



Department of Energy

Portsmouth/Paducah Project Office
1017 Majestic Drive, Suite 200
Lexington, Kentucky 40513
(859) 219-4000
April 27, 2020

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

PPPO-02-10005966-20

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 Boulevard, 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 2020, PADUCAH, KENTUCKY, DOE/LX/07-2449/V1

Reference: Letter from V. Weeks to T. Duncan, "Re: U.S. Environmental Protection Agency Comments for the Semiannual Progress Report for the Second Half of Fiscal Year 2019 at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, Secondary Document (DOE/LX/07-2440/V2), transmittal date of October 28, 2019," dated January 17, 2020

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 2020, Paducah, Kentucky, DOE/LX/07-2449/V1*, and the associated certification page. This report is required by Sections XXIII and XXXII.F of the Federal Facility Agreement and Part IV, "Corrective Action," of the Hazardous Waste Management Facility Permit. This report incorporates the U.S. Environmental Protection Agency (EPA) comments received on January 17, 2020, on the *U.S. Department of Energy Paducah Gaseous Diffusion Plant Federal Facility Agreement Semiannual Progress Report for the Second Half of Fiscal Year 2019, Paducah, Kentucky, DOE/LX/07-2440/V2*. A comment response summary that addresses EPA's comments is enclosed.

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

Sincerely,



Tracey Duncan
Federal Facility Agreement Manager
Portsmouth/Paducah Project Office

Enclosures:

1. Certification Page
2. FFA Semiannual Progress Report for the First Half of Fiscal Year 2020
3. Comment Response Summary

General Reference Compendium

cc w/enclosures:

abigail.parish@pppo.gov, PPPO
april.ladd@pppo.gov, PPPO
april.webb@ky.gov, KDEP
arcorrespondence@pad.pppo.gov
brian.begley@ky.gov, KDEP
bruce.ford@pad.pppo.gov, FRNP
bryan.clayton@pad.pppo.gov, FRNP
bwhatton@tva.gov, TVA
christopher.travis@ky.gov, KDEP
corkran.julie@epa.gov, EPA
dave.dollins@pppo.gov, PPPO
edward.winner@ky.gov, KDEP
frnpcorrespondence@pad.pppo.gov
hjlawrence@tva.gov, TVA
jana.white@pad.pppo.gov, FRNP
jennifer.woodard@pppo.gov, PPPO

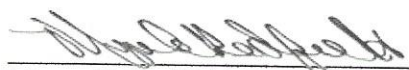
joel.bradburne@pppo.gov, PPPO
leo.williamson@ky.gov, KDEP
leanne.garner@pad.pppo.gov, FRNP
mkbottorff@tva.gov, TVA
mmcrae@TechLawInc.com, EPA
myrna.redfield@pad.pppo.gov, FRNP
nathan.garner@ky.gov, KYRHB
pad.rmc@pad.pppo.gov
rlhoope0@tva.gov, TVA
robert.edwards@pppo.gov, PPPO
robert.smith@pppo.gov, PPPO
stephaniec.brock@ky.gov, KYRHB
tabitha.owens@ky.gov, KDEP
tracey.duncan@pppo.gov, PPPO
weeks.victor@epa.gov, EPA

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 2020, Paducah, Kentucky, DOE/LX/07-2449/V1, April 2020*

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those 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.

Four Rivers Nuclear Partnership, LLC




Myrna E. Redfield, Program Manager
Four Rivers Nuclear Partnership, LLC

4/27/2020

Date Signed

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those 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
U.S. Department of Energy

4/27/2020

Date Signed

**DOE/LX/07-2449/V1
Secondary Document**

**U.S. Department of Energy
Paducah Gaseous Diffusion Plant
Federal Facility Agreement
Semiannual Progress Report for the
First Half of Fiscal Year 2020
Paducah, Kentucky**



CLEARED FOR PUBLIC RELEASE

**DOE/LX/07-2449/V1
Secondary Document**

**U.S. Department of Energy
Paducah Gaseous Diffusion Plant
Federal Facility Agreement
Semiannual Progress Report for the
First Half of Fiscal Year 2020
Paducah, Kentucky**

Date Issued—April 2020

U.S. DEPARTMENT OF ENERGY
Office of Environmental Management

Prepared by
FOUR RIVERS NUCLEAR PARTNERSHIP, LLC,
managing the
Deactivation and Remediation Project at the
Paducah Gaseous Diffusion Plant
under Contract DE-EM0004895

CLEARED FOR PUBLIC RELEASE

THIS PAGE INTENTIONALLY LEFT BLANK

CONTENTS

TABLES	v
ACRONYMS	vii
INTRODUCTION	1
C-400 COMPLEX OPERABLE UNIT	5
GROUNDWATER OPERABLE UNIT	13
BURIAL GROUNDS OPERABLE UNIT	33
SURFACE WATER OPERABLE UNIT	39
SOILS OPERABLE UNIT	43
WATER POLICY	47
ADDITIONAL REPORTING	53
APPENDIX A: NORTHEAST AND NORTHWEST PLUME WATER WITHDRAWAL REPORTS.....	A-1
APPENDIX B: NORTHEAST PLUME AND NORTHWEST PLUME GRAPHS, DATA, AND MAPS (FIGURES B.1 THROUGH B.33).....	B-1
APPENDIX C: C-746-K LANDFILL (SWMU 8) DATA	C-1
APPENDIX D: ADMINISTRATIVE RECORD, POST-DECISION RECORD, AND ADMINISTRATIVE RECORD REFERENCE INDICES	D-1
APPENDIX E: C-400 PROJECT GROUNDWATER MONITORING WELLS DATA	E-1
APPENDIX F: C-749 URANIUM BURIAL GROUND (SWMU 2) GROUNDWATER MONITORING WELL DATA	F-1

THIS PAGE INTENTIONALLY LEFT BLANK

TABLES

1. Operable Units and Corresponding Report Topics.....	2
2. Cumulative TCE Removed at Paducah	13
3. TCE Concentrations for Northeast Plume	24
4. TCE and Tc-99 Concentrations for Northwest Plume (July 1, 2019, through December 31, 2019)	28
5. TCE and Tc-99 Concentrations for Northwest Plume Extraction Wells (July 1, 2019, through December 31, 2019)	28

THIS PAGE INTENTIONALLY LEFT BLANK

ACRONYMS

AOC	area of concern
AR	Administrative Record
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
EIC	Environmental Information Center
EPA	U.S. Environmental Protection Agency
EW	extraction well
FFA	Federal Facility Agreement
FRNP	Four Rivers Nuclear Partnership, LLC
FS	feasibility study
GDP	gaseous diffusion plant
GRC	general reference compendium
GWOU	Groundwater Operable Unit
IRA	interim remedial action
KDEP	Kentucky Department for Environmental Protection
MOA	memorandum of agreement
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
PD	post decision
PGDP	Paducah Gaseous Diffusion Plant
PVA	Property Valuation Administrator
RI	remedial investigation
ROD	record of decision
SMP	Site Management Plan
SOU	Soils Operable Unit
SST	Swift & Staley Team
SWMU	solid waste management unit
SWOU	Surface Water Operable Unit
VOC	volatile organic compound
WAG	waste area group

THIS PAGE INTENTIONALLY LEFT BLANK

**FEDERAL FACILITY AGREEMENT
SEMIANNUAL PROGRESS REPORT
FIRST HALF OF FISCAL YEAR 2020**

**Facility: Paducah Gaseous Diffusion Plant
Plant EPA I.D. No.: KY8-890-008-982
Reporting Period: 10/1/2019–3/31/2020**

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 Department for Environmental Protection (KDEP) 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.

In past Site Management Plans (SMPs), site cleanup activities were divided into (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 was associated with media-specific operable units (OUs) initiated prior to shutdown of the operating GDP (i.e., Pre-GDP shutdown Activities). Site cleanup activities now are being integrated into the following OUs.

- C-400 Complex OU
- Groundwater OU (GWOU)
- Surface Water OU (SWOU)
- Soils OU (SOU)
- Burial Grounds OU (BGOU)
- Facility Decontamination and Decommissioning OU
- Lagoons OU
- Depleted Uranium Hexafluoride (DUF₆) Footprint Underlying Soils OU
- Soils and Slabs OU
- CERCLA Waste Disposal Alternatives OU
- Comprehensive Site OU

Section XXIII of the FFA requires that DOE prepare a regulatory semiannual progress report that describes the actions that DOE has taken during the previous six months to implement FFA requirements, as well as the schedules¹ 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, but will be included in the reporting period in which they occur. Projects and activities reported in this update are grouped by the OUs listed in Table 1.

¹ Schedules are included for information and planning purposes only; enforceable schedules are established in the SMP.

Table 1. Operable Units and Corresponding Report Topics

Operable Unit	Project/Activities
C-400 Complex Operable Unit	<ul style="list-style-type: none"> • C-400 Demolition Removal Action • C-400 Final Remedial Action
Groundwater Operable Unit	<ul style="list-style-type: none"> • C-400 Interim Remedial Action (IRA) • Southwest Plume Sources Remedial Action • Dissolved-Phase Plumes Remedial Action • Northeast Plume IRA • Northwest Plume IRA
Burial Grounds Operable Unit	<ul style="list-style-type: none"> • Burial Grounds Operable Unit • C-749 Uranium Burial Ground Solid Waste Management Unit (SWMU) 2
Surface Water Operable Unit	<ul style="list-style-type: none"> • Remedial Action
Soils Operable Unit	<ul style="list-style-type: none"> • Remedial Action
Water Policy	<ul style="list-style-type: none"> • Removal Action
Additional Reporting	<ul style="list-style-type: none"> • Waste Area Groups (WAGs) 1 and 7 • Community Relations Plan (CRP) • SMP • CERCLA Waste Disposal Alternatives OU • CERCLA Five-Year Review • Plant Industrial Area Vapor Intrusion Assessment

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 section satisfies a reporting requirement for the FFA Semiannual Progress Report or the Hazardous Waste Management 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.33, as referenced in the Northeast and Northwest Plume updates. Appendix B also contains a summary of data through December 31, 2019, associated with the CERCLA outfall for Northeast Plume and data associated with the Northeast Plume Optimization transect monitoring wells (MWs).
- Appendix C contains a map depicting monitoring well 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 31, 2019. These data currently are collected semiannually. Sampling of these monitoring wells is outlined in the Record of Decision (ROD) for WAGs 1 and 7.
- 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). In October 2018, DOE began a comprehensive review of the Paducah Environmental Information Center (EIC) to ensure that the project document files were complete. As part of this effort, DOE reorganized the Paducah EIC to include the original three categories: 1) AR File, 2) Post-Decision (PD) File, and 3) General Reference Compendium (GRC); and added 4) AR Reference File and 5) AR Archive File. The AR Reference File contains programmatic documents that support the AR (e.g., SMP, Risk Methods Document). As a result of this reorganization of the EIC, Appendix D has been expanded to include updates to the AR index that include the AR File, PD File, and AR Reference File.

The AR Archive File contains documents for projects that originally were expected to have a decision document (i.e., ROD or Action Memorandum), but had been resequenced prior to a final decision. These documents have been archived within the AR Archive File to establish future AR files for projects and, as a result, are not included in Appendix D. The AR Archive File can be viewed on the EIC website.

The GRC, which supplements the Paducah AR, contains technical documents associated with the Paducah Site that do not meet the CERCLA criteria of an AR File or a PD File (e.g., CRP, CERCLA Five-Year Review, Annual Site Environmental Report), but are deemed important in understanding the Paducah Site environmental remedial efforts. Because the GRC is not part of the AR, it is not included as part of the update to Appendix D. The GRC can be viewed on the EIC website.

- Appendix E contains figures depicting the C-400 monitoring well locations and summaries of the C-400 groundwater trends for TCE and technetium-99 (Tc-99) from June 2009 through December 31, 2019.
- Appendix F contains figures depicting the C-749 Uranium Burial Ground (SWMU 2) groundwater monitoring wells and a summary of the SWMU 2 trends for TCE and Tc-99 for reporting dates 1993 through December 31, 2019.

THIS PAGE INTENTIONALLY LEFT BLANK

**FEDERAL FACILITY AGREEMENT
SEMIANNUAL PROGRESS REPORT
FIRST HALF OF FISCAL YEAR 2020**

**Facility: Paducah Gaseous Diffusion Plant
Plant EPA I.D. No.: KY8-890-008-982
Reporting Period: 10/1/2019–3/31/2020**

C-400 COMPLEX OPERABLE UNIT

The C-400 Complex OU was established in a *Memorandum of Agreement on the C-400 Complex under the Federal Facility Agreement for the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, signed August 8, 2017 (MOA); the agreement then was incorporated into the SMP. The following two projects are included in the C-400 Complex OU.

- C-400 Demolition Removal Action
- C-400 Final Remedial Action

THIS PAGE INTENTIONALLY LEFT BLANK

**FEDERAL FACILITY AGREEMENT
SEMIANNUAL PROGRESS REPORT
FIRST HALF OF FISCAL YEAR 2020**

**Facility: Paducah Gaseous Diffusion Plant
Plant EPA I.D. No.: KY8-890-008-982
Reporting Period: 10/1/2019–3/31/2020**

C-400 COMPLEX OPERABLE UNIT: C-400 Demolition Removal Action

The C-400 Demolition Removal Action is a CERCLA non-time-critical removal action that will result in the demolition and disposal of the C-400 Cleaning Building structure down to the building slab. The building's foundation and concrete slab floor will remain in place at the end of the removal action.

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

- Submitted the DOE memorandum entitled, *Suspension of the D1 and D2 Comprehensive Environmental Response, Compensation, and Liability Act Documents Associated with the C-400 Cleaning Building Non-Time-Critical Removal Action at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, PPPO-02-5786835-20, to EPA and KDEP on October 2, 2019.

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 next reporting period. The removal action activities have been suspended in accordance with the *Memorandum of Agreement for Resolution of Formal Disputes on EPA Conditional Concurrence on the Removal Notification for Demolition of the C-400 Cleaning Building in the C-400 Complex Operable Unit at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-2420&D2 and the *Engineering Evaluation/Cost Analysis for Demolition of the C-400 Cleaning Building in the C-400 Complex Operable Unit at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-2425&D2, dated August 1, 2019.

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 C-400 Complex OU belongs to Four Rivers Nuclear Partnership, LLC (FRNP). FRNP also provides programmatic and technical support, analytical services, and business management services. Swift & Staley Team (SST) manages the AR and the EIC for DOE.

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

- The removal action activities have been suspended in accordance with the *Memorandum of Agreement for Resolution of Formal Disputes on EPA Conditional Concurrence on the Removal Notification for Demolition of the C-400 Cleaning Building in the C-400 Complex Operable Unit at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-2420&D2 and the *Engineering Evaluation/Cost Analysis for Demolition of the*

C-400 Cleaning Building in the C-400 Complex Operable Unit at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-2425&D2, dated August 1, 2019.

V. Primary/Secondary Document Tracking System:

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

- The DOE Memorandum entitled, *Suspension of the D1 and D2 Comprehensive Environmental Response, Compensation, and Liability Act Documents Associated with the C-400 Cleaning Building Non-Time-Critical Removal Action at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, PPPO-02-5786835-20, was reviewed by EPA and KDEP 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):

- 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 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:

- None.

**FEDERAL FACILITY AGREEMENT
SEMIANNUAL PROGRESS REPORT
FIRST HALF OF FISCAL YEAR 2020**

**Facility: Paducah Gaseous Diffusion Plant
Plant EPA I.D. No.: KY8-890-008-982
Reporting Period: 10/1/2019–3/31/2020**

C-400 COMPLEX OPERABLE UNIT: C-400 Final Remedial Action

The C-400 Final Remedial Action will investigate the C-400 Complex OU and associated SWMUs, evaluate potential remedial alternatives, develop decision documents selecting an alternative(s), and design and implement the remedial alternative(s).

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

- Received EPA and KDEP approval on the *Remedial Investigation/Feasibility Study Work Plan for the C-400 Complex Operable Unit at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-2433&D2, on October 1, 2019.
- Initiated Remedial Investigation/Feasibility Study (RI/FS) field activities associated with the C-400 Complex OU on November 11, 2019. The initial RI/FS field activities included gamma walkover surveys and maintenance/redevelopment of existing monitoring wells around the C-400 Complex.
- Submitted notification of RI field start for the C-400 Complex OU to EPA and KDEP on November 25, 2019, which satisfied the *Site Management Plan, Paducah Gaseous Diffusion Plant, Paducah, Kentucky, Annual Revision-FY 2018 and FY 2019*, DOE/LX/07-2418&D2/R2, milestone date of February 15, 2020.
- Initiated drilling fieldwork associated with the C-400 Complex OU on March 3, 2020.
- Developed and submitted to EPA and KDEP the *Remedial Investigation/Feasibility Study Work Plan for the C-400 Complex Operable Unit at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-2433&D2/R1, on March 5, 2020.
- Received KDEP and EPA concurrence on the *Remedial Investigation/Feasibility Study Work Plan for the C-400 Complex Operable Unit at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-2433&D2/R1, on March 6, 2020.

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

- Continue RI/FS fieldwork in accordance with the approved *Remedial Investigation/Feasibility Study Work Plan for the C-400 Complex Operable Unit at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-2433&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 the C-400 Complex OU belongs to FRNP. FRNP also provides programmatic and technical support, analytical services, and business management services. SST manages the AR and the EIC for DOE.

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

Requirements for the C-400 Complex Remedial Action are being met consistent with the following documents:

- *Memorandum of Agreement on the C-400 Complex under the Federal Facility Agreement for the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, signed August 8, 2017;
- *Memorandum of Agreement for Resolution of Formal Dispute Regarding the Non-Concurrence by EPA and KDEP on the DOE Milestone Modification Request for Submittal 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), signed September 28, 2017;
- *Memorandum of Agreement for Resolution of Formal Disputes on EPA Conditional Concurrence on the Removal Notification for Demolition of the C-400 Cleaning Building in the C-400 Complex Operable Unit at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-2420&D2 and the *Engineering Evaluation/Cost Analysis for Demolition of the C-400 Cleaning Building in the C-400 Complex Operable Unit at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-2425&D2, signed August 1, 2019; and
- *Site Management Plan, Paducah Gaseous Diffusion Plant, Paducah, Kentucky, Annual Revision—FY 2018 and FY 2019*, DOE/LX/07-2418&D2/R2.

V. Primary/Secondary Document Tracking System:

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

- The *Remedial Investigation/Feasibility Study Work Plan for the C-400 Complex Operable Unit at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-2433&D2, was under EPA and KDEP review during this reporting period.
- The *Remedial Investigation/Feasibility Study Work Plan for the C-400 Complex Operable Unit at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-2433&D2/R1, was under development and under EPA and KDEP 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):

- 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 congressional staff.

VIII. Changes in relevant personnel:

- None.

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

- None.

THIS PAGE INTENTIONALLY LEFT BLANK

**FEDERAL FACILITY AGREEMENT
SEMIANNUAL PROGRESS REPORT
FIRST HALF OF FISCAL YEAR 2019**

**Facility: Paducah Gaseous Diffusion Plant
Plant EPA I.D. No.: KY8-890-008-982
Reporting Period: 10/1/2019–3/31/2020**

GROUNDWATER OPERABLE UNIT

The scope of the GWOU includes performing investigations, conducting baseline risk assessments, evaluating removal/remedial alternatives, and selecting and implementing 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 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.

Table 2. Cumulative TCE* Removed at Paducah

Source Area	Cumulative TCE Removed (gal)*
Northwest Plume Pump-and-Treat	3,778**
Northeast Plume Pump-and-Treat	337**
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™)	246
Total	7,957

*TCE values may contain other VOCs.

**Cumulative through December 31, 2019.

***Removed during deep soil mixing operations.

THIS PAGE INTENTIONALLY LEFT BLANK

**FEDERAL FACILITY AGREEMENT
SEMIANNUAL PROGRESS REPORT
FIRST HALF OF FISCAL YEAR 2020**

**Facility: Paducah Gaseous Diffusion Plant
Plant EPA I.D. No.: KY8-890-008-982
Reporting Period: 10/1/2019–3/31/2020**

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):

- Continued long-term monitoring per the C-400 IRA and conducted annual inspections in accordance with the *Land Use Control Implementation Plan for Interim Remedial Action for the Groundwater Operable Unit for the Volatile Organic Compound Contamination at the C-400 Cleaning Building at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/OR/07-2151&D2/R2*.

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

- Continue long-term monitoring per the C-400 IRA and conduct annual inspections in accordance with the *Land Use Control Implementation Plan for Interim Remedial Action for the Groundwater Operable Unit for the Volatile Organic Compound Contamination at the C-400 Cleaning Building at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/OR/07-2151&D2/R2*.

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 C-400 IRA belongs to FRNP. FRNP also provides programmatic and technical support, analytical services, and business management services. SST manages the AR and the EIC for DOE.

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

The requirements for the C-400 IRA are being met consistent with the following documents:

- *Memorandum of Agreement on the C-400 Complex under the Federal Facility Agreement for the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, signed August 8, 2017; and*
- *Memorandum of Agreement for Resolution of Formal Dispute Regarding the Non-Concurrence by EPA and KDEP on the DOE Milestone Modification Request for Submittal 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), signed September 28, 2017.*

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, 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-400 wells has been incorporated into the Environmental Monitoring Program. O&M cost for sampling for the C-400 IRA Project is not tracked separately.

**FEDERAL FACILITY AGREEMENT
SEMIANNUAL PROGRESS REPORT
FIRST HALF OF FISCAL YEAR 2020**

**Facility: Paducah Gaseous Diffusion Plant
Plant EPA I.D. No.: KY8-890-008-982
Reporting Period: 10/1/2019–3/31/2020**

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

- Continued long-term monitoring of the SWMU 1 monitoring well network 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/A1/R1.*
- Conducted inspections of warning signs at SWMU 1 and verified the Excavation/Penetration Permit program for the Southwest Plume areas 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.*

SWMUs 211-A and 211-B

- Developed and issued the 90% *Remedial Design Report for SWMU 211-A for Volatile Organic Compound Sources to the Southwest Groundwater Plume at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-2435&D1,* to EPA and KDEP on November 7, 2019.
- Received EPA comments on the 90% *Remedial Design Report for SWMU 211-A for Volatile Organic Compound Sources to the Southwest Groundwater Plume at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-2435&D1,* on December 5, 2019.
- Received KDEP approval on the 90% *Remedial Design Report for SWMU 211-A for Volatile Organic Compound Sources to the Southwest Groundwater Plume at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-2435&D1,* on December 6, 2019.
- Developed and issued to EPA and KDEP for approval the *Certified for Construction Remedial Design Report for SWMU 211-A for Volatile Organic Compound Sources to the Southwest Groundwater Plume at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-2435&D2,* on December 19, 2019.
- Received approval of the *Certified for Construction Remedial Design Report for SWMU 211-A for Volatile Organic Compound Sources to the Southwest Groundwater Plume at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-2435&D2,* from KDEP and EPA on December 20, 2019, and December 23, 2019, respectively.

- Developed and issued the *Remedial Action Work Plan for SWMU 211-A Enhanced In Situ Bioremediation for Volatile Organic Compound Sources to the Southwest Groundwater Plume at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-2443&D1, on December 5, 2019, to EPA and KDEP for review and comment.
- Received EPA's and KDEP's comments on the *Remedial Action Work Plan for SWMU 211-A Enhanced In Situ Bioremediation for Volatile Organic Compound Sources to the Southwest Groundwater Plume at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-2443&D1, on January 31, 2020.
- Completed development and issued the *Remedial Action Work Plan for SWMU 211-A Enhanced In Situ Bioremediation for Volatile Organic Compound Sources to the Southwest Groundwater Plume at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-2443&D2, to EPA and KDEP for approval on March 30, 2020.
- Initiated procurement activities for an implementing subcontractor for the Enhanced *In Situ* Bioremediation project at SWMU 211-A.
- Conducted inspections of warning signs at SWMU 211-A and SWMU 211-B and verified the Excavation/Penetration Permit Program for the Southwest Plume areas 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.

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

SWMU 1

- Continue long-term monitoring per of the SWMU 1 monitoring well network 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/A1/R1.

SWMUs 211-A and 211-B

- Receive approval for the *Remedial Action Work Plan for SWMU 211-A Enhanced In Situ Bioremediation for Volatile Organic Compound Sources to the Southwest Groundwater Plume at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-2443&D2, from EPA and KDEP.
- Complete procurement of an implementing subcontractor for the Enhanced *In Situ* Bioremediation project.
- Initiate field activities associated with implementing the SWMU 211-A Enhanced *In Situ* Bioremediation project.
- Conduct inspections of warning signs at SWMU 211-A and SWMU 211-B and verify the Excavation/Penetration Permit Program for the Southwest Plume areas 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.

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 Southwest Plume Sources belongs to FRNP. FRNP also provides programmatic and technical support, analytical services, and business management services. SST manages the AR and the EIC for DOE.

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:

- *90% Remedial Design Report for SWMU 211-A for Volatile Organic Compound Sources to the Southwest Groundwater Plume at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-2435&D1, was under development, and the document was under review by EPA and KDEP during this reporting period.*
- *Certified for Construction Remedial Design Report for SWMU 211-A for Volatile Organic Compound Sources to the Southwest Groundwater Plume at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-2435&D2, was under development, and the document was under review by EPA and KDEP during this reporting period.*
- *Remedial Action Work Plan for SWMU 211-A Enhanced In Situ Bioremediation for Volatile Organic Compound Sources to the Southwest Groundwater Plume at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-2443&D1, was under development, and the document was under review by EPA and KDEP during this reporting period.*
- *Remedial Action Work Plan for SWMU 211-A Enhanced In Situ Bioremediation for Volatile Organic Compound Sources to the Southwest Groundwater Plume at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-2443&D2, was under development 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):

- 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.

**FEDERAL FACILITY AGREEMENT
SEMIANNUAL PROGRESS REPORT
FIRST HALF OF FISCAL YEAR 2020**

**Facility: Paducah Gaseous Diffusion Plant
Plant EPA I.D. No.: KY8-890-008-982
Reporting Period: 10/1/2019–3/31/2020**

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):**
- Met quarterly with the Modeling Working Group during this reporting period on October 2, 2019, and January 8, 2020.
 - Published a compendium of Modeling Working Group meeting summaries and sent them to the Working Group on January 6, 2020.
- II. Schedule of activities to be performed during upcoming reporting period (including projected work/crucial phases of construction):**
- Install MW583 to replace well MW152. (The replacement well installation is awaiting completion of Tennessee Valley Authority field construction so the area may be accessed.)
- 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 Dissolved-Phase Plume belongs to FRNP. FRNP also provides programmatic and technical support, analytical services, and business management services. SST manages the AR and the EIC for DOE.
- 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 Paducah Site projects.
- 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, 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, as applicable.

VIII. Changes in relevant personnel:

- None.

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

- None.

**FEDERAL FACILITY AGREEMENT
SEMIANNUAL PROGRESS REPORT
First HALF OF FISCAL YEAR 2020**

**Facility: Paducah Gaseous Diffusion Plant
Plant EPA I.D. No.: KY8-890-008-982
Reporting Period: 10/1/2019–3/31/2020**

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):

- During this reporting period, the Northeast Plume Containment System (NEPCS) treated 45,440,486 gal of contaminated groundwater, with an average system treatment rate for the reporting period of 172 gal/min. The system is designed so that continuous operation of the NEPCS is possible when only one of the two extraction wells (EWs) is functional. The NEPCS achieved an average operational efficiency, as a whole, of 98.7%. Operational online efficiencies for the reporting period for C-765 were as follows: October 2019, 94.9%; November 2019, 99.0%; December 2019, 99.9%; January 2020, 99.7%; February 2020, 100%; and March 2020, 99.2%. Operational online efficiencies for the reporting period for C-765-A were as follows: October 2019, 93.4%; November 2019, 99.7%; December 2019, 100%; January 2020, 99.4%; February 2020, 100%; March 2020, 99.3%.

A) Process Operations:

The NEPCS consists of two EWs (EW234 and EW235), transfer piping, two treatment units for air stripping and suspended solids removal, and monitoring well network. The old extraction wells, EW331 and EW332, equalization tank, and old transfer piping have been placed in standby mode.

B) Process Testing:

Operation of the NEPCS began February 28, 1997. As of March 31, 2020, the NEPCS has processed a total of approximately 1,947,268,012 gal of water. The monthly withdrawal volumes for 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 2019.

The influent flow is a composite from two extraction wells. Influent TCE analytical data from 1997 through the end of December 2019 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 2019. 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 C-765 (EW234)	144	130	135
Influent C-765-A (EW235)	154	133	145
Effluent from C-765	< 1	< 1	< 1
Effluent from C-765-A	< 1	< 1	< 1
Effluent (CERCLA Outfall C001)	< 1	< 1	< 1

As presented in Table 3, the NEPCS continued to remove TCE effectively. The systems operated with an average removal efficiency of 99.3% for EW234 and 99.3% for EW235 for TCE.

The extraction wells were sampled monthly during this reporting period. For the period July through December 2019, EW234 had an average TCE concentration of 135 µg/L, while EW235 had an average concentration of 145 µg/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.

- C-765-A system shut down for a total of 2 hours for planned maintenance during the reporting period.
- C-765 system shut down for 30 minutes for planned maintenance during this reporting period.
- C-765 system shut down for a total of 3 hours for planned power outage for power operations during this reporting period.
- C-765 system shut down for a total of 43 hours for fiber-optic cable installation during the reporting period.
- C-765-A system shut down for a total of 49 hours for fiber-optic cable installation during this reporting period.

Non-routine Maintenance Activities:

- C-765-A system shut down for a total of 2 hours due to low pressure in the air compressor during this reporting period.
- C-765-A and C-765 systems shut down for a total of 2 hours and 15 minutes due to a Kentucky Utilities power outage during this reporting period.
- C-765 system shut down for a total of 4 hours and 45 minutes due to communication failure from storms during this reporting period.
- C-765-A system shut down for a total of 5 hours and 30 minutes due to communication failure from storms during this reporting period.

E) Effectiveness Monitoring—Monitoring Well Results:

Figure B.1, included in Appendix B, shows locations of the monitoring wells and extraction wells. Figure B.2 shows the location of the monitoring wells and extraction wells with the bottom of the Lower Continental Deposits topography. Figure B.3 shows system influent TCE concentrations, and Figures B.4 and B.5 include a summary of the TCE concentration and Tc-99 activities in the Northeast Plume extraction wells. Figure B.6 shows the estimated cumulative amount of TCE removed since the NEPCS began operations in 1997. Figures B.7 through B.14 presented in Appendix B, show TCE concentrations and Tc-99 activities in upgradient transect wells, monitoring wells near the extraction wells (including extraction well data), downgradient wells, and distal downgradient wells. The extraction wells are working well to increase TCE mass removal and to enhance control of the plume. This is shown in Figure B.6 in Appendix B with an increase in mass removal beginning in October 2017 with initiation of pumping from the optimized extraction wells.

During this reporting period, the FFA parties reviewed and assessed the Northeast Plume TCE and Tc-99 transect well results on a quarterly basis, along with analytical results for other NEPCS monitoring wells. The analytical results can be found in Appendix B. This information was used by the FFA parties when considering if additional adjustments are needed to minimize undesirable expansion of Tc-99 and TCE within the Northeast Plume. The FFA parties agreed to continue operating at the flowrates of 100 gpm and 75 gpm, for EW234 and EW235, respectively. The NEPCS continues to operate under Condition #3 of the *Memorandum of Agreement for Resolution of Formal Dispute of the Explanation of Significant Differences of the Record of Decision for the Interim Remedial Action of the NE Plume at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky* (DOE/LX/07-1291&D2).

F) Modification of the NEPCS Operations or Configuration:

None.

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

- Continue monitoring TCE and Tc-99 transect monitoring well sampling results in conjunction with other Northeast Plume monitoring wells results, comprehensively.

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 Northeast Plume IRA belongs to FRNP. FRNP also provides programmatic and technical support, analytical services, and business management services. SST manages the AR and the EIC for DOE.

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

- The effluent concentration goal of 30 µg/L for TCE was met during the reporting period. The NEPCS remained operational 98.7% of the time 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, 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 \$440,000.

**FEDERAL FACILITY AGREEMENT
SEMIANNUAL PROGRESS REPORT
FIRST HALF OF FISCAL YEAR 2020**

**Facility: Paducah Gaseous Diffusion Plant
Plant EPA I.D. No.: KY8-890-008-982
Reporting Period: 10/1/2019–3/31/2020**

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 52,124,510 gal of contaminated groundwater, with an average monthly operational efficiency of 99.1%. The average system treatment rate for the reporting period was approximately 198 gal/min. Operational efficiencies for the reporting period were as follows: October 2019, 98.3%; November 2019, 100%; December 2019, 99.5%; January 2020, 98.9%; February 2020, 99.5%; March 2020, 98.7%.

A) Process Operations:

The NWPGS consists of two extraction wells (EW232 and EW233), located just north of the Paducah Site, 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 is released to a tributary flowing to KPDES Outfall 001. A monitoring well network is used to evaluate performance and effectiveness of the optimized extraction wells.

B) Process Testing:

Operation of the NWPGS began on August 28, 1995. As of March 31, 2020, the NWPGS has processed a total of approximately 2,455,298,251 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 2019.

Figure B.15, included in Appendix B, shows locations of the Northwest Plume monitoring wells. Figure B.16 shows the location of the monitoring wells with the bottom of the Lower Continental Deposits topography. Influent TCE and Tc-99 analytical data are presented in Appendix B on Figures B.17 and B.18. Figures B.19 and B.20 include a summary of the TCE and Tc-99 concentrations of the effluent versus time at the NWPGS. Figure B.21 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 remove TCE and Tc-99 effectively.

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 1, 2019, through December 31, 2019, are presented in Table 4.

**Table 4. TCE and Tc-99 Concentrations for Northwest Plume
(July 1, 2019, through December 31, 2019)**

	TCE (µg/L)			Tc-99 (pCi/L)		
	High	Low	Average	High	Low	Average
Influent	1,430	973	1,220	225	199	213
Effluent	3.7	1.37	1.78	15.3*	< 1*	1.99*

*The values denoted are below the detection limit.

The treatment system influent was sampled monthly. The effluent was sampled weekly. These sampling frequencies were conducted in accordance with the *Operation 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*. As presented in Table 4, the NWPGS continued to remove TCE and Tc-99 effectively. The system operated with an average removal efficiency of 99.9% for TCE and 99.1% for Tc-99.

The average TCE effluent concentration for this reporting period was 1.78 µg/L, which is less than the treatment goal of 5 µg/L. The average Tc-99 effluent value was 1.99 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 extraction wells are shown in Table 5. EW232 and EW233 were sampled quarterly in accordance with the *Operation 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*.

**Table 5. TCE and Tc-99 Concentrations for Northwest Plume Extraction Wells
(July 1, 2019, through December 31, 2019)**

	TCE (µg/L)			Tc-99 (pCi/L)		
	High	Low	Average	High	Low	Average
EW232	485	246	326	145	63.9	95.8
EW233	2,590	1,820	2,210	343	305	324

D) Treatment Media:

Ion Exchange Resins:

NWPGS is equipped with four ion exchange columns used for Tc-99 removal. Purolite A-52-E resin is used in the columns, which are arranged in a lead/lag configuration in a trailer. No resin changes were required during this reporting period.

Activated Carbon Media:

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 *Operation 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, requires that spent carbon be replaced every 6 months. The last carbon changeout was completed on March 18, 2020. The next carbon changeout is projected for September 2020.

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, and *Monthly, Quarterly, and Annual Maintenance at the C-612 Northwest Plume Groundwater System*, CP4-ER-0016.

- The NWPGS shut down for a total of 6 hours and 30 minutes for planned maintenance during this reporting period.
- The NWPGS shut down for a total of 8 hours for tank inspections during this reporting period.
- The NWPGS shut down for a total of 2 hours for planned power outage during this reporting period.
- The NWPGS shut down for a total of 1 hour and 30 minutes for carbon change-out during this reporting period.

Non-routine Maintenance Activities:

- The NWPGS shut down for a total of 11 hours and 45 minutes due to high water levels in manholes during this reporting period.
- The NWPGS shut down for a total of 8 hours and 15 minutes due to plant power outage during this reporting period.

F) Effectiveness Monitoring—Monitoring Well Results:

Figures B.22 through B.33 presented in Appendix B, show TCE and Tc-99 concentrations in monitoring wells at the south and north fields of the Northwest Plume and the extraction wells,

respectively. These graphs show all data since monitoring began in 1995 and indicate the position of the monitoring wells relative to the extraction.

G) Modification of the NWPGS Operations or Configuration:

- None.

II. Schedules of activities to be performed during the 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 *Operation 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 Northwest Plume IRA belongs to FRNP. FRNP also provides programmatic and technical support, analytical services, and business management services. SST manages the AR and the EIC for DOE.

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 µg/L for TCE and 900 pCi/L for Tc-99, during the reporting period. The NWPGS has maintained an average monthly operational efficiency of 99.1% 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 \$440,000.

THIS PAGE INTENTIONALLY LEFT BLANK

**FEDERAL FACILITY AGREEMENT
SEMIANNUAL PROGRESS REPORT
FIRST HALF OF FISCAL YEAR 2020**

**Facility: Paducah Gaseous Diffusion Plant
Plant EPA I.D. No.: KY8-890-008-982
Reporting Period: 10/1/2019–3/31/2020**

BURIAL GROUNDS OPERABLE UNIT

The scope of the BGOU includes an 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 (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, 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*, DOE/OR/06-1351&D1, signed in 1995.

THIS PAGE INTENTIONALLY LEFT BLANK

**FEDERAL FACILITY AGREEMENT
SEMIANNUAL PROGRESS REPORT
FIRST HALF OF FISCAL YEAR 2020**

**Facility: Paducah Gaseous Diffusion Plant
Plant EPA I.D. No.: KY8-890-008-982
Reporting Period: 10/1/2019–3/31/2020**

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):**
- No activities were scheduled for 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 upcoming reporting period.
- III. Identity and assigned tasks of DOE contractors for work to be performed for this project:**
- No activities were scheduled for this reporting period.
- 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. The requirements and time schedules are being met for the BGOU 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 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 delay, 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:

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

**FEDERAL FACILITY AGREEMENT
SEMIANNUAL PROGRESS REPORT
FIRST HALF OF FISCAL YEAR 2020**

**Facility: Paducah Gaseous Diffusion Plant
Plant EPA I.D. No.: KY8-890-008-982
Reporting Period: 10/1/2019–3/31/2020**

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 31, 2019, have been included as part of this report. The results of the groundwater monitoring trends from 1996 through December 31, 2019, 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 FRNP. FRNP also provides programmatic and technical support, analytical services, and business management services. SST manages the AR and the EIC for DOE 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 delay, 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 for this project is not tracked separately.

**FEDERAL FACILITY AGREEMENT
SEMIANNUAL PROGRESS REPORT
FIRST HALF OF FISCAL YEAR 2020**

**Facility: Paducah Gaseous Diffusion Plant
Plant EPA I.D. No.: KY8-890-008-982
Reporting Period: 10/1/2019–3/31/2020**

SURFACE WATER OPERABLE UNIT

The SWOU includes the Surface Water Removal Action and Surface Water Remedial Action projects. O&M is performed on North-South Diversion Ditch Sections 1 and 2 and institutional controls, as required by the *Operation and Maintenance Plan for Sections 1 and 2 of the North-South Diversion Ditch*, DOE/OR/07-2057&D2, and *Operation 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 *Operation 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.

Per the *Operation 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 March 2020, and the current maximum discharge limit for turbidity is 90 nephelometric turbidity units (NTUs), with a 30-day average not to exceed 43 NTUs.

THIS PAGE INTENTIONALLY LEFT BLANK

**FEDERAL FACILITY AGREEMENT
SEMIANNUAL PROGRESS REPORT
FIRST HALF OF FISCAL YEAR 2020**

**Facility: Paducah Gaseous Diffusion Plant
Plant EPA I.D. No.: KY8-890-008-982
Reporting Period: 10/1/2019–3/31/2020**

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):**
- Conducted inspections in accordance with the *Land Use Control Implementation Plan for the North-South Diversion Ditch at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/OR/07-1949&D2/R2.*
- II. Schedules of activities to be performed during the next reporting period (including projected work/crucial phases of construction):**
- Conduct inspections in accordance with the *Land Use Control Implementation Plan for the North-South Diversion Ditch at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/OR/07-1949&D2/R2.*
- 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 FRNP. FRNP also provides programmatic and technical support, analytical services, and business management services. SST manages the AR and the EIC for DOE.
- 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. The requirements and schedules are being met for the SWOU 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:**
- None.
- 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):

- 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 for this project is not tracked separately.

**FEDERAL FACILITY AGREEMENT
SEMIANNUAL PROGRESS REPORT
FIRST HALF OF FISCAL YEAR 2020**

**Facility: Paducah Gaseous Diffusion Plant
Plant EPA I.D. No.: KY8-890-008-982
Reporting Period: 10/1/2019–3/31/2020**

SOILS OPERABLE UNIT

The Soils OU has been implemented in a phased approach consisting of remedial and removal actions.

The original scope of the Soils OU consisted of 86 SWMUs/areas of concern (AOCs); three inactive facilities (SWMUs 181, SWMU 40, and SWMU 19); and the soil/rubble areas that have been identified to date. The scope of the removal action for two of the three inactive facilities has been completed, except excavation of contaminated soil at the C-403 Neutralization Tank (SWMU 40). SWMU 40 will be addressed as part of the C-400 Complex OU. The scope for the soil/rubble areas also has been completed. During the development of the RI/FS Work Plan/Report, it was determined that only 63 of the 86 SWMUs/AOCs included within the original scope could be addressed under this OU, based upon accessibility. Those SWMUs/AOCs identified as inaccessible will be addressed as part of the Soils and Slabs OU scope. The Soils OU scope focuses on accessible plant surface soils (ground surface to 10 ft bgs and 16 ft bgs in the vicinity of pipelines) not associated with PGDP operations. Sequencing of the work will be determined based on OU-specific circumstances, as mutually agreed upon by the FFA parties.

THIS PAGE INTENTIONALLY LEFT BLANK

**FEDERAL FACILITY AGREEMENT
SEMIANNUAL PROGRESS REPORT
FIRST HALF OF FISCAL YEAR 2020**

**Facility: Paducah Gaseous Diffusion Plant
Plant EPA I.D. No.: KY8-890-008-982
Reporting Period: 10/1/2019–3/31/2020**

SOILS OPERABLE UNIT PROJECT: Remedial Action

- I. Work performed during this 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 SOU belongs to FRNP. FRNP also provides programmatic and technical support, analytical services, and business management services. SST manages the AR and the EIC for DOE.
- 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. 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:**
- None.
- 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):**
- 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:

- None.

**FEDERAL FACILITY AGREEMENT
SEMIANNUAL PROGRESS REPORT
FIRST HALF OF FISCAL YEAR 2020**

**Facility: Paducah Gaseous Diffusion Plant
Plant EPA I.D. No.: KY8-890-008-982
Reporting Period: 10/1/2019–3/31/2020**

WATER POLICY

Pursuant to the June 1994 *Action Memorandum for the Water Policy at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/OR/06-1201&D2, (Action Memorandum), that was approved by EPA in August 1994, municipal water service was offered at no cost to all existing private residences and businesses within the Water Policy affected area. The Action Memorandum defines the affected area as follows:

The affected area is generally bounded by the Ohio River to the north, DOE property boundary to the south, Metropolis Lake Road to the east, and Bethel Church Road to the west. Specifically, on the west side, the boundary follows the DOE property boundary northwest to the intersection with Big Bayou Creek. At that point, it moves west to the intersection of Bethel Church Road and the centerline of a powerline easement just south of Bobo Lane. Property fronting the north end of Bethel Church Road is included in the affected area north of the intersection with the powerline easement to the Ohio River. Specifically, on the east side, the boundary follows the DOE property boundary northwest to the southern point of private property that fronts Ogden Landing Road (identified in McCracken County Property Valuation Office records as #20-27-1A). At that point, it moves east along the southern edge of properties that front the south side of Ogden Landing Road to the intersection of Ogden Landing Road with Metropolis Lake Road. Property fronting on both sides of Metropolis Lake Road is included in the affected area north of this intersection of the roads to the Ohio River.

There are 795 acres within the Water Policy affected area that lie above the 2018 TCE groundwater plume above the 5 µg/l MCL; 635 acres are owned by either WKWMA or TVA, and 160 acres are owned by private residents or businesses. DOE has implemented various water policy activities that ensure proper management of the Water Policy and assist in DOE's long-term protectiveness of residents and businesses located within the Water Policy affected area. These activities include the following: (1) update water policy area information by maintaining an annual subscription to the online McCracken County Property Valuation Administrator (PVA) office and verifying land ownership with the PVA office; (2) review the monthly billing register, ensuring water bill payments and assessing trends; (3) manage license agreements; (4) provide sampling results; (5) provide an annual water policy educational fact sheet to all residents and businesses within the affected area; (6) perform annual cap and lock inspections; and (7) demonstrate, on an annual basis, that residents and businesses located over the groundwater plume are not utilizing the groundwater.

THIS PAGE INTENTIONALLY LEFT BLANK

**FEDERAL FACILITY AGREEMENT
SEMIANNUAL PROGRESS REPORT
FIRST HALF OF FISCAL YEAR 2020**

**Facility: Paducah Gaseous Diffusion Plant
Plant EPA I.D. No.: KY8-890-008-982
Reporting Period: 10/1/2019–3/31/2020**

PROJECT: Water Policy

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

License Agreements:

- Offered 19 license agreements during this reporting period. Of the 19 license agreements offered during this reporting period, 10 license agreements have been signed by residents, and 9 license agreement renewals are pending signature. As of March 31, 2020, 72 out of 126 parcels within the Water Policy affected area are covered by a license agreement. The number of license agreements counted also includes parcels on the west side of Bethel Church Road.

Water Bills:

- Reviewed all water bills for properties that DOE pays, and noted no significant trends during this reporting period.

Educational Fact Sheet:

- Developed and submitted the water policy educational fact sheet to EPA and KDEP for review on February 14, 2020.
- Received KDEP and EPA approval on the water policy educational fact sheet on February 17, and February 18, 2020, respectively.
- Issued the water policy educational fact sheet to area residents on March 17, 2020.

Demonstration that Residents Located over the Contaminated Groundwater Plume Are Protected:

- Completed the annual demonstration that residents located over the contaminated groundwater plume are not using groundwater. This demonstration included doing the following:
 - Reviewing the water bills of the 10 parcels that lie over the 5 µg/L or greater TCE plumes and ensuring no downward trends in usage that could indicate that property owners are using groundwater instead of municipal water.
 - Reviewing the Kentucky Geological Survey water well database and ensuring that no additional groundwater wells had been installed in the Water Policy Area, which includes the area over the 5 µg/L or greater TCE plumes. No issues were identified during this review.

- Conducting a visual assessment (drive-by and Google Earth images) of properties overlying or immediately adjacent to the 5 µg/L or greater TCE plumes. No issues were identified during this assessment.
- Verifying land ownership by reviewing the PVA website.

Cap and Lock Inspection:

- Conducted the annual inspection of the caps and locks installed on residential wells located on property with a current license agreement. Identified no issues during this annual inspection.

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

- Complete the annual inspection of the caps and locks installed on the residential wells located on property with a current license agreement

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 Water Policy belongs to FRNP. FRNP also provides programmatic and technical support, analytical services, and business management services. SST manages the AR and the EIC for DOE.

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:

- The Water policy educational fact sheet was developed, and it was reviewed by EPA and KDEP during this reporting period.

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

- Provide the Water Policy Educational Fact Sheet to area residents and businesses no later than March 31, 2020.

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:

- Water bill payments are included in DOE's annual operating budget for the Paducah Site.

THIS PAGE INTENTIONALLY LEFT BLANK

**FEDERAL FACILITY AGREEMENT
SEMIANNUAL PROGRESS REPORT
FIRST HALF OF FISCAL YEAR 2020**

**Facility: Paducah Gaseous Diffusion Plant
Plant EPA I.D. No.: KY8-890-008-982
Reporting Period: 10/1/2019–3/31/2020**

ADDITIONAL REPORTING

Presented in this Additional Reporting section are updates for the following:

- WAGs 1 and 7 (C-746-K Landfill, TCE Spill Sites, Underground Storage Tanks, and Kentucky Ordnance Works sites);
- CRP;
- SMP;
- CERCLA Waste Disposal Alternatives Evaluation;
- CERCLA Five-Year Review; and
- Plant Industrial Area Vapor Intrusion Assessment.

THIS PAGE INTENTIONALLY LEFT BLANK

**FEDERAL FACILITY AGREEMENT
SEMIANNUAL PROGRESS REPORT
FIRST HALF OF FISCAL YEAR 2020**

**Facility: Paducah Gaseous Diffusion Plant
Plant EPA I.D. No.: KY8-890-008-982
Reporting Period: 10/1/2019–3/31/2020**

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

- I. Work performed during this reporting period (including summaries of findings and any deviations from the work plan):**
- Continued monitoring around the C-746-K Landfill, 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 31, 2019, 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, as required by the ROD. This monitoring is conducted and reported in accordance with other site programs, such as the Environmental Monitoring Program.
- 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 FRNP. FRNP also provides programmatic and technical support, analytical services, and business management services. SST manages the AR and the EIC for DOE.
- 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, 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 activities for the C-746-K Landfill have been incorporated into the Environmental Monitoring Program. O&M cost for this project is not tracked separately.

**FEDERAL FACILITY AGREEMENT
SEMIANNUAL PROGRESS REPORT
FIRST HALF OF FISCAL YEAR 2020**

**Facility: Paducah Gaseous Diffusion Plant
Plant EPA I.D. No.: KY8-890-008-982
Reporting Period: 10/1/2019–3/31/2020**

PROJECT: Community Relations Plan

- I. Work performed during this reporting period (including summaries of findings and any deviations from the work plan):**
- Initiated development of the 2020 revision of the *Community Relations Plan under the Federal Facility Agreement at the U.S. Department of Energy Paducah Gaseous Diffusion Plant*, DOE/LX/07-2448&D1, on February 27, 2020.
- II. Schedules of activities to be performed during the next reporting period (including projected work/crucial phases of construction):**
- Finalize and submit the *Community Relations Plan under the Federal Facility Agreement at the U.S. Department of Energy Paducah Gaseous Diffusion Plant*, DOE/LX/07-2448&D1, to EPA and KDEP on or before June 30, 2020.
- 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 FRNP. FRNP also provides programmatic and technical support, analytical services, and business management services. SST manages the AR and the EIC for DOE.
- 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:**
- *Community Relations Plan under the Federal Facility Agreement at the U.S. Department of Energy Paducah Gaseous Diffusion Plant*, DOE/LX/07-2448&D1, has been under development during this reporting period.
- B) Due dates for completion of review/modification tasks:**
- Complete and issue of the *Community Relations Plan under the Federal Facility Agreement at the U.S. Department of Energy Paducah Gaseous Diffusion Plant*, DOE/LX/07-2448&D1, on June 30, 2020, to EPA and KDEP.

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:

- None.

**FEDERAL FACILITY AGREEMENT
SEMIANNUAL PROGRESS REPORT
FIRST HALF OF FISCAL YEAR 2020**

**Facility: Paducah Gaseous Diffusion Plant
Plant EPA I.D. No.: KY8-890-008-982
Reporting Period: 10/1/2019–3/31/2020**

PROJECT: Site Management Plan

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

- Submitted the D1 *Site Management Plan, Paducah Gaseous Diffusion Plant, Paducah, Kentucky, Annual Revision—FY 2020*, DOE/LX/07-2444&D1, to EPA and KDEP on November 15, 2019.
- Received a schedule notification from EPA and KDEP on December 13, 2019, notifying DOE of EPA’s and Kentucky’s 30-day extension for provision of comments on the D1 *Site Management Plan, Paducah Gaseous Diffusion Plant, Paducah, Kentucky, Annual Revision—FY 2020*, DOE/LX/07-2444&D1, to January 14, 2020.
- Received an additional 21-day extension from KDEP and EPA on January 15, 2020, and January 22, 2020, respectively, for provision of comments on the D1 *Site Management Plan, Paducah Gaseous Diffusion Plant, Paducah, Kentucky, Annual Revision—FY 2020*, DOE/LX/07-2444&D1, to February 5, 2020.
- Received KDEP and EPA comments on the D1 *Site Management Plan, Paducah Gaseous Diffusion Plant, Paducah, Kentucky, Annual Revision—FY 2020*, DOE/LX/07-2444&D1, on February 5, 2020, and February 6, 2020, respectively.
- Submitted a schedule notification on February 12, 2020, notifying EPA and KDEP of DOE’s extension for submittal of the D2 *Site Management Plan, Paducah Gaseous Diffusion Plant, Paducah, Kentucky, Annual Revision—FY 2020*, DOE/LX/07-2444&D2, to March 22, 2020.
- Processed an extension request, documenting DOE’s verbal request and EPA’s and Kentucky’s approval of the request, to extend submittal of the D2 *Site Management Plan, Paducah Gaseous Diffusion Plant, Paducah, Kentucky, Annual Revision—FY 2020*, DOE/LX/07-2444&D2, to April 21, 2020. (A formal letter documenting the request was issued March 10, 2020.)
- Held comment resolution meetings with EPA and KDEP on March 16, 2020; March 25, 2020; March 27, 2020; March 30, 2020; and March 31, 2020; and scheduled follow-up comment resolution meetings into April 2020.

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

- Continue comment resolution meetings on the *D1 Site Management Plan, Paducah Gaseous Diffusion Plant, Paducah, Kentucky, Annual Revision—FY 2020*, DOE/LX/07-2444&D1, throughout the month of April 2020, as needed.
- Finalize and submit the *D2 Site Management Plan, Paducah Gaseous Diffusion Plant, Paducah, Kentucky, Annual Revision—FY 2020*, DOE/LX/07-2444&D2, to EPA and KDEP on or before April 21, 2020.
- Initiate scoping and development of the *D1 Site Management Plan, Paducah Gaseous Diffusion Plant, Paducah, Kentucky, Annual Revision—FY 2021*.

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 FRNP. FRNP also provides programmatic and technical support, analytical services, and business management services. SST manages the AR and the EIC for DOE.

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.
- Requirements and time schedules currently are being met.

V. Primary/Secondary Document Tracking System:

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

- *Site Management Plan, Paducah Gaseous Diffusion Plant, Paducah, Kentucky, Annual Revision—FY 2020*, DOE/LX/07-2444&D1, has been under development and under EPA and KDEP review during this reporting period.
- *Site Management Plan, Paducah Gaseous Diffusion Plant, Paducah, Kentucky, Annual Revision—FY 2020*, DOE/LX/07-2444&D2, has been under development during this reporting period.

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

- The *D2 Site Management Plan, Paducah Gaseous Diffusion Plant, Paducah, Kentucky, Annual Revision—FY 2020*, DOE/LX/07-2444&D2, is due to EPA and KDEP no later than April 21, 2020.
- Approval of or provision of conditions on the *D2 Site Management Plan, Paducah Gaseous Diffusion Plant, Paducah, Kentucky, Annual Revision—FY 2020*, DOE/LX/07-2444&D2, is due to DOE within 30 days of document's issuance or May 21, 2020.

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.

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.

THIS PAGE INTENTIONALLY LEFT BLANK

**FEDERAL FACILITY AGREEMENT
SEMIANNUAL PROGRESS REPORT
FIRST HALF OF FISCAL YEAR 2020**

**Facility: Paducah Gaseous Diffusion Plant
Plant EPA I.D. No.: KY8-890-008-982
Reporting Period: 10/1/2019–3/31/2020**

PROJECT: CERCLA Waste Disposal Alternatives Operable Unit

- I. Work performed during the reporting period (including summaries of findings and any deviations from the work plan):**
- No activities were scheduled or performed for this project during the 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 CERCLA waste disposal belongs to FRNP. FRNP also provides programmatic and technical support, analytical services, and business management services. SST manages the AR and the EIC for DOE.
- 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. The requirements and schedule are being met for the CERCLA Waste Disposal Alternative Evaluation, 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:**
- None.
- 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):**
- 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:

- None.

**FEDERAL FACILITY AGREEMENT
SEMIANNUAL PROGRESS REPORT
FIRST HALF OF FISCAL YEAR 2020**

**Facility: Paducah Gaseous Diffusion Plant
Plant EPA I.D. No.: KY8-890-008-982
Reporting Period: 10/1/2019–3/31/2020**

PROJECT: CERCLA Five-Year Review

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

- Received a letter from EPA on September 30, 2019, which provided an independent assessment of the protectiveness of the response actions for each OU addressed in the *CY 2018 Five-Year Review for Remedial Actions at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-2426&D2*.
- Received a letter from KDEP on October 7, 2019, which provided a reassessment of the protectiveness of the Water Policy Action in the *CY 2018 Five-Year Review for Remedial Actions at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-2426&D2*.
- Issued a notification of invocation of informal dispute resolution on December 2, 2019, regarding the *CY 2018 Five-Year Review for Remedial Actions at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-2426&D2*.
- Processed a minor modification to the FFA, documenting the FFA parties' January 7, 2020, verbal agreement to extend the time period of informal dispute resolution from January 16, 2020, to March 17, 2020. (A formal letter providing the signed modification form was issued on January 24, 2020.)
- Processed a minor modification to the FFA, documenting the FFA parties' March 3, 2020, verbal agreement to extend the time period of the informal dispute resolution from March 17, 2020, to May 16, 2020. (A formal letter providing the signed modification form was issued on March 16, 2020.)
- Held multiple informal dispute resolution meetings with EPA and KDEP in January, February, and March of 2020.
- Developed a public notice announcing completion of the *CY 2018 Five-Year Review for Remedial Actions at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-2426&D2*.

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

- Continue informal dispute resolution meetings with EPA and KDEP during April and May 2020, as needed.

- Finalize the public notice announcing the completion of the *CY 2018 Five-Year Review for Remedial Actions at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-2426&D2, and publish the public notice in the *Paducah Sun*.
- Develop and finalize an MOA for resolution of the informal dispute for the *CY 2018 Five-Year Review for Remedial Actions at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-2426&D2.

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 Five-Year Review belongs to FRNP. FRNP also provides programmatic and technical support, analytical services, and business management services. SST manages the AR and the EIC for DOE.

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 and informal dispute resolution related to the *CY 2018 Five-Year Review for Remedial Actions at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-2426&D2, have resulted in an overall impact to the schedule. The statutory due date for the *CY 2018 Five-Year Review for Remedial Actions at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/072426&D2, was June 4, 2019. DOE submitted the *CY 2018 Five-Year Review for Remedial Actions at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-2426&D2, May 17, 2019, to EPA and Kentucky. EPA and KDEP submitted comments regarding the D2 submittal on September 30, 2019, and October 7, 2019, respectively.

V. Primary/Secondary Document Tracking System:

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

- *CY 2018 Five-Year Review for Remedial Actions at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-2426&D2, was under development and under review during this reporting period.
- *Memorandum of Agreement for the CY 2018 Five-Year Review for Remedial Actions at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-2426&D2, was under development during this reporting period.
- Public notice announcing completion of the *CY 2018 Five-Year Review for Remedial Actions at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-2426&D2, was under development and under review by EPA and KDEP during this reporting period.

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

- The statutory due date for the *CY 2018 Five-Year Review for Remedial Actions at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-2426&D2, was June 4, 2019.

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 CY 2018 CERCLA Five-Year Review Project 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.

THIS PAGE INTENTIONALLY LEFT BLANK

**FEDERAL FACILITY AGREEMENT
SEMIANNUAL PROGRESS REPORT
FIRST HALF OF FISCAL YEAR 2020**

**Facility: Paducah Gaseous Diffusion Plant
Plant EPA I.D. No.: KY8-890-008-982
Reporting Period: 10/1/2019–3/31/2020**

PROJECT: Plant Industrial Area Vapor Intrusion Assessment

- I. Work performed during this reporting period (including summaries of findings and any deviations from the work plan):**
- Continued scoping and development of the *Plant Industrial Area Vapor Intrusion Preliminary Risk Assessment Work Plan*.
 - Held scoping meetings with FFA parties to support development of the *Plant Industrial Area Vapor Intrusion Preliminary Risk Assessment Work Plan* on September 27, 2019; October 17, 2019; October 30, 2019; November 22, 2019; December 18, 2019; January 14, 2020; and March 18, 2020.
- II. Schedules of activities to be performed during the next reporting period (including projected work/crucial phases of construction):**
- Continue development of the *Plant Industrial Area Vapor Intrusion Preliminary Risk Assessment Work Plan*.
- 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 Plant Industrial Area Vapor Intrusion Assessment subproject belongs to FRNP. FRNP also provides programmatic and technical support, analytical services, and business management services. SST manages the AR and the EIC for DOE.
- IV. Statement of the manner and extent to which the requirements and time schedules are being met:**
- The requirements and time schedules related to the Plant Industrial Area Vapor Intrusion subproject are being met.
- V. Primary/Secondary Document Tracking System:**
- A) Documents under review and/or preparation for this reporting period:**
- *Plant Industrial Area Vapor Intrusion Preliminary Risk Assessment Work Plan* has been under development 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):

- 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.

