

# **Department of Energy**

Portsmouth/Paducah Project Office 1017 Majestic Drive, Suite 200 Lexington, Kentucky 40513 (859) 219-4000 APR 7 7 2017

PPPO-02-4150850-17

Mr. Brian Begley
Federal Facility Agreement Manager
Division of Waste Management
Kentucky Department for Environmental Protection
300 Sower Blvd., 2nd Floor
Frankfort, Kentucky 40601

Ms. Julie Corkran
Federal Facility Agreement Manager
U.S. Environmental Protection Agency, Region 4
61 Forsyth Street
Atlanta, Georgia 30303

Ms. April Webb Hazardous Waste Branch Manager Division of Waste Management Kentucky Department for Environmental Protection 300 Sower Blvd., 2nd Floor Frankfort, Kentucky 40601

Dear Mr. Begley, Ms. Corkran, and Ms. Webb:

U.S. DEPARTMENT OF ENERGY PADUCAH GASEOUS DIFFUSION PLANT FEDERAL FACILITY AGREEMENT SEMIANNUAL PROGRESS REPORT FOR THE FIRST HALF OF FISCAL YEAR 2017, PADUCAH, KENTUCKY (DOE/LX/07-2416/V1)

Enclosed is the U.S. Department of Energy Paducah Gaseous Diffusion Plant Federal Facility Agreement Semiannual Progress Report for the First Half of Fiscal Year 2017, Paducah, Kentucky, DOE/LX/07-2416/V1. Sections XXIII and XXXII.F of the Federal Facility Agreement and Part IV (Corrective Action) of the Resource Conservation and Recovery Act Permit require this report.

Table 2, "Cumulative TCE Removed at Paducah," of the report provides an overall picture of the trichloroethene (TCE) volume removed by various actions at the Paducah Site through March 31, 2017. The U.S. Department of Energy has determined that the TCE values for the Northeast and Northwest Plumes Pump-and-Treat Systems, as well as the total cumulative TCE removed for the Paducah Site, are lower than stated in previous semiannual progress reports. The lower values are attributed to a reporting error that was discovered in February 2017 during an independent assessment of the data presented in Table 2. The error discovered in February 2017 was the result of the application of inconsistent methodologies for calculating and compiling TCE volumes removed. This report reflects the corrected volume of TCE removed.

Errata pages have been developed for the past reports and are being issued for your records. The errata pages will be transmitted under a separate letter.

If you have any questions or require additional information, please contact me at (270) 441-6862.

Sincerely,

Fracey Duncan

Federal Facility Agreement Manager Portsmouth/Paducah Project Office

#### Enclosure:

FFA Semiannual Progress Report for the First Half of Fiscal Year 2017

e-copy w/enclosure:

april.ladd@lex.doe.gov, PPPO/PAD april.webb@ky.gov, KDEP/Frankfort brian.begley@ky.gov, KDEP/Frankfort bwhatton@tva.gov, TVA/PAD christopher.jung@ky.gov, KDEP/Frankfort corkran.julie@epa.gov, EPA/Atlanta dave.dollins@lex.doe.gov, PPPO/PAD edward.winner@ky.gov, KDEP/Frankfort ffscorrespondence@ffspaducah.com, FFS/Kevil gaye.brewer@ky.gov, KDEP/PAD hjlawrence@tva.gov, TVA/PAD jana.white@ffspaducah.com, FFS/Kevil jennifer.blewett@ffspaducah.com, FFS/Kevil jennifer.watson@ffspaducah.com, FFS/Kevil jennifer.woodard@lex.doe.gov, PPPO/PAD karen.walker@ffspaducah.com, FFS/Kevil kim.knerr@lex.doe.gov, PPPO/PAD lbirk@techlawinc.com, EPA/Chicago leo.williamson@ky.gov, KDEP/Frankfort mike.guffey@ky.gov, KDEP/Frankfort myrna.redfield@ffspaducah.com, FFS/Kevil nathan.garner@ky.gov, KYRHB/Frankfort pad.rmc@swiftstaley.com, SSI/Kevil richards.jon@epamail.epa.gov, EPA/Atlanta rkdehart@tva.gov, TVA/PAD stephaniec.brock@ky.gov, KYRHB/Frankfort tracey.duncan@lex.doe.gov, PPPO/PAD

#### **CERTIFICATION**

**Document Identification:** 

U.S. Department of Energy Paducah Gaseous Diffusion Plant Federal Facility Agreement Semiannual Progress Report for the First Half of Fiscal Year 2017, Paducah, Kentucky, DOE/LX/07-2416/V1

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Fluor Federal Services, Inc.

Myrna E. Redfield, Director Environmental Management Date Signed

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

U.S. Department of Energy

Jennifer Woodard, Paducah Site Lead Portsmouth/Paducah Project Office

Date Signed

U.S. Department of Energy
Paducah Gaseous Diffusion Plant
Federal Facility Agreement
Semiannual Progress Report for the
First Half of Fiscal Year 2017
Paducah, Kentucky



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U.S. Department of Energy
Paducah Gaseous Diffusion Plant
Federal Facility Agreement
Semiannual Progress Report for the
First Half of Fiscal Year 2017
Paducah, Kentucky

Date Issued—April 2017

U.S. DEPARTMENT OF ENERGY Office of Environmental Management

Prepared by
FLUOR FEDERAL SERVICES, INC.,
Paducah Deactivation Project
managing the
Deactivation Project at the
Paducah Gaseous Diffusion Plant
under Task Order DE-DT0007774

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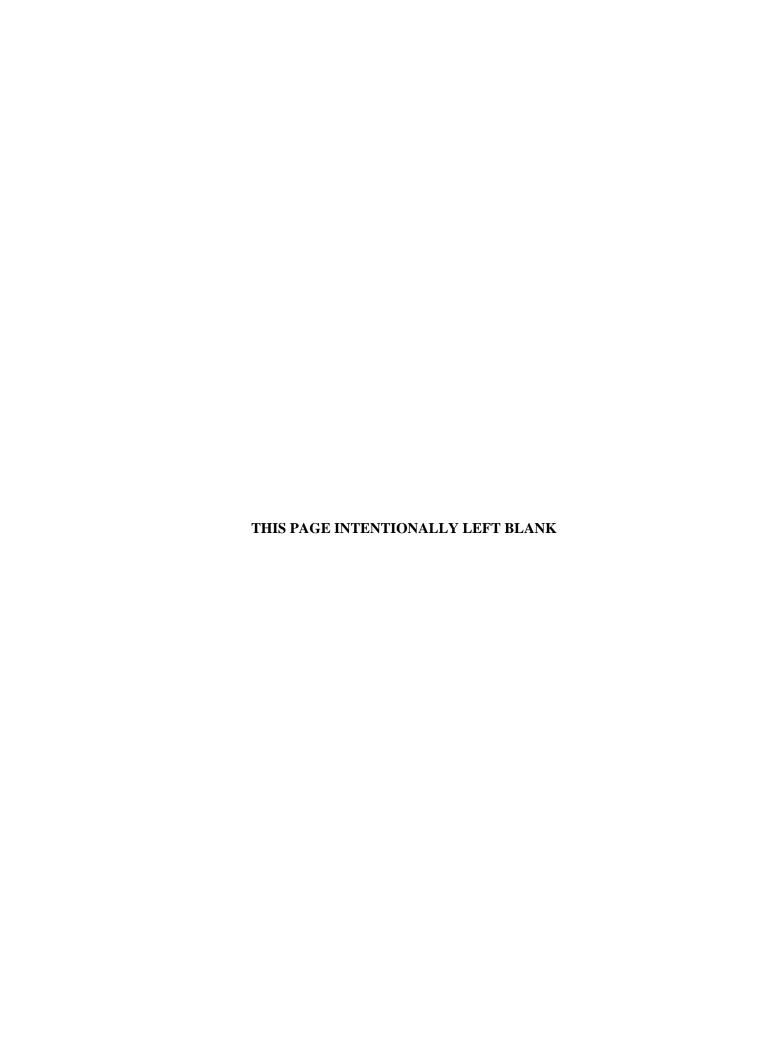
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### **ACRONYMS**

AR Administrative Record
ATU alternate treatment unit
BGOU Burial Grounds Operable Unit
CAB Citizens Advisory Board

CERCLA Comprehensive Environmental Response, Compensation, and Liability Act

CRP Community Relations Plan
DOE U.S. Department of Energy
DRC Dispute Resolution Committee
EIC Environmental Information Center
EPA U.S. Environmental Protection Agency

EQ equalization EW extraction well

FFA Federal Facility Agreement FFS Fluor Federal Services, Inc.

FS feasibility study FY fiscal year

GDP gaseous diffusion plant
GWOU Groundwater Operable Unit
IRA interim remedial action

MW monitoring well

NEPCS Northeast Plume Containment System

NTU nephelometric turbidity unit

NWPGS Northwest Plume Groundwater System

O&M operation and maintenance

OU operable unit

PGDP Paducah Gaseous Diffusion Plant

RI remedial investigation ROD record of decision

SEC Senior Executive Committee
SMP Site Management Plan
SOU Soils Operable Unit
SSI Swift and Staley Inc.

SWMU solid waste management unit SWOU Surface Water Operable Unit VOC volatile organic compound

WAG waste area group



Facility: Paducah Gaseous Diffusion Plant Plant EPA I.D. No.: KY8-890-008-982 Reporting Period: 10/01/2016-03/31/2017

### **INTRODUCTION**

The Paducah Gaseous Diffusion Plant (PGDP) was placed on the National Priorities List on May 31, 1994. In accordance with Section 120 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the U.S. Department of Energy (DOE) entered into a Federal Facility Agreement (FFA) with the U.S. Environmental Protection Agency (EPA) and Kentucky on February 13, 1998. The FFA established one set of consistent requirements for achieving comprehensive site remediation in accordance with the Resource Conservation and Recovery Act and CERCLA, including stakeholder involvement.

Site cleanup activities are being implemented in a sequenced approach consisting of (1) pre-gaseous diffusion plant (GDP) shutdown scope, (2) post-GDP shutdown scope, and (3) Comprehensive Site Operable Unit scope. The pre-GDP shutdown scope is associated with media-specific operable units (OUs) initiated prior to shutdown of the operating GDP. The source areas for the pre-GDP shutdown scope have been grouped into these media-specific OUs:

- Groundwater OU (GWOU)
- Burial Grounds OU (BGOU)
- Surface Water OU (SWOU)
- Soils OU (SOU)
- Decontamination and Decommissioning OU

The GDP ceased uranium enrichment operations in May 2013; possession of DOE property leased to the United States Enrichment Corporation was returned to DOE in October 2014. In order to reflect better that the GDP no longer is operating, all activities previously identified as post-GDP shutdown scope now are identified as Remaining Remediation Scope. The Remaining Remediation Scope has been grouped into these media-specific OUs:

- Remaining Remediation Groundwater OU
- Remaining Remediation Burial Grounds Sources OU
- Remaining Remediation Lagoons and Ditches OU
- Remaining Remediation Soils and Slabs OU
- Remaining Remediation Decontamination and Decommissioning OU

Section XXIII of the FFA requires that DOE prepare a regulatory progress report that describes the actions that DOE has taken during the previous six months to implement FFA requirements, as well as the schedules<sup>1</sup> of activities to be taken during the upcoming six months. Activities that have taken place after the reporting period end date are not included in this report. Projects and activities reported in this update are grouped by the media-specific OUs listed in Table 1.

<sup>&</sup>lt;sup>1</sup> Schedules are included for information and planning purposes only; enforceable schedules are established in the Site Management Plan (SMP).

**Table 1. Operable Units and Corresponding Report Topics** 

Operable Unit	Project/Activities
Groundwater Operable Unit	C-400 Interim Remedial Action (IRA)
	Southwest Plume Sources Remedial Action
	<ul> <li>Dissolved-Phase Plumes Remedial Action</li> </ul>
	Northeast Plume IRA
	Northwest Plume IRA
Burial Grounds Operable Unit	Burial Grounds Operable Unit
	<ul> <li>C-749 Uranium Burial Ground Solid Waste</li> </ul>
	Management Unit (SWMU) 2
Surface Water Operable Unit	Remedial Action
Soils Operable Unit	Remedial Action
Decontamination and Decommissioning Operable Unit	• C-410/C-420 Complex
Additional Reporting	Waste Area Groups 1 and 7
	Community Relations Plan
	Site Management Plan
	<ul> <li>CERCLA Waste Disposal Alternatives</li> </ul>
	Evaluation
	CERCLA Five-Year Review

Each section of this update has been divided into nine sections as follows:

- I. Work performed during the reporting period (including summaries of findings and any deviations from the work plan)
- II. Schedules of activities to be performed during next reporting period (including projected work/crucial phases of construction)
- III. Identity and assigned tasks of DOE contractors for work to be performed during this reporting period
- IV. Statement of the manner and extent to which the requirements and time schedules are being met
- V. Primary/Secondary Document Tracking System
  - A) Documents under review and/or preparation for this reporting period
  - B) Due dates for completion of review/modification tasks
- VI. Anticipated problems/delays (provide summary of problems, schedule, reason for delay, and actions taken to prevent or mitigate delay)
- VII. Summary of all contacts with local community, public interest groups, or state government
- VIII. Changes in relevant personnel
- IX. Actual cost for operation and maintenance (O&M), if appropriate

Each of the sections satisfies a reporting requirement for the FFA semiannual report or the Hazardous Waste Facility Permit and has been formatted in accordance with the template found in Appendix D of the FFA.

This report includes six appendices as follows:

- Appendix A contains Northeast and Northwest Plumes Water Withdrawal Reports for this reporting period.
- Appendix B contains Figures B.1 through B.25, as referenced in the Northeast and Northwest Plume updates, a summary of the data associated with the CERCLA outfall for Northeast Plume, and a summary of the data associated with the Northeast Plume Optimization transect monitoring wells.
- Appendix C contains a map depicting monitoring well (MW) locations for the C-746-K Landfill; a figure summarizing the trichloroethene (TCE) concentrations in these wells over time; and a summary of the C-746-K Landfill groundwater monitoring data from May 1994 through December 2016. These data currently are collected semiannually. Sampling of these MWs is outlined in the Record of Decision (ROD) for Waste Area Groups (WAGs) 1 and 7. Groundwater data from January through March 2017 will be included in the next semiannual report scheduled for October 2017.
- Appendix D contains updates to the Administrative Record (AR) index since the last progress report. This is required by the Paducah FFA (Section XXXII.F).
- Appendix E contains a map depicting the C-400 MW location; and a summary of the C-400 groundwater MW data trending TCE and technetium-99 (Tc-99) from June 2009 through December 2016. Groundwater data from January through March 2017 will be included in the next semiannual report scheduled for October 2017.
- Appendix F contains a map depicting the C-749 Uranium Burial Ground (SWMU 2) groundwater MWs and a summary of the SWMU 2 trends for TCE and Tc-99 for reporting dates 1993 through December 2016. Groundwater data from January through March 2017 will be included in the next semiannual report scheduled for October 2017.



Facility: Paducah Gaseous Diffusion Plant Plant EPA I.D. No.: KY8-890-008-982 Reporting Period: 10/01/2016-03/31/2017

#### **GROUNDWATER OPERABLE UNIT**

The scope of the GWOU includes performing investigations, conducting baseline risk assessments, evaluating removal/remedial alternatives, and selecting and implementation of actions necessary to achieve protection of human health and the environment from exposure to groundwater contamination that could result in an unacceptable risk.

Within the GWOU are these projects: C-400 IRA, Southwest Plume Sources Remediation, Dissolved-Phase Plumes, Northeast Plume IRA, and Northwest Plume IRA.

The overall objective of the GWOU is to remove/mitigate ongoing sources and to remediate the groundwater to target contaminant concentrations. The predominant contaminant of concern in the groundwater of all three plumes is TCE. Table 2 provides an overall picture of the TCE mass removed [TCE values may contain other volatile organic compounds (VOCs)] by various actions through March 31, 2017.

Table 2. Cumulative TCE Removed at Paducah

Source Area	Cumulative TCE Removed (gal)*
Northwest Plume Pump-and-Treat	3,423**
Northeast Plume Pump-and-Treat	310**
C-400 Six-Phase Treatability Study	1,900
C-400 Phase I	535
C-400 Phase IIa	1,137
Southwest Plume (SWMU 1)	24***
Other sources (i.e., SWMU 91–LASAGNA <sup>™</sup> )	246
Total	7,575

<sup>\*</sup>TCE values include liquid VOCs and VOCs on carbon recovered.

<sup>\*\*</sup>Cumulative through December 31, 2016.

<sup>\*\*\*</sup>Removed during deep soil mixing operations.



Facility: Paducah Gaseous Diffusion Plant Plant EPA I.D. No.: KY8-890-008-982 Reporting Period: 10/01/2016-03/31/2017

### GROUNDWATER OPERABLE UNIT PROJECT: C-400 IRA

I. Work performed during the reporting period (including summaries of findings and any deviations from the work plan):

#### Phase IIb:

- Submitted a notification of invocation of informal dispute resolution to EPA and Kentucky on October 11, 2016, concerning receipt of nonconcurrence from EPA and Kentucky on the milestone modification request for issuance of the *Revised Proposed Plan for the Volatile Organic Compound Contamination at the C-400 Cleaning Building at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-2407&D1.
- Submitted a written statement of formal dispute to EPA and Kentucky on November 30, 2016, elevating the dispute regarding nonconcurrence on the milestone modification request for issuance of the *Revised Proposed Plan for the Volatile Organic Compound Contamination at the C-400 Cleaning Building at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-2407&D1, to the Dispute Resolution Committee (DRC) for resolution.
- Submitted multiple minor modifications to the Paducah FFA that documented DOE, EPA, and Kentucky agreement to extend the time for consultation among the DRC to allow for further discussions among the FFA parties to resolve the nonconcurrence of the DOE milestone modification request for submittal of the D1 Proposed Plan by April 26, 2017. After the end of this report's reporting period, the FFA parties agreed to extend the due date by 36 days to June 1, 2017. The submittal date for the *Revised Proposed Plan for the Volatile Organic Compound Contamination at the C-400 Cleaning Building at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky,* DOE/LX/07-2407&D1, has been stayed pending resolution of dispute.

# II. Schedules of activities to be performed during the next reporting period (including projected work/crucial phases of construction):

The current deadline for the DRC to resolve the formal dispute regarding DOE's milestone modification request for the *Revised Proposed Plan for the Volatile Organic Compound Contamination at the C-400 Cleaning Building at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky,* DOE/LX/07-2407&D1, ends April 26, 2017. After the end of this report's reporting period, the FFA parties agreed to extend the due date by 36 days to June 1, 2017. Senior management from DOE, EPA, and Kentucky are scheduled to meet on April 19, 2017, to further discuss DOE's proposal to integrate C-400 Phase IIb and a Final Remedial Action at the C-400 Complex.

# III. Identity and assigned tasks of DOE contractors for work to be performed for this project:

Reporting responsibility for the work to be performed in support of the GWOU belongs to Fluor Federal Services, Inc. (FFS). In addition, FFS provides programmatic and technical support, analytical services, and business management services. Swift & Staley Inc., (SSI) manages the AR and the Environmental Information Center (EIC).

# IV. Statement of the manner and extent to which the requirements and time schedules are being met:

EPA and Kentucky senior managers currently are evaluating DOE's June 2016 proposal for site reprioritization. An extension to the C-400 Phase IIb Proposed Plan was requested to allow time for EPA and Kentucky senior management to respond to DOE's proposal to integrate the Phase IIb Proposed Plan and a Final Remedial Action for the C-400 Complex. The FFA parties currently are in dispute resolution regarding nonconcurrence on the milestone modification request for issuance of the *Revised Proposed Plan for the Volatile Organic Compound Contamination at the C-400 Cleaning Building at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-2407&D1. Senior management from DOE, EPA, and Kentucky are scheduled to meet on April 19, 2017, to discuss DOE's proposal and determine a path forward for C-400. The requirements and time schedules are being met; however, continued meetings among DOE, EPA, and Kentucky senior managers concerning site reprioritization and continued extensions related to the dispute resolution process have resulted in an overall impact to the project schedule.

# V. Primary/Secondary Document Tracking System:

### A) Documents under review and/or preparation for this reporting period:

None.

### B) Due dates for completion of review/modification tasks:

The finalization and submittal of the D1 Revised Proposed Plan have been placed on hold until the current dispute is resolved.

# VI. Anticipated problems/delays (provide summary of problems, schedule, reason for delay, and actions taken to prevent or mitigate delay):

EPA and Kentucky senior managers currently are evaluating DOE's June 2016 proposal for site reprioritization. An extension to the C-400 Phase IIb Proposed Plan was requested to allow time for EPA and Kentucky senior management to respond to DOE's proposal to integrate the Phase IIb Proposed Plan and a Final Remedial Action for the C-400 Complex. The FFA parties currently are in dispute resolution regarding nonconcurrence on the milestone modification request for issuance of the *Revised Proposed Plan for the Volatile Organic Compound Contamination at the C-400 Cleaning Building at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-2407&D1. Senior management from DOE, EPA, and Kentucky are scheduled to meet on April 19, 2017, to discuss DOE's proposal and determine a path forward for C-400.

# VII. Summary of all contacts with local community, public interest groups, or state government:

DOE provided routine updates on the subproject to the Paducah Site Citizens Advisory Board (CAB), FFA project managers, FFA senior managers, local elected officials, and/or congressional staff.

# VIII. Changes in relevant personnel:

None.

# IX. Actual cost for O&M, if appropriate:

Sampling of the C-400 wells has been incorporated into the Environmental Monitoring Program. O&M cost is not tracked separately.



Facility: Paducah Gaseous Diffusion Plant Plant EPA I.D. No.: KY8-890-008-982 Reporting Period: 10/01/2016-03/31/2017

### **GROUNDWATER OPERABLE UNIT PROJECT: Southwest Plume Sources**

I. Work performed during the reporting period (including summaries of findings and any deviations from the work plan):

#### SWMU 1

- Verified continuing presence of warning signs at the soil mixing area at SWMU 1, SWMU 211-A, and SWMU 211-B as required by the Record of Decision for Solid Waste Management Units 1, 211-A, 211-B, and Part of 102 Volatile Organic Compound Sources for the Southwest Groundwater Plume at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-0365&D2/R1. The warning signs provide information to alert industrial workers of the presence of the contamination in the area.
- Performed third and fourth quarter sampling of SWMU 1 MWs, as required by the *Remedial Action Work Plan for In Situ Source Treatment by Deep Soil Mixing of the Southwest Groundwater Plume Volatile Organic Source at the C-747-C Oil Landfarm (Solid Waste Management Unit 1) at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-1287&D2. Analytical results for the second and third quarter events are being reviewed. Laboratory analysis is ongoing for the fourth quarter samples.*
- Received comments from EPA and Kentucky on November 29, 2016, and November 30, 2016, respectively, on the Remedial Action Completion Report for In Situ Source Treatment by Deep Soil Mixing of the Southwest Groundwater Plume Volatile Organic Source at the C-747-C Oil Landfarm (Solid Waste Management Unit 1), at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-2405&D1.
- Revised and issued to EPA and Kentucky on January 27, 2017, the Remedial Action Completion Report for In Situ Source Treatment by Deep Soil Mixing of the Southwest Groundwater Plume Volatile Organic Source at the C-747-C Oil Landfarm (Solid Waste Management Unit 1), at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-2405&D2.
- Received EPA and Kentucky approval on February 14, 2017, and February 15, 2017, respectively, on the Remedial Action Completion Report for In Situ Source Treatment by Deep Soil Mixing of the Southwest Groundwater Plume Volatile Organic Source at the C-747-C Oil Landfarm (Solid Waste Management Unit 1), at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-2405&D2.

#### **SWMUs 211-A and 211-B**

• No activities were scheduled for this project during this reporting period.

# II. Schedules of activities to be performed during the next reporting period (including projected work/crucial phases of construction):

• Establish path forward for SWMUs 211-A and 211-B with EPA and Kentucky once DOE, EPA, and Kentucky senior managers have made a decision concerning site reprioritization.

### III. Identity and assigned tasks of DOE contractors for work to be performed for this project:

Reporting responsibility for the work to be performed in support of the GWOU belongs to FFS. FFS also provides programmatic and technical support, analytical services, and business management services. SSI manages the AR and the EIC.

# IV. Statement of the manner and extent to which the requirements and time schedules are being met:

- The requirements for the SWMU 1 portion of the Southwest Plume sources remedial action subproject have been met consistent with the SMP and as agreed to by the FFA parties.
- The requirements for the SWMUs 211-A and 211-B portion of the Southwest Plume subproject are being met consistent with the SMP and as agreed to by the FFA parties.

### V. Primary/Secondary Document Tracking System:

#### A) Documents under review and/or preparation for this reporting period:

- Remedial Action Completion Report for In Situ Source Treatment by Deep Soil Mixing of the Southwest Groundwater Plume Volatile Organic Source at the C-747-C Oil Landfarm (Solid Waste Management Unit 1), at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-2405&D1, has been under EPA and Kentucky review during this reporting period.
- Remedial Action Completion Report for In Situ Source Treatment by Deep Soil Mixing of the Southwest Groundwater Plume Volatile Organic Source at the C-747-C Oil Landfarm (Solid Waste Management Unit 1), at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-2405&D2, has been under development and under EPA and Kentucky review during this reporting period.

### B) Due dates for completion of review/modification tasks:

None.

# VI. Anticipated problems/delays (provide summary of problems, schedule, reason for delay, and actions taken to prevent or mitigate delay):

EPA and Kentucky have requested tri-party discussions to determine the appropriate response actions (e.g., path forward of SWMU 211-A, invalidation of the Conceptual Site Model at SWMU 211-B) for SWMUs 211-A and 211-B. Decisions that will result from these discussions

are necessary to complete the Final Characterization Notification for SWMUs 211-A and 211-B adequately. Once DOE, EPA, and Kentucky senior managers have made a decision concerning site reprioritization, DOE will schedule the tri-party discussion as requested by EPA and Kentucky.

### VII. Summary of all contacts with local community, public interest groups, or state government:

DOE provided routine updates on the subproject to the Paducah Site CAB, FFA project managers, FFA senior managers, local elected officials, and/or congressional staff.

### VIII. Changes in relevant personnel:

None.

# IX. Actual cost for O&M, if appropriate:

None.



Facility: Paducah Gaseous Diffusion Plant Plant EPA I.D. No.: KY8-890-008-982 Reporting Period: 10/01/2016-03/31/2017

### **GROUNDWATER OPERABLE UNIT PROJECT: Dissolved-Phase Plumes**

# I. Work performed during the reporting period (including summaries of findings and any deviations from the work plan):

- The Modeling Working Group continued an update of the PGDP Sitewide Groundwater Model. The Groundwater Project Team held two meetings during this reporting period. The meetings were held in Nashville, TN, on October 25, 2016, and March 23, 2017. In addition, five teleconferences were held during the reporting period.
- Developed and issued to the Modeling Working Group draft modeling reports. Draft 2 (primary components only) was sent to the Modeling Working Group on November 28, 2016.
   Draft 3 (full report) was sent to the Modeling Working Group on December 28, 2016. Draft 4 (full report) was sent to the Modeling Working Group on March 15, 2017.

# II. Schedule of activities during upcoming reporting period (including projected work/crucial phases of construction):

- Additional meetings of the PGDP Modeling Working Group are being planned for the next reporting period.
- DOE plans to issue the 2016 Update of the Paducah Gaseous Diffusion Plant Sitewide Groundwater Flow Model, DOE/LX/07-2415&D1, to EPA and Kentucky for review and comment on April 3, 2017.

# III. Identity and assigned tasks of DOE contractors for work to be performed for this project:

Reporting responsibility for the work to be performed in support of the GWOU belongs to FFS. In addition, FFS provides programmatic and technical support, analytical services, and business management services. SSI manages the AR and the EIC.

# IV. Statement of the manner and extent to which the requirements and time schedules are being met:

No requirements are scheduled for this project during the upcoming reporting period. The Modeling Working Group will continue to support the finalization of the PGDP Sitewide Groundwater Model.

# V. Primary/Secondary Document Tracking System:

### A) Documents under review and/or preparation for this reporting period:

2016 Update of the Paducah Gaseous Diffusion Plant Sitewide Groundwater Flow Model, DOE/LX/07-2415&D1.

### B) Due dates for completion of review/modification tasks:

2016 Update of the Paducah Gaseous Diffusion Plant Sitewide Groundwater Flow Model, DOE/LX/07-2415&D1, comments are due from EPA and Kentucky within 30 days of document transmittal.

# VI. Anticipated problems/delays (provide summary of problems, schedule, reason for delay, and actions taken to prevent or mitigate delay):

None.

### VII. Summary of all contacts with local community, public interest groups, or state government:

DOE provided routine updates on the subproject to the Paducah Site CAB, FFA project managers, FFA senior managers, local elected officials, and/or congressional staff.

# VIII. Changes in relevant personnel:

None.

### IX. Actual cost for O&M, if appropriate:

Not applicable.

Facility: Paducah Gaseous Diffusion Plant Plant EPA I.D. No.: KY8-890-008-982 Reporting Period: 10/01/2016-03/31/2017

### **GROUNDWATER OPERABLE UNIT PROJECT: Northeast Plume IRA**

# I. Work performed during the reporting period (including summaries of findings and any deviations from the work plan):

- Initiated development of the Operation and Maintenance Plan for the Northeast Plume Containment System Interim Remedial Action at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/OR/07-1535&D3/R5.
- Reached agreement with EPA and Kentucky on February 2, 2017, to finalize location of extraction and remaining well network for the Northeast Plume Optimization Project.
- Initiated fieldwork on the extraction and remaining well network for the Northeast Plume Optimization Project on March 8, 2017.
- Initiated fieldwork on the infrastructure construction for the Northeast Plume Optimization Project on March 22, 2017.
- During this reporting period, the Northeast Plume Containment System (NEPCS) treated 49,490,400 gal of contaminated groundwater and achieved an average operational efficiency of 99.5%. The average system treatment rate for the reporting period was 189 gal/min. Operational online efficiencies for the reporting period were as follows: October 2016, 99.7%; November 2016, 99.9%; December 2016, 100%; January 2017, 99.5%; February 2017, 100%; March 2017, 98.8%.

### A) Process Operations:

The NEPCS consists of two extraction wells (EWs), an underground equalization (EQ) tank, transfer piping, an alternate treatment unit (ATU) for air stripping and suspended solids removal, and MW network.

#### **B)** Process Testing:

Operation of the NEPCS began February 28, 1997. As of March 31, 2017, the NEPCS has processed a total of approximately 1,678,380,031 gal of water. The monthly withdrawal volumes this reporting period are presented in Appendix A, Table A.1, of this report. This table includes a summary of the withdrawn water volumes and average daily rates.

# C) NEPCS Influent, Effluent, and Extraction Well Testing:

Due to sample analysis time and the data assessment process, the analytical data included in this report lags operational data by three months. This report presents analytical data from July through December 2016.

The influent flow is a composite from two EWs. Influent TCE analytical data from 1997 through the end of December 2016 are presented in Appendix B. Environmental samples were collected monthly from the treatment system influent and weekly from the treatment system effluent for the period of July through December 2016. High, low, and average influent and effluent TCE concentrations for these months are presented in Table 3.

**Table 3. TCE Concentrations for Northeast Plume** 

		TCE (µg/L)	)
	High	Low	Average
Influent (EQ Tank)	138	109	125
Effluent (CERCLA Outfall)	3.79	1	2.85

As presented in Table 3, the NEPCS continued to remove TCE effectively. The system operated with an average removal efficiency of approximately 97.7% for TCE.

The EWs were sampled quarterly during this reporting period. EW331 had an average TCE concentration of 115  $\mu$ g/L, while EW332 had an average concentration of 114  $\mu$ g/L.

Treated groundwater for the Northeast Plume is discharged to a CERCLA outfall, and data associated with the CERCLA outfall are included as part of Appendix B of this report.

#### **D)** Maintenance Activities:

#### **Routine Maintenance Activities:**

Daily, monthly, quarterly, and annual routine maintenance activities were conducted in accordance with the *Northwest/Northeast Plume Daily Operational Data Collection and Maintenance*, CP4-ER-0017, December 2016.

No instances of downtime due to routine maintenance occurred during the reporting period.

#### **Nonroutine Maintenance Activities:**

From September 26, 2016, to October 13, 2016, the Northeast Plume system operated on one pump as a result of wiring failure at EW332. The Northeast Plume system was taken offline of October 13, 2016, to make the repairs; work was performed in 4.5 hours, and the system was placed back online.

On October 2, 2016, the Northeast Plume system shut down due to a pump fault on EW331; work was performed in less than 4 hours, and the system was placed back online.

On October 3, 2016, the Northeast Plume system shut down due to a pump fault on EW331; work was performed in less than 4 hours, and the system was placed back online.

On October 5, 2016, the Northeast Plume system shut down due to a pump fault on EW331; work was performed in less than 2 hours, and the system was placed back online.

On November 4, 2016, the Northeast Plume system shut down due to a power outage; work was performed in less than 1 hour, and the system was placed back online.

On January 14, 2017, the Northeast Plume system shut down due to low flow and low level in EQ tank; work was performed in less than 4 hours, and the system was placed back online.

On March 1, 2017, the Northeast Plume system shut down for 9 hours due to power outage caused by storm damage.

# E) Effectiveness Monitoring—Monitoring Well Results:

Figure B.1, included in Appendix B, shows locations of the MWs and EWs. Figure B.2 shows the location of the MWs with the top of McNairy topography. Figures B.3 shows system influent TCE concentrations, and Figure B.4 includes a summary of the TCE in the Northeast Plume EWs. Figure B.5 shows the estimated cumulative amount of TCE removed since the NEPCS began operations in 1997. Figures B.6 through B.10 presented in Appendix B, show TCE concentrations and Tc-99 activities in MWs downgradient and upgradient and the EWs.

MW292 is located approximately 1,200 ft upgradient of the pumping wells to provide an early detection point for Tc-99 migration. During the third and fourth quarters of calendar year 2016, Tc-99 activity at MW292 was 44.1 and 39.7 pCi/L, respectively.

### F) Modification of the NEPCS Operations or Configuration:

Commenced Phase II drilling activities and infrastructure construction activities on March 8, 2017, and March 22, 2017, respectively, with the intent to increase volatile organic compound mass removal and enhance capture of contaminants migrating in the Northeast Groundwater Plume.

# II. Schedule of activities during upcoming reporting period (including projected work/crucial phases of construction):

- Complete four consecutive quarters of transect MW sampling.
- Complete Phase II drilling activities.
- Complete infrastructure construction.
- Complete start-up and testing of the optimized system.
- Submit to EPA and Kentucky the Operation and Maintenance Plan for the Northeast Plume Containment System Interim Remedial Action at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/OR/07-1535&D3/R5.
- Revise the Operation and Maintenance Plan for the Northeast Plume Containment System Interim Remedial Action at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/OR/07-1535&D3/R5, to address EPA and Kentucky comments.

# III. Identity and assigned tasks of DOE contractors for work to be performed for this project:

Reporting responsibility for the work to be performed in support of the NEPCS belongs to FFS. In addition, FFS also provides programmatic and technical support, analytical services, and business management services. SSI manages the AR and the EIC.

# IV. Statement of the manner and extent to which the requirements and time schedules are being met:

The effluent concentration goal of 30  $\mu$ g/L for TCE was met during the reporting period. The NEPCS remained operational 99.5% of the time during this reporting period.

### V. Primary/Secondary Document Tracking System:

### A) Documents under review and/or preparation for this reporting period:

Operation and Maintenance Plan for the Northeast Plume Containment System Interim Remedial Action at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/OR/07-1535&D3/R5, was under development during this reporting period.

#### B) Due dates for completion of review/modification tasks:

Operation and Maintenance Plan for the Northeast Plume Containment System Interim Remedial Action at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/OR/07-1535&D3/R5, comments are due from EPA and Kentucky within 90 days of document transmittal.

# VI. Anticipated problems/delays (provide summary of problems, schedule, reason for delay, and actions taken to prevent or mitigate delay):

None.

#### VII. Summary of all contacts with local community, public interest groups, or state government:

DOE provided routine updates on the subproject to the Paducah Site CAB, FFA project managers, FFA senior managers, local elected officials, and/or congressional staff.

### VIII. Changes in relevant personnel:

None.

### IX. Actual cost for O&M, if appropriate:

Actual costs for O&M of the Northwest/Northeast Plume facilities are tracked jointly. The total operating cost for the reporting period was \$378,000.

Facility: Paducah Gaseous Diffusion Plant Plant EPA I.D. No.: KY8-890-008-982 Reporting Period: 10/01/2016-03/31/2017

# GROUNDWATER OPERABLE UNIT PROJECT: Northwest Plume IRA

# I. Work performed during the reporting period (including summaries of findings and any deviations from the work plan):

During this reporting period, the Northwest Plume Groundwater System (NWPGS) treated 51,318,388 gal of contaminated groundwater with an average monthly operational efficiency of 99.6%. The average system treatment rate for the reporting period was approximately 196 gal/min. Operational efficiencies for the reporting period were as follows: October 2016, 100%; November 2016, 100%; December 2016, 99.5%; January 2017, 100%; February 2017, 98.5%; March 2017, 99.9%.

### **A) Process Operations:**

The NWPGS consists of two EWs (EW232 and EW233) located just north of PGDP and underground transfer pipeline for moving contaminated groundwater. The treatment facility has an operational capacity of 220 gal/min and utilizes air stripping for removal of TCE in groundwater, ion exchange for removal of Tc-99 in groundwater, and vapor phase carbon for capturing TCE from exhaust of the air stripper. Treated groundwater from the transfer pipeline is released to a tributary flowing to Outfall 001. An MW network is used to evaluate performance.

### **B)** Process Testing:

Operation of the NWPGS began on August 28, 1995. As of March 31, 2017, the NWPGS has processed a total of approximately 2,146,319,152 gal of water. The monthly withdrawal volumes for the reporting period are presented in Appendix A, Table A.2, of this report. This table includes a summary of the withdrawn water volumes and average daily rates.

### C) NWPGS Influent, Effluent, and Extraction Well Testing:

Due to sample analysis time and the data assessment process, the analytical data included in this report lags operational data by three months. This report presents analytical data from July through December 2016.

Figure B.11, included in Appendix B, shows locations of the Northwest Plume MWs. Figure B.12 shows the location of the MWs with the top of McNairy topography. Influent TCE and Tc-99 analytical data are presented in Appendix B on Figures B.13 and B.14. Figures B.15 and B.16 includes a summary of the TCE and Tc-99 concentrations of the effluent versus time at the Northwest Treatment System. Figure B.17 shows the cumulative estimated amount of TCE removed since the NWPGS began operations in 1995. The influent

sample results, compared to the NWPGS effluent results, indicated that the NWPGS continues to effectively remove TCE and Tc-99.

For radionuclides, all reported values, including negative values, are used to derive averages. Negative Tc-99 results may be reported due to a statistical determination of the counts seen by a detector, minus a background count. High, low, and average influent and effluent TCE and Tc-99 concentrations from July through December 2016 are presented in Table 4.

Table 4. TCE and Tc-99 Concentrations for Northwest Plume

	TCE (µg/L)		Tc-99 (pCi/L)			
	High	Low	Average	High	Low	Average
Influent	2,520	1,940	2,147	300	236	269
Effluent	52.5	1.46	4.18	8.43	-12.8	-1.82

The treatment system influent was sampled monthly. The effluent was sampled weekly. These sampling frequencies were conducted in accordance with the O&M Plan for the Northwest Plume Groundwater System IRA D4/R5. As presented in Table 4, the NWPGS continued to remove TCE and Tc-99 effectively. The system operated with an average removal efficiency of 99.8% for TCE and 100% for Tc-99.

The average TCE effluent concentration for this reporting period was 4.18  $\mu$ g/L, which is less than the treatment goal of 5  $\mu$ g/L. The average Tc-99 effluent value was -1.82 pCi/L, which is less than the operational goal of 900 pCi/L, during the reporting period.

High, low, and average sample results for this reporting period at the EWs are shown in Table 5. EW232 and EW233 were sampled quarterly in accordance with the O&M Plan for the Northwest Plume.

Table 5. TCE and Tc-99 Concentrations for Northwest Plume EWs

	TCE (µg/L)			Tc-99 (pCi/L)		
	High	Low	Average	High	Low	Average
EW232	567	491	517	140	120	129
EW233	4,480	4,010	4,180	432	422	428

### D) Treatment Media:

# **Ion Exchange Resins:**

The NWPGS is equipped with four ion exchange columns used for the removal of Tc-99. Purolite A-520-E resin is used in the columns, which are arranged in a lead/lag configuration in a new trailer. No resin changes were required during this reporting period.

#### **Activated Carbon Media:**

The NWPGS is equipped with two carbon columns containing granular activated carbon for adsorption of VOCs from the vapor-phase effluent of the air stripper unit. The O&M Plan requires spent carbon to be replaced every 6 months. The last carbon changeout was completed July 28, 2016. The project has exceeded the 6-month requirement to change out the carbon. Corrective actions are underway, and the carbon changeout is projected for early April 2017.

### E) Maintenance Activities:

#### **Routine Maintenance Activities:**

Daily, monthly, quarterly, and annual routine maintenance activities were conducted in accordance with the *Northwest/Northeast Plume Daily Operational Data Collection and Maintenance*, CP4-ER-0017, December 2016, and *Monthly, Quarterly, and Annual Maintenance at the C-612 Northwest Plume Groundwater System*, CP4-ER-0016, March 2016.

On December 20, 2016, the Northwest Plume system was shut down for a planned outage; work was performed in approximately 2 hours, and the system was placed back online.

On March 29, 2017, the Northwest Plume system shut down for quarterly maintenance; work was performed in approximately 1 hour, and the system was placed back online.

### **Nonroutine Maintenance Activities:**

On December 17, 2016, the Northwest Plume system shut down due to a power outage; work was performed in less than 3 hours, and the system was placed back online.

On February 12, 2017, the Northwest Plume system shut down due to a high sump alarm. The system was down for approximately 1 hour.

On February 15, 2017, the Northwest Plume system shut down due to a power outage. The system was restarted on February 16, 2017, resulting in approximately 10 hours of downtime.

### F) Effectiveness Monitoring—Monitoring Well Results:

Figures B.18 through B.25 presented in Appendix B, show TCE and Tc-99 concentrations in MWs at the south and north fields of the Northwest Plume and the EWs, respectively. These graphs show all data since monitoring began in 1995 and indicate the position of the MWs relative to the extraction.

### **G)** Modification of the NWPGS Operations or Configuration:

None.

## II. Schedules of activities during upcoming reporting period (including projected work/crucial phases of construction):

The project team will continue to conduct and document the necessary tasks required for equipment maintenance, calibration, and operation, as specified in the *Operations and Maintenance Plan for the Northwest Plume Groundwater System Interim Remedial Action at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/OR/07-1253&D4/R5.

#### III. Identity and assigned tasks of DOE contractors for work to be performed for this project:

Reporting responsibility for the work to be performed in support of the NWPGS belongs to FFS as the DOE prime remediation contractor at PGDP. In addition FFS provides programmatic and technical support, analytical services, and business management services. SSI manages the AR and the EIC.

## IV. Statement of the manner and extent to which the requirements and time schedules are being met:

The average NWPGS water effluent concentrations met the operational goals of 5  $\mu$ g/L for TCE and 900 pCi/L for Tc-99 during the reporting period. The NWPGS has remained 99.6% operational during this reporting period.

#### V. Primary/Secondary Document Tracking System:

#### A) Documents under review and/or preparation for this reporting period:

None.

#### B) Due dates for completion of review/modification tasks:

None.

## VI. Anticipated problems/delays (provide summary of problems, schedule, and reason for delay, and actions taken to prevent or mitigate delay):

None.

#### VII. Summary of all contacts with local community, public interest groups, or state government:

DOE provided routine updates on the subproject to the Paducah Site CAB, FFA project managers, FFA senior managers, local elected officials, and/or congressional staff.

#### VIII. Changes in relevant personnel:

None.

#### IX. Actual cost for O&M, if appropriate:

Actual costs for O&M of the Northwest/Northeast Plume facilities are tracked jointly. The total operating cost for the reporting period was \$378,000.

Facility: Paducah Gaseous Diffusion Plant Plant EPA I.D. No.: KY8-890-008-982 Reporting Period: 10/01/2016-03/31/2017

#### **BURIAL GROUNDS OPERABLE UNIT**

The scope of the BGOU includes an Remedial Investigation (RI), baseline human health risk assessment, evaluation of remedial alternatives, remedy selection, and implementation of actions, as necessary, for protection of human health and the environment for the following burial grounds: C-749 (SWMU 2); C-404 (SWMU 3); C-747/C-748-B (SWMU 4); C-746-F (SWMU 5); C-747-B (SWMU 6); C-747-A (SWMU 7 and 30), which includes the area beneath C-747-A (SWMU 12); the residential/inert borrow area (SWMU 145); and the C-746-S&T Landfills (SWMUs 9 and 10, respectively).

This section also includes information on the sampling activities being conducted at the C-749 Uranium Burial Ground, as required in the *Record of Decision for Interim Remedial Action at Solid Waste Management Units 2 and 3 of Waste Area Group 22 at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, signed in 1995.



Facility: Paducah Gaseous Diffusion Plant Plant EPA I.D. No.: KY8-890-008-982 Reporting Period: 10/01/2016-03/31/2017

BURIAL GROUNDS OPERABLE UNIT PROJECT: C-749 (SWMU 2); C-404 (SWMU 3); C-747/C-748-B (SWMU 4); C-746-F (SWMU 5); C-747-B (SWMU 6); C-747-A (SWMUs 7 and 30), which includes the area beneath C-747-A (SWMU 12); the Residential/Inert Borrow Area (SWMU 145); and the C-746-S&T Landfills (SWMUs 9 and 10)

- I. Work performed during the reporting period (including summaries of findings and any deviations from the work plan):
  - Continued negotiations to resolve the DRC-level formal dispute associated with the Feasibility Study for Solid Waste Management Units 2, 3, 7, and 30 of the Burial Grounds Operable Unit at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-1274&D2.
  - Revised and issued to Kentucky and EPA on January 27, 2017, the Addendum to the Remedial Investigation Report for the Burial Grounds Operable Unit Solid Waste Management Unit 4 at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-0030&D2/R1/A1.
  - Continued development of the Feasibility Study for Solid Waste Management Unit 4 of the Burial Grounds Operable Unit at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-2408&D1.
- II. Schedules of activities to be performed during the next reporting period (including projected work/crucial phases of construction):
  - After the DRC-level dispute is resolved, develop and issue a revised *Feasibility Study for Solid Waste Management Units 2, 3, 7, and 30 of the Burial Grounds Operable Unit at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-1274&D2/R1, to EPA and Kentucky for approval.
  - After the sitewide prioritization discussions with DOE, EPA, and Kentucky have been completed, if appropriate, submit the *Record of Decision for Solid Waste Management Units 5 and 6 of the Burial Grounds Operable Unit at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-1282&D1, to EPA and Kentucky for review.
  - Finalize and submit the Addendum to the Remedial Investigation Report for the Burial Grounds Operable Unit Solid Waste Management Unit 4 at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-0030&D2/R1/A1/R2, to EPA and Kentucky by April 20, 2017.

