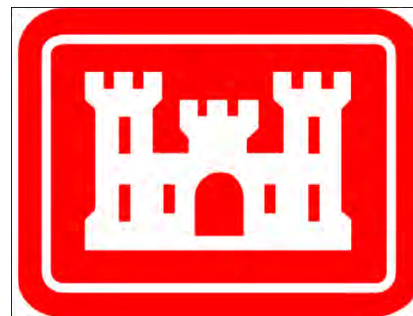


ANNUAL LONG-TERM MONITORING REPORT – 2014

**Defense Depot Memphis, Tennessee
U.S. EPA I.D. Number TN4210020570**



Department of the Army



**USACE Contract No. W90FYQ-09-D-0005
Task Order No. DS01**

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Prepared for:

U.S. Army Corps of Engineers, Tulsa District
Contract No. W90FYQ-09-D-0005
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LIST OF ACRONYMS AND ABBREVIATIONS

AS	air sparging
AS/SVE	air sparging with soil vapor extraction
bgs	below ground surface
BRAC	Base Realignment and Closure
cDCE	cis-1,2-dichloroethene
CF	chloroform
CT	carbon tetrachloride
COC	contaminant of concern
CVOC	chlorinated volatile organic compound
DBCP	1,2-dibromo-3-chloropropane
DCE	1,1-dichloroethene
DDMT	Defense Depot Memphis, Tennessee
DQE	data quality evaluation
DQO	data quality objective
DR	design related
EBT	enhanced bioremediation treatment
FFS	Focused Feasibility Study
ft	foot/feet
FSVE	fluvial soil vapor extraction
IAQ	Intermediate Aquifer
IDW	investigation-derived waste
IRA	Interim Remedial Action
IRACR	Interim Remedial Action Completion Report
ISTD	in situ thermal desorption
IW	injection well
LCS	laboratory calibration standard
LTM	long-term monitoring
LUC	land use control
MACTEC	MACTEC Engineering and Consulting, Inc.
MAQ	Memphis Aquifer
MCL	maximum contaminant level
µg/L	micrograms per liter
MEK	methyl ethyl ketone (2-butanone)
MI	Main Installation
MIBK	4-methyl-2-pentanone
mL	milliliter
MS	matrix spike

LIST OF ACRONYMS AND ABBREVIATIONS

(Continued)

MSD	matrix spike duplicate
msl	mean sea level
MW	monitoring well
NPL	National Priorities List
PCE	tetrachloroethene
PDB	passive diffusion bags
PMW	performance monitoring well
PZ	piezometer
QAPP	Quality Assurance Project Plan
QC	quality control
RA	remedial action
RAO	remedial action objective
RA SAP	Remedial Action Sampling and Analysis Plan
RAWP	Remedial Action Work Plan
RD	remedial design
ROD	Record of Decision
RL	reporting limit
RW	recovery well
SRI	Supplemental Remedial Investigation
SVE	soil vapor extraction
TC	target concentration
TCA	1,1,1-trichloroethane
TCE	trichloroethene
tDCE	trans-1,2-dichloroethene
TDEC	Tennessee Department of Environment and Conservation
TeCA	1,1,2,2-tetrachloroethane
TTA	target treatment area
US	United States
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
VC	vinyl chloride
VOC	volatile organic compound
ZVI	zero valent iron

1.0 INTRODUCTION

HDR has prepared this 2014 Annual Long-term Monitoring (LTM) Report for the Main Installation (MI) and Dunn Field at Defense Depot Memphis, Tennessee (DDMT) under Contract W90FYQ-09-D-0005, Task Order DS01 to the United States Army Corps of Engineers (USACE), Tulsa District. The environmental restoration program at DDMT is directed by the Department of the Army, Office of the Assistant Chief of Staff for Installation Management, Base Realignment and Closure (BRAC) Division.

LTM at the MI and Dunn Field is performed to document changes in plume concentrations, to detect potential plume migration to off-site areas or into deeper aquifers and to track progress toward remediation goals. LTM activities at DDMT are performed in accordance with the MI LTM Plan in Appendix B of the *Main Installation Final Remedial Design, Revision 1* (MI RD) (CH2M HILL 2004a) and the Dunn Field LTM Plan in Appendix C of *Off Depot Groundwater Final Remedial Design, Revision 1* (Off Depot RD) (CH2M HILL 2008). DDMT's United States Environmental Protection Agency (USEPA) Identification Number is TN4210020570.

Responses to comments from Tennessee Department of Environment and Conservation (TDEC) and USEPA and approval letters are included in [Appendix A](#).

1.1 SITE LOCATION AND DESCRIPTION

Defense Depot Memphis, Tennessee is located in southeastern Memphis, Shelby County, Tennessee approximately 5 miles east of the Mississippi River and 2 miles north of Memphis International Airport ([Figure 1](#)). DDMT originated as a military facility in the early 1940s; it received, warehoused, and distributed supplies common to all United States (US) military services and some civil agencies located primarily in the southeastern US, 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 BRAC. Storage and distribution of material continued until the facility closed in September 1997.

The property consists of approximately 632 acres and includes the MI and Dunn Field. The MI covers approximately 567 acres and had open storage areas, warehouses, military family housing, and outdoor recreational areas. Dunn Field, which is located across Dunn Avenue from the north-northwest portion of the MI, covers approximately 65 acres and had mineral storage and waste disposal areas.

In 1992, DDMT was added to the National Priorities List (NPL) (57 Federal Register 47180 No. 199). Responsibility for environmental restoration at DDMT transferred from the Defense Logistics Agency to the Department of the Army in December 2010. The regulatory oversight agencies are USEPA Region 4 and TDEC.

1.2 GEOLOGY AND HYDROGEOLOGY

The geologic units of interest at DDMT 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 (ft) 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 ft thick. The lower layer is composed of interlayered sand, sandy gravel, and gravelly sand, and has an average thickness of approximately 40 ft. 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 ft (dry) to approximately 70 ft, and is controlled by the uppermost clay configuration in the Jackson formation/Upper Claiborne group. The groundwater in the fluvial aquifer is not a drinking water source for area residents; however, the current Tennessee groundwater classification at DDMT is General Use (TDEC Chapter 1200-04-03).

Groundwater elevations in the fluvial aquifer at the MI range from a high of approximately 240 ft mean sea level (msl) in the northeast to a low of approximately 195 ft msl in the central area. Groundwater elevations at Dunn Field range from a high of approximately 240 ft msl in the northeast to approximately 220 ft msl west of Dunn Field.

The intermediate aquifer (IAQ) 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 IAQ from the fluvial deposits. Water level elevations in the IAQ, away from areas of recharge from the fluvial aquifer, are approximately 160 ft msl.

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 ft in thickness and begins at a depth below ground surface (bgs) of approximately 120 to 300 ft. The top of the Memphis Sand was identified at approximately 280 ft bgs (elevation of 15 ft above msl) in monitoring well (MW)-254 and MW-255 near the northwest corner of the MI. The Memphis aquifer (MAQ) 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 Dunn Field. Water level elevations at MW-254 and MW-255 are approximately 160 ft msl.

1.3 REMEDIAL ACTION

All the selected remedies for DDMT have been implemented. The *Preliminary Close Out Report* (USEPA 2010) was approved in May 2010 and the DDMT NPL site status was revised to Construction Complete.

1.3.1 Main Installation

Remedial action objectives (RAOs) for the MI were established in the *Main Installation Record of Decision* (MI ROD) (CH2M HILL 2001). The groundwater RAOs are:

- to prevent ingestion of water contaminated with volatile organic compounds (VOCs) in excess of maximum contaminant levels (MCLs) from potential future onsite wells;
- to restore groundwater to concentrations at or less than MCLs; and
- to prevent migration horizontally and vertically offsite of groundwater contaminants in excess of MCLs.

The groundwater remedy selected in the MI ROD was enhanced bioremediation treatment (EBT) with LTM and land use controls (LUCs). The MI ROD stated EBT would target the most contaminated areas and untreated parts of the groundwater plume would degrade under natural attenuation; the MI ROD used groundwater concentrations of 100 micrograms per liter (µg/L) for tetrachloroethene (PCE) and trichloroethene (TCE) to delineate the treatment areas. EBT was implemented from September 2006 to February 2009 in the southwest and southeast areas of the MI, which were designated target treatment area (TTA)-1 and TTA-2, respectively. LUCs were implemented through deed and lease restrictions, zoning regulations, a Notice of Land Use Restrictions recorded in January 2005, and annual inspections since 2005.

The *Main Installation Interim Remedial Action Completion Report, Revision 1* (MI IRACR) (HDR²M 2010) was approved by USEPA in March 2010.

EBT components were planned to be removed following a period of monitoring after the last injection in February 2009. However, system removal and well abandonment were not performed because of rebound in chlorinated volatile organic compound (CVOC) concentrations observed in LTM samples. The *Remedial Action Work Plan Addendum, Main Installation, Revision 0* (MI RAWP Addendum) (HDR 2012a) describing procedures for additional EBT was approved by USEPA and TDEC in January 2013.

Additional EBT was implemented for two years in five areas where individual CVOC concentrations of parent compounds (PCE, TCE and carbon tetrachloride [CT]) exceeded 100 µg/L: TTA-1N, TTA-1S TTA-2, the West-Central plume and the Building 835 plume. Quarterly injections of sodium lactate solution into the fluvial aquifer were made from November 2012 through August 2014. Injections were made in 45 injection wells (IW), using 30 4-inch wells and 15 2-inch former monitoring wells selected to expand the treatment areas. An additional 13 2-inch wells were used as performance monitoring wells (PMWs). Performance monitoring was conducted at all IWs and PMWs three months after the initial injection and quarterly thereafter; the initial monitoring event was in February 2013 and the final in November 2014. The EBT injection and performance monitoring well locations are shown on [Figure 2](#). Overall progress toward RAOs is evaluated through LTM. The initial year of additional EBT was described in *Main Installation Year Three Enhanced Bioremediation Treatment Report* (HDR 2014a). The report for the second year of additional EBT is in preparation.

The time required to achieve groundwater RAOs on the MI was noted as an issue in the *Third Five-Year Review, Revision 1* (HDR, 2012b). A supplemental remedial investigation and focused feasibility study (SRI/FFS) is being performed to develop a remedial strategy to achieve RAOs throughout the MI. The SRI/FFS will include consideration of: 1) CVOC concentrations in the fluvial aquifer that requires active treatment versus natural attenuation, 2) the need for remedial action in the IAQ, 3) the continued use of EBT versus other remedial actions and 4) the potential impact from off-site locations.

1.3.2 Dunn Field

The *Record of Decision for Interim Remedial Action of the Groundwater at Dunn Field (OU-1)* (CH2M HILL 1996) was signed in April 1996 with the objective of hydraulic containment to prevent further contaminant plume migration and reduce contaminant mass in groundwater. The interim remedial action (IRA) groundwater recovery system included 11 recovery wells (RWs) screened in the fluvial aquifer along the western boundary of Dunn Field. Based on reduction of CVOC concentrations in groundwater

following implementation of the Dunn Field Source Areas remedial action (RA), five RWs were shutdown in June 2008 and the remaining RWs were shutdown in January 2009. The IRA system was removed and the RWs abandoned in July 2010.

The groundwater RAOs established in the *Memphis Depot Dunn Field Record of Decision* (Dunn Field ROD) (CH2M HILL 2004b) are:

- to prevent human exposure to contaminated groundwater (i.e., exceeding protective target concentrations [TC])
- to prevent further off-site migration of VOCs in excess of protective target levels
- to remediate fluvial aquifer groundwater to drinking water quality to be protective of the deeper MAQ.

The remedies were implemented in three phases: Disposal Sites, Source Areas and Off Depot. The selected remedies for the Source Areas and Off Depot were modified through the *Dunn Field Record of Decision Amendment* (ROD Amendment) (e²M 2009) approved in January 2009.

The Disposal Sites RA included excavation and off-site disposal of soil and waste material from five sites and was completed in 2006. The *Disposal Site Remedial Action Completion Report* (MACTEC 2006) was approved in August 2006.

The Source Areas RA included soil vapor extraction (SVE) in the vadose zone and injection of zero valent iron (ZVI) in groundwater. The Fluvial SVE (FSVE) in fluvial soils (30 to 70 ft bgs) was operated from July 2007 to July 2012 and removed approximately 4,000 pounds of VOCs. Thermal SVE, or in situ thermal desorption (ISTD), was performed in the loess (0 to 30 ft bgs) from May to December 2008 and removed approximately 12,500 pounds of VOCs. ZVI injection was not required due to success of SVE in reducing groundwater impacts. Excavation and off-site disposal of soil and waste material in two additional areas were also conducted in the Source Areas RA. The *Source Areas Interim Remedial Action Completion Report, Revision 1* (Source Areas IRACR) (HDR|e²M 2009) was approved by USEPA and TDEC in November 2009.

The Off Depot RA included installation of an air sparging with SVE (AS/SVE) system across the downgradient portion of the plume. The AS/SVE system has removed approximately 83 pounds of VOCs from startup in December 2009 through December 2013. LUCs on Dunn Field and LTM in the Dunn Field area were also included in the Off Depot RA. LUCs were implemented through deed restrictions, zoning regulations, a Notice of Land Use Restrictions recorded in June 2009, and annual inspections since 2009. The

Dunn Field Off Depot Groundwater Interim Remedial Action Completion Report, Revision 1 (Off Depot IRACR) (HDR 2011a) was approved by USEPA in August 2011 and by TDEC in November 2011. AS/SVE system operations are described in the latest annual report, *Off Depot Air Sparge-Soil Vapor Extraction System Annual Operations Report, Year Four, Revision 1* (HDR 2014b).

The FSVE system was shut down in July 2012 after meeting soil remediation goals; LTM results at nearby wells are evaluated for potential rebound in CVOC concentrations. The AS/SVE system is to continue operation until the upgradient concentrations from the Dunn Field plume do not exceed 50 µg/L for individual CVOCs for 12 months. The FSVE and the AS/SVE systems with nearby LTM wells are shown on [Figures 3](#) and [4](#), respectively.

Since April 2012, only TCE in one LTM well, MW-159, which is located immediately upgradient of the AS/SVE system has exceeded 50 µg/L. The Year Four report recommended the AS/SVE system be operated in alternating months to restore the northerly groundwater flow observed prior to system operation. The AS/SVE system shut down on 17 February 2014 due to equipment damage from a power surge during a thunderstorm. System repairs and testing were completed and operations resumed on 6 March 2015. The change in system operations will be implemented for the remainder of 2015.

1.4 PREVIOUS GROUNDWATER MONITORING

1.4.1 Main Installation Long-term Monitoring

The MI LTM Plan established sampling frequency (biennial, annual, semiannual, or quarterly) and classifications for 47 existing LTM wells. The well classifications are:

- 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 IAQ adjacent to or within the window to the IAQ.
- Performance – wells screened in the fluvial aquifer and within the limits of known groundwater plumes.

Additional wells have been installed in phases since MI LTM was initiated in 2004; there were 99 MI LTM wells in 2014. The wells exceeding MCLs are grouped into seven plumes in the fluvial aquifer; the designated plumes are shown on [Figure 5](#) with PCE and TCE isopleths for the October 2013 LTM event. Sentinel wells in the transition zone between the fluvial aquifer and the IAQ, the IAQ and the MAQ 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
South Central	TCE
Sentinel	PCE

LTM during 2013 was described in *Annual Long-Term Monitoring Report-2013* (HDR 2014c); the report was approved by USEPA and TDEC in July 2014. MI LTM activities consisted of abandonment of 1 piezometer; installation of two MWs; repair of 19 wells; and monitoring designated LTM wells.

There were 99 MI LTM wells in 2013. The well classifications were background (6), boundary (7), performance (57) and sentinel (24); five wells installed in 2012 and 2013 had not been classified. New wells are sampled semiannually for two years; the other wells had the following sample frequency: biennial (15), annual (26) and semiannual (53). Samples were collected from 56 wells in a semiannual event in April and from 83 wells in an annual event in October 2013; one well was not sampled in October due to an obstruction.

Analytical results for October 2013 showed 55 of the 83 wells sampled with concentrations of PCE, TCE and/or CT above the MCL; eight wells had concentrations above 50 µg/L for these CVOCs. The MCLs were exceeded in 1 boundary well, 9 sentinel wells and 45 performance wells.

None of the designated CVOC plumes in the fluvial aquifer extended off-site, although some plumes may be impacted by off-site contaminants migrating on to the MI. Boundary well MW-219, located immediately upgradient of TTA-1 North, contained PCE above 50 µg/L in October 2013; TCE and cis-1,2-dichloroethene (cDCE) were also detected at low levels. Given its upgradient location, CVOC concentrations at MW-219 indicate potential plume migration on to the MI.

CVOCs in the fluvial aquifer have apparently migrated vertically into the IAQ through the window in the northwestern area of the MI. The CVOC plume in the IAQ extends to the northwest property boundary; the October 2013 concentrations in IAQ well MW-256 were 37.7 µg/L for PCE and 14 µg/L for TCE. Nearby MAQ wells, MW-254 and MW-255, did not contain PCE above the reporting limit (RL), but TCE was detected at 2.7 µg/L in MW-254.

Of the 45 performance wells exceeding MCLs in October 2013, 34 wells are located in areas where EBT is currently being performed. However, 18 of the 34 wells are not being affected by EBT based on upgradient or side-gradient locations and absence of reductive dechlorination. In addition, 11 performance wells exceeding MCLs are located in other plumes or isolated locations.

The 2013 LTM report included recommendations for 2014 MI LTM: to classify the wells installed in 2012 (MW-257, MW-258 and MW-259) and 2013 (MW-260 and MW-261) as performance wells; to change sample frequency for MW-252, MW-253 and MW-254 from semiannual to annual; and to establish sample frequencies for MW-257 (annual) and for MW-258 and MW-259 (semiannual). The report also had a general recommendation to review additional monitoring well locations in order to address the following data gaps: upgradient control for areas with CVOC concentrations above MCLs; downgradient extent of CVOCs in the IAQ; and limited hydrogeological and analytical data in the south-central MI.

The SRI Phase 1 work plan for installation of 12 monitoring wells to address recommendations in the 2013 LTM report was submitted to USEPA and TDEC on 6 January 2015. Following installation and initial sampling, the wells will be incorporated in LTM.

1.4.2 Dunn Field Long-term Monitoring

Regular groundwater monitoring in the Dunn Field area at DDMT was performed as part of the IRA from 1999 through 2009. Beginning in 2010, groundwater monitoring was conducted in accordance with the Off Depot RD and consisted of performance monitoring in the AS/SVE area and LTM in the remainder of the plume.

The Dunn Field LTM well classifications are:

- Background – wells screened in the fluvial aquifer located along or outside of the Dunn Field boundary; located upgradient to or at a distance from contaminant plumes on Dunn Field; no (or only low-level) previous detections of site contaminants in well samples.

- Sentinel – wells screened within either the fluvial aquifer or IAQ adjacent to or within a window to the IAQ.
- Performance – wells screened in the fluvial aquifer; located within the limits of known contaminant plumes; or repeatedly have contaminants in samples; located in areas targeted for treatment during the RA.

The LTM plan established an initial sampling frequency in 2010 for 58 existing wells: biennial, annual and semiannual. In addition, 36 PMWs were sampled as part of the Off Depot RA and 20 MWs were used for water level measurements during LTM events. The PMWs and water-level wells were incorporated into LTM in 2012, historical results for all Dunn Field MWs were reviewed, and 27 wells were selected for abandonment.

LTM during 2013 was described in *Annual Long-Term Monitoring Report-2013* (HDR 2014c); the report was approved by USEPA and TDEC in July 2014. Dunn Field LTM activities consisted of abandonment of 28 wells; repair of 12 wells on Dunn Field; and monitoring designated LTM wells.

There were 86 Dunn Field LTM wells in 2013. The well classifications were Background (8), Background-NE (5), Sentinel (9), Performance (50) and Performance-FSVE (14). The Background-NE wells are located on or bordering the northeast section of Dunn Field and have CVOC concentrations from an off-site source(s) upgradient of Dunn. The Performance-FSVE wells were selected for rebound monitoring after shutdown of the FSVE system in July 2012. The wells had the following sample frequency: semiannual (42), annual (29) or biennial (15). Samples were collected from 86 wells in a biennial event in April and from 43 wells in a semiannual sample in October 2013; an additional well was sampled in October to evaluate potential impacts from observed damage at the well head.

Review of the 2013 analytical results showed CVOC concentrations decreasing at most locations in the Off Depot plume and contaminant migration onto the northeast corner of Dunn Field. Findings are summarized below:

- Concentrations exceeded the MCL or TC for one or more CVOCs at 18 performance wells in April and at 14 wells in October; individual CVOC concentrations were above 10 µg/L at 7 performance wells in April and at 5 performance wells in October.
- MW-159 was the only LTM well in the Source Areas on Dunn Field or the Off Depot area to exceed the active treatment objective (50 µg/L); the TCE concentration was 181 µg/L in April and 129 µg/L in October 2013.

- The five background-NE wells were sampled in April; all exceeded the MCL for PCE and TCE and four wells exceeded the MCL for 1,1-dichloroethene (DCE). The highest concentrations were in MW-130 northeast of Dunn Field.
- Rebound in CVOC concentrations was not observed in the 14 Performance-FSVE wells. Concentrations exceeded the MCL or TC for PCE at MW-220 in April and October and at MW-03 in October. Both wells are located in the northwest corner of Dunn Field; the samples also contained TCE and DCE and the increase is attributed to the off-site plume.

The 2013 LTM report included recommendations to change sample frequencies for 2014 Dunn Field LTM: MW-28 from semiannual to biennial; MW-15, MW-57, MW-157 and MW-242 from semiannual to annual; and MW-44 from annual to semiannual.

2.0 LONG-TERM MONITORING ACTIVITIES

LTM activities during 2014 consisted of monitoring designated LTM wells at the MI and Dunn Field during sampling events in April and October. Field activities and laboratory analyses were performed in accordance with the *Remedial Action Sampling and Analysis Plan, Revision 1* (RA SAP) (MACTEC 2005) and the *Remedial Action Operations and Long Term Monitoring Quality Assurance Project Plan, Revision 0* (QAPP) (HDR 2011b). The QAPP is consistent with the RA SAP but has not received final approval.

In 2014, MI LTM included 99 wells classified as Background (6), Boundary (7), Performance (62) and Sentinel (24). The sample frequency for two wells installed in 2013 (MW-260 and MW-261) will be determined after four semiannual sample events. The remaining 97 wells have the following sample frequency: biennial (15 wells), annual (30 wells) and semiannual (52 wells). The MI LTM wells are listed on [Table 1](#) and the locations are shown on [Figure 6](#). The well classification, sample frequency, and 2014 sample events are shown on [Table 2](#).

In 2014, Dunn Field LTM included 86 wells classified as Background (8), Background-NE (5), Performance (50), Performance-FSVE (14) or Sentinel (9). The wells have the following sample frequency: biennial (16 wells), annual (32 wells) and semiannual (38). The Dunn Field LTM wells are listed on [Table 3](#) and the locations are shown on [Figure 7](#). The well classification, sample frequency, and 2014 sample events are shown on [Table 4](#).

2.1 GROUNDWATER MONITORING

Groundwater levels are measured in all LTM wells on the MI and Dunn Field prior to sampling for LTM events. Measurements are made using Solinst Model 101 and Heron dipper-T water level meters with electronic sensors and tapes graduated in 0.01-ft increments.

Groundwater samples are collected using either passive diffusion bags (PDBs), low-flow purging or bailing. If saturated thickness of the well screen is greater than 5 ft, a PDB is used. If the saturated thickness is less than 5 ft or a PDB is not suitable for other reasons, the well is sampled following low-flow purging or bailing.

When samples are collected using a PDB, a sample of water from the PDB removed from the well is transferred to 40-milliliter (mL) vials preserved with hydrochloric acid. Following sample collection, a

new PDB is filled with de-ionized water and placed in the middle of the saturated section of well screen. Water quality parameters are not measured prior to sampling wells with PDBs.

When samples are collected using bladder pumps and low-flow purging methods, dedicated Teflon[®] bladders and Teflon[®]-lined polyethylene tubing are used. The pumping rate at each well is monitored in order that the water levels not decline more than 4 inches (0.1 meter). Following sampling, the bladder and tubing for each well are placed in separate, sealed plastic bags and stored for future sampling events. Water quality parameters are measured at approximately 5 to 10 minute intervals during purging using a flow-through cell with a YSI 650 meter. Wells sampled with a dedicated Teflon[®] bailer have stabilization parameters collected using the same instrumentation; a sampling cup is filled from the bailer and a set of stabilization parameters are collected for every well volume. The YSI meter is calibrated each morning prior to sampling, and if abnormal readings are observed during the day, the instrument is recalibrated in the field. Purging continues 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 less than 20 nephelometric turbidity units for turbidity. Temperatures are also measured and recorded, but not used as a stabilization parameter. All measurements are noted on the field sampling forms. Samples are collected in 40-mL vials preserved with hydrochloric acid when stabilization criteria are met or the field team leader approves a variance from the criteria.

Samples are sent to Microbac Laboratories in Marietta, Ohio for VOC analysis by Method SW8260B. The activities during the two sampling event are summarized in the following sections.

2.1.1 April 2014

Groundwater levels were measured in LTM wells at both the MI and Dunn Field on 23 to 24 April. Water levels were measured at all LTM wells, except two wells in the Dunn Field-Off Depot area (MW-33 and MW-182), which were inaccessible. MW-33 had fencing and debris placed around the well by a nearby resident; MW-182 had a large dog chained near the well and City of Memphis Animal Control did not respond to requests for assistance. The water level measurements are shown on [Table 5](#) for the MI and [Table 6](#) for Dunn Field.

2.1.1.1 Main Installation

Semiannual groundwater sampling was conducted on 24 to 26 April 2014 with samples collected from 54 designated wells. There were 56 groundwater samples collected; samples were collected from two

screened intervals at MW-101 and MW-107. Groundwater samples were collected from the 54 wells using PDBs. The sample intervals are shown on [Table 7](#).

2.1.1.2 Dunn Field

Annual groundwater sampling was conducted with samples collected from 69 of the 70 designated wells on 25 to 28 April 2014. One well, MW-182, was not accessible during the LTM event but was sampled on 13 May 2014. Groundwater samples were collected from 69 wells using PDBs. The sample intervals are shown on [Table 8](#). Groundwater samples were collected by low-flow sampling from one well, MW-08. The final stabilization measurements are shown on [Table 9](#). The sample was collected when stabilization criteria were met. The sample vials for MW-160 were found to be broken when inspected during log-in at the laboratory; the sample was recollected on 13 May 2014.

2.1.2 October 2014

Groundwater levels were measured in LTM wells at Dunn Field and the MI on 16 to 18 October. Water levels were measured at all LTM wells, except one well in the Dunn Field-Off Depot area (MW-33) which was blocked by debris as in April 2014. The water level measurements are shown on [Table 5](#) for the MI and [Table 6](#) for Dunn Field.

2.1.2.1 Main Installation

Biennial groundwater sampling was conducted with samples collected from the 99 designated wells on 18 to 21 October 2014. There were 101 groundwater samples collected; samples were collected from two screened intervals at MW-101 and MW-107.

Groundwater samples were collected from 97 wells using PDBs, with a total of 99 samples. The sample intervals are shown on [Table 7](#). Groundwater samples were collected from MW-55 with a bladder pump and low-flow purging and from PZ-03 with a Teflon® bailer due to the small well casing diameter. The final stabilization measurements are shown on [Table 10](#). Turbidity was not measured at PZ-03 because of a field oversight. The samples were collected from MW-55 when stabilization criteria were met and from PZ-03 after three well volumes were drawn from the well.

2.1.2.2 Dunn Field

Semiannual groundwater sampling was conducted with samples collected from 38 designated wells on 18 to 19 October 2014. Groundwater samples were collected from all 38 wells using PDBs. The sample intervals are shown on [Table 8](#).

2.2 WASTE DISPOSAL

The waste generated during LTM activities in 2014 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 placed in the collection bin at the HDR field office for disposal at a municipal landfill. The IDW consisted of waste water from equipment decontamination and groundwater from purging prior to low-flow sampling and from excess water in PDBs.

The waste water was collected in 5-gallon buckets with lids and added to the condensate storage tank on Dunn Field. When the storage tank nears capacity, the waste water will be analyzed and, if concentration limits are met, discharged to the storm sewer per agreement with the TDEC.

3.0 SUMMARY OF MONITORING RESULTS

3.1 HYDROGEOLOGY

Water level measurements for the 2014 LTM events are shown on [Table 5](#) for the MI and on [Table 6](#) for Dunn Field.

3.1.1 Main Installation

Groundwater elevations for MI LTM wells, with contours for the fluvial aquifer and the IAQ within the window, are shown on [Figures 8](#) and [9](#). Groundwater flow is generally from the eastern and western boundaries to the central area of the MI, where groundwater flows to the north into the window or south toward the property boundary.

Groundwater elevations in the fluvial aquifer are highest in the northeast corner of the MI (MW-16: approximately 243 ft msl) and lowest in the south-central MI (MW-259: approximately 197 ft msl). Groundwater flow near TTA-1 is to the east and northeast with an approximate gradient of 0.003 in April and October (MW-219 to MW-210B). The groundwater flow near TTA-2 is to the west-southwest with an approximate gradient of 0.019 in April and 0.020 in October (DR2-1 to MW-26).

Groundwater elevations for IAQ and MAQ wells are shown on [Figures 10](#) and [11](#) with more extensive contours. The water levels for the IAQ wells in the ‘window’ indicate flow is generally to the northwest with groundwater elevations decreasing from MW-107 (approximately 201 ft msl in April and October) to MW-140 (approximately 170 ft msl in April and 163 ft msl in October). The gradient in the ‘window’ is to the northwest at approximately 0.022 in April and 0.027 in October (MW-90 to MW-140). The groundwater elevation at MW-254, which is located in the northwest corner of the MI and screened in the Memphis Sand, was approximately 169 ft msl in April and 161 ft msl in October. The water levels in the three deepest wells show the gradient is to the west, from MW-140 to MW-254.

3.1.2 Dunn Field

Dunn Field groundwater contour maps for each event are shown on [Figures 12](#) and [13](#). Groundwater flow is generally to the west on Dunn Field. The maps show a trough in groundwater elevations near MW-165 approximately 1,200 ft west of Dunn Field, with flow diverging to the north and south. The AS/SVE system is located on the eastern side of the trough.

Groundwater elevations in the fluvial aquifer are highest northeast of Dunn Field (MW-130: 239.8 ft msl in April and 240.5 ft msl in October) and decrease toward the trough west of Dunn Field (MW-165: 218.7 ft msl in April and 219.2 ft msl in October).

The groundwater elevations in IAQ wells away from the ‘windows’ providing connection with the fluvial aquifer were approximately 170-172 ft msl in April and 164-166 ft msl in October. The groundwater elevation in MW-67, which is screened in the Memphis Sand, was approximately 171.0 ft msl in April and 164.9 ft msl in October.

3.2 DATA QUALITY EVALUATION

Data collected during the 2014 LTM events were reviewed based on guidelines in the RA SAP and the QAPP. Data review was performed by an independent data validation contractor, Diane Short and Associates, Inc. The complete analytical results with data quality evaluation (DQE) flags are presented for each sample event in [Appendix B](#).

Overall, the VOC data from the LTM events met project data quality objectives (DQOs) and were determined to be sufficient to support the evaluation of RA. The complete DQE for 2014 LTM is provided in [Appendix C](#). The main findings from the DQE for the MI and Dunn Field are summarized separately below.

3.2.1 Main Installation

Based on the review and the project DQOs, the MI data are acceptable and usable. No data were rejected. The primary causes of the qualified data are described below.

- Thirty-five bromomethane results and eighteen 1,2,3-trichloropropane results in the April 2014 event and most results for 1,2-dibromo-3-chloropropane (DBCP), acetone, 2-butanone (MEK), 2-hexanone, 4-methyl-2-pentanone (MIBK), chloromethane, naphthalene and 1,2,3-trichloropropane in a number of samples in the October 2014 event were non-detect and qualified “UJ” due to high percent difference with low response in continuing calibration standards. The qualified analytes are not contaminants of concern (COCs) at the MI.
- Five detected 1,1,2,2-tetrachloroethane results in the October 2014 event were qualified as estimated “J” due to low responses in continuing calibration standards. 1,1,2,2-Tetrachloroethane is not a COC at the MI.

- Thirty-three non-detect carbon disulfide results in the April 2014 event and 12 non-detect chloromethane results in the October 2014 event were qualified as non-detect estimated “UJ” due to low laboratory control sample (LCS) recoveries. Carbon disulfide is not a COC at the MI.
- Seventeen analytes in three samples (MW-94A, MW-208B and PMW21-05) in the April 2014 event were qualified as estimated J or non-detect estimated UJ due to low matrix spike/matrix spike duplicate (MS/MSD) recoveries. The qualified results included one result for TCE and two results for PCE. These qualified results are well above the MCLs for TCE and PCE and are fully usable.
- Acetone in trip blank LTM-TB4-LB-20 in the October 2014 event was qualified as non-detect estimated “UJ” due to the sample being analyzed 1.4 days past the 14 day holding time. The sample was initially analyzed within the holding time but was re-analyzed due to a suspect result for acetone. The re-analysis, which showed no acetone, was delayed due to the sample load at the laboratory. The data qualification did not require qualification of any field sample results.
- Six detected acetone results in the April 2014 event were qualified “B” due to the analyte being detected in the associated trip blank. Acetone is not a COC at the MI.
- Three detected methylene chloride results in the October 2014 event were qualified “B” due to the analyte being detected in the associated method blank. Methylene chloride is not a COC at the MI.
- Any result reported below the RL but above the method detection limit was flagged “J” and considered an estimated result (unless overridden by other quality control [QC] flags).

3.2.2 Dunn Field

Based on the review and the project DQOs, the Dunn Field data are acceptable and usable. No data were rejected. The primary causes of the qualified data are described below.

- Thirty-two bromomethane results and two chloromethane results in the April-May 2014 event and three acetone results, two MEK results, 16 chloromethane results and 19 naphthalene results in the October 2014 event were qualified as estimated “J” or non-detect estimated “UJ” due to low responses in continuing calibration standards. The qualified analytes are not COCs at Dunn Field.
- Four non-detect carbon disulfide results in the April-May 2014 event were qualified as non-detect estimated “UJ” due to a low response in the alternate source standard. Twenty-seven non-detect carbon disulfide results in the April-May 2014 event were qualified as non-detect estimated “UJ” due to low LCS recoveries. Carbon disulfide is not a COC at Dunn Field.

- Eleven detected acetone results in the April-May 2014 event were qualified as estimated “J” due to a high LCS recovery. Acetone is not a COC at Dunn Field.
- Three TCE results in the April-May 2014 event and one methylene chloride result in the October 2014 event were qualified “B” due to the analyte being detected in the method blank. Methylene chloride is not a COC at Dunn Field. The qualified results for TCE are well below the MCL and are fully usable.
- Eight acetone results in the April-May 2014 event were qualified “B” due to the analyte being detected in the trip blank. Acetone is not a COC at Dunn Field.
- Two carbon disulfide results in the April-May 2014 event and one chloroform result in the October 2014 event were qualified as non-detect estimated “UJ” or estimated “J” due to low MS/MSD recoveries. Carbon disulfide is not a COC at Dunn Field. The qualified concentration for chloroform is well above the TC and below the MCL.
- 1,1,2,2-Tetrachloroethane in sample MW-159-ODLS-9 and its field duplicate in the October 2014 event were qualified as estimated “J” due to the field duplicate relative percent difference (RPD) being above the control limit. Both qualified results for 1,1,2,2-Tetrachloroethane are well above the TC and are fully usable.
- 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).

3.3 ANALYTICAL RESULTS

The complete analytical results are shown in [Appendix B](#). Summary tables for each sampling event show the analytical results for the primary CVOCs and other VOCs detected above the RL in one or more samples.

3.3.1 Main Installation

The primary CVOCs for the MI are PCE, TCE, cDCE, CT, chloroform (CF) and vinyl chloride (VC). The MCLs are shown on the summary tables.

3.3.1.1 April 2014

Groundwater samples were collected from 54 LTM wells for the semiannual event in April 2014. A total of 56 groundwater samples were collected; samples were collected from two screened intervals in

MW-101 and MW-107. [Table 11](#) lists the analytical results for the primary CVOCs and other VOCs detected above the RL in one or more samples. A summary of analytical results for the primary CVOCs is provided on [Table 12](#).

3.3.1.2 October 2014

Groundwater samples were collected from 99 LTM wells for the biennial event in October 2014. A total of 101 groundwater samples were collected; samples were collected from two screened intervals in MW-101 and MW-107. [Table 13](#) lists the analytical results for the primary CVOCs and other VOCs detected above the RL in one or more samples. A summary of analytical results for the primary CVOCs is provided on [Table 14](#).

3.3.2 Dunn Field

The primary CVOCs for Dunn Field are CT, CF, DCE, trans-1,2-dichloroethene (tDCE), cDCE, 1,1,2,2-tetrachloroethane (TeCA), PCE, 1,1,1-trichloroethane (TCA), and TCE; VC, a significant CVOC degradation product, is also included. The MCLs, and TCs from the Dunn Field ROD, are shown on the summary tables.

3.3.2.1 April 2014

Groundwater samples were collected from 70 LTM wells for the annual event in April-May 2014. [Table 15](#) lists the analytical results for the primary CVOCs and other VOCs detected above the RL in one or more samples. A summary of the primary CVOC results is provided on [Table 16](#).

3.3.2.2 October 2014

Groundwater samples were collected from 38 LTM wells for the semiannual event in October 2014. [Table 17](#) lists the analytical results for the primary CVOCs and other VOCs detected above the RL in one or more samples. A summary of the primary CVOC results is provided on [Table 18](#).

3.4 PLUME MAPS AND CROSS-SECTIONS

3.4.1 Main Installation

PCE, TCE, cDCE and CT isoconcentration maps are shown on [Figures 14 to 17](#) for the April 2014 LTM semiannual samples and on [Figures 18 to 21](#) for the October 2014 LTM biennial samples. The CVOC

plumes are similar to recent sample events with slightly reduced concentrations for PCE, TCE and CT in and downgradient of the EBT areas.

None of the designated CVOC plumes in the fluvial aquifer are known to extend off-site, although some plumes may be impacted by off-site contaminants migrating on to the MI. Boundary well MW-219, located immediately upgradient of TTA-1 North, contained PCE at 66.6 µg/L in April and at 74.7 µg/L in October 2014; TCE and cDCE were also detected at low levels.

CVOCs in the fluvial aquifer have apparently migrated vertically into the IAQ through the window in the northwestern area of the MI. The PCE plume in the IAQ, shown on [Figures 14 and 18](#), extends to the northwest property boundary with concentrations in IAQ well MW-256 at 43.5 µg/L in April and 38 µg/L in October 2014; TCE is present at lower concentrations, 13.4 µg/L in April and 11.6 µg/L in October 2014. The PCE and TCE concentrations in MW-256 have been stable since October 2012 but increased from the initial sample in August 2010 (8.71 µg/L and 2.43 µg/L, respectively). PCE has not been detected above the RL in nearby MAQ wells, MW-254 and MW-255; TCE has only been detected above the RL in MW-254, with concentrations at 2.8 µg/L in April and October 2014.

The elevation of the top of the uppermost clay in the Jackson Formation/Upper Claiborne group is contoured for the MI on [Figure 22](#); the locations of cross-sections shown on [Figures 23 to 30](#) are also shown on [Figure 22](#). As shown on [Figure 23](#) (cross-section A), the Jackson Formation/Upper Claiborne group on the MI varies from: 1) a thick clay unit (south end near MW-81); 2) upper and lower clay units with interlayered sand (mid-section near MW-141); and 3) sand above a lower clay unit (mid-section near MW-39A). Where the upper clay is present, it forms the base of the fluvial aquifer and where it is absent, the fluvial sands and the sand units of the Jackson Formation/Upper Claiborne group form a combined water table aquifer. Within the window in the northwestern MI (cross-section A near MW-140), the upper clay unit is missing and the lower clay is deeper or absent allowing vertical groundwater flow and contaminant migration.

The April and October 2014 analytical results for PCE and TCE in wells on cross-section A are shown on [Figures 23 and 24](#). The October 2014 analytical results for PCE and TCE in wells on cross-sections B to G are shown on [Figures 25 to 30](#). EBT wells, which are not included in LTM, are included on the cross-sections where appropriate; the August 2014 analytical results for PCE and TCE are shown for the EBT wells.

- Cross-section A runs south from MAQ well MW-254 in the northwest corner of the MI to fluvial aquifer well MW-24 on the central southern boundary; the section includes several sentinel wells within the 'window' and the West-Central area
- Cross-section B runs east from MW-66A west of the MI to MW-39A on cross-section A; the section includes wells in the TTA-1N and West Central EBT areas.
- Cross-section C runs east from MW-24 on the central southern boundary to MW-50 on the eastern boundary; the section includes wells in the TTA-2 EBT area.
- Cross-section D runs southeast from MW-19 near the northwest boundary to MW-199A on cross-section A and MW-108 and MW-207A on cross-section E; the section includes wells in the Building 835 EBT area.
- Cross-section E runs east from MW-209A on cross-section A to MW-16 in the northeast corner of the MI; the section includes wells in the North Central area.
- Cross-section F runs northeast from MW-102B in the southwest corner of the MI to MW-203A on cross-section B; the section includes wells in the TTA-1S EBT area.
- Cross-section G runs northeast from MW-23 along the southern boundary to MW-94A on cross-section A; the section includes wells in the South Central area.

3.4.2 Dunn Field

Total CVOC concentrations for the April and October 2014 sample events are shown on [Figures 31 and 32](#). The total CVOC concentrations in the Off Depot plume remain low due to the Source Areas and Off Depot RAs. The 50 µg/L contour for total CVOCs indicates the progress toward the active treatment objective of reducing individual CVOC concentrations below 50 µg/L.

The highest total CVOC concentration in both sample events was at MW-159, which is immediately upgradient of the AS/SVE system; the concentrations were 296 µg/L in April and 283 µg/L in October 2014. The results show a decrease from 335 µg/L in October 2012 but an increase from 223 µg/L in October 2013.

Increased total CVOC concentrations were observed in 2012 and 2013 on the southwest side of the AS/SVE system where plume diversion was suspected, due to reduced permeability caused by AS. System operations were modified in June 2012 to limit potential for plume diversion; temporary shutdown of the AS/SVE system in 2014 due to equipment damage has also limited potential for

diversion. Total CVOC concentrations decreased from 2013 to 2014 in most of these wells (MW-44, MW-149, MW-151, MW-166 and MW-166A), but have remained stable at MW-249.

The total CVOC concentrations for April 2014 ([Figure 31](#)) show contaminant migration onto the north end of Dunn Field from the off-site plume. The highest concentration was 143 µg/L at MW-130 near the northeast corner of Dunn Field.

Total CVOC concentrations increased at two performance-FSVE wells, MW-06 and MW-87, on the central section of the western boundary of Dunn Field. The concentrations increased from 4 µg/L at MW-06 and MW-87 in October 2013 to 14 µg/L at MW-06 and 68 µg/L at MW-87 in October 2014. The increased concentrations indicate contaminant rebound in groundwater.

Total CVOC concentrations also increased at wells on the downgradient side of the AS/SVE system (MW-243, MW-246 and MW-247) following the temporary shutdown of the AS/SVE system. The concentrations increased from 3 µg/L at MW-243, 4 µg/L at MW-246 and 1 µg/L at MW-247 in October 2013 to 8 µg/L at MW-243, 40 µg/L at MW-246 and 4 µg/L at MW-247 in October 2014.

Concentrations and isopleths are shown for April 2014 TeCA, PCE and TCE results on [Figures 33 to 35](#) and for October 2014 TeCA and TCE results on [Figures 36 and 37](#). The figures include 50 µg/L isopleths, where warranted, to show where the active treatment objective has not been met and isopleths at both the TC and MCL, where applicable, to show where the RAO has not been met.

Only TeCA ([Figures 33 and 36](#)) and TCE ([Figures 35 and 37](#)) have significant areas above the MCL or TC in the Off Depot area. Background-NE wells in the northern area of Dunn Field and off site were sampled in April 2014, and the PCE and TCE results ([Figures 34 and 35](#)) clearly show contaminant migration on to the north end of Dunn Field. Two performance wells in the Source Areas on Dunn Field, MW-03 and MW-220, exceeded the TC for PCE and one well, MW-220, exceeded the MCL for TCE; both wells are located within the plume migrating on to Dunn Field.

Since April 2012, MW-159 has been the only Dunn Field performance well to exceed the active treatment objective. In 2014, the goal was exceeded at both MW-159 with TCE at 216 µg/L in April and October 2014, and MW-87 with CF at 56.2 µg/L in October. The CF concentration at MW-87 also exceeds the TC but not the MCL. CF was also higher at MW-06 and TCE was higher in both MW-06 and MW-87 although the concentrations were below the MCL and TC. The increased concentrations are assumed to represent rebound from shutdown of the FSVE system.

3.5 WELL CLASSIFICATION REVIEW

3.5.1 Main Installation

Analytical results for the individual well classifications in 2014 LTM events are summarized in the following sections. Historical analytical results for the primary CVOCs in all MI LTM wells are provided in [Appendix D](#). Time trend plots for primary CVOCs where one or more were detected above MCLs in MI LTM wells are provided in [Appendix E](#).

3.5.1.1 Background Wells

There are six background wells screened in the fluvial aquifer located along or outside the MI boundary; wells upgradient 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 and MW-99. All background wells were sampled in October 2014.

Chlorinated VOCs were not detected above RLs in MW-16 and MW-55. MW-53 and MW-66A contained low levels of PCE (near 2 µg/L), and MW-19 and MW-99 contained low levels of CF (near 0.4 µg/L). MW-19 also contained TCE below the RL (1 µg/L). The results are similar to past results, except that CVOCs had not been detected in MW-19 before the previous sample in October 2012.

3.5.1.2 Boundary Wells

There are seven 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. MW-219 was sampled in April and all boundary wells were sampled in October 2014.

No CVOCs were detected above RLs in MW-22, MW-23, MW-24, MW-93 and MW-102B. MW-50 contained low levels of CF and TCE (below 4 µg/L). The results are similar to past results, except that concentrations of TCE at MW-50 were higher in the latest sample.

MW-219, located immediately upgradient of TTA-1 North, contained PCE at 66.6 µg/L in April and at 74.7 µg/L in October 2014; TCE and cDCE were also detected at low levels (below 5 µg/L). PCE concentrations have continued to increase from the previous low of 4.55 µg/L in April 2011, and the October result is the highest concentration since well installation in 2007. As noted in previous reports, the results at MW-219 indicate potential plume migration on to the MI.

3.5.1.3 Sentinel Wells

There are 24 sentinel wells screened within either the fluvial, intermediate or Memphis aquifers adjacent to or within the window. 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, MW-229 and MW-252 to MW-256. Ten sentinel wells were sampled in April and all sentinel wells were sampled in October 2014.

Primary CVOCs were not detected above RLs in five sentinel wells (MW-38, MW-229, MW-252, MW-253 and MW-255). At MW-253, TCE exceeded the MCL in 2011 but was not detected in 2012 to 2014. The remaining sentinel wells had CVOCs detected above the RLs. Nine wells (MW-90, MW-107, MW-108, MW-141, MW-202B, MW-207A/B, MW-210A and MW-256) had PCE and/or TCE at concentrations above the MCL in April and October 2014. MW-209A was only sampled in October and PCE at 6.94 µg/L exceeded the MCL for the first time since well installation in 2007. The highest concentrations for 2014 were: PCE in MW-207B at 65.3 in April and 46.2 µg/L in October; and TCE in MW-108 at 27.7 µg/L in April and 31.2 µg/L in October.

Three sentinel wells are located downgradient of the window: MW-256 in the IAQ, and MW-254 and MW-255 in the MAQ. MW-255 is located adjacent to MW-256 with the screened interval approximately 160 ft deeper; MW-254 is located approximately 350 ft to the west of MW-255 and is downgradient. Analytical results for primary CVOCs are summarized below:

- MW-254 (MAQ) - TCE was reported at 2.8 µg/L in April and 2.79 µg/L in October; other CVOCs (CT, CF, cDCE and PCE) were detected below the RL.
- MW-255 (MAQ) - No detections above the RL; TCE was detected below the RL.
- MW-256 (IAQ) – PCE and TCE were detected above the MCL and CF was detected above the RL. PCE and TCE concentrations were 43.5 µg/L and 13.4 µg/L in April and 38 µg/L and 11.6 µg/L in October; the concentrations are similar to the 2012 and 2013 results but higher than the initial sample results of 8.71 µg/L and 2.43 µg/L in August 2010.

3.5.1.4 Performance Wells

There are 62 LTM performance wells 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 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, PMW21-03, PMW21-05
TTA-1 South	PCE, TCE	DR1-1/1A, DR1-3, DR1-4, MW-101, PMW101-03A/B, PMW101-06A/B
TTA-2	PCE, CT, CF	DR2-1, DR2-3, DR2-4, DR2-6, MW-26, MW-64, MW-88, MW-92, MW-96, MW-217, MW-218, MW-259, PMW92-02
West-Central	PCE	MW-39/39A, MW-94A, MW-98, MW-200, MW-204A/B, MW-205A/B, MW-206A/B, MW-208A/B, MW-210B
Building 835	TCE	MW-142, MW-143, MW-198, MW199B, MW-209B, MW-257
North-Central	TCE	MW-103, MW-104, MW-214A/B, MW-258, MW-260
South-Central	TCE	MW-97, MW-216, MW-261

There are five LTM performance wells outside the designated plumes (MW-25A, MW-52, MW-215A/B and PZ-03). All five wells were sampled in October 2014. PCE, TCE, CT and/or CF were detected above the RL in all wells. PCE concentrations at 5.9 to 6.7 µg/L exceeded the MCL in MW-52 and MW-214A/B, and TCE at 9.9 µg/L exceeded the MCL in PZ-03. The PCE concentration of 2.03 µg/L in MW-25A. The concentrations were consistent with past samples, except that PCE in MW-25A was below the MCL for the first time since October 2008.

3.5.1.4.1 TTA-1 North

The TTA-1 North plume is a generally oval-shaped area with elevated PCE concentrations near the central section of Building 1089 and north of former Buildings 1084 and 1085. The depth to water is approximately 90 ft bgs and the average saturated thickness is 26 ft. The groundwater flow direction is to the east-northeast toward the West-Central plume.

Six LTM performance wells are associated with the TTA-1 North plume. Three wells were sampled in April, and all wells were sampled in October 2014. Primary CVOCs were not detected above the RL in DR1-2 and DR1-8 and only PCE was detected above the RL in DR1-7. PCE was detected above the MCL in PMW21-03 and PMW21-05, TCE was above the MCL in PMW21-03 and VC was above the MCL in MW-100B. The highest PCE concentration was 130 µg/L at PMW21-03 in April. VC concentrations at MW-100B have remained high since initial EBT was performed from 2006 to 2009; the VC concentration was 169 µg/L in October, but PCE concentrations have decreased below the MCL after rebounding in 2011 to 2013.

3.5.1.4.2 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 had higher TCE concentrations and moderate PCE concentrations while those in the northern area have had higher PCE concentrations and low TCE concentrations. The depth to water is approximately 90 ft bgs and the average saturated thickness is 36 ft. The groundwater flow direction is to the northeast toward the West-Central plume.

Nine LTM performance wells are associated with the TTA-1 South plume. Seven wells were sampled in April, and all wells were sampled in October 2014. Primary CVOCs were detected above the RL in all wells except DR1-4. PCE was detected above the MCL in PMW101-06B in both events and in MW-101B and PMW101-3B in October only; VC was detected above the MCL in PMW101-03B in both events. The highest concentrations above the MCL were PCE at 20.4 µg/L in PMW101-03B in October and VC at 3.9 µg/L in PMW101-03B in April.

3.5.1.4.3 TTA-2

The TTA-2 plume is an irregularly shaped area with elevated concentrations of PCE, TCE, and CT. 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 to water is approximately 93 ft bgs and the average saturated thickness is 9 ft. The groundwater flow direction is to the west-southwest toward the southern property boundary.

Thirteen LTM performance wells are associated with the TTA-2 plume. Seven wells were sampled in April, and all wells were sampled in October 2014. Primary CVOCs were not detected above the RL in MW-96 but exceeded the MCL for PCE, TCE, CT, cDCE and/or VC in the other wells in both events. The highest concentrations were PCE at 221 µg/L at DR2-1 in October, TCE at 36.4 µg/L at MW-217 in October, CT at 46.9 µg/L at MW-217 in April, cDCE at 133 µg/L at PMW92-02 in April and VC at 16.8 µg/L at DR2-6 in October.

3.5.1.4.4 West-Central

The West-Central plume is a broad area of elevated PCE concentrations approximately 1,500 ft 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 to water is approximately 100 ft bgs and the saturated thickness ranges from 7 to 94 ft with an average of 48 ft. The groundwater flow direction is to the east and diverges toward the 'window' or the southern property boundary.

Fourteen LTM performance wells are associated with the West-Central plume. All wells were sampled in April and October 2014. Primary CVOCs were detected above the RL in all wells and exceeded the MCL for PCE and/or TCE in all wells in both events. The highest concentrations were PCE at 39.9 µg/L at MW-98 in October and TCE at 16.4 µg/L at MW-208A in October.

3.5.1.4.5 Building 835

The Building 835 plume located in the western portion of the MI contains elevated concentrations of TCE. The plume is oriented along the southern edge of the clay adjacent to the window in the northwest corner of the MI. The depth to water is approximately 94 ft bgs and the average saturated thickness is 6 ft. The groundwater flow direction is to the southeast toward the West-Central plume and the 'window'.

Six LTM performance wells are associated with the Building 835 plume. Three wells were sampled in April, and all wells were sampled in October 2014. Primary CVOCs were not detected above the RL in MW-198 and MW-257; TCE was detected above the RL and exceeded the MCL in the other wells. The highest TCE concentration was 74.6 µg/L at MW-199B in October.

3.5.1.4.6 North-Central

The North-Central plume is located in the northeastern portion of the MI and contains slightly elevated concentrations of TCE in most wells with higher concentrations of TCE and PCE in MW-258. The depth to water is approximately 66 ft bgs and the average saturated thickness is 23 ft. The groundwater flow direction is to the southwest toward the 'window' or the southern property boundary.

Six LTM performance wells are associated with the North-Central plume. Four wells were sampled in April, and all wells were sampled in October 2014. Primary CVOCs were detected above the RL in all wells and exceeded the MCL for PCE and/or TCE in all wells sampled in both events except for MW-260 in October. The highest concentrations were TCE at 73.9 µg/L and PCE at 29.9 in MW-258 in April.

3.5.1.4.7 South-Central

The South-Central plume is located in the southwestern portion of the MI and contains elevated concentrations of TCE. The depth to water is approximately 94 ft bgs and the average saturated thickness is 29 ft. The groundwater flow direction is to the northeast but likely diverges toward the southern property boundary.

Three LTM performance wells are associated with the South-Central plume. Two wells were sampled in April and all wells were sampled in October 2014. The only primary CVOC detected above the RL was TCE in MW97 and MW-261, the MCL was exceeded in MW-97 in both events. The highest concentration was 68 µg/L in MW-97 in October.

3.5.2 Dunn Field

Analytical results for the individual well classifications in the 2014 LTM events are summarized in the following sections. Historical analytical results for the primary CVOCs in all Dunn Field LTM wells are provided in [Appendix F](#). Time trend plots for primary CVOCs detected above MCLs or the TC in Dunn Field LTM wells are provided in [Appendix G](#).

3.5.2.1 Background Wells

There are 13 background wells screened in the fluvial aquifer located along or outside the Dunn Field boundary; upgradient or at a distance from contaminant plumes on Dunn Field; and with no or low previous detections of primary CVOCs. These include five background-NE wells located on or bordering the northeast section of Dunn Field with CVOC concentrations from an off-site source(s) upgradient of Dunn Field.

Only background-NE wells were sampled in April and no background wells were sampled in October 2014. PCE, TCE and DCE were detected above the RL in all five background-NE wells; PCE and TCE exceeded the MCL in all five wells and DCE exceeded the MCL in four wells. The highest concentrations were PCE at 60.6 µg/L and DCE at 22.6 µg/L in MW-130, and TCE at 63.7 µg/L in MW-230.

3.5.2.2 Sentinel Wells

There are 9 sentinel wells screened within either the fluvial aquifer or the IAQ adjacent to or within a window or within the MAQ. Five sentinel wells were sampled in April and none were sampled in October

2014. Primary CVOCs were detected above the RL in two wells: DCE in MW-237, and DCE and CF in MW-251. No concentrations were above the TC or MCL.

3.5.2.3 Performance Wells

There are 64 performance wells screened in the fluvial aquifer and within the limits of groundwater plumes. These include 14 performance-FSVE selected for rebound monitoring after shut down of the FSVE system in July 2012. Sixty performance wells were sampled in April and 38 performance wells were sampled in October 2014; all performance-FSVE wells were sampled in each event. Primary CVOCs were detected above RLs in 35 performance wells in April and 29 wells in October; the CVOCs detected most commonly were TCE, TeCA and CF.

CVOC concentrations exceeded an MCL or TC at 14 wells in April and 13 wells in October. The MCL for TCE was exceeded at 11 wells in April and 10 wells in October, and other CVOCs exceeded an MCL or TC at some of these wells. Three wells exceeded a single TC in April and October, CF at MW-87 and PCE at MW-03 and MW-79. The highest TCE concentration was 216 µg/L in MW-159.

Considering only the 14 performance-FSVE wells, primary CVOCs were detected above RLs in 5 wells in April and in October. CVOC concentrations were similar to previous results, except at MW-06 and MW-87. CF, cDCE and TCE concentrations increased in MW-06 and MW-87 apparently due to residual contamination in the vadose zone migrating to groundwater; concentrations were below MCLs but exceeded the TC for CF at MW-87. The two performance-FSVE wells at the north end of Dunn Field, MW-03 and MW-220, exceeded the TC for PCE and MW-220 also exceeded the MCL for TCE.

3.6 TREND ANALYSIS

Concentration trends in the LTM wells were evaluated based on review of the historical analytical results for primary CVOCs, which are in [Appendix D](#) for the MI and [Appendix F](#) for Dunn Field, and the time trend plots for primary CVOCs detected above MCLs, which are in [Appendix E](#) for the MI and [Appendix G](#) for Dunn Field.

3.6.1 Main Installation

The historical data and time trend plots were reviewed for each of the MI LTM wells in each well classification. The review was performed to identify wells which exceeded MCLs for the primary CVOCs and to estimate the trend for wells currently exceeding MCLs. The findings are summarized below.

3.6.1.1 Background Wells

- The six background wells have not exceeded MCLs.
 - CVOC concentrations have been non-detect in two wells: MW-16 and MW-55.
 - CVOCs have been detected above the RL in four wells: MW-19, MW-53, MW-66A and MW-99.

3.6.1.2 Boundary Wells

- Five of the seven boundary wells have not exceeded MCLs.
 - CVOC concentrations have generally been non-detect in four wells: MW-22, MW-23, MW-24 and MW-102B.
 - CVOCs have been detected above the RL in one well: MW-50.
- One boundary well exceeded MCLs previously but was below the MCL in October 2014: MW-93.
- One boundary well exceeded MCLs and has an increasing trend: MW-219

3.6.1.3 Sentinel Wells

- Eleven of the twenty-four sentinel wells have not exceeded MCLs.
 - CVOC concentrations have been non-detect in one well: MW-229.
 - CVOCs have been detected above the RL in ten wells: MW-34, MW-38, MW-63A, MW-89, MW-140, MW-199A, MW202A, MW-211, MW-254 and MW-255.
- Three sentinel wells exceeded MCLs previously but were below the MCL in October 2014: MW-63B, MW-252 and MW-253.
- Two sentinel wells exceeded MCLs and have a decreasing trend: MW-90, MW-210A.
- Five sentinel wells exceeded MCLs and have an increasing trend: MW-108, MW-141, MW-202B, MW-209A and MW-256.
- Three wells exceeded MCLs and have no clear trend: MW-107 and MW-207A/B.

3.6.1.4 Performance Wells

Six performance wells have not exceeded MCLs, ten performance wells exceeded MCLs previously but not in October 2014 and 46 performance wells exceeded MCLs in October 2014. The trends for wells exceeding MCLs are summarized separately for wells outside designated plumes and for wells associated with each plume.

CVOC concentrations in a number of performance wells in the original EBT areas (TTA1-N, TTA-1S and TTA-2) show the effect of reductive dechlorination with decreasing concentrations of parent CVOCs (PCE and TCE) and increasing concentrations of degradation products (cDCE and VC). The West-Central wells closest to the EBT injection wells have decreasing trends for parent CVOCs, but not increasing trends for degradation products. None of the Building 835 wells show a clear impact from EBT; this may be due to their side-gradient location or distance from the EBT injection wells.

Non-Plume Wells

- One non-plume well exceeded MCLs previously but was below the MCL in October 2014: MW-25A.
- One non-plume well exceeded MCLs and has an increasing trend: PZ-03.
- Three non-plume wells exceeded MCLs and have no clear trend: MW-52 and MW215A/B.

TTA-1N

- Two TTA-1N wells have not exceeded an MCL: DR1-2 and DR1-8.
- One well TTA-1N has exceeded an MCL previously but was below the MCL in October 2014: DR1-7.
- Three TTA-1N wells exceeded MCLs and have no clear trends: MW-100B, PMW21-03 and PMW21-05.

TTA-1S

- One TTA-1S well has not exceeded an MCL: DR1-1.
- Five TTA-1S wells have exceeded an MCL previously but were below the MCL in October 2014: DR1-1A, DR1-3, DR1-4, PMW101-03A and PMW101-06A.
- Two TTA-1S well exceeded MCLs and have a decreasing trend: MW-101 and PMW-101-03B.
- One TTA-1S well exceeded MCLs and has an increasing trend: PMW101-06B.

TTA-2

- One TTA-2 well has exceeded an MCL previously but was below the MCL in October 2014: MW-96.
- Two TTA-2 well exceeded MCLs and have a decreasing trend: DR2-3 and DR2-6.
- Four TTA-2 wells exceeded MCLs and have an increasing trend: MW-26, MW-88, MW-92 and MW-259.
- Six TTA-2 wells exceeded MCLs and have no clear trend: DR2-1, DR2-4, MW-64, MW-217, MW-218 and PMW92-02.

West-Central

- Five West-Central wells exceeded MCLs and have a decreasing trend: MW-200, MW-204A/B and MW-205A/B. These wells are closest to the EBT injection wells MW-203A/B.
- One West-Central well exceeded MCLs and has an increasing trend: MW-98.
- Eight West-Central wells exceeded MCLs and have no clear trend: MW-39/A, MW-94A, MW-206A/B, MW-208A/B and MW-210B.

Building 835

- One Building 835 well has not exceeded an MCL: MW-257.
- One Building 835 well has exceeded an MCL previously but was below the MCL in October 2014: MW-198.
- Three Building 835 wells exceeded MCLs and have an increasing trend: MW-142, MW-143 and MW-209B
- One Building 835 well exceeded MCLs and has no clear trend: MW-199B

North-Central

- One North-Central well has exceeded an MCL previously but was below the MCL in October 2014: MW-260.
- Two North-Central wells exceeded MCLs and have an increasing trend: MW-103 and MW-258.
- Three North-Central wells exceeded MCLs and have no clear trend: MW-104, MW-214A/B and MW-260.

South-Central

- Two South-Central wells have not exceeded an MCL: MW-216 and MW-261.
- One South-Central well exceeded MCLs and has an increasing trend: MW-97.

3.6.2 Dunn Field

The historical data and time trend plots were reviewed for each of the Dunn Field LTM wells in each classification. The findings are summarized below.

Background wells have not exceeded MCLs or TCs in recent samples. CF has been detected below 0.5 µg/L in recent samples from MW-28; other CVOCs have not been detected above RLs in background wells since 2009.

The background-NE wells have had varying concentrations of PCE, TCE and/or DCE above MCLs since the wells were installed. The concentrations in each well vary within a range and a clear trend is not apparent. The 2014 concentrations were generally in the lower portion of the ranges.

Sentinel wells have not exceeded MCLs or TCs and CVOC concentrations have been below RLs in most wells. The concentrations have shown little variation.

The trend plots for most performance wells, including performance-FSVE wells, show a significant decrease in CVOC concentrations following startup of the FSVE system in July 2007 with no indication of rebound after the FSVE system was shutdown in 2012. However, the trend plots and historical results for some wells vary from the standard, as noted below:

- Six wells at the southwest end of the AS/SVE system (MW-44, MW-149, MW-151, MW-166/A and MW-249) had increased CVOC concentrations due to diversion of the plume around the AS wells. Changes to system operations in 2012 resulted in decreased concentrations in all four wells although TCE remains above the MCL at MW-249.
- Five wells immediately downgradient of the AS/SVE system (MW-165/A, MW-243, MW-246 and MW-247) had increased CVOC concentrations in 2014 due to system shutdown following equipment damage in February 2014.
- Five wells on the north end of Dunn Field (MW-03 and MW-220) and to the west (MW-31, MW-79 and MW-153) have variable PCE, TCE and DCE concentrations due to migration of the off-site plume.

- Two wells in the south-central FSVE area (MW-06 and MW-87) had increased CF and TCE concentrations in 2014; the increases are likely due to rebound from residual CVOCs in the vadose zone around the upgradient SVE well.

3.7 MCL EXCEEDANCES

3.7.1 Main Installation

LTM wells with the most commonly detected CVOCs (PCE, TCE, cDCE, VC and CT) at concentrations above the MCL in October 2014 are shown on [Table 19](#). The 57 LTM wells with concentrations above the MCL for one or more of these CVOCs are shown by well classification, area and order of decreasing concentration. Only concentrations above the MCL are shown. The maximum concentration is PCE at 221 µg/L in DR2-1, and nine wells have one or more of these CVOCs at concentrations above 50 µg/L. Based on the review in [Section 3.6.1](#), the trend for wells exceeding MCLs are 19 increasing, 11 decreasing and 27 with no apparent trend.

The changes in wells exceeding MCLs in 2014 versus those exceeding MCLs in 2013 are summarized below:

- Changes due to reductive dechlorination were observed at six wells:
 - MW-100B in TTA-1N exceeded the MCL for VC in 2014 versus PCE, TCE and VC in 2013;
 - PMW101-03A in TTA-1S did not exceed an MCL in 2014 versus PCE in 2013;
 - PMW101-03B in TTA-2 exceeded MCLs for PCE and VC in 2014 versus PCE in 2013;
 - DR2-6 in TTA-2 exceeded the MCL for VC in 2014 versus PCE and VC in 2013;
 - MW-92 in TTA-2 exceeded MCLs for PCE, TCE and VC in 2014 versus PCE and TCE in 2013; and
 - PMW92-02 in TTA-2 exceeded MCLs for cDCE and VC in 2014 versus cDCE in 2013.
- Reduced exceedances were observed at two wells:
 - MW-259 in TTA-2 exceeded MCLs for PCE and TCE in 2014 versus PCE, TCE and CT in 2013; and
 - MW-25A outside a designated plume did not exceed an MCL in 2014 versus PCE in 2013.
- Increased exceedances were observed at five wells:
 - MW-101B in TTA-1S exceeded the MCL for PCE in 2014 versus no exceedances in 2013;

- MW-39 in West-Central exceeded MCLs for PCE and TCE in 2014 versus TCE in 2013;
 - MW-204B in West-Central exceeded MCLs for PCE and TCE in 2014 versus PCE in 2013;
 - Sentinel well MW-207B exceeded MCLs for PCE and TCE in 2014 versus PCE in 2013; and
 - Sentinel well MW-209A exceeded the MCL for TCE in 2014 versus no exceedances in 2013.
- Change in exceedances was observed at one well:
 - Sentinel well MW-210A exceeded the MCL for TCE in 2014 versus PCE in 2013.

3.7.2 Dunn Field

LTM wells with primary CVOCs at concentrations above the MCL or TC in the most recent sample for 2014 are shown on [Table 20](#). The 13 performance wells and 5 background-NE wells with concentrations above the TC or MCL for one or more CVOCs are shown in order of decreasing concentration. Only concentrations above the TC are shown, and the performance and background-NE wells are shown separately. Nine wells listed for 2013 did not exceed an MCL or TC in the latest 2014 sample (MW-31, MW-44, MW-149, MW-150 , MW-151, MW-163, MW-164 , MW-166 and MW-166A) and four wells not listed in 2013 exceeded an MCL or TC the latest 2014 sample (MW-03, MW-87, MW-165 and MW-243).

The performance wells exceeding an MCL or TC are grouped by contaminant source or impact below:

- The exceedances at five wells (MW-54, MW-77, MW-144, MW-159 and MW-190) are due to residual contamination from the Dunn Field plume. Concentrations are still decreasing at the two wells closest to Dunn Field (MW-77 and MW-190); concentrations at the other wells are stable or slightly decreasing. Only MW-159 exceeds the active treatment objective.
- The exceedance at one well (MW-87) is due to rebound from the FSVE shutdown; only CF was detected above the TC and the concentration is below the MCL.
- The exceedances at three wells (MW-03, MW-79 and MW-220) are due to impacts from the off-site plume.
- The exceedance at one well (MW-249) is due to previous plume diversion around the AS/SVE system; concentrations should decrease over time as they have in other wells impacted by the plume diversion.

- The exceedances at three wells (MW-165, MW-243 and MW-246) are due to impacts from the temporary AS/SVE system shutdown following equipment damage; concentrations should decrease when system operations resume.

4.0 CONCLUSIONS AND RECOMMENDATIONS

4.1 MAIN INSTALLATION

- The CVOC plume maps prepared for 2014 are similar to those for recent sample events with slightly reduced concentrations for PCE, TCE and CT in and downgradient of the EBT areas.
- CVOCs exceeded the MCLs at 57 wells of the 99 MI LTM wells.
- None of the designated CVOC plumes in the fluvial aquifer extend off-site; some areas are potentially impacted by contaminant migration from off-site areas.
- CVOCs in the fluvial aquifer have migrated vertically into the IAQ through the window in the northwestern area of the MI. The plume in the IAQ extends to the northwest property boundary and likely beyond.
- Changes related to reductive dechlorination, based on decreases in parent compounds (PCE, TCE and CT) and increases in degradation products (cDCE and VC), were observed at several wells.

Due to the number of LTM wells exceeding MCLs, the remedy for the MI is being re-evaluated. An SRI/FFS is being performed to develop a remedial strategy to achieve RAOs throughout the MI. The initial tasks are review of existing documents, including prior groundwater modeling and attenuation studies for the MI, and a Phase 1 field investigation. The Phase 1 investigation will improve CVOC delineation and hydrogeological characterization through installation of ten fluvial aquifer wells upgradient of identified plumes and within the south-central MI and two IAQ wells downgradient of MW-256. Following installation and initial sampling, the new wells will be incorporated in LTM. The SRI Phase 1 work plan was submitted to USEPA and TDEC on 6 January 2015.

4.1.1 Changes to LTM for 2015

The 2014 MI LTM results and historical results were reviewed and changes to sample frequency are recommended at four wells:

- Sentinel well MW-209A has had increased PCE concentrations in the last four annual samples and exceeded the MCL in October 2014. The sample frequency is recommended to be increased from annual to semiannual.
- Sentinel well MW-253 has not had CVOCs detected since the sampling procedure was changed to PDBs in April 2012. The sample frequency is recommended to be decreased from annual to biennial.

- Sentinel well MW-254 has had consistent CVOC concentrations below the MCL. The sample frequency is recommended to be decreased from semiannual to annual.
- Performance wells MW-214A/B have had consistent CVOC concentrations slightly above the MCL. Their sample frequency is recommended to be decreased from semiannual to annual.

The recommended 2015 MI LTM sample schedule is shown on [Table 21](#).

4.2 DUNN FIELD

- CVOC concentrations remain low at most wells due to the Source Areas and Off Depot RAs. CVOC concentrations exceeded the active treatment objective at two performance wells and exceeded an MCL or TC at 13 performance wells.
- CVOC concentrations above MCLs on the north end of Dunn Field are due to contaminant migration from an undetermined, off-site source.
- Increased CVOC concentrations from plume diversion on the southwest side of the AS/SVE system have decreased.
- Apparent rebound in CVOC concentrations was observed on Dunn Field two years after shutdown of the FSVE system.
- Increased CVOC concentrations were observed immediately downgradient of the AS/SVE system due to shutdown from equipment damage for most of 2014.

The MCL and TC exceedances from the residual Dunn Field plume, previous plume diversion and temporary AS/SVE shutdown should be reduced over time once AS/SVE operations resume. The rebound in CVOC concentrations on Dunn Field will have to be monitored for further increases in concentration in order to determine if further action is needed. A single CVOC above the TC but below the MCL would likely meet the RAOs for Dunn Field. Further investigation/action near the AS/SVE system will be considered if CVOC concentrations at MW-159 are not reduced during 2015 by the change in AS/SVE operations. Further action on the off-site plume will need to be discussed by Department of the Army, USEPA and TDEC.

4.2.1 Changes to LTM for 2014

The 2014 Dunn Field LTM results and historical results were reviewed and a change to sample frequency is recommended at one well:

- The last four samples from performance well MW-184 have not exceeded MCLs. The sample frequency is recommended to be decreased from semiannual to annual.

The recommended 2014 Dunn Field LTM sample schedule is shown on [Table 22](#).

Two wells, MW-33 and MW-182, were considered for abandonment due to problems with accessibility and potential for damage to the well.

- MW-33 was not accessible in 2014 due to fencing and debris placed around the well by a nearby resident. The problem with access has been on-going since April 2012. MW-33 is located within the right of way for Rozelle Street, but requests to the City of Memphis for assistance have not resulted in any action. The well was installed in 1989 for the initial remedial investigation and is located side-gradient to contaminant plumes in the southern portion of Dunn Field. It has generally been non-detect for CVOCs. The twelve samples collected since June 2005 were non-detect for all CVOCs in five samples, contained CVOCs below the RL in four samples and contained CVOCs above the RL in three samples (carbon tetrachloride at 1.5 µg/L in 2007, and chloroform at 0.517 µg/L in 2011 and at 0.318 µg/L in 2013).
- MW-182 was not accessible for water level measurement or sampling in April 2014 because a large dog had been chained near the well and City of Memphis Animal Control would not respond. The well was sampled in May 2014. A fire, set on the MW-182 well pad prior to the October 2013 LTM event, damaged the stick-up well casing; the well was repaired in November 2013 with a flush mount manhole set in a new pad. Ashes from a fire on the well pad were observed during the April 2015 LTM event. MW-182 was installed in 2005 to improve the conceptual site model during the Off Depot remedial design investigation. The well was retained to monitor potential contaminant migration south from the AS/SVE area. The well has been sampled nine times since installation. Trichloroethene was detected below the RL in 2005, but all following samples were non-detect for all CVOCs.

MW-33 is recommended for abandonment. MW-182 is recommended for further review in 2015 with abandonment to be re-evaluated in the 2015 LTM report.

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TABLES

TABLE 1
MAIN INSTALLATION LTM WELLS
ANNUAL LONG TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

Well	Aquifer	Well Classification	Sample Frequency	Northing (ft)	Easting (ft)	Top of Casing Elevation (ft, msl)	Ground Elevation (ft, msl)	Riser Length (ft)	Screen Length (ft)	Total Well Depth (ft, btoc)
MW-16	Fluvial	Background	Biennial	278837.83	807099.66	299.86	300.19	57.6	15	72.6
MW-19	Fluvial	Background	Biennial	278945.87	800782.26	290.57	290.86	83.1	10	93.1
MW-22	Fluvial	Boundary	Biennial	275912.38	800702.16	298.04	298.49	95.4	10	105.4
MW-23	Fluvial	Boundary	Biennial	275791.02	801817.13	298.99	299.24	101.2	10	111.2
MW-24	Fluvial	Boundary	Biennial	275616.05	803538.81	299.51	299.81	97.3	15	112.3
MW-25A	Fluvial	Performance	Annual	275975.11	805521.27	269.88	270.13	73.0	10	83.0
MW-26	Fluvial	Performance	Semiannual	276508.16	805962.09	303.69	303.89	97.6	10	107.6
MW-34	Intermediate	Sentinel	Biennial	279411.21	801917.96	299.97	300.80	136.6	20	156.6
MW-38	Intermediate	Sentinel	Biennial	279141.38	802450.43	307.45	308.45	139.9	15	154.9
MW-39	Fluvial	Performance	Semiannual	277280.67	802598.11	296.28	296.58	95.5	20	115.5
MW-39A	Fluvial	Performance	Semiannual	277278.11	802607.66	298.61	298.70	148.1	20	168.1
MW-50	Fluvial	Boundary	Biennial	276455.81	807065.28	298.82	299.32	115.0	10	125.0
MW-52	Fluvial	Performance	Annual	275371.97	805897.36	279.26	279.71	94.0	10	104.0
MW-53	Fluvial	Background	Biennial	279176.66	805136.05	306.38	305.58	72.5	10	82.5
MW-55	Fluvial	Background	Biennial	279301.05	801204.62	292.08	292.48	64.0	10	74.0
MW-63A	Fluvial/Intermediate	Sentinel	Annual	278200.31	803572.83	305.96	306.33	140.0	10	150.0
MW-63B	Fluvial/Intermediate	Sentinel	Annual	278201.32	803557.77	305.78	306.22	115.0	10	125.0
MW-64	Fluvial	Performance	Semiannual	276951.52	805005.97	304.21	304.46	102.0	10	112.0
MW-66A	Fluvial	Background	Biennial	276626.02	799792.63	284.22	284.34	74.6	20	94.6
MW-88	Fluvial	Performance	Semiannual	276879.05	806512.88	305.15	305.47	82.0	15	97.0
MW-89	Intermediate	Sentinel	Annual	278286.97	802555.25	303.98	304.38	147.0	30	177.0
MW-90	Intermediate	Sentinel	Semiannual	278283.60	802539.51	304.19	304.64	115.0	30	145.0
MW-92	Fluvial	Performance	Semiannual	276614.20	806489.66	304.41	304.78	93.0	15	108.0
MW-93	Fluvial	Boundary	Biennial	275542.22	804440.10	294.08	294.31	92.0	15	107.0
MW-94A	Fluvial	Performance	Semiannual	276805.80	803085.80	303.00	303.23	109.6	10	119.6
MW-96	Fluvial	Performance	Annual	276310.14	806320.24	289.02	289.67	75.5	20	95.5
MW-97	Fluvial	Performance	Semiannual	276074.23	802139.23	297.44	297.70	97.5	20	117.5
MW-98	Fluvial	Performance	Semiannual	276891.37	802572.77	294.43	294.93	137.0	10	147.0
MW-99	Fluvial	Background	Biennial	277443.37	801114.53	285.33	285.69	91.5	20	111.5
MW-100B	Fluvial	Performance	Semiannual	276600.61	800854.26	290.92	291.47	107.4	20	127.4
MW-101 ¹	Fluvial	Performance	Semiannual	276204.09	801110.27	291.74	291.98	89.0	15	104.0
MW-102B	Fluvial	Boundary	Biennial	275760.59	800707.72	311.40	312.07	120.5	20	140.5
MW-103	Fluvial	Performance	Annual	278690.88	805159.83	301.37	301.89	70.0	20	90.0
MW-104	Fluvial	Performance	Annual	278676.47	805417.03	291.98	292.18	70.5	20	90.5
MW-107 ²	Fluvial/Intermediate	Sentinel	Semiannual	278419.07	803009.93	304.92	305.18	128.0	15	143.0
MW-108	Fluvial/Intermediate	Sentinel	Semiannual	277658.02	802985.53	303.07	303.25	160.0	10	170.0
MW-140	Intermediate	Sentinel	Annual	279061.29	801715.68	298.12	298.16	224.6	20	244.6
MW-141	Intermediate	Sentinel	Semiannual	278019.19	802571.25	303.71	303.70	148.7	20	168.7
MW-142	Fluvial	Performance	Annual	278056.03	801629.12	291.18	291.49	85.0	20	105.0
MW-143	Fluvial	Performance	Semiannual	278301.35	801201.48	290.66	290.90	78.6	20	98.6
MW-198	Fluvial	Performance	Annual	277775.91	802142.37	291.78	292.20	90.3	15	105.3
MW-199A	Intermediate	Sentinel	Annual	277756.40	802573.52	301.53	301.84	146.1	15	161.1
MW-199B	Fluvial	Performance	Semiannual	277751.74	802575.66	301.73	302.07	104.6	15	119.6
MW-200	Fluvial	Performance	Semiannual	277006.10	802859.39	300.18	300.51	102.9	15	117.9
MW-202A	Intermediate	Sentinel	Annual	278685.74	802111.27	299.23	299.69	176.2	15	191.2
MW-202B	Intermediate	Sentinel	Semiannual	278692.79	802112.04	299.51	299.74	118.8	15	133.8
MW-204A	Fluvial	Performance	Semiannual	276724.66	802168.25	292.21	292.49	133.3	15	148.3
MW-204B	Fluvial	Performance	Semiannual	276707.81	802167.07	292.71	293.00	94.9	15	109.9
MW-205A	Fluvial	Performance	Semiannual	277157.18	802277.24	292.30	292.40	141.3	15	156.3
MW-205B	Fluvial	Performance	Semiannual	277173.05	802277.84	292.16	292.30	97.3	15	112.3
MW-206A	Fluvial	Performance	Semiannual	277219.28	802792.28	299.92	300.35	127.3	15	142.4
MW-206B	Fluvial	Performance	Semiannual	277200.85	802794.78	299.90	300.12	96.7	15	111.7
MW-207A	Fluvial	Sentinel	Semiannual	277652.76	803192.01	304.05	304.45	149.9	15	164.9
MW-207B	Fluvial	Sentinel	Semiannual	277665.02	803193.27	304.06	304.42	108.5	15	123.5
MW-208A	Fluvial	Performance	Semiannual	277382.22	802799.08	302.21	302.40	183.5	15	198.5
MW-208B	Fluvial	Performance	Semiannual	277396.90	802814.96	301.79	302.08	106.7	15	121.7
MW-209A	Intermediate	Sentinel	Annual	277574.28	802507.10	298.05	298.36	189.0	15	204.0
MW-209B	Fluvial	Performance	Semiannual	277581.50	802520.13	298.49	298.72	102.3	15	117.3
MW-210A	Intermediate	Sentinel	Semiannual	277238.57	801958.11	289.61	289.70	177.0	15	192.0
MW-210B	Fluvial	Performance	Semiannual	277228.18	801951.94	289.29	289.53	97.0	15	112.0
MW-211	Intermediate	Sentinel	Annual	278000.59	802973.69	303.74	304.09	166.3	15	181.3
MW-214A	Fluvial	Performance	Semiannual	277877.62	803906.94	303.61	303.96	119.1	15	134.1
MW-214B	Fluvial	Performance	Semiannual	277875.84	803922.20	303.70	303.96	101.6	15	116.6

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Well	Aquifer	Well Classification	Sample Frequency	Northing (ft)	Eastings (ft)	Top of Casing Elevation (ft, msl)	Ground Elevation (ft, msl)	Riser Length (ft)	Screen Length (ft)	Total Well Depth (ft, btoc)
MW-215A	Fluvial	Performance	Annual	277298.37	804164.31	304.50	304.86	128.8	15	143.8
MW-215B	Fluvial	Performance	Annual	277298.27	804177.33	304.56	304.98	105.4	15	120.4
MW-216	Fluvial	Performance	Annual	276024.68	801995.93	297.34	297.63	99.9	15	115.0
MW-217	Fluvial	Performance	Semiannual	276670.60	805213.69	304.18	304.51	101.8	15	116.8
MW-218	Fluvial	Performance	Semiannual	276936.70	805628.44	305.60	306.00	98.9	15	114.0
MW-219	Fluvial	Boundary	Semiannual	276429.49	800460.96	295.13	295.00	98.0	15	113.0
MW-229	Intermediate	Sentinel	Biennial	279294.17	802836.96	311.78	312.09	188.4	20	208.4
MW-252	Intermediate	Sentinel	Annual	278789.21	801364.70	294.16	294.40	126.1	20	146.1
MW-253	Intermediate	Sentinel	Annual	278287.43	801191.42	290.47	290.80	118.3	20	138.3
MW-254	Memphis	Sentinel	Semiannual	279334.36	800857.53	292.84	293.28	285.8	20	305.8
MW-255	Memphis	Sentinel	Annual	279304.76	801226.84	291.84	292.38	284.7	20	304.7
MW-256	Intermediate	Sentinel	Semiannual	279301.82	801243.80	292.68	293.40	127.1	20	147.1
MW-257	Fluvial	Performance	Annual	278549.06	801340.58	292.22	292.67	85.5	15	100.5
MW-258	Fluvial	Performance	Semiannual	278125.81	804426.82	304.37	304.83	79.3	20	99.3
MW-259	Fluvial	Performance	Semiannual	276279.04	804450.97	290.77	291.44	98.6	20	118.6
MW-260	Fluvial	Performance	TBD	278398.46	804376.22	304.16	304.45	68.0	20	88.3
MW-261	Fluvial	Performance	TBD	276390.64	802591.62	293.52	293.79	90.0	20	110.3
DR1-1	Fluvial	Performance	Annual	276300.34	800855.57	293.14	293.42	121.7	20	141.7
DR1-1A	Fluvial	Performance	Annual	276307.34	800863.06	293.00	293.37	89.2	20	109.2
DR1-2	Fluvial	Performance	Annual	276536.64	801152.66	290.00	291.39	97.7	20	117.7
DR1-3	Fluvial	Performance	Semiannual	276527.27	801415.91	290.93	291.11	109.7	20	129.7
DR1-4	Fluvial	Performance	Annual	276231.20	801399.53	292.78	293.00	106.3	20	126.3
DR1-7	Fluvial	Performance	Annual	276791.26	801441.36	289.15	289.46	108.3	20	128.3
DR1-8	Fluvial	Performance	Annual	276752.48	800875.32	290.09	290.47	92.7	20	112.7
DR2-1	Fluvial	Performance	Semiannual	276772.10	806497.62	304.90	305.08	73.9	20	93.9
DR2-3	Fluvial	Performance	Semiannual	276539.12	806203.16	303.44	303.66	93.0	20	113.0
DR2-4	Fluvial	Performance	Annual	276455.62	806633.07	303.55	303.96	88.1	20	108.1
DR2-6	Fluvial	Performance	Semiannual	276643.99	805860.91	304.70	304.92	94.6	20	114.6
PMW21-03	Fluvial	Performance	Semiannual	276573.43	800742.52	292.11	292.72	90.3	20	110.3
PMW21-05	Fluvial	Performance	Semiannual	276628.32	801129.72	288.53	288.92	94.3	20	114.3
PMW92-02	Fluvial	Performance	Semiannual	276667.02	806476.47	304.17	304.35	94.8	10	104.8
PMW101-03A	Fluvial	Performance	Semiannual	276348.46	801198.37	291.61	291.99	119.2	20	139.2
PMW101-03B	Fluvial	Performance	Semiannual	276353.09	801194.14	291.55	291.82	99.3	20	119.3
PMW101-06A	Fluvial	Performance	Semiannual	276191.88	801187.45	292.13	292.72	120.0	20	140.0
PMW101-06B	Fluvial	Performance	Semiannual	276194.93	801183.96	292.17	292.40	99.3	20	119.3
PZ-03	Fluvial	Performance	Annual	276379.33	802941.05	298.51	298.98	108.9	10	118.9

Notes:

1: MW-101 has three screened sections at the following depths (ft, btoc): 89-104, 109-119 and 124-134.

2: MW-107 has two screened sections at the following depths (ft, btoc): 128-143 and 148-158.

ft: feet

btoc: below top of casing

msl: mean sea level

TABLE 2
2014 MAIN INSTALLATION SAMPLE SCHEDULE
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Well ID	Well Classification	Sample Frequency	Semiannual Apr-2014	Biennial Oct-2014
MW-16	Background	Biennial	-	S
MW-19	Background	Biennial	-	S
MW-22	Boundary	Biennial	-	S
MW-23	Boundary	Biennial	-	S
MW-24	Boundary	Biennial	-	S
MW-25A	Performance	Annual	-	S
MW-26	Performance	Semiannual	S	S
MW-34	Sentinel	Biennial	-	S
MW-38	Sentinel	Biennial	-	S
MW-39	Performance	Semiannual	S	S
MW-39A	Performance	Semiannual	S	S
MW-50	Boundary	Biennial	-	S
MW-52	Performance	Annual	-	S
MW-53	Background	Biennial	-	S
MW-55	Background	Biennial	-	LF
MW-63A	Sentinel	Annual	-	S
MW-63B	Sentinel	Annual	-	S
MW-64	Performance	Semiannual	S	S
MW-66A	Background	Biennial	-	S
MW-88	Performance	Semiannual	S	S
MW-89	Sentinel	Annual	-	S
MW-90	Sentinel	Semiannual	S	S
MW-92	Performance	Semiannual	S	S
MW-93	Boundary	Biennial	-	S
MW-94A	Performance	Semiannual	S	S
MW-96	Performance	Annual	-	S
MW-97	Performance	Semiannual	S	S
MW-98	Performance	Semiannual	S	S
MW-99	Background	Biennial	-	S
MW-100B	Performance	Semiannual	S	S
MW-101 ¹	Performance	Semiannual	S	S
MW-102B	Boundary	Biennial	-	S
MW-103	Performance	Annual	-	S
MW-104	Performance	Annual	-	S
MW-107 ¹	Sentinel	Semiannual	S	S
MW-108	Sentinel	Semiannual	S	S
MW-140	Sentinel	Annual	-	S
MW-141	Sentinel	Semiannual	S	S
MW-142	Performance	Annual	-	S
MW-143	Performance	Semiannual	S	S
MW-198	Performance	Annual	-	S
MW-199A	Sentinel	Annual	-	S
MW-199B	Performance	Semiannual	S	S
MW-200	Performance	Semiannual	S	S
MW-202A	Sentinel	Annual	-	S
MW-202B	Sentinel	Semiannual	S	S
MW-204A	Performance	Semiannual	S	S
MW-204B	Performance	Semiannual	S	S
MW-205A	Performance	Semiannual	S	S
MW-205B	Performance	Semiannual	S	S
MW-206A	Performance	Semiannual	S	S
MW-206B	Performance	Semiannual	S	S
MW-207A	Sentinel	Semiannual	S	S
MW-207B	Sentinel	Semiannual	S	S

TABLE 2
2014 MAIN INSTALLATION SAMPLE SCHEDULE
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Well ID	Well Classification	Sample Frequency	Semiannual Apr-2014	Biennial Oct-2014
MW-208A	Performance	Semiannual	S	S
MW-208B	Performance	Semiannual	S	S
MW-209A	Sentinel	Annual	-	S
MW-209B	Performance	Semiannual	S	S
MW-210A	Sentinel	Semiannual	S	S
MW-210B	Performance	Semiannual	S	S
MW-211	Sentinel	Annual	-	S
MW-214A	Performance	Semiannual	S	S
MW-214B	Performance	Semiannual	S	S
MW-215A	Performance	Annual	-	S
MW-215B	Performance	Annual	-	S
MW-216	Performance	Annual	-	S
MW-217	Performance	Semiannual	S	S
MW-218	Performance	Semiannual	S	S
MW-219	Boundary	Semiannual	S	S
MW-229	Sentinel	Biennial	-	S
MW-252	Sentinel	Annual	-	S
MW-253	Sentinel	Annual	-	S
MW-254	Sentinel	Semiannual	S	S
MW-255	Sentinel	Annual	-	S
MW-256	Sentinel	Semiannual	S	S
MW-257	Performance	Annual	-	S
MW-258	Performance	Semiannual	S	S
MW-259	Performance	Semiannual	S	S
MW-260	Performance	TBD	S	S
MW-261	Performance	TBD	S	S
DR1-1	Performance	Annual	-	S
DR1-1A	Performance	Annual	-	S
DR1-2	Performance	Annual	-	S
DR1-3	Performance	Semiannual	S	S
DR1-4	Performance	Annual	-	S
DR1-7	Performance	Annual	-	S
DR1-8	Performance	Annual	-	S
DR2-1	Performance	Semiannual	S	S
DR2-3	Performance	Semiannual	S	S
DR2-4	Performance	Annual	-	S
DR2-6	Performance	Semiannual	S	S
PMW21-03	Performance	Semiannual	S	S
PMW21-05	Performance	Semiannual	S	S
PMW92-02	Performance	Semiannual	S	S
PMW101-03A	Performance	Semiannual	S	S
PMW101-03B	Performance	Semiannual	S	S
PMW101-06A	Performance	Semiannual	S	S
PMW101-06B	Performance	Semiannual	S	S
PZ-03	Performance	Annual	-	B

Notes:

1) Samples to be collected from two screened intervals in MW-101 and MW-107

PDB: Passive diffusion bag

B Sample collected with bailer

LF: Sample collected with bladder pump by low-flow method

S: Sample collected with PDB

-: Sample not planned or collected

TABLE 3
DUNN FIELD LTM WELLS
ANNUAL LONG TERM MONITORING REPORT - 2014
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Well	Aquifer	Well Classification	Sample Frequency	Northing (ft)	Easting (ft)	Top of Casing Elevation (ft, msl)	Ground Elevation (ft, msl)	Riser Length (ft)	Screen Length (ft)	Total Well Depth (ft, btoc)
MW-03	Fluvial	Performance-FSVE	Semiannual	281596.25	802100.69	292.35	290.40	65.5	10	75.5
MW-04	Fluvial	Background	Biennial	281278.87	802369.19	301.61	300.00	60.0	20	80.0
MW-06	Fluvial	Performance-FSVE	Semiannual	280604.17	802069.13	289.11	288.10	51.0	20	71.0
MW-07	Fluvial	Background-NE	Annual	281839.88	802481.70	295.10	293.10	67.0	10	77.0
MW-08	Fluvial	Background-NE	Annual	282001.04	802727.91	292.59	292.74	56.5	10	66.5
MW-13	Fluvial	Background	Biennial	281033.56	802369.21	300.01	300.10	66.0	15	81.0
MW-15	Fluvial	Performance	Annual	280348.88	801985.36	295.12	295.23	63.4	15	78.4
MW-28	Fluvial	Background	Biennial	281568.58	803154.48	294.79	294.89	54.3	15	69.3
MW-31	Fluvial	Performance	Semiannual	281651.53	801783.90	290.37	287.50	64.1	15	79.1
MW-33	Fluvial	Performance	Biennial	280398.10	801561.30	280.71	277.70	44.6	15	59.6
MW-44	Fluvial	Performance	Semiannual	281073.71	800601.09	269.07	269.40	64.0	10	74.0
MW-54	Fluvial	Performance	Semiannual	281159.21	801183.83	295.39	295.57	84.5	10	94.5
MW-57	Fluvial	Performance	Annual	280184.05	802006.19	290.77	291.10	60.0	10	70.0
MW-58	Fluvial	Performance	Biennial	279845.07	802066.44	290.51	290.70	57.0	10	67.0
MW-67	Memphis	Sentinel	Biennial	280473.05	800933.94	278.21	275.53	260.0	15	275.0
MW-68	Fluvial	Performance	Annual	281500.76	802040.04	291.69	291.60	72.5	10	82.5
MW-69	Fluvial	Performance	Annual	281202.55	802011.49	307.02	304.90	82.1	10	92.1
MW-70	Fluvial	Performance	Annual	281029.60	801988.49	304.99	302.80	80.8	10	90.8
MW-71	Fluvial	Performance	Annual	280584.68	801804.71	294.40	291.90	65.5	10	75.5
MW-76	Fluvial	Performance	Annual	281311.98	801642.76	302.71	303.30	73.0	20	93.0
MW-77	Fluvial	Performance	Semiannual	281142.96	801815.29	304.42	304.70	68.0	20	88.0
MW-78	Fluvial	Performance	Biennial	282051.71	802065.28	275.00	275.40	44.5	20	64.5
MW-79	Fluvial	Performance	Semiannual	281794.22	800899.03	285.03	285.40	82.5	20	102.5
MW-80	Fluvial	Background	Biennial	281417.56	800199.07	273.81	274.00	53.0	20	73.0
MW-87	Fluvial	Performance-FSVE	Semiannual	280696.36	802038.55	294.93	292.80	63.0	15	78.0
MW-91	Fluvial	Performance	Annual	280474.97	802014.43	291.99	289.30	55.0	15	70.0
MW-126	Fluvial	Background	Biennial	282390.01	800491.67	252.22	252.49	16.0	10	26.0
MW-129	Fluvial	Background-NE	Annual	282271.08	803128.53	293.01	293.33	65.0	15	80.0
MW-130	Fluvial	Background-NE	Annual	282116.80	803241.45	293.17	293.77	59.5	20	79.5
MW-134	Fluvial	Performance-FSVE	Semiannual	281012.74	802102.58	300.81	301.05	75.0	15	90.0
MW-144	Fluvial	Performance	Semiannual	281138.63	801528.84	291.60	291.89	56.8	20	76.8
MW-145	Fluvial	Performance	Annual	280967.63	800823.18	284.72	284.86	80.1	20	100.1
MW-147	Fluvial	Performance	Annual	281501.94	801674.17	289.76	289.93	60.3	20	80.3
MW-148	Fluvial	Performance	Annual	281377.94	801461.63	294.71	294.87	70.0	20	90.0
MW-149	Fluvial	Performance	Semiannual	281130.04	800982.76	287.18	287.44	81.4	20	101.4
MW-150	Fluvial	Performance	Semiannual	281239.57	801283.62	296.86	297.00	71.2	20	91.2
MW-151	Fluvial	Performance	Semiannual	281290.42	800874.85	284.27	284.42	77.0	20	97.0
MW-152	Fluvial	Performance	Annual	281515.56	800892.84	289.59	289.82	91.0	20	111.0
MW-153	Fluvial	Performance	Biennial	282119.38	800952.34	279.17	279.26	76.1	20	96.1
MW-154	Fluvial	Background	Biennial	280501.53	800919.48	273.81	274.07	53.3	10	63.3
MW-155	Fluvial	Performance	Annual	281325.32	801168.98	291.54	291.83	76.9	20	96.9
MW-157	Fluvial	Performance	Annual	281050.86	801348.37	286.47	286.55	56.7	20	76.7
MW-158	Fluvial	Performance	Annual	281434.42	801005.34	294.07	294.38	91.0	15	106.0
MW-158A	Fluvial	Performance	Annual	281443.51	801005.67	293.95	294.22	77.9	15	92.9
MW-159	Fluvial	Performance	Semiannual	281304.17	801006.69	286.36	286.68	80.5	20	100.5
MW-160	Fluvial	Performance	Annual	281366.70	801304.05	293.84	294.13	65.7	20	85.7
MW-163	Fluvial	Performance	Semiannual	281152.59	801487.27	290.63	290.81	56.2	20	76.2
MW-164	Fluvial	Performance	Semiannual	280997.55	801497.47	287.48	287.71	55.6	20	75.6
MW-165	Fluvial	Performance	Semiannual	281384.63	800855.49	287.06	287.35	88.6	15	103.6
MW-165A	Fluvial	Performance	Semiannual	281383.55	800865.69	287.26	287.53	71.3	15	86.3
MW-166	Fluvial	Performance	Semiannual	281225.00	800927.99	282.72	283.29	84.6	15	100.0
MW-166A	Fluvial	Performance	Semiannual	281213.39	800927.27	282.90	283.36	68.1	15	83.4
MW-167	Fluvial	Background	Biennial	281394.03	800618.54	284.82	285.21	70.5	15	85.5
MW-169	Transition	Sentinel	Biennial	282491.23	800956.58	261.90	262.17	68.1	20	88.1
MW-170	Fluvial	Sentinel	Biennial	282443.17	801260.46	273.75	273.98	59.8	20	79.8
MW-171	Fluvial	Sentinel	Biennial	282315.35	801057.83	270.69	271.02	53.3	15	68.3
MW-174	Fluvial	Performance-FSVE	Semiannual	280352.00	802092.07	296.56	296.83	67.0	10	77.0
MW-176	Fluvial	Performance	Annual	280823.77	802032.08	299.68	299.92	76.0	10	86.0
MW-180	Fluvial	Performance	Annual	281476.43	802131.85	296.14	296.39	72.0	10	82.0
MW-182	Fluvial	Sentinel	Annual	280524.22	800623.13	275.40	272.98	62.0	10	72.0
MW-184	Fluvial	Performance	Semiannual	280903.16	801442.29	283.12	283.34	58.0	10	68.0
MW-187	Fluvial	Background	Biennial	280563.18	802348.09	302.74	303.21	76.0	10	86.0
MW-190	Fluvial	Performance	Semiannual	281138.88	801595.73	297.32	297.58	78.0	10	88.0
MW-220	Fluvial	Performance-FSVE	Semiannual	281617.49	802166.87	293.29	290.31	64.9	15	79.9
MW-221	Fluvial	Performance-FSVE	Semiannual	281399.71	802100.05	301.52	298.37	73.1	15	88.1
MW-222	Fluvial	Performance-FSVE	Semiannual	280986.04	802145.54	303.82	301.06	74.2	15	89.2

TABLE 3
DUNN FIELD LTM WELLS
ANNUAL LONG TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

Well	Aquifer	Well Classification	Sample Frequency	Northing (ft)	Easting (ft)	Top of Casing Elevation (ft, msl)	Ground Elevation (ft, msl)	Riser Length (ft)	Screen Length (ft)	Total Well Depth (ft, btoc)
MW-223	Fluvial	Performance-FSVE	Semiannual	280913.53	802104.29	303.00	300.41	73.9	15	88.9
MW-224	Fluvial	Performance-FSVE	Semiannual	281017.74	802181.62	304.13	301.18	73.7	15	88.7
MW-225	Fluvial	Performance-FSVE	Semiannual	280947.12	802070.50	304.52	301.30	75.0	15	90.0
MW-226	Fluvial	Performance-FSVE	Semiannual	280931.94	802147.21	303.19	300.56	74.2	15	89.2
MW-227	Fluvial	Performance-FSVE	Semiannual	280257.91	802081.00	299.70	296.64	63.6	15	78.6
MW-228	Fluvial	Performance-FSVE	Semiannual	280251.88	802157.40	301.65	298.59	64.1	15	79.1
MW-230	Fluvial	Background-NE	Annual	281842.79	802800.06	286.57	286.66	59.2	15	74.2
MW-235	Fluvial	Sentinel	Annual	280727.57	800447.83	264.00	264.21	50.6	10	60.8
MW-237	Intermediate	Sentinel	Annual	281356.02	800963.99	289.18	289.53	166.5	10	176.7
MW-241	Fluvial	Performance	Annual	281389.82	801396.64	292.97	293.16	73.4	15	88.4
MW-242	Fluvial	Performance	Annual	281297.31	801228.65	295.40	295.94	73.2	16	88.7
MW-243	Fluvial	Performance	Semiannual	281370.62	801116.45	292.26	292.53	80.7	20	100.7
MW-244	Fluvial	Performance	Semiannual	281333.49	801101.07	288.72	289.45	76.3	20	96.3
MW-245	Fluvial	Performance	Semiannual	281379.46	801035.00	290.48	290.62	85.1	20	105.1
MW-246	Fluvial	Performance	Semiannual	281387.26	800951.62	288.17	288.49	85.2	20	105.2
MW-247	Fluvial	Performance	Semiannual	281319.40	800900.12	286.17	286.63	80.5	20	100.5
MW-248	Fluvial	Performance	Annual	281253.66	800720.22	275.45	275.93	67.5	20	87.5
MW-249	Fluvial	Performance	Semiannual	281029.63	800789.83	285.53	285.89	78.0	20	98.0
MW-250	Intermediate	Sentinel	Annual	281045.53	800900.38	289.66	290.19	168.7	15	183.7
MW-251	Intermediate	Sentinel	Annual	281211.70	801021.75	285.83	286.16	160.2	15	175.2

Notes:

ft: feet
btoc: below top of casing
msl: mean sea level

TABLE 4
2014 DUNN FIELD SAMPLE SCHEDULE
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

Well ID	Well Classification	Sample Frequency	Annual Apr-2014	Semiannual Oct-2014
MW-03	Performance-FSVE	Semiannual	S	S
MW-04	Background	Biennial	-	-
MW-06	Performance-FSVE	Semiannual	S	S
MW-07	Background-NE	Annual	S	-
MW-08	Background-NE	Annual	LF	-
MW-13	Background	Biennial	-	-
MW-15	Performance	Annual	S	-
MW-28	Background	Biennial	-	-
MW-31	Performance	Semiannual	S	S
MW-33	Performance	Biennial	-	-
MW-44	Performance	Semiannual	S	S
MW-54	Performance	Semiannual	S	S
MW-57	Performance	Annual	S	-
MW-58	Performance	Biennial	-	-
MW-67	Sentinel	Biennial	-	-
MW-68	Performance	Annual	S	-
MW-69	Performance	Annual	S	-
MW-70	Performance	Annual	S	-
MW-71	Performance	Annual	S	-
MW-76	Performance	Annual	S	-
MW-77	Performance	Semiannual	S	S
MW-78	Performance	Biennial	-	-
MW-79	Performance	Semiannual	S	S
MW-80	Background	Biennial	-	-
MW-87	Performance-FSVE	Semiannual	S	S
MW-91	Performance	Annual	S	-
MW-126	Background	Biennial	-	-
MW-129	Background-NE	Annual	S	-
MW-130	Background-NE	Annual	S	-
MW-134	Performance-FSVE	Semiannual	S	S
MW-144	Performance	Semiannual	S	S
MW-145	Performance	Annual	S	-
MW-147	Performance	Annual	S	-
MW-148	Performance	Annual	S	-
MW-149	Performance	Semiannual	S	S
MW-150	Performance	Semiannual	S	S
MW-151	Performance	Semiannual	S	S
MW-152	Performance	Annual	S	-
MW-153	Performance	Biennial	-	-
MW-154	Background	Biennial	-	-
MW-155	Performance	Annual	S	-
MW-157	Performance	Annual	S	-
MW-158	Performance	Annual	S	-
MW-158A	Performance	Annual	S	-
MW-159	Performance	Semiannual	S	S
MW-160	Performance	Annual	S	-
MW-163	Performance	Semiannual	S	S
MW-164	Performance	Semiannual	S	S
MW-165	Performance	Semiannual	S	S
MW-165A	Performance	Semiannual	S	S
MW-166	Performance	Semiannual	S	S
MW-166A	Performance	Semiannual	S	S
MW-167	Background	Biennial	-	-
MW-169	Sentinel	Biennial	-	-

TABLE 4
2014 DUNN FIELD SAMPLE SCHEDULE
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

Well ID	Well Classification	Sample Frequency	Annual Apr-2014	Semiannual Oct-2014
MW-170	Sentinel	Biennial	-	-
MW-171	Sentinel	Biennial	-	-
MW-174	Performance-FSVE	Semiannual	S	S
MW-176	Performance	Annual	S	-
MW-180	Performance	Annual	S	-
MW-182	Sentinel	Annual	S	-
MW-184	Performance	Semiannual	S	S
MW-187	Background	Biennial	-	-
MW-190	Performance	Semiannual	S	S
MW-220	Performance-FSVE	Semiannual	S	S
MW-221	Performance-FSVE	Semiannual	S	S
MW-222	Performance-FSVE	Semiannual	S	S
MW-223	Performance-FSVE	Semiannual	S	S
MW-224	Performance-FSVE	Semiannual	S	S
MW-225	Performance-FSVE	Semiannual	S	S
MW-226	Performance-FSVE	Semiannual	S	S
MW-227	Performance-FSVE	Semiannual	S	S
MW-228	Performance-FSVE	Semiannual	S	S
MW-230	Background-NE	Annual	S	-
MW-235	Sentinel	Annual	S	-
MW-237	Sentinel	Annual	S	-
MW-241	Performance	Annual	S	-
MW-242	Performance	Annual	S	-
MW-243	Performance	Semiannual	S	S
MW-244	Performance	Semiannual	S	S
MW-245	Performance	Semiannual	S	S
MW-246	Performance	Semiannual	S	S
MW-247	Performance	Semiannual	S	S
MW-248	Performance	Annual	S	-
MW-249	Performance	Semiannual	S	S
MW-250	Sentinel	Annual	S	-
MW-251	Sentinel	Annual	S	-

Notes:

- PDB: Passive diffusion bag
- LF: Sample collected with bladder pump by low-flow method
- S: Sample collected with PDB
- NS: Sample not collected
- : Sample not planned or collected

TABLE 5
MAIN INSTALLATION WATER LEVEL MEASUREMENTS
ANNUAL LONG TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

Well ID	Aquifer	Top of Casing Elevation	Top of Screen Elevation	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation
		(ft, msl)	(ft, msl)	(ft, btoc)	23-Apr-14 (ft, msl)	17-Oct-14 (ft, btoc)	(ft, msl)
MW-16	Fluvial	299.86	242.3	56.67	243.19	56.64	243.22
MW-19	Fluvial	290.57	207.5	83.50	207.07	82.98	207.59
MW-22	Fluvial	298.04	202.6	91.78	206.26	91.24	206.80
MW-23	Fluvial	298.99	197.8	93.77	205.22	93.50	205.49
MW-24	Fluvial	299.51	202.2	99.35	200.16	99.56	199.95
MW-25A	Fluvial	269.88	196.9	67.00	202.88	67.03	202.85
MW-26	Fluvial	303.69	206.1	96.50	207.19	96.23	207.46
MW-34	Intermediate	299.97	163.4	124.20	175.77	129.25	170.72
MW-38	Intermediate	307.45	167.5	122.23	185.22	124.00	183.45
MW-39	Fluvial	296.28	200.8	97.37	198.91	97.47	198.81
MW-39A	Fluvial	298.61	150.5	97.67	200.94	97.82	200.79
MW-50	Fluvial	298.82	183.8	83.38	215.44	83.32	215.50
MW-52	Fluvial	279.26	185.3	75.09	204.17	75.04	204.22
MW-53	Fluvial	306.38	233.9	72.95	233.43	72.77	233.61
MW-55	Fluvial	292.08	228.1	69.99	222.09	69.85	222.23
MW-63A	Fluvial/Intermed.	305.96	166.0	100.00	205.96	99.58	206.38
MW-63B	Fluvial/Intermed.	305.78	190.8	99.83	205.95	99.34	206.44
MW-64	Fluvial	304.21	202.2	102.50	201.71	102.80	201.41
MW-66A	Fluvial	284.22	209.6	75.35	208.87	75.08	209.14
MW-88	Fluvial	305.15	223.2	77.97	227.18	77.61	227.54
MW-89	Intermediate	303.98	157.0	108.60	195.38	109.64	194.34
MW-90	Intermediate	304.19	189.2	109.20	194.99	110.29	193.90
MW-92	Fluvial	304.41	211.4	93.40	211.01	93.32	211.09
MW-93	Fluvial	294.08	202.1	94.75	199.33	95.04	199.04
MW-94A	Fluvial	303.00	193.4	102.58	200.42	102.65	200.35
MW-96	Fluvial	289.02	213.5	79.41	209.61	79.20	209.82
MW-97	Fluvial	297.44	199.9	93.74	203.70	93.49	203.95
MW-98	Fluvial	294.43	157.4	93.35	201.08	93.38	201.05
MW-99	Fluvial	285.33	193.8	82.18	203.15	81.98	203.35
MW-100B	Fluvial	290.92	183.6	85.98	204.94	85.53	205.39
MW-101	Fluvial	291.74	202.7	86.57	205.17	86.05	205.69
MW-102B	Fluvial	311.40	190.9	104.61	206.79	104.10	207.30
MW-103	Fluvial	301.37	231.4	68.78	232.59	68.44	232.93
MW-104	Fluvial	291.98	225.3	58.50	233.48	58.13	233.85
MW-107	Fluvial/Intermed.	304.92	176.9	103.55	201.37	103.40	201.52
MW-108	Fluvial/Intermed.	303.07	143.1	103.05	200.02	103.24	199.83
MW-140	Intermediate	298.12	73.5	127.84	170.28	134.98	163.14
MW-141	Intermediate	303.71	155.0	106.90	196.81	107.60	196.11
MW-142	Fluvial	291.18	206.2	88.46	202.72	88.33	202.85
MW-143	Fluvial	290.66	212.1	86.05	204.61	85.72	204.94
MW-198	Fluvial	291.78	201.5	90.18	201.60	90.15	201.63
MW-199A	Intermediate	301.53	155.5	103.89	197.64	104.46	197.07
MW-199B	Fluvial	301.73	197.1	101.08	200.65	101.14	200.59
MW-200	Fluvial	300.18	197.0	99.80	200.38	100.20	199.98
MW-202A	Intermediate	299.23	122.7	114.82	184.41	117.92	181.31
MW-202B	Intermediate	299.51	180.4	115.48	184.03	117.28	182.23
MW-204A	Fluvial	292.21	159.0	90.79	201.42	90.75	201.46
MW-204B	Fluvial	292.71	197.8	90.82	201.89	90.76	201.95
MW-205A	Fluvial	292.30	151.0	90.98	201.32	91.01	201.29
MW-205B	Fluvial	292.16	194.8	90.70	201.46	90.75	201.41
MW-206A	Fluvial	299.92	172.6	99.61	200.31	99.78	200.14

TABLE 5
MAIN INSTALLATION WATER LEVEL MEASUREMENTS
ANNUAL LONG TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

Well ID	Aquifer	Top of Casing	Top of Screen	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation
		Elevation (ft, msl)	Elevation (ft, msl)	23-Apr-14 (ft, btoc)	23-Apr-14 (ft, msl)	17-Oct-14 (ft, btoc)	17-Oct-14 (ft, msl)
MW-206B	Fluvial	299.90	203.2	99.60	200.30	99.74	200.16
MW-207A	Fluvial	304.05	154.1	103.58	200.47	103.75	200.30
MW-207B	Fluvial	304.06	195.6	103.35	200.71	103.50	200.56
MW-208A	Fluvial	302.21	118.1	101.70	200.51	101.91	200.30
MW-208B	Fluvial	301.79	195.1	101.54	200.25	101.70	200.09
MW-209A	Intermediate	298.05	109.1	99.53	198.52	100.20	197.85
MW-209B	Fluvial	298.49	196.2	97.87	200.62	97.96	200.53
MW-210A	Intermediate	289.61	112.6	93.26	196.35	94.50	195.11
MW-210B	Fluvial	289.29	192.3	87.96	201.33	88.02	201.27
MW-211	Intermediate	303.74	137.5	104.43	199.31	104.72	199.02
MW-214A	Fluvial	303.61	184.5	99.25	204.36	99.01	204.60
MW-214B	Fluvial	303.70	202.1	99.00	204.70	98.74	204.96
MW-215A	Fluvial	304.50	175.7	104.21	200.29	104.40	200.10
MW-215B	Fluvial	304.56	199.2	104.30	200.26	104.45	200.11
MW-216	Fluvial	297.34	197.4	93.50	203.84	93.20	204.14
MW-217	Fluvial	304.18	202.4	103.00	201.18	103.00	201.18
MW-218	Fluvial	305.60	206.7	100.15	205.45	100.15	205.45
MW-219	Fluvial	295.13	197.2	88.31	206.82	88.05	207.08
MW-229	Intermediate	311.78	123.3	141.22	170.56	147.00	164.78
MW-252	Intermediate	294.16	168.4	122.55	171.61	128.85	165.31
MW-253	Intermediate	290.47	172.5	101.48	188.99	104.50	185.97
MW-254	Memphis	292.84	7.2	123.80	169.04	131.41	161.43
MW-255	Memphis	291.84	7.3	122.25	169.59	129.66	162.18
MW-256	Intermediate	292.68	166.7	121.13	171.55	127.95	164.73
MW-257	Fluvial	292.22	207.1	87.80	204.42	87.32	204.90
MW-258	Fluvial	304.37	225.5	76.88	227.49	76.58	227.79
MW-259	Fluvial	290.77	192.3	92.82	197.95	93.57	197.20
MW-260	Fluvial	304.16	236.2	73.93	230.23	73.80	230.36
MW-261	Fluvial	293.52	203.5	92.33	201.19	92.61	200.91
DR1-1	Fluvial	293.14	171.4	87.92	205.22	87.51	205.63
DR1-1A	Fluvial	293.00	203.8	87.68	205.32	87.23	205.77
DR1-2	Fluvial	290.00	192.3	85.65	204.35	85.29	204.71
DR1-3	Fluvial	290.93	181.3	87.59	203.34	87.28	203.65
DR1-4	Fluvial	292.78	186.5	88.00	204.78	87.64	205.14
DR1-7	Fluvial	289.15	180.9	86.05	203.10	85.80	203.35
DR1-8	Fluvial	290.09	197.4	85.15	204.94	84.75	205.34
DR2-1	Fluvial	304.90	231.0	86.33	218.57	85.66	219.24
DR2-3	Fluvial	303.44	210.4	94.62	208.82	94.48	208.96
DR2-4	Fluvial	303.55	215.5	92.05	211.50	91.92	211.63
DR2-6	Fluvial	304.70	210.1	98.16	206.54	97.86	206.84
PMW21-03	Fluvial	292.11	201.8	86.93	205.18	86.51	205.60
PMW21-05	Fluvial	288.53	194.3	84.74	203.79	84.36	204.17
PMW-92-02	Fluvial	304.17	209.4	92.75	211.42	92.01	212.16
PMW101-03A	Fluvial	291.61	172.4	87.18	204.43	86.81	204.80
PMW101-03B	Fluvial	291.55	192.2	87.16	204.39	86.81	204.74
PMW101-06A	Fluvial	292.13	172.1	87.44	204.69	87.10	205.03
PMW101-06B	Fluvial	292.17	192.9	87.51	204.66	87.09	205.08
PZ-03	Fluvial	298.51	189.6	97.85	200.66	97.95	200.56
MW-21	Fluvial	295.00	92.3	88.62	206.38	88.40	206.60
PMW21-01	Fluvial	294.76	206.0	-	-	88.05	206.71
DR1-5A	Fluvial	294.51	90.4	89.08	205.43	88.63	205.88

TABLE 5
MAIN INSTALLATION WATER LEVEL MEASUREMENTS
ANNUAL LONG TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

Well ID	Aquifer	Top of Casing	Top of Screen	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation
		Elevation (ft, msl)	Elevation (ft, msl)	23-Apr-14 (ft, btoc)	23-Apr-14 (ft, msl)	17-Oct-14 (ft, btoc)	17-Oct-14 (ft, msl)
DR1-6A	Fluvial	293.28	91.1	87.93	205.35	87.88	205.40
DR2-2	Fluvial	304.30	78.6	81.35	222.95	78.22	226.08
PMW85-01	Fluvial	305.08	93.5	95.63	209.45	95.53	209.55
MW-203B	Fluvial	290.87	92.8	88.22	202.65	88.55	202.32
MW-197B	Fluvial	291.03	94.2	89.59	201.44	88.92	202.11
MW-62	Fluvial	293.71	86.5	90.65	203.06	90.46	203.25
MW-212	Fluvial	295.34	85.7	94.11	201.23	94.20	201.14

Notes:

ft, btoc: feet below top of casing

ft, msl: feet mean sea level

NM: Not measured

TABLE 6
DUNN FIELD WATER LEVEL MEASUREMENTS
ANNUAL LONG TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

Well ID	Aquifer	Top of Casing Elevation	Top of Screen Elevation	Total Depth	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation
		(ft, msl)	(ft, msl)	(ft, btoc)	23-Apr-14 (ft, btoc)	23-Apr-14 (ft, msl)	17-Oct-14 (ft, btoc)	17-Oct-14 (ft, msl)
MW-03	Fluvial	292.35	226.85	75.5	63.91	228.44	63.06	229.29
MW-04	Fluvial	301.61	241.61	80.0	71.47	230.14	70.67	230.94
MW-06	Fluvial	289.11	238.11	71.0	59.58	229.53	58.84	230.27
MW-07	Fluvial	295.10	228.10	77.0	63.82	231.28	63.00	232.10
MW-08	Fluvial	292.59	236.09	66.5	59.83	232.76	58.93	233.66
MW-13	Fluvial	300.01	234.01	81.0	69.93	230.08	69.05	230.96
MW-15	Fluvial	295.12	231.72	78.4	65.46	229.66	64.78	230.34
MW-28	Fluvial	294.79	240.49	69.3	54.29	240.50	53.49	241.30
MW-31	Fluvial	290.37	226.27	79.1	65.62	224.75	64.96	225.41
MW-33	Fluvial	280.71	236.11	59.6	NM	-	NM	-
MW-44	Fluvial	269.07	205.07	74.0	50.28	218.79	49.83	219.24
MW-54	Fluvial	295.39	210.85	94.5	75.58	219.81	74.97	220.42
MW-57	Fluvial	290.77	230.77	70.0	61.22	229.55	60.63	230.14
MW-58	Fluvial	290.51	233.51	67.0	61.81	228.70	61.29	229.22
MW-67	Memphis	278.21	18.21	275.0	107.19	171.02	113.35	164.86
MW-68	Fluvial	291.69	219.19	82.5	63.72	227.97	63.05	228.64
MW-69	Fluvial	307.02	224.94	92.1	78.93	228.09	78.14	228.88
MW-70	Fluvial	304.99	224.18	90.8	76.64	228.35	75.82	229.17
MW-71	Fluvial	294.40	228.90	75.5	65.86	228.54	65.31	229.09
MW-76	Fluvial	302.71	229.71	93.0	79.46	223.25	78.75	223.96
MW-77	Fluvial	304.42	236.42	88.0	78.13	226.29	77.35	227.07
MW-78	Fluvial	275.00	230.50	64.5	45.71	229.29	44.90	230.10
MW-79	Fluvial	285.03	202.53	102.5	66.87	218.16	66.41	218.62
MW-80	Fluvial	273.81	220.81	73.0	55.74	218.07	55.17	218.64
MW-87	Fluvial	294.93	231.93	78.0	65.65	229.28	64.86	230.07
MW-91	Fluvial	291.99	236.99	70.0	62.55	229.44	61.88	230.11
MW-126	Fluvial	252.22	236.22	26.0	13.80	238.42	17.93	234.29
MW-129	Fluvial	293.01	228.01	80.0	53.98	239.03	53.59	239.42
MW-130	Fluvial	293.17	233.70	79.5	53.42	239.75	52.73	240.44
MW-134	Fluvial	300.81	225.81	90.0	71.71	229.10	70.88	229.93
MW-144	Fluvial	291.60	235.10	76.8	69.26	222.34	68.56	223.04
MW-145	Fluvial	284.72	204.72	100.1	65.61	219.11	65.01	219.71
MW-147	Fluvial	289.76	229.72	80.2	66.23	223.53	65.53	224.23
MW-148	Fluvial	294.71	224.71	90.0	73.34	221.37	72.72	221.99
MW-149	Fluvial	287.18	205.78	101.4	67.92	219.26	67.32	219.86
MW-150	Fluvial	296.86	225.61	91.2	76.65	220.21	76.15	220.71
MW-151	Fluvial	284.27	207.27	97.0	65.29	218.98	64.66	219.61
MW-152	Fluvial	289.59	198.59	111.0	70.92	218.67	70.43	219.16
MW-153	Fluvial	279.17	203.17	96.1	61.21	217.96	60.90	218.27
MW-154	Fluvial	273.81	220.81	63.3	54.45	219.36	54.32	219.49
MW-155	Fluvial	291.54	214.65	97.0	71.97	219.57	71.40	220.14
MW-157	Fluvial	286.47	229.78	77.0	65.36	221.11	64.73	221.74
MW-158	Fluvial	294.07	203.06	106.0	75.19	218.88	74.67	219.40
MW-158A	Fluvial	293.95	216.03	92.9	75.11	218.84	74.55	219.40
MW-159	Fluvial	286.36	205.89	100.4	67.21	219.15	66.70	219.66
MW-160	Fluvial	293.84	228.04	85.9	73.69	220.15	73.05	220.79
MW-163	Fluvial	290.63	234.42	76.2	68.67	221.96	67.93	222.70
MW-164	Fluvial	287.48	231.86	75.6	65.26	222.22	64.44	223.04
MW-165	Fluvial	287.06	198.43	103.6	68.36	218.70	67.85	219.21
MW-165A	Fluvial	287.26	215.96	86.3	68.59	218.67	68.01	219.25
MW-166	Fluvial	282.72	199.59	98.9	63.73	218.99	63.15	219.57

TABLE 6
DUNN FIELD WATER LEVEL MEASUREMENTS
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Defense Depot Memphis, Tennessee

Well ID	Aquifer	Top of Casing	Top of Screen	Total Depth	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation
		Elevation (ft, msl)	Elevation (ft, msl)		23-Apr-14 (ft, btoc)	23-Apr-14 (ft, msl)	17-Oct-14 (ft, btoc)	17-Oct-14 (ft, msl)
MW-166A	Fluvial	282.90	215.15	83.3	63.90	219.00	63.31	219.59
MW-167	Fluvial	284.82	214.68	85.5	66.79	218.03	66.39	218.43
MW-169	Transition	261.90	194.12	88.1	67.57	194.33	68.69	193.21
MW-170	Fluvial	273.75	214.14	79.8	53.88	219.87	53.45	220.30
MW-171	Fluvial	270.69	217.72	68.3	51.71	218.98	51.31	219.38
MW-174	Fluvial	296.56	229.56	77.0	66.72	229.84	66.11	230.45
MW-176	Fluvial	299.68	223.68	86.0	70.50	229.18	69.71	229.97
MW-180	Fluvial	296.14	224.14	82.0	67.39	228.75	66.61	229.53
MW-182	Fluvial	275.40	213.40	72.0	NM	-	57.63	217.77
MW-184	Fluvial	283.12	225.12	68.0	60.88	222.24	60.21	222.91
MW-187	Fluvial	302.74	226.74	86.0	72.29	230.45	71.60	231.14
MW-190	Fluvial	297.32	219.32	88.0	74.32	223.00	73.63	223.69
MW-220	Fluvial	293.29	228.35	79.9	64.11	229.18	63.35	229.94
MW-221	Fluvial	301.52	228.40	88.1	72.95	228.57	72.13	229.39
MW-222	Fluvial	303.82	229.64	89.2	74.50	229.32	73.64	230.18
MW-223	Fluvial	303.00	229.13	88.9	73.65	229.35	72.86	230.14
MW-224	Fluvial	304.13	230.42	88.7	74.69	229.44	73.85	230.28
MW-225	Fluvial	304.52	229.54	90.0	75.40	229.12	74.55	229.97
MW-226	Fluvial	303.19	228.97	89.2	73.82	229.37	72.92	230.27
MW-227	Fluvial	299.70	236.06	78.6	69.58	230.12	69.16	230.54
MW-228	Fluvial	301.65	237.56	79.1	71.42	230.23	71.07	230.58
MW-230	Fluvial	286.57	227.32	74.3	52.71	233.86	52.05	234.52
MW-235	Fluvial	264.00	213.41	60.8	52.22	211.78	51.67	212.33
MW-237	Intermediate	289.18	122.73	176.7	117.86	171.32	123.15	166.03
MW-241	Fluvial	292.97	219.57	88.3	72.01	220.96	71.49	221.48
MW-242	Fluvial	295.40	222.20	88.7	75.73	219.67	75.13	220.27
MW-243	Fluvial	292.26	211.56	100.7	72.98	219.28	72.53	219.73
MW-244	Fluvial	288.72	212.39	96.3	69.42	219.30	68.94	219.78
MW-245	Fluvial	290.48	205.40	104.7	71.33	219.15	70.85	219.63
MW-246	Fluvial	288.17	202.97	105.2	69.34	218.83	68.90	219.27
MW-247	Fluvial	286.17	205.70	100.0	67.32	218.85	66.72	219.45
MW-248	Fluvial	275.45	207.94	87.5	56.64	218.81	56.14	219.31
MW-249	Fluvial	285.53	207.49	98.0	66.50	219.03	65.94	219.59
MW-250	Intermediate	289.66	120.96	183.7	119.08	170.58	125.11	164.55
MW-251	Intermediate	285.83	125.63	175.2	115.07	170.76	120.98	164.85

Notes:
ft, btoc: feet below top of casing
ft, msl: feet mean sea level
NM: Not measured

TABLE 7
MAIN INSTALLATION PDB SAMPLE INTERVALS
ANNUAL LONG TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

Well	Top of Screen Depth (ft, btoc)	Screen Length (ft)	Apr-14			Oct-14		
			Date Collected	Depth to Water (ft, btoc)	Sample Depth ¹ (ft, btoc)	Date Collected	Depth to water (ft, btoc)	Sample Depth ¹ (ft, btoc)
MW-16	57.6	15	-	-	-	10/20/2014	56.6	65.1
MW-19	83.1	10	-	-	-	10/19/2014	83.0	88.7
MW-22	95.4	10	-	-	-	10/18/2014	91.2	100.4
MW-23	101.2	10	-	-	-	10/20/2014	93.5	106.2
MW-24	97.3	15	-	-	-	10/20/2014	99.6	106.7
MW-25A	73.0	10	-	-	-	10/20/2014	67.0	78.0
MW-26	97.6	10	4/24/2014	96.5	102.6	10/20/2014	96.2	102.6
MW-34	136.6	20	-	-	-	10/19/2014	129.3	146.6
MW-38	139.9	15	-	-	-	10/21/2014	124.0	147.4
MW-39	95.5	20	4/25/2014	97.4	107.3	10/19/2014	97.5	107.3
MW-39A	148.1	20	4/25/2014	97.7	157.9	10/19/2014	97.8	157.9
MW-50	115.0	10	-	-	-	10/19/2014	83.3	120.0
MW-52	94.0	10	-	-	-	10/20/2014	75.0	99.0
MW-53	72.5	10	-	-	-	10/19/2014	72.8	78.0
MW-63A	140.0	10	-	-	-	10/21/2014	99.6	135.0
MW-63B	115.0	10	-	-	-	10/21/2014	99.3	120.0
MW-64	102.0	10	4/24/2014	102.5	108.0	10/20/2014	102.8	108.0
MW-66A	74.6	20	-	-	-	10/19/2014	75.1	85.4
MW-88	82.0	15	4/26/2014	78.0	89.5	10/20/2014	77.6	89.5
MW-89	147.0	30	-	-	-	10/19/2014	109.6	162.0
MW-90	115.0	30	4/26/2014	109.2	130.0	10/19/2014	110.3	130.0
MW-92	93.0	15	4/24/2014	93.4	101.0	10/20/2014	93.3	101.0
MW-93	92.0	15	-	-	-	10/20/2014	95.0	101.9
MW-94A	109.6	10	4/25/2014	102.6	114.6	10/20/2014	102.7	114.6
MW-96	75.5	20	-	-	-	10/20/2014	79.2	87.7
MW-97	97.5	20	4/25/2014	93.7	107.5	10/20/2014	93.5	107.5
MW-98	137.0	10	4/25/2014	93.4	142.0	10/20/2014	93.4	142.0
MW-99	91.5	20	-	-	-	10/18/2014	82.0	101.5
MW-100B	107.4	20	4/26/2014	86.0	117.5	10/18/2014	85.5	117.5
MW-101T	89.0	15	4/26/2014	86.6	96.5	10/19/2014	86.1	96.5
MW-101B	119.0	10	4/26/2014	86.6	124.0	10/20/2014	86.1	124.0
MW-102B	120.5	20	-	-	-	10/18/2014	104.1	130.5
MW-103	70.0	20	-	-	-	10/20/2014	68.4	80.0
MW-104	70.5	20	-	-	-	10/20/2014	58.1	78.5
MW-107T	128.0	15	4/25/2014	103.6	135.5	10/20/2014	103.4	135.5
MW-107B	148.0	10	4/25/2014	103.6	153.0	10/20/2014	103.4	153.0
MW-108	160.0	10	4/25/2014	103.1	165.0	10/20/2014	103.2	165.0
MW-140	224.6	20	-	-	-	10/19/2014	135.0	234.6
MW-141	148.7	20	4/26/2014	106.9	158.7	10/19/2014	107.6	158.7
MW-142	85.0	20	-	-	-	10/19/2014	88.3	97.4
MW-143	78.6	20	4/26/2014	86.1	92.8	10/19/2014	85.7	92.8
MW-198	90.3	15	-	-	-	10/19/2014	90.2	98.4
MW-199A	146.1	15	-	-	-	10/19/2014	104.5	153.6
MW-199B	104.6	15	4/26/2014	101.1	112.1	10/19/2014	101.1	112.1
MW-200	102.9	15	4/25/2014	99.8	110.4	10/20/2014	100.2	110.4
MW-202A	176.2	15	-	-	-	10/19/2014	117.9	183.7
MW-202B	118.8	15	4/26/2014	115.5	126.3	10/19/2014	117.3	126.3
MW-204A	133.3	15	4/25/2014	90.8	140.8	10/20/2014	90.8	140.8
MW-204B	94.9	15	4/25/2014	90.8	102.0	10/20/2014	90.8	102.0
MW-205A	141.3	15	4/25/2014	91.0	148.5	10/20/2014	91.0	148.5
MW-205B	97.3	15	4/25/2014	90.7	104.5	10/20/2014	90.8	104.5
MW-206A	127.3	15	4/25/2014	99.6	134.8	10/20/2014	99.8	134.8

TABLE 7
MAIN INSTALLATION PDB SAMPLE INTERVALS
ANNUAL LONG TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

Well	Top of Screen Depth (ft, btoc)	Screen Length (ft)	Apr-14			Oct-14		
			Date Collected	Depth to Water (ft, btoc)	Sample Depth ¹ (ft, btoc)	Date Collected	Depth to water (ft, btoc)	Sample Depth ¹ (ft, btoc)
MW-206B	96.7	15	4/25/2014	99.6	106.5	10/20/2014	99.7	106.5
MW-207A	149.9	15	4/25/2014	103.6	157.2	10/20/2014	103.8	157.2
MW-207B	108.5	15	4/25/2014	103.4	115.8	10/20/2014	103.5	115.8
MW-208A	183.5	15	4/25/2014	101.7	191.0	10/20/2014	101.9	191.0
MW-208B	106.7	15	4/25/2014	101.5	114.2	10/20/2014	101.7	114.2
MW-209A	189.0	15	-	-	-	10/19/2014	100.2	196.5
MW-209B	102.3	15	4/25/2014	97.9	109.8	10/19/2014	98.0	109.8
MW-210A	177.0	15	4/26/2014	93.3	184.5	10/20/2014	94.5	184.5
MW-210B	97.0	15	4/26/2014	88.0	104.5	10/20/2014	88.0	104.5
MW-211	166.3	15	-	-	-	10/20/2014	104.7	173.8
MW-214A	119.1	15	4/25/2014	99.3	126.6	10/21/2014	99.0	126.6
MW-214B	101.6	15	4/25/2014	99.0	109.1	10/21/2014	98.7	109.1
MW-215A	128.8	15	-	-	-	10/21/2014	104.4	136.3
MW-215B	105.4	15	-	-	-	10/21/2014	104.5	113.2
MW-216	99.9	15	-	-	-	10/20/2014	93.2	107.4
MW-217	101.8	15	4/24/2014	103.0	110.5	10/20/2014	103.0	110.5
MW-218	98.9	15	4/25/2014	100.2	107.4	10/20/2014	100.2	107.4
MW-219	98.0	15	4/26/2014	88.3	105.3	10/19/2014	88.1	105.3
MW-229	188.4	20	-	-	-	10/19/2014	147.0	198.4
MW-252	126.1	20	-	-	-	10/19/2014	128.9	139.2
MW-253	118.3	20	-	-	-	10/19/2014	104.5	128.8
MW-254	285.8	20	4/26/2014	123.8	295.8	10/19/2014	131.4	295.8
MW-255	284.7	20	-	-	-	10/19/2014	129.7	294.7
MW-256	127.1	20	4/26/2014	121.1	139.1	10/19/2014	128.0	139.1
MW-257	85.1	15	-	-	-	10/19/2014	87.3	94.3
MW-258	78.9	20	4/25/2014	76.9	88.9	10/21/2014	76.6	88.9
MW-259	98.5	20	4/25/2014	92.8	108.5	10/20/2014	93.6	108.5
MW-260	68.0	20	4/25/2014	73.9	82.2	10/20/2014	73.8	82.2
MW-261	90.0	20	4/25/2014	92.3	102.8	10/20/2014	92.6	102.8
DR1-1	121.7	20	-	-	-	10/18/2014	87.5	131.7
DR1-1A	89.2	20	-	-	-	10/18/2014	87.2	99.3
DR1-2	97.7	20	-	-	-	10/18/2014	85.3	107.8
DR1-3	109.7	20	4/26/2014	87.6	119.7	10/19/2014	87.3	119.7
DR1-4	106.3	20	-	-	-	10/19/2014	87.6	116.3
DR1-7	108.3	20	-	-	-	10/19/2014	85.8	118.3
DR1-8	92.7	20	-	-	-	10/18/2014	84.8	102.7
DR2-1	73.9	20	4/24/2014	86.3	90.5	10/20/2014	85.7	90.5
DR2-3	93.0	20	4/24/2014	94.6	104.1	10/20/2014	94.5	104.1
DR2-4	88.1	20	-	-	-	10/20/2014	91.9	100.3
DR2-6	94.6	20	4/24/2014	98.2	106.7	10/20/2014	97.9	106.7
PMW92-02	90.3	20	4/26/2014	86.9	100.3	10/20/2014	86.5	100.3
PMW21-03	94.3	20	4/26/2014	84.7	104.3	10/18/2014	84.4	104.3
PMW21-05	94.8	10	4/24/2014	92.8	100.3	10/18/2014	92.0	100.3
PMW101-03A	119.2	20	4/26/2014	87.2	129.7	10/18/2014	86.8	129.7
PMW101-03B	99.3	20	4/26/2014	87.2	109.8	10/18/2014	86.8	109.8
PMW101-06A	120.0	20	4/26/2014	87.4	130.5	10/19/2014	87.1	130.5
PMW101-06B	99.3	20	4/26/2014	87.5	109.8	10/19/2014	87.1	109.8

Notes:

- 1) Sample Depth is to PDB mid-point
- ft, btoc: feet below top of casing
- PDB: passive diffusion bag

TABLE 8
DUNN FIELD PDB SAMPLE INTERVALS
ANNUAL LONG TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

Well	Top of Screen Depth (ft, btoc)	Screen Length (feet)	Apr-14			Oct-14		
			Date Collected	Depth to Water (ft btoc)	Sample Depth ¹ (ft, btoc)	Date Collected	Depth to Water (ft btoc)	Sample Depth ¹ (ft, btoc)
MW-03	65.5	10	4/25/2014	63.9	70.5	10/18/2014	63.06	70.5
MW-06	51.0	20	4/25/2014	59.6	65.9	10/18/2014	58.84	65.9
MW-07	67.0	10	4/25/2014	63.8	68.4	-	-	-
MW-15	63.4	15	4/25/2014	65.5	72.5	-	-	-
MW-31	64.1	15	4/26/2014	65.6	73.2	10/19/2014	64.96	73.2
MW-44	64.0	10	4/27/2014	50.3	69.0	10/19/2014	49.83	69.0
MW-54	84.5	10	4/26/2014	75.6	89.5	10/19/2014	74.97	89.5
MW-57	60.0	10	4/25/2014	61.2	66.1	10/19/2014	60.63	66.1
MW-68	72.5	10	4/26/2014	63.7	78.0	-	-	-
MW-69	82.1	10	4/25/2014	78.9	87.1	-	-	-
MW-70	80.8	10	4/25/2014	76.6	84.1	-	-	-
MW-71	65.5	10	4/25/2014	65.9	71.4	-	-	-
MW-76	73.0	20	4/26/2014	79.5	87.3	-	-	-
MW-77	68.0	20	4/26/2014	78.1	83.6	-	-	-
MW-79	82.5	20	4/28/2014	66.9	92.5	10/18/2014	66.41	92.5
MW-87	63.0	15	4/25/2014	65.7	72.4	10/18/2014	64.86	72.4
MW-91	55.0	15	4/25/2014	62.6	66.6	-	-	-
MW-129	65.0	15	4/28/2014	54.0	73.0	-	-	-
MW-130	59.5	20	4/28/2014	53.4	70.0	-	-	-
MW-134	75.0	15	4/25/2014	71.7	83.0	10/19/2014	70.88	83.0
MW-144	56.8	20	4/26/2014	69.3	74.3	10/19/2014	68.56	74.3
MW-145	80.1	20	4/26/2014	65.6	90.1	-	-	-
MW-147	60.3	20	4/26/2014	66.2	74.3	-	-	-
MW-148	70.0	20	4/26/2014	73.3	81.7	-	-	-
MW-149	81.4	20	4/26/2014	67.9	91.7	10/18/2014	67.32	91.7
MW-150	71.2	20	4/26/2014	76.7	85.3	10/18/2014	76.15	85.3
MW-151	77.0	20	4/27/2014	65.3	87.2	10/19/2014	64.66	87.2
MW-152	91.0	20	4/27/2014	70.9	101.2	-	-	-
MW-155	76.9	20	4/26/2014	72.0	87.2	-	-	-
MW-157	56.7	20	4/26/2014	65.4	72.9	-	-	-
MW-158	91.0	15	4/27/2014	75.2	98.8	-	-	-
MW-158A	77.9	15	4/27/2014	75.1	85.8	-	-	-
MW-159	80.5	20	4/27/2014	67.2	90.7	10/19/2014	66.70	90.7
MW-160	65.7	20	5/13/2014	73.7	81.4	-	-	-
MW-163	56.2	20	4/26/2014	68.7	73.0	10/19/2014	67.93	73.0
MW-164	55.6	20	4/26/2014	65.3	70.4	10/19/2014	64.44	70.4
MW-165	88.6	15	4/27/2014	68.4	96.4	10/19/2014	67.85	96.4
MW-165A	71.3	15	4/28/2014	68.6	79.2	10/19/2014	68.01	79.2
MW-166	84.6	15	4/26/2014	63.7	90.7	10/19/2014	63.15	90.7
MW-166A	68.1	15	4/26/2014	63.9	75.2	10/19/2014	63.31	75.2
MW-174	67.0	10	4/25/2014	66.7	73.0	10/18/2014	66.11	73.0
MW-176	76.0	10	4/25/2014	70.5	81.0	-	-	-
MW-180	72.0	10	4/25/2014	67.4	77.0	-	-	-
MW-182	62.0	10	5/13/2014	NM	65.5	-	-	-
MW-184	58.0	10	4/26/2014	60.9	64.8	10/19/2014	60.21	64.8
MW-190	78.0	10	4/26/2014	74.3	83.0	10/19/2014	73.63	83.0
MW-220	64.9	15	4/25/2014	64.1	72.4	10/18/2014	63.35	72.4
MW-221	73.1	15	4/25/2014	73.0	81.0	10/18/2014	72.13	81.0
MW-222	74.2	15	4/25/2014	74.5	82.4	10/18/2014	73.64	82.4

TABLE 8
DUNN FIELD PDB SAMPLE INTERVALS
ANNUAL LONG TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

Well	Top of Screen Depth (ft, btoc)	Screen Length (feet)	Date Collected	Apr-14	Sample	Date Collected	Oct-14	Sample
				Depth to Water (ft btoc)	Depth ¹ (ft, btoc)		Depth to Water (ft btoc)	Depth ¹ (ft, btoc)
MW-223	73.9	15	4/25/2014	73.7	81.4	10/18/2014	72.86	81.4
MW-224	73.7	15	4/25/2014	74.7	82.2	10/18/2014	73.85	82.2
MW-225	75.0	15	4/25/2014	75.4	83.2	10/18/2014	74.55	83.2
MW-226	74.2	15	4/25/2014	73.8	82.0	10/18/2014	72.92	82.0
MW-227	63.6	15	4/25/2014	69.6	74.7	10/18/2014	69.16	74.7
MW-228	64.1	15	4/25/2014	71.4	76.5	10/18/2014	71.07	76.5
MW-230	59.2	15	4/25/2014	52.7	67.3	-	-	-
MW-235	50.6	10	4/26/2014	52.2	57.2	-	-	-
MW-237	166.5	10	4/27/2014	117.9	171.6	-	-	-
MW-241	73.4	15	4/26/2014	72.0	81.6	-	-	-
MW-242	73.2	16	4/26/2014	75.7	83.8	-	-	-
MW-243	80.7	20	4/27/2014	73.0	90.7	10/19/2014	72.53	90.7
MW-244	76.3	20	4/27/2014	69.4	86.3	10/19/2014	68.94	86.3
MW-245	85.1	20	4/26/2014	71.3	95.0	10/19/2014	70.85	95.0
MW-246	85.2	20	4/27/2014	69.3	95.2	10/19/2014	68.90	95.2
MW-247	80.5	20	4/27/2014	67.3	90.0	10/19/2014	66.72	90.0
MW-248	67.5	20	4/27/2014	56.6	77.5	-	-	-
MW-249	78.0	20	4/26/2014	66.5	88.3	10/19/2014	65.94	88.3
MW-250	168.7	15	4/26/2014	119.1	176.2	-	-	-
MW-251	160.2	15	4/26/2014	115.1	167.7	-	-	-

Notes:

btoc Below top of casing

PDB passive diffusion bag

1) Sample depth is to PDB mid-point

TABLE 9
DUNN FIELD FINAL WELL STABILIZATION MEASUREMENTS
ANNUAL LONG TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

Well ID	Sample Date	Method	Time Sampled	Sample 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-08	4/28/2014	low flow	12:20	65.0	60.0	206	12.4	6.4	19.7	0.293	12.7	128.2	11.9

Notes:

°C : degrees Celsius
ft, btoc: feet below top of casing
mg/L : milligrams per liter
mL/min: milliliters per minute
mS/cm : milliSiemens per centimeter

mV :millivolts
NA: not applicable
NTUs: nephelometric turbidity units

TABLE 10
 MAIN INSTALLATION FINAL WELL STABILIZATION MEASUREMENTS
 ANNUAL LONG TERM MONITORING REPORT - 2014
 Defense Depot Memphis, Tennessee

Well ID	Sample Date	Method	Time Sampled	Sample 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-55	10/21/2014	low flow	10:29	103.0	69.8	263	8.4	5.9	20.2	0.178	8.6	140.8	10.7
PZ-03	10/21/2014	bailer	11:33	NA	98.0	NA	6.9	8.0	19.1	0.281	8.2	189.6	-

Notes:

°C : degrees Celsius
 ft, btoc: feet below top of casing
 mg/L : milligrams per liter
 mL/min: milliliters per minute
 mS/cm : milliSiemens per centimeter

mV :millivolts
 NA: not applicable
 NTUs: nephelometric turbidity units

TABLE 11
MAIN INSTALLATION ANALYTICAL RESULTS SUMMARY, APRIL 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID		DR1-3	DR2-1	DR2-3	DR2-6	PMW21-03	PMW21-05	PMW92-02	PMW101-03A
	Lab ID		L14042008-15	L14041917-04	L14041917-05	L14041917-06	L14042008-16	L14042008-17	L14041917-07	L14042008-20
	Date		4/26/2014	4/24/2014	4/24/2014	4/24/2014	4/26/2014	4/26/2014	4/24/2014	4/26/2014
Analyte	Units	MCL								
Carbon tetrachloride	µg/L	5	<1	32.7	2.89	<1	<1	<1	<1	<1
Chloroform	µg/L	80	<0.3	11.5	0.524	1.76	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	70	11	7.1	<1	6.42	4.31	0.463 J	133	26.4
Tetrachloroethene	µg/L	5	0.801 J	179	12	3.95	130	10.6	0.609 J	1.31
trans-1,2-Dichloroethene	µg/L	100	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5	2.23	5.06	1.41	0.927 J	38.7	0.786 J	0.322 J	<1
Vinyl chloride	µg/L	2	<1	0.64 J	<1	2.43	<1	<1	2.04	<1
1,1,2,2-Tetrachloroethane	µg/L	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	µg/L	7	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	-	<1	<1	<1	1.76	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acetone	µg/L	-	19.3	23.1 B	<10	<10	17.4	<10	15.3 B	23.3
MEK (2-Butanone)	µg/L	-	<10	10.6	<10	<10	<10	<10 UJ	<10	11.1
Methyl t-butyl ether (MTBE)	µg/L	-	9.62	<5	<5	<5	21.1	<5 UJ	<5	6.16
Toluene	µg/L	1000	<1	<1	<1	<1	<1	<1	0.699 J	<1
Trichlorofluoromethane	µg/L	-	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

- : Not Listed

MCL: Maximum Contaminant Level

RL: Reporting Limit

<: Analyte not detected above RL

Results above MCL shown in **bold**

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

Methods:

8260B: Volatile Organic Compounds

TABLE 11
MAIN INSTALLATION ANALYTICAL RESULTS SUMMARY, APRIL 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID		PMW101-03B	PMW101-06A	PMW101-06B	MW-26	MW-39	MW-39A	MW-64	MW-88
	Lab ID		L14042008-21	L14042008-22	L14042008-23	L14041917-01	L14041918-01	L14041918-02	L14041918-03	L14042008-01
	Date		4/26/2014	4/26/2014	4/26/2014	4/24/2014	4/25/2014	4/25/2014	4/25/2014	4/26/2014
Analyte	Units	MCL								
Carbon tetrachloride	µg/L	5	<1	<1	<1	5.35	<1	<1	2.52	10.3
Chloroform	µg/L	80	<0.3	<0.3	<0.3	0.595	<0.3	<0.3	0.829	1.46
cis-1,2-Dichloroethene	µg/L	70	31.5	0.404 J	4.15	0.481 J	2.85	6.32	0.363 J	2.35
Tetrachloroethene	µg/L	5	0.827 J	1.14	14.2	25.5	9.7	26.4	16.1	50.4
trans-1,2-Dichloroethene	µg/L	100	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5	<1	0.467 J	2.39	1.14	6.9	7.03	32.3	2.96
Vinyl chloride	µg/L	2	3.93	<1	<1	<1	<1	1.49	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.641	<0.5
1,1-Dichloroethene	µg/L	7	<1	<1	<1	<1	<1	<1	1.06	<1
1,2,3-Trichloropropane	µg/L	-	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acetone	µg/L	-	25.5	16.2	19.1	<10	34.8	32.3	17.9	<10
MEK (2-Butanone)	µg/L	-	34.2	2.52 J	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	-	16.5	4.74 J	16.6	<5	0.504 J	1.13 J	<5	<5
Toluene	µg/L	1000	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	µg/L	-	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

- : Not Listed

MCL: Maximum Contaminant Level

RL: Reporting Limit

<: Analyte not detected above RL

Results above MCL shown in **bold**

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

Methods:

8260B: Volatile Organic Compounds

TABLE 11
MAIN INSTALLATION ANALYTICAL RESULTS SUMMARY, APRIL 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID		MW-90	MW-92	MW-94A	MW-97	MW-98	MW-100B	MW-101T	MW-101B
	Lab ID		L14042008-02	L14041917-02	L14041918-04	L14041918-07	L14041918-08	L14042008-03	L14042008-04	L14042008-05
	Date		4/26/2014	4/24/2014	4/25/2014	4/25/2014	4/25/2014	4/26/2014	4/26/2014	4/26/2014
Analyte	Units	MCL								
Carbon tetrachloride	µg/L	5	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	80	1.42	<0.3	0.179 J	0.252 J	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	70	0.344 J	37.8	1.3	<1	0.55 J	17	3.98	10.2
Tetrachloroethene	µg/L	5	19.9	69.2	30.2 J	<1	36.6	3.5	0.751 J	3.59
trans-1,2-Dichloroethene	µg/L	100	<1	<1	<1	<1	<1	0.489 J	<1	<1
Trichloroethene	µg/L	5	4.46	10.1	8.95	58.3	2.89	0.763 J	0.445 J	1.66
Vinyl chloride	µg/L	2	<1	8.92	<1	<1	<1	185	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	-	<0.5	<0.5	0.569	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	µg/L	7	0.646 J	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	-	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acetone	µg/L	-	25.9	14.9 B	33	33.2	28.2	14.9	12.3	16.4
MEK (2-Butanone)	µg/L	-	<10	<10	<10	<10	<10	<10	<10	28.7
Methyl t-butyl ether (MTBE)	µg/L	-	<5	<5	<5	<5	<5	22.7	0.632 J	1.95 J
Toluene	µg/L	1000	<1	<1	<1	<1	<1	1.11	<1	<1
Trichlorofluoromethane	µg/L	-	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

- : Not Listed

MCL: Maximum Contaminant Level

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Results above MCL shown in **bold**

DQE Flags:

B: Blank contamination

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UJ: Estimated Non-Detect

Methods:

8260B: Volatile Organic Compounds

TABLE 11
MAIN INSTALLATION ANALYTICAL RESULTS SUMMARY, APRIL 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID		MW-107T	MW-107B	MW-108	MW-141	MW-143	MW-199B	MW-200	MW-202B
	Lab ID		L14041918-09	L14041918-10	L14041918-11	L14042008-06	L14042008-07	L14042008-08	L14041918-12	L14042008-09
	Date		4/25/2014	4/25/2014	4/25/2014	4/26/2014	4/26/2014	4/26/2014	4/25/2014	4/26/2014
Analyte	Units	MCL								
Carbon tetrachloride	µg/L	5	0.379 J	0.358 J	<1	<1	<1	<1	<1	0.417 J
Chloroform	µg/L	80	0.283 J	0.293 J	9.14	3.06	<0.3	<0.3	<0.3	0.516
cis-1,2-Dichloroethene	µg/L	70	<1	<1	0.762 J	<1	<1	<1	0.631 J	0.278 J
Tetrachloroethene	µg/L	5	7.89	9.09	3.4	34.7	0.38 J	<1	13.7	27.1
trans-1,2-Dichloroethene	µg/L	100	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5	1.63	1.66	27.7	3.86	9.89	67.9	6.65	4.19
Vinyl chloride	µg/L	2	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	µg/L	7	<1	<1	1.23	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	-	<1	<1	<1 UJ	<1	<1	<1	<1 UJ	<1
1,2-Dichloroethane	µg/L	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acetone	µg/L	-	28.4	25.3	28	26.3	12.6	27.9	39.2	21.4
MEK (2-Butanone)	µg/L	-	<10	<10	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	-	<5	<5	<5	<5	1.07 J	<5	<5	<5
Toluene	µg/L	1000	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	µg/L	-	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

- : Not Listed

MCL: Maximum Contaminant Level

RL: Reporting Limit

<: Analyte not detected above RL

Results above MCL shown in **bold**

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

Methods:

8260B: Volatile Organic Compounds

TABLE 11
MAIN INSTALLATION ANALYTICAL RESULTS SUMMARY, APRIL 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID		MW-204A	MW-204B	MW-205A	MW-205B	MW-206A	MW-206B	MW-207A	MW-207B
	Lab ID		L14041918-13	L14041918-14	L14041918-15	L14041918-16	L14041918-17	L14041918-18	L14041918-19	L14041918-20
	Date		4/25/2014	4/25/2014	4/25/2014	4/25/2014	4/25/2014	4/25/2014	4/25/2014	4/25/2014
Analyte	Units	MCL								
Carbon tetrachloride	µg/L	5	<1	<1	<1	<1	<1	<1	<1	2.48
Chloroform	µg/L	80	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	8.63	4.09
cis-1,2-Dichloroethene	µg/L	70	3.14	2.73	3.42	9.32	2.88	1.85	0.679 J	0.509 J
Tetrachloroethene	µg/L	5	29.9	9.03	24.7	14	19.9	20.2	16.4	65.3
trans-1,2-Dichloroethene	µg/L	100	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5	0.922 J	6.25	8.47	8.32	8.56	6.38	24.7	18.7
Vinyl chloride	µg/L	2	<1	<1	<1	1.17	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	-	<0.5	0.676	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	µg/L	7	<1	<1	<1	<1	<1	<1	1.09	<1
1,2,3-Trichloropropane	µg/L	-	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ
1,2-Dichloroethane	µg/L	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.02
Acetone	µg/L	-	29.8	29.2	37.8	29.9	35.5	25.6	31.7	28.2
MEK (2-Butanone)	µg/L	-	<10	<10	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	-	<5	<5	0.86 J	1.97 J	0.811 J	0.694 J	<5	<5
Toluene	µg/L	1000	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	µg/L	-	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

- : Not Listed

MCL: Maximum Contaminant Level

RL: Reporting Limit

<: Analyte not detected above RL

Results above MCL shown in **bold**

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

Methods:

8260B: Volatile Organic Compounds

TABLE 11
MAIN INSTALLATION ANALYTICAL RESULTS SUMMARY, APRIL 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID		MW-208A	MW-208B	MW-209B	MW-210A	MW-210B	MW-214A	MW-214B	MW-217
	Lab ID		L14041918-21	L14041918-22	L14041918-25	L14042008-10	L14042008-11	L14041918-26	L14041918-27	L14041917-03
	Date		4/25/2014	4/25/2014	4/25/2014	4/26/2014	4/26/2014	4/25/2014	4/25/2014	4/24/2014
Analyte	Units	MCL								
Carbon tetrachloride	µg/L	5	<1	<1	0.439 J	<1	<1	0.877 J	0.925 J	46.9
Chloroform	µg/L	80	<0.3	1.11	0.285 J	<0.3	<0.3	1.93	1.7	3.97
cis-1,2-Dichloroethene	µg/L	70	7.29	0.455 J	<1	2.25	0.808 J	<1	<1	0.833 J
Tetrachloroethene	µg/L	5	19.4	16.3 J	0.298 J	5	3.37	5.62	5.04	23.6
trans-1,2-Dichloroethene	µg/L	100	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5	16.3	9.14 J	29.3	5.07	7.01	1.86	1.66	33
Vinyl chloride	µg/L	2	0.968 J	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	-	<0.5	<0.5 UJ	<0.5	<0.5	<0.5	<0.5	<0.5	0.345 J
1,1-Dichloroethene	µg/L	7	<1	<1 UJ	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	-	<1 UJ	<1 UJ	<1 UJ	<1	<1	<1 UJ	<1 UJ	<1
1,2-Dichloroethane	µg/L	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.339 J
Acetone	µg/L	-	30.9	27.1	25	34.7	34.9	30.5	22	19.4 B
MEK (2-Butanone)	µg/L	-	<10	<10	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	-	0.708 J	<5	<5	0.808 J	<5	0.731 J	0.717 J	<5
Toluene	µg/L	1000	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	µg/L	-	<1	<1	<1	<1	<1	<1	<1	1.46

Notes:

µg/L: micrograms per liter

- : Not Listed

MCL: Maximum Contaminant Level

RL: Reporting Limit

<: Analyte not detected above RL

Results above MCL shown in **bold**

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

Methods:

8260B: Volatile Organic Compounds

TABLE 11
MAIN INSTALLATION ANALYTICAL RESULTS SUMMARY, APRIL 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID		MW-218	MW-219	MW-254	MW-256	MW-258	MW-259	MW-260	MW-261
	Lab ID		L14041918-28	L14042008-12	L14042008-13	L14042008-14	L14041918-29	L14041918-30	L14041918-31	L14041918-32
	Date		4/25/2014	4/26/2014	4/26/2014	4/26/2014	4/25/2014	4/25/2014	4/25/2014	4/25/2014
Analyte	Units	MCL								
Carbon tetrachloride	µg/L	5	7.96	<1	0.987 J	0.506 J	<1	4.95	<1	<1
Chloroform	µg/L	80	2.81	<0.3	0.199 J	2.46	2.22	2.71	1.27	<0.3
cis-1,2-Dichloroethene	µg/L	70	<1	3.09	0.385 J	0.294 J	1.82	<1	0.324 J	<1
Tetrachloroethene	µg/L	5	15.4	66.6	0.901 J	43.5	29.9	15	0.27 J	<1
trans-1,2-Dichloroethene	µg/L	100	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5	34.5	3.89	2.8	13.4	73.9	23.6	5.34	3.36
Vinyl chloride	µg/L	2	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	-	0.931	<0.5	<0.5	<0.5	<0.5	0.317 J	<0.5	<0.5
1,1-Dichloroethene	µg/L	7	0.893 J	<1	<1	<1	0.933 J	<1	2.08	<1
1,2,3-Trichloropropane	µg/L	-	<1 UJ	<1	<1	<1	<1 UJ	<1 UJ	<1	<1
1,2-Dichloroethane	µg/L	5	0.439 J	1.35	<0.5	<0.5	<0.5	3.4	<0.5	<0.5
Acetone	µg/L	-	14.5	8.32 J	14.1	10.4	34.6	16	3.17 J	4.89 J
MEK (2-Butanone)	µg/L	-	<10	<10	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	-	<5	<5	<5	<5	4.18 J	<5	<5	<5
Toluene	µg/L	1000	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	µg/L	-	1.72	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

- : Not Listed

MCL: Maximum Contaminant Level

RL: Reporting Limit

<: Analyte not detected above RL

Results above MCL shown in **bold**

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

Methods:

8260B: Volatile Organic Compounds

TABLE 12
MAIN INSTALLATION PRIMARY CVOC RESULTS, APRIL 2014
ANNUAL LONG TERM MONITORING REPORT - 2014
Defense Depot Memphis Tennessee

VOC Analyte	MCL (µg/L)	Number of Locations with Analyte Above RL	Maximum Concentrations (µg/L)	Location of Maximum Concentration	Number of Locations with Analyte Above MCL
Carbon tetrachloride	5	9	46.9	MW-217	5
Chloroform	80	21	11.5	DR2-1	0
cis-1,2-Dichloroethene	70	26	133	PMW92-02	1
Tetrachloroethene	5	45	179	DR2-1	37
trans-1,2-Dichloroethene	100	0	0.489	MW-100B	0
Trichloroethene	5	47	73.9	MW-258	30
Vinyl chloride	2	7	185	MW-100B	5

Notes:

µg/L micrograms per liter

--: Not Listed

RL: reporting limit

MCL: Maximum Contaminant Level

TABLE 13
MAIN INSTALLATION ANALYTICAL RESULTS SUMMARY, OCTOBER 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID		DR1-1	DR1-1A	DR1-2	DR1-3	DR1-4	DR1-7	DR1-8	DR2-1
	Lab Id		L14101408-01	L14101408-02	L14101408-03	L14101439-04	L14101439-05	L14101439-06	L14101408-04	L14101359-31
	Date		10/18/2014	10/18/2014	10/18/2014	10/19/2014	10/19/2014	10/19/2014	10/18/2014	10/20/2014
Analyte	Units	MCL								
Carbon tetrachloride	µg/L	5	<1	<1	<1	<1	<1	<1	<1	27.9
Chloroform	µg/L	80	<0.3	0.512	0.163 J	<0.3	<0.3	0.128 J	<0.3	11.5
cis-1,2-Dichloroethene	µg/L	70	0.731 J	<1	0.403 J	9.96	0.518 J	<1	<1	7.1
Tetrachloroethene	µg/L	5	1.68	0.418 J	0.947 J	0.716 J	<1	1.23	<1	221
trans-1,2-Dichloroethene	µg/L	100	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5	<1	1.06	<1	1.76	0.795 J	0.267 J	<1	5.4
Vinyl chloride	µg/L	2	<1	<1	<1	<1	<1	<1	<1	0.309 J
1,1,2,2-Tetrachloroethane	µg/L	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	µg/L	-	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	7	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	-	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropane	µg/L	-	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Acetone	µg/L	-	13.1	<10	12.8	4.66 J	10.8 J	<10 UJ	<10	28.3
MEK (2-Butanone)	µg/L	-	<10	<10	<10	<10	<10	<10	<10	19.2
Methyl t-butyl ether (MTBE)	µg/L	-	<5	<5	<5	9.11	3.17 J	<5	<5	<5
Toluene	µg/L	1000	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	µg/L	-	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

- : Not Listed

MCL: Maximum Contaminant Level

RL: Reporting Limit

<: Analyte not detected above RL

Results above MCL shown in **bold**

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

Methods:

8260B: Volatile Organic Compounds

TABLE 13
MAIN INSTALLATION ANALYTICAL RESULTS SUMMARY, OCTOBER 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	DR2-3	DR2-4	DR2-6	PMW92-02	PMW21-03	PMW21-05	PMW101-03A	PMW101-03B
	Lab Id	L14101359-32	L14101359-33	L14101359-34	L14101359-39	L14101408-07	L14101408-08	L14101408-09	L14101408-10
	Date	10/20/2014	10/20/2014	10/20/2014	10/20/2014	10/18/2014	10/18/2014	10/18/2014	10/18/2014
Analyte	Units								
Carbon tetrachloride	µg/L	2.17	2.36	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.496	0.435	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	48.8	119	3.45	0.515 J	29.5	19
Tetrachloroethene	µg/L	11	9.26	<1	0.278 J	87.3	13.5	<1	8.27
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.19	0.783 J	<1	0.345 J	30.3	1.13	<1	3.28
Vinyl chloride	µg/L	<1	<1	16.8	17.1	<1	<1	0.301 J	3.65
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	13.3	<1 UJ	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropane	µg/L	<0.4	<0.4	0.775	<0.4	<0.4	<0.4	<0.4	<0.4
Acetone	µg/L	22.1	<10	18.3	18.5 J	5.11 J	6.68 J	5.6 J	4.27 J
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	19.8	<5	4.98 J	18.2
Toluene	µg/L	<1	<1	1.17	<1	<1	<1	<1	<1
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

- : Not Listed

MCL: Maximum Contaminant Level

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Results above MCL shown in **bold**

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

Methods:

8260B: Volatile Organic Compounds

TABLE 13
MAIN INSTALLATION ANALYTICAL RESULTS SUMMARY, OCTOBER 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	PMW101-06A	PMW101-06B	PZ-03	MW-16	MW-19	MW-22	MW-23	MW-24
	Lab Id	L14101439-20	L14101439-23	L14101470-06	L14101359-50	L14101439-30	L14101408-17	L14101359-28	L14101359-51
	Date	10/19/2014	10/19/2014	10/21/2014	10/20/2014	10/19/2014	10/18/2014	10/20/2014	10/20/2014
Analyte	Units								
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	0.265 J	<0.3	0.452	<0.3	<0.3	0.137 J
cis-1,2-Dichloroethene	µg/L	<1	3.11	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	1.54	20.4	1.72	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.27 J	2.13	9.88	<1	0.883 J	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1 UJ	<1	<1	<1	<1 UJ
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Acetone	µg/L	5.27 J	3.7 J	<10 UJ	<10 UJ	<10 UJ	<10	<10	<10 UJ
MEK (2-Butanone)	µg/L	<10	<10	<10 UJ	<10	<10 UJ	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	4.14 J	15.6	<5	<5	<5	<5	<5	<5
Toluene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	µg/L	<1	<1	0.325 J	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

- : Not Listed

MCL: Maximum Contaminant Level

RL: Reporting Limit

<: Analyte not detected above RL

Results above MCL shown in **bold**

DQE Flags:

B: Blank contamination

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UJ: Estimated Non-Detect

Methods:

8260B: Volatile Organic Compounds

TABLE 13
MAIN INSTALLATION ANALYTICAL RESULTS SUMMARY, OCTOBER 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	MW-25A	MW-26	MW-34	MW-38	MW-39	MW-39A	MW-50	MW-52
	Lab Id	L14101359-52	L14101359-53	L14101439-40	L14101470-13	L14101439-31	L14101439-32	L14101439-41	L14101359-54
	Date	10/20/2014	10/20/2014	10/19/2014	10/21/2014	10/19/2014	10/19/2014	10/19/2014	10/20/2014
Analyte	Units								
Carbon tetrachloride	µg/L	1.12	4.3	0.766 J	<1	<1	<1	<1	<1
Chloroform	µg/L	0.15 J	0.553	0.643	<0.3	<0.3	<0.3	1.19	1.25
cis-1,2-Dichloroethene	µg/L	<1	0.398 J	<1	<1	3.74	5.21	0.756 J	0.574 J
Tetrachloroethene	µg/L	2.03	24.9	1.5	0.262 J	10.1	23.5	0.665 J	6.68
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.489 J	1.13	2.9	<1	7.66	8.01	3.4	1.16
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	1.16	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	0.376 J	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Acetone	µg/L	<10 UJ	22.3	<10 UJ	25.9	21 J	17.1 J	<10 UJ	<10 UJ
MEK (2-Butanone)	µg/L	<10 UJ	<10	<10 UJ	<10	<10 UJ	<10 UJ	<10 UJ	<10 UJ
Methyl t-butyl ether (MTBE)	µg/L	0.544 J	<5	<5	<5	0.843 J	1.4 J	0.731 J	<5
Toluene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

- : Not Listed

MCL: Maximum Contaminant Level

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Results above MCL shown in **bold**

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

Methods:

8260B: Volatile Organic Compounds

TABLE 13
MAIN INSTALLATION ANALYTICAL RESULTS SUMMARY, OCTOBER 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	MW-53	MW-55	MW-63A	MW-63B	MW-64	MW-66A	MW-88	MW-89
	Lab Id	L14101439-42	L14101470-10	L14101470-11	L14101470-12	L14101359-43	L14101439-37	L14101359-44	L14101439-38
	Date	10/19/2014	10/21/2014	10/21/2014	10/21/2014	10/20/2014	10/19/2014	10/20/2014	10/19/2014
Analyte	Units								
Carbon tetrachloride	µg/L	<1	<1	<1	<1	1.91	<1	8.91	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	0.771	0.683	<0.3	1.15	0.17 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	0.273 J	0.434 J	<1	1.7	<1
Tetrachloroethene	µg/L	1.92	<1	2.07	2.23	14.6	2.33	41.7	4.95
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	2.39	2.85	30.1	<1	3.09	1.34
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	0.629 J	<0.5	<0.5	<0.5
1,1-Dichloroethane	µg/L	<1	<1	<1	1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	0.78 J	1.05	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1 UJ	<1	<1 UJ	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	0.255 J	<0.5	<0.5
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Acetone	µg/L	<10 UJ	<10	16.8	18	18.7 J	<10 UJ	6.92 J	<10 UJ
MEK (2-Butanone)	µg/L	<10 UJ	<10	<10	<10	<10	<10 UJ	<10	<10 UJ
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5	<5	<5
Toluene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

- : Not Listed

MCL: Maximum Contaminant Level

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Results above MCL shown in **bold**

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

Methods:

8260B: Volatile Organic Compounds

TABLE 13
MAIN INSTALLATION ANALYTICAL RESULTS SUMMARY, OCTOBER 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	MW-90	MW-92	MW-93	MW-94A	MW-96	MW-97	MW-98	MW-99
	Lab Id	L14101439-39	L14101359-45	L14101359-46	L14101359-23	L14101359-47	L14101359-24	L14101359-25	L14101408-12
	Date	10/19/2014	10/20/2014	10/20/2014	10/20/2014	10/20/2014	10/20/2014	10/20/2014	10/18/2014
Analyte	Units								
Carbon tetrachloride	µg/L	0.267 J	<1	<1	<1	0.839 J	<1	<1	<1
Chloroform	µg/L	1.58	<0.3	<0.3	<0.3	0.242 J	0.249 J	<0.3	0.407
cis-1,2-Dichloroethene	µg/L	0.422 J	30.5	<1	1.31	<1	<1	0.577 J	<1
Tetrachloroethene	µg/L	17.7	76.9	0.414 J	30.8	0.524 J	<1	39.9	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5.71	8.62	<1	8.2	0.301 J	68	2.78	<1
Vinyl chloride	µg/L	<1	9.55	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	0.228 J	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	µg/L	0.822 J	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	0.793 J	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1 UJ	<1 UJ	<1	<1 UJ	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Acetone	µg/L	31.6 J	15.4 J	<10 UJ	23.3	<10 UJ	22.9	21.5	<10
MEK (2-Butanone)	µg/L	<10 UJ	<10	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5	<5	<5
Toluene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	0.263 J	<1	<1	<1

Notes:

µg/L: micrograms per liter

- : Not Listed

MCL: Maximum Contaminant Level

RL: Reporting Limit

<: Analyte not detected above RL

Results above MCL shown in **bold**

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

Methods:

8260B: Volatile Organic Compounds

TABLE 13
MAIN INSTALLATION ANALYTICAL RESULTS SUMMARY, OCTOBER 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	MW-100B	MW-101T	MW-101B	MW-102B	MW-103	MW-104	MW-107T	MW-107B
	Lab Id	L14101408-13	L14101439-29	L14101359-26	L14101408-14	L14101359-48	L14101359-49	L14101359-27	L14101359-02
	Date	10/18/2014	10/19/2014	10/20/2014	10/18/2014	10/20/2014	10/20/2014	10/20/2014	10/20/2014
Analyte	Units								
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	0.317 J
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	7.26	0.205 J	0.227 J	0.306
cis-1,2-Dichloroethene	µg/L	2.85 J	25.9	27.1	<1	0.41 J	0.607 J	<1	<1
Tetrachloroethene	µg/L	1.64 J	4.75	9.48	<1	0.409 J	<1	6.52	6.31
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	1.49	1.57	<1	8.8	14.7	1.49	1.6
Vinyl chloride	µg/L	169	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	2.12	0.845 J	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	2.15	2.33	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1 UJ	<1 UJ	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Acetone	µg/L	7.78 J	8.94 J	10	<10	11.2 J	13.7 J	30.2	26.8
MEK (2-Butanone)	µg/L	<10	49.7 J	46.5	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	26 J	13.6	12.7	<5	<5	<5	<5	<5
Toluene	µg/L	1.85 J	0.256 J	0.285 J	<1	<1	<1	<1	<1
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

- : Not Listed

MCL: Maximum Contaminant Level

RL: Reporting Limit

<: Analyte not detected above RL

Results above MCL shown in **bold**

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

Methods:

8260B: Volatile Organic Compounds

TABLE 13
MAIN INSTALLATION ANALYTICAL RESULTS SUMMARY, OCTOBER 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	MW-108	MW-140	MW-141	MW-142	MW-143	MW-198	MW-199A	MW-199B
	Lab Id	L14101359-03	L14101439-07	L14101439-33	L14101439-08	L14101439-09	L14101439-10	L14101439-11	L14101439-12
	Date	10/20/2014	10/19/2014	10/19/2014	10/19/2014	10/19/2014	10/19/2014	10/19/2014	10/19/2014
Analyte	Units								
Carbon tetrachloride	µg/L	<1	0.27 J	<1	<1	<1	<1	<1	0.29 J
Chloroform	µg/L	10.7	0.159 J	3.13	<0.3	<0.3	<0.3	<0.3	0.157 J
cis-1,2-Dichloroethene	µg/L	0.77 J	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	3.69	3.76	36	<1	0.408 J	<1	<1	0.432 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	31.2	1.19	4.19	6.38	9.52	0.643 J	2.01	74.6
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	µg/L	0.976 J	<1	0.415 J	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	1.49	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Acetone	µg/L	40.2	<10 UJ	29.1 J	11.2 J	5.06 J	<10 UJ	3.01 J	33 J
MEK (2-Butanone)	µg/L	<10	<10	<10 UJ	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	1.64 J	0.895 J	<5	4.84 J	<5
Toluene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

- : Not Listed

MCL: Maximum Contaminant Level

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Results above MCL shown in **bold**

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

Methods:

8260B: Volatile Organic Compounds

TABLE 13
MAIN INSTALLATION ANALYTICAL RESULTS SUMMARY, OCTOBER 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	MW-200	MW-202A	MW-202B	MW-204A	MW-204B	MW-205A	MW-205B	MW-206A
	Lab Id	L14101359-04	L14101439-13	L14101439-14	L14101359-05	L14101359-06	L14101359-07	L14101359-08	L14101359-11
	Date	10/20/2014	10/19/2014	10/19/2014	10/20/2014	10/20/2014	10/20/2014	10/20/2014	10/20/2014
Analyte	Units								
Carbon tetrachloride	µg/L	<1	<1	0.439 J	<1	<1	<1	<1	<1
Chloroform	µg/L	0.136 J	0.206 J	0.521	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	0.351 J	<1	<1	5.84	3.41	3.19	12	3.39
Tetrachloroethene	µg/L	7.91	2.35	22	23.2	7	22	9.64	18.4
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	6.16	1.72	4.06	1.42	7.42	8.83	7.91	8.59
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	1.53	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	0.959	<0.5	<0.5	<0.5
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Acetone	µg/L	24.7	4.72 J	30.3 J	24.2	25.5	25.1	22.5	31.5
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	1.09 J	3.44 J	1.64 J
Toluene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

- : Not Listed

MCL: Maximum Contaminant Level

RL: Reporting Limit

<: Analyte not detected above RL

Results above MCL shown in **bold**

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

Methods:

8260B: Volatile Organic Compounds

TABLE 13
MAIN INSTALLATION ANALYTICAL RESULTS SUMMARY, OCTOBER 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	MW-206B	MW-207A	MW-207B	MW-208A	MW-208B	MW-209A	MW-209B	MW-210A
	Lab Id	L14101359-12	L14101359-13	L14101359-14	L14101359-15	L14101359-16	L14101439-15	L14101439-16	L14101359-17
	Date	10/20/2014	10/20/2014	10/20/2014	10/20/2014	10/20/2014	10/19/2014	10/19/2014	10/20/2014
Analyte	Units								
Carbon tetrachloride	µg/L	<1	<1	2.58	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	10.8	4.17	<0.3	1.19	<0.3	0.156 J	0.128 J
cis-1,2-Dichloroethene	µg/L	2.55	0.671 J	0.452 J	5.4	0.501 J	<1	<1	1.97
Tetrachloroethene	µg/L	17.9	19.6	46.2	19.9	13.6	0.385 J	1.48	4.28
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5.55	27	15	16.4	9.76	6.94	14.8	5.82
Vinyl chloride	µg/L	<1	<1	<1	0.601 J	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	µg/L	<1	0.981 J	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	1.23	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	1.69	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Acetone	µg/L	24.8	39.7	36.8	33.9	33.7	8.75 J	19.6 J	34.1
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	1.09 J	<5	<5	0.917 J	<5	3.53 J	<5	0.819 J
Toluene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

- : Not Listed

MCL: Maximum Contaminant Level

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<: Analyte not detected above RL

Results above MCL shown in **bold**

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

Methods:

8260B: Volatile Organic Compounds

TABLE 13
MAIN INSTALLATION ANALYTICAL RESULTS SUMMARY, OCTOBER 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	MW-210B	MW-211	MW-214A	MW-214B	MW-215A	MW-215B	MW-216	MW-217
	Lab Id	L14101359-18	L14101359-19	L14101470-02	L14101470-03	L14101470-04	L14101470-05	L14101359-20	L14101359-35
	Date	10/20/2014	10/20/2014	10/21/2014	10/21/2014	10/21/2014	10/21/2014	10/20/2014	10/20/2014
Analyte	Units								
Carbon tetrachloride	µg/L	<1	<1	0.85 J	0.902 J	0.946 J	1.4	<1	29.7
Chloroform	µg/L	<0.3	<0.3	2.33	2.06	1.98	0.645	<0.3	3.73
cis-1,2-Dichloroethene	µg/L	0.624 J	<1	<1	<1	<1	<1	<1	0.589 J
Tetrachloroethene	µg/L	2.71	1.2	5.76	5.12	6.19	5.93	<1	23.3
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	11	0.702 J	2.24	2.01	2.71	1.52	0.32 J	36.4
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	0.236 J	0.284 J	<0.5	<0.5	0.272 J
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	0.54 J	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.328 J
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Acetone	µg/L	38.7	6.04 J	29 J	25.7 J	10 J	4.27 J	<10	18.9
MEK (2-Butanone)	µg/L	<10	<10	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	0.715 J	0.654 J	0.96 J	2.19 J	<5	<5
Toluene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1	1.53

Notes:

µg/L: micrograms per liter

- : Not Listed

MCL: Maximum Contaminant Level

RL: Reporting Limit

<: Analyte not detected above RL

Results above MCL shown in **bold**

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

Methods:

8260B: Volatile Organic Compounds

TABLE 13
MAIN INSTALLATION ANALYTICAL RESULTS SUMMARY, OCTOBER 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	MW-218	MW-219	MW-229	MW-252	MW-253	MW-254	MW-255	MW-256
	Lab Id	L14101359-38	L14101439-34	L14101439-35	L14101439-17	L14101439-18	L14101439-19	L14101439-01	L14101439-02
	Date	10/20/2014	10/19/2014	10/19/2014	10/19/2014	10/19/2014	10/19/2014	10/19/2014	10/19/2014
Analyte	Units								
Carbon tetrachloride	µg/L	8.07	<1	<1	<1	<1	0.736 J	<1	0.415 J
Chloroform	µg/L	2.73	<0.3	<0.3	<0.3	<0.3	0.166 J	<0.3	1.88
cis-1,2-Dichloroethene	µg/L	<1	3.07	<1	<1	<1	0.387 J	<1	0.316 J
Tetrachloroethene	µg/L	16	74.7	<1	<1	<1	0.901 J	<1	38
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	32.9	4.14	<1	<1	<1	2.79	0.501 J	11.6
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	0.737 J	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	0.464 J
1,1-Dichloroethene	µg/L	0.932 J	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1 UJ	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	0.455 J	0.994	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Acetone	µg/L	20.6 J	7.42 J	2.94 J	9.09 J	10.7 J	7.96 J	8.6 J	5.48 J
MEK (2-Butanone)	µg/L	<10	<10 UJ	<10 UJ	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5	<5	<5
Toluene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	µg/L	1.86	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

- : Not Listed

MCL: Maximum Contaminant Level

RL: Reporting Limit

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Results above MCL shown in **bold**

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

Methods:

8260B: Volatile Organic Compounds

TABLE 13
MAIN INSTALLATION ANALYTICAL RESULTS SUMMARY, OCTOBER 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	MW-257	MW-258	MW-259	MW-260	MW-261
	Lab Id	L14101439-03	L14101470-01	L14101359-29	L14101359-30	L14101359-01
	Date	10/19/2014	10/21/2014	10/20/2014	10/20/2014	10/20/2014
Analyte	Units					
Carbon tetrachloride	µg/L	<1	<1	4.45	<1	<1
Chloroform	µg/L	<0.3	1.73	2.5	1.18	<0.3
cis-1,2-Dichloroethene	µg/L	<1	1.69	<1	<1	<1
Tetrachloroethene	µg/L	<1	29.7	14.4	0.306 J	0.292 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	50.8	21.4	4.22	2.52
Vinyl chloride	µg/L	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	0.257 J	<0.5	<0.5
1,1-Dichloroethane	µg/L	<1	0.189 J	<1	1.99	<1
1,1-Dichloroethene	µg/L	<1	1.15	<1	1.96	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	2.3	<0.5	<0.5
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4
Acetone	µg/L	<10 UJ	28.8 J	27.9	22	22.9
MEK (2-Butanone)	µg/L	<10	<10 UJ	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	4.16 J	<5	<5	<5
Toluene	µg/L	<1	<1	<1	<1	<1
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

- : Not Listed

MCL: Maximum Contaminant Level

RL: Reporting Limit

<: Analyte not detected above RL

Results above MCL shown in **bold**

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

Methods:

8260B: Volatile Organic Compounds

TABLE 14
 MAIN INSTALLATION PRIMARY CVOC RESULTS, OCTOBER 2014
 ANNUAL LONG TERM MONITORING REPORT - 2014
 Defense Depot Memphis Tennessee

VOC Analyte	MCL (µg/L)	Number of Locations with Analyte Above RL	Maximum Concentrations (µg/L)	Location of Maximum Concentration	Number of Locations with Analyte Above MCL
Carbon tetrachloride	5	12	29.7	MW-217	4
Chloroform	80	32	11.5	DR2-1	0
cis-1,2-Dichloroethene	70	26	119	PMW92-02	1
Tetrachloroethene	5	63	221	DR2-1	43
trans-1,2-Dichloroethene	100	0	<1	-	0
Trichloroethene	5	68	74.6	MW-199B	36
Vinyl chloride	2	7	169	MW-100B	5

Notes:

µg/L micrograms per liter

--: Not Listed

RL: reporting limit

MCL: Maximum Contaminant Level

TABLE 15
DUNN FIELD ANALYTICAL RESULTS SUMMARY, APRIL 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

Analyte	Well ID		MW-03		MW-06	MW-07	MW-08	MW-15	MW-31	MW-44
	Lab ID		L14041888-25		L14041888-26	L14041888-03	L14050112-51	L14041888-04	L14050112-26	L14050112-09
	Date		4/25/2014		4/25/2014	4/25/2014	4/28/2014	4/25/2014	4/26/2014	4/27/2014
	Units	MCL	TC							
1,1,2,2-Tetrachloroethane	µg/L	-	2.2	<0.5	0.201 J	<0.5	<0.5	<0.5	0.273 J	1.37
1,1,2-Trichloroethane	µg/L	5	1.9	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	7	7	1.72	<1	14.6	1.48	<1	4.94	<1
1,2-Dichloroethane	µg/L	5	-	<0.5	<0.5	0.251 J	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	µg/L	5	3	<1	<1	<1	<1	<1	<1	0.584 J
Chloroform	µg/L	80	12	<0.3	4.2	0.22 J	<0.3	1.22	0.183 J	8.1
cis-1,2-Dichloroethene	µg/L	70	35	<1	0.983 J	0.293 J	<1	<1	<1	0.405 J
Tetrachloroethene	µg/L	5	2.5	4.37	<1	35.6	3.65	0.66 J	8.55	<1
trans-1,2-Dichloroethene	µg/L	100	50	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5	5	2.97	0.929 J	28.8	6.09	0.492 J	10.2	4.31
Vinyl chloride	µg/L	2	-	<1	<1	<1	<1	<1	<1	<1
Total Primary CVOCs	µg/L			9.1	6.3	79.8	11.2	2.37	24.1	14.8
1,1,1-Trichloroethane	µg/L	200	-	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	-	-	<1	<1	0.798 J	0.178 J	<1	0.308 J	<1
Acetone	µg/L	-	-	<10	<10	4.51 J	<10	<10	26.3	3.18 JB

Notes:

µg/L: micrograms per liter

- : Not Listed

MCL: Maximum Contaminant Level

TC: Target Concentration

RL: Reporting Limit

<: Analyte not detected above RL

Results above MCL or TC shown in **bold**

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

Methods:

8260B: Volatile Organic Compounds

TABLE 15
DUNN FIELD ANALYTICAL RESULTS SUMMARY, APRIL 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID			MW-54	MW-57	MW-68	MW-69	MW-70	MW-71	MW-76
	Lab ID			L14050112-27	L14041888-05	L14050112-30	L14041888-06	L14041888-07	L14041888-08	L14050112-31
	Date			4/26/2014	4/25/2014	4/26/2014	4/25/2014	4/25/2014	4/25/2014	4/26/2014
Analyte	Units	MCL	TC							
1,1,2,2-Tetrachloroethane	µg/L	-	2.2	2.11	<0.5	<0.5	<0.5	<0.5	0.362 J	<0.5
1,1,2-Trichloroethane	µg/L	5	1.9	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	7	7	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	µg/L	5	3	<1	<1	<1	<1	<1	0.445 J	<1
Chloroform	µg/L	80	12	0.196 J	1.71	<0.3	0.182 J	0.187 J	7.05	<0.3
cis-1,2-Dichloroethene	µg/L	70	35	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	5	2.5	0.464 J	<1	<1	<1	0.562 J	0.323 J	<1
trans-1,2-Dichloroethene	µg/L	100	50	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5	5	6.51	1.03	<1	<1	0.378 J	2.47	<1
Vinyl chloride	µg/L	2	-	<1	<1	<1	<1	<1	<1	<1
Total Primary CVOCs	µg/L			9.3	2.7	0.0	0.2	1.1	10.7	0.0
1,1,1-Trichloroethane	µg/L	200	-	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	-	-	<1	<1	<1	<1	<1	<1	<1
Acetone	µg/L	-	-	26.6 J	<10	<10	<10	<10	<10	<10

Notes:

µg/L: micrograms per liter

- : Not Listed

MCL: Maximum Contaminant Level

TC: Target Concentration

RL: Reporting Limit

<: Analyte not detected above RL

Results above MCL or TC shown in **bold**

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

Methods:

8260B: Volatile Organic Compounds

TABLE 15
DUNN FIELD ANALYTICAL RESULTS SUMMARY, APRIL 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID			MW-77	MW-79	MW-87	MW-91	MW-129	MW-130	MW-134
	Lab ID			L14050112-32	L14050112-55	L14041888-09	L14041888-10	L14050112-52	L14050112-53	L14041888-11
	Date			4/26/2014	4/28/2014	4/25/2014	4/25/2014	4/28/2014	4/28/2014	4/25/2014
Analyte	Units	MCL	TC							
1,1,2,2-Tetrachloroethane	µg/L	-	2.2	4.54	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	5	1.9	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	7	7	<1	3.27	<1	<1	13.2	22.6	<1
1,2-Dichloroethane	µg/L	5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.329 J	<0.5
Carbon tetrachloride	µg/L	5	3	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	80	12	0.188 J	<0.3	19.3	0.301	<0.3	0.219 J	0.138 J
cis-1,2-Dichloroethene	µg/L	70	35	<1	<1	2.01	<1	<1	0.718 J	<1
Tetrachloroethene	µg/L	5	2.5	0.47 J	5.07	0.273 J	<1	16.2	60.6	0.603 J
trans-1,2-Dichloroethene	µg/L	100	50	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5	5	9.64	3.66	2.74	<1	12.5	58.8	<1
Vinyl chloride	µg/L	2	-	<1	<1	<1	<1	<1	<1	<1
Total Primary CVOCs	µg/L			14.8	12.0	24.3	0.3	41.9	143	0.7
1,1,1-Trichloroethane	µg/L	200	-	<1	<1	<1	<1	0.462 J	1.43	<1
1,1-Dichloroethane	µg/L	-	-	<1	<1	<1	<1	1.21	1.29	<1
Acetone	µg/L	-	-	7.54 J	33.7	<10	<10	<10	4.74 J	<10

Notes:

µg/L: micrograms per liter

- : Not Listed

MCL: Maximum Contaminant Level

TC: Target Concentration

RL: Reporting Limit

<: Analyte not detected above RL

Results above MCL or TC shown in **bold**

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

Methods:

8260B: Volatile Organic Compounds

TABLE 15
DUNN FIELD ANALYTICAL RESULTS SUMMARY, APRIL 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID			MW-144	MW-145	MW-147	MW-148	MW-149	MW-150	MW-151
	Lab ID			L14050112-33	L14050112-34	L14050112-35	L14042010-01	L14050112-36	L14050112-37	L14050112-10
	Date			4/26/2014	4/26/2014	4/26/2014	4/26/2014	4/26/2014	4/26/2014	4/27/2014
Analyte	Units	MCL	TC							
1,1,2,2-Tetrachloroethane	µg/L	-	2.2	12.2	<0.5	<0.5	<0.5	1.54	7.72	1.36
1,1,2-Trichloroethane	µg/L	5	1.9	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	7	7	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	µg/L	5	3	<1	0.33 J	<1	<1	<1	<1	0.396 J
Chloroform	µg/L	80	12	0.36	0.666	0.136 J	0.137 J	3.45	0.473	6.45
cis-1,2-Dichloroethene	µg/L	70	35	0.737 J	<1	<1	<1	0.594 J	0.366 J	0.299 J
Tetrachloroethene	µg/L	5	2.5	0.686 J	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	100	50	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5	5	30.2	0.438 J	<1	<1	1.58	16.3	2.85
Vinyl chloride	µg/L	2	-	<1	<1	<1	<1	<1	<1	<1
Total Primary CVOCs	µg/L			44.2	1.4	0.1	0.1	7.2	24.9	11.4
1,1,1-Trichloroethane	µg/L	200	-	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	-	-	<1	<1	<1	<1	<1	<1	<1
Acetone	µg/L	-	-	26.5 J	<10	<10	<10	29.6 J	29.2 J	37 B

Notes:

µg/L: micrograms per liter

- : Not Listed

MCL: Maximum Contaminant Level

TC: Target Concentration

RL: Reporting Limit

<: Analyte not detected above RL

Results above MCL or TC shown in **bold**

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

Methods:

8260B: Volatile Organic Compounds

TABLE 15
DUNN FIELD ANALYTICAL RESULTS SUMMARY, APRIL 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID			MW-152	MW-155	MW-157	MW-158	MW-158A	MW-159	MW-160
	Lab ID			L14050112-03	L14050112-38	L14050112-39	L14050112-13	L14050112-14	L14050112-15	L14051048-02
	Date			4/27/2014	4/26/2014	4/26/2014	4/27/2014	4/27/2014	4/27/2014	5/13/2014
Analyte	Units	MCL	TC							
1,1,2,2-Tetrachloroethane	µg/L	-	2.2	<0.5	0.461 J	<0.5	0.959	<0.5	20.3	<0.5
1,1,2-Trichloroethane	µg/L	5	1.9	<1	<1	<1	<1	<1	5.12	<1
1,1-Dichloroethene	µg/L	7	7	<1	<1	<1	<1	<1	3.68	<1
1,2-Dichloroethane	µg/L	5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	µg/L	5	3	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	80	12	<0.3	<0.3	0.66	0.137 J	<0.3	0.18 J	<0.3
cis-1,2-Dichloroethene	µg/L	70	35	<1	<1	0.456 J	<1	<1	33.4	<1
Tetrachloroethene	µg/L	5	2.5	<1	0.332 J	<1	<1	<1	0.863 J	<1
trans-1,2-Dichloroethene	µg/L	100	50	<1	<1	<1	<1	<1	4.36	<1
Trichloroethene	µg/L	5	5	0.604 JB	0.838 J	0.955 J	3.16	0.391 JB	216	<1
Vinyl chloride	µg/L	2	-	<1	<1	<1	<1	<1	11.9	<1
Total Primary CVOCs	µg/L			0.6	1.6	2.1	4.3	0.4	296	0.0
1,1,1-Trichloroethane	µg/L	200	-	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	-	-	<1	<1	<1	<1	<1	<1	<1
Acetone	µg/L	-	-	<10	2.98 J	23 J	4.78 JB	<10	26.1 B	3.04 J

Notes:

µg/L: micrograms per liter

- : Not Listed

MCL: Maximum Contaminant Level

TC: Target Concentration

RL: Reporting Limit

<: Analyte not detected above RL

Results above MCL or TC shown in **bold**

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

Methods:

8260B: Volatile Organic Compounds

TABLE 15
DUNN FIELD ANALYTICAL RESULTS SUMMARY, APRIL 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID			MW-163	MW-164	MW-165	MW-165A	MW-166	MW-166A	MW-174
	Lab ID			L14050112-40	L14050112-41	L14050112-04	L14050112-56	L14050112-42	L14050112-43	L14041888-12
	Date			4/26/2014	4/26/2014	4/27/2014	4/28/2014	4/26/2014	4/26/2014	4/25/2014
Analyte	Units	MCL	TC							
1,1,2,2-Tetrachloroethane	µg/L	-	2.2	6.79	0.305 J	<0.5	0.204 J	1.95	0.926	<0.5
1,1,2-Trichloroethane	µg/L	5	1.9	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	7	7	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	µg/L	5	3	<1	0.596 J	<1	<1	<1	<1	<1
Chloroform	µg/L	80	12	0.156 J	2.26	<0.3	0.721	4.34	2.68	<0.3
cis-1,2-Dichloroethene	µg/L	70	35	0.433 J	0.536 J	<1	<1	0.92 J	0.313 J	<1
Tetrachloroethene	µg/L	5	2.5	0.566 J	<1	<1	<1	0.288 J	<1	<1
trans-1,2-Dichloroethene	µg/L	100	50	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5	5	13.8	3.08	1.29 B	0.963 J	2.53	1	<1
Vinyl chloride	µg/L	2	-	<1	<1	<1	<1	<1	<1	<1
Total Primary CVOCs	µg/L			21.7	6.8	1.3	1.9	10.0	4.9	0.0
1,1,1-Trichloroethane	µg/L	200	-	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	-	-	<1	<1	<1	<1	<1	<1	<1
Acetone	µg/L	-	-	23.4 J	27.6 J	9.94 JB	<10	30.5 J	28 J	<10