APPENDIX A
NORTHEAST AND NORTHWEST PLUME
WATER WITHDRAWAL REPORTS

THIS PAGE INTENTIONALLY LEFT BLANK

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

Day	October 2019	November 2019	December 2019	January 2020	February 2020	March 2020
1	248,733	254,774	252,524	248,726	251,756	253,149
2	252,291	254,774	252,522	248,726	251,756	253,149
3	233,057	254,774	255,972	241,623	251,752	242,917
4	241,782	254,775	240,379	241,623	255,012	255,503
5	241,782	256,494	257,133	241,623	243,459	250,264
6	241,782	250,008	251,956	241,622	263,155	250,448
7	241,781	229,083	251,956	251,617	250,577	250,448
8	241,690	253,171	251,956	249,888	250,577	250,448
9	107,014	253,171	251,955	245,706	250,577	250,448
10	212,127	253,171	253,423	253,379	250,574	250,388
11	248,086	253,172	251,746	253,379	259,715	245,283
12	248,086	262,722	251,566	253,379	244,626	251,451
13	248,086	245,431	251,192	253,379	253,674	252,981
14	248,086	249,388	251,192	245,974	251,583	252,981
15	223,140	251,459	251,192	250,647	251,583	252,981
16	247,213	251,459	251,191	253,969	251,583	252,980
17	252,864	251,459	249,975	250,544	251,581	249,170
18	255,871	251,458	248,574	250,544	248,876	235,918
19	255,871	251,702	256,130	250,544	258,230	283,617
20	255,871	251,159	250,972	250,544	244,444	235,193
21	255,873	249,679	250,972	250,547	253,026	235,193
22	229,899	244,993	250,972	259,237	253,026	235,193
23	146,762	244,993	250,970	244,586	253,026	235,192
24	226,093	244,993	253,323	252,971	253,024	256,390
25	251,695	244,990	253,323	252,971	243,520	245,159
26	251,695	238,248	253,322	252,971	259,574	254,764
27	251,695	252,524	251,041	252,970	248,288	254,191
28	251,693	252,524	251,041	247,727	253,149	254,191
29	232,321	252,524	251,041	252,340	253,149	254,191
30	225,097	252,524	251,041	251,494		254,190
31	262,976		257,966	251,756		239,111
Monthly Total	7,331,012	7,511,596	7,808,518	7,747,006	7,304,872	7,737,482
Daily Average	236,484	250,387	251,888	249,903	251,892	249,596

Total (October 2019–March 2020) = 45,440,486 gal

Average (October 2019–March 2020) = 248,309 gal

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

Day	October 2019	November 2019	December 2019	January 2020	February 2020	March 2020
1	285,590	285,503	285,700	283,075	287,935	292,856
2	288,480	285,503	285,700	283,075	287,935	292,852
3	296,650	285,503	260,850	286,266	287,935	205,570
4	287,941	285,501	288,150	286,266	293,020	295,350
5	287,941	290,370	279,360	286,266	269,840	290,010
6	287,941	285,850	285,376	286,262	281,520	289,251
7	287,937	282,030	285,376	285,890	289,065	289,251
8	286,580	285,053	285,376	285,230	289,065	289,251
9	279,380	285,053	285,372	287,660	289,065	289,247
10	286,430	285,053	285,220	271,111	289,065	288,560
11	286,778	285,051	287,520	271,111	292,300	269,450
12	286,778	295,040	268,720	271,111	283,010	280,040
13	286,778	281,970	284,651	271,107	285,700	292,778
14	286,776	283,650	284,651	268,090	289,405	292,778
15	289,720	284,965	284,651	285,400	289,405	292,778
16	284,680	284,965	284,647	285,960	289,405	292,776
17	288,310	284,965	285,340	286,804	289,405	287,730
18	291,880	284,965	288,710	286,804	286,930	295,570
19	291,880	289,390	287,950	286,804	289,150	253,220
20	291,880	284,230	285,096	286,804	288,260	288,396
21	291,880	283,840	285,096	286,804	291,351	288,396
22	275,740	290,433	285,096	288,900	291,351	288,396
23	270,930	290,433	285,092	285,090	291,351	288,392
24	285,630	290,433	286,294	288,766	291,347	299,100
25	275,358	290,431	286,294	288,766	266,550	284,210
26	275,358	266,410	286,292	288,766	284,680	295,030
27	275,358	285,700	285,918	288,762	286,580	293,733
28	275,356	285,700	285,918	282,720	292,856	293,733
29	286,370	285,700	285,918	267,230	292,856	293,733
30	197,870	285,700	285,916	289,770		293,731
31	268,150		294,800	287,935		288,630
Monthly Total	8,738,330	8,569,390	8,821,050	8,784,605	8,336,337	8,874,798
Daily Average	281,882	285,646	284,550	283,374	287,460	286,284

Total (October 2019–March 2020) = 52,124,510 gal

Average (October 2019–March 2020) = 284,833 gal

APPENDIX B

**NORTHEAST PLUME AND NORTHWEST PLUME GRAPHS, DATA,
AND MAPS (FIGURES B.1 THROUGH B.33)**

THIS PAGE INTENTIONALLY LEFT BLANK

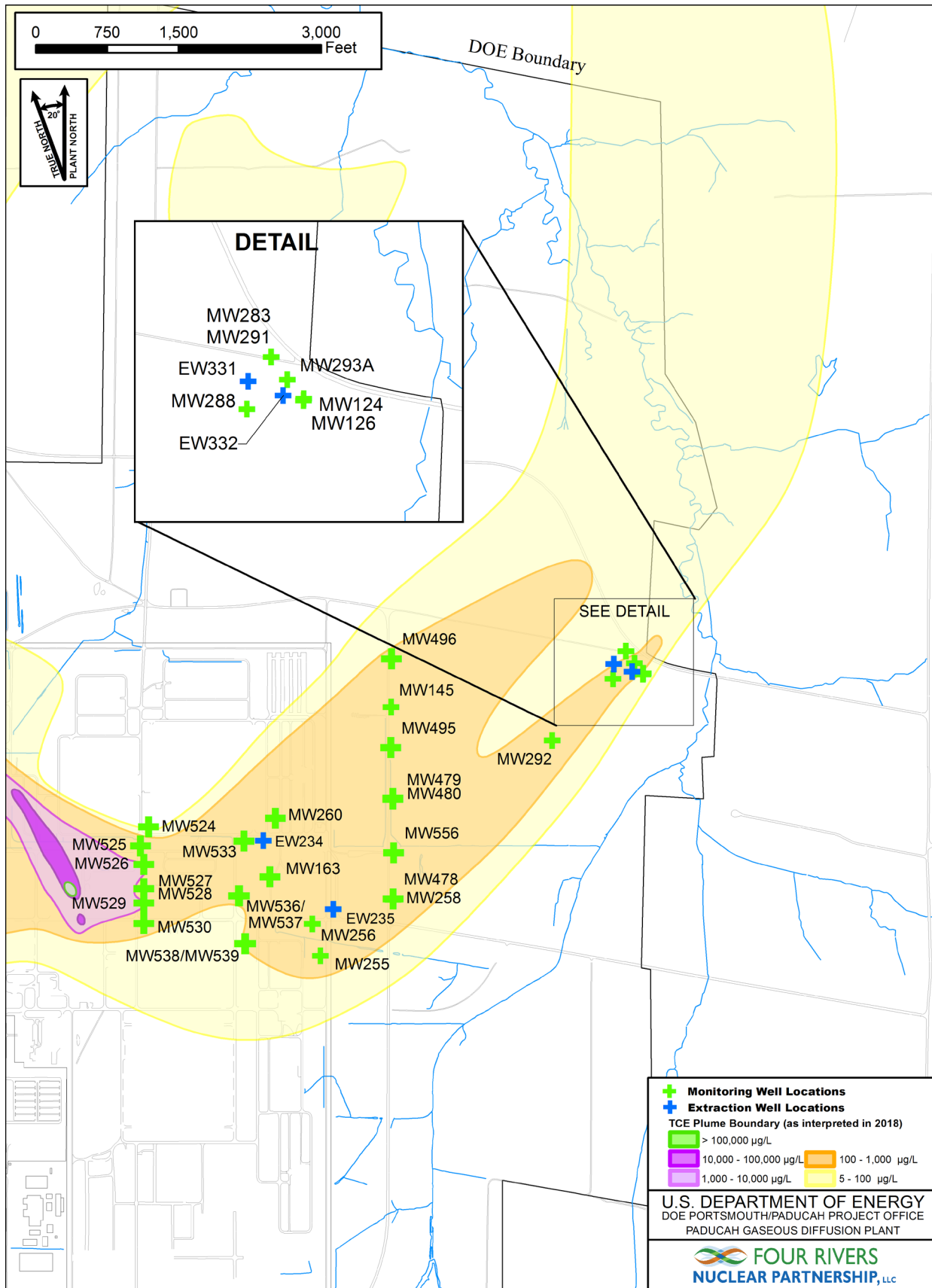


FIGURE No. G:\GIS\ARCVIEWS\PROJECTS\IFFA SemiAnnual2019\0916_NEP.mxd
DATE 9/16/2019

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

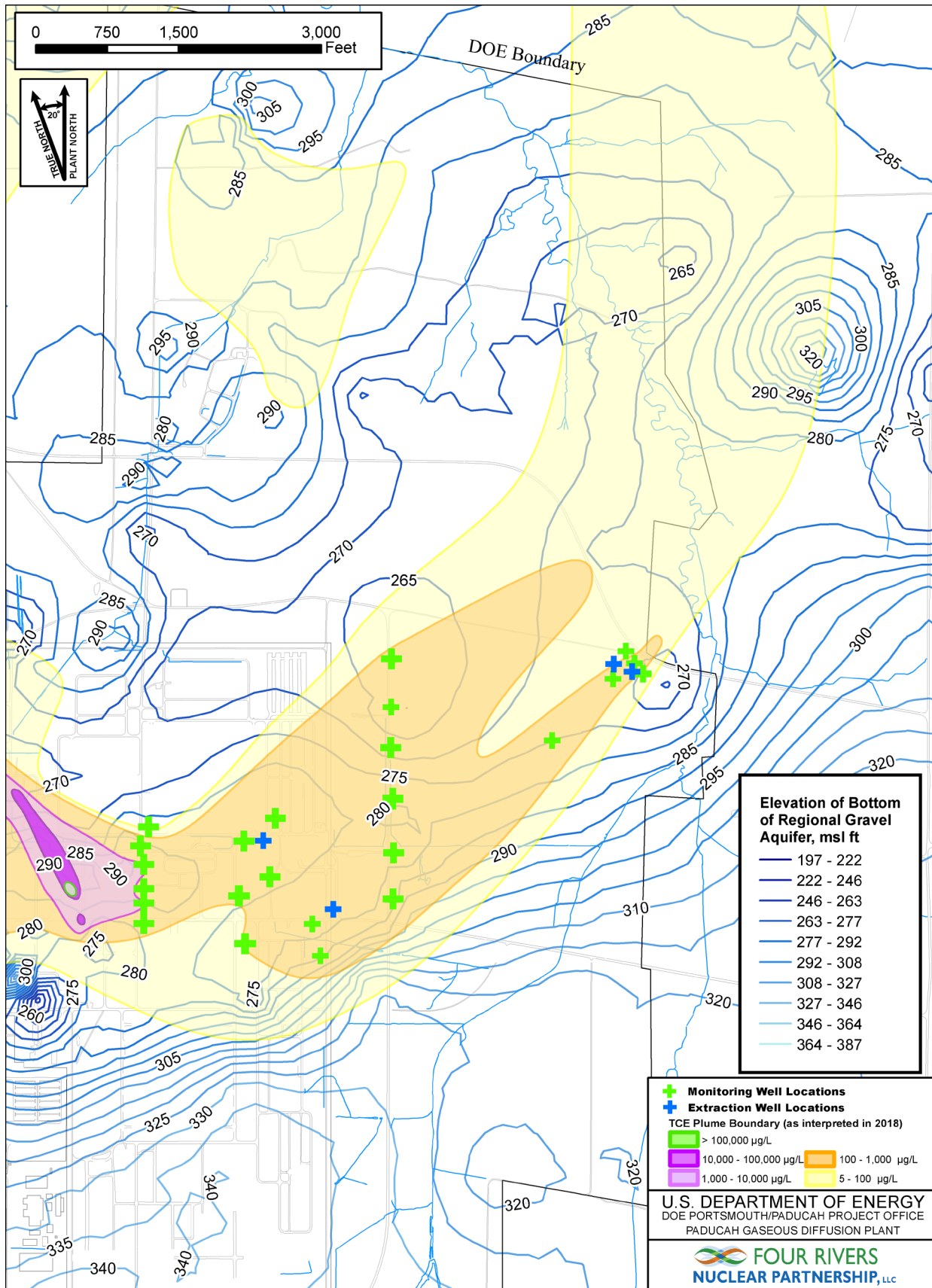
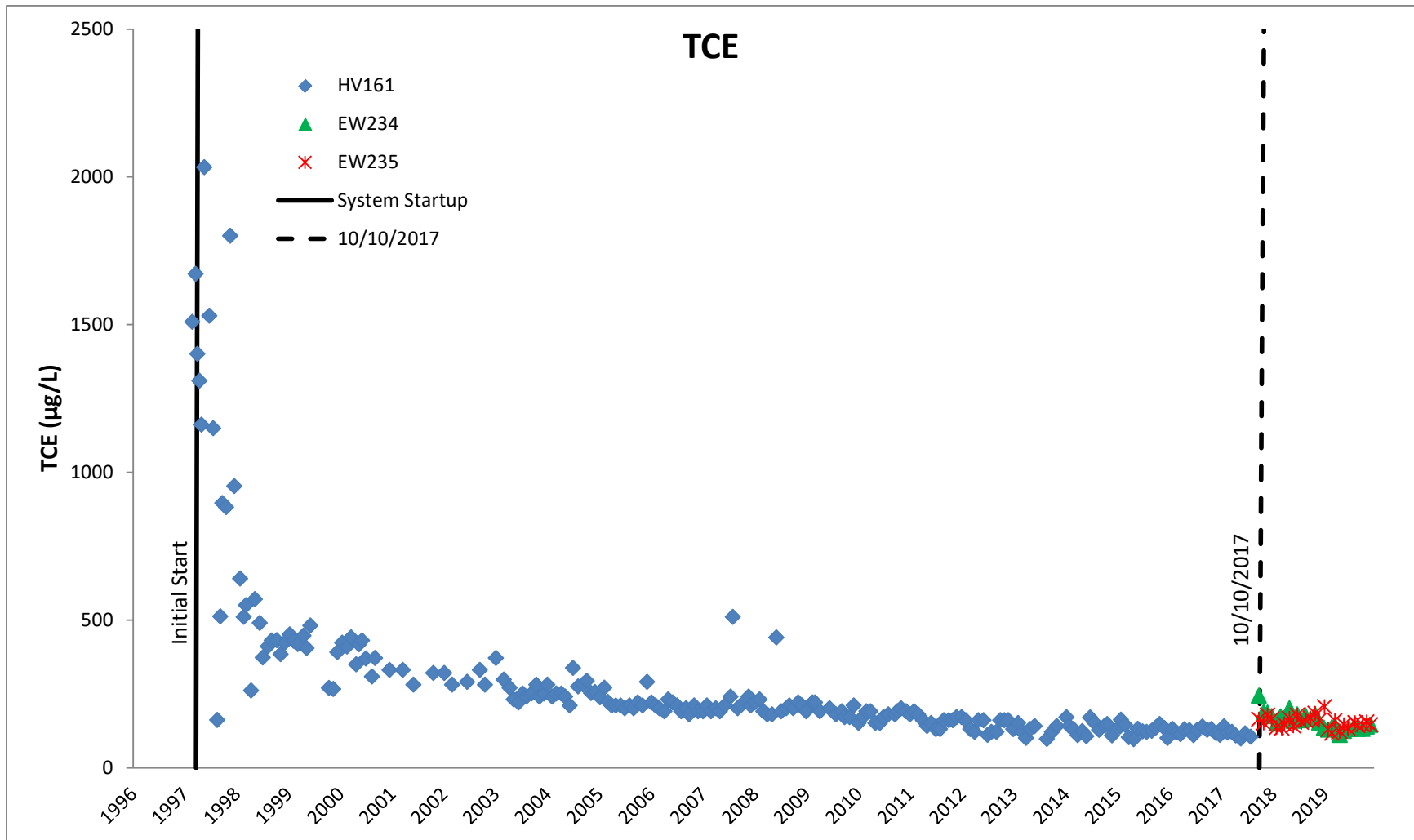


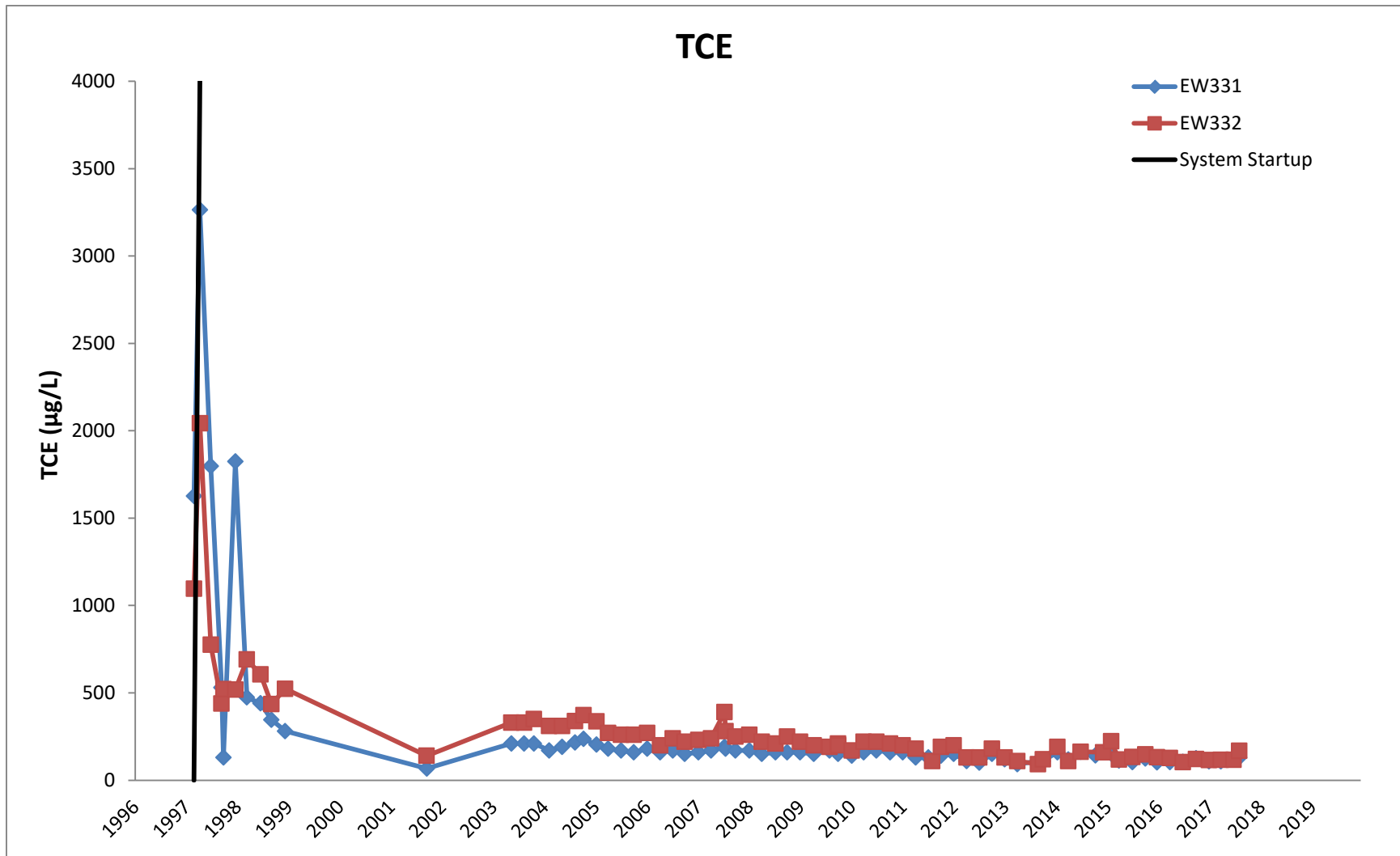
FIGURE No. G:\GIS\ARCVIEWS\PROJECTS\FFA SemiAnnual\2020\122_NEP_RGA.mxd
DATE 3/26/2020

Figure B.2. Northeast Plume with Bottom of Regional Gravel Aquifer Topography



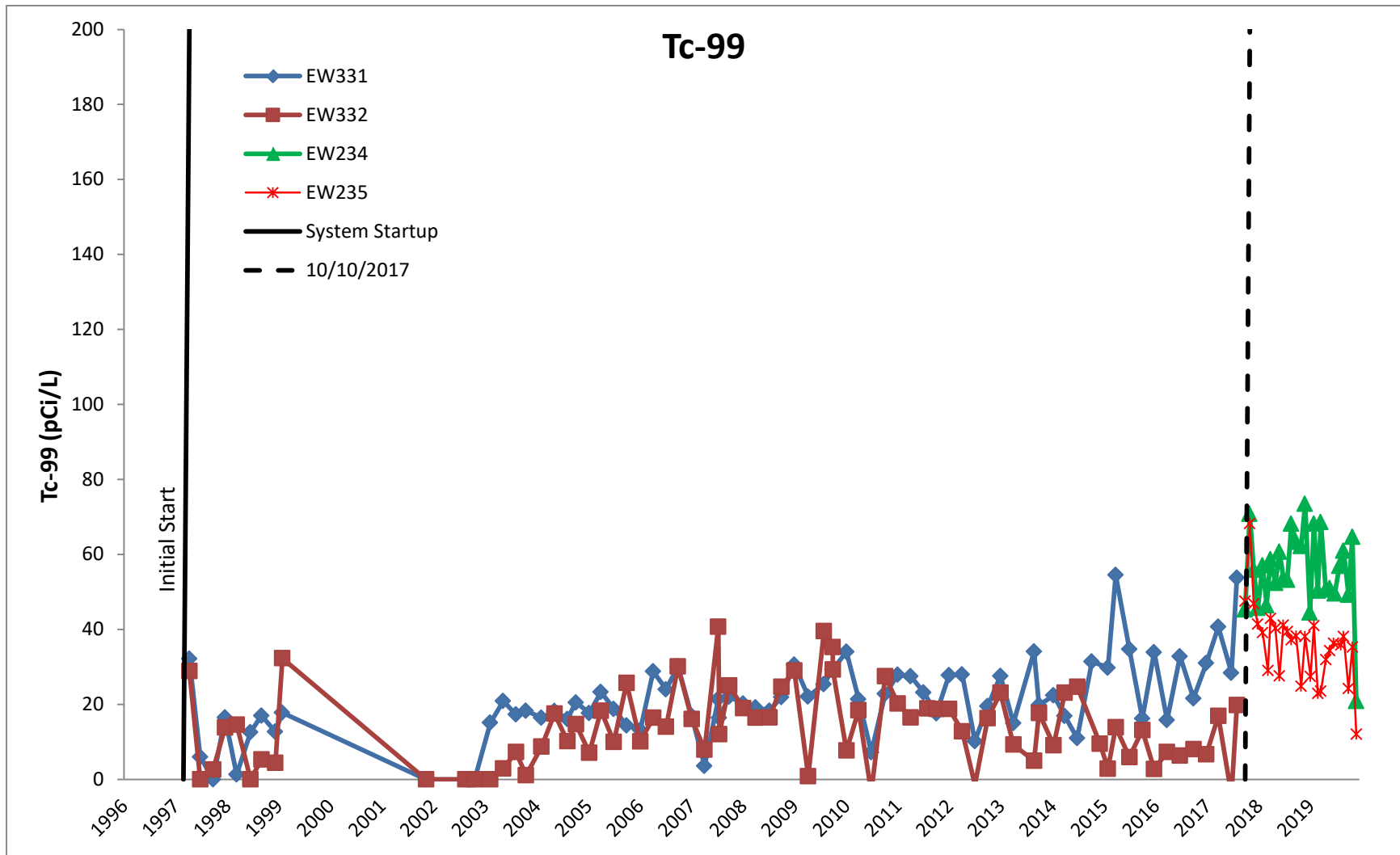
NOTE: Data rejected by validation or assessment have not been graphed.

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



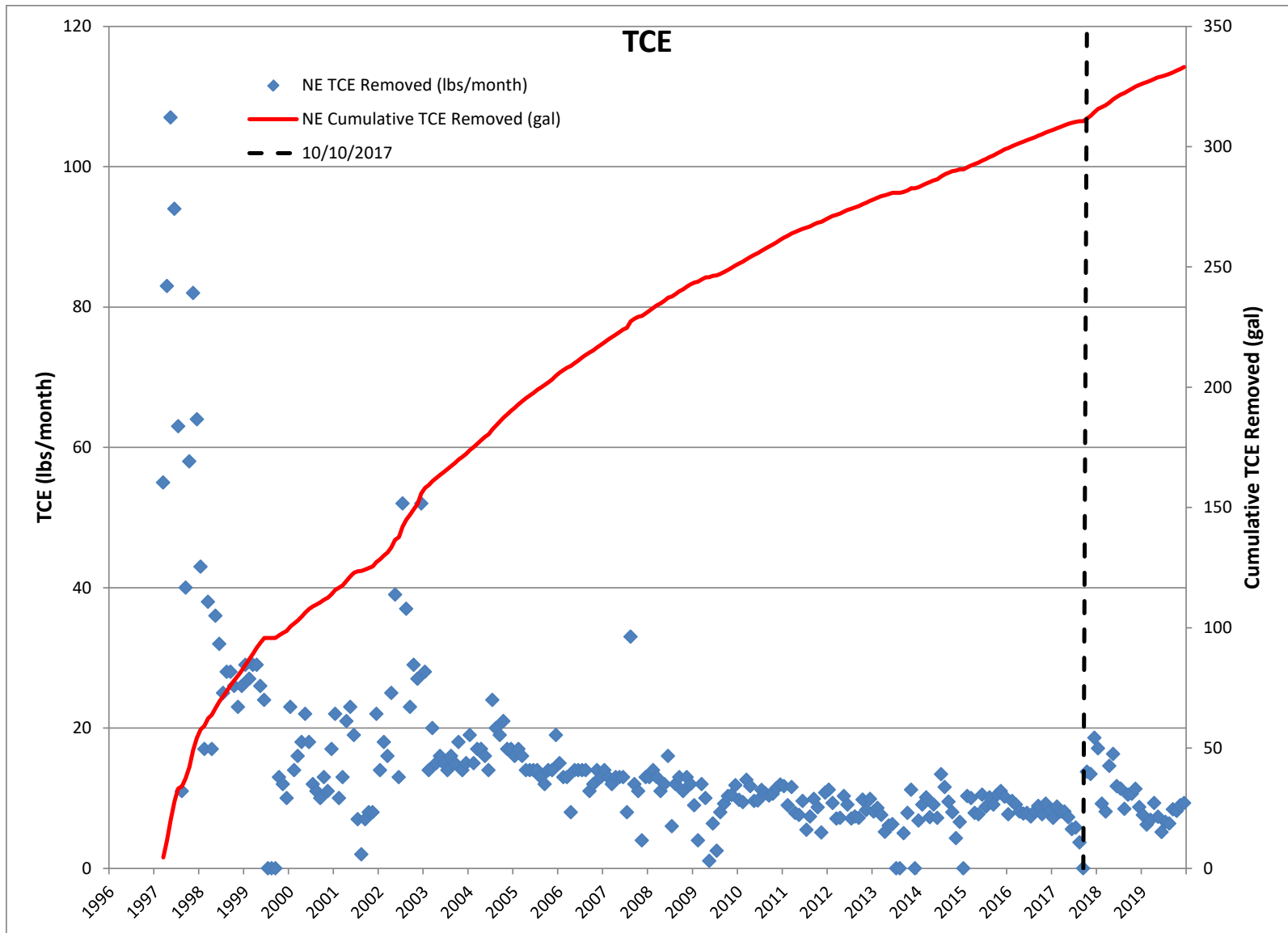
NOTE: Data rejected by validation or assessment have not been graphed.

Figure B.4. Northeast Plume—TCE Concentrations in Extraction Wells (before 10/10/2017)



NOTE: Data rejected by validation or assessment have not been graphed.

Figure B.5. Northeast Plume—Tc-99 Activities in Extraction Wells



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

Figure B.6. Northeast Plume Containment System TCE Removed

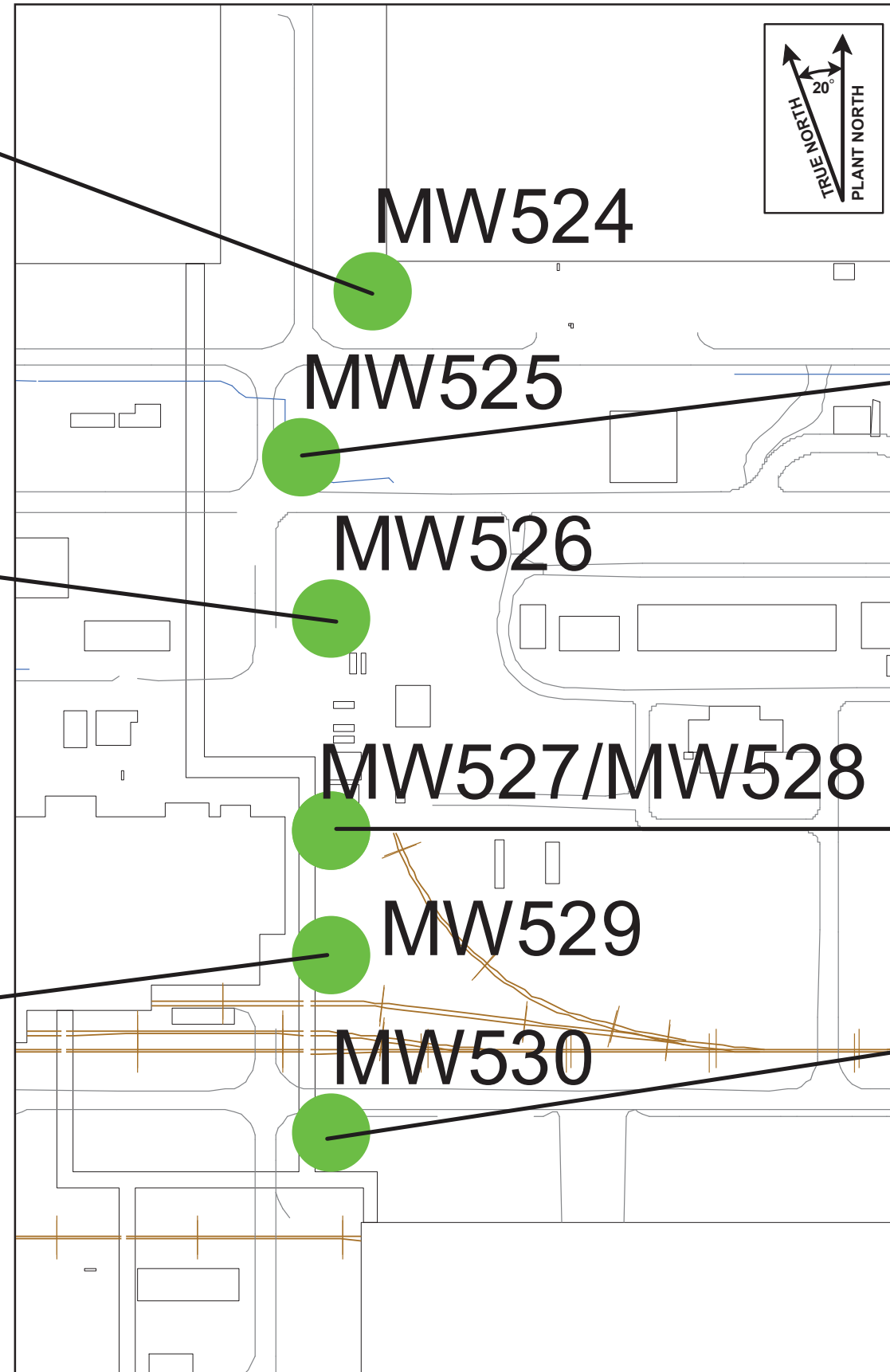
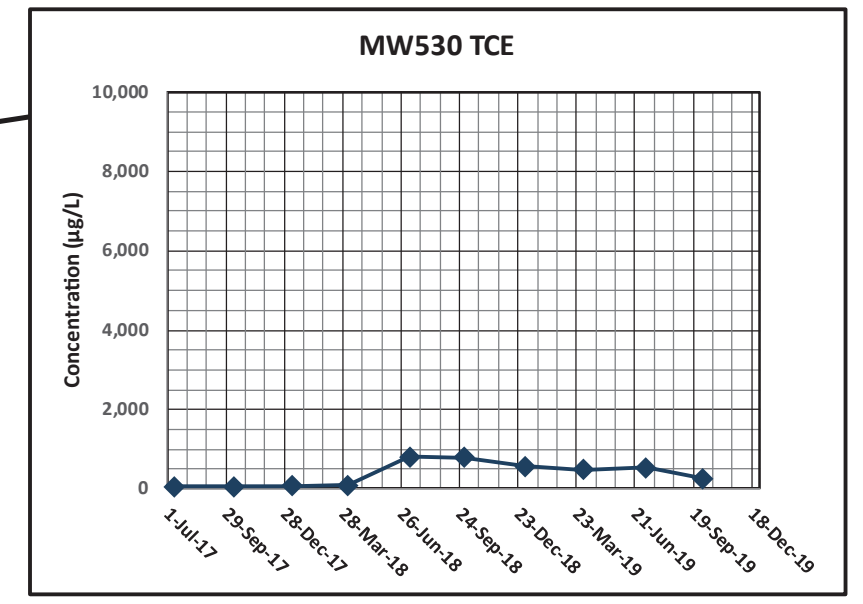
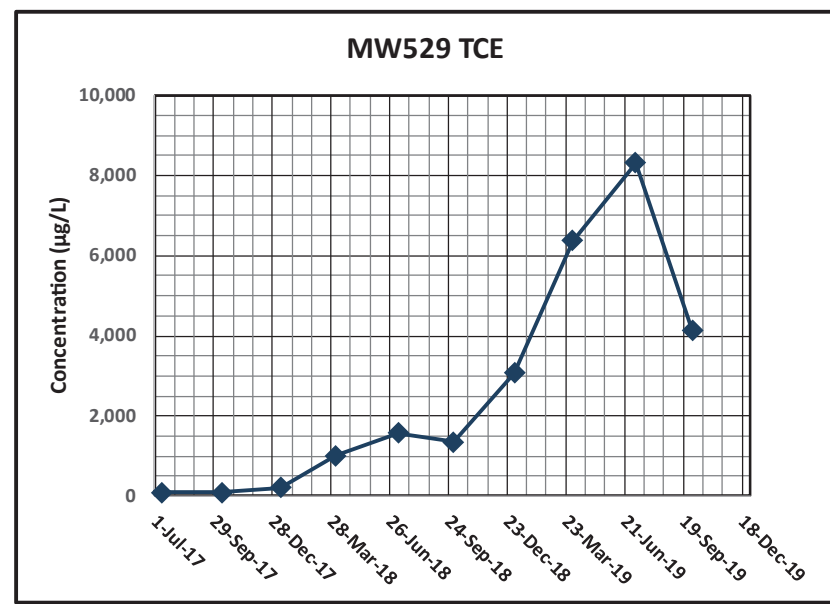
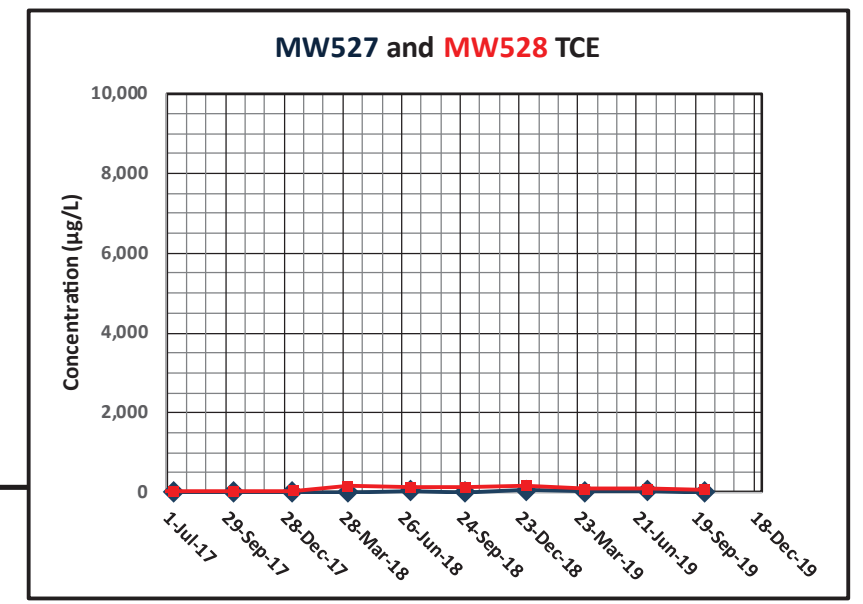
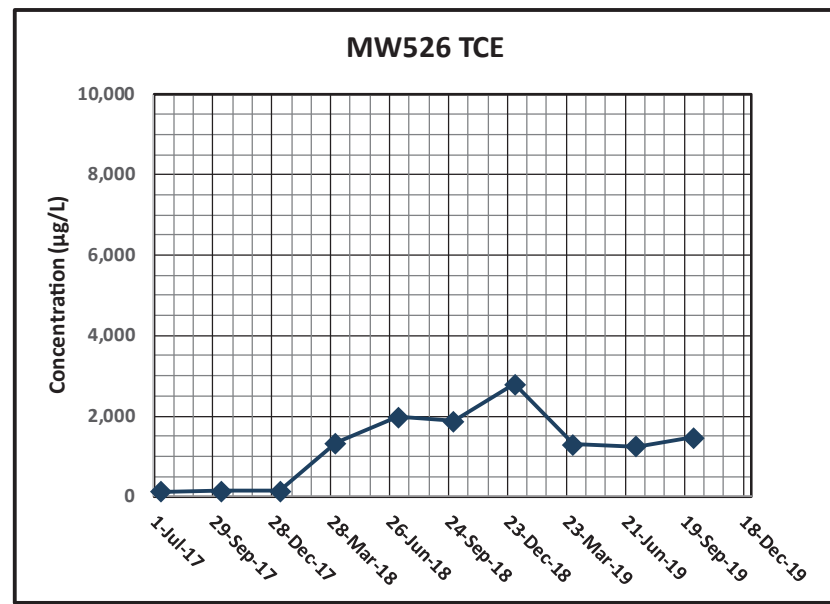
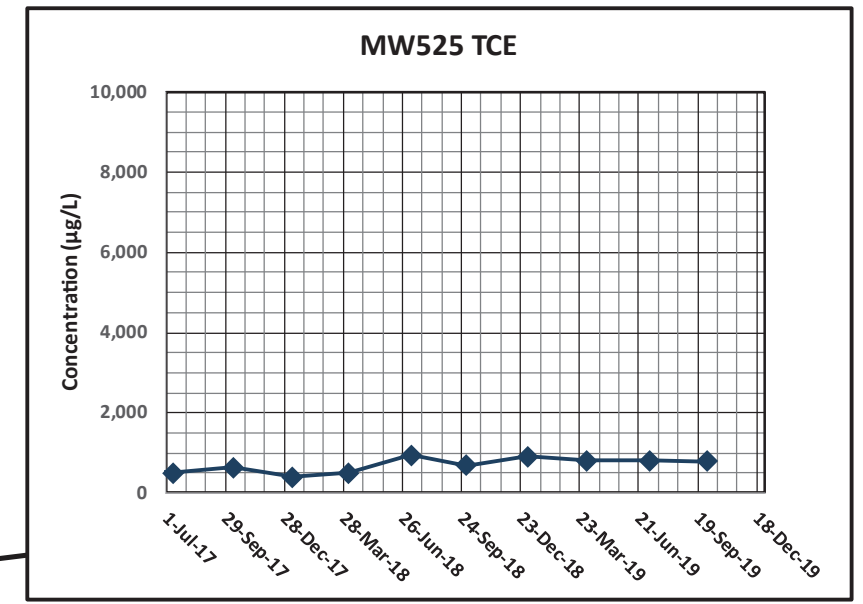
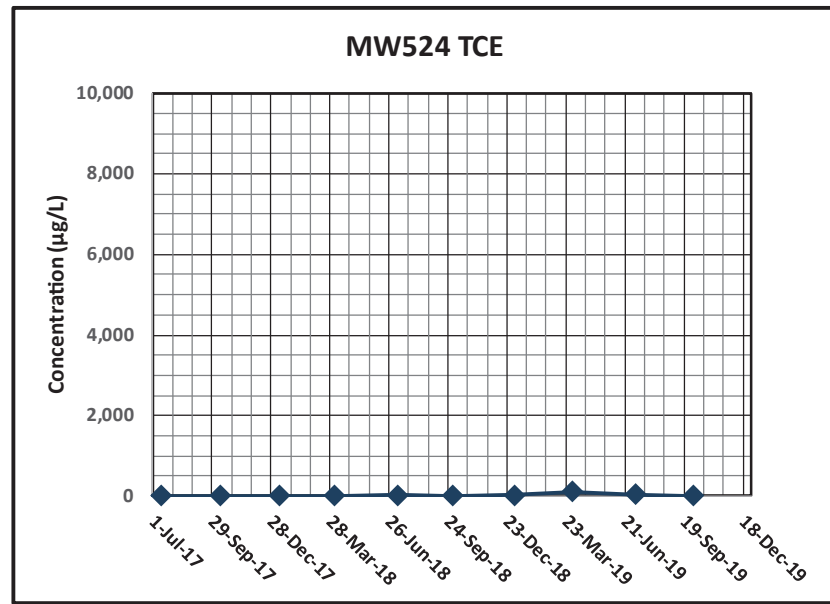


Figure B.7. Northeast Plume—Upgradient Transect Wells - TCE Trends

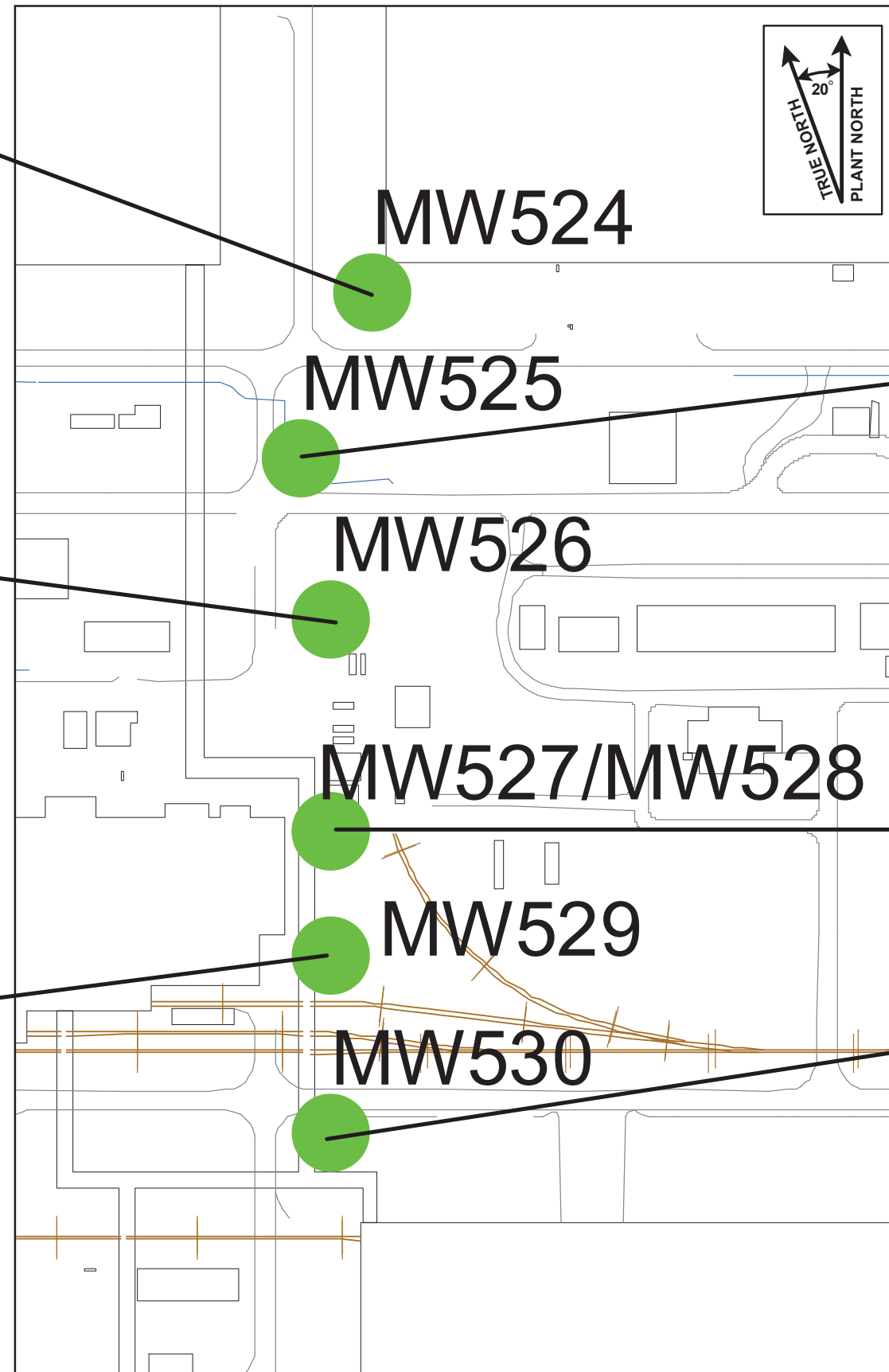
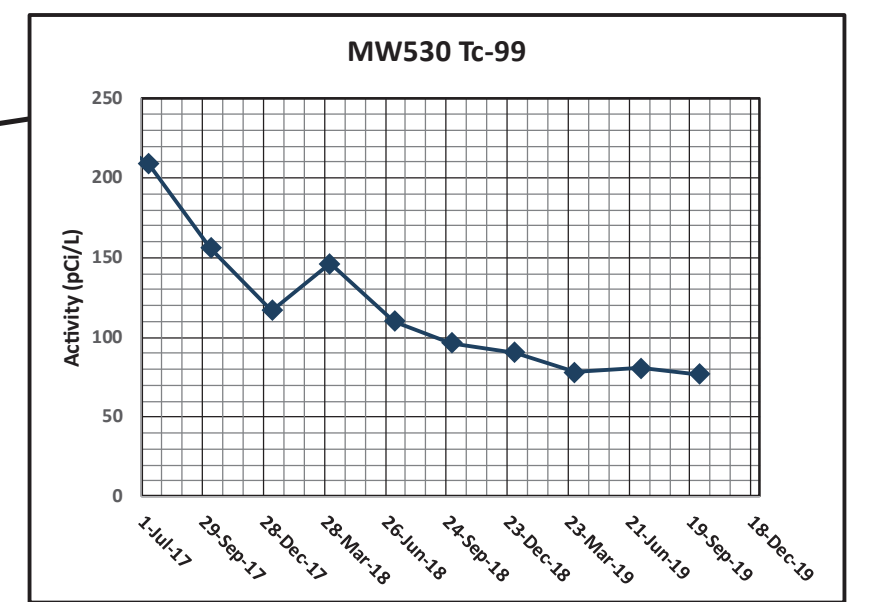
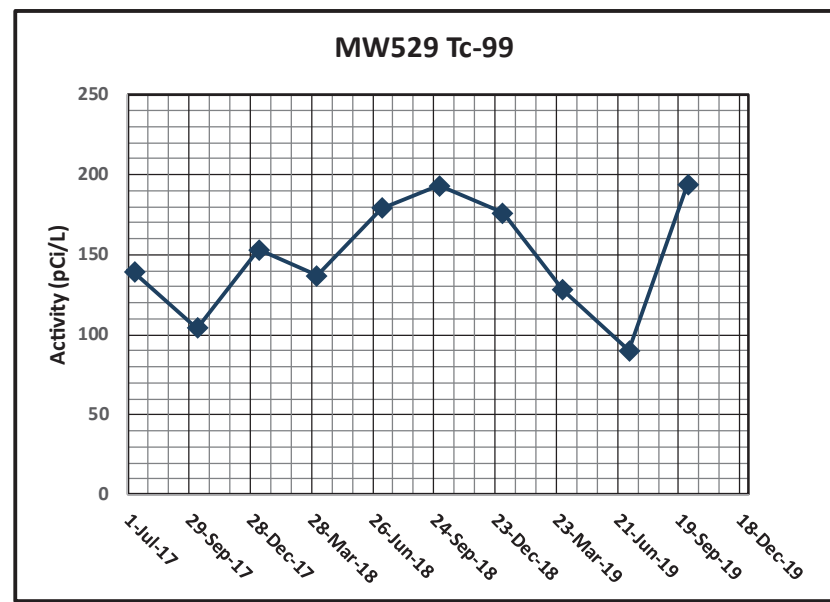
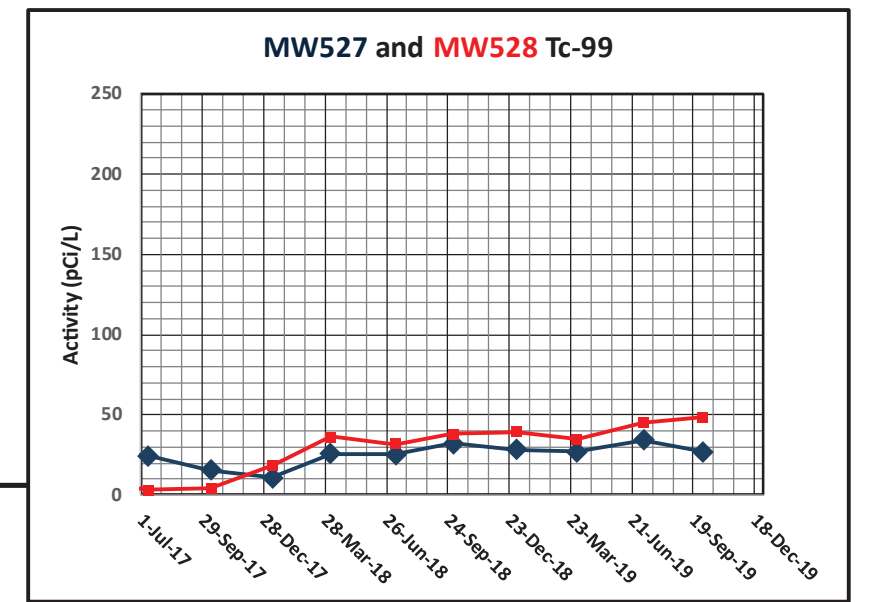
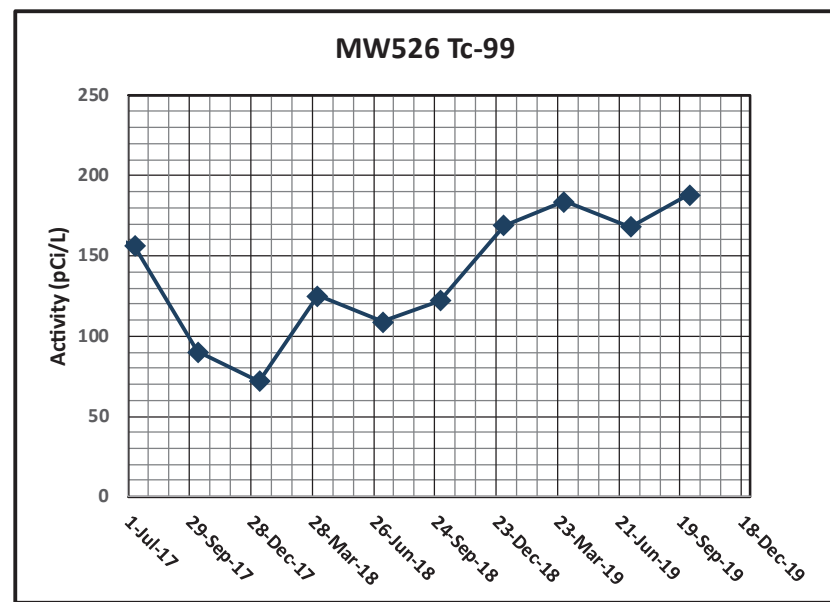
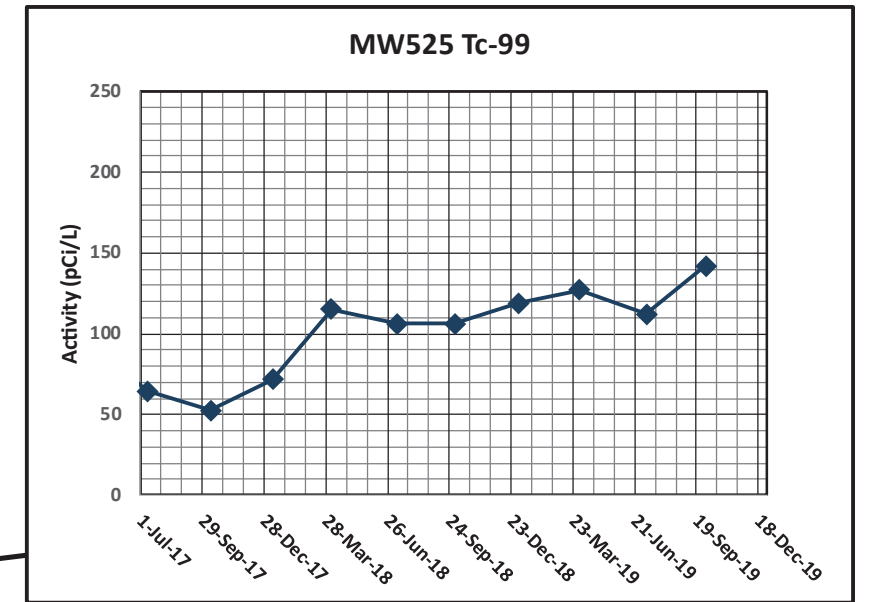
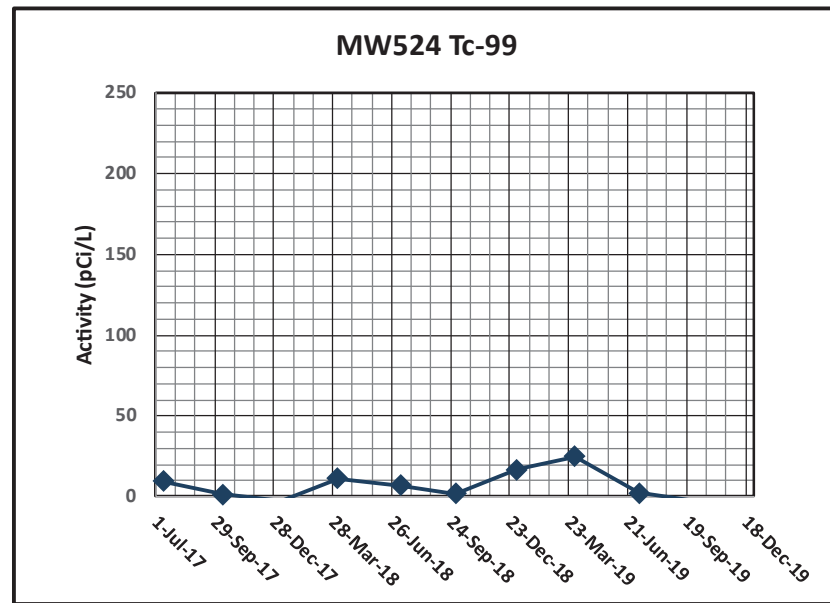


Figure B.8. Northeast Plume—Upgradient Transect Wells – Tc-99 Trends

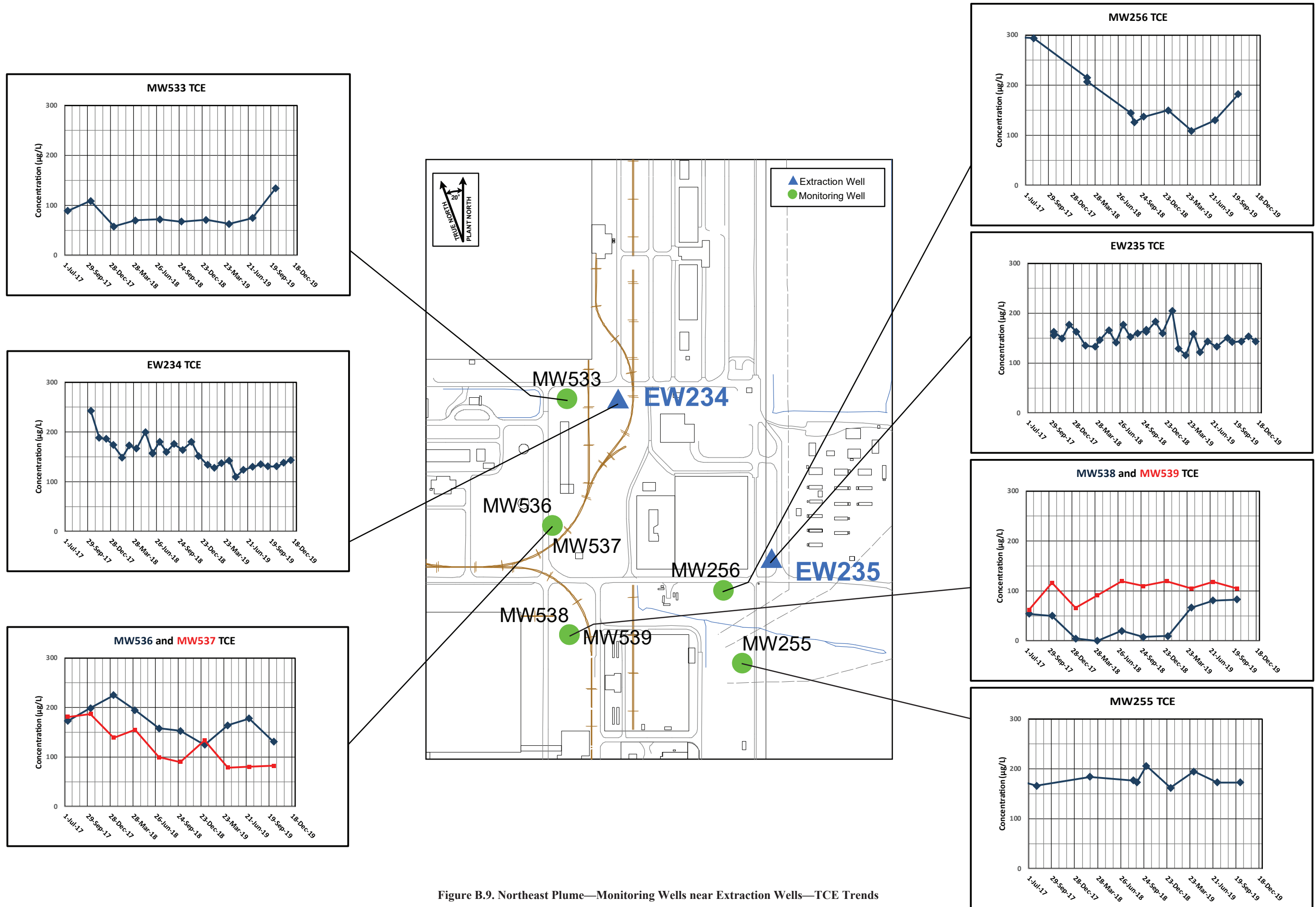


Figure B.9. Northeast Plume—Monitoring Wells near Extraction Wells—TCE Trends

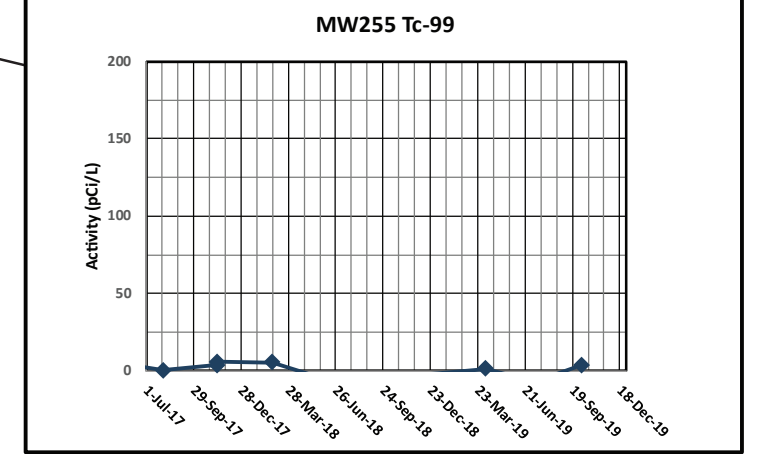
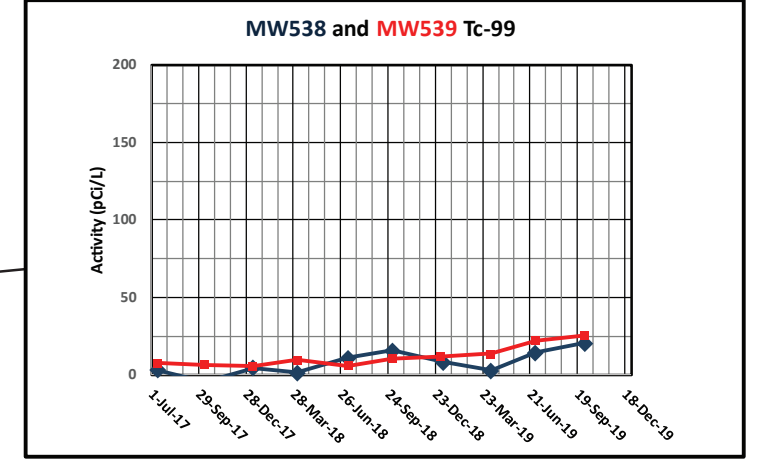
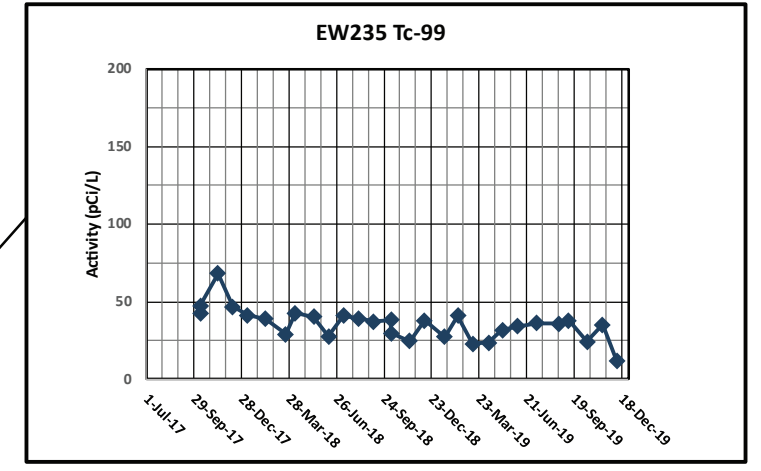
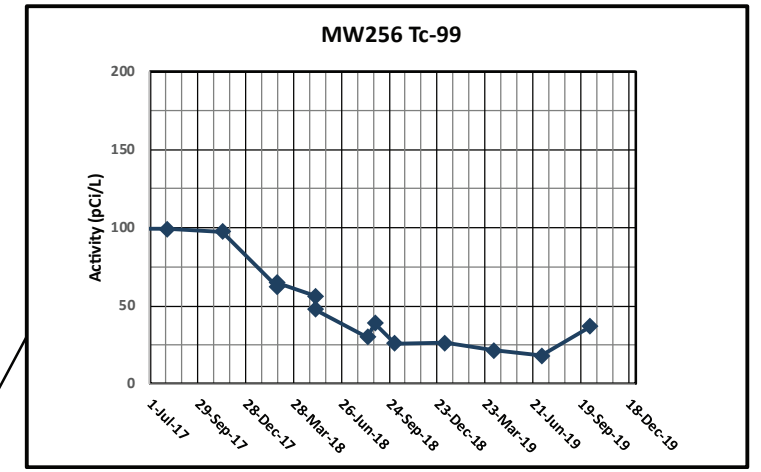
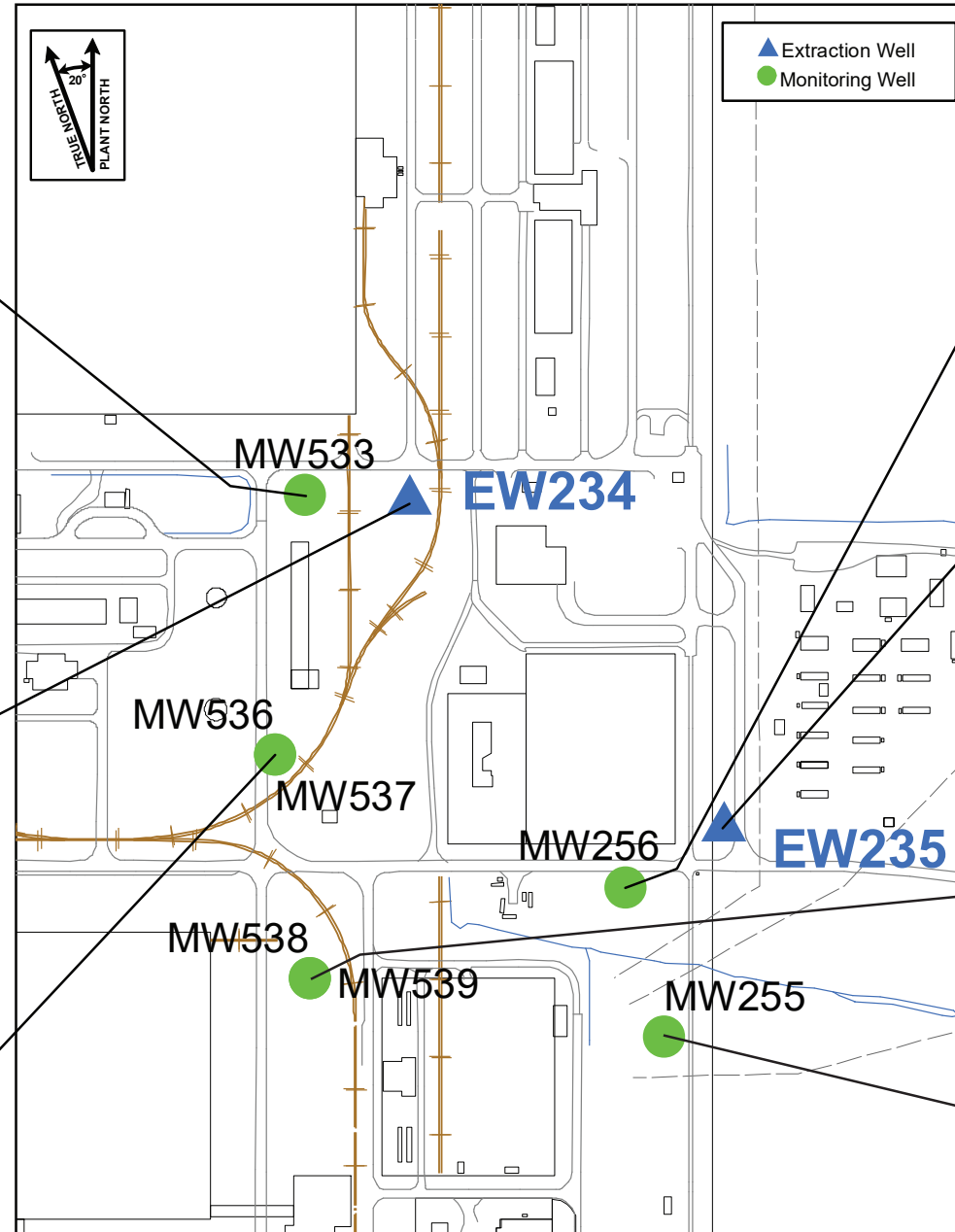
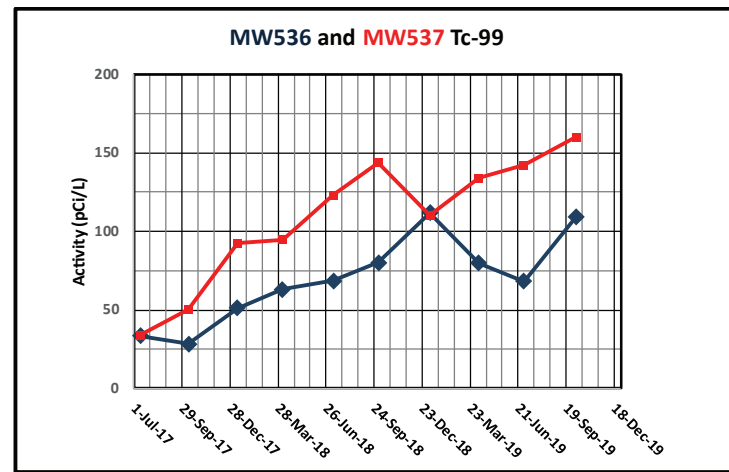
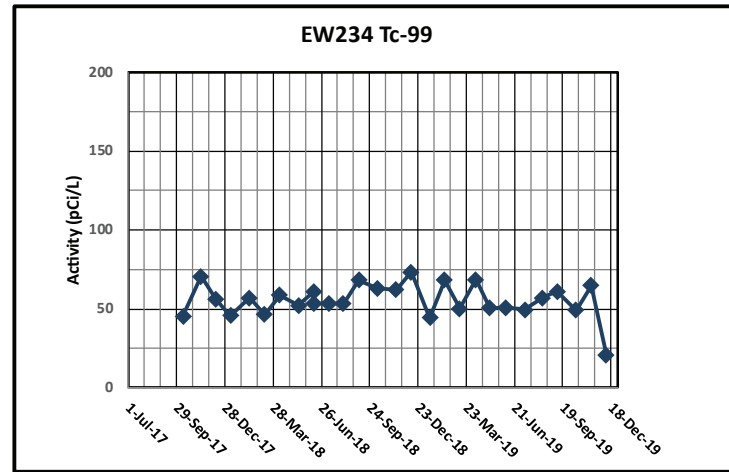
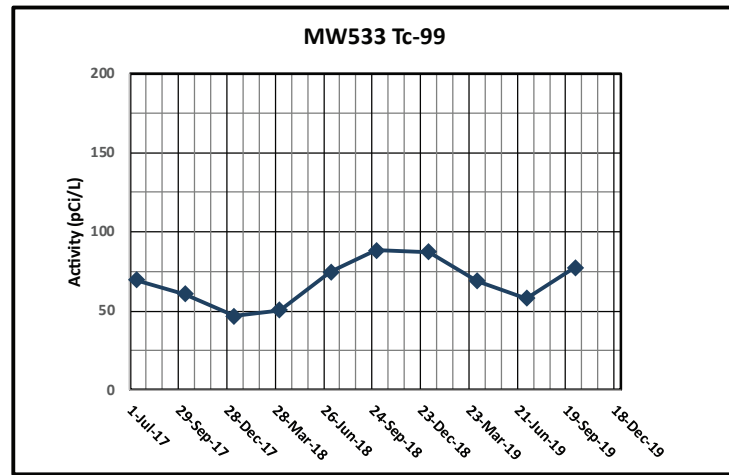
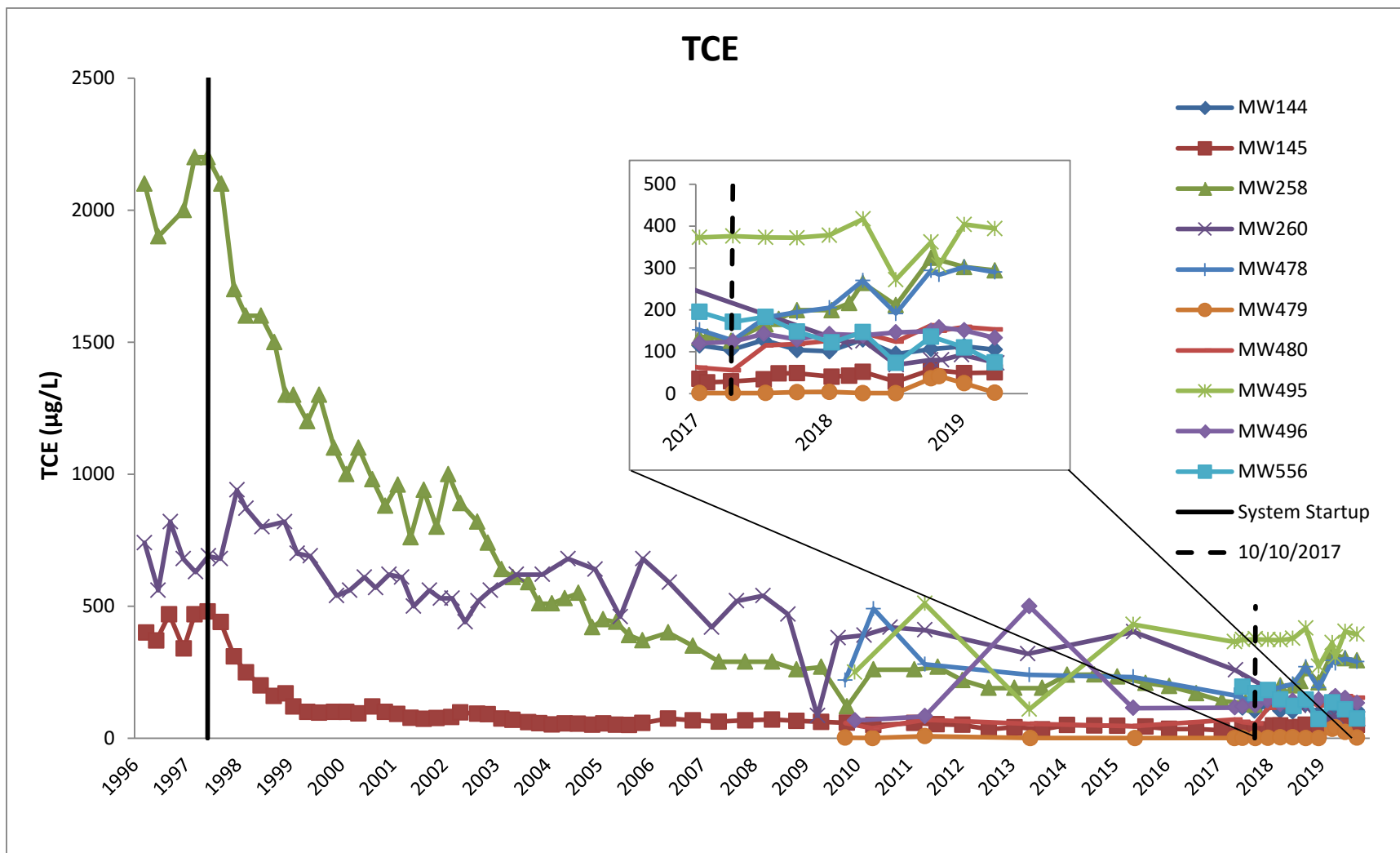
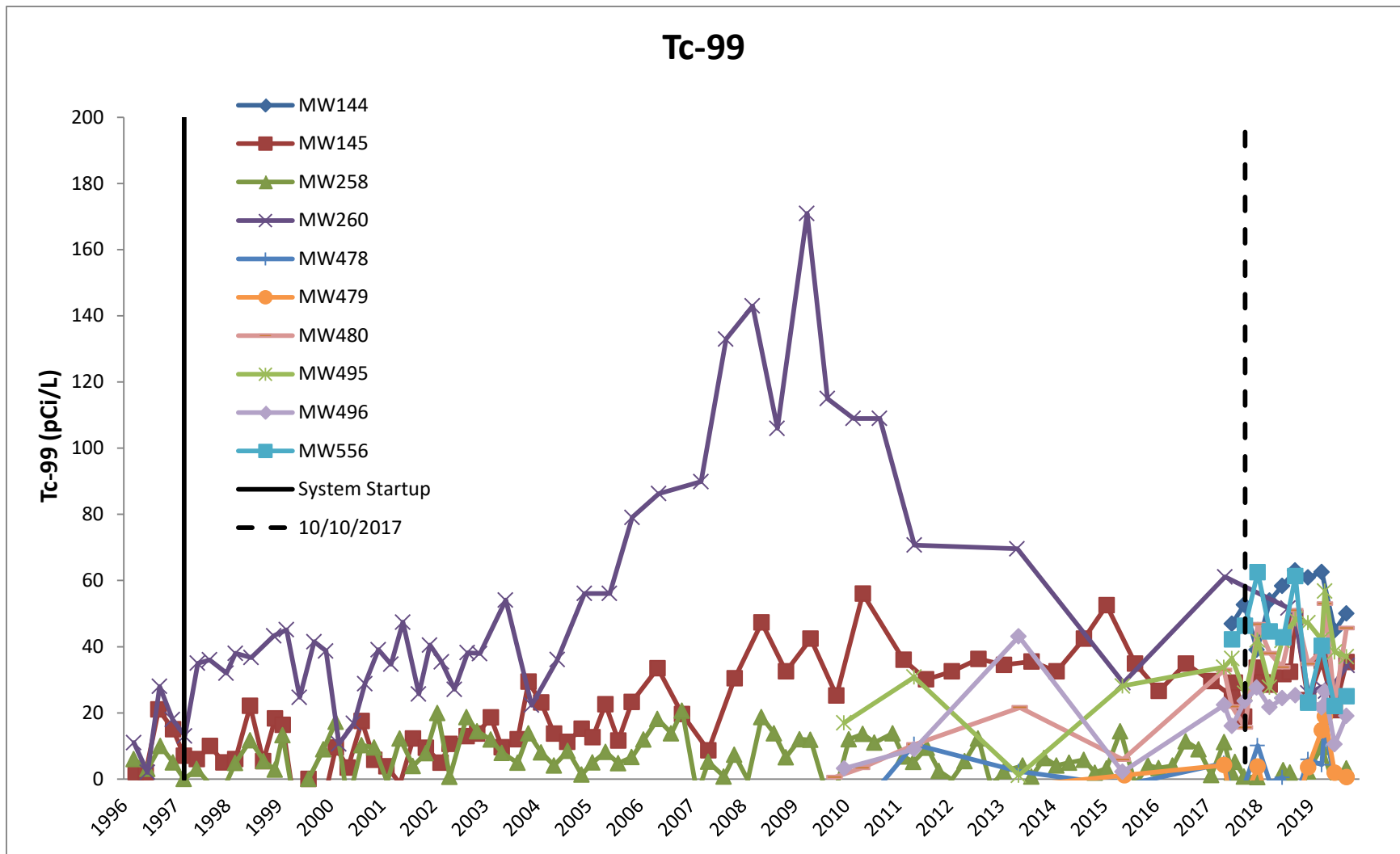


Figure B.10. Northeast Plume—Monitoring Wells near Extraction Wells—Tc-99 Trends



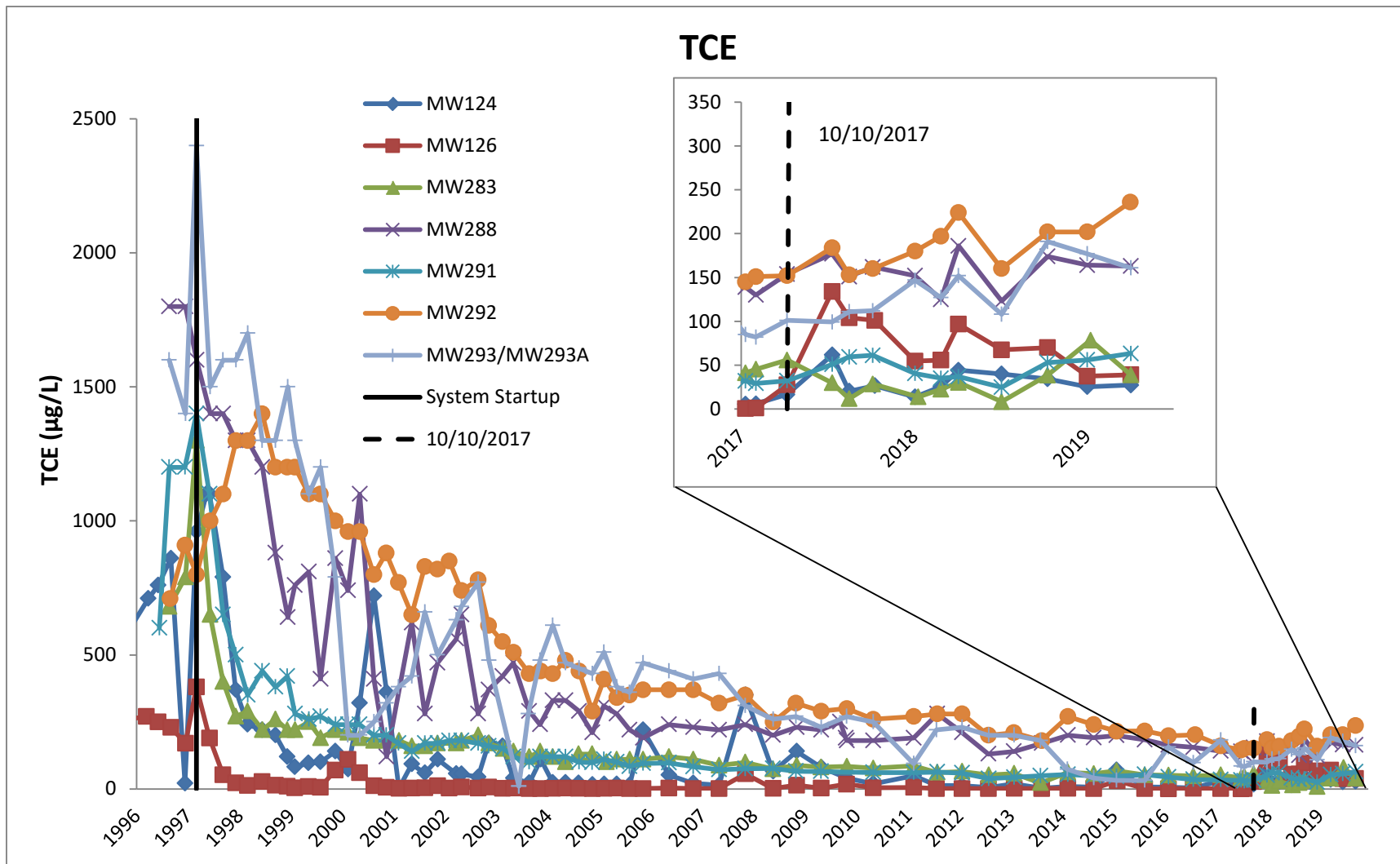
NOTE: Data rejected by validation or assessment have not been graphed.