• Issue Feasibility Study for Solid Waste Management Unit 4 of the Burial Grounds Operable Unit at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-2408&D1, to EPA and Kentucky by April 22, 2017.

#### III. Identity and assigned tasks of DOE contractors for work to be performed for this project:

Reporting responsibility for the work to be performed in support of BGOU belongs to FFS. In addition, FFS also provides programmatic and technical support, analytical services, and business management. SSI manages the AR and the EIC, and maintains existing burial ground caps.

## IV. Statement of the manner and extent to which the requirements and time schedules are being met:

- The requirements and time schedules are being met; however, extensions related to the potential reprioritization of SWMUs 5 and 6 and the dispute resolution process for SWMUs 2, 3, 7, and 30 have resulted in an overall impact to the project schedule for the BGOU.
- The requirements and time schedules are being met; however, extensions related to additional field work and resolution of conditions on the *Addendum to the Remedial Investigation Report for the Burial Grounds Operable Unit Solid Waste Management Unit 4 at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-0030&D2/R1/A1/R1, have resulted in an overall impact to the SWMU 4 project schedule.

#### V. Primary/Secondary Document Tracking System:

#### A) Documents under review and/or preparation during this reporting period:

- Feasibility Study for Solid Waste Management Units 2, 3, 7, and 30 of the Burial Grounds Operable Unit at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-1274&D2.
- Record of Decision for Solid Waste Management Units 5 and 6 of the Burial Grounds Operable Unit at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-1282&D1.
- Addendum to the Remedial Investigation Report for the Burial Grounds Operable Unit Solid Waste Management Unit 4 at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-0030&D2/R1/A1.
- Feasibility Study for Solid Waste Management Unit 4 of the Burial Grounds Operable Unit at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-2408&D1.

#### B) Due dates for completion of review/modification tasks:

• Resolution of DRC-level formal dispute on the *Feasibility Study for Solid Waste Management Units 2, 3, 7, and 30 of the Burial Grounds Operable Unit at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-1274&D2, by April 17, 2017. After the end of this report's reporting period, the FFA parties agreed to extend the due date by an additional 21 days to May 8, 2017.

- Issue Record of Decision for Solid Waste Management Units 5 and 6 of the Burial Grounds Operable Unit at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-1282&D1, by April 29, 2017. After the end of this report's reporting period, the FFA parties agreed to extend the due date by an additional 33 days to June 1, 2017.
- Complete and issue the D2/R1 Feasibility Study for Solid Waste Management Units 2, 3, 7, and 30 of the Burial Grounds Operable Unit at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-1274&D2/R1, in accordance with the terms of the dispute resolution memorandum of agreement.
- Issue the Addendum to the Remedial Investigation Report for the Burial Grounds Operable Unit Solid Waste Management Unit 4 at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-0030&D2/R1/A1/R3, by April 20, 2017.
- Issue the Feasibility Study for Solid Waste Management Unit 4 of the Burial Grounds Operable Unit at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-2408&D1, by April 22, 2017.

## VI. Anticipated problems/delays (provide summary of problems, schedule, reason for delay, and actions taken to prevent or mitigate delay):

Dispute resolution for BGOU SWMUs 2, 3, 7, and 30 has resulted in cost and schedule delays. Current enforceable or FFA milestones (if applicable) have been stayed and will be/have been reestablished in accordance with the terms of the dispute resolution.

#### VII. Summary of all contacts with local community, public interest groups, or state government:

DOE provided routine updates on the subproject to the Paducah Site CAB, FFA project managers, FFA senior managers, local elected officials, and/or congressional staff.

#### VIII. Changes in relevant personnel:

None.

## IX. Actual cost for O&M, if appropriate:

None. [Refer to the following section of this report for information regarding O&M costs for the IRA at the C-749 Uranium Burial Ground (SWMU 2).]



Facility: Paducah Gaseous Diffusion Plant Plant EPA I.D. No.: KY8-890-008-982 Reporting Period: 10/01/2016-03/31/2017

#### **BURIAL GROUNDS OPERABLE UNIT PROJECT: C-749 Uranium Burial Ground (SWMU 2)**

I. Work performed during the reporting period (including summaries of findings and any deviations from the work plan):

Continued groundwater monitoring at the C-749 Uranium Burial Ground, as required by the Record of Decision for Interim Remedial Action at Solid Waste Management Unit 2 and 3 of Waste Area Group 22 at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/OR/06-1351&D1. The results for the groundwater monitoring from May 1993, through December 2016, have been included as part of this report. The results of the groundwater monitoring trends from 1996 through December 2016 are presented in Appendix F.

II. Schedules of activities to be performed during the next reporting period (including projected work/crucial phases of construction):

Groundwater monitoring will continue at the C-749 Uranium Burial Ground, as required by the ROD.

III. Identity and assigned tasks of DOE contractors for work to be performed for this project:

Reporting responsibility for the work to be performed in support of C-749 Uranium Burial Ground belongs to FFS. In addition, FFS provides programmatic and technical support, analytical services, and business management. SSI manages the AR and the EIC, and maintains existing burial ground cover.

IV. Statement of the manner and extent to which the requirements and time schedules are being met:

The requirements and time schedules are being met.

- V. Primary/Secondary Document Tracking System:
  - A) Documents under review and/or preparation during this reporting period:

None.

B) Due dates for completion of review/modification tasks:

None.

VI.	Anticipated problems/delays (provide summary of problems, schedule, reason for dela	ıy.
	and actions taken to prevent or mitigate delay):	

None.

## VII. Summary of all contacts with local community, public interest groups, or state government:

None.

## VIII. Changes in relevant personnel:

None.

## IX. Actual cost for O&M, if appropriate:

Sampling of the C-749 Uranium Burial Ground has been incorporated into the Environmental Monitoring Program. O&M cost is not tracked separately.

Facility: Paducah Gaseous Diffusion Plant Plant EPA I.D. No.: KY8-890-008-982 Reporting Period: 10/01/2016-03/31/2017

#### SURFACE WATER OPERABLE UNIT

The SWOU includes the Surface Water Removal Action and Surface Water Remedial Action projects. Additionally, O&M is performed on North-South Diversion Ditch Sections 1 and 2 and institutional controls, as required by the *Operations and Maintenance Plan for Sections 1 and 2 of the North-South Diversion Ditch*, DOE/OR/07-2057&D2, and *Operations and Maintenance Plan for the Surface Water Operable Unit at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/OR/07-1904&D1; and O&M activities for the C-613 Basin are maintained in accordance with the *Operations and Maintenance Plan for the Northwest Storm Water Control Facility at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/OR/07-2044&D1/R4, respectively. Inspection reports are filed in the Document Management Center, managed by SSI. The estimated annual cost of this O&M is \$66,000.

Per the *Operations and Maintenance Plan for the Northwest Storm Water Control Facility at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/OR/07-2044&D1/R4, the relationship of turbidity to total suspended solids is compared on a quarterly basis. An update to the existing linear regression model was performed in January 2017, and the current maximum discharge limit for turbidity is 98 nephelometric turbidity units (NTU), with a 30-day average not to exceed 45 NTU.



Facility: Paducah Gaseous Diffusion Plant Plant EPA I.D. No.: KY8-890-008-982 Reporting Period: 10/01/2016-03/31/2017

#### SURFACE WATER OPERABLE UNIT PROJECT: Remedial Action

I. Work performed during the reporting period (including summaries of findings and any deviations from the work plan):

No activities were scheduled for this project during this reporting period.

II. Schedules of activities to be performed during the next reporting period (including projected work/crucial phases of construction):

No activities are scheduled for this project during the upcoming reporting period.

III. Identity and assigned tasks of DOE contractors for work to be performed for this project:

Reporting responsibility for the work to be performed in support of the SWOU Remedial Action belongs to FFS. In addition, FFS provides programmatic and technical support, analytical services, and business management. SSI manages the AR and the EIC.

IV. Statement of the manner and extent to which the requirements and time schedules are being met:

No activities are scheduled for this project during the upcoming reporting period.

- V. Primary/Secondary Document Tracking System:
  - A) Documents under review and/or preparation for this reporting period:

No activities were scheduled for this project during this reporting period.

B) Due dates for completion of review/modification tasks:

No activities are scheduled for this project during the upcoming reporting period.

VI. Anticipated problems/delays (provide summary of problems, schedule, reason for delay, and actions taken to prevent or mitigate delay):

None.

VII. Summary of all contacts with local community, public interest groups, or state government:

DOE provided routine updates on the subproject to the Paducah Site CAB, FFA project managers, FFA senior managers, local elected officials, and/or congressional staff.

## VIII. Changes in relevant personnel:

None.

## IX. Actual cost for O&M, if appropriate:

O&M activities have been incorporated into the Environmental Monitoring Program. O&M cost is not tracked separately.

Facility: Paducah Gaseous Diffusion Plant Plant EPA I.D. No.: KY8-890-008-982 Reporting Period: 10/01/2016-03/31/2017

#### SOILS OPERABLE UNIT

The SOU is being implemented in a phased approach (i.e., pre-GDP shutdown and post-GDP shutdown). The SOU consists of 86 SWMUs/areas of concern; three inactive facilities [C-218 Firing Range (SWMU 181), C-403 Neutralization Tank (SWMU 40), C-410-B Hydrogen Fluoride (HF) Neutralization Lagoon (SWMU 19)]; and the soil/rubble areas that have been identified to date. Prior to GDP shutdown, the SOU focused on accessible plant surface soils (ground surface to 10 ft below ground surface and 16 ft below ground surface in the vicinity of pipelines) not associated with PGDP operations. Following PGDP shutdown, slabs and underlying soils associated with facilities that have undergone decontamination and decommissioning will be addressed as part of a subsequent action (e.g., Remaining Remediation Soils and Slabs OU). Consistent with the SMP, actions to address a total of 25 of the 86 SWMUs have been deferred to Soils and Slabs OU. Of the remaining 63 SWMUs, 50 will be addressed as part of the Soils OU Feasibility Study (FS). The remaining 13 SWMUs were evaluated further under a subsequent Soils OU RI and will be addressed by a subsequent Soils OU FS.

Due to interferences from plant infrastructure, implementation of the response action pursuant to an approved Action Memorandum for SWMU 40 will be implemented as part of the Remaining Remediation Scope phase (*Action Memorandum for Soils Operable Unit Inactive Facilities*, DOE/LX/07-0121&D2/R1). Implementation of the SWMU 40 response will be reinstituted with development, review, and concurrence of a removal action work plan.



Facility: Paducah Gaseous Diffusion Plant Plant EPA I.D. No.: KY8-890-008-982 Reporting Period: 10/01/2016-03/31/2017

#### **SOILS OPERABLE UNIT PROJECT: Remedial Action**

I. Work performed during this reporting period (including summaries of findings and any deviations from the work plan):

#### **SWMU 27**

- Completed disposal of waste generated by the Time-Critical Removal Action for SWMU 27 on October 28, 2016.
- Conducted public comment period for the *Removal Notification for Solid Waste Management Unit* 27 at the *Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-2406&D2, from October 17, 2016, through November 16, 2016, and received no public comments.
- Submitted letter to EPA and Kentucky for the *Removal Notification for Solid Waste Management Unit 27 at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-2406&D2, on December 6, 2016, stating that there were no public comments and that a Responsiveness Summary was not required.
- Received EPA and Kentucky concurrence to DOE's letter regarding the requirement for a
  Responsiveness Summary for the Removal Notification for Solid Waste Management Unit 27
  at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-2406&D2, on
  December 8, 2016.
- Developed and issued to EPA and Kentucky the *Removal Action Report for Solid Waste Management Unit 27 at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-2411&D1, on February 8, 2017.

#### **SWMU 229**

- Received EPA and Kentucky conditional concurrence on November 17, 2016, on the Addendum to the Soils Operable Unit Remedial Investigation 2 Report for Solid Waste Management Unit 229 at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-2306&D2/A1.
- Held comment resolution meeting on Addendum to the Soils Operable Unit Remedial Investigation 2 Report for Solid Waste Management Unit 229 at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-2306&D2/A1/R1, with EPA and Kentucky on December 12, 2016.

- Revised and issued to EPA and Kentucky on December 19, 2016, the Addendum to the Soils Operable Unit Remedial Investigation 2 Report for Solid Waste Management Unit 229 at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-2306&D2/A1/R2.
- Received EPA and Kentucky approval on January 31, 2017, and January 18, 2017, respectively, on the Addendum to the Soils Operable Unit Remedial Investigation 2 Report for Solid Waste Management Unit 229 at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-2306&D2/A1/R2.

#### SWMU 1

• Revised and issued to EPA and Kentucky on January 18, 2017, the Addendum to the Soils Operable Unit Remedial Investigation Report for Solid Waste Management Unit 1 at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-0358&D2/R1/A2.

## II. Schedules of activities to be performed during the next reporting period (including projected work/crucial phases of construction):

- Receive and resolve comments on the Addendum to the Soils Operable Unit Remedial Investigation Report for Solid Waste Management Unit 1 at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-0358&D2/R1/A2.
- Receive and resolve comments on *Removal Action Report for Solid Waste Management Unit* 27 at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-2411&D1.

#### III. Identity and assigned tasks of DOE contractors for work to be performed for this project:

Reporting responsibility for the work to be performed in support of the SOU RI belongs to FFS. In addition, FFS provides programmatic and technical support, analytical services, and business management. SSI manages the AR and the EIC.

## IV. Statement of the manner and extent to which the requirements and time schedules are being met:

The requirements and schedules are being met for the SOU consistent with the SMP and as agreed to by the FFA parties.

#### V. Primary/Secondary Document Tracking System:

#### A) Documents under review and/or preparation for this reporting period:

- Addendum to the Soils Operable Unit Remedial Investigation 2 Report for Solid Waste Management Unit 229 at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-2306&D2/A1, was reviewed and approved by EPA and Kentucky during this reporting period.
- Addendum to the Soils Operable Unit Remedial Investigation Report for Solid Waste Management Unit 1 at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-0358&D2/R1/A2, was developed and issued to EPA and Kentucky for review during this reporting period.

- Public notice for the *Removal Notification for Solid Waste Management Unit 27 at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-2406&D2, was reviewed by EPA and Kentucky during this reporting period.
- Removal Action Report for Solid Waste Management Unit 27 at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-2411&D1, was developed and submitted to EPA and Kentucky for review during this reporting period.

#### B) Due dates for completion of review/modification tasks:

- Comments on the Addendum to the Soils Operable Unit Remedial Investigation Report for Solid Waste Management Unit 1 at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-0358&D2/R1/A2, are due within 90 days of document issuance or April 18, 2017. After the end of this report's reporting period, EPA and Kentucky requested a 30-day extension, making comments due on May 18, 2017.
- Comments on the Removal Action Report for Solid Waste Management Unit 27 at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-2411&D1, are due within 90 days of issuance or May 9, 2017.

## VI. Anticipated problems/delays (provide summary of problems, schedule, reason for delay, and actions taken to prevent or mitigate delay):

None.

#### VII. Summary of all contacts with local community, public interest groups, or state government:

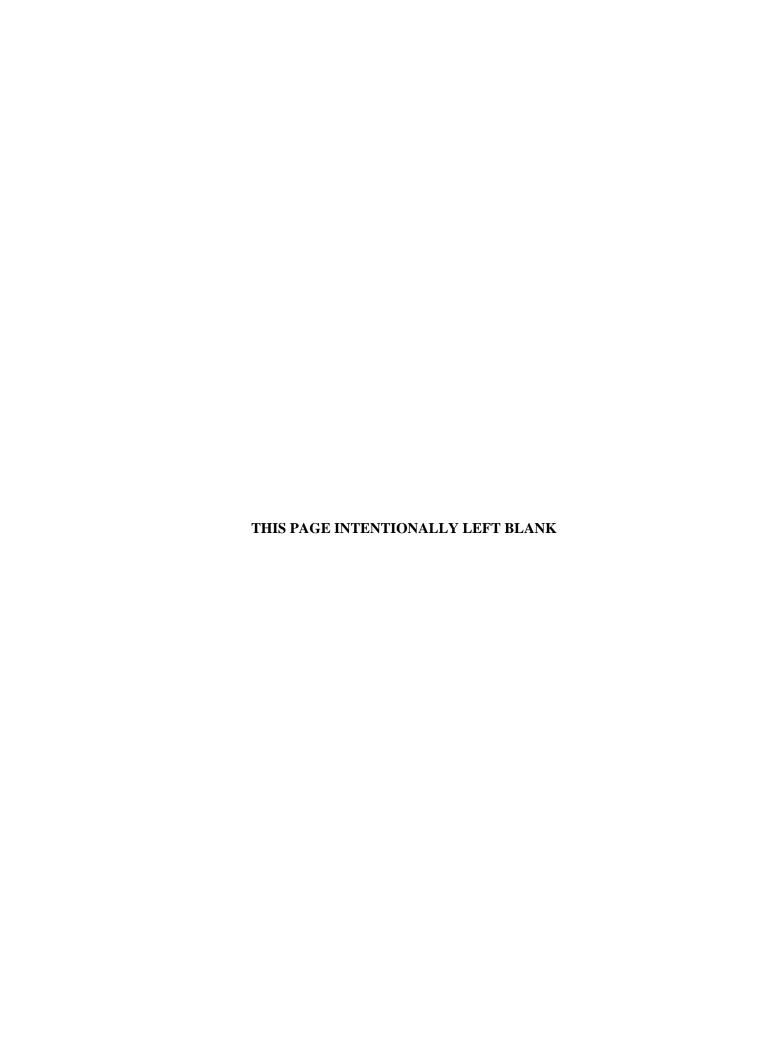
DOE provided routine updates on the subproject to the Paducah Site CAB, FFA project managers, FFA senior managers, local elected officials, and/or congressional staff.

#### VIII. Changes in relevant personnel:

None.

#### IX. Actual cost for O&M, if appropriate:

None.



Facility: Paducah Gaseous Diffusion Plant Plant EPA I.D. No.: KY8-890-008-982 Reporting Period: 10/01/2016-03/31/2017

#### DECONTAMINATION AND DECOMMISSIONING OPERABLE UNIT

The Decontamination and Decommissioning OU will employ the CERCLA removal action process to decommission excess buildings (i.e., inactive with no reuse potential) that have a release or substantial threat of release of hazardous substances to the environment and a response action is necessary to protect public health, welfare, or the environment. Consistent with the 1995 DOE and EPA Memorandum, *Policy on Decommissioning DOE Facilities under CERCLA*, DOE will employ the CERCLA Non-Time-Critical Removal Action framework when appropriate. In instances where facilities do not have a release or substantial threat of release of hazardous substances to the environment, CERCLA response action is not necessary; therefore, DOE may decommission the facility as a non-CERCLA action under DOE's Atomic Energy Act authority.

The scope of the pre-GDP shutdown Decontamination and Decommissioning OU has been completed.



Facility: Paducah Gaseous Diffusion Plant Plant EPA I.D. No.: KY8-890-008-982 Reporting Period: 10/01/2016-03/31/2017

#### DECONTAMINATION AND DECOMMISSIONING OPERABLE UNIT: C-410/C-420 Complex

The scope of this project includes decontamination and decommissioning of the C-410 UF $_6$  Feed Plant, using CERCLA removal actions implemented in accordance with the FFA and consistent with the 1995 EPA and DOE Joint Policy Statement on decommissioning activities.

- I. Work performed during the reporting period (including summaries of findings and any deviations from the work plan) for the C-410/C-420 Complex:
  - Developed and issued to EPA and Kentucky on January 10, 2017, errata pages for the Removal Action Report for the C-410 Complex Infrastructure Decontamination and Decommissioning Project at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-2182&D1.
  - Received acknowledgement of incorporation of errata pages into the final document from Kentucky on January 18, 2017.
  - Issued final copy incorporating the errata for the Removal Action Report for the C-410 Complex Infrastructure Decontamination and Decommissioning Project at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-2182&D1, to EPA and Kentucky on March 22, 2017.
  - Received acknowledgement of incorporation of errata pages into the final document from EPA on March 28, 2017.
- II. Schedules of activities to be performed during next reporting period (including projected work/crucial phases of construction):

The scope of the pre-GDP shutdown Decontamination and Decommissioning OU has been completed. No activities are scheduled for this project during the upcoming reporting period.

III. Identity and assigned tasks of DOE contractors for work to be performed for this project:

The scope of the pre-GDP shutdown Decontamination and Decommissioning OU has been completed. No activities are scheduled for this project during the upcoming reporting period.

IV. Statement of the manner and extent to which the requirements and time schedules are being met:

The scope of the pre-GDP shutdown Decontamination and Decommissioning OU has been completed. No activities are scheduled for this project during the upcoming reporting period.

## V. Primary/Secondary Document Tracking System:

#### A) Documents under review and/or preparation for this reporting period:

- Errata pages for the *Removal Action Report for the C-410 Complex Infrastructure Decontamination and Decommissioning Project at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-2182&D1, were developed and issued to EPA and Kentucky during this reporting period.
- Final copy incorporating the errata for the Removal Action Report for the C-410 Complex Infrastructure Decontamination and Decommissioning Project at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-2182&D1, was issued to EPA and Kentucky on March 22, 2017.

#### B) Due dates for completion of review/modification tasks:

The scope of the pre-GDP shutdown Decontamination and Decommissioning OU has been completed. No activities are scheduled for this project during the upcoming reporting period.

## VI. Anticipated problems/delays (provide summary of problems, schedule, reason for delay, and actions taken to prevent or mitigate delay):

The scope of the pre-GDP shutdown Decontamination and Decommissioning OU has been completed. No activities are scheduled for this project during the upcoming reporting period.

### VII. Summary of all contacts with local community, public interest groups, or state government:

None.

#### VIII. Changes in relevant personnel:

None.

## IX. Actual cost for O&M, if appropriate:

None.

Facility: Paducah Gaseous Diffusion Plant Plant EPA I.D. No.: KY8-890-008-982 Reporting Period: 10/01/2016-03/31/2017

#### **ADDITIONAL REPORTING**

Presented in this section are updates for WAGs 1 and 7 (C-746-K Landfill, TCE Spill Sites, Underground Storage Tanks, and Kentucky Ordnance Works sites), the Community Relations Plan (CRP), the SMP, CERCLA Waste Disposal Alternatives Evaluation, and CERCLA Five-Year Review.



Facility: Paducah Gaseous Diffusion Plant Plant EPA I.D. No.: KY8-890-008-982 Reporting Period: 10/01/2016-03/31/2017

## PROJECT: WAGs 1 and 7 (C-746-K Landfill, TCE Spill Sites, Underground Storage Tanks, and Kentucky Ordnance Works Sites)

I. Work performed during the reporting period (including summaries of findings and any deviations from the work plan):

Continued monitoring around the C-746-K Landfill and in Bayou Creek, as required by the *Record of Decision for Waste Area Groups 1 and 7 at PGDP, Paducah, Kentucky,* DOE/OR/06-1470&D3. WAGs 1 and 7 ROD requires these data to be submitted semiannually. The results of the groundwater monitoring data from May 1994 through December 2016 are presented graphically in Appendix C.

II. Schedules of activities to be performed during the next reporting period (including projected work/crucial phases of construction):

Monitoring will continue around C-746-K Landfill and in Bayou Creek, as required by the ROD. This monitoring is conducted and reported in accordance with other PGDP programs, such as the Groundwater Protection Program, Environmental Monitoring Program, and Kentucky Pollutant Discharge Elimination System Permit.

III. Identity and assigned tasks of DOE contractors for work to be performed for this project:

Reporting responsibility for the work to be performed in support of WAGs 1 and 7 belongs to FFS as the DOE prime remediation contractor at PGDP. In addition, FFS also provides programmatic and technical support, analytical services, and business management. SSI manages the AR and the EIC.

IV. Statement of the manner and extent to which the requirements and time schedules are being met:

The requirements and time schedules are being met.

- V. Primary/Secondary Document Tracking System:
  - A) Documents under review and/or preparation for this reporting period:

None.

B) Due dates for completion of review/modification tasks:

None.

VI.	Anticipated problems/delays (provide summary of problems, schedule, reason for delay	ıy.
	and actions taken to prevent or mitigate delay):	

None.

## VII. Summary of all contacts with local community, public interest groups, or state government:

None.

## VIII. Changes in relevant personnel:

None.

## IX. Actual cost for O&M, if appropriate:

Sampling of the surface water for the C-746-K Landfill has been incorporated into the Environmental Monitoring Program. O&M cost is not tracked separately.

Facility: Paducah Gaseous Diffusion Plant Plant EPA I.D. No.: KY8-890-008-982 Reporting Period: 10/01/2016-03/31/2017

#### **PROJECT: Community Relations Plan**

- I. Work performed during the reporting period (including summaries of findings and any deviations from the work plan):
  - Issued letter to EPA and Kentucky with notification that a revised CRP will be provided in June 2018. The last CRP was approved in June 2016.
  - Began development of a community survey that will be conducted in October 2017 and
    the results documented in the 2018 revision of the Community Relations Plan under the
    Federal Facility Agreement at the U.S. Department of Energy Paducah Gaseous Diffusion
    Plant.
  - Met with EPA and Kentucky on March 21, 2017, to review and receive feedback on the initial draft of the community survey.
- II. Schedules of activities to be performed during the next reporting period (including projected work/crucial phases of construction):
  - Finalize the community survey that will be conducted in October 2017.
- III. Identity and assigned tasks of DOE contractors for work to be performed for this project:

Reporting responsibility for the work to be performed in support of the CRP belongs to FFS. SSI manages the AR and the EIC.

IV. Statement of the manner and extent to which the requirements and time schedules are being met:

The requirements and time schedules are being met.

- V. Primary/Secondary Document Tracking System:
  - A) Documents under review and/or preparation for this reporting period:

None.

B) Due dates for completion of review/modification tasks:

The next D1 Community Relations Plan under the Federal Facility Agreement at the U.S. Department of Energy Paducah Gaseous Diffusion Plant is due to EPA and Kentucky no later than June 30, 2018.

VI. Anticipated problems/delays (provide summary of problems, schedule, reason for delay, and actions taken to prevent or mitigate delay):

None.

## VII. Summary of all contacts with local community, public interest groups, or state government:

DOE provided routine updates on the subproject to the Paducah Site CAB, FFA project managers, local elected officials, and/or congressional staff.

## VIII. Changes in relevant personnel:

None.

## IX. Actual cost for O&M, if appropriate:

Not applicable.

Facility: Paducah Gaseous Diffusion Plant Plant EPA I.D. No.: KY8-890-008-982 Reporting Period: 10/01/2016-03/31/2017

#### **PROJECT: Site Management Plan**

## I. Work performed during the reporting period (including summaries of findings and any deviations from the work plan):

- Received on October 26, 2016, EPA and Kentucky correspondence to suspend efforts to finalize the D2 Site Management Plan, Paducah Gaseous Diffusion Plant, Paducah, Kentucky, Annual Revision—FY 2016, DOE/LX/07-2400&D2. The FFA parties agreed to refocus efforts on submittal of the FY 2017 D1 SMP by November 15, 2016.
- Developed and issued to EPA and Kentucky the D1 Site Management Plan, Paducah Gaseous Diffusion Plant, Paducah, Kentucky, Annual Revision—FY 2017, DOE/LX/07-2410&D1, on November 15, 2016.
- Received e-mail request from EPA and Kentucky on December 14, 2016, to extend the submittal date for provision of comments/approval of the D1 Site Management Plan, Paducah Gaseous Diffusion Plant, Paducah, Kentucky, Annual Revision—FY 2017, DOE/LX/07-2410&D1, by 45 days to January 29, 2017.
- Received on February 2, 2017, Kentucky's request to extend the submittal date for provision of comments/approval of the D1 *Site Management Plan, Paducah Gaseous Diffusion Plant, Paducah, Kentucky, Annual Revision—FY 2017*, DOE/LX/07-2410&D1, by 15 days to February 14, 2017.
- Received on February 14, 2017, Kentucky's request to extend the submittal date for provision of comments/approval of the D1 *Site Management Plan, Paducah Gaseous Diffusion Plant, Paducah, Kentucky, Annual Revision—FY 2017*, DOE/LX/07-2410&D1, to March 3, 2017.
- Received on March 3, 2017, Kentucky's request to extend the submittal date for provision of comments/approval of the D1 *Site Management Plan, Paducah Gaseous Diffusion Plant, Paducah, Kentucky, Annual Revision—FY 2017*, DOE/LX/07-2410&D1, to March 17, 2017.
- Received on March 17, 2017, Kentucky's request to extend the submittal date for provision of comments/approval of the D1 *Site Management Plan, Paducah Gaseous Diffusion Plant, Paducah, Kentucky, Annual Revision—FY 2017*, DOE/LX/07-2410&D1, to March 3, 2017.
- Received on March 31, 2017, Kentucky's request to extend the submittal date for provision of comments/approval of the D1 *Site Management Plan, Paducah Gaseous Diffusion Plant, Paducah, Kentucky, Annual Revision—FY 2017*, DOE/LX/07-2410&D1, to April 21, 2017.

## II. Schedules of activities to be performed during the next reporting period (including projected work/crucial phases of construction):

- Evaluate EPA and Kentucky comments on the D1 *Site Management Plan, Paducah Gaseous Diffusion Plant, Paducah, Kentucky, Annual Revision—FY 2017*, DOE/LX/07-2410&D1.
- Issue D2 Site Management Plan, Paducah Gaseous Diffusion Plant, Paducah, Kentucky, Annual Revision—FY 2017, DOE/LX/07-2410&D2, within 15 days of receipt of regulatory comments on D1 SMP.
- Begin scoping and development of the D1 Site Management Plan, Paducah Gaseous Diffusion Plant, Paducah, Kentucky, Annual Revision—FY 2018.

### III. Identity and assigned tasks of DOE contractors for work to be performed for this project:

Reporting responsibility for the work to be performed in support of the SMP belongs to FFS. In addition, FFS provides programmatic and technical support, analytical services, and business management. SSI manages the AR and the EIC.

## IV. Statement of the manner and extent to which the requirements and time schedules are being met:

FFA Section XVIII requires issuance of the SMP by November 15 of each year.

The requirements and time schedules are being met; however, extensions have resulted in an overall impact to finalizing the fiscal year (FY) 2017 SMP. Delays in finalizing the FY 2017 SMP also may impact submittal of the FY 2018 SMP.

#### V. Primary/Secondary Document Tracking System:

#### A) Documents under review and/or preparation for this reporting period:

The D1 Site Management Plan, Paducah Gaseous Diffusion Plant, Paducah, Kentucky, Annual Revision—FY 2017, DOE/LX/07-2410&D1, has been under development and under EPA and Kentucky review during this reporting period.

#### B) Due dates for completion of review/modification tasks:

- Comments on the D1 Site Management Plan, Paducah Gaseous Diffusion Plant, Paducah, Kentucky, Annual Revision—FY 2017, DOE/LX/07-2410&D1, are due to DOE no later than April 21, 2017, based upon Kentucky extension request dated March 31, 2017.
- D1 Site Management Plan, Paducah Gaseous Diffusion Plant, Paducah, Kentucky, Annual Revision—FY 2018, is due to EPA and Kentucky no later than November 15, 2017.
- Comments on the D1 Site Management Plan, Paducah Gaseous Diffusion Plant, Paducah, Kentucky, Annual Revision—FY 2018, are due to DOE within 30 days of document issuance or December 15, 2017.

• D2 Site Management Plan, Paducah Gaseous Diffusion Plant, Paducah, Kentucky, Annual Revision—FY 2018, if required, is due within 15 days of receipt of regulatory comments on the D1 SMP.

## VI. Anticipated problems/delays (provide summary of problems, schedule, reason for delay, and actions taken to prevent or mitigate delay):

The requirements and time schedules are being met; however, extensions have resulted in an overall impact to finalizing the FY 2017 SMP. EPA and Kentucky Senior Managers currently are evaluating DOE's June 2016 proposal for site reprioritization. Extensions have been needed in order to allow time for DOE, EPA, and Kentucky senior management to discuss the priorities for the Paducah Site. Tri-party senior management guidance and direction that will result from these discussions is necessary to support finalization of FY 2017 SMP and to establish a path forward for scoping of the FY 2018 SMP.

### VII. Summary of all contacts with local community, public interest groups, or state government:

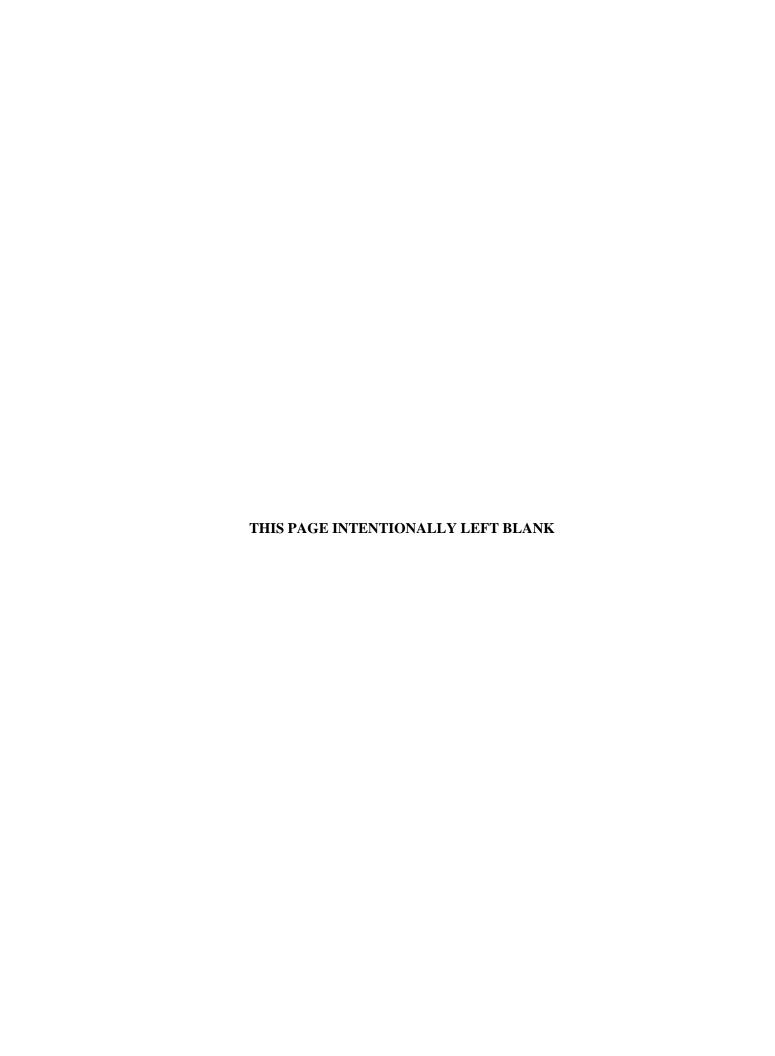
DOE provided routine updates on the subproject to the Paducah Site CAB, FFA project managers, FFA senior managers, local elected officials, and/or congressional staff.

#### VIII. Changes in relevant personnel:

None.

#### IX. Actual cost for O&M, if appropriate:

Not applicable.



Facility: Paducah Gaseous Diffusion Plant Plant EPA I.D. No.: KY8-890-008-982 Reporting Period: 10/01/2016-03/31/2017

#### **PROJECT: CERCLA Waste Disposal Alternatives Evaluation**

# I. Work performed during the reporting period (including summaries of findings and any deviations from the work plan):

Continued DRC-level and Senior Executive Committee (SEC)-level dispute resolution meetings among the FFA parties to resolve conditions received on the *Remedial Investigation/Feasibility Study Report for CERCLA Waste Disposal Alternatives Evaluation at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-0244&D2. The SEC-level dispute was resolved on February 3, 2017, but the DRC-level dispute remains active.

## II. Schedules of activities to be performed during the next reporting period (including projected work/crucial phases of construction):

- Continue negotiations to resolve the DRC-level formal dispute associated with *Remedial Investigation/Feasibility Study Report for CERCLA Waste Disposal Alternatives Evaluation at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-0244&D2.
- Develop, following resolution of the current dispute, the revised *Remedial Investigation/Feasibility Study Report for CERCLA Waste Disposal Alternatives Evaluation at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-0244&D2/R1, to EPA and Kentucky for review in accordance with the date to be established by the FFA parties as part of dispute resolution.
- Incorporate the results of the Sites 5A and 11 hydrologic investigations into the revised Remedial Investigation/Feasibility Study Report for CERCLA Waste Disposal Alternatives Evaluation at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-0244&D2/R1.

#### III. Identity and assigned tasks of DOE contractors for work to be performed for this project:

Reporting responsibility for the work to be performed in support of CERCLA waste disposal belongs to FFS. In addition, FFS provides programmatic and technical support, analytical services, and business management. SSI manages the AR and the EIC.

## IV. Statement of the manner and extent to which the requirements and time schedules are being met:

DOE initially invoked informal dispute on the *Remedial Investigation/Feasibility Study Report* for CERCLA Waste Disposal Alternatives Evaluation at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-0244&D2, on May 19, 2014, and March 27, 2015. Dispute resolution meetings between the FFA parties to resolve the disputed conditions have been held

throughout this reporting period. Current enforceable milestone dates have been stayed and new enforceable milestone dates will be established as part of dispute resolution. DOE elevated the formal dispute on EPA's condition regarding the discharge of wastewater and effluent limits for radionuclides from the DRC-level to the SEC-level on June 1, 2016, and achieved resolution of this condition on February 3, 2017. FFA parties continue to negotiate the DRC-level dispute.

#### V. Primary/Secondary Document Tracking System:

#### A) Documents under review and/or preparation for this reporting period:

- The Remedial Investigation/Feasibility Study Report for CERCLA Waste Disposal Alternatives Evaluation at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-0244&D2, has been placed on hold until the current dispute is resolved.
- The draft report for the Sites 5A and 11 investigation will be included in Appendix E of the forthcoming Remedial *Investigation/Feasibility Study Report for CERCLA Waste Disposal Alternatives Evaluation at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-0244&D2, after the current RI/FS dispute is resolved.

#### B) Due dates for completion of review/modification tasks:

• The period for DRC-level formal dispute for the *Remedial Investigation/Feasibility Study Report for CERCLA Waste Disposal Alternatives Evaluation at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-0244&D2, currently is scheduled to end April 27, 2017. After the end of this report's reporting period, the FFA parties agreed to extend the due date by 45 days to June 11, 2017.

## VI. Anticipated problems/delays (provide summary of problems, schedule, reason for delay, and actions taken to prevent or mitigate delay):

The project currently is experiencing significant cost and schedule delays associated with DRC-level and SEC-level formal disputes. Current enforceable milestones have been stayed, and new enforceable milestone dates will be established as part of dispute resolution.

## VII. Summary of all contacts with local community, public interest groups, or state government:

DOE provided routine updates on the subproject to the Paducah Site CAB, FFA project managers, FFA senior managers, local elected officials, and/or congressional staff.

#### VIII. Changes in relevant personnel:

None.

#### IX. Actual cost for O&M, if appropriate:

Not applicable.

Facility: Paducah Gaseous Diffusion Plant Plant EPA I.D. No.: KY8-890-008-982 Reporting Period: 10/01/2016-03/31/2017

**PROJECT: CERCLA Five-Year Review** 

I. Work performed during the reporting period (including summaries of findings and any deviations from the work plan):

#### **Water Policy Vapor Intrusion**

- Developed and issued to EPA and Kentucky on October 26, 2016, the addendum to the *Five-Year Review for Remedial Actions at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-1289&D2/R1/A2/R1.
- Received EPA conditions on November 17, 2016, for the addendum to the *Five-Year Review* for Remedial Actions at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-1289&D2/R1/A2/R1. Received Kentucky concurrence on November 22, 2016.
- Invoked informal dispute resolution on December 19, 2016, concerning conditions received from EPA on November 17, 2016, for the addendum to the *Five-Year Review for Remedial Actions at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-1289&D2/R1/A2/R1.
- Submitted multiple minor modifications to the Paducah FFA that documented DOE, EPA, and Kentucky agreement to extend the period of informal dispute resolution to April 8, 2017, to allow for continued discussions as part of the informal dispute process. After the end of this report's reporting period, the FFA parties agreed to extend the due date by 7 days to April 15, 2017, and again by 30 days to May 15, 2017. The submittal date for the addendum to the *Five-Year Review for Remedial Actions at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-1289&D2/R1/A2/R1*, has been stayed pending resolution of dispute.
- Held informal dispute discussions with the FFA parties on January 11, 2017; January 20, 2017; January 31, 2017; and February 17, 2017.

#### C-400 Vapor Intrusion Work Plan

- Developed and issued to EPA and Kentucky on October 20, 2016, the *C-400 Vapor Intrusion Study Work Plan to Support the Additional Actions for the CERCLA Five-Year Review at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-2403&D2.
- Received EPA conditions on November 17, 2016, for the *C-400 Vapor Intrusion Study Work Plan to Support the Additional Actions for the CERCLA Five-Year Review at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-2403&D2. Received Kentucky concurrence on November 18, 2016.

- Invoked informal dispute resolution on December 19, 2016, concerning conditions received by EPA on November 17, 2016, for the *C-400 Vapor Intrusion Study Work Plan to Support the Additional Actions for the CERCLA Five-Year Review at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-2403&D2.
- Submitted multiple minor modifications to the Paducah FFA that documented DOE, EPA, and Kentucky agreement to extend the period of informal dispute resolution to May 3, 2017, to allow for continued discussions as part of the informal dispute process. The submittal date for the C-400 Vapor Intrusion Study Work Plan to Support the Additional Actions for the CERCLA Five-Year Review at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-2403&D2, has been stayed pending resolution of dispute.
- Held informal dispute discussions with the FFA parties on January 12, 2017; February 1, 2017; February 24, 2017; and February 28, 2017. Additional meetings are scheduled for April 12, 2017; and April 13, 2017.

# II. Schedules of activities to be performed during the next reporting period (including projected work/crucial phases of construction):

- Continue negotiations to resolve the informal dispute resolution on December 19, 2016, concerning conditions received by EPA on November 17, 2016, for the addendum to the Five-Year Review for Remedial Actions at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-1289&D2/R1/A2/R1.
- Continue negotiations to resolve the informal dispute concerning the conditions received by EPA on November 17, 2016, for the *C-400 Vapor Intrusion Study Work Plan to Support the Additional Actions for the CERCLA Five-Year Review at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-2403&D2.
- After the informal dispute is resolved, finalize and submit the C-400 Vapor Instruction Study Work Plan to Support the Additional Actions for the CERCLA Five-Year Review at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-2403&D1.
- After the informal dispute is resolved, finalize and submit the addendum to the *Five-Year Review for Remedial Actions at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-1289&D2/R1/A2/R1.

## III. Identity and assigned tasks of DOE contractors for work to be performed for this project:

Reporting responsibility for the work to be performed in support of the CERCLA Five-Year Review belongs to FFS. In addition, FFS provides programmatic and technical support, analytical services, and business management. SSI manages the AR and the EIC.

# IV. Statement of the manner and extent to which the requirements and time schedules are being met:

This Five-Year Review encompasses the interim and final remedial actions that DOE has
taken under the OUs identified at the Paducah Site, plus the Water Policy removal action,
Surface Water Interim Corrective Measures, and Surface Water On-Site Sediment Removal.
It covers activities associated with response actions from January 2008 through

December 2012. The last CERCLA Five-Year Review at the Paducah Site was conducted in 2008 for the period January 2003 through December 2007.

• The requirements and time schedules are being met; however, extensions related to the Five-Year Review for Remedial Actions at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-1289&D2/R1/A2/R1, and the C-400 Vapor Intrusion Study Work Plan to Support the Additional Actions for the CERCLA Five-Year Review at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-2403&D2, have resulted in an overall impact to the schedule for the Five-Year Review.

### V. Primary/Secondary Document Tracking System:

#### A) Documents under review and/or preparation for this reporting period:

- Addendum to the Five-Year Review for Remedial Actions at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-1289&D2/R1/A2/R1, has been under development and EPA and Kentucky review during this reporting period.
- Addendum to the Five-Year Review for Remedial Actions at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-1289&D2/R1/A2/R2, has been under development during this reporting period.
- The C-400 Vapor Intrusion Study Work Plan to Support the Additional Actions for the CERCLA Five-Year Review at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-2403&D2, has been under development and EPA and Kentucky review during this reporting period.
- The C-400 Vapor Intrusion Study Work Plan to Support the Additional Actions for the CERCLA Five-Year Review at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-2403&D2/R1, has been under development during this reporting period.

## B) Due dates for completion of review/modification tasks:

- The informal dispute resolution for the Addendum to the *Five-Year Review for Remedial Actions at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-1289&D2/R1/A2/R1, is due to be resolved no later than April 8, 2017.
- The informal dispute resolution for the *C-400 Vapor Intrusion Study Work Plan to Support the Additional Actions for the CERCLA Five-Year Review at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-2403&D2, is due to be resolved no later than May 3, 2017.

# VI. Anticipated problems/delays (provide summary of problems, schedule, reason for delay, and actions taken to prevent or mitigate delay):

- Extensions to the informal dispute resolution for the Addendum to the *Five-Year Review for Remedial Actions at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-1289&D2/R1/A2/R1, were requested to allow the FFA parties time to continue discussions as part of the informal dispute process.
- Extensions to the informal dispute resolution for the *C-400 Vapor Intrusion Study Work Plan* to Support the Additional Actions for the CERCLA Five-Year Review at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-2403&D2, were requested to allow for additional time needed to continue discussions concerning the approach (i.e., sub-slab sampling) for the Vapor Intrusion Study.

## VII. Summary of all contacts with local community, public interest groups, or state government:

DOE provided routine updates on the subproject to the Paducah Site CAB, FFA project managers, FFA senior managers, local elected officials, and/or congressional staff.

#### VIII. Changes in relevant personnel:

None.

# IX. Actual cost for O&M, if appropriate:

Not applicable.

# APPENDIX A

# NORTHEAST AND NORTHWEST PLUME WATER WITHDRAWAL REPORTS



Table 1. Northeast Plume Containment System Water Withdrawal Reporting Form (Gallons of Water Pumped)

D.	October	November	December	January	February	March
Day	2016	2016	2016	2017	2017	2017
1	142,625	295,300	277,100	279,485.7	279,500	233,200
2	142,625	273,100	283,000	279,485.7	268,800	205,900
3	142,625	297,300	283,000	279,485.7	278,375	280,600
4	183,900	295,175	283,000	283,100	278,375	280,600
5	191,200	295,175	283,000	283,800	278,375	280,600
6	172,700	295,175	279,600	232,500	278,375	280,600
7	190,075	295,175	278,600	232,500	282,800	279,800
8	190,075	290,000	278,000	232,500	279,900	273,900
9	190,075	294,200	282,050	232,500	263,900	282,400
10	190,075	279,600	282,050	301,900	281,175	277,475
11	192,400	297,900	282,050	276,100	281,175	277,475
12	185,300	297,900	282,050	290,800	281,175	277,475
13	188,800	297,900	301,900	211,360	281,175	277,475
14	286,850	297,900	258,800	211,360	276,200	274,700
15	286,850	289,800	289,900	211,360	280,300	279,000
16	286,850	289,500	278,650	211,360	268,100	276,300
17	286,850	302,500	278,650	211,360	282,550	279,725
18	296,300	293,175	278,650	274,000	282,550	279,725
19	299,000	293,175	278,650	270,700	282,550	279,725
20	270,600	293,175	337,900	280,275	282,550	279,725
21	300,950	293,175	222,900	280,275	253,500	276,900
22	300,950	290,200	282,583.3	280,275	301,500	280,600
23	300,950	292,833.3	282,583.3	280,275	273,300	277,900
24	300,950	292,833.3	282,583.3	285,300	279,075	273,200
25	295,400	292,833.3	282,583.3	269,500	279,075	273,200
26	290,800	292,833.3	282,583.3	271,800	279,075	273,200
27	297,000	292,833.3	282,583.3	277,625	279,075	273,200
28	293,000	292,833.3	279,485.7	277,625	279,000	274,100
29	293,000	296,900	279,485.7	277,625	2.,,000	274,600
30	293,000	281,400	279,485.7	277,625		274,900
31	293,000	201,100	279,485.7	280,600		276,725
Monthly Total	7,574,775	8,781,800	8,712,943	8,144,457	7,791,500	8,484,925
*Daily Average	244,348	292,727	281,063	262,724	278,268	273,707
Days water	211,570	272,121	201,003	202,124	270,200	213,101
pumped	31	30	31	31	28	31
pumpeu   *Volue besed on num			J1	<i>J</i> 1	20	1 ل

<sup>\*</sup>Value based on number of days water was pumped.

