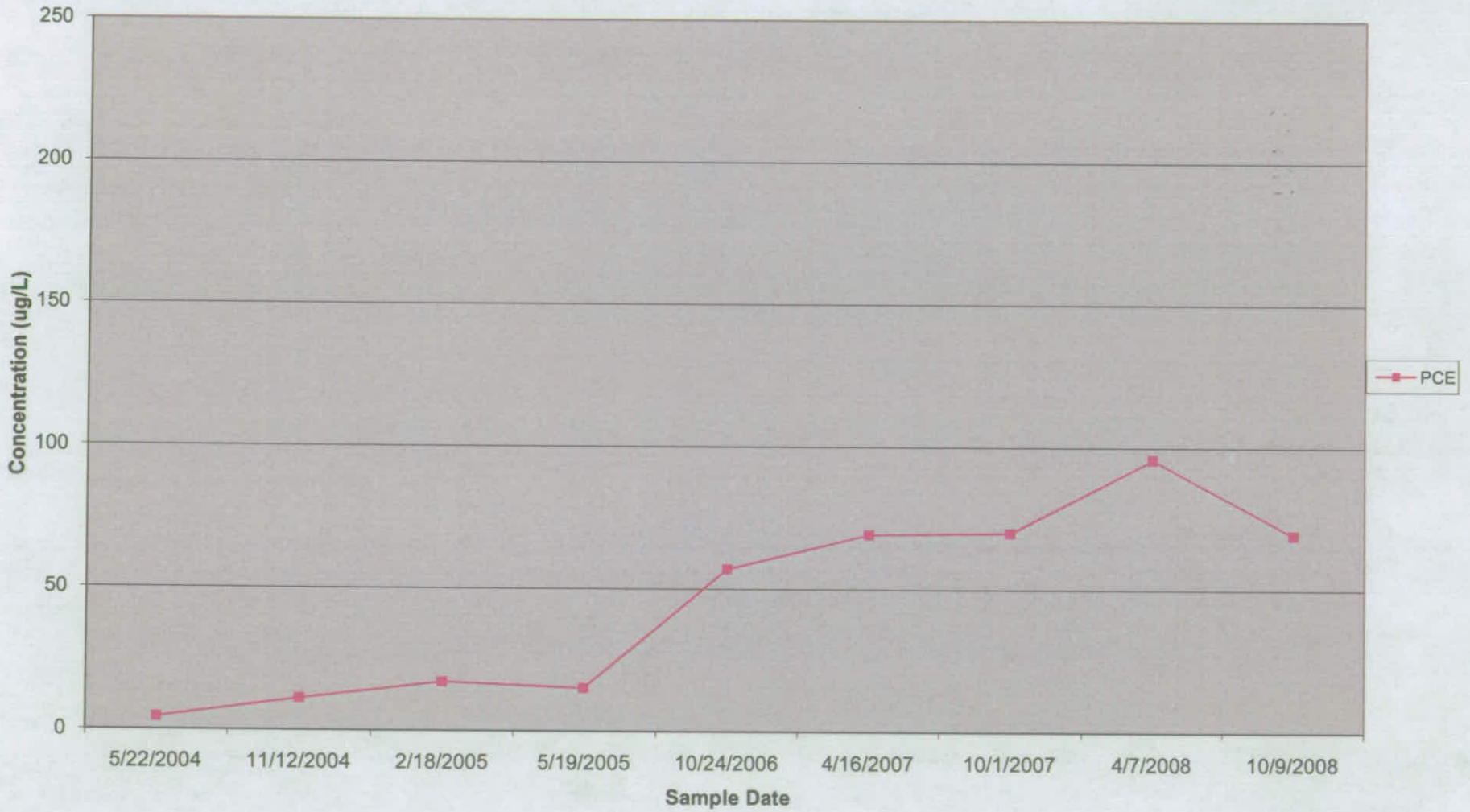
10152

1016293

DR1-4
TTA-1 SOUTH



DR1-5
TTA-1 SOUTH



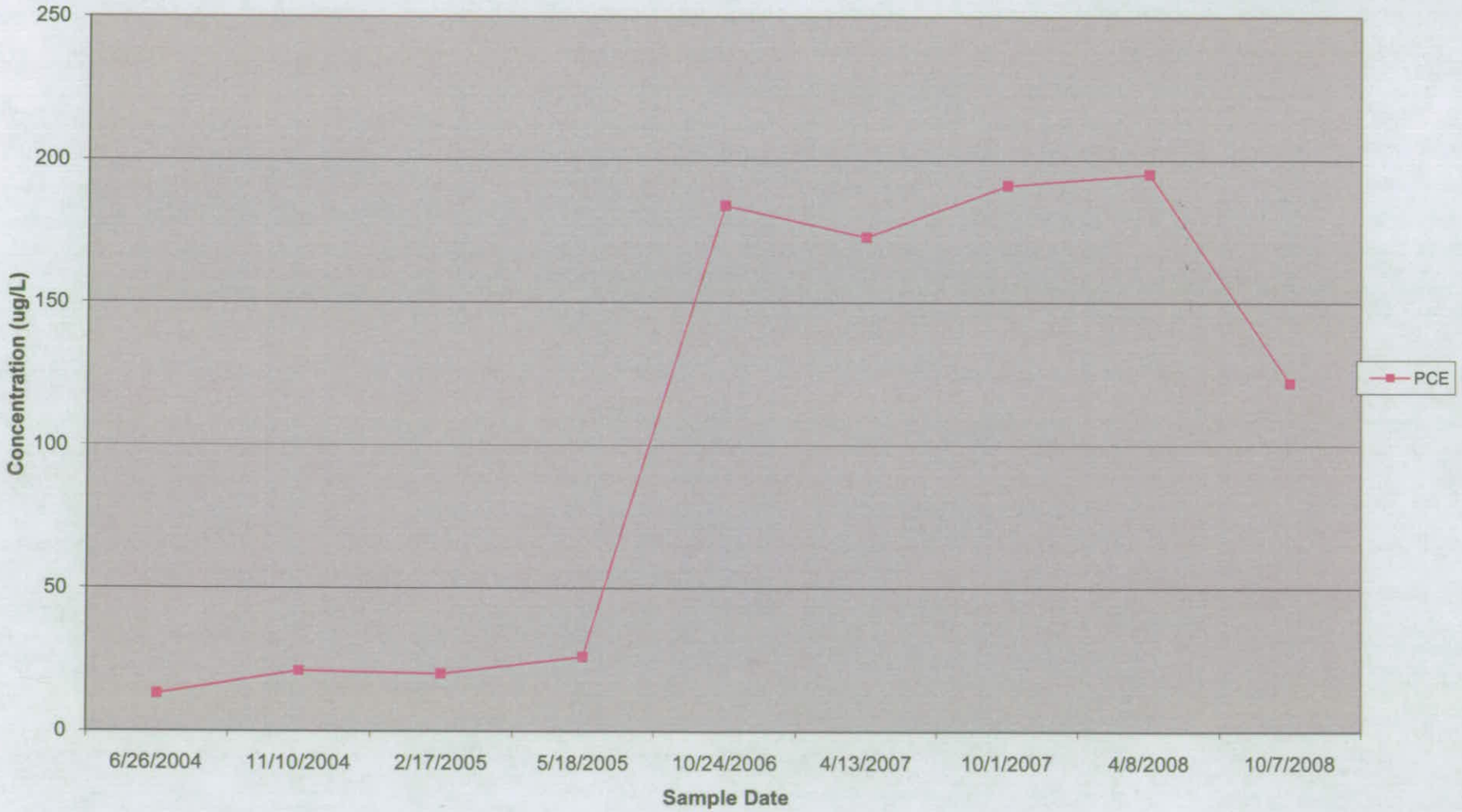
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10162995

DR1-5A
TTA-1 SOUTH



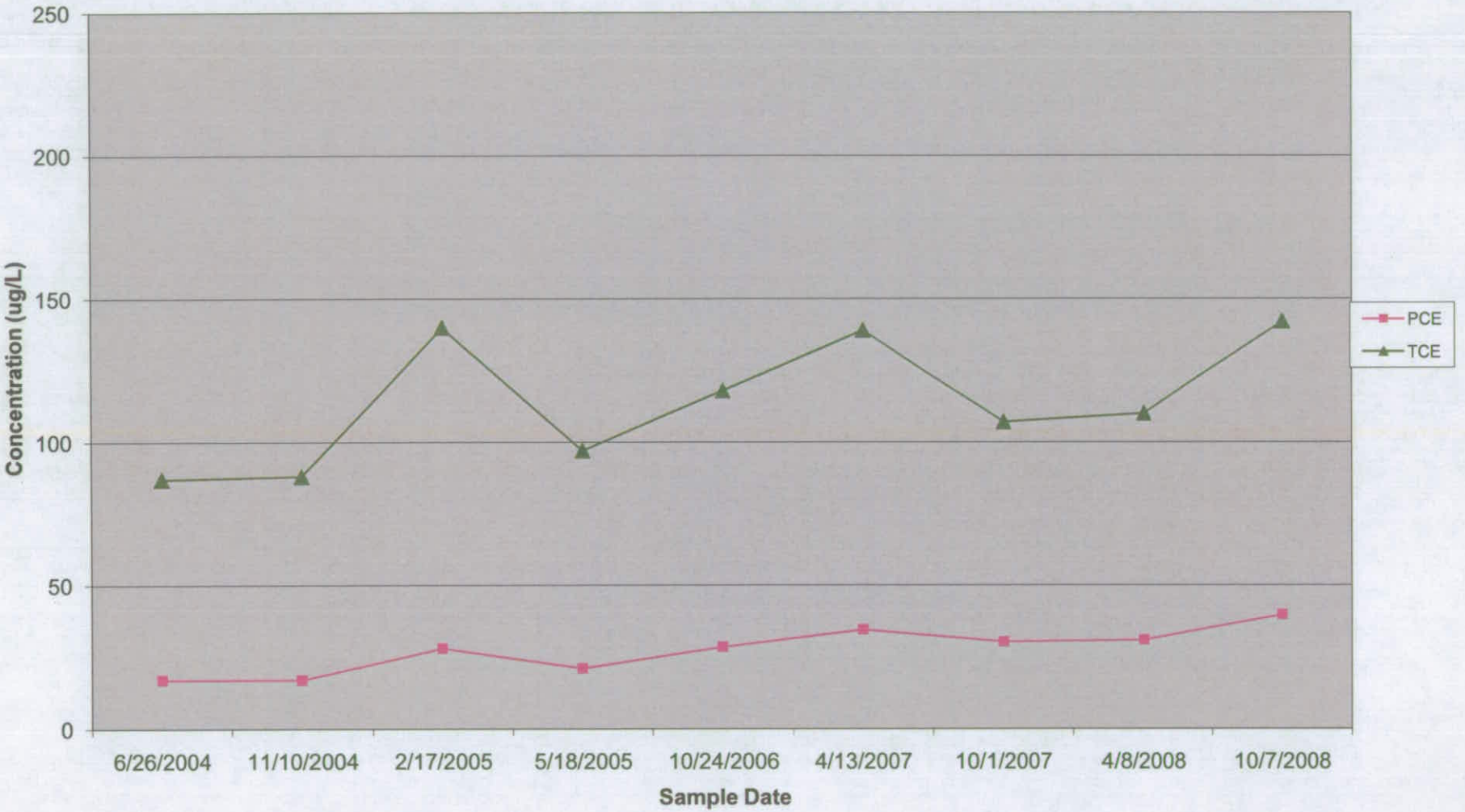
DR1-6
TTA-1 SOUTH



10152296

1015297

DR1-6A
TTA-1 SOUTH



MW-101 Top
TTA-1 SOUTH



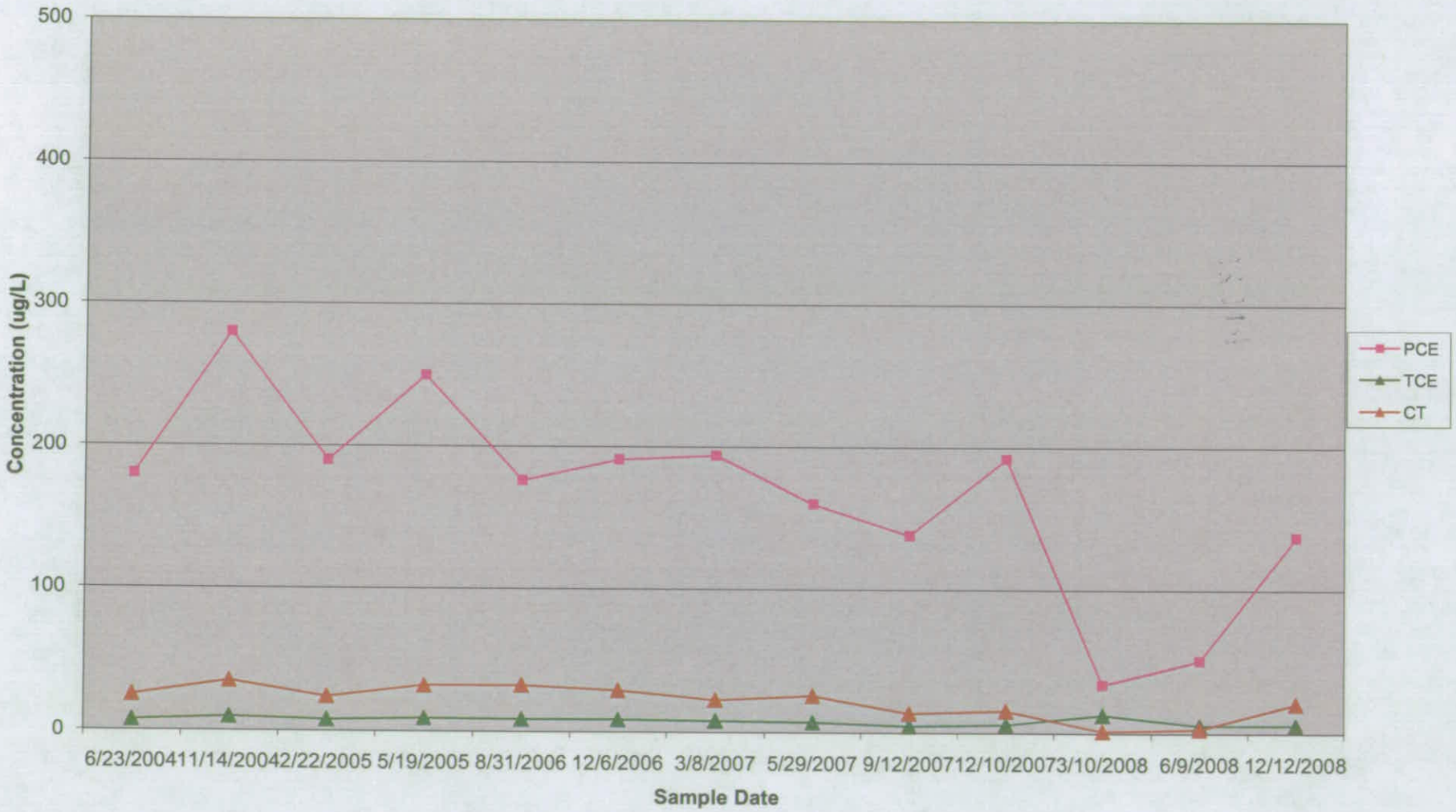
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1016299

MW-101 Bottom
TTA-1 SOUTH



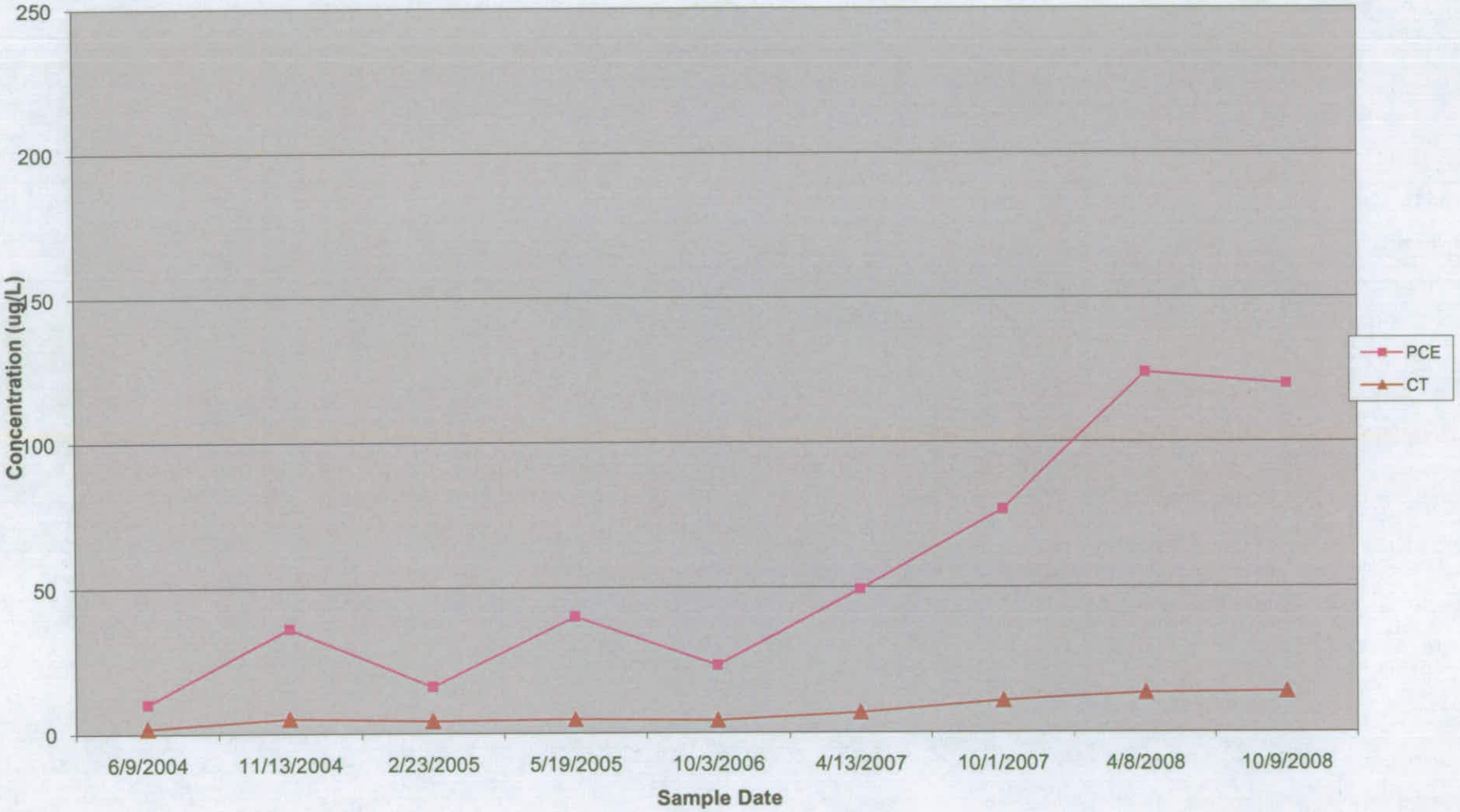
DR2-1
TTA-2



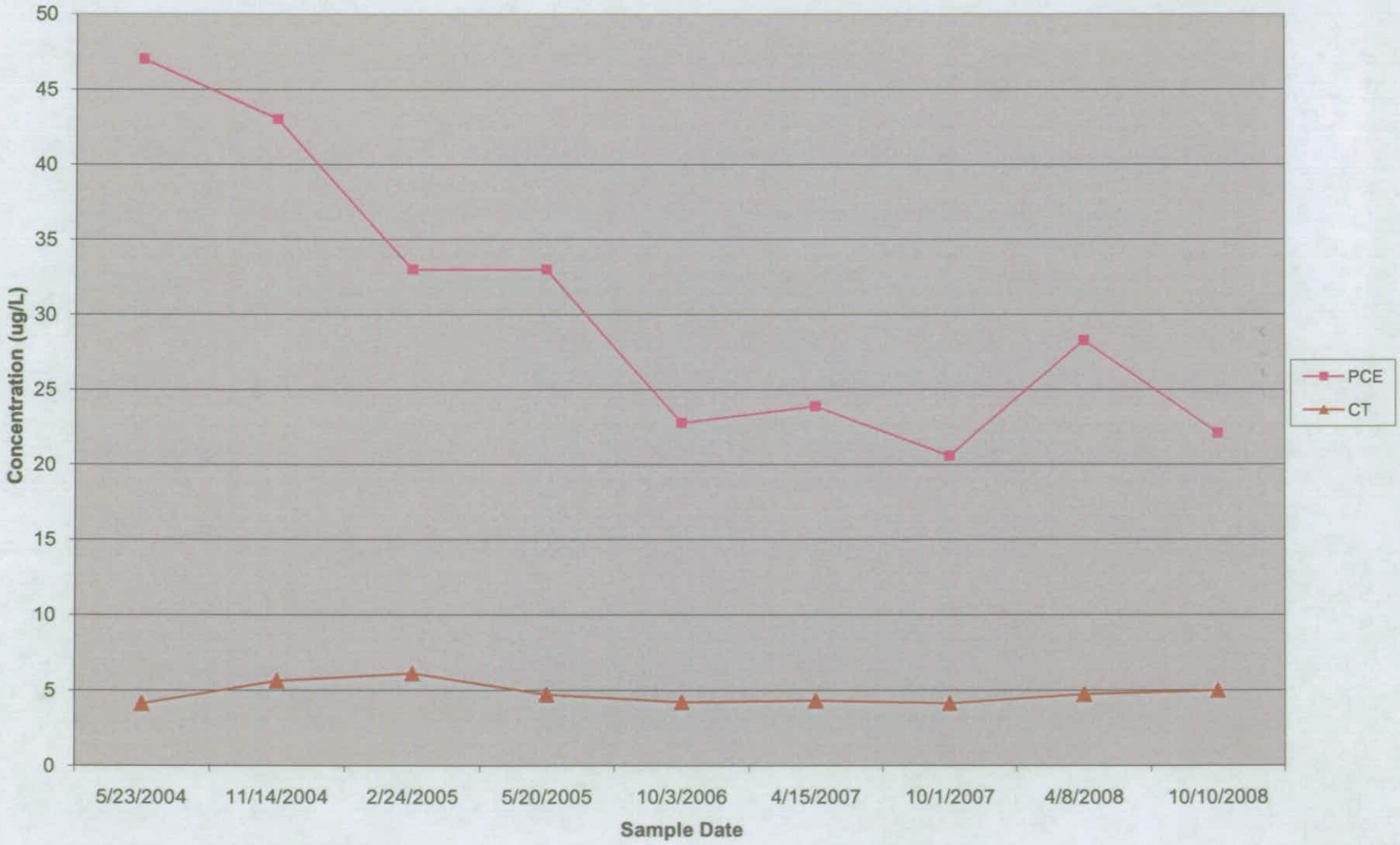
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10163301

DR2-2
TTA-2



DR2-3
TTA-2



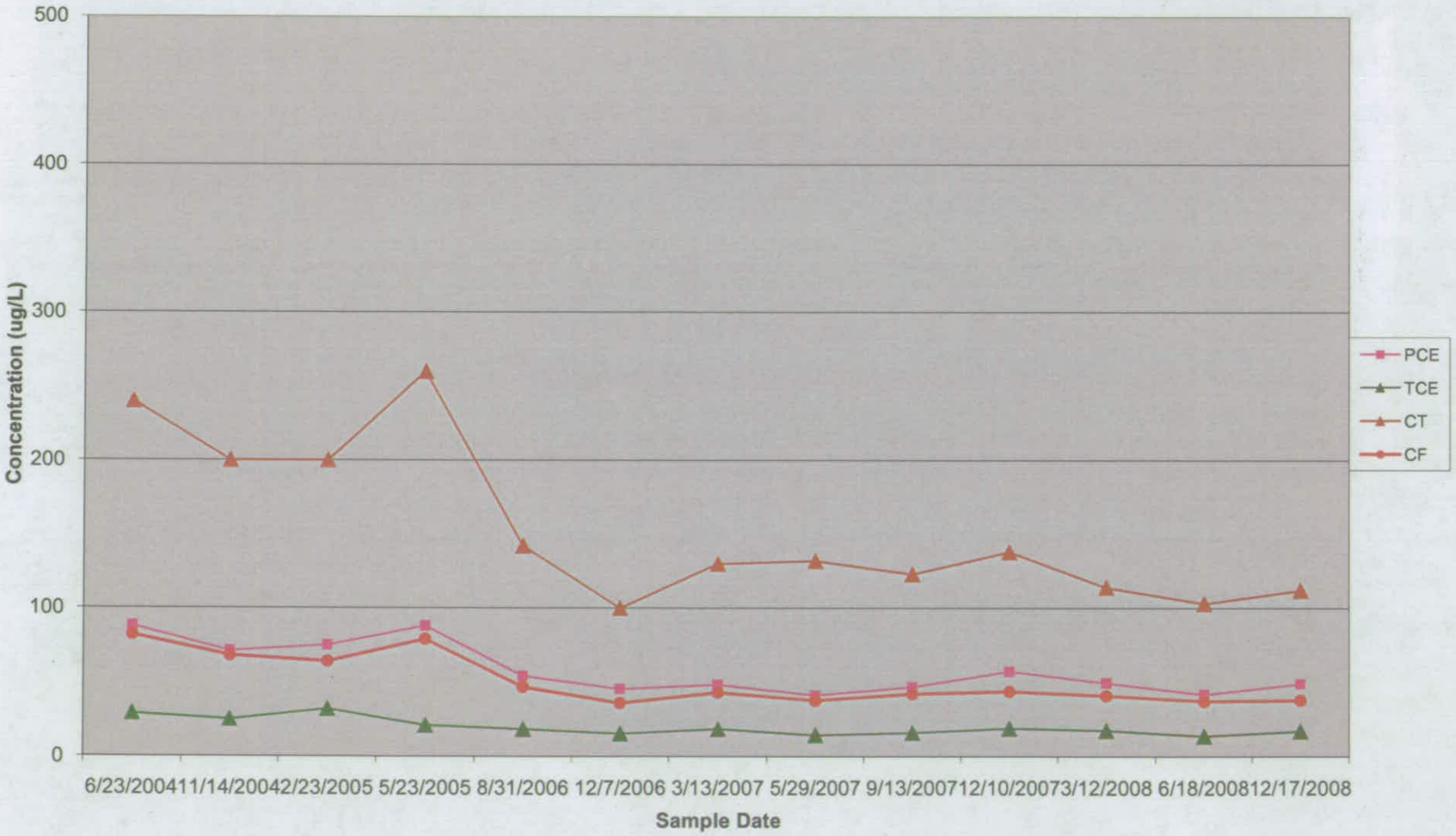
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1016303