Figure B.11. Northeast Plume—TCE Concentrations in Downgradient Wells



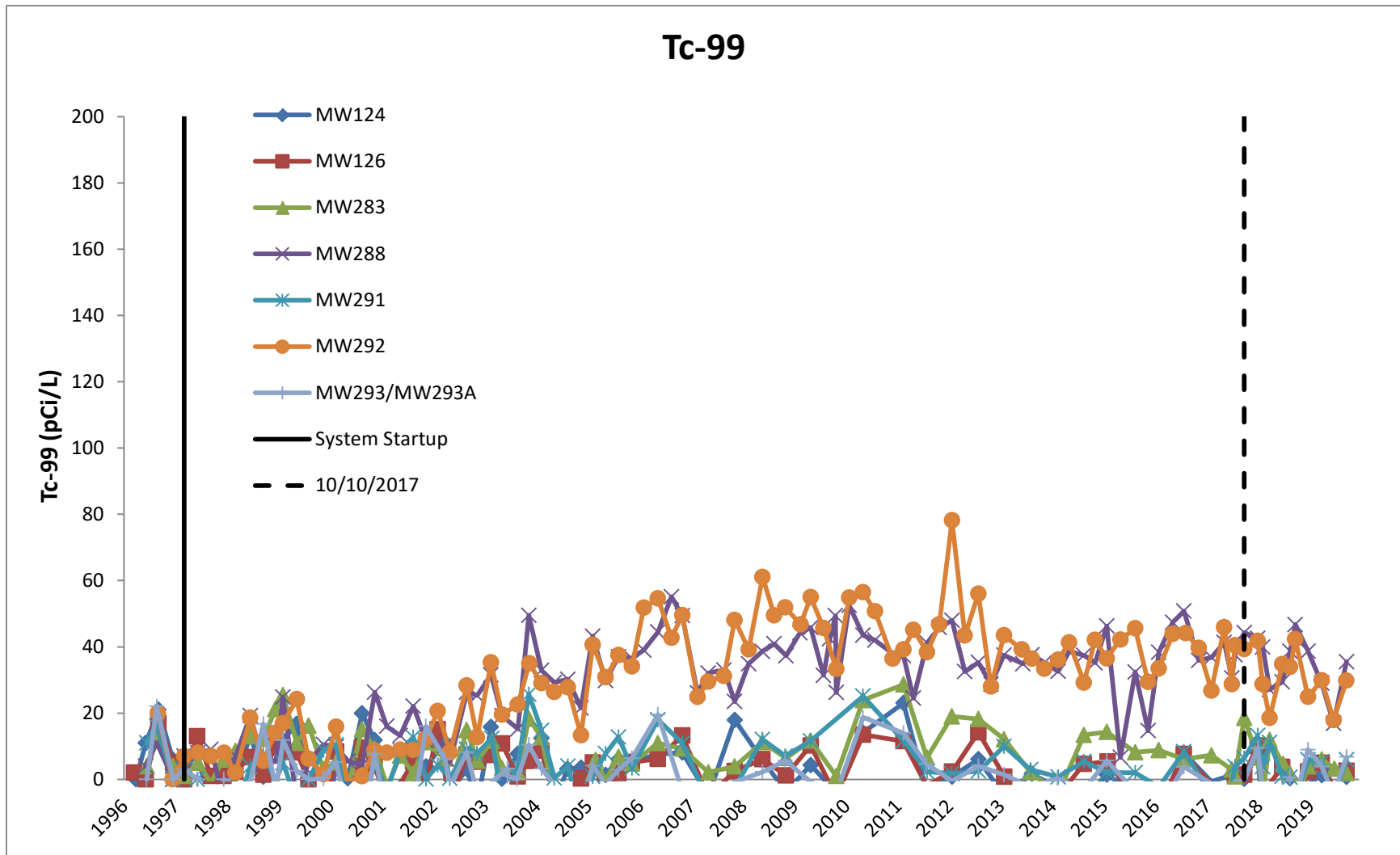
NOTE: Data rejected by validation or assessment have not been graphed.

Figure B.12. Northeast Plume—Tc-99 Activities in Downgradient Wells



NOTE: Data rejected by validation or assessment have not been graphed.

Figure B.13. Northeast Plume—TCE Concentrations in Distal Downgradient Wells



NOTE: Data rejected by validation or assessment have not been graphed.

Figure B.14. Northeast Plume—Tc-99 Activities in Distal Downgradient Wells

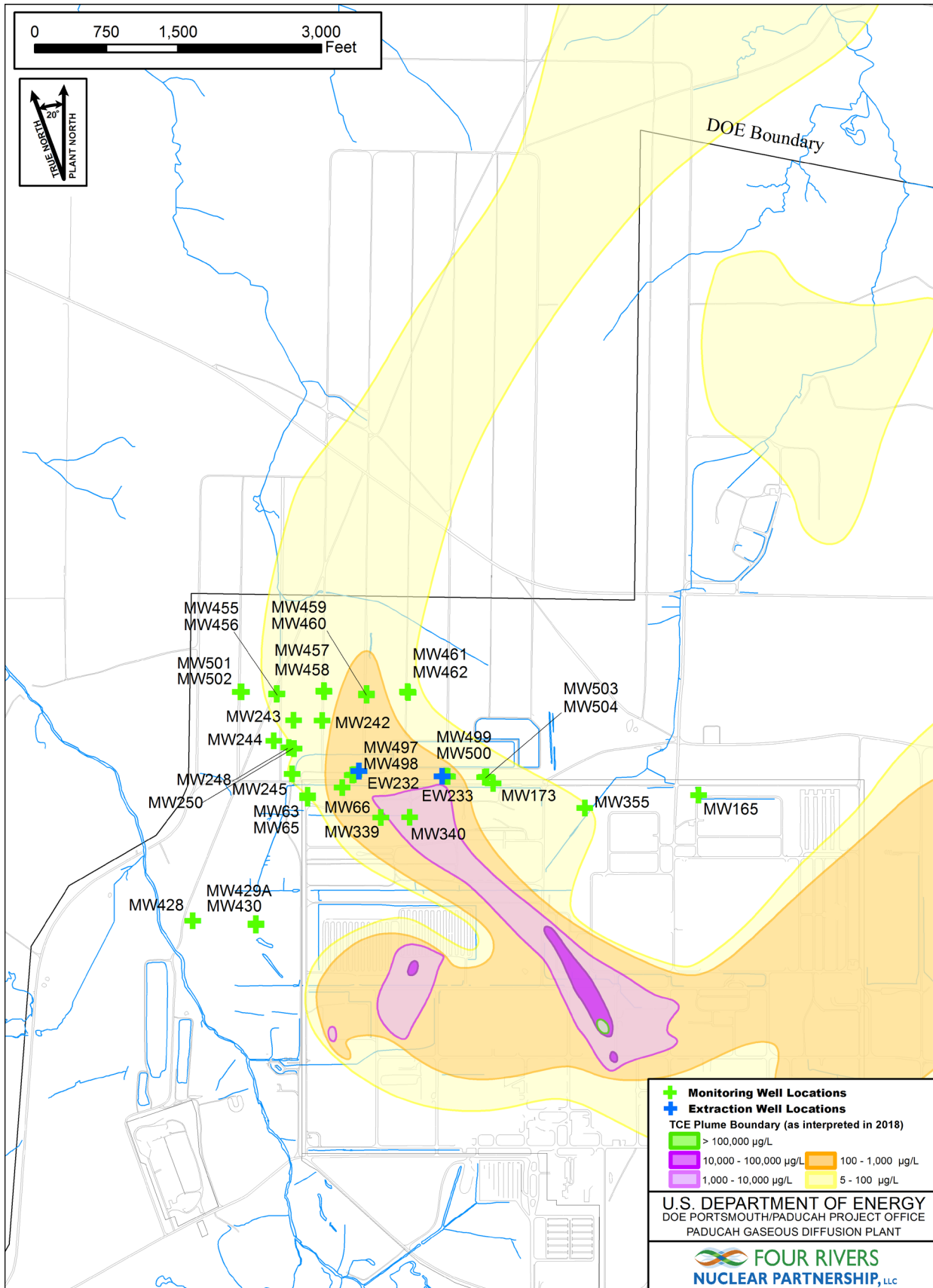


FIGURE No. G:\GIS\ARCVIEWS\PROJECTS\FFA SemiAnnual\20190916_NWP.mxd
DATE 9/16/2019

Figure B.15. Northwest Plume Groundwater Wells

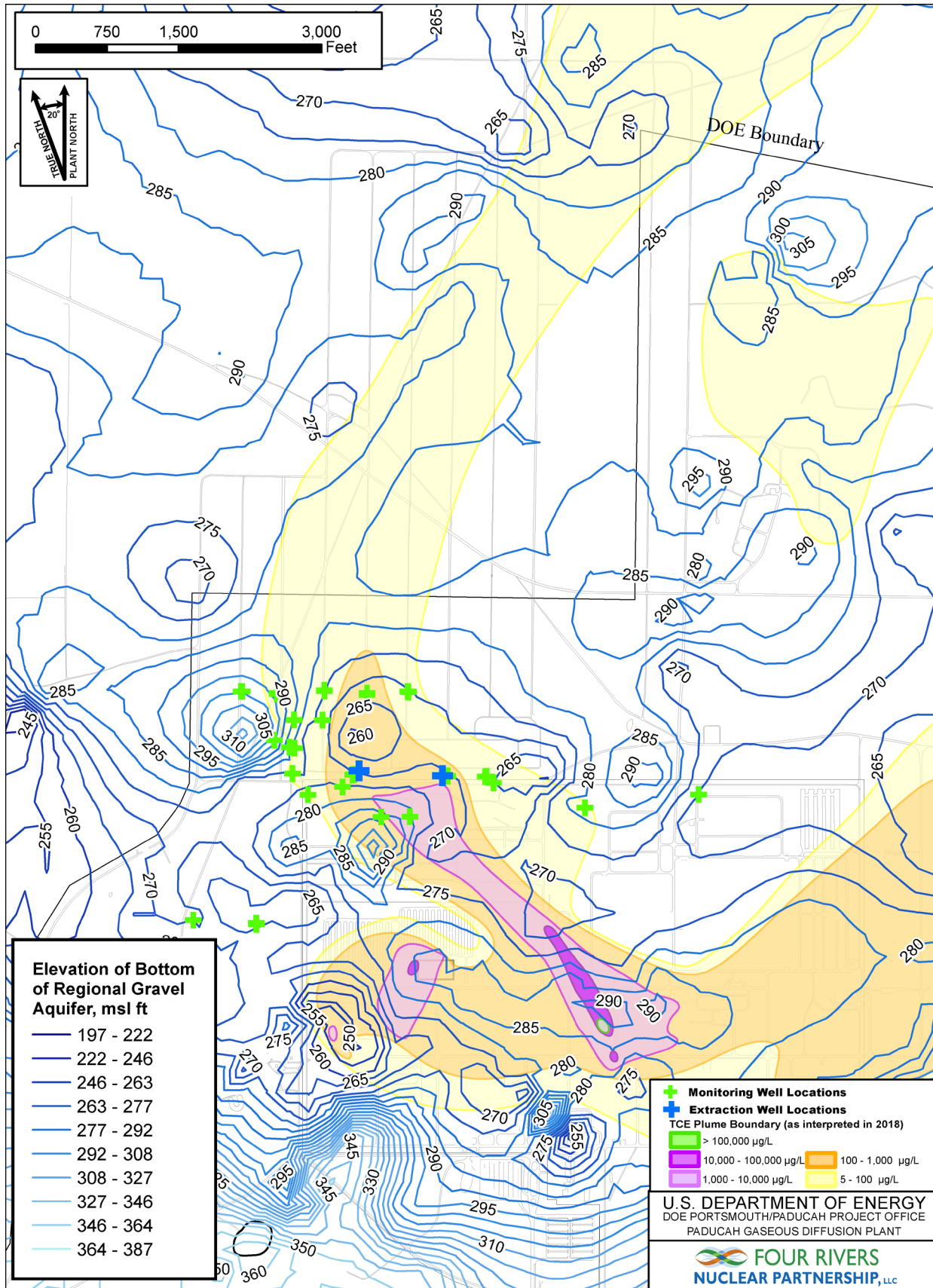
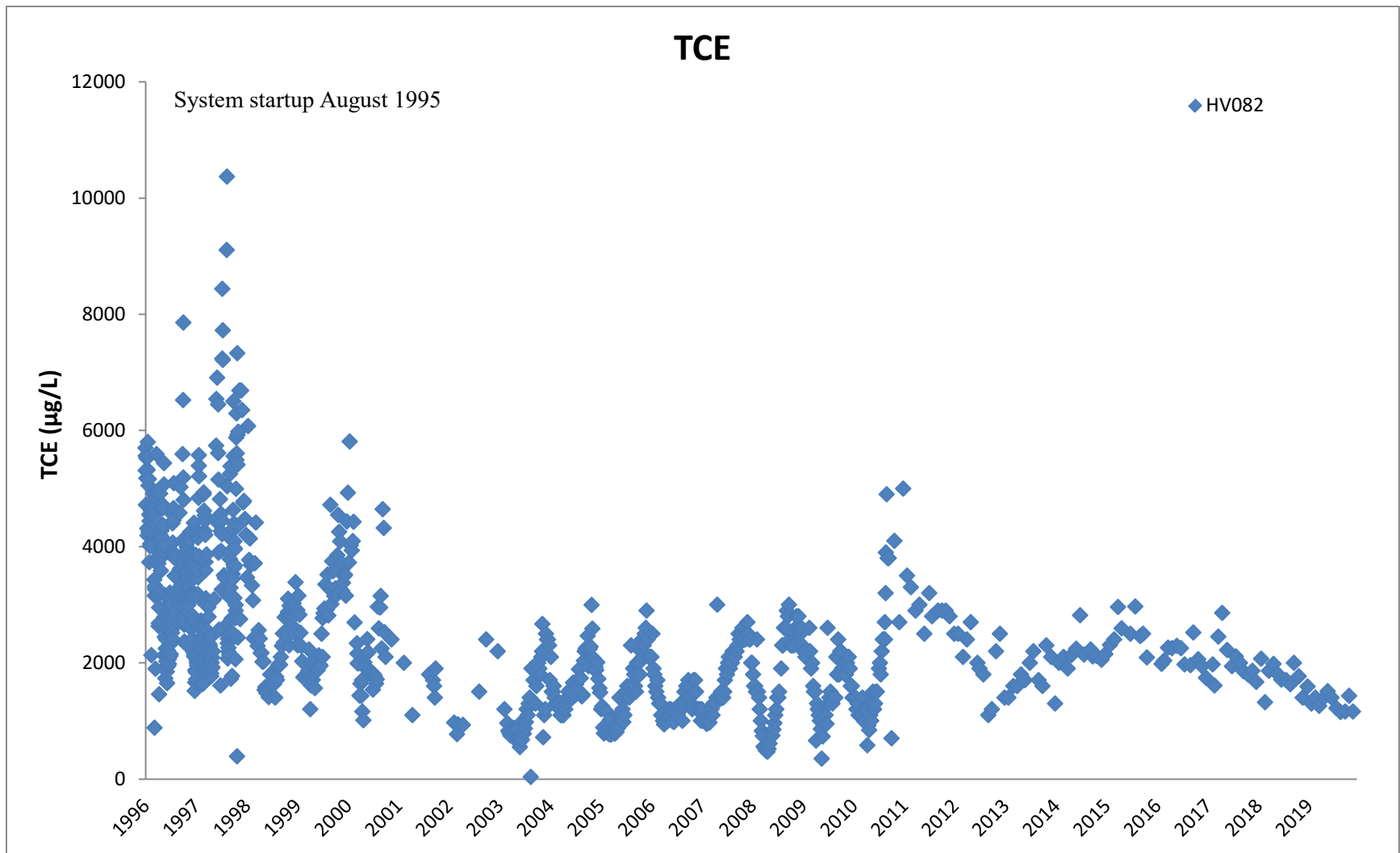


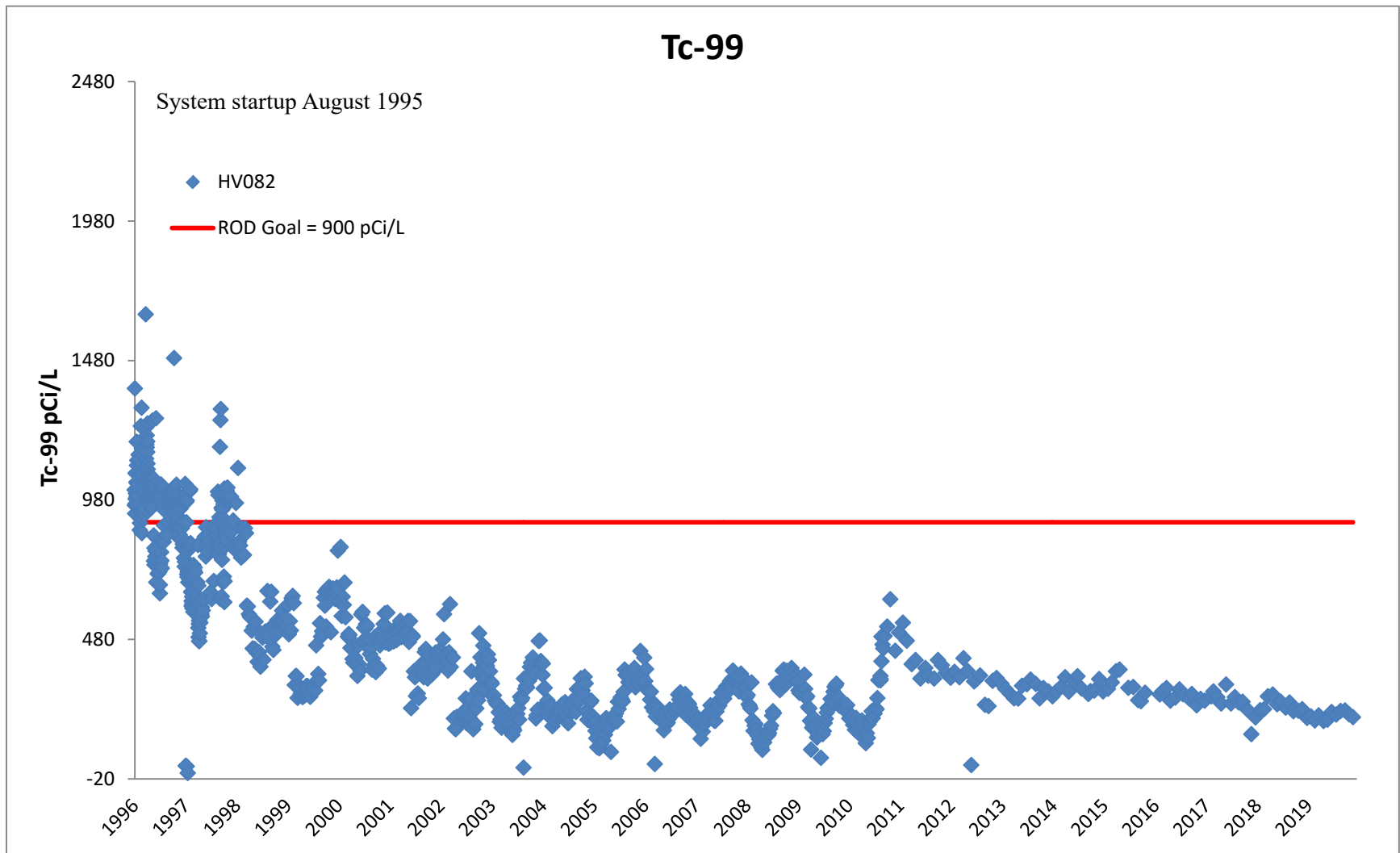
FIGURE No. G:\GIS\ARVIEWS\PROJECTS\IFFA SemiAnnual\2020\122_NWP_RGA.mxd
DATE 3/26/2020

Figure B.16. Northwest Plume with Bottom of Regional Gravel Aquifer Topography



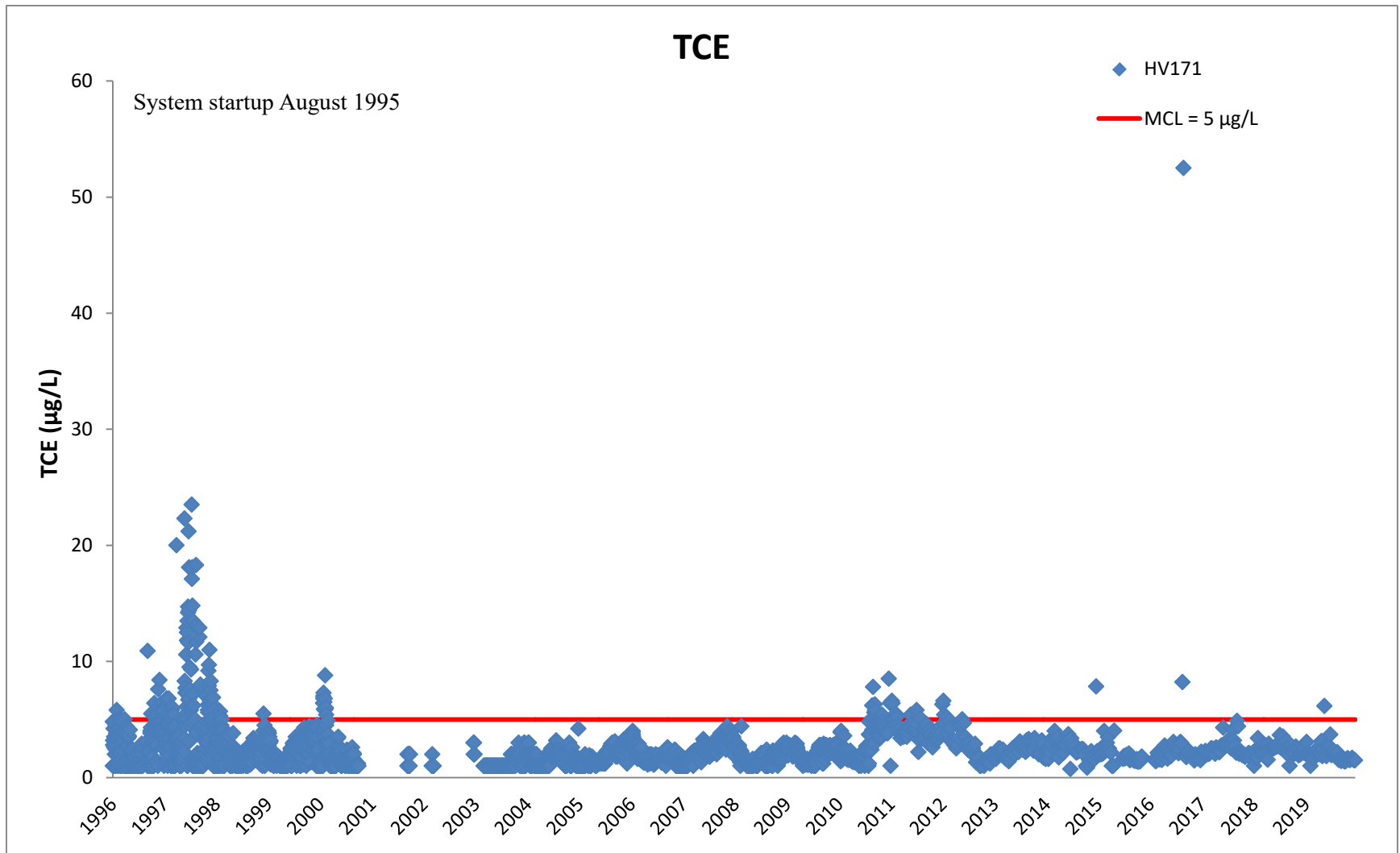
NOTE: Data rejected by validation or assessment have not been graphed.

Figure B.17. Northwest Plume Groundwater System Influent TCE Concentrations



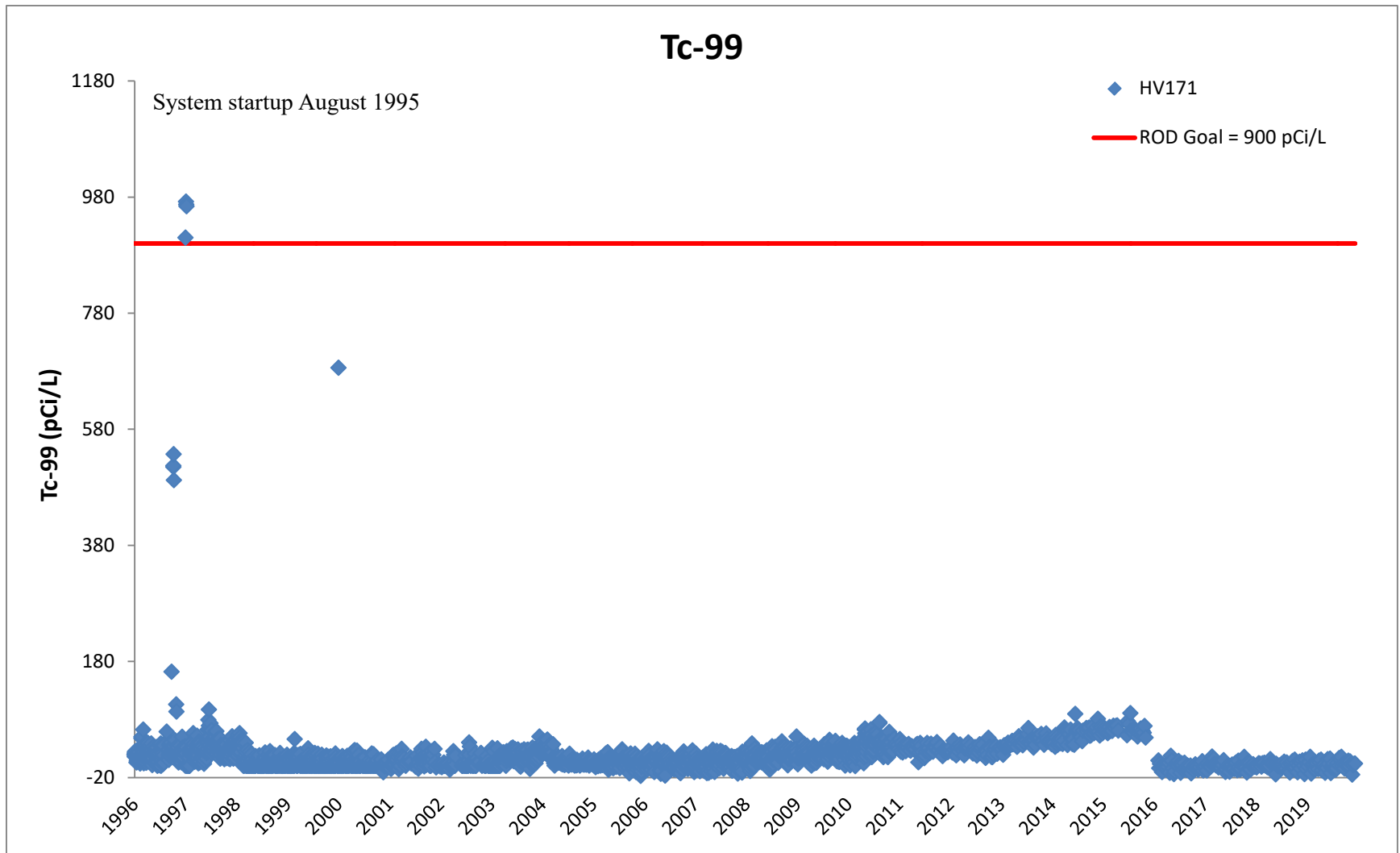
NOTE: Data rejected by validation or assessment have not been graphed.

Figure B.18. Northwest Plume Groundwater System Influent Tc-99 Activities



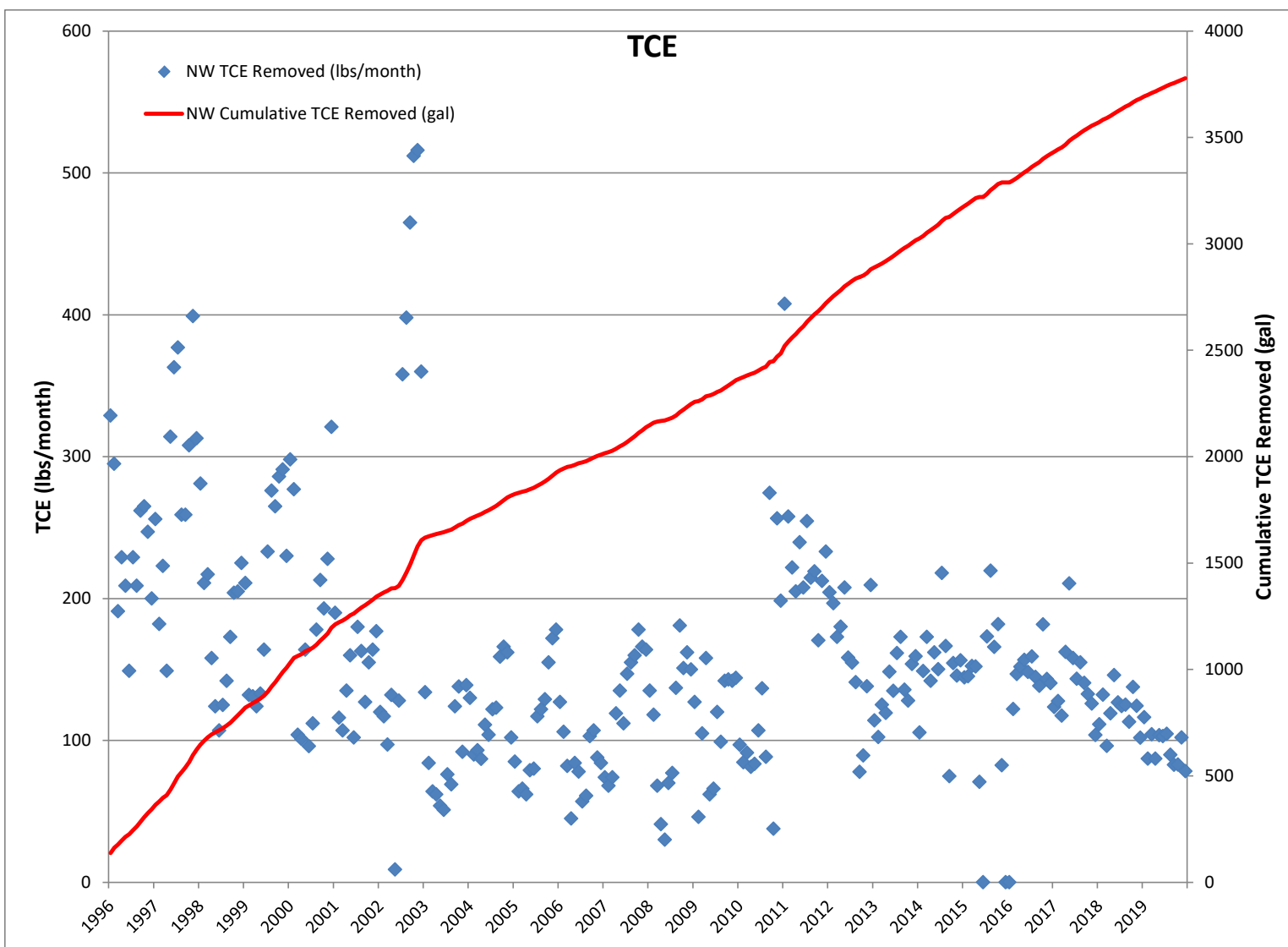
NOTE: Data rejected by validation or assessment have not been graphed.

Figure B.19. Northwest Plume Groundwater System Effluent TCE Concentrations



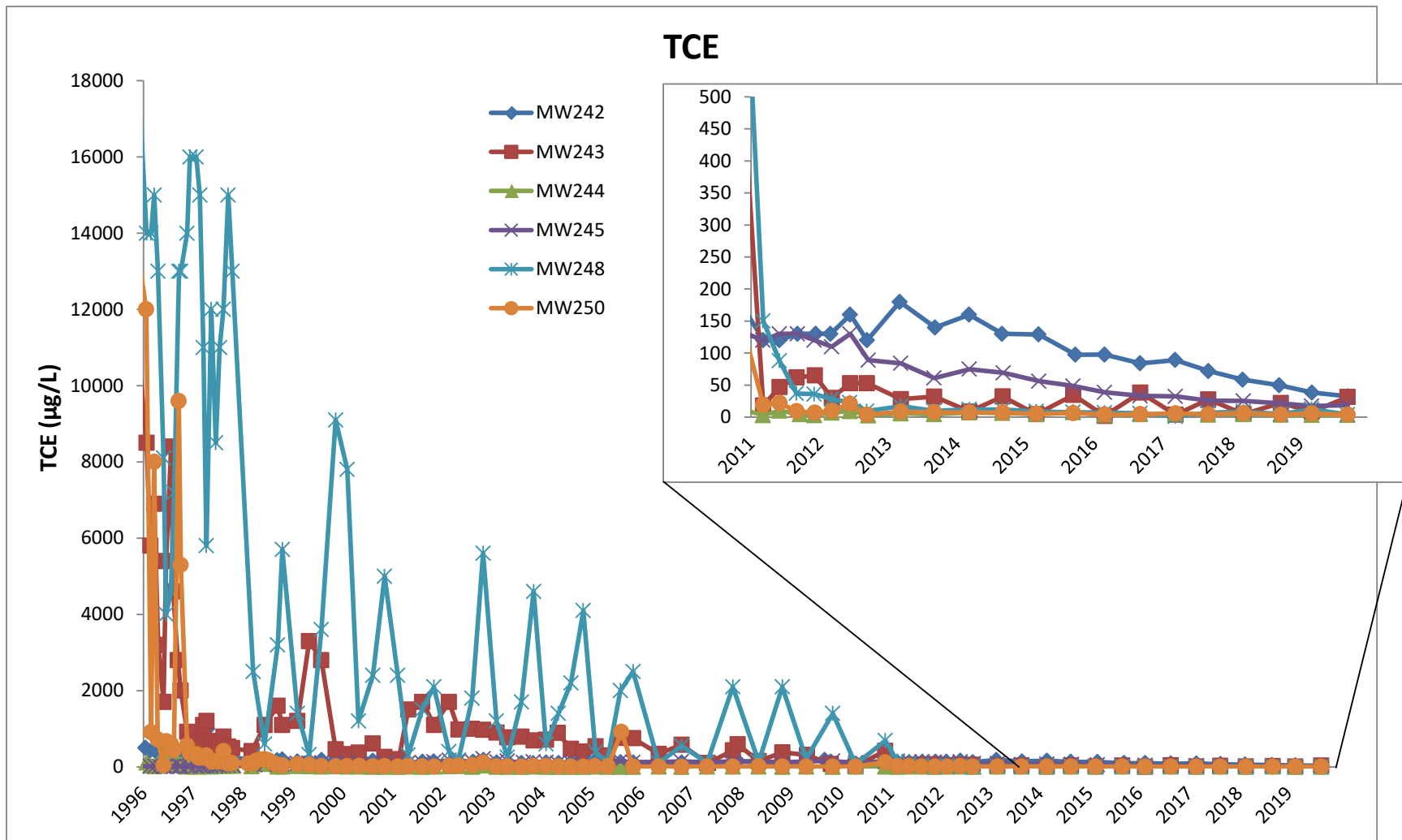
NOTE: Data rejected by validation or assessment have not been graphed.

Figure B.20. Northwest Plume Groundwater System Effluent Tc-99 Activities



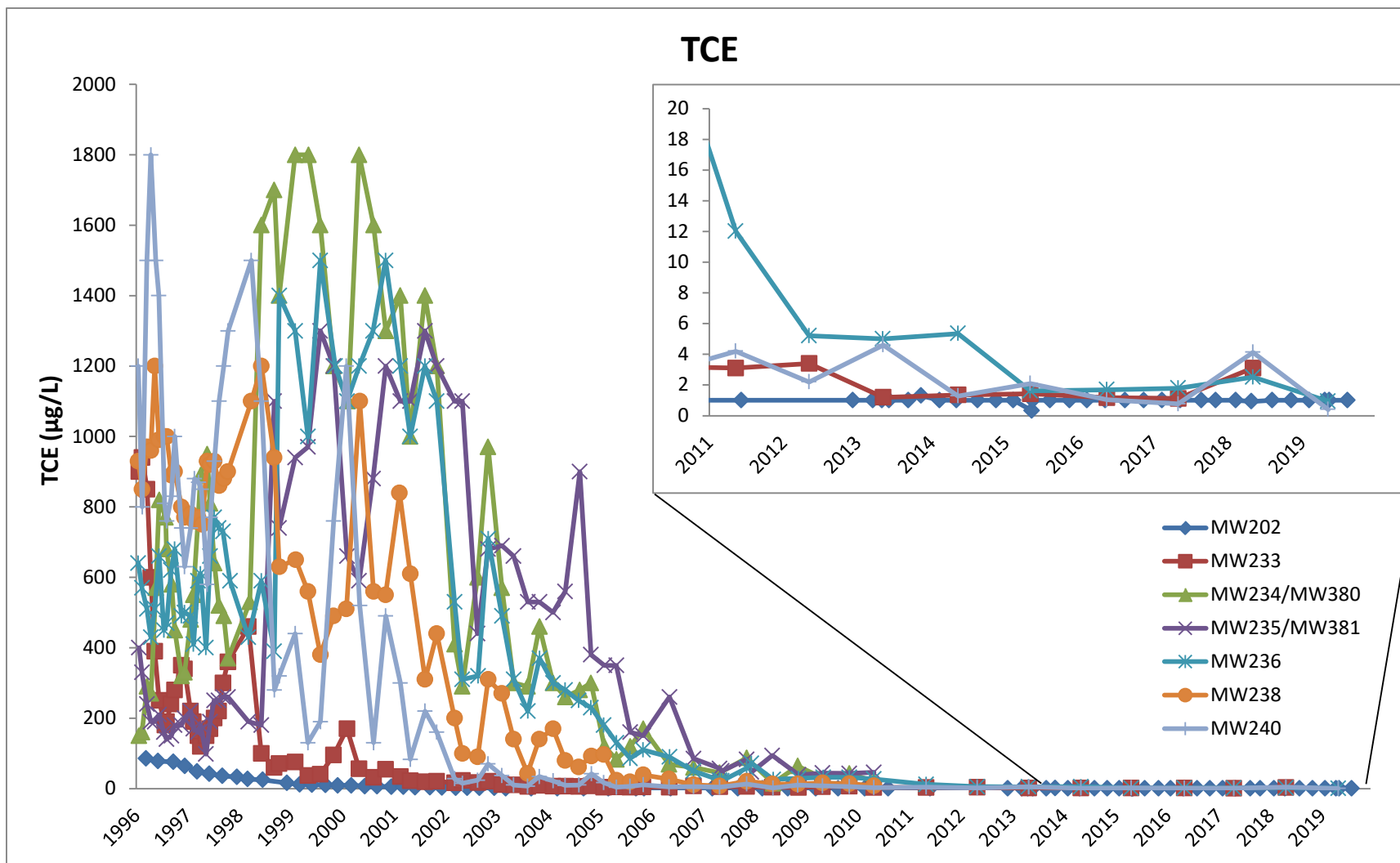
NOTE: Data rejected by validation or assessment are not included on the graph.

Figure B.21. Northwest Plume Groundwater System TCE Removed



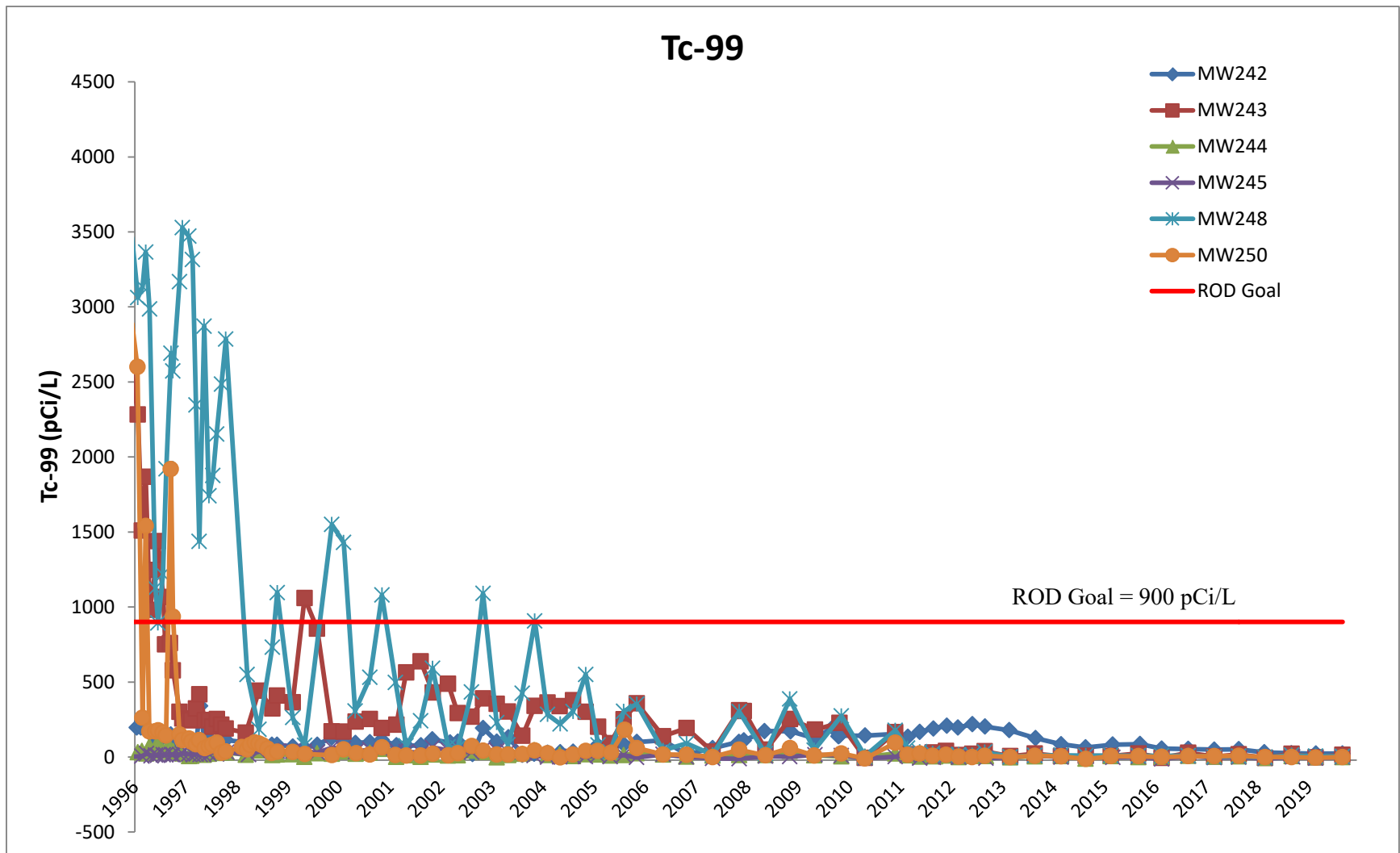
NOTE: Data rejected by validation or assessment have not been graphed.

Figure B.22. Northwest Plume—South Well Field TCE Concentrations



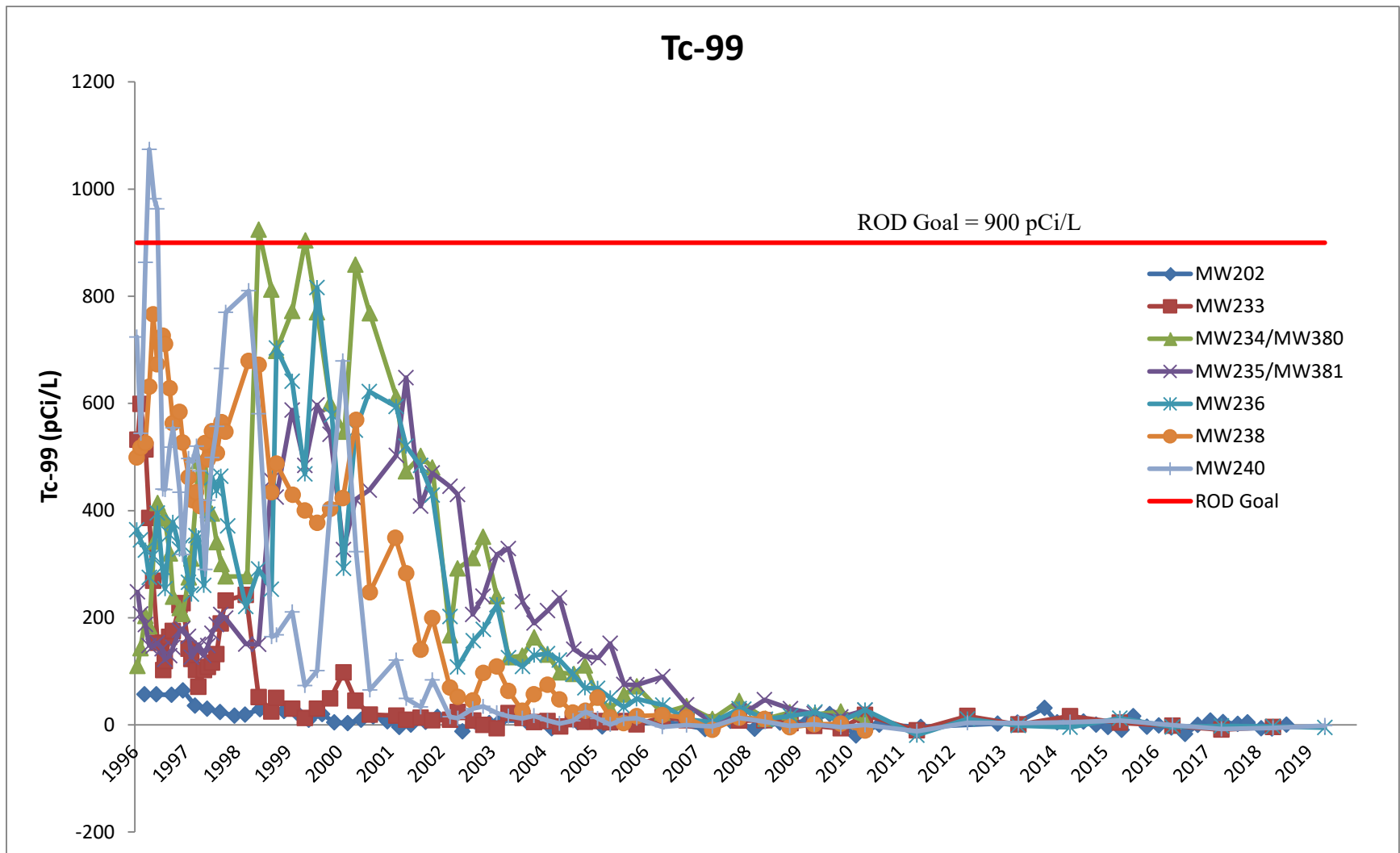
NOTE: Data rejected by validation or assessment have not been graphed.

Figure B.23. Northwest Plume—North Well Field TCE Concentrations



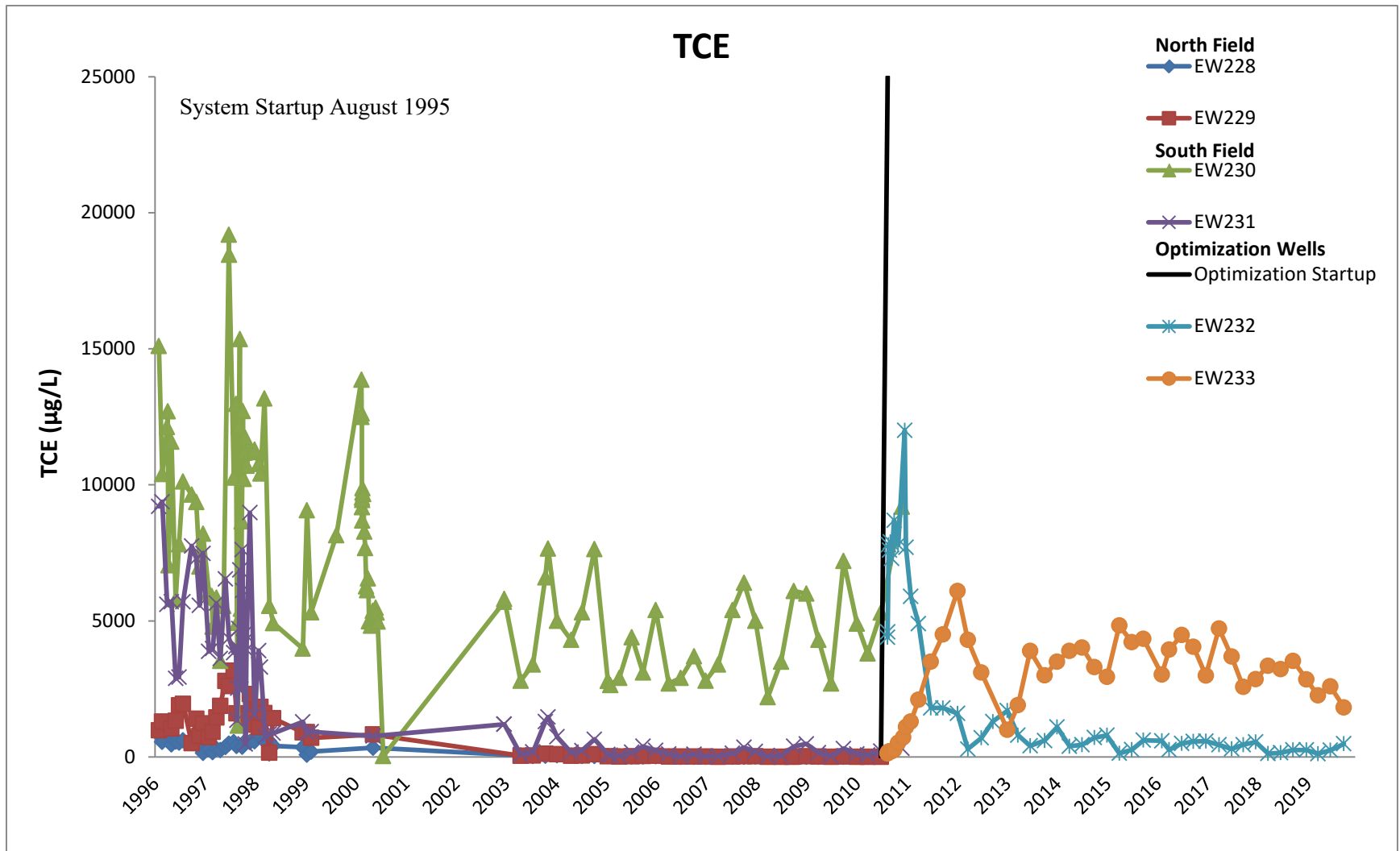
NOTE: Data rejected by validation or assessment have not been graphed.

Figure B.24. Northwest Plume—South Well Field Tc-99 Activities



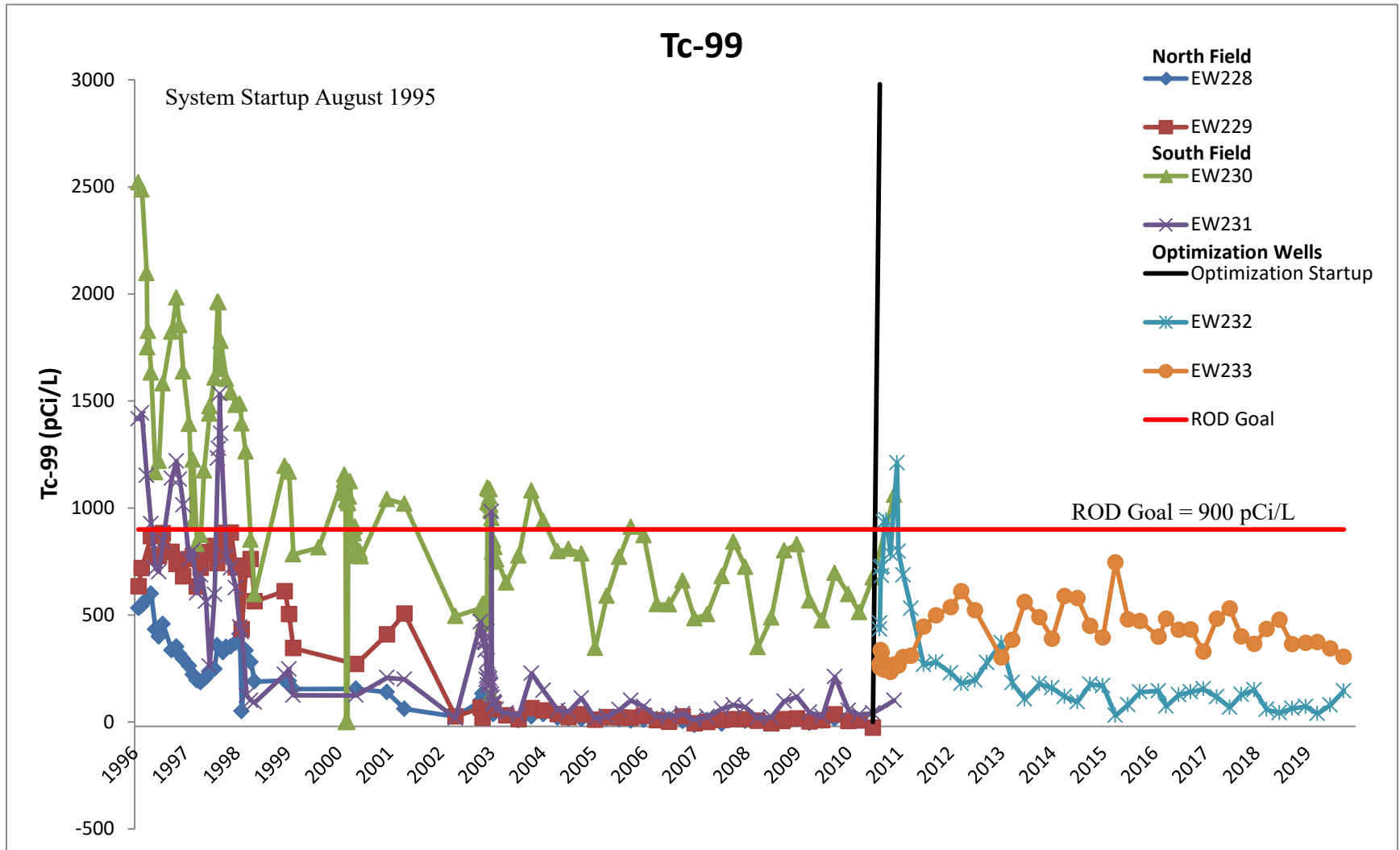
NOTE: Data rejected by validation or assessment have not been graphed.

Figure B.25. Northwest Plume—North Well Field Tc-99 Activities



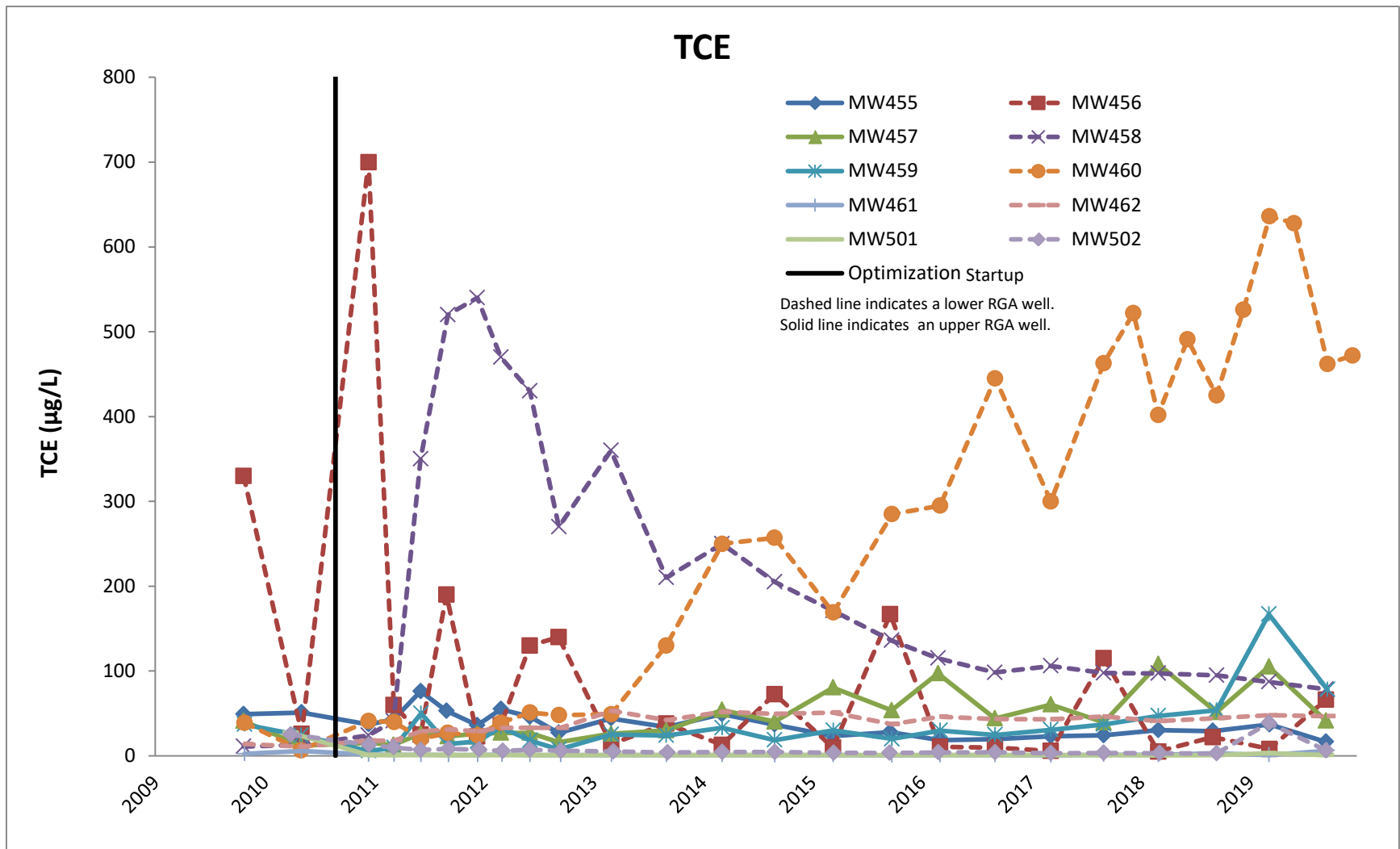
NOTE: Data rejected by validation or assessment have not been graphed.

Figure B.26. Northwest Plume—TCE Concentrations in Extraction Wells



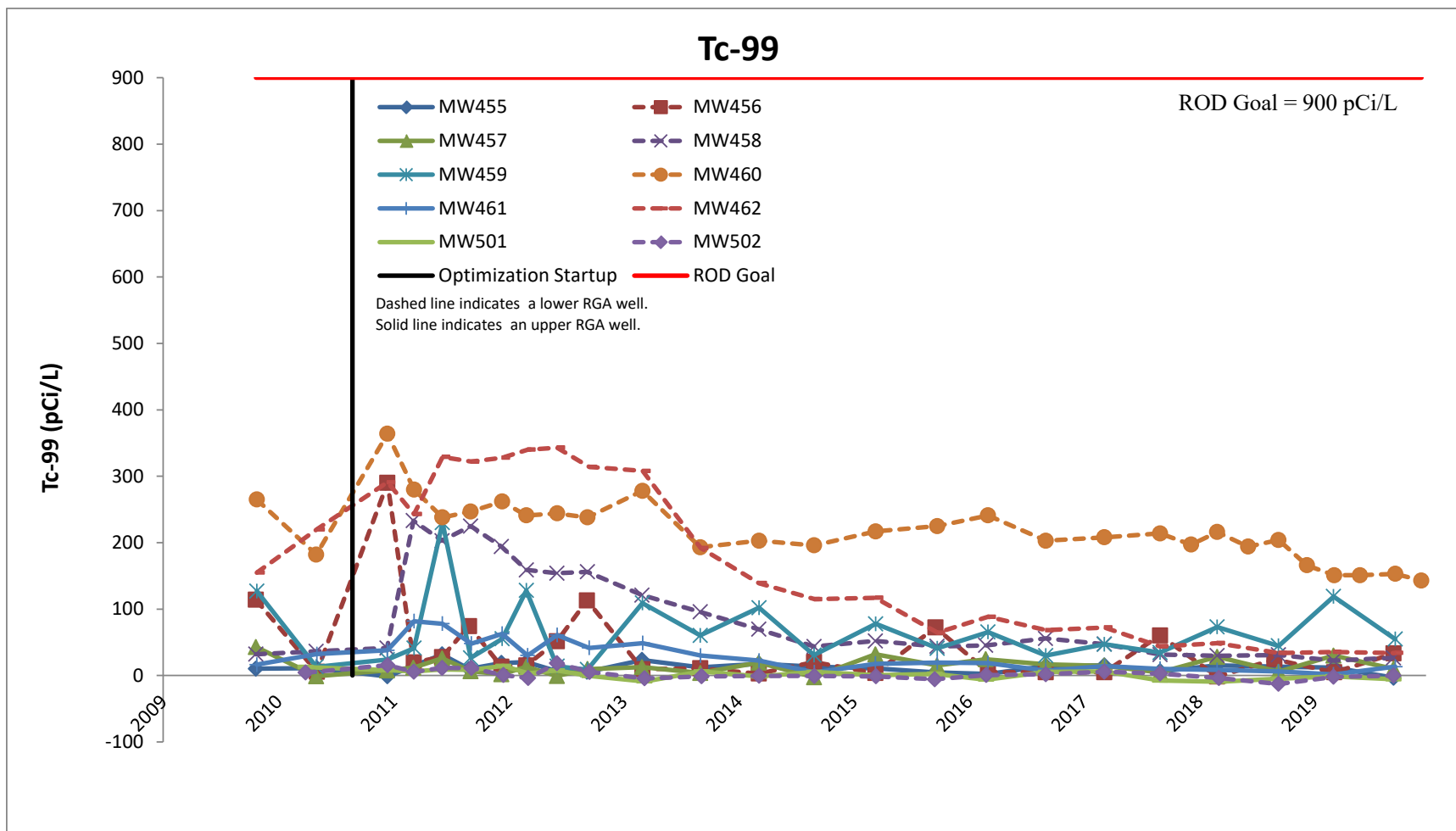
NOTE: Data rejected by validation or assessment have not been graphed.