**Total** = 49,490,400 **Average**= 271,925

Table 2. Northwest Plume Groundwater System Water Withdrawal Reporting Form (Gallons of Water Pumped)

Day	October	November	December	January	February	March
1	2016	2016	2016	2017	2017	2017
1	287,625	283,180	336,350	281,258.6	285,110	280,580
2	287,625	283,040	269,112.5	281,258.6	274,700	278,070
3	287,625	283,790	269,112.5	281,258.6	282,173	283,765
4	281,980	287,882.5	269,112.5	285,830	282,172	283,765
5	286,240	287,882.5	269,112.5	284,680	282,173	283,765
6	280,350	287,882.5	280,340	280,602.5	282,172	283,765
7	283,812.5	287,882.5	277,630	280,602.5	288,160	287,630
8	283,812.5	280,570	281,780	280,602.5	280,830	275,490
9	283,812.5	283,200	282,225	280,602.5	282,040	288,380
10	283,812.5	273,110	282,225	286,950	279,598	281,077.5
11	290,430	286,077.5	282,225	281,350	279,597	281,077.5
12	275,860	286,077.5	282,225	292,760	279,598	281,077.5
13	285,140	286,077.5	305,850	280,564	279,597	281,077.5
14	284,882.5	286,077.5	259,110	280,564	281,450	276,710
15	284,882.5	280,340	287,090	280,564	285,940	284,580
16	284,882.5	282,380	274,797.5	280,564	167,170	280,840
17	284,882.5	292,850	274,797.5	280,564	281,776	283,465
18	282,690	282,980	274,797.5	279,950	281,774	283,465
19	291,280	282,980	274,797.5	273,850	281,776	283,465
20	265,450	282,980	307,710	285,768	281,774	283,465
21	288,645	282,980	231,870	285,767	279,530	281,130
22	288,645	280,610	282,251.67	285,768	285,660	287,160
23	288,645	282,063.3	282,251.67	285,767	279,470	282,910
24	288,645	282,063.3	282,251.67	288,990	284,045	283,010
25	283,840	282,063.3	282,251.67	275,790	284,045	283,010
26	285,750	282,063.3	282,251.67	276,400	284,045	283,010
27	286,930	282,063.3	282,251.67	282,488	284,045	283,010
28	282,610	282,063.3	281,258.6	282,487	283,180	284,130
29	282,610	288,210	281,258.6	282,488	,	283,930
30	282,610	284,130	281,258.6	282,487		275,210
31	282,610	,	281,258.6	285,260		283,952.5
Monthly Total	8,818,615	8,515,550	8,690,814	8,753,836	7,783,600	8,755,973
*Daily Average	284,471	283,852	280,349	282,382	277,986	282,451
Days water pumped	31	30	31	31	28	31
*Value based on nun			J1	J1	20	J1

<sup>\*</sup>Value based on number of days water was pumped.

Total = 51,318,388 Average= 281,969

# **APPENDIX B**

NORTHEAST PLUME AND NORTHWEST PLUME GRAPHS AND MAPS (FIGURES B.1 THROUGH B.25)



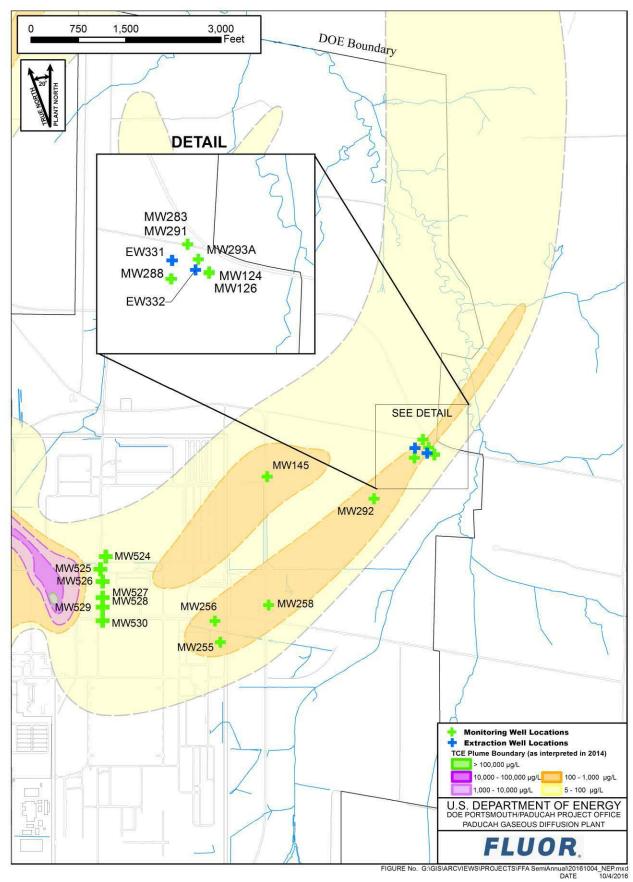


Figure B.1. Northeast Plume Groundwater Wells and Extraction Wells

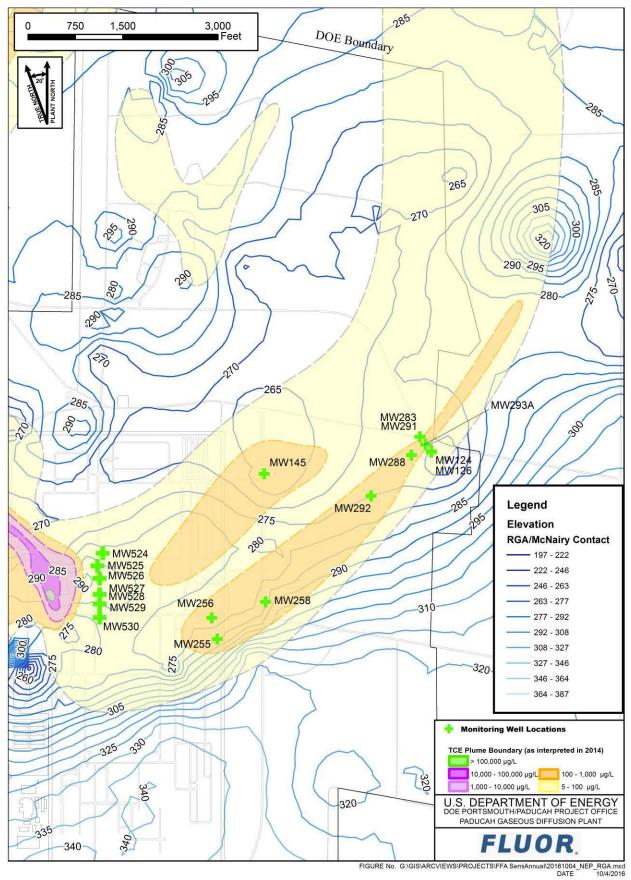


Figure B.2. Northeast Plume with McNairy Topography

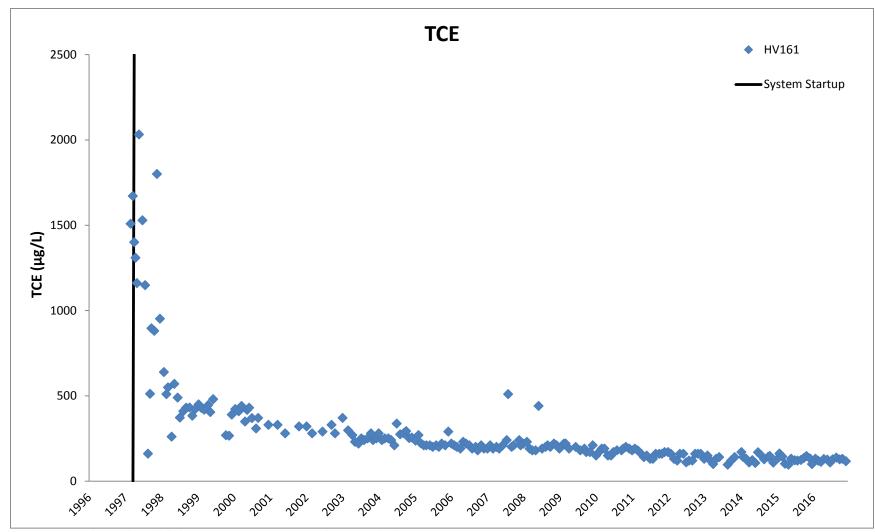


Figure B.3. Northeast Plume Containment System Influent TCE Concentrations

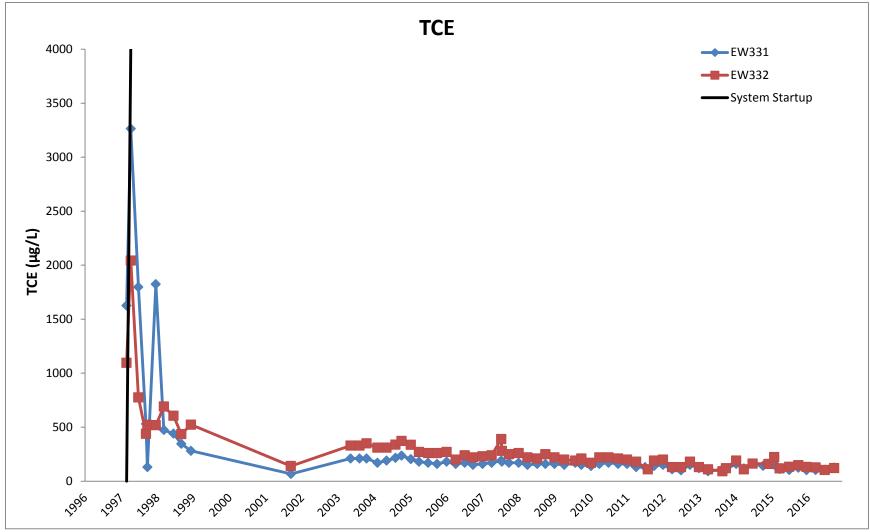
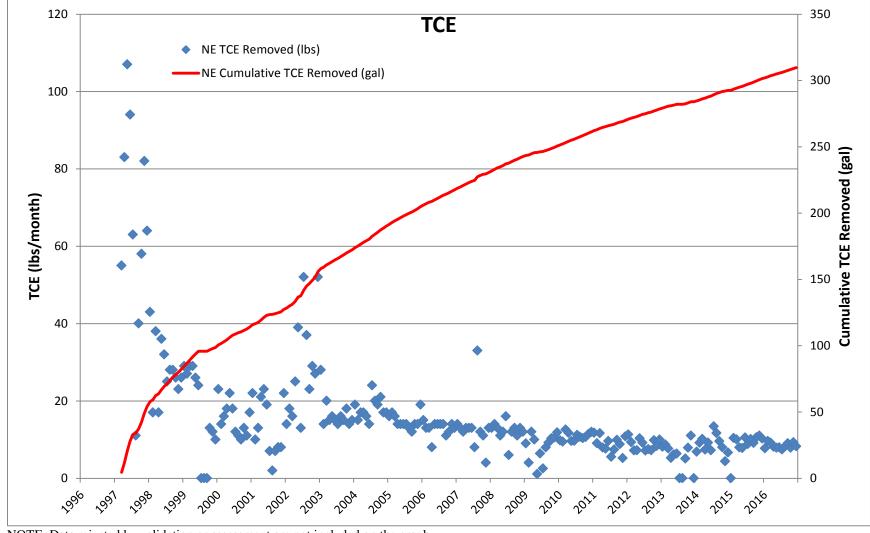


Figure B.4. Northeast Plume—TCE Concentrations in Extraction Wells



NOTE: Data rejected by validation or assessment are not included on the graph.

Figure B.5. Northeast Plume Containment System TCE Removed

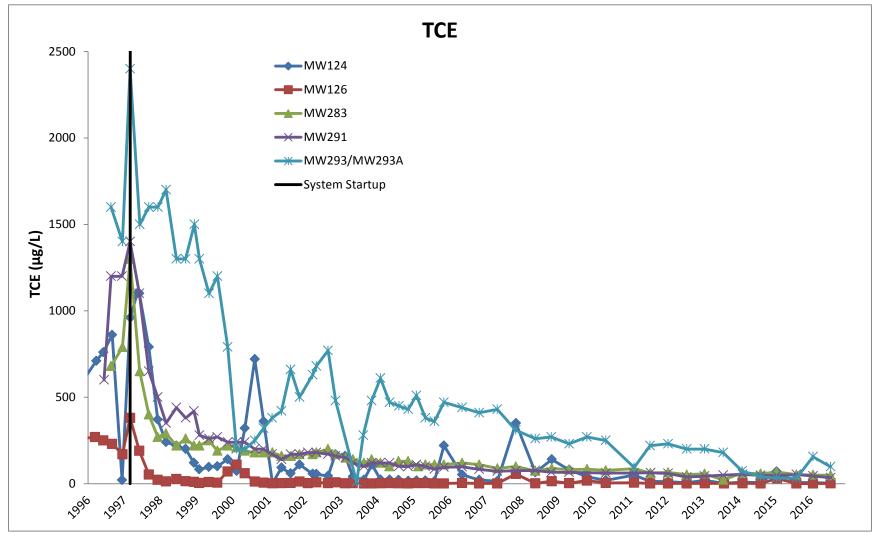


Figure B.6. Northeast Plume—TCE Concentrations in Downgradient Wells

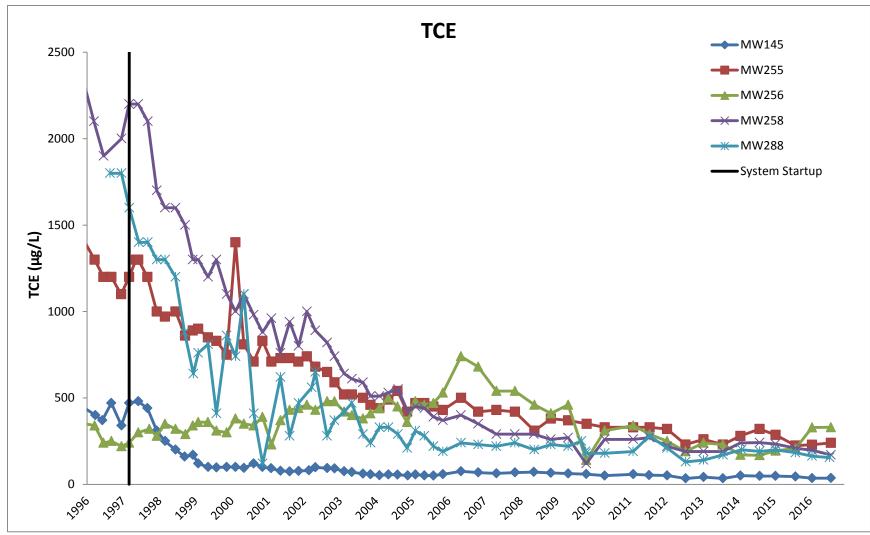


Figure B.7. Northeast Plume—TCE Concentrations in Upgradient Wells

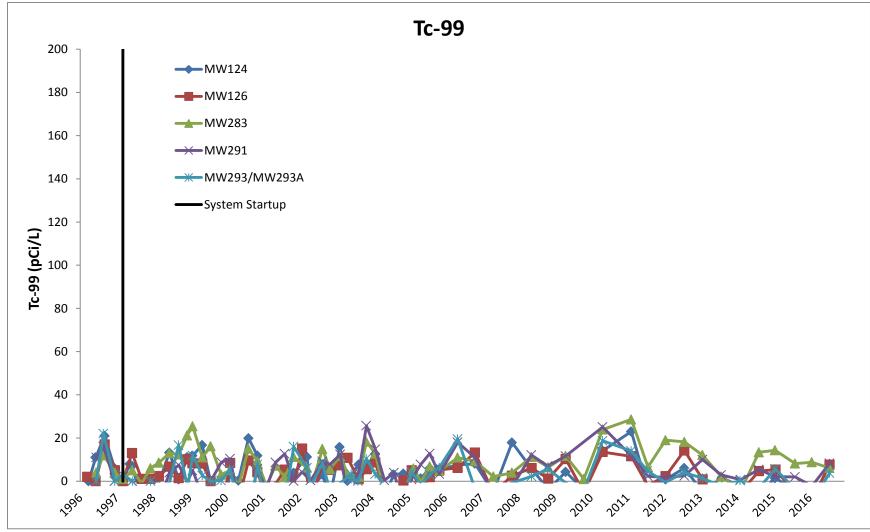


Figure B.8. Northeast Plume—Tc-99 Activities in Downgradient Wells

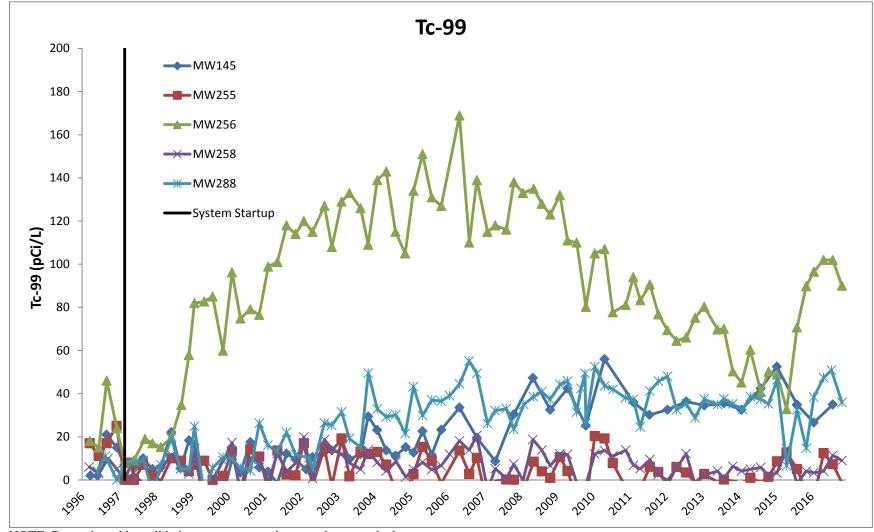


Figure B.9. Northeast Plume—Tc-99 Activities in Upgradient Wells

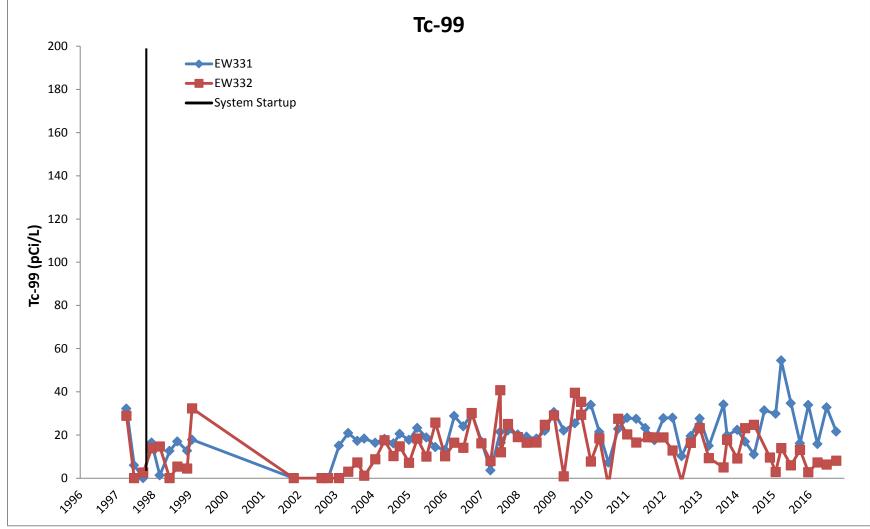


Figure B.10. Northeast Plume—Tc-99 Activities in Extraction Wells

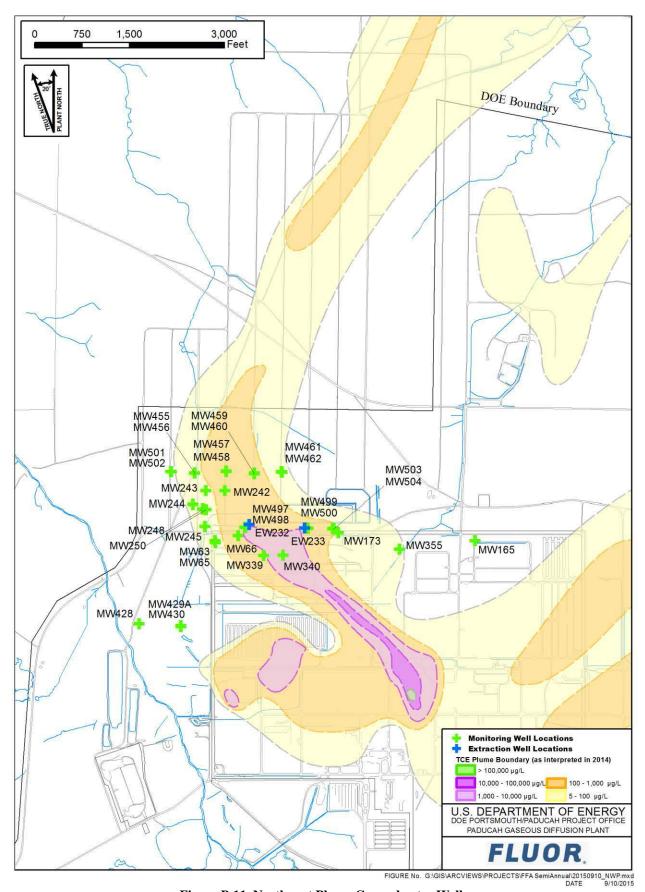


Figure B.11. Northwest Plume Groundwater Wells

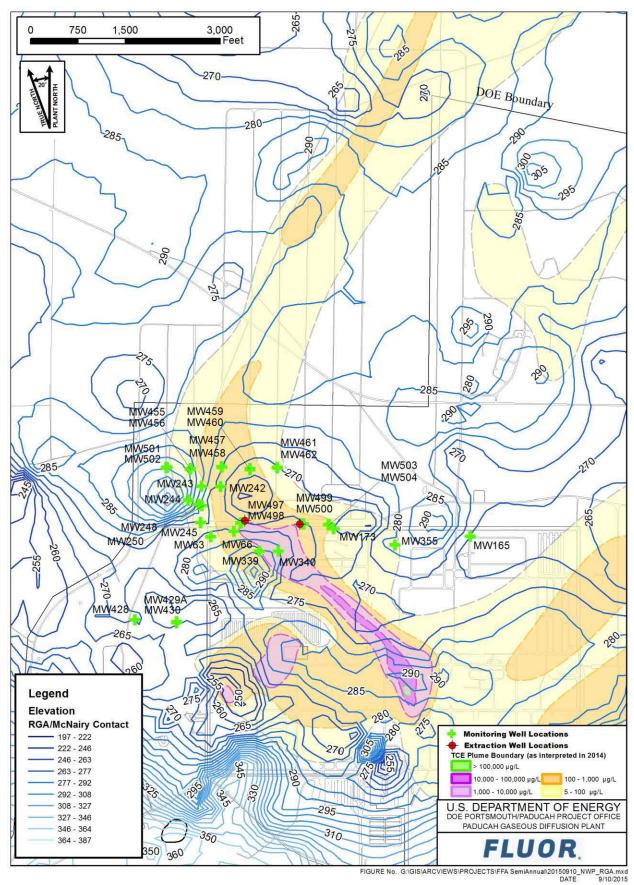
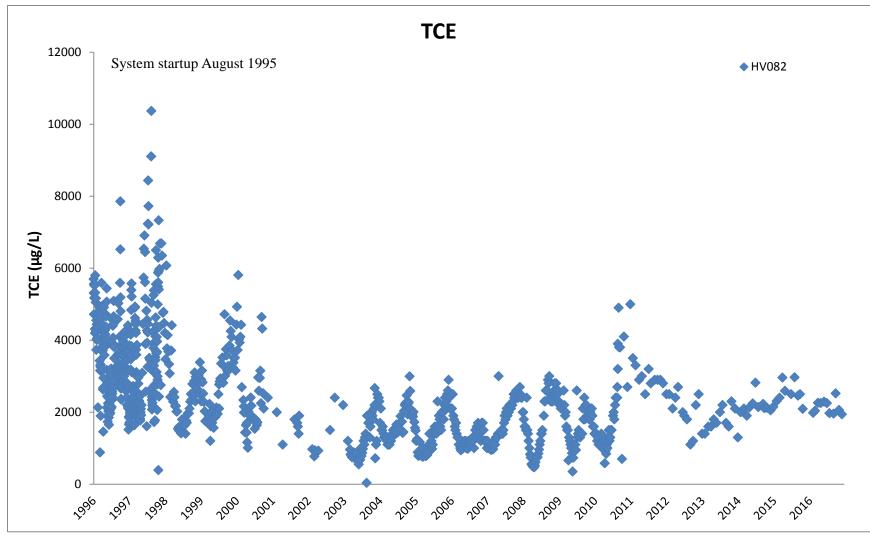


Figure B.12. Northwest Plume with Top of McNairy Topography



**Figure B.13. Northwest Plume Groundwater System Influent TCE Concentrations** 

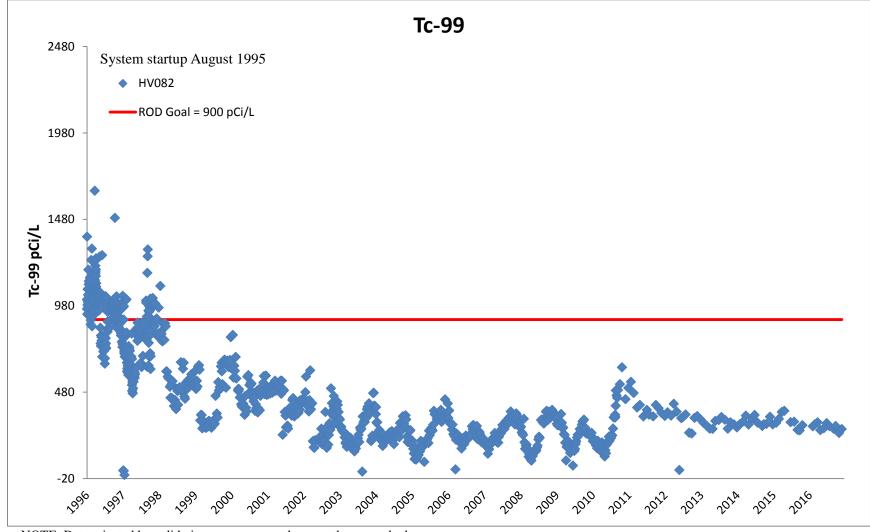


Figure B.14. Northwest Plume Groundwater System Influent Tc-99 Activities

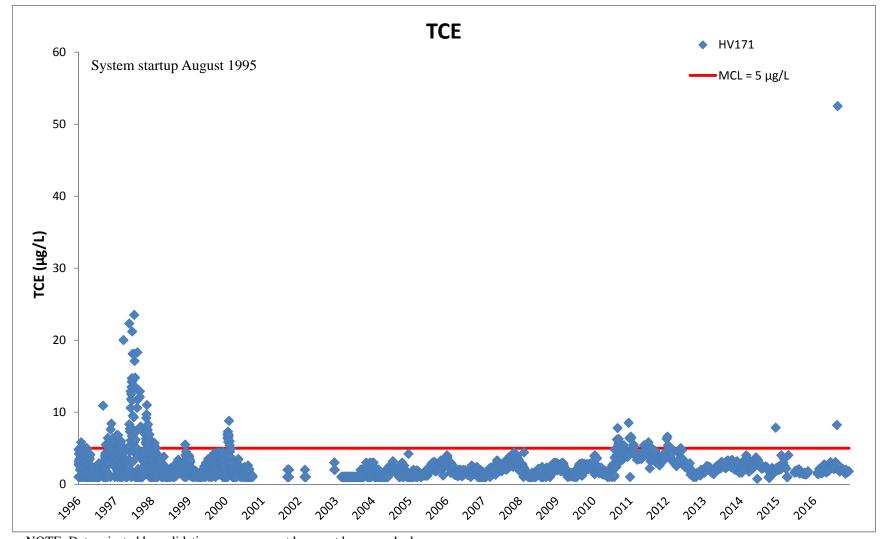


Figure B.15. Northwest Plume Groundwater System Effluent TCE Concentrations

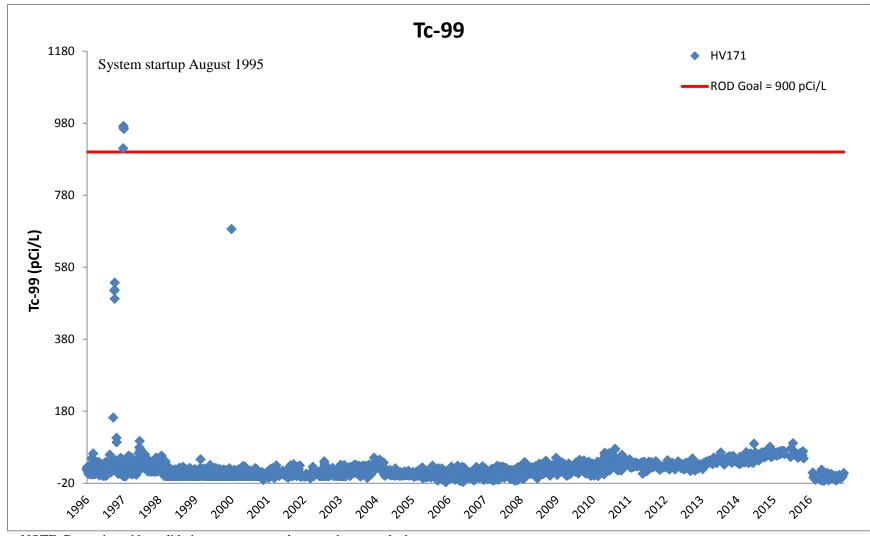
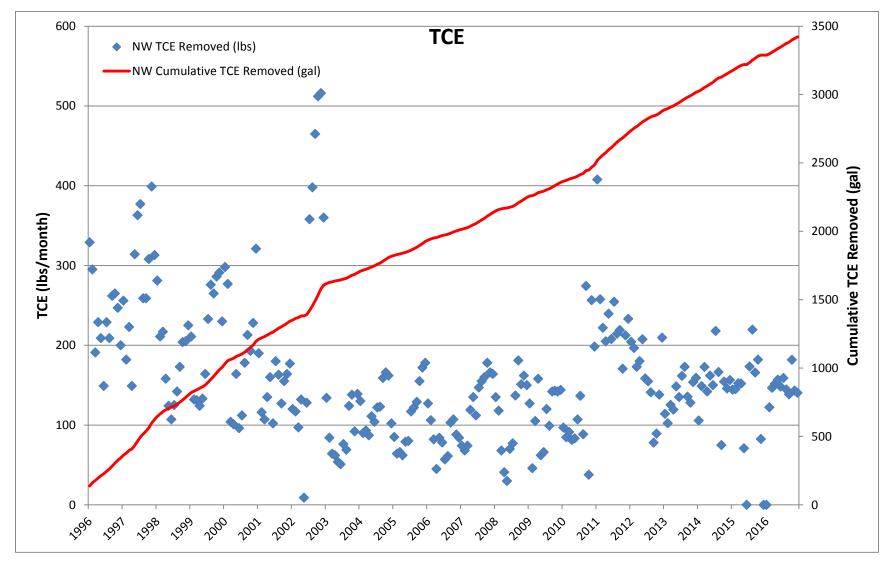


Figure B.16. Northwest Plume Groundwater System Effluent Tc-99 Activities



NOTE: Data rejected by validation or assessment are not included on the graph.

Figure B.17. Northwest Plume Groundwater System TCE Removed

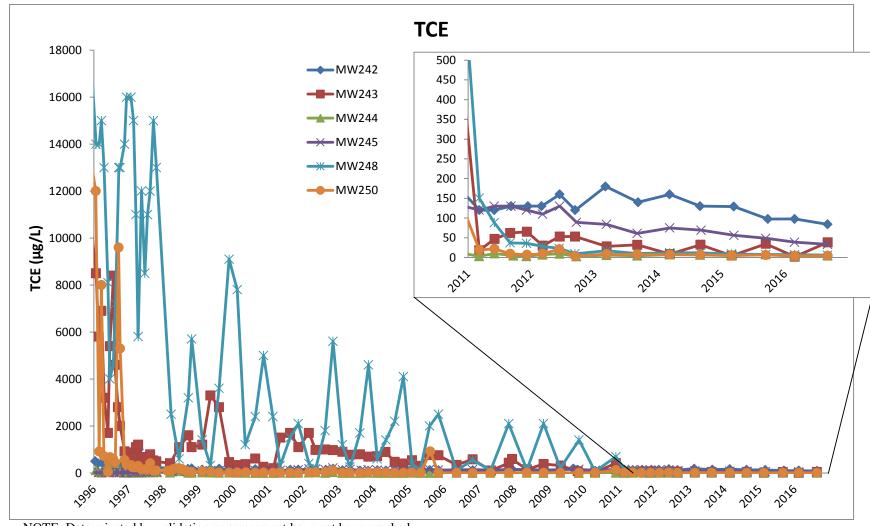


Figure B.18. Northwest Plume—South Well Field TCE Concentrations

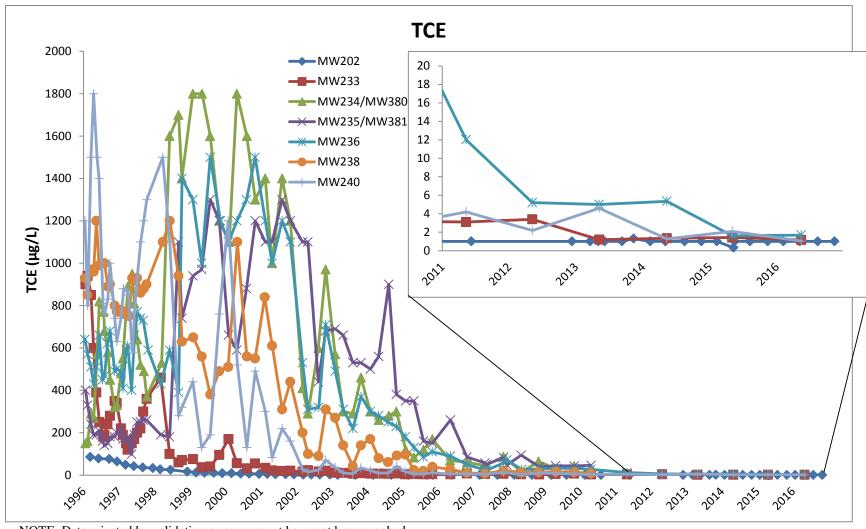


Figure B.19. Northwest Plume—North Well Field TCE Concentrations

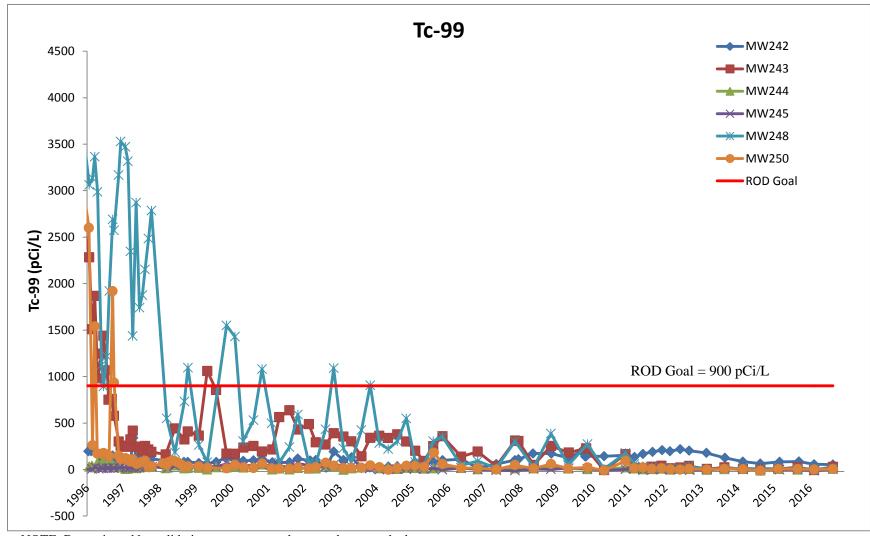


Figure B.20. Northwest Plume—South Well Field Tc-99 Activities

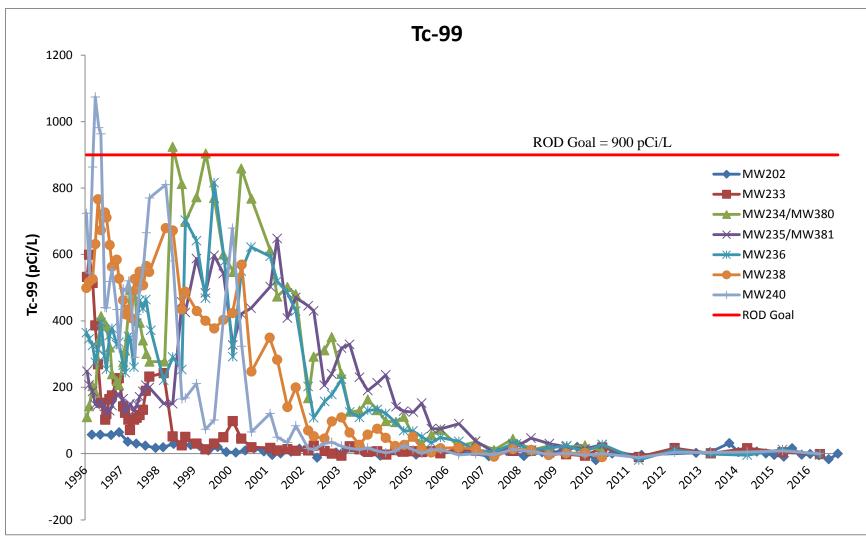


Figure B.21. Northwest Plume—North Well Field Tc-99 Activities

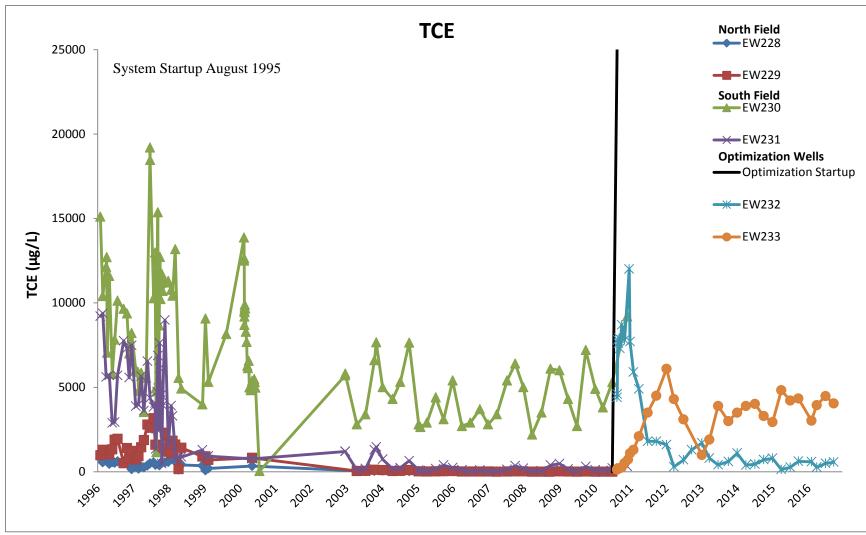


Figure B.22. Northwest Plume—TCE Concentrations in Extraction Wells

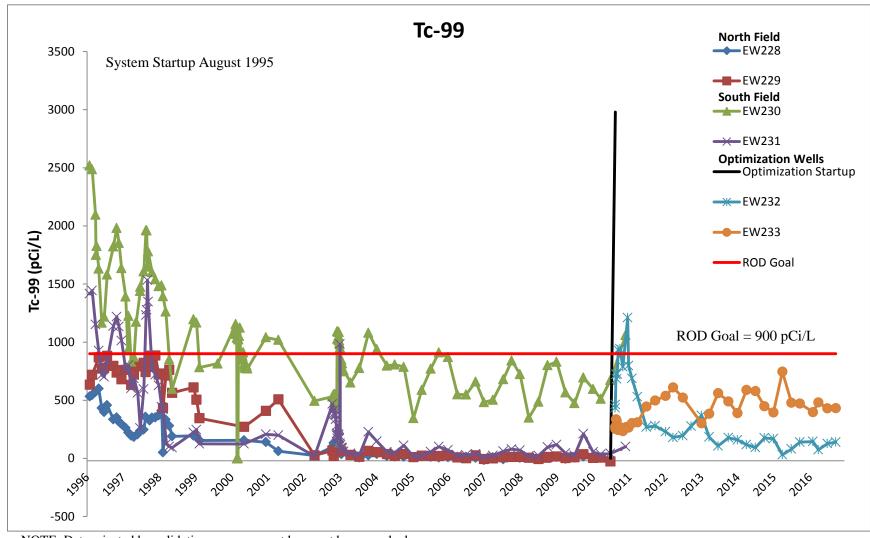


Figure B.23. Northwest Plume—Tc-99 Activities in Extraction Wells

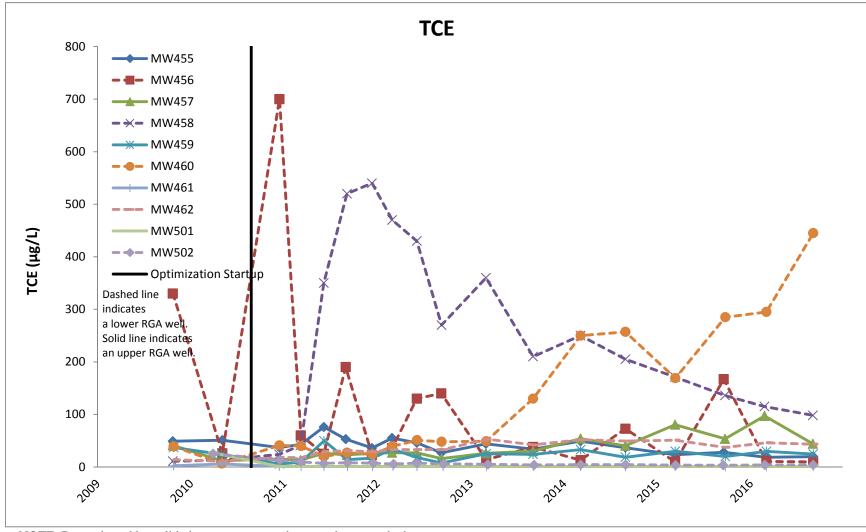


Figure B.24. Northwest Plume—New Well Field TCE Concentrations

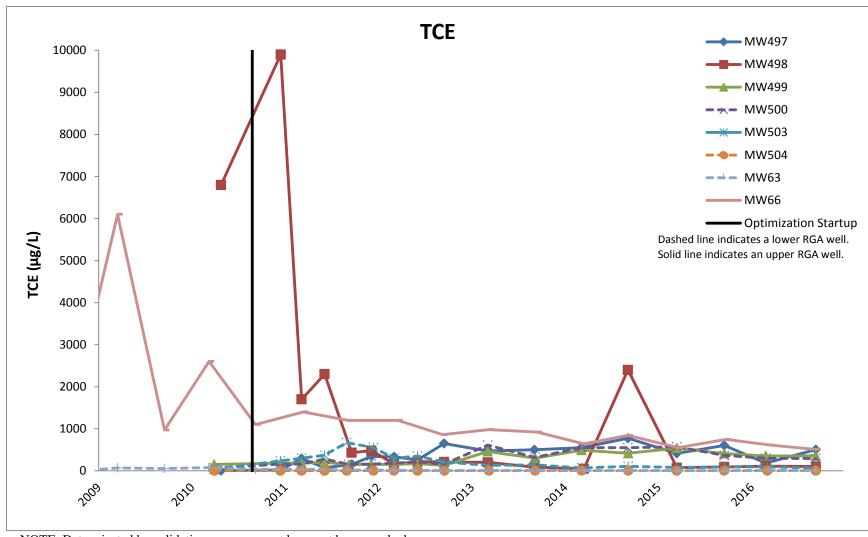


Figure B.25. Northwest Plume—Additional Well Field TCE Concentrations

# Northeast Plume CERCLA Outfall Monitoring

# **Water Quality Records for**

Sample Date Range: 9/3/2013 - 12/27/2016

### C001

		Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Chronic Toxicity Analysis Results		
Samp	ble Date	TCE μg/L	1,1-DCE μg/L	Tc-99 pCi/L	Ceriodaphnia dubia	TUc Pimephales Promelas TUc	Lab Sample ID*
	9/3/2013	6.3	< 1				C13246018001
9	9/10/2013	10	< 5				C13253015001
9	9/10/2013	9.4	< 5				C13253015002
9	9/13/2013				< 1	< 1	QTXC0019-13
9	9/16/2013	9	< 5				C13259014001
9	9/23/2013	8.3	< 5				C13266024001
1	10/3/2013			16.2			C13276015001
B-28	10/3/2013	9.4	< 1				C13276032002
× 1	10/7/2013	6.6	< 1				C13280028001
10	0/14/2013	3.8	< 1				C13287017001
10	0/21/2013	< 1	< 1				C13294018001
10	0/25/2013				< 1	< 1	QTXC00110-13
10	0/28/2013	2.9	< 5				C13301021001
1	11/4/2013			20.2			C13308024001
1	11/4/2013	3	< 5				C13308025001
11	1/11/2013	3.3	< 5				C13315031001
11	1/11/2013	3.4	< 5				C13315031002
11	1/20/2013	3	< 5				C13324011001
11	1/25/2013	< 1	< 1				C13329036001
1	12/2/2013	< 1	< 1				C13336090001

Page 1 of 11

Prepared by: **FLUOR**. Wednesday, March 29, 2017

NOTE: This report does not include data that has been rejected during data assessment and/or data validation.

<sup>\*</sup> Project Sample ID is used if Lab Sample ID is not available.