DR2-4
TTA-2



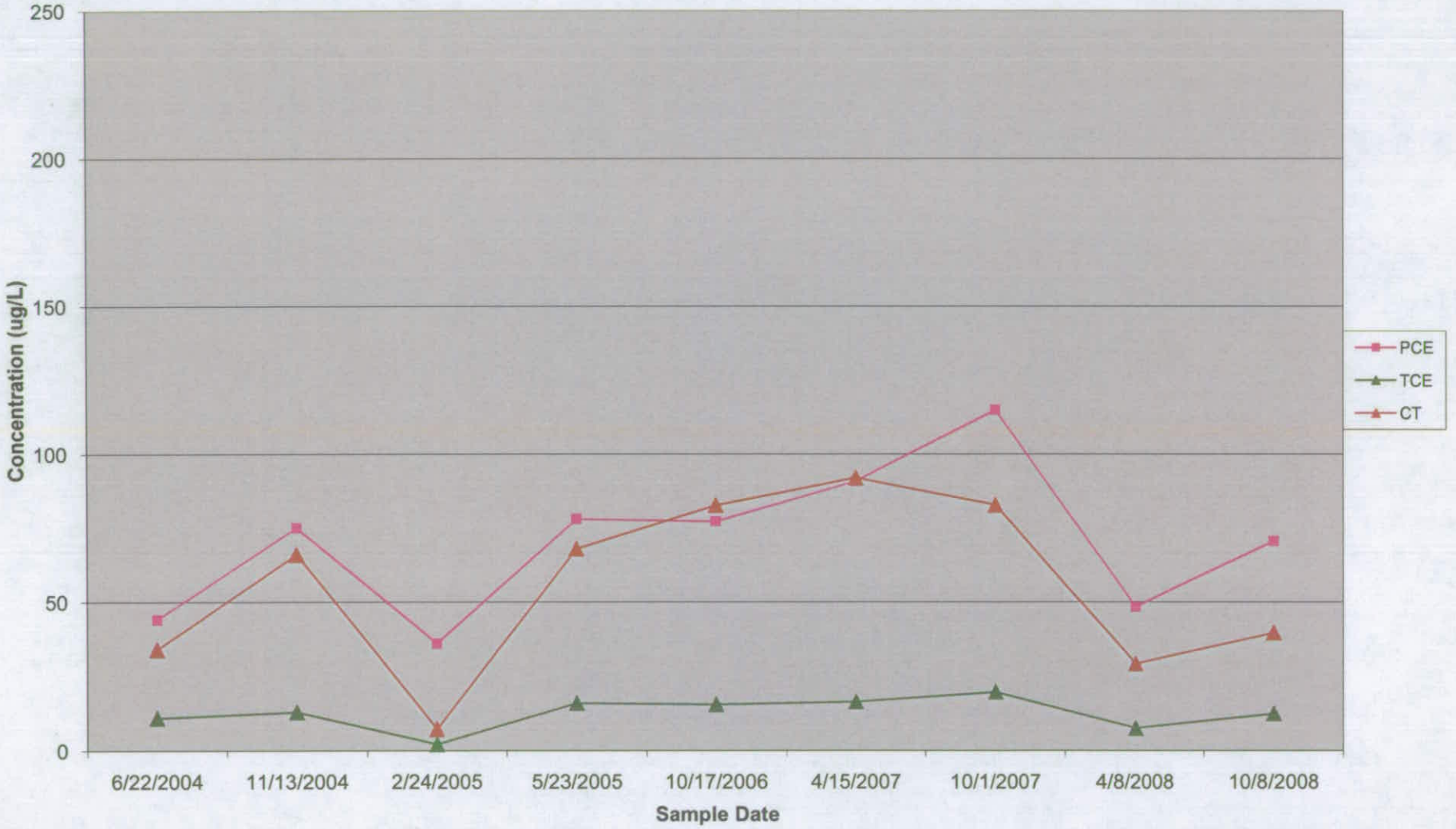
DR2-5
TTA-2



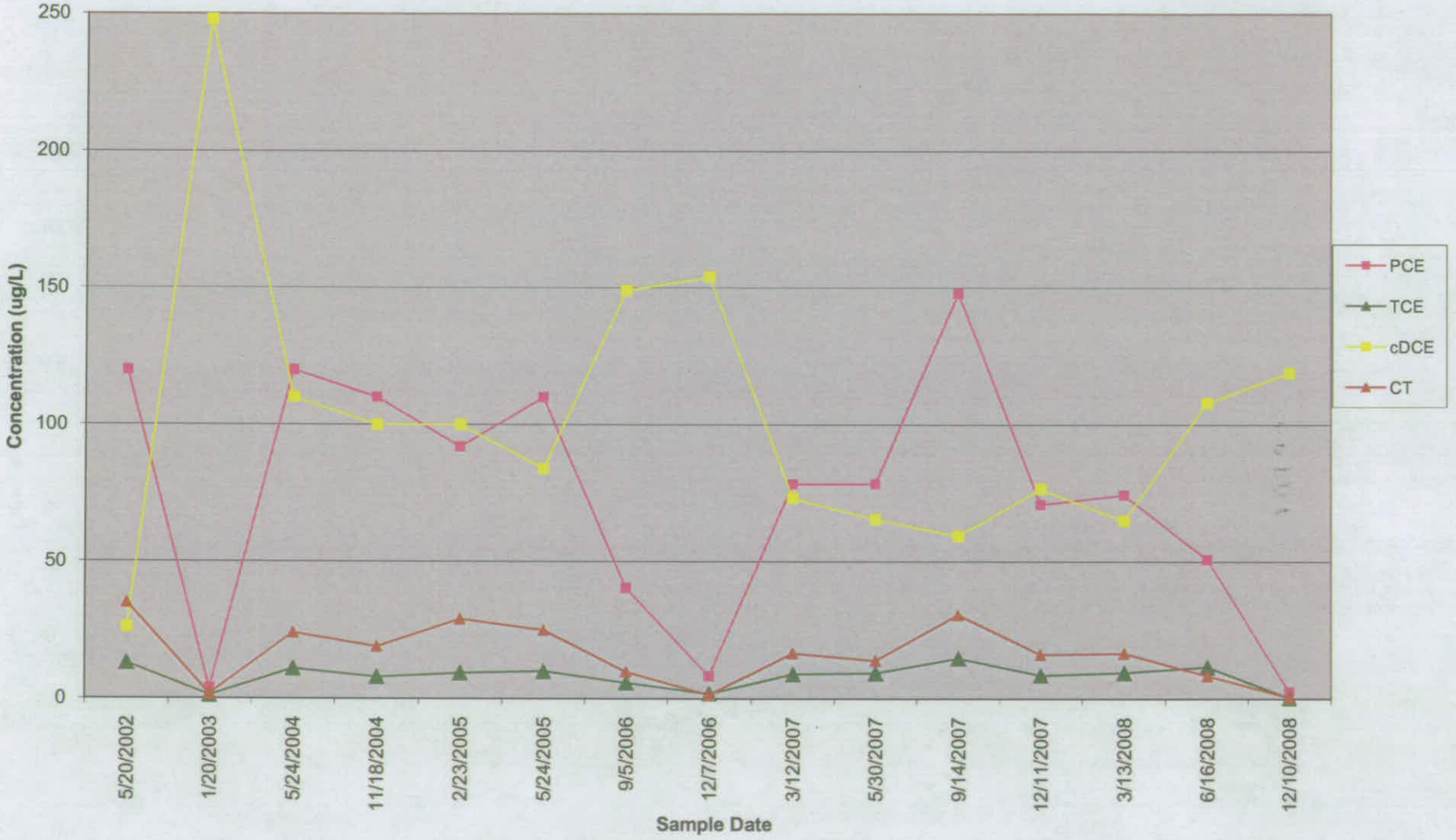
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1016305

DR2-6
TTA-2



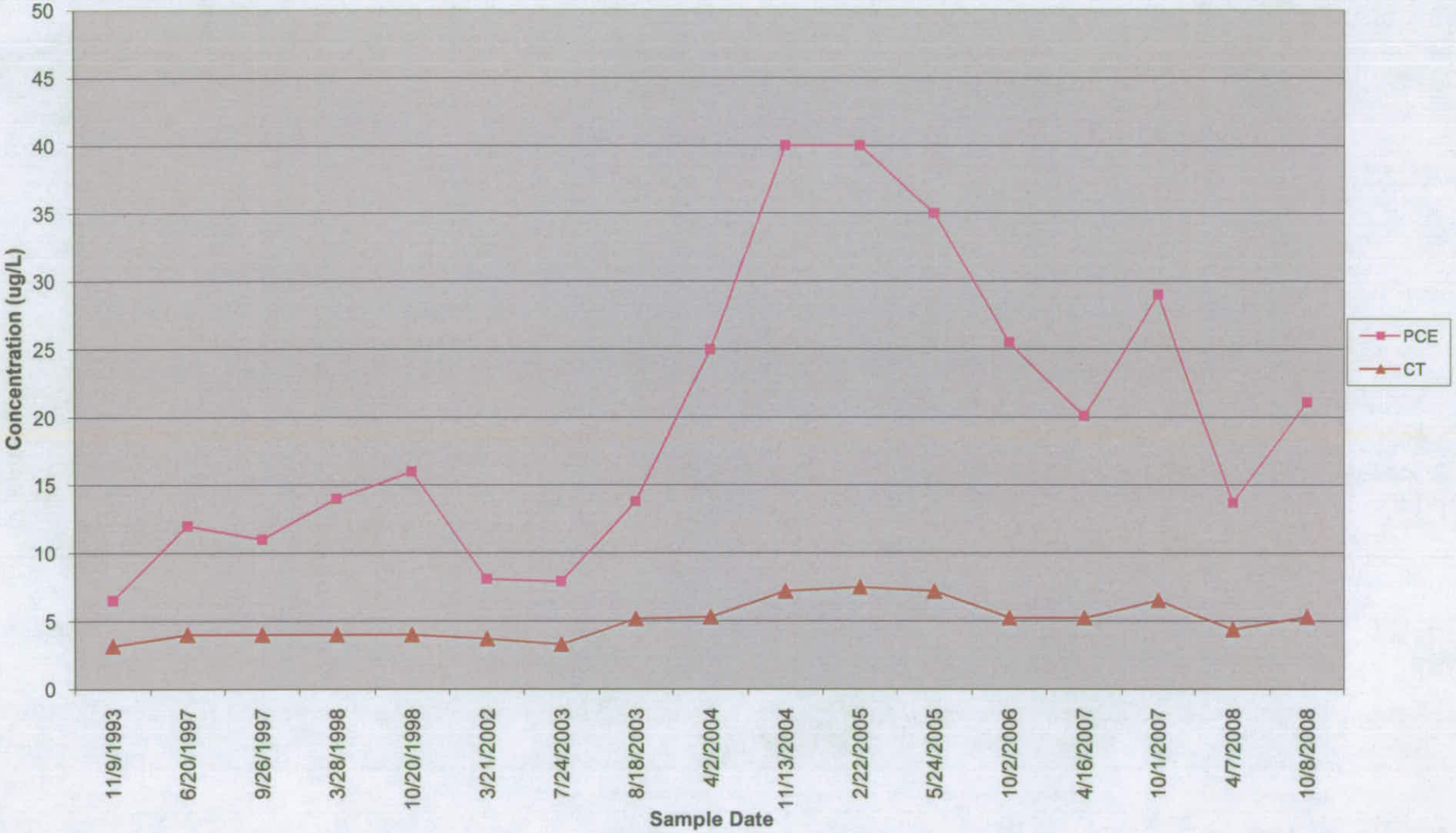
IW-1
TTA-2



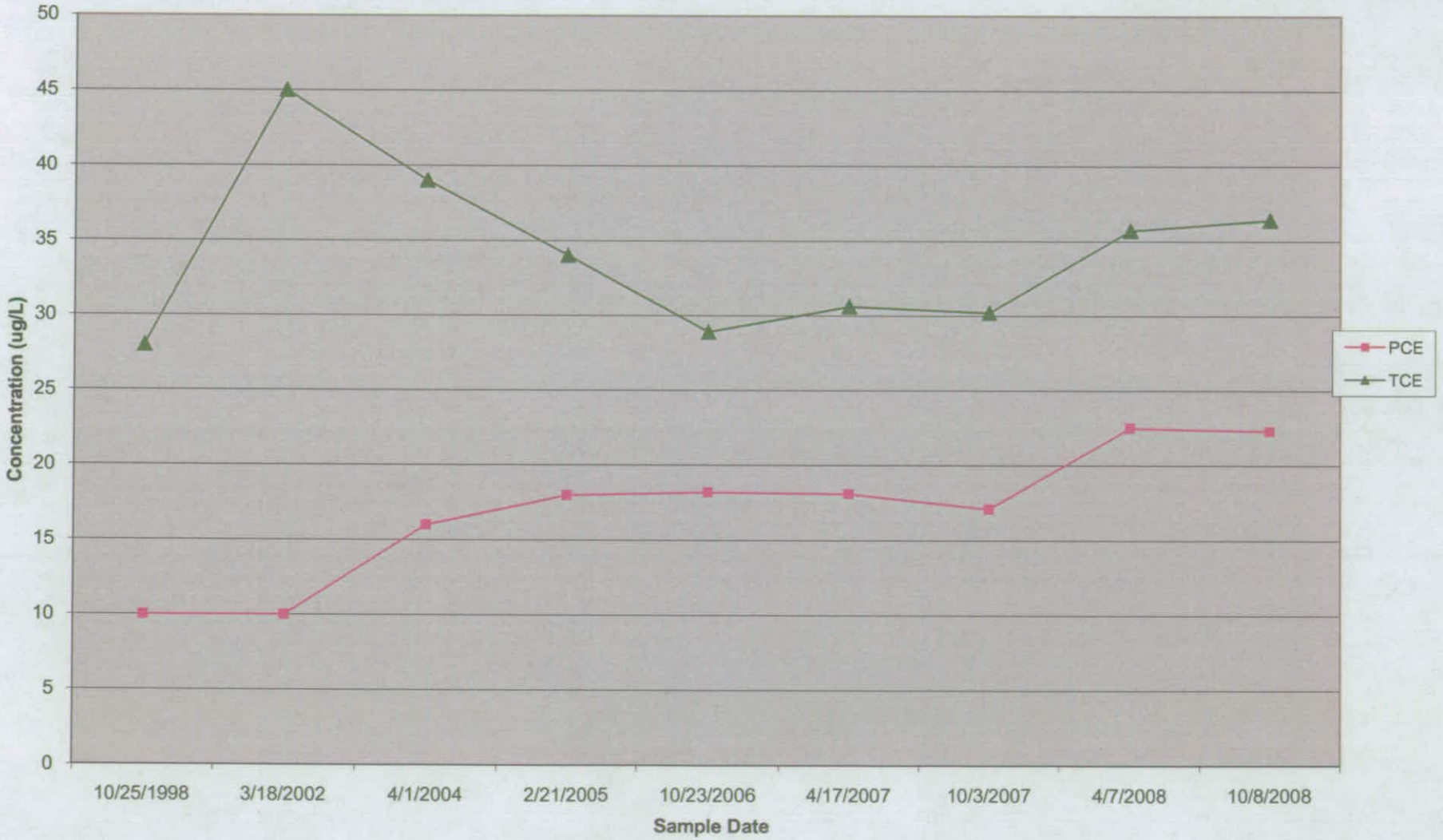
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MW-26
TTA-2

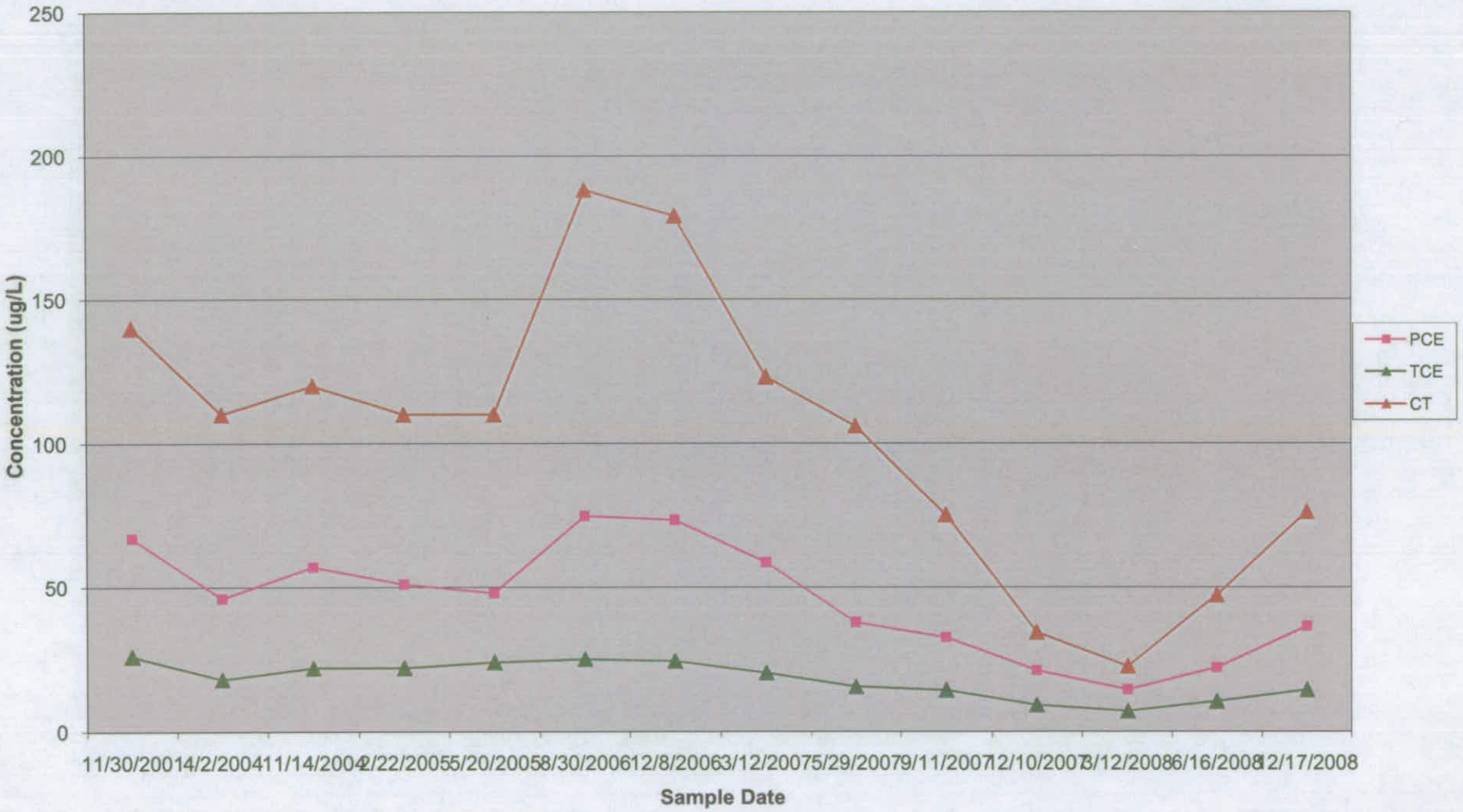


MW-64
TTA-2



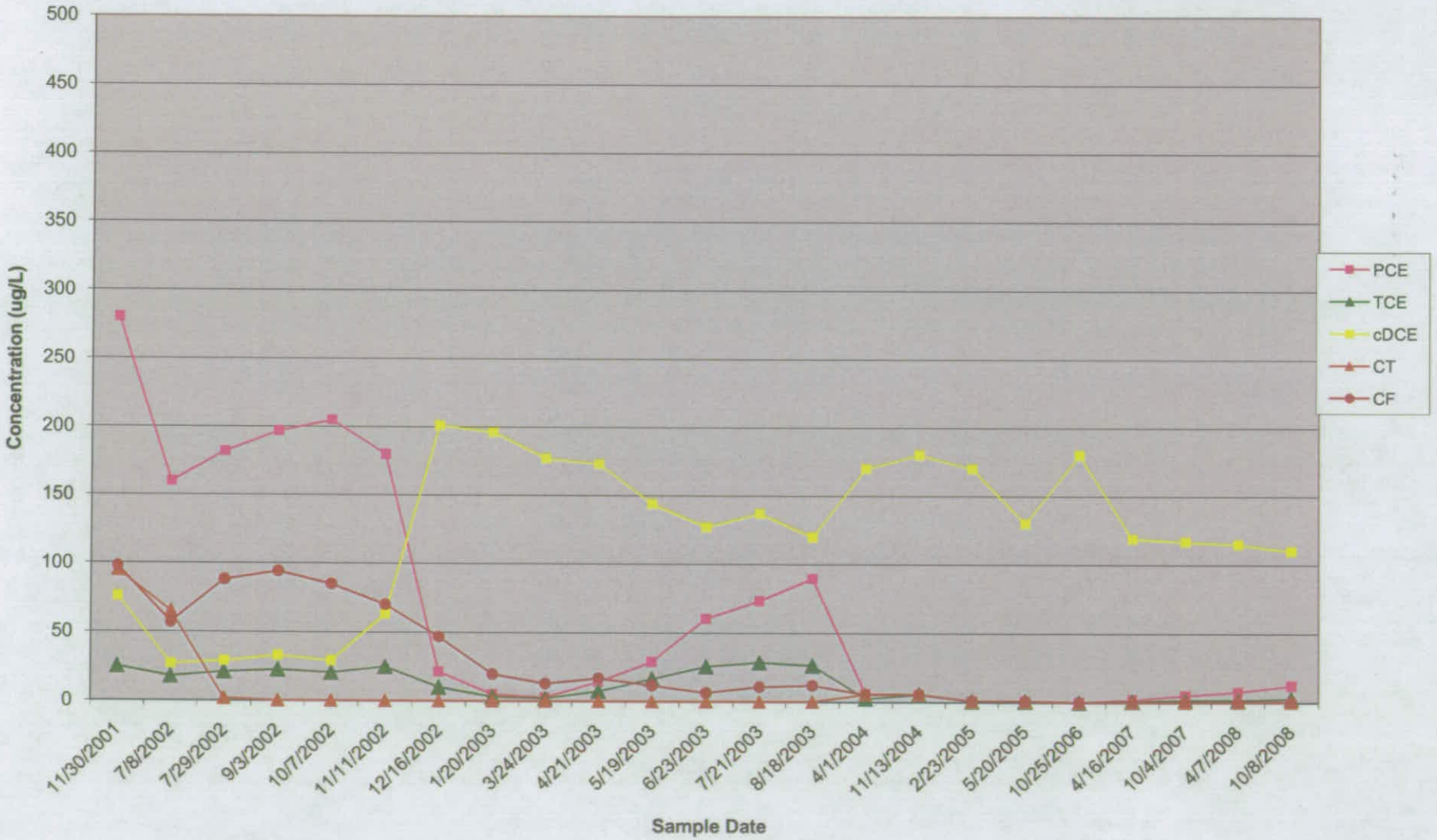
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MW-85
TTA-2



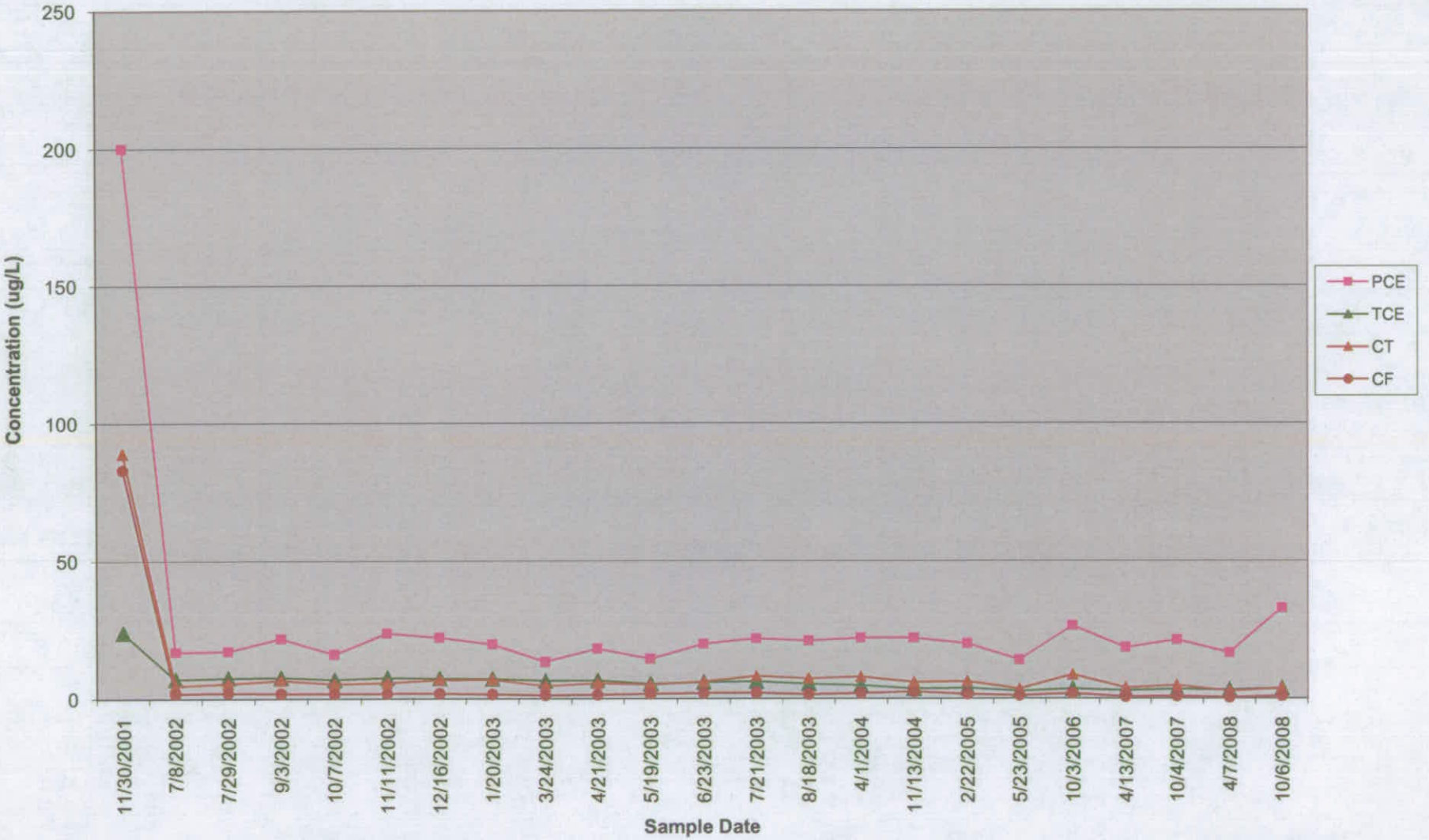
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MW-86
TTA-2