Figure B.27. Northwest Plume—Tc-99 Activities in Extraction Wells



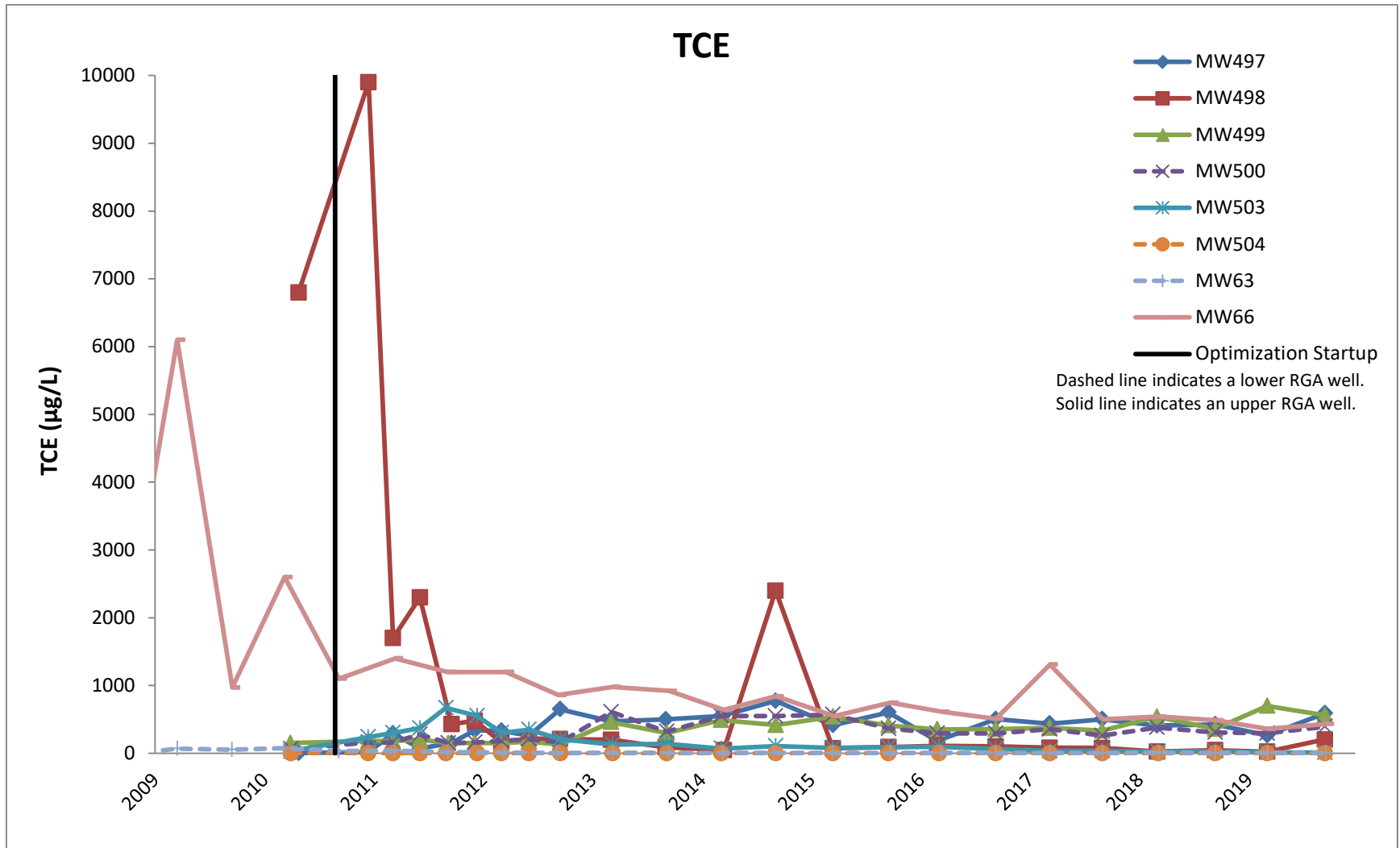
NOTE: Data rejected by validation or assessment have not been graphed.

Figure B.28. Northwest Plume—Downgradient of New Well Field TCE Concentrations



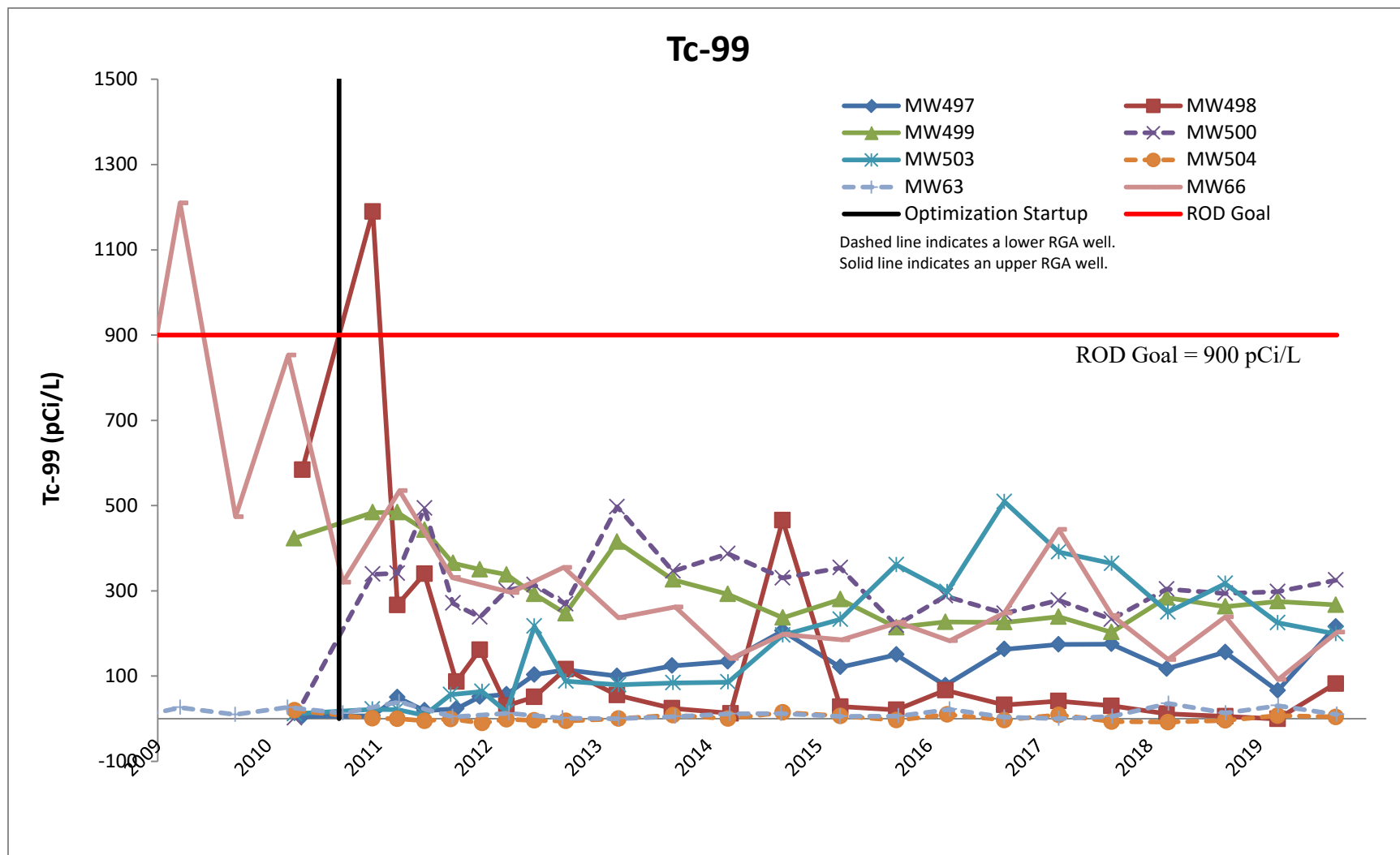
NOTE: Data rejected by validation or assessment have not been graphed.

Figure B.29. Northwest Plume—Downgradient of New Well Field Tc-99 Activities



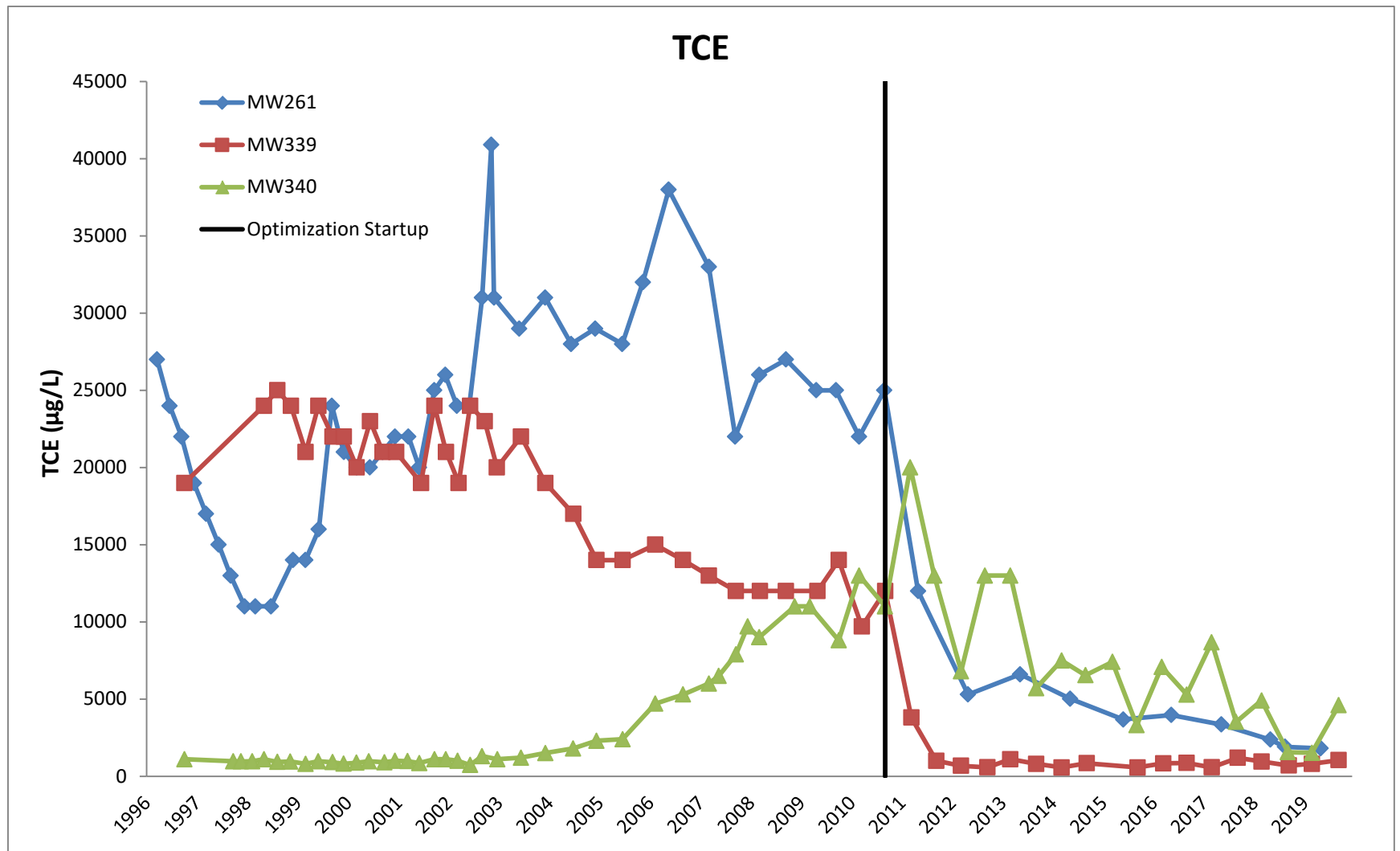
NOTE: Data rejected by validation or assessment have not been graphed.

Figure B.30. Northwest Plume—New Well Field TCE Concentrations



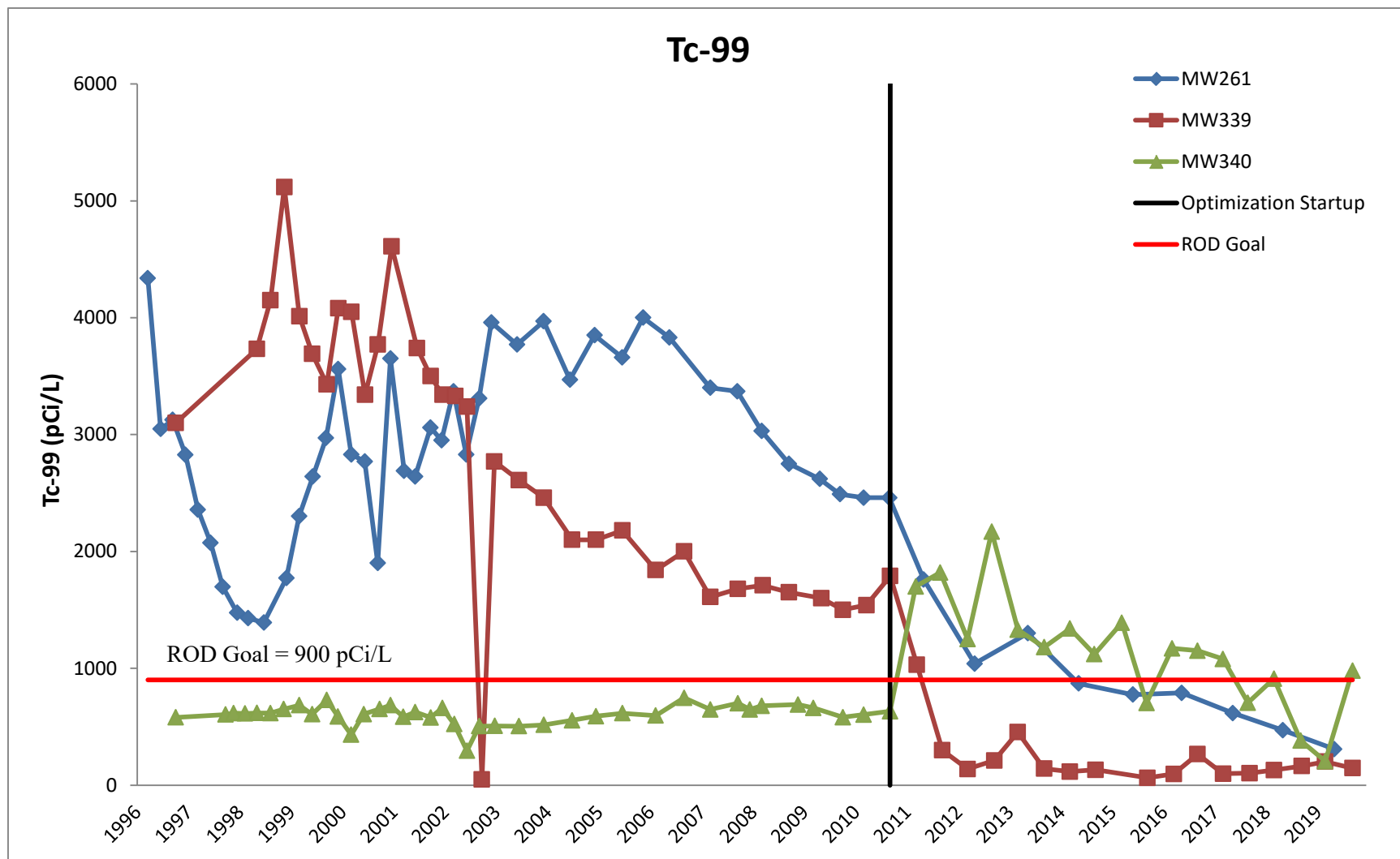
NOTE: Data rejected by validation or assessment have not been graphed.

Figure B.31. Northwest Plume—New Well Field Tc-99 Activities



NOTE: Data rejected by validation or assessment have not been graphed.

Figure B.32. Northwest Plume—TCE Concentrations Upgradient of Extraction Wells



NOTE: Data rejected by validation or assessment have not been graphed.

Figure B.33. Northwest Plume—Tc-99 Activities Upgradient of Extraction Wells

Northeast Plume CERCLA Outfall Monitoring

Water Quality Records for

Sample Date Range: 9/3/2013 - 12/30/2019

C001

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

B-36

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

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

The date range reflects the first and last sample collection date for this data set through 12/31/2019.

Northeast Plume CERCLA Outfall Monitoring

Water Quality Records for

Sample Date Range: 9/3/2013 - 12/30/2019

C001

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Chronic Toxicity Analysis Results			Lab Sample ID*
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	Ceriodaphnia dubia	TUc	Pimephales Promelas TUc	
12/2/2013	< 1	< 1					C13336090001
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
2/17/2014	5.4	< 1					C14048023001
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

B-37

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

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

The date range reflects the first and last sample collection date for this data set through 12/31/2019.

Northeast Plume CERCLA Outfall Monitoring

Water Quality Records for

Sample Date Range: 9/3/2013 - 12/30/2019

C001

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Chronic Toxicity Analysis Results			Lab Sample ID*
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	Ceriodaphnia dubia	TUc	Pimephales Promelas TUc	
4/23/2014	3.48	< 1					347434001
4/28/2014	3.63	< 1					347629001
5/7/2014	4.29	< 1					348446001
5/7/2014	4.17	< 1					348446002
5/12/2014	5.02	< 1					348596001
5/19/2014	5.4	< 1					349038001
5/27/2014	11.1	< 1					349629001
6/2/2014	15	< 1					349858001
6/10/2014	4.1	< 1					350426001
6/16/2014	4.5	< 1					350780001
6/23/2014	5.79	< 1					351207001
6/29/2014				< 1		< 1	QTXC001-0614
6/30/2014	6.56	< 1					351615001
7/8/2014	5.68	< 1					352237001
7/14/2014	4.73	< 1					352624001
7/21/2014	3.73	< 1					353177001
7/21/2014			< 12.7				353177002
7/25/2014				< 1		< 1	QTXC001-0714
7/29/2014	4.95	< 1					353694001

B-38

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

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

The date range reflects the first and last sample collection date for this data set through 12/31/2019.

Northeast Plume CERCLA Outfall Monitoring

Water Quality Records for

Sample Date Range: 9/3/2013 - 12/30/2019

C001

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Chronic Toxicity Analysis Results			Lab Sample ID*
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	Ceriodaphnia dubia	TUc	Pimephales Promelas TUc	
8/5/2014	7.05	< 1					354137001
8/11/2014	4.35	< 1					354637001
8/18/2014	4.57	< 1					355052001
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
B-39 9/23/2014	3.92	< 1					357338002
9/29/2014	4.44	< 1					357703001
10/7/2014	6.35	< 1					358590002
10/13/2014			31.3				358950004
10/13/2014	0.52	< 1					358950002
10/20/2014	0.51	< 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	0.33	< 1					361080002
11/17/2014	< 1	< 1					361458002
11/17/2014	< 1	< 1					361458003

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

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

The date range reflects the first and last sample collection date for this data set through 12/31/2019.

Northeast Plume CERCLA Outfall Monitoring

Water Quality Records for

Sample Date Range: 9/3/2013 - 12/30/2019

C001

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Chronic Toxicity Analysis Results			Lab Sample ID*
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	Ceriodaphnia dubia	TUc	Pimephales Promelas TUc	
11/24/2014	< 1	< 1					361948003
12/1/2014	0.35	< 1					362225002
12/9/2014	< 1	< 1					362804003
12/15/2014	5.35	< 1					363245004
12/22/2014	5.34	< 1					363660002
12/29/2014	3.26	< 1					363851002
1/29/2015	7.68	< 1					366169002
B-40 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
2/10/2015	3.96	< 1					366969005
2/18/2015	3.81	< 1					367365003
2/18/2015	3.45	< 1					367365002
2/23/2015	3	< 1					367607002
3/2/2015	3.36	< 1					367959002
3/11/2015	4.63	< 1					368692003
3/16/2015	1.13	< 1					368893003
3/16/2015	1.19	< 1					368893002

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

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

The date range reflects the first and last sample collection date for this data set through 12/31/2019.

Northeast Plume CERCLA Outfall Monitoring

Water Quality Records for

Sample Date Range: 9/3/2013 - 12/30/2019

C001

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Chronic Toxicity Analysis Results			Lab Sample ID*
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	Ceriodaphnia dubia	TUc	Pimephales Promelas TUc	
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
4/20/2015	4.83	< 1					371423003
4/24/2015				< 1		< 1	QTXC001-0415
4/28/2015	4.26	< 1					371963002
5/5/2015	4.94	< 1					372605003
5/5/2015	5.31	< 1					372605002
5/11/2015	4.8	< 1					372848003
5/18/2015	4.1	< 1					373300002
5/26/2015	5.68	< 1					373775002
6/2/2015	5.36	< 1					374232002
6/8/2015	6.39	< 1					374647003
6/15/2015	7.27	< 1					375139002
6/22/2015	6.12	< 1					375551002
6/29/2015	6.74	< 1					375908003
7/6/2015	6.47	< 1					376221002

B-41

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

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

The date range reflects the first and last sample collection date for this data set through 12/31/2019.

Northeast Plume CERCLA Outfall Monitoring

Water Quality Records for

Sample Date Range: 9/3/2013 - 12/30/2019

C001

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Chronic Toxicity Analysis Results			Lab Sample ID*
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	Ceriodaphnia dubia	TUc	Pimephales Promelas TUc	
7/13/2015	7.59	< 1					377120006
7/13/2015			38				377120004
7/17/2015				< 1		< 1	QTXC001-0715
7/20/2015	7.72	< 1					377564002
7/30/2015	7.86	< 1					378414002
8/3/2015	7.15	< 1					378504001
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
9/28/2015	6.48	< 1					381967002
10/6/2015	6.11	< 1					382713002
10/13/2015	5.06	< 1					383173005
10/19/2015			< 13.3				383605001
10/19/2015	3.12	< 1					383605003
10/23/2015				< 1		< 1	QTXC001-1015

B-42

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

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

The date range reflects the first and last sample collection date for this data set through 12/31/2019.

Northeast Plume CERCLA Outfall Monitoring

Water Quality Records for

Sample Date Range: 9/3/2013 - 12/30/2019

C001

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Chronic Toxicity Analysis Results			Lab Sample ID*
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	Ceriodaphnia dubia	TUc	Pimephales Promelas TUc	
10/26/2015	3.34	< 1					384073001
11/3/2015	3.72	< 1					384687002
11/9/2015	3.29	< 1					385132003
11/16/2015	3.23	< 1					385708003
11/16/2015	3.33	< 1					385708002
11/23/2015	3.14	< 1					386250003
11/30/2015	3.52	< 1					386486002
B-43 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			< 18.3				388627004
1/4/2016			< 16.3				388627005
1/4/2016	3.09	< 1					388627007
1/11/2016	5.15	< 1					389075002
1/19/2016	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

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

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

The date range reflects the first and last sample collection date for this data set through 12/31/2019.

Northeast Plume CERCLA Outfall Monitoring

Water Quality Records for

Sample Date Range: 9/3/2013 - 12/30/2019

C001

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Chronic Toxicity Analysis Results			Lab Sample ID*
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	Ceriodaphnia dubia	TUc	Pimephales Promelas TUc	
2/8/2016	3.3	< 1					390933003
2/17/2016	3.24	< 1					391578003
2/17/2016	3.24	< 1					391578002
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
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
4/26/2016	6.13	< 1					396121001
5/3/2016	2.55	< 1					396568003
5/9/2016	3.2	< 1					397075002
5/16/2016	2.42	< 1					397535002

B-44

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

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

The date range reflects the first and last sample collection date for this data set through 12/31/2019.

Northeast Plume CERCLA Outfall Monitoring

Water Quality Records for

Sample Date Range: 9/3/2013 - 12/30/2019

C001

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Chronic Toxicity Analysis Results			Lab Sample ID*
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	Ceriodaphnia dubia	TUc	Pimephales Promelas TUc	
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
B-45 7/6/2016	3.33	< 1					401038007
7/11/2016	2.95	< 1					401330002
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
8/29/2016	3.46	< 1					404871002
9/6/2016	< 3.13	< 1					405309003
9/13/2016	< 3.11	1					405843002

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

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

The date range reflects the first and last sample collection date for this data set through 12/31/2019.

Northeast Plume CERCLA Outfall Monitoring

Water Quality Records for

Sample Date Range: 9/3/2013 - 12/30/2019

C001

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Chronic Toxicity Analysis Results			Lab Sample ID*
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	Ceriodaphnia dubia	TUc	Pimephales Promelas TUc	
9/19/2016	3.46	< 1					406268002
9/26/2016	< 1	< 1					406761002
10/3/2016	< 1	< 1					407409002
10/10/2016			22				407689005
10/10/2016	< 1	< 1					407689007
10/14/2016				< 1		< 1	QTXC001-1016
10/17/2016	< 3.79	< 1					408434002
10/24/2016	< 3.01	< 1					409012002
10/31/2016	< 3.68	< 1					409492002
11/8/2016	3.41	< 1					410178004
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
12/27/2016	2.28	< 1					413365001
1/4/2017	1.71	< 1					413711002

B-46

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

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

The date range reflects the first and last sample collection date for this data set through 12/31/2019.

Northeast Plume CERCLA Outfall Monitoring

Water Quality Records for

Sample Date Range: 9/3/2013 - 12/30/2019

C001

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Chronic Toxicity Analysis Results			Lab Sample ID*
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	Ceriodaphnia dubia	TUc	Pimephales Promelas TUc	
1/9/2017	4.16	< 1					413954007
1/9/2017			32.6				413954005
1/17/2017	2.78	< 1					414480002
1/23/2017	2.66	< 1					414875002
1/30/2017	2.22	< 1					415330002
2/6/2017	3.06	< 1					415797003
2/13/2017	2.32	< 1					416621002
2/21/2017	2.92	< 1					417084002
2/21/2017	2.92	< 1					417084003
2/27/2017	2.58	< 1					417486002
3/6/2017	2.81	< 1					417894004
3/10/2017				< 1		< 1	QTXC001-0317
3/13/2017	2	< 1					418494002
3/20/2017	2.79	< 1					418903002
3/27/2017	2.92	< 1					419376002
4/4/2017	2.73	< 1					419842005
4/4/2017	< 1	< 1					419842006
4/10/2017	2.78	< 1					420352002
4/17/2017	3.12	< 1					420901002

B-47

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

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

The date range reflects the first and last sample collection date for this data set through 12/31/2019.

Northeast Plume CERCLA Outfall Monitoring

Water Quality Records for

Sample Date Range: 9/3/2013 - 12/30/2019

C001

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Chronic Toxicity Analysis Results			Lab Sample ID*
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	Ceriodaphnia dubia	TUc	Pimephales Promelas TUc	
4/24/2017	2.66	< 1					421403002
5/1/2017	2.62	< 1					422065003
5/8/2017	3.04	< 1					422691003
5/8/2017			< 19.9				422691001
5/12/2017				< 1			QTXC0015-17
5/15/2017	2.62	< 1					423225002
5/22/2017	1.92	< 1					423789002
B-48 5/30/2017	2.3	< 1					424351002
6/5/2017	2.9	< 1					424743004
6/19/2017	2.79	< 1					425832002
6/26/2017	2.24	< 1					426426001
7/5/2017	2.59	< 1					427251001
7/5/2017			26.8				427251005
7/5/2017			28.4				427251006
7/11/2017	3	< 1					427613002
7/17/2017	2.94	< 1					428085001
7/24/2017	3.14	< 1					428713002
8/14/2017	1.97	< 1					430615001
8/21/2017	3.42	< 1					431181002

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

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

The date range reflects the first and last sample collection date for this data set through 12/31/2019.

Northeast Plume CERCLA Outfall Monitoring

Water Quality Records for

Sample Date Range: 9/3/2013 - 12/30/2019

C001

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Chronic Toxicity Analysis Results			Lab Sample ID*
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	Ceriodaphnia dubia	TUc	Pimephales Promelas TUc	
8/25/2017				< 1		< 1	QTXC0018-17
8/28/2017	3.06	< 1					431681002
10/11/2017			45.5				434895003
10/11/2017	0.67	< 1					434895007
10/11/2017			59.4				439669001
10/16/2017	0.42	< 1					435322003
10/25/2017	< 1	< 1					436374003
10/30/2017	0.44	< 1					436651003
11/6/2017	0.63	< 1					437150004
11/10/2017				< 1		< 1	QTXC00111-17
11/13/2017	< 1	< 1					437793005
11/30/2017	0.55	< 1					439009002
12/5/2017	< 1	< 1					439319001
12/5/2017	< 1	< 1					439319004
12/11/2017	< 1	< 1					439844005
12/18/2017	< 1	< 1					440275003
12/27/2017	< 1	< 1					440755003
1/2/2018	< 1	< 1					440964004
1/8/2018	< 1	< 1					441177005

B-49

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

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

The date range reflects the first and last sample collection date for this data set through 12/31/2019.

Northeast Plume CERCLA Outfall Monitoring

Water Quality Records for

Sample Date Range: 9/3/2013 - 12/30/2019

C001

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Chronic Toxicity Analysis Results			Lab Sample ID*
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	Ceriodaphnia dubia	TUc	Pimephales Promelas TUc	
1/16/2018	< 1	< 1					441723003
1/22/2018	0.59	< 1					442150003
1/26/2018				< 1		< 1	QTXC0011-18
1/29/2018	< 1	< 1					442610003
2/5/2018	< 1	< 1					443103003
2/5/2018	< 1	< 1					443103004
2/12/2018			48.1				443651003
B-50 2/12/2018	< 1	< 1					443651006
2/26/2018	< 1	< 1					444677002
3/5/2018	< 1	< 1					445176002
3/12/2018	< 1	< 1					445734003
3/22/2018	0.49	< 1					446468005
3/26/2018	< 1	< 1					446833003
4/2/2018	< 1	< 1					447095005
4/2/2018	< 1	< 1					447095004
4/9/2018			55.5				447603003
4/9/2018	< 1	< 1					447603007
4/16/2018	< 1	< 1					448142003
4/20/2018				< 1		< 1	QTXC001-0418

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

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

The date range reflects the first and last sample collection date for this data set through 12/31/2019.

Northeast Plume CERCLA Outfall Monitoring

Water Quality Records for

Sample Date Range: 9/3/2013 - 12/30/2019

C001

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Chronic Toxicity Analysis Results			Lab Sample ID*
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	Ceriodaphnia dubia	TUc	Pimephales Promelas TUc	
4/23/2018	0.46	< 1					448638003
4/30/2018	< 1	< 1					449102003
5/7/2018	< 1	< 1					449583002
5/14/2018	0.76	< 1					450117006
5/21/2018	0.74	< 1					450656003
5/29/2018	0.76	< 1					451371004
6/4/2018	0.5	< 1					451691003
6/11/2018	0.77	< 1					452284006
6/18/2018	< 1	< 1					452744003
6/25/2018	< 1	< 1					453275003
7/5/2018	< 1	< 1					454018003
7/9/2018			40.1				454174003
7/9/2018			40				454174004
7/9/2018	< 1	< 1					454174007
7/16/2018	< 1	< 1					454684003
7/23/2018	< 1	< 1					455228003
7/27/2018				< 1		< 1	QTXC001-0718
7/30/2018	< 1	< 1					455783003
8/15/2018	< 1	< 1					457414003

B-51

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

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

The date range reflects the first and last sample collection date for this data set through 12/31/2019.

Northeast Plume CERCLA Outfall Monitoring

Water Quality Records for

Sample Date Range: 9/3/2013 - 12/30/2019

C001

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Chronic Toxicity Analysis Results			Lab Sample ID*
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	Ceriodaphnia dubia	TUc	Pimephales Promelas TUc	
8/20/2018	< 1	< 1					457750003
8/27/2018	< 1	< 1					458237003
9/4/2018	< 1	< 1					458722006
9/10/2018	< 1	< 1					459154003
9/17/2018	< 1	< 1					459343003
9/24/2018	< 1	< 1					460040003
10/1/2018	< 1	< 1					460642001
B-52 10/1/2018	< 1	< 1					460642002
10/8/2018	< 1	< 1					461227001
10/8/2018			45.8				461227002
10/8/2018			57.8				461227003
10/15/2018	< 1	< 1					461905001
10/19/2018				< 1		< 1	QTXC001-1018
10/22/2018	< 1	< 1					462350001
10/29/2018	< 1	< 1					462903001
11/5/2018	< 1	< 1					463536001
11/12/2018	< 1	< 1					464149001
11/19/2018	< 1	< 1					465010001
11/26/2018	< 1	< 1					465410001

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

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

The date range reflects the first and last sample collection date for this data set through 12/31/2019.

Northeast Plume CERCLA Outfall Monitoring

Water Quality Records for

Sample Date Range: 9/3/2013 - 12/30/2019

C001

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Chronic Toxicity Analysis Results			Lab Sample ID*
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	Ceriodaphnia dubia	TUc	Pimephales Promelas TUc	
12/3/2018	< 1	< 1					466003001
12/10/2018	< 1	< 1					466599001
12/17/2018	< 1	< 1					467137001
12/26/2018	< 1	< 1					467685001
12/31/2018	< 1	< 1					467894001
1/7/2019	< 1	< 1					468186001
1/14/2019			57.8				468903001
B-53 1/14/2019	< 1	< 1					468903002
1/18/2019				< 1		< 1	QTXC001-0119
1/22/2019	< 1	< 1					469618001
1/28/2019	< 1	< 1					469976001
2/4/2019	< 1	< 1					470490001
2/4/2019	< 1	< 1					470490002
2/11/2019	< 1	< 1					471081001
2/18/2019	< 1	< 1					471564001
2/25/2019	< 1	< 1					472156001
3/4/2019	< 1	< 1					472747001
3/11/2019	< 1	< 1					473295001
3/18/2019	< 1	< 1					473891001

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

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

The date range reflects the first and last sample collection date for this data set through 12/31/2019.

Northeast Plume CERCLA Outfall Monitoring

Water Quality Records for

Sample Date Range: 9/3/2013 - 12/30/2019

C001

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Chronic Toxicity Analysis Results			Lab Sample ID*
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	Ceriodaphnia dubia	TUc	Pimephales Promelas TUc	
3/25/2019	< 1	< 1					474505001
4/1/2019	< 1	< 1					475090001
4/8/2019			52.5				475771001
4/8/2019	< 1	< 1					475771002
4/12/2019				< 1		< 1	QTXC001-0419
4/15/2019	< 1	< 1					476567001
4/22/2019	< 1	< 1					477234001
4/29/2019	< 1	< 1					477787001
5/6/2019	< 1	< 1					478397001
5/13/2019	< 1	< 1					479072001
5/20/2019	< 1	< 1					479744001
5/28/2019	< 1	< 1					480358001
6/3/2019	< 1	< 1					480765001
6/12/2019	< 1	< 1					481736001
6/17/2019	< 1	< 1					482200001
6/24/2019	< 1	< 1					482803001
7/1/2019	< 1	< 1					483432001
7/1/2019	< 1	< 1					483432002
7/8/2019	< 1	< 1					484141001

B-54

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

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

The date range reflects the first and last sample collection date for this data set through 12/31/2019.

Northeast Plume CERCLA Outfall Monitoring

Water Quality Records for

Sample Date Range: 9/3/2013 - 12/30/2019

C001

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Chronic Toxicity Analysis Results			Lab Sample ID*
	TCE μg/L	1,1-DCE μg/L	Tc-99 pCi/L	Ceriodaphnia dubia	TUc	Pimephales Promelas TUc	
7/15/2019	< 1	< 1					484766001
7/15/2019			37.4				484766002
7/19/2019				1.04		< 1	QTXC001-0719
7/23/2019	< 1	< 1					485483001
7/29/2019	< 1	< 1					486020001
8/5/2019	< 1	< 1					486696001
8/9/2019				< 1		< 1	QTXC001-0819
8/12/2019	< 1	< 1					487390001
8/21/2019	< 1	< 1					488410001
8/26/2019	< 1	< 1					488707001
9/5/2019	< 1	< 1					489508001
9/9/2019	< 1	< 1					489508002
9/16/2019	< 1	< 1					490373001
9/23/2019	< 1	< 1					490999001
9/30/2019	< 1	< 1					491590001
10/7/2019	< 1	< 1					492259001
10/7/2019	< 1	< 1					492259002
10/14/2019			74.1				492995002
10/14/2019	< 1	< 1					492995003

B-55

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

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

The date range reflects the first and last sample collection date for this data set through 12/31/2019.

Northeast Plume CERCLA Outfall Monitoring

Water Quality Records for

Sample Date Range: 9/3/2013 - 12/30/2019

C001

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Chronic Toxicity Analysis Results			Lab Sample ID*
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	Ceriodaphnia dubia	TUc	Pimephales Promelas TUc	
10/14/2019			54.4				492995001
10/14/2019				< 1		< 1	QTXC001-1019
10/21/2019	< 1	< 1					493740001
10/28/2019	< 1	< 1					494522001
11/4/2019	< 1	< 1					495157001
11/11/2019	< 1	< 1					495889001
11/18/2019	< 1	< 1					496857001
11/25/2019	< 1	< 1					497555001
12/2/2019	< 1	< 1					497937001
12/9/2019	< 1	< 1					498570001
12/16/2019	< 1	< 1					499223001
12/23/2019	< 1	< 1					499746001
12/30/2019	< 1	< 1					499991001

B-56

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

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

The date range reflects the first and last sample collection date for this data set through 12/31/2019.

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW124

Sample Date Range:
2/21/1990 - 12/10/2019

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
2/21/1990	160	< 5		15481001
2/21/1990	160	< 5		15479002
2/22/1990	44		1	900223-025
3/1/1990	170			900301-296
4/30/1990			< 12	6682
4/30/1990	123		0	900503-082
4/30/1990			< 14	6683
4/30/1990	98	> 5		15883002
4/30/1990	130	> 5		15883003
6/29/1990			2	900629-165
8/20/1990			< 4	7333
8/20/1990	340	> 5		16644001
3/25/1991			< 2	21327
3/25/1991			< 3	21328
3/25/1991	720	< 5		9103L086-9
10/18/1991	480		8	911018-068
5/20/1993	730	< 100	2	930524-073
5/20/1993	670		119	930524-074
5/21/1993	760	< 50	9	930524-081
5/21/1993		< 25	84.1	930524-082

B-57

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW124

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
6/1/1993	850		17	930604-037
6/5/1995	260	< 100		950606-026
11/7/1995	590	< 50	6	951108-132
3/26/1996	710	< 10	0	960326-036
6/5/1996	760	< 50	11	960606-017
9/3/1996	860	< 50	21	960904-010
12/12/1996	20	< 50	6	961212-169
3/5/1997	960	< 100	0	970306-083
5/13/1997	1100	< 100	8	970515-049
6/5/1997	1100	< 100	7	970605-147
9/9/1997	790	< 100	-8	970909-072
12/8/1997	370	< 100	< -1	C973430023
3/2/1998	240	< 130	< -0.4	C980620038
6/15/1998	220	< 100	< 13.2	C981660106
9/17/1998	200	< 100	< 0.8	C982610006
12/10/1998	120	< 100	< 11.1	C983450000
2/2/1999	82	< 50	< 11.8	C990340069
5/10/1999	96	< 50	< 16.7	C991310033
5/10/1999	95	< 50	< 14.4	C991310032
8/3/1999	100	< 100	< 0	C992170039

B-58

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW124

**Sample Date Range:
2/21/1990 - 12/10/2019**

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
11/16/1999	140	< 50	< -15.6	C993210012
2/15/2000	73	< 5	< 3.48	C000470004
5/8/2000	320	< 50	< 0.33	C001300044
8/17/2000	720	< 5	< 19.9	C002300082
11/15/2000	360	< 50	< 11.8	C003200062
2/12/2001	2	< 5	< -9.44	C010430092
5/14/2001	92	< 5	< -0.705	C011350007
8/15/2001	59	< 25	< -1.65	C012280037
11/14/2001	110	< 10	< 3.87	C013180045
3/27/2002	56	< 50	< 11.2	C020860180
5/2/2002	55	< 5	< -8.93	C021220089
5/2/2002	53	< 5	< -3.85	C021220090
8/29/2002	44	< 5	< 3.08	C022420102
11/11/2002	170	< 10	< -7.81	C023160005
2/18/2003	160	< 10	< 15.8	C030500032
5/7/2003	40	< 5	< 0.175	C031270172
8/27/2003	22	< 5	< 7.7	C032390098
11/17/2003	110	< 25	< 7.3	C033210103
2/11/2004	23	< 5	< 12.4	C040420077
5/12/2004	23	< 10	< -7.25	C041330034

B-59

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW124

**Sample Date Range:
2/21/1990 - 12/10/2019**

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
8/12/2004	21	< 5	< 3.11	C042250117
11/18/2004	16	< 5	< 3.49	C043240003
2/10/2005	18	< 5	< 3.35	C050410062
5/11/2005	18	< 5	< 1.29	C051310089
8/10/2005	14	< 5	< 6	C052220134
11/14/2005	220	< 25	< 5.48	C053180044
5/17/2006	52	< 5	< 7.52	C061370046
11/6/2006	21	< 5	< 8.1	C063100054
5/9/2007	14	< 5	< -4.96	C071300009
11/13/2007	350	14	17.9	C073180004
5/28/2008	65	2	< 5.74	C081490029
11/11/2008	140	3.2	< -3.8	C08316042006
5/5/2009	80	2.7	< 4.29	C09125023007
11/2/2009	40	< 5	< -4.1	C09306041001
5/11/2010	19	< 1	< 14.1	C10131023006
2/22/2011	49	< 5	23	C11053015006
8/4/2011	13	< 5	< -3.33	C11216014003
2/2/2012	12	< 5	< 0.804	C12033015003
8/7/2012	5.4	< 5	< 6.07	C12220024004
2/4/2013	19	< 1	< -4.83	C13035045001

B-60

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW124

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
8/21/2013	2.4	< 1	< 1.7	C13233026005
2/24/2014	9.2	< 1	< -2.69	C14055028001
8/26/2014	6.18	< 1	< -6.23	355748001
2/4/2015	69.9	0.88	< 1.44	366647001
8/24/2015	7.12	< 1	< -4.04	379998002
2/8/2016	5.94	< 1	< -8.87	391039001
8/4/2016	3.1	< 1	< 7.97	403256001
2/15/2017	30.5	0.51	< -0.649	416791001
7/10/2017	5.65	< 1	< 1.27	427964002
8/1/2017	5.88	< 1	< -4.11	429710002
10/6/2017	16.6	< 1	< 0.124	434637002
1/9/2018	61.7	1.17	< 8.01	441537002
2/14/2018	20.4	< 1	< -12.6	443984002
4/9/2018	26.6	< 1	< -5.57	447628001
7/3/2018	13.8	0.36	< -2.31	453993002
8/27/2018	25.5	0.6	< 0.296	458313002
10/3/2018	44.3	0.9	< -11.6	461070001
1/2/2019	40	0.7	< -1.35	468013001
4/9/2019	34.4	1.33	< 1.25	476088002
7/2/2019	25.4	0.49	< -8.24	483632001

B-61

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW124

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
10/2/2019	27.3	0.6	< 0.735	491969002

B-62

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW126

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
2/23/1990	140	< 5		15488001
2/23/1990			< 10	2267
2/23/1990	130		6	900226-054
3/1/1990	180			900301-297
4/27/1990			< 6	4166
4/27/1990	52	< 5		15867008
8/15/1990			< 3	7334
8/15/1990	180	< 5		16614004
3/11/1991	200	< 10		29076001
3/11/1991			< 4	21332
3/11/1991			< 4	21333
10/18/1991	180		2	911018-069
5/19/1993	600	< 20		930521-075
5/19/1993	140	< 5		930521-077
5/19/1993	160	< 25	2	930524-065
5/19/1993	140			930524-066
5/19/1993	600	< 50	9	930524-067
5/19/1993		< 20	57.5	930524-068
5/20/1993	150			930524-076
5/20/1993	170	< 25	14	930524-075

B-63

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW126

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
5/21/1993		< 10	40	930524-084
5/21/1993	180	< 25	10	930524-083
6/1/1993	200		2	930604-041
9/20/1993	200		38	930922-055
12/7/1993	230		9	931208-069
3/21/1994	270		0	940322-018
6/8/1994	220		15	940609-019
9/8/1994	230		3	940908-103
12/5/1994	310		2	941206-027
3/20/1995	270	< 50	1	950322-076
6/5/1995	130	< 100	12	950606-031
9/20/1995	240	< 50	11	950921-179
11/7/1995	260	< 50	5	951108-136
3/13/1996	270	< 50	2	960314-051
6/5/1996	250	< 50	0	960606-018
9/3/1996	230	< 50	17	960904-009
12/16/1996	170	< 50	5	961217-012
3/4/1997	380	< 50	0	970305-028
6/5/1997	190	< 50	13	970605-148
9/9/1997	53	< 50	1	970909-073

B-64

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW126

**Sample Date Range:
2/21/1990 - 12/10/2019**

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
12/8/1997	22	< 5	< 1	C973430024
3/2/1998	13	< 5	< 2.3	C980620039
6/15/1998	27	< 5	< 6.7	C981660107
9/17/1998	14	< 5	< 1.4	C982610007
12/10/1998	10	< 50	< 10.1	C983450001
2/2/1999	4	< 5	< 8.27	C990340070
5/10/1999	9	< 5	< 8.11	C991310034
8/3/1999	6	< 5	< 0	C992170036
11/16/1999	70	< 25	< -13.8	C993210013
2/15/2000	110	< 5	< 8.42	C000470005
5/8/2000	60	< 25	< -8.91	C001300045
8/17/2000	12	< 5	< 9.56	C002300081
11/14/2000	6	< 5	< 4.12	C003190124
2/12/2001	2	< 5	< -7.37	C010430093
5/14/2001	3	< 5	< -1.35	C011350004
8/15/2001	4	< 5	< 5.31	C012280038
11/14/2001	12	< 5	< -1.8	C013180044
2/5/2002	3	< 5	< 15.1	C020370099
5/2/2002	7	< 5	< -8.34	C021220093
8/29/2002	3	< 5	< 7.47	C022420103

B-65

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW126

Sample Date Range:
2/21/1990 - 12/10/2019

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
11/12/2002	7	< 5	< 5.26	C023170002
2/18/2003	2	< 5	< 7.34	C030500033
5/7/2003	3	< 5	< 10.8	C031270173
8/27/2003	1	< 5	< 0.875	C032390099
11/17/2003	< 1	< 5	< 5.52	C033210104
2/11/2004	2	< 5	< 8.66	C040420078
5/12/2004	3	< 5	< -5.99	C041330033
8/12/2004	2.2	< 5	< -10.4	C042250116
11/18/2004	< 1	< 5	< 0.261	C043240004
2/10/2005	2.4	< 5	< 5.05	C050410063
5/11/2005	2.5	< 5	< -4.42	C051310090
8/10/2005	< 1	< 5	< 1.88	C052220135
11/14/2005	1.1	< 5	< 5.18	C053180045
5/17/2006	3.4	< 5	< 6.15	C061370047
11/6/2006	< 1	< 5	< 13.2	C063100055
5/9/2007	1.3	< 5	< -5.35	C071300010
11/13/2007	56	< 1	< 2.51	C073180005
5/28/2008	1.8	< 1	< 6.06	C081490030
11/11/2008	14	< 1	< 1.18	C08316042008
5/5/2009	2.6	< 1	< 10.2	C09125023009

B-66

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW126

**Sample Date Range:
2/21/1990 - 12/10/2019**

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
11/2/2009	18	< 5	< -5.34	C09306041002
5/11/2010	4	< 1	< 13.5	C10131023007
2/22/2011	5.5	< 5	< 11.5	C11053015007
8/4/2011	< 1	< 5	< -1.94	C11216014005
8/4/2011	< 1	< 5	< -2.16	C11216014004
2/2/2012	< 1	< 5	< 2.31	C12033015004
8/7/2012	< 1	< 5	< 14.2	C12220024007
8/7/2012	< 1	< 5	< 6.34	C12220024008
2/7/2013	1.5	< 1	< 0.787	C13038014001
8/21/2013	< 1	< 1	< -2.88	C13233026003
8/21/2013	< 1	< 1	< -4.75	C13233026004
2/24/2014	2.1	< 1	< -5	C14055028002
8/26/2014	0.69	< 1	< -2.86	355748002
8/26/2014	0.71	< 1	< 4.67	355748003
2/9/2015	30.4	< 1	< 5.34	366889001
8/24/2015	0.63	< 1	< -5.75	379998003
2/8/2016	0.51	< 1	< -8.34	391039002
8/4/2016	1.66	< 1	< 7.6	403256002
2/15/2017	1.42	< 1	< -1.5	416791002
7/10/2017	0.38	< 1	< -2.35	427964003

B-67

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW126

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
8/1/2017	1.07	< 1	< 1.2	429710003
10/6/2017	27.5	0.35	< 1.38	434637003
1/9/2018	134	4.94	< 10.2	441537003
2/14/2018	104	3.1	< -2.67	443984003
4/9/2018	101	3.26	< -1.07	447628002
7/3/2018	54.7	1.83	< 3.73	453993003
8/27/2018	55.7	2.16	< -6.78	458313003
10/3/2018	96.7	3.91	< -9.14	461070002
1/2/2019	67.4	2.32	< 2.34	468013002
4/9/2019	70	2.73	< 5.01	476088003
7/2/2019	37.5	1.08	< -2.45	483632002
10/2/2019	39.1	1.49	< 2.58	491969003

B-68

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW144

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
4/24/1990			< 8	6278
4/24/1990	38		0	900503-084
4/24/1990	36	< 5		535-006
6/29/1990			5	900629-167
9/11/1990			< 8.7	7352
9/11/1990	95	< 5		9009L725-1
3/5/1991			6.8	21370
3/5/1991			45	21371
3/5/1991	260	< 5		29038008
5/19/1993	190	< 25	13	930524-063
5/19/1993	180	< 10		930521-079
5/19/1993		< 10	63.4	930524-064
5/20/1993	230	< 25	7	930524-071
5/20/1993	190		168	930524-072
5/21/1993	230	< 25	17	930524-079
5/21/1993	190		70.3	930524-080
6/7/1993			8	930608-153
6/17/1993	280			930617-145
7/27/1993	280		0	930729-168
8/26/1993	260	< 50	12	930830-026

B-69

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW144

Sample Date Range:
2/21/1990 - 12/10/2019

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
9/22/1993	230		30	930923-068
10/19/1993	270		17	931020-069
12/8/1993	220		11	931209-097
1/24/1994	240		16	940125-041
2/23/1994	220		15	940223-130
3/3/1994	380		15	940304-026
4/7/1994	270		1	940408-065
5/4/1994	310		0	940505-027
6/2/1994	320		4	940602-089
7/1/1994	260		53	940701-058
7/1/1994	244	2.4		1110101-0235
8/30/1994	240		17	940830-069
9/20/1994	270		22	940921-085
10/10/1994	250		17	941011-100
11/2/1994	270		1	941103-095
12/1/1994	270		4	941201-125
7/11/2017	115	0.5	46.9	427964004
10/6/2017	104	< 2	52.7	434637004
1/4/2018	128	1.92	39.1	441199001
4/5/2018	104	1.26	53.9	447608002

B-70

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW144

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
7/3/2018	101	1.54	58.2	453993004
7/3/2018	101	< 2	58.4	453993005
10/3/2018	129	2.2	63	461070003
1/2/2019	94.4	1.42	60.9	468013003
4/9/2019	106	1.78	62.6	476088004
7/9/2019	110	1.2	44.9	484299003
7/9/2019	113	1.22	42.4	484299002
10/1/2019	105	1.69	50	491830002

B-71

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW145

Sample Date Range:
2/21/1990 - 12/10/2019

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
4/24/1990	59		0	900503-087
4/24/1990	62	< 5		15849001
4/24/1990			11	6280
7/2/1990			4	900702-051
8/21/1990			< 6	7353
8/21/1990	210	< 5		9008L481-2
3/7/1991	300	< 5		29054004
3/7/1991			5.6	21373
3/7/1991			4.6	21374
6/7/1993			1	930608-157
6/7/1993	360			3077603
6/17/1993	480			930617-146
7/27/1993	480		0	930729-159
8/26/1993	460	< 50	1	930830-022
9/22/1993	460		24	930923-072
10/19/1993	510		10	931020-073
12/8/1993	480		12	931209-093
1/24/1994	490		0	940125-154
2/23/1994	450		12	940223-134
3/3/1994	470		15	940304-030

B-72

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW145

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
4/7/1994	380		5	940408-061
5/4/1994	410		0	940505-031
6/2/1994	490		0	940602-093
7/1/1994	450	1.6		1110101-0234
7/1/1994	460		1	940701-054
8/30/1994	450		17	940830-073
9/20/1994	510		13	940921-081
10/10/1994	490		10	941011-104
11/2/1994	530		5	941103-099
12/1/1994	530		12	941201-129
12/13/1995	440	< 50	1	951214-097
3/26/1996	400	< 10	2	960326-040
6/5/1996	370	< 50	2	960606-016
9/4/1996	470	< 50	21	960905-034
12/16/1996	340	< 50	15	961217-016
3/4/1997	470	< 25	7	970305-023
6/4/1997	480	< 50	6	970605-008
9/5/1997	440	< 50	10	970905-104
12/8/1997	< 310	< 50	< 5	C973430025
3/3/1998	250	< 50	< 6	C980630112

B-73

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW145

**Sample Date Range:
2/21/1990 - 12/10/2019**

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
6/16/1998	200	< 50	22.1	C981670101
9/17/1998	160	< 50	< 5.4	C982610008
12/10/1998	170	< 50	< 18.3	C983450002
2/2/1999	120	< 50	< 16.33	C990340071
5/12/1999	100	< 50	< -12.4	C991320088
8/4/1999	97	< 50	< 0	C992170040
11/17/1999	100	< 50	< -7.11	C993210085
2/14/2000	100	< 5	< 9.53	C000460031
5/9/2000	94	< 10	< 3.41	C001300130
8/16/2000	120	< 25	< 17.5	C002290083
11/13/2000	100	< 10	< 5.77	C003190005
2/8/2001	92	< 5	< 3.82	C010390158
5/14/2001	78	< 10	< -1.41	C011350008
8/15/2001	74	< 10	< 12.2	C012280049
11/14/2001	77	< 10	< 9.43	C013180041
2/27/2002	80	< 10	< 4.87	C020590012
5/2/2002	98	< 5	< 10.6	C021220088
8/30/2002	93	< 5	< 12.9	C022420157
11/13/2002	91	< 5	< 13.6	C023170077
11/13/2002	91	< 5	< 13.7	C023170076

B-74

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW145

Sample Date Range:
2/21/1990 - 12/10/2019

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
2/18/2003	75	< 5	18.6	C030500038
5/7/2003	70	< 5	< 9.57	C031270176
8/27/2003	61	< 5	< 12	C032390095
11/12/2003	57	< 5	29.4	C033170057
11/12/2003	54	< 5	16	C033170058
2/10/2004	52	< 10	23.1	C040410058
5/11/2004	56	< 5	< 13.7	C041330012
8/12/2004	55	< 5	< 11.2	C042250114
11/23/2004	51	< 5	< 15.2	C043280023
11/23/2004	48	< 5	< 10.6	C043280024
2/9/2005	56	< 5	< 12.6	C050400038
5/10/2005	51	< 5	22.6	C051300061
8/10/2005	50	< 5	< 11.6	C052220136
11/14/2005	57	< 5	23.3	C053180047
11/14/2005	58	< 5	< 13	C053180046
5/16/2006	75	< 5	33.5	C061370014
11/6/2006	68	< 5	19.6	C063100047
5/10/2007	63	< 5	< 8.63	C071300075
11/13/2007	68	1.2	30.4	C073180003
5/22/2008	70	< 2	47.3	C081440004

B-75

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW145

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
5/22/2008	71	< 2	44.2	C081440005
11/11/2008	66	< 1	32.5	C08316042009
5/5/2009	62	1	36.6	C09125023004
5/5/2009	50	< 1	42.4	C09125023003
11/4/2009	59	< 1	25.2	C09308040001
5/10/2010	45	< 1	40.7	C10130027003
5/10/2010	50	< 1	56	C10130027004
2/24/2011	58	< 5	36	C11055019002
8/3/2011	53	< 5	30.1	C11215009001
2/1/2012	51	< 5	32.5	C12032020002
8/7/2012	34	< 5	36.3	C12220024003
2/5/2013	42	< 1	34.5	C13036014003
8/20/2013	34	< 1	35.5	C13233002003
2/13/2014	50	< 1	32.5	C14044026002
8/26/2014	48	0.47	42.4	355748004
2/3/2015	47.8	0.41	52.5	366647002
8/24/2015	44.4	0.39	34.9	379998004
2/8/2016	35.3	< 1	26.6	391039003
8/17/2016	35.6	< 1	34.9	404230002
2/15/2017	30.1	< 1	29.6	416791003

B-76

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW145

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
7/11/2017	35	0.37	25	427964005
8/1/2017	26.8	< 1	29.1	429710004
10/6/2017	28.9	< 1	18.8	434637001
1/4/2018	32.7	< 1	27.2	441199002
1/4/2018	34.1	< 1	33.6	441199003
2/14/2018	48.1	0.45	29.2	443984004
4/5/2018	48.4	0.42	28.5	447608003
7/10/2018	40.1	< 1	31.7	454274001
8/27/2018	42.7	0.44	32.4	458313004
10/3/2018	51.7	0.68	48.7	461070004
1/2/2019	27.4	< 1	23.8	468013005
1/2/2019	28.1	< 1	23.2	468013004
4/9/2019	57	0.76	35.6	476088005
7/9/2019	48.7	< 1	20.8	484299004
10/1/2019	50.2	0.7	35.3	491830003

B-77

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW155

Sample Date Range:
2/21/1990 - 12/10/2019

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
12/6/1990	220	< 14		17377003
3/13/1991			200	21404
3/13/1991	2000	< 5		9103L937-9
3/13/1991	1800		120	910314-108
3/13/1991			190	21405
5/6/1991	1900	< 5		9105L550-6
5/6/1991			110	21406
7/19/1991	2400			910719-033
7/28/1993	2300		181	930729-164
8/31/1993	1800		11	930831-065
9/14/1993	1900		220	930914-093
10/27/1993	2200		191	931028-017
11/8/1993	1900		207	931109-028
12/29/1993	1800		189	931230-109
1/27/1994	2100		193	940128-062
2/3/1994	1800		181	940204-028
3/22/1994	2100		158	940322-178
4/27/1994	2200		248	940428-051
5/26/1994	1900		221	940526-204
6/8/1994	1900		234	940608-196

B-78

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW155

**Sample Date Range:
2/21/1990 - 12/10/2019**

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
8/3/1994	2000			940804-002
8/9/1994	1600			940810-002
8/15/1994	1500			940816-071
8/19/1994	1500			940819-068
8/25/1994	1600			940825-165
8/25/1994	1600			940825-069
9/27/1994	2500		260	940928-011
10/17/1994	1900		246	941019-016
11/28/1994	390		240	941129-043
12/6/1994	1800		226	941206-090
5/8/1995	1300		276	950509-067
5/8/1996	1800	< 500	347	960509-007
5/12/1997			557	5376-97TC
5/12/1997	700	< 100	682	970512-116
5/12/1997	710	< 100		970512-101
12/9/1997			616	9712071-11AC
12/9/1997	524	24		011009WA100
12/9/1997	410	< 13		9712064-05RE-AC
5/11/1998	740	< 125	669.3	C981310067
8/9/1999	7500	< 1000	339	C992220060

B-79

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW155

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
3/21/2000	1500	< 250	468	C000820016
3/21/2000	1600	< 250	420	C000820017
3/19/2001	1100	< 50	422	C010780111
8/21/2001	2100	< 100	396	C012340001
3/25/2002	1700	< 250	251	C020840051
9/11/2002	2400	< 250		C022540082
6/12/2003	6800	< 500	186	C031630079
12/9/2003	16000	< 250	123	C033430057
6/4/2004	6200	< 250	138	C041590030
12/2/2004	9600	< 500	157	C043380001
6/16/2005	6900	< 500	179	C051670012
2/8/2006	20000	< 2500	157	C060390060
9/6/2006	12000	< 1200	179	C062500002
3/14/2007	23000	< 500	131	C070730158
9/5/2007	15000	< 250	150	C072490063
3/10/2008	21000	< 250	144	C080710002
8/28/2008	15000	< 200	141	C082410123
5/13/2009	20000	< 200	142	C09133031001
9/10/2009	14000	< 200	130	C09253025001
9/10/2009	14000	< 1000		C09254002003

B-80

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW155

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
9/15/2009	14000	< 500		C09258030001
9/22/2009	13000	< 500		C09265022002
1/19/2011	3100	< 25		C11019028004
1/25/2011	6000	< 250		C11026001005
1/25/2011	3800	< 250		C11026001006
1/31/2011	3500	< 250		C11031038005
6/23/2011	3700	< 100	124	C11174017005
12/14/2011	2400	< 500	117	C11348018003
3/13/2012	2400	< 50	137	C12073014001
6/19/2012	1900	< 250	110	C12171014003
9/19/2012	2300	< 20	136	C12263022001
12/28/2012	2200	< 20	125	C12363012001
12/28/2012	2200	< 20	120	C12363012002
3/27/2013	1900	< 20	129	C13086008001
9/16/2013	2000	< 100	131	C13259034001
12/17/2013	1600	< 20	99.1	C13351094007
12/17/2013	1600	< 20	98.6	C13351094006
3/26/2014	1900	< 20	106	C14085027001
6/12/2014	1590	< 25	107	350627004
9/15/2014	1850	0.44	153	356931002

B-81

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW155

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
12/2/2014	810	< 1	161	362435002
12/2/2014	817	< 1	160	362435001
3/31/2015	583	< 10	142	369938002
6/16/2015	2500	< 50	110	375398002
9/14/2015	4560	< 100	76.5	381234002
12/8/2015	4110	< 50	120	387183002
12/8/2015	4080	< 50	123	387183003
3/23/2016	3760	< 50	109	393849001
6/6/2016	5370	< 100	149	398881002
9/21/2016	5800	< 100	96.7	406611002
12/13/2016	6320	< 100	97.5	412748002
12/13/2016	6520	< 100	88	412748003
3/7/2017	8160	< 100	87.9	418299002
6/8/2017	6840	< 100	102	425123001
7/11/2017	7650	< 100	90.1	427964006
9/12/2017	9830	< 200	92.2	432724002
10/11/2017	4470	< 100	114	435057002
10/11/2017	4130	< 50	113	435057003
12/18/2017	5720	< 100	107	440362003
12/18/2017	5260	< 100	87.5	440362002

B-82

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW155

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
1/10/2018	10300	< 200	82.1	441541002
3/21/2018	6370	< 100	92.3	446475002
4/9/2018	5450	< 100	100	447628003
5/15/2018	6950	< 100	96.3	450363001
7/9/2018	3550	< 200	83.2	454258002
9/24/2018	2250	< 50	114	460260001
10/4/2018	3970	< 50	103	461079002
10/4/2018	4080	< 50	105	461079003
12/18/2018	3530	< 50	86.1	467410002
12/18/2018	3550	< 50	89.2	467410001
1/7/2019	6800	< 100	67.5	468221001
3/20/2019	7230	< 100	68.7	474242002
4/8/2019	7160	< 100	56.8	475898002
6/18/2019	5240	< 100	53.7	482490001
7/8/2019	5260	< 100	50.7	484303002
9/11/2019			94.3	490247001
9/17/2019	2970	< 50		490762001
10/7/2019	2780	< 100	122	492544002
10/7/2019	2790	< 100	112	492544003
12/10/2019	3790	1.11	76.5	498960002

B-83

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW156

Sample Date Range:
2/21/1990 - 12/10/2019

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
3/15/1991	300000		135	910315-053
3/15/1991			190	21407
3/15/1991			85	21408
3/15/1991	360000	< 10000		29115005DL
5/8/1991			130	21409
5/8/1991	360000	15		9105L569-2
7/19/1991	550000			910719-034
6/15/1993	460000		110	930616-136
7/28/1993	400000	< 50000	123	930729-154
8/30/1993	380000		122	930831-072
9/14/1993	400000		136	930914-097
10/27/1993	380000		110	931028-021
11/8/1993	370000		139	931109-032
12/29/1993	340000		94	931230-104
1/14/1994	380000			940119-007
1/14/1994	340000			940119-004
1/14/1994	320000			940119-003
1/14/1994	380000			940119-005
1/14/1994	360000			940119-008
1/14/1994	340000			940119-006

B-84

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW156

Sample Date Range:
2/21/1990 - 12/10/2019

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
1/27/1994	380000		98	940128-066
2/3/1994	340000		100	940204-032
3/22/1994	410000		73	940322-170
4/27/1994	360000		99	940428-055
5/26/1994	350000		109	940526-208
6/8/1994	370000		96	940608-188
7/1/1994	370000		96	940701-050
8/3/1994			107	940804-105
8/3/1994	390000			940804-104
8/3/1994			106	940804-103
8/3/1994			109	940804-102
8/3/1994	400000			940804-101
8/3/1994			104	940804-100
8/3/1994	370000		120	940804-003
8/4/1994	400000		109	940804-099
8/9/1994	5500		211	940810-053
8/9/1994	15000			940810-057
8/9/1994			39	940810-056
8/9/1994			72	940810-054
8/9/1994	1300		55	940810-001

B-85

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW156

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
8/9/1994	11000		117	940810-055
8/10/1994			26	940811-115
8/10/1994	24000			940811-121
8/10/1994			32	940811-120
8/10/1994	30000		33	940811-119
8/10/1994			30	940811-118
8/10/1994	19000		33	940811-116
8/10/1994			52	940811-113
8/10/1994	35000			940811-117
8/11/1994			49	940812-145
8/11/1994	44000			940812-144
8/11/1994			47	940812-143
8/11/1994	38000		40	940812-142
8/11/1994			35	940812-141
8/12/1994			53	940816-055
8/12/1994			67	940816-054
8/12/1994	52000		65	940816-056
8/12/1994			54	940816-058
8/12/1994	59000			940816-057
8/13/1994	85000		80	940816-059

B-86

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW156

Sample Date Range:
2/21/1990 - 12/10/2019

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
8/13/1994	80000		72	940816-060
8/13/1994			89	940816-061
8/13/1994			84	940816-062
8/14/1994	100000		104	940816-066
8/14/1994	110000		97	940816-063
8/14/1994			93	940816-064
8/14/1994			86	940816-065
8/15/1994			115	940816-068
8/15/1994	120000		101	940816-069
8/15/1994			95	940816-070
8/15/1994	130000		92	940816-067
8/16/1994			88	940817-068
8/16/1994	150000		94	940816-072
8/16/1994	150000		105	940817-067
8/17/1994			100	940818-061
8/17/1994	170000		113	940818-060
8/17/1994	210000		93	940818-059
8/17/1994			103	940818-058
8/17/1994			93	940817-040
8/18/1994	210000		106	940819-070