Notes:

µg/L: micrograms per liter

- : Not Listed

MCL: Maximum Contaminant Level

TC: Target Concentration

RL: Reporting Limit

<: Analyte not detected above RL

Results above MCL or TC shown in **bold**

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

Methods:

8260B: Volatile Organic Compounds

TABLE 15
DUNN FIELD ANALYTICAL RESULTS SUMMARY, APRIL 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID			MW-176	MW-180	MW-182	MW-184	MW-190	MW-220	MW-221
	Lab ID			L14041888-13	L14041888-14	L14051048-03	L14050112-44	L14050112-45	L14041888-15	L14041888-16
	Date			4/25/2014	4/25/2014	5/13/2014	4/26/2014	4/26/2014	4/25/2014	4/25/2014
Analyte	Units	MCL	TC							
1,1,2,2-Tetrachloroethane	µg/L	-	2.2	<0.5	<0.5	<0.5	<0.5	4.77	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	5	1.9	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	7	7	<1	<1	<1	<1	<1	3.19	<1
1,2-Dichloroethane	µg/L	5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	µg/L	5	3	<1	<1	<1	1.01	<1	<1	<1
Chloroform	µg/L	80	12	0.193 J	<0.3	<0.3	2.67	0.463	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	70	35	<1	<1	<1	0.528 J	<1	<1	<1
Tetrachloroethene	µg/L	5	2.5	0.334 J	<1	<1	0.355 J	0.615 J	3.51	<1
trans-1,2-Dichloroethene	µg/L	100	50	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5	5	<1	<1	<1	1.61	12.4	6.01	<1
Vinyl chloride	µg/L	2	-	<1	<1	<1	<1	<1	<1	<1
Total Primary CVOCs	µg/L			0.5	0.0	0.0	6.2	18.2	12.7	0.0
1,1,1-Trichloroethane	µg/L	200	-	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	-	-	<1	<1	<1	<1	<1	<1	<1
Acetone	µg/L	-	-	<10	<10	<10	26.9 J	31.6	16.5	<10

Notes:

µg/L: micrograms per liter

- : Not Listed

MCL: Maximum Contaminant Level

TC: Target Concentration

RL: Reporting Limit

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Results above MCL or TC shown in **bold**

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

Methods:

8260B: Volatile Organic Compounds

TABLE 15
DUNN FIELD ANALYTICAL RESULTS SUMMARY, APRIL 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID			MW-222	MW-223	MW-224	MW-225	MW-226	MW-227	MW-228
	Lab ID			L14041888-17	L14041888-18	L14041888-19	L14041888-20	L14041888-21	L14041888-22	L14041888-23
	Date			4/25/2014	4/25/2014	4/25/2014	4/25/2014	4/25/2014	4/25/2014	4/25/2014
Analyte	Units	MCL	TC							
1,1,2,2-Tetrachloroethane	µg/L	-	2.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	5	1.9	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	7	7	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	µg/L	5	3	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	80	12	<0.3	0.395	0.137 J	0.26 J	<0.3	0.253 J	<0.3
cis-1,2-Dichloroethene	µg/L	70	35	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	5	2.5	<1	0.448 J	<1	0.515 J	<1	0.288 J	<1
trans-1,2-Dichloroethene	µg/L	100	50	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5	5	<1	<1	<1	<1	<1	0.358 J	<1
Vinyl chloride	µg/L	2	-	<1	<1	<1	<1	<1	<1	<1
Total Primary CVOCs	µg/L			0.0	0.8	0.1	0.8	0.0	0.9	0.0
1,1,1-Trichloroethane	µg/L	200	-	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	-	-	<1	<1	<1	<1	<1	<1	<1
Acetone	µg/L	-	-	20.8	<10	<10	<10	<10	<10	<10

Notes:

µg/L: micrograms per liter

- : Not Listed

MCL: Maximum Contaminant Level

TC: Target Concentration

RL: Reporting Limit

<: Analyte not detected above RL

Results above MCL or TC shown in **bold**

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

Methods:

8260B: Volatile Organic Compounds

TABLE 15
DUNN FIELD ANALYTICAL RESULTS SUMMARY, APRIL 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID			MW-230	MW-235	MW-237	MW-241	MW-242	MW-243	MW-244
	Lab ID			L14041888-24	L14050112-48	L14050112-16	L14042010-02	L14050112-49	L14050112-05	L14050112-06
	Date			4/25/2014	4/26/2014	4/27/2014	4/26/2014	4/26/2014	4/27/2014	4/27/2014
Analyte	Units	MCL	TC							
1,1,2,2-Tetrachloroethane	µg/L	-	2.2	<0.5	<0.5	<0.5	<0.5	1.31	2.04	<0.5
1,1,2-Trichloroethane	µg/L	5	1.9	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	7	7	14.8	<1	2.83	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	µg/L	5	3	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	80	12	0.307	<0.3	<0.3	<0.3	0.142 J	<0.3	0.233 J
cis-1,2-Dichloroethene	µg/L	70	35	0.651 J	<1	0.349 J	<1	<1	<1	<1
Tetrachloroethene	µg/L	5	2.5	42.8	<1	<1	<1	<1	<1	0.427 J
trans-1,2-Dichloroethene	µg/L	100	50	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5	5	63.7	<1	<1	0.748 J	0.641 J	3.36	<1
Vinyl chloride	µg/L	2	-	<1	<1	<1	<1	<1	<1	<1
Total Primary CVOCs	µg/L			122.3	0.0	3.2	0.7	2.1	5.4	0.7
1,1,1-Trichloroethane	µg/L	200	-	0.445 J	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	-	-	1.16	<1	0.306 J	<1	<1	<1	<1
Acetone	µg/L	-	-	5.95 J	<10	3.54 JB	2.87 J	<10	<10	15.8 B

Notes:

µg/L: micrograms per liter

- : Not Listed

MCL: Maximum Contaminant Level

TC: Target Concentration

RL: Reporting Limit

<: Analyte not detected above RL

Results above MCL or TC shown in **bold**

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

Methods:

8260B: Volatile Organic Compounds

TABLE 15
DUNN FIELD ANALYTICAL RESULTS SUMMARY, APRIL 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID			MW-245	MW-246	MW-247	MW-248	MW-249	MW-250	MW-251
	Lab ID			L14042010-03	L14050112-07	L14050112-17	L14050112-20	L14050112-21	L14050112-22	L14050112-23
	Date			4/26/2014	4/27/2014	4/27/2014	4/27/2014	4/26/2014	4/26/2014	4/26/2014
Analyte	Units	MCL	TC							
1,1,2,2-Tetrachloroethane	µg/L	-	2.2	<0.5	12.9	0.273 J	<0.5	1.52	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	5	1.9	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	7	7	<1	<1	<1	<1	<1	<1	3.86
1,2-Dichloroethane	µg/L	5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	µg/L	5	3	<1	<1	<1	<1	1.62	<1	<1
Chloroform	µg/L	80	12	<0.3	0.618	1.15	<0.3	10.4	<0.3	0.373
cis-1,2-Dichloroethene	µg/L	70	35	<1	0.599 J	<1	<1	0.358 J	<1	<1
Tetrachloroethene	µg/L	5	2.5	<1	0.262 J	<1	<1	0.542 J	<1	0.526 J
trans-1,2-Dichloroethene	µg/L	100	50	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5	5	<1	37.3	2.89	<1	6.12	<1	<1
Vinyl chloride	µg/L	2	-	<1	<1	<1	<1	<1	<1	<1
Total Primary CVOCs	µg/L			0.0	51.7	4.3	0.0	20.6	0.0	4.8
1,1,1-Trichloroethane	µg/L	200	-	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	-	-	<1	<1	<1	<1	<1	<1	0.593 J
Acetone	µg/L	-	-	<10	<10	<10	<10	27.6	3.51 J	3.07 J

Notes:

µg/L: micrograms per liter

- : Not Listed

MCL: Maximum Contaminant Level

TC: Target Concentration

RL: Reporting Limit

<: Analyte not detected above RL

Results above MCL or TC shown in **bold**

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

Methods:

8260B: Volatile Organic Compounds

TABLE 16
DUNN FIELD PRIMARY CVOC RESULTS, APRIL 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

VOC Analyte	MCL (µg/L)	TC (µg/L)	Number of Locations with Analyte Above RL	Maximum Concentrations (µg/L)	Location of Maximum Concentration	Number of Locations with Analyte Above MCL	Number of Locations with Analyte Above TC
1,1,2,2-Tetrachloroethane	--	2.2	17	20.3	MW-159	--	7
1,1,2-Trichloroethane	5	1.9	1	5.12	MW-159	1	1
1,1-Dichloroethene	7	7	12	22.6	MW-130	4	4
1,2-Dichloroethane	5	--	0	0.329	MW-130	0	--
Carbon tetrachloride	5	3	2	1.62	MW-249	0	0
Chloroform	80	12	25	19.3	MW-87	0	1
cis-1,2-Dichloroethene	70	35	2	33.4	MW-159	0	0
Tetrachloroethene	5	2.5	9	60.6	MW-130	6	9
trans-1,2-Dichloroethene	100	50	1	4.36	MW-159	0	0
Trichloroethene	5	5	32	216	MW-159	16	16
Vinyl chloride	2	--	1	11.9	MW-159	1	--

Notes:

µg/L micrograms per liter

--: Not Listed

RL: reporting limit

MCL: Maximum Contaminant Level

TC: Target Concentration

TABLE 17
DUNN FIELD ANALYTICAL RESULTS SUMMARY, OCTOBER 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID			MW-03	MW-06	MW-31	MW-44	MW-54	MW-77	MW-79	MW-87
	Lab ID			L14101409-01	L14101409-02	L14101401-01	L14101401-02	L14101401-03	L14101401-04	L14101409-03	L14101409-04
	Date			10/18/2014	10/18/2014	10/19/2014	10/19/2014	10/19/2014	10/19/2014	10/18/2014	10/18/2014
Analyte	Units	MCL	TC								
1,1,2,2-Tetrachloroethane	µg/L	-	2.2	<0.5	<0.5	<0.5	0.914	2.53	1.76	<0.5	0.671
1,1,2-Trichloroethane	µg/L	5	1.9	<1	<1	<1	<1	<1	<1	<1	0.287 J
1,1-Dichloroethene	µg/L	7	7	2.63	<1	<1	<1	<1	<1	2.2	<1
1,2-Dichloroethane	µg/L	5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	µg/L	5	3	<1	<1	<1	0.361 J	<1	<1	<1	<1
Chloroform	µg/L	80	12	<0.3	9.05	<0.3	6.38	0.255 J	0.21 J	<0.3	56.2 J
cis-1,2-Dichloroethene	µg/L	70	35	<1	3.59	<1	<1	0.274 J	<1	<1	6.71
Tetrachloroethene	µg/L	5	2.5	3.65	<1	<1	<1	0.497 J	0.623 J	3.59	0.379 J
trans-1,2-Dichloroethene	µg/L	100	50	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5	5	4.33	1.32	<1	3.11	10	6.03	2.95	4.16
Vinyl chloride	µg/L	2	-	<1	<1	<1	<1	<1	<1	<1	<1
Total Primary CVOCs	µg/L			10.61	13.96	0.00	10.77	13.56	8.62	8.74	68.41
Acetone	µg/L	-	-	20.1	19.3	6.82 J	6.43 J	6.89 J	16.1	6.22 J	21.6

Notes:

µg/L: micrograms per liter

- : Not Listed

MCL: Maximum Contaminant Level

TC: Target Concentration

RL: Reporting Limit

<: Analyte not detected above RL

Results above MCL or TC shown in **bold**

DQE Flags:

J: Estimated

UJ: Estimated Non-Detect

Methods:

8260B: Volatile Organic Compounds

TABLE 17
DUNN FIELD ANALYTICAL RESULTS SUMMARY, OCTOBER 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID			MW-134	MW-144	MW-149	MW-150	MW-151	MW-159	MW-163	MW-164
	Lab ID			L14101401-05	L14101401-06	L14101409-07	L14101409-08	L14101401-07	L14101401-08	L14101401-09	L14101401-10
	Date			10/19/2014	10/19/2014	10/18/2014	10/18/2014	10/19/2014	10/19/2014	10/19/2014	10/19/2014
Analyte	Units	MCL	TC								
1,1,2,2-Tetrachloroethane	µg/L	-	2.2	<0.5	9.02	1.01	0.795	0.96	13.7 J	0.291 J	<0.5
1,1,2-Trichloroethane	µg/L	5	1.9	<1	<1	<1	<1	<1	4.02	<1	<1
1,1-Dichloroethene	µg/L	7	7	<1	<1	<1	<1	<1	3.78	<1	<1
1,2-Dichloroethane	µg/L	5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	µg/L	5	3	<1	<1	<1	<1	0.328 J	<1	<1	0.36 J
Chloroform	µg/L	80	12	<0.3	0.262 J	3.96	<0.3	5.38	0.149 J	<0.3	1.4
cis-1,2-Dichloroethene	µg/L	70	35	<1	0.758 J	0.9 J	<1	0.252 J	31.4	<1	0.383 J
Tetrachloroethene	µg/L	5	2.5	0.385 J	0.466 J	0.262 J	<1	<1	0.832 J	0.5 J	<1
trans-1,2-Dichloroethene	µg/L	100	50	<1	<1	<1	<1	<1	3.9	<1	<1
Trichloroethene	µg/L	5	5	<1	33.2	1.92	2.29	2.65	216	1.83	2.49
Vinyl chloride	µg/L	2	-	<1	<1	<1	<1	<1	8.83	<1	<1
Total Primary CVOCs	µg/L			0.39	43.71	8.05	3.09	9.57	282.61	2.62	4.63
Acetone	µg/L	-	-	15.6	17.4	7.89 J	8.03 J	10.7	6.59 J	18.4	17.3

Notes:

µg/L: micrograms per liter

- : Not Listed

MCL: Maximum Contaminant Level

TC: Target Concentration

RL: Reporting Limit

<: Analyte not detected above RL

Results above MCL or TC shown in **bold**

DQE Flags:

J: Estimated

UJ: Estimated Non-Detect

Methods:

8260B: Volatile Organic Compounds

TABLE 17
DUNN FIELD ANALYTICAL RESULTS SUMMARY, OCTOBER 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID			MW-165	MW-165A	MW-166	MW-166A	MW-174	MW-184	MW-190	MW-220
	Lab ID			L14101401-11	L14101401-12	L14101401-13	L14101401-14	L14101409-09	L14101401-15	L14101401-16	L14101409-10
	Date			10/19/2014	10/19/2014	10/19/2014	10/19/2014	10/18/2014	10/19/2014	10/19/2014	10/18/2014
Analyte	Units	MCL	TC								
1,1,2,2-Tetrachloroethane	µg/L	-	2.2	0.729	0.595	1.12	0.539	<0.5	0.211 J	4.55	<0.5
1,1,2-Trichloroethane	µg/L	5	1.9	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	7	7	<1	<1	<1	<1	<1	<1	<1	3.18
1,2-Dichloroethane	µg/L	5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	µg/L	5	3	<1	<1	<1	0.325 J	<1	0.958 J	<1	<1
Chloroform	µg/L	80	12	0.326	0.84	3.52	4.6	<0.3	3.17	0.256 J	<0.3
cis-1,2-Dichloroethene	µg/L	70	35	<1	<1	0.922 J	0.547 J	<1	0.633 J	<1	<1
Tetrachloroethene	µg/L	5	2.5	<1	<1	0.313 J	0.391 J	<1	0.429 J	0.752 J	4.19
trans-1,2-Dichloroethene	µg/L	100	50	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5	5	6.25	2.73	2.15	2.03	<1	1.99	12.3	6.57
Vinyl chloride	µg/L	2	-	<1	<1	<1	<1	<1	<1	<1	<1
Total Primary CVOCs	µg/L			7.31	4.17	8.03	8.43	0.00	7.39	17.86	13.94
Acetone	µg/L	-	-	7.86 J	9 J	10.6	7.03 J	16	17.4	17.9	20.7

Notes:

µg/L: micrograms per liter

- : Not Listed

MCL: Maximum Contaminant Level

TC: Target Concentration

RL: Reporting Limit

<: Analyte not detected above RL

Results above MCL or TC shown in **bold**

DQE Flags:

J: Estimated

UJ: Estimated Non-Detect

Methods:

8260B: Volatile Organic Compounds

TABLE 17
DUNN FIELD ANALYTICAL RESULTS SUMMARY, OCTOBER 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID			MW-221	MW-222	MW-223	MW-224	MW-225	MW-226	MW-227	MW-228
	Lab ID			L14101409-11	L14101409-12	L14101409-13	L14101409-14	L14101409-15	L14101409-18	L14101409-19	L14101409-20
	Date			10/18/2014	10/18/2014	10/18/2014	10/18/2014	10/18/2014	10/18/2014	10/18/2014	10/18/2014
Analyte	Units	MCL	TC								
1,1,2,2-Tetrachloroethane	µg/L	-	2.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	5	1.9	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	7	7	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	µg/L	5	3	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	80	12	<0.3	<0.3	0.244 J	0.157 J	0.219 J	0.273 J	0.588	<0.3
cis-1,2-Dichloroethene	µg/L	70	35	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	5	2.5	<1	<1	<1	<1	0.417 J	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	100	50	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5	5	<1	0.276 J	<1	<1	<1	<1	0.496 J	<1
Vinyl chloride	µg/L	2	-	<1	<1	<1	<1	<1	<1	<1	<1
Total Primary CVOCs	µg/L			0.00	0.28	0.24	0.16	0.64	0.27	1.08	0.00
Acetone	µg/L	-	-	16.9	14.9	19	12.7	16.1 J	18.7	11.1	16.4

Notes:

µg/L: micrograms per liter

- : Not Listed

MCL: Maximum Contaminant Level

TC: Target Concentration

RL: Reporting Limit

<: Analyte not detected above RL

Results above MCL or TC shown in **bold**

DQE Flags:

J: Estimated

UJ: Estimated Non-Detect

Methods:

8260B: Volatile Organic Compounds

TABLE 17
DUNN FIELD ANALYTICAL RESULTS SUMMARY, OCTOBER 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID			MW-243	MW-244	MW-245	MW-246	MW-247	MW-249
	Lab ID			L14101401-17	L14101401-18	L14101401-19	L14101401-20	L14101401-21	L14101401-22
	Date			10/19/2014	10/19/2014	10/19/2014	10/19/2014	10/19/2014	10/19/2014
Analyte	Units	MCL	TC						
1,1,2,2-Tetrachloroethane	µg/L	-	2.2	2.61	<0.5	0.423 J	9.63	0.399 J	1.4
1,1,2-Trichloroethane	µg/L	5	1.9	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	7	7	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	µg/L	5	3	<1	<1	<1	<1	<1	1.59
Chloroform	µg/L	80	12	0.151 J	1.47	0.144 J	1.5	1.58	12.9
cis-1,2-Dichloroethene	µg/L	70	35	<1	<1	<1	0.471 J	0.495 J	0.35 J
Tetrachloroethene	µg/L	5	2.5	0.296 J	0.486 J	0.351 J	<1	<1	0.574 J
trans-1,2-Dichloroethene	µg/L	100	50	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5	5	5.01	<1	1.12	28.5	1.68	6.73
Vinyl chloride	µg/L	2	-	<1	<1	<1	<1	<1	<1
Total Primary CVOCs	µg/L			8.07	1.96	2.04	40.10	4.15	23.54
Acetone	µg/L	-	-	13.1	9.07 J	7.63 J	<10 UJ	5.1 J	8.03 J

Notes:

µg/L: micrograms per liter

- : Not Listed

MCL: Maximum Contaminant Level

TC: Target Concentration

RL: Reporting Limit

<: Analyte not detected above RL

Results above MCL or TC shown in **bold**

DQE Flags:

J: Estimated

UJ: Estimated Non-Detect

Methods:

8260B: Volatile Organic Compounds

TABLE 18
DUNN FIELD PRIMARY CVOC RESULTS, OCTOBER 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

VOC Analyte	MCL (µg/L)	TC (µg/L)	Number of Locations with Analyte Above RL	Maximum Concentrations (µg/L)	Location of Maximum Concentration	Number of Locations with Analyte Above MCL	Number of Locations with Analyte Above TC
1,1,2,2-Tetrachloroethane	--	2.2	17	13.7	MW-159	--	6
1,1,2-Trichloroethane	5	1.9	1	4.02	MW-159	0	1
1,1-Dichloroethene	7	7	4	3.78	MW-159	0	0
1,2-Dichloroethane	5	--	0	<0.5	--	0	--
Carbon tetrachloride	5	3	1	1.59	MW-249	0	0
Chloroform	80	12	16	56.2	MW-87	0	2
cis-1,2-Dichloroethene	70	35	3	31.4	MW-159	0	0
Tetrachloroethene	5	2.5	3	4.19	MW-220	0	3
trans-1,2-Dichloroethene	100	50	1	3.9	MW-159	0	0
Trichloroethene	5	5	26	216	MW-159	10	10
Vinyl chloride	2	--	1	8.83	MW-159	1	--

Notes:

µg/L micrograms per liter

--: Not Listed

RL: reporting limit

MCL: Maximum Contaminant Level

TC: Target Concentration

TABLE 19
MAIN INSTALLATION LTM WELLS EXCEEDING MCL
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

Well ID	Area	Analyte MCL Date	PCE 5 µg/L	TCE 5 µg/L	cDCE 70 µg/L	VC 2 µg/L	CT 5 µg/L
MW-219	Boundary	10/19/2014	74.7	-	-	-	-
MW-207B	Sentinel	10/20/2014	46.2	15	-	-	-
MW-256	Sentinel	10/19/2014	38	11.6	-	-	-
MW-141	Sentinel	10/19/2014	36	-	-	-	-
MW-108	Sentinel	10/20/2014	-	31.2	-	-	-
MW-207A	Sentinel	10/20/2014	19.6	27	-	-	-
MW-202B	Sentinel	10/19/2014	22	-	-	-	-
MW-90	Sentinel	10/19/2014	17.7	5.71	-	-	-
MW-209A	Sentinel	10/19/2014	-	6.94	-	-	-
MW-107T	Sentinel	10/20/2014	6.52	-	-	-	-
MW-107B	Sentinel	10/20/2014	6.31	-	-	-	-
MW-210A	Sentinel	10/20/2014	-	5.82	-	-	-
MW-100B	TTA-1N	10/18/2014	-	-	-	169	-
PMW21-03	TTA-1N	10/18/2014	87.3	30.3	-	-	-
PMW21-05	TTA-1N	10/18/2014	13.5	-	-	-	-
PMW101-06B	TTA-1S	10/19/2014	20.4	-	-	-	-
MW-101B	TTA-1S	10/20/2014	9.48	-	-	-	-
PMW101-03B	TTA-1S	10/18/2014	8.27	-	-	3.65	-
DR2-1	TTA-2	10/20/2014	221	5.4	-	-	27.9
PMW92-02	TTA-2	10/20/2014	-	-	119	17.1	-
MW-92	TTA-2	10/20/2014	76.9	8.62	-	9.55	-
MW-88	TTA-2	10/20/2014	41.7	-	-	-	8.91
MW-217	TTA-2	10/20/2014	23.3	36.4	-	-	29.7
MW-218	TTA-2	10/20/2014	16	32.9	-	-	8.07
MW-64	TTA-2	10/20/2014	14.6	30.1	-	-	-
MW-26	TTA-2	10/20/2014	24.9	-	-	-	-
MW-259	TTA-2	10/20/2014	14.4	21.4	-	-	-
DR2-6	TTA-2	10/20/2014	-	-	-	16.8	-
DR2-3	TTA-2	10/20/2014	11	-	-	-	-
DR2-4	TTA-2	10/20/2014	9.26	-	-	-	-
MW-98	West-Central	10/20/2014	39.9	-	-	-	-
MW-94A	West-Central	10/20/2014	30.8	8.2	-	-	-
MW-39A	West-Central	10/19/2014	23.5	8.01	-	-	-
MW-204A	West-Central	10/20/2014	23.2	-	-	-	-
MW-205A	West-Central	10/20/2014	22	8.83	-	-	-
MW-208A	West-Central	10/20/2014	19.9	16.4	-	-	-
MW-206A	West-Central	10/20/2014	18.4	8.59	-	-	-
MW-206B	West-Central	10/20/2014	17.9	5.55	-	-	-
MW-208B	West-Central	10/20/2014	13.6	9.76	-	-	-
MW-210B	West-Central	10/20/2014	-	11	-	-	-
MW-39	West-Central	10/19/2014	10.1	7.66	-	-	-
MW-205B	West-Central	10/20/2014	9.64	7.91	-	-	-
MW-200	West-Central	10/20/2014	7.91	6.16	-	-	-
MW-204B	West-Central	10/20/2014	7	7.42	-	-	-
MW-199B	Building 835	10/19/2014	-	74.6	-	-	-
MW-209B	Building 835	10/19/2014	-	14.8	-	-	-
MW-143	Building 835	10/19/2014	-	9.52	-	-	-
MW-142	Building 835	10/19/2014	-	6.38	-	-	-

TABLE 19
MAIN INSTALLATION LTM WELLS EXCEEDING MCL
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

Well ID	Area	Analyte MCL Date	PCE 5 µg/L	TCE 5 µg/L	cDCE 70 µg/L	VC 2 µg/L	CT 5 µg/L
MW-258	North-Central	10/21/2014	29.7	50.8	-	-	-
MW-104	North-Central	10/20/2014	-	14.7	-	-	-
MW-103	North-Central	10/20/2014	-	8.8	-	-	-
MW-214A	North-Central	10/21/2014	5.76	-	-	-	-
MW-214B	North-Central	10/21/2014	5.12	-	-	-	-
MW-97	South-Central	10/20/2014	-	68	-	-	-
PZ-03		10/21/2014	-	9.88	-	-	-
MW-52		10/20/2014	6.68	-	-	-	-
MW-215A		10/21/2014	6.19	-	-	-	-
MW-215B		10/21/2014	5.93	-	-	-	-

Notes:

MCL: Maximum contaminant level

µg/L: micrograms per liter

TABLE 20
DUNN FIELD LTM WELLS EXCEEDING MCL OR TC
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

Well ID	Classification	Analyte	TeCA	TCA	PCE	TCE	DCE	VC	CF
		MCL	-	5	5	5	7	2	80
		TC	2.2	1.9	2.5	5	7	-	12
		Date	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-159	Performance	10/19/2014	13.7	4.02	-	216	-	8.83	-
MW-87	Performance-FSVE	10/18/2014	-	-	-	-	-	-	56.2
MW-144	Performance	10/19/2014	9.02	-	-	33.2	-	-	-
MW-246	Performance	10/19/2014	9.63	-	-	28.5	-	-	-
MW-249	Performance	10/19/2014	-	-	-	6.73	-	-	12.9
MW-190	Performance	10/19/2014	4.55	-	-	12.3	-	-	-
MW-54	Performance	10/19/2014	2.53	-	-	10	-	-	-
MW-220	Performance-FSVE	10/18/2014	-	-	4.19	6.57	-	-	-
MW-165	Performance	10/19/2014	-	-	-	6.25	-	-	-
MW-77	Performance	10/19/2014	-	-	-	6.03	-	-	-
MW-243	Performance	10/19/2014	2.61	-	-	5.01	-	-	-
MW-03	Performance-FSVE	10/18/2014	-	-	3.65	-	-	-	-
MW-79	Performance	10/18/2014	-	-	3.59	-	-	-	-
MW-230	Bkgd-NE	4/25/2014	-	-	42.8	63.7	14.8	-	-
MW-130	Bkgd-NE	4/28/2014	-	-	60.6	58.8	22.6	-	-
MW-07	Bkgd-NE	4/25/2014	-	-	35.6	28.8	14.6	-	-
MW-129	Bkgd-NE	4/28/2014	-	-	16.2	12.5	13.2	-	-
MW-08	Bkgd-NE	4/28/2014	-	-	3.65	6.09	-	-	-

Notes:

MCL: Maximum Concentration Level

TC: Target Concentration

µg/L: micrograms per liter

TABLE 21
2015 MAIN INSTALLATION SAMPLE SCHEDULE
ANNUAL LONG TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

Well ID	Well Classification	Sample Frequency	Semiannual Apr-2015	Annual Oct-2015
MW-16	Background	Biennial	-	-
MW-19	Background	Biennial	-	-
MW-22	Boundary	Biennial	-	-
MW-23	Boundary	Biennial	-	-
MW-24	Boundary	Biennial	-	-
MW-25A	Performance	Annual	-	P
MW-26	Performance	Semiannual	P	P
MW-34	Sentinel	Biennial	-	-
MW-38	Sentinel	Biennial	-	-
MW-39	Performance	Semiannual	P	P
MW-39A	Performance	Semiannual	P	P
MW-50	Boundary	Biennial	-	-
MW-52	Performance	Annual	-	P
MW-53	Background	Biennial	-	-
MW-55	Background	Biennial	-	-
MW-63A	Sentinel	Annual	-	P
MW-63B	Sentinel	Annual	-	P
MW-64	Performance	Semiannual	P	P
MW-66A	Background	Biennial	-	-
MW-88	Performance	Semiannual	P	P
MW-89	Sentinel	Annual	-	P
MW-90	Sentinel	Semiannual	P	P
MW-92	Performance	Semiannual	P	P
MW-93	Boundary	Biennial	-	-
MW-94A	Performance	Semiannual	P	P
MW-96	Performance	Annual	-	P
MW-97	Performance	Semiannual	P	P
MW-98	Performance	Semiannual	P	P
MW-99	Background	Biennial	-	-
MW-100B	Performance	Semiannual	P	P
MW-101 ¹	Performance	Semiannual	P	P
MW-102B	Boundary	Biennial	-	-
MW-103	Performance	Annual	-	P
MW-104	Performance	Annual	-	P
MW-107 ¹	Sentinel	Semiannual	P	P
MW-108	Sentinel	Semiannual	P	P
MW-140	Sentinel	Annual	-	P
MW-141	Sentinel	Semiannual	P	P
MW-142	Performance	Annual	-	P
MW-143	Performance	Semiannual	P	P
MW-198	Performance	Annual	-	P
MW-199A	Sentinel	Annual	-	P
MW-199B	Performance	Semiannual	P	P
MW-200	Performance	Semiannual	P	P
MW-202A	Sentinel	Annual	-	P
MW-202B	Sentinel	Semiannual	P	P
MW-204A	Performance	Semiannual	P	P
MW-204B	Performance	Semiannual	P	P
MW-205A	Performance	Semiannual	P	P
MW-205B	Performance	Semiannual	P	P
MW-206A	Performance	Semiannual	P	P
MW-206B	Performance	Semiannual	P	P
MW-207A	Sentinel	Semiannual	P	P
MW-207B	Sentinel	Semiannual	P	P

TABLE 21
2015 MAIN INSTALLATION SAMPLE SCHEDULE
ANNUAL LONG TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

Well ID	Well Classification	Sample Frequency	Semiannual Apr-2015	Annual Oct-2015
MW-208A	Performance	Semiannual	P	P
MW-208B	Performance	Semiannual	P	P
MW-209A	Sentinel	Semiannual	P	P
MW-209B	Performance	Semiannual	P	P
MW-210A	Sentinel	Semiannual	P	P
MW-210B	Performance	Semiannual	P	P
MW-211	Sentinel	Annual	-	P
MW-214A	Performance	Annual	-	P
MW-214B	Performance	Annual	-	P
MW-215A	Performance	Annual	-	P
MW-215B	Performance	Annual	-	P
MW-216	Performance	Annual	-	P
MW-217	Performance	Semiannual	P	P
MW-218	Performance	Semiannual	P	P
MW-219	Boundary	Semiannual	P	P
MW-229	Sentinel	Biennial	-	-
MW-252	Sentinel	Annual	-	P
MW-253	Sentinel	Biennial	-	-
MW-254	Sentinel	Annual	-	P
MW-255	Sentinel	Annual	-	P
MW-256	Sentinel	Semiannual	P	P
MW-257	Performance	Annual	-	P
MW-258	Performance	Semiannual	P	P
MW-259	Performance	Semiannual	P	P
MW-260	Performance	TBD	P	P
MW-261	Performance	TBD	P	P
DR1-1	Performance	Annual	-	P
DR1-1A	Performance	Annual	-	P
DR1-2	Performance	Annual	-	P
DR1-3	Performance	Semiannual	P	P
DR1-4	Performance	Annual	-	P
DR1-7	Performance	Annual	-	P
DR1-8	Performance	Annual	-	P
DR2-1	Performance	Semiannual	P	P
DR2-3	Performance	Semiannual	P	P
DR2-4	Performance	Annual	-	P
DR2-6	Performance	Semiannual	P	P
PMW21-03	Performance	Semiannual	P	P
PMW21-05	Performance	Semiannual	P	P
PMW92-02	Performance	Semiannual	P	P
PMW101-03A	Performance	Semiannual	P	P
PMW101-03B	Performance	Semiannual	P	P
PMW101-06A	Performance	Semiannual	P	P
PMW101-06B	Performance	Semiannual	P	P
PZ-03	Performance	Annual	-	P

Notes:

- 1) Samples to be collected from two screened intervals in MW-101 and MW-107
- P: Sample planned
-: Sample not planned

TABLE 22
2015 DUNN FIELD SAMPLE SCHEDULE
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

Well ID	Well Classification	Sample Frequency	Biennial Apr-2015	Semiannual Oct-2015
MW-03	Performance-FSVE	Semiannual	P	P
MW-04	Background	Biennial	P	-
MW-06	Performance-FSVE	Semiannual	P	P
MW-07	Background-NE	Annual	P	-
MW-08	Background-NE	Annual	P	-
MW-13	Background	Biennial	P	-
MW-15	Performance	Annual	P	-
MW-28	Background	Biennial	P	-
MW-31	Performance	Semiannual	P	P
MW-33	Performance	Biennial	P	-
MW-44	Performance	Semiannual	P	P
MW-54	Performance	Semiannual	P	P
MW-57	Performance	Annual	P	-
MW-58	Performance	Biennial	P	-
MW-67	Sentinel	Biennial	P	-
MW-68	Performance	Annual	P	-
MW-69	Performance	Annual	P	-
MW-70	Performance	Annual	P	-
MW-71	Performance	Annual	P	-
MW-76	Performance	Annual	P	-
MW-77	Performance	Semiannual	P	P
MW-78	Performance	Biennial	P	-
MW-79	Performance	Semiannual	P	P
MW-80	Background	Biennial	P	-
MW-87	Performance-FSVE	Semiannual	P	P
MW-91	Performance	Annual	P	-
MW-126	Background	Biennial	P	-
MW-129	Background-NE	Annual	P	-
MW-130	Background-NE	Annual	P	-
MW-134	Performance-FSVE	Semiannual	P	P
MW-144	Performance	Semiannual	P	P
MW-145	Performance	Annual	P	-
MW-147	Performance	Annual	P	-
MW-148	Performance	Annual	P	-
MW-149	Performance	Semiannual	P	P
MW-150	Performance	Semiannual	P	P
MW-151	Performance	Semiannual	P	P
MW-152	Performance	Annual	P	-
MW-153	Performance	Biennial	P	-
MW-154	Background	Biennial	P	-
MW-155	Performance	Annual	P	-
MW-157	Performance	Annual	P	-
MW-158	Performance	Annual	P	-
MW-158A	Performance	Annual	P	-
MW-159	Performance	Semiannual	P	P
MW-160	Performance	Annual	P	-
MW-163	Performance	Semiannual	P	P
MW-164	Performance	Semiannual	P	P
MW-165	Performance	Semiannual	P	P
MW-165A	Performance	Semiannual	P	P
MW-166	Performance	Semiannual	P	P
MW-166A	Performance	Semiannual	P	P
MW-167	Background	Biennial	P	-
MW-169	Sentinel	Biennial	P	-

TABLE 22
2015 DUNN FIELD SAMPLE SCHEDULE
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

Well ID	Well Classification	Sample Frequency	Biennial Apr-2015	Semiannual Oct-2015
MW-170	Sentinel	Biennial	P	-
MW-171	Sentinel	Biennial	P	-
MW-174	Performance-FSVE	Semiannual	P	P
MW-176	Performance	Annual	P	-
MW-180	Performance	Annual	P	-
MW-182	Sentinel	Annual	P	-
MW-184	Performance	Annual	P	-
MW-187	Background	Biennial	P	-
MW-190	Performance	Semiannual	P	P
MW-220	Performance-FSVE	Semiannual	P	P
MW-221	Performance-FSVE	Semiannual	P	P
MW-222	Performance-FSVE	Semiannual	P	P
MW-223	Performance-FSVE	Semiannual	P	P
MW-224	Performance-FSVE	Semiannual	P	P
MW-225	Performance-FSVE	Semiannual	P	P
MW-226	Performance-FSVE	Semiannual	P	P
MW-227	Performance-FSVE	Semiannual	P	P
MW-228	Performance-FSVE	Semiannual	P	P
MW-230	Background-NE	Annual	P	-
MW-235	Sentinel	Annual	P	-
MW-237	Sentinel	Annual	P	-
MW-241	Performance	Annual	P	-
MW-242	Performance	Annual	P	-
MW-243	Performance	Semiannual	P	P
MW-244	Performance	Semiannual	P	P
MW-245	Performance	Semiannual	P	P
MW-246	Performance	Semiannual	P	P
MW-247	Performance	Semiannual	P	P
MW-248	Performance	Annual	P	-
MW-249	Performance	Semiannual	P	P
MW-250	Sentinel	Annual	P	-
MW-251	Sentinel	Annual	P	-

Notes:

P: Sample planned

-: Sample not planned

FIGURES

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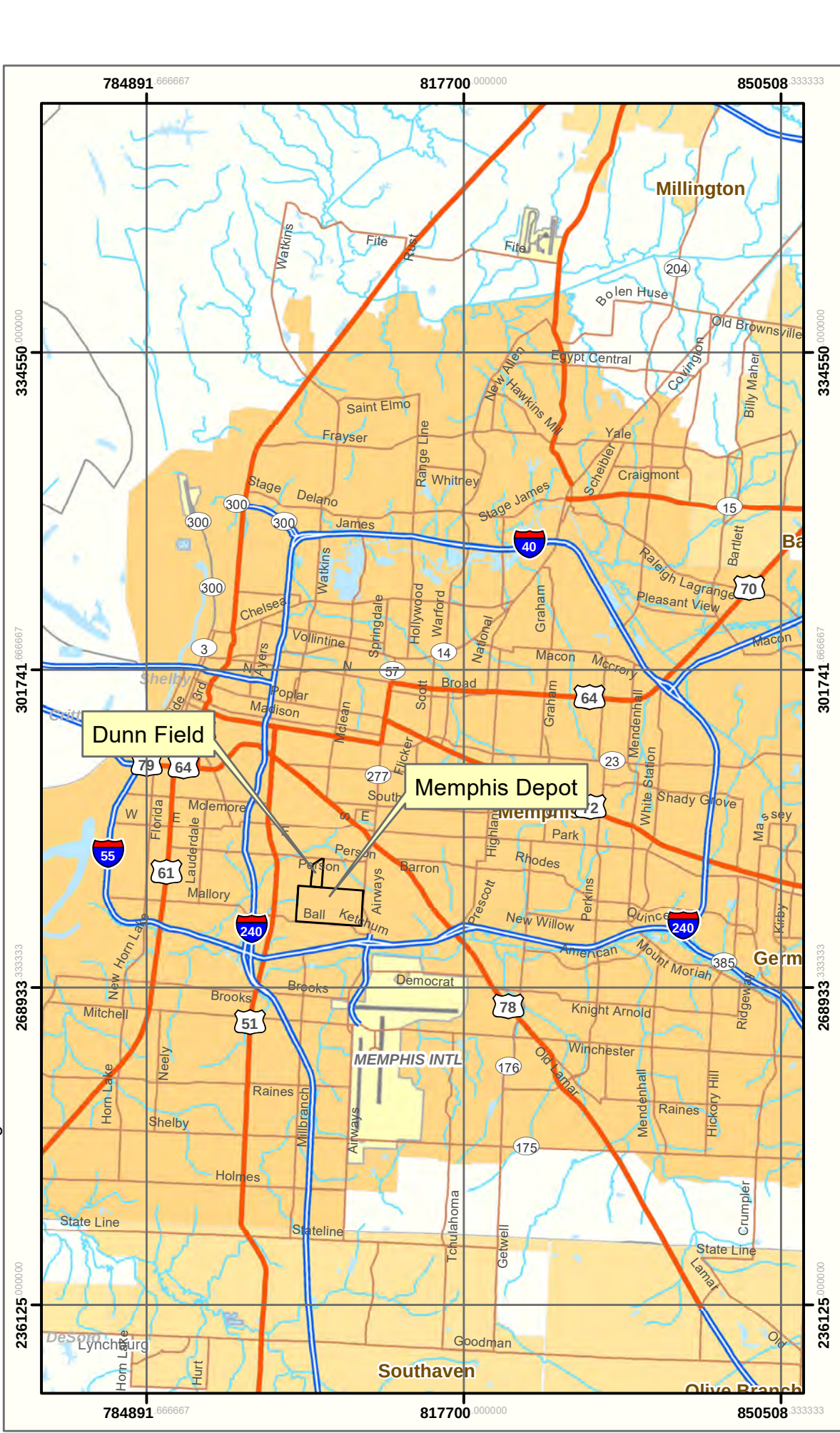


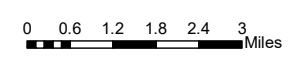
Figure 1

SITE LOCATION MAP

ANNUAL LONG
TERM MONITORING
REPORT - 2014

DEFENSE DEPOT
MEMPHIS, TENNESSEE

Projection: NAD 1927 StatePlane Tennessee
Units: Feet



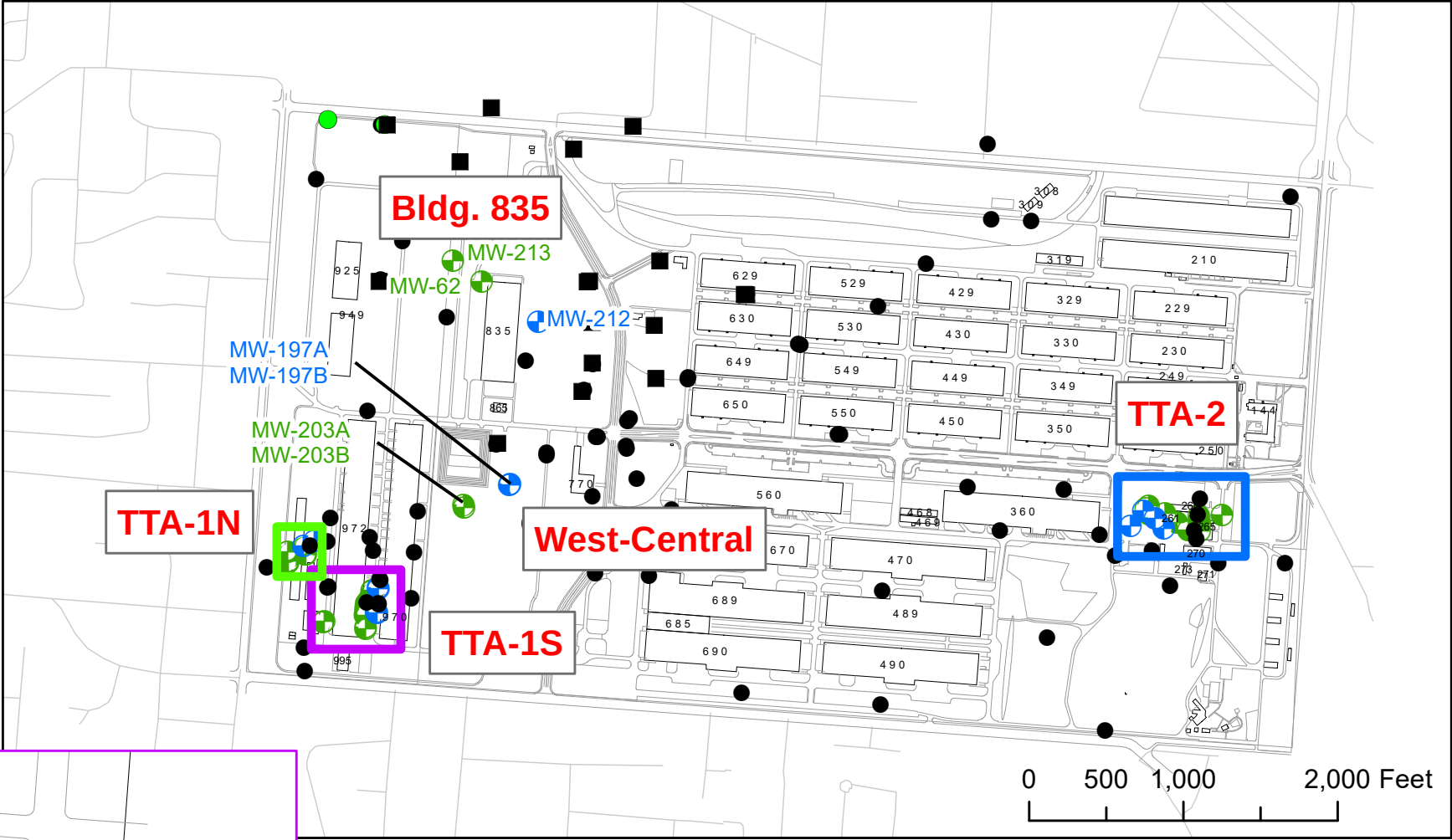
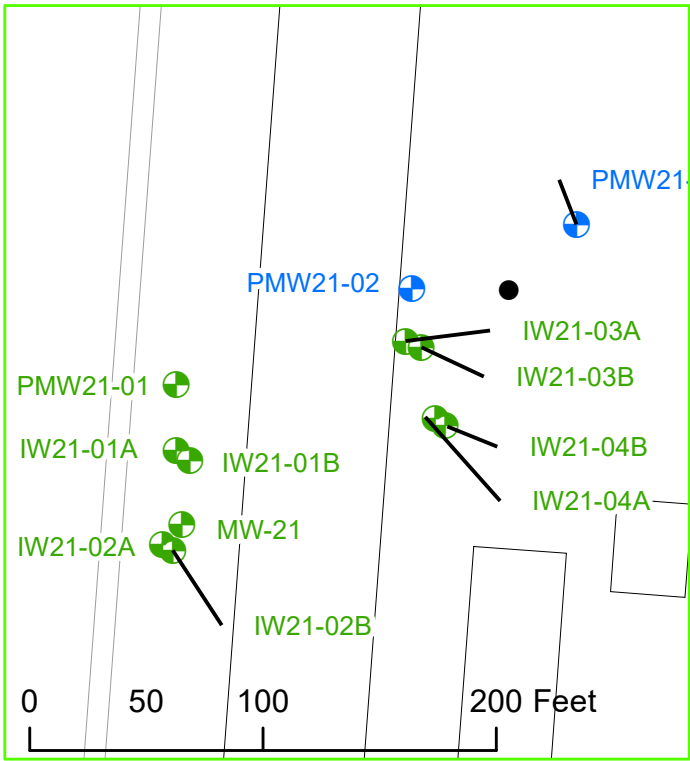


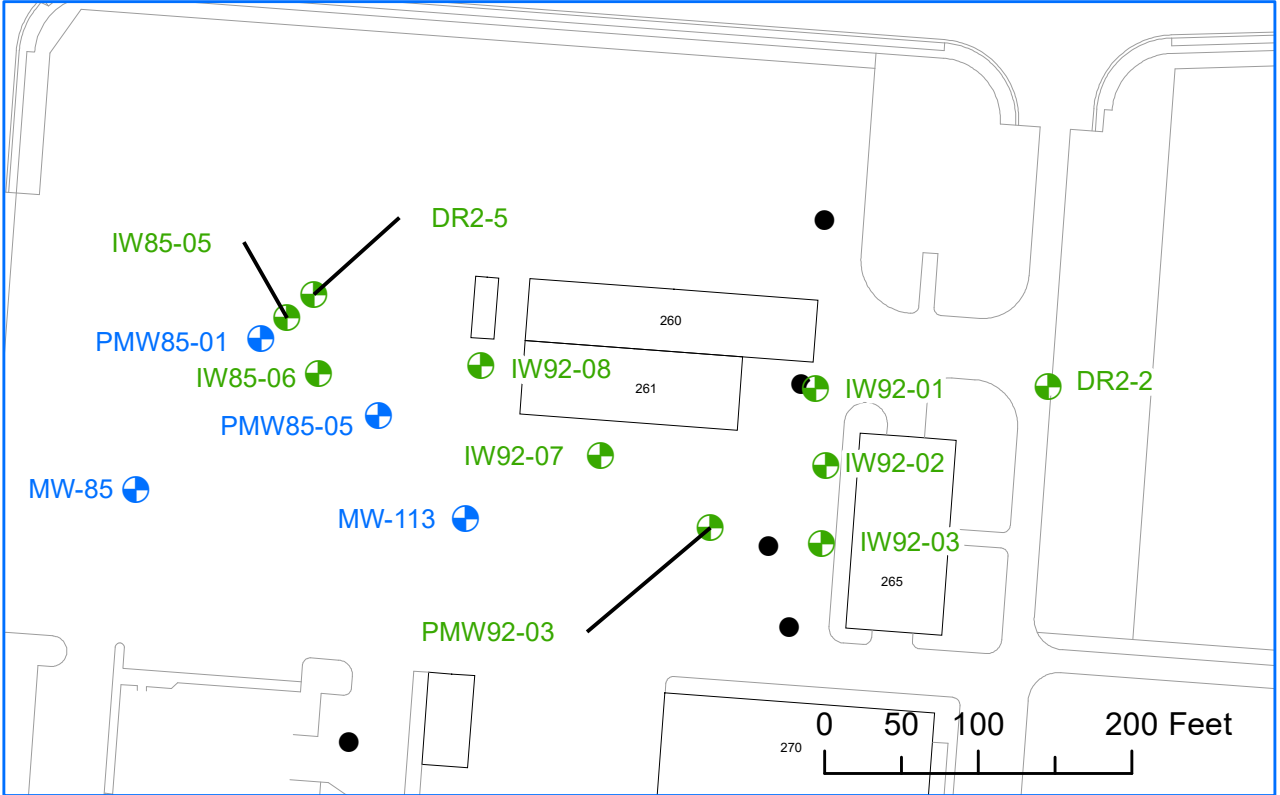
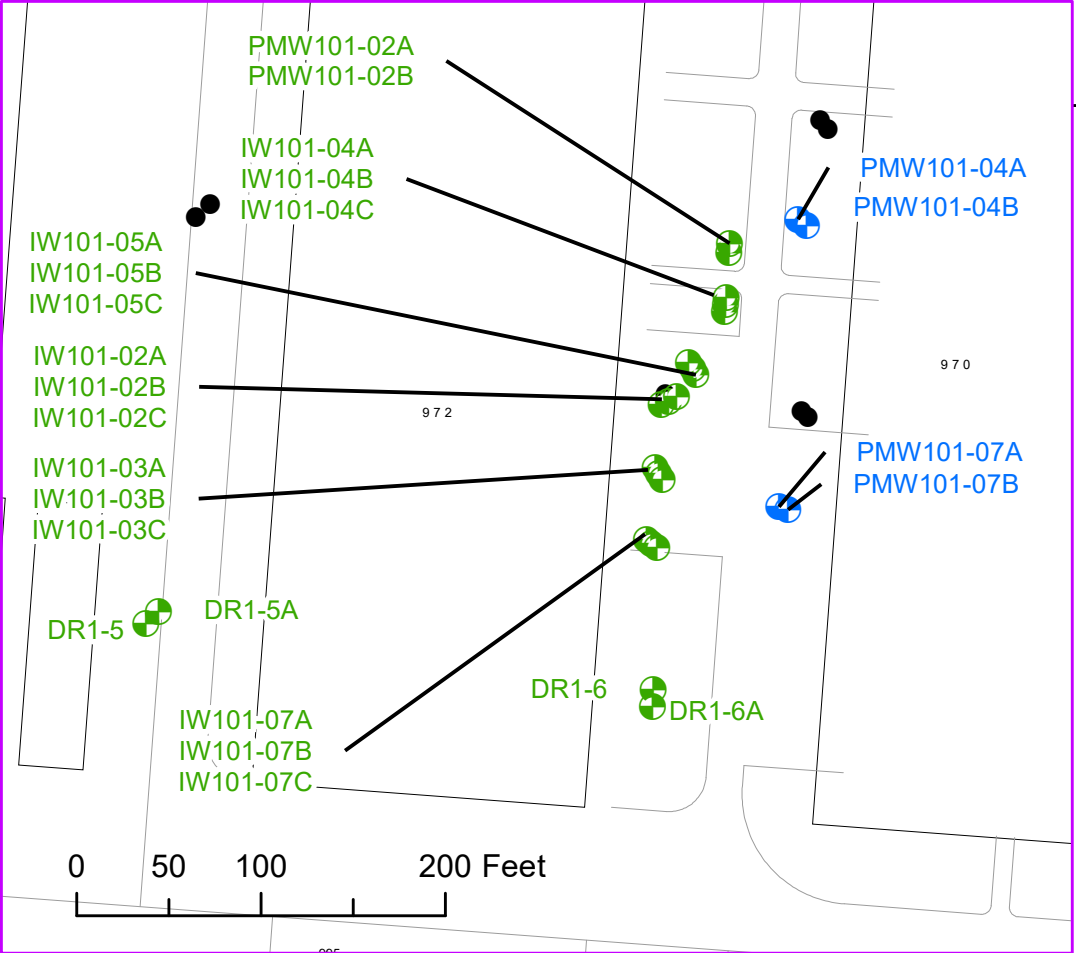
Figure 2
MAIN INSTALLATION EBT
WELLS

ANNUAL LONG TERM
MONITORING REPORT-2014

DEFENSE DEPOT
MEMPHIS, TENNESSEE

Legend

- Monitoring Well Screened in the Fluvial Aquifer
- Monitoring Well Screened in the Transition Zone or Intermediate Aquifer
- Monitoring Well Screened in the Memphis Aquifer
- ⊕ EBT Injection Well
- ⊕ EBT Performance Monitoring Well



Projection: NAD 1927 StatePlane Tennessee
Units: Feet

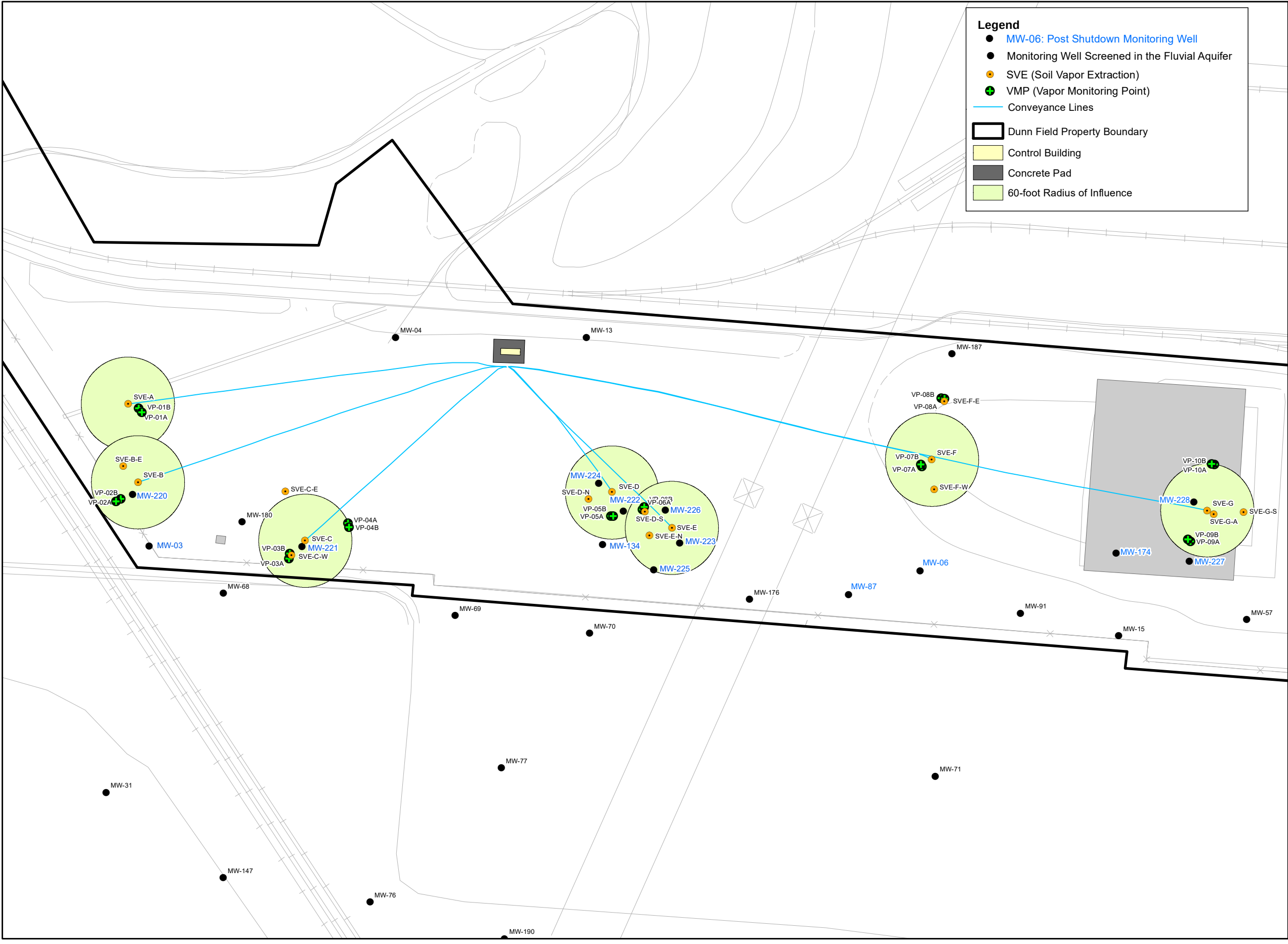




Figure 4

AS-SVE SYSTEM

ANNUAL LONG TERM
MONITORING REPORT-2014

DEFENSE DEPOT
MEMPHIS, TENNESSEE

Legend

- Monitoring Well Screened in the Fluvial Aquifer
- Monitoring Well Screened in the Intermediate Aquifer
- AS Location (full time)
- AS Location (1/2 time)
- AS Location (closed)
- VMP Location
- SVE Location
- Conveyance Lines
- SVE Compound

0 25 50 75 100
Feet

Date: December 2014
Edition: Rev 0





Figure 5

MAIN INSTALLATION
PLUME DESIGNATIONS

ANNUAL LONG
TERM MONITORING
REPORT - 2014

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
- Monitoring Well Screened in the Memphis Aquifer

- PCE
- TCE

- Clay Elevation Exceeds Groundwater Elevation
- 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

0 200 400 800
Feet

Notes:
1. PCE and TCE isopleths are based on analytical results from the October 2013 Long Term Monitoring event and the November 2013 EBT monitoring event.
2. Water level contours are from the October 2013 Long Term Monitoring event.

Date: December 2014
Edition: Rev 0



Path: C:\DDMT\LA20\GIS\Figure 5 - MI Plume Designations.mxd

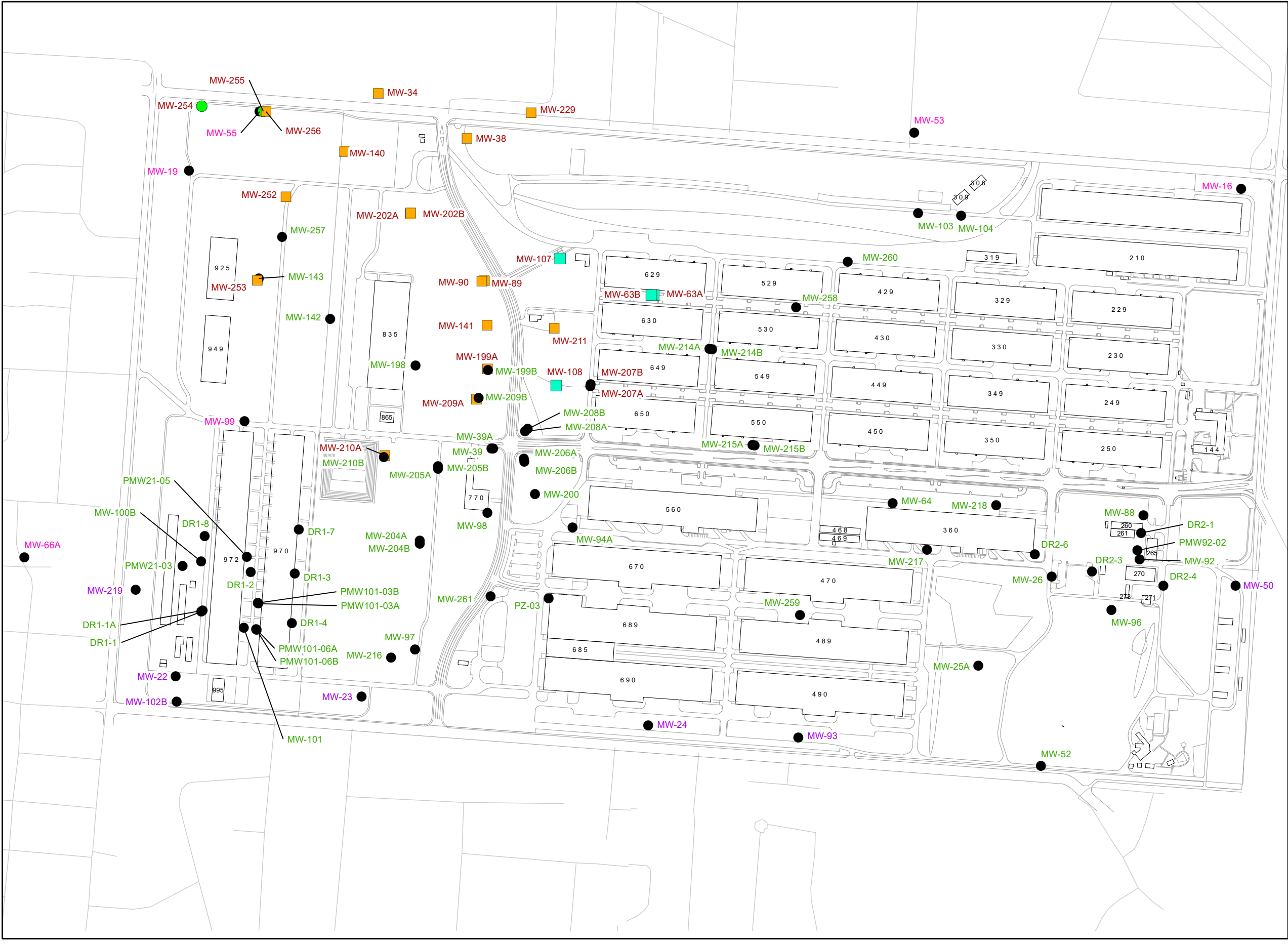


Figure 6

MAIN INSTALLATION LTM WELLS

ANNUAL LONG TERM MONITORING REPORT-2014

DEFENSE DEPOT MEMPHIS, TENNESSEE

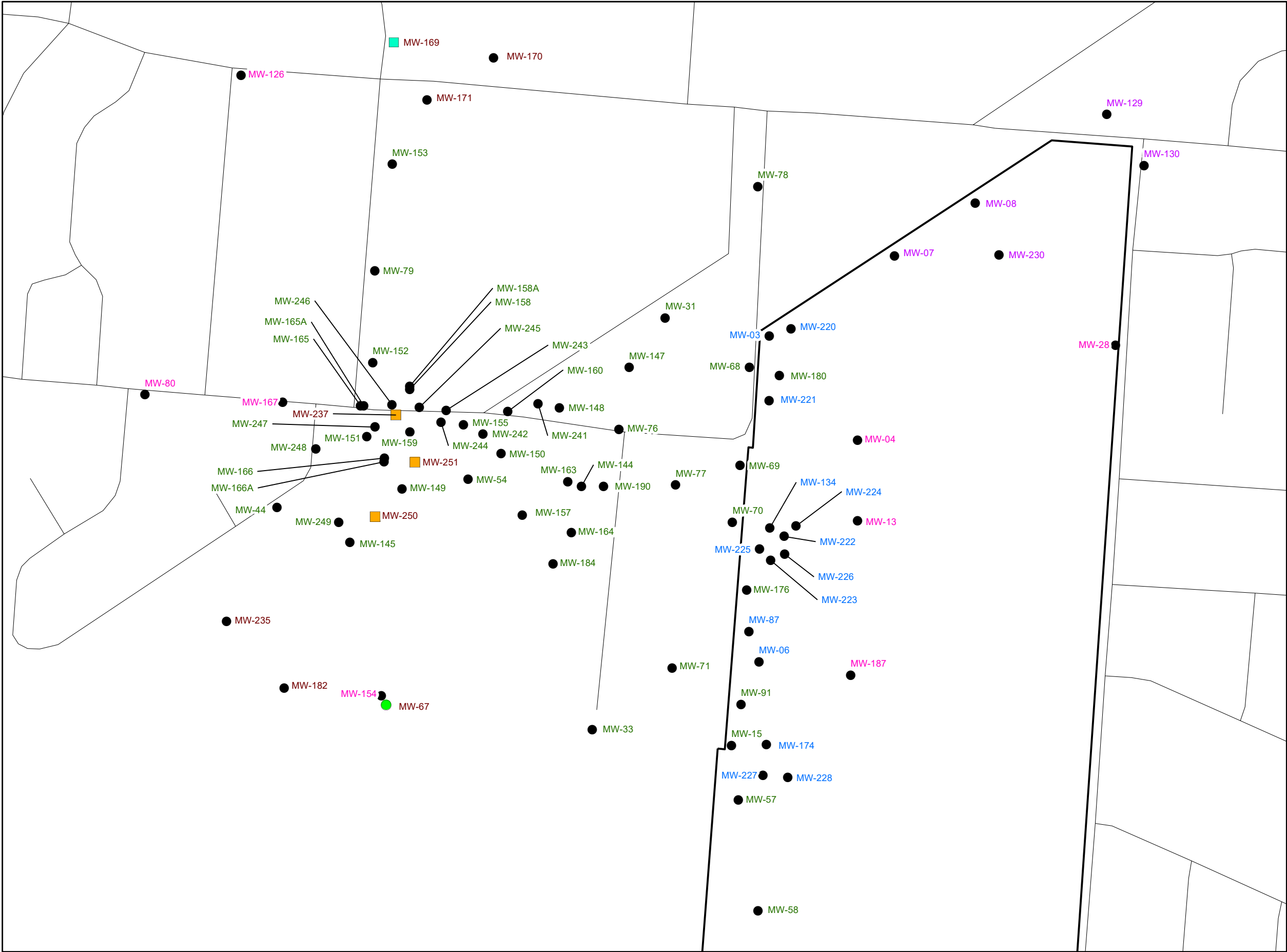


Figure 7

**DUNN FIELD
LTM WELLS**

ANNUAL LONG TERM
MONITORING REPORT-2014

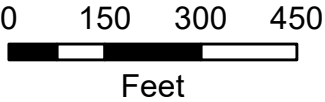
DEFENSE DEPOT
MEMPHIS, TENNESSEE

- Legend**
- Monitoring Well Screened in the Fluvial Aquifer
 - Monitoring Well Screened in the Intermediate Aquifer
 - Monitoring Well Screened in the Transition Zone
 - Monitoring Well Screened in the Memphis Aquifer

Off Depot Well Classification

- MW-04 Background
- MW-07 Background-NE
- MW-250 Sentinel
- MW-15 Performance
- MW-03 Performance-FSVE

— Dunn Field Boundary



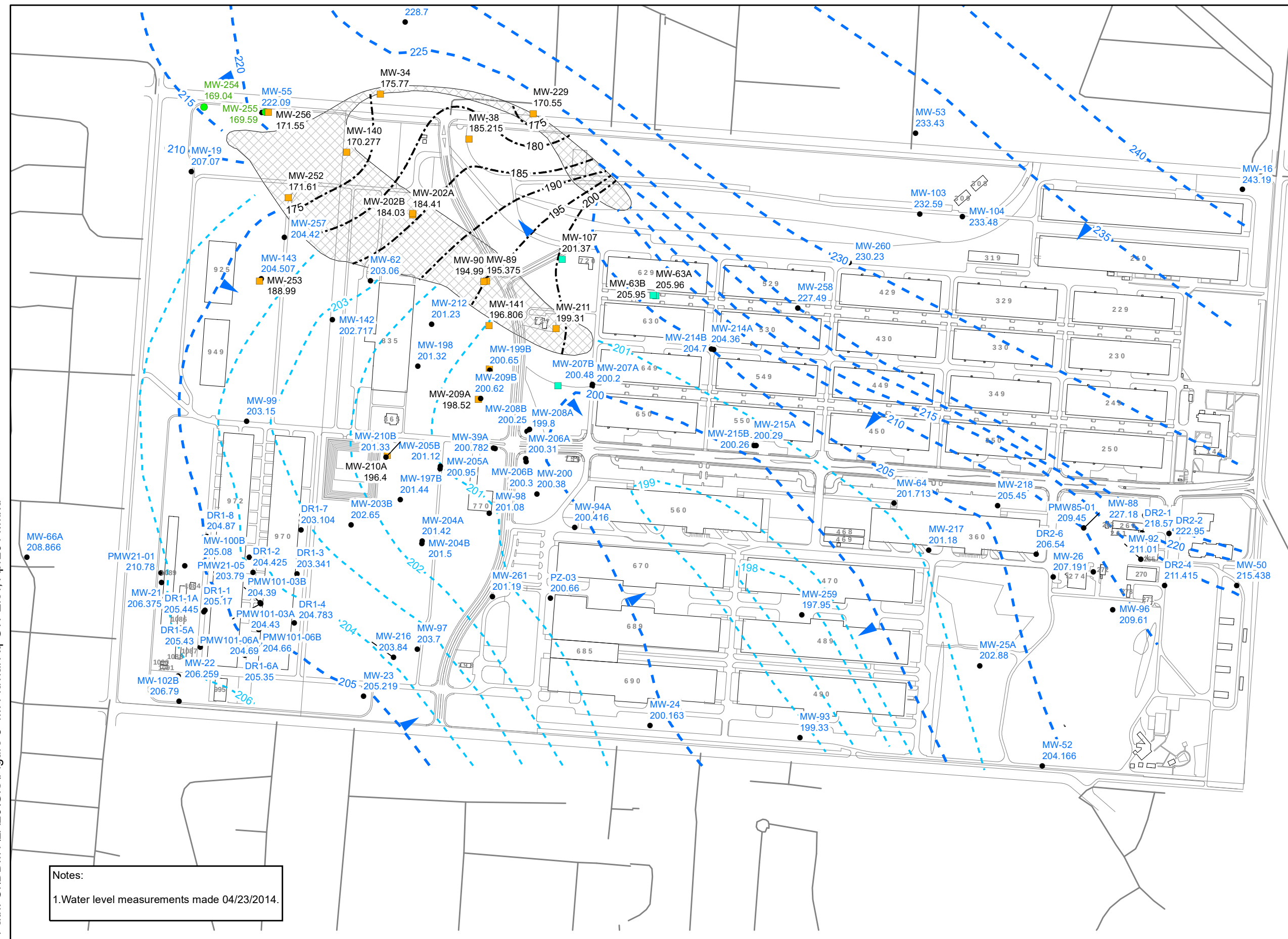


Figure 8

**MAIN INSTALLATION
GROUNDWATER
ELEVATIONS,
APRIL 2014**

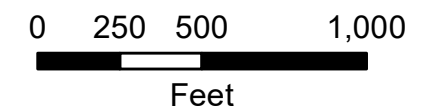
**ANNUAL LONG
TERM MONITORING
REPORT - 2014**

**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
 - Clay Elevation Exceeds Groundwater Elevation
- MW-03 Blue: value used for Fluvial Aquifer
 100.12 groundwater contours
- MW-237 Black: value used for Intermediate Aquifer
 100.15 groundwater contours
- MW-254 Green: Memphis Aquifer, not contoured
 156.83
- Elevations shown are feet, mean sea level
- ▶ Groundwater Flow Direction

Projection: NAD 1927 StatePlane Tennessee
Units: Feet

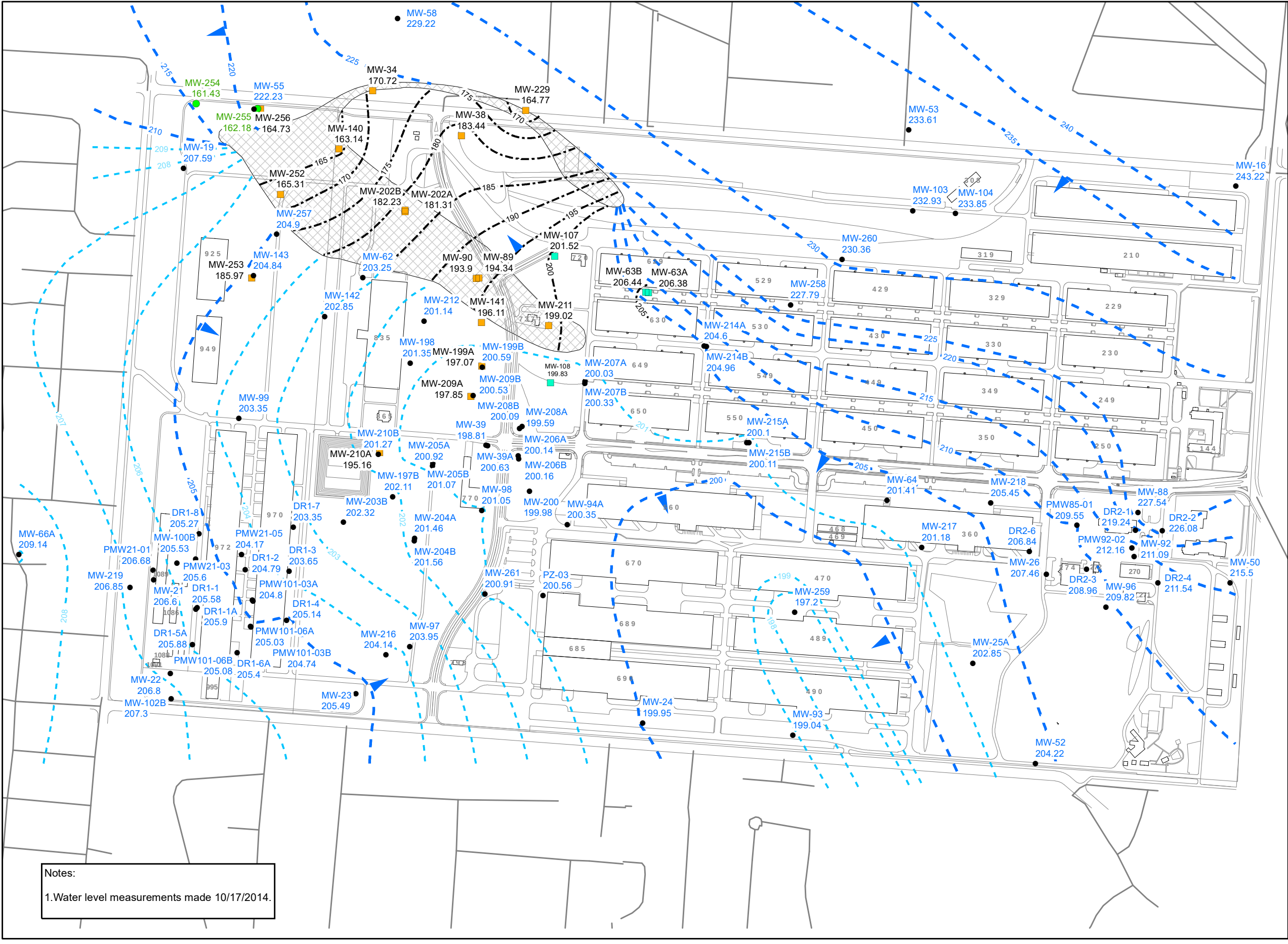


Notes:

1. Water level measurements made 04/23/2014.

Date: December 2014
Edition: Rev 0





Notes:
1. Water level measurements made 10/17/2014.

Figure 9
MAIN INSTALLATION
GROUNDWATER
ELEVATIONS,
OCTOBER 2014

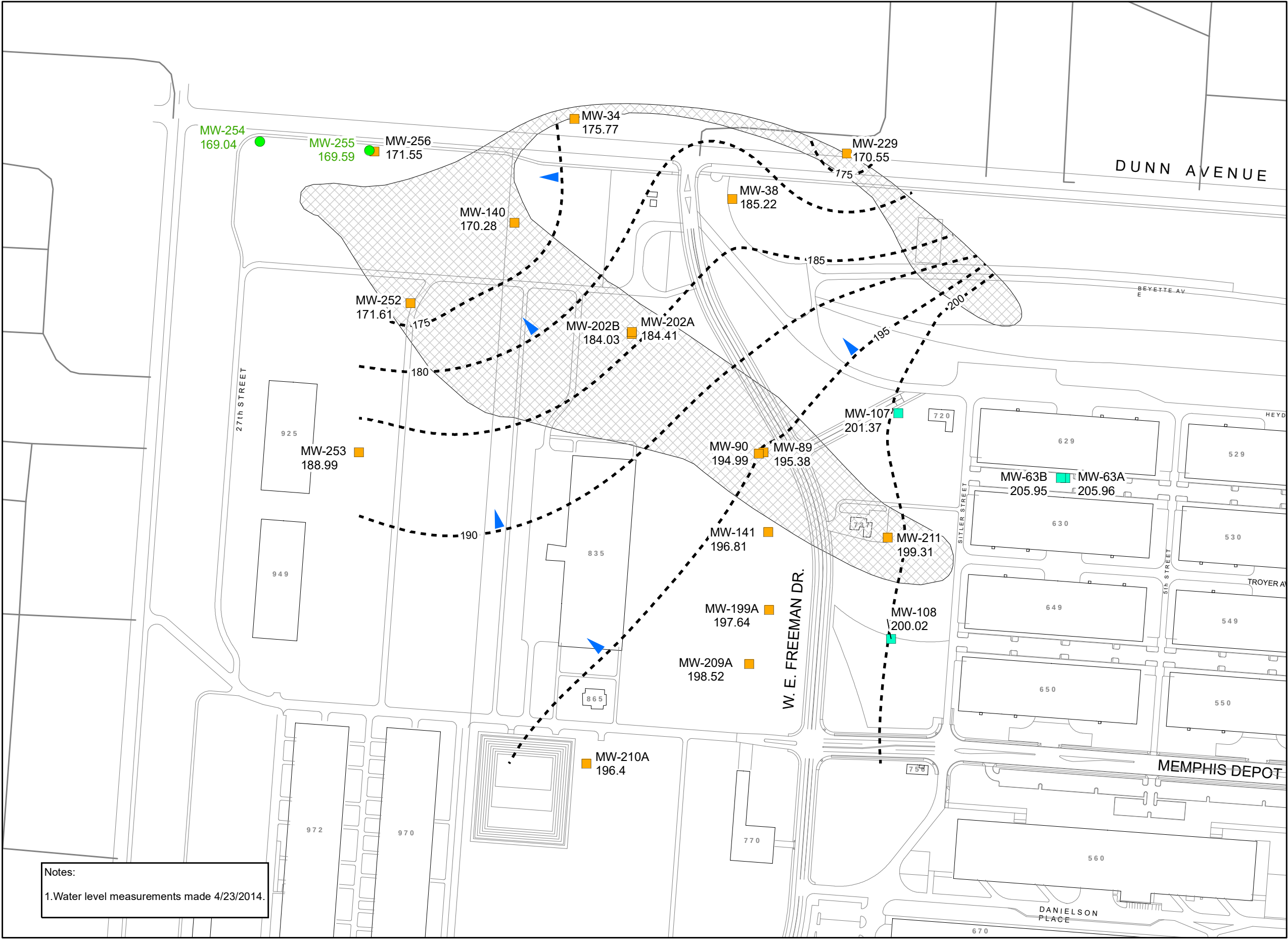
ANNUAL LONG
TERM MONITORING
REPORT - 2014

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
 - Clay Elevation Exceeds Groundwater Elevation
 - MW-03 Blue: value used for Fluvial Aquifer groundwater contours
 - MW-237 Black: value used for Intermediate Aquifer groundwater contours
 - MW-254 Green: Memphis Aquifer, not contoured
 - Elevations shown are feet, mean sea level
 - Groundwater Flow Direction

Projection: NAD 1927 StatePlane Tennessee
Units: Feet

0 250 500 1,000
Feet



Notes:
1. Water level measurements made 4/23/2014.

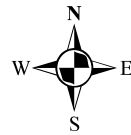
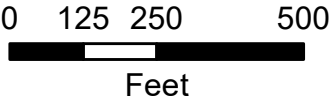


Figure 10
MAIN INSTALLATION
INTERMEDIATE AND
MEMPHIS AQUIFER
GROUNDWATER
ELEVATIONS,
APRIL 2014

ANNUAL LONG
TERM MONITORING
REPORT - 2014

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 Intermediate Aquifer 5-ft. contour
 - Clay Elevation Exceeds Groundwater Elevation
 - MW-237 Black: value used for Intermediate Aquifer 100.15 groundwater contours
 - MW-254 Green: Memphis Aquifer, not contoured 156.83
 - Elevations shown are feet, mean sea level
 - Groundwater Flow Direction
- Projection: NAD 1927 StatePlane Tennessee
Units: Feet



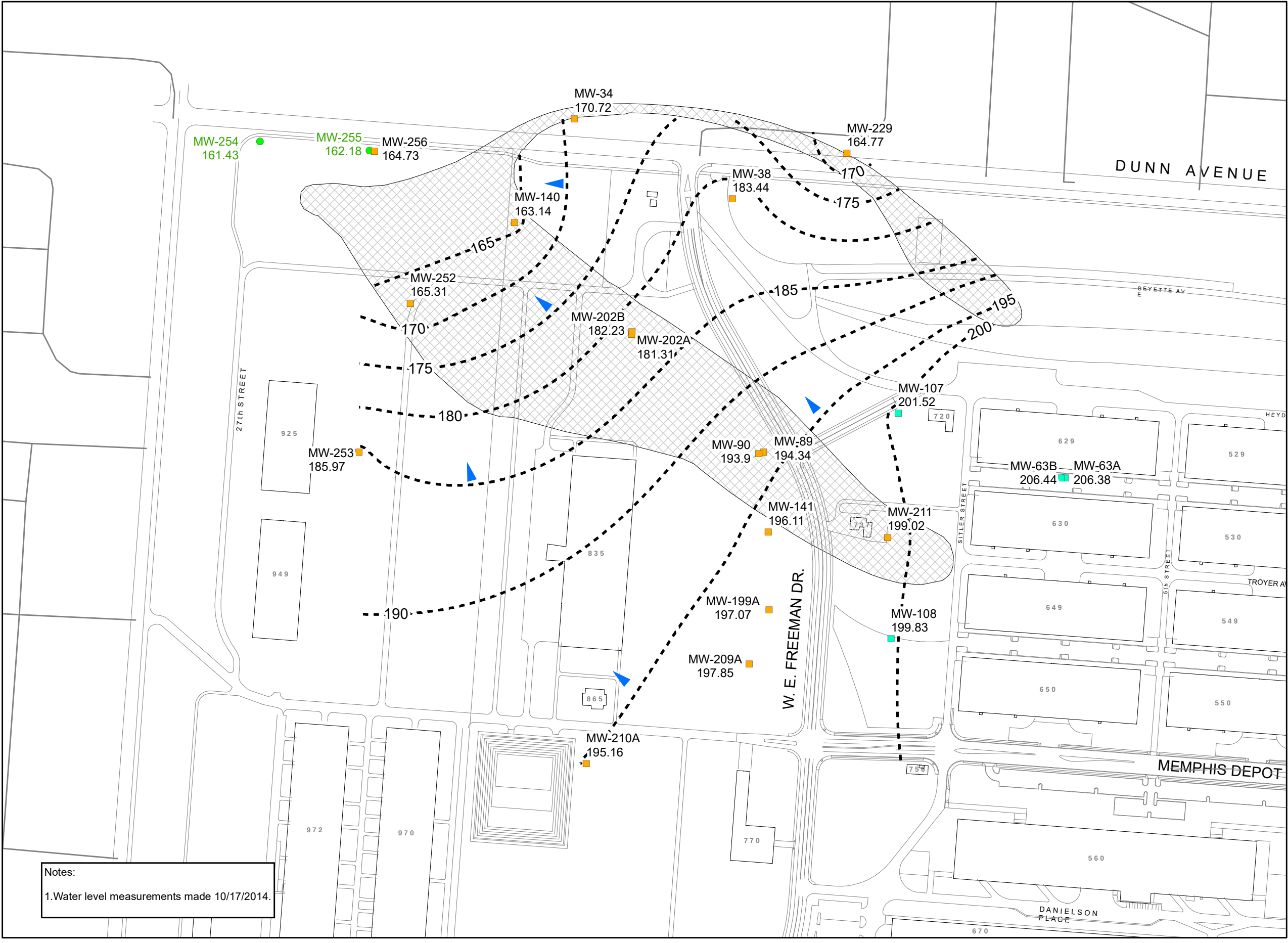


Figure 11
MAIN INSTALLATION
INTERMEDIATE AND
MEMPHIS AQUIFER
GROUNDWATER
ELEVATIONS,
OCTOBER 2014

ANNUAL LONG
TERM MONITORING
REPORT - 2014

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 Intermediate Aquifer 5-ft. contour
- Clay Elevation Exceeds Groundwater Elevation

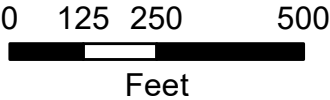
MW-237 Black: value used for Intermediate Aquifer
100.15 groundwater contours

MW-254 Green: Memphis Aquifer, not contoured
156.83

Elevations shown are feet, mean sea level

Groundwater Flow Direction

Projection: NAD 1927 StatePlane Tennessee
Units: Feet



Notes:

1. Water level measurements made 10/17/2014.

Date: December 2014
Edition: Rev 0



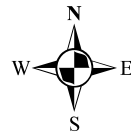
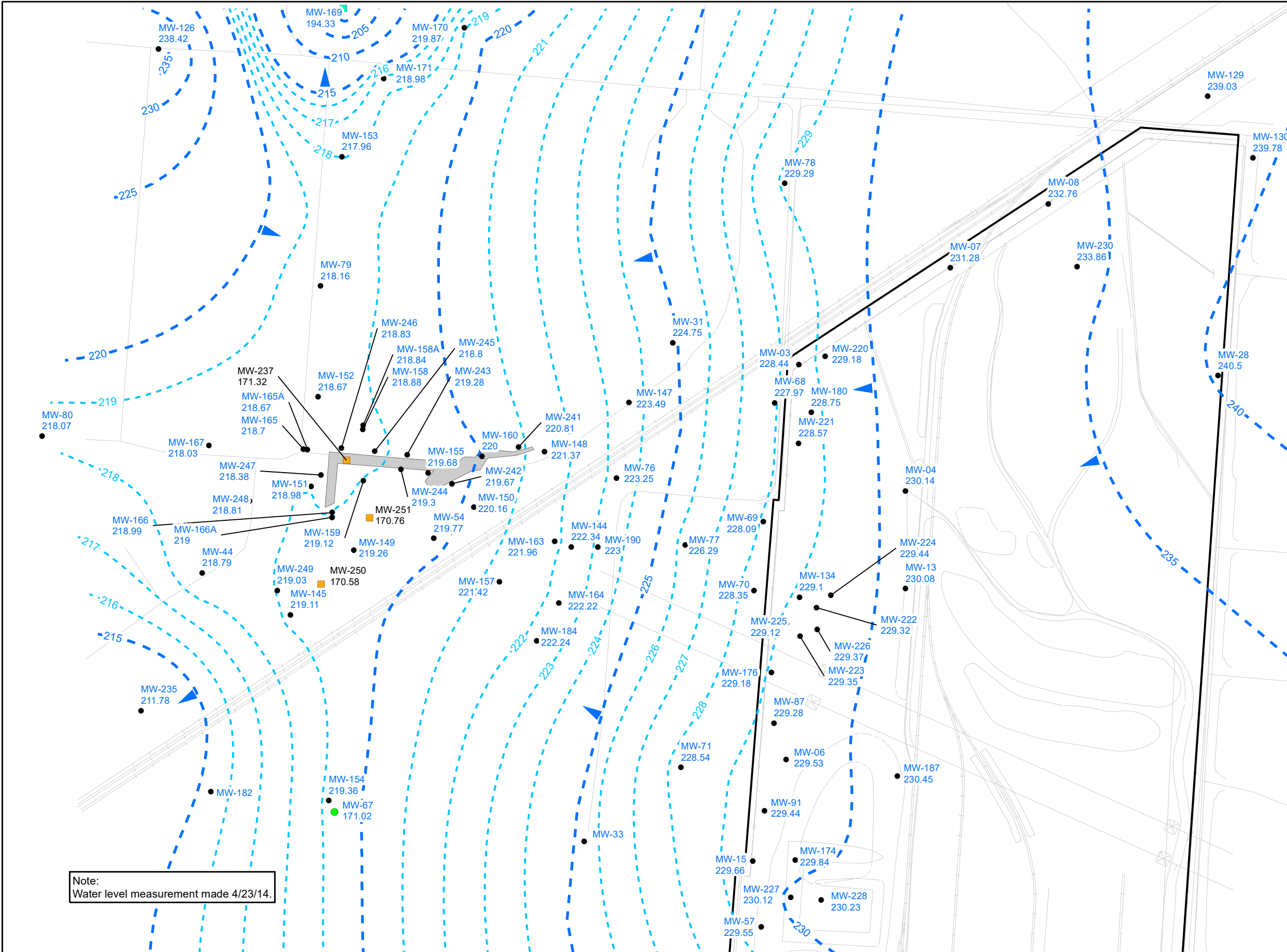


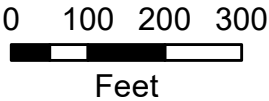
Figure 12
DUNN FIELD
GROUNDWATER
ELEVATIONS,
APRIL 2014

ANNUAL LONG
TERM MONITORING
REPORT - 2014

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
 - Monitoring Well Screened in the Memphis Aquifer
 - Potentiometric surface of the Fluvial Aquifer 1-ft. contour
 - Potentiometric surface of the Fluvial Aquifer 5-ft. contour
 - MW-03 100.12 Blue non-italics: value used for groundwater contours
 - MW-237 100.15 Black: value for Intermediate Aquifer
 - Elevations shown are feet, mean sea level
 - Groundwater Flow Direction
 - Dunn Field Boundary
 - Air Sparge Area

Projection: NAD 1927 StatePlane Tennessee
Units: Feet



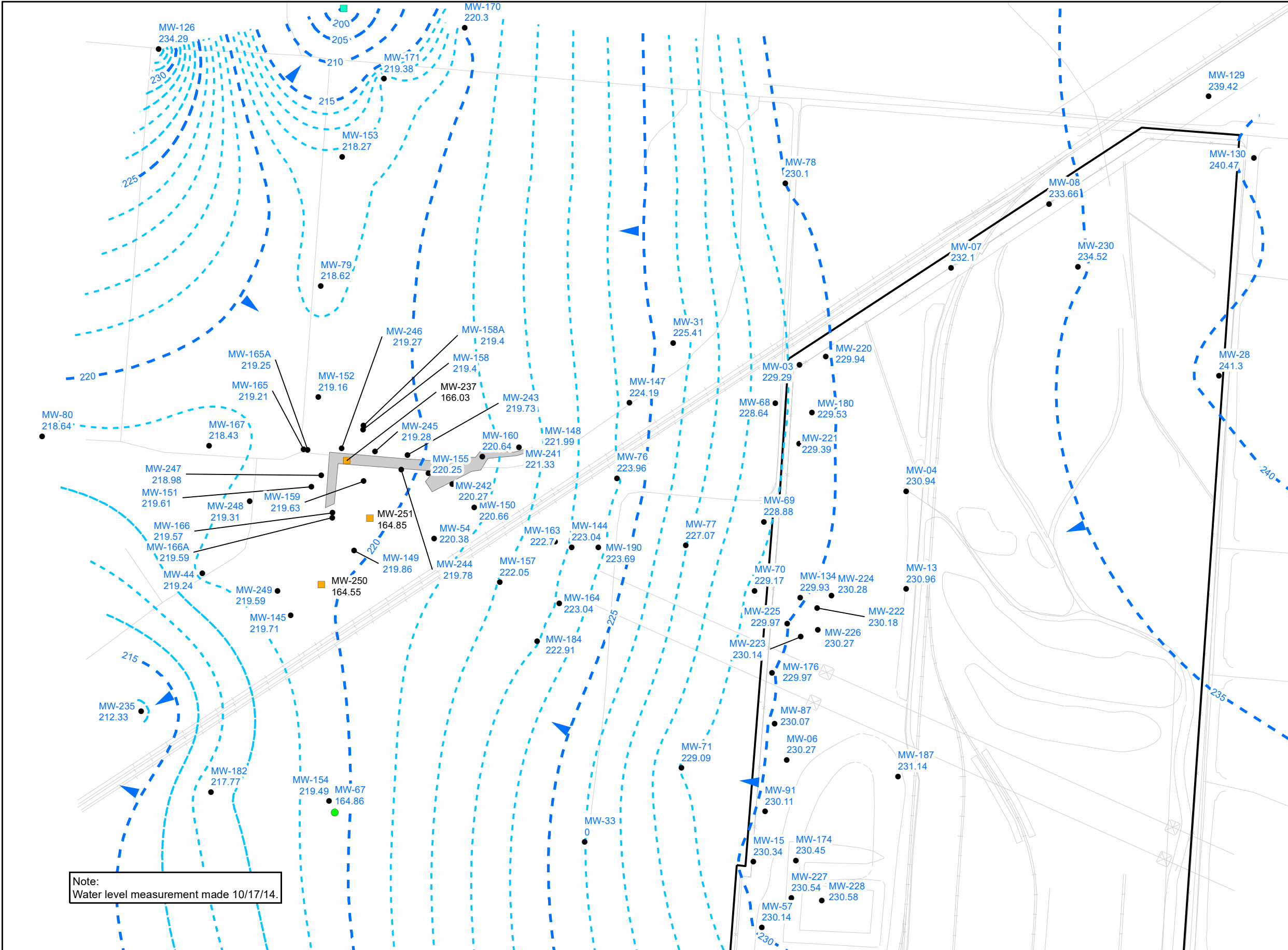


Figure 13

DUNN FIELD
GROUNDWATER ELEVATIONS,
OCTOBER 2014

ANNUAL LONG TERM MONITORING REPORT - 2014

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
- Monitoring Well Screened in the Memphis Aquifer

- Potentiometric surface of the Fluvial Aquifer 1-ft. contour
- Potentiometric surface of the Fluvial Aquifer 5-ft. contour

MW-03 Blue non-italics: value used for groundwater contour
100.12

MW-237
100 15 Black: value for Intermediate Aquife

Elevations shown are feet, mean sea level

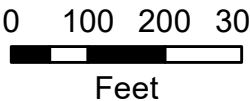
Groundwater Flow Direction

—Dunn Field Boundary

 Air Sparge Area

Projection: NAD 1927 StatePlane Tennessee
Units: Feet

Units: Feet



Note:
Water level measurement made 10/17/14

Date: December 2014
Edition: Rev 0



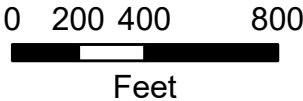
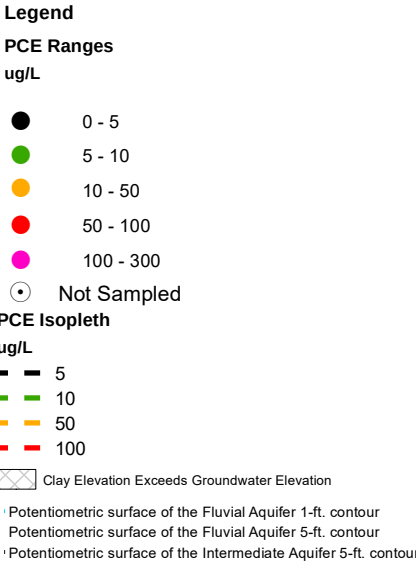


Figure 14

MAIN INSTALLATION
PCE CONCENTRATIONS,
APRIL 2014

ANNUAL LONG
TERM MONITORING
REPORT - 2014

DEFENSE DEPOT
MEMPHIS, TENNESSEE



Notes:

1. Analytical results from the Long Term Monitoring sample event (4/25-26/14) and the EBT monitoring event (2/5-11/14)
2. LTM and EBT results used for contours, only LTM results displayed.
3. All LTM wells were not sampled and the isopleths may not present a complete picture of the plume boundary.

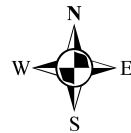


Figure 15

MAIN INSTALLATION
TCE CONCENTRATIONS,
APRIL 2014

ANNUAL LONG TERM
MONITORING REPORT - 2014

DEFENSE DEPOT
MEMPHIS, TENNESSEE

Legend

TCE Ranges
ug/L

- 0 - 5
- 5 - 10
- 10 - 50
- 50 - 100
- 100 - 300
- Not Sampled

TCE Isopleth
ug/L

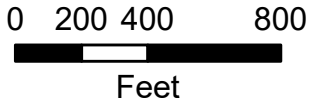
- 5
- 10
- 50
- 100

Clay Elevation Exceeds Groundwater Elevation

Potentiometric surface of the Fluvial Aquifer 1-ft. contour

Potentiometric surface of the Fluvial Aquifer 5-ft. contour

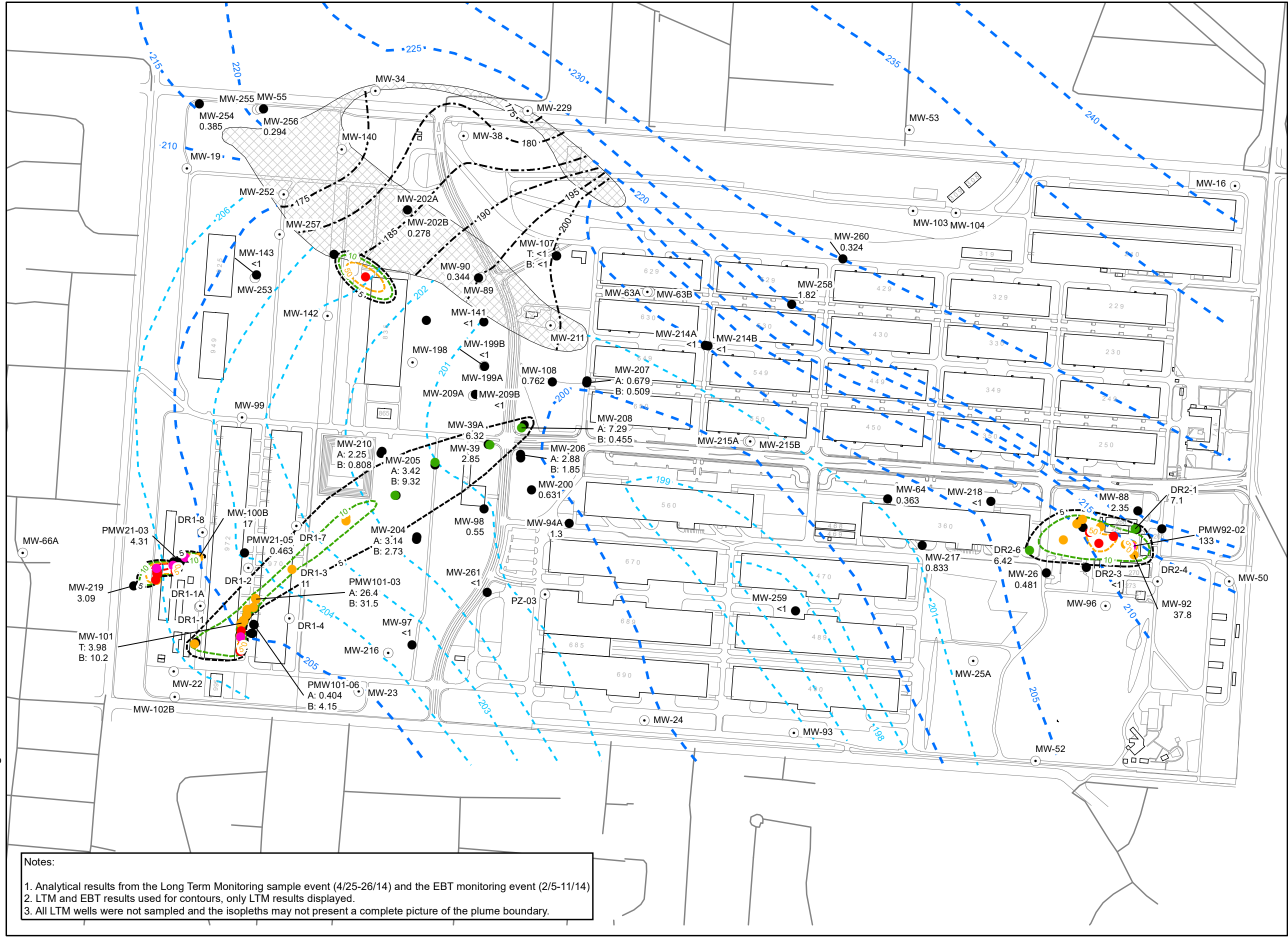
Potentiometric surface of the Intermediate Aquifer 5-ft. contour



Notes:

1. Analytical results from the Long Term Monitoring sample event (4/25-26/14) and the EBT monitoring event (2/5-11/14)
2. LTM and EBT results used for contours, only LTM results displayed.
3. All LTM wells were not sampled and the isopleths may not present a complete picture of the plume boundary.

Path: C:\DDMT\LA20\GIS\Figure 16 - cDCE ISOPLETH APR 14.mxd



Notes:

1. Analytical results from the Long Term Monitoring sample event (4/25-26/14) and the EBT monitoring event (2/5-11/14)
2. LTM and EBT results used for contours, only LTM results displayed.
3. All LTM wells were not sampled and the isopleths may not present a complete picture of the plume boundary.

Figure 16

MAIN INSTALLATION
cDCE CONCENTRATIONS,
APRIL 2014

ANNUAL LONG TERM
MONITORING REPORT - 2014

DEFENSE DEPOT
MEMPHIS, TENNESSEE

Legend

cDCE Ranges
ug/L

- 0 - 5
- 5 - 10
- 10 - 50
- 50 - 100
- 100 - 300
- Not Sampled

cDCE Isopleth
ug/L

- 5
- 10
- 50
- 100

☒ Clay Elevation Exceeds Groundwater Elevation

— 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

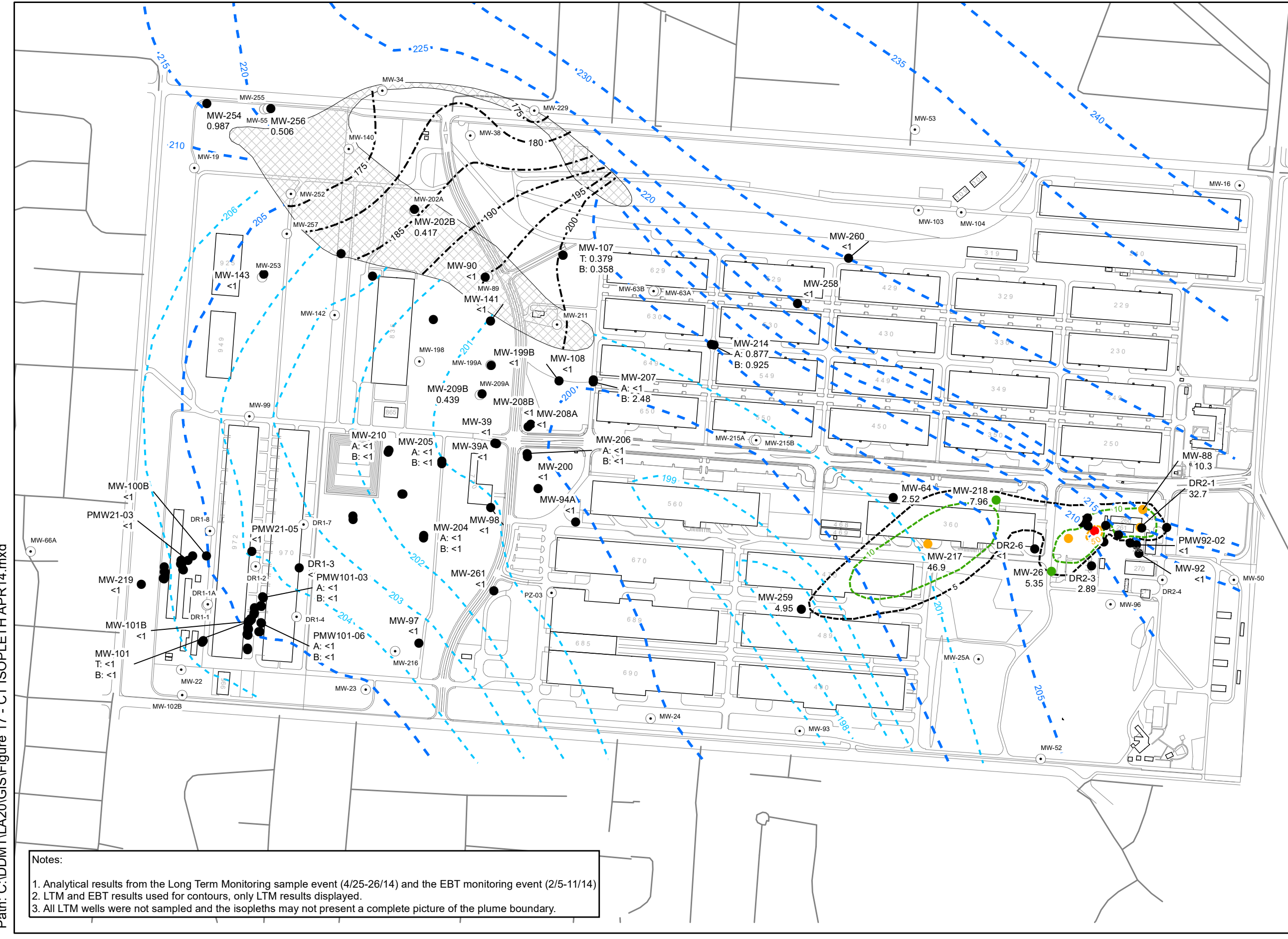
0 200 400 800

Feet

Date: December 2014
Edition: Rev 0

HR

Path: C:\DDMTLA20\GIS\Figure 17 - CT ISOPLETH APR14.mxd



Notes:

1. Analytical results from the Long Term Monitoring sample event (4/25-26/14) and the EBT monitoring event (2/5-11/14)
2. LTM and EBT results used for contours, only LTM results displayed.
3. All LTM wells were not sampled and the isopleths may not present a complete picture of the plume boundary.

Figure 17

**MAIN INSTALLATION
CT CONCENTRATIONS,
APRIL 2014**

ANNUAL LONG TERM
MONITORING REPORT - 2014

DEFENSE DEPOT
MEMPHIS, TENNESSEE

Legend

**CT Ranges
ug/L**

- 0 - 5
- 5 - 10
- 10 - 50
- 50 - 100
- Not Sampled

**CT Isopleth
ug/L**

- 5
- 10
- 50
- 100

▨ Clay Elevation Exceeds Groundwater Elevation

— 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

0 200 400 800

Feet





Figure 18

**MAIN INSTALLATION
PCE CONCENTRATIONS,
OCTOBER 2014**

ANNUAL LONG
TERM MONITORING
REPORT - 2014

DEFENSE DEPOT
MEMPHIS, TENNESSEE

Legend

PCE Ranges
ug/L

- 0 - 5
- 5 - 10
- 10 - 50
- 50 - 100
- 100 - 300
- Not Sampled

PCE Isopleth
ug/L

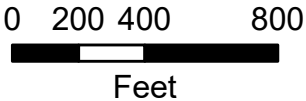
- 5
- 10
- 50
- 100

Clay Elevation Exceeds Groundwater Elevation

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



Notes:

1. Analytical results from the Long Term Monitoring sample event (10/18-21/14) and the EBT monitoring event (8/4-12/14)
2. LTM and EBT results used for contours, only LTM results displayed.

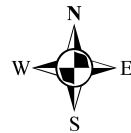


Figure 19

MAIN INSTALLATION
TCE CONCENTRATIONS,
OCTOBER 2014

ANNUAL LONG
TERM MONITORING
REPORT - 2014

DEFENSE DEPOT
MEMPHIS, TENNESSEE

Legend

TCE Ranges
ug/L

- 0 - 5
- 5 - 10
- 10 - 50
- 50 - 100
- 100 - 300
- Not Sampled

TCE Isopleth
ug/L

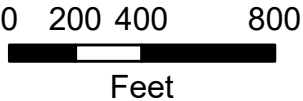
- 5
- 10
- 50
- 100

Clay Elevation Exceeds Groundwater Elevation

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

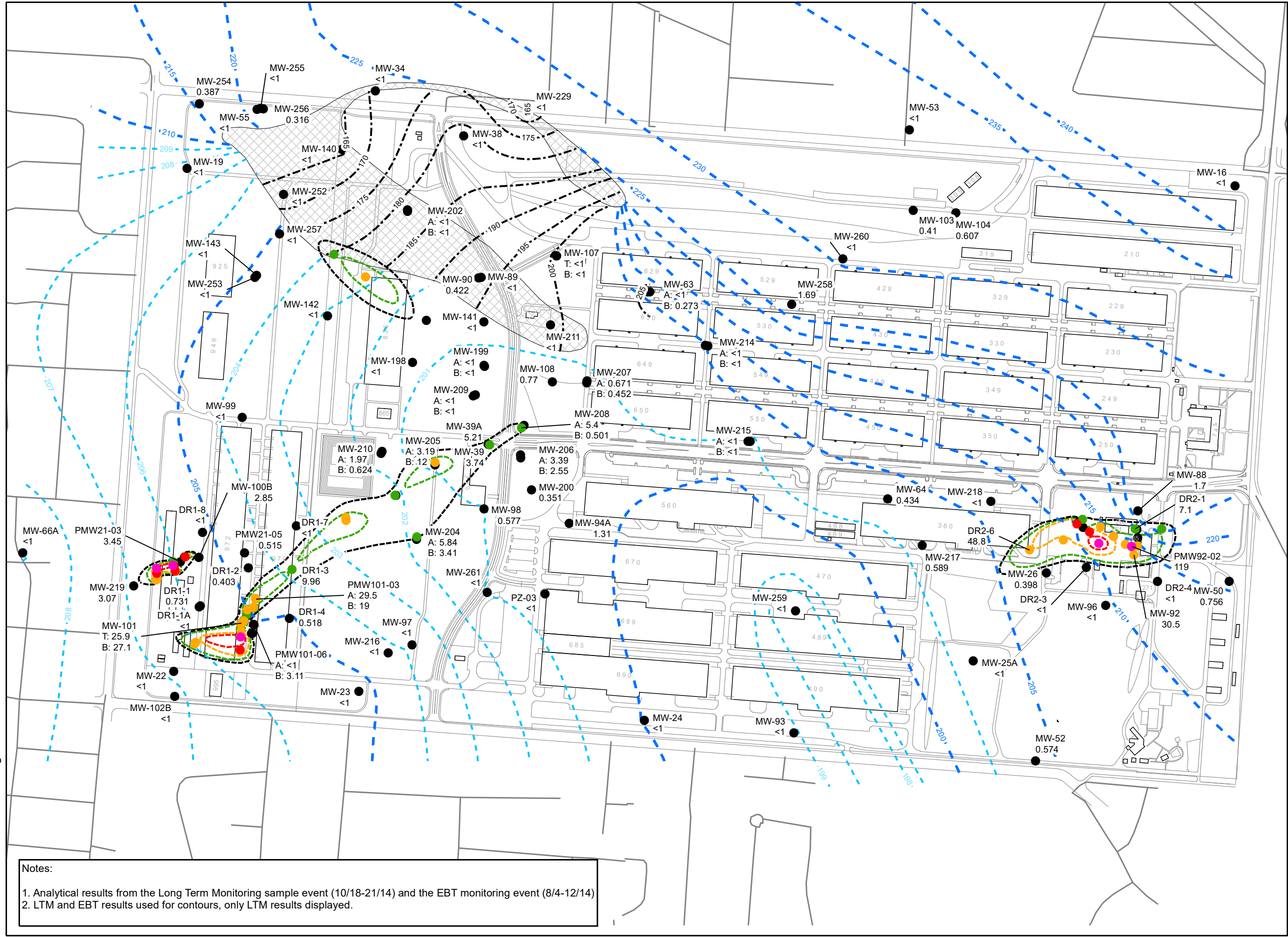


Notes:

1. Analytical results from the Long Term Monitoring sample event (10/18-21/14) and the EBT monitoring event (8/4-12/14)
2. LTM and EBT results used for contours, only LTM results displayed.



Path: C:\DDMTLA20\GIS\Figure 20 - cDCE ISOPLETH OCT14.mxd



Notes:

1. Analytical results from the Long Term Monitoring sample event (10/18-21/14) and the EBT monitoring event (8/4-12/14)

2. LTM and EBT results used for contours, only LTM results displayed.

Figure 20

MAIN INSTALLATION

CDCE CONCENTRATIONS,

OCTOBER 2014

ANNUAL LONG

TERM MONITORING

REPORT - 2014

DEFENSE DEPOT

MEMPHIS, TENNESSEE

Legend

cDCE Ranges

ug/L

- 0 - 5
- 5 - 10
- 10 - 50
- 50 - 100
- 100 - 300
- Not Sampled

cDCE Isopleth

ug/L

- 5
- 10
- 50
- 100

Clay Elevation Exceeds Groundwater Elevation

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

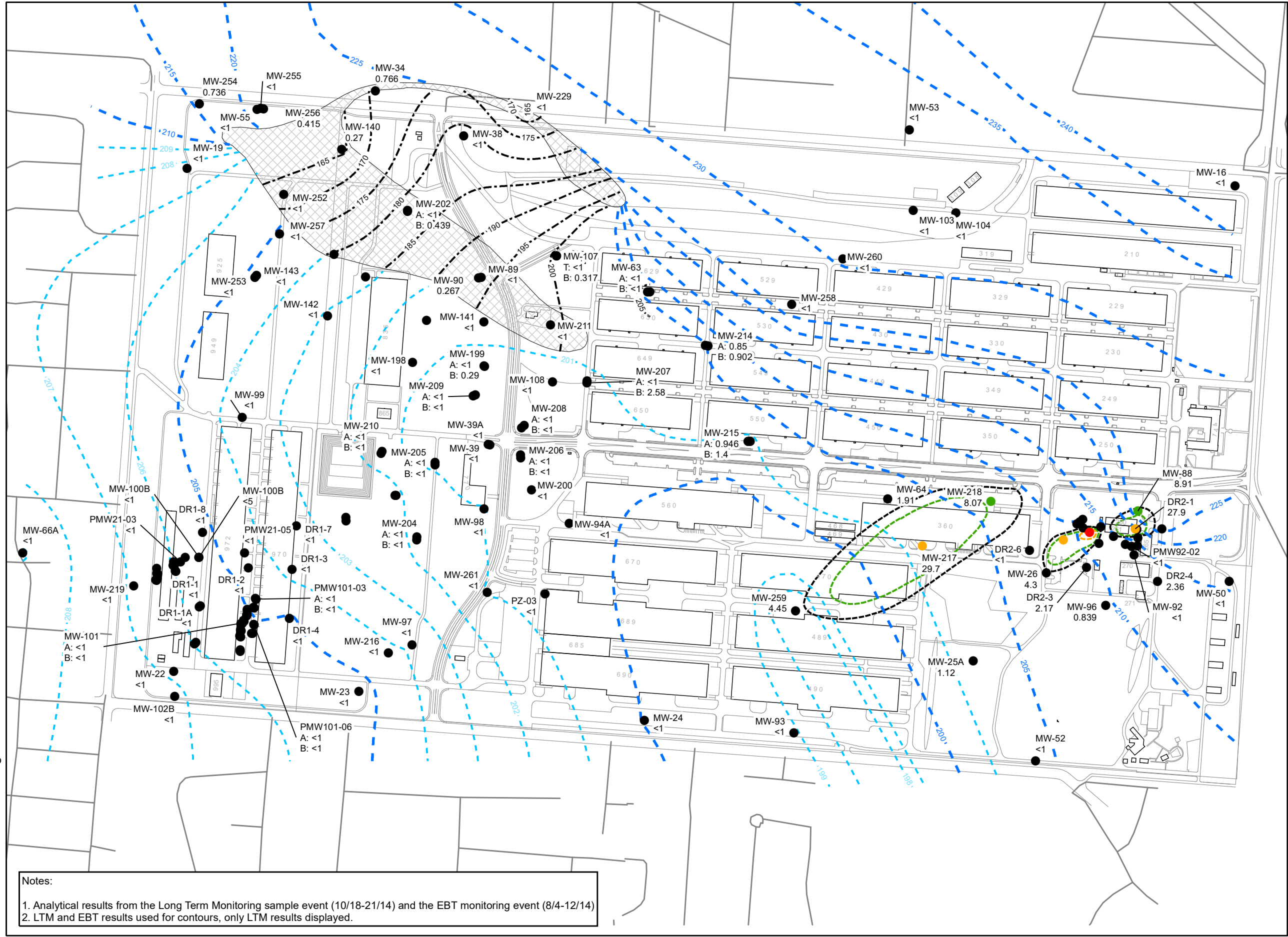
0 200 400 800

Feet

Date: December 2014

Edition: Rev 0

Path: C:\DDMT\LA20\GIS\Figure 21 - CT ISOPLETH OCT14.mxd



Path: C:\DDMT\LA20\GIS\Figure 22 TOP OF CLAY ELEVATIONS_Cross Sections.mxd

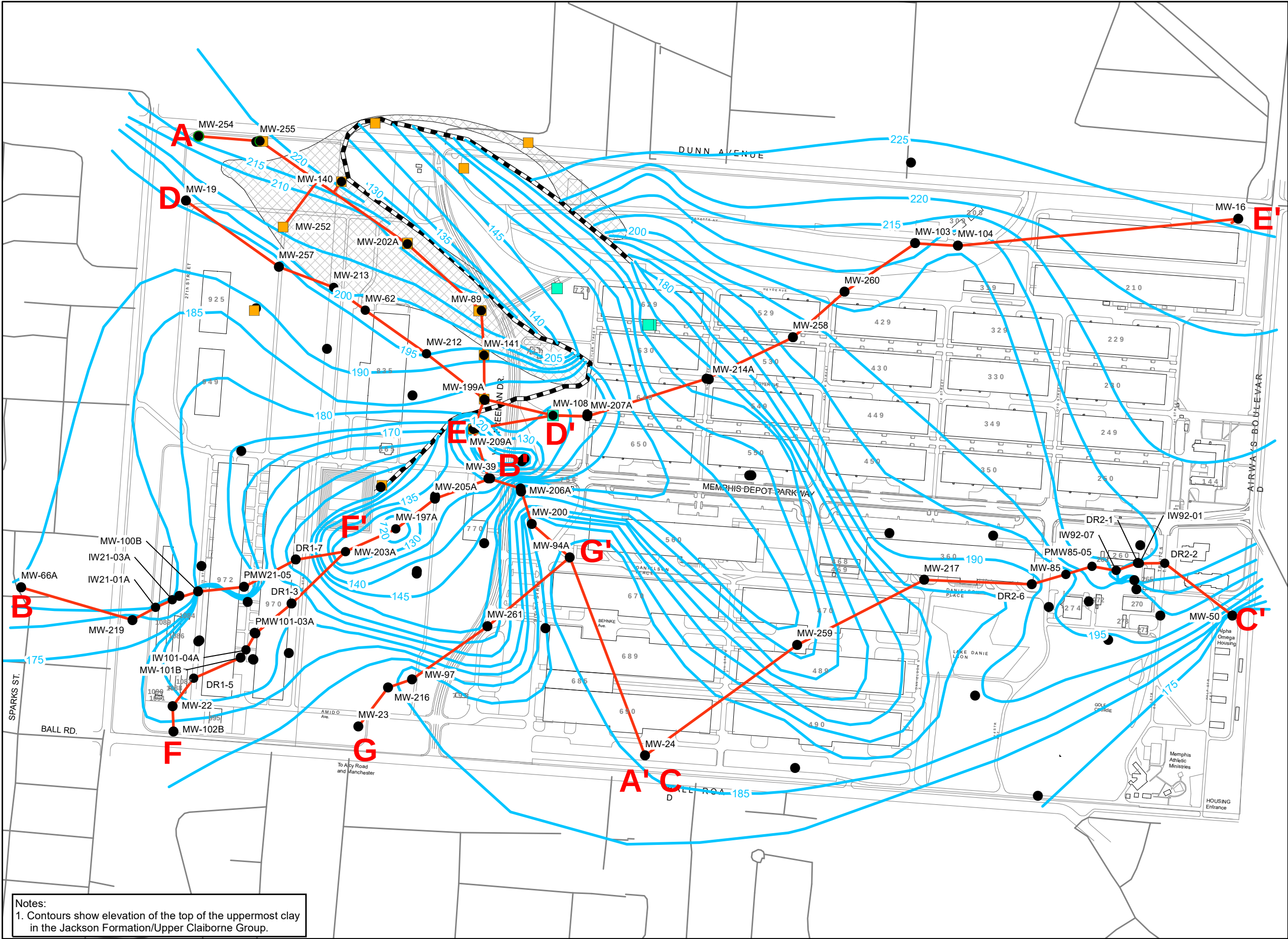


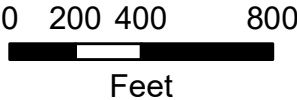
Figure 22
MAIN INSTALLATION
TOP OF CLAY ELEVATIONS
AND CROSS-SECTION
LOCATIONS
ANNUAL LONG
TERM MONITORING
REPORT - 2014

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
- Monitoring Well Screened in the Memphis Aquifer
- Top of Clay Contour (5-foot interval)
- ▬ Extent of Upper Clay Layer
- Elevations shown are feet, mean sea level
- ▨ Clay Elevation Exceeds Groundwater Elevation

Projection: NAD 1927 StatePlane Tennessee
Units: Feet



Notes:
1. Contours show elevation of the top of the uppermost clay in the Jackson Formation/Upper Claiborne Group.

A NORTH

A' SOUTH

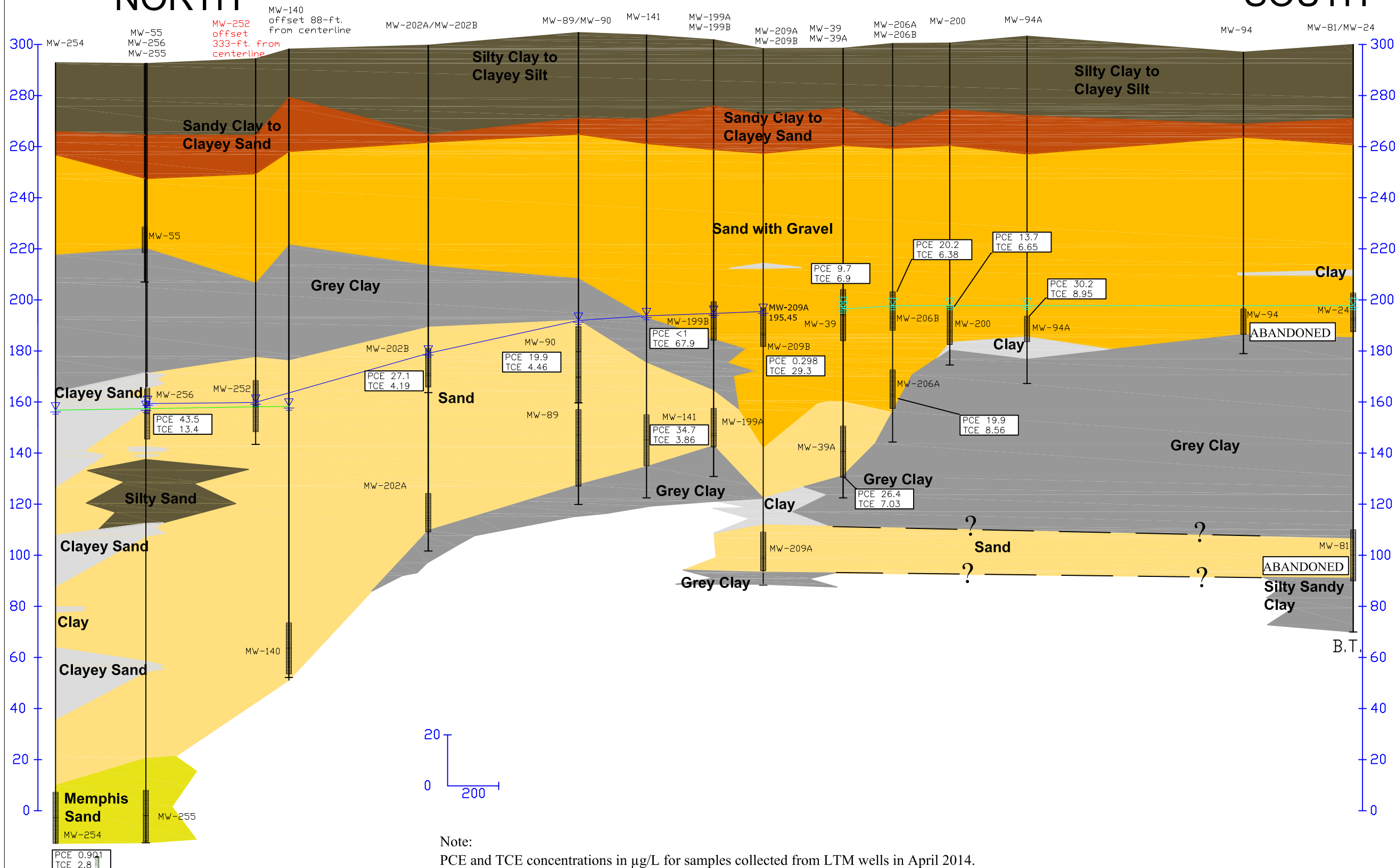
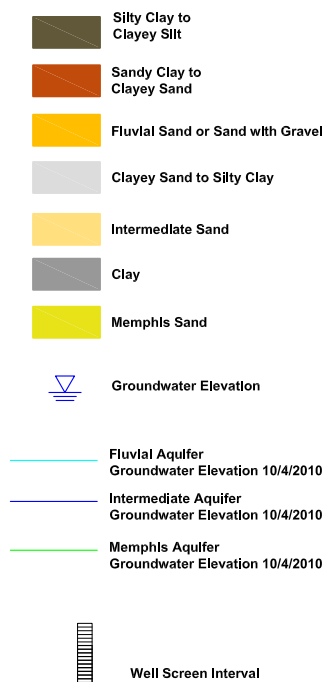


Figure 23
CROSS-SECTION A WITH
PCE AND TCE RESULTS,
APRIL 2014

ANNUAL LONG
TERM MONITORING
REPORT - 2014

DEFENSE DEPOT
MEMPHIS, TENNESSEE



A NORTH

A' SOUTH

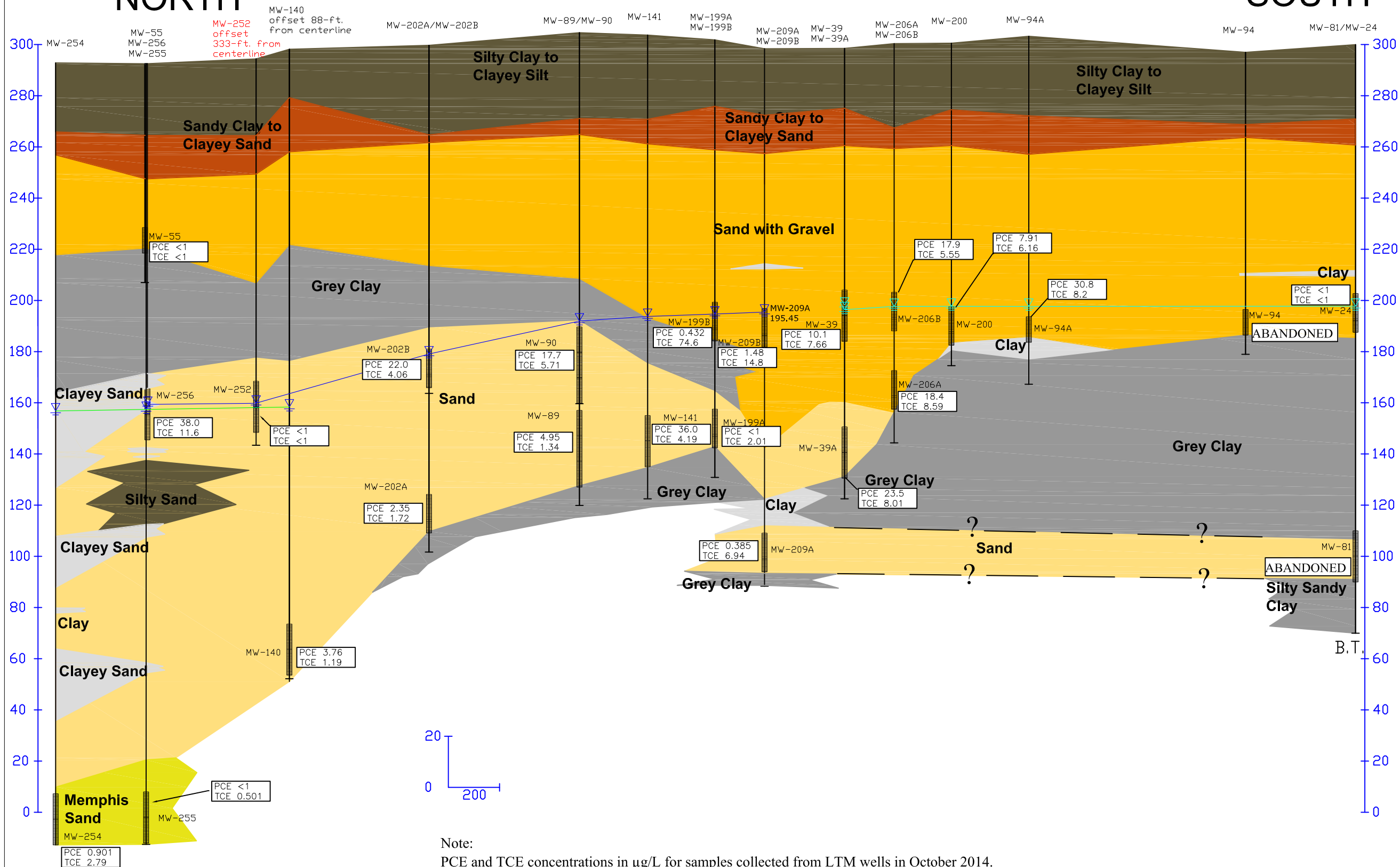


Figure 24

CROSS-SECTION A
WITH PCE AND TCE
RESULTS, OCTOBER
2014

ANNUAL LONG
TERM MONITORING
REPORT - 2014

DEFENSE DEPOT
MEMPHIS, TENNESSEE



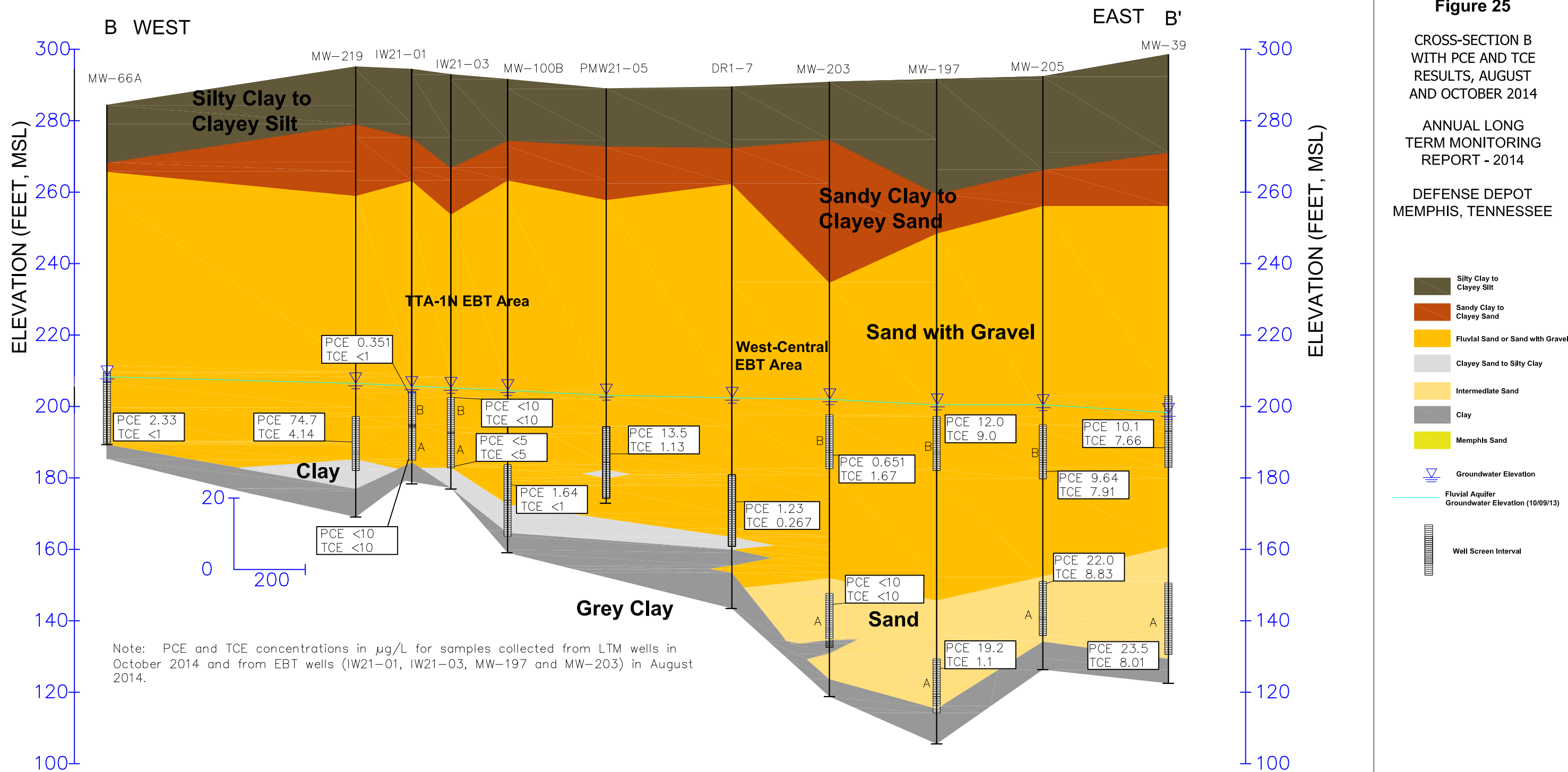


Figure 26

CROSS-SECTION C
WITH PCE AND TCE
RESULTS, AUGUST
AND OCTOBER 2014

ANNUAL LONG
TERM MONITORING
REPORT - 2014

DEFENSE DEPOT
MEMPHIS, TENNESSEE

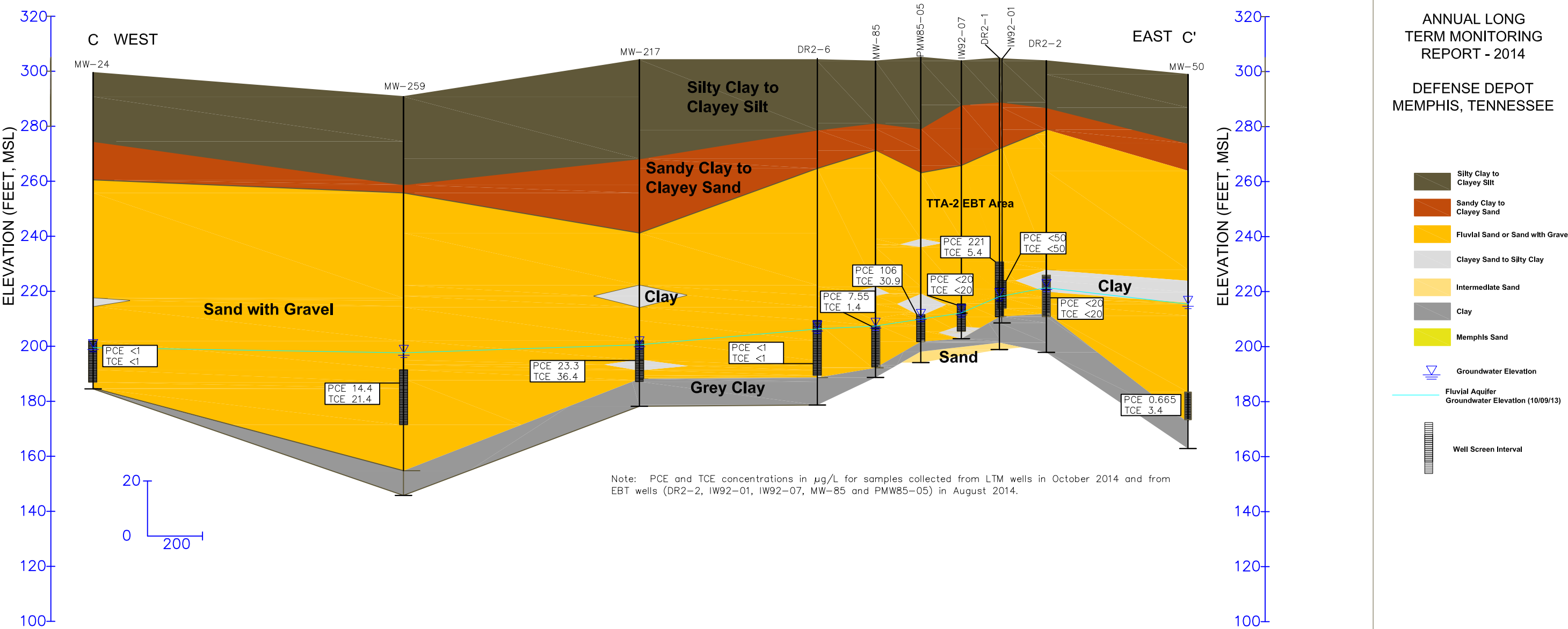


Figure 27

CROSS-SECTION D WITH PCE
AND TCE RESULTS, AUGUST
AND OCTOBER 2014

ANNUAL LONG
TERM MONITORING
REPORT - 2014

DEFENSE DEPOT
MEMPHIS, TENNESSEE

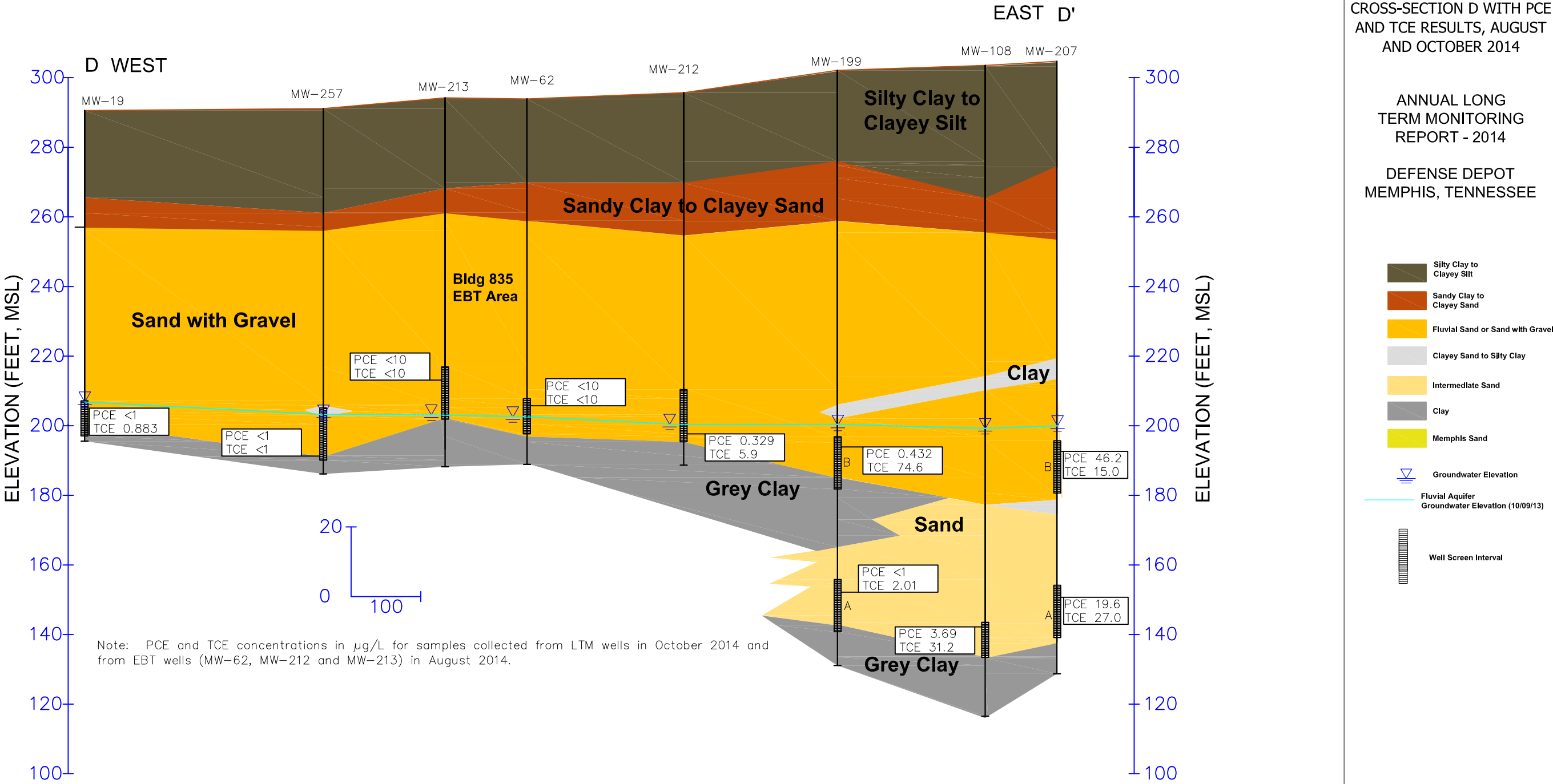


Figure 28

CROSS-SECTION E
WITH PCE AND TCE
RESULTS, OCTOBER
2014

ANNUAL LONG
TERM MONITORING
REPORT - 2014

DEFENSE DEPOT
MEMPHIS, TENNESSEE

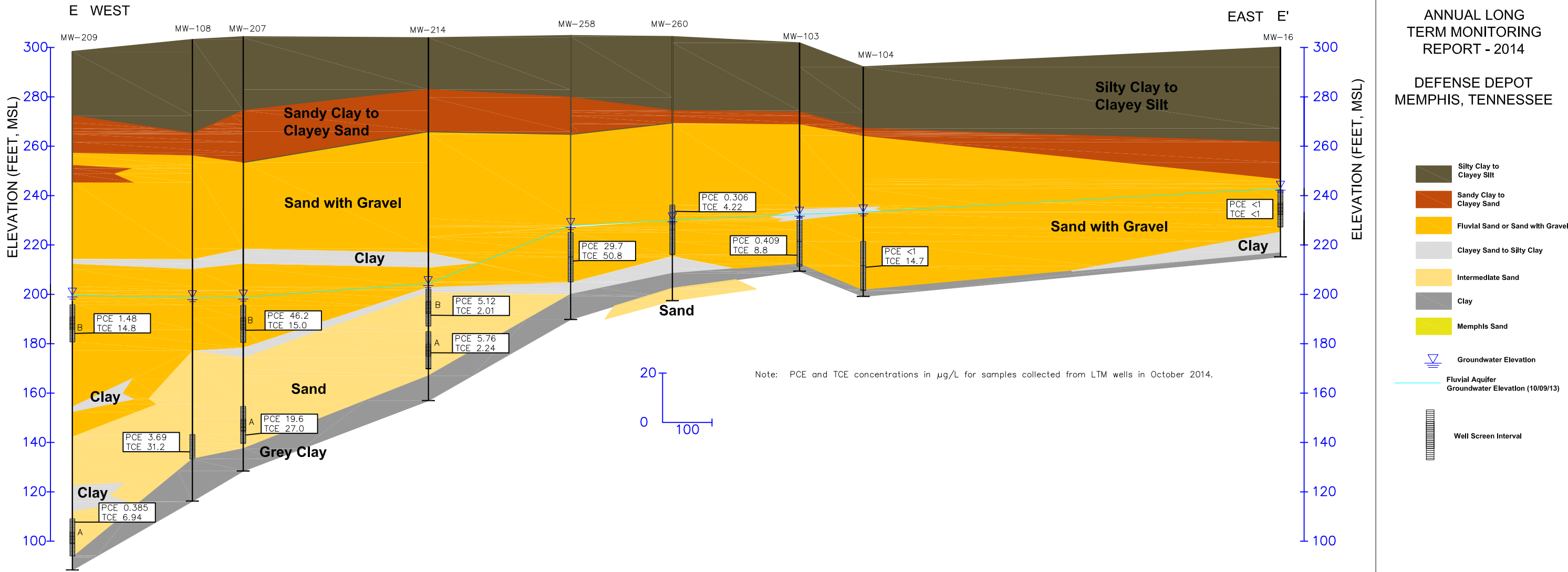
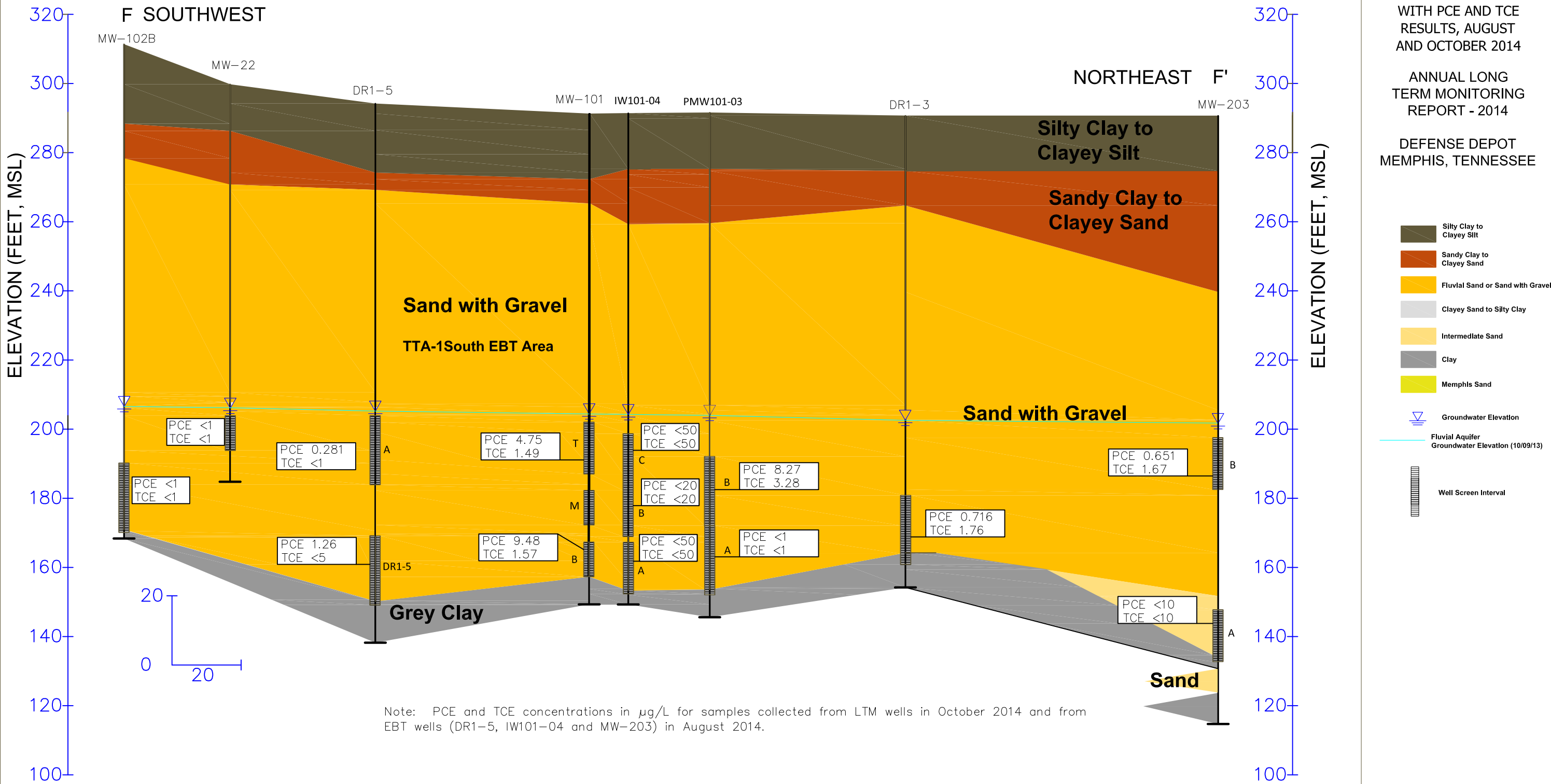


Figure 29

CROSS-SECTION F
WITH PCE AND TCE
RESULTS, AUGUST
AND OCTOBER 2014

ANNUAL LONG
TERM MONITORING
REPORT - 2014

DEFENSE DEPOT
MEMPHIS, TENNESSEE



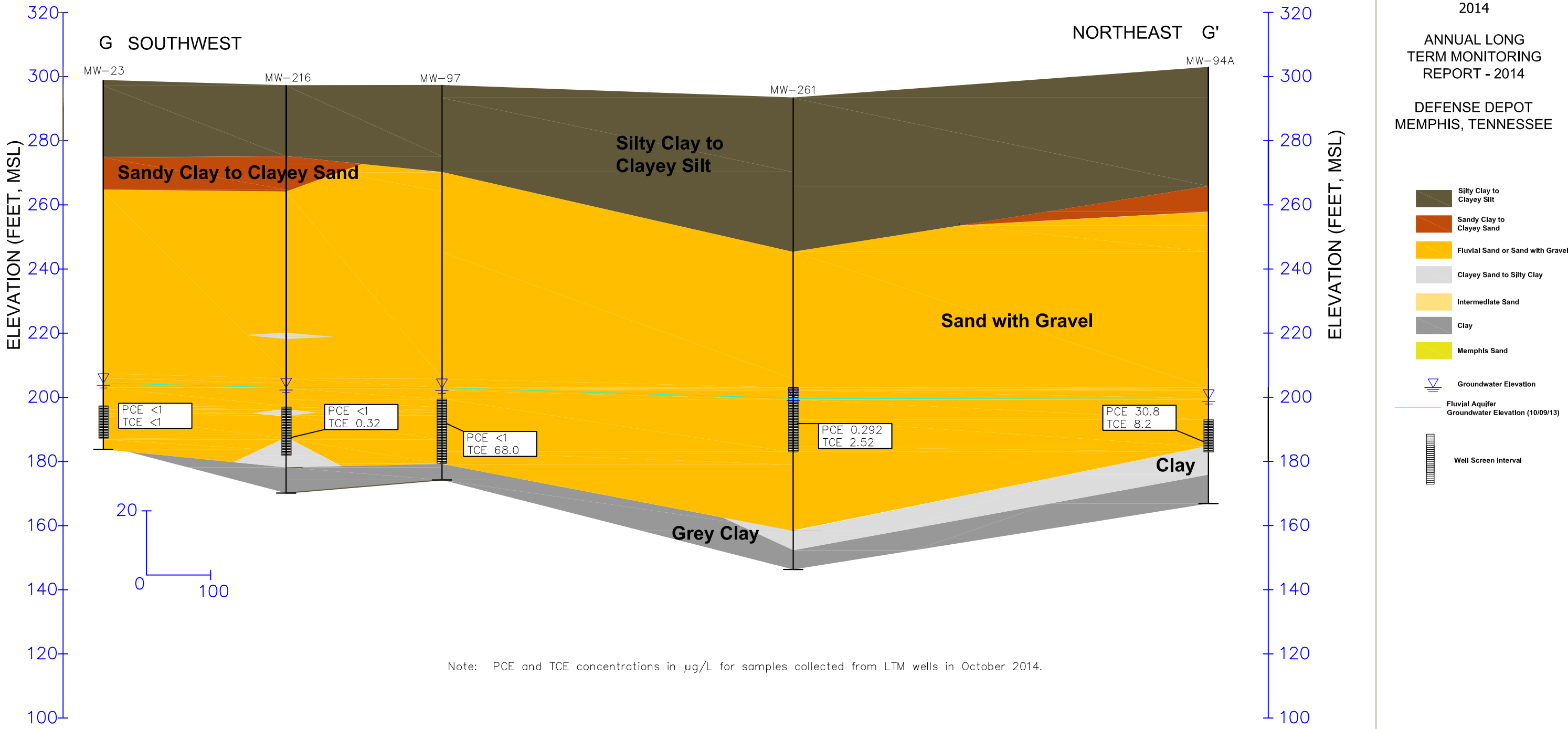
Note: PCE and TCE concentrations in μg/L for samples collected from LTM wells in October 2014 and from EBT wells (DR1-5, IW101-04 and MW-203) in August 2014.

Figure 30

CROSS-SECTION G
WITH PCE AND TCE
RESULTS, OCTOBER
2014

ANNUAL LONG
TERM MONITORING
REPORT - 2014

DEFENSE DEPOT
MEMPHIS, TENNESSEE



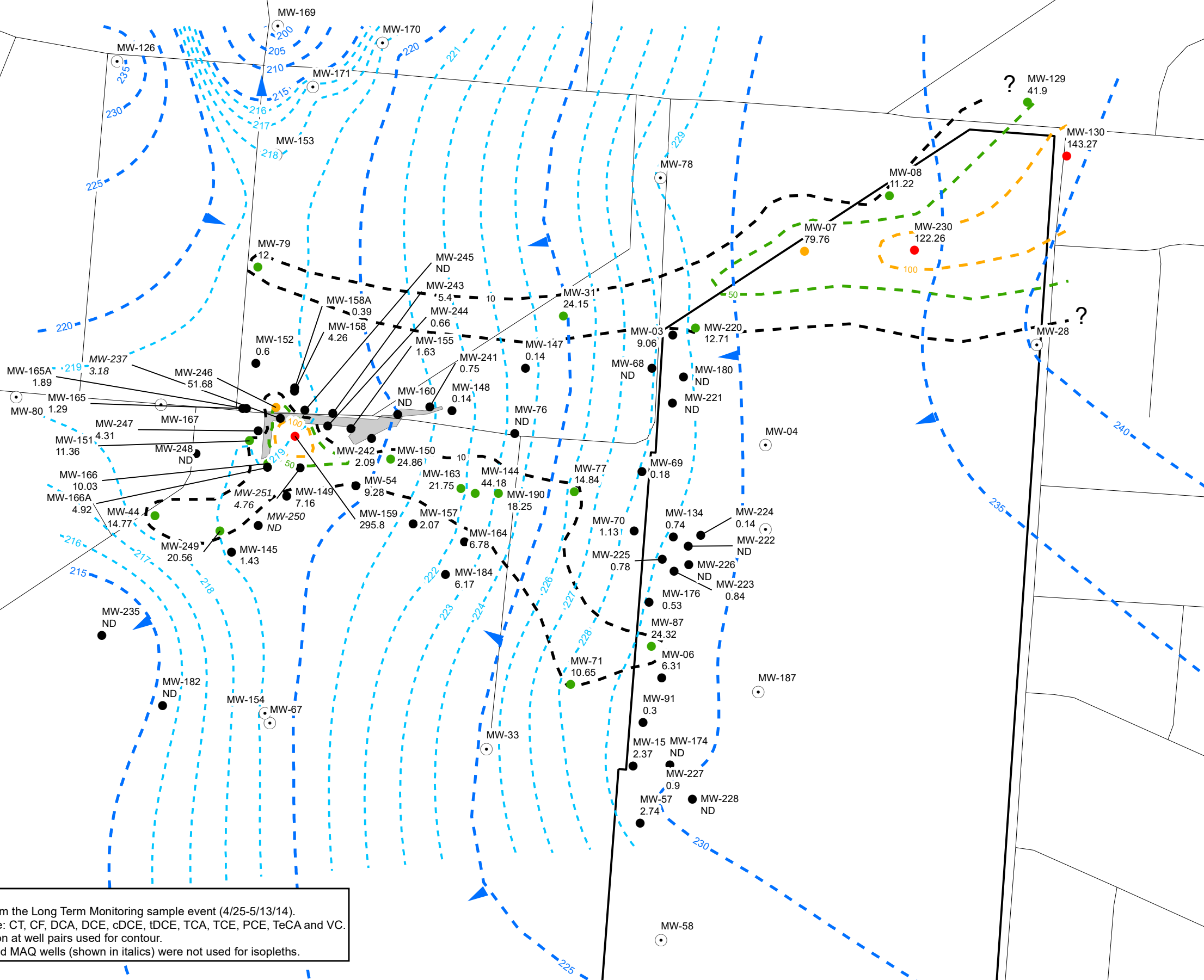


Figure 31

**DUNN FIELD
TOTAL CVOC
CONCENTRATIONS,
APRIL 2014**

**ANNUAL LONG
TERM MONITORING
REPORT - 2014**

**DEFENSE DEPOT
MEMPHIS, TENNESSEE**

Legend

Total CVOC Ranges (ug/L)

- 0 - 10
- 10 - 50
- 50 - 100
- 100 - 500
- ⊙ Not Sampled

Total CVOC Isopleth (ug/L)

- 10
- 50
- 100

--- Potentiometric surface of the Fluvial Aquifer 1-ft. contour

--- Potentiometric surface of the Fluvial Aquifer 5-ft. contour

▶ Groundwater Flow Direction

■ Air Sparge Well Area

— Original Dunn Field Property Boundary

0 100 200 300
Feet

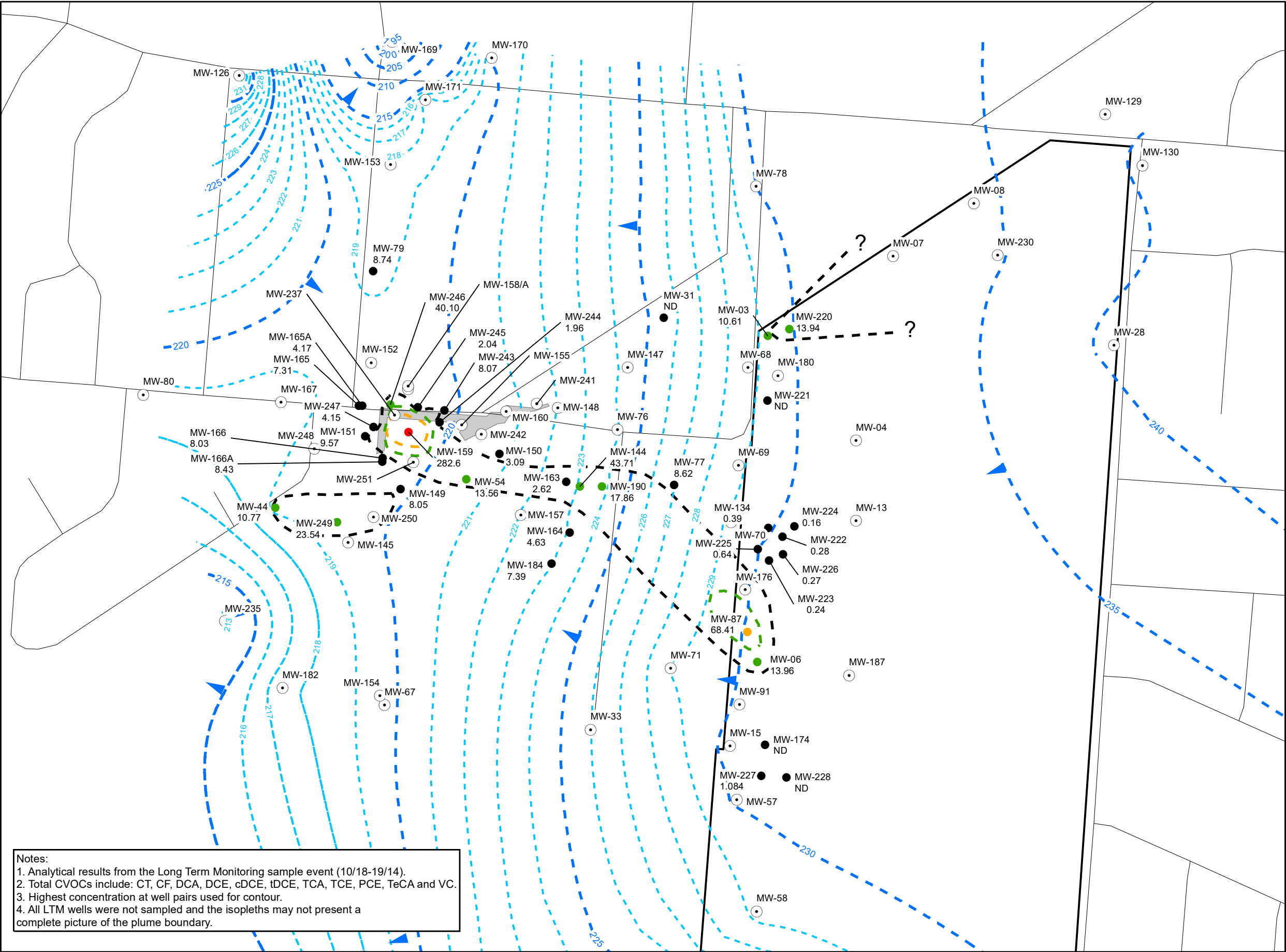
Notes:

1. Analytical results from the Long Term Monitoring sample event (4/25-5/13/14).
2. Total CVOCs include: CT, CF, DCA, DCE, cDCE, tDCE, TCA, TCE, PCE, TeCA and VC.
3. Highest concentration at well pairs used for contour.
4. Results from IAQ and MAQ wells (shown in *italics*) were not used for isopleths.

Date: December 2014
Edition: Rev 0



Path: C:\DDMT\LA20\GIS\Figure 32 TOTAL CVOC OCT14.mxd



Notes:
1. Analytical results from the Long Term Monitoring sample event (10/18-19/14).
2. Total CVOCs include: CT, CF, DCA, DCE, cDCE, tDCE, TCA, TCE, PCE, TeCA and VC.
3. Highest concentration at well pairs used for contour.
4. All LTM wells were not sampled and the isopleths may not present a complete picture of the plume boundary.

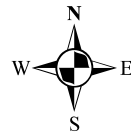


Figure 32
DUNN FIELD
TOTAL CVOC
CONCENTRATIONS,
OCTOBER 2014

ANNUAL LONG
TERM MONITORING
REPORT - 2014

DEFENSE DEPOT
MEMPHIS, TENNESSEE

Legend

Total CVOC Ranges (ug/L)

- 0 - 10
- 10 - 50
- 50 - 100
- 100 - 500
- Not Sampled

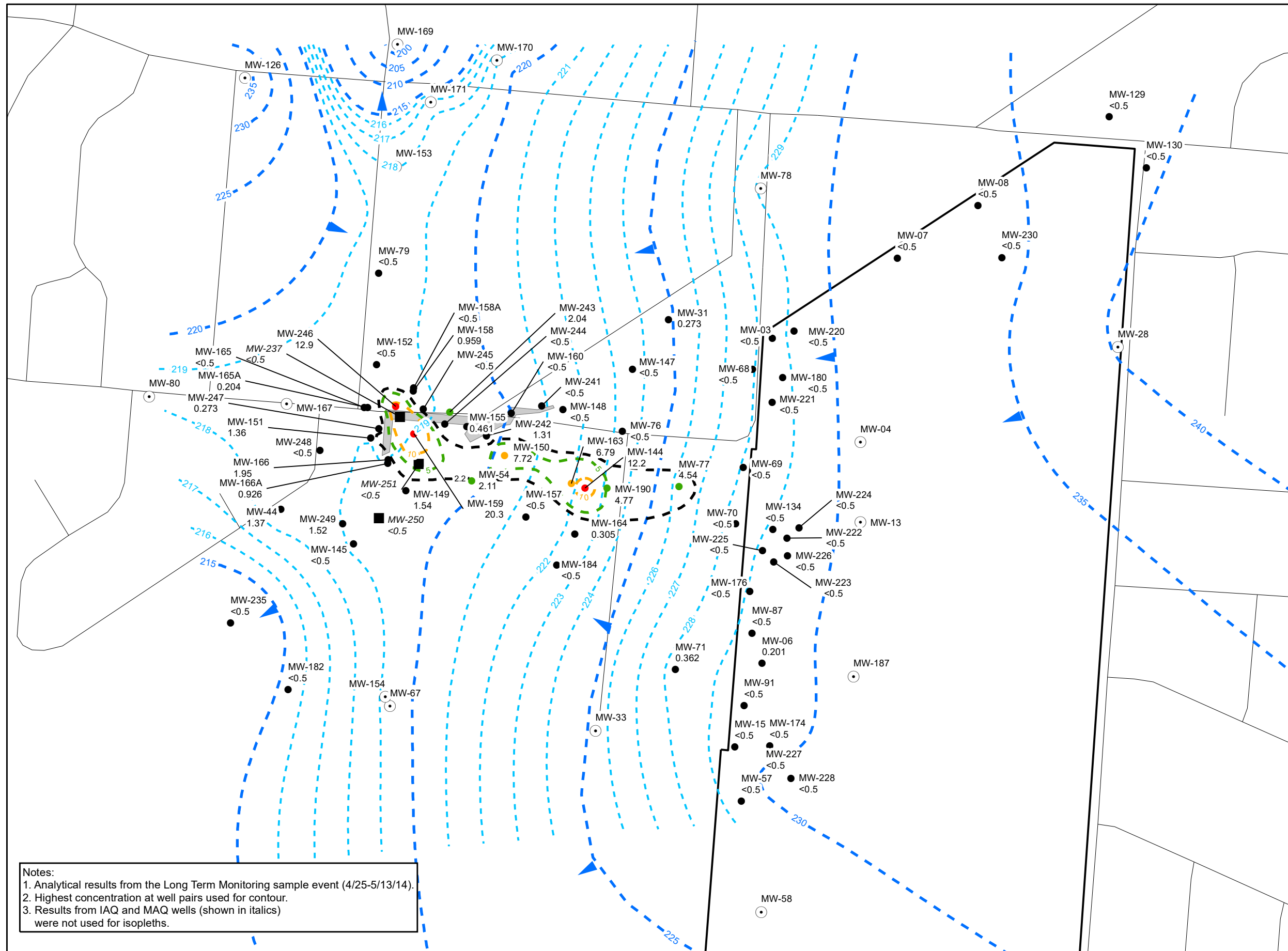
Total CVOC Isopleth (ug/L)

- 10
- 50
- 100

— Potentiometric surface of the Fluvial Aquifer 1-ft. contour
— Potentiometric surface of the Fluvial Aquifer 5-ft. contour
▶ Groundwater Flow Direction
■ Air Sparge Well Area
— Original Dunn Field Property Boundary

0 100 200 300
Feet





**DUNN FIELD
TeCA
CONCENTRATIONS**

APRIL 2014 LONG TERM MONITORING REPORT

DEFENSE DEPOT
MEMPHIS, TENNESSEE

Legend

TeCA Ranges (ug/L)

- 0-2
- 2-5
- 5-10
- 10-50
- Not Sampled

TeCA Isopleth (ug/L)

- 2.2
- 5
- 10

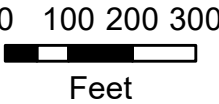
— Potentiometric surface of the Fluvial Aquifer 1-ft. contour

— Potentiometric surface of the Fluvial Aquifer 5-ft. contour

▶ Groundwater Flow Direction

■ Air Sparge Well Area

— Original Dunn Field Property Boundary



Date: December 2014
Edition: Rev 0



Path: C:\DDMT\LA20\GIS\Figure 34 DF PCE Apr2014.mxd

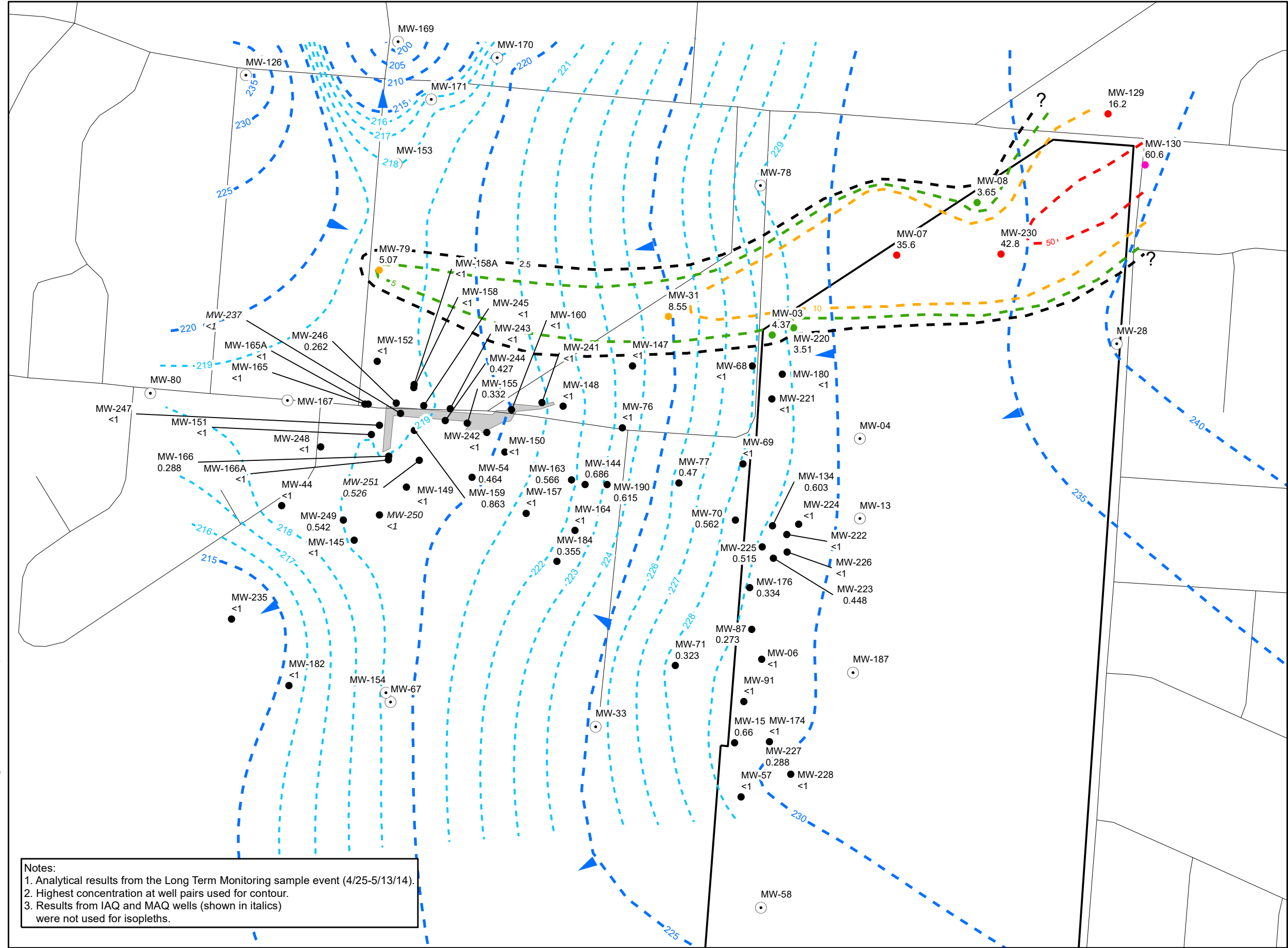


Figure 34
DUNN FIELD
PCE
CONCENTRATIONS,
APRIL 2014

ANNUAL LONG
TERM MONITORING
REPORT - 2014

DEFENSE DEPOT
MEMPHIS, TENNESSEE

Legend

PCE Ranges (ug/L)

- 0 - 2.5
- 2.5 - 5
- 5 - 10
- 10 - 50
- 50 - 250
- Not Sampled

PCE Isopleth (ug/L)

- 2.5
- 5
- 10
- 50

— Potentiometric surface of the Fluvial Aquifer 1-ft. contour

— Potentiometric surface of the Fluvial Aquifer 5-ft. contour

▶ Groundwater Flow Direction

■ Air Sparge Well Area

— Original Dunn Field Property Boundary

0 100 200 300
Feet

Notes:
1. Analytical results from the Long Term Monitoring sample event (4/25-5/13/14).
2. Highest concentration at well pairs used for contour.
3. Results from IAQ and MAQ wells (shown in *italics*) were not used for isopleths.

Path: C:\DDMT\LA20\GIS\Figure 35 DF TCE Apr2014.mxd

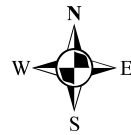
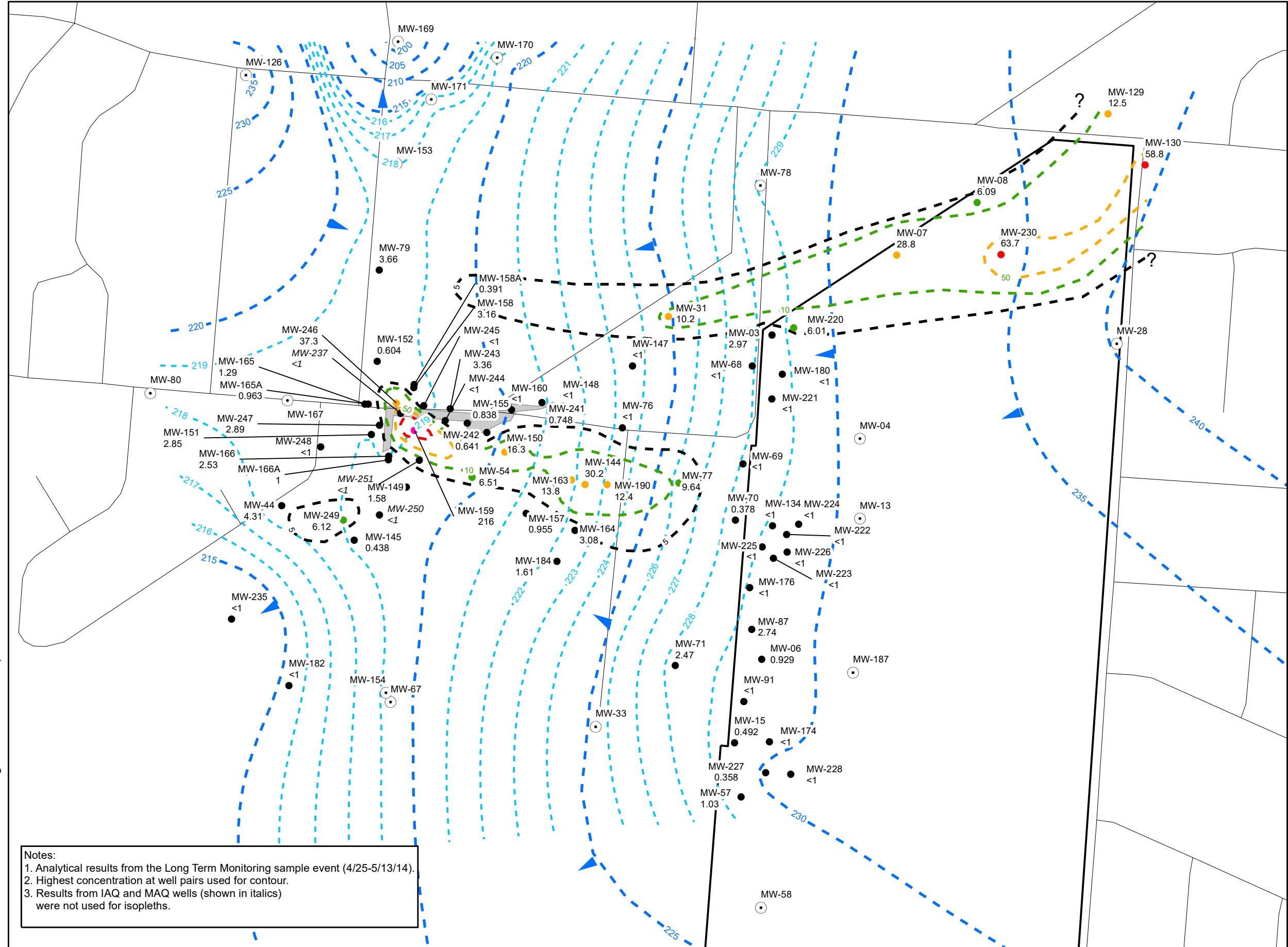


Figure 35

**DUNN FIELD
TCE
CONCENTRATIONS**

APRIL 2014 LONG
TERM MONITORING
REPORT

DEFENSE DEPOT
MEMPHIS, TENNESSEE

Legend

TCE Ranges (ug/L)

- 0-5
- 5-10
- 10-50
- 50-100
- 100-300
- Not Sampled

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
- ▶ Groundwater Flow Direction
- Air Sparge Well Area
- Original Dunn Field Property Boundary

0 100 200 300
Feet

Path: C:\DDMT\LA20\GIS\Figure 36 TeCA OCT2014.mxd

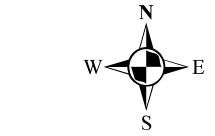
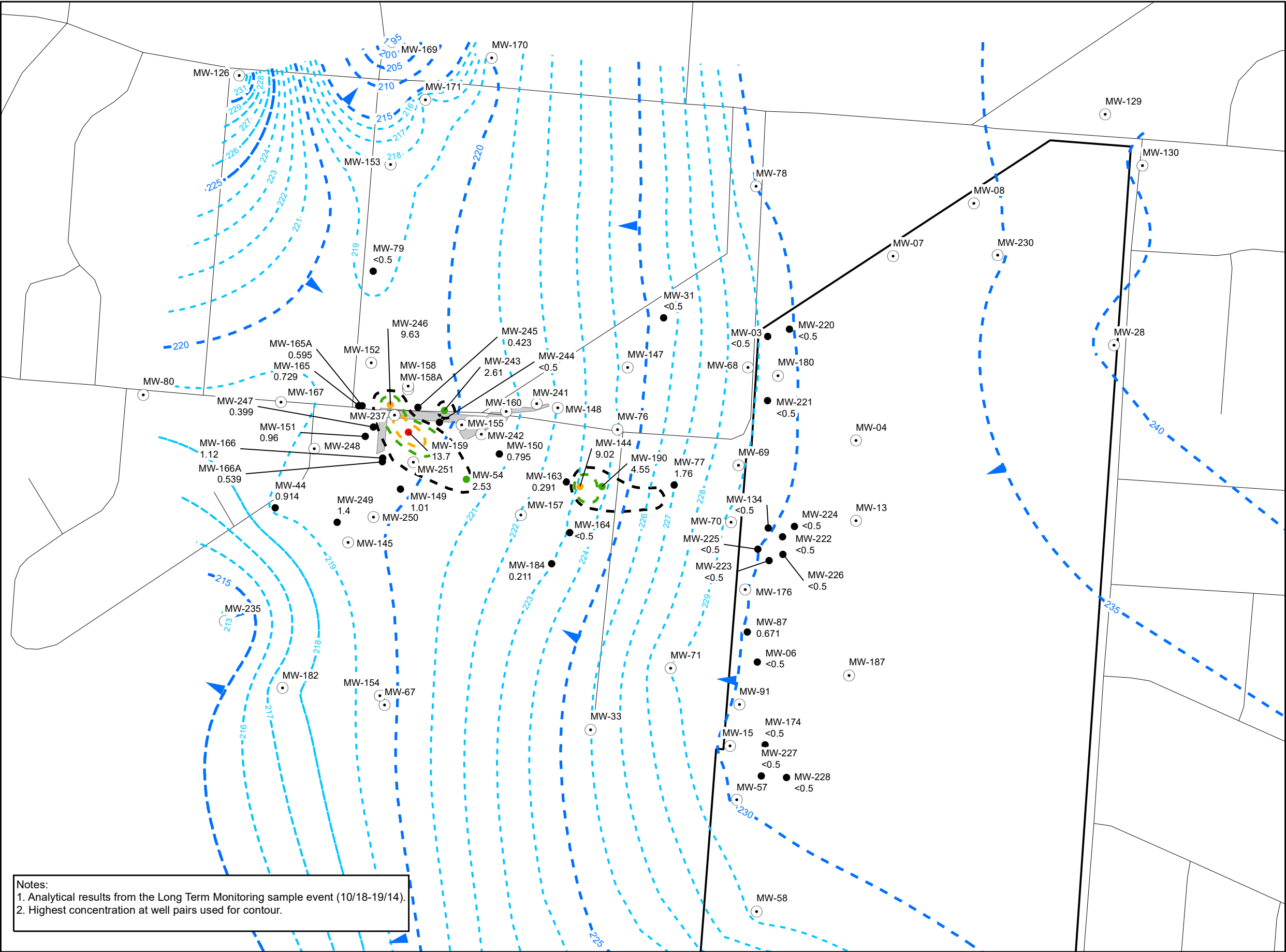


Figure 36
DUNN FIELD
TeCA
CONCENTRATIONS,
OCTOBER 2014

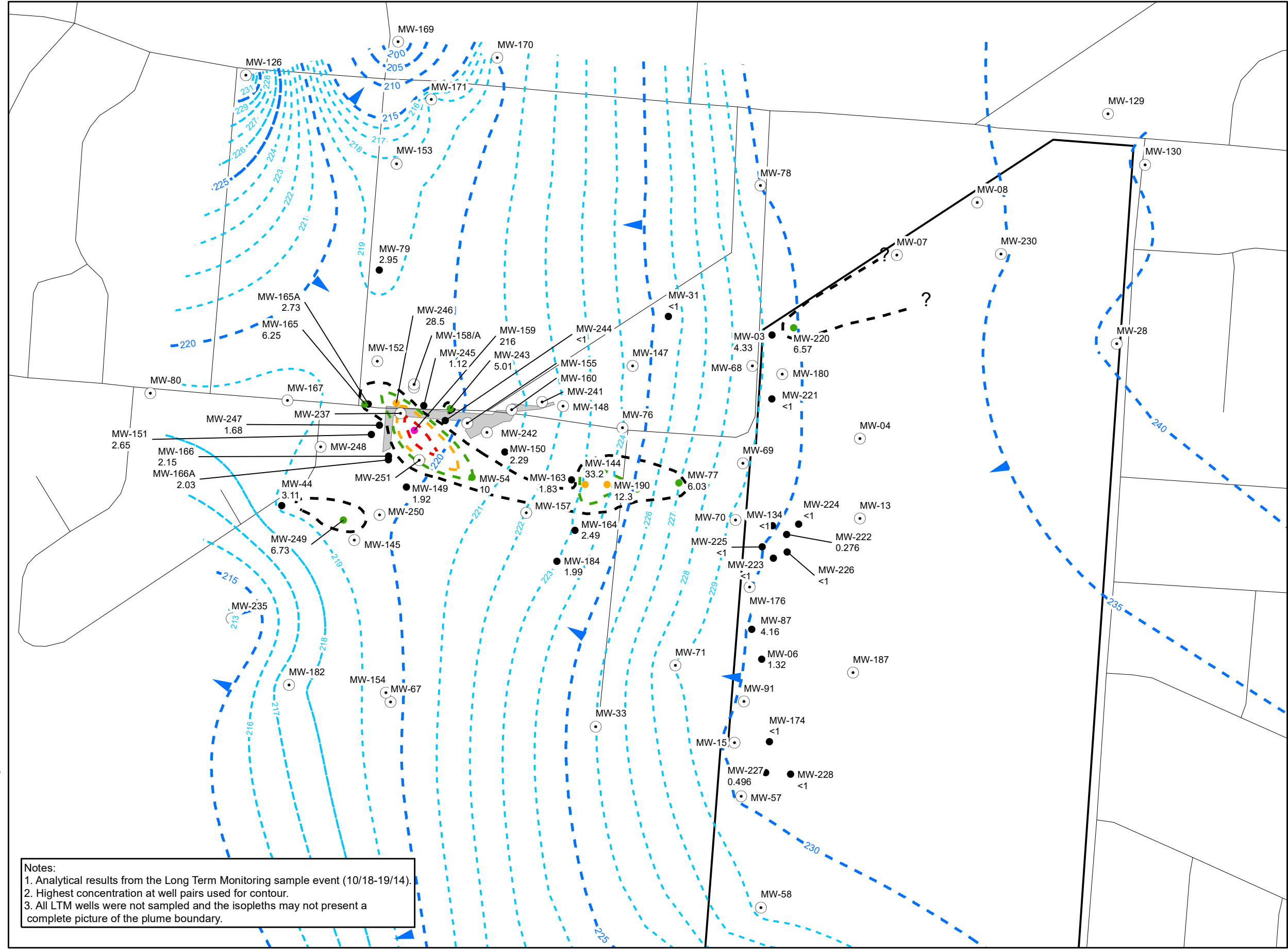
ANNUAL LONG
TERM MONITORING
REPORT - 2014

DEFENSE DEPOT
MEMPHIS, TENNESSEE

- Legend**
- TeCA Ranges (ug/L)**
- 0-2
 - 2-5
 - 5-10
 - 10-50
 - Not Sampled
- TeCA Isopleth (ug/L)**
- 2.2
 - 5
 - 10
- Potentiometric surface of the Fluvial Aquifer 1-ft. contour
- Potentiometric surface of the Fluvial Aquifer 5-ft. contour
- ▶ Groundwater Flow Direction
- Air Sparge Well Area
- Original Dunn Field Property Boundary

0 100 200 300
Feet

Path: C:\DDMT\LA20\GIS\Figure 37 TCE OCT2014.mxd



Notes:
1. Analytical results from the Long Term Monitoring sample event (10/18-19/14).
2. Highest concentration at well pairs used for contour.
3. All LTM wells were not sampled and the isopleths may not present a complete picture of the plume boundary.

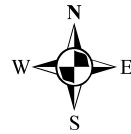


Figure 37
DUNN FIELD
TCE
CONCENTRATIONS,
OCTOBER 2014

ANNUAL LONG
TERM MONITORING
REPORT - 2014

DEFENSE DEPOT
MEMPHIS, TENNESSEE

Legend

TCE Ranges (ug/L)

- 0-5
- 5-10
- 10-50
- 50-100
- 100-300
- Not Sampled

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

▶ Groundwater Flow Direction

■ Air Sparge Well Area

— Original Dunn Field Property Boundary

0 100 200 300
Feet



APPENDIX A

RESPONSES TO USEPA AND TDEC COMMENTS



**TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
MEMPHIS ENVIRONMENTAL FIELD OFFICE
8383 WOLF LAKE DRIVE
BARTLETT, TN 38133-4119
PHONE (901) 371-3000 STATEWIDE 1-888-891-8332 FAX (901) 371-3170**

April 28, 2015

Carolyn Jones
Program Manager
Office of the Chief of Staff for Installation Management
Attn: BRAC Division (DAIM-ODB)
2530 Crystal Drive (Taylor Bldg.), Room 5000
Arlington, VA 22202-3940

**Subject: 2014 Annual Long-term Monitoring Report-Response to Comments
Defense Depot Memphis, Tennessee
TDoR ID # 79-736
EPA ID # TN 4210020570**

Dear Ms. Jones,

TDEC-DoR has reviewed and approves of the Response to Comments submittal, as compiled by HDR, regarding TDEC-DoR comments on the DDMT 2014 Annual Long-term Monitoring Report (Rev. 0). If there are questions or concerns, please contact me at (901) 371-3041 or at jamie.woods@tn.gov.

Regards,

A handwritten signature in blue ink, reading "JAWood", with a long horizontal flourish extending to the right.

Jamie A. Woods, P.G.
Project Manager
Division of Remediation
Memphis Environmental Field Office

cc: Thomas C. Holmes (HDRInc)
Diedre Lloyd (EPA-PM)
Ben Bentkowski (EPA R4 Technical Services Section)
Joan Hutton (CALIBRE)
TDoR NCO: file 79-736
TDoR MEFO: file 79-736

**Responses to Comments from
Tennessee Department of Environment and Conservation
Annual Long-Term Monitoring Report – 2014
Defense Depot Memphis, Tennessee
Revision 0, February 2015
U.S. EPA ID Number TN4210020570**

General Comments

1. **Section 1.4, Previous Groundwater Monitoring; page 1-8, 3rd paragraph:** Could the current EBT injection well configuration be revised in order to provide treatment to the areas in close proximity to the 18 wells not responding to treatment? (regarding the 18 of 34 wells not impacted by the current EBT configuration)

Army Response: Further EBT with expanded treatment areas will be one of the alternatives examined in the focused feasibility study which will be completed after the supplemental remedial investigation, which is in progress.

The comment is not considered to require revision of the LTM report.

2. **Section 1.4, Previous Groundwater Monitoring; page 1-8, 4th paragraph, 1st sentence:** Please clarify the years (2012-2013) these wells were installed when discussing their reclassification as performance monitoring wells.

Army Response: The subject sentence will be revised to: "... classify the wells installed in 2012 (MW-257, MW-258 and MW-259) and 2013 (MW-260 and MW-261) as performance wells;"

3. **Section 2.1.1, April 2014; page 2-2, 2nd sentence:** Regarding wells MW-33, and MW-182. I recommend we close these wells out unless the data obtained from them is critical for plume delineation or potentiometric surface maps.

Army Response: The well locations are shown on several figures in the report (7, 12, 13 and 31-37) and the historical results for CVOCs are provided in Appendix F.

MW-33 was installed in 1989 for the initial remedial investigation; it is located side-gradient to contaminant plumes in the southern portion of Dunn Field. It has generally been non-detect for CVOCs and helped delineate the southern extent of plumes originating on Dunn Field. The historical results show 32 samples since 1993 and 12 samples since June 2005. The samples collected since 2005 were non-detect for all CVOCs in five samples, contained CVOCs below the reporting limit (RL) in four samples and contained CVOCs above the RL in three samples (carbon tetrachloride at 1.5 µg/L in 2007, and chloroform at 0.517 µg/L [flagged B] in 2011 and at 0.318 µg/L in 2013). Army agrees that abandonment of MW-33 is appropriate and will make that recommendation in the 2015 LTM report.

MW-182 was installed in 2005 as the shallow well in a cluster with MW-183 to improve the conceptual site model during the Off Depot remedial design investigation. The LTM plan in the

Off Depot RD recommended MW-182 for multiyear sampling or evaluation for abandonment and recommended MW-183 for abandonment. MW-183 was abandoned in July 2009. MW-182 was maintained to monitor potential contaminant migration south from the AS/SVE area. The historical results show 9 samples since 2005. Trichloroethene was detected below the RL in 2005, but all following samples were non-detect for all CVOCs. Army agrees that abandonment of MW-182 is appropriate and will make that recommendation in the 2015 LTM report.

4. **Figures Section, Figures 25, 26, and 27:** Please clarify the sample collection dates and their analytical results for the wells shown in these cross-sections B-B ', C-C', and D-D'.

Army Response: The following sentence will be added at the introduction of cross-sections in Section 3.4.1 page 3-6, after the first sentence in the third full paragraph: “EBT wells, which are not included in LTM, are also included on the cross-sections where appropriate.” The brief, bulleted descriptions of the cross-sections on pages 3-6 and 3-7 state that EBT wells are included on cross-sections B, C, D and F.

The note below the cross-sections on Figures 25, 26, 27 and 29 will be revised to the following: “Note: PCE and TCE concentrations in µg/L for samples collected from LTM wells in October 2014 and from EBT wells (*list wells*) in August 2014.”

The note below the cross-sections on Figures 24, 28 and 30 will be revised to the following: “Note: PCE and TCE concentrations in µg/L for samples collected from LTM wells in October 2014.”

The note below the cross-sections on Figure 23 will be revised to the following: “Note: PCE and TCE concentrations in µg/L for samples collected from LTM wells in April 2014.”



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

May 20, 2015

UPS NEXT DAY AIR
RETURN RECEIPT REQUESTED

Ms. Carolyn Jones
Assistant Chief of Staff for Installation Management
Base Realignment and Closure Division (ACSIM-ODB)
2530 Crystal Drive (Taylor Building), Room 5000
Arlington, VA 22202-3940

Dear Ms. Jones:

The U.S. Environmental Protection Agency (EPA) has received and reviewed the Department of the Army, Defense Depot of Memphis Depot Annual Long-Term Monitoring Report for 2014, Revision 0, February, 2015.

EPA approves the above referenced report subsequent to teleconference with US Army personnel and contractors. If you have any questions or concerns, please contact me at (404) 229-9500.

Sincerely,


Diedre Lloyd
Remedial Project Manager
Federal Facilities Branch
Superfund Division

cc: Ms. Carolyn Jones, (Signed Original), United Parcel Service, Return Receipt
Mr. Jamie A. Woods, PG, Tennessee, Department of Environment and Conservation, Memphis
Environmental Field Office, 8383 Wolf Lake Drive, Bartlett, TN 38133-4119
Ms. Joan Hutton, CALIBRE, 3898 Mountain View Road, Kennesaw, GA 30152
Mr. Thomas Holmes, HDR Environmental, P.O. Box 728, Highlands, NC 28741

**Revised Responses to Comments from
U.S. Environmental Protection Agency (EPA) Region 4
Annual Long-Term Monitoring Report – 2014
Defense Depot Memphis, Tennessee
Revision 0, February 2015
Memphis, Shelby County
U.S. EPA ID Number TN4210020570**

General Comments

1. Page 4-1, Section 4.1.1, Changes to LTM for 2015 – EPA concurs with the recommendation to increase the sampling frequency for Sentinel well MW-209A as described in the report.
 - a. EPA would prefer to wait to change the recommended decreased sampling frequency for the following wells with the understanding that the same recommended changes can be revisited during the next Annual LTM Report for 2015:
 - i. Sentinel Well MW-253 since this well is the only monitor well in that location that is screened within the Intermediate Aquifer and contamination has been noted as migrating vertically into the MAQ.
 - ii. Sentinel Well MW-254 and Performance Wells MW-214A/B – these wells represent the only wells in their respective vicinities as data points

Significant onsite changes and investigation are under proposal and EPA thinks it would be beneficial to collect additional samples for another year from MW-253, MW-254 and W 214A/B to facilitate onsite delineation and information collection, especially with increasing trends and new remedial technologies under discussion.

Army Response: The recommended changes for both increased and decreased sample frequency at the wells were made in accordance with the approved LTM plan. The issue regarding well locations would be applicable to a number of wells at the MI and it is not relevant to potential for change in concentrations that have been consistently low. There are no planned changes in activities that would impact concentration in these wells and more frequent samples would not aid the SRI.

Historical results are provided in Appendix D. MW-253 has had no CVOCs detected in 5 sample events beginning in April 2012. MW-254 has had consistent results in 11 samples since installation in 2010. MW-214A/B have had consistent results over 16 samples since installation in 2007, except for an increase in 2010 and 2011, after which semiannual sampling was begun.