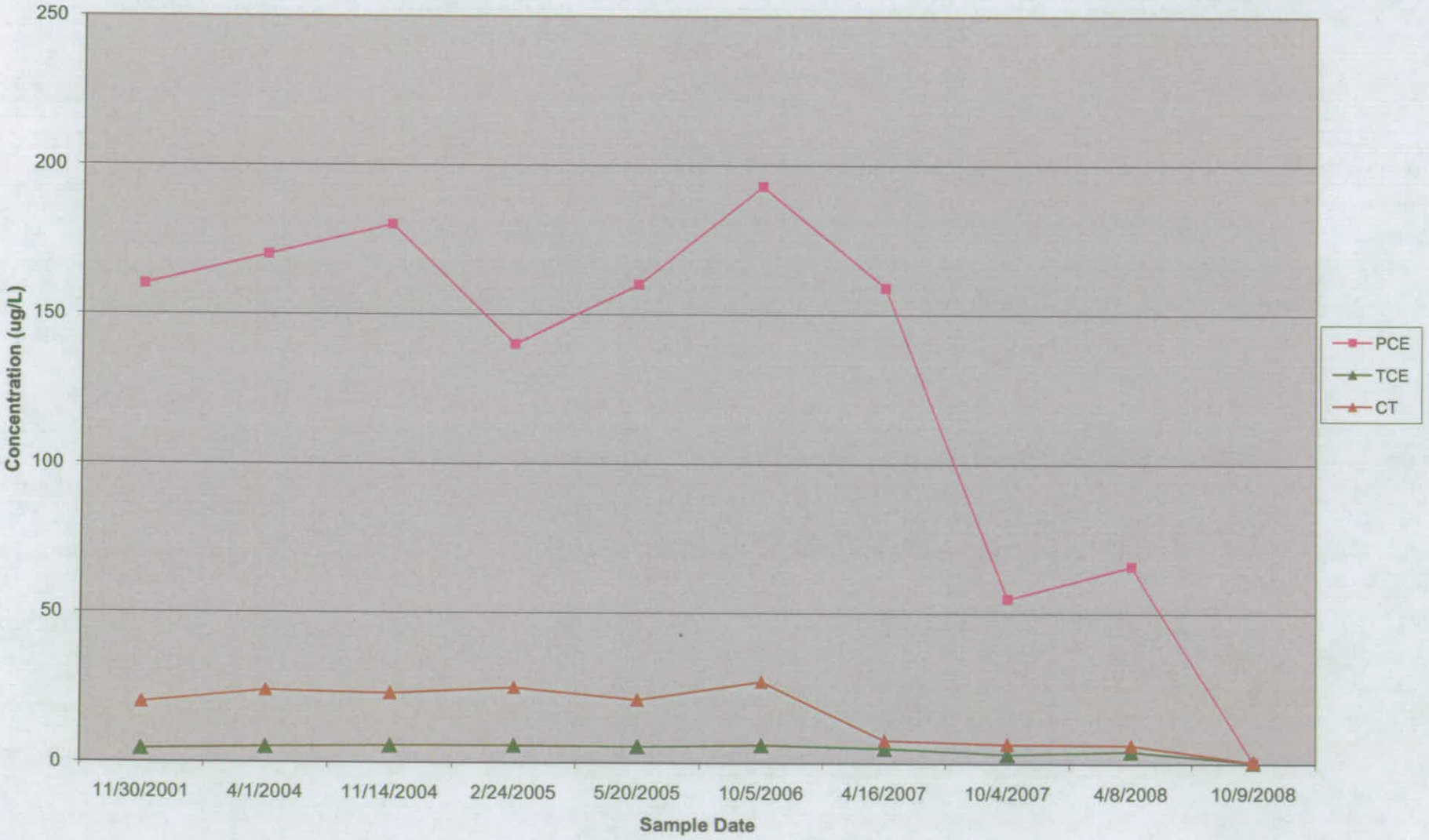
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MW-88
TTA-2



1016311

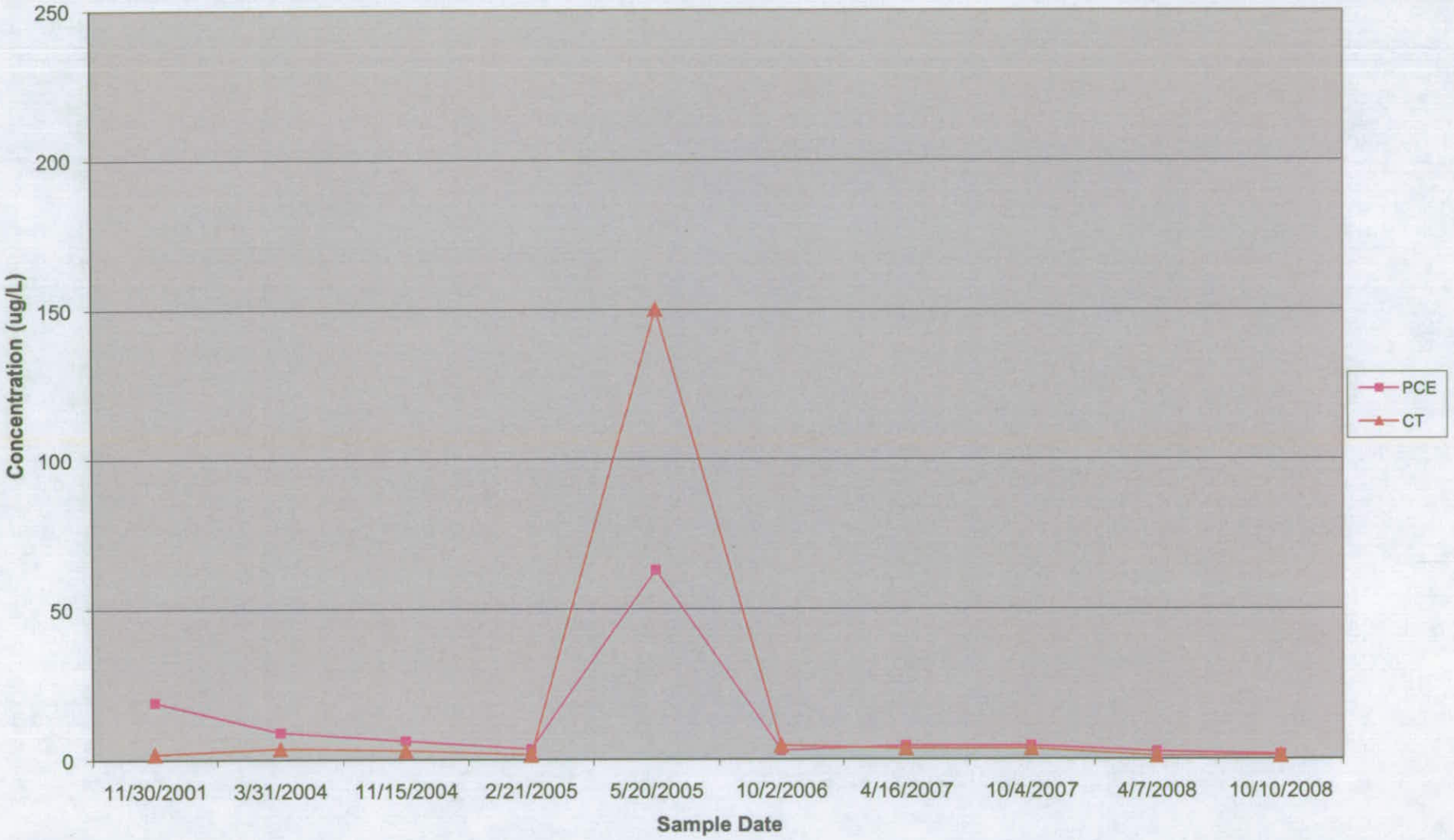
MW-92
TTA-2



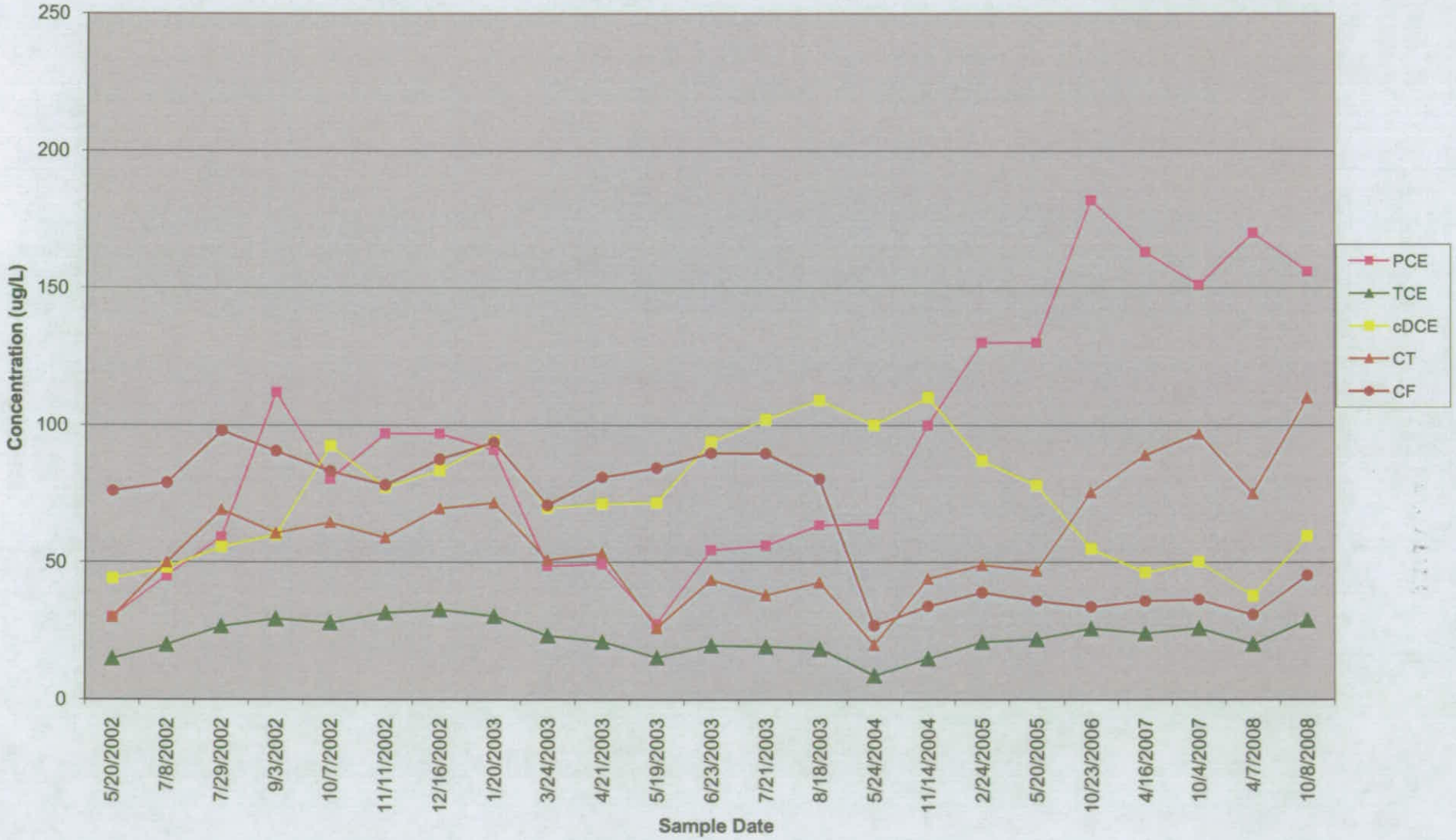
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MW-96
TTA-2



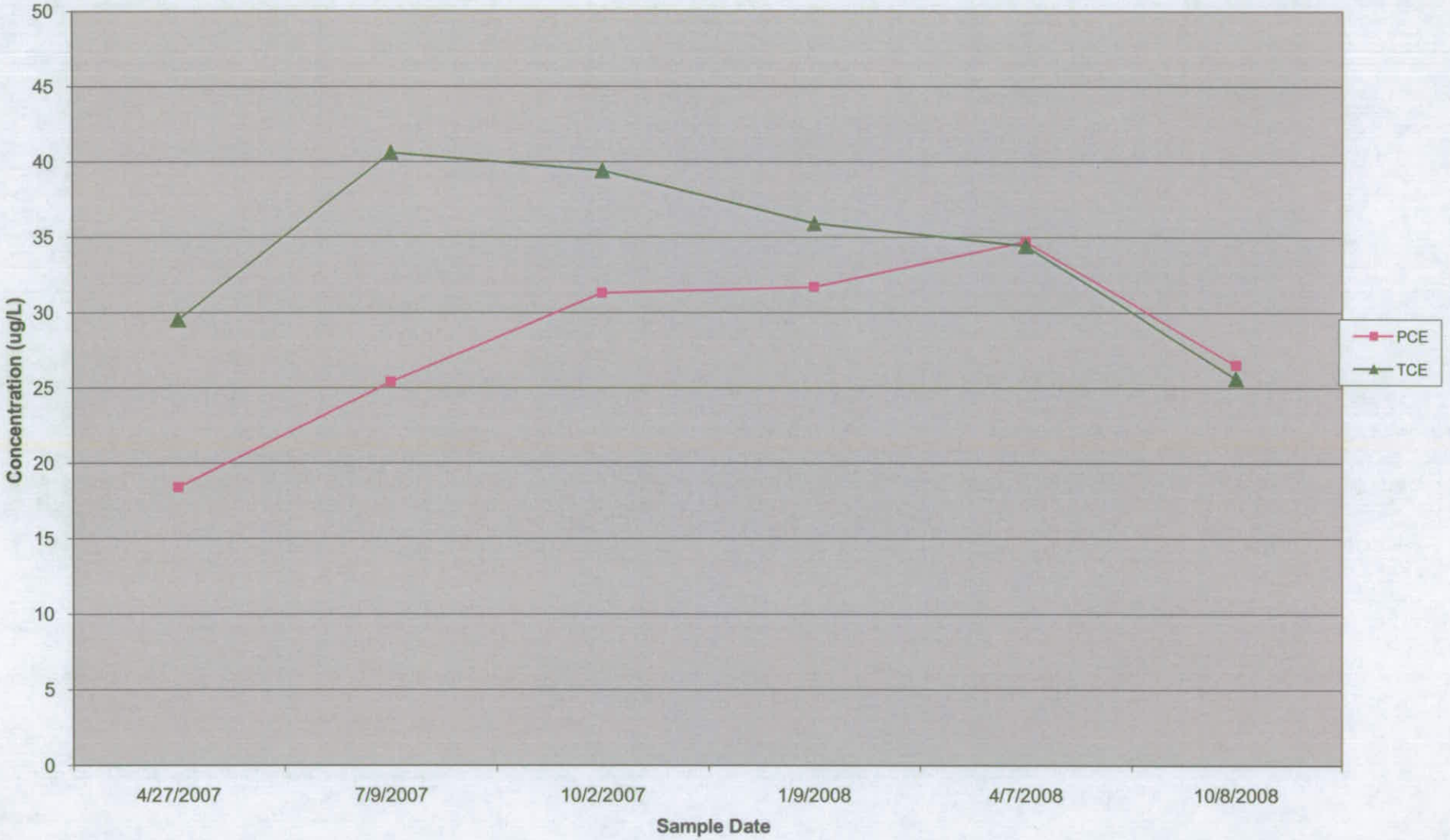
MW-113
TTA-2



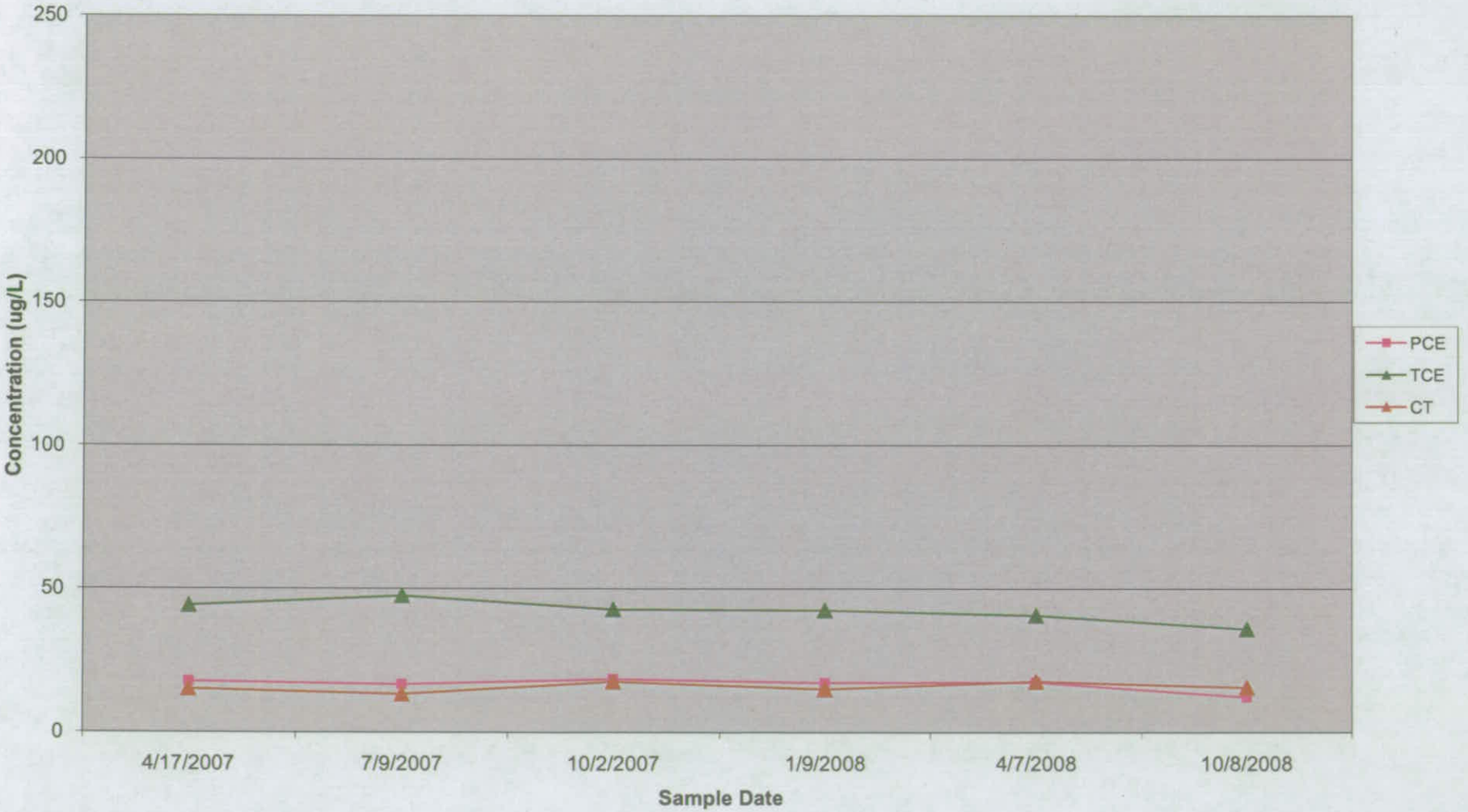
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MW-217
TTA-2