B-87

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW156

Sample Date Range:
2/21/1990 - 12/10/2019

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
8/18/1994			107	940819-073
8/18/1994	200000		90	940819-072
8/18/1994			112	940819-071
8/19/1994			94	940823-135
8/19/1994	210000		107	940819-069
8/19/1994	210000		100	940823-149
8/19/1994			112	940823-150
8/20/1994	200000		95	940823-139
8/20/1994			108	940823-136
8/20/1994			115	940823-137
8/20/1994	190000		117	940823-148
8/21/1994			111	940823-141
8/21/1994			100	940823-142
8/21/1994	200000		98	940823-140
8/21/1994	230000		102	940823-138
8/22/1994			98	940823-147
8/22/1994	220000		107	940823-143
8/22/1994			92	940823-144
8/22/1994	210000		105	940823-145
8/23/1994	220000		97	940823-146

B-88

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW156

**Sample Date Range:
2/21/1990 - 12/10/2019**

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
8/23/1994			96	940824-153
8/23/1994	240000		111	940824-154
8/23/1994			104	940824-155
8/24/1994			105	940825-065
8/24/1994	220000		113	940825-067
8/24/1994			109	940825-068
8/24/1994	230000		95	940824-152
8/25/1994	210000		121	940825-070
8/25/1994	220000		105	940825-166
9/27/1994	320000		67	940928-015
10/17/1994	290000		40	941019-012
11/28/1994	310000		24	941129-047
12/6/1994	310000		2	941206-094
5/8/1995	280000		5	950509-075
5/8/1996	350000	< 50000	0	960509-008
12/9/1997	250000	< 13000		9712064-04DL-AC
12/9/1997	141649	< 1000		011010WA070
12/9/1997			-5.2	9712071-10AD
5/11/1998	260000	< 25000	< -7.2	C981310064
8/9/1999	220000	< 25000	< 6.23	C992220059

B-89

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW156

**Sample Date Range:
2/21/1990 - 12/10/2019**

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
3/21/2000	240000	< 25000	< -3.81	C000820018
3/19/2001	180000	< 12000	< 8.88	C010780112
8/21/2001	170000	< 20000	< 3.71	C012340002
3/25/2002	160000	< 25000	< -5.2	C020840071
9/19/2002	150000	< 10000	< 13.4	C022620163
6/12/2003	190000	< 10000	20.6	C031630080
12/9/2003	91000	< 10000	< 6.13	C033430058
6/4/2004	42000	< 5000	< 0.822	C041590029
12/2/2004	31000	< 5000	24	C043380002
6/16/2005	26000	< 2000	< 4.55	C051670013
2/8/2006	9000	< 2000	< 7.32	C060390061
9/6/2006	3300	< 5000	< -3.72	C062500003
3/14/2007	4600	< 5000	< -1.6	C070730159
9/5/2007	21000	< 1000	< -0.987	C072490064
3/10/2008	47000	< 2000	< 1.25	C080710003
8/28/2008	5200	< 1000	< 3.38	C082410124
5/13/2009	32000	< 1000	< 9.32	C09133031002
9/8/2009	34000	< 5000		C09252006001
9/8/2009	34000	< 2000	< 0.0531	C09252004001
9/15/2009	36000	< 5000		C09258030002

B-90

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW156

Sample Date Range:
2/21/1990 - 12/10/2019

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
9/22/2009	39000	< 5000		C09265022001
1/20/2011	52000	< 1000		C11020026003
1/25/2011	52000	< 2500		C11026003001
1/31/2011	58000	< 2500		C11031038006
6/27/2011	83000	< 5000	< -8.94	C11178014001
12/14/2011	65000	< 5000	< -5.13	C11348018004
3/13/2012	62000	< 2000	< 6.21	C12073014002
6/19/2012	64000	< 5000	< 9.77	C12171014004
9/19/2012	23000	< 500	< 5.12	C12263022002
12/28/2012	1700	< 500	< -0.798	C12363012003
3/27/2013	32000	< 1000	< 3.7	C13086008002
9/16/2013	31000	< 2500	< -2.19	C13259034002
12/17/2013	600	< 500	< 2.71	C13351094008
3/26/2014	37000	< 500	< -4.56	C14085027002
6/12/2014	81800	< 1000	< -3.61	350627005
8/13/2014	50000	< 20	< 0.723	160-7947-6
9/3/2014	57000	< 40	< 1.81	160-8215-12
9/15/2014	56500	15.2	< 1.62	356931003
12/2/2014	925	< 500	< 9.1	362435003
3/31/2015	3390	< 500	< -3.32	369938003

B-91

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW156

**Sample Date Range:
2/21/1990 - 12/10/2019**

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
6/16/2015	9720	< 500	< 3.72	375398003
6/16/2015	8270	< 500	< 1.43	375398004
9/14/2015	1190	< 50	< -9.6	381234003
12/8/2015	14100	< 500	< -0.175	387183001
3/23/2016	13100	170	< -8.5	393849002
6/6/2016	15300	< 500	< 2.38	398881003
6/6/2016	14600	< 500	< 1.33	398881001
9/21/2016	12500	< 500	< -2.91	406611003
12/13/2016	2140	< 100	< -7.97	412748001
3/7/2017	15000	< 500	< 3.88	418299003
6/8/2017	11800	< 500	< -5.94	425123002
6/8/2017	10300	< 500	< 5.59	425123003
7/11/2017	13700	< 500	< -2.35	427964008
7/11/2017	13800	< 500	< -8.3	427964007
9/12/2017	13100	< 500	< 2.86	432724003
10/11/2017	16700	116	< -6.64	435057004
12/18/2017	8910	71.2	< 6.73	440362001
1/10/2018	13100	< 250	< -4.91	441541001
3/21/2018	10200	< 250	< 9.83	446475003
4/9/2018	6580	< 250	< -4.14	447628004

B-92

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW156

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
4/9/2018	8010	< 250	< -3.04	447628005
5/15/2018	7020	< 250	< -5.19	450363003
5/15/2018	7090	< 250	< 14.2	450363002
7/9/2018	5020	< 250	< -5.22	454258003
9/24/2018	2210	< 100	< 1.84	460260002
10/4/2018	3200	< 50	< 0.537	461079001
12/18/2018	1940	< 50	< -1.65	467410003
1/7/2019	3350	19	< -3.11	468221002
3/20/2019	2570	17.5	< 6.56	474242003
4/8/2019	2090	< 50	< -7.21	475898004
4/8/2019	1950	< 50	< -5.27	475898003
6/18/2019	1460	< 50	< 2.42	482490002
7/8/2019	1150	< 50	< -2.24	484303003
9/11/2019			< -5.8	490247002
9/17/2019	1240	< 50		490762002
10/7/2019	1430	< 50	< -0.0844	492544004
12/10/2019	2380	8.7	< 4	498960003

B-93

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW163

**Sample Date Range:
2/21/1990 - 12/10/2019**

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
12/11/1990	< 1	< 6		17412002
12/11/1990	< 1	< 6		17412003
12/11/1990	< 1	< 6		17412004
3/20/1991			19	21439
3/20/1991			20	21440
3/20/1991	95	< 5		29186005
3/20/1991	860		27	910325-004
5/9/1991			4.5	21441
5/9/1991	92	3		9105L583-9
10/30/1991	86		37	911031-025
6/15/1993	116		27	930616-128
8/16/1993	140		57	930816-105
11/4/1993	110		38	931104-251
2/16/1994	180		44	940216-127
5/4/1994	150		23	940505-173
8/11/1994	130		60	940811-146
10/11/1994	120		47	941012-001
5/2/1995	280		50	950503-090
5/13/1996	210	< 50	34	960514-004
5/11/1998	81	8	20.7	C981310070

B-94

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW163

Sample Date Range:
2/21/1990 - 12/10/2019

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
8/5/1999	120	< 50	18.5	C992170152
3/20/2000	100	< 25	< 16.2	C000810001
3/21/2001	120	11	23.4	C010800076
8/22/2001	96	< 50	< 13.3	C012350003
3/25/2002	< 1	< 5	26.4	C020850015
9/10/2002	97	9		C022530137
6/9/2003	73	7	26	C031600085
12/4/2003	69	10	22.8	C033380086
6/2/2004	60	5	29.1	C041550048
12/2/2004	110	6.2	20.9	C043380000
6/13/2005	73	< 5	< 13.6	C051650009
2/8/2006	170	6.4	23	C060390063
9/12/2006	130	< 10	< 8.23	C062550160
3/20/2007	67	< 10	< 5.2	C070790075
9/6/2007	150	5	< 13.9	C072490154
3/11/2008	85	2.7	26.3	C080710142
9/11/2008	75	2.2	24.8	C082550121
4/9/2009	78	2.2	< 6.64	C09099015003
9/2/2009	80	3.3	24.2	C09245027004
3/5/2010	65	2.7	< 13.9	C10064035006

B-95

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW163

**Sample Date Range:
2/21/1990 - 12/10/2019**

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
9/2/2010	100	2.9	17.8	C10245022006
5/10/2011	78	< 5	< 6.14	C11130022006
5/10/2013	93	3.3	18.8	C13130033001
6/2/2015	35.1	1.03	< 3.38	374344001
5/23/2017	57	1.96	< 6.97	424148002
8/14/2018	124	1.32	22.5	457540001
8/14/2018	103	1.76	18.5	457540002
10/4/2018	146	3.02	30.5	461079004
1/7/2019	119	2.84	15.1	468221003
4/8/2019	43.1	0.91	20.2	475898005
5/8/2019	37.6	0.6	22.6	478809002
7/2/2019	45.1	0.55	< 11.1	483632003
10/7/2019	48.2	1.02	27	492544005

B-96

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW255

**Sample Date Range:
2/21/1990 - 12/10/2019**

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
5/15/1995	1100	< 500	7	950523-188
8/17/1995	1500		10	950818-001
9/14/1995	1300	< 250	9	950915-013
12/12/1995	1400	< 100	4	951213-089
3/19/1996	1300	< 500	17	960320-058
6/17/1996	1200	< 500	11	960618-010
9/5/1996	1200	< 500	17	960906-049
12/13/1996	1100	< 500	25	961217-013
3/4/1997	1200	< 100	0	970305-024
5/13/1997	1300	< 125	8	970515-046
6/4/1997	1300	< 100	0	970605-006
9/5/1997	1200	< 130	7	970905-105
12/9/1997	1000	< 100	< 2	C973440067
3/2/1998	970	< 125	< -0.4	C980620035
6/17/1998	1000	< 100	< 10	C981680060
9/21/1998	860	< 125	< 8.9	C982640120
12/9/1998	890	< 250	< 4.1	C983440002
2/2/1999	900	< 100	< 7	C990340072
5/11/1999	850	< 250	< 8.88	C991310084
8/4/1999	830	< 100	< 0	C992170041

B-97

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW255

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
11/17/1999	750	< 100	< 1.87	C993210086
2/14/2000	1400	< 100	< 13.1	C000460035
5/9/2000	810	< 100	< -4.84	C001300128
8/16/2000	710	< 50	< 4.64	C002290081
8/16/2000	650	< 50	< 14.1	C002290082
11/13/2000	830	< 50	< 1.34	C003190006
11/13/2000	740	< 50	< 10.8	C003190007
2/12/2001	710	< 50	< -4.58	C010430091
5/15/2001	730	< 50	< 13.6	C011350052
8/15/2001	730	< 100	< 2.55	C012280050
11/12/2001	710	< 50	< 2.07	C013170007
2/5/2002	740	< 100	17	C020370095
5/2/2002	680	< 100	< -2.74	C021220087
8/30/2002	650	< 50	< 14.8	C022420158
11/13/2002	590	< 50	< -2.66	C023170075
2/18/2003	520	< 50	19.2	C030500039
5/8/2003	510	< 50	< 1.63	C031280134
5/8/2003	520	< 50	< -11.4	C031280135
8/28/2003	500	< 50	< 13	C032400189
11/12/2003	460	< 50	< 12	C033170061

B-98

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW255

Sample Date Range:
2/21/1990 - 12/10/2019

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
2/11/2004	440	< 50	< 12.9	C040420068
5/11/2004	490	< 50	< -4.01	C041330009
5/11/2004	480	< 50	< 7.07	C041330010
8/12/2004	540	< 50	< -4.62	C042250115
11/17/2004	420	< 50	< -11.4	C043230015
2/9/2005	470	< 25	< 2.64	C050400039
5/10/2005	470	< 25	< 15.3	C051300063
5/10/2005	460	< 25	< 1.68	C051300062
8/10/2005	450	< 25	< 8.82	C052220128
11/14/2005	430	< 25	< -1.59	C053180048
5/17/2006	500	< 50	< 9.76	C061370055
5/17/2006	480	< 50	< 13.6	C061370056
8/22/2006			< 2.74	C062340050
11/6/2006	420	< 25	< 10.2	C063100048
2/22/2007			< -12.1	C070530117
5/10/2007	430	< 25	< -0.437	C071300078
8/29/2007			< 0.146	C072410073
11/13/2007	420	< 5	< 0.106	C073180001
2/13/2008			< -4.98	C080440016
5/29/2008	310	< 5	< 8.45	C081500062

B-99

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW255

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
8/19/2008			< 3.9	C082330004
11/12/2008	380	< 5	< 0.855	C08317011002
2/17/2009			< 10.5	C09048025004
5/5/2009	370	< 25	< 4.13	C09125024003
8/4/2009			< -8.45	C09216023005
11/9/2009	350	< 5	< -9.38	C09313029001
2/2/2010			20.3	C10033014003
5/11/2010	330	< 5	19.2	C10131023008
8/2/2010			< 7.72	C10214022003
12/9/2010			< -3.37	C10343021004
2/23/2011	330	< 25	< -10.3	C11054029005
5/5/2011			< -3.91	C11126003001
8/9/2011	330	< 25	< 6.08	C11221021006
11/2/2011			< 3.69	C11307019002
2/1/2012	320	< 25	< -2.11	C12032008003
5/2/2012			< 5.97	C12123025002
8/6/2012	230	< 25	< 3.42	C12219037002
11/5/2012			< -1.24	C12310038002
2/4/2013	260	< 2	< 2.73	C13035045002
6/18/2013			< -1.02	C13169022001

B-100

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW255

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
8/20/2013	230	< 2	< 0.176	C13233002004
11/19/2013			< -0.455	C13323017001
2/13/2014	280	< 2	< -1.59	C14044005003
5/13/2014			< 0.961	348903001
8/26/2014	320	1.29	< -0.985	355748005
11/12/2014			< 1.41	361215001
2/5/2015	286	< 5	< 8.54	366647003
5/12/2015			< -16.9	373064001
5/12/2015			< 12.7	373064002
8/24/2015	224	< 5	< 5.01	379998005
11/24/2015			< -5.5	386382001
2/9/2016	229	< 5	< -8.7	391039004
5/17/2016			< 12.4	397601001
5/17/2016			< 9.04	397601002
8/17/2016	240	2.15	< 7.27	404230003
11/17/2016			< -1.29	410957001
2/15/2017	190	2	< -2.25	416791004
5/17/2017			< 4.82	423616001
5/17/2017			< 14.2	423616002
8/2/2017	166	1.18	< 0.281	429710005

B-101

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW255

Sample Date Range:
2/21/1990 - 12/10/2019

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
11/14/2017			< 3.86	437928002
11/14/2017			< 5.65	437928001
2/26/2018	184	< 5	< 5.56	444774001
5/8/2018			< -2.55	449823001
8/14/2018	177	1.84	< -1.92	457540003
8/28/2018	173	1.69	< -5.48	458313001
10/4/2018	206	2.4	< -4.57	461079005
1/7/2019	162	2.58	< -1.67	468221004
4/8/2019	195	2.02	< 1.2	475898006
7/9/2019	173	2.12	< -6.71	484299005
10/7/2019	173	2.4	< 3.85	492544006

B-102

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW256

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
5/15/1995	340	< 50	16	950523-196
9/15/1995	360	< 50	19	950914-031
12/12/1995	350	< 50	19	951213-081
3/19/1996	340	< 50	18	960320-054
6/17/1996	240	< 50	15	960618-009
9/5/1996	250	< 50	46	960906-050
12/16/1996	220	< 50	24	961217-015
3/4/1997	240	< 50	8	970305-025
6/4/1997	300	< 50	9	970605-005
9/24/1997	320	< 50	19	970924-094
12/9/1997	280	< 50	< 17	C973440068
3/2/1998	350	< 50	< 15.2	C980620034
6/17/1998	320	< 50	19.7	C981680061
9/24/1998	290	< 50	34.8	C982680007
12/9/1998	340	65	57.9	C983440003
2/2/1999	360	79	82.01	C990340073
5/11/1999	360	70	82.7	C991310083
8/4/1999	310	< 100	85	C992170037
11/17/1999	300	68	59.9	C993210087
2/14/2000	380	81	96.2	C000460036

B-103

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW256

Sample Date Range:
2/21/1990 - 12/10/2019

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
5/9/2000	350	77	74.8	C001300129
8/16/2000	340	78	79.1	C002290085
11/13/2000	390	< 25	76.5	C003190008
2/12/2001	230	50	98.9	C010430089
5/15/2001	370	80	101	C011350051
8/15/2001	430	< 50	118	C012280051
11/12/2001	440	90	114	C013170006
2/5/2002	460	110	120	C020370097
2/5/2002	450	100	117	C020370098
5/2/2002	430	100	115	C021220086
8/30/2002	480	99	127	C022420159
11/13/2002	480	100	108	C023170074
2/18/2003	420	84	129	C030500040
5/8/2003	400	82	133	C031280136
8/28/2003	380	83	126	C032400188
11/12/2003	410	93	109	C033170060
2/11/2004	440	92	139	C040420067
5/11/2004	500	110	143	C041330011
8/12/2004	450	100	115	C042250118
11/17/2004	360	69	105	C043230014

B-104

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW256

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
2/9/2005	480	93	134	C050400040
5/10/2005	460	97	151	C051300064
8/10/2005	470	86	131	C052220129
11/14/2005	530	95	127	C053180049
5/16/2006	740	130	169	C061370015
8/22/2006			110	C062340049
11/6/2006	680	120	139	C063100050
11/6/2006	640	120	139	C063100049
2/21/2007			115	C070530119
5/10/2007	540	110	118	C071300077
8/29/2007			116	C072410074
11/13/2007	540	110	138	C073180002
2/13/2008			133	C080440015
5/29/2008	460	< 94	135	C081500061
8/19/2008			128	C082330003
11/12/2008	410	92	123	C08317011001
2/17/2009			132	C09048025003
5/5/2009	460	130	111	C09125024002
8/4/2009			110	C09216023004
11/5/2009	140	37	80.2	C09309021001

B-105

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW256

Sample Date Range:
2/21/1990 - 12/10/2019

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
2/2/2010			105	C10033014002
5/10/2010	310	82	107	C10130027005
8/2/2010			77.7	C10214022002
12/9/2010			81.1	C10343021003
2/23/2011	340	100	94	C11054029003
2/23/2011	340	100	92.3	C11054029004
5/5/2011			83.3	C11126003002
8/9/2011	290	97	90.6	C11221021005
11/2/2011			76.7	C11307019003
2/1/2012	220	75	69.4	C12032008004
2/1/2012	250	82	65.6	C12032008005
5/2/2012			60.9	C12123025003
5/2/2012			64.5	C12123025004
8/6/2012	190	99	66	C12219037001
11/5/2012			75.2	C12310038003
2/4/2013	240	83	80.3	C13035045004
2/4/2013	240	84	77.4	C13035045003
6/18/2013			69.7	C13169022002
8/20/2013	230	110	70.1	C13233002005
11/18/2013			50.3	C13322025006

B-106

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW256

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
2/13/2014	170	62	37	C14044005004
2/13/2014	170	64	45.1	C14044005005
5/13/2014			60.3	348903002
8/26/2014	168	57	40.7	355748006
11/12/2014			50.2	361215002
2/5/2015	194	70.8	48.8	366647004
2/5/2015	193	70.4	48.7	366647005
5/12/2015			32.8	373064003
8/24/2015	207	78.3	70.7	379998006
11/24/2015			89.8	386382002
2/9/2016	321	65.4	96.5	391039005
2/9/2016	329	67.2	93.6	391039006
5/17/2016			102	397601003
8/17/2016	330	67.4	102	404230004
11/17/2016			90	410957002
2/15/2017	298	56.9	81.7	416791005
2/15/2017	306	55.7	95.5	416791006
5/17/2017			99.6	423616003
8/2/2017	294	60.6	99.2	429710006
11/14/2017			97.7	437928003

B-107

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW256

Sample Date Range:
2/21/1990 - 12/10/2019

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
2/26/2018	215	46	65	444774002
2/26/2018	207	46.5	62	444774003
5/8/2018			56.5	449823002
5/8/2018			47.9	449823003
8/14/2018	145	21.9	30	457540004
8/28/2018	126	14.9	38.9	458313005
10/4/2018	137	18.5	26.2	461079006
1/7/2019	150	22.3	26.3	468221005
4/8/2019	109	14.8	21.5	475898007
7/8/2019	130	15.5	18.2	484303004
10/7/2019	182	22.5	37.1	492544007

B-108

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW258

Sample Date Range:
2/21/1990 - 12/10/2019

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
5/15/1995	2000	< 500	8	950523-192
6/7/1995	2200	< 250	6	950608-247
8/17/1995	2200		19	950818-002
9/15/1995	2200	< 250	10	950914-019
12/12/1995	2300	< 250	4	951213-069
3/13/1996	2100	< 250	6	960314-007
6/19/1996	1900	< 500	3	960620-135
9/18/1996			10	960919-005
12/16/1996	2000	< 500	5	961217-014
3/4/1997	2200	< 500	0	970305-022
6/4/1997	2200	< 250	3	970605-007
9/9/1997	2100	< 250	-2	970909-066
12/9/1997	1700	< 250	< -3	C973440069
3/2/1998	1600	< 250	< 4.8	C980620033
6/17/1998	1600	< 250	< 11.7	C981680062
9/21/1998	1500	< 250	< 5.4	C982640119
12/9/1998	1300	< 500	< 2.8	C983440004
2/2/1999	1300	< 500	< 13.21	C990340074
5/12/1999	1200	< 500	< -11.6	C991320089
8/4/1999	1300	< 500	< 0	C992170038

B-109

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW258

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
11/18/1999	1100	< 250	< 8.95	C993230017
11/18/1999	1100	< 250	< -2.03	C993230018
2/14/2000	1000	< 250	17.3	C000460037
5/9/2000	1100	< 100	< -7.48	C001300131
8/16/2000	980	< 100	< 10.2	C002290084
11/14/2000	880	< 250	< 9.48	C003190125
2/12/2001	960	< 50	< -0.928	C010430090
5/14/2001	760	< 100	< 12.2	C011350005
8/15/2001	940	< 100	< 3.91	C012280052
11/14/2001	800	< 50	< 7.79	C013180040
2/5/2002	1000	< 100	19.9	C020370096
5/2/2002	890	< 100	< 0.642	C021220085
8/30/2002	820	< 50	18.7	C022420156
11/13/2002	740	< 100	< 14.4	C023170073
2/18/2003	640	< 50	< 11.9	C030500041
5/8/2003	610	< 50	< 7.87	C031280137
8/27/2003	590	< 50	< 3.7	C032390093
8/27/2003	580	< 50	< 4.89	C032390094
11/12/2003	510	< 50	< 13.8	C033170059
2/10/2004	510	< 50	< 8.03	C040410059

B-110

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW258

Sample Date Range:
2/21/1990 - 12/10/2019

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
5/11/2004	530	< 50	< 4.07	C041330013
8/17/2004	550	< 50	< 4.93	C042300096
8/17/2004	540	< 50	< 8.52	C042300097
11/23/2004	420	< 50	< 1.32	C043280022
2/8/2005	450	< 25	< 4.95	C050390027
5/12/2005	440	< 25	< 8.17	C051320129
8/10/2005	390	< 25	< 4.75	C052220130
11/14/2005	370	< 25	< 6.61	C053180050
2/6/2006			< 11.9	C060380059
5/16/2006	400	< 25	18.1	C061370013
8/21/2006			< 11.9	C062330122
8/21/2006			< 13.8	C062330123
11/6/2006	350	< 25	20.6	C063100051
2/21/2007			< -4.62	C070530118
5/10/2007	290	< 25	< 5.19	C071300076
8/29/2007			< 0.73	C072410072
11/12/2007	290	11	< 7.29	C073170019
2/13/2008			< -0.254	C080440017
5/22/2008	290	11	18.7	C081440006
8/19/2008			< 13.8	C082330002

B-111

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW258

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
11/11/2008	260	8.2	< 6.54	C08316042007
2/17/2009			< 12	C09048025002
5/5/2009	270	< 10	< 11.8	C09125024001
8/4/2009			< -1.44	C09216023003
11/4/2009	120	3.9	< -2.28	C09308040002
2/2/2010			< 12	C10033014001
5/10/2010	260	7.9	< 13.6	C10130027006
8/2/2010			< 11	C10214022001
12/9/2010			< 13.8	C10343021002
2/24/2011	260	< 10	< 6.74	C11055019001
5/5/2011			< 5.17	C11125014002
8/9/2011	270	< 10	< 9.45	C11221021004
11/2/2011			< 2.39	C11307019004
2/1/2012	220	< 10	< -0.166	C12032020001
5/2/2012			< 5.36	C12123025005
8/6/2012	190	< 10	< 12.2	C12219037003
11/5/2012			< -2.04	C12310038004
2/4/2013	190	4.5	< 2.36	C13035045005
6/18/2013			< 4.03	C13169022003
8/20/2013	190	3.7	< 0.704	C13233002006

B-112

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW258

Sample Date Range:
2/21/1990 - 12/10/2019

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
11/18/2013			< 6.31	C13322025005
2/13/2014	240	4	< 4.08	C14044026001
5/13/2014			< 4.94	348903003
8/26/2014	241	2.85	< 5.78	355748007
11/12/2014			< 1.87	361215003
2/3/2015	233	2.9	< 3.2	366647006
5/12/2015			< 14.4	373064004
8/24/2015	209	3	< -1.63	379998007
11/24/2015			< 4.09	386382003
2/8/2016	197	3.44	< 3.3	391039007
5/17/2016			< 4.04	397601004
8/17/2016	170	0.8	< 11.4	404230001
11/17/2016			< 8.94	410957003
2/15/2017	141	3.8	< 1.19	416791007
5/17/2017			< 11.1	423616004
7/11/2017	134	0.72	< 1.92	427964009
8/2/2017	136	4.2	< 5.13	429710007
10/6/2017	126	3.42	< 0.689	434637005
1/9/2018	165	4.36	< 0.517	441537001
2/14/2018	178	2.28	< -3.38	443984001

B-113

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW258

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
4/5/2018	199	2.24	< -3.87	447608001
7/10/2018	199	3.63	< 2.63	454274002
8/27/2018	191	3.12	< 0.749	458313006
8/27/2018	216	3.56	< 1.98	458313007
10/3/2018	264	4.48	< -7.22	461070005
1/2/2019	211	2.32	< 2.29	468013006
4/9/2019	324	3.72	< 9.67	476088001
7/9/2019	302	2.76	< -2.76	484299006
10/1/2019	294	3.94	< 3.21	491830004

B-114

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW260

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
5/16/1995	760	< 500	23	950523-200
9/14/1995	730	< 100	17	950915-005
12/12/1995	840	< 100	28	951213-085
3/13/1996	740	< 50	11	960314-003
6/18/1996	560	< 100	2	960619-029
9/12/1996	820	< 50	28	960912-090
12/13/1996	680	< 50	18	961219-012
3/10/1997	630	< 50	13	970312-036
6/9/1997	690	< 50	35	970609-053
9/2/1997	680	< 50	36	970902-148
12/29/1997	940	< 50	32	C973640027
3/4/1998	870	< 50	38	C980640021
6/24/1998	800	< 50	36.7	C981750113
12/2/1998	820	< 100	43.3	C983360184
3/2/1999	700	< 100	45.12	C990610178
6/2/1999	690	< 200	24.7	C991540045
9/13/1999			41.5	C992560162
12/6/1999	540	< 50	38.7	C993400093
3/7/2000	560	< 50	< 10.6	C000680015
6/20/2000	610	< 50	< 16.8	C001720152

B-115

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW260

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
6/20/2000	600	< 50	< 11.8	C001720151
9/8/2000	570	< 50	28.8	C002520105
12/12/2000	620	< 25	39.1	C003470043
3/12/2001	610	18	34.7	C010710106
6/4/2001	500	< 50	47.4	C011560013
9/24/2001	560	< 50	25.7	C012670052
12/12/2001	530	< 50	40.5	C013460073
3/5/2002	530	< 50	35.4	C020650007
6/5/2002	440	< 50	27.1	C021560163
9/5/2002	520	< 50	38.2	C022480078
12/2/2002	560	< 50	37.9	C023370009
6/3/2003	620	< 50	54.1	C031550065
12/4/2003	620	< 25	22.3	C033380095
6/4/2004	680	< 50	36.1	C041590028
12/13/2004	630	< 50	52.2	C043480118
12/13/2004	640	< 50	56.1	C043480119
6/9/2005	460	< 50	56.1	C051600079
11/17/2005	680	< 50	79.1	C053210098
5/24/2006	590	< 50	86.3	C061450011
3/20/2007	420	< 50	89.9	C070790077

B-116

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW260

Sample Date Range:
2/21/1990 - 12/10/2019

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
9/13/2007	520	5.9	133	C072570004
3/19/2008	540	< 5	143	C080800007
3/19/2008	520	5.2	137	C080800008
9/11/2008	470	< 10	106	C082550120
4/9/2009	67	< 1	154	C09099015001
4/9/2009	85	< 1	171	C09099015002
9/2/2009	380	9.2	115	C09245027006
3/5/2010	380	< 10	105	C10064035004
3/5/2010	390	< 10	109	C10064035003
9/7/2010	420	8.3	109	C10250033005
5/11/2011	410	< 25	70.7	C11131034004
5/10/2013	320	5.6	69.6	C13130033002
6/1/2015	403	3.11	29.1	374452003
5/23/2017	258	3	61.1	424148001
8/14/2018	123	1.09	51.7	457540005
10/4/2018	126	1.2	47.8	461079007
1/3/2019	68.8	< 2	26	468013007
4/8/2019	80.4	< 2	27.8	475898008
5/8/2019	80.5	0.6	26.5	478809008
7/2/2019	92.6	< 2	28.5	483632004

B-117

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW260

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
10/7/2019	72.9	0.75	34.3	492544008

B-118

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW283

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
6/11/1996			4	960612-041
8/22/1996	680	< 50	12	960826-020
12/16/1996	700	< 50	4	961217-005
12/16/1996	790	< 50	0	961217-006
3/4/1997	1300	< 50	1	970305-029
6/9/1997	650	< 100	5	970610-077
9/9/1997	400	< 100	-1	970909-074
12/8/1997	270	< 100	< 6	C973430026
3/2/1998	290	< 125	< 8.1	C980620040
3/2/1998	280	< 125	< 8.6	C980620041
6/16/1998	220	< 100	< 13	C981670102
9/17/1998	260	< 100	< 12.3	C982610009
12/10/1998	220	< 100	21.2	C983450003
2/3/1999	220	< 50	25.43	C990340152
5/11/1999	250	< 250	< 11	C991310085
8/4/1999	190	< 100	< 3.64	C992170043
8/4/1999	190	< 100	< 16.2	C992170052
11/17/1999	220	< 100	< 3.01	C993210088
2/14/2000	210	< 25	< 5.09	C000460038
5/9/2000	190	< 50	< -2.26	C001310008

B-119

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW283

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
8/16/2000	180	< 50	< 15.1	C002290078
11/15/2000	180	< 10	< 9.17	C003200065
2/12/2001	180	< 10	< -2.24	C010430095
5/14/2001	160	< 25	< 7.18	C011350015
5/14/2001	150	< 25	< 5.38	C011350016
8/16/2001	160	< 25	< 1.86	C012280069
11/12/2001	170	< 25	< 11.2	C013170005
3/27/2002	170	< 25	< 6.22	C020860181
5/2/2002	180	< 25	< -3.27	C021220080
8/29/2002	200	< 25	< 14.9	C022420096
8/29/2002	200	< 25	< 12.3	C022420097
11/13/2002	170	< 25	< 5.6	C023170027
2/24/2003	150	< 25	< 11.6	C030550072
5/8/2003	140	< 10	< 3.32	C031280142
8/27/2003	120	< 10	< 2.1	C032390100
11/13/2003	140	< 25	18.3	C033180000
2/11/2004	120	< 25	< 12.7	C040420076
5/11/2004	100	< 10	< -5.63	C041330014
8/12/2004	130	< 10	< -2.9	C042250112
11/17/2004	130	< 10	< -5.37	C043230023

B-120

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW283

Sample Date Range:
2/21/1990 - 12/10/2019

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
2/28/2005	100	< 5	< 5.87	C050590086
5/11/2005	110	< 5	< -0.28	C051310086
8/11/2005	110	< 5	< 6.78	C052230253
11/14/2005	110	< 10	< 4.76	C053180038
5/17/2006	120	< 10	< 10.9	C061370048
11/6/2006	110	< 5	< 9.24	C063100057
5/10/2007	88	< 5	< 2.13	C071300074
11/12/2007	99	< 1	< -2.5	C073170013
11/12/2007	90	< 1	< 3.88	C073170014
5/27/2008	74	< 1	< 11.2	C081480099
11/11/2008	88	< 1	< 6.43	C08316042003
11/11/2008	87	< 1	< 0.536	C08316042004
5/4/2009	81	< 1	< 11.7	C09125009002
11/3/2009	70	1.2	< -6.83	C09308004004
11/3/2009	84	1.1	< 0.976	C09308004005
5/11/2010	77	< 1	23.9	C10131023002
2/22/2011	86	< 5	28.6	C11053015002
8/8/2011	61	< 5	< 6.53	C11220029001
2/1/2012	65	< 5	19	C12032020004
8/8/2012	52	< 5	18.2	C12221010001

B-121

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW283

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
2/5/2013	57	< 1	< 12.1	C13036014004
8/12/2013	22	< 5	< 2.18	C13224033002
2/24/2014	62	< 1	< -4.42	C14055028004
8/26/2014	56.8	0.35	< 13.4	355748008
2/4/2015	67.6	0.6	< 14.3	366647007
8/24/2015	52	0.33	< 8.19	379998008
2/8/2016	50.7	< 1	< 8.77	391039008
8/4/2016	47.8	< 1	< 6.1	403256003
2/15/2017	51.2	0.46	< 7.25	416791008
7/10/2017	41.3	< 1	< 2.93	427964010
8/1/2017	45.3	0.41	< 0.842	429710008
10/6/2017	55.9	0.48	18.5	434637006
1/9/2018	29.8	< 1	< 6.53	441537004
2/14/2018	11.8	< 1	< -4.79	443984005
4/5/2018	28.6	< 1	< 11.9	447608004
7/10/2018	13.9	< 1	< 4.58	454274003
8/27/2018	22.6	< 1	< 1.77	458313008
10/3/2018	30.3	0.41	< -7.88	461070007
1/2/2019	8.26	< 1	< 3.9	468013008
4/9/2019	38.6	0.34	< 6.01	476088006

B-122

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW283

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
7/9/2019	78.4	< 1	< 3.22	484299001
10/2/2019	39	< 1	< 1.84	491969004

B-123

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW288

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
6/4/1996			4	960612-034
8/22/1996	1800	< 500	11	960826-019
12/16/1996	1800	< 500	0	961217-017
3/5/1997	1600	< 250	7	970306-082
6/10/1997	1400	< 125	8	970610-118
9/10/1997	1400	< 130	9	970910-101
12/9/1997	1300	< 250	< -6	C973440070
3/3/1998	1300	< 125	< 7	C980630113
6/16/1998	1200	< 100	19.2	C981670104
9/16/1998	880	< 250	< 5	C982600071
12/14/1998	640	< 250	< 5.4	C983490003
2/2/1999	760	< 250	24.82	C990340075
5/12/1999	810	< 250	< -6.97	C991320090
8/4/1999	410	< 100	< 5.48	C992170047
11/17/1999	860	< 100	< 10.5	C993210090
2/15/2000	740	< 100	< 9.83	C000470006
5/9/2000	1100	< 100	< 5.45	C001310011
5/9/2000	1000	< 250	< 1.1	C001310012
8/17/2000	410	< 100	< 4.21	C002300084
11/15/2000	120	< 25	26.3	C003200063

B-124

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW288

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
2/8/2001		< 10	< 16	C010390159
5/14/2001	620	< 50	< 13.2	C011350010
8/15/2001	280	< 50	22.1	C012280040
11/13/2001	470	< 50	< 11.7	C013170053
3/27/2002	560	< 100	< 10.2	C020860179
5/2/2002	650	< 50	< 5.19	C021220091
8/29/2002	280	< 50		C022420104
8/29/2002			26.3	C030210107
11/11/2002	370	< 25	25.3	C023160007
2/18/2003	420	< 25	26	C030500034
2/18/2003	420	< 25	31.5	C030500035
5/7/2003	470	< 25	19.2	C031270174
8/27/2003	290	< 25	< 15.2	C032390097
11/13/2003	240	< 25	49.5	C033180002
2/11/2004	330	< 50	32.9	C040420073
2/11/2004	330	< 50	31.3	C040420074
5/12/2004	330	< 25	29.2	C041330035
8/16/2004	290	< 25	30.2	C042290045
11/18/2004	210	< 50	21.5	C043240001
2/8/2005	300	17	43.2	C050390063

B-125

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW288

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
2/8/2005	310	15	33	C050390064
5/11/2005	280	< 25	29.8	C051310091
8/10/2005	220	< 25	37	C052220138
11/14/2005	190	< 25	36.5	C053180039
2/6/2006			39	C060380060
5/17/2006	240	21	44.5	C061370057
8/21/2006			55.1	C062330124
11/6/2006	230	< 25	49.4	C063100053
2/22/2007			26.1	C070530115
5/9/2007	220	22	32.1	C071300006
5/9/2007	210	20	25.5	C071300007
8/29/2007			33	C072410069
11/12/2007	240	22	23.5	C073170017
2/20/2008			34.9	C080510148
5/27/2008	200	20	38.6	C081480101
8/19/2008			40.9	C082330001
11/11/2008	230	21	37.3	C08316042005
2/17/2009			44.2	C09048025001
5/5/2009	220	22	45.8	C09125023006
8/4/2009			31.4	C09216023001

B-126

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW288

Sample Date Range:
2/21/1990 - 12/10/2019

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
9/17/2009	250	22	42.4	C09260022002
10/27/2009	190	20	49.4	C09300023003
10/27/2009	190	19	40.7	C09300023004
11/3/2009	180	22	26.2	C09308004006
2/2/2010			52.5	C10033014004
5/11/2010	180	19	43.5	C10131023004
8/5/2010			42	C10217037001
12/7/2010			31.2	C10341027002
12/7/2010			38	C10341027001
2/22/2011	190	16	37.3	C11053015004
5/4/2011			24.5	C11124021001
8/9/2011	280	35	41.2	C11221021002
11/3/2011			41.7	C11307020002
11/3/2011			45.8	C11307020003
2/2/2012	210	17	48	C12033015001
5/3/2012			32.5	C12124008001
8/7/2012	130	12	35.3	C12220024006
11/5/2012			28.7	C12310038005
11/5/2012			21.5	C12310038006
2/4/2013	140	15	37.5	C13035045006

B-127

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW288

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
6/19/2013			34.9	C13170009001
8/21/2013	170	31	37.6	C13233026002
11/18/2013			31.6	C13322025004
11/18/2013			35.2	C13322025003
2/24/2014	200	25	32.6	C14055028003
5/13/2014			38.6	348903004
8/26/2014	191	16.6	37.4	355748009
11/12/2014			22.4	361215004
11/12/2014			35.2	361215005
2/4/2015	199	17.6	46.3	366647008
5/12/2015			< 6.6	373064005
8/24/2015	183	20.1	32.4	379998001
11/24/2015			< 8.62	386382004
11/24/2015			< 14.7	386382005
2/8/2016	163	< 2	38.4	391039009
5/17/2016			47.4	397601005
8/4/2016	155	9.24	50.8	403256004
11/17/2016			31.4	410957004
11/17/2016			35.9	410957005
2/15/2017	141	10.8	36.8	416791009

B-128

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW288

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
5/17/2017			41.3	423616005
7/10/2017	139	7.13	30.6	427964011
8/1/2017	130	8.42	37.6	429710001
10/6/2017	154	6.82	44.3	434637007
1/9/2018	177	7.08	42.6	441537005
2/14/2018	151	6.6	39.9	443984006
4/5/2018	162	7.92	27.1	447608005
7/3/2018	152	11	29.4	453993006
8/27/2018	125	11.7	38.7	458313009
10/3/2018	186	16.6	46.7	461070006
1/2/2019	123	9.64	38.7	468013009
4/9/2019	174	20.1	29	476088007
7/2/2019	164	19	16.9	483632005
10/2/2019	163	20	35.5	491969001

B-129

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW291

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
6/13/1996			0	960618-057
6/13/1996			2	960618-058
6/13/1996			5	960618-059
6/13/1996			8	960618-060
6/13/1996	600		8	960618-061
6/13/1996			11	960618-062
6/13/1996			0	960618-063
6/13/1996			2	960618-064
8/22/1996	1200	< 500	16	960826-018
12/12/1996	1200	< 500	0	961212-167
3/4/1997	1400	< 250	0	970305-031
3/4/1997	1300	< 250	3	970305-032
6/5/1997	1100	< 125	0	970605-146
6/5/1997	1100	< 125	0	970605-145
9/9/1997	650	< 130	-2	970909-067
12/8/1997	500	< 250	< -5	C973430028
3/3/1998	350	< 125	< -10	C980630114
6/15/1998	440	< 100	< 3.9	C981660108
9/17/1998	320	< 100	< 5.8	C982610010
9/17/1998	380	< 100	< 7.5	C982610011

B-130

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW291

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
12/10/1998	420	< 250	< -0.4	C983450005
2/3/1999	280	< 120	< 4.96	C990340154
5/12/1999	260	< 100	< -6.97	C991320091
8/3/1999	270	< 200	< 0	C992170048
11/18/1999	240	< 200	< 8.78	C993230019
2/15/2000	240	< 25	< 10.4	C000460084
5/8/2000	240	< 100	< -9.85	C001300046
8/17/2000	200	< 10	< -12.9	C002300086
11/14/2000	200	< 25	< 5.72	C003200033
2/8/2001	170	< 10	< -3.71	C010390157
5/15/2001	140	< 25	< 8.69	C011350053
8/15/2001	150	< 25	< 12.7	C012280042
8/15/2001	170	< 25	< 2.42	C012280043
11/14/2001	170	< 25	< 0.0545	C013180042
2/5/2002	180	< 25	< 4.27	C020370100
5/2/2002	180	< 25	< 0.35	C021220084
8/29/2002	170	< 25	< 9.13	C022420101
11/11/2002	160	< 25	< 7.81	C023160006
2/24/2003	150	< 25	< 12.4	C030550073
5/8/2003	120	< 10	< -7.23	C031280143

B-131

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW291

**Sample Date Range:
2/21/1990 - 12/10/2019**

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
8/27/2003	100	< 10	< 4.14	C032390102
11/13/2003	120	< 10	25.7	C033180003
2/11/2004	120	< 10	< 14.8	C040420063
5/12/2004	120	< 10	< 0.419	C041330031
8/16/2004	100	< 10	< 3.95	C042290041
11/17/2004	98	< 5	< -11.4	C043230022
2/8/2005	110	< 5	< 0.844	C050390066
5/11/2005	100	< 5	< 7.77	C051310087
8/10/2005	84	< 10	< 12.8	C052220139
11/14/2005	95	< 5	< 3.36	C053180036
5/17/2006	97	< 5	18	C061370058
11/6/2006	83	< 5	< 10.9	C063100056
5/10/2007	72	< 5	< -6.49	C071300073
11/12/2007	75	< 1	< -2.61	C073170016
5/27/2008	76	< 1	< 12.1	C081480100
11/6/2008	66	< 1	< 7.02	C08312002001
5/4/2009	65	< 1	< 11.6	C09125009001
5/11/2010	61	< 1	25.1	C10131023001
2/22/2011	61	< 5	< 11.7	C11053015001
8/9/2011	63	< 5	< 2.27	C11221021001

B-132

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW291

Sample Date Range:
2/21/1990 - 12/10/2019

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
2/1/2012	59	< 5	< 1.75	C12032020003
8/8/2012	38	< 5	< 2.47	C12221010002
2/5/2013	43	< 1	< 10	C13036014005
8/12/2013	49	< 5	< 2.91	C13224033001
2/24/2014	54	< 1	< 0.737	C14055028005
8/26/2014	48	< 1	< 5.41	355748010
2/4/2015	47.1	< 1	< 2.07	366647009
8/24/2015	53.3	< 1	< 1.99	379998009
2/8/2016	43.9	< 1	< -2.27	391039010
8/4/2016	34.6	< 1	< 8.3	403256005
2/15/2017	33.9	< 1	< -4.14	416791010
7/10/2017	32	< 1	< -1.76	427964012
8/1/2017	29.3	< 1	< 3.78	429710009
10/6/2017	32.2	< 1	< 6.4	434637008
1/9/2018	50.9	0.58	13.2	441537006
2/14/2018	59.4	< 1	< 3.85	443984007
4/5/2018	61.2	0.54	< 11.1	447608006
7/3/2018	40.5	< 1	< 0.947	453993007
8/27/2018	35.1	< 1	< 0.641	458313010
10/3/2018	37	< 1	< -6.33	461070008

B-133

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW291

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
1/2/2019	24.8	< 1	< 5.88	468013010
4/9/2019	53	0.36	< 5.26	476088008
7/2/2019	56	< 1	< 5.75	483632006
10/2/2019	63.3	< 1	< 5.92	491969005

B-134

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW292

**Sample Date Range:
2/21/1990 - 12/10/2019**

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
8/29/1996	710	< 50	20	960903-003
12/12/1996	910	< 50	0	961212-168
3/5/1997	800	< 100	7	970306-084
6/10/1997	1000	< 100	8	970610-117
9/10/1997	1100	< 100	7	970910-102
12/11/1997	1300	< 100	< 3	C973460125
12/11/1997	1300	< 100	8	C973460124
3/3/1998	1300	< 100	< 2	C980630115
6/15/1998	1400	< 100	18.6	C981660109
9/16/1998	1200	< 100	< 5.5	C982600073
12/9/1998	57	< 5	< 9.9	C983440005
12/9/1998	1200	< 100	< 14	C983440006
2/2/1999	1200	< 250	< 15.94	C990340076
2/2/1999	1100	< 250	< 16.93	C990340077
5/12/1999	1100	< 250	24.2	C991320092
8/3/1999	1100	< 100	< 6.19	C992170049
11/17/1999	1000	< 100	< 1.56	C993220002
2/15/2000	960	< 100	15.9	C000460083
5/9/2000	960	< 100	< -0.935	C001310006
8/17/2000	800	< 50	< 0.93	C002300085

B-135

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW292

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
11/13/2000	880	< 50	< 8.75	C003190009
2/8/2001	770	< 50	< 8.02	C010390156
5/14/2001	650	< 100	< 8.97	C011350006
8/15/2001	830	< 100	< 8.86	C012280044
11/12/2001	820	< 100	< 9.21	C013170003
11/12/2001	760	< 100	< 12.2	C013170004
2/5/2002	850	< 100	20.6	C020370101
5/2/2002	740	< 50	< 8.17	C021220092
8/29/2002	780	< 50	28.3	C022420105
11/11/2002	610	< 100	< 12.7	C023160008
2/18/2003	550	< 50	35.3	C030500036
5/7/2003	510	< 50	19.5	C031270175
8/27/2003	430	< 50	22.6	C032390096
11/17/2003	440	< 50	35	C033210102
2/11/2004	430	< 50	29	C040420066
5/12/2004	480	< 50	26.4	C041330036
8/16/2004	440	< 50	27.8	C042290044
11/18/2004	290	< 25	< 13.3	C043240002
2/9/2005	410	< 25	40.6	C050400041
5/12/2005	340	< 25	30.8	C051320128

B-136

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW292

**Sample Date Range:
2/21/1990 - 12/10/2019**

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
8/10/2005	350	< 25	37.5	C052220131
11/14/2005	370	27	34.1	C053180040
2/6/2006			51.8	C060380061
5/17/2006	370	33	54.6	C061370049
8/21/2006			42.7	C062330125
11/6/2006	370	34	49.6	C063100052
2/22/2007			24.9	C070530116
5/9/2007	320	35	29.5	C071300008
8/29/2007			31.2	C072410070
8/29/2007			29	C072410071
11/12/2007	350	36	48.1	C073170018
2/20/2008			39.2	C080510149
5/28/2008	250	28	61.1	C081490028
8/19/2008			49.5	C082330000
11/6/2008	320	35	51.9	C08312002003
2/23/2009			46.8	C09054020001
5/5/2009	290	35	55	C09125023008
8/4/2009			45.7	C09216023002
11/3/2009	300	38	33.3	C09308004003
2/2/2010			54.9	C10033014005

B-137

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW292

Sample Date Range:
2/21/1990 - 12/10/2019

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
5/11/2010	260	36	56.5	C10131023005
8/5/2010			50.7	C10217037002
12/7/2010			36.4	C10341027003
2/22/2011	270	39	39.2	C11053015005
5/4/2011			45.1	C11124021002
8/9/2011	280	38	38.4	C11221021003
11/3/2011			46.8	C11307020001
2/2/2012	280	37	78.2	C12033015002
5/3/2012			43.4	C12124008002
8/7/2012	200	37	56	C12220024005
11/5/2012			28	C12310038007
2/4/2013	210	34	43.5	C13035045007
6/12/2013			39.2	C13163026001
8/21/2013	180	32	36.4	C13233026001
11/18/2013			33.4	C13322025002
2/24/2014	270	42	36.1	C14055028006
5/13/2014			41.3	348903005
8/26/2014	240	32.1	29.2	355748011
11/12/2014			42.1	361215006
2/4/2015	215	26.8	36.5	366647010

B-138

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW292

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
5/12/2015			42.2	373064006
8/24/2015	208	31.3	29.8	379998010
8/24/2015	216	31.4	45.6	379998011
11/24/2015			29.4	386382006
2/8/2016	198	29.6	33.5	391039011
5/17/2016			43.9	397601006
8/17/2016	202	31.8	44.1	404230005
8/17/2016	180	13.7	32.4	404230006
11/17/2016			39.7	410957006
2/15/2017	161	24.4	26.8	416791011
5/17/2017			45.9	423616006
7/10/2017	145	24	28.7	427964001
8/1/2017	150	24.1	40.5	429710010
8/1/2017	151	23.6	38.6	429710011
10/6/2017	152	18.6	39.3	434637009
1/9/2018	184	30.5	41.8	441537007
2/14/2018	153	21.2	28.7	443984008
4/5/2018	160	21.7	18.5	447608007
7/3/2018	180	26.8	34.8	453993008
8/27/2018	197	28.4	33.9	458313011

B-139

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW292

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
10/3/2018	224	32.3	42.3	461070009
1/2/2019	160	18.2	24.9	468013011
4/9/2019	202	31.4	29.9	476088009
7/2/2019	202	24.5	17.9	483632007
10/1/2019	236	22.2	29.8	491830005

B-140

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW293A

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
8/21/2003	280	< 25	< 0.053	C032330095
11/13/2003	480	< 50	< 10.4	C033180004
2/11/2004	610	< 50	< 3.25	C040420064
5/12/2004	470	< 25	< -1.68	C041330032
8/16/2004	450	< 50	< -3.95	C042290042
11/18/2004	430	< 50	< -9.01	C043240000
2/9/2005	510	< 25	< 4.12	C050400042
5/11/2005	380	< 25	< -1.62	C051310092
8/10/2005	360	< 25	< 2.92	C052220132
11/14/2005	470	< 25	< 6.36	C053180037
5/17/2006	440	< 25	19.5	C061370059
11/6/2006	410	< 25	< -3.51	C063100058
5/9/2007	430	< 25	< -4.48	C071300011
11/12/2007	310	< 5	< -0.798	C073170015
5/28/2008	260	< 5	< 2.23	C081490027
11/6/2008	270	< 5	< 5.64	C08312002002
5/5/2009	230	< 5	< -0.751	C09125023005
11/2/2009	270	< 10	< -4.19	C09306041003
5/11/2010	250	< 2	18.7	C10131023003
2/22/2011	94	< 10	< 14	C11053015003

B-141

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW293A

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
8/3/2011	220	< 10	< 4.7	C11215009002
2/1/2012	230	< 10	< -0.483	C12032020005
8/8/2012	200	< 10	< 4.03	C12221010003
2/5/2013	200	< 2	< 1.39	C13036014006
8/12/2013	180	< 10	< -2.29	C13224033003
2/19/2014	73	< 2	< 0.276	C14050020001
8/26/2014	40.6	< 1	< -3.21	355748012
2/4/2015	31.9	< 1	< 5.67	366647011
8/24/2015	32.1	< 1	< -3.7	379998012
2/8/2016	156	< 1	< -9.06	391039012
8/4/2016	97.7	< 1	< 3.76	403256006
2/15/2017	182	< 1	< -1.27	416791012
7/10/2017	85	< 1	< -6.25	427964013
8/1/2017	82	< 1	< -0.716	429710012
10/6/2017	101	< 2	< -0.519	434637010
1/9/2018	99.3	< 1	< 9.43	441537008
2/14/2018	111	< 2	< -3.26	443984009
4/5/2018	112	< 2	< -9.09	447608008
7/3/2018	147	< 2	< -3.27	453993009
8/27/2018	127	< 2	< 0.606	458313012

B-142

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW293A

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
10/3/2018	152	1.2	< -6.35	461070010
1/2/2019	108	< 2	< 8.96	468013012
4/9/2019	191	< 2	< 3.92	476088010
7/2/2019	177	< 2	< -4.77	483632008
10/2/2019	161	0.66	< 6.76	491969006

B-143

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW341

Sample Date Range:
2/21/1990 - 12/10/2019

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
12/3/1998	1200	< 100	216.3	C983380051
3/4/1999	730	< 100	243.58	C990630086
6/3/1999	660	< 200	245	C991540176
9/15/1999			316	C992580211
12/6/1999	790	< 100	260	C993400090
3/7/2000	1100	< 100	276	C000680021
6/21/2000	64	< 5	281	C001730079
9/11/2000	1200	< 100	286	C002560010
12/12/2000	1000	< 5	358	C003470050
3/21/2001	1400	< 100	305	C010800073
6/4/2001	1100	< 100	282	C011560012
9/25/2001	1200	< 100	327	C012680236
12/13/2001	990	< 100	310	C013470168
3/27/2002	690	< 250	339	C020860184
6/10/2002	730	< 100	297	C021610050
9/5/2002	1700	< 100	271	C022480142
12/3/2002	2200	< 100	328	C023370122
6/9/2003	2400	< 50	271	C031600082
12/5/2003	2700	< 100	327	C033420032
6/7/2004	2400	< 100	354	C041590181

B-144

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW341

Sample Date Range:
2/21/1990 - 12/10/2019

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
12/8/2004	1800	< 100	322	C043430125
6/15/2005	6200	< 100	265	C051660051
11/30/2005	12000	< 500	271	C053340079
5/23/2006	14000	< 500	264	C061430071
3/19/2007	21000	< 1000	251	C070780103
9/20/2007	14000	< 200	212	C072630187
3/12/2008	11000	< 200	246	C080720035
8/28/2008	15000	< 100	207	C082410122
5/7/2009	14000	< 500	226	C09127062001
9/23/2009	17000	< 1000	251	C09266034004
3/10/2010	15000	< 200	207	C10069026006
9/13/2010	19000	< 200	213	C10256039001
6/2/2011	15000	< 1000	172	C11153017006
6/2/2011	15000	< 1000	172	C11153017005
5/17/2013	5100	< 250	150	C13137015003
5/17/2013	5200	< 250	166	C13137015004
6/1/2015	4460	< 1	138	374452005
5/24/2017	3460	< 50	310	424148013
7/13/2017	4280	< 50	257	427964014
10/11/2017	3790	< 50	345	435057005

B-145

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW341

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
1/11/2018	3520	< 1	354	441547001
4/5/2018	6010	< 100	309	447608009
7/10/2018	6950	3.1	183	454274004
10/4/2018	7260	< 100	171	461079008
12/18/2018	5220	< 100	122	467410005
1/7/2019	5860	< 100	119	468221006
3/20/2019	5930	< 100	99.1	474242007
3/20/2019	5860	< 100	100	474242008
4/8/2019	5400	< 100	109	475898009
5/13/2019	4650	< 100	74.5	479291003
5/13/2019	5860	< 100	89.9	479291004
6/6/2019	6220	< 100	99.3	481177002
7/8/2019	5610	< 100	100	484303005
9/18/2019	6760	< 100	139	490775004
10/7/2019	6690	< 100	144	492544009
12/10/2019	6590	1.98	189	498960005

B-146

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW478

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
10/22/2009	220	< 5	< -8.59	C09295018001
5/11/2010	490	11	< -7.99	C10131015007
5/10/2011	280	< 25	< 10.5	C11130019004
5/21/2013	240	< 25	< 2.27	C13141010001
5/28/2015	232	2.1	< -1.95	374017004
5/15/2017	163	1.52	< 4.78	423664015
7/11/2017	152	1.6	< -4.46	427964015
10/11/2017	127	1.1	< -1.18	435057001
1/9/2018	182	3.6	< 10.1	441537009
4/5/2018	194	1.96	< -1.12	447608010
7/3/2018	205	2.88	< 0.479	453993010
10/3/2018	270	3.44	< -6.55	461070011
1/2/2019	191	1.8	< 5.88	468013013
4/9/2019	294	3.6	< 4.32	476088011
5/1/2019	284	3.3	< 16.6	478096003
7/9/2019	302	2.1	< -1.03	484299007
10/1/2019	290	3.28	< -1.07	491830006

B-147

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW479

Sample Date Range:
2/21/1990 - 12/10/2019

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
10/22/2009	2.6	< 1	< -14.8	C09295018002
5/5/2010	< 1	< 1	< -4.67	C10125032008
5/11/2011	8.1	< 5	< -8.28	C11131028003
5/28/2013	< 1	< 1	< -2.12	C13148029001
6/9/2015	< 1	< 1	< 1.11	374981008
5/15/2017	< 1	< 1	< 4.18	423664016
7/11/2017	1.34	< 1	< -7.77	427964016
10/11/2017	1.15	< 1	< -5.9	435057006
1/9/2018	1.21	< 1	< 3.76	441537010
4/5/2018	3.41	< 1	< -9.16	447608011
7/3/2018	4.04	0.63	< -1.19	453993001
10/3/2018	0.94	< 1	< -8.4	461070012
1/2/2019	< 1	< 1	< 3.48	468013014
4/9/2019	36.1	4.61	14.7	476088012
5/1/2019	41.5	5.39	18.9	478096004
7/9/2019	24.5	2.86	< 1.9	484299008
10/1/2019	2.22	< 1	< 0.584	491830007

B-148

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW480

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
10/22/2009	58	5.8	< 0.509	C09295018003
5/5/2010	38	3.6	< 3.38	C10125032009
5/11/2011	70	6	< 10.4	C11131028004
5/28/2013	55	8	21.6	C13148029002
5/28/2015	46.2	6.41	< 3.34	374017005
5/28/2015	42.1	6.13	< 5.85	374017006
5/15/2017	70.9	10.4	32.9	423664017
7/11/2017	61.8	9.16	21.9	427964017
10/11/2017	55.5	8.23	< 15.6	435057007
1/9/2018	115	14.3	46.8	441537011
4/5/2018	118	9.2	38	447608012
7/3/2018	126	11.4	33.8	453993011
10/3/2018	145	12.8	51	461070013
1/2/2019	124	7.68	34.8	468013015
4/9/2019	163	11.3	38.8	476088013
5/1/2019	150	10.6	53	478096005
7/9/2019	159	10.3	22.5	484299009
10/1/2019	153	9.07	45.6	491830008

B-149

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW495

Sample Date Range:
2/21/1990 - 12/10/2019

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
12/29/2009	250	8.6	< 17	C09363017001
5/10/2011	510	< 25	30.8	C11130019005
5/21/2013	110	< 25	< 1.11	C13141010002
5/27/2015	431	8.1	28.1	374017008
5/15/2017	365	5	33.8	423670001
7/11/2017	373	6.2	36.4	427964018
10/11/2017	376	6.35	25.9	435057008
1/9/2018	373	6.7	42	441537012
4/5/2018	372	5	27.7	447608013
7/3/2018	378	5.3	41.9	453993012
10/4/2018	417	5.9	48.3	461079009
1/2/2019	272	< 10	47.2	468013016
4/9/2019	362	5.3	42.1	476088014
5/1/2019	307	3.9	56.8	478096011
7/9/2019	404	< 10	38.4	484299010
10/1/2019	394	6.04	37	491830009

B-150

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW496

Sample Date Range:
2/21/1990 - 12/10/2019

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
12/31/2009	67	1.6	< 3.2	C09365021001
5/10/2011	83	< 5	< 9.02	C11130019006
5/21/2013	500	11	43.1	C13141010003
5/27/2015	114	1.84	< 2.15	374017009
5/17/2017	116	1.56	22.4	423670002
7/11/2017	120	< 2	16	427964019
10/11/2017	124	1.62	23.6	435057009
1/4/2018	143	1.88	27.6	441199004
4/5/2018	129	1.6	21.7	447608014
7/3/2018	142	2.08	24.4	453993013
10/4/2018	139	2.14	25.3	461079010
1/2/2019	146	2.04	24.1	468013017
4/9/2019	149	2.28	21.6	476088015
5/1/2019	158	2.5	26.5	478096012
7/9/2019	151	1.72	< 10.5	484299011
10/1/2019	133	1.92	19.1	491830010

B-151

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW524

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
10/4/2016	5.52	< 1	< -1.43	407700002
10/4/2016	4.13	< 1	< -2.15	407700003
1/10/2017	3.74	< 1	< -3.88	414020001
4/3/2017	3.58	< 1	14.5	419846001
7/13/2017	2.36	< 1	< 9.65	427964020
10/11/2017	4.53	< 1	< 1.65	435057010
1/10/2018	1.24	< 1	< -2.43	441541003
1/10/2018	1.08	< 1	< -2.75	441541004
4/5/2018	12.3	< 1	< 11.4	447608015
7/9/2018	21.2	< 1	< 7.02	454258004
10/2/2018	2.44	< 1		461050001
10/2/2018			< 1.87	469659001
1/3/2019	31.4	< 1	16.8	468013018
1/3/2019	31	< 1	17	468013019
4/2/2019	113	< 1	25	475591001
7/8/2019	37.6	< 1	< 2.23	484303001
10/3/2019	1.24	< 1	< -2.36	492271001

B-152

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW525

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
10/4/2016	403	0.77	27.2	407700004
1/10/2017	607	< 5	82.6	414020002
1/10/2017	599	< 5	88.4	414020003
4/3/2017	606	< 10	102	419846002
7/11/2017	510	< 10	64.4	427966001
10/11/2017	302	< 10	52.5	435057011
10/11/2017	635	< 10	46.9	435057012
1/10/2018	406	< 10	71.6	441541005
4/5/2018	501	< 10	115	447608016
7/9/2018	952	< 10	106	454258005
10/2/2018	693	< 10		461050003
10/2/2018			103	469659002
10/2/2018			106	469659003
10/2/2018	696	< 10		461050002
1/3/2019	914	< 10	119	468013020
4/2/2019	805	< 10	127	475591002
7/8/2019	808	< 10	112	484303006
10/3/2019	794	< 10	133	492271002
10/3/2019	713	< 10	142	492271003

B-153

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW526

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
10/4/2016	145	1.73	139	407700005
1/10/2017	214	1.72	134	414020004
4/3/2017	173	1.2	164	419846003
4/3/2017	168	1.24	175	419846004
7/11/2017	123	< 2	156	427966002
10/11/2017	131	1.04	90.2	435057013
1/10/2018	134	< 2	71.8	441541006
4/5/2018	1320	< 20	96.5	447608017
4/5/2018	1290	< 20	125	447608018
7/9/2018	1980	< 20	109	454258006
10/2/2018	1870	< 50		461050004
10/2/2018			122	469659004
1/3/2019	2790	< 50	169	468031001
4/2/2019	1270	< 50	180	475591003
4/2/2019	1290	< 50	184	475591004
7/8/2019	1250	< 50	168	484303007
10/3/2019	1460	< 50	188	492271004

B-154

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW527

Sample Date Range:
2/21/1990 - 12/10/2019

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
10/4/2016	5.01	< 1	14.4	407700006
1/10/2017	8.67	< 1	32	414020005
4/3/2017	6.82	< 1	26.3	419846005
7/11/2017	4.92	< 1	24.6	427966003
7/11/2017	4.91	< 1	20.1	427966004
10/11/2017	5	< 1	< 15.7	435057014
1/10/2018	12.3	< 1	< 10.9	441541007
4/5/2018	12.3	< 1	25.7	447608019
7/9/2018	33.6	< 1	21.4	454258007
7/9/2018	34.2	< 1	25.4	454258008
10/2/2018	11.6	< 1		461050005
10/2/2018			32.3	469659005
1/3/2019	54.4	< 1	28.4	468031002
4/2/2019	27.9	< 1	27	475591005
7/8/2019	50.6	< 1	34.2	484303008
7/8/2019	50.4	< 1	31.3	484303009
10/3/2019	10.3	< 1	27.2	492271005

B-155

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW528

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
10/4/2016	32.2	< 1	< -2.63	407700007
1/10/2017	24.4	< 1	< 0.895	414020006
4/3/2017	26.7	< 1	< 9.06	419846006
7/11/2017	21.1	< 1	< 3.27	427966005
10/11/2017	20	< 1	< 3.96	435057015
1/11/2018	48.6	< 1	18.7	441547002
4/5/2018	161	< 2	36.2	447608020
7/9/2018	135	< 2	31.6	454258009
10/2/2018	135	< 2		461050006
10/2/2018			38.3	469659006
1/3/2019	185	< 2	39.2	468031003
4/2/2019	92.1	< 2	34.5	475591006
7/8/2019	89.3	< 2	45.3	484303010
10/3/2019	80.4	< 2	48.1	492271006

B-156

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW529

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
10/4/2016	63.3	1.4	105	407700008
1/10/2017	95.8	2.14	165	414020007
4/3/2017	90.9	3.55	146	419846007
7/11/2017	98.9	2.07	139	427966006
10/11/2017	94.2	4.56	104	435057016
1/10/2018	207	< 4	153	441541008
4/5/2018	1010	< 20	137	447617002
7/9/2018	1570	8.6	179	454258001
10/2/2018	1350	< 20		461050007
10/2/2018			193	469659007
1/3/2019	3070	< 20	176	468031004
4/2/2019	6380	< 50	128	475591007
7/8/2019	8320	< 100	90	484303011
10/3/2019	4150	< 100	194	492271007

B-157

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW530

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
10/4/2016	49.3	< 1	110	407700001
1/10/2017	63.2	< 1	204	414020008
4/3/2017	53	< 1	236	419846008
7/11/2017	58.3	< 1	209	427966007
10/11/2017	52.1	< 1	156	435057017
1/10/2018	72.5	< 1	117	441541009
4/5/2018	88.5	< 1	146	447617003
7/9/2018	808	< 10	110	454258010
10/2/2018	797	< 10		461050008
10/2/2018			82.7	465463001
10/2/2018			96.4	465463001-2
1/3/2019	569	< 10	90.4	468031005
4/2/2019	490	< 10	78.2	475591008
7/8/2019	530	< 10	80.5	484303012
10/3/2019	269	< 10	76.9	492271008

B-158

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW531

**Sample Date Range:
2/21/1990 - 12/10/2019**

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
7/13/2017	91.8	0.49	90.6	427966008
10/11/2017	110	< 2	57	435057018
1/11/2018	99.7	0.5	75	441547003
4/5/2018	97.4	0.58	65.4	447617001
7/9/2018	94.2	0.8	74.2	454258011
10/2/2018	91.9	1.02		461050009
10/2/2018			62.9	465463002
10/2/2018			73.6	465463002-2
1/7/2019	99.2	1.18	74.3	468221007
4/8/2019	84.8	1.04	66.5	475898010
7/2/2019	94.3	< 2	61.9	483632009
10/7/2019	95.9	1.44	85.5	492544010