The comment is not considered to require revision of the LTM report. However, the recommended changes in sample frequency will be reconsidered during review of local precipitation-water level data to evaluate optimal dates for the semiannual LTM sample events. In addition, EPA and TDEC will be informed of future LTM changes prior to implementation.

2. Page 4-2, Section 4.2.1, Changes to LTM for 2015 – EPA would prefer to wait to change the recommended decreased sampling frequency for Performance Well, MW-184 since this well has a 10 foot screen interval and is the only well with this screen interval in the vicinity. The recommended decreased sampling frequency can be revisited during the next Annual LTM Report for 2015.

Army Response: As stated in the response to comment #1, the recommended change was made in accordance with the approved LTM plan. The fact that the well has a 10-foot screen interval is not relevant to potential for change in concentrations that have been below MCLs in five samples since April 2012.

The comment is not considered to require revision of the LTM report. As stated in the response to Comment #1, the recommended change in sample frequency will be reconsidered during review of local precipitation-water level data to evaluate optimal dates for the semiannual LTM sample events.

3. Please provide additional information as to why Dunn Field has no monitor wells designated as “Boundary Wells”?

Army Response: The “Boundary Wells” designation was not used in the Dunn Field LTM plan in Appendix C of the Off Depot Groundwater RD. The “Boundary” and “Background” designation criteria from the MI LTM Plan are listed on page 1-7 of the 2014 LTM report. The “Boundary” designation is a subset of the “Background” designation. Groundwater flows on to the MI from the north, east and west, and the “Boundary” designation was apparently considered more useful for the MI.

The comment is not considered to require revision of the LTM report. The LTM well classifications will be reviewed with EPA and TDEC for consistency of data quality objectives at the Main Installation and Dunn Field and will be revised in the 2015 LTM report, if warranted.

4. Based on some investigation into older documents and conversations – the older (historical) property line for the Dunn Field initially contained more acreage (property) on the far NE corner. Please provide a historical map that outlines the “older” footprint of previous ownership.

Army Response: The Army transferred 1.57 acres in two parcels to the City of Memphis in 2005 for realignment of Hayes Road. One parcel was located at the southeast corner of Dunn Field near Dunn Avenue and the other at the northeast corner near Persons Avenue. The original boundary for Dunn Field is shown on an attached aerial photograph (Attachment 1) with the existing monitoring wells included.

The figures for Dunn Field in the 2014 LTM report (Figures 7, 12, 13 and 31 to 37) show the original site boundary; an updated base map with the road realignment has not been prepared. No revisions to the figures are considered necessary at present; revisions to site figures will be considered for future LTM reports following further review by EPA.

5. Page 1-4, Section 1.3.2, Dunn Field – Please provide additional details of what tests and what parameters will be/are considered for proper operation of the AS/SVE system.

Army Response: The comment appears to reference the last sentence in that section on Page 1-6: “The change in system operations will be implemented after the system is operating properly.” Operating properly in that sentence referred to the air compressor and sparge wells and the SVE blowers operating with similar pressure and flow rates to those recorded prior to equipment shutdown in February 2014. The system was restarted on 6 March 2014 and met those parameters. The manifold to the air sparge wells was closed on April 7 in accordance with the planned change in operations.

The sentence will be revised to note that AS/SVE operations resumed and the change in

operations has been implemented.

6. Page 2-2, Section 2.1.1, April 2014 - Please provide additional details as to why MW-33 and MW-182 on Dunn Field were inaccessible for sampling.

Army Response: MW-33 was not accessible in 2014 due to fencing and debris placed around the well by a nearby resident; a photograph of the material blocking the well is shown on Attachment 2. The problem has been on-going since April 2012. The material was removed prior to water level measurements and sampling in April 2013, but was again in place prior to the October 2013 event. MW-33 is located within the right of way for Rozelle Street, but requests to the City of Memphis for assistance have not resulted in any action.

MW-182 was not accessible for water level measurement or sampling in April 2014 because a large dog had been chained near the well and City of Memphis Animal Control would not respond. The well was sampled in May 2014. A fire, set on the MW-182 well pad prior to the October 2013 LTM event, damaged the stick-up well casing; the well was repaired in November 2013 with a flush mount manhole set in a new pad. Ashes from a fire on the well pad were also observed during the April 2015 LTM event, although the well did not appear damaged; water level was measured and the sample collected.

The text will be revised to clarify problems with access and to recommend abandonment of MW-33. Abandonment of MW-182 will be reviewed with EPA and TDEC before a recommendation is made.

7. Page 2-2, Section 2.1.2.1, Main Installation – Please provide additional detail as to why a bladder pump was used to sample MW-55 instead of the usual passive diffusion bag? Why was low flow sampling used at MW-08 (Dunn Field) instead of the usual passive diffusion bag?

Army Response: Both MW-55 on the MI and MW-08 on Dunn Field are regularly sampled by low-flow sampling. During the referenced sample events, MW-55 had a saturated thickness of approximately 4 feet and MW-08 had approximately 6.5 feet; the thickness in MW-08 was sufficient for low-flow sampling but a PDB was not placed in the well because of lower water levels in previous sample events.

8. Page 3-3, Data Quality Evaluation – Please explain why trip blank samples were analyzed late for the Main Installation (but not Dunn Field) by the lab? Please request that the laboratory monitor the sample holding times in the future for all submitted samples.

Army Response: The laboratory does monitor sample holding times. The trip blank reported past the holding time (LTM-TB4-LB-20) was initially analyzed within holding time, but the lab supervisor noted the presence of acetone and suspected carryover from a previous sample. The lab was extremely busy during October 2014 and prioritized meeting field sample holding times. This trip blank was reanalyzed and did not show any acetone, as the supervisor had suspected; the later analysis was reported. HDR requested and received the results of the initial analysis, which did have a trace level of acetone but no detections for the primary contaminants.

The analytical data for LTM-TB4-LB-20 in Table B-5 will be revised to report the initial analysis except acetone, which will be reported from the reanalysis. The bullet statement in section 3.2.1 will be revised to summarize the LTM-TB4-LB-20 trip blank analyses and the impact on the reported field sample results. Changes to field sample data flags will be made in the report tables and noted in text if necessary. Appendix C, Data Quality Evaluation will also be

revised as needed.

9. Page 3-3, Data Quality Evaluation – Please provide additional details as to why acetone was present in the both Main Installation and Dunn Fields trip blanks.

Army Response: Acetone was detected at trace levels (between the MDL and RL) in one of the two MI trip blanks and in one of the five Dunn Field trip blanks during the April-May 2014 field sampling events. The laboratory verified that they fill the trip blank vials with the same water they use for method blanks, none of which had any detections of acetone for this event. It seems that the trip blanks with the acetone detections functioned as they were meant to, by indicating that at some point in the vials' travels, acetone may have contaminated the vials. Method blanks generated during the sampling period did not contain acetone. Acetone is not used by the field crews during sampling and the source of trace levels of acetone in the trip blanks is not known. The comment is not considered to require revision of the LTM report.

10. Page 4-2, Section 4.2 Dunn Field – EPA concurs with the statement that further monitoring is needed due to the rebound of CVOC concentrations within Dunn Field. Further investigation/action is necessary to address the levels/presence at Dunn Field attributed to potential off site plumes to the NE and NW of Dunn Field along with the new AS/SVE treatment schedule along with the recently repaired AS/SVE system operation

Army Response: As discussed previously, Army agrees that further discussion is needed regarding investigation/action to address the off-site plume on the northern boundary of Dunn Field. Army Environmental Legal Division (ELD) has been provided information for the off-site plume and the DDMT project team is waiting on direction from ELD. The groundwater elevations and analytical results indicate a single plume on the northern boundary of Dunn Field. There is a separate plume of groundwater contamination originating on Dunn Field, west of the central section of Dunn Field and upgradient of the AS/SVE system.

AS/SVE system operations will continue until the treatment objective is met, and monitoring will continue until remedial action objectives are met. MW-159 is the only monitoring well upgradient of the AS/SVE system that exceeded the treatment objective in 2014. Further investigation/action is not currently planned, but may be appropriate if CVOC concentrations at MW-159 are not reduced during 2015 by the change in AS/SVE operations.

Will add the following sentence before the last sentence in the paragraph: Further investigation/action near the AS/SVE system will be considered if CVOC concentrations at MW-159 are not reduced during 2015 by the change in AS/SVE operations.

The following EPA Comments (11-19) may be addressed in subsequent Annual LTM Reports:

Army Response: Responses to comments are provided below. Information to be included in future reports will be determined with EPA and TDEC following review and discussion.

11. Page 1-1, Section 1.1, Site Location and Description (Main Installation) – please provide more specificity as to what items were stored in the open areas/warehouses on the Main Installation.

Army Response: The following summary is from the *Main Installation Interim Remedial Action Completion Report* (HDR, 2010) Section 1.1:

Starting in the 1940s, DDMT received, warehoused, and distributed supplies common to all U.S.

military services and some civilian agencies. Activities at the MI included storing and shipping various materials (e.g., food, clothing, medical supplies) and industrial supplies (e.g., hazardous materials). Hazardous materials that were used or stored at the Depot during its operational period included flammables, solvents, petroleum/oil/lubricants (POL), paints, pesticides, herbicides, wood treating products, oxidizers, corrosives, and reactives.

Types of past activities that could result in the presence of hazardous materials in environmental media at the MI include hazardous substance repackaging for storage or shipment, pesticide application, painting and sandblasting, vehicle maintenance, and hazardous material handling/storage. Other historical activities in open and enclosed storage areas included storing transformers with polychlorinated biphenyls (PCBs), storing and using pesticides/herbicides, and treating wood products with pentachlorophenol (PCP). These industrial activities resulted in the presence of metals, pesticides, and other less frequently detected chemicals in surface soil, surface water, and sediment, and chlorinated volatile organic compounds (CVOCs) in groundwater above background concentrations at the MI.

The following additional information is from *BRAC Cleanup Plan V.10* (e2M, 2007) Section 1.7.: As a result of the Depot's past operations, large quantities of industrial chemicals or hazardous substances were received, stored, repackaged, and shipped. Some of these items were spilled or leaked at the MI or were buried at Dunn Field.

The following types of hazardous substances were received, stored, and shipped at the Depot:

- Flammable liquids
- Flammable solids
- Corrosives (acids and bases)
- Poisons (including insecticides)
- Compressed gases (nonflammable and flammable)
- Class C explosives
- Oxidizers
- Low-level radioactive materials (watch dials, compasses, smoke detectors, etc.)
- Other regulated substances

These substances were received as packaged commodities from manufacturers in containers that varied in size up to 55-gallon drums. While in storage, these substances were segregated by hazardous storage compatibility groups to ensure that optimum safety conditions were met (Harland Bartholomew & Associates, Inc. 1988).

Until 1985, mission chemical stock items in packages smaller than 55-gallon drums were stored in Building 629, which was constructed on a concrete foundation with seven bays separated by concrete walls and fire doors. Mission chemical stock items in 55-gallon drums were stored at open storage areas X02, X03, X11, X12, X13, X15, X17, X19, X21, X23, X25, and X27. Some mission chemical stock items also were stored in Building 319. In 1994, Building 319, Bays 1 and 2, became the hazardous waste storage area for the Defense Reutilization and Marketing Office (DRMO). Building 319 had a concrete berm and was situated on a concrete foundation with no floor drains. In the past, cyanide compounds were stored in a mechanically ventilated, separately bermed room, located in Bay 6 at the west end of the building. The building was equipped with explosion-proof lighting and spill booths of similar construction to those in Building 629.

Hazardous substances requiring temperature-controlled environments and medical items classified as hazardous substances were stored in Building 359. Security control at Buildings 319 and 359 was stringent.

Beginning in 1985 and continuing until closure, the majority of mission chemical stock items in packages smaller than 55-gallon drums were stored in Building 835. This building was constructed on a concrete foundation without floor drains and contained five bays separated by concrete walls and fire doors. Spill booths containing absorbent materials and cleanup equipment were located in each bay area. The bays were marked to preclude incompatible chemicals being placed in the same bay.

The X25 area, located on the northwest side of the facility, was an open storage area with an earthen berm until a concrete bermed, concrete pad was built in approximately July 1976. The X25 area was used to store Class 1 flammable liquids. These liquids were usually stored in 55-gallon drums and included a wide range of industrial-grade organic solvents. A tension-fabric roof structure was constructed over the bermed, concrete pad in 1986 and stored flammable liquids in 55-gallon drums. Building 925 was built in 1994 over this area and was used for the storage of flammable liquids in 55-gallon drums.

Nonflammable petroleum, oil, and lubricant (POL) mission chemical stock items were stored in 55-gallon drums at open storage areas X11, X12, X13, and X15 and X17. Flammable mission chemical products such as chlorinated solvents and fuels in 55-gallon drums were stored at open storage areas X13, X15, X23, and X25. POL products for operations use (i.e., transformers and motor oil) were stored at open storage area X07 and at vehicle maintenance Buildings 253 and 770. Building 873 was an open-sided shed used for storage of mission POL products, acids, and corrosives, and for overflow mission chemical stock items. Until construction in 1985 of Building 865, the hazardous substance recoupment facility, hazardous substances in damaged containers were stored and repackaged at the south end of Building 873. Records also indicate that hazardous substances were historically repackaged under a lean-to at the corner of E Street and 21st Street in open storage area X21, as well as at the southern end of open storage area X02 adjacent to Building 873.

Building and open storage areas at the MI are shown on the functional unit maps (Attachments 3 to 9) from the Main Installation Remedial Investigation Report (CH2MHill, 2000). Table 2 from the 2015 Site Management Plan (HDR, 2015), which lists environmental restoration sites with description and status, is included as Attachment 14.

12. Page 1-1, Section 1.1, Site Location and Description (Dunn Field) – please provide more specificity as to items/materials were stored in the waste disposal areas and what minerals were stored onsite in the mineral storage areas.

Army Response: Past activities at Dunn Field are indicated by the area designations described in Section 2.3 of the *2015 Site Management Plan* (HDR, 2015): Disposal Area, Storage Area and Northeast Open Area.

Waste Disposal

There was no material storage in the waste disposal areas. The following summary of waste disposal activity is from the *Memphis Depot Dunn Field RI Report* (CH2M HILL, 2002) Sections 1.3.2 and 1.3.3:

Most of the Dunn Field surface is unpaved. Specifically, about two-thirds of the area is grassed, and the remaining area is covered with crushed rock and paved surfaces. Dunn Field was used for bulk mineral storage and waste disposal. Based on information obtained from Depot records and interviews with former Depot military personnel, ordnance and explosives (OE) and CWM disposal occurred at Dunn Field, in addition to hazardous and non-hazardous material disposal. The OE disposal generally consisted of detonating and/or burning of such wastes.

Disposal activities at Dunn Field began in July 1946 when 29 mustard-filled German bomb casings were destroyed and buried (Sites 24-A and 24-B). Three railcars were identified as containing leaking munitions and were transferred to the Memphis General Depot for proper handling. A total of 24 500-kilogram (kg) and 5 250-kg bombs were destroyed (USACE, 1995). After draining and destruction operations were completed, all mustard-contaminated items (wood, clothing, etc.) were placed into the slurry pit and burned.

During the early to mid-1950s, Chemical Agent Identification Sets (CAIS) were allegedly disposed of and buried at Dunn Field at Site 1 in the Disposal Area. The CAIS set contained small glass ampoules of diluted mustard, lewisite (a vesicant chemical agent), chloropicrin, and phosgene, which were stored in sealed cylindrical metal containers. CAIS stocks found to be leaking or broken during periodic inspection were reportedly buried at Dunn Field (USATHAMA, 1982). The damaged CAIS may have been broken up and neutralized with chlorinated lime; however, reports indicate that on at least five or six occasions the sets were placed into the pits intact (USACE, 1995).

The CWM disposal pits were located in the Disposal Area and the Stockpile Area (Site 24-A and 24-B). The remains of destroyed or partially destroyed OE were also buried in pits in the Disposal Area. Reports indicate that a 3.2-inch mortar rounds, smoke pots, hand grenades (smoke), and other unspecified OE were buried in these pits (USATHAMA, 1982 and USACE, 1995b). Sections 1.4.12 and 1.4.13 present additional information on the investigation and removal of CWM from Dunn Field.

In addition to the chemicals and ordnance described above, other chemicals associated with the use of chemical agents such as Decontaminating Agent Non-Corrosive (DANC) were buried in Dunn Field. The decontaminant DANC disposed of at Dunn Field is an organic N-chloroamide compound in solution with 1,1,2,2-tetrachloroethane (PCA). DANC typically contained 90 percent to 95 percent 1,1,2,2- PCA. Chlorinating compound number 1 (an N-chloroamide) and 1,3-dichloro-5,5-dimethylhydantoin (RH-195) were used as organic chlorinating compounds in DANC. Food stocks, paints, acids, herbicides, and medical waste were also destroyed or buried in pits and trenches at Dunn Field (CEHND, 1997).

Mineral Storage

Stockpiles of bauxite and fluorspar were maintained at DDMT as part of the Defense National Stockpile. Following closure, the stockpiles were sold to private industry and removed. The stockpile locations on Dunn Field are shown on Attachment 10 from the *DDMT Remedial Investigation Final Report* (Law Environmental, 1990).

13. Page 1-2, Section 1.2, Geology and Hydrogeology, 2nd paragraph –”Recharge to this unit is mainly from rainfall infiltration; discharge is to underlying units or laterally into adjacent stream channels.” How close is the nearest stream channel/water body to the DDMT site?

Army Response: A surface drainage map from the 1990 RI is included as Attachment 11. The principal stream in the site area is Nonconnah Creek, which is south of DDMT and receives surface water drainage from the MI. Surface water drainage from Dunn Field is to the north and west to Cane Creek, a tributary of Nonconnah Creek.

14. Page 1-2, Section 1.2, Geology and Hydrogeology, last paragraph – please provide description of Jackson Formation/Upper Claiborne Group Clay along with an associated thickness for this unit(s).

Army Response: The following response was taken from the 1990 RI and *Hydrogeology and*

Preliminary Assessment of the Potential for Contamination of the Memphis Aquifer in the Memphis Area, Tennessee, Water-Resources Investigations (WRI) Report 90-4092.

The Jackson Formation and the Cockfield and Cook Mountain Formations in the upper part of the Claiborne Group comprise the Jackson-upper Claiborne confining unit. Because of lithological similarities, the units cannot be reliably subdivided in the subsurface of the Memphis area.

The Jackson Formation occurs only beneath the higher hills and ridges in the northern part of the Memphis area. This unit consists generally of fine sand or sandy clay and ranges from 0 to about 50 feet in thickness. In the Memphis area, the Jackson Formation is included in the upper part of the Jackson-upper Claiborne confining unit.

The Cockfield Formation occurs in the subsurface in most of the Memphis area and consists of inter-fingering fine sand, silt, clay, and local lenses of lignite. The unit ranges from 0 to 250 feet in thickness. In most of the Memphis area, the formation is an erosional remnant, and the original thickness is preserved only beneath the higher hills and ridges in the northern part. In the Memphis area, the Cockfield Formation consists predominantly of fine sediments and lacks the thicker, coarser sands present in other areas. Consequently, the formation is included in the Jackson-upper Claiborne confining unit. A few domestic wells in the Memphis area are screened in sands in the Cockfield Formation.

The Cook Mountain Formation occurs in the subsurface of most of the Memphis area and consists primarily of clay, but locally contains varying amounts of fine sand. The formation ranges from about 30 to 150 feet in thickness, but it is commonly about 60 to 70 feet thick. The Cook Mountain Formation is a regional confining unit overlying the Memphis Sand. In the Memphis area, the formation is the most persistent clay layer in the Jackson-upper Claiborne confining unit.

WRI Report 90-4092 lists the thickness of the confining unit at 236 wells in the Memphis area; the thickness varies from 0 to 375 feet and the aggregate thickness of clay beds from 0 to 246 feet. The measured thickness of the Jackson Formation/Upper Claiborne Group in the three wells drilled to the Memphis Sand at DDMT (MW-67, MW-254 and MW-255) was 181 to 208 feet and the aggregate clay thickness was 69 to 115 feet.

15. Page 1-2, 1-3, Section 1.2, Geology and Hydrogeology – please provide a thickness for the intermediate aquifer (IAQ).

Army Response: The term Intermediate Aquifer is not in common use in the Memphis area but has been used at DDMT for sand units within the Jackson Formation/Upper Claiborne Group, which is more commonly described as a confining unit. The thickness of the Jackson Formation/Upper Claiborne Group sands at DDMT, as shown in the cross-section on Figure 24 of the 2014 LTM report, varies from 25 feet at MW-199A to over 120 feet at MW-140.

16. Page 1-3, Section 1.2, Geology and Hydrogeology, 1st paragraph –”The Memphis Aquifer (MAQ) was identified at ~ 280 ft. bgs (15 ft above msl) in MW-254/MW 255.” Please state if the MAQ water elevations are similar to the aforementioned MWs throughout Dunn Field?

Army Response: The referenced statement refers to the depth and elevation of the Memphis Sand, which forms the Memphis Aquifer. There are three monitoring wells at DDMT installed in the upper section of the Memphis Sand. The upper boundary of the sand was identified at elevations of 10.3 to 20.5 feet above mean sea level (ft msl) in MW-67, MW-254 and MW-255.

The 2014 water levels in these wells were approximately 160 to 170 feet msl. The IAQ wells on Dunn Field have similar water levels. Water levels in fluvial aquifer wells are much higher; the 2014 water levels varied from 240 ft msl northeast of Dunn Field to 218 ft msl west of Dunn Field.

17. Page 1-3, Section 1.2, Geology and Hydrogeology, 1st paragraph – Please state if any onsite upper groundwater gradients have been documented with the strong artesian conditions noted for the MAQ in this report. If not, please state this in the report.

Army Response: As noted in the response to Comment #16, water levels in the three MAQ wells at DDMT are well above the top of the Memphis Sand. The water levels in IAQ wells away from the window are similar to the MAQ wells.

Water levels in fluvial aquifer wells on the MI (200 to 240 ft msl) are higher than in the IAQ and MAQ wells (160 to 170 feet msl) creating a downward gradient from the fluvial to the deeper aquifers.

The comment is not considered to require revision of the LTM report. However, site hydrogeology, including groundwater gradients, will be discussed in the SRI report; the subject text will be discussed with EPA and TDEC and revised in the 2015 LTM report if warranted.

18. Page 1-3, Section 1.2, Geology and Hydrogeology, 1st paragraph – Please state if any of surrounding residents are on well water or are connected to public drinking water supply.

Army Response: No residential use of groundwater on site or in the surrounding community was identified in the remedial investigations for DDMT. Shelby County Health Department (SCHD) monitors the number of wells in the Memphis area by requiring drilling permits and annual permit renewals for continuous well operation.

The annual land use control inspection includes verification that no groundwater wells have been installed (except for investigation or remediation at DDMT) and that no production or consumptive use of groundwater is occurring. The verification includes a visual inspection and contact with SCHD which issues required permits for well installation. No well installations have been identified, other than for site restoration at DDMT.

19. Page 1-3, Section 1.2, Geology and Hydrogeology, 1st paragraph – Please state an approximate or a range of values associated with the cone of depression surrounding the Allen Well Field when at high pumping and low pumping rates and how this may or may not affect the site.

Army Response: The approximate capture zone for the Allen well field does not reach the western boundary of the MI as shown Attachment 12 from the 2000 MI RI.

MLGW has not provided information on pumping rates or water levels at the Allen well field in response to previous requests related to groundwater modeling for remedial design. In order to review the site hydrogeological model for the SRI, requests for information were recently submitted to MLGW, SCHD, TDEC and University of Memphis. MLGW has not provided information to date.

TDEC provided a map from the Allen Well Field Well Protection Plan (Attachment 13), which shows the 40-year boundary reaching the western side of Dunn Field, and a monitoring report stating the average flow from all wells at Allen well field averaged 14.3 million gallons per day in November and December 2013.

Upon completion of the SRI, the available information regarding pumping rates and drawdown at Allen well field will be included the report.





MW-33



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EPA RTC Attachment 2

Google earth

35°05'42.20" N 90°00'25.33" W elev 284 ft eye alt 294 ft



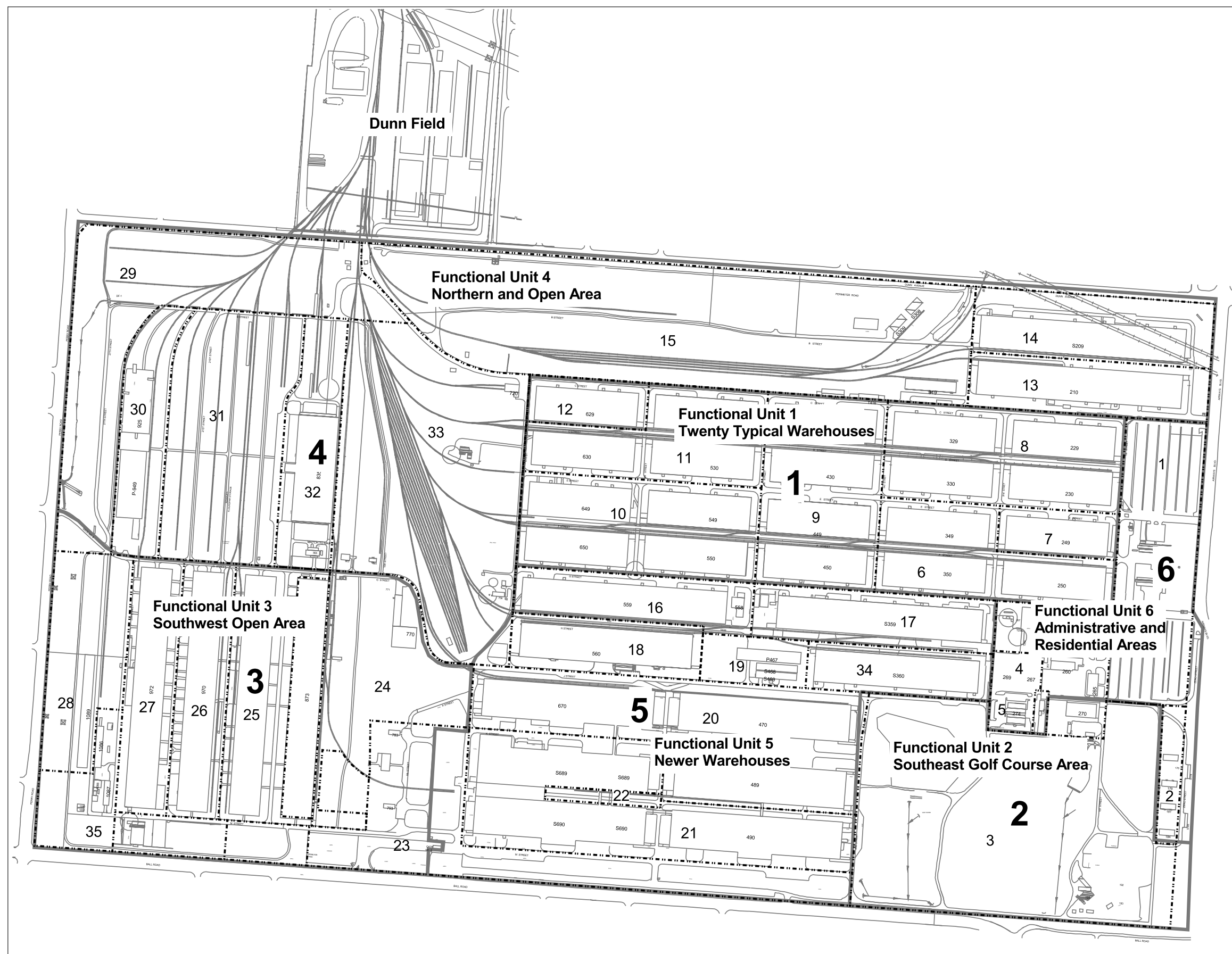
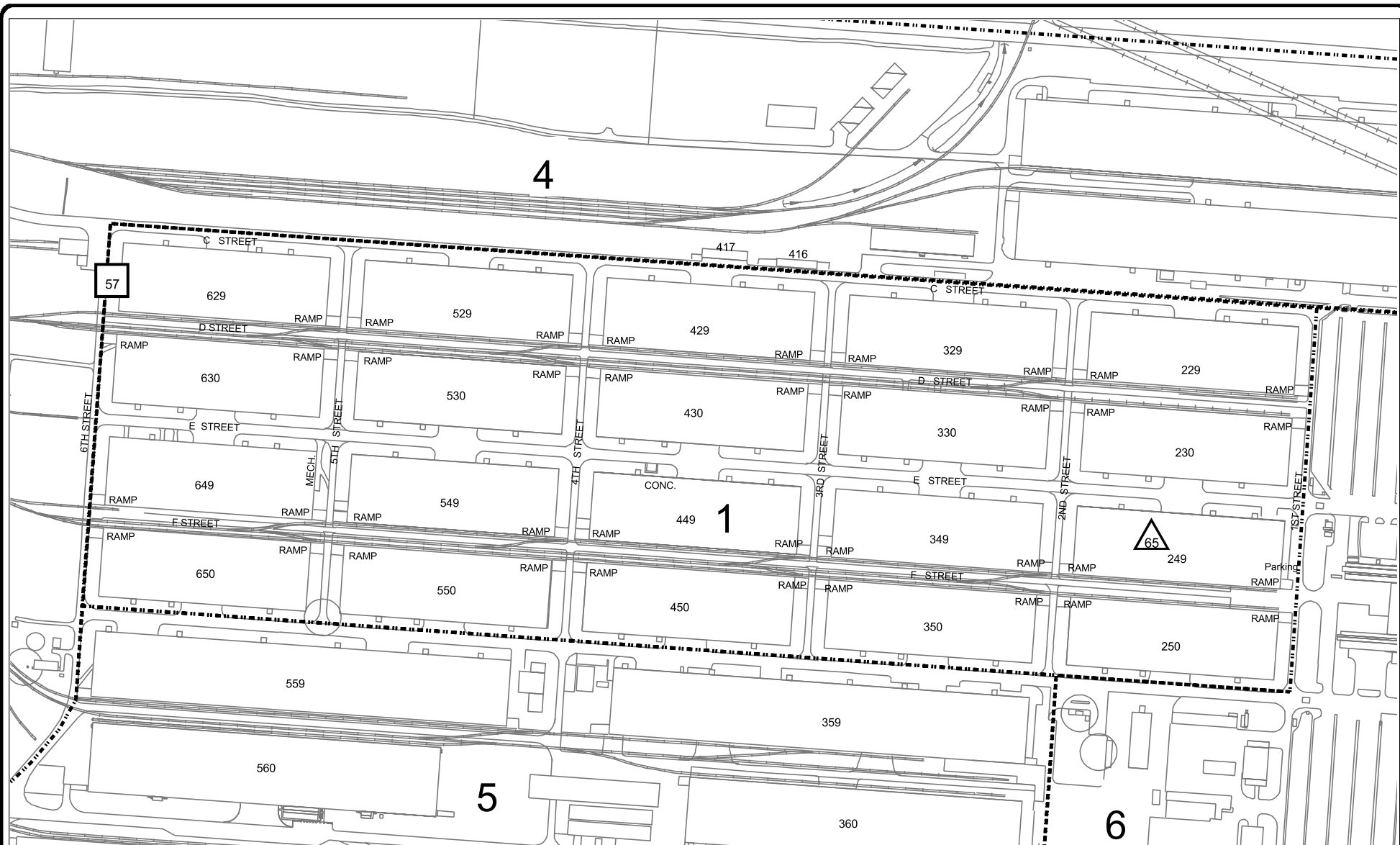


FIGURE 1-1
FUNCTIONAL UNITS AT THE MAIN
INSTALLATION
MEMPHIS DEPOT MAIN INSTALLATION RI



57 Remedial Investigation Site

65 Screening Site

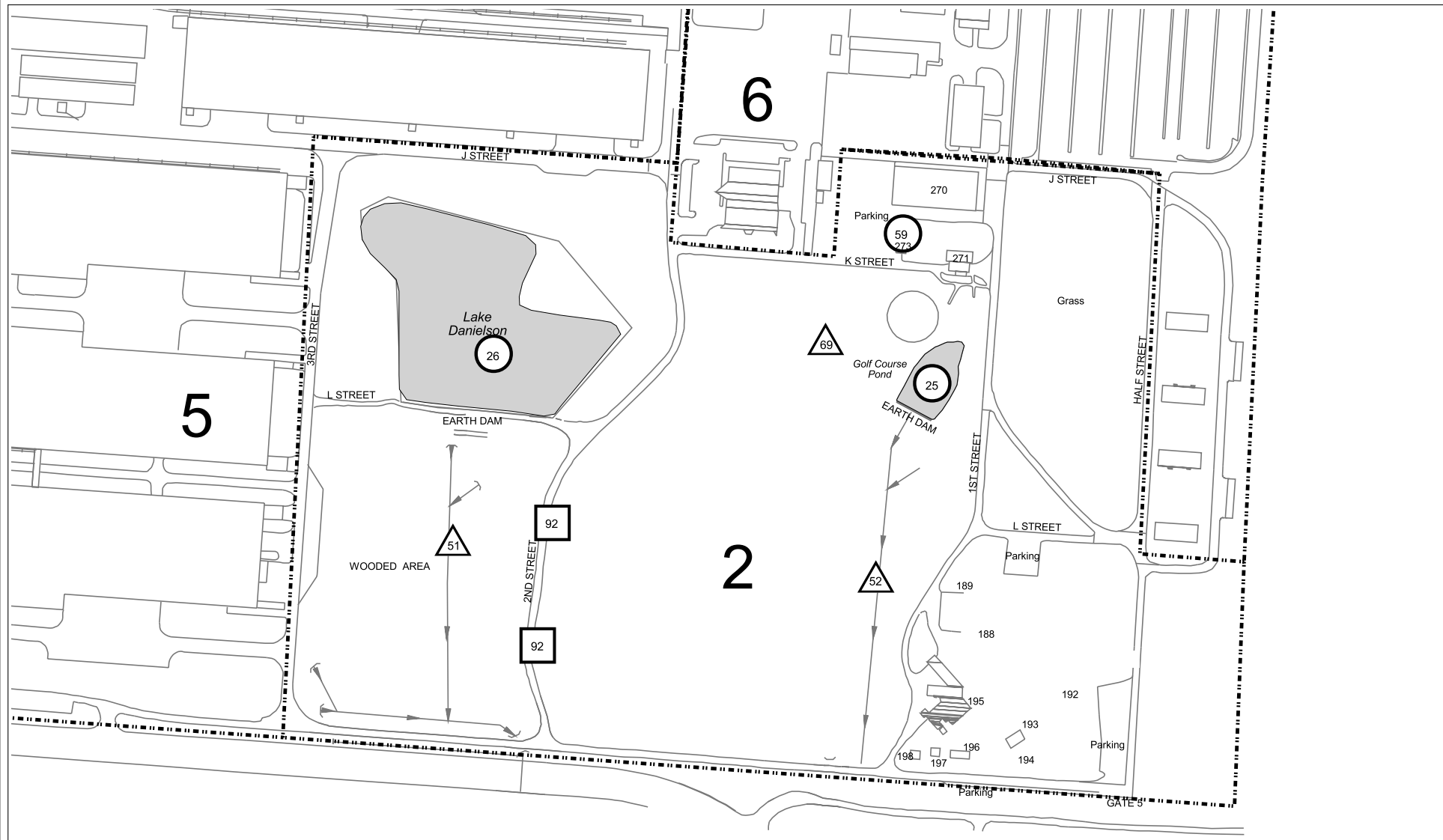
Functional Unit Boundary
Base Features
Buildings

0 200 400 Feet

SCALE IS APPROXIMATE

FIGURE 8-1
FU 1 LAND COVER AND SITE LOCATIONS
MEMPHIS DEPOT MAIN INSTALLATION RI

CH2MHILL



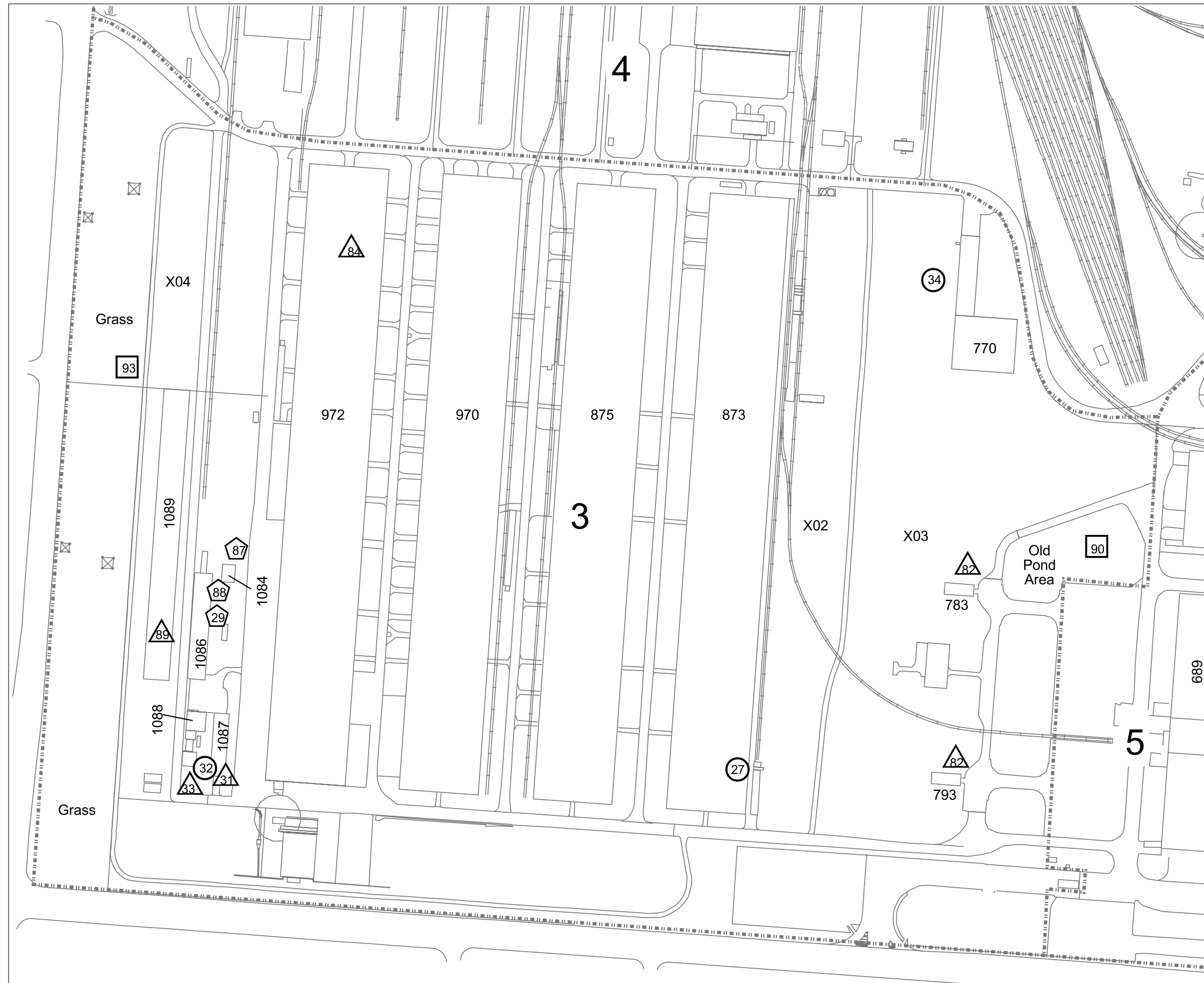
- 59 Remedial Investigation Site
- 52 Screening Site
- 92 TEC Site
- Sample Locations
- Functional Unit Boundary
- Surface Water Bodies
- Base Features
- Buildings



0 150 300 Feet
SCALE IS APPROXIMATE

FIGURE 12-1
FU2 LAND COVER AND SITE LOCATIONS
MEMPHIS DEPOT MAIN INSTALLATION RI

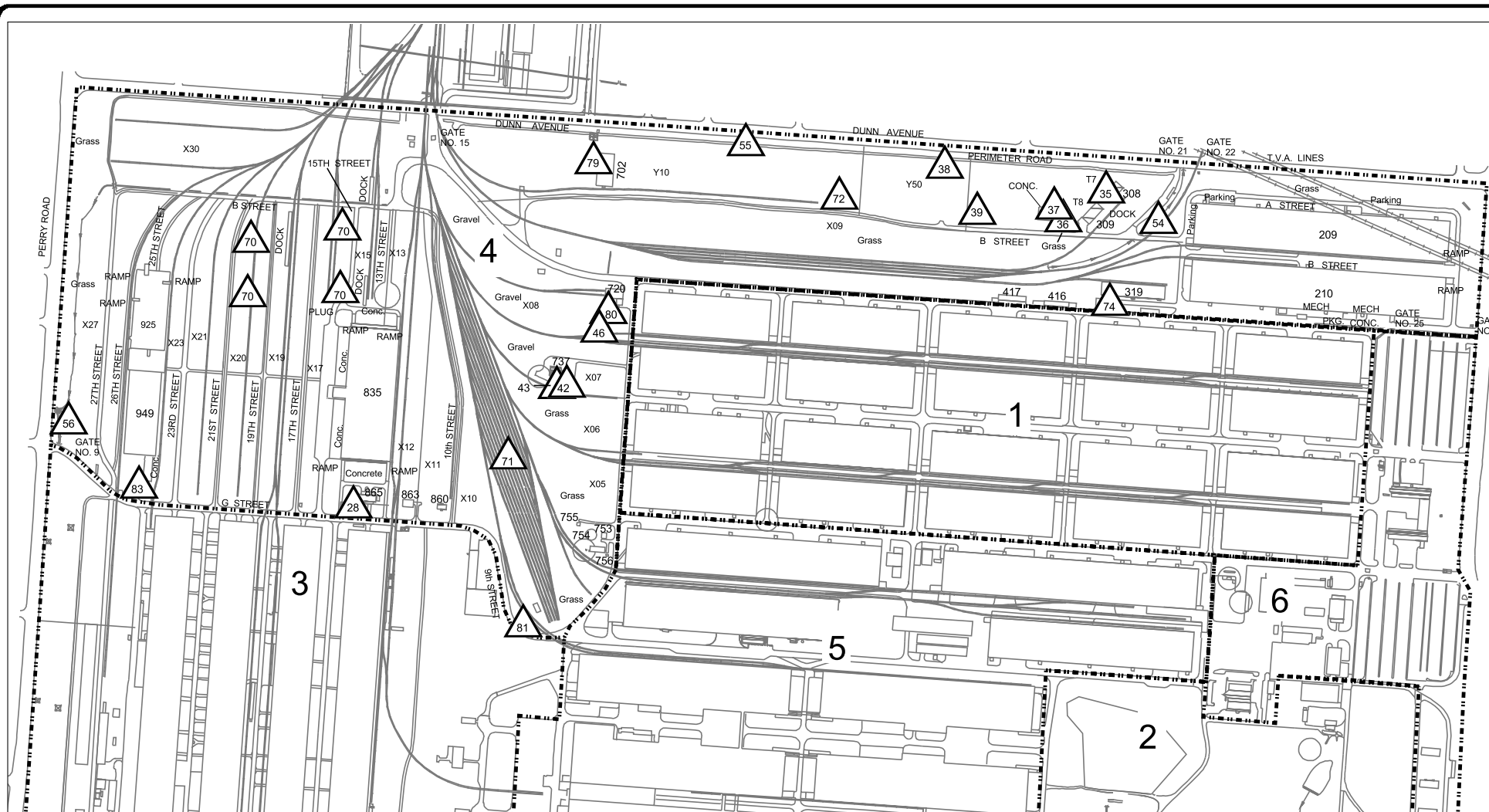
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- LEGEND
- 87 Early Removal Site
 - 32 Remedial Investigation Site
 - 89 Screening Site
 - 90 TEC Site
 - Functional Unit Boundary
 - Base Features
 - Buildings

0 300 600 Feet
SCALE IS APPROXIMATE

FIGURE 16-1
FU3 LAND COVER AND SITE LOCATIONS
MEMPHIS DEPOT MAIN INSTALLATION RI



Investigation Site

 Screening Site

 Functional Unit Boundary

 Base Features

 Buildings



0 400 800 Feet

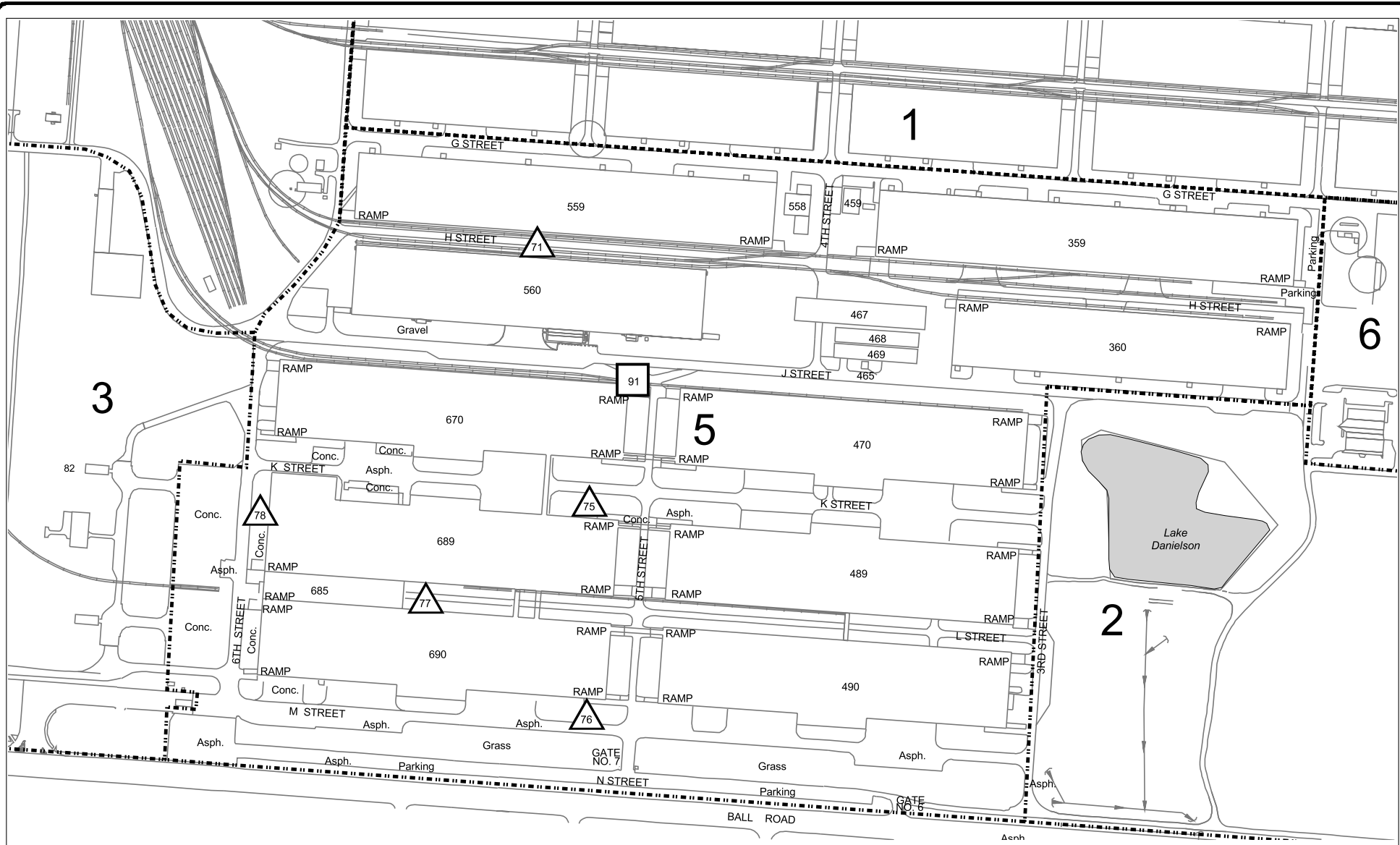
SCALE IS APPROXIMATE

FIGURE 20-1

FU4 LAND COVER AND SITE LOCATIONS

MEMPHIS DEPOT MAIN INSTALLATION RI

CH2MHILL



Investigation Site



Screening Site



TEC Site

- Functional Unit Boundary
- Surface Water Body
- Base Features
- Buildings



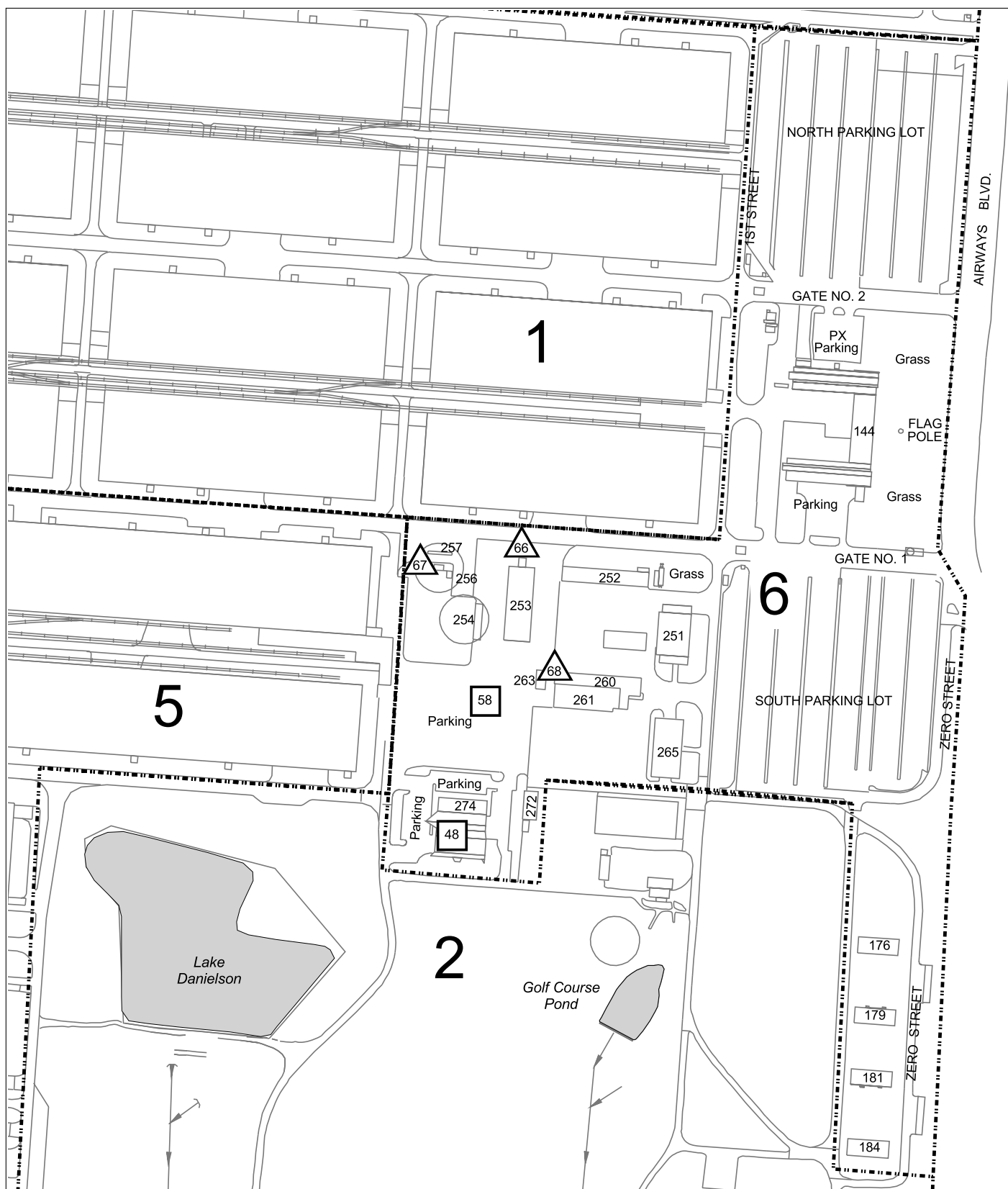
0 200 400 Feet

SCALE IS APPROXIMATE

FIGURE 24-1

FU5 LAND COVER AND SITE LOCATIONS
MEMPHIS DEPOT MAIN INSTALLATION RI

CH2MHILL



Investigation Site



Remedial Investigation Site



Screening Site



Functional Unit Boundary



Surface Water Body



Base Features



Buildings



0 150 300 Feet

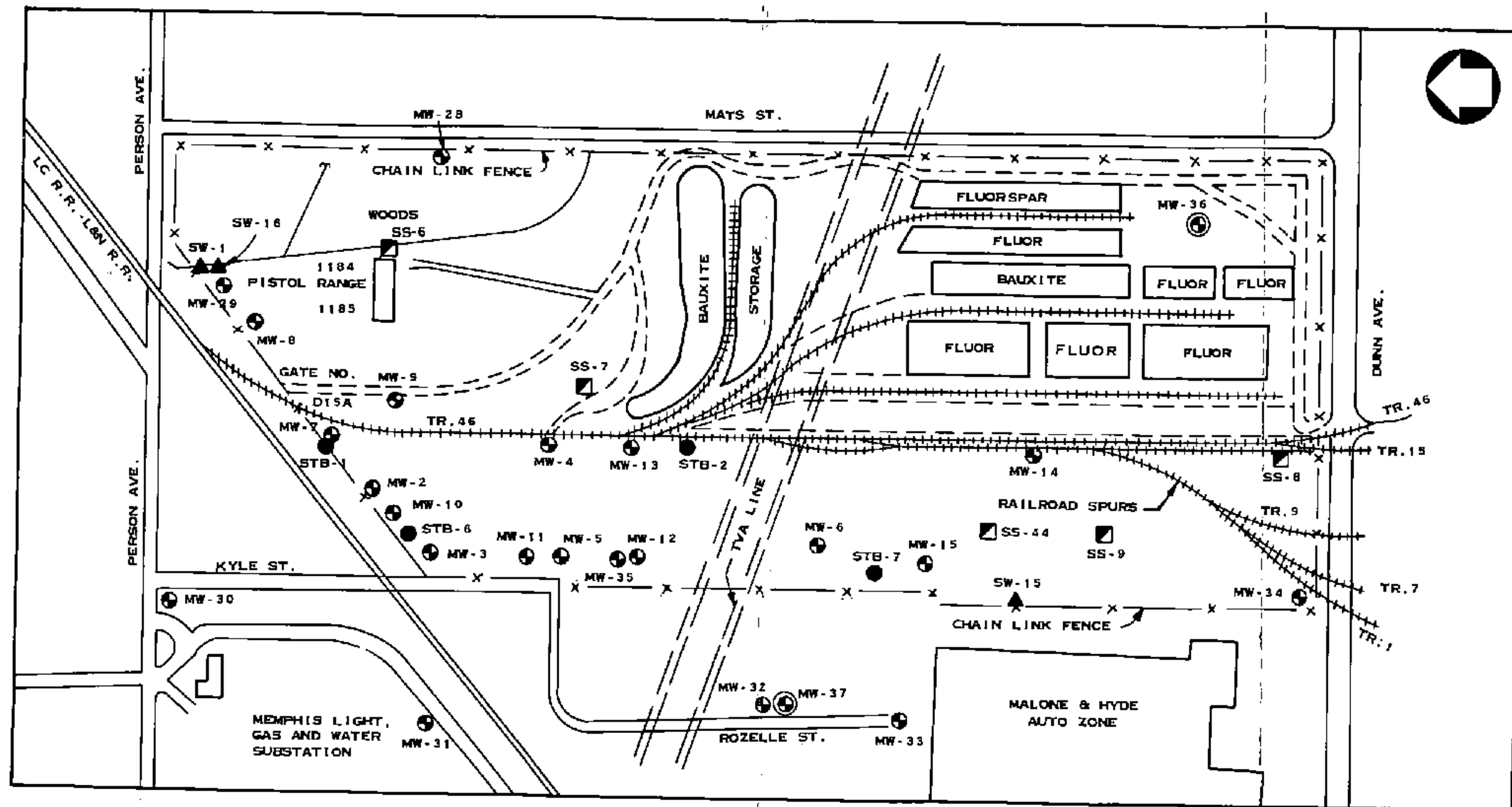
SCALE IS APPROXIMATE

FIGURE 28-1

FU6 LAND COVER AND SITE LOCATIONS

MEMPHIS DEPOT MAIN INSTALLATION RI

**FIGURE 2-1
MONITORING LOCATIONS AT DUNN FIELD DEFENSE DEPOT
AND OFFSITE MONITORING LOCATIONS
MEMPHIS, TENNESSEE**



LEGEND

- ⊕ SHALLOW MONITORING WELL LOCATION
- ⊕ DEEP MONITORING WELL LOCATION (MEMPHIS SAND)
- ▣ SURFACE SOIL SAMPLE LOCATION
- SOIL TEST BORING LOCATION
- ▲ SURFACE WATER SAMPLE LOCATION

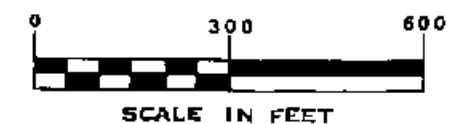


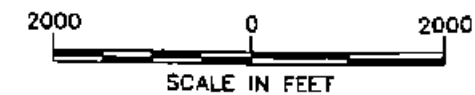
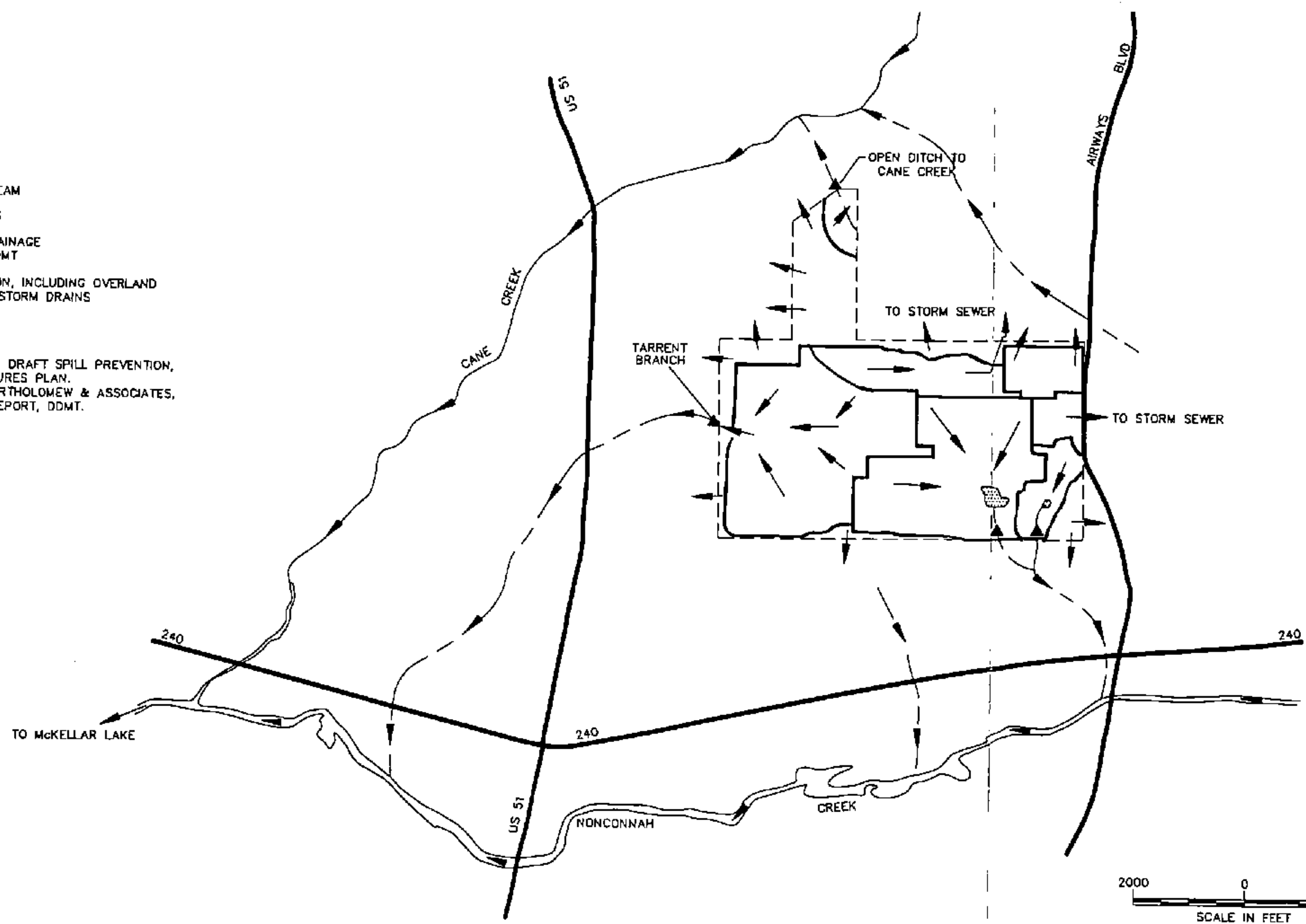
FIGURE 3-1
STUDY AREA SURFACE DRAINAGE
DEFENSE DEPOT MEMPHIS, TENNESSEE



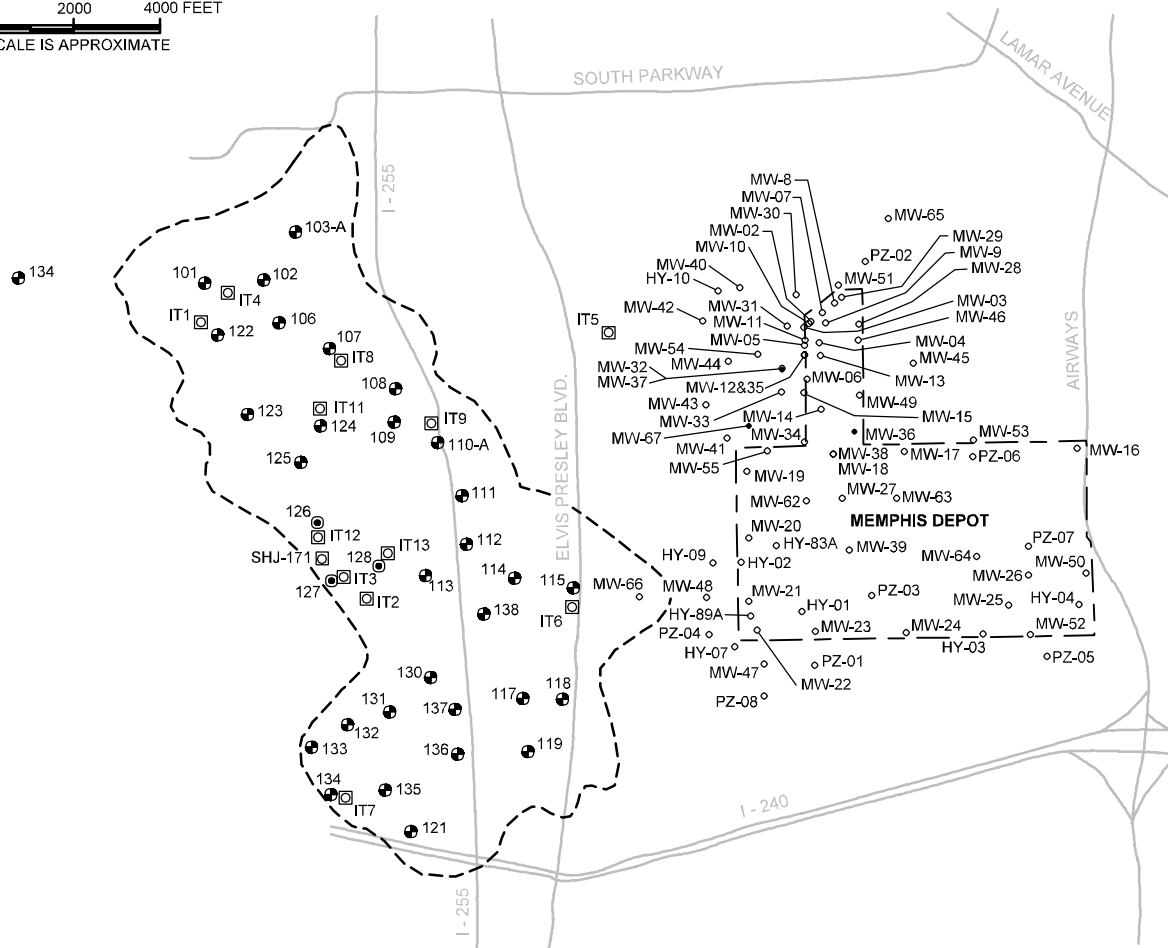
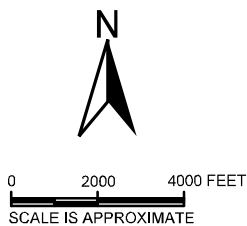
LEGEND

- INTERMITTENT STREAM
- /- BASIN BOUNDARIES
- ▲ STREAM/DITCH DRAINAGE LOCATIONS OFF DDMT
- ➔ DRAINAGE DIRECTION, INCLUDING OVERLAND FLOW AND LOCAL STORM DRAINS

SOURCE: MODIFIED FROM DDMT, 1982. DRAFT SPILL PREVENTION, CONTROL AND COUNTERMEASURES PLAN. MODIFIED FROM HARLAND, BARTHOLOMEW & ASSOCIATES, INC., 1988. MASTER PLAN REPORT, DDMT.



3-4



LEGEND

- Memphis Light, Gas, and Water (MLGW) production well completed in the Memphis aquifer
- ◻ MLGW fluvial aquifer groundwater monitoring well
- MLGW well closed due to contamination
- Memphis Depot fluvial aquifer groundwater monitoring well
- Memphis Depot confined sand aquifer or Memphis aquifer MW-67 groundwater quality monitoring well



Approximate location of Allen Well Field capture zone within the Memphis Sand.
(From *Application of a Genetic Algorithm in Wellhead Protection Strategy Development*
University of Memphis Ground Water Institute
Technical brief #6; Nov., 1994)

FIGURE 2-14
ALLEN WELL FIELD LOCATION
RELATIVE TO THE MEMPHIS DEPOT
MEMPHIS DEPOT MAIN INSTALLATION RI

TABLE 2
ENVIRONMENTAL RESTORATION SITES
2015 SITE MANAGEMENT PLAN
Defense Depot Memphis, Tennessee

Site No.	Parcel No.	Description	Site Status
Operable Unit 1: Dunn Field			
1	36.16	Mustard and Lewisite Training Sets (9 sets) Burial Site (1955)	A CERCLA Removal Action took place for this area in 2000-2001. No further remedial action is required for this site.
2	36.1	Ammonia Hydroxide (7 pounds) and Acetic Acid (1 gallon) Burial (1955)	No further action is required for this site. This is one of 21 sites associated with Dunn Field land use controls for administrative purposes.
3	36.2	Mixed Chemical Burial Site (orthotoluidine dihydrochloride) (1955)	The selected CERCLA remedy includes excavation of contaminated soils/waste materials and off-site disposal. Excavation of this site began in March 2005 and was completed in 2006. USEPA approved the RACR in August 2006. This is also one of 21 sites associated with Dunn Field land use controls for administrative purposes.
4	36.3	POL Burial Site (thirteen 55-gallon drums of oil, grease, and paint)	No further action is required for this site. This is one of five sites associated with Dunn Field groundwater remediation for administrative purposes. Soil vapor extraction system in fluvial deposits operated from July 2007 to July 2012. Thermal-enhanced soil vapor extraction system in loess deposits operated from May until December 2008. USEPA approved the Source Areas OPS determination in October 2009 and the Source Areas IRACR in November 2009. The off-depot groundwater air sparging/soil vapor extraction system began operating in December 2009 and is scheduled to operate through 2014. USEPA approved the Off Depot IRACR in August 2011.
5	36.4	Methyl Bromide Burial Site A (3 cubic feet) (1955)	No further action is required for this site. This is one of 21 sites associated with Dunn Field land use controls for administrative purposes.
6	36.2	40,037 units ointment (eye) Burial Site (1955)	No further action is required for this site. This is one of 21 sites associated with Dunn Field land use controls for administrative purposes.
7	36.5	Nitric Acid Burial Site (1,700 quart bottles) (1954)	No further action is required for this site. This is one of 21 sites associated with Dunn Field land use controls for administrative purposes.
8	36.6	Methyl Bromide Burial Site B (3,768 1-gallon cans) (1954)	No further action is required for this site. This is one of 21 sites associated with Dunn Field land use controls for administrative purposes.
9	36.17	Ashes and Metal Burial Site (burning pit refuse) (1955)	No further action is required for this site. This is one of 21 sites associated with Dunn Field land use controls for administrative purposes.
10	36.21	Solid Waste Burial Site (near MW-10) (metal, glass, trash, etc.)	The selected CERCLA remedy includes excavation of contaminated soils/waste materials and off-site disposal. Excavation of this site began in March 2005 and was completed in 2006. USEPA approved the RACR in August 2006. This is also one of 21 sites associated with Dunn Field land use controls for administrative purposes.
11	36.7	Trichloroacetic Acid Burial (1,433 1-ounce bottles) (1965)	No further action is required for this site. This is one of five sites associated with Dunn Field groundwater remediation for administrative purposes. Soil vapor extraction system in fluvial deposits operated from July 2007 to July 2012. Thermal-enhanced soil vapor extraction system in loess deposits operated from May until December 2008. USEPA approved the Source Areas OPS determination in October 2009 and the Source Areas IRACR in November 2009. The off-depot groundwater air sparging/soil vapor extraction system began operating in December 2009 and is scheduled to operate through 2014. USEPA approved the Off Depot IRACR in August 2011.

TABLE 2
ENVIRONMENTAL RESTORATION SITES
2015 SITE MANAGEMENT PLAN
Defense Depot Memphis, Tennessee

Site No.	Parcel No.	Description	Site Status
12	36.8	Sulfuric and Hydrochloric Acid Burial (1965)	No further action is required for this site. This is one of five sites associated with Dunn Field groundwater remediation for administrative purposes. Soil vapor extraction system in fluvial deposits operated from July 2007 to July 2012. Thermal-enhanced soil vapor extraction system in loess deposits operated from May until December 2008. USEPA approved the Source Areas OPS determination in October 2009 and the Source Areas IRACR in November 2009. The off-depot groundwater air sparging/soil vapor extraction system began operating in December 2009 and is scheduled to operate through 2014. USEPA approved the Off Depot IRACR in August 2011.
13	36.9	Mixed Chemical Burial (Acid, 900 pounds; unnamed solids, 8,100 pounds)	The selected CERCLA remedy includes excavation of contaminated soils/waste materials and off-site disposal. Excavation of this site was completed in March 2005. USEPA approved the RACR in August 2006. This is also one of 21 sites associated with Dunn Field land use controls for administrative purposes.
14	36.22	Municipal Waste Burial Site B (near MW-12) (food, paper products)	No further action is required for this site. This is one of 21 sites associated with Dunn Field land use controls for administrative purposes.
15	36.23	Sodium Burial Sites (1968)	No further action is required for this site. This is one of 21 sites associated with Dunn Field land use controls for administrative purposes.
16	36.1	Unknown Acid Burial Site (1969)	No further action is required for this site. This is one of 21 sites associated with Dunn Field land use controls for administrative purposes.
17	36.11	Mixed Chemical Burial Site C (1969)	No further action is required for this site. This is one of five sites associated with Dunn Field groundwater remediation for administrative purposes. Soil vapor extraction system in fluvial deposits operated from July 2007 to July 2012. Thermal-enhanced soil vapor extraction system in loess deposits operated from May until December 2008. USEPA approved the Source Areas OPS determination in October 2009 and the Source Areas IRACR in November 2009. The off-depot groundwater air sparging/soil vapor extraction system began operating in December 2009 and is scheduled to operate through 2014. USEPA approved the Off Depot IRACR in August 2011.
18	36.15	Plane Crash Residue (Dunn Field)	No further action is required for this site. This is one of 21 sites associated with Dunn Field land use controls for administrative purposes.
19	36.24	Former Tear Gas Canister Burn Site (Dunn Field)	No further action is required at this site.
20	36.25	Probable Asphalt Burial Site (Dunn Field)	No further action is required at this site.
21	36.26	XXCC-3 Burial Site (Dunn Field)	No further action is required at this site.
22	36.15	Hardware Burial Site (nuts and bolts) (Dunn Field)	No further action is required for this site. This is one of 21 sites associated with Dunn Field land use controls for administrative purposes.
23	36.29	Construction Debris and Food Burial Site (Dunn Field)	No further action is required for this site. This is one of 21 sites associated with Dunn Field land use controls for administrative purposes.
24	36.29	Former Burial/Burn Site and Neutralization Pit	Beginning in August 2000 all 29 bomb casings were recovered from the burial site and 900 cubic yards of soil contaminated with mustard degradation by-products were excavated and disposed offsite. Beginning in November 2000, 33 cubic yards of soil contaminated with mustard and degradation by-products were excavated from the neutralization pit and disposed offsite. In March 2001, the CERCLA Removal Action was complete. No further action is required for this site.
50	36.27	Dunn Field Northeastern Quadrant Drainage Ditch	No further action is required at this site.

TABLE 2
ENVIRONMENTAL RESTORATION SITES
2015 SITE MANAGEMENT PLAN
Defense Depot Memphis, Tennessee

Site No.	Parcel No.	Description	Site Status
60	36.14	Pistol Range Impact Area/Bullet Stop	A CERCLA Removal Action for lead in surface soil was conducted in 2003. No further action is required at this site.
61	36.28	Buried Drain Pipe (Northwestern Quadrant of Dunn Field)	No further action is required for this site. This is one of 21 sites associated with Dunn Field land use controls for administrative purposes.
62	36.12/36.13	Bauxite Storage (Northeastern Quadrant of Dunn Field)	No further action is required at this site.
63	36.29/36.30	Fluorspar Storage (10 mounds in Southeastern Quadrant of Dunn Field, 1 mound in Southwestern Quadrant of Dunn Field) All mounds removed by 1999	No further action is required at this site.
64	36.29	Bauxite Storage (Southwestern Quadrant of Dunn Field Removed in 1972), CC-2 Burial Site, IA Site 31 (smoke pot burn/disposal area)	The selected CERCLA remedy for IA Site 31 includes excavation of contaminated soils/waste materials and off-site disposal. For the remaining portions of the site no further action is required. Excavation of this site was completed in March 2005. USEPA approved the RACR in August 2006. This is also one of 21 sites associated with Dunn Field land use controls for administrative purposes.
85	36.14	Old Pistol Range Building 1184/Temporary Pesticide Storage	A CERCLA Removal Action for lead in surface soil was conducted in 2003. No further action is required at this site.
86	36.18/36.19	Food Supplies (Dunn Field)	No further action is required for this site. This is one of 21 sites associated with Dunn Field land use controls for administrative purposes.
90	36.3	POL Burial Site (thirty-two 55-gallon drums of oil, grease, and thinner) (1955)	The selected CERCLA remedy includes excavation of contaminated soils/waste materials and off-site disposal. Excavation and off-site disposal of this site was completed in March 2005. USEPA approved the RACR in August 2006. This is also one of five sites associated with Dunn Field groundwater remediation for administrative purposes. Soil vapor extraction system in fluvial deposits operated from July 2007 to July 2012. Thermal-enhanced soil vapor extraction system in loess deposits operated from May until December 2008. USEPA approved the Source Areas OPS determination in October 2009 and the Source Areas IRACR in November 2009. The off-depot groundwater air sparging/soil vapor extraction system began operating in December 2009 and is scheduled to operate through 2014. USEPA approved the Off Depot IRACR in August 2011.
91	36.23	Sodium Phosphate Burial (1968)	No further action is required for this site. This is one of 21 sites associated with Dunn Field land use controls for administrative purposes.
92	36.23	14 Burial Pits: Na ₂ PO ₄ , sodium, acid, medical supplies, and chlorinated lime (1969)	No further action is required for this site. This is one of 21 sites associated with Dunn Field land use controls for administrative purposes.
93	36.1	Acid Burial Site	No further action is required for this site. This is one of 21 sites associated with Dunn Field land use controls for administrative purposes.

TABLE 2
ENVIRONMENTAL RESTORATION SITES
2015 SITE MANAGEMENT PLAN
Defense Depot Memphis, Tennessee

Site No.	Parcel No.	Description	Site Status
Operable Unit 2: Southwestern Quadrant, MI			
27	24.1	Former Recoupment Area (Building 873)	Contaminated soil removed in 1985 as part of pre-Remedial Investigation activities. No further action is required for this site.
29	35.2	Former Underground Waste Oil Storage Tank	The tank was located and removed during a CERCLA Removal Action in 2000; the contaminated soils were disposed as special waste and the tank contents were disposed as RCRA hazardous waste. This site is associated with MI groundwater remediation for administrative purposes; enhanced bioremediation was selected as the CERCLA groundwater remedy. The EBT system operated from May 2006 until February 2009. USEPA approved the MI OPS determination in March 2010. EBT was restarted in November 2012 and is expected to continue until August 2014.
30	24.3/35.3	Paint Spray Booths (2 of 3 total; Buildings 770 and 1086)	No further action is required for this site.
31	35.4	Former Paint Spray Booth (Building 1087)	Building 1087 was decontaminated by vacuuming to remove free dust and pressure washing. The surface soil outside the building was excavated to a depth of one foot and replaced with clean backfill. The excavated soil was disposed off-site as special waste. This CERCLA Removal Action was completed in 2000. No further action is required for this site.
32	35.5	Sandblasting Waste Accumulation Area	Building 1088 was decontaminated by vacuuming to remove free dust and pressure washing. The surface soil outside the building was excavated to a depth of one foot and replaced with clean backfill. The excavated soil was disposed off-site as special waste. This CERCLA Removal Action was completed in 2000. No further action is required for this site.
33	35.4	Sandblasting Waste Drum Storage Area (metal shed south of Building 1088)	The surface soil in this area was excavated to a depth of one foot and replaced with clean backfill. The excavated soil was disposed off-site as special waste. This CERCLA Removal Action was completed in 2000. No further action is required for this site.
34	24.3	Building 770 Underground Oil Storage Tanks	The underground storage tanks were removed in 1989. No further action is required for this site.
40	24.3	Safety Kleen Units - 5 of 9 total (all located in Building 770)	No further action is required for this site.
41	24.3	Satellite Drum Accumulation Areas - 1 of 4 total (vicinity Building 770)	No further action is required for this site.
71	Multiple	Herbicide (All railroad tracks) (used to clear tracks)	No further action is required for this site.
82	23.7/23.8	Flammables (Buildings 783 and 793)	No further action is required for this site.
84	27.2	Flammables, Solvents, Waste Oil, etc. (Building 972)	No further action is required for this site.
87	35.2	DDT, banned pesticides (Building 1084)	Building 1084 was demolished and the debris was disposed off-site at a solid waste landfill. A concrete sump beneath the building was excavated; the contaminated soil was disposed off-site as special waste. This CERCLA Removal Action was completed in 2000. No further action is required for this site.
88	35.2	POL (Building 1085)	The concrete slab and hydraulic lift were removed during a CERCLA Removal Action in 2000; the contaminated soils were disposed offsite as special waste and the lift and cylinders were cleaned and disposed as scrap metal. The concrete debris was disposed offsite as construction debris. No further action is required for this site.

TABLE 2
ENVIRONMENTAL RESTORATION SITES
2015 SITE MANAGEMENT PLAN
Defense Depot Memphis, Tennessee

Site No.	Parcel No.	Description	Site Status
89	28.2	Acids (Building 1089)	Building 1089 was decontaminated by vacuuming to remove free dust and pressure washing. The surface soil in areas outside the southern end of the building were excavated to a depth of one foot and replaced with clean backfill. The excavated soil was disposed off-site as special waste. This CERCLA Removal Action was completed in 2000. No further action is required for this site.
Operable Unit 3: Southeastern Watershed And Golf Course, MI			
25	3.8	Golf Course Pond	No further action is required for this site.
26	3.6	Lake Danielson	No further action is required for this site.
30	4.4	Paint Spray Booths (1 of 3 total - Building 260)	No further action is required for this site.
40	4, 19, and 21	Safety Kleen Units - 4 of 9 total units (Buildings 253, 469, 490, and 689)	No further action is required for these sites.
41	4 and 19	Satellite Drum Accumulation Areas - 2 of 4 total areas (Buildings 260 and 469)	No further action is required for this site.
48	5.2	Former PCB Transformer Storage Area	Site remediation by removal of surface soil was completed in 1998. No further action is required for this site.
49	17.3	Medical Waste Storage Area	No further action is required for this site.
51	3.7	Lake Danielson Outlet Ditch	No further action is required for this site.
52	3.9	Golf Course Pond Outlet Ditch	No further action is required for this site.
58	4.9	Pesticides, Herbicides (Pad 267)	No further action is required for this site.
59	4.1	Pesticides, Cleaners (Building 273)	No further action is required for this site.
65	7.2	XXCC-3 (Building 249)	No further action is required for this site.
66	4.11	POL (Building 253)	No further action is required for this site.
67	4.7	MOGAS (Building 257)	No further action is required for this site.
68	4.8	POL (Building 263) (20 by 40 feet)	No further action is required for this site.
69	3.11	2,4-D, M2A1, and M4 Flamethrower Liquid Fuels (surface application)	No further action is required for this site.
73	Multiple	2,4-Dichlorophenoxyacetic Acid (all grassed areas)	No further action is required for this site.
75	21.5	Unknown Wastes near Building 689	No further action is required for this site.
76	21.5	Unknown Wastes near Building 690	No further action is required for this site.
77	22.2	Unknown Wastes near Buildings 689 and 690	No further action is required for this site.
78	21.3	Alcohol, Acetone, Toluene, Naphtha; Hydrofluoric Acid Spill	No further action is required for this site.

TABLE 2
ENVIRONMENTAL RESTORATION SITES
2015 SITE MANAGEMENT PLAN
Defense Depot Memphis, Tennessee

Site No.	Parcel No.	Description	Site Status
Operable Unit 4: North-Central Area, MI			
28	32.3	Recoupment Area (Building 865)	No further action is required for this site.
35	15.2	DRMO Building S308 - Hazardous Waste Storage	site was decontaminated and certified clean November 2001 in accordance with the RCRA Closure Plan (Permit TNHW-053). No further action is required for this site.
36	15.5	DRMO Hazardous Waste Concrete Storage Pad	No further action is required for this site.
37	15.5	DRMO Hazardous Waste Gravel Storage Pad	No further action is required for this site.
38	15.5	DRMO Damaged/Empty Hazardous Materials Drum Storage Area	No further action is required for this site.
39	15.5	DRMO Damaged/Empty Lubricant Container Area	No further action is required for this site.
41	13.4	Satellite Drum Accumulation Area (1 of 4 total - Building 210)	No further action is required for this site.
42	33.9	Former pentachlorophenol Dip Vat Area	In 1986, the dip vat was removed and the soil was excavated to a depth of 10 feet. Soil with PCP concentrations greater than 200 ppb remained beneath the excavated area. The excavation was backfilled with clean soil and with gravel or concrete placed on top of the fill. No further remedial action is required for this site.
43	33.9	Former Underground pentachlorophenol Tank Area	The tank was brought above ground in 1986 and drained into drums. The soil around the site was excavated to a depth of 10 to 15 feet, 20 feet wide and 22 feet long. The pumps and lines were also removed. The excavation was backfilled with clean soil and with gravel or concrete placed on top of the clean fill. No further remedial action is required for this site.
44	33.6	Former Wastewater Treatment Unit Area	No further action is required for this site.
45	33.9	Former Contaminated Soil Staging Area	No further action is required for this site.
46	33.9	Former pentachlorophenol Pallet Drying Area	No further action is required for this site.
47	33.9	Former Contaminated Soil Drum Storage Area (removed 1988)	No further action is required for this site.
53	30.2	X-25 Flammable Solvents Storage Area (near Building 925)	No further action is required for this site.
54	15.6	MI - DRMO East Stormwater Runoff Canal	No further action is required for this site.
55	15.6	MI - DRMO North Stormwater Runoff Canal	No further action is required for this site.
56	29.3	MI - West Stormwater Drainage Canal	No further action is required for this site.
57	12.1	Building 629 Spill Area	No further action is required for this site.

TABLE 2
ENVIRONMENTAL RESTORATION SITES
2015 SITE MANAGEMENT PLAN
Defense Depot Memphis, Tennessee

Site No.	Parcel No.	Description	Site Status
70	Multiple	POL, Various Chemical Leaks (railroad tracks 1, 2, 3, 4, 5, and 6)	No further action is required for this site.
71	Multiple	Herbicide (all railroad tracks) (used to clear tracks)	No further action is required for this site.
72	15.5/15.6	Waste Oil (DRMO yard) (surface application for dust control)	No further action is required for this site.
73	Multiple	2,4-Dichlorophenoxyacetic Acid (all grassed areas)	No further action is required for this site.
74	15.3	Flammables, Toxics (West End - Building 319)	No further action is required for this site.
79	15.6	Fuels, Miscellaneous Liquids, Wood, and Paper (Vicinity S702)	No further action is required for this site.
80	33.13	Fuel and Cleaners Dispensing (Building 720)	No further action is required for this site.
81	33.7	Fuel Oil AST (Building 765 – removed in 1994)	No further action is required for this site.
83	30.5	Disposal of Dried Paint Residues - South of Building 949	Lead contaminated soil was removed from an area of approximately 7,200 square feet. The CERCLA Removal Action was completed in 2001. No further action is required for this site.

Notes:

AST: Aboveground Storage Tank
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act
DDT: 4,4'-Dichlorodiphenyltrichloroethane
DRMO: Defense and Reutilization Marketing Office
EBT: enhanced bioremediation treatment
IRACR: Interim Remedial Action Completion Report
MI: Main Installation
MOGAS: Motor gasoline
Na: Sodium
OPS: Operating Properly and Successfully
PCB: Polychlorinated biphenyl
PO₄: Phosphate
POL: Petroleum, oil, and lubricants
RACR: Remedial Action Completion Report
RCRA: Resource Conservation and Recovery Act
USEPA: United States Environmental Protection Agency

a. Source: DLA correspondence dated September 24, 2004, RE: Corrective Action Permit Application and Attachment 1 Summary of Solid Waste Management Units and Areas of Concern Defense Depot Memphis, Tennessee

APPENDIX B
COMPLETE ANALYTICAL RESULTS

TABLE B-1
MAIN INSTALLATION ANALYTICAL RESULTS, APRIL 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

Analyte	Well ID Lab ID Date Units	DR1-3 L14042008-15 4/26/2014	DR2-1 L14041917-04 4/24/2014	DR2-1-DUP-5 L14041917-09 4/24/2014	DR2-3 L14041917-05 4/24/2014	DR2-6 L14041917-06 4/24/2014	PMW21-03 L14042008-16 4/26/2014	PMW21-05 L14042008-17 4/26/2014
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	1.76	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1	<1 UJ
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10	<10 UJ
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
Acetone	µg/L	19.3	23.1 B	23.9 B	<10	<10	17.4	<10
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1
Carbon disulfide	µg/L	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ
Carbon tetrachloride	µg/L	<1	32.7	31	2.89	<1	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	11.5	11.3	0.524	1.76	<0.3	<0.3
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	11	7.1	6.91	<1	6.42	4.31	0.463 J
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	10.6	11.2	<10	<10	<10	<10 UJ
Methyl t-butyl ether (MTBE)	µg/L	9.62	<5	<5	<5	<5	21.1	<5 UJ
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10	<10 UJ
Naphthalene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.801 J	179	172	12	3.95	130	10.6
Toluene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	2.23	5.06	4.77	1.41	0.927 J	38.7	0.786 J
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	0.64 J	0.55 J	<1	2.43	<1	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-1
MAIN INSTALLATION ANALYTICAL RESULTS, APRIL 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

Analyte	Well ID Lab ID Date Units	PMW92-02 L14041917-07 4/24/2014	PMW101-03A L14042008-20 4/26/2014	PMW101-03B L14042008-21 4/26/2014	PMW101-06A L14042008-22 4/26/2014	PMW101-06A-DUP-6 L14042008-26 4/26/2014	PMW101-06B L14042008-23 4/26/2014
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
Acetone	µg/L	15.3 B	23.3	25.5	16.2	16.4	19.1
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ
Carbon disulfide	µg/L	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	133	26.4	31.5	0.404 J	0.778 J	4.15
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	0.687 J	<2	<2	1.06 J	1.02 J	<2
MEK (2-Butanone)	µg/L	<10	11.1	34.2	2.52 J	2.88 J	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	6.16	16.5	4.74 J	4.71 J	16.6
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	0.845 J	<1	<1	0.467 J	0.434 J	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.609 J	1.31	0.827 J	1.14	1.07	14.2
Toluene	µg/L	0.699 J	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.322 J	<1	<1	0.467 J	0.658 J	2.39
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	2.04	<1	3.93	<1	<1	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-1
MAIN INSTALLATION ANALYTICAL RESULTS, APRIL 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	MW-26	MW-39	MW-39A	MW-64	MW-88	MW-88-DUP-1	MW-90
	Lab ID	L14041917-01	L14041918-01	L14041918-02	L14041918-03	L14042008-01	L14042008-24	L14042008-02
Analyte	Date	4/24/2014	4/25/2014	4/25/2014	4/25/2014	4/26/2014	4/26/2014	4/26/2014
	Units							
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	0.641	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1	0.737 J
1,1-Dichloroethene	µg/L	<1	<1	<1	1.06	<1	<1	0.646 J
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
Acetone	µg/L	<10	34.8	32.3	17.9	<10	<10	25.9
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ
Carbon disulfide	µg/L	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1	<1 UJ	<1
Carbon tetrachloride	µg/L	5.35	<1	<1	2.52	10.3	12.7	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.595	<0.3	<0.3	0.829	1.46	1.68	1.42
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	0.481 J	2.85	6.32	0.363 J	2.35	2.57	0.344 J
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	0.504 J	1.13 J	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	25.5	9.7	26.4	16.1	50.4	47.3	19.9
Toluene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.14	6.9	7.03	32.3	2.96	3.11	4.46
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	1.49	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-1
MAIN INSTALLATION ANALYTICAL RESULTS, APRIL 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	MW-92	MW-94A	MW-97	MW-98	MW-100B	MW-101T	MW-101B
	Lab ID	L14041917-02	L14041918-04	L14041918-07	L14041918-08	L14042008-03	L14042008-04	L14042008-05
Analyte	Date	4/24/2014	4/25/2014	4/25/2014	4/25/2014	4/26/2014	4/26/2014	4/26/2014
	Units							
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	0.569	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	0.498 J	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
Acetone	µg/L	14.9 B	33	33.2	28.2	14.9	12.3	16.4
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ
Carbon disulfide	µg/L	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	0.179 J	0.252 J	<0.3	<0.3	<0.3	<0.3
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	37.8	1.3	<1	0.55 J	17	3.98	10.2
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10	28.7
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	22.7	0.632 J	1.95 J
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	69.2	30.2 J	<1	36.6	3.5	0.751 J	3.59
Toluene	µg/L	<1	<1	<1	<1	1.11	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	0.489 J	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	10.1	8.95	58.3	2.89	0.763 J	0.445 J	1.66
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	8.92	<1	<1	<1	185	<1	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-1
MAIN INSTALLATION ANALYTICAL RESULTS, APRIL 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	MW-107T	MW-107B	MW-108	MW-141	MW-141-DUP-2	MW-143	MW-199B
	Lab ID	L14041918-09	L14041918-10	L14041918-11	L14042008-06	L14042008-25	L14042008-07	L14042008-08
Analyte	Date	4/25/2014	4/25/2014	4/25/2014	4/26/2014	4/26/2014	4/26/2014	4/26/2014
Units								
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	0.834 J	0.428 J	0.472 J	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	1.23	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1 UJ	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
Acetone	µg/L	28.4	25.3	28	26.3	34.9	12.6	27.9
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1 UJ	<1 UJ	<1	<1 UJ	<1 UJ	<1 UJ	<1 UJ
Carbon disulfide	µg/L	<1 UJ	<1 UJ	<1	<1	<1 UJ	<1	<1
Carbon tetrachloride	µg/L	0.379 J	0.358 J	<1	<1	<1	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.283 J	0.293 J	9.14	3.06	3.68	<0.3	<0.3
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	<1	0.762 J	<1	<1	<1	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	1.07 J	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	7.89	9.09	3.4	34.7	34.3	0.38 J	<1
Toluene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.63	1.66	27.7	3.86	4.19	9.89	67.9
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-1
MAIN INSTALLATION ANALYTICAL RESULTS, APRIL 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	MW-200	MW-202B	MW-204A	MW-204B	MW-205A	MW-205B	MW-206A
	Lab ID	L14041918-12	L14042008-09	L14041918-13	L14041918-14	L14041918-15	L14041918-16	L14041918-17
Analyte	Date	4/25/2014	4/26/2014	4/25/2014	4/25/2014	4/25/2014	4/25/2014	4/25/2014
	Units							
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	0.676	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1 UJ	<1	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
Acetone	µg/L	39.2	21.4	29.8	29.2	37.8	29.9	35.5
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1 UJ	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	0.417 J	<1	<1	<1	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	0.516	<0.3	<0.3	<0.3	<0.3	<0.3
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	0.631 J	0.278 J	3.14	2.73	3.42	9.32	2.88
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	0.86 J	1.97 J	0.811 J
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	13.7	27.1	29.9	9.03	24.7	14	19.9
Toluene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	6.65	4.19	0.922 J	6.25	8.47	8.32	8.56
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	1.17	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-1
MAIN INSTALLATION ANALYTICAL RESULTS, APRIL 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

Analyte	Well ID Lab ID Date Units	MW-206B L14041918-18 4/25/2014	MW-207A L14041918-19 4/25/2014	MW-207A-DUP-3 L14041918-33 4/25/2014	MW-207B L14041918-20 4/25/2014	MW-208A L14041918-21 4/25/2014	MW-208B L14041918-22 4/25/2014	MW-209B L14041918-25 4/25/2014
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 UJ	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	0.847 J	0.922 J	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	1.09	1.13	<1	<1	<1 UJ	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1 UJ	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1 UJ	<1 UJ	<1	<1 UJ	<1 UJ	<1 UJ	<1 UJ
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	1.02	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1 UJ	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
Acetone	µg/L	25.6	31.7	30	28.2	30.9	27.1	25
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4 UJ	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	2.48	<1	<1	0.439 J
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 UJ	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	8.63	9.14	4.09	<0.3	1.11	0.285 J
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	1.85	0.679 J	0.674 J	0.509 J	7.29	0.455 J	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1 UJ	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2 UJ	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	0.694 J	<5	<5	<5	0.708 J	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1 UJ	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	20.2	16.4	16.3	65.3	19.4	16.3 J	0.298 J
Toluene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	6.38	24.7	23.6	18.7	16.3	9.14 J	29.3
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	0.968 J	<1	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-1
MAIN INSTALLATION ANALYTICAL RESULTS, APRIL 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

Analyte	Well ID Lab ID Date Units	MW-210A L14042008-10 4/26/2014	MW-210B L14042008-11 4/26/2014	MW-214A L14041918-26 4/25/2014	MW-214B L14041918-27 4/25/2014	MW-217 L14041917-03 4/24/2014	MW-217-DUP-4 L14041917-08 4/24/2014	MW-218 L14041918-28 4/25/2014
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	0.345 J	0.32 J	0.931
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	0.893 J
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1 UJ	<1 UJ	<1	<1	<1 UJ
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	0.339 J	0.329 J	0.439 J
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	0.298 J	0.276 J	0.48 J
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
Acetone	µg/L	34.7	34.9	30.5	22	19.4 B	19.2 B	14.5
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1 UJ	<1 UJ	<1	<1	<1 UJ	<1 UJ	<1
Carbon disulfide	µg/L	<1 UJ	<1 UJ	<1	<1	<1 UJ	<1 UJ	<1
Carbon tetrachloride	µg/L	<1	<1	0.877 J	0.925 J	46.9	46.4	7.96
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	1.93	1.7	3.97	3.91	2.81
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	2.25	0.808 J	<1	<1	0.833 J	0.933 J	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	0.808 J	<5	0.731 J	0.717 J	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	5	3.37	5.62	5.04	23.6	22.5	15.4
Toluene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5.07	7.01	1.86	1.66	33	32.5	34.5
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	1.46	1.39	1.72
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-1
MAIN INSTALLATION ANALYTICAL RESULTS, APRIL 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	MW-219	MW-254	MW-256	MW-258	MW-259	MW-260	MW-261
	Lab ID	L14042008-12	L14042008-13	L14042008-14	L14041918-29	L14041918-30	L14041918-31	L14041918-32
Analyte	Date	4/26/2014	4/26/2014	4/26/2014	4/25/2014	4/25/2014	4/25/2014	4/25/2014
	Units							
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	0.317 J	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	0.588 J	<1	<1	1.61	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	0.933 J	<1	2.08	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1 UJ	<1 UJ	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	1.35	<0.5	<0.5	<0.5	3.4	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	0.417 J	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
Acetone	µg/L	8.32 J	14.1	10.4	34.6	16	3.17 J	4.89 J
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1 UJ	<1 UJ	<1 UJ	<1	<1	<1	<1
Carbon disulfide	µg/L	<1 UJ	<1 UJ	<1 UJ	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	0.987 J	0.506 J	<1	4.95	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	0.199 J	2.46	2.22	2.71	1.27	<0.3
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	3.09	0.385 J	0.294 J	1.82	<1	0.324 J	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	4.18 J	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	66.6	0.901 J	43.5	29.9	15	0.27 J	<1
Toluene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	3.89	2.8	13.4	73.9	23.6	5.34	3.36
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-2
MAIN INSTALLATION ANALYTICAL RESULTS, OCTOBER 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

Analyte	Well ID Lab ID Date Units	DR1-1	DR1-1A	DR1-2	DR1-3	DR1-4	DR1-7	DR1-8
		L14101408-01 10/18/2014	L14101408-02 10/18/2014	L14101408-03 10/18/2014	L14101439-04 10/19/2014	L14101439-05 10/19/2014	L14101439-06 10/19/2014	L14101408-04 10/18/2014
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
Acetone	µg/L	13.1	<10	12.8	4.66 J	10.8 J	<10 UJ	<10
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	0.512	0.163 J	<0.3	<0.3	0.128 J	<0.3
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	0.731 J	<1	0.403 J	9.96	0.518 J	<1	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	9.11	3.17 J	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	1.68	0.418 J	0.947 J	0.716 J	<1	1.23	<1
Toluene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	1.06	<1	1.76	0.795 J	0.267 J	<1
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

J: Estimated

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-2
MAIN INSTALLATION ANALYTICAL RESULTS, OCTOBER 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

Analyte	Well ID Lab ID Date Units	DR2-1	DR2-1-DUP-10	DR2-3	DR2-4	DR2-6	PMW92-02	PMW21-03
		L14101359-31 10/20/2014	L14101359-41 10/20/2014	L14101359-32 10/20/2014	L14101359-33 10/20/2014	L14101359-34 10/20/2014	L14101359-39 10/20/2014	L14101408-07 10/18/2014
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1 UJ	<1	<1	13.3	<1 UJ	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2 UJ	<2	<2	<2	<2 UJ	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	0.926 J	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	0.775	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10 UJ	<10	<10	<10	<10 UJ	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
Acetone	µg/L	28.3	26.4 J	22.1	<10	18.3	18.5 J	5.11 J
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	27.9	27.8	2.17	2.36	<1	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	11.5	10.3	0.496	0.435	<0.3	<0.3	<0.3
Chloromethane	µg/L	<1 UJ	<1	<1 UJ	<1 UJ	<1 UJ	<1	<1
cis-1,2-Dichloroethene	µg/L	7.1	6.86	<1	<1	48.8	119	3.45
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	19.2	20.1	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5	19.8
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1 UJ	<1	<1	<1	<1 UJ	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	221	199	11	9.26	<1	0.278 J	87.3
Toluene	µg/L	<1	<1	<1	<1	1.17	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5.4	5.26	1.19	0.783 J	<1	0.345 J	30.3
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	0.309 J	0.317 J	<1	<1	16.8	17.1	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

J: Estimated

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-2
MAIN INSTALLATION ANALYTICAL RESULTS, OCTOBER 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	PMW21-05	PMW101-03A	PMW101-03B	PMW101-03B-DUP-11	PMW101-06A	PMW101-06B
	Lab ID	L14101408-08	L14101408-09	L14101408-10	L14101408-11	L14101439-20	L14101439-23
Analyte	Date	10/18/2014	10/18/2014	10/18/2014	10/18/2014	10/19/2014	10/19/2014
	Units						
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
Acetone	µg/L	6.68 J	5.6 J	4.27 J	<10	5.27 J	3.7 J
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	0.515 J	29.5	19	18.2	<1	3.11
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	4.98 J	18.2	17.5	4.14 J	15.6
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	13.5	<1	8.27	8.25	1.54	20.4
Toluene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.13	<1	3.28	3.43	0.27 J	2.13
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	0.301 J	3.65	3.61	<1	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

J: Estimated

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-2
MAIN INSTALLATION ANALYTICAL RESULTS, OCTOBER 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	PZ-03	MW16	MW-16-DUP-1	MW19	MW22	MW23	MW24
	Lab ID	L14101470-06	L14101359-50	L14101359-40	L14101439-30	L14101408-17	L14101359-28	L14101359-51
Analyte	Date	10/21/2014	10/20/2014	10/20/2014	10/19/2014	10/18/2014	10/20/2014	10/20/2014
	Units							
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1 UJ	<1 UJ	<1	<1	<1	<1 UJ
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2	<2	<2 UJ
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10	<10	<10 UJ
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
Acetone	µg/L	<10 UJ	<10 UJ	2.92 J	<10 UJ	<10	<10	<10 UJ
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.265 J	<0.3	<0.3	0.452	<0.3	<0.3	0.137 J
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1 UJ	<1
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10 UJ	<10	<10	<10 UJ	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10 UJ	<10	<10	<10 UJ	<10	<10	<10
Naphthalene	µg/L	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1	<1	<1 UJ
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	1.72	<1	<1	<1	<1	<1	<1
Toluene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	9.88	<1	<1	0.883 J	<1	<1	<1
Trichlorofluoromethane	µg/L	0.325 J	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

J: Estimated

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-2
MAIN INSTALLATION ANALYTICAL RESULTS, OCTOBER 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	MW25A	MW26	MW34	MW38	MW39	MW-39-DUP-2	MW39A
	Lab ID	L14101359-52	L14101359-53	L14101439-40	L14101470-13	L14101439-31	L14101439-24	L14101439-32
Analyte	Date	10/20/2014	10/20/2014	10/19/2014	10/21/2014	10/19/2014	10/19/2014	10/19/2014
Units								
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2 UJ	<2	<2 UJ	<2 UJ	<2 UJ
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	0.376 J	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10 UJ	<10	<10 UJ	<10 UJ	<10 UJ
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
Acetone	µg/L	<10 UJ	22.3	<10 UJ	25.9	21 J	20 J	17.1 J
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	1.12	4.3	0.766 J	<1	<1	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.15 J	0.553	0.643	<0.3	<0.3	<0.3	<0.3
Chloromethane	µg/L	<1	<1 UJ	<1	<1 UJ	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	0.398 J	<1	<1	3.74	3.73	5.21
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10 UJ	<10	<10 UJ	<10	<10 UJ	<10 UJ	<10 UJ
Methyl t-butyl ether (MTBE)	µg/L	0.544 J	<5	<5	<5	0.843 J	0.866 J	1.4 J
Methylene chloride	µg/L	0.264 JB	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10 UJ	<10	<10 UJ	<10 UJ	<10 UJ
Naphthalene	µg/L	<1	<1	<1 UJ	<1	<1 UJ	<1 UJ	<1 UJ
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	2.03	24.9	1.5	0.262 J	10.1	10.1	23.5
Toluene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.489 J	1.13	2.9	<1	7.66	7.91	8.01
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	1.16

Notes:

µg/L: micrograms per liter

DQE Flags:

J: Estimated

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-2
MAIN INSTALLATION ANALYTICAL RESULTS, OCTOBER 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	MW50	MW52	MW53	MW55	MW63A	MW63B	MW64
	Lab ID	L14101439-41	L14101359-54	L14101439-42	L14101470-10	L14101470-11	L14101470-12	L14101359-43
Analyte	Date	10/19/2014	10/20/2014	10/19/2014	10/21/2014	10/21/2014	10/21/2014	10/20/2014
Units								
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.629 J
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	0.78 J	1.05
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1 UJ
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2 UJ	<2	<2 UJ	<2	<2	<2	<2 UJ
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10 UJ	<10	<10 UJ	<10	<10	<10	<10 UJ
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
Acetone	µg/L	<10 UJ	<10 UJ	<10 UJ	<10	16.8	18	18.7 J
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	1.91
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	1.19	1.25	<0.3	<0.3	<0.3	0.771	0.683
Chloromethane	µg/L	<1	<1	<1	<1 UJ	<1 UJ	<1 UJ	<1
cis-1,2-Dichloroethene	µg/L	0.756 J	0.574 J	<1	<1	<1	0.273 J	0.434 J
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10 UJ	<10 UJ	<10 UJ	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	0.731 J	<5	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	0.309 JB	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10 UJ	<10	<10 UJ	<10	<10	<10	<10
Naphthalene	µg/L	<1 UJ	<1	<1 UJ	<1	<1	<1	<1 UJ
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.665 J	6.68	1.92	<1	2.07	2.23	14.6
Toluene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	3.4	1.16	<1	<1	2.39	2.85	30.1
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

J: Estimated

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-2
MAIN INSTALLATION ANALYTICAL RESULTS, OCTOBER 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	MW66A	MW88	MW89	MW-89-DUP-3	MW90	MW92	MW93
	Lab ID	L14101439-37	L14101359-44	L14101439-38	L14101439-36	L14101439-39	L14101359-45	L14101359-46
Analyte	Date	10/19/2014	10/20/2014	10/19/2014	10/19/2014	10/19/2014	10/20/2014	10/20/2014
Units								
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	0.822 J	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	0.793 J	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1 UJ	<1	<1	<1	<1 UJ	<1 UJ
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	0.255 J	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ	<10 UJ
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
Acetone	µg/L	<10 UJ	6.92 J	<10 UJ	<10 UJ	31.6 J	15.4 J	<10 UJ
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	8.91	<1	<1	0.267 J	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	1.15	0.17 J	0.182 J	1.58	<0.3	<0.3
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	1.7	<1	<1	0.422 J	30.5	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10 UJ	<10	<10 UJ	<10 UJ	<10 UJ	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10 UJ	<10	<10 UJ	<10 UJ	<10 UJ	<10	<10
Naphthalene	µg/L	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	2.33	41.7	4.95	5.31	17.7	76.9	0.414 J
Toluene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	3.09	1.34	1.39	5.71	8.62	<1
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	9.55	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

J: Estimated

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-2
MAIN INSTALLATION ANALYTICAL RESULTS, OCTOBER 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	MW94A	MW96	MW97	MW98	MW-99	MW100B	MW100B-D
	Lab ID	L14101359-23	L14101359-47	L14101359-24	L14101359-25	L14101408-12	L14101408-13	L14101408-13-D
Analyte	Date	10/20/2014	10/20/2014	10/20/2014	10/20/2014	10/18/2014	10/18/2014	10/18/2014
Units								
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<5
1,1,2,2-Tetrachloroethane	µg/L	0.228 J	<0.5	<0.5	<0.5	<0.5	<0.5	<2.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<5
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<5
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<5
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<5
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<5
1,2,3-Trichloropropane	µg/L	<1	<1 UJ	<1	<1	<1	<1	<5
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<5
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<5
1,2-Dibromo-3-chloropropane	µg/L	<2	<2 UJ	<2	<2	<2	<2	<10
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1	<5
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<5
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<5
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<5
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<5
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<2
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1	<5
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<5
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<5
2-Hexanone	µg/L	<10	<10 UJ	<10	<10	<10	<10	<50
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<5
Acetone	µg/L	23.3	<10 UJ	22.9	21.5	<10	7.78 J	<50
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<2
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1	<5
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1	<5
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1	<5
Bromomethane	µg/L	<1	<1	<1	<1	<1	<1	<5
Carbon disulfide	µg/L	<1	<1	<1	<1	<1	<1	<5
Carbon tetrachloride	µg/L	<1	0.839 J	<1	<1	<1	<1	<5
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1	<5
Chloroform	µg/L	<0.3	0.242 J	0.249 J	<0.3	0.407	<0.3	<1.5
Chloromethane	µg/L	<1 UJ	<1	<1 UJ	<1 UJ	<1	<1	<5
cis-1,2-Dichloroethene	µg/L	1.31	<1	<1	0.577 J	<1	2.85 J	2.7
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1	<5
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<5
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<5
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<3
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<5
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2	<10
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10	<50
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	26 J	21.9
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1	<5
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10	<50
Naphthalene	µg/L	<1	<1 UJ	<1	<1	<1	<1	<5
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<5
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<5
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1	<5
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1	<5
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<5
Styrene	µg/L	<1	<1	<1	<1	<1	<1	<5
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<5
Tetrachloroethene	µg/L	30.8	0.524 J	<1	39.9	<1	1.64 J	1.27
Toluene	µg/L	<1	<1	<1	<1	<1	1.85 J	1.6
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<5
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<5
Trichloroethene	µg/L	8.2	0.301 J	68	2.78	<1	<1	<5
Trichlorofluoromethane	µg/L	<1	0.263 J	<1	<1	<1	<1	<5
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	207	169

Notes:

µg/L: micrograms per liter

DQE Flags:

J: Estimated

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-2
MAIN INSTALLATION ANALYTICAL RESULTS, OCTOBER 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	MW101T	MW-101T-DUP-4	MW101B	MW102B	MW103	MW104	MW107T
	Lab ID	L14101439-29	L14101439-25	L14101359-26	L14101408-14	L14101359-48	L14101359-49	L14101359-27
Analyte	Date	10/19/2014	10/19/2014	10/20/2014	10/18/2014	10/20/2014	10/20/2014	10/20/2014
Units								
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	2.12	0.845 J	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	2.15	2.33	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1 UJ	<1 UJ	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2 UJ	<2 UJ	<2	<2	<2 UJ	<2 UJ	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10 UJ	<10 UJ	<10	<10	<10 UJ	<10 UJ	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
Acetone	µg/L	8.94 J	8.45 J	10	<10	11.2 J	13.7 J	30.2
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	0.713 J	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	7.26	0.205 J	0.227 J
Chloromethane	µg/L	<1	<1	<1 UJ	<1 UJ	<1	<1	<1 UJ
cis-1,2-Dichloroethene	µg/L	25.9	25.1	27.1	<1	0.41 J	0.607 J	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	49.7 J	47.7 J	46.5	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	13.6	13.1	12.7	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10 UJ	<10 UJ	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1 UJ	<1 UJ	<1	<1	<1 UJ	<1 UJ	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	4.75	4.38	9.48	<1	0.409 J	<1	6.52
Toluene	µg/L	0.256 J	0.262 J	0.285 J	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.49	1.45	1.57	<1	8.8	14.7	1.49
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

J: Estimated

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-2
MAIN INSTALLATION ANALYTICAL RESULTS, OCTOBER 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	MW107B	MW108	MW-108-DUP-5	MW140	MW141	MW142	MW143
	Lab ID	L14101359-02	L14101359-03	L14101359-21	L14101439-07	L14101439-33	L14101439-08	L14101439-09
Analyte	Date	10/20/2014	10/20/2014	10/20/2014	10/19/2014	10/19/2014	10/19/2014	10/19/2014
Units								
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	0.976 J	0.866 J	<1	0.415 J	<1	<1
1,1-Dichloroethene	µg/L	<1	1.49	1.45	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2 UJ	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10 UJ	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
Acetone	µg/L	26.8	40.2	43.2	<10 UJ	29.1 J	11.2 J	5.06 J
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	0.317 J	<1	<1	0.27 J	<1	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.306	10.7	9.96	0.159 J	3.13	<0.3	<0.3
Chloromethane	µg/L	<1	<1	<1 UJ	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	0.77 J	0.776 J	<1	<1	<1	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10 UJ	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	1.64 J	0.895 J
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10 UJ	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1 UJ	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	6.31	3.69	3.79	3.76	36	<1	0.408 J
Toluene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.6	31.2	29	1.19	4.19	6.38	9.52
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

J: Estimated

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-2
MAIN INSTALLATION ANALYTICAL RESULTS, OCTOBER 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

Analyte	Well ID Lab ID Date Units	MW198 L14101439-10 10/19/2014	MW199A L14101439-11 10/19/2014	MW199B L14101439-12 10/19/2014	MW-200 L14101359-04 10/20/2014	MW202A L14101439-13 10/19/2014	MW202B L14101439-14 10/19/2014	MW-202B-DUP-6 L14101439-26 10/19/2014
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2	<2 UJ
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10	<10 UJ
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
Acetone	µg/L	<10 UJ	3.01 J	33 J	24.7	4.72 J	30.3 J	30.9 J
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	0.29 J	<1	<1	0.439 J	0.447 J
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	0.157 J	0.136 J	0.206 J	0.521	0.564
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	0.351 J	<1	<1	0.31 J
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10	<10 UJ
Methyl t-butyl ether (MTBE)	µg/L	<5	4.84 J	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10	<10 UJ
Naphthalene	µg/L	<1	<1	<1	<1	<1	<1	<1 UJ
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	0.432 J	7.91	2.35	22	24.3
Toluene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.643 J	2.01	74.6	6.16	1.72	4.06	4.19
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

J: Estimated

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-2
MAIN INSTALLATION ANALYTICAL RESULTS, OCTOBER 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	MW-204A	MW-204B	MW-205A	MW-205B	MW-206A	MW-206B	MW-207A
	Lab ID	L14101359-05	L14101359-06	L14101359-07	L14101359-08	L14101359-11	L14101359-12	L14101359-13
Analyte	Date	10/20/2014	10/20/2014	10/20/2014	10/20/2014	10/20/2014	10/20/2014	10/20/2014
Units								
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	0.959	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1	0.981 J
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	1.23
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
Acetone	µg/L	24.2	25.5	25.1	22.5	31.5	24.8	39.7
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	10.8
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	5.84	3.41	3.19	12	3.39	2.55	0.671 J
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	1.09 J	3.44 J	1.64 J	1.09 J	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	23.2	7	22	9.64	18.4	17.9	19.6
Toluene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.42	7.42	8.83	7.91	8.59	5.55	27
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	1.53	<1	<1	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

J: Estimated

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-2
MAIN INSTALLATION ANALYTICAL RESULTS, OCTOBER 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	MW-207B	MW-208A	MW-208B	MW-208B-DUP-7	MW209A	MW209B	MW-210A
	Lab ID	L14101359-14	L14101359-15	L14101359-16	L14101359-22	L14101439-15	L14101439-16	L14101359-17
Analyte	Date	10/20/2014	10/20/2014	10/20/2014	10/20/2014	10/19/2014	10/19/2014	10/20/2014
Units								
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	1.69	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
Acetone	µg/L	36.8	33.9	33.7	34.7	8.75 J	19.6 J	34.1
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	2.58	<1	<1	<1	<1	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	4.17	<0.3	1.19	1.05	<0.3	0.156 J	0.128 J
Chloromethane	µg/L	<1	<1	<1	<1 UJ	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	0.452 J	5.4	0.501 J	0.469 J	<1	<1	1.97
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	0.917 J	<5	<5	3.53 J	<5	0.819 J
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	46.2	19.9	13.6	14	0.385 J	1.48	4.28
Toluene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	15	16.4	9.76	8.83	6.94	14.8	5.82
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	0.601 J	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

J: Estimated

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-2
MAIN INSTALLATION ANALYTICAL RESULTS, OCTOBER 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID Lab ID Date Units	MW-210B L14101359-18 10/20/2014	MW-211 L14101359-19 10/20/2014	MW-214A L14101470-02 10/21/2014	MW-214B L14101470-03 10/21/2014	MW-215A L14101470-04 10/21/2014	MW-215A-DUP-8 L14101470-08 10/21/2014	MW-215B L14101470-05 10/21/2014
Analyte								
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	0.236 J	0.284 J	0.319 J	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	0.54 J
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2 UJ	<2 UJ	<2 UJ	<2	<2 UJ
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10 UJ	<10 UJ	<10 UJ	<10	<10 UJ
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
Acetone	µg/L	38.7	6.04 J	29 J	25.7 J	10 J	14.2	4.27 J
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	0.85 J	0.902 J	0.946 J	0.857 J	1.4
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	2.33	2.06	1.98	2.07	0.645
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1 UJ	<1
cis-1,2-Dichloroethene	µg/L	0.624 J	<1	<1	<1	<1	<1	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10 UJ	<10 UJ	<10 UJ	<10	<10 UJ
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	0.715 J	0.654 J	0.96 J	1 J	2.19 J
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10 UJ	<10 UJ	<10 UJ	<10	<10 UJ
Naphthalene	µg/L	<1	<1	<1 UJ	<1 UJ	<1 UJ	<1	<1 UJ
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	2.71	1.2	5.76	5.12	6.19	6.44	5.93
Toluene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	11	0.702 J	2.24	2.01	2.71	2.68	1.52
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

J: Estimated

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-2
MAIN INSTALLATION ANALYTICAL RESULTS, OCTOBER 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	MW-216	MW-217	MW-218	MW-219	MW-229	MW252	MW253
	Lab ID	L14101359-20	L14101359-35	L14101359-38	L14101439-34	L14101439-35	L14101439-17	L14101439-18
Analyte	Date	10/20/2014	10/20/2014	10/20/2014	10/19/2014	10/19/2014	10/19/2014	10/19/2014
Units								
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	0.272 J	0.737 J	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	0.932 J	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1 UJ	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2 UJ	<2 UJ	<2 UJ	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	0.328 J	0.455 J	0.994	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	0.386 J	0.525 J	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10 UJ	<10 UJ	<10 UJ	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
Acetone	µg/L	<10	18.9	20.6 J	7.42 J	2.94 J	9.09 J	10.7 J
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	29.7	8.07	<1	<1	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	3.73	2.73	<0.3	<0.3	<0.3	<0.3
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	0.589 J	<1	3.07	<1	<1	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10 UJ	<10 UJ	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10 UJ	<10 UJ	<10	<10
Naphthalene	µg/L	<1	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	23.3	16	74.7	<1	<1	<1
Toluene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.32 J	36.4	32.9	4.14	<1	<1	<1
Trichlorofluoromethane	µg/L	<1	1.53	1.86	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

J: Estimated

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-2
MAIN INSTALLATION ANALYTICAL RESULTS, OCTOBER 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

Analyte	Well ID Lab ID Date Units	MW-254 L14101439-19 10/19/2014	MW-254-DUP-9 L14101439-27 10/19/2014	MW-255 L14101439-01 10/19/2014	MW-256 L14101439-02 10/19/2014	MW-257 L14101439-03 10/19/2014	MW-258 L14101470-01 10/21/2014	MW-259 L14101359-29 10/20/2014
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.257 J
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	0.464 J	<1	0.189 J	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	1.15	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2 UJ	<2	<2	<2	<2 UJ	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	2.3
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10 UJ	<10	<10	<10	<10 UJ	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
Acetone	µg/L	7.96 J	6.08 J	8.6 J	5.48 J	<10 UJ	28.8 J	27.9
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	0.736 J	0.772 J	<1	0.415 J	<1	<1	4.45
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.166 J	0.168 J	<0.3	1.88	<0.3	1.73	2.5
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1 UJ
cis-1,2-Dichloroethene	µg/L	0.387 J	0.36 J	<1	0.316 J	<1	1.69	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
m,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10 UJ	<10	<10	<10	<10 UJ	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	4.16 J	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10 UJ	<10	<10	<10	<10 UJ	<10
Naphthalene	µg/L	<1	<1 UJ	<1	<1	<1	<1 UJ	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.901 J	0.955 J	<1	38	<1	29.7	14.4
Toluene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	2.79	2.84	0.501 J	11.6	<1	50.8	21.4
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

J: Estimated

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-2
MAIN INSTALLATION ANALYTICAL RESULTS, OCTOBER 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

Analyte	Well ID	MW-260	MW261
	Lab ID Date Units	L14101359-30 10/20/2014	L14101359-01 10/20/2014
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1
1,1-Dichloroethane	µg/L	1.99	<1
1,1-Dichloroethene	µg/L	1.96	<1
1,1-Dichloropropene	µg/L	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2
1,2-Dibromoethane	µg/L	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1
2,2-Dichloropropane	µg/L	<1	<1
2-Chlorotoluene	µg/L	<1	<1
2-Hexanone	µg/L	<10	<10
4-Chlorotoluene	µg/L	<1	<1
Acetone	µg/L	22	22.9
Benzene	µg/L	<0.4	<0.4
Bromobenzene	µg/L	<1	<1
Bromochloromethane	µg/L	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5
Bromoform	µg/L	<1	<1
Bromomethane	µg/L	<1	<1
Carbon disulfide	µg/L	<1	<1
Carbon tetrachloride	µg/L	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5
Chloroethane	µg/L	<1	<1
Chloroform	µg/L	1.18	<0.3
Chloromethane	µg/L	<1 UJ	<1
cis-1,2-Dichloroethene	µg/L	<1	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5
Dibromomethane	µg/L	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1
Ethylbenzene	µg/L	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1
m-,p-Xylene	µg/L	<2	<2
MEK (2-Butanone)	µg/L	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5
Methylene chloride	µg/L	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10
Naphthalene	µg/L	<1	<1
n-Butylbenzene	µg/L	<1	<1
n-Propylbenzene	µg/L	<1	<1
o-Xylene	µg/L	<1	<1
p-Isopropyltoluene	µg/L	<1	<1
sec-Butylbenzene	µg/L	<1	<1
Styrene	µg/L	<1	<1
tert-Butylbenzene	µg/L	<1	<1
Tetrachloroethene	µg/L	0.306 J	0.292 J
Toluene	µg/L	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1
Trichloroethene	µg/L	4.22	2.52
Trichlorofluoromethane	µg/L	<1	<1
Vinyl chloride	µg/L	<1	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

J: Estimated

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-3
DUNN FIELD ANALYTICAL RESULTS, APRIL 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	MW-03	MW-03-DUP-1	MW-06	MW-07	MW-08	MW-15
	Lab ID	L14041888-25	L14041888-01	L14041888-26	L14041888-03	L14050112-51	L14041888-04
Analyte	Date	4/25/2014	4/25/2014	4/25/2014	4/25/2014	4/28/2014	4/25/2014
	Units						
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	0.201 J	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	0.798 J	0.178 J	<1
1,1-Dichloroethene	µg/L	1.72	1.79	<1	14.6	1.48	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	0.251 J	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
Acetone	µg/L	<10	<10	<10	4.51 J	<10	<10
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1 UJ	<1	<1 UJ	<1 UJ	<1	<1 UJ
Carbon disulfide	µg/L	<1 UJ	<1	<1 UJ	<1 UJ	<1	<1 UJ
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	4.2	0.22 J	<0.3	1.22
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	<1	0.983 J	0.293 J	<1	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	4.37	4.88	<1	35.6	3.65	0.66 J
Toluene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	2.97	3.33	0.929 J	28.8	6.09	0.492 J
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-3
DUNN FIELD ANALYTICAL RESULTS, APRIL 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	MW-31	MW-44	MW-54	MW-57	MW-68	MW-69
	Lab ID	L14050112-26	L14050112-09	L14050112-27	L14041888-05	L14050112-30	L14041888-06
Analyte	Date	4/26/2014	4/27/2014	4/26/2014	4/25/2014	4/26/2014	4/25/2014
	Units						
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	0.273 J	1.37	2.11	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	0.308 J	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	4.94	<1	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
Acetone	µg/L	26.3	3.18 JB	26.6 J	<10	<10	<10
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1 UJ	<1	<1 UJ
Carbon disulfide	µg/L	<1	<1 UJ	<1	<1 UJ	<1	<1 UJ
Carbon tetrachloride	µg/L	<1	0.584 J	<1	<1	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.183 J	8.1	0.196 J	1.71	<0.3	0.182 J
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	0.405 J	<1	<1	<1	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	0.704 J	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	8.55	<1	0.464 J	<1	<1	<1
Toluene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	10.2	4.31	6.51	1.03	<1	<1
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-3
DUNN FIELD ANALYTICAL RESULTS, APRIL 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	MW-70	MW-71	MW-76	MW-77	MW-77-DUP-2	MW-79
	Lab ID	L14041888-07	L14041888-08	L14050112-31	L14050112-32	L14050112-24	L14050112-55
Analyte	Date	4/25/2014	4/25/2014	4/26/2014	4/26/2014	4/26/2014	4/28/2014
	Units						
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	0.362 J	<0.5	4.54	4.92	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	3.27
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
Acetone	µg/L	<10	<10	<10	7.54 J	7.05 J	33.7
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1 UJ	<1 UJ	<1	<1	<1	<1
Carbon disulfide	µg/L	<1 UJ	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	0.445 J	<1	<1	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.187 J	7.05	<0.3	0.188 J	0.205 J	<0.3
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.562 J	0.323 J	<1	0.47 J	0.371 J	5.07
Toluene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.378 J	2.47	<1	9.64	11.6	3.66
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-3
DUNN FIELD ANALYTICAL RESULTS, APRIL 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	MW-87	MW-91	MW-129	MW-129-DUP-05	MW-130	MW-130-DUP-3
	Lab ID	L14041888-09	L14041888-10	L14050112-52	L14050112-57	L14050112-53	L14050112-50
Analyte	Date	4/25/2014	4/25/2014	4/28/2014	4/28/2014	4/28/2014	4/28/2014
	Units						
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	0.462 J	0.419 J	1.43	1.43
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	1.21	1.16	1.29	1.32
1,1-Dichloroethene	µg/L	<1	<1	13.2	11.8	22.6	22.7
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	0.329 J	0.305 J
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
Acetone	µg/L	<10	<10	<10	<10	4.74 J	4.68 J
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1 UJ	<1 UJ	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	19.3	0.301	<0.3	<0.3	0.219 J	0.258 J
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	2.01	<1	<1	<1	0.718 J	0.67 J
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.273 J	<1	16.2	15.6	60.6	60.7
Toluene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	2.74	<1	12.5	11.2	58.8	58.5
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-3
DUNN FIELD ANALYTICAL RESULTS, APRIL 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	MW-134	MW-144	MW-145	MW-147	MW-148	MW-149
	Lab ID	L14041888-11	L14050112-33	L14050112-34	L14050112-35	L14042010-01	L14050112-36
Analyte	Date	4/25/2014	4/26/2014	4/26/2014	4/26/2014	4/26/2014	4/26/2014
	Units						
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	12.2	<0.5	<0.5	<0.5	1.54
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
Acetone	µg/L	<10	26.5 J	<10	<10	<10	29.6 J
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1 UJ	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	0.33 J	<1	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.138 J	0.36	0.666	0.136 J	0.137 J	3.45
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	0.737 J	<1	<1	<1	0.594 J
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.603 J	0.686 J	<1	<1	<1	<1
Toluene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	30.2	0.438 J	<1	<1	1.58
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-3
DUNN FIELD ANALYTICAL RESULTS, APRIL 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	MW-150	MW-151	MW-152	MW-155	MW-157	MW-158
	Lab ID	L14050112-37	L14050112-10	L14050112-03	L14050112-38	L14050112-39	L14050112-13
Analyte	Date	4/26/2014	4/27/2014	4/27/2014	4/26/2014	4/26/2014	4/27/2014
Units							
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	7.72	1.36	<0.5	0.461 J	<0.5	0.959
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
Acetone	µg/L	29.2 J	37 B	<10	2.98 J	23 J	4.78 JB
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1 UJ	<1 UJ	<1	<1	<1
Carbon disulfide	µg/L	<1	<1 UJ	<1 UJ	<1	<1	<1 UJ
Carbon tetrachloride	µg/L	<1	0.396 J	<1	<1	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.473	6.45	<0.3	<0.3	0.66	0.137 J
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	0.366 J	0.299 J	<1	<1	0.456 J	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	0.332 J	<1	<1
Toluene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	16.3	2.85	0.604 JB	0.838 J	0.955 J	3.16
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-3
DUNN FIELD ANALYTICAL RESULTS, APRIL 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	MW-158A	MW-159	MW-159-DUP-4	MW-160	MW-163	MW-164
	Lab ID	L14050112-14	L14050112-15	L14050112-08	L14051048-02	L14050112-40	L14050112-41
Analyte	Date	4/27/2014	4/27/2014	4/27/2014	5/13/2014	4/26/2014	4/26/2014
	Units						
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	20.3	21	<0.5	6.79	0.305 J
1,1,2-Trichloroethane	µg/L	<1	5.12	4.93	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	3.68	4.06	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
Acetone	µg/L	<10	26.1 B	36.5 B	3.04 J	23.4 J	27.6 J
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	0.3 J	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1 UJ	<1	<1 UJ	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	0.596 J
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	0.18 J	0.166 J	<0.3	0.156 J	2.26
Chloromethane	µg/L	<1	<1	<1	<1 UJ	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	33.4	34.3	<1	0.433 J	0.536 J
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	0.863 J	0.8 J	<1	0.566 J	<1
Toluene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	4.36	4.22	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.391 JB	216	207	<1	13.8	3.08
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	11.9	9.74	<1	<1	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-3
DUNN FIELD ANALYTICAL RESULTS, APRIL 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	MW-165	MW-165A	MW-166	MW-166A	MW-174	MW-176
	Lab ID	L14050112-04	L14050112-56	L14050112-42	L14050112-43	L14041888-12	L14041888-13
Analyte	Date	4/27/2014	4/28/2014	4/26/2014	4/26/2014	4/25/2014	4/25/2014
	Units						
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	0.204 J	1.95	0.926	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
Acetone	µg/L	9.94 JB	<10	30.5 J	28 J	<10	<10
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1 UJ	<1	<1	<1	<1 UJ	<1 UJ
Carbon disulfide	µg/L	<1 UJ	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	0.721	4.34	2.68	<0.3	0.193 J
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	<1	0.92 J	0.313 J	<1	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	0.288 J	<1	<1	0.334 J
Toluene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.29 B	0.963 J	2.53	1	<1	<1
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-3
DUNN FIELD ANALYTICAL RESULTS, APRIL 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	MW-180	MW-182	MW-184	MW-190	MW-220	MW-221
	Lab ID	L14041888-14	L14051048-03	L14050112-44	L14050112-45	L14041888-15	L14041888-16
Analyte	Date	4/25/2014	5/13/2014	4/26/2014	4/26/2014	4/25/2014	4/25/2014
	Units						
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	4.77	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	3.19	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
Acetone	µg/L	<10	<10	26.9 J	31.6	16.5	<10
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1 UJ	<1	<1	<1 UJ	<1 UJ	<1 UJ
Carbon disulfide	µg/L	<1	<1	<1	<1 UJ	<1	<1
Carbon tetrachloride	µg/L	<1	<1	1.01	<1	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	2.67	0.463	<0.3	<0.3
Chloromethane	µg/L	<1	<1 UJ	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	<1	0.528 J	<1	<1	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	0.355 J	0.615 J	3.51	<1
Toluene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	1.61	12.4	6.01	<1
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-3
DUNN FIELD ANALYTICAL RESULTS, APRIL 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	MW-222	MW-223	MW-224	MW-225	MW-226	MW-227
	Lab ID	L14041888-17	L14041888-18	L14041888-19	L14041888-20	L14041888-21	L14041888-22
Analyte	Date	4/25/2014	4/25/2014	4/25/2014	4/25/2014	4/25/2014	4/25/2014
	Units						
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
Acetone	µg/L	20.8	<10	<10	<10	<10	<10
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ
Carbon disulfide	µg/L	<1	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	0.395	0.137 J	0.26 J	<0.3	0.253 J
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	0.448 J	<1	0.515 J	<1	0.288 J
Toluene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1	0.358 J
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-3
DUNN FIELD ANALYTICAL RESULTS, APRIL 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

Analyte	Well ID Lab ID Date Units	MW-227-DUP-6 L14041888-02 4/25/2014	MW-228 L14041888-23 4/25/2014	MW-230 L14041888-24 4/25/2014	MW-235 L14050112-48 4/26/2014	MW-237 L14050112-16 4/27/2014	MW-241 L14042010-02 4/26/2014
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	0.445 J	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	0.231 J	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	1.16	<1	0.306 J	<1
1,1-Dichloroethene	µg/L	<1	<1	14.8	<1	2.83	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
Acetone	µg/L	<10	<10	5.95 J	<10	3.54 JB	2.87 J
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1 UJ	<1 UJ	<1	<1 UJ	<1
Carbon disulfide	µg/L	<1	<1 UJ	<1 UJ	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.217 J	<0.3	0.307	<0.3	<0.3	<0.3
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	<1	0.651 J	<1	0.349 J	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.25 J	<1	42.8	<1	<1	<1
Toluene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.499 J	<1	63.7	<1	<1	0.748 J
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-3
DUNN FIELD ANALYTICAL RESULTS, APRIL 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	MW-242	MW-243	MW-244	MW-245	MW-246	MW-246-DUP-7
	Lab ID	L14050112-49	L14050112-05	L14050112-06	L14042010-03	L14050112-07	L14050112-01
Analyte	Date	4/26/2014	4/27/2014	4/27/2014	4/26/2014	4/27/2014	4/27/2014
	Units						
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	1.31	2.04	<0.5	<0.5	12.9	13.7
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
Acetone	µg/L	<10	<10	15.8 B	<10	<10	<10
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1 UJ	<1 UJ	<1	<1 UJ	<1 UJ
Carbon disulfide	µg/L	<1	<1 UJ	<1 UJ	<1	<1 UJ	<1 UJ
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.142 J	<0.3	0.233 J	<0.3	0.618	0.618
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	0.599 J	0.603 J
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	0.427 J	<1	0.262 J	0.334 J
Toluene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.641 J	3.36	<1	<1	37.3	37.9
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-3
DUNN FIELD ANALYTICAL RESULTS, APRIL 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	MW-247	MW-248	MW-249	MW-250	MW-251
	Lab ID	L14050112-17	L14050112-20	L14050112-21	L14050112-22	L14050112-23
Analyte	Date	4/27/2014	4/27/2014	4/26/2014	4/26/2014	4/26/2014
	Units					
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	0.273 J	<0.5	1.52	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	0.593 J
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	3.86
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1
Acetone	µg/L	<10	<10	27.6	3.51 J	3.07 J
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	1.62	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	1.15	<0.3	10.4	<0.3	0.373
Chloromethane	µg/L	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	<1	0.358 J	<1	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	0.542 J	<1	0.526 J
Toluene	µg/L	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	2.89	<1	6.12	<1	<1
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

B: Blank contamination

J: Estimated

UJ: Estimated Non-Detect

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-4
DUNN FIELD ANALYTICAL RESULTS, OCTOBER 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	MW-03	MW-03-DUP-1	MW-06	MW-31	MW-44	MW-44-DUP-2	MW-54
	Lab ID	L14101409-01	L14101409-21	L14101409-02	L14101401-01	L14101401-02	L14101401-23	L14101401-03
Analyte	Date	10/18/2014	10/18/2014	10/18/2014	10/19/2014	10/19/2014	10/19/2014	10/19/2014
	Units							
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	0.914	1.29	2.53
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	2.63	2.61	<1	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	0.184 J	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
Acetone	µg/L	20.1	20	19.3	6.82 J	6.43 J	7.15 J	6.89 J
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	0.361 J	0.322 J	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	0.161 J	9.05	<0.3	6.38	6.5	0.255 J
Chloromethane	µg/L	<1 UJ	<1 UJ	<1 UJ	<1	<1	<1 UJ	<1
cis-1,2-Dichloroethene	µg/L	<1	<1	3.59	<1	<1	<1	0.274 J
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1 UJ	<1 UJ	<1	<1 UJ
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	3.65	3.53	<1	<1	<1	<1	0.497 J
Toluene	µg/L	<1	<1	<1	0.266 J	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	4.33	4.33	1.32	<1	3.11	2.82	10
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

J: Estimated

UJ: Estimated Non-Detect

JB: Blank contamination, Estimated

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-4
DUNN FIELD ANALYTICAL RESULTS, OCTOBER 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	MW-77	MW-79	MW-87	MW-134	MW-144	MW-149	MW-150
	Lab ID	L14101401-04	L14101409-03	L14101409-04	L14101401-05	L14101401-06	L14101409-07	L14101409-08
Analyte	Date	10/19/2014	10/18/2014	10/18/2014	10/19/2014	10/19/2014	10/18/2014	10/18/2014
	Units							
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	1.76	<0.5	0.671	<0.5	9.02	1.01	0.795
1,1,2-Trichloroethane	µg/L	<1	<1	0.287 J	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	2.2	<1	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
Acetone	µg/L	16.1	6.22 J	21.6	15.6	17.4	7.89 J	8.03 J
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.21 J	<0.3	56.2 J	<0.3	0.262 J	3.96	<0.3
Chloromethane	µg/L	<1	<1 UJ	<1 UJ	<1	<1	<1 UJ	<1 UJ
cis-1,2-Dichloroethene	µg/L	<1	<1	6.71	<1	0.758 J	0.9 J	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	0.524 J	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1 UJ	<1	<1	<1 UJ	<1 UJ	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.623 J	3.59	0.379 J	0.385 J	0.466 J	0.262 J	<1
Toluene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	6.03	2.95	4.16	<1	33.2	1.92	2.29
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

J: Estimated

UJ: Estimated Non-Detect

JB: Blank contamination, Estimated

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-4
DUNN FIELD ANALYTICAL RESULTS, OCTOBER 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	MW-151	MW-159	MW-159-DUP-3	MW-163	MW-164	MW-165	MW-165A
	Lab ID	L14101401-07	L14101401-08	L14101401-24	L14101401-09	L14101401-10	L14101401-11	L14101401-12
Analyte	Date	10/19/2014	10/19/2014	10/19/2014	10/19/2014	10/19/2014	10/19/2014	10/19/2014
	Units							
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	0.96	13.7 J	19.2 J	0.291 J	<0.5	0.729	0.595
1,1,2-Trichloroethane	µg/L	<1	4.02	4.6	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	3.78	4.11	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
Acetone	µg/L	10.7	6.59 J	6.53 J	18.4	17.3	7.86 J	9 J
Benzene	µg/L	<0.4	<0.4	<0.4	0.263 J	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	0.328 J	<1	<1	<1	0.36 J	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	5.38	0.149 J	0.17 J	<0.3	1.4	0.326	0.84
Chloromethane	µg/L	<1	<1	<1 UJ	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	0.252 J	31.4	34.3	<1	0.383 J	<1	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1 UJ	<1 UJ	<1	<1 UJ	<1 UJ	<1 UJ	<1 UJ
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	0.832 J	0.847 J	0.5 J	<1	<1	<1
Toluene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	3.9	4.47	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	2.65	216	234	1.83	2.49	6.25	2.73
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	8.83	8.63	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

J: Estimated

UJ: Estimated Non-Detect

JB: Blank contamination, Estimated

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-4
DUNN FIELD ANALYTICAL RESULTS, OCTOBER 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	MW-166	MW-166A	MW-174	MW-184	MW-190	MW-220	MW-221
	Lab ID	L14101401-13	L14101401-14	L14101409-09	L14101401-15	L14101401-16	L14101409-10	L14101409-11
Analyte	Date	10/19/2014	10/19/2014	10/18/2014	10/19/2014	10/19/2014	10/18/2014	10/18/2014
	Units							
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	1.12	0.539	<0.5	0.211 J	4.55	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	3.18	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
Acetone	µg/L	10.6	7.03 J	16	17.4	17.9	20.7	16.9
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	0.325 J	<1	0.958 J	<1	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	3.52	4.6	<0.3	3.17	0.256 J	<0.3	<0.3
Chloromethane	µg/L	<1	<1	<1 UJ	<1	<1	<1 UJ	<1 UJ
cis-1,2-Dichloroethene	µg/L	0.922 J	0.547 J	<1	0.633 J	<1	<1	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1 UJ	<1 UJ	<1	<1 UJ	<1 UJ	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.313 J	0.391 J	<1	0.429 J	0.752 J	4.19	<1
Toluene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	2.15	2.03	<1	1.99	12.3	6.57	<1
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

J: Estimated

UJ: Estimated Non-Detect

JB: Blank contamination, Estimated

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-4
DUNN FIELD ANALYTICAL RESULTS, OCTOBER 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	MW-222	MW-223	MW-223-DUP-4	MW-224	MW-225	MW-226	MW-227
	Lab ID	L14101409-12	L14101409-13	L14101409-22	L14101409-14	L14101409-15	L14101409-18	L14101409-19
Analyte	Date	10/18/2014	10/18/2014	10/18/2014	10/18/2014	10/18/2014	10/18/2014	10/18/2014
	Units							
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
Acetone	µg/L	14.9	19	19.6	12.7	16.1 J	18.7	11.1
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	0.244 J	0.224 J	0.157 J	0.219 J	0.273 J	0.588
Chloromethane	µg/L	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1	<1 UJ	<1 UJ
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	0.417 J	<1	<1
Toluene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.276 J	<1	<1	<1	<1	<1	0.496 J
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

J: Estimated

UJ: Estimated Non-Detect

JB: Blank contamination, Estimated

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-4
DUNN FIELD ANALYTICAL RESULTS, OCTOBER 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Well ID	MW-228	MW-243	MW-244	MW-245	MW-246	MW-247	MW-249
	Lab ID	L14101409-20	L14101401-17	L14101401-18	L14101401-19	L14101401-20	L14101401-21	L14101401-22
Analyte	Date	10/18/2014	10/19/2014	10/19/2014	10/19/2014	10/19/2014	10/19/2014	10/19/2014
Units								
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	2.61	<0.5	0.423 J	9.63	0.399 J	1.4
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
Acetone	µg/L	16.4	13.1	9.07 J	7.63 J	<10 UJ	5.1 J	8.03 J
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	1.59
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	0.151 J	1.47	0.144 J	1.5	1.58	12.9
Chloromethane	µg/L	<1 UJ	<1	<1	<1	<1	<1	<1 UJ
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	0.471 J	0.495 J	0.35 J
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10 UJ	<10 UJ	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	0.253 JB	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1 UJ	<1 UJ	<1 UJ	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	0.296 J	0.486 J	0.351 J	<1	<1	0.574 J
Toluene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	5.01	<1	1.12	28.5	1.68	6.73
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

J: Estimated

UJ: Estimated Non-Detect

JB: Blank contamination, Estimated

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-5
MAIN INSTALLATION QA ANALYTICAL RESULTS, 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

	Sample ID	TB-1-LS-19	TB-2-LS-19	LTM-TB1-LB-20	LTM-TB2-LB-20	LTM-TB3-LB-20	LTM-TB4-LB-20
	Lab ID	L14041917-10	L14041918-34	L14101408-18	L14101439-28	L14101359-42	L14101470-09
Analyte	Date	4/24/2014	4/25/2014	10/18/2014	10/19/2014	10/20/2014	10/21/2014
	Units						
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2 UJ	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10 UJ	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
Acetone	µg/L	3.46 J	<10	<10	<10 UJ	<10	<10 UJ
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1 UJ	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1 UJ	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chloromethane	µg/L	<1	<1	<1 UJ	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10 UJ	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5
Methylene chloride	µg/L	0.435 J	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10 UJ	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1 UJ	<1 UJ	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1
Toluene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

J: Estimated

UJ: Estimated Non-Detect

JB: Blank contamination, Estimated

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-5
MAIN INSTALLATION QA ANALYTICAL RESULTS, 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

Analyte	Sample ID	LTM-RB1-LB-20
	Lab ID	L14101470-07
	Date	10/21/2014
	Units	
1,1,1,2-Tetrachloroethane	µg/L	<0.5
1,1,1-Trichloroethane	µg/L	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5
1,1,2-Trichloroethane	µg/L	<1
1,1-Dichloroethane	µg/L	<1
1,1-Dichloroethene	µg/L	<1
1,1-Dichloropropene	µg/L	<1
1,2,3-Trichlorobenzene	µg/L	<1
1,2,3-Trichloropropane	µg/L	<1
1,2,4-Trichlorobenzene	µg/L	<1
1,2,4-Trimethylbenzene	µg/L	<1
1,2-Dibromo-3-chloropropane	µg/L	<2
1,2-Dibromoethane	µg/L	<1
1,2-Dichlorobenzene	µg/L	<1
1,2-Dichloroethane	µg/L	<0.5
1,2-Dichloropropane	µg/L	<1
1,3,5-Trimethylbenzene	µg/L	<1
1,3-Dichlorobenzene	µg/L	<1
1,3-Dichloropropane	µg/L	<0.4
1,4-Dichlorobenzene	µg/L	<0.5
1-Chlorohexane	µg/L	<1
2,2-Dichloropropane	µg/L	<1
2-Chlorotoluene	µg/L	<1
2-Hexanone	µg/L	<10
4-Chlorotoluene	µg/L	<1
Acetone	µg/L	<10 UJ
Benzene	µg/L	<0.4
Bromobenzene	µg/L	<1
Bromochloromethane	µg/L	<1
Bromodichloromethane	µg/L	<0.5
Bromoform	µg/L	<1
Bromomethane	µg/L	<1
Carbon disulfide	µg/L	<1
Carbon tetrachloride	µg/L	<1
Chlorobenzene	µg/L	<0.5
Chloroethane	µg/L	<1
Chloroform	µg/L	<0.3
Chloromethane	µg/L	<1
cis-1,2-Dichloroethene	µg/L	<1
cis-1,3-Dichloropropene	µg/L	<0.5
Dibromochloromethane	µg/L	<0.5
Dibromomethane	µg/L	<1
Dichlorodifluoromethane	µg/L	<1
Ethylbenzene	µg/L	<1
Hexachlorobutadiene	µg/L	<0.6
Isopropylbenzene	µg/L	<1
m-,p-Xylene	µg/L	<2
MEK (2-Butanone)	µg/L	<10 UJ
Methyl t-butyl ether (MTBE)	µg/L	<5
Methylene chloride	µg/L	0.377 JB
MIBK (methyl isobutyl ketone)	µg/L	<10
Naphthalene	µg/L	<1
n-Butylbenzene	µg/L	<1
n-Propylbenzene	µg/L	<1
o-Xylene	µg/L	<1
p-Isopropyltoluene	µg/L	<1
sec-Butylbenzene	µg/L	<1
Styrene	µg/L	<1
tert-Butylbenzene	µg/L	<1
Tetrachloroethene	µg/L	<1
Toluene	µg/L	<1
trans-1,2-Dichloroethene	µg/L	<1
trans-1,3-Dichloropropene	µg/L	<1
Trichloroethene	µg/L	<1
Trichlorofluoromethane	µg/L	<1
Vinyl chloride	µg/L	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

J: Estimated

UJ: Estimated Non-Detect

JB: Blank contamination, Estimated

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-6
DUNN FIELD QA ANALYTICAL RESULTS, 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

Analyte	Sample ID Lab ID Date Units	TB-1-ODLA-8 L14050112-25 4/26/2014	TB-2-ODLA-8 L14050112-02 4/27/2014	TB-3-ODLA-8 L14050112-54 4/28/2014	TB-5-ODLA-8 L14042017-01 4/29/2014	RB-1-ODLA-8 L14042017-02 4/29/2014	TB-10-ODLA-8 L14051048-01 5/13/2014
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10 UJ	<10 UJ	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
Acetone	µg/L	<10	4.72 J	<10	<10	8.18 J	<10
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1 UJ	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1 UJ	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1 UJ
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	0.723 J	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1
Toluene	µg/L	<1	<1	<1	<1	0.423 J	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

J: Estimated

UJ: Estimated Non-Detect

JB: Blank contamination, Estimated

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE B-6
DUNN FIELD QA ANALYTICAL RESULTS, 2014
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

Analyte	Sample ID Lab ID Date Units	TB-1-ODLS-9 L14101401-25 10/19/2014
1,1,1,2-Tetrachloroethane	µg/L	<0.5
1,1,1-Trichloroethane	µg/L	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5
1,1,2-Trichloroethane	µg/L	<1
1,1-Dichloroethane	µg/L	<1
1,1-Dichloroethene	µg/L	<1
1,1-Dichloropropene	µg/L	<1
1,2,3-Trichlorobenzene	µg/L	<1
1,2,3-Trichloropropane	µg/L	<1
1,2,4-Trichlorobenzene	µg/L	<1
1,2,4-Trimethylbenzene	µg/L	<1
1,2-Dibromo-3-chloropropane	µg/L	<2
1,2-Dibromoethane	µg/L	<1
1,2-Dichlorobenzene	µg/L	<1
1,2-Dichloroethane	µg/L	<0.5
1,2-Dichloropropane	µg/L	<1
1,3,5-Trimethylbenzene	µg/L	<1
1,3-Dichlorobenzene	µg/L	<1
1,3-Dichloropropane	µg/L	<0.4
1,4-Dichlorobenzene	µg/L	<0.5
1-Chlorohexane	µg/L	<1
2,2-Dichloropropane	µg/L	<1
2-Chlorotoluene	µg/L	<1
2-Hexanone	µg/L	<10
4-Chlorotoluene	µg/L	<1
Acetone	µg/L	<10
Benzene	µg/L	<0.4
Bromobenzene	µg/L	<1
Bromochloromethane	µg/L	<1
Bromodichloromethane	µg/L	<0.5
Bromoform	µg/L	<1
Bromomethane	µg/L	<1
Carbon disulfide	µg/L	<1
Carbon tetrachloride	µg/L	<1
Chlorobenzene	µg/L	<0.5
Chloroethane	µg/L	<1
Chloroform	µg/L	<0.3
Chloromethane	µg/L	<1 UJ
cis-1,2-Dichloroethene	µg/L	<1
cis-1,3-Dichloropropene	µg/L	<0.5
Dibromochloromethane	µg/L	<0.5
Dibromomethane	µg/L	<1
Dichlorodifluoromethane	µg/L	<1
Ethylbenzene	µg/L	<1
Hexachlorobutadiene	µg/L	<0.6
Isopropylbenzene	µg/L	<1
m-,p-Xylene	µg/L	<2
MEK (2-Butanone)	µg/L	<10
Methyl t-butyl ether (MTBE)	µg/L	<5
Methylene chloride	µg/L	<1
MIBK (methyl isobutyl ketone)	µg/L	<10
Naphthalene	µg/L	<1
n-Butylbenzene	µg/L	<1
n-Propylbenzene	µg/L	<1
o-Xylene	µg/L	<1
p-Isopropyltoluene	µg/L	<1
sec-Butylbenzene	µg/L	<1
Styrene	µg/L	<1
tert-Butylbenzene	µg/L	<1
Tetrachloroethene	µg/L	<1
Toluene	µg/L	<1
trans-1,2-Dichloroethene	µg/L	<1
trans-1,3-Dichloropropene	µg/L	<1
Trichloroethene	µg/L	<1
Trichlorofluoromethane	µg/L	<1
Vinyl chloride	µg/L	<1

Notes:

µg/L: micrograms per liter

DQE Flags:

J: Estimated

UJ: Estimated Non-Detect

JB: Blank contamination, Estimated

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

APPENDIX C
DATA QUALITY EVALUATION

DATA QUALITY EVALUATION

Main Installation: Long-Term Monitoring (LTM) at the Main Installation was conducted by HDR during two sample events in 2014. Wells were selected for sampling in accordance with the MI LTM Plan in Appendix B of the *Main Installation Final Remedial Design, Revision 1* (CH2M Hill, 2004). Groundwater samples were submitted to Microbac Laboratories in Marietta, Ohio for analysis.

Dunn Field: Long-Term Monitoring at Dunn Field was conducted by HDR during two sample events in 2014. Wells were selected for sampling in accordance with the Dunn Field LTM Plan in Appendix C of *Off Depot Groundwater Final Remedial Design, Revision 1* (CH2M HILL, 2008). Groundwater samples were submitted to Microbac Laboratories in Marietta, Ohio for analysis.

Field activities and laboratory analyses were performed in accordance with the *Remedial Action Sampling and Analysis Plan, Revision 1* (RA SAP) (MACTEC 2005) and the *Remedial Action Operations and Long Term Monitoring Quality Assurance Project Plan, Revision 0* (QAPP) (HDR 2011c). The QAPP is consistent with the RA SAP but has not received final approval.

The data quality evaluation (DQE) process involves assessment of all field and laboratory procedures, including data validation, in accordance with the RA SAP/QAPP, completed by Diane Short and Associates, Inc (DSA). The data validation reports 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

Main Installation: The field effort included the collection of groundwater samples from designated wells and piezometers during the semiannual and biennial Main Installation LTM events in April and October 2014, respectively. The Main Installation LTM well locations are shown on Figure 6 of the report.

Dunn Field: The field effort included the collection of groundwater samples from designated wells during the annual and semiannual Dunn Field events in April-May and October 2014, respectively. The Dunn Field LTM well locations are shown on Figure 7 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. Sample bottles met U.S. Environmental Protection Agency

(USEPA) requirements for environmentally clean containers. Sample labels were pre-printed to facilitate sample tracking from the field through the laboratory. Documentation of the sampling was performed in the field to ensure that the samples collected, sample labels, chain-of-custody (COC) records, which were generated electronically using a personal digital assistant (PDA) supplied by the laboratory, and request for analysis were consistent. Where necessary, additional 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.

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, lab 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

The objective of the DQE was to provide a review of the chemical data reports submitted by the laboratory and to assess the data in relation to the DQOs stated in the RA SAP/QAPP. 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/QAPP 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 (bias) and Precision (Surrogates, MS/MSD, LCS Recoveries)
- Laboratory Performance Criteria (Blanks, Instrument Performance Checks)

Field QC parameters were evaluated through field duplicates, rinsate 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 as attachments in this Appendix. The SDGs and associated groundwater samples are listed on Table C-1 (Main Installation) and Table C-2 (Dunn Field).

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, rinsate blanks, method blanks, internal standards, surrogate recoveries, 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).

Main Installation: Field precision goals were met for the duplicate sample pairs collected during the two LTM sampling events. Laboratory precision is discussed in more detail in the attached narratives.

Dunn Field: Field precision goals were generally met for the duplicate sample pairs collected during the two LTM sampling events. In one field duplicate pair at MW-159, 1,1,2,2-tetrachloroethane had an RPD above the control limit. Laboratory precision is discussed in more 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).

Main Installation: Although there were a number of low LCS recoveries and low MS/MSD recoveries observed in the two events, all associated data are qualified J or UJ and as such are valid. Accuracy goals based upon LCS were met. Further discussion of the LCS and MS/MSD recoveries is provided in the attached DQE narratives.

Dunn Field: Although there were a number of low or high LCS recoveries and low MS/MSD recoveries observed in the two events, all associated data are qualified J or UJ and as such are valid. Accuracy goals based upon LCS were generally met. Further 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 rinsate blank analysis help in providing this assessment.

Main Installation: Sampling procedures followed the RA SAP/QAPP and were considered representative of the matrices collected. Laboratory preparation and analysis followed method guidelines.

Dunn Field: Sampling procedures followed the RA SAP/QAPP 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 sampling events.

Main Installation: Past LTM data are comparable to recent events. Consistent methodology has been maintained throughout the LTM sampling events.

Dunn Field: Past LTM data are comparable to recent events. Consistent methodology has been maintained throughout the LTM sampling events.

Completeness

Completeness is determined for both field and analytical objectives. Field completeness is calculated from the number of samples proposed versus 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/QAPP.

Main Installation: Data from the two LTM events in April and October 2014 were 100% complete and therefore met the completeness DQO.

Dunn Field: Data from the two LTM events in April-May and October 2014 were 100% complete 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 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.

Main Installation and Dunn Field: The analytical method RLs and MDLs were compared to groundwater protection standards as listed in the RA SAP/QAPP and were determined to meet the overall project objectives. (The MDLs for six VOCs [1,1,2,2-tetrachloroethane, 1,1,2-trichloroethane, 1,2-dichloroethane, bromodichloromethane, carbon tetrachloride, and dibromochloromethane] were above the standards; however, as noted in the QAPP, ... “MDLs for these VOC ... compounds are higher than their corresponding screening levels because current VOC ... analytical method technology can not achieve MDLs lower than those listed.”)

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

Main Installation Semi-Annual Event – April 2014

A total of 70 water samples including 56 groundwater field samples and 14 QA/QC samples (duplicates, MS/MSD, trip blanks) were collected from 54 LTM wells in April 2014. Samples were collected from two screened intervals in MW-101 and MW-107. Samples were analyzed for TCL VOCs. The data are usable with qualifications as described below:

- Thirty-five bromomethane results and eighteen 1,2,3-trichloropropane results were qualified UJ due to high percent differences with low response in continuing calibration standards. These analytes are not contaminants of concern at the site.
- Thirty-three non-detect carbon disulfide results were qualified as non-detect estimated UJ due to low LCS recoveries. The sample results could be biased low approximately proportional to the recoveries. This analyte is not a contaminant of concern at the site.

- Seventeen analytes in three samples (MW-94A-LS-19, MW-208B-LS-19 and PMW21-05-LS-19) were qualified as estimated J or non-detect estimated UJ due to low MS/MSD recoveries. The qualified results included one result each for trichloroethene (TCE), 1,1,2,2-tetrachloroethane, and 1,1-dichloroethene and two results for tetrachloroethene (PCE), which are contaminants of concern at the site.
- Six detected acetone results were qualified B due to the analyte being detected in the associated trip blank. This analyte is not a contaminant of concern at the site.
- Any result reported below the reporting limit (RL) but above the method detection limit (MDL) was qualified J and considered an estimated result (unless overridden by other QC flags).

Main Installation Biennial Event – October 2014

A total of 129 water samples including 101 groundwater field samples and 28 QA/QC samples (duplicates, MS/MSD, trip blanks, rinsate blanks) were collected from 99 LTM wells in October 2014. Samples were collected from two screened intervals in MW101 and MW107. Samples were analyzed for TCL VOCs. The data are usable with qualifications as described below:

- When a high LCS recovery is associated with a non-detect in samples, no qualifier is added since the indicated bias is high. When the analyte is detected, the result is qualified as J. All results associated with low recoveries are qualified. Twelve results for chloromethane were qualified J or UJ based on low LCS recoveries, and data could be biased low proportional to the LCS %R. This analyte is not a contaminant of concern at the site.
- Five detected 1,1,2,2-tetrachloroethane results were qualified as estimated J due to low responses in continuing calibration standards.
- Three detected methylene chloride results were qualified B due to the analyte being detected in the associated method blank. This analyte is not a contaminant of concern at the site.
- Acetone in trip blank LTM-TB4-LB-20 in the October 2014 event was qualified as non-detect estimated “UJ” due to the sample being analyzed 1.4 days past the 14 day holding time.
- A total of 270 results for 1,2-dibromo-3-chloropropane (DBCP), acetone, 2-butanone (MEK), 2-hexanone, 4-methyl-2-pentanone (MIBK), chloromethane, naphthalene and 1,2,3-trichloropropane were non-detect and qualified UJ due to high percent difference with low response in continuing calibration standards. Data could be biased low proportional to the CCV %R. The qualified results were not for contaminants of concern.

- Any result reported below the RL but above the MDL was qualified J and considered an estimated result (unless overridden by other QC flags).

Dunn Field Annual Event – April-May 2014

A total of 91 water samples including 70 groundwater field samples and 21 QA/QC samples (duplicates, MS/MSD, trip blanks, rinsate blanks) were collected from 70 LTM wells in April and May 2014. Samples were analyzed for TCL VOCs. The data are usable with qualifications as described below:

- When a high LCS recovery is associated with a non-detect in samples, no qualifier is added since the indicated bias is high. When the analyte is detected, the result is qualified as J. All results associated with low recoveries are qualified. Twenty-seven non-detect results for carbon disulfide were qualified UJ based on low LCS recoveries. This analyte is not a contaminant of concern at this site.
- Eleven detected acetone results were qualified J based on high LCS recoveries, and data could be biased high proportional to the LCS %R. This analyte is not a contaminant of concern at this site.
- Two non-detect carbon disulfide results were qualified UJ due to low MS/MSD recoveries. This analyte is not a contaminant of concern at this site.
- Thirty-two bromomethane results and two chloromethane results were qualified UJ due to low responses in continuing calibration standards. These analytes are not contaminants of concern at this site.
- Four non-detect carbon disulfide results were qualified UJ due to low responses in the alternate source standard. This analyte is not a contaminant of concern at this site.
- Three detected TCE results were qualified B due to the analyte being detected in the method blank. Results may be biased slightly high.
- Sixteen acetone results were qualified B due to the analyte being detected in the associated equipment rinsate blank. This analyte is not a contaminant of concern at this site.
- Eight acetone results were qualified B due to the analyte being detected in the associated trip blank. Results may be biased slightly high. This analyte is not a contaminant of concern at this site.
- Any result reported below the RL but above the MDL was qualified J and considered an estimated result (unless overridden by other QC flags).

Dunn Field Semiannual Event – October 2014

A total of 47 water samples including 38 groundwater field samples and nine QA/QC samples (duplicates, MS/MSD, trip blanks) were collected from 38 LTM wells in October 2014. Samples were analyzed for TCL VOCs. The data are usable with qualifications as described below:

- A total of 40 results for acetone, MEK, chloromethane and naphthalene were qualified J or UJ due to low responses in continuing calibration standards. None of these analytes are contaminants of concern at the site.
- One detected chloroform result, in sample MW-87-ODLS-9, was qualified J due to a low MS/MSD recovery.
- The results for 1,1,2,2-tetrachloroethane in MW-159-ODLS-9 and its field duplicate DUP-3-ODLS-9 were qualified as estimated J due to the field duplicate relative percent difference (RPD) being above the control limit.
- One methylene chloride result was qualified B due to the analyte being detected in the method blank. Results may be biased slightly high. This analyte is not a contaminant of concern at this site.
- Any result reported below the RL but above the MDL was qualified J and considered an estimated result (unless overridden by other QC flags).

SUMMARY

Main Installation: The sample data from the April and October 2014 LTM events at the Main Installation met the data quality objectives and are of sufficient quality to support the evaluation of remedial actions.

Dunn Field: The sample data from the April-May and October 2014 LTM events at Dunn Field met the data quality objectives and are of sufficient quality to support the evaluation of remedial actions.

TABLE C-1
MAIN INSTALLATION SAMPLE DATA GROUP SUMMARY TABLE
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

SDG	Groundwater Samples		Quality Control Samples	
Semi-Annual Sampling Event - April 2014				
L14041917	DR2-1-LS-19	DR2-6-LS-19	MW-92-LS-19	DUP-4-LS-19
	DR2-3-LS-19	MW-26-LS-19	MW-217-LS-19	DUP-5-LS-19
			PMW92-02-LS-19	TB-1-LS-19
L14041918	MW-39-LS-19	MW-200-LS-19	MW-208A-LS-19	DUP-3-LS-19
	MW-39A-LS-19	MW-204A-LS-19	MW-208B-LS-19	TB-2-LS-19
	MW-64-LS-19	MW-204B-LS-19	MW-209B-LS-19	MW-94A-LS-19MS
	MW-94A-LS-19	MW-205A-LS-19	MW-214A-LS-19	MW-94A-LS-19MSD
	MW-97-LS-19	MW-205B-LS-19	MW-214B-LS-19	MW-208B-LS-19MS
	MW-98-LS-19	MW-206A-LS-19	MW-218-LS-19	MW-208B-LS-19MSD
	MW-107B-LS-19	MW-206B-LS-19	MW-258-LS-19	
	MW-107T-LS-19	MW-207A-LS-19	MW-259-LS-19	
	MW-108-LS-19	MW-207B-LS-19	MW-260-LS-19	
		MW-261-LS-19		
L14042008	DR1-3-LS-19	MW-143-LS-19	MW-256-LS-19	DUP-1-LS-19
	MW-88-LS-19	MW-199B-LS-19	PMW21-03-LS-19	DUP-2-LS-19
	MW-90-LS-19	MW-202B-LS-19	PMW21-05-LS-19	DUP-6-LS-19
	MW-100B-LS-19	MW-210A-LS-19	PMW101-03A-LS-19	PMW21-05-LS-19MS
	MW-101B-LS-19	MW-210B-LS-19	PMW101-03B-LS-19	PMW21-05-LS-19MSD
	MW-101T-LS-19	MW-219-LS-19	PMW101-06A-LS-19	
	MW-141-LS-19	MW-254-LS-19	PMW101-06B-LS-19	

TABLE C-1
MAIN INSTALLATION SAMPLE DATA GROUP SUMMARY TABLE
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

SDG	Groundwater Samples			Quality Control Samples
<u>Biennial Sampling Event - October 2014</u>				
L14101359	DR2-1-LB-20	MW96-LB-20	MW-206B-LB-20	DUP-1-LB-20
	DR2-3-LB-20	MW97-LB-20	MW-207A-LB-20	DUP-5-LB-20
	DR2-4-LB-20	MW98-LB-20	MW-207B-LB-20	DUP-7-LB-20
	DR2-6-LB-20	MW101B-LB-20	MW-208A-LB-20	DUP-10-LB-20
	MW16-LB-20	MW103-LB-20	MW-208B-LB-20	MW-205B-LB-20-MS
	MW23-LB-20	MW104-LB-20	MW-210A-LB-20	MW-205B-LB-20-MSD
	MW24-LB-20	MW107B-LB-20	MW-210B-LB-20	MW-217-LB-20-MS
	MW25A-LB-20	MW107T-LB-20	MW-211-LB-20	MW-217-LB-20-MSD
	MW26-LB-20	MW108-LB-20	MW-216-LB-20	LTM-TB3-LB-20
	MW52-LB-20	MW-200-LB-20	MW-217-LB-20	
	MW64-LB-20	MW-204A-LB-20	MW-218-LB-20	
	MW88-LB-20	MW-204B-LB-20	MW-259-LB-20	
	MW92-LB-20	MW-205A-LB-20	MW-260-LB-20	
	MW93-LB-20	MW-205B-LB-20	MW-261-LB-20	
	MW94A-LB-20	MW-206A-LB-20	PMW92-02-LB-20	
L14101408	DR1-1-LB-20	MW22-LB-20	PMW21-03-LB-20	DUP-11-LB-20
	DR1-1A-LB-20	MW99-LB-20	PMW21-05-LB-20	DR1-8-LB-20-MS
	DR1-2-LB-20	MW100B-LB-20	PMW101-03A-LB-20	DR1-8-LB-20-MSD
	DR1-8-LB-20	MW102B-LB-20	PMW101-03B-LB-20	MW102B-LB-20-MS
				MW102B-LB-20-MSD
			LTM-TB1-LB-20	
L14101439	DR1-3-LB-20	MW90-LB-20	MW-209A-LB-20	DUP-2-LB-20
	DR1-4-LB-20	MW101T-LB-20	MW-209B-LB-20	DUP-3-LB-20
	DR1-7-LB-20	MW140-LB-20	MW-219-LB-20	DUP-4-LB-20
	MW19-LB-20	MW141-LB-20	MW-229-LB-20	DUP-6-LB-20
	MW34-LB-20	MW142-LB-20	MW-252-LB-20	DUP-9-LB-20
	MW39-LB-20	MW143-LB-20	MW-253-LB-20	MW50-LB-20-MS
	MW39A-LB-20	MW-198-LB-20	MW-254-LB-20	MW50-LB-20-MSD
	MW50-LB-20	MW-199A-LB-20	MW-255-LB-20	PMW101-06A-LB-20-MS
	MW53-LB-20	MW-199B-LB-20	MW-256-LB-20	PMW101-06A-LB-20-MSD
	MW66A-LB-20	MW-202A-LB-20	MW-257-LB-20	LTM-TB2-LB-20
	MW89-LB-20	MW-202B-LB-20	PMW101-06A-LB-20	
			PMW101-06B-LB-20	
L14101470	MW38-LB-20	MW63B-LB-20	MW-215A-LB-20	DUP-8-LB-20
	MW55-LB-20	MW-214A-LB-20	MW-215B-LB-20	LTM-TB4-LB-20
	MW63A-LB-20	MW-214B-LB-20	MW-258-LB-20	LTM-RB1-LB-20
			PZ-03-LB-20	

TABLE C-2
DUNN FIELD SAMPLE DATA GROUP SUMMARY TABLE
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

SDG	Groundwater Samples			Quality Control Samples
<u>Annual Sampling Event - April - May 2014</u>				
L14041888	MW-03-ODLA-8	MW-87-ODLA-8	MW-222-ODLA-8	DUP-1-ODLA-8
	MW-06-ODLA-8	MW-91-ODLA-8	MW-223-ODLA-8	DUP-6-ODLA-8
	MW-07-ODLA-8	MW-134-ODLA-8	MW-224-ODLA-8	
	MW-15-ODLA-8	MW-174-ODLA-8	MW-225-ODLA-8	
	MW-57-ODLA-8	MW-176-ODLA-8	MW-226-ODLA-8	
	MW-69-ODLA-8	MW-180-ODLA-8	MW-227-ODLA-8	
	MW-70-ODLA-8	MW-220-ODLA-8	MW-228-ODLA-8	
	MW-71-ODLA-8	MW-221-ODLA-8	MW-230-ODLA-8	
L14042010	MW-148-ODLA-8	MW-241-ODLA-8	MW-245-ODLA-8	
L14042017				TB-5-ODLA-8 RB-1-ODLA-8
L14050112	MW-08-ODLA-8	MW-149-ODLA-8	MW-166A-ODLA-8	DUP-2-ODLA-8
	MW-31-ODLA-8	MW-150-ODLA-8	MW-184-ODLA-8	DUP-3-ODLA-8
	MW-44-ODLA-8	MW-151-ODLA-8	MW-190-ODLA-8	DUP-4-ODLA-8
	MW-54-ODLA-8	MW-152-ODLA-8	MW-235-ODLA-8	DUP-5-ODLA-8
	MW-68-ODLA-8	MW-155-ODLA-8	MW-237-ODLA-8	DUP-7-ODLA-8
	MW-76-ODLA-8	MW-157-ODLA-8	MW-242-ODLA-8	MW-54-ODLA-8MS
	MW-77-ODLA-8	MW-158-ODLA-8	MW-243-ODLA-8	MW-54-ODLA-8MSD
	MW-79-ODLA-8	MW-158A-ODLA-8	MW-244-ODLA-8	MW-151-ODLA-8MS
	MW-129-ODLA-8	MW-159-ODLA-8	MW-246-ODLA-8	MW-151-ODLA-8MSD
	MW-130-ODLA-8	MW-163-ODLA-8	MW-247-ODLA-8	MW-190-ODLA-8MS
	MW-144-ODLA-8	MW-164-ODLA-8	MW-248-ODLA-8	MW-190-ODLA-8MSD
	MW-145-ODLA-8	MW-165-ODLA-8	MW-249-ODLA-8	MW-247-ODLA-8MS
	MW-147-ODLA-8	MW-165A-ODLA-8	MW-250-ODLA-8	MW-247-ODLA-8MSD
		MW-166-ODLA-8	MW-251-ODLA-8	TB-1-ODLA-8 TB-2-ODLA-8 TB-3-ODLA-8
L14051048	MW-160-ODLA-8	MW-182-ODLA-8		TB-10-ODLA-8
<u>Semi-Annual Sampling Event - October 2014</u>				
L14101401	MW-31-ODLS-9	MW-159-ODLS-9	MW-184-ODLS-9	DUP-2-ODLS-9
	MW-44-ODLS-9	MW-163-ODLS-9	MW-190-ODLS-9	DUP-3-ODLS-9
	MW-54-ODLS-9	MW-164-ODLS-9	MW-243-ODLS-9	TB-1-ODLS-9
	MW-77-ODLS-9	MW-165-ODLS-9	MW-244-ODLS-9	
	MW-134-ODLS-9	MW-165A-ODLS-9	MW-245-ODLS-9	
	MW-144-ODLS-9	MW-166-ODLS-9	MW-246-ODLS-9	
	MW-151-ODLS-9	MW-166A-ODLS-9	MW-247-ODLS-9 MW-249-ODLS-9	
L14101409	MW-03-ODLS-9	MW-150-ODLS-9	MW-223-ODLS-9	DUP-1-ODLS-9
	MW-06-ODLS-9	MW-174-ODLS-9	MW-224-ODLS-9	DUP-4-ODLS-9
	MW-79-ODLS-9	MW-220-ODLS-9	MW-225-ODLS-9	MW-87-ODLS-9-MS
	MW-87-ODLS-9	MW-221-ODLS-9	MW-226-ODLS-9	MW-87-ODLS-9-MSD
	MW-149-ODLS-9	MW-222-ODLS-9	MW-227-ODLS-9 MW-228-ODLS-9	MW-225-ODLS-9-MS MW-225-ODLS-9-MSD

ORGANIC DATA QUALITY REVIEW REPORT

Volatile Organics by SW-846 Method 8260B (GC/MS)

SDG	L140: 41917, 41918, 42008		
PROJECT	Memphis Defense Depot, LS-19 Sampling for HDR, Denver		
LABORATORY	Microbac Laboratories, Inc., Marietta, OH		
SAMPLE MATRIX	Water	SAMPLING DATE	04/2014
NUMBER OF SAMPLES	70 water, including 6 field duplicate pairs, 2 trip blanks		
ANALYSES REQUESTED	SW-846 8260B (VOA by GC/MS)		
SAMPLE NUMBER	See result forms attached and associated EDD		

DATA REVIEWER: Diane ShortQA REVIEWER: Diane Short & Associates, Inc. INITIALS/DATE: DL 05/29/2014Telephone Logs included Yes ☐ No ☒Contractual Violations Yes ☐ No ☒

The project QAPP (09/11), the EPA Contract Laboratory Program National Functional Guidelines for Organic Review, 1999 and 2007, and the SW-846 Method 8260B have 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 ☒ No ☐

This report has been requested to include the following review: QC, hold times, sample integrity (Chains of Custody, sample log-in), and summary calibrations. Note that there are 8 QC sets (days of analysis per instrument) and 4 instruments for the 70 samples. Note that some redundant QC has not been included in the count.

B. Chain of Custody documentation was complete and accurate.

Yes ☒ No ☐

No qualifiers have been added for Chain of Custody (COC) issues, and the Project Manager will update COC per the following notes to complete the project record.

The laboratory has signed and affixed a receipt label on all pages. The relinquishment date and time are part of the electronically-generated COC. There is an electronic signature on the last page unless noted.

In addition, there are sample receipt acknowledgements from the laboratory. The log in forms contain the courier identification and air bill number.

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

Yes ☐ No ☒

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 temperature conditions are fully compliant with applicable regulations.

In SDG L14042008, the following samples arrived with at least 1 of the 3 vials broken, all IDs end in LS-19.

MW-141 and PMW101-03A has 1 of 3 broken

PMW21-05 has 1 of 2 broken and unbroken vial had headspace > 6 mm. This was designated as an MS sample and an MS vial was used as the parent sample.

II. ANALYTICAL REPORT FORMS

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

Yes ☒ No ☐

Note that the hard copy calibration data use alternate compound names for such compounds as 4-methyl-2-pentanone and 2-butanone, which are in the EDD and QC summaries as MIBK (methyl isobutyl ketone) and MEK (methyl ethyl ketone).

B. Holding Times

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

Yes ☒ 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 ☒ 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 > 0.05 or > 0.01 for poor responding volatiles.

Yes ☒ No ☐ NA ☐

Method 8260: Per the Project Manager, the 2007 EPA CLP validation guidance has been applied to the common “poor responders.” Calibration response factors were acceptable for Acetone, MEK, MIBK, and 2-butanone and other poor responders. 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 this data set. The laboratory has been tasked with providing to the client verification that the 0.01 RF is valid. If the spectral verification is available, data are not qualified for response factors greater than 0.01 and less than 0.05 for “poor responders.” No data have been qualified.

Most of 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.

2a. The relative standard deviation (RSD) for the five point calibration was within the 30% limit for the CCCs.
Yes ☒ 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, the average % RSD was < 15%, or a linear curve was used.

Yes ☐ No ☒ NA ☐

See the calibration table at the end of the report. A % RSD was out for naphthalene, bromomethane. Data are non-detect and the response factors are sufficient to verify the non-detects at the MDL and no data are qualified.

3. The 12 hour system Performance Check was performed as required in SW-846 and met the QC limits of 80 – 120%.

Yes ☐ No ☒ NA ☐

The following applies to the ICV for each initial calibration. The ICV for instrument 11, instrument 8, instrument 9 and instrument 11 reported %R high for dichlorodifluoromethane. The compound is not detected and no qualifier is applied. The ICV for instrument 9 was low for vinyl chloride. The ICV for instrument 17 was low for carbon disulfide and bromomethane. See the calibration table at the end of the report. Data are non-detect and the response factors are sufficient to verify the non-detects at the MDL and no data are qualified. The data for carbon disulfide have not been qualified for the ICV as the CCV was acceptable and all associated data are already qualified for the corresponding low LCS.

B. Continuing Calibrations

1. The midpoint standard was analyzed for each analysis at the required frequency, and the QC criterion of > 0.05 (> 0.01 for CLP 2001 VOA) was met.

Yes ☒ No ☐ NA ☐

2. The percent difference (% D) limits of $\pm 20\%$ were met. The 2007 NFG also allow for 40% D for the “poor responders (pr).”

Yes ☐ No ☒ NA ☐

When there are no detections, no qualification is required unless the % D is biased low and so large as to indicate a significant probability of false negatives. Qualification is required for a % D biased high for detected compounds only. This requires that the RF is acceptable to verify the non-detect status, which is the case here. Data would be qualified “JC#”, where # is the % D. There could be variability to the data as there is variability to the response. No qualifiers have been required. All the indicated ‘low’ poor responders (pr) were within the limits noted above of less than 40% and the RF was also within not only the 0.01 limit, but all were within the > 0.05 limit or > 0.04.

See the calibration table at the end of the report. There are % D’s was out for noted compounds. Data are non-detect and the response factors are sufficient to verify the non-detects at the MDL and no data are qualified .

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 ☒ 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 ☐ NA ☐

VI. SURROGATE STANDARDS

Surrogate spikes were analyzed with every sample.

Yes ☒ No ☐

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

Yes ☒ No ☐

VII. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

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

Yes ☒ No ☐

The MS/MSDs include (all ending in LS-19):

PMW21-05, MW-94A, MW208B.

This meets the recommendation of 1 per 20 field (not field QC or blank) samples. As this is an ongoing project an overall adherence to the 1:20 frequency is monitored by the Project Manager.

The lab notes they do not report non-client QC. In most, and not all cases, and LCS/LCSD is reported.

B. The MS and MSD percent recoveries were within the limits defined in the updated 2011 QAPP, which now references the laboratory limits.

Yes ☐ No ☒ NA ☐

The full target list has been spiked. In no case is the sample result over the 4x limit, where the result is statistically greater than the recovery of the spike. Data have been qualified JMS#, where # is the lower of the 2 recoveries. Data could be biased low proportional to the recovery. For MW-208B, there was a consistent slightly low bias only to the MSD. Data have been qualified for the lowest recovery.

Lab ID	Client ID	Analyte	Result ug/L	flag	MDL	Qualifer
L14041918-04	MW-94A-LS-19	Carbon disulfide		U	0.5	JL49.9MS53
L14041918-04	MW-94A-LS-19	Tetrachloroethene	30.2		0.25	JMS41.2
L14041918-22	MW-208B-LS-19	1,1,2,2-Tetrachloroethane		U	0.2	JMS77.3
L14041918-22	MW-208B-LS-19	1,1-Dichloroethene		U	0.5	JMS64.1
L14041918-22	MW-208B-LS-19	1,1-Dichloropropene		U	0.25	JMS71.3
L14041918-22	MW-208B-LS-19	2-Chlorotoluene		U	0.125	JMS71.1
L14041918-22	MW-208B-LS-19	Benzene		U	0.125	JMS75.3
L14041918-22	MW-208B-LS-19	Chlorobenzene		U	0.125	JMS73.3
L14041918-22	MW-208B-LS-19	Isopropylbenzene		U	0.25	JMS73
L14041918-22	MW-208B-LS-19	Tetrachloroethene	16.3		0.25	JMS57.5

L14041918-22	MW-208B-LS-19	Trichloroethene	9.14		0.25	JMS68.7
L14041918-22	MW-208B-LS-19	m,p-Xylene		U	0.5	JMS75.7
L14041918-22	MW-208B-LS-19	o-Xylene		U	0.25	JMS71.2
L14042008-17	PMW21-05-LS-19	1-Chlorohexane		U	0.125	JMS48.8
L14042008-17	PMW21-05-LS-19	2-Hexanone		U	2.5	JMS47
L14042008-17	PMW21-05-LS-19	Carbon disulfide		U	0.5	JL51.5MS42.1
L14042008-17	PMW21-05-LS-19	MEK (2-Butanone)		U	2.5	JMS47.8
L14042008-17	PMW21-05-LS-19	MIBK (methyl isobutyl ketone)		U	2.5	JMS43.6
L14042008-17	PMW21-05-LS-19	Methyl t-butyl ether (MTBE)		U	0.5	JMS48.1

C. The MSD relative percent differences (RPD) were within the defined contract limits, which are 30%.

Yes X No NA

The laboratory has 'flagged' 6 data points for RPD > 20% but the QAPP allows for < 30% RPD and no data are qualified.

D. The MS/MSD were client samples.

Yes X No NA

Only client samples reported.

VIII. LABORATORY CONTROL SAMPLE

A. Laboratory Control Sample (LCS) was analyzed for every analysis performed and for every 20 samples.

Yes X No

Although not required of the method, an LCS and LCSD are routinely reported when there is not an MS/MSD reported in the data set.

B. The LCS percent recoveries were within the limits defined in the updated 2011 QAPP, which are the laboratory limits. If an LCS and LCSD are analyzed, both samples must have the same compounds out for data to be qualified. The RPD is qualified only if the %R is also out.

Yes No X

The full target list has been spiked. When a high LCS recovery is associated with a non-detect in samples, no qualifier is added since the indicated bias is high. When the target is detected, data are qualified "JL#", where # is the recovery. Data could be biased high proportional to the LCS percent recovery. All results associated with low recoveries are qualified and data could be biased low. The laboratory uses the same control limits on all 3 instruments used for analysis even though the responses are different on each instrument. The control limits should be instrument specific. No data have been qualified as all LCS outliers were high (all for Dichlorodifluoromethane) and the compound is not detected with the exception of all data analyzed on instrument 17 for carbon disulfide. Data could be biased low or false non-detected data could be reported, which is confirmed by the low MS and MSD %R on this instrument.

Lab ID	Client ID	Analyte	Result ug/L	flag	MDL	Qualifier
L14041917-01	MW-26-LS-19	Carbon disulfide		U	0.5	JL49.6
L14041917-02	MW-92-LS-19	Carbon disulfide		U	0.5	JL49.6
L14041917-03	MW-217-LS-19	Carbon disulfide		U	0.5	JL49.6
L14041917-04	DR2-1-LS-19	Carbon disulfide		U	0.5	JL49.6
L14041917-05	DR2-3-LS-19	Carbon disulfide		U	0.5	JL49.6

L14041917-06	DR2-6-LS-19	Carbon disulfide		U	0.5	JL49.6
L14041917-07	PMW92-02-LS-19	Carbon disulfide		U	0.5	JL49.6
L14041917-08	DUP-4-LS-19	Carbon disulfide		U	0.5	JL49.6
L14041917-09	DUP-5-LS-19	Carbon disulfide		U	0.5	JL49.6
L14041917-10	TB-1-LS-19	Carbon disulfide		U	0.5	JL49.6
L14041918-01	MW-39-LS-19	Carbon disulfide		U	0.5	JL49.9
L14041918-02	MW-39A-LS-19	Carbon disulfide		U	0.5	JL49.9
L14041918-03	MW-64-LS-19	Carbon disulfide		U	0.5	JL49.9
L14041918-04	MW-94A-LS-19	Carbon disulfide		U	0.5	JL49.9MS53
L14041918-07	MW-97-LS-19	Carbon disulfide		U	0.5	JL49.9
L14041918-08	MW-98-LS-19	Carbon disulfide		U	0.5	JL51.5
L14041918-09	MW-107T-LS-19	Carbon disulfide		U	0.5	JL51.5
L14041918-10	MW-107B-LS-19	Carbon disulfide		U	0.5	JL51.5
L14042008-10	MW-210A-LS-19	Carbon disulfide		U	0.5	JL51.5
L14042008-11	MW-210B-LS-19	Carbon disulfide		U	0.5	JL51.5
L14042008-12	MW-219-LS-19	Carbon disulfide		U	0.5	JL51.5
L14042008-13	MW-254-LS-19	Carbon disulfide		U	0.5	JL51.5
L14042008-14	MW-256-LS-19	Carbon disulfide		U	0.5	JL51.5
L14042008-15	DR1-3-LS-19	Carbon disulfide		U	0.5	JL51.5
L14042008-16	PMW21-03-LS-19	Carbon disulfide		U	0.5	JL51.5
L14042008-17	PMW21-05-LS-19	Carbon disulfide		U	0.5	JL51.5MS42.1
L14042008-20	PMW101-03A-LS-19	Carbon disulfide		U	0.5	JL51.5
L14042008-21	PMW101-03B-LS-19	Carbon disulfide		U	0.5	JL51.5
L14042008-22	PMW101-06A-LS-19	Carbon disulfide		U	0.5	JL51.5
L14042008-23	PMW101-06B-LS-19	Carbon disulfide		U	0.5	JL51.5
L14042008-24	DUP-1-LS-19	Carbon disulfide		U	0.5	JL51.5
L14042008-25	DUP-2-LS-19	Carbon disulfide		U	0.5	JL51.5
L14042008-26	DUP-6-LS-19	Carbon disulfide		U	0.5	JL51.5

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

The method blanks are not contained in the EDD.

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

Yes No X NA

There are no field blanks. There has been acetone in past field blanks from these sites. It is possible that some of the low level results for acetone are due to field contamination. There is acetone in one of the trip blanks.

Two trip blanks were collected and all were non-detected for TB -2. TB-1 (4/24/2014) reported acetone at 3.46 ug/L and methylene chloride at 0.435 ug/L. The latter is non-detect in all samples from this date. Data have

been qualified for acetone as BTB#, where # is the value of the trip blank. Data are fully usable as non-detected values.

Lab ID	Client ID	Analyte	Result ug/L	flag	MDL	Qualifer
L14041917-02	MW-92-LS-19	Acetone	14.9		2.5	BTB3.46
L14041917-03	MW-217-LS-19	Acetone	19.4		2.5	BTB3.46
L14041917-04	DR2-1-LS-19	Acetone	23.1		2.5	BTB3.46
L14041917-07	PMW92-02-LS-19	Acetone	15.3		2.5	BTB3.46
L14041917-08	DUP-4-LS-19	Acetone	19.2		2.5	BTB3.46
L14041917-09	DUP-5-LS-19	Acetone	23.9		2.5	BTB3.46

X. FIELD QC

If Field Duplicates were identified, they met guidance for VOA of RPD of < 30% for water or < 50% for soil. For values reported at < 5 × the reporting limit (RL), a difference of 2 × RL or 3.5 × RL for soil is used as guidance. This is referred to as the CRDL Rule. Data are not qualified for Field Duplicates as these are evaluated for the total project by the Project Manager.

Yes ☒ No ☐ NA ☐

There are 6 identified field duplicates as described in the following table. If data were qualified they would be J, FD#, where # is the difference between the two values as both values are less than 5 x RL. All RPDs were acceptable or differences between low level values were less than 2 x RL.

MW-97-LS-17	DUP-1
MW-108-LS-17	DUP-2
MW-214A-LS-17	DUP-3
MW-252-LS-17	DUP-4
PMW101-03A-LS-17	DUP-5
DR2-1-LS-17	DUP-6

XI. SYSTEM PERFORMANCE

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

Yes ☐ No ☐ NA ☒

Not part of this review level.

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

Yes ☒ 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 ☒

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 ☒

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:

Chain of Custody

No qualifiers have been added for Chain of Custody issues, and the Project Manager will update documentation per the notes in the text to complete the project record.

This report has been requested to include the following review: QC, hold times, sample integrity (Chains of Custody, sample login), and summary calibrations. Note that there are 8 QC sets (days of analysis per instrument) and 4 instruments for the 70 samples. Note that some redundant QC has not been included in the count.

The laboratory has signed and affixed a receipt label on all pages. The relinquishment date and time are part of the electronically-generated COC. There is an electronic signature on the last page unless noted.

In addition, there are sample receipt acknowledgements from the laboratory. The log-in forms contain the courier identification and air bill number.

Sample Preservation

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 temperature conditions are fully compliant with applicable regulations.

In SDG L14042008, the following samples arrived with at least 1 of the 3 vials broken, all IDs end in LS-19.

MW-141 and PMW101-03A has 1 of 3 broken

PMW21-05 has 1 of 2 broken and unbroken vial had headspace > 6 mm. This was designated as an MS sample and an MS vial was used as the parent sample.

Initial Calibrations

Method 8260: Per the Project Manager, the 2007 EPA CLP validation guidance has been applied to the common "poor responders." Calibration response factors were acceptable for Acetone, MEK, MIBK, and 2-butanone and other poor responders. 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 this data set. The laboratory has been tasked with providing to the client verification that the 0.01 RF is valid. If the spectral verification is available, data are not qualified for response factors greater than 0.01 and less than 0.05 for "poor responders." No data have been qualified.

See the calibration table at the end of the report. A % RSD was out for naphthalene, bromomethane. Data are non-detect and the response factors are sufficient to verify the non-detects at the MDL and no data are qualified.

The following applies to the ICV for each initial calibration. The ICV for instrument 11, instrument 8, instrument 9 and instrument 11 reported %R high for dichlorodifluoromethane. The compound is not detected and no qualifier is applied. The ICV for instrument 9 was low for vinyl chloride. The ICV for instrument 17 was low for carbon disulfide and bromomethane. See the calibration table at the end of the report. Data are non-detect and the response factors are sufficient to verify the non-detects at the MDL and no data are qualified. The data for carbon disulfide have not been qualified for the ICV as the CCV was acceptable and all associated data are already qualified for the corresponding low LCS.

Continuing Calibrations

When there are no detections, no qualification is required unless the % D is biased low and so large as to indicate a significant probability of false negatives. Qualification is required for a % D biased high for detected compounds only. This requires that the RF is acceptable to verify the non-detect status, which is the case here. Data would be qualified "JC#", where # is the % D. There could be variability to the data as there is variability to the response. No qualifiers have been required. All the indicated 'low' poor responders (pr) were within the limits noted above of less than 40% and the RF was also within not only the 0.01 limit, but all were within the > 0.05 limit or > 0.04.

See the calibration table at the end of the report. There are % D's was out for noted compounds. Data are non-detect and the response factors are sufficient to verify the non-detects at the MDL and no data are qualified .

Matrix Spikes and MS Duplicates

The MS/MSDs include (all ending in LS-19):

PMW21-05, MW-94A, MW208B.

This meets the recommendation of 1 per 20 field (not field QC or blank) samples. As this is an ongoing project an overall adherence to the 1:20 frequency is monitored by the Project Manager.

The lab notes they do not report non-client QC. In most, and not all cases, and LCS/LCSD is reported. The full target list has been spiked. In no case is the sample result over the 4x limit, where the result is statistically greater than the recovery of the spike. Data have been qualified JMS#, where # is the lower of the 2 recoveries. Data could be biased low proportional to the recovery. For MW-208B, there was a consistent slightly low bias only to the MSD. Data have been qualified for the lowest recovery.

The laboratory has 'flagged' 6 data points for RPD > 20% but the QAPP allows for < 30% RPD and no data are qualified.

Laboratory Control Samples

The full target list has been spiked. When a high LCS recovery is associated with a non-detect in samples, no qualifier is added since the indicated bias is high. When the target is detected, data are qualified "JL#", where # is the recovery. Data could be biased high proportional to the LCS percent recovery. All results associated with low recoveries are qualified and data could be biased low. The laboratory uses the same control limits on all 3 instruments used for analysis even though the responses are different on each instrument. The control limits should be instrument specific. No data have been qualified as all LCS outliers were high (all for Dichlorodifluoromethane) and the compound is not detected with the exception of all data analyzed on instrument 17 for carbon disulfide. Data could be biased low or false non-detected data could be reported, which is confirmed by the low MS and MSD %R on this instrument.

Field Blanks

There are no field blanks. There has been acetone in past field blanks from these sites. It is possible that some of the low level results for acetone are due to field contamination. There is acetone in one of the trip blanks.

Two trip blanks were collected and all were non-detected for TB -2. TB-1 (4/24/2014) reported acetone at 3.46 ug/L and methylene chloride at 0.435 ug/L. The latter is non-detect in all samples from this date. Data have been qualified for acetone as BTB#, where # is the value of the trip blank. Data are fully usable as non-detected values.

Field QC

There are 6 identified field duplicates as described in the following table. If data were qualified they would be J, FD#, where # is the difference between the two values as both values are less than 5 x RL. All RPDs were acceptable or differences between low level values were less than 2 x RL.