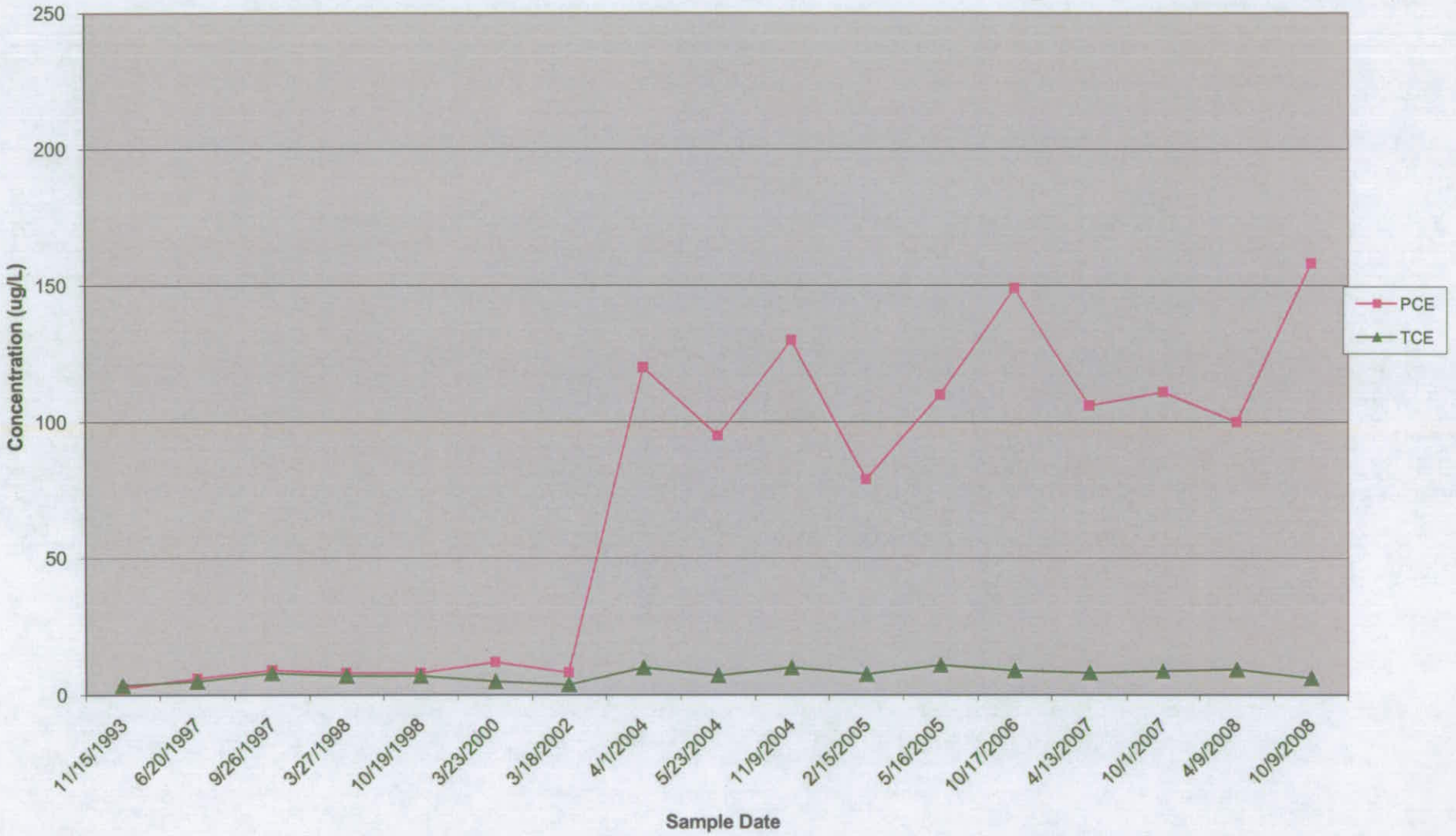


MW-218
TTA-2



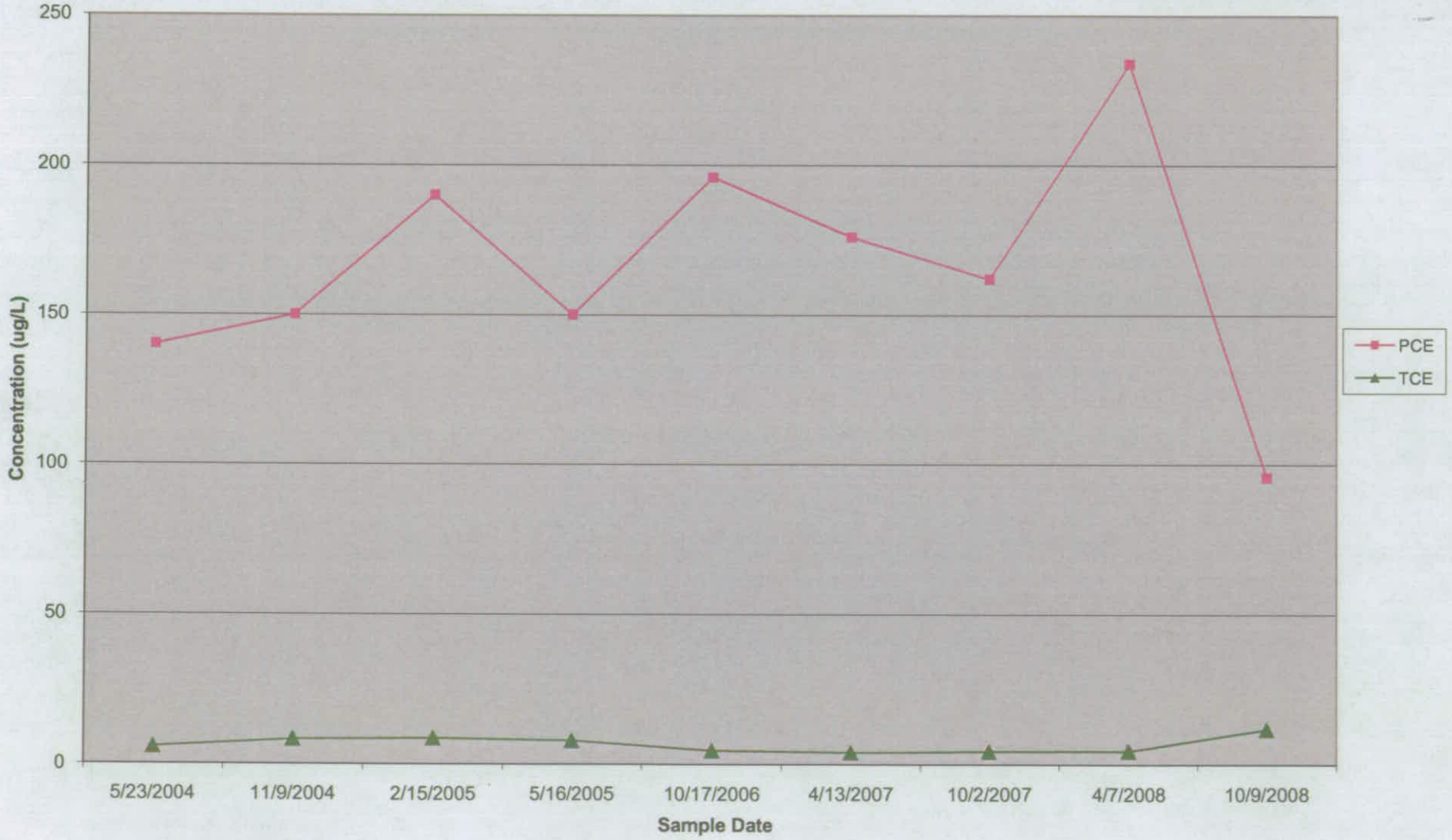
10163316

MW-39
WEST - CENTRAL MI



1015317

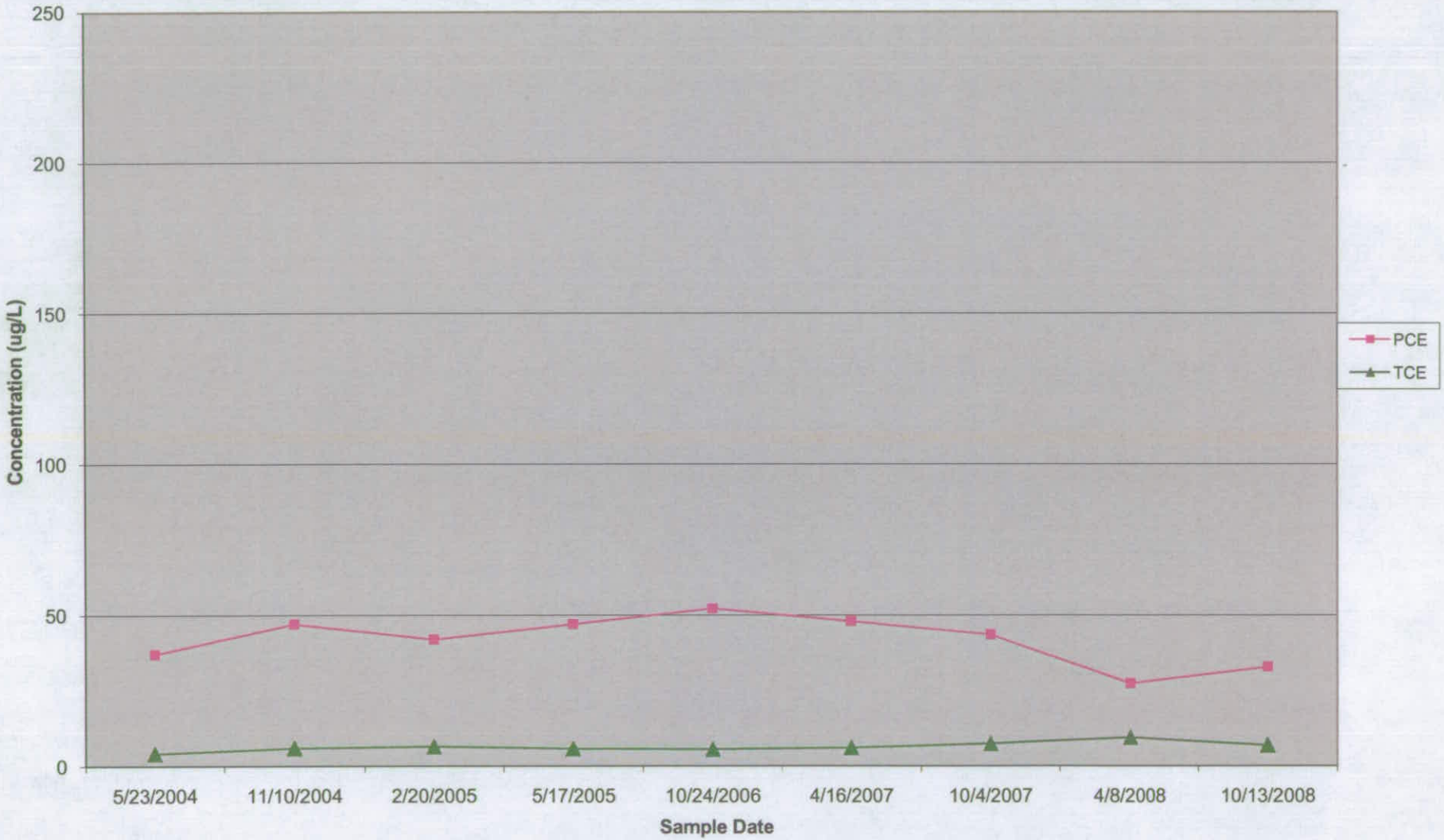
MW-39A
WEST - CENTRAL MI



10016318

10016319

MW-94A
WEST - CENTRAL MI



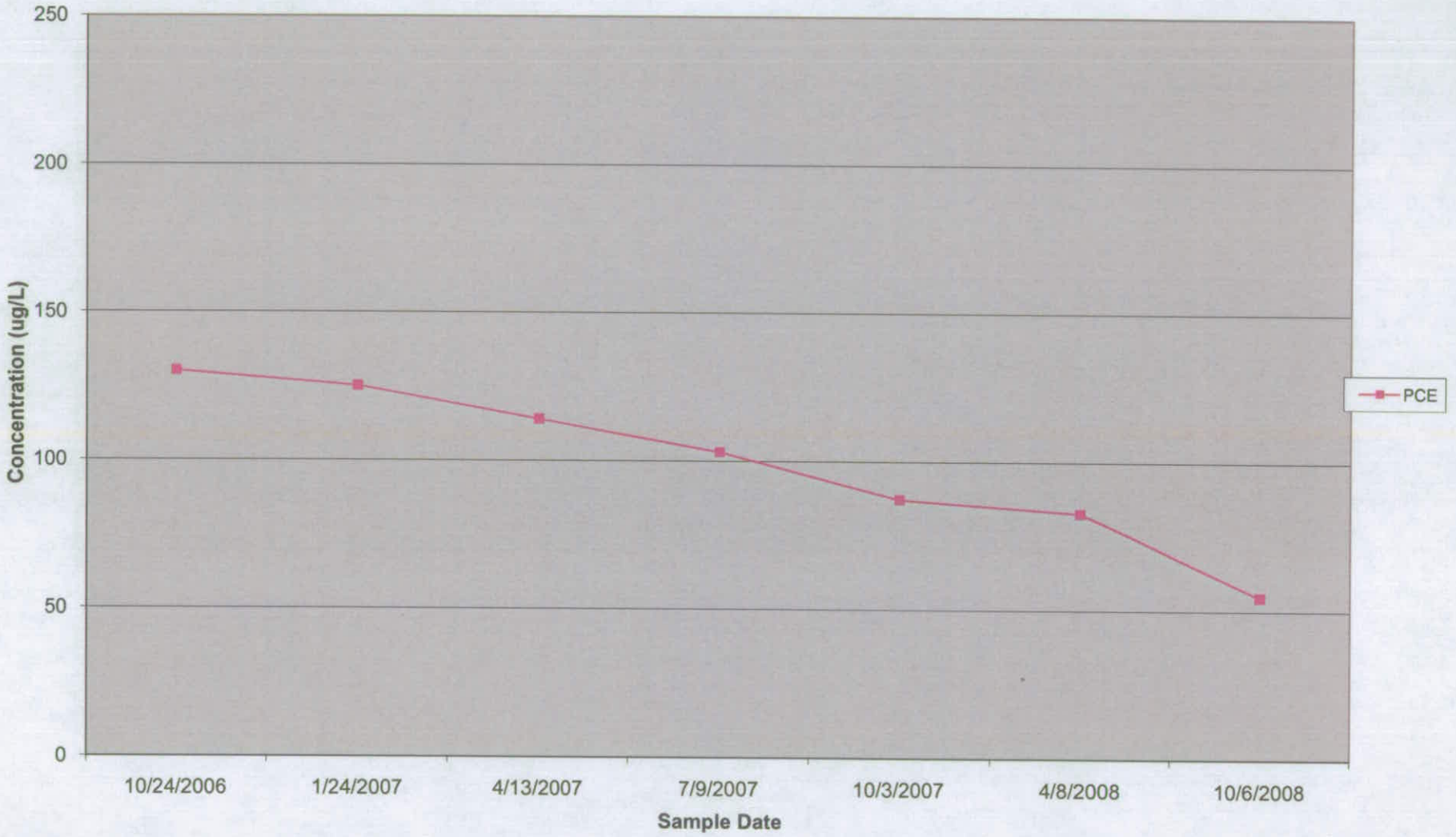
MW-98
WEST - CENTRAL MI



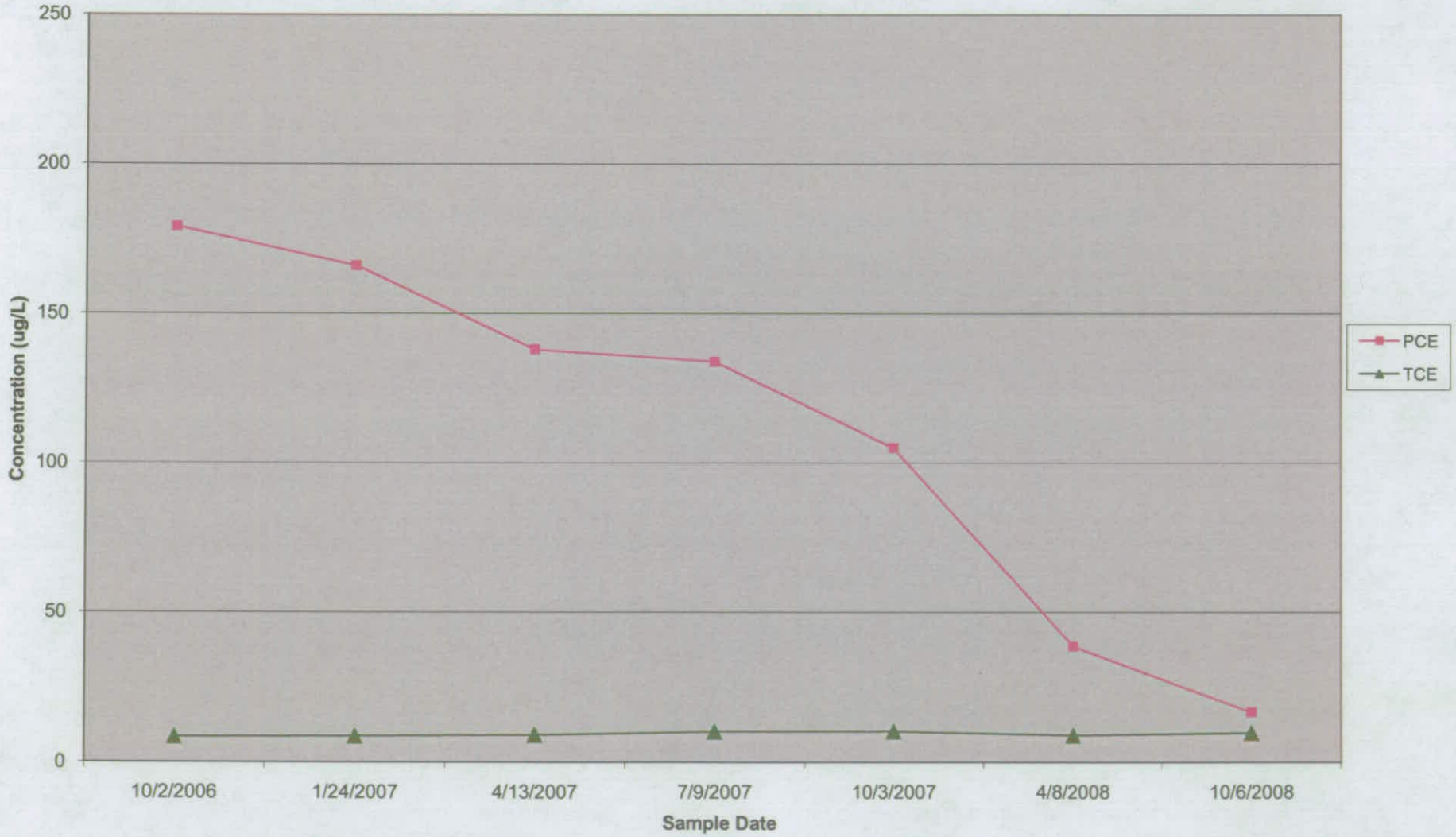
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10016321

MW-197A
WEST - CENTRAL MI



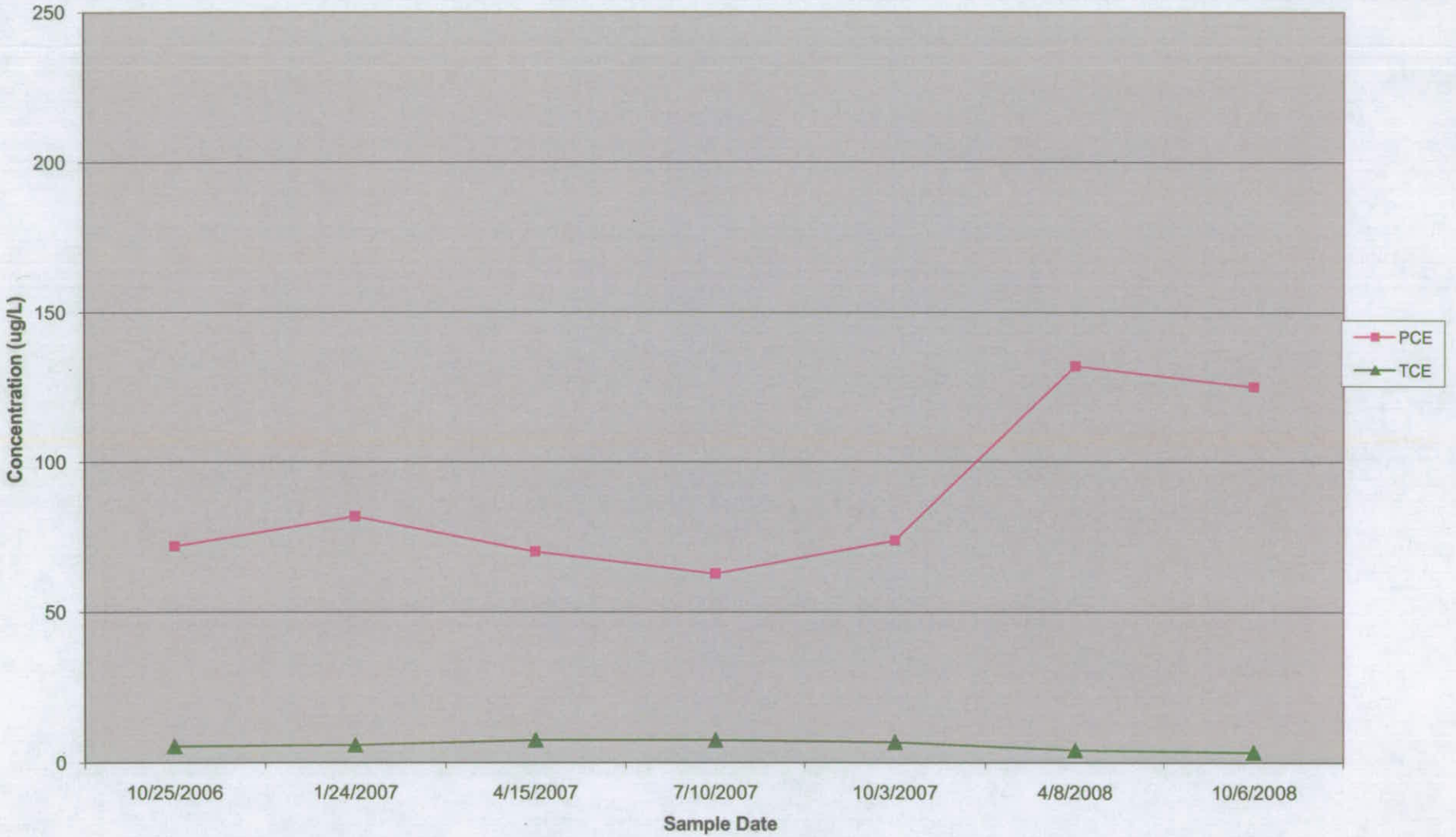
MW-197B
WEST - CENTRAL MI



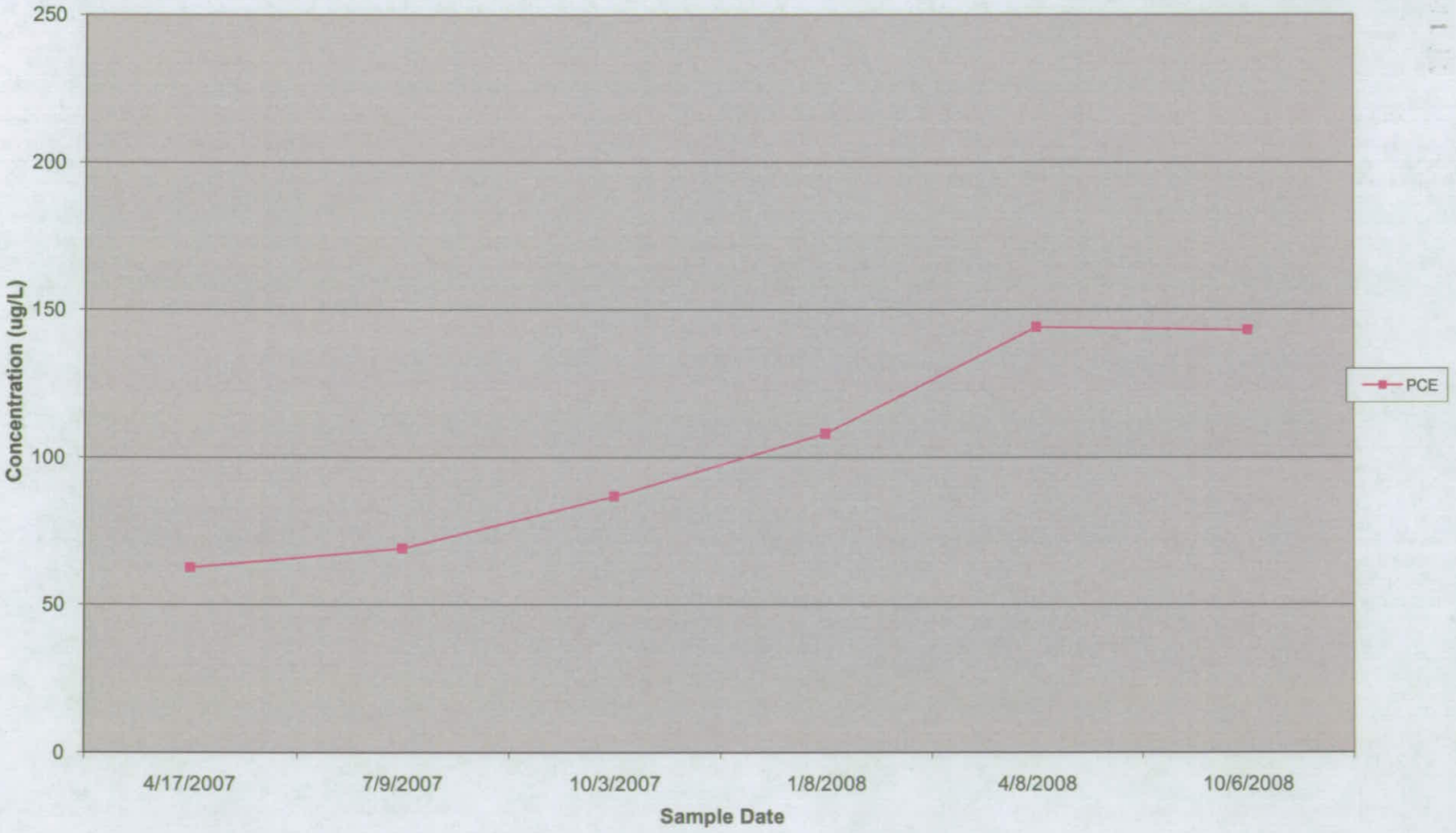
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10163323

MW-200
WEST - CENTRAL MI



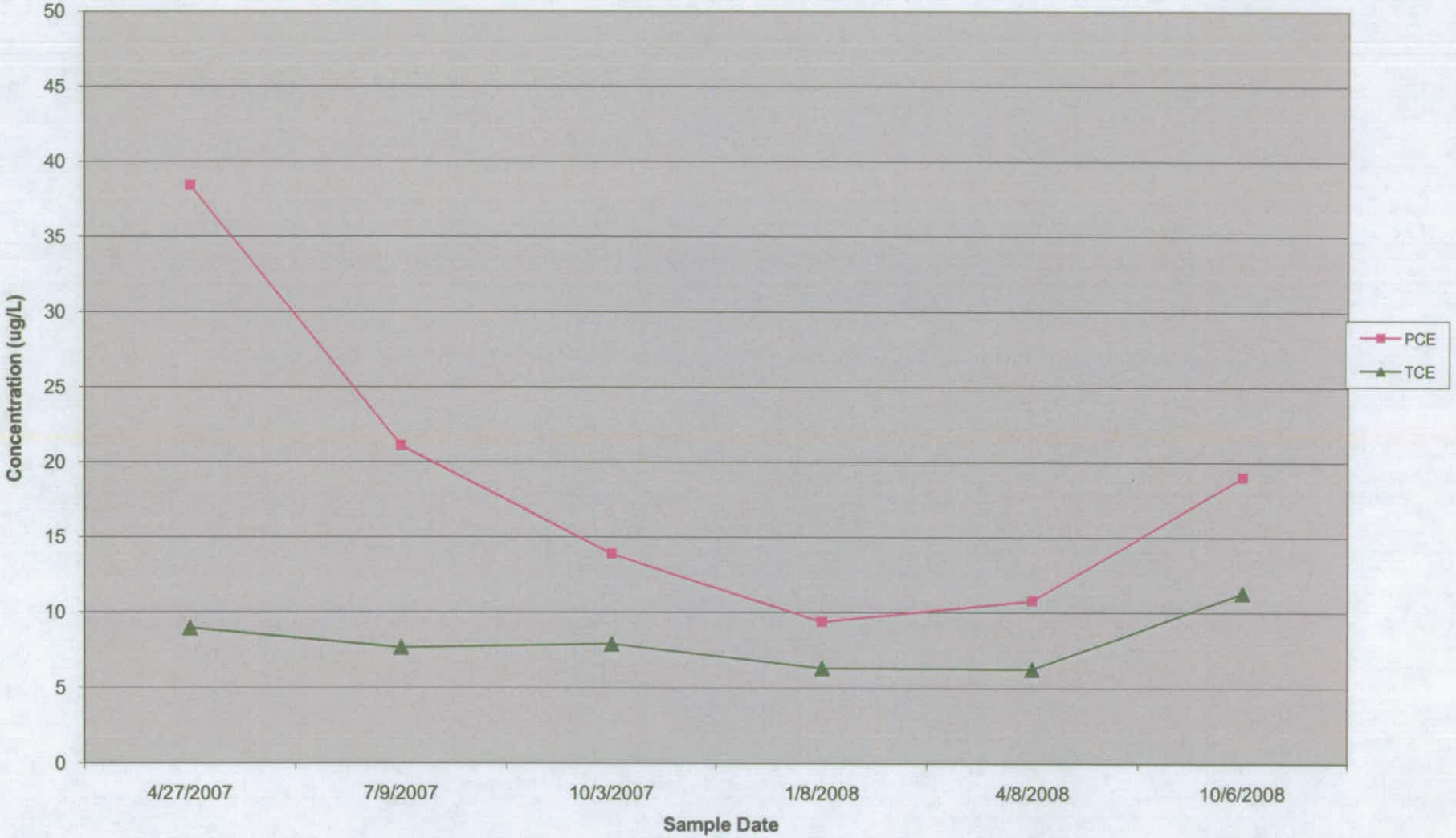
MW-203A
WEST - CENTRAL MI



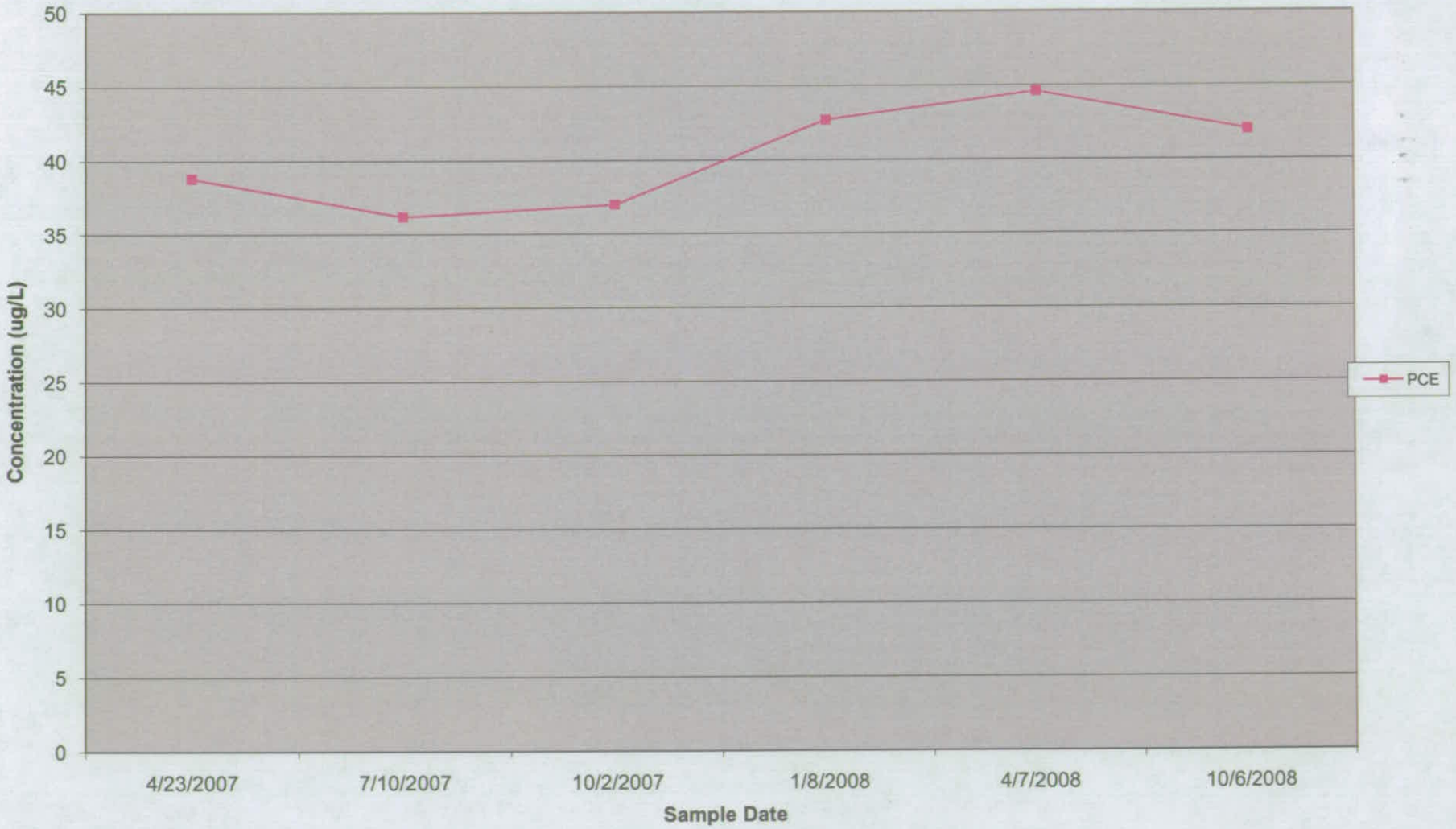
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1016325