B-159

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW533

Sample Date Range:
2/21/1990 - 12/10/2019

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
7/13/2017	88.9	< 1	69.7	427966009
10/11/2017	109	< 2	60.8	435057019
1/11/2018	58.1	< 1	46.7	441547004
4/5/2018	70.2	< 1	50.5	447617004
7/9/2018	72.4	0.42	74.9	454258012
10/2/2018			67.5	469659008
10/2/2018	67.5	0.4		461050010
1/7/2019	71.1	0.54	87.3	468221008
4/8/2019	63.2	0.44	68.9	475898011
7/8/2019	74.9	0.39	58	484303013
10/7/2019	134	< 2	77.3	492544011

B-160

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW536

Sample Date Range:
2/21/1990 - 12/10/2019

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
7/13/2017	173	0.56	33.5	427966010
10/11/2017	199	1.94	28.3	435057020
1/11/2018	225	1.52	51.1	441547005
4/5/2018	195	< 4	63	447617005
7/10/2018	158	0.81	68.6	454274005
10/2/2018	153	0.8		461050011
10/2/2018			80.2	469659009
1/7/2019	125	< 2	112	468221009
4/8/2019	164	< 2	79.8	475898001
7/2/2019	178	< 2	68.2	483632010
10/7/2019	131	< 2	109	492544012

B-161

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW537

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
7/13/2017	181	4.51	34	427966011
10/11/2017	187	3.62	50.1	435058001
1/11/2018	139	< 2	92.4	441547006
4/5/2018	155	1.02	94.8	447617006
7/10/2018	100	0.37	123	454274006
10/2/2018	89.9	< 2		461050012
10/2/2018			144	469659010
1/7/2019	134	0.98	110	468221010
4/8/2019	79.1	< 2	134	475898012
7/2/2019	80.3	< 2	142	483632011
10/7/2019	82.5	< 2	160	492544001

B-162

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW538

Sample Date Range:
2/21/1990 - 12/10/2019

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
7/13/2017	54.6	2.55	< 2.92	427966012
10/11/2017	50.5	2.16	< -4.28	435058002
1/11/2018	5.05	< 1	< 4.45	441547008
4/5/2018	0.42	< 1	< 1.37	447617007
7/10/2018	20.3	0.85	< 10.9	454274007
10/2/2018	7.69	< 1		461050013
10/2/2018			15.6	469659011
1/7/2019	10.1	< 1	< 8.32	468221011
4/8/2019	66.6	2	< 2.87	475898013
7/2/2019	81	1.95	14.2	483632012
10/3/2019	82.9	1.92	20.5	492271009

B-163

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW539

**Sample Date Range:
2/21/1990 - 12/10/2019**

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
7/13/2017	62	0.77	< 7.55	427966013
10/11/2017	116	1.09	< 6.51	435058003
1/11/2018	66	1.88	< 5.39	441547007
4/5/2018	91.2	0.98	9.62	447617008
7/10/2018	120	1.35	< 5.71	454274008
10/2/2018	110	1.14		461050014
10/2/2018			10.4	469659012
1/7/2019	120	0.96	12	468221012
4/8/2019	105	< 2	13.5	475898014
7/2/2019	118	< 2	22.2	483632013
10/3/2019	105	< 2	25.5	492271010

B-164

Northeast Plume Optimization Monitoring Wells

Water Quality Records for

MW556

***Sample Date Range:
2/21/1990 - 12/10/2019***

Sample Date	Organic Laboratory Analysis Results		Radiological Laboratory Analysis Results	Lab Sample ID
	TCE µg/L	1,1-DCE µg/L	Tc-99 pCi/L	
7/11/2017	195	38	42.2	427966014
10/11/2017	171	30	46.3	435058004
1/9/2018	183	36.5	62.5	441537013
4/5/2018	148	22.1	44.6	447617009
7/10/2018	122	27.1	42.8	454274009
10/3/2018	147	27.7	61.3	461070014
1/2/2019	73.1	14.4	23	468031006
4/9/2019	136	25.3	40.2	476088016
7/9/2019	110	20.8	22	484299012
10/1/2019	74.2	13.3	25	491830001

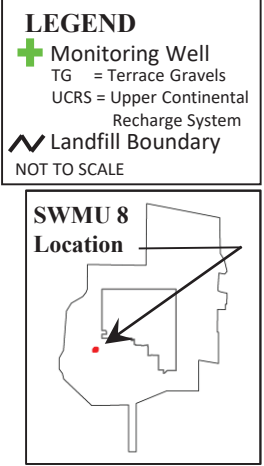
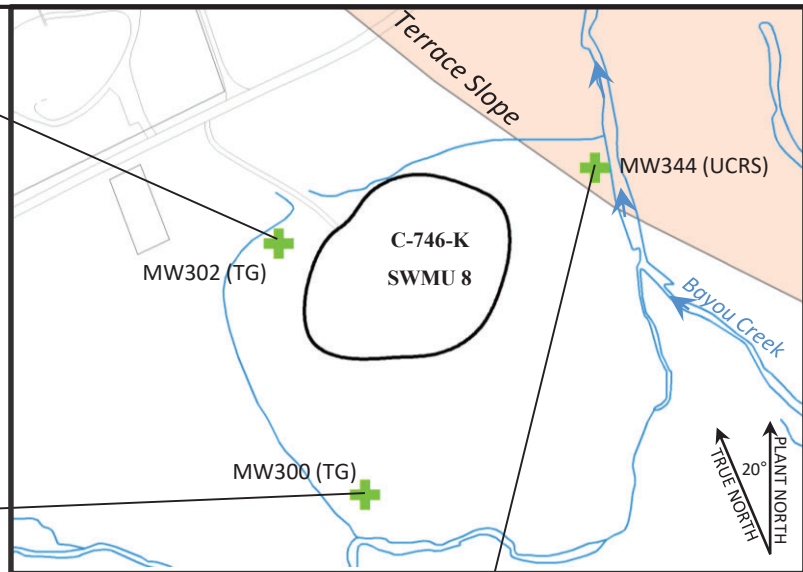
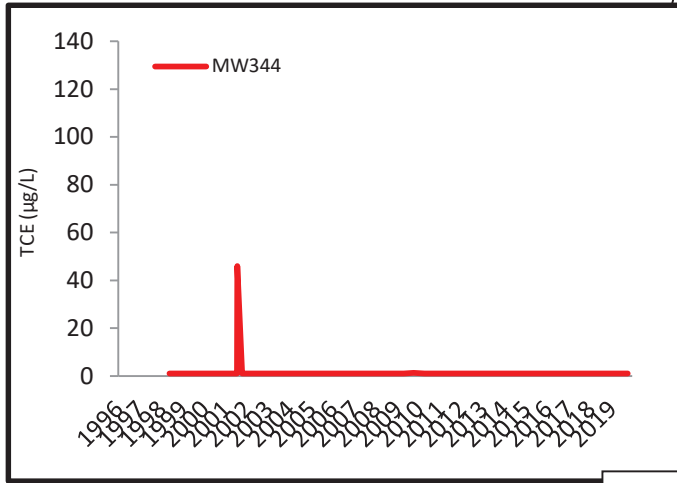
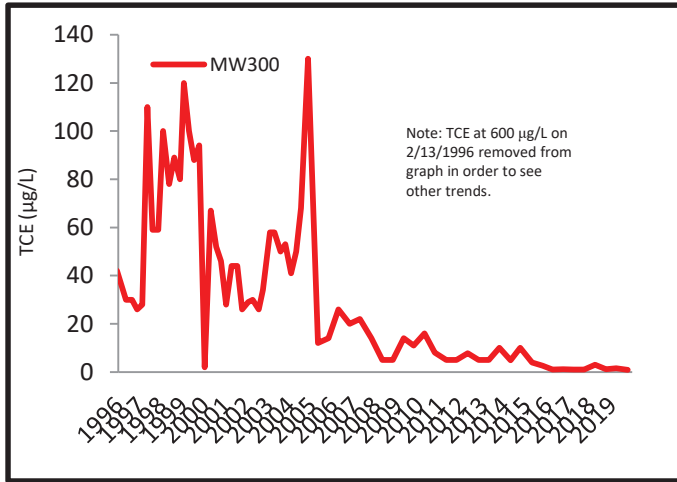
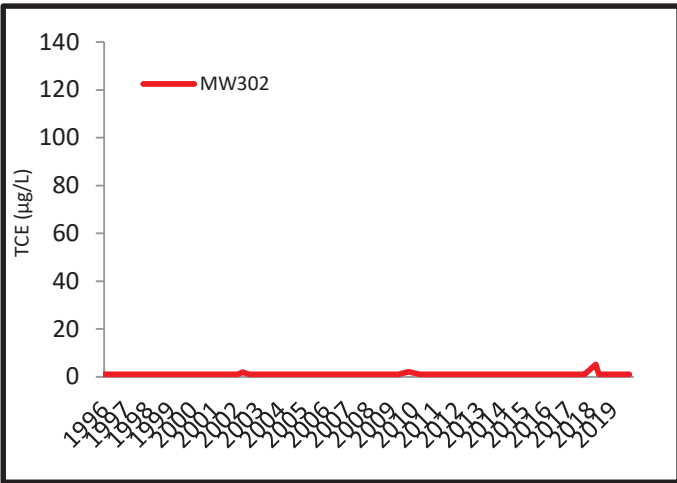
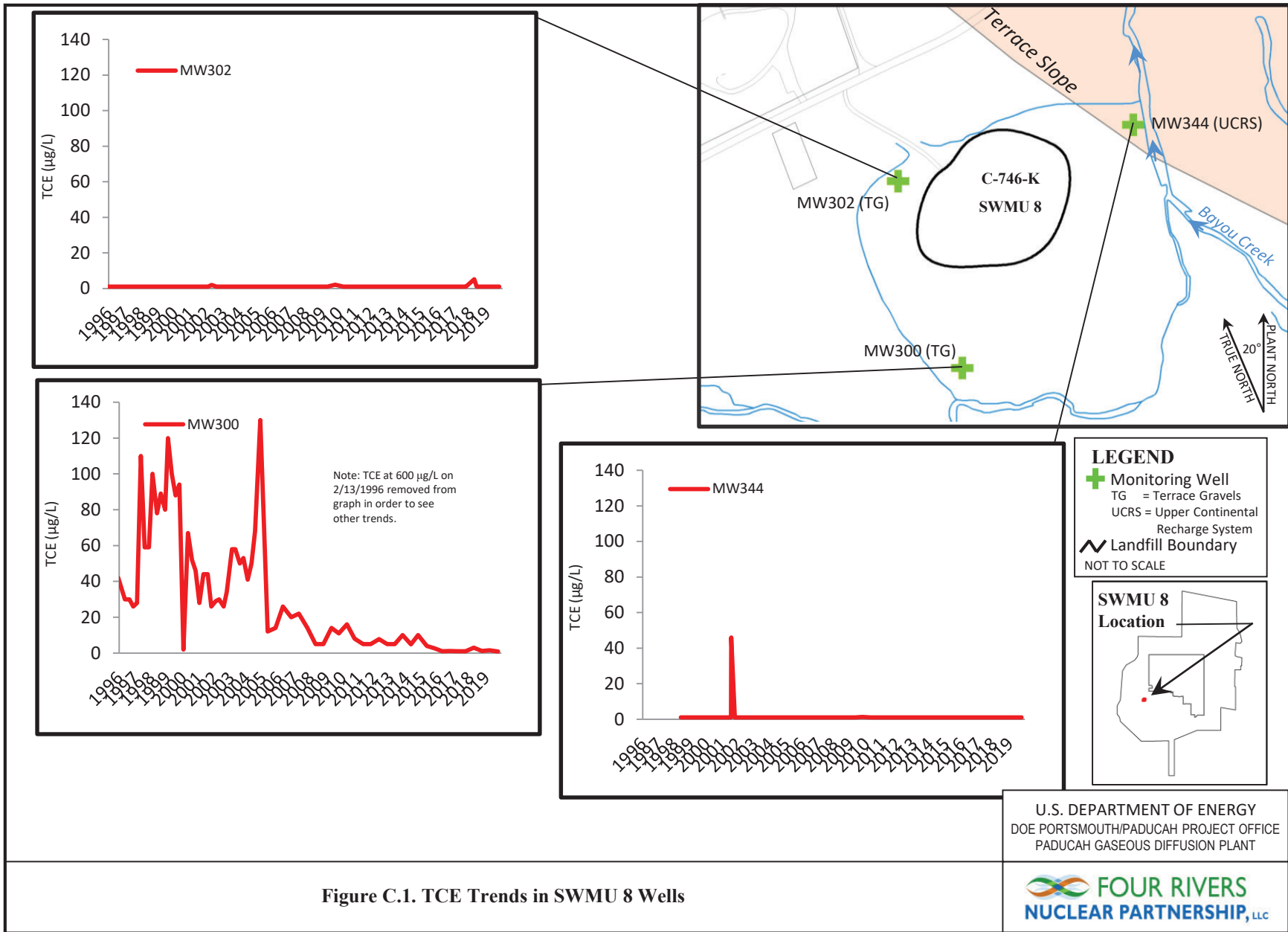
B-165

THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX C

C-746-K LANDFILL (SWMU 8) DATA

THIS PAGE INTENTIONALLY LEFT BLANK



U.S. DEPARTMENT OF ENERGY
 DOE PORTSMOUTH/PADUCAH PROJECT OFFICE
 PADUCAH GASEOUS DIFFUSION PLANT



Figure C.1. TCE Trends in SWMU 8 Wells

C-746-K Landfill Monitoring

Water Quality Records for

Sample Date Range: 5/31/1994 - 10/17/2019

MW300

Sample Date	Organic Laboratory Analysis Results					Inorganic Laboratory Analysis Results			Radiological Laboratory Analysis Results			Lab Sample ID
	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	
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	0.4	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
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	<-0.4	< 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

C-4

C-746-K Landfill Monitoring

Water Quality Records for

Sample Date Range: 5/31/1994 - 10/17/2019

MW300

Sample Date	Organic Laboratory Analysis Results					Inorganic Laboratory Analysis Results			Radiological Laboratory Analysis Results			Lab Sample ID
	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	
7/24/2002	26	< 100	< 100	< 100	< 100	12.6	363	24.8	< 23.2	< 43.3	21.5	C022060003
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	0.0101	0.33	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	50	< 100	< 100	< 100	< 100	14.3	382	25.4	< 51.5	53.5	< 4.26	C032110045
7/30/2003	42	< 100	< 100	< 100	< 100	21.9	409	27	< 9.4	< 48.7	< 1.31	C032110044
10/21/2003	53	92	63	< 50	< 50	0.55	497	24.9	< 39.1	< 38	< -4.59	C032950017
1/26/2004	41	120	< 100	< 100	< 100	0.471	414	1.91	< 50.1	< 1.36	< 6.71	C040260079
4/21/2004	50	140	< 100	< 100	< 100	0.591	327	17.2	< -5.55	< 8.26	< -1.58	C041130033
7/15/2004	55	140	< 100	< 100	< 100	0.882	396	22.9	< 15	< 17.4	< -6.91	C041970167
7/15/2004	68	160	< 100	< 100	< 100	0.69	424	24.2	< 21.8	< -11.1	< -7.47	C041970166
11/9/2004	130	110	< 100	< 100	< 100	0.99	369	22.9	< 12	< 29.7	< -2.6	C043150018
4/27/2005	12	51	< 50	< 50	< 50	0.289	126	11.8	< 19.1	39.8	< -2.41	C051170049
10/25/2005	14	65	< 50	< 50	< 50	0.344	178	15.2	< 2.14	29.6	< 6.49	C052990006
10/25/2005	13	55	< 50	< 50	< 50	0.259	199	16.1	< 18.1	38.4	< 8.37	C052990007
4/11/2006	26	120	77	< 50	< 50	< 0.2	161	16.5	< 0.896	< 28.2	< -2.86	C061020009
10/23/2006	< 20	< 100	< 100	< 100	< 100	0.334	124	16.2	< -0.251	< 16.2	< 8.62	C062960050
4/12/2007	< 22	< 120	< 60	< 50	< 50	< 0.2	203	18.1	< -3.16	< 33.1	< -1.66	C071030007
10/25/2007	13	120	75	< 5	< 5	< 0.2	166	20.2	< 4.54	27.8	< 1.13	C072980184
10/25/2007	14	120	77	< 5	< 5	< 0.2	162	19.7	< -0.658	< 25.1	< 1.82	C072980183
4/28/2008	< 5	42	34	< 25	< 5	< 0.2	117	16.8	< -0.155	64.4	< 0.8	C081200001
10/29/2008	< 5	46	29	< 25	< 5	< 0.2	110	16.9	< 5.22	34.8	< 6.45	C08304013002
10/29/2008	< 5	48	32	< 25	< 5	< 0.2	63.9	15	< 6.06	43.7	< 11.7	C08304013001
4/30/2009	14	93	52	< 5	< 5	< 0.2	104	27.4	< -0.39	37	< 5.55	C09120015001
10/19/2009	11	39	24	< 2	< 2	< 0.2	36.9	11.2	< -1.13	28.4	< -8.36	C09292035001
10/19/2009	9	41	24	< 2	< 2	< 0.2	65	9.73	< -2.41	27.1	< -8.19	C09292035002
4/20/2010	16	130	58	< 25	< 5	< 0.2	121	19.2	< -4.11	33.6	< -1.74	C10110009002
10/13/2010	8	140	78	< 25	< 5	< 0.4	165	25.5	< 2.34	62.3	< -3.09	C10286021003
10/13/2010	8	130	72	< 25	< 5	< 0.4	241	27.2	< 21.9	48.4	< -7.38	C10286021002
4/26/2011	< 5	68	44	< 25	< 5	0.625	129	14.1	< 0.246	34.3	< -0.327	C11116009001
10/19/2011	< 5	68	42	< 5	< 5	0.558	155	18.4	< 2.93	65.7	< 0.89	C11292015001

C-5

C-746-K Landfill Monitoring

Water Quality Records for

Sample Date Range: 5/31/1994 - 10/17/2019

MW300

Sample Date	Organic Laboratory Analysis Results					Inorganic Laboratory Analysis Results			Radiological Laboratory Analysis Results			Lab Sample ID
	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	
10/19/2011	< 5	71	44	< 5	< 5	0.358	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
10/29/2012	< 5	93	56	< 5	< 5	0.271	222	25.5	< 1.27	49.6	< -4.68	C12303019003
10/29/2012	< 5	100	69	< 5	< 5	1.65	217	25.3	< 12.6	57.8	< -2.74	C12303019002
4/23/2013	< 5	93	73	< 5	< 5	< 0.2	292	23.6	< 4.25	< 42	< -2.67	C13113007001
10/21/2013	< 10	76	53	< 10	2.2	< 0.2	201	21.4	< 3.28	61.9	< 0.287	C13294037002
10/21/2013	< 10	76	52	< 10	< 2	< 0.2	208	20.7	< -6.52	< 36.5	< 11.5	C13294037003
4/29/2014	4.9	82.4	56.8	< 10	< 10	0.0253	276	19.3	< 10.4	37.4	< 0.00258	347676009
10/7/2014	< 10	64.3	55.2	< 10	< 10	< 0.05	236	18.9	< 5	23.5	< -2.04	358703001
10/7/2014	< 10	66.7	54	< 10	< 10	0.0224	253	19.5	< 2.03	29.1	< -4.11	358703003
4/28/2015	3.9	< 1	< 1	< 1	< 1	< 0.05	26.9	3.38	< 1.86	21.2	< 3.96	371985001
10/27/2015	2.56	46.6	35.9	< 1	0.51	< 0.5	192	16.8	< 6.99	30.2	< 4.16	384156001
4/13/2016	0.94	22.1	16.7	< 1	< 1	0.0364	99.1	10.8	< -4.3	31.5	< -4.87	395245003
4/13/2016	0.97	22	17.2	< 1	< 1	0.0608	92.1	10.5	< -4.61	27.8	< -5.55	395245005
10/11/2016	1.17	19.6	14.5	< 1	< 1	0.0314	79.6	8.18	< 3.41	25.3	< -5	407853001
4/6/2017	1.06	24.6	19.5	< 2	< 2	0.0241	129	14.6	< 0.27	20.6	< 0.563	420096001
10/6/2017	< 1	< 1	< 1	< 1	< 1	0.127	77.5	12.5	< -0.084	23.7	< 1.57	434592001
4/9/2018	3.04	15.6	13.1	< 2	< 2	0.151	65.4	11.2	< 8.97	44.9	< -3.45	447581001
10/11/2018	1.1	19.7	15	< 2	< 2	< 0.05	70.5	12.2	< 12.5	42.6	< 2.26	461582001
4/2/2019	1.6	22	17	< 2	< 2	< 0.05	138	15.8	< 5.3	29.9	< 13.5	475418001
10/17/2019	0.9	22.4	16	< 1	< 1	0.195	141	13.6	< 7.36	30.7	< -1.33	493426001

C-6

C-746-K Landfill Monitoring

Water Quality Records for

Sample Date Range: 5/31/1994 - 10/17/2019

MW301

Sample Date	Organic Laboratory Analysis Results					Inorganic Laboratory Analysis Results			Radiological Laboratory Analysis Results			Lab Sample ID
	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	
6/1/1994	< 5	< 5	3	< 5		0.823	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	< 0.625	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	0.766	166	18.9	6.3	82	0	960214-066
5/9/1996	< 1	< 5	< 5	< 5	< 5	0.975	224	18	0.3	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	< 0.75	< 0.3	< 0.05	6	15	0	961118-097
11/18/1996	< 1	< 5	< 5	< 5	< 5	1.32	175	19.5	-1.4	47	0	961118-096
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	< 0.75	248	22	-11	45	0	970514-043
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	< 0.2	203	18.2	< -6.97	< 49.78	< -10.6	C991090061
7/15/1999	< 1	< 5	< 5	< 5	< 5	< 0.2	210	17.5	< -12.3	< 32.1	< -6.69	C991960147
10/14/1999	< 1	< 5	< 5	< 5	< 5	< 0.2	73.1	10.3	< 1.83	41.56	< 0.419	C992870105
10/14/1999	< 1	< 5	< 5	< 5	< 5	< 0.2	73.7	10.6	17.2	50.79	< 2.57	C992870106
1/13/2000	< 1	< 5	< 5	< 5	< 5	< 0.2	77.8	9.32	< 6.93	52.05	< 6.54	C000130122
4/27/2000	< 1	< 5	< 5	< 5	< 5	< 0.2	152	15.6	< 4.87	< -6.93	< -12.6	C001190010
7/27/2000	< 1	< 5	< 5	< 5	< 5	< 0.2	135	14.9	< 2.09	< 4.03	< -2.23	C002090105
10/16/2000	< 1	< 5	< 5	< 5	< 5	< 0.2	70.6	10.6	< -16.56	63.66	< -2.02	C002910045
1/10/2001	< 1	< 5	< 5	< 5	< 5	< 0.2	95.6	12.2	< 6.56	27.9	< -1.62	C010100098
4/16/2001	< 1	< 5	< 5	< 5	< 5	0.231	128	13.8	< 11.1	30.1	< 5.23	C011060088
4/16/2001	< 1	< 5	< 5	< 5	< 5	1.86	139	13.8	< 16.1	32.7	< 10.7	C011060087
7/24/2001	< 1	< 5	< 5	< 5	< 5	< 0.2	106	13.1	< -0.871	54.4	< 7.08	C012060010
10/15/2001	< 1	< 5	< 5	< 5	< 5	< 0.2	107	12.8	< 21.9	37.9	< 5.53	C012880075

C-7

C-746-K Landfill Monitoring

Water Quality Records for

Sample Date Range: 5/31/1994 - 10/17/2019

MW301

Sample Date	Organic Laboratory Analysis Results					Inorganic Laboratory Analysis Results			Radiological Laboratory Analysis Results			Lab Sample ID
	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	
1/25/2002	< 1	< 5	< 5	< 5	< 5	< 0.2	154	15.4	< -2.44	51.6	< 6.3	C020250056
1/25/2002	< 1	< 5	< 5	< 5	< 5	< 0.2	146	14.5	< 3.69	< 28.3	< 2.51	C020250055
4/10/2002	< 1	< 5	< 5	< 5	< 5	0.317	172	16.2	< 19	< 5.09	< 0.617	C021010049
7/24/2002	< 1	< 5	< 5	< 5	< 5	< 0.2	186	15.4	< 36.1	< 23.5	17.8	C022060005
10/3/2002	3	< 5	< 5	< 5	< 5	< 0.002	< 0.2	14.5	< 5.72	46.8	< 15	C022760029
1/30/2003	< 1	< 5	< 5	< 5	< 5	4.62	203	16.1	< 0.197	< 3.65	< 3.3	C030310018
1/30/2003	< 1	< 5	< 5	< 5	< 5	0.287	166	15.5	< -1.71	< 6.29	< -0.324	C030310017
4/14/2003	< 1	< 5	< 5	< 5	< 5	1.03	232	17.2	< 0.227	< 37.1	< -0.162	C031040077
7/30/2003	< 1	< 5	< 5	< 5	< 5	0.71	218	15.4	< 32.9	50.2	< 2.84	C032110046
10/21/2003	< 1	< 5	< 5	< 5	< 5	< 0.2	257	17.4	< 9.47	< 31.4	< 0	C032950018
1/26/2004	< 1	< 5	< 5	< 5	< 5	0.577	266	19.3	< 17.7	73	< 11.7	C040260081
1/26/2004	< 1	< 5	< 5	< 5	< 5	0.39	267	19.6	< 14.9	53.3	< 10.8	C040260080
4/21/2004	< 1	< 5	< 5	< 5	< 5	< 0.2	238	18	< 9.42	< 42.4	< -3	C041130034
7/15/2004	< 1	5	5	< 5	< 5	< 0.2	277	19.8	< 17.3	< 40.3	< -12.4	C041970168
10/19/2004	< 1	< 5	< 5	< 5	< 5	< 0.2	152	13.7	< -32.8	< 33.7	< -1.56	C042940033
4/27/2005	< 1	< 5	< 5	< 5	< 5	< 0.2	232	20.1	< -0.987	129	< -6.58	C051170050
10/25/2005	< 1	5.1	5.6	< 5	< 5	< 0.2	289	19.9	< -12.7	51.3	< 4.49	C052990008
4/11/2006	< 1	< 5	5.4	< 5	< 5	< 0.2	279	19.6	< 3.04	62	< 8.86	C061020011
4/11/2006	< 1	< 5	5.2	< 5	< 5	< 0.2	287	20.9	< 8.03	50.9	< -2.97	C061020010
10/23/2006	< 1	5.9	5.8	< 5	< 5	0.76	295	20.5	< 13.7	< 31.7	< 15.3	C062960051
4/12/2007	< 1	< 5	< 5	< 5	< 5	2.42	265	15.8	< 7.86	60.8	< 4.66	C071030005
10/25/2007	< 1	3.6	3.1	< 1	< 1	1.06	117	8.42	< 1.59	39.3	< -9.49	C072980109
4/28/2008	< 1	< 1	2.8	< 5	< 1		185	14.7	< 20.4	79.9	< -4.91	C081190048
4/28/2008	< 1	< 1	2.9	< 5	< 1		192	15.3	< 25.6	45.9	< -3.1	C081190047
10/29/2008	< 1	3.8	3.9	< 5	< 1	< 0.2	240	16.3	< 7.81	77.1	< 5.16	C08304013003
4/30/2009	< 1	4.5	4.4	< 1	< 1	< 0.2	160	14.5	< 17.8	85	< 12.3	C09120015003
4/30/2009	< 1	3.8	3.9	< 1	< 1	< 0.2	228	15.9	< 7.32	71	< 7.74	C09120015002
10/19/2009	3.8	5.5	4.8	< 1	< 1	< 0.2	208	14	< 0.393	58.6	< -1.75	C09292035003
4/20/2010	< 1	< 5	3	< 5	< 1	< 0.2	198	13.8	< 11.5	50.7	< -8.41	C10110009004
4/20/2010	< 1	< 5	2.9	< 5	< 1	< 0.2	196	13.7	< -7.51	45.2	< -8.84	C10110009005
10/13/2010	< 1	< 5	1.9	< 5	< 1	< 0.4	133	11	< -0.711	56.4	< -4.72	C10286021005
4/26/2011	< 1	< 5	< 1	< 5	< 1	0.247	176	14.5	< 8.21	68	< -13.4	C11116009002

C-8

C-746-K Landfill Monitoring

Water Quality Records for

Sample Date Range: 5/31/1994 - 10/17/2019

MW301

Sample Date	Organic Laboratory Analysis Results					Inorganic Laboratory Analysis Results			Radiological Laboratory Analysis Results			Lab Sample ID
	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	
10/19/2011	< 1	< 5	1.7	< 1	< 1	0.298	183	11.8	< 8.7	86.5	< 4.3	C11292015003
4/24/2012	< 1	2.1	< 1	< 1	< 1	< 2	119	9.63	< 5.31	< 35.7	< 2.86	C12115011002
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	0.216	120	9.8	< 10.1	< 46.9	< 0.0556	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	0.0277	121	8.95	6.95	52.9	< 2.71	347676005

C-9

C-746-K Landfill Monitoring

Water Quality Records for

Sample Date Range: 5/31/1994 - 10/17/2019

MW302

Sample Date	Organic Laboratory Analysis Results					Inorganic Laboratory Analysis Results			Radiological Laboratory Analysis Results			Lab Sample ID
	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	
6/1/1994	< 5	< 5	< 5	< 5	< 5	< 0.415	0.238	0.189	< 3.09	< 3.11	< 0.94	3220301
3/21/1995	< 1	< 5	< 5	< 5	< 5		2.6	0.26	2.2	5	8	950322-048
7/12/1995	< 1	< 5	< 5	< 5	< 5		0.702	0.175	4	13	6	950713-149
9/11/1995	< 1	< 5	< 5	< 5	< 5	1.3	1.06	0.139	7.2	2	13	950912-007
12/7/1995	< 1	< 5	< 5	< 5	< 5		2.39	0.087	6.2	3	2	951211-018
2/13/1996	< 1	< 5	< 5	< 5	< 5	2.14	1.68	0.08	-6	-2	1	960214-054
2/13/1996	< 1	< 5	< 5	< 5	< 5	2.61	2.14	0.099	-5.4	-4	0	960214-058
5/9/1996	< 1	< 5	< 5	< 5	< 5	< 0.75	< 0.3	0.041	0.9	17	6	960513-009
8/20/1996	< 1	< 5	< 5	< 5	< 5	< 0.75	< 0.3	< 0.05	12.3	5	11	960821-020
8/20/1996	< 1	< 5	< 5	< 5	< 5	< 0.75	< 0.3	0.058	4.4	6	6	960821-022
2/10/1997	< 1	< 5	< 5	< 5	< 5	< 0.75	1.64	0.19	2.9	3	0	970211-010
2/10/1997	< 1	< 5	< 5	< 5	< 5	< 0.75	0.31	0.157	-0.2	1	0	970211-011
5/13/1997	< 1	< 5	< 5	< 5	< 5	< 0.75	< 0.3	0.099	5.9	3	10	970514-044
8/7/1997	< 1	< 5	< 5	< 5	< 5	< 1	< 0.25	0.12	1.6	1	2	970807-145
8/7/1997	< 1	< 5	< 5	< 5	< 5	< 1	< 0.25	< 0.1	2.8	1	0	970807-144
11/10/1997	< 1	< 5	< 5	< 5	< 5	1.02	1.09	0.11	9.8	14	0	971110-118
2/5/1998	< 1	< 5	< 5	< 5	< 5	< 1	< 0.5	< 0.1	< 1.2	< 4	< -2	C980370103
2/5/1998	< 1	< 5	< 5	< 5	< 5	< 1	< 0.5	0.114	< 1.8	< 0	< 5	C980370102
5/20/1998	< 1	< 5	< 5	< 5	< 5	< 1	< 0.25	0.167	< -0.9	8	< 2.8	C981400087
5/20/1998	< 1	< 5	< 5	< 5	< 5	< 1	< 0.25	0.164	< 2.3	37	< 2.1	C981400088
8/11/1998	< 1	< 5	< 5	< 5	< 5	< 1	< 0.2	0.173	< 7.6	11	< -7.6	C982240043
8/11/1998	< 1	< 5	< 5	< 5	< 5	< 1	< 0.2	0.143	< 1	< 4	< -1	C982240044
11/16/1998	< 1	< 5	< 5	< 5	< 5	< 1	< 0.2	0.1	< 3.6	8.03	< -7.2	C983200082
1/25/1999	< 1	< 5	< 5	< 5	< 5	< 1	< 0.2	0.11	< 0.86	< 0.3	< -19.8	C990250156
4/19/1999	< 1	< 5	< 5	< 5	< 5	0.22	< 0.2	0.122	< 1.67	< 4.72	< -18.5	C991090062
7/15/1999	< 1	< 5	< 5	< 5	< 5	< 0.2	< 0.2	0.157	< 0.82	< -20.12	< 5.04	C991960148
10/14/1999	< 1	< 5	< 5	< 5	< 5	< 0.2	< 0.2	0.069	< 4.18	< 3.33	< -1.15	C992870107
1/13/2000	< 1	< 5	< 5	< 5	< 5	< 0.2	0.381	0.05	< 0.05	< 5.09	< 1.59	C000130119
4/27/2000	< 1	< 5	< 5	< 5	< 5	< 0.2	< 0.2	0.11	< 4.56	< 2.89	< -21.3	C001190011
4/27/2000	< 1	< 5	< 5	< 5	< 5	< 0.2	< 0.2	0.118	< 1.91	< 4.14	< -16.4	C001190012
7/27/2000	< 1	< 5	< 5	< 5	< 5	0.203	0.315	0.185	< 6.72	< 4.08	< -2.03	C002090104
10/16/2000	< 1	< 5	< 5	< 5	< 5	< 0.2	< 0.2	0.08	< 2.79	22.54	< 5.95	C002910046

C-10

C-746-K Landfill Monitoring

Water Quality Records for

Sample Date Range: 5/31/1994 - 10/17/2019

MW302

Sample Date	Organic Laboratory Analysis Results					Inorganic Laboratory Analysis Results			Radiological Laboratory Analysis Results			Lab Sample ID
	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	
1/10/2001	< 1	< 5	< 5	< 5	< 5	< 0.2	< 0.2	0.101	< -4.7	< 3.52	< 2.65	C010100095
1/10/2001	< 1	< 5	< 5	< 5	< 5	< 0.2	< 0.2	0.112	< 0.329	< 5.56	< 8.77	C010100096
4/16/2001	< 1	< 5	< 5	< 5	< 5	< 0.2	< 0.2	0.068	< -4.37	< 1	< 12.2	C011060086
7/24/2001	< 1	< 5	< 5	< 5	< 5	< 0.2	< 0.2	0.053	< 1.09	< 1.72	< 12.4	C012060011
10/15/2001	< 1	< 5	< 5	< 5	< 5	< 0.2	< 0.2	0.207	< 2.32	< 0.344	< 4.48	C012880076
1/22/2002	< 1	< 5	< 5	< 5	< 5	< 0.2	< 0.2	0.047	< 5.75	< 1.7	< 11.5	C020220047
4/10/2002	< 1	< 5	< 5	< 5	< 5	< 0.2	< 0.2	0.054	< 5.56	< -1.95	< 4.88	C021010050
4/10/2002	2	< 5	< 5	< 5	< 5	< 0.2	< 0.2	0.062	< 2.37	< -2.75	< -3.64	C021010051
7/24/2002	< 1	< 5	< 5	< 5	< 5	< 0.2	< 0.2	0.056	9.53	< 2.21	< 14.7	C022060006
10/3/2002	< 1	< 5	< 5	< 5	< 5	< 0.002	< 0.002	0.0688	< 9.5	< 2.76	< 10.1	C022760028
1/30/2003	< 1	< 5	< 5	< 5	< 5	0.639	0.762	0.144	< -0.209	< 1.74	< 2.05	C030310021
4/15/2003	< 1	< 5	< 5	< 5	< 5	< 0.2	< 0.2	0.0607	< 2.62	< 1.04	< 4.54	C031050066
4/15/2003	< 1	< 5	< 5	< 5	< 5	< 0.2	< 0.2	0.0609	< -4.39	43.1	16.2	C031050067
7/30/2003	< 1	< 5	< 5	< 5	< 5	< 0.2	0.523	1.3	< 6.9	< 4.11	< -9.55	C032110047
10/21/2003	< 1	< 5	< 5	< 5	< 5	< 0.2	5.77	1.88	< 4.13	< 2.82	< -6.62	C032950016
1/26/2004	< 1	< 5	< 5	< 5	< 5	< 0.2	2.64	1.98	< -3.37	9.48	< 6.25	C040260078
4/21/2004	< 1	< 5	< 5	< 5	< 5	< 0.2	0.302	1.71	< -1.61	< -0.897	< 5.4	C041130036
4/21/2004	< 1	< 5	< 5	< 5	< 5	< 0.2	0.611	1.63	< 6.89	< -1.62	< -0.819	C041130035
7/15/2004	< 1	< 5	< 5	< 5	< 5	< 0.2	1.18	1.63	< 5.85	< -0.825	< -12.4	C041970169
10/19/2004	< 1	< 5	< 5	< 5	< 5	< 0.2	0.244	1.06	< -4.94	< 3.65	< 4.4	C042940032
4/27/2005	< 1	< 5	< 5	< 5	< 5	< 0.2	0.154	0.708	< 0.394	< 0.723	< 15.5	C051170051
4/27/2005	< 1	< 5	< 5	< 5	< 5	< 0.2	< 0.1	0.675	< 1.48	< 3.76	< 15.3	C051170052
10/25/2005	< 1	< 5	< 5	< 5	< 5	< 0.2	< 0.1	1.35	< -1.17	< 0.46	< 9.83	C052990009
4/11/2006	< 1	< 5	< 5	< 5	< 5	0.418	1.02	0.572	< -1.64	< 3.54	< 0.914	C061020008
10/26/2006	< 1	< 5	< 5	< 5	< 5	0.347	0.479	0.99	< -0.702	< 3.23	< 8.62	C062990102
10/26/2006	< 1	< 5	< 5	< 5	< 5	< 0.2	0.128	0.986	< -3.44	< 2.09	< 8.97	C062990103
4/12/2007	< 1	< 5	< 5	< 5	< 5	< 0.2	0.131	0.345	< 4.96	< 3.59	< 13.1	C071030006
10/25/2007	< 1	< 1	< 1	< 1	< 1	< 0.2	0.317	0.622	< 3.48	< 4.7	< -3.38	C072980110
4/28/2008	< 1	< 1	< 1	< 5	< 1	< 0.1	0.263	0.263	< 3.99	< -0.184	< -5.34	C081190049
10/29/2008	< 1	< 1	< 1	< 5	< 1	0.23	0.281	0.319	< 1.16	< 0.994	< 10.6	C08304013004
4/30/2009	< 1	< 1	< 1	< 1	< 1	< 0.2	< 0.1	0.215	< 1.78	< 1.17	< 1.39	C09120016001
10/19/2009	2.1	< 1	< 1	< 1	< 1	0.493	0.425	0.433	< 0.942	< 1.51	< -6.33	C09292035004

C-11

C-746-K Landfill Monitoring

Water Quality Records for

Sample Date Range: 5/31/1994 - 10/17/2019

MW302

Sample Date	Organic Laboratory Analysis Results					Inorganic Laboratory Analysis Results			Radiological Laboratory Analysis Results			Lab Sample ID
	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	
4/20/2010	< 1	< 5	< 1	< 5	< 1	0.933	1.5	1.01	< 1.13	< 1.46	< -0.868	C10110009001
10/13/2010	< 1	< 5	< 1	< 5	< 1	< 0.4	0.21	0.245	< 4.95	< 2.61	< 2.66	C10286021004
4/26/2011	< 1	< 5	< 1	< 5	< 1	< 0.2	0.112	0.095	< 0.402	< 3.67	< -0.163	C11116009003
10/19/2011	< 1	< 5	< 1	< 1	< 1	< 0.2	0.235	0.208	< 1.9	6.89	< 2.99	C11292015004
4/24/2012	< 1	< 1	< 1	< 1	< 1	< 0.4	0.333	0.163	< 0.867	< 0.188	< 3.89	C12115011003
10/29/2012	< 1	< 1	< 1	< 1	< 1	< 0.2	< 0.1	0.0704	< 0.308	< -0.308	< -6.18	C12303019001
4/23/2013	< 1	< 1	< 1	< 1	< 1	< 0.2	< 0.1	0.0804	< 3.53	< 1.37	< -2.15	C13113007003
10/21/2013	< 1	< 1	< 1	< 1	< 1	< 0.2	< 0.1	0.19	< 2.39	< 2.41	< 1.2	C13294037001
4/29/2014	< 1	< 1	< 1	< 1	< 1	0.0339	0.112	0.156	< -0.306	< 2.95	< 2.13	347676007
10/7/2014	< 1	< 1	< 1	< 1	< 1	0.0573	0.163	0.414	< -1.1	< 1.86	< 12.8	358703005
4/28/2015	< 1	< 1	< 1	< 1	< 1	0.0504	0.106	0.674	< 7.44	< 3.78	< -0.946	371985003
10/27/2015	< 1	< 1	< 1	< 1	< 1	0.0205	0.13	0.402	< -2.37	< -2.28	< 3.12	384156003
10/27/2015	< 1	< 1	< 1	< 1	< 1	0.0272	0.157	0.454	< -3.02	< -1.71	< -2.76	384156005
4/13/2016	< 1	< 1	< 1	< 1	< 1	0.0496	0.275	0.326	< 3.35	8.77	< -11	395245001
10/11/2016	< 1	< 1	< 1	< 1	< 1	0.0458	0.109	0.297	< -1.69	< -6.03	< -4.58	407853003
10/11/2016	< 1	< 1	< 1	< 1	< 1	0.102	0.222	0.31	< -3.58	< 4.11	< -7.9	407853005
4/6/2017	< 1	< 1	< 1	< 1	< 1	0.106	0.274	0.0465	< -2.09	< 5.58	< 3.16	420096003
10/6/2017	< 1	< 1	< 1	< 1	< 1	0.0659	0.296	0.332	< -0.704	< 8.85	< 0.00131	434592003
10/6/2017	< 1	< 1	< 1	< 1	< 1	0.0885	0.333	0.41	< 2.18	< 5.43	< 2.4	434592005
4/9/2018	5.1	< 1	< 1	< 1	< 1	0.0749	0.219	0.205	< -0.121	< -0.119	< 5.28	447581003
5/31/2018	< 1	< 1	< 1	< 1	< 1							451547001
10/11/2018	< 1	< 1	< 1	< 1	< 1	0.0318	0.0881	0.29	< 2.78	< 2.78	< -4.71	461582003
10/11/2018	< 1	< 1	< 1	< 1	< 1	0.0203	0.035	0.266	< 2.29	< 7.02	< -9.38	461582005
4/2/2019	< 1	< 1	< 1	< 1	< 1	0.0319	0.0349	0.0974	< 1.5	< 5.84	< 4.36	475418003
4/2/2019	< 1	< 1	< 1	< 1	< 1	0.0362	0.0523	0.0997	< 2.55	< -0.754	< 3.9	475418005
10/17/2019	< 1	< 1	< 1	< 1	< 1	< 0.05	< 0.1	0.179	< -0.383	< 4.05	< -0.561	493426003
10/17/2019	< 1	< 1	< 1	< 1	< 1	< 0.05	< 0.1	0.181	< -0.181	< -7.29	< -14.4	493426005

C-12

C-746-K Landfill Monitoring

Water Quality Records for

Sample Date Range: 5/31/1994 - 10/17/2019

MW344

Sample Date	Organic Laboratory Analysis Results					Inorganic Laboratory Analysis Results			Radiological Laboratory Analysis Results			Lab Sample ID
	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	
5/20/1998	< 1	< 5	< 5	< 5	< 5	5.43	11.2	0.663	< 4	24	<-2.8	C981400089
8/11/1998	< 1	< 5	< 5	< 5	< 5	7.65	13.1	0.946	< 3.2	11	<-1.3	C982240042
11/16/1998	< 1	< 5	< 5	< 5	< 5	2.65	12.2	0.83	< 5.66	8.45	< 6.8	C983200078
11/16/1998	< 1	< 5	< 5	< 5	< 5	2.43	9.51	0.65	< 2.27	9.59	<-3.1	C983200079
1/25/1999	< 1	< 5	< 5	< 5	< 5	8.54	13	0.79	< 0.1	14.19	< 8.4	C990250157
4/19/1999	< 1	< 5	< 5	< 5	< 5	9.26	16.1	0.827	< 4.05	8.24	<-9.06	C991090063
7/15/1999	< 1	< 5	< 5	< 5	< 5	3.21	13.6	0.756	< 3.29	< 3.03	< 7.03	C991960149
10/14/1999	< 1	< 5	< 5	< 5	< 5	8.76	13.1	0.871	5.38	< 5.75	< 7.28	C992870108
1/13/2000	< 1	< 5	< 5	< 5	< 5	1.35	9.06	0.565	< 0.74	12.89	< 6.94	C000130121
4/27/2000	< 1	< 5	< 5	< 5	< 5	3.68	10.8	0.523	< 2.81	19.31	<-2.65	C001190013
7/27/2000	< 1	< 5	< 5	< 5	< 5	1.92	8.16	0.531	7.68	12.31	< 10.4	C002090102
7/27/2000	< 1	< 5	< 5	< 5	< 5	1.27	6.22	0.404	< 4.3	14.19	<-6.62	C002090103
10/16/2000	< 1	< 5	< 5	< 5	< 5	1.5	5.4	0.37	<-0.9	21.88	< 1.57	C002910048
10/16/2000	< 1	< 5	< 5	< 5	< 5	1.92	6.81	0.525	< 1.79	15.94	< 0.674	C002910047
1/10/2001	< 1	< 5	< 5	< 5	< 5	4.4	6.02	0.396	< 0.529	< 1.5	< 4.46	C010100099
4/16/2001	< 1	< 5	< 5	< 5	< 5	2.3	7.02	0.411	< 1.98	6.24	<-7.79	C011060089
7/19/2001	< 1	< 5	< 5	< 5	< 5	1.83	5.1	0.355	<-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	0.797	3.79	0.329	< 0.901	9.99	<-8.48	C012880067
10/15/2001	< 1	< 5	< 5	< 5	< 5	0.655	3.55	0.399	< 4.6	< 2.4	<-2	C012880066
1/22/2002	< 1	< 5	< 5	< 5	< 5	1.37	5.33	0.366	< 5.38	6.15	< 6.69	C020220045
4/10/2002	< 1	< 5	< 5	< 5	< 5	1.63	7.58	0.378	<-0.899	< 2.73	< 4.04	C021010052
7/24/2002	< 1	< 5	< 5	< 5	< 5	2.07	5.44	0.49	10.2	< 6.95	< 4.82	C022060007
10/3/2002	< 1	< 5	< 5	< 5	< 5	0.00423	0.00456	0.323	< 5.83	< 5.09	18.5	C022760030
10/3/2002	< 1	< 5	< 5	< 5	< 5	0.00323	0.00478	0.366	< 2.54	< 2.37	< 13.8	C022760031
1/30/2003	< 1	< 5	< 5	< 5	< 5	1.68	4.16	0.378	<-2.18	< 0.631	< 2	C030310019
4/14/2003	< 1	< 5	< 5	< 5	< 5	3.92	3.28	0.268	< 0.0183	< 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	4.19	32.6	0.388	< 5.8	< 4.3	< 3.31	C032950014
10/21/2003	< 1	< 5	< 5	< 5	< 5	3.63	34.8	3.99	< 3.45	< 3.49	<-1.39	C032950015
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

C-13

C-746-K Landfill Monitoring

Water Quality Records for

Sample Date Range: 5/31/1994 - 10/17/2019

MW344

Sample Date	Organic Laboratory Analysis Results					Inorganic Laboratory Analysis Results			Radiological Laboratory Analysis Results			Lab Sample ID
	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	
7/15/2004	< 1	< 5	< 5	< 5	< 5	< 0.2	12.9	1.61	< 0.82	< 2.89	< -8.52	C041970170
10/19/2004	< 1	< 5	< 5	< 5	< 5	2.51	13.2	1.56	< -0.79	9.99	< -3.88	C042940034
10/19/2004	< 1	< 5	< 5	< 5	< 5	2.99	11.8	1.63	< -2.19	< 0.172	< 4.34	C042940035
4/27/2005	< 1	< 5	< 5	< 5	< 5	3.67	7.9	0.692	< 0.794	5.87	< 10.7	C051170053
10/25/2005	< 1	< 5	< 5	< 5	< 5	1.49	5.25	0.714	< 2.1	< 5.13	< 8.07	C052990010
4/11/2006	< 1	< 5	< 5	< 5	< 5	2.55	6.79	0.419	< 2.13	< 5.53	< 0.686	C061020012
10/26/2006	< 1	< 5	< 5	< 5	< 5	4.32	5.55	0.472	< 2.45	< 5.05	< 13.9	C062990104
4/12/2007	< 1	< 5	< 5	< 5	< 5	13.5	7.9	0.279	< 6.28	< 4.88	< -3.22	C071030003
4/12/2007	< 1	< 5	< 5	< 5	< 5	7.87	6.28	0.286	8.77	< 7.36	< 7.1	C071030004
10/25/2007	< 1	< 1	< 1	< 1	< 1	5.46	4.1	0.217	< 2.24	< 2.43	< 1.88	C072980185
4/28/2008	< 1	< 1	< 1	< 5	< 1		0.947	0.183	< 1.35	< 4.02	< 2.67	C081200002
10/29/2008	< 1	< 1	< 1	< 5	< 1	3.36	3.64	0.256	< 2.88	< 4.82	< 0.645	C08304013005
4/30/2009	< 1	< 1	< 1	< 1	< 1	4	3.56	0.19	< 2.62	5.57	< 10.1	C09120016002
10/19/2009	1.3	< 1	< 1	< 1	< 1	3.55	3.04	0.299	< 1.6	< 4.25	< -0.283	C09292035005
4/20/2010	< 1	< 5	< 1	< 5	< 1	11.5	22	0.262	9.17	8.43	< 10	C10110009003
10/13/2010	< 1	< 5	< 1	< 5	< 1	9.93	13.8	0.233	8.01	9.96	< -7.65	C10286021001
4/26/2011	< 1	< 5	< 1	< 5	< 1	4.7	8.17	0.154	< -0.331	< 5.11	< -7.02	C11116009004
4/26/2011	< 1	< 5	< 1	< 5	< 1	4.48	7.89	0.155	< 0.101	5.63	< -3.92	C11116009005
10/19/2011	< 1	< 5	< 1	< 1	< 1	2.86	7.14	0.188	< 2.34	9.7	< 2.78	C11292015005
4/24/2012	< 1	< 1	< 1	< 1	< 1	4.39	7.54	0.167	< 3.64	< 3.59	< -0.511	C12115011004
4/24/2012	< 1	< 1	< 1	< 1	< 1	3.92	6.46	0.118	< 6.28	< 5.53	< 7.1	C12115011005
10/29/2012	< 1	< 1	< 1	< 1	< 1	2.12	3.89	0.143	< 0.405	< 3.49	< -8.39	C12303019005
4/23/2013	< 1	< 1	< 1	< 1	< 1	2.65	4.66	0.116	< 4.97	< 3.39	< -3.25	C13113014001
4/23/2013	< 1	< 1	< 1	< 1	< 1	2.77	3.82	0.107	< 1.89	< 3.93	< -1.43	C13113014002
10/21/2013	< 1	< 1	< 1	< 1	< 1	8.79	6.63	0.185	< 4.86	4.56	< 4.93	C13294037005
4/29/2014	< 1	< 1	< 1	< 1	< 1	3.92	9.31	0.138	9.05	7.89	< 1.14	347676001
4/29/2014	< 1	< 1	< 1	< 1	< 1	4.42	10.1	0.139	6.34	9.4	< -2.93	347676003
10/7/2014	< 1	< 1	< 1	< 1	< 1	3.61	8.09	0.253	< 0.965	< 11	< 3.57	358703007
4/28/2015	0.87	12.6	7.7	< 1	< 1	1.37	3.05	0.116	< 0.878	< 5.5	< -0.00901	371985005
4/28/2015	< 1	< 1	< 1	< 1	< 1	0.906	1.78	0.0971	< -1.64	< 5.21	< -3.42	371985007
10/27/2015	< 1	< 1	< 1	< 1	< 1	1.71	4.22	0.138	< 2.02	< 3.58	< -0.265	384156007
4/13/2016	< 1	< 1	< 1	< 1	< 1	2.07	4.76	0.153	< 10	26	< -15.1	395245007

C-14

C-746-K Landfill Monitoring

Water Quality Records for

Sample Date Range: 5/31/1994 - 10/17/2019

MW344

Sample Date	Organic Laboratory Analysis Results					Inorganic Laboratory Analysis Results			Radiological Laboratory Analysis Results			Lab Sample ID
	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	
10/11/2016	< 1	< 1	< 1	< 1	< 1	1.46	3.17	0.125	< -3.18	< 0.375	< 0.299	407853007
4/6/2017	< 1	< 1	< 1	< 1	< 1	3.94	8.11	0.139	< -4.29	10.7	< 6.53	420096007
4/6/2017	< 1	< 1	< 1	< 1	< 1	3.31	6.42	0.129	< -7.42	< 2.91	< 5.27	420096005
10/6/2017	< 1	< 1	< 1	< 1	< 1	11	21.9	0.249	< 8.2	16.1	< 1.81	434592007
4/9/2018	< 1	< 1	< 1	< 1	< 1	10.8	18.4	0.182	< 10	< 7.56	< 0.551	447581005
4/9/2018	< 1	< 1	< 1	< 1	< 1	8.39	15.3	0.162	< 7.02	12.8	< 15.9	447581007
10/11/2018	< 1	< 1	< 1	< 1	< 1	3.64	6.4	0.124	< 2.55	< 5.25	< -7.53	461582007
4/2/2019	< 1	< 1	< 1	< 1	< 1	3.54	6.23	0.0902	< 5.71	< 3.96	< 11.9	475418007
10/17/2019	< 1	< 1	< 1	< 1	< 1	0.418	1.24	0.0926	< 0.0322	< 1.56	< -12.9	493426007

C-15

THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX D

**ADMINISTRATIVE RECORD,
POST-DECISION RECORD, AND ADMINISTRATIVE RECORD
REFERENCE INDICES**

THIS PAGE INTENTIONALLY LEFT BLANK

Paducah Documents Added to the Administrative Record Files-Fourth Quarter CY2019

Document Status	Document Date	Document ID	Title	Author Affiliation	To Affiliation	Name	Date Added
ARF 400OUREMEDIAL	07/25/18	DOE/LX/07-2430&D1	PADUCAH GASEOUS DIFFUSION PLANT C-400 CLEANING BUILDING BASEMENT SLAB AND SUBSURFACE STRUCTURES SAMPLING AND ANALYSIS PLAN	DOE	N/A	ENV 1.A-01843	11/13/2019
ARF 400OUREMEDIAL	10/01/19	DOE/LX/07-2433&D2, FR-20-0278	EPA APPROVAL: REMEDIAL INVESTIGATION/FEASIBILITY STUDY WORK PLAN FOR THE C-400 COMPLEX OPERABLE UNIT AT THE PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY, (DOE/LX/07-2433&D2), PRIMARY DOCUMENT, TRANSMITTAL DATED SEPTEMBER 18, 2019 (PPPO-02-5575312-19B) EPA ID KY8890008982	USEPA-4	DOE	ENV 1.A-01837	10/17/2019
ARF 400OUREMEDIAL	10/01/19	DOE/LX/07-2433&D2, FR-20-0276	CONCURRENCE WITH THE REMEDIAL INVESTIGATION/FEASIBILITY STUDY WORK PLAN FOR THE C-400 COMPLEX OPERABLE UNIT (DOE/LX/07-2433&D2)	KDEP	DOE	ENV 1.A-01836	10/17/2019
ARF 400OUREMEDIAL	11/05/19	DOE/LX/07-2430&D1, FR-20-0285	EPA REQUEST: ADDITION OF THE PADUCAH GASEOUS DIFFUSION PLANT C-400 CLEANING BUILDING BASEMENT SLAB AND SUBSURFACE STRUCTURES SAMPLING AND ANALYSIS PLAN (DOE/LX/07-2430&D1; 20180725 C-400 CONCRETE SLAB SAP D1 ER DEAC VERSION), DATED JULY 2018, TO THE DOE ADMINISTRATIVE RECORD FILE C400OUREMEDIAL. EPA ID KY8890008982	USEPA-4	DOE	ENV 1.A-01845	11/13/2019
ARF 400OUREMEDIAL	11/25/19	PPPO-02-10002572-20	NOTIFICATION OF REMEDIAL INVESTIGATION FIELD START FOR THE C-400 COMPLEX OPERABLE UNIT	DOE	KDEP, USEPA-4	ENV 1.A-01857	12/17/2019
ARF 400OUREMOVAL	10/02/19	DOE/LX/07-2425&D2, DOE/LX/07-2420&D2, PPPO-02-5786835-20	SUSPENSION OF THE D1 AND D2 COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT DOCUMENTS ASSOCIATED WITH THE C-400 CLEANING BUILDING NON-TIME-CRITICAL REMOVAL ACTION AT THE PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY	DOE	ADMINISTRATIVE RECORD FILE	ENV 1.A-01841	10/17/2019
ARF 400OUREMOVAL	10/02/19	DOE/LX/07-2425&D2, DOE/LX/07-2420&D2, FR-20-0279	EPA APPROVAL: MEMORANDUM TO ADMINISTRATIVE RECORD FILE- C400OUREMOVAL-SUSPENSION OF THE D1 AND D2 CERCLA DOCUMENTS ASSOCIATED WITH THE C-400 CLEANING BUILDING NON-TIME CRITICAL REMOVAL ACTION AT THE PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY, TRANSMITTAL DATED OCTOBER 2, 2019 (PPPO-02-5786835-20)	USEPA-4	DOE	ENV 1.A-01838	10/17/2019
ARF 400OUREMOVAL	10/07/19	DOE/LX/07-2425&D2, DOE/LX/07-2420&D2, FR-20-0281	KENTUCKY APPROVAL OF THE FINAL MEMORANDUM REGARDING THE SUSPENSION OF THE D1 AND D2 COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT (CERCLA) DOCUMENTS ASSOCIATED WITH THE C-400 CLEANING BUILDING NON-TIME-CRITICAL REMOVAL ACTION	KDEP	DOE	ENV 1.A-01839	10/17/2019
ARF NWP PT	01/27/11	DOE/LX/07-0343&D2	[EPA'S APPROVAL] EXPLANATION OF SIGNIFICANT DIFFERENCES TO THE RECORD OF DECISION FOR THE INTERIM REMEDIAL ACTION OF THE NORTHWEST PLUME AT THE PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY DOE/LX/07-0343&D2	USEPA-4	DOE	ENV 1.A-01850	11/18/2019
ARF NWP PT	01/27/11	DOE/LX/07-0343&D2	[FINAL] EXPLANATION OF SIGNIFICANT DIFFERENCES TO THE RECORD OF DECISION FOR THE INTERIM REMEDIAL ACTION OF THE NORTHWEST PLUME AT THE PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY DOE/LX/07-0343&D2	DOE, USEPA-4, KDEP	N/A	ENV 1.A-01851	11/18/2019

D-3

Paducah Documents Added to the Post-Decision Files-Fourth Quarter CY2019

Document Status	Document Date	Document ID	Title	Author Affiliation	To Affiliation	Name	Date Added
NSDD-PD	09/01/19	09012019 NSDD-PD	C-400 WALKTHROUGH CHECKLIST-NORTH-SOUTH DIVERSION DITCH	FRNP	N/A	ENV 1.A-01835	10/17/2019
SWP-PD	11/07/19	PPPO-02-10001066-20B, DOE/LX/07-2435&D1	TRANSMITTAL OF THE 90% REMEDIAL DESIGN REPORT FOR SWMU 211-A FOR VOLATILE ORGANIC COMPOUND SOURCES TO THE SOUTHWEST GROUNDWATER PLUME AT THE PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY (DOE/LX/07-2435&D1)	DOE	KDEP, USEPA-4	ENV 1.A-01854	12/17/2019
SWP-PD	12/05/19	PPPO-02-10001265-20B, DOE/LX/07-2443&D1	TRANSMITTAL OF THE REMEDIAL ACTION WORK PLAN FOR SWMU 211-A ENHANCED IN SITU BIOREMEDIATION FOR VOLATILE ORGANIC COMPOUND SOURCES TO THE SOUTHWEST GROUNDWATER PLUME AT THE PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY (DOE/LX/07-2443&D1)	DOE	KDEP, USEPA-4	ENV 1.A-01855	12/17/2019
SWP-PD	12/05/19	FR-20-0295, DOE/LX/07-2435&D1	RE: U.S. ENVIRONMENTAL PROTECTION AGENCY COMMENTS FOR THE 90% REMEDIAL DESIGN REPORT FOR SWMU 211-A TO REMEDIATE VOLATILE ORGANIC COMPOUND SOURCES TO THE SOUTHWEST GROUNDWATER PLUME AT THE PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY, PRIMARY DOCUMENT (DOE/LX/07-2435&D1), TRANSMITTAL DATE OF NOVEMBER 7, 2019	USEPA-4	DOE	ENV 1.A-01852	12/17/2019
SWP-PD	12/06/19	FR-20-0296, DOE/LX/07-2435&D1	APPROVAL OF THE 90% REMEDIAL DESIGN REPORT FOR SWMU 211-A FOR VOLATILE ORGANIC COMPOUND SOURCES TO THE SOUTHWEST GROUNDWATER PLUME AT THE PADUCAH GASEOUS DIFFUSION PLANT (DOE/LX/07-2435&D1)	KDEP	DOE	ENV 1.A-01853	12/17/2019

D-4

Paducah Documents Added to the Administrative Record Reference Files-Fourth Quarter CY2019

Document Status	Document Date	Document ID	Title	Author Affiliation	To Affiliation	Name	Date Added
ARF ARR	09/19/19	DOE/LX/07-2418&D2/R2, PPPO-02-5767844-19	PADUCAH FEDERAL FACILITY AGREEMENT MODIFICATION-FISCAL YEAR 2018 AND FISCAL YEAR 2019 SITE MANAGEMENT PLAN, ENFORCEABLE COMMITMENTS, AND LIST OF SOLID WASTE MANAGEMENT UNITS/AREAS OF CONCERN	DOE	USEPA-4, KDEP	ENV 1.A-01840	10/17/2019
ARF ARR	09/01/19	DOE/OR/07-1707, PRS-035	FEDERAL FACILITY AGREEMENT FOR THE PADUCAH GASEOUS DIFFUSION PLANT DOE/OR/07-1707; PRS-035 SEPTEMBER 2019	DOE, KDEP, USEPA-4	N/A	ENV 1.A-01844	11/13/2019
ARF ARR	10/08/19	PPPO-02-5768919-20	PADUCAH FEDERAL FACILITY AGREEMENT BUDGET NOTIFICATION-CONTINUING RESOLUTION	DOE	USEPA-4, KDEP	ENV 1.A-01846	11/13/2019
ARF ARR	10/25/19	PPPO-02-10001241-20	PADUCAH FEDERAL FACILITY AGREEMENT SIGNED MODIFICATION-FISCAL YEAR 2018 AND FISCAL YEAR 2019 SITE MANAGEMENT PLAN, ENFORCEABLE COMMITMENTS, AND LIST OF SOLID WASTE MANAGEMENT UNITS/AREAS OF CONCERN	DOE	USEPA-4, KDEP	ENV 1.A-01847	11/13/2019
ARF ARR	11/15/19	PPPO-02-10002467-20, DOE/LX/07-2444&D1	TRANSMITTAL OF THE D1 SITE MANAGEMENT PLAN, PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY, ANNUAL REVISION-FY 2020 (DOE/LX/07-2444&D1)	DOE	KDEP, USEPA-4	ENV 1.A-01856	12/17/2019

D-5

**Paducah Documents Added to the Administrative
Record Files-First Quarter CY2020**

No Additions Made.