MW-97-LS-17	DUP-1
MW-108-LS-17	DUP-2
MW-214A-LS-17	DUP-3

MW-252-LS-17	DUP-4
PMW101-03A-LS-17	DUP-5
DR2-1-LS-17	DUP-6

Calibration and LCS

	Inst 11					
WG 47:	5/1/2014	4560				
Compound	ICAL/ ICV	%D CCV 5/6	%R LCS		%R LCS	
Bromomethane		-26.3				
Dichlorodifluoromethane pr	52 % ICV					
Naphthalene	32.2 RSD r2 ok					

		Inst 8				
WG 47:	5/5/2014					
Compound	ICAL/ ICV	%D CCV 5/6	%R LCS		%R LCS	
1,2,3-Trichlorobenzene		-23.8				
Acetone pr	pr ok					
Bromomethane	32.6 RSD R2 OK					
Dichlorodifluoromethane pr	63.3% ICV		166			
Methyl t-butyl ether (MTBE)		-21.2				

		Inst 9				
WG 47:	4/14/2014	4580			4662	
Compound	ICAL	%D CCV 5/6	%R LCS/D		%D CCV 5/7	%R LCS
4-Chlorotoluene					24	
n-Butylbenzene					27.3	
p-isopropyltoluene					20.8	
Chloromethane pr		24.5	148 /142			132
Dichlorodifluoromethane pr	63.6 % ICV		167/ 158			
Vinyl chloride	(-)25.2% ICV					

	2014	Inst 17				
WG 47:	1-May	4330 5/5		4578		
Compound	ICAL/ ICV	%D CCV	LCS %R	CCV 5/6	%R LCS*	
Trichlorofluoromethane pr					130/ ok	
2-hexanone		-20.2				
Bromomethane		-24.4		-26.9		
Carbon disulfide pr	-47.5		49.6/ 51.4		51.5/ 51.6	
Dichlorodifluoromethane pr	52.3		OK/ 154		178/ 176	

*LCS run 3 x in < 1 hour, results the same					
		Inst 17			
WG 47:	4488 5/6				
Compound	%D CCV	%R LCS			
Bromomethane	-21.5				
Carbon disulfide pr		49.9			
pr indicates poor responder					

TABLE OF QUALIFIED DATA

Lab ID	Client ID	Analyte	Result ug/L	flag	MDL	Qualifer
L14041917-01	MW-26-LS-19	Carbon disulfide		U	0.5	JL49.6
L14041917-02	MW-92-LS-19	Acetone	14.9		2.5	BTB3.46
L14041917-02	MW-92-LS-19	Carbon disulfide		U	0.5	JL49.6
L14041917-03	MW-217-LS-19	Acetone	19.4		2.5	BTB3.46
L14041917-03	MW-217-LS-19	Carbon disulfide		U	0.5	JL49.6
L14041917-04	DR2-1-LS-19	Acetone	23.1		2.5	BTB3.46
L14041917-04	DR2-1-LS-19	Carbon disulfide		U	0.5	JL49.6
L14041917-05	DR2-3-LS-19	Carbon disulfide		U	0.5	JL49.6
L14041917-06	DR2-6-LS-19	Carbon disulfide		U	0.5	JL49.6
L14041917-07	PMW92-02-LS-19	Acetone	15.3		2.5	BTB3.46
L14041917-07	PMW92-02-LS-19	Carbon disulfide		U	0.5	JL49.6
L14041917-08	DUP-4-LS-19	Acetone	19.2		2.5	BTB3.46
L14041917-08	DUP-4-LS-19	Carbon disulfide		U	0.5	JL49.6
L14041917-09	DUP-5-LS-19	Acetone	23.9		2.5	BTB3.46
L14041917-09	DUP-5-LS-19	Carbon disulfide		U	0.5	JL49.6
L14041917-10	TB-1-LS-19	Carbon disulfide		U	0.5	JL49.6
L14041918-01	MW-39-LS-19	Carbon disulfide		U	0.5	JL49.9
L14041918-02	MW-39A-LS-19	Carbon disulfide		U	0.5	JL49.9
L14041918-03	MW-64-LS-19	Carbon disulfide		U	0.5	JL49.9
L14041918-04	MW-94A-LS-19	Carbon disulfide		U	0.5	JL49.9MS53
L14041918-04	MW-94A-LS-19	Tetrachloroethene	30.2		0.25	JMS41.2
L14041918-07	MW-97-LS-19	Carbon disulfide		U	0.5	JL49.9
L14041918-08	MW-98-LS-19	Carbon disulfide		U	0.5	JL51.5
L14041918-09	MW-107T-LS-19	Carbon disulfide		U	0.5	JL51.5
L14041918-10	MW-107B-LS-19	Carbon disulfide		U	0.5	JL51.5
L14041918-22	MW-208B-LS-19	1,1,2,2-Tetrachloroethane		U	0.2	JMS77.3
L14041918-22	MW-208B-LS-19	1,1-Dichloroethene		U	0.5	JMS64.1
L14041918-22	MW-208B-LS-19	1,1-Dichloropropene		U	0.25	JMS71.3

L14041918-22	MW-208B-LS-19	2-Chlorotoluene		U	0.125	JMS71.1
L14041918-22	MW-208B-LS-19	Benzene		U	0.125	JMS75.3
L14041918-22	MW-208B-LS-19	Chlorobenzene		U	0.125	JMS73.3
L14041918-22	MW-208B-LS-19	Isopropylbenzene		U	0.25	JMS73
L14041918-22	MW-208B-LS-19	Tetrachloroethene	16.3		0.25	JMS57.5
L14041918-22	MW-208B-LS-19	Trichloroethene	9.14		0.25	JMS68.7
L14041918-22	MW-208B-LS-19	m,p-Xylene		U	0.5	JMS75.7
L14041918-22	MW-208B-LS-19	o-Xylene		U	0.25	JMS71.2
L14042008-10	MW-210A-LS-19	Carbon disulfide		U	0.5	JL51.5
L14042008-11	MW-210B-LS-19	Carbon disulfide		U	0.5	JL51.5
L14042008-12	MW-219-LS-19	Carbon disulfide		U	0.5	JL51.5
L14042008-13	MW-254-LS-19	Carbon disulfide		U	0.5	JL51.5
L14042008-14	MW-256-LS-19	Carbon disulfide		U	0.5	JL51.5
L14042008-15	DR1-3-LS-19	Carbon disulfide		U	0.5	JL51.5
L14042008-16	PMW21-03-LS-19	Carbon disulfide		U	0.5	JL51.5
L14042008-17	PMW21-05-LS-19	1-Chlorohexane		U	0.125	JMS48.8
L14042008-17	PMW21-05-LS-19	2-Hexanone		U	2.5	JMS47
L14042008-17	PMW21-05-LS-19	Carbon disulfide		U	0.5	JL51.5MS42.1
L14042008-17	PMW21-05-LS-19	MEK (2-Butanone)		U	2.5	JMS47.8
L14042008-17	PMW21-05-LS-19	MIBK (methyl isobutyl ketone)		U	2.5	JMS43.6
L14042008-17	PMW21-05-LS-19	Methyl t-butyl ether (MTBE)		U	0.5	JMS48.1
L14042008-20	PMW101-03A-LS-19	Carbon disulfide		U	0.5	JL51.5
L14042008-21	PMW101-03B-LS-19	Carbon disulfide		U	0.5	JL51.5
L14042008-22	PMW101-06A-LS-19	Carbon disulfide		U	0.5	JL51.5
L14042008-23	PMW101-06B-LS-19	Carbon disulfide		U	0.5	JL51.5
L14042008-24	DUP-1-LS-19	Carbon disulfide		U	0.5	JL51.5
L14042008-25	DUP-2-LS-19	Carbon disulfide		U	0.5	JL51.5
L14042008-26	DUP-6-LS-19	Carbon disulfide		U	0.5	JL51.5

Final Data Qualification and Usability Report

Project: Defense Depot Memphis, TN (DDMT)
Main Installation Long Term Monitoring
Sampling Event: LS-19
Project / Task Number: 228-192672-016
Sample Data Package(s): L14041917, L14041918, L14042008
Data Validation Performed by: Diane Short & Associates (DSA)
Final Data Qualification and Usability
Report Prepared by: Lynn K. Lutz, HDR Inc.

Data Validation Report Review and Comments

The validation report was acceptable except as noted below for final qualifiers.

The validator, in discussing relative response factors, noted that “[t]he laboratory has been tasked with providing to the client verification that the 0.01 RF is valid. If the spectral verification is available, data are not qualified for response factors greater than 0.01 and less than 0.05 for ‘poor responders.’” The Project Chemist reviewed the area counts for the lowest standard included in the initial calibration for the low responders and found the areas to be adequate, and no qualifiers were applied.

The validator noted that %RSDs for bromomethane and acetone in one initial calibration were “out” but that the data did not require qualification. The Project Chemist reviewed the %RSDs and noted that they met method calibration requirements and concurred that no qualification was required.

The validator did not qualify bromomethane, naphthalene or 1,2,3-trichloropropane results based on low responses in the CCVs; the Project Chemist evaluated the %D values and qualified associated results as non-detect estimated “UJ” as follows, as both the project QAPP and the method require CCV results be within 20%D:

- bromomethane - workgroup # WG474330: %D = -24.3%
- 1,2,3-trichloropropane - workgroup # WG474481: %D = -23.8%
- naphthalene - workgroup # WG474481: %D = -21.2%
- bromomethane - workgroup # WG474488: %D = -21.5%
- bromomethane - workgroup # WG474578: %D = -26.9%
- bromomethane - workgroup # WG474560: %D = -26.3%

Final Data Qualifiers

The final qualifier for some bromomethane, naphthalene or 1,2,3-trichloropropane results was UJ where DSA had not qualified due to low CCV results.

The final qualifier for a total of 33 non-detect carbon disulfide results was UJ where DSA had qualified as JL49.6 or JL51.5 for low LCS recoveries.

The final qualifier for a total of 19 results was J or UJ where DSA had qualified as JMS## for low MS/MSD recoveries.

The final qualifier for six detected acetone results was B where DSA had qualified as BTB3.46 for trip blank detection.

The final qualifier was J where the lab had qualified as F.

Data Usability

There were no rejected sample results. All results are usable as qualified.



02 June 2014

Lynn K. Lutz, HDR Inc.

Date

ORGANIC DATA QUALITY REVIEW REPORT

Volatile Organics by SW-846 Method 8260B (GC/MS)

SDGs	L140: 41888, 42010. 42017, 50112, 51048		
PROJECT	Memphis Defense Depot, ODLA-8 Sampling for HDR, Denver		
LABORATORY	Microbac Laboratories, Inc., Marietta, OH		
SAMPLE MATRIX	Water	SAMPLING DATE	04 and 05/2014
NUMBER OF SAMPLES	91 water, including 7 field duplicate pairs, 5 trip blanks and 1 rinse blank		
ANALYSES REQUESTED	SW-846 8260B (VOA by GC/MS)		
SAMPLE NUMBER	See result forms attached and associated EDD		

DATA REVIEWER: Diane ShortQA REVIEWER: Diane Short & Associates, Inc. INITIALS/DATE: DLs 06/6/2014Telephone Logs included Yes ☐ No ☒Contractual Violations Yes ☐ No ☒

The project QAPP (09/11), the EPA Contract Laboratory Program National Functional Guidelines for Organic Review, 1999 and 2007, and the SW-846 Method 8260B have 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 ☒ No ☐

This report has been requested to include the following review: QC, hold times, sample integrity (Chains of Custody, sample login), and summary calibrations. Note that there are 13 QC sets (days of analysis per instrument) and 4 instruments for the field samples.

B. Chain of Custody documentation was complete and accurate.

Yes ☒ No ☐

No qualifiers have been added for Chain of Custody (COC) issues, and the Project Manager will update COC per the following notes to complete the project record.

The laboratory has signed and affixed a receipt label on all pages. The relinquishment date and time are part of the electronically-generated COC and are present only on the last page of the COC. There is an electronic signature on the last page unless noted.

In addition, there are sample receipt acknowledgements from the laboratory. The log in forms contain the courier identification and air bill number.

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

Yes ☐ No ☒

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 temperature conditions are fully compliant with applicable regulations.

The Record of Sample Receipt notes the following

L14042010 – MW160 was received with all 3 vials broken. The sample was re-collected.

L14041888 – DUP-1 was received with 1 vial broken, sufficient sample was available for analysis.

II. ANALYTICAL REPORT FORMS

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

Yes ☒ No ☐

Note that MIBK, methyl isobutyl ketone, is most often referred to as 4-methyl-2-pentanone and that is the nomenclature used in the EPA NFG.

B. Holding Times

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

Yes ☒ No ☐

See B.2 as qualification is from the CFR holding time.

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 ☐

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 > 0.05 or > 0.01 for poor responding volatiles.

Yes ☒ No ☐ NA ☐

Method 8260: Per the Project Manager, the 2007 EPA CLP validation guidance has been applied to the common “poor responders.” Calibration response factors were acceptable for Acetone, 4-methyl-2-pentanone (MIBK), and 2-butanone and other poor responders. 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 this data set. The laboratory has been tasked with providing to the client verification that the 0.01 RF is valid. If the spectral verification is available, data are not qualified for response factors greater than 0.01 and less than 0.05 for “poor responders.” No data have been qualified.

Most of 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.

2a. The relative standard deviation (RSD) for the five point calibration was within the 30% limit for the CCCs.
Yes ☒ 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% (40% for the poor responders) limit for all other compounds, the average % RSD was < 15%, or a linear curve was used.

Yes ☒ No ☐ NA ☐

See the calibration table at the end of the report. A % RSD was out for naphthalene, bromomethane. Data are non-detect and the response factors are sufficient to verify the non-detects at the MDL and no data are qualified. The correlation coefficient was within the 0.995 limits to meet the method criteria.

3. The 12 hour system Performance Check was performed as required in SW-846 and met the QC limits of 80 – 120%.

Yes ☐ No ☒ NA ☐

The following applies to the ICV for each initial calibration. The ICV for instrument 11, instrument 8, instrument 9 and instrument 17 reported %R high for dichlorodifluoromethane. The compound is not detected and no qualifier is applied. The ICV for instrument 9 was low for vinyl chloride. The ICV for instrument 17 was low for carbon disulfide and bromomethane. See the calibration table at the end of the report. Data are non-detect and the response factors are sufficient to verify the non-detects at the MDL and no data are qualified. The data for carbon disulfide have not been qualified for the ICV as the CCV was acceptable and all associated data are already qualified for the corresponding low LCS.

B. Continuing Calibrations

1. The midpoint standard was analyzed for each analysis at the required frequency, and the QC criterion of > 0.05 (> 0.01 for CLP 2001 VOA) was met.

Yes ☒ No ☐ NA ☐

2. The percent difference (% D) limits of $\pm 20\%$ were met. The 2007 NFG also allow for 40% D for the “poor responders (pr).”

Yes ☐ No ☒ NA ☐

See the calibration table at the end of the report. When there are no detections, no qualification is required unless the % D is biased low and so large as to indicate a significant probability of false negatives. Qualification is required for a % D for detected compounds only. This requires that the RF is acceptable to verify the non-detect status, which is the case here.

Data would be qualified “JC#”, where # is the % D. There could be variability to the data as there is variability to the response. No qualifiers have been required with the exception of one JC-47 for carbon disulfide. The

response factor is still well within limits to verify the non-detects, but the added qualification for the LCS would indicate that the qualifier be applied.

Lab ID	Client ID	Analyte	Result ug/L	lab flag	MDL	Qualifier
L14041888-04	MW-15-ODLA-8	Carbon disulfide		U	0.5	JC-47L47.5
L14041888-05	MW-57-ODLA-8	Carbon disulfide		U	0.5	JC-47L47.5
L14041888-06	MW-69-ODLA-8	Carbon disulfide		U	0.5	JC-47L47.5
L14041888-07	MW-70-ODLA-8	Carbon disulfide		U	0.5	JC-47L47.5

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 ☒ 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 ☐ NA ☐

VI. SURROGATE STANDARDS

Surrogate spikes were analyzed with every sample.

Yes ☒ No ☐

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

Yes ☒ No ☐

VII. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

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

Yes ☒ No ☐

The MS/MSDs include (all ending in ODLA-8):

MW-151, MW-190, MW-247, MW-54.

The client has designated the samples and this meets the recommendation of 1 per 20 field (not field QC or blank) samples. As this is an ongoing project an overall adherence to the 1:20 frequency is monitored by the Project Manager.

The lab notes they do not report non-client QC. In most, and not all cases, and LCS/LCSD is reported.

B. The MS and MSD percent recoveries were within the limits defined in the updated 2011 QAPP, which now references the laboratory limits.

Yes ☐ No ☒ NA ☐

The full target list has been spiked. All samples run on Instrument 17 report low LCS, Calibration %R and this is also reflected in the spike recoveries. This appears to be a laboratory accuracy issue, not a matrix effect.

Lab ID	Client ID	Analyte	Result ug/L	lab flag	MDL	Qualifier
L14050112-10	MW-151-ODLA-8	Carbon disulfide		U	0.5	JL51.8MS54.4
L14050112-45	MW-190-ODLA-8	Carbon disulfide		U	0.5	JL51.8MS50.8

C. The MSD relative percent differences (RPD) were within the defined contract limits, which are 30%.

Yes ☒ No ☐ NA ☐

D. The MS/MSD were client samples.

Yes ☒ No ☐ NA ☐

Only client samples reported.

VIII. LABORATORY CONTROL SAMPLE

A. Laboratory Control Sample (LCS) was analyzed for every analysis performed and for every 20 samples.

Yes ☒ No ☐

Although not required of the method, an LCS and LCSD are routinely reported when there is not an MS/MSD reported in the data set.

B. The LCS percent recoveries were within the limits defined in the updated 2011 QAPP, which are the laboratory limits. If an LCS and LCSD are analyzed, both samples must have the same compounds out for data to be qualified. The RPD is qualified only if the %R is also out.

Yes ☐ No ☒

The full target list has been spiked. When a high LCS recovery is associated with a non-detect in samples, no qualifier is added since the indicated bias is high. When the target is detected, data are qualified "JL#", where # is the recovery. Data could be biased high proportional to the LCS percent recovery. All results associated with low recoveries are qualified and data could be biased low. The laboratory uses the same control limits on all 4 instruments used for analysis even though the responses are different on each instrument as is evident in the CCV and LCS recoveries in the table at the end of the report. The control limits should be instrument specific. Data have been qualified on Instrument 17 analyses for carbon disulfide.

There was on LCS on 5/7/14 that had consistent high %R for the ketones and MTBE. Only acetone was detected and qualified. Note that some samples in this same set were qualified for an acetone trip blank or for the only rinse blank submitted with this event and the qualifier might be removed. See the field blank section.

Dichlorodifluoromethane is routinely high for all instruments. In no case is the compound detected and non-detected data are not qualified for high recovery. One 2-chlorotoluene RPD was out. Data are not qualified for RPD when the %R is within limits.

Lab ID	Client ID	Analyte	Result ug/L	lab flag	MDL	Qualifier
L14050112-01	DUP-7-ODLA-8	Carbon disulfide		U	0.5	JL51.8
L14050112-02	TB-2-ODLA-8	Carbon disulfide		U	0.5	JL51.8
L14050112-03	MW-152-ODLA-9	Carbon disulfide		U	0.5	JL51.8
L14050112-04	MW-165-ODLA-8	Carbon disulfide		U	0.5	JL51.8
L14050112-05	MW-243-ODLA-8	Carbon disulfide		U	0.5	JL51.8
L14050112-06	MW-244-ODLA-8	Carbon disulfide		U	0.5	JL51.8
L14050112-07	MW-246-ODLA-8	Carbon disulfide		U	0.5	JL51.8
L14050112-08	DUP-4-ODLA-8	Carbon disulfide		U	0.5	JL49.8
L14050112-09	MW-44-ODLA-8	Carbon disulfide		U	0.5	JL49.8
L14050112-10	MW-151-ODLA-8	Carbon disulfide		U	0.5	JL51.8MS54.4
L14050112-13	MW-158-ODLA-8	Carbon disulfide		U	0.5	JL49.8
L14050112-14	MW-158A-ODLA-8	Carbon disulfide		U	0.5	JL49.8
L14050112-27	MW-54-ODLA-8	Acetone	26.6		2.5	JL174
L14050112-33	MW-144-ODLA-8	Acetone	26.5		2.5	JL174

L14050112-36	MW-149-ODLA-8	Acetone	29.6		2.5	JL174
L14050112-37	MW-150-ODLA-8	Acetone	29.2		2.5	JL174
L14050112-38	MW-155-ODLA-8	Acetone	2.98	F	2.5	JL174
L14050112-39	MW-157-ODLA-8	Acetone	23		2.5	JL174
L14050112-40	MW-163-ODLA-8	Acetone	23.4		2.5	JL174
L14050112-41	MW-164-ODLA-8	Acetone	27.6		2.5	JL174
L14050112-42	MW-166-ODLA-8	Acetone	30.5		2.5	JL174
L14050112-43	MW-166A-ODLA-8	Acetone	28		2.5	JL174
L14050112-44	MW-184-ODLA-8	Acetone	26.9		2.5	JL174
L14050112-45	MW-190-ODLA-8	Carbon disulfide		U	0.5	JL51.8MS50.8
L14041888-03	MW-07-ODLA-8	Carbon disulfide		U	0.5	JL49.9
L14041888-18	MW-223-ODLA-8	Carbon disulfide		U	0.5	JL49.9
L14041888-19	MW-224-ODLA-8	Carbon disulfide		U	0.5	JL49.9
L14041888-20	MW-225-ODLA-8	Carbon disulfide		U	0.5	JL49.9
L14041888-21	MW-226-ODLA-8	Carbon disulfide		U	0.5	JL49.9
L14041888-22	MW-227-ODLA-8	Carbon disulfide		U	0.5	JL49.9
L14041888-23	MW-228-ODLA-8	Carbon disulfide		U	0.5	JL49.9
L14041888-24	MW-230-ODLA-8	Carbon disulfide		U	0.5	JL49.9
L14041888-25	MW-03-ODLA-8	Carbon disulfide		U	0.5	JL49.9
L14041888-26	MW-06-ODLA-8	Carbon disulfide		U	0.5	JL49.9

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

Trichloroethene was reported at 0.334 and 0.54 ug/L in the method blank for 2 method blanks for SDG L14050112 on Instrument 17. The compound is detected in client samples and the qualifier is BMB#, where # is the blank result. Data are fully usable as non-detected values.

Lab ID	Client ID	Analyte	Result ug/L	lab flag	MDL	Qualifier
L14050112-03	MW-152-ODLA-9	Trichloroethene	0.604	F	0.25	BMB.54
L14050112-04	MW-165-ODLA-8	Trichloroethene	1.29		0.25	BMB.54
L14050112-14	MW-158A-ODLA-8	Trichloroethene	0.391	F	0.25	BMB.334

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

Yes No X NA

The field blank is RB1. The sample contained acetone 8.18ug/L, naphthalene 0.723 and toluene at 0.423 ug/L. The collection date is 4/29/14 which does not correlate to the client sample collection dates. The conservative approach has been to qualify all data for the possible contaminants. Only data for acetone required qualification. The compound is detected in client samples and the qualifier is BFB#, where # is the blank result. Data are fully usable as non-detected values.

Lab ID	Client ID	Analyte	Result ug/L	lab flag	MDL	Qualifier
L14050112-02	TB-2-ODLA-8	Acetone	4.72	F	2.5	BFB8.18
L14050112-21	MW-249-ODLA-8	Acetone	27.6		2.5	BFB8.18
L14050112-22	MW-250-ODLA-8	Acetone	3.51	F	2.5	BFB8.18
L14050112-23	MW-251-ODLA-8	Acetone	3.07	F	2.5	BFB8.18

L14050112-24	DUP-2-ODLA-8	Acetone	7.05	F	2.5	BFB8.18
L14050112-26	MW-31-ODLA-8	Acetone	26.3		2.5	BFB8.18
L14050112-32	MW-77-ODLA-8	Acetone	7.54	F	2.5	BFB8.18
L14050112-45	MW-190-ODLA-8	Acetone	31.6		2.5	BFB8.18
L14050112-50	DUP-3-ODLA-8	Acetone	4.68	F	2.5	BFB8.18
L14050112-53	MW-130-ODLA-8	Acetone	4.74	F	2.5	BFB8.18
L14050112-55	MW-79-ODLA-8	Acetone	33.7		2.5	BFB8.18
L14041888-03	MW-07-ODLA-8	Acetone	4.51	F	2.5	BFB8.18
L14041888-15	MW-220-ODLA-8	Acetone	16.5		2.5	BFB8.18
L14041888-17	MW-222-ODLA-8	Acetone	20.8		2.5	BFB8.18
L14041888-24	MW-230-ODLA-8	Acetone	5.95	F	2.5	BFB8.18
L14042010-02	MW-241-ODLA-8	Acetone	2.87	F	2.5	BFB8.18

Five Trip blanks were collected and all were non-detected with the exception of one TB-01 with detections of acetone. Acetone data are qualified BTB#, where # is the blank value. Data are fully usable as non-detected values.

LAB ID	CLIENT ID	Parameter	Result ug/L	Lab Flag	RL	Qualifier
L14050112-04	MW-165-ODLA-8	Acetone	9.94	F	2.5	BTB4.72
L14050112-06	MW-244-ODLA-8	Acetone	15.8		2.5	BTB4.72
L14050112-08	DUP-4-ODLA-8	Acetone	36.5		2.5	BTB4.72
L14050112-09	MW-44-ODLA-8	Acetone	3.18	F	2.5	BTB4.72
L14050112-10	MW-151-ODLA-8	Acetone	37		2.5	BTB4.72
L14050112-13	MW-158-ODLA-8	Acetone	4.78	F	2.5	BTB4.72
L14050112-15	MW-159-ODLA-8	Acetone	26.1		2.5	BTB4.72
L14050112-16	MW-237-ODLA-8	Acetone	3.54	F	2.5	BTB4.72

X. FIELD QC

If Field Duplicates were identified, they met guidance for VOA of RPD of < 30% for water or < 50% for soil. For values reported at < 5 × the reporting limit (RL), a difference of 2 × RL or 3.5 × RL for soil is used as guidance. This is referred to as the CRDL Rule. Data are not qualified for Field Duplicates as these are evaluated for the total project by the Project Manager.

Yes ☒ No ☐ NA ☐

All field precision limits were met for these samples. Data are within RPD or RL limits.

All Client IDs ending in ODLA-8

Dup-1	MW-03
Dup-2	MW-77
Dup-3	MW-130
Dup-4	MW-159
Dup-5	MW-129
Dup-6	MW-227
Dup-7	MW-246

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:

This report has been requested to include the following review: QC, hold times, sample integrity (Chains of Custody, sample login), and summary calibrations. Note that there are 13 QC sets (days of analysis per instrument) and 4 instruments for the field samples.

Chain of Custody

The laboratory has signed and affixed a receipt label on all pages. The relinquishment date and time are part of the electronically-generated COC and are present only on the last page of the COC. There is an electronic signature on the last page unless noted.

In addition, there are sample receipt acknowledgements from the laboratory. The log in forms contain the courier identification and air bill number.

Sample Preservation

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 temperature conditions are fully compliant with applicable regulations.

The Record of Sample Receipt notes the following

L14042010 – MW160 was received with all 3 vials broken. The sample was re-collected.

L14041888 – DUP-1 was received with 1 vial broken, sufficient sample was available for analysis.

Initial Calibrations

Method 8260: Per the Project Manager, the 2007 EPA CLP validation guidance has been applied to the common “poor responders.” Calibration response factors were acceptable for Acetone, 4-methyl-2-pentanone, and 2-butanone and other poor responders. 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 this data set. The laboratory has been tasked with providing to the client verification that the 0.01 RF is valid. If the spectral verification is available, data are not

qualified for response factors greater than 0.01 and less than 0.05 for “poor responders.” No data have been qualified.

See the calibration table at the end of the report. A % RSD was out for naphthalene, bromomethane. Data are non-detect and the response factors are sufficient to verify the non-detects at the MDL and no data are qualified. The correlation coefficient was within the 0.995 limits to meet the method criteria.

The following applies to the ICV for each initial calibration. The ICV for instrument 11, instrument 8, instrument 9 and instrument 17 reported %R high for dichlorodifluoromethane. The compound is not detected and no qualifier is applied. The ICV for instrument 9 was low for vinyl chloride. The ICV for instrument 17 was low for carbon disulfide and bromomethane. See the calibration table at the end of the report. Data are non-detect and the response factors are sufficient to verify the non-detects at the MDL and no data are qualified. The data for carbon disulfide have not been qualified for the ICV as the CCV was acceptable and all associated data are already qualified for the corresponding low LCS.

Continuing Calibrations

See the calibration table at the end of the report. When there are no detections, no qualification is required unless the % D is biased low and so large as to indicate a significant probability of false negatives. Qualification is required for a % D for detected compounds only. This requires that the RF is acceptable to verify the non-detect status, which is the case here.

Data would be qualified “JC#”, where # is the % D. There could be variability to the data as there is variability to the response. No qualifiers have been required with the exception of one JC-47 for carbon disulfide. The response factor is still well within limits to verify the non-detects, but the added qualification for the LCS would indicate that the qualifier be applied.

Matrix Spikes

The MS/MSDs include (all ending in ODLA-8):

MW-151, MW-190, MW-247, MW-54.

The full target list has been spiked. All samples run on Instrument 17 report low LCS, Calibration %R for carbon disulfide and this is also reflected in the spike recoveries. This appears to be a laboratory accuracy issue, not a matrix effect.

Laboratory Control Samples

The full target list has been spiked. When a high LCS recovery is associated with a non-detect in samples, no qualifier is added since the indicated bias is high. When the target is detected, data are qualified “JL#”, where # is the recovery. Data could be biased high proportional to the LCS percent recovery. All results associated with low recoveries are qualified and data could be biased low. The laboratory uses the same control limits on all 4 instruments used for analysis even though the responses are different on each instrument as is evident in the CCV and LCS recoveries in the table at the end of the report. The control limits should be instrument specific. Data have been qualified on Instrument 17 analyses for carbon disulfide.

There was on LCS on 5/7/14 that had consistent high %R for the ketones and MTBE. Only acetone was detected and qualified. Note that some samples in this same set were qualified for an acetone trip blank or for the only rinse blank submitted with this event and the qualifier might be removed. See the field blank section.

Dichlorodifluoromethane is routinely high for all instruments. In no case is the compound detected and non-detected data are not qualified for high recovery. One 2-chlorotoluene RPD was out. Data are not qualified for RPD when the %R is within limits.

Method Blanks

Trichloroethene was reported at 0.334 and 0.54 ug/L in the method blank for 2 method blanks for SDG L14050112 on Instrument 17. The compound is detected in client samples and the qualifier is BMB#, where # is the blank result. Data are fully usable as non-detected values.

Field Blanks

The field blank is RB1. The sample contained acetone 8.18ug/L, naphthalene 0.723 and toluene at 0.423 ug/L. The collection date is 4/29/14 which does not correlate to the client sample collection dates. The conservative approach has been to qualify all data for the possible contaminants. Only data for acetone required qualification. The compound is detected in client samples and the qualifier is BMB#, where # is the blank result. Data are fully usable as non-detected values.

Five Trip blanks were collected and all were non-detected with the exception of one TB-01 with detections of acetone. Acetone data are qualified BTB#, where # is the blank value. Data are fully usable as non-detected values.

Field QC

All field precision limits were met for these samples. Data are within RPD or RL limits.

All Client IDs ending in ODLA-8

Dup-1	MW-03
Dup-2	MW-77
Dup-3	MW-130
Dup-4	MW-159
Dup-5	MW-129
Dup-6	MW-227
Dup-7	MW-246

Calibrations and LCS %R

ODLA-8

pr indicates poor responder

	Inst 11					
WG 47:	5/1/2014	4401		4660		4744/ 4960
Compound	ICAL/ ICV	%D CCV 5/6	%R LCS	%D CCV 5/7 pm	LCS	%D CCV 5/8pm
Bromomethane		-26.3				-20.5
Dichlorodifluoromethane pr	52 % ICV					
Naphthalene	32.2 RSD r2 ok					
*2-chlorotoluene			20.2 rpd			LCS ok
*4-chlorotoluene				23.3		
Carbon disulfide pr				pr	221	
*1-chlorohexane					243	
2-hexanone					199	
Acetone pr					174	

Methyl t-butyl ether (MTBE) pr					189	
2-butanone (MEK) pr					177	
MIBK (methyl isobutyl ketone) pr					179	
		Inst 9				
WG 47:	4/14/2014	4333			4662	
Compound	ICAL	%D CCV 5/6	%R LCS/D		%D CCV 5/7	%R LCS
*4-Chlorotoluene					24	
n-Butylbenzene					27.3	
*p-isopropyltoluene					20.8	
Chloromethane pr		21.4	144			132
Dichlorodifluoromethane pr	63.6 % ICV		157			
Vinyl chloride	(-)-25.2% ICV					
*2,2-dichloropropane		20.7				

	2014	Inst 17				
WG 47:	1-May	4338 5/5		4967		
Compound	ICAL/ ICV	%D CCV	LCS %R	CCV 5/8	%R LCS*	
Trichlorofluoromethane pr					133/ ok	
2-hexanone pr		-20.2		pr		pr
Bromomethane		-24.4				
Carbon disulfide pr	-47.5		50.5/ 47.5			
Dichlorodifluoromethane pr	52.3		OK/ 156		155/ 151	
		Inst 17				
WG 47:	4488 5/6		4708		4731	
Compound	%D CCV	%R LCS	%D CCV 5/7 pm	LCS	%D CCV 5/8 pm	LCS
Bromomethane	(-)-21.5am (-)-26.9 pm		-21.9			
Carbon disulfide pr		49.9		51.8		49.8
Dichlorodifluoromethane pr				166		159
*2,2-dichloropropane						63.7
2-hexanone pr					pr	
		Inst 8				
WG 477498	19-May	26-May				
Compound	ICAL/ ICV	%D CCV	LCS %R			
Bromomethane	20.66					
Chloromomethane pr		25.9				
Dichlorodifluoromethane pr	45.4ICV		159			

Acetone pr	pr					

*compound not listed in EPA NFG or Method 8260; poor responder status cannot be determined. The toluenes would be expected to be fairly stable and the 2,2-dichloropropane is similar to 1,2-dichloropropane which is a poor responder per the NFG and not a poor purger per Method 8260.

TABLE OF QUALIFIED DATA

Lab ID	Client ID	Analyte	Result ug/L	lab flag	MDL	Qualifier
L14050112-01	DUP-7-ODLA-8	Carbon disulfide		U	0.5	JL51.8
L14050112-02	TB-2-ODLA-8	Carbon disulfide		U	0.5	JL51.8
L14050112-03	MW-152-ODLA-9	Carbon disulfide		U	0.5	JL51.8
L14050112-03	MW-152-ODLA-9	Trichloroethene	0.604	F	0.25	BMB.54
L14050112-04	MW-165-ODLA-8	Carbon disulfide		U	0.5	JL51.8
L14050112-04	MW-165-ODLA-8	Trichloroethene	1.29		0.25	BMB.54
L14050112-05	MW-243-ODLA-8	Carbon disulfide		U	0.5	JL51.8
L14050112-06	MW-244-ODLA-8	Carbon disulfide		U	0.5	JL51.8
L14050112-07	MW-246-ODLA-8	Carbon disulfide		U	0.5	JL51.8
L14050112-08	DUP-4-ODLA-8	Carbon disulfide		U	0.5	JL49.8
L14050112-09	MW-44-ODLA-8	Carbon disulfide		U	0.5	JL49.8
L14050112-10	MW-151-ODLA-8	Carbon disulfide		U	0.5	JL51.8MS54.4
L14050112-13	MW-158-ODLA-8	Carbon disulfide		U	0.5	JL49.8
L14050112-14	MW-158A-ODLA-8	Carbon disulfide		U	0.5	JL49.8
L14050112-14	MW-158A-ODLA-8	Trichloroethene	0.391	F	0.25	BMB.334
L14050112-27	MW-54-ODLA-8	Acetone	26.6		2.5	JL174
L14050112-33	MW-144-ODLA-8	Acetone	26.5		2.5	JL174
L14050112-36	MW-149-ODLA-8	Acetone	29.6		2.5	JL174
L14050112-37	MW-150-ODLA-8	Acetone	29.2		2.5	JL174
L14050112-38	MW-155-ODLA-8	Acetone	2.98	F	2.5	JL174
L14050112-39	MW-157-ODLA-8	Acetone	23		2.5	JL174
L14050112-40	MW-163-ODLA-8	Acetone	23.4		2.5	JL174
L14050112-41	MW-164-ODLA-8	Acetone	27.6		2.5	JL174
L14050112-42	MW-166-ODLA-8	Acetone	30.5		2.5	JL174
L14050112-43	MW-166A-ODLA-8	Acetone	28		2.5	JL174
L14050112-44	MW-184-ODLA-8	Acetone	26.9		2.5	JL174
L14050112-45	MW-190-ODLA-8	Carbon disulfide		U	0.5	JL51.8MS50.8
L14050112-04	MW-165-ODLA-8	Acetone	9.94	F	2.5	BTB4.72
L14050112-06	MW-244-ODLA-8	Acetone	15.8		2.5	BTB4.72
L14050112-08	DUP-4-ODLA-8	Acetone	36.5		2.5	BTB4.72
L14050112-09	MW-44-ODLA-8	Acetone	3.18	F	2.5	BTB4.72
L14050112-10	MW-151-ODLA-8	Acetone	37		2.5	BTB4.72
L14050112-13	MW-158-ODLA-8	Acetone	4.78	F	2.5	BTB4.72
L14050112-15	MW-159-ODLA-8	Acetone	26.1		2.5	BTB4.72
L14050112-16	MW-237-ODLA-8	Acetone	3.54	F	2.5	BTB4.72
L14050112-02	TB-2-ODLA-8	Acetone	4.72	F	2.5	BFB8.18
L14050112-21	MW-249-ODLA-8	Acetone	27.6		2.5	BFB8.18
L14050112-22	MW-250-ODLA-8	Acetone	3.51	F	2.5	BFB8.18
L14050112-23	MW-251-ODLA-8	Acetone	3.07	F	2.5	BFB8.18

L14050112-24	DUP-2-ODLA-8	Acetone	7.05	F	2.5	BFB8.18
L14050112-26	MW-31-ODLA-8	Acetone	26.3		2.5	BFB8.18
L14050112-32	MW-77-ODLA-8	Acetone	7.54	F	2.5	BFB8.18
L14050112-45	MW-190-ODLA-8	Acetone	31.6		2.5	BFB8.18
L14050112-50	DUP-3-ODLA-8	Acetone	4.68	F	2.5	BFB8.18
L14050112-53	MW-130-ODLA-8	Acetone	4.74	F	2.5	BFB8.18
L14050112-55	MW-79-ODLA-8	Acetone	33.7		2.5	BFB8.18
L14041888-03	MW-07-ODLA-8	Acetone	4.51	F	2.5	BFB8.18
L14041888-03	MW-07-ODLA-8	Carbon disulfide		U	0.5	JL49.9
L14041888-04	MW-15-ODLA-8	Carbon disulfide		U	0.5	JC-47L47.5
L14041888-05	MW-57-ODLA-8	Carbon disulfide		U	0.5	JC-47L47.5
L14041888-06	MW-69-ODLA-8	Carbon disulfide		U	0.5	JC-47L47.5
L14041888-07	MW-70-ODLA-8	Carbon disulfide		U	0.5	JC-47L47.5
L14041888-15	MW-220-ODLA-8	Acetone	16.5		2.5	BFB8.18
L14041888-17	MW-222-ODLA-8	Acetone	20.8		2.5	BFB8.18
L14041888-18	MW-223-ODLA-8	Carbon disulfide		U	0.5	JL49.9
L14041888-19	MW-224-ODLA-8	Carbon disulfide		U	0.5	JL49.9
L14041888-20	MW-225-ODLA-8	Carbon disulfide		U	0.5	JL49.9
L14041888-21	MW-226-ODLA-8	Carbon disulfide		U	0.5	JL49.9
L14041888-22	MW-227-ODLA-8	Carbon disulfide		U	0.5	JL49.9
L14041888-23	MW-228-ODLA-8	Carbon disulfide		U	0.5	JL49.9
L14041888-24	MW-230-ODLA-8	Acetone	5.95	F	2.5	BFB8.18
L14041888-24	MW-230-ODLA-8	Carbon disulfide		U	0.5	JL49.9
L14041888-25	MW-03-ODLA-8	Carbon disulfide		U	0.5	JL49.9
L14041888-26	MW-06-ODLA-8	Carbon disulfide		U	0.5	JL49.9
L14042010-02	MW-241-ODLA-8	Acetone	2.87	F	2.5	BFB8.18

Final Data Qualification and Usability Report

Project: Defense Depot Memphis, TN (DDMT)
OFF-Depot (Dunn Field) Long Term Monitoring
Sampling Event: ODLA-8
Project / Task Number: 228-192672-015
Sample Data Package(s): L14041888, L14042010, L14042017, L14050112,
L14051048
Data Validation Performed by: Diane Short & Associates (DSA)
Final Data Qualification and Usability
Report Prepared by: Lynn K. Lutz, HDR Inc.

Data Validation Report Review and Comments

The validation report was acceptable except as noted below for final qualifiers.

The validator, in discussing relative response factors, noted that “[t]he laboratory has been tasked with providing to the client verification that the 0.01 RF is valid. If the spectral verification is available, data are not qualified for response factors greater than 0.01 and less than 0.05 for ‘poor responders.’” The Project Chemist reviewed the area counts for the lowest standard included in the initial calibration for the low responders and found the areas to be adequate, and no qualifiers were applied.

The validator noted that %RSDs for bromomethane and naphthalene in one initial calibration were “out” but that the data did not require qualification. The Project Chemist reviewed the initial calibrations and noted that they met method calibration requirements and concurred that no qualification was required.

The validator did not qualify bromomethane, chloromethane or 2-hexanone results based on low responses in the CCVs; the PC evaluated the %D values and qualified associated results as non-detect estimated “UJ” as follows, as both the project QAPP and the method require CCV results be within 20%D:

- bromomethane - workgroup # WG474388: %D = -24.4%
- bromomethane- workgroup # WG474401: %D = -22.5%
- bromomethane - workgroup # WG474488: %D = -21.5%
- bromomethane - workgroup # WG474960: %D = -20.5%
- bromomethane - workgroup # WG474708: %D = -21.9%
- chloromethane - workgroup # WG477498: %D = -25.9%
- 2-hexanone – workgroup # WG474967: %D = -21.4%

Final Data Qualifiers

The final qualifier for some bromomethane, chloromethane and 2-hexanone results was UJ where DSA had not qualified due to low CCV results.

The final qualifier for a total of 27 non-detect carbon disulfide results was UJ where DSA had qualified as JL# for low LCS recoveries.

The final qualifier for a total of 11 detected acetone results was J where DSA had qualified as JL174 for a high LCS recovery.

The final qualifier for four non-detect carbon disulfide results was UJ where DSA had qualified as JC-47 for a low alternate source standard response.

The final qualifier for two carbon disulfide results was J or UJ where DSA had qualified as JMS## for low MS/MSD recoveries.

The final qualifier for three detected trichloroethene results was B where DSA had qualified as BMB# for method blank detection.

The final qualifier for eight detected acetone results was B where DSA had qualified as BTB# for trip blank detection.

The final qualifier was J where the lab had qualified as F.

Data Usability

There were no rejected sample results. All results are usable as qualified.



10 June 2014

Lynn K. Lutz, HDR Inc.

Date

ORGANIC DATA QUALITY REVIEW REPORT

Volatile Organics by SW-846 Method 8260B (GC/MS)

SDG	L14101:359, 408, 439, 470		
PROJECT	Memphis Defense Depot, LB-20 Sampling for HDR, Denver		
LABORATORY	Microbac Laboratories, Inc., Marietta, OH		
SAMPLE MATRIX	Water	SAMPLING DATE	10/2014
NUMBER OF SAMPLES	117, including 10 field duplicates, 1rinse and 4 trip blanks		
ANALYSES REQUESTED	SW-846 8260B (VOA by GC/MS)		
SAMPLE NUMBER	See result forms attached and associated EDD		

DATA REVIEWER: Diane ShortQA REVIEWER: Diane Short & Associates, Inc. INITIALS/DATE: DLS 11/14/2014Telephone Logs included Yes ___ No XContractual Violations Yes ___ No X

The project QAPP (09/11), the EPA Contract Laboratory Program National Functional Guidelines for Organic Review, 1999 and 2001, and the SW-846 Method 8260B have 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 ☒ No ☐

This report has been requested to include the following review: QC, hold times, sample integrity (Chains of Custody, sample login), and summary calibrations. The 2011 QAPP has been used for all review with the exception of the CCAL limits where the 25% NFG limits were applied as Method 8026B was used, not 8260C or the CLP method. Final application of these limits is being considered by project management.

B. Chain of Custody documentation was complete and accurate.

Yes ☒ No ☐

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

Yes ☒ No ☐

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 temperature conditions are fully compliant with applicable regulations.

There were two samples with headspace in one vial noted for DR1-8-LB-20, MW-215A-LB-20, DUP1-LB-20 and there were adequate vials to complete the analysis.

II. ANALYTICAL REPORT FORMS

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

Yes ☒ No ☐

B. Holding Times

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

Yes ☒ 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 ☐ No ☒

All data for LTM-TB4 were qualified JH1.4 to indicate a 1.4 day exceedence of the 14 day limit. As this is a trip blank, there would be no impact on client samples as the vials are kept in controlled coolers and there would be no matrix effects that would degrade and compounds present.

LAB ID	CLIENT ID	COMPOUND	Result ug/L	Lab Flag	MDL	Qualifier
L14101470-09	LTM-TB4-LB-20	All compounds		ND,H1	0.25	JH1.4

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 > 0.05 or > 0.01 for poor responding volatiles.

Yes ☒ No ☐ NA ☐

Method 8260: Per the Project Manager, the 2001 EPA CLP validation guidance has been applied to the common “poor responders.” Calibration response factors below 0.05 have historically been observed for Acetone. 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 this data set. The laboratory has been tasked with providing to the client verification

that the 0.01 RF is valid. If the spectral verification is available, data are not qualified for response factors greater than 0.01 and less than 0.05 for “poor responders.” No data have been qualified.

Most of 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.

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

Yes ☒ 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, the average % RSD was < 15%, or a linear curve was used.

Yes ☒ No ☐ NA ☐

3. The 12 hour system Performance Check was performed as required in SW-846 and met the QC limits of 80 – 120%.

Yes ☐ No ☒ NA ☐

Dichlorodifluoromethane is high in some of the ICV for Instrument 11, 17, 8 and 6. The compound is not detected in client samples and no qualification is required for high recovery.

B. Continuing Calibrations

1. The midpoint standard was analyzed for each analysis at the required frequency, and the QC criterion of > 0.05 (> 0.01 for CLP 2001 VOA) was met.

Yes ☒ No ☐ NA ☐

2. The percent difference (% D) limits of $\pm 25\%$ were met. The 2001 NFG also allow for 40% D for the “poor responders (pr)”. For other compounds, the QAPP notes rejection of detected compounds with % D > 40%.

Yes ☐ No ☒ NA ☐

There are outliers for some of the poor responders, but they meet the 40% limit. There are outliers that are fairly consistent as follows:

Instrument 17: the common poor responders, 1,1,2,2-tetrachloroethane, 1,2,3-trichloropropane, naphthalene

Instrument 6: chloromethane (pr), carbon disulfide (pr), 1,2,3-trichloropropane, naphthalene, bromomethane

Instrument 11: bromomethane, common poor responders

Instrument 8: 1,2,3-trichlorobenzene, bromomethane, naphthalene

Common poor responders: acetone, 2-butanone, MIBK, 2-hexanone, dichlorofluoromethane

Dichlorofluoromethane is consistently high and above the 40% D, but this is an increase in response further verifying that non-detects are valid. The response factors are sufficient to verify the non-detects for these compounds. Data are qualified for detected compounds as JC#, where # is the %D with a “-” to indicate a decrease in response.

LAB ID	CLIENT ID	COMPOUND	Result ug/L	Lab Flag	MDL	Qualifier
L14101470-03	MW-214B-LB-20	1,1,2,2-Tetrachloroethane	0.236	Q	0.2	JC-26.2
L14101470-04	MW-215A-LB-20	1,1,2,2-Tetrachloroethane	0.284	Q	0.2	JC-26.2

L14101470-08	DUP-8-LB-20	1,1,2,2-Tetrachloroethane	0.319	F	0.2	JC-26.2
L14101359-38	MW-218-LB-20	1,1,2,2-Tetrachloroethane	0.737	Q	0.2	JC-25.6
L14101359-43	MW64-LB-20	1,1,2,2-Tetrachloroethane	0.629	Q	0.2	JC-25.6

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 ☒ 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 ☐ NA ☐

VI. SURROGATE STANDARDS

Surrogate spikes were analyzed with every sample.

Yes ☒ No ☐

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

Yes ☒ No ☐

VII. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

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

Yes ☒ No ☐

There are 5 MS/MSD samples associated with the non-QC client samples. All end in LB-20:MW-205B, MW-217, DR1-8, PMW101-06A, MW50. This meets the recommendation of 1 per 20 field samples. As this is an ongoing project an overall adherence to the 1:20 frequency is monitored by the Project Manager.

B. The MS and MSD percent recoveries were within the limits defined in the updated 2011 QAPP, which now references the laboratory limits.

Yes ☐ No ☒ NA ☐

The full target list has been spiked.

For DR1-8-LB-20, there are high recoveries for naphthalene (135/ 139%). No data have been qualified JMS#, where # is the %R recovery as all associated samples were non-detect for these compounds and there is no qualification for high bias.

C. The MSD relative percent differences (RPD) were within the defined contract limits, which are 30%.

Yes ☒ No ☐ NA ☐

Qualifiers are added only when the MS or MSD recovery is also out of limits or the RPD exceeds 30%. Data are qualified "JD#", where # is the RPD. As the RPD increases, the matrix precision decreases. All RPD limits are met.

D. The MS/MSD were client samples.

Yes ☒ No ☐ NA ☐

VIII. LABORATORY CONTROL SAMPLE

A. Laboratory Control Sample (LCS) was analyzed for every analysis performed and for every 20 samples.

Yes ☒ No ☐

B. The LCS percent recoveries were within the limits defined in the updated 2011 QAPP, which are the laboratory limits. If an LCS and LCSD are analyzed, both samples must have the same compounds out for data to be qualified.

Yes ☐ No ☒

The full target list has been spiked. When a high LCS recovery is associated with a non-detect in samples, no qualifier is added since the indicated bias is high. When the target is detected, data are qualified "JL#", where # is the recovery. Data could be biased low proportional to the LCS percent recovery or false non-detected data could be reported. In this case, it is recommended that the non-detect is valid at the RL and could be estimated at the MDL. Both recoveries are required to be out for data to be qualified if there is an LCS/LCSD pair. The laboratory uses the same control limits on all instruments used for analysis even though the responses are different on each instrument. The control limits should be instrument specific. In SDG L1401408, one LCS/LCSD pair reported 2,2-dichloropropane with an RPD of 23.7. All data are non-detect and the %R's are within limits. No data are required to be qualified.

LAB ID	CLIENT ID	COMPOUND	Result ug/L	Lab Flag	MDL	Qualifier
L14101359-21	DUP-5-LB-20	Chloromethane		NDQ	0.5	JL44.6
L14101359-22	DUP-7-LB-20	Chloromethane		NDQ	0.5	JL44.6
L14101359-23	MW94A-LB-20	Chloromethane		NDQ	0.5	JL44.6
L14101359-24	MW97-LB-20	Chloromethane		NDQ	0.5	JL44.6
L14101359-25	MW98-LB-20	Chloromethane		NDQ	0.5	JL44.6
L14101359-26	MW101B-LB-20	Chloromethane		NDQ	0.5	JL44.6
L14101359-27	MW107T-LB-20	Chloromethane		NDQ	0.5	JL44.6
L14101359-28	MW23-LB-20	Chloromethane		NDQ	0.5	JL44.6
L14101359-29	MW-259-LB-20	Chloromethane		NDQ	0.5	JL44.6
L14101359-30	MW-260-LB-20	Chloromethane		NDQ	0.5	JL44.6
L14101359-31	DR2-1-LB-20	Chloromethane		NDQ	0.5	JL44.6
L14101359-32	DR2-3-LB-20	Chloromethane		NDQ	0.5	JL44.6
L14101359-33	DR2-4-LB-20	Chloromethane		NDQ	0.5	JL44.6
L14101359-34	DR2-6-LB-20	Chloromethane		NDQ	0.5	JL44.6

IX. BLANKS

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

Yes ☒ No ☐

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

Yes ☐ No ☒

Whenever Methylene Chloride, Acetone, 2-Butanone are detected in associated samples at a level less than 10 × the Method Blank (corrected for dilution), data are qualified "BMB#", where # is the corrected Method Blank level. Results are usable as non-detect. All method blanks were reported as non-detect. Hexachlorobutadiene was detected above the RL on instrument 6. In some cases another blank was run later in the day. The compound was never reported in client samples and no further action is required.

LAB ID	CLIENT ID	COMPOUND	Result ug/L	Lab Flag	MDL	Qualifier
L14101470-07	LTM-RB1-LB-20	Methylene chloride	0.377	F	0.25	BMB.257
L14101359-52	MW25A-LB-20	Methylene chloride	0.264	F	0.25	BMB.257
L14101359-54	MW52-LB-20	Methylene chloride	0.309	F	0.25	BMB.257

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

Yes ☒ No ☐ NA ☐

One field blank is reported and there are 4 trip blank. The samples were clean or qualified for method blank contamination and no qualifiers have been applied.

X. FIELD QC

If Field Duplicates were identified, they met guidance for VOA of RPD of $< 30\%$ for water or $< 50\%$ for soil. For values reported at $< 5 \times$ the reporting limit (RL), a difference of $2 \times$ RL or $3.5 \times$ RL for soil is used as guidance. This is referred to as the CRDL Rule. Data are not qualified for Field Duplicates as these are evaluated for the total project by the Project Manager.

Yes ☒ No ☐ NA ☐

There are eleven identified field duplicates as described in the following table. If data were qualified they would be J, FD#, where # is the difference between the two values as both values are less than $5 \times$ RL. All RPDs were acceptable or differences between low level values were less than $2 \times$ RL.

MW16-LB-20	DUP-1
MW39-LB-20	DUP-2
MW89-LB-20	DUP-3
MW101T-LB-20	DUP-4
MW108-LB-20	DUP-5
MW-202B-LB-20	DUP-6
MW-208B-LB-20	DUP-7
MW-215A-LB-20	DUP-8
MW-254-LB-20	DUP-9
DR2-1-LB-20	DUP-10
PMW101-03B-LB-20	DUP-11

XI. SYSTEM PERFORMANCE

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

Yes ☐ No ☐ NA ☒

Not part of this review level.

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

Yes ☒ No ☐ NA ☐

XII. 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:

This report has been requested to include the following review: QC, hold times, sample integrity (Chains of Custody, sample login), and summary calibrations.

The 2011 QAPP has been used for all review with the exception of the CCAL limits where the 25% NFG limits were applied as Method 8026B was used, not 8260C or the CLP method. Final application of these limits is being considered by project management.

Sample Preservation

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 temperature conditions are fully compliant with applicable regulations.

There were two samples with headspace in one vial noted for DR1-8-LB-20, MW-215A-LB-20, DUP1-LB-20 and there were adequate vials to complete the analysis.

Holding Time

All data for LTM-TB4 were qualified JH1.4 to indicate a 1.4 day exceedence of the 14 day limit. As this is a trip blank, there would be no impact on client samples as the vials are kept in controlled coolers and there would be no matrix effects that would degrade and compounds present.

Calibrations

ICV

Dichlorodifluoromethane is high in some of the ICV for Instrument 11, 17, 8 and 6. The compound is not detected in client samples and no qualification is required for high recovery.

CCV

There are outliers for some of the poor responders, but they meet the 40% limit. There are outliers that are fairly consistent as follows:

Instrument 17: the common poor responders, 1,1,2,2-tetrachloroethane, 1,2,3-trichloropropane, naphthalene

Instrument 6: chloromethane (pr), carbon disulfide (pr), 1,2,3-trichloropropane, naphthalene, bromomethane

Instrument 11: bromomethane, common poor responders

Instrument 8: 1,2,3-trichlorobenzene, bromomethane, naphthalene

Common poor responders: acetone, 2-butanone, MIBK, 2-hexanone, dichlorofluoromethane

Dichlorofluoromethane is consistently high and above the 40% D, but this is an increase in response further verifying that non-detects are valid. The response factors are sufficient to verify the non-detects for these compounds. Data are qualified for detected compounds as JC#, where # is the %D with a “-” to indicate a decrease in response.

Matrix Spikes

There are 5 MS/MSD samples associated with the non-QC client samples. All end in LB-20:MW-205B, MW-217, DR1-8, PMW101-06A, MW50. This meets the recommendation of 1 per 20 field samples. As this is an ongoing project an overall adherence to the 1:20 frequency is monitored by the Project Manager. The full target list has been spiked.

For DR1-8-LB-20, there are high recoveries for naphthalene (135/ 139%). No data have been qualified JMS#, where # is the %R recovery as all associated samples were non-detect for these compounds and there is no qualification for high bias.

Laboratory Control Samples

The full target list has been spiked. When a high LCS recovery is associated with a non-detect in samples, no qualifier is added since the indicated bias is high. When the target is detected, data are qualified “JL#”, where # is the recovery. Data for chloromethane could be biased low proportional to the LCS percent recovery or false non-detected data could be reported. In this case, it is recommended that the non-detect is valid at the RL and could be estimated at the MDL. Both recoveries are required to be out for data to be qualified if there is an LCS/LCSD pair. The laboratory uses the same control limits on all instruments used for analysis even though the responses are different on each instrument. The control limits should be instrument specific.

In SDG L1401408, one LCS/LCSD pair reported 2,2-dichloropropane with an RPD of 23.7. All data are non-detect and the %R's are within limits. No data are required to be qualified.

Method Blanks

Whenever Methylene Chloride, Acetone, 2-Butanone are detected in associated samples at a level less than 10 x the Method Blank (corrected for dilution), data are qualified "BMB#", where # is the corrected Method Blank level. Results are usable as non-detect. All method blanks were reported as non-detect. Hexachlorobutadiene was detected above the RL on instrument 6. In some cases another blank was run later in the day. The compound was never reported in client samples and no further action is required.

Field Blanks

One field blank is reported and there are 4 trip blanks. The samples were clean or qualified for method blank contamination and no qualifiers have been applied.

Field QC

There are eleven identified field duplicates as described in the table in the text. If data were qualified they would be J, FD#, where # is the difference between the two values as both values are less than 5 x RL. All RPDs were acceptable or differences between low level values were less than 2 x RL.

TABLE OF QUALIFIED DATA

LAB ID	CLIENT ID	COMPOUND	Result ug/L	Lab Flag	MDL	Qualifier
L14101470-03	MW-214B-LB-20	1,1,2,2-Tetrachloroethane	0.236	Q	0.2	JC-26.2
L14101470-04	MW-215A-LB-20	1,1,2,2-Tetrachloroethane	0.284	Q	0.2	JC-26.2
L14101470-07	LTM-RB1-LB-20	Methylene chloride	0.377	F	0.25	BMB.257
L14101470-08	DUP-8-LB-20	1,1,2,2-Tetrachloroethane	0.319	F	0.2	JC-26.2
L14101470-09	LTM-TB4-LB-20	All compounds		ND,H1	0.25	JH1.4
L14101359-21	DUP-5-LB-20	Chloromethane		NDQ	0.5	JL44.6
L14101359-22	DUP-7-LB-20	Chloromethane		NDQ	0.5	JL44.6
L14101359-23	MW94A-LB-20	Chloromethane		NDQ	0.5	JL44.6
L14101359-24	MW97-LB-20	Chloromethane		NDQ	0.5	JL44.6
L14101359-25	MW98-LB-20	Chloromethane		NDQ	0.5	JL44.6
L14101359-26	MW101B-LB-20	Chloromethane		NDQ	0.5	JL44.6
L14101359-27	MW107T-LB-20	Chloromethane		NDQ	0.5	JL44.6
L14101359-28	MW23-LB-20	Chloromethane		NDQ	0.5	JL44.6
L14101359-29	MW-259-LB-20	Chloromethane		NDQ	0.5	JL44.6
L14101359-30	MW-260-LB-20	Chloromethane		NDQ	0.5	JL44.6
L14101359-31	DR2-1-LB-20	Chloromethane		NDQ	0.5	JL44.6
L14101359-32	DR2-3-LB-20	Chloromethane		NDQ	0.5	JL44.6
L14101359-33	DR2-4-LB-20	Chloromethane		NDQ	0.5	JL44.6
L14101359-34	DR2-6-LB-20	Chloromethane		NDQ	0.5	JL44.6
L14101359-38	MW-218-LB-20	1,1,2,2-Tetrachloroethane	0.737	Q	0.2	JC-25.6
L14101359-43	MW64-LB-20	1,1,2,2-Tetrachloroethane	0.629	Q	0.2	JC-25.6
L14101359-52	MW25A-LB-20	Methylene chloride	0.264	F	0.25	BMB.257
L14101359-54	MW52-LB-20	Methylene chloride	0.309	F	0.25	BMB.257

Final Data Qualification and Usability Report

Project: Defense Depot Memphis, TN (DDMT)
Main Installation Long Term Monitoring
Sampling Event: LB-20
Project / Task Number: 228-192672-016
Sample Data Package(s): L14101359, L14101408, L14101439, L14101470
Data Validation Performed by: Diane Short & Associates (DSA)
Final Data Qualification and Usability
Report Prepared by: Lynn K. Lutz, HDR Inc.

Data Validation Report Review and Comments

The validation report was acceptable except as noted below for final qualifiers.

The validator, in discussing relative response factors, noted that “[t]he laboratory has been tasked with providing to the client verification that the 0.01 RF is valid. If the spectral verification is available, data are not qualified for response factors greater than 0.01 and less than 0.05 for ‘poor responders.’” The Project Chemist reviewed the area counts for the lowest standard included in the initial calibration for the low responders and found the areas to be adequate, and no qualifiers were applied.

The validator did not qualify acetone, chloromethane, 2-butanone (MEK) or naphthalene results based on low responses in the CCVs; the PC evaluated the %D values and qualified associated results as estimated “J” or non-detect estimated “UJ” as follows, as both the project QAPP and the method require CCV results be within 20%D:

- 1,2,3-Trichloropropane - workgroup # WG497844: %D = -22.2%
- DBCP - workgroup # WG497844: %D = -22.7%
- 2-Hexanone – workgroup # WG497844: %D = -21.9%
- Acetone - workgroup # WG497844: %D = -28.0%
- Naphthalene - workgroup # WG497844: %D = -28.6%
- Chloromethane - workgroup # WG497850: %D = -28.9%
- Naphthalene - workgroup # WG498017: %D = -25.1%
- Chloromethane - workgroup # WG498110: %D = -34.6%
- Acetone - workgroup # WG498799: %D = -21.3%
- 2-Butanone (MEK) - workgroup # WG498799: %D = -21.1%
- Chloromethane - workgroup # WG497985: %D = -36.8%
- Acetone - workgroup # WG498168: %D = -21.1%
- Acetone - workgroup # WG498198: %D = -21.1%
- DBCP - workgroup # WG498329: %D = -22.7%
- 2-Hexanone - workgroup # WG498329: %D = -24.9%

- Acetone - workgroup # WG498329: %D = -24.3%
- 2-Butanone (MEK) - workgroup # WG498329: %D = -20.9%
- 4-Methyl-2-pentanone (MIBK) - workgroup # WG498329: %D = -20.9%
- Naphthalene - workgroup # WG498329: %D = -30.6%
- DBCP - workgroup # WG498381: %D = -22.7%
- 2-Hexanone - workgroup # WG498381: %D = -24.9%
- Acetone - workgroup # WG498381: %D = -24.3%
- 2-Butanone (MEK) - workgroup # WG498381: %D = -20.9%
- 4-Methyl-2-pentanone (MIBK) - workgroup # WG498381: %D = -20.9%
- Naphthalene - workgroup # WG498381: %D = -30.6%
- Chloromethane - workgroup # WG498521: %D = -32.7%
- Chloromethane - workgroup # WG499476: %D = -21.5%

Final Data Qualifiers

The final qualifier for a number of analytes was J or UJ where DSA had not qualified for calibration issues as noted above.

Trip blank LTM-TB4-LB-20 was initially analyzed within the holding time and a trace amount of acetone was detected. The lab supervisor suspected this acetone detection was due to carryover from a previous sample; this trip blank was reanalyzed, but not until 1.4 days past the holding time due to a heavy sample load at the lab. The reanalysis showed no acetone. The initial analysis has been reported for analytes except acetone, which was reported from the reanalysis and has been qualified as non-detect estimated "UJ" due to the holding time exceedance.

The final qualifier for 1,1,2,2-tetrachloroethane in five samples was J where DSA had qualified as JC-25.6 for a low continuing calibration verification (CCV) result.

The final qualifier for chloromethane in 12 samples and two field duplicates was non-detect estimated UJ where DSA had qualified as JL44.6 for a low LCS recovery.

The final qualifier for three methylene chloride results was B where DSA had qualified as BMB.257 due to methylene chloride detected in one method blank.

The final qualifier was J where the lab had qualified as F.

Data Usability

There were no rejected sample results. All results are usable as qualified.



28 April 2015

Lynn K. Lutz, HDR Inc.

Date

DIANE SHORT & ASSOCIATES, INC. _____

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ORGANIC DATA QUALITY REVIEW REPORT

Volatile Organics by SW-846 Method 8260B (GC/MS)

SDG	L14101:401, 409		
PROJECT	Memphis Defense Depot, ODLS-9 Sampling for HDR, Denver		
LABORATORY	Microbac Laboratories, Inc., Marietta, OH		
SAMPLE MATRIX	Water	SAMPLING DATE	10/18, 19/2014
NUMBER OF SAMPLES	43, including 4 field duplicates, 1 trip blank		
ANALYSES REQUESTED	SW-846 8260B (VOA by GC/MS)		
SAMPLE NUMBER	See result forms attached and associated EDD		

DATA REVIEWER: Diane Short

QA REVIEWER: Diane Short & Associates, Inc. INITIALS/DATE: DLS 11/14/2014

Telephone Logs included Yes ___ No X

Contractual Violations Yes ___ No X

The project QAPP (09/11), the EPA Contract Laboratory Program National Functional Guidelines for Organic Review, 1999 and 2001, and the SW-846 Method 8260B have 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 ☒ No ☐

This report has been requested to include the following review: QC, hold times, sample integrity (Chains of Custody, sample login), and summary calibrations. The 2011 QAPP has been used for all review with the exception of the CCAL limits where the 25% NFG limits were applied as Method 8026B was used, not 8260C or the CLP method. Final application of these limits is being considered by project management.

B. Chain of Custody documentation was complete and accurate.

Yes ☒ No ☐

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

Yes ☒ No ☐

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 temperature 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 ☒ No ☐

B. Holding Times

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

Yes ☒ 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 ☒ 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 > 0.05 or > 0.01 for poor responding volatiles.

Yes ☒ No ☐ NA ☐

Method 8260: Per the Project Manager, the 2001 EPA CLP validation guidance has been applied to the common “poor responders.” Calibration response factors below 0.05 have historically been observed for Acetone. 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 this data set. The laboratory has been tasked with providing to the client verification that the 0.01 RF is valid. If the spectral verification is available, data are not qualified for response factors greater than 0.01 and less than 0.05 for “poor responders.” No data have been qualified.

Most of 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.

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

Yes ☒ 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, the average % RSD was < 15%, or a linear curve was used.

Yes ☒ No ☐ NA ☐

3. The 12 hour system Performance Check was performed as required in SW-846 and met the QC limits of 80 – 120%.

Yes ☐ No ☒ NA ☐

Dichlorodifluoromethane is high in some of the ICV for Instrument 11, 17, 8 and 6. The compound is not detected in client samples and no qualification is required for high recovery.

B. Continuing Calibrations

1. The midpoint standard was analyzed for each analysis at the required frequency, and the QC criterion of > 0.05 (> 0.01 for CLP 2001 VOA) was met.

Yes ☒ No ☐ NA ☐

2. The percent difference (% D) limits of $\pm 25\%$ were met. The 2001 NFG also allow for 40% D for the “poor responders (pr)”. For other compounds, the QAPP notes rejection of detected compounds with % D > 40%.

Yes ☐ No ☒ NA ☐

There are outliers for some of the poor responders, but they meet the 40% limit. There are outliers that are fairly consistent as follows:

Instrument 17: the common poor responders, 1,1,2,2-tetrachloroethane, 1,2,3-trichloropropane, naphthalene

Instrument 6: chloromethane (pr), carbon disulfide (pr), 1,2,3-trichloropropane, naphthalene, bromomethane

Instrument 11: bromomethane, common poor responders

Common poor responders: acetone, 2-butanone, MIBK, 2-hexanone, dichlorofluoromethane

Dichlorofluoromethane is consistently high and above the 40% D, but this is an increase in response further verifying that non-detects are valid. The response factors are sufficient to verify the non-detects for these compounds.

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 ☒ 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 ☐ NA ☐

VI. SURROGATE STANDARDS

Surrogate spikes were analyzed with every sample.

Yes ☒ No ☐

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

Yes ☒ No ☐

VII. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

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

Yes ☒ No ☐

There are 2 MS/MSD samples associated with the non-QC client samples. All end in ODLS-9:MW-225, MW-87. This meets the recommendation of 1 per 20 field samples. As this is an ongoing project an overall adherence to the 1:20 frequency is monitored by the Project Manager.

B. The MS and MSD percent recoveries were within the limits defined in the updated 2011 QAPP, which now references the laboratory limits.

Yes ☐ No ☒ NA ☐

The full target list has been spiked.

For MW87-ODLS-9, there are low recoveries for chloroform. Data have been qualified JMS#, where # is the %R recovery. There could be a low bias to the data proportional to the recovery.

LAB ID	CLIENT ID	COMPOUND	Result ug/L	Lab Flag	MDL	Qualifier
L14101409-04	MW-87-ODLS-9	Chloroform	56.2		0.2	JMS35.4

C. The MSD relative percent differences (RPD) were within the defined contract limits, which are 30%.

Yes ☒ No ☐ NA ☐

Qualifiers are added only when the MS or MSD recovery is also out of limits or the RPD exceeds 30%. Data are qualified "JD#", where # is the RPD. As the RPD increases, the matrix precision decreases. All RPD limits are met.

D. The MS/MSD were client samples.

Yes ☒ No ☐ NA ☐

VIII. LABORATORY CONTROL SAMPLE

A. Laboratory Control Sample (LCS) was analyzed for every analysis performed and for every 20 samples.

Yes ☒ No ☐

B. The LCS percent recoveries were within the limits defined in the updated 2011 QAPP, which are the laboratory limits. If an LCS and LCSD are analyzed, both samples must have the same compounds out for data to be qualified.

Yes ☒ No ☐

The full target list has been spiked. When a high LCS recovery is associated with a non-detect in samples, no qualifier is added since the indicated bias is high. When the target is detected, data are qualified "JL#", where # is the recovery. Both recoveries are required to be out for data to be qualified if there is an LCS/LCSD pair. The laboratory uses the same control limits on all instruments used for analysis even though the responses are different on each instrument. The control limits should be instrument specific.

IX. BLANKS

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

Yes ☒ No ☐

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

Yes ☐ No ☒

Whenever Methylene Chloride, Acetone, 2-Butanone are detected in associated samples at a level less than 10 x the Method Blank (corrected for dilution), data are qualified "BMB#", where # is the corrected Method Blank level. Results are usable as non-detect. All method blanks were reported as non-detect, except for methylene chloride or data were non-detected. Hexachlorobutadiene was detected above the RL on instrument 6. In some

cases another blank was run later in the day. The compound was never reported in client samples and no further action is required.

LAB ID	CLIENT ID	COMPOUND	Result ug/L	Lab Flag	MDL	Qualifier
L14101401-20	MW-246-ODLS-9	Methylene chloride	0.253	F	0.25	BMB.257

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

Yes ☒ No ☐ NA ☐

One trip blank is reported. The sample was clean or qualified for method blank contamination and no qualifiers have been applied.

X. FIELD QC

If Field Duplicates were identified, they met guidance for VOA of RPD of < 30% for water or < 50% for soil. For values reported at < 5 × the reporting limit (RL), a difference of 2 × RL or 3.5 × RL for soil is used as guidance. This is referred to as the CRDL Rule. Data are not qualified for Field Duplicates as these are evaluated for the total project by the Project Manager.

Yes ☐ No ☒ NA ☐

There are 4 identified field duplicates as described in the following table. If data were qualified they would be J, FD#, where # is the difference between the two values as both values are less than 5 x RL. All RPDs were acceptable or differences between low level values were less than 2 x RL with the one exception of 1,1,2,2-Tetrachloroethane. As the RPD increases, the precision decreases.

LAB ID	CLIENT ID	COMPOUND	Result ug/L	Lab Flag	MDL	Qualifier
L14101401-08	MW-159-ODLS-9	1,1,2,2-Tetrachloroethane	13.7		0.2	JFD33
L14101401-24	DUP-3-ODLS-9	1,1,2,2-Tetrachloroethane	19.2		0.2	JFD33

Parent (all ending in ODLS-9)	Duplicate	Comment
MW-159	DUP-3	See table above
MW-03	DUP-1	OK, Chloroform $\pm$ RL
MW-44	DUP-2	OK
MW-223	DUP-4	OK

XI. SYSTEM PERFORMANCE

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

Yes ☐ No ☐ NA ☒

Not part of this review level.

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

Yes ☒ No ☐ NA ☐

XII. 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:

This report has been requested to include the following review: QC, hold times, sample integrity (Chains of Custody, sample login), and summary calibrations.

The 2011 QAPP has been used for all review with the exception of the CCAL limits where the 25% NFG limits were applied as Method 8026B was used, not 8260C or the CLP method. Final application of these limits is being considered by project management.

Calibrations

ICV

Dichlorodifluoromethane is high in some of the ICV for Instrument 11, 17, and 6. The compound is not detected in client samples and no qualification is required for high recovery.

CCV

There are outliers for some of the poor responders, but they meet the 40% limit. There are outliers that are fairly consistent as follows:

Instrument 17: the common poor responders, 1,1,2,2-tetrachloroethane, 1,2,3-trichloropropane, naphthalene

Instrument 6: chloromethane (pr), carbon disulfide (pr), 1,2,3-trichloropropane, naphthalene, bromomethane

Instrument 11: bromomethane, common poor responders

Common poor responders: acetone, 2-butanone, MIBK, 2-hexanone, dichlorofluoromethane

Dichlorofluoromethane is consistently high and above the 40% D, but this is an increase in response further verifying that non-detects are valid. The response factors are sufficient to verify the non-detects for these compounds.

Matrix Spikes

There are 2 MS/MSD samples associated with the non-QC client samples. All end in ODLS-9:MW-225, MW-87. This meets the recommendation of 1 per 20 field samples. As this is an ongoing project an overall adherence to the 1:20 frequency is monitored by the Project Manager.

The full target list has been spiked.

For MW87-ODLS-9, there are low recoveries for chloroform. Data have been qualified JMS#, where # is the %R recovery. There could be a low bias to the data proportional to the recovery.

Method Blanks

Whenever Methylene Chloride, Acetone, 2-Butanone are detected in associated samples at a level less than 10 × the Method Blank (corrected for dilution), data are qualified "BMB#", where # is the corrected Method Blank level. Results are usable as non-detect. All method blanks were reported as non-detect, except for methylene chloride or data were non-detected. Hexachlorobutadiene was detected above the RL on instrument 6. In some cases another blank was run later in the day. The compound was never reported in client samples and no further action is required.

Field Blanks

One trip blank is reported. The sample was clean or qualified for method blank contamination and no qualifiers have been applied.

Field QC

There are 4 identified field duplicates as described in the following table. If data were qualified they would be J, FD#, where # is the difference between the two values as both values are less than 5 x RL. All RPDs were acceptable or differences between low level values were less than 2 x RL with the one exception of 1,1,2,2-Tetrachloroethane. As the RPD increases, the precision decreases.

Parent (all ending in ODLS-9)	Duplicate	Comment
MW-159	DUP-3	See table above
MW-03	DUP-1	OK, Chloroform $\pm$ RL

MW-44	DUP-2	OK
MW-223	DUP-4	OK

TABLE OF QUALIFIED DATA

LAB ID	CLIENT ID	COMPOUND	Result ug/L	Lab Flag	MDL	Qualifier
L14101401-20	MW-246-ODLS-9	Methylene chloride	0.253	F	0.25	BMB.257
L14101409-04	MW-87-ODLS-9	Chloroform	56.2		0.2	JMS35.4
L14101401-08	MW-159-ODLS-9	1,1,2,2-Tetrachloroethane	13.7		0.2	JFD33
L14101401-24	DUP-3-ODLS-9	1,1,2,2-Tetrachloroethane	19.2		0.2	JFD33

Final Data Qualification and Usability Report

Project: Defense Depot Memphis, TN (DDMT)
Dunn Field (Off Depot) Long Term Monitoring
Sampling Event: ODLS-9
Project / Task Number: 228-192672-015
Sample Data Package(s): L14101401, L14101409
Data Validation Performed by: Diane Short & Associates (DSA)
Final Data Qualification and Usability
Report Prepared by: Lynn K. Lutz, HDR Inc.

Data Validation Report Review and Comments

The validation report was acceptable except as noted below for final qualifiers.

The validator, in discussing relative response factors, noted that “[t]he laboratory has been tasked with providing to the client verification that the 0.01 RF is valid. If the spectral verification is available, data are not qualified for response factors greater than 0.01 and less than 0.05 for ‘poor responders.’” The Project Chemist reviewed the area counts for the lowest standard included in the initial calibration for the low responders and found the areas to be adequate, and no qualifiers were applied.

The validator did not qualify acetone, chloromethane, 2-butanone (MEK) or naphthalene results based on low responses in the CCVs; the PC evaluated the %D values and qualified associated results as estimated “J” or non-detect estimated “UJ” as follows, as both the project QAPP and the method require CCV results be within 20%D:

- Chloromethane - workgroup # WG497985: %D = -36.8%
- Chloromethane - workgroup # WG498110: %D = -34.6%
- Acetone - workgroup # WG498168: %D = -21.1%
- Naphthalene - workgroup # WG498017: %D = -25.1%
- Naphthalene - workgroup # WG498031: %D = -25.1%
- Acetone - workgroup # WG498799: %D = -21.3%
- 2-Butanone (MEK) - workgroup # WG498799: %D = -21.1%

Final Data Qualifiers

The final qualifier for some acetone, MEK, chloromethane and naphthalene results was J or UJ where DSA had not qualified.

The final qualifier for chloroform in sample MW-87-ODLS-9 was J where DSA had qualified as JMS35.4 for a low MS/MSD recovery.

The final qualifier for one methylene chloride result was B where DSA had qualified as BMB.257 due to methylene chloride detected in the method blank.

The final qualifier for 1,1,2,2-tetrachloroethane in MW-159-ODLS-9 and its field duplicate DUP-3-ODLS-9 was J where DSA had qualified as JFD33 for a field duplicate relative percent difference (RPD) above the control limit.

The final qualifier was J where the lab had qualified as F.

Data Usability

There were no rejected sample results. All results are usable as qualified.



19 November 2014

Lynn K. Lutz, HDR Inc.

Date

APPENDIX D
HISTORICAL CVOC RESULTS –
MAIN INSTALLATION

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

DR1-1

Analyte	Sample Name	DR1-1	DR1-1	DR1-1	DR1-1	DR1-1-LB-1	DR1-1-LA-5	DR1-1-LB-8
	Sample Date	5/21/2004	11/12/2004	2/17/2005	5/18/2005	10/23/2006	10/1/2007	10/8/2008
	Unit							
Carbon tetrachloride	µg/L	<1 J	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.24 J	<1	<1	<1	<0.3	<0.3	0.126 J
cis-1,2-Dichloroethene	µg/L	0.8 J	1.2	1	1.1	1.02	0.969 J	<1
Tetrachloroethene	µg/L	2.8	3.3	3.3 J	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	0.29 J	0.3 J	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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit
UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

DR1-1

	Sample Name	DR1-1-LA-10	DR1-1-LB-12	DR1-1-LA-14	DR1-1-LB-16	DR1-1-LA-18	DR1-1-LB-20
	Sample Date	10/6/2009	10/9/2010	10/6/2011	10/19/2012	10/12/2013	10/18/2014
Analyte	Unit						
Carbon tetrachloride	µg/L	<1	<1	<1 UJ	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3 UJ	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	1.08	1.26	1.31	1.52	0.734 J	0.731 J
Tetrachloroethene	µg/L	2.12	2.56	3	2.97	1.77	1.68
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.328 J	0.304 J	0.326 J	0.309 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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit
UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

DR1-1A

	Sample Name	DR1 CLUSTER A	DR1-1A	DR1-1A	DR1-1A	DR1-1A-LB-1	DR1-1A-LS-3	DR1-1A-LA-5
	Sample Date	5/27/04	11/13/04	2/16/05	5/18/05	10/2/06	4/13/07	10/1/2007
Analyte	Unit							
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.66 J	0.18 J	0.21 B	0.16 B	0.324	0.313	0.307
cis-1,2-Dichloroethene	µg/L	0.72 J	0.85 J	1	0.75 J	0.634	0.416 J	0.312 J
Tetrachloroethene	µg/L	1.5	1.8	1.8	1.6	1.18	0.959 J	0.813 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	3.5	4	6.9	5.2	6.28	4.57	3.61
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

µg/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
UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

DR1-1A

	Sample Name	DR1-1A-LS-7	DR1-1A-LB-8	DR1-1A-LQ-9	DR1-1A-LA-10	DR1-1A-LB-12	DR1-1A-LA-14
	Sample Date	4/8/2008	10/8/2008	4/8/2009	10/6/2009	10/9/2010	10/6/2011
Analyte	Unit						
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1 UJ
Chloroform	µg/L	0.274 J	0.372 J	0.424	0.518	0.348	0.288 J
cis-1,2-Dichloroethene	µg/L	0.273 J	0.262 J	0.295 J	<1	0.42 J	0.356 J
Tetrachloroethene	µg/L	0.776 J	0.747 J	0.838 J	0.749 J	1.33	1.08
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	3.21	3.03 J	3.85	2.33	3.6	2.35
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

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

µg/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
UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

DR1-1A

Analyte	Sample Name	DR1-1A-LB-16	DR1-1A-LA-18	DR1-1A-LB-20
	Sample Date	10/19/2012	10/12/2013	10/18/2014
	Unit			
Carbon tetrachloride	µg/L	<1	<1	<1
Chloroform	µg/L	0.427	0.51	0.512
cis-1,2-Dichloroethene	µg/L	<1	<1	<1
Tetrachloroethene	µg/L	0.612 J	0.389 J	0.418 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	2.3	0.973 J	1.06
Vinyl chloride	µg/L	<1	<1	<1

Notes:

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

µg/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
- UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

DR1-2

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							
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	0.68 J	0.77 J	0.67 J	0.75 J	0.602	0.48 J	0.595 J
Tetrachloroethene	µg/L	1.8	2.5 J	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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

DR1-2

	Sample Name	DR1-2-LA-10	DR1-2-LB-12	DR1-2-LA-14	DR1-2-LB-16	DR1-2-LA-18	DR1-2-LB-20
	Sample Date	10/6/2009	10/5/2010	10/5/2011	10/19/2012	10/12/2013	10/18/2014
Analyte	Unit						
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.17 J	0.179 J	<0.3	0.129 J	0.142 J	0.163 J
cis-1,2-Dichloroethene	µg/L	0.607 J	0.805 J	0.791 J	0.856 J	0.369 J	0.403 J
Tetrachloroethene	µg/L	1.47	2.1	1.92	2.2	1.3	0.947 J
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

DR1-3

Analyte	Sample Name	DR1-3	DR1-3	DR1-3	DR1-3	DR1-3-BL	DR1-3-EBT-1	DR1-3-EBT-2
	Sample Date	5/10/2004	11/11/2004	2/15/2005	5/17/2005	8/25/2006	12/5/2006	3/7/2007
	Unit							
Carbon tetrachloride	µg/L	<1	<1.2	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	<1.2	<1	<1	<0.3	<1	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1.2	<1	0.22 J	<1	<1	27.6
Tetrachloroethene	µg/L	34	43 J	46	47	45.7	54.7	8.31
trans-1,2-Dichloroethene	µg/L	<1	<1.2	<1	<1	<1	<1	<1
Trichloroethene	µg/L	2.6	3.2	3.7	4.1	4.18	5.13	2.74
Vinyl chloride	µg/L	<1	<1.2	<1	<1	<1	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

DR1-3

	Sample Name	DR1-3-EBT-3	DR1-3-EBT-4	DR1-3-EBT-5	DR1-3-EBT-6	DR1-3-EBT-7	DR1-3-EBT-8
	Sample Date	6/1/2007	9/19/2007	12/13/2007	3/14/2008	6/13/2008	12/11/2008
Analyte	Unit						
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<1	<1	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	32.9	30.7	22.6	17	19.5	16.5
Tetrachloroethene	µg/L	2.18	0.45 J	0.904 J	2.12	2.95	2.59
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.572 J	<1	0.303 J	1.28	2.02	1.32
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

DR1-3

	Sample Name	DR1-3-EBT-9	DR1-3-LA-10	DR1-3-LS-11	DR1-3-LB-12	DR1-3-LS-13	DR1-3-LA-14
	Sample Date	3/12/2009	10/6/2009	4/5/2010	10/6/2010	4/1/2011	10/4/2011
Analyte	Unit						
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	13.3	1.5	0.29 J	<1	<1	<1
Tetrachloroethene	µg/L	2.43	10	13.9	9.13	13.2	13.9
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.26	2.15	2.47	1.75	2.1	1.81
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

DR1-3

	Sample Name	DR1-3-LS-15	DR1-3-LB-16	DR1-3-LS-17	DR1-3-LA-18	DR1-3-LS-19	DR1-3-LB-20
	Sample Date	4/23/2012	10/19/2012	4/11/2013	10/12/2013	4/26/2014	10/19/2014
Analyte	Unit						
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	<1	<1	3.64	7.5	11	9.96
Tetrachloroethene	µg/L	11.2	16.2	3.18	1.52	0.801 J	0.716 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.48	1.93	1.42	2.17	2.23	1.76
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

VOC samples analyzed using methods SW8010/8020.

SW8240, SW8260, SW8260A, SW8260B, or CV3990

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

DR1-4

Analyte	Sample Name Sample Date Unit	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
Carbon tetrachloride	µg/L	<1 J	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	<1	<1	<1	<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
Tetrachloroethene	µg/L	4.8	8.3 J	9.3	8.9	12.4	<1	<1	2.74
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.72 J	1.1	1.1	1	1.33	<1	<1	0.573 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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

DR1-4

Analyte	Sample Name	DR1-4	DR1-4	DR1-4	DR1-4	DR1-4-LA-14	DR1-4-LB-16	DR1-4-LA-18
	Sample Date	10/7/2008	4/8/2009	10/6/2009	10/6/2010	10/4/2011	10/19/2012	10/12/2013
	Unit							
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	0.987 J	0.755 J	<1	<1	<1	<1	0.523 J
Tetrachloroethene	µg/L	1.22	0.947 J	0.844 J	0.435 J	0.831 J	1.25	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.69	0.393 J	0.64 J	0.543 J	0.252 J	<1	0.41 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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

DR1-4

Analyte	Sample Name	DR1-4-LB-20
	Sample Date	10/19/2014
Unit		
Carbon tetrachloride	µg/L	<1
Chloroform	µg/L	<0.3
cis-1,2-Dichloroethene	µg/L	0.518 J
Tetrachloroethene	µg/L	<1
trans-1,2-Dichloroethene	µg/L	<1
Trichloroethene	µg/L	0.795 J
Vinyl chloride	µg/L	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

DR1-7

Analyte	Sample Name	DR1-7	DR1-7	DR1-7	DR1-7	DR1-7	DR1-7	DR1-7	DR1-7
	Sample Date	6/24/2004	11/12/2004	2/21/2005	5/17/2005	10/25/2006	10/1/2007	10/7/2008	10/6/2009
Unit									
Carbon tetrachloride	µg/L	<1	<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	<0.3
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	0.449 J
Tetrachloroethene	µg/L	30	26	27	27	5.68	5.15	4.35	4.75
trans-1,2-Dichloroethene	µg/L	<1	<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	0.622 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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

DR1-7

Analyte	Sample Name	DR1-7	DR1-7	DR1-7	DR1-7	DR1-7
	Sample Date	10/5/2010	10/4/2011	10/19/2012	10/12/2013	10/19/2014
	Unit					
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	0.169 J	0.174 J	<0.3	0.156 J	0.128 J
cis-1,2-Dichloroethene	µg/L	0.525 J	0.532 J	0.401 J	0.286 J	<1
Tetrachloroethene	µg/L	3.81	2.62	1.6	1.19	1.23
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.549 J	0.441 J	<1	<1	0.267 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

DR1-8

	Sample Name	DR1-8	DR1-8	DR1-8	DR1-8	DR1-8	DR1-8	DR1-8	DR1-8
	Sample Date	6/24/2004	11/11/2004	2/18/2005	5/19/2005	10/18/2006	10/1/2007	10/7/2008	10/5/2009
Analyte	Unit								
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	<1	<1	<1	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1 J	<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	0.341 J	1.03	<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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
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Defense Depot Memphis, Tennessee

DR1-8

Analyte	Sample Name	DR1-8	DR1-8	DR1-8	DR1-8	DR1-8
	Sample Date	10/6/2010	10/6/2011	10/19/2012	10/12/2013	10/18/2014
	Unit					
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
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Defense Depot Memphis, Tennessee

DR2-1

Analyte	Sample Name	DR2-1	DR2-1	DR2-1	DR2-1	DR2-1-BL	DR2-1-EBT-1	DR2-1-EBT-2
	Sample Date	6/23/2004	11/14/2004	2/22/2005	5/19/2005	8/31/2006	12/6/2006	3/8/2007
Unit								
Carbon tetrachloride	µg/L	25	35	24	32	32.3	29 J	22.6
Chloroform	µg/L	16	16	12	13	9.91	13.3	10
cis-1,2-Dichloroethene	µg/L	16	24	21	22	17	34.7	19.3
Tetrachloroethene	µg/L	180	280	190	250	176	191	194
trans-1,2-Dichloroethene	µg/L	<5.3	<8.3	<1	<1	0.319 J	<1	<1
Trichloroethene	µg/L	7.3	9.8	7.8	9.1	8.51	8.49	7.91
Vinyl chloride	µg/L	<5.3	<8.3	<1	<1	<1	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

DR2-1

	Sample Name	DR2-1-EBT-3	DR2-1-EBT-4	DR2-1-EBT-5	DR2-1	DR2-1	DR2-1	DR2-1
	Sample Date	5/29/2007	9/12/2007	12/10/2007	3/10/2008	6/9/2008	12/12/2008	3/12/2009
Analyte	Unit							
Carbon tetrachloride	µg/L	25.7 J	13.4	15.5	1.26	2.8	20.4	22.7
Chloroform	µg/L	8.76	8.58	11.3	4.19	5.75	9.18	7.53
cis-1,2-Dichloroethene	µg/L	15.2	50.4	7.71	86.4	38.1	9.14	7.59
Tetrachloroethene	µg/L	160	138	192	33.7	50.7	137	150
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	7.21	4.54	5.72	12.7	5.36	5.46	5.09
Vinyl chloride	µg/L	<1	1.25	<1	<1	<1	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

DR2-1

Analyte	Sample Name	DR2-1	DR2-1	DR2-1	DR2-1	DR2-1	DR2-1	DR2-1	DR2-1
	Sample Date	10/10/2009	3/30/2010	10/14/2010	4/2/2011	10/2/2011	4/23/2012	10/21/2012	4/10/2013
Unit									
Carbon tetrachloride	µg/L	7.39	10.1	13.2	19.2	23.3	25.7 J	26.6	21.5
Chloroform	µg/L	3.76	5.25	6.9	6.75	7.87	6.09	6.38	9.08
cis-1,2-Dichloroethene	µg/L	4.89	9.88	14.3	15.3	17.8	13.5	13.9	1.85
Tetrachloroethene	µg/L	66.2	98.5	106	152	151	119	180	176
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	2.61	4.21	5.23	6.02	7.07	6.95	6.85	2.99
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

DR2-1

Analyte	Sample Name	DR2-1	DR2-1	DR2-1
	Sample Date	10/12/2013	4/24/2014	10/20/2014
	Unit			
Carbon tetrachloride	µg/L	37.2	32.7	27.9
Chloroform	µg/L	8.82	11.5	11.5
cis-1,2-Dichloroethene	µg/L	10.2	7.1	7.1
Tetrachloroethene	µg/L	235	179	221
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	5.45	5.06	5.4
Vinyl chloride	µg/L	<1	0.64 J	0.309 J

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

DR2-3

Analyte	Sample Name	DR2-3	DR2-3	DR2-3	DR2-3	DR2-3-LB-1	DR2-3-LS-3	DR2-3-LA-5
	Sample Date	5/23/2004	11/14/2004	2/24/2005	5/20/2005	10/3/2006	4/15/2007	10/1/2007
Unit								
Carbon tetrachloride	µg/L	4.1 J	5.6	6.1	4.7	4.2	4.29	4.12
Chloroform	µg/L	1.8	1.9	1.8 B	1.2 B	0.939	0.913	0.76
cis-1,2-Dichloroethene	µg/L	1.4 J	1.8	1.8	1.2	0.601 J	0.673 J	0.549 J
Tetrachloroethene	µg/L	47	43	33	33	22.8	23.9	20.6
trans-1,2-Dichloroethene	µg/L	<1.7	<1.4	<1	<1	<1	<1	<1
Trichloroethene	µg/L	2	2.7	2.7	2.6	2.47	2.28	2.15
Vinyl chloride	µg/L	<1.7	<1.4	<1	<1	<1	<1	<1

Notes:

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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

DR2-3

Analyte	Sample Name	DR2-3	DR2-3	DR2-3	DR2-3	DR2-3	DR2-3	DR2-3	DR2-3
	Sample Date	4/8/2008	10/10/2008	4/8/2009	10/10/2009	4/7/2010	10/6/2010	4/1/2011	10/2/2011
	Unit								
Carbon tetrachloride	µg/L	4.72	4.97 J	6.66	4.62	5.88	5.81	7.38	6.7
Chloroform	µg/L	0.933	0.978 J	1.19	0.861	0.925	0.828	1.3	1.04
cis-1,2-Dichloroethene	µg/L	0.683 J	0.594 J	1.41	0.816 J	0.888 J	0.674 J	1.7	1.19
Tetrachloroethene	µg/L	28.3	22.1 J	38.9	33.3	34.2	31.6	50.3	33.5
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	2.15	2.03 J	2.47	2.09	2.03	2.07	2.41	2.38
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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

DR2-3

Analyte	Sample Name	DR2-3	DR2-3	DR2-3	DR2-3	DR2-3	DR2-3
	Sample Date	4/23/2012	10/21/2012	4/10/2013	10/12/2013	4/24/2014	10/20/2014
	Unit						
Carbon tetrachloride	µg/L	4.23 J	4.24	2.88	2.87	2.89	2.17
Chloroform	µg/L	0.677	0.727	0.585	0.567	0.524	0.496
cis-1,2-Dichloroethene	µg/L	0.55 J	0.617 J	0.36 J	<1	<1	<1
Tetrachloroethene	µg/L	21.7	24.9	17.4	14	12	11
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.87	1.85	1.66	1.29	1.41	1.19
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

DR2-4

Analyte	Sample Name	DR2-4	DR2-4	DR2-4	DR2-4	DR2-4	DR2-4	DR2-4	DR2-4
	Sample Date	5/24/2004	11/14/2004	2/22/2005	5/20/2005	10/5/2006	10/1/2007	10/8/2008	10/11/2009
	Unit								
Carbon tetrachloride	µg/L	2.2	3.8	3.7	3.6	4.06	3.96	3.55	3.34
Chloroform	µg/L	1	0.94 J	0.84 J	0.77 B	1.06	0.973	0.715	0.575
cis-1,2-Dichloroethene	µg/L	<1	0.27 J	0.22 J	0.22 J	<1	<1	0.304 J	0.414 J
Tetrachloroethene	µg/L	12	14	12	10	7.15	9.28	14.5	18
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.9	2.2	1.9	1.7	1.61	1.54	1.74	1.7
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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

DR2-4

Analyte	Sample Name	DR2-4	DR2-4	DR2-4	DR2-4	DR2-4
	Sample Date	10/13/2010	10/2/2011	10/21/2012	10/12/2013	10/20/2014
	Unit					
Carbon tetrachloride	µg/L	4.56	4.45	3.47	3.01	2.36
Chloroform	µg/L	0.716	0.835	0.683	0.645	0.435
cis-1,2-Dichloroethene	µg/L	0.373 J	0.412 J	0.375 J	<1	<1
Tetrachloroethene	µg/L	19.8	13.7	11	9.58	9.26
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.7	1.58	1.12	0.898 J	0.783 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

DR2-6

	Sample Name	DR2-6	DR2-6	DR2-6	DR2-6	DR2-6-LB-1	DR2-6-LS-3	DR2-6-LA-5
	Sample Date	6/22/2004	11/13/2004	2/24/2005	5/23/2005	10/17/2006	4/15/2007	10/1/2007
Analyte	Unit							
Carbon tetrachloride	µg/L	34	66	7.2	68	82.7	92	82.8
Chloroform	µg/L	16	25	1.5 B	29	27.3	33.1	43.1
cis-1,2-Dichloroethene	µg/L	7.3	13	0.69 J	16	9.97	14.1	31.6
Tetrachloroethene	µg/L	44	75	36	78	77.2	90.8	115
trans-1,2-Dichloroethene	µg/L	<1.7	<2	<1	<1	<1	<1	<1
Trichloroethene	µg/L	11	13	2.2	16	15.5	16.4	19.7
Vinyl chloride	µg/L	<1.7	<2	<1	<1	<1	<1	<1

Notes:

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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

DR2-6

Analyte	Sample Name	DR2-6	DR2-6	DR2-6	DR2-6	DR2-6	DR2-6	DR2-6	DR2-6
	Sample Date	4/8/2008	10/8/2008	4/7/2009	10/8/2009	3/31/2010	10/7/2010	4/1/2011	10/3/2011
Unit									
Carbon tetrachloride	µg/L	29.2	39.6	12.9	26.4	8.59	74.4	14.9	27.1
Chloroform	µg/L	16.3	18.4	7.83	10.3	3.31	16.1	5.76	7.82
cis-1,2-Dichloroethene	µg/L	36	33	29	23.8	24.9	18.5	43.7	50.5
Tetrachloroethene	µg/L	48.3	70.5	24.5	44.5	20.9	52.9	22.3	32.7
trans-1,2-Dichloroethene	µg/L	<1	0.552 J	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	7.55	12.4	5.33	8.79	3.81	10.1	4.09	11.7
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	0.302 J

Notes:

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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

DR2-6

Analyte	Sample Name	DR2-6	DR2-6	DR2-6	DR2-6	DR2-6	DR2-6
	Sample Date	4/23/2012	10/21/2012	4/10/2013	10/12/2013	4/24/2014	10/20/2014
	Unit						
Carbon tetrachloride	µg/L	27.4 J	46.5 J	34.3	<1	<1	<1
Chloroform	µg/L	11	10.6	9.44	7.85	1.76	<0.3
cis-1,2-Dichloroethene	µg/L	22	29.6	12.4	24	6.42	48.8
Tetrachloroethene	µg/L	25.2	50.2 J	43.8	10.3	3.95	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	8.5	11.6	7.78	3.22	0.927 J	<1
Vinyl chloride	µg/L	0.394 J	0.76 J	1	7.52	2.43	16.8

Notes:

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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-16

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

Notes:

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

-- not analyzed

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-16

Analyte	Sample Name	MW-16	MW-16	MW-16	MW-16
	Sample Date	10/10/2008	10/13/2010	10/21/2012	10/20/2014
Unit					
Carbon tetrachloride	µg/L	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1

Notes:

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

-- not analyzed

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
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Defense Depot Memphis, Tennessee

MW-19

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

Notes:

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

-- not analyzed

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-19

Analyte	Sample Name	MW-19	MW-19	MW-19	MW-19
	Sample Date	10/9/2008	10/11/2010	10/19/2012	10/19/2014
	Unit				
Carbon tetrachloride	µg/L	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	0.334	0.452
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	0.651 J	0.883 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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-22

	Sample Name	MW222	MW223	MW224	MW225	MW22NA	MW22-99-104BL	MW-022
	Sample Date	6/19/1997	9/25/1997	3/28/1998	10/19/1998	3/23/2000	3/18/2002	3/30/2004
Analyte	Unit							
Carbon tetrachloride	µg/L	<10	<10	<10	<10	<1	<1	<1
Chloroform	µg/L	<10	<10	<10	<10	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	--	--	--	--	0.5 J	<1	<1
Tetrachloroethene	µg/L	<10	2 J	<10	<10	0.9 J	0.27 J	<1
trans-1,2-Dichloroethene	µg/L	--	--	--	--	<1	<1	<1
Trichloroethene	µg/L	2 J	4 J	1 J	<10	1	<1	<1
Vinyl chloride	µg/L	<10	<10	<10	<10	<1	<1	<1

Notes:

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

-- not analyzed

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
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Defense Depot Memphis, Tennessee

MW-22

	Sample Name	MW-22-LB-1	MW-22	MW-22	MW-22	MW-22
	Sample Date	10/18/2006	10/9/2008	10/12/2010	10/19/2012	10/18/2014
Analyte	Unit					
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	0.527 J	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.79 J	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.531 J	0.329 J	<1	<1	<1
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
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Defense Depot Memphis, Tennessee

MW-23

	Sample Name	MW232	MW233	MW234	MW235	MW23NA	MW23-95-100BL	MW-23
	Sample Date	6/18/1997	9/26/1997	3/26/1998	10/19/1998	3/23/2000	3/18/2002	5/19/2004
Analyte	Unit							
Carbon tetrachloride	µg/L	<10	<10	<10	<10	<1	<1	<1
Chloroform	µg/L	<10	<10	<10	<10	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	--	--	--	--	<1	<1	<1
Tetrachloroethene	µg/L	<10	<10	<10	<10	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	--	--	--	--	<1	<1	<1
Trichloroethene	µg/L	<10	<10	<10	<10	<1	<1	<1
Vinyl chloride	µg/L	<10	<10	<10	<10	<1	<1	<1

Notes:

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

-- not analyzed

µg/L micrograms per liter

DQE Flags:

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
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Defense Depot Memphis, Tennessee

MW-23

Analyte	Sample Name	MW-23-LB-1	MW-23	MW-23	MW-23	MW-23
	Sample Date	10/18/2006	10/14/2008	10/12/2010	10/20/2012	10/20/2014
Unit						
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1
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

µg/L micrograms per liter

DQE Flags:

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
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Defense Depot Memphis, Tennessee

MW-24

	Sample Name	MW242	MW243	MW244	MW245	MW24NA	MW24-109-111BL	MW-24
	Sample Date	6/19/1997	9/24/1997	4/2/1998	10/19/1998	3/22/2000	3/18/2002	5/19/2004
Analyte	Unit							
Carbon tetrachloride	µg/L	<10	<10	<10	<10	<1	<1	<1
Chloroform	µg/L	<10	<10	<10	<10	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	--	--	--	--	<1	<1	<1
Tetrachloroethene	µg/L	<10	<10	<10	<10	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	--	--	--	--	<1	<1	<1
Trichloroethene	µg/L	<10	<10	<10	<10	<1	<1	<1
Vinyl chloride	µg/L	<10	<10	<10	<10	<1	<1	<1

Notes:

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

-- not analyzed

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-24

	Sample Name	MW-24-LB-1	MW-24	MW-24	MW-24	MW-24
	Sample Date	10/18/2006	10/14/2008	10/14/2010	10/21/2012	10/20/2014
Analyte	Unit					
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	0.181 J	<0.3	0.241 J	0.137 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
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Defense Depot Memphis, Tennessee

MW-25A

Analyte	Sample Name	MW25A-111102	MW-25A	MW-25A	MW-25A-LB-1	MW-25A-LS-3	MW-25A-LA-5
	Sample Date	11/11/2002	5/12/2004	2/21/2005	10/2/2006	4/13/2007	10/3/2007
Unit							
Carbon tetrachloride	µg/L	2.01	2.3	2.4	2.66	2.54	2.38
Chloroform	µg/L	0.517 J	0.57J	0.59 B	0.608	0.507	0.531
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	5.64	8	9.3	8.61	10.3	9.24
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.453 J	0.6 J	0.57 J	0.352 J	0.525 J	0.433 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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-25A

Analyte	Sample Name	MW-25A	MW-25A	MW-25A	MW-25A	MW-25A	MW-25A	MW-25A	MW-25A
	Sample Date	4/8/2008	10/10/2008	4/6/2009	10/7/2010	10/7/2011	10/19/2012	10/11/2013	10/20/2014
Unit									
Carbon tetrachloride	µg/L	2.15	1.67	1.54	2.74	2.22	2.07	1.7	1.12
Chloroform	µg/L	0.399	0.377	0.449	0.411	0.324	0.28 J	0.261 J	0.15 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	6.64	4.91	7.84	13.6	6.94	6.24	5.83	2.03
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.352 J	0.45 J	0.644 J	0.386 J	0.335 J	0.301 J	<1	0.489 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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
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Defense Depot Memphis, Tennessee

MW-26

	Sample Name	MW262	MW263	MW264	MW265	MW-26-106-BL	MW26-EBT-TS13
	Sample Date	6/20/1997	9/26/1997	3/28/1998	10/20/1998	3/21/2002	7/24/2003
Analyte	Unit						
Carbon tetrachloride	µg/L	4 J	4 J	4 J	4 J	3.7 J	3.29
Chloroform	µg/L	1 J	<10	2 J	1 J	<5	1.11
cis-1,2-Dichloroethene	µg/L	--	--	--	--	<5	<1
Tetrachloroethene	µg/L	12	11	14	16	8.1	7.92
trans-1,2-Dichloroethene	µg/L	--	--	--	--	<5	<1
Trichloroethene	µg/L	2 J	2 J	2 J	2 J	1.6 J	1.72
Vinyl chloride	µg/L	<10	<10	<10	<10	<10	<1

Notes:

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

-- not analyzed

µg/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

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-26

	Sample Name	MW26-EBT-TS14	MW-26	MW-26	MW-26	MW-26	MW-26-LB-1	MW-26-LS-3
	Sample Date	8/18/2003	4/2/2004	11/13/2004	2/22/2005	5/24/2005	10/2/2006	4/16/2007
Analyte	Unit							
Carbon tetrachloride	µg/L	5.17 J	5.3	7.2	7.5	7.2	5.24	5.23
Chloroform	µg/L	1.28	1.4 B	1.6	1.7	1.8 B	0.935	1.05
cis-1,2-Dichloroethene	µg/L	<1	0.76 J	0.64 J	0.71 J	0.57 J	0.45 J	0.313 J
Tetrachloroethene	µg/L	13.8	25	40	40	35	25.5	20.1
trans-1,2-Dichloroethene	µg/L	<1	<2.5	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.9	2.1 J	2.3	2.2	2.5	1.77	1.56
Vinyl chloride	µg/L	<1	<2.5	<1	<1	<1	<1	<1

Notes:

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

-- not analyzed

µg/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
UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS - MI LTM
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Defense Depot Memphis, Tennessee

MW-26

	Sample Name	MW-26-LA-5	MW-26	MW-26	MW-26	MW-26	MW-26	MW-26
	Sample Date	10/1/2007	4/7/2008	10/8/2008	4/7/2009	10/8/2009	3/31/2010	10/7/2010
Analyte	Unit							
Carbon tetrachloride	µg/L	6.52	4.38	5.31	5.91	4.81	7.09	9.18
Chloroform	µg/L	1.29	0.976	1.14	1.16	0.871	1.14	1.79
cis-1,2-Dichloroethene	µg/L	0.41 J	<1	0.295 J	0.332 J	0.411 J	0.466 J	0.606 J
Tetrachloroethene	µg/L	29	13.7	21.1	25.3	27.3	38.9	46.4
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.75	1.3	1.54	1.33	1.59	1.63	1.98
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

µg/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

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS - MI LTM
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MW-26

	Sample Name	MW-26	MW-26	MW-26	MW-26	MW-26	MW-26	MW-26	MW-26
	Sample Date	3/31/2011	10/3/2011	4/23/2012	10/21/2012	4/10/2013	10/12/2013	4/24/2014	10/20/2014
Analyte	Unit								
Carbon tetrachloride	µg/L	9.99	8.97	6.34 J	4.78	5.27	4.6	5.35	4.3
Chloroform	µg/L	1.33	1.4	0.74	0.683	0.588	0.642	0.595	0.553
cis-1,2-Dichloroethene	µg/L	1.23	1.01	0.589 J	0.496 J	0.504 J	0.462 J	0.481 J	0.398 J
Tetrachloroethene	µg/L	50.4	52.5	31.2	25.9	29.7	25	25.5	24.9
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	2.33	1.92	1.68	1.45	1.53	1.24	1.14	1.13
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

µg/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

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS - MI LTM
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Defense Depot Memphis, Tennessee

MW-34

	Sample Name	MW342	MW343	MW344	MW-34-Y1Q1	MW-34-Y1Q2	MW-34-Y1Q3	MW-34-Y1Q4
Analyte	Sample Date Unit	6/19/1997	9/26/1997	3/27/1998	2/4/1999	5/25/1999	8/27/1999	11/3/1999
Carbon tetrachloride	µg/L	<10	<10	<10	1.01	1.23	0.51 J	<1
Chloroform	µg/L	2 J	1 J	<10	4.34	<1	0.66J	<1
cis-1,2-Dichloroethene	µg/L	--	--	--	1.03	<1	<1	<1
Tetrachloroethene	µg/L	<10	<10	<10	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	--	--	--	<1	<1	<1	<1
Trichloroethene	µg/L	<10	<10	<10	4.39	<1	0.64 J	<1
Vinyl chloride	µg/L	<10	<10	<10	<1	<1	<1	<1

Notes:

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

-- not analyzed

µg/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

HISTORICAL CVOC RESULTS - MI LTM
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Defense Depot Memphis, Tennessee

MW-34

	Sample Name	MW-34-Y2Q1	MW-34	MW-34-Y2Q3	MW-34-Y2Q4	MW-34	MW-34-Y3S2-A
	Sample Date	2/16/2000	5/18/2000	8/24/2000	11/7/2000	2/20/2001	10/3/2001
Analyte	Unit						
Carbon tetrachloride	µg/L	1.04	1.03	0.86 J	<1	0.82 J	<1
Chloroform	µg/L	1.98	3.49	<1	<1	4.24	1.46
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	0.85 J	2.15	2.55	1.43	1.62	<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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-34

	Sample Name	MW-34-Y3S2-B	MW-34-Y3S2-C	MW34-147-152BL	MW-34-3_020410	MW-34-2_020410
	Sample Date	10/3/2001	10/3/2001	3/18/2002	4/10/2002	4/10/2002
Analyte	Unit					
Carbon tetrachloride	µg/L	<1	0.96 J	0.7 J	<1	<1
Chloroform	µg/L	<1	<1	3	<1	7.78
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.48	2	0.93 J	0.9 J	0.97 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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-34

	Sample Name	MW-34-1_020410	MW-34-3_021001	MW-34-1_021001	MW-34-2_021001	MW-34-3
Analyte	Sample Date Unit	4/10/2002	10/1/2002	10/1/2002	10/1/2002	4/8/2003
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	10.5	<1	2.56	1.26	4.45
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.16	<1	<1	<1	0.74
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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
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MW-34

	Sample Name	MW-34-2	MW-34-1	MW34-EBT-TS13	MW-34-1	MW-34-2	MW-34-3	MW-34,152
Analyte	Sample Date Unit	4/8/2003	4/8/2003	7/24/2003	10/28/2003	10/28/2003	10/28/2003	4/28/2004
Carbon tetrachloride	µg/L	<1	1.08	<1	<1	<1	<1	<1
Chloroform	µg/L	7.66	13.9	<1	3	<1	<1	1.2
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<0.5	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1 J
Trichloroethene	µg/L	120	1.75	0.476 J	<1	<1	<1	0.29 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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
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MW-34

	Sample Name	MW-34,147	MW-34,142	MW-34,138	MW-34	MW34,152	MW34,147.3	MW34,142.3
	Sample Date	4/28/2004	4/28/2004	4/28/2004	5/23/2004	10/20/2004	10/20/2004	10/20/2004
Analyte	Unit							
Carbon tetrachloride	µg/L	0.19 J	<4	<4	0.4 J	0.35 J	0.64 J	0.62 J
Chloroform	µg/L	1.2	1.2 J	1.1 J	0.29J	1.7	2.4	3.8
cis-1,2-Dichloroethene	µg/L	<1	<4	<4	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<4	<4	0.55 J	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1 J	<4 J	<4 J	<1	<1	<1	<1
Trichloroethene	µg/L	0.39 J	<4	<4	0.5 J	0.54 J	0.83 J	0.98 J
Vinyl chloride	µg/L	<1	<4	<4	<1	<1	<1	<1

Notes:

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

-- not analyzed

µg/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

HISTORICAL CVOC RESULTS - MI LTM
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MW-34

Analyte	Sample Name Sample Date Unit	MW-34 11/11/2004	MW-34 2/23/2005	MW-34 5/23/2005	MW-34-LB-1 10/16/2006	MW-34 10/1/2007	MW-34 11/7/2007	MW-34 10/13/2008
Carbon tetrachloride	µg/L	0.55 J	0.41 J	0.44 J	0.381 J	1.05	0.479	0.826 J
Chloroform	µg/L	0.51 B	1.1	0.31 B	0.531	0.434	0.371	0.345 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1 J
Tetrachloroethene	µg/L	0.52 J	0.37 J	0.46 J	0.336 J	0.753 J	0.34	0.451 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1 J
Trichloroethene	µg/L	0.49 J	0.4 J	0.67 J	1.06	1.38	1.39	0.885 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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
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MW-34

Analyte	Sample Name	MW-34	MW-34	MW-34	MW-34	MW-34
	Sample Date	10/8/2009	10/6/2010	10/9/2011	10/19/2012	10/19/2014
Unit						
Carbon tetrachloride	µg/L	0.978 J	0.572	0.783 J	0.565 J	0.766 J
Chloroform	µg/L	0.236 J	0.325	0.406	0.4	0.643
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.358 J	0.269 J	0.341 J	0.459 J	1.5
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.11	0.756 J	1.48	0.718 J	2.9
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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
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MW-38

	Sample Name	MW382	MW383	MW384	MW385	MW38-145-150BL	MW-38	MW-38-LB-1
	Sample Date	6/19/1997	9/25/1997	3/26/1998	10/17/1998	3/18/2002	5/20/2004	10/17/2006
Analyte	Unit							
Carbon tetrachloride	µg/L	<10	<10	<10	<10	<1	<9.1	1.24
Chloroform	µg/L	<10	<10	<10	<10	<1	<9.1	0.513
cis-1,2-Dichloroethene	µg/L	--	--	--	--	<1	<9.1	<1
Tetrachloroethene	µg/L	<10	<10	<10	<10	<1	<9.1	<1
trans-1,2-Dichloroethene	µg/L	--	--	--	--	<1	<9.1	<1
Trichloroethene	µg/L	<10	1 J	1 J	<10	<1	<9.1	4.63
Vinyl chloride	µg/L	<10	<10	<10	<10	<1	<9.1	<1

Notes:

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

-- not analyzed

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

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MW-38

	Sample Name	MW-38-LA-5	MW-38	MW-38	MW-38	MW-38	MW-38	MW-38
	Sample Date	10/1/2007	10/8/2008	10/5/2009	10/9/2010	10/3/2011	10/21/2012	10/21/2014
Analyte	Unit							
Carbon tetrachloride	µg/L	1.37	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.646	<0.3	<0.3	0.141 J	<0.3	0.211 J	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.446 J	<1	<1	<1	<1	0.591 J	0.262 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	4.37	<1	<1	0.717 J	0.291 J	4.86	<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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
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MW-39

	Sample Name	MW392	MW393	MW394	MW395	MW39NA	MW39-107-112BL	MW-39
	Sample Date	6/20/1997	9/26/1997	3/27/1998	10/19/1998	3/23/2000	3/18/2002	4/1/2004
Analyte	Unit							
Carbon tetrachloride	µg/L	<10	<10	<10	<10	<1	<1	<3.3
Chloroform	µg/L	<10	<10	<10	<10	<1	0.18 J	<3.3
cis-1,2-Dichloroethene	µg/L	--	--	--	--	0.4 J	0.48 J	<3.3
Tetrachloroethene	µg/L	6 J	9 J	8 J	8 J	12	8.2	120
trans-1,2-Dichloroethene	µg/L	--	--	--	--	<1	<1	<3.3
Trichloroethene	µg/L	5 J	8 J	7 J	7 J	5	3.8	10
Vinyl chloride	µg/L	<10	<10	<10	<10	<1	<1	<3.3

Notes:

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

-- not analyzed

µg/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

HISTORICAL CVOC RESULTS - MI LTM
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MW-39

	Sample Name	MW-39	MW-39	MW-39	MW-39	MW-39-LB-1	MW-39-LS-3	MW-39-LA-5
	Sample Date	5/23/2004	11/9/2004	2/15/2005	5/16/2005	10/17/2006	4/13/2007	10/1/2007
Analyte	Unit							
Carbon tetrachloride	µg/L	<2.5	<4	<1	<1	<1	<1	<1
Chloroform	µg/L	<2.5	<4	0.17 J	0.17 B	<0.3	0.155 J	0.225 J
cis-1,2-Dichloroethene	µg/L	<2.5	<4	0.52 J	0.68 J	0.622 J	0.462 J	0.435 J
Tetrachloroethene	µg/L	95	130	79	110	149	106	111
trans-1,2-Dichloroethene	µg/L	<2.5	<4	<1	<1	<1	<1	<1
Trichloroethene	µg/L	7.2	10	7.6	11	8.94	8.17	8.81
Vinyl chloride	µg/L	<2.5	<4	<1	<1	<1	<1	<1

Notes:

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

-- not analyzed

µg/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

HISTORICAL CVOC RESULTS - MI LTM
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MW-39

	Sample Name	MW-39	MW-39	MW-39	MW-39	MW-39	MW-39	MW-39	MW-39
	Sample Date	4/9/2008	10/9/2008	4/9/2009	10/10/2009	3/31/2010	10/9/2010	4/1/2011	10/6/2011
Analyte	Unit								
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.161 J	0.237 J	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	0.525 J	1.26 J	17.5	21.3	17.7	18.3	13.5	9.96
Tetrachloroethene	µg/L	100	158 J	62.9 J	50.9	37.4	29.1	33.8	29
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	9.3	6.15 J	11.6	13.9	12.3	13.6	12.4	10.9
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	0.414 J	0.6 J	0.914 J

Notes:

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

-- not analyzed

µg/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

HISTORICAL CVOC RESULTS - MI LTM
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Defense Depot Memphis, Tennessee

MW-39

Analyte	Sample Name	MW-39	MW-39	MW-39	MW-39	MW-39	MW-39
	Sample Date	4/23/2012	10/20/2012	4/10/2013	10/11/2013	4/25/2014	10/19/2014
	Unit						
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	3.94	7.24	3.38	12.3	2.85	3.74
Tetrachloroethene	µg/L	9.78	5.08	10.7	1.34	9.7	10.1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5.96	10.1	10.4	11.6	6.9	7.66
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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
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MW-39A

	Sample Name	MW-39A	MW-39A	MW-39A	MW-39A	MW-39A-LB-1	MW-39A-LS-3	MW-39A-LA-5
	Sample Date	5/23/2004	11/9/2004	2/15/2005	5/16/2005	10/17/2006	4/13/2007	10/2/2007
Analyte	Unit							
Carbon tetrachloride	µg/L	<5J	<6.7	<1	<1	<1	<1	<1
Chloroform	µg/L	<5	<6.7	0.22 J	0.23 B	0.251 J	0.215 J	0.215 J
cis-1,2-Dichloroethene	µg/L	<5	<6.7	0.59 J	0.51 J	0.418 J	0.4 J	0.362 J
Tetrachloroethene	µg/L	140	150	190	150	196	176	162
trans-1,2-Dichloroethene	µg/L	<5	<6.7	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5.8	8.3	8.7	7.9	4.68	4.04	4.4
Vinyl chloride	µg/L	<5	<6.7	<1	<1	<1	<1	<1

Notes:

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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
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MW-39A

Analyte	Sample Name	MW-39A	MW-39A	MW-39A	MW-39A	MW-39A	MW-39A	MW-39A	MW-39A
	Sample Date	4/7/2008	10/9/2008	4/9/2009	10/5/2009	4/2/2010	10/9/2010	4/1/2011	10/5/2011
Unit									
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.257 J	0.16 J	0.145 J	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	0.499 J	12.2	7.61	24.4	35.4	36	40.8	30.9
Tetrachloroethene	µg/L	234	95.7	156	79.9	43.8	25.6	29.5	30.9
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	0.465 J
Trichloroethene	µg/L	4.63	11.8	7.21	9.49	11.4	10.9	11.4	8.74
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	1.06

Notes:

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

µg/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

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MW-39A

Analyte	Sample Name	MW-39A	MW-39A	MW-39A	MW-39A	MW-39A	MW-39A
	Sample Date	4/23/2012	10/20/2012	4/10/2013	10/11/2013	4/25/2014	10/19/2014
	Unit						
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	19.3	14.5	10.6	7.28	6.32	5.21
Tetrachloroethene	µg/L	29	30.9	28.9	29.5	26.4	23.5
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	7.4	8.18	6.88	7.05	7.03	8.01
Vinyl chloride	µg/L	1.93	1.94	1.37	1.67	1.49	1.16

Notes:

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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
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MW-50

	Sample Name	MW502	MW503	MW504	MW505	MW50-117.5-122.5BL	MW-50
	Sample Date	6/19/1997	9/24/1997	3/25/1998	10/16/1998	3/19/2002	5/17/2004
Analyte	Unit						
Carbon tetrachloride	µg/L	<10	<10	<10	<10	<1	<1
Chloroform	µg/L	<10	<10	<10	<10	0.25 J	0.23 J
cis-1,2-Dichloroethene	µg/L	--	--	--	--	0.48 J	0.52 J
Tetrachloroethene	µg/L	<10	<10	<10	<10	<1	<1
trans-1,2-Dichloroethene	µg/L	--	--	--	--	<1	<1
Trichloroethene	µg/L	<10	<10	<10	<10	1.2	1.1
Vinyl chloride	µg/L	<10	<10	<10	<10	<1	<1

Notes:

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

-- not analyzed

µg/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

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MW-50

	Sample Name	MW-50-LB-1	MW-50	MW-50	MW-50	MW-50
	Sample Date	10/18/2006	10/13/2008	10/13/2010	10/19/2012	10/19/2014
Analyte	Unit					
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	0.746	0.469	0.281 J	1.57	1.19
cis-1,2-Dichloroethene	µg/L	0.483 J	0.321 J	0.297 J	0.617 J	0.756 J
Tetrachloroethene	µg/L	0.263 J	0.335 J	0.46 J	0.492 J	0.665 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.5	1.12	1.24 B	2.65	3.4
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

µg/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

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MW-52

	Sample Name	MW522	MW523	MW524	MW525	MW52-96.5-101.5BL	MW-52	MW-52
	Sample Date	6/18/1997	9/24/1997	3/25/1998	10/16/1998	3/19/2002	5/6/2004	2/21/2005
Analyte	Unit							
Carbon tetrachloride	µg/L	<10	<10	<10	<10	<1	<1	<1
Chloroform	µg/L	<10	<10	<10	<10	0.35 J	0.68 J	0.77 B
cis-1,2-Dichloroethene	µg/L	--	--	--	--	0.53 J	0.58 J	0.6 J
Tetrachloroethene	µg/L	4 J	2 J	4 J	<10	6.4	4.7	6.2
trans-1,2-Dichloroethene	µg/L	--	--	--	--	<1	<1 J	<1
Trichloroethene	µg/L	<10	<10	1 J	<10	0.59 J	0.34 J	0.67 J
Vinyl chloride	µg/L	<10	<10	<10	<10	<1	<1 J	<1

Notes:

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

-- not analyzed

µg/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

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-52

	Sample Name	MW-52	MW-52	MW-52	MW-52	MW-52	MW-52	MW-52	MW-52
	Sample Date	10/2/2006	4/16/2007	10/3/2007	4/8/2008	10/10/2008	4/6/2009	10/12/2009	10/7/2010
Analyte	Unit								
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.899	0.828	0.75	0.861	1.12 J	0.891	0.842	0.893
cis-1,2-Dichloroethene	µg/L	0.639 J	0.938 J	0.993 J	0.805 J	0.866 J	0.81 J	0.831 J	0.608 J
Tetrachloroethene	µg/L	10.2	10.8	9.62	9.4	6.86 J	5.85	6.07	5.25
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.04	1.4	1.17	1.16	1.17 J	1.12	1.06	0.838 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

µg/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

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-52

Analyte	Sample Name	MW-52	MW-52	MW-52	MW-52
	Sample Date	10/7/2011	10/19/2012	10/11/2013	10/20/2014
	Unit				
Carbon tetrachloride	µg/L	<1 UJ	<1	<1	<1
Chloroform	µg/L	0.794 UJ	0.729	0.841	1.25
cis-1,2-Dichloroethene	µg/L	0.632 J	0.641 J	0.562 J	0.574 J
Tetrachloroethene	µg/L	6.19	7.55	7.16	6.68
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Trichloroethene	µg/L	0.98 J	1.15	0.995 J	1.16
Vinyl chloride	µg/L	<1	<1	<1	<1

Notes:

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

-- not analyzed

µg/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

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-53

	Sample Name	MW532	MW533	MW534	MW535	MW53-75-80BL	MW-53	MW-53-LB-1
	Sample Date	6/19/1997	9/26/1997	3/26/1998	10/19/1998	3/18/2002	5/10/2004	10/17/2006
Analyte	Unit							
Carbon tetrachloride	µg/L	<10	<10	<10	<10	<1	<1	<1
Chloroform	µg/L	<10	<10	<10	<10	<1	<1	<0.3
cis-1,2-Dichloroethene	µg/L	--	--	--	--	<1	<1	<1
Tetrachloroethene	µg/L	<10	<10	<10	<10	0.6 J	0.59 J	2.26
trans-1,2-Dichloroethene	µg/L	--	--	--	--	<1	<1	<1
Trichloroethene	µg/L	<10	<10	<10	<10	<1	<1	<1
Vinyl chloride	µg/L	<10	<10	<10	<10	<1	<1	<1

Notes:

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

-- not analyzed

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-53

Analyte	Sample Name	MW-53	MW-53	MW-53	MW-53
	Sample Date	10/13/2008	10/13/2010	10/19/2012	10/19/2014
	Unit				
Carbon tetrachloride	µg/L	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Tetrachloroethene	µg/L	2.25	1.39	2.15	1.92
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1

Notes:

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

-- not analyzed

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-55

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

Notes:

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

-- not analyzed

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-55

Analyte	Sample Name	MW-55	MW-55	MW-55	MW-55
	Sample Date	10/13/2008	10/11/2010	10/21/2012	10/21/2014
	Unit				
Carbon tetrachloride	µg/L	<1 J	<1	<1	<1
Chloroform	µg/L	<0.3 J	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1 J	<1	<1	<1
Tetrachloroethene	µg/L	<1 J	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1 J	<1	<1	<1
Trichloroethene	µg/L	<1 J	<1	<1	<1
Vinyl chloride	µg/L	<1 J	<1	<1	<1

Notes:

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

-- not analyzed

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-63A

Analyte	Sample Name Sample Date Unit	MW63A	MW-63A	MW-63A	MW-63A	MW-63A	MW-63A	MW-63A	MW-63A
		11/11/2002	5/7/2004	2/22/2005	10/23/2006	10/2/2007	10/8/2008	10/10/2009	10/7/2010
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	5.03	<1	<1	<0.3	<0.3	0.471 J	0.194 J	<0.3
cis-1,2-Dichloroethene	µg/L	0.42 J	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.466 J	0.32 J	0.64 J	1.24	1.23	<1	0.674 J	1.69
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.67	0.68 J	0.63 J	0.765 J	1.09	1.66 J	1.81	1.37
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-63A

Analyte	Sample Name	MW-63A	MW-63A	MW-63A	MW-63A
	Sample Date	10/6/2011	10/21/2012	10/12/2013	10/21/2014
	Unit				
Carbon tetrachloride	µg/L	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.466 J	2.31	2.52	2.07
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Trichloroethene	µg/L	0.432 J	1.39	1.83	2.39
Vinyl chloride	µg/L	<1	<1	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-63B

	Sample Name	MW63B	MW63B	MW63B	MW-63B-LB-1	MW-63B-LA-5	MW-63B	MW-63B
	Sample Date	11/11/2002	5/7/2004	2/22/2005	10/23/2006	10/2/2007	10/7/2008	10/10/2009
Analyte	Unit							
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	11.1	1.8	1.5	0.604	1.44	2.9	1.23
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	0.401 J	0.253 J
Tetrachloroethene	µg/L	6.78	2.3	2.8	3.71	2.95	4.6	1.58
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	7.9	0.92 J	1.1	1.12	2.1	4.56	3.1
Vinyl chloride	µg/L	<0.25	<1	<1	<1	<1	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-63B

Analyte	Sample Name	MW-63B	MW-63B	MW-63B	MW-63B	MW-63B
	Sample Date	10/7/2010	10/7/2011	10/21/2012	10/12/2013	10/21/2014
Unit						
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	1.71	0.759	0.578	0.399	0.771
cis-1,2-Dichloroethene	µg/L	0.372 J	<1	<1	0.34 J	0.273 J
Tetrachloroethene	µg/L	7.47	5.11	2.17	1.23	2.23
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	3.55	2.76	2.72	2.07	2.85
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-64

	Sample Name	MW645	MW64-108-110BL	MW-64	MW-64	MW-64-LB-1	MW-64-LS-3	MW-64-LA-5
	Sample Date	10/25/1998	3/18/2002	4/1/2004	2/21/2005	10/23/2006	4/17/2007	10/3/2007
Analyte	Unit							
Carbon tetrachloride	µg/L	2 J	3.3	3.3	3	2.9	3.26	2.82
Chloroform	µg/L	1 J	0.85 J	0.86 B	0.92 B	1.01	0.818	0.891
cis-1,2-Dichloroethene	µg/L	--	0.45 J	0.41 J	0.31 J	0.397	0.345 J	0.363 J
Tetrachloroethene	µg/L	10	10	16	18	18.2	18.1	17.1
trans-1,2-Dichloroethene	µg/L	--	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	28	45	39	34	28.9	30.6	30.2
Vinyl chloride	µg/L	<10	<1	<1	<1	<1	<1	<1

Notes:

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

-- not analyzed

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-64

	Sample Name	MW-64	MW-64	MW-64	MW-64	MW-64	MW-64	MW-64	MW-64
	Sample Date	4/7/2008	10/8/2008	4/9/2009	10/8/2009	3/29/2010	10/7/2010	3/31/2011	10/3/2011
Analyte	Unit								
Carbon tetrachloride	µg/L	3.68	3.3	3.37	2.78	3.56	3.08	3.61	2.52
Chloroform	µg/L	1.16	0.989	1.08	0.926	1.34	1.17	1.45	1.41
cis-1,2-Dichloroethene	µg/L	0.401 J	0.439 J	0.481 J	0.519 J	0.482 J	0.423 J	0.514 J	0.544 J
Tetrachloroethene	µg/L	22.5	22.3	23	23.8	23	20.8	21.4	16.2
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	35.7	36.4	38.1	41.5	38.8	34.1	38.8	26.1
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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-64

Analyte	Sample Name	MW-64	MW-64	MW-64	MW-64	MW-64	MW-64	MW-64
	Sample Date	4/23/2012	10/21/2012	4/10/2013	10/12/2013	10/12/2013	4/25/2014	10/20/2014
Unit								
Carbon tetrachloride	µg/L	2.75	2.62	2.3	2.56	2.56	2.52	1.91
Chloroform	µg/L	0.876 B	1.16	1.02	0.821	0.821	0.829	0.683
cis-1,2-Dichloroethene	µg/L	0.475 J	0.488 J	0.436 J	0.431 J	0.431 J	0.363 J	0.434 J
Tetrachloroethene	µg/L	20.8	20.8	17.6	18	18	16.1	14.6
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	35.7	34.8	35.4	28	28	32.3	30.1
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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-66A

	Sample Name	MW-66A	MW-66A	MW-66A	MW-66A	MW-66A-LB-1	MW-66A	MW-66A
	Sample Date	6/23/2004	11/13/2004	2/22/2005	5/23/2005	10/18/2006	10/10/2008	10/12/2010
Analyte	Unit							
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	1.7	2.2	1.8	2	1.79	1.78	3.31
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1	<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

µg/L micrograms per liter

DQE Flags:

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-66A

Analyte	Sample Name	MW-66A	MW-66A
	Sample Date	10/19/2012	10/19/2014
	Unit		
Carbon tetrachloride	µg/L	<1	<1
Chloroform	µg/L	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1
Tetrachloroethene	µg/L	2.48	2.33
trans-1,2-Dichloroethene	µg/L	<1	<1
Trichloroethene	µg/L	<1	<1
Vinyl chloride	µg/L	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-88

	Sample Name	MW-88-1	MW-88-2	MW-88-3	MW-88-4	MW-88-5	MW-88-6	MW-88-7	MW-88-8
	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
Analyte	Unit								
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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-88

	Sample Name	MW-88	MW-88	MW-88	MW-88	MW-88	MW-88	MW-88	MW-88
	Sample Date	7/8/2002	7/29/2002	9/3/2002	10/7/2002	11/11/2002	12/16/2002	1/20/2003	3/24/2003
Analyte	Unit								
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	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	7.1	7.55	7.72	6.9	7.66	7.41	7.24	6.49
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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-88

	Sample Name	MW-88	MW-88	MW-88	MW-88	MW-88	MW-88	MW-88	MW-88
	Sample Date	4/21/2003	5/19/2003	6/23/2003	7/21/2003	8/18/2003	4/1/2004	11/13/2004	2/22/2005
Analyte	Unit								
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	<1	<1	<1	<1	<1	<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	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
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MW-88

Analyte	Sample Name	MW-088	MW-88-LB-1	MW-88-LS-3	MW-88-LA-5	MW-88	MW-88	MW-88
	Sample Date Unit	5/23/2005	10/3/2006	4/13/2007	10/4/2007	4/7/2008	10/6/2008	4/9/2009
Carbon tetrachloride	µg/L	3.5	8.59	3.88	4.83	2.66	3.69	4.87
Chloroform	µg/L	1.1 B	1.78	0.671	0.827	0.406	0.878	0.825
cis-1,2-Dichloroethene	µg/L	0.87 J	1.3	0.588 J	0.751 J	0.325 J	1.21	0.732 J
Tetrachloroethene	µg/L	14	26.4	18.5	21.3	16.6	32.8	31.7
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	2.7	3.5	2.94	3.42	3.11	3.65	3.26
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

µg/L micrograms per liter

DQE Flags:

- J Estimated results based on QC data or reported below RL
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HISTORICAL CVOC RESULTS - MI LTM
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MW-88

	Sample Name	MW-88	MW-88	MW-88	MW-88	MW-88	MW-88	MW-88	MW-88
	Sample Date	10/11/2009	3/30/2010	10/4/2010	3/31/2011	10/2/2011	4/23/2012	10/21/2012	4/10/2013
Analyte	Unit								
Carbon tetrachloride	µg/L	7.12	10.4	10.5	12.2	7.56	9.96 J	11.8	9.83
Chloroform	µg/L	1.32	1.74	1.85	1.93	1.34	1.38	1.7	1.32
cis-1,2-Dichloroethene	µg/L	1.53	2.15	2.54	2.34	1.68	1.88	2.47	1.91
Tetrachloroethene	µg/L	39.4	46.2	56.1	47.2	35.2	38.4	46.3	44.5 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	3.83	3.83	4.11	4.15	2.92	3.47	3.69	3.29
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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
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Defense Depot Memphis, Tennessee

MW-88

Analyte	Sample Name	MW-88	MW-88	MW-88
	Sample Date	10/12/2013	4/26/2014	10/20/2014
Unit				
Carbon tetrachloride	µg/L	11	10.3	8.91
Chloroform	µg/L	1.49	1.46	1.15
cis-1,2-Dichloroethene	µg/L	2.17	2.35	1.7
Tetrachloroethene	µg/L	45.2	50.4	41.7
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	2.77	2.96	3.09
Vinyl chloride	µg/L	<1	<1	<1

Notes:

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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
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Defense Depot Memphis, Tennessee

MW-89

	Sample Name	MW-89	MW-89	MW-89	MW-89	MW-89-LB-1	MW-89-LA-5	MW-89
	Sample Date	3/19/2002	3/19/2002	5/22/2004	2/16/2005	10/24/2006	10/1/2007	10/6/2008
Analyte	Unit							
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	0.3 B	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

µg/L micrograms per liter

DQE Flags:

- J Estimated results based on QC data or reported below RL
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- < Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
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Defense Depot Memphis, Tennessee

MW-89

Analyte	Sample Name	MW-89	MW-89	MW-89	MW-89	MW-89	MW-89
	Sample Date	10/5/2009	10/8/2010	10/1/2011	10/20/2012	10/11/2013	10/19/2014
	Unit						
Carbon tetrachloride	µg/L	<1	0.261 J	0.38 J	0.325 J	<1	<1
Chloroform	µg/L	0.145 J	0.212 J	0.278 J	0.305	0.205 J	0.17 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.251 J	1.43	3.68	4.25	2.44	4.95
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.27	1.63	1.95	1.9	1.35	1.34
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

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HISTORICAL CVOC RESULTS - MI LTM
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Defense Depot Memphis, Tennessee

MW-90

Analyte	Sample Name	MW-90	MW-90	MW-90	MW-90	MW-90-LB-1	MW-90-LS-3	MW-90-LA-5
	Sample Date	3/19/2002	3/19/2002	5/22/2004	2/16/2005	10/24/2006	4/16/2007	10/1/2007
Unit								
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
Chloroform	µg/L	8.9	3.5	7.4	6.1	3.11	3.18	3.64
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
Tetrachloroethene	µg/L	58	8.8	19	19	26.7	26.7	50.7
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	10	2.7	7.2	4.3	2.53	2.4	3.69
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
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HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-90

	Sample Name	MW-90	MW-90	MW-90	MW-90	MW-90	MW-90	MW-90	MW-90
	Sample Date	4/7/2008	10/6/2008	4/7/2009	10/10/2009	4/2/2010	10/8/2010	4/1/2011	10/1/2011
Analyte	Unit								
Carbon tetrachloride	µg/L	<1	0.288 J	0.268 J	<1	<1	<1	0.355 J	<1
Chloroform	µg/L	4.66	4.65	4.91	0.817	3.94	4.07	2.77	3.07
cis-1,2-Dichloroethene	µg/L	0.484 J	0.335 J	0.481 J	<1	0.424 J	0.483 J	0.303 J	0.322 J
Tetrachloroethene	µg/L	77.7	79.3	80.8	35	58.3	47.9	31.1	29.2
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5.9	6.08	8.47	2.41	8.55	8.17	5.25	5.64
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

µg/L micrograms per liter

DQE Flags:

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HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-90

Analyte	Sample Name	MW-90	MW-90	MW-90	MW-90	MW-90	MW-90
	Sample Date	4/23/2012	10/20/2012	4/10/2013	10/11/2013	4/26/2014	10/19/2014
	Unit						
Carbon tetrachloride	µg/L	0.452 J	0.291 J	<1	0.283 J	<1	0.267 J
Chloroform	µg/L	2.07	1.64	1.76	1.72	1.42	1.58
cis-1,2-Dichloroethene	µg/L	0.267 J	0.34 J	0.384 J	0.428 J	0.344 J	0.422 J
Tetrachloroethene	µg/L	25.6	25.6	22.4	21.5	19.9	17.7
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	4.37	4.08	4.65	5.19	4.46	5.71
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-92

Analyte	Sample Name	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
Unit								
Carbon tetrachloride	µg/L	18	19	18	20	20	18	24
Chloroform	µg/L	6.2	6.5	6.1	6.7	6.9	7.7	9 B
cis-1,2-Dichloroethene	µg/L	6.1	6.6	6.2	7	7	3.2	12
Tetrachloroethene	µg/L	130	160	150	160	150	110	170
trans-1,2-Dichloroethene	µg/L	0.21 J	0.19 J	<1	<1	<1	<1	<5
Trichloroethene	µg/L	4.3	4.5	4.2	4.5	4.5	3	5.2
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<5

Notes:

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

µg/L micrograms per liter

DQE Flags:

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HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-92

Analyte	Sample Name	MW-92	MW-92	MW-92	MW-92-LB-1	MW-92-LS-3	MW-92-LA-5	MW-92
	Sample Date	11/14/2004	2/24/2005	5/20/2005	10/5/2006	4/16/2007	10/4/2007	4/8/2008
	Unit							
Carbon tetrachloride	µg/L	23	25	21	27.2	7.67	6.45	6.3
Chloroform	µg/L	9.4	8.6	7.6	8.02	13.2	11	8.91
cis-1,2-Dichloroethene	µg/L	12	11	11	10.8	7.32	67.5	66.2
Tetrachloroethene	µg/L	180	140	160	193	159	55	65.9
trans-1,2-Dichloroethene	µg/L	<6.7	<1	<1	<1	<1	<1	0.727 J
Trichloroethene	µg/L	5.7 J	5.8	5.5	6.14	5.01	3.12	4.22
Vinyl chloride	µg/L	<6.7	<1	<1	<1	<1	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

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HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-92

Analyte	Sample Name	MW-92	MW-92	MW-92	MW-92	MW-92	MW-92	MW-92
	Sample Date	10/9/2008	4/10/2009	10/10/2009	4/7/2010	10/9/2010	4/2/2011	10/3/2011
Unit								
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	119	119	120	123	119	86.7	64.2
Tetrachloroethene	µg/L	0.499 J	<1	1.3	4.76	20.7	50.9	78.4
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	1.72	1.99	8.64	13.8	13.6
Vinyl chloride	µg/L	<1	1.64	<1	0.791 J	0.314 J	13.6 J	3.02

Notes:

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

µg/L micrograms per liter

DQE Flags:

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HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-92

Analyte	Sample Name	MW-92	MW-92	MW-92	MW-92	MW-92	MW-92
	Sample Date	4/23/2012	10/21/2012	4/10/2013	10/12/2013	4/24/2014	10/20/2014
Unit							
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	66.1	50.9	45.7	39.7	37.8	30.5
Tetrachloroethene	µg/L	51.6	78.3	59.1	79.7	69.2	76.9
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	26.7	21	14.6	10.8	10.1	8.62
Vinyl chloride	µg/L	0.353 J	0.61 J	12.7	5.28	8.92	9.55

Notes:

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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-93

Analyte	Sample Name	MW-93	MW-93	MW-93	MW-93	MW-93	MW-93	MW-93	MW-93
	Sample Date	11/30/2001	11/30/2001	11/30/2001	11/30/2001	11/30/2001	11/30/2001	11/30/2001	5/7/2004
Unit									
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-93

	Sample Name	MW-93-LB-1	MW-93	MW-93	MW-93	MW-93	MW-93	MW-93
	Sample Date	10/18/2006	10/4/2007	10/13/2008	10/11/2009	10/14/2010	10/21/2012	10/20/2014
Analyte	Unit							
Carbon tetrachloride	µg/L	<1	<1	<1 J	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3 J	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1 J	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1 J	<1	<1	<1	0.414 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1 J	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1 J	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1 J	<1	<1	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-94A

	Sample Name	MW-94A	MW-94A	MW-94A	MW-94A	MW-94A-LB-1	MW-94A-LS-3	MW-94A-LA-5
	Sample Date	5/23/2004	11/10/2004	2/20/2005	5/17/2005	10/24/2006	4/16/2007	10/4/2007
Analyte	Unit							
Carbon tetrachloride	µg/L	<1.4 J	<2	<1	<1	<1	<1	<1
Chloroform	µg/L	<1.4	<2	0.19 J	<1	0.139 J	0.196 J	0.129 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
Tetrachloroethene	µg/L	37	47	42	47	52.2	48	43.5
trans-1,2-Dichloroethene	µg/L	<1.4	<2	<1	<1	<1	<1	<1
Trichloroethene	µg/L	4.2	6	6.5	5.8	5.58	6.08	7.44
Vinyl chloride	µg/L	<1.4	<2	<1	<1	<1	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-94A

	Sample Name	MW-94A	MW-94A	MW-94A	MW-94A	MW-94A	MW-94A	MW-94A	MW-94A
	Sample Date	4/8/2008	10/13/2008	4/9/2009	10/12/2009	3/29/2010	10/11/2010	4/2/2011	10/4/2011
Analyte	Unit								
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.138 J	0.147 J	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	0.42 J	1.93	3.06	2.74	3.15	3.17	3.29	3.41
Tetrachloroethene	µg/L	27.3	32.8	30	27.7	27.7	30	28.8	24.9
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	9.49	6.89	6.78	7.46	7.83	6.89	6.59	6.29
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-94A

Analyte	Sample Name	MW-94A	MW-94A	MW-94A	MW-94A	MW-94A	MW-94A
	Sample Date	4/23/2012	10/21/2012	4/10/2013	10/12/2013	4/25/2014	10/20/2014
	Unit						
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	0.149 J	0.149 J	0.19 J	0.179 J	<0.3
cis-1,2-Dichloroethene	µg/L	1.51	1.63	1.35	1.38	1.3	1.31
Tetrachloroethene	µg/L	15.3	32.1	30.4	32.8	30.2 J	30.8
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	8.04	10.2	10.2	10.4	8.95	8.2
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

VOC samples analyzed using methods SW8010/8020.

SW8240, SW8260, SW8260A, SW8260B, or CV3990

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-96

	Sample Name	MW-96-1	MW-96-2	MW-96-3	MW-96-4	MW-96-5	MW-96-6	MW-96
	Sample Date	11/30/2001	11/30/2001	11/30/2001	11/30/2001	11/30/2001	11/30/2001	3/31/2004
Analyte	Unit							
Carbon tetrachloride	µg/L	1.8	<1	<1	<1	<1	<1	3.6
Chloroform	µg/L	2	2.7	3.8	5.6	6.3	5.9	0.69 B
cis-1,2-Dichloroethene	µg/L	0.23 J	<1	<1	<1	<1	<1	0.67 J
Tetrachloroethene	µg/L	19	0.88 J	0.21 J	0.3 J	0.13 J	0.14 J	8.9
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.19 J	<1	<1	<1	<1	<1	0.22 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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-96

Analyte	Sample Name	MW-96	MW-96	MW-96	MW-96	MW-96-LS-3	MW-96-LA-5	MW-96
	Sample Date	11/15/2004	2/21/2005	5/20/2005	10/2/2006	4/16/2007	10/4/2007	10/10/2008
	Unit							
Carbon tetrachloride	µg/L	2.9	1.5	3.4	4.5	3.47	3.4	1.03 J
Chloroform	µg/L	0.6 J	0.5 B	0.64 B	0.975	0.901	0.739	0.663 J
cis-1,2-Dichloroethene	µg/L	0.52 J	0.34 J	0.6 J	0.883 J	0.814 J	0.836 J	<1
Tetrachloroethene	µg/L	6.1	3.4	6.5	2.84	4.35	4.33	1.46 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	0.419 J	<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

µg/L micrograms per liter

DQE Flags:

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HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-96

Analyte	Sample Name	MW-96	MW-96	MW-96	MW-96	MW-96	MW-96	MW-96
	Sample Date	4/6/2009	10/8/2009	10/7/2010	10/7/2011	10/19/2012	10/11/2013	10/20/2014
	Unit							
Carbon tetrachloride	µg/L	0.69 J	2	2.45	4.64	1.15	0.832 J	0.839 J
Chloroform	µg/L	0.73	0.58	0.557	0.972	0.288 J	0.21 J	0.242 J
cis-1,2-Dichloroethene	µg/L	<1	<1	0.34 J	0.631 J	<1	<1	<1
Tetrachloroethene	µg/L	3	7.78	3.99	2.42	0.306 J	0.318 J	0.524 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1	<1	0.301 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

µg/L micrograms per liter

DQE Flags:

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HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-97

Analyte	Sample Name	MW-97	MW-97	MW-97	MW-97	MW-97	MW-97	MW-97	MW-97
	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									
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

µg/L micrograms per liter

DQE Flags:

- J Estimated results based on QC data or reported below RL
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HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-97

	Sample Name	MW-97	MW-97	MW-97-LB-1	MW-97-LS-3	MW-97-LA-5	MW-97	MW-97
	Sample Date	3/31/2004	2/21/2005	10/25/2006	4/16/2007	10/2/2007	4/8/2008	10/13/2008
Analyte	Unit							
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

µg/L micrograms per liter

DQE Flags:

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HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-97

Analyte	Sample Name	MW-97	MW-97	MW-97	MW-97	MW-97	MW-97	MW-97	MW-97
	Sample Date	4/10/2009	10/7/2009	3/31/2010	10/9/2010	3/31/2011	10/5/2011	4/23/2012	10/20/2012
Unit									
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.316	0.277 J	0.249 J	0.368	0.235 J	0.238 J	0.346 B	0.311
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	31.3	37.4	36.8	49.8	40.7	53.8	54.7	62
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

µg/L micrograms per liter

DQE Flags:

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HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-97

Analyte	Sample Name	MW-97	MW-97	MW-97	MW-97
	Sample Date	4/10/2013	10/11/2013	4/25/2014	10/20/2014
Unit					
Carbon tetrachloride	µg/L	<1	<1	<1	<1
Chloroform	µg/L	0.261 J	0.308	0.252 J	0.249 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Trichloroethene	µg/L	70.7	67.8	58.3	68
Vinyl chloride	µg/L	<1	<1	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

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HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-98

Analyte	Sample Name	MW-98	MW-98	MW-98	MW-98	MW-98	MW-98	MW-98
	Sample Date	11/30/2001	11/30/2001	11/30/2001	11/30/2001	11/30/2001	4/1/2004	11/10/2004
Unit								
Carbon tetrachloride	µg/L	<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
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	0.22 J
Tetrachloroethene	µg/L	1.5	3.7	7.7	5.5	4.4	17	31
trans-1,2-Dichloroethene	µg/L	<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
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

µg/L micrograms per liter

DQE Flags:

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HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-98

	Sample Name	MW-98	MW-98	MW-98	MW-98	MW-98	MW-98	MW-98
	Sample Date	2/16/2005	5/19/2005	10/25/2006	4/13/2007	10/3/2007	4/7/2008	10/10/2008
Analyte	Unit							
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	<1	0.133 J	0.147 J	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	0.252 J	<1	<1	<1	8.6 J
Tetrachloroethene	µg/L	33	28	33.1	35.2	36.9	34.8	25.5 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	2.1	2	2.37	2.63	2.69	1.93	2.34 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

µg/L micrograms per liter

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HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-98

Analyte	Sample Name	MW-98	MW-98	MW-98	MW-98	MW-98	MW-98	MW-98
	Sample Date	4/10/2009	10/7/2009	4/5/2010	10/9/2010	4/1/2011	10/4/2011	4/23/2012
Unit								
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	0.128 J	0.127 J	0.125 J	<0.3	0.135 JB
cis-1,2-Dichloroethene	µg/L	0.346 J	0.304 J	0.367 J	0.502 J	0.448 J	0.374 J	0.358 J
Tetrachloroethene	µg/L	30.1	38.8	40.1	35.4	38	41.7	21.7
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	2.18	2.79	2.99	2.85	3.44	3.05	3.03
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

µg/L micrograms per liter

DQE Flags:

- J Estimated results based on QC data or reported below RL
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HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-98

Analyte	Sample Name	MW-98	MW-98	MW-98	MW-98	MW-98
	Sample Date	10/20/2012	4/10/2013	10/11/2013	4/25/2014	10/20/2014
	Unit					
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	0.134 J	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	0.5 J	0.43 J	0.541 J	0.55 J	0.577 J
Tetrachloroethene	µg/L	41.7	41.2	40.5	36.6	39.9
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	3.1	3.18	3.16	2.89	2.78
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

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- B Estimated results possibly biased high or false positive based on blank data
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HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-99

Analyte	Sample Name	MW-99	MW-99	MW-99	MW-99	MW-99	MW-99	MW-99	MW-99
	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									
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-99

Analyte	Sample Name	MW-99	MW-99	MW-99	MW-99-LB-1	MW-99-LA-5	MW-99	MW-99
	Sample Date	11/30/2001	11/30/2001	5/18/2004	10/18/2006	10/3/2007	10/9/2008	10/7/2009
Unit								
Carbon tetrachloride	µg/L	<1	<1	<1 J	<1	<1	<1	<1
Chloroform	µg/L	<1	<1	<1	0.22 J	0.2 J	0.265 J	0.238 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	0.38 J	0.58 J	0.28 J	<1	<1	<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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-99

Analyte	Sample Name	MW-99	MW-99	MW-99
	Sample Date	10/12/2010	10/19/2012	10/18/2014
	Unit			
Carbon tetrachloride	µg/L	<1	<1	<1
Chloroform	µg/L	0.252 J	0.3	0.407
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-100B

Analyte	Sample Name Sample Date Unit	MW100B-EBT- TS1-110-115 7/8/2002	MW100B-EBT- TS2-110-115 7/29/2002	MW100B-EBT- TS3-110-115 9/3/2002	MW100B-EBT- TS4-110-115 10/7/2002	MW100B-EBT- TS5-110-115 11/11/2002
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	0.19 J	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	1.3	0.509 J	17.7	33.4	31.4
Tetrachloroethene	µg/L	49	1.56	25.3	14.5	1.77
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	0.269 J	<1
Trichloroethene	µg/L	72	22.8	33.1	11.6	2.27
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-100B

Analyte	Sample Name Sample Date Unit	MW100B-EBT- TS6-100-115 12/16/2002	MW100B-EBT- TS7 1/20/2003	MW100B-EBT- TS8-110-115 2/24/2003	MW100B-EBT- TS9-100-115 3/24/2003	MW100B-EBT- TS10-110-115 4/21/2003
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	24.1	26.4	28.7	59.4	61.3
Tetrachloroethene	µg/L	2.35	0.395 J	0.53	0.341 J	<0.5
trans-1,2-Dichloroethene	µg/L	0.321 J	<1	<1	0.274 J	0.323 J
Trichloroethene	µg/L	2.06	0.4 J	0.407 J	<1	<1
Vinyl chloride	µg/L	<1	2.57	0.436 J	0.968 J	0.797 J

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-100B

Analyte	Sample Name Sample Date Unit	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	MW-100B 11/12/2004	MW-100B 2/18/2005
Carbon tetrachloride	µg/L	<1	<1	<1	<5	<5	<1
Chloroform	µg/L	<1	<1	<1	<5	<5	<1
cis-1,2-Dichloroethene	µg/L	75.2	88.2	89	140	160	120
Tetrachloroethene	µg/L	<0.5	<0.5	<0.5	<5	<5	2.8
trans-1,2-Dichloroethene	µg/L	0.333 J	0.356 J	0.312 J	<5	<5	<1
Trichloroethene	µg/L	<1	<1	<1	<5	<5	3.4
Vinyl chloride	µg/L	0.819 J	0.646 J	0.66 J	<5	<5	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-100B

Analyte	Sample Name	MW-100B	MW-100B	MW-100B	MW-100B	MW-100B	MW-100B	MW-100B	MW-100B
	Sample Date	5/18/2005	10/23/2006	4/13/2007	10/2/2007	4/7/2008	10/8/2008	4/8/2009	10/7/2009
Unit									
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	100	112	94.4	143	89.3	158	22.3	21.5
Tetrachloroethene	µg/L	5.8	101	98.9	29.6	64.2	0.706 J	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	0.39 J	0.432 J	0.605 J	0.92 J	0.783 J	<1	<1
Trichloroethene	µg/L	6.2	43.1	39.4	12.6	31.4	0.309 J	<1	<1
Vinyl chloride	µg/L	0.29 J	0.716 J	0.595 J	1.02	0.836 J	1.75	94.6	85.2 J

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-100B

Analyte	Sample Name	MW-100B	MW-100B	MW-100B	MW-100B	MW-100B	MW-100B	MW-100B	MW-100B
	Sample Date	3/30/2010	10/6/2010	4/4/2011	10/7/2011	4/21/2012	10/19/2012	4/11/2013	10/12/2013
Unit									
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	8.8	11	23.6	9.9	5.94	16.3	18.5	21.8
Tetrachloroethene	µg/L	<1	<1	3.87	28.7	44.1	66.5	33	68.4
trans-1,2-Dichloroethene	µg/L	<1	<1	0.269 J	0.845 J	1.11	1.27	0.977 J	1.7
Trichloroethene	µg/L	<1	<1	0.62 J	0.521 J	0.811 J	3.02	4.51	7.49
Vinyl chloride	µg/L	131 J	132	153	181 J	132	164 J	172	188

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-100B

Analyte	Sample Name	MW-100B	MW-100B
	Sample Date	4/26/2014	10/18/2014
Unit			
Carbon tetrachloride	µg/L	<1	<1
Chloroform	µg/L	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	17	2.85 J
Tetrachloroethene	µg/L	3.5	1.64 J
trans-1,2-Dichloroethene	µg/L	0.489 J	<1
Trichloroethene	µg/L	0.763 J	<1
Vinyl chloride	µg/L	185	169

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
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Defense Depot Memphis, Tennessee

MW-101 B

	Sample Name Sample Date	MW-101-109 12/21/2001	MW-101-124 12/21/2001	MW-101 3/30/2004	MW-101 11/11/2004	MW-101,129 2/18/2005	MW-101,129 5/20/2005	MW-101B 8/25/2006
Analyte	Unit							
Carbon tetrachloride	µg/L	<1	<1	<20	<17	<1.3	<1.2	<1
Chloroform	µg/L	<1	0.42 J	<20	<17	0.31 B	0.23 B	0.233 J
cis-1,2-Dichloroethene	µg/L	0.27 J	0.39 J	<20	<17	0.3 J	<1.2	0.279 J
Tetrachloroethene	µg/L	450	460	450	450 J	460	340	239
trans-1,2-Dichloroethene	µg/L	<1	<1	<20	<17	<1.3	<1.2	<1
Trichloroethene	µg/L	0.87 J	0.84 J	<20	<17	0.43 J	0.35 J	0.293 J
Vinyl chloride	µg/L	<1	<1	<20	<17	<1.3	<1.2	<1

Notes:

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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
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Defense Depot Memphis, Tennessee

MW-101 B

	Sample Name	MW-101T	MW-101B	MW-101B	MW-101B	MW-101B	MW-101B	MW-101B	MW-101B
	Sample Date	12/7/2006	12/7/2006	3/6/2007	5/30/2007	9/11/2007	12/11/2007	3/14/2008	6/10/2008
Analyte	Unit								
Carbon tetrachloride	µg/L	<1	<1	<1	<1 J	<1	<1	<1	<1
Chloroform	µg/L	0.155 J	0.156 J	0.129 J	0.206 J	0.164 J	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	9.4	1.01	7.35	5.26	35.6	23.3
Tetrachloroethene	µg/L	196	192	193	135	147	120	81.3	78.9
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	0.358 J	0.311 J	0.646 J	0.843	2.17	4.15
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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
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Defense Depot Memphis, Tennessee

MW-101 B

	Sample Name	MW-101B	MW-101B	MW-101B	MW-101B	MW-101B	MW-101B	MW-101B	MW-101B
	Sample Date	12/10/2008	3/11/2009	10/7/2009	4/5/2010	10/13/2010	4/5/2011	10/7/2011	4/23/2012
Analyte	Unit								
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	29.1	31.2	2.03	0.498 J	0.264 J	0.253 J	<1	<1
Tetrachloroethene	µg/L	47	55.6	96.2	99.6	66.4	76.3	72.3	64.1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.923 J	3.53	0.809 J	0.325 J	<1	<1	<1	<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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-101 B

Analyte	Sample Name	MW-101B	MW-101T	MW-101B	MW-101B	MW-101B	MW-101B
	Sample Date	10/19/2012	4/11/2013	4/11/2013	10/12/2013	4/26/2014	10/20/2014
	Unit						
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	<1	25.5	23.6	31	10.2	27.1
Tetrachloroethene	µg/L	63.2	7.45	9.71	2.72	3.59	9.48
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	2.25	3.05	1.01	1.66	1.57
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-101 T

	Sample Name	MW-101-89	MW-101	MW-101	MW-101,97.5	MW-101,97.5	MW-101T	MW-101T
	Sample Date	12/21/2001	3/30/2004	11/11/2004	2/18/2005	5/20/2005	8/25/2006	12/7/2006
Analyte	Unit							
Carbon tetrachloride	µg/L	<1	<20	<17	<1.4	<1.2	<1	<1
Chloroform	µg/L	0.38 J	<20	<17	0.27 B	0.24 B	0.261 J	0.155 J
cis-1,2-Dichloroethene	µg/L	0.34 J	<20	<17	<1.4	0.32 J	0.266 J	<1
Tetrachloroethene	µg/L	530	450	450 J	470	350	251	196
trans-1,2-Dichloroethene	µg/L	<1	<20	<17	<1.4	<1.2	<1	<1
Trichloroethene	µg/L	0.95 J	<20	<17	0.47 J	<1.2	0.298 J	<1
Vinyl chloride	µg/L	<1	<20	<17	<1.4	<1.2	<1	<1

Notes:

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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
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Defense Depot Memphis, Tennessee

MW-101 T

	Sample Name	MW-101T	MW-101T	MW-101T	MW-101T	MW-101T	MW-101T	MW-101T	MW-101T
	Sample Date	3/6/2007	5/30/2007	9/11/2007	12/11/2007	3/14/2008	6/10/2008	12/10/2008	3/11/2009
Analyte	Unit								
Carbon tetrachloride	µg/L	<1	<1 J	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.164 J	0.148 J	0.162 J	<0.3	0.149 J	0.137 J	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	0.621 J	0.428 J	0.609 J	0.578	10.1	3.22	51.2	35.2
Tetrachloroethene	µg/L	192	123	134	125	113	101	16.5	46.9
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	0.364 J	0.46 J	0.305	1.37	1.09	1.63	2.16
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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-101 T

	Sample Name	MW-101T	MW-101T	MW-101T	MW-101T	MW-101T	MW-101T	MW-101T	MW-101T
	Sample Date	10/7/2009	4/5/2010	10/13/2010	4/5/2011	10/7/2011	4/23/2012	10/19/2012	4/11/2013
Analyte	Unit								
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	1.85	0.512 J	<1	0.342 J	<1	0.395 J	<1	25.5
Tetrachloroethene	µg/L	76.5	82.9	75.6	80	53.1	66.6	66.2	7.45
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.746 J	0.307 J	<1	<1	<1	<1	<1	2.25
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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-101 T

Analyte	Sample Name	MW-101T	MW-101T	MW-101T
	Sample Date	10/12/2013	4/26/2014	10/19/2014
	Unit			
Carbon tetrachloride	µg/L	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	36.5	3.98	25.9
Tetrachloroethene	µg/L	1.22	0.751 J	4.75
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	0.9 J	0.445 J	1.49
Vinyl chloride	µg/L	<1	<1	<1

Notes:

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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-102B

Analyte	Sample Name	MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	MW-102B	MW-102B
	Sample Date	5/8/2004	10/19/2006	10/3/2007	10/13/2008	10/8/2009	10/11/2010	10/19/2012	10/18/2014
Unit									
Carbon tetrachloride	µg/L	<1	<1	<1	<1 J	<1	<1	<1	<1
Chloroform	µg/L	<1	<0.3	<0.3	<0.3 J	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1 J	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	0.308 J	<1 J	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1 J	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1 J	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1 J	<1	<1	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-103

	Sample Name	MW-103-10	MW-103-9	MW-103-8	MW-103-7	MW-103-6	MW-103-5	MW-103-4
	Sample Date	11/30/2001	11/30/2001	11/30/2001	11/30/2001	11/30/2001	11/30/2001	11/30/2001
Analyte	Unit							
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	16	17	16	17	16	15	14
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
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	5.8	5.6	4.9	4.9	4.6	4.4	3.9
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-103

	Sample Name	MW-103-3	MW-103-2	MW-103-1	MW-103	MW-103	MW-103	MW-103
	Sample Date	11/30/2001	11/30/2001	11/30/2001	5/11/2004	2/20/2005	10/3/2006	10/4/2007
Analyte	Unit							
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	16	4.3	1.9	12	13	12.2	11.7
cis-1,2-Dichloroethene	µg/L	0.39 J	<1	<1	0.44 J	0.43 J	0.322 J	0.35 J
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	4.8	0.69 J	0.3 J	4	4.4	5.04	6.63
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-103

	Sample Name	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103
	Sample Date	10/6/2008	10/11/2009	10/7/2010	10/7/2011	10/21/2012	10/12/2013	10/20/2014
Analyte	Unit							
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	11.1	8.02	7.78	9.61	10.4	9.07	7.26
cis-1,2-Dichloroethene	µg/L	<1	0.314 J	0.386 J	0.439 J	0.419 J	0.373 J	0.41 J
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1	0.409 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5.27	5.44	3.98	7.2	10.6	10.6	8.8
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-104

	Sample Name	MW-104-10	MW-104-9	MW-104-8	MW-104-7	MW-104-6	MW-104-5	MW-104-4
	Sample Date	11/30/2001	11/30/2001	11/30/2001	11/30/2001	11/30/2001	11/30/2001	11/30/2001
Analyte	Unit							
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	20	19	14	18	17	10	5
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
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	24	20	19	19	16	6.4	1.3
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-104

	Sample Name	MW-104-3	MW-104-2	MW-104-1	MW-104	MW-104	MW-104	MW-104
	Sample Date	11/30/2001	11/30/2001	11/30/2001	5/11/2004	2/21/2005	10/3/2006	4/13/2007
Analyte	Unit							
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	4.8	4.6	4	13	16	15.9	13.7
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	0.36 J	0.38 J	0.446 J	0.589 J
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	1.1	1.1	0.89 J	11	14	17.6	17
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-104

Analyte	Sample Name	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104
	Sample Date	10/4/2007	4/8/2008	10/6/2008	10/11/2009	10/7/2010	10/9/2011	10/21/2012	10/12/2013
Unit									
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	12.8	13.6	11.2	8.45	10.2	8.78	9.89	7.71
cis-1,2-Dichloroethene	µg/L	0.554 J	0.63 J	0.305 J	0.473 J	0.477 J	0.574 J	0.637 J	0.833 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	17.8	18.2	12.6	14.1	14.4	17.3	21.9	22
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-104

Analyte	Sample Name	MW-104
	Sample Date	10/20/2014
Unit		
Carbon tetrachloride	µg/L	<1
Chloroform	µg/L	0.205 J
cis-1,2-Dichloroethene	µg/L	0.607 J
Tetrachloroethene	µg/L	<1
trans-1,2-Dichloroethene	µg/L	<1
Trichloroethene	µg/L	14.7
Vinyl chloride	µg/L	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-107 B

	Sample Name	MW-107-125B	MW-107,153	MW-107B-LB-1	MW-107B-LA-5	MW-107B	MW-107B
	Sample Date	12/21/2001	2/20/2005	10/17/2006	10/2/2007	4/9/2008	10/10/2008
Analyte	Unit						
Carbon tetrachloride	µg/L	0.52 J	0.31 J	<1	0.415 J	0.574 J	<1
Chloroform	µg/L	0.14 J	<1	<0.3	<0.3	0.262 J	0.32 J
cis-1,2-Dichloroethene	µg/L	0.34 J	<1	<1	<1	0.265 J	0.449 J
Tetrachloroethene	µg/L	0.95 J	0.21 J	0.377 J	0.476 J	0.291 J	0.965 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	2.8	0.57 J	0.585 J	0.95 J	1.56	1.8 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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-107 B

	Sample Name	MW-107B	MW-107B	MW-107B	MW-107B	MW-107B	MW-107B	MW-107B	MW-107B
	Sample Date	10/7/2009	10/13/2010	10/8/2011	4/23/2012	10/21/2012	4/11/2013	10/12/2013	4/25/2014
Analyte	Unit								
Carbon tetrachloride	µg/L	0.773 J	0.629	0.655 J	0.966 J	0.719 J	0.431 J	0.459 J	0.358 J
Chloroform	µg/L	0.238 J	0.375	0.308	0.492 B	0.422	0.272 J	0.328	0.293 J
cis-1,2-Dichloroethene	µg/L	<1	0.252 J	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	3.36	4.22	32.1	62.5	46.5	20.3	25.1 J	9.09
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	2.12	2.2	2.86	4.15	3.47	2.44	2.72	1.66
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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-107 B

Analyte	Sample Name	MW-107B
	Sample Date	10/20/2014
Unit		
Carbon tetrachloride	µg/L	0.317 J
Chloroform	µg/L	0.306
cis-1,2-Dichloroethene	µg/L	<1
Tetrachloroethene	µg/L	6.31
trans-1,2-Dichloroethene	µg/L	<1
Trichloroethene	µg/L	1.6
Vinyl chloride	µg/L	<1

Notes:

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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-107 T

	Sample Name	MW-107-147	MW-107	MW-107,135.5	MW-107T-LB-1	MW-107T	MW-107T
	Sample Date	12/21/2001	5/26/2004	2/20/2005	10/17/2006	4/9/2008	10/10/2008
Analyte	Unit						
Carbon tetrachloride	µg/L	0.6 J	0.28 J	0.34 J	<1	0.616 J	<1
Chloroform	µg/L	0.16 J	<1	<1	<0.3	0.324	0.287 J
cis-1,2-Dichloroethene	µg/L	0.29 J	0.25 J	<1	<1	0.283 J	0.385 J
Tetrachloroethene	µg/L	0.67 J	<1	0.32 J	0.564 J	0.411 J	1.93
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	2.6	0.7 J	0.63 J	0.999 J	1.67	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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-107 T

	Sample Name	MW-107T	MW-107T	MW-107T	MW-107T	MW-107T	MW-107T	MW-107T	MW-107T
	Sample Date	10/7/2009	10/13/2010	10/8/2011	4/23/2012	10/21/2012	4/11/2013	10/12/2013	4/25/2014
Analyte	Unit								
Carbon tetrachloride	µg/L	0.787 J	0.6	0.704 J	0.815 J	0.579 J	0.66 J	0.402 J	0.379 J
Chloroform	µg/L	0.239 J	0.357	0.3 J	0.392 B	0.391	0.389	0.31	0.283 J
cis-1,2-Dichloroethene	µg/L	0.257 J	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	5.05	4.26	31.7	47	36.5	54	18.3	7.89
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	2.51	2.17 B	2.84	3.44	3.17	3.72	2.08	1.63
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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-107 T

Analyte	Sample Name	MW-107T
	Sample Date	10/20/2014
Unit		
Carbon tetrachloride	µg/L	<1
Chloroform	µg/L	0.227 J
cis-1,2-Dichloroethene	µg/L	<1
Tetrachloroethene	µg/L	6.52
trans-1,2-Dichloroethene	µg/L	<1
Trichloroethene	µg/L	1.49
Vinyl chloride	µg/L	<1

Notes:

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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-108

	Sample Name	MW-108	MW-108	MW-108	MW-108-LB-1	MW-108-LS-3	MW-108	MW-108
	Sample Date	12/21/2001	5/25/2004	2/22/2005	10/24/2006	4/16/2007	10/1/2007	4/7/2008
Analyte	Unit							
Carbon tetrachloride	µg/L	<1	0.19 J	0.26 J	<1	<1	0.461 J	0.477 J
Chloroform	µg/L	6.4	8.2	6.9	11.7	10.8	12.1	11.7
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
Tetrachloroethene	µg/L	2.6	3.3	3.3	5.41	6.03	5.03	3.93
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	6.4	15	28	32	33.5	38.4 J	32.7
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-108

	Sample Name	MW-108	MW-108	MW-108	MW-108	MW-108	MW-108	MW-108	MW-108
	Sample Date	10/10/2008	4/7/2009	10/5/2009	4/1/2010	10/12/2010	4/1/2011	10/6/2011	4/23/2012
Analyte	Unit								
Carbon tetrachloride	µg/L	0.272 J	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	12.3 J	10.1	9.44	9.62	11.9	11.9	11.6	9.86
cis-1,2-Dichloroethene	µg/L	0.598 J	0.674 J	0.584 J	0.627 J	0.744 J	0.677 J	0.619 J	0.646 J
Tetrachloroethene	µg/L	3.72 J	4.49	4.39	4.29	5.23	7.25	6.06	3.61
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	28.5 J	28.1	29.1	34.7	37.7	33.1	26	25.4
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-108

Analyte	Sample Name	MW-108	MW-108	MW-108	MW-108	MW-108
	Sample Date	10/21/2012	4/11/2013	10/12/2013	4/25/2014	10/20/2014
Unit						
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	10.1	8.95	9.41	9.14	10.7
cis-1,2-Dichloroethene	µg/L	0.927 J	0.733 J	0.842 J	0.762 J	0.77 J
Tetrachloroethene	µg/L	2.67	2.75	3.76	3.4	3.69
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	31.5	28.7	30.3	27.7	31.2
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-140

Analyte	Sample Name	MW-140	MW-140	MW-140	MW-140	MW-140-LB-1	MW-140-LA-5	MW-140
	Sample Date	5/27/2004	11/10/2004	2/17/2005	5/17/2005	10/23/2006	10/2/2007	10/9/2008
	Unit							
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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-140

Analyte	Sample Name	MW-140	MW-140	MW-140	MW-140	MW-140	MW-140
	Sample Date	10/12/2009	10/13/2010	10/3/2011	10/20/2012	10/11/2013	10/19/2014
	Unit						
Carbon tetrachloride	µg/L	0.558 J	<1	0.27 J	0.313 J	0.391 J	0.27 J
Chloroform	µg/L	0.205 J	0.242 J	<0.3	0.146 J	0.219 J	0.159 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	0.294 J	<1	<1
Tetrachloroethene	µg/L	0.806 J	1.18	1.19	2.51	2.8	3.76
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.25	0.971 J	1.43	1.6	1.73	1.19
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-141

Analyte	Sample Name	MW-141	MW-141	MW-141	MW-141	MW-141-LB-1	MW-141-LS-3	MW-141
	Sample Date	6/24/2004	11/9/2004	2/15/2005	5/17/2005	10/23/2006	4/17/2007	10/2/2007
Unit								
Carbon tetrachloride	µg/L	<1	<1	<1	0.82 J	<1	<1	<1
Chloroform	µg/L	1.4	1.5 B	1.8	2 B	2.37	2.46	2.09
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	5.9	19	26	31	27.6	21.3	18
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.2	2.1	2.2	2.8	3.56	3.02	2.52
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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-141

Analyte	Sample Name	MW-141	MW-141	MW-141	MW-141	MW-141	MW-141	MW-141	MW-141
	Sample Date	4/8/2008	10/10/2008	4/9/2009	10/5/2009	4/2/2010	10/8/2010	4/1/2011	10/2/2011
Unit									
Carbon tetrachloride	µg/L	0.418 J	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	2.31	2.48 J	1.85	1.78	1.54	2.06	2.67	2.68
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	16.9	19.7 J	15.7	17.1	16.6	19.6	30.4	23.7
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	2.47	3.24 J	2.48	3.02	2.58	3.18	3.86	3.6
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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-141

Analyte	Sample Name	MW-141	MW-141	MW-141	MW-141	MW-141	MW-141
	Sample Date	4/23/2012	10/20/2012	4/10/2013	10/11/2013	4/26/2014	10/19/2014
	Unit						
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	2.58	3.04	3.24	3.36	3.06	3.13
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	24.9	27.4	31.9 J	31.9	34.7	36
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	3.46	3.68	4.32	4.22	3.86	4.19
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-142

Analyte	Sample Name	MW-142	MW-142	MW-142	MW-142	MW-142-LB-1	MW-142-LA-5	MW-142
	Sample Date	5/26/2004	11/9/2004	2/16/2005	5/17/2005	10/2/2006	10/3/2007	10/8/2008
Unit								
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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-142

Analyte	Sample Name	MW-142	MW-142	MW-142	MW-142	MW-142	MW-142
	Sample Date	10/8/2009	10/9/2010	10/9/2011	10/20/2012	10/11/2013	10/19/2014
	Unit						
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.128 J	<0.3	<0.3	<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	2.74	6.71	11	4.16	5.77	6.38
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-143

	Sample Name	MW-143	MW-143	MW-143	MW-143	MW-143	MW-143	MW-143	MW-143
	Sample Date	5/5/2004	11/11/2004	2/17/2005	5/17/2005	10/19/2006	10/13/2008	10/12/2010	4/5/2011
Analyte	Unit								
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1 J	<1	<1
Chloroform	µg/L	<1	<1	<1	<1	<0.3	<0.3 J	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1 J	<1	<1
Tetrachloroethene	µg/L	<1	<1 J	<1	<1	<1	<1 J	<1	<1
trans-1,2-Dichloroethene	µg/L	<1 J	<1	<1	<1	<1	<1 J	<1	<1
Trichloroethene	µg/L	<1	<1	<1	0.31 J	0.7 J	1.19 J	8.83	10.1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1 J	<1	<1

Notes:

VOC samples analyzed using methods SW8010/8020.

SW8240, SW8260, SW8260A, SW8260B, or CV3990

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-143

Analyte	Sample Name	MW-143	MW-143	MW-143	MW-143	MW-143	MW-143	MW-143
	Sample Date	10/7/2011	4/23/2012	10/19/2012	4/11/2013	10/12/2013	4/26/2014	10/19/2014
Unit								
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	0.431 J	0.368 J	0.384 J	0.353 J	0.38 J	0.408 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	12.6	12.5	13.5	12.7	10	9.89	9.52
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-198

	Sample Name	MW-198-LB-1	MW-198-RW-2	MW-198-LS-3	MW-198-LQ-4	MW-198-LA-5	MW-198
	Sample Date	10/2/2006	1/24/2007	4/15/2007	7/10/2007	10/2/2007	4/9/2008
Analyte	Unit						
Carbon tetrachloride	µg/L	<1	0.915 J	0.32 J	0.267 J	0.438 J	0.326 J
Chloroform	µg/L	<0.3	0.2 J	0.146 J	<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	3.28	25.8	20.2	15.1	6.53	8.36
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-198

Analyte	Sample Name Sample Date Unit	MW-198 10/8/2008	MW-198 4/9/2009	MW-198 10/12/2009	MW-198 10/8/2010	MW-198 10/8/2011	MW-198 10/20/2012	MW-198 10/11/2013	MW-198 10/19/2014
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.171 J	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
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	10.4 J	3.73	8.39	3.14	0.44 J	2.63	1.06	0.643 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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-199A

	Sample Name	MW-199A-LB-1	MW-199A-RW-2	MW-199A-LS-3	MW-199A-LQ-4	MW-199A-LA-5	MW-199A
	Sample Date	10/23/2006	1/24/2007	4/13/2007	7/12/2007	10/2/2007	10/9/2008
Analyte	Unit						
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-199A

Analyte	Sample Name	MW-199A	MW-199A	MW-199A	MW-199A	MW-199A	MW-199A
	Sample Date	10/5/2009	10/7/2010	10/3/2011	10/20/2012	10/11/2013	10/19/2014
	Unit						
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	<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	0.419 J	0.968 J	0.963 J	1	0.986 J	2.01
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

VOC samples analyzed using methods SW8010/8020.

SW8240, SW8260, SW8260A, SW8260B, or CV3990

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-199B

	Sample Name	MW-199B-LB-1	MW-199B-RW-2	MW-199B-LS-3	MW-199B-LQ-4	MW-199B-LA-5	MW-199B
	Sample Date	10/23/2006	1/24/2007	4/13/2007	7/11/2007	10/2/2007	4/8/2008
Analyte	Unit						
Carbon tetrachloride	µg/L	0.719 J	0.949 J	0.555 J	1.05	0.376 J	0.6 J
Chloroform	µg/L	0.197 J	0.179 J	0.232 J	0.279 J	0.146 J	0.177 J
cis-1,2-Dichloroethene	µg/L	<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
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	99.2 J	115	115	136	78.6	56.5
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-199B

Analyte	Sample Name Sample Date Unit	MW-199B 10/9/2008	MW-199B 4/9/2009	MW-199B 10/7/2009	MW-199B 4/2/2010	MW-199B 10/8/2010	MW-199B 4/2/2011	MW-199B 10/3/2011	MW-199B 4/23/2012
Carbon tetrachloride	µg/L	<1	0.476 J	0.324 J	0.378 J	0.287 J	0.545 J	0.324 J	0.379 J
Chloroform	µg/L	0.24 J	0.217 J	0.158 J	0.154 J	<0.3	<0.3	<0.3	0.159 JB
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.612 J	0.494 J	0.694 J	0.511 J	0.707 J	0.567 J	0.881 J	0.412 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	124	115	93.2	87.5	53.8	71.5	59.7	76.7
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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-199B

Analyte	Sample Name	MW-199B	MW-199B	MW-199B	MW-199B	MW-199B
	Sample Date	10/20/2012	4/10/2013	10/11/2013	4/26/2014	10/19/2014
Unit						
Carbon tetrachloride	µg/L	0.386 J	0.328 J	0.307 J	<1	0.29 J
Chloroform	µg/L	<0.3	0.138 J	0.149 J	<0.3	0.157 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.676 J	0.258 J	0.545 J	<1	0.432 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	84.9	84.1	74.6	67.9	74.6
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-200

	Sample Name	MW-200A-LB-1	MW-200-RW-2	MW-200-LS-3	MW-200-LQ-4	MW-200-LA-5	MW-200-LQ-6
	Sample Date	10/25/2006	1/24/2007	4/15/2007	7/10/2007	10/3/2007	4/8/2008
Analyte	Unit						
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	0.146 J	<0.3	<0.3	0.206 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
Tetrachloroethene	µg/L	72	81.9	70.2	62.9	73.9	132
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5.47	5.94	7.49	7.49	6.88	4.13
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-200

	Sample Name	MW-200-LB-8	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200
	Sample Date	10/6/2008	4/7/2009	10/10/2009	3/29/2010	10/11/2010	4/1/2011	10/4/2011
Analyte	Unit							
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.175 J	<0.3	<0.3	0.157 J	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	0.531 J	5.68	11.6	8.57	16.7	13	15.3
Tetrachloroethene	µg/L	125	74.7	25.6	23.8	31.5	31.8	25.6
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	3.42	4.82	8.04	7.99	7.24	6.66	5.05
Vinyl chloride	µg/L	<1	<1	<1	<1	<1 J	<1	<1

Notes:

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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-200

Analyte	Sample Name	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200
	Sample Date	4/23/2012	10/20/2012	4/10/2013	10/12/2013	4/25/2014	10/20/2014
	Unit						
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.159 JB	<0.3	<0.3	<0.3	<0.3	0.136 J
cis-1,2-Dichloroethene	µg/L	2.98	3.08	2.69	1.8	0.631 J	0.351 J
Tetrachloroethene	µg/L	3	11.8	8.74	7.75	13.7	7.91
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	3.94	7.14	8.06	6.17	6.65	6.16
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-202A

	Sample Name	MW-202A-LB-1	MW-202A-RW-2	MW-202A-LS-3	MW-202A-LQ-4	MW-202A-LA-5	MW-202A
	Sample Date	10/23/2006	1/24/2007	4/16/2007	7/11/2007	10/1/2007	4/7/2008
Analyte	Unit						
Carbon tetrachloride	µg/L	0.365 J	0.749 J	0.382 J	0.904 J	0.552 J	0.695 J
Chloroform	µg/L	0.232 J	0.198 J	0.213 J	0.249 J	0.238 J	0.225 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	0.251 J	<1	<1
Tetrachloroethene	µg/L	0.257 J	0.326 J	0.316 J	0.371 J	0.672 J	0.443 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.85	1.59	1.88	2.22	1.66	1.77
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-202A

Analyte	Sample Name	MW-202A	MW-202A	MW-202A	MW-202A	MW-202A	MW-202A	MW-202A
	Sample Date	10/7/2008	4/7/2009	10/6/2009	10/9/2010	10/1/2011	10/20/2012	10/11/2013
	Unit							
Carbon tetrachloride	µg/L	<1	<1	0.466 J	<1	0.265 J	<1	<1
Chloroform	µg/L	0.17 J	0.171 J	<0.3	0.21 J	0.222 J	0.23 J	0.216 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.262 J	0.399 J	0.294 J	1	1.56	2.28	2.26
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.21	1.35	1.45	1.43	1.5	1.57	1.83
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-202A

Analyte	Sample Name	MW-202A
	Sample Date	10/19/2014
	Unit	
Carbon tetrachloride	µg/L	<1
Chloroform	µg/L	0.206 J
cis-1,2-Dichloroethene	µg/L	<1
Tetrachloroethene	µg/L	2.35
trans-1,2-Dichloroethene	µg/L	<1
Trichloroethene	µg/L	1.72
Vinyl chloride	µg/L	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-202B

	Sample Name	MW-202B-LB-1	MW-202B-RW-2	MW-202B-LS-3	MW-202B-LQ-4	MW-202B-LA-5	MW-202B
	Sample Date	10/24/2006	1/24/2007	4/16/2007	7/11/2007	10/2/2007	4/9/2008
Analyte	Unit						
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	0.263 J
Chloroform	µg/L	0.778	0.857	0.752	1.05	0.907	1.46
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	5.51	8.42	8.6	8.16	3.82	16.3
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.811 J	1.27	1.46	2.2	1.36	2.21
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-202B

Analyte	Sample Name	MW-202B	MW-202B	MW-202B	MW-202B	MW-202B	MW-202B	MW-202B	MW-202B
	Sample Date	10/7/2008	4/7/2009	10/6/2009	4/6/2010	10/9/2010	4/2/2011	10/1/2011	4/23/2012
Unit									
Carbon tetrachloride	µg/L	<1	<1	0.506 J	<1	<1	0.45 J	0.31 J	0.297 J
Chloroform	µg/L	1.92	1.96	1.92	1.81	1.46	1.24	0.712	0.655 B
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	0.299 J	0.477 J	0.411 J	0.485 J
Tetrachloroethene	µg/L	21.3	19.5	18.6	21.4	23.1	26.6	27.1	10.9
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	2.57	3.3	3.79	3.78	3.43	4.98	5.13	4.83
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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-202B

Analyte	Sample Name	MW-202B	MW-202B	MW-202B	MW-202B	MW-202B
	Sample Date	10/20/2012	4/11/2013	10/11/2013	4/26/2014	10/19/2014
Unit						
Carbon tetrachloride	µg/L	0.353 J	0.364 J	0.416 J	0.417 J	0.439 J
Chloroform	µg/L	0.606	0.534	0.539	0.516	0.521
cis-1,2-Dichloroethene	µg/L	0.401 J	0.379 J	0.332 J	0.278 J	<1
Tetrachloroethene	µg/L	21.3	23.8	25.5	27.1	22
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5.11	5.16	4.78	4.19	4.06
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-204A

Analyte	Sample Name	MW-204A	MW-204A-LQ-4	MW-204A-LA-5	MW-204A-LQ-6	MW-204A	MW-204A
	Sample Date	4/23/2007	7/10/2007	10/2/2007	1/8/2008	4/7/2008	10/6/2008
	Unit						
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-204A

Analyte	Sample Name	MW-204A	MW-204A	MW-204A	MW-204A	MW-204A	MW-204A	MW-204A	MW-204A
	Sample Date	4/7/2009	10/7/2009	4/6/2010	10/8/2010	4/2/2011	10/4/2011	4/23/2012	10/20/2012
	Unit								
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	1.21	6.45	6.88	4.36	2.7	1.53	1.11	0.937 J
Tetrachloroethene	µg/L	47.4	39.2 J	37.3	47.2	46.8	50.2	42.7	47.9
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.981 J	1.21	1.79	1.83	1.48	0.91 J	0.723 J	0.756 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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-204A

Analyte	Sample Name	MW-204A	MW-204A	MW-204A	MW-204A
	Sample Date	4/10/2013	10/11/2013	4/25/2014	10/20/2014
	Unit				
Carbon tetrachloride	µg/L	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	1.02	0.528 J	3.14	5.84
Tetrachloroethene	µg/L	40.2 J	38.6	29.9	23.2
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Trichloroethene	µg/L	0.7 J	0.695 J	0.922 J	1.42
Vinyl chloride	µg/L	<1	<1	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-204B

	Sample Name	MW-204B	MW-204B-LQ-4	MW-204B-LA-5	MW-204B-LQ-6	MW-204B	MW-204B
	Sample Date	4/23/2007	7/11/2007	10/2/2007	1/8/2008	4/9/2008	10/6/2008
Analyte	Unit						
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-204B

Analyte	Sample Name	MW-204B	MW-204B	MW-204B	MW-204B	MW-204B	MW-204B	MW-204B	MW-204B
	Sample Date	4/8/2009	10/6/2009	4/6/2010	10/11/2010	4/2/2011	10/4/2011	4/23/2012	10/20/2012
Unit									
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	0.177 J	<0.3	<0.3	0.166 J	<0.3	<0.3	0.134 J
cis-1,2-Dichloroethene	µg/L	1.29	6.13	2.33	1.11	1.25	0.793 J	0.937 J	1.08
Tetrachloroethene	µg/L	16.3	14.9	23.5	15.7	13.9	27.8	14.2	13.8
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	4.98	4.95	3.71	5.35	5.92	2.99	4.23	5.33
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-204B

Analyte	Sample Name Sample Date Unit	MW-204B 4/10/2013	MW-204B 10/11/2013	MW-204B 4/25/2014	MW-204B 10/20/2014
Carbon tetrachloride	µg/L	<1	<1	<1	<1
Chloroform	µg/L	<0.3	0.161 J	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	0.805 J	0.998 J	2.73	3.41
Tetrachloroethene	µg/L	11.8	13.9	9.03	7
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Trichloroethene	µg/L	5.03	4.64	6.25	7.42
Vinyl chloride	µg/L	<1	<1	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-205A

	Sample Name	MW-205A	MW-205A-LQ-4	MW-205A-LA-5	MW-205A-LQ-6	MW-205A	MW-205A
	Sample Date	4/23/2007	7/10/2007	10/3/2007	1/8/2008	4/7/2008	10/9/2008
Analyte	Unit						
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-205A

Analyte	Sample Name	MW-205A	MW-205A	MW-205A	MW-205A	MW-205A	MW-205A	MW-205A	MW-205A
	Sample Date	4/10/2009	10/5/2009	4/6/2010	10/8/2010	4/2/2011	10/4/2011	4/23/2012	10/20/2012
Unit									
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.132 J	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	16.8	23.5	31.8	25.2	24.6	13.4	9.21	8.84
Tetrachloroethene	µg/L	82.6	53.1	32.3	39.1	30.1	30.9	28.9	33.1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	7.12	7.28	7.77	9.03	9.18	8.03	7.04	8.38
Vinyl chloride	µg/L	<1	<1	<1	1.2	2.34 J	1.83	1.43	0.393 J

Notes:

VOC samples analyzed using methods SW8010/8020.

SW8240, SW8260, SW8260A, SW8260B, or CV3990

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-205A

Analyte	Sample Name	MW-205A	MW-205A	MW-205A	MW-205A
	Sample Date	4/10/2013	10/11/2013	4/25/2014	10/20/2014
Unit					
Carbon tetrachloride	µg/L	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	5.65	4.69	3.42	3.19
Tetrachloroethene	µg/L	27	26.4	24.7	22
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Trichloroethene	µg/L	7.77	6.81	8.47	8.83
Vinyl chloride	µg/L	<1	<1	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-205B

Analyte	Sample Name	MW-205B	MW-205B-LQ-4	MW-205B-LA-5	MW-205B-LQ-6	MW-205B	MW-205B
	Sample Date	4/23/2007	7/10/2007	10/4/2007	1/8/2008	4/9/2008	10/9/2008
Unit							
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-205B

Analyte	Sample Name	MW-205B	MW-205B	MW-205B	MW-205B	MW-205B	MW-205B	MW-205B	MW-205B
	Sample Date	4/7/2009	10/7/2009	4/6/2010	10/11/2010	4/2/2011	10/4/2011	4/23/2012	10/20/2012
Unit									
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	38.8	29.5	19.8	13.5	10.4	6.46	5.01	5.29
Tetrachloroethene	µg/L	19.7	24.4	24	30.8	31.3	28.9	26.9	27.1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	9.36	11.8	10.9	10.7	9.9	8.38	8.17	10.4
Vinyl chloride	µg/L	<1	2.06 J	5.05	4.59 J	2.6 J	1.73	1.32	0.87 J

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-205B

Analyte	Sample Name	MW-205B	MW-205B	MW-205B	MW-205B
	Sample Date	4/10/2013	10/11/2013	4/25/2014	10/20/2014
	Unit				
Carbon tetrachloride	µg/L	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	4.3	4.61	9.32	12
Tetrachloroethene	µg/L	23.8	23.5	14	9.64
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Trichloroethene	µg/L	10.1	8.86	8.32	7.91
Vinyl chloride	µg/L	0.609 J	0.559 J	1.17	1.53

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-206A

Analyte	Sample Name	MW-206A	MW-206A-LQ-4	MW-206A-LA-5	MW-206A-LQ-6	MW-206A	MW-206A
	Sample Date	4/15/2007	7/11/2007	10/3/2007	1/8/2008	4/9/2008	10/13/2008
Unit							
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-206A

Analyte	Sample Name	MW-206A	MW-206A	MW-206A	MW-206A	MW-206A	MW-206A	MW-206A	MW-206A
	Sample Date	4/7/2009	10/7/2009	4/6/2010	10/8/2010	4/2/2011	10/4/2011	4/23/2012	10/20/2012
	Unit								
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	14.2	18.6	14.8	13.5	15.6	7.81	5.94	4.21
Tetrachloroethene	µg/L	46.5	25.6	22.3	15.6	18.1	14	16	18.5
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	12.6	12.3	11.5	12.2	13.9	12.5	11.5	10.5
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-206A

Analyte	Sample Name	MW-206A	MW-206A	MW-206A	MW-206A
	Sample Date	4/10/2013	10/11/2013	4/25/2014	10/20/2014
	Unit				
Carbon tetrachloride	µg/L	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	3.45	2.85	2.88	3.39
Tetrachloroethene	µg/L	18.9	19.9	19.9	18.4
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Trichloroethene	µg/L	9.65	7.26	8.56	8.59
Vinyl chloride	µg/L	<1	<1	<1	<1

Notes:

VOC samples analyzed using methods SW8010/8020.

SW8240, SW8260, SW8260A, SW8260B, or CV3990

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-206B

	Sample Name	MW-206B	MW-206B-LQ-4	MW-206B-LA-5	MW-206B-LQ-6	MW-206B	MW-206B
	Sample Date	4/15/2007	7/11/2007	10/3/2007	1/9/2008	4/9/2008	10/13/2008
Analyte	Unit						
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-206B

Analyte	Sample Name	MW-206B	MW-206B	MW-206B	MW-206B	MW-206B	MW-206B	MW-206B	MW-206B
	Sample Date	4/7/2009	10/7/2009	4/6/2010	10/8/2010	4/2/2011	10/4/2011	4/23/2012	10/20/2012
Unit									
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	9.78	11	6.56	6.68	5	2.38	1.76	2.14
Tetrachloroethene	µg/L	22.8	17.3	12.3	12.3	13.7	15.4	15.2	19.1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	9.31	9.57	7.5	8.81	9.57	8.08	6.51	7.83
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-206B

Analyte	Sample Name Sample Date Unit	MW-206B 4/10/2013	MW-206B 10/11/2013	MW-206B 4/25/2014	MW-206B 10/20/2014
Carbon tetrachloride	µg/L	<1	<1	<1	<1
Chloroform	µg/L	<0.3	0.127 J	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	2.01	1.68	1.85	2.55
Tetrachloroethene	µg/L	21.1	20.8	20.2	17.9
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Trichloroethene	µg/L	7.75	5.53	6.38	5.55
Vinyl chloride	µg/L	<1	<1	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-207A

	Sample Name	MW-207A	MW-207A-LQ-4	MW-207A-LA-5	MW-207A-LQ-6	MW-207A	MW-207A
	Sample Date	4/16/2007	7/10/2007	10/3/2007	1/9/2008	4/9/2008	10/7/2008
Analyte	Unit						
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-207A

Analyte	Sample Name	MW-207A	MW-207A	MW-207A	MW-207A	MW-207A	MW-207A	MW-207A	MW-207A
	Sample Date	4/10/2009	10/5/2009	4/1/2010	10/14/2010	4/1/2011	10/2/2011	4/23/2012	10/21/2012
Unit									
Carbon tetrachloride	µg/L	<1	<1	<1	<1	0.307 J	<1	<1	<1
Chloroform	µg/L	10.3	9.72	9.02	12.1	11	11.8	8.14	11
cis-1,2-Dichloroethene	µg/L	0.561 J	0.974 J	0.893 J	0.768 J	0.627 J	0.592 J	0.442 J	0.599 J
Tetrachloroethene	µg/L	9.75	11	10.7	18.1	18.6	14.4	10.5	16.4
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	47.4	52.7	46.4	36.2	27.9	21.3	15.7	23.6
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-207A

Analyte	Sample Name	MW-207A	MW-207A	MW-207A	MW-207A
	Sample Date	4/11/2013	10/12/2013	4/25/2014	10/20/2014
	Unit				
Carbon tetrachloride	µg/L	<1	<1	<1	<1
Chloroform	µg/L	10.2	10.2	8.63	10.8
cis-1,2-Dichloroethene	µg/L	0.429 J	0.555 J	0.679 J	0.671 J
Tetrachloroethene	µg/L	14.9	18.1	16.4	19.6
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Trichloroethene	µg/L	21.3	18.7	24.7	27
Vinyl chloride	µg/L	<1	<1	<1	<1

Notes:

VOC samples analyzed using methods SW8010/8020.