MW-203B
WEST - CENTRAL MI



MW-204A
WEST - CENTRAL MI



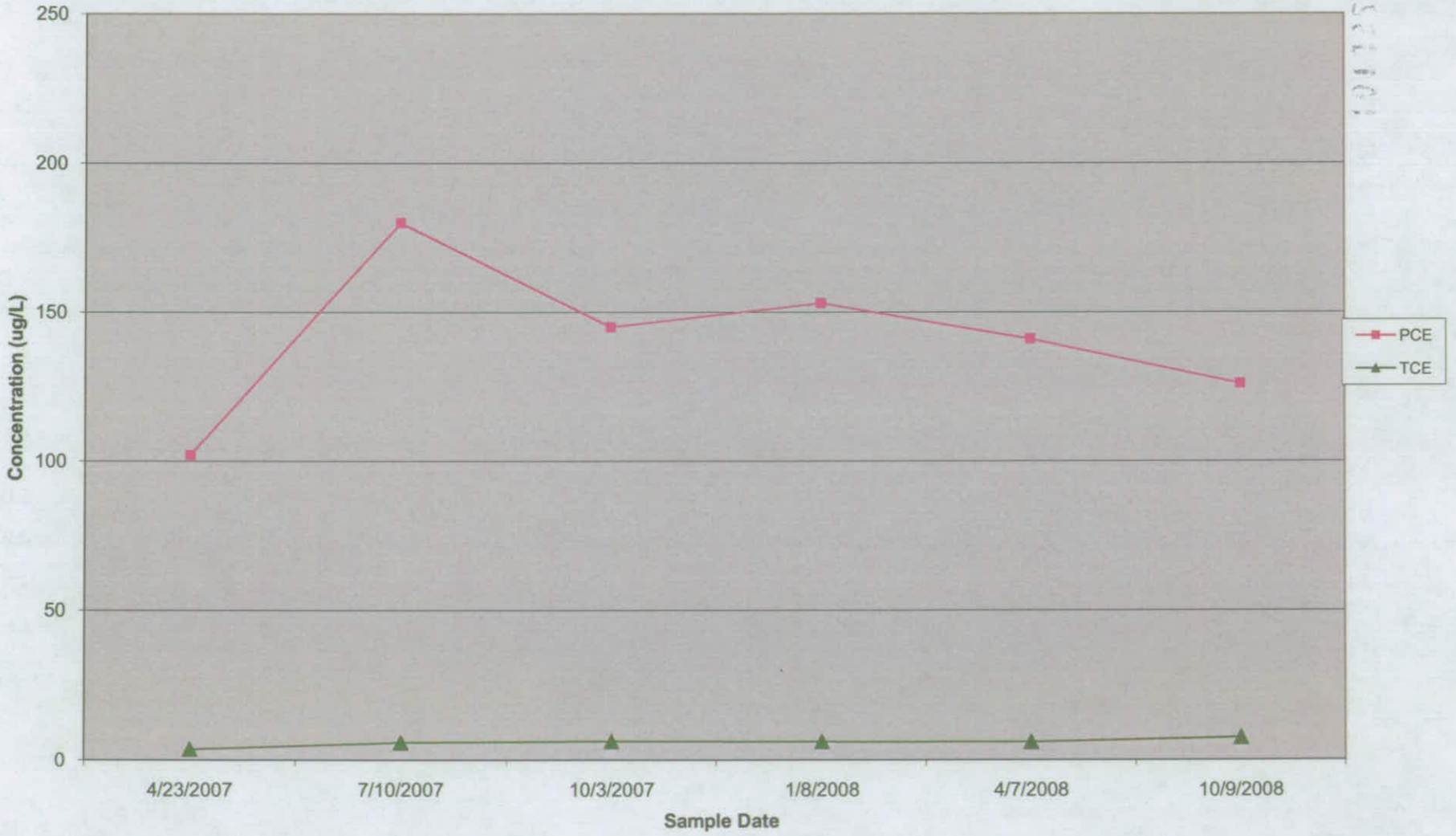
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1016327

MW-204B
WEST - CENTRAL MI



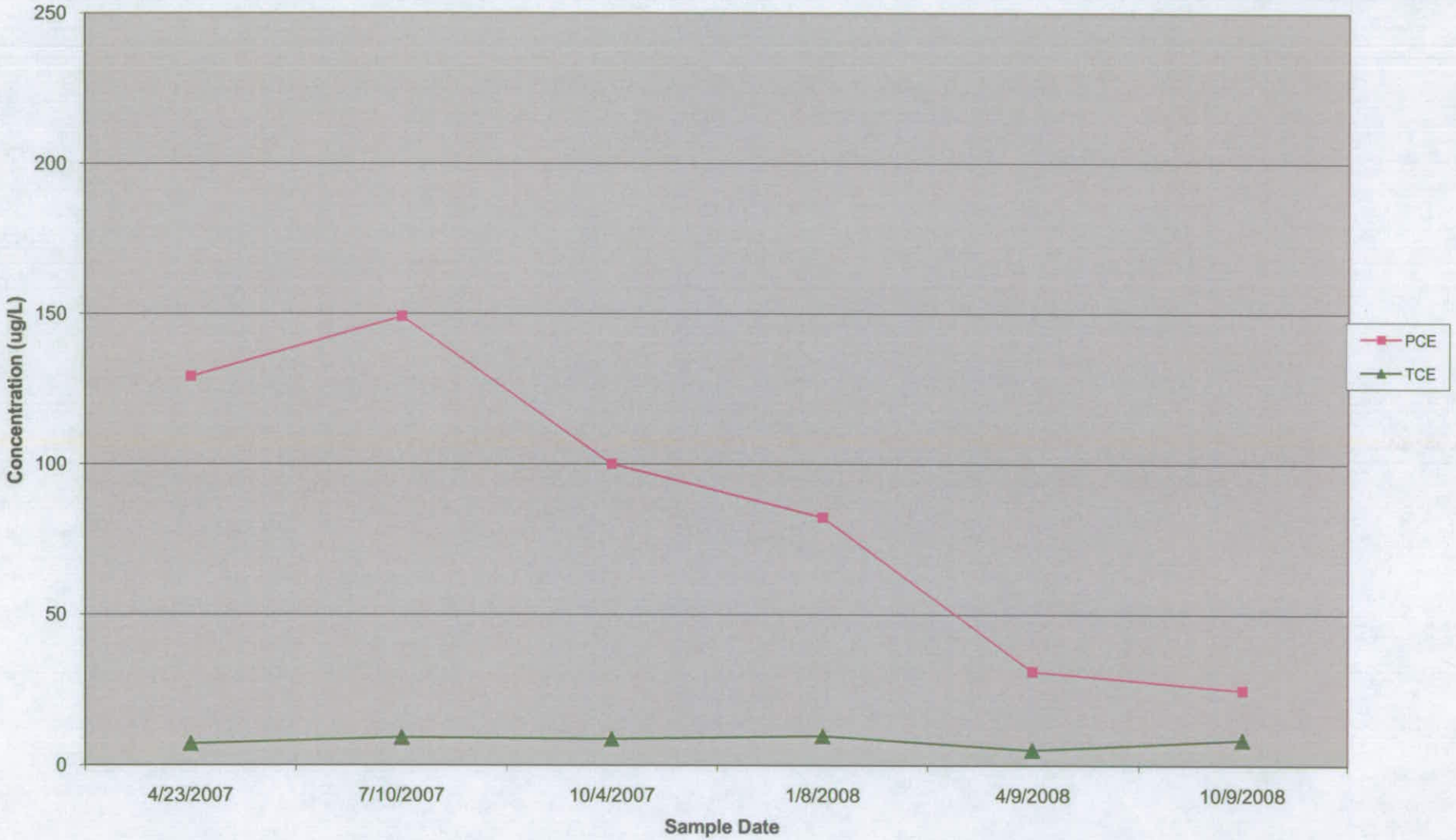
MW-205A
WEST - CENTRAL MI



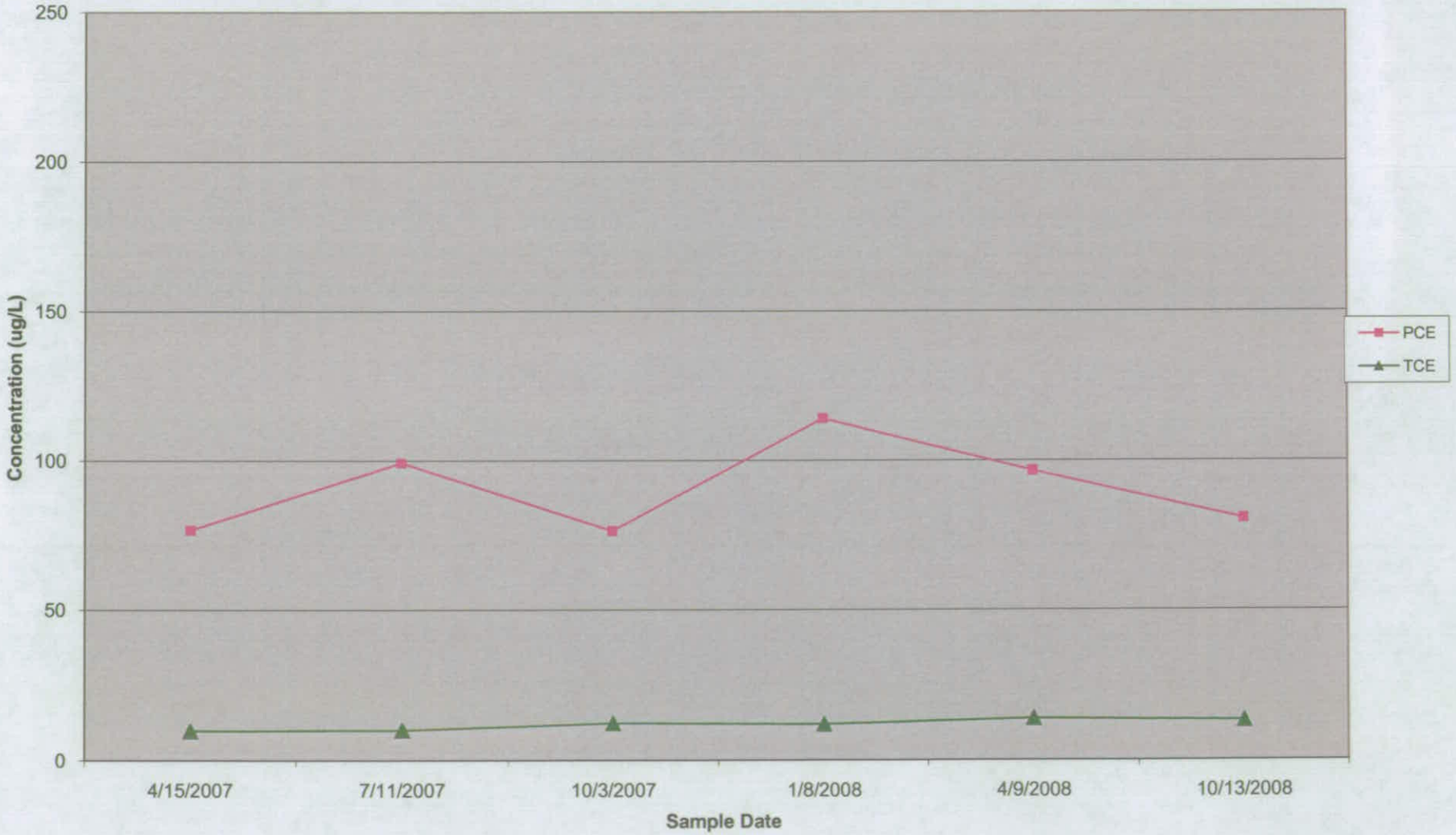
1016328

1016329

MW-205B
WEST - CENTRAL MI



MW-206A
WEST - CENTRAL MI



1016330

10016331

MW-206B
WEST - CENTRAL MI



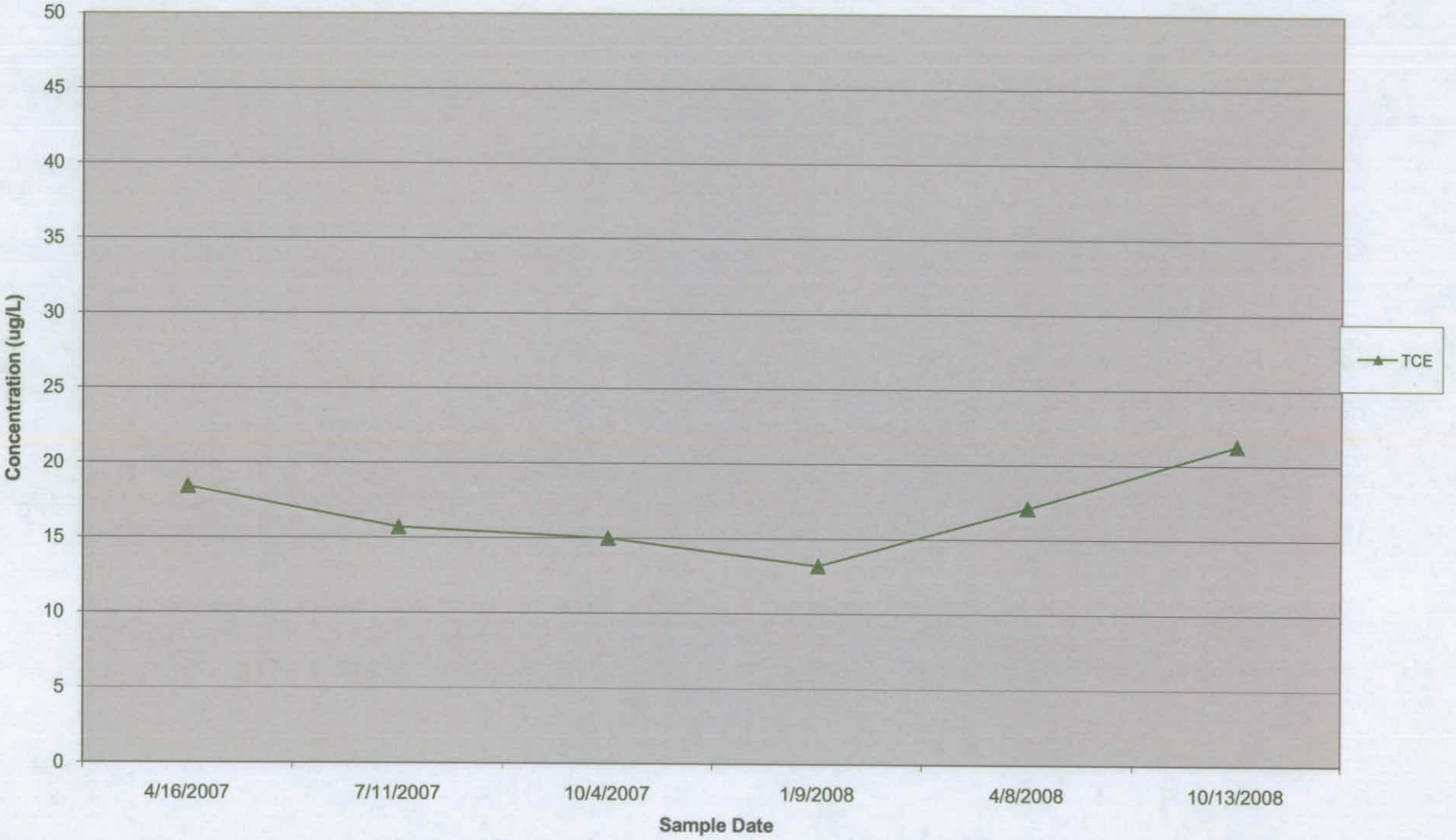
MW-208A
WEST - CENTRAL MI



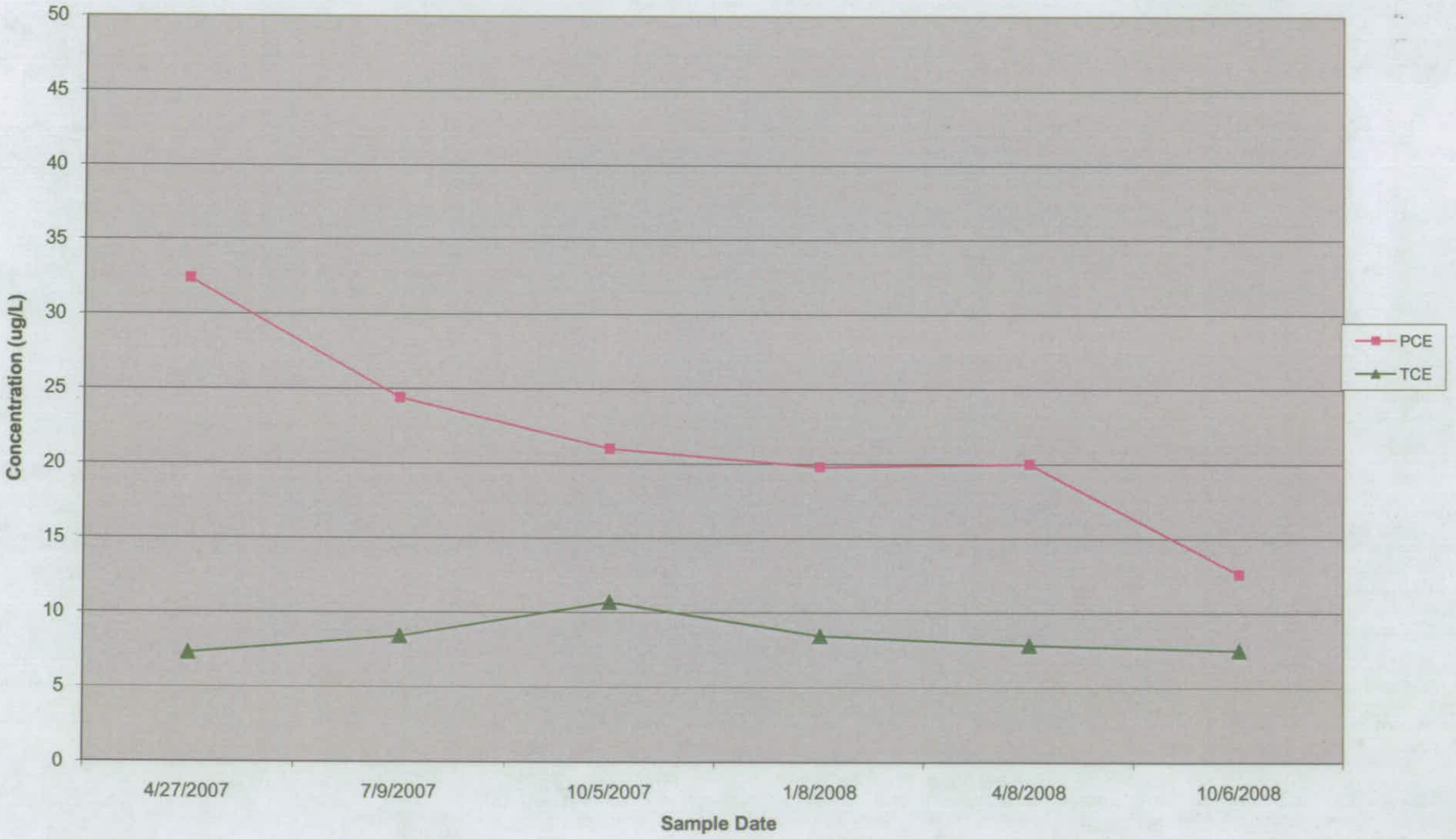
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1016333