Paducah Documents Added to the Post-Decision Files-First Quarter CY2020

Document Status	Document Date	Document ID	Title	Author Affiliation	To Affiliation	Name	Date Added
1/7-PD	1/15/2020	FR-20-0320	AREAS OF THE FORMER KENTUCKY ORDNANCE WORKS (KOW) FACILITY CURRENTLY ON DEPARTMENT OF ENERGY PROPERTY WITH SOLID WASTE MANAGEMENT UNIT (SWMU) DESIGNATIONS FORMER KENTUCKY ORDNANCE WORKS (KOW) PADUCAH - MCCRACKEN COUNTY AGENCY INTEREST AI 51957	KDEP	COE, DOE	INF-RECMGMT-FR-20-0320-FORMER KOW FACILITY ON DOE PROPERTY-2020-01-15	2/13/2020
C400SOURCE-PD	05/01/06	DOE/OR/07-2151&D1, DOE/OR/07-2214&D2	LAND USE CONTROL IMPLEMENTATION PLAN: INTERIM REMEDIAL ACTION FOR THE GROUNDWATER OPERABLE UNIT FOR THE VOLATILE ORGANIC COMPOUND CONTAMINATION AT THE C-400 CLEANING BUILDING (DOE/OR/07-2151&D1) AND THE REMEDIAL DESIGN WORK PLAN FOR THE INTERIM REMEDIAL ACTION FOR THE VOLATILE ORGANIC COMPOUND CONTAMINATION AT THE C-400 CLEANING BUILDING (DOE/OR/07-2214&D2) AT THE PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY	USEPA-4	DOE, BJC	INF-RECMGMT-LUCIP IRA GWOU VOCC AT C-400 2151D1 & RDWP IRA VOCC C-400 2214D2-2006-05-01	3/17/2020
NSDD-PD	10/01/19	20191001 NSDD-PD	WINTERIZATION CHECKLIST-NORTH-SOUTH DIVERSION (WEEKLY)-OCTOBER	FRNP	N/A	INF-RECMGMT-20191001 NSDD-PD-WINTERIZATION CHECKLIST N-S DIVERSION OCTOBER-2019-10-1	1/16/2020
NSDD-PD	10/03/19	20191003 NSDD-PD	WINTERIZATION CHECKLIST-NORTH-SOUTH DIVERSION (WEEKLY AND STORM EVENT)-OCTOBER	FRNP	N/A	INF-RECMGMT-20191003 NSDD-PD-WINTERIZATION CHECKLIST N-S DIVERSION OCTOBER-2019-10-3	1/16/2020
NSDD-PD	11/06/19	20191113 NSDD-PD	WINTERIZATION CHECKLIST-NORTH-SOUTH DIVERSION (WEEKLY)-NOVEMBER	FRNP	N/A	INF-RECMGMT-20191113 NSDD-PD-WINTERIZATION CHECKLIST N-S DIVERSION NOVEMBER-2019-11-6	1/16/2020

D-7

Paducah Documents Added to the Post-Decision Files-First Quarter CY2020

Document Status	Document Date	Document ID	Title	Author Affiliation	To Affiliation	Name	Date Added
NSDD-PD	11/6/2019	20191106 NSDD-PD	WINTERIZATION CHECKLIST-NORTH-SOUTH DIVERSION (WEEKLY, QUARTERLY, AND STORM EVENT)-NOVEMBER	FRNP	N/A	INF-RECMGMT-20191106 NSDD-PD-WINTERIZATION CHECKLIST N-S DIVERSION NOVEMBER-2019-11-6	1/16/2020
NSDD-PD	12/4/2019	20191204 NSDD-PD	WINTERIZATION CHECKLIST-NORTH-SOUTH DIVERSION (WEEKLY)-DECEMBER	FRNP	N/A	INF-RECMGMT-20191204 NSDD-PD-WINTERIZATION CHECKLIST N-S DIVERSION DECEMBER-2019-12-4	1/16/2020
NSDD-PD	12/5/2019	20191205 NSDD-PD	WINTERIZATION CHECKLIST-NORTH-SOUTH DIVERSION (WEEKLY AND STORM EVENT)-DECEMBER	FRNP	N/A	INF-RECMGMT-20191205 NSDD-PD-WINTERIZATION CHECKLIST N-S DIVERSION DECEMBER-2019-12-5	1/16/2020
NSDD-PD	01/02/20	N/A	CP4-ES-0041-F20-WINTERIZATION CHECKLIST-NORTH-SOUTH DIVERSION DITCH (WEEKLY)	FRNP	N/A	INF-RECMGMT-WINTERIZATION CHECKLIST N-S DIVERSION DITCH-2020-1-2	3/4/2020
NSDD-PD	01/09/20	N/A	CP4-ES-0041-F03 - WALKTHROUGH CHECKLIST - NORTH-SOUTH DIVERSION DITCH (WEEKLY)	FRNP	N/A	INF-RECMGMT-C400 NSDD INSPECTIONS JANUARY 2020-2020-01-01	3/4/2020
SWP-PD	01/06/16	N/A	QUARTERLY SOUTHWEST PLUME SWMU INSPECTIONS FOR SWMU 1 AND 211 A&B--JANUARY 2016	FRNP	DOE	INF-RECMGMT-SOUTHWEST PLUME INSPECTIONS JAN 2016-2016-01-06	1/27/2020
SWP-PD	12/14/17	N/A	QUARTERLY SOUTHWEST PLUME SWMU INSPECTIONS--DECEMBER 2017	FRNP	DOE	INF-RECMGMT-SOUTHWEST PLUME INSPECTIONS DEC 2017-2017-12-14	1/27/2020

D-8

Paducah Documents Added to the Post-Decision Files-First Quarter CY2020

Document Status	Document Date	Document ID	Title	Author Affiliation	To Affiliation	Name	Date Added
SWP-PD	03/15/18	N/A	QUARTERLY SOUTHWEST PLUME SWMU INSPECTIONS FOR SWMU 1 AND SWMU 211 A&B--MARCH 2018	FRNP	DOE	INF-RECMGMT-SOUTHWEST PLUME INSPECTIONS MARCH 2018-2018-03-15	1/27/2020
SWP-PD	06/07/18	N/A	QUARTERLY SOUTHWEST PLUME SWMU INSPECTIONS-- JUNE 2018	FRNP	DOE	INF-RECMGMT-SOUTHWEST PLUME INSPECTIONS JUNE 2018-2018-06-07	1/27/2020
SWP-PD	9/10/2018	N/A	QUARTERLY SOUTHWEST PLUME SWMU INSPECTIONS FOR SWMU 1 AND SWMU 211 A&B--SEPTEMBER 2018	FRNP	DOE	INF-RECMGMT-SOUTHWEST PLUME INSPECTIONS SEPT 2018-2018-09-10	1/27/2020
SWP-PD	11/01/18	N/A	QUARTERLY SOUTHWEST PLUME SWMU INSPECTIONS FOR SWMU 1 AND SWMU 211 A&B--NOVEMBER 2018	FRNP	DOE	INF-RECMGMT-SOUTHWEST PLUME INSPECTIONS NOV 2018-2018-11-01	1/27/2020
SWP-PD	03/28/19	N/A	QUARTERLY SOUTHWEST PLUME SWMU INSPECTIONS FOR C-747-C AND SWMU 211 A&B--MARCH 2019	FRNP	DOE	INF-RECMGMT-SOUTHWEST PLUME INSPECTIONS MARCH 2019-2019-03-28	1/27/2020
SWP-PD	06/12/19	N/A	QUARTERLY SOUTHWEST PLUME SWMU INSPECTIONS FOR SWMU 1 AND SWMU 211 A&B--JUNE 2019	FRNP	DOE	INF-RECMGMT-SOUTHWEST PLUME INSPECTIONS JUNE 2019-2019-06-12	1/27/2020
SWP-PD	09/30/19	N/A	QUARTERLY SOUTHWEST PLUME SWMU INSPECTIONS FOR SWMU 1 AND SWMU 211 A&B--SEPTEMBER 2019	FRNP	DOE	INF-RECMGMT-SOUTHWEST PLUME INSPECTIONS SEPT 2019-2019-09-30	1/27/2020
SWP-PD	12/12/19	N/A	QUARTERLY SOUTHWEST PLUME SWMU INSPECTIONS FOR SWMU 1 AND SWMU 211 A&B--DECEMBER 2019	FRNP	DOE	INF-RECMGMT-SOUTHWEST PLUME INSPECTIONS DEC 2019-2019-12-12	1/27/2020

D-9

Paducah Documents Added to the Post-Decision Files-First Quarter CY2020

Document Status	Document Date	Document ID	Title	Author Affiliation	To Affiliation	Name	Date Added
SWP-PD	12/19/19	PPPO-02-10002809-20, DOE/LX/07-2435&D2	TRANSMITTAL OF THE CERTIFIED FOR CONSTRUCTION REMEDIAL DESIGN REPORT FOR SWMU 211-A FOR VOLATILE ORGANIC COMPOUND SOURCES TO THE SOUTHWEST GROUNDWATER PLUME AT THE PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY (DOE/LX/07-2435&D2)	DOE	KDEP, USEPA-4	INF-RECMGMT-PPPO-02-10002809-20-TRANSMITTAL OF CFC RDR FOR SWMU 211-A VOC-2019-12-19	1/16/2020
SWP-PD	12/20/19	FR-20-0300, DOE/LX/07-2435&D2	APPROVAL OF THE 100% REMEDIAL DESIGN REPORT FOR SWMU 211-A FOR VOLATILE ORGANIC COMPOUND SOURCES TO THE SOUTHWEST GROUNDWATER PLUME AT THE PADUCAH GASEOUS DIFFUSION PLANT (DOE/LX/07-2435&D2)	KDEP	DOE	INF-RECMGMT-FR-20-0300-APPROVAL OF 100 RDR FOR SWMU 211-A VOC-2019-12-20	1/16/2020
SWP-PD	12/23/19	FR-20-0301, DOE/LX/07-2435&D2	U.S. ENVIRONMENTAL PROTECTION AGENCY CONCURRENCE WITH THE CERTIFIED FOR CONSTRUCTION REMEDIAL DESIGN REPORT FOR SWMU 211-A, TO REMEDIATE VOLATILE ORGANIC COMPOUND SOURCES TO THE SOUTHWEST GROUNDWATER PLUME AT THE PADUCAH GASEOUS DIFFUSION PLANT PADUCAH KENTUCKY, PRIMARY DOCUMENT (DOE/LX/07-2435&D2), TRANSMITTAL DATE OF DECEMBER 19, 2019	USEPA-4	DOE	INF-RECMGMT-FR-20-0301-APPROVAL OF RDR FOR SWMU 211-A VOC-2019-12-23	1/16/2020
SWP-PD	01/06/20	FR-20-0305, DOE/LX/07-2443&D1	NOTIFICATION FOR U.S. EPA COMMENTS: REMEDIAL ACTION WORK PLAN FOR SWMU 211-A ENHANCED IN SITU BIOREMEDIATION FOR VOLATILE ORGANIC COMPOUND SOURCES TO THE SOUTHWEST GROUNDWATER PLUME AT THE PADUCAH SITE, PADUCAH, KENTUCKY (DOE/LX/07-2443&D1), PRIMARY DOCUMENT, TRANSMITTAL DATE DECEMBER 5, 2019 (PPPO-02-10001265-20B)	USEPA-4	DOE	INF-RECMGMT-FR-20-0305-EPA NOTIFICATION OF EXTENSION OF COMMENTS RAWP FOR SWMU 211-A VOC-2020-1-6	1/16/2020
SWP-PD	01/06/20	FR-20-0304, DOE/LX/07-2443&D1	NOTIFICATION OF EXTENSION FOR SUBMITTAL OF COMMENTS TO THE REMEDIAL ACTION WORK PLAN FOR SWMU 211-A ENHANCED IN SITU BIOREMEDIATION FOR VOLATILE ORGANIC COMPOUND SOURCES TO THE SOUTHWEST GROUNDWATER PLUME (DOE/LX/07-2443&D1)	KDEP	DOE	INF-RECMGMT-FR-20-0304-KY NOTIFICATION OF EXTENSION OF COMMENTS RAWP FOR SWMU 211-A VOC-2020-1-6	1/16/2020
SWP-PD	01/30/20	PPPO-02-10003056-20, DOE/LX/07-2443&D1	PADUCAH FEDERAL FACILITY AGREEMENT-MILESTONE MODIFICATION FOR THE GROUNDWATER OPERABLE UNIT SOUTHWEST PLUME SOURCES DOCUMENTS	DOE	KDEP, USEPA-4	INF-RECMGMT-PPPO-02-10003056-20-FFA AGREEMENT MILESTONE MOD GWOU SW PLUME-2020-01-30	2/13/2020

D-10

Paducah Documents Added to the Post-Decision Files-First Quarter CY2020

Document Status	Document Date	Document ID	Title	Author Affiliation	To Affiliation	Name	Date Added
SWP-PD	01/31/20	FR-20-0324, DOE/LX/07-2443&D1	SUBMITTAL OF KENTUCKY COMMENTS TO THE REMEDIAL ACTION WORK PLAN FOR SWMU 211-A ENHANCED IN SITU BIOREMEDIATION FOR VOLATILE ORGANIC COMPOUND SOURCES TO THE SOUTHWEST GROUNDWATER PLUME AT THE PADUCAH GASEOUS DIFFUSION PLANT (DOE/LX/07-2443&D1)	KDEP	DOE	INF-RECMGMT-FR-20-0324-KY COMMENTS TO RAWP FOR SWMU 211-A VOC SW GW PLUME-2020-01-31	2/13/2020
SWP-PD	1/31/2020	FR-20-0323, DOE/LX/07-2443&D1	U.S. ENVIRONMENTAL PROTECTION AGENCY COMMENTS FOR THE REMEDIAL ACTION WORK PLAN FOR SWMU 211-A ENHANCED IN SITU BIOREMEDIATION FOR VOLATILE ORGANIC COMPOUND SOURCES TO THE SOUTHWEST GROUNDWATER PLUME AT THE PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH KENTUCKY, PRIMARY DOCUMENT (DOE/LX/07-2443&D1), TRANSMITTAL DATE OF DECEMBER 5 2019	USEPA-4	DOE	INF-RECMGMT-FR-20-0323-EPA COMMENTS FOR RAWP SWMU 211-A VOC-2020-01-31	2/13/2020
SWP-PD	02/14/20	PPPO-02-10003261-20, DOE/LX/07-2443&D1	PADUCAH FEDERAL FACILITY AGREEMENT-SIGNED MILESTONE MODIFICATION FOR THE GROUNDWATER OPERABLE UNIT SOUTHWEST PLUME SOURCES	DOE	KDEP, USEPA-4	INF-RECMGMT-PPPO-02-10003261-20-FFA SIGNED MILESTONE MOD GWOU SW PLUME-2020-02-14	3/4/2020
SWP-PD	02/26/20	PPPO-02-10004387-20, DOE/LX/07-2443&D2	NOTIFICATION OF SCHEDULE EXTENSION FOR SUBMITTAL OF THE D2 REMEDIAL ACTION WORK PLAN FOR SWMU 211-A ENHANCED IN SITU BIOREMEDIATION FOR VOLATILE ORGANIC COMPOUND SOURCES TO THE SOUTHWEST GROUNDWATER PLUME AT THE PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY (DOE/LX/07-2443&D2)	DOE	KDEP, USEPA-4	INF-RECMGMT-PPPO-02-10004387-20-SCHEDULE EXTENSION D2 RAWP SWMU 211-A VOC-2020-02-26	3/4/2020
WP-PD	12/22/15	N/A	FISCAL YEAR 2016 INFORMATIONAL BROCHURE-DOE WATER POLICY RESIDENT	DOE	RESIDENT	INF-RECMGMT-FY16 WATER POLICY MAILER-2015-12-22	2/25/2020
WP-PD	03/28/17	N/A	FISCAL YEAR 2017 INFORMATIONAL BROCHURE-DOE WATER POLICY RESIDENT	DOE	RESIDENT	INF-RECMGMT-FY17 WATER POLICY MAILER-2017-03-28	2/25/2020
WP-PD	02/01/18	N/A	FISCAL YEAR 2018 INFORMATIONAL BROCHURE-DOE WATER POLICY RESIDENT	DOE	RESIDENT	INF-RECMGMT-FY18 WATER POLICY MAILER-2018-02-01	2/25/2020
WP-PD	01/17/19	N/A	FISCAL YEAR 2019 INFORMATIONAL BROCHURE-DOE WATER POLICY RESIDENT	DOE	RESIDENT	INF-RECMGMT-FY19 WATER POLICY MAILER-2019-01-17	2/25/2020

D-11

Paducah Documents Added to the Administrative Record Reference Files-First Quarter CY2020

Document Status	Document Date	Document ID	Title	Author Affiliation	To Affiliation	Name	Date Added
ARF ARR	02/12/20	PPPO-02-10003268-20, DOE/LX/07-244&D2	NOTIFICATION OF SCHEDULE EXTENSION FOR SUBMITTAL OF THE D2 FISCAL YEAR 2020 SITE MANAGEMENT PLAN, PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY (DOE/LX/07-2444&D2)	DOE	KDEP, USEPA-4	INF-RECMGMT-PPPO-02-10003268-20-SCHEDULE EXTENSION D2 FY20 SMP-2020-02-12	3/4/2020
ARF ARR	02/19/20	PPPO-02-10002977-20	PADUCAH FEDERAL FACILITY AGREEMENT FISCAL YEAR 2021 PRESIDENT'S BUDGET	DOE	KDEP, USEPA-4	INF-RECMGMT-PPPO-02-10002977-20-FFA FY21 PRESIDENTS BUDGET-2020-02-19	3/4/2020
ARF ARR	02/14/20	PPPO-02-10002975-20	PADUCAH FEDERAL FACILITY AGREEMENT DRAFT INTEGRATED PRIORITY LIST AND ASSESSMENT OF BUDGET TARGETS ON SITE PRIORITIES-FISCAL YEAR 2022	DOE	KDEP, USEPA-4	INF-RECMGMT-PPPO-02-10002975-20-FFA DRAFT IPL & BUDGET TARGETS ON SITE PRIORITIES FY22-2020-02-14	3/4/2020
ARF ARR	02/06/20	N/A	EPA COMMENTS ON: SITE MANAGEMENT PLAN, ANNUAL REVISION - FISCAL YEAR 2020, PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY (DOE/LX/07-2444&D1), PRIMARY DOCUMENT, TRANSMITTAL DATED NOVEMBER 15, 2019 (PPPO-02-10002467-20)	USEPA-4	DOE	INF-RECMGMT-FR-20-0326-EPA COMMENTS 2020 SMP-2020-02-06	3/4/2020
ARF ARR	02/05/20	FR-20-0325, DOE/LX/07-2444&D1	SUBMITTAL OF COMMENTS TO THE 2020 SITE MANAGEMENT PLAN (DOE/LX/07-2444&D1)	KDEP	DOE	INF-RECMGMT-FR-20-0325-KY COMMENTS 2020 SMP-2020-02-05	3/4/2020
ARF ARR	01/22/20	FR-20-0321, DOE/LX/07-2444&D1	U.S. EPA EXTENSION REQUEST FOR COMMENTS ON THE DRAFT FISCAL YEAR 2020 SITE MANAGEMENT PLAN (DOE/LX/07-2444&D1), PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY EPA ID KY8890008982	USEPA-4	DOE	INF-RECMGMT-FR-20-0321-EPA EXTENSION OF COMMENTS 2020 SMP-2020-01-22	2/13/2020
ARF ARR	01/15/20	FR-20-0317, DOE/LX/07-2444&D1	EXTENSION REQUEST FOR SUBMITTAL OF COMMENTS TO THE 2020 SITE MANAGEMENT PLAN (DOE/LX/07-2444&D1)	KDEP	DOE	INF-RECMGMT-FR-20-0317-KY EXTENSION OF COMMENTS 2020 SMP-2020-01-15	2/13/2020

D-12

Paducah Documents Added to the Administrative Record Reference Files-First Quarter CY2020

Document Status	Document Date	Document ID	Title	Author Affiliation	To Affiliation	Name	Date Added
ARF ARR	12/09/19	PPPO-02-10002549-20	PADUCAH FEDERAL FACILITY AGREEMENT BUDGET NOTIFICATION-CONTINUING RESOLUTION	DOE	KDEP, USEPA-4	INF-RECMGMT-PPPO-02-10002549-20-FFA BUDGET NOTIFICATION CONTINUING RESOLUTION-2019-12-9	1/16/2020
ARF ARR	12/13/19	FR-20-0299, DOE/LX/07-2444&D1	NOTIFICATION OF EXTENSION FOR SUBMITTAL OF COMMENTS TO THE 2020 SITE MANAGEMENT PLAN (DOE/LX/07-2444&D1)	KDEP	DOE	INF-RECMGMT-FR-20-0299-KY NOTIFICATION OF EXTENSION OF COMMENTS 2020 SMP-2019-12-13	1/16/2020

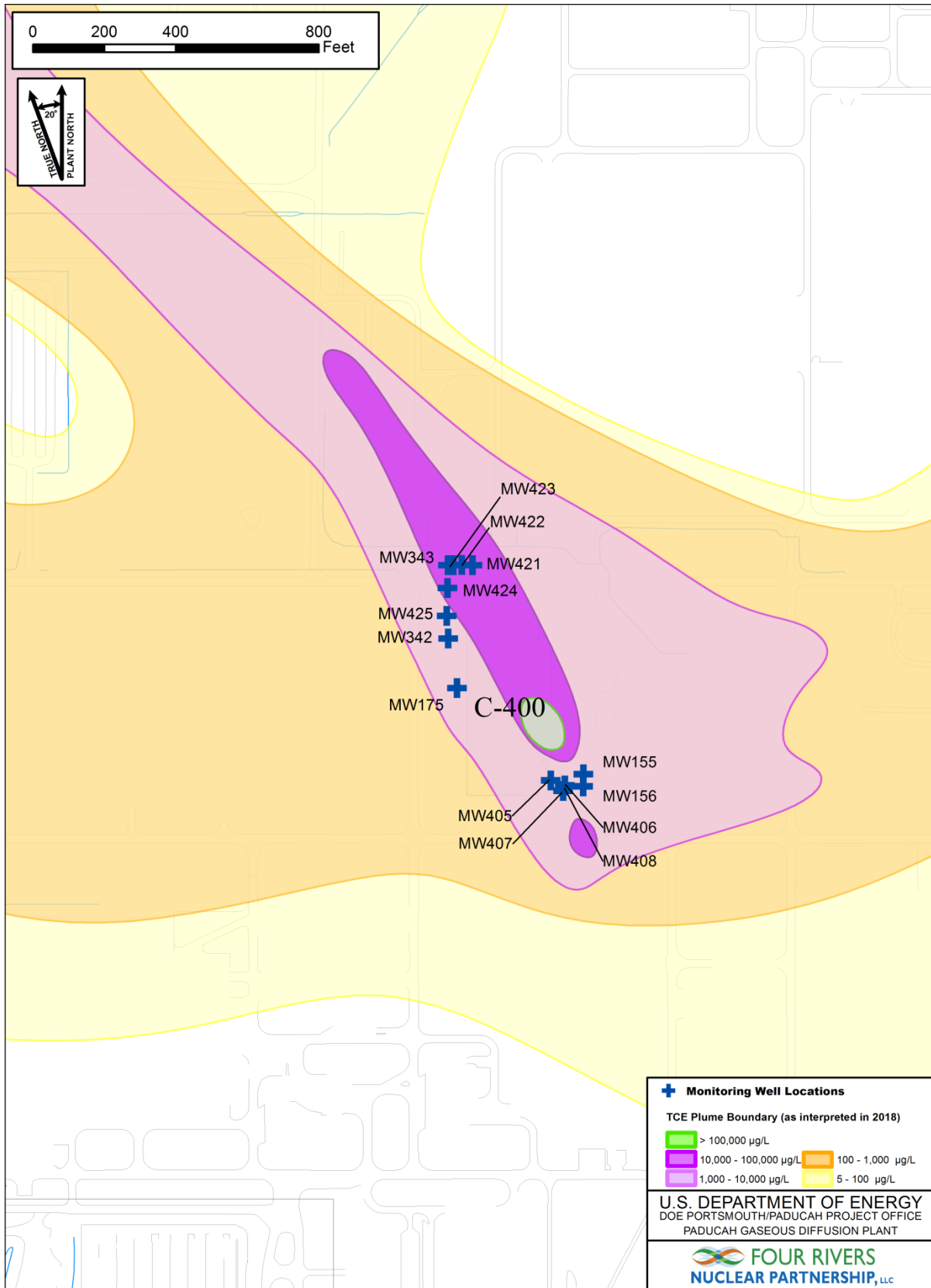
D-13

THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX E

C-400 PROJECT GROUNDWATER MONITORING WELLS DATA

THIS PAGE INTENTIONALLY LEFT BLANK



G:\GIS\ARCVIEWS\PROJECTS\IFFA SemiAnnual\2019\0923_400.mxd
9/23/2019

Figure E.1. C-400 Monitoring Wells

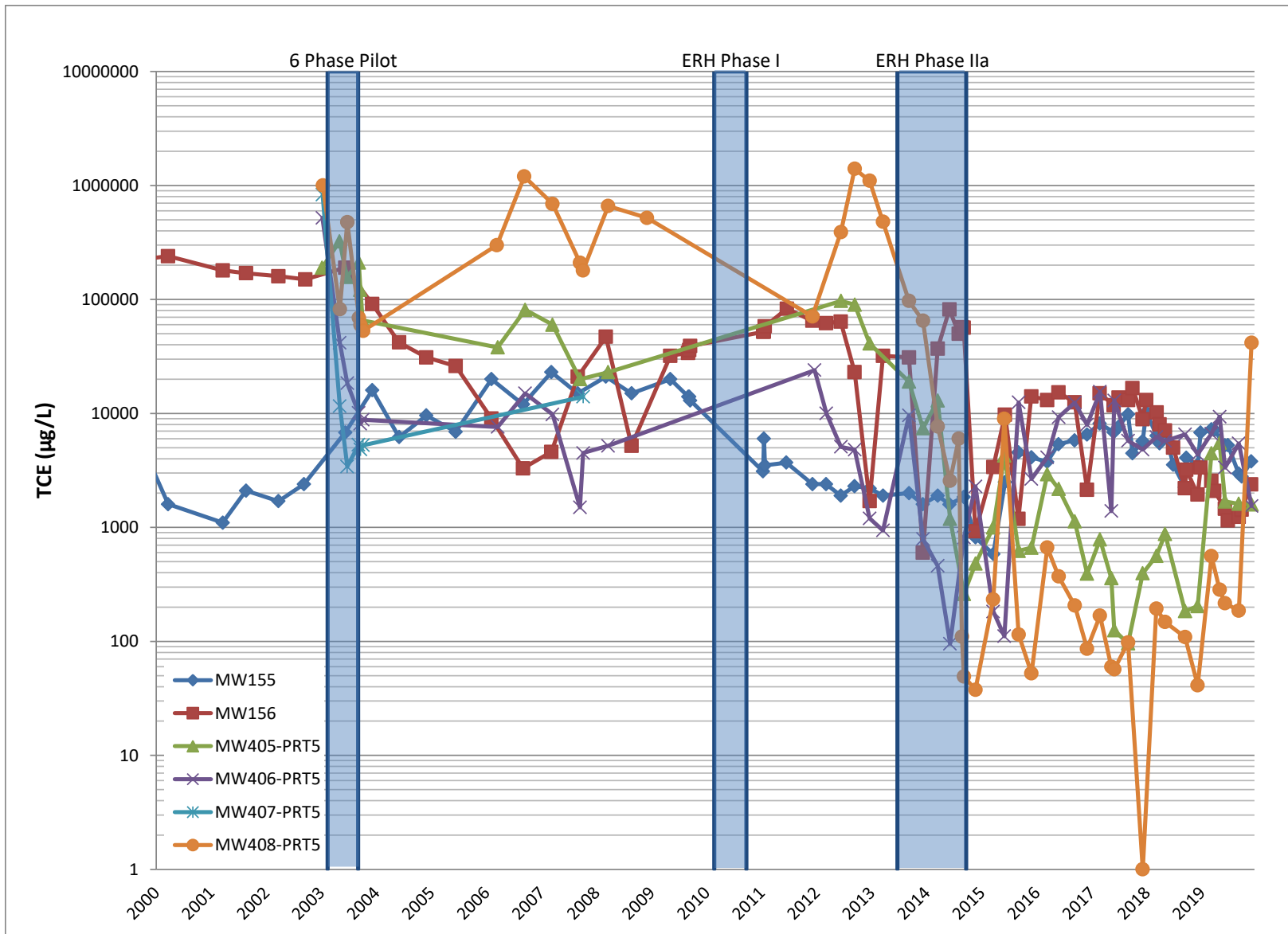


Figure E.2. C-400 TCE Trends in MWs in Source Areas

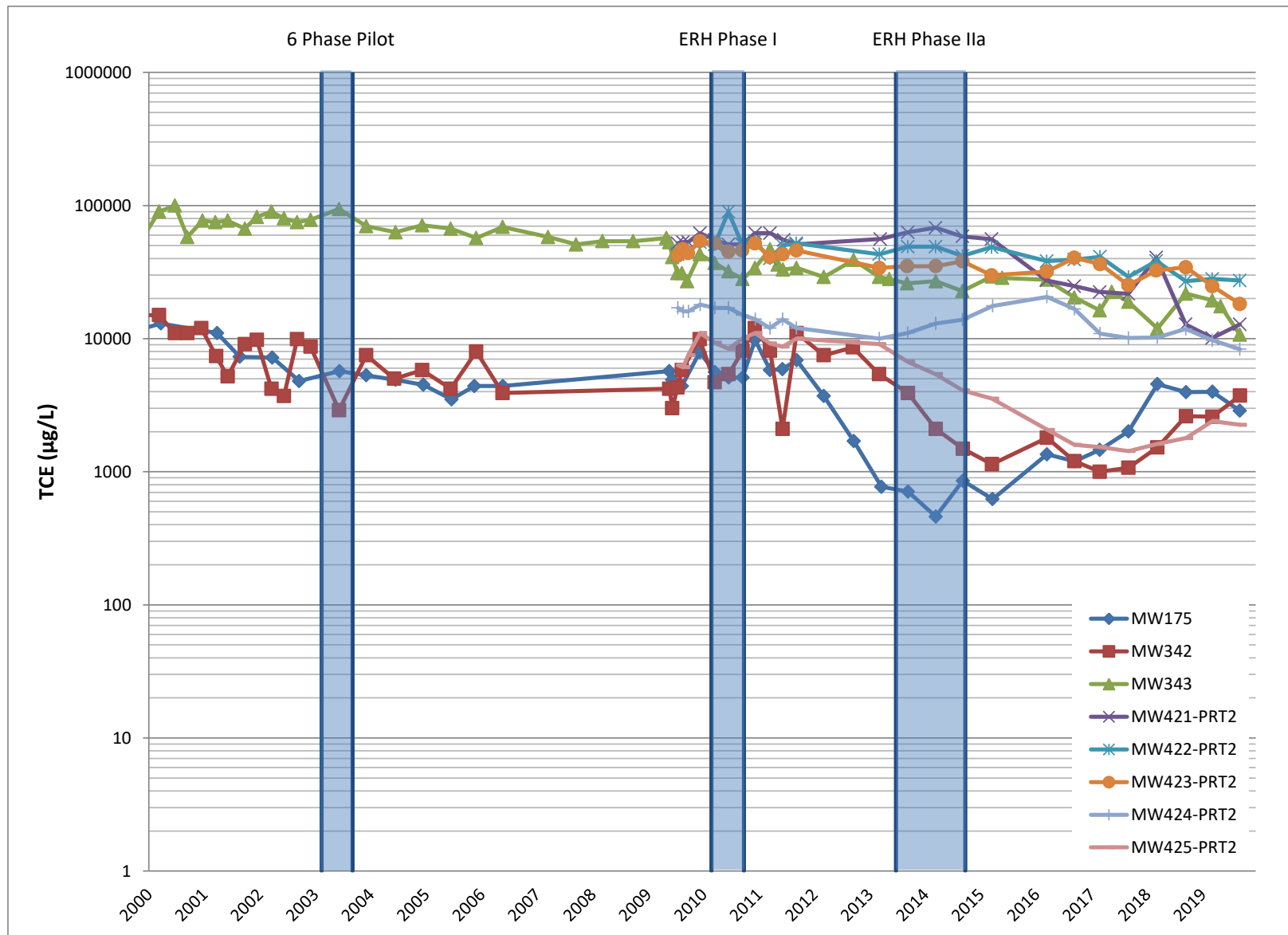


Figure E.3. C-400 TCE Trends in MWs Downgradient of Source Areas

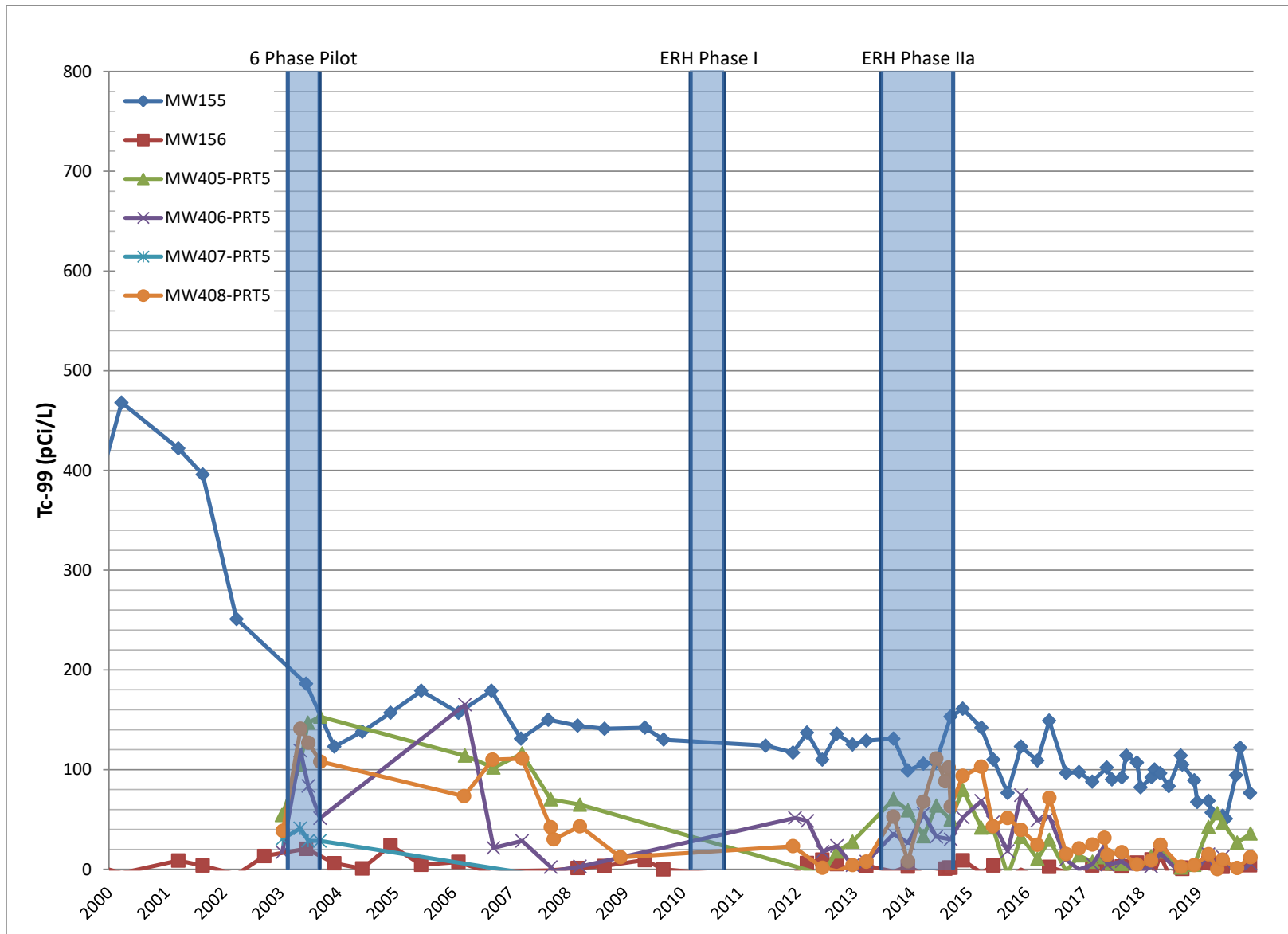


Figure E.4. C-400 Tc-99 Trends in MWs in Source Areas

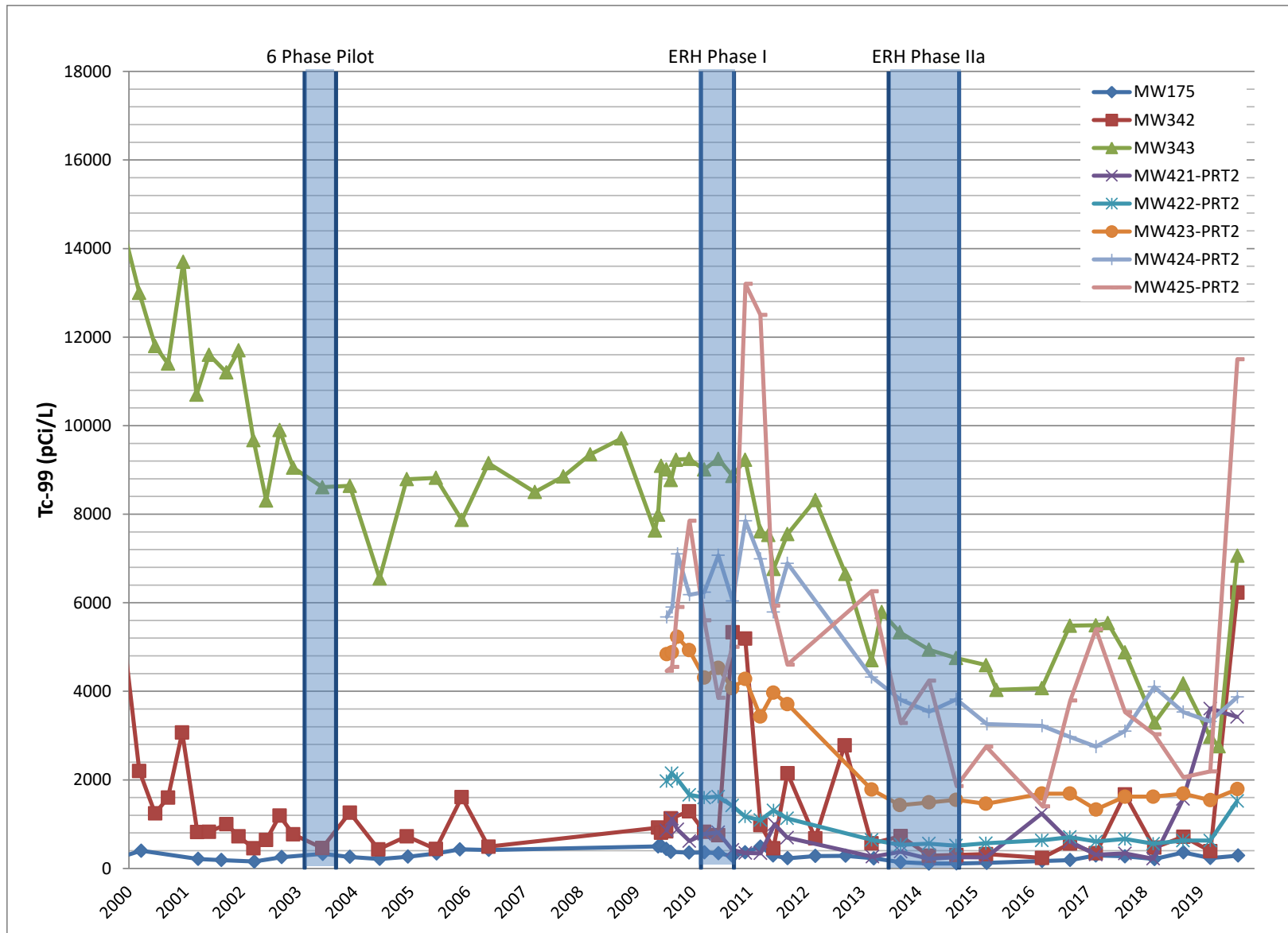


Figure E.5. C-400 Tc-99 Trends in MWs Downgradient of Source Areas

C-400 Monitoring
Water Quality Records for
MW155

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results								Lab Sample ID
	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	
9/10/2009	14000	< 200	< 200	< 200	< 200	< 1.12	93.2	130	< 0.005									C09253025001
9/10/2009	14000	< 1000			< 1000													C09254002003
9/15/2009	14000	< 500			< 500													C09258030001
9/22/2009	13000	< 500			< 500													C09265022002
1/19/2011	3100	< 25			< 25					< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	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	< 0.005									C11174017005
12/14/2011	2400	< 500			< 100	< 3.61	111	117	< 0.005									C11348018003
3/13/2012	2400	< 50			< 50	< 2.35	89.7	137	< 0.005									C12073014001
6/19/2012	1900	< 250			< 50	6.46	121	110	< 0.005									C12171014003
9/19/2012	2300	< 20			< 20	< 3.19	131	136	< 0.005									C12263022001
12/28/2012	2200	< 20			< 20			120										C12363012002
12/28/2012	2200	< 20			< 20			125										C12363012001
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

18

C-400 Monitoring
Water Quality Records for
MW155

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal Uranium mg/L	Polychlorinated biphenyl Analysis Results							Lab Sample ID
	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		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	
9/15/2014	1850	0.44			0.31			153									356931002
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
6/6/2016	5370	< 100			< 100			149									398881002
9/21/2016	5800	< 100			< 100			96.7									406611002
12/13/2016	6320	< 100			< 100			97.5									412748002
12/13/2016	6520	< 100			< 100			88									412748003
3/7/2017	8160	< 100			< 100			87.9									418299002
6/8/2017	6840	< 100			< 100			102									425123001
7/11/2017	7650	< 100			< 100			90.1									427964006
9/12/2017	9830	< 200			< 200			92.2									432724002
10/11/2017	4130	< 50			< 50			113									435057003
10/11/2017	4470	< 100			< 100			114									435057002
12/18/2017	5260	< 100			< 100			87.5									440362002
12/18/2017	5720	< 100			< 100			107									440362003

E-9

C-400 Monitoring
Water Quality Records for
MW155

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results							Lab Sample ID	
	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
1/10/2018	10300	< 200						82.1										441541002
3/21/2018	6370	< 100			< 100			92.3										446475002
4/9/2018	5450	< 100						100										447628003
5/15/2018	6950	< 100			< 100			96.3										450363001
7/9/2018	3550	< 200						83.2										454258002
9/24/2018	2250	< 50			< 50			114										460260001
10/4/2018	4080	< 50						105										461079003
10/4/2018	3970	< 50						103										461079002
12/18/2018	3550	< 50			< 50			89.2										467410001
12/18/2018	3530	< 50			< 50			86.1										467410002
1/7/2019	6800	< 100						67.5										468221001
3/20/2019	7230	< 100			< 100			68.7										474242002
4/8/2019	7160	< 100						56.8										475898002
6/18/2019	5240	< 100			< 100			53.7										482490001
7/8/2019	5260	< 100						50.7										484303002
9/11/2019								94.3										490247001
9/17/2019	2970	< 50			< 50													490762001
10/7/2019	2780	< 100						122										492544002
10/7/2019	2790	< 100						112										492544003
12/10/2019	3790	1.11			0.34			76.5										498960002

E-10

C-400 Monitoring
Water Quality Records for
MW156

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results								Lab Sample ID
	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	
9/8/2009	34000	< 2000	< 2000	< 2000	< 2000	< 3.89	4.01	< 0.0531	< 0.005									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					< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	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	< 0.005									C11178014001
12/14/2011	65000	< 5000			< 1000	< 2.55	7.54	< -5.13	< 0.005									C11348018004
3/13/2012	62000	< 2000			< 2000	6.83	< 4.93	< 6.21	< 0.005									C12073014002
6/19/2012	64000	< 5000			< 1000	< 6.32	< 6.31	< 9.77	< 0.005									C12171014004
9/19/2012	23000	< 500			< 500	< 3.24	< 5.54	< 5.12	< 0.005									C12263022002
12/28/2012	1700	< 500			< 500			< -0.798										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			< 0.723										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

E-11

C-400 Monitoring
Water Quality Records for
MW156

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results							Lab Sample ID	
	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
12/2/2014	925	< 500			8.79			< 9.1										362435003
3/31/2015	3390	< 500			< 500			< -3.32										369938003
6/16/2015	9720	< 500			< 500			< 3.72										375398003
6/16/2015	8270	< 500			< 500			< 1.43										375398004
9/14/2015	1190	< 50			< 50			< -9.6										381234003
12/8/2015	14100	< 500			< 500			< -0.175										387183001
3/23/2016	13100	170			< 50			< -8.5										393849002
6/6/2016	14600	< 500			< 500			< 1.33										398881001
6/6/2016	15300	< 500			< 500			< 2.38										398881003
9/21/2016	12500	< 500			< 500			< -2.91										406611003
12/13/2016	2140	< 100			< 100			< -7.97										412748001
3/7/2017	15000	< 500			< 500			< 3.88										418299003
6/8/2017	11800	< 500			< 500			< -5.94										425123002
6/8/2017	10300	< 500			< 500			< 5.59										425123003
7/11/2017	13800	< 500						< -8.3										427964007
7/11/2017	13700	< 500						< -2.35										427964008
9/12/2017	13100	< 500			< 500			< 2.86										432724003
10/11/2017	16700	116						< -6.64										435057004
12/18/2017	8910	71.2			9.11			< 6.73										440362001
1/10/2018	13100	< 250						< -4.91										441541001
3/21/2018	10200	< 250			< 250			< 9.83										446475003

E-12

C-400 Monitoring
Water Quality Records for
MW156

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal Uranium mg/L	Polychlorinated biphenyl Analysis Results							Lab Sample ID
	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		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	
4/9/2018	6580	< 250						< -4.14									447628004
4/9/2018	8010	< 250						< -3.04									447628005
5/15/2018	7020	< 250			< 250			< -5.19									450363003
5/15/2018	7090	< 250			< 250			< 14.2									450363002
7/9/2018	5020	< 250						< -5.22									454258003
9/24/2018	2210	< 100			< 100			< 1.84									460260002
10/4/2018	3200	< 50						< 0.537									461079001
12/18/2018	1940	< 50			< 50			< -1.65									467410003
1/7/2019	3350	19						< -3.11									468221002
3/20/2019	2570	17.5			< 50			< 6.56									474242003
4/8/2019	1950	< 50						< -5.27									475898003
4/8/2019	2090	< 50						< -7.21									475898004
6/18/2019	1460	< 50			< 50			< 2.42									482490002
7/8/2019	1150	< 50						< -2.24									484303003
9/11/2019								< -5.8									490247002
9/17/2019	1240	< 50			< 50												490762002
10/7/2019	1430	< 50						< -0.0844									492544004
12/10/2019	2380	8.7			1.86			< 4									498960003

E-13

C-400 Monitoring
Water Quality Records for
MW175

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results								Lab Sample ID
	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	
6/16/2009	4900	< 50			< 50	11.7	447	508	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C09168007001
7/20/2009	4400	< 250			< 50	< 3.65	415	438	< 0.005	< 0.16	< 0.17	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C09201015001
8/18/2009	4400	< 50			< 50	9.43	416	375	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C09230023001
12/14/2009	7900	< 250			< 50	< -0.722	363	357	< 0.005	< 0.16	< 0.17	< 0.13	< 0.09	< 0.11	< 0.07	< 0.05	< 0.08	C09348024001
3/24/2010	5600	< 50			< 50	< 1.61	211	360	< 0.005	< 0.16	< 0.17	< 0.13	< 0.09	< 0.11	< 0.07	< 0.05	< 0.08	C10083023001
6/23/2010	4800	< 250			< 50	< 4.95	292	343	< 0.005	< 0.16	< 0.17	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10174017001
6/23/2010	5100	< 250			< 50	12.9	301	315	< 0.005	< 0.16	< 0.17	< 0.13	< 0.1	< 0.11	< 0.07	< 0.05	< 0.09	C10174017002
9/23/2010	5100	< 250			< 50	7.46	226	275	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10266013001
12/13/2010	9800	< 250			< 50	26.6	274	363	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10347023005
3/23/2011	5800	< 100			< 100	24.3	366	488	< 0.005	< 167	< 176	< 137	< 98	< 118	< 68.6	6730	< 88.2	C11082024002
6/13/2011										< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	1106040-01
6/13/2011										< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	1106040-02
6/13/2011	5900	< 250			< 50	9.43	190	267	< 0.005									C11165011003
6/13/2011	5900	< 250			< 50	13.5	201	292	< 0.005									C11165011004
9/14/2011	6900	< 250			< 50	< -1.01	218	228	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C11257087005
3/12/2012	3700	< 50			< 50	< 5.16	156	279	< 0.005									C12072031011
9/25/2012	1700	< 20			< 20	< 3.18	245	282	< 0.005									C12269015003
9/25/2012	1700	< 20			< 20	< 3.25	245	284	< 0.005									C12269015004
3/27/2013	770	< 10			< 10			226										C13086008003
9/18/2013	710	< 100			< 20			139										C13261023005
3/20/2014	460	< 5			< 5			110										C14079018001

E-14

C-400 Monitoring
Water Quality Records for
MW175

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results							Lab Sample ID	
	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
3/20/2014	460	< 5			< 5			102										C14079018002
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
3/7/2017	1460	< 20			< 20			285										418299004
3/7/2017	1420	< 20			< 20			293										418299005
9/12/2017	2010	< 50			< 50			272										432724001
3/22/2018	4340	< 50			< 50			211										446481001
3/22/2018	4550	< 100			< 100			208										446481002
9/26/2018	3960	< 100			< 100			360										460380002
3/20/2019	3990	< 100			< 100			225										474242004
3/20/2019	3690	< 100			< 100			235										474242005
9/16/2019	2880	6.53			1.04			290										490775001

E-15

C-400 Monitoring
Water Quality Records for
MW178

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results							Lab Sample ID	
	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
12/19/2018	63.9	< 1			1.05			95.8										467410004
3/20/2019	68.8	< 1			1.39			115										474242006
6/18/2019	68.9	< 1			1.14			111										482490003
9/17/2019	85.8	< 1			1.46			106										490775003
9/17/2019	84.2	< 1			1.47			122										490775002
12/11/2019	200	< 1			1.21			130										498960004

E-16

C-400 Monitoring
Water Quality Records for
MW341

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results								Lab Sample ID
	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	
9/23/2009	17000	< 1000	< 200	< 1000	< 200	6.77	200	251	< 0.005									C09266034004
3/10/2010	15000	< 200	< 200	< 200	< 200	< 2.42	193	207	< 0.005									C10069026006
9/13/2010	19000	< 200	< 200	< 200	< 200	< 3.35	132	213	< 0.005									C10256039001
6/2/2011	15000	< 1000	< 200	< 200	< 200	< 4.37	159	172	< 0.005									C11153017005
6/2/2011	15000	< 1000	< 200	< 200	< 200	6.41	174	172	< 0.005									C11153017006
5/17/2013	5200	< 250	< 50	< 50	< 50			166										C13137015004
5/17/2013	5100	< 250	< 50	< 50	< 50			150										C13137015003
6/1/2015	4460	< 1	0.33	< 1	1.28			138										374452005
5/24/2017	3460	< 50	> 50	< 50	< 50			310										424148013
7/13/2017	4280	< 50						257										427964014
10/11/2017	3790	< 50						345										435057005
1/11/2018	3520	< 1						354										441547001
4/5/2018	6010	< 100						309										447608009
7/10/2018	6950	3.1						183										454274004
10/4/2018	7260	< 100						171										461079008
12/18/2018	5220	< 100			< 100			122										467410005
1/7/2019	5860	< 100						119										468221006
3/20/2019	5930	< 100			< 100			99.1										474242007
3/20/2019	5860	< 100			< 100			100										474242008
4/8/2019	5400	< 100						109										475898009
5/13/2019	4650	< 100	< 100	< 100	< 100			74.5										479291003

E-17

C-400 Monitoring
Water Quality Records for
MW341

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results							Lab Sample ID	
	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
5/13/2019	5860	< 100	< 100	< 100	< 100			89.9										479291004
6/6/2019	6220	< 100			< 100			99.3										481177002
7/8/2019	5610	< 100						100										484303005
9/18/2019	6760	< 100			< 100			139										490775004
10/7/2019	6690	< 100						144										492544009
12/10/2019	6590	1.98			0.6			189										498960005

E-18

C-400 Monitoring
Water Quality Records for
MW342

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results								Lab Sample ID
	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	
6/16/2009	3000	< 50			< 50	16.7	616	805	< 0.005	< 0.16	< 0.17	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C09168006001
7/20/2009	4300	< 250			< 50	<-0.785	510	837	< 0.005	< 0.16	< 0.17	< 0.13	< 0.1	< 0.11	< 0.07	< 0.05	< 0.09	C09201016001
8/18/2009	5800	< 50			< 50	16	985	1130	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C09230024001
12/14/2009	9500	< 250			< 50	<-6.46	978	1290	< 0.005	< 0.16	< 0.17	< 0.13	< 0.09	< 0.11	< 0.07	< 0.05	< 0.08	C09348024002
12/14/2009	9900	< 250			< 50	< 0.633	926	1280	< 0.005	< 0.16	< 0.17	< 0.13	< 0.1	< 0.11	< 0.07	< 0.05	< 0.09	C09348024003
3/23/2010	4700	< 50			< 50	10.3	386	827	< 0.005	< 0.16	< 0.17	< 0.13	< 0.09	< 0.11	< 0.07	< 0.05	< 0.08	C10082025007
6/22/2010	5400	< 250			< 50	11.4	642	750	< 0.005	< 0.16	< 0.17	< 0.13	< 0.1	< 0.11	< 0.07	< 0.05	< 0.09	C10173039001
9/23/2010	8100	< 250			< 50	<-57.1	3720	4720	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10266013003
9/23/2010	7600	< 250			< 50	<-52	3690	5330	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10266013002
12/13/2010	12000	< 200			< 200	41	4120	5000	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10347023002
12/13/2010	12000	< 200			< 200	56	3960	5190	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10347023003
3/23/2011	8100	< 100			< 100	26.8	835	980	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.32	< 0.09	C11082024001
6/14/2011										< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	1106059-01
6/14/2011	2100	< 500			< 100	28.8	457	456	< 0.005									C11165038001
9/14/2011	11000	< 250			< 50	<-9.47	1800	2150	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C11257087003
9/14/2011	10000	< 250			< 50	<-4.68	1750	1930	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C11257087004
3/12/2012	7500	< 100			< 100	< 2.56	420	678	< 0.005									C12072031010
9/19/2012	8600	< 100			< 100	10.4	2820	2780	< 0.005									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

E-19

C-400 Monitoring
Water Quality Records for
MW342

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal Uranium mg/L	Polychlorinated biphenyl Analysis Results							Lab Sample ID
	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		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	
9/15/2014	1490	5.8			0.6			303									356931001
3/26/2015	1140	5.96			0.66			322									369707001
3/23/2016	1800	< 25			< 25			237									393849005
9/21/2016	1200	< 25			< 25			562									406611001
3/7/2017	1000	< 20			< 20			341									418299006
9/11/2017	1070	< 20			< 20			1670									432728002
3/21/2018	1520	5.91			0.58			467									446475004
9/26/2018	2610	10.6			< 20			714									460380003
3/20/2019	2590	< 50			< 50			390									474242001
9/11/2019								6180									490247003
9/11/2019								6230									490247004
9/18/2019	3730	9.46			1.37												490762004
9/18/2019	3670	9.32			1.41												490762003

E-20

C-400 Monitoring
Water Quality Records for
MW343

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results								Lab Sample ID
	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	
6/16/2009	41000	< 500			< 500	82.1	6710	9090	< 0.005	< 0.16	< 0.17	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C09168007002
7/20/2009	31000	< 2500			< 500	< 4.65	6730	9010	< 0.005	< 0.16	< 0.17	< 0.13	< 0.09	< 0.11	< 0.07	< 0.05	< 0.08	C09201066001
8/18/2009	31000	< 400			< 400	19.7	7420	8770	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C09230023002
9/21/2009	27000	< 1000	< 200	< 1000	< 200	< -119	6980	9230	< 0.005									C09265006005
12/14/2009	43000	< 2000			< 400	< -176	6970	9250	< 0.005	< 0.16	< 0.17	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C09348027001
3/22/2010	37000	< 250			< 250	92.1	5660	9010	< 0.005	< 0.16	< 0.17	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10082005002
3/22/2010	37000	< 400	< 250	< 250	< 250	< -90.6	5370	8960	< 0.005									C10082002001
3/22/2010	37000	< 250			< 250	37.4	6850	< 8920	< 0.005	< 0.16	< 0.17	< 0.13	< 0.1	< 0.11	< 0.07	< 0.05	< 0.09	C10082005001
6/22/2010	32000	< 2500			< 500	22	6440	9250	< 0.005	< 0.16	< 0.17	< 0.13	< 0.1	< 0.11	< 0.07	< 0.05	< 0.09	C10173027001
9/22/2010	28000	< 2500			< 500	< -114	6340	8860	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10265020004
12/13/2010	34000	< 2500			< 500	< -77.3	6970	9230	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10347023006
3/22/2011	39000	< 400			< 400	134	5310	7600	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.53	< 0.09	C11081023003
3/22/2011	47000	< 400			< 400	46.5	6570	7610	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.13	< 0.09	C11081023004
5/12/2011	36000	< 2500	< 500	< 500	< 500	150	5510	7530	< 0.005									C11132027003
6/15/2011										< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	1106059-02
6/15/2011	33000	< 2000			< 400	< -4.39	7110	6760	< 0.005									C11166026001
9/13/2011	34000	< 2000			< 400	< -144	6990	7550	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C11256012004
3/12/2012	29000	< 400			< 400	< -56.9	4670	7030	< 0.005									C12072031007
3/12/2012	28000	< 400			< 400	< -85.1	4680	8320	< 0.005									C12072031006
9/24/2012	39000	< 500			< 500	< -23.7	4970	6650	< 0.005									C12268086002
3/12/2013	29000	< 400			< 400			4700										C13072002002

E-21

C-400 Monitoring
Water Quality Records for
MW343

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal Uranium mg/L	Polychlorinated biphenyl Analysis Results							Lab Sample ID
	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		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	
5/17/2013	28000	< 1000	< 200	< 200	< 200			5790									C13137019001
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	0.84			10.5			4070									393717001
9/19/2016	20400	< 250			< 250			5480									406359010
3/7/2017	16300	< 250			< 250			5490									418299007
5/24/2017	22500	< 500	< 500	< 500	< 500			5540									424148014
9/11/2017	18900	< 200			< 200			4880									432728003
3/22/2018	11900	< 250			< 250			3290									446481003
9/25/2018	21800	< 250			< 250			4180									460388001
3/19/2019	19400	< 500			< 500			2970									474190002
5/13/2019	17500	< 500	< 500	< 500	< 500			2760									479291005
9/11/2019								7060									490207001
9/17/2019	10700	< 200			< 200												490762005

E-22

C-400 Monitoring
Water Quality Records for
MW405

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results								Lab Sample ID
	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	
6/23/2011	52000	< 2500	< 500	< 500	< 500	8.66	22.7	< 16.1	0.014									C11174017004

E-23

C-400 Monitoring
Water Quality Records for
MW405-PRT5

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results								Lab Sample ID
	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	
6/20/2012	97000	< 5000			< 1000	< 4.86	15.7	< -4.94	< 0.005									C12172011001
9/20/2012	90000	< 1000			< 1000	< 0.778	14.6	< 17.9	< 0.005									C12264031001
12/28/2012	41000	< 1000			< 1000			27.7										C12363012004
9/16/2013	19000	< 1000			< 200			70.4										C13259034003
12/18/2013	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	261	2.45			< 5			50										356931007
12/2/2014	481	< 10			< 10			79.8										362435004
3/30/2015	1000	< 20			< 20			41.8										369938006
6/12/2015	4270	< 100	< 100	< 100	< 100			34.4										375135001
6/12/2015	4010	< 50			< 50			41.9										375132002
9/15/2015	622	< 10			< 10			< -6.41										381234004
12/9/2015	663	< 10			< 10			32.5										387183004
3/23/2016	2930	< 10			< 10			< 10.5										393849006
6/7/2016	2180	< 50			< 50			29.5										398881004
9/22/2016	1130	< 20			< 20			< -1.98										406611005
12/13/2016	393	< 5			< 5			< 13.9										412748004
3/9/2017	784	< 10			< 10			< 7.61										418299008
5/24/2017	358	< 10	< 10	< 10	< 10			< 12.1										424148017
6/12/2017	125	< 10			< 10			< -1.71										425662001

E-24

C-400 Monitoring
Water Quality Records for
MW405-PRT5

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal Uranium mg/L	Polychlorinated biphenyl Analysis Results							Lab Sample ID
	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		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	
9/12/2017	96	< 2			< 2			< 5.3									432724004
12/18/2017	396	< 5			< 5			< -0.144									440362004
3/19/2018	562	< 10			< 10			< 12.9									446475005
5/16/2018	874	< 10			< 10			< 17.8									450363004
9/26/2018	184	< 10			< 10			< 1.67									460380004
12/18/2018	204	< 10			< 10			< 4.42									467410006
3/20/2019	4470	< 10			< 10			42.4									474242009
5/14/2019	5530	< 100	< 100	< 100	< 100			56.2									479297001
6/18/2019	1690	< 25			< 25			46.4									482490004
9/18/2019	1610	< 25			< 25			26.8									490775005
12/12/2019	1420	< 25			< 25			33.2	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11		498960006
12/12/2019	1590	< 25			< 25			35.8	< 0.121	< 0.121	< 0.121	< 0.121	< 0.121	< 0.121	< 0.121		498960007

E-25

C-400 Monitoring
Water Quality Records for
MW406

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results							Lab Sample ID	
	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
6/23/2011	6500	< 500	< 100	< 100	< 100	11.4	45.5	47.7	< 0.005									C11174017003

E-26

C-400 Monitoring
Water Quality Records for
MW406-PRT5

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results							Lab Sample ID	
	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
12/28/2011	24000	< 500			< 100	7.77	54.5	51.5	< 0.005									C11362008002
3/15/2012	10000	< 100			< 100	< -2.11	45.3	48.6	< 0.005									C12075015001
6/20/2012	5100	< 500			< 100	< 1.89	23.6	< 17.5	< 0.005									C12172011002
9/20/2012	4800	< 100			< 100	< -0.0458	31.2	23.5	< 0.005									C12264031002
12/28/2012	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	790	< 10			< 10			26.5										C13353003002
3/26/2014	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			0.87			52										362435005
3/30/2015	183	< 4			< 4			68.6										369938007
6/12/2015	100	< 2			< 2			47.1										375132003
6/12/2015	111	< 2	< 2	< 2	< 2			43.2										375135002
9/15/2015	12500	< 250			< 250			< 18.3										381234005
12/9/2015	2660	< 50			< 50			74.3										387183005
3/23/2016	4120	< 50			< 50			49										393849007
6/7/2016	9270	< 100			< 100			52.7										398881005
9/22/2016	12400	< 250			< 250			< 9.62										406611006
12/13/2016	7960	< 100			< 100			< -0.0598										412748005

E-27

C-400 Monitoring
Water Quality Records for
MW406-PRT5

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal Uranium mg/L	Polychlorinated biphenyl Analysis Results								Lab Sample ID
	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		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	
3/9/2017	15500	< 250			< 250			< 5.12									418299009	
5/24/2017	1390	< 25	< 25	< 25	< 25			23.6									424148018	
6/12/2017	13000	< 250			< 250			< 4.63									425662002	
9/12/2017	5760	< 100			< 100			< 8.05									432724005	
12/18/2017	4810	< 100			< 100			< -2.88									440362005	
3/19/2018	6210	< 100			< 100			< 2.75									446475006	
5/16/2018	5740	< 100			< 100			< 16.2									450363005	
9/26/2018	6540	< 100			< 100			< -4.57									460380005	
12/18/2018	4370	< 100			< 100			< -2.89									467410007	
3/20/2019	6650	< 100			< 100			< 15.2									474242010	
5/14/2019	9370	< 100	< 100	< 100	< 100			< -7.15									479297002	
6/18/2019	3350	< 100			< 100			< 12.5									482490005	
9/18/2019	5460	< 100			< 100			< -5.14									490775006	
12/12/2019	1540	< 25			< 25			< 5.79	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		498960001	

E-28

C-400 Monitoring
Water Quality Records for
MW407-PRT4

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results							Lab Sample ID	
	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
12/28/2011	4900	< 500			< 100	< 3.09	10.7	< 5.26	< 0.005									C11362008001
3/14/2012	14000	< 100			< 100	< 3.36	5.57	< -5.15	< 0.005									C12074017002
6/20/2012	13000	< 500			< 100	< 4.76	8.43	< 8.61	< 0.005									C12172011003
9/20/2012	13000	< 100			< 100	< 0.291	< 3.11	< -10.2	< 0.005									C12264031003
12/28/2012	7000	< 50			< 50			< 0.433										C12363012006
3/27/2013	14000	< 200			< 200			< 0.435										C13086018002
9/16/2013	24000	< 500			< 100			< 13.4										C13259034005
12/18/2013	7000	< 100			< 100			< 3.81										C13353003003
3/26/2014	2300	< 20			< 20			67.6										C14085027005
6/16/2014	32100	< 500			< 500			58.3										350866004
9/16/2014	23800	< 500			< 500			< 11.5										356931009
12/2/2014	13900	< 1			0.8			< 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
9/15/2015	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
12/13/2016	2100	< 50			< 50			65.2										412748006

E-29

C-400 Monitoring
Water Quality Records for
MW407-PRT4

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal Uranium mg/L	Polychlorinated biphenyl Analysis Results								Lab Sample ID
	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		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	
3/9/2017	2810	< 50			< 50			54.3									418299010	
5/24/2017	3710	< 100	< 100	< 100	< 100			53.1									424148019	
6/12/2017	2960	< 40			< 40			49.4									425662003	
9/12/2017	2160	< 50			< 50			59.4									432724006	
12/18/2017	468	< 10			< 10			37.5									440362006	
3/19/2018	696	< 10			< 10			29.9									446475007	
5/16/2018	1360	< 10			< 10			29.4									450363006	
9/26/2018	385	< 20			< 20			< -2.75									460380006	
12/18/2018	97.1	< 1			< 1			< 7.99									467410008	
3/20/2019	1190	< 20			< 20			< 15.3									474242011	
5/14/2019	6590	< 100	< 100	< 100	< 100			29.7									479297003	
6/18/2019	2880	< 50			< 50			28									482490006	
9/18/2019	1170	< 50			< 50			< 12									490775007	
12/12/2019	1010	< 20			< 20			< -13.3	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		498960008	

E-30

C-400 Monitoring
Water Quality Records for
MW408

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results								Lab Sample ID
	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	
6/23/2011	95000	< 5000	< 1000	< 1000	< 1000	< 2.51	13.3	< 14.5	< 0.005									C11174017001

E-31

C-400 Monitoring
Water Quality Records for
MW408-PRT5

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal Uranium mg/L	Polychlorinated biphenyl Analysis Results								Lab Sample ID
	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		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	
12/14/2011	71000	< 5000			< 1000	< 1.93	32.9	23.2	< 0.005									C11348026001
6/20/2012	390000	< 20000			< 4000	< 3.79	12.2	< 1.58	< 0.005									C12172011004
9/20/2012	1400000	< 4000			< 4000	< -1.52	13.4	< -1.7	< 0.005									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
6/16/2014	2560	< 40			< 40			111										350866001
8/13/2014	6000	< 2			< 2			88.2										160-7947-7
9/3/2014	110	< 0.08			< 0.08			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	8990	< 200	< 200	< 200	< 200			36										375135004
6/12/2015	3490	< 50			< 50			43.1										375132004
9/15/2015	115	< 2			< 2			51.5										381234001
12/9/2015	52.4	< 1			< 1			39.5										387183007
3/23/2016	665	0.94			0.84			24.5										393849009
6/7/2016	371	< 5			< 5			71.6										398881007
9/22/2016	207	< 5			< 5			< 15.4										406611008

E-32

C-400 Monitoring
Water Quality Records for
MW408-PRT5

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal Uranium mg/L	Polychlorinated biphenyl Analysis Results							Lab Sample ID
	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		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	
12/13/2016	86.2	< 1			< 1			20.9									412748007
3/9/2017	168	< 2			< 2			24.8									418299011
5/24/2017	59.8	< 1	< 1	< 1	< 1			31.5									424148020
6/12/2017	56.9	< 1			< 1			< 14.5									425662004
9/12/2017	97.9	< 2			< 2			17.1									432724007
12/18/2017	< 1	< 1			< 1			< 4.89									440362007
3/19/2018	194	< 1			< 1			< 8.91									446475008
5/16/2018	148	< 5			< 5			24.5									450363007
9/26/2018	109	< 5			< 5			< 2.41									460380007
12/18/2018	41.2	< 1			< 1			< 4.18									467410009
3/20/2019	560	< 5			< 5			< 15.1									474242012
5/14/2019	284	< 5	< 5	< 5	< 5			< 0.209									479297004
6/18/2019	216	< 5			< 5			< 9.66									482490007
9/18/2019	186	< 5			< 5			< 1.37									490775008
12/12/2019	41600	< 500			< 500			< 12.2		< 0.114	< 0.114	< 0.114	< 0.114	< 0.114	< 0.114	< 0.114	498960009

E-33

NOTE: This report does not include data that has been rejected during data assessment and/or data validation.
The date range reflects the first and last sample collection date for this data set through 12/31/2019.