SW8240, SW8260, SW8260A, SW8260B, or CV3990

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-207B

Analyte	Sample Name	MW-207B	MW-207B-LQ-4	MW-207B-LA-5	MW-207B-LQ-6	MW-207B	MW-207B
	Sample Date	4/16/2007	7/11/2007	10/3/2007	1/9/2008	4/9/2008	10/7/2008
	Unit						
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-207B

Analyte	Sample Name Sample Date Unit	MW-207B 4/10/2009	MW-207B 10/6/2009	MW-207B 4/2/2010	MW-207B 10/12/2010	MW-207B 4/1/2011	MW-207B 10/6/2011	MW-207B 4/23/2012	MW-207B 10/21/2012
Carbon tetrachloride	µg/L	0.851 J	1.23	0.752 J	1.85 J	1.89	2.08	1.15	2.78
Chloroform	µg/L	1.6	3.64	1.35	6.99	7.34	4.01	7.73	0.519
cis-1,2-Dichloroethene	µg/L	<1	0.558 J	<1	0.9 J	0.777 J	0.544 J	0.881 J	<1
Tetrachloroethene	µg/L	25.5	63.1	15.3	113	99.4	55	124	11.8
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	102	67.5	92.1	53.6	38.4	16.2	30.5	3.24
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-207B

Analyte	Sample Name Sample Date Unit	MW-207B 4/11/2013	MW-207B 10/12/2013	MW-207B 4/25/2014	MW-207B 10/20/2014
Carbon tetrachloride	µg/L	2.75	2.61	2.48	2.58
Chloroform	µg/L	0.535	0.565	4.09	4.17
cis-1,2-Dichloroethene	µg/L	0.269 J	0.325 J	0.509 J	0.452 J
Tetrachloroethene	µg/L	11.5	12.5	65.3	46.2
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Trichloroethene	µg/L	3.21	3.29	18.7	15
Vinyl chloride	µg/L	<1	<1	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-208A

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							
Carbon tetrachloride	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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-208A

Analyte	Sample Name	MW-208A	MW-208A	MW-208A	MW-208A	MW-208A	MW-208A	MW-208A	MW-208A
	Sample Date	4/7/2009	10/8/2009	4/5/2010	10/8/2010	4/2/2011	10/6/2011	4/23/2012	10/20/2012
Unit									
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.18 J	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	3.61	23.5	20.9	25.7	41	39.7	21.3	18.2
Tetrachloroethene	µg/L	163	92.8	24.4	38	3.94	10.5	19.3	21.4
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	9.8	10.9	6.48	12.2	16.5	19.1	18.9	20.2
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	1.97 J

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-208A

Analyte	Sample Name	MW-208A	MW-208A	MW-208A
	Sample Date	4/10/2013	4/25/2014	10/20/2014
Unit				
Carbon tetrachloride	µg/L	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	10.9	7.29	5.4
Tetrachloroethene	µg/L	21.5	19.4	19.9
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	18.4	16.3	16.4
Vinyl chloride	µg/L	1.55	0.968 J	0.601 J

Notes:

VOC samples analyzed using methods SW8010/8020.

SW8240, SW8260, SW8260A, SW8260B, or CV3990

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-208B

	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
Analyte	Unit						
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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-208B

Analyte	Sample Name	MW-208B	MW-208B	MW-208B	MW-208B	MW-208B	MW-208B	MW-208B	MW-208B
	Sample Date	4/7/2009	10/8/2009	4/5/2010	10/8/2010	4/2/2011	10/6/2011	4/23/2012	10/20/2012
Unit									
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.165 J	0.136 J	0.184 J	0.262 J	0.328	0.384	0.373 B	0.688
cis-1,2-Dichloroethene	µg/L	2.14	2.06	1.81	1.45	1.91	1.67	1.39	1.13
Tetrachloroethene	µg/L	3.81	5.39	9.29	16.5	16.9	19.8	24.2	26.5
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	28	37.8	45.1	42.9	41.2	34.8	25	17.9
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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-208B

Analyte	Sample Name Sample Date Unit	MW-208B 4/10/2013	MW-208B 10/11/2013	MW-208B 4/25/2014	MW-208B 10/20/2014
Carbon tetrachloride	µg/L	<1	<1	<1	<1
Chloroform	µg/L	0.614	0.929	1.11	1.19
cis-1,2-Dichloroethene	µg/L	1.36	0.937 J	0.455 J	0.501 J
Tetrachloroethene	µg/L	26	22.2	16.3 J	13.6
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Trichloroethene	µg/L	22.9	12.7	9.14 J	9.76
Vinyl chloride	µg/L	<1	<1	<1	<1

Notes:

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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-209A

Analyte	Sample Name	MW-209A	MW-209A-LQ-4	MW-209A-LA-5	MW-209A-LQ-6	MW-209A	MW-209A
	Sample Date	4/23/2007	7/10/2007	10/4/2007	1/9/2008	4/9/2008	10/9/2008
Unit							
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-209A

Analyte	Sample Name	MW-209A	MW-209A	MW-209A	MW-209A	MW-209A	MW-209A	MW-209A
	Sample Date	4/9/2009	10/5/2009	10/9/2010	10/3/2011	10/20/2012	10/11/2013	10/19/2014
Unit								
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	0.132 J	0.134 J	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.323 J	<1	<1	<1	<1	0.354 J	0.385 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.495 J	0.568 J	0.659 J	1.04	3.06	4.97	6.94
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-209B

Analyte	Sample Name	MW-209B	MW-209B-LQ-4	MW-209B-LA-5	MW-209B-LQ-6	MW-209B	MW-209B
	Sample Date Unit	4/23/2007	7/11/2007	10/5/2007	1/8/2008	4/9/2008	10/9/2008
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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-209B

Analyte	Sample Name	MW-209B	MW-209B	MW-209B	MW-209B	MW-209B	MW-209B	MW-209B	MW-209B
	Sample Date	4/9/2009	10/10/2009	4/6/2010	10/8/2010	4/2/2011	10/3/2011	4/23/2012	10/20/2012
	Unit								
Carbon tetrachloride	µg/L	0.668 J	0.725 J	0.658 J	0.659 J	0.932 J	0.563 J	0.814 J	0.526 J
Chloroform	µg/L	0.272 J	0.194 J	0.243 J	0.217 J	0.353	0.173 J	0.227 JB	0.208 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.278 J	0.278 J	<1	0.479 J	0.342 J	0.492 J	0.392 J	0.557 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	22.4	30.8	21.2	31.8	29.5	30.6	24.3	32
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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-209B

Analyte	Sample Name	MW-209B	MW-209B	MW-209B	MW-209B
	Sample Date	4/10/2013	10/11/2013	4/25/2014	10/19/2014
Unit					
Carbon tetrachloride	µg/L	0.66 J	0.445 J	0.439 J	<1
Chloroform	µg/L	0.262 J	0.257 J	0.285 J	0.156 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.342 J	0.545 J	0.298 J	1.48
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Trichloroethene	µg/L	33.9	28.8	29.3	14.8
Vinyl chloride	µg/L	<1	<1	<1	<1

Notes:

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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-210A

Analyte	Sample Name Sample Date Unit	MW-210A 4/27/2007	MW-210A-LQ-4 7/9/2007	MW-210A-LA-5 10/4/2007	MW-210A-LQ-6 1/8/2008	MW-210A 4/8/2008	MW-210A 10/6/2008
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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-210A

Analyte	Sample Name	MW-210A	MW-210A	MW-210A	MW-210A	MW-210A	MW-210A	MW-210A	MW-210A
	Sample Date	4/6/2009	10/6/2009	4/2/2010	10/11/2010	4/3/2011	10/4/2011	4/23/2012	10/20/2012
	Unit								
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	0.156 J	0.13 J	<0.3	<0.3	0.127 JB	<0.3
cis-1,2-Dichloroethene	µg/L	1.47	1.63	2.18	2.25	2.11	1.81	1.92	2.08
Tetrachloroethene	µg/L	16.9	8.48	14.7	13.6	13.3	12.6	10.4	8.21
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	6.28	4.92	6.37	6.16	5.54	5.4	4.43	4.62
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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-210A

Analyte	Sample Name	MW-210A	MW-210A	MW-210A	MW-210A
	Sample Date	4/10/2013	10/11/2013	4/26/2014	10/20/2014
	Unit				
Carbon tetrachloride	µg/L	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	0.128 J
cis-1,2-Dichloroethene	µg/L	2.15	2	2.25	1.97
Tetrachloroethene	µg/L	8.42	5.79	5	4.28
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Trichloroethene	µg/L	5.36	4.52	5.07	5.82
Vinyl chloride	µg/L	<1	<1	<1	<1

Notes:

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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-210B

Analyte	Sample Name	MW-210B	MW-210B-LQ-4	MW-210B-LA-5	MW-210B-LQ-6	MW-210B	MW-210B
	Sample Date	4/27/2007	7/9/2007	10/5/2007	1/8/2008	4/8/2008	10/6/2008
	Unit						
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-210B

Analyte	Sample Name	MW-210B	MW-210B	MW-210B	MW-210B	MW-210B	MW-210B	MW-210B	MW-210B
	Sample Date	4/6/2009	10/6/2009	4/2/2010	10/11/2010	4/3/2011	10/4/2011	4/23/2012	10/20/2012
Unit									
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	0.889 J	0.995 J	1.3	1.1	1.1	0.781 J	0.902 J	0.723 J
Tetrachloroethene	µg/L	12.2	9.39	10.3	9.27	8.64	7.24	7.42	4.8
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	7.2	7.78	7.06	7.77	8.21	9.73	6.76	10.2
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-210B

Analyte	Sample Name	MW-210B	MW-210B	MW-210B	MW-210B
	Sample Date	4/10/2013	10/11/2013	4/26/2014	10/20/2014
Unit					
Carbon tetrachloride	µg/L	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	0.717 J	0.635 J	0.808 J	0.624 J
Tetrachloroethene	µg/L	4.7	3.59	3.37	2.71
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Trichloroethene	µg/L	8.56	6.93	7.01	11
Vinyl chloride	µg/L	<1	<1	<1	<1

Notes:

VOC samples analyzed using methods SW8010/8020.

SW8240, SW8260, SW8260A, SW8260B, or CV3990

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-211

	Sample Name	MW-211	MW-211-LQ-4	MW-211-LA-5	MW-211-LQ-6	MW-211	MW-211	MW-211
	Sample Date	4/16/2007	7/10/2007	10/2/2007	1/9/2008	10/10/2008	4/10/2009	10/7/2009
Analyte	Unit							
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.139 J	<0.3	<0.3	0.214 J	2.24 J	2.71	1.24
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	0.502 J	0.431 J	0.469 J	0.811 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.536 J	0.576 J	0.436 J	0.602 J	1.18 J	1.38	1.2
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-211

Analyte	Sample Name	MW-211	MW-211	MW-211	MW-211	MW-211
	Sample Date	10/13/2010	10/3/2011	10/21/2012	10/12/2013	10/20/2014
Unit						
Carbon tetrachloride	µg/L	0.344	<1	<1	<1	<1
Chloroform	µg/L	0.218 J	0.152 J	0.166 J	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.745 J	0.275 J	<1	0.686 J	1.2
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.3	0.512 J	0.39 J	0.461 J	0.702 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-214A

Analyte	Sample Name	MW-214A	MW-214A	MW-214A	MW-214A	MW-214A	MW-214A	MW-214A	MW-214A
	Sample Date	4/16/2007	7/10/2007	10/3/2007	1/9/2008	4/7/2008	10/7/2008	4/10/2009	10/11/2009
Unit									
Carbon tetrachloride	µg/L	0.601 J	0.476 J	0.725 J	0.575 J	0.709 J	0.647 J	0.752 J	0.891 J
Chloroform	µg/L	2.63	2.32	2.26	2.02	2.06	1.58	2.22	2.21
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	8.83	6.81	6.99	7.29	6.22	4.81	4.51	4.64
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5.59	4.49	4.11	3.65	3.02	1.95	2.31	2.6
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-214A

Analyte	Sample Name Sample Date Unit	MW-214A 10/7/2010	MW-214A 10/2/2011	MW-214A 4/23/2012	MW-214A 10/21/2012	MW-214A 4/11/2013	MW-214A 10/12/2013	MW-214A 4/25/2014	MW-214A 10/21/2014
Carbon tetrachloride	µg/L	1.12 J	1.18	1.03	1.01	0.976 J	1.09	0.877 J	0.85 J
Chloroform	µg/L	5.01 J	4.34	2.93	2.7	2.27	2.18	1.93	2.33
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	10.5 J	11.1	7.59	6.54	6.06	6.6	5.62	5.76
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	7.88 J	6.71	2.69	2.46	2.01	2.14	1.86	2.24
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-214B

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							
Carbon tetrachloride	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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-214B

Analyte	Sample Name	MW-214B	MW-214B	MW-214B	MW-214B	MW-214B	MW-214B	MW-214B	MW-214B
	Sample Date	4/10/2009	10/11/2009	10/12/2010	10/2/2011	4/23/2012	10/21/2012	4/11/2013	10/12/2013
Unit									
Carbon tetrachloride	µg/L	0.797 J	0.92 J	1.08	1.27	0.942 J	1.19	0.977 J	1.01
Chloroform	µg/L	1.47	1.8	3.79	3.94	2.7	2.53	1.61	1.7
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	4	4.14	10	9.24	5.78	6.79	5.42	6
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.93	2.25	5.65 B	5.16	2.6	2.28	1.41	1.98
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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-214B

Analyte	Sample Name	MW-214B	MW-214B
	Sample Date	4/25/2014	10/21/2014
	Unit		
Carbon tetrachloride	µg/L	0.925 J	0.902 J
Chloroform	µg/L	1.7	2.06
cis-1,2-Dichloroethene	µg/L	<1	<1
Tetrachloroethene	µg/L	5.04	5.12
trans-1,2-Dichloroethene	µg/L	<1	<1
Trichloroethene	µg/L	1.66	2.01
Vinyl chloride	µg/L	<1	<1

Notes:

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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-215A

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							
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-215A

Analyte	Sample Name	MW-215A	MW-215A	MW-215A	MW-215A	MW-215A	MW-215A	MW-215A
	Sample Date	4/10/2009	10/12/2009	10/6/2010	10/7/2011	10/21/2012	10/12/2013	10/21/2014
Unit								
Carbon tetrachloride	µg/L	0.591 J	0.579 J	0.747 J	0.596 J	1.09	0.978 J	0.946 J
Chloroform	µg/L	1.52	1.43	1.03	0.908	2.4	2.39	1.98
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	4.91	4.91	4.19	3.51	6.06	6.93	6.19
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	6.2	4.88	2.72	2.08	3	3.46	2.71
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-215B

	Sample Name	MW-215B	MW-215B-LQ-4	MW-215B-LA-5	MW-215B-LQ-6	MW-215B	MW-215B
	Sample Date	4/16/2007	7/9/2007	10/4/2007	1/9/2008	4/9/2008	10/7/2008
Analyte	Unit						
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-215B

Analyte	Sample Name Sample Date Unit	MW-215B 4/9/2009	MW-215B 10/12/2009	MW-215B 10/12/2010	MW-215B 10/4/2011	MW-215B 10/21/2012	MW-215B 10/12/2013	MW-215B 10/21/2014
Carbon tetrachloride	µg/L	0.97 J	1.17	1.23 J	1.12	1.3	1.33	1.4
Chloroform	µg/L	0.767	0.686	0.63	0.589	0.845	0.685	0.645
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	4.99	5.66	5.81	4.82	5.91	6.24	5.93
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.66	1.76	1.5	1.42	1.71	1.55	1.52
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-216

Analyte	Sample Name	MW-216	MW-216-LQ-4	MW-216-LA-5	MW-216-LQ-6	MW-216	MW-216	MW-216
	Sample Date	4/27/2007	7/10/2007	10/2/2007	1/8/2008	10/6/2008	4/6/2009	10/12/2009
Unit								
Carbon tetrachloride	µg/L	<1 J	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	0.169 J	0.183 J	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	0.288 J	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	34.2	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	1.5	<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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-216

Analyte	Sample Name	MW-216	MW-216	MW-216	MW-216	MW-216
	Sample Date	10/9/2010	10/5/2011	10/20/2012	10/11/2013	10/20/2014
Unit						
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.285 J	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	0.363 J	0.379 J	0.32 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-217

	Sample Name	MW-217	MW-217-LQ-4	MW-217-LA-5	MW-217-LQ-6	MW-217	MW-217	MW-217
	Sample Date	4/27/2007	7/9/2007	10/2/2007	1/9/2008	4/7/2008	10/8/2008	4/8/2009
Analyte	Unit							
Carbon tetrachloride	µg/L	34.8	42.3 J	53.4	57.3	72.1	96.3 J	92.4
Chloroform	µg/L	5.05	5.33	5.18	7.43	8.56	13.4 J	9.43
cis-1,2-Dichloroethene	µg/L	1.34	1.45	1.89	2.43	2.88	4.8 J	3.58
Tetrachloroethene	µg/L	18.4	25.4 J	31.3	31.7	34.7	26.5 J	31.2
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	29.5	40.6 J	39.4	35.9	34.4	25.6 J	28.7
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-217

Analyte	Sample Name	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217
	Sample Date	10/8/2009	3/31/2010	10/7/2010	3/31/2011	10/4/2011	4/23/2012	10/21/2012	4/10/2013
	Unit								
Carbon tetrachloride	µg/L	55.6	65.6	48.8	47.7	32.1	33.7	23.9	27.3
Chloroform	µg/L	5.24	4.4	3.73	4.25	3.77	3.54	4.12	3.74
cis-1,2-Dichloroethene	µg/L	1.8	1.33	0.819 J	0.871 J	0.581 J	0.555 J	0.519 J	0.707 J
Tetrachloroethene	µg/L	29.9	29.7	27.4	27.7	24.6	17.9	23.7	23.8
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	32.9	34.6	37.9	46.1	44.1	41.7	45 J	44
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-217

Analyte	Sample Name	MW-217	MW-217	MW-217
	Sample Date	10/12/2013	4/24/2014	10/20/2014
	Unit			
Carbon tetrachloride	µg/L	40.4	46.9	29.7
Chloroform	µg/L	3.88	3.97	3.73
cis-1,2-Dichloroethene	µg/L	0.791 J	0.833 J	0.589 J
Tetrachloroethene	µg/L	29.6	23.6	23.3
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	42.1	33	36.4
Vinyl chloride	µg/L	<1	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-218

Analyte	Sample Name	MW-218	MW-218-LQ-4	MW-218-LA-5	MW-218-LQ-6	MW-218	MW-218	MW-218
	Sample Date Unit	4/17/2007	7/9/2007	10/2/2007	1/9/2008	4/7/2008	10/8/2008	4/8/2009
Carbon tetrachloride	µg/L	15.1	13.3	17.6	15	17.7	15.6 J	15.7
Chloroform	µg/L	3.15	2.79	2.45	2.58	2.62	2.78 J	2.75
cis-1,2-Dichloroethene	µg/L	0.459 J	0.468 J	0.508 J	0.352 J	0.392 J	0.373 J	0.426 J
Tetrachloroethene	µg/L	17.7	16.7	18.5	17.2	17.4	12.2 J	15.2
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	44.2	47.6	42.8	42.5	40.7	35.9 J	37.1
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-218

Analyte	Sample Name	MW-218	MW-218	MW-218	MW-218	MW-218	MW-218	MW-218	MW-218
	Sample Date	10/8/2009	3/31/2010	10/14/2010	4/3/2011	10/7/2011	4/23/2012	10/21/2012	4/10/2013
	Unit								
Carbon tetrachloride	µg/L	10.1	7.56	8.81	9.84 J	9.75	6.73	8.22	7.6
Chloroform	µg/L	2.49	2.42	2.98	2.79	2.52	2.28	2.82	2.55
cis-1,2-Dichloroethene	µg/L	0.404 J	0.303 J	0.373 J	0.419 J	0.436 J	<1	0.379 J	0.252 J
Tetrachloroethene	µg/L	16.3	11.2	13.7	16.8	19.5	17.9	20.3	18.1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	42.5	32.8	37.6	46.2	49.2	44.7	43.9	42.2
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-218

Analyte	Sample Name	MW-218	MW-218	MW-218
	Sample Date	10/12/2013	4/25/2014	10/20/2014
	Unit			
Carbon tetrachloride	µg/L	8.75	7.96	8.07
Chloroform	µg/L	2.8	2.81	2.73
cis-1,2-Dichloroethene	µg/L	0.33 J	<1	<1
Tetrachloroethene	µg/L	18.9	15.4	16
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	40.3	34.5	32.9
Vinyl chloride	µg/L	<1	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-219

	Sample Name	MW-219	MW-219-LQ-4	MW-219-LA-5	MW-219-LQ-6	MW-219	MW-219	MW-219
	Sample Date	4/27/2007	7/10/2007	10/3/2007	1/9/2008	4/7/2008	10/10/2008	4/6/2009
Analyte	Unit							
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<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	1.15
Tetrachloroethene	µg/L	16.3	27.6	33.9	48	41.4	47 J	39.4
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.72	2.79	3.37	3.74	3.26	3.53 J	2.84
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-219

Analyte	Sample Name Sample Date Unit	MW-219 10/8/2009	MW-219 4/1/2010	MW-219 10/6/2010	MW-219 4/3/2011	MW-219 10/6/2011	MW-219 4/23/2012	MW-219 10/19/2012	MW-219 4/11/2013
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	0.935 J	0.393 J	<1	<1	<1	0.677 J	1.64	2.04
Tetrachloroethene	µg/L	26.9	10.6	5.57	4.55	6.51	11	25.2	39.6
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	2.09	0.868 J	0.575 J	0.439 J	0.614 J	1.36	2.9	3.54
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-219

Analyte	Sample Name	MW-219	MW-219	MW-219
	Sample Date	10/12/2013	4/26/2014	10/19/2014
	Unit			
Carbon tetrachloride	µg/L	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	2.48	3.09	3.07
Tetrachloroethene	µg/L	53.6	66.6	74.7
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	3.62	3.89	4.14
Vinyl chloride	µg/L	<1	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-229

	Sample Name	MW-229	MW-229	MW-229	MW-229	MW-229	MW-229	MW-229	MW-229
	Sample Date	10/5/2007	1/9/2008	10/8/2008	4/8/2009	10/8/2009	10/6/2010	10/2/2011	10/19/2012
Analyte	Unit								
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
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	<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

µg/L micrograms per liter

DQE Flags:

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-229

Analyte	Sample Name	MW-229
	Sample Date	10/19/2014
Unit		
Carbon tetrachloride	µg/L	<1
Chloroform	µg/L	<0.3
cis-1,2-Dichloroethene	µg/L	<1
Tetrachloroethene	µg/L	<1
trans-1,2-Dichloroethene	µg/L	<1
Trichloroethene	µg/L	<1
Vinyl chloride	µg/L	<1

Notes:

VOC samples analyzed using methods SW8010/8020.

SW8240, SW8260, SW8260A, SW8260B, or CV3990

µg/L micrograms per liter

DQE Flags:

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-252

	Sample Name	MW-252	MW-252	MW-252	MW-252	MW-252	MW-252	MW-252	MW-252
	Sample Date	6/18/2010	10/6/2010	12/9/2010	3/31/2011	10/6/2011	4/23/2012	10/19/2012	4/11/2013
Analyte	Unit								
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	0.332	1.07	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	2.75	5.64	<1	1.65	<1	0.651 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	1.62	3.73	<1	0.891 J	<1	<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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-252

Analyte	Sample Name	MW-252	MW-252
	Sample Date	10/12/2013	10/19/2014
	Unit		
Carbon tetrachloride	µg/L	<1	<1
Chloroform	µg/L	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1
Tetrachloroethene	µg/L	0.273 J	<1
trans-1,2-Dichloroethene	µg/L	<1	<1
Trichloroethene	µg/L	<1	<1
Vinyl chloride	µg/L	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-253

	Sample Name	MW-253	MW-253	MW-253	MW-253	MW-253	MW-253	MW-253	MW-253
	Sample Date	6/18/2010	10/6/2010	12/9/2010	3/31/2011	9/30/2011	4/23/2012	10/19/2012	4/11/2013
Analyte	Unit								
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.156	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
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	0.344	2.99	4.87	7.75	9.81	<1	<1	<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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-253

Analyte	Sample Name	MW-253	MW-253
	Sample Date	10/12/2013	10/19/2014
	Unit		
Carbon tetrachloride	µg/L	<1	<1
Chloroform	µg/L	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1
Tetrachloroethene	µg/L	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1
Trichloroethene	µg/L	<1	<1
Vinyl chloride	µg/L	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-254

Analyte	Sample Name	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254
	Sample Date	8/16/2010	10/5/2010	12/8/2010	3/31/2011	9/30/2011	4/23/2012	10/19/2012	4/11/2013
	Unit								
Carbon tetrachloride	µg/L	0.695	0.872 J	1.18	1.06	0.869 J	0.888 J	1.15	0.889 J
Chloroform	µg/L	0.241	0.223 J	0.29	0.249 J	0.205 J	0.201 J	0.295 J	0.185 J
cis-1,2-Dichloroethene	µg/L	<1	<1	0.299	<1	0.303 J	0.321 J	<1	0.34 J
Tetrachloroethene	µg/L	0.814	0.623 J	0.854	<1	0.578 J	0.573 J	0.649 J	0.905 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	2.28	2.07	2.58	1.8	2.28	2.63	2.37	3.13
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-254

Analyte	Sample Name	MW-254	MW-254	MW-254
	Sample Date	10/12/2013	4/26/2014	10/19/2014
	Unit			
Carbon tetrachloride	µg/L	0.748 J	0.987 J	0.736 J
Chloroform	µg/L	0.162 J	0.199 J	0.166 J
cis-1,2-Dichloroethene	µg/L	0.347 J	0.385 J	0.387 J
Tetrachloroethene	µg/L	0.77 J	0.901 J	0.901 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	2.7	2.8	2.79
Vinyl chloride	µg/L	<1	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-255

Analyte	Sample Name	MW-255	MW-255	MW-255	MW-255	MW-255	MW-255	MW-255	MW-255
	Sample Date	8/9/2010	10/5/2010	12/8/2010	3/31/2011	9/30/2011	4/23/2012	10/19/2012	4/11/2013
Unit									
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
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	0.297 J	0.269	0.345 J	0.298 J	0.586 J	0.532 J	0.433 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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-255

Analyte	Sample Name	MW-255	MW-255
	Sample Date	10/12/2013	10/19/2014
	Unit		
Carbon tetrachloride	µg/L	<1	<1
Chloroform	µg/L	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1
Tetrachloroethene	µg/L	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1
Trichloroethene	µg/L	0.353 J	0.501 J
Vinyl chloride	µg/L	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-256

Analyte	Sample Name	MW-256	MW-256	MW-256	MW-256	MW-256	MW-256	MW-256	MW-256
	Sample Date	8/9/2010	10/5/2010	12/9/2010	3/31/2011	9/30/2011	4/23/2012	10/19/2012	4/11/2013
	Unit								
Carbon tetrachloride	µg/L	0.302	0.32	0.613 J	0.36	0.268 J	0.524 J	0.404 J	0.334 J
Chloroform	µg/L	1.74	2.01	1.95	2.35	2.27	2.25	2.47	2.32
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	0.28 J
Tetrachloroethene	µg/L	8.71	9.44	8.64	12.1	20	34.3	39.5	41.9
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	2.43	2.77	2.9	3.51	4.68	7.82	13.7	16
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-256

Analyte	Sample Name	MW-256	MW-256	MW-256
	Sample Date	10/12/2013	4/26/2014	10/19/2014
Unit				
Carbon tetrachloride	µg/L	0.366 J	0.506 J	0.415 J
Chloroform	µg/L	2.29 J	2.46	1.88
cis-1,2-Dichloroethene	µg/L	<1	0.294 J	0.316 J
Tetrachloroethene	µg/L	37.7 J	43.5	38
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	14 J	13.4	11.6
Vinyl chloride	µg/L	<1	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-257

Analyte	Sample Name	MW-257	MW-257	MW-257	MW-257	MW-257
	Sample Date	4/23/2012	10/21/2012	4/11/2013	10/12/2013	10/19/2014
	Unit					
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-258

Analyte	Sample Name	MW-258	MW-258	MW-258	MW-258	MW-258	MW-258
	Sample Date	4/22/2012	10/21/2012	4/11/2013	10/12/2013	4/25/2014	10/21/2014
	Unit						
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	2.34	4.1	2.95	2.54	2.22	1.73
cis-1,2-Dichloroethene	µg/L	1.75	2.54	2.22	2.25	1.82	1.69
Tetrachloroethene	µg/L	19.4	22.1	25.9	32.2	29.9	29.7
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	57.7 J	93	88.7	85.8	73.9	50.8
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-259

Analyte	Sample Name	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259
	Sample Date	4/22/2012	10/21/2012	4/10/2013	10/12/2013	4/25/2014	10/20/2014
	Unit						
Carbon tetrachloride	µg/L	4.69	5.12	4.98	5.02	4.95	4.45
Chloroform	µg/L	2.69	3.07	3.08	3	2.71	2.5
cis-1,2-Dichloroethene	µg/L	<1	<1	0.278 J	0.277 J	<1	<1
Tetrachloroethene	µg/L	15.1	15.1	16.1	17	15	14.4
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	15.7	15.9	22	23.9	23.6	21.4
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-260

Analyte	Sample Name	MW-260	MW-260	MW-260
	Sample Date	10/11/2013	4/25/2014	10/20/2014
	Unit			
Carbon tetrachloride	µg/L	<1	<1	<1
Chloroform	µg/L	1.37	1.27	1.18
cis-1,2-Dichloroethene	µg/L	<1	0.324 J	<1
Tetrachloroethene	µg/L	<1	0.27 J	0.306 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	3.97	5.34	4.22
Vinyl chloride	µg/L	<1	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-261

Analyte	Sample Name	MW-261	MW-261	MW-261
	Sample Date	10/11/2013	4/25/2014	10/20/2014
	Unit			
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	0.292 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	2.71 J	3.36	2.52
Vinyl chloride	µg/L	<1	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

PMW21-03

Analyte	Sample Name Sample Date Unit	PMW21-03	PMW21-03	PMW21-03	PMW21-03	PMW21-03	PMW21-03	PMW21-03	PMW21-03
		8/10/2006	12/6/2006	3/7/2007	6/4/2007	9/19/2007	12/18/2007	3/17/2008	6/13/2008
Carbon tetrachloride	µg/L	<1	J	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.173 J	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	2.55	0.527 J	0.485 J	0.355 J	0.636 J	0.403 J	0.407 J	0.504 J
Tetrachloroethene	µg/L	185	46.3	32.5	25.6	49	28.5	36.9	30.8
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	58	14.6	9.78	6.73	15.9	9.84	8.96	9.73
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

PMW21-03

Analyte	Sample Name Sample Date Unit	PMW21-03	PMW21-03	PMW21-03	PMW21-03	PMW21-03	PMW21-03	PMW21-03	PMW21-03
		12/12/2008	3/12/2009	3/30/2010	10/5/2010	4/4/2011	10/5/2011	4/23/2012	10/19/2012
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	19.2	57.4	1.11	0.687 J	1.07	1.11	1.83	2.11
Tetrachloroethene	µg/L	22.2	18.7	59.7	45.9	39.5	55	83.5	88.8
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	9.79	8.01	16.2	11.4	11.6	14.4	19.9	21.2
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

PMW21-03

Analyte	Sample Name	PMW21-03	PMW21-03	PMW21-03	PMW21-03
	Sample Date	4/11/2013	10/12/2013	4/26/2014	10/18/2014
	Unit				
Carbon tetrachloride	µg/L	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	2.31	3.76	4.31	3.45
Tetrachloroethene	µg/L	112	115	130	87.3
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Trichloroethene	µg/L	31	33.4	38.7	30.3
Vinyl chloride	µg/L	<1	<1	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

PMW21-05

Analyte	Sample Name	PMW21-05	PMW21-05	PMW21-05	PMW21-05	PMW21-05	PMW21-05	PMW21-05	PMW21-05
	Sample Date	8/10/2006	12/5/2006	3/7/2007	6/5/2007	9/18/2007	12/18/2007	3/14/2008	6/16/2008
	Unit								
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	0.525 J	0.278 J	0.346 J	0.442 J	0.52 J	0.527 J	0.29 J	<1
Tetrachloroethene	µg/L	6.37	8.66	18.7	27.9	36.3	50.3	43.2	36.9
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	34.4	18.3	14	17.1	30.2	18.2	34.6	10.3
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

PMW21-05

Analyte	Sample Name Sample Date Unit	PMW21-05	PMW21-05	PMW21-05	PMW21-05	PMW21-05	PMW21-05	PMW21-05	PMW21-05
		12/11/2008	3/12/2009	4/1/2010	10/6/2010	4/4/2011	10/5/2011	4/23/2012	10/19/2012
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	0.865 J	1.47	0.851 J	0.798 J	0.939 J	0.298 J	0.378 J	<1
Tetrachloroethene	µg/L	40.3	61.2	57.7	43.1	40.6	19.5	20.3	12.3
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	10.4	13	5.71	4.24	3.78	1.46	1.34	0.867 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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

PMW21-05

Analyte	Sample Name Sample Date Unit	PMW21-05	PMW21-05	PMW21-05	PMW21-05
		4/11/2013	10/12/2013	4/26/2014	10/18/2014
Carbon tetrachloride	µg/L	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	0.463 J	0.515 J
Tetrachloroethene	µg/L	14.4	12.5	10.6	13.5
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Trichloroethene	µg/L	0.892 J	0.763 J	0.786 J	1.13
Vinyl chloride	µg/L	<1	<1	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

PMW92-02

	Sample Name	PMW92-02	PMW92-02	PMW92-02	PMW92-02	PMW92-02	PMW92-02	PMW92-02
	Sample Date	8/31/2006	12/7/2006	3/8/2007	5/30/2007	9/12/2007	12/12/2007	3/10/2008
Analyte	Unit							
Carbon tetrachloride	µg/L	19.8	0.462 J	<1	<1 J	<1	<1	<1
Chloroform	µg/L	12.2	4.42	8.75	8.52	0.751	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	10.9	172 J	171	150	130	123	87.7
Tetrachloroethene	µg/L	157	13	1.58	1.47 B	0.689 J	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	0.334 J	<1	<1	<1	<1
Trichloroethene	µg/L	5.81	4.03	0.518 J	0.283 J	<1	<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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

PMW92-02

	Sample Name	PMW92-02	PMW92-02	PMW92-02	PMW92-02	PMW92-02	PMW92-02	PMW92-02
	Sample Date	6/10/2008	12/11/2008	3/16/2009	12/12/2011	4/11/2013	10/12/2013	4/24/2014
Analyte	Unit							
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	130	99.2	124	184	122	149	133
Tetrachloroethene	µg/L	<1	<1	<1	<1	0.327 J	0.385 J	0.609 J
trans-1,2-Dichloroethene	µg/L	0.254 J	<1	<1	<1	<1	0.273 J	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1	0.559 J	0.322 J
Vinyl chloride	µg/L	<1	<1	<1	0.337 J	0.54 J	0.902 J	2.04

Notes:

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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

PMW92-02

Analyte	Sample Name	PMW92-02
	Sample Date	10/20/2014
Unit		
Carbon tetrachloride	µg/L	<1
Chloroform	µg/L	<0.3
cis-1,2-Dichloroethene	µg/L	119
Tetrachloroethene	µg/L	0.278 J
trans-1,2-Dichloroethene	µg/L	<1
Trichloroethene	µg/L	0.345 J
Vinyl chloride	µg/L	17.1

Notes:

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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

PMW101-03A

	Sample Name	PMW101-03A	PMW101-03A	PMW101-03A	PMW101-03A	PMW101-03A	PMW101-03A
	Sample Date	8/23/2006	12/4/2006	3/5/2007	5/30/2007	9/17/2007	12/13/2007
Analyte	Unit						
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.17 J	0.153 J	0.139 J	0.138 J	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	12.2	38
Tetrachloroethene	µg/L	100	112	99.7	88	60.1	24.9
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	0.322 J
Trichloroethene	µg/L	<1	<1	<1	<1	0.471 J	0.325 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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

PMW101-03A

	Sample Name	PMW101-03A	PMW101-03A	PMW101-03A	PMW101-03A	PMW101-03A	PMW101-03A
	Sample Date	3/11/2008	6/10/2008	12/8/2008	3/9/2009	12/8/2011	4/10/2013
Analyte	Unit						
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	38.1	56.5	73	68.1	1.97	0.637 J
Tetrachloroethene	µg/L	9.23	1.93	0.766 J	0.885 J	36.5	33.9
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.278 J	<1	<1	0.534 J	1.59	0.886 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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

PMW101-03A

Analyte	Sample Name	PMW101-03A	PMW101-03A	PMW101-03A
	Sample Date	10/12/2013	4/26/2014	10/18/2014
	Unit			
Carbon tetrachloride	µg/L	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	5.83	26.4	29.5
Tetrachloroethene	µg/L	35	1.31	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	0.838 J	<1	<1
Vinyl chloride	µg/L	<1	<1	0.301 J

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

PMW101-03B

	Sample Name	PMW101-03B	PMW101-03B	PMW101-03B	PMW101-03B	PMW101-03B	PMW101-03B
	Sample Date	8/23/2006	12/4/2006	3/5/2007	5/29/2007	9/17/2007	12/13/2007
Analyte	Unit						
Carbon tetrachloride	µg/L	<1	<1	<1	<1 J	<1	<1
Chloroform	µg/L	0.186 J	0.182 J	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	26.4	19.9	91.5	87.6
Tetrachloroethene	µg/L	144	194	134	123	14.4	13.8
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	2.41	1.66	1.7	2	1.02	1.57
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

PMW101-03B

	Sample Name	PMW101-03B	PMW101-03B	PMW101-03B	PMW101-03B	PMW101-03B	PMW101-03B
	Sample Date	3/11/2008	6/10/2008	12/8/2008	3/9/2009	12/8/2011	4/10/2013
Analyte	Unit						
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	87.6	86.8	60.8	58.1	0.884 J	0.637 J
Tetrachloroethene	µg/L	8.59	3.3	5.75	10.4	40.4	41.4
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.08	0.975 J	0.958 J	3.31	1.46	2.16
Vinyl chloride	µg/L	<1	<1	<1	<1	0.595 J	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

PMW101-03B

Analyte	Sample Name	PMW101-03B	PMW101-03B	PMW101-03B
	Sample Date	10/12/2013	4/26/2014	10/18/2014
	Unit			
Carbon tetrachloride	µg/L	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	6.35	31.5	19
Tetrachloroethene	µg/L	42.4	0.827 J	8.27
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	1.34	<1	3.28
Vinyl chloride	µg/L	1.27	3.93	3.65

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

PMW101-06A

	Sample Name	PMW101-06A	PMW101-06A	PMW101-06A	PMW101-06A	PMW101-06A	PMW101-06A
	Sample Date	8/23/2006	12/4/2006	3/6/2007	5/31/2007	9/18/2007	12/17/2007
Analyte	Unit						
Carbon tetrachloride	µg/L	<1	<1	<1	<1 J	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	0.68 J	2.9	0.798 J	0.364 J
Tetrachloroethene	µg/L	4.16	5.66	5.86	4.62 B	7.26	7.19
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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

PMW101-06A

	Sample Name	PMW101-06A	PMW101-06A	PMW101-06A	PMW101-06A	PMW101-06A	PMW101-06A
	Sample Date	3/12/2008	6/12/2008	12/10/2008	3/10/2009	12/9/2011	4/10/2013
Analyte	Unit						
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	0.917 J	0.414 J	3.63	1.71	<1	0.36 J
Tetrachloroethene	µg/L	7.13	5.52	0.341 J	1.17	2.32	1.29
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.252 J	<1	0.266 J	0.607 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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

PMW101-06A

Analyte	Sample Name	PMW101-06A	PMW101-06A	PMW101-06A
	Sample Date	10/12/2013	4/26/2014	10/19/2014
	Unit			
Carbon tetrachloride	µg/L	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	1.76	0.404 J	<1
Tetrachloroethene	µg/L	1.28	1.14	1.54
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	0.312 J	0.467 J	0.27 J
Vinyl chloride	µg/L	<1	<1	<1

Notes:

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

µg/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

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

PMW101-06B

	Sample Name	PMW101-06B	PMW101-06B	PMW101-06B	PMW101-06B	PMW101-06B	PMW101-06B
	Sample Date	8/24/2006	12/5/2006	3/6/2007	5/31/2007	9/18/2007	12/14/2007
Analyte	Unit						
Carbon tetrachloride	µg/L	<1	<1	<1	<1 J	<1	<1
Chloroform	µg/L	0.166 J	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	0.687 J	0.722 J	45	40.3	39.7	40.5
Tetrachloroethene	µg/L	23.3	37.6	0.294 J	<1	<1	2.63
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	16.2	18.6	<1	<1	<1	1.04
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

PMW101-06B

	Sample Name	PMW101-06B	PMW101-06B	PMW101-06B	PMW101-06B	PMW101-06B	PMW101-06B
	Sample Date	3/12/2008	6/11/2008	12/10/2008	3/11/2009	12/9/2011	4/10/2013
Analyte	Unit						
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	45.8	39.3 J	31.9	25.5	<1	0.998 J
Tetrachloroethene	µg/L	3.24	1.15 J	<1	<1	16.6	18
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.72	1.28 J	<1	<1	4.32	3.97
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

PMW101-06B

Analyte	Sample Name	PMW101-06B	PMW101-06B	PMW101-06B
	Sample Date	10/12/2013	4/26/2014	10/19/2014
	Unit			
Carbon tetrachloride	µg/L	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	2.37	4.15	3.11
Tetrachloroethene	µg/L	16	14.2	20.4
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	2.98	2.39	2.13
Vinyl chloride	µg/L	<1	<1	<1

Notes:

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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

PZ-03

	Sample Name	PZ-03	PZ-03	PZ-03	PZ-03	PZ-03	PZ-03	PZ-03	PZ-03
	Sample Date	3/20/2002	5/26/2004	2/23/2005	10/5/2006	10/5/2007	10/14/2008	10/11/2009	10/15/2010
Analyte	Unit								
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	<1	0.2J	0.198 J	0.139 J	0.29 J	0.192 J	0.203 J
cis-1,2-Dichloroethene	µg/L	0.55J	<1	0.26J	<1	<1	<1	<1	0.287 J
Tetrachloroethene	µg/L	7.1	4.4	5	3.89	0.523 J	4.38	3.99	2.04
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.86J	0.6J	0.85J	0.917 J	0.321 J	1.07	1.23	1.23
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

µg/L micrograms per liter

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - MI LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

PZ-03

Analyte	Sample Name	PZ-03	PZ-03	PZ-03	PZ-03
	Sample Date	10/8/2011	10/22/2012	10/11/2013	10/21/2014
	Unit				
Carbon tetrachloride	µg/L	<1	<1	<1	<1
Chloroform	µg/L	0.235 J	0.261 J	0.263 J	0.265 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Tetrachloroethene	µg/L	3.39	3.34	2.43 J	1.72
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Trichloroethene	µg/L	2.64	3.76	5.81 J	9.88
Vinyl chloride	µg/L	<1	<1	<1	<1

Notes:

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

µg/L micrograms per liter

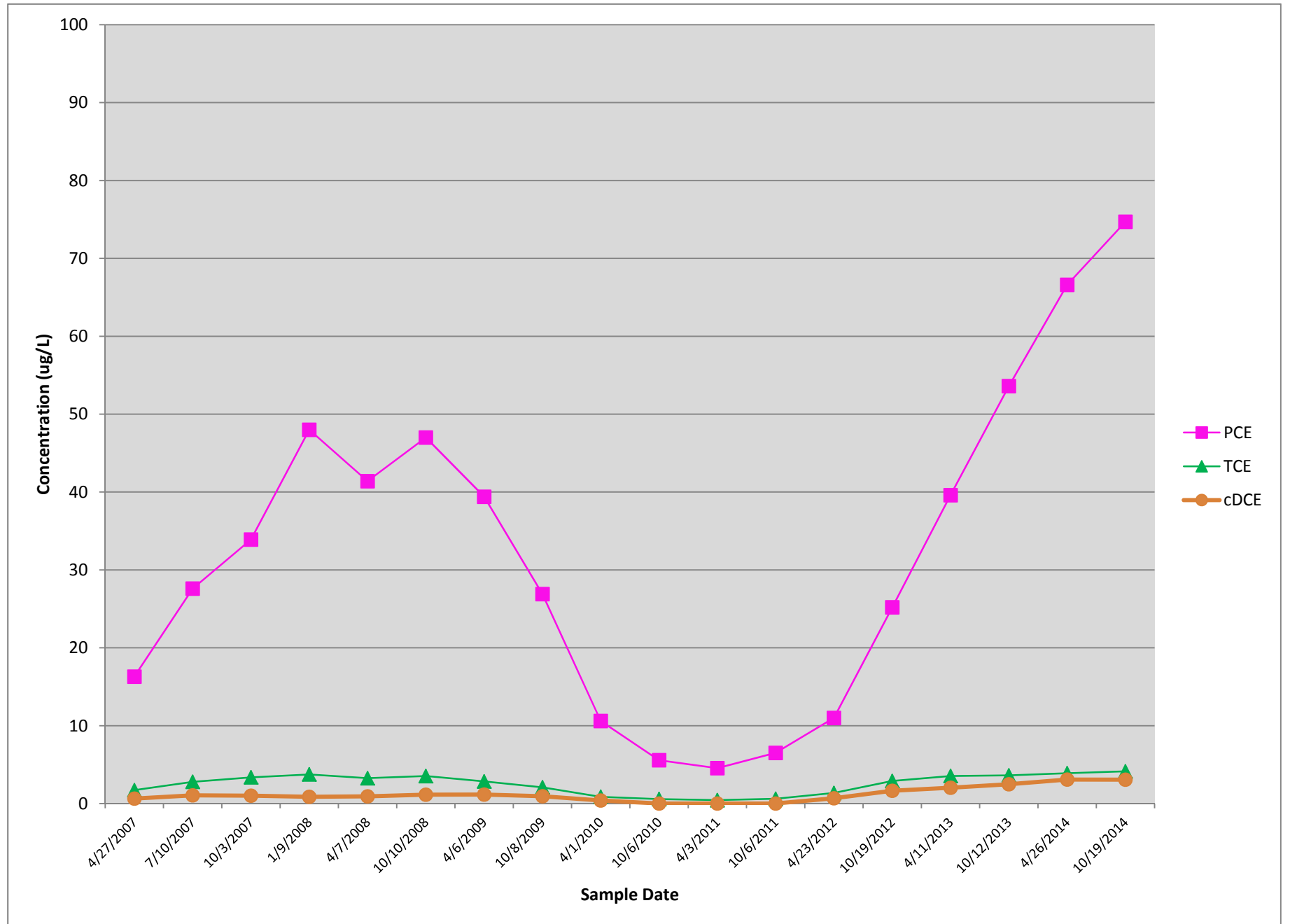
DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

APPENDIX E
CVOC TIME-TREND PLOTS –
MAIN INSTALLATION

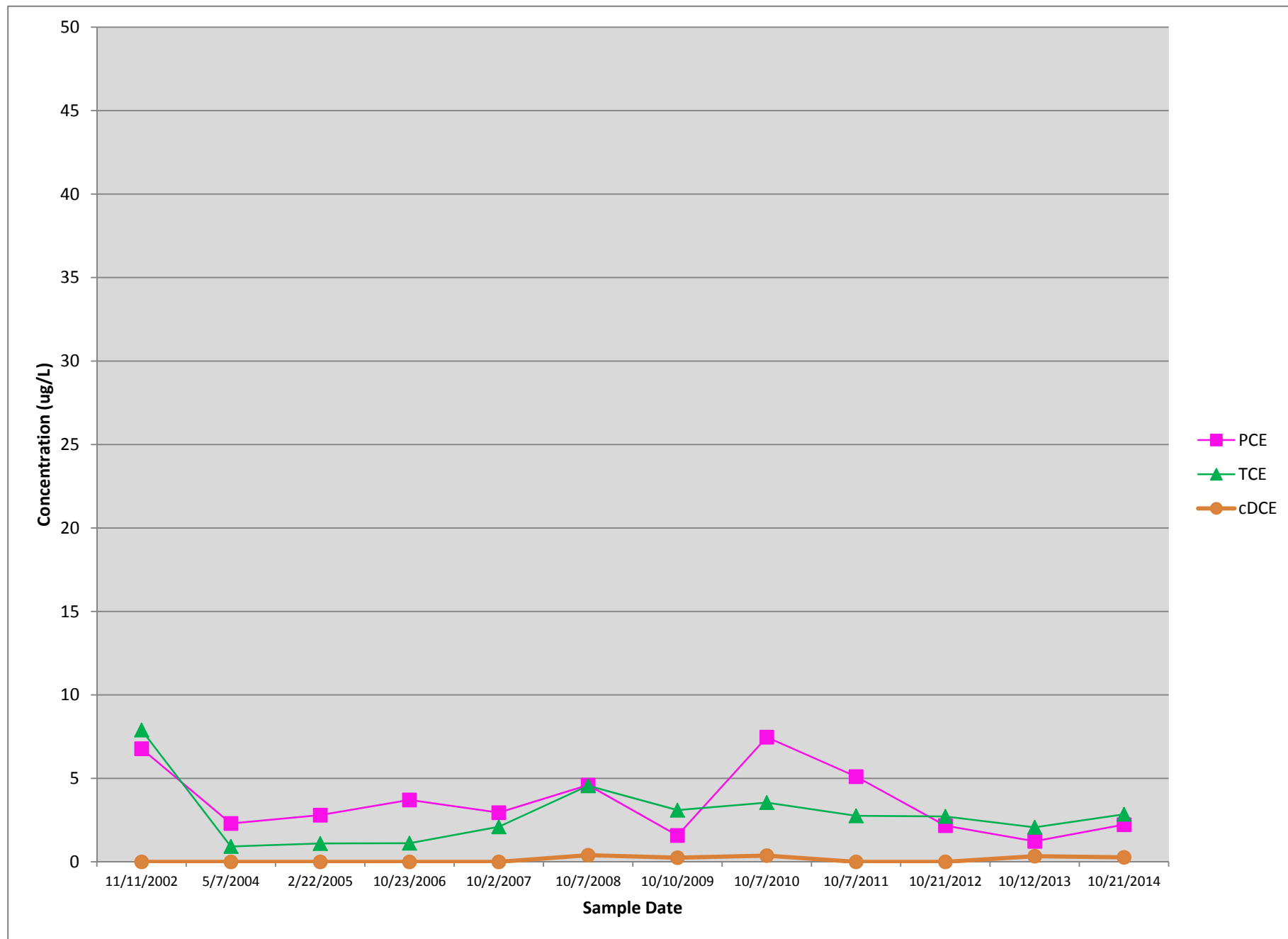
APPENDIX E-1
CVOC TIME-TREND PLOTS –
MAIN INSTALLATION
BOUNDARY WELLS

MW-219

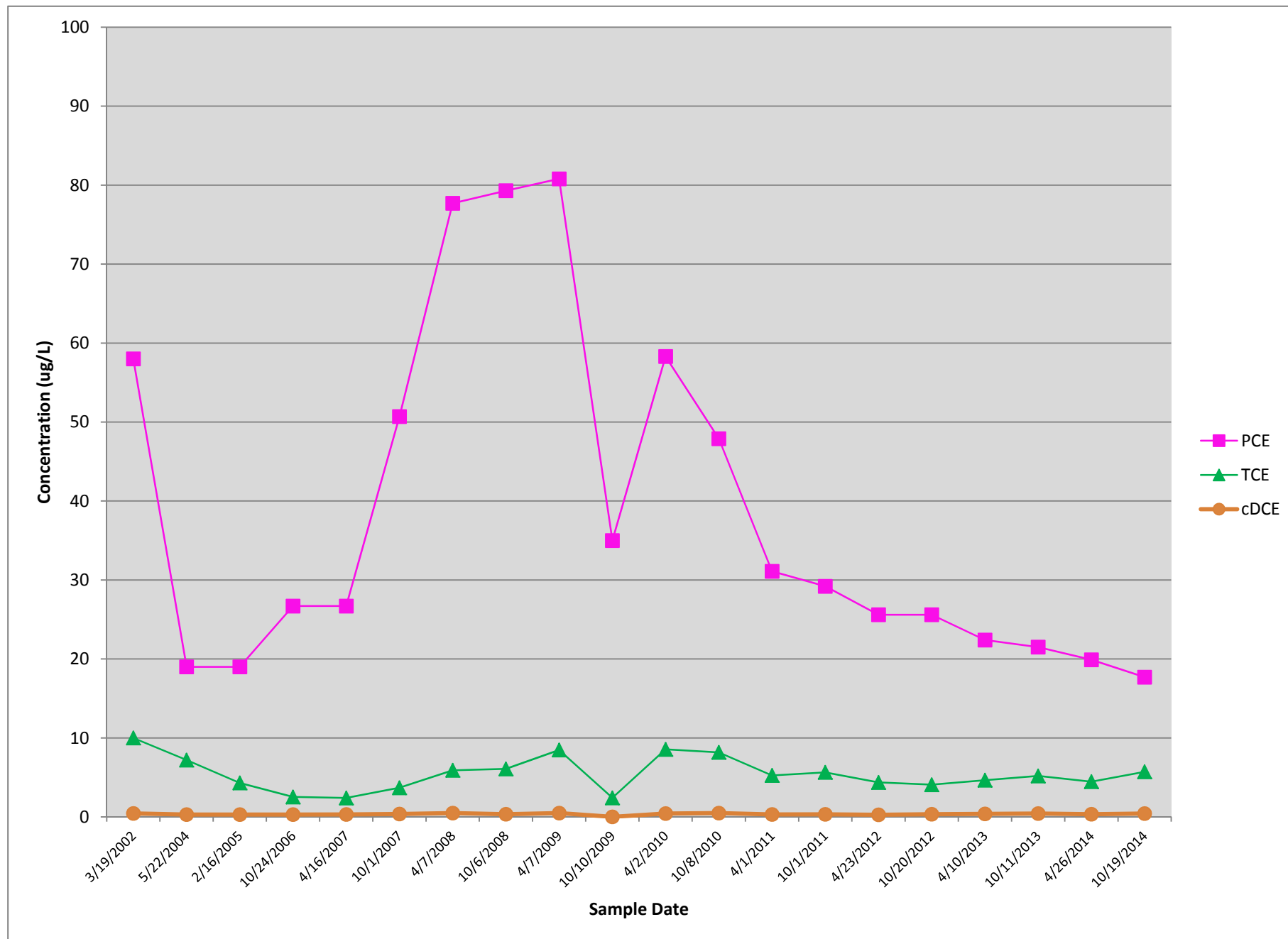


APPENDIX E-2
CVOC TIME-TREND PLOTS –
MAIN INSTALLATION
SENTINEL WELLS

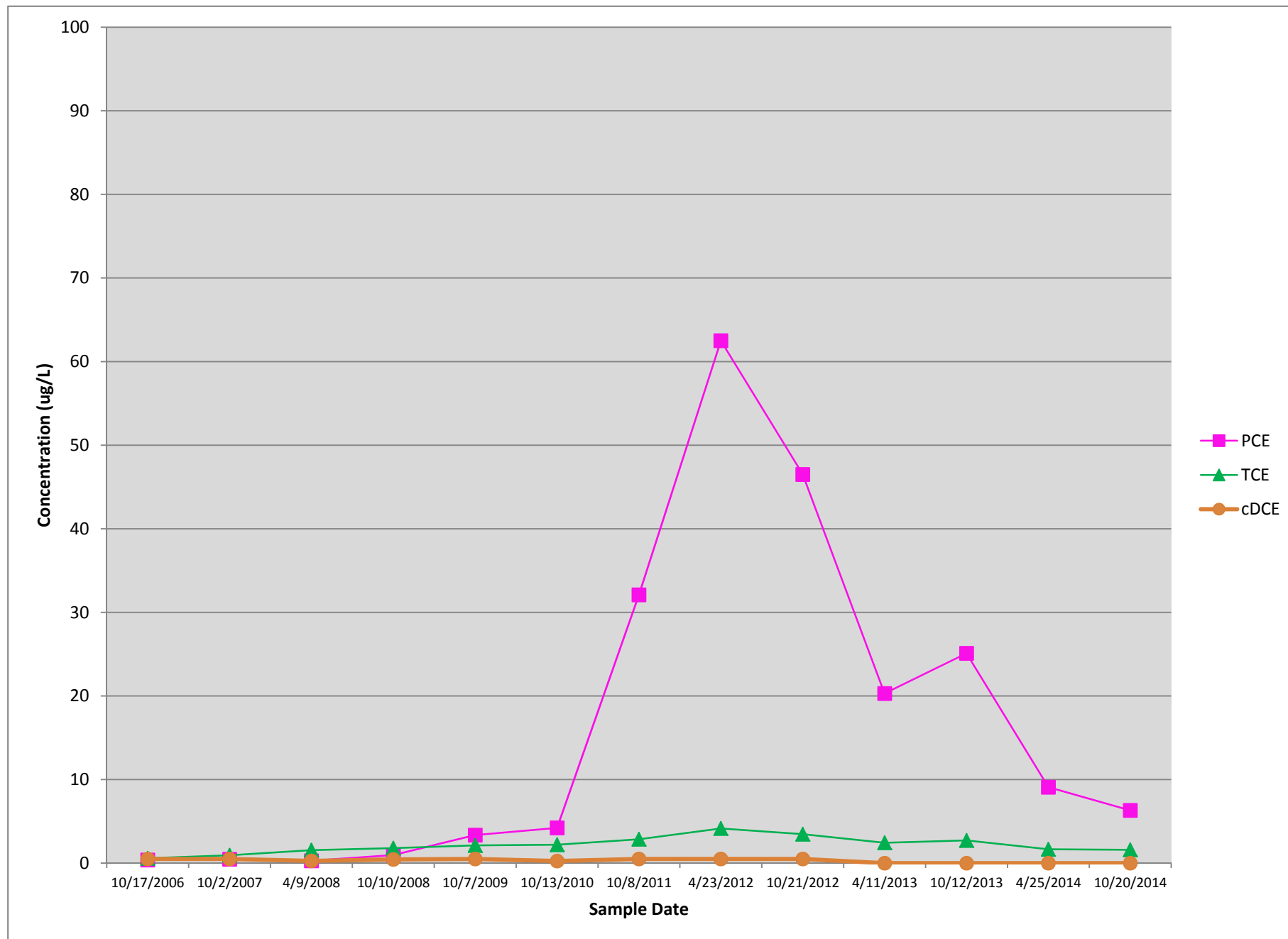
MW-63B



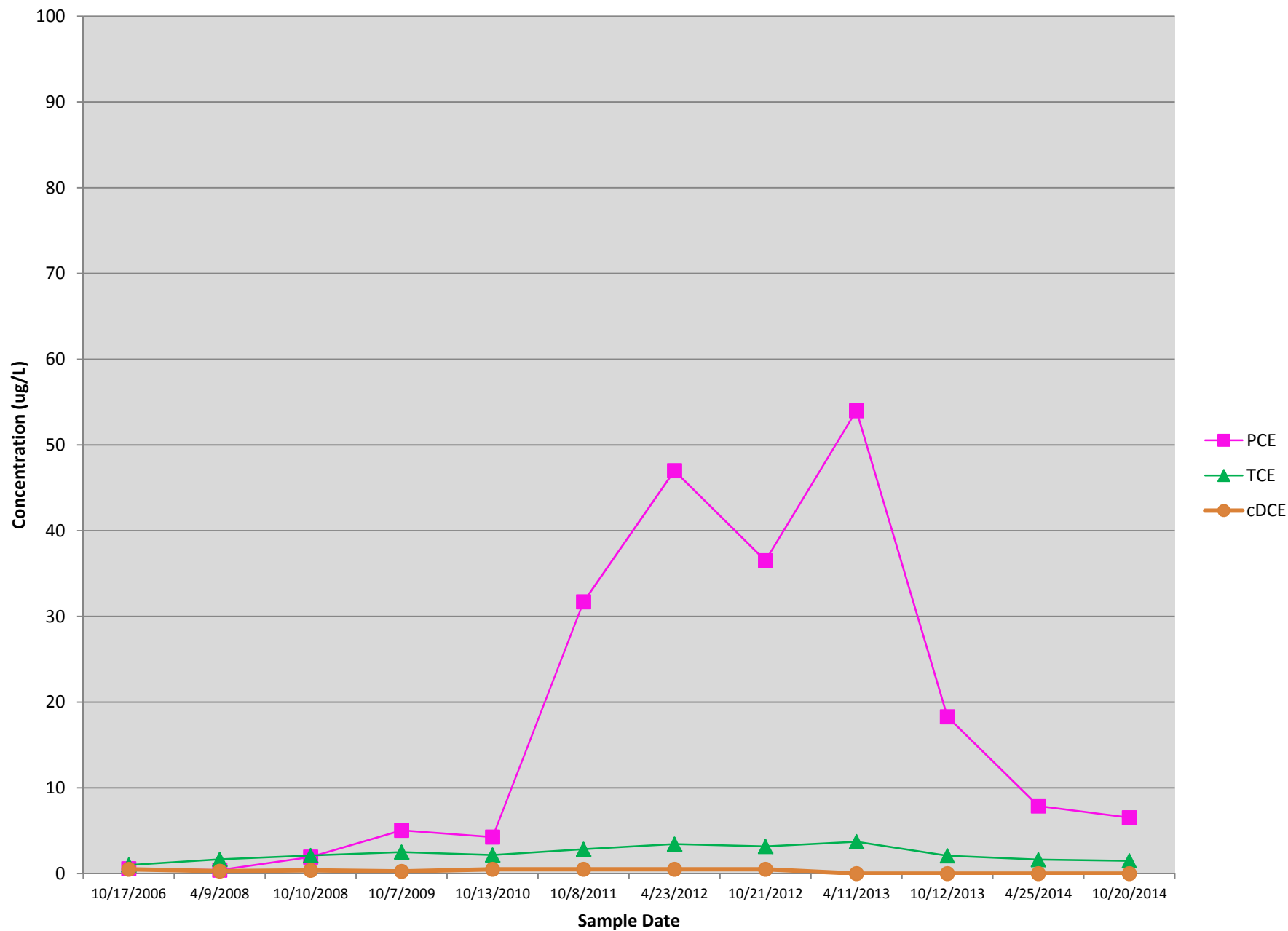
MW-90



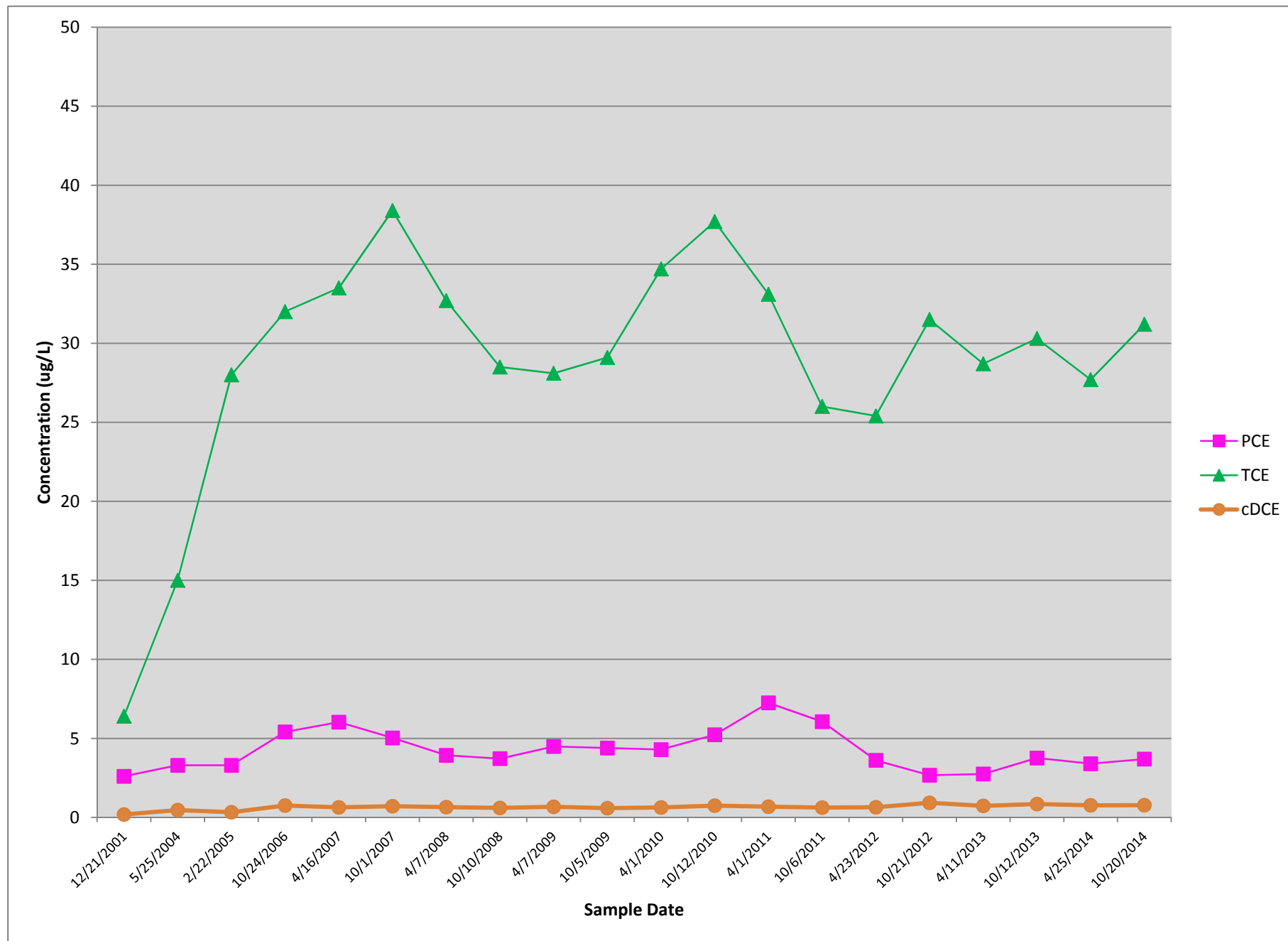
MW-107 Bottom



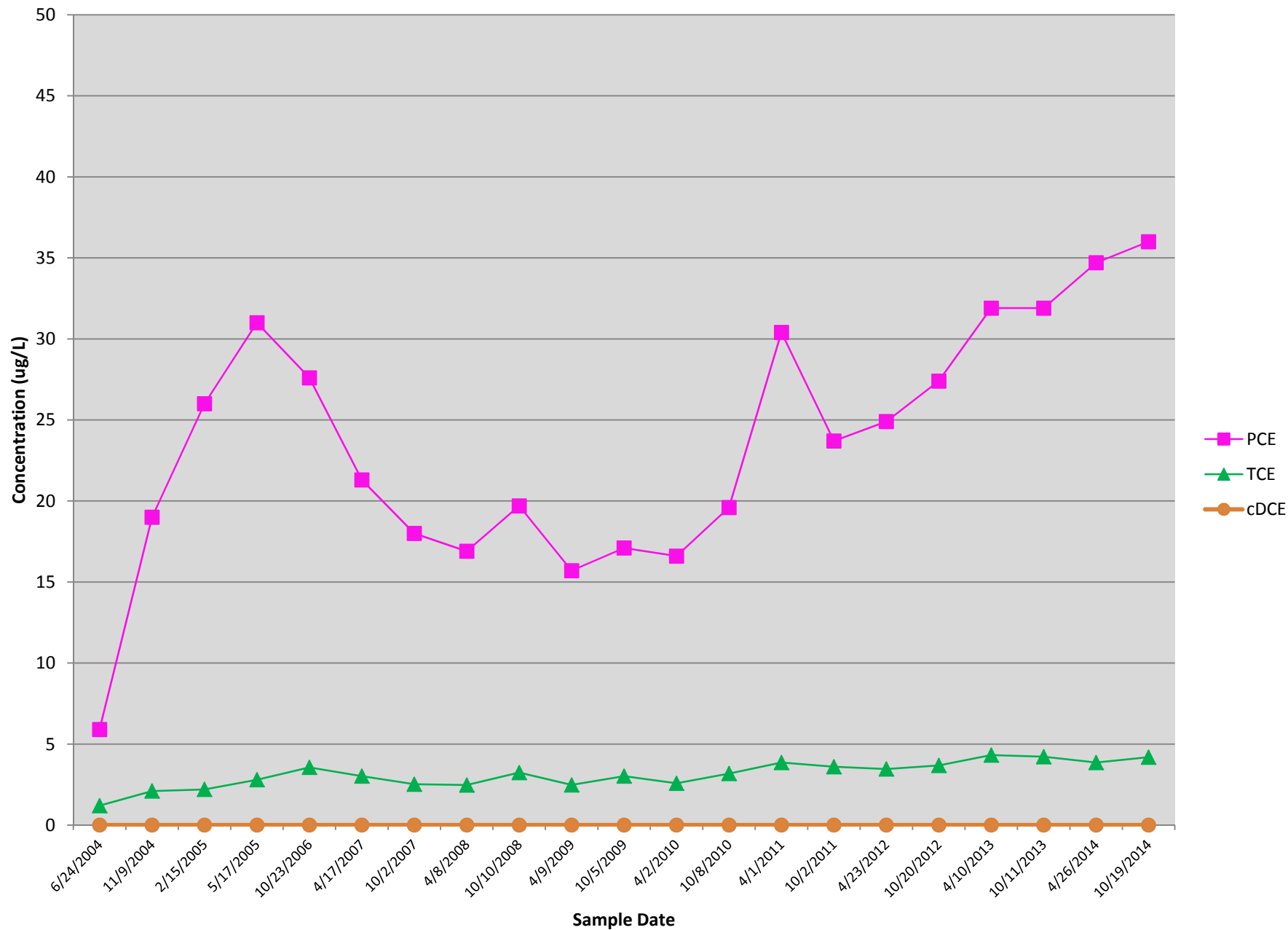
MW-107 Top



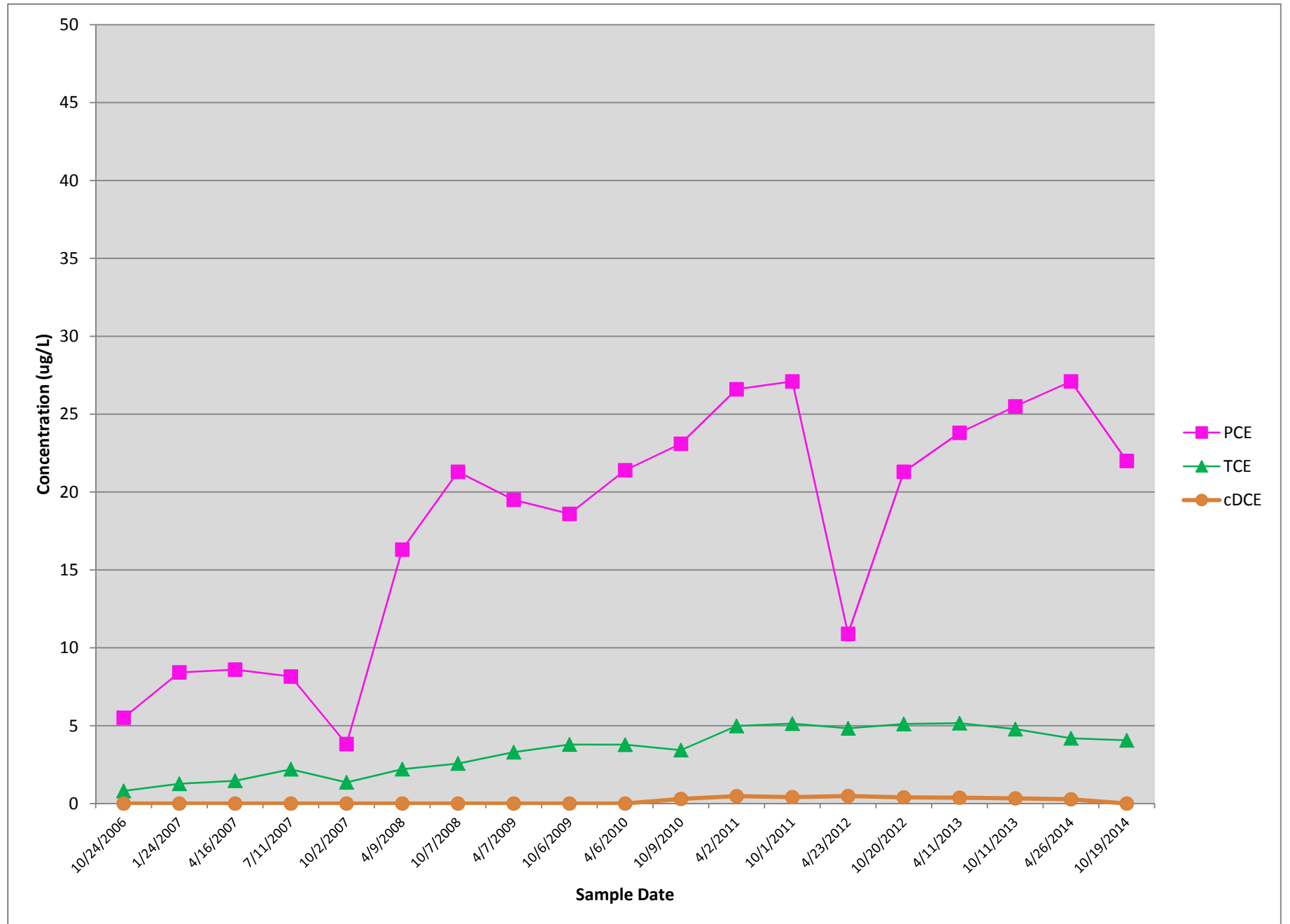
MW-108



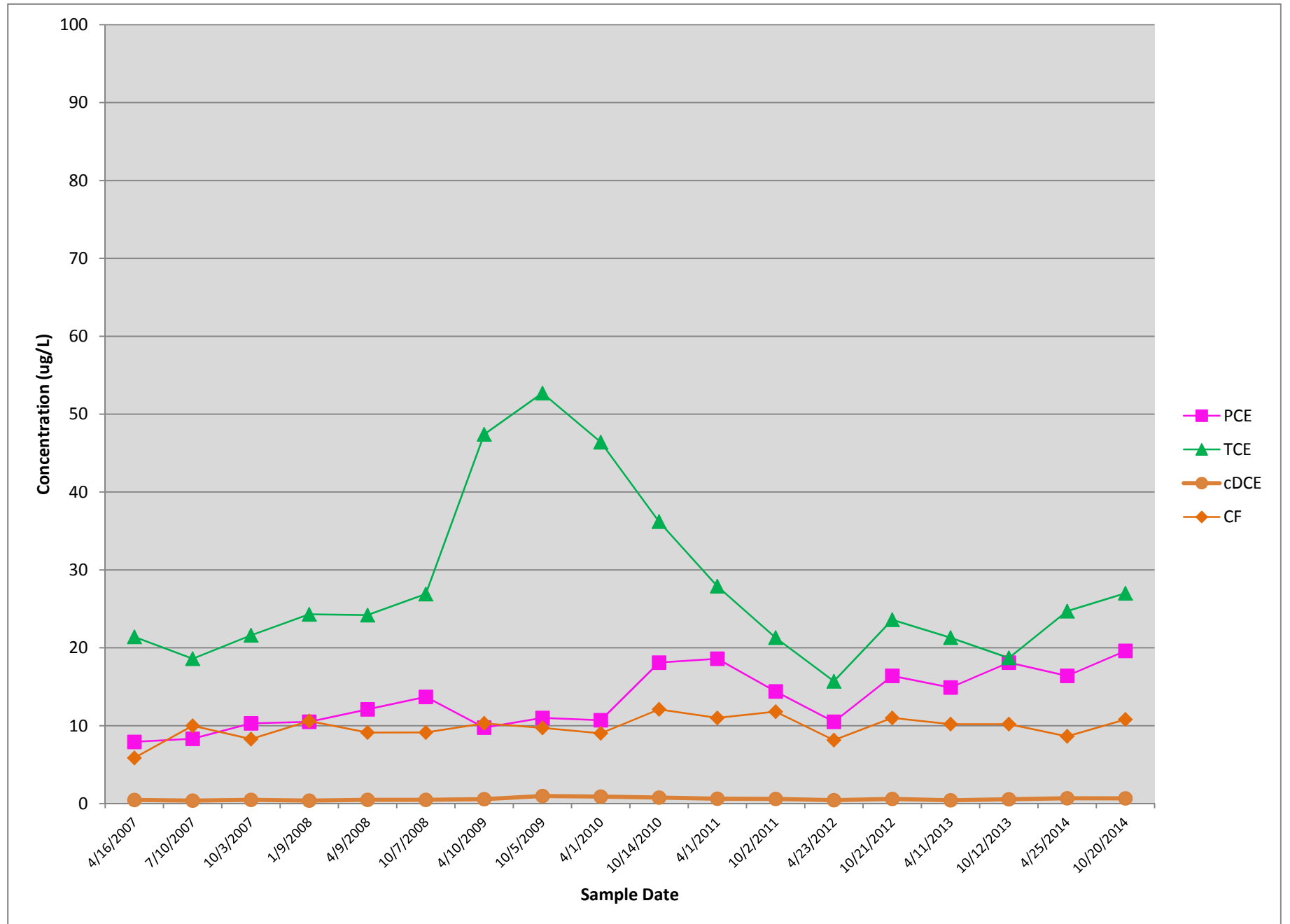
MW-141



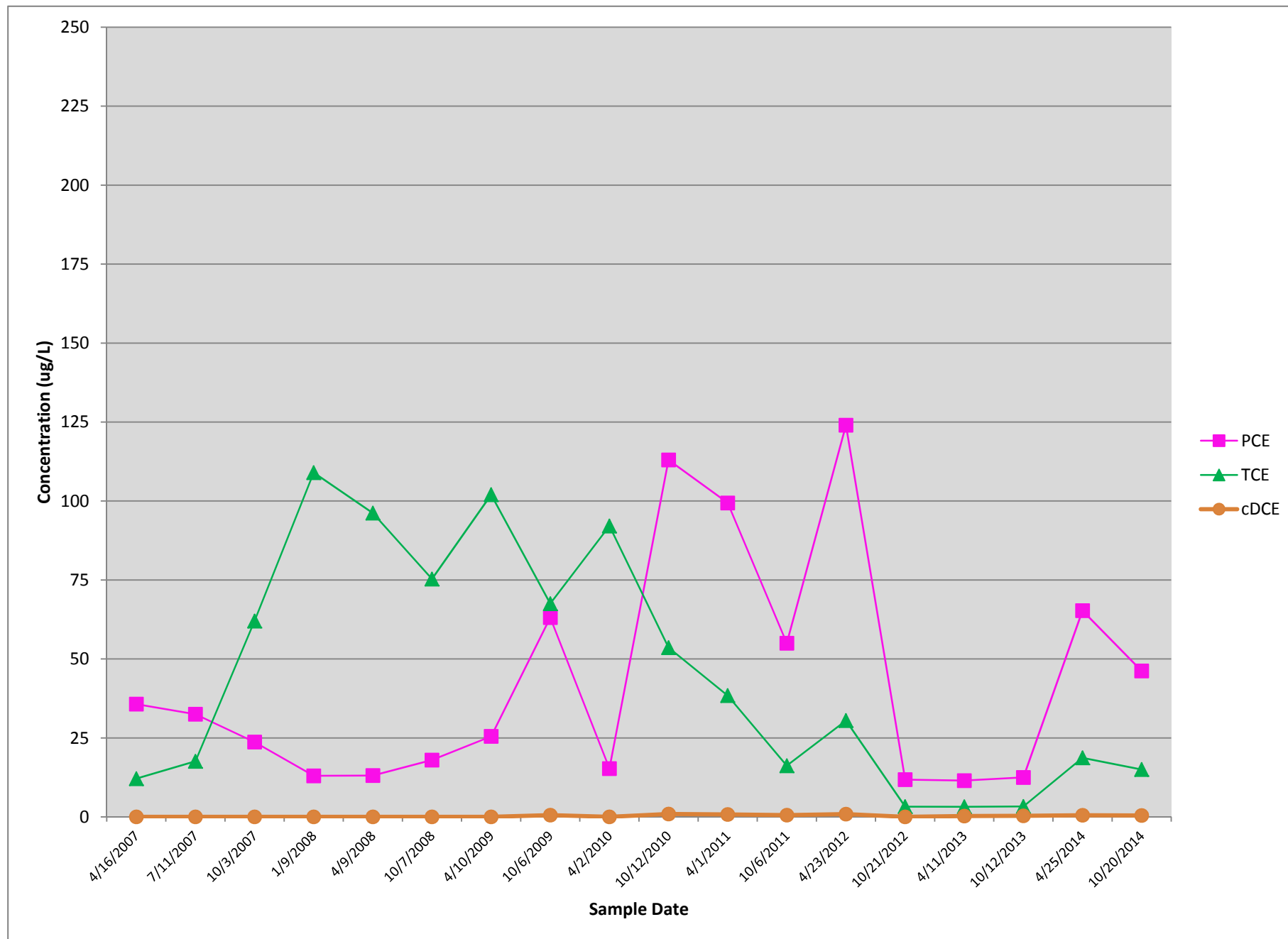
MW-202B



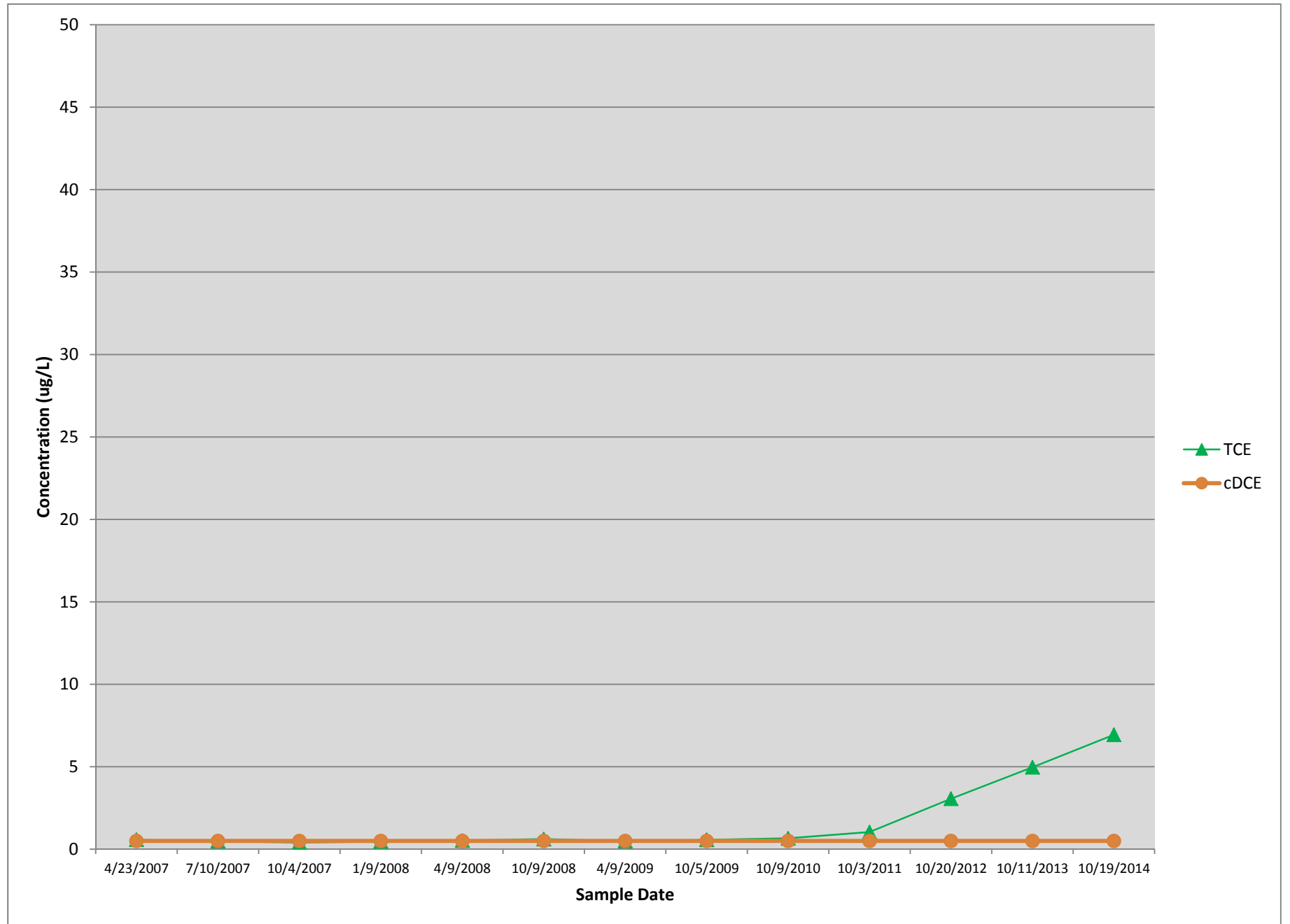
MW-207A



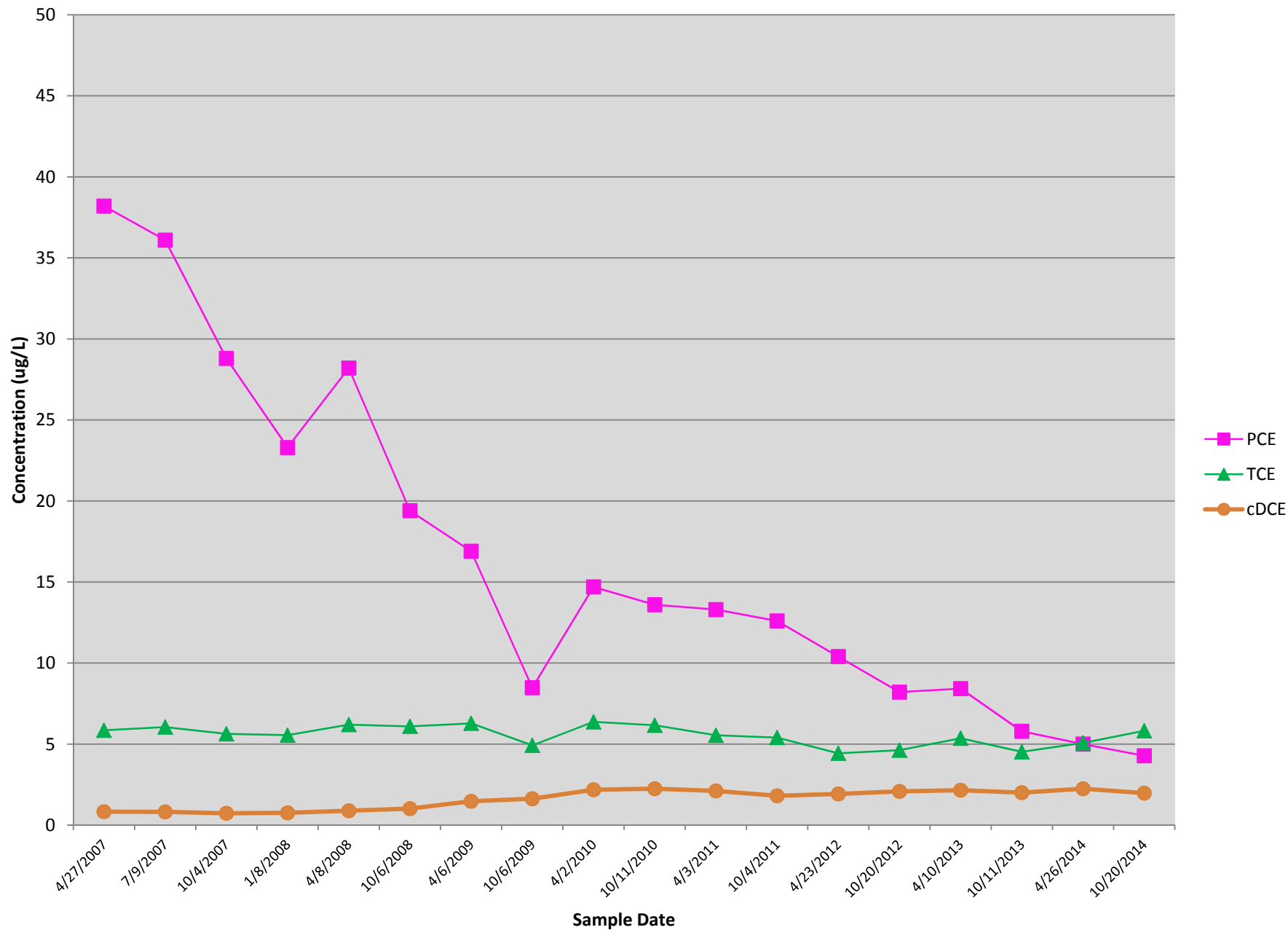
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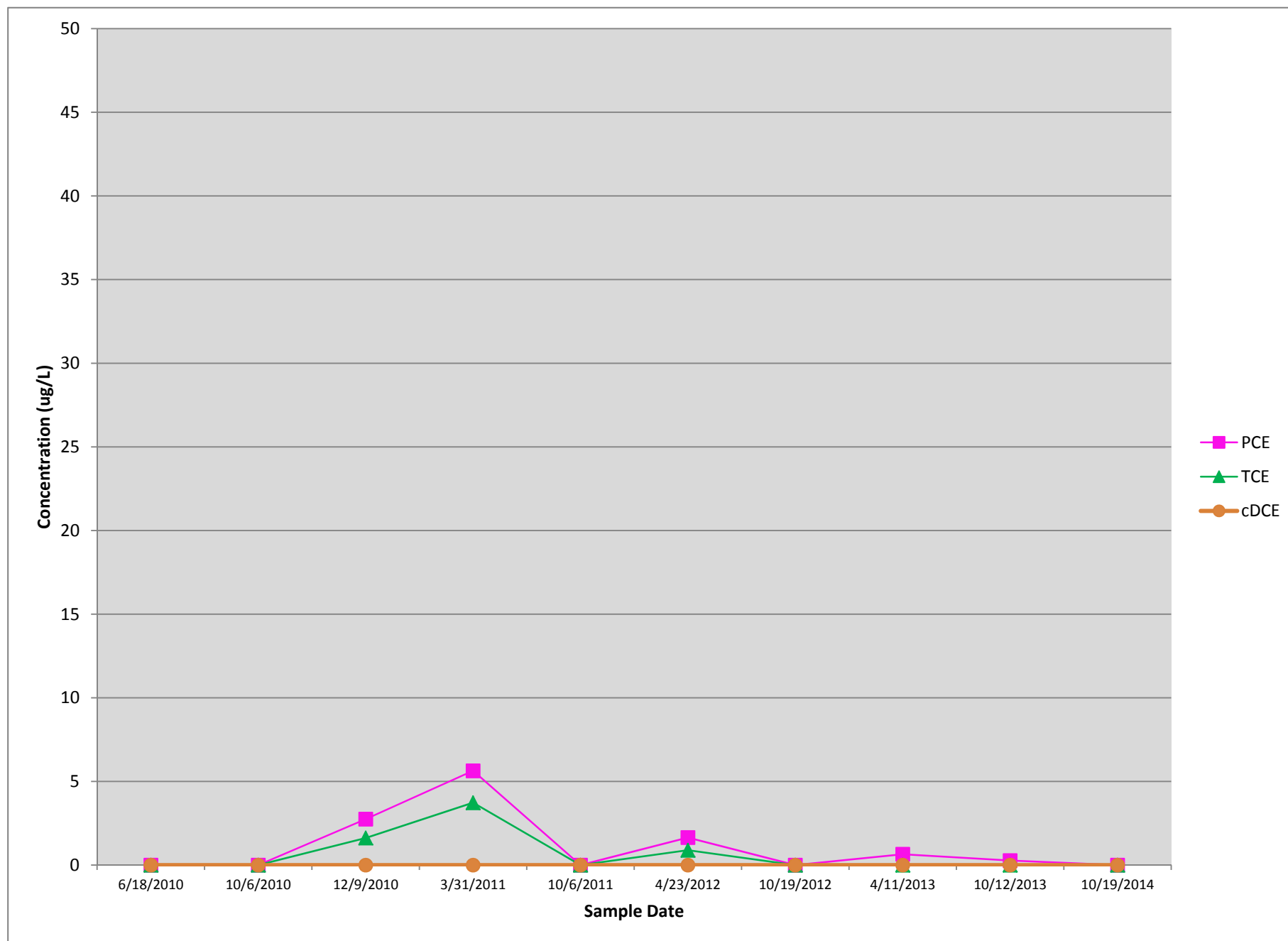
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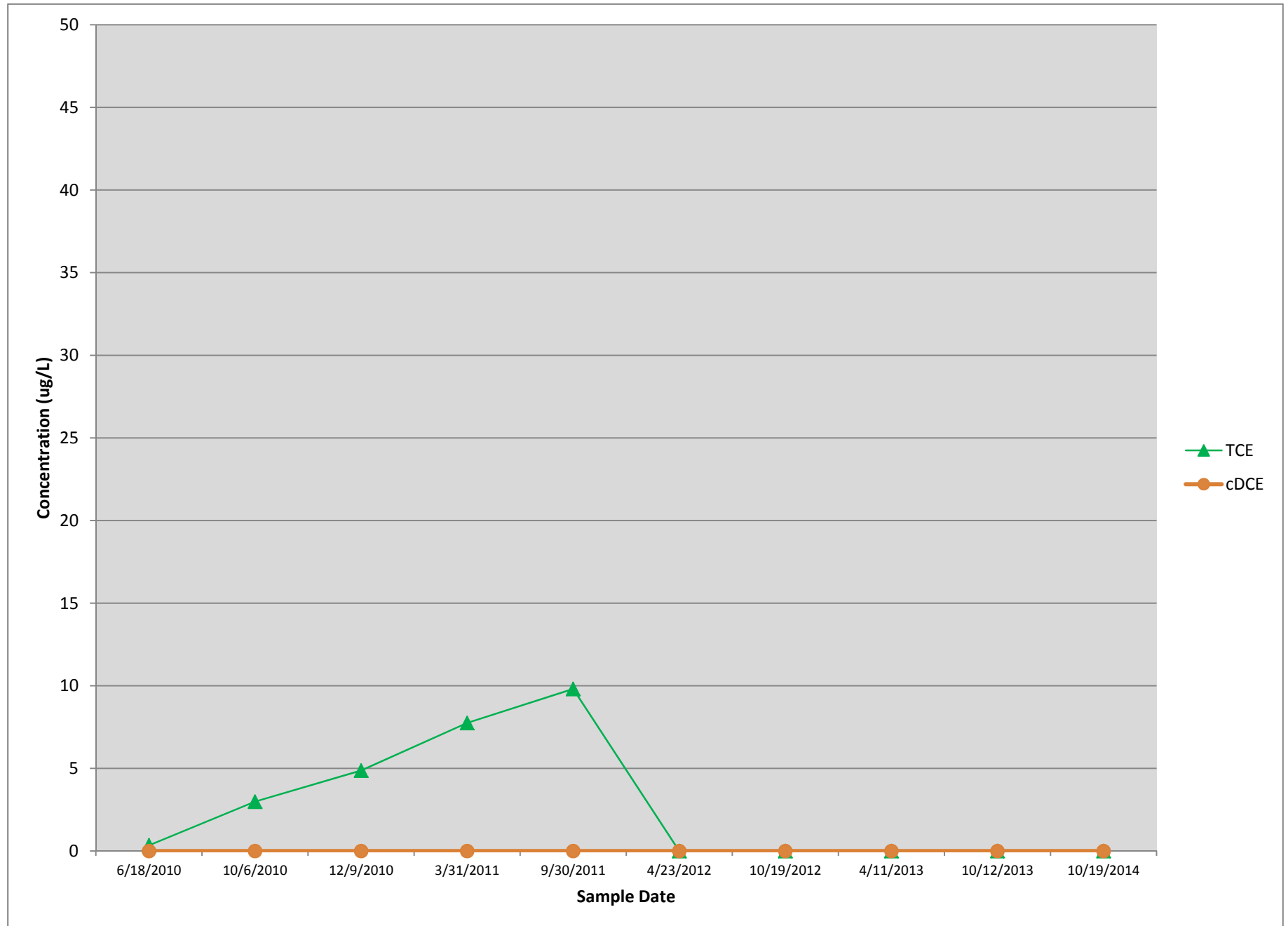
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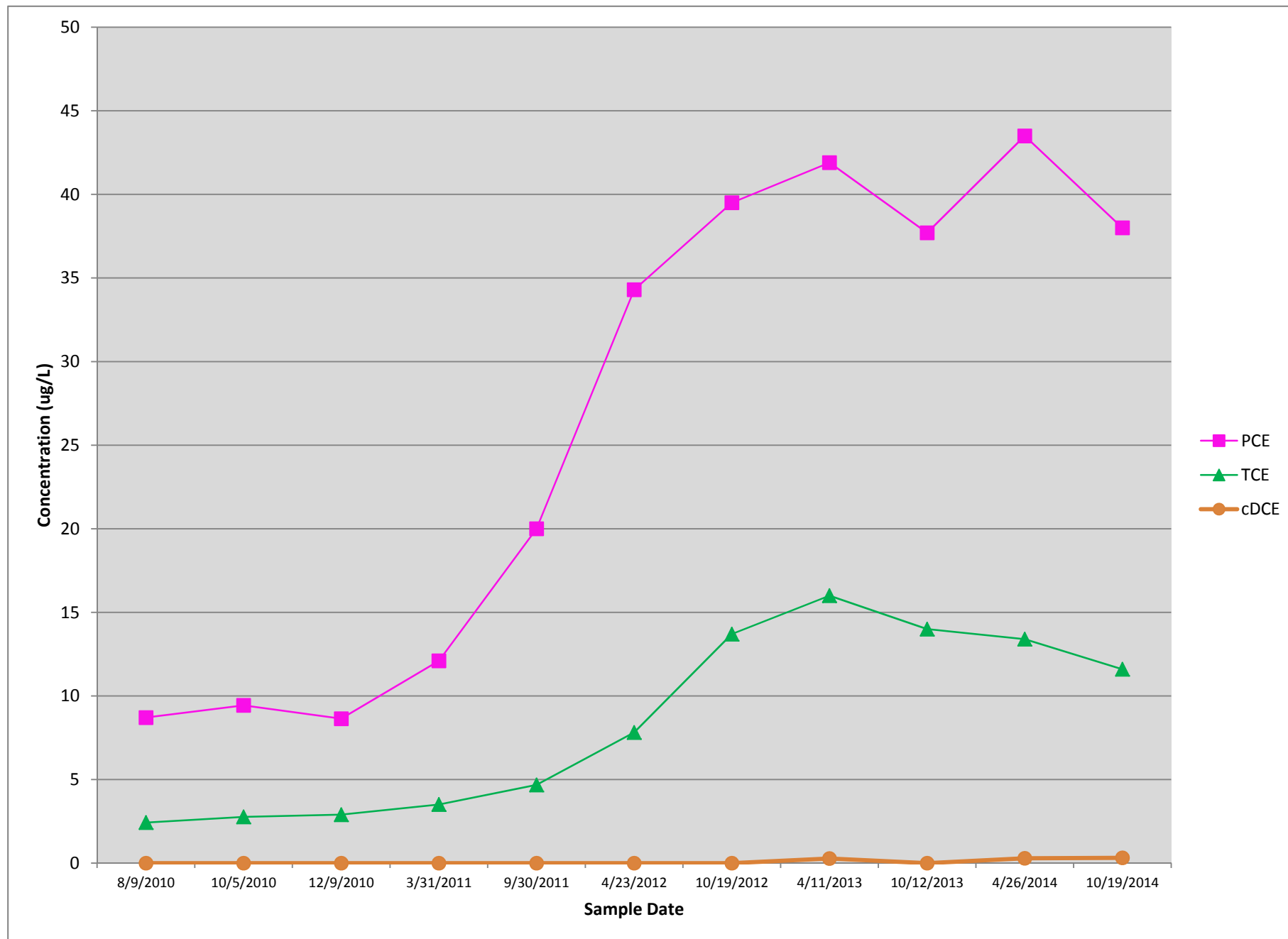
MW-252