MW-208B
WEST - CENTRAL MI



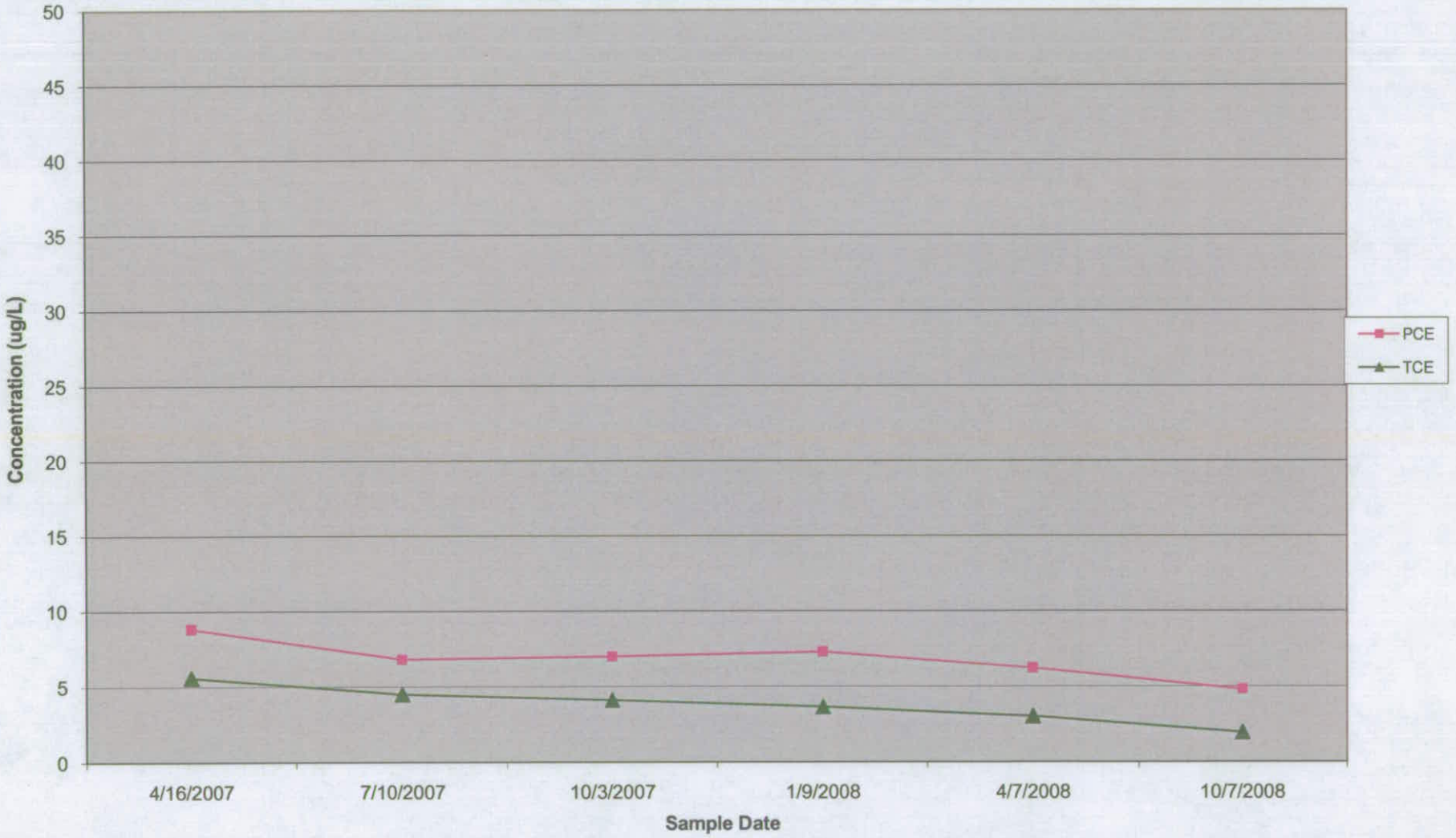
MW-210B
WEST - CENTRAL MI



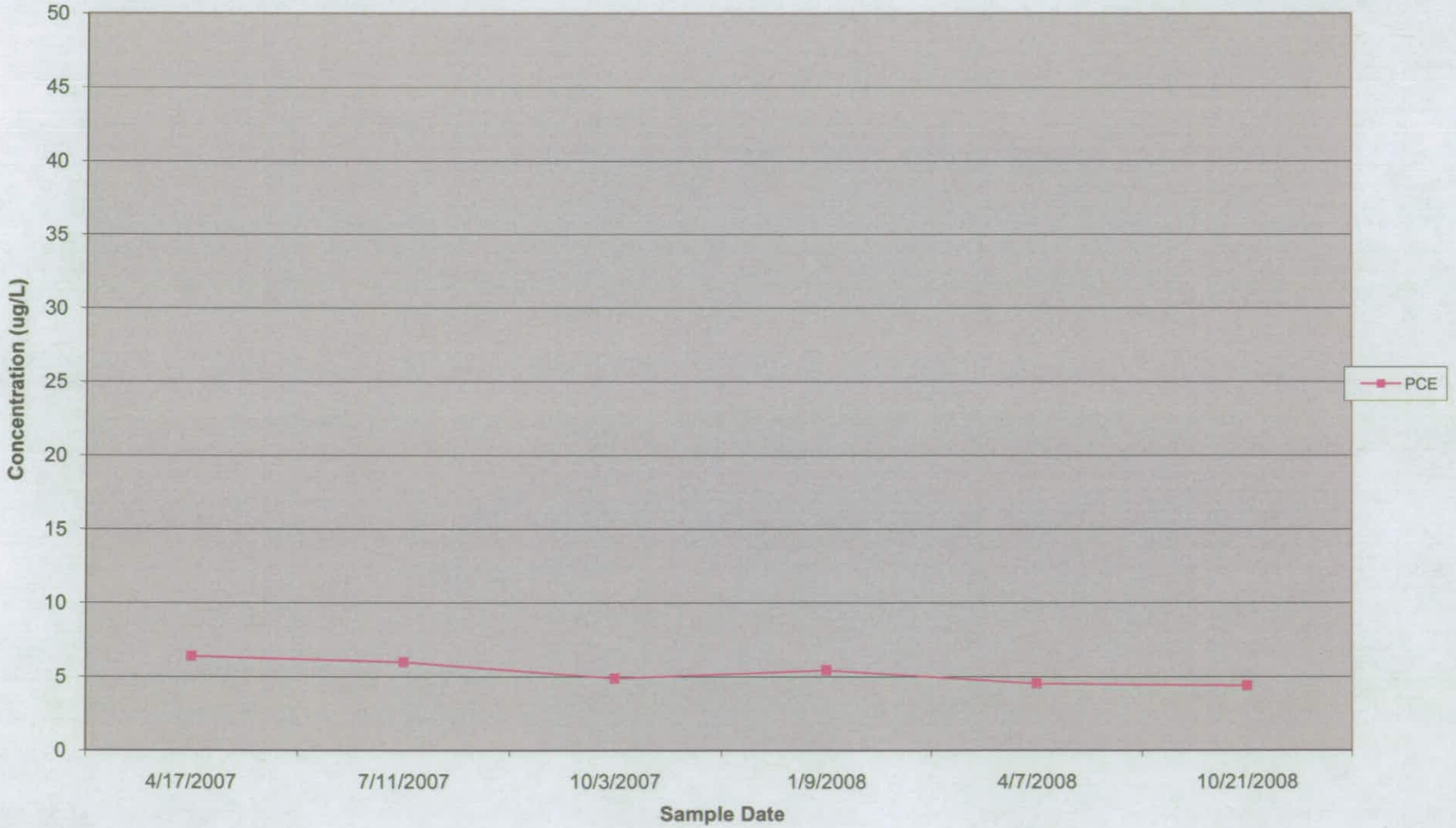
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10163335

MW-214A
WEST - CENTRAL MI



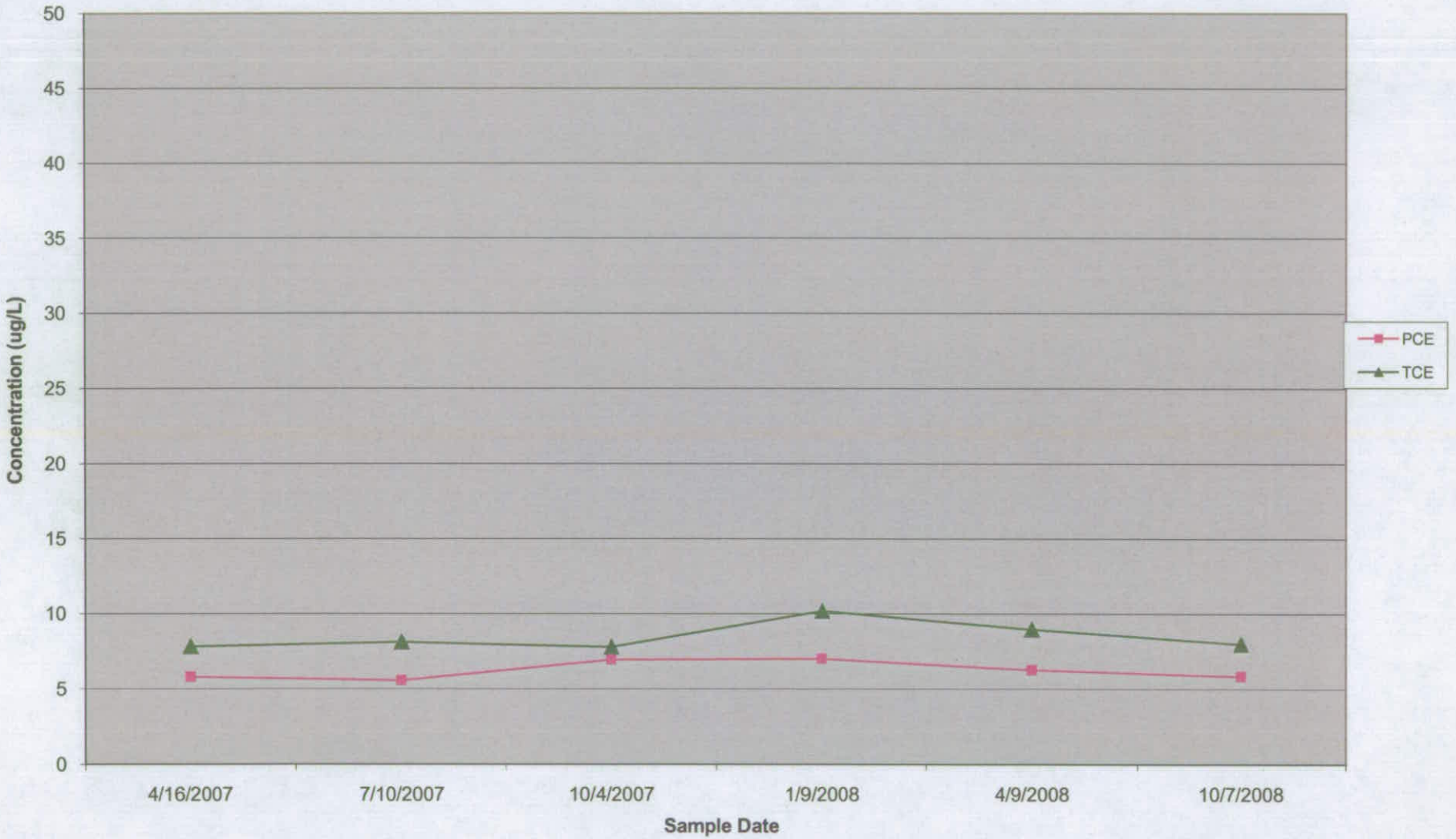
MW-214B
WEST - CENTRAL MI



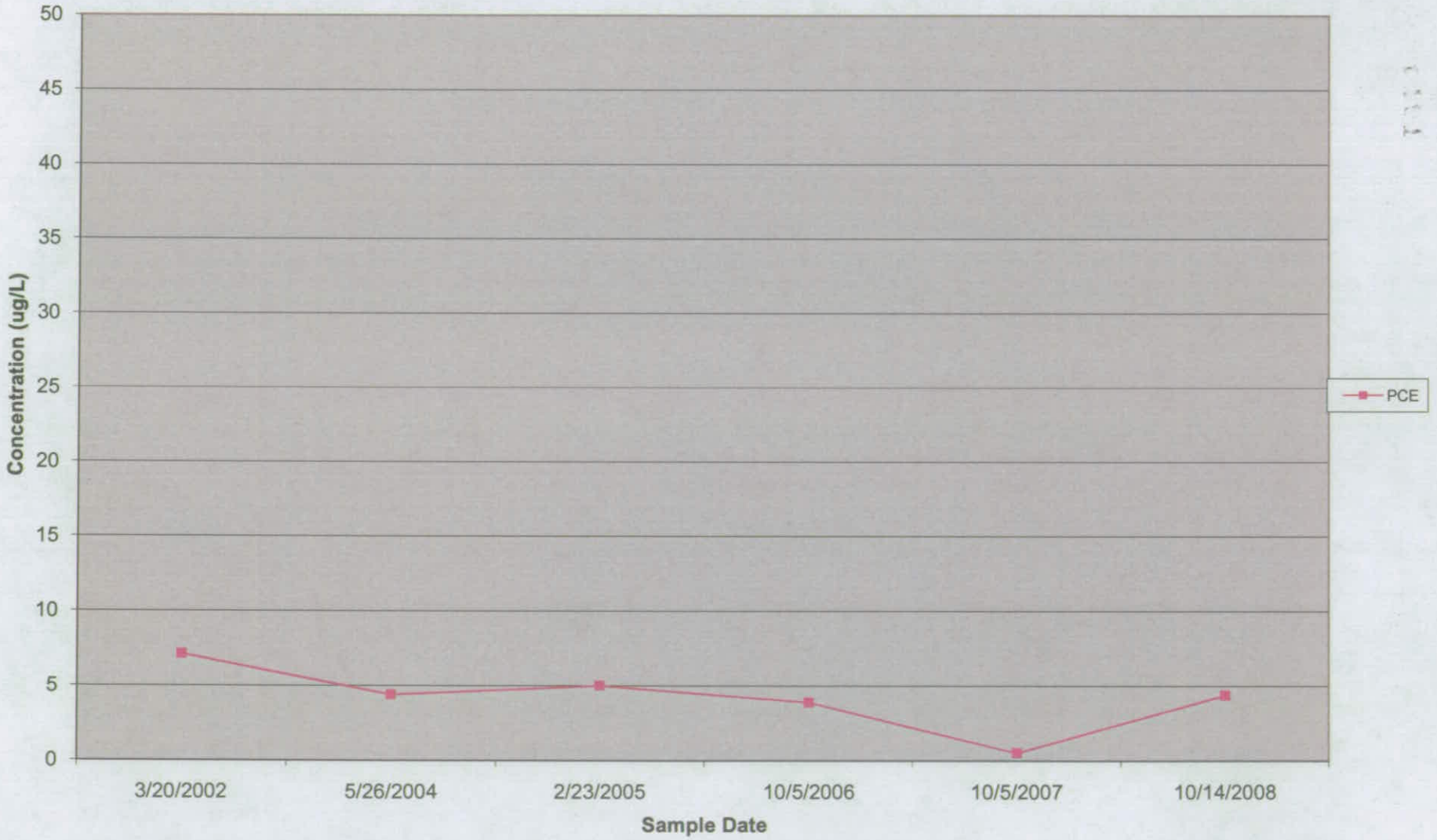
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1016337

MW-215A
WEST - CENTRAL MI



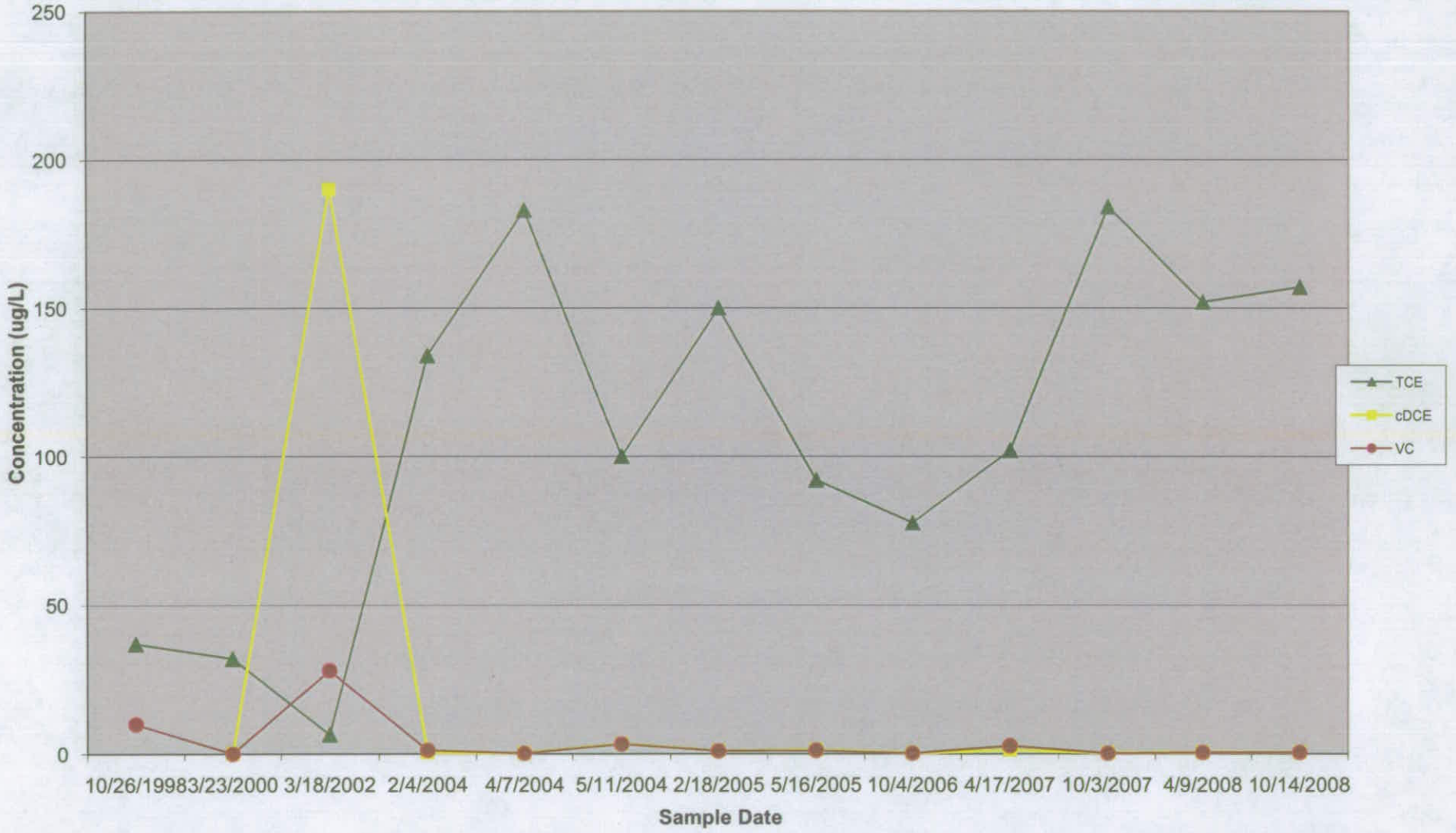
PZ-03
WEST-CENTRAL MI



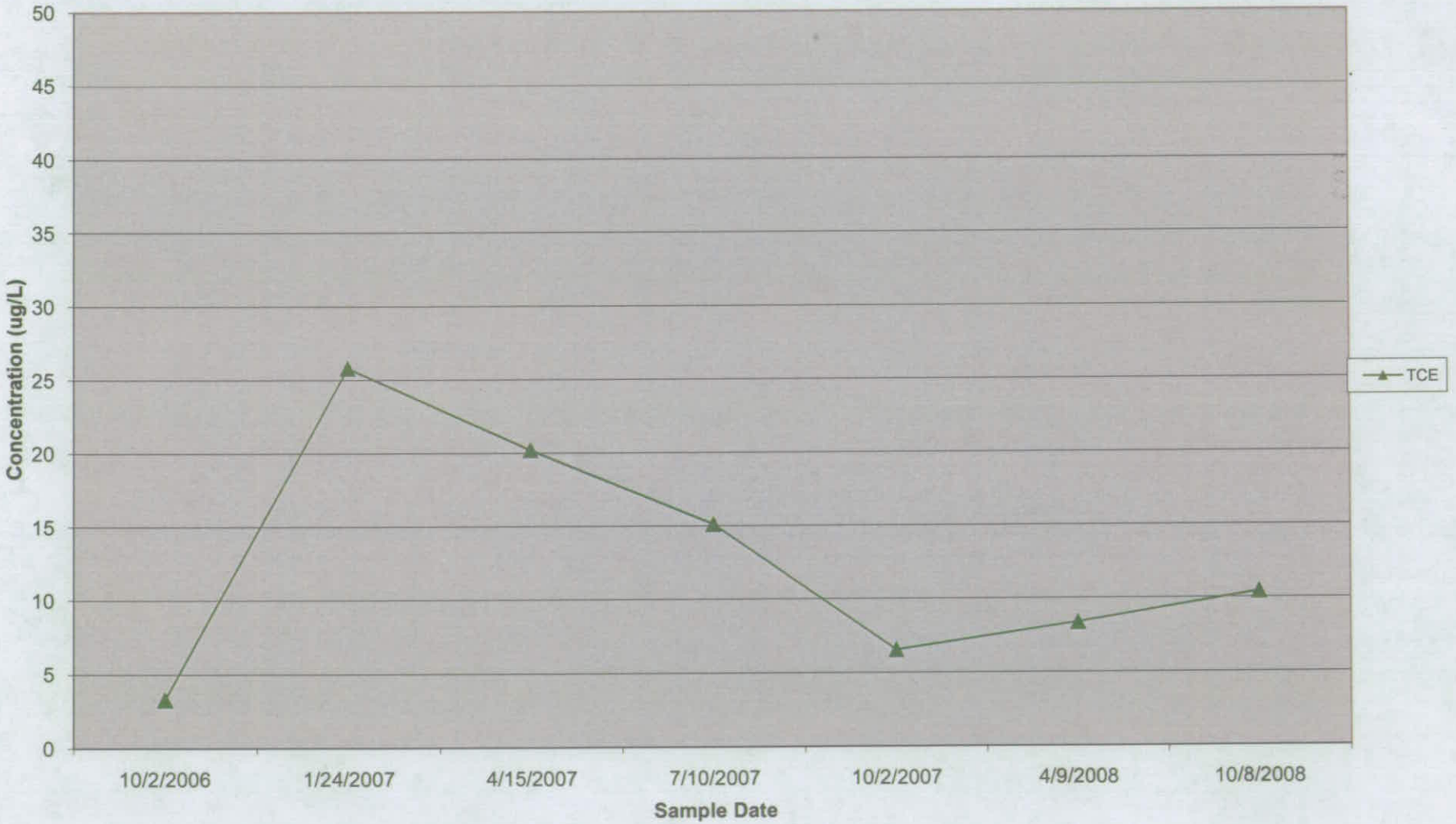
10163388

1016339

MW-62
BLDG 835



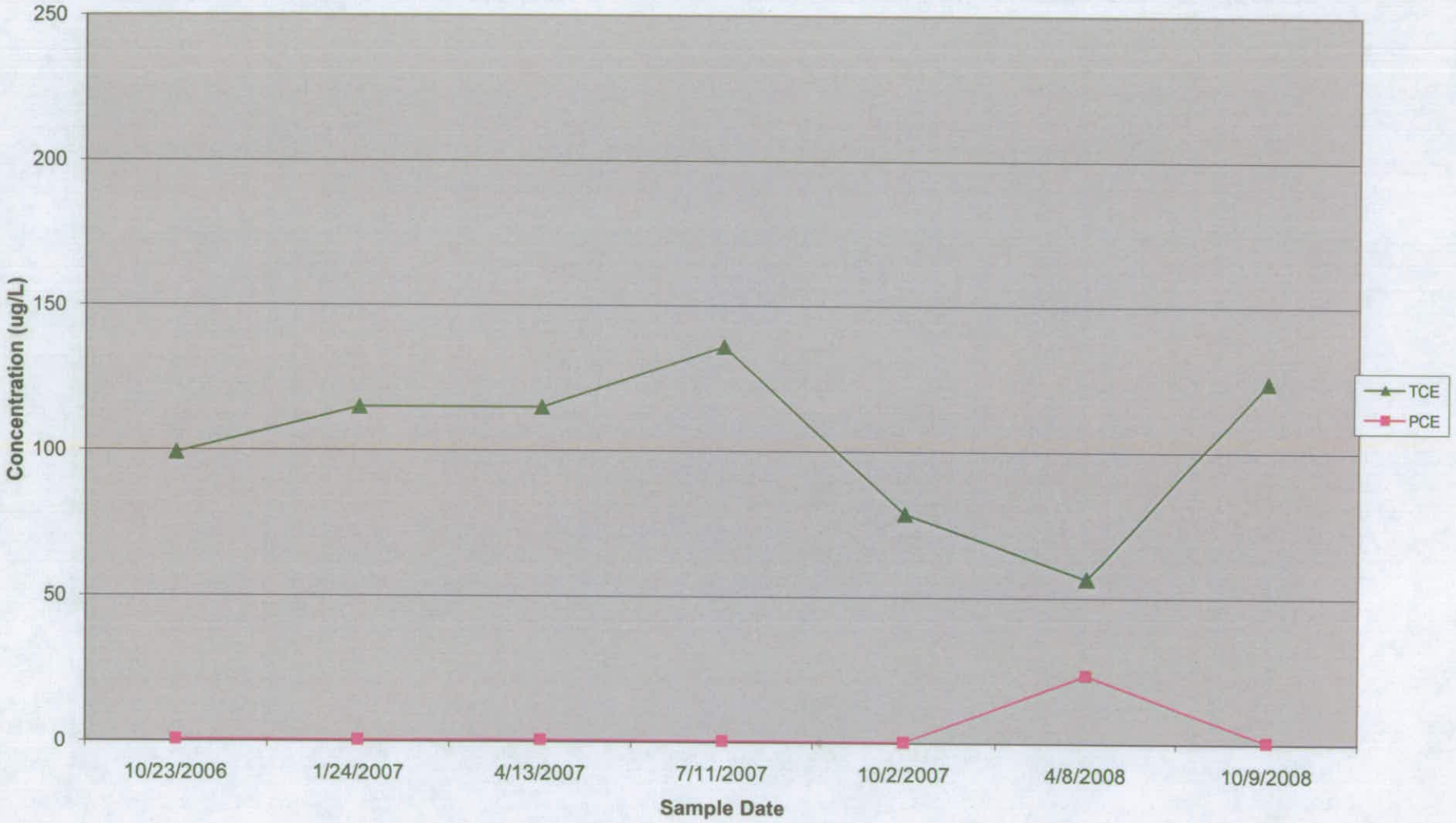
MW-198
BLDG 835



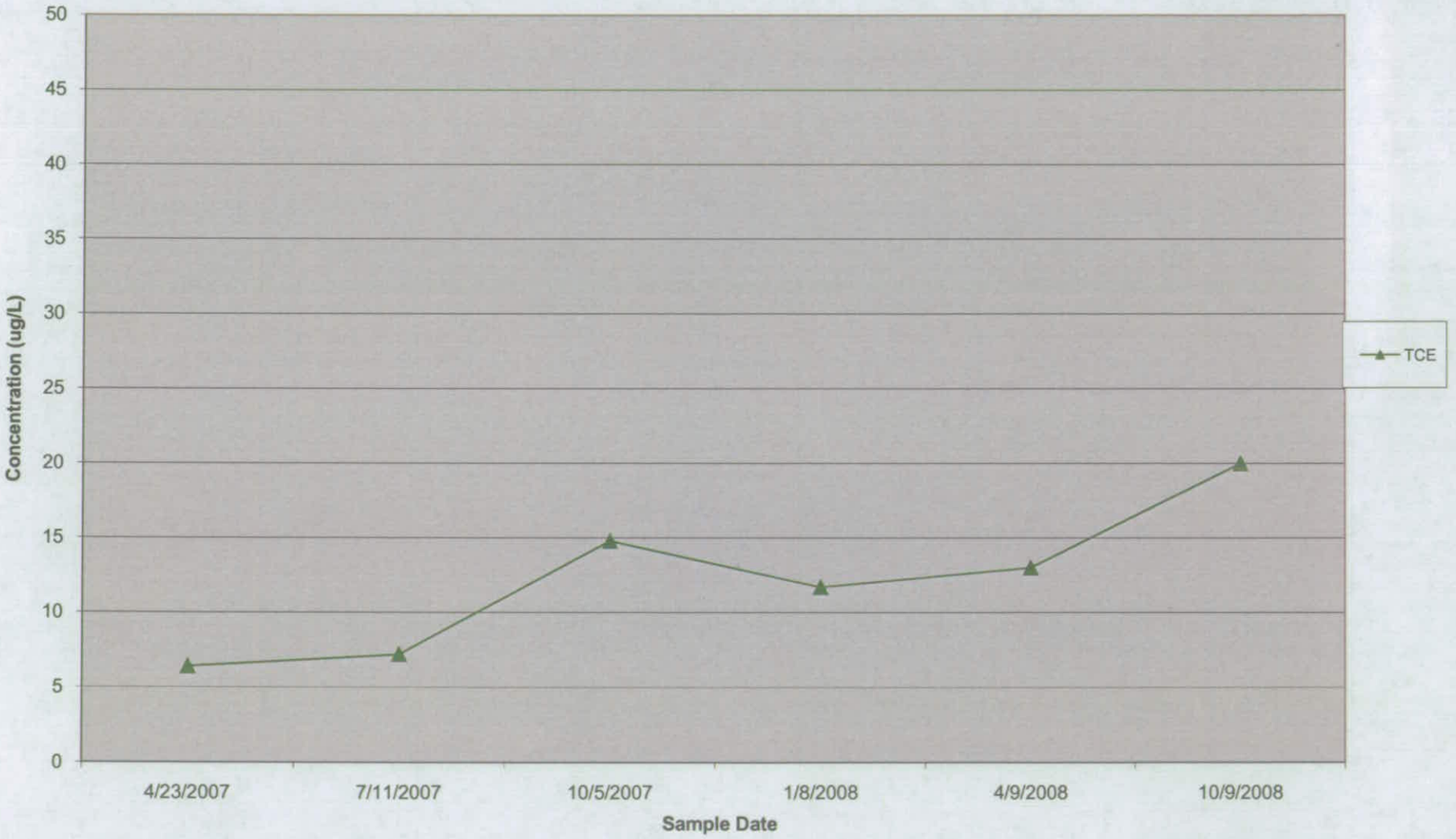
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10163341