# Northeast Plume CERCLA Outfall Monitoring

# **Water Quality Records for**

Sample Date Range: 9/3/2013 - 12/27/2016

### C001

		Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Chronic Toxicity Analysis Results		
Sampl	e Date	TCE µg/L	1,1-DCE μg/L	Tc-99 pCi/L	Ceriodaphnia dubia	TUc Pimephales Promelas TUc	Lab Sample ID*
1.	/21/2014			21.2			C14021027001
1.	/21/2014			19.1			C14021027002
1.	/21/2014	3.7	< 1				C14021029001
1.	/27/2014	3.5	< 1				C14027014001
1.	/31/2014				< 1	< 1	QTXC0011-14
	2/5/2014	< 1	< 1				C14036044001
2	/10/2014	4.7	< 1				C14041021001
B-29	/17/2014	5.4	< 1				C14048023001
<b>6</b> 2	/17/2014	5.7	< 1				C14048023002
2	/24/2014	4.8	< 1				C14055021001
	3/4/2014	4.6	< 1				C14063020001
3.	/10/2014	5.2	< 1				C14069033001
3.	/17/2014	4.8	< 1				C14076022001
3.	/24/2014	2.5	< 1				C14083021001
	4/1/2014	2.68	< 1				345636002
4.	/10/2014			< 10.5			346575006
4.	/10/2014	3.05	< 1				346575008
4.	/14/2014	3.42	< 1				346699001
4.	/23/2014	3.48	< 1				347434001
4.	/28/2014	3.63	< 1				347629001

Page 2 of 11

Wednesday, March 29, 2017

Prepared by: FLUOR.

NOTE: This report does not include data that has been rejected during data assessment and/or data validation.

<sup>\*</sup> Project Sample ID is used if Lab Sample ID is not available.

#### **Water Quality Records for**

Sample Date Range: 9/3/2013 - 12/27/2016

#### C001

		Organic Laboratory Analysis Results	Radiological Laboratory Analysis Results		Chronic Toxicity Analysis Results		
Sample Date	TCE μg/L	1,1-DCE μg/L	Tc-99 pCi/L	Ceriodaphnia dubia	TUc	Pimephales Promelas TUc	Lab Sample ID*
5/7/202	4 4.17	< 1					348446002
5/7/20	4.29	< 1					348446001
5/12/20	5.02	< 1					348596001
5/19/20	5.4	< 1					349038001
5/27/201	4 11.1	< 1					349629001
6/2/20	14 15	< 1					349858001
6/10/20	4.1	< 1					350426001
B-30 6/16/202	4.5	< 1					350780001
6/23/202	5.79	< 1					351207001
6/29/20	14			< 1		< 1	QTXC001-0614
6/30/20	6.56	< 1					351615001
7/8/20	5.68	< 1					352237001
7/14/20	4.73	< 1					352624001
7/21/20	3.73	< 1					353177001
7/21/20	14		< 12.7				353177002
7/25/20	14			< 1		< 1	QTXC001-0714
7/29/203	4.95	< 1					353694001
8/5/20	7.05	< 1					354137001
8/11/20	4.35	< 1					354637001
8/18/20	4.57	< 1					355052001

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<sup>\*</sup> Project Sample ID is used if Lab Sample ID is not available.

#### **Water Quality Records for**

Sample Date Range: 9/3/2013 - 12/27/2016

#### C001

		Orş A	ganic Laboratory analysis Results	Radiological Laboratory Analysis Results		Chronic Toxici Analysis Resul	ty ts	
San	mple Date	TCE µg/L	1,1-DCE μg/L	Tc-99 pCi/L	Ceriodaphnia dubia	TUc	Pimephales Promelas TUc	Lab Sample ID*
	8/25/2014	6.14	< 1					355488001
	9/2/2014	5.39	< 1					355872001
	9/8/2014	4.55	< 1					356338001
	9/15/2014	4.6	< 1					356868001
	9/23/2014	3.92	< 1					357338002
	9/29/2014	4.44	< 1					357703001
	10/7/2014	6.35	< 1					358590002
B-31	10/13/2014	.52	< 1					358950002
31	10/13/2014			31.3				358950004
	10/20/2014	.51	< 1					359488004
	10/27/2014	2.07	< 1					360011002
	10/31/2014				< 1		< 1	QTXC001-1014
	11/4/2014	< 1	< 1					360615002
	11/11/2014	.33	< 1					361080002
	11/17/2014	< 1	< 1					361458002
	11/17/2014	< 1	< 1					361458003
	11/24/2014	< 1	< 1					361948003
	12/1/2014	.35	< 1					362225002
	12/9/2014	< 1	< 1					362804003
	12/15/2014	5.35	< 1					363245004

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Prepared by: FLUOR.

<sup>\*</sup> Project Sample ID is used if Lab Sample ID is not available.

#### **Water Quality Records for**

Sample Date Range: 9/3/2013 - 12/27/2016

#### C001

		ganic Laboratory Analysis Results	Radiological Laboratory Analysis Results		Chronic Toxici Analysis Resul		
Sample Date	TCE μg/L	1,1-DCE μg/L	Tc-99 pCi/L	Ceriodaphnia dubia	TUc	Pimephales Promelas TUc	Lab Sample ID*
12/22/2014	5.34	< 1					363660002
12/29/2014	3.26	< 1					363851002
1/29/2015	7.68	< 1					366169002
2/2/2015	5.58	< 1					366311002
2/4/2015			22.5				366545001
2/4/2015			23.4				366545002
2/6/2015				< 1		< 1	QTXC001-0215
B-32 2/10/2015	3.96	< 1					366969005
2/18/2015	3.45	< 1					367365002
2/18/2015	3.81	< 1					367365003
2/23/2015	3	< 1					367607002
3/2/2015	3.36	< 1					367959002
3/11/2015	4.63	< 1					368692003
3/16/2015	1.19	< 1					368893002
3/16/2015	1.13	< 1					368893003
3/23/2015	4.16	< 1					369408002
3/30/2015	4.45	< 1					369759002
4/7/2015	5.84	< 1					370571006
4/13/2015	5.78	< 1					370982003
4/20/2015			18.2				371423001

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Prepared by: **FLUOR**.

<sup>\*</sup> Project Sample ID is used if Lab Sample ID is not available.

#### **Water Quality Records for**

Sample Date Range: 9/3/2013 - 12/27/2016

#### C001

			ganic Laboratory Analysis Results	Radiological Laboratory Analysis Results	Chronic Tox Analysis Res		
Sample	Date	TCE µg/L	1,1-DCE μg/L	Tc-99 pCi/L	Ceriodaphnia dubia TUc	Pimephales Promelas TUc	Lab Sample ID*
4/2	0/2015	4.83	< 1				371423003
4/2	4/2015				< 1	< 1	QTXC001-0415
4/2	8/2015	4.26	< 1				371963002
5/	5/2015	4.94	< 1				372605003
5/	5/2015	5.31	< 1				372605002
5/1	1/2015	4.8	< 1				372848003
5/1	8/2015	4.1	< 1				373300002
B-33	6/2015	5.68	< 1				373775002
<del>ن</del> 6/	2/2015	5.36	< 1				374232002
6/	/8/2015	6.39	< 1				374647003
6/1	5/2015	7.27	< 1				375139002
6/2	2/2015	6.12	< 1				375551002
6/2	9/2015	6.74	< 1				375908003
7/	6/2015	6.47	< 1				376221002
7/1	3/2015			38			377120004
7/1	3/2015	7.59	< 1				377120006
7/1	7/2015				< 1	< 1	QTXC001-0715
7/2	0/2015	7.72	< 1				377564002
7/3	0/2015	7.86	< 1				378414002
8/	/3/2015	7.15	< 1				378504001

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Prepared by: FLUOR.

<sup>\*</sup> Project Sample ID is used if Lab Sample ID is not available.

#### **Water Quality Records for**

Sample Date Range: 9/3/2013 - 12/27/2016

#### C001

		Org Ar	anic Laboratory nalysis Results	Radiological Laboratory Analysis Results		Chronic Toxic Analysis Resu	city llts	
San	mple Date	TCE µg/L	1,1-DCE μg/L	Tc-99 pCi/L	Ceriodaphnia dubia	TUc	Pimephales Promelas TUc	Lab Sample ID*
	8/11/2015	7.6	< 1					379137003
	8/17/2015	6.16	< 1					379518002
	8/24/2015	5.1	< 1					379891004
	8/31/2015	7.58	< 1					380316002
	9/8/2015	8.55	< 1					380778002
	9/15/2015	6.68	< 1					381232003
	9/21/2015	5.86	< 1					381607002
B-34	9/28/2015	6.48	< 1					381967002
4	10/6/2015	6.11	< 1					382713002
	10/13/2015	5.06	< 1					383173005
	10/19/2015	3.12	< 1					383605003
	10/19/2015			< 13.3				383605001
	10/23/2015				< 1		< 1	QTXC001-1015
	10/26/2015	3.34	< 1					384073001
	11/3/2015	3.72	< 1					384687002
	11/9/2015	3.29	< 1					385132003
	11/16/2015	3.33	< 1					385708002
	11/16/2015	3.23	< 1					385708003
	11/23/2015	3.14	< 1					386250003
	11/30/2015	3.52	< 1					386486002

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Prepared by: **FLUOR**.

<sup>\*</sup> Project Sample ID is used if Lab Sample ID is not available.

#### **Water Quality Records for**

Sample Date Range: 9/3/2013 - 12/27/2016

#### C001

			Organic Laboratory Analysis Results	Radiological Laboratory Analysis Results		Chronic Toxic Analysis Resu	ity Its	
Sample D		TCE μg/L	1,1-DCE μg/L	Tc-99 pCi/L	Ceriodaphnia dubia	TUc	Pimephales Promelas TUc	Lab Sample ID*
12/7	/2015	3.62	< 1					386947002
12/14	/2015	6.21	< 1					387486003
12/21	/2015	3.44	< 1					387961002
12/28	/2015	4.04	< 1					388160002
1/4	/2016			< 16.3				388627005
1/4	/2016	3.09	< 1					388627007
1/4	/2016			< 18.3				388627004
B-35	/2016	5.15	< 1					389075002
55 <sub>1/19</sub>	/2016	2.9	< 1					389669002
1/25	/2016	3.36	< 1					390034002
1/29	/2016				< 1		< 1	QTXC001-0116
2/1	/2016	3.33	< 1					390453002
2/8	/2016	3.3	< 1					390933003
2/17	/2016	3.24	< 1					391578002
2/17	/2016	3.24	< 1					391578003
2/22	/2016	3.04	< 1					391842002
2/29	/2016	3.41	< 1					392231002
3/8	/2016	4.14	< 1					392896004
3/14	/2016	3.72	< 1					393230001
3/21	/2016	2.82	< 1					393611002

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<sup>\*</sup> Project Sample ID is used if Lab Sample ID is not available.

#### **Water Quality Records for**

Sample Date Range: 9/3/2013 - 12/27/2016

#### C001

		Or:	ganic Laboratory nalysis Results	Radiological Laboratory Analysis Results	(	Chronic Toxicit Analysis Result	ty ts	
San	nple Date	TCE μg/L	1,1-DCE μg/L	Tc-99 pCi/L	Ceriodaphnia dubia	TUc	Pimephales Promelas TUc	Lab Sample ID*
	3/28/2016	5.09	< 1					393963002
	4/5/2016	2.66	< 1					394654001
	4/5/2016	2.66	< 1					394654002
	4/5/2016			< 16.5				394654006
	4/11/2016	3.69	< 1					395009002
	4/18/2016	3.84	< 1					395559002
	4/22/2016				< 1		< 1	QTXC001-0416
В-36	4/26/2016	6.13	< 1					396121001
36	5/3/2016	2.55	< 1					396568003
	5/9/2016	3.2	< 1					397075002
	5/16/2016	2.42	< 1					397535002
	5/23/2016	2.95	< 1					397984002
	6/7/2016	3.2	< 1					398913002
	6/13/2016	3.58	< 1					399291002
	6/20/2016	3.68	< 1					399780002
	6/27/2016	3.44	< 1					400228002
	7/6/2016			20.1				401038004
	7/6/2016			< 15				401038005
	7/6/2016	3.33	< 1					401038007
	7/11/2016	2.95	< 1					401330002

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<sup>\*</sup> Project Sample ID is used if Lab Sample ID is not available.

#### **Water Quality Records for**

Sample Date Range: 9/3/2013 - 12/27/2016

#### C001

		Org A	anic Laboratory nalysis Results	Radiological Laboratory Analysis Results	Chronic Analysis		
Sam	nple Date	TCE μg/L	1,1-DCE μg/L	Tc-99 pCi/L	Ceriodaphnia dubia TUc	Pimephales Promelas TUc	Lab Sample ID*
	7/18/2016	3.77	< 1				401899002
	7/25/2016	3.18	< 1				402378002
	7/29/2016				< 1	< 1	QTXC001-0716
	8/1/2016	3.5	< 1				402874004
	8/8/2016	3.15	< 1				403433002
	8/15/2016	3.63	< 1				403928002
	8/22/2016	1.83	< 1				404376002
B-37	8/29/2016	3.46	< 1				404871002
7	9/6/2016	3.13	< 1				405309003
	9/13/2016	3.11	< 1				405843002
	9/19/2016	3.46	< 1				406268002
	9/26/2016	< 1	< 1				406761002
	10/3/2016	< 1	< 1				407409002
1	10/10/2016	< 1	< 1				407689007
1	10/10/2016			22			407689005
1	10/14/2016				< 1	< 1	QTXC001-1016
1	10/17/2016	3.79	< 1				408434002
1	10/24/2016	3.01	< 1				409012002
1	10/31/2016	3.68	< 1				409492002
	11/8/2016	3.41	< 1				410178004

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\* Project Sample ID is used if Lab Sample ID is not available.



#### **Water Quality Records for**

Sample Date Range: 9/3/2013 - 12/27/2016

#### C001

	(	Organic Laboratory Analysis Results	Radiological Laboratory Analysis Results		Chronic Toxicit Analysis Result		
Sample Date	TCE μg/L	1,1-DCE μg/L	Tc-99 pCi/L	Ceriodaphnia dubia	TUc	Pimephales Promelas TUc	Lab Sample ID*
11/8/2016	3.25	< 1					410178005
11/14/2016	3.09	< 1					410597002
11/21/2016	2.79	< 1					411177002
11/28/2016	3.39	< 1					411421002
12/6/2016	2.61	< 1					412013002
12/12/2016	2.41	< 1					412498003
12/19/2016	1.62	< 1					413001002
B-3 8 12/27/2016	2.28	< 1					413365001

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Prepared by: **FLUOR**.

<sup>\*</sup> Project Sample ID is used if Lab Sample ID is not available.

MW524

Sample Date Range: 10/4/2016 - 1/10/2017

			Radiological Laboratory Analysis Results	
Sample Date			Tc-99 pCi/L	Lab Sample ID
10/4/2016	4.13	< 1	< -2.15	407700003
10/4/2016	5.52	< 1	< -1.43	407700002
1/10/2017	3.74	< 1	< -3.88	414020001

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MW525

Sample Date Range: 10/4/2016 - 1/10/2017

	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	
Sample Date	TCE µg/L	1,1-DCE μg/L	Tc-99 pCi/L	Lab Sample ID
10/4/2016	403	.77	27.2	407700004
1/10/2017	607	< 5	82.6	414020002
1/10/2017	599 < 5		88.4	414020003

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MW526

Sample Date Range: 10/4/2016 - 1/10/2017

			Radiological Laboratory Analysis Results	
Sample Date			Tc-99 pCi/L	Lab Sample ID
10/4/2016	145	1.73	139	407700005
1/10/2017	214 1.72		134	414020004

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MW527

Sample Date Range: 10/4/2016 - 1/10/2017

		c Laboratory sis Results	Radiological Laboratory Analysis Results	
Sample Date	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	Lab Sample ID
10/4/2016	5.01	< 1	14.4	407700006
1/10/2017	8.67	< 1	32	414020005

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MW528

Sample Date Range: 10/4/2016 - 1/10/2017

		anic Laboratory nalysis Results	Radiological Laboratory Analysis Results	
Sampl Dat		1,1-DCE μg/L	Tc-99 pCi/L	Lab Sample ID
10/4/201	5 32.2	< 1	< -2.63	407700007
1/10/201	7 24.4	< 1	< .895	414020006

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MW529

Sample Date Range: 10/4/2016 - 1/10/2017

		c Laboratory vsis Results	Radiological Laboratory Analysis Results	
Sample Date	TCE µg/L	1,1-DCE μg/L	Tc-99 pCi/L	Lab Sample ID
10/4/2016	63.3	1.4	105	407700008
1/10/2017	95.8	2.14	165	414020007

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MW530

Sample Date Range: 10/4/2016 - 1/10/2017

		c Laboratory vsis Results	Radiological Laboratory Analysis Results	
Sample Date	TCE μg/L	1,1-DCE μg/L	Tc-99 pCi/L	Lab Sample ID
10/4/2016	49.3	< 1	110	407700001
1/10/2017	63.2	< 1	204	414020008

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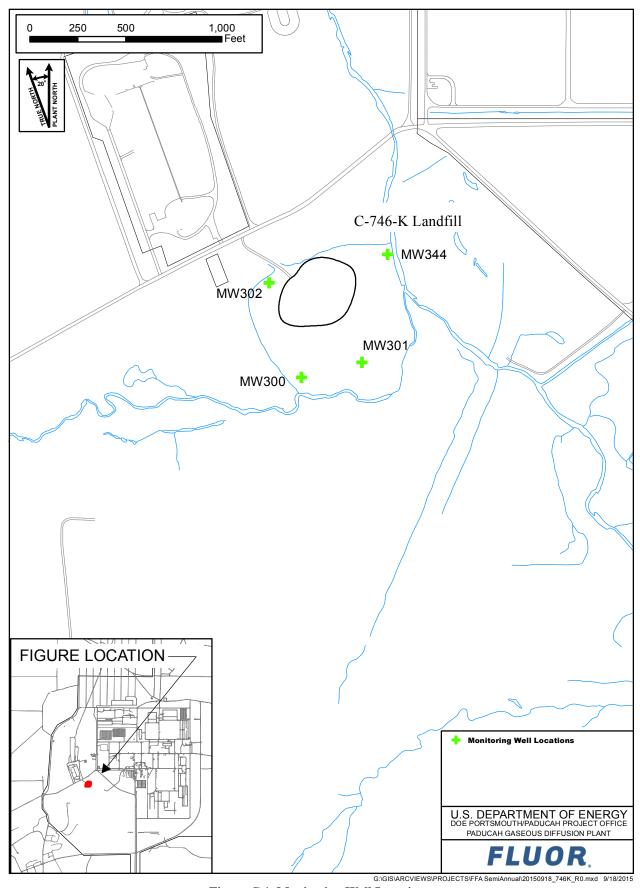
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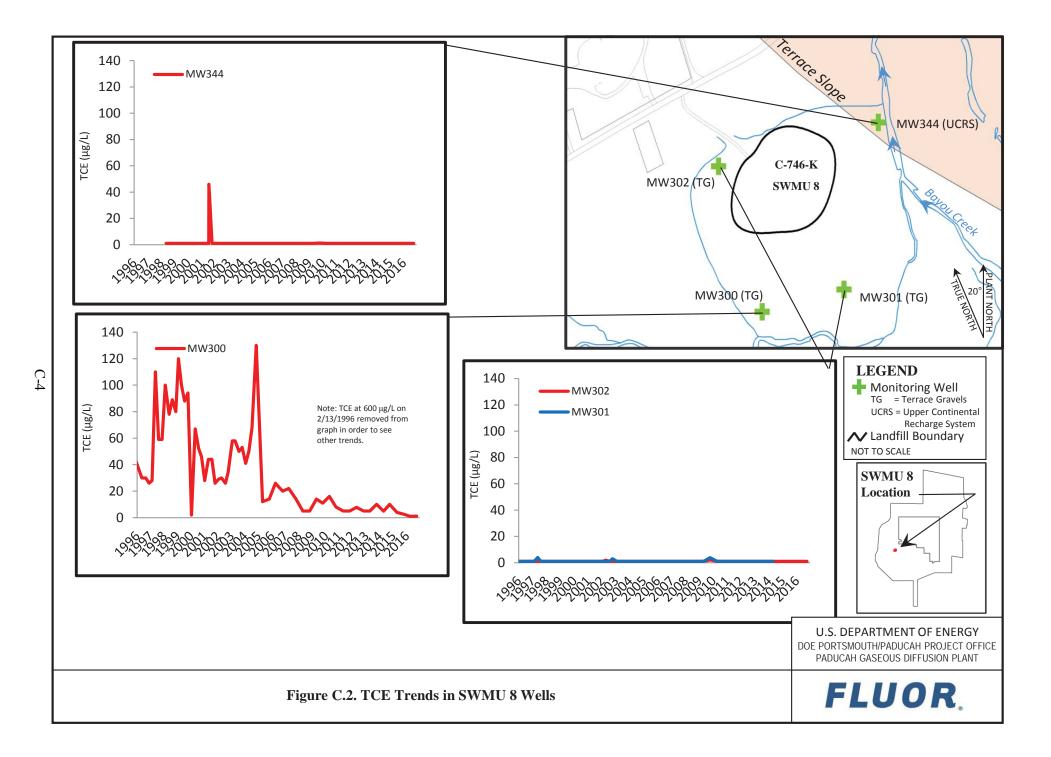


# APPENDIX C C-746-K LANDFILL DATA





**Figure C.1. Monitoring Well Locations** 



#### Water Quality Records for

#### MW300

Sample Date Range: 5/31/1994 - 10/11/2016

					c Laboratory ysis Results			rganic Lab Analysis Re	•		logical Labor nalysis Result	•	
	Sample Date	TCE μg/L	1,1-DCE μg/L	1,1-DCA μg/L	1,2-DCA μg/L	trans-1,2-DCE μg/L	Al mg/L	Fe mg/L	Mn mg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Lab Sample ID
	5/31/1994	27	18	23	< 5		87.7	1230	< 50.7	25.8	< 31.3	7.68	3220303
	3/21/1995	52	72	61	< 50	< 50		973	49	33.8	27	1	950322-056
	7/12/1995	38	< 50	< 50	< 50	< 50		761	52.4	47	143	3	950713-153
	9/12/1995	38	< 50	< 50	< 50	< 50	52.8	679	57.5	24	33	12	950913-029
	12/7/1995	42	56	47	< 5	< 5		767	44.6	59.9	-6	0	951211-006
	2/13/1996	600	54	< 50	< 50	< 50	64.5	985	60			4	960214-062
	5/9/1996	30	< 50	< 50	< 50	< 50	44.9	792	44.9	.4	16	2	960513-011
	8/19/1996	30	< 50	< 50	< 50	< 50	37.2	568	44.4	22.9	31.5	0	960819-088
	11/18/1996	26	< 50	< 50	< 50	< 50	35.8	570	37.5	7.4	48	0	961118-095
	2/10/1997	28	49	30	< 25	< 25	21.3	412	20.6	5	45	0	970211-009
	5/13/1997	110	120	61	< 50	< 50	31.3	518	27.6	5.2	11	0	970514-042
	8/7/1997	59	< 50	68	< 50	< 50	27	497	31.2	12	13	0	970807-104
$\circ$	11/10/1997	59	110	66	< 25	< 25	31.8	521	32.3	-7.7	6	4	971110-114
?	2/4/1998	100	240	140	< 50	< 50	36.2	674	33.8	<4	< 2	< -2	C980370056
	5/19/1998	78	460	< 250	< 250	< 250	30.8	534	30.5	< 6.3	< 54	< 4.8	C981400029
	8/11/1998	89	230	120	< 5	< 5	27.3	532	31	< 37.7	< 11	< 9.2	C982240047
	11/16/1998	80	< 250	< 250	< 250	< 250	25.2	406	28.1	32.52	< 37.03	< -4.1	C983200080
	1/25/1999	120	250	< 250	< 250	< 250	27	490	27.4	< 1.11	< 4.76	< -8.4	C990250154
	4/19/1999	100	240	110	< 100	< 100	26.7	559	25.7	< 28.48	< 55.05	< -4.95	C991090060
	7/15/1999	88	210	< 100	< 100	< 100	24.8	506	28.3	< 2.73	< -19.36	< 3.06	C991960146
	10/14/1999	94	210	< 200	< 200	< 200	23.2	500	27.2	< 18.8	< 40.17	< -1.57	C992870104
	1/13/2000	2	< 5	< 5	< 5	< 5	19.2	303	20.8	< -2.5	< 24.46	< 8.53	C000130120
	1/13/2000	2	< 5	< 5	< 5	< 5	15.9	301	19	< -4.85	< -7.6	< 8.59	C000130123
	4/27/2000	67	130	80	< 50	< 50	18.2	310	21.4	< 10.97	66.12	< -1.63	C001190009
	7/27/2000	52	< 100	< 100	< 100	< 100	15.2	318	23.7	< 15.87	< 55.01	< 11.9	C002090106
	10/16/2000	46	100	60	< 5	< 5	14.8	278	23	< 8.41	< 36.69	< 2.75	C002910044
	1/10/2001	28	64	39	< 5	< 5	10.3	217	18	< -9.46	< 4.09	< 2.2	C010100097
	4/16/2001	44	100	64	< 50	< 50	15	340	24.1	< -7.63	< 25.6	< 27.4	C011060085
	7/24/2001	44	93	59	< 50	< 50	16.4	331	28.6	< 27	< 8.41	< 7.99	C012060008
	10/15/2001	26	< 50	< 50	< 50	< 50	10.6	220	18.8	< 32.5	33.9	< -2.48	C012880074
	1/22/2002	29	< 100	< 100	< 100	< 100	10	286	20.9	< 43.8	< 19.4	< 3.36	C020220046
	4/10/2002	30	57	< 50	< 50	< 50	13	381	26.6	< -15.1	< 50.8	< 2.75	C021010048
	7/24/2002	26	< 100	< 100	< 100	< 100	12.6	363	24.8	< 23.2	< 43.3	21.5	C022060003

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#### Water Quality Records for

#### MW300

Sample Date Range: 5/31/1994 - 10/11/2016

					c Laboratory ssis Results			ganic Labo nalysis Res	•	Aı	ogical Labor nalysis Result	•	
	Sample Date	TCE μg/L	1,1-DCE μg/L	1,1-DCA μg/L	1,2-DCA μg/L	trans-1,2-DCE µg/L	Al mg/L	Fe mg/L	Mn mg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Lab Sample ID
	7/24/2002	26	< 100	< 100	< 100	< 100	12.9	339	26.8	< 47.4	62.2	< 8.97	C022060004
	10/3/2002	34	66	< 50	< 50	< 50	.0101	.33	36.9	< 26.9	< 24.9	17.5	C022760027
	1/30/2003	58	160	100	< 50	< 50	10.8	395	23.5	< 3.65	< 3.52	< 1.19	C030310020
	4/15/2003	58	180	< 100	< 100	< 100	6.86	437	22.9	< 2.47	< 20.3	< 4.19	C031050068
	7/30/2003	42	< 100	< 100	< 100	< 100	21.9	409	27	< 9.4	< 48.7	< 1.31	C032110044
	7/30/2003	50	< 100	< 100	< 100	< 100	14.3	382	25.4	< 51.5	53.5	< 4.26	C032110045
	10/21/2003	53	92	63	< 50	< 50	.55	497	24.9	< 39.1	< 38	< -4.59	C032950017
	1/26/2004	41	120	< 100	< 100	< 100	.471	414	1.91	< 50.1	< 1.36	< 6.71	C040260079
	4/21/2004	50	140	< 100	< 100	< 100	.591	327	17.2	< -5.55	< 8.26	< -1.58	C041130033
	7/15/2004	68	160	< 100	< 100	< 100	.69	424	24.2	< 21.8	< -11.1	< -7.47	C041970166
	7/15/2004	55	140	< 100	< 100	< 100	.882	396	22.9	< 15	< 17.4	< -6.91	C041970167
	11/9/2004	130	110	< 100	< 100	< 100	.99	369	22.9	< 12	< 29.7	< -2.6	C043150018
Q	4/27/2005	12	51	< 50	< 50	< 50	.289	126	11.8	< 19.1	39.8	< -2.41	C051170049
-6	10/25/2005	13	55	< 50	< 50	< 50	.259	199	16.1	< 18.1	38.4	< 8.37	C052990007
	10/25/2005	14	65	< 50	< 50	< 50	.344	178	15.2	< 2.14	29.6	< 6.49	C052990006
	4/11/2006	26	120	77	< 50	< 50	< .2	161	16.5	< .896	< 28.2	< -2.86	C061020009
	10/23/2006	< 20	< 100	< 100	< 100	< 100	.334	124	16.2	<251	< 16.2	< 8.62	C062960050
	4/12/2007	< 22	< 120	< 60	< 50	< 50	< .2	203	18.1	< -3.16	< 33.1	< -1.66	C071030007
	10/25/2007	14	120	77	< 5	< 5	< .2	162	19.7	<658	< 25.1	< 1.82	C072980183
	10/25/2007	13	120	75	< 5	< 5	< .2	166	20.2	< 4.54	27.8	< 1.13	C072980184
	4/28/2008	< 5	42	34	< 25	< 5		117	16.8	<155	64.4	< .8	C081200001
	10/29/2008	< 5	46	29	< 25	< 5	< .2	110	16.9	< 5.22	34.8	< 6.45	C08304013002
	10/29/2008	< 5	48	32	< 25	< 5	< .2	63.9	15	< 6.06	43.7	< 11.7	C08304013001
	4/30/2009	14	93	52	< 5	< 5	< .2	104	27.4	<39	37	< 5.55	C09120015001
	10/19/2009	11	39	24	< 2	< 2	< .2	36.9	11.2	< -1.13	28.4	< -8.36	C09292035001
	10/19/2009	9	41	24	< 2	< 2	< .2	65	9.73	< -2.41	27.1	< -8.19	C09292035002
	4/20/2010	16	130	58	< 25	< 5	< .2	121	19.2	< -4.11	33.6	< -1.74	C10110009002
	10/13/2010	8	130	72	< 25	< 5	< .4	241	27.2	< 21.9	48.4	< -7.38	C10286021002
	10/13/2010	8	140	78	< 25	< 5	< .4	165	25.5	< 2.34	62.3	< -3.09	C10286021003
	4/26/2011	< 5	68	44	< 25	< 5	.625	129	14.1	< .246	34.3	<327	C11116009001
	10/19/2011	< 5	68	42	< 5	< 5	.558	155	18.4	< 2.93	65.7	< .89	C11292015001
	10/19/2011	< 5	71	44	< 5	< 5	.358	78.8	15.8	< 13.2	53.9	< -4.3	C11292015002
	4/24/2012	7.8	100	59	< 5	< 5	< 2	218	18.2	< 3.57	80.6	< 3.84	C12115011001

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## Sample Date Range: 5/31/1994 - 10/11/2016

MW300

				ic Laboratory ysis Results			ganic Labo analysis Res	•	Radio A			
Sample Date	TCE μg/L	1,1-DCE µg/L	1,1-DCA μg/L	1,2-DCA µg/L	trans-1,2-DCE μg/L	Al mg/L	Fe mg/L	Mn mg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Lab Sample ID
10/29/2012	< 5	100	69	< 5	< 5	1.65	217	25.3	< 12.6	57.8	< -2.74	C12303019002
10/29/2012	< 5	93	56	< 5	< 5	.271	222	25.5	< 1.27	49.6	< -4.68	C12303019003
4/23/2013	< 5	93	73	< 5	< 5	< .2	292	23.6	< 4.25	< 42	< -2.67	C13113007001
10/21/2013	< 10	76	53	< 10	2.2	< .2	201	21.4	< 3.28	61.9	< .287	C13294037002
10/21/2013	< 10	76	52	< 10	< 2	< .2	208	20.7	< -6.52	< 36.5	< 11.5	C13294037003
4/29/2014	4.9	82.4	56.8	< 10	< 10	.0253	276	19.3	< 10.4	37.4	< .00258	347676009
10/7/2014	< 10	64.3	55.2	< 10	< 10	< .05	236	18.9	< 5	23.5	< -2.04	358703001
10/7/2014	< 10	66.7	54	< 10	< 10	.0224	253	19.5	< 2.03	29.1	< -4.11	358703003
4/28/2015	3.9	< 1	< 1	< 1	< 1	< .05	26.9	3.38	< 1.86	21.2	< 3.96	371985001
10/27/2015	2.56	46.6	35.9	< 1	.51	< .5	192	16.8	< 6.99	30.2	< 4.16	384156001
4/13/2016	.94	22.1	16.7	< 1	< 1	.0364	99.1	10.8	< -4.3	31.5	< -4.87	395245003
4/13/2016	.97	22	17.2	< 1	< 1	.0608	92.1	10.5	< -4.61	27.8	< -5.55	395245005
10/11/2016	1.17	19.6	14.5	< 1	< 1	.0314	79.6	8.18	< 3.41	25.3	< -5	407853001

#### Water Quality Records for

#### MW301

Sample Date Range: 5/31/1994 - 10/11/2016

					c Laboratory sis Results			ganic Lab			logical Labor nalysis Resul	•	
	Sample Date	TCE μg/L	1,1-DCE μg/L	1,1-DCA μg/L	1,2-DCA µg/L	trans-1,2-DCE μg/L	Al mg/L	Fe mg/L	Mn mg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Lab Sample ID
	6/1/1994	< 5	< 5	3	< 5		.823	470	28.3	< 10.4	< 19.4	5.07	3220101
	3/21/1995	< 1	< 5	< 5	< 5	< 5		236	22	-5.9	34	3	950322-052
	7/12/1995	< 1	< 5	< 5	< 5	< 5		249	22.1	14	102	9	950713-157
	9/12/1995	< 1	< 5	< 5	< 5	< 5	< .625	171	17.8	-2.6	17	3	950913-025
	12/7/1995	1	< 5	< 5	< 5	< 5		99	12.3	30.3	49	6	951211-014
	2/13/1996	< 1	< 5	< 5	< 5	< 5	.766	166	18.9	6.3	82	0	960214-066
	5/9/1996	< 1	< 5	< 5	< 5	< 5	.975	224	18	.3	22	3	960513-010
	8/19/1996	< 1	< 5	< 5	< 5	< 5	1.58	284	21.3	5.5	42.4	7	960819-087
	11/18/1996	< 1	< 5	< 5	< 5	< 5	1.32	175	19.5	-1.4	47	0	961118-096
	11/18/1996	< 1	< 5	< 5	< 5	< 5	< .75	< .3	< .05	6	15	0	961118-097
	2/10/1997	< 1	< 5	< 5	< 5	< 5	1.13	225	19.8	12.6	47	0	970211-015
	5/13/1997	4	< 5	< 5	< 5	< 5	< .75	248	22	-11	45	0	970514-043
Ċ	8/7/1997	< 1	< 5	< 5	< 5	< 5	< 1	203	17.2	19.2	160	0	970807-105
∞	11/10/1997	< 1	< 5	< 5	< 5	< 5	< 1	72.4	10	4.3	18	3	971110-115
	2/4/1998	< 1	< 5	< 5	< 5	< 5	2.44	160	15.8	< -11.3	106	< 4	C980370057
	5/19/1998	< 1	< 5	< 5	< 5	< 5	< 1	169	17.4	< -2.3	< 25	< 8.2	C981400028
	8/11/1998	< 1	< 5	< 5	< 5	< 5	2.13	170	16.3	< -2.3	< 35	< 4.3	C982240046
	11/16/1998	< 1	< 5	< 5	< 5	< 5	< 1	102	12.8	< 11.32	55.82	< -15.9	C983200081
	1/25/1999	< 1	< 5	< 5	< 5	< 5	< 1	138	14.9	< 3.83	< 52.42	< -5.8	C990250155
	4/19/1999	< 1	< 5	< 5	< 5	< 5	< .2	203	18.2	< -6.97	< 49.78	< -10.6	C991090061
	7/15/1999	< 1	< 5	< 5	< 5	< 5	< .2	210	17.5	< -12.3	< 32.1	< -6.69	C991960147
	10/14/1999	< 1	< 5	< 5	< 5	< 5	< .2	73.1	10.3	< 1.83	41.56	< .419	C992870105
	10/14/1999	< 1	< 5	< 5	< 5	< 5	< .2	73.7	10.6	17.2	50.79	< 2.57	C992870106
	1/13/2000	< 1	< 5	< 5	< 5	< 5	< .2	77.8	9.32	< 6.93	52.05	< 6.54	C000130122
	4/27/2000	< 1	< 5	< 5	< 5	< 5	< .2	152	15.6	< 4.87	< -6.93	< -12.6	C001190010
	7/27/2000	< 1	< 5	< 5	< 5	< 5	< .2	135	14.9	< 2.09	< 4.03	< -2.23	C002090105
	10/16/2000	< 1	< 5	< 5	< 5	< 5	< .2	70.6	10.6	< -16.56	63.66	< -2.02	C002910045
	1/10/2001	< 1	< 5	< 5	< 5	< 5	< .2	95.6	12.2	< 6.56	27.9	< -1.62	C010100098
	4/16/2001	< 1	< 5	< 5	< 5	< 5	1.86	139	13.8	< 16.1	32.7	< 10.7	C011060087
	4/16/2001	< 1	< 5	< 5	< 5	< 5	.231	128	13.8	< 11.1	30.1	< 5.23	C011060088
	7/24/2001	< 1	< 5	< 5	< 5	< 5	< .2	106	13.1	<871	54.4	< 7.08	C012060010
	10/15/2001	< 1	< 5	< 5	< 5	< 5	< .2	107	12.8	< 21.9	37.9	< 5.53	C012880075
	1/25/2002	< 1	< 5	< 5	< 5	< 5	< .2	146	14.5	< 3.69	< 28.3	< 2.51	C020250055

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#### Water Quality Records for

MW301

Sample Date Range: 5/31/1994 - 10/11/2016

					c Laboratory vsis Results			ganic Labo nalysis Res	•	Aı	ogical Labor nalysis Result	•	
	ample Date	TCE μg/L	1,1-DCE μg/L	1,1-DCA μg/L	1,2-DCA μg/L	trans-1,2-DCE µg/L	Al mg/L	Fe mg/L	Mn mg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Lab Sample ID
1/25	5/2002	< 1	< 5	< 5	< 5	< 5	< .2	154	15.4	< -2.44	51.6	< 6.3	C020250056
4/10	0/2002	< 1	< 5	< 5	< 5	< 5	.317	172	16.2	< 19	< 5.09	< .617	C021010049
7/24	4/2002	< 1	< 5	< 5	< 5	< 5	< .2	186	15.4	< 36.1	< 23.5	17.8	C022060005
10/3	3/2002	3	< 5	< 5	< 5	< 5	< .002	< .2	14.5	< 5.72	46.8	< 15	C022760029
1/30	0/2003	< 1	< 5	< 5	< 5	< 5	.287	166	15.5	< -1.71	< 6.29	<324	C030310017
1/30	0/2003	< 1	< 5	< 5	< 5	< 5	4.62	203	16.1	< .197	< 3.65	< 3.3	C030310018
4/14	4/2003	< 1	< 5	< 5	< 5	< 5	1.03	232	17.2	< .227	< 37.1	<162	C031040077
7/30	0/2003	< 1	< 5	< 5	< 5	< 5	.71	218	15.4	< 32.9	50.2	< 2.84	C032110046
10/21	1/2003	< 1	< 5	< 5	< 5	< 5	< .2	257	17.4	< 9.47	< 31.4	< 0	C032950018
1/26	6/2004	< 1	< 5	< 5	< 5	< 5	.39	267	19.6	< 14.9	53.3	< 10.8	C040260080
1/26	6/2004	< 1	< 5	< 5	< 5	< 5	.577	266	19.3	< 17.7	73	< 11.7	C040260081
4/21	1/2004	< 1	< 5	< 5	< 5	< 5	< .2	238	18	< 9.42	< 42.4	< -3	C041130034
	5/2004	< 1	5	5	< 5	< 5	< .2	277	19.8	< 17.3	< 40.3	< -12.4	C041970168
	9/2004	< 1	< 5	< 5	< 5	< 5	< .2	152	13.7	< -32.8	< 33.7	< -1.56	C042940033
4/27	7/2005	< 1	< 5	< 5	< 5	< 5	< .2	232	20.1	<987	129	< -6.58	C051170050
10/25	5/2005	< 1	5.1	5.6	< 5	< 5	< .2	289	19.9	< -12.7	51.3	< 4.49	C052990008
4/11	1/2006	< 1	< 5	5.4	< 5	< 5	< .2	279	19.6	< 3.04	62	< 8.86	C061020011
4/11	1/2006	< 1	< 5	5.2	< 5	< 5	< .2	287	20.9	< 8.03	50.9	< -2.97	C061020010
10/23	3/2006	< 1	5.9	5.8	< 5	< 5	.76	295	20.5	< 13.7	< 31.7	< 15.3	C062960051
4/12	2/2007	< 1	< 5	< 5	< 5	< 5	2.42	265	15.8	< 7.86	60.8	< 4.66	C071030005
10/25	5/2007	< 1	3.6	3.1	< 1	< 1	1.06	117	8.42	< 1.59	39.3	< -9.49	C072980109
4/28	8/2008	< 1	< 1	2.9	< 5	< 1		192	15.3	< 25.6	45.9	< -3.1	C081190047
4/28	8/2008	< 1	< 1	2.8	< 5	< 1		185	14.7	< 20.4	79.9	< -4.91	C081190048
10/29	9/2008	< 1	3.8	3.9	< 5	< 1	< .2	240	16.3	< 7.81	77.1	< 5.16	C08304013003
4/30	0/2009	< 1	3.8	3.9	< 1	< 1	< .2	228	15.9	< 7.32	71	< 7.74	C09120015002
4/30	0/2009	< 1	4.5	4.4	< 1	< 1	< .2	160	14.5	< 17.8	85	< 12.3	C09120015003
10/19	9/2009	3.8	5.5	4.8	< 1	< 1	< .2	208	14	< .393	58.6	< -1.75	C09292035003
4/20	0/2010	< 1	< 5	3	< 5	< 1	< .2	198	13.8	< 11.5	50.7	< -8.41	C10110009004
4/20	0/2010	< 1	< 5	2.9	< 5	< 1	< .2	196	13.7	< -7.51	45.2	< -8.84	C10110009005
	3/2010	< 1	< 5	1.9	< 5	< 1	< .4	133	11	<711	56.4	< -4.72	C10286021005
	6/2011	< 1	< 5	< 1	< 5	< 1	.247	176	14.5	< 8.21	68	< -13.4	C11116009002
	9/2011	< 1	< 5	1.7	< 1	< 1	.298	183	11.8	< 8.7	86.5	< 4.3	C11292015003
	4/2012	< 1	2.1	< 1	< 1	< 1	< 2	119	9.63	< 5.31	< 35.7	< 2.86	C12115011002

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#### **Water Quality Records for**

## Sample Date Range: 5/31/1994 - 10/11/2016

#### MW301

				c Laboratory ysis Results			rganic Labo Analysis Res	•		ological Labor Analysis Resul		
Sample Date	TCE µg/L	1,1-DCE μg/L	1,1-DCA μg/L	1,2-DCA μg/L	trans-1,2-DCE µg/L	Al mg/L	Fe mg/L	Mn mg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Lab Sample ID
10/29/2012	< 1	< 1	< 1	< 1	< 1	6.98	163	8.35	< 15.1	58.9	< 1.99	C12303019004
4/23/2013	< 1	1.2	1.4	< 1	< 1	.216	120	9.8	< 10.1	< 46.9	< .0556	C13113007002
10/21/2013	< 1	2.4	2.2	< 1	< 1	10.9	200	10.7	< 6.61	< 54.4	< 8.32	C13294037004
4/29/2014	< 1	1.73	1.95	< 1	< 1	.0277	121	8.95	6.95	52.9	< 2.71	347676005

#### Water Quality Records for

#### MW302

Sample Date Range: 5/31/1994 - 10/11/2016

					c Laboratory sis Results			rganic Labo Analysis Re	•		logical Labor nalysis Result		
	Sample Date	TCE μg/L	1,1-DCE μg/L	1,1-DCA μg/L	1,2-DCA μg/L	trans-1,2-DCE μg/L	Al mg/L	Fe mg/L	Mn mg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Lab Sample ID
	6/1/1994	< 5	< 5	< 5	< 5		< .415	.238	.189	< 3.09	< 3.11	< .94	3220301
	3/21/1995	< 1	< 5	< 5	< 5	< 5		2.6	.26	2.2	5	8	950322-048
	7/12/1995	< 1	< 5	< 5	< 5	< 5		.702	.175	4	13	6	950713-149
	9/11/1995	< 1	< 5	< 5	< 5	< 5	1.3	1.06	.139	7.2	2	13	950912-007
	12/7/1995	< 1	< 5	< 5	< 5	< 5		2.39	.087	6.2	3	2	951211-018
	2/13/1996	< 1	< 5	< 5	< 5	< 5	2.61	2.14	.099	-5.4	-4	0	960214-058
	2/13/1996	< 1	< 5	< 5	< 5	< 5	2.14	1.68	.08	-6	-2	1	960214-054
	5/9/1996	< 1	< 5	< 5	< 5	< 5	< .75	< .3	.041	.9	17	6	960513-009
	8/20/1996	< 1	< 5	< 5	< 5	< 5	< .75	< .3	.058	4.4	6	6	960821-022
	8/20/1996	< 1	< 5	< 5	< 5	< 5	< .75	< .3	< .05	12.3	5	11	960821-020
	2/10/1997	< 1	< 5	< 5	< 5	< 5	< .75	1.64	.19	2.9	3	0	970211-010
	2/10/1997	< 1	< 5	< 5	< 5	< 5	< .75	.31	.157	2	1	0	970211-011
Ċ	5/13/1997	< 1	< 5	< 5	< 5	< 5	< .75	< .3	.099	5.9	3	10	970514-044
1	8/7/1997	< 1	< 5	< 5	< 5	< 5	< 1	< .25	< .1	2.8	1	0	970807-144
	8/7/1997	< 1	< 5	< 5	< 5	< 5	< 1	< .25	.12	1.6	1	2	970807-145
	11/10/1997	< 1	< 5	< 5	< 5	< 5	1.02	1.09	.11	9.8	14	0	971110-118
	2/5/1998	< 1	< 5	< 5	< 5	< 5	< 1	< .5	< .1	< 1.2	< 4	< -2	C980370103
	2/5/1998	< 1	< 5	< 5	< 5	< 5	< 1	< .5	.114	< 1.8	< 0	< 5	C980370102
	5/20/1998	< 1	< 5	< 5	< 5	< 5	< 1	< .25	.167	<9	8	< 2.8	C981400087
	5/20/1998	< 1	< 5	< 5	< 5	< 5	< 1	< .25	.164	< 2.3	37	< 2.1	C981400088
	8/11/1998	< 1	< 5	< 5	< 5	< 5	< 1	< .2	.173	< 7.6	11	< -7.6	C982240043
	8/11/1998	< 1	< 5	< 5	< 5	< 5	< 1	< .2	.143	< 1	< 4	< -1	C982240044
	11/16/1998	< 1	< 5	< 5	< 5	< 5	< 1	< .2	.1	< 3.6	8.03	< -7.2	C983200082
	1/25/1999	< 1	< 5	< 5	< 5	< 5	< 1	< .2	.11	< .86	< .3	< -19.8	C990250156
	4/19/1999	< 1	< 5	< 5	< 5	< 5	.22	< .2	.122	< 1.67	< 4.72	< -18.5	C991090062
	7/15/1999	< 1	< 5	< 5	< 5	< 5	< .2	< .2	.157	< .82	< -20.12	< 5.04	C991960148
	10/14/1999	< 1	< 5	< 5	< 5	< 5	< .2	< .2	.069	< 4.18	< 3.33	< -1.15	C992870107
	1/13/2000	< 1	< 5	< 5	< 5	< 5	< .2	.381	.05	< .05	< 5.09	< 1.59	C000130119
	4/27/2000	< 1	< 5	< 5	< 5	< 5	< .2	< .2	.11	< 4.56	< 2.89	< -21.3	C001190011
	4/27/2000	< 1	< 5	< 5	< 5	< 5	< .2	< .2	.118	< 1.91	< 4.14	< -16.4	C001190012
	7/27/2000	< 1	< 5	< 5	< 5	< 5	.203	.315	.185	< 6.72	< 4.08	< -2.03	C002090104
	10/16/2000	< 1	< 5	< 5	< 5	< 5	< .2	< .2	.08	< 2.79	22.54	< 5.95	C002910046
	1/10/2001	< 1	< 5	< 5	< 5	< 5	< .2	< .2	.112	< .329	< 5.56	< 8.77	C010100096

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#### Water Quality Records for

#### MW302

Sample Date Range: 5/31/1994 - 10/11/2016

					c Laboratory ysis Results			rganic Labo Analysis Res	•		logical Labor nalysis Result	•	
	Sample Date	TCE µg/L	1,1-DCE µg/L	1,1-DCA μg/L	1,2-DCA μg/L	trans-1,2-DCE μg/L	Al mg/L	Fe mg/L	Mn mg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Lab Sample ID
	1/10/2001	< 1	< 5	< 5	< 5	< 5	< .2	< .2	.101	< -4.7	< 3.52	< 2.65	C010100095
	4/16/2001	< 1	< 5	< 5	< 5	< 5	< .2	< .2	.068	< -4.37	< 1	< 12.2	C011060086
	7/24/2001	< 1	< 5	< 5	< 5	< 5	< .2	< .2	.053	< 1.09	< 1.72	< 12.4	C012060011
	10/15/2001	< 1	< 5	< 5	< 5	< 5	< .2	< .2	.207	< 2.32	< .344	< 4.48	C012880076
	1/22/2002	< 1	< 5	< 5	< 5	< 5	< .2	< .2	.047	< 5.75	< 1.7	< 11.5	C020220047
	4/10/2002	< 1	< 5	< 5	< 5	< 5	< .2	< .2	.054	< 5.56	< -1.95	< 4.88	C021010050
	4/10/2002	2	< 5	< 5	< 5	< 5	< .2	< .2	.062	< 2.37	< -2.75	< -3.64	C021010051
	7/24/2002	< 1	< 5	< 5	< 5	< 5	< .2	< .2	.056	9.53	< 2.21	< 14.7	C022060006
	10/3/2002	< 1	< 5	< 5	< 5	< 5	< .002	< .002	.0688	< 9.5	< 2.76	< 10.1	C022760028
	1/30/2003	< 1	< 5	< 5	< 5	< 5	.639	.762	.144	<209	< 1.74	< 2.05	C030310021
	4/15/2003	< 1	< 5	< 5	< 5	< 5	< .2	< .2	.0607	< 2.62	< 1.04	< 4.54	C031050066
	4/15/2003	< 1	< 5	< 5	< 5	< 5	< .2	< .2	.0609	< -4.39	43.1	16.2	C031050067
Ċ	7/30/2003	< 1	< 5	< 5	< 5	< 5	< .2	.523	1.3	< 6.9	< 4.11	< -9.55	C032110047
12	10/21/2003	< 1	< 5	< 5	< 5	< 5	< .2	5.77	1.88	< 4.13	< 2.82	< -6.62	C032950016
	1/26/2004	< 1	< 5	< 5	< 5	< 5	< .2	2.64	1.98	< -3.37	9.48	< 6.25	C040260078
	4/21/2004	< 1	< 5	< 5	< 5	< 5	< .2	.611	1.63	< 6.89	< -1.62	<819	C041130035
	4/21/2004	< 1	< 5	< 5	< 5	< 5	< .2	.302	1.71	< -1.61	<897	< 5.4	C041130036
	7/15/2004	< 1	< 5	< 5	< 5	< 5	< .2	1.18	1.63	< 5.85	<825	< -12.4	C041970169
	10/19/2004	< 1	< 5	< 5	< 5	< 5	< .2	.244	1.06	< -4.94	< 3.65	< 4.4	C042940032
	4/27/2005	< 1	< 5	< 5	< 5	< 5	< .2	< .1	.675	< 1.48	< 3.76	< 15.3	C051170052
	4/27/2005	< 1	< 5	< 5	< 5	< 5	< .2	.154	.708	< .394	< .723	< 15.5	C051170051
	10/25/2005	< 1	< 5	< 5	< 5	< 5	< .2	< .1	1.35	< -1.17	< .46	< 9.83	C052990009
	4/11/2006	< 1	< 5	< 5	< 5	< 5	.418	1.02	.572	< -1.64	< 3.54	< .914	C061020008
	10/26/2006	< 1	< 5	< 5	< 5	< 5	.347	.479	.99	<702	< 3.23	< 8.62	C062990102
	10/26/2006	< 1	< 5	< 5	< 5	< 5	< .2	.128	.986	< -3.44	< 2.09	< 8.97	C062990103
	4/12/2007	< 1	< 5	< 5	< 5	< 5	< .2	.131	.345	< 4.96	< 3.59	< 13.1	C071030006
	10/25/2007	< 1	< 1	< 1	< 1	< 1	< .2	.317	.622	< 3.48	< 4.7	< -3.38	C072980110
	4/28/2008	< 1	< 1	< 1	< 5	< 1		< .1	.263	< 3.99	<184	< -5.34	C081190049
	10/29/2008	< 1	< 1	< 1	< 5	< 1	.23	.281	.319	< 1.16	< .994	< 10.6	C08304013004
	4/30/2009	< 1	< 1	< 1	< 1	< 1	< .2	< .1	.215	< 1.78	< 1.17	< 1.39	C09120016001
	10/19/2009	2.1	< 1	< 1	< 1	< 1	.493	.425	.433	< .942	< 1.51	< -6.33	C09292035004
	4/20/2010	< 1	< 5	< 1	< 5	< 1	.933	1.5	1.01	< 1.13	< 1.46	<868	C10110009001
	10/13/2010	< 1	< 5	< 1	< 5	< 1	< .4	.21	.245	< 4.95	< 2.61	< 2.66	C10286021004

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NOTE: This report does not include data that has been rejected during data assessment and/or data validation.