MW-253



MW-256

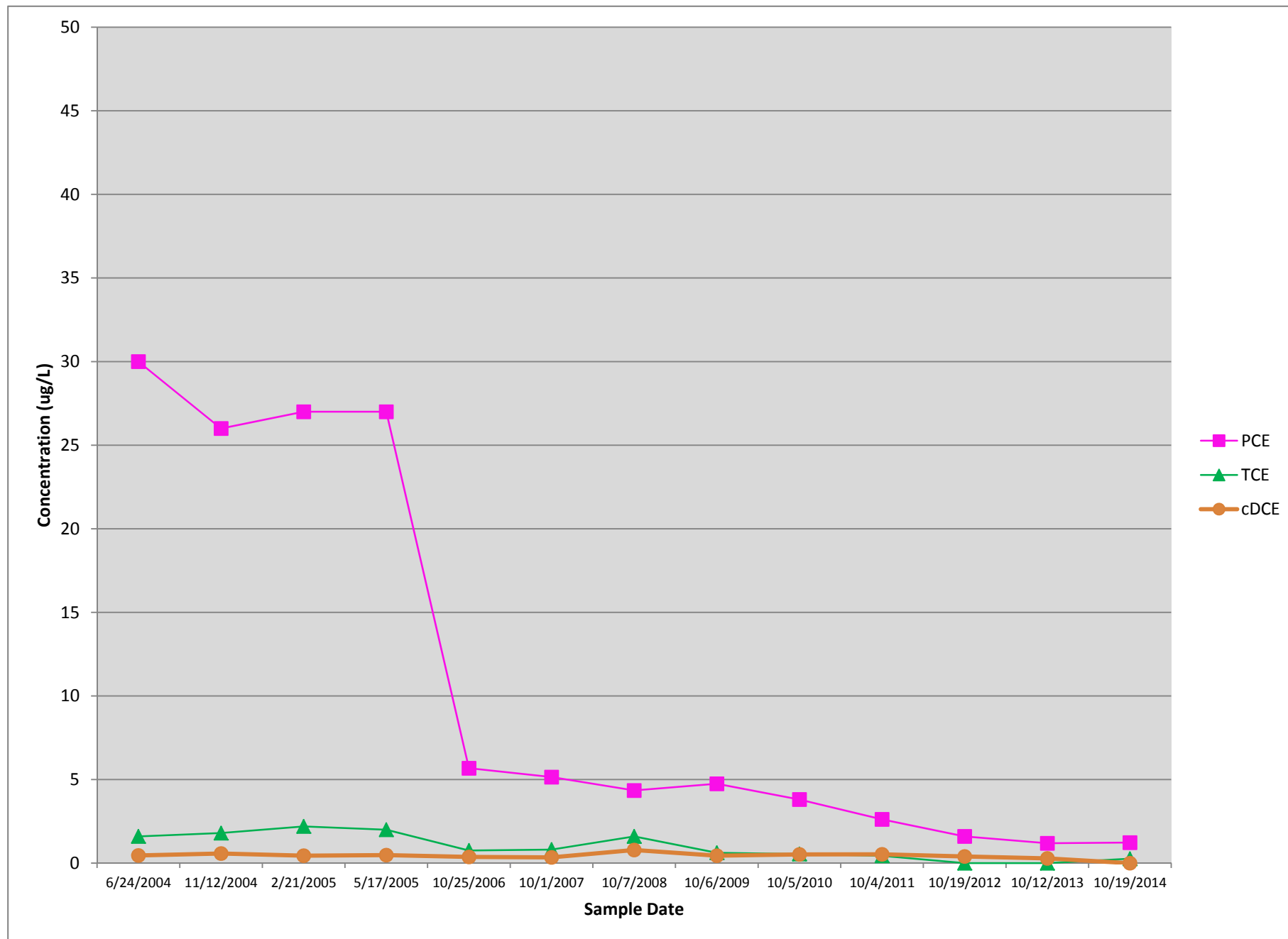


APPENDIX E-3
CVOC TIME-TREND PLOTS –
MAIN INSTALLATION
PERFORMANCE WELLS

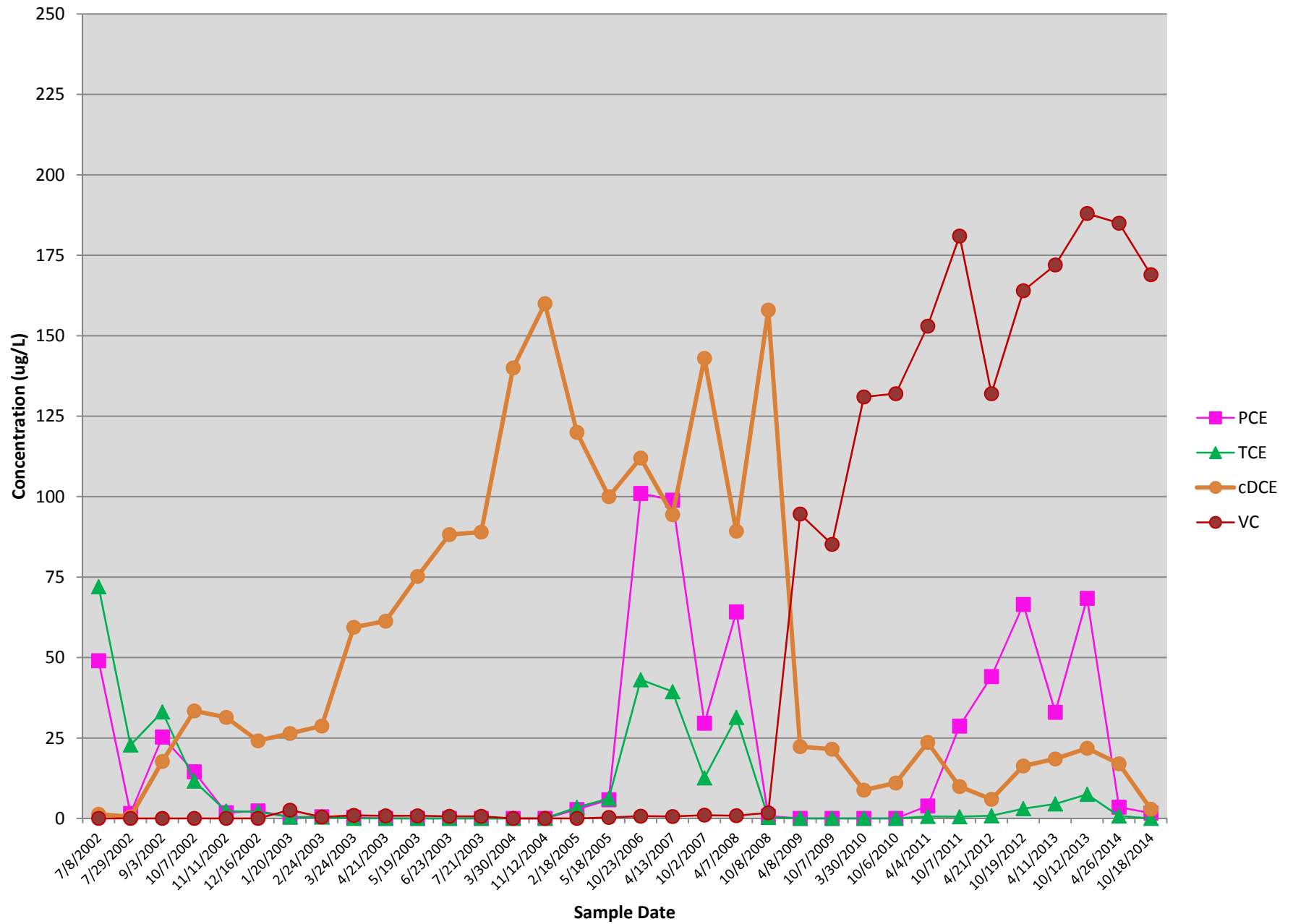
APPENDIX E-3-1

TTA-1N Wells

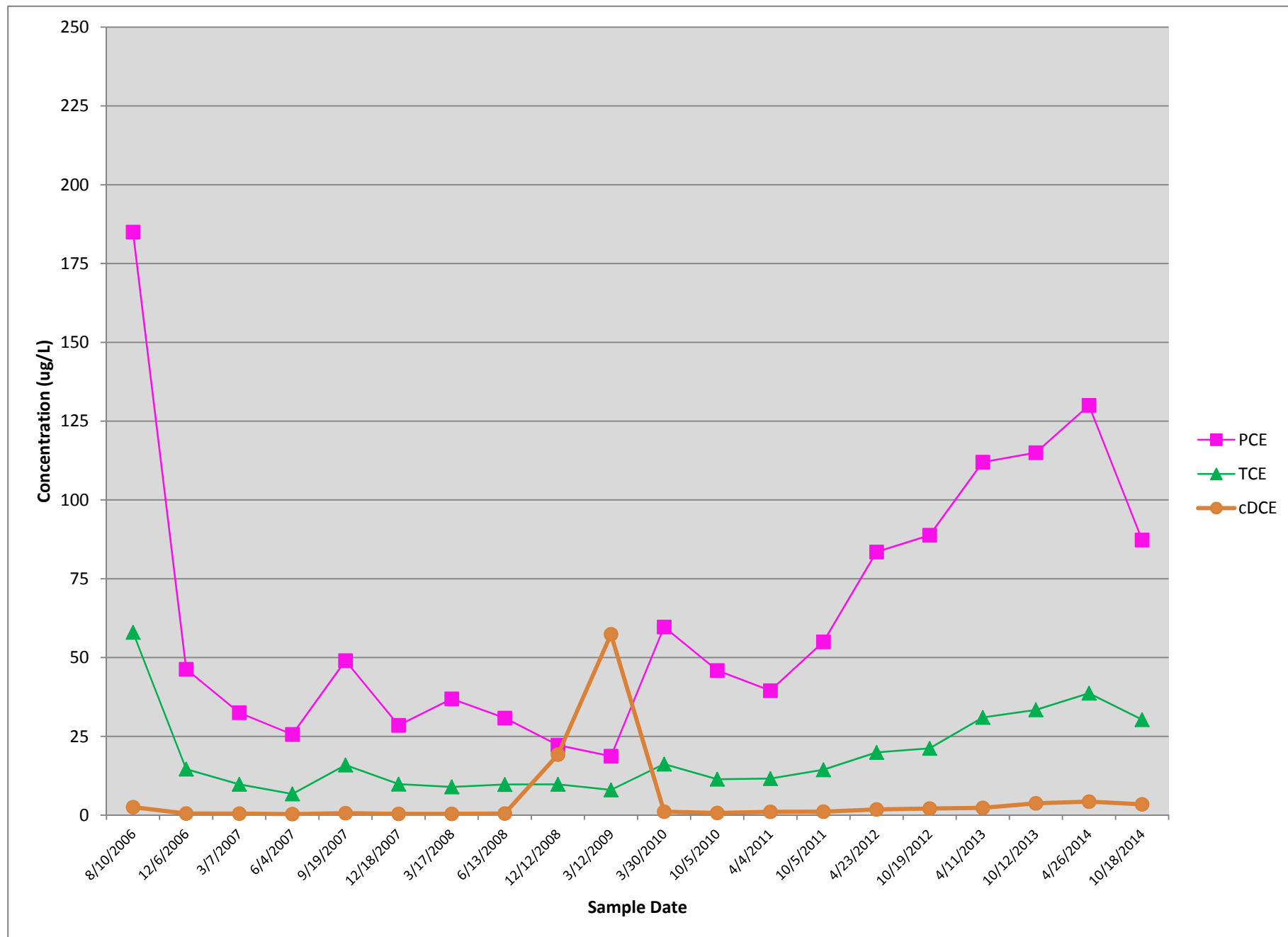
DR1-7



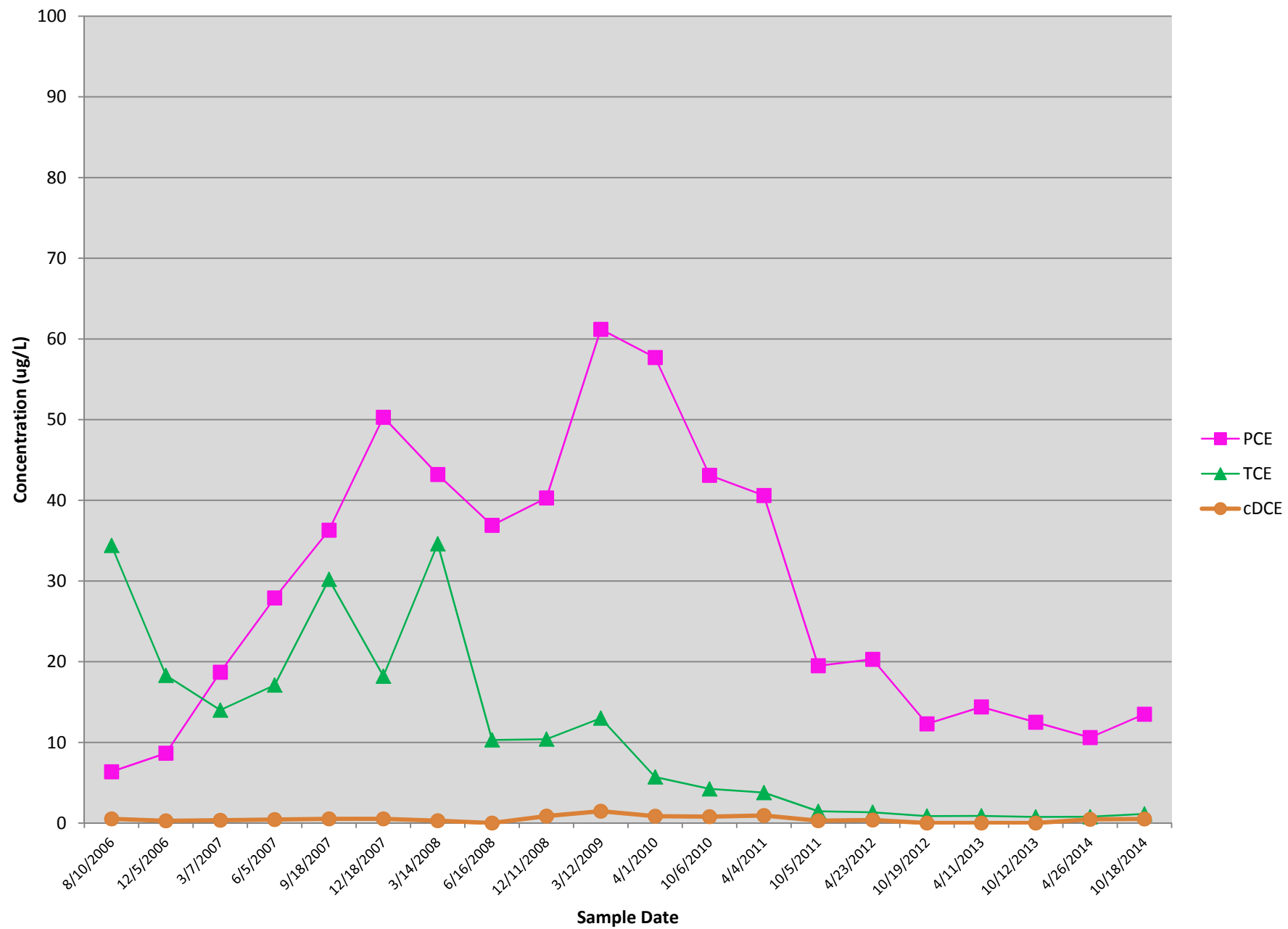
MW-100B



PMW21-03



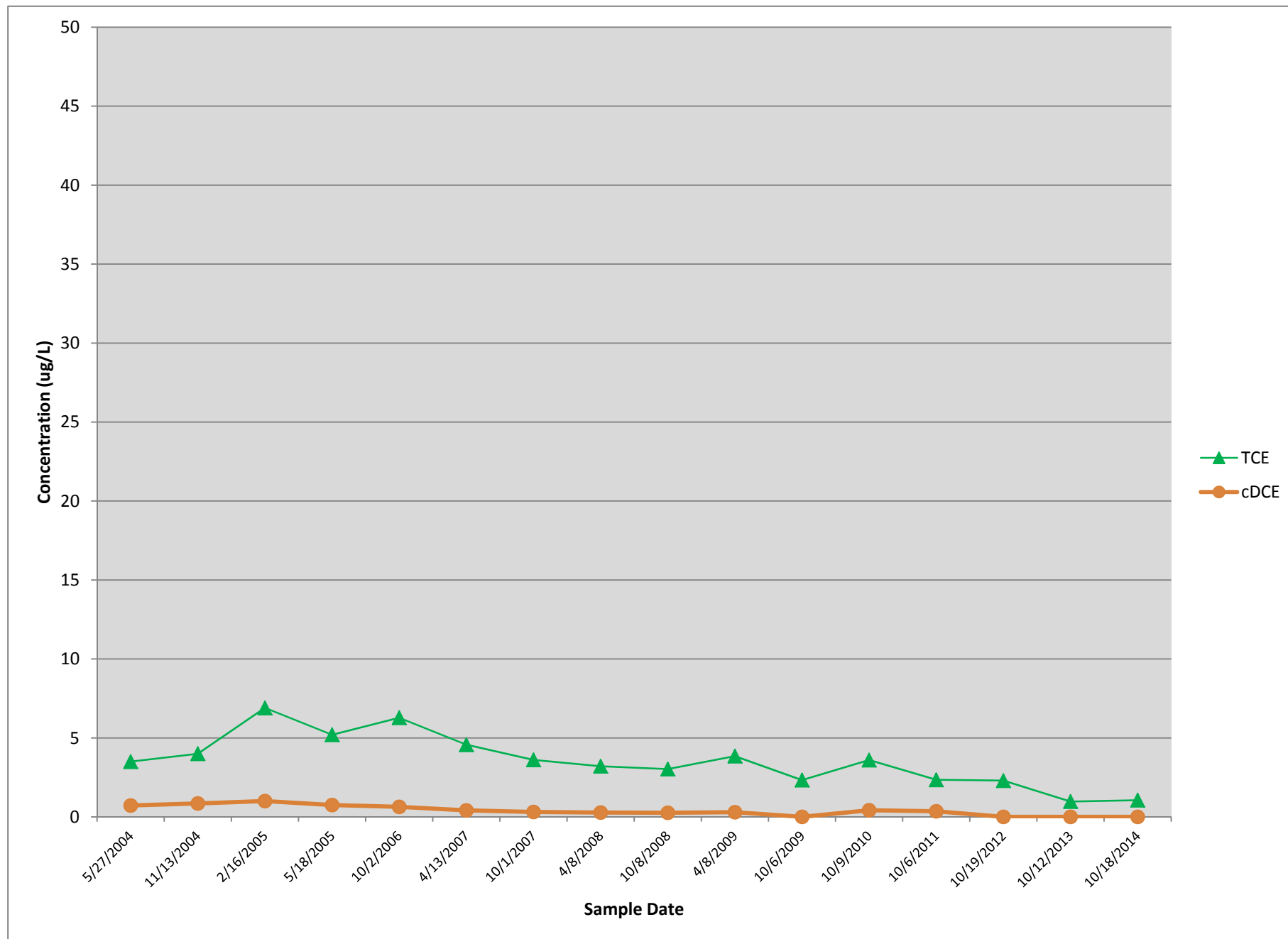
PMW21-05



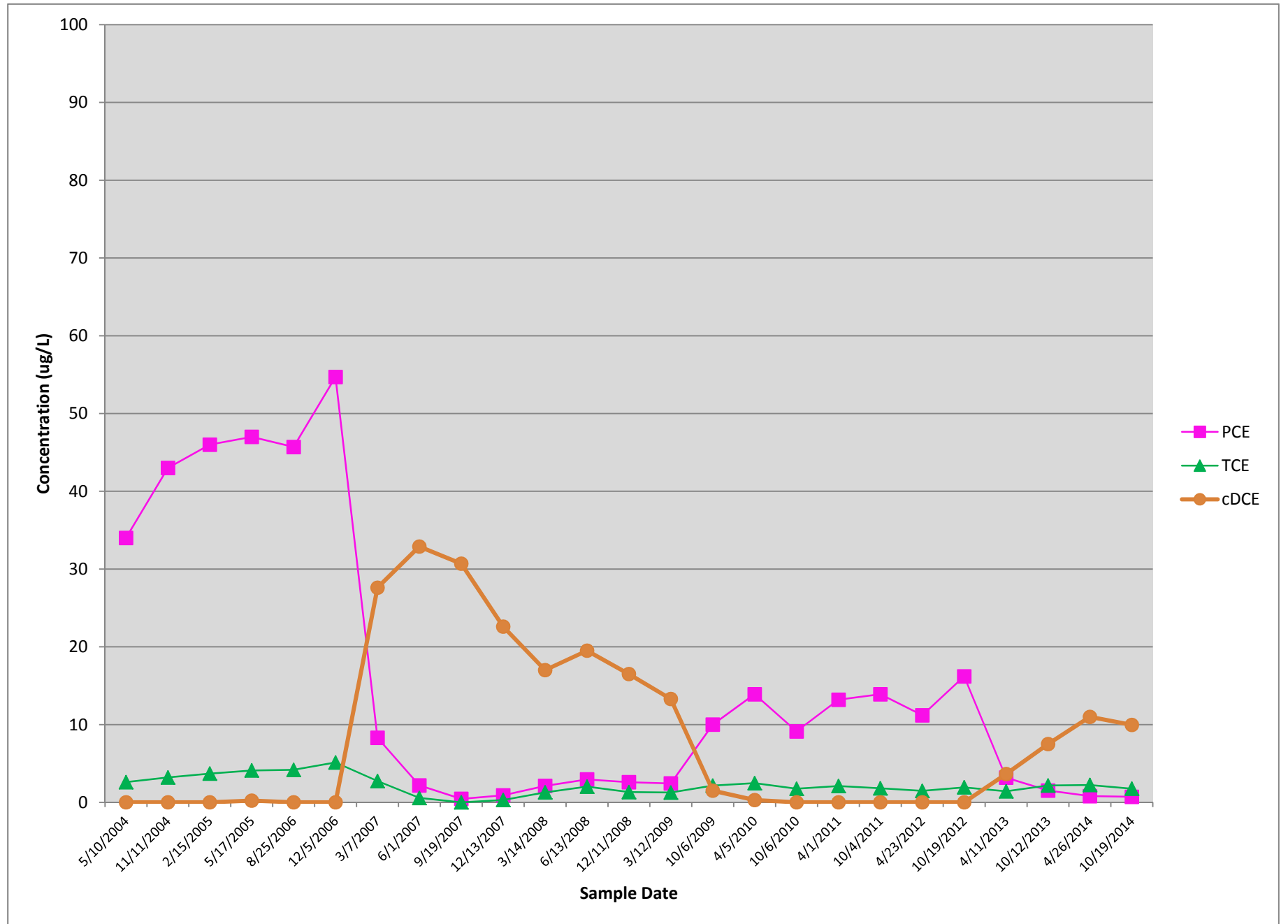
APPENDIX E-3-2

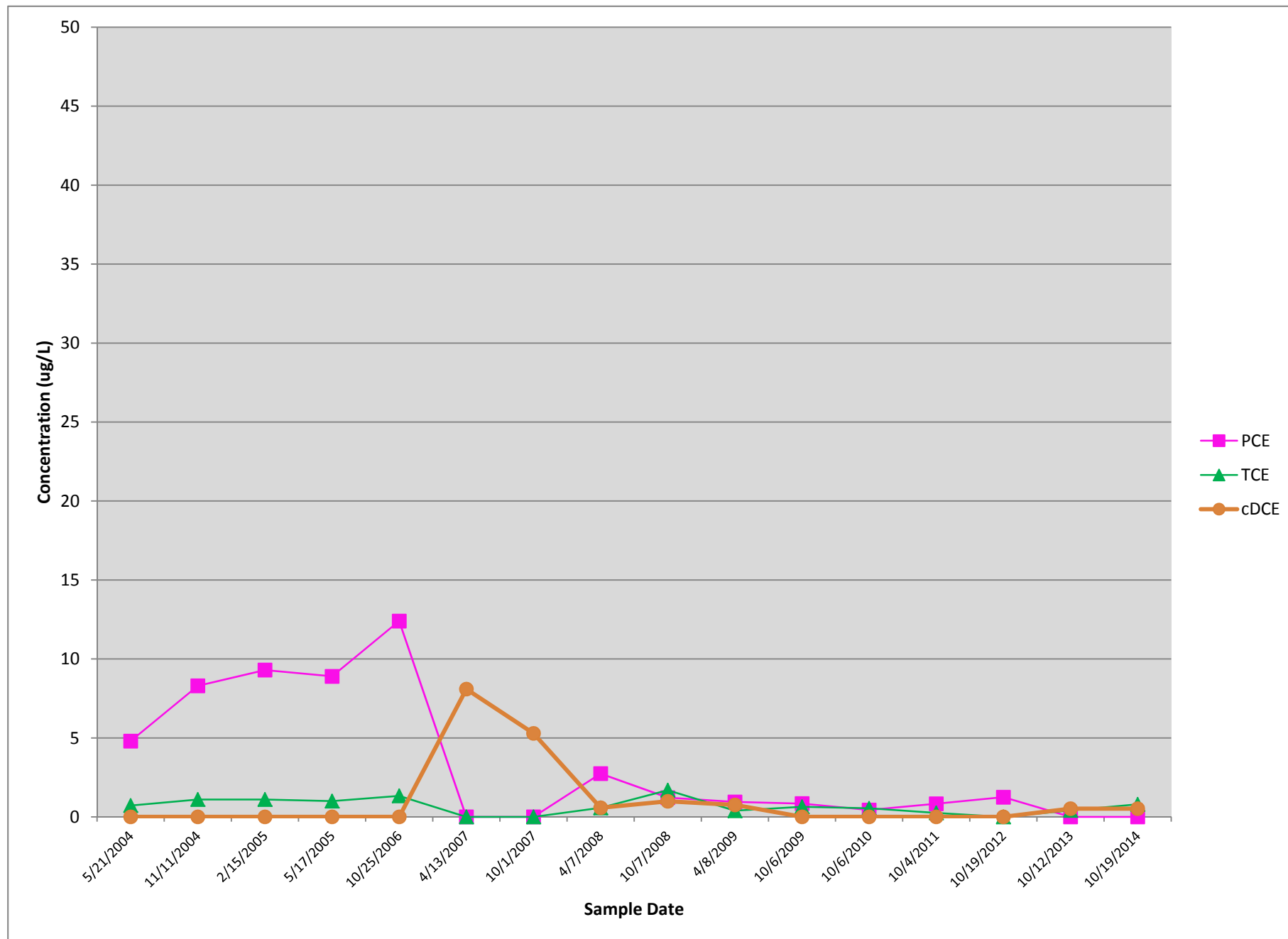
TTA-1S Wells

DR1-1A

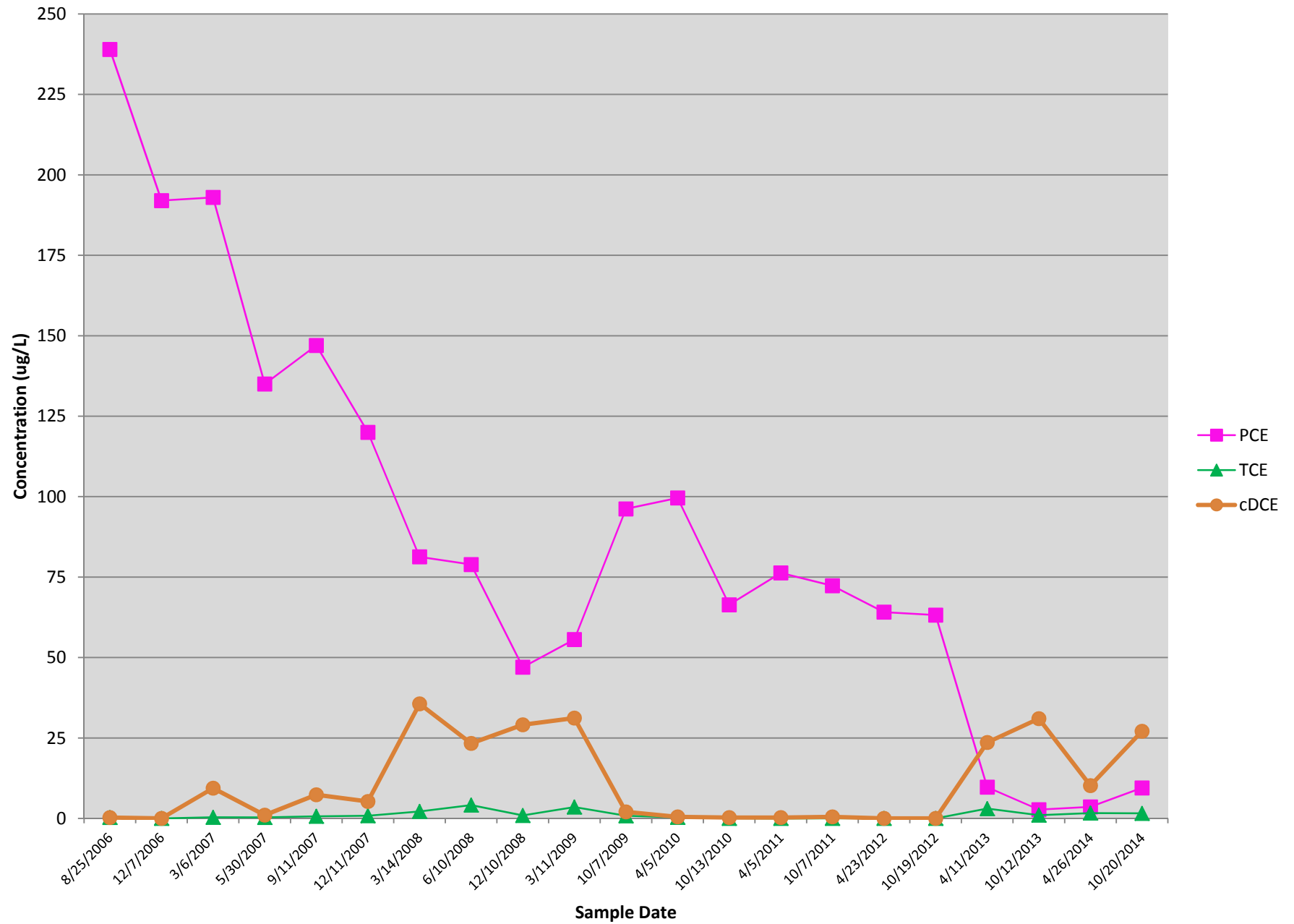


DR1-3

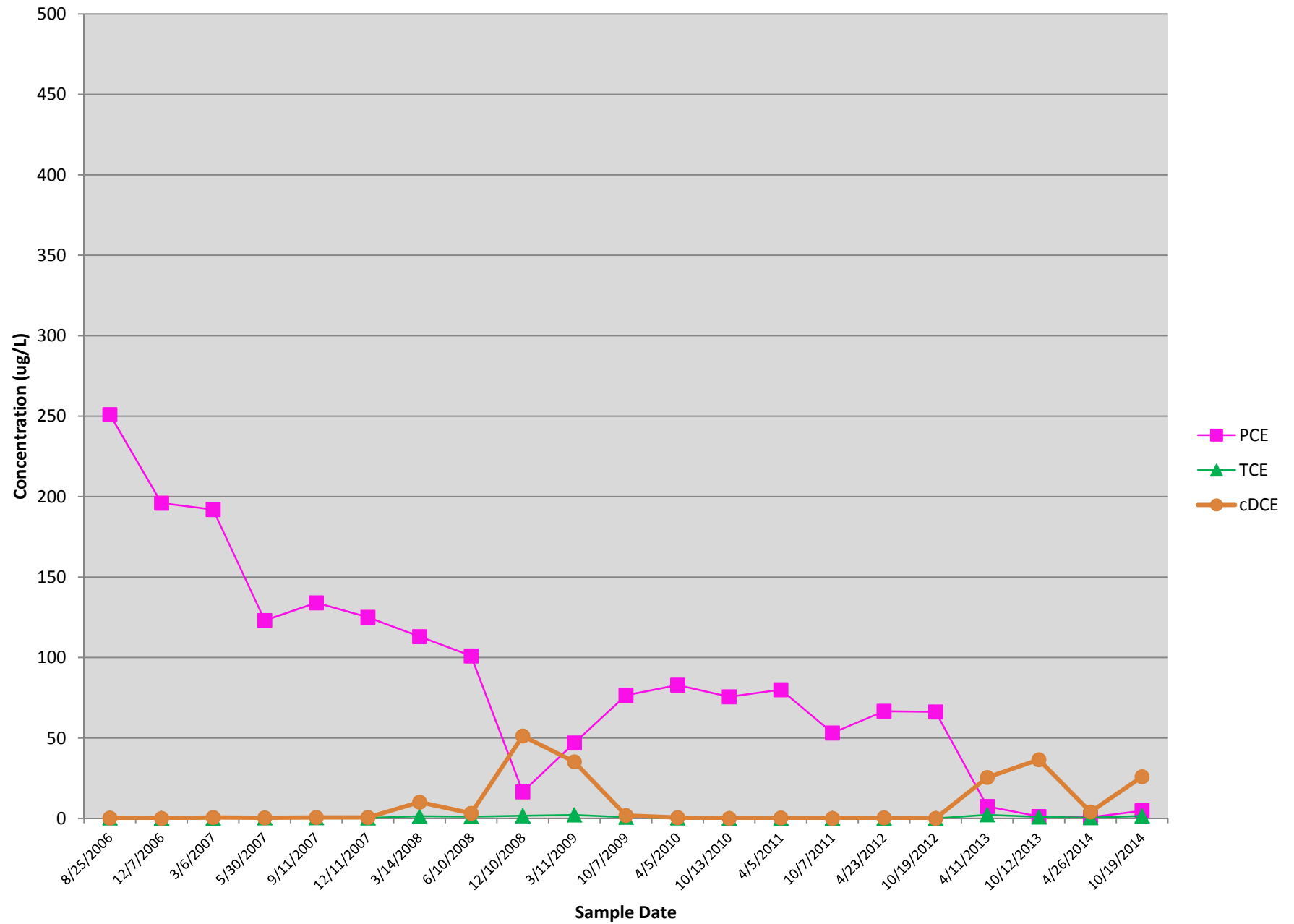




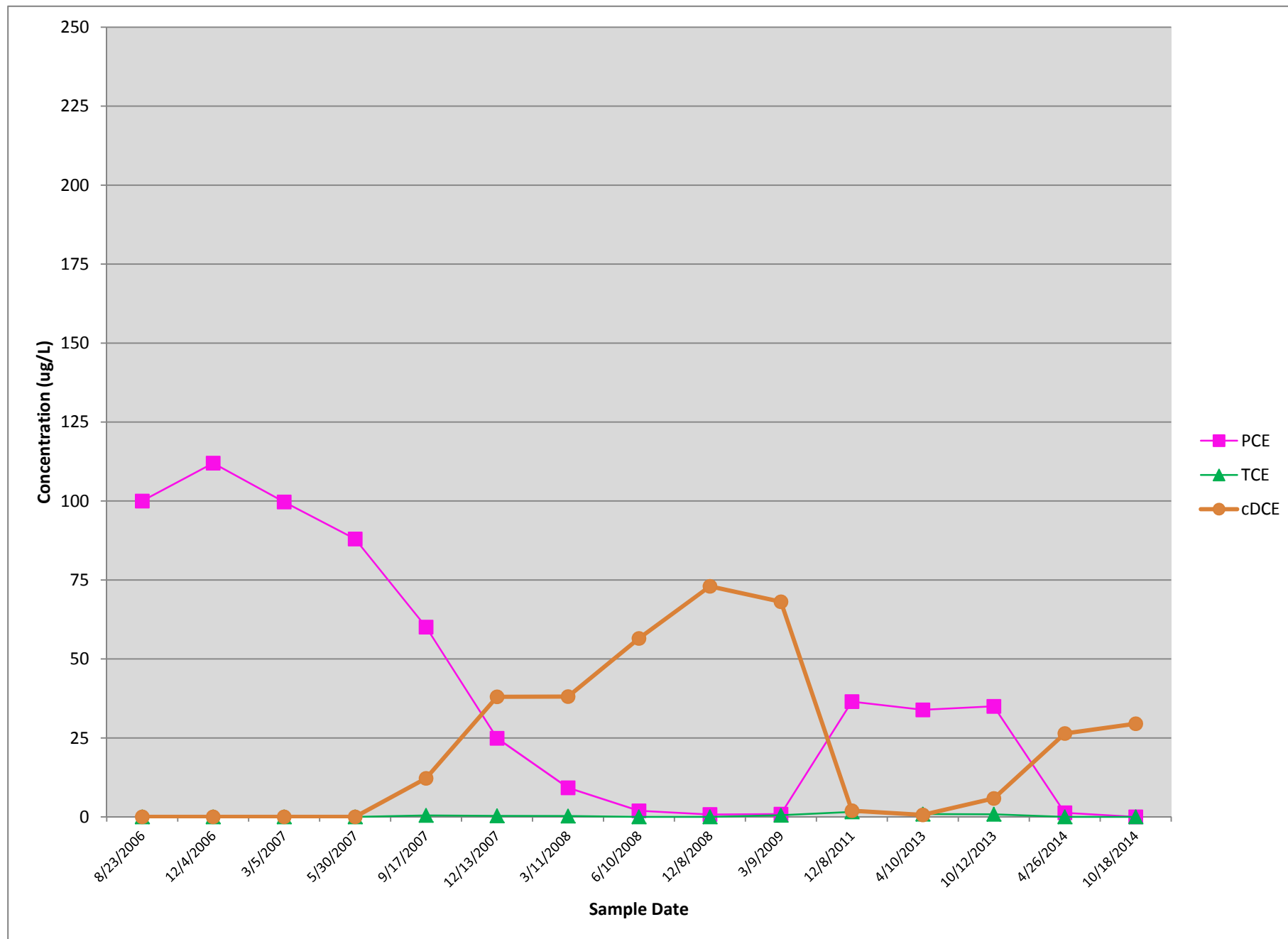
MW-101 BOTTOM



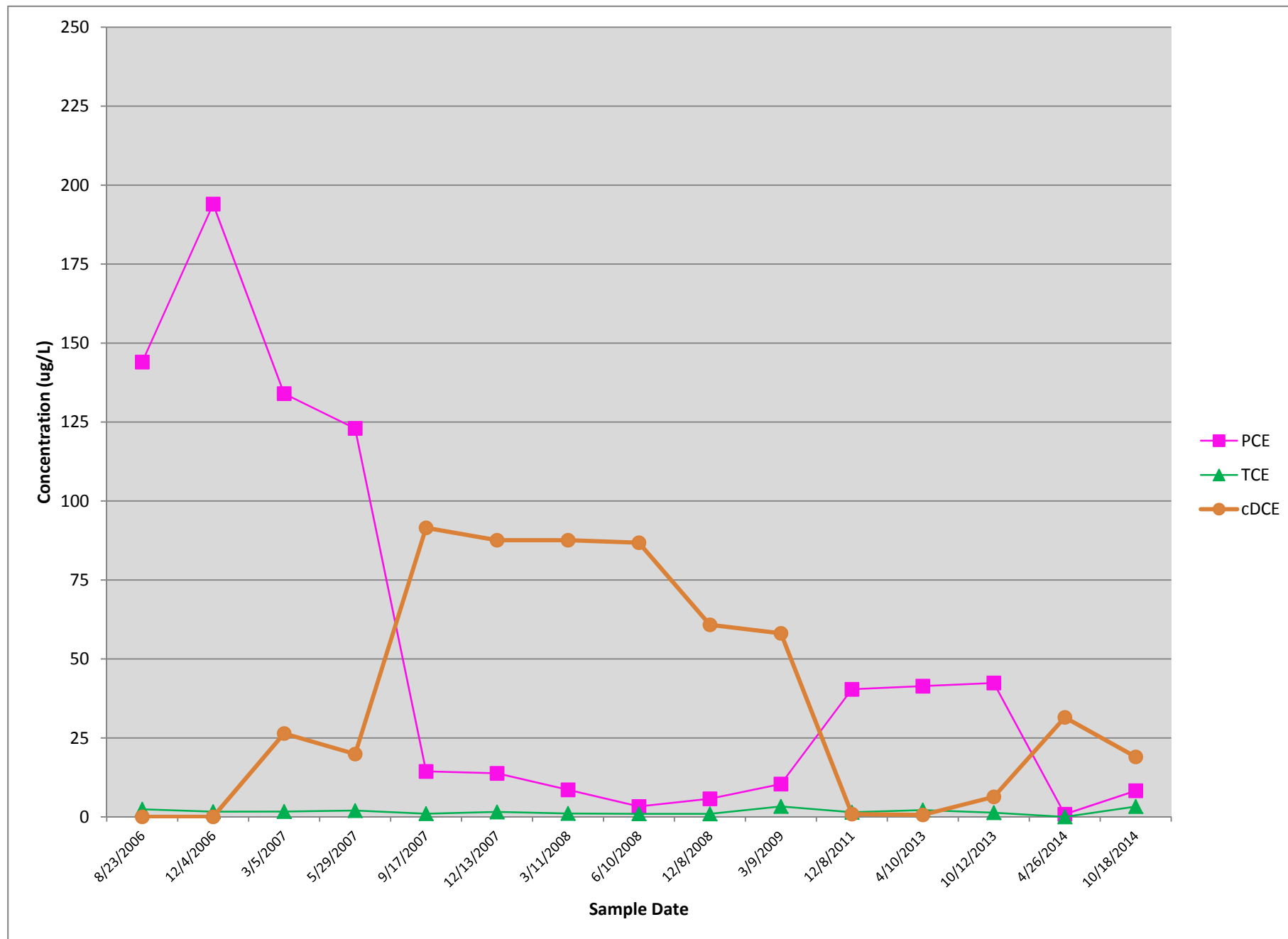
MW-101 TOP



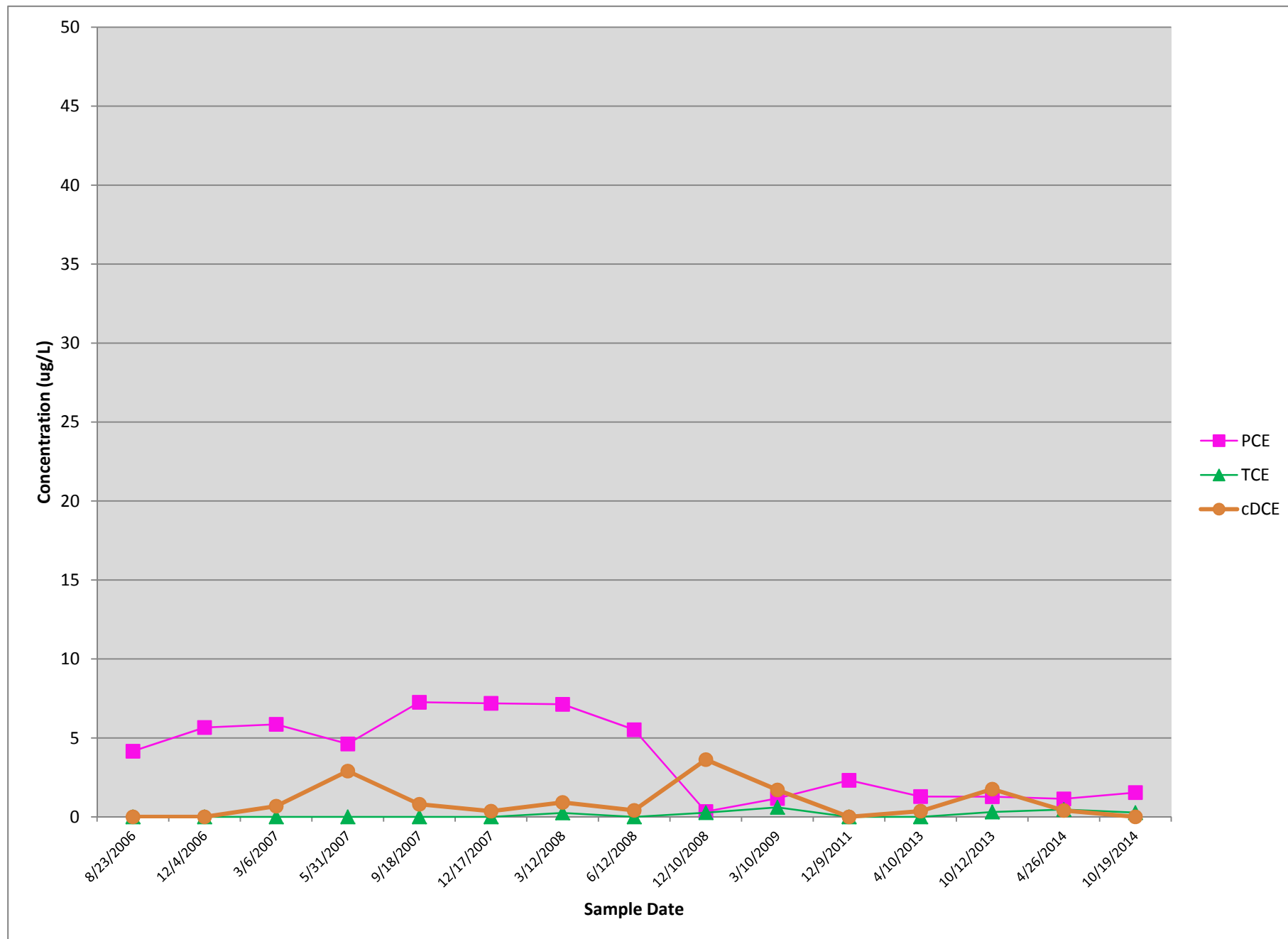
PMW101-03A



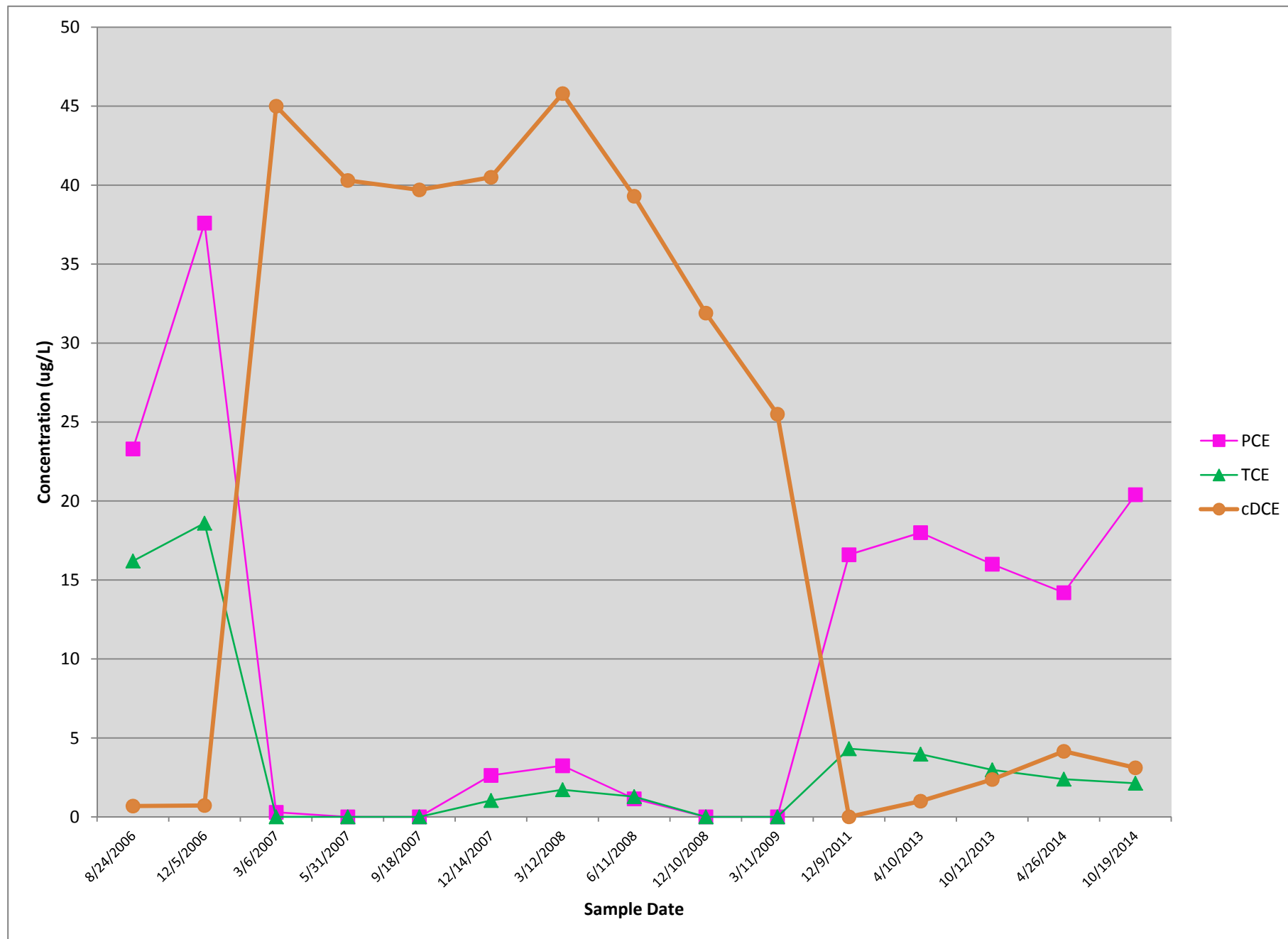
PMW101-03B



PMW101-06A



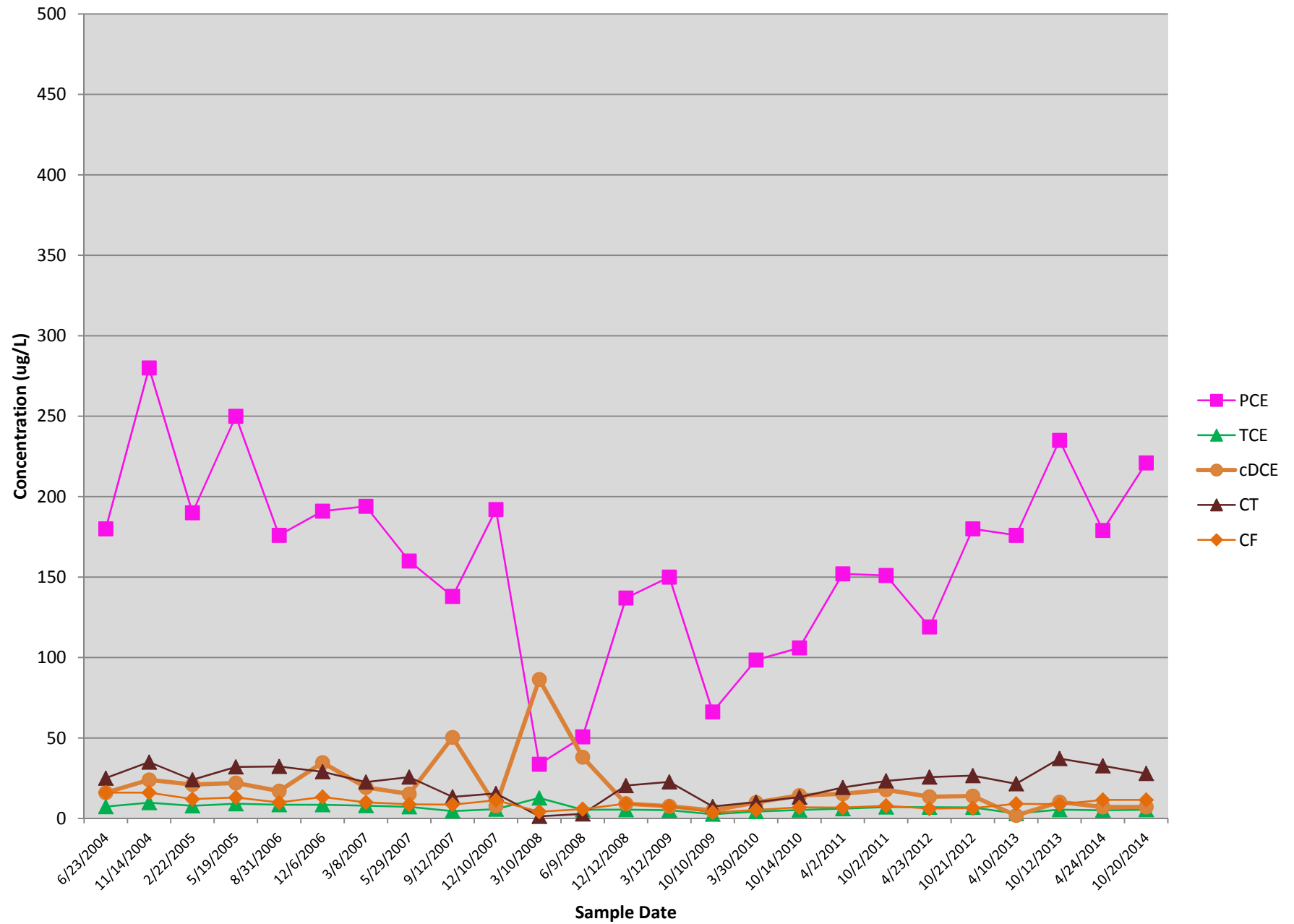
PMW101-06B

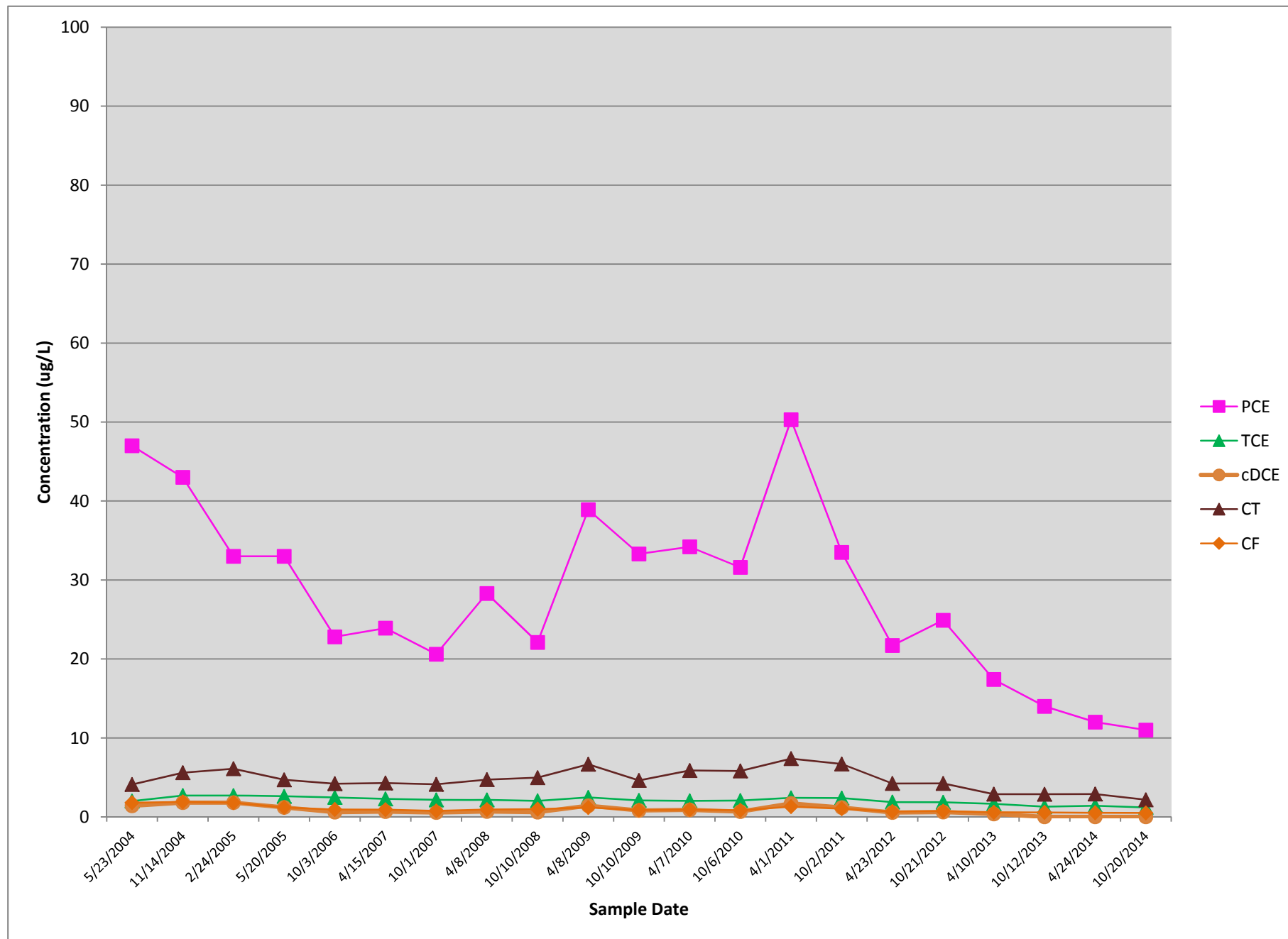


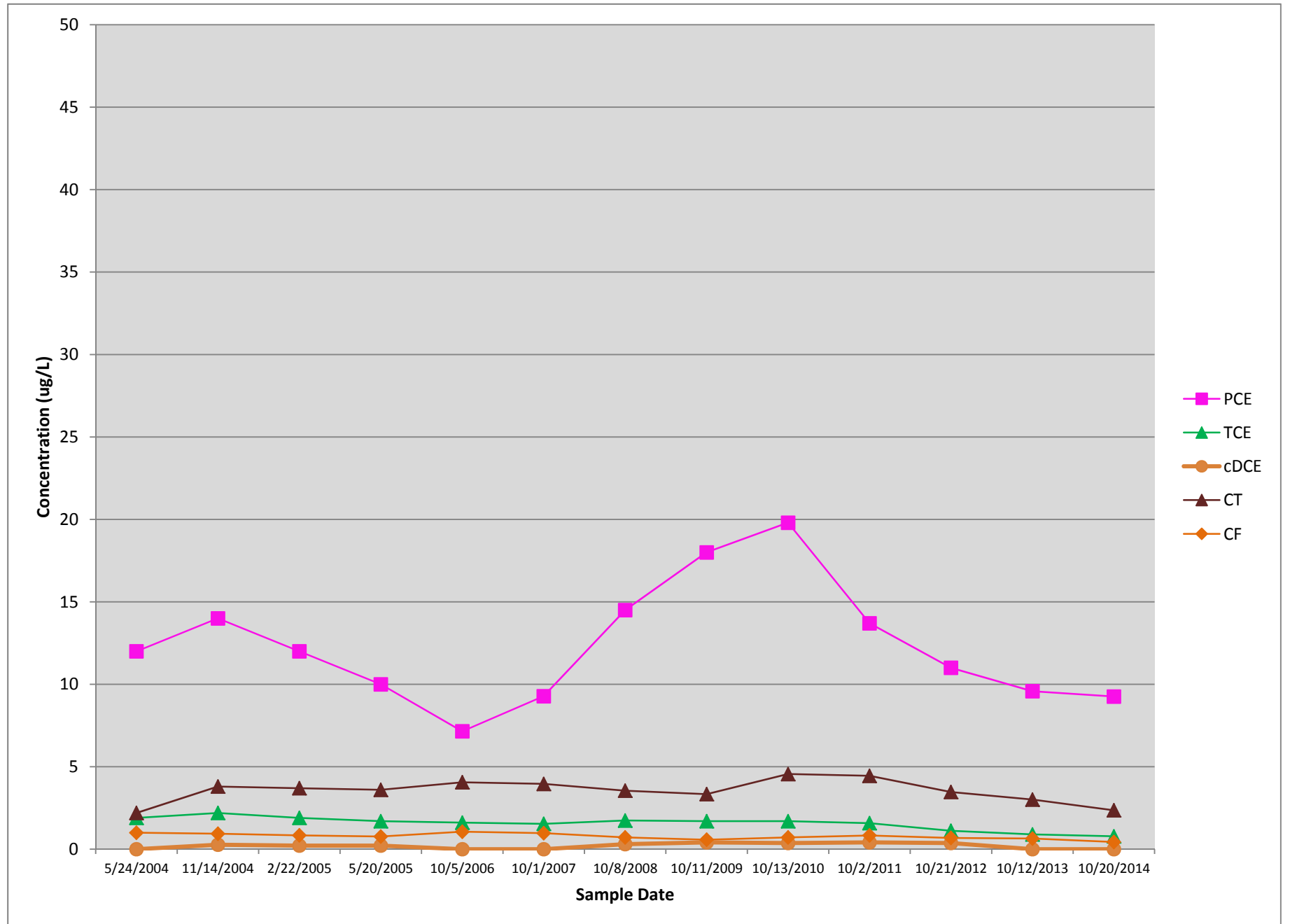
APPENDIX E-3-3

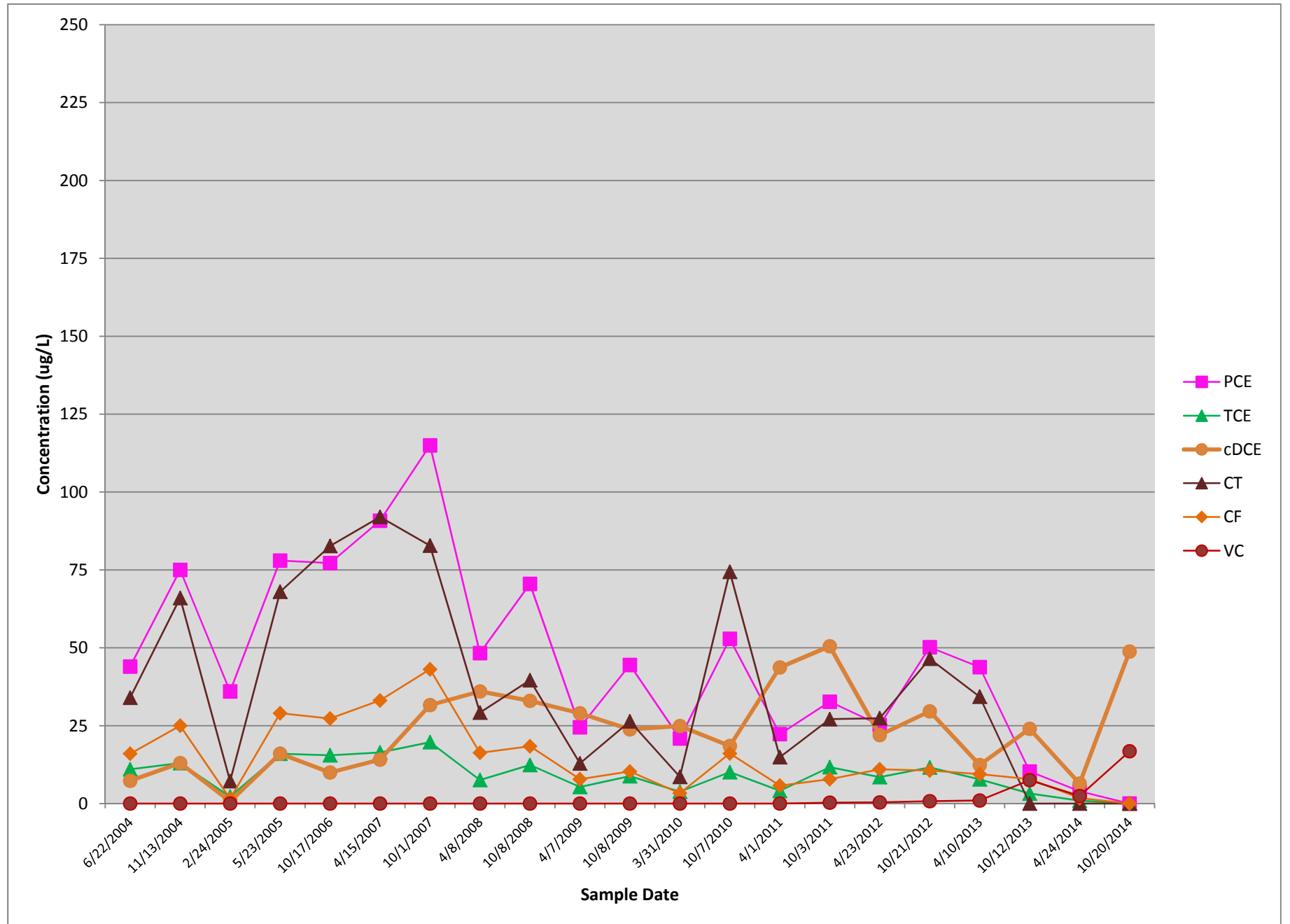
TTA-2 Wells

DR2-1

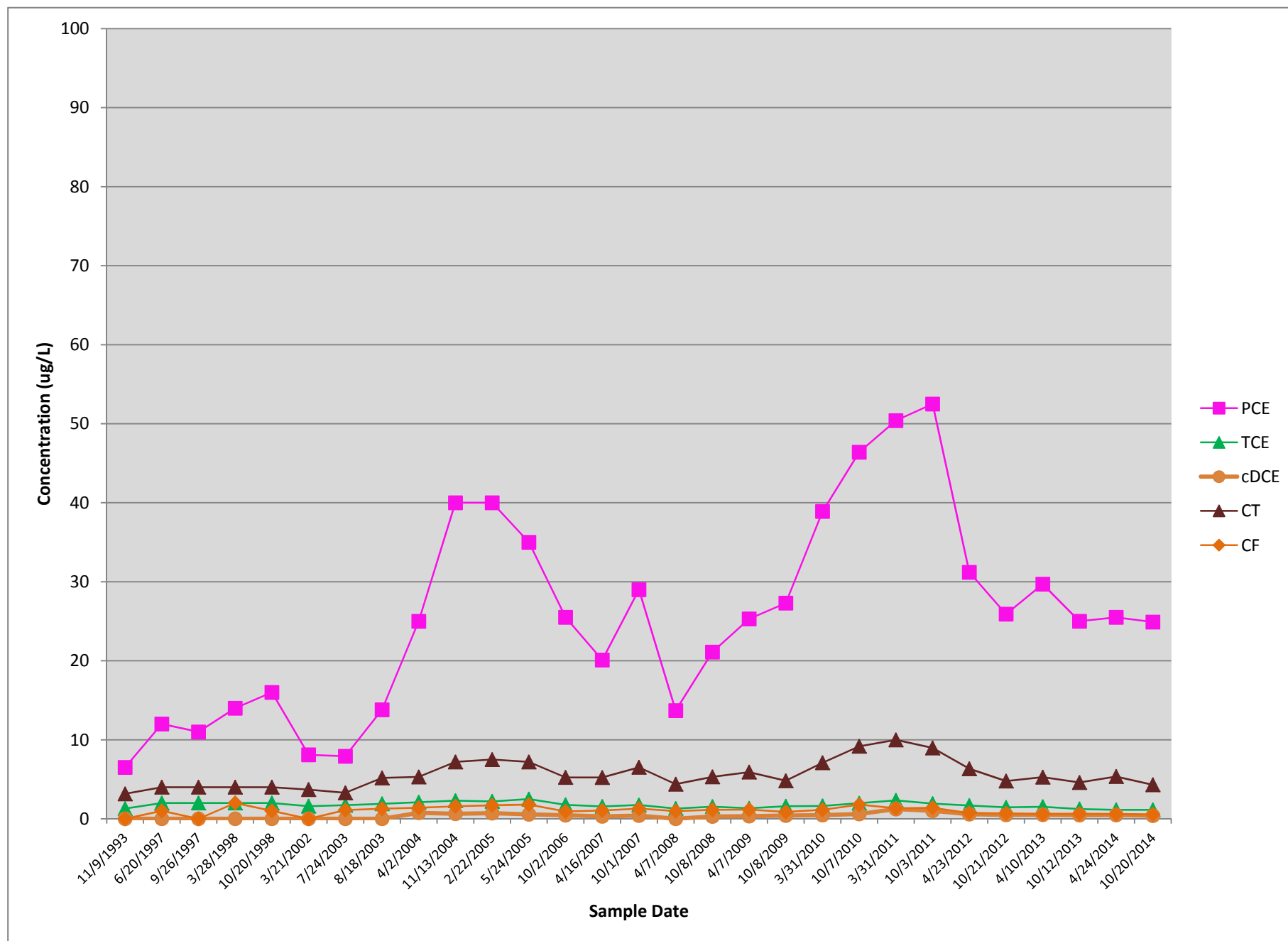




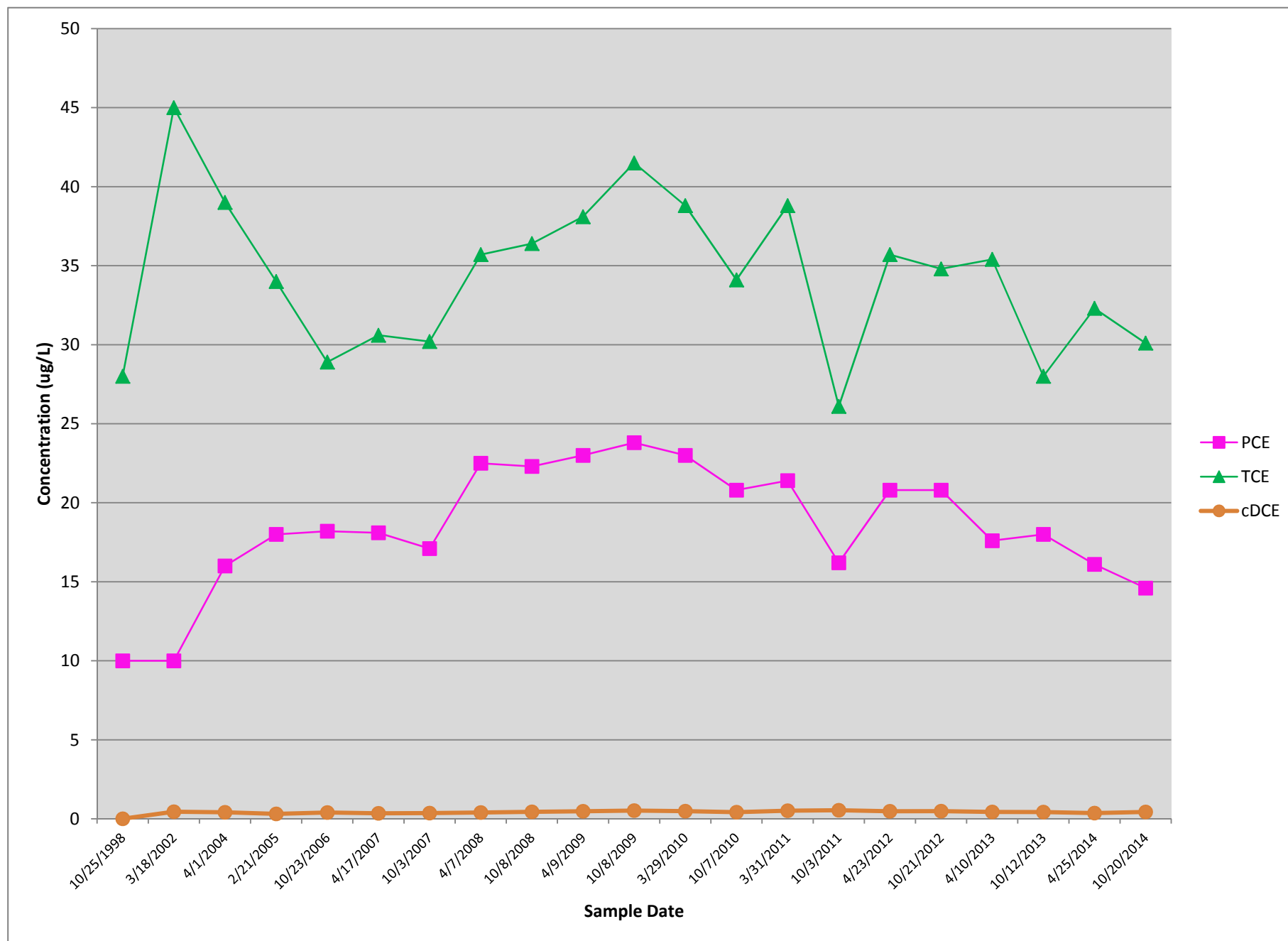




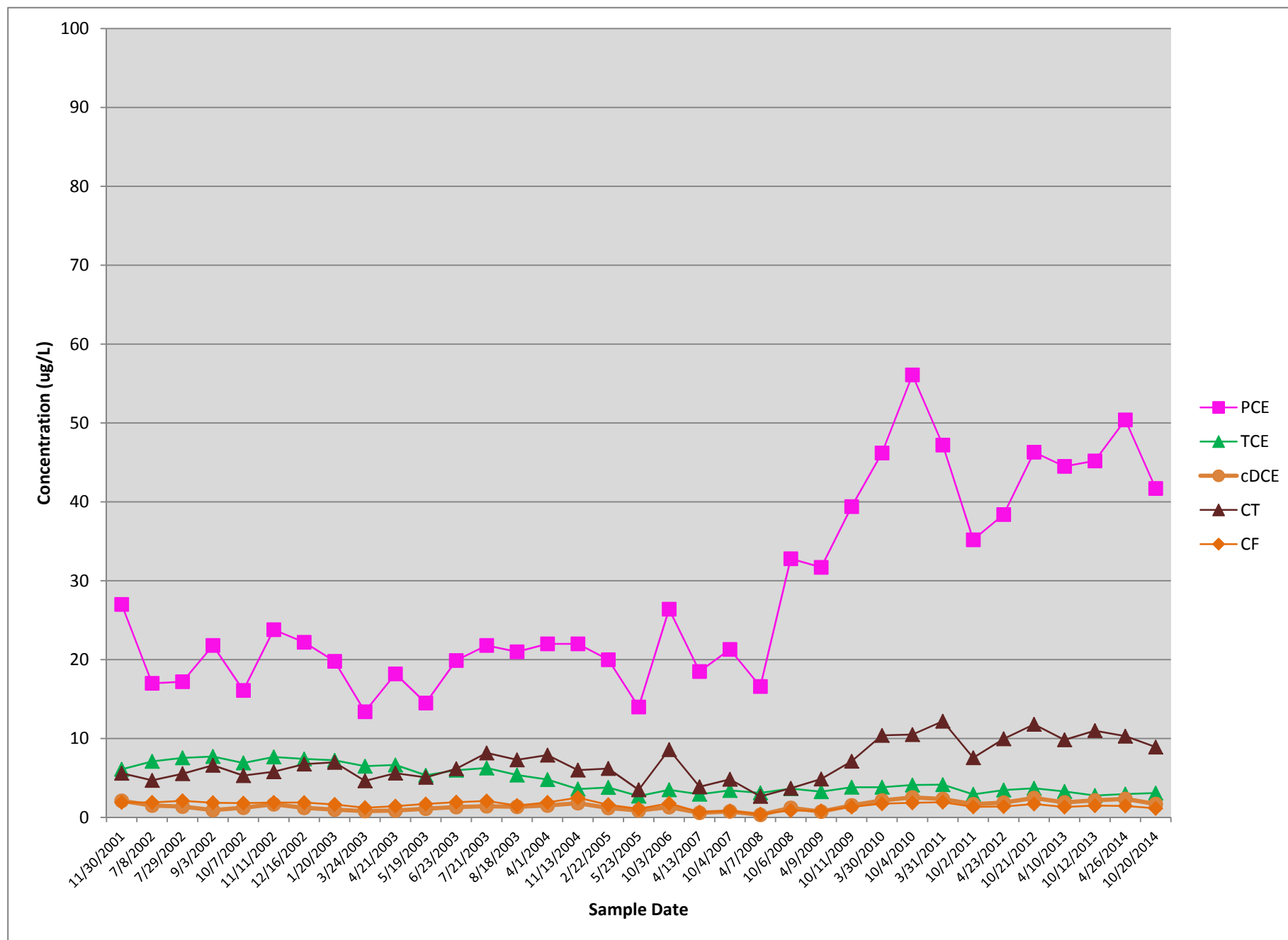
MW-26



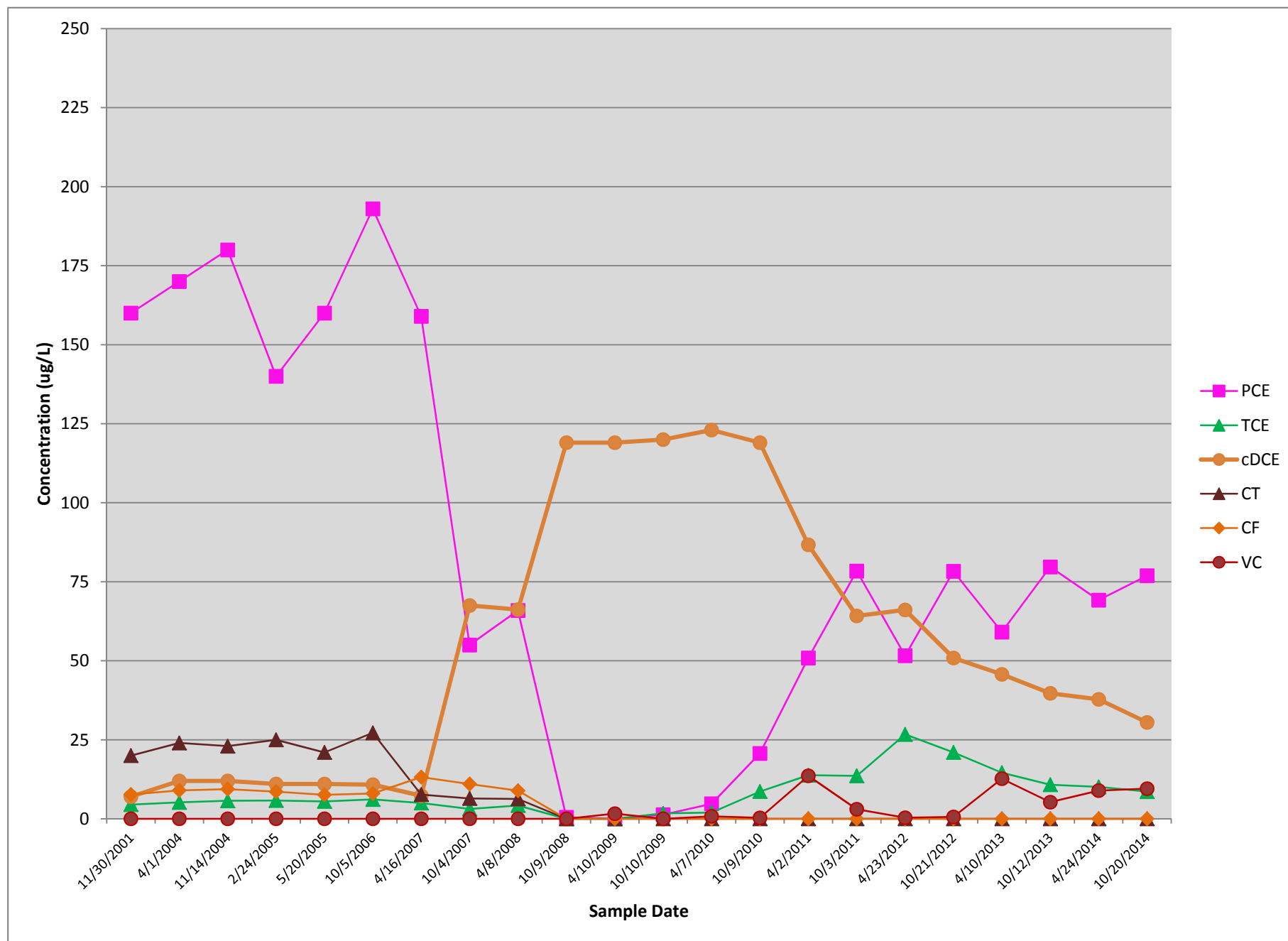
MW-64

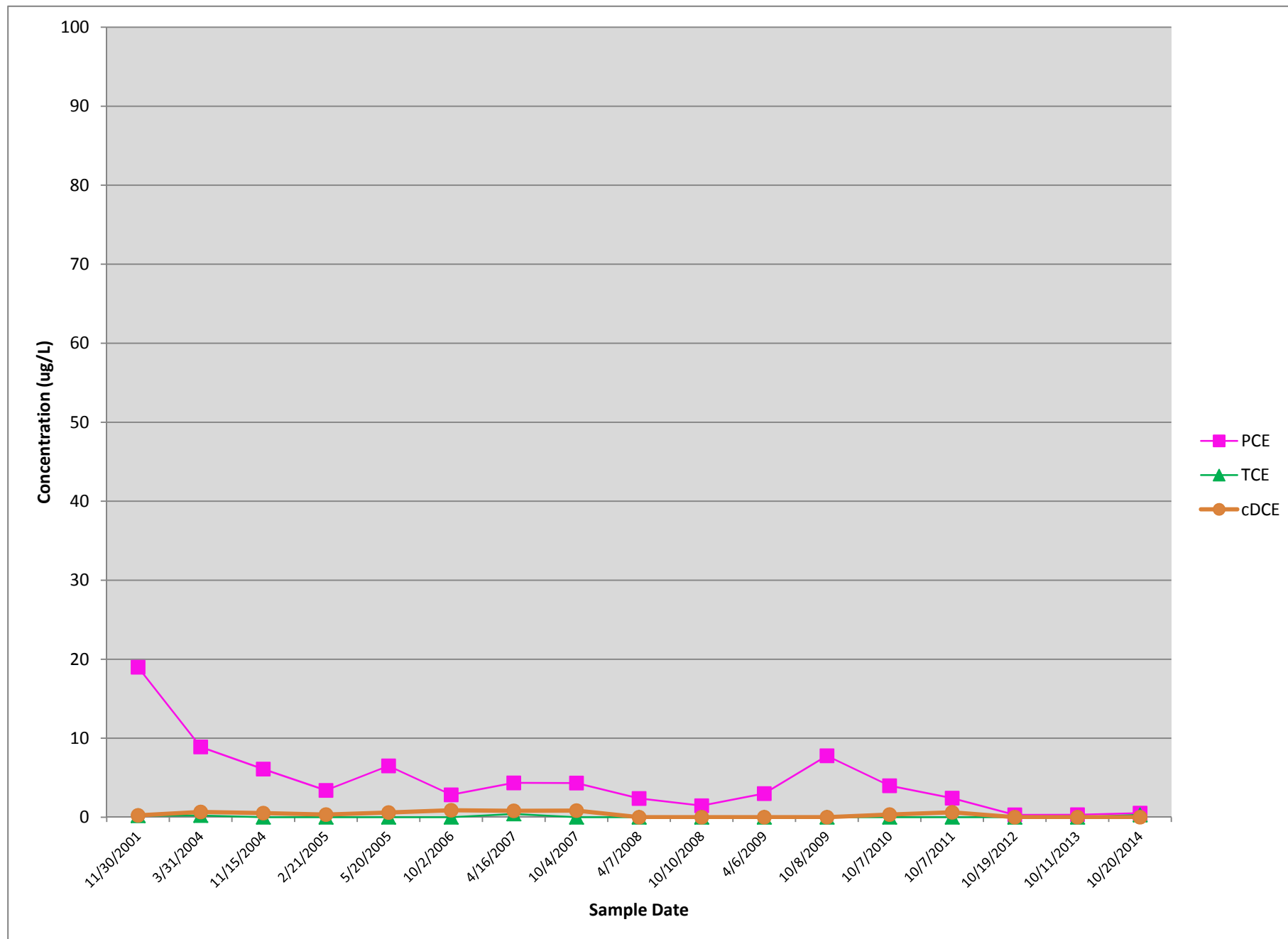


MW-88

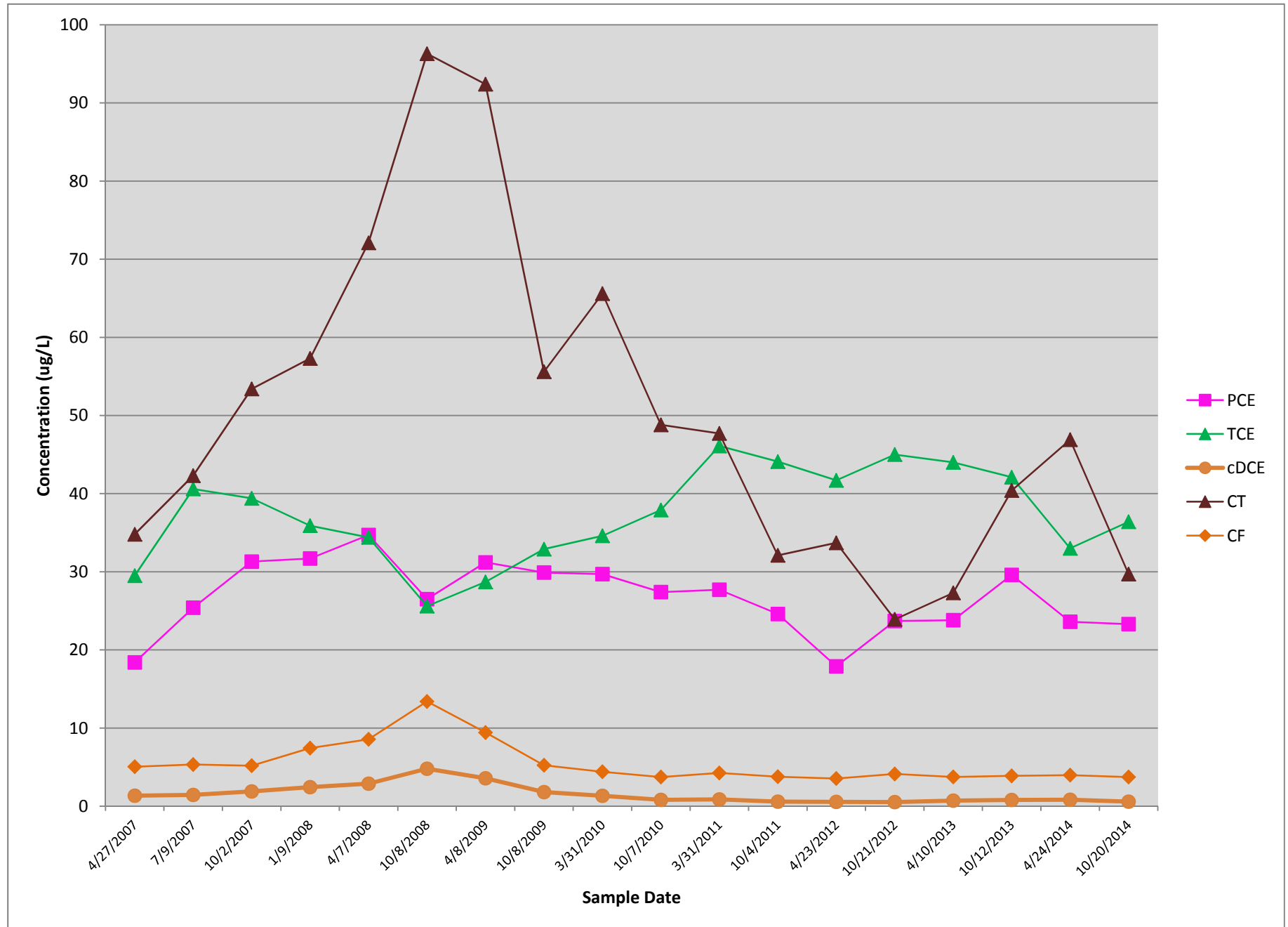


MW-92

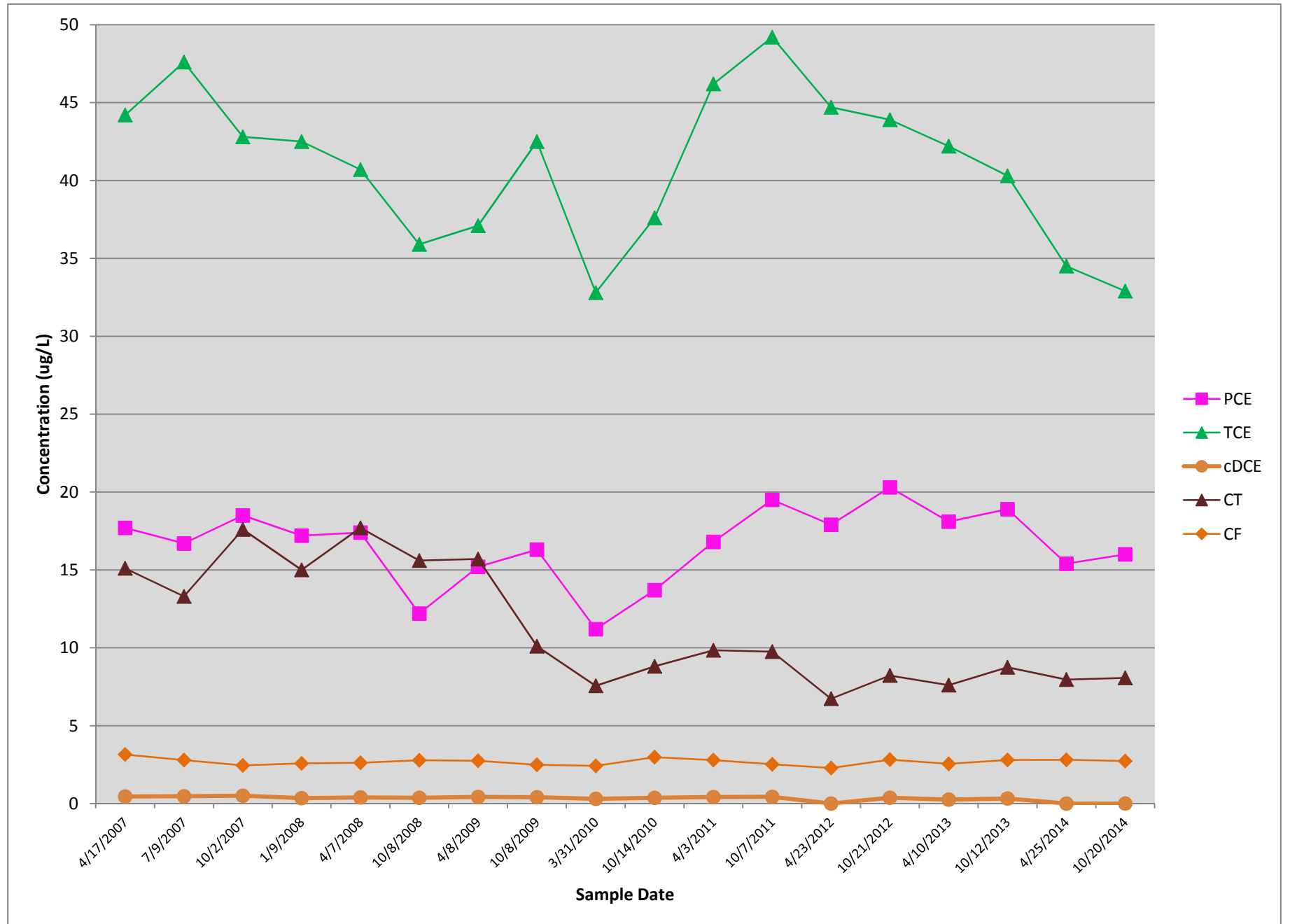




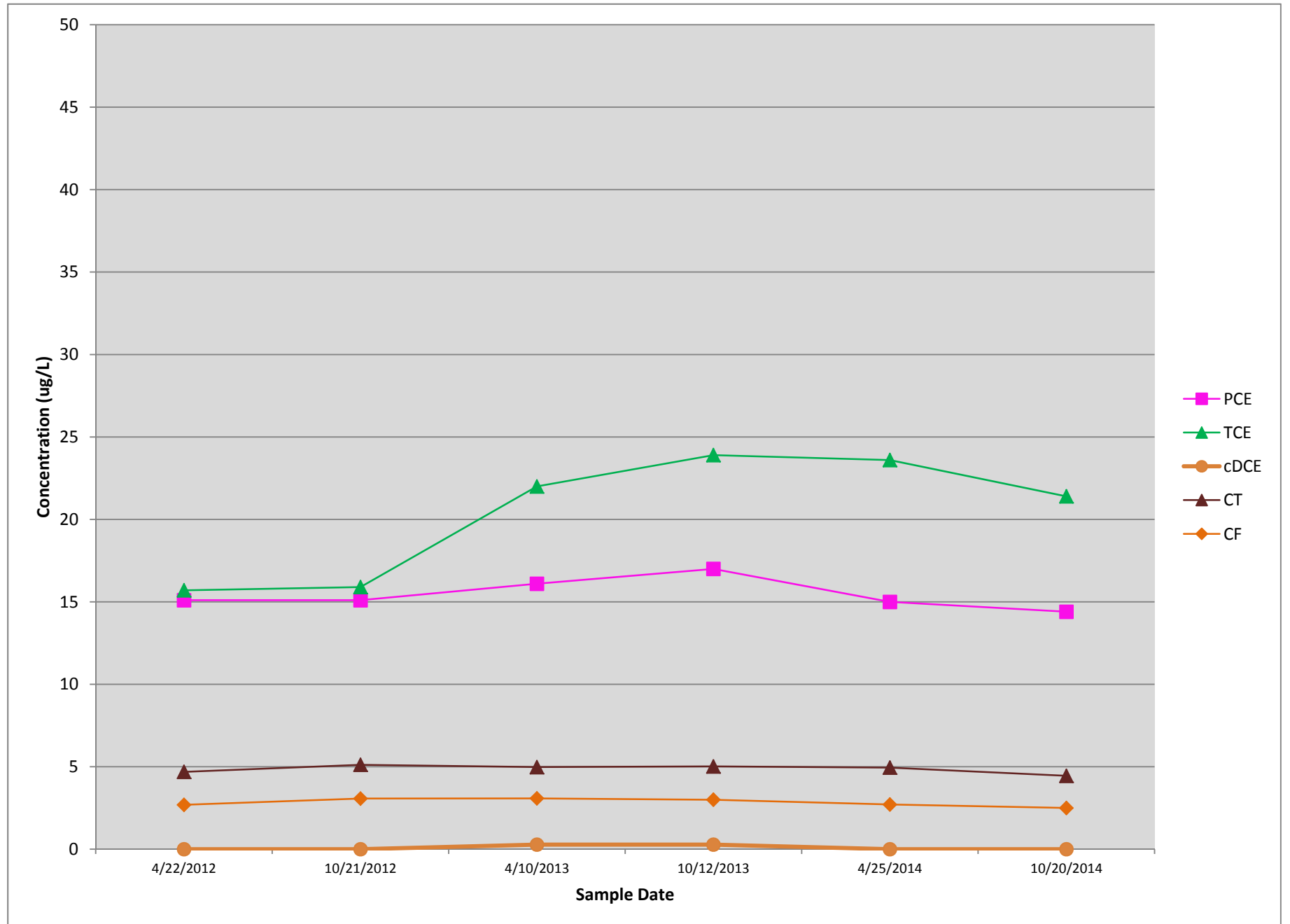
MW-217



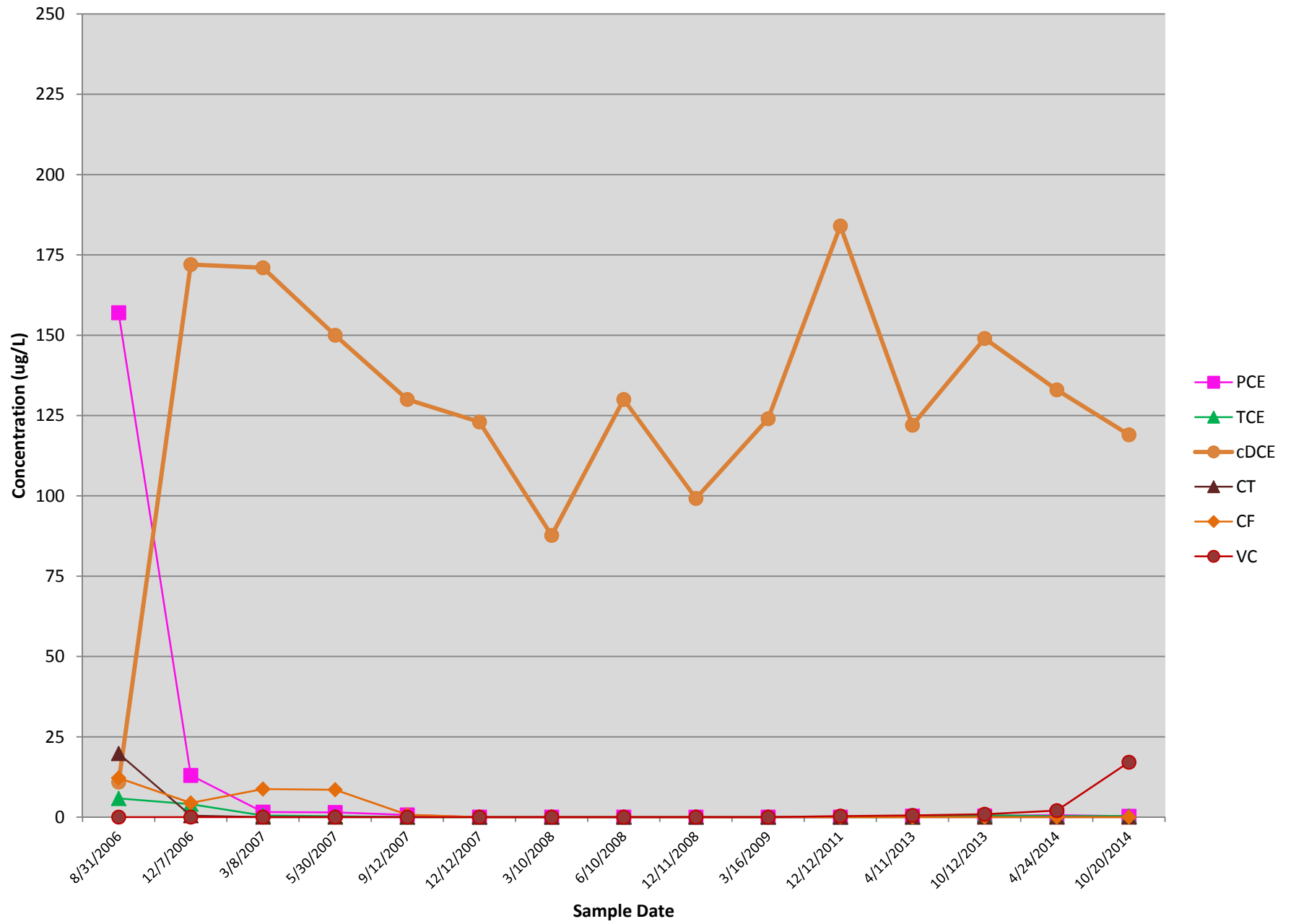
MW-218



MW-259

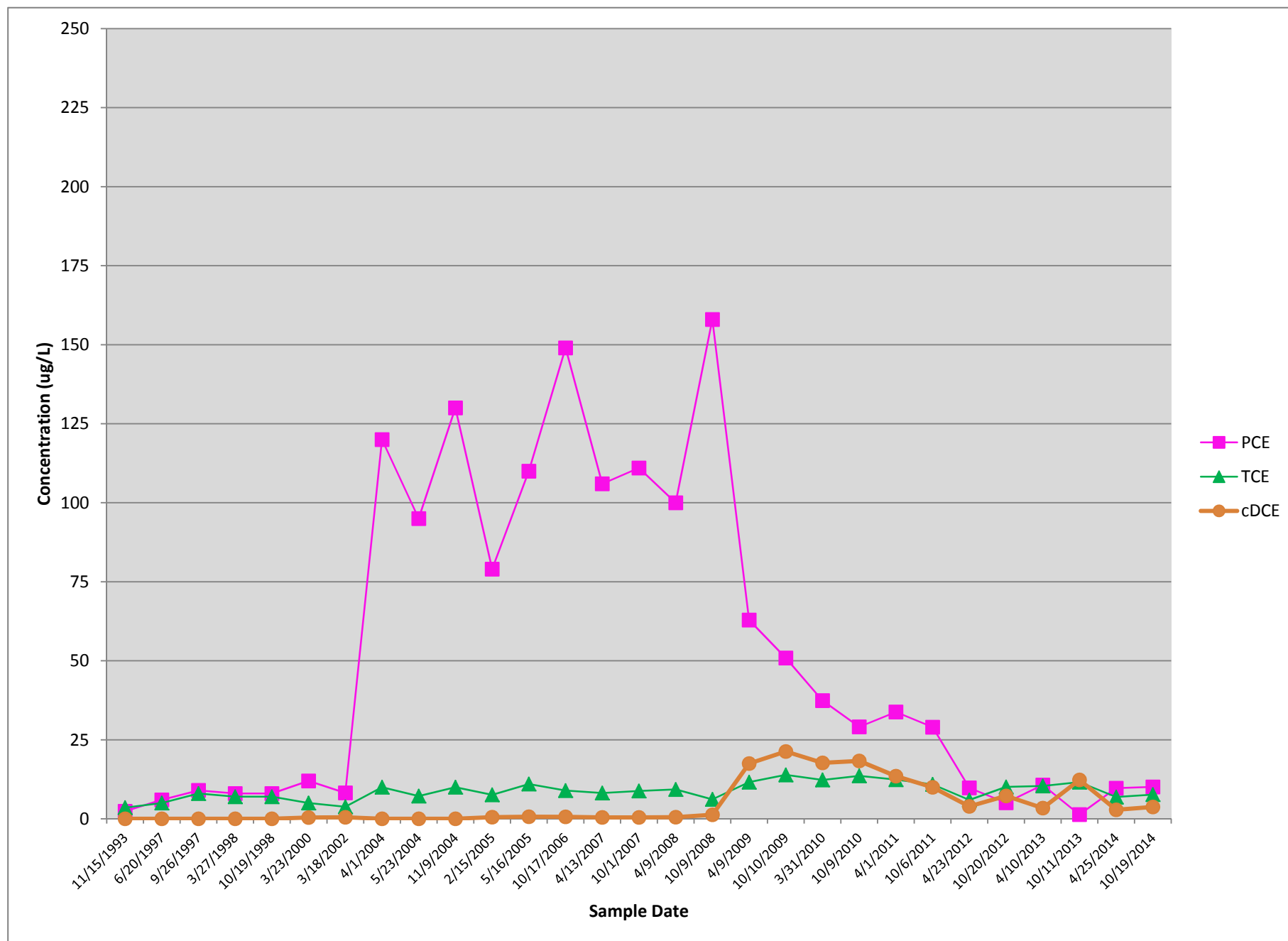


PMW92-02

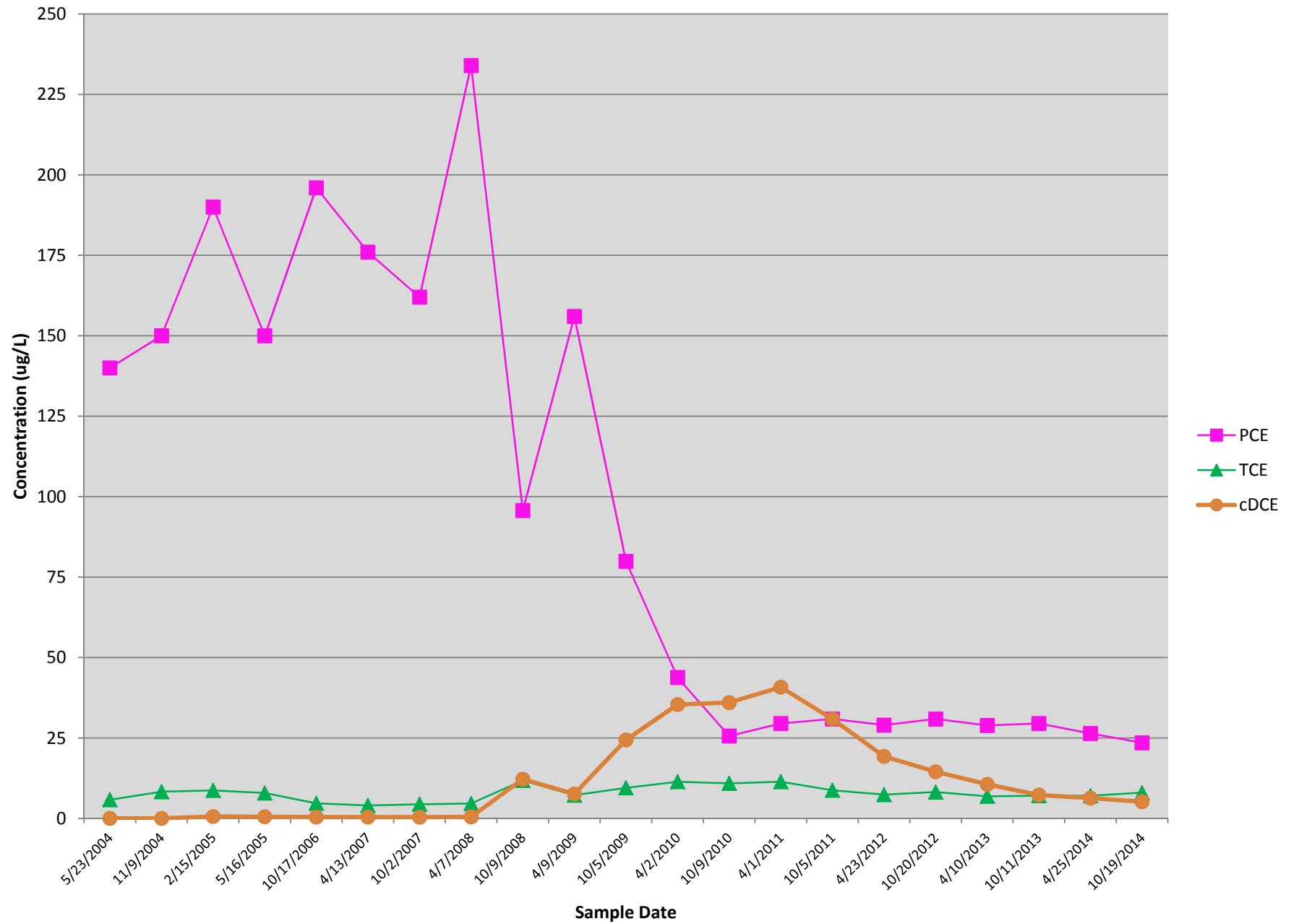


APPENDIX E-3-4

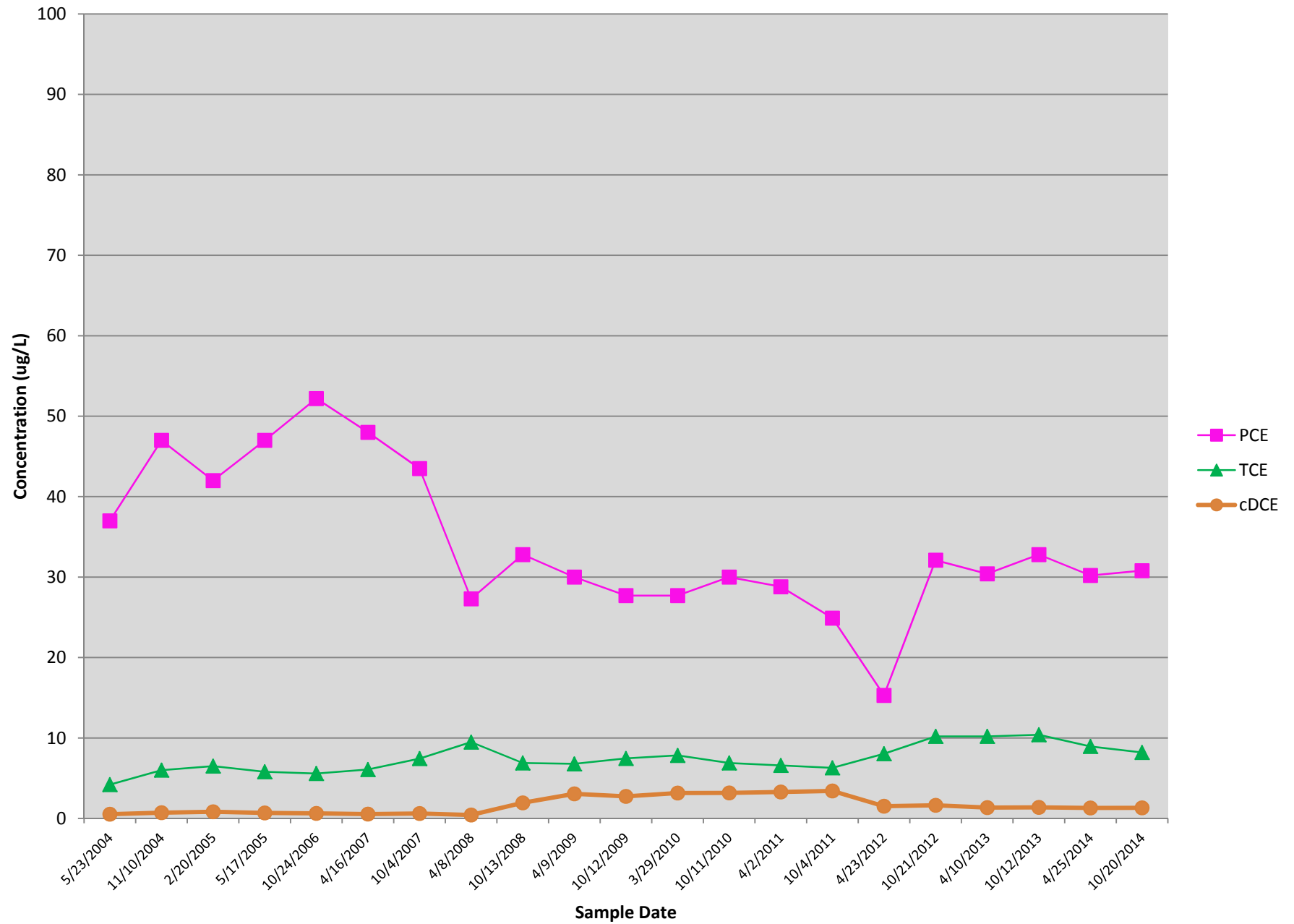
West-Central Wells



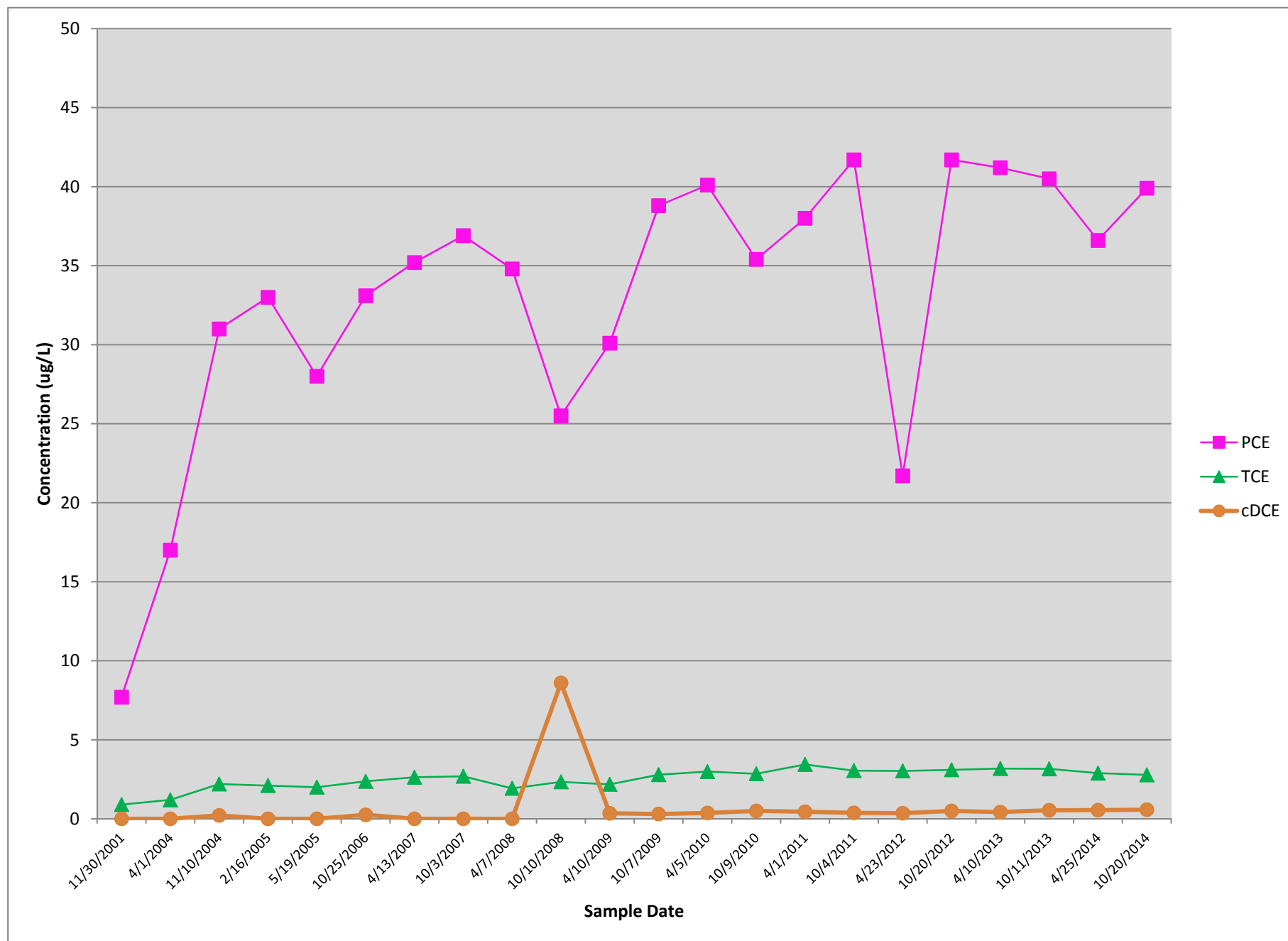
MW-39A



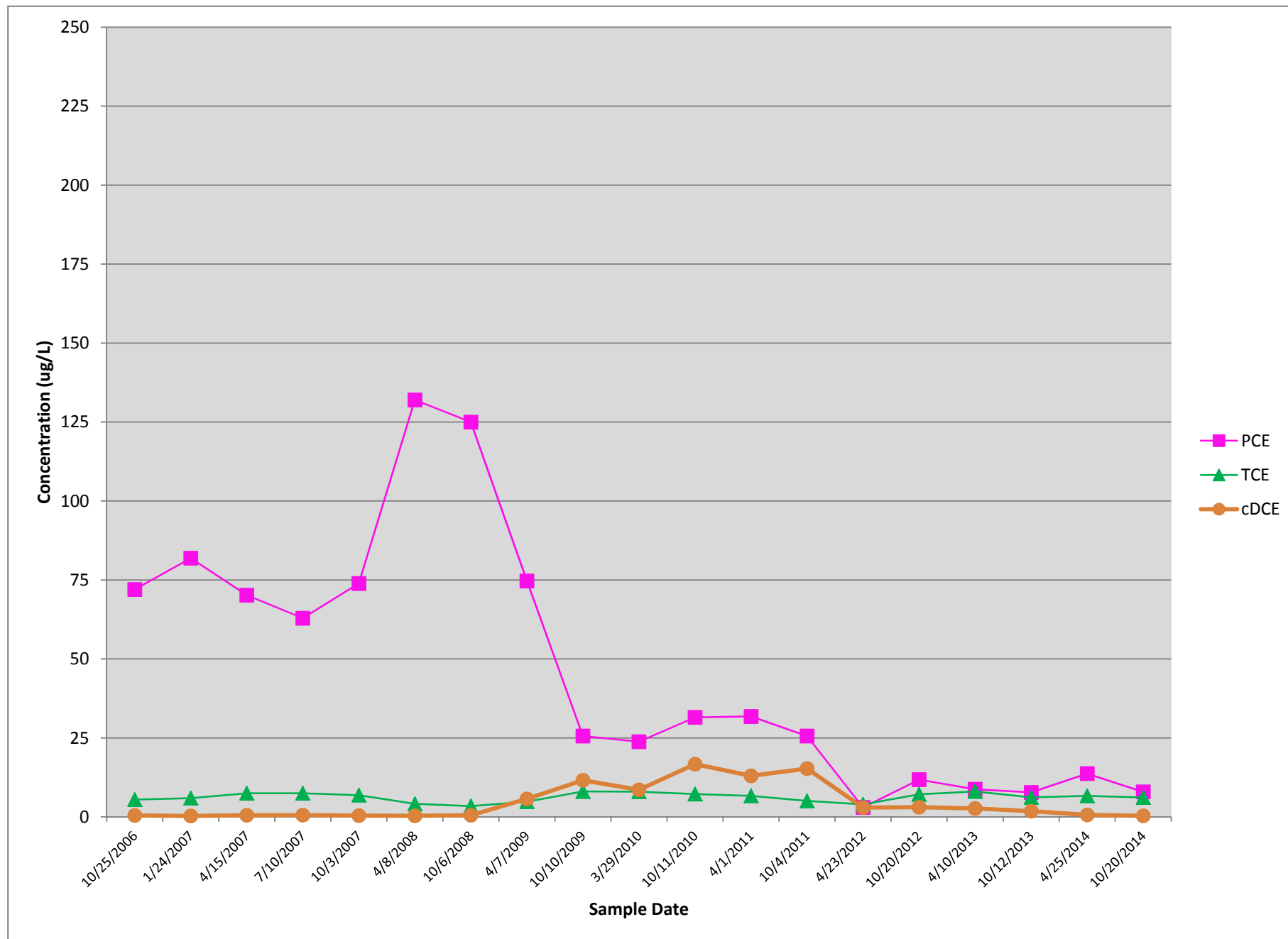
MW-94A



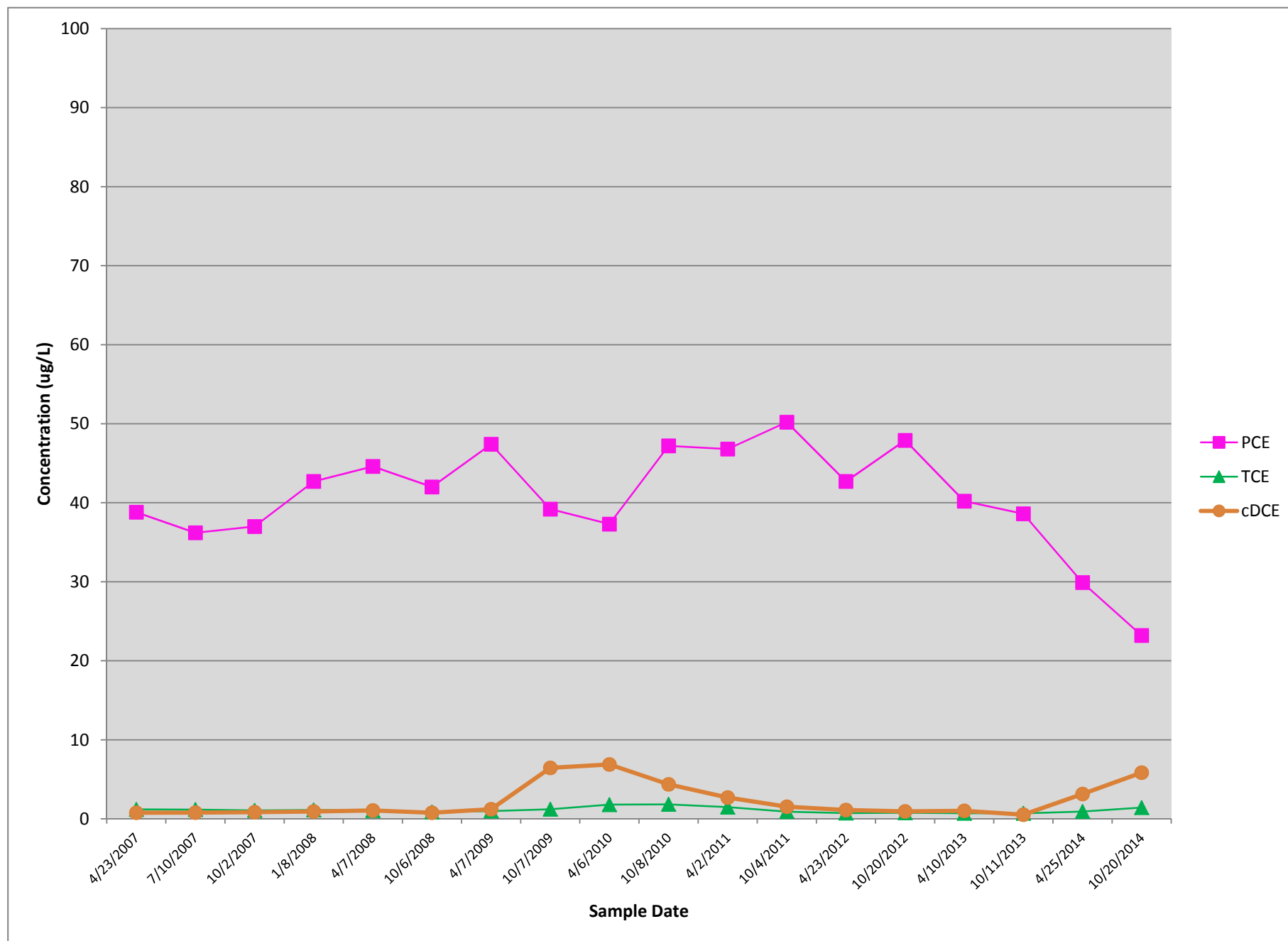
MW-98



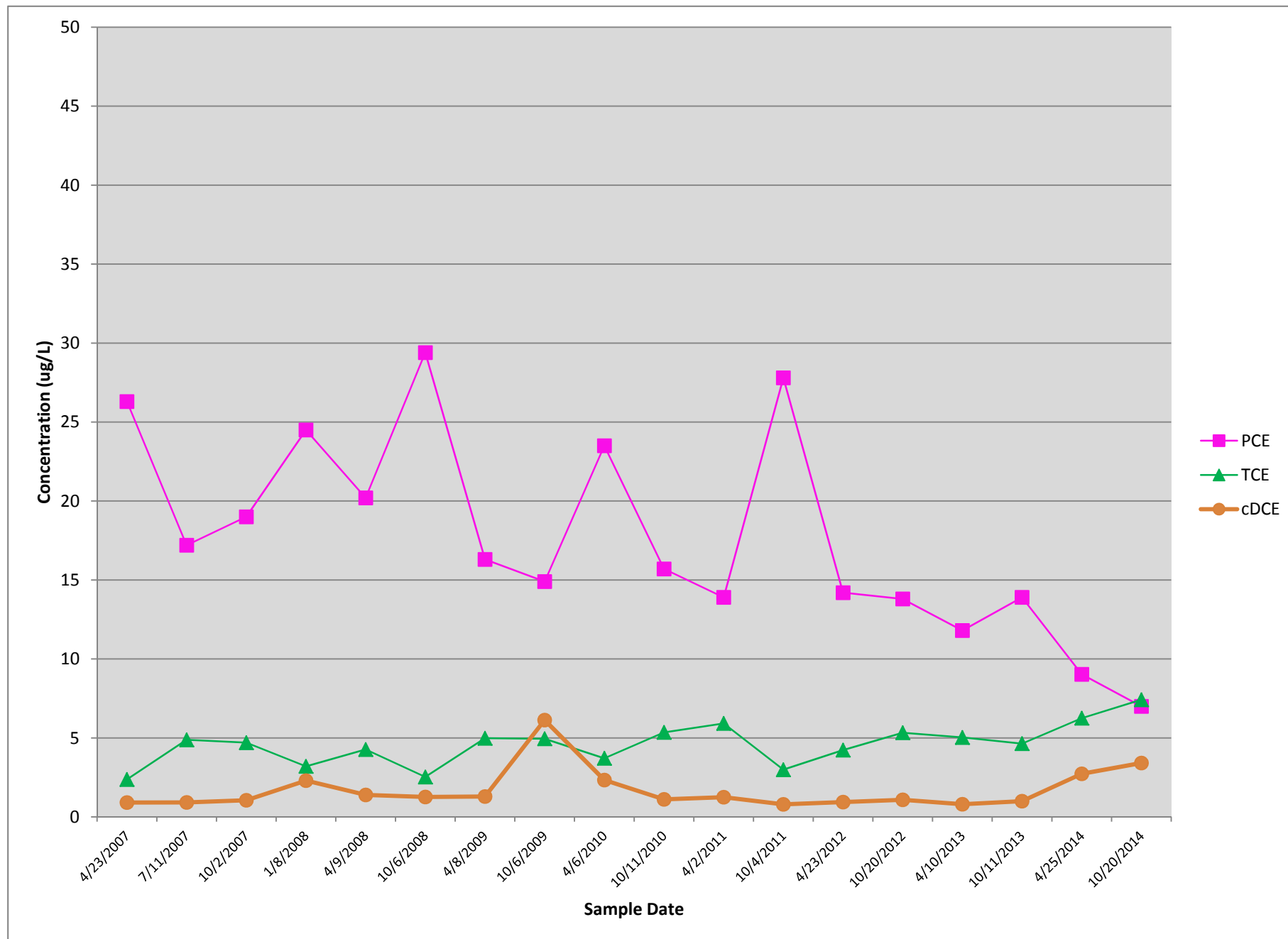
MW-200



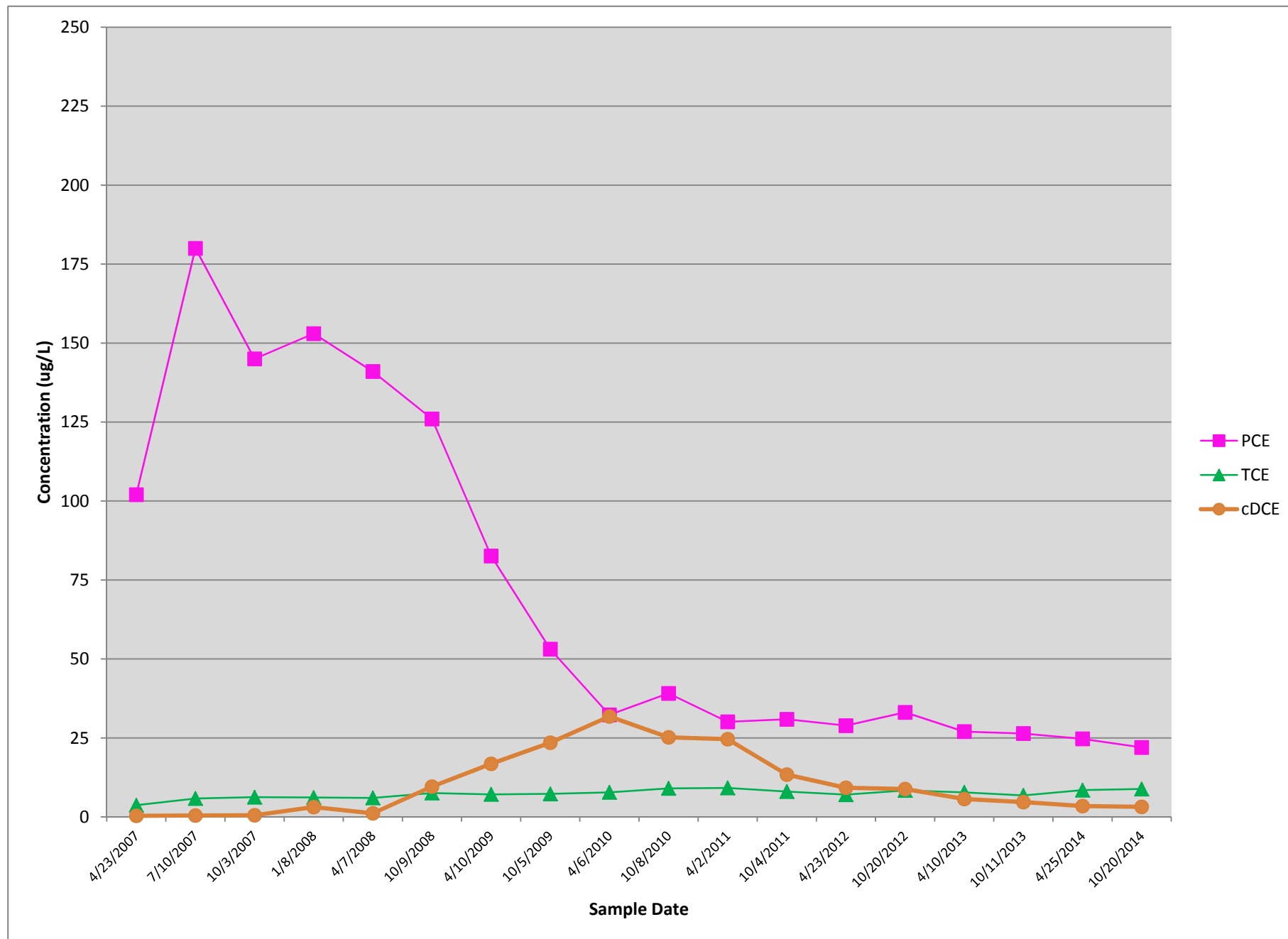
MW-204A



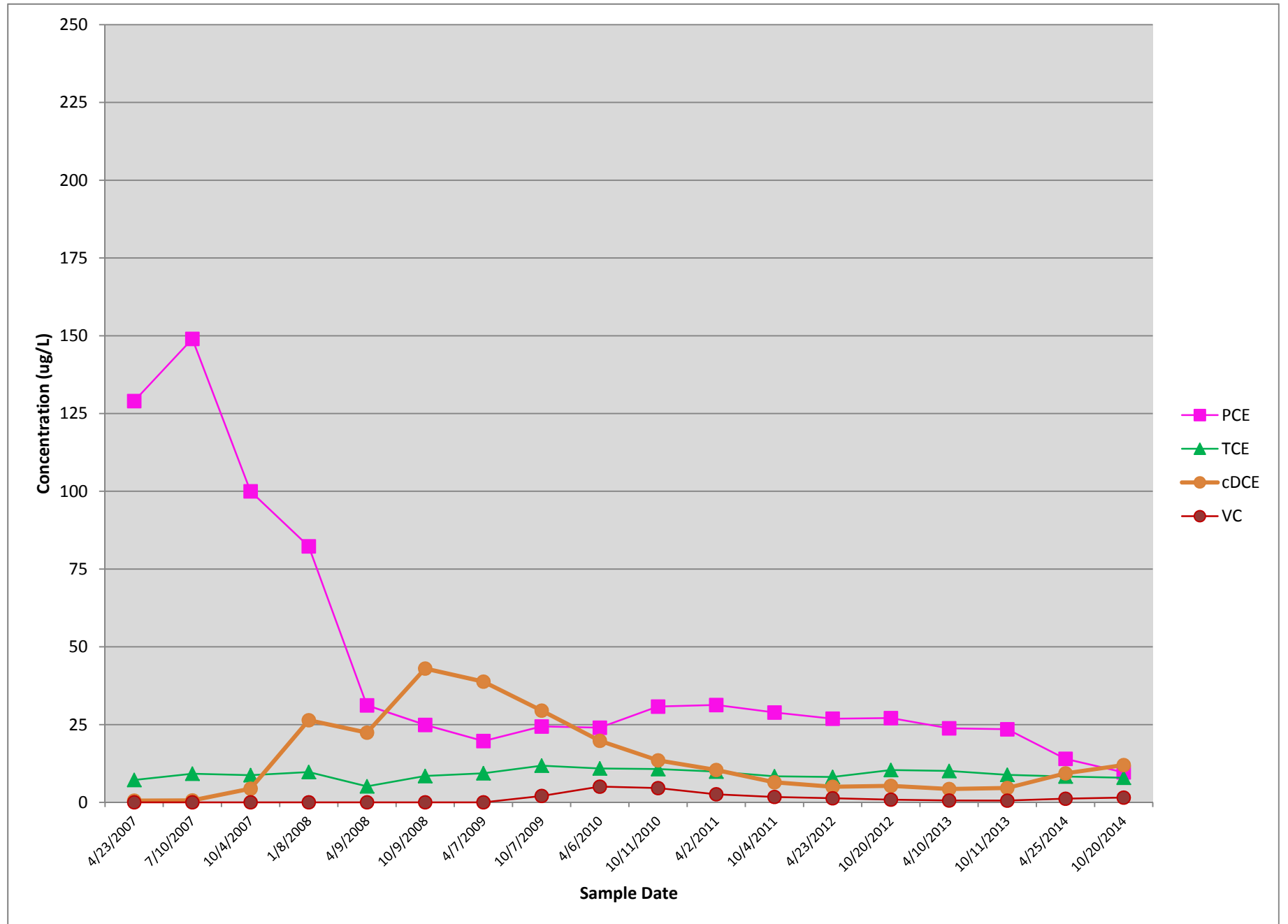
MW-204B



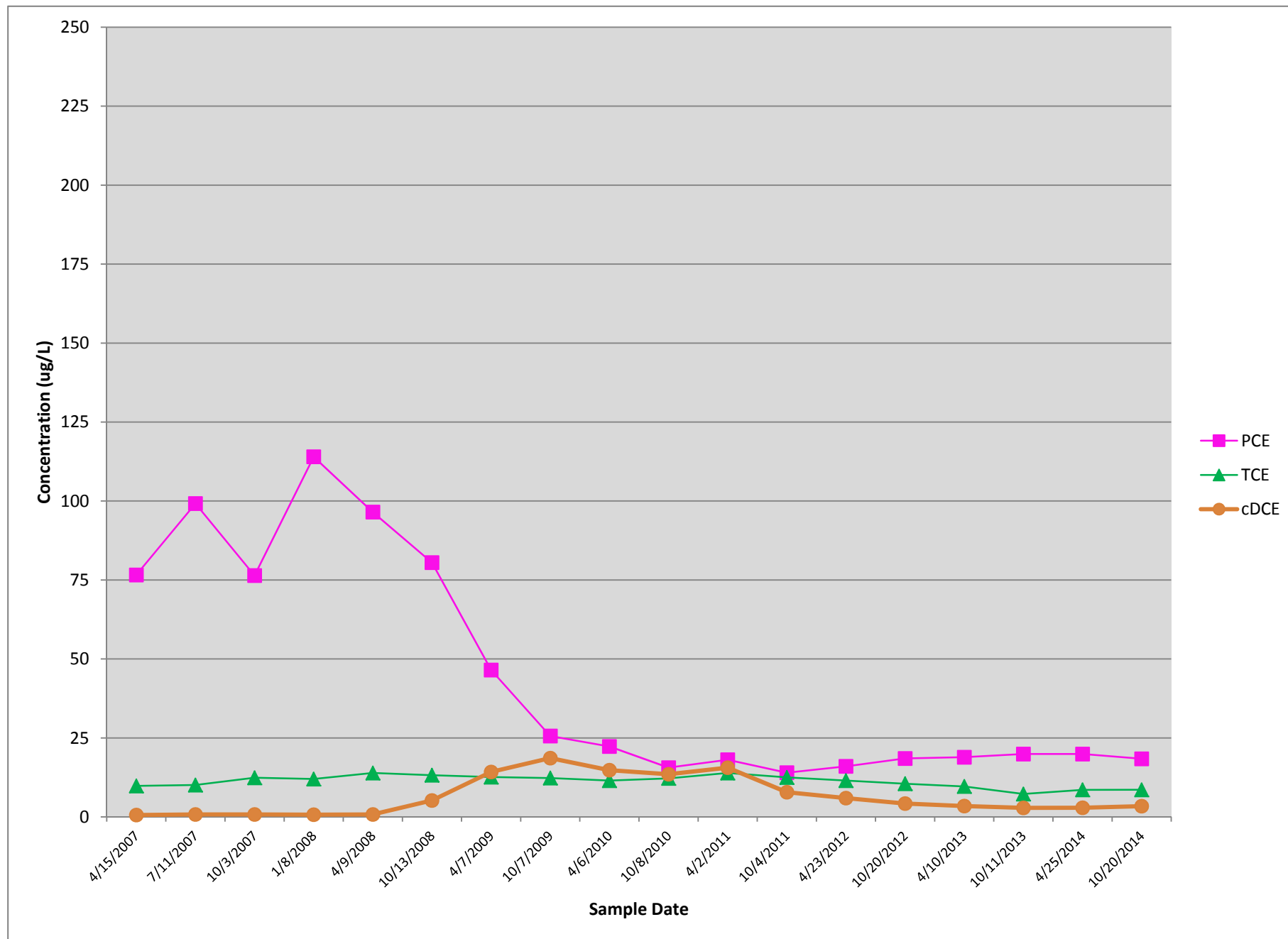
MW-205A



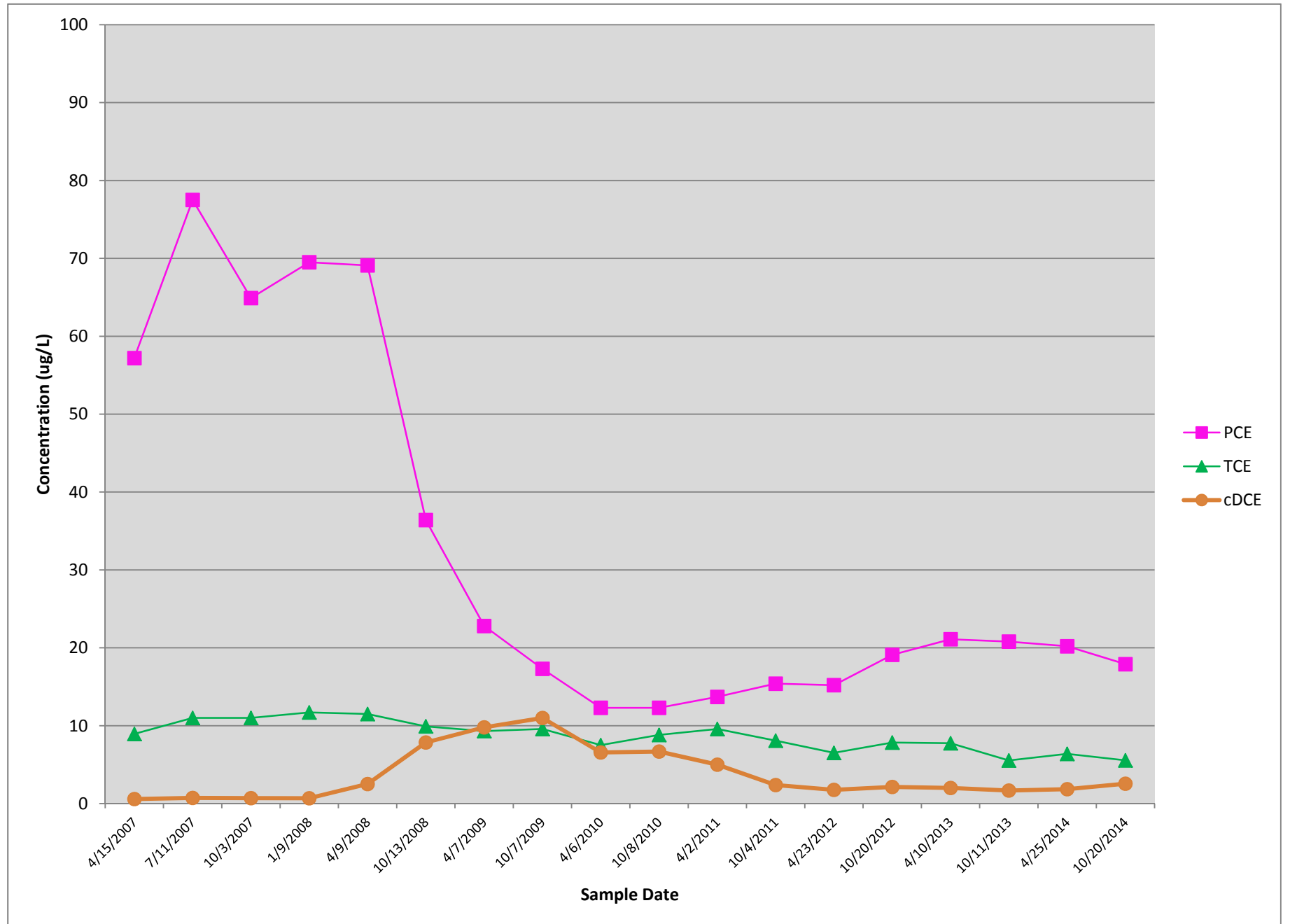
MW-205B



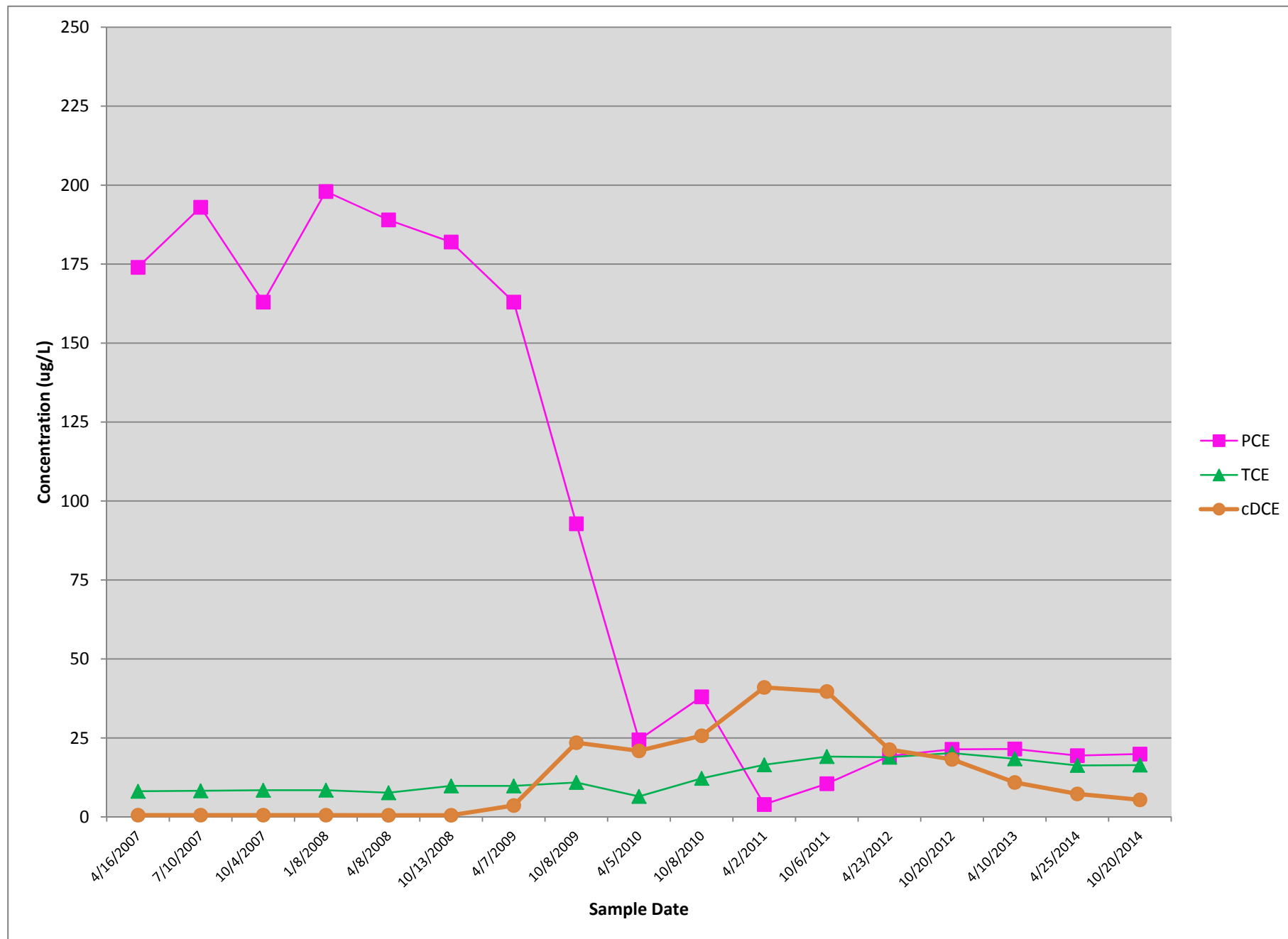
MW-206A



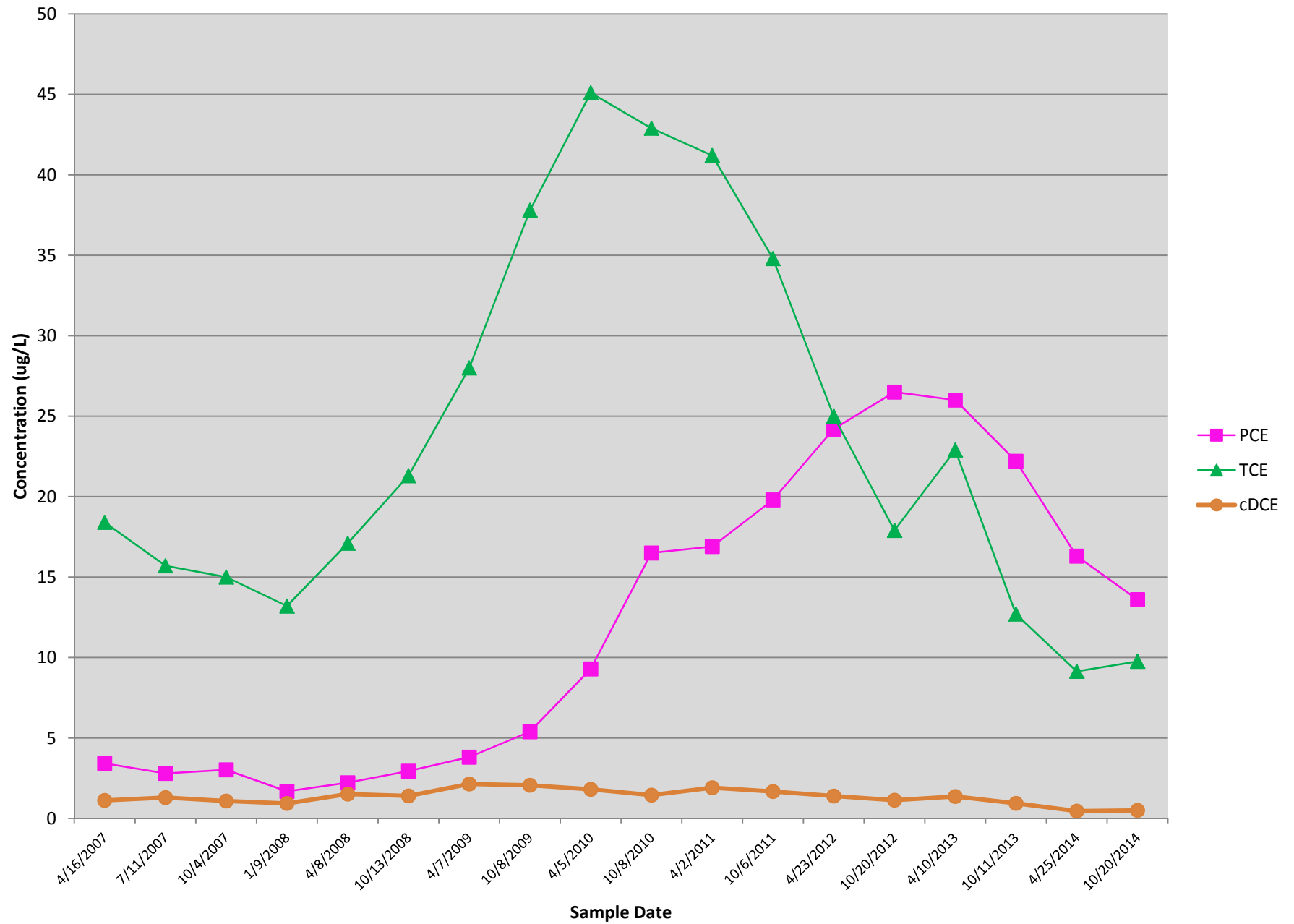
MW-206B



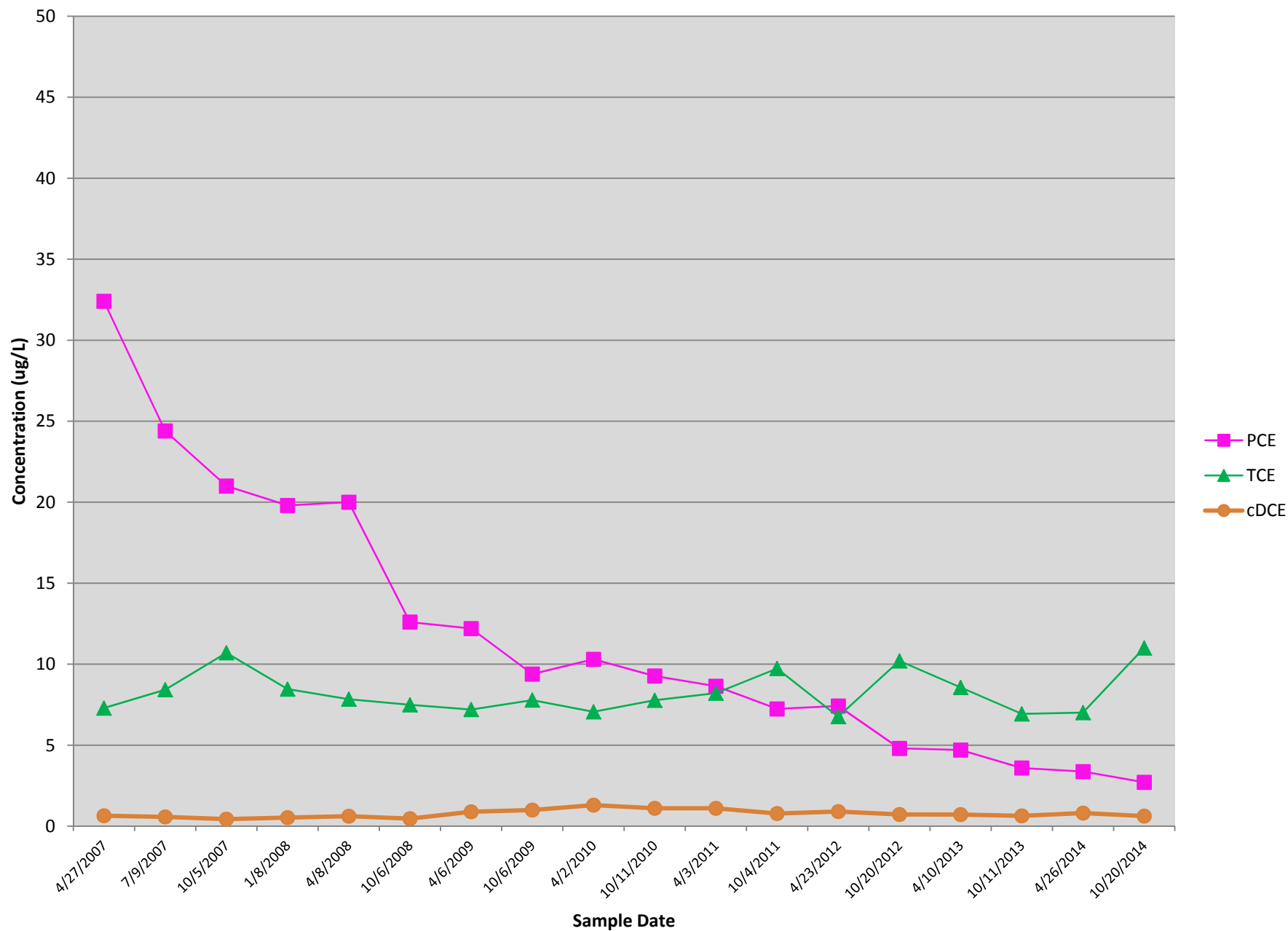
MW-208A



MW-208B



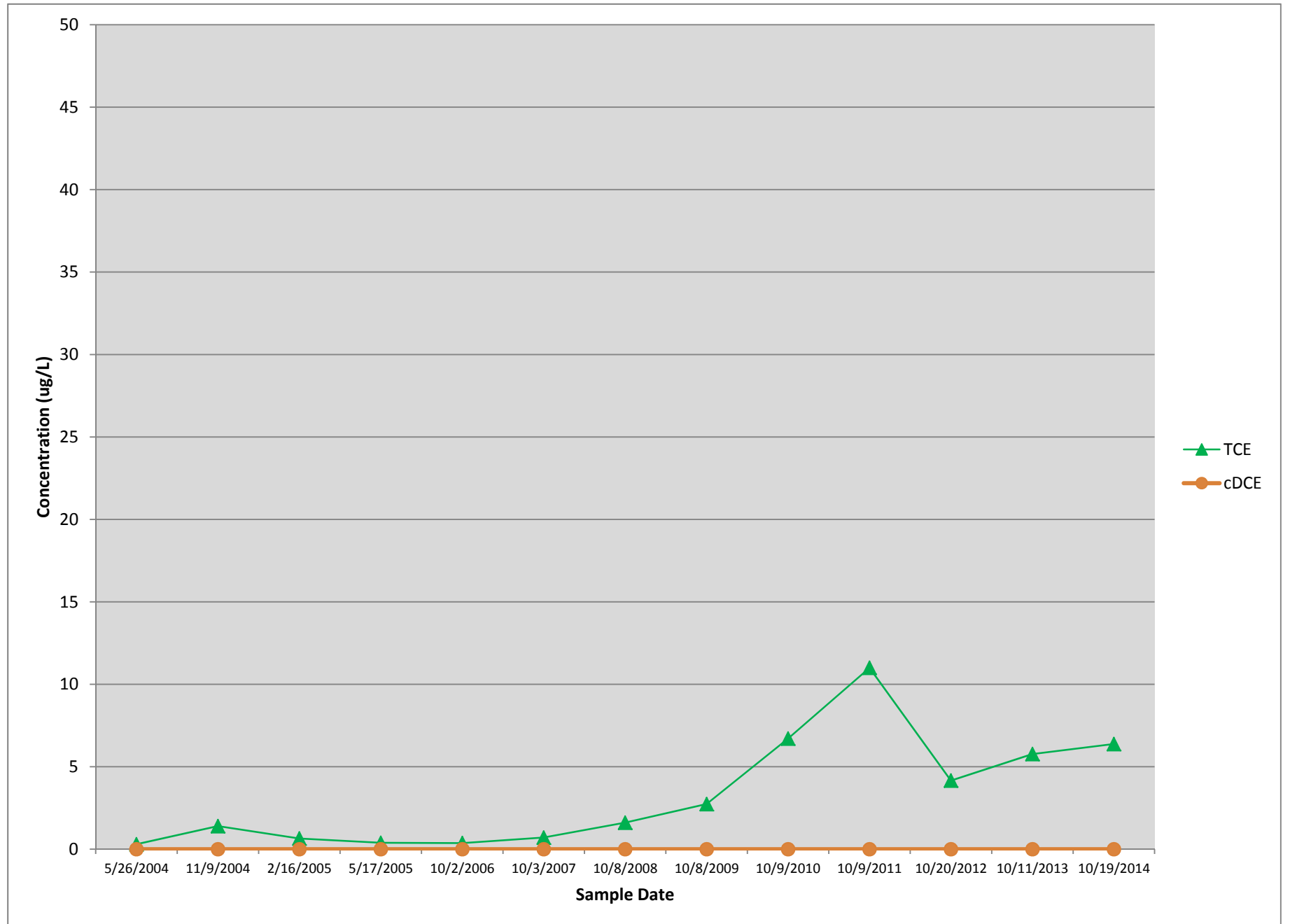
MW-210B



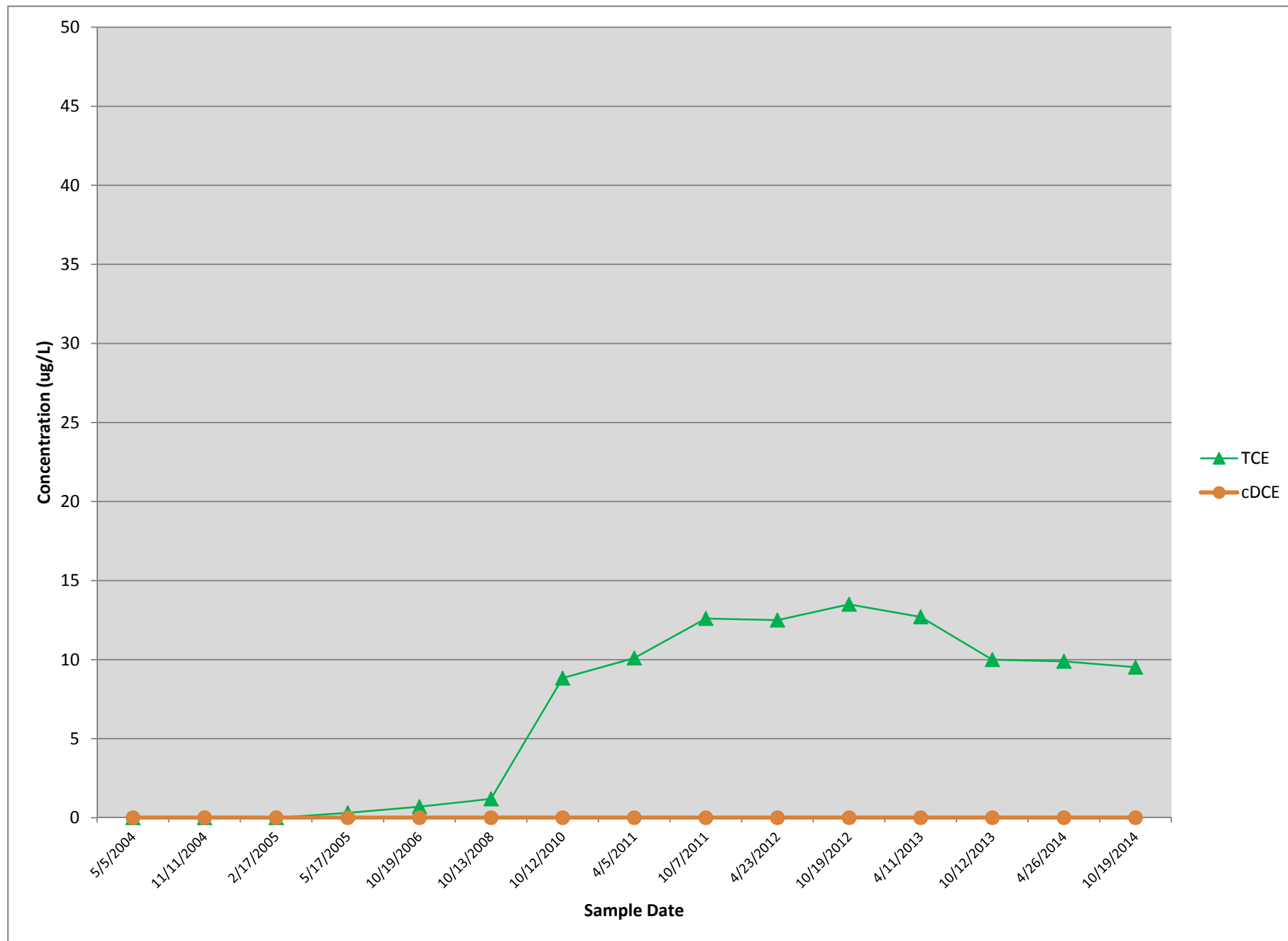
APPENDIX E-3-5

Building 835 Wells

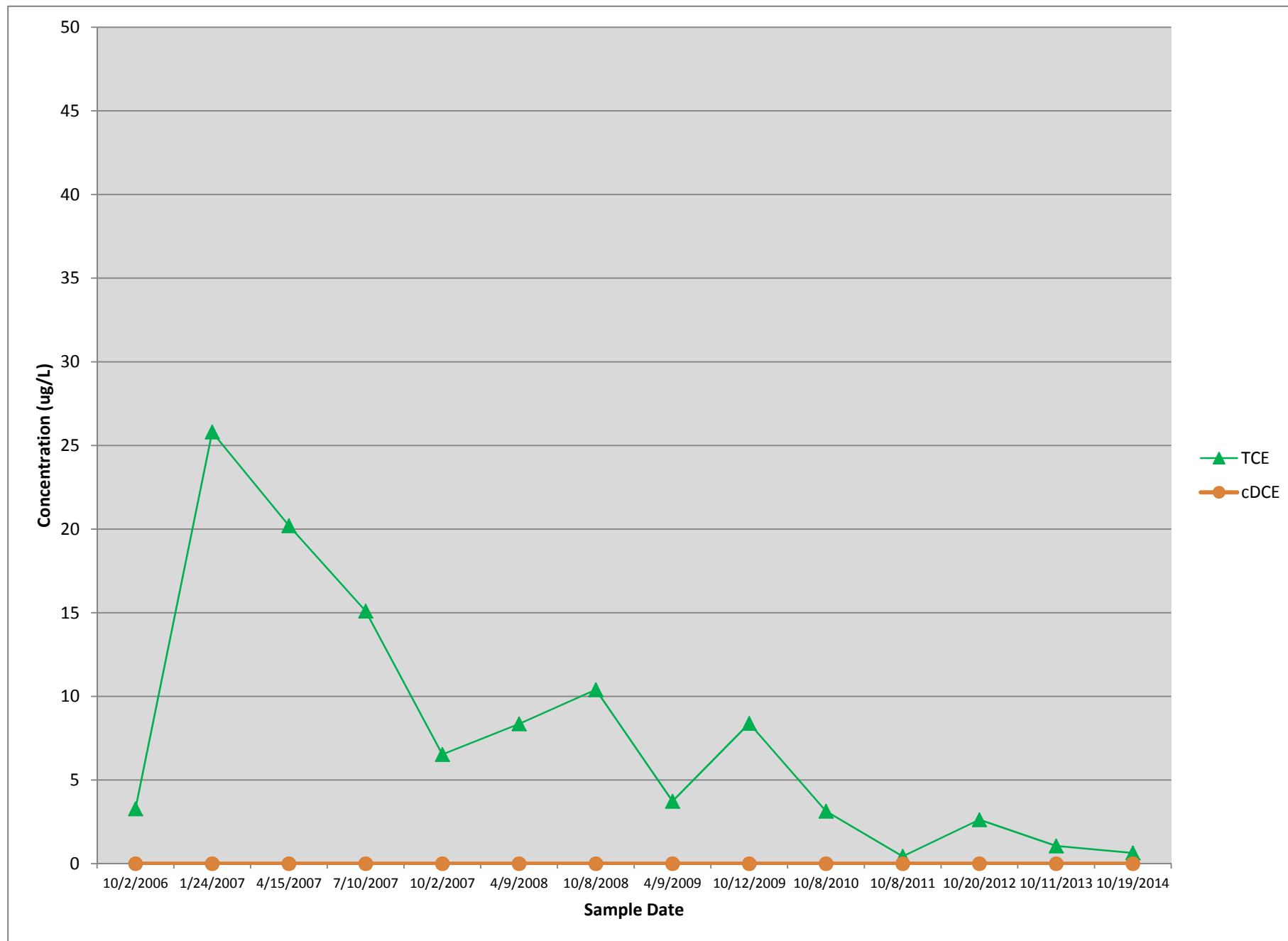
MW-142



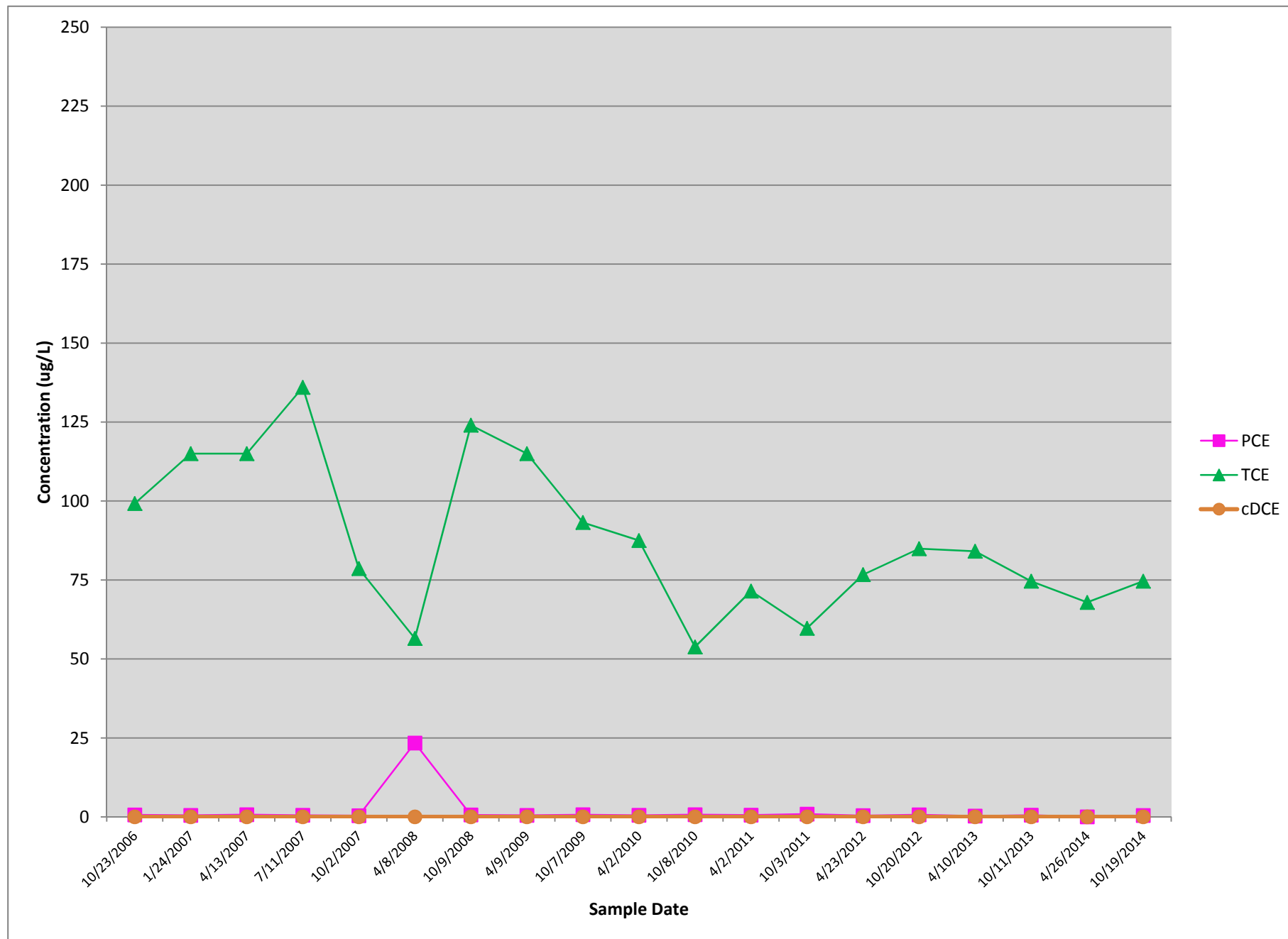
MW-143



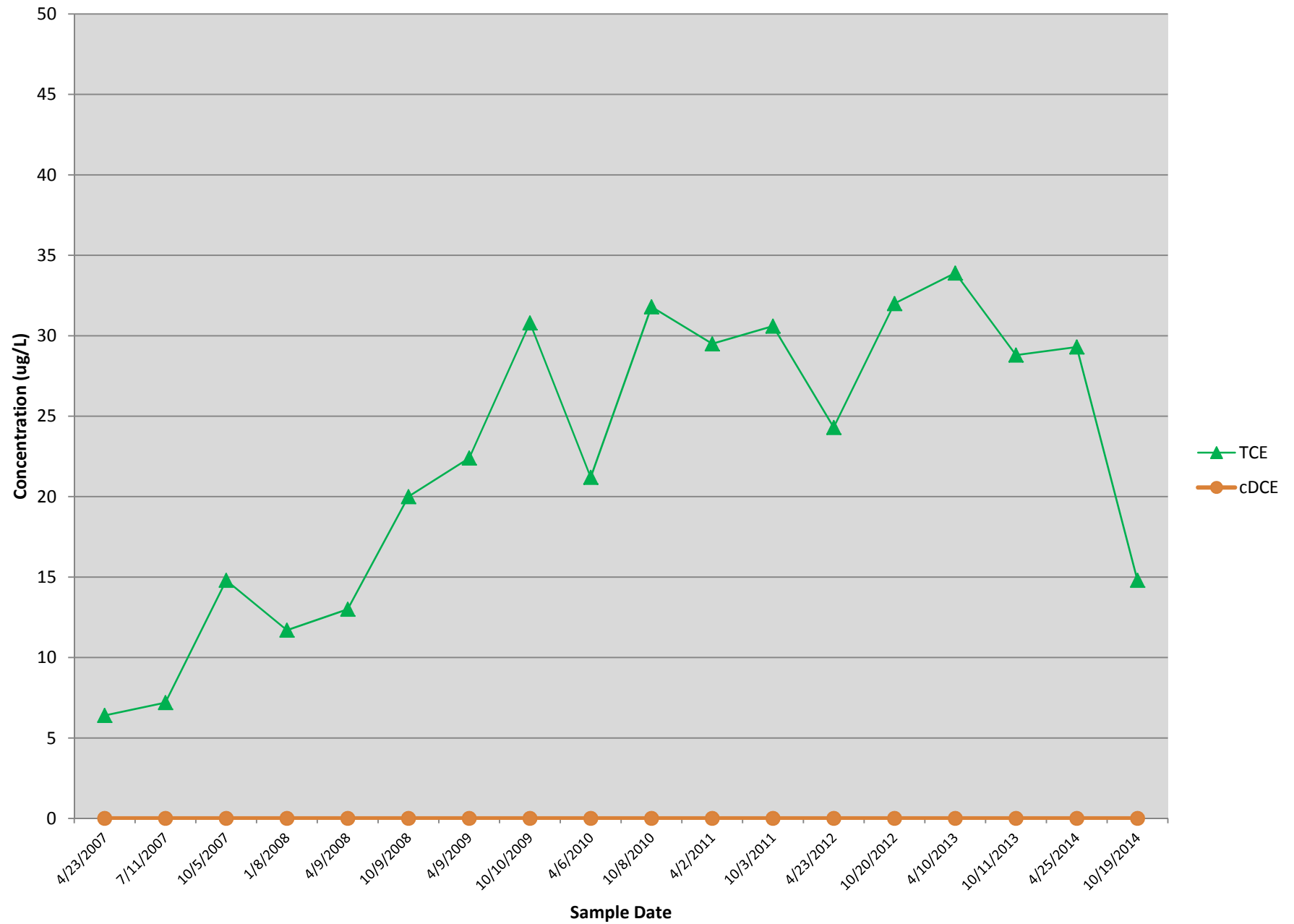
MW-198



MW-199B



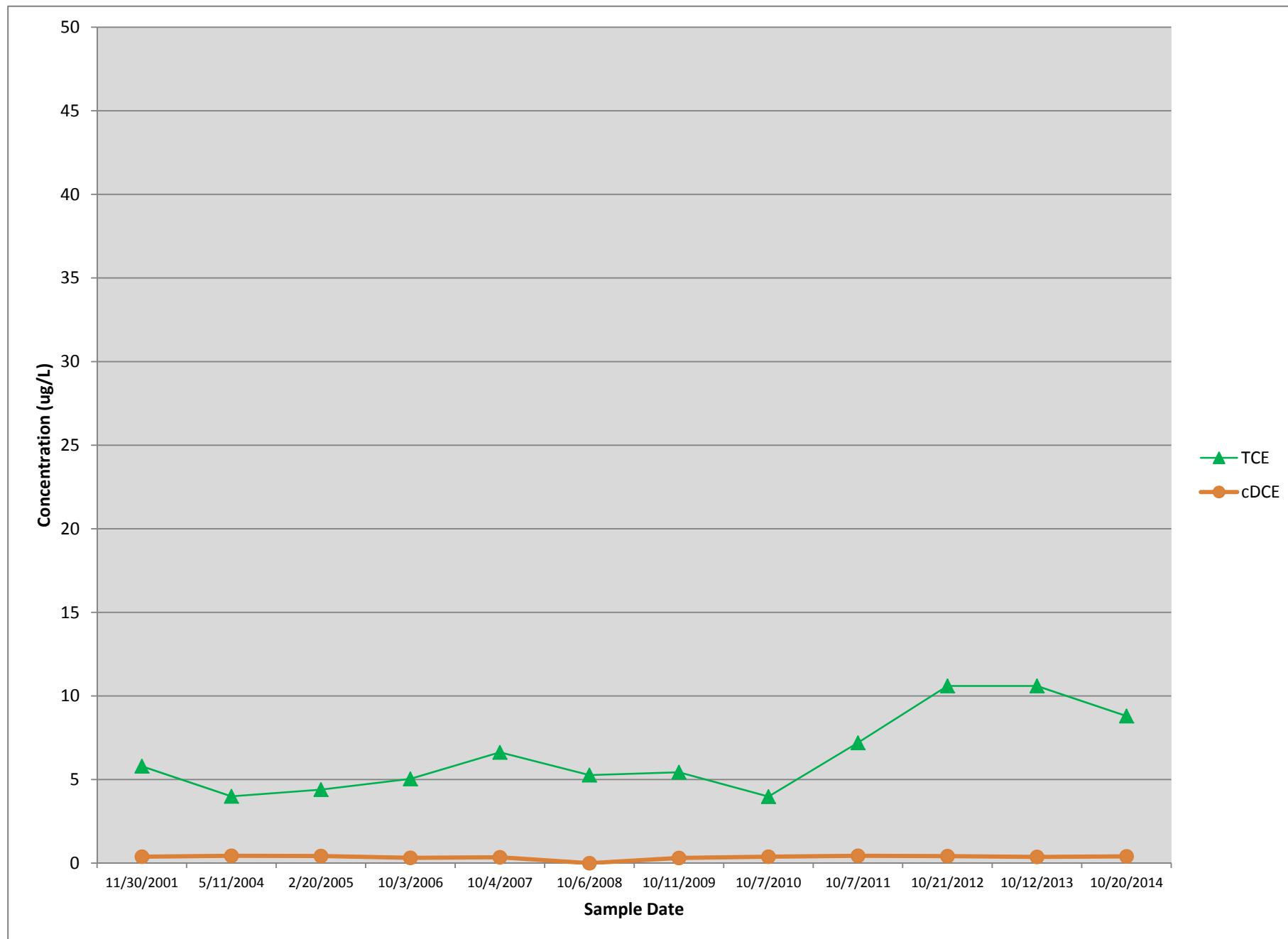
MW-209B



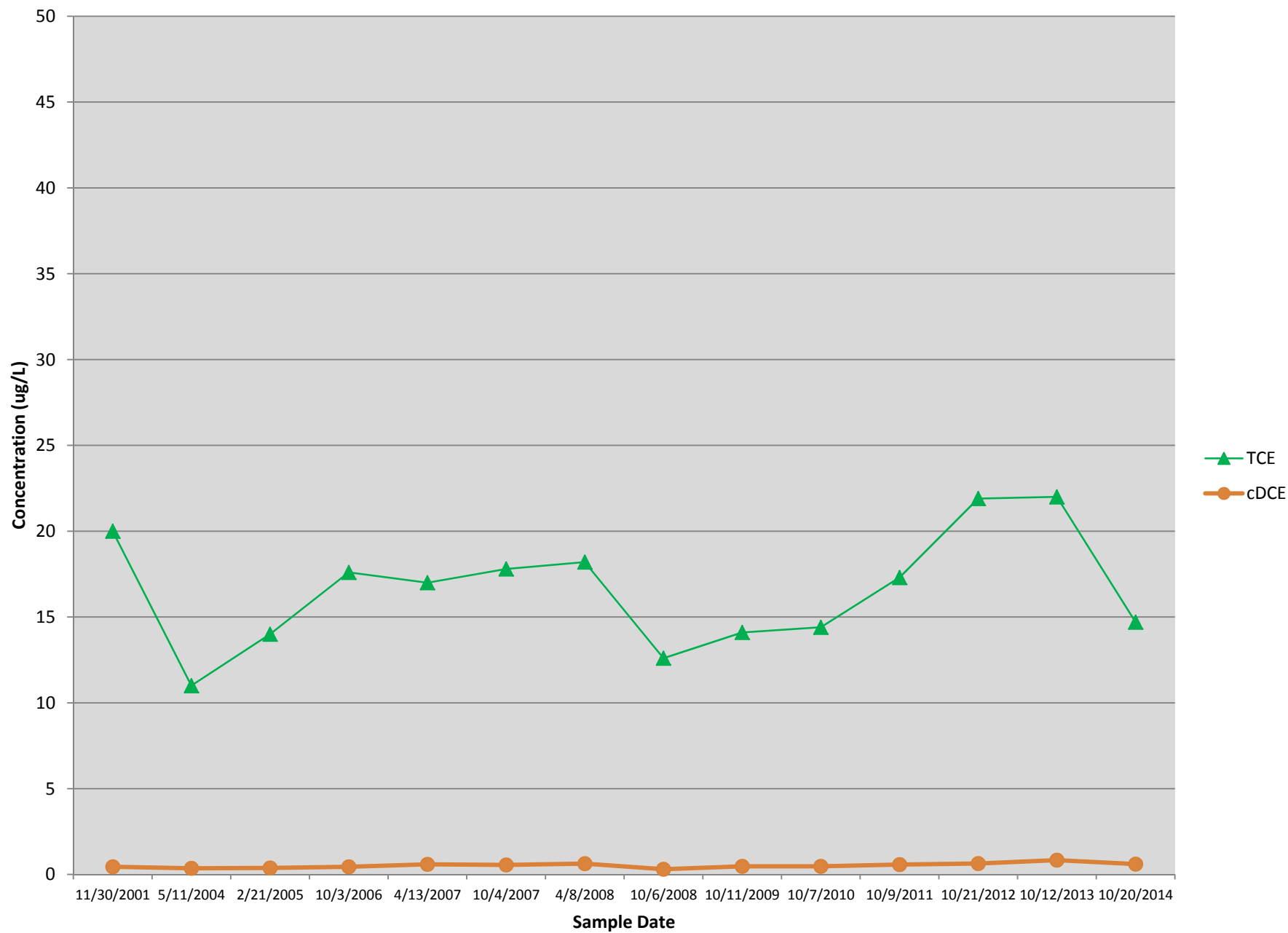
APPENDIX E-3-6

North-Central Wells

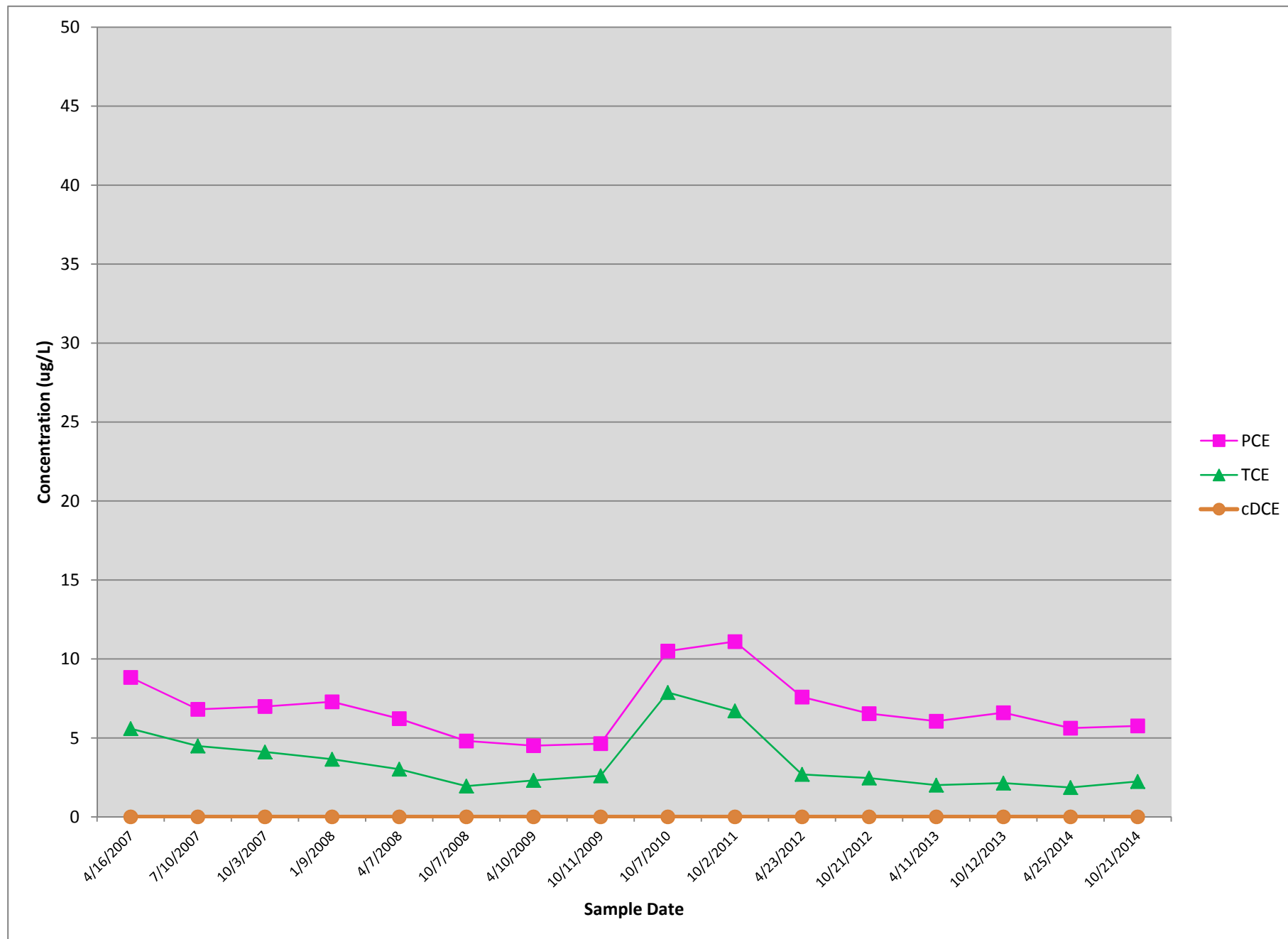
MW-103



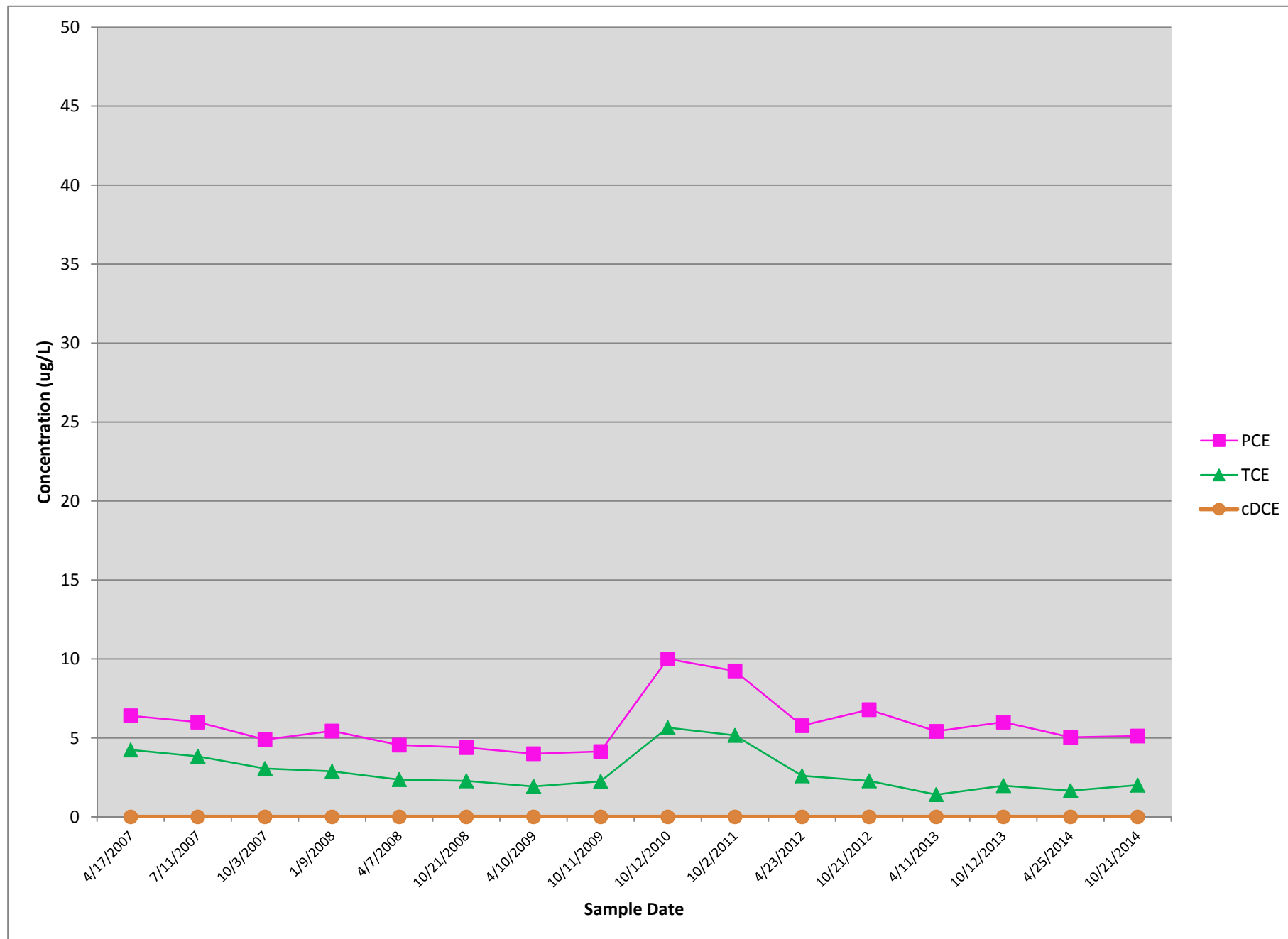
MW-104



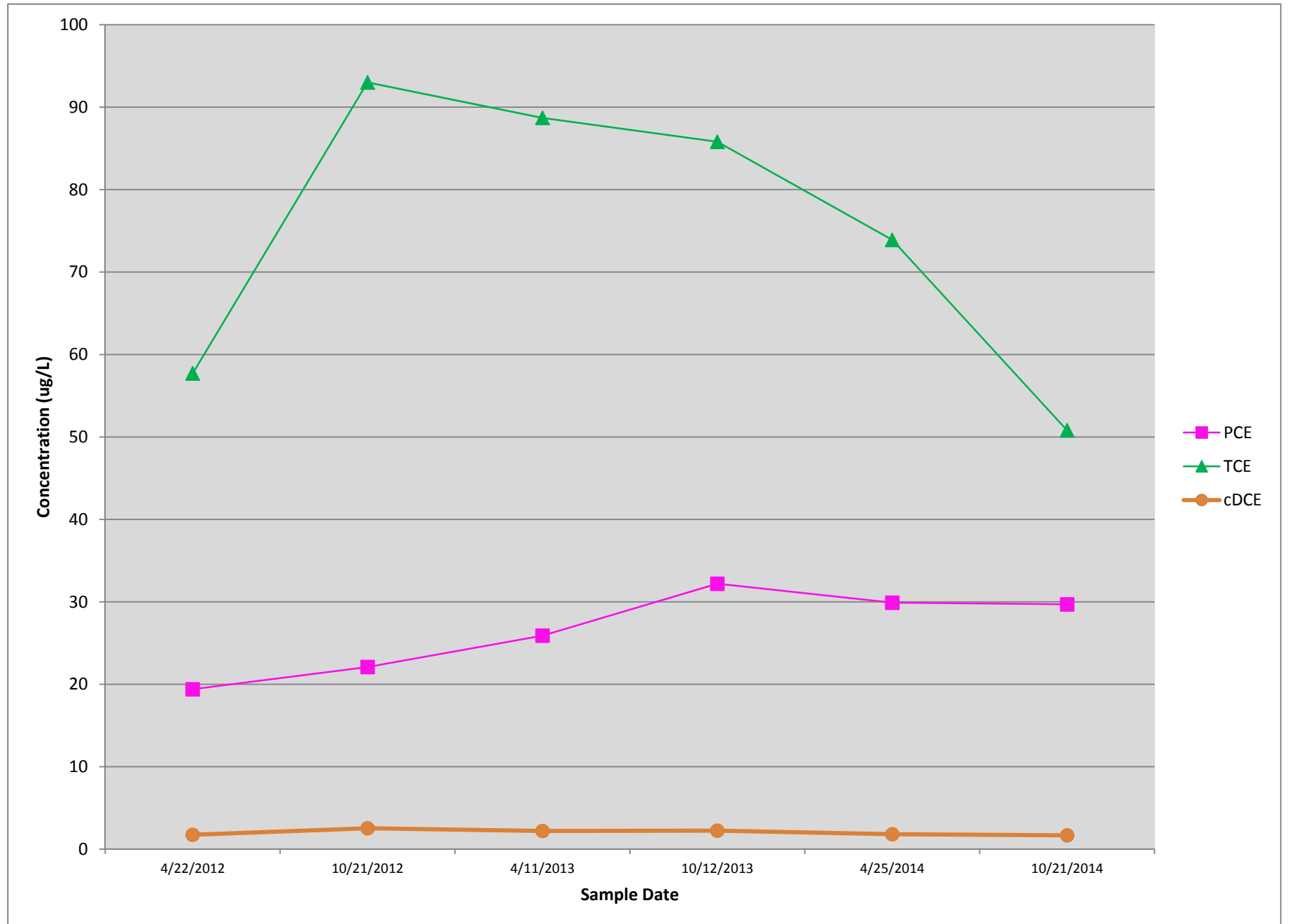
MW-214A



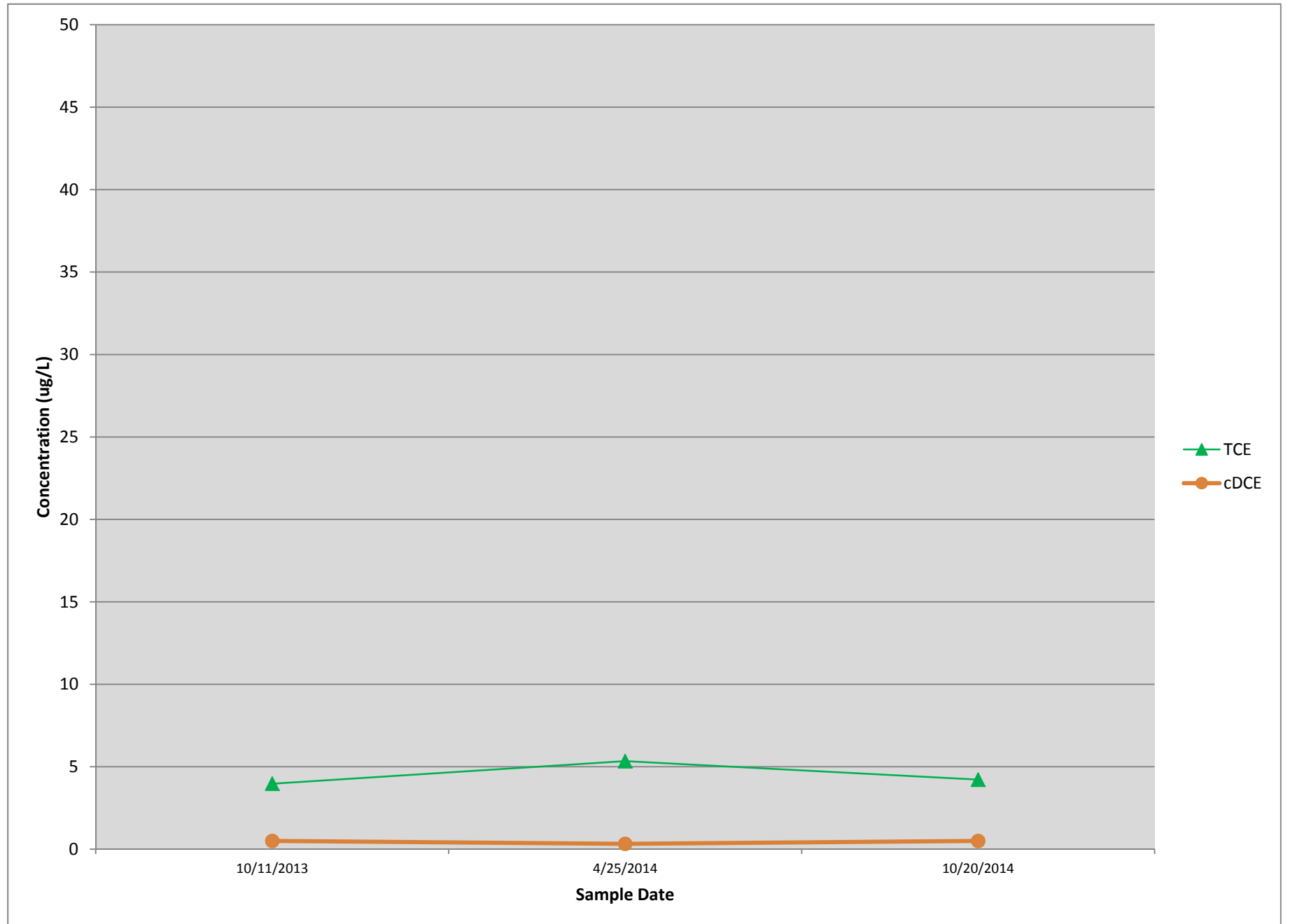
MW-214B



MW-258



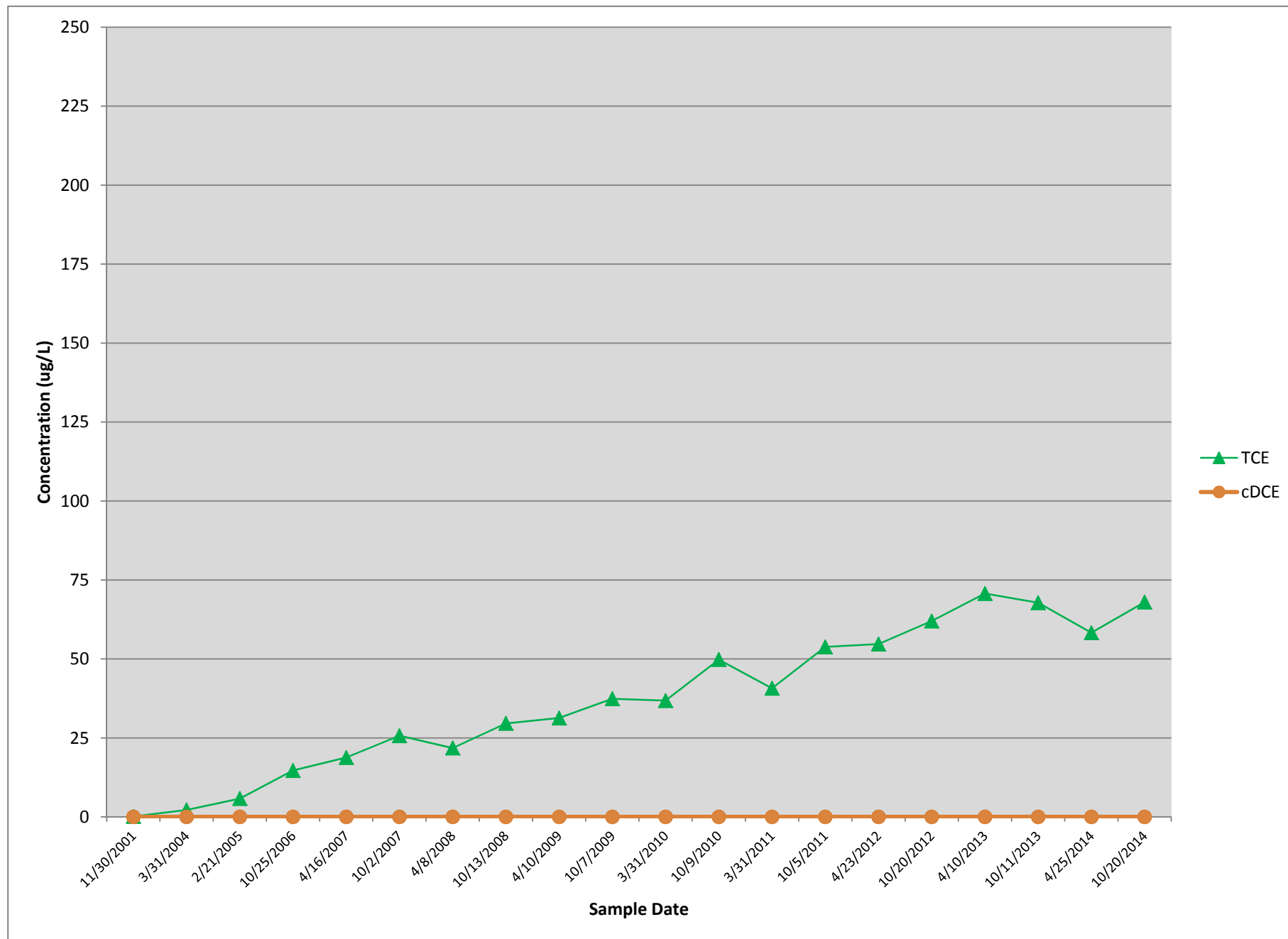
MW-260



APPENDIX E-3-7

South-Central Wells

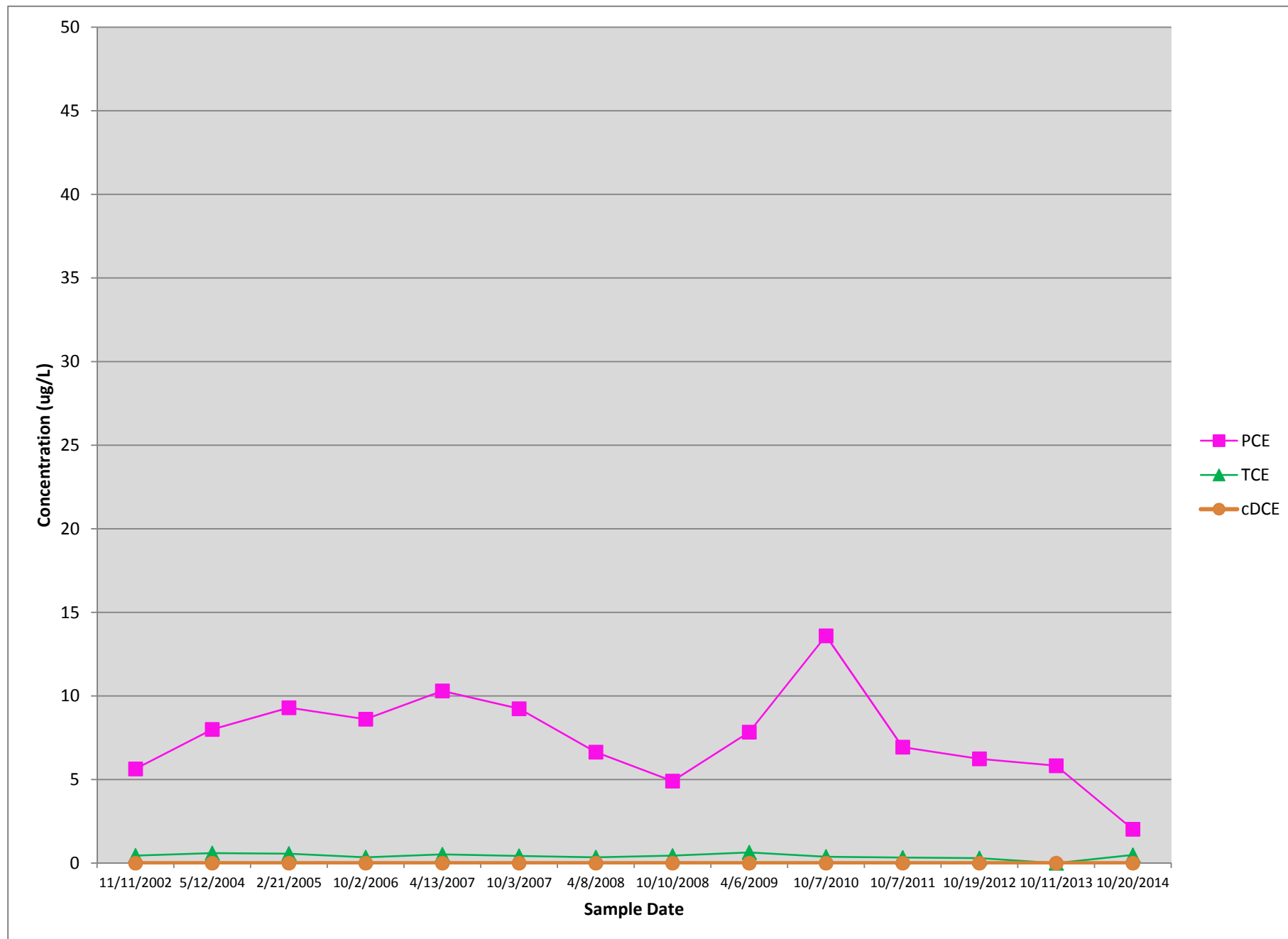
MW-97

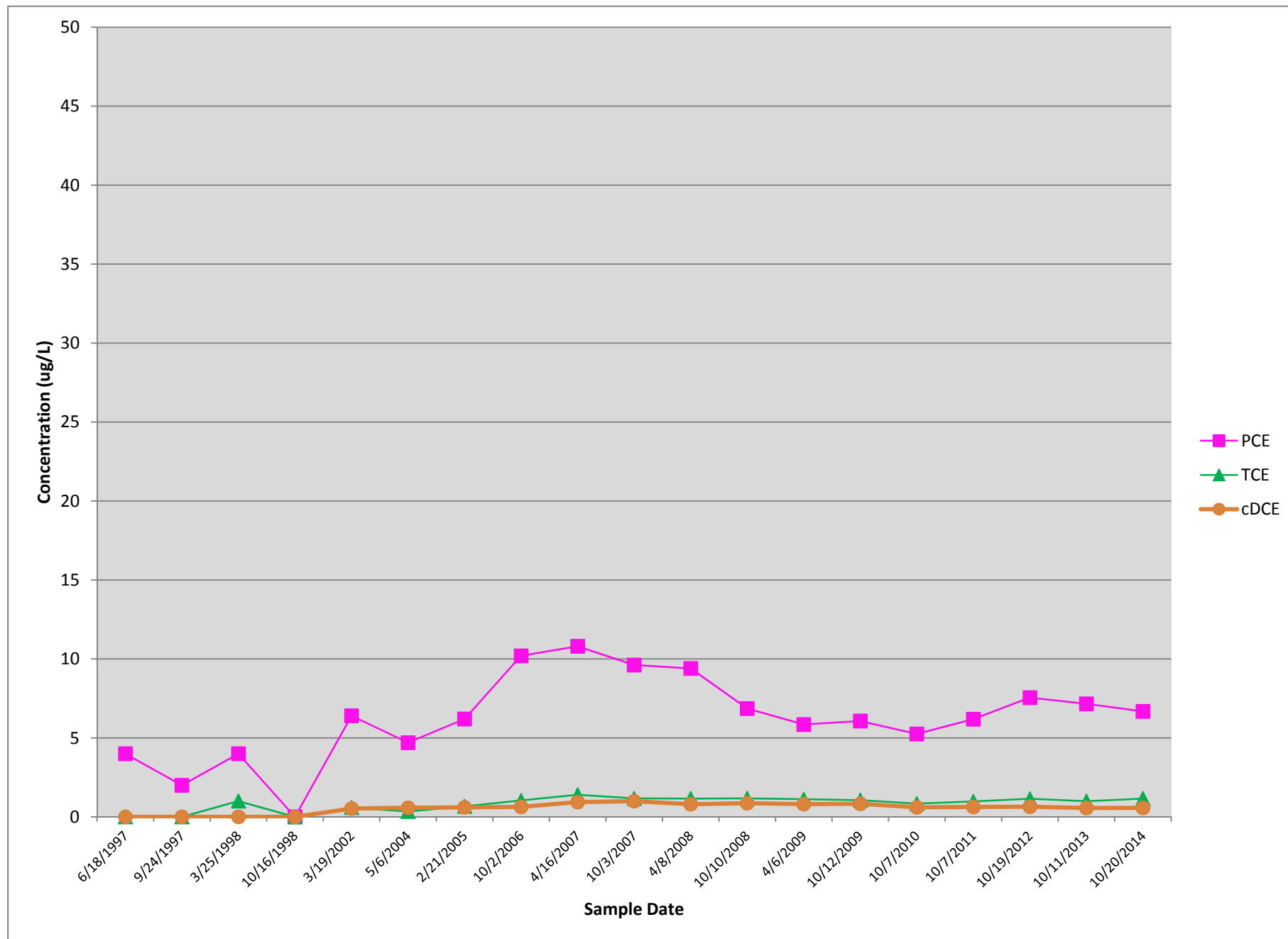


APPENDIX E-3-8

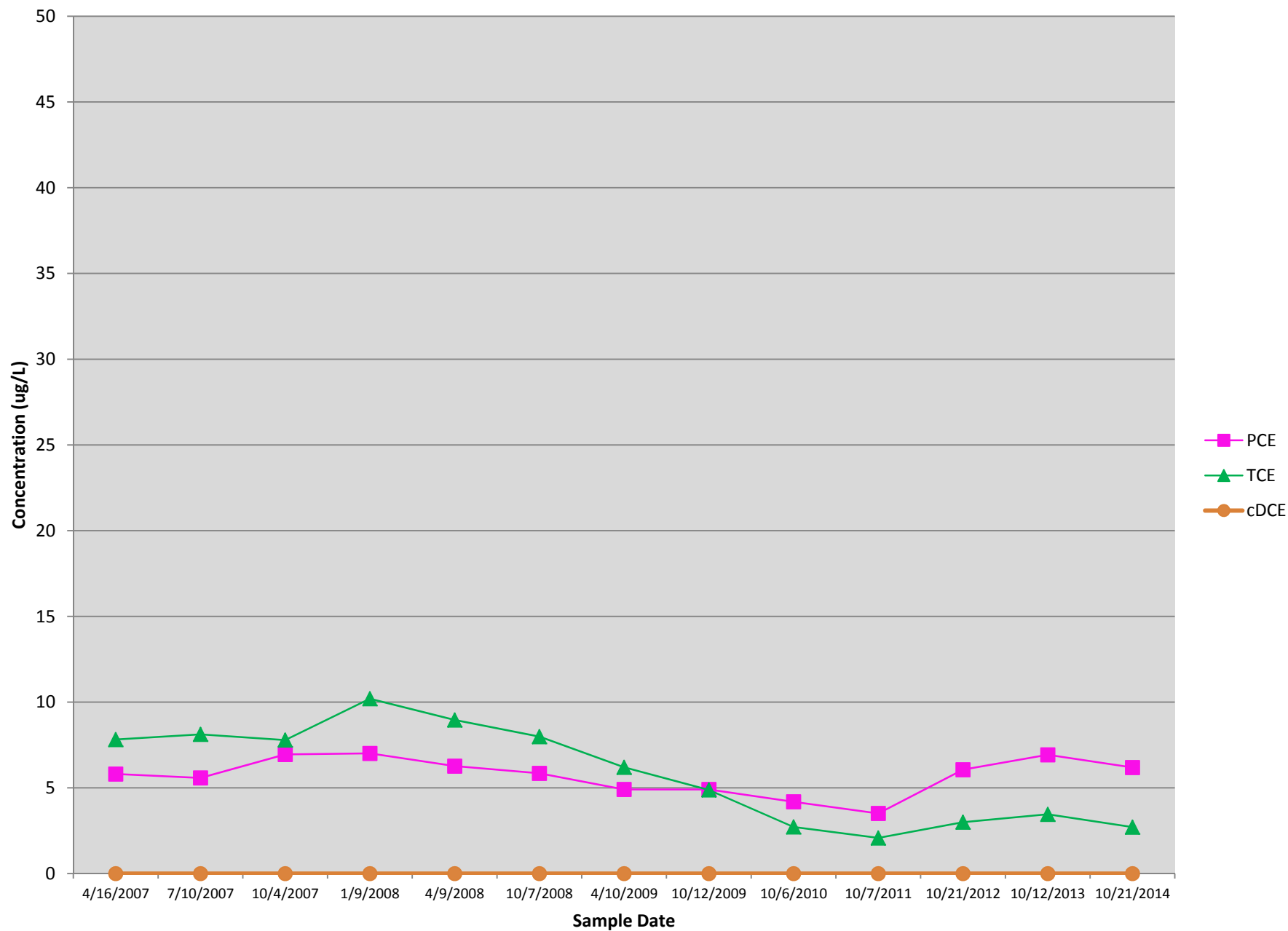
Non-Plume Wells

MW-25A

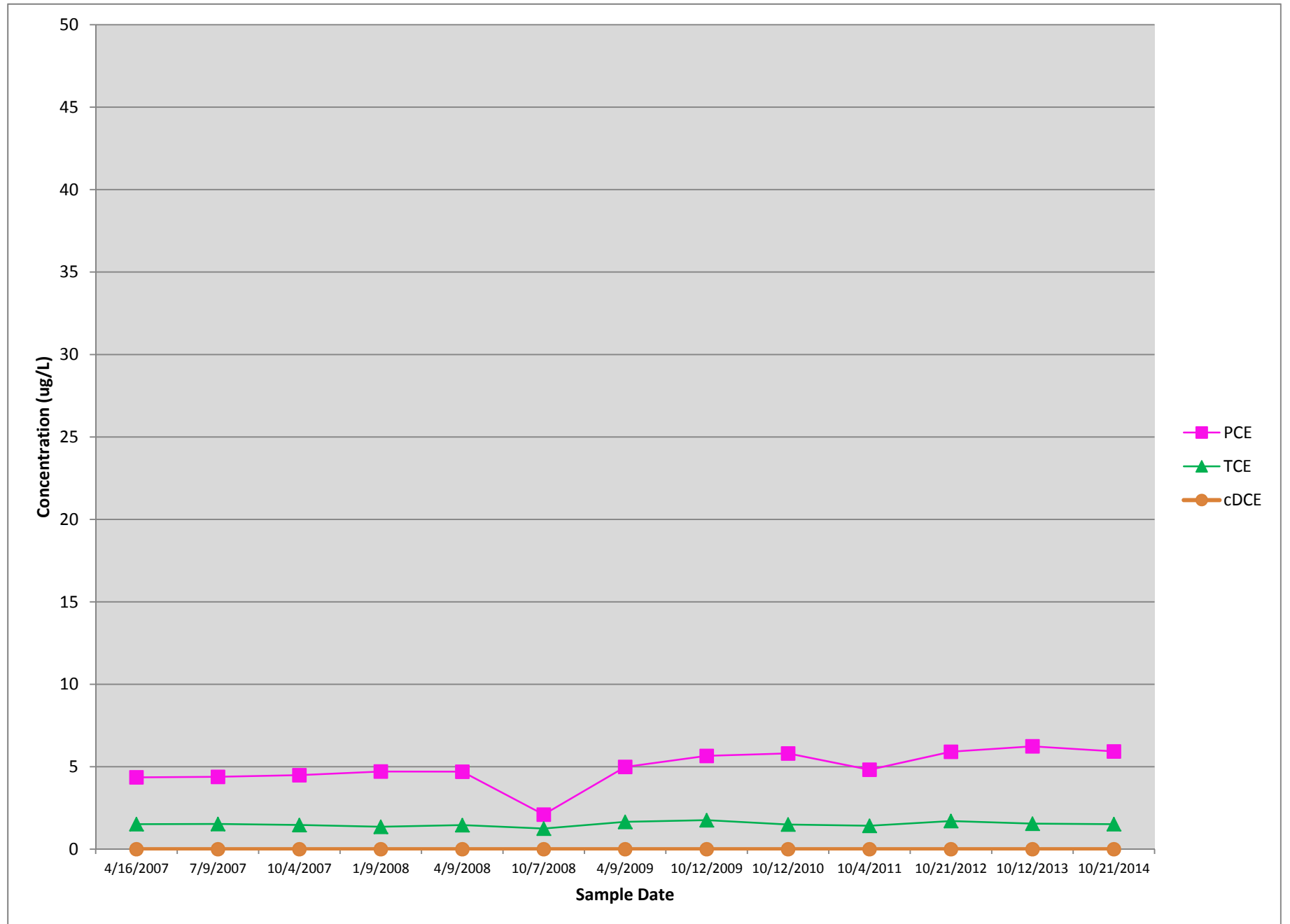


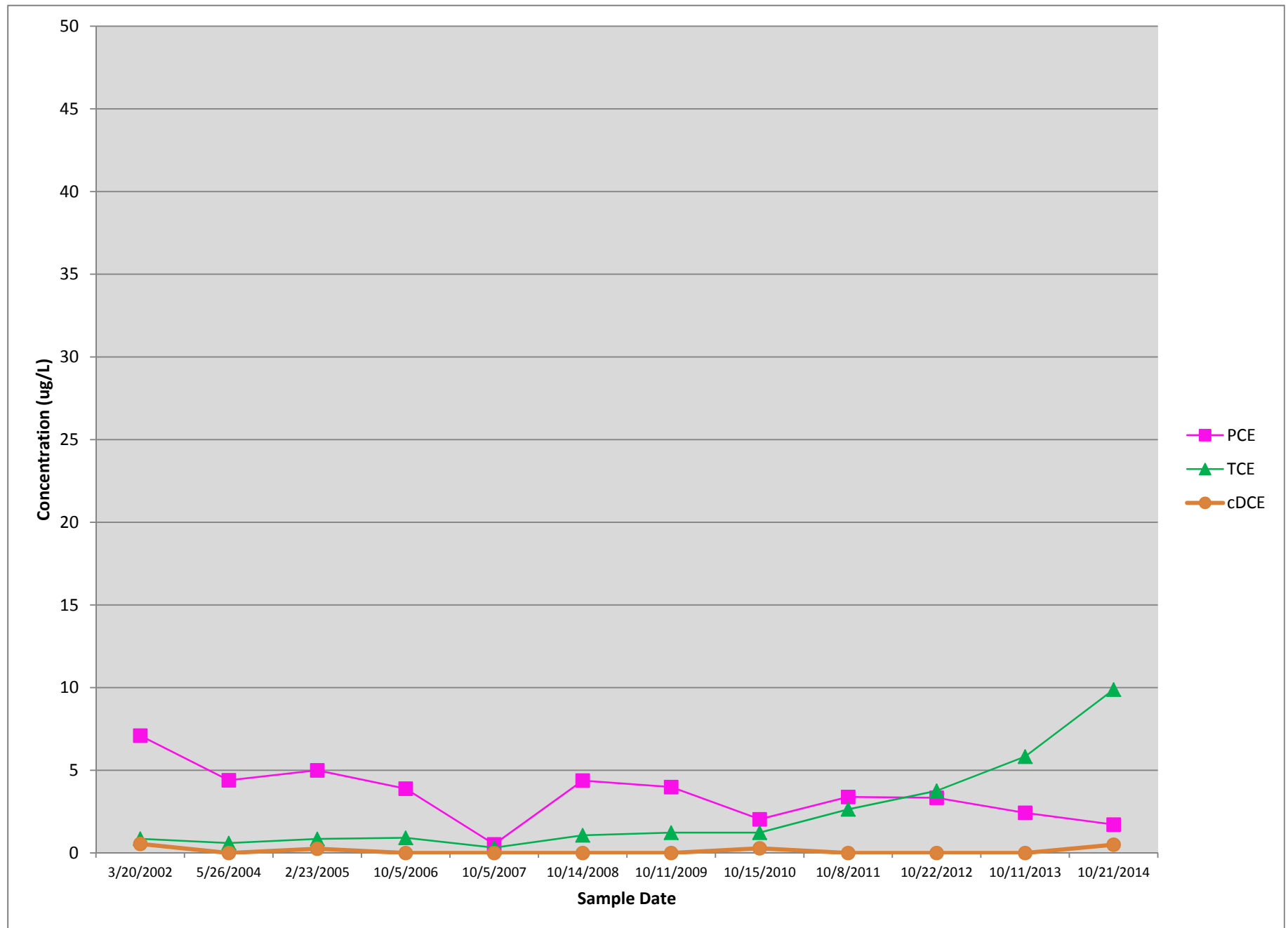


MW-215A



MW-215B





APPENDIX F
HISTORICAL CVOC RESULTS –
DUNN FIELD

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-03

	Sample Name	MW-03	MW-03	MW-03	MW-03	MW-03	MW-03	MW-03	MW-03
	Sample Date	11/12/1993	6/21/1997	9/27/1997	3/27/1998	10/15/1998	10/28/2004	11/21/2005	5/14/2007
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	ND	33	<10	<10	1 J	78.4 J	96.2	67
1,1,2-Trichloroethane	µg/L	ND	<10	<10	<10	<10	1.3 J	1.66	1.5
1,1-Dichloroethene	µg/L	38.5	15	17	25	10	34.5 J	9.47	1.3
Carbon tetrachloride	µg/L	ND	2 J	<10	<10	<10	0.53 J	1.56 J	0.82
Chloroform	µg/L	3.25	17	2 J	9 J	2 J	3.53 J	12.4	12
cis-1,2-Dichloroethene	µg/L	--	--	--	--	--	45 J	82.7	59
Tetrachloroethene	µg/L	192	33	40	38	29	12.3 J	8.19	1.8
trans-1,2-Dichloroethene	µg/L	ND	--	--	--	--	10.4 J	19.4	12
Trichloroethene	µg/L	55.5	33	17	18	16	83.4 J	138	87
Vinyl chloride	µg/L	ND	<10	<10	<10	<10	<1	<1 UJ	ND

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit
UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-03

	Sample Name	MW-03	MW-03	MW-03	MW-03	MW-03	MW-03	MW-03	MW-03
	Sample Date	11/7/2007	4/16/2008	8/19/2008	10/21/2008	4/17/2009	10/13/2009	7/19/2011	4/19/2012
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	<1	<0.5	0.425	2.46	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	2.89	1.54	10.4	17.3	10.7	13.4	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	3.07	0.147 J	0.229	0.212 J	0.14 J	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	0.348	<1	<1	0.47 J	<1	<1
Tetrachloroethene	µg/L	2.63	2.71	5.71	9.5	9.13	10.1	1.2	0.871 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	2.18	2.04	5.8	10.1	9.26	10.4	1.44	1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit
UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-03

Analyte	Sample Name	MW-03	MW-03	MW-03	MW-03	MW-03
	Sample Date	10/17/2012	4/13/2013	10/10/2013	4/25/2014	10/18/2014
	Unit					
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	0.524 J	<1	2.52	1.72	2.63
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	1.06	0.311 J	5.32	4.37	3.65
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.28	0.364 J	3.95	2.97	4.33
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit
UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-04

	Sample Name	MW4	MW042	MW043	MW044	MW045	MW04-76	MW4-78	MW-4-IS-6
	Sample Date	11/15/1993	6/20/1997	9/25/1997	3/28/1998	10/15/1998	11/21/2005	11/9/2007	4/21/2009
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	ND	<10	<10	<10	<10	0.23 J	<1	<0.5
1,1,2-Trichloroethane	µg/L	ND	<10	<10	<10	<10	<1	<1	<1
1,1-Dichloroethene	µg/L	ND	<10	<10	<10	<10	<1	<1	<1
Carbon tetrachloride	µg/L	ND	<10	<10	<10	<10	<1	<1	<1
Chloroform	µg/L	ND	1 J	<10	<10	1 J	0.43 J	0.16	0.328
cis-1,2-Dichloroethene	µg/L	--	--	--	--	--	<1	<1	<1
Tetrachloroethene	µg/L	32.6	74	78	72	120	33.4	23.4	<1
Total 1,2-Dichloroethene	µg/L	--	<10	<10	<10	<10	--	--	--
trans-1,2-Dichloroethene	µg/L	ND	--	--	--	--	<1	<1	<1
Trichloroethene	µg/L	ND	2 J	3 J	3 J	4 J	2.23	1.11	<1
Vinyl chloride	µg/L	ND	<10	<10	<10	<10	<1 UJ	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Possibly bias high or false positive based on blank data
< Not detected at sample reporting limit
UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-04

	Sample Name	MW-04-IS-7	MW-04	MW-04	MW-04
	Sample Date	10/14/2009	4/28/2011	4/19/2012	4/13/2013
Analyte	Unit				
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1
Chloroform	µg/L	0.294 J	0.278 B	0.162 J	0.371
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1
Total 1,2-Dichloroethene	µg/L	--	--	--	--
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Possibly bias high or false positive based on blank data
< Not detected at sample reporting limit
UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-06

	Sample Name	MW6	MW062	MW063	MW064	MW065	MW06RD67	MW06-67
	Sample Date	11/18/1993	6/21/1997	9/27/1997	3/30/1998	10/15/1998	10/27/2004	11/21/2005
Analyte	Unit							
1,1,2,2-Tetrachloroethane	µg/L	219	110	220	130	220	613	237
1,1,2-Trichloroethane	µg/L	9.1	7 J	9 J	5 J	8 J	20.9 J	10.1
1,1-Dichloroethene	µg/L	ND	<20	<20	<10	<20	<1	<1
Carbon tetrachloride	µg/L	43.7	45	37	15	23	31.2 J	26.5
Chloroform	µg/L	14.3	16 J	14 J	6 J	10 J	15.4 J	10.2
cis-1,2-Dichloroethene	µg/L	--	--	--	--	--	436	295
Tetrachloroethene	µg/L	3.06	4 J	3 J	1 J	2 J	1.9 J	1.84
Total 1,2-Dichloroethene	µg/L	--	410	380	150	270	--	--
trans-1,2-Dichloroethene	µg/L	20.8	--	--	--	--	25.4 J	16.8
Trichloroethene	µg/L	198	260	240	94	160	236	171
Vinyl chloride	µg/L	ND	<20	<20	<10	<20	1.59 J	1.35 J

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
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Defense Depot Memphis, Tennessee

MW-06

	Sample Name	MW-06-SARA-GW01	MW6-69	MW-6-IS-4	MW-06-TSVE-GW	MW-6-IS-5	MW-6-IS-6
	Sample Date	5/16/2007	11/7/2007	4/15/2008	8/19/2008	10/17/2008	4/22/2009
Analyte	Unit						
1,1,2,2-Tetrachloroethane	µg/L	41	18.4	8.89	8.1	5.57	3.23
1,1,2-Trichloroethane	µg/L	3.9	2.32	1.02	0.972	0.674 J	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	16	13.8	3.78	1.35	0.793 J	0.463 J
Chloroform	µg/L	6.2	8.55	84.7	29.4	21.2	6.17
cis-1,2-Dichloroethene	µg/L	200	150	36.2	23.1	15	4.91
Tetrachloroethene	µg/L	1.4	1.14	1.07	0.365	<1	0.254 J
Total 1,2-Dichloroethene	µg/L	--	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	11	6.33	1.45	0.926	0.458 J	<1
Trichloroethene	µg/L	120	78.1	32.5	14.2	8.6	2.53
Vinyl chloride	µg/L	0.68	0.484	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-06

	Sample Name	MW-06-IS-7	MW-006-ODLA-1	MW-06	MW-06	MW-06	MW-06	MW-06
	Sample Date	10/13/2009	3/26/2010	4/26/2011	7/19/2011	4/19/2012	10/17/2012	4/12/2013
Analyte	Unit							
1,1,2,2-Tetrachloroethane	µg/L	3.96	2.67	0.807	0.614	0.497 J	0.486 J	<0.5
1,1,2-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	5.48	5.4	8.73	4.88	2.9	2.72	2.21
cis-1,2-Dichloroethene	µg/L	3.78	1.62	0.637 J	0.41 J	0.311 J	0.569 J	<1
Tetrachloroethene	µg/L	<1	<1	0.304 J	<1	<1	<1	<1
Total 1,2-Dichloroethene	µg/L	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	2.44	2.29	3.34	1.75	1.06	0.938 J	0.707 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-06

Analyte	Sample Name	MW-06	MW-06	MW-06
	Sample Date	10/10/2013	4/25/2014	10/18/2014
	Unit			
1,1,2,2-Tetrachloroethane	µg/L	<0.5	0.201 J	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1
Chloroform	µg/L	2.38	4.2	9.05
cis-1,2-Dichloroethene	µg/L	0.572 J	0.983 J	3.59
Tetrachloroethene	µg/L	<1	<1	<1
Total 1,2-Dichloroethene	µg/L	--	--	--
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	0.848 J	0.929 J	1.32
Vinyl chloride	µg/L	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
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Defense Depot Memphis, Tennessee

MW-07

Analyte	Sample Name	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07
	Sample Date	11/15/1993	2/12/1996	6/21/1997	9/27/1997	4/2/1998	10/14/1998	7/28/2003	10/28/2003
	Unit								
1,1,2,2-Tetrachloroethane	µg/L	ND	ND	<10	<10	<10	<10	<1	<1
1,1,2-Trichloroethane	µg/L	ND	ND	<10	<10	<10	<10	<1	<1
1,1-Dichloroethene	µg/L	36.5	54	26	50	47	25	4.06	40.9
Carbon tetrachloride	µg/L	ND	ND	<10	<10	<10	<10	2.99	1.23
Chloroform	µg/L	12.8	8 J	8 J	9 J	2 J	7 J	911	139
cis-1,2-Dichloroethene	µg/L	--	--	--	--	--	--	2.98	<1
Tetrachloroethene	µg/L	35	51	32	82	78	47	32.3	42.6
Total 1,2-Dichloroethene	µg/L	--	ND	<10	<10	<10	<10	--	--
trans-1,2-Dichloroethene	µg/L	ND	--	--	--	--	--	0.8 J	<1
Trichloroethene	µg/L	13.7	26	16	32	31	21	46.3	27.6
Vinyl chloride	µg/L	ND	ND	<10	<10	<10	<10	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Possibly bias high or false positive based on blank data
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-07

	Sample Name	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07
	Sample Date	4/28/2004	10/20/2004	6/14/2005	11/18/2005	4/12/2006	10/18/2006	4/9/2007	5/14/2007
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	<1.2	<1.4	<1	<1	<1	<0.5	<0.5	ND
1,1,2-Trichloroethane	µg/L	<1.2	<1.4	<1	<1	<1	<1	<1	ND
1,1-Dichloroethene	µg/L	32	17	15.3	18.1	27.4	18.5	22.8	20
Carbon tetrachloride	µg/L	0.29 J	<1.4	<1	<1	<1	0.273 J	0.641 J	ND
Chloroform	µg/L	8	0.44 J	<1	1.07 B	0.501 B	4.49	20	0.55
cis-1,2-Dichloroethene	µg/L	<1.2	<1.4	<1	<1	<1	<1	0.326 J	0.26
Tetrachloroethene	µg/L	50	18	20.6	26.3	50.7	34.5	39.4	47
Total 1,2-Dichloroethene	µg/L	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	<1.2 J	<1.4	<1	<1	<1	<1	<1	ND
Trichloroethene	µg/L	32	14	14.9	15.4	26.5	19.6	24.7	25
Vinyl chloride	µg/L	<1.2	<1.4	<1	<1	<1	<1	<1	ND

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Possibly bias high or false positive based on blank data
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-07

	Sample Name	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07
	Sample Date	10/8/2007	4/14/2008	8/19/2008	10/17/2008	4/15/2009	10/13/2009	4/19/2012	4/13/2013
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	12.8	24.8	26.8	32.7	35.6	24	16.2	20
Carbon tetrachloride	µg/L	0.48 J	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	13.8	0.273 J	0.288	0.299 J	0.357	0.263 J	0.192 J	0.276 J
cis-1,2-Dichloroethene	µg/L	<1	<1	0.282	0.367 J	0.472 J	0.441 J	0.29 J	0.535 J
Tetrachloroethene	µg/L	24.3	56.2	61.2	63.9	70.6	62.8	35.1	55.9
Total 1,2-Dichloroethene	µg/L	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	16	29.4	30.9	38.9	40.9	40.4	30.3	52.3
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Possibly bias high or false positive based on blank data
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-07

Analyte	Sample Name	MW-07
	Sample Date	4/25/2014
	Unit	
1,1,2,2-Tetrachloroethane	µg/L	<0.5
1,1,2-Trichloroethane	µg/L	<1
1,1-Dichloroethene	µg/L	14.6
Carbon tetrachloride	µg/L	<1
Chloroform	µg/L	0.22 J
cis-1,2-Dichloroethene	µg/L	0.293 J
Tetrachloroethene	µg/L	35.6
Total 1,2-Dichloroethene	µg/L	--
trans-1,2-Dichloroethene	µg/L	<1
Trichloroethene	µg/L	28.8
Vinyl chloride	µg/L	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
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HISTORICAL CVOC RESULTS - DUNN FIELD LTM
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Defense Depot Memphis, Tennessee

MW-08

Analyte	Sample Name	MW-08	MW-08	MW-08	MW-08	MW-08	MW-08	MW-08	MW-08
	Sample Date	11/17/1993	2/13/1996	6/21/1997	9/26/1997	3/30/1998	10/13/1998	7/28/2003	10/28/2003
	Unit								
1,1,2,2-Tetrachloroethane	µg/L	ND	ND	<10	<10	2 J	<10	<1	<1
1,1,2-Trichloroethane	µg/L	ND	ND	<10	<10	<10	<10	<1	<1
1,1-Dichloroethene	µg/L	34.4	26	12	20	19	22	1.58	1.43
Carbon tetrachloride	µg/L	ND	ND	<10	<10	<10	<10	<1	<1
Chloroform	µg/L	ND	ND	<10	<10	<10	<10	<1	<1
cis-1,2-Dichloroethene	µg/L	--	--	--	--	--	--	<1	<1
Tetrachloroethene	µg/L	35.2	26	16	27	24	33	1.6	<1
Total 1,2-Dichloroethene	µg/L	--	ND	<10	<10	<10	<10	--	--
trans-1,2-Dichloroethene	µg/L	ND	--	--	--	--	--	<1	<1
Trichloroethene	µg/L	15.3	14	9 J	13	12	16	1.51	<1
Vinyl chloride	µg/L	ND	ND	<10	<10	<10	<10	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit
UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-08

	Sample Name	MW-08	MW-08	MW-08	MW-08	MW-08	MW-08	MW-08
	Sample Date	4/28/2004	10/20/2004	11/21/2005	11/7/2007	4/18/2012	4/12/2013	4/28/2014
Analyte	Unit							
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	0.26 J	<1	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	1.3	1.1	3.85	<1	2.99	5.64	1.48
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	<1	<1	0.158	<0.3	0.197 J	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	0.345 J	<1
Tetrachloroethene	µg/L	0.37 J	1.4	5.28	<1	5.25	9.91	3.65
Total 1,2-Dichloroethene	µg/L	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.85 J	1.3	5.68	<1	7	14.5	6.09
Vinyl chloride	µg/L	<1	<1	<1 UJ	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit
UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-13

	Sample Name	MW13	MW132	MW133	MW134	MW135	MW13-79.5FT	MW13-ZVI-TS1
	Sample Date	11/15/1993	6/20/1997	9/26/1997	3/26/1998	10/15/1998	1/8/2001	10/22/2003
Analyte	Unit							
1,1,2,2-Tetrachloroethane	µg/L	ND	<10	<10	<10	<10	<1	0.517
1,1,2-Trichloroethane	µg/L	ND	<10	<10	<10	<10	<1	<0.5
1,1-Dichloroethene	µg/L	ND	<10	<10	<10	<10	<1	<1
Carbon tetrachloride	µg/L	ND	<10	<10	<10	<10	<1	<1
Chloroform	µg/L	ND	<10	<10	<10	<10	<1	0.391 J
cis-1,2-Dichloroethene	µg/L	--	--	--	--	--	<1	<1
Tetrachloroethene	µg/L	2.01	7 J	8 J	2 J	3 J	<1	9.06
Total 1,2-Dichloroethene	µg/L	--	<10	<10	<10	<10	--	--
trans-1,2-Dichloroethene	µg/L	ND	--	--	--	--	<1	<1
Trichloroethene	µg/L	ND	<10	<10	<10	<10	<1 UJ	1.23
Vinyl chloride	µg/L	ND	<10	<10	<10	<10	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Possibly bias high or false positive based on blank data
< Not detected at sample reporting limit
UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-13

	Sample Name	MW13-ZVI-TS2	MW13-ZVI-TS3	MW13-ZVI-TS4	MW13-ZVI-TS5	MW13RD77	MW13-77
	Sample Date	11/17/2003	12/17/2003	2/2/2004	4/5/2004	10/28/2004	11/21/2005
Analyte	Unit						
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	2.64 J	0.66 J
1,1,2-Trichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<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	0.402 J	0.352 J	0.409 J	0.397 J	0.345 J	0.27 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	6.33	6.97	4.69	4.53	3.5	2.15
Total 1,2-Dichloroethene	µg/L	--	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.325 J	0.308 J	0.262 J	0.638 J	<1	0.91 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1 UJ

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Possibly bias high or false positive based on blank data
< Not detected at sample reporting limit
UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
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Defense Depot Memphis, Tennessee

MW-13

	Sample Name	MW13-75	MW-13-IS-6	MW-13-IS-7	MW-13	MW-13
	Sample Date	11/7/2007	4/21/2009	10/14/2009	4/28/2011	4/12/2013
Analyte	Unit					
1,1,2,2-Tetrachloroethane	µg/L	<1	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	0.127	0.142 J	0.187 J	0.522 B	0.199 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.571	<1	<1	<1	0.287 J
Total 1,2-Dichloroethene	µg/L	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Possibly bias high or false positive based on blank data
< Not detected at sample reporting limit
UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-15

	Sample Name	MW15	MW152	MW153	MW154	MW155	MW-15-Y1Q1	MW-15-Y1Q2
	Sample Date	11/18/1993	6/20/1997	9/26/1997	3/28/1998	10/15/1998	2/3/1999	5/25/1999
Analyte	Unit							
1,1,2,2-Tetrachloroethane	µg/L	2.71	<20	<25	<10	<10	<1	28.2
1,1,2-Trichloroethane	µg/L	<1	<20	<25	<10	<10	<1	2.66
1,1-Dichloroethene	µg/L	<1	<20	<25	<10	<10	<1	<1
Carbon tetrachloride	µg/L	38.9	31	46	3 J	5 J	27.9	79.6
Chloroform	µg/L	59.2	300	380	13	31	308	1610
cis-1,2-Dichloroethene	µg/L	--	--	--	--	--	5.96	22.6
Tetrachloroethene	µg/L	4.29	7 J	12 J	<10	<10	4.75	18.8
Total 1,2-Dichloroethene	µg/L	--	8 J	12 J	<10	1 J	--	--
trans-1,2-Dichloroethene	µg/L	2.09	--	--	--	--	2.13	8.26
Trichloroethene	µg/L	46.4	99	140	6 J	13	115	518
Vinyl chloride	µg/L	ND	<20	<25	<10	<10	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-15

	Sample Name	MW-15-Y1Q3	MW-15-Y1Q4	MW-15-Y2Q1	MW15NA	MW-15	MW-15-Y2Q3
	Sample Date	8/27/1999	11/3/1999	2/15/2000	3/24/2000	5/17/2000	8/22/2000
Analyte	Unit						
1,1,2,2-Tetrachloroethane	µg/L	165	291	522	600	343	389
1,1,2-Trichloroethane	µg/L	4.18	5.72	10.2	11	4.69	5.7
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	39.2	35.2	29	27	16.3	24.7
Chloroform	µg/L	1270	1020	1060	1400	704	848
cis-1,2-Dichloroethene	µg/L	12.4	10.8	14.3	14	6.96	12
Tetrachloroethene	µg/L	10	8.46	6.91	12	3.96	7.18
Total 1,2-Dichloroethene	µg/L	--	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	4.29	4.08	4.54	5	2.29	4.17
Trichloroethene	µg/L	331	299	299	360	154	234
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
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Defense Depot Memphis, Tennessee

MW-15

	Sample Name	MW-15-Y2Q4	MW15RD74	MW15-77	MW-15-SARA-GW01	MW15-75	MW-15-IS-4
	Sample Date	11/7/2000	10/27/2004	11/21/2005	5/15/2007	11/7/2007	4/15/2008
Analyte	Unit						
1,1,2,2-Tetrachloroethane	µg/L	147	273 J	273	78	2.47	2.15
1,1,2-Trichloroethane	µg/L	2.6	10.5	6.09	3.7	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	12.8	58.2	13.4	31	25	16
Chloroform	µg/L	224	1530	489	810	186	106
cis-1,2-Dichloroethene	µg/L	4.75	46.3	15	27	10.6	5.99
Tetrachloroethene	µg/L	2.84	14.4	2.98	14	6.32	7.19
Total 1,2-Dichloroethene	µg/L	--	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	1.73	10.1	3.1	5.8	3.67	2.02
Trichloroethene	µg/L	65.9	403	133	330	145	104
Vinyl chloride	µg/L	<1	<1	2.81 J	<1	0.313	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
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MW-15

	Sample Name	MW-15-TSVE-GW	MW-15-IS-5	MW-15-IS-6	MW-15-IS-7	MW-015-	MW-15	MW-15
	Sample Date	8/19/2008	10/16/2008	4/20/2009	10/13/2009	3/26/2010	4/26/2011	4/19/2012
Analyte	Unit							
1,1,2,2-Tetrachloroethane	µg/L	0.988	4.61	0.963	24.5 J	11.8	0.239 J	<0.5
1,1,2-Trichloroethane	µg/L	<1	0.593 J	<1	0.905 J	0.283 J	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	6.35	2.51	0.513 J	2.97	1.81	0.288 J	<1
Chloroform	µg/L	33.4	29.9	0.524	31.1 J	14.7	3.21	1.34
cis-1,2-Dichloroethene	µg/L	3.07	2.54	<1	1.69	0.796 J	<1	<1
Tetrachloroethene	µg/L	2.99	1.16	0.612 J	1.13	0.85 J	0.442 J	0.62 J
Total 1,2-Dichloroethene	µg/L	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	0.731	<1	<1	0.332 J	<1	<1	<1
Trichloroethene	µg/L	44.2	22.9	0.289 J	27	13.8	2.02	0.724 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-15

Analyte	Sample Name	MW-15	MW-15	MW-15	MW-15
	Sample Date	10/17/2012	4/12/2013	10/10/2013	4/25/2014
	Unit				
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1
Chloroform	µg/L	2.29	1.25	1.25	1.22
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.539 J	0.598 J	0.478 J	0.66 J
Total 1,2-Dichloroethene	µg/L	--	--	--	--
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Trichloroethene	µg/L	1.07	0.549 J	0.537 J	0.492 J
Vinyl chloride	µg/L	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
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Defense Depot Memphis, Tennessee

MW-28

Analyte	Sample Name	MW-28	MW-28	MW-28	MW-28	MW-28	MW-28
	Sample Date	11/19/1993	2/7/1996	4/19/2012	10/16/2012	4/13/2013	10/10/2013
	Unit						
1,1,2,2-Tetrachloroethane	µg/L	ND	ND	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	ND	ND	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	ND	ND	<1	<1	<1	<1
Carbon tetrachloride	µg/L	ND	ND	<1	<1	<1	<1
Chloroform	µg/L	ND	ND	<0.3	0.154 J	0.332	0.476
cis-1,2-Dichloroethene	µg/L	--	--	<1	<1	<1	<1
Tetrachloroethene	µg/L	ND	ND	<1	<1	<1	<1
Total 1,2-Dichloroethene	µg/L	--	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	ND	ND	<1	<1	<1	<1
Trichloroethene	µg/L	ND	ND	<1	<1	<1	<1
Vinyl chloride	µg/L	ND	ND	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
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MW-31

	Sample Name	MW31	MW312	MW313ADD	MW314	MW315	MW-31-Y1Q1	MW-31-Y1Q2
	Sample Date	11/19/1993	6/20/1997	9/24/1997	3/24/1998	10/15/1998	2/3/1999	5/25/1999
Analyte	Unit							
1,1,2,2-Tetrachloroethane	µg/L	96	<10	10 J	97	33	3.22	<1
1,1,2-Trichloroethane	µg/L	6.48	<10	<20	4 J	<25	<1	<1
1,1-Dichloroethene	µg/L	52.4	29	47	26	14 J	7.86	33.3
Carbon tetrachloride	µg/L	4.81	1 J	8 J	3 J	<25	1.51	<1
Chloroform	µg/L	21.1	10	49	21 J	16 J	7.22	<1
cis-1,2-Dichloroethene	µg/L	--	--	--	--	--	58.9	4.78
Tetrachloroethene	µg/L	95.4	67	110	66	42	4.25	7.55
Total 1,2-Dichloroethene	µg/L	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	164	--	--	--	--	22.2	2.14
Trichloroethene	µg/L	1110	78	220	400	380	140	23.9
Vinyl chloride	µg/L	ND	<10	<20	<25	<25	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Possibly bias high or false positive based on blank data
< Not detected at sample reporting limit
UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-31

	Sample Name	MW-31-Y1Q3	MW-31-Y1Q4	MW-31-Y2Q1	MW31NA	MW-31	MW-31-Y2Q3	MW-31-Y2Q4
	Sample Date	8/27/1999	11/3/1999	2/15/2000	3/23/2000	5/17/2000	8/23/2000	11/7/2000
Analyte	Unit							
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	7.9	5.98	9.89	8	22.3	<1	31.5
Carbon tetrachloride	µg/L	0.59 J	<1	<1	<1	<1	0.4 J	<1
Chloroform	µg/L	1.66	0.92 J	1.19	0.5 J	1.29	<1	<1
cis-1,2-Dichloroethene	µg/L	4.34	5.09	6.89	0.6 J	15.5	12.3	4.24
Tetrachloroethene	µg/L	1.31	0.9 J	0.64 J	1 J	1.16	2.08	0.92 J
Total 1,2-Dichloroethene	µg/L	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	4.66	2.52	3.37	0.3 J	7.78	<1	4.53
Trichloroethene	µg/L	33.7	18	25.6	4	49.5	68.1	18.5
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Possibly bias high or false positive based on blank data
< Not detected at sample reporting limit
UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-31

	Sample Name	MW-31_010214	MW-31-Y3S2-B	MW-31-2_020410	MW-31-2_021002	MW-31-2
	Sample Date	2/14/2001	10/3/2001	4/10/2002	10/2/2002	4/8/2003
Analyte	Unit					
1,1,2,2-Tetrachloroethane	µg/L	14.8	<1	<1	<1	<1
1,1,2-Trichloroethane	µg/L	1.2	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	7.98	31.2	39.5	55.4	5.37
Carbon tetrachloride	µg/L	2.76	1.25	<1	0.88 J	<1
Chloroform	µg/L	25.1	1.61	<1	1.08	<1
cis-1,2-Dichloroethene	µg/L	148	5.53	6.78	17	2.06
Tetrachloroethene	µg/L	5.02	4.19	1.24	1.32	0.92
Total 1,2-Dichloroethene	µg/L	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	49.3	4.83	5.34	11.3	1.53
Trichloroethene	µg/L	241	38.1	33.1	87.5	13.5
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
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HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-31

	Sample Name	MW-31-2_031028	MW31 (77.5-79.5)	MW-31	MW31 77.5-79.5	MW-31	MW-31
	Sample Date	10/28/2003	4/29/2004	8/12/2004	10/20/2004	6/17/2005	11/18/2005
Analyte	Unit						
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1.7	<1	<1	<1
1,1,2-Trichloroethane	µg/L	<1	<1	<1.7	<1	<1	<1
1,1-Dichloroethene	µg/L	8.38	40	26 B	17	24.9	27.8
Carbon tetrachloride	µg/L	<1	0.24 J	<1.7	<1 J	<1	<1
Chloroform	µg/L	<1	0.32 J	<1.7	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	0.56 J	<1.7	0.58 J	0.814 J	<1
Tetrachloroethene	µg/L	<1	2.2	0.59 J	0.42 J	0.547 J	0.755 J
Total 1,2-Dichloroethene	µg/L	--	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	<1	0.47 J	<1.7	0.31 J	0.595 J	<1
Trichloroethene	µg/L	2.32	16	5.5	4.7	8.48	8.86
Vinyl chloride	µg/L	<1	<1	<1.7 J	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Possibly bias high or false positive based on blank data
< Not detected at sample reporting limit
UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-31

	Sample Name	MW-31	MW-31T	MW-31-77.1-IS-2	MW-31-77.1-IS-3	MW-31-77.1-IS-4	MW-31-76.95-IS-5
	Sample Date	4/12/2006	10/18/2006	4/9/2007	10/5/2007	4/11/2008	10/17/2008
Analyte	Unit						
1,1,2,2-Tetrachloroethane	µg/L	<1	<0.5	<0.5	0.262 J	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	29.6	30.6	12.5	7.73	7.17	7.36
Carbon tetrachloride	µg/L	<1	<1	0.451 J	0.48 J	0.368 J	<1
Chloroform	µg/L	<1	0.131 J	0.458	0.398	0.802	0.219 J
cis-1,2-Dichloroethene	µg/L	1.56	<1	7.32	8.45	2.87	<1
Tetrachloroethene	µg/L	1.35	7.58	1.45	0.887 J	0.916 J	3.17
Total 1,2-Dichloroethene	µg/L	--	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	1.4	<1	5.44	5.23	1.51	<1
Trichloroethene	µg/L	4.99	3.85	30.2	5.87	3.21	4.34
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Possibly bias high or false positive based on blank data
< Not detected at sample reporting limit
UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
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MW-31

	Sample Name	MW-31-76.95-IS-6	MW-31-IS-7	MW-031-ODLA-1	MW-31	MW-31	MW-31	MW-31
	Sample Date	4/14/2009	10/14/2009	3/26/2010	4/26/2011	4/19/2012	10/16/2012	4/13/2013
Analyte	Unit							
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	0.526	<0.5 UJ
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	35	28.8	30.9	1.17	2.55	0.902 J	2.36
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.186 J	0.161 J	0.16 J	<0.3	<0.3	<0.3	0.145 J
cis-1,2-Dichloroethene	µg/L	0.26 J	0.273 J	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	43.5	41.2	22.7	2.47	4.75	2.71	3.46
Total 1,2-Dichloroethene	µg/L	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	33.4	29	20.4	2.15	4.87	3.66	4.76
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Possibly bias high or false positive based on blank data
< Not detected at sample reporting limit
UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
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MW-31

Analyte	Sample Name	MW-31	MW-31	MW-31
	Sample Date	10/10/2013	4/26/2014	10/19/2014
	Unit			
1,1,2,2-Tetrachloroethane	µg/L	1.61	0.273 J	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1
1,1-Dichloroethene	µg/L	1.91	4.94	<1
Carbon tetrachloride	µg/L	<1	<1	<1
Chloroform	µg/L	0.175 J	0.183 J	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1
Tetrachloroethene	µg/L	5.32	8.55	<1
Total 1,2-Dichloroethene	µg/L	--	--	--
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	7.15	10.2	<1
Vinyl chloride	µg/L	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Possibly bias high or false positive based on blank data
< Not detected at sample reporting limit
UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
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MW-33

	Sample Name	MW33	MW332	MW333	MW334	MW335	MW-33-Y1Q1	MW-33-Y1Q2
	Sample Date	11/19/1993	6/18/1997	9/25/1997	3/25/1998	10/16/1998	2/2/1999	5/25/1999
Analyte	Unit							
1,1,2,2-Tetrachloroethane	µg/L	2.28	<10	<10	<10	<10	<1	<1
1,1,2-Trichloroethane	µg/L	ND	<10	<10	<10	<10	<1	<1
1,1-Dichloroethene	µg/L	ND	<10	<10	<10	<10	<1	<1
Carbon tetrachloride	µg/L	ND	<10	<10	<10	<10	<1	<1
Chloroform	µg/L	ND	<10	<10	<10	<10	<1	<1
cis-1,2-Dichloroethene	µg/L	--	--	--	--	--	<1	<1
Tetrachloroethene	µg/L	ND	<10	<10	<10	<10	<1	<1
Total 1,2-Dichloroethene	µg/L	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	ND	--	--	--	--	<1	<1
Trichloroethene	µg/L	ND	<10	<10	<10	<10	<1	<1
Vinyl chloride	µg/L	ND	<10	<10	<10	<10	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Possibly bias high or false positive based on blank data
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-33

	Sample Name	MW-33-Y1Q3	MW-33-Y1Q4	MW-33-Y2Q1	MW-33	MW-33-Y2Q3	MW-33-Y2Q4
	Sample Date	8/26/1999	11/2/1999	2/15/2000	5/16/2000	8/22/2000	11/8/2000
Analyte	Unit						
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1,2-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	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1
Total 1,2-Dichloroethene	µg/L	--	--	--	--	--	--
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:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Possibly bias high or false positive based on blank data
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-33

	Sample Name	MW-33-Y3S2	MW-33-1_020410	MW-33-1_021002	MW-33-1	MW-33-1_031028
	Sample Date	10/3/2001	4/10/2002	10/2/2002	4/8/2003	10/28/2003
Analyte	Unit					
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1
Total 1,2-Dichloroethene	µg/L	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Possibly bias high or false positive based on blank data
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-33

	Sample Name	MW33 (59.5-61.5)	MW33 59.33-61.33	MW-33	MW-33	MW-33	MW-33
	Sample Date	4/29/2004	10/20/2004	6/14/2005	11/16/2005	4/12/2006	10/20/2006
Analyte	Unit						
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<1	<0.5
1,1,2-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	0.562 J	0.278 J
Chloroform	µg/L	<1	<1	<1	<1	<1	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1
Total 1,2-Dichloroethene	µg/L	--	--	--	--	--	--
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:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Possibly bias high or false positive based on blank data
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-33

	Sample Name	MW-33-58-IS-2	MW-33-58-IS-3	MW-33-58-IS-4	MW-33-59.15-IS-5	MW-33-59.15-IS-6
	Sample Date	4/9/2007	10/8/2007	4/14/2008	10/17/2008	4/15/2009
Analyte	Unit					
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5 J	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1 J	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1 J	<1	<1
Carbon tetrachloride	µg/L	0.457 J	1.5	<1 J	<1	0.474 J
Chloroform	µg/L	<0.3	<0.3	<0.3 J	<0.3	0.184 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1 J	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1 J	<1	<1
Total 1,2-Dichloroethene	µg/L	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	<1	<1	<1 J	<1	<1
Trichloroethene	µg/L	<1	<1	<1 J	<1	<1
Vinyl chloride	µg/L	<1	<1	<1 J	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Possibly bias high or false positive based on blank data
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-33

Analyte	Sample Name	MW-33-IS-7	MW-33	MW-33
	Sample Date	10/14/2009	4/28/2011	4/13/2013
	Unit			
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5
1,1,2-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	0.517 B	0.318
cis-1,2-Dichloroethene	µg/L	<1	<1	<1
Tetrachloroethene	µg/L	<1	0.254 J	<1
Total 1,2-Dichloroethene	µg/L	--	--	--
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Possibly bias high or false positive based on blank data
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-44

	Sample Name	MW442	MW443	MW444	MW445	MW-44-Y1Q1	MW-44-Y1Q2	MW-44-Y1Q3
	Sample Date	6/20/1997	9/25/1997	3/27/1998	10/17/1998	2/2/1999	5/25/1999	8/26/1999
Analyte	Unit							
1,1,2,2-Tetrachloroethane	µg/L	<10	<10	<10	<10	<1	<1	<10
1,1,2-Trichloroethane	µg/L	<10	<10	<10	<10	<1	<1	<10
1,1-Dichloroethene	µg/L	<10	<10	<10	<10	<1	<1	<10
Carbon tetrachloride	µg/L	6 J	6 J	4 J	<10	<1	<1	<10
Chloroform	µg/L	6 J	<10	4 J	<10	<1	<1	<10
cis-1,2-Dichloroethene	µg/L	--	--	--	--	<1	<1	<10
Tetrachloroethene	µg/L	<10	<10	<10	<10	<1	<1	<10
Total 1,2-Dichloroethene	µg/L	2 J	2 J	1 J	<10	--	--	--
trans-1,2-Dichloroethene	µg/L	--	--	--	--	<1	<1	<10
Trichloroethene	µg/L	4 J	5 J	3 J	<10	<1	<1	<10
Vinyl chloride	µg/L	<10	<10	<10	<10	<1	<1	<10

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-44

	Sample Name	MW-44-Y1Q4	MW-44-Y2Q1	MW-44	MW-44-Y2Q3	MW-44-Y2Q4	MW-44-Y3S2-C
	Sample Date	11/2/1999	2/15/2000	5/16/2000	8/24/2000	11/8/2000	10/3/2001
Analyte	Unit						
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<1	1.29
1,1,2-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	2.3	5.3	2.1	6.47
Chloroform	µg/L	<1	<1	1.88	3.62	1.23	5.04
cis-1,2-Dichloroethene	µg/L	<1	<1	0.65 J	1.35	0.622 J	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1
Total 1,2-Dichloroethene	µg/L	--	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	1.36	4.92	0.79 J	2.77
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-44

	Sample Name	MW-44-3_020410	MW-44-3_021001	MW-44-1	MW-44-1_031028	MW44 (69-71)	MW-44
	Sample Date	4/10/2002	10/1/2002	4/8/2003	10/28/2003	4/29/2004	8/14/2004
Analyte	Unit						
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	4.36	4.39	3.65	1.96	1.3	0.8 J
Chloroform	µg/L	2.81	2.8	2.19	1.15	0.91 J	0.4 J
cis-1,2-Dichloroethene	µg/L	1.1	1.01	0.84	<1	0.35 J	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1
Total 1,2-Dichloroethene	µg/L	--	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1 J	<1
Trichloroethene	µg/L	2.05	1.67	1.64	0.82 J	0.75 J	0.28 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-44

	Sample Name	MW44 69-71	MW-44	MW-44	MW-44	MW-44	MW-44-69-IS-2	MW-44-69-IS-3
	Sample Date	10/21/2004	6/16/2005	11/17/2005	4/13/2006	10/19/2006	4/9/2007	10/5/2007
Analyte	Unit							
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<0.5	<0.5	<0.5
1,1,2-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	0.71 J	<1	1.01	<1	1.2	1.24	1.2
Chloroform	µg/L	0.64 J	<1	<1	<1	0.467	0.694	0.63
cis-1,2-Dichloroethene	µg/L	0.27 J	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Total 1,2-Dichloroethene	µg/L	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.55 J	<1	<1	<1	0.366 J	0.688 J	0.467 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-44

	Sample Name	MW-44-69-IS-4	MW-44-69.75-IS-5	MW-44-69.75-IS-6	MW-44-IS-7	MW-044-ODLA-1	MW-44
	Sample Date	4/11/2008	10/20/2008	4/14/2009	10/15/2009	3/26/2010	4/26/2011
Analyte	Unit						
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	0.823 J	0.708 J	0.5 J	0.822 J	<1	<1
Chloroform	µg/L	0.567	0.366	0.266 J	0.213 J	<0.3	0.17 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1
Total 1,2-Dichloroethene	µg/L	--	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.599 J	0.665 J	0.252 J	<1	0.426 J	0.579 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-44

Analyte	Sample Name	MW-44	MW-44	MW-44	MW-44	MW-44
	Sample Date	4/20/2012	4/14/2013	5/9/2013	4/27/2014	10/19/2014
Unit						
1,1,2,2-Tetrachloroethane	µg/L	<0.5	1.21	1.33	1.37	0.914
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	0.827 J	0.678 J	0.584 J	0.361 J
Chloroform	µg/L	2.84	13.6	12.3	8.1	6.38
cis-1,2-Dichloroethene	µg/L	<1	0.547 J	0.633 J	0.405 J	<1
Tetrachloroethene	µg/L	<1	0.398 J	0.329 J	<1	<1
Total 1,2-Dichloroethene	µg/L	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	2.03	6.98	6.55	4.31	3.11
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-54

	Sample Name	MW-54	MW-54	MW-54	MW-54	MW-54	MW-54	MW-54
	Sample Date	6/20/1997	9/25/1997	3/28/1998	10/16/1998	2/3/1999	5/25/1999	8/26/1999
Analyte	Unit							
1,1,2,2-Tetrachloroethane	µg/L	<10	<10	<10	<10	<1	<1	<10
1,1,2-Trichloroethane	µg/L	<10	<10	<10	<10	<1	<1	<10
1,1-Dichloroethene	µg/L	<10	<10	<10	<10	<1	<1	<10
Carbon tetrachloride	µg/L	<10	1 J	2 J	<10	<1	3.53	12.8
Chloroform	µg/L	<10	<10	1 J	<10	<1	<1	5.04
cis-1,2-Dichloroethene	µg/L	--	--	--	--	3.6	3.9	10.3
Tetrachloroethene	µg/L	<10	2 J	2 J	<10	<1	<1	<10
Total 1,2-Dichloroethene	µg/L	4 J	10	12	4 J	--	--	--
trans-1,2-Dichloroethene	µg/L	--	--	--	--	<1	<1	<10
Trichloroethene	µg/L	58	150	180	79	60.6	61	50
Vinyl chloride	µg/L	<10	<10	<10	<10	<1	<1	<10

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Possibly bias high or false positive based on blank data
< Not detected at sample reporting limit
UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-54

	Sample Name	MW-54	MW-54	MW-54	MW-54	MW-54	MW-54	MW-54	MW-54
	Sample Date	11/3/1999	2/15/2000	3/23/2000	5/17/2000	8/22/2000	11/7/2000	10/3/2001	4/10/2002
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	40.1	23.6	19	<1	4.9	22.7	8.67	9.06
1,1,2-Trichloroethane	µg/L	1.15	0.9 J	1	<1	0.56 J	1.24	<1	1.19
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	5.02	14.7	19	4.46	7.97	8.65	7.7	2.96
Chloroform	µg/L	2.54	12.4	18	5.54	13.8	19.8	6.87	8.84
cis-1,2-Dichloroethene	µg/L	24.1	22.5	30	7.08	14.9	34.6	31.4	43.7
Tetrachloroethene	µg/L	0.68 J	0.94 J	5	<1	0.74 J	0.91 J	1.89	2.06
Total 1,2-Dichloroethene	µg/L	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	1.4	2.01	4	<1	1.39	2.58	5.28	9.95
Trichloroethene	µg/L	30.6	43.3	50	11.6	28.1	29.2	259	723
Vinyl chloride	µg/L	<1	<1	0.1 J	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Possibly bias high or false positive based on blank data
< Not detected at sample reporting limit
UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-54

	Sample Name	MW-54	MW-54	MW-54	MW-54	MW-54	MW-54	MW-54	MW-54
	Sample Date	10/1/2002	4/8/2003	11/18/2003	2/4/2004	4/7/2004	4/29/2004	8/14/2004	10/21/2004
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	60.1	44.1	301	2180	1350	2000	2300	4700
1,1,2-Trichloroethane	µg/L	<10	<10	7.86	9.85	6.63	<67	<100	<140
1,1-Dichloroethene	µg/L	<10	<10	<1	<1	<1	<67	<100	<140
Carbon tetrachloride	µg/L	5.58 J	7.48	3.35	5.79	3.94	<67	<100	<140
Chloroform	µg/L	11.6	1.82	3.68	5.4	3.93	<67	<100	<140
cis-1,2-Dichloroethene	µg/L	85.9	44.3	85.3	83.4	61.2	64 J	65 J	70 J
Tetrachloroethene	µg/L	<10	4.02	7.37	14.2	8.36	<67	<100	<140
Total 1,2-Dichloroethene	µg/L	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	16.2	8.76	4.16	20.4	13	54 J	<100	<140
Trichloroethene	µg/L	920	72.4	216	2230	1530 J	2000	2200	2700
Vinyl chloride	µg/L	<10	<10	<1	0.441 J	<1	<67	<100	<140

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Possibly bias high or false positive based on blank data
< Not detected at sample reporting limit
UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-54

	Sample Name	MW-54	MW-54	MW-54	MW-54	MW-54	MW-54	MW-54	MW-54
	Sample Date	1/27/2005	3/23/2005	6/17/2005	11/18/2005	4/13/2006	4/26/2006	10/19/2006	4/9/2007
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	3000	2100	1220	853	605	572	572	160
1,1,2-Trichloroethane	µg/L	6 J	6.1 J	3.68	3.44	3.91	4.54	2.54	0.968 J
1,1-Dichloroethene	µg/L	<10	<8.3	<1	<1	<1	<1	<1	<2.5
Carbon tetrachloride	µg/L	<10	<8.3	0.902 J	1.3	0.944 J	1.08	1.9	2.34 J
Chloroform	µg/L	<10	3 J	1.52 B	1.46 B	1.14 B	1.68 J	1.45	2
cis-1,2-Dichloroethene	µg/L	23	41	35.8	25.4	19.1	26.3	19.6	18.9
Tetrachloroethene	µg/L	<10	5.8 J	2.77	4.42	2.98	1.63	2.78	3.58
Total 1,2-Dichloroethene	µg/L	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	2.9 J	6.5 J	5.94	4.18	4.38	5.65	3.88	4.2
Trichloroethene	µg/L	300	1300	729	478 J	671	493	604	405
Vinyl chloride	µg/L	<10	<8.3	<1	<1	<1	<1 UJ	<1	<2.5

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Possibly bias high or false positive based on blank data
< Not detected at sample reporting limit
UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-54

	Sample Name	MW-54	MW-54	MW-54	MW-54	MW-54	MW-54	MW-54	MW-54
	Sample Date	10/8/2007	4/11/2008	10/20/2008	6/8/2009	10/16/2009	3/24/2010	6/22/2010	9/22/2010
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	80	171	53.9	842	384	168	83.2	44.9 J
1,1,2-Trichloroethane	µg/L	<5	0.885 J	0.621 J	4.15	1.49 J	0.599 J	0.312 J	<1
1,1-Dichloroethene	µg/L	<5	<1	<1	<2	<2.5	<1	<1	<1
Carbon tetrachloride	µg/L	5.74	6.76	4.37	0.745 J	<2.5	<1	<1	<1
Chloroform	µg/L	3.17	3.85	9.78	3.15	1.25	0.663	0.366	0.286 J
cis-1,2-Dichloroethene	µg/L	19.2	17.4	15.7	25.9	10.7	4.7	2.5	2.65
Tetrachloroethene	µg/L	5.06	3.88	2.46	5.01	2.52	1.77	1.12	1.28
Total 1,2-Dichloroethene	µg/L	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	4.48 J	4.42	3.13	4.1	1.39 J	0.657 J	0.308 J	<1
Trichloroethene	µg/L	474	348	350	744	381	170	93.6	60
Vinyl chloride	µg/L	<5	<1	<1	<2	<2.5	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

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B Possibly bias high or false positive based on blank data
< Not detected at sample reporting limit
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HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-54

	Sample Name	MW-54	MW-54	MW-54	MW-54	MW-54	MW-54	MW-54	MW-54
	Sample Date	1/26/2011	4/25/2011	9/26/2011	4/18/2012	10/17/2012	5/9/2013	10/10/2013	4/26/2014
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	28.5	2.45	1.64	2.87	2.54	1.85	1.47	2.11
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.422	0.304	0.692	0.521	0.354	0.23 J	0.246 J	0.196 J
cis-1,2-Dichloroethene	µg/L	1.11	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	1.31	0.616 J	0.537 J	0.48 J	0.377 J	0.295 J	0.436 J	0.464 J
Total 1,2-Dichloroethene	µg/L	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	55.6	8.73	4.4	8.74	7.74	6.51	5.02	6.51
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Possibly bias high or false positive based on blank data
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HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-54

Analyte	Sample Name	MW-54
	Sample Date	10/19/2014
	Unit	
1,1,2,2-Tetrachloroethane	µg/L	2.53
1,1,2-Trichloroethane	µg/L	<1
1,1-Dichloroethene	µg/L	<1
Carbon tetrachloride	µg/L	<1
Chloroform	µg/L	0.255 J
cis-1,2-Dichloroethene	µg/L	0.274 J
Tetrachloroethene	µg/L	0.497 J
Total 1,2-Dichloroethene	µg/L	--
trans-1,2-Dichloroethene	µg/L	<1
Trichloroethene	µg/L	10
Vinyl chloride	µg/L	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Possibly bias high or false positive based on blank data
< Not detected at sample reporting limit
UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-57

	Sample Name	MW-57	MW-57-Y2Q1	MW-57	MW-57-Y2Q3	MW-57-Y2Q4	MW-57-Y3S2-B
	Sample Date	3/15/1999	2/16/2000	5/17/2000	8/22/2000	11/7/2000	10/3/2001
Analyte	Unit						
1,1,2,2-Tetrachloroethane	µg/L	<10	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	µg/L	<10	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<10	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	14	39.9	50.6	45.7	48.3	37.5
Chloroform	µg/L	6 J	13.2	10.3	11.3	8.93	28
cis-1,2-Dichloroethene	µg/L	--	<1	<1	0.53 J	0.411 J	0.97 J
Tetrachloroethene	µg/L	2 J	5.38	5.1	5.86	5.07	5.24
Total 1,2-Dichloroethene	µg/L	<10	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	--	1.55	1.51	1.83	1.5	1.73
Trichloroethene	µg/L	22	50.8	46.5	49.2	30.9	77.4
Vinyl chloride	µg/L	<10	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Possibly bias high or false positive based on blank data
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-57

	Sample Name	MW-57-2_020410	MW-57-2_021001	MW-57-2	MW-57-2_031028	MW57 (67-69)
	Sample Date	4/10/2002	10/1/2002	4/8/2003	10/28/2003	4/29/2004
Analyte	Unit					
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<3.3
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<3.3
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<3.3
Carbon tetrachloride	µg/L	42.8	43	42.4	33.3	33
Chloroform	µg/L	15.1	29.7	15.6	18.2	5.7
cis-1,2-Dichloroethene	µg/L	0.55 J	1.13	0.68	<1	<3.3
Tetrachloroethene	µg/L	6.08	8.14	7.86	5.32	5
Total 1,2-Dichloroethene	µg/L	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	1.88	2.27	1.37	1.45	0.46 J
Trichloroethene	µg/L	66.4	54.1	73.3	71.6	48
Vinyl chloride	µg/L	<1	<1	<1	<1	<3.3

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
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< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-57

	Sample Name	MW57 66.8-68.8	MW57RD67	MW-57	MW-57	MW-57	MW-57	MW-57-66.6-IS-2
	Sample Date	10/21/2004	10/28/2004	6/14/2005	11/18/2005	4/12/2006	10/20/2006	4/10/2007
Analyte	Unit							
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<1	<0.5	<0.5
1,1,2-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	19	23.7	20.6	17.1	23	31	29.6
Chloroform	µg/L	6.1	9.29	4.94 B	4.75 B	3.25 B	5.67	6.6
cis-1,2-Dichloroethene	µg/L	0.27 J	0.340 J	<1	<1	<1	0.294 J	0.325 J
Tetrachloroethene	µg/L	2.7	2.96	2.6	2.3	2.81	4.02	5.06
Total 1,2-Dichloroethene	µg/L	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	0.58 J	0.799 J	<1	<1	0.419 J	0.659 J	0.684 J
Trichloroethene	µg/L	29	35.9	19	17.6	18	28.7	34.6
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Possibly bias high or false positive based on blank data
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-57

	Sample Name	MW-57-SARA-GW01	MW-57-66.6-IS-3	MW-57-66.6-IS-4	MW-57-TSVE-GW
	Sample Date	5/15/2007 9:35:00 AM	10/5/2007	4/14/2008	8/19/2008
Analyte	Unit				
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1
Carbon tetrachloride	µg/L	28	22.9	11.1	6.04
Chloroform	µg/L	5.8	6.29	3.32	12.6
cis-1,2-Dichloroethene	µg/L	0.33	0.371 J	<1	<1
Tetrachloroethene	µg/L	4.3	4.48	3.03	2.18
Total 1,2-Dichloroethene	µg/L	--	--	--	--
trans-1,2-Dichloroethene	µg/L	0.58	0.719 J	<1	0.386
Trichloroethene	µg/L	29	31.2	19.4	29.2
Vinyl chloride	µg/L	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

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< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-57

	Sample Name	MW-57-68.32-IS-5	MW-57-68.32-IS-6	MW-57-IS-7	MW-057-ODLA-1	MW-57	MW-57
	Sample Date	10/17/2008	4/15/2009	10/13/2009	3/26/2010	4/26/2011	4/19/2012
Analyte	Unit						
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	0.538 J	<1	<1	<1	<1
Carbon tetrachloride	µg/L	4.23	1.82	0.9 J	<1	<1	<1
Chloroform	µg/L	15.9	73	67.4	50.7 J	20.3	8.11
cis-1,2-Dichloroethene	µg/L	<1	1.44	1.48	1.03	0.409 J	<1
Tetrachloroethene	µg/L	1.82	1.17	0.841 J	0.27 J	<1	<1
Total 1,2-Dichloroethene	µg/L	--	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	0.358 J	0.567 J	0.31 J	<1	<1	<1
Trichloroethene	µg/L	30.4	28.7	20.3	7.57	1.84	0.961 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
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< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-57

Analyte	Sample Name	MW-57	MW-57	MW-57	MW-57
	Sample Date	10/17/2012	4/12/2013	10/10/2013	4/25/2014
	Unit				
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1
Chloroform	µg/L	9.57	6.97	2.52	1.71
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1
Total 1,2-Dichloroethene	µg/L	--	--	--	--
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Trichloroethene	µg/L	1.1	0.916 J	0.77 J	1.03
Vinyl chloride	µg/L	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Possibly bias high or false positive based on blank data
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-58

	Sample Name	MW-58	MW-58-Y2Q1	MW-58	MW-58-Y2Q3	MW-58-Y2Q4	MW-58_010219
	Sample Date	3/15/1999	2/16/2000	5/17/2000	8/22/2000	11/7/2000	2/19/2001
Analyte	Unit						
1,1,2,2-Tetrachloroethane	µg/L	<10	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	µg/L	<10	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<10	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<10	<1	<1	0.26 J	<1	0.43 J
Chloroform	µg/L	<10	3.68	5.88	2.42	1.91	2.05
cis-1,2-Dichloroethene	µg/L	--	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<10	<1	<1	0.41 J	<1	0.4 J
trans-1,2-Dichloroethene	µg/L	--	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<10	4.36	4.22	1.44	2.72	2.47
Vinyl chloride	µg/L	<10	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-58

	Sample Name	MW-58-Y3S2	MW-58-1_020410	MW-58-1_021001	MW-58-1	MW-58-1_031028
	Sample Date	10/3/2001	4/10/2002	10/1/2002	4/8/2003	10/28/2003
Analyte	Unit					
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	1.85	2.75	3.36	1.47	<1
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	0.57	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.78	2.46	1.82	1.06	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-58

	Sample Name	MW58 (64.5-66.5)	MW58-66	MW58-66.5	MW-58-IS-7	MW-58	MW-58
	Sample Date	4/28/2004	11/21/2005	11/8/2007	10/15/2009	4/28/2011	4/12/2013
Analyte	Unit						
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<0.5	0.213 J	<0.5
1,1,2-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	0.81 J	0.946 J	0.277 J
Chloroform	µg/L	1.1	1.99	8.89	0.149 J	<0.3	0.343
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	0.309 J	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.41 J	0.67 J	0.321	<1	0.26 J	1.7
Vinyl chloride	µg/L	<1	<1J	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-67

	Sample Name	MW-67	MW-67	MW-67	MW-67	MW-67	MW-67	MW-67	MW-67
	Sample Date	2/16/2000	10/3/2001	4/10/2002	10/1/2002	4/8/2003	10/28/2003	4/29/2004	10/21/2004
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
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 J	<1
Trichloroethene	µg/L	1.26	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-67

	Sample Name	MW-67	MW-67	MW-67	MW-67	MW-67	MW-67	MW-67	MW-67
	Sample Date	6/17/2005	12/8/2005	4/12/2006	10/19/2006	4/10/2007	10/5/2007	4/11/2008	10/20/2008
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<0.5 J	<0.5	<0.5	<0.5	0.251 J
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1 J	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	<1	<1	<0.3	<0.3	<0.3	<0.3	<0.3
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	0.292 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-67

Analyte	Sample Name	MW-67	MW-67	MW-67
	Sample Date	4/14/2009	10/15/2009	4/14/2013
	Unit			
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5
1,1,2-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:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-68

	Sample Name	MW-68	MW-68	MW-68	MW-68	MW-68	MW-68	MW-68	MW-68
	Sample Date	5/18/2000	8/23/2000	11/8/2000	2/14/2001	10/3/2001	4/10/2002	10/1/2002	4/8/2003
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	<1	6.55	<1	<1	4.15	1.01	<1	<1
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	9.01	<1	9.01	<1
Carbon tetrachloride	µg/L	0.89 J	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	6.44	<1	<1	<1	3.5	<1	7.88	<1
cis-1,2-Dichloroethene	µg/L	13.7	31	1.9	4.38	3.12	<1	<1	<1
Tetrachloroethene	µg/L	2.07	8.35	0.4 J	0.92 J	4.3	<1	4.3	<1
trans-1,2-Dichloroethene	µg/L	13.1	9.36	1.4	4.14	0.78 J	<1	<1	<1
Trichloroethene	µg/L	44.5	48.9	3.21	9.67	6.56	<1	3.85	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Possibly bias high or false positive based on blank data
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-68

	Sample Name	MW-68	MW-68	MW-68	MW-68	MW-68	MW-68	MW-68	MW-68
	Sample Date	10/28/2003	4/29/2004	10/21/2004	6/15/2005	11/17/2005	4/12/2006	10/19/2006	4/11/2007
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	<1	0.85 J	81	1.52 B	<1	<1	5.67	1.45
1,1,2-Trichloroethane	µg/L	<1	<2.5	<33	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	1.5	<33	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	0.21 J	<33 J	<1	<1	<1	0.951 J	<1
Chloroform	µg/L	<1	0.78 J	<33	<1	<1	0.564 B	1.57	0.263 J
cis-1,2-Dichloroethene	µg/L	<1	<2.5	<33	<1	<1	<1	1.06	0.473 J
Tetrachloroethene	µg/L	<1	2.1	<33	<1 J	<1	0.696 J	1.63	0.506 J
trans-1,2-Dichloroethene	µg/L	<1	<2.5	<33	<1	<1	<1	0.544 J	0.261 J
Trichloroethene	µg/L	<1	1.4	20 J	0.512 J	<1	0.608 J	5.76	2.58
Vinyl chloride	µg/L	<1	<2.5	<33	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Possibly bias high or false positive based on blank data
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-68

	Sample Name	MW-68	MW-68	MW-68	MW-68	MW-68	MW-68	MW-68	MW-68
	Sample Date	5/17/2007	10/8/2007	4/14/2008	8/20/2008	10/17/2008	4/14/2009	10/14/2009	4/19/2012
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	5.5	1.51	0.24 B	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	ND	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	ND	<1	<1	<1	0.727 J	1.82	1.16	<1
Carbon tetrachloride	µg/L	ND	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.43	0.775	<0.3	<0.3	<0.3	0.147 J	0.159 J	<0.3
cis-1,2-Dichloroethene	µg/L	4.2	2.36	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.69	0.738 J	<1	<1	0.482 J	1.75	1.55	<1
trans-1,2-Dichloroethene	µg/L	1.3	0.585 J	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	14	4.73	0.36 J	<1	0.573 J	1.41	1.16	<1
Vinyl chloride	µg/L	ND	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Possibly bias high or false positive based on blank data
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-68

Analyte	Sample Name	MW-68	MW-68
	Sample Date	4/13/2013	4/26/2014
Unit			
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1
1,1-Dichloroethene	µg/L	<1	<1
Carbon tetrachloride	µg/L	<1	<1
Chloroform	µg/L	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1
Tetrachloroethene	µg/L	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1
Trichloroethene	µg/L	<1	<1
Vinyl chloride	µg/L	<1	<1

Notes:

µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Possibly bias high or false positive based on blank data
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-69

	Sample Name	MW-69-Y2Q1	MW-69	MW-69-Y2Q3	MW-69-Y2Q4	MW69-94.2FT	MW-69-Y3S2-B
	Sample Date	2/16/2000	5/18/2000	8/24/2000	11/9/2000	1/8/2001	10/3/2001
Analyte	Unit						
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	4.36	<1	0.6 J	<1
1,1,2-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	0.73 J	<1	<1	0.3 J	<1
Chloroform	µg/L	<1	3.56	<1	2.12	1	<1
cis-1,2-Dichloroethene	µg/L	4.11	31.2	2.26	23.1	11	<1
Tetrachloroethene	µg/L	1.76	4.87	0.68 J	6.39 J	4	<1
trans-1,2-Dichloroethene	µg/L	2.26	19.1	0.86 J	12.3	5	<1
Trichloroethene	µg/L	99.2	642	50.4	464	350	1.01
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

R Unusable

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-69

	Sample Name	MW-69-2_020410	MW-69-2_021002	MW-69-2	MW-69-2_031028	MW69 (91-93)
	Sample Date	4/10/2002	10/2/2002	4/8/2003	10/28/2003	4/29/2004
Analyte	Unit					
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	1.52	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	7.92	<1	<1	<1	<1
Tetrachloroethene	µg/L	1.84	0.98 J	1.94	<1	0.55 J
trans-1,2-Dichloroethene	µg/L	4.14	<1	<1	<1	<1
Trichloroethene	µg/L	128	8.12	2.18	<1	0.47 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

R Unusable

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-69

	Sample Name	MW69 91.4-93.4	MW-69	MW-69	MW-69	MW-69T	MW-69-88.2-IS-2
	Sample Date	10/21/2004	6/15/2005	11/16/2005	4/12/2006	10/20/2006	4/11/2007
Analyte	Unit						
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	5.51	<0.5	<0.5
1,1,2-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	0.17 J	<1	<1	<1	0.261 J	0.144 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	0.348 J	<1
Tetrachloroethene	µg/L	1.5	0.951 J	<1	4.72	2.03	0.898 J
trans-1,2-Dichloroethene	µg/L	<1 R	<1	<1	<1	<1	<1
Trichloroethene	µg/L	3.7	2.47	<1	3.85	9.84	0.879 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

R Unusable

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-69

	Sample Name	MW-69-88.2-IS-3	MW-69-88.2-IS-4	MW-69-89.64-IS-5	MW-69-89.64-IS-6	MW-69-IS-7
	Sample Date	10/8/2007	4/14/2008	10/17/2008	4/15/2009	10/14/2009
Analyte	Unit					
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	0.229 J	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	0.136 J	<0.3	0.147 J	0.206 J	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	1.03	0.658 J	0.67 J	0.308 J	0.271 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	0.88 J	1.74	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

R Unusable

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-69

	Sample Name	MW-069-ODLA-1	MW-69	MW-69	MW-69	MW-69
	Sample Date	3/26/2010	4/26/2011	4/20/2012	4/13/2013	4/25/2014
Analyte	Unit					
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	0.161 J	0.203 J	<0.3	<0.3	0.182 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

R Unusable

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-70

	Sample Name	MW-70	MW-70	MW-70	MW-70	MW-70	MW-70	MW-70	MW-70
	Sample Date	2/15/2000	3/24/2000	5/18/2000	8/24/2000	11/10/2000	1/8/2001	10/3/2001	4/10/2002
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	4830	310	342	930	3370	390	766	2540
1,1,2-Trichloroethane	µg/L	39.4	4	3.93	15.2	16	2	<1	7.35
1,1-Dichloroethene	µg/L	0.61 J	<1	<1	<1	<1	<1	<1	0.98 J
Carbon tetrachloride	µg/L	3.48	0.4 J	0.64 J	2.46	1.81	0.4 J	<1	<1
Chloroform	µg/L	18.2	2	5.18	8.46	9.37	1 J	<1	3.99
cis-1,2-Dichloroethene	µg/L	522	46	54.8	211	292	9	92.8 J	69.2
Tetrachloroethene	µg/L	89.7	13	5.35	35.8	32.5 J	2	<1	3.27
trans-1,2-Dichloroethene	µg/L	149	14	12	50.4	57.3	5	<1	27.3
Trichloroethene	µg/L	11700	1100	720	4240	4040	590	2340	2940
Vinyl chloride	µg/L	1.88	0.2 J	<1	0.62 J	1.69	8	<1	17

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-70

	Sample Name	MW-70	MW-70	MW-70	MW-70	MW-70	MW-70	MW-70	MW-70
	Sample Date	10/2/2002	4/8/2003	10/28/2003	4/29/2004	8/14/2004	10/21/2004	10/22/2004	6/14/2005
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	7980	3060	8270	8500	3500	4200	5800	6410
1,1,2-Trichloroethane	µg/L	<50	<50	6.92	<250	<120	<170	<140	8.88
1,1-Dichloroethene	µg/L	<50	<50	<1	<250	<120	<170	<140	<5
Carbon tetrachloride	µg/L	<50	<50	0.64 J	<250	<120	<170 J	<140	<5
Chloroform	µg/L	<50	<50	2.5	<250	<120	<170	<140	<5
cis-1,2-Dichloroethene	µg/L	72.4	31.6	50	120 J	<120	<170	41 J	67.8
Tetrachloroethene	µg/L	<50	<50	3.85	<250	<120	<170	<140	6.3 J
trans-1,2-Dichloroethene	µg/L	<50	<50	3.91	<250	<120	<170	<140	6.31
Trichloroethene	µg/L	1980	824	2530	3700	970	1100	2100	361
Vinyl chloride	µg/L	<50	<50	10.3	<250	<120	<170	<140	18.1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-70

	Sample Name	MW-70	MW-70	MW-70	MW-70	MW-70	MW-70	MW-70	MW-70
	Sample Date	11/19/2005	4/12/2006	10/20/2006	4/11/2007	10/8/2007	4/14/2008	10/17/2008	4/15/2009
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	2990	7670	9200	627	455	270	0.883	1.98
1,1,2-Trichloroethane	µg/L	6.65 J	6.15	25.7	2.17	14.7	1.11 J	<1	<1
1,1-Dichloroethene	µg/L	1.07	3.36	1.89	1.75	2.48	1.71 J	<1	<1
Carbon tetrachloride	µg/L	<10	<1	0.575 J	<1	<2	<2.5	<1	<1
Chloroform	µg/L	2.12 B	1.52 B	3.79	1.08	0.461 J	<0.75	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	70.5	48.1	122	58.5	8.01	14.2	<1	<1
Tetrachloroethene	µg/L	4.84	16.5	29.5	8.16	4.44	1.53 J	0.876 J	0.58 J
trans-1,2-Dichloroethene	µg/L	15.8	16.6	19.7	5.48	11.5	4.74	<1	<1
Trichloroethene	µg/L	2420	2130	3390	750	308	86	1.96	4.95
Vinyl chloride	µg/L	29.5	94.2	64.2	94.3	42.3	13.5	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-70

	Sample Name	MW-70	MW-70	MW-70	MW-70	MW-70	MW-70	MW-70	MW-70
	Sample Date	7/30/2009	10/15/2009	3/25/2010	6/22/2010	9/22/2010	1/26/2011	4/25/2011	9/27/2011
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	0.594	0.971	<0.5	1.03	1.07 J	1.05	0.415 J	0.669
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.174 J	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.582 J	0.71 J	1.04	1.3	1.25	1.21	0.716 J	1.03
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	2.66	1.93	0.581 J	4.11	3.78	3.09	2	1.64
Vinyl chloride	µg/L	<1	<1 UJ	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-70

Analyte	Sample Name	MW-70	MW-70	MW-70
	Sample Date	4/19/2012	4/13/2013	4/25/2014
	Unit			
1,1,2,2-Tetrachloroethane	µg/L	0.505	<0.5	<0.5
1,1,2-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	0.166 J	0.187 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1
Tetrachloroethene	µg/L	0.768 J	0.642 J	0.562 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	1.34	0.988 J	0.378 J
Vinyl chloride	µg/L	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-71

	Sample Name	MW-71-Y2Q1	MW71NA	MW-71	MW-71-Y2Q3	MW-71-Y2Q4	MW-71-Y3S2-B
	Sample Date	2/15/2000	3/24/2000	5/18/2000	8/23/2000	11/9/2000	10/3/2001
Analyte	Unit						
1,1,2,2-Tetrachloroethane	µg/L	97.7	180	181	168	78.4	268
1,1,2-Trichloroethane	µg/L	3.21	5 J	4.54	4.04	2.99	5.17 J
1,1-Dichloroethene	µg/L	<1	<10	<1	<1	<1	<1
Carbon tetrachloride	µg/L	53.9	47	34	32.9	26.5	22.6
Chloroform	µg/L	996	1600	1080	989	605 J	857
cis-1,2-Dichloroethene	µg/L	11.5	14	9.98	8.94	6.49	9.09 J
Tetrachloroethene	µg/L	10	15	7.35	7.02	4.09 J	<1
trans-1,2-Dichloroethene	µg/L	4.7	5 J	3.72	2.94	2.29	2.91 J
Trichloroethene	µg/L	330	390	239	247	95.6	186
Vinyl chloride	µg/L	<1	<10	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-71

	Sample Name	MW-71-2_020410	MW-71-2_021002	MW-71-2	MW-71-2_031028	MW71 (74.4-76.4)
	Sample Date	4/10/2002	10/2/2002	4/8/2003	10/28/2003	4/29/2004
Analyte	Unit					
1,1,2,2-Tetrachloroethane	µg/L	68.1	9.49	7.62	27	3.8
1,1,2-Trichloroethane	µg/L	6	<1	0.66	<1	<2
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<2
Carbon tetrachloride	µg/L	20.3	11.2	17.6	6.87	8.2
Chloroform	µg/L	828	8.89	35.4	88.8	56
cis-1,2-Dichloroethene	µg/L	9.64	1.12	1.59	1.59	0.98 J
Tetrachloroethene	µg/L	1.96	<1	1.31	<1	0.54 J
trans-1,2-Dichloroethene	µg/L	3.36	<1	0.52	<1	<2
Trichloroethene	µg/L	70.9	27	44.5	17.4	6.9
Vinyl chloride	µg/L	<1	<1	<1	<1	<2

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

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HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-71

Analyte	Sample Name	MW71 73.86-75.86	MW71RD73	MW-71	MW-71	MW-71	MW-71
	Sample Date	10/21/2004	10/28/2004	6/14/2005	11/16/2005	4/12/2006	10/20/2006
Unit							
1,1,2,2-Tetrachloroethane	µg/L	6	4.27	25.8	27.6	26.3	22.9
1,1,2-Trichloroethane	µg/L	<1	<1	0.634 J	0.924 J	0.766 J	1.16
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	5.6 J	9.9	12.8	14	16.3	37.8
Chloroform	µg/L	28	17.5	103	94.2	73.5	303
cis-1,2-Dichloroethene	µg/L	0.7 J	0.59 J	1.86	10.6	10.6	11.7
Tetrachloroethene	µg/L	0.4 J	0.61 J	1.58	2.1	2.65	7.34
trans-1,2-Dichloroethene	µg/L	<1	<1	0.532 J	<1	0.977 J	3.07
Trichloroethene	µg/L	12	6.95	34.9	47.9	54	158 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

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HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-71

Analyte	Sample Name	MW-71-72.3-IS-2	MW-71-72.3-IS-3	MW-71-72.3-IS-4	MW-71-74.28-IS-5	MW-71-74.28-IS-6
	Sample Date	4/11/2007	10/8/2007	4/14/2008	10/17/2008	4/15/2009
Unit						
1,1,2,2-Tetrachloroethane	µg/L	4.66	2.21	1.72	5.32	4.42
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	16.5	12.6	7.66	5.94	0.683 J
Chloroform	µg/L	59.2	32.6	17.3	27.2	8.79
cis-1,2-Dichloroethene	µg/L	1.89	1.65	0.523 J	0.717 J	0.262 J
Tetrachloroethene	µg/L	3.03	1.52	0.715 J	0.856 J	0.265 J
trans-1,2-Dichloroethene	µg/L	0.59 J	0.36 J	<1	<1	<1
Trichloroethene	µg/L	36.2	21	9.37	12.7	3.93
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

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HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-71

	Sample Name	MW-71-IS-7	MW-071-ODLA-1	MW-71	MW-71	MW-71	MW-71
	Sample Date	10/14/2009	3/26/2010	4/26/2011	4/19/2012	4/13/2013	4/25/2014
Analyte	Unit						
1,1,2,2-Tetrachloroethane	µg/L	7.97	8.26	0.892	0.953	0.58	0.362 J
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	0.301 J	<1	<1	0.53 J	0.452 J	0.445 J
Chloroform	µg/L	3.79	1.47	29.3	10.6	8.06	7.05
cis-1,2-Dichloroethene	µg/L	<1	<1	0.531 J	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	0.264 J	<1	0.323 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	2.23	0.612 J	4.48	3.02	2.39	2.47
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

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HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-76

	Sample Name	MW-76	MW-76	MW-76	MW-76	MW-76	MW-76	MW-76
	Sample Date	1/8/2001	2/14/2001	10/3/2001	4/10/2002	10/1/2002	4/8/2003	10/28/2003
Analyte	Unit							
1,1,2,2-Tetrachloroethane	µg/L	2300	694	332	15.5	54.7	8.92	8.08
1,1,2-Trichloroethane	µg/L	2	<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	1	<1	<1	1.22	<1	1.44	<1
cis-1,2-Dichloroethene	µg/L	58	17.8	4.67 J	13.5	2.94	5.98	4.16
Tetrachloroethene	µg/L	5	3.98	<1	1.81	1.8	7.43	2.29
trans-1,2-Dichloroethene	µg/L	19	6.84	7.57 J	7.71	1.17	4.74	1.93
Trichloroethene	µg/L	840	276	72.2	90.7	37.2	78.9	33.8
Vinyl chloride	µg/L	0.3 J	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

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HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-76

	Sample Name	MW-76	MW-76	MW-76	MW-76	MW-76	MW-76	MW-76
	Sample Date	4/29/2004	8/16/2004	10/21/2004	6/15/2005	11/17/2005	4/12/2006	10/20/2006
Analyte	Unit							
1,1,2,2-Tetrachloroethane	µg/L	3.6	2.9	4.3	4.98 B	<1	18.3	2.58
1,1,2-Trichloroethane	µg/L	<1	<2	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<2	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<2	<1 J	<1	<1	<1	<1
Chloroform	µg/L	0.23 J	0.47 J	0.18 J	<1	<1	<1	0.208 J
cis-1,2-Dichloroethene	µg/L	0.95 J	6.9	0.69 J	<1	<1	<1	0.263 J
Tetrachloroethene	µg/L	1.4	1.8 J	0.27 J	0.854 J	1.14	2.36	1.84
trans-1,2-Dichloroethene	µg/L	0.44 J	3.5	0.24 J	<1	<1	<1	<1
Trichloroethene	µg/L	4	34	8.9	3.88	5.16 B	7.71	4.9
Vinyl chloride	µg/L	<1	<2	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

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HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-76