MW-199B
BLDG 835



MW-209B
BLDG 835



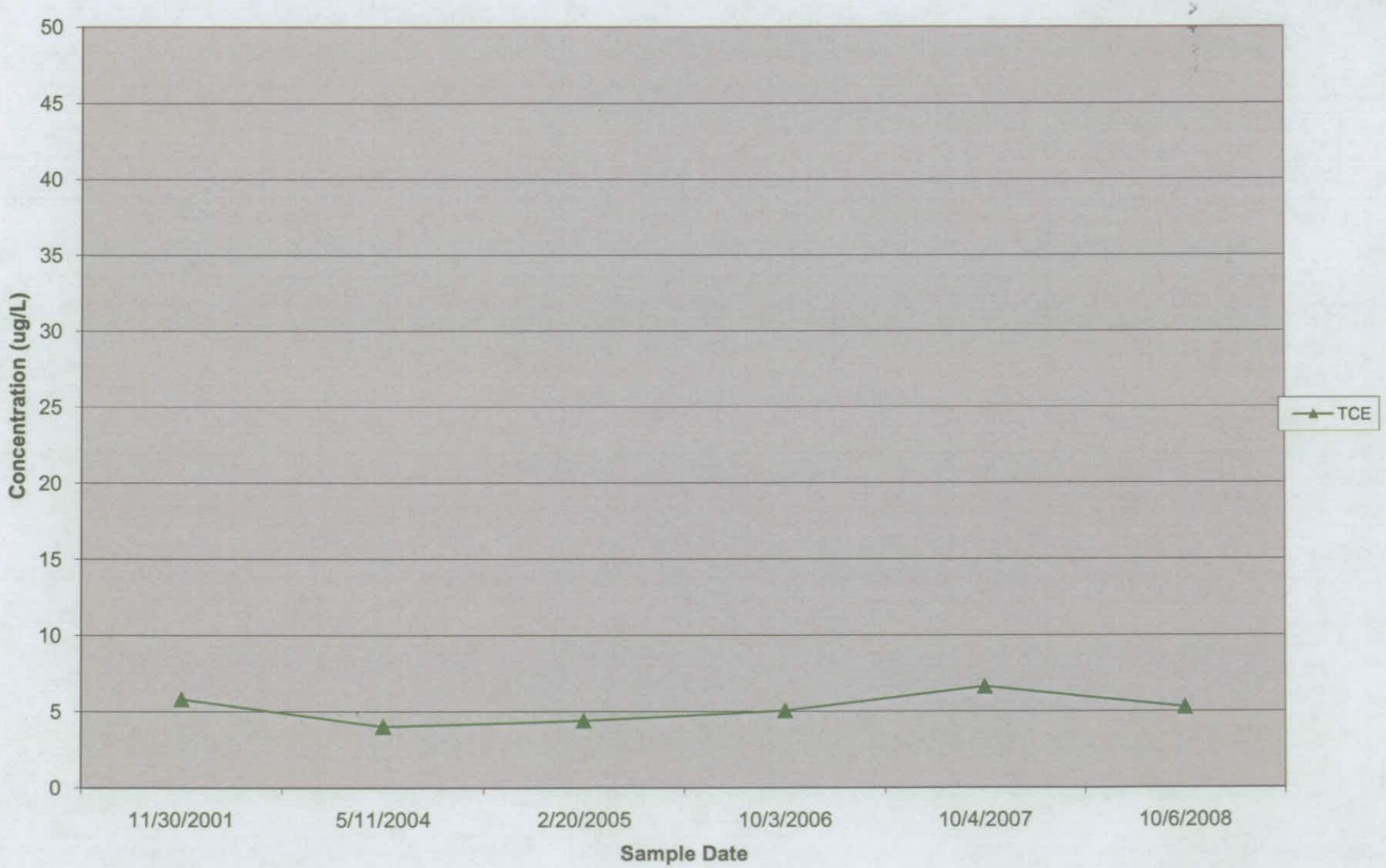
AR 010342

1016343

MW-212
BLDG 835



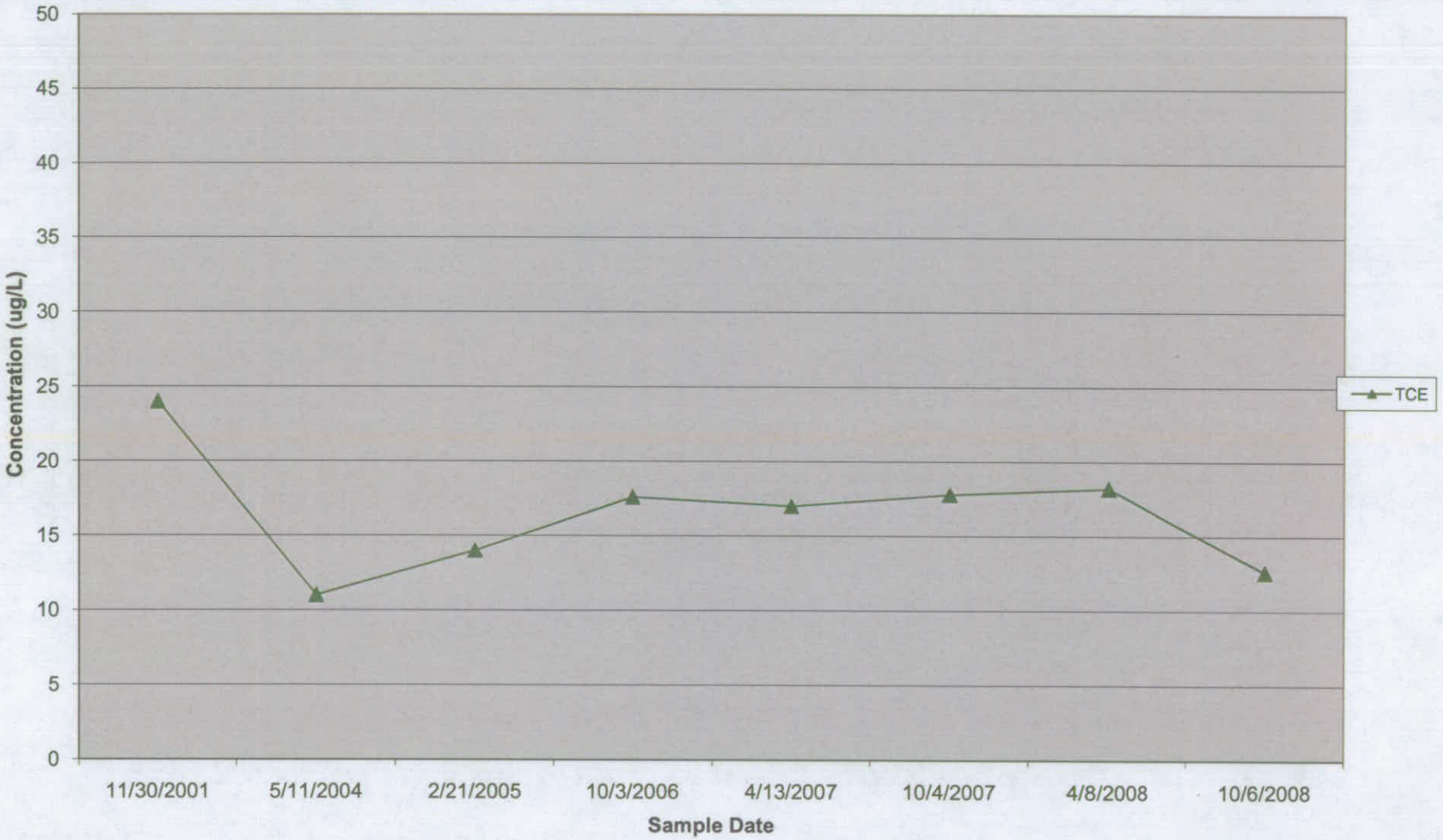
MW-103
NORTH CENTRAL MI



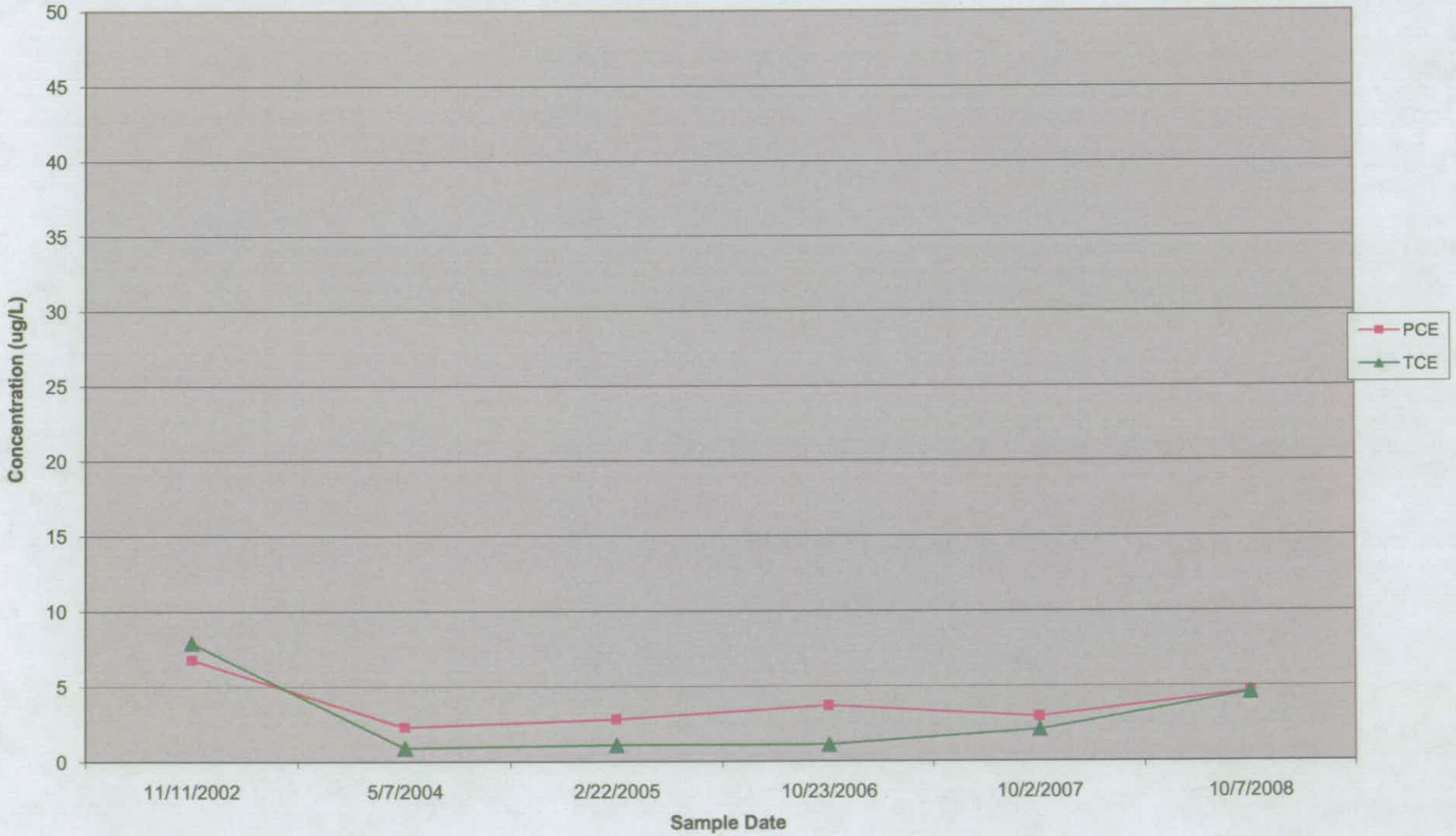
1016344

1016345

MW-104
NORTH CENTRAL MI



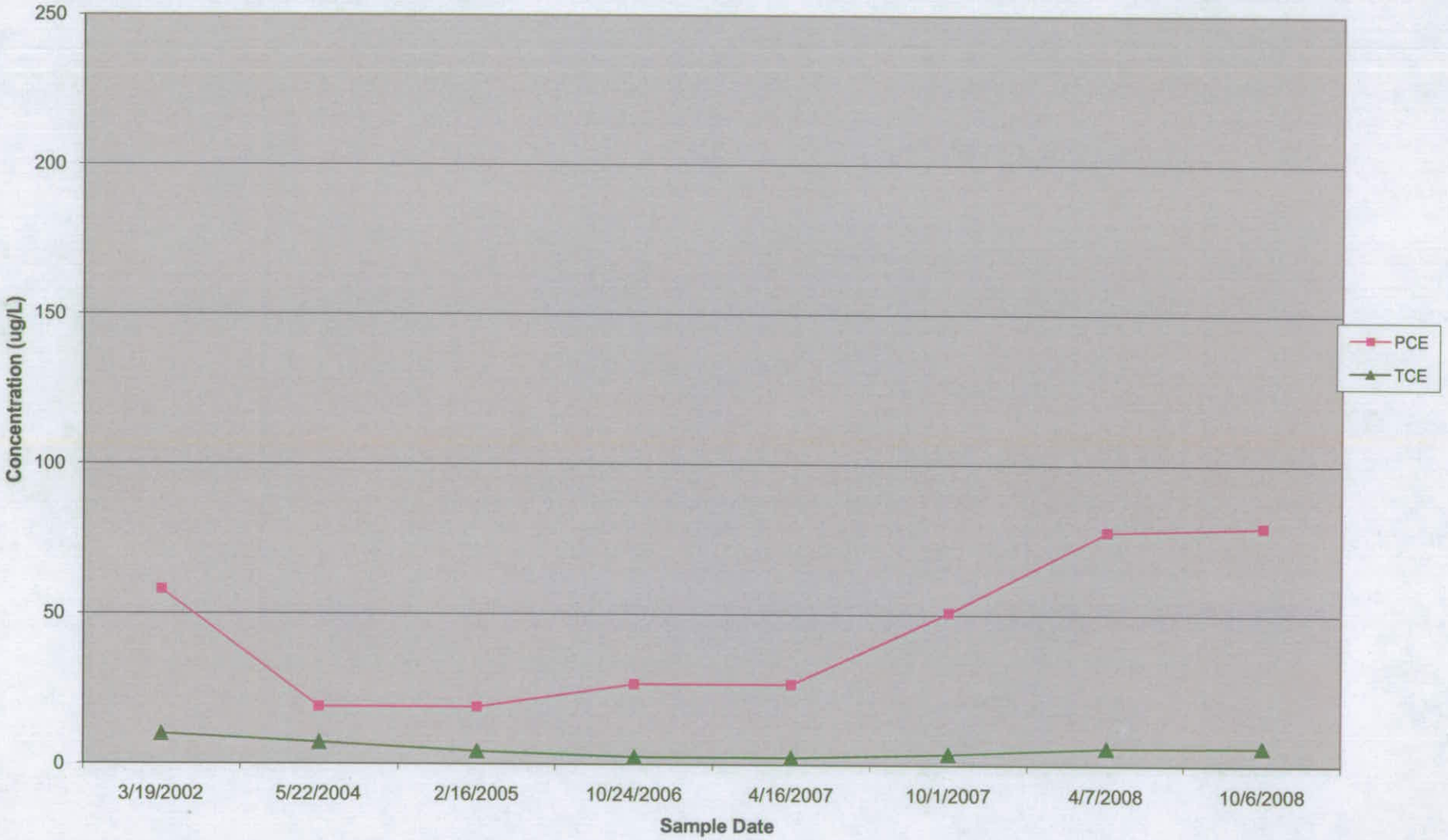
MW-63B
SENTINEL



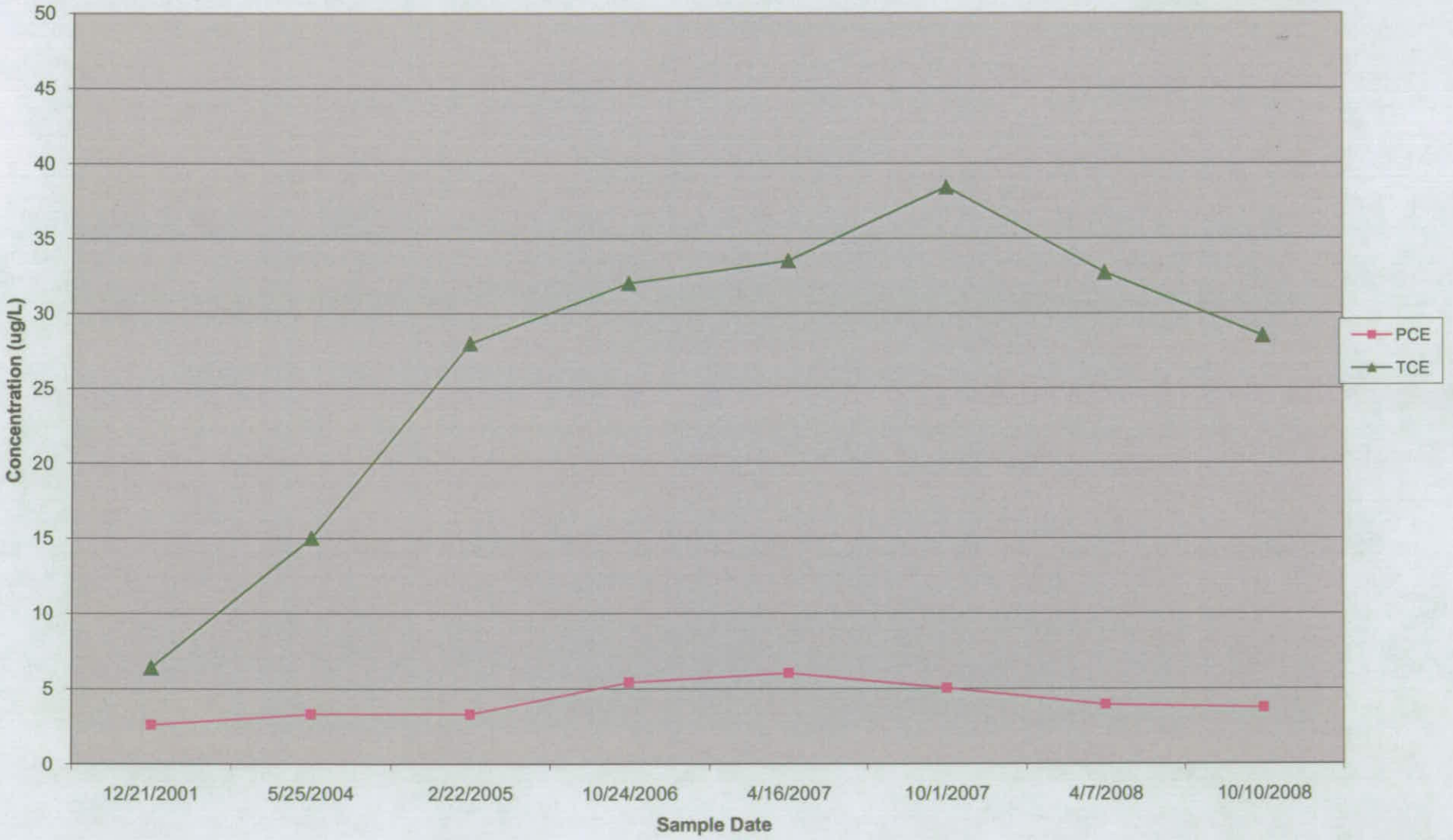
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MW-90
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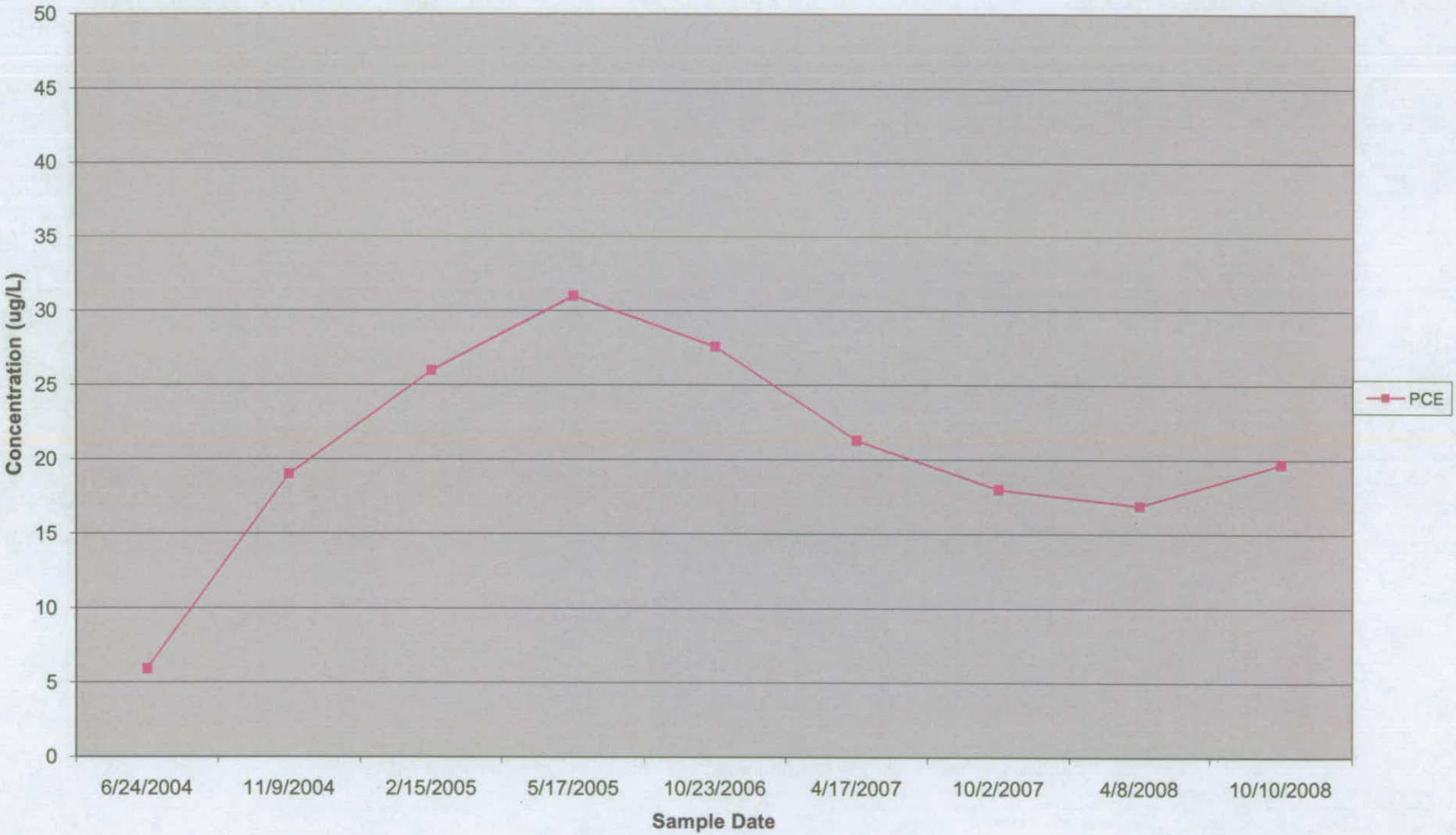
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1016348