Prepared by:

FLUOR.

#### Water Quality Records for

#### MW302

Sample Date Range: 5/31/1994 - 10/11/2016

	Organic Laboratory Analysis Results						Inorganic Laboratory Analysis Results			logical Labor nalysis Resul		
Sample Date	TCE μg/L	1,1-DCE μg/L	1,1-DCA μg/L	1,2-DCA μg/L	trans-1,2-DCE µg/L	Al mg/L	Fe mg/L	Mn mg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Lab Sample ID
4/26/2011	< 1	< 5	< 1	< 5	< 1	< .2	.112	.095	< .402	< 3.67	<163	C11116009003
10/19/2011	< 1	< 5	< 1	< 1	< 1	< .2	.235	.208	< 1.9	6.89	< 2.99	C11292015004
4/24/2012	< 1	< 1	< 1	< 1	< 1	< .4	.333	.163	< .867	< .188	< 3.89	C12115011003
10/29/2012	< 1	< 1	< 1	< 1	< 1	< .2	< .1	.0704	< .308	<308	< -6.18	C12303019001
4/23/2013	< 1	< 1	< 1	< 1	< 1	< .2	< .1	.0804	< 3.53	< 1.37	< -2.15	C13113007003
10/21/2013	< 1	< 1	< 1	< 1	< 1	< .2	< .1	.19	< 2.39	< 2.41	< 1.2	C13294037001
4/29/2014	< 1	< 1	< 1	< 1	< 1	.0339	.112	.156	<306	< 2.95	< 2.13	347676007
10/7/2014	< 1	< 1	< 1	< 1	< 1	.0573	.163	.414	< -1.1	< 1.86	< 12.8	358703005
4/28/2015	< 1	< 1	< 1	< 1	< 1	.0504	.106	.674	< 7.44	< 3.78	<946	371985003
10/27/2015	< 1	< 1	< 1	< 1	< 1	.0205	.13	.402	< -2.37	< -2.28	< 3.12	384156003
10/27/2015	< 1	< 1	< 1	< 1	< 1	.0272	.157	.454	< -3.02	< -1.71	< -2.76	384156005
4/13/2016	< 1	< 1	< 1	< 1	< 1	.0496	.275	.326	< 3.35	8.77	< -11	395245001
10/11/2016	< 1	< 1	< 1	< 1	< 1	.102	.222	.31	< -3.58	< 4.11	< -7.9	407853005
10/11/2016	< 1	< 1	< 1	< 1	< 1	.0458	.109	.297	< -1.69	< -6.03	< -4.58	407853003

#### Water Quality Records for

#### MW344

Sample Date Range: 5/31/1994 - 10/11/2016

	Organic Laboratory Analysis Results						Inorganic Laboratory Analysis Results			Radiological Laboratory Analysis Results		
Sample Date	TCE µg/L	1,1-DCE μg/L	1,1-DCA μg/L	1,2-DCA μg/L	trans-1,2-DCE μg/L	Al mg/L	Fe mg/L	Mn mg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Lab Sample ID
5/20/1998	< 1	< 5	< 5	< 5	< 5	5.43	11.2	.663	< 4	24	< -2.8	C981400089
8/11/1998	< 1	< 5	< 5	< 5	< 5	7.65	13.1	.946	< 3.2	11	< -1.3	C982240042
11/16/1998	< 1	< 5	< 5	< 5	< 5	2.65	12.2	.83	< 5.66	8.45	< 6.8	C983200078
11/16/1998	< 1	< 5	< 5	< 5	< 5	2.43	9.51	.65	< 2.27	9.59	< -3.1	C983200079
1/25/1999	< 1	< 5	< 5	< 5	< 5	8.54	13	.79	< .1	14.19	< 8.4	C990250157
4/19/1999	< 1	< 5	< 5	< 5	< 5	9.26	16.1	.827	< 4.05	8.24	< -9.06	C991090063
7/15/1999	< 1	< 5	< 5	< 5	< 5	3.21	13.6	.756	< 3.29	< 3.03	< 7.03	C991960149
10/14/1999	< 1	< 5	< 5	< 5	< 5	8.76	13.1	.871	5.38	< 5.75	< 7.28	C992870108
1/13/2000	< 1	< 5	< 5	< 5	< 5	1.35	9.06	.565	< .74	12.89	< 6.94	C000130121
4/27/2000	< 1	< 5	< 5	< 5	< 5	3.68	10.8	.523	< 2.81	19.31	< -2.65	C001190013
7/27/2000	< 1	< 5	< 5	< 5	< 5	1.92	8.16	.531	7.68	12.31	< 10.4	C002090102
7/27/2000	< 1	< 5	< 5	< 5	< 5	1.27	6.22	.404	< 4.3	14.19	< -6.62	C002090103
10/16/2000	< 1	< 5	< 5	< 5	< 5	1.92	6.81	.525	< 1.79	15.94	< .674	C002910047
10/16/2000	< 1	< 5	< 5	< 5	< 5	1.5	5.4	.37	<9	21.88	< 1.57	C002910048
1/10/2001	< 1	< 5	< 5	< 5	< 5	4.4	6.02	.396	< .529	< 1.5	< 4.46	C010100099
4/16/2001	< 1	< 5	< 5	< 5	< 5	2.3	7.02	.411	< 1.98	6.24	< -7.79	C011060089
7/19/2001	< 1	< 5	< 5	< 5	< 5	1.83	5.1	.355	< -2.34	< 1.95	< 7.79	C012010060
7/24/2001	46	100	59	< 50	< 50	15.8	315	27.7	< 32.1	< 25.1	< 12.4	C012060009
10/15/2001	< 1	< 5	< 5	< 5	< 5	.655	3.55	.399	< 4.6	< 2.4	< -2	C012880066
10/15/2001	< 1	< 5	< 5	< 5	< 5	.797	3.79	.329	< .901	9.99	< -8.48	C012880067
1/22/2002	< 1	< 5	< 5	< 5	< 5	1.37	5.33	.366	< 5.38	6.15	< 6.69	C020220045
4/10/2002	< 1	< 5	< 5	< 5	< 5	1.63	7.58	.378	<899	< 2.73	< 4.04	C021010052
7/24/2002	< 1	< 5	< 5	< 5	< 5	2.07	5.44	.49	10.2	< 6.95	< 4.82	C022060007
10/3/2002	< 1	< 5	< 5	< 5	< 5	.00423	.00456	.323	< 5.83	< 5.09	18.5	C022760030
10/3/2002	< 1	< 5	< 5	< 5	< 5	.00323	.00478	.366	< 2.54	< 2.37	< 13.8	C022760031
1/30/2003	< 1	< 5	< 5	< 5	< 5	1.68	4.16	.378	< -2.18	< .631	< 2	C030310019
4/14/2003	< 1	< 5	< 5	< 5	< 5	3.92	3.28	.268	< .0183	< 8.74	20.4	C031040078
7/30/2003	< 1	< 5	< 5	< 5	< 5	21.9	35.4	6.18	< 12.1	< 6.22	< 12.3	C032110048
10/21/2003	< 1	< 5	< 5	< 5	< 5	3.63	34.8	3.99	< 3.45	< 3.49	< -1.39	C032950015
10/21/2003	< 1	< 5	< 5	< 5	< 5	4.19	32.6	.388	< 5.8	< 4.3	< 3.31	C032950014
1/26/2004	< 1	< 5	< 5	< 5	< 5	4.22	18.2	2.32	10.1	7.74	< 5.32	C040260082
4/21/2004	< 1	< 5	< 5	< 5	< 5	2.91	13.3	1.23	< 2.26	< 1.95	< -4.04	C041130037
7/15/2004	< 1	< 5	< 5	< 5	< 5	< .2	12.9	1.61	< .82	< 2.89	< -8.52	C041970170

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Prepared by:

FLUOR.

#### Water Quality Records for

MW344

Sample Date Range: 5/31/1994 - 10/11/2016

		Organic Laboratory Analysis Results						Inorganic Laboratory Analysis Results			Radiological Laboratory Analysis Results		
	Sample Date	TCE µg/L	1,1-DCE μg/L	1,1-DCA μg/L	1,2-DCA μg/L	trans-1,2-DCE μg/L	Al mg/L	Fe mg/L	Mn mg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Lab Sample ID
	10/19/2004	< 1	< 5	< 5	< 5	< 5	2.51	13.2	1.56	<79	9.99	< -3.88	C042940034
	10/19/2004	< 1	< 5	< 5	< 5	< 5	2.99	11.8	1.63	< -2.19	< .172	< 4.34	C042940035
	4/27/2005	< 1	< 5	< 5	< 5	< 5	3.67	7.9	.692	< .794	5.87	< 10.7	C051170053
	10/25/2005	< 1	< 5	< 5	< 5	< 5	1.49	5.25	.714	< 2.1	< 5.13	< 8.07	C052990010
	4/11/2006	< 1	< 5	< 5	< 5	< 5	2.55	6.79	.419	< 2.13	< 5.53	< .686	C061020012
	10/26/2006	< 1	< 5	< 5	< 5	< 5	4.32	5.55	.472	< 2.45	< 5.05	< 13.9	C062990104
	4/12/2007	< 1	< 5	< 5	< 5	< 5	13.5	7.9	.279	< 6.28	< 4.88	< -3.22	C071030003
	4/12/2007	< 1	< 5	< 5	< 5	< 5	7.87	6.28	.286	8.77	< 7.36	< 7.1	C071030004
	10/25/2007	< 1	< 1	< 1	< 1	< 1	5.46	4.1	.217	< 2.24	< 2.43	< 1.88	C072980185
	4/28/2008	< 1	< 1	< 1	< 5	< 1		.947	.183	< 1.35	< 4.02	< 2.67	C081200002
	10/29/2008	< 1	< 1	< 1	< 5	< 1	3.36	3.64	.256	< 2.88	< 4.82	< .645	C08304013005
	4/30/2009	< 1	< 1	< 1	< 1	< 1	4	3.56	.19	< 2.62	5.57	< 10.1	C09120016002
)	10/19/2009	1.3	< 1	< 1	< 1	< 1	3.55	3.04	.299	< 1.6	< 4.25	<283	C09292035005
<u>1</u>	4/20/2010	< 1	< 5	< 1	< 5	< 1	11.5	22	.262	9.17	8.43	< 10	C10110009003
	10/13/2010	< 1	< 5	< 1	< 5	< 1	9.93	13.8	.233	8.01	9.96	< -7.65	C10286021001
	4/26/2011	< 1	< 5	< 1	< 5	< 1	4.7	8.17	.154	<331	< 5.11	< -7.02	C11116009004
	4/26/2011	< 1	< 5	< 1	< 5	< 1	4.48	7.89	.155	< .101	5.63	< -3.92	C11116009005
	10/19/2011	< 1	< 5	< 1	< 1	< 1	2.86	7.14	.188	< 2.34	9.7	< 2.78	C11292015005
	4/24/2012	< 1	< 1	< 1	< 1	< 1	4.39	7.54	.167	< 3.64	< 3.59	<511	C12115011004
	4/24/2012	< 1	< 1	< 1	< 1	< 1	3.92	6.46	.118	< 6.28	< 5.53	< 7.1	C12115011005
	10/29/2012	< 1	< 1	< 1	< 1	< 1	2.12	3.89	.143	< .405	< 3.49	< -8.39	C12303019005
	4/23/2013	< 1	< 1	< 1	< 1	< 1	2.65	4.66	.116	< 4.97	< 3.39	< -3.25	C13113014001
	4/23/2013	< 1	< 1	< 1	< 1	< 1	2.77	3.82	.107	< 1.89	< 3.93	< -1.43	C13113014002
	10/21/2013	< 1	< 1	< 1	< 1	< 1	8.79	6.63	.185	< 4.86	4.56	< 4.93	C13294037005
	4/29/2014	< 1	< 1	< 1	< 1	< 1	3.92	9.31	.138	9.05	7.89	< 1.14	347676001
	4/29/2014	< 1	< 1	< 1	< 1	< 1	4.42	10.1	.139	6.34	9.4	< -2.93	347676003
	10/7/2014	< 1	< 1	< 1	< 1	< 1	3.61	8.09	.253	< .965	< 11	< 3.57	358703007
	4/28/2015	.87	12.6	7.7	< 1	< 1	1.37	3.05	.116	< .878	< 5.5	<00901	371985005
	4/28/2015	< 1	< 1	< 1	< 1	< 1	.906	1.78	.0971	< -1.64	< 5.21	< -3.42	371985007
	10/27/2015	< 1	< 1	< 1	< 1	< 1	1.71	4.22	.138	< 2.02	< 3.58	<265	384156007
	4/13/2016	< 1	< 1	< 1	< 1	< 1	2.07	4.76	.153	< 10	26	< -15.1	395245007
	10/11/2016	< 1	< 1	< 1	< 1	< 1	1.46	3.17	.125	< -3.18	< .375	< .299	407853007

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FLUOR. Prepared by:



## APPENDIX D

## ADMINISTRATIVE RECORD AND POST-DECISION RECORD INDICES



## Paducah Documents Added to the Administrative Record Files- Fourth Quarter CY2016

Document Status	Document Date	Document ID	Title	Author Affiliation	To Affiliation	Notes	Name
		FFS-16-2068	PUBLIC NOTICE-NOTIFICATION OF AVAILABILITY OF THE ADMINISTRATIVE RECORD FILE FOR THE SOLID WASTE MANAGEMENT UNIT 27 TIME CRITICAL REMOVAL ACTION AT PGDP	DOE-PPPO	PUBLIC	No	ENV 1.A-01195
ARF4-1	09/15/16	FFS-16-0356, DOE/LX/07 2179&D2/R2	APPROVAL OF THE SOLID WASTE MANAGEMENT UNIT 4 CONTAINED-IN DETERMINATION AND SUPPORTING ANALYTICAL DATA IN ACCORDANCE WITH THE WORK PLAN FOR THE BURIAL GROUNDS OPERABLE UNIT REMEDIAL INVESTIGATION/FEASIBILITY STUDY (DOE/LX/07-2179&D2/R2)	KDEP	DOE-PPPO	No	ENV 1.A-01196
ARFREF	10/17/16	PPPO-02-3758017-16	FEDERAL FACILITY AGREEMENT BUDGET NOTIFICATION-CONTINUING RESOLUTION	DOE-PPPO	KDEP, USEPA-4	No	ENV 1.A-01197
ARFSWMU27	10/04/16	PPPO-02-3803804-17	NOTIFICATION OF FIELD START AND FIELD COMPLETION FOR THE TIME CRITICAL REMOVAL ACTION AT THE PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY, SOLID WASTE MANAGEMENT UNIT 27	DOE-PPPO	KDEP, USEPA-4	No	ENV 1.A-01206
ARF4-1	10/31/16	FFS-17-0373	EPA COMMENTS: ADDENDUM TO THE REMEDIAL INVESTIGATION REPORT FOR THE BURIAL GROUNDS OPERABLE UNIT SOLID WASTE MANAGEMENT UNIT 4 AT THE PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KY (DOE/LX/07-0030&D2/R1/A1)	USEPA-4	DOE-PPPO	No	ENV 1.A-01246
ARF4-1	11/01/16	FFS-17-0374	SUBMITTAL OF COMMENTS TO THE ADDENDUM TO THE REMEDIAL INVESTIGATION REPORT FOR THE BURIAL GROUNDS OPERABLE UNIT SWMU 4 (DOE/LX/07-0030&D2/R1/A1)	KDWM	DOE-PPPO	No	ENV 1.A-01247
ARFBGOU	11/09/16	PPPO-02-3877220-17	PADUCAH FEDERAL FACILITY AGREEMENT - MINOR MODIFICATION TO EXTEND THE TIME PERIOD FOR CONSULTATION OF THE DISPUTE RESOLUTION COMMITTEE RELATED TO THE FEASIBILITY STUDY FOR SWMUS 2, 3, 7, AND 30 FOR THE BGOU AT THE PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KY, DOE/LX/07-1274&D2	DOE-PPPO	KDEP, USEPA-4	No	ENV 1.A-01248
ARFBGOU	11/14/16	FFS-17-0377	MINOR MODIFICATION FOR THE FEASIBILITY STUDY FOR SWMUs 2, 3, 7, AND 30 FOR THE BURIAL GROUNDS OPERABLE UNIT AT PGDP, PADUCAH, KY DOE/LX/07-1274&D2	,		No	ENV 1.A-01249
ARFBGOU	11/21/16	PPPO-02-3877721-17	PADUCAH FEDERAL FACILITY AGREEMENT - MINOR MODIFICATION TO EXTEND THE SUBMITTAL DATE FOR THE D1 RECORD OF DECISION FOR THE BURIAL GROUNDS OPERABLE UNIT SOLID WASTE MANAGEMENT UNITS 5 AND 6, DOE/LX/07-1282&D1	DOE-PPPO	KDEP, USEPA-4	No	ENV 1.A-01250
ARFCC	11/14/16	FFS-17-0378	MINOR MODIFICATION FOR THE REMEDIAL INVESTIGATION/FEASIBILITY STUDY REPORT FOR THE CERCLA WASTE DISPOSAL ALTERNATIVES EVALUATION AT PGDP, PADUCAH, KY DOE/LX/07-0244&D2	DOE-PPPO, KDEP, USEPA-4		No	ENV 1.A-01251
ARFREF	10/26/16	FFS-17-0370	EPA CONCURRENCE: SUSPENSION OF TRI-PARTY FISCAL YEAR 2016 SITE MANAGEMENT PLAN ANNUAL REVISION ACTIVITIES FOR PGDP EPA ID KY889008982	USEPA-4	DOE-PPPO	No	ENV 1.A-01252
ARFREF	10/26/16	FFS-17-0371	REQUEST FOR RESOLUTION OF THE FISCAL YEAR 2016 SITE MANAGEMENT PLAN (DOE/LX/07-2400&D2)	KDWM	DOE-PPPO	No	ENV 1.A-01253

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### Paducah Documents Added to the Administrative Record Files- Fourth Quarter CY2016

Document Status	Document Date	Document ID	Title	Author Affiliation	To Affiliation	Notes	Name	
ARFREF	10/26/16	DOE/LX/07-2402/V2, PPPO-02-3816220-17	U.S. DEPARTMENT OF ENERGY PADUCAH GASEOUS DIFFUSION PLANT FEDERAL FACILITY AGREEMENT SEMIANNUAL PROGRESS REPORT FOR THE SECOND HALF OF FISCAL YEAR 2016, PADUCAH, KENTUCKY (DOE/LX/07-2402/V2)	DOE-PPPO	KDEP, USEPA-4	No	ENV 1.A-01254	
ARFREF	10/26/16	DOE/LX/07- 1289&D2/R1/A2/R1, PPPO-02-3696577-17	TRANSMITTAL OF THE ADDENDUM TO THE FIVE YEAR REVIEW FOR REMEDIAL ACTIONS AT THE PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY, (DOE/LX/07-1289&D2/R1/A2/R1)	DOE-PPPO	KDEP, USEPA-4	No	ENV 1.A-01255	
ARFREF	11/02/16	PPPO-02-3855879-17	PADUCAH FEDERAL FACILITY AGREEMENT - MINOR MODIFICATION TO EXTEND THE TIME PERIOD FOR CONSULTATION OF THE SENIOR EXECUTIVE COMMITTEE RELATED TO THE CERCLA WASTE DISPOSAL ALTERNATIVES EVALUATION AT PGDP, PADUCAH, KY		KDEP, USEPA-4	No	ENV 1.A-01256	
ARFREF	11/15/16	DOE/LX/07-2410&D1, PPPO-02-3857307-17B	TRANSMITTAL OF THE D1 SITE MANAGEMENT PLAN, PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY, ANNUAL REVISION - FISCAL YEAR 2017 (DOE/LX/07-2410&D1)	ASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY, ANNUAL EVISION - FISCAL YEAR 2017 (DOE/LX/07-2410&D1)				
ARFREF	11/17/16	FFS-17-0379	EPA CONDITIONAL CONCURRENCE: APPENDIX C - WATER POLICY ADDITIONAL ACTIONS: ADDENDUM TO THE FIVE-YEAR REVIEW FOR REMEDIAL ACTIONS AT PGDP, PADUCAH, KY (DOE/LX/07-1289&D2/R1/A2/R1)	USEPA-4	DOE-PPPO	No	ENV 1.A-01258	
ARFREF	11/18/16	PPPO-02-3880563-17	PADUCAH FEDERAL FACILITY AGREEMENT - MINOR MODIFICATION TO EXTEND THE TIME PERIOD FOR CONSULTATION OF THE DISPUTE RESOLUTION COMMITTEE RELATED TO THE REMEDIAL INVESTIGATION/FEASIBILITY STUDY REPORT FOR CERCLA WASTE DISPOSAL ALTERNATIVES EVALUATION AT PGDP, PADUCAH, KY DOE/LX/07-0244&D2	DOE-PPPO	KDEP, USEPA-4	No	ENV 1.A-01259	
ARFREF	11/22/16	FFS-17-0388	KENTUCKY CONCURRENCE ON THE ADDENDUM TO THE FIVE-YEAR REVIEW FOR THE REMEDIAL ACTIONS AT THE PADUCAH GASEOUS DIFFUSION PLANT - APPENDIX C WATER POLICY ADDITIONAL ACTIONS (DOE/LX/07-1289&D2/R1/A2/R1)	KDWM	DOE-PPPO	No	ENV 1.A-01260	
ARFSOU	11/17/16	FFS-17-0380	EPA CONDITIONAL CONCURRENCE: ADDENDUM TO THE SOILS OPERABLE UNIT REMEDIAL INVESTIGATION 2 REPORT FOR SOLID WASTE MANAGEMENT UNIT 229 AT PGDP (DOE/LX/07-2306&D2/A1/R1	USEPA-4	DOE-PPPO	No	ENV 1.A-01261	
ARFSWMU27	03/09/16	PPPO-02-3305131-16	TRANSMITTAL OF THE RESPONSE TO REGULATOR COMMENTS ON THE ADDENDUM TO THE SOILS OPERABLE UNIT REMEDIAL INVESTIGATION REPORT FOR SOLID WASTE MANAGEMENT UNIT 27 AT THE PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY, DOE/LX/07-0358&D2/R1/A1		USEPA-4, KDEP	No	ENV 1.A-01262	
ARFSWMU27	12/06/16	PPPO-02-3889311-17	STATUS OF RESPONSIVENESS SUMMARY FOR PUBLIC COMMENTS ON THE REMOVAL NOTIFICATION FOR SOLID WASTE MANAGEMENT UNIT 27 AT THE PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY (DOE/LX/07-2406&D2)	DOE-PPPO	KDEP, USEPA-4		ENV 1.A-01266	
ARFSWMU27	12/06/16	PPPO-02-3889311-17	STATUS OF RESPONSIVENESS SUMMARY FOR PUBLIC COMMENTS ON THE REMOVAL NOTIFICATION FOR SOLID WASTE MANAGEMENT UNIT 27 AT THE PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY (DOE/LX/07-2406&D2)	DOE-PPPO	KDEP, USEPA-4	No	ENV 1.A-01267	

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ARFSOU	12/06/16	PPPO-02-3889311-17	STATUS OF RESPONSIVENESS SUMMARY FOR PUBLIC COMMENTS ON THE REMOVAL NOTIFICATION FOR SOLID WASTE MANAGEMENT UNIT 27 AT THE PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY (DOE/LX/07-2406&D2)	DOE-PPPO	KDEP, USEPA-4	No	ENV 1.A-01268
ARFSOU	12/06/16	PPPO-02-3889311-17	STATUS OF RESPONSIVENESS SUMMARY FOR PUBLIC COMMENTS ON THE REMOVAL NOTIFICATION FOR SOLID WASTE MANAGEMENT UNIT 27 AT THE PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY (DOE/LX/07-2406&D2)	DOE-PPPO	KDEP, USEPA-4	No	ENV 1.A-01269
ARFSS	12/06/16	PPPO-02-3889311-17	STATUS OF RESPONSIVENESS SUMMARY FOR PUBLIC COMMENTS ON THE REMOVAL NOTIFICATION FOR SOLID WASTE MANAGEMENT UNIT 27 AT THE PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY (DOE/LX/07-2406&D2)	DOE-PPPO	KDEP, USEPA-4	No	ENV 1.A-01270
ARFSS	12/06/16	PPPO-02-3889311-17	STATUS OF RESPONSIVENESS SUMMARY FOR PUBLIC COMMENTS ON THE REMOVAL NOTIFICATION FOR SOLID WASTE MANAGEMENT UNIT 27 AT THE PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY (DOE/LX/07-2406&D2)	DOE-PPPO	KDEP, USEPA-4	No	ENV 1.A-01271

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Status	la	IDDD 00 000000 100				1	I=1077 - 1070		
ARF C-410	01/10/17	PPPO-02-3963902-17B	TRANSMITTAL OF ERRATA PAGES FOR THE REMOVAL ACTION REPORT FOR THE C-410 COMPLEX INFRASTRUCTURE DECONTAMINATION AND DECOMMISSIONING PROJECT AT THE PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY, DOE/LX/07-2182&D1	DOE-PPPO	KDWM, USEPA-4	No	ENV 1.A-01286		
ARF C-410	01/18/17	FFS-17-0418	ACKNOWLEDGEMENT OF THE INCORPORATION OF ERRATA PAGES INTO THE REMOVAL ACTION REPORT FOR THE C-410 COMPLEX INFRASTRUCTURE DECONTAMINATION AND DECOMMISSIONING PROJECT AT THE PADUCAH GASEOUS DIFFUSION PLANT (DOE-LX/07-2182&D1)	KDEP	DOE-PPPO	No	ENV 1.A-01287		
ARF4-1	12/20/16	FFS-17-0407	MINOR MODIFICATION FOR ADDENDUM TO THE REMEDIAL INVESTIGATION REPORT FOR THE BURIAL GROUNDS OPERABLE UNIT SOLID WASTE MANAGEMENT UNIT 4 AT PADUCAH GASEOUS DIFFUSION PLANT, DOE/LX/07-0030&D2/R1/A1/R1	NVESTIGATION REPORT FOR THE BURIAL GROUNDS OPERABLE USEPA-4, KDWM					
ARF4-1	12/20/16	PPPO-02-3941958-17	NOTIFICATION OF SCHEDULE EXTENSION FOR SUBMITTAL OF THE ADDENDUM TO THE REMEDIAL INVESTIGATION REPORT FOR THE BURIAL GROUNDS OPERABLE UNIT SOLID WASTE MANAGEMENT UNIT 4 AT PGDP, PADUCAH, KY, DOE/LX/07-0030&D2/R1/A1/R1I, AND MILESTONE MODIFICATION OF THE SUBSEQUENT SOLID WASTE MANAGEMENT UNIT 4 DOCUMENT (D1 FEASIBILITY STUDY)	KDWM, USEPA-4	No	ENV 1.A-01272			
ARFBGOU	02/09/17	FFS-17-0438	MINOR MODIFICATION FOR THE FEASIBILITY STUDY FOR SWMUS 2,3,7, AND 30 FOR THE BGOU AT PADUCAH GASEOUS DIFFUSION PLANT, DOE/LX/07-1274&D2	No	ENV 1.A-01299				
ARFBGOU	02/17/17	PPPO-02-4048525-17	PADUCAH FEDERAL FACILITY AGREEMENT-MINOR MOD TO EXTEND THE TIME PERIOD FOR CONSULTATION OF THE DISPUTE RESOLUTION COMMITTEE RELATED TO THE FEASIBILITY STUDY FOR SWMUS 2, 3,7 AND 30 FOR THE BURIAL GROUNDS OPERABLE UNIT AT PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY, DOE/LX/07-1274&D2	DOE-PPPO	KDWM, USEPA-4	No	ENV 1.A-01300		
ARFCC	12/08/16	FFS-17-0393	REMEDIAL INVESTIGATION/FEASIBILITY STUDY REPORT FOR COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT WASTE DISPOSAL ALTERNATIVES EVALUATION AT PGDP DOE/LX/07-0244&D2	DOE-PPPO, KDWM, USEPA-4		No	ENV 1.A-01273		
ARFCC	12/14/16	FFS-17-0396	REMEDIAL INVESTIGATION/FEASIBILITY STUDY REPORT FOR CERCLA WASTE DISPOSAL ALTERNATIVES EVALUATION AT PGDP, DOE/LX/07-0244&D2	DOE-PPPO, KDWM, USEPA-4		No	ENV 1.A-01274		
ARFCC	12/20/16	PPPO-02-3947647-17	PADUCAH FEDERAL FACILITY AGREEMENT-MINOR MODIFICATION TO EXTEND THE TIME PERIOD FOR CONSULTATION OF THE SENIOR EXECUTIVE COMMITTEE RELATED TO THE COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT WASTE DISPOSAL ALTERNATIVES EVALUATION AT THE PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KY	No	ENV 1.A-01275				
ARFCC	02/08/17	PPPO-02-4036918-17	PADUCAH FEDERAL FACILITY AGREEMENT SIGNED MEMORANDUM OF AGREEMENT FOR RESOLUTION OF FORMAL DISPUTE FOR THE REMEDIAL INVESTIGATION/FEASIBILITY STUDY REPORT FOR CERCLA WASTE DISPOSAL ALTERNATIVES EVALUATION AT THE PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY (DOE/LX/07-0244&D2)	DOE-PPPO	KDWM, USEPA-4	No	ENV 1.A-01301		

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ARFCC	02/09/17	FFS-17-0439	MINOR MODIFICATION FOR THE REMEDIAL INVESTIGATION/FEASIBILITY STUDY REPORT FOR CERCLA WASTE DISPOSAL ALTERNATIVES EVALUATION AT PGDP DOE/LX/07-0244&D2	DOE-PPPO, KDWM, USEPA-4	ADMINISTRATIV E RECORD	No	ENV 1.A-01302
ARFCC	02/17/17	PPPO-02-4049710-17	PADUCAH FEDERAL FACILITY AGREEMENT-MINOR MOD TO EXTEND THE TIME PERIOD FOR CONSULTATION OF THE DISPUTE RESOLUTION COMMITTEE RELATED TO THE REMEDIAL INVESTIGATION/ FEASIBILITY STUDY REPORT FOR CERCLA WASTE DISPOSAL ALTERNATIVES EVALUATION AT PGDP, DOE/LX/07-0244&D2	DOE-PPPO	KDWM, USEPA-4	No	ENV 1.A-01303
ARFREF	10/26/16	PPPO-02-3816220-17, DOE/LX/07-2404/V2	U.S. DEPARTMENT OF ENERGY PADUCAH GASEOUS DIFFUSION PLANT FEDERAL FACILITY AGREEMENT SEMIANNUAL PROGRESS REPORT FOR THE SECOND HALF OF FISCAL YEAR 2016, PADUCAH, KENTUCKY (DOE/LX/07-2404/V2)	DOE-PPPO	KDWM, USEPA-4	No	ENV 1.A-01276
ARFREF	12/12/16	PPPO-02-3928915-17	DOE-PPPO	KDWM, USEPA-4	No	ENV 1.A-01277	
ARFREF	12/14/16	FFS-17-0408	SITE MANAGEMENT PLAN EXTENSION	DOE-PPPO DOE-PPPO	KDWM, USEPA-4	No	ENV 1.A-01288
ARFREF	12/19/16	PPPO-02-3925193-17	NOTIFICATION OF INVOCATION OF INFORMAL DISPUTE RESOLUTION CONCERNING RECEIPT OF CONDITIONAL CONCURRENCE RELATED TO THE ADDENDUM TO THE FIVE-YEAR REVIEW FOR REMEDIAL ACTIONS AT THE PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY, DOE/LX/07- 1289&D2/R1/A2/R1	KDWM, USEPA-4	No	ENV 1.A-01278	
ARFREF	01/18/17	PPPO-02-3989194-17	NOTIFICATION OF EXTENSION OF THE INFORMAL DISPUTE RESOLUTION CONCERNING RECEIPT OF CONDITIONAL CONCURRENCE RELATED TO THE ADDENDUM TO THE FIVE-YEAR REVIEW FOR REMEDIAL ACTIONS AT THE PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY, DOE/LX/07-1289&D2/R1/A2/R1	DOE-PPPO	KDWM, USEPA-4	No	ENV 1.A-01289
ARFREF	01/27/17	PPPO-02-3907718-17	FEDERAL FACILITY AGREEMENT BUDGET NOTIFICATION- CONTINUING RESOLUTION STATUS	DOE-PPPO	KDWM, USEPA-4	No	ENV 1.A-01315
ARFREF	01/31/17	FFS-17-0431	MINOR MOD FOR THE ADDENDUM TO THE FIVE-YEAR REVIEW FOR REMEDIAL ACTIONS AT THE PADUCAH GASEOUS DIFFUSION PLANT, DOE/LX/07-1289&D2/R1/A2/R1	DOE-PPPO, KDWM, USEPA-4	ADMINISTRATIV E RECORD	No	ENV 1.A-01316
ARFREF	02/02/17	PPPO-02-4026128-17	MINOR MODIFICATION TO EXTEND THE TIME PERIOD FOR INFORMAL DISPUTE RESOLUTION RELATED TO THE ADDENDUM TO THE FIVE-YEAR REVIEW FOR REMEDIAL ACTIONS AT THE PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY, DOE/LX/07-1289&D2/R1/A2/R1	DOE-PPPO	No	ENV 1.A-01317	
ARFREF	02/02/17	FFS-17-0433	EXTENSION REQUEST FOR SUBMITTAL OF COMMENTS TO THE 2017 SITE MANAGEMENT PLAN DOE/LX/07-2410&D1	KDWM	DOE-PPPO	No	ENV 1.A-01318
ARFREF	02/14/17	FFS-17-0443	EXTENSION REQUEST FOR SUBMITTAL OF COMMENTS TO THE 2017 SITE MANAGEMENT PLAN DOE/LX/07-2410&D1	KDWM	DOE-PPPO	No	ENV 1.A-01319
ARFREF	02/17/17	PPPO-02-4044244-17	EXTENSION OF THE PADUCAH FEDERAL FACILITY AGREEMENT FISCAL YEAR 2019 INTEGRATED PRIORITY LIST AND ASSESSMENT OF BUDGET TARGETS ON SITE PRIORITIES	DOE-PPPO	KDWM, USEPA-4	No	ENV 1.A-01320

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ARFSOU	06/23/15	PPPO-02-2983175-15, DOE/LX/07-1256&D2	TRANSMITTAL OF THE SITEWIDE EVALUATION REPORT FOR THE SOILS OPERABLE UNIT AT THE PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY (DOE/LX/07-1256&D2)	DOE-PPPO	KDWM, USEPA-4	No	ENV 1.A-01297
ARFSOU	12/19/16	PPPO-02-3883672-17, DOE/LX/07- 2306&D2/A1/R2	TRANSMITTAL OF THE ADDENDUM TO THE SOILS OPERABLE UNIT REMEDIAL INVESTIGATION 2 REPORT FOR SOLID WASTE MANAGEMENT UNIT 229 AT THE PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY, DOE/LX/07-2306&D2/A1/R2	DOE-PPPO	KDWM, USEPA-4	No	ENV 1.A-01279
ARFSOU	01/18/17	DOE/LX/07- 0358&D2/R1/A2, PPPO- 02-3780368-17A	TRANSMITTAL OF THE ADDENDUM TO THE SOILS OPERABLE UNIT REMEDIAL INVESTIGATION REPORT FOR SOLID WASTE MANAGEMENT UNIT 1 AT PGDP, PADUCAH, KENTUCKY, DOE/LX/07-0358&D2/R1/A2	DOE-PPPO	KDWM, USEPA-4	No	ENV 1.A-01307
ARFSOU	01/18/17	FFS-17-0420	CONCURRENCE WITH THE ADDENDUM TO THE SOILS OPERABLE UNIT REMEDIAL INVESTIGATION 2 REPORT FOR SOLID WASTE MANAGEMENT UNIT (SWMU) 229 (DOE/LX/07-2306&D2/A1/R2)	KDWM	DOE-PPPO	No	ENV 1.A-01298
ARFSOU	01/31/17	FFS-17-0428	EPA APPROVAL: TRANSMITTAL OF THE ADDENDUM TO THE SOILS OPERABLE UNIT REMEDIAL INVESTIGATION 2 REPORT FOR SOLID WASTE MANAGEMENT UNIT 229 AT THE PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY, (DOE/LX/07-2306&DZ/A1/R2), TRANSMITTAL DATED DECEMBER 19, 2016 (PPPO-02-3883672-17)	USEPA-4	DOE-PPPO	No	ENV 1.A-01308
ARFSWMU27	06/24/99	DOE/OR/07-1785&D2	WASTE AREA GROUPINGS (WAGS) 9 & 11 SITE EVALUATION REPORT AT THE PADUCAH GASEOUS DIFFUSION PLANT PADUCAH KENTUCKY	DOE-PPPO	USEPA-4, KDEP	No	ENV 1.A-01280
NSDD-PD	11/23/16		WALKTHROUGH CHECKLIST - NORTH-SOUTH DIVERSION DITCH QUARTERLY INSPECTION 11-23-16	FPDP		No	ENV 1.A-01290
NSDD-PD	12/27/16		WALKTHROUGH CHECKLIST - NORTH-SOUTH DIVERSION DITCH WEEKLY INSPECTION-1-6-16 THRU 12-27-16	FPDP		No	ENV 1.A-01291

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6PHASE-PD	11/09/16	PPPO-02-3861412-17	NOTIFICATION OF EXTENSION OF THE INFORMAL DISPUTE PERIOD RELATED TO THE NONCONCURRENCE REGARDING THE MILESTONE MODIFICATION REQUEST FOR SUBMITTAL OF THE REVISED PROPOSED PLAN FOR THE VOLATILE ORGANIC COMPOUND CONTAMINATION AT THE C-400 CLEANING BUILDING	DOE-PPPO	KDEP,USEPA-4	No	ENV 1.A-01263
6PHASE-PD	11/17/16	FFS-17-0381	EPA CONDITIONAL CONCURRENCE: C-400 VAPOR INTRUSION STUDY WORK PLAN TO SUPPORT THE ADDITIONAL ACTIONS FOR THE 2013 CERCLA FIVE-YEAR REVIEW AT PGDP, PADUCAH, KY (DOE/LX/07-2403&D2)	USEPA-4	DOE-PPPO	No	ENV 1.A-01264
6PHASE-PD	11/18/16	FFS-17-0384	APPROVAL OF THE C-400 VAPOR INTRUSION STUDY WORK PLAN TO SUPPORT THE ADDITIONAL ACTIONS FOR THE CERCLA FIVE-YEAR REVIEW AT THE PGDP (DOE/LX/07-2403&D2)	KDWM	DOE-PPPO	No	ENV 1.A-01265
NSDD-PD	12/02/09	PRS-2009-0187	C-400 AREA LAND USE CONTROLS INSPECTION CHECKLIST	PRS		No	ENV 1.A-01240
NSDD-PD	07/09/15			LATA		No	ENV 1.A-01234
NSDD-PD	08/02/16		WALK-THROUGH CHECKLIST - NORTH-SOUTH DIVERSION DITCH (NSDD) QUARTERLY INSPECTION 8/2/16	FPDP		No	ENV 1.A-01227
NSDD-PD	07/07/16		WALK-THROUGH CHECKLIST - NORTH-SOUTH DIVERSION DITCH (NSDD) SEMI-ANNUAL INSPECTION 7/7/16	,		No	ENV 1.A-01231
NSDD-PD	12/28/15		WALK-THROUGH CHECKLIST - NORTH-SOUTH DIVERSION DITCH (NSDD) STORM EVENT INSPECTION 12/28/15			No	ENV 1.A-01235
NSDD-PD	01/06/16		WALK-THROUGH CHECKLIST - NORTH-SOUTH DIVERSION DITCH (NSDD) SEMI-ANNUAL INSPECTION 1/6/16	FPDP,FPDP		No	ENV 1.A-01230
NSDD-PD	01/06/10	PRS-2010-0049	C-400 AREA LAND USE CONTROLS INSPECTION CHECKLIST	PRS		No	ENV 1.A-01241
NSDD-PD	08/29/12	MA-2012-0105	C-400 LAND USE CONTROLS AND IMPLEMENTATION PLAN (LUCIP) MONITORING AND ANNUAL FIELD INSPECTIONS	LATA,LATA		No	ENV 1.A-01244
NSDD-PD	10/29/15		WALK-THROUGH CHECKLIST - NORTH-SOUTH DIVERSION DITCH (NSDD) ANNUAL INSPECTION 10/29/15	FPDP		No	ENV 1.A-01233
NSDD-PD	02/04/16		WALK-THROUGH CHECKLIST - NORTH-SOUTH DIVERSION DITCH (NSDD) QUARTERLY INSPECTION 2/4/16	FPDP,FPDP		No	ENV 1.A-01225
NSDD-PD	03/07/11	LATA-2011-0021	C-400 LAND USE CONTROL IMPLEMENTATION PLAN (LUCIP) IMPLEMENTATION MANAGEMENT/INDEPENDENT ASSESSMENT REPORT	LATA		No	ENV 1.A-01239
NSDD-PD	09/11/14	MBWA-2014-0319	C-400 LAND USE CONTROLS AND IMPLEMENTATION MBWA CHECKLIST FORM	LATA		No	ENV 1.A-01243
NSDD-PD	05/19/16		WALK-THROUGH CHECKLIST - NORTH-SOUTH DIVERSION DITCH (NSDD) QUARTERLY INSPECTION 5/19/16	FPDP,FPDP		No	ENV 1.A-01226
NSDD-PD	07/06/15		WALK-THROUGH CHECKLIST - NORTH-SOUTH DIVERSION DITCH (NSDD) SEMI-ANNUAL INSPECTION 7/6/15	LATA		No	ENV 1.A-01229
NSDD-PD	10/07/15		WALK-THROUGH CHECKLIST - NORTH-SOUTH DIVERSION DITCH (NSDD) ANNUAL INSPECTION 10/7/15	FPDP		No	ENV 1.A-01232
NSDD-PD	04/13/10	PRS-2010-0050	C-400 AREA LAND USE CONTROLS INSPECTION CHECKLIST	PRS		No	ENV 1.A-01242
NSDD-PD	10/27/09	PRS-2009-0163	C-400 AREA LAND USE CONTROLS 3RD QUARTER 2009 MANAGEMENT	PRS		No	ENV 1.A-01238