C-400 Monitoring
Water Quality Records for
MW421-PRT1

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results								Lab Sample ID
	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	
7/21/2009	20000	< 1000			< 200	38	1780	1650	< 0.005	< 0.16	< 0.17	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C09202027001
8/25/2009	21000	< 200			< 200	< -0.377	1300	1670	< 0.005	< 0.16	< 0.17	< 0.13	< 0.09	< 0.11	< 0.07	< 0.05	< 0.08	C09237029001
9/29/2009	22000	< 200			< 200	33	878	1240	< 0.005	< 0.16	< 0.17	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C09273002001
12/16/2009	27000	< 1000			< 200	27.7	906	1160	< 0.005	< 0.16	< 0.17	< 0.13	< 0.09	< 0.11	< 0.07	< 0.05	< 0.08	C09350025004
3/23/2010	24000	< 200			< 200	15.5	1180	1780	< 0.005	< 0.16	< 0.17	< 0.13	< 0.1	< 0.11	< 0.07	< 0.05	< 0.09	C10082025004
6/23/2010	58000	< 500			< 500	18.4	1710	2340	< 0.005	< 0.16	< 0.17	< 0.13	< 0.1	< 0.11	< 0.07	< 0.05	< 0.09	C10172026001
9/21/2010	34000	< 500			< 500	15.1	826	1190	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10264016001
12/14/2010	28000	< 2500			< 500	9.44	789	916	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10348026001
E-34 3/23/2011	28000	< 250			< 250	< 4.35	623	859	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.06	< 0.09	C11082024003
6/22/2011										< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	1106092-01
6/22/2011	29000	< 2000			< 400	< -121	3300	3930	< 0.005									C11173026001
9/12/2011	32000	< 1000			< 200	9.06	2190	2500	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	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			0.54			4160										393717002
9/19/2016	10300	< 200			< 200			1750										406359001
3/7/2017	9260	< 200			< 200			898										418299001
9/11/2017	9440	< 100			< 100			1500										432728004

C-400 Monitoring
Water Quality Records for
MW421-PRT1

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results							Lab Sample ID	
	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
3/14/2018	4980	11.9			0.4			770										446010001
9/24/2018	4510	< 100			< 100			4500										460260003
3/19/2019	6210	< 100			< 100			6210										474190003
9/10/2019								4000										490247005
9/16/2019	7260	< 100			< 100													490760001

E-35

C-400 Monitoring
Water Quality Records for
MW421-PRT2

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results								Lab Sample ID
	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	
7/21/2009	52000	< 2500			< 500	15.2	830	856	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C09202027002
8/25/2009	53000	< 500			< 500	6.73	865	1120	< 0.005	< 0.16	< 0.17	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C09237029002
9/29/2009	53000	< 500			< 500	27.9	639	882	< 0.005	< 0.16	< 0.17	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C09273002002
12/16/2009	62000	< 2500			< 500	4.74	475	618	< 0.005	< 0.16	< 0.17	< 0.13	< 0.1	< 0.11	< 0.07	< 0.05	< 0.09	C09350025005
3/23/2010	55000	< 500			< 500	12.7	417	777	< 0.005	< 0.16	< 0.17	< 0.13	< 0.09	< 0.11	< 0.07	< 0.05	< 0.08	C10082025005
6/21/2010	51000	< 500			< 500	26.9	514	813	< 0.005	< 0.16	< 0.17	< 0.13	< 0.1	< 0.11	< 0.07	< 0.05	< 0.09	C10172026002
9/21/2010	51000	< 500			< 500	8.44	255	416	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10264016002
12/14/2010	62000	< 500			< 500	10.4	280	348	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10348026002
E-36 3/23/2011	62000	< 500			< 500	8.6	220	340	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.15	< 0.09	C11082024004
6/22/2011										< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	1106092-02
6/22/2011	55000	< 2500			< 500	< -24.9	853	996	< 0.005									C11173026002
9/12/2011	51000	< 2000			< 400	14.5	582	694	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	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
3/7/2017	22400	< 500			< 500			311										418299012
9/11/2017	21700	< 500			< 500			339										432728001

C-400 Monitoring
Water Quality Records for
MW421-PRT2

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results								Lab Sample ID
	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	
3/14/2018	40600	6.75			1.56			219										446010002
9/24/2018	12800	< 250			< 250			1570										460260004
3/19/2019	10100	< 250			< 250			3610										474190004
9/10/2019								3420										490247006
9/16/2019	12800	< 200			< 200													490760002

E-37

C-400 Monitoring
Water Quality Records for
MW421-PRT3

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results								Lab Sample ID
	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	
7/21/2009	63000	< 2500			< 500	< 3.73	327	302	< 0.005	< 0.16	< 0.17	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C09202027003
8/25/2009	66000	< 500			< 500	< 3.62	398	451	< 0.005	< 0.16	< 0.17	< 0.13	< 0.1	< 0.11	< 0.07	< 0.05	< 0.09	C09237029003
9/29/2009	61000	< 500			< 500	8.99	323	335	< 0.005	< 0.16	< 0.17	< 0.13	< 0.1	< 0.11	< 0.07	< 0.05	< 0.09	C09273002003
12/16/2009	77000	< 2500			< 500	4.67	226	345	< 0.005	< 0.16	< 0.17	< 0.13	< 0.1	< 0.11	< 0.07	< 0.05	< 0.09	C09350025006
3/23/2010	70000	< 500			< 500	12.8	218	376	< 0.005	< 0.16	< 0.17	< 0.13	< 0.09	< 0.11	< 0.07	< 0.05	< 0.08	C10082025006
6/21/2010	68000	< 500			< 500	< 4.02	278	251	< 0.005	< 0.16	< 0.17	< 0.13	< 0.1	< 0.11	< 0.07	< 0.05	< 0.09	C10173001001
9/21/2010	64000	< 500			< 500	6.83	215	285	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10264016003
12/14/2010	65000	< 500			< 500	< 5.08	209	278	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10348026003
3/23/2011	61000	< 500			< 500	19	186	278	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.34	< 0.09	C11082024005
6/22/2011										< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	1106092-03
6/22/2011	72000	< 2500			< 500	15.7	289	399	< 0.005									C11173026003
9/12/2011	67000	< 2500			< 500	5.7	272	313	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C11255015003
3/12/2012	73000	< 500			< 500	5.39	177	283	< 0.005									C12072031003
9/25/2012	96000	< 1000			< 1000	< 1.59	225	211	< 0.005									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

E-38

C-400 Monitoring
Water Quality Records for
MW421-PRT3

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results								Lab Sample ID
	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	
3/7/2017	49600	< 1000			< 1000			155										418299013
9/11/2017	42100	< 1000			< 1000			194										432728005
3/14/2018	53200	7.28			2.36			180										446010003
9/24/2018	43600	< 1000			< 1000			574										460260005
3/19/2019	25100	< 1000			< 1000			63.1										474190005
9/10/2019								850										490247007
9/16/2019	52800	< 1000			< 1000													490760003

E-39

C-400 Monitoring
Water Quality Records for
MW422-PRT1

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results								Lab Sample ID
	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	
7/21/2009	10000	< 500			< 100	< -96.7	10400	13600	< 0.005	< 0.16	< 0.17	< 0.13	< 0.1	< 0.11	< 0.07	< 0.05	< 0.09	C09202018001
8/24/2009	13000	< 100			< 100	95	12900	15600	< 0.005	< 0.16	< 0.17	< 0.13	< 0.1	< 0.11	< 0.07	< 0.05	< 0.09	C09237007001
9/28/2009	12000	< 100			< 100	59.7	14200	16900	< 0.005	< 0.16	< 0.17	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C09271021004
12/16/2009	16000	< 1000			< 200	< -15.7	10200	13900	< 0.005	< 0.16	< 0.17	< 0.13	< 0.1	< 0.11	< 0.07	< 0.05	< 0.09	C09350025001
3/23/2010	14000	< 100			< 100	< -25.6	8460	13400	< 0.005	< 0.16	< 0.17	< 0.13	< 0.09	< 0.11	< 0.07	< 0.05	< 0.08	C10082025001
6/21/2010	14000	< 100			< 100	< -60.6	11600	15500	< 0.005	< 0.16	< 0.17	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10173001002
9/20/2010	15000	< 200			< 200	< -51	8500	12900	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10263039004
12/13/2010	23000	< 1000			< 200	< -3.47	5090	6610	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10347024004
E-40 3/22/2011	20000	< 200			< 200	87.5	4860	6410	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C11081023005
6/15/2011										< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	1106059-03
6/15/2011	14000	< 1000			< 200	< -13.8	7910	9730	< 0.005									C11166026002
9/12/2011	16000	< 1000			< 200	< -54.7	10600	12300	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	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			0.4			10800										393717005
9/19/2016	4490	34			< 100			14900										406359004
3/8/2017	7020	< 100			< 100			7680										418299014
9/11/2017	4230	< 100			< 100			15000										432728006

C-400 Monitoring
Water Quality Records for
MW422-PRT1

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results								Lab Sample ID
	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	
3/14/2018	4910	42			< 100			7480										446010004
9/24/2018	2750	< 100			< 100			6210										460260006
3/19/2019	2950	50.5			< 50			10100										474190006
9/10/2019								20100										490247008
9/16/2019	5740	< 100			< 100													490760004

E-41

C-400 Monitoring
Water Quality Records for
MW422-PRT2

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results								Lab Sample ID
	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	
7/21/2009	43000	< 2500			< 500	32.8	1570	1970	< 0.005	< 0.16	< 0.17	< 0.13	< 0.1	< 0.11	< 0.07	< 0.05	< 0.09	C09202019001
8/24/2009	47000	< 500			< 500	28.2	1650	2150	< 0.005	< 0.16	< 0.17	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C09237008001
9/28/2009	45000	< 500			< 500	18.5	1490	2020	< 0.005	< 0.16	< 0.17	< 0.13	< 0.09	< 0.11	< 0.07	< 0.05	< 0.08	C09271021005
12/16/2009	53000	< 2500			< 500	16.1	1110	1660	< 0.005	< 0.16	< 0.17	< 0.13	< 0.1	< 0.11	< 0.07	< 0.05	< 0.09	C09350025002
3/23/2010	51000	< 500			< 500	24	823	1600	< 0.005	< 0.16	< 0.17	< 0.13	< 0.09	< 0.11	< 0.07	< 0.05	< 0.08	C10082025002
6/21/2010	90000	< 400			< 400	17.5	1060	1620	< 0.005	< 0.16	< 0.17	< 0.13	< 0.1	< 0.11	< 0.07	< 0.05	< 0.09	C10173001003
9/20/2010	51000	< 1000			< 1000	9.61	808	1420	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10263039005
12/13/2010	54000	< 2500			< 500	41.2	789	1170	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10347024005
E-42 3/22/2011	40000	< 500			< 500	27.3	823	1090	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.44	< 0.09	C11081023006
6/15/2011										< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	1106059-04
6/15/2011	50000	< 2500			< 500	35.3	1000	1310	< 0.005									C11166026003
9/12/2011	52000	< 2000			< 400	10.6	900	1130	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	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
3/8/2017	41200	< 500			< 500			608										418299015
9/11/2017	29100	< 500			< 500			663										432728007

C-400 Monitoring
Water Quality Records for
MW422-PRT2

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results								Lab Sample ID
	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	
3/14/2018	38300	< 500			< 500			558										446010005
9/24/2018	27000	< 500			< 500			629										460260007
3/19/2019	28100	< 500			< 500			629										474190007
9/10/2019								1520										490247009
9/16/2019	27300	< 500			< 500													490760005

E-43

C-400 Monitoring
Water Quality Records for
MW422-PRT3

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results								Lab Sample ID
	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	
7/21/2009	45000	< 2500			< 500	< -0.394	1650	2310	< 0.005	< 0.16	< 0.17	< 0.13	< 0.1	< 0.11	< 0.07	< 0.05	< 0.09	C09202019002
8/24/2009	46000	< 500			< 500	15.4	1380	1960	< 0.005	< 0.16	< 0.17	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C09237008002
9/28/2009	45000	< 500			< 500	15.5	1560	1940	< 0.005	< 0.16	< 0.17	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C09271021006
12/16/2009	58000	< 2500			< 500	20.7	1230	1630	< 0.005	< 0.16	< 0.17	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C09350025003
3/23/2010	53000	< 500			< 500	19.6	866	1490	< 0.005	< 0.16	< 0.17	< 0.13	< 0.1	< 0.11	< 0.07	< 0.05	< 0.09	C10082025003
6/21/2010	72000	< 1000			< 1000	15.1	883	1520	< 0.005	< 0.16	< 0.17	< 0.13	< 0.09	< 0.11	< 0.07	< 0.05	< 0.08	C10173001004
9/20/2010	61000	< 1000			< 1000	16.3	777	1320	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10263039006
12/13/2010	54000	< 2500			< 500	22.6	782	1070	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10347024006
E-44 3/22/2011	54000	< 500			< 500	23.3	677	1010	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.36	< 0.09	C11081023007
6/15/2011										< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	1106059-05
6/15/2011	49000	< 2500			< 500	13.5	864	1140	< 0.005									C11166026004
9/12/2011	53000	< 2000			< 400	7.69	718	910	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C11255022003
3/12/2012	69000	< 500			< 500	< 4.11	575	774	< 0.005									C12072031004
9/25/2012	48000	< 1000			< 1000	< 4.02	524	631	< 0.005									C12270003001
3/13/2013	35000	< 500			< 500			559										C13072022006
9/17/2013	47000	< 2000			< 400			535										C13260018006
3/19/2014	49000	< 400			< 400			543										C14078013009
9/12/2014	46700	< 50			< 50			496										356931015
3/24/2015	44600	< 100			< 100			550										369707008
3/21/2016	37800	3.13			1.09			635										393717007
9/19/2016	44300	< 500			< 500			678										406359006

C-400 Monitoring
Water Quality Records for
MW422-PRT3

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal Uranium mg/L	Polychlorinated biphenyl Analysis Results							Lab Sample ID
	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		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	
3/8/2017	39700	< 500			< 500			622									418299016
9/11/2017	25200	< 500			< 500			623									432728008
3/14/2018	37300	< 500			< 500			605									446010006
9/24/2018	29100	< 500			< 500			620									460260008
3/19/2019	29500	< 500			< 500			652									474190008
9/10/2019								1630									490247010
9/16/2019	26800	< 500			< 500												490760006

E-45

C-400 Monitoring
Water Quality Records for
MW423-PRT1

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results								Lab Sample ID
	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	
7/22/2009	13000	< 500			< 100	< -60	8610	10400	< 0.005	< 0.16	< 0.17	< 0.13	< 0.1	< 0.11	< 0.07	< 0.05	< 0.09	C09203009001
8/25/2009	12000	< 200			< 200	81	9720	12100	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C09237022001
9/28/2009	11000	< 100			< 100	87.3	11100	14000	< 0.005	< 0.16	< 0.17	< 0.13	< 0.1	< 0.11	< 0.07	< 0.05	< 0.09	C09271021001
12/15/2009	15000	< 1000			< 200	< -236	11500	14400	< 0.005	< 0.16	< 0.17	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C09349015001
3/22/2010	15000	64			< 25	45.5	8550	13800	< 0.005	< 0.16	< 0.17	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10082005003
6/22/2010	12000	< 500			< 100	< -79.6	10100	13400	< 0.005	< 0.16	< 0.17	< 0.13	< 0.09	< 0.11	< 0.07	< 0.05	< 0.08	C10173027002
9/20/2010	12000	< 200			< 200	52.9	9500	16000	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10263039001
12/13/2010	18000	< 500			< 100	< -161	8180	10800	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10347024001
E-46 3/21/2011	15000	< 200			< 200	95.2	6870	8960	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C11080075002
6/14/2011										< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	1106059-06
6/14/2011	15000	< 500			< 100	< -273	9620	9790	< 0.005									C11165038005
9/13/2011	14000	< 1000			< 200	< -18.7	8820	10500	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C11256012001
3/13/2013	18000	< 200			< 200			9070										C13072009001
9/12/2013	13000	< 1000			< 200			14900										C13255083001
3/20/2014	13000	< 100			< 100			8350										C14079016004
9/12/2014	8980	32.8			< 25			9080										356931016
3/24/2015	8970	35.5			< 50			8220										369707009
3/21/2016	3350	35.7			0.4			8560										393717008
9/19/2016	4890	41.5			< 50			12600										406359007
3/8/2017	4520	< 100			< 100			8980										418299017
9/11/2017	3370	22.5			< 50			13000										432728009

C-400 Monitoring
Water Quality Records for
MW423-PRT1

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results								Lab Sample ID
	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	
3/14/2018	3410	44.5			< 50			10300										446010007
9/25/2018	2720	53.5			< 50			4530										460388002
3/19/2019	1980	38.5			< 50			7090										474190009
9/11/2019								18500										490207002
9/17/2019	2620	44			< 50													490762006

E-47

C-400 Monitoring
Water Quality Records for
MW423-PRT2

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results								Lab Sample ID
	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	
7/22/2009	42000	< 2500			< 500	<-8.97	3760	4840	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C09203009002
8/25/2009	47000	< 500			< 500	34.3	3420	4880	< 0.005	< 0.16	< 0.17	< 0.13	< 0.1	< 0.11	< 0.07	< 0.05	< 0.09	C09237022002
9/28/2009	44000	< 500			< 500	35.8	3820	5230	< 0.005	< 0.16	< 0.17	< 0.13	< 0.1	< 0.11	< 0.07	< 0.05	< 0.09	C09271021002
12/15/2009	54000	< 2500			< 500	<-51.8	3650	4930	< 0.005	< 0.16	< 0.17	< 0.13	< 0.1	< 0.11	< 0.07	< 0.05	< 0.09	C09349015002
3/22/2010	52000	< 500			< 500	40.2	2260	4310	< 0.005	< 0.16	< 0.17	< 0.13	< 0.1	< 0.11	< 0.07	< 0.05	< 0.09	C10082005004
6/22/2010	45000	< 2500			< 500	<-2.09	3050	4530	< 0.005	< 0.16	< 0.17	< 0.13	< 0.09	< 0.11	< 0.07	< 0.05	< 0.08	C10173027003
9/20/2010	46000	< 500			< 500	14.3	2590	4070	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10263039002
12/13/2010	52000	< 2500			< 500	42.7	2070	4280	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10347024002
E-48 3/21/2011	41000	< 500			< 500	114	1990	3430	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.15	< 0.09	C11080075003
6/14/2011										< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	1106059-07
6/14/2011	43000	< 2500			< 500	<-23.6	2810	3970	< 0.005									C11165038006
9/13/2011	46000	< 2000			< 400	<-37.2	2730	3710	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	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
3/8/2017	36300	< 500			< 500			1330										418299018
9/11/2017	25200	< 500			< 500			1620										432728010

C-400 Monitoring
Water Quality Records for
MW423-PRT2

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results								Lab Sample ID
	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	
3/14/2018	32500	< 500			< 500			1620										446010008
9/25/2018	34400	< 500			< 500			1690										460388003
3/19/2019	24800	< 500			< 500			1540										474190010
9/11/2019								1790										490207003
9/17/2019	18200	< 500			< 500													490762007

E-49

C-400 Monitoring
Water Quality Records for
MW423-PRT3

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results								Lab Sample ID
	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	
7/22/2009	42000	< 2500			< 500	< -4.38	2660	4350	< 0.005	< 0.16	< 0.17	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C09203009003
8/25/2009	47000	< 500			< 500	23.4	2850	4440	< 0.005	< 0.16	< 0.17	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C09237022003
9/28/2009	14000	< 500			< 500	97.8	10600	13500	< 0.005	< 0.16	< 0.17	< 0.13	< 0.09	< 0.11	< 0.07	< 0.05	< 0.08	C09271021003
12/15/2009	53000	< 2500			< 500	< -48.6	2970	4030	< 0.005	< 0.16	< 0.17	< 0.13	< 0.09	< 0.11	< 0.07	< 0.05	< 0.08	C09349015003
3/22/2010	51000	< 500			< 500	43.5	1960	3810	< 0.005	< 0.16	< 0.17	< 0.13	< 0.1	< 0.11	< 0.07	< 0.05	< 0.09	C10082005005
6/22/2010	49000	< 2500			< 500	5.16	2930	3850	< 0.005	< 0.16	< 0.17	< 0.13	< 0.09	< 0.11	< 0.07	< 0.05	< 0.08	C10173027004
9/20/2010	50000	< 500			< 500	34.3	2080	3730	< 0.005	< 0.17	< 0.18	< .14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10263039003
12/13/2010	50000	< 2500			< 500	19	2120	3140	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	0.15	< 0.09	C10347024003
E-50 3/21/2011	41000	< 500			< 500	89.1	1880	2900	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.12	< 0.09	C11080075004
6/14/2011	43000	< 2500			< 500	< -17.1	2540	3680	< 0.005									C11165038007
6/14/2011										< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	1106059-08
9/13/2011	47000	< 2000			< 400	< -27.3	2490	2990	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C11256012003
3/12/2012	37000	< 500			< 500	< -9.6	1620	2350	< 0.005									C12072031005
9/24/2012	67000	< 500			< 500	19.2	1550	1820	< 0.005									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			0.98			1820										393717010
9/19/2016	37800	< 500			< 500			1600										406359009

C-400 Monitoring
Water Quality Records for
MW423-PRT3

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results							Lab Sample ID	
	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
3/8/2017	31800	< 500			< 500			1230										418299019
9/11/2017	26800	< 500			< 500			1670										432728011
3/14/2018	32500	< 500			< 500			1570										446010009
9/25/2018	30100	< 500			< 500			1870										460388004
3/19/2019	28000	< 500			< 500			1460										474190011
9/11/2019								1560										490207004
9/17/2019	20600	< 500			< 500													490762008

E-51

C-400 Monitoring
Water Quality Records for
MW424-PRT1

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results								Lab Sample ID
	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	
7/23/2009	7200	< 500			< 100	< -7	2300	1790	< 0.005	< 0.16	< 0.17	< 0.13	< 0.1	< 0.11	< 0.07	< 0.05	< 0.09	C09204021001
8/27/2009	7100	< 50			< 50	< 3.09	2680	3330	< 0.005	< 0.16	< 0.17	< 0.13	< 0.09	< 0.11	< 0.07	< 0.05	< 0.08	C09239018001
9/30/2009	7700	< 100			< 100	125	4580	6150	< 0.005	< 0.16	< 0.17	< 0.13	< 0.09	< 0.11	< 0.07	< 0.05	< 0.08	C09273021001
12/17/2009	9200	< 100			< 100	< -31.9	7760	10000	< 0.005	< 0.16	< 0.17	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C09351022002
3/24/2010	7900	< 100			< 100	86.8	4420	6540	< 0.005	< 0.16	< 0.17	< 0.13	< 0.1	< 0.11	< 0.07	< 0.05	< 0.09	C10083023002
6/23/2010	7900	< 250			< 50	14	4020	5080	< 0.005	< 0.16	< 0.17	< 0.13	< 0.1	< 0.11	< 0.07	< 0.05	< 0.09	C10174017003
9/22/2010	7900	< 1000			< 200	< -79.8	7420	10300	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10265020001
12/15/2010	8400	< 100			< 100	< -325	9940	13900	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10349020001
E-52 6/14/2011										< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	1106059-09
6/14/2011	7900	< 500			< 100	< -211	7890	8220	< 0.005									C11165038002
9/13/2011	9000	< 500			< 100	< -150	5730	6730	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	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
3/8/2017	1380	< 20			< 20			8620										418299020
9/11/2017	1180	11			< 20			6110										432728012
3/21/2018	936	11.6			< 1			3750										446475009

C-400 Monitoring
Water Quality Records for
MW424-PRT1

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results								Lab Sample ID
	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	
9/25/2018	1600	32.3			< 10			2160										460388005
3/19/2019	810	10.5			< 25			1470										474193001
9/11/2019								15900										490207005
9/17/2019	2030	33.3			< 25													490762009

E-53

C-400 Monitoring
Water Quality Records for
MW424-PRT2

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results								Lab Sample ID
	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	
7/23/2009	17000	< 1000			< 200	< -29.4	4170	5680	< 0.005	< 0.16	< 0.17	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C09204022001
8/27/2009	16000	< 200			< 200	< -4.44	6130	5900	< 0.005	< 0.16	< 0.17	< 0.13	< 0.1	< 0.11	< 0.07	< 0.05	< 0.09	C09239019001
9/30/2009	16000	< 200			< 200	91.8	5200	7100	< 0.005	< 0.16	< 0.17	< 0.13	< 0.09	< 0.11	< 0.07	< 0.05	< 0.08	C09273023001
12/17/2009	18000	< 200			< 200	7.27	4010	6180	< 0.005	< 0.16	< 0.17	< 0.13	< 0.09	< 0.11	< 0.07	< 0.05	< 0.08	C09351022003
3/24/2010	17000	< 250			< 250	52.8	2940	6240	< 0.005	< 0.16	< 0.17	< 0.13	< 0.09	< 0.11	< 0.07	< 0.05	< 0.08	C10083023003
6/22/2010	17000	< 1000			< 200	12.7	5150	7070	< 0.005	< 0.16	< 0.17	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10174017004
9/22/2010	15000	< 1000			< 200	< -41.8	4000	6040	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10265020002
12/15/2010	14000	< 200			< 200	< -161	5510	7850	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10349020002
E-54 3/22/2011	12000	< 100			< 100	170	4620	6990	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.26	< 0.09	C11081023001
6/14/2011										< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	1106059-10
6/14/2011	14000	< 500			< 100	< -51.5	4820	5790	< 0.005									C11165038003
9/13/2011	12000	< 500			< 100	< -138	5900	6890	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	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
3/8/2017	10900	< 250			< 250			2750										418307001
9/11/2017	10100	< 250			< 250			3100										432728013

C-400 Monitoring
Water Quality Records for
MW424-PRT2

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results								Lab Sample ID
	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	
3/21/2018	10200	1.94			0.63			4100										446475010
9/25/2018	11800	< 200			< 200			3530										460388006
3/19/2019	9720	< 200			< 200			3320										474193002
9/11/2019								3870										490207006
9/17/2019	8330	< 100			< 100													490762010

E-55

C-400 Monitoring
Water Quality Records for
MW424-PRT3

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal Uranium mg/L	Polychlorinated biphenyl Analysis Results								Lab Sample ID
	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		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	
7/23/2009	22000	< 1000			< 200	< -7.72	1900	2770	< 0.005	< 0.16	< 0.17	< 0.13	< 0.1	< 0.11	< 0.07	< 0.05	< 0.09	C09204023001
8/27/2009	23000	< 200			< 200	< 5.21	3400	4970	< 0.005	< 0.16	< 0.17	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C09239020001
9/30/2009	23000	< 250			< 250	78.9	3350	4660	< 0.005	< 0.16	< 0.17	< 0.13	< 0.1	< 0.11	< 0.07	< 0.05	< 0.09	C09273024001
12/17/2009	23000	< 200			< 200	12.3	2960	4500	< 0.005	< 0.16	< 0.17	< 0.13	< 0.1	< 0.11	< 0.07	< 0.05	< 0.09	C09351022004
3/24/2010	23000	< 250			< 250	< -39.3	2810	4600	< 0.005	< 0.16	< 0.17	< 0.13	< 0.09	< 0.11	< 0.07	< 0.05	< 0.08	C10083023004
6/23/2010	21000	< 1000			< 200	10.2	3160	4740	< 0.005	< 0.16	< 0.17	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10174017005
9/22/2010	21000	< 1000			< 200	< -14.6	2650	4440	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10265020003
12/15/2010	19000	< 200			< 200	< -54.8	2840	4300	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10349020003
E-56 3/22/2011	16000	< 200			< 200	93.3	2580	3430	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.28	< 0.09	C11081023002
6/14/2011	18000	< 1000			< 200	< -23	2990	3940	< 0.005									C11165038004
6/14/2011										< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	1106059-11
9/13/2011	16000	< 1000			< 200	< -42.4	2720	4190	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C11256019003
3/12/2012	12000	< 200			< 200	15.3	2120	3500	< 0.005									C12072031008
9/25/2012	11000	< 200			< 200	< -2.6	3010	3600	< 0.005									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

C-400 Monitoring
Water Quality Records for
MW424-PRT3

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results								Lab Sample ID
	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	
3/8/2017	13500	< 250			< 250			2190										418307002
9/11/2017	13300	< 250			< 250			2330										432728014
3/21/2018	15100	1.43			1.02			2220										446475011
9/25/2018	14700	< 200			< 200			2330										460388007
3/19/2019	13400	< 200			< 200			2050										474193003
9/11/2019								2550										490207007
9/17/2019	8890	< 200			< 200													490762011

E-57

C-400 Monitoring
Water Quality Records for
MW425-PRT1

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results								Lab Sample ID
	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	
7/22/2009	5100	< 250			< 50	< 2.26	755	789	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C09203011001
8/26/2009	8200	< 100			< 100	9.62	4390	3870	< 0.005	< 0.16	< 0.17	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C09238024001
9/29/2009	11000	< 100			< 100	107	6500	8580	< 0.005	< 0.16	< 0.17	< 0.13	< 0.1	< 0.11	< 0.07	< 0.05	< 0.09	C09273002004
12/16/2009	13000	< 500			< 100	26.5	6360	9490	< 0.005	< 0.16	< 0.17	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C09350025007
3/23/2010	8900	< 100			< 100	51.4	2200	3010	< 0.005	< 0.16	< 0.17	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10082005006
6/22/2010	8300	< 500			< 100	25	1340	1330	< 0.005	< 0.16	< 0.17	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10173039002
9/21/2010	12000	< 500			< 100	< -221	10000	12700	< 0.005	< 0.16	< 0.17	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10264016004
12/15/2010	13000	< 200			< 200	< -819	15000	18300	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10349020004
3/21/2011	11000	< 100			< 100	81.2	10800	14000	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.17	< 0.09	C11080075005
6/13/2011	7600	< 500			< 100	75.3	2130	2530	< 0.005									C11165011005
6/13/2011										< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	1106040-03
9/14/2011	12000	< 500			< 100	< -143	7140	9190	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	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
3/8/2017	1160	11.6			< 20			4280										418307003
9/11/2017	1140	< 20			< 20			6150										432728015

E-58

C-400 Monitoring
Water Quality Records for
MW425-PRT1

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results								Lab Sample ID
	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	
3/21/2018	1340	17.6			0.45			1890										446475001
9/26/2018	1800	20			< 20			3640										460380008
3/19/2019	2700	18.4			< 20			1870										474193004
9/11/2019								16300										490207008
9/17/2019	2550	< 50			< 50													490762012

E-59

C-400 Monitoring
Water Quality Records for
MW425-PRT2

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results								Lab Sample ID
	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	
7/22/2009	6300	< 250			< 50	< 3.37	2930	4460	< 0.005	< 0.16	< 0.17	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C09203011002
8/26/2009	6100	< 50			< 50	< -19.6	3370	4550	< 0.005	< 0.16	< 0.17	< 0.13	< 0.1	< 0.11	< 0.07	< 0.05	< 0.09	C09238024002
9/29/2009	7500	< 50			< 50	121	4600	5900	< 0.005	< 0.16	< 0.17	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C09273002005
12/16/2009	11000	< 500			< 100	< -17.7	5550	7850	< 0.005	< 0.16	< 0.17	< 0.13	< 0.09	< 0.11	< 0.07	< 0.05	< 0.08	C09350025008
3/23/2010	9300	< 50			< 50	49.5	3710	5600	< 0.005	< 0.16	< 0.17	< 0.13	< 0.1	< 0.11	< 0.07	< 0.05	< 0.09	C10082005007
6/22/2010	8400	< 250			< 50	43.7	2900	3850	< 0.005	< 0.16	< 0.17	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10173039003
9/21/2010	10000	< 500			< 100	< -37.4	4910	5000	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10264016005
12/15/2010	11000	< 100			< 100	< -456	9930	13200	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10349020005
E-60 3/21/2011	9200	< 100			< 100	28.2	8260	12500	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.36	< 0.09	C11080075006
6/13/2011	8700	< 500			< 100	< -26.5	4870	5930	< 0.005									C11165011006
6/13/2011										< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	1106040-04
9/14/2011	10000	< 500			< 100	< -98.5	4370	4600	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C11257087007
3/12/2013	9100	< 100			< 100			6260										C13072002004
9/18/2013	6700	< 500			< 100			3280										C13261023002
3/20/2014	5400	< 50			< 50			4240										C14079016002
9/15/2014	4080	< 50			< 50			1860										356937002
3/26/2015	3540	< 50			< 50			2750										369707014
3/28/2016	2060	< 25			< 25			1400										393954002
9/21/2016	1590	< 25			< 25			3790										406611010
3/8/2017	1530	< 25			< 25			5400										418307004
9/12/2017	1430	< 25			< 25			3530										432724008

C-400 Monitoring
Water Quality Records for
MW425-PRT2

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results								Lab Sample ID
	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	
3/21/2018	1620	< 25			< 25			3030										446475012
9/26/2018	1790	< 25			< 25			2060										460380009
3/19/2019	2400	< 25			< 25			2190										474193005
9/11/2019								11500										490207009
9/17/2019	2250	< 50			< 50													490762013

E-61

C-400 Monitoring
Water Quality Records for
MW425-PRT3

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results								Lab Sample ID
	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	
7/22/2009	6200	< 250			< 50	< 0.86	3380	4420	< 0.005	< 0.16	< 0.17	< 0.13	< 0.1	< 0.11	< 0.07	< 0.05	< 0.09	C09203011003
8/26/2009	4700	< 50			< 50	< -23.2	3770	4120	< 0.005	< 0.16	< 0.17	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C09238024003
9/29/2009	6900	< 50			< 50	96.2	3490	4570	< 0.005	< 0.16	< 0.17	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C09273002006
12/17/2009	8100	< 100			< 100	39.3	3620	5210	< 0.005	< 0.16	< 0.17	< 0.13	< 0.09	< 0.11	< 0.07	< 0.05	< 0.08	C09351022001
3/23/2010	7600	< 50			< 50	57	2590	4290	< 0.005	< 0.16	< 0.17	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10082005008
6/22/2010	7700	< 250			< 50	33.6	2790	3760	< 0.005	< 0.16	< 0.17	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10173039004
9/21/2010	8500	< 500			< 100	< -22.6	3270	5070	< 0.005	< 0.16	< 0.17	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10264016006
12/15/2010	9100	< 100			< 100	< -325	7150	8570	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C10349020006
E-62 6/13/2011	7400	< 500			< 100	< -23.1	3310	4310	< 0.005									C11165011007
6/13/2011										< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	1106040-05
9/14/2011	8500	< 500			< 100	< -99.4	4540	4360	< 0.005	< 0.17	< 0.18	< 0.14	< 0.1	< 0.12	< 0.07	< 0.05	< 0.09	C11257087008
3/12/2012	8000	< 100			< 100	< -25.1	3230	5410	< 0.005									C12072031009
9/19/2012	9900	< 100			< 100	< -28.6	4490	5320	< 0.005									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
3/8/2017	2850	< 50			< 50			3480										418307005

C-400 Monitoring
Water Quality Records for
MW425-PRT3

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results								Lab Sample ID
	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	
9/12/2017	2630	< 50			< 50			2430										432724009
3/21/2018	2990	< 50			< 50			2630										446475013
9/26/2018	2350	< 50			< 50			1580										460380010
3/19/2019	2810	< 50			< 50			1360										474193006
9/11/2019								6440										490207010
9/17/2019	4310	< 100			< 100													490762014

E-63

C-400 Monitoring
Water Quality Records for
MW505

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results							Lab Sample ID	
	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
3/13/2012	160	< 5			< 5	< -2.14	48.8	51.6	< 0.005									C12073014003
6/18/2012	18	< 5			< 1	< -1.58	54	51.4	< 0.005									C12170024001
9/19/2012	22	< 1			< 1	< 1.39	45.1	61.8	< 0.005									C12263015001
12/5/2012	22	< 5			< 1			56.2										C12340029002
3/19/2013	32	< 1			< 1			53.9										C13078040002
3/19/2013	34	< 1			< 1			49.2										C13078040001
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

E-64

C-400 Monitoring
Water Quality Records for
MW505

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal Uranium mg/L	Polychlorinated biphenyl Analysis Results							Lab Sample ID
	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		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	
9/20/2016	19.7	< 1			< 1			63.1									406359015
12/13/2016	10.5	< 1			< 1			47.1									412748008
3/9/2017	13.9	< 1			< 1			51.1									418307006
6/20/2017	109	< 2			< 2			50.1									425938001
9/12/2017	15	< 1			< 1			56.2									432724011
9/12/2017	9.44	< 1			< 1			59.9									432724010
12/18/2017	36.2	< 1			< 1			57									440362008
3/22/2018	20.9	< 1			< 1			51.4									446481004
5/15/2018	10.2	< 1			< 1			59.7									450363008
9/26/2018	9.17	< 1			< 1			43									460380011
9/26/2018	8.6	< 1			< 1			53.6									460380012
12/18/2018	10.3	< 1			< 1			57.1									467410010
3/19/2019	9.63	< 1			< 1			37.1									474193007
6/6/2019	11.4	< 1			< 1			42.6									481177004
6/6/2019	11.8	< 1			< 1			54.3									481177003
9/16/2019	67.4	< 1			< 1			50.4									490775009
12/10/2019	25.5	< 1			< 1			58									498960010

E-65

C-400 Monitoring
Water Quality Records for
MW506

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results							Lab Sample ID	
	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
3/13/2012	4300	< 50			< 50	< 0.856	50.5	62.6	< 0.005									C12073014004
6/18/2012	4100	< 250			< 50	< 3.44	66.4	59.7	< 0.005									C12170024002
9/19/2012	3700	< 50			< 50	< 3.84	50.8	59	< 0.005									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
3/19/2014	1200	< 20			< 20			65.4										C14078013002
6/11/2014	954	< 20			< 20			56.8										350627003
9/13/2014	641	< 10			< 10			59.6										356937005
12/2/2014	1080	< 1			0.47			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
3/9/2017	15000	< 500			< 500			75.2										418307007

E-66

C-400 Monitoring
Water Quality Records for
MW506

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal Uranium mg/L	Polychlorinated biphenyl Analysis Results							Lab Sample ID
	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		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	
6/20/2017	17800	< 250			< 250			52.5									425938002
9/12/2017	17400	< 250			< 250			72.4									432724012
12/18/2017	19600	< 250			< 250			89.3									440362009
3/22/2018	15500	< 250			< 250			51.8									446481005
5/15/2018	17900	< 250			< 250			62.4									450363009
9/26/2018	7660	< 250			< 250			37.1									460380001
12/18/2018	9370	< 250			< 250			54.3									467410011
3/19/2019	9680	< 250			< 250			42.1									474190001
E-67 6/6/2019	12300	< 250			< 250			56.8									481177001
9/16/2019	8500	< 100			< 100			60									490775010
12/10/2019	8150	0.88			0.92			62.6									498960011

C-400 Monitoring
Water Quality Records for
MW507

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal	Polychlorinated biphenyl Analysis Results							Lab Sample ID	
	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
3/13/2012	1200	< 10			< 10	< 3.11	38.7	53.4	< 0.005									C12073014005
6/18/2012	1200	< 100			< 20	< 5.7	51.2	41.2	< 0.005									C12170024003
9/19/2012	1800	< 10			< 10	< 0.808	34.4	30.7	< 0.005									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

E-68

C-400 Monitoring
Water Quality Records for
MW507

Sample Date Range: 6/16/2009 - 12/12/2019

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results			Metal Uranium mg/L	Polychlorinated biphenyl Analysis Results							Lab Sample ID
	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		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	
12/13/2016	10900	< 200			< 200			65.4									412748010
3/9/2017	6990	< 200			< 200			59.6									418307008
6/20/2017	4240	< 100			< 100			55.6									425938003
9/12/2017	7590	< 200			< 200			55.3									432724013
12/18/2017	5300	< 100			< 100			75.7									440362010
3/22/2018	4630	< 100			< 100			68.2									446481006
5/15/2018	5590	< 100			< 100			65.5									450363010
9/26/2018	3960	< 100			< 100			51.4									460380013
12/18/2018	4620	< 100			< 100			45.4									467410012
3/19/2019	4290	< 100			< 100			45.2									474193008
6/6/2019	5110	< 100			< 100			58.3									481177005
9/16/2019	3980	< 100			< 100			62.3									490775011
12/10/2019	2140	0.78			< 1			58.8									498960012

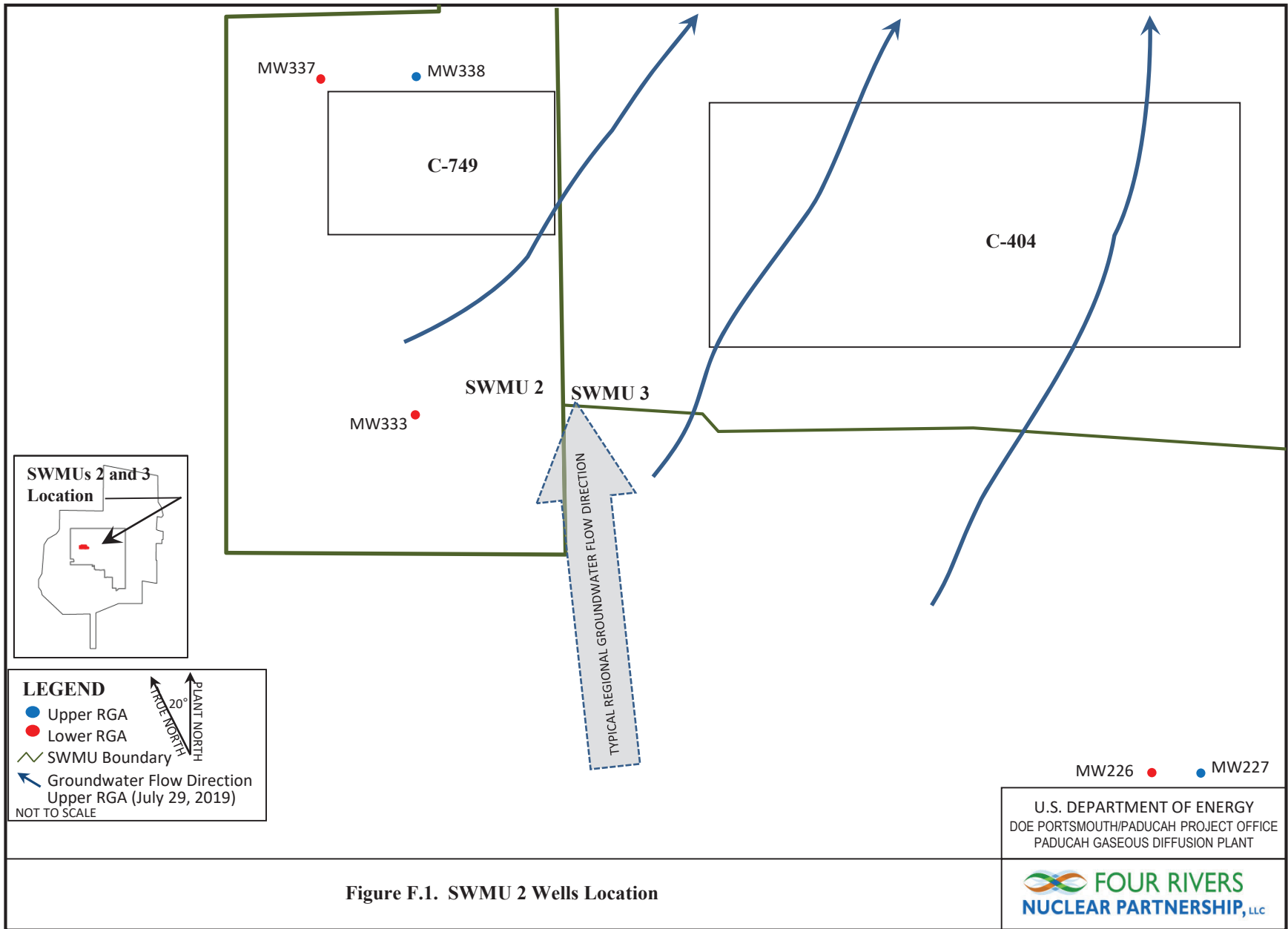
E-69

THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX F

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

THIS PAGE INTENTIONALLY LEFT BLANK



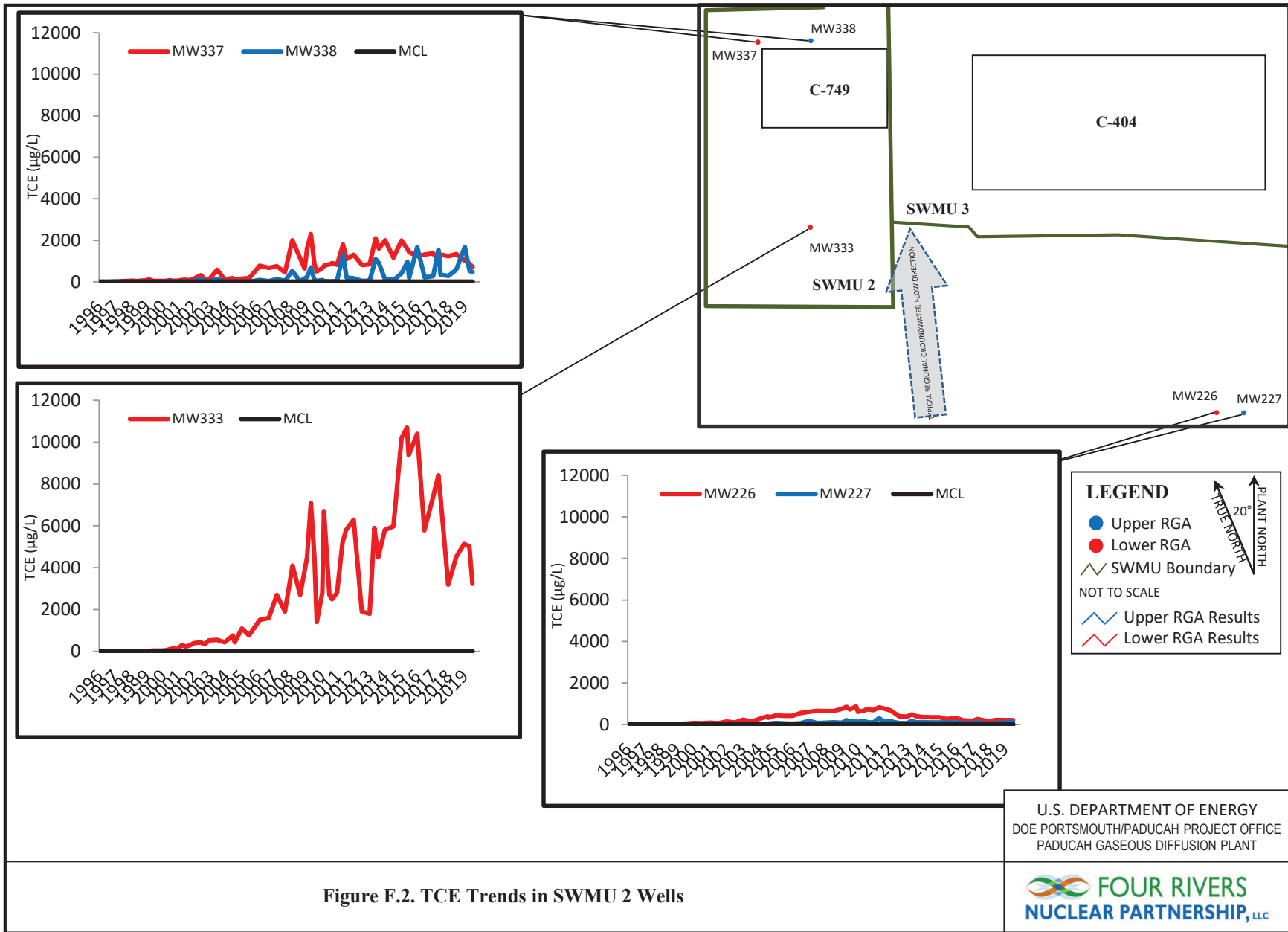


Figure F.2. TCE Trends in SWMU 2 Wells

U.S. DEPARTMENT OF ENERGY
DOE PORTSMOUTH/PADUCAH PROJECT OFFICE
PADUCAH GASEOUS DIFFUSION PLANT



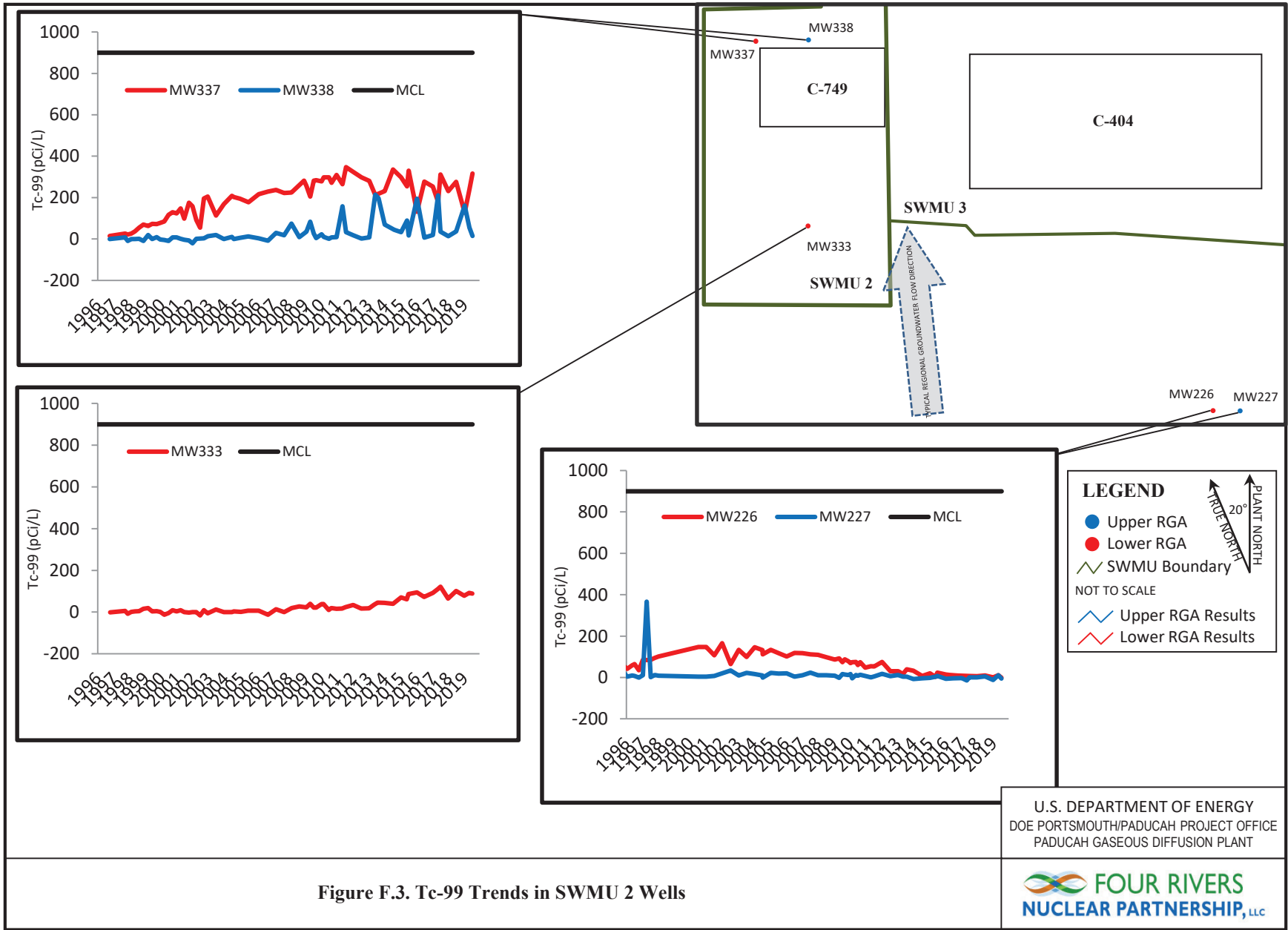


Figure F.3. Tc-99 Trends in SWMU 2 Wells

C-749 Uranium Burial Ground (SWMU2) Monitoring

Water Quality Records for

Sample Date Range: 5/6/1993 - 7/23/2019

MW226

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results						Lab Sample ID
	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	
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							26				950117-115
1/17/1995	17							30				950117-119
1/23/1995	17							31				950125-081

F-6

C-749 Uranium Burial Ground (SWMU2) Monitoring

Water Quality Records for

Sample Date Range: 5/6/1993 - 7/23/2019

MW226

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results						Lab Sample ID
	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	
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
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								36				951031-060
10/30/1995								40				951031-056
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

F-7

C-749 Uranium Burial Ground (SWMU2) Monitoring

Water Quality Records for

Sample Date Range: 5/6/1993 - 7/23/2019

MW226

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results						Lab Sample ID
	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	
10/14/1997								95				971014-047
1/12/1998	30							101				C980140119
7/13/1998	25											C981960005
7/13/1998	25											C981960004
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	< 0.668	57.7	132	< 0.0902	< 0.0122	< 0.348	C042050009
7/27/2004	320							112				C042090056
1/24/2005	440							134	< 0.0357	< 0.0147	< -0.0135	C050240045
7/27/2005	420							118	< 0.0346	< 0.00589	< 0.00252	C052080180
1/24/2006	410							101	< 0.0973	< -0.0183	< 0.0768	C060240039
7/24/2006	550							119	< 1.07	< 0.187	< 0.282	C062050057
1/24/2007	610							118	< 1.03	< -0.00311	< 0.21	C070240038
7/24/2007	660							112	< 0.0971	< -0.0355	< 0.0361	C072060043

F-8

C-749 Uranium Burial Ground (SWMU2) Monitoring

Water Quality Records for

Sample Date Range: 5/6/1993 - 7/23/2019

MW226

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results						Lab Sample ID
	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	
1/15/2008	640							110	< -0.0264	< 0.0644	< 0.00478	C080160004
7/24/2008	640							98.7	< 0.0399	< 0.00678	< -0.00253	C082060091
2/5/2009	760							86.5				C09036036004
5/12/2009	850	26	< 5	< 5	< 5	< -0.403	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
6/1/2010	640							75.7				C10152026001
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	0.32	< 1			< 2.55				374452002
7/11/2015	270							23.2				377100001

C-749 Uranium Burial Ground (SWMU2) Monitoring

Water Quality Records for

Sample Date Range: 5/6/1993 - 7/23/2019

MW226

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results						Lab Sample ID
	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	
1/25/2016	311							< 14.9				390095001
7/5/2016	194							< 10.7				401035001
1/23/2017	177							< 9.01				414959002
5/19/2017	271	5.5	< 5	< 5	< 5			< 8				423910002
7/17/2017	235							< 7.1				428290002
1/8/2018	150							< 6.27				441372001
7/11/2018	226							< 10				454526002
1/9/2019	214							< 0.552				468710001
5/9/2019	206	3.48	< 4	< 4	< 4			< 11.1				478812001
7/18/2019	207							< -0.518				485139001

F-10

C-749 Uranium Burial Ground (SWMU2) Monitoring

Water Quality Records for

Sample Date Range: 5/6/1993 - 7/23/2019

MW227

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results						Lab Sample ID
	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	
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

F-11

C-749 Uranium Burial Ground (SWMU2) Monitoring

Water Quality Records for

Sample Date Range: 5/6/1993 - 7/23/2019

MW227

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results						Lab Sample ID
	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	
2/6/1995	3							9				950207-059
2/13/1995	4							17				950215-027
4/19/1995								16				950419-202
4/24/1995								20				950425-162
4/24/1995								23				950425-178
5/3/1995								5				950503-136
5/8/1995								14				950509-049
7/19/1995	5							6				950720-043
7/25/1995	4							23				950726-038
8/7/1995								14				950808-067
8/7/1995								17				950808-087
8/14/1995								12				950815-027
10/23/1995								0				951024-032
10/23/1995								0				951024-040
10/30/1995								6				951031-064
11/8/1995								7				951110-063
11/15/1995								22				951116-024
1/22/1996	4							3	2.9	0.18	6.69	960122-115
1/22/1996	4							4				960122-123
5/17/1996								10				960521-008
7/9/1996	5							7				960709-085
10/14/1996								0				961015-018
1/16/1997	6							11				970121-041
1/16/1997	6							3				970121-042
4/14/1997								367				970414-099

F-12

C-749 Uranium Burial Ground (SWMU2) Monitoring

Water Quality Records for

Sample Date Range: 5/6/1993 - 7/23/2019

MW227

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results						Lab Sample ID
	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	
7/14/1997	6							2				970714-135
10/14/1997								< 12				971014-048
1/12/1998	4							< 8				C980140122
1/12/1998	4							< 9				C980140120
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
7/12/2000	6							< 3.92				C001940099
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	< 0.284	< 0.00706	< 0.412	C042050010
7/27/2004	39							< -0.469				C042090057
1/24/2005	76							22.8	< 0.348	< -0.0287	< 0.122	C050240047
7/27/2005	45							18.9	< 0.0822	< 0.0131	< 0.0649	C052080181
1/25/2006	38							20.3	< 0.0898	< 0.004	< 0.0169	C060250133
7/24/2006	61							< 4.11	< 1.36	< 0.263	< 0.298	C062050058
1/24/2007	180							< 11	< 0.219	< 0.0426	< 0.0696	C070240039

F-13

C-749 Uranium Burial Ground (SWMU2) Monitoring

Water Quality Records for

Sample Date Range: 5/6/1993 - 7/23/2019

MW227

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results						Lab Sample ID
	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	
7/24/2007	73							24	< 0.124	< -0.0338	< 0.0891	C072060044
1/16/2008	79							< 11	< 0.21	< 0.00145	< 0.0742	C080160068
7/24/2008	110							< 10.9	< 0.0526	< 0.00769	< -0.00691	C082060092
2/5/2009	82							< 9.22				C09036036005
5/12/2009	210	4.2	< 1	< 1	< 1	< 1.54	7.61	< -2.16				C09132009002
7/28/2009	140							16.5				C09209020002
9/21/2009	140	< 5	< 1	< 5	< 1	< 0.447	7.47	< 14.8				C09265006003
12/10/2009	150							< 12.6				C09344026006
1/26/2010	110							< 17.1				C10026023002
3/9/2010	150	3.5	< 1	< 1	< 1	< 2.74	7.52	< -4.34				C10068052006
6/1/2010	160							< 11.8				C10152026002
7/14/2010	140							< 8.12				C10195040003
9/7/2010	110	2.5	< 1	< 1	< 1	< -0.521	5.85	< 13.6				C10250033002
1/3/2011	94							< 7.15				C11003029001
5/11/2011	310	6.2	< 1	< 1	< 1	< 0.974	10.6	< 0.676				C11131023002
7/28/2011	160							< 4.69				C11209031002
1/20/2012	150							17.9				C12020022003
7/31/2012	74							< 5.99				C12213022003
1/22/2013	63							< 11.8				C13022086002
5/14/2013	190	< 5	< 1	< 1	< 1			< 3.61				C13134021005
8/12/2013	110							< 4.08				C13224030002
1/8/2014	120							< -7.61				C14008024004
7/28/2014	104							< -4.4				353626002
1/26/2015	97.8							< -1.45				365824002
6/2/2015	110	1.68	< 2	< 2	< 2			< 3.74				374344008

F-14

C-749 Uranium Burial Ground (SWMU2) Monitoring

Water Quality Records for

Sample Date Range: 5/6/1993 - 7/23/2019

MW227

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results						Lab Sample ID
	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	
7/11/2015	94.3							< 7.22				377100002
1/25/2016	110							< -6.66				390095002
7/5/2016	75.5							< -4.03				401035002
1/23/2017	55							< -2.64				414959001
5/19/2017	112	1.31	< 1	< 1	< 1			< -14.1				423910003
7/17/2017	66.7							< 0.795				428290003
1/8/2018	39.1							< 0.655				441372002
7/11/2018	76.9							< 4.79				454526001
1/9/2019	89.8							< -12				468710004
1/9/2019	86.3							< -15.8				468710002
5/9/2019	121	0.78	< 2	> 2	< 2			< 11.2				478812004
7/18/2019	127							< -4.58				485139002

F-15

C-749 Uranium Burial Ground (SWMU2) Monitoring

Water Quality Records for

Sample Date Range: 5/6/1993 - 7/23/2019

MW333

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results						Lab Sample ID
	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	
10/14/1996	10				< 0.48							96M04623-3717
10/14/1996									9.66		0.14	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	-0.2	2	6				970923-064
11/19/1997	6	< 5	< 5	< 5	< 5	-0.7	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	16	< 5	< 5	< 5	< 5	< -1.37	5.36	< 16				C983160089
3/3/1999	30	< 5	< 5	< 5	< 5	< 0.68	< 2.83	19.27				C990620037
6/4/1999	33	< 5	< 5	< 5	< 5	< 1.23	< 0.07	< 2.81				C991580024
9/15/1999						< -0.79		< 4.13				C992580210
12/7/1999	29	< 5	< 5	< 5	< 5	2.48	< 1.48	< 0.475				C993410100
12/7/1999	33	< 5	< 5	< 5	< 5	< 0.45	< 0.49	< -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	< 0.52	< -0.97	< -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	< 0.462	< 0.604	< 3.24				C003540006
3/19/2001	310	< 5	< 5	< 5	< 5	< -0.5	< 0.794	< 8.5				C010780093
6/6/2001	230	< 25	< 25	< 25	< 25	< 1.62	4.76	< -0.303				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	< -0.125	< -0.337				C013510092
3/13/2002										< -3.95		C020720129
3/13/2002	410	< 25	< 25	< 25	< 25	< 1.13	< 0.94	< -0.654				C020720130

F-16

C-749 Uranium Burial Ground (SWMU2) Monitoring

Water Quality Records for

Sample Date Range: 5/6/1993 - 7/23/2019

MW333

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results						Lab Sample ID
	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	
6/10/2002	420	< 50	< 50	< 50	< 50	< 1.57	< -2.59	< -15.7				C021610047
9/5/2002	330	< 50	< 50	< 50	< 50	< -.977	< -0.125	< 8.51				C022480132
12/2/2002	530	< 25	< 25	< 25	< 25	< 1.7	< 0.462	< -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	< 0.213	< 2.21	< 0				C033380096
6/7/2004	750	< 50	< 50	< 50	< 50	< -0.231	< -0.683	< -0.384	< 30	< 2.2	< 0.35	C041590175
7/20/2004	430	< 10	< 10	< 10	< 10	< 1.44	< 1.43	< 2.73	< 0.198	< 0.00505	< 0.363	C042020116
12/30/2004	1100	< 50	< 50	< 50	< 50	< -0.0341	< 0.436	< 1.21				C043650022
6/14/2005	760	< 50	< 50	< 50	< 50	< 0.455	< 2.91	< 6.24	< 0.0723	< -0.0127	< 0.0115	C051650114
2/14/2006	1300	< 50	< 50	< 50	< 50	< 2.43	< 3.19	< 5.18				C060450088
2/14/2006	1500	< 50	< 50	< 50	< 50	< -0.267	< 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	< 0.212				C072630092
3/11/2008	4100	< 25	< 25	< 120	< 25	< 1.75	16.9	19				C080710145
9/3/2008	2700	< 25	< 25	< 120	< 25	< 0.456	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	< 0.535	17.7	21.3				C09268017001
1/26/2010	2800							38.1				C10026023004
3/8/2010	6700	< 50	< 50	< 50	< 50	< 0.795	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

F-17

C-749 Uranium Burial Ground (SWMU2) Monitoring

Water Quality Records for

Sample Date Range: 5/6/1993 - 7/23/2019

MW333

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results						Lab Sample ID
	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	
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
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
1/23/2017	7400							91.9				414959003
5/24/2017	8420	< 200	< 200	< 200	< 200			111				424148010
7/17/2017	7350							122				428290001
1/8/2018	3190							65.1				441372003
7/11/2018	4520							101				454526003
1/10/2019	5130							78.4				468710006
5/9/2019	5020	< 100	< 100	< 100	< 100			91.4				478812005
7/18/2019	3230							88				485139004

F-18

C-749 Uranium Burial Ground (SWMU2) Monitoring

Water Quality Records for

Sample Date Range: 5/6/1993 - 7/23/2019

MW337

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results						Lab Sample ID
	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	
10/4/1996	8.3				< 0.48							96M04622-3716
10/4/1996									0.38		0.27	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	0.9	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	< 0.6	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	< 0.4	48.8	73.5				C991580025
9/15/1999						< 0.8	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	< -0.43	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	< -0.451	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	< 0.921	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	240	< 25	< 25	< 25	< 25	< 4.6	68	91.3				C020720126
3/13/2002										< -7.31	< 0	C020720125
6/10/2002	320	< 25	< 25	< 25	< 25	< -1.91	43.3	55.1				C021610048

F-19

C-749 Uranium Burial Ground (SWMU2) Monitoring

Water Quality Records for

Sample Date Range: 5/6/1993 - 7/23/2019

MW337

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results						Lab Sample ID
	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	
9/5/2002	96	< 25	< 25	< 25	< 25	< 0.989	115	196				C022480133
12/2/2002	100	< 5	< 5	< 5	< 5	< 1.72	127	205				C023370011
6/9/2003	580	< 25	< 25	< 25	< 25	< 0.265	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	< 0.35	C041600042
7/20/2004	120	< 2	2.2	< 2	< 2	3.45	111	203	< 0.101	< -0.00296	< 0.275	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	< 0.059	< -0.0123	< 0.00534	C051720110
2/14/2006	780	< 25	< 25	< 25	< 25	< 0.0576	21.5	216				C060450090
9/12/2006	670	< 50	< 50	< 50	< 50	3.19	157	229				C062550177
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	1100							333				C11222050003

F-20

C-749 Uranium Burial Ground (SWMU2) Monitoring

Water Quality Records for

Sample Date Range: 5/6/1993 - 7/23/2019

MW337

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results						Lab Sample ID
	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	
8/10/2011	880							347				C11222050002
1/23/2012	1300							324				C12023024006
7/30/2012	800							298				C12212050001
7/30/2012	810							294				C12212050002
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
1/27/2015	1990							298				365920001
6/11/2015	1570	0.8	< 1	< 1	3.37			254				374981003
7/20/2015	1430							330				377570001
1/27/2016	1230							132				390195001
7/12/2016	1310							277				401419001
1/24/2017	1370							253				414959004
5/25/2017	1020	< 20	< 20	< 20	< 20			179				424148011
7/17/2017	1320							312				428290004
1/10/2018	1230							231				441372004
7/12/2018	1340							276				454512001
1/24/2019	1020							127				469754001
5/13/2019	881	< 20	< 20	< 20	< 20			239				479291001
7/23/2019	712							316				485512001

F-21

C-749 Uranium Burial Ground (SWMU2) Monitoring

Water Quality Records for

Sample Date Range: 5/6/1993 - 7/23/2019

MW338

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results						Lab Sample ID
	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	
10/4/1996	0.7				< 0.48							96M04621-3715
10/4/1996									0.56		0.67	96M04621-3729
10/4/1996								-0.82				96M04621-3759
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	0.8	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	< 0.2	12	< -0.6				C981250038
8/6/1998	< 1	< 5	< 5	< 5	< 5	< -1.9	< 3	< 0.2				C982180120
11/17/1998	< 1	< 5	< 5	< 5	< 5	< 1.15	< 2.58	< -9.2				C983210022
3/3/1999	5	< 5	< 5	< 5	< 5	< 0.35	< 1.7	19.04				C990620039
6/3/1999	1	< 5	< 5	< 5	< 5	< 0.96	19.31	< -0.869				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	< -0.418	< 0.657	< 0.481				C010780095
6/6/2001	8	< 5	< 5	< 5	< 5	< 0.866	< 2.9	< -3.53				C011570180
9/24/2001	3	< 5	< 5	< 5	< 5	< -0.18	< 2.92	< -7.31		< -4.82		C012680005
12/17/2001	24	< 5	< 5	< 5	< 5	< 1.14	< 0.738	< -20.6				C013510094
3/13/2002										< 0		C020720127
3/13/2002	78	< 5	< 5	< 5	< 5	< -0.652	< 4	< 1.2				C020720128
6/10/2002	130	< 10	< 10	< 10	< 10	< 1.08	< 5.59	< 1.54				C021610049

F-22

C-749 Uranium Burial Ground (SWMU2) Monitoring

Water Quality Records for

Sample Date Range: 5/6/1993 - 7/23/2019

MW338

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results							Lab Sample ID
	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		
9/5/2002	11	< 5	< 5	< 5	< 5	< 0.0927	< 2.41	< 2.99				C022480134	
12/3/2002	8	< 5	< 5	< 5	< 5	< 0.447	< 3.19	< 13.4				C023370048	
6/9/2003	140	< 10	< 10	< 10	< 10	< -0.525	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	< 0.409	< 9.88	< 30	< 2.2	< 0.35	C041600043	
7/20/2004	4.6	< 1	< 1	< 1	< 1	< 0.125	< 2.32	< -0.111	< 0.169	< 0.0261	< 0.423	C042020118	
12/8/2004	13	< 5	< 5	< 5	< 5	< 0.742	< 3.48	< 5.2				C043430088	
6/16/2005	11	< 5	< 5	< 5	< 5	< 1.43	< 2.46	< 12.4	< 0.0101	< -0.0133	< -0.0335	C051670015	
2/14/2006	82	< 5	< 5	< 5	< 5	< -0.143	6.12	< 3.55				C060450091	
9/12/2006	25	< 5	< 5	< 5	< 5	< 0.511	7.01	< -7.99				C062550178	
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	< -0.167	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							< 0.779				C10195017003	
9/13/2010	14	< 1	< 1	< 1	< 1	< 1.25	< 3.53	< 7.51				C10256034002	
1/3/2011	39							< 9.16				C11003029005	

F-23

C-749 Uranium Burial Ground (SWMU2) Monitoring

Water Quality Records for

Sample Date Range: 5/6/1993 - 7/23/2019

MW338

Sample Date	Organic Laboratory Analysis Results					Radiological Laboratory Analysis Results						Lab Sample ID
	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	
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
8/25/2014	133											355531001
1/27/2015	404							32.6				365920002
6/11/2015	963	0.71	< 1	< 1	0.74			89.3				374981004
7/20/2015	193							< 16.7				377570002
1/27/2016	1670							195				390195002
7/12/2016	211							< 6.49				401419002
1/24/2017	267							19				414959005
5/25/2017	1540	< 40	< 40	< 40	< 40			211				424148012
7/17/2017	335							35.1				428290005
1/10/2018	288							< 12.9				441372005
7/12/2018	584							36.1				454512002
1/24/2019	1680							161				469754002
5/13/2019	519	< 20	< 20	< 20	< 20			54.2				479291002
7/23/2019	472							< 14.9				485512002

F-24