Analyte	Sample Name	MW-76	MW-76	MW-76	MW-76	MW-76	MW-76	MW-76	MW-76
	Sample Date	4/10/2007	10/8/2007	4/14/2008	10/17/2008	4/14/2009	7/30/2009	10/15/2009	3/25/2010
	Unit								
1,1,2,2-Tetrachloroethane	µg/L	3.82	18.4	77	9.41	0.864	1.11	1.38	0.525
1,1,2-Trichloroethane	µg/L	<1	<1	0.303 J	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.359	0.978	0.915	0.167 J	0.152 J	0.146 J	<0.3	0.134 J
cis-1,2-Dichloroethene	µg/L	3.08	11.8	13.2	0.406 J	<1	<1	<1	<1
Tetrachloroethene	µg/L	2.74	4.82	4.44	1.35	0.444 J	0.444 J	0.35 J	<1
trans-1,2-Dichloroethene	µg/L	1.41	5.79	3.59	<1	<1	<1	<1	<1
Trichloroethene	µg/L	26.4	132	336 J	15	2.74	3.26	2.27	1.35
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1 UJ	<1

Notes:

µg/L micrograms per liter

RL reporting limit

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HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-76

Analyte	Sample Name Sample Date Unit	MW-76 6/22/2010	MW-76 9/22/2010	MW-76 1/26/2011	MW-76 4/25/2011	MW-76 9/27/2011	MW-76 4/19/2012	MW-76 4/13/2013	MW-76 4/26/2014
1,1,2,2-Tetrachloroethane	µg/L	0.378 J	1.07	0.853	0.294 J	0.276 J	0.398 J	0.284 J	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1 UJ	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	0.139 J	0.138 J	<0.3	0.15 J	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.361 J	0.376 J	0.322 J	<1	0.3 J	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.41	2.51	1.79	0.833 J	0.717 J	0.923 J	0.624 J	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

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HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-77

	Sample Name	MW-77	MW-77	MW-77	MW-77	MW-77	MW-77	MW-77
	Sample Date	1/8/2001	10/3/2001	4/10/2002	10/1/2002	4/8/2003	11/18/2003	4/29/2004
Analyte	Unit							
1,1,2,2-Tetrachloroethane	µg/L	2900	1820	4330	18200	30000	12800	15000
1,1,2-Trichloroethane	µg/L	8	<1	9.46	<50	<50	8.53	<620
1,1-Dichloroethene	µg/L	<10	<1	<1	<50	<50	<1	<620
Carbon tetrachloride	µg/L	0.6 J	<1	<1	<50	<50	0.86 J	<620
Chloroform	µg/L	4 J	<1	5.39	<50	<50	4.96	<620
cis-1,2-Dichloroethene	µg/L	130	76.4 J	176	237	230	189	170 J
Tetrachloroethene	µg/L	6	<1	7.18	<50	<50	14.8	<620
trans-1,2-Dichloroethene	µg/L	33	20.1 J	42.2	42.9 J	42.2	37.8	<620
Trichloroethene	µg/L	2500	1620	3170	5040	5320	4550	5400
Vinyl chloride	µg/L	0.4 J	<1	<1	<50	<50	<1	<620

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

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HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-77

Analyte	Sample Name	MW-77	MW-77	MW-77	MW-77	MW-77	MW-77	MW-77
	Sample Date	8/15/2004	10/21/2004	6/15/2005	11/16/2005	4/12/2006	4/26/2006	10/20/2006
	Unit							
1,1,2,2-Tetrachloroethane	µg/L	11000	4700	2290 J	14000	21700	16700	14300
1,1,2-Trichloroethane	µg/L	<330	<250	<20	18.7	15.7	14.6	17.4
1,1-Dichloroethene	µg/L	<330	<250	<20	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<330	<250 J	<20	0.961 J	1.12	1.05	0.922 J
Chloroform	µg/L	<330	<250	<20	2.58 B	4.32 B	5.05 J	4.77
cis-1,2-Dichloroethene	µg/L	94 J	64 J	100	107	154	154	151
Tetrachloroethene	µg/L	<330	<250	16.8 J	21.1	48	22.2	46.9
trans-1,2-Dichloroethene	µg/L	<330	<250	24.1	15.5	38.5	36.3	19.1
Trichloroethene	µg/L	3200	1700	2100	5300	5520	5170	6500
Vinyl chloride	µg/L	<330	<250	<20	<1	<1	<1 UJ	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

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HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-77

	Sample Name	MW-77	MW-77	MW-77	MW-77	MW-77	MW-77	MW-77
	Sample Date	4/10/2007	10/8/2007	4/14/2008	10/17/2008	4/15/2009	7/30/2009	10/15/2009
Analyte	Unit							
1,1,2,2-Tetrachloroethane	µg/L	8800	1980	566	2010	28.3	27.2	47.5
1,1,2-Trichloroethane	µg/L	<50	2.59	<20	2.3	<1	<1	<1
1,1-Dichloroethene	µg/L	<50	<1	<20	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<50	<1	<20	<1	<1	<1	<1
Chloroform	µg/L	<15	0.822	<6	0.573	0.13 J	0.153 J	0.175 J
cis-1,2-Dichloroethene	µg/L	67.5	22.1	7.13 J	13.2	0.447 J	0.52 J	0.94 J
Tetrachloroethene	µg/L	21 J	17	<20	4.62	1.49	0.619 J	0.685 J
trans-1,2-Dichloroethene	µg/L	<50	2.16	<20	0.709 J	<1	<1	<1
Trichloroethene	µg/L	3330	1290	309	796	21.9	23.6	36.7
Vinyl chloride	µg/L	<50	<1	<20	<1	<1	<1	<1 UJ

Notes:

µg/L micrograms per liter

RL reporting limit

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HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-77

	Sample Name	MW-77	MW-77	MW-77	MW-77	MW-77	MW-77	MW-77	MW-77
	Sample Date	3/25/2010	6/22/2010	9/22/2010	1/26/2011	4/25/2011	9/27/2011	4/19/2012	10/17/2012
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	5.34	19.6	20.4	25	22	16.9	6.01	6.48
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1 UJ	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.179 J	0.181 J	0.238 J	0.234 J	0.325	0.425	0.509	0.62
cis-1,2-Dichloroethene	µg/L	<1	0.558 J	0.592 J	0.516 J	0.746 J	0.442 J	<1	0.264 J
Tetrachloroethene	µg/L	0.4 J	0.585 J	0.405 J	0.452 J	0.353 J	0.369 J	0.478 J	0.411 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5.68	22.8	23.6	23.7	31.1	21.2	8.48	13
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

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UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-77

Analyte	Sample Name	MW-77	MW-77	MW-77	MW-77
	Sample Date	5/9/2013	10/10/2013	4/26/2014	10/19/2014
	Unit				
1,1,2,2-Tetrachloroethane	µg/L	7.45	5.76	4.54	1.76
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1
Chloroform	µg/L	0.426	0.41	0.188 J	0.21 J
cis-1,2-Dichloroethene	µg/L	0.381 J	<1	<1	<1
Tetrachloroethene	µg/L	0.447 J	0.371 J	0.47 J	0.623 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Trichloroethene	µg/L	15.5	15.6	9.64	6.03
Vinyl chloride	µg/L	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

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B Possibly bias high or false positive based on blank data

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UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-78

	Sample Name	MW-78	MW-78-Y3S2-C	MW-78-3_020410	MW-78-3_021001	MW-78-1	MW-78-1_031028
	Sample Date	2/14/2001	10/3/2001	4/10/2002	10/1/2002	4/8/2003	10/28/2003
Analyte	Unit						
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1,2-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	<1	<1	<1	<1	<1	<1
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:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-78

	Sample Name	MW78 (62-64)	MW78 61.8-63.8	MW78-58	MW78-59	MW-78-IS-6	MW-78-ODLA-1	MW-78
	Sample Date	4/29/2004	10/21/2004	11/17/2005	11/8/2007	4/21/2009	3/29/2010	4/28/2011
Analyte	Unit							
1,1,2,2-Tetrachloroethane	µg/L	5.2	0.74 J	<1	<1	<0.5	<0.5	<0.5
1,1,2-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 J	<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	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	0.7 J	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.36 J	0.59 J	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1 UJ	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-78

Analyte	Sample Name	MW-78
	Sample Date	4/12/2013
Unit		
1,1,2,2-Tetrachloroethane	µg/L	<0.5
1,1,2-Trichloroethane	µg/L	<1
1,1-Dichloroethene	µg/L	<1
Carbon tetrachloride	µg/L	<1
Chloroform	µg/L	<0.3
cis-1,2-Dichloroethene	µg/L	<1
Tetrachloroethene	µg/L	<1
trans-1,2-Dichloroethene	µg/L	<1
Trichloroethene	µg/L	<1
Vinyl chloride	µg/L	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

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UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-79

	Sample Name	MW-79	MW-79	MW-79	MW-79	MW-79	MW-79	MW-79	MW-79
	Sample Date	2/15/2001	2/19/2001	10/3/2001	4/10/2002	10/1/2002	4/8/2003	10/28/2003	4/29/2004
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	<1	3.34	<1	<1	<10	<1	<1	<1
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<10	<1	<1	<1
1,1-Dichloroethene	µg/L	48	30.1	37.6	18.8	23.8	35.8	23.9	9.4
Carbon tetrachloride	µg/L	0.1 J	<1	<1	<1	<10	<1	<1	<1
Chloroform	µg/L	1.7	<1	<1	<1	<10	<1	<1	0.21 J
cis-1,2-Dichloroethene	µg/L	6.1	2.52	0.88 J	0.68 J	8.67 J	0.86	2.07	1.7
Tetrachloroethene	µg/L	34	14	6.85	6.96	3.26 J	5.64	2.1	2.1
trans-1,2-Dichloroethene	µg/L	2.2	<1	0.96 J	1.09	9	1.31	1.61	2 J
Trichloroethene	µg/L	26	9.6	8.8	9	68.4	15.2	12.4	8.3
Vinyl chloride	µg/L	<1	<1	<1	<1	<10	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

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< Not detected at sample reporting limit

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HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-79

	Sample Name	MW-79	MW-79	MW-79	MW-79	MW-79	MW-79	MW-79	MW-79
	Sample Date	8/13/2004	10/22/2004	1/26/2005	3/22/2005	6/16/2005	11/18/2005	4/13/2006	10/18/2006
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	7.6 B	7.8	9.1	10	13.1	16.6	11.4	10.6
Carbon tetrachloride	µg/L	0.77 J	0.42 J	0.22 J	0.3 J	<1	<1	<1	<1
Chloroform	µg/L	<1	0.29 J	<1	0.28 B	<1	<1	<1	<0.3
cis-1,2-Dichloroethene	µg/L	1.9	3	1	2.4	1.59	<1	<1	<1
Tetrachloroethene	µg/L	1.7	1.8	1.2	1.2	1.17	1.01	<1	0.47 J
trans-1,2-Dichloroethene	µg/L	1.6	3	1.1	2.3	1.28	<1	<1	<1
Trichloroethene	µg/L	14	9.5	7.5	16	9.99	3.69	1.94	1.63
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

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HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-79

	Sample Name	MW-79	MW-79	MW-79	MW-79	MW-79	MW-79	MW-79	MW-79
	Sample Date	4/10/2007	10/8/2007	4/11/2008	10/20/2008	6/8/2009	10/16/2009	3/25/2010	6/22/2010
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	30.4	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	11.2	13.7	10	4.17	1.17	3.99	17.9	26.4
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1 UJ
Chloroform	µg/L	<0.3	<0.3	<0.3	0.127 J	<0.3	<0.3	0.152 J	0.228 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	0.438 J
Tetrachloroethene	µg/L	1.06	1.14	0.917 J	0.914 J	0.536 J	1.38	26.6	50.8
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.9	3.27	7.5	0.948 J	0.501 J	1.25	16.9	39
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

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UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-79

Analyte	Sample Name	MW-79	MW-79	MW-79	MW-79	MW-79	MW-79	MW-79	MW-79
	Sample Date	9/23/2010	1/25/2011	4/25/2011	9/27/2011	4/18/2012	10/17/2012	4/13/2013	10/10/2013
	Unit								
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 UJ	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	35.7	28.7	25.3	25.3	10.1	2.71	4.71	1.93
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.17 J	0.211 J	0.155 J	1.31	0.233 J	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	25	18.1	12.2	15.4	12.1	4.06	6.35	3.6
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	20.2	17.3	14.7	19.7	10.3	3.12	6.07	2.67
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-79

Analyte	Sample Name	MW-79	MW-79
	Sample Date	4/28/2014	10/18/2014
	Unit		
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1
1,1-Dichloroethene	µg/L	3.27	2.2
Carbon tetrachloride	µg/L	<1	<1
Chloroform	µg/L	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1
Tetrachloroethene	µg/L	5.07	3.59
trans-1,2-Dichloroethene	µg/L	<1	<1
Trichloroethene	µg/L	3.66	2.95
Vinyl chloride	µg/L	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
 B Possibly bias high or false positive based on blank data
 < Not detected at sample reporting limit
 UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-80

	Sample Name	MW-80	MW-80	MW-80	MW-80	MW-80	MW-80	MW-80	MW-80
	Sample Date	2/15/2001	2/19/2001	10/3/2001	4/10/2002	10/1/2002	4/8/2003	10/28/2003	4/29/2004
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1 J
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1 J
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1 J
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1 J
Chloroform	µg/L	<1	<1	1.07	<1	<1	<1	<1	<1 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1 J
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1 J
Trichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1 J

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-80

	Sample Name	MW-80	MW-80	MW-80	MW-80	MW-80	MW-80
	Sample Date	8/17/2004	10/22/2004	11/17/2005	11/8/2007	4/20/2012	4/11/2013
Analyte	Unit						
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<0.5	<0.5
1,1,2-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	<1	<1	<1	<1	<0.3	0.329
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 UJ	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-87

	Sample Name	MW87-80.3FT	MW87RD74	MW87-77	MW87-68	MW-87-IS-6	MW-87-IS-7
	Sample Date	1/8/2001	10/27/2004	11/21/2005	11/9/2007	4/23/2009	10/13/2009
Analyte	Unit						
1,1,2,2-Tetrachloroethane	µg/L	140	10.2 J	86.6	180	0.939	7.09
1,1,2-Trichloroethane	µg/L	6	0.799 J	3.59	6.67	<1	<1
1,1-Dichloroethene	µg/L	0.2 J	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	32	18.7 J	8.18	7.16	<1	<1
Chloroform	µg/L	6	6.03 J	3.88	6.25	0.148 J	0.471
cis-1,2-Dichloroethene	µg/L	210	49.5 J	65.4	91.2	<1	0.391 J
Tetrachloroethene	µg/L	2	1.45 J	0.95 J	0.676	<1	<1
trans-1,2-Dichloroethene	µg/L	17	5.40 J	3.49	4.6	<1	<1
Trichloroethene	µg/L	150	105 J	64.2	91.4	<1	0.778 J
Vinyl chloride	µg/L	0.9 J	<1	<1 UJ	0.272	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-87

	Sample Name	MW-087-ODLA-1	MW-87	MW-87	MW-87	MW-87	MW-87	MW-87
	Sample Date	3/26/2010	4/26/2011	7/19/2011	4/19/2012	10/17/2012	4/12/2013	10/10/2013
Analyte	Unit							
1,1,2,2-Tetrachloroethane	µg/L	12	1.49	1.54	0.207 J	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	0.653 J	<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	1.04	3.04	3.05	0.53	0.377	0.254 J	3.46
cis-1,2-Dichloroethene	µg/L	1.38	0.398 J	0.547 J	<1	<1	0.32 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	2	0.985 J	0.897 J	<1	<1	<1	0.677 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-87

Analyte	Sample Name	MW-87	MW-87
	Sample Date	4/25/2014	10/18/2014
Unit			
1,1,2,2-Tetrachloroethane	µg/L	<0.5	0.671
1,1,2-Trichloroethane	µg/L	<1	0.287 J
1,1-Dichloroethene	µg/L	<1	<1
Carbon tetrachloride	µg/L	<1	<1
Chloroform	µg/L	19.3	56.2 J
cis-1,2-Dichloroethene	µg/L	2.01	6.71
Tetrachloroethene	µg/L	0.273 J	0.379 J
trans-1,2-Dichloroethene	µg/L	<1	<1
Trichloroethene	µg/L	2.74	4.16
Vinyl chloride	µg/L	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-91

	Sample Name	MW91RD68	MW91-68	MW91-69	MW-91-IS-6	MW-91-IS-7	MW-91	MW-91
	Sample Date	10/27/2004	11/21/2005	11/7/2007	4/22/2009	10/14/2009	4/28/2011	4/19/2012
Analyte	Unit							
1,1,2,2-Tetrachloroethane	µg/L	<1	0.26 J	<1	0.92	0.678	<0.5	<0.5
1,1,2-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	9.35 J	4.8 J	3.29	0.449 J	0.479 J	0.391 J	<1
Chloroform	µg/L	13.4 J	4.72	25.6	0.538	1.83	2.86	0.633
cis-1,2-Dichloroethene	µg/L	1.19 J	0.46 J	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	1.18 J	0.72 J	0.594	0.677 J	0.494 J	0.305 J	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	12.7 J	6.01	13.8	<1	0.567 J	1.41	<1
Vinyl chloride	µg/L	<1	<1 UJ	<1	<1 UJ	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-91

Analyte	Sample Name	MW-91	MW-91
	Sample Date	4/12/2013	4/25/2014
Unit			
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1
1,1-Dichloroethene	µg/L	<1	<1
Carbon tetrachloride	µg/L	<1	<1
Chloroform	µg/L	0.926	0.301
cis-1,2-Dichloroethene	µg/L	<1	<1
Tetrachloroethene	µg/L	0.251 J	<1
trans-1,2-Dichloroethene	µg/L	<1	<1
Trichloroethene	µg/L	0.332 J	<1
Vinyl chloride	µg/L	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-126

	Sample Name	MW-126	MW-126	MW-126	MW-126	MW-126	MW-126	MW-126	MW-126
	Sample Date	10/1/2002	4/8/2003	10/28/2003	4/29/2004	10/22/2004	11/17/2005	11/7/2007	4/18/2012
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	<1	<1	<1	<1	0.12 J	<1	<0.3
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	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1 UJ	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-126

	Sample Name	MW-126
	Sample Date	4/12/2013
Analyte	Unit	
1,1,2,2-Tetrachloroethane	µg/L	<0.5
1,1,2-Trichloroethane	µg/L	<1
1,1-Dichloroethene	µg/L	<1
Carbon tetrachloride	µg/L	<1
Chloroform	µg/L	<0.3
cis-1,2-Dichloroethene	µg/L	<1
Tetrachloroethene	µg/L	<1
trans-1,2-Dichloroethene	µg/L	<1
Trichloroethene	µg/L	<1
Vinyl chloride	µg/L	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-129

	Sample Name	MW-129	MW-129	MW-129	MW-129	MW-129	MW-129	MW-129	MW-129
	Sample Date	7/28/2003	10/28/2003	4/29/2004	10/22/2004	11/22/2005	11/8/2007	4/19/2012	4/13/2013
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<2.5	0.19 J	<1	<0.5	<0.5 UJ
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<2.5	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	41	42	27	32	36	32.7	13.7	16.8
Carbon tetrachloride	µg/L	<1	<1	<1	<2.5	<1	<1	<1	<1
Chloroform	µg/L	<1	<1	<1	<2.5	<1	<1	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	0.27 J	<2.5	0.33 J	0.36	<1	<1
Tetrachloroethene	µg/L	8.85	26.1	9.6	9.2	25.4	30.2	15	18
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<2.5	<1	<1	<1	<1
Trichloroethene	µg/L	9.71	13.4	12	14	19.3	19.1	13.4	14.5
Vinyl chloride	µg/L	<1	<1	<1	<2.5	<1 UJ	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-129

	Sample Name	MW-129
	Sample Date	4/28/2014
Analyte	Unit	
1,1,2,2-Tetrachloroethane	µg/L	<0.5
1,1,2-Trichloroethane	µg/L	<1
1,1-Dichloroethene	µg/L	13.2
Carbon tetrachloride	µg/L	<1
Chloroform	µg/L	<0.3
cis-1,2-Dichloroethene	µg/L	<1
Tetrachloroethene	µg/L	16.2
trans-1,2-Dichloroethene	µg/L	<1
Trichloroethene	µg/L	12.5
Vinyl chloride	µg/L	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-130

	Sample Name	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130
	Sample Date	7/28/2003	10/28/2003	4/29/2004	10/22/2004	6/15/2005	11/17/2005	4/12/2006	10/20/2006
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<5	<3.3	<1	<1	<1	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<5	<3.3	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	41.1	42.2	57	35	22.6	28.3	52.8	61.6
Carbon tetrachloride	µg/L	<1	<1	<5	<3.3	<1	<1	<1	<1
Chloroform	µg/L	<1	<1	<5	<3.3	<1	<1	<1	0.256 J
cis-1,2-Dichloroethene	µg/L	0.54 J	0.67 J	<5	0.63 J	<1	<1	<1	0.766 J
Tetrachloroethene	µg/L	71.6	80.3	88	63	48.8	57.4	114	112
trans-1,2-Dichloroethene	µg/L	<1	<1	<5 J	<3.3	<1	<1	<1	<1
Trichloroethene	µg/L	54	64	76	50	37.9	43.5	57.7	60.5
Vinyl chloride	µg/L	<1	<1	<5	<3.3	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-130

	Sample Name	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130
	Sample Date	4/10/2007	10/5/2007	4/11/2008	10/20/2008	4/15/2009	10/15/2009	4/19/2012	4/13/2013
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	70	74	73.4	80.2	60.3	29 J	25.7	38.6
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.315	0.291 J	0.27 J	0.296 J	0.237 J	0.206 J	0.227 J	0.274 J
cis-1,2-Dichloroethene	µg/L	0.818 J	0.82 J	0.789 J	0.799 J	0.925 J	0.856 J	0.766 J	1.04
Tetrachloroethene	µg/L	154	147	196	140	127	68.5 J	72.5	98.5
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	71.2	67.4	71	71.8	75.1	61.7 J	62.6	79.5
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-130

	Sample Name	MW-130
	Sample Date	4/28/2014
Analyte	Unit	
1,1,2,2-Tetrachloroethane	µg/L	<0.5
1,1,2-Trichloroethane	µg/L	<1
1,1-Dichloroethene	µg/L	22.6
Carbon tetrachloride	µg/L	<1
Chloroform	µg/L	0.219 J
cis-1,2-Dichloroethene	µg/L	0.718 J
Tetrachloroethene	µg/L	60.6
trans-1,2-Dichloroethene	µg/L	<1
Trichloroethene	µg/L	58.8
Vinyl chloride	µg/L	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-134

Analyte	Sample Name	MW-134	MW-134	MW-134	MW-134	MW-134	MW-134	MW-134	MW-134
	Sample Date	10/23/2003	11/18/2003	12/18/2003	2/3/2004	4/6/2004	10/28/2004	11/20/2005	5/17/2007
	Unit								
1,1,2,2-Tetrachloroethane	µg/L	5.45	859	46.5	44.4	16.4	160	98	240
1,1,2-Trichloroethane	µg/L	<0.5	1.53	<0.5	4.02	0.354 J	11.30 J	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	<1	<1	<1	<1	<1	<1	0.29
cis-1,2-Dichloroethene	µg/L	0.329 J	13	1.62	1.52	0.261 J	5.39 J	0.84 J	7.1
Tetrachloroethene	µg/L	0.458 J	<0.5	<0.5	0.394 J	0.756	1.51 J	1.83	3.1
trans-1,2-Dichloroethene	µg/L	0.413 J	3.24	0.647 J	0.644 J	<1	1.95 J	0.41 J	1.8
Trichloroethene	µg/L	4.14	104	32.1	17.7	7.64	169 J	113	150
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1 UJ	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-134

	Sample Name	MW-134	MW-134	MW-134	MW-134	MW-134	MW-134	MW-134	MW-134
	Sample Date	11/8/2007	4/16/2008	8/19/2008	10/20/2008	4/17/2009	10/15/2009	7/19/2011	4/20/2012
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	4.47	0.717	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	<0.3	<0.3	<0.3	<0.3	0.128 J	0.668	0.17 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.42	0.488 J	0.535	0.801 J	0.328 J	0.501 J	0.603 J	0.531 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.03	1.08	<1	<1	2.13	0.262 J	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-134

Analyte	Sample Name Sample Date Unit	MW-134 10/17/2012	MW-134 4/13/2013	MW-134 5/9/2013	MW-134 10/10/2013	MW-134 4/25/2014	MW-134 10/19/2014
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5 UJ	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1 UJ	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1 UJ	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1 UJ	<1	<1	<1	<1
Chloroform	µg/L	<0.3	0.213 J	0.14 J	0.129 J	0.138 J	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1 UJ	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.889 J	0.73 J	0.685 J	0.883 J	0.603 J	0.385 J
trans-1,2-Dichloroethene	µg/L	<1	<1 UJ	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1 UJ	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1 UJ	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-144

	Sample Name	MW-144	MW-144	MW144RD75	MW-144	MW-144	MW-144	MW-144	MW-144
	Sample Date	6/9/2004	8/12/2004	10/27/2004	1/27/2005	3/23/2005	6/15/2005	11/14/2005	4/12/2006
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	13000	7700	6230 J	4600	7700	5810 J	4970	5040
1,1,2-Trichloroethane	µg/L	--	<250	7.05 J	10 J	14 J	9.64 J	14.1 J	9.04
1,1-Dichloroethene	µg/L	<420	<250	<1	<12	<25	<10	<20	<1
Carbon tetrachloride	µg/L	<420	<250	1.47 J	<12	<25	<10	<20	1.03
Chloroform	µg/L	<420	<250	2.76 J	3.2 J	4.3 J	<10	<20	2.72 B
cis-1,2-Dichloroethene	µg/L	<420	68 J	74.1 J	69	72	70.2	54.3	83.9
Tetrachloroethene	µg/L	<420	<250	7.69 J	10 J	13 J	8.78 J	10.2	19.9 J
trans-1,2-Dichloroethene	µg/L	<420	<250	17.5 J	15	14 J	14.1	<20	7.28 J
Trichloroethene	µg/L	3200	2800	2060	2100	4500	2610	2280	2650
Vinyl chloride	µg/L	<420	<250 J	<1	<12	<25	<10	<20	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Possibly bias high or false positive based on blank data
< Not detected at sample reporting limit
UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-144

	Sample Name	MW144-75_060427	MW-144	MW-144-74.9-IS-2	MW-144-74.9-IS-3	MW-144-74.9-IS-4
	Sample Date	4/27/2006	10/19/2006	4/10/2007	10/8/2007	4/11/2008
Analyte	Unit					
1,1,2,2-Tetrachloroethane	µg/L	4080	2520	1350	841	79.4
1,1,2-Trichloroethane	µg/L	8.94	60.4	20.4	8.75	0.461 J
1,1-Dichloroethene	µg/L	<1	<10	<10	<1	<1
Carbon tetrachloride	µg/L	0.9 J	<10	<10	1.59	<1
Chloroform	µg/L	3.13	1.45 J	<3	1.7	1.77
cis-1,2-Dichloroethene	µg/L	88.9	98.2	33.5	26.3	2.31
Tetrachloroethene	µg/L	16.9	11.4	4.11 J	3.49	<1
trans-1,2-Dichloroethene	µg/L	7.04	19.2	3.39 J	2.24	<1
Trichloroethene	µg/L	2790	1890	694	464	37.6
Vinyl chloride	µg/L	<1 UJ	<10	<10	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Possibly bias high or false positive based on blank data
< Not detected at sample reporting limit
UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-144

	Sample Name	MW-144-75.68-IS-6	MW-144-IS-7	MW-144-ODLA-1	MW-144	MW-144	MW-144
	Sample Date	4/15/2009	10/14/2009	3/26/2010	4/26/2011	4/19/2012	10/17/2012
Analyte	Unit						
1,1,2,2-Tetrachloroethane	µg/L	403	301	150	24.1	16.6	14.7
1,1,2-Trichloroethane	µg/L	1.06	0.661 J	0.321 J	<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	1.19	0.501	0.316	0.28 J	0.519	0.377
cis-1,2-Dichloroethene	µg/L	12.9	6.81	3.26	1.01	1.05	0.942 J
Tetrachloroethene	µg/L	1.56	1.4	0.918 J	0.851 J	0.829 J	0.798 J
trans-1,2-Dichloroethene	µg/L	2.61	0.676 J	0.445 J	<1	<1	<1
Trichloroethene	µg/L	179	173	109	43.2	49.6	38.5
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Possibly bias high or false positive based on blank data
< Not detected at sample reporting limit
UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-144

	Sample Name	MW-144	MW-144	MW-144	MW-144	MW-144
	Sample Date	4/13/2013	5/9/2013	10/10/2013	4/26/2014	10/19/2014
Analyte	Unit					
1,1,2,2-Tetrachloroethane	µg/L	11 J	5.41	17.5	12.2	9.02
1,1,2-Trichloroethane	µg/L	<1 UJ	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1 UJ	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1 UJ	<1	<1	<1	<1
Chloroform	µg/L	0.305 J	0.222 J	0.549	0.36	0.262 J
cis-1,2-Dichloroethene	µg/L	0.822 J	0.327 J	1.08	0.737 J	0.758 J
Tetrachloroethene	µg/L	0.867 J	0.476 J	0.788 J	0.686 J	0.466 J
trans-1,2-Dichloroethene	µg/L	<1 UJ	<1	<1	<1	<1
Trichloroethene	µg/L	32.4 J	14	41.7	30.2	33.2
Vinyl chloride	µg/L	<1 UJ	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Possibly bias high or false positive based on blank data
< Not detected at sample reporting limit
UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-145

	Sample Name	MW-145	MW-145	MW-145	MW-145	MW-145	MW-145	MW-145	MW-145T
	Sample Date	6/8/2004	8/16/2004	1/27/2005	3/23/2005	6/17/2005	11/17/2005	4/13/2006	10/19/2006
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<0.5
1,1,2-Trichloroethane	µg/L	--	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	<1	<1	<1	<1	<1	<1	<0.3
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	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-145

	Sample Name	MW-145-86.6-IS-2	MW-145-86.6-IS-3	MW-145-86.6-IS-4	MW-145	MW-145	MW-145-IS-7
	Sample Date	4/9/2007	10/8/2007	4/14/2008	10/20/2008	4/14/2009	10/15/2009
Analyte	Unit						
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5 J	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1 J	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1 J	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1 J	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3 J	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1 J	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1 J	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1 J	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1 J	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1 J	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-145

	Sample Name	MW-145-ODLA-1	MW-145	MW-145	MW-145	MW-145
	Sample Date	3/26/2010	4/26/2011	4/19/2012	4/13/2013	4/26/2014
Analyte	Unit					
1,1,2,2-Tetrachloroethane	µg/L	0.274 J	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	0.682 J	0.886 J	0.493 J	0.33 J
Chloroform	µg/L	<0.3	0.585	0.927	0.844	0.666
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	0.425 J	0.639 J	0.713 J	0.438 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-147

	Sample Name	MW-147	MW-147	MW147RD	MW-147	MW-147	MW-147	MW-147
	Sample Date	6/10/2004	8/17/2004	10/26/2004	1/27/2005	3/22/2005	6/17/2005	11/18/2005
Analyte	Unit							
1,1,2,2-Tetrachloroethane	µg/L	97	56	61.8 J	140	180	251 J	185
1,1,2-Trichloroethane	µg/L	--	<5.6	0.742 J	1.8	2.2	2.62	3.9
1,1-Dichloroethene	µg/L	<5.7	2.2 B	1.23	1.2	2.7	2.07	3.32
Carbon tetrachloride	µg/L	1.8 J	4.3 J	1.5	0.36 J	0.45 J	0.729 J	1.27
Chloroform	µg/L	7.5	12	13.4	3.4	3	5.94 B	5.1 B
cis-1,2-Dichloroethene	µg/L	70	57	60.6	48	39	65.1	95
Tetrachloroethene	µg/L	7.5	5.3 J	5.94	3.4	3.4	4.44	4.83
trans-1,2-Dichloroethene	µg/L	24	20	23.3	12	15	15.9	20.5
Trichloroethene	µg/L	160	120	130	77	73	124	121
Vinyl chloride	µg/L	<5.7	<5.6	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Possibly bias high or false positive based on blank data
< Not detected at sample reporting limit
UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-147

Analyte	Sample Name	MW-147	MW-147	MW-147-73.7-IS-2	MW-147-73.7-IS-3	MW-147-73.7-IS-4	MW-147-77-IS-5
	Sample Date	4/12/2006	10/18/2006	4/10/2007	10/5/2007	4/11/2008	10/17/2008
Unit							
1,1,2,2-Tetrachloroethane	µg/L	311	87.9	634	198	22	0.373 J
1,1,2-Trichloroethane	µg/L	4.36	1.39	9.28	4.47	<1	<1
1,1-Dichloroethene	µg/L	1.76	0.657 J	1.49	5.65	<1	<1
Carbon tetrachloride	µg/L	0.565 J	0.364 J	0.83 J	2.3	<1	<1
Chloroform	µg/L	5.53 B	2.66	7.24	4.6	0.509	0.147 J
cis-1,2-Dichloroethene	µg/L	74.8	41.2	155	120 J	6.15	0.401 J
Tetrachloroethene	µg/L	3.61	3.92	12.2	8.97	7.92	2.95
trans-1,2-Dichloroethene	µg/L	14.4	10.3	39.6	28.9	1	<1
Trichloroethene	µg/L	106	81.3	278	169	53.9	3.1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

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HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-147

	Sample Name	MW-147-78.81-IS-6	MW-147-IS-7	MW-147-ODLA-1	MW-147-ODLS-2	MW-147	MW-147
	Sample Date	4/14/2009	10/14/2009	3/26/2010	9/23/2010	4/26/2011	4/19/2012
Analyte	Unit						
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-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	0.199 J	<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	0.313 J	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

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B Possibly bias high or false positive based on blank data
< Not detected at sample reporting limit
UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-147

Analyte	Sample Name	MW-147	MW-147
	Sample Date	4/13/2013	4/26/2014
	Unit		
1,1,2,2-Tetrachloroethane	µg/L	<0.5 UJ	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1
1,1-Dichloroethene	µg/L	<1	<1
Carbon tetrachloride	µg/L	<1	<1
Chloroform	µg/L	<0.3	0.136 J
cis-1,2-Dichloroethene	µg/L	<1	<1
Tetrachloroethene	µg/L	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1
Trichloroethene	µg/L	<1	<1
Vinyl chloride	µg/L	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

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HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-148

	Sample Name	MW-148	MW-148	MW-148	MW-148	MW-148	MW-148	MW-148	MW-148
	Sample Date	6/10/2004	8/17/2004	10/26/2004	1/27/2005	3/22/2005	6/17/2005	11/18/2005	4/12/2006
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	3.1	0.72 J	5.55	0.63 J	0.37 J	15.4	2.87	2.47
1,1,2-Trichloroethane	µg/L	--	<1	0.42 J	<1	<1	1.03	<1	<1
1,1-Dichloroethene	µg/L	<2.5	<1	<1	<1	<1	0.426 J	<1	<1
Carbon tetrachloride	µg/L	0.45 J	0.73 J	0.58 J	0.19 J	<1	0.583 J	<1	<1
Chloroform	µg/L	1.5 J	0.6 J	2.25	0.88 J	0.58 B	3.07 B	1.3 B	0.861 B
cis-1,2-Dichloroethene	µg/L	29	13	52.3	12	4.8	95.2	23.2	10.4
Tetrachloroethene	µg/L	6.4	3.7	7.83	4.5	3.3	6.44	3.93	2.88
Total 1,2-Dichloroethene	µg/L	40	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	11	4.9	21.3	3.8	1.9	26.8	6.4	3.18
Trichloroethene	µg/L	77	31	136	27	13	160	42	21.1
Vinyl chloride	µg/L	<2.5	<1	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

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UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-148

	Sample Name	MW-148	MW-148	MW-148	MW-148	MW-148	MW-148	MW-148	MW-148
	Sample Date	10/18/2006	4/10/2007	10/5/2007	4/11/2008	10/17/2008	6/8/2009	10/15/2009	3/24/2010
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	3.72	1.75	3.43	6.92	9.66	0.263 J	0.63	<0.5
1,1,2-Trichloroethane	µg/L	0.316 J	<1	<1	0.252 J	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	0.267 J	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	1.74	0.473	1.09	1.16	0.665	0.137 J	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	34.3	5.04	4.58	7.33	6.63	<1	<1	<1
Tetrachloroethene	µg/L	7.53	4.18	3.78	3.59	2.42	0.36 J	<1	<1
Total 1,2-Dichloroethene	µg/L	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	10.7	1.82	6.68	2.74	1.73	<1	<1	<1
Trichloroethene	µg/L	74.1	7.7	22.7	62.9	107	1.78	0.613 J	0.932 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1 UJ	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

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HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-148

	Sample Name	MW-148	MW-148	MW-148	MW-148	MW-148	MW-148	MW-148	MW-148
	Sample Date	6/22/2010	9/22/2010	1/26/2011	3/28/2011	9/27/2011	4/19/2012	4/13/2013	4/26/2014
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 UJ	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	0.186 J	0.185 J	0.164 J	<0.3	0.125 J	0.137 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	0.254 J	<1	<1	<1
Total 1,2-Dichloroethene	µg/L	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Possibly bias high or false positive based on blank data
< Not detected at sample reporting limit
UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-149

	Sample Name	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149
	Sample Date	6/11/2004	8/18/2004	1/27/2005	4/12/2005	6/17/2005	11/19/2005	4/13/2006	10/19/2006
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	42	27 J	37	27	50.4	38.3	30.3	23.1
1,1,2-Trichloroethane	µg/L	--	<5	0.87 J	0.64 J	1.66	1.62	1.23	0.686 J
1,1-Dichloroethene	µg/L	<6.7	<5	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	17	12	14	16	15.7	22	12.6	12.9
Chloroform	µg/L	200	110	140	79	64	159	50	95.5
cis-1,2-Dichloroethene	µg/L	4.9 J	3.8 J	4	3.1	20.4	4.36	3.42	7.81
Tetrachloroethene	µg/L	2.7 J	1.6 J	1.8	1.6	1.01	2.13	1.3	1.44
Total 1,2-Dichloroethene	µg/L	6 J	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	<6.7	<5	0.81 J	0.63 J	2.37	2.21	1.48	1.13
Trichloroethene	µg/L	68	38	45	35	68.1	75.4	57.1	45.4
Vinyl chloride	µg/L	<6.7	<5	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

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HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-149

	Sample Name	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149
	Sample Date	4/9/2007	10/5/2007	4/11/2008	10/20/2008	6/8/2009	10/16/2009	3/24/2010	6/23/2010
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	37.2	9.78	4.1	1.71	8.51	9.93	5.47	15
1,1,2-Trichloroethane	µg/L	1.29	0.346 J	<1	<1	0.355 J	0.387 J	<1	0.69 J
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	19.8	8.05	6.7	8.17	4.46	6.36	1.78	2.02
Chloroform	µg/L	155	54	29.6	25.6	31.7	70	12.9	41.6
cis-1,2-Dichloroethene	µg/L	9.02	3.1	2.43	1.63	2.24	4.64	4.52	7.22
Tetrachloroethene	µg/L	3.81	1.84	1	0.717 J	0.776 J	1.16	0.718 J	0.651 J
Total 1,2-Dichloroethene	µg/L	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	1.59	0.536 J	0.675 J	0.378 J	0.382 J	0.662 J	0.679 J	0.595 J
Trichloroethene	µg/L	80.9	30.1	19.1	19.8	24.9	38.6	54.7	35
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

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HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-149

	Sample Name	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149
	Sample Date	9/23/2010	1/26/2011	3/28/2011	9/27/2011	4/20/2012	10/17/2012	4/13/2013	10/10/2013
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	29.8	24.8	15	12.1	4.89	4.56	2.33	1.39
1,1,2-Trichloroethane	µg/L	1.3	1.07	0.764 J	0.42 J	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	6.98	7.91	4.35	2.26	1.07	0.517 J	0.397 J	0.502 J
Chloroform	µg/L	92.3	94.3	75.2	34.5	13.4	7.37	7.47	5.56
cis-1,2-Dichloroethene	µg/L	17.7	13.2	6.21	3.14	1.74	1.6	1.6	1.1
Tetrachloroethene	µg/L	1.92	2.16	1.55	0.838 J	0.522 J	0.296 J	0.312 J	0.437 J
Total 1,2-Dichloroethene	µg/L	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	1.54	1.33	0.722 J	0.27 J	<1	<1	<1	<1
Trichloroethene	µg/L	87.9	66.6	38.9	18.4	7.47	4.3	3.58	2.88
Vinyl chloride	µg/L	<1 J	<1	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-149

Analyte	Sample Name	MW-149	MW-149
	Sample Date	4/26/2014	10/18/2014
Unit			
1,1,2,2-Tetrachloroethane	µg/L	1.54	1.01
1,1,2-Trichloroethane	µg/L	<1	<1
1,1-Dichloroethene	µg/L	<1	<1
Carbon tetrachloride	µg/L	<1	<1
Chloroform	µg/L	3.45	3.96
cis-1,2-Dichloroethene	µg/L	0.594 J	0.9 J
Tetrachloroethene	µg/L	<1	0.262 J
Total 1,2-Dichloroethene	µg/L	--	--
trans-1,2-Dichloroethene	µg/L	<1	<1
Trichloroethene	µg/L	1.58	1.92
Vinyl chloride	µg/L	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-150

	Sample Name	MW-150	MW-150	MW-150	MW-150	MW-150	MW-150	MW-150	MW-150
	Sample Date	6/24/2004	8/18/2004	10/25/2004	1/27/2005	3/23/2005	6/17/2005	11/19/2005	4/12/2006
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	7600	8000 J	10900 J	6700	6600	4790	3080	2940
1,1,2-Trichloroethane	µg/L	--	<250	5.73 J	6.9 J	5.1 J	9.2 J	16.3	5.7
1,1-Dichloroethene	µg/L	<200	<250	<1	<20	<20	<10	<10	<1
Carbon tetrachloride	µg/L	<200	<250	1.54 J	<20	<20	<10	<10	0.413 J
Chloroform	µg/L	<200	<250	3.35 J	<20	3.3 J	<10	1.36 B	2.09 B
cis-1,2-Dichloroethene	µg/L	76 J	74 J	81.9 J	84	48	57	64.3	74.2
Tetrachloroethene	µg/L	<200	<250	13.6 J	<20	6.4 J	6.77 J	2.47	4.09
Total 1,2-Dichloroethene	µg/L	76 J	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	<200	<250	21.1 J	22	9.1 J	8.83 J	5.78	8.66
Trichloroethene	µg/L	3000	3000	2330 J	690	2000	983	639	747
Vinyl chloride	µg/L	<200	<250	<1	<20	<20	<10	<10	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Possibly bias high or false positive based on blank data
< Not detected at sample reporting limit
UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-150

	Sample Name	MW-150	MW-150	MW-150	MW-150	MW-150	MW-150	MW-150	MW-150
	Sample Date	4/26/2006	10/19/2006	4/9/2007	10/8/2007	4/11/2008	10/20/2008	6/8/2009	10/16/2009
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	2590	8480	4620	3960	1960	1750	618	406
1,1,2-Trichloroethane	µg/L	6	5.31 J	27	87.2	9.85 J	12.4	3.21 J	0.716 J
1,1-Dichloroethene	µg/L	<1	0.619 J	0.687 J	<25	<20	0.992 J	<5	<2.5
Carbon tetrachloride	µg/L	0.31 J	<10	<25	<25	<20	<1	<5	<2.5
Chloroform	µg/L	2 J	2.22	1.92	<7.5	1.43 J	5	<1.5	0.913
cis-1,2-Dichloroethene	µg/L	54	77.1	56.2	81.3	37.3	22.4	6.26	1.27 J
Tetrachloroethene	µg/L	4.02	7.13 J	6.54 J	18.9 J	8.1 J	5.22	3.36 J	1.1 J
Total 1,2-Dichloroethene	µg/L	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	10.3	9.79 J	24.3	11.6 J	<20	1.28	<5	<2.5
Trichloroethene	µg/L	1120	2910	3060	2470	80.6 J	636	311	49.4
Vinyl chloride	µg/L	0.37 J	<10	0.83 J	<25	<20	<1	<5	<2.5

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

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B Possibly bias high or false positive based on blank data
< Not detected at sample reporting limit
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HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-150

	Sample Name	MW-150	MW-150	MW-150	MW-150	MW-150	MW-150	MW-150	MW-150
	Sample Date	3/24/2010	6/22/2010	9/22/2010	1/26/2011	3/28/2011	9/26/2011	4/19/2012	10/17/2012
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	34.7	4.98	0.917	11.4	9.89	15.5	3.4	2.64
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.246 J	0.222 J	0.16 J	0.178 J	0.16 J	0.878	1.55	0.746
cis-1,2-Dichloroethene	µg/L	0.453 J	<1	<1	<1	0.304 J	0.757 J	0.263 J	<1
Tetrachloroethene	µg/L	0.711 J	0.888 J	0.976 J	0.678 J	0.836 J	<1	<1	<1
Total 1,2-Dichloroethene	µg/L	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	16.1	2.44	0.515 J	13.5	15.6	28.1	13.9	6.94
Vinyl chloride	µg/L	0.416 J	<1	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Possibly bias high or false positive based on blank data
< Not detected at sample reporting limit
UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-150

	Sample Name	MW-150	MW-150	MW-150	MW-150	MW-150
	Sample Date	4/13/2013	5/9/2013	10/10/2013	4/26/2014	10/18/2014
Analyte	Unit					
1,1,2,2-Tetrachloroethane	µg/L	16.9 J	16.4	13.8	7.72	0.795
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	0.698	0.695	0.574	0.473	<0.3
cis-1,2-Dichloroethene	µg/L	0.803 J	1.01	0.743 J	0.366 J	<1
Tetrachloroethene	µg/L	<1	<1	0.275 J	<1	<1
Total 1,2-Dichloroethene	µg/L	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	48.2	47.7	33.6	16.3	2.29
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

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B Possibly bias high or false positive based on blank data
< Not detected at sample reporting limit
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HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-151

	Sample Name	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151
	Sample Date	8/16/2004	10/26/2004	1/25/2005	3/22/2005	6/17/2005	11/17/2005	11/19/2005	4/13/2006
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	0.23 J	0.28 J	<1	<1	<1	<1
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	25.5	<1	<1
Carbon tetrachloride	µg/L	2.7	3.44	4.7	5.3	0.939 J	<1	4.78	4.47
Chloroform	µg/L	3.3	6.72	10	11	2.69 B	0.15 J	8.04	11.4
cis-1,2-Dichloroethene	µg/L	0.22 J	0.446 J	0.92 J	0.96 J	<1	<1	1	1.22
Tetrachloroethene	µg/L	<1	<1	0.4 J	0.48 J	<1	1.69	0.415 J	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	0.25 J	<1	<1	<1	<1
Trichloroethene	µg/L	2.2	3.67	6.3	7.2	1.31	7.31	4.67 B	8.75
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1 UJ	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

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HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-151

Analyte	Sample Name	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151
	Sample Date	10/18/2006	4/9/2007	10/5/2007	4/14/2008	10/20/2008	6/8/2009	10/16/2009	3/23/2010
	Unit								
1,1,2,2-Tetrachloroethane	µg/L	1.42	0.68	0.408 J	0.468 J	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	6.19	5.53	3.9	4.77	0.564 J	0.774 J	1.43	0.967 J
Chloroform	µg/L	16.9	12.5	12.4	15.5	1.34	1.81	2.92	2.93
cis-1,2-Dichloroethene	µg/L	1.45	1.24	1.29	1.42	<1	<1	0.416 J	0.369 J
Tetrachloroethene	µg/L	0.621 J	0.588 J	0.859 J	0.639	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	0.282 J	0.274 J	0.304 J	0.613 J	<1	<1	<1	<1
Trichloroethene	µg/L	10.5	11.1	16.8	20.1	2.62	5.1	8.06	9.9
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

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HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-151

Analyte	Sample Name	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151
	Sample Date	6/23/2010	9/23/2010	1/25/2011	3/28/2011	9/27/2011	4/19/2012	10/17/2012	4/13/2013
	Unit								
1,1,2,2-Tetrachloroethane	µg/L	<0.5	0.315 J	0.846	1.92	2.45	4.26	3.61	2.74 J
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	0.765 J	0.735 J	0.766 J	1.29	1.18	2.67	1.42	0.892 J
Chloroform	µg/L	2.67	2.36	4.65	12.3	16.3	37.4	23.9	14.5
cis-1,2-Dichloroethene	µg/L	0.309 J	0.309 J	0.61 J	1.24	0.998 J	1.93	1.17	0.87 J
Tetrachloroethene	µg/L	<1	<1	<1	0.286 J	0.3 J	0.793 J	0.507 J	0.398 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	0.262 J	<1	<1
Trichloroethene	µg/L	8.21	7.24	7.69	10.8	10.5	19.1	11.4	8.14
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

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HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-151

Analyte	Sample Name Sample Date Unit	MW-151 10/10/2013	MW-151 4/27/2014	MW-151 10/19/2014
1,1,2,2-Tetrachloroethane	µg/L	2.48	1.36	0.96
1,1,2-Trichloroethane	µg/L	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1
Carbon tetrachloride	µg/L	0.709 J	0.396 J	0.328 J
Chloroform	µg/L	10.6	6.45	5.38
cis-1,2-Dichloroethene	µg/L	0.801 J	0.299 J	0.252 J
Tetrachloroethene	µg/L	0.347 J	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	5.67	2.85	2.65
Vinyl chloride	µg/L	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

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HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-152

	Sample Name	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152
	Sample Date	8/15/2004	10/10/2004	10/11/2004	10/13/2004	10/14/2004	1/26/2005	3/22/2005	6/16/2005
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	11	<5	15	1500	12	9.3 J	6.5	5.32
1,1,2-Trichloroethane	µg/L	<3.3	<5	<5	<100	<5	<1	<1	<1
1,1-Dichloroethene	µg/L	<3.3	<5	<5	<100	<5	<1	<1	<1
Carbon tetrachloride	µg/L	2.1 J	<5	<5	<100	<5	0.39 J	0.24 J	<1
Chloroform	µg/L	0.97 J	<5	<5	<100	<5	1.5	0.98 B	<1
cis-1,2-Dichloroethene	µg/L	9.2	6.9	7.7	35 J	9	14	10	4.22
Tetrachloroethene	µg/L	5.4	4 J	3.1 J	<100	5.9	7.8	5.8	1.74
trans-1,2-Dichloroethene	µg/L	4.1	3.4 J	4.6 J	<100	4.1 J	6.6	5.1	1.87
Trichloroethene	µg/L	76	70	78	950	92	110	59	19.3
Vinyl chloride	µg/L	<3.3	<5	<5	<100	<5	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

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< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-152

	Sample Name	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152
	Sample Date	11/18/2005	4/13/2006	10/18/2006	4/10/2007	10/8/2007	4/11/2008	10/20/2008	6/8/2009
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	4.95	8.16	4.87	8.67	4.85	3.05	11.7	3.33
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<2
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	0.758 J	<2
Carbon tetrachloride	µg/L	1	<1	<1	<1	<1	<1	0.459 J	<2
Chloroform	µg/L	2.19 B	1.76 B	1.2	1.84	1.03	0.601	2.59	2.03
cis-1,2-Dichloroethene	µg/L	29	18.7	12.7	21.8	7.71	5.65	40.2	39.9
Tetrachloroethene	µg/L	5.27	11.3	13.4	9.65	7.69	8.53	15.7	7.4
trans-1,2-Dichloroethene	µg/L	4.43	9.62	5.96	9.23	5.18	2.42	13.4	13.1
Trichloroethene	µg/L	71	161	125	185	95	72.7	260	241
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<2

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

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HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-152

Analyte	Sample Name Sample Date Unit	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152
		10/16/2009	3/25/2010	6/22/2010	9/23/2010	1/25/2011	3/28/2011	9/27/2011	4/18/2012
1,1,2,2-Tetrachloroethane	µg/L	9.85	77.8	63.9	5.35	2.01	1.1	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	0.336 J	0.492 J	0.311 J	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.962	0.711	0.446	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	18.3	4.2	1.14	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	2.89	0.681 J	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	1.39	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	183	40.8	14.5	1.55	1.07	0.727 J	0.478 J	0.277 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-152

Analyte	Sample Name	MW-152	MW-152
	Sample Date	5/9/2013	4/27/2014
Unit			
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1
1,1-Dichloroethene	µg/L	<1	<1
Carbon tetrachloride	µg/L	<1	<1
Chloroform	µg/L	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1
Tetrachloroethene	µg/L	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1
Trichloroethene	µg/L	0.53 J	0.604 JB
Vinyl chloride	µg/L	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-153

	Sample Name	MW-153	MW-153	MW-153	MW-153	MW-153T	MW-153-87.1-IS-2	MW-153-87.1-IS-3
	Sample Date	8/19/2004	6/16/2005	11/18/2005	4/13/2006	10/18/2006	4/10/2007	10/8/2007
Analyte	Unit							
1,1,2,2-Tetrachloroethane	µg/L	<1 J	<1	<1	<1	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	9.1	3.73	4.56	5.4	4.87	5.91	5.61
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	0.368 J	0.334 J	0.302 J
Tetrachloroethene	µg/L	0.24 J	<1	<1	<1	<1	0.332 J	0.714 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1	0.251 B	0.272 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-153

Analyte	Sample Name	MW-153-87.1-IS-4	MW-153-86.75-IS-5	MW-153-86.75-IS-6	MW-153-IS-7	MW-153	MW-153
	Sample Date	4/14/2008	10/20/2008	4/14/2009	10/14/2009	4/28/2011	4/12/2013
Unit							
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	6.37	5.31	5.16	2.99	<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	0.341 J	<1	<1	<1	0.351 J	<1
Tetrachloroethene	µg/L	0.445 J	0.272 J	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.469 J	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-154

	Sample Name	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154
	Sample Date	8/17/2004	6/17/2005	11/17/2005	4/12/2006	10/19/2006	4/10/2007	10/5/2007	4/14/2008
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	<1	<1	<1	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1	0.437 J	<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	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-154

Analyte	Sample Name	MW-154	MW-154	MW-154	MW-154
	Sample Date	10/20/2008	4/14/2009	10/15/2009	4/14/2013
Unit					
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-155

	Sample Name	MW-155	MW-155	MW-155	MW-155	MW-155	MW-155	MW-155	MW-155
	Sample Date	8/16/2004	10/13/2004	11/8/2004	1/26/2005	3/23/2005	6/17/2005	11/19/2005	4/13/2006
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	2100	2000	800	470 J	660	2220	3530	581
1,1,2-Trichloroethane	µg/L	<77	<100	<50	0.59 J	1.7 J	4.54	9.95 J	7.5
1,1-Dichloroethene	µg/L	<77	<100	<50	<1	<2.2	<1	<10	<1
Carbon tetrachloride	µg/L	<77	<100	<50	<1	<2.2	<1	<10	<1
Chloroform	µg/L	<77	<100	<50	<1	0.68 B	1.5 B	1.64 B	1.51 B
cis-1,2-Dichloroethene	µg/L	48 J	55 J	46 J	1.8	27	67.5	53.9	35.1
Tetrachloroethene	µg/L	<77	<100	7.4 J	<1	0.6 J	3.04	8.11	5.93
trans-1,2-Dichloroethene	µg/L	<77	<100	6.4 J	0.29 J	4.5	15.1	9.91	8.66
Trichloroethene	µg/L	1000	1000	820	32	530	1750	1560	865
Vinyl chloride	µg/L	<77	<100	<50	<1	<2.2	<1	<10	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-155

	Sample Name	MW-155	MW-155	MW-155	MW-155	MW-155	MW-155	MW-155	MW-155
	Sample Date	10/18/2006	4/10/2007	10/8/2007	4/11/2008	10/20/2008	6/8/2009	10/15/2009	3/24/2010
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	4090	3180	3400	3770	2040	1610	263	16.7
1,1,2-Trichloroethane	µg/L	77.4	147	80.3	53.8	7.58	5.28 J	<2	<1
1,1-Dichloroethene	µg/L	0.559 J	0.966 J	2.84	<25	1.04	<10	<2	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<25	<1	<10	<2	<1
Chloroform	µg/L	2.1	1.69 J	1.65	<7.5	1.17	<3	0.256 J	<0.3
cis-1,2-Dichloroethene	µg/L	72.2	86 J	64.1	73.8	46.8	16	1.59 J	0.303 J
Tetrachloroethene	µg/L	13.8	12.4 J	4.3	8.34 J	10.4	7.03 J	1.48 J	<1
trans-1,2-Dichloroethene	µg/L	20.4	35.3	23.6	9.93 J	3.58	<10	<2	<1
Trichloroethene	µg/L	1810	1650	794	1600	1210	643	94.2	3.17
Vinyl chloride	µg/L	<1	1.15	0.971 J	<25	<1	<10	<2	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-155

Analyte	Sample Name	MW-155	MW-155	MW-155	MW-155	MW-155	MW-155	MW-155	MW-155
	Sample Date	6/23/2010	9/22/2010	1/25/2011	3/28/2011	9/26/2011	4/19/2012	4/13/2013	4/26/2014
	Unit								
1,1,2,2-Tetrachloroethane	µg/L	24	4.58	3.75	2.61	1.68	0.983	0.552 J	0.461 J
1,1,2-Trichloroethane	µg/L	0.498 J	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.16 J	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1	0.373 J	0.332 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.57	0.408 J	1.07	0.585 J	0.709 J	1.15	1.16	0.838 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-157

	Sample Name	MW-157	MW-157	MW-157	MW-157	MW-157	MW-157	MW-157	MW-157
	Sample Date	8/18/2004	10/27/2004	1/27/2005	3/23/2005	6/15/2005	11/17/2005	4/12/2006	10/19/2006
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	5.7 J	6.74 J	3.8	3.6	3.18 B	2.22	2.28	2.64
1,1,2-Trichloroethane	µg/L	<6.7	0.351 J	0.33 J	0.26 J	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<6.7	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	9.4	10.5 J	9.9	5.2	4.75	4.56	5.61	9.25
Chloroform	µg/L	14	14 J	12	7.5	10.2	8.18	10.8	30.1
cis-1,2-Dichloroethene	µg/L	11	13.2 J	13	11	10.9	9.35	9.75	13.3
Tetrachloroethene	µg/L	1.9 J	1.51 J	2	1.6	1.32	1.49	1.59	2.19
trans-1,2-Dichloroethene	µg/L	1.9 J	2.7 J	2.4	1.9	2.58	1.3	2.2	2.7
Trichloroethene	µg/L	120	143 J	160	200	157	117	132	148 J
Vinyl chloride	µg/L	<6.7	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-157

	Sample Name	MW-157	MW-157	MW-157	MW-157	MW-157	MW-157	MW-157	MW-157
	Sample Date	4/10/2007	10/8/2007	4/14/2008	10/17/2008	4/14/2009	7/30/2009	10/15/2009	3/25/2010
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	25.2	27	10.1	7.19	9.47	5.06	3.88	5.71
1,1,2-Trichloroethane	µg/L	1.04	1.22	<2	0.39 J	0.288 J	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<2	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	17.2	26	<2	12	6.25	3.35	4.66	4.14
Chloroform	µg/L	153	235	9	89.6	17.1	9.88	8	7.72
cis-1,2-Dichloroethene	µg/L	16.8	12.5	0.671 J	3.29	14.8	12	11.6	9.3
Tetrachloroethene	µg/L	4.1	7.43	<2	1.15	2.68	2.05	2.1	1.81
trans-1,2-Dichloroethene	µg/L	3	3.06	<2	0.589 J	2.75	2.64	2.69	2.11
Trichloroethene	µg/L	162	151	5.48	38.3	286	205	202	175
Vinyl chloride	µg/L	<1	<1	<2	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-157

	Sample Name	MW-157	MW-157	MW-157	MW-157	MW-157	MW-157	MW-157	MW-157
	Sample Date	6/22/2010	9/22/2010	1/26/2011	3/28/2011	9/27/2011	4/19/2012	10/17/2012	4/13/2013
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	8.15	3.55	1.29	2.46	1.34	0.533	0.616	0.494 J
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	2.9	2.25	0.644 J	0.783 J	0.314 J	0.346 J	<1	<1
Chloroform	µg/L	6.41	5.85	4.43	7.1	3.46	3.24	2.46	2.88 J
cis-1,2-Dichloroethene	µg/L	7.73	5.44	1.8	1.69	0.659 J	0.476 J	<1	0.351 J
Tetrachloroethene	µg/L	1.34	1.03	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	1.55	1.03	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	141	88.3	13.3	9.04	4.18	3.26	2.03	2.49 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-157

Analyte	Sample Name	MW-157	MW-157
	Sample Date	10/10/2013	4/26/2014
	Unit		
1,1,2,2-Tetrachloroethane	µg/L	0.756 J	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1
1,1-Dichloroethene	µg/L	<1	<1
Carbon tetrachloride	µg/L	<1	<1
Chloroform	µg/L	0.486	0.66
cis-1,2-Dichloroethene	µg/L	<1	0.456 J
Tetrachloroethene	µg/L	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1
Trichloroethene	µg/L	0.837 J	0.955 J
Vinyl chloride	µg/L	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-158

	Sample Name	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158
	Sample Date	10/9/2004	10/13/2004	11/8/2004	1/25/2005	3/21/2005	6/16/2005	11/18/2005	4/13/2006
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	15	21	53	24	11	4.39	5.54	6.36
1,1,2-Trichloroethane	µg/L	<1	<1	<2.5	<1.4	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<2.5	<1.4	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<2.5	<1.4	<1	<1	<1	<1
Chloroform	µg/L	0.47 B	0.29 J	0.63 J	0.38 J	0.41 B	<1	1.07 B	1 B
cis-1,2-Dichloroethene	µg/L	2.2	3	7.2	3.1	3.3	5.16	9.31	7.74
Tetrachloroethene	µg/L	1.2	1.8	3.5	2.3	3.3	3.67	6.05	9.28
trans-1,2-Dichloroethene	µg/L	1.1	1.3	3	1.3 J	1.6	2.52	3.38	3.62
Trichloroethene	µg/L	20	30	74	33	30	32	77.8	76.3
Vinyl chloride	µg/L	<1	<1	<2.5	<1.4	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-158

Analyte	Sample Name	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158
	Sample Date	10/19/2006	4/10/2007	10/8/2007	4/11/2008	10/20/2008	6/8/2009	10/16/2009	3/24/2010
	Unit								
1,1,2,2-Tetrachloroethane	µg/L	4.41	1.86	1.26	3.03	27.4	5.84	8.22	4.59
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.691	0.404	0.194 J	0.288 J	0.682	0.758	0.294 J	<0.3 J
cis-1,2-Dichloroethene	µg/L	5.96	2.9	1.4	2.9	7.79	11.6	1.45	1.04
Tetrachloroethene	µg/L	8.49	8.13	3.87	4.98	6.92	3.88	2.66	0.697 J
trans-1,2-Dichloroethene	µg/L	3.13	1.56	0.697 J	1.25	2.74	2.76	<1	0.35 J
Trichloroethene	µg/L	77.4	54	20.6	37.1	162	141	26.4	16.7
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-158

	Sample Name	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158
	Sample Date	6/22/2010	9/23/2010	1/25/2011	3/28/2011	9/27/2011	4/18/2012	4/13/2013	4/27/2014
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	0.802	1.82	0.677	0.49 J	1.15	0.528	1.58 J	0.959
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.156 J	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.137 J
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	3.37	6.04	1.17	0.681 J	2	1.37	4.59	3.16
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-158A

	Sample Name	MW-158A	MW-158A	MW-158A	MW-158A	MW-158A	MW-158A	MW-158A	MW-158A
	Sample Date	10/10/2004	10/12/2004	11/8/2004	1/24/2005	3/21/2005	6/16/2005	11/18/2005	4/13/2006
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	560	270	83	77	96	736	844	681
1,1,2-Trichloroethane	µg/L	<20	<15	<7.7	<2	0.24 J	2.5	4.5 J	6.08
1,1-Dichloroethene	µg/L	<20	<15	<7.7	<2	<1	0.392 J	<10	<1
Carbon tetrachloride	µg/L	<20	<15	<7.7	<2	0.55 J	<1	<10	<1
Chloroform	µg/L	<20	<15	2.1 J	0.88 J	2.4	1.28 B	3.47 B	2.62 B
cis-1,2-Dichloroethene	µg/L	27	43	40	11	33	37.1	45.5	49.7
Tetrachloroethene	µg/L	<20	5.7 J	8.1	3.2	12	5.63	17.8	4.69
trans-1,2-Dichloroethene	µg/L	9 J	17	7.1 J	4.3	15	9.54	13.6	14
Trichloroethene	µg/L	340	360	530	58	200	470	492	689
Vinyl chloride	µg/L	<20	<15	<7.7	<2	<1	<1	<10	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-158A

Analyte	Sample Name Sample Date Unit	MW-158A	MW-158A	MW-158A	MW-158A	MW-158A	MW-158A	MW-158A	MW-158A
		10/19/2006	4/10/2007	10/8/2007	4/11/2008	10/20/2008	6/8/2009	10/16/2009	3/24/2010
1,1,2,2-Tetrachloroethane	µg/L	410	50.3	3.7	26.9	29.4	255	156	27.8
1,1,2-Trichloroethane	µg/L	14.9	3.49	2.65	7.88 J	<1	5.1	2.52	<1
1,1-Dichloroethene	µg/L	0.818 J	0.592 J	<1	<1	1.65	<2	<1	<1
Carbon tetrachloride	µg/L	0.754 J	<2	1.54	<1	0.825 J	<2	<1	<1
Chloroform	µg/L	3.64	1.44	1.36	1.01	3.94	0.876	0.67	0.155 J
cis-1,2-Dichloroethene	µg/L	60.7	95.3 J	14.6	8.05 J	54.4 J	64.2	8.93	0.295 J
Tetrachloroethene	µg/L	6.64	3.77 J	13.7	10.7	15	2.92	1.96	<1
trans-1,2-Dichloroethene	µg/L	22.8	7.78	6.22	4.06	18	3.6	0.456 J	<1
Trichloroethene	µg/L	678	514	42	97.3 J	408	304	69.9	3.87
Vinyl chloride	µg/L	<1	0.663 J	<1	<1	<1	2.82	1.15	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-158A

	Sample Name	MW-158A	MW-158A	MW-158A	MW-158A	MW-158A	MW-158A	MW-158A	MW-158A
	Sample Date	6/22/2010	9/23/2010	1/25/2011	3/28/2011	9/27/2011	4/18/2012	4/13/2013	4/27/2014
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	27.2	5.03	0.771	0.663	<0.5	<0.5	<0.5 UJ	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	0.302 J	<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	3.01	1.3	0.426 J	0.37 J	0.302 J	<1	<1	0.391 JB
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-159

Analyte	Sample Name Sample Date Unit	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159
		10/11/2004	11/8/2004	1/26/2005	3/24/2005	6/17/2005	11/19/2005	12/8/2005	4/13/2006
1,1,2,2-Tetrachloroethane	µg/L	3500	580	2000 J	2200	659	421	1.25	847
1,1,2-Trichloroethane	µg/L	<150	<33	6.3	7.8	3.27	2.25	<1	2.5
1,1-Dichloroethene	µg/L	<150	<33	<6.2	<7.1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<150	<33	<6.2	<7.1	0.961 J	0.927 J	4.13	<1
Chloroform	µg/L	<150	<33	2.9 J	4.2 J	1.27 B	1.6 B	12.1	1.22 B
cis-1,2-Dichloroethene	µg/L	100 J	98	62	80	39.4	46.7	10.5	36.4
Tetrachloroethene	µg/L	<150	<33	4 J	7.1	1.82	2.33	0.935 J	1.71
trans-1,2-Dichloroethene	µg/L	<150	58	12	15	9.78	5.76	1.73	7.64
Trichloroethene	µg/L	1700	790	830	1700	691	552	120	594
Vinyl chloride	µg/L	<150	<33	<6.2	<7.1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-159

	Sample Name	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159
	Sample Date	10/18/2006	4/9/2007	10/8/2007	4/11/2008	10/20/2008	6/8/2009	10/16/2009	3/24/2010
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	357	272	501	312	271	366	483	133
1,1,2-Trichloroethane	µg/L	19.6	37.4	66.4	99.8	92.8	92.2	33.7	16.8
1,1-Dichloroethene	µg/L	<1	1.16	1.98	<10	7.33	<10	2.96 J	3.26 J
Carbon tetrachloride	µg/L	0.493 J	<1	<1	<10	<1	<10	<5	<5
Chloroform	µg/L	1.02	1.03	1.72	<3	1.66	<3	0.923 J	<1.5
cis-1,2-Dichloroethene	µg/L	55.4	156	392	1220	959	248	82.2	54
Tetrachloroethene	µg/L	2.63	3.81	9.33	6.28 J	5.48	6.24 J	4.11 J	2.5 J
trans-1,2-Dichloroethene	µg/L	6.37	17.9	28	26.6	46.2	17.5	8.94	7.07
Trichloroethene	µg/L	935	1660	2700	1410	1320	1280	983	505
Vinyl chloride	µg/L	<1	0.514 J	1.14	7.79 J	17.7	3.83 J	<5	4.42 J

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-159

	Sample Name	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159
	Sample Date	6/23/2010	9/22/2010	1/25/2011	3/28/2011	9/27/2011	4/20/2012	10/17/2012	5/9/2013
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	69.9	75	37.8	40.6	32.5	37.9	24.2	19.4
1,1,2-Trichloroethane	µg/L	10.2	12.4	6.14	7.05	6.44	6.14	4.82	4.15
1,1-Dichloroethene	µg/L	4.81	8.51	5.86	5	4.42	3.49	3.2	3.39
Carbon tetrachloride	µg/L	<2	<1	<2	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.6	0.568	0.285 J	0.301	0.289 J	0.34	0.242 J	0.296 J
cis-1,2-Dichloroethene	µg/L	55.4	62	45.6	50.7	49.9	42.8	35.3	28.4
Tetrachloroethene	µg/L	1.29 J	1.49	1.15 J	1.21	1.11	1.17	1.06	0.688 J
trans-1,2-Dichloroethene	µg/L	5.57	6.69	4.82	4.87	6.55	4.36	4.93	3.41
Trichloroethene	µg/L	280	293	200	232	193	275	247	181
Vinyl chloride	µg/L	4.99	40.3	25.7	22.5	16.7	17.3	14.6	17.3

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-159

Analyte	Sample Name Sample Date Unit	MW-159 10/10/2013	MW-159 4/27/2014	MW-159 10/19/2014
1,1,2,2-Tetrachloroethane	µg/L	18.2	20.3	13.7 J
1,1,2-Trichloroethane	µg/L	3.87	5.12	4.02
1,1-Dichloroethene	µg/L	4.66	3.68	3.78
Carbon tetrachloride	µg/L	<1	<1	<1
Chloroform	µg/L	0.197 J	0.18 J	0.149 J
cis-1,2-Dichloroethene	µg/L	47.3	33.4	31.4
Tetrachloroethene	µg/L	0.789 J	0.863 J	0.832 J
trans-1,2-Dichloroethene	µg/L	3.41	4.36	3.9
Trichloroethene	µg/L	129	216	216
Vinyl chloride	µg/L	15.4	11.9	8.83

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-160

	Sample Name	MW-160	MW-160	MW-160	MW-160	MW-160	MW-160	MW-160	MW-160
	Sample Date	10/13/2004	1/28/2005	3/22/2005	6/17/2005	11/18/2005	4/12/2006	10/18/2006	4/10/2007
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	30	53	29	35.4	13.4	23.1	9.08	24.9
1,1,2-Trichloroethane	µg/L	<10	0.23 J	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<10	<1	<1	<1	<1	0.538 J	<1	0.708 J
Carbon tetrachloride	µg/L	<10	0.79 J	0.48 J	0.581 J	1.01	0.729 J	0.575 J	0.781 J
Chloroform	µg/L	<10	2.7	1.7	2.33 B	2.26 B	3.29 B	3.35	1.68
cis-1,2-Dichloroethene	µg/L	31	38	21	35.7	30.8	45	42.5	22.6
Tetrachloroethene	µg/L	12	21	15	14.7	14.7	13	19.8	14.5
trans-1,2-Dichloroethene	µg/L	17	18	10	16.3	12.2	18.1	17.8	8.63
Trichloroethene	µg/L	240	290	190	448	161	278	307	191
Vinyl chloride	µg/L	<10	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-160

Analyte	Sample Name Sample Date Unit	MW-160 10/8/2007	MW-160 4/11/2008	MW-160 6/18/2008	MW-160 10/20/2008	MW-160 6/8/2009	MW-160 10/15/2009	MW-160 3/24/2010	MW-160 6/23/2010
1,1,2,2-Tetrachloroethane	µg/L	175	3560	3090	2340	118	125	5.63	4.79
1,1,2-Trichloroethane	µg/L	0.555 J	2.97 J	2.69	3.84 J	0.49 J	0.332 J	<1	<1
1,1-Dichloroethene	µg/L	1.05	<5	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	1.91	<5	1.14	0.388 J	<1	<1	<1	<1
Chloroform	µg/L	3.53	2.14	1.62	1.75 J	0.811	0.56	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	56.1	49.8	40.9	40.6 J	1.23	0.375 J	<1	<1
Tetrachloroethene	µg/L	18.8	10.6	9.43	9.87 J	1.34	0.251 J	<1	<1
trans-1,2-Dichloroethene	µg/L	15.6	9.32	7.36	5.81 J	<1	<1	<1	<1
Trichloroethene	µg/L	695	1130	1120	1050	21.8	8.39	0.948 J	<1
Vinyl chloride	µg/L	<1	<5	<1	<1	<1	<1 UJ	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

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HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-160

Analyte	Sample Name	MW-160	MW-160	MW-160	MW-160	MW-160	MW-160	MW-160
	Sample Date	9/23/2010	1/26/2011	3/28/2011	9/27/2011	4/20/2012	4/13/2013	5/13/2014
Unit								
1,1,2,2-Tetrachloroethane	µg/L	0.764	0.254 J	0.39 J	<0.5	<0.5	<0.5 UJ	<0.5
1,1,2-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	<0.3	<0.3	<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	0.323 J	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-163

	Sample Name	MW-163	MW-163	MW-163	MW-163	MW-163	MW-163	MW-163	MW-163
	Sample Date	10/14/2004	6/15/2005	11/17/2005	4/13/2006	4/27/2006	10/19/2006	4/10/2007	10/8/2007
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	4800	3420 J	2080	1980	2420	538	642	860
1,1,2-Trichloroethane	µg/L	<100	7.43 J	4.95	4.77	6.6	17.3	61.2	23.8
1,1-Dichloroethene	µg/L	<100	<10	<1	<1	<1	<1	<5	<1
Carbon tetrachloride	µg/L	<100	<10	0.882 J	<1	0.83 J	<1	<5	0.683 J
Chloroform	µg/L	<100	<10	0.88 B	1.28 B	2.14	0.446	0.883 J	1.59
cis-1,2-Dichloroethene	µg/L	41 J	39.6	24	39.7	61.6	98.6	113	59
Tetrachloroethene	µg/L	<100	5.09 J	4.3	8.68	12.6	4.35	3.5 J	4.93
trans-1,2-Dichloroethene	µg/L	<100	9.22 J	2.68	3.55	5.15	17.2	14.8	10.9
Trichloroethene	µg/L	1700	1740	1300	1860	2030	527	485	699
Vinyl chloride	µg/L	<100	<10	<1	<1	<1 UJ	3.63	3.91 J	2.15

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

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UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-163

Analyte	Sample Name	MW-163	MW-163	MW-163	MW-163	MW-163	MW-163	MW-163	MW-163
	Sample Date	4/14/2008	10/17/2008	4/14/2009	7/30/2009	10/16/2009	3/25/2010	6/22/2010	9/22/2010
	Unit								
1,1,2,2-Tetrachloroethane	µg/L	488	1710	233	131	143	11.8	11.3	5.32
1,1,2-Trichloroethane	µg/L	3.37 J	6.96	<2	0.369 J	0.261 J	<1	<1	<1
1,1-Dichloroethene	µg/L	<5	<5	<2	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<5	<5	<2	<1	<1	<1	<1	<1
Chloroform	µg/L	11.9	7.67	0.769	0.4	0.974	<0.3	0.142 J	0.181 J
cis-1,2-Dichloroethene	µg/L	9.07	29.9	2.15	3.22	2.45	0.303 J	0.272 J	<1
Tetrachloroethene	µg/L	<5	<5	0.802 J	1.23	0.93 J	0.487 J	0.623 J	0.634 J
trans-1,2-Dichloroethene	µg/L	1.84 J	3.81 J	<2	0.327 J	0.321 J	<1	<1	<1
Trichloroethene	µg/L	80.3	615	85.7	87.1	65.8	11.1	11.8	6.53
Vinyl chloride	µg/L	<5	<5	<2	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-163

	Sample Name	MW-163	MW-163	MW-163	MW-163	MW-163	MW-163	MW-163	MW-163
	Sample Date	1/26/2011	3/28/2011	9/27/2011	4/19/2012	10/17/2012	5/9/2013	10/10/2013	4/26/2014
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	1.78	4.66	5.74	3.83	3.18	1.87	0.739	6.79
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.165 J	0.19 J	<0.3	0.187 J	0.215 J	0.277 J	0.178 J	0.156 J
cis-1,2-Dichloroethene	µg/L	<1	0.359 J	<1	<1	<1	<1	<1	0.433 J
Tetrachloroethene	µg/L	0.553 J	0.698 J	0.884 J	0.914 J	0.832 J	0.527 J	0.856 J	0.566 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	3.4	7.43	10.7	9.02	9.26	7.86	2.82	13.8
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-163

Analyte	Sample Name	MW-163
	Sample Date	10/19/2014
	Unit	
1,1,2,2-Tetrachloroethane	µg/L	0.291 J
1,1,2-Trichloroethane	µg/L	<1
1,1-Dichloroethene	µg/L	<1
Carbon tetrachloride	µg/L	<1
Chloroform	µg/L	<0.3
cis-1,2-Dichloroethene	µg/L	<1
Tetrachloroethene	µg/L	0.5 J
trans-1,2-Dichloroethene	µg/L	<1
Trichloroethene	µg/L	1.83
Vinyl chloride	µg/L	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
 B Possibly bias high or false positive based on blank data
 < Not detected at sample reporting limit
 UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-164

	Sample Name	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164
	Sample Date	10/15/2004	6/15/2005	11/14/2005	4/12/2006	10/19/2006	4/10/2007	10/8/2007	4/14/2008
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	<2.5	4.65 B	2.14	2.6	3.05	45	17.7	13.4
1,1,2-Trichloroethane	µg/L	<2.5	<1	<1	<1	<1	1.75	0.719 J	0.517 J
1,1-Dichloroethene	µg/L	<2.5	<1	<1	<1	<1	<1	<1	<1 J
Carbon tetrachloride	µg/L	4	3.66	5.44	2.99	16.8	24.8	9.87	3.42 J
Chloroform	µg/L	9.1	8.82	8.44 B	9.56	52.6	247	126	37.1
cis-1,2-Dichloroethene	µg/L	6.3	7.86	8.05	6.87	8.79	18.1	4.38	2.71
Tetrachloroethene	µg/L	<2.5	<1	0.576	0.637 J	2.03	3.62	2.13	0.894
trans-1,2-Dichloroethene	µg/L	0.97 J	1.22	0.599 J	0.974 J	1.49	2.66	1.39	0.57 J
Trichloroethene	µg/L	60	53.3	75.5	62.9 J	92.6	136 J	61.1	24.9 J
Vinyl chloride	µg/L	<2.5	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-164

Analyte	Sample Name Sample Date Unit	MW-164 10/17/2008	MW-164 4/14/2009	MW-164 7/30/2009	MW-164 10/15/2009	MW-164 3/25/2010	MW-164 6/22/2010	MW-164 9/22/2010	MW-164 1/26/2011
1,1,2,2-Tetrachloroethane	µg/L	6.83	20.8	26.3	32	21.3	21	11.9	5.48
1,1,2-Trichloroethane	µg/L	0.403 J	1.07	1.27	1.41	1.07	0.909 J	0.524 J	0.284 J
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	4.43	10.4	8.71	7.78	6.74	6.26	4.32	2.53
Chloroform	µg/L	32.2	76.1	79.5	79.3	56.5	52.7	29.5	15.6
cis-1,2-Dichloroethene	µg/L	2.91	17.4	20.2	18.6	15	13.2	8.57	4.74
Tetrachloroethene	µg/L	0.728 J	1.89	1.52	1.33	1.49	1.15	0.962 J	0.637 J
trans-1,2-Dichloroethene	µg/L	0.41 J	1.61	1.99	1.91	1.57	1.25	0.703 J	0.381 J
Trichloroethene	µg/L	27	93.3	98.2	89.1	75.5	58.5	39.7	23.5
Vinyl chloride	µg/L	<1	<1	<1	<1 UJ	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-164

	Sample Name	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164
	Sample Date	3/28/2011	9/27/2011	4/19/2012	10/17/2012	4/13/2013	10/10/2013	4/26/2014	10/19/2014
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	4.08	2.64	1.47	0.826	0.578	0.35 J	0.305 J	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	2.06	1.62	0.957 J	1.03	0.9 J	0.454 J	0.596 J	0.36 J
Chloroform	µg/L	13.9	9	5.3	5.15	4.65	2.03	2.26	1.4
cis-1,2-Dichloroethene	µg/L	3.8	2.25	1.36	0.925 J	0.905 J	0.474 J	0.536 J	0.383 J
Tetrachloroethene	µg/L	0.383 J	0.385 J	0.284 J	<1	0.306 J	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	0.357 J	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	17.8	12.1	6.97	5.86	5.36	2.75	3.08	2.49
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-165

Analyte	Sample Name Sample Date Unit	MW-165 11/21/2004	MW-165 1/25/2005	MW-165 3/21/2005	MW-165 6/16/2005	MW-165 11/18/2005	MW-165 4/13/2006	MW-165 10/18/2006	MW-165 4/10/2007
1,1,2,2-Tetrachloroethane	µg/L	24	8.9	12	21.8	21.8	8	3.5	1.9
1,1,2-Trichloroethane	µg/L	<9.1	0.74 J	0.55 J	1.16	1.58	1.51	0.655 J	0.3 J
1,1-Dichloroethene	µg/L	<9.1	<2	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	11	8	7.8	1.67	2.68	<1	3.85	3.9
Chloroform	µg/L	140	64	58	77	65.4	<1	7.48	7.6
cis-1,2-Dichloroethene	µg/L	7.1 J	10	11	7.64	8.06	8.65	14.6	9.31
Tetrachloroethene	µg/L	2.3 J	1.8 J	2.1	<1	1.04	1.27	1.23	1.36
trans-1,2-Dichloroethene	µg/L	<9.1	1.3 J	2.2	2.49	1.64 J	2.07	2.84	2.44
Trichloroethene	µg/L	64	48	53	37.2	46.5	60.4	187	153
Vinyl chloride	µg/L	<9.1	<2	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-165

	Sample Name	MW-165	MW-165	MW-165	MW-165	MW-165	MW-165	MW-165	MW-165
	Sample Date	10/8/2007	4/11/2008	10/20/2008	6/8/2009	10/16/2009	3/24/2010	6/22/2010	9/23/2010
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	2.31	3.04	4.94	5.28	3.92	25.1	38.8	34.7
1,1,2-Trichloroethane	µg/L	0.3 J	0.343 J	0.491 J	0.652 J	1.62	2.26	1.96	1.93
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	8.5	9.32	4.59	2.93	<1	<1	<1	<1
Chloroform	µg/L	8.57	61.4	34.3	13.5	1.04	2.74	1.19	0.927
cis-1,2-Dichloroethene	µg/L	7.25	9.59	9.28	13.8	18.7	7.7	3.6	1.15
Tetrachloroethene	µg/L	1.42	1.64	1.3	1.93	1.39	1.43	0.807 J	0.418 J
trans-1,2-Dichloroethene	µg/L	2.03	1.99	1.62	2.2	3.26	1.74	0.699 J	0.324 J
Trichloroethene	µg/L	82.8 J	87.1	94.1	111	194	187	67.7	35.4
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-165

	Sample Name	MW-165	MW-165	MW-165	MW-165	MW-165	MW-165	MW-165	MW-165
	Sample Date	1/25/2011	3/28/2011	9/27/2011	4/18/2012	10/16/2012	4/13/2013	10/10/2013	4/27/2014
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	14.5	14.3	10.6	5.28	1.79	0.388 J	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	1.46	1.52	1.18	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.618	0.245 J	0.502	0.394	0.281 J	<0.3	0.225 J	<0.3
cis-1,2-Dichloroethene	µg/L	0.456 J	0.459 J	0.546 J	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.327 J	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	19.8	11	8.33	7.48	3.9	2.38	1.47	1.29 B
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-165

Analyte	Sample Name	MW-165
	Sample Date	10/19/2014
Unit		
1,1,2,2-Tetrachloroethane	µg/L	0.729
1,1,2-Trichloroethane	µg/L	<1
1,1-Dichloroethene	µg/L	<1
Carbon tetrachloride	µg/L	<1
Chloroform	µg/L	0.326
cis-1,2-Dichloroethene	µg/L	<1
Tetrachloroethene	µg/L	<1
trans-1,2-Dichloroethene	µg/L	<1
Trichloroethene	µg/L	6.25
Vinyl chloride	µg/L	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-165A

Analyte	Sample Name Sample Date Unit	MW-165A 11/18/2004	MW-165A 1/24/2005	MW-165A 3/21/2005	MW-165A 6/16/2005	MW-165A 11/18/2005	MW-165A 4/13/2006	MW-165A 10/18/2006	MW-165A 4/10/2007
1,1,2,2-Tetrachloroethane	µg/L	7.8	5.4	5.5	12	4.42	1.14	1.65	2
1,1,2-Trichloroethane	µg/L	<2	<2	0.37 J	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<2	<2	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	6.4	6.9	9.8	4.63	6.69	1.93	4.91	6.23
Chloroform	µg/L	24	15	24	48.5	3.52 B	5.72 B	7.98	18
cis-1,2-Dichloroethene	µg/L	13	9.3	10	6.05	2.41	6.05	5.06	9.46
Tetrachloroethene	µg/L	1.3 J	1.1 J	1.4	<1	0.955 J	0.608 J	1.35	1.57
trans-1,2-Dichloroethene	µg/L	1.7 J	1.3 J	1.8	0.986 J	1.31	1.15	2.22	1.96
Trichloroethene	µg/L	69	53	64	46.7	88.7	69.8	86.7	49.6
Vinyl chloride	µg/L	<2	<2	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-165A

Analyte	Sample Name	MW-165A	MW-165A	MW-165A	MW-165A	MW-165A	MW-165A	MW-165A	MW-165A
	Sample Date	10/8/2007	4/11/2008	10/20/2008	6/8/2009	10/16/2009	3/24/2010	6/22/2010	9/23/2010
	Unit								
1,1,2,2-Tetrachloroethane	µg/L	2.98	2.77	10.5	1.1	12.5	45.7	104	44.7
1,1,2-Trichloroethane	µg/L	<1	<1	0.496 J	0.388 J	1.18	0.973 J	0.457 J	0.28 J
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	2.62	11.3	10.8	<1	<1	<1	<1	<1
Chloroform	µg/L	66.9	49.8	82.7	1.94	1.21	1.39	0.918	<0.3
cis-1,2-Dichloroethene	µg/L	7.63	7.3	10.2	5.3	1.99	0.421 J	<1	<1
Tetrachloroethene	µg/L	2.49	2.44	2.32	0.906 J	0.252 J	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	1.57	1.4	1.38	0.964 J	<1	<1	<1	<1
Trichloroethene	µg/L	53.1	32.6	112	91.5	35.5	6.29	4.6	2.3
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-165A

Analyte	Sample Name	MW-165A	MW-165A	MW-165A	MW-165A	MW-165A	MW-165A	MW-165A	MW-165A
	Sample Date	1/25/2011	3/28/2011	9/27/2011	4/18/2012	10/16/2012	4/13/2013	10/10/2013	4/28/2014
	Unit								
1,1,2,2-Tetrachloroethane	µg/L	35.6	79	33.9	6	1.16	0.929	0.43 J	0.204 J
1,1,2-Trichloroethane	µg/L	<1	0.461 J	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.15 J	0.793	0.41	0.337	0.433	<0.3	0.612	0.721
cis-1,2-Dichloroethene	µg/L	<1	0.414 J	0.251 J	<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	3.64	13.1	6.67	2.54	0.493 J	0.473 J	0.519 J	0.963 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-165A

Analyte	Sample Name	MW-165A
	Sample Date	10/19/2014
Unit		
1,1,2,2-Tetrachloroethane	µg/L	0.595
1,1,2-Trichloroethane	µg/L	<1
1,1-Dichloroethene	µg/L	<1
Carbon tetrachloride	µg/L	<1
Chloroform	µg/L	0.84
cis-1,2-Dichloroethene	µg/L	<1
Tetrachloroethene	µg/L	<1
trans-1,2-Dichloroethene	µg/L	<1
Trichloroethene	µg/L	2.73
Vinyl chloride	µg/L	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-166

Analyte	Sample Name Sample Date Unit	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166
		11/18/2004	11/19/2004	1/27/2005	3/23/2005	6/17/2005	11/19/2005	4/13/2006	10/20/2006
1,1,2,2-Tetrachloroethane	µg/L	4.2	4.2	3.7	3.5	1.2	1.48	13.4	9.59
1,1,2-Trichloroethane	µg/L	0.32	0.32 J	<1	<1	<1	<1	<1	0.422 J
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	0.83	0.83 J	2.9	1.9	1.68	1.17	8.54	16.5
Chloroform	µg/L	30	30	24	11	9.01	7.54	79.3	68.5
cis-1,2-Dichloroethene	µg/L	4.3	4.3	3.4	2.6	1.51	3.43	5.21	5.41
Tetrachloroethene	µg/L	0.79	0.79 J	0.68 J	0.87 J	<1	0.561 J	1.24	1.68
trans-1,2-Dichloroethene	µg/L	0.49	0.49 J	0.41 J	0.63 J	<1	0.438 J	1.17	0.937 J
Trichloroethene	µg/L	12	12	10	11	6.27	6.92	38	43.7
Vinyl chloride	µg/L	--	<1	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-166

	Sample Name	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166
	Sample Date	4/9/2007	10/5/2007	4/11/2008	10/20/2008	6/8/2009	10/16/2009	3/23/2010	6/23/2010
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	5.47	28.5	8.39	0.519	17.9	15.3	10.1	8.91
1,1,2-Trichloroethane	µg/L	<1	0.946 J	<1	<1	0.729 J	0.525 J	0.756 J	0.518 J
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	8	8.81	8.3	5.38	12.3	11.3	6.1	2.95
Chloroform	µg/L	33.1	140	52.2	14.1	95.8	80.9	65	34.7
cis-1,2-Dichloroethene	µg/L	2.69	5.44	2.49	1.2	5.57	4.42	5.03	6.6
Tetrachloroethene	µg/L	1.28	2.47	1.65	0.621 J	2.07	2.03	1.38	1.22
trans-1,2-Dichloroethene	µg/L	0.685 J	1.15	0.955 J	0.354 J	1.17	0.866 J	0.919 J	1.08
Trichloroethene	µg/L	25.6	63.9	25.7	15	63.3	48	37.8	59.6
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-166

	Sample Name	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166
	Sample Date	9/23/2010	1/25/2011	3/28/2011	9/27/2011	4/18/2012	10/17/2012	4/14/2013	10/10/2013
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	11.4	9.34	9.82	14.3	6.08	2.56	2.65	2.32
1,1,2-Trichloroethane	µg/L	0.458 J	0.435 J	0.445 J	0.716 J	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	6.16	6.04	5.09	5.5	2.99	0.692 J	0.838 J	0.396 J
Chloroform	µg/L	22.8	17.9	21.8	67.5	32.5	10	7.67	6.4
cis-1,2-Dichloroethene	µg/L	15.4	13.4	13.5	6.33	2.63	1.29	1.58	1.52
Tetrachloroethene	µg/L	1.99	2.03	1.36	1.49	1.02	0.521 J	0.539 J	0.377 J
trans-1,2-Dichloroethene	µg/L	2.97	2.06	1.64	0.864 J	0.293 J	<1	<1	<1
Trichloroethene	µg/L	223	154	129	50.2	19.5	9.01	5.34	4.12
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-166

Analyte	Sample Name	MW-166	MW-166
	Sample Date	4/26/2014	10/19/2014
	Unit		
1,1,2,2-Tetrachloroethane	µg/L	1.95	1.12
1,1,2-Trichloroethane	µg/L	<1	<1
1,1-Dichloroethene	µg/L	<1	<1
Carbon tetrachloride	µg/L	<1	<1
Chloroform	µg/L	4.34	3.52
cis-1,2-Dichloroethene	µg/L	0.92 J	0.922 J
Tetrachloroethene	µg/L	0.288 J	0.313 J
trans-1,2-Dichloroethene	µg/L	<1	<1
Trichloroethene	µg/L	2.53	2.15
Vinyl chloride	µg/L	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-166A

Analyte	Sample Name Sample Date Unit	MW-166A 11/19/2004	MW-166A 1/27/2005	MW-166A 3/23/2005	MW-166A 6/17/2005	MW-166A 11/19/2005	MW-166A 4/13/2006	MW-166A 10/20/2006	MW-166A 4/9/2007
1,1,2,2-Tetrachloroethane	µg/L	1.4	3.9	3.9	3.08	1.89	13.6	5.15	5.38
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	6.1	8.3	6.91	3.5	9.75	7.06	7.29
Chloroform	µg/L	13 B	37	38	31.3	17.2	57	27.7	30.1
cis-1,2-Dichloroethene	µg/L	0.77 J	2.6	2.8	3.08	1.89	2.33	2.14	2.42
Tetrachloroethene	µg/L	0.24 J	0.8 J	0.9 J	0.732 J	0.516 J	1.06	0.792 J	0.854 J
trans-1,2-Dichloroethene	µg/L	<1	0.52 J	0.65 J	0.69 J	0.482 J	<1	0.433 J	0.527 J
Trichloroethene	µg/L	5.2	19	24	19.8	17.6	25.8	24.3 J	25.7
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-166A

Analyte	Sample Name Sample Date Unit	MW-166A 10/5/2007	MW-166A 4/11/2008	MW-166A 10/20/2008	MW-166A 6/8/2009	MW-166A 10/16/2009	MW-166A 3/23/2010	MW-166A 6/23/2010	MW-166A 9/23/2010
1,1,2,2-Tetrachloroethane	µg/L	12.6	3.76	0.149 J	1.92	10	6.98	4.23	12.6
1,1,2-Trichloroethane	µg/L	0.417 J	<1	<1	<1	0.319 J	0.265 J	<1	0.503 J
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	5.62	4.44	3.17	5	2.26	1.88	0.996 J	2.99
Chloroform	µg/L	65.5	34.4	14.5	16.4	24.8	23	7.54	26.5
cis-1,2-Dichloroethene	µg/L	3.54	2.57	1.82	1.85	1.76	3.03	3.85	9.91
Tetrachloroethene	µg/L	1.57	1.24	0.694 J	0.725 J	0.367 J	0.402 J	0.647 J	0.748 J
trans-1,2-Dichloroethene	µg/L	1.04	1.16	0.75 J	0.42 J	0.266 J	<1	0.615 J	0.912 J
Trichloroethene	µg/L	81.5	69.9	62.7	22.1	19.1	18.4	53.5	57.5
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-166A

Analyte	Sample Name Sample Date Unit	MW-166A	MW-166A	MW-166A	MW-166A	MW-166A	MW-166A	MW-166A	MW-166A
		1/25/2011	3/28/2011	9/27/2011	4/18/2012	10/17/2012	4/14/2013	10/10/2013	4/26/2014
1,1,2,2-Tetrachloroethane	µg/L	6.27	5.33	12.1	9.62	5.96	3.15	0.936	0.926
1,1,2-Trichloroethane	µg/L	0.344 J	0.355 J	0.497 J	0.4 J	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	2.4	1.67	3.24	1.88	0.464 J	0.276 J	0.506 J	<1
Chloroform	µg/L	18.6	21.2	54.4	25.9	8.6	5.47	5.92	2.68
cis-1,2-Dichloroethene	µg/L	7.69	5.47	4.57	2.47	1.37	1.1	0.42 J	0.313 J
Tetrachloroethene	µg/L	0.973 J	0.715 J	0.952 J	0.617 J	<1	<1	0.435 J	<1
trans-1,2-Dichloroethene	µg/L	1.05	0.532 J	0.408 J	<1	<1	<1	<1	<1
Trichloroethene	µg/L	85.9	38.2	28.9	12.1	4.93	2.87	2.41	1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-166A

Analyte	Sample Name	MW-166A
	Sample Date	10/19/2014
Unit		
1,1,2,2-Tetrachloroethane	µg/L	0.539
1,1,2-Trichloroethane	µg/L	<1
1,1-Dichloroethene	µg/L	<1
Carbon tetrachloride	µg/L	0.325 J
Chloroform	µg/L	4.6
cis-1,2-Dichloroethene	µg/L	0.547 J
Tetrachloroethene	µg/L	0.391 J
trans-1,2-Dichloroethene	µg/L	<1
Trichloroethene	µg/L	2.03
Vinyl chloride	µg/L	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-167

	Sample Name	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167
	Sample Date	11/21/2004	1/25/2005	3/22/2005	6/16/2005	11/18/2005	4/13/2006	10/18/2006	4/9/2007
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	2.67	<1	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	2.1 B	0.47 J	0.82 B	<1	<1	<1	<0.3	<0.3
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	0.961 J	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-167

	Sample Name	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167
	Sample Date	10/5/2007	4/11/2008	10/20/2008	4/14/2009	10/15/2009	4/13/2013
Analyte	Unit						
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-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	<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	0.34 J	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-169

Analyte	Sample Name	MW-169	MW-169	MW-169	MW-169	MW-169T	MW-169-81.8-IS-2	MW169-81-8-IS-3
	Sample Date	12/12/2004	6/15/2005	11/18/2005	4/13/2006	10/19/2006	4/9/2007	10/8/2007
	Unit							
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<0.5	<0.5	<0.5
1,1,2-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	0.8 B	<1	<1	<1	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	0.26 J	<1	<1	<1	0.282 J	<1	<1
Tetrachloroethene	µg/L	<1	<1 J	<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	<1	<1
Vinyl chloride	µg/L	<1 J	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-169

	Sample Name	MW-169-81.8-IS-4	MW-169-86.06-IS-5	MW-169-87.06-B1	MW-169-IS-7	MW-169	MW-169
	Sample Date	4/11/2008	10/20/2008	6/8/2009	10/14/2009	4/28/2011	4/11/2013
Analyte	Unit						
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-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	<1	<1	0.4	0.547 J	<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:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-170

	Sample Name	MW-170	MW-170	MW-170	MW-170	MW-170T	MW-170-77.7-IS-2	MW-170-77.7-IS-3
	Sample Date	12/12/2004	6/16/2005	11/18/2005	4/13/2006	10/19/2006	4/9/2007	10/8/2007
Analyte	Unit							
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	1.3	4.06	4.37	2.84	3.52	3.67	3.06
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.42 B	<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	<1	<1	<1	<1	<1	0.485 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1 J	<1 J	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-170

Analyte	Sample Name	MW-170-77.7-IS-4	MW-170-70.91-IS-5	MW-170-70.91-IS-6	MW-170-IS-7	MW-170	MW-170
	Sample Date	4/11/2008	10/20/2008	4/14/2009	10/14/2009	4/28/2011	4/11/2013
	Unit						
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	1.43	<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	<1	<1	<1	<1	<1	0.633 J
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:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-171

	Sample Name	MW-171	MW-171	MW-171	MW-171	MW-171T	MW-171-62.4-IS-2	MW171-IS-3
	Sample Date	12/13/2004	6/16/2005	11/18/2005	4/13/2006	10/19/2006	4/9/2007	10/8/2007
Analyte	Unit							
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	0.544 J	<1	<1
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	<1	<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	<1	<1
Vinyl chloride	µg/L	<1 J	<1 J	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-171

	Sample Name	MW-171-62.4-IS-4	MW-171-63.75-IS-5	MW-171-63.75-IS-6	MW-171-IS-7	MW-171	MW-171
	Sample Date	4/11/2008	10/20/2008	4/14/2009	10/14/2009	4/28/2011	4/12/2013
Analyte	Unit						
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-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	<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:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-174

	Sample Name	MW174-75	MW174-75B	MW174-SARA-GW01	MW174-76-SB	MW-174-IS-4	MW-174-TSVE-G
	Sample Date	11/16/2005	11/19/2005	5/14/2007	11/9/2007	4/15/2008	8/18/2008
Analyte	Unit						
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	0.37	<1	0.7	1.4
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	3.06 J	2.93	5.9	2.93	<1	<1
Chloroform	µg/L	37.4	31.4	68	30.6	0.666	0.345
cis-1,2-Dichloroethene	µg/L	0.28 J	<1	0.63	<1	<1	<1
Tetrachloroethene	µg/L	0.99 J	1.05	1.9	0.55	0.297 J	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	0.28	<1	<1	<1
Trichloroethene	µg/L	16.9	14.2	33	11.8	<1	<1
Vinyl chloride	µg/L	<1	<1 UJ	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-174

	Sample Name	MW-174-IS-5	MW-174-IS-6	MW-174-IS-7	MW-174-ODLA-1	MW-174	MW-174	MW-174
	Sample Date	10/16/2008	4/16/2009	10/13/2009	3/26/2010	4/26/2011	7/19/2011	4/19/2012
Analyte	Unit							
1,1,2,2-Tetrachloroethane	µg/L	0.629	2.08	0.315 J	<0.5	<0.5	<0.5	<0.5
1,1,2-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	0.607 J	0.988 J	1.2	0.805 J	0.966 J	0.442 J
Chloroform	µg/L	0.154 J	1.47	1.54	0.337	0.243 J	0.282 J	0.22 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	0.347 J	0.591 J	0.651 J	0.413 J	0.51 J	0.311 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	0.658 J	0.485 J	<1	0.392 J	0.418 J	0.324 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-174

Analyte	Sample Name Sample Date Unit	MW-174 10/17/2012	MW-174 4/12/2013	MW-174 10/10/2013	MW-174 4/25/2014	MW-174 10/18/2014
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	0.212 J	0.158 J	0.135 J	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.263 J	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-176

	Sample Name	MW176-81	MW176-85	MW-176-IS-6	MW-176-IS-7	MW-176-ODLA-1	MW-176	MW-176
	Sample Date	11/18/2005	11/8/2007	4/23/2009	10/13/2009	3/26/2010	4/26/2011	4/18/2012
Analyte	Unit							
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-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	0.415	<1	<1	<1	<1	<1
Chloroform	µg/L	0.21 J	0.246	0.166 J	<0.3	0.147 J	0.208 J	0.187 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.44 J	0.287	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.73 J	3.07	0.579 J	<1	<1	<1	<1
Vinyl chloride	µg/L	<1 UJ	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-176

Analyte	Sample Name	MW-176	MW-176
	Sample Date	4/13/2013	4/25/2014
	Unit		
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1
1,1-Dichloroethene	µg/L	<1	<1
Carbon tetrachloride	µg/L	<1	<1
Chloroform	µg/L	0.275 J	0.193 J
cis-1,2-Dichloroethene	µg/L	<1	<1
Tetrachloroethene	µg/L	<1	0.334 J
trans-1,2-Dichloroethene	µg/L	<1	<1
Trichloroethene	µg/L	0.3 J	<1
Vinyl chloride	µg/L	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-180

	Sample Name	MW180-77	MW180	MW180-81	MW-180-IS-4	MW-180-TSVE-G	MW-180-IS-5	MW-180-IS-6
	Sample Date	11/20/2005	5/21/2007	11/8/2007	4/16/2008	8/20/2008	10/21/2008	4/15/2009
Analyte	Unit							
1,1,2,2-Tetrachloroethane	µg/L	44.2 J	21	<1	0.763	1.35	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	0.558	2.04	0.766 J
Carbon tetrachloride	µg/L	0.72 J	0.26	<1	<1	<1	<1	<1
Chloroform	µg/L	2.04	1.6	<1	<0.3	<0.3	<0.3	0.136 J
cis-1,2-Dichloroethene	µg/L	2.51	23	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	5.02	2.8	<1	<1	0.766	1.88	0.948 J
trans-1,2-Dichloroethene	µg/L	1.7	9.6	<1	<1	<1	<1	<1
Trichloroethene	µg/L	24.4	78	<1	<1	0.978	1.8	0.893 J
Vinyl chloride	µg/L	<1 UJ	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-180

	Sample Name	MW-180-IS-7	MW-180-ODLA-1	MW-180	MW-180	MW-180	MW-180
	Sample Date	10/13/2009	3/26/2010	4/26/2011	4/19/2012	5/9/2013	4/25/2014
Analyte	Unit						
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-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	0.154 J	<0.3	<0.3	<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:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-182

	Sample Name	MW182-69	MW182-70	MW-182-IS-6	MW-182-IS-7	MW-182	MW-182	MW-182
	Sample Date	11/19/2005	11/8/2007	4/20/2009	10/15/2009	4/28/2011	4/19/2012	4/14/2013
Analyte	Unit							
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-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	<1	<1	<0.3	<0.3	<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	0.77 J	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1 UJ	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-182

Analyte	Sample Name	MW-182	MW-182
	Sample Date	10/11/2013	5/13/2014
	Unit		
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1
1,1-Dichloroethene	µg/L	<1	<1
Carbon tetrachloride	µg/L	<1	<1
Chloroform	µg/L	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1
Tetrachloroethene	µg/L	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1
Trichloroethene	µg/L	<1	<1
Vinyl chloride	µg/L	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-184

Analyte	Sample Name	MW184-67	MW184-68	MW-184-IS-6	MW-184-IS-7	MW-184	MW-184	MW-184
	Sample Date	11/18/2005	11/9/2007	4/23/2009	10/14/2009	4/28/2011	4/19/2012	5/9/2013
	Unit							
1,1,2,2-Tetrachloroethane	µg/L	1.74	<1	<0.5	5.06	2.36	0.716	0.353 J
1,1,2-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	8.08	4.19	4.52	13.4	2.23	1.31	0.923 J
Chloroform	µg/L	32.6	7.79	2.94	117	13.3	4.67	5.03
cis-1,2-Dichloroethene	µg/L	1.43	1.2	0.424 J	5.61	1.06	0.642 J	0.587 J
Tetrachloroethene	µg/L	0.69 J	<1	0.393 J	4.98	0.729 J	0.397 J	0.261 J
trans-1,2-Dichloroethene	µg/L	0.33 J	0.27	<1	1.63	<1	<1	<1
Trichloroethene	µg/L	12.6	9.47	2.27	84	7.77	2.83	2.7
Vinyl chloride	µg/L	<1 UJ	<1	<1 UJ	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-184

Analyte	Sample Name Sample Date Unit	MW-184 10/10/2013	MW-184 4/26/2014	MW-184 10/19/2014
1,1,2,2-Tetrachloroethane	µg/L	0.344 J	<0.5	0.211 J
1,1,2-Trichloroethane	µg/L	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1
Carbon tetrachloride	µg/L	0.879 J	1.01	0.958 J
Chloroform	µg/L	4.61	2.67	3.17
cis-1,2-Dichloroethene	µg/L	0.442 J	0.528 J	0.633 J
Tetrachloroethene	µg/L	0.366 J	0.355 J	0.429 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	2.29	1.61	1.99
Vinyl chloride	µg/L	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-187

	Sample Name	MW187-84_060425	MW-187-SARA-GW01	MW187-81	MW-187-IS-4	MW-187-TSVE-G
	Sample Date	4/25/2006	5/16/2007	11/8/2007	4/16/2008	8/20/2008
Analyte	Unit					
1,1,2,2-Tetrachloroethane	µg/L	<1	<0.5	0.141	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	0.8	<1	<1	<1
Chloroform	µg/L	0.13 J	0.29	<1	<0.3	0.139
cis-1,2-Dichloroethene	µg/L	<1	0.4	<1	<1	<1
Tetrachloroethene	µg/L	<1	0.36	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.26 J	3.7	<1	<1	<1
Vinyl chloride	µg/L	<1 UJ	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-187

Analyte	Sample Name	MW-187-IS-5	MW-187-IS-6	MW-187-IS-7	MW-187-ODLA-1	MW-187	MW-187
	Sample Date	10/16/2008	4/21/2009	10/15/2009	3/26/2010	4/28/2011	4/12/2013
	Unit						
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-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	0.183 J	<0.3	0.162 J	0.149 J	0.265 B	0.166 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	0.253 J	<1	0.312 J	0.267 J
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:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-190

	Sample Name	MW190-86_060426	MW190-86	MW-190-IS-6	MW-190-IS-7	MW-190-ODLA-1	MW-190
	Sample Date	4/26/2006	11/9/2007	4/23/2009	10/14/2009	3/26/2010	4/26/2011
Analyte	Unit						
1,1,2,2-Tetrachloroethane	µg/L	4410	1040	276	28.1	23.5	10.4
1,1,2-Trichloroethane	µg/L	8.84	3.38	0.45 J	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	0.63 J	1.17	<1	<1	<1	<1
Chloroform	µg/L	2.73	1.32	0.562	0.135 J	0.186 J	0.247 J
cis-1,2-Dichloroethene	µg/L	80.5 J	33.3	3.4	0.547 J	0.747 J	0.405 J
Tetrachloroethene	µg/L	12.5	6.01	1.37	0.588 J	0.707 J	0.642 J
trans-1,2-Dichloroethene	µg/L	6.48	1.56	0.416 J	<1	<1	<1
Trichloroethene	µg/L	2720	705	109	27.6	31.9	19.4
Vinyl chloride	µg/L	<1 UJ	<1	<1 UJ	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-190

Analyte	Sample Name	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190
	Sample Date	4/19/2012	10/17/2012	5/9/2013	10/10/2013	4/26/2014	10/19/2014
	Unit						
1,1,2,2-Tetrachloroethane	µg/L	12.1	10.6	8.93	9.08	4.77	4.55
1,1,2-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	0.291 J	0.186 J	0.274 J	0.498	0.463	0.256 J
cis-1,2-Dichloroethene	µg/L	0.459 J	0.373 J	0.429 J	0.401 J	<1	<1
Tetrachloroethene	µg/L	0.893 J	1.05	0.58 J	0.85 J	0.615 J	0.752 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	20.4	23.1	20.4	23.9	12.4	12.3
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-220

	Sample Name	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220
	Sample Date	5/18/2007	11/9/2007	4/15/2008	8/20/2008	10/21/2008	4/23/2009	10/13/2009	7/19/2011
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	780	<1	<0.5	<0.5	0.267 J	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	9.3	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	18	7.93	4.54	37	44.3	45.9	33.1	2.66
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	2.5	<1	<0.3	0.201	0.217 J	0.238 J	0.184 J	<0.3
cis-1,2-Dichloroethene	µg/L	420	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	16	7.67	8.14	16.4	13.7	19.8	19	1.95
trans-1,2-Dichloroethene	µg/L	76	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	530	6.73	4.61	14.6	15.2	20.2	18.7	4.94
Vinyl chloride	µg/L	0.63	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-220

Analyte	Sample Name	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220
	Sample Date	4/19/2012	10/17/2012	4/13/2013	10/10/2013	4/25/2014	10/18/2014
	Unit						
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	3.08	2.47	1.76	1.16	3.19	3.18
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	0.138 J	0.126 J	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	4.61	3.78	3.37	2.92	3.51	4.19
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	6.56	6.65	4.97	4.24	6.01	6.57
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-221

	Sample Name	MW221 SARA GW01	MW221-85	MW-221-IS-4	MW-221-TSVE-G	MW-221-IS-5	MW-221-IS-6
	Sample Date	5/21/2007	11/9/2007	4/16/2008	8/20/2008	10/21/2008	4/16/2009
Analyte	Unit						
1,1,2,2-Tetrachloroethane	µg/L	110	0.692	<0.5	0.147	0.329 J	<0.5
1,1,2-Trichloroethane	µg/L	1.9	<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	1.4	0.368	0.167 J	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	52	0.268	<1	<1	<1	<1
Tetrachloroethene	µg/L	6.9	1.09	0.893 J	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	10	<1	<1	<1	<1	<1
Trichloroethene	µg/L	140	2.33	<1	1.19	0.501 J	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-221

	Sample Name	MW-221-IS-7	MW-221-ODLA-1	MW-221	MW-221	MW-221	MW-221	MW-221
	Sample Date	10/13/2009	3/26/2010	4/26/2011	7/19/2011	4/20/2012	10/17/2012	4/13/2013
Analyte	Unit							
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-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	<0.3	0.134 J	<0.3	<0.3	0.156 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	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-221

Analyte	Sample Name	MW-221	MW-221	MW-221
	Sample Date	10/10/2013	4/25/2014	10/18/2014
	Unit			
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5
1,1,2-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:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-222

	Sample Name	MW-222-SARA-GW01	MW222-84	MW-222-IS-4	MW-222-TSVE-G	MW-222-IS-5	MW-222-IS-6
	Sample Date	5/16/2007	11/9/2007	4/15/2008	8/19/2008	10/20/2008	4/16/2009
Analyte	Unit						
1,1,2,2-Tetrachloroethane	µg/L	340	1130	12.7	1.36	47.1	1.19
1,1,2-Trichloroethane	µg/L	<5	8.97	7.57	0.492	0.648 J	<1
1,1-Dichloroethene	µg/L	<5	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<5	<1	<1	<1	<1	<1
Chloroform	µg/L	<1.5	0.358	0.156 J	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	150	25.4	10.4	4.12	4.51	<1
Tetrachloroethene	µg/L	5.7	1.23	0.312 J	0.337	0.484 J	0.377 J
trans-1,2-Dichloroethene	µg/L	66	5.2	0.301 J	<1	0.376 J	<1
Trichloroethene	µg/L	1100	351	5.34	1.18	5.81	1.87
Vinyl chloride	µg/L	<5	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-222

	Sample Name	MW-222-IS-7	MW-222-ODLA-1	MW-222	MW-222	MW-222	MW-222	MW-222
	Sample Date	10/14/2009	3/26/2010	4/26/2011	7/19/2011	4/20/2012	10/16/2012	4/13/2013
Analyte	Unit							
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-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	0.269 J	0.396	0.523	0.281 J	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	0.313 J	<1	<1	<1	0.291 J	0.312 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.04	2.54	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-222

Analyte	Sample Name	MW-222	MW-222	MW-222
	Sample Date	10/10/2013	4/25/2014	10/18/2014
	Unit			
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5
1,1,2-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	1.44	<1	0.276 J
Vinyl chloride	µg/L	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-223

	Sample Name	MW-223-SARA-GW01	MW223-84	MW-223-IS-4	MW-223-TSVE-G	MW-223-IS-5	MW-223-IS-6
	Sample Date	5/16/2007	11/9/2007	4/15/2008	8/18/2008	10/17/2008	4/17/2009
Analyte	Unit						
1,1,2,2-Tetrachloroethane	µg/L	14	30.3	0.323 J	0.366	0.913	0.778
1,1,2-Trichloroethane	µg/L	3.1	2.81	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<2	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	0.39	0.283	<1	<1	<1	<1
Chloroform	µg/L	0.95	0.838	0.439	0.252	0.249 J	0.177 J
cis-1,2-Dichloroethene	µg/L	15	5.56	<1	<1	<1	<1
Tetrachloroethene	µg/L	3.7	0.944	0.343 J	0.262	0.457 J	0.813 J
trans-1,2-Dichloroethene	µg/L	3.7	1.21	<1	<1	<1	<1
Trichloroethene	µg/L	500	144	4.55	2.32	3.56	7.38
Vinyl chloride	µg/L	<2	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-223

	Sample Name	MW-223-IS-7	MW-223-ODLA-1	MW-223	MW-223	MW-223	MW-223	MW-223
	Sample Date	10/14/2009	3/26/2010	4/26/2011	7/19/2011	4/20/2012	10/16/2012	4/13/2013
Analyte	Unit							
1,1,2,2-Tetrachloroethane	µg/L	0.227 J	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-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	0.551	0.75	2	1.19	0.391	0.207 J	0.206 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.319 J	0.447 J	<1	0.294 J	0.503 J	0.476 J	0.415 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	4.01	1.49	0.25 J	0.392 J	0.275 J	0.352 J	0.328 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-223

Analyte	Sample Name Sample Date Unit	MW-223 10/10/2013	MW-223 4/25/2014	MW-223 10/18/2014
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1
Chloroform	µg/L	0.217 J	0.395	0.244 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1
Tetrachloroethene	µg/L	0.421 J	0.448 J	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-224

	Sample Name	MW-224-SARA-GW01	MW224-84.5	MW-224-IS-4	MW-224-TSVE-G	MW-224-IS-5
	Sample Date	5/16/2007	11/10/2007	4/16/2008	8/18/2008	10/20/2008
Analyte	Unit					
1,1,2,2-Tetrachloroethane	µg/L	140	<1	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	0.18	0.17	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	4.8	<1	<1	<1	<1
Tetrachloroethene	µg/L	1.7	2.23	1.33	0.771	0.628 J
trans-1,2-Dichloroethene	µg/L	1	<1	<1	<1	<1
Trichloroethene	µg/L	92	13.4	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-224

	Sample Name	MW-224-IS-6	MW-224-IS-7	MW-224-ODLA-1	MW-224	MW-224	MW-224	MW-224
	Sample Date	4/15/2009	10/14/2009	3/26/2010	4/26/2011	7/19/2011	4/20/2012	10/16/2012
Analyte	Unit							
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-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	0.186 J	1.01	1.03	0.563	0.286 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.436 J	0.451 J	<1	<1	<1	<1	0.305 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-224

Analyte	Sample Name	MW-224	MW-224	MW-224	MW-224
	Sample Date	4/13/2013	10/10/2013	4/25/2014	10/18/2014
	Unit				
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1
Chloroform	µg/L	0.245 J	0.142 J	0.137 J	0.157 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-225

	Sample Name	MW-225-SARA-GW01	MW225-88-SB	MW-225-IS-4	MW-225-TSVE-G	MW-225-IS-5
	Sample Date	5/15/2007	11/9/2007	4/16/2008	8/20/2008	10/17/2008
Analyte	Unit					
1,1,2,2-Tetrachloroethane	µg/L	15	75.9	21.3	13.9	22.8
1,1,2-Trichloroethane	µg/L	0.62	2.34	0.544 J	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	0.78	0.517	0.275 J	0.155	0.149 J
cis-1,2-Dichloroethene	µg/L	8.6	11.2	1.71	0.889	0.321 J
Tetrachloroethene	µg/L	2.3	1.19	0.616 J	0.644	0.652 J
trans-1,2-Dichloroethene	µg/L	2.2	1.21	<1	<1	<1
Trichloroethene	µg/L	320	140	39.6	19.6	8.66
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-225

	Sample Name	MW-225-IS-6	MW-225-IS-7	MW-225-ODLA-1	MW-225	MW-225	MW-225	MW-225
	Sample Date	4/20/2009	10/13/2009	3/26/2010	4/26/2011	7/19/2011	4/20/2012	10/16/2012
Analyte	Unit							
1,1,2,2-Tetrachloroethane	µg/L	4.03	2.47	0.926	<0.5	<0.5	<0.5	<0.5
1,1,2-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	0.198 J	0.212 J	0.667	0.803	0.221 J	0.214 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.727 J	0.566 J	0.679 J	0.252 J	0.494 J	0.538 J	0.464 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	9.46	11	8.58	2	1.75	0.653 J	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-225

Analyte	Sample Name	MW-225	MW-225	MW-225	MW-225
	Sample Date	5/9/2013	10/10/2013	4/25/2014	10/18/2014
	Unit				
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1
Chloroform	µg/L	0.17 J	0.207 J	0.26 J	0.219 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.308 J	0.6 J	0.515 J	0.417 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-226

	Sample Name	MW-226-SARA-GW01	MW226-83	MW-226-IS-4	MW-226-TSVE-G	MW-226-IS-5	MW-226-IS-6
	Sample Date	5/15/2007	11/9/2007	4/15/2008	8/20/2008	10/20/2008	4/17/2009
Analyte	Unit						
1,1,2,2-Tetrachloroethane	µg/L	220	9.56	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	1.4	1.09	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<2	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<2	<1	<1	<1	<1	<1
Chloroform	µg/L	0.72	0.156	0.155 J	0.157	0.155 J	0.133 J
cis-1,2-Dichloroethene	µg/L	19	2.57	<1	<1	<1	<1
Tetrachloroethene	µg/L	7.1	0.559	<1	0.417	0.533 J	0.794 J
trans-1,2-Dichloroethene	µg/L	4.5	0.486	<1	<1	<1	<1
Trichloroethene	µg/L	740	24.7	0.855 J	<1	<1	<1
Vinyl chloride	µg/L	<2	1.24	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-226

	Sample Name	MW-226-IS-7	MW-226-ODLA-1	MW-226	MW-226	MW-226	MW-226	MW-226
	Sample Date	10/14/2009	3/26/2010	4/26/2011	7/19/2011	4/19/2012	10/16/2012	4/13/2013
Analyte	Unit							
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-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	0.184 J	<0.3	1.52	0.463	0.195 J	0.242 J	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.75 J	0.751 J	<1	<1	0.376 J	0.393 J	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-226

Analyte	Sample Name	MW-226	MW-226	MW-226
	Sample Date	10/10/2013	4/25/2014	10/18/2014
Unit				
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5
1,1,2-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	0.273 J
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:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-227

	Sample Name	MW227-SARA-GW01	MW227-78	MW-227-IS-4	MW-227-TSVE-G	MW-227-IS-5	MW-227-IS-6
	Sample Date	5/14/2007	11/10/2007	4/16/2008	8/18/2008	10/17/2008	4/21/2009
Analyte	Unit						
1,1,2,2-Tetrachloroethane	µg/L	120	118	28.1	5.14	10.7	15.1
1,1,2-Trichloroethane	µg/L	6.1	7.33	1.02	0.538	0.982 J	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	43	33.7	4.02	3.52	7.26	0.524 J
Chloroform	µg/L	1100	1080	110	30.9	134	7.5
cis-1,2-Dichloroethene	µg/L	40	58.5	6.33	2.89	6.4	0.328 J
Tetrachloroethene	µg/L	22	13.5	2.25	1.81	2.7	0.345 J
trans-1,2-Dichloroethene	µg/L	8.5	10.9	1	0.37	1.04	<1
Trichloroethene	µg/L	420	387	40.8	28.4	61.8	3.56
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-227

	Sample Name	MW-227-IS-7	MW-227-ODLA-1	MW-227	MW-227	MW-227	MW-227	MW-227
	Sample Date	10/13/2009	3/26/2010	4/26/2011	7/19/2011	4/19/2012	10/17/2012	4/12/2013
Analyte	Unit							
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-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	0.682 J	0.614 J	0.567 J	0.348 J	<1	<1
Chloroform	µg/L	0.322	<0.3	0.361	0.838	0.865	0.42	0.223 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.267 J	0.543 J	0.551 J	0.614 J	0.463 J	0.392 J	0.405 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	0.378 J	0.893 J	0.37 J	0.339 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-227

Analyte	Sample Name Sample Date Unit	MW-227 10/10/2013	MW-227 4/25/2014	MW-227 10/18/2014
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1
Chloroform	µg/L	0.356	0.253 J	0.588
cis-1,2-Dichloroethene	µg/L	0.268 J	<1	<1
Tetrachloroethene	µg/L	0.318 J	0.288 J	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	0.523 J	0.358 J	0.496 J
Vinyl chloride	µg/L	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-228

	Sample Name	MW228-SARA-GW01	MW228-78	MW-228-IS-4	MW-228-TSVE-G	MW-228-IS-5
	Sample Date	5/14/2007	11/10/2007	4/16/2008	8/18/2008	10/17/2008
Analyte	Unit					
1,1,2,2-Tetrachloroethane	µg/L	46	5.07	0.509	0.22	<0.5
1,1,2-Trichloroethane	µg/L	0.99	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	3.4	<1	<1	<1	<1
Chloroform	µg/L	120	4.51	0.387	2.81	0.155 J
cis-1,2-Dichloroethene	µg/L	1.6	<1	<1	<1	<1
Tetrachloroethene	µg/L	1.8	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	0.38	<1	<1	<1	<1
Trichloroethene	µg/L	42	0.974	<1	0.911	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-228

	Sample Name	MW-228-IS-6	MW-228-IS-7	MW-228-ODLA-1	MW-228	MW-228	MW-228	MW-228
	Sample Date	4/16/2009	10/14/2009	3/29/2010	4/28/2011	7/19/2011	4/19/2012	10/17/2012
Analyte	Unit							
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-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	0.627 J	0.756 J	0.545 J	0.327 J	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	0.299 B	0.265 J	0.186 J	0.199 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	0.399 J	0.445 J	0.614 J	0.451 J	0.264 J	0.46 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-228

Analyte	Sample Name	MW-228	MW-228	MW-228	MW-228
	Sample Date	4/12/2013	10/10/2013	4/25/2014	10/18/2014
	Unit				
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-230

	Sample Name	MW-230	MW-230	MW-230	MW-230	MW-230	MW-230	MW-230	MW-230
	Sample Date	10/18/2007	4/15/2008	10/22/2008	4/15/2009	10/14/2009	4/19/2012	5/9/2013	4/25/2014
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	27.1	18.2	32.7	30.3	28.1	13.2	12.6	14.8
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.199 J	0.192 J	0.276 J	0.236 J	0.188 J	0.225 J	0.288 J	0.307
cis-1,2-Dichloroethene	µg/L	1.29	0.834 J	1.27	1.09	0.886 J	0.499 J	0.562 J	0.651 J
Tetrachloroethene	µg/L	87.2	76.1	100	89.9	88.4	35.9	33.7	42.8
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	83.3	74.6	98.4	98.2	83.5	54.3	60.1	63.7
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-235

	Sample Name	MW-235-IS-4	MW-235-IS-5	MW-235-IS-6	MW-235-IS-7	MW-235	MW-235	MW-235
	Sample Date	4/15/2008	10/22/2008	4/17/2009	10/15/2009	4/28/2011	4/19/2012	4/14/2013
Analyte	Unit							
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-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	<0.3	<0.3	<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	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-235

	Sample Name	MW-235
	Sample Date	4/26/2014
Analyte	Unit	
1,1,2,2-Tetrachloroethane	µg/L	<0.5
1,1,2-Trichloroethane	µg/L	<1
1,1-Dichloroethene	µg/L	<1
Carbon tetrachloride	µg/L	<1
Chloroform	µg/L	<0.3
cis-1,2-Dichloroethene	µg/L	<1
Tetrachloroethene	µg/L	<1
trans-1,2-Dichloroethene	µg/L	<1
Trichloroethene	µg/L	<1
Vinyl chloride	µg/L	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-237

	Sample Name	MW-237-IS-4	MW-237-IS-5	MW-237-IS-6	MW-237-IS-7	MW-237	MW-237	MW-237
	Sample Date	4/11/2008	10/22/2008	4/16/2009	10/15/2009	4/28/2011	4/18/2012	4/14/2013
Analyte	Unit							
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	2.2	2.02	2.17	1.77	1.62	3.03	1.93
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.181 J	0.162 J	0.129 J	<0.3	0.164 B	0.172 J	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	0.294 J	<1	0.353 J
Tetrachloroethene	µg/L	0.256 J	0.261 J	0.286 J	<1	<1	0.259 J	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-237

	Sample Name	MW-237
	Sample Date	4/27/2014
Analyte	Unit	
1,1,2,2-Tetrachloroethane	µg/L	<0.5
1,1,2-Trichloroethane	µg/L	<1
1,1-Dichloroethene	µg/L	2.83
Carbon tetrachloride	µg/L	<1
Chloroform	µg/L	<0.3
cis-1,2-Dichloroethene	µg/L	0.349 J
Tetrachloroethene	µg/L	<1
trans-1,2-Dichloroethene	µg/L	<1
Trichloroethene	µg/L	<1
Vinyl chloride	µg/L	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

B Possibly bias high or false positive based on blank data

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-241

	Sample Name	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241
	Sample Date	7/28/2009	10/15/2009	3/24/2010	6/22/2010	9/22/2010	1/26/2011	3/28/2011	9/27/2011
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	16.8	0.744	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.227 J	<0.3	<0.3	<0.3	<0.3	<0.3	0.175 J	0.132 J
cis-1,2-Dichloroethene	µg/L	0.262 J	<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	3.23	2.75	1.03	0.593 J	0.573 J	0.741 J	0.362 J	0.736 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-241

Analyte	Sample Name	MW-241	MW-241	MW-241
	Sample Date	4/17/2012	4/14/2013	4/26/2014
	Unit			
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1
Chloroform	µg/L	0.136 J	<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	0.667 J	0.505 J	0.748 J
Vinyl chloride	µg/L	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-242

	Sample Name	MW-242	MW-242	MW-242	MW-242	MW-242	MW-242	MW-242	MW-242
	Sample Date	7/29/2009	10/16/2009	3/24/2010	6/22/2010	9/22/2010	1/26/2011	3/28/2011	9/26/2011
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	1040	229	63.3	29.8	15.7	2.83	4.46	0.937
1,1,2-Trichloroethane	µg/L	8	3.34	0.75 J	0.328 J	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<2	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<2	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.897	0.578 J	0.188 J	0.173 J	0.198 J	0.165 J	<0.3	0.384
cis-1,2-Dichloroethene	µg/L	21.6	15.1	5.08	1.94	0.804 J	<1	<1	<1
Tetrachloroethene	µg/L	4.54	<2	0.373 J	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	3.99	1.75 J	1.01	0.429 J	<1	<1	<1	<1
Trichloroethene	µg/L	308	26.9	24.1	10.9	7.16	3.57	2.09	1.32
Vinyl chloride	µg/L	<1	<2	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-242

Analyte	Sample Name Sample Date Unit	MW-242 4/17/2012	MW-242 10/17/2012	MW-242 4/14/2013	MW-242 10/10/2013	MW-242 4/26/2014
1,1,2,2-Tetrachloroethane	µg/L	0.325 J	<0.5	<0.5	<0.5	1.31
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	0.197 J	<0.3	0.183 J	0.164 J	0.142 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.779 J	0.498 J	0.402 J	0.5 J	0.641 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-243

	Sample Name	MW-243	MW-243	MW-243	MW-243	MW-243	MW-243	MW-243	MW-243
	Sample Date	7/28/2009	10/15/2009	3/24/2010	6/22/2010	9/22/2010	1/26/2011	3/28/2011	9/27/2011
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	90	89.5	26.1	15.6	12.2	4.53	4.87	4.42
1,1,2-Trichloroethane	µg/L	3.04	0.806 J	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.315	0.233 J	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	11.4	10.3	3.34	0.796 J	<1	<1	<1	<1
Tetrachloroethene	µg/L	2.77	2.48	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	3.75	3.08	0.33 J	<1	<1	<1	<1	<1
Trichloroethene	µg/L	146	138	16	4.92	1.76	1.89	2.63	1.56
Vinyl chloride	µg/L	<1	<1 UJ	<1	<1	<1	<1 U	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-243

Analyte	Sample Name	MW-243	MW-243	MW-243	MW-243	MW-243	MW-243
	Sample Date	4/17/2012	10/16/2012	4/14/2013	10/10/2013	4/27/2014	10/19/2014
	Unit						
1,1,2,2-Tetrachloroethane	µg/L	2.6	2.31	1.76	1.89	2.04	2.61
1,1,2-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	0.151 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	0.296 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.95	1.55	1.13	0.949 J	3.36	5.01
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-244

	Sample Name	MW-244	MW-244	MW-244	MW-244	MW-244	MW-244	MW-244	MW-244
	Sample Date	7/30/2009	10/15/2009	3/24/2010	6/23/2010	9/22/2010	1/26/2011	3/28/2011	9/27/2011
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	1620	953	52.7	13.7	2.88	1.48	1.49	2.59
1,1,2-Trichloroethane	µg/L	14.5	7.89	0.894 J	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	6.73	<5	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<5	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	1.55	1.26 J	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	53.3	17	1.06	0.549 J	<1	<1	<1	<1
Tetrachloroethene	µg/L	3.17	<5	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	5.4	1.79 J	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	346	131	4.56	2.78	0.389 J	0.753 J	0.723 J	0.624 J
Vinyl chloride	µg/L	5.45	6.23	2.37	0.651 J	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-244

Analyte	Sample Name	MW-244	MW-244	MW-244	MW-244	MW-244	MW-244
	Sample Date	4/18/2012	10/17/2012	4/14/2013	10/10/2013	4/27/2014	10/19/2014
	Unit						
1,1,2,2-Tetrachloroethane	µg/L	1.28	2.25	1.24	1.1	<0.5	<0.5
1,1,2-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	0.161 J	0.246 J	0.205 J	0.216 J	0.233 J	1.47
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	0.389 J	0.408 J	0.462 J	0.427 J	0.486 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.84	4.05	1.92	1.78	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-245

	Sample Name	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245
	Sample Date	7/28/2009	10/16/2009	3/24/2010	6/22/2010	9/22/2010	1/25/2011	3/28/2011	9/27/2011
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	312	383	70.7	27.9	10.7	3.81	2.14	1.42
1,1,2-Trichloroethane	µg/L	8.03	3.83	0.823 J	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	2.03	1.85 J	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<2	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.438	0.338 J	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	46.1	25.8	1.95	0.55 J	<1	<1	<1	<1
Tetrachloroethene	µg/L	6.38	4.55	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	14.1	5.99	0.41 J	<1	<1	<1	<1	<1
Trichloroethene	µg/L	473	359	21.5	5.46	2.31	1.59	1.26	0.824 J
Vinyl chloride	µg/L	0.503 J	<2	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-245

	Sample Name	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245
	Sample Date	4/17/2012	10/16/2012	4/14/2013	10/10/2013	4/26/2014	10/19/2014
Analyte	Unit						
1,1,2,2-Tetrachloroethane	µg/L	0.715	0.615	0.988	0.519	<0.5	0.423 J
1,1,2-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	0.292 J	<0.3	<0.3	0.144 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	0.351 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.554 J	0.643 J	0.656 J	0.606 J	<1	1.12
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-246

	Sample Name	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246
	Sample Date	7/27/2009	10/16/2009	3/24/2010	6/22/2010	9/23/2010	1/25/2011	3/28/2011	9/27/2011
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	1140	2290	74.6	24.1	11.1	9.79	10.8	14.8
1,1,2-Trichloroethane	µg/L	29.4	57.7	3.28	2.91	0.936 J	1.27	0.689 J	0.294 J
1,1-Dichloroethene	µg/L	36.2	18.2	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<10	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.829	<3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	375	401	5.72	1.25	0.359 J	1.52	0.582 J	0.472
Tetrachloroethene	µg/L	5.3	5.47 J	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	18.1	24.3	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1000	1800	14.7	3.75	1.17	1.75	1.41	1.74
Vinyl chloride	µg/L	19.1	10.3	<1	<1	<1 J	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-246

Analyte	Sample Name	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246
	Sample Date	4/17/2012	10/16/2012	4/14/2013	10/10/2013	4/27/2014	10/19/2014
	Unit						
1,1,2,2-Tetrachloroethane	µg/L	9.94	13.1	3.05	2.85	12.9	9.63
1,1,2-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	0.618	1.5
cis-1,2-Dichloroethene	µg/L	0.44 J	<1	<1	<1	0.599 J	0.471 J
Tetrachloroethene	µg/L	<1	<1	<1	<1	0.262 J	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.75	1.59	0.46 J	1.05	37.3	28.5
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-247

	Sample Name	MW-247	MW-247	MW-247	MW-247	MW-247	MW-247	MW-247	MW-247
	Sample Date	7/30/2009	10/16/2009	3/24/2010	6/23/2010	9/23/2010	1/25/2011	3/28/2011	9/27/2011
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	27.3	18.6	<0.5	11.4	20.4	44.8	24.7	5.59
1,1,2-Trichloroethane	µg/L	1.67	1.09	<1	<1	<1	0.272 J	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	5.85	3.04	0.378 J	<1	<1	<1	<1	<1
Chloroform	µg/L	193	120	0.248 J	3.45	0.229 J	2.39	0.525	1.84
cis-1,2-Dichloroethene	µg/L	14.3	15.7	<1	0.421 J	<1	0.826 J	<1	0.847 J
Tetrachloroethene	µg/L	3.81	3.38	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	2.38	2.12	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	134	123	0.431 J	2.95	2.21	12.1	7.82	2.53
Vinyl chloride	µg/L	<1	<1	<1	<1	<1 J	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-247

	Sample Name	MW-247	MW-247	MW-247	MW-247	MW-247	MW-247
	Sample Date	4/18/2012	10/17/2012	4/14/2013	10/10/2013	4/27/2014	10/19/2014
Analyte	Unit						
1,1,2,2-Tetrachloroethane	µg/L	1.09	0.738	0.646	0.664	0.273 J	0.399 J
1,1,2-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	0.661	2.17	0.278 J	0.133 J	1.15	1.58
cis-1,2-Dichloroethene	µg/L	<1	0.42 J	<1	<1	<1	0.495 J
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.864 J	1.7	<1	0.304 J	2.89	1.68
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-248

	Sample Name	MW-248	MW-248	MW-248	MW-248	MW-248	MW-248	MW-248	MW-248
	Sample Date	7/27/2009	10/16/2009	3/26/2010	6/22/2010	9/23/2010	1/26/2011	3/28/2011	9/27/2011
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	<0.5	0.589	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
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	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1 J	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-248

Analyte	Sample Name	MW-248	MW-248	MW-248
	Sample Date	4/18/2012	4/13/2013	4/27/2014
Unit				
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5
1,1,2-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:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-249

	Sample Name	MW-249	MW-249	MW-249	MW-249	MW-249	MW-249	MW-249	MW-249
	Sample Date	7/29/2009	10/16/2009	3/24/2010	6/22/2010	9/23/2010	1/26/2011	3/28/2011	9/27/2011
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	5.03	<0.5	<0.5	<0.5	<0.5	0.6
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	0.577 J	0.437 J	1.19	1.46	3.47
Chloroform	µg/L	<0.3	<0.3	0.427	0.452	0.399	2.23	2.59	19.9
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	0.263 J	0.29 J	0.892 J
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	0.51 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	0.703 J	0.693 J	0.519 J	1.88	1.83	12.4
Vinyl chloride	µg/L	<1	<1	<1	<1	<1 J	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-249

Analyte	Sample Name	MW-249	MW-249	MW-249	MW-249	MW-249	MW-249
	Sample Date	4/18/2012	10/17/2012	5/9/2013	10/10/2013	4/26/2014	10/19/2014
	Unit						
1,1,2,2-Tetrachloroethane	µg/L	2.27	1.62	1.2	1.51	1.52	1.4
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	3.55	2.52	1.67	2.03	1.62	1.59
Chloroform	µg/L	20.3	13	10.5	11	10.4	12.9
cis-1,2-Dichloroethene	µg/L	1.15	0.515 J	0.517 J	0.41 J	0.358 J	0.35 J
Tetrachloroethene	µg/L	1.02	0.744 J	0.478 J	0.591 J	0.542 J	0.574 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	14.9	8.7	7.3	7.3	6.12	6.73
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-250

	Sample Name	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250
	Sample Date	7/29/2009	10/16/2009	3/24/2010	6/23/2010	9/23/2010	4/25/2011	9/27/2011	4/18/2012
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
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	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1 J	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-250

Analyte	Sample Name	MW-250	MW-250
	Sample Date	4/13/2013	4/26/2014
	Unit		
1,1,2,2-Tetrachloroethane	µg/L	<0.5 UJ	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1
1,1-Dichloroethene	µg/L	<1	<1
Carbon tetrachloride	µg/L	<1	<1
Chloroform	µg/L	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1
Tetrachloroethene	µg/L	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1
Trichloroethene	µg/L	<1	<1
Vinyl chloride	µg/L	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-251

	Sample Name	MW-251	MW-251	MW-251	MW-251	MW-251	MW-251	MW-251	MW-251
	Sample Date	7/29/2009	10/16/2009	3/24/2010	6/23/2010	9/22/2010	4/25/2011	9/26/2011	4/18/2012
Analyte	Unit								
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	3.33	3.8	3.15	2.9	3.77	3.56	4.12	4.05
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.313	0.311	0.197 J	0.254 J	0.306	0.276 J	0.322	0.328
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.572 J	0.697 J	0.644 J	0.621 J	0.699 J	0.716 J	0.626 J	0.613 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.707 J	0.396 J	0.34 J	0.256 J	0.366 J	0.335 J	<1	0.253 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS - DUNN FIELD LTM
ANNUAL LONG-TERM MONITORING REPORT - 2014
Defense Depot Memphis, Tennessee

MW-251

Analyte	Sample Name	MW-251	MW-251
	Sample Date	4/14/2013	4/26/2014
Unit			
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1
1,1-Dichloroethene	µg/L	4	3.86
Carbon tetrachloride	µg/L	<1	<1
Chloroform	µg/L	0.387	0.373
cis-1,2-Dichloroethene	µg/L	<1	<1
Tetrachloroethene	µg/L	0.595 J	0.526 J
trans-1,2-Dichloroethene	µg/L	<1	<1
Trichloroethene	µg/L	<1	<1
Vinyl chloride	µg/L	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

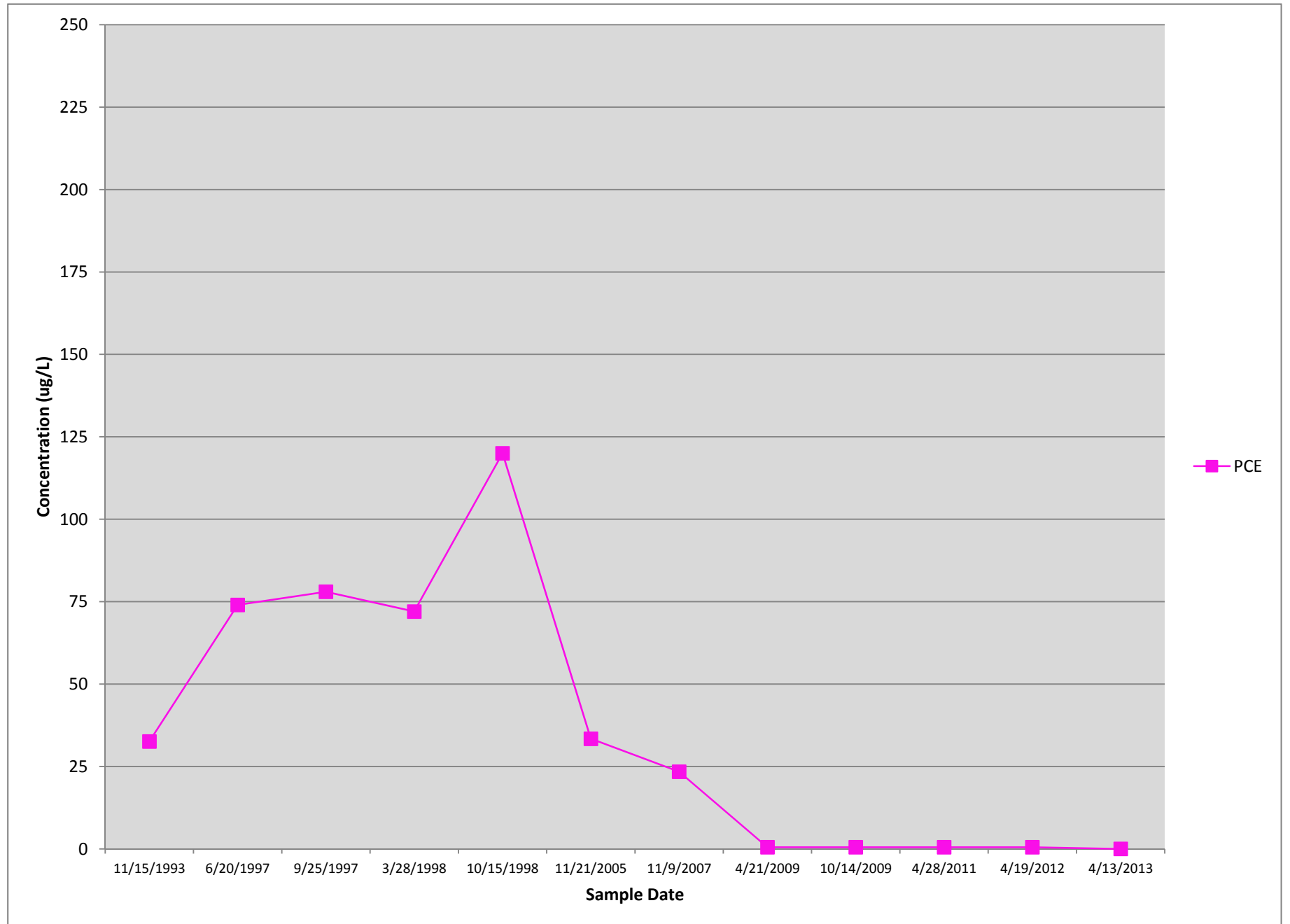
J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

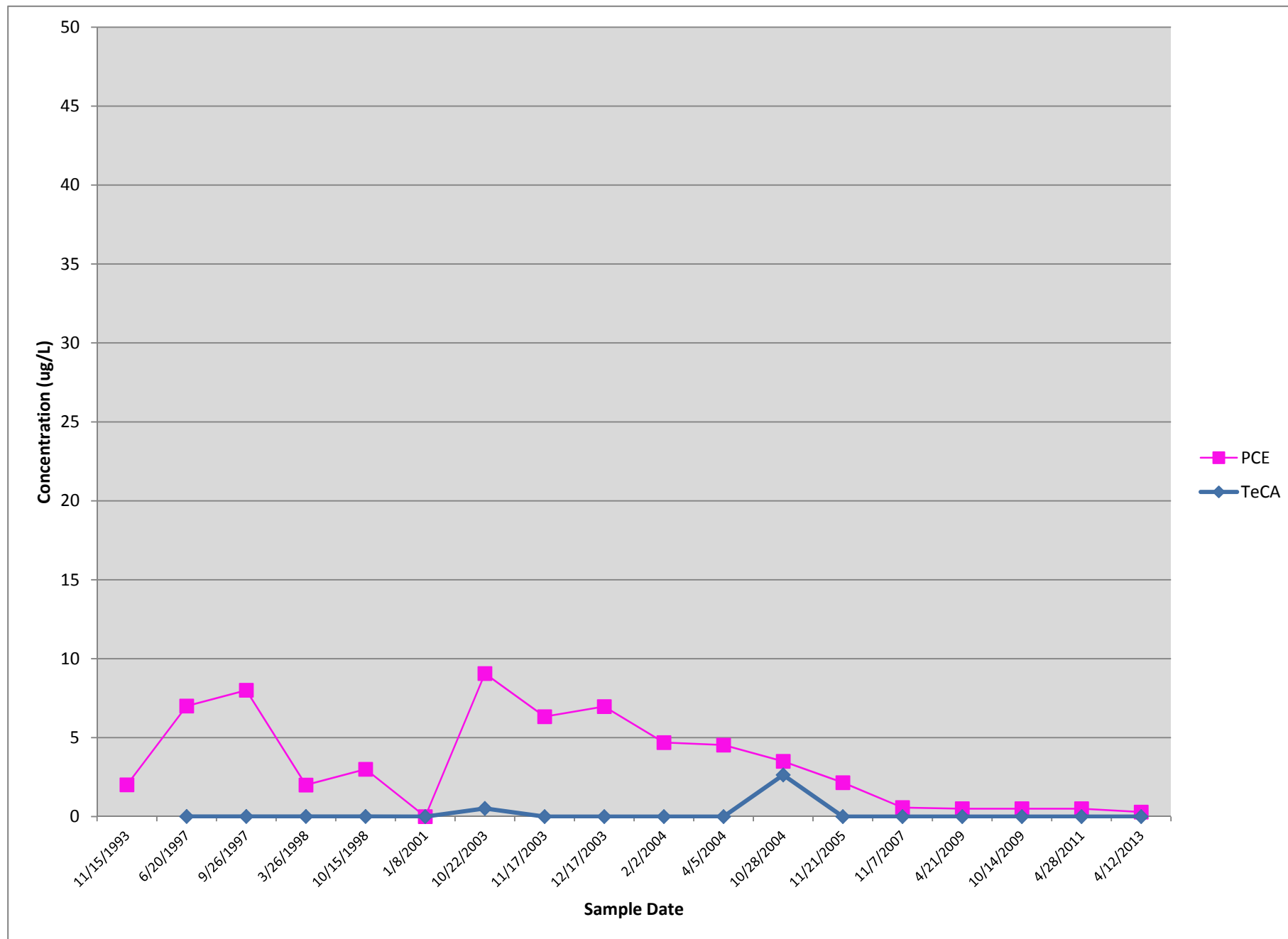
APPENDIX G
CVOC TIME-TREND PLOTS –
DUNN FIELD