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Status	Date						
NSDD-PD	01/09/15		WALK-THROUGH CHECKLIST - NORTH-SOUTH DIVERSION DITCH (NSDD) SEMI-ANNUAL INSPECTION 1/9/15			No	ENV 1.A-01228
NSDD-PD	03/31/09	PRS-2009-0050	C-400 AREA LAND USE CONTROLS 1ST QUARTER 2009 MANAGEMENT	PRS,PRS		No	ENV 1.A-01237
NSDD-PD	03/31/09	PRS-2009-0118	C-400 AREA LAND USE CONTROLS 2ND QUARTER 2009 MANAGEMENT	PRS		No	ENV 1.A-01236
NSDD-PD	11/04/15		WALK-THROUGH CHECKLIST - NORTH-SOUTH DIVERSION DITCH (NSDD) QUARTERLY INSPECTION 11-4-15	FPDP		No	ENV 1.A-01224
NSDD-PD	12/28/06		WALK-THROUGH CHECKLIST - NORTH-SOUTH DIVERSION DITCH (NSDD) WEEKLY INSPECTION 11-706 THRU 12-28-06	PRS		No	ENV 1.A-01210
NSDD-PD	12/28/10		WALK-THROUGH CHECKLIST - NORTH-SOUTH DIVERSION DITCH (NSDD) WEEKLY INSPECTION - 1-5-10 THRU 12-28-10	PRS/LATA		No	ENV 1.A-01214
NSDD-PD	11/26/13		WALK-THROUGH CHECKLIST - NORTH-SOUTH DIVERSION DITCH (NSDD) WEEKLY INSPECTION 1-2-13 THRU 11-26-13	LATA		No	ENV 1.A-01217
NSDD-PD	12/29/09		WALK-THROUGH CHECKLIST - NORTH-SOUTH DIVERSION DITCH (NSDD) WEEKLY INSPECTION - 1-6-09 THRU 12-29-09	PRS		No	ENV 1.A-01213
NSDD-PD	10/31/06		WALK-THROUGH CHECKLIST - NORTH-SOUTH DIVERSION DITCH (NSDD) WEEKLY 4-25-06 THRU 10-31-06	PRS		No	ENV 1.A-01209
NSDD-PD	07/06/15		WALK-THROUGH CHECKLIST - NORTH-SOUTH DIVERSION DITCH (NSDD) QUARTERLY INSPECTION 7/6/15	LATA		No	ENV 1.A-01223
NSDD-PD	12/18/12		WALK-THROUGH CHECKLIST - NORTH-SOUTH DIVERSION DITCH (NSDD) WEEKLY INSPECTION 1-3-12 THRU 12-18-12	LATA		No	ENV 1.A-01216
NSDD-PD	04/13/15		WALK-THROUGH CHECKLIST - NORTH-SOUTH DIVERSION DITCH (NSDD) QUARTERLY INSPECTION 4/13/15	LATA		No	ENV 1.A-01222
NSDD-PD	12/27/11		WALK-THROUGH CHECKLIST - NORTH-SOUTH DIVERSION DITCH (NSDD) WEEKLY INSPECTION 1-4-11 THRU 12-27-11	LATA		No	ENV 1.A-01215
NSDD-PD	12/30/14		WALK-THROUGH CHECKLIST - NORTH-SOUTH DIVERSION DITCH (NSDD) WEEKLY INSPECTION 1-6-14 THRU 12-30-14	LATA		No	ENV 1.A-01218
NSDD-PD	12/30/08		WALK-THROUGH CHECKLIST - NORTH-SOUTH DIVERSION DITCH (NSDD) WEEKLY INSPECTION 2-7-08 THRU 12-30-08	PRS		No	ENV 1.A-01212
NSDD-PD	01/19/15		WALK-THROUGH CHECKLIST - NORTH-SOUTH DIVERSION DITCH (NSDD) QUARTERLY INSPECTION 1/19/15	LATA		No	ENV 1.A-01221
NSDD-PD	12/28/15		WALK-THROUGH CHECKLIST - NORTH-SOUTH DIVERSION DITCH (NSDD) WEEKLY INSPECTION 1-5-15 THRU 12-28-15	LATA/FPDP		No	ENV 1.A-01219
NSDD-PD	12/26/07		WALK-THROUGH CHECKLIST - NORTH-SOUTH DIVERSION DITCH (NSDD) WEEKLY INSPECTION 1-2-07 THRU 12-26-07	PRS		No	ENV 1.A-01211
NSDD-PD	07/24/12		WALK-THROUGH CHECKLIST - NORTH-SOUTH DIVERSION DITCH (NSDD) QUARTERLY INSPECTION 7/24/12	LATA		No	ENV 1.A-01220
SWP-PD	09/30/16	PPPO-02-3591028-16B	RESPONSE TO THE U.S. ENVIRONMENTAL PROTECTION AGENCY COMMENTS REGARDING THE ADDENDUM TO THE FINAL CHARACTERIZATION REPORT FOR SOLID WASTE MANAGEMENT UNITS 211-A AND 211-B VOLATILE ORGANIC COMPOUND SOURCES FOR THE SOUTHWEST GROUNDWATER PLUME AT THE PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY, DOE/LX/07-1288&D2/A1/R1	DOE-PPPO	KDEP,USEPA-4	No	ENV 1.A-01205

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### Paducah Documents Added to the Post-Decision Files- Fourth Quarter CY2016

Document Status	Document Date	Document ID	Title	Author Affiliation	To Affiliation	Notes	Name			
GW3-PD	09/30/16	DOE/LX/07-1280&D2/R3, PPPO-02-3797909-16	PHASE I CONTAINED-IN DETERMINATION AND SUPPORTING ANALYTICAL DATA IN ACCORDANCE WITH THE REMEDIAL ACTION WORK PLAN FOR OPTIMIZATION OF THE NORTHEAST PLUME INTERIM REMEDIAL ACTION AT PGDP (DOE/LX/07-1280&D2/R3)	DOE-PPPO	KDEP	No	ENV 1.A-01203			
GW3-PD	09/27/16	PPPO-02-3749305-16	NOTIFICATION OF COMPLETION OF PHASE I FIELD WORK FOR NORTHEAST PLUME OPTIMIZATION PROJECT							
GW3-PD	10/10/16	FFS-16-0367	APPROVAL OF THE PHASE I CONTAINED-IN DETERMINATION AND SUPPORTING ANALYTICAL DATA IN ACCORDANCE WITH THE REMEDIAL ACTION WORK PLAN FOR OPTIMIZATION OF THE NORTHEAST PLUME INTERIM REMEDIAL ACTION (DOE/LX/07-1280&D2/R3)	No	ENV 1.A-01204					
6PHASE-PD	10/11/16	PPPO-02-3808684-17	NOTIFICATION OF INVOCATION OF INFORMAL DISPUTE RESOLUTION CONCERNING RECEIPT OF NONCONCURRENCE REGARDING THE MILESTONE MODIFICATION REQUEST FOR SUBMITTAL OF THE REVISED PROPOSED PLAN FOR THE VOLATILE ORGANIC COMPOUND CONTAMINATION AT THE C-400 CLEANING BUILDING	DOE-PPPO	KDEP,USEPA-4	No	ENV 1.A-01201			
6PHASE-PD	09/26/16	PPPO-02-3751665-16, FFS-16-0361	EPA NON-CONCURRENCE: MILESTONE MODIFICATION REQUEST FOR SUBMITTAL FOR THE D1 REVISED PROPOSED PLAN FOR THE VOLATILE ORGANIC COMPOUND CONTAMINATION AT THE C-400 CLEANING BUILDING (PPPO-02-3751665-16) DATED SEPTEMBER 6, 2016.		DOE-PPPO	No	ENV 1.A-01198			
6PHASE-PD	09/29/16	PPPO-02-3796588-16	EXTENSION FOR SUBMITTAL OF THE C-400 VAPOR INTRUSION STUDY WORK PLAN TO SUPPORT THE ADDITIONAL ACTIONS FOR THE COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT FIVE YEAR REVIEW AT PGDP, DOE/LX/07-2403&D2	DOE-PPPO	KDEP,USEPA-4	No	ENV 1.A-01200			
6PHASE-PD	09/27/16	FFS-16-0363	DENIAL OF THE MILESTONE MODIFICATION REQUEST FOR SUBMITTAL OF THE REVISED PROPOSED PLAN FOR THE VOLATILE ORGANIC COMPOUND CONTAMINATION AT THE C-400 CLEANING BUILDING (DOE/LX/07-2407&D1)	No	ENV 1.A-01199					
6PHASE-PD				FPDP		No	ENV 1.A-01207			
NSDD-PD	10/27/16		INSPECTION WALKTHROUGH CHECKLIST - NORTH-SOUTH DIVERSION DITCH 10/27/16	FPDP,FPDP		No	ENV 1.A-01208			

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### Paducah Documents Added to the Post-Decision Files- First Quarter CY2017

Document Status	<b>Document Date</b>	Document ID	Title	Author Affiliation	To Affiliation	Notes	Name
6PHASE-PD	06/15/11	LATA-2011-0066	C-400 AREA LAND USE CONTROLS INSPECTION CHECKLIST6-15-11	FPDP		No	ENV 1.A-01292
6PHASE-PD	12/07/14	MA-2014-0119	C-400 LUCIP/SWMU 1 & 211 A/B LUC MANAGEMENT ASSESSMENT REPORT	FPDP		No	ENV 1.A-01293
6PHASE-PD	10/20/16	DOE/LX/07-2403&D2, PPPO-02-3695333-17	TRANSMITTAL OF THE C-400 VAPOR INTRUSION STUDY WORK PLAN TO SUPPORT THE ADDITIONAL ACTIONS FOR THE COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT FIVE-YEAR REVIEW AT PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KY (DOE/LX/07-2403&D2)	DOE-PPPO	KDWM, USEPA-4	No	ENV 1.A-01309
6PHASE-PD	11/30/16	PPPO-02-3894945-17	WRITTEN STATEMENT INITIATING FORMAL DISPUTE RESOLUTION ON THE NONCONCURRENCE REGARDING THE MILESTONE MODIFICATION REQUEST FOR SUBMITTAL OF THE REVISED PROPOSED PLAN FOR THE VOLATILE ORGANIC COMPOUND CONTAMINATION AT THE C-400 CLEANING BUILDING	DOE-PPPO	KDWM, USEPA-4	No	ENV 1.A-01281
6PHASE-PD	12/22/16	FFS-17-0409	MINOR MODIFICATION FOR THE REVISED PROPOSED PLAN FOR VOLATILE ORGANIC COMPOUND CONTAMINATION AT THE C-400 CLEANING BUILDING AT PGDP DOE/LX/07-2407&D1	DOE-PPPO, KDWM, USEPA-4		No	ENV 1.A-01294
6PHASE-PD	01/04/17	PPPO-02-3962368-17	PADUCAH FEDERAL FACILITY AGREEMENT-MINOR MOD TO EXTEND THE TIME PERIOD FOR CONSULTATION OF THE DISPUTE RESOLUTION COMMITTEE REGARDING THE NONCONCURRENCE OF THE MILESTONE MOD REQUEST FOR SUBMITTAL OF THE REVISED PROPOSED PLAN FOR VOLATILE ORGANIC COMPOUND CONTAMINATION AT C-400 BUILDING AT PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KY, DOE/LX/07-2407&D1	DOE-PPPO	KDWM, USEPA-4	No	ENV 1.A-01295
6PHASE-PD	01/18/17	PPPO-02-3988608-17	NOTIFICATION OF EXTENSION OF THE INFORMAL DISPUTE RESOLUTION CONCERNING RECEIPT OF CONDITIONAL CONCURRENCE RELATED TO THE C-400 VAPOR INTRUSION STUDY WORK PLAN TO SUPPORT THE ADDITIONAL ACTIONS FOR THE COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT FIVE-YEAR REVIEW AT PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KY, DOE/LX/07-2403&D2	DOE-PPPO	KDWM, USEPA-4	No	ENV 1.A-01296
6PHASE-PD	01/31/17	FFS-17-0430	MINOR MOD FOR THE REVISED PROPOSED PLAN FOR VOLATILE ORGANIC COMPOUND CONTAMINATION AT THE C-400 CLEANING BUILDING AT PGDP, DOE/LX/07-2407&D1	/	ADMINISTRATIV E RECORD	No	ENV 1.A-01310
6PHASE-PD	02/02/17	PPPO-02-4027022-17	MINOR MOD TO EXTEND THE TIME PERIOD FOR CONSULTATION OF THE DISPUTE RESOLUTION COMMITTEE REGARDING THE NONCONCURRENCE OF THE MILESTONE MOD REQUEST FOR SUBMITTAL OF THE REVISED PROPOSED PLAN FOR VOLATILE ORGANIC COMPOUND CONTAMINATION AT THE C-400 CLEANING BUILDING AT PGDP, DOE/LX/07-2407&D1	DOE-PPPO	KDWM, USEPA-4	No	ENV 1.A-01311

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### Paducah Documents Added to the Post-Decision Files- First Quarter CY2017

Document Status	Document Date	Document ID	Title	Author Affiliation	To Affiliation	Notes	Name	
6PHASE-PD	02/08/17	PPPO-02-4036541-17	NOTIFICATION OF EXTENSION OF THE INFORMAL DISPUTE RESOLUTION CONCERNING RECEIPT OF CONDITIONAL CONCURRENCE RELATED TO THE C-400 VAPOR INTRUSION STUDY WORK PLAN TO SUPPORT THE ADDITIONAL ACTIONS FOR THE FIVE-YEAR REVIEW AT PGDP, PADUCAH, KENTUCKY, DOE/LX/07-2403&D2	DOE-PPPO	KDWM, USEPA-4	No	ENV 1.A-01312	
6PHASE-PD	02/09/17	FFS-17-0440	MINOR MODIFICATION FOR THE REVISED PROPOSED PLAN FOR VOLATILE ORGANIC COMPOUND CONTAMINATION AT THE C-400 CLEANING BUILDING AT PGDP DOE/LX/07-2407&D1	DOE-PPPO, KDWM, USEPA-4	ADMINISTRATIV E RECORD	No	ENV 1.A-01313	
6PHASE-PD	02/17/17	PPPO-02-4048502-17	PADUCAH FFA-MINOR MOD TO EXTEND THE TIME PERIOD FOR CONSULTATION OF THE DISPUTE RESOLUTION COMMITTEE REGARDING THE NONCONCURRENCE OF THE MILESTONE MOD REQUEST FOR SUBMITTAL OF THE REVISED PROPOSED PLAN FOR VOLATILE ORGANIC COMPOUND CONTAMINATION AT THE C-400 CLEANING BUILDING AT PGDP, DOE/LX/07-2407&D1	KDWM, USEPA-4	No	ENV 1.A-01314		
SWP-PD	11/29/16	FFS-17-0389	EPA COMMENTS: REMEDIAL ACTION COMPLETION REPORT FOR IN SITU SOURCE TREATMENT BY DEEP SOILS MIXING OF THE SOUTHWEST GROUNDWATER PLUME VOLATILE ORGANIC SOURCE AT THE C-747-C OIL LANDFARM (SOLID WASTE MANAGEMENT UNIT 1) AT THE PADUCAH GASEOUS DIFFUSION PLANT (DOE/LX/07-2405&D1), PRIMARY DOCUMENT, TRANSMITTAL DATED SEPTEMBER 1, 2016 (PPPO-02-3567814-16A); US EPA ID KY8890008982	EPA COMMENTS: REMEDIAL ACTION COMPLETION REPORT FOR IN SITU SOURCE TREATMENT BY DEEP SOILS MIXING OF THE SOUTHWEST GROUNDWATER PLUME VOLATILE ORGANIC SOURCE AT THE C-747-C OIL LANDFARM (SOLID WASTE MANAGEMENT UNIT 1) AT THE PADUCAH GASEOUS DIFFUSION PLANT (DOE/LX/07-2405&D1), PRIMARY DOCUMENT, TRANSMITTAL DATED SEPTEMBER 1, 2016 (PPPO-02-3567814-				
SWP-PD	11/30/16	FFS-17-0391	SUBMITTAL OF COMMENTS TO THE INTERIM REMEDIAL ACTION COMPLETION REPORT FOR IN SITU SOURCE TREATMENT BY DEEP SOIL MIXING OF THE SOUTHWEST GROUNDWATER PLUME VOLATILE ORGANIC SOURCE AT THE C-747-C OIL LANDFARM (SOLID WASTE MANAGEMENT UNIT 1) (DOE/LX/07-2405&D1)	KDWM	DOE-PPPO	No	ENV 1.A-01283	
SWP-PD	12/05/16	PPPO-02-3796527-17	WASTE DISPOSITION DETERMINATION AT SOLID WASTE MANAGEMENT UNIT 1, PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY	DOE-PPPO	ADMIN RECORD	No	ENV 1.A-01284	
SWP-PD	12/08/16	FFS-17-0395	CONTAINED-IN DETERMINATION AND SUPPORTING ANALYTICAL DATA IN ACCORDANCE WITH THE REMEDIAL ACTION WORK PLAN FOR IN SITU SOURCE TREATMENT BY DEEP SOIL MIXING OF THE SOUTHWEST PLUME VOLATILE ORGANIC COMPOUND SOURCE AT THE C-747-C OIL LANDFARM (SOLID WASTE MANAGEMENT UNIT 1) (DOE/LX/07-1287&D2)	KDWM	DOE-PPPO	No	ENV 1.A-01285	
SWP-PD	02/14/17	FFS-17-0444	EPA APPROVAL: REMEDIAL ACTION COMPLETION REPORT FOR IN SITU SOURCE TREATMENT BY DEEP SOIL MIXING OF THE SOUTHWEST GROUNDWATER PLUME VOLATILE ORGANIC SOURCE AT THE C-747-C OIL LANDFARM (SOLID WASTE MANAGEMENT UNIT 1) AT THE PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY, (DOE/LX/07-2405&D2), TRANSMITTAL DATED JANUARY 27, 2017 (PPPO-02-3905682-17)	USEPA-4	DOE-PPPO	No	ENV 1.A-01305	

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### Paducah Documents Added to the Post-Decision Files- First Quarter CY2017

Document	Document Date	Document ID	Title	<b>Author Affiliation</b>	To Affiliation	Notes	Name
Status							
SWP-PD	02/15/17	FFS-17-0445	APPROVAL OF THE INTERIM REMEDIAL ACTION COMPLETION REPORT FOR IN SITU SOURCE TREATMENT BY DEEP SOIL MIXING OF THE SOUTHWEST GROUNDWATER PLUME VOLATILE ORGANIC SOURCE AT THE C-747-C OIL LANDFARM (SOLID WASTE MANAGEMENT UNIT 1) (DOE/LX/07-2405&D2)	KDWM	DOE-PPPO	No	ENV 1.A-01306

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# APPENDIX E C-400 PROJECT GROUNDWATER MONITORING WELLS DATA



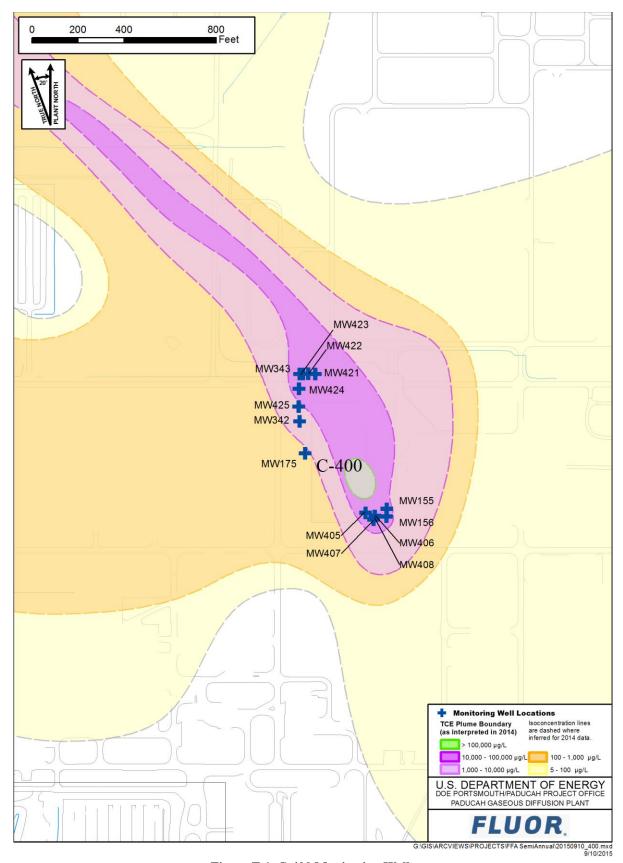


Figure E.1. C-400 Monitoring Wells

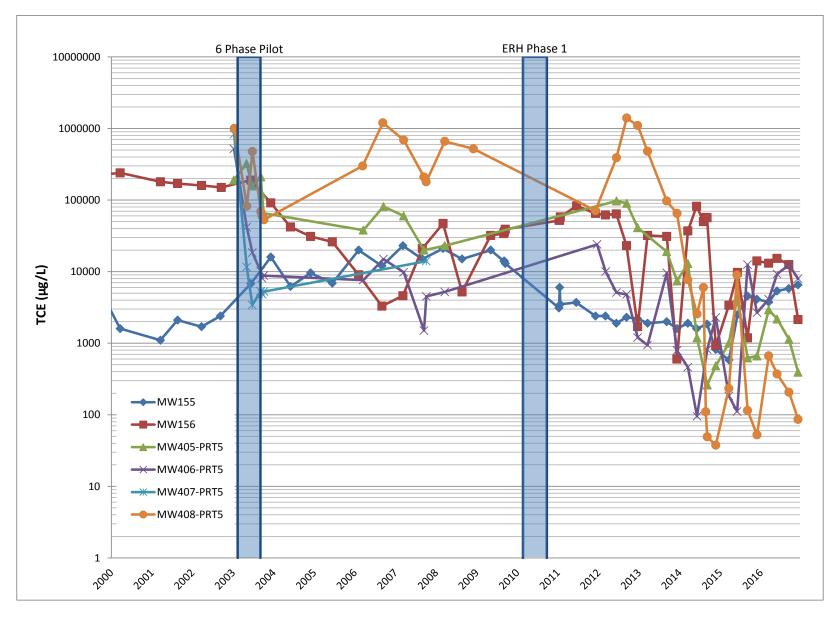


Figure E.2. C-400 TCE Trends in MWs in Source Areas

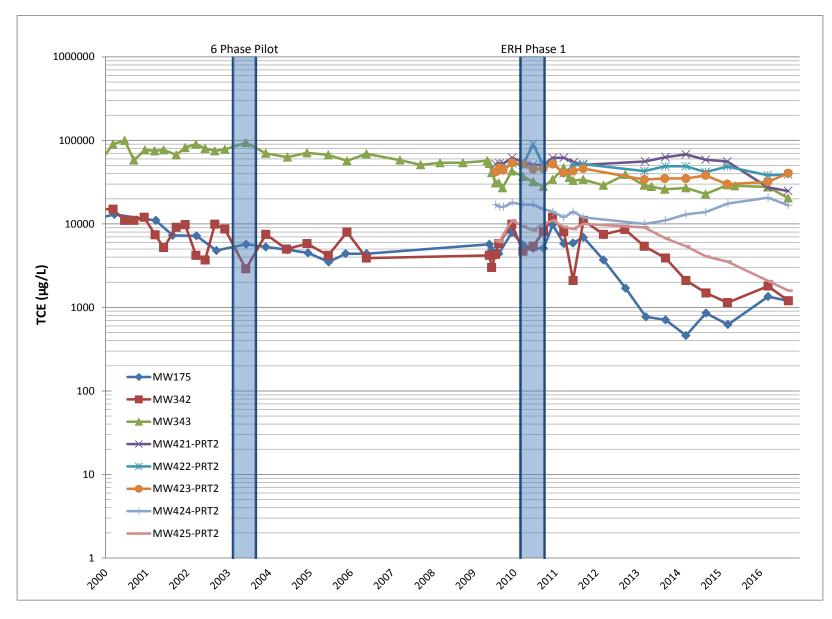


Figure E.3. C-400 TCE Trends in MWs Downgradient of Source Areas

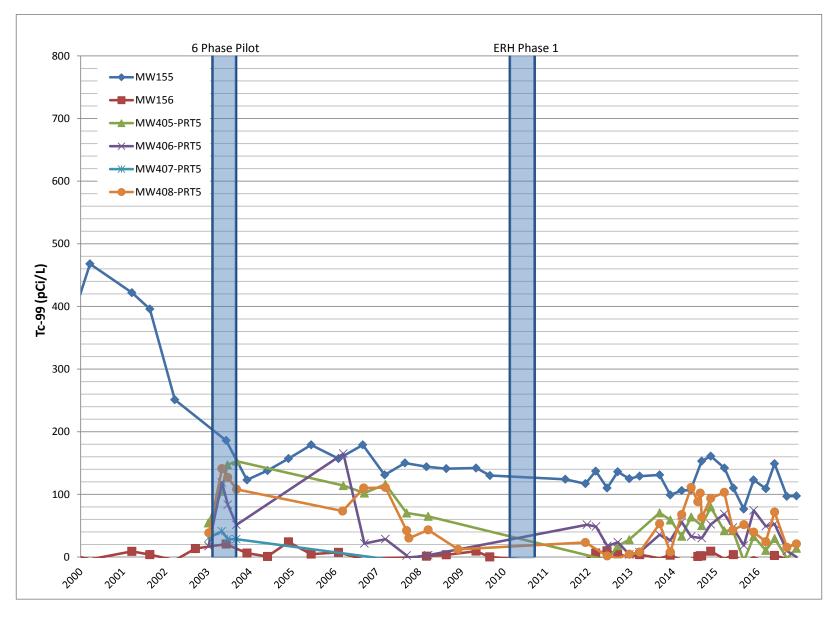


Figure E.4. C-400 Tc-99 Trends in MWs in Source Areas

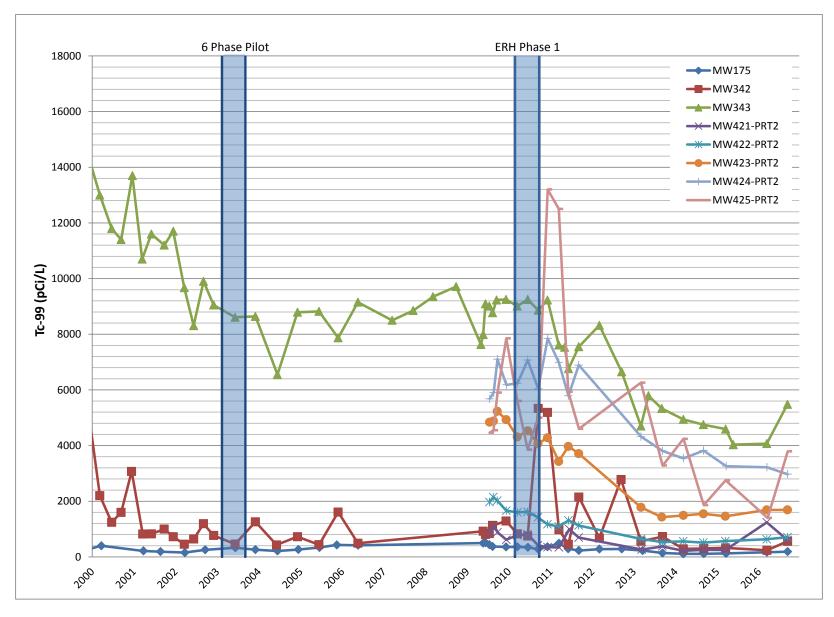


Figure E.5. C-400 Tc-99 Trends in MWs Downgradient of Source Areas

#### **Water Quality Records for**

MW155

Sample Date Range: 6/16/2009 - 12/13/2016

		(	Organic Lal Analysis F				gical Labor alysis Resul		Metal				chlorinate Analysis I		yl			
Sample Date	TCE µg/L	1,1- DCE µg/L	1,1-DCA μg/L	1,2-DCA μg/L	trans- 1,2-DCE μg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Uranium mg/L	PCB 1016 µg/L	PCB 1221 µg/L	PCB 1232 µg/L	PCB 1242 µg/L	PCB 1248 μg/L	PCB 1254 µg/L	PCB 1260 µg/L	PCB 1268 µg/L	Lab Sample ID
9/10/2009	14000	< 1000			< 1000													C09254002003
9/10/2009	14000	< 200	< 200	< 200	< 200	< 1.12	93.2	130	< .005									C09253025001
9/15/2009	14000	< 500			< 500													C09258030001
9/22/2009	13000	< 500			< 500													C09265022002
1/19/2011	3100	< 25			< 25					< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C11019028004
1/25/2011	6000	< 250			< 50													C11026001005
1/25/2011	3800	< 250			< 50													C11026001006
1/31/2011	3500	< 250			< 50													C11031038005
₩ 6/23/2011	3700	< 100	< 20	< 20	< 20	7.65	130	124	< .005									C11174017005
12/14/2011	2400	< 500			< 100	< 3.61	111	117	< .005									C11348018003
3/13/2012	2400	< 50			< 50	< 2.35	89.7	137	< .005									C12073014001
6/19/2012	1900	< 250			< 50	6.46	121	110	< .005									C12171014003
9/19/2012	2300	< 20			< 20	< 3.19	131	136	< .005									C12263022001
12/28/2012	2200	< 20			< 20			125										C12363012001
12/28/2012	2200	< 20			< 20			120										C12363012002
3/27/2013	1900	< 20			< 20			129										C13086008001
9/16/2013	2000	< 100			< 20			131										C13259034001
12/17/2013	1600	< 20			< 20			98.6										C13351094006
12/17/2013	1600	< 20			< 20			99.1										C13351094007
3/26/2014	1900	< 20			< 20			106										C14085027001
6/12/2014	1590	< 25			< 25			107										350627004
9/15/2014	1850	.44			.31			153										356931002

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NOTE: This report does not include data that has been rejected during data assessment and/or data validation.

Wednesday, March 29, 2017

Prepared by:

FLUOR.

#### **Water Quality Records for**

MW155

Sample Date Range: 6/16/2009 - 12/13/2016

			(	Organic Lab Analysis R				gical Laboi llysis Resul		Metal				hlorinateo Analysis R	d bipheny esults	l			
	Sample Date	TCE μg/L	1,1- DCE µg/L	1,1-DCA μg/L	1,2-DCA μg/L	trans- 1,2-DCE μg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Uranium mg/L	PCB 1016 µg/L	PCB 1221 μg/L	PCB 1232 µg/L	PCB 1242 µg/L	PCB 1248 µg/L	PCB 1254 µg/L	PCB 1260 µg/L	PCB 1268 µg/L	Lab Sample ID
	12/2/2014	817	< 1			< 1			160										362435001
	12/2/2014	810	< 1			< 1			161										362435002
	3/31/2015	583	< 10			< 10			142										369938002
	6/16/2015	2500	< 50			< 50			110										375398002
	9/14/2015	4560	< 100			< 100			76.5										381234002
	12/8/2015	4110	< 50			< 50			120										387183002
	12/8/2015	4080	< 50			< 50			123										387183003
	3/23/2016	3760	< 50			< 50			109										393849001
E-9	6/6/2016	5370	< 100			< 100			149										398881002
_	9/21/2016	5800	< 100			< 100			96.7										406611002
1	2/13/2016	6320	< 100			< 100			97.5										412748002
1	2/13/2016	6520	< 100			< 100			88										412748003

Prepared by: **FLUOR**.

#### **Water Quality Records for**

#### MW156

Sample Date Range: 6/16/2009 - 12/13/2016

		(	Organic Lab Analysis R			Radiole An	ogical Labo alysis Resu	oratory lts	Metal				chlorinate Analysis I		yl			
Sample Date	TCE µg/L	1,1- DCE µg/L	1,1-DCA μg/L	1,2-DCA μg/L	trans- 1,2-DCE μg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Uranium mg/L	PCB 1016 µg/L	PCB 1221 µg/L	PCB 1232 µg/L	PCB 1242 µg/L	PCB 1248 μg/L	PCB 1254 μg/L	PCB 1260 μg/L	PCB 1268 μg/L	Lab Sample ID
9/8/2009	34000	< 2000	< 2000	< 2000	< 2000	< 3.89	4.01	< .0531	< .005									C09252004001
9/8/2009	34000	< 5000			< 5000													C09252006001
9/15/2009	36000	< 5000			< 5000													C09258030002
9/22/2009	39000	< 5000			< 5000													C09265022001
1/20/2011	52000	< 1000			< 1000					< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C11020026003
1/25/2011	52000	< 2500			< 500													C11026003001
1/31/2011	58000	< 2500			< 500													C11031038006
6/27/2011	83000	< 5000	< 1000	< 1000	< 1000	< 3.86	5.6	< -8.94	< .005									C11178014001
12/14/2011	65000	< 5000			< 1000	< 2.55	7.54	< -5.13	< .005									C11348018004
3/13/2012	62000	< 2000			< 2000	6.83	< 4.93	< 6.21	< .005									C12073014002
6/19/2012	64000	< 5000			< 1000	< 6.32	< 6.31	< 9.77	< .005									C12171014004
9/19/2012	23000	< 500			< 500	< 3.24	< 5.54	< 5.12	< .005									C12263022002
12/28/2012	1700	< 500			< 500			<798										C12363012003
3/27/2013	32000	< 1000			< 1000			< 3.7										C13086008002
9/16/2013	31000	< 2500			< 500			< -2.19										C13259034002
12/17/2013	600	< 500			< 500			< 2.71										C13351094008
3/26/2014	37000	< 500			< 500			< -4.56										C14085027002
6/12/2014	81800	< 1000			< 1000			< -3.61										350627005
8/13/2014	50000	< 20			< 20			< .723										160-7947-6
9/3/2014	57000	< 40			< 40			< 1.81										160-8215-12
9/15/2014	56500	15.2			3.67			< 1.62										356931003
12/2/2014	925	< 500			8.79			< 9.1										362435003

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Wednesday, March 29, 2017

Prepared by:

FLUOR.

#### **Water Quality Records for**

#### MW156

Sample Date Range: 6/16/2009 - 12/13/2016

		(	Organic Lab Analysis R				gical Labo llysis Resul	•	Metal				hlorinate analysis R	d bipheny esults	l			
Sample Date	TCE µg/L	1,1- DCE μg/L	1,1-DCA μg/L	1,2-DCA μg/L	trans- 1,2-DCE μg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Uranium mg/L	PCB 1016 µg/L	PCB 1221 µg/L	PCB 1232 μg/L	PCB 1242 µg/L	PCB 1248 µg/L	PCB 1254 µg/L	PCB 1260 µg/L	PCB 1268 μg/L	Lab Sample ID
3/31/201	5 3390	< 500			< 500			< -3.32										369938003
6/16/201	5 9720	< 500			< 500			< 3.72										375398003
6/16/201	5 8270	< 500			< 500			< 1.43										375398004
9/14/201	5 1190	< 50			< 50			< -9.6										381234003
12/8/201	5 14100	< 500			< 500			<175										387183001
3/23/201	6 13100	170			< 50			< -8.5										393849002
6/6/201	6 15300	< 500			< 500			< 2.38										398881003
6/6/201	6 14600	< 500			< 500			< 1.33										398881001
9/21/201	6 12500	< 500			< 500			< -2.91										406611003
12/13/201	6 2140	< 100			< 100			< -7.97										412748001

Prepared by: **FLUOR**.

#### **Water Quality Records for**

#### MW175

Sample Date Range: 6/16/2009 - 12/13/2016

		(	Organic Labo Analysis Ro				ogical Labor alysis Resul		Metal				chlorinate Analysis	ed biphen Results	yl			
Sample Date	TCE µg/L	1,1- DCE µg/L	1,1-DCA µg/L	1,2-DCA μg/L	trans- 1,2-DCE μg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Uranium mg/L	PCB 1016 µg/L	PCB 1221 μg/L	PCB 1232 μg/L	PCB 1242 μg/L	PCB 1248 µg/L	PCB 1254 µg/L	PCB 1260 µg/L	PCB 1268 µg/L	Lab Sample ID
6/16/2009	9 4900	< 50			< 50	11.7	447	508	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C09168007001
7/20/2009	9 4400	< 250			< 50	< 3.65	415	438	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09201015001
8/18/2009	9 4400	< 50			< 50	9.43	416	375	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C09230023001
12/14/2009	7900	< 250			< 50	<722	363	357	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C09348024001
3/24/2010	5600	< 50			< 50	< 1.61	211	360	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C10083023001
6/23/2010	4800	< 250			< 50	< 4.95	292	343	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C10174017001
6/23/2010	5100	< 250			< 50	12.9	301	315	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C10174017002
9/23/2010	5100	< 250			< 50	7.46	226	275	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C10266013001
12/13/2010	9800	< 250			< 50	26.6	274	363	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C10347023005
3/23/2011	5800	< 100			< 100	24.3	366	488	< .005	< 167	< 176	< 137	< 98	< 118	< 68.6	6730	< 88.2	C11082024002
6/13/201	l									< .4	< .4	< .4	< .4	< .4	< .4	< .4	< .4	1106040-01
6/13/201	1									< .4	< .4	< .4	< .4	< .4	< .4	< .4	< .4	1106040-02
6/13/201	5900	< 250			< 50	9.43	190	267	< .005									C11165011003
6/13/201	5900	< 250			< 50	13.5	201	292	< .005									C11165011004
9/14/2013	6900	< 250			< 50	< -1.01	218	228	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C11257087005
3/12/2012	2 3700	< 50			< 50	< 5.16	156	279	< .005									C12072031011
9/25/2012	2 1700	< 20			< 20	< 3.18	245	282	< .005									C12269015003
9/25/2012	2 1700	< 20			< 20	< 3.25	245	284	< .005									C12269015004
3/27/2013	3 770	< 10			< 10			226										C13086008003
9/18/2013	3 710	< 100			< 20			139										C13261023005
3/20/2014	460	< 5			< 5			110										C14079018001
3/20/2014	4 460	< 5			< 5			102										C14079018002

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Prepared by:

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#### Water Quality Records for

MW175

Sample Date Range: 6/16/2009 - 12/13/2016

		(	Organic Lab Analysis R	•			gical Labor llysis Resul		Metal				hlorinateo nalysis R	l bipheny esults	l			
Sample Date	TCE μg/L	1,1- DCE µg/L	1,1-DCA μg/L	1,2-DCA μg/L	trans- 1,2-DCE µg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Uranium mg/L	PCB 1016 µg/L	PCB 1221 µg/L	PCB 1232 µg/L	PCB 1242 µg/L	PCB 1248 µg/L	PCB 1254 µg/L	PCB 1260 µg/L	PCB 1268 μg/L	Lab Sample ID
9/15/2014	855	< 10			< 10			111										356931004
3/30/2015	575	< 10			5.2			98.2										369938004
3/30/2015	623	< 10			6.1			124										369938005
3/23/2016	1350	< 20			< 20			160										393849003
3/23/2016	1330	< 20			< 20			167										393849004
9/21/2016	1200	< 20			< 20			189										406611004

### C-400 Monitoring **Water Quality Records for**

Sample Date Range: 6/16/2009 - 12/13/2016

M'	W	34	2
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		(	Organic Lab Analysis R	•			gical Labor alysis Resul		Metal			•	chlorinate Analysis l	-	yl			
Sample Date	TCE µg/L	1,1- DCE µg/L	1,1-DCA μg/L	1,2-DCA μg/L	trans- 1,2-DCE μg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Uranium mg/L	PCB 1016 µg/L	PCB 1221 μg/L	PCB 1232 µg/L	PCB 1242 μg/L	PCB 1248 μg/L	PCB 1254 µg/L	PCB 1260 µg/L	PCB 1268 µg/L	Lab Sample ID
6/16/2009	3000	< 50			< 50	16.7	616	805	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09168006001
7/20/2009	4300	< 250			< 50	<785	510	837	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09201016001
8/18/2009	5800	< 50			< 50	16	985	1130	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C09230024001
12/14/2009	9500	< 250			< 50	< -6.46	978	1290	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C09348024002
12/14/2009	9900	< 250			< 50	< .633	926	1280	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09348024003
3/23/2010	4700	< 50			< 50	10.3	386	827	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C10082025007
6/22/2010	5400	< 250			< 50	11.4	642	750	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C10173039001
9/23/2010	7600	< 250			< 50	< -52	3690	5330	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C10266013002
9/23/2010	8100	< 250			< 50	<-57.1	3720	4720	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C10266013003
12/13/2010	12000	< 200			< 200	41	4120	5000	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C10347023002
12/13/2010	12000	< 200			< 200	56	3960	5190	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C10347023003
3/23/2011	8100	< 100			< 100	26.8	835	980	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .32	< .09	C11082024001
6/14/2011										< .4	< .4	< .4	< .4	< .4	< .4	< .4	< .4	1106059-01
6/14/2011	2100	< 500			< 100	28.8	457	456	< .005									C11165038001
9/14/2011	11000	< 250			< 50	< -9.47	1800	2150	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C11257087003
9/14/2011	10000	< 250			< 50	< -4.68	1750	1930	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C11257087004
3/12/2012	7500	< 100			< 100	< 2.56	420	678	< .005									C12072031010
9/19/2012	8600	< 100			< 100	10.4	2820	2780	< .005									C12263022003
3/12/2013	5400	< 100			< 100			564										C13072002001
9/18/2013	3900	< 500			< 100			728										C13261023004
3/20/2014	2100	< 20			< 20			287										C14079016010
9/15/2014	1490	5.8			.6			303										356931001

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Wednesday, March 29, 2017 NOTE: This report does not include data that has been rejected during data assessment and/or data validation. Prepared by:



#### Water Quality Records for

#### MW342

Sample Date Range: 6/16/2009 - 12/13/2016

		(	Organic Lab Analysis R	•			gical Labor alysis Resul		Metal				hlorinated Analysis R		I			
Sample Date	TCE µg/L	1,1- DCE µg/L	1,1-DCA μg/L	1,2-DCA μg/L	trans- 1,2-DCE µg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Uranium mg/L	PCB 1016 µg/L	PCB 1221 µg/L	PCB 1232 µg/L	PCB 1242 µg/L	PCB 1248 µg/L	PCB 1254 µg/L	PCB 1260 µg/L	PCB 1268 µg/L	Lab Sample ID
3/26/2015	1140	5.96			.66			322										369707001
3/23/2016				< 25			237										393849005	
9/21/2016	1200	< 25 < 25 < 25 < 25						562										406611001

### C-400 Monitoring **Water Quality Records for**

Sample Date Range: 6/16/2009 - 12/13/2016

MW343

		•	Organic Lab Analysis F				ogical Laboralysis Resul	•	Metal				chlorinate Analysis I	-	yl			
Sample Date	TCE µg/L	1,1- DCE µg/L	1,1-DCA μg/L	1,2-DCA μg/L	trans- 1,2-DCE μg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Uranium mg/L	PCB 1016 µg/L	PCB 1221 μg/L	PCB 1232 µg/L	PCB 1242 μg/L	PCB 1248 µg/L	PCB 1254 µg/L	PCB 1260 µg/L	PCB 1268 μg/L	Lab Sample ID
6/16/200	9 41000	< 500			< 500	82.1	6710	9090	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09168007002
7/20/200	9 31000	< 2500			< 500	< 4.65	6730	9010	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C09201066001
8/18/200	9 31000	< 400			< 400	19.7	7420	8770	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C09230023002
9/21/200	9 27000	< 1000	< 200	< 1000	< 200	< -119	6980	9230	< .005									C09265006005
12/14/200	9 43000	< 2000			< 400	< -176	6970	9250	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09348027001
3/22/20	0 37000	< 400	< 250	< 250	< 250	< -90.6	5370	8960	< .005									C10082002001
3/22/20	0 37000	< 250			< 250	37.4	6850	< 8920	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C10082005001
3/22/20	0 37000	< 250			< 250	92.1	5660	9010	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C10082005002
E-16 6/22/201	0 32000	< 2500			< 500	22	6440	9250	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C10173027001
9/22/20:	0 28000	< 2500			< 500	< -114	6340	8860	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C10265020004
12/13/20	0 34000	< 2500			< 500	<-77.3	6970	9230	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C10347023006
3/22/20	1 39000	< 400			< 400	134	5310	7600	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .53	< .09	C11081023003
3/22/20	1 47000	< 400			< 400	46.5	6570	7610	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .13	< .09	C11081023004
5/12/20	1 36000	< 2500	< 500	< 500	< 500	150	5510	7530	< .005									C11132027003
6/15/20	1									< .4	< .4	< .4	< .4	< .4	< .4	< .4	< .4	1106059-02
6/15/20	1 33000	< 2000			< 400	< -4.39	7110	6760	< .005									C11166026001
9/13/20	1 34000	< 2000			< 400	< -144	6990	7550	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C11256012004
3/12/20	2 29000	< 400			< 400	< -56.9	4670	7030	< .005									C12072031007
3/12/20	2 28000	< 400			< 400	< -85.1	4680	8320	< .005									C12072031006
9/24/20	2 39000	< 500			< 500	< -23.7	4970	6650	< .005									C12268086002
3/12/20	3 29000	< 400			< 400			4700										C13072002002
5/17/20	3 28000	< 1000	< 200	< 200	< 200			5790										C13137019001

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#### **Water Quality Records for**

MW343

Sample Date Range: 6/16/2009 - 12/13/2016

		(	Organic Lab Analysis R				gical Laboi llysis Resul		Metal				hlorinateo nalysis R	d bipheny Sesults	1			
Sample Date	TCE μg/L	1,1- DCE µg/L	1,1-DCA μg/L	1,2-DCA μg/L	trans- 1,2-DCE µg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Uranium mg/L	PCB 1016 µg/L	PCB 1221 μg/L	PCB 1232 µg/L	PCB 1242 µg/L	PCB 1248 µg/L	PCB 1254 µg/L	PCB 1260 µg/L	PCB 1268 µg/L	Lab Sample ID
9/12/2013	25000	< 1000			< 200			5330										C13255009004
9/12/2013	26000	< 1000			< 200			5150										C13255009005
3/20/2014	27000	< 200			< 200			4940										C14079016011
9/12/2014	22000	< 50			< 50			4750										356931005
9/12/2014	22800	< 50			< 50			4710										356931006
3/26/2015	29300	9.73			2.09			4590										369707002
6/1/2015	28600	< 500	< 500	< 500	< 500			4030										374452006
3/21/2016	27700	.84			10.5			4070										393717001
9/19/2016	20400	< 250			< 250			5480										406359010

Prepared by: **FLUOR**.