10163349

MW-141
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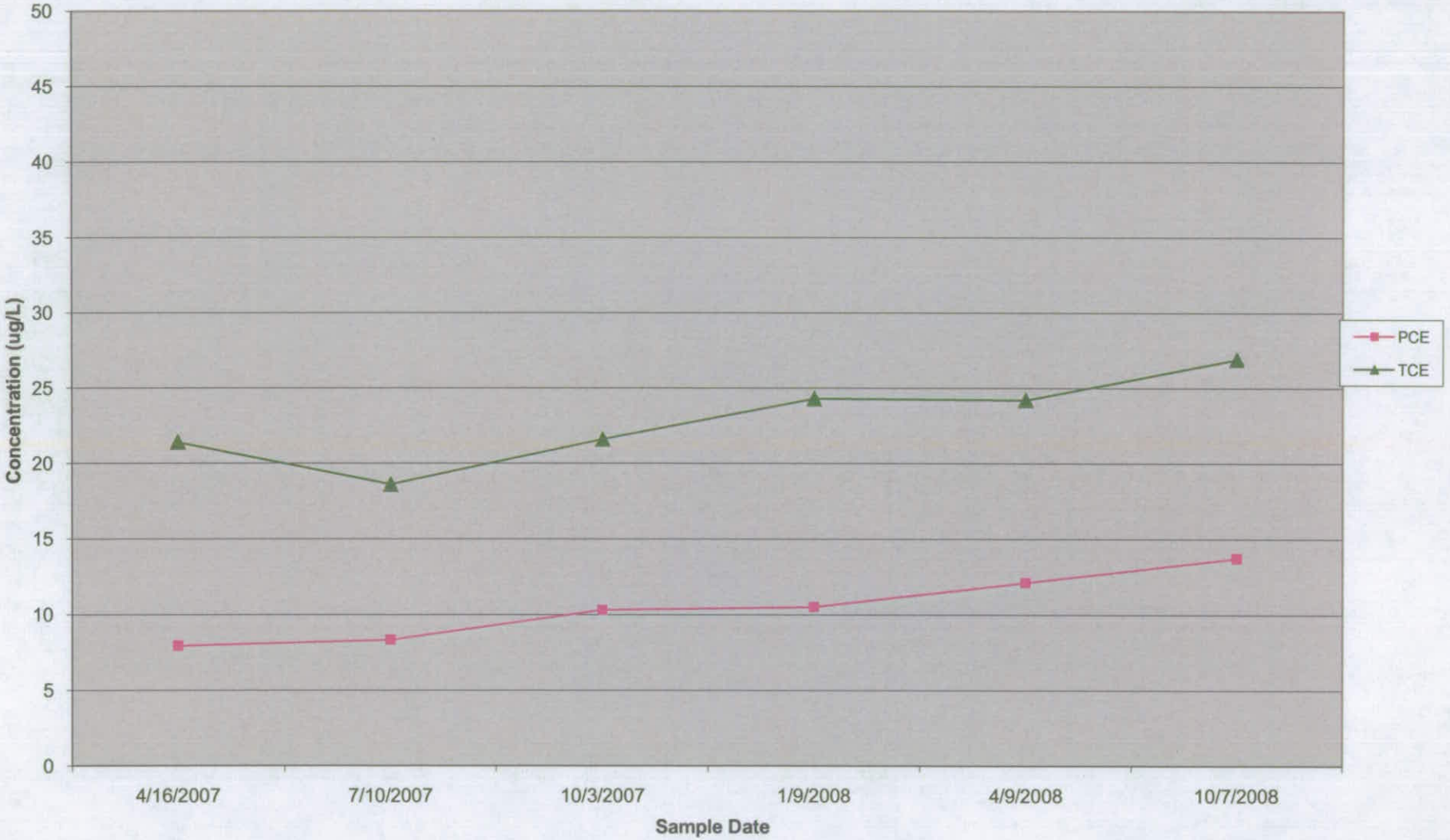
MW-202B
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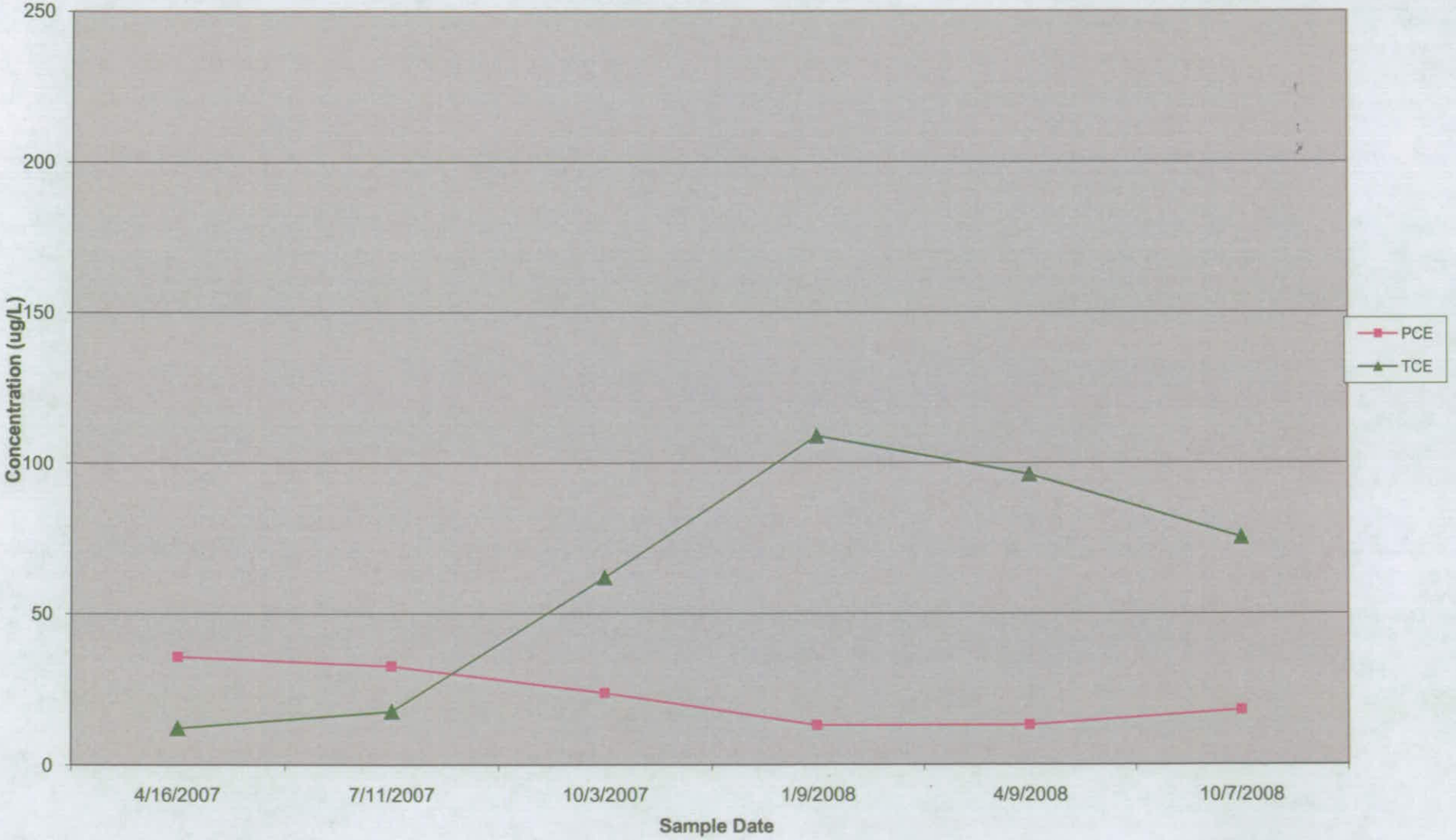
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10163351

MW-207A
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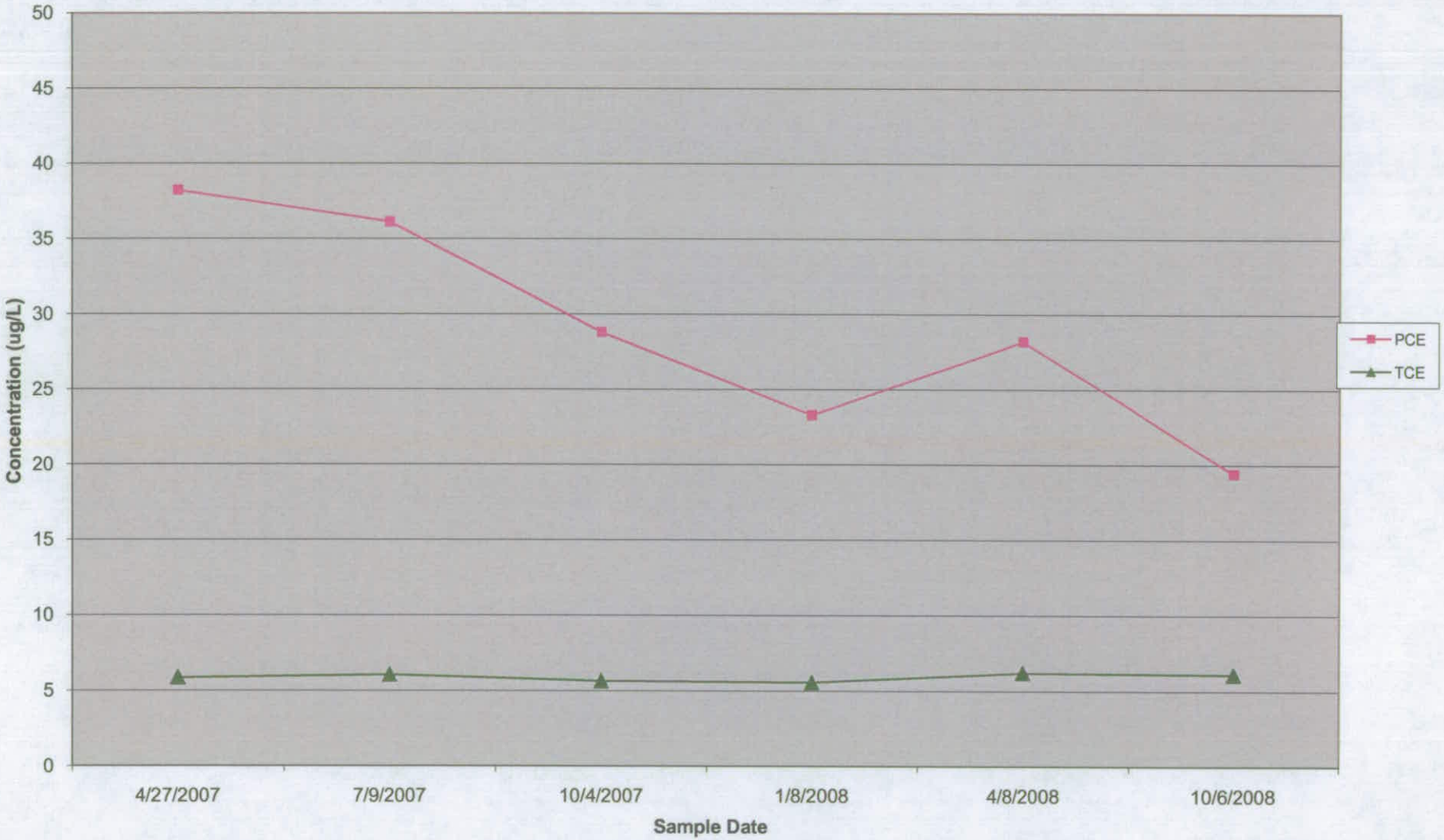
MW-207B
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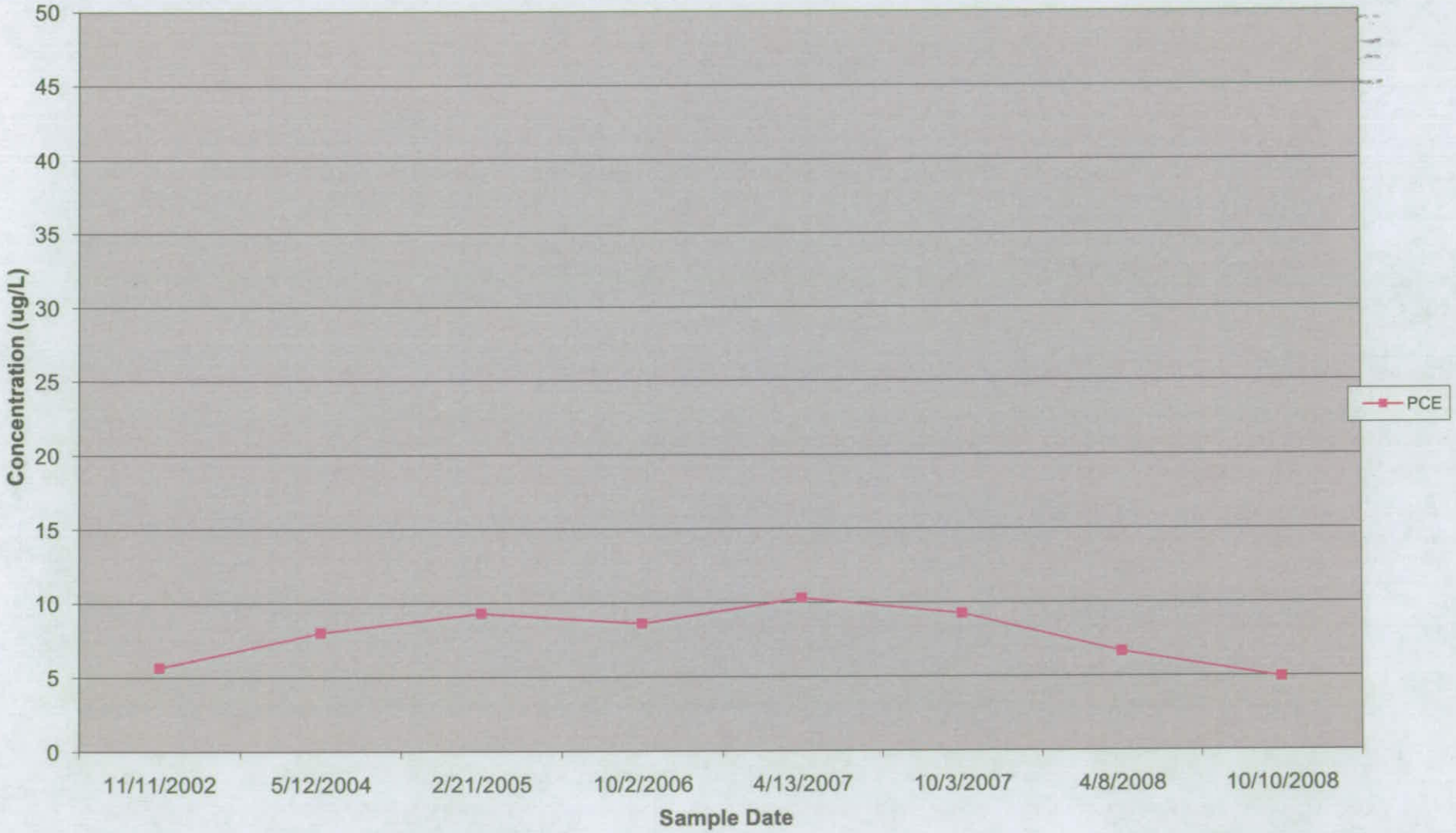
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1016353

MW-210A
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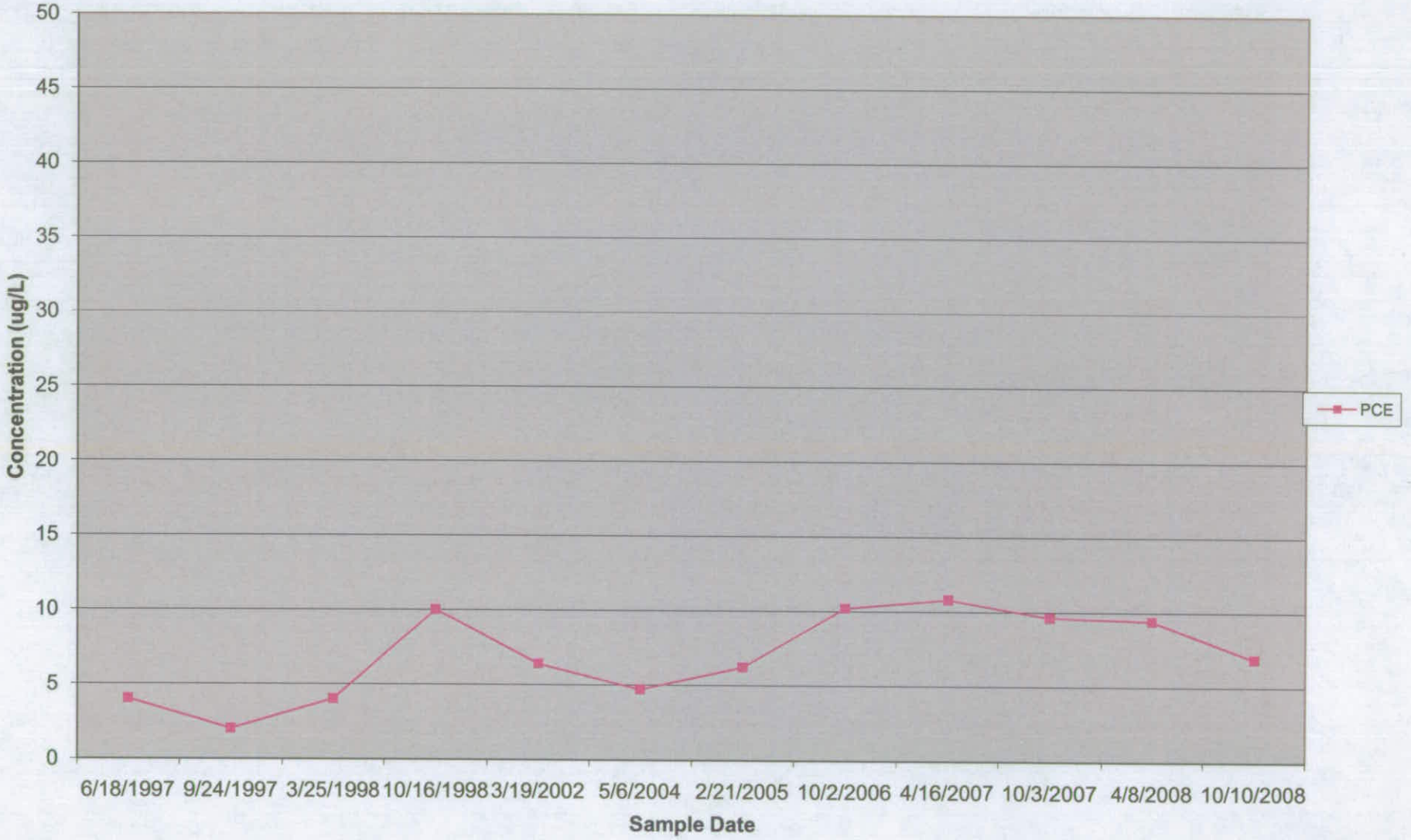
MW-25A
SINGLE WELL - SOUTHEAST MI



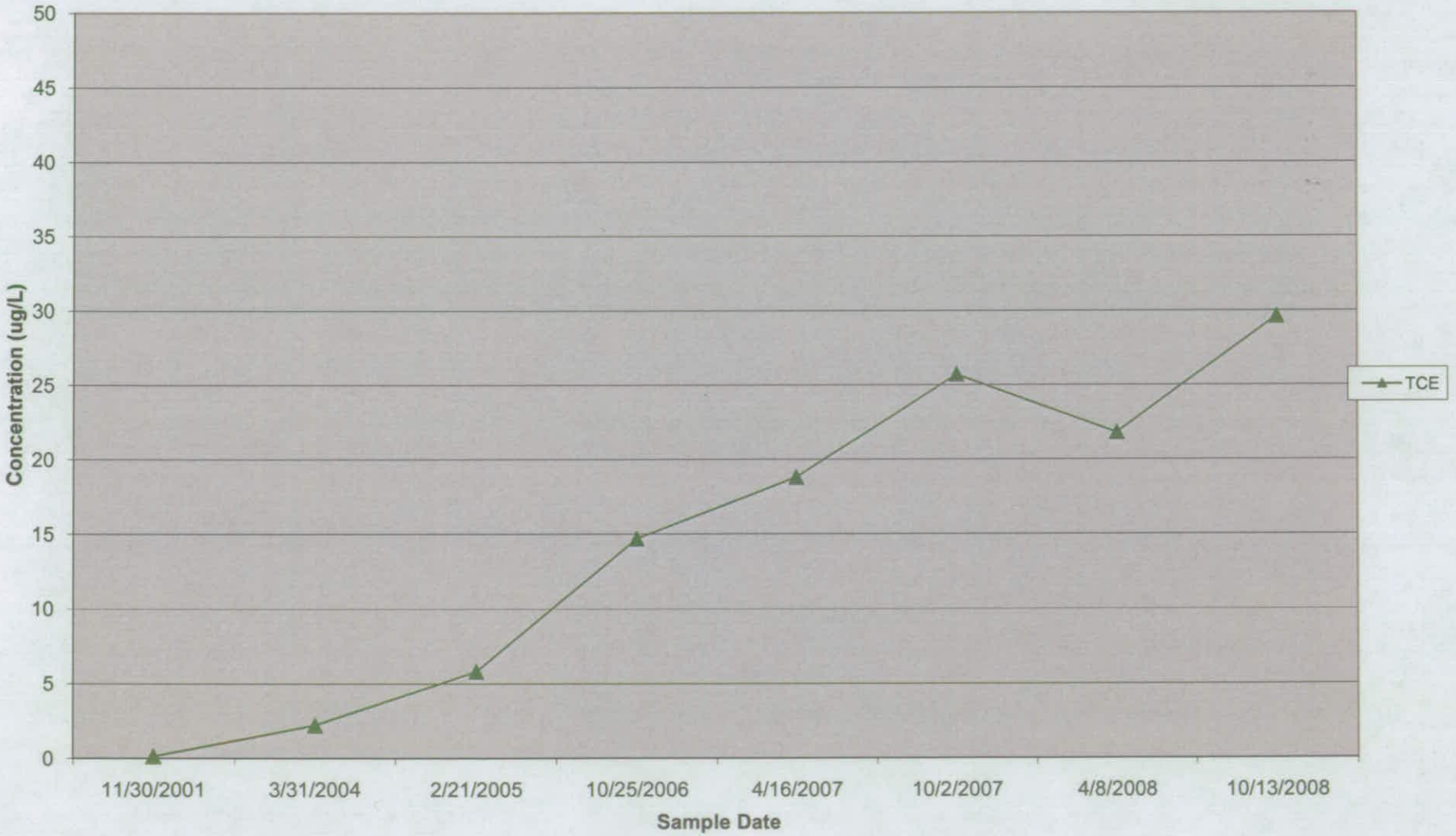
1016354

10016355

MW-52
SINGLE WELL - SOUTHEAST MI



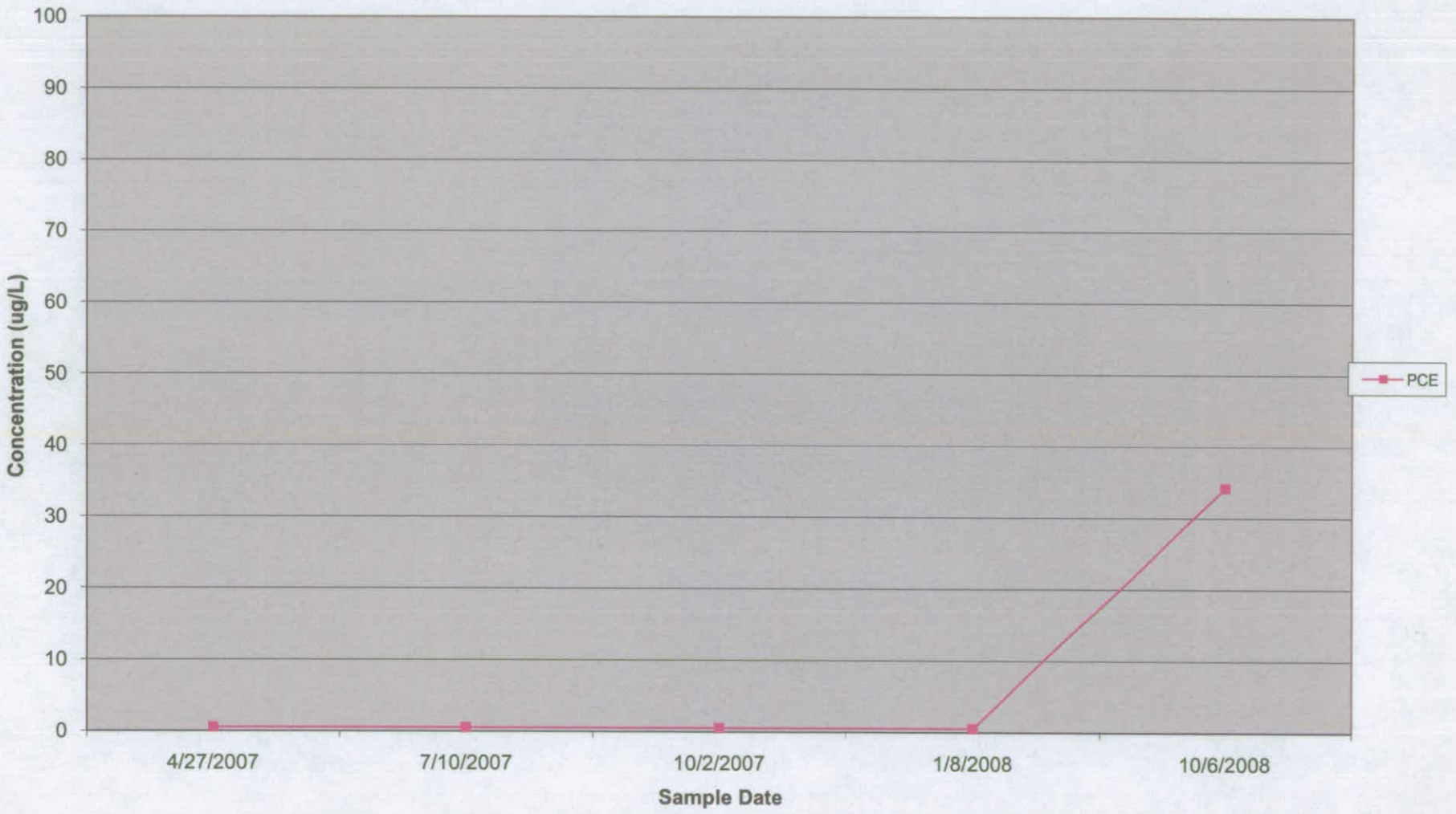
MW-97
SINGLE WELL - SOUTHWEST MI



1016356

1016357

MW-216
SINGLE WELL - SOUTHWEST MI



FINAL PAGE

ADMINISTRATIVE RECORD

FINAL PAGE