APPENDIX G-1
CVOC TIME-TREND PLOTS –
DUNN FIELD
BACKGROUND WELLS

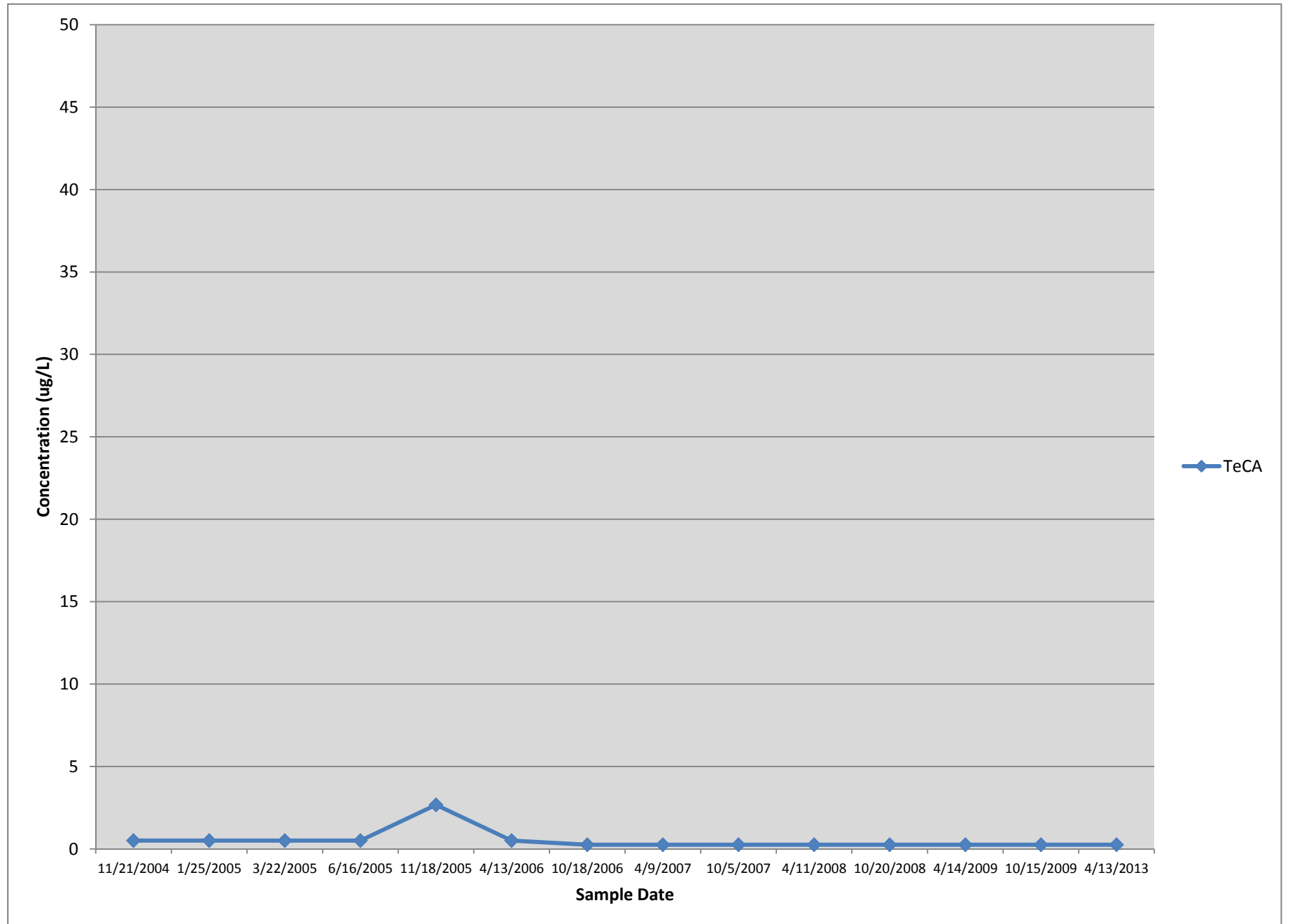
MW-04



MW-13

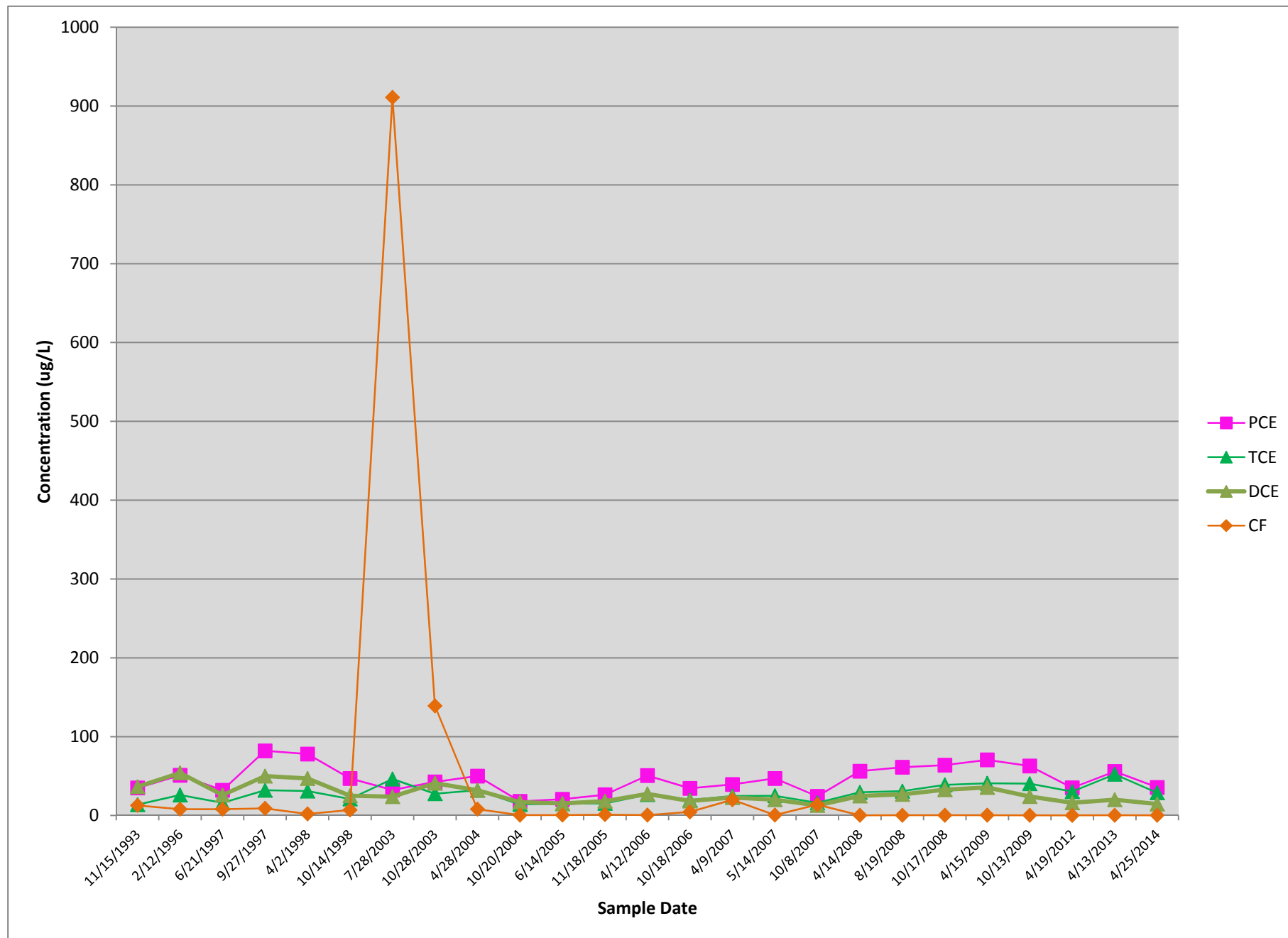


MW-167

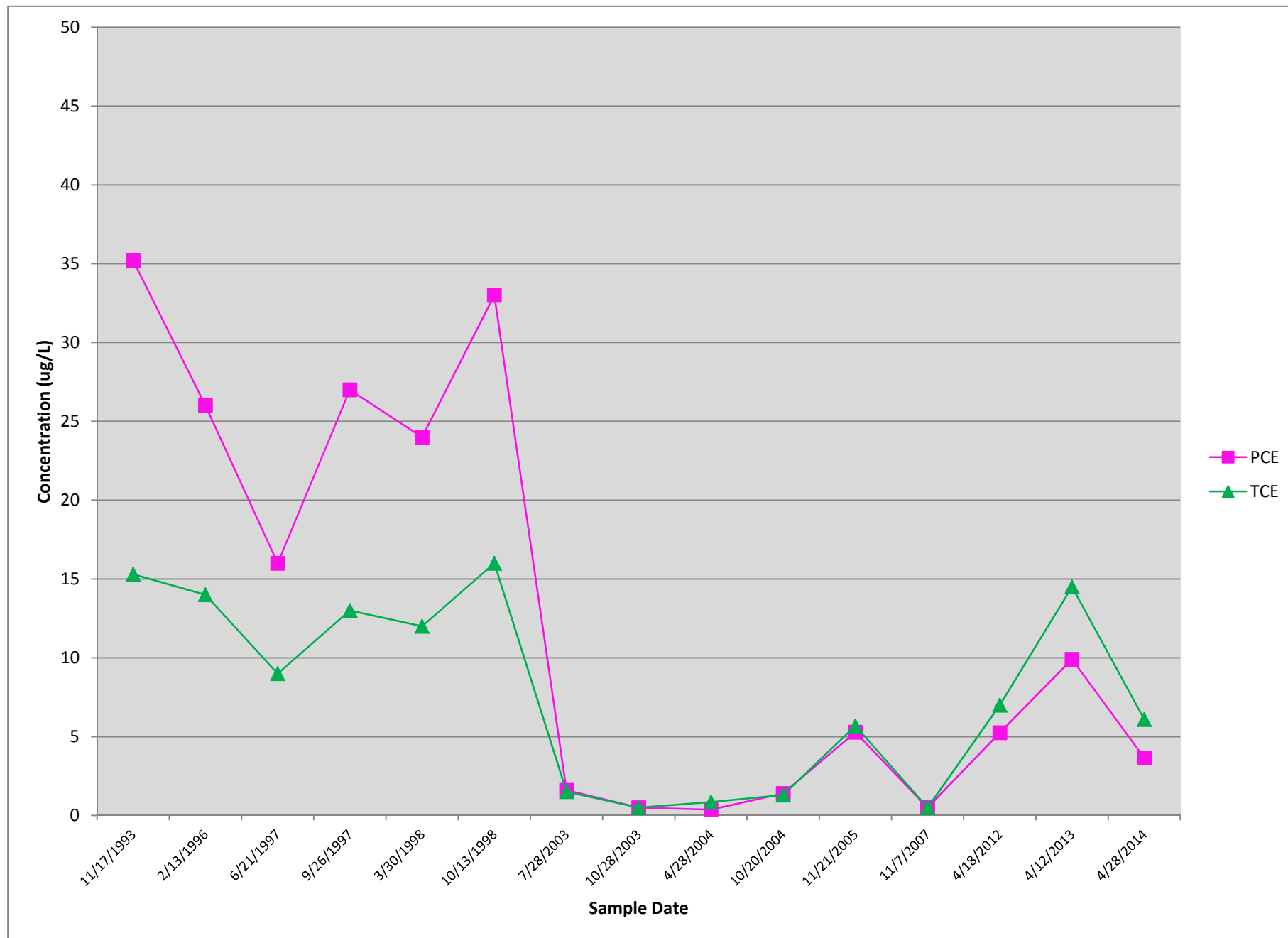


APPENDIX G-2
CVOC TIME-TREND PLOTS –
DUNN FIELD
BACKGROUND-NE WELLS

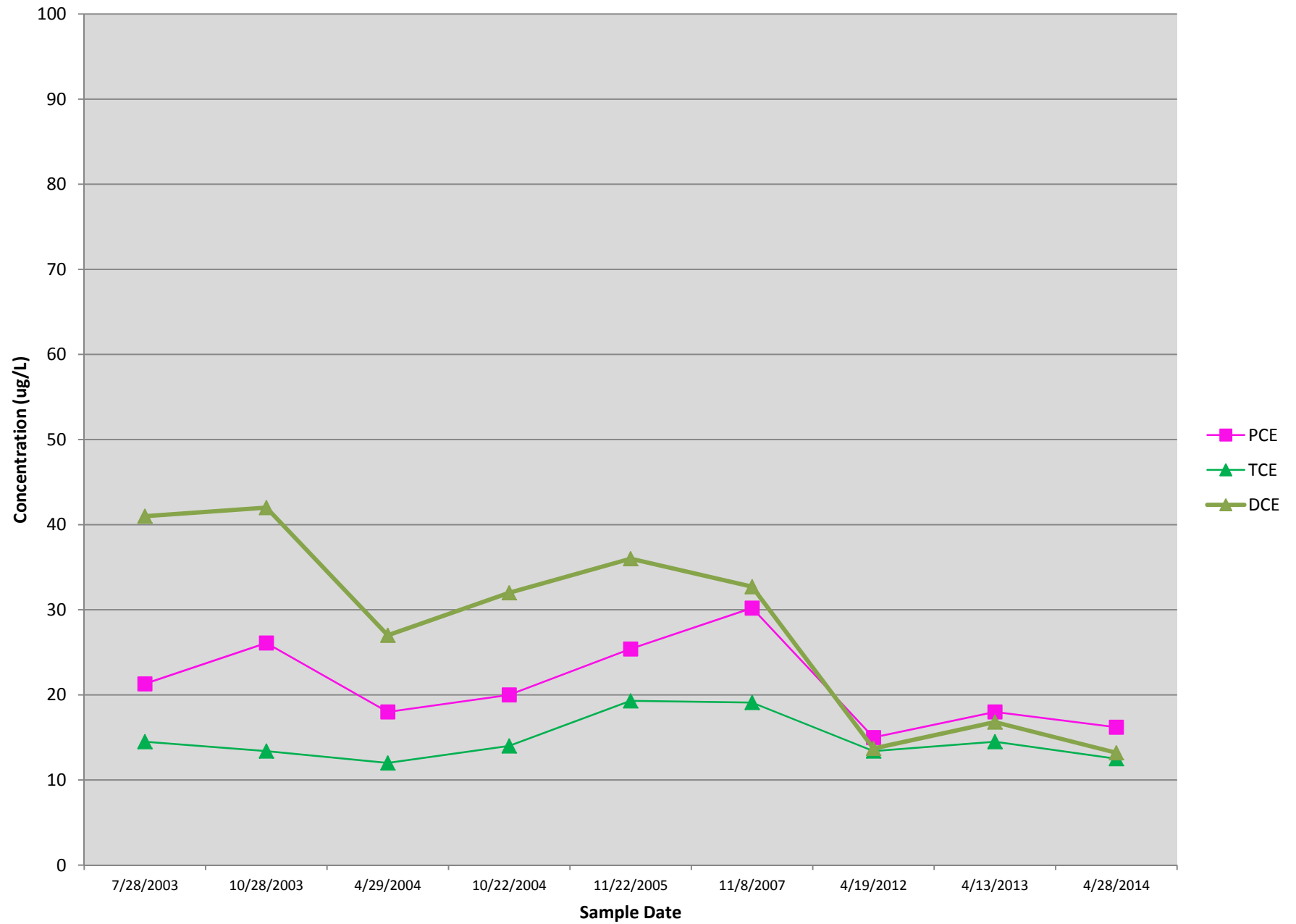
MW-07



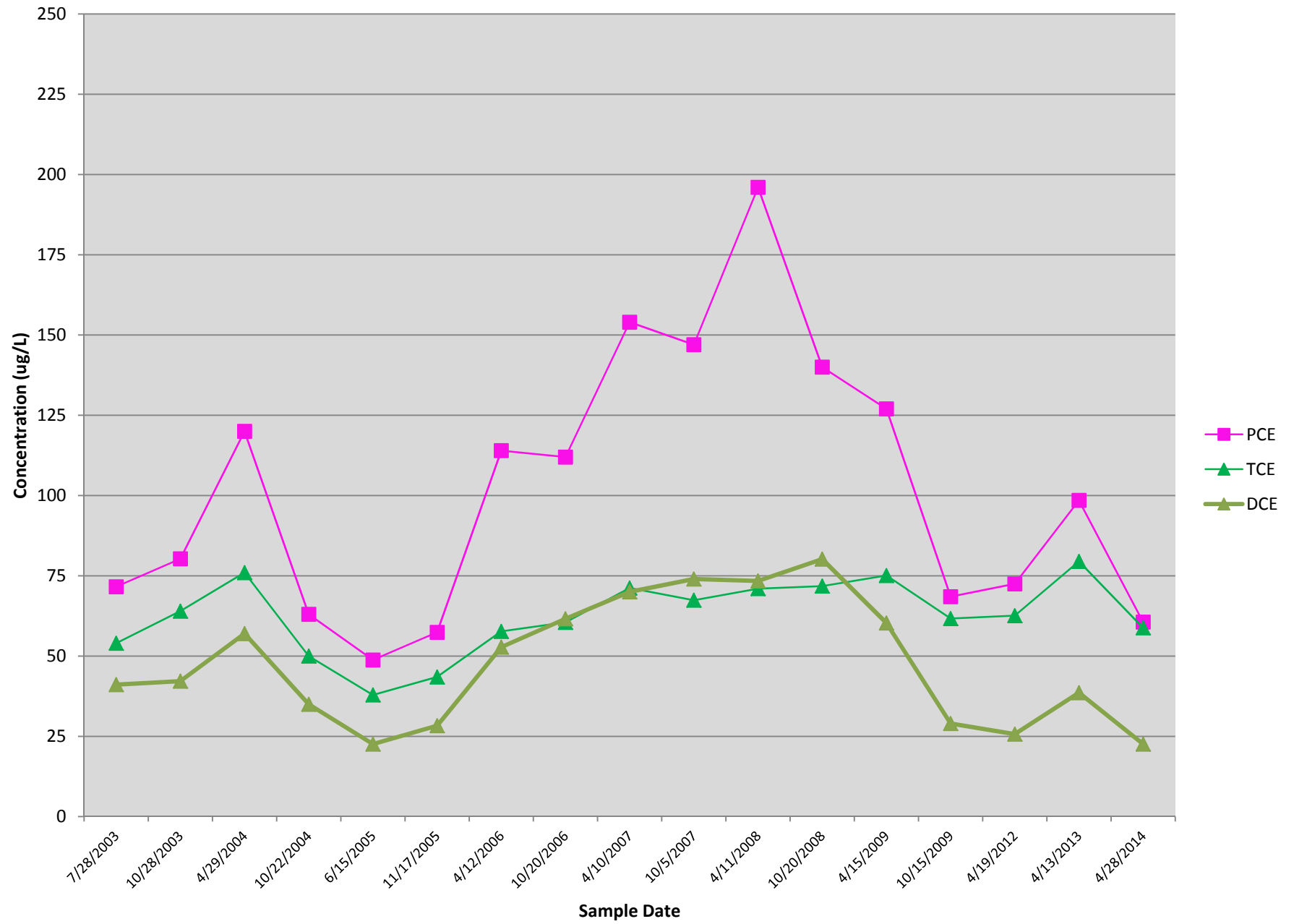
MW-08



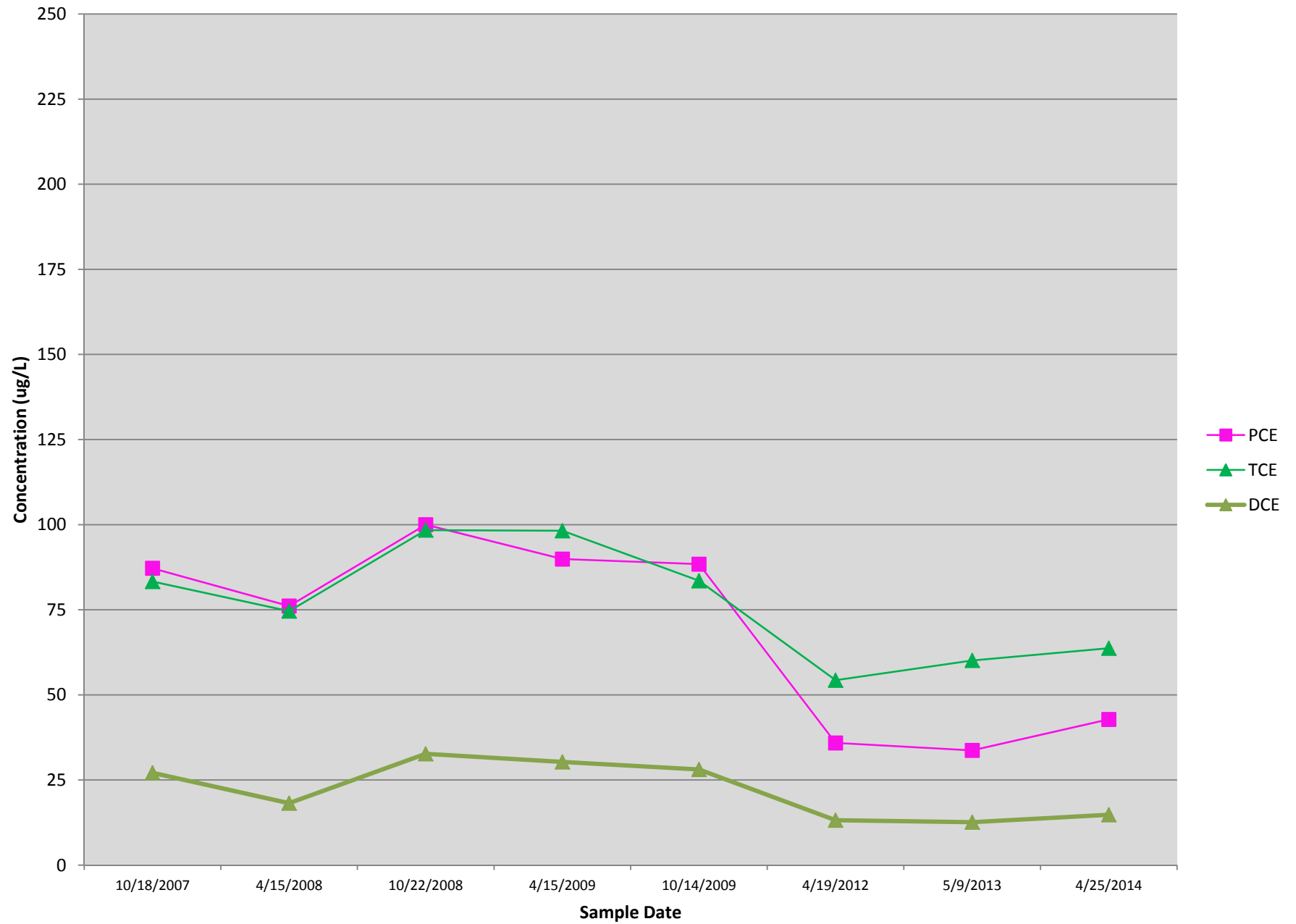
MW-129



MW-130

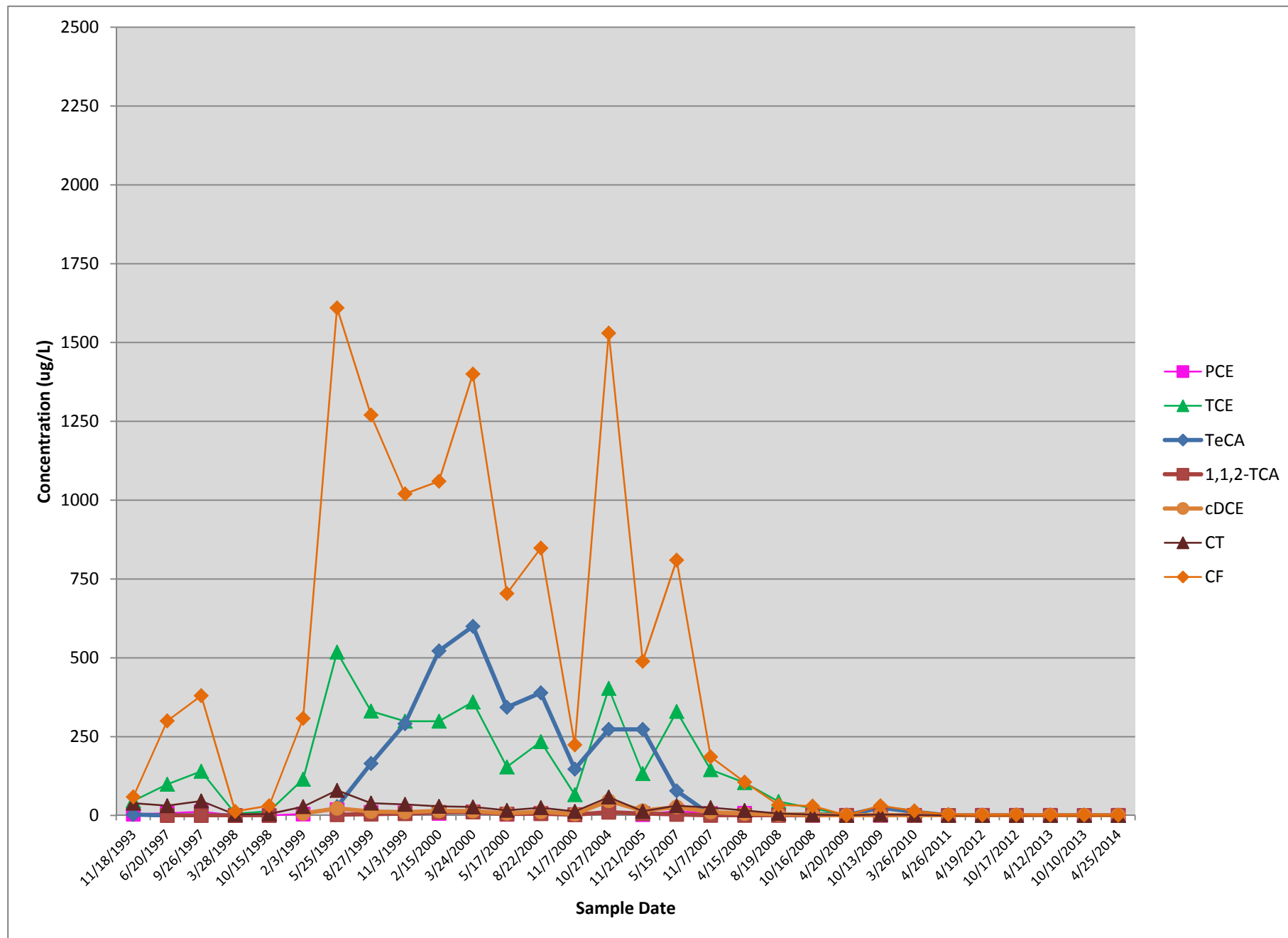


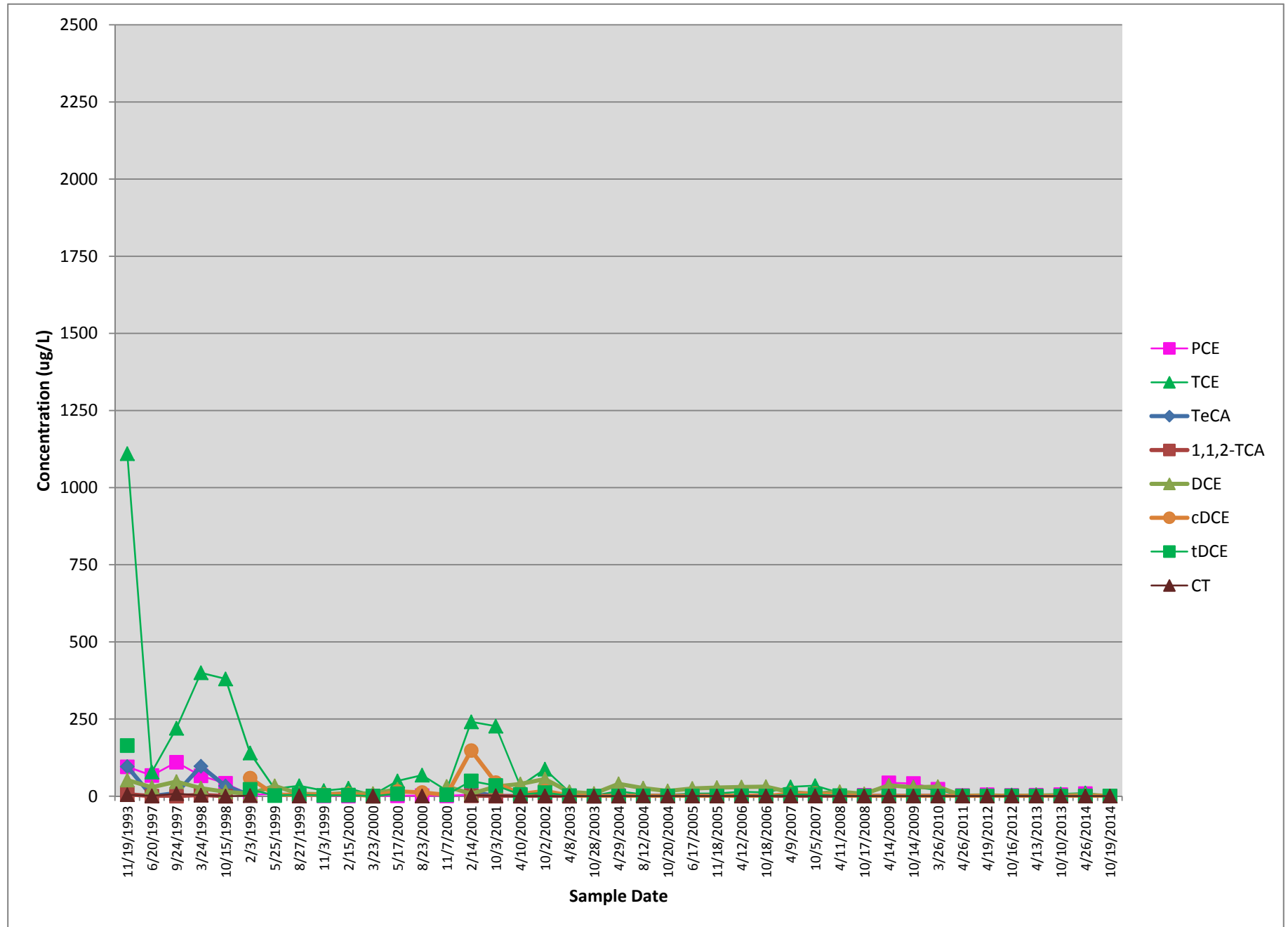
MW-230



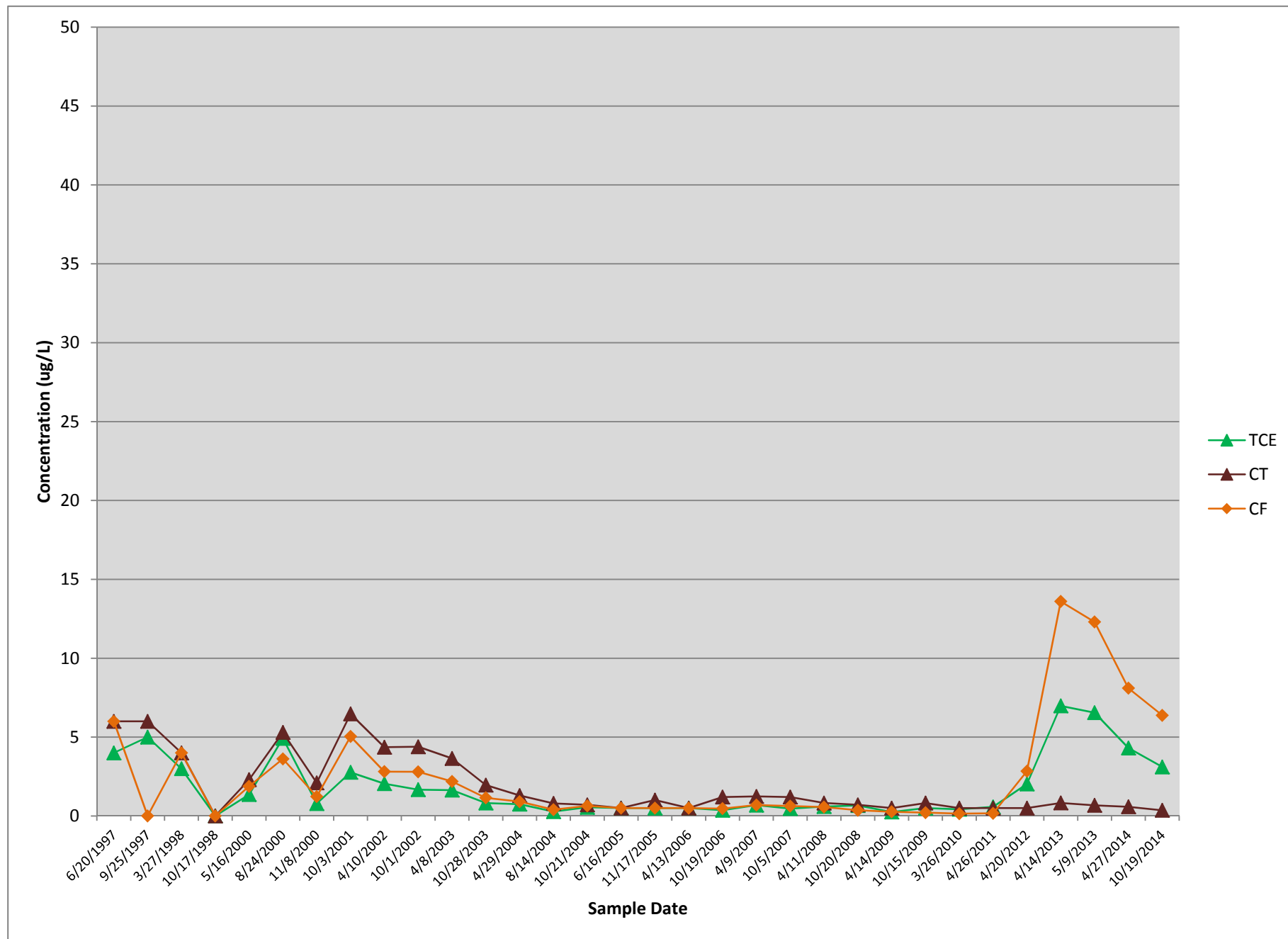
APPENDIX G-3
CVOC TIME-TREND PLOTS –
DUNN FIELD
PERFORMANCE WELLS

MW-15

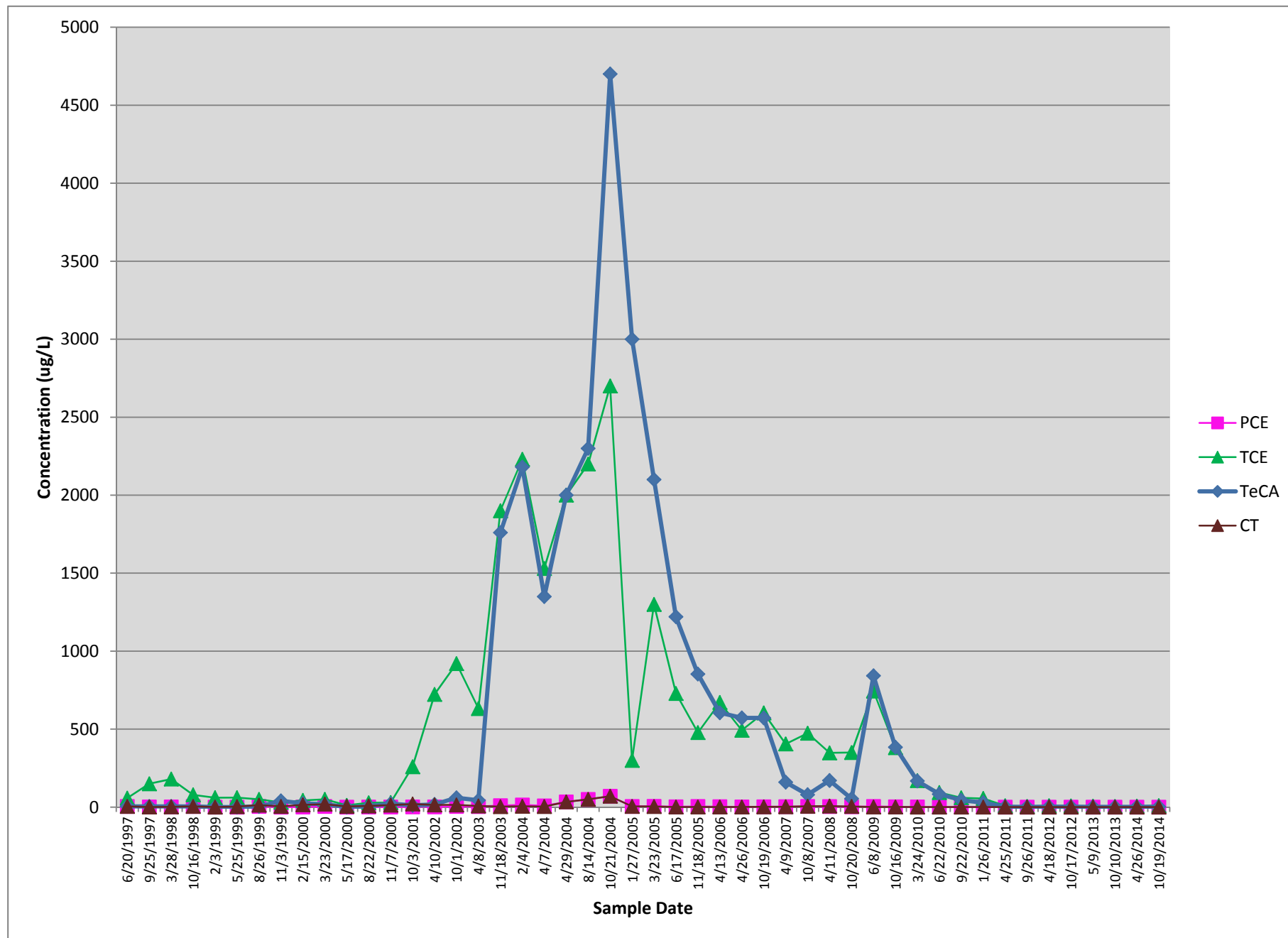




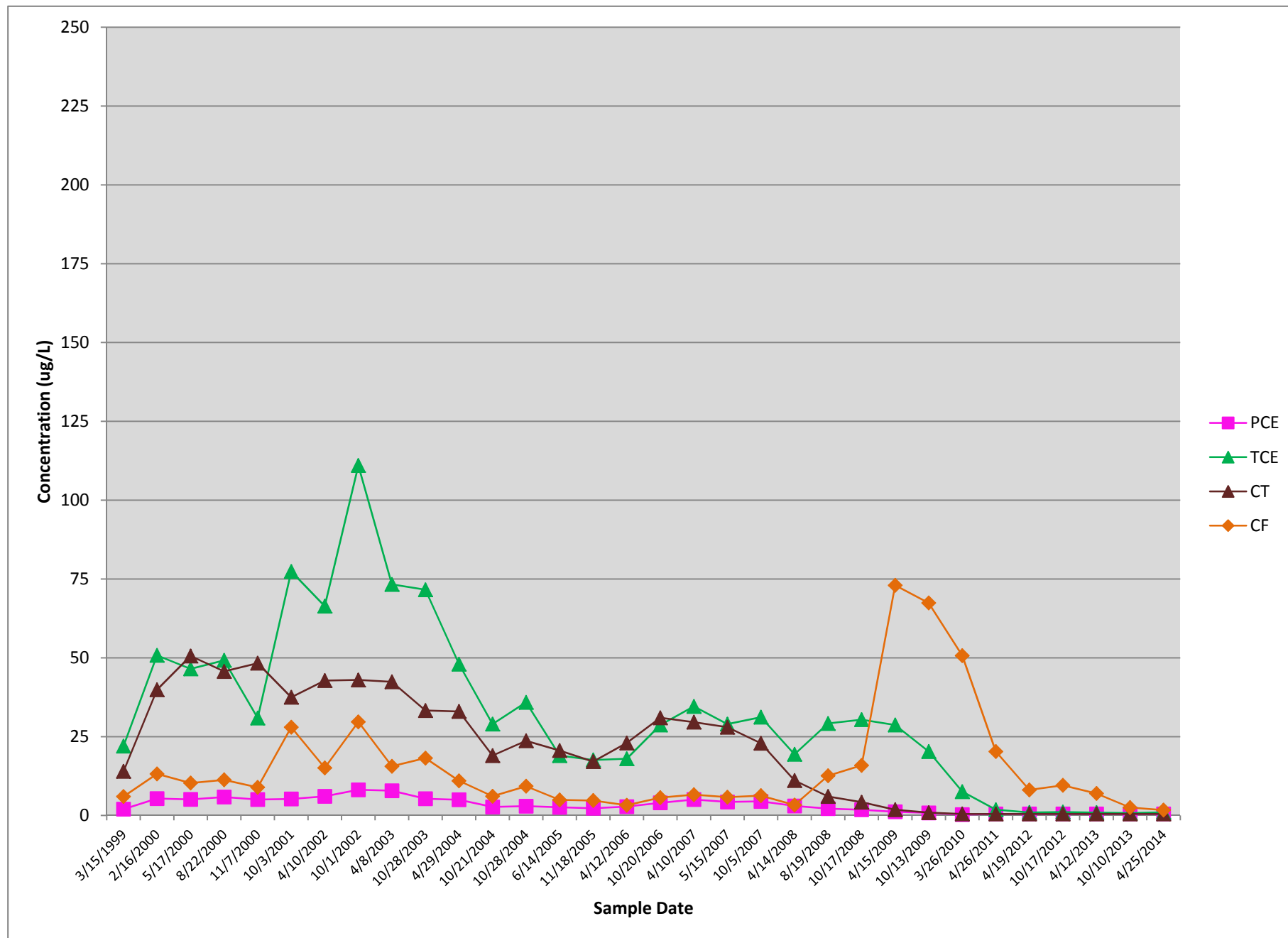
MW-44



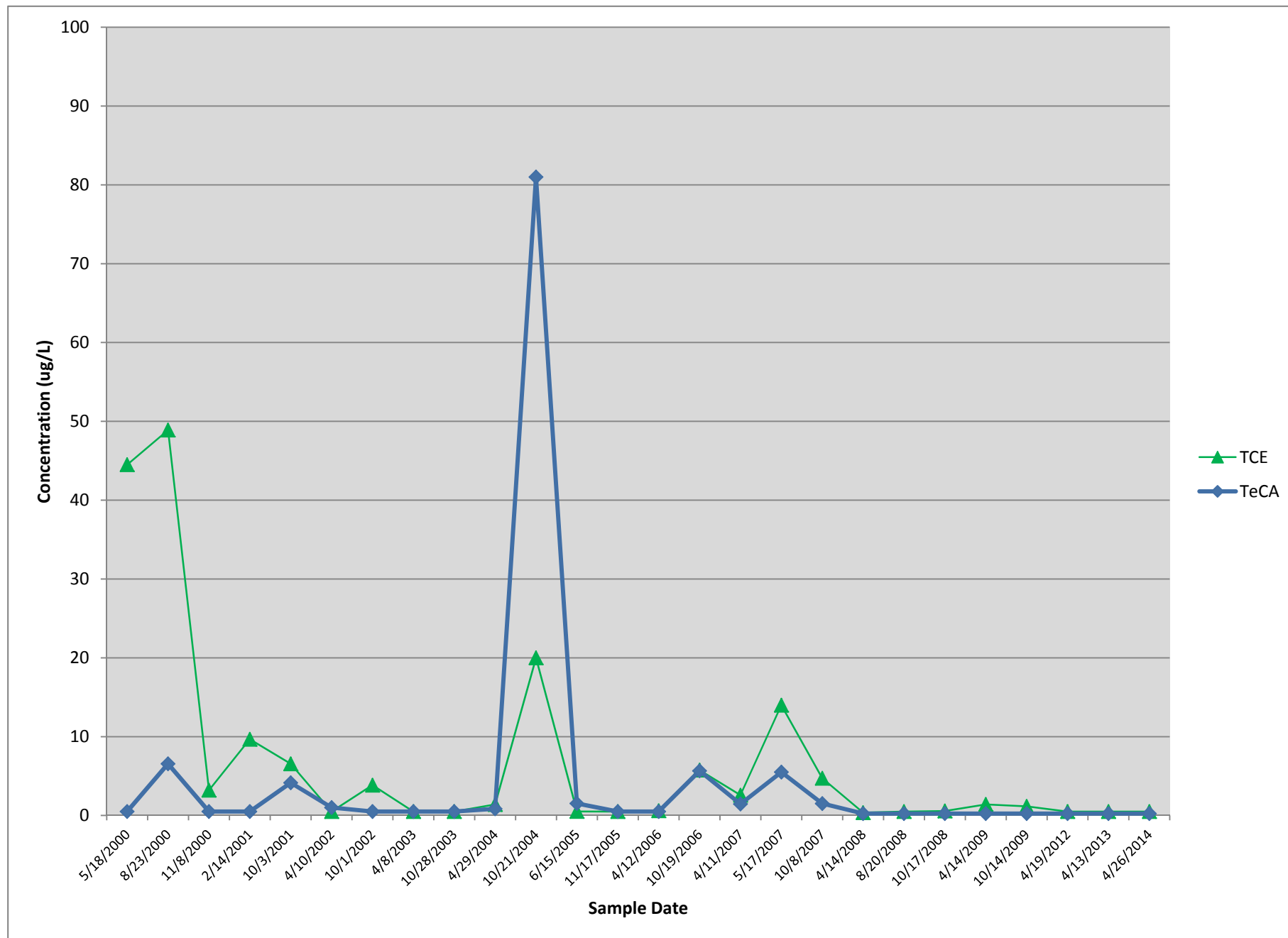
MW-54

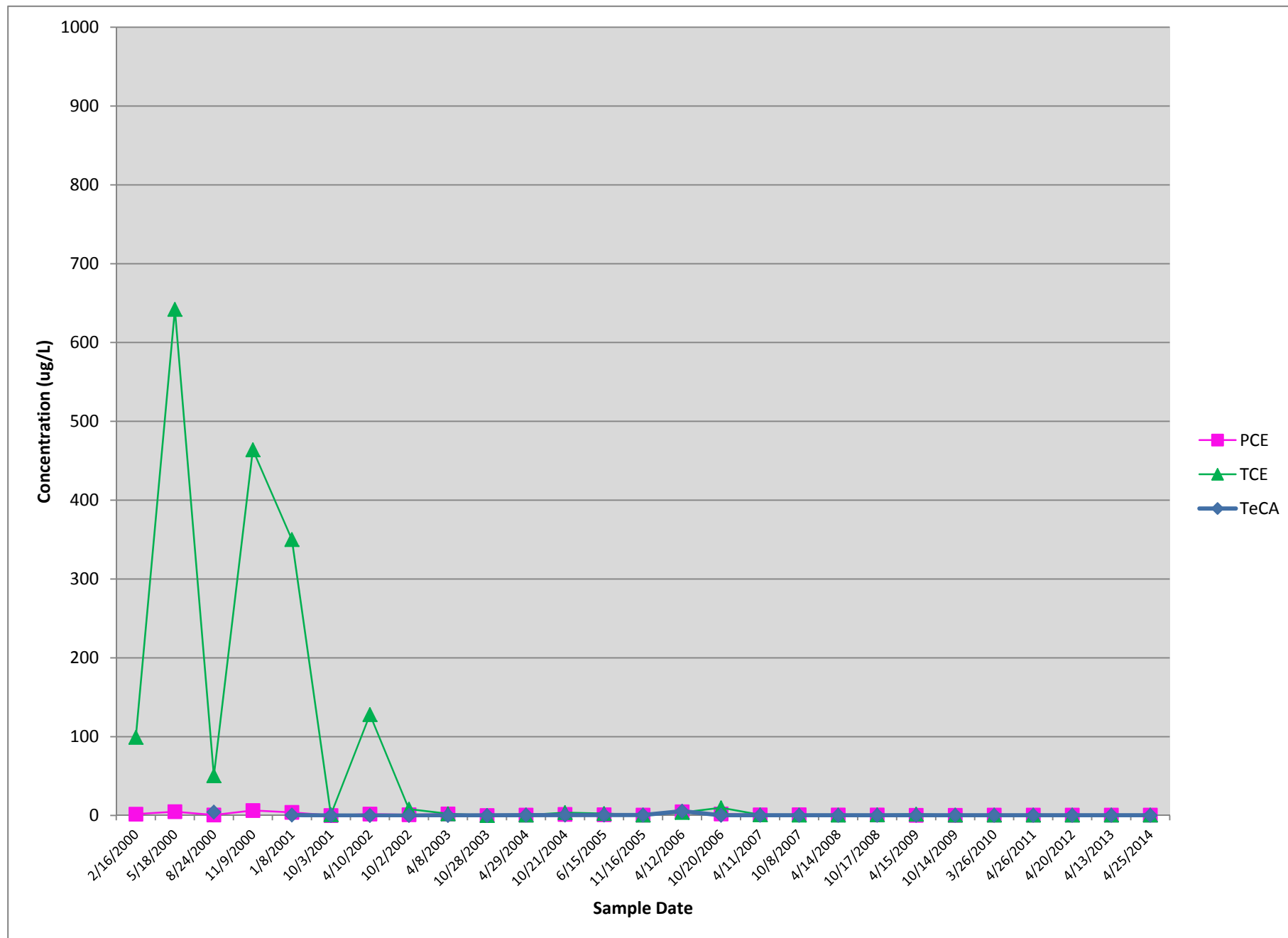


MW-57

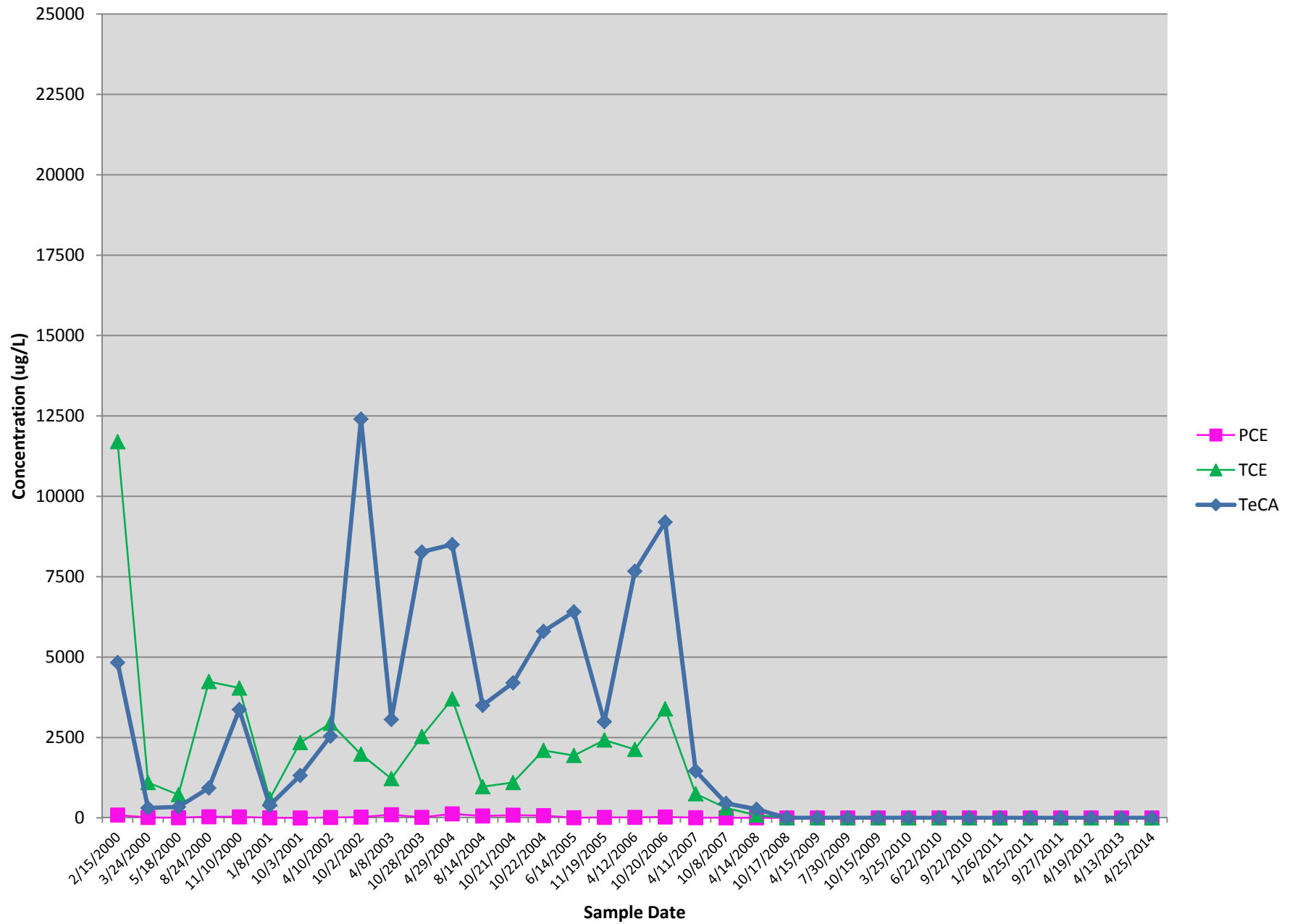


MW-68

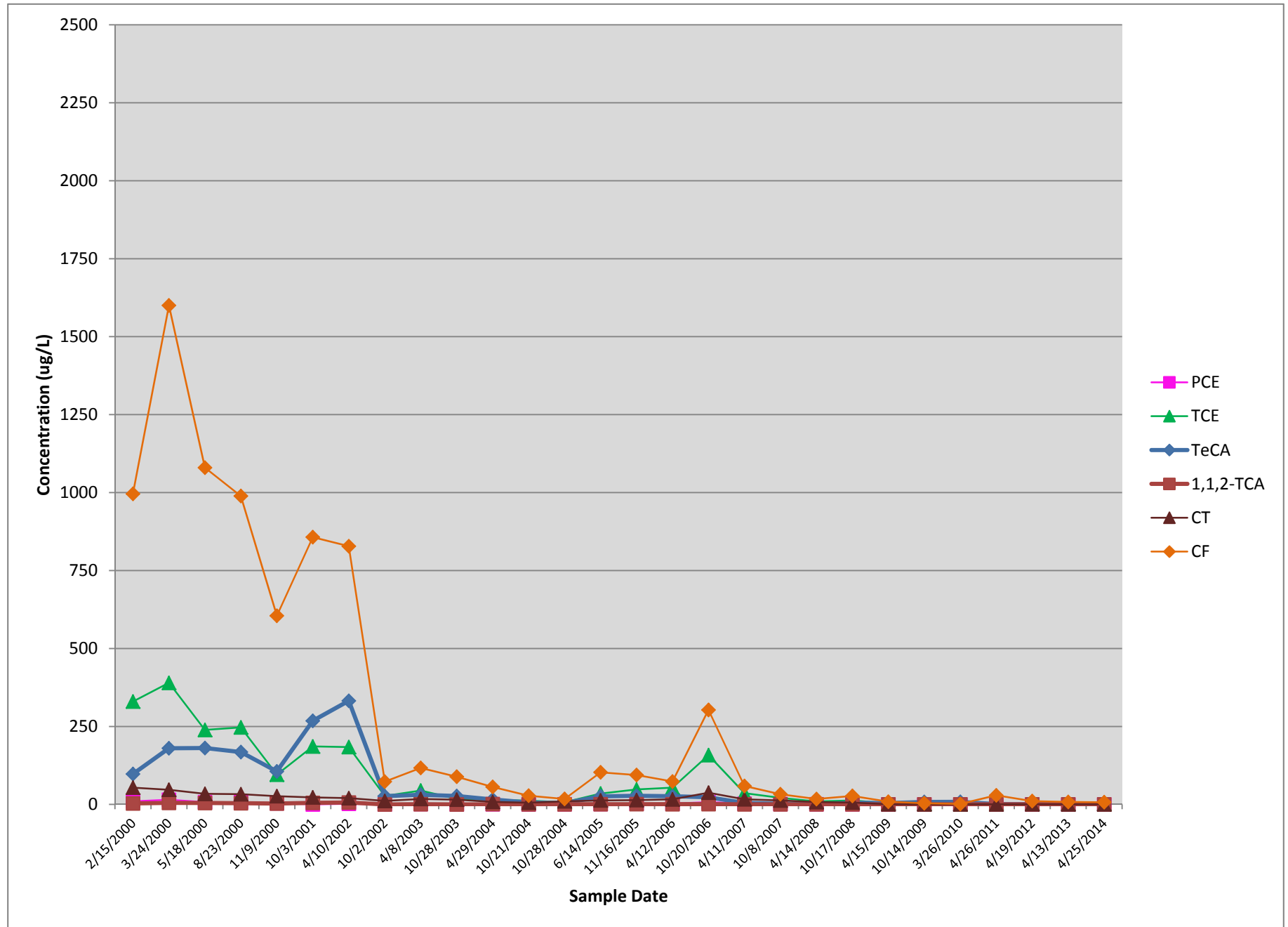




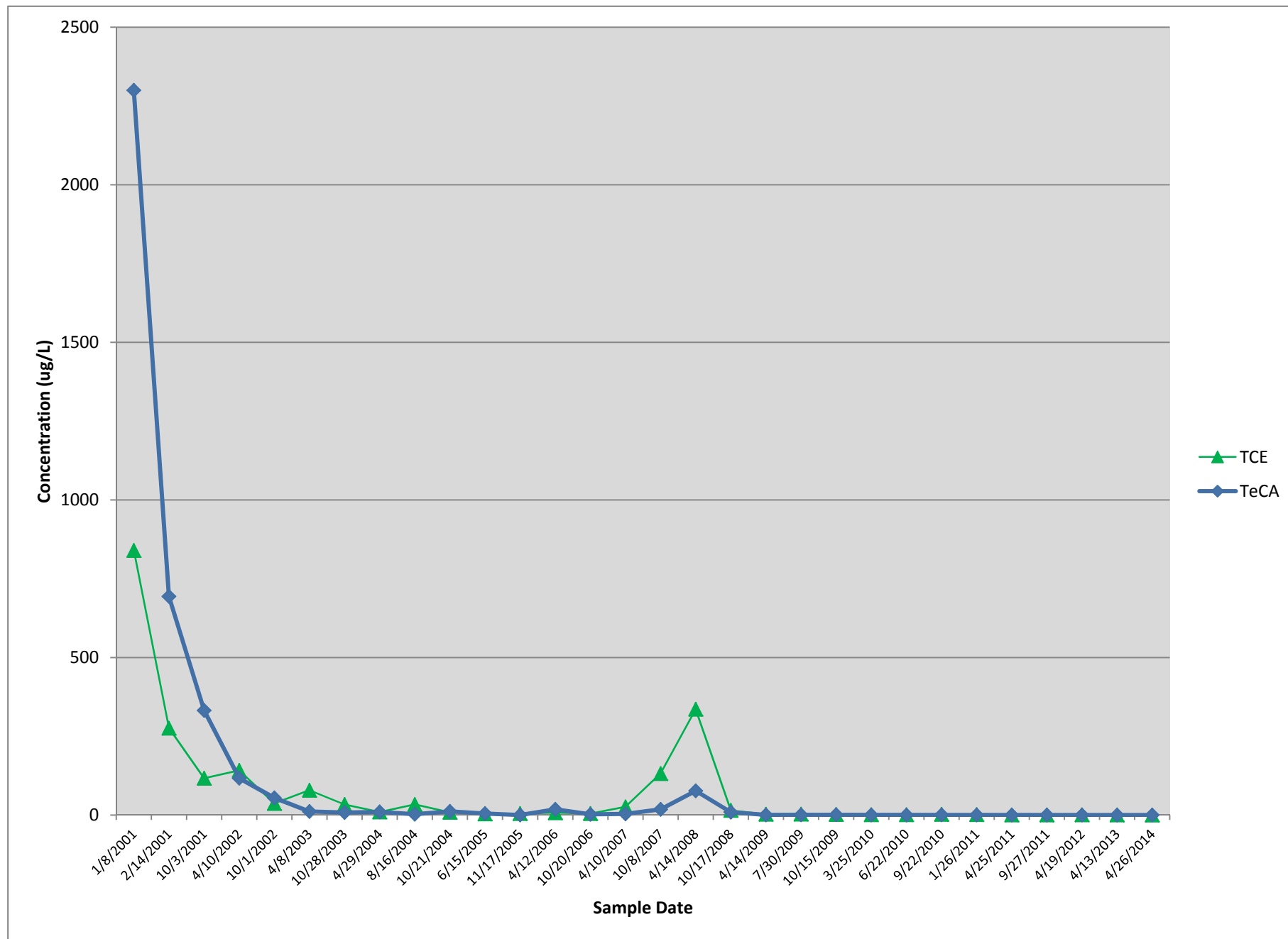
MW-70



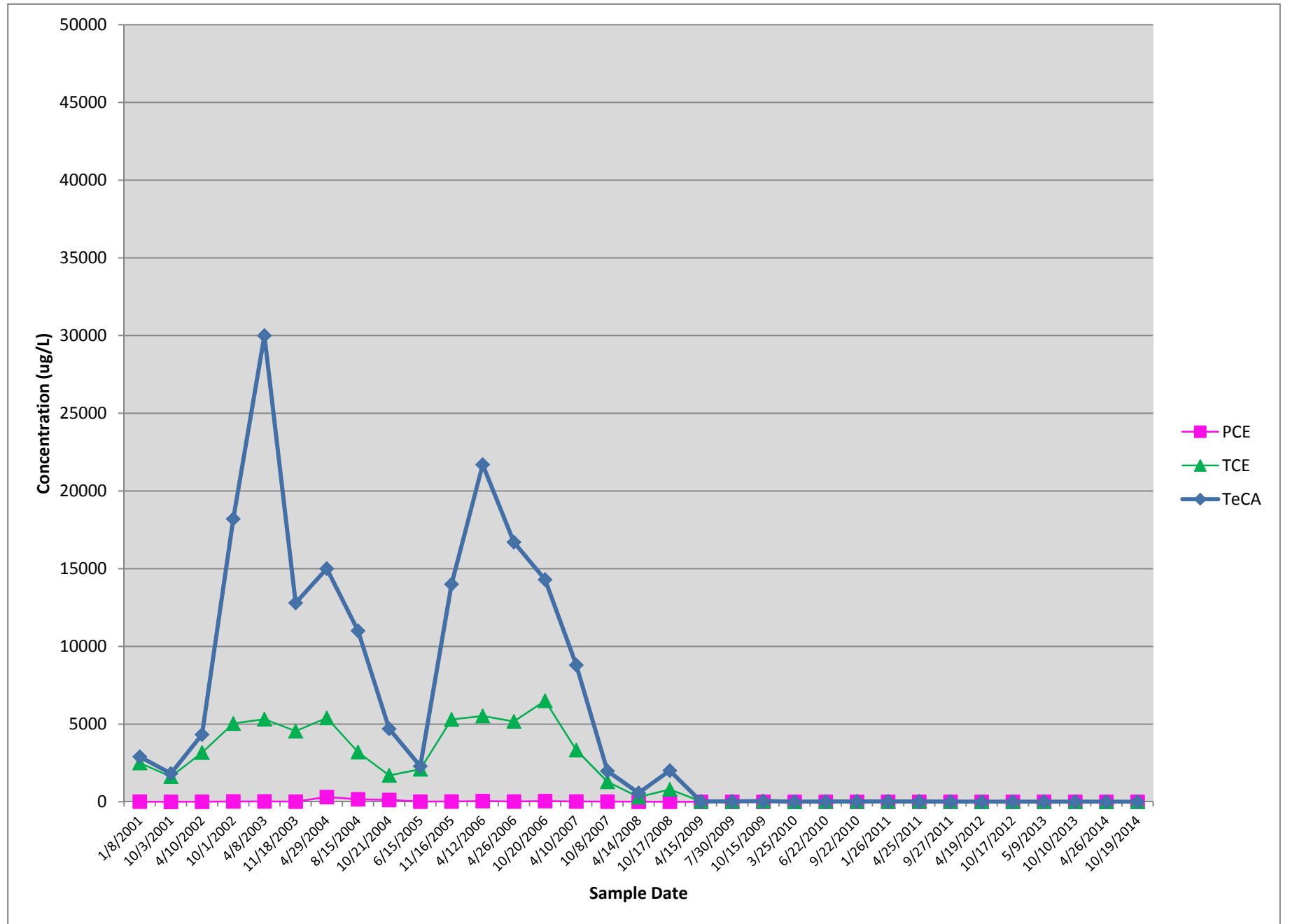
MW-71



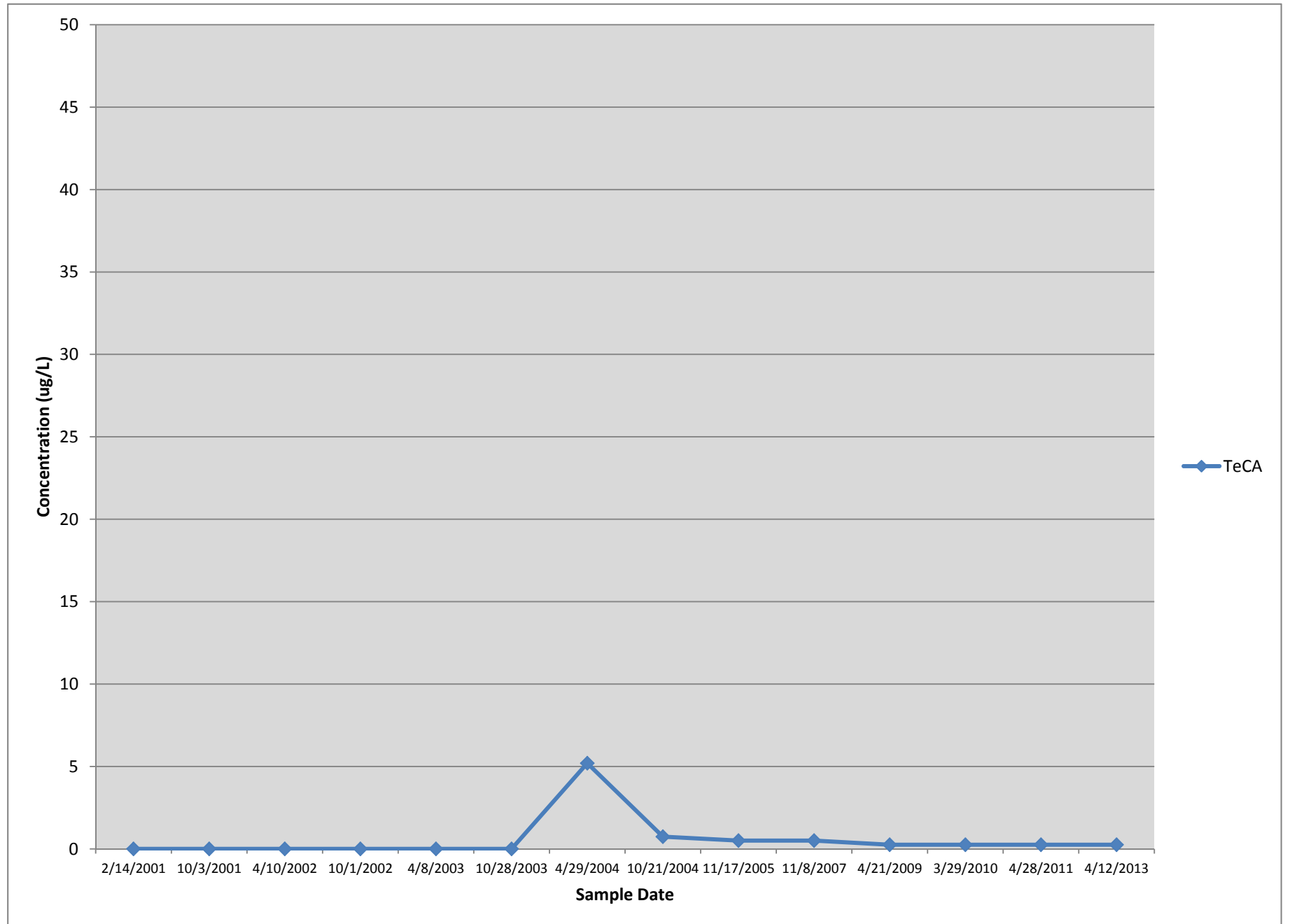
MW-76

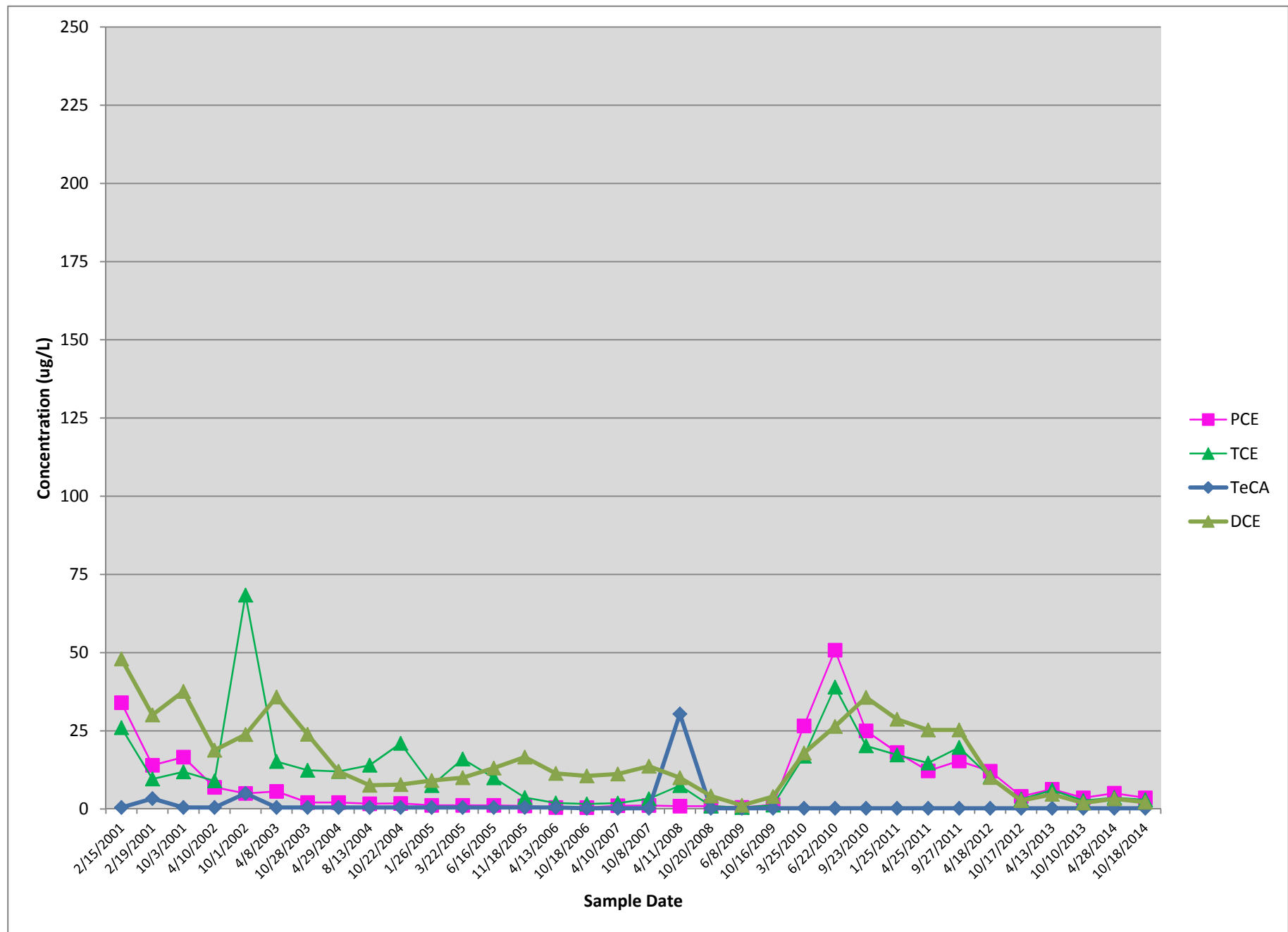


MW-77

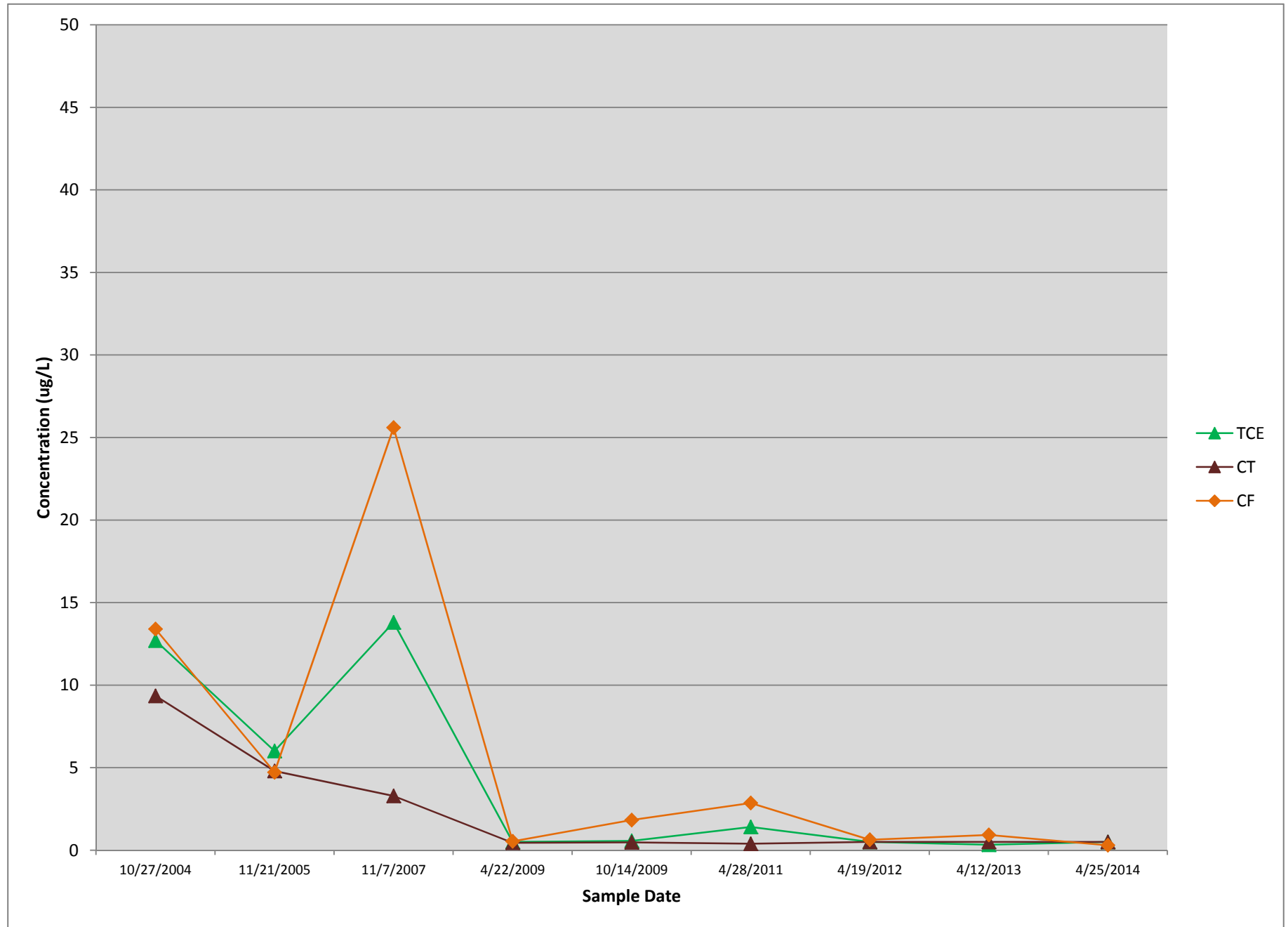


MW-78

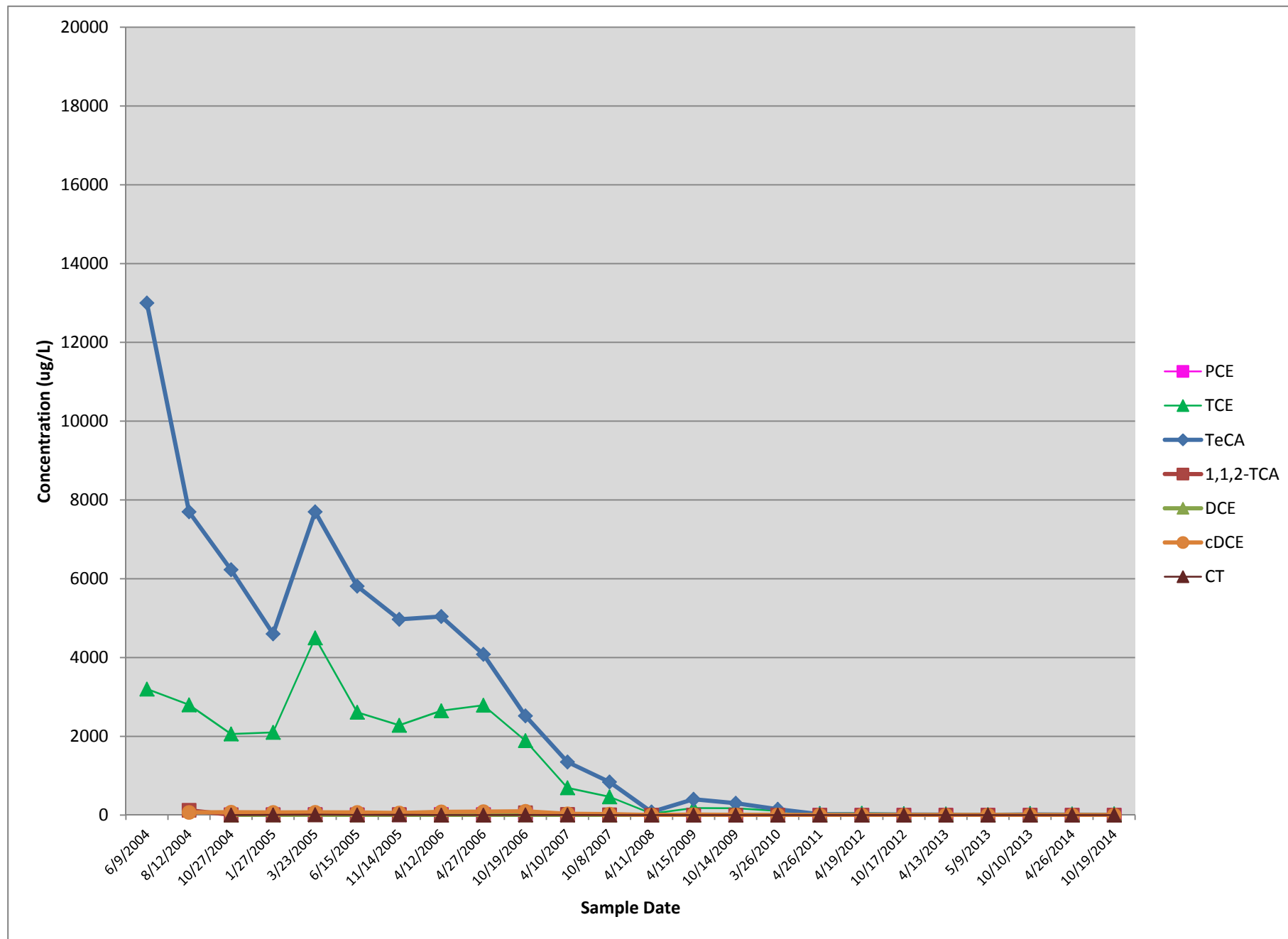




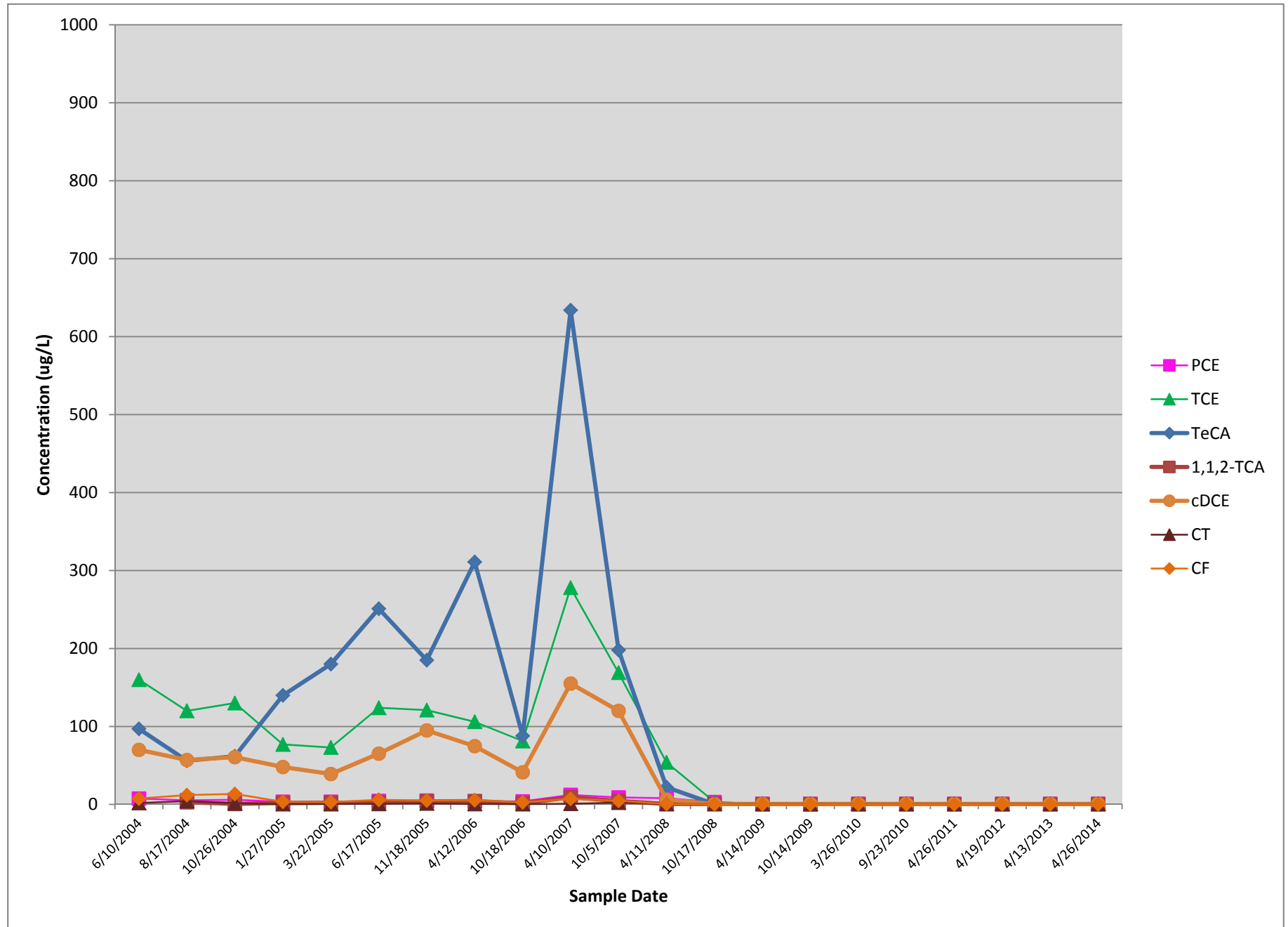
MW-91



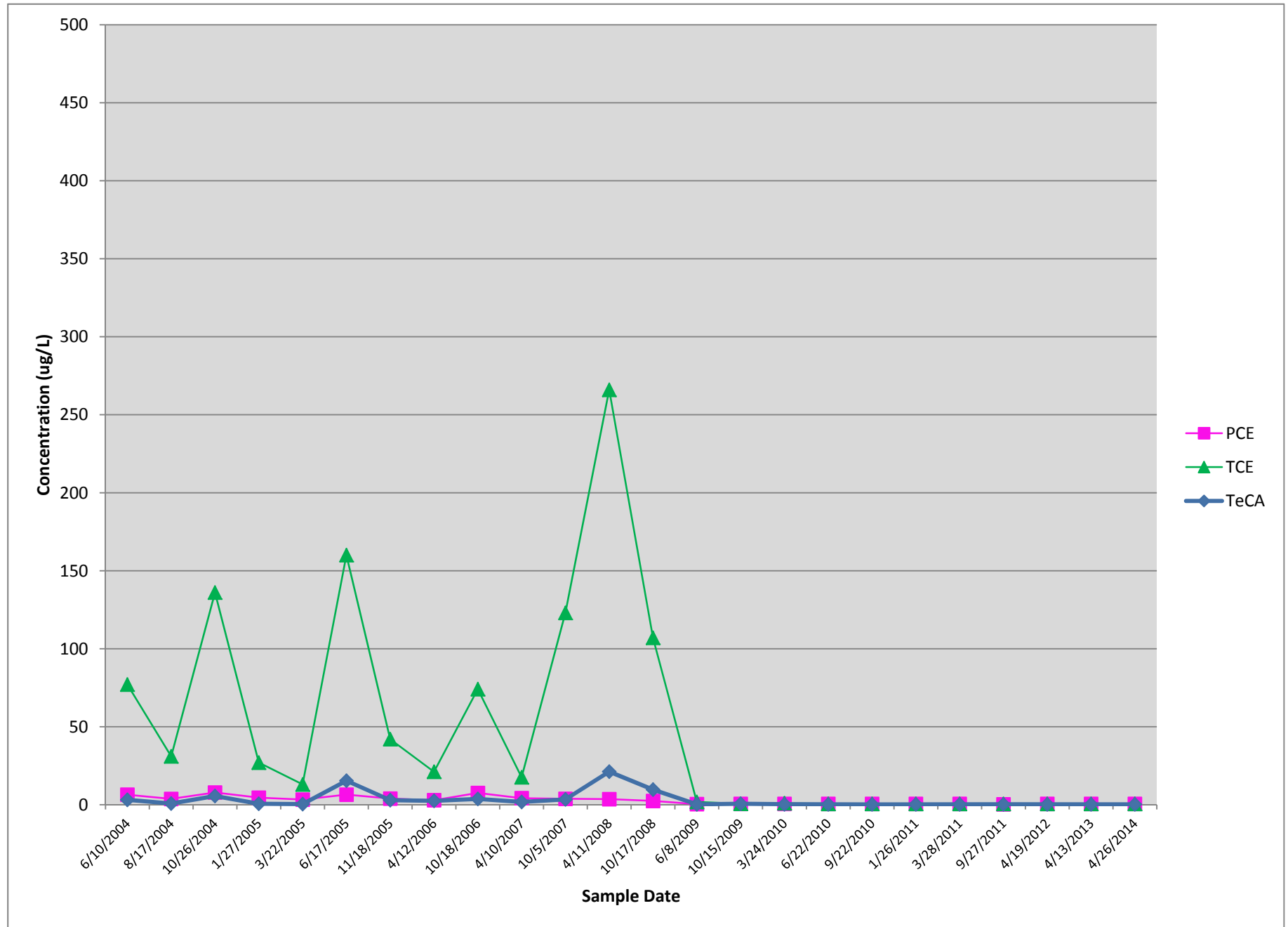
MW-144



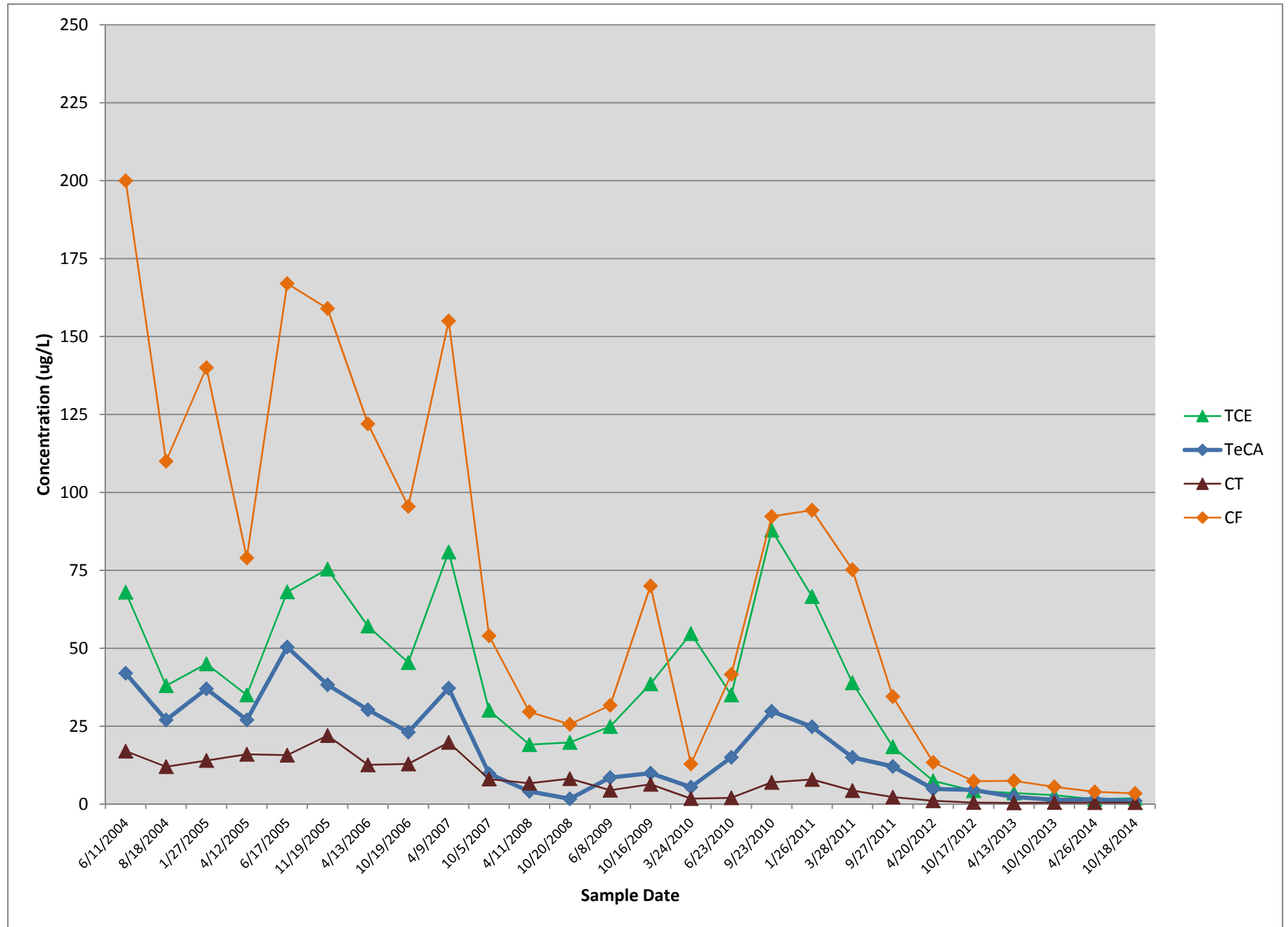
MW-147



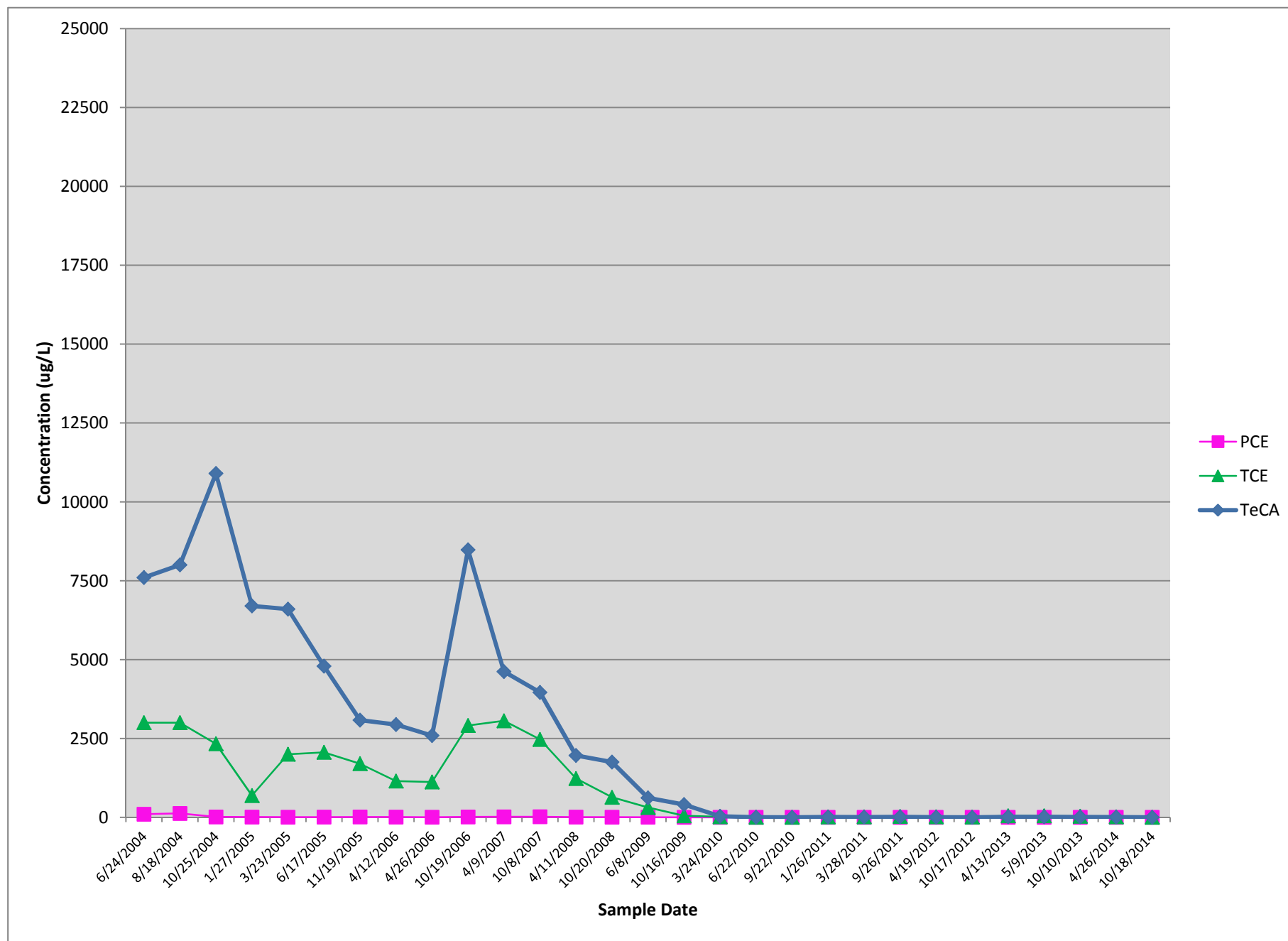
MW-148



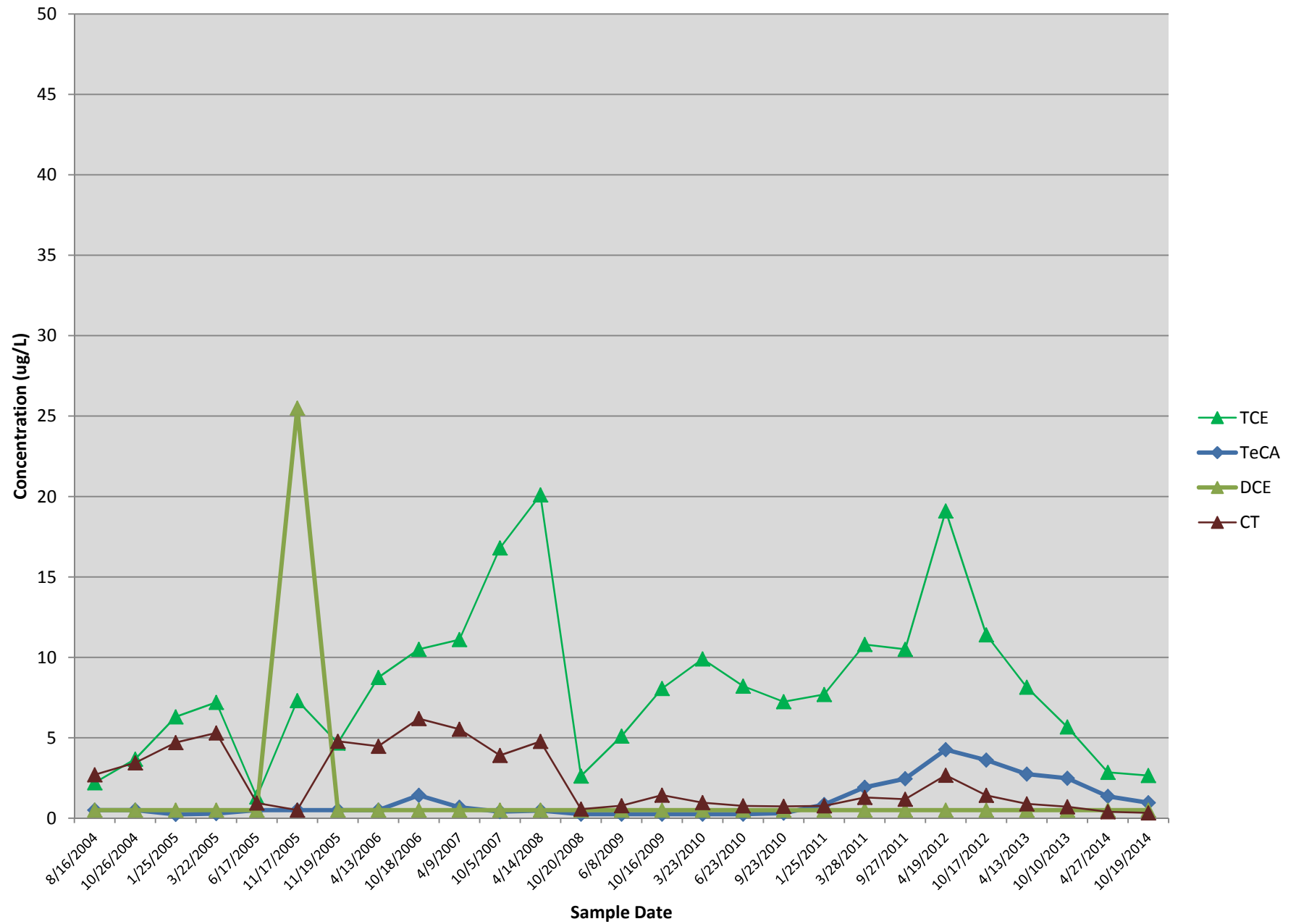
MW-149



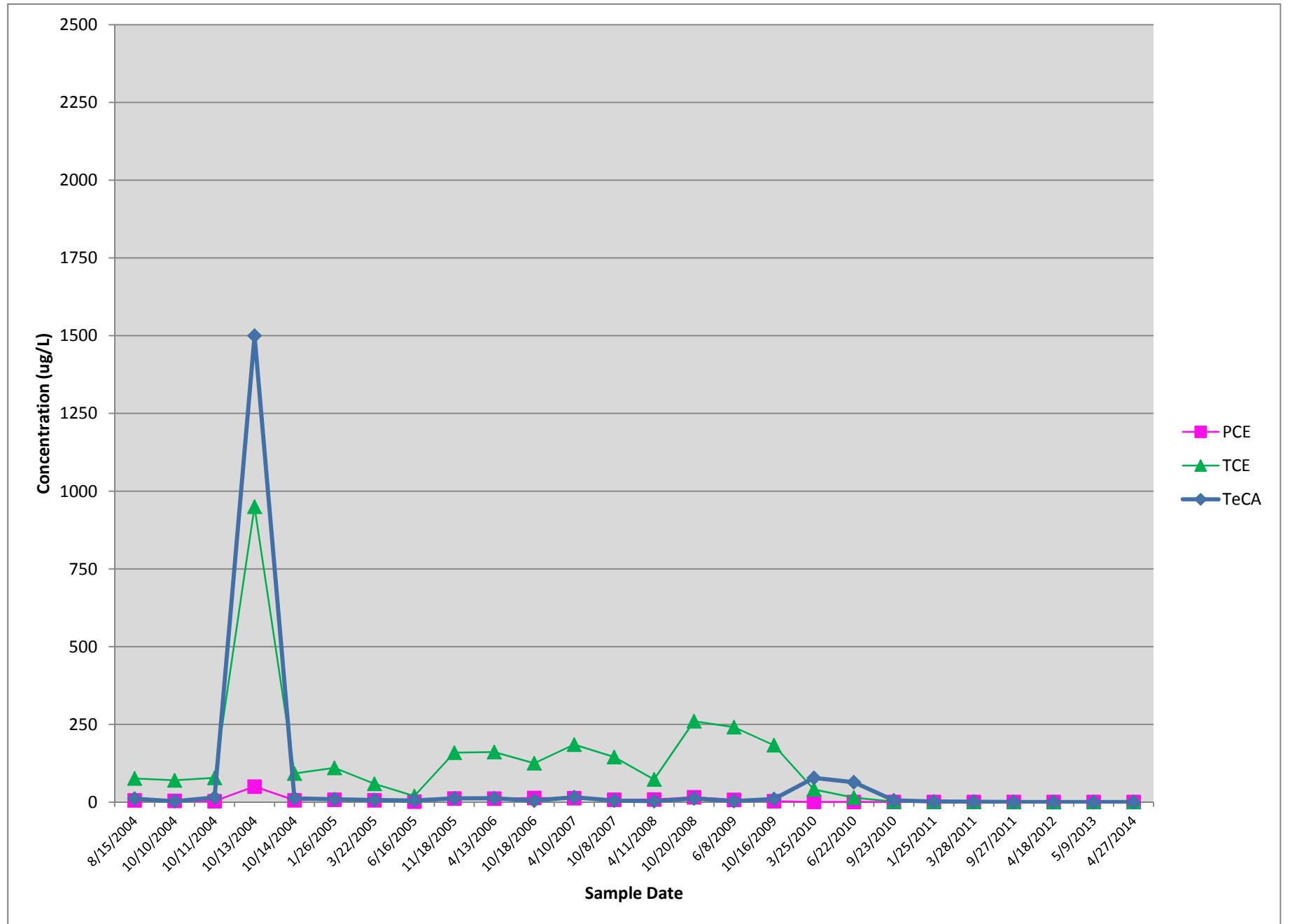
MW-150



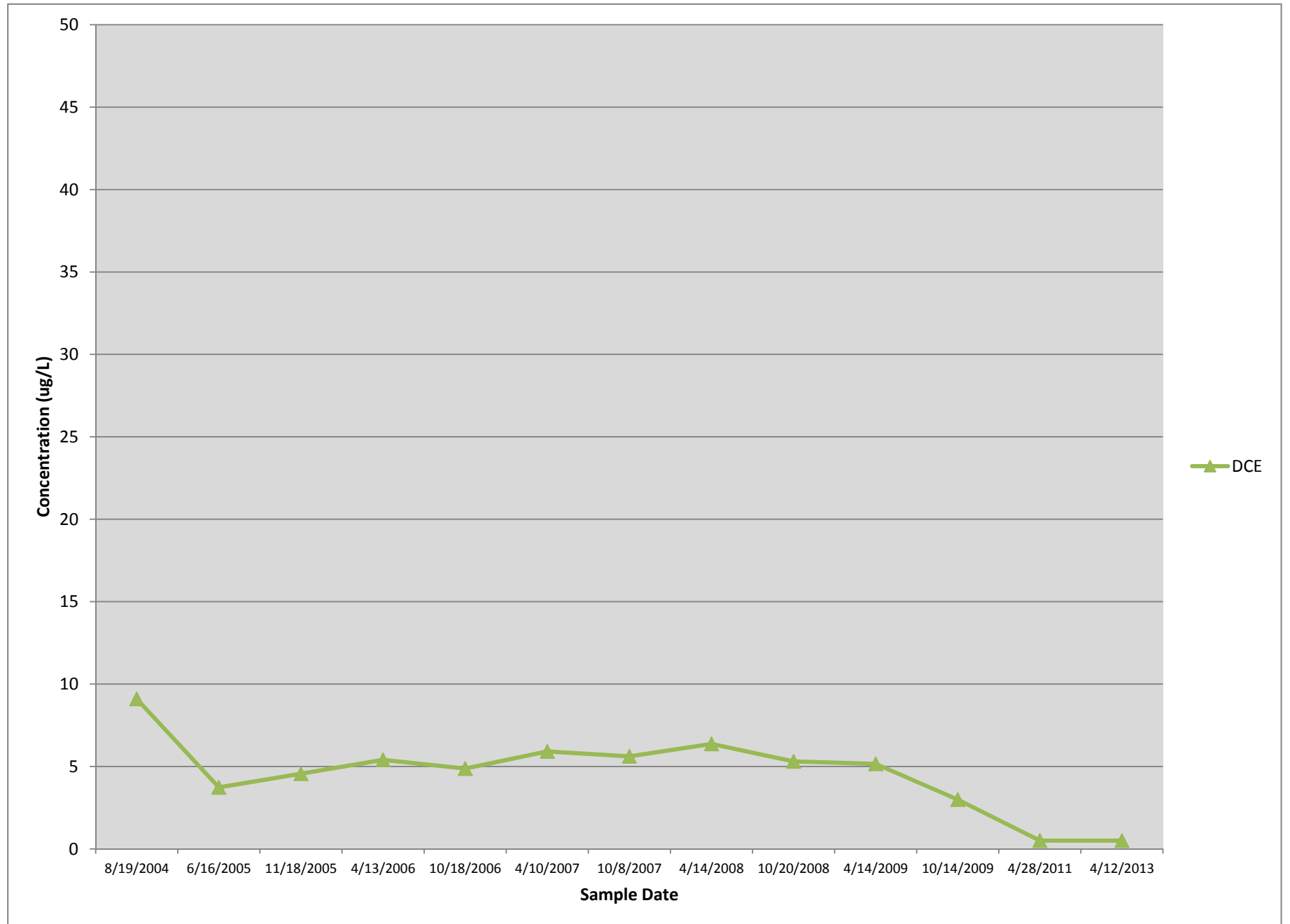
MW-151



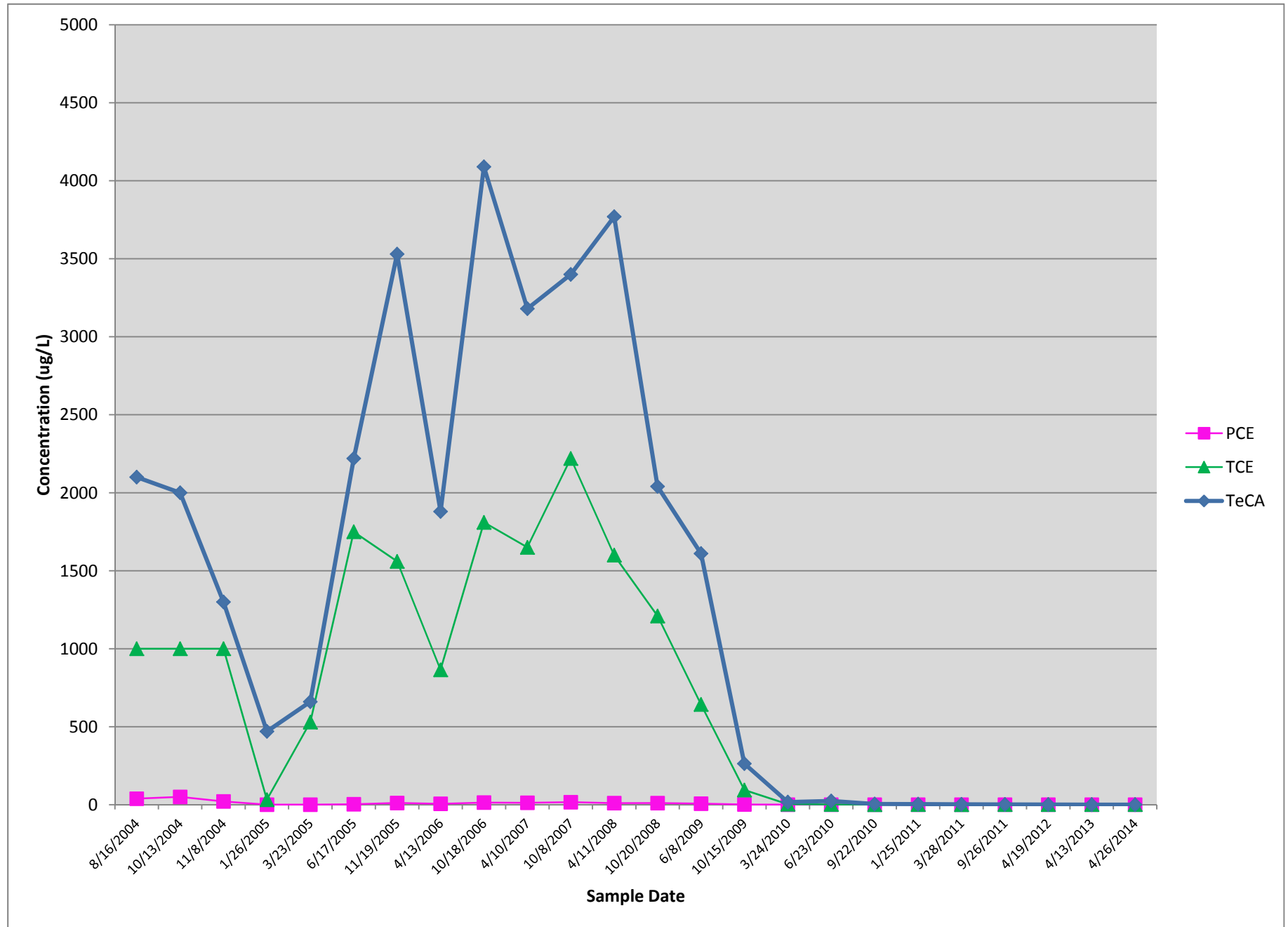
MW-152



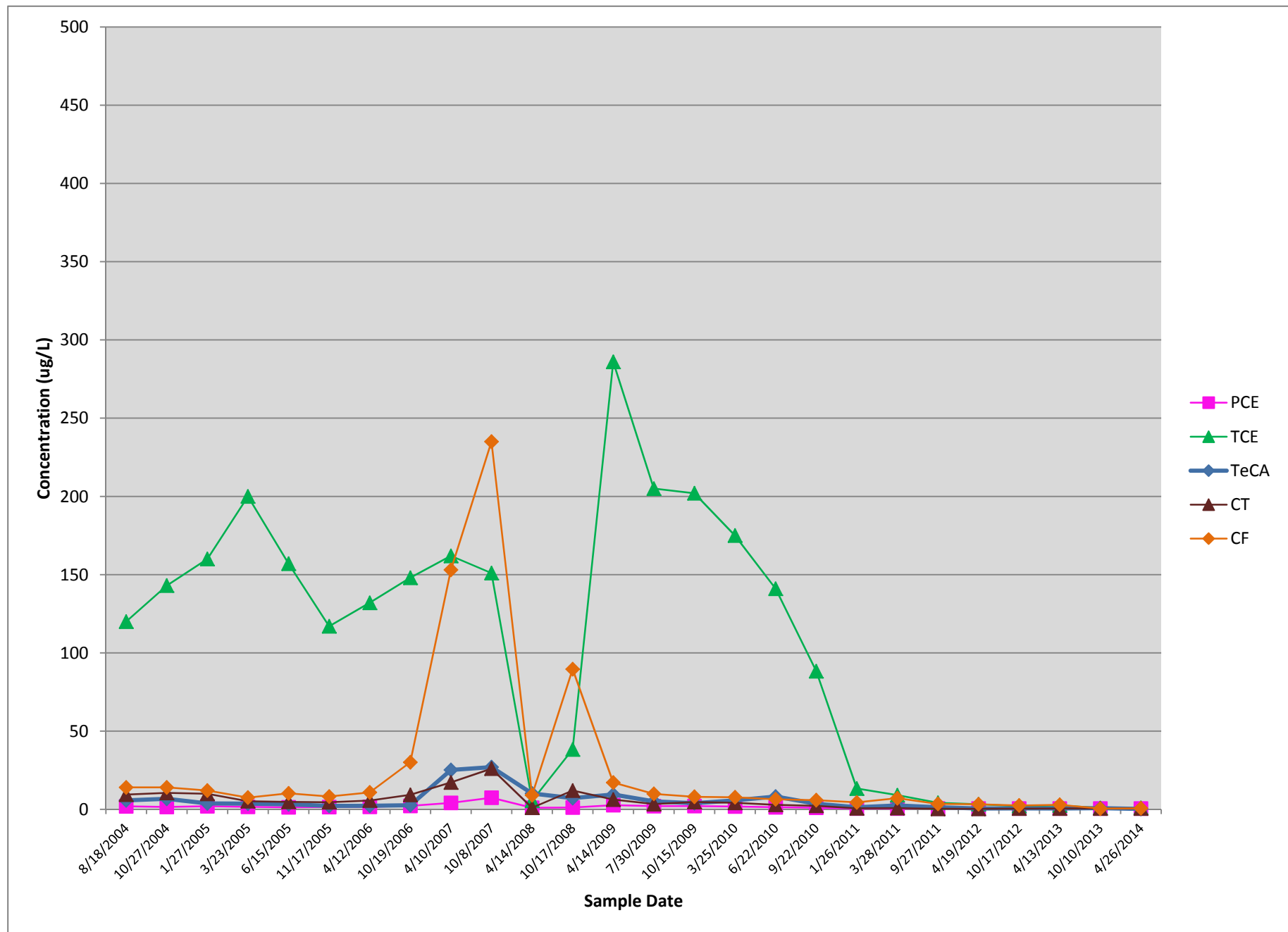
MW-153



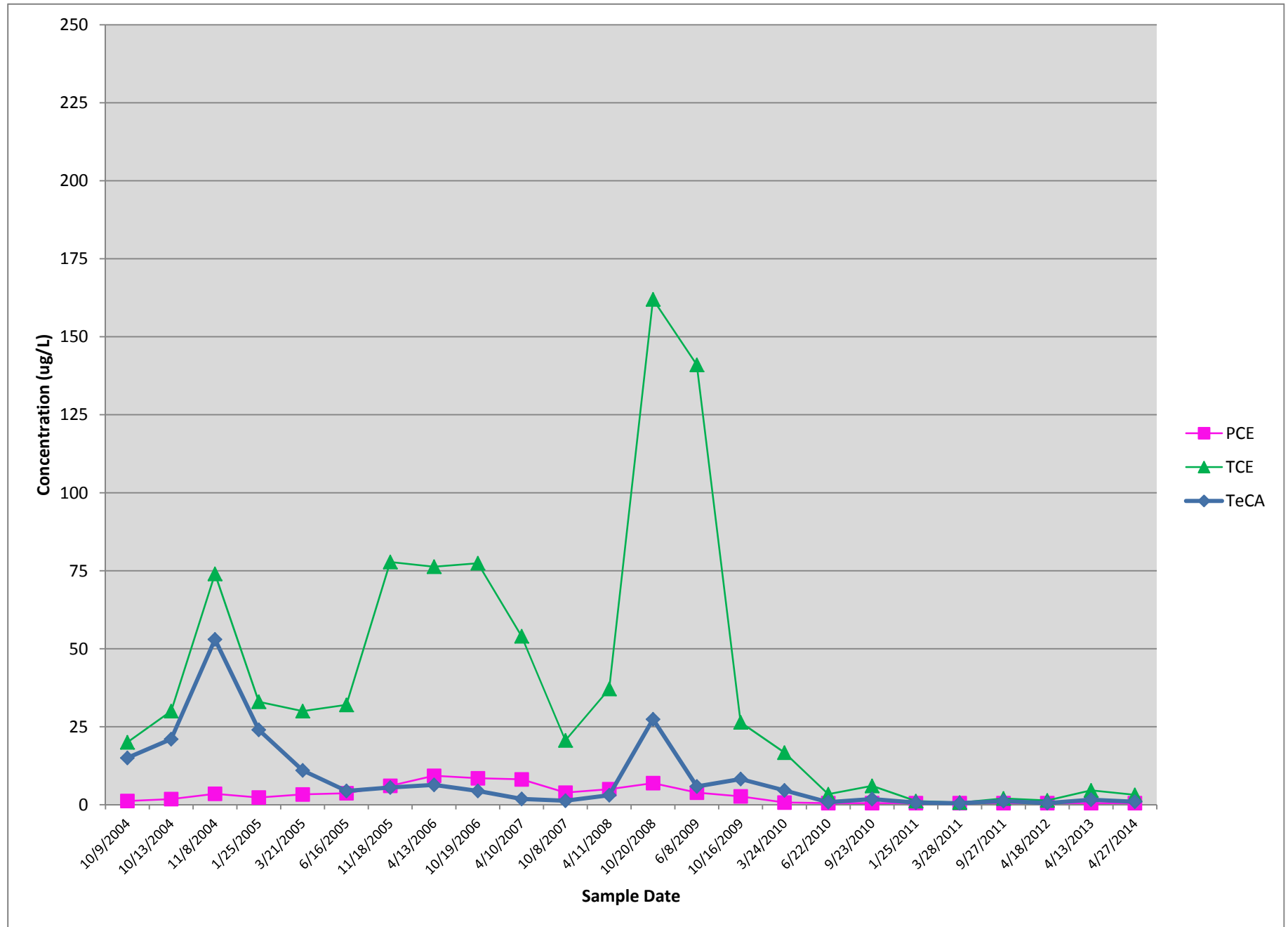
MW-155



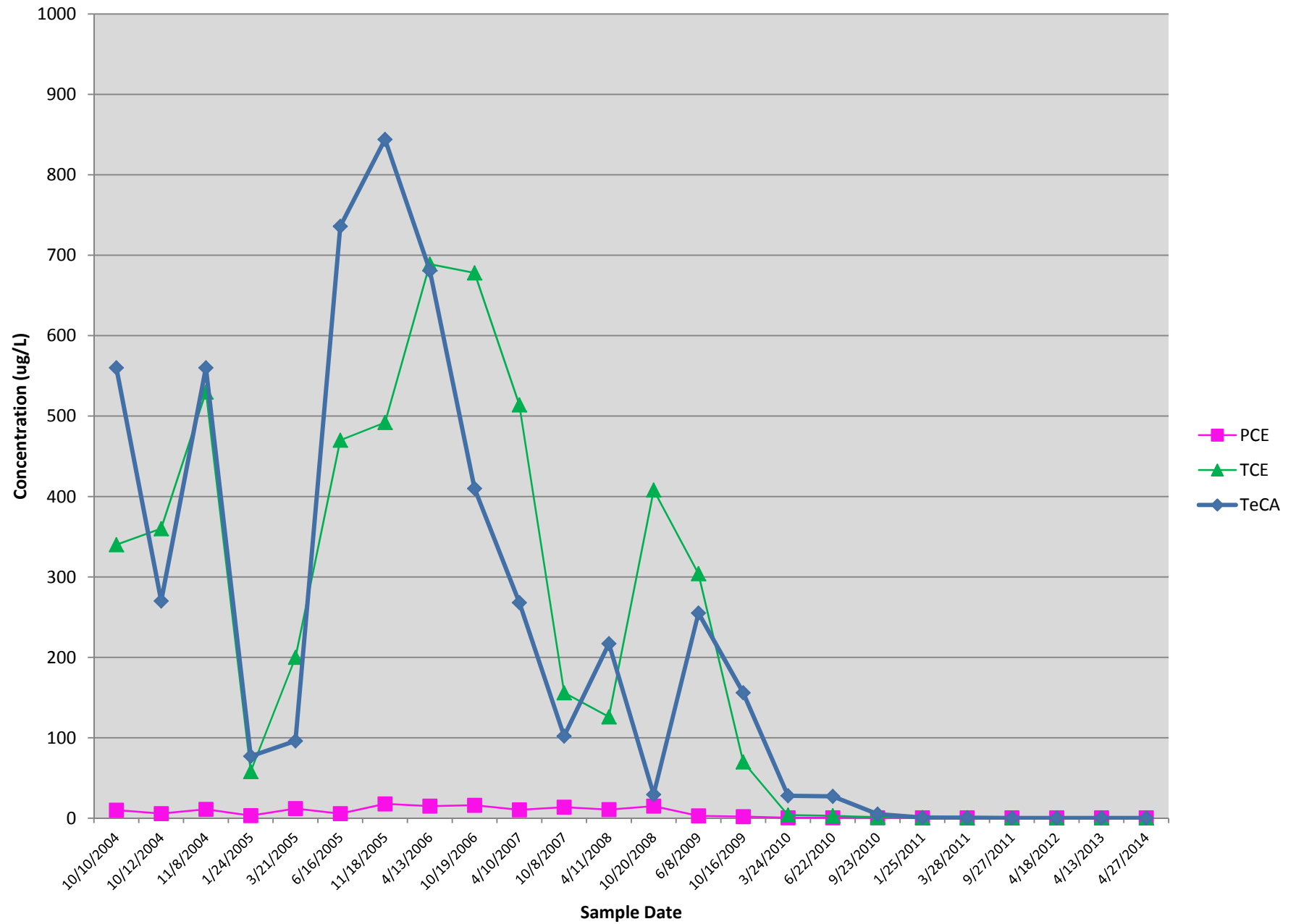
MW-157



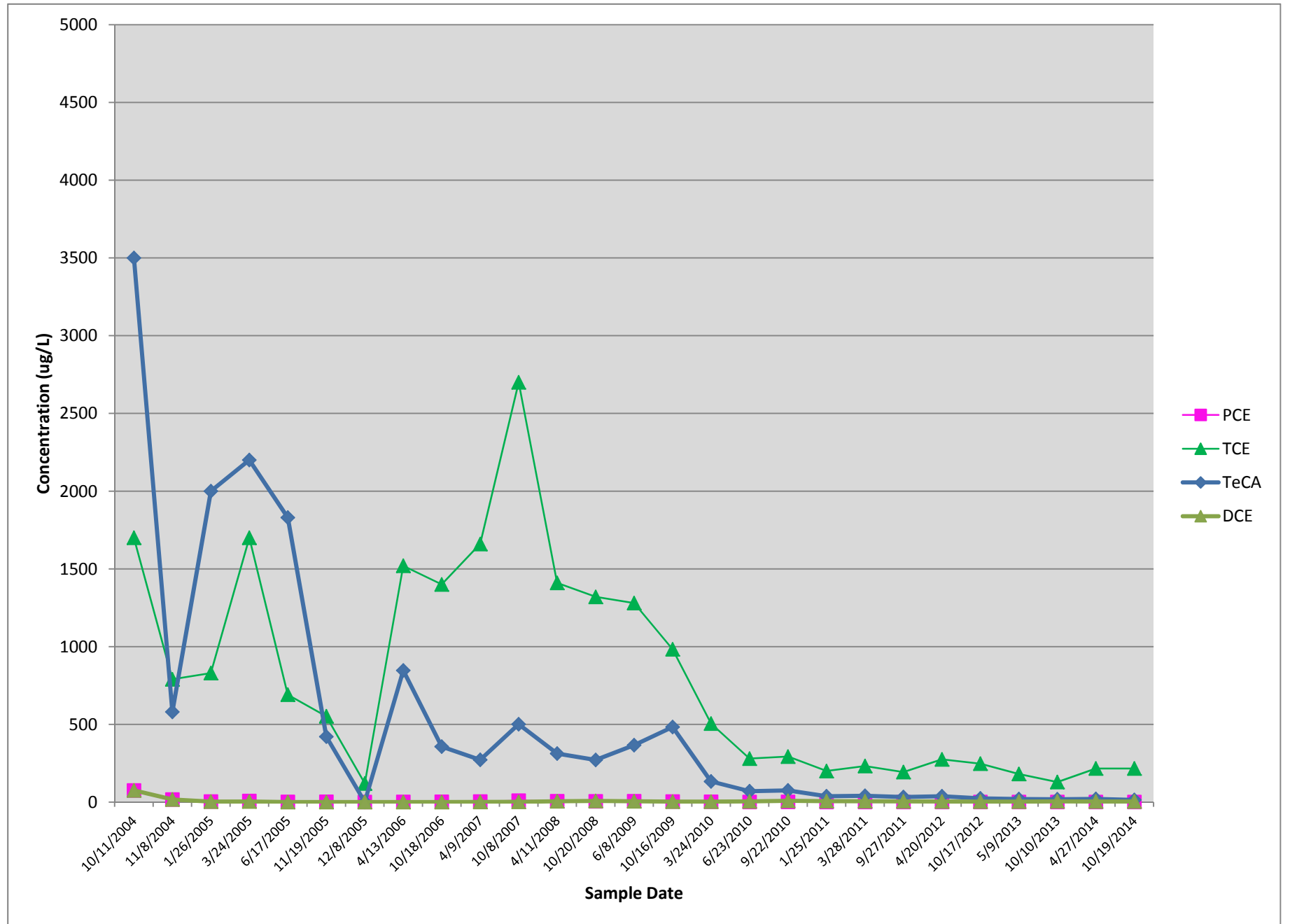
MW-158



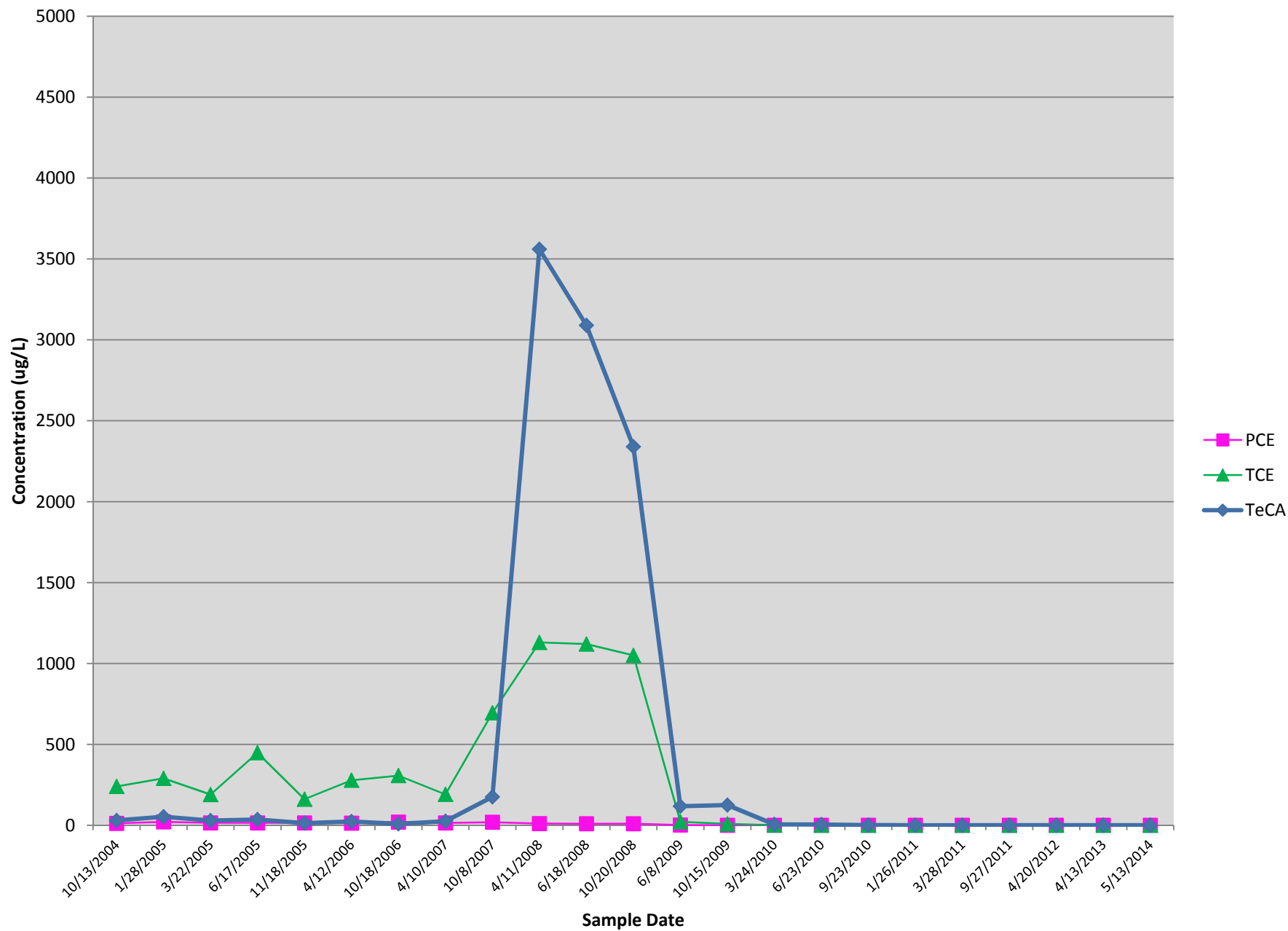
MW-158A



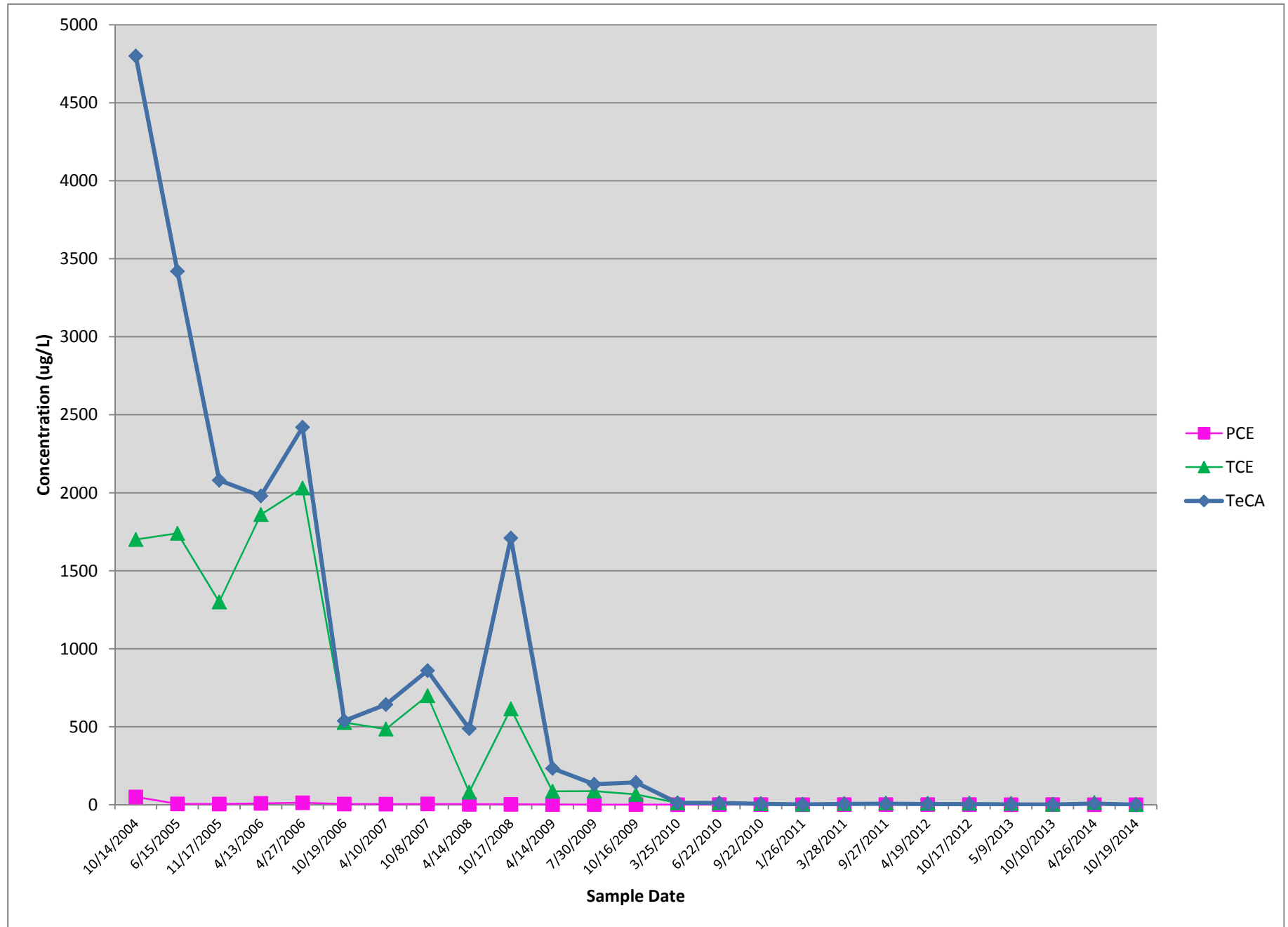
MW-159



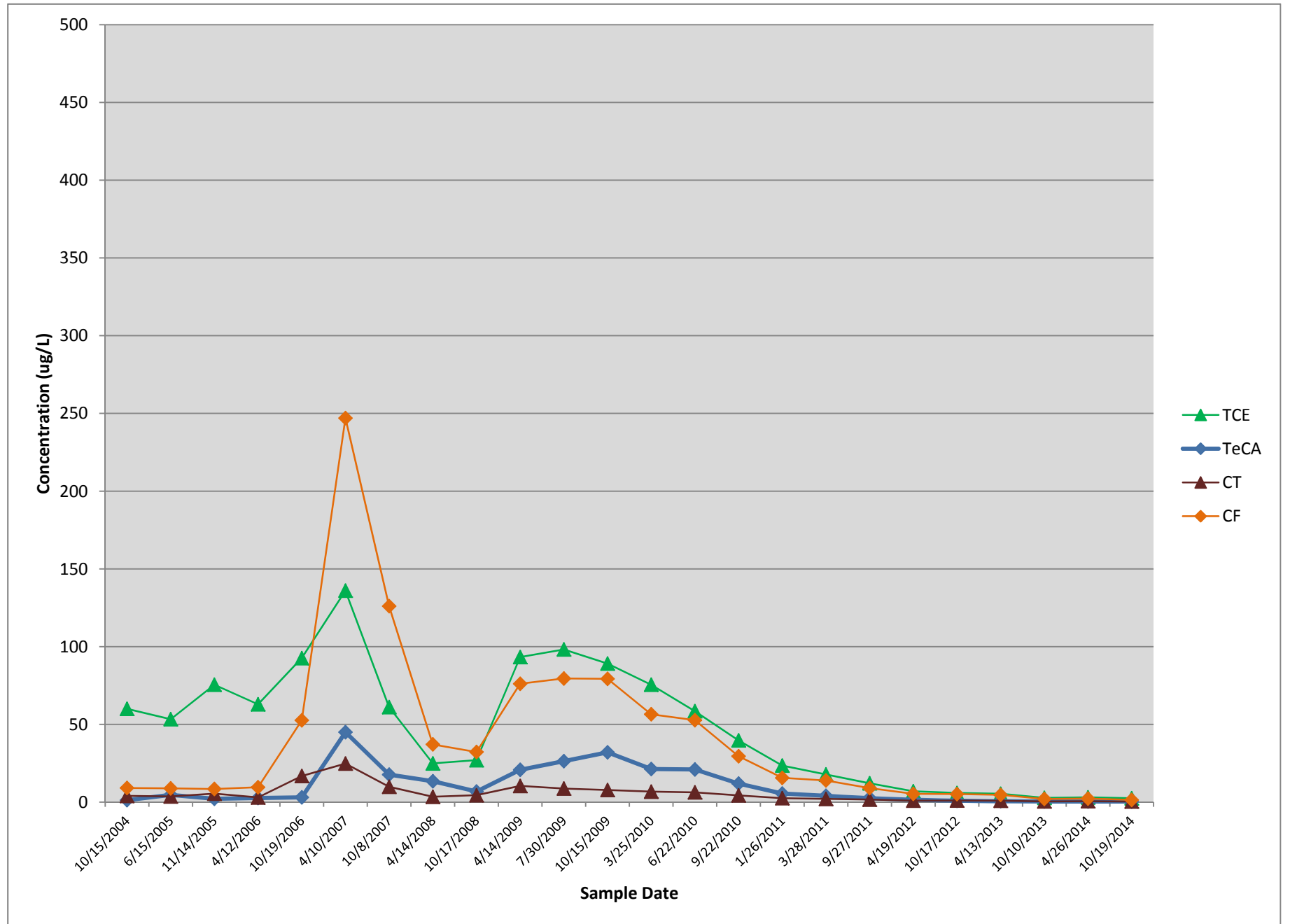
MW-160



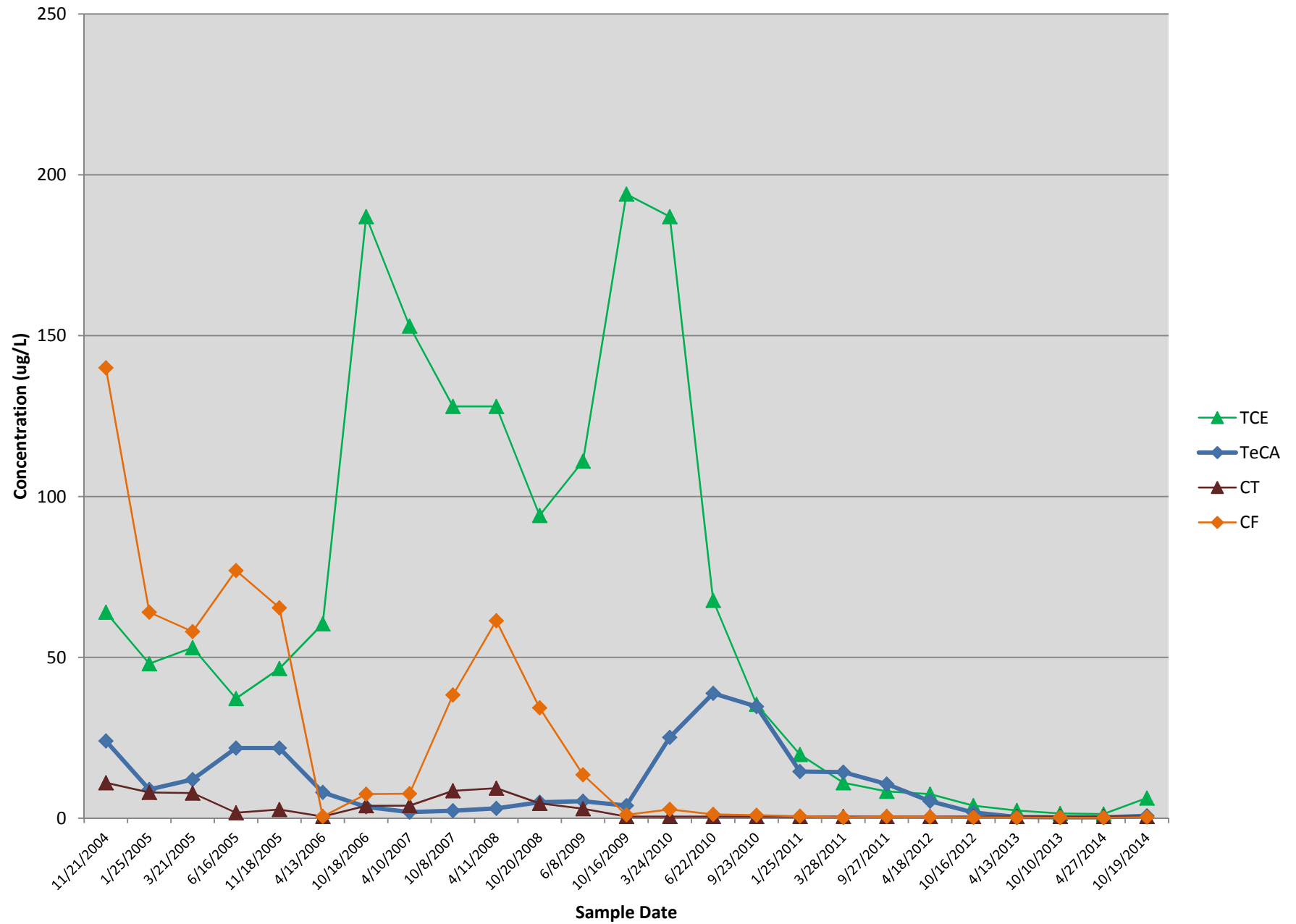
MW-163



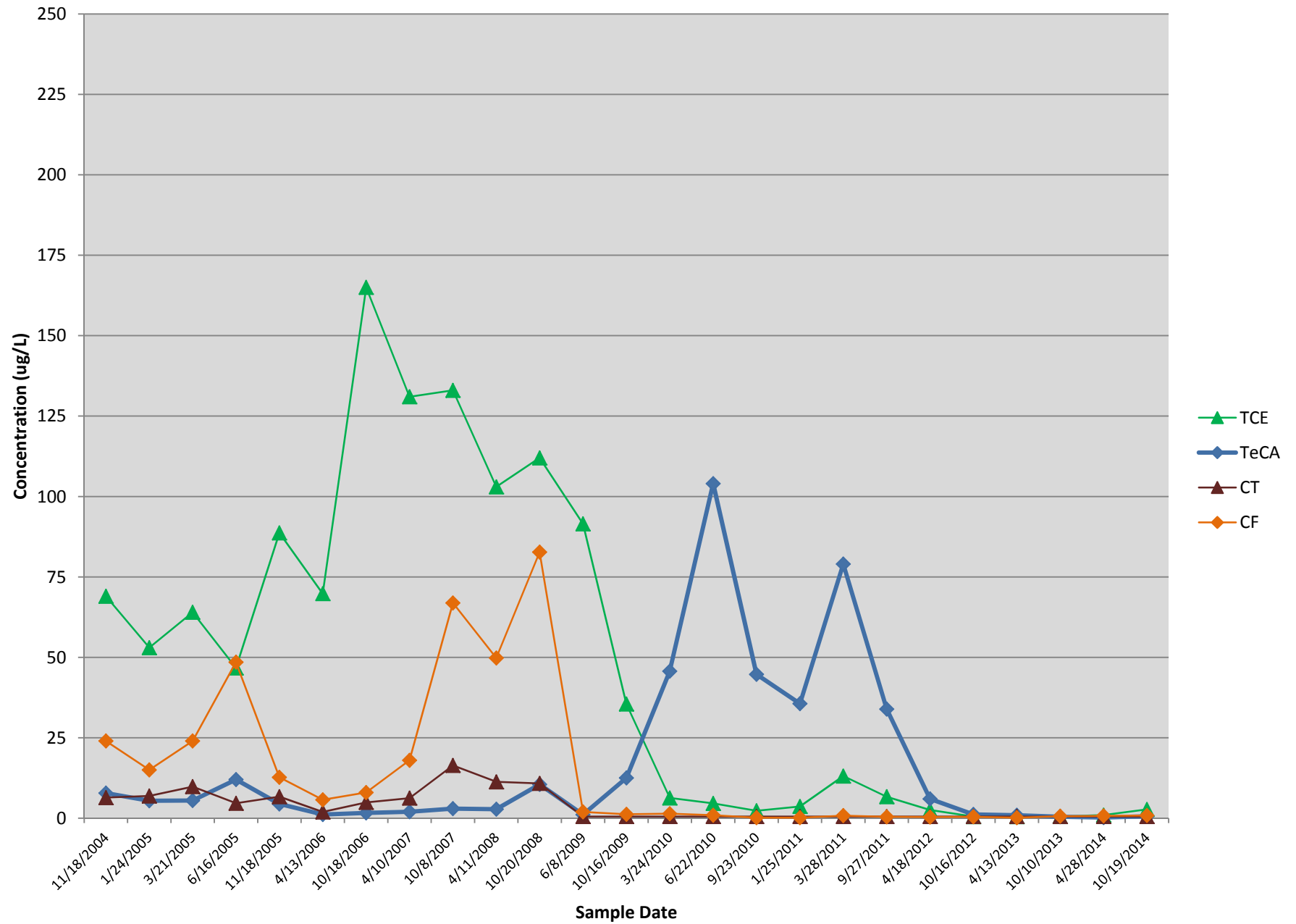
MW-164



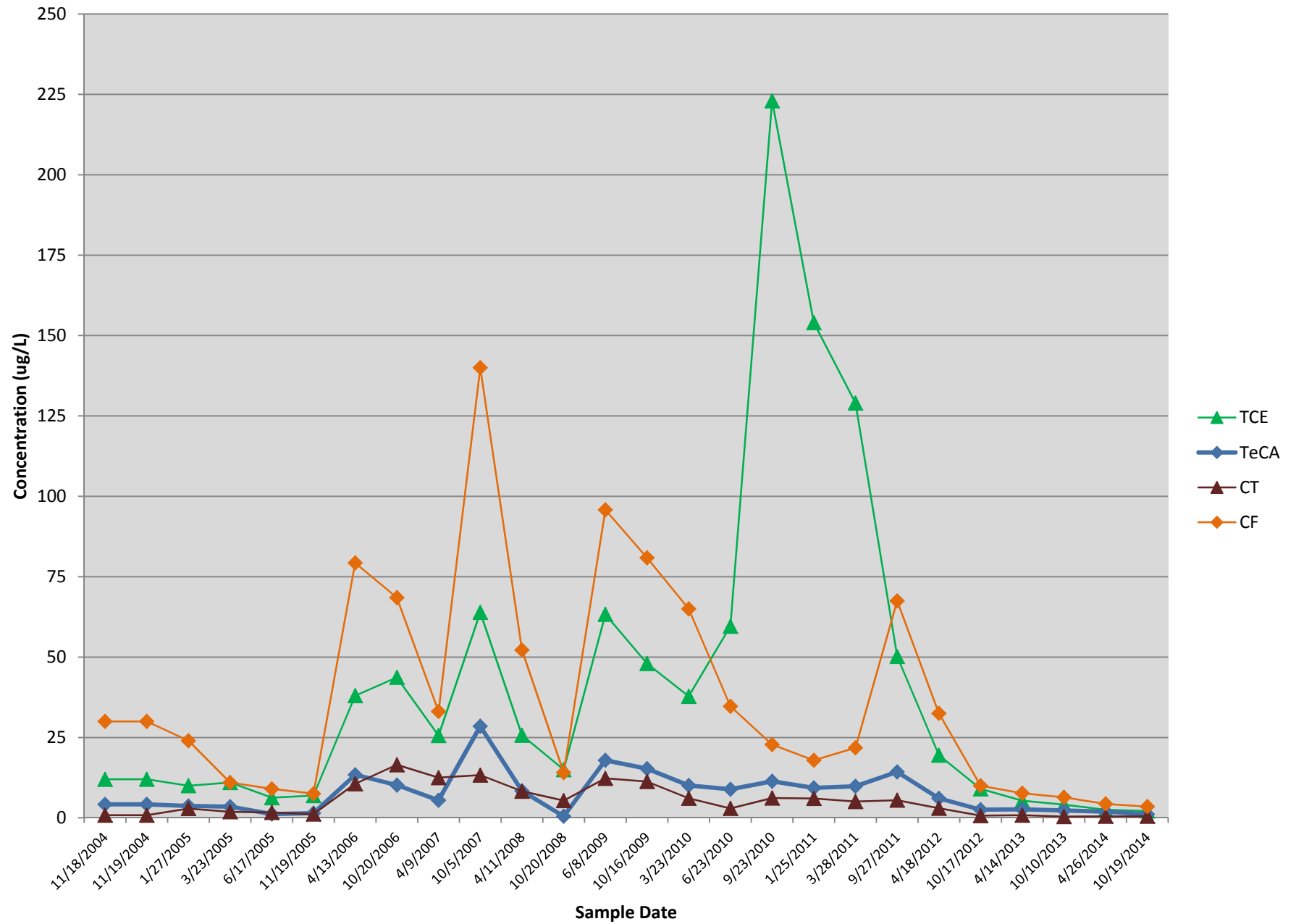
MW-165



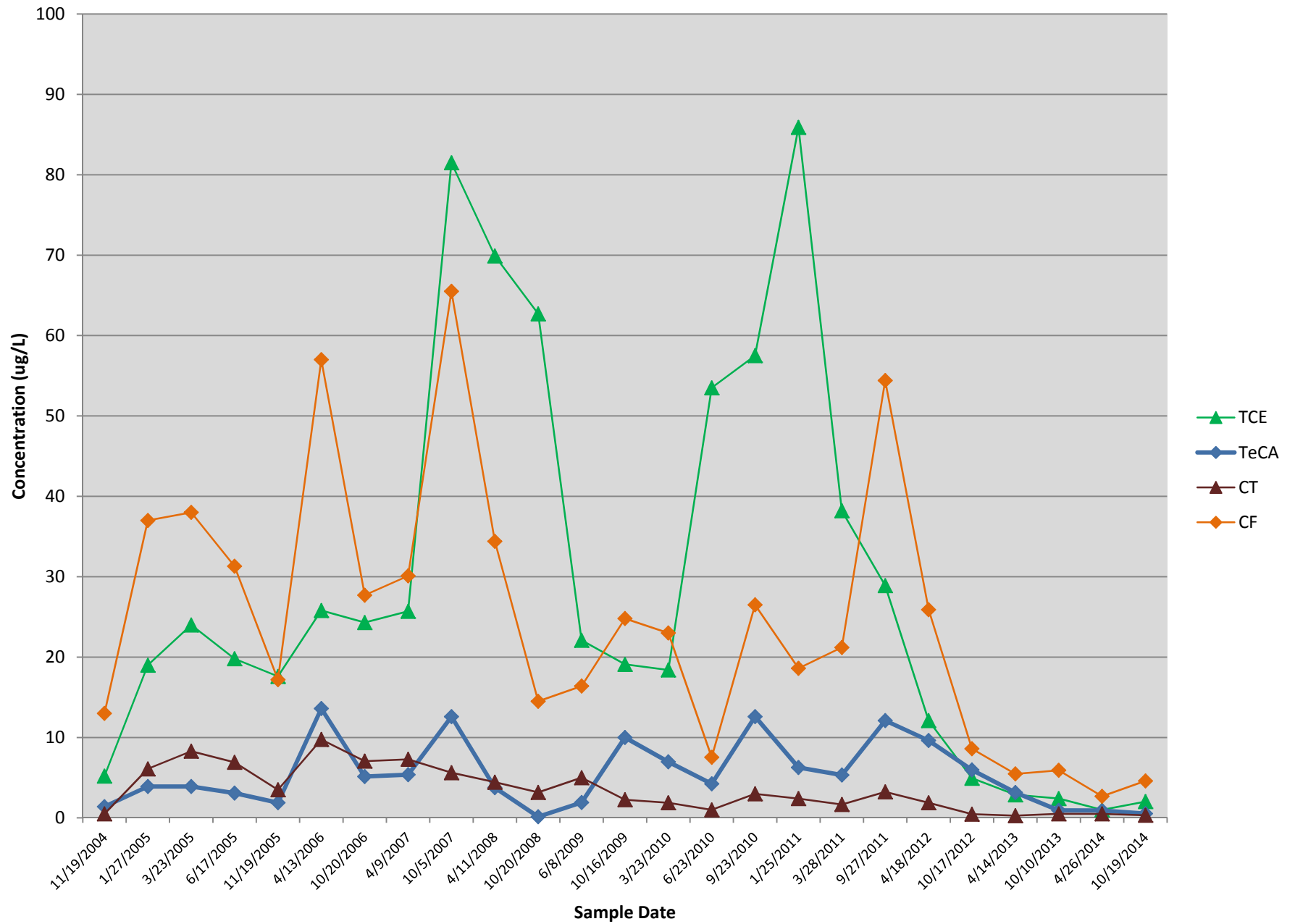
MW-165A



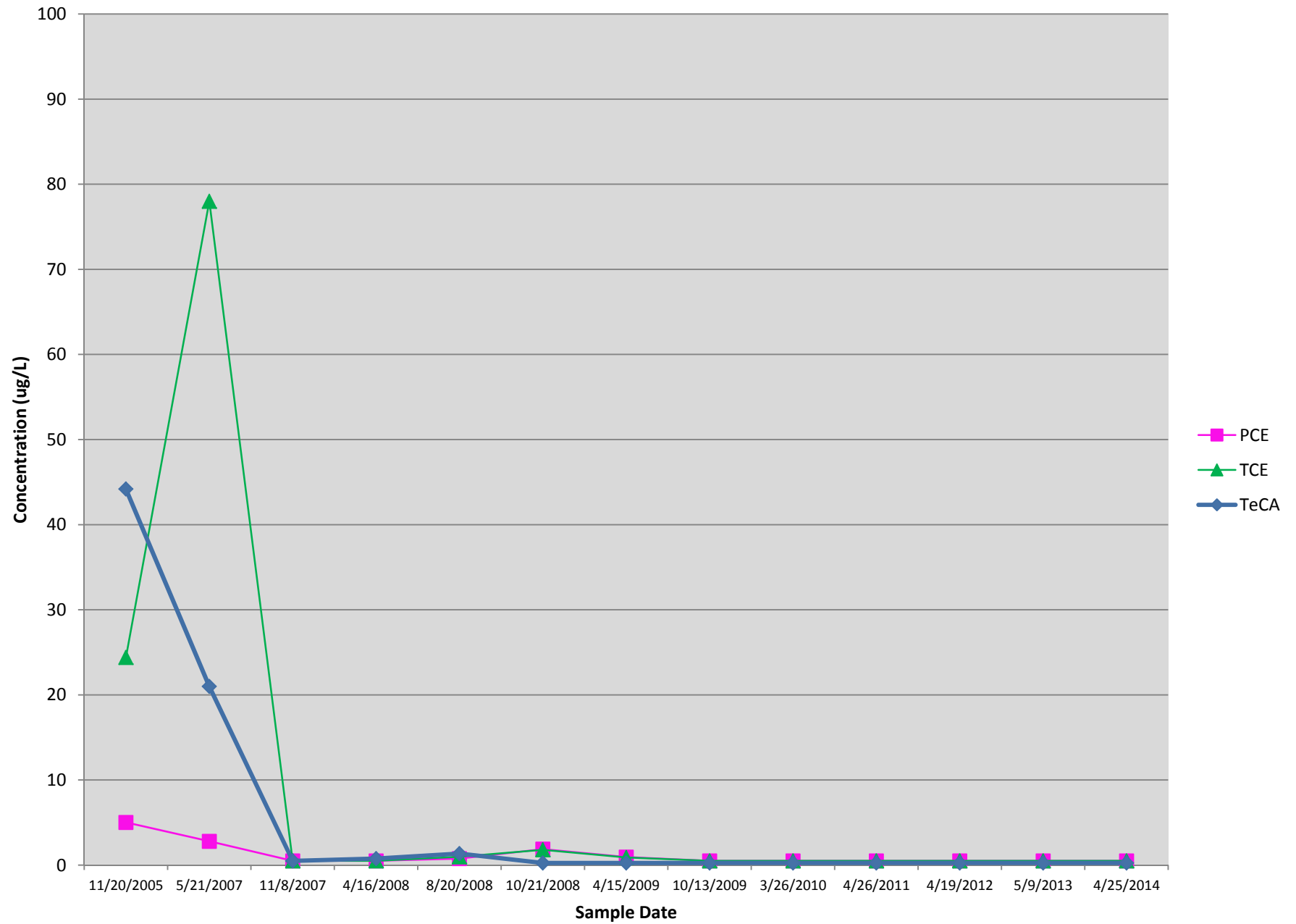
MW-166



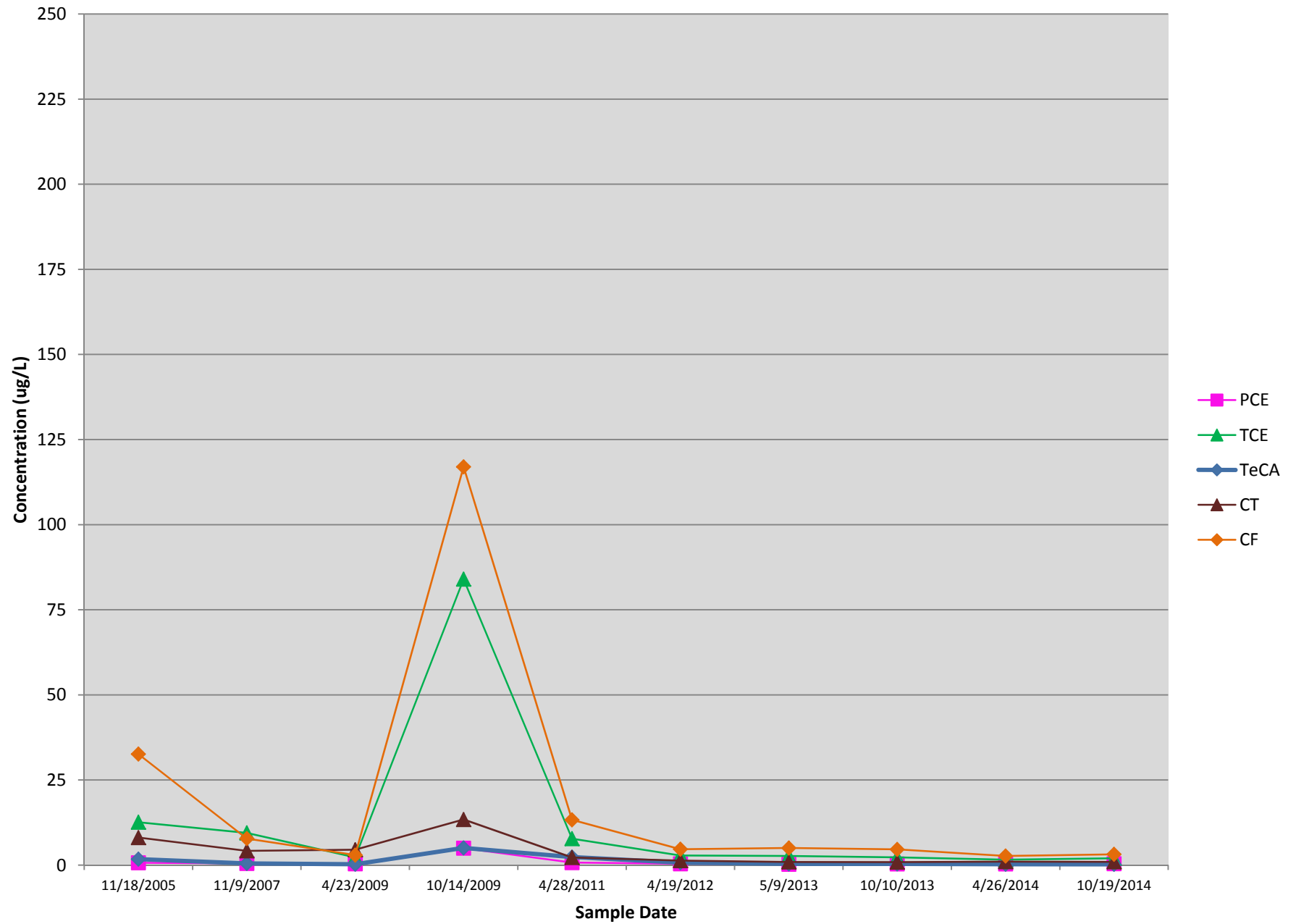
MW-166A



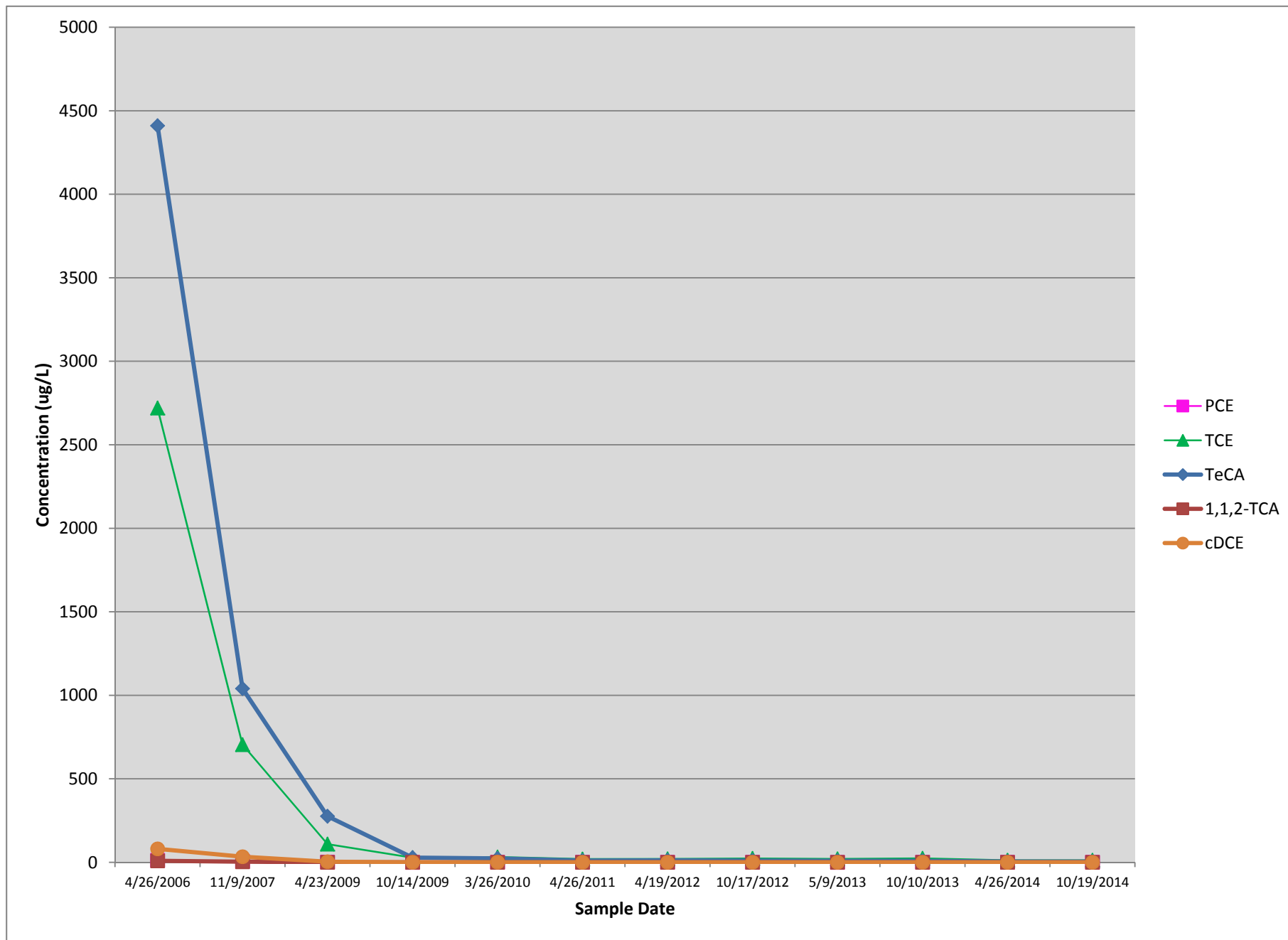
MW-180



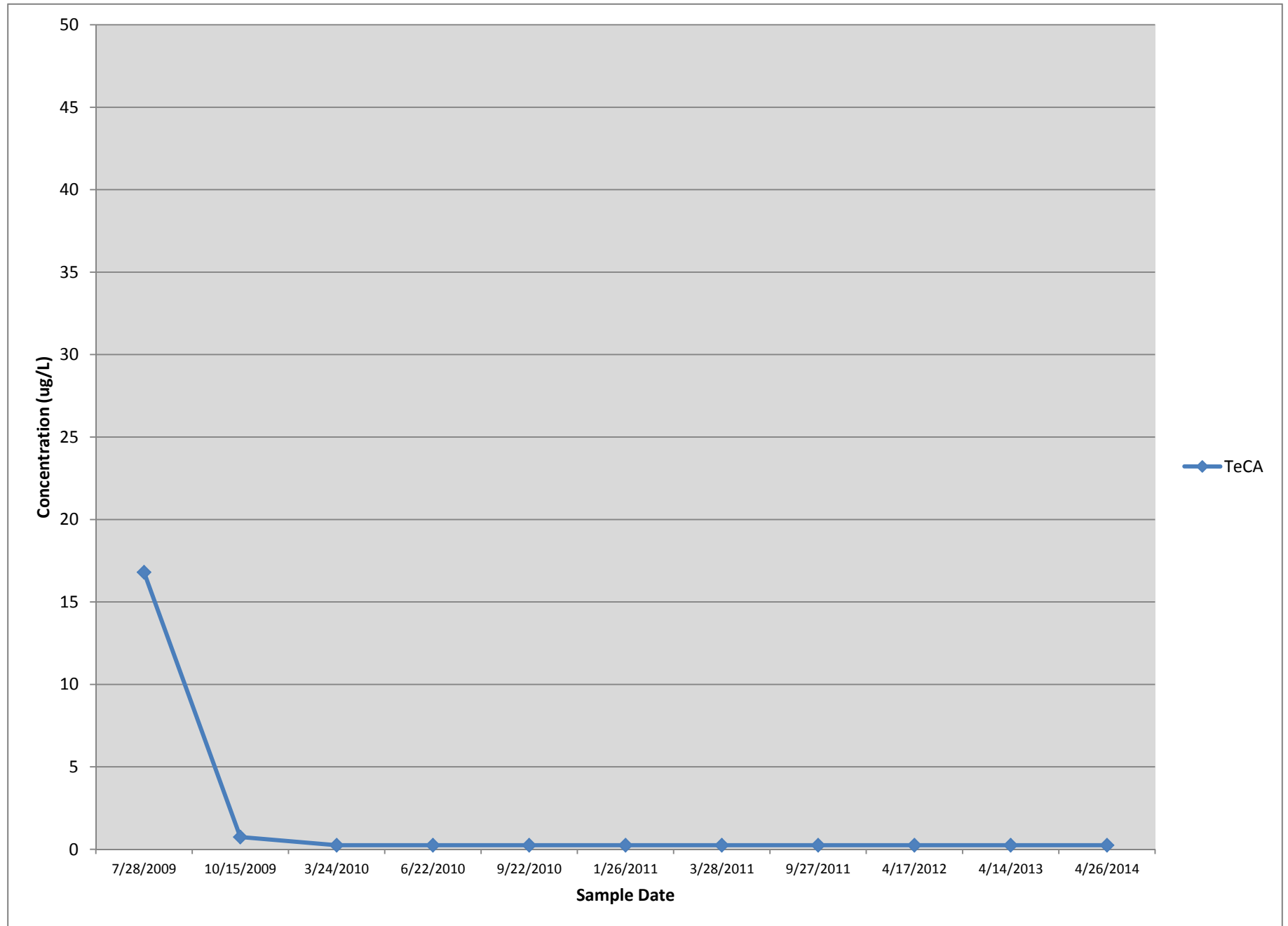
MW-184



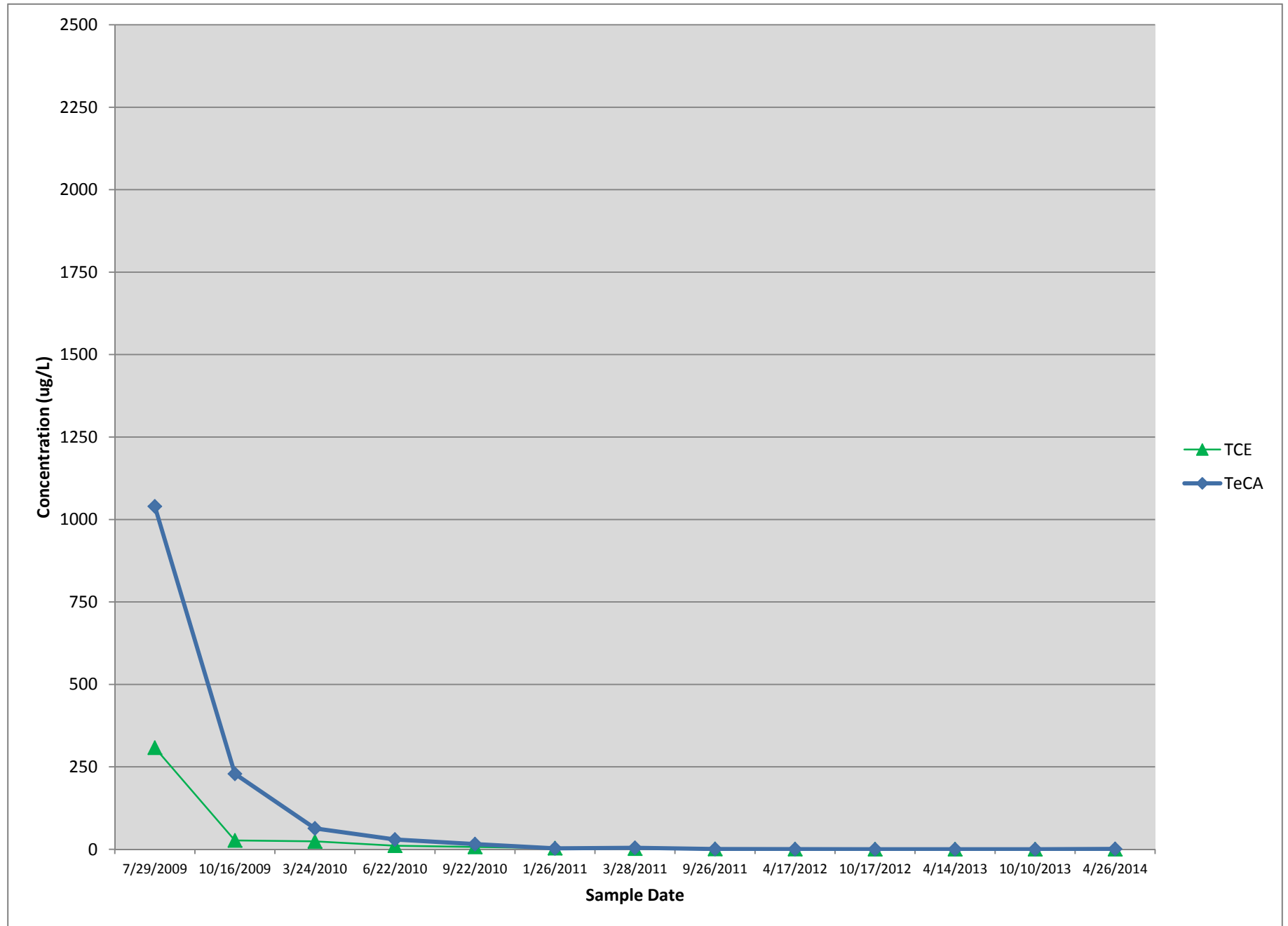
MW-190



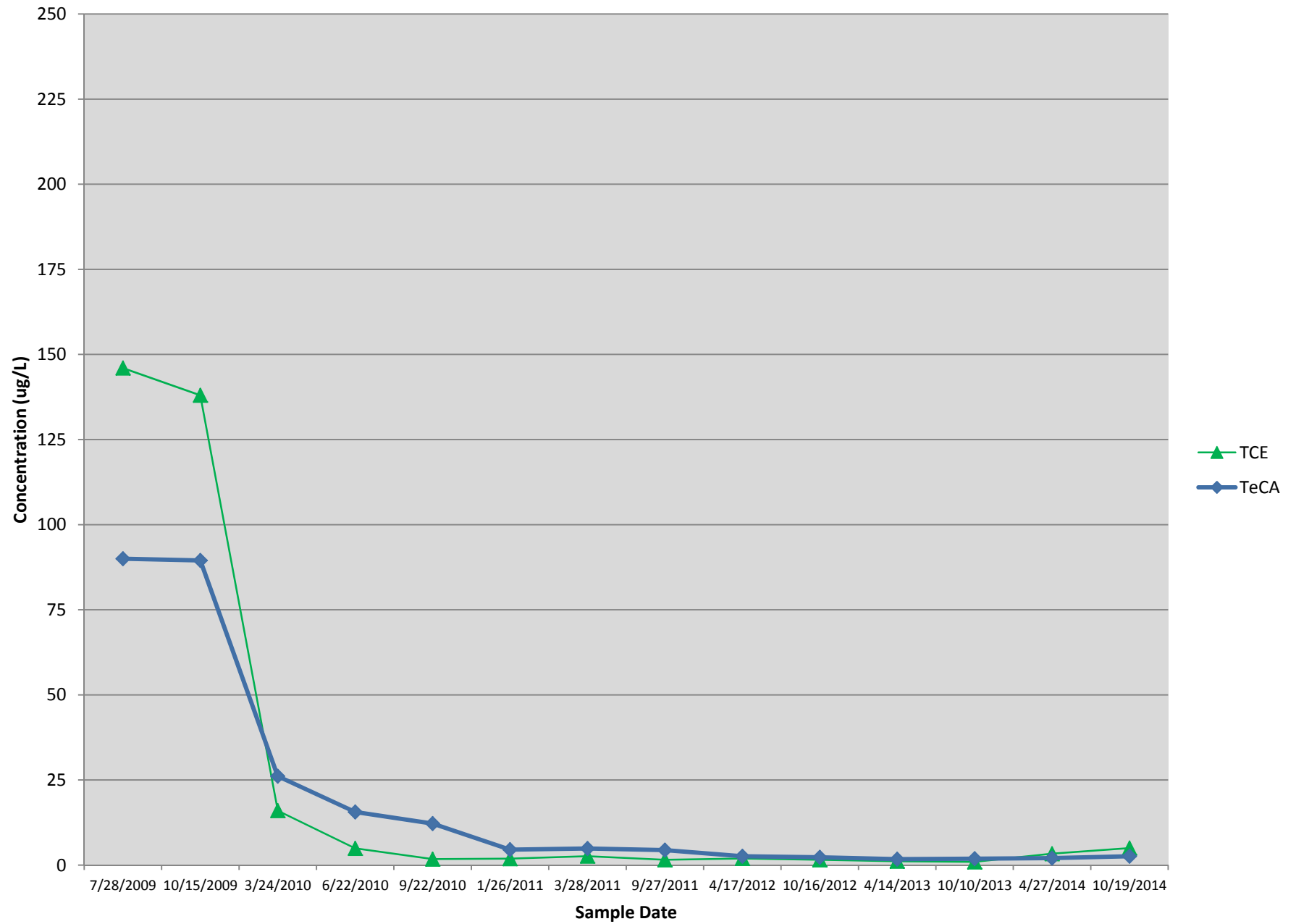
MW-241



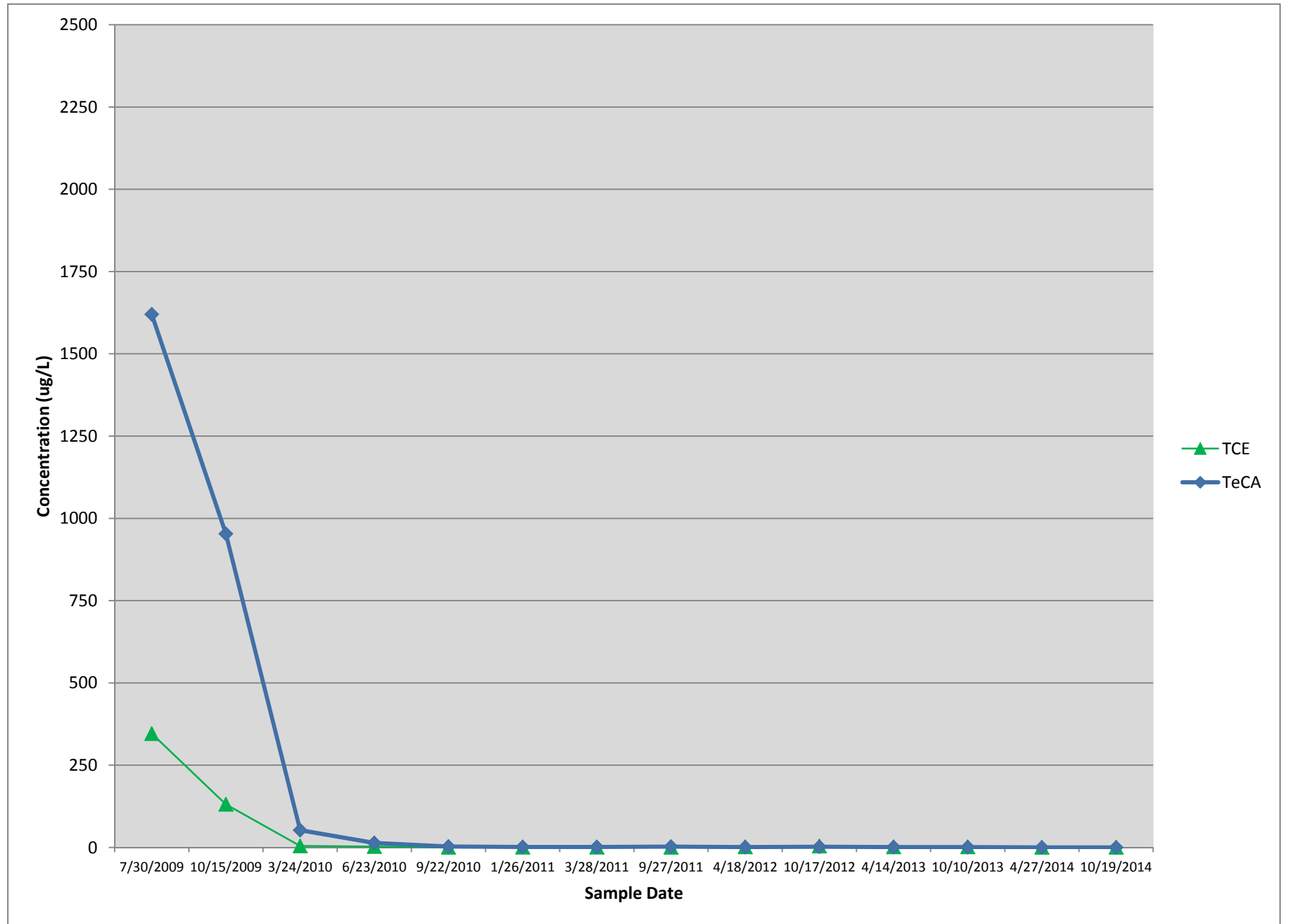
MW-242



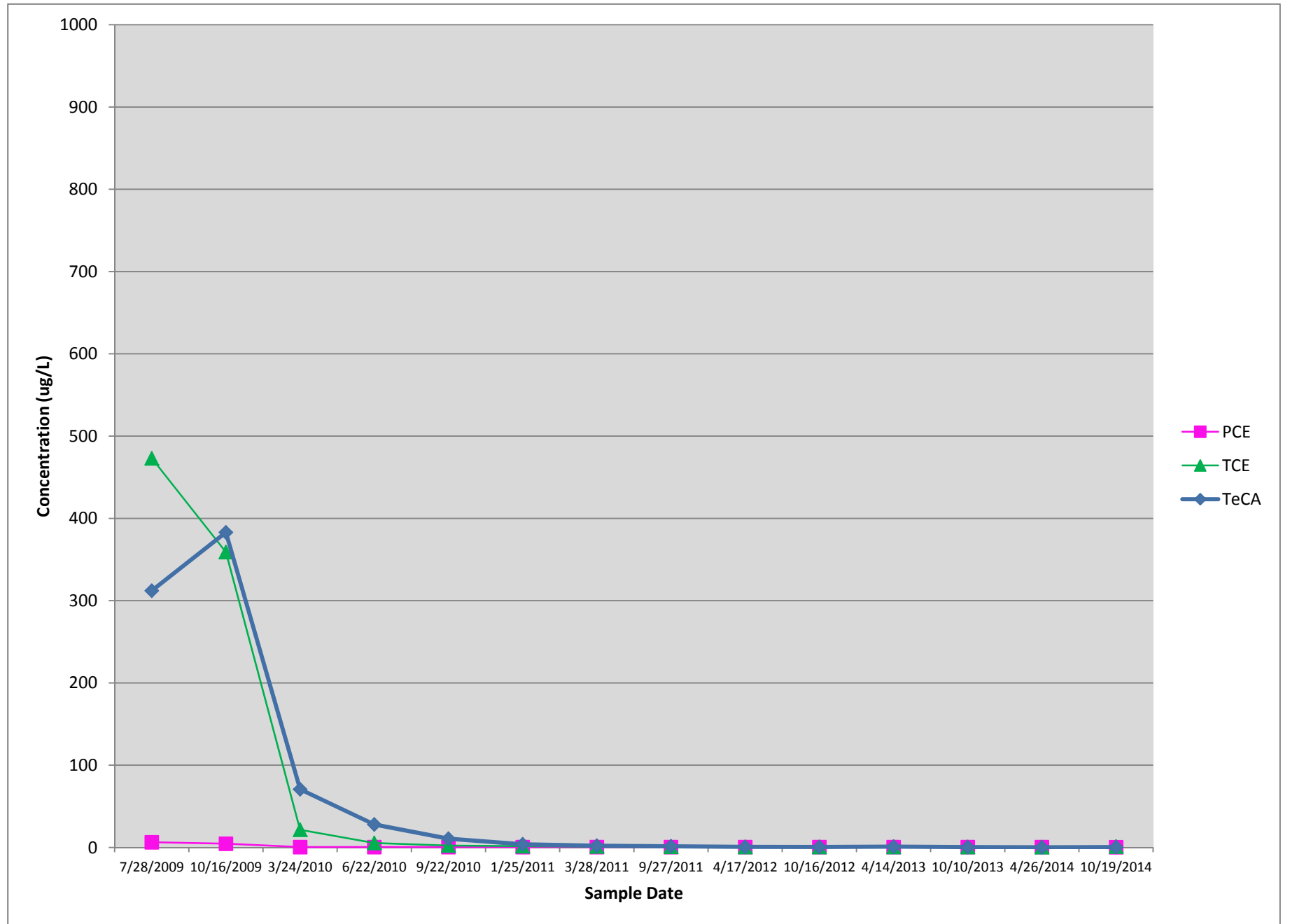
MW-243



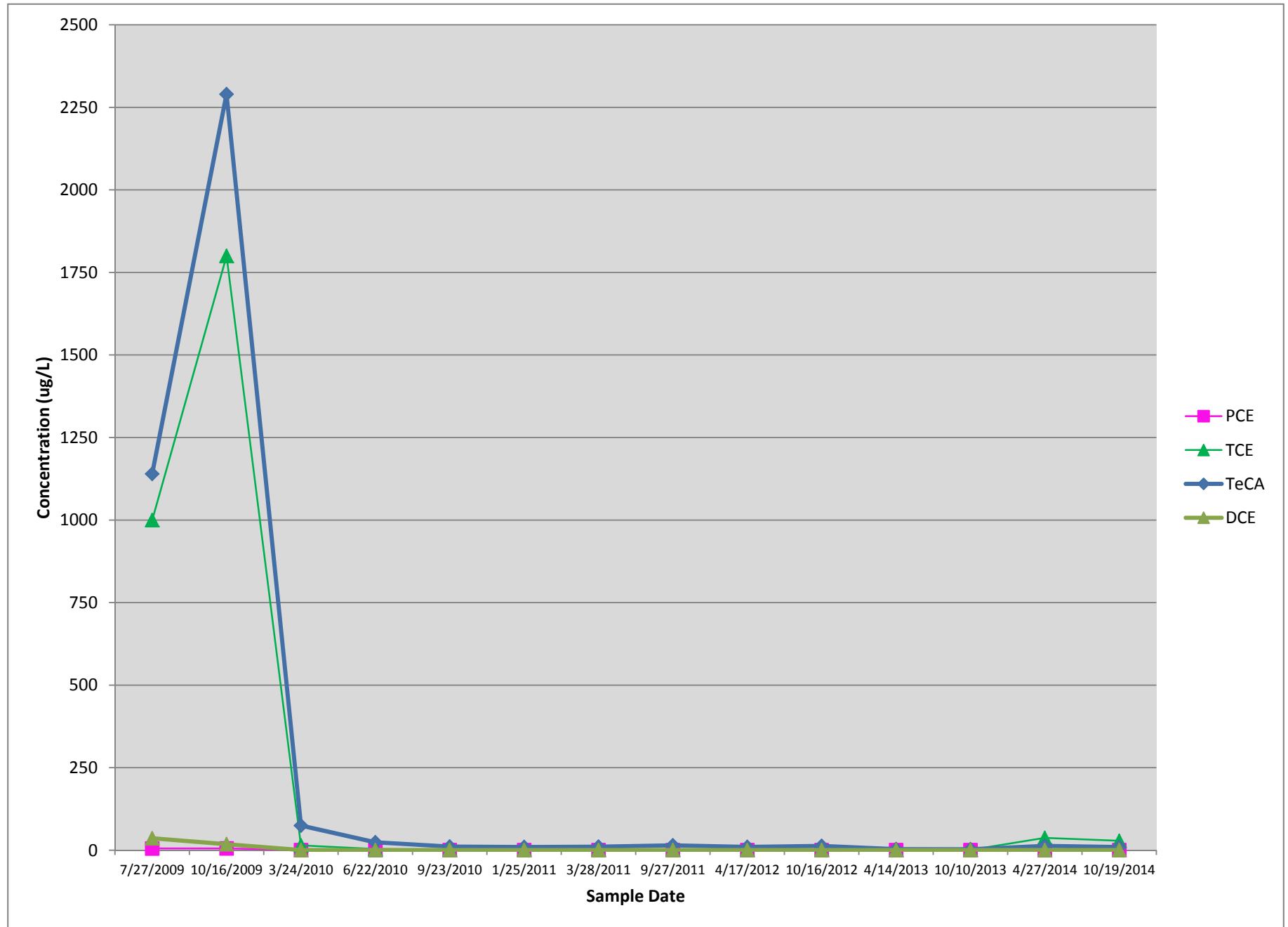
MW-244



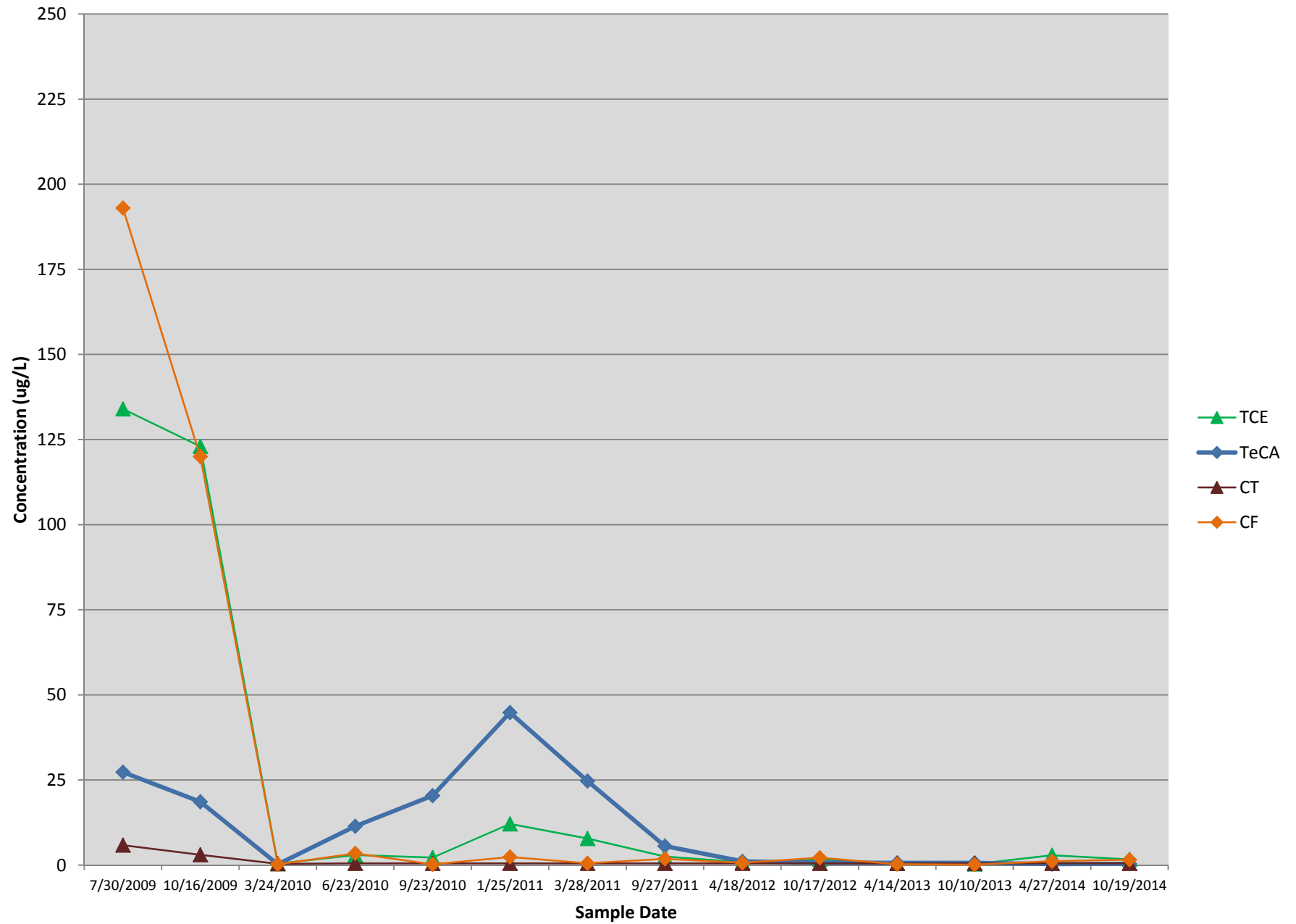
MW-245



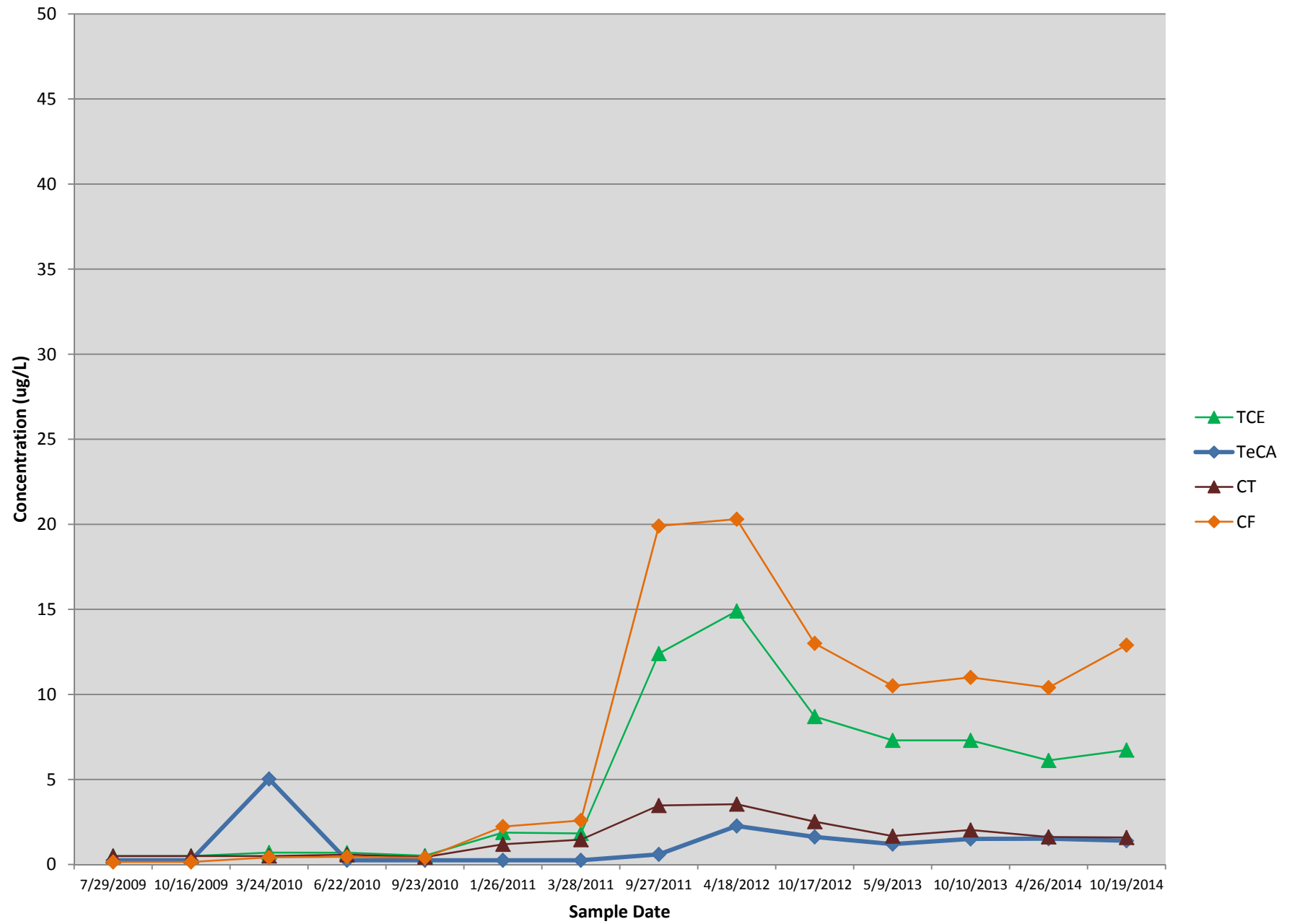
MW-246



MW-247

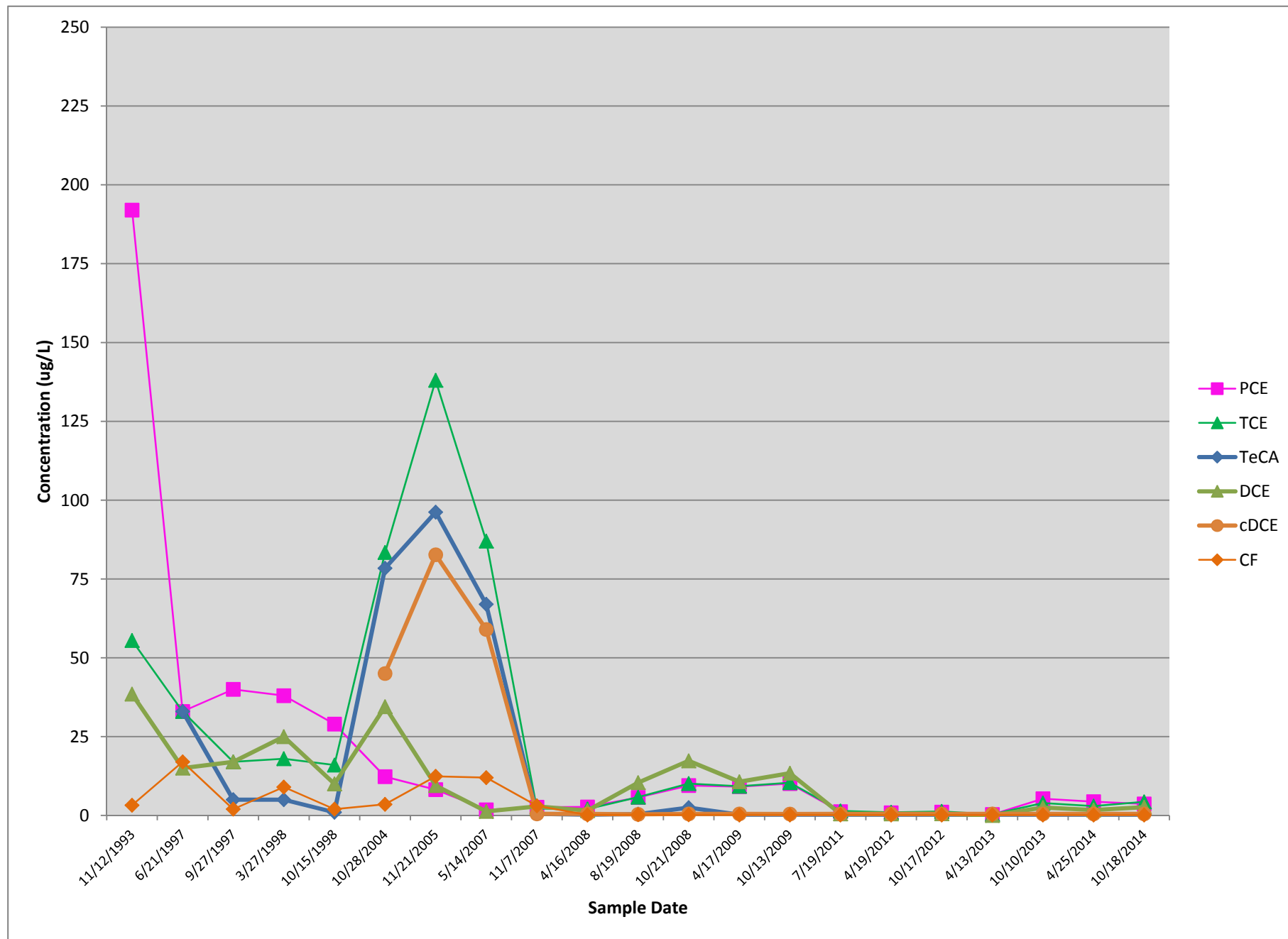


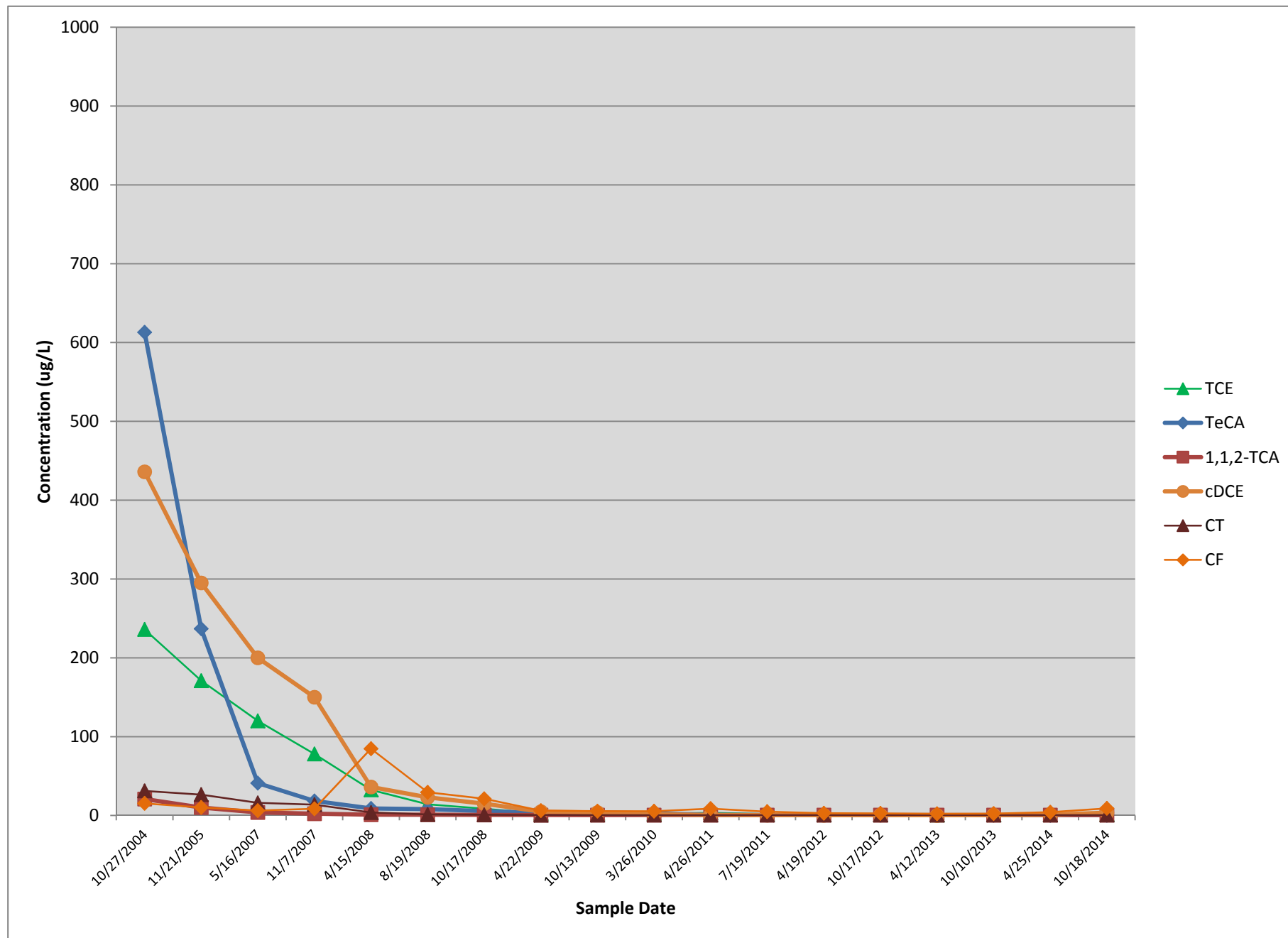
MW-249

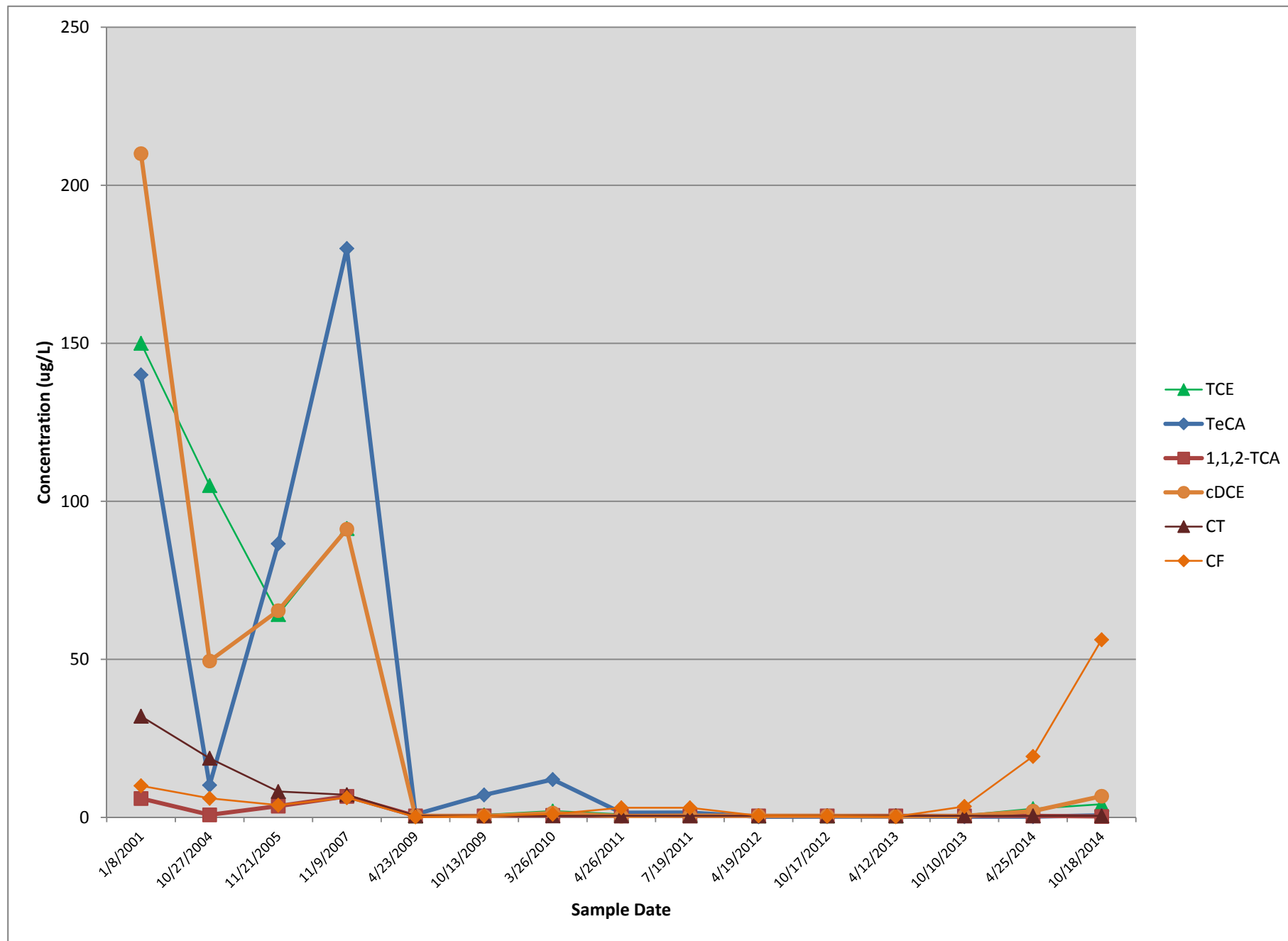


APPENDIX G-4
CVOC TIME-TREND PLOTS –
DUNN FIELD
PERFORMANCE-FSVE WELLS

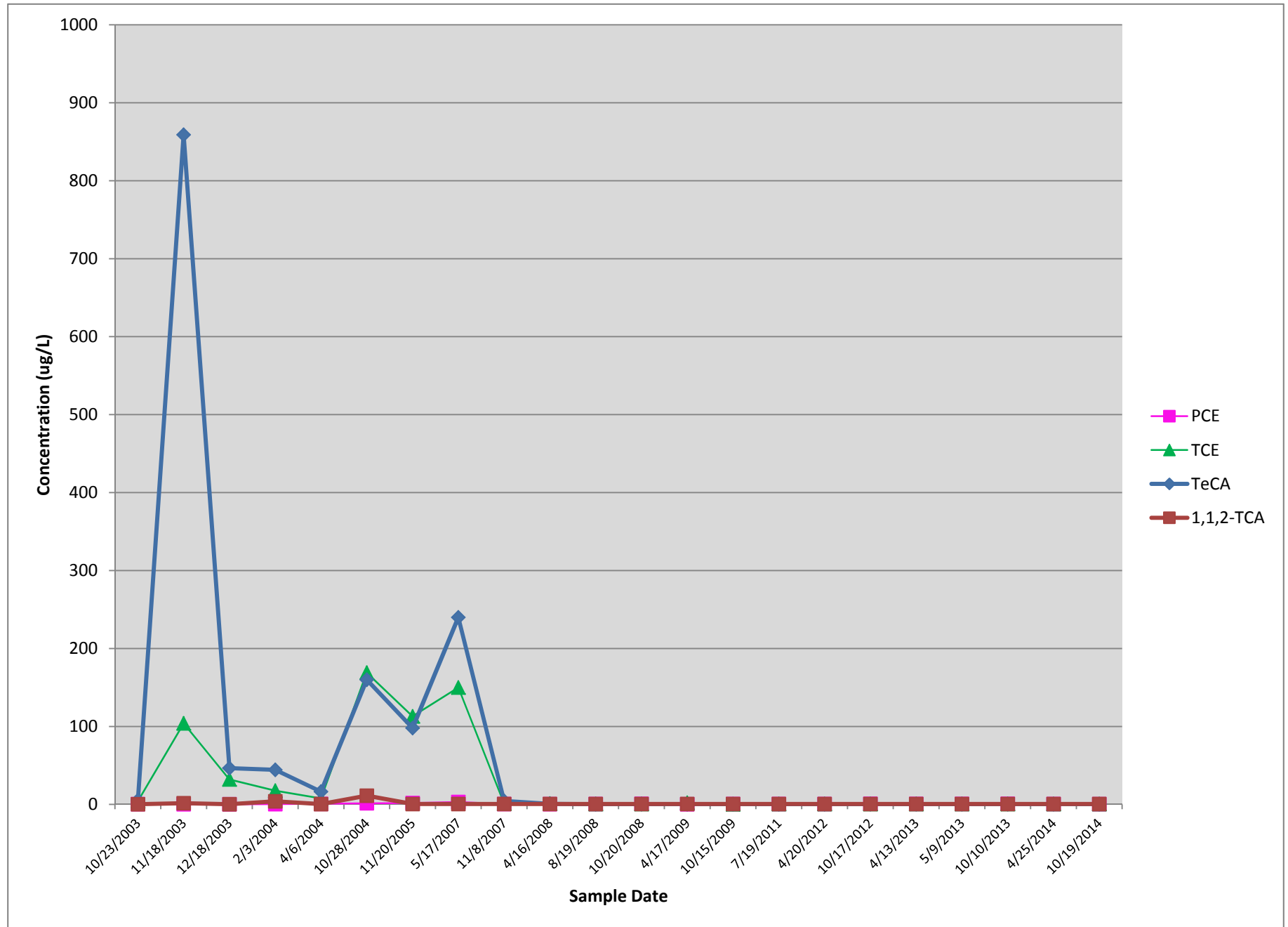
MW-03



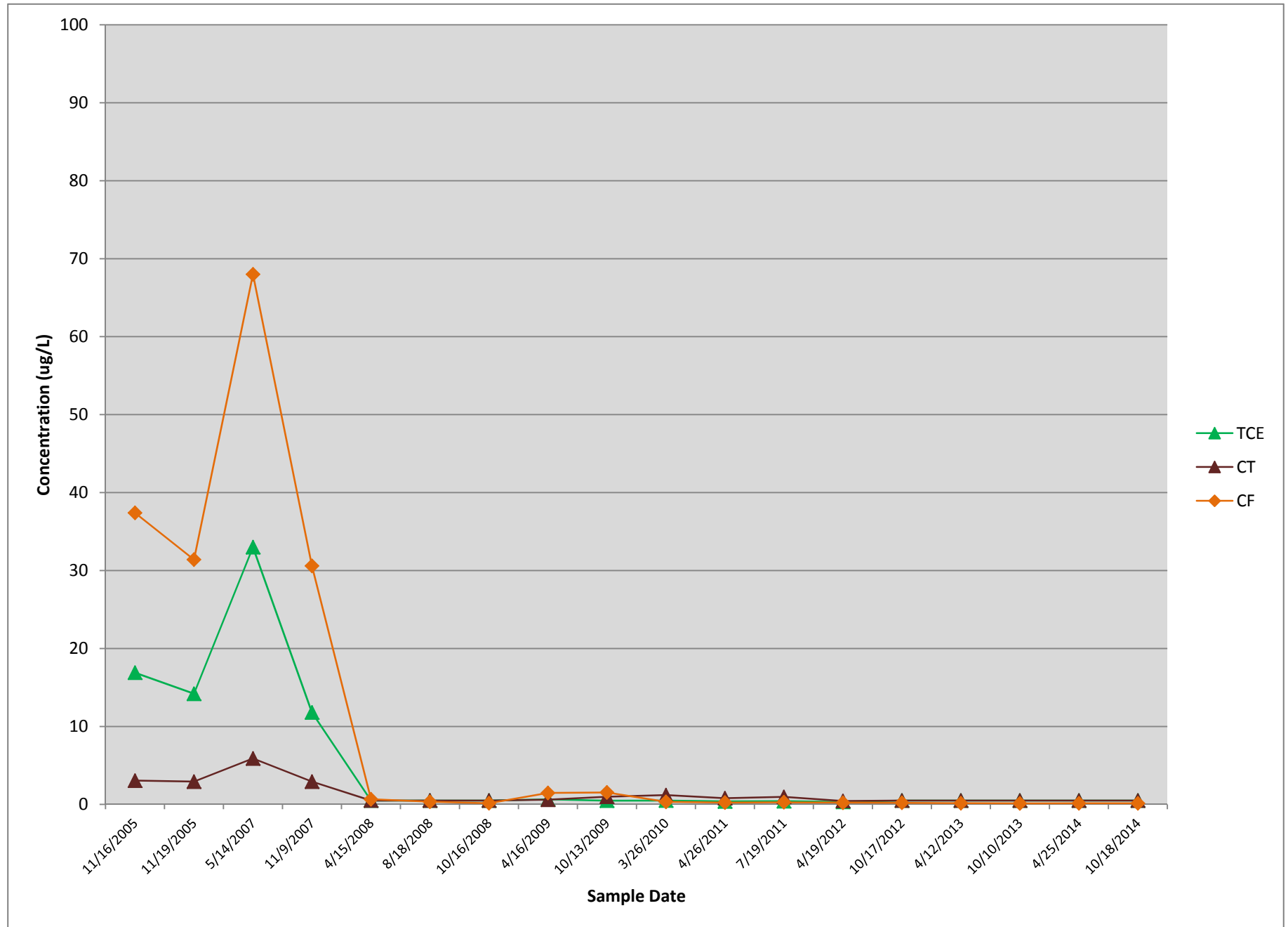




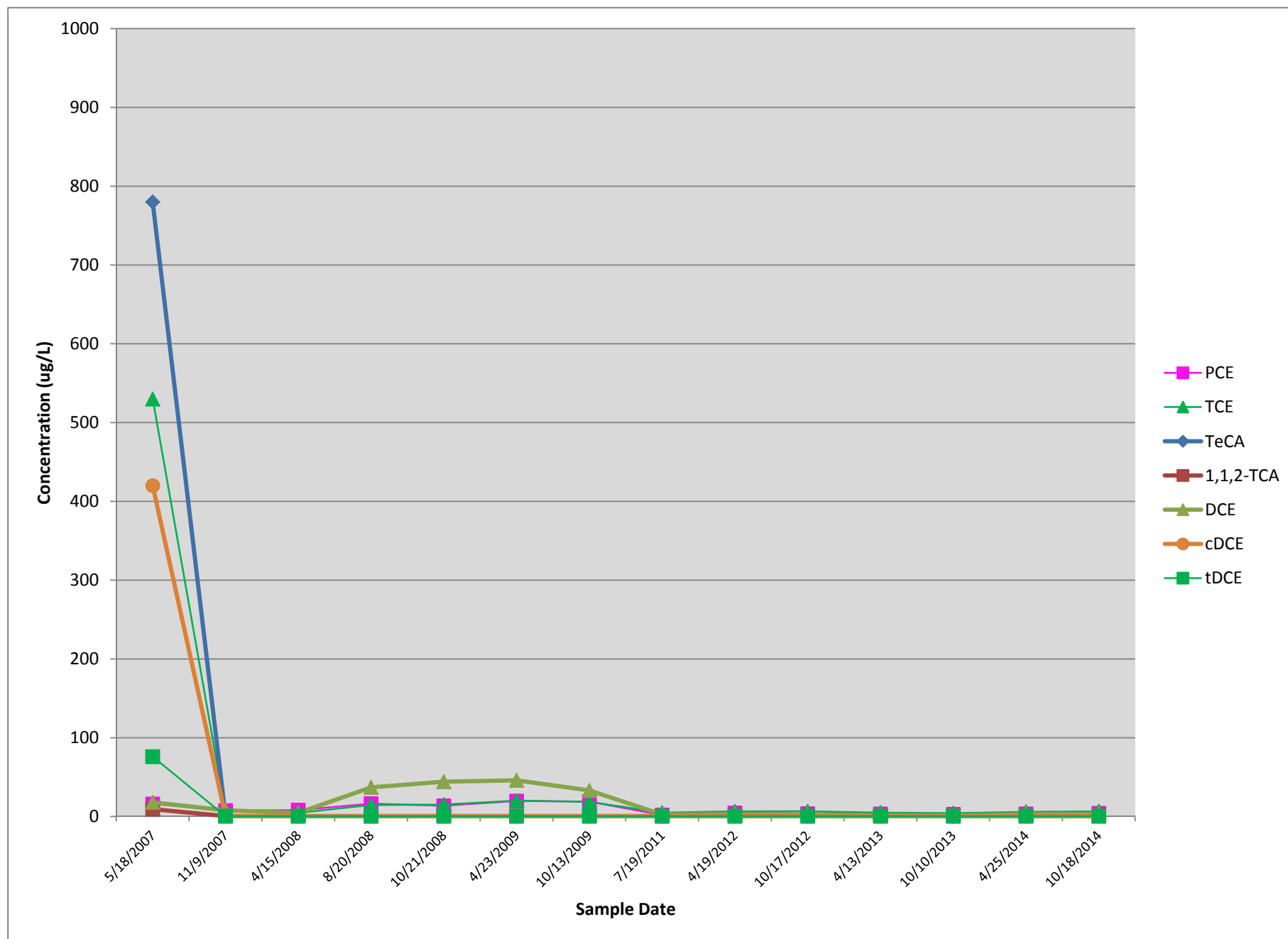
MW-134



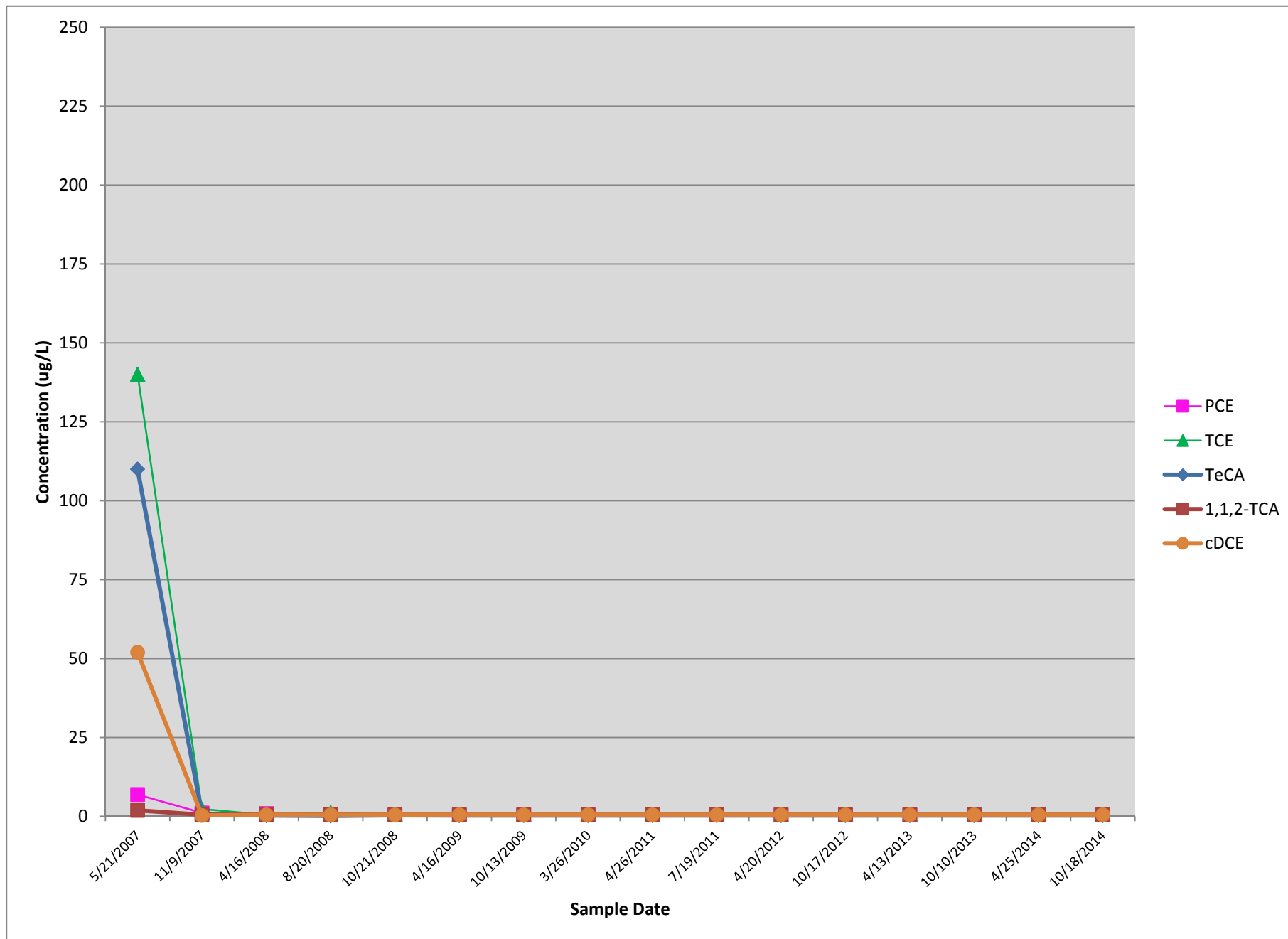
MW-174



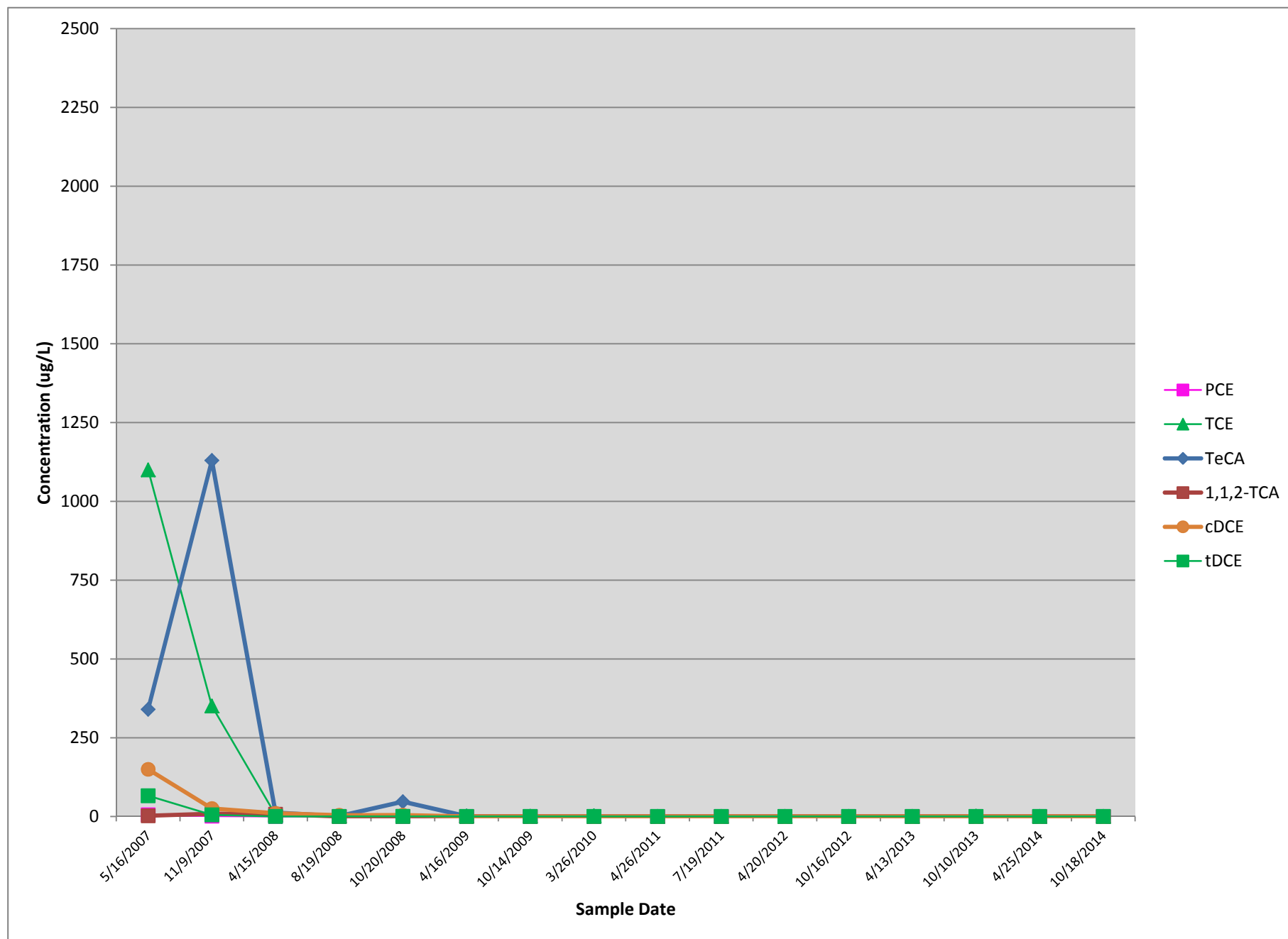
MW-220



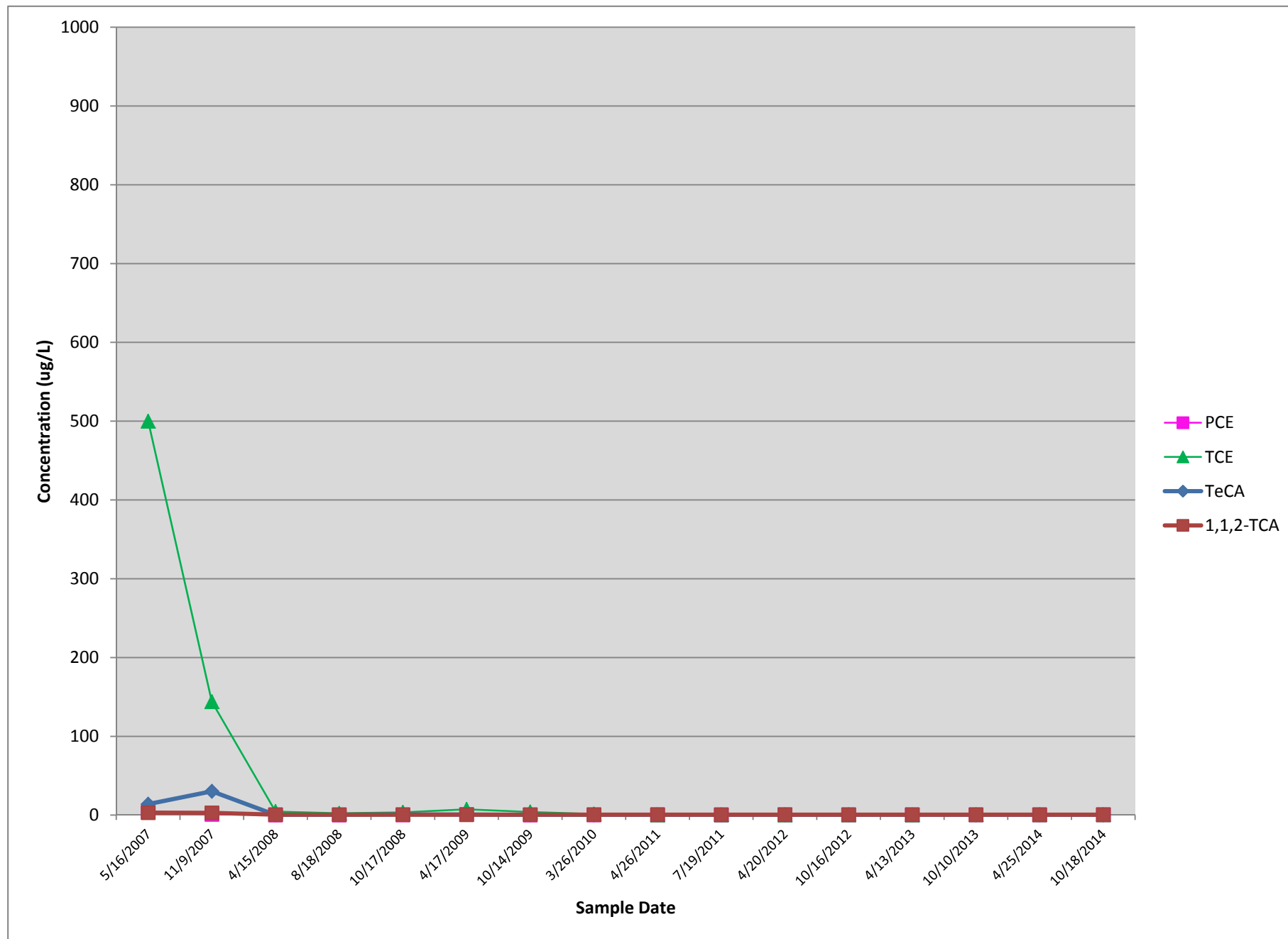
MW-221



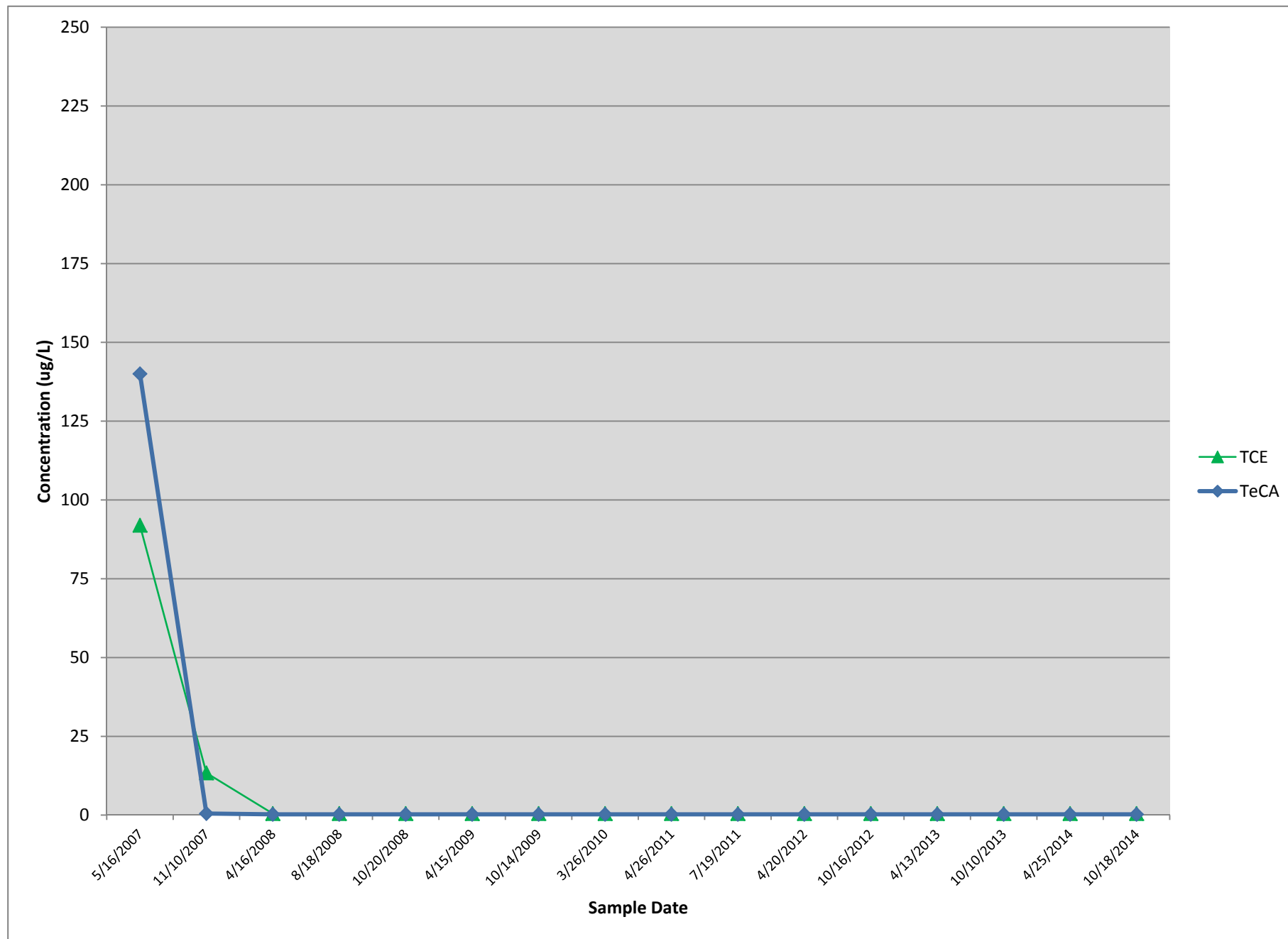
MW-222



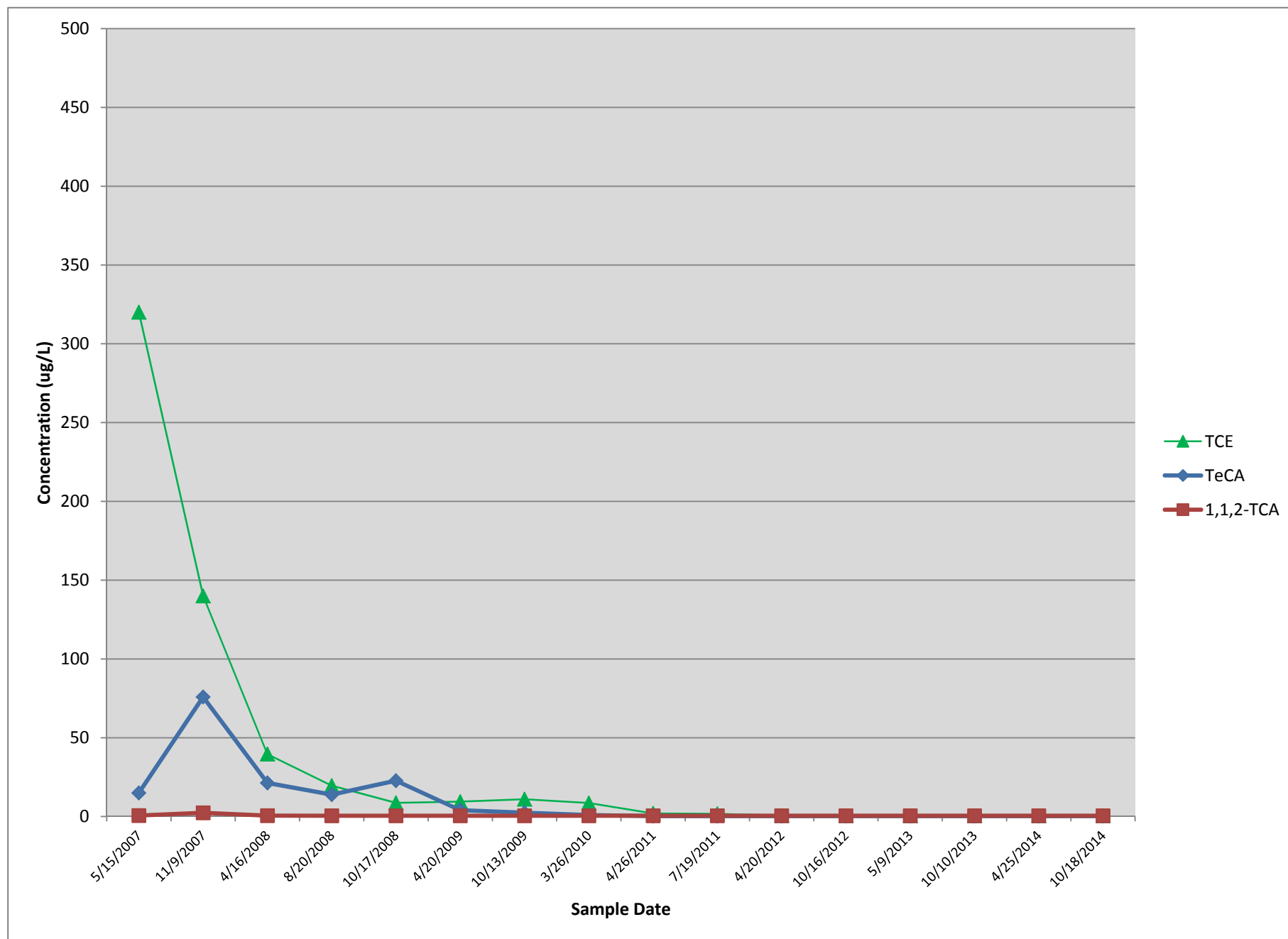
MW-223



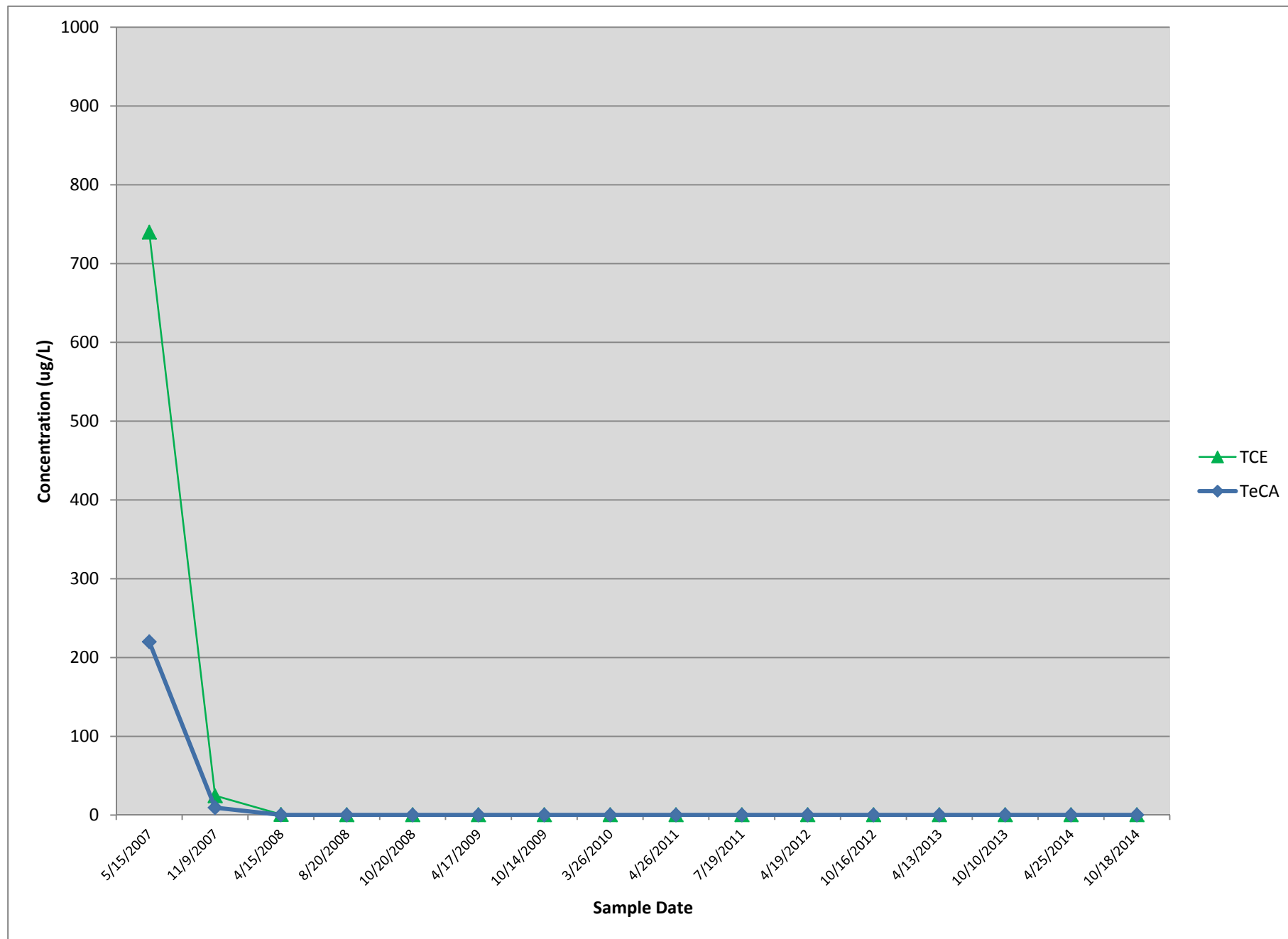
MW-224

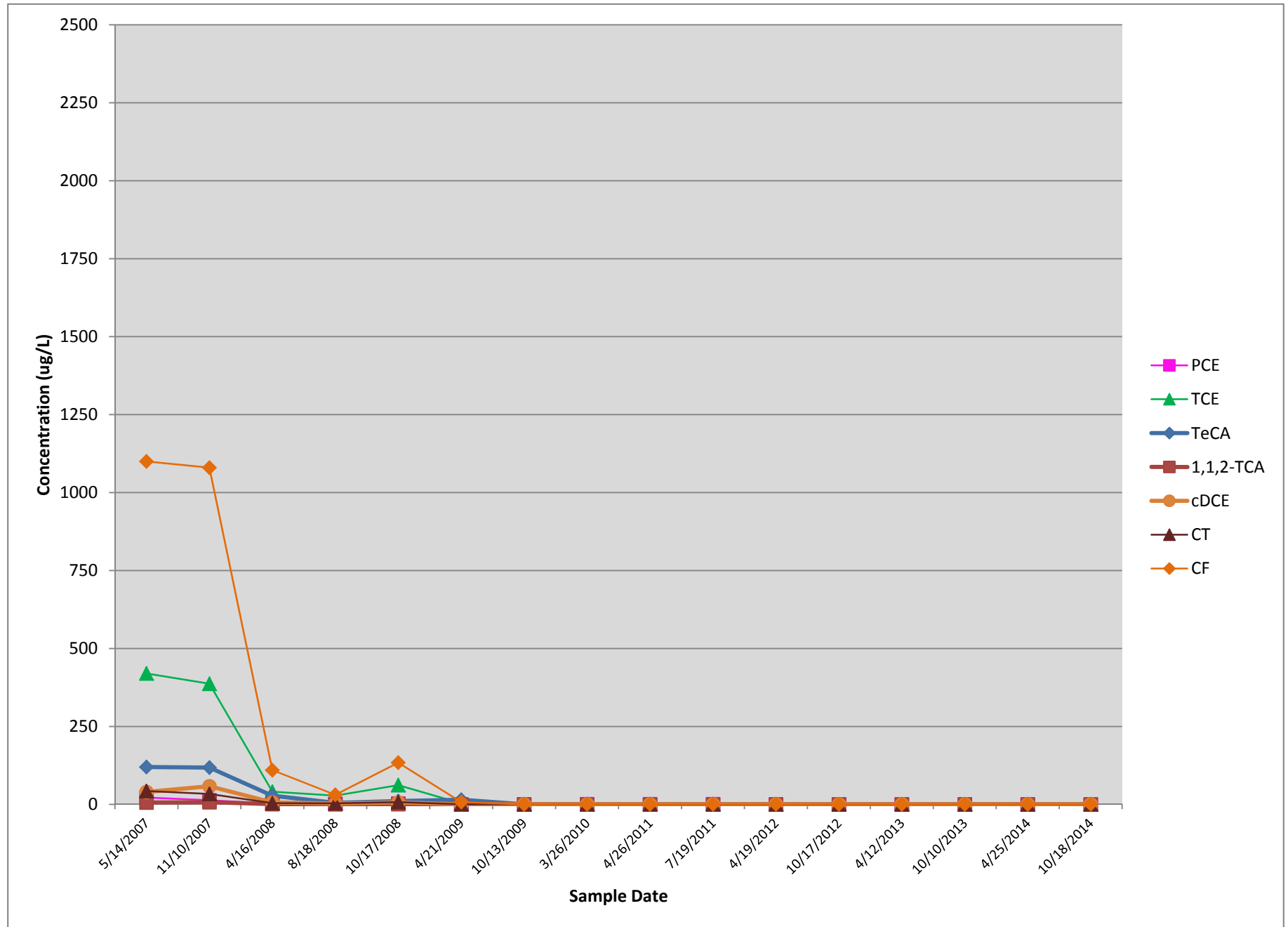


MW-225



MW-226





MW-228