### **Water Quality Records for** MW405

Sample Date Range: 6/16/2009 - 12/13/2016

		(	Organic Lat Analysis F	•			ogical Labo alysis Resul	•	Metal			•	hlorinateo Analysis R	d bipheny tesults	1			
Sample Date	TCE µg/L	1,1- DCE µg/L	1,1-DCA μg/L	1,2-DCA μg/L	trans- 1,2-DCE μg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Uranium mg/L	PCB 1016 µg/L	PCB 1221 µg/L	PCB 1232 µg/L	PCB 1242 µg/L	PCB 1248 µg/L	PCB 1254 µg/L	PCB 1260 μg/L	PCB 1268 µg/L	Lab Sample ID
6/23/2011	52000	< 2500	< 500	< 500	< 500	8.66	22.7	< 16.1	.014									C11174017004



### Water Quality Records for

#### **MW405-PRT5**

Sample Date Range: 6/16/2009 - 12/13/2016

		(	Organic Lab Analysis R				gical Labo alysis Resul		Metal				hlorinateo Analysis R	l bipheny esults	l			
Sample Date	TCE µg/L	1,1- DCE µg/L	1,1-DCA μg/L	1,2-DCA μg/L	trans- 1,2-DCE μg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Uranium mg/L	PCB 1016 µg/L	PCB 1221 µg/L	PCB 1232 µg/L	PCB 1242 µg/L	PCB 1248 µg/L	PCB 1254 μg/L	PCB 1260 μg/L	PCB 1268 μg/L	Lab Sample ID
6/20/2012	97000	< 5000			< 1000	< 4.86	15.7	< -4.94	< .005									C12172011001
9/20/2012	2 90000	< 1000			< 1000	< .778	14.6	< 17.9	< .005									C12264031001
12/28/2012	2 41000	< 1000			< 1000			27.7										C12363012004
9/16/2013	3 19000	< 1000			< 200			70.4										C13259034003
12/18/2013	3 7400	< 100			< 100			59.1										C13353003001
3/26/2014	13000	< 100			< 100			33.1										C14085027003
6/16/2014	1190	< 20			< 20			63.8										350866002
9/16/2014	4 261	2.45			< 5			50										356931007
12/2/2014	481	< 10			< 10			79.8										362435004
3/30/2015	5 1000	< 20			< 20			41.8										369938006
6/12/2015	5 4010	< 50			< 50			41.9										375132002
6/12/2015	5 4270	< 100	< 100	< 100	< 100			34.4										375135001
9/15/2015	5 622	< 10			< 10			< -6.41										381234004
12/9/2015	5 663	< 10			< 10			32.5										387183004
3/23/2016	5 2930	< 10			< 10			< 10.5										393849006
6/7/2010	5 2180	< 50			< 50			29.5										398881004
9/22/2016	5 1130	< 20			< 20			< -1.98										406611005
12/13/2016	5 393	< 5			< 5			< 13.9										412748004

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#### **Water Quality Records for**

MW406

Sample Date Range: 6/16/2009 - 12/13/2016

		(	Organic Lab Analysis R	•	Radiological Laboratory Analysis Results			Metal										
Sample Date	TCE µg/L	1,1- DCE µg/L	1,1-DCA μg/L	1,2-DCA μg/L	trans- 1,2-DCE μg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Uranium mg/L	PCB 1016 µg/L	PCB 1221 µg/L	PCB 1232 µg/L	PCB 1242 µg/L	PCB 1248 µg/L	PCB 1254 µg/L	PCB 1260 µg/L	PCB 1268 µg/L	Lab Sample ID
6/23/2011	6500	< 500	< 100	< 100	< 100	11.4	45.5	47.7	< .005									C11174017003



### C-400 Monitoring **Water Quality Records for**

Sample Date Range: 6/16/2009 - 12/13/2016

#### **MW406-PRT5**

		(	Organic Lab Analysis R			Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results								
Sample Date	TCE µg/L	1,1- DCE µg/L	1,1-DCA μg/L	1,2-DCA μg/L	trans- 1,2-DCE μg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Uranium mg/L	PCB 1016 µg/L	PCB 1221 μg/L	PCB 1232 µg/L	PCB 1242 µg/L	PCB 1248 µg/L	PCB 1254 μg/L	PCB 1260 μg/L	PCB 1268 µg/L	Lab Sample ID
12/28/201	24000	< 500			< 100	7.77	54.5	51.5	< .005									C11362008002
3/15/2012	2 10000	< 100			< 100	< -2.11	45.3	48.6	< .005									C12075015001
6/20/2012	2 5100	< 500			< 100	< 1.89	23.6	< 17.5	< .005									C12172011002
9/20/2012	2 4800	< 100			< 100	<0458	31.2	23.5	< .005									C12264031002
12/28/2012	2 1200	< 10			< 10			< 4.01										C12363012005
3/27/2013	940	< 20			< 20			< 7.56										C13086018001
9/16/2013	9600	< 100			< 20			35.5										C13259034004
12/18/2013	3 790	< 10			< 10			26.5										C13353003002
3/26/2014	4 460	< 5			< 5			55.9										C14085027004
6/16/2014	95.4	< 2			< 2			32.5										350866003
9/16/2014	812	< 10			< 10			30.1										356931008
12/2/2014	2290	1.1			.87			52										362435005
3/30/2013	5 183	< 4			< 4			68.6										369938007
6/12/2013	5 111	< 2	< 2	< 2	< 2			43.2										375135002
6/12/2013	5 100	< 2			< 2			47.1										375132003
9/15/2013	5 12500	< 250			< 250			< 18.3										381234005
12/9/201	5 2660	< 50			< 50			74.3										387183005
3/23/2010	5 4120	< 50			< 50			49										393849007
6/7/201	9270	< 100			< 100			52.7										398881005
9/22/2010	5 12400	< 250			< 250			< 9.62										406611006
12/13/2010	7960	< 100			< 100			<0598										412748005

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FLUOR. Prepared by:

### Water Quality Records for

Sample Date Range: 6/16/2009 - 12/13/2016

٨	111	7/1	07-	D	DΊ	Γ/Ι
IV		<i>1</i> 4 1	, / -		N 1	-

			(	Organic Lab Analysis R			Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results								
	Sample Date	TCE µg/L	1,1- DCE µg/L	1,1-DCA μg/L	1,2-DCA μg/L	trans- 1,2-DCE µg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Uranium mg/L	PCB 1016 µg/L	PCB 1221 µg/L	PCB 1232 µg/L	PCB 1242 µg/L	PCB 1248 μg/L	PCB 1254 μg/L	PCB 1260 μg/L	PCB 1268 µg/L	Lab Sample ID
13	2/28/2011	4900	< 500			< 100	< 3.09	10.7	< 5.26	< .005									C11362008001
:	3/14/2012	14000	< 100			< 100	< 3.36	5.57	< -5.15	< .005									C12074017002
	6/20/2012	13000	< 500			< 100	< 4.76	8.43	< 8.61	< .005									C12172011003
!	9/20/2012	13000	< 100			< 100	< .291	< 3.11	< -10.2	< .005									C12264031003
1:	2/28/2012	7000	< 50			< 50			< .433										C12363012006
:	3/27/2013	14000	< 200			< 200			< .435										C13086018002
9	9/16/2013	24000	< 500			< 100			< 13.4										C13259034005
	2/18/2013	7000	< 100			< 100			< 3.81										C13353003003
E-22	3/26/2014	2300	< 20			< 20			67.6										C14085027005
	6/16/2014	32100	< 500			< 500			58.3										350866004
9	9/16/2014	23800	< 500			< 500			< 11.5										356931009
	12/2/2014	13900	< 1			.8			< 2.74										362435006
:	3/30/2015	10300	< 200			< 200			45.8										369938008
(	6/12/2015	18200	< 250			< 250			< 11.6										375132001
(	6/12/2015	18600	< 250	< 250	< 250	< 250			< 11.3										375135003
9	9/15/2015	671	< 10			< 10			55.1										381234006
	12/9/2015	544	< 10			< 10			81										387183006
	3/23/2016	3300	< 10			< 10			57.6										393849008
	6/7/2016	9180	< 100			< 100			115										398881006
!	9/22/2016	9990	< 100			< 100			50.6										406611007
13	2/13/2016	2100	< 50			< 50			65.2										412748006

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FLUOR. Prepared by:

6/23/2011 95000

< 5000 < 1000 < 1000

#### C-400 Monitoring

#### Water Quality Records for

Sample Date

Sample Date Range: 6/16/2009 - 12/13/2016

**MW408** 

< 14.5 < .005

13.3

< 1000 < 2.51

		(	Organic Labo Analysis Ro		Radiological Laboratory Analysis Results			Metal										
Sample Date	TCE µg/L	1,1- DCE µg/L	1,1-DCA μg/L	1,2-DCA µg/L	trans- 1,2-DCE µg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Uranium mg/L	PCB 1016 µg/L	PCB 1221 µg/L	PCB 1232 µg/L	PCB 1242 µg/L	PCB 1248 µg/L	PCB 1254 μg/L	PCB 1260 μg/L	PCB 1268 μg/L	Lab Sample ID

C11174017001



## C-400 Monitoring Water Quality Records for

#### Sample Dale Ra

#### Sample Date Range: 6/16/2009 - 12/13/2016

#### **MW408-PRT5**

			C	Organic Lab Analysis R			Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results								
	Sample Date	TCE µg/L	1,1- DCE µg/L	1,1-DCA μg/L	1,2-DCA μg/L	trans- 1,2-DCE µg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Uranium mg/L	PCB 1016 µg/L	PCB 1221 μg/L	PCB 1232 μg/L	PCB 1242 µg/L	PCB 1248 µg/L	PCB 1254 μg/L	PCB 1260 μg/L	PCB 1268 μg/L	Lab Sample ID
	12/14/2011	71000	< 5000			< 1000	< 1.93	32.9	23.2	< .005									C11348026001
	6/20/2012	390000	< 20000			< 4000	< 3.79	12.2	< 1.58	< .005									C12172011004
	9/20/2012	1400000	< 4000			< 4000	< -1.52	13.4	< -1.7	< .005									C12264031004
	12/28/2012	1100000	< 5000			< 5000			< 4.33										C12363012007
	3/27/2013	480000	< 10000			< 10000			< 7.73										C13086018003
	9/16/2013	97000	< 2500			< 500			52.9										C13259034006
	12/18/2013	65000	< 1000			< 1000			< 8.07										C13353003004
	3/26/2014	7700	< 50			< 50			67.7										C14085027006
E-24	6/16/2014	2560	< 40			< 40			111										350866001
4	8/13/2014	6000	< 2			< 2			88.2										160-7947-7
	9/3/2014	110	< .08			< .08			102										160-8215-10
	9/16/2014	49.1	< 1			< 1			63										356931010
	12/2/2014	37.6	< 1			< 1			93.7										362435007
	3/30/2015	234	< 4			< 4			103										369938009
	6/12/2015	3490	< 50			< 50			43.1										375132004
	6/12/2015	8990	< 200	< 200	< 200	< 200			36										375135004
	9/15/2015	115	< 2			< 2			51.5										381234001
	12/9/2015	52.4	< 1			< 1			39.5										387183007
	3/23/2016	665	.94			.84			24.5										393849009
	6/7/2016	371	< 5			< 5			71.6										398881007
	9/22/2016	207	< 5			< 5			< 15.4										406611008
	12/13/2016	86.2	< 1			< 1			20.9										412748007

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NOTE: This report does not include data that has been rejected during data assessment and/or data validation.

Prepared by:



# C-400 Monitoring Water Quality Records for

**MW421-PRT1** 

Sample Date Range: 6/16/2009 - 12/13/2016

		(	Organic Labo Analysis Ro			Radiological Laboratory Analysis Results			Metal									
Sample Date	TCE µg/L	1,1- DCE µg/L	1,1-DCA µg/L	1,2-DCA μg/L	trans- 1,2-DCE μg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Uranium mg/L	PCB 1016 µg/L	PCB 1221 μg/L	PCB 1232 μg/L	PCB 1242 μg/L	PCB 1248 μg/L	PCB 1254 µg/L	PCB 1260 µg/L	PCB 1268 µg/L	Lab Sample ID
7/21/2009	20000	< 1000			< 200	38	1780	1650	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09202027001
8/25/2009	21000	< 200			< 200	<377	1300	1670	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C09237029001
9/29/2009	22000	< 200			< 200	33	878	1240	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09273002001
12/16/2009	27000	< 1000			< 200	27.7	906	1160	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C09350025004
3/23/2010	24000	< 200			< 200	15.5	1180	1780	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C10082025004
6/23/2010	58000	< 500			< 500	18.4	1710	2340	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C10172026001
9/21/2010	34000	< 500			< 500	15.1	826	1190	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C10264016001
12/14/2010	28000	< 2500			< 500	9.44	789	916	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C10348026001
3/23/2011	28000	< 250			< 250	< 4.35	623	859	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .06	< .09	C11082024003
6/22/2011										< .4	< .4	< .4	< .4	< .4	< .4	< .4	< .4	1106092-01
6/22/2011	29000	< 2000			< 400	<-121	3300	3930	< .005									C11173026001
9/12/2011	32000	< 1000			< 200	9.06	2190	2500	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C11255015001
3/19/2013	26000	< 400			< 400			912										C13078013003
9/17/2013	34000	< 2000			< 400			1750										C13260018001
3/19/2014	31000	< 400			< 400			761										C14078013004
9/10/2014	26000	< 500			< 500			944										356723001
3/24/2015	19300	< 500			< 500			892										369707003
3/21/2016	9860	21.5			.54			4160										393717002
9/19/2016	10300	< 200			< 200			1750										406359001

Prepared by: **FLUOR**.

# C-400 Monitoring Water Quality Records for MW421-PRT2

Sample Date Range: 6/16/2009 - 12/13/2016

		(	Organic Lab Analysis R	•			ogical Labor alysis Resul		Metal			•	chlorinate Analysis I		yl			
Sample Date	TCE µg/L	1,1- DCE µg/L	1,1-DCA µg/L	1,2-DCA μg/L	trans- 1,2-DCE μg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Uranium mg/L	PCB 1016 µg/L	PCB 1221 μg/L	PCB 1232 µg/L	PCB 1242 µg/L	PCB 1248 µg/L	PCB 1254 µg/L	PCB 1260 µg/L	PCB 1268 µg/L	Lab Sample ID
7/21/2009	52000	< 2500			< 500	15.2	830	856	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C09202027002
8/25/2009	53000	< 500			< 500	6.73	865	1120	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09237029002
9/29/2009	53000	< 500			< 500	27.9	639	882	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09273002002
12/16/2009	62000	< 2500			< 500	4.74	475	618	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09350025005
3/23/2010	55000	< 500			< 500	12.7	417	777	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C10082025005
6/21/2010	51000	< 500			< 500	26.9	514	813	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C10172026002
9/21/2010	51000	< 500			< 500	8.44	255	416	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C10264016002
12/14/2010	62000	< 500			< 500	10.4	280	348	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C10348026002
3/23/2011	62000	< 500			< 500	8.6	220	340	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .15	< .09	C11082024004
6/22/2011										< .4	< .4	< .4	< .4	< .4	< .4	< .4	< .4	1106092-02
6/22/2011	55000	< 2500			< 500	< -24.9	853	996	< .005									C11173026002
9/12/2011	51000	< 2000			< 400	14.5	582	694	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C11255015002
3/19/2013	56000	< 500			< 500			265										C13078013004
9/17/2013	63000	< 2000			< 400			377										C13260018002
3/19/2014	68000	< 400			< 400			216										C14078013005
9/12/2014	58600	< 50			< 50			255										356931011
3/24/2015	55900	< 1000			< 1000			249										369707004
3/21/2016	27400	8.01			1.39			1240										393717003
9/19/2016	24800	< 500			< 500			609										406359002

# C-400 Monitoring Water Quality Records for MW421-PRT3

Sample Date Range: 6/16/2009 - 12/13/2016

			C	Organic Labo Analysis Ro				ogical Labor alysis Resul		Metal				chlorinate Analysis I	ed biphen Results	yl			
	Sample Date	TCE µg/L	1,1- DCE µg/L	1,1-DCA μg/L	1,2-DCA μg/L	trans- 1,2-DCE μg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Uranium mg/L	PCB 1016 µg/L	PCB 1221 μg/L	PCB 1232 µg/L	PCB 1242 µg/L	PCB 1248 μg/L	PCB 1254 μg/L	PCB 1260 μg/L	PCB 1268 μg/L	Lab Sample ID
	7/21/2009	63000	< 2500			< 500	< 3.73	327	302	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09202027003
	8/25/2009	66000	< 500			< 500	< 3.62	398	451	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09237029003
	9/29/2009	61000	< 500			< 500	8.99	323	335	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09273002003
	12/16/2009	77000	< 2500			< 500	4.67	226	345	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09350025006
	3/23/2010	70000	< 500			< 500	12.8	218	376	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C10082025006
	6/21/2010	68000	< 500			< 500	< 4.02	278	251	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C10173001001
	9/21/2010	64000	< 500			< 500	6.83	215	285	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C10264016003
	12/14/2010	65000	< 500			< 500	< 5.08	209	278	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C10348026003
E-2′	3/23/2011	61000	< 500			< 500	19	186	278	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .34	< .09	C11082024005
7	6/22/2011										< .4	< .4	< .4	< .4	< .4	< .4	< .4	< .4	1106092-03
	6/22/2011	72000	< 2500			< 500	15.7	289	399	< .005									C11173026003
	9/12/2011	67000	< 2500			< 500	5.7	272	313	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C11255015003
	3/12/2012	73000	< 500			< 500	5.39	177	283	< .005									C12072031003
	9/25/2012	96000	< 1000			< 1000	< 1.59	225	211	< .005									C12270003002
	3/19/2013	80000	< 1000			< 1000			216										C13078013005
	9/17/2013	63000	< 2500			< 500			191										C13260018003
	3/19/2014	67000	< 500			< 500			202										C14078013006
	9/12/2014	62800	< 50			< 50			181										356931012
	3/24/2015	45500	4.96			1.92			200										369707005
	3/21/2016	49300	4.07			1.22			318										393717004
	9/19/2016	49500	< 500			< 500			261										406359003

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Prepared by:

FLUOR.

# C-400 Monitoring Water Quality Records for

**MW422-PRT1** 

Sample Date Range: 6/16/2009 - 12/13/2016

		(	Organic Lab Analysis R				gical Labor alysis Resul		Metal				chlorinate Analysis I		yl			
Sample Date	TCE µg/L	1,1- DCE µg/L	1,1-DCA μg/L	1,2-DCA μg/L	trans- 1,2-DCE μg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Uranium mg/L	PCB 1016 µg/L	PCB 1221 μg/L	PCB 1232 μg/L	PCB 1242 µg/L	PCB 1248 µg/L	PCB 1254 μg/L	PCB 1260 µg/L	PCB 1268 µg/L	Lab Sample ID
7/21/2009	10000	< 500			< 100	<-96.7	10400	13600	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09202018001
8/24/2009	13000	< 100			< 100	95	12900	15600	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09237007001
9/28/2009	12000	< 100			< 100	59.7	14200	16900	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09271021004
12/16/2009	16000	< 1000			< 200	< -15.7	10200	13900	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09350025001
3/23/2010	14000	< 100			< 100	< -25.6	8460	13400	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C10082025001
6/21/2010	14000	< 100			< 100	< -60.6	11600	15500	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C10173001002
9/20/2010	15000	< 200			< 200	< -51	8500	12900	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C10263039004
12/13/2010	23000	< 1000			< 200	< -3.47	5090	6610	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C10347024004
3/22/2011	20000	< 200			< 200	87.5	4860	6410	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C11081023005
6/15/2011	14000	< 1000			< 200	<-13.8	7910	9730	< .005									C11166026002
6/15/2011										< .4	< .4	< .4	< .4	< .4	< .4	< .4	< .4	1106059-03
9/12/2011	16000	< 1000			< 200	< -54.7	10600	12300	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C11255022001
3/13/2013	16000	< 250			< 250			6720										C13072022004
9/17/2013	17000	< 500			< 100			14200										C13260018004
3/19/2014	15000	< 100			< 100			5800										C14078013007
9/12/2014	10800	32.8			< 25			10400										356931013
3/24/2015	9330	< 100			< 100			7120										369707006
3/21/2016	4720	43.2			.4			10800										393717005
9/19/2016	4490	34			< 100			14900										406359004

# C-400 Monitoring Water Quality Records for MW422-PRT2

Sample Date Range: 6/16/2009 - 12/13/2016

		(	Organic Labo Analysis Ro	•			ogical Labor alysis Resul		Metal				chlorinate Analysis I		yl			
Sample Date	TCE µg/L	1,1- DCE µg/L	1,1-DCA μg/L	1,2-DCA μg/L	trans- 1,2-DCE μg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Uranium mg/L	PCB 1016 µg/L	PCB 1221 μg/L	PCB 1232 μg/L	PCB 1242 µg/L	PCB 1248 μg/L	PCB 1254 µg/L	PCB 1260 µg/L	PCB 1268 μg/L	Lab Sample ID
7/21/2009	43000	< 2500			< 500	32.8	1570	1970	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09202019001
8/24/2009	47000	< 500			< 500	28.2	1650	2150	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09237008001
9/28/2009	45000	< 500			< 500	18.5	1490	2020	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C09271021005
12/16/2009	53000	< 2500			< 500	16.1	1110	1660	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09350025002
3/23/2010	51000	< 500			< 500	24	823	1600	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C10082025002
6/21/2010	90000	< 400			< 400	17.5	1060	1620	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C10173001003
9/20/2010	51000	< 1000			< 1000	9.61	808	1420	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C10263039005
12/13/2010	54000	< 2500			< 500	41.2	789	1170	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C10347024005
F 3/22/2011	40000	< 500			< 500	27.3	823	1090	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .44	< .09	C11081023006
6/15/2011										< .4	< .4	< .4	< .4	< .4	< .4	< .4	< .4	1106059-04
6/15/2011	50000	< 2500			< 500	35.3	1000	1310	< .005									C11166026003
9/12/2011	52000	< 2000			< 400	10.6	900	1130	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C11255022002
3/13/2013	43000	< 500			< 500			643										C13072022005
9/17/2013	49000	< 2000			< 400			535										C13260018005
3/19/2014	49000	< 400			< 400			559										C14078013008
9/12/2014	41800	< 50			< 50			514										356931014
3/24/2015	48700	< 100			< 100			567										369707007
3/21/2016	38200	3.2			1.2			634										393717006
9/19/2016	39200	< 500			< 500			707										406359005

# C-400 Monitoring Water Quality Records for MW422-PRT3

Sample Date Range: 6/16/2009 - 12/13/2016

			(	Organic Lab Analysis R				gical Labor alysis Resul		Metal				chlorinate Analysis I		yl			
San Da	nple ate	TCE µg/L	1,1- DCE µg/L	1,1-DCA µg/L	1,2-DCA μg/L	trans- 1,2-DCE μg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Uranium mg/L	PCB 1016 µg/L	PCB 1221 µg/L	PCB 1232 μg/L	PCB 1242 µg/L	PCB 1248 µg/L	PCB 1254 μg/L	PCB 1260 µg/L	PCB 1268 μg/L	Lab Sample ID
7/2	1/2009	45000	< 2500			< 500	<394	1650	2310	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09202019002
8/2	4/2009	46000	< 500			< 500	15.4	1380	1960	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09237008002
9/2	8/2009	45000	< 500			< 500	15.5	1560	1940	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09271021006
12/1	6/2009	58000	< 2500			< 500	20.7	1230	1630	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09350025003
3/2	3/2010	53000	< 500			< 500	19.6	866	1490	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C10082025003
6/2	1/2010	72000	< 1000			< 1000	15.1	883	1520	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C10173001004
9/2	0/2010	61000	< 1000			< 1000	16.3	777	1320	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C10263039006
	3/2010	54000	< 2500			< 500	22.6	782	1070	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C10347024006
E-30	2/2011	54000	< 500			< 500	23.3	677	1010	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .36	< .09	C11081023007
	5/2011										< .4	< .4	< .4	< .4	< .4	< .4	< .4	< .4	1106059-05
6/1	5/2011	49000	< 2500			< 500	13.5	864	1140	< .005									C11166026004
9/1	2/2011	53000	< 2000			< 400	7.69	718	910	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C11255022003
3/1	2/2012	69000	< 500			< 500	< 4.11	575	774	< .005									C12072031004
9/2	25/2012	48000	< 1000			< 1000	< 4.02	524	631	< .005									C12270003001
3/1	3/2013	35000	< 500			< 500			559										C13072022006
9/1	7/2013	47000	< 2000			< 400			535										C13260018006
3/1	9/2014	49000	< 400			< 400			543										C14078013009
9/1	2/2014	46700	< 50			< 50			496										356931015
3/2	4/2015	44600	< 100			< 100			550										369707008
3/2	1/2016	37800	3.13			1.09			635										393717007
9/1	9/2016	44300	< 500			< 500			678										406359006

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# C-400 Monitoring Water Quality Records for MW423-PRT1

Sample Date Range: 6/16/2009 - 12/13/2016

			(	Organic Lab Analysis R				ogical Labor alysis Resul		Metal			•	chlorinate Analysis I		yl			
Sampl Date		TCE µg/L	1,1- DCE µg/L	1,1-DCA μg/L	1,2-DCA μg/L	trans- 1,2-DCE μg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Uranium mg/L	PCB 1016 µg/L	PCB 1221 µg/L	PCB 1232 µg/L	PCB 1242 µg/L	PCB 1248 µg/L	PCB 1254 µg/L	PCB 1260 µg/L	PCB 1268 µg/L	Lab Sample ID
7/22/2	2009	13000	< 500			< 100	<-60	8610	10400	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09203009001
8/25/2	2009	12000	< 200			< 200	81	9720	12100	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C09237022001
9/28/2	2009	11000	< 100			< 100	87.3	11100	14000	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09271021001
12/15/2	2009	15000	< 1000			< 200	< -236	11500	14400	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09349015001
3/22/2	2010	15000	64			< 25	45.5	8550	13800	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C10082005003
6/22/2	2010	12000	< 500			< 100	<-79.6	10100	13400	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C10173027002
9/20/2	2010	12000	< 200			< 200	52.9	9500	16000	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C10263039001
12/13/2	2010	18000	< 500			< 100	<-161	8180	10800	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C10347024001
3/21/2	2011	15000	< 200			< 200	95.2	6870	8960	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C11080075002
6/14/2	2011										< .4	< .4	< .4	< .4	< .4	< .4	< .4	< .4	1106059-06
6/14/2	2011	15000	< 500			< 100	< -273	9620	9790	< .005									C11165038005
9/13/2	2011	14000	< 1000			< 200	< -18.7	8820	10500	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C11256012001
3/13/2	2013	18000	< 200			< 200			9070										C13072009001
9/12/2	2013	13000	< 1000			< 200			14900										C13255083001
3/20/2	2014	13000	< 100			< 100			8350										C14079016004
9/12/2	2014	8980	32.8			< 25			9080										356931016
3/24/2	2015	8970	35.5			< 50			8220										369707009
3/21/2	2016	3350	35.7			.4			8560										393717008
9/19/2	2016	4890	41.5			< 50			12600										406359007

# C-400 Monitoring Water Quality Records for MW423-PRT2

Sample Date Range: 6/16/2009 - 12/13/2016

		(	Organic Lab Analysis R				gical Labo alysis Resul		Metal				chlorinate Analysis I		yl			
Sample Date	TCE µg/L	1,1- DCE µg/L	1,1-DCA μg/L	1,2-DCA μg/L	trans- 1,2-DCE μg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Uranium mg/L	PCB 1016 µg/L	PCB 1221 µg/L	PCB 1232 µg/L	PCB 1242 μg/L	PCB 1248 μg/L	PCB 1254 μg/L	PCB 1260 μg/L	PCB 1268 μg/L	Lab Sample ID
7/22/2009	42000	< 2500			< 500	< -8.97	3760	4840	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C09203009002
8/25/2009	47000	< 500			< 500	34.3	3420	4880	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09237022002
9/28/2009	44000	< 500			< 500	35.8	3820	5230	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09271021002
12/15/2009	54000	< 2500			< 500	<-51.8	3650	4930	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09349015002
3/22/2010	52000	< 500			< 500	40.2	2260	4310	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C10082005004
6/22/2010	45000	< 2500			< 500	< -2.09	3050	4530	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C10173027003
9/20/2010	46000	< 500			< 500	14.3	2590	4070	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C10263039002
12/13/2010	52000	< 2500			< 500	42.7	2070	4280	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C10347024002
3/21/2011 3/21/2011	41000	< 500			< 500	114	1990	3430	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .15	< .09	C11080075003
6/14/2011										< .4	< .4	< .4	< .4	< .4	< .4	< .4	< .4	1106059-07
6/14/2011	43000	< 2500			< 500	<-23.6	2810	3970	< .005									C11165038006
9/13/2011	46000	< 2000			< 400	< -37.2	2730	3710	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C11256012002
3/13/2013	34000	< 500			< 500			1780										C13072009002
9/12/2013	35000	< 2000			< 400			1430										C13255083002
3/20/2014	35000	< 400			< 400			1490										C14079016005
9/12/2014	38100	< 500			< 500			1550										356937007
3/24/2015	29900	< 1000			< 1000			1460										369707010
3/21/2016	31900	2.39			1.49			1690										393717009
9/19/2016	40400	< 500			< 500			1690										406359008

# C-400 Monitoring Water Quality Records for MW423-PRT3

Sample Date Range: 6/16/2009 - 12/13/2016

		C	Organic Labo Analysis Ro				ogical Labor alysis Resul		Metal				chlorinate Analysis l	ed biphen Results	yl			
Sample Date	TCE µg/L	1,1- DCE µg/L	1,1-DCA μg/L	1,2-DCA μg/L	trans- 1,2-DCE μg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Uranium mg/L	PCB 1016 µg/L	PCB 1221 µg/L	PCB 1232 μg/L	PCB 1242 μg/L	PCB 1248 μg/L	PCB 1254 μg/L	PCB 1260 µg/L	PCB 1268 µg/L	Lab Sample ID
7/22/2009	42000	< 2500			< 500	< -4.38	2660	4350	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09203009003
8/25/2009	47000	< 500			< 500	23.4	2850	4440	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09237022003
9/28/2009	14000	< 500			< 500	97.8	10600	13500	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C09271021003
12/15/2009	53000	< 2500			< 500	< -48.6	2970	4030	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C09349015003
3/22/2010	51000	< 500			< 500	43.5	1960	3810	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C10082005005
6/22/2010	49000	< 2500			< 500	5.16	2930	3850	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C10173027004
9/20/2010	50000	< 500			< 500	34.3	2080	3730	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C10263039003
12/13/2010	50000	< 2500			< 500	19	2120	3140	< .005	< .17	< .18	< .14	< .1	< .12	< .07	.15	< .09	C10347024003
3/21/2011	41000	< 500			< 500	89.1	1880	2900	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .12	< .09	C11080075004
6/14/2011	l									< .4	< .4	< .4	< .4	< .4	< .4	< .4	< .4	1106059-08
6/14/2011	43000	< 2500			< 500	<-17.1	2540	3680	< .005									C11165038007
9/13/2011	47000	< 2000			< 400	< -27.3	2490	2990	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C11256012003
3/12/2012	2 37000	< 500			< 500	<-9.6	1620	2350	< .005									C12072031005
9/24/2012	2 67000	< 500			< 500	19.2	1550	1820	< .005									C12268086001
3/13/2013	34000	< 500			< 500			1800										C13072009003
9/12/2013	35000	< 2000			< 400			1730										C13255083003
3/20/2014	36000	< 400			< 400			1480										C14079016006
9/13/2014	38300	< 50			< 50			1500										356931017
3/24/2015	34900	< 1000			< 1000			1470										369707011
3/21/2016	32800	2.35			.98			1820										393717010
9/19/2016	5 37800	< 500			< 500			1600										406359009

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Prepared by:

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# C-400 Monitoring Water Quality Records for

#### **MW424-PRT1**

Sample Date Range: 6/16/2009 - 12/13/2016

		(	Organic Lab Analysis R	•			gical Labor alysis Resul		Metal				chlorinate Analysis I		yl			
Sample Date	TCE µg/L	1,1- DCE µg/L	1,1-DCA μg/L	1,2-DCA μg/L	trans- 1,2-DCE µg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Uranium mg/L	PCB 1016 µg/L	PCB 1221 μg/L	PCB 1232 µg/L	PCB 1242 μg/L	PCB 1248 μg/L	PCB 1254 μg/L	PCB 1260 μg/L	PCB 1268 μg/L	Lab Sample ID
7/23/2009	7200	< 500			< 100	< -7	2300	1790	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09204021001
8/27/2009	7100	< 50			< 50	< 3.09	2680	3330	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C09239018001
9/30/2009	7700	< 100			< 100	125	4580	6150	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C09273021001
12/17/2009	9200	< 100			< 100	< -31.9	7760	10000	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09351022002
3/24/2010	7900	< 100			< 100	86.8	4420	6540	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C10083023002
6/23/2010	7900	< 250			< 50	14	4020	5080	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C10174017003
9/22/2010	7900	< 1000			< 200	< -79.8	7420	10300	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C10265020001
12/15/2010	8400	< 100			< 100	< -325	9940	13900	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C10349020001
5 6/14/2011										< .4	< .4	< .4	< .4	< .4	< .4	< .4	< .4	1106059-09
6/14/2011	7900	< 500			< 100	< -211	7890	8220	< .005									C11165038002
9/13/2011	9000	< 500			< 100	< -150	5730	6730	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C11256019001
3/13/2013	7900	< 100			< 100			10300										C13072022001
9/17/2013	5900	< 250			< 50			5540										C13260018007
3/20/2014	3900	< 50			< 50			6530										C14079016007
9/13/2014	2630	18.8			< 25			3070										356931018
3/26/2015	2520	18.5			< 50			5140										369707012
3/23/2016	1410	22.2			< 20			2400										393849010
9/20/2016	1650	23			< 20			6870										406359011

# C-400 Monitoring Water Quality Records for MW424-PRT2

Sample Date Range: 6/16/2009 - 12/13/2016

		(	Organic Lab Analysis R				ogical Labor alysis Resul	•	Metal			•	chlorinate Analysis I		yl			
Sample Date	TCE µg/L	1,1- DCE µg/L	1,1-DCA µg/L	1,2-DCA μg/L	trans- 1,2-DCE µg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Uranium mg/L	PCB 1016 µg/L	PCB 1221 μg/L	PCB 1232 µg/L	PCB 1242 µg/L	PCB 1248 µg/L	PCB 1254 µg/L	PCB 1260 µg/L	PCB 1268 µg/L	Lab Sample ID
7/23/2009	17000	< 1000			< 200	< -29.4	4170	5680	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09204022001
8/27/2009	16000	< 200			< 200	< -4.44	6130	5900	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09239019001
9/30/2009	16000	< 200			< 200	91.8	5200	7100	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C09273023001
12/17/2009	18000	< 200			< 200	7.27	4010	6180	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C09351022003
3/24/2010	17000	< 250			< 250	52.8	2940	6240	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C10083023003
6/22/2010	17000	< 1000			< 200	12.7	5150	7070	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C10174017004
9/22/2010	15000	< 1000			< 200	< -41.8	4000	6040	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C10265020002
12/15/2010	14000	< 200			< 200	<-161	5510	7850	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C10349020002
3/22/2011	12000	< 100			< 100	170	4620	6990	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .26	< .09	C11081023001
6/14/2011										< .4	< .4	< .4	< .4	< .4	< .4	< .4	< .4	1106059-10
6/14/2011	14000	< 500			< 100	<-51.5	4820	5790	< .005									C11165038003
9/13/2011	12000	< 500			< 100	<-138	5900	6890	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C11256019002
3/13/2013	10000	< 100			< 100			4320										C13072022002
9/17/2013	11000	< 500			< 100			3810										C13260018008
3/20/2014	13000	< 100			< 100			3540										C14079016008
9/13/2014	13900	< 250			< 250			3820										356931019
3/31/2015	17600	< 250			< 250			3260										369938010
3/23/2016	20600	< 250			< 250			3220										393849011
9/20/2016	16700	< 250			< 250			2970										406359012

# C-400 Monitoring Water Quality Records for MW424-PRT3

Sample Date Range: 6/16/2009 - 12/13/2016

			C	Organic Labo Analysis Ro	•			gical Laboi alysis Resul		Metal				chlorinate Analysis F		yl			
	Sample Date	TCE µg/L	1,1- DCE µg/L	1,1-DCA μg/L	1,2-DCA μg/L	trans- 1,2-DCE µg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Uranium mg/L	PCB 1016 µg/L	PCB 1221 μg/L	PCB 1232 µg/L	PCB 1242 µg/L	PCB 1248 μg/L	PCB 1254 μg/L	PCB 1260 μg/L	PCB 1268 μg/L	Lab Sample ID
	7/23/2009	22000	< 1000			< 200	< -7.72	1900	2770	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09204023001
	8/27/2009	23000	< 200			< 200	< 5.21	3400	4970	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09239020001
	9/30/2009	23000	< 250			< 250	78.9	3350	4660	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09273024001
	12/17/2009	23000	< 200			< 200	12.3	2960	4500	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09351022004
	3/24/2010	23000	< 250			< 250	<-39.3	2810	4600	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C10083023004
	6/23/2010	21000	< 1000			< 200	10.2	3160	4740	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C10174017005
	9/22/2010	21000	< 1000			< 200	< -14.6	2650	4440	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C10265020003
	12/15/2010	19000	< 200			< 200	< -54.8	2840	4300	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C10349020003
E-36	3/22/2011	16000	< 200			< 200	93.3	2580	3430	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .28	< .09	C11081023002
0,	6/14/2011										< .4	< .4	< .4	< .4	< .4	< .4	< .4	< .4	1106059-11
	6/14/2011	18000	< 1000			< 200	<-23	2990	3940	< .005									C11165038004
	9/13/2011	16000	< 1000			< 200	< -42.4	2720	4190	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C11256019003
	3/12/2012	12000	< 200			< 200	15.3	2120	3500	< .005									C12072031008
	9/25/2012	11000	< 200			< 200	< -2.6	3010	3600	< .005									C12269015005
	3/13/2013	10000	< 100			< 100			3070										C13072022003
	9/17/2013	9300	< 500			< 100			2870										C13260018009
	3/20/2014	10000	< 100			< 100			2500										C14079016009
	9/13/2014	11100	< 250			< 250			2600										356931020
	3/31/2015	14000	< 250			< 250			2570										369938011
	3/23/2016	16800	< 250			< 250			2680										393849012
	9/20/2016	16600	< 250			< 250			2580										406359013

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Prepared by:

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Wednesday, March 29, 2017

# C-400 Monitoring Water Quality Records for

**MW425-PRT1** 

Sample Date Range: 6/16/2009 - 12/13/2016

			(	Organic Labo Analysis Ro				gical Laboi alysis Resul	•	Metal				chlorinate Analysis I		yl			
	Sample Date	TCE μg/L	1,1- DCE µg/L	1,1-DCA μg/L	1,2-DCA μg/L	trans- 1,2-DCE μg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Uranium mg/L	PCB 1016 µg/L	PCB 1221 μg/L	PCB 1232 µg/L	PCB 1242 µg/L	PCB 1248 µg/L	PCB 1254 μg/L	PCB 1260 µg/L	PCB 1268 µg/L	Lab Sample ID
	7/22/2009	5100	< 250			< 50	< 2.26	755	789	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C09203011001
	8/26/2009	8200	< 100			< 100	9.62	4390	3870	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09238024001
	9/29/2009	11000	< 100			< 100	107	6500	8580	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09273002004
	12/16/2009	13000	< 500			< 100	26.5	6360	9490	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09350025007
	3/23/2010	8900	< 100			< 100	51.4	2200	3010	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C10082005006
	6/22/2010	8300	< 500			< 100	25	1340	1330	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C10173039002
	9/21/2010	12000	< 500			< 100	< -221	10000	12700	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C10264016004
	12/15/2010	13000	< 200			< 200	< -819	15000	18300	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C10349020004
E-3	3/21/2011	11000	< 100			< 100	81.2	10800	14000	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .17	< .09	C11080075005
7	6/13/2011	7600	< 500			< 100	75.3	2130	2530	< .005									C11165011005
	6/13/2011										< .4	< .4	< .4	< .4	< .4	< .4	< .4	< .4	1106040-03
	9/14/2011	12000	< 500			< 100	< -143	7140	9190	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C11257087006
	3/12/2013	6500	< 100			< 100			5630										C13072002003
	9/18/2013	4600	< 500			< 100			5220										C13261023001
	3/20/2014	3000	< 50			< 50			2810										C14079016001
	9/15/2014	2260	< 50			< 50			2220										356937001
	3/26/2015	1820	12.8			< 25			2220										369707013
	3/28/2016	1080	14.2			< 20			1040										393954001
	9/21/2016	1320	9.4			< 20			6810										406611009

# C-400 Monitoring Water Quality Records for MW425-PRT2

Sample Date Range: 6/16/2009 - 12/13/2016

		(	Organic Lab Analysis R	•			ogical Labor alysis Resul		Metal			•	chlorinate Analysis I		yl			
Sample Date	TCE µg/L	1,1- DCE µg/L	1,1-DCA μg/L	1,2-DCA μg/L	trans- 1,2-DCE μg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Uranium mg/L	PCB 1016 µg/L	PCB 1221 μg/L	PCB 1232 µg/L	PCB 1242 µg/L	PCB 1248 µg/L	PCB 1254 µg/L	PCB 1260 µg/L	PCB 1268 µg/L	Lab Sample ID
7/22/200	9 6300	< 250			< 50	< 3.37	2930	4460	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09203011002
8/26/200	9 6100	< 50			< 50	<-19.6	3370	4550	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09238024002
9/29/200	9 7500	< 50			< 50	121	4600	5900	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09273002005
12/16/200	9 11000	< 500			< 100	< -17.7	5550	7850	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C09350025008
3/23/20	10 9300	< 50			< 50	49.5	3710	5600	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C10082005007
6/22/20	0 8400	< 250			< 50	43.7	2900	3850	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C10173039003
9/21/20	10000	< 500			< 100	< -37.4	4910	5000	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C10264016005
12/15/20	1000	< 100			< 100	< -456	9930	13200	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C10349020005
$\omega$	1 9200	< 100			< 100	28.2	8260	12500	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .36	< .09	C11080075006
∞ 6/13/20	11									< .4	< .4	< .4	< .4	< .4	< .4	< .4	< .4	1106040-04
6/13/20	1 8700	< 500			< 100	< -26.5	4870	5930	< .005									C11165011006
9/14/20	1 10000	< 500			< 100	< -98.5	4370	4600	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C11257087007
3/12/20	13 9100	< 100			< 100			6260										C13072002004
9/18/20	13 6700	< 500			< 100			3280										C13261023002
3/20/20	4 5400	< 50			< 50			4240										C14079016002
9/15/20	4 4080	< 50			< 50			1860										356937002
3/26/20	15 3540	< 50			< 50			2750										369707014
3/28/20	6 2060	< 25			< 25			1400										393954002
9/21/20	6 1590	< 25			< 25			3790										406611010

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# C-400 Monitoring Water Quality Records for MW425-PRT3

Sample Date Range: 6/16/2009 - 12/13/2016

		(	Organic Labo Analysis Ro				ogical Labo alysis Resul		Metal				chlorinate Analysis I		yl			
Sample Date	TCE µg/L	1,1- DCE µg/L	1,1-DCA μg/L	1,2-DCA μg/L	trans- 1,2-DCE μg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Uranium mg/L	PCB 1016 µg/L	PCB 1221 µg/L	PCB 1232 µg/L	PCB 1242 μg/L	PCB 1248 µg/L	PCB 1254 µg/L	PCB 1260 µg/L	PCB 1268 µg/L	Lab Sample ID
7/22/2009	6200	< 250			< 50	< .86	3380	4420	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09203011003
8/26/2009	4700	< 50			< 50	< -23.2	3770	4120	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09238024003
9/29/2009	6900	< 50			< 50	96.2	3490	4570	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09273002006
12/17/2009	8100	< 100			< 100	39.3	3620	5210	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C09351022001
3/23/2010	7600	< 50			< 50	57	2590	4290	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C10082005008
6/22/2010	7700	< 250			< 50	33.6	2790	3760	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C10173039004
9/21/2010	8500	< 500			< 100	< -22.6	3270	5070	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C10264016006
12/15/2010	9100	< 100			< 100	< -325	7150	8570	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C10349020006
6/13/2011	7400	< 500			< 100	<-23.1	3310	4310	< .005									C11165011007
6/13/2011										< .4	< .4	< .4	< .4	< .4	< .4	< .4	< .4	1106040-05
9/14/2011	8500	< 500			< 100	< -99.4	4540	4360	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C11257087008
3/12/2012	8000	< 100			< 100	< -25.1	3230	5410	< .005									C12072031009
9/19/2012	9900	< 100			< 100	< -28.6	4490	5320	< .005									C12263022004
3/12/2013	11000	< 100			< 100			4600										C13072002005
9/18/2013	9600	< 500			< 100			2530										C13261023003
3/20/2014	9500	< 100			< 100			3230										C14079016003
9/15/2014	8610	< 100			< 100			1950										356937003
3/26/2015	7170	< 100			< 100			2340										369707015
3/28/2016	4430	< 50			< 50			1200										393954003
9/21/2016	3320	< 50			< 50			1890										406611011

## **Water Quality Records for**

MW505

Sample Date Range: 6/16/2009 - 12/13/2016

		(	Organic Labo Analysis Ro				gical Labor alysis Resul		Metal				hlorinateo Analysis R	d bipheny tesults	l			
Sample Date	TCE µg/L	1,1- DCE µg/L	1,1-DCA μg/L	1,2-DCA μg/L	trans- 1,2-DCE μg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Uranium mg/L	PCB 1016 µg/L	PCB 1221 μg/L	PCB 1232 µg/L	PCB 1242 µg/L	PCB 1248 µg/L	PCB 1254 μg/L	PCB 1260 µg/L	PCB 1268 μg/L	Lab Sample ID
3/13/2012	160	< 5			< 5	< -2.14	48.8	51.6	< .005									C12073014003
6/18/2012	18	< 5			< 1	< -1.58	54	51.4	< .005									C12170024001
9/19/2012	22	< 1			< 1	< 1.39	45.1	61.8	< .005									C12263015001
12/5/2012	22	< 5			< 1			56.2										C12340029002
3/19/2013	34	< 1			< 1			49.2										C13078040001
3/19/2013	32	< 1			< 1			53.9										C13078040002
6/11/2013	31	< 1			< 1			55.5										C13162015006
9/12/2013	26	< 5			< 1			74.3										C13255009001
12/17/2013	28	< 1			< 1			56.2										C13351094003
3/19/2014	23	< 1			< 1			69										C14078013001
6/11/2014	26.2	< 1			< 1			52.8										350627002
9/13/2014	150	< 1			< 1			63.4										356937004
12/2/2014	22.8	< 1			< 1			71.4										362435008
3/30/2015	16.3	< 1			< 1			61.1										369938012
6/16/2015	16.8	< 1			< 1			53.1										375398001
9/14/2015	19	< 1			< 1			36.5										381234008
9/14/2015	18.9	< 1			< 1			40.7										381234007
12/8/2015	49.2	< 1			< 1			56.4										387183008
3/23/2016	22.6	< 1			< 1			62.2										393849013
6/6/2016	32.6	< 1			< 1			86.4										398881008
9/20/2016	56.1	< 1			< 1			70										406359014
9/20/2016	19.7	< 1			< 1			63.1										406359015

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Prepared by:

## Water Quality Records for

MW505

Sample Date Range: 6/16/2009 - 12/13/2016

		(	Organic Lab Analysis R	•			gical Labor alysis Result		Metal				hlorinateo nalysis R	d bipheny esults	l			
Sample Date	TCE µg/L	1,1- DCE µg/L	1,1-DCA μg/L	1,2-DCA μg/L	trans- 1,2-DCE µg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Uranium mg/L	PCB 1016 µg/L	PCB 1221 µg/L	PCB 1232 µg/L	PCB 1242 µg/L	PCB 1248 µg/L	PCB 1254 μg/L	PCB 1260 µg/L	PCB 1268 μg/L	Lab Sample ID

 $12/13/2016 \quad 10.5 \quad < 1 \quad < 1 \quad 412748008$ 



### **Water Quality Records for**

#### MW506

Sample Date Range: 6/16/2009 - 12/13/2016

			(	Organic Lab Analysis R				gical Laboi alysis Resul		Metal				hlorinated nalysis R	l bipheny esults	I			
	Sample Date	TCE µg/L	1,1- DCE µg/L	1,1-DCA μg/L	1,2-DCA μg/L	trans- 1,2-DCE μg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Uranium mg/L	PCB 1016 µg/L	PCB 1221 µg/L	PCB 1232 µg/L	PCB 1242 µg/L	PCB 1248 µg/L	PCB 1254 μg/L	PCB 1260 μg/L	PCB 1268 μg/L	Lab Sample ID
	3/13/2012	4300	< 50			< 50	< .856	50.5	62.6	< .005									C12073014004
	6/18/2012	4100	< 250			< 50	< 3.44	66.4	59.7	< .005									C12170024002
	9/19/2012	3700	< 50			< 50	< 3.84	50.8	59	< .005									C12263015002
	12/5/2012	4200	< 250			< 50			42.8										C12340029004
	3/19/2013	2100	< 50			< 50			49.7										C13078040003
	6/11/2013	2400	< 50			< 50			64										C13162015005
	9/12/2013	2100	< 100			< 20			63.1										C13255009002
	12/17/2013	2000	< 20			< 20			60.9										C13351094004
E-42	3/19/2014	1200	< 20			< 20			65.4										C14078013002
2	6/11/2014	954	< 20			< 20			56.8										350627003
	9/13/2014	641	< 10			< 10			59.6										356937005
	12/2/2014	1080	< 1			.47			72.7										362435009
	3/30/2015	906	< 10			< 10			66.8										369938001
	6/16/2015	2690	< 50			< 50			73.4										375398005
	9/14/2015	7110	< 100			< 100			46.3										381234009
	12/8/2015	9040	< 100			< 100			72.7										387183009
	3/23/2016	17600	< 100			< 100			54.8										393849014
	6/6/2016	24400	< 250			< 250			108										398881009
	9/20/2016	19700	< 500			< 500			69.1										406359016
	12/13/2016	22200	< 500			< 500			59.2										412748009

## Water Quality Records for

MW507

Sample Date Range: 6/16/2009 - 12/13/2016

		(	Organic Labo Analysis Ro				ogical Labor alysis Resul		Metal				hlorinateo Analysis R	d bipheny esults	1			
Sample Date	TCE µg/L	1,1- DCE µg/L	1,1-DCA μg/L	1,2-DCA μg/L	trans- 1,2-DCE μg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	Uranium mg/L	PCB 1016 µg/L	PCB 1221 μg/L	PCB 1232 µg/L	PCB 1242 µg/L	PCB 1248 μg/L	PCB 1254 μg/L	PCB 1260 μg/L	PCB 1268 μg/L	Lab Sample ID
3/13/2012	1200	< 10			< 10	< 3.11	38.7	53.4	< .005									C12073014005
6/18/2012	1200	< 100			< 20	< 5.7	51.2	41.2	< .005									C12170024003
9/19/2012	1800	< 10			< 10	< .808	34.4	30.7	< .005									C12263015003
12/5/2012	1900	< 100			< 20			42.9										C12340029005
3/19/2013	770	< 20			< 20			48.3										C13078040004
6/11/2013	1000	< 10			< 10			72.4										C13162015003
6/11/2013	1100	< 10			< 10			65.1										C13162015004
9/12/2013	530	< 50			< 10			86.6										C13255009003
12/17/2013	870	< 10			< 10			64.6										C13351094005
3/19/2014	190	< 1			< 1			82.7										C14078013003
6/12/2014	260	< 5			< 5			80.4										350627006
6/12/2014	245	< 5			< 5			77.6										350627001
9/13/2014	582	< 10			< 10			57.3										356937006
12/2/2014	510	< 1			< 1			71.7										362435010
3/30/2015	265	< 5			< 5			74.1										369938013
6/16/2015	913	< 20			< 20			52.1										375398006
9/14/2015	2700	< 50			< 50			53.2										381234010
12/8/2015	6030	< 100			< 100			61.6										387183010
3/23/2016	6960	< 100			< 100			67.9										393849015
6/6/2016	9720	< 200			< 200			105										398881010
9/20/2016	11100	< 200			< 200			77.5										406359017
12/13/2016	10900	< 200			< 200			65.4										412748010

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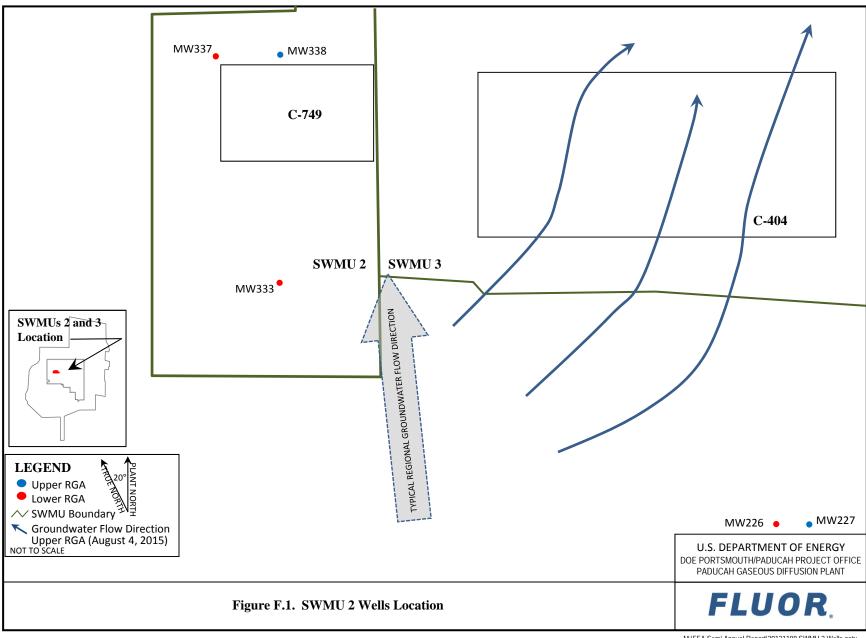
FLUOR.

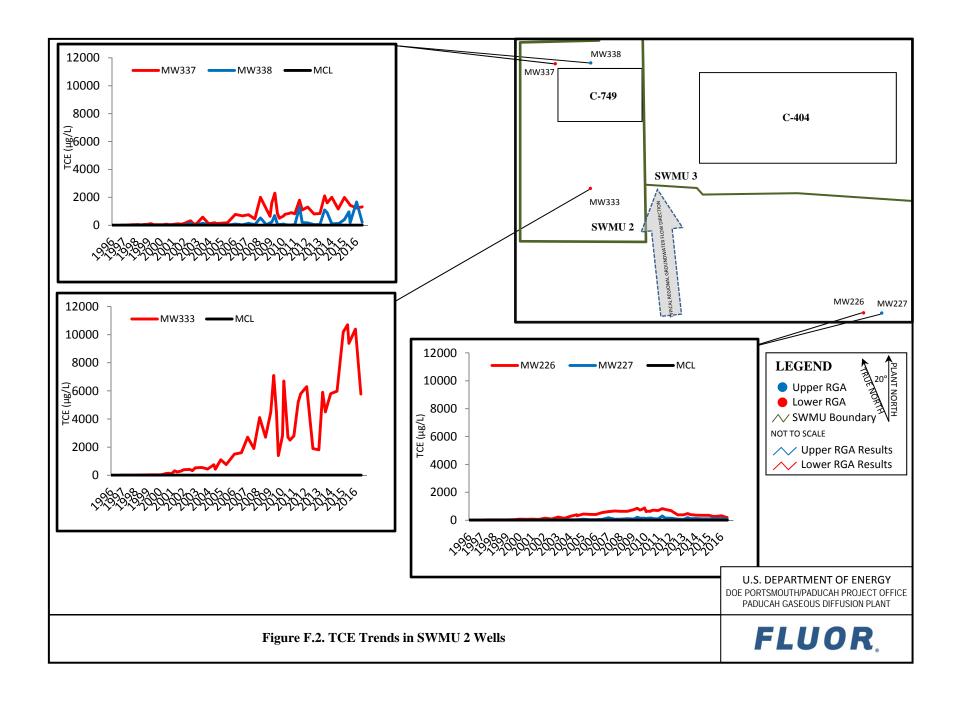


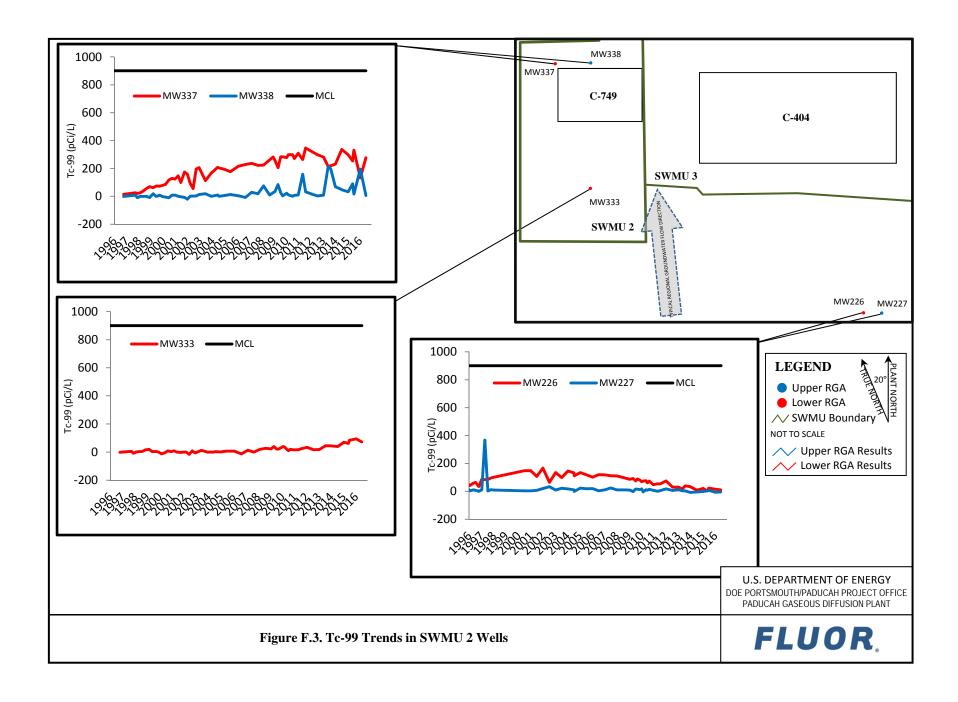
## **APPENDIX F**

C-749 URANIUM BURIAL GROUND (SWMU 2) GROUNDWATER MONITORING WELL DATA









### Water Quality Records for

## Sample Date Range: 5/6/1993 - 7/12/2016

#### **MW226**

			Organic Labor Analysis Res				R	adiological L Analysis R	aboratory esults			
Sample Date	TCE µg/L	1,1-DCE μg/L	1,1-DCA μg/L	1,2-DCA μg/L	trans-1,2-DCE µg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	U-234 pCi/L	U-235 pCi/L	U-238 pCi/L	Lab Sample ID
5/6/1993	8							11				930507-105
5/6/1993	2							6				930507-101
5/13/1993	7							12				930513-235
6/2/1993	8							10				930602-113
6/16/1993	8							8				930617-116
6/16/1993	2											930617-118
7/14/1993	9							16				930715-049
7/20/1993	10							8				930721-106
8/9/1993	11							15				930810-018
8/16/1993	11							18				930819-067
9/30/1993	11							18				930930-169
10/26/1993	12							35				931027-061
11/8/1993	11							32				931109-073
11/16/1993	11							22				931117-105
1/11/1994	11							25				940111-177
1/25/1994	12							13				940126-013
2/8/1994	10							32				940209-005
2/15/1994	12							14				940216-023
7/18/1994	12							18				940719-065
7/26/1994	14							35				940726-198
8/11/1994	15							32				940812-033
8/18/1994	15							15				940818-135
1/17/1995	17							30				950117-119
1/17/1995	17							26				950117-115
1/23/1995	17							31				950125-081

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NOTE: This report does not include data that has been rejected during data assessment and/or data validation.

### Water Quality Records for

## Sample Date Range: 5/6/1993 - 7/12/2016

#### **MW226**

			Organic Labor Analysis Res	ratory sults			R	adiological L Analysis R	aboratory esults			
Sample Date	TCE µg/L	1,1-DCE µg/L	1,1-DCA µg/L	1,2-DCA μg/L	trans-1,2-DCE µg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	U-234 pCi/L	U-235 pCi/L	U-238 pCi/L	Lab Sample ID
2/6/1995	16							28				950207-055
2/13/1995	16							36				950215-031
4/19/1995								39				950419-194
4/24/1995								44				950425-170
5/3/1995								15				950503-140
5/8/1995								43				950509-033
5/8/1995								49				950509-041
7/19/1995	16							32				950720-047
7/25/1995	11							32				950726-034
F 8/7/1995								41				950808-083
8/14/1995								43				950815-023
8/14/1995								30				950815-031
10/23/1995								34				951024-036
10/30/1995								40				951031-056
10/30/1995								36				951031-060
11/8/1995								54				951110-059
11/15/1995								55				951116-020
1/22/1996	20							42				960122-119
5/17/1996								59				960521-007
7/10/1996	20							65				960710-204
10/14/1996								35				961015-019
1/16/1997	24							86				970121-043
4/14/1997								84				970414-100
7/14/1997	26							84				970714-133
7/14/1997	27							85				970714-134

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## Water Quality Records for

Sample Date Range: 5/6/1993 - 7/12/2016

#### **MW226**

			Organic Labor Analysis Res				R	adiological L Analysis R				
Sample Date	TCE µg/L	1,1-DCE μg/L	1,1-DCA µg/L	1,2-DCA μg/L	trans-1,2-DCE µg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	U-234 pCi/L	U-235 pCi/L	U-238 pCi/L	Lab Sample ID
10/14/1997								95				971014-047
1/12/1998	30							101				C980140119
7/13/1998	25											C981960004
7/13/1998	25											C981960005
1/11/1999	26											C990110084
7/20/1999	40											C992020007
7/20/1999	42											C992020008
1/11/2000	71											C000110092
7/12/2000	61							148				C001940098
1/9/2001	81							148				C010100017
7/11/2001	55							107				C011930007
1/8/2002	140							166				C020080098
7/22/2002	89							64.7				C022030173
1/21/2003	230							134				C030210115
7/23/2003	130							98.9				C032040144
1/21/2004	280							146				C040210090
7/22/2004	394											C042050002
7/22/2004	340	12	< 5	< 5	< 5	< .668	57.7	132	< .0902	< .0122	< .348	C042050009
7/27/2004	320							112				C042090056
1/24/2005	440							134	< .0357	< .0147	<0135	C050240045
7/27/2005	420							118	< .0346	< .00589	< .00252	C052080180
1/24/2006	410							101	< .0973	<0183	< .0768	C060240039
7/24/2006	550							119	< 1.07	< .187	< .282	C062050057
1/24/2007	610							118	< 1.03	<00311	< .21	C070240038
7/24/2007	660							112	< .0971	<0355	< .0361	C072060043

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FLUOR. Prepared by:

## Water Quality Records for

Sample Date Range: 5/6/1993 - 7/12/2016

#### **MW226**

				Organic Labor Analysis Res				R	adiological L Analysis F				
	Sample Date	TCE µg/L	1,1-DCE μg/L	1,1-DCA µg/L	1,2-DCA μg/L	trans-1,2-DCE µg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	U-234 pCi/L	U-235 pCi/L	U-238 pCi/L	Lab Sample ID
	1/15/2008	640							110	<0264	< .0644	< .00478	C080160004
	7/24/2008	640							98.7	< .0399	< .00678	<00253	C082060091
	2/5/2009	760							86.5				C09036036004
	5/12/2009	850	26	< 5	< 5	< 5	<403	49.2	92.3				C09132009001
	7/28/2009	730							74.6				C09209020001
	9/21/2009	780	< 25	< 5	< 25	< 5	< 2.56	46.3	88.1				C09265006002
	12/10/2009	880							79.1				C09344026005
	1/26/2010	610							69.3				C10026023001
	3/9/2010	650	22	< 10	< 10	< 10	4.2	49.4	74				C10068052005
F-9	6/1/2010	640							75.7				C10152026001
9	7/14/2010	710							60.7				C10195040002
	9/7/2010	720	22	< 10	< 10	< 10	< 4.04	38.8	73.8				C10250033001
	1/3/2011	690							47.6				C11003029002
	5/11/2011	830	28	< 5	< 5	< 5	4.3	41	54.5				C11131023001
	7/28/2011	780							53.2				C11209031001
	1/20/2012	680							74.7				C12020022001
	7/31/2012	390							30.5				C12213022002
	1/23/2013	380							30.3				C13023019002
	5/14/2013	480	< 25	< 5	< 5	< 5			< 16.5				C13134021006
	8/12/2013	400							39.3				C13224030001
	1/8/2014	360							33				C14008024003
	7/28/2014	350							< 7.97				353626001
	1/26/2015	351							20.5				365824001
	6/1/2015	267	5.4	< 1	.32	< 1			< 2.55				374452002
	7/11/2015	270							23.2				377100001

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## C-749 Uranium Burial Ground (SWMU2) Monitoring

### Water Quality Records for

Sample Date Range: 5/6/1993 - 7/12/2016

#### **MW226**

			Organic Labor Analysis Res				R	adiological L Analysis R				
Sample Date	TCE µg/L	1,1-DCE μg/L	1,1-DCA μg/L	1,2-DCA μg/L	trans-1,2-DCE µg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	U-234 pCi/L	U-235 pCi/L	U-238 pCi/L	Lab Sample ID
1/25/2016	311							< 14.9				390095001
7/5/2016	194							< 10.7				401035001

NOTE: This report does not include data that has been rejected during data assessment and/or data validation.

## **Water Quality Records for**

Sample Date Range: 5/6/1993 - 7/12/2016

#### **MW227**

			Organic Labor Analysis Res				R	adiological L Analysis R	aboratory esults			
Sample Date	TCE µg/L	1,1-DCE μg/L	1,1-DCA µg/L	1,2-DCA μg/L	trans-1,2-DCE µg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	U-234 pCi/L	U-235 pCi/L	U-238 pCi/L	Lab Sample ID
5/13/1993	2							17				930513-239
6/2/1993	2							0				930602-124
6/16/1993	2							0				930617-138
7/13/1993	2							12				930713-156
7/19/1993	2							10				930721-102
8/9/1993	2							5				930810-014
8/16/1993	2							13				930820-001
9/30/1993	2							13				930930-173
10/26/1993	2							7				931027-053
11/8/1993	2							0				931109-077
11/16/1993	2							9				931117-134
1/11/1994	3							18				940111-181
1/25/1994	3							11				940126-017
2/8/1994	3							0				940209-001
2/15/1994	3							5				940216-019
4/29/1994	4											940429-116
7/18/1994	2							0				940719-061
7/26/1994	3							6				940726-202
8/10/1994	4							14				940811-063
8/10/1994	4							10				940811-075
8/10/1994	3	< 5	< 5	< 5	< 5							S408081-01V
8/18/1994	4							3				940818-131
1/17/1995	4							9				950118-204
1/23/1995	3							18				950125-093
1/23/1995	4							10				950125-097

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## Water Quality Records for

## Sample Date Range: 5/6/1993 - 7/12/2016

#### MW227

		Organic Labo Analysis Re	oratory esults			R	adiological L Analysis R	aboratory esults			
Samj D	nple TC. Date μg/		1,2-DCA μg/L	trans-1,2-DCE µg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	U-234 pCi/L	U-235 pCi/L	U-238 pCi/L	Lab Sample ID
2/6/19	995 3						9				950207-059
2/13/19	995 4						17				950215-027
4/19/19	995						16				950419-202
4/24/19	995						20				950425-162
4/24/19	995						23				950425-178
5/3/19	995						5				950503-136
5/8/19	995						14				950509-049
7/19/19	995 5						6				950720-043
7/25/19	995 4						23				950726-038
F-12 8/7/19	995						14				950808-067
8/7/19	995						17				950808-087
8/14/19	995						12				950815-027
10/23/19	995						0				951024-032
10/23/19	995						0				951024-040
10/30/19	995						6				951031-064
11/8/19	995						7				951110-063
11/15/19	995						22				951116-024
1/22/19	996 4						3	2.9	.18	6.69	960122-115
1/22/19	996 4						4				960122-123
5/17/19	996						10				960521-008
7/9/19	996 5						7				960709-085
10/14/19	996						0				961015-018
1/16/19	997 6						3				970121-042
1/16/19	997 6						11				970121-041
4/14/19	997						367				970414-099

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### Water Quality Records for

Sample Date Range: 5/6/1993 - 7/12/2016

#### **MW227**

				Organic Labor Analysis Res	ratory sults			R	Radiological L Analysis R	aboratory Results			
	Sample Date	TCE µg/L	1,1-DCE μg/L	1,1-DCA μg/L	1,2-DCA μg/L	trans-1,2-DCE µg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	U-234 pCi/L	U-235 pCi/L	U-238 pCi/L	Lab Sample ID
	7/14/1997	6							2				970714-135
	10/14/1997								< 12				971014-048
	1/12/1998	4							< 9				C980140120
	1/12/1998	4							< 8				C980140122
	7/13/1998	6											C981960003
	1/11/1999	6											C990110085
	1/11/1999	6											C990110086
	7/20/1999	8											C992020009
	1/11/2000	3											C000110093
F-13	7/12/2000	6							< 3.92				C001940099
ω	1/9/2001	3							< 3.82				C010100018
	7/11/2001	7							< 7.5				C011930006
	1/8/2002	23							20.2				C020080097
	7/22/2002	23							33.4				C022030172
	1/21/2003	24							< 9.75				C030210114
	7/23/2003	26							22.5				C032040145
	1/21/2004	31							< 17				C040210091
	7/22/2004	40											C042050003
	7/22/2004	33	< 1	< 1	< 1	< 1	5.9	10.1	< 10.4	< .284	< .00706	< .412	C042050010
	7/27/2004	39							<469				C042090057
	1/24/2005	76							22.8	< .348	<0287	< .122	C050240047
	7/27/2005	45							18.9	< .0822	< .0131	< .0649	C052080181
	1/25/2006	38							20.3	< .0898	< .004	< .0169	C060250133
	7/24/2006	61							< 4.11	< 1.36	< .263	< .298	C062050058
	1/24/2007	180							< 11	< .219	< .0426	< .0696	C070240039
	1/24/2007	180							< 11	< .219	< .0426	< .0696	C070240039

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## **Water Quality Records for**

#### MW227

Sample Date Range: 5/6/1993 - 7/12/2016

				Organic Labor Analysis Res				R	adiological L Analysis R				
	Sample Date	TCE μg/L	1,1-DCE μg/L	1,1-DCA µg/L	1,2-DCA μg/L	trans-1,2-DCE µg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	U-234 pCi/L	U-235 pCi/L	U-238 pCi/L	Lab Sample ID
7/2	24/2007	73							24	< .124	<0338	< .0891	C072060044
1/	16/2008	79							< 11	< .21	< .00145	< .0742	C080160068
7/2	24/2008	110							< 10.9	< .0526	< .00769	<00691	C082060092
2	2/5/2009	82							< 9.22				C09036036005
5/	12/2009	210	4.2	< 1	< 1	< 1	< 1.54	7.61	< -2.16				C09132009002
7/2	28/2009	140							16.5				C09209020002
9/2	21/2009	140	< 5	< 1	< 5	< 1	< .447	7.47	< 14.8				C09265006003
12/	10/2009	150							< 12.6				C09344026006
	26/2010	110							< 17.1				C10026023002
F-14	3/9/2010	150	3.5	< 1	< 1	< 1	< 2.74	7.52	< -4.34				C10068052006
6	5/1/2010	160							< 11.8				C10152026002
7/:	14/2010	140							< 8.12				C10195040003
9	9/7/2010	110	2.5	< 1	< 1	< 1	<521	5.85	< 13.6				C10250033002
1	1/3/2011	94							< 7.15				C11003029001
5/	11/2011	310	6.2	< 1	< 1	< 1	< .974	10.6	< .676				C11131023002
7/2	28/2011	160							< 4.69				C11209031002
1/2	20/2012	150							17.9				C12020022003
7/3	31/2012	74							< 5.99				C12213022003
1/2	22/2013	63							< 11.8				C13022086002
5/	14/2013	190	< 5	< 1	< 1	< 1			< 3.61				C13134021005
8/	12/2013	110							< 4.08				C13224030002
1	1/8/2014	120							< -7.61				C14008024004
7/2	28/2014	104							< -4.4				353626002
1/2	26/2015	97.8							< -1.45				365824002
6	5/2/2015	110	1.68	< 2	< 2	< 2			< 3.74				374344008

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# CI-12

# C-749 Uranium Burial Ground (SWMU2) Monitoring

### Water Quality Records for

Sample Date Range: 5/6/1993 - 7/12/2016

#### MW227

			Organic Labor Analysis Res	•			R	adiological L Analysis R	•			
Sample Date	TCE µg/L	1,1-DCE μg/L	1,1-DCA µg/L	1,2-DCA μg/L	trans-1,2-DCE µg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	U-234 pCi/L	U-235 pCi/L	U-238 pCi/L	Lab Sample ID
7/11/2015	94.3							< 7.22				377100002
1/25/2016	110							< -6.66				390095002
7/5/2016	75.5							< -4.03				401035002

## C-749 Uranium Burial Ground (SWMU2) Monitoring Water Quality Records for

Sample Date Range: 5/6/1993 - 7/12/2016

#### **MW333**

			Organic Labor Analysis Res				R	Radiological L Analysis R				
Sample Date	TCE μg/L	1,1-DCE μg/L	1,1-DCA μg/L	1,2-DCA μg/L	trans-1,2-DCE µg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	U-234 pCi/L	U-235 pCi/L	U-238 pCi/L	Lab Sample ID
10/14/1996	10				< .48							96M04623-3717
10/14/1996									9.66		.14	96M04623-3731
10/14/1996								-1.1				96M04623-3761
1/29/1997	5	< 5	< 5	< 5	< 5							970130-051
9/23/1997	5	< 5	< 5	< 5	< 5	2	2	6				970923-064
11/19/1997	6	< 5	< 5	< 5	< 5	7	2	-8				971119-080
2/9/1998	8	< 5	< 5	< 5	< 5	< 2.3	< 1	< 1				C980420046
5/4/1998	14	< 5	< 5	< 5	< 5	< 5.1	15	< 3				C981250036
8/10/1998	16	< 5	< 5	< 5	< 5	< 4.3	6	< 3.9				C982220109
11/12/1998 6	16	< 5	< 5	< 5	< 5	< -1.37	5.36	< 16				C983160089
3/3/1999	30	< 5	< 5	< 5	< 5	< .68	< 2.83	19.27				C990620037
6/4/1999	33	< 5	< 5	< 5	< 5	< 1.23	< .07	< 2.81				C991580024
9/15/1999						<79		< 4.13				C992580210
12/7/1999	29	< 5	< 5	< 5	< 5	2.48	< 1.48	< .475				C993410100
12/7/1999	33	< 5	< 5	< 5	< 5	< .45	< .49	< -6.17				C993410101
3/8/2000	46	< 5	< 5	< 5	< 5	< 1.58	< 4.62	< -12.8		< 0		C000680108
6/14/2000	110	< 5	< 5	< 5	< 5	< .52	<97	< -4.54				C001670002
9/12/2000	140	< 5	< 5	< 5	< 5	< 2.67	< 3.97	< 9.38				C002560135
12/18/2000	110	< 10	< 10	< 10	< 10	< .462	< .604	< 3.24				C003540006
3/19/2001	310	< 5	< 5	< 5	< 5	<5	< .794	< 8.5				C010780093
6/6/2001	230	< 25	< 25	< 25	< 25	< 1.62	4.76	<303				C011570178
9/25/2001	290	< 25	< 25	< 25	< 25	< 2.25	< 1.41	< -2.35		< -9.94		C012680234
12/17/2001	390	< 25	< 25	< 25	< 25	< 1.86	<125	<337				C013510092
3/13/2002										< -3.95		C020720129
3/13/2002	410	< 25	< 25	< 25	< 25	< 1.13	< .94	<654				C020720130

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## C-749 Uranium Burial Ground (SWMU2) Monitoring Water Quality Records for

Sample Date Range: 5/6/1993 - 7/12/2016

#### **MW333**

			Organic Labor Analysis Res				R	adiological L Analysis F				
Sample Date	TCE μg/L	1,1-DCE μg/L	1,1-DCA µg/L	1,2-DCA μg/L	trans-1,2-DCE µg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	U-234 pCi/L	U-235 pCi/L	U-238 pCi/L	Lab Sample ID
6/10/2002	420	< 50	< 50	< 50	< 50	< 1.57	< -2.59	< -15.7				C021610047
9/5/2002	330	< 50	< 50	< 50	< 50	<977	<125	< 8.51				C022480132
12/2/2002	530	< 25	< 25	< 25	< 25	< 1.7	< .462	< -6.2				C023370013
6/10/2003	550	< 25	< 25	< 25	< 25	< 1.08	< 1.1	< 12.4				C031620013
12/4/2003	440	< 25	< 25	< 25	< 25	< .213	< 2.21	< 0				C033380096
6/7/2004	750	< 50	< 50	< 50	< 50	<231	<683	<384	< 30	< 2.2	< .35	C041590175
7/20/2004	430	< 10	< 10	< 10	< 10	< 1.44	< 1.43	< 2.73	< .198	< .00505	< .363	C042020116
12/30/2004	1100	< 50	< 50	< 50	< 50	<0341	< .436	< 1.21				C043650022
6/14/2005	760	< 50	< 50	< 50	< 50	< .455	< 2.91	< 6.24	< .0723	<0127	< .0115	C051650114
7 2/14/2006	1300	< 50	< 50	< 50	< 50	< 2.43	< 3.19	< 5.18				C060450088
2/14/2006	1500	< 50	< 50	< 50	< 50	<267	< 3.66	< 6.25				C060450089
9/12/2006	1600	< 120	< 120	< 120	< 120	< 1.58	4.31	< -12.7				C062550163
3/19/2007	2700	< 100	< 100	< 100	< 100	4.34	8.66	< 13.8				C070780102
9/19/2007	1900	< 20	< 20	< 100	< 20	< 2.81	6.15	< .212				C072630092
3/11/2008	4100	< 25	< 25	< 120	< 25	< 1.75	16.9	19				C080710145
9/3/2008	2700	< 25	< 25	< 120	< 25	< .456	6.72	27.3				C082470086
2/9/2009	4500							22.7				C09040013001
5/7/2009	7100	< 250	< 50	< 250	< 50	< 2.35	22	39.9				C09127062003
7/28/2009	4500							21.1				C09209012001
9/25/2009	1400	< 50	< 50	< 50	< 50	< .535	17.7	21.3				C09268017001
1/26/2010	2800							38.1				C10026023004
3/8/2010	6700	< 50	< 50	< 50	< 50	< .795	24.7	38.6				C10067037002
7/9/2010	2700							< 10.3				C10190027002
9/8/2010	2500	< 50	< 50	< 50	< 50	< 1.48	10.6	18.7				C10251037004
1/4/2011	2800							< 15.6				C11005004006

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NOTE: This report does not include data that has been rejected during data assessment and/or data validation.

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### Water Quality Records for

**MW333** 

Sample Date Range: 5/6/1993 - 7/12/2016

				Organic Labor Analysis Res				R	adiological L Analysis R				
	Sample Date	TCE µg/L	1,1-DCE μg/L	1,1-DCA µg/L	1,2-DCA μg/L	trans-1,2-DCE µg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	U-234 pCi/L	U-235 pCi/L	U-238 pCi/L	Lab Sample ID
	5/11/2011	5200	< 100	< 20	< 20	< 20	< 2.14	13.1	< 16.3				C11131034002
	7/28/2011	5800							23.4				C11209031004
	1/20/2012	6300							33.7				C12020022002
	7/26/2012	1900							< 17.2				C12208015003
	1/22/2013	1800							18				C13022086003
	5/15/2013	5900	< 250	< 50	< 50	< 50			34.7				C13135012003
	8/6/2013	4500							45				C13219005002
	1/8/2014	5800							44.4				C14008024002
	7/23/2014	5980							40.1				353402002
F-18	1/26/2015	10200							70				365824003
∞	6/3/2015	10700	< 200	< 200	< 200	< 200			61				374344009
	7/11/2015	9380							85.7				377100003
	1/25/2016	10400							93.9				390095003
	7/5/2016	5780							72.8				401035003

## C-749 Uranium Burial Ground (SWMU2) Monitoring Water Quality Records for

Sample Date Range: 5/6/1993 - 7/12/2016

#### **MW337**

			Organic Labor Analysis Res				R	adiological L Analysis R				
Sample Date	TCE µg/L	1,1-DCE μg/L	1,1-DCA µg/L	1,2-DCA μg/L	trans-1,2-DCE µg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	U-234 pCi/L	U-235 pCi/L	U-238 pCi/L	Lab Sample ID
10/4/1996	8.3				< .48							96M04622-3716
10/4/1996									.38		.27	96M04622-3730
10/4/1996								14				96M04622-3760
1/29/1997	10	< 5	< 5	< 5	< 5							970130-050
9/22/1997	38	< 5	< 5	< 5	< 5	3.8	21	26				970923-040
11/19/1997	41	< 5	< 5	< 5	< 5	.9	22	21				971119-081
2/9/1998	48	< 5	< 5	< 5	< 5	< 1.3	18	26				C980420047
5/4/1998	34	< 5	< 5	< 5	< 5	< 4.4	37	36.8				C981250037
8/10/1998	58	< 5	< 5	< 5	< 5	< .6	35	55.1				C982220110
11/17/1998	61	< 5	< 5	< 5	< 5	3.06	37.83	69.2				C983210021
3/3/1999	110	< 25	< 25	< 25	< 25	< 1.91	< 2.49	62.71				C990620038
6/4/1999	47	< 5	< 5	< 5	< 5	< .4	48.8	73.5				C991580025
9/15/1999						< .8	48.9	72.4				C992580183
12/7/1999	44	< 5	< 5	< 5	< 5	4.34	69.36	77.7				C993410097
3/7/2000	44	< 5	< 5	< 5	< 5	<43	79.03	84.8		< -9.63		C000680019
6/14/2000	75	< 5	< 5	< 5	< 5	< 1.02	97.07	117				C001670003
9/12/2000	44	< 5	< 5	< 5	< 5	< 3.09	112.58	129				C002560134
12/18/2000	50	< 5	< 5	< 5	< 5	<451	75.1	124				C003540007
3/19/2001	90	< 5	< 5	< 5	< 5	< 1.05	81.1	147				C010780094
6/6/2001	97	< 5	< 5	< 5	< 5	< .921	97.6	98.5				C011570179
9/24/2001	75	< 5	< 5	< 5	< 5	< -2.29	97.2	175		< -8.42		C012680004
12/17/2001	150	< 10	< 10	< 10	< 10	4.96	103	158				C013510093
3/13/2002										< -7.31	< 0	C020720125
3/13/2002	240	< 25	< 25	< 25	< 25	< 4.6	68	91.3				C020720126
6/10/2002	320	< 25	< 25	< 25	< 25	<-1.91	43.3	55.1				C021610048

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## C-749 Uranium Burial Ground (SWMU2) Monitoring Water Quality Records for

Sample Date Range: 5/6/1993 - 7/12/2016

#### **MW337**

				Organic Labor Analysis Res				R	adiological L Analysis R				
	Sample Date	TCE µg/L	1,1-DCE μg/L	1,1-DCA µg/L	1,2-DCA μg/L	trans-1,2-DCE µg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	U-234 pCi/L	U-235 pCi/L	U-238 pCi/L	Lab Sample ID
	9/5/2002	96	< 25	< 25	< 25	< 25	< .989	115	196				C022480133
	12/2/2002	100	< 5	< 5	< 5	< 5	< 1.72	127	205				C023370011
	6/9/2003	580	< 25	< 25	< 25	< 25	< .265	63.1	113				C031600083
	12/4/2003	110	< 25	< 25	< 25	< 25	10.8	159	168				C033380097
	6/8/2004	180	< 25	< 25	< 25	< 25	< -1.26	111	208	< 30	< 2.2	< .35	C041600042
	7/20/2004	120	< 2	2.2	< 2	< 2	3.45	111	203	< .101	<00296	< .275	C042020117
	12/8/2004	140	< 10	< 10	< 10	< 10	< -2.1	129	195				C043430086
	6/21/2005	180	< 10	< 10	< 10	< 10	4.73	113	177	< .059	<0123	< .00534	C051720110
	2/14/2006	780	< 25	< 25	< 25	< 25	< .0576	21.5	216				C060450090
F-20	9/12/2006	670	< 50	< 50	< 50	< 50	3.19	157	229				C062550177
0	3/19/2007	750	< 5	14	< 5	< 5	< 2.38	163	237				C070790063
	9/19/2007	450	< 5	< 5	< 25	< 5	4.99	123	222				C072630052
	3/6/2008	2000	< 10	< 10	< 50	< 10	4.24	173	224				C080670001
	12/18/2008	640	< 10	< 10	< 10	< 10	< 1.52	97.5	282				C08353022001
	2/10/2009	1600							256				C09041031001
	5/11/2009	2300	< 25	< 25	< 25	< 25	< 1.82	177	205				C09131017003
	7/28/2009	860							282				C09209006001
	9/25/2009	500	< 10	< 10	< 10	< 10	4.01	196	284				C09268025002
	1/27/2010	660							278				C10027031002
	3/16/2010	790	< 50	< 10	< 50	< 10	5.77	191	298				C10075019002
	7/14/2010	840							298				C10195017001
	9/13/2010	900	< 10	< 10	< 10	< 10	< 1.14	155	271				C10256034001
	1/3/2011	820							309				C11003029004
	5/19/2011	1800	< 50	< 10	< 10	< 10	6.63	172	264				C11139019001
	8/10/2011	880							347				C11222050002

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### Water Quality Records for

Sample Date Range: 5/6/1993 - 7/12/2016

#### **MW337**

				Organic Labor Analysis Res				R	adiological L Analysis R				
	Sample Date	TCE µg/L	1,1-DCE μg/L	1,1-DCA µg/L	1,2-DCA μg/L	trans-1,2-DCE µg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	U-234 pCi/L	U-235 pCi/L	U-238 pCi/L	Lab Sample ID
	8/10/2011	1100							333				C11222050003
	1/23/2012	1300							324				C12023024006
	7/30/2012	810							294				C12212050002
	7/30/2012	800							298				C12212050001
	1/24/2013	840							281				C13024007001
	6/11/2013	2100	< 20	< 20	< 20	< 20			213				C13162014003
	8/26/2013	1600							219				C13238022001
	1/13/2014	2000							231				C14013030001
	7/24/2014	1160							336				353464001
F-21	1/27/2015	1990							298				365920001
1	6/11/2015	1570	.8	< 1	< 1	3.37			254				374981003
	7/20/2015	1430							330				377570001
	1/27/2016	1230							132				390195001
	7/12/2016	1310							277				401419001

## Water Quality Records for

Sample Date Range: 5/6/1993 - 7/12/2016

#### **MW338**

			Organic Labor Analysis Res				R	Radiological L Analysis R				
Sample Date	TCE µg/L	1,1-DCE μg/L	1,1-DCA µg/L	1,2-DCA μg/L	trans-1,2-DCE µg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	U-234 pCi/L	U-235 pCi/L	U-238 pCi/L	Lab Sample ID
10/4/1996									.56		.67	96M04621-3729
10/4/1996								82				96M04621-3759
10/4/1996	.7				< .48							96M04621-3715
1/29/1997	< 1	< 5	< 5	< 5	< 5							970130-049
9/22/1997	< 1	< 5	< 5	< 5	< 5	-1.1	3	8				970923-041
11/19/1997	< 1	< 5	< 5	< 5	< 5	.8	2	-10				971119-082
2/9/1998	< 1	< 5	< 5	< 5	< 5	< 4.2	< 5	< 0				C980420048
5/4/1998	2	< 5	< 5	< 5	< 5	< .2	12	<6				C981250038
8/6/1998	< 1	< 5	< 5	< 5	< 5	< -1.9	< 3	< .2				C982180120
T-22 11/17/1998	< 1	< 5	< 5	< 5	< 5	< 1.15	< 2.58	< -9.2				C983210022
3/3/1999	5	< 5	< 5	< 5	< 5	< .35	< 1.7	19.04				C990620039
6/3/1999	1	< 5	< 5	< 5	< 5	< .96	19.31	<869				C991540178
9/15/1999						< 1.1		< 8.63				C992580184
12/7/1999	< 1	< 5	< 5	< 5	< 5	< 1.51	< 2.91	< -2.48				C993410096
3/7/2000	< 1	< 5	< 5	< 5	< 5	< 0	5.93	< -4.97		< -11.6		C000680018
6/14/2000	24	< 5	< 5	< 5	< 5	< 1.83	< -2.5	< -9.54				C001670001
9/12/2000	21	< 5	< 5	< 5	< 5	< 2.6	8.27	< 7.94				C002560133
12/18/2000	< 1	< 5	< 5	< 5	< 5	< 3.14	5.38	< 7.73				C003540008
3/19/2001	5	< 5	< 5	< 5	< 5	<418	< .657	< .481				C010780095
6/6/2001	8	< 5	< 5	< 5	< 5	< .866	< 2.9	< -3.53				C011570180
9/24/2001	3	< 5	< 5	< 5	< 5	<18	< 2.92	< -7.31		< -4.82		C012680005
12/17/2001	24	< 5	< 5	< 5	< 5	< 1.14	< .738	< -20.6				C013510094
3/13/2002										< 0		C020720127
3/13/2002	78	< 5	< 5	< 5	< 5	<652	< 4	< 1.2				C020720128
6/10/2002	130	< 10	< 10	< 10	< 10	< 1.08	< 5.59	< 1.54				C021610049

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## Water Quality Records for

#### **MW338**

				Organic Labor Analysis Res				R	Radiological L Analysis R				
	Sample Date	TCE μg/L	1,1-DCE μg/L	1,1-DCA µg/L	1,2-DCA μg/L	trans-1,2-DCE µg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	U-234 pCi/L	U-235 pCi/L	U-238 pCi/L	Lab Sample ID
-	9/5/2002	11	< 5	< 5	< 5	< 5	< .0927	< 2.41	< 2.99				C022480134
	12/3/2002	8	< 5	< 5	< 5	< 5	< .447	< 3.19	< 13.4				C023370048
	6/9/2003	140	< 10	< 10	< 10	< 10	<525	8.03	18.8				C031600084
	12/4/2003	9	< 5	< 5	< 5	< 5	< 1.42	6.17	< 0				C033380098
	6/8/2004	22	< 5	< 5	< 5	< 5	< -1.41	< .409	< 9.88	< 30	< 2.2	< .35	C041600043
	7/20/2004	4.6	< 1	< 1	< 1	< 1	< .125	< 2.32	<111	< .169	< .0261	< .423	C042020118
	12/8/2004	13	< 5	< 5	< 5	< 5	< .742	< 3.48	< 5.2				C043430088
	6/16/2005	11	< 5	< 5	< 5	< 5	< 1.43	< 2.46	< 12.4	< .0101	<0133	<0335	C051670015
	2/14/2006	82	< 5	< 5	< 5	< 5	<143	6.12	< 3.55				C060450091
F-23	9/12/2006	25	< 5	< 5	< 5	< 5	< .511	7.01	< -7.99				C062550178
ω	3/19/2007	130	< 5	< 5	< 5	< 5	< 1.6	18.3	29.4				C070790064
	9/19/2007	44	< 1	< 1	< 5	< 1	< 1.36	7.27	18.2				C072630053
	9/19/2007	44	< 1	< 1	< 5	< 1	< 2.72	9.39	< 12.3				C072630054
	3/6/2008	520	< 1	< 1	< 5	< 1	< 2.16	60.8	74.6				C080670002
	9/2/2008	33	< 1	< 1	< 5	< 1	< 2.39	7.6	< 9.04				C082460126
	2/9/2009	220							35.1				C09040021003
	5/7/2009	690	< 25	< 5	< 25	< 5	<167	64.6	83.5				C09127062004
	7/28/2009	80							26.3				C09209006002
	9/25/2009	40	< 1	< 1	< 1	< 1	< 3.07	< 3.87	< 3.76				C09268017003
	1/27/2010	89							22.4				C10027031001
	3/16/2010	36	< 10	< 2	< 10	< 2	< 1.76	8.45	< 10.3				C10075019003
	7/14/2010	14							< -3.51				C10195017002
	7/14/2010	14							< .779				C10195017003
	9/13/2010	14	< 1	< 1	< 1	< 1	< 1.25	< 3.53	< 7.51				C10256034002
	1/3/2011	39							< 9.16				C11003029005

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NOTE: This report does not include data that has been rejected during data assessment and/or data validation.

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Sample Date Range: 5/6/1993 - 7/12/2016

### Water Quality Records for

Sample Date Range: 5/6/1993 - 7/12/2016

#### **MW338**

		Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results						
	Sample Date	TCE µg/L	1,1-DCE μg/L	1,1-DCA μg/L	1,2-DCA μg/L	trans-1,2-DCE µg/L	Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	U-234 pCi/L	U-235 pCi/L	U-238 pCi/L	Lab Sample ID
	5/19/2011	1300	< 5	< 1	< 1	< 1	< 1.41	94.2	158				C11139019002
	8/10/2011	200							32.7				C11222050004
	1/23/2012	170							18				C12023024007
	7/30/2012	44							< 2.01				C12212050003
	1/24/2013	54							< 8.03				C13024007002
	6/11/2013	1100	< 20	< 20	< 20	< 20			214				C13162014004
	8/26/2013	900							197				C13238022002
	1/13/2014	100							69.4				C14013030002
	8/20/2014								44.4				355247001
F-24	8/25/2014	133											355531001
4	1/27/2015	404							32.6				365920002
	6/11/2015	963	.71	< 1	< 1	.74			89.3				374981004
	7/20/2015	193							< 16.7				377570002
	1/27/2016	1670							195				390195002
	7/12/2016	211							< 6.49				401419002

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